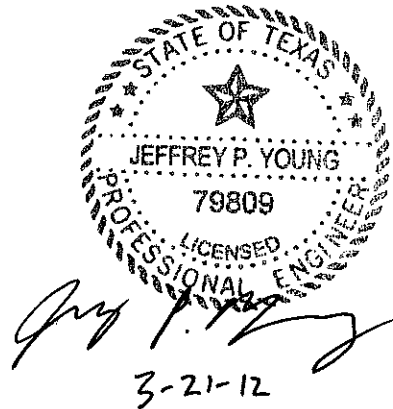


**CAMELOT LANDFILL
CITY OF LEWISVILLE, DENTON COUNTY
TCEQ PERMIT NO. MSW-1312B**

MAJOR PERMIT AMENDMENT APPLICATION

VOLUME 6 OF 6

Prepared for
City of Farmers Branch
March 2012



Prepared by
Weaver Boos Consultants, LLC-Southwest
TBPE Registration No. F-3727
6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109
817-735-9770

WBC Project No. 1339-351-11-02-6B

This document is intended for permitting purposes only.

**CAMELOT LANDFILL
CITY OF LEWISVILLE, DENTON COUNTY
TCEQ PERMIT NO. MSW-1312B**

**MAJOR PERMIT AMENDMENT APPLICATION
VOLUME 6 OF 6**

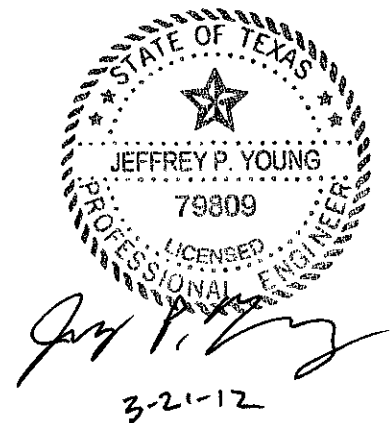
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PART III – SITE DEVELOPMENT PLAN

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- APPENDIX IIIL – Postclosure Care Plan
- APPENDIX IIIM – Closure and Postclosure Care Cost Estimates
- APPENDIX IIIN – Site Life Calculations
- APPENDIX IIIO – Floodplain Information

PART IV – SITE OPERATING PLAN

- APPENDIX IVA – Example Load Inspection Report
- APPENDIX IVB – Alternative Daily Cover Operating Plan
- APPENDIX IVC – Waste Acceptance Plan
- APPENDIX IVD – Wood Waste Storage and Processing Area Operating Plan
- APPENDIX IVE – Floodplain Marker Plan

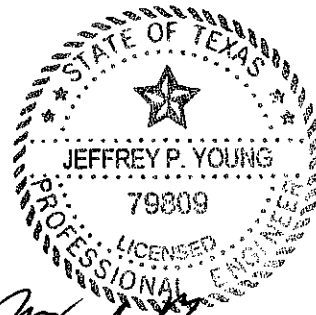


**CAMELOT LANDFILL
CITY OF LEWISVILLE, DENTON COUNTY
TCEQ PERMIT NO. MSW-1312B**

MAJOR PERMIT AMENDMENT APPLICATION

**PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIK
CLOSURE PLAN**

Prepared for
City of Farmers Branch
March 2012



Jeffrey P. Young
3-21-12

Prepared by

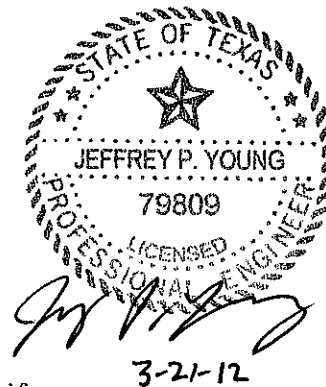
Weaver Boos Consultants, LLC–Southwest
TBPE Registration No. F-3727
6420 Southwest Blvd., Suite 206
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817-735-9970

Project No. 1339-351-11-02-6B.10

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APPENDIX IIIK-A

TCEQ Approval Letter for Constructed Alternative Soil Final Cover

FIGURES

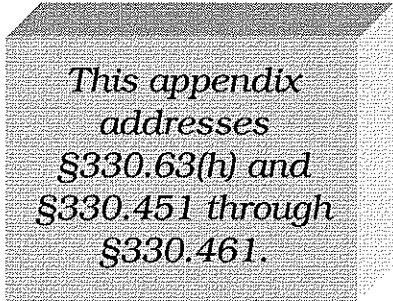
Figure IIIK.1 – Proposed Landfill Completion Plan

Figure IIIK.2– Largest Area to Require Final Closure

Figure IIIK.3– Final Closure Schedule

1 INTRODUCTION

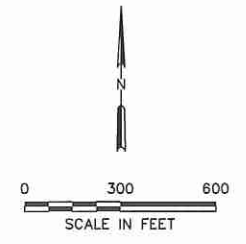
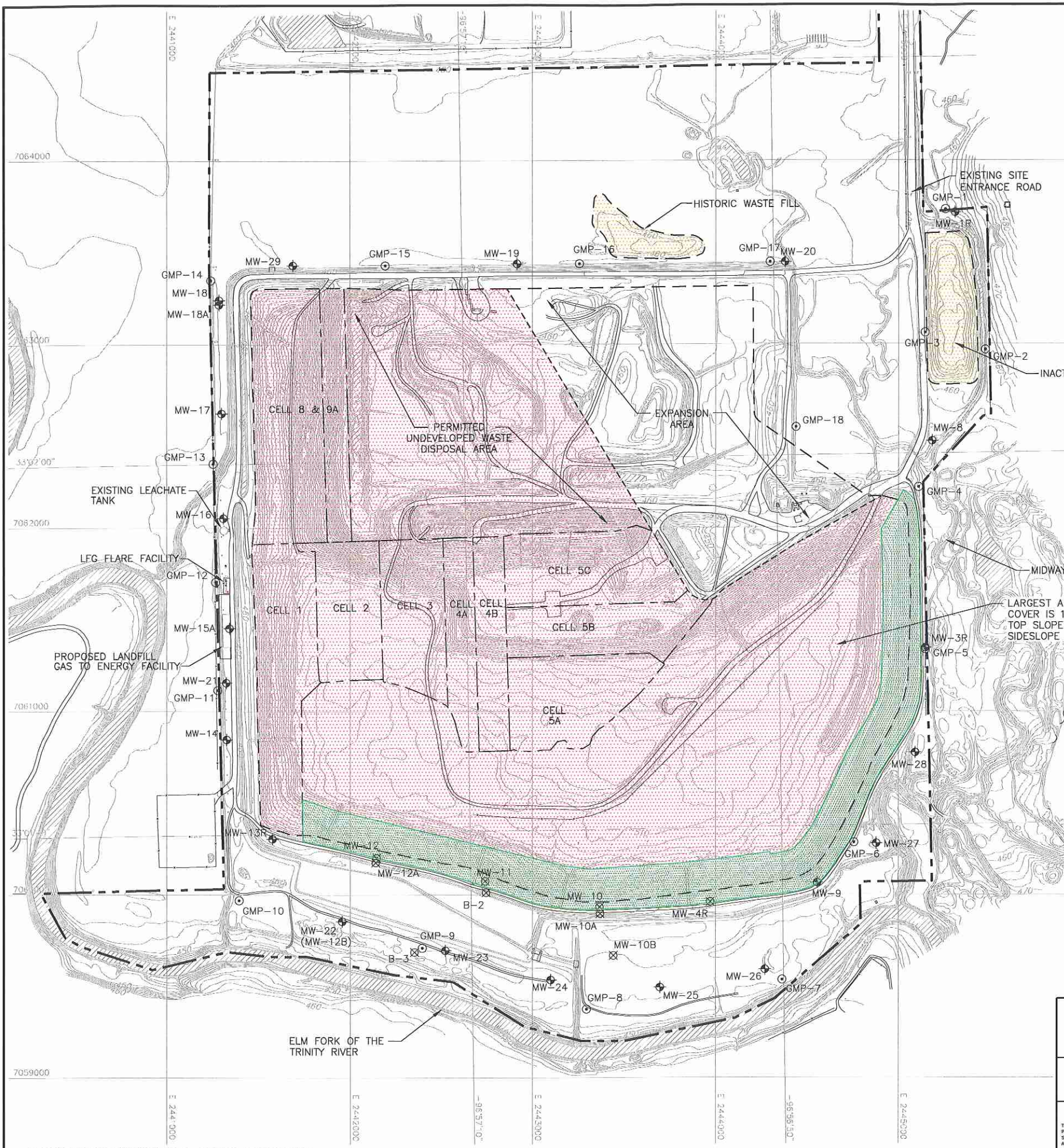
This Final Closure Plan has been prepared for the Camelot Landfill consistent with Title 30 Texas Administrative Code (TAC) Section 330, Subchapter K, §330.451 through §330.461, as well as §330.63(h). The landfill completion plan for this site consists of final contours and drainage features for the completed landfill. The landfill completion plan is provided as Figure IIIK.1. This appendix also addresses the closure procedures for the Citizens Convenience Center, Wood Waste Storage and Processing Area, and other structures located on-site.



*This appendix
addresses
§330.63(h) and
§330.451 through
§330.461.*

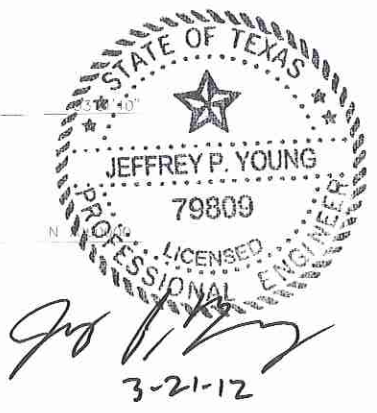
Waste Storage and Processing

D:\1339\351\EXPANSION 2009\PART III-SDB\IIIK.2-LARGEST AREA REQ FC.dwg, 3/20/2012 2:15:44 PM, r sellers



- LEGEND**
- PERMIT BOUNDARY
 - - - - PERMITTED LIMITS OF WASTE
 - - - - PROPOSED LIMITS OF WASTE
 - N 7064000 STATE PLANE COORDINATE SYSTEM
 - 500 EXISTING CONTOUR
 - SUBTITLE D CELL BOUNDARY
 - MW-8 PERMITTED GROUNDWATER MONITORING WELL
 - GMP-1 PERMITTED GAS MONITORING PROBE
 - MW-12 PERMITTED OBSERVATION WELL
 - [Pink hatched box] FILL AREA REQUIRING CLOSURE
 - [Green hatched box] CONSTRUCTED FINAL COVER
 - [Yellow hatched box] EXISTING WASTE TO BE RELOCATED

- NOTES:**
- CONTOURS AND ELEVATIONS PROVIDED BY METROPOLITAN AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 8-28-2010. THE GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 83. ELEVATIONS ARE BASED ON NAVD 88.
 - PERMIT BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION PROVIDED BY PEISER SURVEYING CO. DATED NOVEMBER 2010.



| | |
|---|------------------------|
| <input type="checkbox"/> DRAFT | PREPARED FOR |
| <input checked="" type="checkbox"/> FOR PERMITTING PURPOSES ONLY | CITY OF FARMERS BRANCH |
| <input type="checkbox"/> ISSUED FOR CONSTRUCTION | |
| <input type="checkbox"/> CLIENT APPROVAL BY: | |
| DATE: 03/2012 | DRAWN BY: VRS |
| FILE: 1339-351-11 | DESIGN BY: MDM |
| CAD: IIIK.2-AREA REQ. COVER.DWG | REVIEWED BY: JPY |
| REUSE OF DOCUMENTS | |
| THIS DOCUMENT, AND THE DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF WEAVER BOOS CONSULTANTS, LLC - SOUTHWEST AND IS NOT TO BE USED IN WHOLE OR IN PART, WITHOUT THE WRITTEN AUTHORIZATION OF WEAVER BOOS CONSULTANTS, LLC - SOUTHWEST. | |

| REVISIONS | | |
|-----------|------|-------------|
| NO. | DATE | DESCRIPTION |
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**MAJOR PERMIT AMENDMENT
LARGEST AREA
TO REQUIRE FINAL COVER**

CAMELOT LANDFILL
DENTON COUNTY, TEXAS

Weaver Boos Consultants
TBPE REGISTRATION NO. F-3727

CHICAGO, IL FORT WORTH, TX GRIFFITH, IN
MARIETTA, IL (817) 735-9770 SOUTH BEND, IN
COLUMBUS, OH SPRINGFIELD, IL
DENVER, CO ST. LOUIS, MO

FIGURE IIIK.2

2 FINAL COVER SYSTEM

2.1 Introduction

The final cover system for the Camelot Landfill has been developed to incorporate the requirements of Title 30 TAC §330.457(f)(4). The rules state that within 180 days following the initiation of closure activities as specified in Title 30 TAC §330.457(f)(3) the owner shall complete the installation of a final cover system designed and constructed to minimize infiltration and erosion. Such a system will include installation of a final cover system and a stormwater runoff control system. The stormwater runoff controls are addressed in Appendix III F – Surface Water Drainage Plan. The final cover system design is discussed below and is also detailed in Appendix III A-A. Cross-sections are provided in Appendix III A-B.

2.2 Final Cover System Design

The final cover system will consist of the existing alternative soil final cover that was approved by the TCEQ in August 2011 and a composite final cover for the rest of the site. The final cover system will provide a low maintenance cover, protect against erosion, reduce rainfall percolation through the cover system and subsequently minimize leachate generation within the landfill. As depicted on Figure III K.1 (and Drawing A.3 – Landfill Completion Plan in Appendix III A-A), a maximum slope of 4 percent is provided for the top slopes and 4H:1V sideslopes are provided to minimize erosion and facilitate drainage of the landfill. A summary of the components of both final cover systems is provided below.

Subtitle D Composite Final Cover System

- An erosion layer consisting of a 24-inch-thick earthen material capable of sustaining vegetative growth. The vegetation will consist of native or introduced grasses capable of providing 90 percent coverage over the cover system.
- A drainage geocomposite drainage layer (250-mil-thick geonet with 6 oz/sy geotextile(s) heat bonded to the top for top slopes and heat bonded to both sides for side slopes).
- A 40-mil, smooth (topslope) and textured (sideslope), linear low-density polyethylene (LLDPE), or other equivalent material.

- An 18-inch-thick compacted clay infiltration layer with a coefficient of permeability of less than or equal to 1×10^{-5} cm/s.

The low permeability components of the composite final cover system (the geomembrane and the 18-inch-thick clay infiltration layer) are designed to minimize infiltration of surface water into the underlying waste material. Details of the composite final cover system are shown on Drawings A.7 and A.8 in Appendix IIIA-A. Material specifications, construction, and testing procedures are provided in Appendix IIIE – Final Cover System Quality Control Plan (FCSQCP).

Vegetation will be established over the installed final cover system to minimize the erosion potential of the cover slopes. The erosion layer was evaluated using the universal soil loss equation (USLE) developed by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). The evaluation is presented in Appendix IIIF.

Landfill gas generated in the landfill will be managed as discussed in Appendix IIIL–Landfill Gas Management Plan. The landfill gas system will collect the gas generated by deposited waste and control gas emission from the site.

Alternative Soil Final Cover

An alternative soil final cover was certified via a permit modification approved by TCEQ in August 2011. The permit modification demonstrated that the existing vegetation and soil material on the pre-Subtitle D sideslope is a functioning final cover system. The final cover was verified to be at least 4 feet thick. The approval letter from TCEQ is included in Appendix IIIK-A.

Similar to the proposed final cover areas, permanent final cover erosion control structures include swales and chutes that will be constructed on the existing final cover. The design of the final cover system erosion control structures is provided in Appendix IIIF-B. A soil loss and sheet flow velocity demonstration for the erosion layer is included in Appendix IIIF-D.

2.3 Installation Methods and Procedures

The final cover system will be constructed in accordance with the requirements listed on the permit drawings in Appendix IIIA-A and the FCSQCP presented in Appendix IIIE. Testing and evaluation of the final cover system during construction will be in accordance with Appendix IIIE – FCSQCP.

3 CLOSURE PROCEDURES

3.1 Sequence of Final Cover Placement

The Camelot Landfill may place final cover throughout the active life of the landfill. As detailed on Drawings I/IIA.4 through I/IIA.8 in Parts I/II, Appendix I/IIA, final cover will be placed as the site is being developed. The final cover placement procedure listed below will be followed until the entire waste footprint is closed:

- Survey controls will be implemented to control the filling of solid waste to the top of the daily/intermediate cover layer elevation.
- The final cover system layers will be constructed over areas that have reached the bottom of final cover grades. Testing of the various components of the final cover system will be performed in accordance with this closure plan (see Section 2.3).
- A final cover certification report, complete with an as-built survey, will be prepared by an independent licensed professional engineer and submitted to the TCEQ for approval.
- The TCEQ approved final cover certification report will be maintained in the Site Operating Record, and the final cover log (see Part IV – Section 4.18.5) will be updated to reflect the area where final cover has been placed. The TCEQ Regional Office will also be notified that final cover placement has occurred at the site.

Note that the placement of final cover does not represent closure of a portion of the site. Closure for the landfill unit is discussed in Section 3.2 and closure for the other MSW units at the site are discussed in Sections 3.3, 3.4, and 3.5. Requirements for final closure of the site are discussed in Section 4. Post-closure care activities will commence once the entire site has been closed as discussed in Section 4.

3.2 Landfill Unit Closure During Active Life

Should closure of the landfill become necessary at any time during the active life of the landfill, the following steps will be taken:

- Engineering plans will be developed to address site closure at the time of discontinued waste filling.
- The final waste received will be placed and properly compacted.

- Excavations will be filled with suitable material, and the site will be graded to promote runoff and prevent ponding.
- The final cover system will be constructed according to specifications.
- The top of the landfill will be regraded and reshaped as needed to provide the proper slope for positive drainage.
- As noted above (first bullet), a revised final closure plan will be developed and submitted to the TCEQ for approval.
- Following application of final cover, the site will be vegetated with appropriate grasses to minimize erosion. The established grasses will provide a minimum of 90 percent coverage of the final cover system.
- A surface water management system will be constructed to minimize erosion.
- A closure certification will be prepared by an independent licensed professional engineer and submitted to TCEQ for approval.
- All proper notices and documentation will be filed with the appropriate agencies.

3.2.1 Estimate of Largest Active Disposal Area

Consistent with Title 30 TAC §330.503(a), the largest area that could be open within the next year is shown on Figure IIIK.2 and is 181.1 acres. Consistent with this rule and TCEQ guidelines for financial assurance to complete closure and postclosure activities, financial assurance will be posted for the 181.1-acre area as discussed in Appendix IIIM – Closure and Postclosure Care Cost Estimates. The entire 469.62-acre site will also need to be administratively closed.

Supporting calculations are presented in Appendix IIIM – Closure and Postclosure Care Cost Estimates.

3.2.2 Estimate of Maximum Inventory of Waste Ever On Site

The estimated total capacity of waste (defined as waste and daily cover) ever on site over the active life of the facility is approximately 60.60 million cubic yards. The site life calculations (Appendix IIIN) show that approximately 45,243,000 cubic yards of airspace remain (using the August 28, 2010 topographic map). Supporting calculations are included in the Site Development Plan, Appendix IIIN – Site Life Calculations.

3.3 Citizens Convenience Center Closure

The Citizens Convenience Center will likely operate throughout the active life of the facility. During closure of the site, the Citizens Convenience Center will be decommissioned. Closure activity will include a general cleanup of the area. All roll-offs will be emptied at the landfill working face and removed from the site.

3.4 Operations Support and Wood Waste Processing Area Closure

The Operations Support and Wood Waste Processing Area will likely operate throughout the active life of the facility. During closure of the site, the Operations Support and Wood Waste Processing Area will be decommissioned. Upon decommissioning of the wood waste processing area, remaining wood waste material will be disposed of at the working face of the landfill. Processed wood chip material will either be distributed consistent with the distribution plan of this permit or disposed of at the working face of the landfill (see Part IV – Appendix IVD).

Other site structures will either be secured and left in place or decommissioned.

3.5 Landfill Gas-to-Energy Facility Closure

The Camelot Landfill Gas-to-Energy (LFGTE) Facility was registered via a Type IX Registration approved by the TCEQ in June of 2010. This registration includes the closure requirements for the Camelot LFGTE.

4 SCHEDULE OF UNIT CLOSURE AND FACILITY FINAL CLOSURE

4.1 Final Closure Requirements

The site will be closed in an orderly fashion, consistent with Title 30 TAC §330.457 and §330.461, implementing the following steps:

- No later than 45 days prior to initiation of final closure activities for the municipal solid waste landfill (MSWLF) unit, the Executive Director of TCEQ will be notified of the intent to close the unit and that a notice of the intent to close the unit has been placed in the operating record.
- No later than 90 days prior to initiation of final facility closure, a public notice of facility closure which contains the name, address, and physical location of the facility, the permit number, and the last date of intended receipt of waste, will be provided in the newspaper of the largest circulation in the vicinity of the facility. The City of Farmers Branch will also make available a copy of the approved final closure and postclosure plan at the landfill office for public access and review.
- Consistent with §330.461(b), following notification of the Executive Director of TCEQ, a minimum of one sign will be posted at the main entrance and all other frequently used points of access for the facility notifying all persons utilizing the facility of the closure date or date after which further receipt of waste is prohibited. In addition, barriers or gates will be installed at access points following the closure date to prevent unauthorized disposal or dumping of solid waste at the facility.
- Final closure activities will commence at the MSWLF unit no later than 30 days after the date the MSWLF unit receives the known final receipt of wastes. If the MSWLF unit has remaining capacity and there is a reasonable likelihood that the MSWLF unit will receive additional wastes, final closure activities will commence no later than 1 year after the most recent receipt of wastes.
- Final closure activities of the MSWLF unit will be completed in accordance with the Closure Plan (this appendix) within 180 days following the initiation of closure activities as defined in Title 30 TAC §330.457(f)(3). If necessary, as noted in Title 30 TAC §330.457(f)(4), a request for an extension of the completion of final closure activities may be submitted to the Executive Director for review and approval. The request shall include all applicable documentation necessary to demonstrate that closure will, of necessity, take longer than 180 days

and all steps have been taken and will continue to be taken to prevent threats to human health and the environment from the unclosed MSW landfill unit.

- Following completion of final closure activities, a documented certification, signed by an independent licensed professional engineer, will be submitted to the Executive Director of the TCEQ for review and approval. This certification will verify that final closure has been completed in accordance with the approved final closure plan and will include all applicable documentation necessary for certification of final closure. Once approved, this certification will be placed in the Site Operating Record.
- Within 10 days after completion of final closure activities of the facility, a certified copy of an Affidavit to the Public (most current format provided by the TCEQ will be used) will be submitted to the Executive Director of the TCEQ by registered mail and placed in the facility's Site Operating Record. In addition, a certified notation will be recorded on the deed to the facility that will in perpetuity notify any potential purchaser of the property that the land has been used as a landfill facility and the use of the land is restricted according to the provisions specified Title 30 TAC §330.465. Within 10 days after completion of final closure activities of the facility, a certified copy of the modified deed will be submitted to the Executive Director and placed in the operating record.

Following receipt of the required final closure documents and an inspection report from the TCEQ Regional Office verifying proper closure of the MSWLF facility according to this Closure Plan (this appendix), the Executive Director may acknowledge the termination of operation and closure of the facility and deem it properly closed. The steps in the closure process are depicted on Figure IIIK.3 – Final Closure Schedule. In accordance with Title 30 TAC §330.463(b), the postclosure care period begins after professional engineer certification of the completion of closure requirements for a municipal solid waste management unit as accepted by the Executive Director.

4.2 Provisions for Extending Closure Period

If the Camelot Landfill has remaining capacity at the time of its closure, final closure activities will begin no later than one year after the most recent receipt of wastes. A request for an extension beyond the one-year deadline for the initiation of final closure may be submitted to the Executive Director for review and approval and will include all applicable documentation to demonstrate that the unit or site has the capacity to receive additional waste, and that the Camelot Landfill has taken all steps necessary to prevent threats to human health and the environment.

**Camelot Landfill
Figure IIIK.3 – Final Closure Schedule**

| | 30 DAYS | 30 DAYS | 30 DAYS | 30 DAYS | 30 DAYS | 30 DAYS | 30 DAYS | 30 DAYS | 30 DAYS | 30 DAYS |
|--|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Written notification of closure to TCEQ | | | | | | | | | | |
| Public notice of facility closure published in newspaper | | | | | | | | | | |
| Posting of sign | | | | | | | | | | |
| Initiation of final closure activities | | | | | | | | | | |
| Time interval for completion of final closure activities | | | | | | | | | | |
| Submit engineering certification of final closure to TCEQ | | | | | | | | | | |
| Submit certified copies of Affidavit to the Public and modified deed to TCEQ | | | | | | | | | | |

Note: Schedule is based on anticipated date of beginning final closure activities. Heavy vertical line signifies final receipt of waste.

5 CLOSURE COST ESTIMATE

A detailed written cost estimate, in current dollars, showing the cost of hiring a third party to close the largest area of the landfill ever requiring a final cover at any time during the active life of the unit is provided in Part III, Appendix IIIK – Closure and Postclosure Care Cost Estimates. The closure estimate is \$13,295,762.

APPENDIX IIIK-A

**TCEQ APPROVAL LETTER FOR
CONSTRUCTED ALTERNATIVE SOIL FINAL COVER**

Bryan W. Shaw, Ph.D., *Chairman*
Buddy Garcia, *Commissioner*
Carlos Rubinstein, *Commissioner*
Mark R. Vickery, P.G., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

August 5, 2011

Mr. Gary Greer
City Manager
City of Farmers Branch
13000 William Dodson Parkway
Farmers Branch, TX 75234

Re: Camelot Landfill - Denton County
Municipal Solid Waste - Permit No. 1312A
Permit Modification – Alternative Soil Cover Pre-Subtitle D Area
Tracking Nos. 14602874 and 14698238; RN101479038/CN600131676

Dear Mr. Greer:

We have completed the technical review of the modification request dated February 10, 2011 and the revision dated May 11, 2011 regarding the above referenced MSW facility for requesting modifications to the existing final cover design to allow for an alternative soil cover for the Pre-Subtitle D area of the landfill. The information presented is technically sufficient for a municipal solid waste permit modification.

Enclosed is a copy of the above referenced modification which is now part of your permit and should be attached. The documentation prepared and submitted to support the modification request shall be considered as requirements of the permit.

If you have questions concerning this matter, please contact Mr. Jeff Holderread at (512) 239-6616. When addressing written correspondence, please use mail code MC 124.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality.

Sincerely,

A handwritten signature in cursive script, appearing to read "C.M. Bergren".

Christine M. Bergren
Manager, Municipal Solid Waste Permits Section
Waste Permits Division

CMB/MRH/fp

cc: Mr. Nevzat Turan, Weaver Boos Consultants, LLC – Southwest, Fort Worth

Enclosure

Texas Commission on Environmental Quality



Modification to Municipal Solid Waste Permit No. 1312A Camelot Landfill

Municipal Solid Waste Permit No. 1312A is hereby modified as follows:

Description of Change:

Modifications to the existing final cover design to allow for an alternative soil cover for the Pre-Subtitle D area of the landfill.

The details of this permit modification are contained in the application dated February 10, 2011, and the revisions dated May 11, 2011.

Part of Permit Modified:

Part III of the Application (Site Development Plan)

Cover Sheet

Site Development Plan Pages 13 and 14

Attachment 6

Cover Sheet and Table of Contents

Attachment s6A-7 and 6A-7A

Attachment 12

Cover Sheet and Table of Contents

Appendix 12A – Area Final Cover Design and Certification Report

This modification is a part of Permit No. 1312A and should be attached thereto.

Approved, Issued, and Effective in accordance with Title 30 Texas Administrative Code Chapter 305, Section 305.70(k)(10) and Chapter 330, Section 330.457(d)(1) and (2).

Issue Date: August 3, 2011

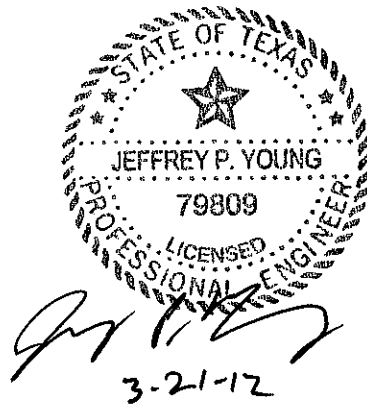

For the Commission

**CAMELOT LANDFILL
CITY OF LEWISVILLE, DENTON COUNTY
TCEQ PERMIT NO. MSW-1312B**

MAJOR PERMIT AMENDMENT APPLICATION

**PART III – SITE DEVELOPMENT PLAN
APPENDIX III
POSTCLOSURE CARE PLAN**

Prepared for
City of Farmers Branch
March 2012



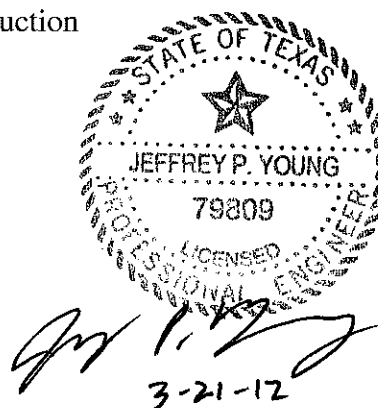
Prepared by
Weaver Boos Consultants, LLC–Southwest
TBPE Registration No. F-3727
6420 Southwest Blvd., Suite 206
Fort Worth, Texas 76109
817-735-9970

WBC Project No.1339-351-11-02-6B.11

This document is intended for permitting purposes only.

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1 INTRODUCTION

This Postclosure Care Plan has been prepared for the Camelot Landfill consistent with Title 30 Texas Administrative Code (TAC) Chapter 330 Subchapter K. The landfill completion plan for this site consists of final contours and drainage features as depicted on Drawing I/IIA.8 – Landfill Completion Plan.

*This appendix
addresses
§330.463 and
§330.465.*

2 POSTCLOSURE ACTIVITIES

2.1 Monitoring and Maintenance

In accordance with §330.463(b), postclosure care maintenance will commence immediately upon completion of final closure requirements set forth in the Final Closure Plan (Appendix IIIK). There are no on-site permanent enclosed structures located within the limits of waste; therefore, the requirements in 30 TAC §330.957(m)(1)(D-F) do not apply. Postclosure care maintenance will continue for a period of 30 years unless the TCEQ approves a postclosure period of a different duration. Postclosure care maintenance will consist, at a minimum, of the following requirements carried out by the City of Farmers Branch. The minimum frequencies for monitoring and maintenance activities will be consistent with Section 4.23 of Part IV – SOP, unless otherwise noted below.

- Retain the right of entry and maintain all rights-of-way to the closed landfill. Access controls will be inspected on a monthly basis.
- Conduct site inspections a minimum of semiannually after closure.
- Conduct maintenance and/or remediation activities, as needed, in order to maintain the integrity and effectiveness of the final cover, site vegetation, and drainage control systems. Vegetation shall be maintained on the final cover to provide a minimum of 90 percent coverage.
- Manage surface run-on and run-off, as needed, in order to minimize the erosion of the final cover system.
- The outlets of the final cover drainage pipes will be inspected. During wet weather conditions when flow is expected, the pipe outlets will be inspected to verify that flow is occurring. If there is no flow, the pipe will be checked for clogging and flushed or replaced as necessary. Inspections will occur semi-annually after closure.
- Correct the effects of settlement, subsidence, ponded water, erosion, or other events or failures, as needed, in-as-much as these situations are detrimental to the integrity of the closed landfill.
- Maintain and operate the leachate collection system in accordance with §330.331 and §330.333 and the EPA's Design Criteria (i.e., less than 1 foot of leachate over the liner, or approved equivalent design). During postclosure, leachate collection sump levels will be measured on a quarterly basis. Site personnel will verify that the leachate level is less than 12 inches above the lip of each sump. The leachate collection system will be operated consistent with

Appendix III C – Leachate and Contaminated Water Management Plan, which includes procedures for the operation of the leachate collection sump and storage tanks and the disposal of leachate. The City of Farmers Branch may submit a demonstration to the TCEQ that leachate will no longer pose a threat to human health and the environment. If the demonstration is approved by the TCEQ, the City of Farmers Branch will be allowed to discontinue the maintenance and operation of the leachate collection system.

- Maintain the groundwater monitoring system in accordance with Subchapter J of 30 TAC and monitor groundwater in accordance with an approved Groundwater Sampling and Analysis Plan (refer to Appendix III H for the minimum monitoring frequency requirements). However, the City of Farmers Branch may request TCEQ approval of (1) an alternative monitoring frequency, and (2) an alternative list of parameters to be monitored.
- Maintain and operate the perimeter landfill gas monitoring system in accordance with Subchapter I of Title 30 TAC. In accordance with Title 30 TAC §371(b)(2), the minimum monitoring frequency will be quarterly. However, the City of Farmers Branch may request TCEQ approval of an alternate monitoring frequency.
- Maintain and operate the landfill gas collection and/or control system in accordance with applicable regulations.

2.2 Decreasing Postclosure Period

The length of the postclosure care maintenance period may be decreased by the TCEQ if City of Farmers Branch submits a documented certification signed by an independent licensed professional engineer. The certification will include all applicable documentation demonstrating that the reduced period is sufficient to protect human health and the environment. Applicable documentation may include data from monitoring of groundwater, surface water, leachate levels, and landfill gas. The certified documentation must be reviewed and approved by the TCEQ prior to decreasing the length of the postclosure care maintenance period.

2.3 Increasing Postclosure Period

The length of the postclosure care maintenance period may be increased by the TCEQ if it is determined that the increased duration is necessary to protect human health and the environment.

2.4 Completion of Postclosure Period

Upon completion of the postclosure care maintenance period, City of Farmers Branch will submit to the TCEQ documented certification, signed by an independent licensed professional engineer, verifying that postclosure care maintenance has been completed in

accordance with the approved Postclosure Plan. The submittal will include all documentation necessary for certification of completion of postclosure care maintenance. The certification will be placed in the Site Operating Record upon approval. In addition, the City of Farmers Branch will submit to the Executive Director a request for voluntary revocation of the facility permit. Approval of voluntary revocation will be placed in the Site Operating Record.

3 PERSON RESPONSIBLE FOR CONDUCTING POSTCLOSURE ACTIVITIES

At the time of development of this document, the following person is responsible for the management of this landfill:

Gary Greer, City Manager
City of Farmers Branch
13000 William Dodson Parkway
Farmers Branch, TX 75243
972-247-3131

Daily operational activities are directed by:

Shane Davis
City of Farmers Branch
13000 William Dodson
Farmers Branch, TX 75234
972-919-2614

The person responsible for conducting postclosure activities is subject to change. However, as part of the closure notification to TCEQ, as required by Title 30 TAC §330.463(b)(3)(B), City of Farmers Branch will notify the TCEQ regarding the responsible person.

4 POSTCLOSURE LAND USE

4.1 Intended Use

There are no current planned uses for the Camelot Landfill after closure. Should use of the closed landfill be considered, plans will be prepared and submitted to the TCEQ for review and approval.

4.2 Constraints on Postclosure Construction

There are no current plans to construct buildings or other structures on the closed Camelot Landfill. Nevertheless, any future construction activities on the closed landfill will be subject to the provisions of §330.955(b), §330.957(b)(2)(A-D), §330.957(d-e), and §330.957(m)(1)(D-F), which require, among other things, prior approval of the TCEQ.

5 POSTCLOSURE COST ESTIMATE

A detailed written cost estimate, in current dollars, of the cost of hiring a third party to conduct postclosure care activities for the municipal solid waste unit, in accordance with the Postclosure Care Plan, is provided in Appendix IIII – Cost Estimate for Closure and Postclosure Care. The estimated postclosure care cost is \$5,930,164.

**CAMELOT LANDFILL
CITY OF LEWISVILLE, DENTON COUNTY
TCEQ PERMIT NO. MSW-1312B**

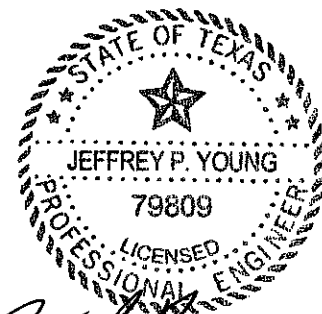
MAJOR PERMIT AMENDMENT APPLICATION

**PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIM
CLOSURE AND POSTCLOSURE CARE COST ESTIMATES**

Prepared for

City of Farmers Branch

March 2012



Prepared by

Jeffrey P. Young
3-21-12

Weaver Boos Consultants, LLC-Southwest
TBPE Registration No. F-3727
6420 Southwest Blvd., Suite 206
Fort Worth, Texas 76109
817-735-9970

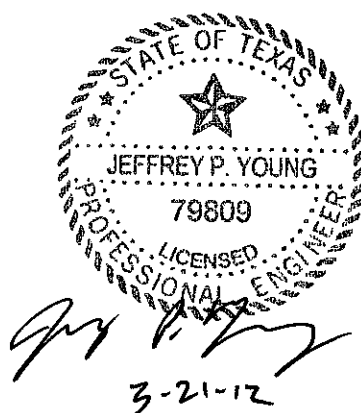
WBC Project No. 1339-351-11-02-6B.12

This document is intended for permitting purposes only.

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| 2.1 Engineering Costs | IIIM-2 |
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| 5 COST ESTIMATE ADJUSTMENTS | IIIM-10 |

APPENDIX IIIM-A
Existing Facility Financial Assurance



1 INTRODUCTION

This Cost Estimate for closure care, postclosure care, and the corrective action plan has been prepared consistent with Texas Administrative Code (TAC) Chapter 330.

*This appendix
addresses
§ 330.63(j), § 330.501,
§ 330.503, § 330.505,
and § 330.507.*

2 CLOSURE COST ESTIMATE

This cost estimate shows the cost of hiring a third party to close the largest waste fill area that could potentially be open in the year to follow and those areas that have not received final cover. As shown on Figure IIM.1, the closure area was determined to be 181.1 acres. The closure cost estimate includes: 1) engineering costs required to administratively close the facility; 2) construction costs involved with the construction of the final cover system, the landfill gas system, and other activities required to close the facility, and 3) contingencies and other administrative costs that may be incurred during closure activities. A summary of closure cost estimate is presented on Table IIM-1. The costs will be adjusted annually as indicated in Section 5.

An assessment will be completed each year to verify that the Closure Cost Estimate shown in Table IIM-1 is consistent with the current permit conditions and the projected permit conditions for the upcoming 12-month period. The assessment will verify that the closure costs are based on the current active and inactive areas and that all other permit conditions are addressed by the Closure Cost Estimate (e.g., the number of groundwater monitor wells and landfill gas probes in the estimate match the wells and probes that are either in-place or need to be installed to match the number of wells and probes listed in the permit for the current phase of development).

The estimates will be updated, as needed, consistent with the procedures noted in Section 5. Continuous financial assurance coverage for closure of the facility will be provided until the facility reaches postclosure status and the requirements of the facility's final closure plan have been approved by the Executive Director. Approval documentation will be placed in the Site Operating Record. Additional information regarding the closure cost estimate is summarized below.

2.1 Engineering Costs

The cost estimate for hiring a third party is based on closing the largest area scheduled to receive final cover, which is 181.1 acres. An area of 181.1 acres is used for the closure estimates. This area is illustrated on Figure IIM.1. A boundary survey will be required for the filing of the affidavit of closure, deed recording of any area of the site that has received waste, and publishing the public notice of closure activities. A topographic survey will be required to determine the existing height and top slope of the landfill so that permit compliance can be evaluated and the final closure system, drainage system, and final grading can be engineered. An inspection of the site is included to identify any disposal areas requiring closure, drainage and erosion protection improvements, and

identify any potential regulatory deficiencies. The site evaluation also includes the costs for a third party consultant to develop preliminary engineering report that identifies the status of the site. The report will identify all areas of work necessary to close the landfill. The engineering costs include the cost to develop construction plans and closure schedules, closure testing and inspections, and TPDES permit document preparation. In addition, administration costs (i.e., for construction contracts and contract administration) have also been included.

If closure occurs prior to the relocation of waste in the historic waste fill and inactive MSW unit areas, relocation activities will occur during closure. The cost for relocating this waste is included in the cost estimate on Figure IIM.1.

2.2 Construction Costs

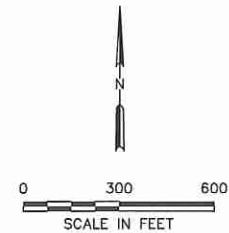
As shown on Figure IIM.1, construction costs include construction of the final cover system drainage improvements, and a LFG system for the 181.1-acre area. The final cover system is detailed in Appendix IIIA-A. The construction costs include site grading and drainage including the final grading of the site, site fencing and security (i.e., estimated costs including installation, repairs, and improvements) drainage improvements, and erosion and sedimentation controls for proper closure of the site. Decommissioning of the Citizens Convenience Center and the Operations Support and Wood Waste Processing Area is also included. The cost of all closure activities for the Camelot LFGTE Facility is included in the Type IX Registration approved by TCEQ in June of 2010.

TABLE IIM-1
CAMELOT LANDFILL - CLOSURE COST ESTIMATE

| Description | Quantity | Unit ¹ | Unit Cost ² | Total Cost | Comments |
|--|-----------|-------------------|------------------------|---------------|--|
| | | | | | |
| Area to be Administratively Closed | 469.6 | ac | | | |
| Area Requiring Final Cover | 181.1 | ac | | | |
| Composite Top Slope Area | 98.3 | ac | | | |
| Composite Side Slope Area | 82.8 | ac | | | |
| | | | | | 1.5 ft |
| | | | | | 2.0 ft |
| 2.0 ENGINEERING | | | | | |
| 1.1 Topographic Survey | 1 | LS | \$ 7,581 | \$ 7,581 | Includes a third party aerial topographic survey of the permit boundary area to determine existing grade. |
| 1.2 Boundary Survey | 1 | LS | \$ 9,904 | \$ 9,904 | Includes a third party ground survey and metes and bounds description of the permit boundary area. A detailed metes and bounds description is included in Parts I/II-Section 13. This information will only need to be verified. |
| 1.3 Site Evaluation | 181.1 | AC | \$ 409 | \$ 74,064 | Includes the costs for a third party consultant preliminary engineering report that will detail the findings of the status of the site and closure recommendations. |
| 1.4 Development of Plans | 181.1 | AC | \$ 378 | \$ 68,450 | Includes third party preparation of final cover design and construction plans including specifications (includes grading, drainage, and revegetation). |
| 1.5 Closure Inspection and Testing | 181.1 | AC | \$ 1,175 | \$ 212,774 | Includes third party inspection during closure construction, thickness and permeability verifications, survey, and preparation of closure report. |
| 1.6 Groundwater Monitor Well Consultant Cost | 1 | LS | \$ 25,000 | \$ 25,000 | The existing groundwater monitoring system is adequate. A cost is provided in the event revisions to the plan are needed. This is a contingency estimate given that there should be no cost associated with this item. |
| 1.7 TPDES and other Permits | 1 | LS | \$ 11,609 | \$ 11,609 | Includes obtaining compliance with applicable federal and state requirements for proper closure. |
| ENGINEERING TOTAL | | | | \$ 409,382 | |
| 2.0 CONSTRUCTION | | | | | |
| 2.1 Subtitle D Final Cover System | 438,224 | CY | \$ 3.78 | \$ 1,656,488 | Includes excavation, hauling, and construction of a 1.5-foot thick clay material infiltration layer over the Subtitle D area. |
| 2.1.1 Infiltration Layer | 0 | CY | \$ 2.35 | \$ - | - Includes excavation, hauling, and construction of a 2-foot thick earthen material erosion layer over the Subtitle D area. |
| 2.1.2 Erosion Layer | | | | | |
| 2.1.3 Flexible Membrane Cover | 4,281,698 | SF | \$ 0.28 | \$ 1,198,875 | Includes purchasing, hauling, and installation of a 40-mil LLDPE geomembrane over the Subtitle D area |
| 2.1.3.1 Smooth (Top Slopes) | 3,606,340 | SF | \$ 0.34 | \$ 1,226,156 | |
| 2.1.3.2 Textured (Sideslopes) | | | | | |
| 2.1.4 Drainage Geocomposite (Includ. piping) | 4,281,698 | SF | \$ 0.18 | \$ 770,706 | Includes purchasing, hauling, and installation of a drainage geocomposite drainage layer over the Subtitle D area. |
| 2.1.4.1 Single-Sided (Top Slopes) | 3,606,340 | SF | \$ 0.46 | \$ 1,658,916 | |
| 2.1.4.2 Double-Sided (Sideslopes) | 187 | WELLS | \$ 12,773 | \$ 2,388,581 | Includes installation of LFG extraction wells over entire closure area. |
| 2.2 LFG Extraction Wells | | | | | |
| 2.3 Completion of Existing Gas System | 181.1 | AC | \$ 860 | \$ 155,733 | The 137 extraction wells include 133 future wells and 54 existing/installed wells. |
| 2.4 Revegetation | 181.1 | AC | \$ 1,164 | \$ 210,782 | Includes raising existing LFG extraction wells and vents prior to final cover installation. |
| 2.5 Site Grading and Drainage | 181.1 | AC | \$ 1,164 | \$ 210,782 | Includes site grading and the construction of drainage structures, including perimeter channels and erosion control structures. |
| 2.6 Site Fencing and Security | 1 | LS | \$ 16,750 | \$ 16,750 | Includes construction of 3,820 feet of proposed barbed wire perimeter fencing at the permit boundary and repair of 3,420 feet of existing fence (20% of existing fencing) at the permit boundary. |
| 2.7 Leachate Collection System | 1 | LS | \$ 100,000 | \$ 100,000 | Includes any leachate collection system improvements that may be required. |
| 2.8 Landfill Gas Monitoring System | 1 | LS | \$ 65,000 | \$ 65,000 | Includes the cost to complete the abandonment of 18 existing probes and the installation of 22 new probes. Includes abandonment of 18 probes, installation of 22 probes, installation report, and ground survey. |
| 2.9 Groundwater Monitoring System | 1 | LS | \$ 1,800 | \$ 1,800 | Includes the cost to decommission MW-9, MW-3R, MW-18 after background sampling is complete (\$600/well). |
| 2.10 Citizens Convenience Center | 1 | LS | \$ 5,000 | \$ 5,000 | Includes the cost to remove roll-off containers and general clean-up of area. |
| 2.11 Waste Relocation | 230,000 | CY | \$ 5.00 | \$ 1,150,000 | Includes the cost to relocate waste in Historic Fill and inactive MSW Unit Areas. |
| 2.12 Fill for Inactive MSW Unit | 185,000 | CY | \$ 3.00 | \$ 555,000 | Includes cost to fill inactive MSW Unit Area once waste is relocated. |
| 2.13 Operations Support and Wood Waste Processing Area | 1 | LS | \$ 10,000 | \$ 10,000 | Includes general clean-up of area. |
| CONSTRUCTION TOTAL | | | | \$ 11,380,539 | |
| ENGINEERING & CONSTRUCTION SUBTOTAL | | | | \$ 11,789,921 | |
| 3.0 CONTINGENCY | | | | \$ 1,178,982 | |
| 4.0 CONTRACT PERFORMANCE BOND | | 10% | | \$ 176,849 | |
| 5.0 LEGAL FEES | | 1.5% | | \$ 100,000 | |
| 6.0 TCEQ ADMINISTRATION OF CONTRACTS | | LS | | \$ 50,000 | |
| TOTAL CLOSURE COST | | | | \$ 13,285,762 | |

¹LS = Lump Sum, AC = acres, CY = cubic yards, SF = square feet.
²Unit Costs are in 2012 dollars.

O:\1339\351\EXPANSION 2009\PART III-SDP\IIIM.1-LARGEST AREA REQ. FC.dwg, 3/20/2012 2:18:15 PM, rseillers



- LEGEND**
- PERMIT BOUNDARY
 - - - - PERMITTED LIMITS OF WASTE
 - - - - PROPOSED LIMITS OF WASTE
 - N 7064000 STATE PLANE COORDINATE SYSTEM
 - 500 EXISTING CONTOUR
 - SUBTITLE D CELL BOUNDARY
 - ⊕ MW-8 PERMITTED GROUNDWATER MONITORING WELL
 - ⊙ GMP-1 PERMITTED GAS MONITORING PROBE
 - ⊗ MW-12 PERMITTED OBSERVATION WELL
 - [Pink hatched] FILL AREA REQUIRING CLOSURE
 - [Green hatched] CONSTRUCTED FINAL COVER
 - [Yellow hatched] EXISTING WASTE TO BE RELOCATED

- NOTES:**
- CONTOURS AND ELEVATIONS PROVIDED BY METROPOLITAN AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 8-28-2010. THE GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 83. ELEVATIONS ARE BASED ON NAVD 88.
 - PERMIT BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION PROVIDED BY PEISER SURVEYING CO. DATED NOVEMBER 2010.

J. P. Young

 3-21-12

| <input type="checkbox"/> DRAFT <input checked="" type="checkbox"/> FOR PERMITTING PURPOSES ONLY <input type="checkbox"/> ISSUED FOR CONSTRUCTION <input type="checkbox"/> CLIENT APPROVAL BY: | PREPARED FOR CITY OF FARMERS BRANCH | MAJOR PERMIT AMENDMENT LARGEST AREA TO REQUIRE FINAL COVER CAMELOT LANDFILL DENTON COUNTY, TEXAS | | | | | | | | | | | | | | | |
|--|---|--|-----------|--|--|-----|------|-------------|--|--|--|--|--|--|--|--|--|
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| COPYRIGHT © 2012 WEAVER BOOS CONSULTANTS, LLC - SOUTHWEST. ALL RIGHTS RESERVED. | | Weaver Boos Consultants TBPE REGISTRATION NO. F-3727 <small>CHICAGO, IL FORT WORTH, TX GRIFFITH, IN MAPERVILLE, IL (817) 735-9770 SOUTH BEND, IN COLUMBUS, OH DENVER, CO SPRINGFIELD, IL ST. LOUIS, MO</small> | | | | | | | | | | | | | | | |

FIGURE IIIM.1

3 POSTCLOSURE CARE COST ESTIMATE

The postclosure care period has been established by TCEQ regulations to be 30 years. This detailed cost estimate shows the cost of hiring a third party to conduct routine maintenance and monitoring during the postclosure period. During this period, continuous maintenance must be ongoing to assure the integrity and effectiveness of the final cover system, monitoring systems, leachate collection system, drainage system, and landfill gas system. A summary of postclosure cost estimate is presented on Table III-M-2. The costs will be adjusted annually as indicated in Section 4. An assessment will be completed each year to verify that the Postclosure Cost Estimate shown in Table III-M-2 is consistent with the current permit conditions and the projected permit conditions for the upcoming 12-month period. The assessment will verify that the postclosure costs are based on the current active area and that all other permit conditions are addressed by the Postclosure Cost Estimate (e.g., verify the LFG and O&M cost estimate is updated to match the number of wells that will need to be maintained during the postclosure period). Continuous financial assurance coverage for the postclosure care period of the facility will be provided until the facility is released from the postclosure care period by the Executive Director, in accordance with the requirements of the facility's postclosure care plan. The estimates will be adjusted, as needed, consistent with the procedures noted in Section 5.

As shown on Table III-M-2, engineering postclosure estimates include the cost of annual site inspections, corrective plans and specifications, and site compliance monitoring. The estimates are based on the area with waste in-place, which is 198.3 acres. Site inspections will be performed annually and will include identification of areas experiencing settlement or subsidence, identification of erosion or other drainage-related problems, and inspection of the leachate collection system, gas control and monitoring system, and the groundwater monitoring system. Correctional plans and specifications include the costs for an engineering consultant to prepare construction plans and specifications to correct problems identified during the site inspections. Gas monitoring and groundwater sampling and analysis will be performed as outlined in the Postclosure Care Plan (Appendix III-L).

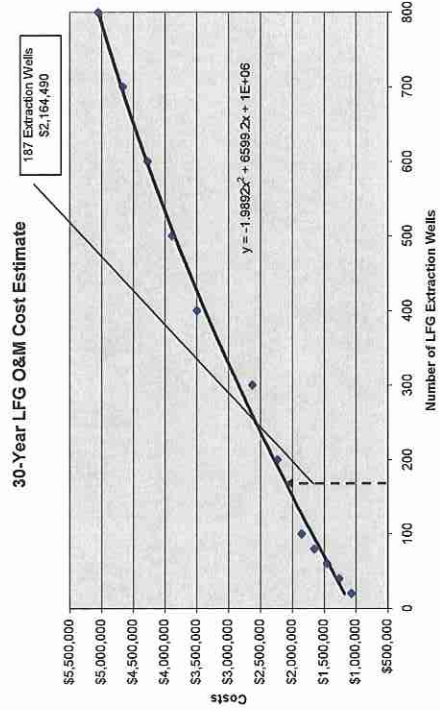
Postclosure construction/maintenance estimates include the costs to correct problems determined by the engineering site inspections and as specified by the engineer's correctional plans and specifications. These costs will also include any ongoing site maintenance that is needed throughout the postclosure period. These costs include cover and drainage maintenance and annual seeding and mowing costs. The leachate disposal costs include leachate removal from the area with a leachate collection system (109.9 acres). Postclosure landfill gas control system O&M costs includes regular calibration

and maintenance of regulatory equipment, such as valves and flow meters, associated system components of the active collection system and condensate disposal for the completely developed site.

TABLE IIM-2
CAMELOT LANDFILL - POSTCLOSURE CARE COST ESTIMATE

| Description | Quantity | Unit ¹ | Post Closure Care Period | | Annual Cost | Total Cost | Comments |
|--|----------|-------------------|--------------------------|-----------|--------------------|---|----------|
| | | | 30 yrs | 22 probes | | | |
| Area to be Administratively Closed | 469.6 ac | NA | | | | | |
| Area with waste in place | 198.3 ac | AC | \$ 23.49 | \$ 11,000 | \$ 330,000 | The postclosure care plan is complete. (refer to Appendix III.L). Site inspections will identify any potential areas experiencing settlement and erosion. The inspection will also document the condition of the LCS, LFG, groundwater monitoring system, and other landfill systems and structures. | |
| Area with leachate collection system | 109.9 ac | AC | \$ 34.72 | \$ 6,900 | \$ 207,000 | Includes preparation of plans and specifications to correct problems identified during inspections. | |
| Groundwater Monitoring Wells | 23 wells | WELLS | \$ 600.00 | \$ 27,600 | \$ 828,000 | The semi-annual cost to complete groundwater monitoring of the 24 wells is \$14,400 (24 wells x \$600 per well) and the annual cost is \$28,800 (2 events x \$14,400 per semi-annual event). This cost includes a sampling, testing, and reporting. | |
| 1.1 Postclosure Care Plan | 198.3 | AC | \$ 34.72 | \$ 6,900 | \$ 207,000 | The gas monitoring events include monitoring 22 probes quarterly. The cost for monitoring the probes quarterly is \$1,164/quarter. The annual cost is \$4,656 (4 events x \$1,164/quarterly event). This cost includes sampling, testing, and reporting. | |
| 1.2 Site Inspection and Recordkeeping (annual) | 469.6 | AC | \$ 23.49 | \$ 11,000 | \$ 330,000 | | |
| 1.3 Correctional Plans and Specifications (annual) | 198.3 | AC | \$ 34.72 | \$ 6,900 | \$ 207,000 | | |
| 1.4 Site Monitoring | 23 | WELLS | \$ 600.00 | \$ 27,600 | \$ 828,000 | | |
| 1.4.1 Groundwater Monitoring (semiannual) | 23 | WELLS | \$ 600.00 | \$ 27,600 | \$ 828,000 | | |
| 1.4.2 Gas Monitoring (quarterly) | 4 | QUARTERS | \$ 1,164.00 | \$ 4,656 | \$ 139,680 | | |
| ENGINEERING TOTAL | | | | | \$1,504,680 | | |
| 2.0 CONSTRUCTION / MAINTENANCE | 198.3 | AC | \$ 232.79 | \$ 46,000 | \$ 1,380,000 | Includes correcting problems identified during inspections per correctional plans and specifications. Also includes ongoing site maintenance, cover and drainage maintenance, annual seeding and mowing, and plugging or probes and wells at the end of the postclosure period. | |
| 3.0 LEACHATE DISPOSAL | 109,790 | GALLONS | \$ 0.09 | \$ 9,881 | \$ 296,433 | Includes the transportation of leachate to a permitted POTW. Refer to Appendix III.E of Appendix III.C for more information regarding the yearly leachate generation rate for the currently constructed area during the postclosure period. The leachate quantity was conservatively estimated based on the estimated actual leachate generation rate in the first 10 years of the postclosure period (e.g. 999 gal/acre/yr). | |
| 4.0 LFG SYSTEM MAINTENANCE | 1 | LS (see below) | | | \$ 2,164,490 | Includes operations and maintenance of the LFG system. Refer to the figure shown below for additional information regarding how the LFG System Maintenance costs are estimated. | |
| SUBTOTAL | | | | | \$5,345,603 | | |
| 5.0 CONTINGENCY | | 10% | | | \$ 534,560 | | |
| 6.0 TCEQ ADMINISTRATION OF CONTRACTS | | LS | | | \$ 50,000 | | |
| TOTAL POSTCLOSURE CARE COST | | | | | \$5,930,164 | | |

¹NA = Not Applicable, YR = Year, LS = Lump Sum, AC = acres.
²Unit Costs are in 2012 dollars.



◆ Estimated O&M Cost Data

4 CORRECTIVE ACTION COST ESTIMATES

A TCEQ approved corrective action plan (CAP) is being implemented at the site. This estimate shows the cost of hiring a third party to continue implementing the CAP, a formal closure scenario occurrence. The cost estimate for the corrective action activities are presented in Table IIIM-3. The approved corrective action plan consists of the following.

- Continued operation and optimization of the landfill gas collection and control system (GCCS) to mitigate landfill gas and related VOC migration.
- Monitored natural attenuation (MNA) to periodically assess the effectiveness of the GCCS and natural attenuation in mitigating VOC concentrations.

Appendix IIIH contains a detailed description of the corrective measures that have been implemented. During the life of the site, this Corrective Action estimate will be updated on an annual basis to reflect the status of the Corrective Action.

**TABLE IIIM-3
CAMELOT LANDFILL - CORRECTIVE ACTION COST**

| Description | Quantity | Unit ¹ | Unit Cost ² | Total Cost |
|---|------------|-------------------|------------------------|------------------|
| 1.0 MONITORING / O & M | | | | |
| 1.1 Monitoring of detection wells that are in assessment (e.g., MW-1R, MW-4R, MW-9, MW-26, MW-27, MW-28) | 8 | YR | \$4,400 | \$35,200 |
| 1.2 Monitoring of observation wells that will continue to be monitored during the Corrective Action Program (e.g., MW-10, MW-10A, MW-10B, MW-11, MW-12, MW-12A, B-1, B-2) | 8 | YR | \$4,400 | \$35,200 |
| 1.3 Reporting (semi-annual) | 8 | YR | \$2,000 | \$16,000 |
| 1.4 Maintenance (e.g., maintaining grounds, mowing, minor repairs, etc) | 8 | YR | \$1,000 | \$8,000 |
| MONITORING / O&M TOTAL | | | | \$94,400 |
| 2.0 CONSTRUCTION | | | | |
| 2.1 Piezometer/Monitor Well Plugging/Abandonment | 9 | WELLS | \$2,000 | \$ 18,000 |
| CONSTRUCTION TOTAL | | | | \$ 18,000 |
| 3.0 MISCELLANEOUS | | | | |
| 3.1 Institutional Controls (Deed Restriction) | 1 | LS | \$7,500 | \$7,500 |
| 3.2 Natural Attenuation Demonstration (if needed) | 1 | LS | \$15,000 | \$15,000 |
| MISCELLANEOUS TOTAL | | | | \$22,500 |
| 4.0 CONTINGENCY | 15% | | | \$20,235 |
| SUBTOTAL | | | | \$155,135 |
| 4.0 TCEQ ADMINISTRATION OF CONTRACTS | 10% | | | \$15,514 |
| TOTAL CORRECTIVE ACTION COST | | | | \$170,649 |

¹YR = Year, LS = Lump Sum.

²Annual Costs are in 2012 dollars.

5 COST ESTIMATE ADJUSTMENTS

During the active life of the site, the City of Farmers Branch will annually adjust the cost estimates for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s). The adjustment may be made by recalculating the maximum costs of closure and postclosure in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the United States Department of Commerce in its Survey of Current Business. The inflation factor is the result of dividing the latest published annual deflator by the deflator for the previous year. The first adjustment is made by multiplying the closure and postclosure cost estimates by the inflation factor. The result is the adjusted closure and postclosure cost estimates. Subsequent adjustments are made by multiplying the latest adjusted closure and postclosure estimates by the latest inflation factor.

An increase in the closure, postclosure, or corrective action cost estimate and the amount of financial assurance will be made if changes to the final closure or postclosure care plan or the landfill conditions increase the maximum cost. If the only area requiring closure changes (i.e., increases due to liner construction), then financial assurance will be adjusted within 60 days prior to the anniversary date of the establishment of the financial assurance (a permit modification will be approved by the TCEQ prior to making the adjustment).

A reduction in the closure or postclosure care cost estimate and the amount of financial assurance may be submitted if the cost estimate exceeds the maximum costs of closure at any time during the remaining life of the unit or postclosure care remaining over the postclosure care period. The City of Farmers Branch will submit written notice to the executive director of the detailed justification for the reduction of the cost estimates and the amount of financial assurance. A reduction in the cost estimate and financial assurance will be considered a permit modification.

In accordance with 30 TAC §330.503(a) and §330.463(b)(3)(D), evidence of any additional financial assurance resulting from the annual revision of cost estimates will be provided to the TCEQ within 30 days after the annual anniversary date.

APPENDIX IIIM-A
EXISTING FACILITY FINANCIAL ASSURANCE

Bryan W. Shaw, Ph.D., *Chairman*
Buddy Garcia, *Commissioner*
Carlos Rubinstein, *Commissioner*
Mark R. Vickery, P.G., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 25, 2010

Mr. Charles S. Cox
Director of Finance
City of Farmers Branch
P.O. Box 819010
Farmers Branch, TX 75381-9010

Re: Local Government Financial Test Based On Fiscal Year Ended September 30, 2008
City of Farmers Branch - Camelot Sanitary Landfill - MSW Permit No. 1312

Dear Mr. Cox:

The local government financial test ("financial test") based on fiscal year ended, September 30, 2008, including the accompanying documents were submitted for demonstrating continuous financial assurance coverage. The financial test is assuring \$9,358,917 for closure and \$12,566,480 for post closure for a total of \$21,925,397. The documents were reviewed and determined to be acceptable as submitted.

We will have the new inflation factors for 2009 about the middle of February 2010. An updated financial test which reflects the adjusted amounts will need to be submitted to the Financial Assurance Section on or before March 31, 2010. Please call me at (512) 239-6262 if you have any financial assurance questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Deborah Wisneski".

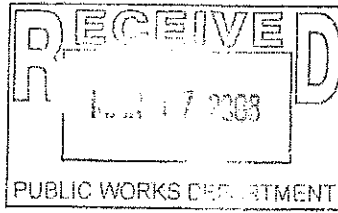
Deborah Wisneski
Financial Analyst
Financial Assurance Section MC-184

IIIIM-A-1



FARMERS BRANCH

February 14, 2008



Shankle

City of Farmers Branch
13000 William Dodson Parkway
Farmers Branch, Texas 75234
972.247.3131

Glenn Shankle
Executive Director
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Dear Mr. Shankle:

I am the chief financial officer of the City of Farmers Branch (13000 William Dodson Parkway, Farmers Branch, TX 75234). This letter is in support of this local government's use of the financial test to demonstrate financial assurance, as specified in 30 Texas Administrative Code (TAC) Chapter 37 (relating to Financial Assurance).

1. This local government is the owner or operator of the following units or facilities for which financial assurance for closure, post-closure care, and/or corrective action is demonstrated through the financial test specified in 30 TAC §37.271. The current cost estimates covered by the test are shown for each facility:

Camelot Sanitary Landfill
Denton County, Texas
TNRCC Permit No. 1312

Costs as of September 30, 2007 (2.7% increase from 2006):

| | |
|-------------------|---------------------|
| Closure | \$ 9,166,422 |
| Post-Closure Care | <u>\$12,308,012</u> |
| Total | \$21,474,434 |

2. This local government guarantees, through the guarantee specified in 30 TAC §37.281, the current closure, post-closure, or corrective action cost estimates of the following facilities owned or operated by the City of Farmers Branch. The current cost estimates so guaranteed are shown for each facility:

None

The fiscal year of this local government ends on September 30, 2008. The figures for the following items marked with an asterisk are derived from this local government's independently audited, year-end financial statements for the latest completed fiscal year, ended September 30, 2007.

BOND RATING INDICATOR OF FINANCIAL STRENGTH

1. Sum of current cost estimates: \$21,474,434.
2. List the following information on all the outstanding, rated, unsecured general obligation bonds issued to the local government.

Current bond rating of most recent issuance and name of rating service: Aa3 rating from Moody's Investors Service. AA rating from Standard & Poor's.

Date of issuance bond. Combination Tax and Revenue Certificates of Obligation, Series 2007, dated September 15, 2007.

Date of maturity of bond. August 15, 2012.

3. Environmental obligations assured by a financial test to demonstrate financial assurance in the following amounts under commission regulations and the Code of Federal Regulations (CFR) or state equivalent rules:

(a) Municipal Solid Waste under 30 TAC Chapter 330 and 40 CFR Part 258. \$21,474,434.

(b) Hazardous waste treatment, storage and disposal facilities under 30 TAC Chapter 335 and 40 CFR Parts 264 and 265. \$0.

(c) Petroleum underground storage tanks under 30 TAC Chapter 334 and 40 CFR Part 280. \$0.

(d) Underground Injection Control System facilities under 30 TAC Chapter 331 and 40 CFR Part 144. \$0.

(e) PCB commercial storage facilities under 40 CFR, Part 761. \$0.

(f) Additional environmental obligations not shown above. \$0.

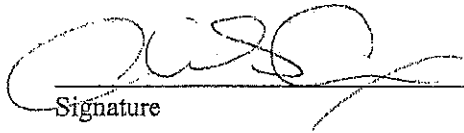
Total (a)-(f). \$21,474,434.

- *4. Total annual revenue. \$63,910,802. (Governmental Funds total revenue plus operating and net nonoperating total revenue of Enterprise Funds)

Circle either "yes" or "no" to the following question:

5. Is line 3 divided by line 4 less than or equal to 0.43? yes / no

I hereby certify that the wording of this letter is identical to the wording specified in 30 Texas Administrative Code §37.371 as such regulations were constituted on the date shown immediately below. I further certify the following: that the local government's financial statements are prepared in conformity with Generally Accepted Accounting Principles for governments, including conformance with General Accounting Standards Board Statement 18, and its financial statements have been audited by an independent Certified Public Accountant (CPA); that the local government has not operated at a deficit equal to five percent or more of total annual revenue in each of the past two fiscal years; that the local government is not in default on any outstanding general obligation bonds; that the local government does not have outstanding general obligations rated less than Baa as issued by Moody's or BBB as issued by Standard and Poor's; and that the local government has not received an adverse opinion, disclaimer of opinion, or other qualified opinion from the independent CPA.



Signature

Charles S. Cox
Name

Director of Finance
Title

February 14, 2008
Date

encl. Audited Financial Statements
Report of Independent Public Accountants

Independent Accountants' Report on Applying Agreed-Upon Procedures

Honorable Mayor and Members of the City Council
City of Farmers Branch, Texas

We have performed the procedures enumerated below, which were agreed to by the City of Farmers Branch (the "City"), solely to assist the City and the Texas Commission on Environmental Quality ("TCEQ") (the "Parties") in evaluating the City's compliance with local government finance test requirements under Texas Administrative Code Title 30, Chapter 37, Rule 37.271 for the year ended September 30, 2007. The management of the City of Farmers Branch is responsible for its compliance with such requirements. This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of the Parties specified in this report. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose.

The procedures that we performed and our findings are as follows:

1. We obtained and read the City's audited financial statements for each of the two years ended September 30, 2007 and September 30, 2006.
2. We noted the City's financial statements for each of the past two fiscal years were audited by an independent certified public accountant and that the auditors' report on the financial statements expressed an unqualified opinion that the financial statements were fairly presented in all material respects in accordance with Accounting Principles Generally Accepted in the United States of America.
3. We calculated the difference between the total annual revenues [total governmental funds revenues plus enterprise fund operating revenues plus enterprise non-operating revenues (net)] and total annual expenditures [total governmental funds expenditures plus enterprise fund operating expenses before depreciation plus enterprise funds non-operating expenses (net)] as defined in section 37.271(1)(D) of the Texas Administrative Code for the fiscal years ended September 30, 2007 and 2006 and noted that the City did not operate at a deficit (total annual revenues minus total annual expenditures) equal to 5.0% or more of total annual revenues in each of the past two fiscal years.
4. We noted that the City did not receive an adverse opinion, disclaimer of opinion, or other qualified opinion from the Independent Certified Public Accountant auditing its financial statements for each of the fiscal years ended September 30, 2007 and 2006.

We were not engaged to, and did not, conduct an audit, the objective of which would be the expression of an opinion on the specified elements, accounts, or items. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information and use of the specified parties and is not intended to be and should not be used by anyone other than these specified parties.

GRANT THORNTON LLP

Dallas, Texas
March 3, 2008

**CAMELOT LANDFILL
CITY OF LEWISVILLE, DENTON COUNTY
TCEQ PERMIT NO. MSW-1312B**

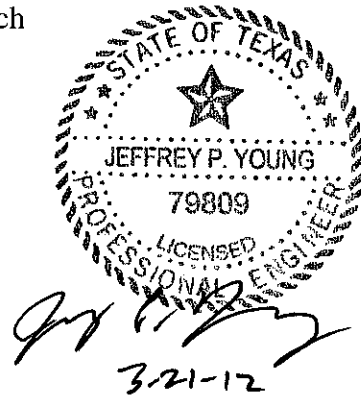
MAJOR PERMIT AMENDMENT APPLICATION

**PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIN
SITE LIFE CALCULATIONS**

Prepared for

City of Farmers Branch

March 2012



Prepared by:

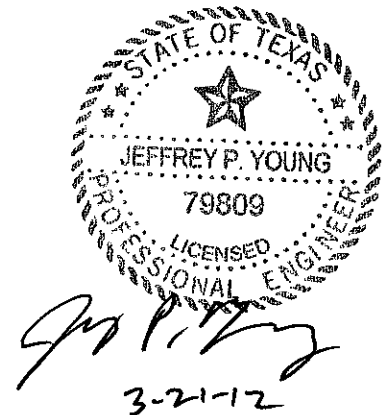
Weaver Boos Consultants, LLC–Southwest
TPBE Registration No. F-3727
6420 Southwest Blvd., Suite 206
Fort Worth, TX 76109
817-735-9770

WBC Project No. 1339-351-11-02-6B.13

This document is intended for permitting purposes only.

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1 SITE LIFE

1.1 Solid Waste Generation

Two estimates have been developed to provide an assessment of the solid waste generation rate for the Camelot Landfill. The estimate included in Section 1.1.1 is based on the City of Farmers Branch's knowledge of market conditions, both currently and after the permit is issued. The estimate included in Section 1.1.2 is based on historical waste inflow data.

The estimate in Section 1.1.1 is used throughout the application because it is the best estimate of the likely waste generation rate. This estimate also provides for a conservative design as it is used as the basis for the traffic study and landfill gas generation rate model. However, the estimate in Section 1.1.2 is provided to show that if the waste inflow does not increase as projected by the City and the Site Operator, then the life of the site may be extended by a number of years.

It is important to note that the estimates included in both sections are based on numerous assumptions and may vary as market conditions change.

1.1.1 Solid Waste Generation Information Using City of Farmers Branch Projections

Over the last few years the waste inflow rate at Camelot Landfill has varied from 1,019 tons per day to 1,171 tons per day as listed below.

| Year | Actual Waste Inflow ¹ | Typical Daily Waste Inflow Rate Based on a 286-Day Operating Schedule |
|------|----------------------------------|---|
| 2007 | 334,792 tons per year | 1,171 tons per day |
| 2008 | 314,173 tons per year | 1,099 tons per day |
| 2009 | 291,352 tons per year | 1,019 tons per day |
| 2010 | 305,478 tons per year | 1,068 tons per day |

¹ Information obtained from the TCEQ MSW Annual Reports filed by the City of Farmers Branch.

The City estimates that the waste inflow will increase to 429,000 tons per year (1,500 tons per day based on a 286-day operating schedule) in 2011. From 2011 to 2020, the waste inflow rate is assumed to increase consistent with the projected growth rate for the facility's general service area, which for this analysis is assumed to be Denton, Collin, Dallas, and Tarrant counties. In 2020, the permittee estimates that the waste inflow will increase by 2,525 tons per day due to the closing of the nearby DFW Landfill.

After 2020, the waste inflow rate is assumed to increase consistent with the projected growth rate for the facility's general service area. Using this methodology, the expected maximum annual waste acceptance rate is 1,515,604 tons per year (5,299 tons per day based on a 286-day operating schedule). The above projections are based on current market conditions and may vary as market conditions change. Over the life of the facility, the expected average daily volume of incoming waste is projected to be approximately 3,751 tons per day (1,072,786 tons per year based on a 286-day operating schedule).

Site life calculations based on the City of Farmers Branch projections are shown on pages IIN-4 through IIN-6.

1.1.2 Solid Waste Generation Information Using Historical Data

This estimate is based on historical waste inflow data. For example, in 2010 the City reported in the Texas Commission on Environmental quality (TCEQ) Municipal Solid Waste (MSW) Annual Report that the site accepted 291,352 tons per year or 1,068 tons per day based on a 286-day operating schedule. As noted on page IIN-8, this value was then increased based on the estimated population growth rates to develop the waste inflow rate over the life of the site.

The waste inflow rate is assumed to increase consistent with the projected growth rate for the facility's general service area from 2010 through 2079, which for this analysis is assumed to be Denton, Collin, Dallas, and Tarrant counties. Using this methodology, the expected maximum annual waste acceptance rate is 668,216 tons per year (2,336 tons per day based on a 286-day operating schedule). Over the life of the facility, the expected average daily volume of incoming waste is projected to be approximately 1,649 tons per day (471,614 tons per year based on a 286-day operating schedule). Supplementary calculations are included on pages IIN-7 through IIN-10.

1.2 Population Equivalent

1.2.1 City of Farmers Branch Projections

Using the average waste inflow rate of 1,072,786 tons per year discussed in Section 1.1.1 (an average daily volume of 3,751 tons per day based on a 286-day operating schedule) and assuming 5 pounds of waste is generated per capita per day, the population equivalent is:

$$\frac{(1,072,786 \text{ tons per year}) \times (2,000 \text{ pounds/ton})}{(5 \text{ pounds/person/day}) \times (365 \text{ days/year})} = 1,175,656 \text{ persons}$$

1.2.2 Historical Data

Using the average waste inflow rate of 471,614 tons per year discussed in Section 1.1.2 (an average daily volume of 1,649 tons per day based on a 286-day operating schedule) and assuming 5 pounds of waste is generated per capita per day, the population equivalent is:

$$\frac{(471,614 \text{ tons per year}) \times (2,000 \text{ pounds/ton})}{(5 \text{ pounds/person/day}) \times (365 \text{ days/year})} = 516,837 \text{ persons}$$

1.3 Landfill Capacity

The estimated total capacity of waste (defined as waste and daily cover) ever on site over the active life of the facility is approximately 60.60 million cubic yards. The total volume available for solid waste and daily cover after August 28, 2010 (date of topographic information) is estimated to be 45,243,000 cubic yards using the average end area method. This airspace estimate includes the remaining available volume in the existing permitted area. The current volume of waste (defined as waste and daily cover) in-place as of August 28, 2010, is approximately 15.357 million cubic yards.

1.4 Site Life Calculations

1.4.1 Site Life Information Using City of Farmers Branch Projections

The site life calculations are presented on pages IIN-4 through IIN-6. In summary, the site life is projected to be approximately 29.3 years, which would result in the site's closure during the year 2039.

1.4.2 Site Life Information Using Historical Data

The site life calculations using historical data are presented on pages IIN-7 through IIN-10. For this case, the site life is projected to be approximately 66.7 years, which would result in the site's closure during the year 2077.

CAMELOT LANDFILL
SITE LIFE CALCULATIONS
1339-351-11

Required:

Determine approximate site life (years) for the site based on the City of Farmers Branch projections. The initial waste stream estimate is 1,068 tons per day with an increase to 1,500 tons/day in 2011. The waste inflow rate is assumed to increase consistent with the facility's general service area. The waste inflow rate is expected to increase by 2,525 tons/day in 2020 due to the anticipated closing of the nearby DFW landfill.

It is assumed the site will operate 286 days per year.

Solution:

Determine available landfill tonnage and initial annual waste inflow rate:

Remaining airspace (includes existing permitted site and expansion)¹ = 45,243,000 cy (as of August 28, 2010)
Percent daily cover = 15 % (accounts for the use of ADC)
In-place density of waste/cover soils² = 1,755 lb/cy

¹The overliner grading layer volume is approximately 80,000 cy; however, to provide for a conservative analysis, this volume is included in the remaining airspace estimate. The volume consumed by the overliner is also included in the remaining airspace estimate.

² Refer to page IIN-12 for additional information regarding the average in-place density of waste.

Estimate the total remaining airspace (tons). To convert the volumetric capacity of the site to a weight based capacity, the average in-place density of the waste/daily cover must first be established. For this calculation, the relevant density is the average density of the waste/cover soils after the waste/cover soils have been subjected to overburden pressure of the completely developed landfill (as opposed to the annual density that is calculated based on the capacity consumed in any given year). The procedure used to calculate the density at the midpoint of the landfill is listed on Sheet IIN-12 and is based on a number of in-place density studies (refer to reference 1 listed on Sheet IIN-12). The estimated in-place density of solid waste/daily cover soils is then further translated into an estimate of the density of the solid waste portion of the landfill capacity, using the following calculation.

Estimate the total remaining airspace (tons).

Estimate density of waste only.

$$(\gamma_{\text{soil}})(15\% \text{ of } 45,243,000 \text{ cy}) + (\gamma_{\text{waste}})(85\% \text{ of } 45,243,000 \text{ cy}) = (\gamma_{\text{soil/waste}})(45,243,000 \text{ cy})$$

$$(2,430 \text{ lb/cy})(6,786,450 \text{ cy}) + (\gamma_{\text{waste}})(38,456,550 \text{ cy}) = (1,755 \text{ lb/cy})(45,243,000 \text{ cy})$$

$$\gamma_{\text{waste}} = 1,636 \text{ lb/cy}$$

$$\text{Remaining permitted available airspace} = (85\% \text{ of } 45,243,000 \text{ cy}) * (1,636 \text{ lb/cy} * 1/2000 \text{ tons/lb})$$

$$\text{Remaining permitted available airspace} = 31,455,196 \text{ tons}$$

| |
|---|
| Total remaining capacity (includes existing permitted site and expansion) = 31,455,196 tons |
|---|

The above capacity for the remaining tons is used to estimate the site life, as shown in the following calculation.

$$\text{Initial waste stream estimate} = 1,068 \text{ tons/day}$$

$$\text{Days of operation per year} = 286 \text{ days}$$

| |
|---|
| Initial waste inflow rate = 305,478 tons/year |
|---|

CAMELOT LANDFILL
SITE LIFE CALCULATIONS
1339-351-11

Assumed growth rates (based on population growth rates):

| | | | |
|---------------------------------|-------|-------------------------------|--------|
| Growth rate (years 2011-2015)= | 8.02% | or annualized growth rate of: | 1.56 % |
| Growth rate (years 2016-2020)= | 6.52% | or annualized growth rate of: | 1.27 % |
| Growth rate (years 2021-2025)= | 7.63% | or annualized growth rate of: | 1.48 % |
| Growth rate (years 2026-2031)= | 5.65% | or annualized growth rate of: | 1.10 % |
| Growth rate (years 2031-close)= | 5.65% | or annualized growth rate of: | 1.10 % |

The growth rate estimates from 2011 to 2030 were obtained from NCTCOG, North Central Texas 2030 Demographic Forecast. Growth rate estimates for 2031 to the closure of the landfill are assumed to be consistent with the population projections from 2026 to 2030.

The following table calculates the waste stream growth (assuming the growth rates described above) and the projected cumulative airspace consumed.

| Year | Waste Inflow (tons/year) | Tonnage Consumed (tons) |
|----------------|-----------------------------|----------------------------|
| August 28 2010 | 305,478 | 104,616 |
| 2011 | 429,000 | 533,616 |
| 2012 | 435,692 | 969,308 |
| 2013 | 442,489 | 1,411,797 |
| 2014 | 449,392 | 1,861,189 |
| 2015 | 456,403 | 2,317,592 |
| 2016 | 462,199 | 2,779,791 |
| 2017 | 468,069 | 3,247,860 |
| 2018 | 474,013 | 3,721,873 |
| 2019 | 480,033 | 4,201,906 |
| 2020 | 1,208,280 | 5,410,186 |
| 2021 | 1,226,162 | 6,636,348 |
| 2022 | 1,244,309 | 7,880,657 |
| 2023 | 1,262,725 | 9,143,382 |
| 2024 | 1,281,414 | 10,424,796 |
| 2025 | 1,300,378 | 11,725,174 |
| 2026 | 1,314,683 | 13,039,857 |
| 2027 | 1,329,144 | 14,369,001 |
| 2028 | 1,343,765 | 15,712,766 |
| 2029 | 1,358,546 | 17,071,312 |
| 2030 | 1,373,490 | 18,444,802 |
| 2031 | 1,388,598 | 19,833,400 |
| 2032 | 1,403,873 | 21,237,273 |
| 2033 | 1,419,316 | 22,656,589 |
| 2034 | 1,434,928 | 24,091,517 |
| 2035 | 1,450,712 | 25,542,230 |
| 2036 | 1,466,670 | 27,008,900 |
| 2037 | 1,482,804 | 28,491,703 |
| 2038 | 1,499,114 | 29,990,818 |
| 2039 | 1,464,378 | 31,455,196 |

125 days

353 days

| | |
|--|------------|
| Available tonnage is consumed during year | 2039 |
| Site life is projected to be approximately | 29.3 years |

CAMELOT LANDFILL
SITE LIFE CALCULATIONS
1339-351-11

Summary of waste tonnage information:

| | |
|------------------|----------------|
| Initial inflow = | 1,068 tons/day |
|------------------|----------------|

$$\text{Maximum inflow} = \frac{\text{Tonnage accepted during full year of operation (1,515,604 tons)}^1}{286 \text{ days of operation per year}}$$

¹1,515,604 tons represents the calculated total tonnage for the full year of 2039, the year in which the maximum waste inflow occurs.

Projected maximum waste inflow rate:

| | |
|------------------|----------------|
| Maximum inflow = | 5,299 tons/day |
|------------------|----------------|

$$\text{Average inflow} = \frac{\text{Maximum waste accepted}}{\text{Site Life}}$$

Projected average waste inflow rate:

$$\frac{31,455,196 \text{ tons}}{29.3 \text{ years} * 286 \text{ days/year}}$$

| | |
|------------------|----------------|
| Average inflow = | 3,753 tons/day |
|------------------|----------------|

CAMELOT LANDFILL
SITE LIFE CALCULATIONS
1339-351-11

Required: Determine approximate site life (years) for the site based on the historical data obtained from the TCEQ FY 2009 MSW Annual Report. The initial waste stream estimate is 1,068 tons/day. For this estimate, it is assumed the site will operate 286 days per year.

Solution: Determine available landfill tonnage and initial annual waste inflow rate:

Remaining airspace (includes existing permitted site and expansion)¹ = 45,243,000 cy (as of August 28, 2010)
Percent daily cover = 15 % (accounts for the use of ADC)
In-place density of waste/cover soils² = 1,755 lb/cy

¹The overliner grading layer volume is approximately 80,000 cy; however, to provide for a conservative analysis, this volume is included in the remaining airspace estimate. The volume consumed by the overliner is also included in the remaining airspace estimate.

² Refer to page IIN-12 for additional information regarding the average in-place density of waste.

Estimate the total remaining airspace (tons). To convert the volumetric capacity of the site to a weight based capacity, the average in-place density of the waste/daily cover must first be established. For this calculation, the relevant density is the average density of the waste/cover soils after the waste/cover soils have been subjected to overburden pressure of the completely developed landfill (as opposed to the annual density that is calculated based on the capacity consumed in any given year). The procedure used to calculate the density at the midpoint of the landfill is listed on Sheet IIN-12 and is based on a number of in-place density studies (refer to reference 1 listed on Sheet IIN-12). The estimated in-place density of solid waste/daily cover soils is then further translated into an estimate of the density of the solid waste portion of the landfill capacity, using the following calculation.

Estimate the total remaining airspace (tons).

Estimate density of waste only.

$$(\gamma_{\text{soil}})(15\% \text{ of } 45,243,000 \text{ cy}) + (\gamma_{\text{waste}})(85\% \text{ of } 45,243,000 \text{ cy}) = (\gamma_{\text{soil/waste}})(45,243,000 \text{ cy})$$

$$(2,430 \text{ lb/cy})(6,786,450 \text{ cy}) + (\gamma_{\text{waste}})(38,456,550 \text{ cy}) = (1,755 \text{ lb/cy})(45,243,000 \text{ cy})$$

$$\gamma_{\text{waste}} = 1,636 \text{ lb/cy}$$

$$\text{Remaining permitted available airspace} = (85\% \text{ of } 45,243,000 \text{ cy}) * (1,636 \text{ lb/cy} * 1/2000 \text{ tons/lb})$$

$$\text{Remaining permitted available airspace} = 31,455,196 \text{ tons}$$

| |
|---|
| Total remaining capacity (includes existing permitted site and expansion) = 31,455,196 tons |
|---|

The above capacity for the remaining tons is used to estimate the site life, as shown in the following calculation.

$$\text{Initial waste stream estimate} = 1,068 \text{ tons/day}$$

$$\text{Days of operation per year} = 286 \text{ days}$$

| |
|---|
| Initial waste inflow rate = 305,448 tons/year |
|---|

CAMELOT LANDFILL
SITE LIFE CALCULATIONS
1339-351-11

Assumed growth rates (based on population growth rates):

| | | | |
|---------------------------------|-------|-------------------------------|--------|
| Growth rate (years 2011-2015)= | 8.02% | or annualized growth rate of: | 1.56 % |
| Growth rate (years 2016-2020)= | 6.52% | or annualized growth rate of: | 1.27 % |
| Growth rate (years 2021-2025)= | 7.63% | or annualized growth rate of: | 1.48 % |
| Growth rate (years 2026-2030)= | 5.65% | or annualized growth rate of: | 1.10 % |
| Growth rate (years 2031-close)= | 5.65% | or annualized growth rate of: | 1.10 % |

The growth rate estimates from 2011 to 2030 were obtained from NCTCOG, North Central Texas 2030 Demographic Forecast. Growth rate estimates for 2031 to the closure of the landfill are assumed to be consistent with the population projections from 2026 to 2030.

The following table calculates the waste stream growth (assuming the growth rates described above) and the projected cumulative airspace consumed.

| Year | Waste Inflow (tons/year) | Tonnage Consumed (tons) |
|----------------|-----------------------------|----------------------------|
| August 28 2010 | 305,448 | 104,605 |
| 2011 | 310,213 | 414,818 |
| 2012 | 315,052 | 729,871 |
| 2013 | 319,967 | 1,049,838 |
| 2014 | 324,959 | 1,374,797 |
| 2015 | 330,028 | 1,704,824 |
| 2016 | 334,219 | 2,039,044 |
| 2017 | 338,464 | 2,377,508 |
| 2018 | 342,762 | 2,720,270 |
| 2019 | 347,115 | 3,067,386 |
| 2020 | 351,524 | 3,418,909 |
| 2021 | 356,726 | 3,775,636 |
| 2022 | 362,006 | 4,137,642 |
| 2023 | 367,364 | 4,505,005 |
| 2024 | 372,801 | 4,877,806 |
| 2025 | 378,318 | 5,256,124 |
| 2026 | 382,480 | 5,638,604 |
| 2027 | 386,687 | 6,025,291 |
| 2028 | 390,940 | 6,416,231 |
| 2029 | 395,241 | 6,811,472 |
| 2030 | 399,588 | 7,211,060 |
| 2031 | 403,984 | 7,615,044 |
| 2032 | 408,428 | 8,023,472 |
| 2033 | 412,920 | 8,436,392 |
| 2034 | 417,463 | 8,853,855 |
| 2035 | 422,055 | 9,275,909 |
| 2036 | 426,697 | 9,702,606 |
| 2037 | 431,391 | 10,133,997 |
| 2038 | 436,136 | 10,570,133 |
| 2039 | 440,934 | 11,011,067 |

125 days

CAMELOT LANDFILL
SITE LIFE CALCULATIONS
1339-351-11

| Year | Waste Inflow (tons/year) | Tonnage Consumed (tons) |
|------|-----------------------------|----------------------------|
| 2040 | 445,784 | 11,456,851 |
| 2041 | 450,688 | 11,907,539 |
| 2042 | 455,645 | 12,363,184 |
| 2043 | 460,657 | 12,823,841 |
| 2044 | 465,724 | 13,289,565 |
| 2045 | 470,847 | 13,760,413 |
| 2046 | 476,027 | 14,236,440 |
| 2047 | 481,263 | 14,717,703 |
| 2048 | 486,557 | 15,204,260 |
| 2049 | 491,909 | 15,696,169 |
| 2050 | 497,320 | 16,193,489 |
| 2051 | 502,791 | 16,696,279 |
| 2052 | 508,321 | 17,204,601 |
| 2053 | 513,913 | 17,718,513 |
| 2054 | 519,566 | 18,238,079 |
| 2055 | 525,281 | 18,763,360 |
| 2056 | 531,059 | 19,294,420 |
| 2057 | 536,901 | 19,831,320 |
| 2058 | 542,807 | 20,374,127 |
| 2059 | 548,778 | 20,922,905 |
| 2060 | 554,814 | 21,477,719 |
| 2061 | 560,917 | 22,038,636 |
| 2062 | 567,087 | 22,605,723 |
| 2063 | 573,325 | 23,179,048 |
| 2064 | 579,632 | 23,758,680 |
| 2065 | 586,008 | 24,344,688 |
| 2066 | 592,454 | 24,937,142 |
| 2067 | 598,971 | 25,536,112 |
| 2068 | 605,559 | 26,141,672 |
| 2069 | 612,221 | 26,753,892 |
| 2070 | 618,955 | 27,372,847 |
| 2071 | 625,764 | 27,998,611 |
| 2072 | 632,647 | 28,631,258 |
| 2073 | 639,606 | 29,270,864 |
| 2074 | 646,642 | 29,917,506 |
| 2075 | 653,755 | 30,571,260 |
| 2076 | 660,946 | 31,232,206 |
| 2077 | 222,989 | 31,455,196 |

122 days

| | |
|--|------------|
| Available tonnage is consumed during year | 2077 |
| Site life is projected to be approximately | 66.7 years |

Summary of waste tonnage information:

| | |
|------------------|----------------|
| Initial inflow = | 1,068 tons/day |
|------------------|----------------|

CAMELOT LANDFILL
SITE LIFE CALCULATIONS
1339-351-11

$$\text{Maximum inflow} = \frac{\text{Tonnage accepted during full year of operation (651,662 tons)}^1}{286 \text{ days of operation per year}}$$

¹651,662 tons represents the calculated total tonnage for the full year of 2079, the year in which the maximum waste inflow occurs.

Projected maximum waste inflow rate:

| | |
|------------------|----------------|
| Maximum inflow = | 2,336 tons/day |
|------------------|----------------|

$$\text{Average inflow} = \frac{\text{Maximum waste accepted}}{\text{Site Life}}$$

Projected average waste inflow rate:

$$\frac{31,455,196 \text{ tons}}{66.7 \text{ years} * 286 \text{ days/year}}$$

| | |
|------------------|----------------|
| Average inflow = | 1,650 tons/day |
|------------------|----------------|

Required: Determine average density for the landfill between the proposed bottom of waste contours and the final cover system.

Method:

1. Determine average thickness of waste throughout the landfill profile.
2. Determine the average density of the fill between the proposed/permitted bottom of waste contours and the bottom of final cover.
3. Determine the total capacity of the site.

References:

1. Acar, Yalcin B. & Daniel, David E., *Geoenvironment 2000 Characterization, Containment, Remediation, and Performance in Environmental Geotechnics*, Volume 2, American Society of Civil Engineers, 1995.

List of Symbols

D_{avg} = Average Density, lb/yd³

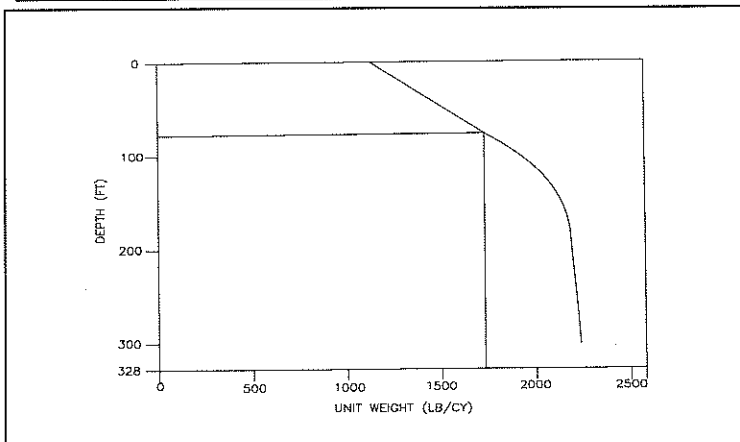
Procedure:

1. Determine average thickness of waste throughout the landfill profile.

Using the drawing on Sheet IIN-13, it was determined that the average thickness of waste over the entire site is 158 feet.

2. Determine the average density of the fill using the Unit Weight Profile for MSW graph shown below. The density estimate is obtained using the average 158-foot depth.

UNIT WEIGHT PROFILE FOR WASTE/DAILY COVER WITHIN A MSW LANDFILL¹



¹ Graph derived from Reference 1

Average Depth = 158 feet

The average density is calculated at the midpoint of the average depth (79 feet) to represent the average density of waste/cover soil within the landfill.

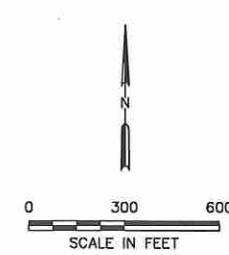
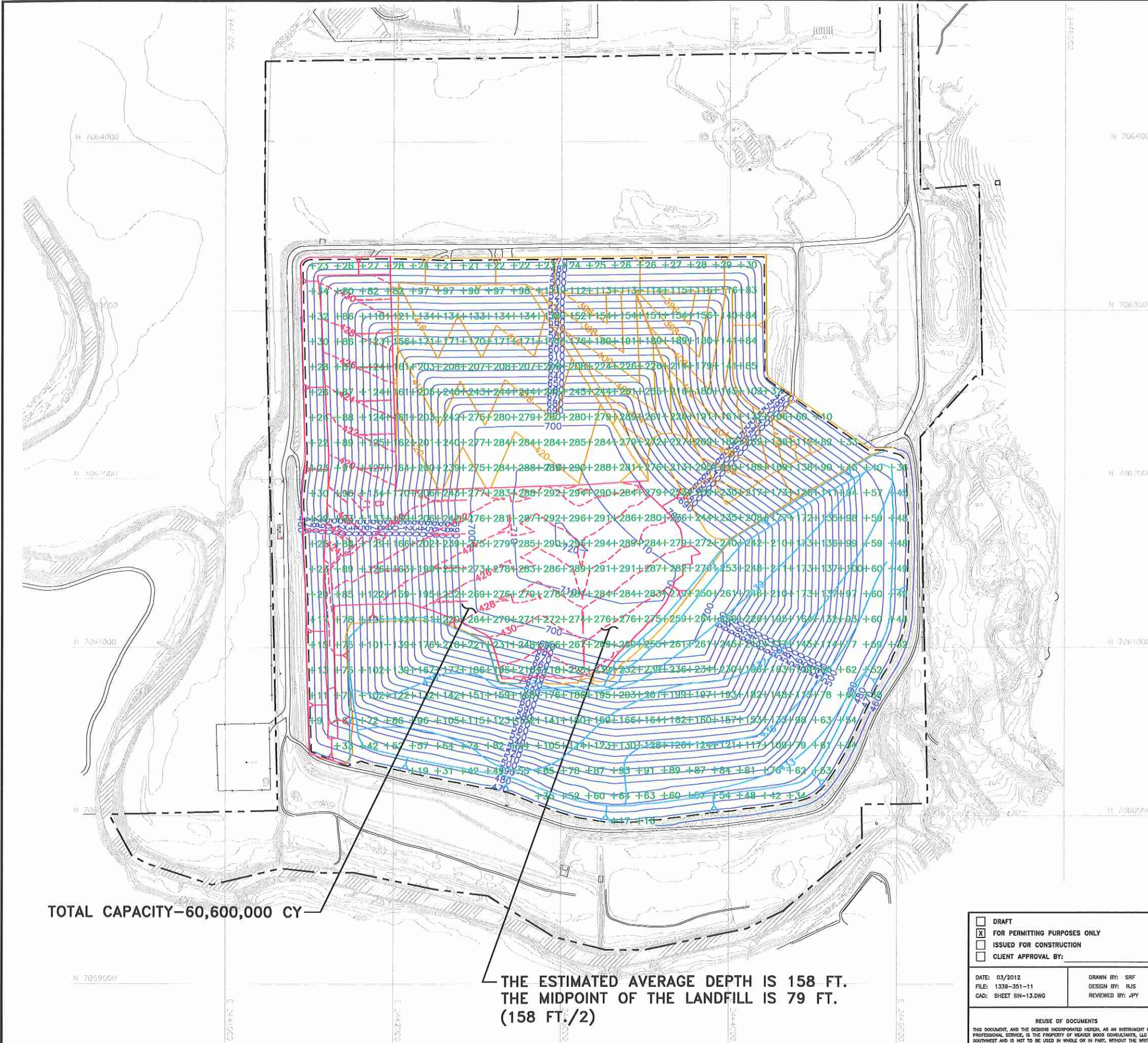
| |
|-----------------------------------|
| $D_{avg} = 1,755 \text{ lb/yd}^3$ |
|-----------------------------------|

3. Determine the total capacity of the site.

Using AutoCAD, a bottom of waste surface and a bottom of final cover (top of intermediate cover) surface developed for the landfill. The bottom of waste and bottom of final cover surfaces are then compared in AutoCAD using the composite volume calculation method to develop volume capacity for each unit. Refer to Sheet IIN-13 for more information.

Total Landfill Capacity = 60,600,000 cy

C:\1339\351\EXPANSION\2009\PART III-SDP\III\SHEET IIN-13.dwg, sford, 1:2



- LEGEND**
- PERMIT BOUNDARY
 - LIMIT OF WASTE
 - N 7064000 STATE PLANE COORDINATE SYSTEM
 - EXISTING CONTOUR
 - 412--- SUBTITLE D AS-BUILT BOTTOM OF WASTE CONTOUR
 - 394--- FUTURE BOTTOM OF WASTE CONTOUR
 - 433--- APPROXIMATE BOTTOM OF WASTE CONTOUR IN PRE-SUBTITLE D AREA
 - 520--- INTERMEDIATE CONTOUR
 - +10 DEPTH OF WASTE COLUMN

- NOTES:**
1. CONTOURS AND ELEVATIONS PROVIDED BY METROPOLITAN AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 8-28-2010. THE GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 83. ELEVATIONS ARE BASED ON NAVD 88.
 2. PERMIT BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION PROVIDED BY PEISER SURVEYING CO. DATED NOVEMBER 2010.



TOTAL CAPACITY-60,600,000 CY

**THE ESTIMATED AVERAGE DEPTH IS 158 FT.
THE MIDPOINT OF THE LANDFILL IS 79 FT.
(158 FT./2)**

| | |
|---|------------------------|
| <input type="checkbox"/> DRAFT | PREPARED FOR |
| <input checked="" type="checkbox"/> FOR PERMITTING PURPOSES ONLY | CITY OF FARMERS BRANCH |
| <input type="checkbox"/> ISSUED FOR CONSTRUCTION | |
| <input type="checkbox"/> CLIENT APPROVAL BY: | |
| DATE: 03/2012 | DRAWN BY: SRF |
| FILE: 1339-351-11 | DESIGN BY: RJS |
| CAD: SHEET IIN-13.DWG | REVIEWED BY: JPY |
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| REVISIONS | | |
|-----------|------|-------------|
| NO. | DATE | DESCRIPTION |
| | | |
| | | |
| | | |

**MAJOR PERMIT AMENDMENT
AVERAGE WASTE DEPTH**

CAMELOT LANDFILL
DENTON COUNTY, TEXAS

Weaver Boos Consultants
TBPE REGISTRATION NO. F-3727

CHICAGO, IL
NAPERVILLE, IL
COLUMBUS, OH
DENVER, CO

FORT WORTH, TX
(817) 735-9770

GRIFITH, IN
SOUTH BEND, IN
SPRINGFIELD, IL
ST. LOUIS, MO

SHEET IIN-13

**CAMELOT LANDFILL
CITY OF LEWISVILLE, DENTON COUNTY
TCEQ PERMIT NO. MSW-1312B**

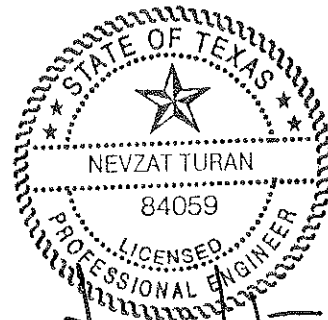
MAJOR PERMIT AMENDMENT APPLICATION

**PART III – SITE DEVELOPMENT PLAN
APPENDIX III O
FLOODPLAIN INFORMATION**

Prepared for

City of Farmers Branch

March 2012



Prepared by:

3-22-12

Weaver Boos Consultants, LLC—Southwest
TBPE Registration No. F-3727
6420 Southwest Blvd., Suite 206
Fort Worth, TX 76109
817-735-9770

WBC Project No. 1339-351-11-02-6B.6

This document is intended for permitting purposes only.

CONTENTS

FLOODPLAIN SUMMARY

III-O-1

APPENDIX III-O-A

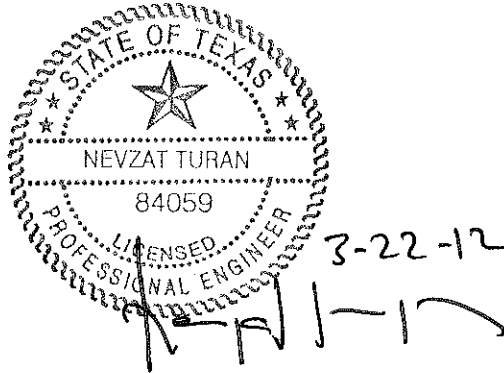
Drawings

APPENDIX III-O-B

Excerpts from the Approved CLOMR Application

APPENDIX III-O-C

Excerpts from the Approved CDC Application



FLOODPLAIN SUMMARY

As discussed in Parts I/II in Section 11, Parts I/II-Appendix I/IIC, and Part III-Appendix III F, the Elm Fork Trinity River forms the southern boundary of the site and Midway Branch, a tributary of the Elm Fork, flows along the east side of the permit boundary.

*This appendix
addresses
§330.61(m).*

The site is located within the Trinity River corridor and a Trinity River Corridor Development Certificate (CDC) has been obtained from the City of Lewisville and the USACE for the continued development of the landfill (refer to Appendix III O-C). In addition, a CLOMR has also been obtained from FEMA to allow for the proposed development within the 100-year floodplain (refer to Appendix III O-B). The CDC and CLOMR permit applications and permits are included in this appendix, and represent the approvals required to develop the site so that the waste disposal area will be protected from the 100-year floodplain.

A Conditional Letter of Map Revision (CLOMR) has been approved by FEMA to revise the floodplain of the Elm Fork. Drawing III O-A.1 shows the pre-project floodplain and the revisions to the floodplain included in the CLOMR. Excerpts from the CLOMR are included in Appendix III O-B. As shown on Drawings III O-A.1, III O-A.2, and III O-A.3 (Appendix III O-A), the existing and proposed solid waste fill areas are not located within the limits of the pre-development or post-development 100-year floodplain in the approved CLOMR. As shown on the cross-sections included on Drawing III O-A.3, at least 3 feet of freeboard is provided between the landfill perimeter berm and the 100-year water surface elevation.

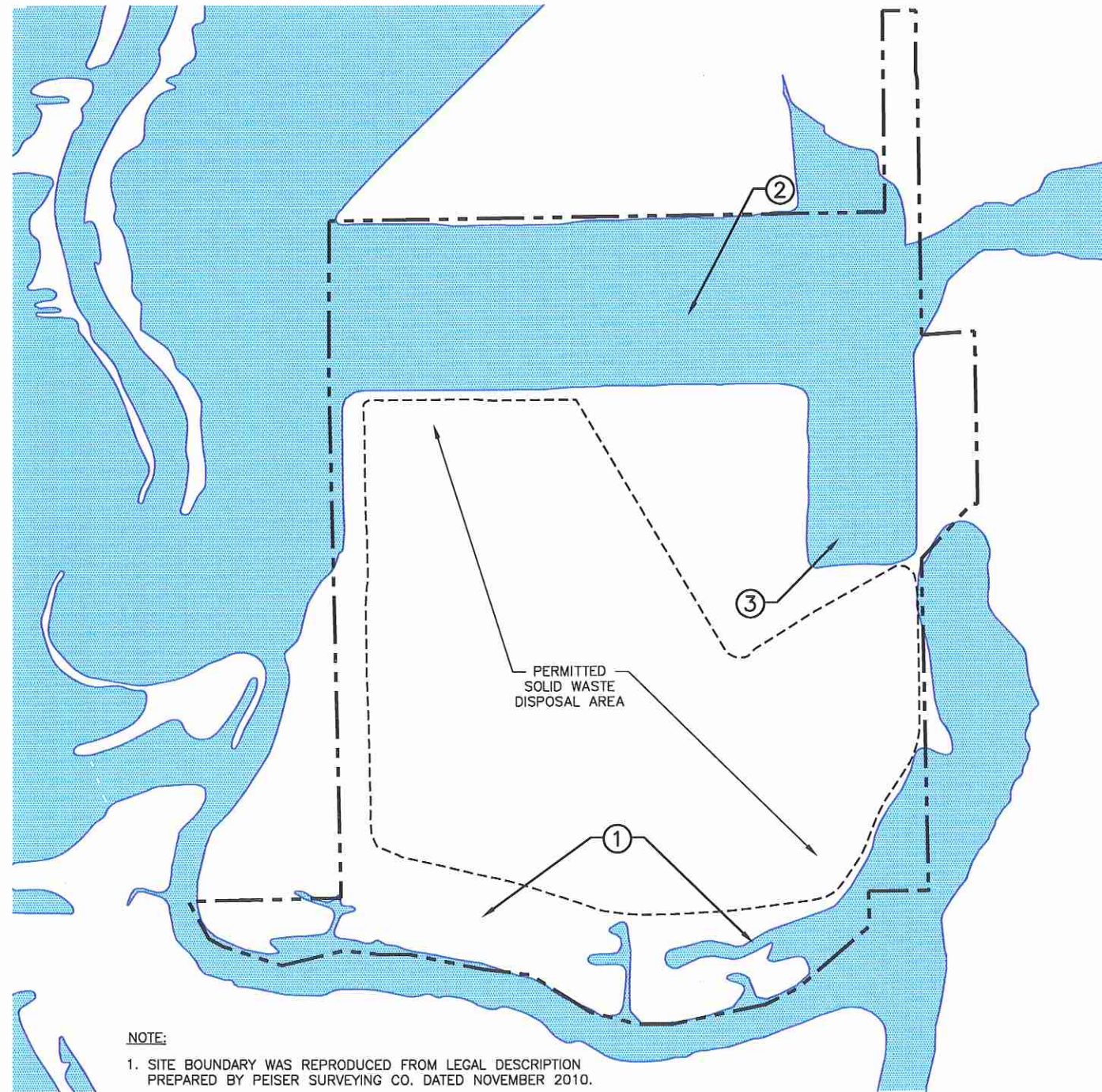
Development within the Trinity River corridor is regulated by the US Army Corps of Engineers (USACE), as part of the CDC permitting process, and FEMA. As a part of this application, a CDC permit was developed and submitted to the City of Lewisville and the USACE. Drawing III O-A.4 shows the pre-project and with-project floodplain limits included in the CDC application. Excerpts from the CDC application are included in Appendix III O-C.

As demonstrated in the excerpts from the CLOMR and CDC, the floodplain elevations for the Elm Fork during the 100-year storm are generally unaffected due to the proposed landfill expansion. In addition, the proposed expansion generates more valley storage (water volume between the 100-year or SPF water surface and the ground surface that occupies a given reach of a river) than is consumed by the landfill development. The CDC process relies on the protection and preservation of the storage of floodwater to stabilize flooding risk over time. Information on valley storage is included in Appendix III O-C.

APPENDIX IIIO-A

DRAWINGS

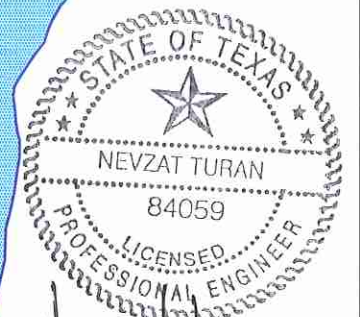
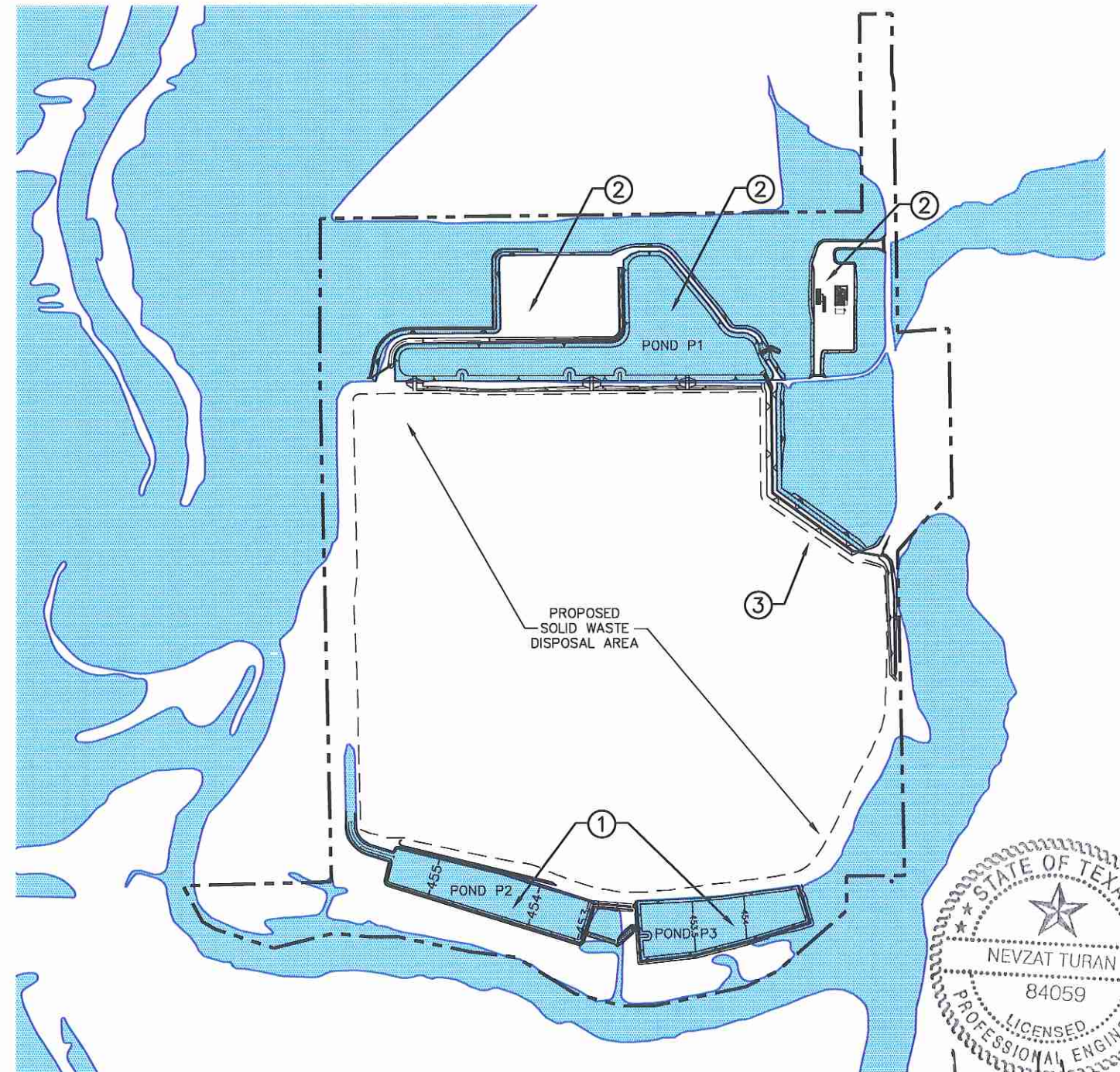
DUPLICATE EFFECTIVE CLOMR CONDITION
(SEE NOTE 2)



NOTE:

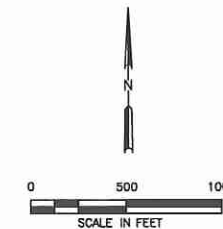
1. SITE BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION PREPARED BY PEISER SURVEYING CO. DATED NOVEMBER 2010.
2. FLOODPLAIN REPRODUCED FROM FIRM NO. 48121C0565 G, EFFECTIVE DATE APRIL 18, 2011.

POST-DEVELOPMENT CLOMR CONDITION



CHANGES FROM DUPLICATE EFFECTIVE TO POST-DEVELOPMENT

- ① ADDITION OF DETENTION PONDS THE SOUTHWEST POND (POND P2) WAS CONSTRUCTED AS AUTHORIZED BY THE CLOMR APPLICATION (CASE NO. 02-06-1950R APPROVED BY FEMA ON NOVEMBER 18, 2002-REFER TO APPENDIX F FOR ADDITIONAL INFORMATION). THE SOUTHEAST POND (POND P3) WILL FUNCTION SIMILAR TO THE PREVIOUSLY-PERMITTED SOUTHWEST POND.
- ② NORTHERN AREA DEVELOPMENT. TO ALLOW FOR THE DEVELOPMENT OF FACILITIES TO SUPPORT THE OPERATION OF THE LANDFILL, THIS PROJECT INCLUDES THE REMOVAL OF TWO AREAS FROM THE FLOODPLAIN IN THE NORTHERN PORTION OF THE SITE. THESE TWO AREAS WILL BE USED FOR (1) OFFICES AND MAINTENANCE FACILITIES, INCLUDING ACCESS ROADS AND (2) A 16-ACRE AREA THAT WILL BE USED TO SUPPORT OPERATIONS, SUCH AS EQUIPMENT STORAGE, A CITIZEN CONVENIENCE CENTER, ENTRANCE FACILITIES, ACCESS ROADS, AND/OR A WOOD WASTE PROCESSING AREA.
- ③ REMOVAL OF NORTHEAST AREA FROM FLOODPLAIN TO ALLOW FOR THE CONTINUED DEVELOPMENT OF THE LANDFILL. THIS AREA IS PROPOSED TO BE REMOVED FROM THE INEFFECTIVE FLOW AREA OF THE 100-YEAR FLOODPLAIN.



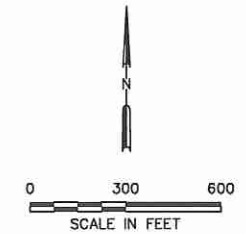
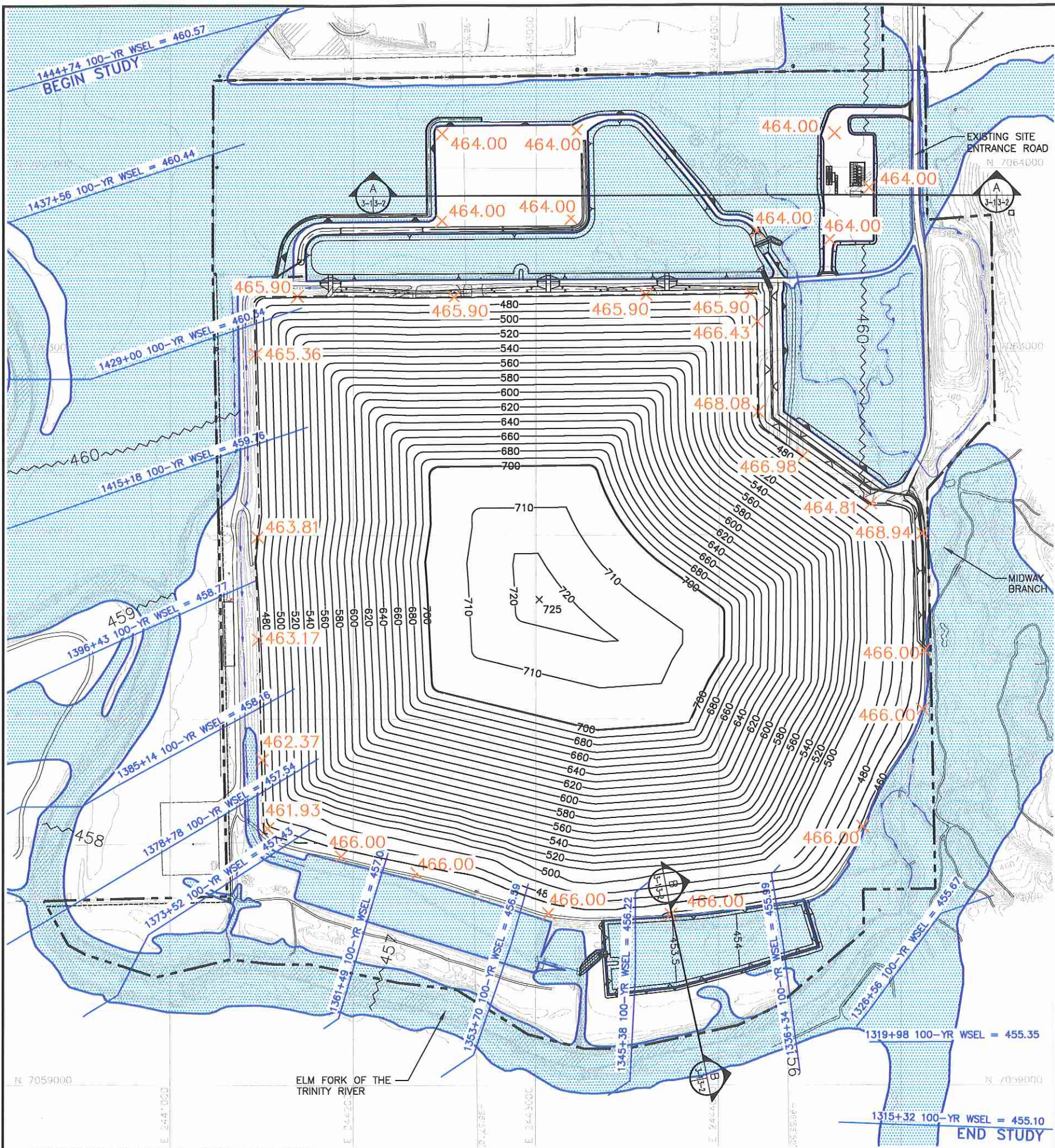
LEGEND

- SITE BOUNDARY
- - - POST-DEVELOPMENT LIMIT OF WASTE
- - - AUTHORIZED LIMIT OF WASTE
- 100-YEAR FLOODPLAIN

| <input type="checkbox"/> DRAFT <input checked="" type="checkbox"/> FOR PERMITTING PURPOSES ONLY <input type="checkbox"/> ISSUED FOR CONSTRUCTION <input type="checkbox"/> CLIENT APPROVAL BY: | PREPARED FOR | MAJOR PERMIT AMENDMENT CLOMR FLOODPLAIN CONDITION COMPARISON CAMELOT LANDFILL DENTON COUNTY, TEXAS <i>Weaver Boos Consultants</i> TBPE REGISTRATION NO. F-3727 | | | | | | | | | |
|--|---|---|-------------|------|-------------|--|--|--|--|--|--|
| | CITY OF FARMERS BRANCH | | | | | | | | | | |
| DATE: 03/2012 FILE: 1338-351-11 CAD: A.1-CLOMR COMP.DWG | DRAWN BY: VRS DESIGN BY: CRM REVIEWED BY: JPY | REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | NO. | DATE | DESCRIPTION | | | | | | |
| NO. | DATE | | DESCRIPTION | | | | | | | | |
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DRAWING 1110-A.1

G:\1339\351\EXPANSION 2009\PART III-SDF\110-110-A-A.2\FREEBOARD.dwg, sford, 1:2



- LEGEND**
- SITE BOUNDARY
 - PROPOSED LIMIT OF WASTE
 - N 7064000 STATE PLANE COORDINATE SYSTEM
 - GEODETIC COORDINATE SYSTEM
 - EXISTING CONTOURS (SEE NOTE 1)
 - 100-YEAR FLOODPLAIN (WBC AUGUST, 2011)
 - ▲▲ FILL/CUT SLOPE INDICATORS
 - 464.00 X ELEVATION OF PERIMETER BERM
 - 1378+78 100-YR WSEL = 457.54 HEC-RAS CROSS SECTION LOCATION
 - 680— PROPOSED FINAL CONTOUR (SEE NOTE 3)
 - 460 100 YEAR WATER SURFACE ELEVATION

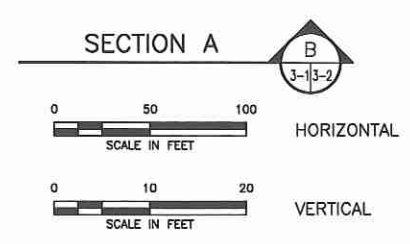
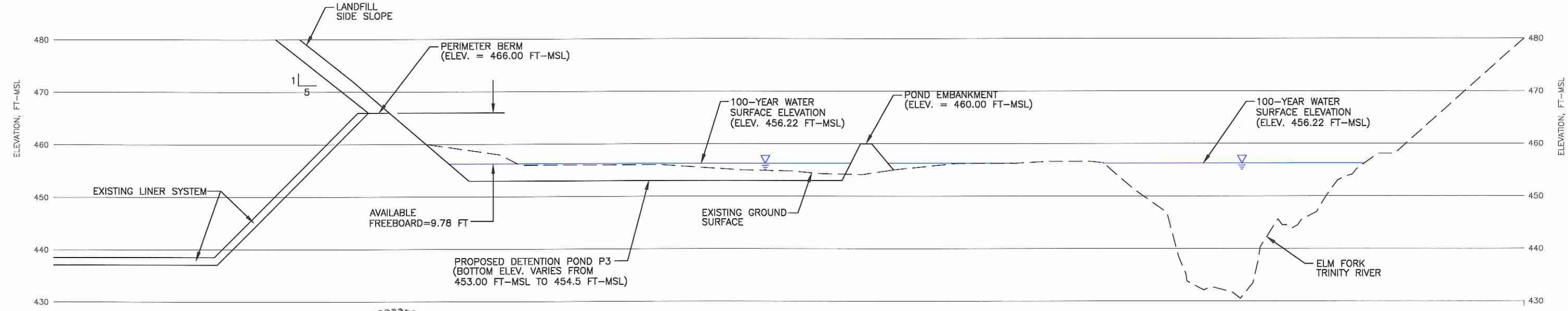
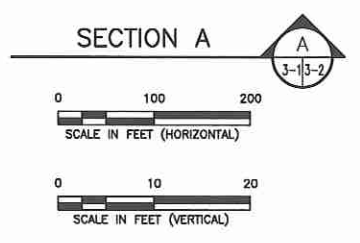
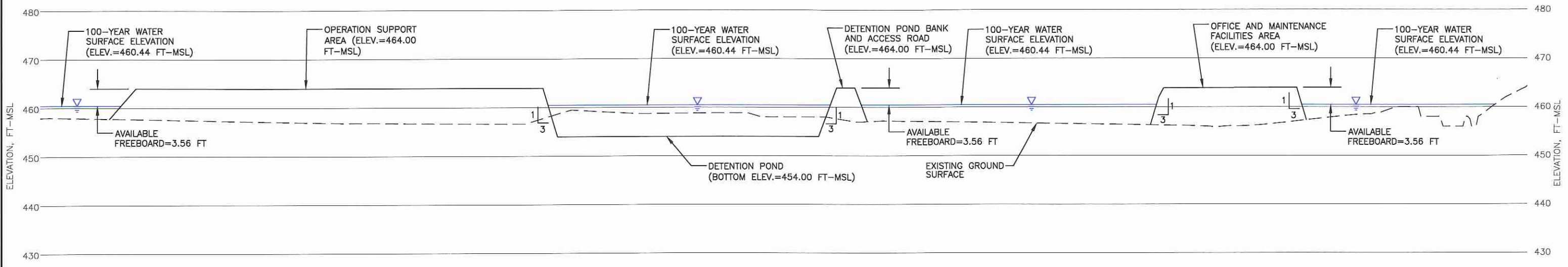
- NOTES:**
1. CONTOURS AND ELEVATIONS PROVIDED BY METROPOLITAN AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 8-28-2010. THE GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 1983. ELEVATIONS ARE BASED ON NAVD 1988. OFF-SITE CONTOURS AND ELEVATIONS PROVIDED BY DFWMAPS.COM FROM AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN JANUARY TO MARCH 2007.
 2. CROSS SECTIONS LOCATIONS REPRESENT THE LIMITS OF THE MOLDED TERRAIN IN THE HEC-RAS HYDRAULIC MODEL OF THE ELM FORK OF THE TRINITY RIVER.
 3. SITE BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION PREPARED BY PEISER SURVEYING CO. DATED NOVEMBER 2010.



3-22-12

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| <input type="checkbox"/> FOR INFORMATION PURPOSES ONLY <input checked="" type="checkbox"/> FOR PERMITTING PURPOSES ONLY <input type="checkbox"/> ISSUED FOR CONSTRUCTION <input type="checkbox"/> CLIENT APPROVAL BY: | PREPARED FOR | MAJOR PERMIT AMENDMENT FREEBOARD AVAILABILITY | |
| | CITY OF FARMERS BRANCH | CAMELOT LANDFILL DENTON COUNTY, TEXAS | |
| DATE: 03/2012 FILE: 1339-351-11 CAD: A.2 FREEBOARD AVAILOWG | DRAWN BY: SRF DESIGN BY: CRM REVIEWED BY: JPY | REVISIONS | |
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| | | CHICAGO, IL FORT WORTH, TX GRIFFITH, IN NAPERVILLE, IL (817) 735-9770 SOUTH BEND, IN COLUMBUS, OH DENVER, CO ST. LOUIS, MO | DRAWING 110-A.2 |

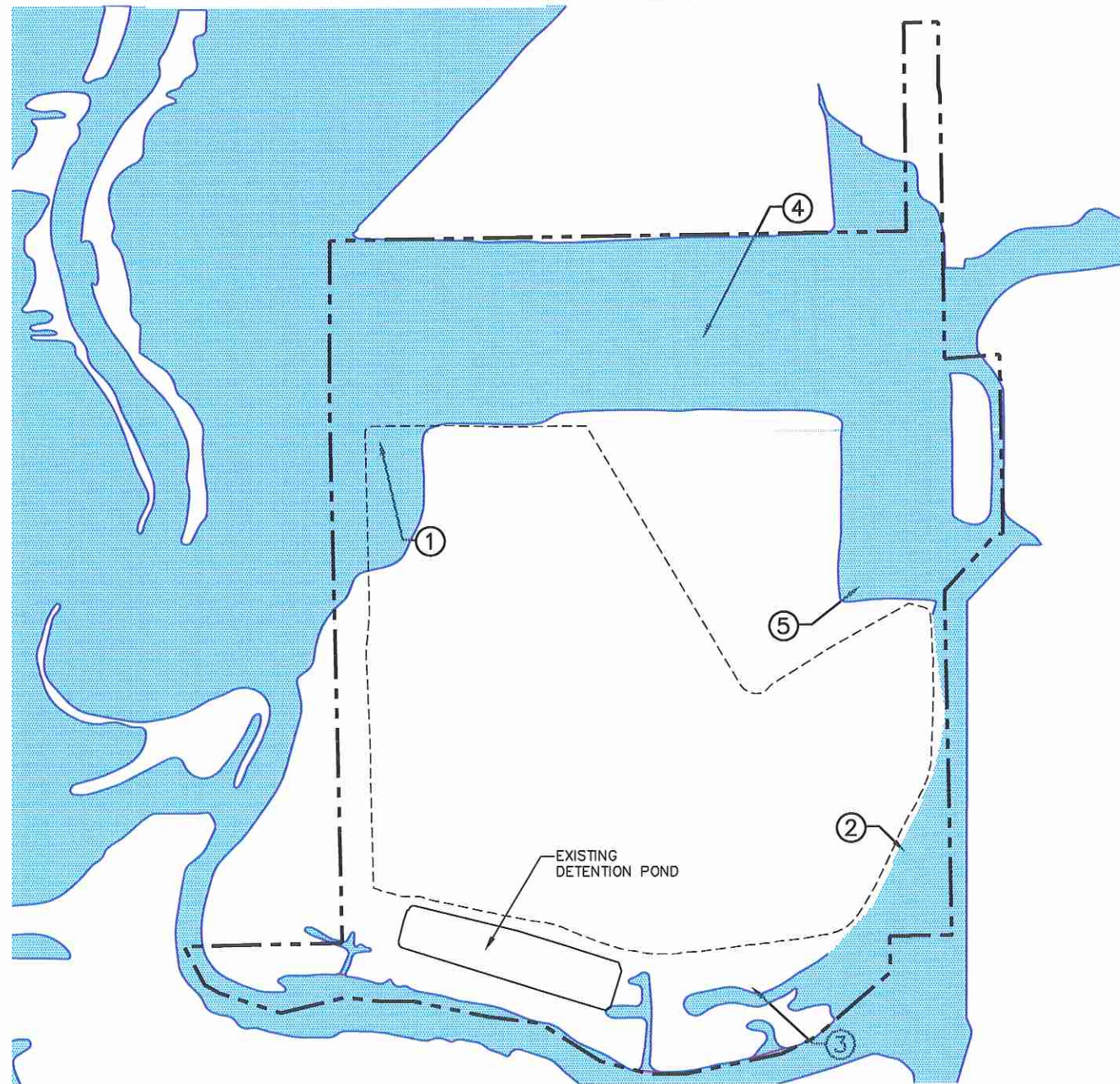
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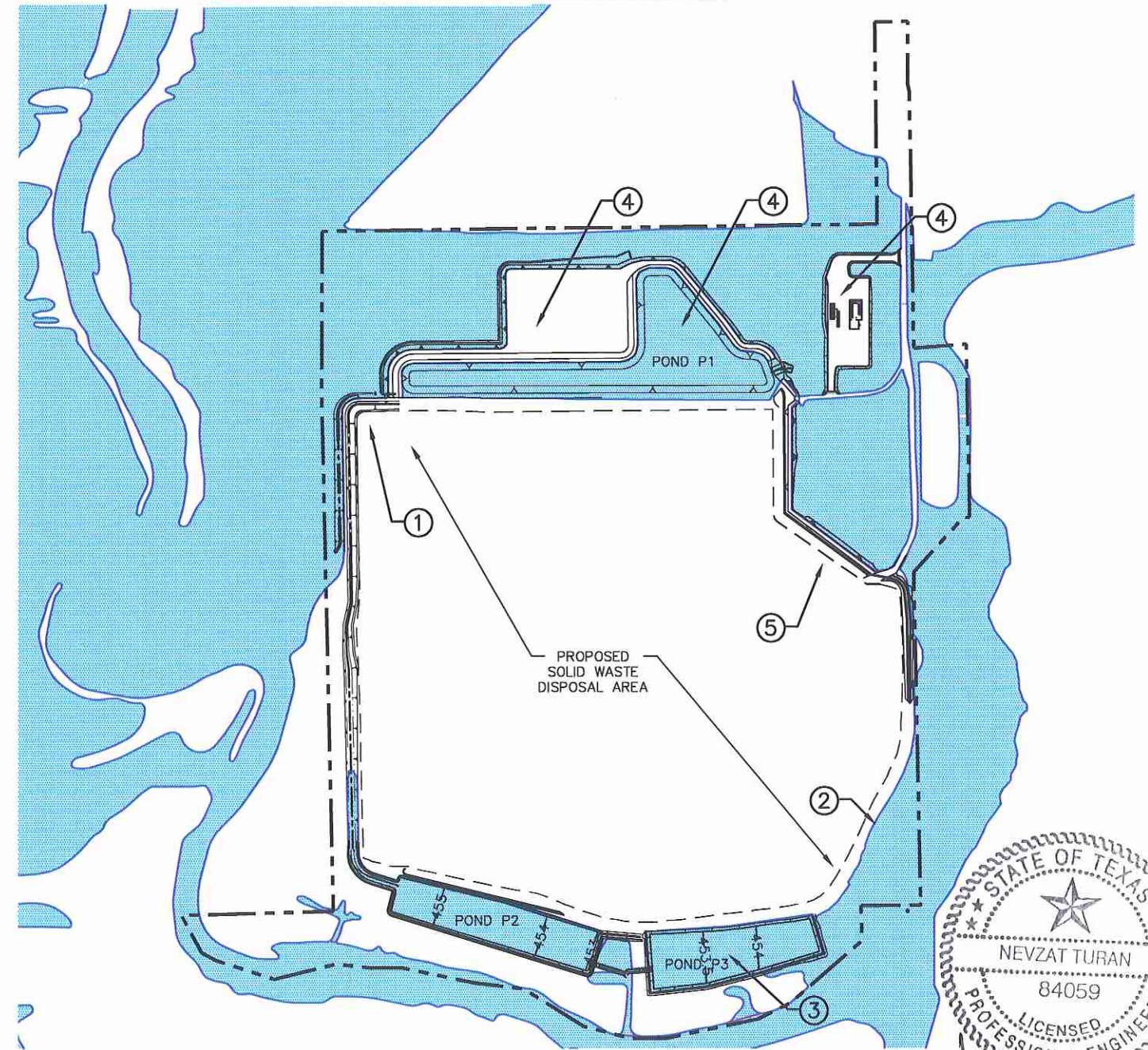
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3-22-12

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| DATE: 03/2012 FILE: 1339-351-11 CAD: A.3 TYP. SECTION.DWG | | DRAWN BY: VRS DESIGN BY: CRM REVIEWED BY: JPY | | CAMELOT LANDFILL DENTON COUNTY, TEXAS <i>Weaver Boos Consultants</i> TBPE REGISTRATION NO. F-3727 | | | | | | | | | | | | | | | | | | | |
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| NO. | DATE | DESCRIPTION | | | | | | | | | | | | | | | | | | | | | |
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PRE-PROJECT CDC CONDITION



WITH-PROJECT CDC UPDATES



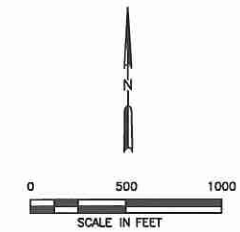
STATE OF TEXAS
 NEVZAT TURAN
 84059
 LICENSED PROFESSIONAL ENGINEER
 3-22-12

COMPARISON OF PRE-PROJECT AND WITH-PROJECT CONDITIONS

- ① THE NORTHWEST CORNER IS REMOVED FROM THE 100-YEAR FLOODPLAIN. NO CHANGE TO THE HYDRAULIC MODEL IS NEEDED. THIS CHANGE REPRESENTS A MAP CORRECTION.
- ② ADJUSTMENT OF THE FLOODPLAIN LIMITS ON THE EAST AND SOUTHEAST SIDES OF THE LANDFILL TO REFLECT AS-BUILT CONDITIONS. THIS IS MAPPING CHANGE ONLY. NO UPDATE TO THE HYDRAULIC MODEL HAS BEEN MADE FOR THIS CHANGE.
- ③ ADDITION OF EXISTING AND PROPOSED DETENTION PONDS. THE WESTERN POND HAS BEEN CONSTRUCTED AS PART OF THE CURRENT LANDFILL PERMIT. THE ADDITIONAL EAST DETENTION POND WILL FUNCTION SIMILAR TO THE EXISTING PERMITTED DETENTION POND.
- ④ NORTHERN AREA DEVELOPMENT. TO ALLOW FOR THE DEVELOPMENT OF FACILITIES TO SUPPORT THE OPERATION OF THE LANDFILL, THIS PROJECT INCLUDES THE REMOVAL OF TWO AREAS FROM THE FLOODPLAIN IN THE NORTHERN PORTION OF THE SITE. THESE TWO AREAS WILL BE USED FOR (1) ENTRANCE FACILITIES INCLUDING ACCESS ROADS AND (2) A 16-ACRE AREA THAT WILL BE USED AS AN OPERATION SUPPORT AREA.
- ⑤ REMOVAL OF NORTHEAST AREA FROM FLOODPLAIN TO ALLOW FOR THE CONTINUED DEVELOPMENT OF THE LANDFILL. THIS AREA IS PROPOSED TO BE REMOVED FROM THE INEFFECTIVE FLOW AREA OF THE 100-YEAR FLOODPLAIN.

NOTE:

1. SITE BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION PREPARED BY PEISER SURVEYING CO. DATED NOVEMBER 2010.



LEGEND

- SITE BOUNDARY
- - - POST-DEVELOPMENT LIMIT OF WASTE
- - - AUTHORIZED LIMIT OF WASTE
- ~ ~ ~ 100-YEAR FLOODPLAIN

| | | |
|--|---|--|
| <input type="checkbox"/> DRAFT <input checked="" type="checkbox"/> FOR PERMITTING PURPOSES ONLY <input type="checkbox"/> ISSUED FOR CONSTRUCTION <input type="checkbox"/> CLIENT APPROVAL BY: | PREPARED FOR | MAJOR PERMIT AMENDMENT CDC FLOODPLAIN CONDITION COMPARISON CAMELOT LANDFILL DENTON COUNTY, TEXAS |
| | CITY OF FARMERS BRANCH | |
| DATE: 03/2012 FILE: 1339-351-11 CAD: A4-CDC FLOODPLAN.DWG | DRAWN BY: VRS DESIGN BY: CRM REVIEWED BY: JPY | REVISIONS NO. DATE DESCRIPTION |
| REUSE OF DOCUMENTS THIS DOCUMENT, AND THE DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS THE PROPERTY OF CAMELOT LANDFILL TX, LP AND IS NOT TO BE USED IN WHOLE OR IN PART, WITHOUT THE WRITTEN AUTHORIZATION OF CAMELOT LANDFILL TX, LP. | | |
| CHICAGO, IL INDEPENDENCE, MO DENVER, CO | | FORT WORTH, TX (817) 735-9170 |
| GRIFFITH, IN SOUTH BEND, IN SPRINGFIELD, IL ST. LOUIS, MO | | DRAWING 1110-A.4 |

APPENDIX IIIO-B

EXCERPTS FROM THE APPROVED CLOMR APPLICATION

CLOMR REQUEST SUMMARY

This appendix includes excerpts from the CLOMR request approved by FEMA and letters that document approval of the CLOMR request from FEMA and the City of Lewisville. The CLOMR request was submitted to the City of Lewisville Floodplain Administrator in June 2011. The Lewisville Floodplain Administrator approved the CLOMR request in July 2011 and forwarded it to FEMA. FEMA approved the CLOMR request on January 27, 2012. The purpose of the CLOMR request was to demonstrate that the continued development of the Camelot Landfill is in compliance with the City of Lewisville, FEMA, and TCEQ requirements. The flood study has been performed for the following:

- To demonstrate that the waste disposal area for the post-project condition of the Camelot Landfill is protected from the 100-year floodplain. The proposed design of the landfill provides a minimum of 3 feet of freeboard between the top of the landfill perimeter berm around the waste fill area and the elevations of the 100-year floodplain of the Elm Fork.
- Demonstrate that site development will not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human health and the environment.
- To obtain City of Lewisville and FEMA approvals for the continued development of the landfill.

FEMA APPROVAL LETTER



Federal Emergency Management Agency

Washington, D.C. 20472

January 27, 2012

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

The Honorable Dean Ueckert
Mayor, City of Lewisville
151 West Church Street
Lewisville, TX 75029

IN REPLY REFER TO:
Case No.: 11-06-3944R
Community Name: City of Lewisville, TX
Community No.: 480195

Dear Mayor Ueckert:

We are providing our comments with the enclosed Conditional Letter of Map Revision (CLOMR) on a proposed project within your community that, if constructed as proposed, could revise the effective Flood Insurance Rate for your community.

If you have any technical questions regarding this LOMR, please contact the Director, Mitigation Division of the Department of Homeland Security's Federal Emergency Management Agency (FEMA) in Denton, Texas, at (940) 898-5127, or the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP). Additional information about the NFIP is available on our Web site at <http://www.fema.gov/business/nfip>.

Sincerely,

Stuart W. Rooney, CFM, PMP, Program Specialist
Engineering Management Branch
Federal Insurance and Mitigation Administration

For: Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration

List of Enclosures:

Conditional Letter of Map Revision Comment Document

cc: Mr. David Salmon, P.E.
Assistant City Engineer
City of Lewisville

Mr. Gary D. Greer
City of Farmers Branch

Mr. Nevzat Turan, P.E.
Principal
Weaver Boos Consultants, LLC



Federal Emergency Management Agency

Washington, D.C. 20472

CONDITIONAL LETTER OF MAP REVISION COMMENT DOCUMENT

| COMMUNITY INFORMATION | | PROPOSED PROJECT DESCRIPTION | BASIS OF CONDITIONAL REQUEST |
|--|--|--|--|
| COMMUNITY | City of Lewisville Denton County Texas | FILL DETENTION BASIN | HYDRAULIC ANALYSIS NEW TOPOGRAPHIC DATA |
| | COMMUNITY NO.: 480195 | | |
| IDENTIFIER | Camelot Landfill | APPROXIMATE LATITUDE AND LONGITUDE: 33.031, -96.951 SOURCE: Precision Mapping Streets DATUM: NAD 83 | |
| AFFECTED MAP PANELS | | | |
| TYPE: FIRM* NO.: 48121C0565 G DATE: April 18, 2011 | | * FIRM - Flood Insurance Rate Map <input type="checkbox"/> | |

FLOODING SOURCE AND REACH DESCRIPTION

Elm Fork Trinity River -- from approximately 150 feet upstream of the confluence with Midway Branch to approximately 11,680 feet upstream of the confluence with Midway Branch

PROPOSED PROJECT DESCRIPTION

| Flooding Source | Proposed Project | Location of Proposed Project |
|------------------------|--------------------------------------|---|
| Elm Fork Trinity River | Fill Placement Detention Pond | From approximately 9,260 feet upstream of the confluence with Midway Branch to approximately 11,680 feet upstream of the confluence with Midway Branch (within ineffective areas) Approximately 950 feet upstream of the confluence with Midway Branch to approximately 1,750 feet upstream of the confluence with Midway Branch (along left overbank) |

SUMMARY OF IMPACTS TO FLOOD HAZARD DATA

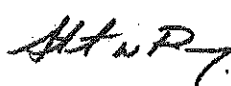
| Flooding Source | Effective Flooding | Proposed Flooding | Increases | Decreases |
|------------------------|--------------------|-------------------|-----------|-----------|
| Elm Fork Trinity River | Zone AE | Zone AE | Yes | Yes |
| | Zone AE | Zone X (unshaded) | None | Yes |

* BFEs - Base (1-percent-annual-chance) Flood Elevations

COMMENT

This document provides the Federal Emergency Management Agency's (FEMA's) comment regarding a request for a CLOMR for the project described above. This document is not a final determination; it only provides our comment on the proposed project in relation to the flood hazard information shown on the effective National Flood Insurance Program (NFIP) map. We reviewed the submitted data and the data used to prepare the effective flood hazard information for your community and determined that the proposed project meets the minimum floodplain management criteria of the NFIP. Your community is responsible for approving all floodplain development and for ensuring that all permits required by Federal or State/Commonwealth law have been received. State/Commonwealth, county, and community officials, based on their knowledge of local conditions and in the interest of safety, may set higher standards for construction in the Special Flood Hazard Area (SFHA), the area subject to inundation by the base flood. If the State/Commonwealth, county, or community has adopted more restrictive or comprehensive floodplain management criteria, these criteria take precedence over the minimum NFIP criteria.

This comment is based on the flood data presently available. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 7390 Coca Cola Drive, Suite 204, Hanover, MD 21076. Additional information about the NFIP is available on the FEMA Web site at <http://www.fema.gov/business/nfip>.


Stuart W. Rooney, CFM, PMP, Program Specialist
Engineering Management Branch
Federal Insurance and Mitigation Administration

11-06-3944R

104



Federal Emergency Management Agency
Washington, D.C. 20472

**CONDITIONAL LETTER OF MAP REVISION
COMMENT DOCUMENT (CONTINUED)**

COMMUNITY INFORMATION

To determine the changes in flood hazards that will be caused by the proposed project, we compared the hydraulic modeling reflecting the proposed project (referred to as the proposed conditions model) to the hydraulic modeling used to prepare the Flood Insurance Study (FIS) (referred to as the effective model). If the effective model does not provide enough detail to evaluate the effects of the proposed project, an existing conditions model must be developed to provide this detail. This existing conditions model is then compared to the effective model and the proposed conditions model to differentiate the increases or decreases in flood hazards caused by more detailed modeling from the increases or decreases in flood hazards that will be caused by the proposed project.

BFE Comparison Table

| Flooding Source: Elm Fork Trinity River | | BFE Change (feet) | Location of maximum change |
|---|------------------|-------------------|--|
| Proposed vs. Existing | Maximum increase | 0.01 | Approximately 2,570 feet upstream of the confluence with Midway Branch |
| | Maximum decrease | None | |
| Proposed vs. Effective | Maximum increase | 0.01 | Approximately 2,570 feet upstream of the confluence with Midway Branch |
| | Maximum decrease | None | |

This comment is based on the flood data presently available. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 7390 Coca Cola Drive, Suite 204, Hanover, MD 21076. Additional information about the NFIP is available on the FEMA Web site at <http://www.fema.gov/nfip>.

Stuart W. Rooney, CFM, PMP, Program Specialist
Engineering Management Branch
Federal Insurance and Mitigation Administration



Federal Emergency Management Agency
Washington, D.C. 20472

**CONDITIONAL LETTER OF MAP REVISION
COMMENT DOCUMENT (CONTINUED)**

COMMUNITY INFORMATION (CONTINUED)

DATA REQUIRED FOR FOLLOW-UP LOMR

Upon completion of the project, your community must submit the data listed below and request that we make a final determination on revising the effective FIRM. If the project is built as proposed and the data below are received, a revision to the FIRM would be warranted.

- Form 1, entitled "Overview and Concurrence Form." Detailed application and certification forms must be used for requesting final revisions to the maps. Therefore, when the map revision request for the area covered by this letter is submitted, Form 1 must be included. If as-built conditions differ from the proposed plans, please submit new forms, which may be accessed at http://www.fema.gov/plan/prevent/fhm/dl_mt-2.shtm, or annotated copies of the previously submitted forms showing the revised information.
- Hydraulic analyses, for as-built conditions, of the base flood, the 10-percent, 2-percent, and 0.2 percent annual chance floods; together with a topographic work map showing the revised floodplain boundaries. Please ensure that the revised information ties in with the current effective information at the downstream and upstream ends of the revised reach.
- An annotated copy of the FIRM, at the scale of the effective FIRM, that shows the revised floodplain boundary delineations shown on the submitted work map and how they tie into the floodplain boundary delineations shown on the current effective FIRM at the downstream and upstream ends of the revised reach.
- As-built plans, certified by a registered Professional Engineer, of all proposed project elements
- Documentation of the individual legal notices sent to property owners who will be affected by any widening/shifting of the base floodplain and/or any BFE increases along Elm Fork Trinity River.

This comment is based on the flood data presently available. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 7390 Coca Cola Drive, Suite 204, Hanover, MD 21076. Additional information about the NFIP is available on the FEMA website at <http://www.fema.gov/nfip>.

Stuart W. Rooney, CFM, PMP, Program Specialist
Engineering Management Branch
Federal Insurance and Mitigation Administration



Federal Emergency Management Agency

Washington, D.C. 20472

CONDITIONAL LETTER OF MAP REVISION COMMENT DOCUMENT (CONTINUED)

COMMUNITY INFORMATION (CONTINUED)

• An officially adopted maintenance and operation plan for the Detention Pond. This plan, which may be in the form of a written statement from the community Chief Executive Officer, an ordinance, or other legislation, must describe the nature of the maintenance activities, the frequency with which they will be performed, and the title of the local community official who will be responsible for ensuring that the maintenance activities are accomplished.

• FEMA's fee schedule for reviewing and processing requests for conditional and final modifications to published flood information and maps may be accessed at http://www.fema.gov/plan/prevent/flm/firm_fees.shtm. The fee at the time of the map revision submittal must be received before we can begin processing the request. Payment of this fee can be made through a check or money order, made payable in U.S. funds to the National Flood Insurance Program, or by credit card (Visa or MasterCard only). Please forward the payment, along with the revision application, to the following address:

LOMC Clearinghouse
7390 Coca Cola Drive, Suite 204
Hanover, Maryland 21076

After receiving appropriate documentation to show that the project has been completed, FEMA will initiate a revision to the FIRM.

This comment is based on the flood data presently available. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 7390 Coca Cola Drive, Suite 204, Hanover, MD 21076. Additional information about the NFIP is available on the FEMA Web site at <http://www.fema.gov/business/nfip>.

A handwritten signature in black ink, appearing to read "Stuart W. Rooney".

Stuart W. Rooney, CFM, PMP, Program Specialist
Engineering Management Branch
Federal Insurance and Mitigation Administration



Federal Emergency Management Agency
Washington, D.C. 20472

**CONDITIONAL LETTER OF MAP REVISION
COMMENT DOCUMENT (CONTINUED)**

COMMUNITY INFORMATION (CONTINUED)

COMMUNITY REMINDERS

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Mr. Frank Pagano
Director, Mitigation Division
Federal Emergency Management Agency, Region VI
Federal Regional Center, Room VI
800 North Loop 288
Denton, TX 76209

This comment is based on the flood data presently available. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 7390 Coca Cola Drive, Suite 204, Hanover, MD 21076. Additional information about the NFIP is available on the FEMA Web site at <http://www.fema.gov/nfip>.

A handwritten signature in black ink, appearing to read "Stuart W. Rooney".

Stuart W. Rooney, CFM, PMP, Program Specialist
Engineering Management Branch
Federal Insurance and Mitigation Administration

EXCERPTS FROM THE APPROVED CLOMR APPLICATION

CONDITIONAL LETTER OF MAP REVISION REQUEST

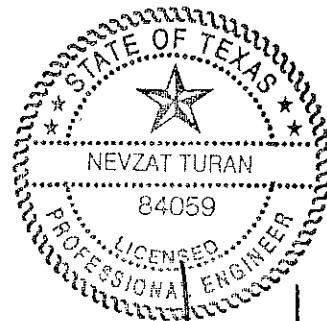
CAMELOT LANDFILL

DENTON COUNTY, TEXAS

Prepared for

City of Farmers Branch

June 2011



6-30-11

Prepared by

Weaver Boos Consultants, LLC—Southwest

TBPE Registration No. F-3727

6420 Southwest Blvd., Suite 206

Fort Worth, Texas 76109

Project No. 1339-351-11-02-3A.1

WEAVER
BOOS
CONSULTANTS
LLC
SOUTHWEST

6420 SOUTHWEST BLVD, SUITE 206
FORT WORTH, TEXAS 76109
PHONE: 817.735.9770
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www.weaverboos.com

Chicago, IL
Naperville, IL
Springfield, IL
South Bend, IN
St. Louis, MO
Columbus, OH
Denver, CO
Fort Worth, TX
Clermont, FL
Grand Rapids, MI
Portland, OR

June 30, 2011
Project 1339-351-11-02-3A.1

David Salmon, P.E.
Assistant City Engineer
City of Lewisville
151 West Church Street
Lewisville, Texas 75057

Re: CLOMR Request
Camelot Landfill
Denton County, Texas

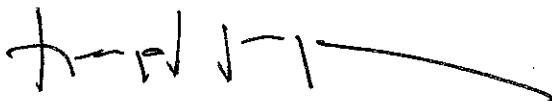
Dear Mr. Salmon:

On behalf of The City of Farmers Branch, please find enclosed a copy of a Conditional Letter of Map Revision (CLOMR) request for the Camelot Landfill. The scope of this study is limited to portions of the Elm Fork of the Trinity River near the landfill. This CLOMR requests minor revisions to river stations 1345+38 and 1336+34 to allow for the installation of site improvements associated with the continued development of the Camelot Landfill.

Upon completion of your review and before forwarding one (1) copy of the enclosed CLOMR request to FEMA, please sign the Overview and Concurrence Forms included in Appendix B. For your convenience, we have tabbed the form that requires your signature. Please send a copy of the signed form back to Weaver, Boos Consultants, LLC-Southwest for our files. Please keep the additional copy of the CLOMR Request for your files. As discussed in the meeting held on June 7, 2011, the processing and review fees are included with this submittal to be forwarded on to the FEMA Revisions Fee Collection System Administrator after you complete your review.

If you have any questions or require further information, please call.

Sincerely,
Weaver Boos Consultants, LLC-Southwest



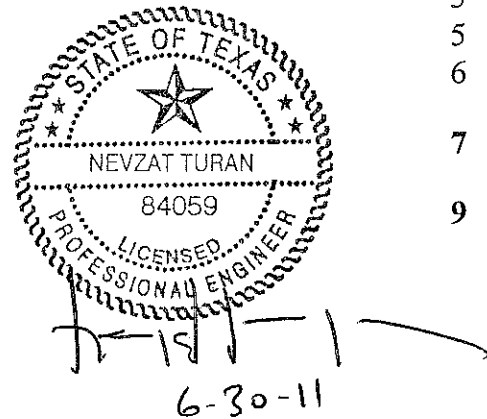
Nevzat Turan, P.E.
Senior Engineer

Attachments: Conditional Letter of Map Revision Request

cc: Shane Davis, City of Farmers Branch

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Hydraulic Analysis Results – Elm Fork of Trinity River

HEC-RAS Summary Tables

C.1 Duplicate Effective Model

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APPENDIX D

November 2002 CLOMR Approval Letter

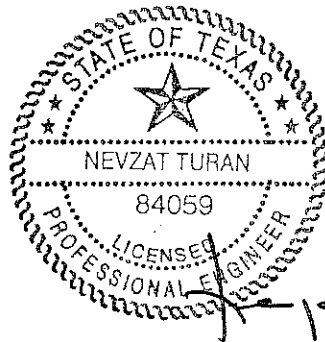
APPENDIX E

April 16, 2010 Appeal of Preliminary FIRM 48121C0565G

October 20, 2010 FEMA Acceptance of Appeal of Preliminary FIRM 48121C056SG

APPENDIX F

Camelot Landfill Floodplain Permitting History



1 INTRODUCTION

1.1 Purpose and Scope

The purpose of this study is to request a Conditional Letter of Map Revision (CLOMR) from the City of Lewisville and the Federal Emergency Management Agency (FEMA) for a 469.6-acre area in Denton County, Texas. A general site location and effective Flood Insurance Rate Map (FIRM) for the project are included as Drawings A.1 and A.2 in Appendix A. As shown on Drawing A.3, the City of Farmers Branch currently operates a Municipal Solid Waste (MSW) Landfill on the project site. The landfill is located within the City of Lewisville.

The scope of this study is limited to portions of the Elm Fork of the Trinity River near the Camelot Landfill. This CLOMR will allow for the continued development of the existing landfill operation. A summary of the proposed map revision is provided on Figure 1-1 and listed below.

- Detention pond development along southern portion of the site. Two detention ponds are proposed along the southern portion of the site. The southwest pond (Pond P2) was constructed as authorized by a CLOMR (Case No. 02-06-1950R) approved by FEMA for the Camelot Landfill on November 12, 2002. Additional information is provided in Appendix F. The detention ponds will collect runoff from the southern portions of the landfill. The southeast pond (Pond P3) will function similar to the previously-permitted southwest detention pond.
- Northern area development. To allow for the development of facilities to support the operation of the landfill, this project includes the removal of two areas from the floodplain. As shown on Figure 1-1, these two areas will be used for (1) entrance facilities including access roads and (2) a 16-acre area that will be used as an operation support area.
- Modification of the floodplain in the northeast portion of the site. This area is proposed to be removed from the ineffective flow area of the 100-year floodplain, to provide for the continued development of the solid waste disposal area.

The following conditions are included in this CLOMR request.

- Duplicate Effective – copy of the effective hydraulic analysis provided by FEMA in May 2010 (refer to Section 2.1 for more information).
- Post-Project – represents the proposed landfill expansion (refer to Section 2.2 for more information).

1.2 Project Background

1.2.1 Site Location and Summary

Camelot Landfill is an existing Type I Municipal Solid Waste (MSW) Landfill operating under Texas Commission on Environmental Quality (TCEQ) Permit No. MSW-1312A located in Denton County, Texas. The facility was originally permitted in December 1979 (Texas Department of Health Permit No. 1312). The permit was amended before the site initially opened in March 1981 (MSW Permit No. 1312A). The 1981 amendment increased the permit boundary to about 350 acres. The site was upgraded to include a Subtitle D Leachate Collection System on December 8, 1995. In addition, the City of Farmers Branch owns additional adjacent property north of the landfill. This area increases the site boundary by 118.85 acres to a total of 469.62 acres.

A minor amendment to revise the facility's base grades and final cover configuration was approved by the TCEQ in 2001. The 2001 minor amendment reduced the footprint of the site from 238.0 acres to the current 207.4-acre currently permitted footprint, as shown on Drawing A.4 in Appendix A. The landfill is permitted to accept municipal solid waste resulting from or incidental to municipal, community, commercial, institutional, and recreational activities. As shown on Drawing A.1 in Appendix A, the site is located within the city limits of Lewisville, Texas, south of the intersection of State Highway 121 (Business) and Huffines Boulevard.

1.2.2 Floodplain History

Prior to the publication of the 1997 FIRM No. 48121CO565E, the Camelot Landfill was part of a non-National Flood Insurance Program (NFIP) participating community (Hebron). The original permit for the landfill was issued prior to 1997, thus there were no floodplain permits required. After the publication of the then-effective FIRM, the landfill tract was incorporated into the City of Lewisville, Texas, a participant in the NFIP. The 1997 FIRM No. 48121CO565E showed the majority of the current landfill site to be within the Zone "AE" floodplain of the Elm Fork of the Trinity River.

In September 2000, FEMA issued a preliminary revised FIRM for the areas around the Camelot Landfill. This revised FIRM was based on a restudy of the Trinity River system performed by the United States Army Corps of Engineers (USACE). As shown on Drawing A.2 (Appendix A), this FIRM became final on August 23, 2001.

In April 2001, a CLOMR Request was submitted to the City of Lewisville and FEMA to obtain the required approvals for the continued development of the landfill. The CLOMR approval was issued by FEMA on November 18, 2002 (the CLOMR approval letter is included in Appendix D). As a part of the continued development of the landfill, a Corridor Development Certificate (CDC) has been prepared and submitted concurrently with this CLOMR request to the City of Lewisville and the USACE. Appendix F

includes additional information on the previously-approved CLOMR and the history of floodplain permitting in the area around Camelot Landfill.

The effective FIRM for this area is FIRM No. 48121C0565G. A copy of FIRM No. 48121C0565G is included in Drawing A.2 in Appendix A. As noted in Appendix E, in April 2010 WBC (on behalf of the City of Farmers Branch) submitted comments to FEMA regarding the preliminary FIRM No. 48121C0565G. On October 20, 2010 FEMA accepted the WBC appeal. This acceptance letter is included in Appendix E.

1.3 Related Permit Applications

In addition to this CLOMR application, several additional permits will need to be acquired by the City of Farmers Branch for this project. Related permits for the landfill are summarized below.

1.3.1 CDC Permit

A CDC will be necessary for the proposed landfill expansion. The CDC regulates development within the Trinity River Corridor. While local governments retain ultimate control over their own floodplain development decisions, the CDC process provides other participating cities and counties along the Trinity River the opportunity to review and comment on projects throughout the Trinity River Corridor. The CDC program requires that proposed developments result in no increase in water surface elevation and no decrease in valley storage for the regulatory flood (100-year frequency flood). An analysis of the Standard Project Flood (SPF) is also required. The USACE provides technical review of the CDC applications per letter of request by the participating CDC/Floodplain Administrator. The CDC/Floodplain Administrator bases their determination on the review obtained from the USACE. The CDC application was submitted to the City of Lewisville with this CLOMR Request.

1.3.2 Texas Commission on Environmental Quality (TCEQ) Operating Permit

The permit provisions of Permit No. MSW-1312A are enforced by the TCEQ. During the active life of the landfill and the postclosure period (30 years), the site will be routinely inspected by the TCEQ to ensure compliance with the TCEQ solid waste permit provisions. The Camelot Landfill is in the process of developing a major permit amendment application to be submitted to the TCEQ for the continued development of the Camelot Landfill. The TCEQ requires a detailed drainage design report to be included in the landfill permit application. This report addresses surface water drainage design and erosion control for the area within the landfill permit boundary and includes a demonstration that the proposed development does not adversely alter existing drainage patterns or adversely impact downstream drainage structures.

1.3.3 Other Permitting Requirements

Currently the landfill maintains a Stormwater Pollution Prevention Plan (SWPPP) developed for the provisions of Texas Pollution Elimination System (TPDES) Multi-Sector General Permit (MSWP) TXR050000. The existing SWPPP along with the current Notice of Intent (NOI) will need to be updated to provide coverage for the activities proposed in the TCEQ Major Permit Amendment application and this CLOMR.

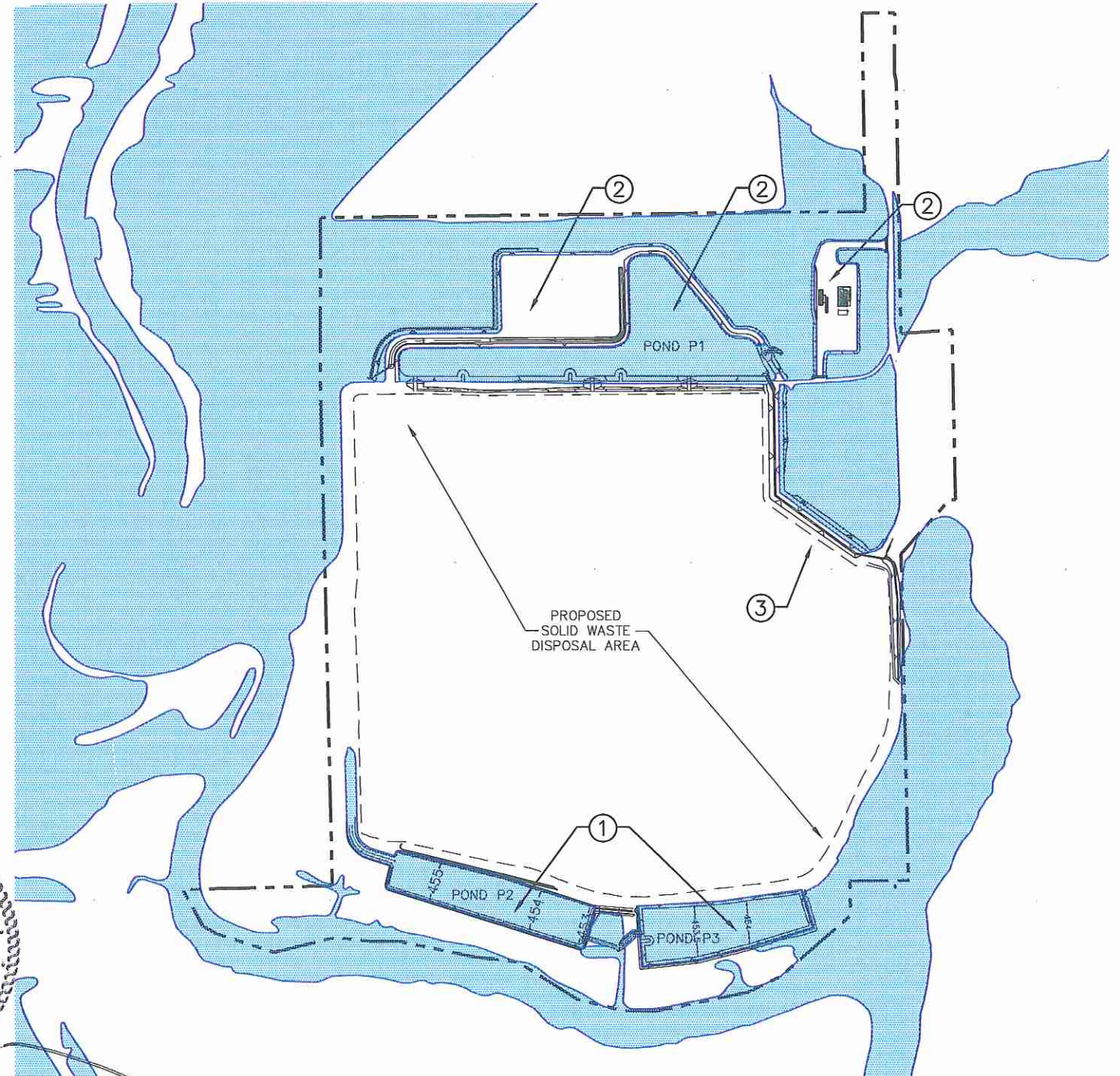
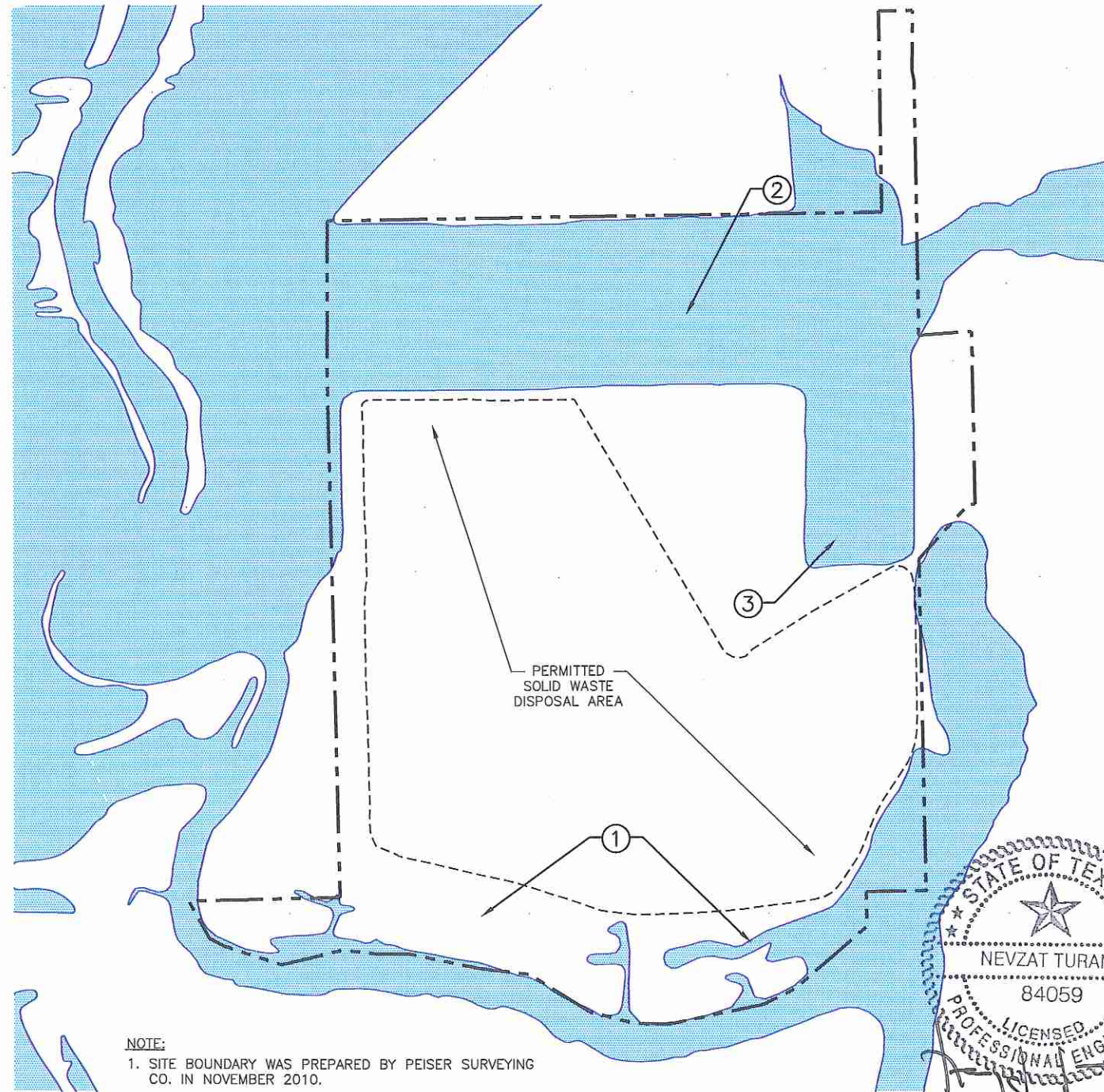
1.4 Concepts and Methods

The USACE Hydraulic Engineering Center River Analysis System (HEC-RAS) version 4.1.0 (Ref. 2) computer program was used to determine water surface profiles and floodways. Analyses of the peak flow rates, floodplains, and floodways for these conditions proceeded in the following sequence:

1. Topographic map of the landfill area, soil map, and land use data were collected.
2. Peak flow rates used in the effective FEMA Model for the Elm Fork of the Trinity River were used for all three investigated conditions.
3. Hydraulic models were developed to evaluate flood elevations for the streams under peak flow conditions using HEC-RAS.
4. Hydraulic models were developed to delineate the limits of encroachment where the base flood elevation increased by no more than 1 foot.
5. The floodplains and floodways were delineated using the results of the hydraulic modeling.

DUPLICATE EFFECTIVE CONDITION
(SEE NOTE 2)

POST-DEVELOPMENT CONDITION



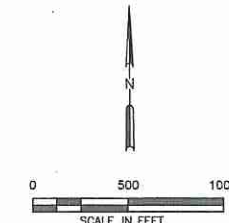
NOTE:

1. SITE BOUNDARY WAS PREPARED BY PEISER SURVEYING CO. IN NOVEMBER 2010.
2. FLOODPLAIN REPRODUCED FROM FIRM NO. 48121C0565 G, EFFECTIVE DATE APRIL 18, 2011.

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED PROFESSIONAL ENGINEER
6-30-11

CHANGES FROM DUPLICATE EFFECTIVE TO POST-DEVELOPMENT

- ① ADDITION OF DETENTION PONDS THE SOUTHWEST POND (POND P2) WAS CONSTRUCTED AS AUTHORIZED BY THE CLOMR APPLICATION (CASE NO. 02-06-1950R APPROVED BY FEMA ON NOVEMBER 18, 2002-REFER TO APPENDIX F FOR ADDITIONAL INFORMATION). THE SOUTHEAST POND (POND P3) WILL FUNCTION SIMILAR TO THE PREVIOUSLY-PERMITTED SOUTHWEST POND.
- ② NORTHERN AREA DEVELOPMENT. TO ALLOW FOR THE DEVELOPMENT OF FACILITIES TO SUPPORT THE OPERATION OF THE LANDFILL, THIS PROJECT INCLUDES THE REMOVAL OF TWO AREAS FROM THE FLOODPLAIN IN THE NORTHERN PORTION OF THE SITE. THESE TWO AREAS WILL BE USED FOR (1) OFFICES AND MAINTENANCE FACILITIES, INCLUDING ACCESS ROADS AND (2) A 16-ACRE AREA THAT WILL BE USED TO SUPPORT OPERATIONS, SUCH AS EQUIPMENT STORAGE, A CITIZEN CONVENIENCE CENTER, ENTRANCE FACILITIES, ACCESS ROADS, AND/OR A WOOD WASTE PROCESSING AREA.
- ③ REMOVAL OF NORTHEAST AREA FROM FLOODPLAIN TO ALLOW FOR THE CONTINUED DEVELOPMENT OF THE LANDFILL. THIS AREA IS PROPOSED TO BE REMOVED FROM THE INEFFECTIVE FLOW AREA OF THE 100-YEAR FLOODPLAIN.



LEGEND

- SITE BOUNDARY
- - - POST-DEVELOPMENT LIMIT OF WASTE
- - - AUTHORIZED LIMIT OF WASTE
- 100-YEAR FLOODPLAIN

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| | DATE: 06/2011 FILE: 1339-351-11 CAD: 1-1-FLOODPLAIN COMP.DWG | | DESIGN BY: VRS DESIGN BY: CRM REVIEWED BY: JPY | | | | | | | | | | | |
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| NO. | DATE | DESCRIPTION | | | | | | | | | | | | |
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FIGURE 1-1

O:\1339\351\CLOMR\1-1-COMPARISON.dwg, 6/15/2011 1:23:44 PM, jwilson, 1:2

2 HYDRAULIC ANALYSES

The hydraulic modeling of the Elm Fork of the Trinity River was conducted using the HEC-RAS, version 4.1.0 computer program (Ref. 2). HEC-RAS was developed by the USACE Hydrologic Engineering Center to simulate steady flow water surface profiles. The computational procedure used in the program is based on the solution of the one-dimensional energy equation with energy loss due to friction. The modeling process results in the computation of flood profiles for the streams in a drainage area. The effective model was obtained from FEMA in response to a request for data to the FEMA Engineering Library.

The model is composed of two separate geometric files; one for the 10-year, 50-year, and 100-year frequency flood events and one for the 500-year frequency flood event. Duplicate effective models were developed based on the two geometric models. Post-project condition models were developed to incorporate the floodplain improvements associated with the continued development of the Camelot Landfill. The flow rates used in the effective model were used for pre-project and post-project models. Appendix C contains the HEC-RAS output files for the duplicate effective and post-project condition models.

2.1 Duplicate Effective Condition

There are two separate geometric files for the effective condition; one for the 10-year through 100-year frequency flood events and one for the 500-year frequency flood event. The main difference in the two geometric files is the effective flow boundary and presence of blocked obstructions. The duplicate effective model files were obtained from FEMA in May 2010. Camelot Landfill is located downstream of State Highway 121 (Business), primarily within reaches ef5 and ef4. Eleven cross sections, 1437+56 through 1336+34, are located within the proposed Camelot Landfill permit boundary. Sections 1315+32 and 1444+74 are the downstream and upstream limits of this study, respectively. The summary tables for both duplicate effective models are included in Appendix C.1. This floodplain, as delineated on the effective FIRM (Map No. 48121C0565G), is shown on Drawing A.4 with the permitted landfill configuration.

2.2 Post-Project Condition

The post-project condition models are based on the proposed landfill completion plan. Items associated with the continued development of the landfill include a revised landfill footprint, revised landfill final contours, three valley storage/detention pond areas,

proposed entrance facilities, and an area in the northern portion of the site that will be used to support landfill operations. The proposed plan for the continued development of the landfill is provided in Drawing A.5 (Appendix A).

There are eleven cross sections located within the proposed landfill permit boundary (1437+56 through 1336+34). However, only two sections (1345+38 and 1336+34) require geometric revisions from the duplicate effective condition to reflect the construction of Pond P3. Existing Pond P2 is currently included in the duplicate effective model in sections 1361+49 and 1353+70. These sections accurately depict Pond P2 and do not require revisions. Sections 1345+38 and 1336+34 were updated in the post-project model to reflect the configuration of the proposed detention pond (including perimeter berm) located in the southeast portion of the site. The other proposed development areas are all located within ineffective flow areas, and no further changes to the duplicate effective model are needed.

The pond and entrance facilities located along Sections 1429+00 and 1415+18 are located outside of the boundaries of the modeled cross section for the Elm Fork. To show these facilities in the hydraulic model, the sections would need to be extended, which would lower the floodplain elevation in these sections as additional storage would be added to these sections. To be consistent with the effective modeling approach, this additional storage was not modeled, and Sections 1429+00 and 1415+18 were not modified. Due to the location of these facilities outside of the modeled cross section, modifying these areas to construct the pond and entrance facilities will not impact the floodplain of the Elm Fork. As noted above, a pond is modeled in Sections 1345+38 and 1336+34. The addition of the detention pond affects the 500-year floodplain in the area due to the additional storage created in these sections. The 500-year floodplain is not significantly impacted (e.g., elevations changed by a maximum of ± 0.02 ft-msl) within the limits of the project as a result of this change.

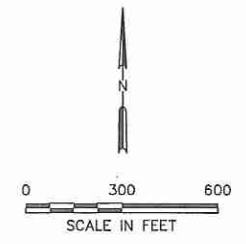
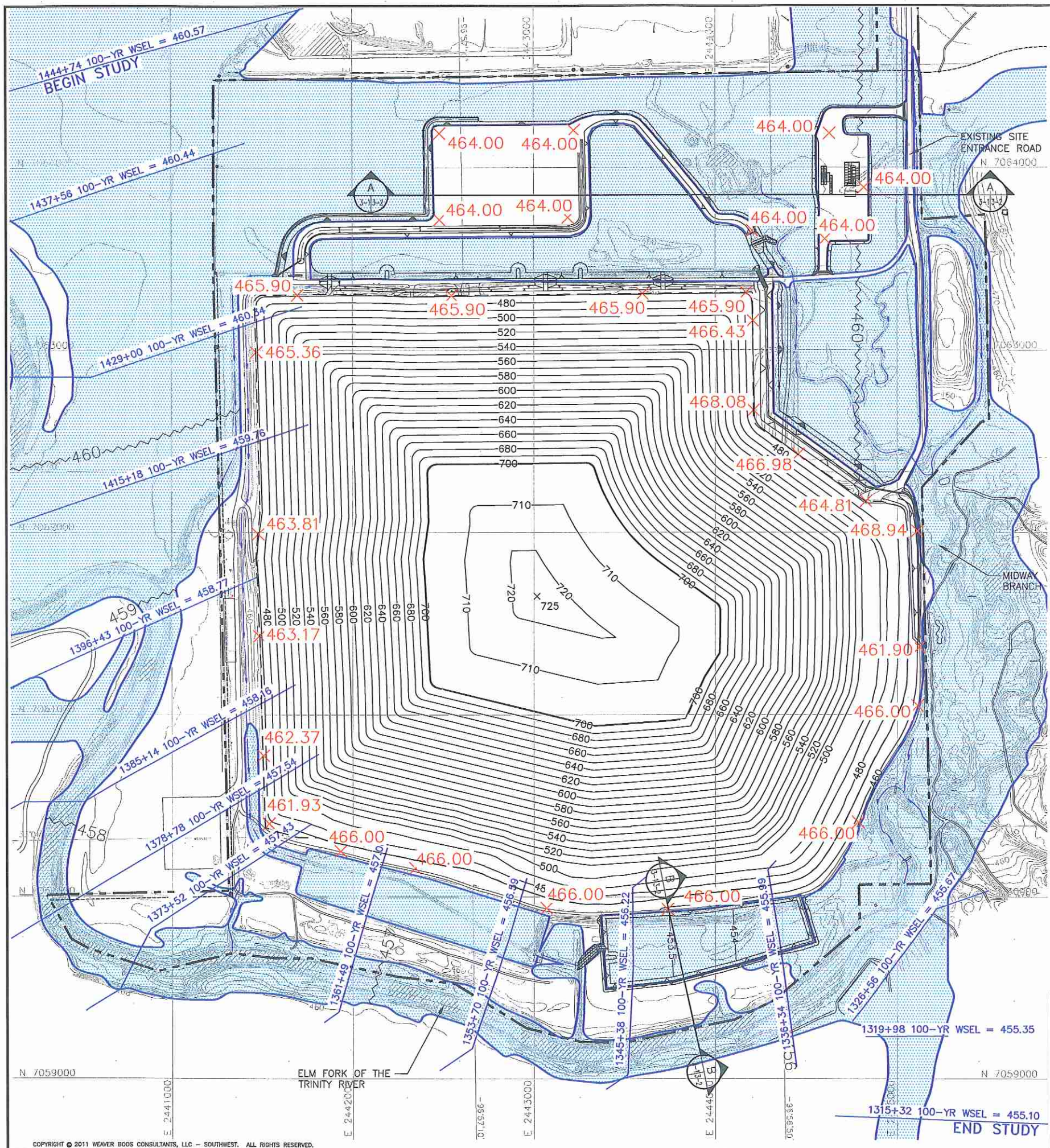
2.3 Floodway

The proposed effective floodway will remain identical to the floodway shown in the duplicate effective condition.

3 RESULTS OF ANALYSIS

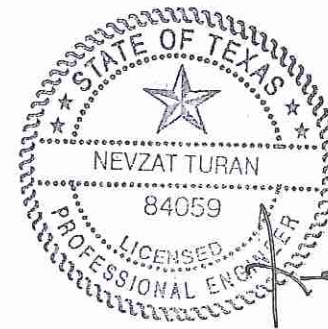
Table 3-1 lists the water surface elevations and velocities for the duplicate effective and post-project conditions using flow rates provided by FEMA for the 10-, 50-, 100-, and 500-year storm events for the Elm Fork of the Trinity River. A comparison of water surface elevations for post-project versus duplicate effective conditions shows that there is no change in the 100-year water surface elevation or velocities. In addition, the water surface elevation for the 500-year storm event changes by a maximum of 0.02 feet. Also, there is no change to the floodway width or encroached water surface elevation. In addition, there are no proposed site improvements located within the floodway. HEC-RAS summary tables for the duplicate effective and post-project models for the Elm Fork of the Trinity River are included in Appendix C.

As shown on Figures 3-1 and 3-2, throughout the site a minimum of 3 feet of freeboard is available between the 100-year water surface and the top of the landfill perimeter berm in all locations. Additionally, at least 3 feet of freeboard is available for the two areas on the north side of the landfill proposed to be removed from the floodplain. This availability of freeboard meets or exceeds the minimum freeboard required by TCEQ.



- LEGEND**
- SITE BOUNDARY
 - - - PROPOSED LIMIT OF WASTE
 - STATE PLANE COORDINATE SYSTEM
 - GEODETIC COORDINATE SYSTEM
 - EXISTING CONTOURS (SEE NOTE 1)
 - 100-YEAR FLOODPLAIN (WBC AUGUST, 2010)
 - ▲▲ FILL/CUT SLOPE INDICATORS
 - 464.00 X ELEVATION OF PERIMETER BERM
 - 1378+78 100-YR WSEL = 457.54 HEC-RAS CROSS SECTION LOCATION
 - 880--- PROPOSED FINAL CONTOUR (SEE NOTE 3)
 - 460--- 100 YEAR WATER SURFACE ELEVATION

- NOTES:**
1. CONTOURS AND ELEVATIONS PROVIDED BY METROPOLITAN AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 8-28-2010. THE GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 1983. ELEVATIONS ARE BASED ON NAVD 1988. OFF-SITE CONTOURS AND ELEVATIONS PROVIDED BY DFWMAPS.COM FROM AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN JANUARY TO MARCH 2007.
 2. CROSS SECTIONS LOCATIONS REPRESENT THE LIMITS OF THE MOLDED TERRAIN IN THE HEC-RAS HYDRAULIC MODEL OF THE ELM FORK OF THE TRINITY RIVER.
 3. SITE BOUNDARY WAS PREPARED BY PEISER SURVEYING CO. IN NOVEMBER 2010.

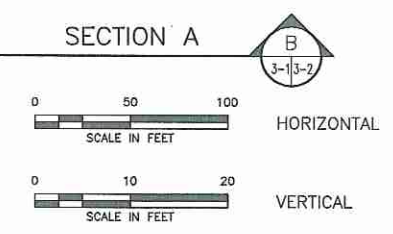
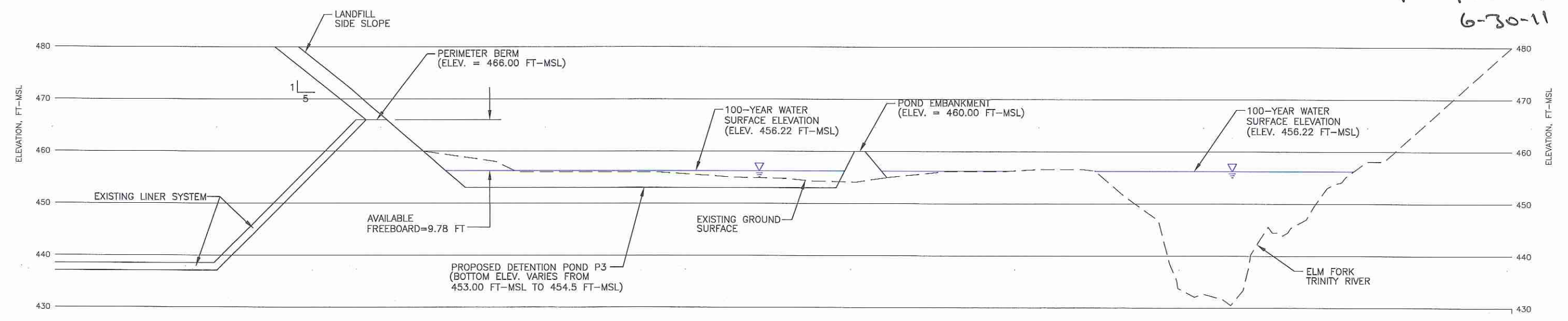
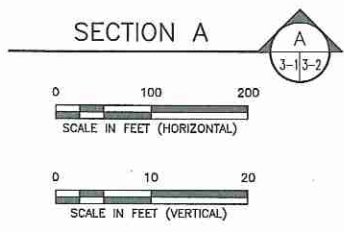
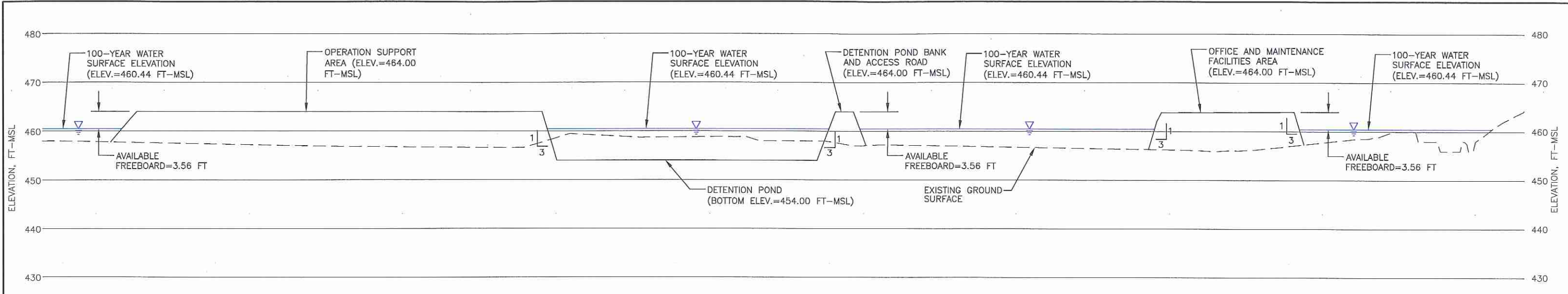


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| | | FIGURE 3-1 | | | | | | | | | |

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Table 3-1 - Comparison of Water Surface Elevations and Flow Velocities - Elm Fork of the Trinity River

| 100-Year Flood Event | | | | | | | | | | | | | | |
|----------------------|-----------------------|-----------------|-----------------------|--------------------------|----------------------|---------------------------------|--------------------------------|----------------------------------|-----------------------|--------------------------|----------------------|---------------------------------|--------------------------------|----------------------------------|
| FIS Model Reach No. | Cross Section Numbers | Flow Rate (cfs) | Duplicate Effective | | | | | | Post-Project | | | | | |
| | | | Natural WSEL (ft-msl) | Encroached WSEL (ft-msl) | WSEL Difference (ft) | Left Overbank Velocity (ft/sec) | Main Channel Velocity (ft/sec) | Right Overbank Velocity (ft/sec) | Natural WSEL (ft-msl) | Encroached WSEL (ft-msl) | WSEL Difference (ft) | Left Overbank Velocity (ft/sec) | Main Channel Velocity (ft/sec) | Right Overbank Velocity (ft/sec) |
| ef5 | 144474 | 21000 | 460.57 | 460.60 | 0.03 | 0.55 | 3.03 | 1.04 | 460.57 | 460.60 | 0.03 | 0.55 | 3.03 | 1.04 |
| ef5 | 143756 | 21000 | 460.44 | 460.46 | 0.02 | 0.37 | 2.25 | 0.91 | 460.44 | 460.46 | 0.02 | 0.37 | 2.25 | 0.91 |
| ef5 | 142900 | 21000 | 460.34 | 460.35 | 0.01 | 0.30 | 2.31 | 1.00 | 460.34 | 460.35 | 0.01 | 0.30 | 2.31 | 1.00 |
| ef5 | 141518 | 21000 | 459.76 | 459.70 | -0.06 | 0.45 | 5.24 | 1.40 | 459.76 | 459.70 | -0.06 | 0.45 | 5.24 | 1.40 |
| ef5 | 139643 | 21000 | 458.77 | 458.67 | -0.10 | 0.00 | 5.36 | 1.04 | 458.77 | 458.67 | -0.10 | 0.00 | 5.36 | 1.04 |
| ef4 | 138514 | 10300 | 458.16 | 458.07 | -0.09 | 0.23 | 3.53 | 0.85 | 458.16 | 458.07 | -0.09 | 0.23 | 3.53 | 0.85 |
| ef4 | 137878 | 10300 | 457.54 | 457.54 | 0.00 | 0.00 | 4.25 | 0.64 | 457.54 | 457.54 | 0.00 | 0.00 | 4.25 | 0.64 |
| ef4 | 137352 | 10300 | 457.43 | 457.42 | -0.01 | 0.00 | 3.69 | 0.75 | 457.43 | 457.42 | -0.01 | 0.00 | 3.69 | 0.75 |
| ef4 | 136149 | 10300 | 457.06 | 457.05 | -0.01 | 0.00 | 3.95 | 1.07 | 457.06 | 457.05 | -0.01 | 0.00 | 3.95 | 1.07 |
| ef4 | 135370 | 10300 | 456.59 | 456.59 | 0.00 | 0.00 | 4.31 | 0.46 | 456.59 | 456.59 | 0.00 | 0.00 | 4.31 | 0.46 |
| ef4 | 134538 | 10300 | 456.22 | 456.22 | 0.00 | 0.00 | 4.31 | 1.56 | 456.22 | 456.22 | 0.00 | 0.00 | 4.31 | 1.56 |
| ef4 | 133634 | 10300 | 455.99 | 455.98 | -0.01 | 0.00 | 3.24 | 0.07 | 455.99 | 455.98 | -0.01 | 0.00 | 3.24 | 0.07 |
| ef4 | 132656 | 10300 | 455.67 | 455.65 | -0.02 | 0.85 | 3.25 | 1.04 | 455.67 | 455.65 | -0.02 | 0.85 | 3.25 | 1.04 |
| ef4 | 131998 | 10300 | 455.35 | 455.33 | -0.02 | 0.84 | 3.74 | 1.40 | 455.35 | 455.33 | -0.02 | 0.84 | 3.74 | 1.40 |
| ef4 | 131532 | 10300 | 455.10 | 455.07 | -0.03 | 0.26 | 3.66 | 0.00 | 455.10 | 455.07 | -0.03 | 0.26 | 3.66 | 0.00 |

| 500-Year Flood Event | | | | | | | | | | |
|----------------------|-----------------------|-----------------|-----------------------|---------------------------------|--------------------------------|----------------------------------|-----------------------|---------------------------------|--------------------------------|----------------------------------|
| FIS Model Reach No. | Cross Section Numbers | Flow Rate (cfs) | Duplicate Effective | | | | Post-Project | | | |
| | | | Natural WSEL (ft-msl) | Left Overbank Velocity (ft/sec) | Main Channel Velocity (ft/sec) | Right Overbank Velocity (ft/sec) | Natural WSEL (ft-msl) | Left Overbank Velocity (ft/sec) | Main Channel Velocity (ft/sec) | Right Overbank Velocity (ft/sec) |
| ef5 | 144474 | 57000 | 461.70 | 1.30 | 6.18 | 2.38 | 461.70 | 1.30 | 6.18 | 2.38 |
| ef5 | 143756 | 57000 | 461.10 | 0.91 | 5.04 | 2.12 | 461.10 | 0.91 | 5.04 | 2.12 |
| ef5 | 142900 | 57000 | 460.83 | 0.55 | 3.86 | 1.84 | 460.83 | 0.55 | 3.86 | 1.84 |
| ef5 | 141518 | 57000 | 460.27 | 0.44 | 4.50 | 1.95 | 460.27 | 0.44 | 4.50 | 1.95 |
| ef5 | 139643 | 57000 | 459.54 | 0.23 | 5.90 | 1.67 | 459.54 | 0.23 | 5.90 | 1.67 |
| ef4 | 138514 | 9500 | 458.83 | 0.38 | 2.90 | 1.08 | 458.81 | 0.38 | 2.91 | 1.07 |
| ef4 | 137878 | 9500 | 458.44 | 0.27 | 3.52 | 0.49 | 458.42 | 0.27 | 3.53 | 0.49 |
| ef4 | 137352 | 9500 | 458.36 | 0.26 | 3.12 | 0.68 | 458.34 | 0.26 | 3.13 | 0.69 |
| ef4 | 136149 | 9500 | 458.16 | 0.79 | 3.06 | 0.76 | 458.14 | 0.79 | 3.07 | 0.77 |
| ef4 | 135370 | 9500 | 457.89 | 0.64 | 3.38 | 0.57 | 457.87 | 0.64 | 3.39 | 0.57 |
| ef4 | 134538 | 9500 | 457.69 | 0.56 | 3.32 | 1.21 | 457.71 | 0.66 | 3.05 | 1.11 |
| ef4 | 133634 | 9500 | 457.57 | 0.46 | 2.46 | 0.16 | 457.57 | 0.40 | 2.53 | 0.17 |
| ef4 | 132656 | 9500 | 457.41 | 0.71 | 2.42 | 1.00 | 457.41 | 0.71 | 2.42 | 1.00 |
| ef4 | 131998 | 9500 | 457.22 | 0.78 | 3.01 | 1.23 | 457.22 | 0.78 | 3.01 | 1.23 |
| ef4 | 131532 | 9500 | 457.08 | 0.50 | 2.85 | 0.74 | 457.08 | 0.50 | 2.85 | 0.74 |

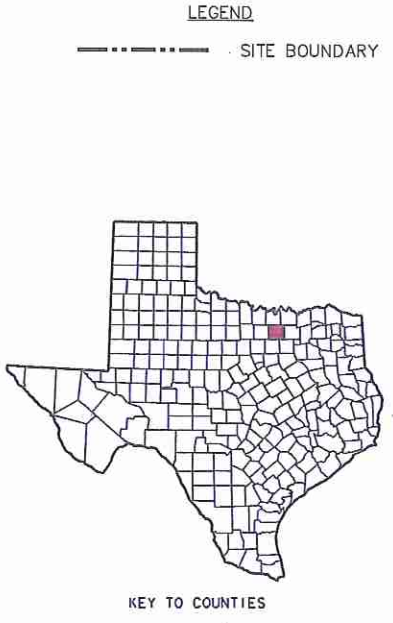
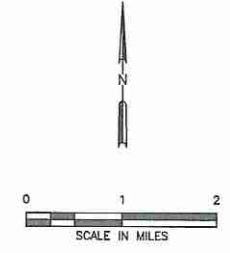
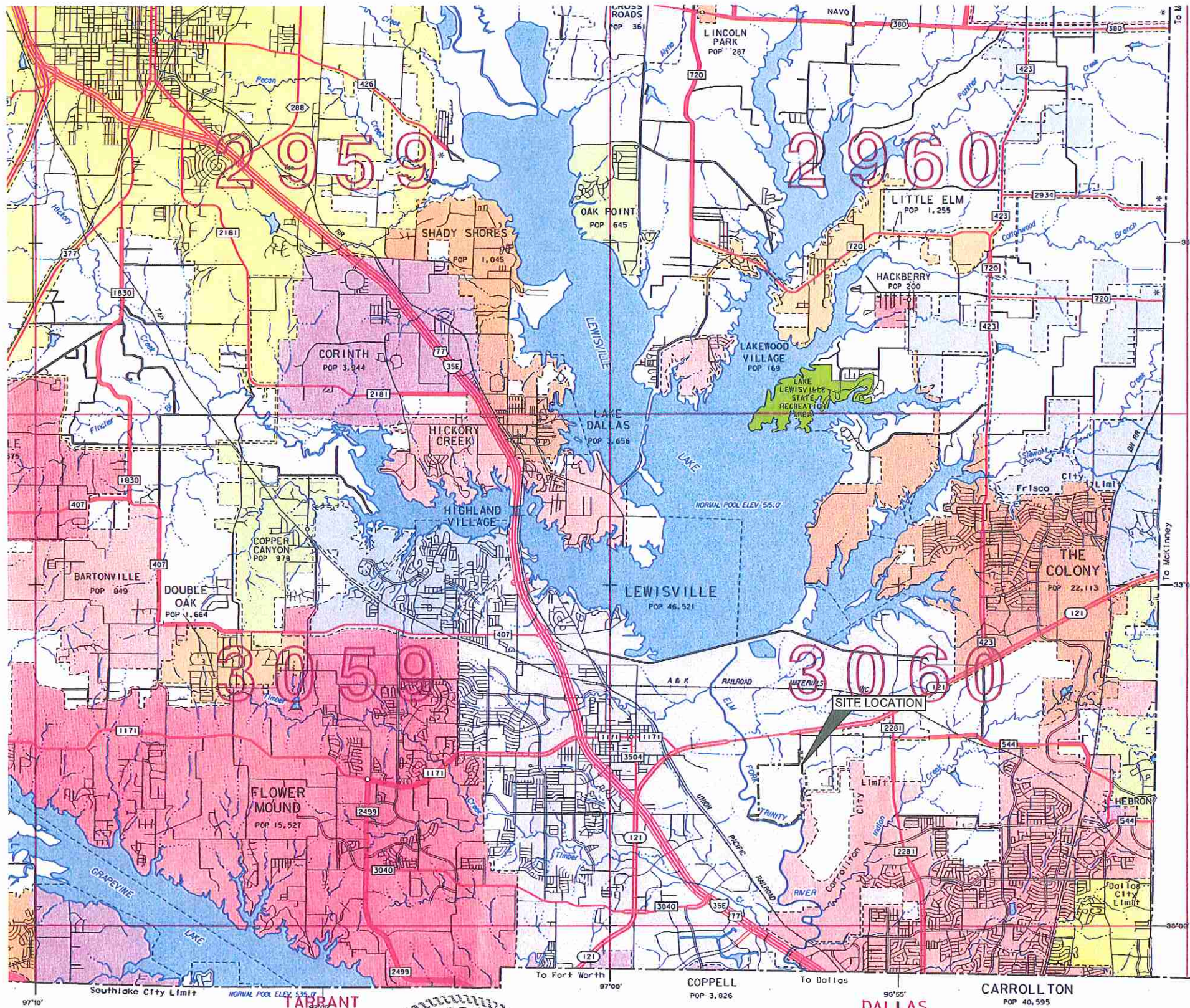
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2. U.S. Army Corps of Engineers, *HEC-RAS River Analysis System Applications Guide*, Hydrologic Engineering Center, April, 1997.
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4. Soil Conservation Service, *National Engineering Handbook*, Section 4, Hydrology, U.S. Department of Agriculture, August, 1972.
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6. Soil Conservation Service, *Urban Hydrology for Small Watersheds*, U.S. Department of Agriculture, June, 1986.
7. Chow, V.T., *Open-Channel Hydraulics*, McGraw-Hill Book Company, 1959, pp. 110-113.

APPENDIX A

DRAWINGS

- A.1 Site Location Map**
- A.2 Effective Flood Insurance Rate Map**
- A.3 Existing Conditions**
- A.4 Duplicate Effective 100-Year Floodplain Delineation**
- A.5 Post-Project 100-Year Floodplain Delineation**
- A.6 Elm Fork Duplicate Effective Profile**
- A.7 Elm Fork Post-Project Profile**
- A.8 Revised Flood Insurance Rate Map**



GENERAL HIGHWAY MAP DENTON COUNTY TEXAS

PREPARED BY THE
TEXAS DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PLANNING AND PROGRAMMING DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

1990
1990 CENSUS FIGURES
HIGHWAYS REVISED TO

NOTICE
This map has been prepared for internal use within the Texas Department of Transportation. Accuracy is limited to the validity of available data as of dates shown.

III0-B-27



NOTE:
1. SITE BOUNDARY WAS PREPARED BY PEISER SURVEYING CO. IN NOVEMBER 2010.

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| <input type="checkbox"/> FOR INFORMATION PURPOSES ONLY | PREPARED FOR |
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| DATE: 05/2011 | DRAWN BY: SRF |
| FILE: 1339-351-11 | DESIGN BY: CRM |
| CAD: A1-SITE LOC MAP.DWG | REVIEWED BY: JPY |
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CLOMR REQUEST
SITE LOCATION MAP

CAMELOT LANDFILL
DENTON COUNTY, TEXAS

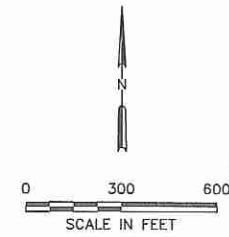
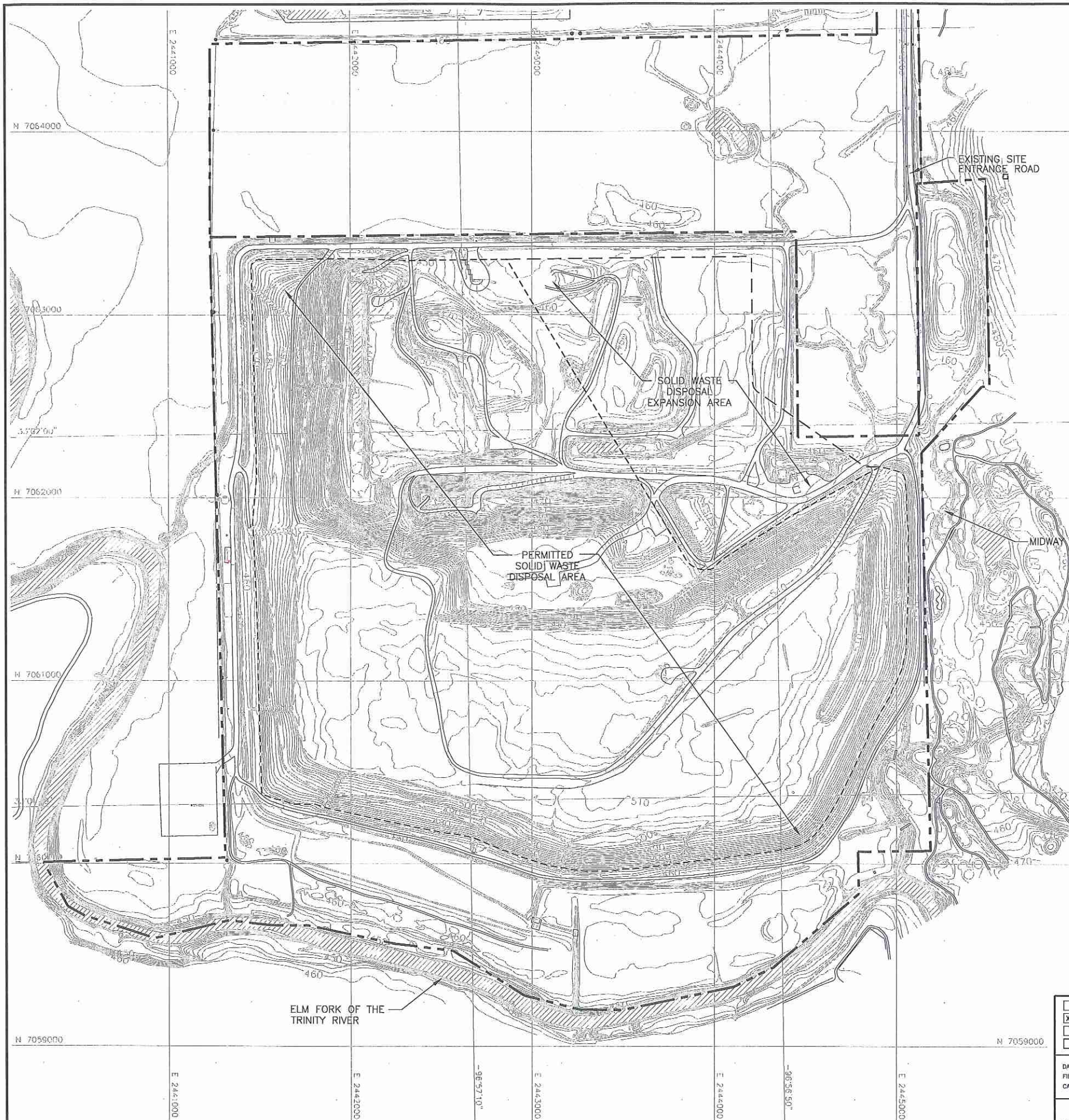
Weaver Boos Consultants
TBPE REGISTRATION NO. F-3727

CHICAGO, IL WAPERVILLE, IL GRIFFITH, IN
DENVER, CO SOUTH BEND, IN SOUTH SPRINGFIELD, IL
(817) 735-9770 ST. LOUIS, MO

DRAWING A.1

O:\1339\351\CLOMR\A.1-SITE LOCATION MAP.dwg, 6/14/2011 12:31:21 PM, jwilson, 1:2

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LEGEND

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|--|-------------------------------|
| | CURRENT PERMIT BOUNDARY |
| | PROPOSED PERMIT BOUNDARY |
| | PERMITTED LIMITS OF WASTE |
| | PROPOSED LIMITS OF WASTE |
| | STATE PLANE COORDINATE SYSTEM |
| | GEODETIC COORDINATE SYSTEM |
| | EXISTING CONTOUR (SEE NOTE 1) |

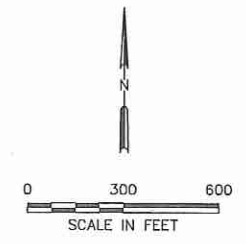
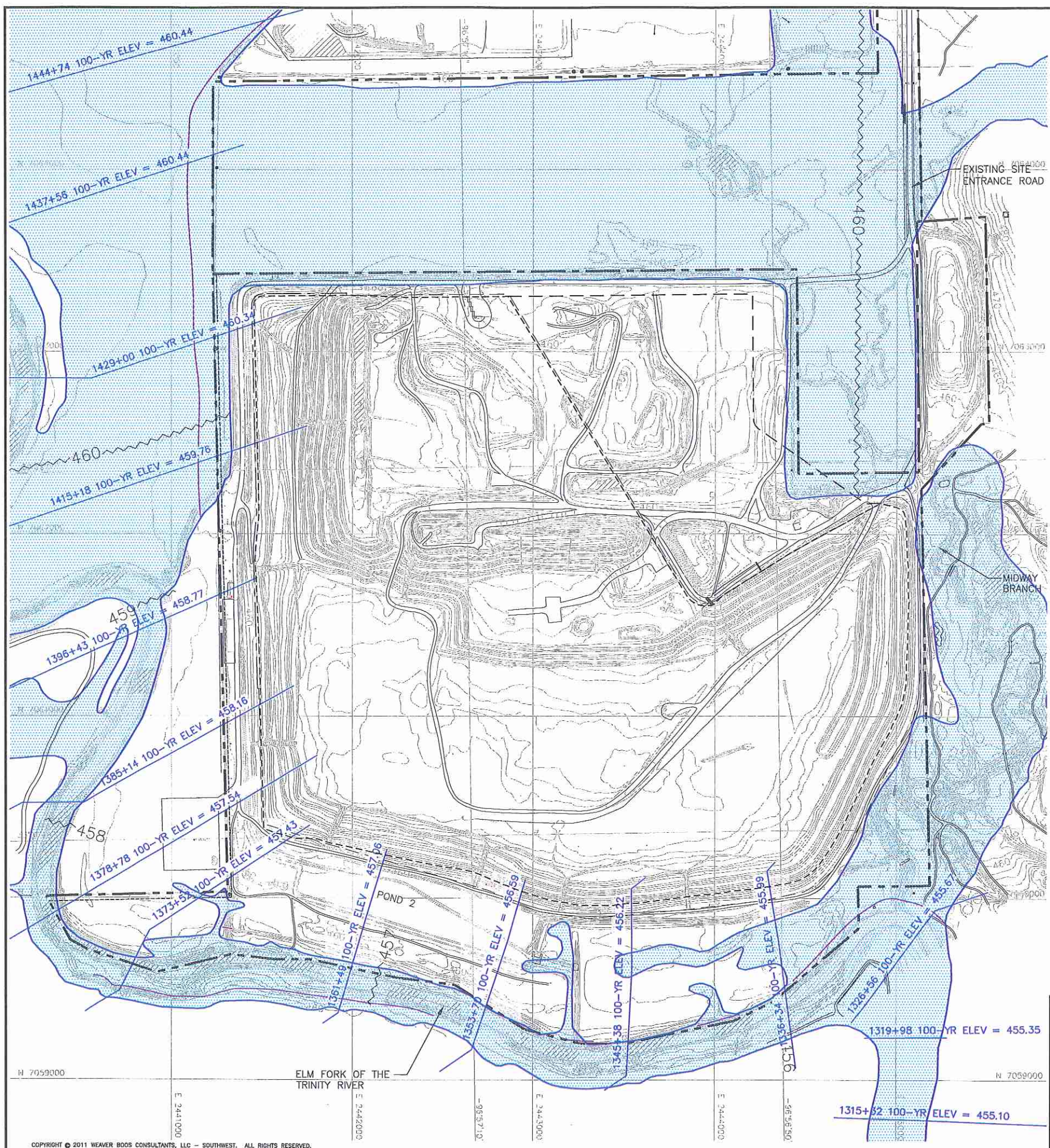
- NOTE:**
- CONTOURS AND ELEVATIONS PROVIDED BY METROPOLITAN AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 8-28-2010. THE GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 1983. ELEVATIONS ARE BASED ON NAVD 1988. OFF-SITE CONTOURS AND ELEVATIONS PROVIDED BY DFWMAPS.COM FROM AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN JANUARY TO MARCH 2007.
 - EXISTING CONTOURS AND FACILITIES HAVE BEEN DEVELOPED CONSISTENT WITH THE CURRENTLY APPROVED TCEQ PERMIT NO. MSW-1312A AND CLOMR CASE NO. 02-06-1950R APPROVED BY FEMA.
 - PROPOSED PERMIT BOUNDARY WAS PREPARED BY PEISER SURVEYING CO. IN NOVEMBER 2010.



III0-B-29

| <input type="checkbox"/> FOR INFORMATION PURPOSES ONLY <input checked="" type="checkbox"/> FOR PERMITTING PURPOSES ONLY <input type="checkbox"/> ISSUED FOR CONSTRUCTION <input type="checkbox"/> CLIENT APPROVAL BY: | PREPARED FOR CITY OF FARMERS BRANCH | CLOMR REQUEST EXISTING CONDITIONS CAMELOT LANDFILL DENTON COUNTY, TEXAS <i>Weaver Boos Consultants</i> TBPE REGISTRATION NO. F-3727 | | | | | | | | | | | | | | | | | | |
|--|---|--|-----------|--|--|-----|------|-------------|--|--|--|--|--|--|--|--|--|--|--|--|
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| GRIFFITH, IN SOUTH BEND, IN SPRINGFIELD, IL ST. LOUIS, MO | | DRAWING A.3 | | | | | | | | | | | | | | | | | | |

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- LEGEND**
- SITE BOUNDARY
 - - - PROPOSED LIMIT OF WASTE
 - - - PERMITTED LIMIT OF WASTE
 - STATE PLANE COORDINATE SYSTEM
 - GEODETIC COORDINATE SYSTEM
 - EXISTING CONTOURS (SEE NOTE 1)
 - FLOODWAY BOUNDARY (FEMA, AUGUST 21, 2001)
 - 100-YEAR FLOODPLAIN (FEMA, AUGUST 21, 2001)
 - 100-YEAR WATER SURFACE ELEVATION
 - 1385+14 100-YR ELEV = 458.03
 - HYDRAULIC CROSS SECTION AND WATER SURFACE ELEVATION (SEE NOTE 3)

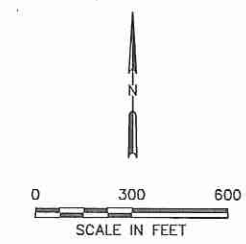
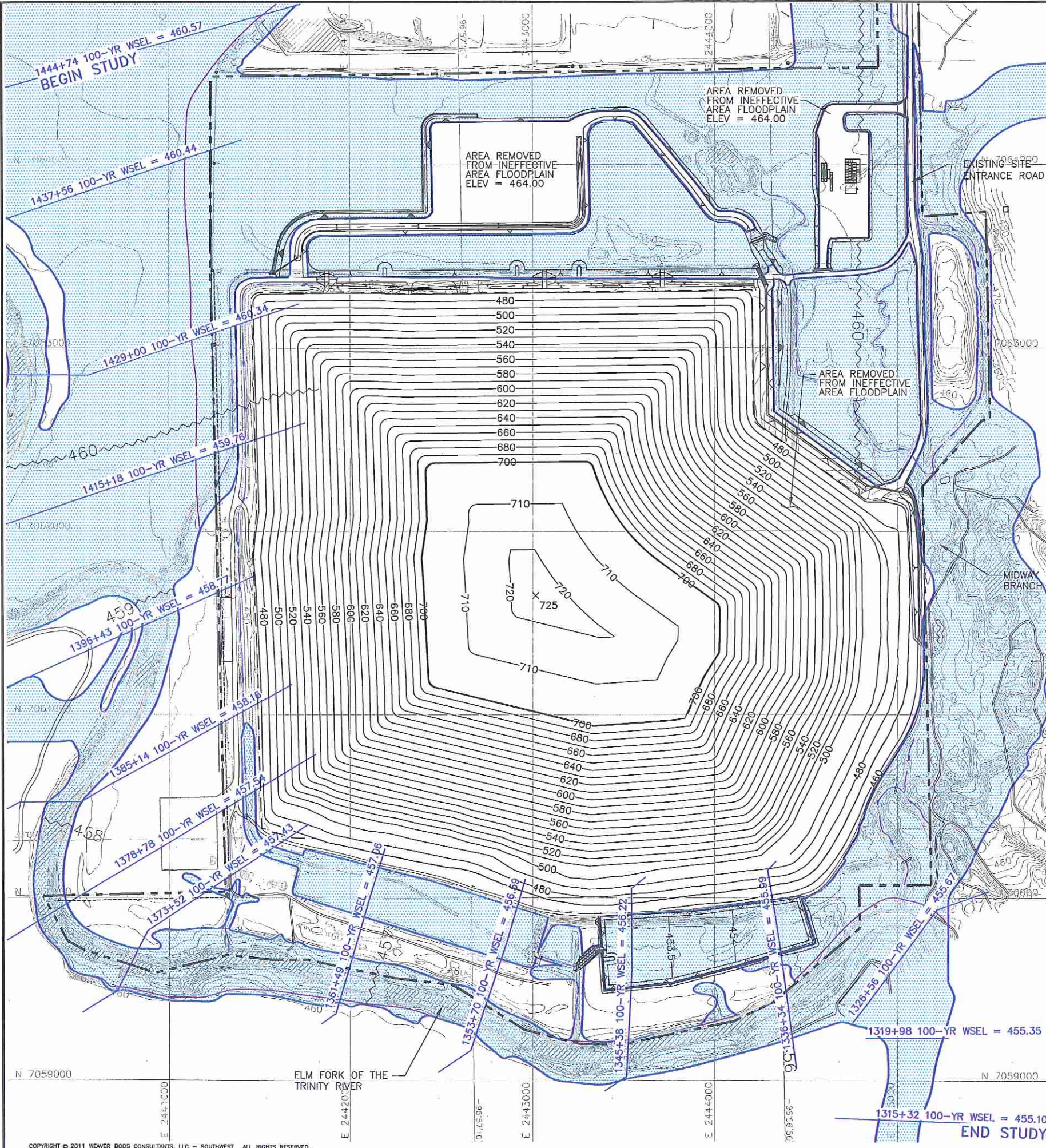
- NOTE:**
- CONTOURS AND ELEVATIONS PROVIDED BY METROPOLITAN AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 8-28-2010. THE GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 1983. ELEVATIONS ARE BASED ON NAVD 1988. OFF-SITE CONTOURS AND ELEVATIONS PROVIDED BY DFWMAPS.COM FROM AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN JANUARY TO MARCH 2007.
 - FLOODPLAIN INFORMATION REPRODUCED FROM FEMA FIRM NUMBER 48121C0565G, EFFECTIVE DATE APRIL 18, 2011.
 - CROSS SECTIONS LOCATIONS REPRESENT THE LIMITS OF THE MODELED TERRAIN IN THE HEC-RAS HYDRAULIC MODEL OF THE ELM FORK OF THE TRINITY RIVER.
 - SITE BOUNDARY WAS PREPARED BY PEISER SURVEYING CO. IN NOVEMBER 2010.



6-30-11

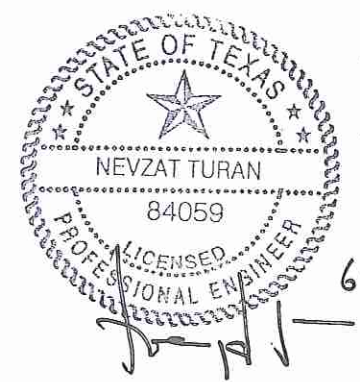
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| <input type="checkbox"/> FOR INFORMATION PURPOSES ONLY <input checked="" type="checkbox"/> FOR PERMITTING PURPOSES ONLY <input type="checkbox"/> ISSUED FOR CONSTRUCTION <input type="checkbox"/> CLIENT APPROVAL BY: | | PREPARED FOR CITY OF FARMERS BRANCH | | CLOMR REQUEST DUPLICATE EFFECTIVE 100-YEAR FLOODPLAIN DELINEATION CAMELOT LANDFILL DENTON COUNTY, TEXAS | | | | | | | | | | | | | | | | | | | |
|--|------|---|--|--|--|-----------|--|--|-----|------|-------------|--|--|--|--|--|--|--|--|--|--|--|--|
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| | | | | DRAWING A.4 | | | | | | | | | | | | | | | | | | | |



- LEGEND**
- PROPOSED PERMIT BOUNDARY
 - PROPOSED LIMIT OF WASTE
 - EXISTING CONTOURS (SEE NOTE 1)
 - H 7061000 STATE PLANE COORDINATE SYSTEM
 - GEODETIC COORDINATE SYSTEM
 - 520--- PROPOSED FINAL CONTOUR (SEE NOTE 2)
 - FLOODWAY BOUNDARY (WBC AUGUST, 2010)
 - 100-YEAR FLOODPLAIN (WBC AUGUST, 2010)
 - 460 100-YEAR WATER SURFACE ELEVATION
 - ▲▲ FILL/CUT SLOPE INDICATORS
 - 1385+14 100-YR ELEV = 458.03 HYDRAULIC CROSS SECTION AND WATER SURFACE ELEVATION (SEE NOTE 3)

- NOTE:**
1. CONTOURS AND ELEVATIONS PROVIDED BY METROPOLITAN AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 8-28-2010. THE GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 1983. ELEVATIONS ARE BASED ON NAVD 1988. OFF-SITE CONTOURS AND ELEVATIONS PROVIDED BY DFWMAPS.COM FROM AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN JANUARY TO MARCH 2007.
 2. THE PROPOSED CONDITION SHOWN HAS BEEN REPRODUCED FROM THE POST-PROJECT LANDFILL CONDITION THAT WILL BE SUBMITTED TO TCEQ FOR APPROVAL (REFER TO APPENDIX C.3).
 3. CROSS SECTIONS LOCATIONS REPRESENT THE LIMITS OF THE MODELED TERRAIN IN THE HEC-RAS HYDRAULIC MODEL OF THE ELM FORK OF THE TRINITY RIVER.
 4. PROPOSED PERMIT BOUNDARY WAS PREPARED BY PEISER SURVEYING CO. IN NOVEMBER 2010.



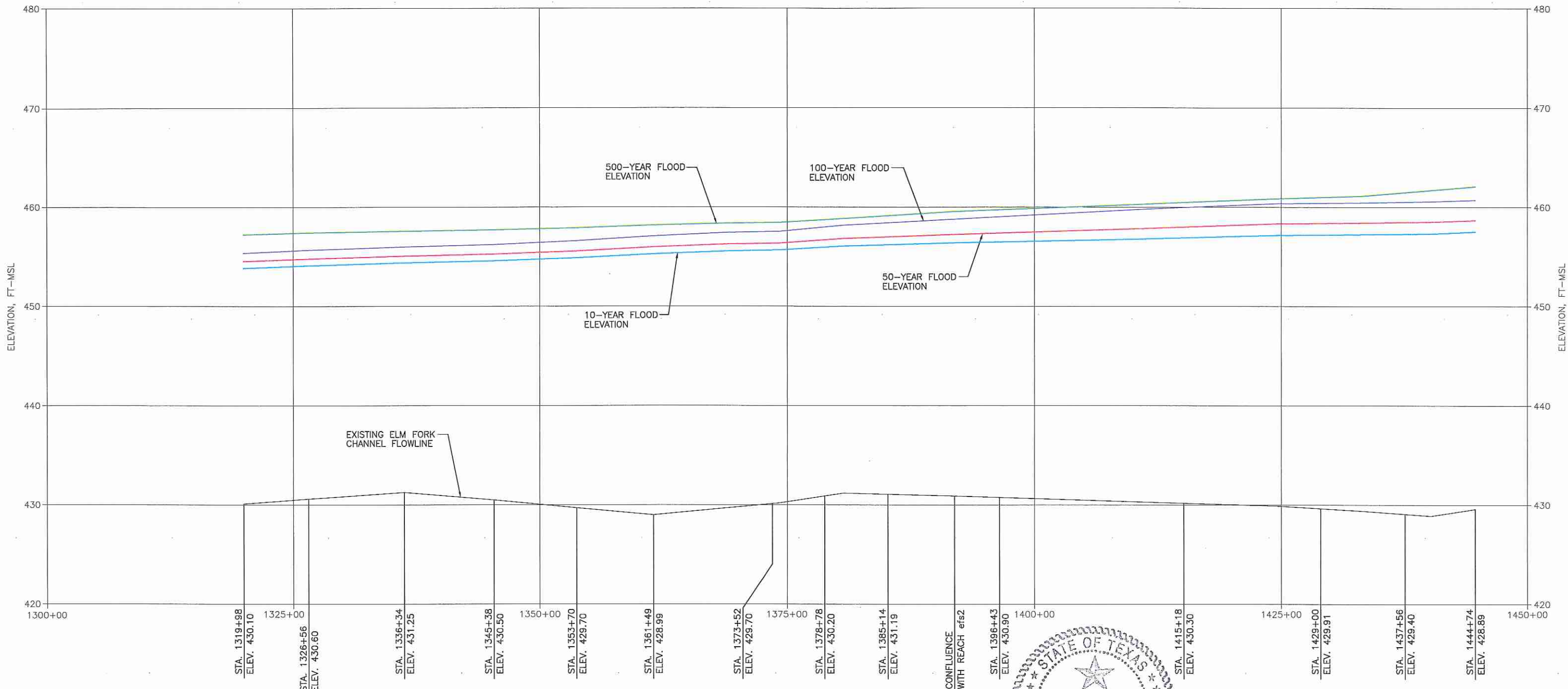
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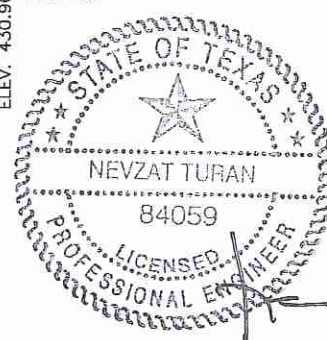
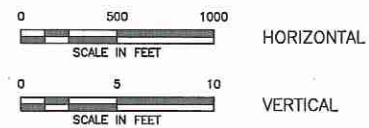
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| | CITY OF FARMERS BRANCH | |
| DATE: 06/2011 FILE: 1339-351-11 CAD: A5-POST PROJECT FLOOD.DWG | DRAWN BY: SRF DESIGN BY: CRM REVIEWED BY: JPY | Weaver Boos Consultants TBPE REGISTRATION NO. F-3727 <small>CHICAGO, IL WAPERVILLE, IL GRIFFITH, IN COLUMBUS, OH (817) 735-9770 SOUTH BEND, IN DENVER, CO SPRINGFIELD, IL ST. LOUIS, MO</small> |
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DUPLICATE EFFECTIVE PROFILE



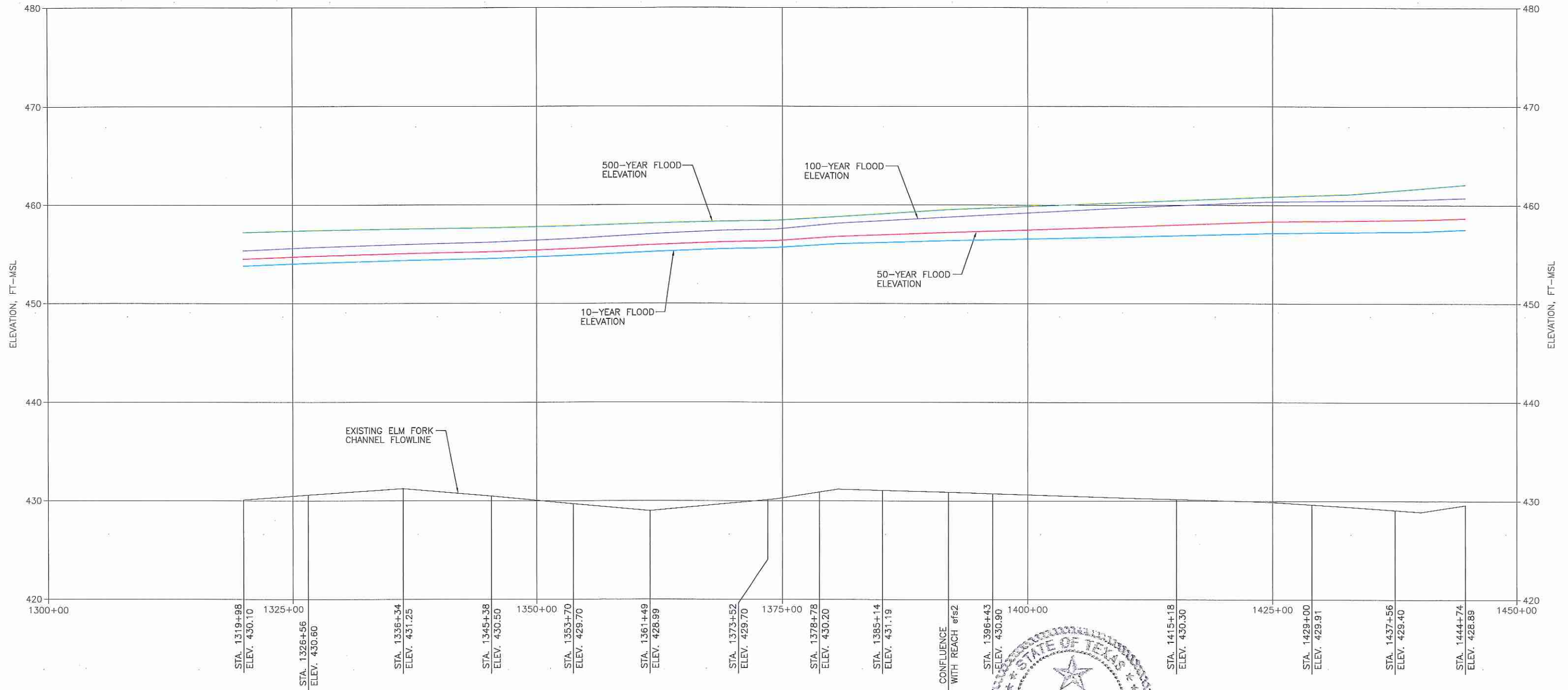
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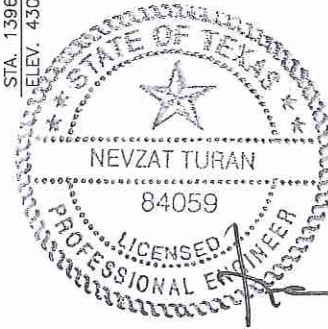
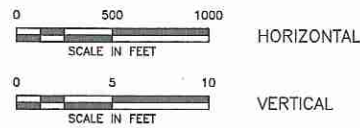
NOTE:
 1. THE CREEK SHOWN ON THIS PROFILE IS LOCATED WITHIN THE CITY LIMITS OF THE CITY OF LEWISVILLE.

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| <input type="checkbox"/> FOR INFORMATION PURPOSES ONLY <input checked="" type="checkbox"/> FOR PERMITTING PURPOSES ONLY <input type="checkbox"/> ISSUED FOR CONSTRUCTION <input type="checkbox"/> CLIENT APPROVAL BY: | PREPARED FOR CITY OF FARMERS BRANCH | CLOMR REQUEST ELM FORK DUPLICATE EFFECTIVE PROFILE CAMELOT LANDFILL DENTON COUNTY, TEXAS |
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| | | FORT WORTH, TX (817) 735-9770 |
| | | GRIFFITH, IN SOUTH BEND, IN SPRINGFIELD, IL ST. LOUIS, MO |
| | | DRAWING A.6 |

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POST-PROJECT PROFILE



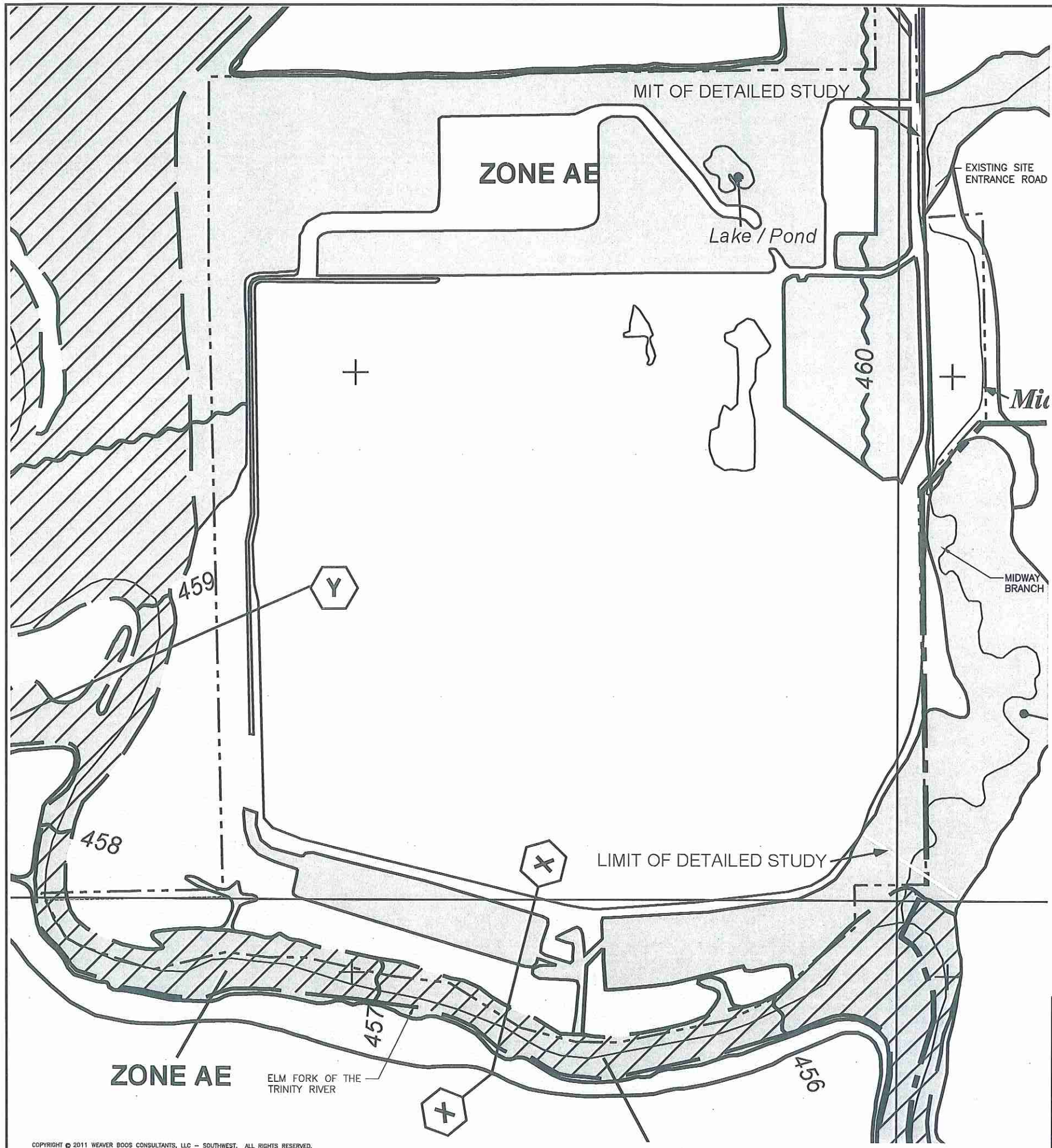
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[Signature]

NOTE:
 1. THE CREEK SHOWN ON THIS PROFILE IS LOCATED WITHIN THE CITY LIMITS OF THE CITY OF LEWISVILLE.

III-O-B-33

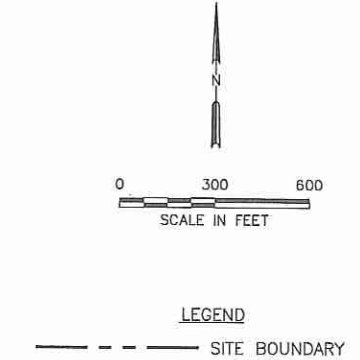
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| | | DRAWING A.7 | | | | | | | | | | | |

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LEGEND

- SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD
- ZONE A** No base flood elevation determined.
- ZONE AE** Base flood elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (small areas of greater base flood elevations determined).
- ZONE AO** Flood depths of 1 to 3 feet (small sheet flow on sloping terrain average depths determined; for areas of actual flow flooding, velocities also determined).
- ZONE APP** To be transition from AE-over flood by total flood protection system (area determined; no base flood elevations determined).
- ZONE V** Coastal flood with velocity hazard (wave action); no base flood elevations determined.
- ZONE VE** Coastal flood with velocity hazard (wave action); base flood elevations determined.
- FLOODWAY AREAS IN ZONE AE
- OTHER FLOOD AREAS**
- ZONE X** Areas of 500-year flood areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than square miles, and areas connected by levees from 100-year flood.
- OTHER AREAS**
- ZONE X** Areas determined to be inside 500-year floodplain.
- ZONE D** Areas in which flood hazards are undetermined.
- UNDEVELOPED COASTAL BARRIERS**
- Identified 1983
- Identified 1999
- Candidate Protected Areas
- Coastal barrier areas are normally located within or adjacent to Special Flood Hazard Areas.
- Township Boundary
- County Boundary
- Zone D Boundary
- Boundary of Special Flood Hazard Areas and Boundary of Areas of Different Coastal Base Flood Elevations (1983 Special Flood Hazard Zones).
- Base Flood Elevation Line (Elevation in feet. See Map Index for Elevation Data).
- Cross Section Line
- Base Flood Elevation in feet (refer to "Data" Zone. See Map Index for Elevation Data).
- Elevation Reference Mark
- Spot Elevation
- Horizontal Coordinates Based on North American Datum of 1983 (NAD 83) Projection.



- NOTE:
1. PORTIONS OF FLOODPLAIN AND FLOODWAY BOUNDARIES WERE REPRODUCED FROM FEMA FIRM NUMBER 48121C0565 G, EFFECTIVE DATE APRIL 18, 2011.
 2. PROPOSED PERMIT BOUNDARY WAS PREPARED BY PEISER SURVEYING CO. IN NOVEMBER 2010.



III-O-B-34

| <input type="checkbox"/> FOR INFORMATION PURPOSES ONLY <input checked="" type="checkbox"/> FOR PERMITTING PURPOSES ONLY <input type="checkbox"/> ISSUED FOR CONSTRUCTION <input type="checkbox"/> CLIENT APPROVAL BY: | PREPARED FOR CITY OF FARMERS BRANCH | CLOMR REQUEST REVISED FLOOD INSURANCE RATE MAP CAMELOT LANDFILL DENTON COUNTY, TEXAS <i>Weaver Boos Consultants</i> TBPE REGISTRATION NO. F-3727 | | | | | | | | | | | | | | | |
|---|---|--|-----------|--|--|-----|------|-------------|--|--|--|--|--|--|--|--|--|
| DATE: 06/2011 FILE: 1339-351-11 CAD: A.8-EFFECTIVE FIRM.DWG | DRAWN BY: SRF DESIGN BY: CRM REVIEWED BY: JPY | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | REVISIONS | | | NO. | DATE | DESCRIPTION | | | | | | | | | |
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| | | DRAWING A.8 | | | | | | | | | | | | | | | |

APPENDIX B
FEMA CERTIFICATION FORMS

APPENDIX B.1

FORM 1 – OVERVIEW AND CONCURRENCE FORM

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 1 hour per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless a valid OMB control number appears in the upper right corner of this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, U.S. Department of Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington DC 20472, Paperwork Reduction Project (1660-0016). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. **Please do not send your completed survey to the above address.**

A. REQUESTED RESPONSE FROM DHS-FEMA

This request is for a (check one):

- CLOMR:** A letter from DHS-FEMA commenting on whether a proposed project, if built as proposed, would justify a map revision, or proposed hydrology changes (See 44 CFR Ch. 1, Parts 60, 65 & 72).
- LOMR:** A letter from DHS-FEMA officially revising the current NFIP map to show the changes to floodplains, regulatory floodway or flood elevations. (See 44 CFR Ch. 1, Parts 60, 65 & 72)

B. OVERVIEW

1. The NFIP map panel(s) affected for all impacted communities is (are):

| Community No. | Community Name | State | Map No. | Panel No. | Effective Date |
|---------------|--------------------|-------|---------|-----------|----------------|
| Ex: 480301 | City of Katy | TX | 480301 | 0005D | 02/08/83 |
| 480287 | Harris County | TX | 48201C | 0220G | 09/28/90 |
| 480195 | City of Lewisville | TX | 480195 | 0565G | 04/18/11 |
| | | | | | |

2. a. Flooding Source: Elm Fork of the Trinity River

- b. Types of Flooding: Riverine Coastal Shallow Flooding (e.g., Zones AO and AH)
- Alluvial fan Lakes Other (Attach Description)

3. Project Name/Identifier: Camelot Landfill

4. FEMA zone designations affected: AE, A, X (choices: A, AH, AO, A1-A30, A99, AE, AR, V, V1-V30, VE, B, C, D, X)

5. Basis for Request and Type of Revision:

a. The basis for this revision request is (check all that apply)

- Physical Change Improved Methodology/Data Regulatory Floodway Revision Base Map Changes
- Coastal Analysis Hydraulic Analysis Hydrologic Analysis Corrections
- Weir-Dam Changes Levee Certification Alluvial Fan Analysis Natural Changes
- New Topographic Data Other (Attach Description)

Note: A photograph and narrative description of the area of concern is not required, but is very helpful during review.

b. The area of revision encompasses the following structures (check all that apply)

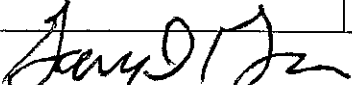
- Structures: Channelization Levee/Floodwall Bridge/Culvert
- Dam Fill Other (Attach Description)

C.- REVIEW FEE

| | | |
|---|---|---------------------|
| Has the review fee for the appropriate request category been included? | <input checked="" type="checkbox"/> Yes | Fee amount: \$4,400 |
| | <input type="checkbox"/> No, Attach Explanation | |
| Please see the DHS-FEMA Web site at http://www.fema.gov/plan/prevent/fhm/fm_fees.shtm for Fee Amounts and Exemptions. | | |

D. SIGNATURE

All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.


| | | |
|--|---|-----------------------|
| Name: Gary D. Greer | Company: City of Farmers Branch | |
| Mailing Address: 13000 William Dodson Parkway Farmers Branch, Texas 75234 | Daytime Telephone No.: 972-919-2515 | Fax No.: 972-247-4836 |
| | E-Mail Address: gary.greer@farmersbranch.info | |
| Signature of Requester (required):  | Date: 5/18/11 | |

As the community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this Letter of Map Revision (LOMR) or conditional LOMR request. Based upon the community's review, we find the completed or proposed project meets or is designed to meet all of the community floodplain management requirements, including the requirement that no fill be placed in the regulatory floodway, and that all necessary Federal, State, and local permits have been, or in the case of a conditional LOMR, will be obtained. In addition, we have determined that the land and any existing or proposed structures to be removed from the SFHA are or will be reasonably safe from flooding as defined in 44CFR 65.2(c), and that we have available upon request by FEMA, all analyses and documentation used to make this determination.

| | | |
|--|--|-----------------------|
| Community Official's Name and Title: David Salmon, Assistant City Engineer | Community Name: Lewisville Texas | |
| Mailing Address: P.O. Box 299002 Lewisville, Texas 75029-9002 | Daytime Telephone No.: 972-219-3492 | Fax No.: 972-219-3487 |
| | E-Mail Address: dsalmon@cityoflewisville.com | |
| Community Official's Signature (required): | Date: | |

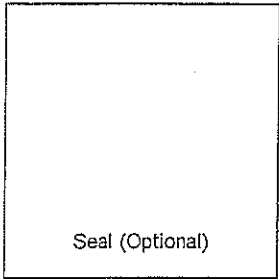
CERTIFICATION BY REGISTERED PROFESSIONAL ENGINEER AND/OR LAND SURVEYOR

This certification is to be signed and sealed by a licensed land surveyor, registered professional engineer, or architect authorized by law to certify elevation information data, hydrologic and hydraulic analysis, and any other supporting data. All documents submitted in support of this request are correct to the best of my knowledge. All analyses have been performed correctly and in accordance with sound engineering practices. All project works are designed in accordance with sound engineering practices to provide protection from the 1% annual chance flood. If "as-built" conditions data/plan provided, then the structure(s) has been built according to the plans being certified, is in place, and is fully functioning. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

| | | |
|--|-----------------------------|--------------------------|
| Certifier's Name: Nevzat Turan, P.E. | License No.: 84059 | Expiration Date: 6/30/11 |
| Company Name: Weaver Boos Consultants, LLC--Southwest | Telephone No.: 817-735-9770 | Fax No.: 817-735-9775 |
| Signature:  | Date: 6-30-11 | |

Ensure the forms that are appropriate to your revision request are included in your submittal.

| <u>Form Name and (Number)</u> | <u>Required if ...</u> |
|---|---|
| <input checked="" type="checkbox"/> Riverine Hydrology and Hydraulics Form (Form 2) | New or revised discharges or water-surface elevations |
| <input type="checkbox"/> Riverine Structures Form (Form 3) | Channel is modified, addition/revision of bridge/culverts, addition/revision of levee/floodwall, addition/revision of dam |
| <input type="checkbox"/> Coastal Analysis Form (Form 4) | New or revised coastal elevations |
| <input type="checkbox"/> Coastal Structures Form (Form 5) | Addition/revision of coastal structure |
| <input type="checkbox"/> Alluvial Fan Flooding Form (Form 6) | Flood control measures on alluvial fans |



Form 1

- * Flood storage capacity will be created adjacent to the existing embankment of the Elm Fork of the Trinity River to offset flood storage capacity consumed by the proposed expansion. As shown on Drawing A.4 (Appendix A), the valley storage area will also act as a detention pond area for drainage from the developed landfill.

APPENDIX B.2

FORM 2 – RIVERINE HYDROLOGY & HYDRAULICS FORM

PAPERWORK REDUCTION ACT

Public reporting burden for this form is estimated to average 3.25 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless a valid OMB control number appears in the upper right corner of this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, U.S. Department of Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington DC 20472, Paperwork Reduction Project (1660-0016). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. **Please do not send your completed survey to the above address.**

Flooding Source: Elm Fork Trinity River
 Note: Fill out one form for each flooding source studied

A. HYDROLOGY

1. Reason for New Hydrologic Analysis (check all that apply)

- Not revised (skip to section B)
 No existing analysis
 Improved data
 Alternative methodology
 Proposed Conditions (CLOMR)
 Changed physical condition of watershed

2. Comparison of Representative 1%-Annual-Chance Discharges

| Location | Drainage Area (Sq. Mi.) | Effective/FIS (cfs) | Revised (cfs) |
|----------|-------------------------|---------------------|---------------|
|----------|-------------------------|---------------------|---------------|

3. Methodology for New Hydrologic Analysis (check all that apply)

- Statistical Analysis of Gage Records
 Precipitation/Runoff Model
 Regional Regression Equations
 Other (please attach description)

Please enclose all relevant models in digital format, maps, computations (including computation of parameters) and documentation to support the new analysis.

4. Review/Approval of Analysis

If your community requires a regional, state, or federal agency to review the hydrologic analysis, please attach evidence of approval/review.

5. Impacts of Sediment Transport on Hydrology

Was sediment transport considered? Yes No If yes, then fill out Section F (Sediment Transport) of Form 3. If No, then attach your explanation for why sediment transport was not considered.

B. HYDRAULICS

1. Reach to be Revised

| | Description | Cross Section | Water-Surface Elevations (ft.) | |
|------------------|---|---------------|--------------------------------|------------------|
| | | | Effective | Proposed/Revised |
| Downstream Limit | Reach ef4 (upstream of Hebron Pkwy) | 1315+32 | 455.35 | 455.35 |
| Upstream Limit | Reach ef5 (downstream of S.H. 121 Bus.) | 1444+74 | 460.57 | 460.57 |

2. Hydraulic Method/Model Used

HEC-RAS v. 4.1.0

III-O-B-41

B. HYDRAULICS (CONTINUED)

3. Pre-Submittal Review of Hydraulic Models

DHS-FEMA has developed two review programs, CHECK-2 and CHECK-RAS, to aid in the review of HEC-2 and HEC-RAS hydraulic models, respectively. These review programs may help verify that the hydraulic estimates and assumptions in the model data are in accordance with NFIP requirements, and that the data are comparable with the assumptions and limitations of HEC-2/HEC-RAS. CHECK-2 and CHECK-RAS identify areas of potential error or concern. **These tools do not replace engineering judgment.** CHECK-2 and CHECK-RAS can be downloaded from http://www.fema.gov/plan/prevent/fnm/fnm_soft.shtm. We recommend that you review your HEC-2 and HEC-RAS models with CHECK-2 and CHECK-RAS. Review of your submittal and resolution of valid modeling discrepancies may result in reduced review time.

4. Models Submitted

| | Natural Run | | Floodway Run | | Datum |
|--|----------------|-------------------|----------------|------------------|--------|
| Duplicate Effective Model* | File Name: CLF | Plan Name: DE100 | File Name: CLF | Plan Name: DE FW | NAVD88 |
| Corrected Effective Model* | File Name: --- | Plan Name: --- | File Name: -- | Plan Name: --- | --- |
| Existing or Pre-Project Conditions Model | File Name: --- | Plan Name: --- | File Name: -- | Plan Name: --- | --- |
| Revised or Post-Project Conditions Model | File Name: CLF | Plan Name: PST100 | File Name: CLF | Plan Name: PSTFW | NAVD88 |
| Other - (attach description) | File Name: --- | Plan Name: --- | File Name: -- | Plan Name: --- | --- |

* For details, refer to the corresponding section of the instructions.

Digital Models Submitted? (Required)

C. MAPPING REQUIREMENTS

A **certified topographic map** must be submitted showing the following information (where applicable): the boundaries of the effective, existing, and proposed conditions 1%-annual-chance floodplain (for approximate Zone A revisions) or the boundaries of the 1%- and 0.2%-annual-chance floodplains and regulatory floodway (for detailed Zone AE, AO, and AH revisions); location and alignment of all cross sections with stationing control indicated; stream, road, and other alignments (e.g., dams, levees, etc.); current community easements and boundaries; boundaries of the requester's property; certification of a registered professional engineer registered in the subject State; location and description of reference marks; and the referenced vertical datum (NGVD, NAVD, etc.).

Digital Mapping (GIS/CADD) Data Submitted

Note that the boundaries of the existing or proposed conditions floodplains and regulatory floodway to be shown on the revised FIRM and/or FBFM must tie-in with the effective floodplain and regulatory floodway boundaries. Please attach a **copy of the effective FIRM and/or FBFM**, annotated to show the boundaries of the revised 1%- and 0.2%-annual-chance floodplains and regulatory floodway that tie-in with the boundaries of the effective 1%- and 0.2%-annual-chance floodplain and regulatory floodway at the upstream and downstream limits of the area of revision.

Annotated FIRM and/or FBFM (Required)

D. COMMON REGULATORY REQUIREMENTS*

1. For LOMR/CLOMR requests, do Base Flood Elevations (BFEs) increase? Yes No

a. For CLOMR requests, if either of the following is true, please submit **evidence of compliance with Section 65.12 of the NFIP regulations**:

- The proposed project encroaches upon a regulatory floodway and would result in increases above 0.00 foot.
- The proposed project encroaches upon a SFHA with or without BFEs established and would result in increases above 1.00 foot.

b. For LOMR requests, does this request require property owner notification and acceptance of BFE increases? Yes No

If Yes, please attach **proof of property owner notification and acceptance (if available)**. Elements of and examples of property owner notification can be found in the MT-2 Form 2 Instructions.

2. Does the request involve the placement or proposed placement of fill? Yes No

If Yes, the community must be able to certify that the area to be removed from the special flood hazard area, to include any structures or proposed structures, meets all of the standards of the local floodplain ordinances, and is reasonably safe from flooding in accordance with the NFIP regulations set forth at 44 CFR 60.3(a)(3), 65.5(a)(4), and 65.6(a)(14). Please see the MT-2 instructions for more information.

3. For LOMR requests, is the regulatory floodway being revised? Yes No

If Yes, attach **evidence of regulatory floodway revision notification**. As per Paragraph 65.7(b)(1) of the NFIP Regulations, notification is required for requests involving revisions to the regulatory floodway. (Not required for revisions to approximate 1%-annual-chance floodplains [studied Zone A designation] unless a regulatory floodway is being added. Elements and examples of regulatory floodway revision notification can be found in the MT-2 Form 2 Instructions.)

4. For LOMR/CLOMR requests, does this request have the potential to impact an endangered species? Yes No

If Yes, please submit documentation to the community to show that you have complied with Sections 9 and 10 of the Endangered Species Act (ESA). Section 9 of the ESA prohibits anyone from "taking" or harming an endangered species. If an action might harm an endangered species, a permit is required from U.S. Fish and Wildlife Service or National Marine Fisheries Service under Section 10 of the ESA.

For actions authorized, funded, or being carried out by Federal or State agencies, please submit documentation from the agency showing its compliance with Section 7(a)(2) of the ESA.

* Not inclusive of all applicable regulatory requirements. For details, see 44 CFR parts 60 and 65.

Form 2

- ** An endangered species assessment of 462.9-acre site is attached. In summary, the landfill does not provide habitat for and would not likely be occupied by endangered or threatened species.

PEISER SURVEYING CO.

623 E. DALLAS ROAD
GRAPEVINE, TEXAS 76051
PHONE: 817-481-1806
FAX: 817-481-1809

December 10, 2010

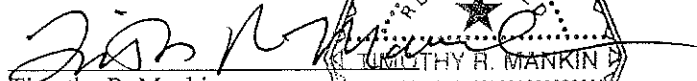
Jason Edwards
Weaver Boos Consultants
6420 Southwest Boulevard
Suite 206
Fort Worth, Texas 76109

RE: Horizontal and Vertical Datum's, Camelot Landfill, Lewisville, Texas

Mr. Edwards,

The elevations for Camelot Landfill were established by Peiser Surveying Co. using Texas Department of Transportation GPS Satellite Station Horizontal/Vertical Control Data, Horizontal Data, North American Datum 1983 (NAD83), Texas North Central Zone 4202, Station I35E-4, dated January 11, 2006, IH 35E between Hebron Parkway and Corporate Drive, east side of IH 35E, northbound service road, a 2" brass disk in concrete road, Elevation = 462.39', Vertical Datum, North American Vertical Datum 1988 (NAVD88).

Respectfully,


Timothy R. Mankin
RPLS / Manager
Peiser Surveying Co.



Reference P-4395
www.peisersurveying.com

APPENDIX IIIO-C

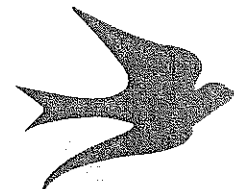
EXCERPTS FROM THE APPROVED CDC APPLICATION

CDC PERMIT SUMMARY

This appendix includes the Trinity River Corridor Development Certificate (CDC) application and approval letters from the City of Lewisville and the USACE. The CDC application was submitted to the City of Lewisville Floodplain Administrator in June 2011. The City of Lewisville approved the CDC application on February 27, 2012. The USACE's October 31, 2011 letter that noted that the project meets the CDC Common Regional Criteria is included on page IIIO-C-5. The purpose of the CDC application is to demonstrate that the proposed development is in compliance with the floodplain development criteria developed by the member cities of the CDC program and the USACE. Specifically, the study addresses the following:

- Demonstrate that the development area for the Lewisville Landfill is protected from the 100-year floodplain (a 3-foot freeboard is included with the proposed design).
- Demonstrate that there is no increase in the 100-year flood water surface elevations and no significant increase in the Standard Project Flood (SPF) water surface elevations for the proposed condition.
- Demonstrate that the decrease of valley storage for the 100-year flood and SPF are 0% and less than 5%, respectively. The decrease in valley storage is computed with respect to the amount of valley storage originally available within the boundary of the proposed project tract.
- Demonstrate that alterations of the floodplain do not create or significantly increase an erosive water velocity on-site or off-site.
- Obtain City of Lewisville and USACE approvals for the continued development of the Camelot Landfill.

CITY OF LEWISVILLE APPROVAL LETTER



LEWISVILLE

Deep Roots. Broad Wings. Bright Future.

Engineering Division

February 27, 2012

Mr. Nevzat Turan, P.E.
Weaver Boos Consultants, LLC
6420 Southwest Blvd.
Fort Worth, TX 76109

CDC Final Action: CDC Tracking Code LEW063011-1, (Camelot Landfill)

Dear Mr. Turan;

After review of the above referenced Corridor Development Certificate application, the City of Lewisville confirms the proposed Trinity River floodplain modifications as presented meet the criteria of the Corridor Development Certificate Manual, 4th Edition and therefore approves the CDC application. Said approval does not imply or guarantee City of Lewisville concurrence with project specifics as presented in the application or approval of any pending or future zoning, platting, site plan, or permit applications including but not limited to applications related to a proposed landfill expansion carried forward to the City of Lewisville for review and/or approval.

I may be contacted at 972-219-3492 if you have questions regarding the subject CDC application approval.

Sincerely,

David Salmon, P.E., CFM
Assistant City Engineer

Xc: Steven Bacchus, Assistant City Manager
Lizbeth Plaster, City Attorney

US ARMY CORPS OF ENGINEERS APPROVAL LETTER



REPLY TO
ATTENTION OF

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

OCT 31 2011

Engineering & Construction Division

Mr. David Salmon, P.E.
Assistant City Engineer
City of Lewisville
P.O. Box 299002
Lewisville, Texas 75029-9002

Dear Mr. Salmon,

In response to your letter of July 11, 2011, the U.S. Army Corps of Engineers Fort Worth District has completed the Technical Review of CDC application Camelot Landfill LEW 063011-1.

The results of the Technical Review indicate that the project meets the CDC Common Regional Criteria as stated in the CDC Manual 4th Edition.

Please contact Michael Danella at 817-886-1690 if you have questions about the Technical Review or require additional information.

Sincerely,

Michael T. Smith, P.E.
Chief, Engineering and Construction Division

cc:

✓ Nevzat Turan, P.E.
Weaver Boos Consultants, LLC-Southwest
6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109

Jack Tidwell, AICP, CFM
North Central Texas Council of Governments
P.O. Box 5888
Arlington, Texas 76005-5888

EXCERPTS FROM THE APPROVED CDC APPLICATION

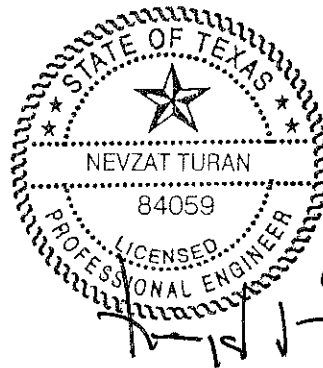
**CORRIDOR DEVELOPMENT
CERTIFICATE APPLICATION
ELM FORK OF THE TRINITY RIVER**

**CAMELOT LANDFILL
DENTON COUNTY, TEXAS**

Prepared for

City of Farmers Branch

June 2011



Prepared by

Weaver Boos Consultants, LLC-Southwest
TBPE Registration No. F-3727
6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109
817-735-9770

Project No. 1339-351-11-02-3B.1
III-O-C-7

WEAVER
BOOS
CONSULTANTS
LLC
SOUTHWEST

6420 SOUTHWEST BLVD, SUITE 206
FORT WORTH, TEXAS 76109
PHONE: 817.735.9770
FAX: 817.735.9775
www.weaverboos.com

Chicago, IL
Naperville, IL
Springfield, IL
South Bend, IN
St. Louis, MO
Columbus, OH
Denver, CO
Fort Worth, TX
Clermont, FL
Grand Rapids, MI
Portland, OR

June 30, 2011
Project 1339-351-11-02-3B.2

David Salmon, P.E.
Assistant City Engineer
City of Lewisville
151 West Church Street
Lewisville, Texas 75057

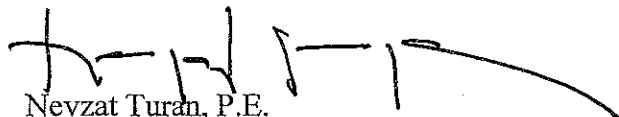
Re: CDC Permit Application
Camelot Landfill
Denton County, Texas

Dear Mr. Salmon:

The purpose of this submittal, prepared on behalf of the City of Farmers Branch, is to obtain a Corridor Development Certificate (CDC) for site improvements associated with the continued development of the Camelot Landfill. This application has been prepared consistent with the current CDC Manual and in accordance with the Pre-Application Conference held on May 5, 2011. In addition, this application also incorporates your comments received during our meeting on June 7, 2011. The cost recovery fee is included as a part of this submittal. Please forward this fee to the Custodian of the CDC Review Fund upon assignment of the CDC tracking number by the City of Lewisville.

If you have any questions or require further information, please call.

Sincerely,
Weaver Boos Consultants, LLC-Southwest


Nevzat Turan, P.E.
Senior Engineer

Attachments: Corridor Development Certificate Application

cc: Shane Davis, City of Farmers Branch

CONTENTS

| | | |
|------------|---|----------|
| 1.0 | INTRODUCTION | 1 |
| 2.0 | PROJECT BACKGROUND | 1 |
| 2.1 | Site Location and Summary | 1 |
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| 3.0 | CDC PERMITTING METHODOLOGY | 2 |
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| 6.1 | TCEQ Operating Permit | 4 |
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| 6.3 | Other Permitting Requirements | 6 |
| 7.0 | SUMMARY | 6 |

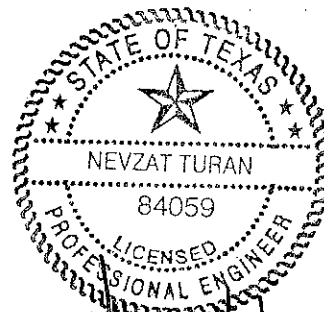
APPENDIX A

CDC Forms

APPENDIX B

Permit Drawings

- B.1 Site Location Map
- B.2 General Topographic Map
- B.3 Aerial Photograph
- B.4 CDC Regulatory Zone – Pre-Project Condition
- B.5 CDC Regulatory Zone – With-Project Condition
- B.6 HEC-RAS Section 1444+74
- B.7 HEC-RAS Section 1437+56
- B.8 HEC-RAS Section 1429+00
- B.9 HEC-RAS Section 1415+18
- B.10 HEC-RAS Section 1396+43
- B.11 HEC-RAS Section 1385+14
- B.12 HEC-RAS Section 1378+78
- B.13 HEC-RAS Section 1373+52
- B.14 HEC-RAS Section 1361+49
- B.15 HEC-RAS Section 1353+70
- B.16 HEC-RAS Section 1345+38



CONTENTS (Continued)

- B.17 HEC-RAS Section 1336+34
- B.18 HEC-RAS Section 1326+56
- B.19 HEC-RAS Section 1319+98
- B.20 HEC-RAS Section 1315+32
- B.21 Elm Fork Pre-Project Profile
- B.22 Elm Fork With-Project Profile

APPENDIX C

- Pre-Project Hydraulic Analysis Results
 - Study Area Report Output
 - Summary Output Tables – Trinity River
 - Summary Output Tables – Study Area

APPENDIX D

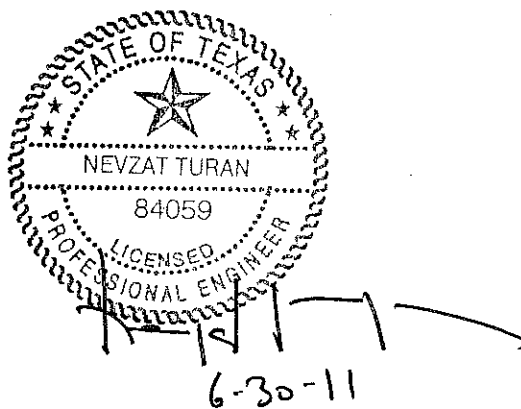
- With-Project Hydraulic Analysis Results
 - Study Area Report Output
 - Summary Output Tables – Trinity River
 - Summary Output Tables – Study Area

APPENDIX E

- Valley Storage Calculations

APPENDIX F

- Camelot Landfill Floodplain Permitting History



PERMIT APPLICATION NARRATIVE

1.0 Introduction

The purpose of this submittal is to obtain a Trinity River Corridor Development Certificate (CDC) for site improvements associated with the continued development of the Camelot Landfill. This permit application has been prepared consistent with the guidelines set forth in the 4th edition of the CDC manual dated July 2009 and in accordance with the Pre-Application Conference held on May 5, 2011. This application has also been updated to incorporate comments received from the CDC Administrator for the City of Lewisville on June 7, 2011. A discussion on the project background, proposed site improvements and updates to the CDC model, CDC permitting methodology, and a summary of related permitting activities for this facility are discussed in the following subsections.

2.0 Project Background

2.1 Site Location Summary

Camelot Landfill is an existing Type I Municipal Solid Waste (MSW) Landfill operating under Texas Commission on Environmental Quality (TCEQ) Permit No. MSW-1312A located in Denton County, Texas. The facility was originally permitted in December 1979 (Texas Department of Health Permit No. 1312). The permit was amended before the site initially opened in March 1981 (TCEQ Permit No. MSW-1312A). The 1981 amendment increased the permit boundary to about 350 acres. The site was upgraded to include a Subtitle D leachate collection system on December 8, 1995. In addition, the City of Farmers Branch owns additional adjacent property north of the landfill. This area increases the site boundary by 118.85 acres to a total of 469.62 acres.

A minor amendment to revise the facility's base grades and final cover configuration was approved by the TCEQ in 2001. The 2001 minor amendment reduced the footprint of the site from 238.0 acres to the current 207.4-acre currently permitted footprint, as shown on Drawing B.4 in Appendix B. The landfill is permitted to accept municipal solid waste resulting from or incidental to municipal, community, commercial, institutional, and recreational activities. As shown on Drawing B.1 in Appendix B, the site is located within the city limits of Lewisville, Texas, south of the intersection of State Highway 121 (Business) and Huffines Boulevard.

2.2 Floodplain History

Prior to the publication of the 1997 Flood Insurance Rate Map (FIRM) No. 48121CO565E, the Camelot Landfill was part of a non-National Flood Insurance Program

(NFIP) participating community (Hebron). The original permit for the landfill was issued prior to 1997, thus there were no floodplain permits required. After the publication of the then-effective FIRM, the landfill tract was incorporated into the City of Lewisville, Texas, a participant in the NFIP. The 1997 FIRM No. 48121CO565E showed the majority of the current landfill property to be within the Zone "AE" floodplain of the Elm Fork of the Trinity River.

In September 2000, FEMA issued a preliminary revised FIRM for the areas around the Camelot Landfill. This revised FIRM was based on a restudy of the Trinity River system performed by the United States Army Corps of Engineers (USACE). This FIRM became effective on August 23, 2001.

In April 2001, a Conditional Letter of Map Revision (CLOMR) was submitted to the City of Lewisville and FEMA to obtain the required floodplain related approvals for the continued development of the landfill. The CLOMR approval was issued by FEMA on November 18, 2002. As a part of the continued development of the landfill, a CLOMR has been prepared and submitted concurrently with this CDC application to the City of Lewisville and to FEMA for review. Appendix F includes additional information on the CLOMR prepared for this facility and the history of floodplain permitting in the area around the Camelot Landfill.

3.0 CDC Permitting Methodology

The pre-project and with-project conditions are compared on Figure 3-1. The with-project condition represents the proposed revision to the CDC regulatory area.

The methodology for the development of this CDC permit application is consistent with the guidelines established in the 4th edition of the CDC Manual dated July 2009. The CDC permit application forms included in Appendix A were developed using the following criteria.

- The USACE CDC HEC-RAS model dated August 2010 was used to establish the limits of the floodway and floodplain for the pre-project conditions. The pre-project floodway and floodplain limits were provided by the USACE in electronic files dated March 2000. Summary HEC-RAS output for the pre-project and with-project conditions are included in Appendix C and D, respectively.
- 2007 Topography was obtained from the North Central Texas Council of Governments (NCTCOG), and this topography serves as the basis for the pre-project hydraulic models. However, the pre-project floodplain delineation did not entirely match the 2007 topography or the pre-project hydraulic model. Areas in the northwest and southeast portions of the permit boundary should be removed from the pre-project CDC regulatory zone based on the pre-project hydraulic model and the 2007 NCTCOG topography. This mapping change is illustrated on Figure 3-1. Removing these areas from the 100-year floodplain does not alter the hydraulic model because the landfill development has already been incorporated

into the pre-project hydraulic model for the Elm Fork. Appendix C contains the hydraulic models for the pre-project conditions.

- As shown on Drawing B.5 (Appendix B) and Figure 3-1, the proposed landfill disposal footprint and related facilities will be expanded into the 100-year floodplain. To offset the valley storage consumed by the lateral expansion, pond embankment construction, and entrance facilities, the overbank area of the Elm Fork near the landfill footprint will be excavated to create compensatory valley storage, consistent with CDC requirements. In summary, the proposed development creates a net gain of 98 ac-ft of valley storage.

The following conditions are included in this CDC application.

- Pre-Project – copy of the effective hydraulic analysis provided by USACE (refer to Appendix C for more information).
- With-Project – represents the proposed landfill expansion (refer to Appendix D for more information).

4.0 Updates to the Pre-Project CDC Map

The scope of this study is limited to portions of the Elm Fork of the Trinity River near the landfill site. This CDC will update or replace information for the landfill site in the current CDC model. As noted in Section 3, minor map changes are proposed to be made to the pre-project CDC map to make it consistent with the pre-project model. A summary of the pre-project CDC map revisions is provided in Notes 1 and 2 on Figure 3-1 and listed below.

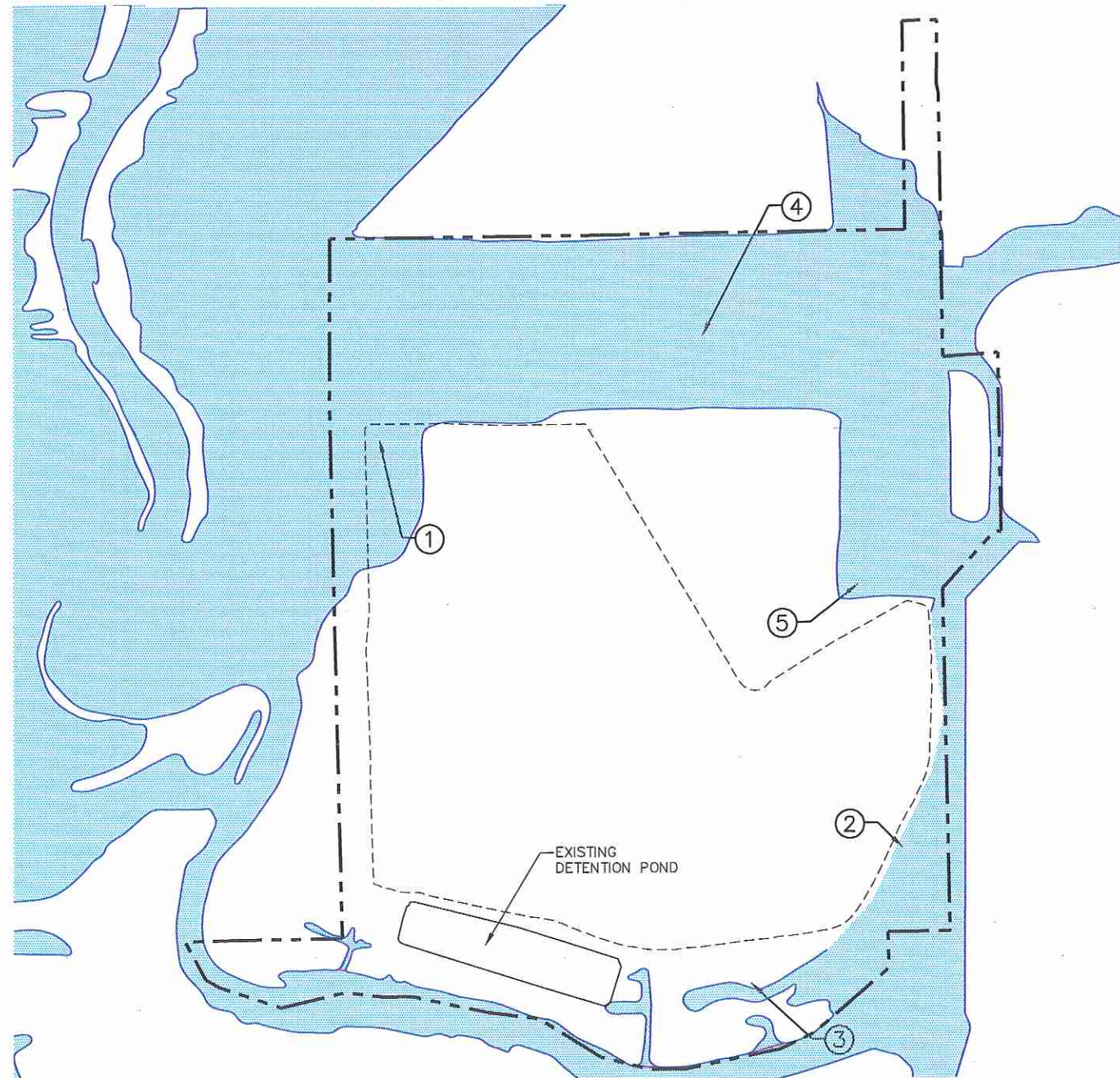
- The northwest corner is removed from the 100-year floodplain, consistent with the current model.
- Adjustment of the floodplain limits on the east and southeast sides of the landfill to reflect as-built conditions, and it is consistent with the current model.

5.0 With-Project CDC Map and Model Updates

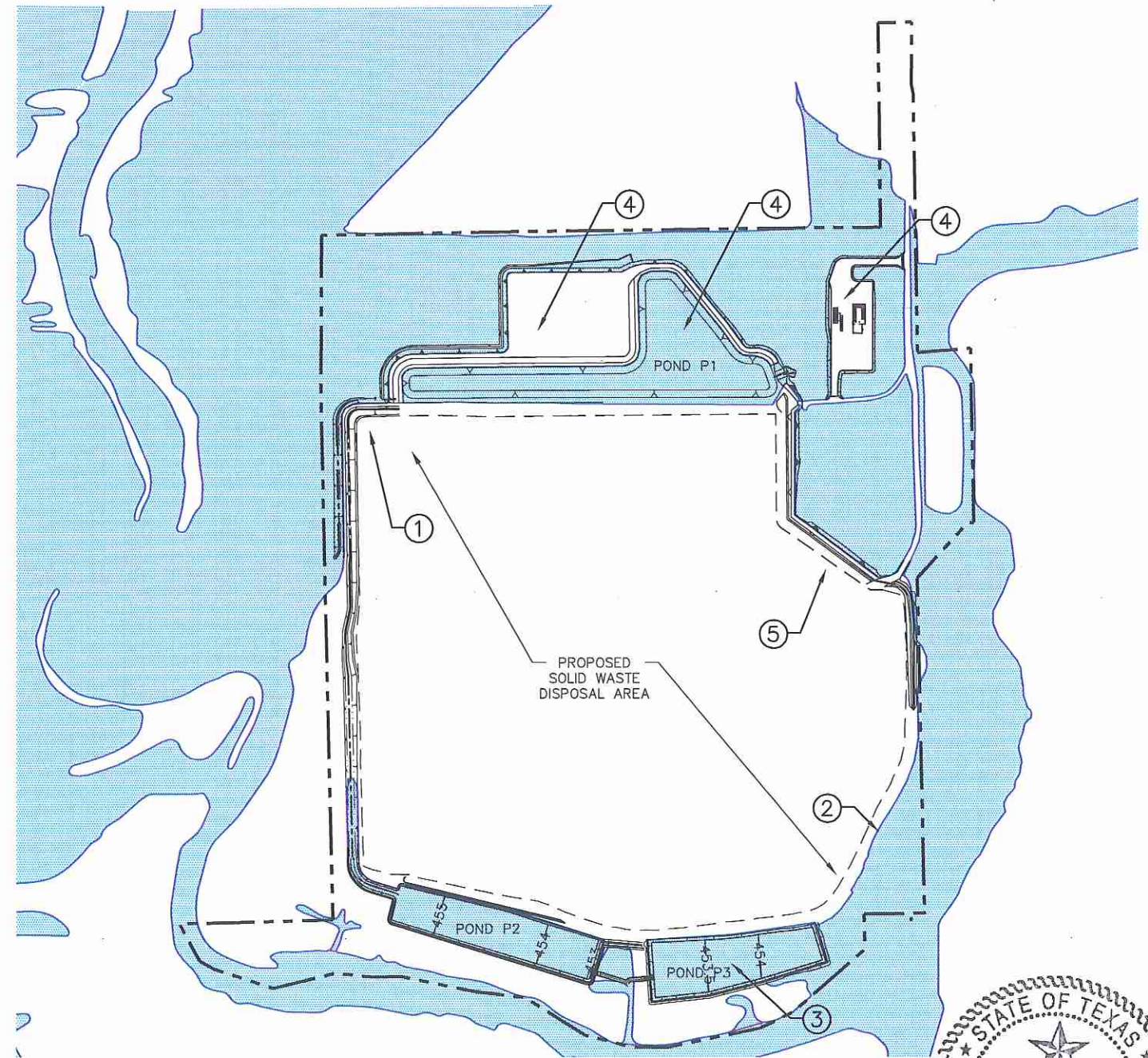
The majority of the proposed landfill development does not affect the CDC hydraulic model. However, minor updates to the hydraulic model are proposed to incorporate the proposed development associated with the landfill. The proposed changes to the USACE CDC model include a revised landfill completion plan and revisions to ineffective flow areas. A summary of the model changes is listed below.

- Cross sections 1345+38 and 1336+34 were revised to reflect the proposed valley storage/detention pond layout. These sections are shown on Figure 5-1 and the details of the detention ponds are shown on Figure 5-2 through 5-5. As shown on these figures, two ponds are proposed to be constructed (Ponds P1 and P3). These ponds will function as stormwater detention ponds, similar to the existing pond P2.

PRE-PROJECT CDC CONDITION



WITH-PROJECT UPDATES

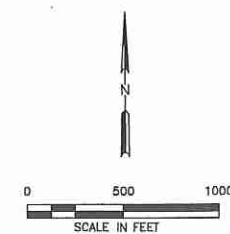


COMPARISON OF PRE-PROJECT AND WITH-PROJECT CONDITIONS

- ① THE NORTHWEST CORNER IS REMOVED FROM THE 100-YEAR FLOODPLAIN. NO CHANGE TO THE HYDRAULIC MODEL IS NEEDED. THIS CHANGE REPRESENTS A MAP CORRECTION.
- ② ADJUSTMENT OF THE FLOODPLAIN LIMITS ON THE EAST AND SOUTHEAST SIDES OF THE LANDFILL TO REFLECT AS-BUILT CONDITIONS. THIS IS MAPPING CHANGE ONLY. NO UPDATE TO THE HYDRAULIC MODEL HAS BEEN MADE FOR THIS CHANGE.
- ③ ADDITION OF EXISTING AND PROPOSED DETENTION PONDS. THE WESTERN POND HAS BEEN CONSTRUCTED AS PART OF THE CURRENT LANDFILL PERMIT. THE ADDITIONAL EAST DETENTION POND WILL FUNCTION SIMILAR TO THE EXISTING PERMITTED DETENTION POND.
- ④ NORTHERN AREA DEVELOPMENT. TO ALLOW FOR THE DEVELOPMENT OF FACILITIES TO SUPPORT THE OPERATION OF THE LANDFILL, THIS PROJECT INCLUDES THE REMOVAL OF TWO AREAS FROM THE FLOODPLAIN IN THE NORTHERN PORTION OF THE SITE. THESE TWO AREAS WILL BE USED FOR (1) ENTRANCE FACILITIES INCLUDING ACCESS ROADS AND (2) A 16-ACRE AREA THAT WILL BE USED AS AN OPERATION SUPPORT AREA.
- ⑤ REMOVAL OF NORTHEAST AREA FROM FLOODPLAIN TO ALLOW FOR THE CONTINUED DEVELOPMENT OF THE LANDFILL. THIS AREA IS PROPOSED TO BE REMOVED FROM THE INEFFECTIVE FLOW AREA OF THE 100-YEAR FLOODPLAIN.

NOTE:

1. SITE BOUNDARY WAS PREPARED BY PEISER SURVEYING CO. IN NOVEMBER 2010.



LEGEND

- SITE BOUNDARY
- - - POST-DEVELOPMENT LIMIT OF WASTE
- - - AUTHORIZED LIMIT OF WASTE
- 100-YEAR FLOODPLAIN



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| | CITY OF FARMERS BRANCH | |
| DATE: 05/2011 FILE: 1339-351-11 CWD: 3-1-FLOODPLAIN COMP.DWG | DRAWN BY: VRS DESIGN BY: CRM REVIEWED BY: JPY | CHICAGO, IL NAPERVILLE, IL COLUMBUS, OH DENVER, CO |
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Ponds P1 and P3 will utilize low water outlets and spillway structures as shown on Drawings 5-4 and 5-5. The low water outlets for these ponds are located at the bottom of the ponds, allowing the ponds to function as “dry” detention ponds. The low water outlets are located below the 100-year water surface elevation. This alignment makes the pond areas a part of the 100 year floodplain and allows for valley storage to be created due to the pond excavation.

- Expansion of the landfill waste disposal footprint occurs in Cross Sections 1385+14 through 1361+49. A proposed valley storage detention pond and landfill entrance facilities are located across Cross-Sections 1429+00 and 1415+18. However, the areas where these facilities are to be constructed are not included in the HEC-RAS Model. Therefore, construction of these facilities would not alter the floodplain elevations.
- Addition of detention pond P3. This additional detention pond will function similar to the existing permitted detention pond.
- Northern area development. To allow for the development of facilities to support the operation of the landfill, this project includes the removal of two areas from the CDC regulatory zone. As shown on Figure 3-1, these two areas will be used for (1) entrance facilities including access roads and (2) a 16-acre area that will be used as an operation support area.
- Removal of northeast area from floodplain to allow for the continued development of the landfill. About 2 acres is proposed to be removed from the ineffective flow area of the 100-year floodplain.
- Table 1 (page 5) lists a summary of the water surface elevations and velocities for pre-project and with-project conditions based on 100-year and standard project flood (SPF) events.

6.0 Current Permitting Activities

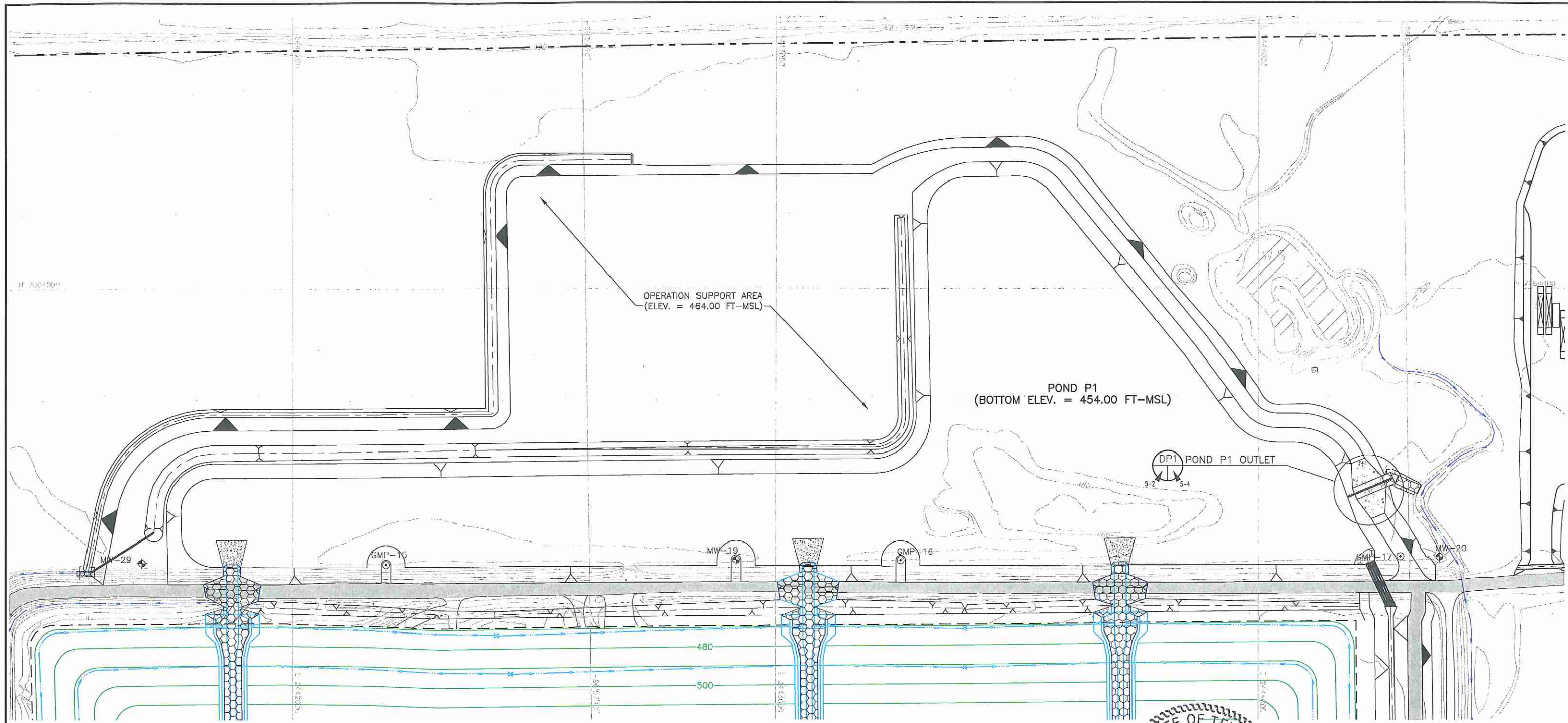
In addition to this CDC application, several additional permits will need to be acquired by the City of Farmers Branch for this project. Related permits for the landfill are summarized below.

6.1 TCEQ Operating Permit

The permit provisions of Permit No. MSW-1312A are enforced by the TCEQ. During the active life of the landfill and the postclosure period (30 years), the site will be routinely inspected by the TCEQ to ensure compliance with the TCEQ solid waste permit provisions. The Camelot Landfill is in the process of developing a major permit amendment application to be submitted to the TCEQ for the continued development of the Camelot Landfill. The

TCEQ requires a detailed drainage design report to be included in the landfill permit application. This report addresses surface water drainage design and erosion control for the area within the landfill permit boundary and includes a demonstration that the proposed

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| POND P1 | |
|--------------------|-------------------|
| ELEVATION (FT-MSL) | SURFACE AREA (AC) |
| 454 | 17.18 |
| 455 | 17.75 |
| 456 | 18.16 |
| 457 | 18.58 |
| 458 | 18.99 |
| 459 | 19.41 |
| 460 | 19.82 |

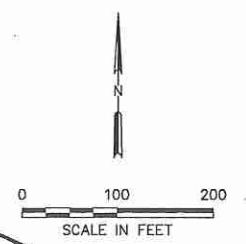
- LEGEND**
- SITE BOUNDARY
 - - - PROPOSED LIMIT OF WASTE
 - N 7051000 STATE PLANE COORDINATE SYSTEM
 - 96°26'50" GEODETIC COORDINATE SYSTEM
 - 460 EXISTING CONTOUR
 - 500 FINAL COVER CONTOUR
 - [Pattern] DRAINAGE LETDOWN
 - DRAINAGE SWALE
 - ⊕ MW-29 PERMITTED GROUNDWATER MONITORING WELL
 - ⊙ GMP-15 PERMITTED GAS MONITORING PROBE

NOTE:

1. CONTOURS AND ELEVATIONS PROVIDED BY METROPOLITAN AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 8-28-2010. THE GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 1983. ELEVATIONS ARE BASED ON NAVD 1988.
2. SITE BOUNDARY WAS PREPARED BY PEISER SUREYING CO. IN NOVEMBER 2010.

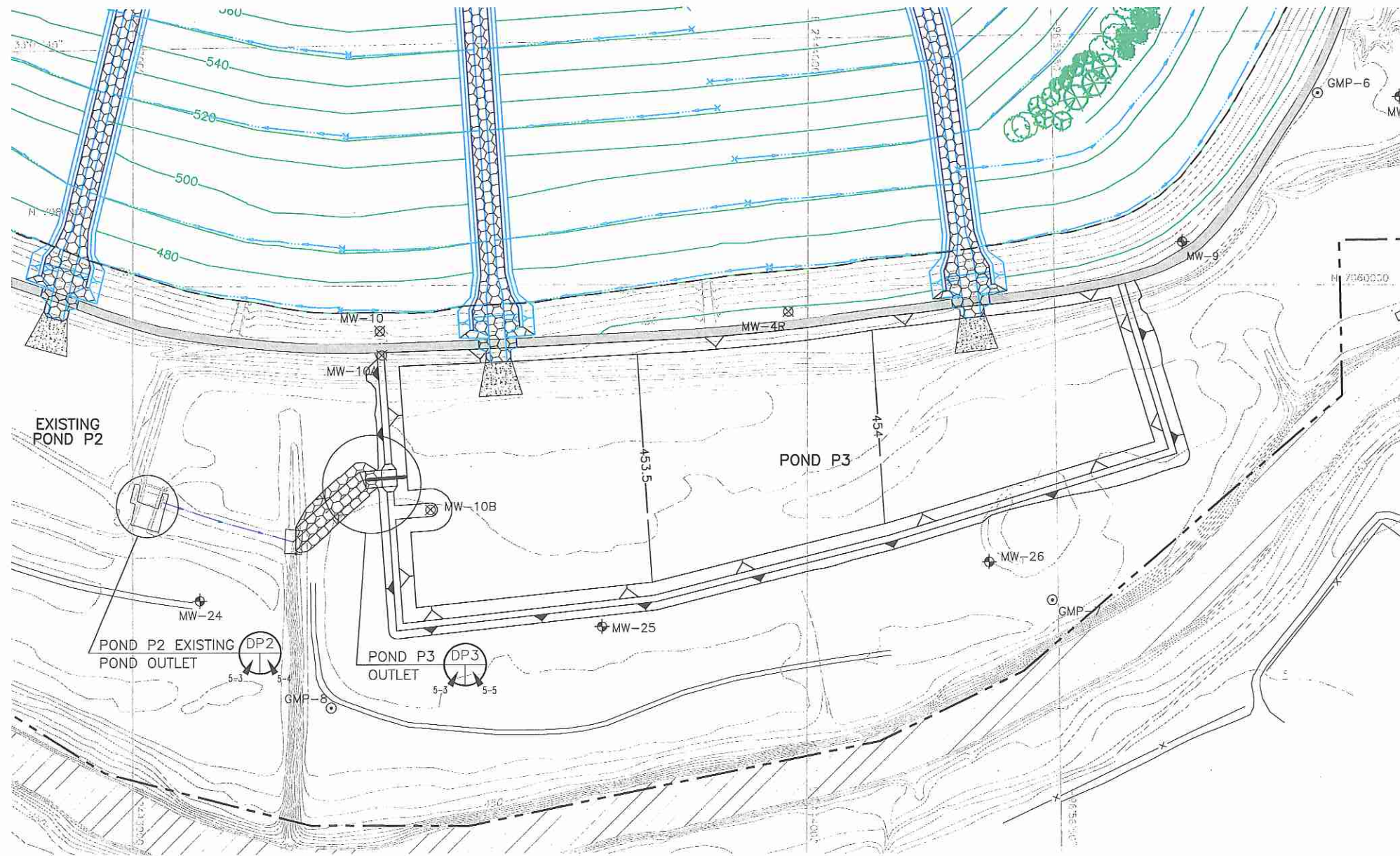


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| GRIFFITH, IN SOUTH BEND, IN SPRINGFIELD, IL ST. LOUIS, MO | | FIGURE 5-2 |



EXISTING POND P2

| ELEVATION (FT-MSL) | SURFACE AREA (AC) |
|--------------------|-------------------|
| 454 | 4.08 |
| 455 | 6.79 |
| 456 | 8.38 |
| 457 | 8.62 |
| 458 | 8.87 |
| 459 | 9.12 |

POND P3

| ELEVATION (FT-MSL) | SURFACE AREA (AC) |
|--------------------|-------------------|
| 453.5 | 2.73 |
| 454 | 5.36 |
| 455 | 7.71 |
| 456 | 7.97 |
| 457 | 8.16 |
| 458 | 8.36 |
| 459 | 8.56 |

LEGEND

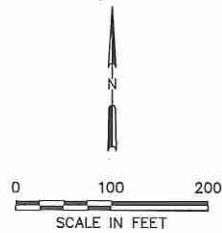
- SITE BOUNDARY
- - - PROPOSED LIMIT OF WASTE
- N 7060000 STATE PLANE COORDINATE SYSTEM
- 33°01'40" GEODETIC COORDINATE SYSTEM
- 450 EXISTING CONTOUR
- 500 FINAL COVER CONTOUR
- [Pattern] DRAINAGE LETDOWN
- [Symbol] DRAINAGE SWALE
- MW-25 PERMITTED GROUNDWATER MONITORING WELL
- GMP-8 PERMITTED GAS MONITORING PROBE

NOTE:

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- SITE BOUNDARY WAS PREPARED BY PEISER SUREYING CO. IN NOVEMBER 2010.



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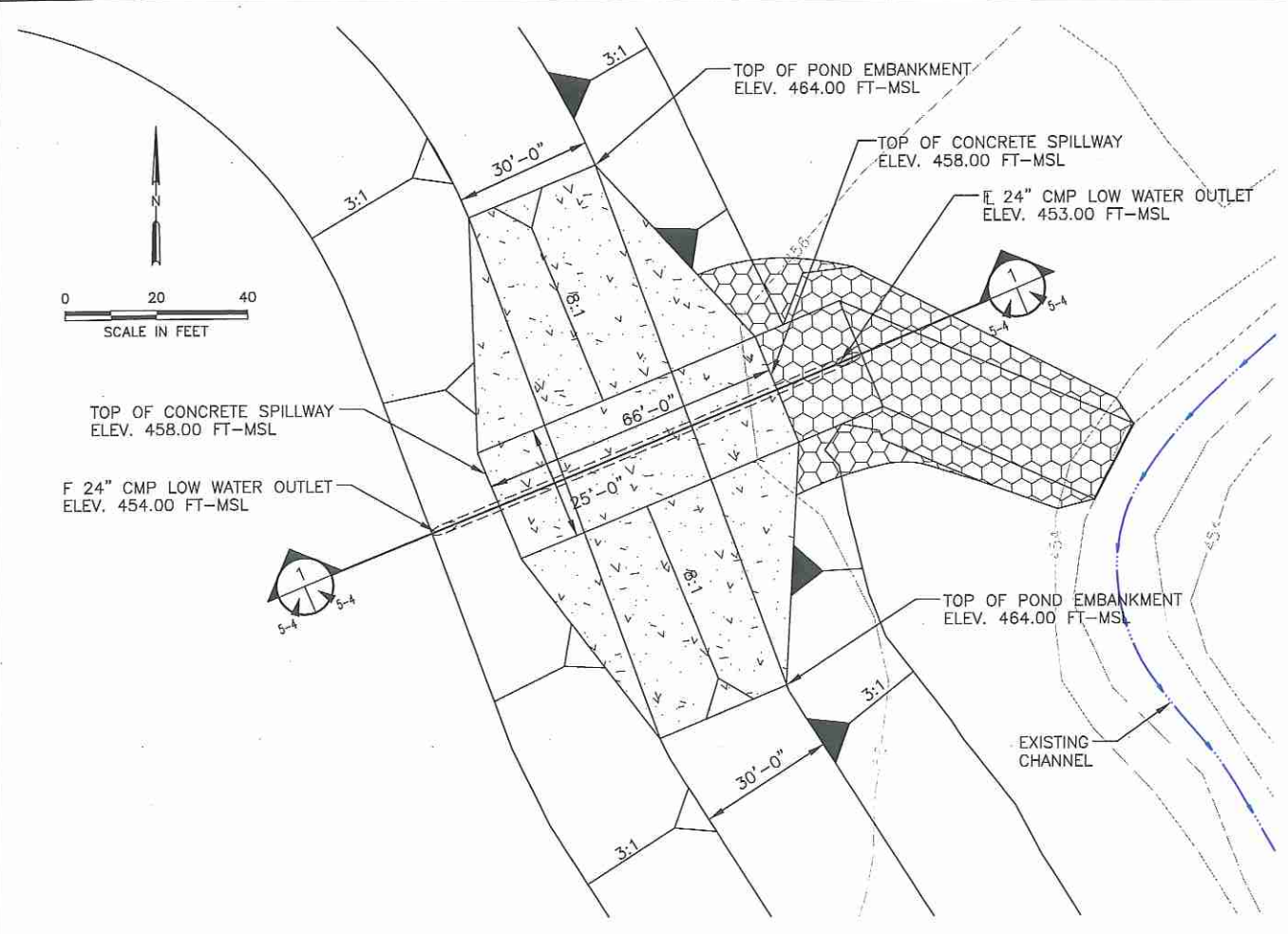


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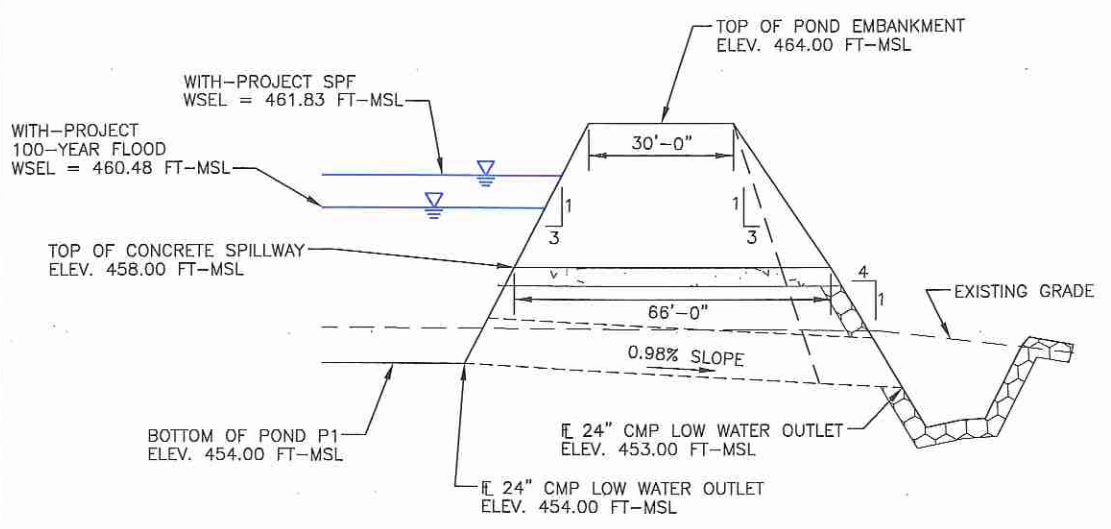
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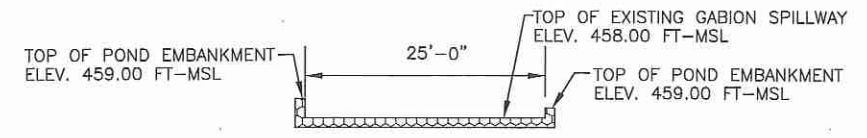
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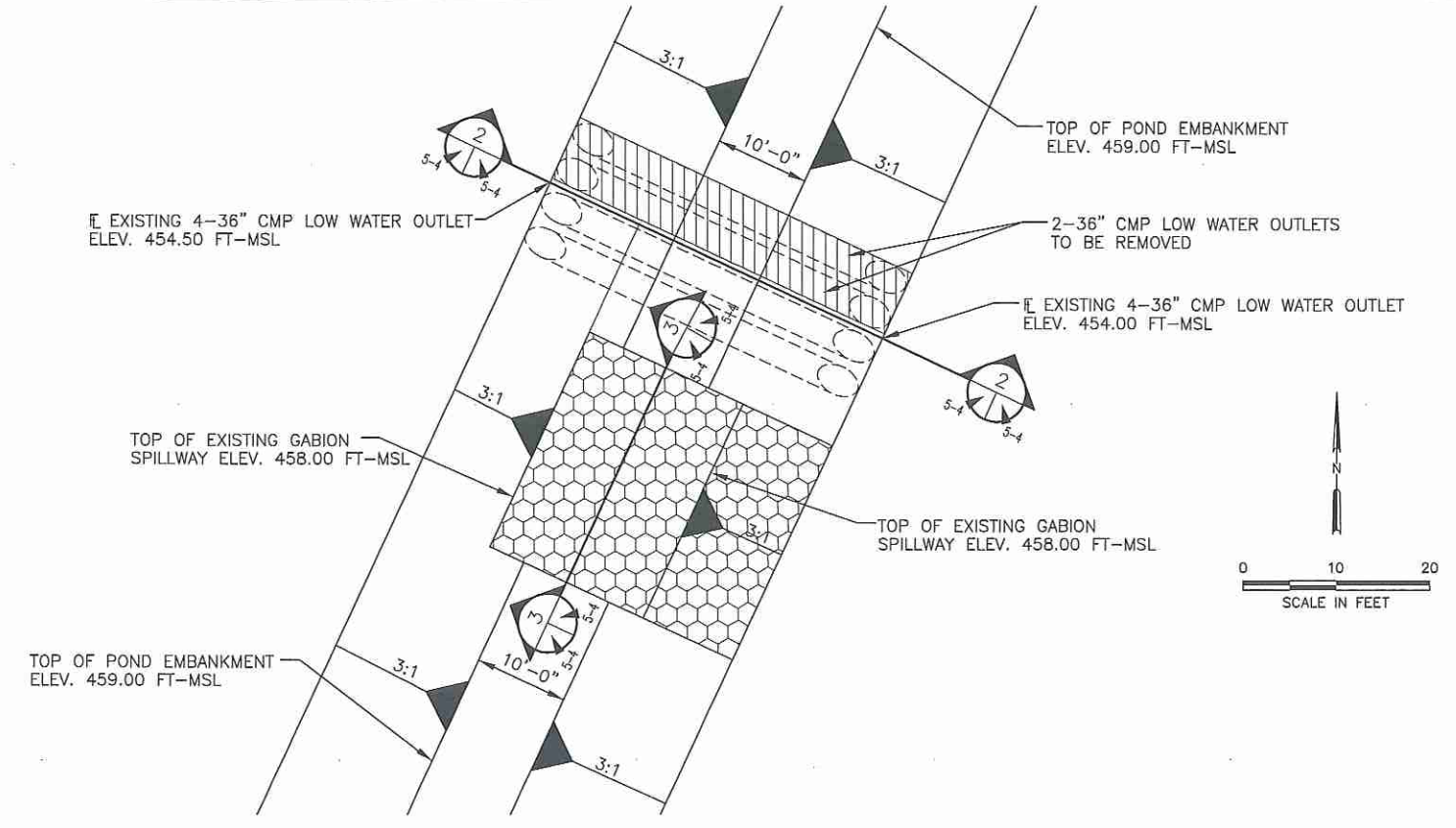
POND P1 OUTLET (DP1)



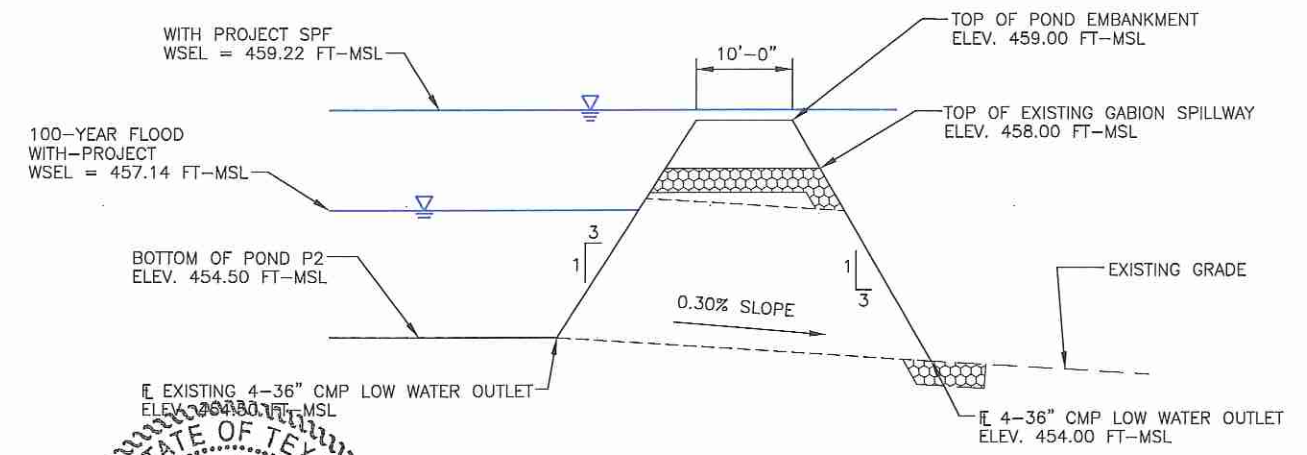
LONGITUDINAL SECTION 1



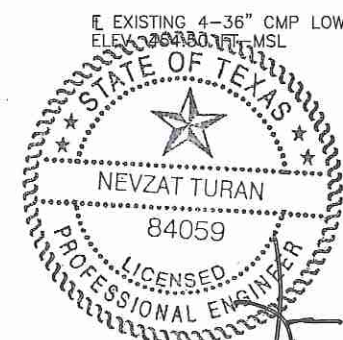
SPILLWAY (DP3)



EXISTING POND P2 OUTLET (DP2)



LONGITUDINAL SECTION 2

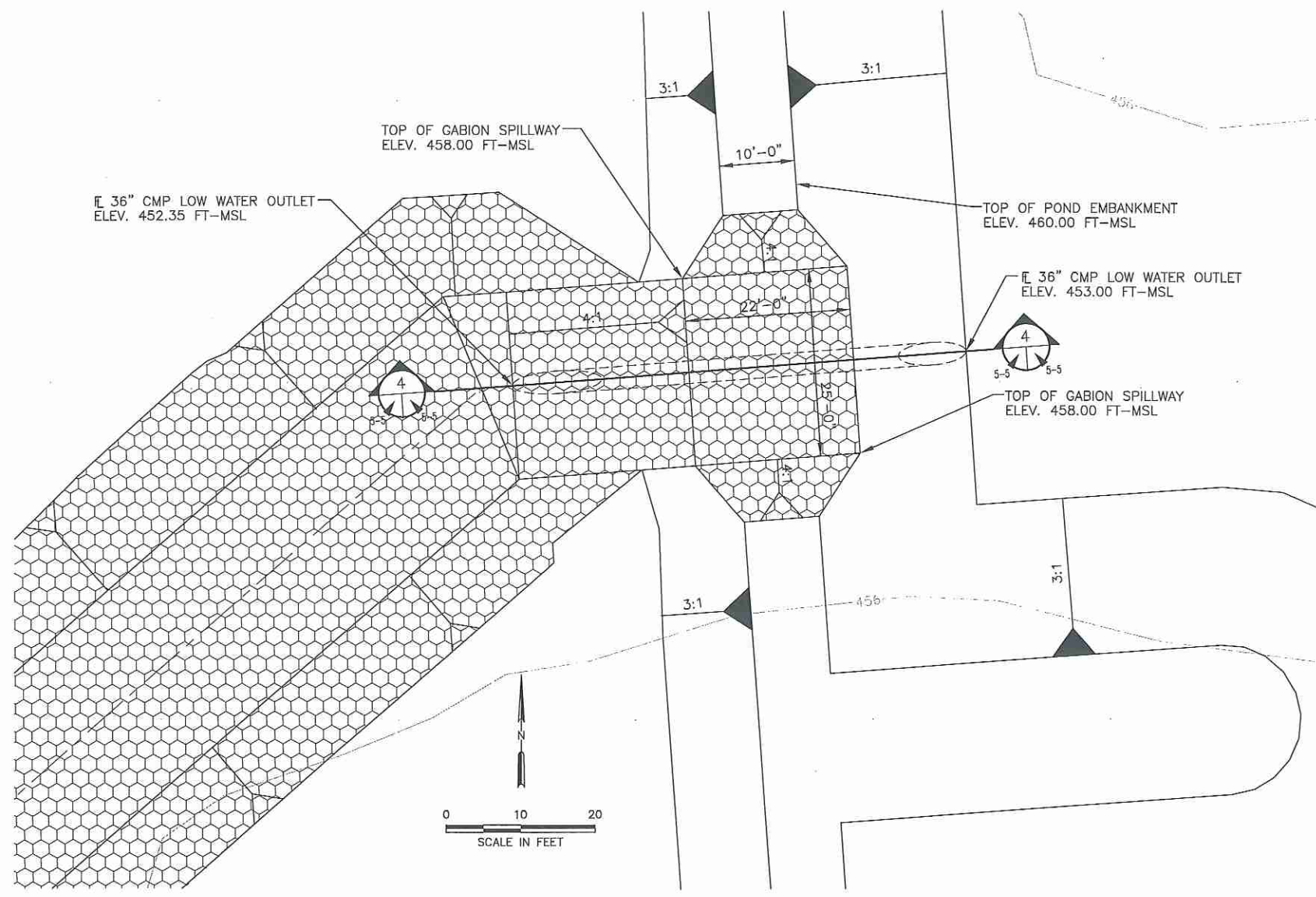


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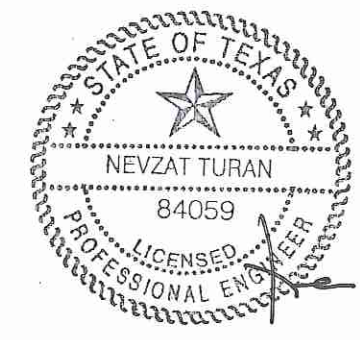
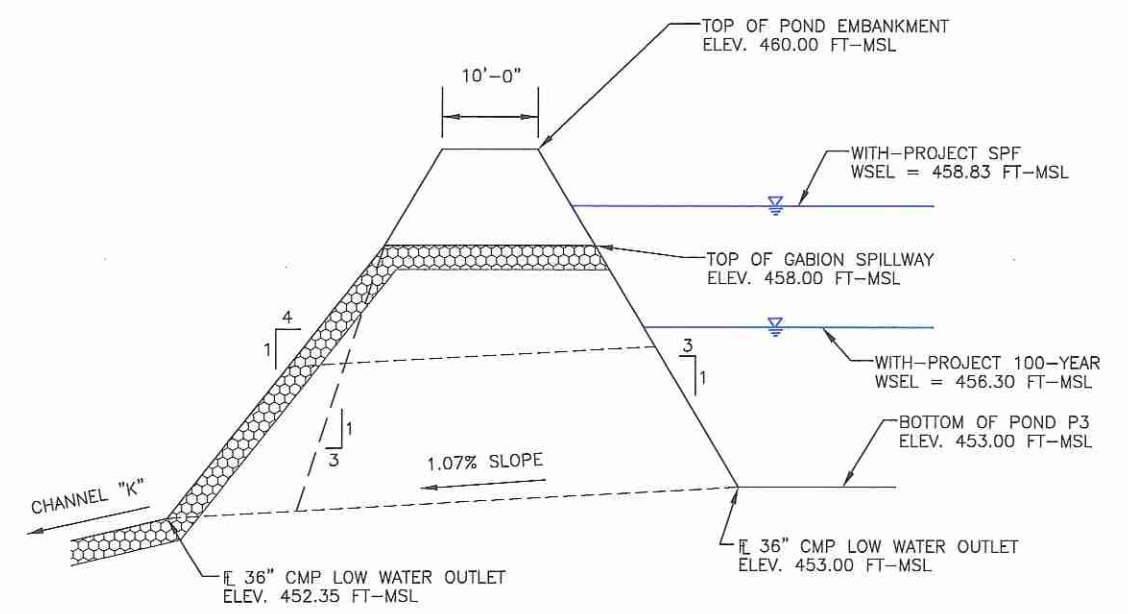
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POND P3 POND OUTLET DP3



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| FORT WORTH, TX SOUTH BEND, IN SPRINGFIELD, IL ST. LOUIS, MO | | FIGURE 5-5 | | | | | | | | | | | | | | | |

Table 1
Comparison of Water Surface Elevations and Flow Velocities - Elm Fork of the Trinity River

| 100-Year Flood Event | | | | | | | | | | |
|----------------------|-----------------------|-----------------|---------------|---------------------------------|--------------------------------|----------------------------------|---------------|---------------------------------|--------------------------------|----------------------------------|
| CDC Model Reach No. | Cross Section Numbers | Flow Rate (cfs) | Pre-Project | | | | With-Project | | | |
| | | | WSEL (ft-msl) | Left Overbank Velocity (ft/sec) | Main Channel Velocity (ft/sec) | Right Overbank Velocity (ft/sec) | WSEL (ft-msl) | Left Overbank Velocity (ft/sec) | Main Channel Velocity (ft/sec) | Right Overbank Velocity (ft/sec) |
| ef5 | 144474 | 21000 | 460.59 | 0.51 | 3.08 | 1.04 | 460.59 | 0.51 | 3.08 | 1.04 |
| ef5 | 143756 | 21000 | 460.47 | 0.39 | 2.43 | 0.86 | 460.48 | 0.39 | 2.43 | 0.86 |
| ef5 | 142900 | 21000 | 460.37 | 0.31 | 2.46 | 0.95 | 460.37 | 0.31 | 2.45 | 0.95 |
| ef5 | 141518 | 21000 | 459.66 | 0.40 | 5.49 | 1.34 | 459.66 | 0.40 | 5.48 | 1.34 |
| ef5 | 139643 | 21000 | 458.60 | 0.00 | 5.59 | 0.97 | 458.61 | 0.00 | 5.58 | 0.97 |
| ef4 | 138514 | 10300 | 458.03 | 0.19 | 3.60 | 0.61 | 458.04 | 0.19 | 3.60 | 0.62 |
| ef4 | 137878 | 10300 | 457.62 | 0.00 | 4.24 | 0.53 | 457.62 | 0.00 | 4.24 | 0.53 |
| ef4 | 137352 | 10300 | 457.50 | 0.00 | 3.68 | 0.72 | 457.51 | 0.00 | 3.67 | 0.72 |
| ef4 | 136149 | 10300 | 457.13 | 0.00 | 3.95 | 0.81 | 457.14 | 0.00 | 3.95 | 0.81 |
| ef4 | 135370 | 10300 | 456.67 | 0.00 | 4.29 | 0.45 | 456.68 | 0.00 | 4.29 | 0.45 |
| ef4 | 134538 | 10300 | 456.30 | 0.00 | 4.35 | 1.33 | 456.30 | 0.00 | 4.35 | 1.33 |
| ef4 | 133634 | 10300 | 456.11 | 0.41 | 3.10 | 0.08 | 456.11 | 0.38 | 3.13 | 0.08 |
| ef4 | 132656 | 10300 | 455.79 | 0.74 | 3.24 | 0.99 | 455.79 | 0.74 | 3.24 | 0.99 |
| ef4 | 131998 | 10300 | 455.49 | 0.85 | 3.72 | 1.35 | 455.49 | 0.85 | 3.72 | 1.35 |
| ef4 | 131532 | 10300 | 455.22 | 0.25 | 3.63 | 0.00 | 455.22 | 0.25 | 3.63 | 0.00 |

| SPF Flood Event | | | | | | | | | | |
|---------------------|-----------------------|-----------------|---------------|---------------------------------|--------------------------------|----------------------------------|---------------|---------------------------------|--------------------------------|----------------------------------|
| FIS Model Reach No. | Cross Section Numbers | Flow Rate (cfs) | Pre-Project | | | | With-Project | | | |
| | | | WSEL (ft-msl) | Left Overbank Velocity (ft/sec) | Main Channel Velocity (ft/sec) | Right Overbank Velocity (ft/sec) | WSEL (ft-msl) | Left Overbank Velocity (ft/sec) | Main Channel Velocity (ft/sec) | Right Overbank Velocity (ft/sec) |
| ef5 | 144474 | 66600 | 462.34 | 1.38 | 6.36 | 2.53 | 462.34 | 1.38 | 6.36 | 2.53 |
| ef5 | 143756 | 66600 | 461.83 | 0.99 | 5.23 | 2.19 | 461.83 | 0.99 | 5.23 | 2.19 |
| ef5 | 142900 | 66600 | 461.55 | 0.60 | 4.05 | 1.92 | 461.55 | 0.60 | 4.05 | 1.92 |
| ef5 | 141518 | 66600 | 460.99 | 0.49 | 4.57 | 2.00 | 460.99 | 0.49 | 4.57 | 2.00 |
| ef5 | 139643 | 66600 | 460.37 | 0.28 | 5.59 | 1.67 | 460.37 | 0.28 | 5.59 | 1.67 |
| ef4 | 138514 | 10600 | 459.79 | 0.51 | 2.67 | 1.38 | 459.77 | 0.51 | 2.69 | 1.38 |
| ef4 | 137878 | 10600 | 459.53 | 0.32 | 3.51 | 0.46 | 459.50 | 0.32 | 3.52 | 0.46 |
| ef4 | 137352 | 10600 | 459.45 | 0.29 | 3.19 | 0.71 | 459.42 | 0.29 | 3.20 | 0.71 |
| ef4 | 136149 | 10600 | 459.25 | 0.80 | 3.14 | 0.63 | 459.22 | 0.80 | 3.15 | 0.63 |
| ef4 | 135370 | 10600 | 459.00 | 0.63 | 3.40 | 0.70 | 458.97 | 0.63 | 3.41 | 0.70 |
| ef4 | 134538 | 10600 | 458.82 | 0.61 | 3.39 | 1.07 | 458.83 | 0.71 | 3.03 | 0.96 |
| ef4 | 133634 | 10600 | 458.70 | 0.51 | 2.47 | 0.20 | 458.70 | 0.48 | 2.52 | 0.20 |
| ef4 | 132656 | 10600 | 458.55 | 0.63 | 2.40 | 1.07 | 458.55 | 0.63 | 2.40 | 1.07 |
| ef4 | 131998 | 10600 | 458.36 | 0.86 | 3.14 | 1.24 | 458.36 | 0.86 | 3.14 | 1.24 |
| ef4 | 131532 | 10600 | 458.22 | 0.60 | 2.90 | 0.85 | 458.22 | 0.60 | 2.90 | 0.85 |

expansion does not adversely alter existing drainage patterns or adversely impact downstream drainage structures.

6.2 FEMA

In addition to this CDC application, a CLOMR will be obtained from FEMA for the development of the Camelot Landfill within the 100-year floodplain. The CLOMR request will be submitted to the City of Lewisville before being forwarded onto FEMA for review.

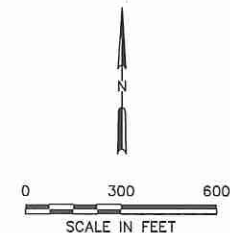
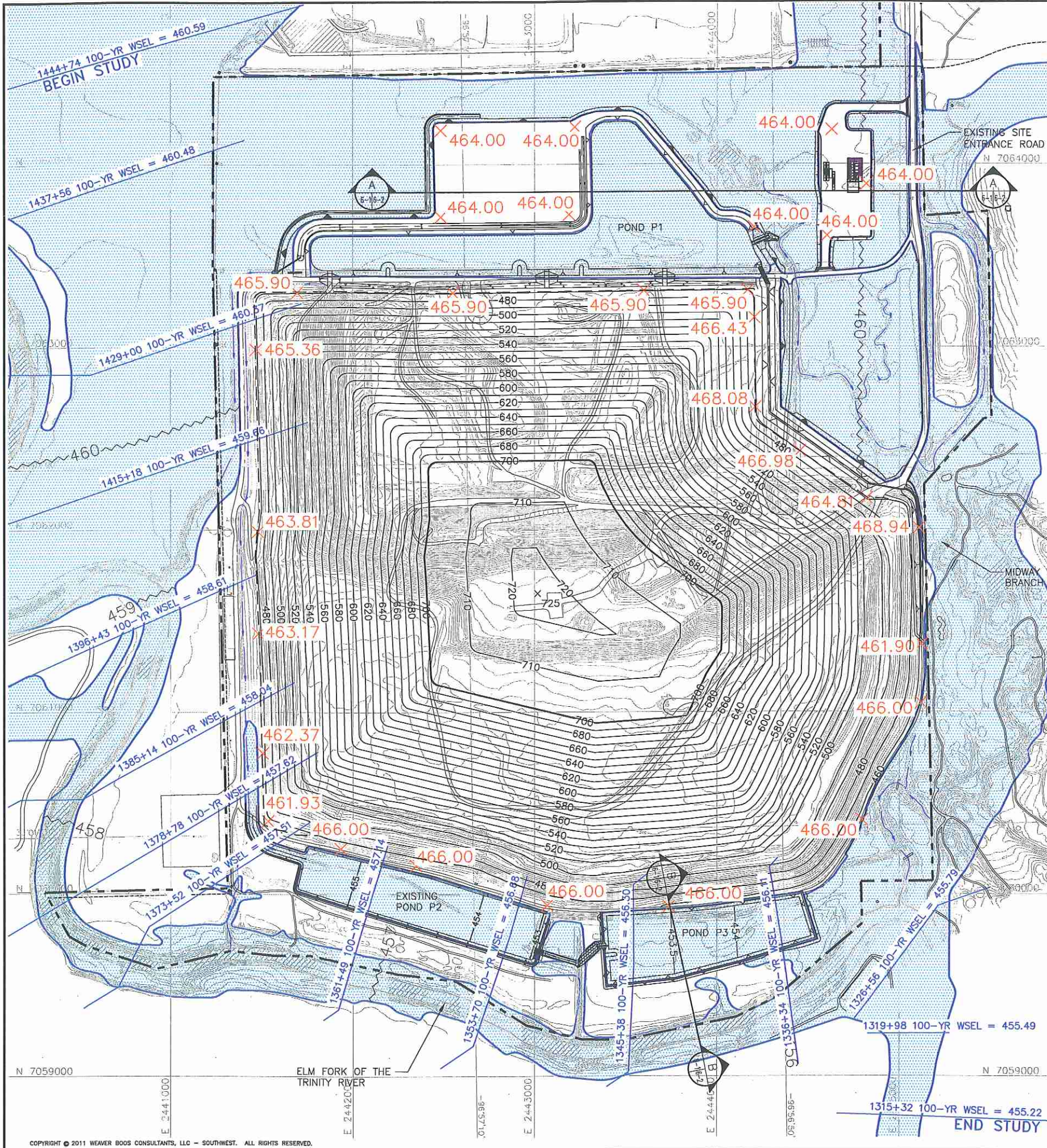
6.3 Other Permitting Requirements

Currently the landfill maintains a Stormwater Pollution Prevention Plan (SWPPP) developed for the provisions of Texas Pollution Elimination System (TPDES) Multi-Sector General Permit (MSWP) TXR050000. The existing SWPPP along with the current Notice of Intent (NOI) will need to be updated to provide coverage for the activities proposed in the TCEQ Major Permit Amendment application and this CDC application.

7.0 Summary

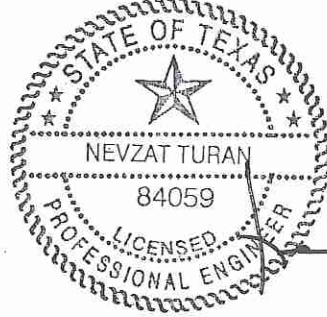
In summary, this submittal has been prepared consistent with the guidelines set forth in the current CDC Manual (4th Edition). The CDC forms in Appendix A summarize the water surface elevations and flow velocities at the upstream and downstream study limits for the pre-project and with-project conditions using flow rates provided by the USACE for the 100-year and SPF storm events for the Elm Fork of the Trinity River. A comparison of water surface elevations for with-project versus pre-project conditions shows that there is only a minimal (0.01 ft-msl) change in the 100-year water surface elevation and flow velocities (0.01 FPS). In addition, the water surface elevation for the SPF storm event changes by a maximum of 0.03 feet, and SPF storm event flow velocities at the terminal ends of the study area do not change. There is no change to the floodway width or encroached water surface elevation. In addition, there are no proposed site improvements located within the floodway. HEC-RAS summary tables for the pre-project and with-project models for the Elm Fork of the Trinity River are included in Appendices C and D, respectively.

As shown on Figures 7-1 and 7-2, throughout the site a minimum of 3 feet of freeboard is available between the 100-year water surface and the top of the landfill perimeter berm in all locations. Additionally, at least 3 feet of freeboard is available for the two locations on the north side of the landfill proposed to be removed from the floodplain. This availability of freeboard meets or exceeds the minimum freeboard required by TCEQ.



- LEGEND**
- SITE BOUNDARY
 - - - PROPOSED LIMIT OF WASTE
 - 500 --- EXISTING CONTOURS (SEE NOTE 1)
 - N 7064000 STATE PLANE COORDINATE SYSTEM
 - 33°02'00" --- GEODETIC COORDINATE SYSTEM
 - 100-YEAR FLOODPLAIN (WBC MAY 2011)
 - ▽ ▲ FILL/CUT SLOPE INDICATORS
 - 464.00 X ELEVATION OF PERIMETER BERM
 - 1378+78 100-YR WSEL = 457.54 HEC-RAS CROSS SECTION LOCATION (SEE NOTE 2)
 - 680 PROPOSED FINAL CONTOUR
 - 460 100 YEAR WATER SURFACE ELEVATION

- NOTE:**
1. CONTOURS AND ELEVATIONS PROVIDED BY METROPOLITAN AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 8-28-2010. THE GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 1983. ELEVATIONS ARE BASED ON NAVD 1988. OFF-SITE CONTOURS AND ELEVATIONS PROVIDED BY DFWMAPS.COM FROM AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN JANUARY TO MARCH 2007.
 2. CROSS SECTIONS LOCATIONS REPRESENT THE LIMITS OF THE MODELED TERRAIN IN THE HEC-RAS HYDRAULIC MODEL OF THE ELM FORK OF THE TRINITY RIVER.
 3. SITE BOUNDARY WAS PREPARED BY PEISER SURVEYING CO. IN NOVEMBER 2010.

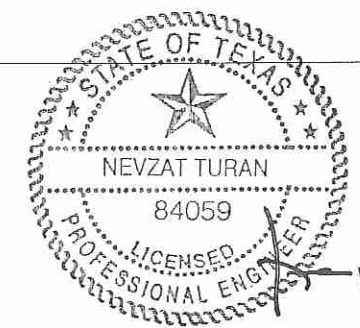
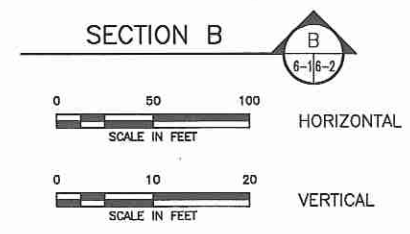
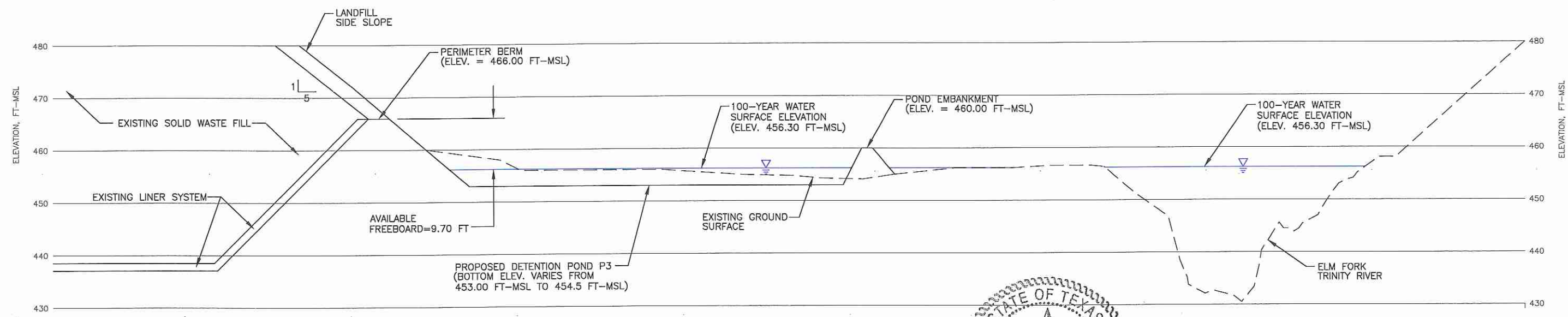
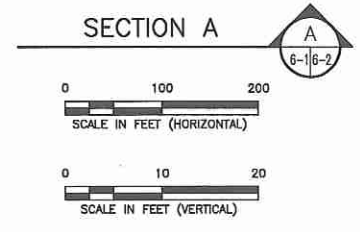
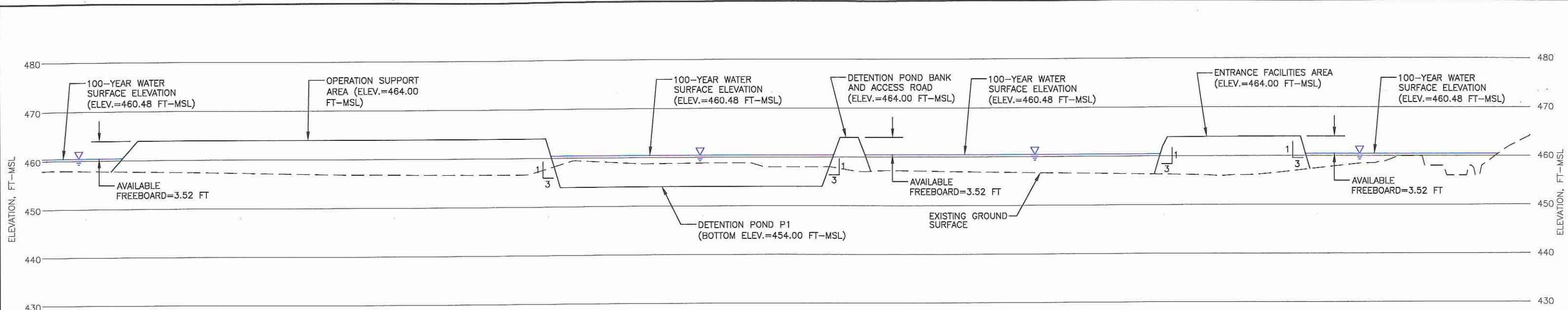


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| | DATE: 06/2011 FILE: 1339-351-11 CAD: 7-1 FREE BOARD.DWG | | CAMELOT LANDFILL DENTON COUNTY, TEXAS | |
| DRAWN BY: SRP DESIGN BY: CRM REVIEWED BY: JPY | REVISIONS | | Weaver Boos Consultants TBPE REGISTRATION NO. F-3727 | |
| REUSE OF DOCUMENTS <small>THIS DOCUMENT, AND THE DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF WEAVER BOOS CONSULTANTS, LLC. IT IS NOT TO BE USED IN WHOLE OR IN PART, WITHOUT THE WRITTEN AUTHORIZATION OF WEAVER BOOS CONSULTANTS, LLC - SOUTHWEST.</small> | | NO. | DATE | DESCRIPTION |
| CHICAGO, IL NAPERVILLE, IL COLUMBUS, OH DENVER, CO | | FORT WORTH, TX (817) 735-9770 | SOUTH BEND, IN SPRINGFIELD, IL ST. LOUIS, MO | FIGURE 7-1 |

O:\1339\351\FREEBOARD.dwg, 6/15/2011 12:54:07 PM, jwilson, 1:2



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| <input type="checkbox"/> FOR INFORMATION PURPOSES ONLY <input checked="" type="checkbox"/> FOR PERMITTING PURPOSES ONLY <input type="checkbox"/> ISSUED FOR CONSTRUCTION <input type="checkbox"/> CLIENT APPROVAL BY: _____ | | PREPARED FOR CITY OF FARMERS BRANCH | | CDC APPLICATION TYPICAL FREEBOARD SECTION | | | | | | | | | | | | | |
|--|------|---|--|--|------|-------------|--|--|--|--|--|--|--|--|--|--|--|
| DATE: 08/2011 FILE: 1339-351-11 CAD: 6-2 SECTION.DWG | | DRAWN BY: VRS DESIGN BY: CRM REVIEWED BY: JPY | | CAMELOT LANDFILL DENTON COUNTY, TEXAS | | | | | | | | | | | | | |
| REUSE OF DOCUMENTS <small>THIS DOCUMENT, AND THE DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF WEAVER BOOS CONSULTANTS, LLC - SOUTHWEST AND IS NOT TO BE USED IN WHOLE OR IN PART, WITHOUT THE WRITTEN AUTHORIZATION OF WEAVER BOOS CONSULTANTS, LLC - SOUTHWEST.</small> | | REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> | | NO. | DATE | DESCRIPTION | | | | | | | | | | Weaver Boos Consultants TBPE REGISTRATION NO. F-3727 | |
| NO. | DATE | DESCRIPTION | | | | | | | | | | | | | | | |
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| CHICAGO, IL NAPERVILLE, IL COLUMBUS, OH DENVER, CO | | FORT WORTH, TX (817) 735-9770 | | GRIFFITH, IN SOUTH BEND, IN SPRINGFIELD, IL ST. LOUIS, MO | | | | | | | | | | | | | |
| FIGURE 7-2 | | | | | | | | | | | | | | | | | |

O:\1339\351\CDC\7-2-TYP SECTION.DWG, 6/8/2011 4:27:06 PM, sford, 1:2

APPENDIX A
CDC FORMS

CDC APPLICATION - PART 1

To be completed by Applicant or Applicant's representative and submitted to the appropriate local CDC/Floodplain Administrator. Attach additional pages as necessary. This application is considered public information and will be distributed to federal, state, and local governmental agencies as outlined in the CDC Manual.

1. APPLICANT INFORMATION

Applicant's Representative. Identify person knowledgeable of and authorized to respond to questions concerning data provided by the Applicant.

Name: Nevzat Turan, P.E.

Relationship to Applicant: Consultant

Address: 6420 Southwest Boulevard, Suite 206

Fort Worth, Texas 76109

Telephone: 817-735-9770

Fax: 817-735-9775

E-mail: nturan@weaverboos.com

CDC Applicant: City of Farmers Branch

Project Name: Camelot Landfill

Property Owner: City of Farmers Branch

City/County: Lewisville/Denton County

Engineer: Weaver Boos Consultants, LLC-Southwest

Project Size (total acres): Approximately 470 acres



2. LOCATION

Provide general description of location, including street address, nearest cross street, and identified impacted water bodies:

The project address is 580 Huffines Boulevard, Lewisville, Texas. The site is located approximately one mile south of the intersection of Huffines Boulevard and state Highway 121 Business. Development of the site will impact the Elm Fork of the Trinity River.

MAPSCO and Location Reference: _____

Latitude/longitude of project centroid (to six decimal places). Can be found using DFWmaps.com:

33° 01' 52.86" N, 96° 57' 05.56" W

Project boundary in digital format (if available) Included in attached CD

3. PROPOSED PROJECT

Proposed Activity: (check appropriate categories)

- dredge/channel modification
- swale construction
- fill
- levee
- bridge/river crossing
- other (include explanation here) Creation of Valley Storage

Proposed Use: (check appropriate categories)

- private single dwelling(s)
- private multi-dwelling(s)
- public
- commercial
- industrial
- other (include explanation here)



Brief description of project:

As discussed in Section 3.0 of the CDC application, this project is located in the City of Lewisville along the Elm Fork of the Trinity River. This CDC application will allow for the continued development of the existing Camelot Landfill, incorporate some minor mapping changes to the CDC regulatory zone, and update the existing USACE model and floodplain mapping. The project includes the construction of a detention pond, entrance facilities including access roads, and a 16-acre area that will be used as an operation support area.

4. PROJECT LOCATION WITH RESPECT TO INEFFECTIVE FLOW AREA

- Not located entirely within an ineffective flow area
- Located entirely within both the 100-year and the SPF ineffective flow area
- Located entirely within the 100-year ineffective flow area only

5. VERSION OF HEC-RAS USED IN THE ANALYSIS: 4.1.0



6. EXEMPTIONS AND VARIANCES

Exemption Category: (check if applicable - additional documentation may be required)

- Maintenance, repair, or identical replacement of existing infrastructure
- Outfall structures where the outfall has been permitted under the Federal NPDES or State TPDES program
- Intake structures
- Discharge of material for backfill or bedding for utility lines, provided that no significant change occurs in pre-existing bottom contours and excess material is removed to a disposal area out of the Regulatory Zone
- Bank stabilization activities provided that no significant change occurs in pre-existing bottom contours and excess material is removed to a disposal area out of the Regulatory Zone
- Small-scale projects that cause minimal change in ground surface elevation and no decrease in hydraulic conveyance and valley storage for the 100-year flood
- Temporary construction-related activity
- Specific Prior Development - The existing development projects as defined in Section 1.7 DEFINITIONS AND ACRONYMS of this Manual and listed in Appendix B.3 (also referred to as Grandfathered Projects).

Applicant requests a Variance to Common Permit Criteria: Yes No

(If yes, please explain supporting information here)



CDC APPLICATION - PART 2

Detailed Hydrologic and Hydraulic Information

To be completed by Applicant or Applicant's representative and submitted to the appropriate local CDC/Floodplain Administrator. Attach additional pages as necessary. This application is considered public information and will be distributed to federal, state, and local governmental agencies as outlined in the CDC Manual.

100-YEAR FLOOD

| Parameter | Location | Pre-Project | With-Project | Change |
|---------------------------------------|--|-------------|--------------|----------|
| Discharge | Downstream Boundary (DB) cross-section 1315+32 | 10,300 cfs | N/A | N/A |
| | Upstream Boundary (UB) cross-section 1444+74 | 21,000 cfs | N/A | N/A |
| Channel Velocity | Downstream Boundary cross-section 1315+32 | 3.63 fps | 3.63 fps | 0.00 fps |
| | Upstream Boundary cross-section 1444+74 | 3.08 fps | 3.08 fps | 0.00 fps |
| Water Surface Elevation (NGVD) | 1,155 feet downstream of DB cross-section 1303+77 | 454.45 ft | 454.45 ft | 0.00 ft |
| | 555 feet downstream of DB cross-section 1309+77 | 454.70 ft | 454.70 ft | 0.00 ft |
| | Downstream Boundary cross-section 1315+32 | 455.22 ft | 455.22 ft | 0.00 ft |
| | Mid-project cross-section 1385+14 | 458.03 ft | 458.04 ft | +0.01 ft |



| | | | | |
|---|---|--------------|--------------|---------------|
| | Upstream Boundary cross-section 1444+74 | 460.59 ft | 460.59 ft | 0.00 ft |
| | 1,899 feet upstream of DB cross-section 1463+73 | 461.21 ft | 461.21 ft | 0.00 ft |
| | 2,730 feet upstream of UB cross-section 1472+04 | 461.61 ft | 461.61 ft | 0.00 ft |
| | 2,826 feet upstream of UB cross-section 1473+00 | 461.68 ft | 461.68 ft | 0.00 ft |
| | 2,827 feet upstream of UB cross-section 1473+01 | 461.68 ft | 461.68 ft | 0.00 ft |
| Project Lands in Floodplain | | 158.55 ac | 145.88 ac | -12.67 ac |
| Valley Storage on Project Lands* See Appendix E for Valley Storage Calculations | | 209.79 ac-ft | 308.23 ac-ft | +98.44 ac-ft |
| Total Valley Storage Change | | | | +105.98 ac-ft |
| Valley Storage Percent Change | | | | +4.28 % |



STANDARD PROJECT FLOOD (SPF)

| Parameter | Location | Pre-Project | With-Project | Change |
|---------------------------------------|--|-------------|--------------|----------|
| Discharge | Downstream Boundary (DB) cross-section 1315+32 | 10,600 cfs | N/A | N/A |
| | Upstream Boundary (UB) cross-section 1444+74 | 66,600 cfs | N/A | N/A |
| Channel Velocity | Downstream Boundary cross-section 1315+32 | 2.90 fps | 2.90 fps | 0.00 fps |
| | Upstream Boundary cross-section 1444+74 | 6.36 fps | 6.36 fps | 0.00 fps |
| Water Surface Elevation (NGVD) | 1,155 feet downstream of DB cross-section 1303+77 | 458.01 ft | 458.01 ft | 0.00 ft |
| | 555 feet downstream of DB cross-section 1309+77 | 458.02 ft | 458.02 ft | 0.00 ft |
| | Downstream Boundary cross-section 1315+32 | 458.22 ft | 458.22 ft | 0.00 ft |
| | Mid-project cross-section 1385+14 | 459.79 ft | 459.79 ft | 0.00 ft |
| | Upstream Boundary cross-section 1444+74 | 462.34 ft | 462.34 ft | 0.00 ft |
| | 1,899 feet upstream of DB cross-section 1463+73 | 463.95 ft | 463.95 ft | 0.00 ft |



| | | | | |
|--|---|--------------|--------------|---------------|
| | 2,730 feet upstream of UB cross-section 1472+04 | 464.60 ft | 464.60 ft | 0.00 ft |
| | 2,826 feet upstream of UB cross-section 1473+00 | 464.74 ft | 464.74 ft | 0.00 ft |
| | 2,827 feet upstream of UB cross-section 1473+01 | 464.74 ft | 464.74 ft | 0.00 ft |
| Project Lands in Floodplain | | 198.96 ac | 183.21 ac | -15.75 ac |
| Valley Storage on Project Lands | | 465.53 ac-ft | 580.10 ac-ft | +114.57 ac-ft |
| Total Valley Storage Change | | | | +90.78 ac-ft |
| Valley Storage Percent Change | | | | +2.84 % |

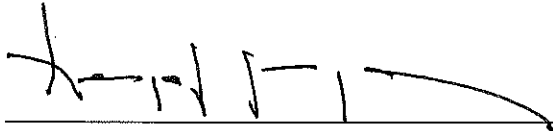


7. VALLEY STORAGE MITIGATION

Describe hydraulic mitigation used to compensate for project valley storage impacts.

As shown in Appendix E, 106 acre-feet (171,000 cubic yards) of additional 100-year valley storage will be created within the permit boundary after the landfill development is complete. Also, as noted in Appendix E, there is a net gain of approximately 3 percent of the Standard Project Flood valley storage as a result of the landfill development.

Application is hereby submitted for a Corridor Development Certificate (CDC). I certify that I am knowledgeable of the information contained in this application, and that to the best of my knowledge and belief, this information is true, complete, and accurate.



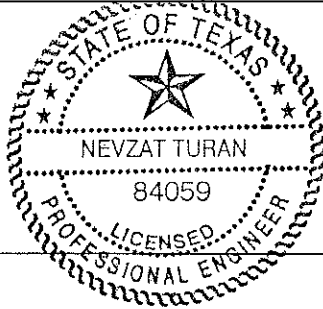
Signature of CDC Applicant or Applicant's Representative

Nevzat Turan, P.E./Senior Engineer/6-30-11

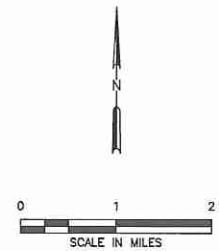
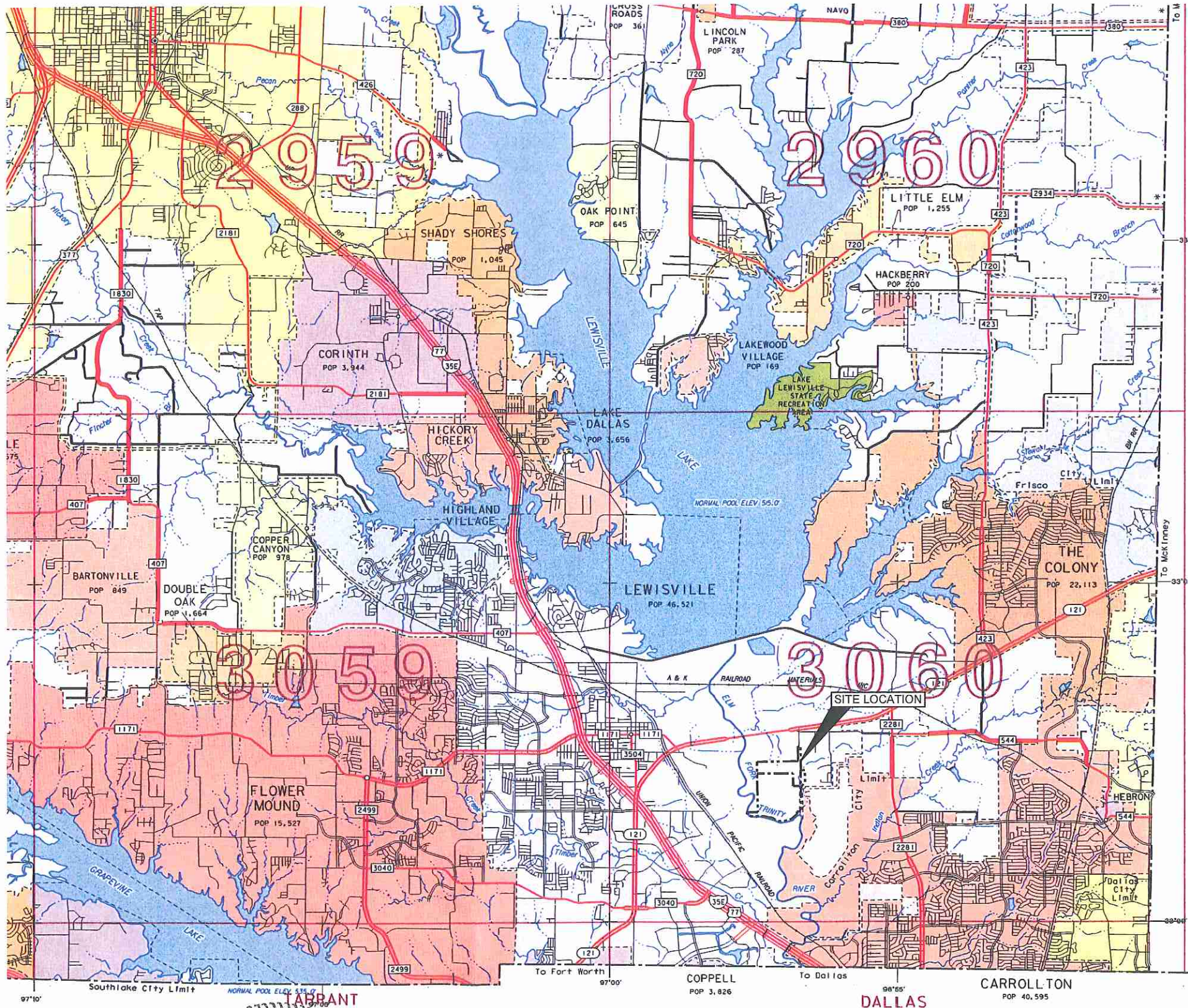
Typed Name/Title/Date

84059

P.E. License Number and seal/stamp



APPENDIX B
PERMIT DRAWINGS



LEGEND

- EXISTING PERMIT BOUNDARY
- - - PROPOSED PERMIT BOUNDARY



KEY TO COUNTIES

GENERAL HIGHWAY MAP DENTON COUNTY TEXAS

PREPARED BY THE
TEXAS DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PLANNING AND PROGRAMMING DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

1990
1990 CENSUS FIGURES
HIGHWAYS REVISED TO

NOTICE
This map has been prepared for internal use within
the Texas Department of Transportation.
Accuracy is limited to the validity of available
data as of dates shown.

III-O-C-36



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NOTE:
1. PROPOSED PERMIT BOUNDARY WAS PREPARED BY PEISER SURVEYING CO. IN NOVEMBER 2010.

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| DATE: 05/2011 FILE: 1339-351-11 CAD: B.1-SITE LOC MAP.DWG | DRAWN BY: SRF DESIGN BY: CRM REVIEWED BY: JPY |
| REUSE OF DOCUMENTS <small>THIS DOCUMENT, AND THE DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF WEAVER BOOS CONSULTANTS, LLC. SOUTHWEST AND IS NOT TO BE USED IN WHOLE OR IN PART, WITHOUT THE WRITTEN AUTHORIZATION OF WEAVER BOOS CONSULTANTS, LLC - SOUTHWEST.</small> | |

| | | |
|------------------------|------|-------------|
| PREPARED FOR | | |
| CITY OF FARMERS BRANCH | | |
| REVISIONS | | |
| NO. | DATE | DESCRIPTION |
| | | |
| | | |

CDC APPLICATION
SITE LOCATION MAP

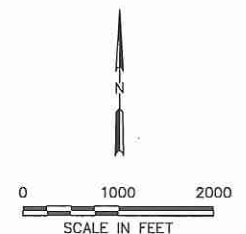
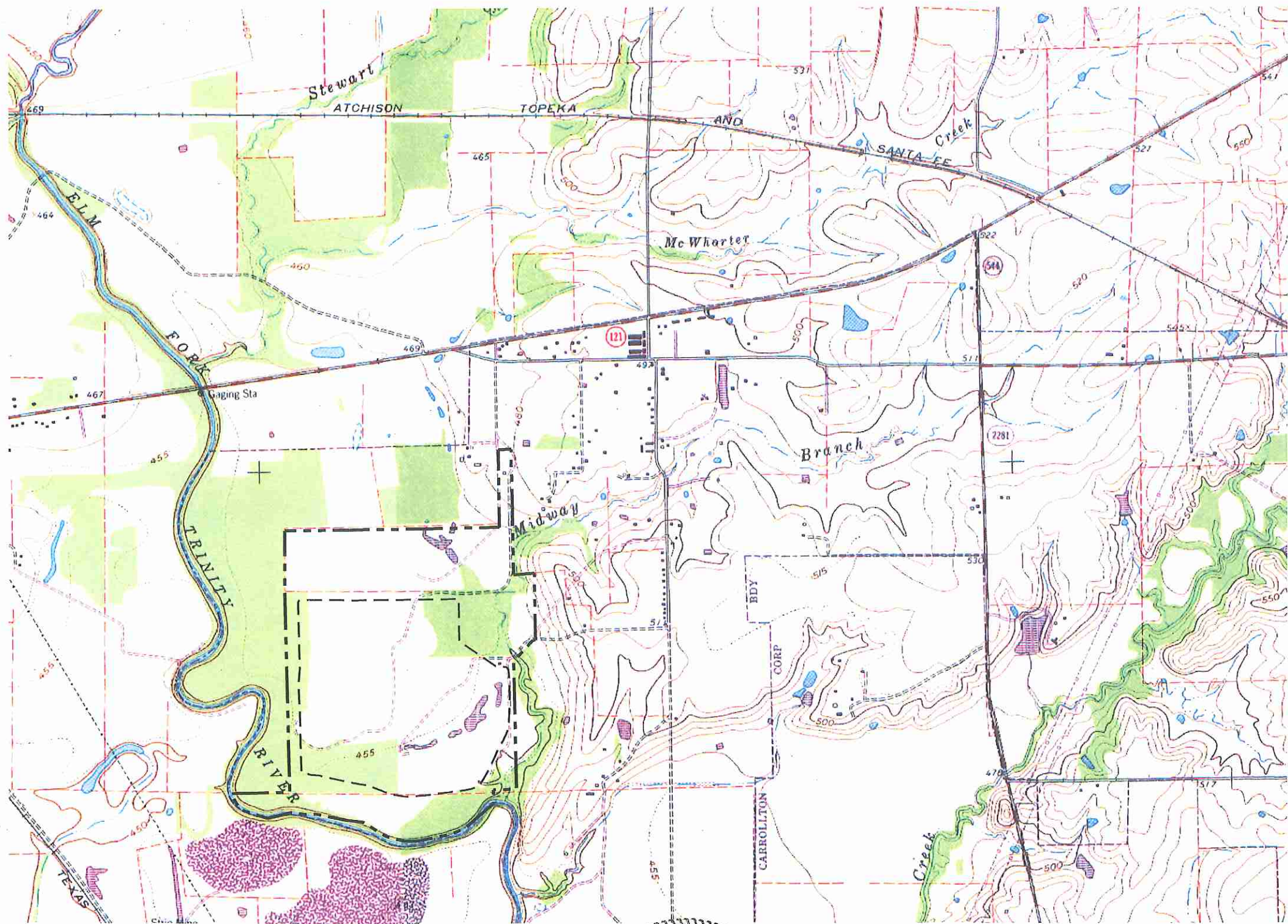
CAMELOT LANDFILL
DENTON COUNTY, TEXAS

Weaver Boos Consultants
TBPE REGISTRATION NO. F-3727

CHICAGO, IL
NAPERVILLE, IL
COLUMBUS, OH
DENVER, CO

FORT WORTH, TX
SOUTH BEND, IN
SPRINGFIELD, IL
ST. LOUIS, MO

DRAWING B.1



LEGEND
 - - - - - PERMIT BOUNDARY
 - - - - - PROPOSED LIMIT OF WASTE

ROAD CLASSIFICATION
 Heavy-duty ——— Light-duty ———
 Medium-duty ——— Unimproved dirt ———
 Interstate Route U.S. Route State Route

LEWISVILLE EAST, TEX.
 SW/4 FRISCO 15' QUADRANGLE
 N3300-W9652.5/75
 1960
 PHOTOREVISED 1968
 AMS 6650 111 SW-SERIES V982

- NOTE:**
1. TOPOGRAPHY PROVIDED BY USGS 7.5 MINUTE QUADRANGLE TOPOGRAPHIC MAP (LEWISVILLE EAST, TX, PHOTO REVISED 1981).
 2. PROPOSED PERMIT BOUNDARY WAS PREPARED BY PEISER SURVEYING CO. IN NOVEMBER 2010.

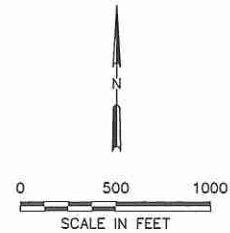


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| | CITY OF FARMERS BRANCH | |
| DATE: 05/2011 FILE: 1339-351-11 CAD: B.2-TOPO MAP.DWG | DRAWN BY: SRP DESIGN BY: CRM REVIEWED BY: JPY | REVISIONS NO. DATE DESCRIPTION |
| REUSE OF DOCUMENTS <small>THIS DOCUMENT, AND THE DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF WEAVER BOOS CONSULTANTS, LLC - SOUTHWEST AND IS NOT TO BE USED IN WHOLE OR IN PART, WITHOUT THE WRITTEN AUTHORIZATION OF WEAVER BOOS CONSULTANTS, LLC - SOUTHWEST.</small> | | DRAWING B.2 |

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- LEGEND**
- PROPOSED PERMIT BOUNDARY
 - EXISTING PERMIT BOUNDARY
 - PROPOSED LIMIT OF WASTE
 - EXISTING LIMIT OF WASTE

- NOTE:**
1. AERIAL PHOTOGRAPH PROVIDED BY METROPOLITAN AERIAL SURVEYS, FLOWN 3-18-2010.
 2. PROPOSED PERMIT BOUNDARY WAS PREPARED BY PEISER SURVEYING CO. IN NOVEMBER 2010.



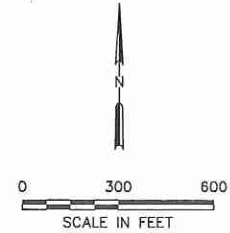
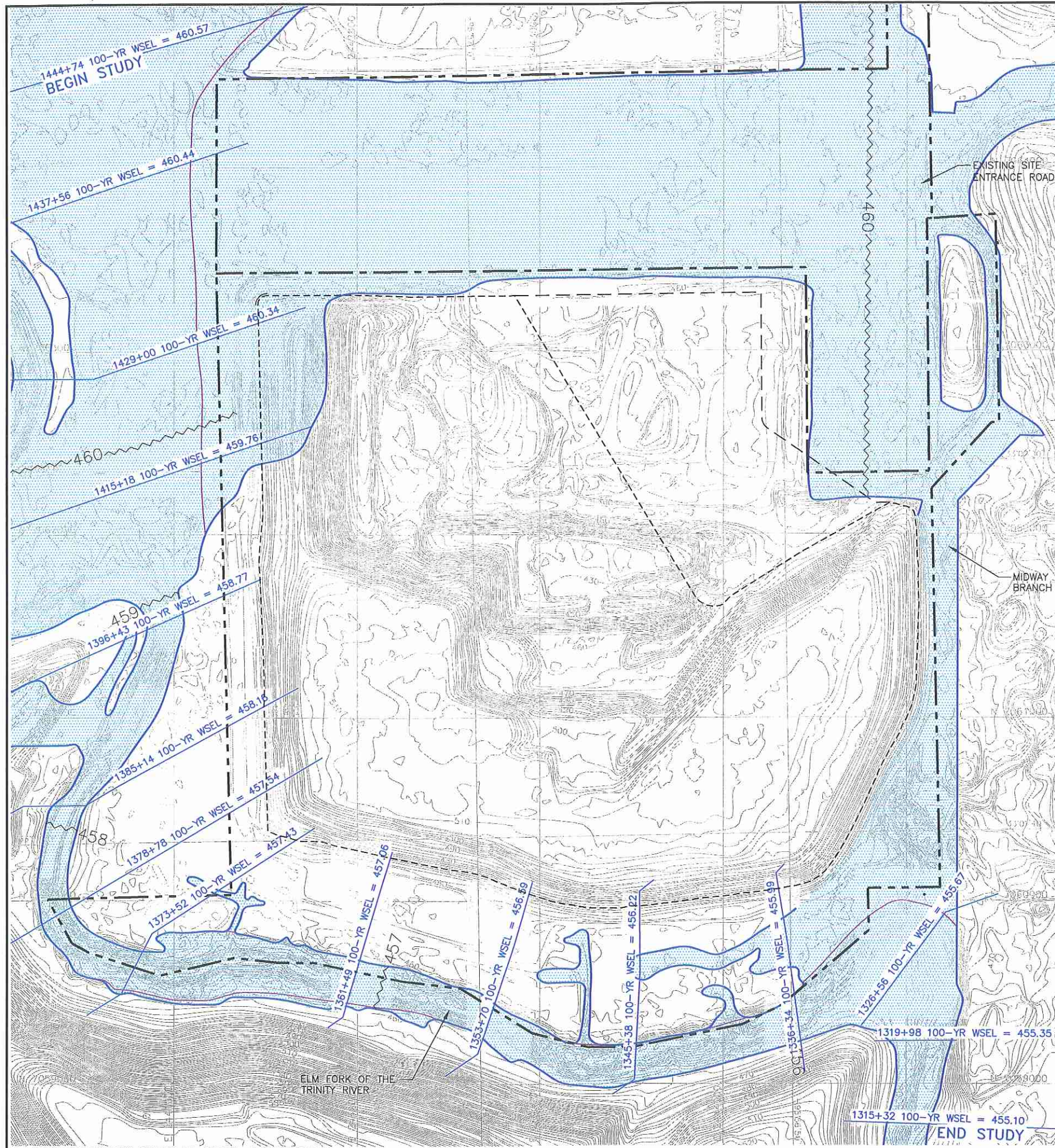
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III0-C-38

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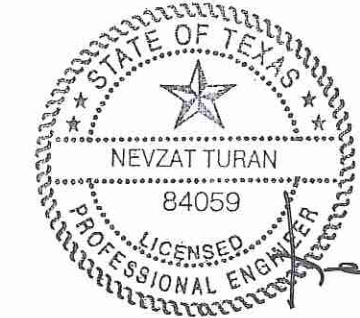
LEGEND

- PROPOSED PERMIT BOUNDARY
- PERMITTED PERMIT BOUNDARY
- PROPOSED LIMIT OF WASTE
- AUTHORIZED LIMIT OF WASTE
- STATE PLANE COORDINATE SYSTEM
- GEODETIC COORDINATE SYSTEM
- EXISTING CONTOURS (SEE NOTE 1)
- FLOODWAY BOUNDARY (USACE, APRIL 2009)
- 100-YEAR FLOODPLAIN (USACE, APRIL 2009)
- 100-YEAR WATER SURFACE ELEVATION
- HYDRAULIC CROSS SECTION AND WATER SURFACE ELEVATION (SEE NOTE 3)

1385+14 CDC 100-YR ELEV = 458.16

NOTE:

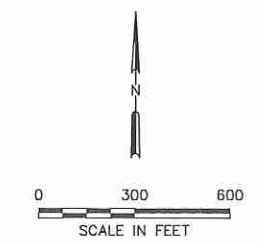
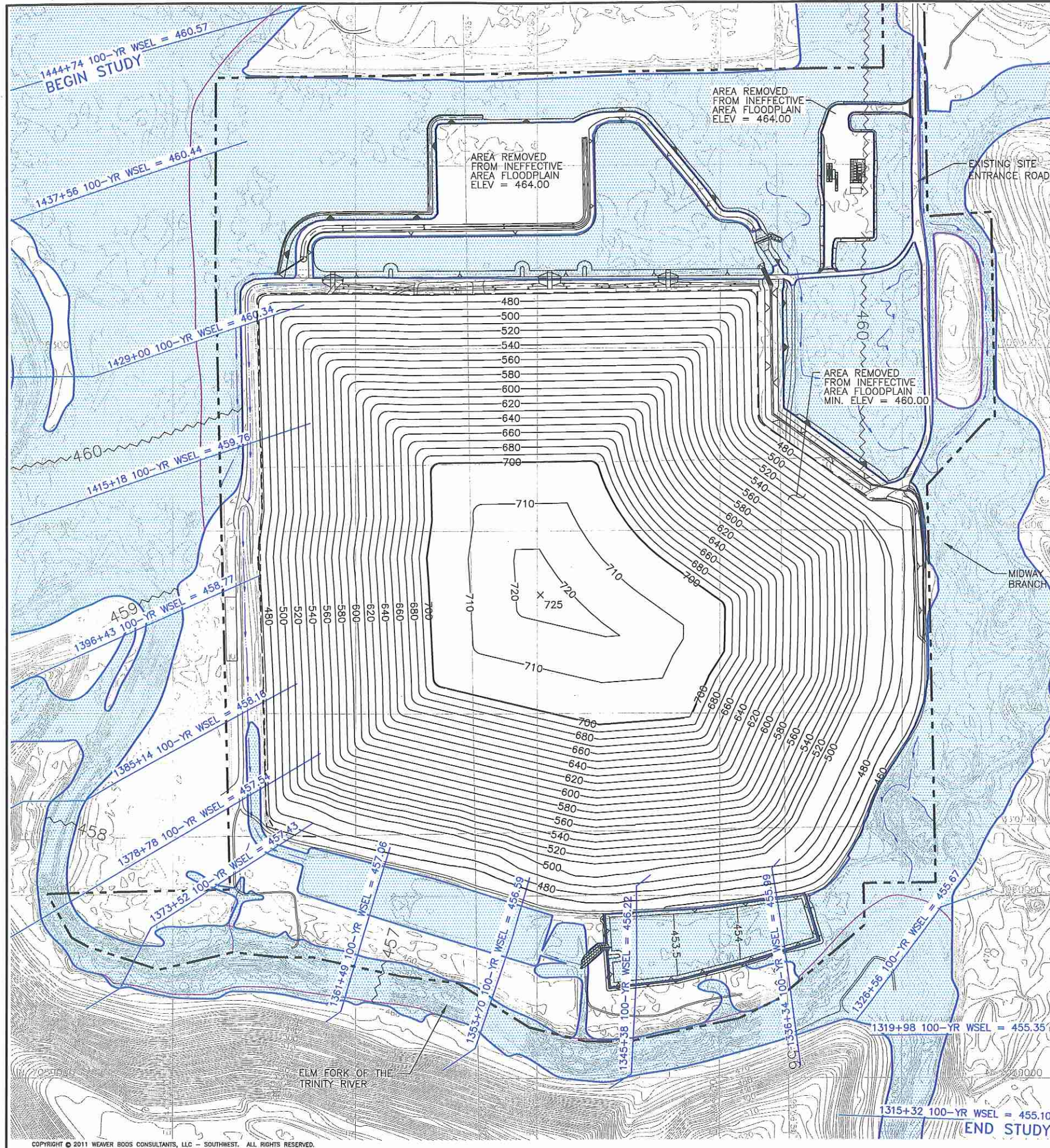
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2. FLOODPLAIN MAPPING INFORMATION PROVIDED BY USACE, APRIL 2009.
3. CROSS SECTIONS LOCATIONS REPRESENT THE LIMITS OF THE MODELED TERRAIN IN THE HEC-RAS HYDRAULIC MODEL OF THE ELM FORK OF THE TRINITY RIVER.
4. PROPOSED PERMIT BOUNDARY WAS PREPARED BY PEISER SURVEYING CO. IN NOVEMBER 2010.



6-30-11

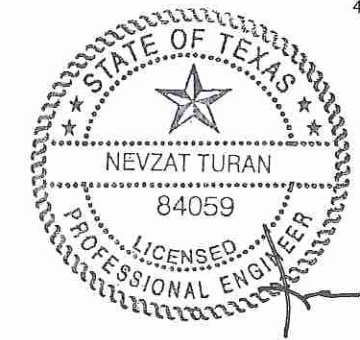
III-O-C-39

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| DATE: 05/2011 FILE: 1339-351-11 CAD: B.4-PRE PROJECT CDC.DWG | DRAWN BY: SRF DESIGN BY: CRM REVIEWED BY: JPY | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> | REVISIONS | | | NO. | DATE | DESCRIPTION | | | | | | | | | | | | |
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| | | DRAWING B.4 | | | | | | | | | | | | | | | | | | |



- LEGEND**
- PROPOSED PERMIT BOUNDARY
 - PROPOSED LIMIT OF WASTE
 - STATE PLANE COORDINATE SYSTEM
 - GEODETTIC COORDINATE SYSTEM
 - EXISTING CONTOURS (SEE NOTE 1)
 - 520--- PROPOSED FINAL CONTOUR (SEE NOTE 2)
 - FLOODWAY BOUNDARY (WBC SEPTEMBER, 2010)
 - 100-YEAR FLOODPLAIN (WBC SEPTEMBER, 2010)
 - 460 100-YEAR WATER SURFACE ELEVATION
 - ▲▲ FILL/CUT SLOPE INDICATORS
 - 1385+14 CDC 100-YR ELEV = 458.16 HYDRAULIC CROSS SECTION AND WATER SURFACE ELEVATION (SEE NOTE 3)

- NOTE:**
1. CONTOURS AND ELEVATIONS PROVIDED BY DFWMAPS.COM FROM AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN JANUARY TO MARCH 2007.
 2. WITH-PROJECT CONDITIONS ARE TAKEN FROM THE POST-PROJECT CONDITIONS DETAILED IN APPENDIX D.
 3. CROSS SECTIONS LOCATIONS REPRESENT THE LIMITS OF THE MODELED TERRAIN IN THE HEC-RAS HYDRAULIC MODEL OF THE ELM FORK OF THE TRINITY RIVER.
 4. PROPOSED PERMIT BOUNDARY WAS PREPARED BY PEISER SURVEYING CO. IN NOVEMBER 2010.

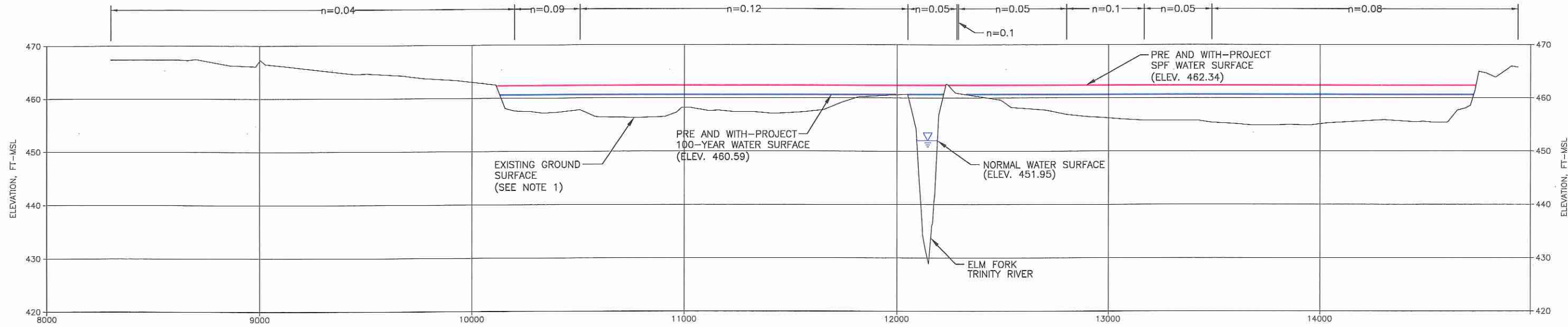


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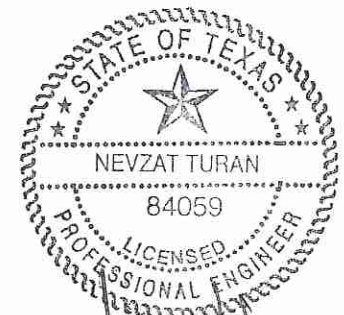
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| | CITY OF FARMERS BRANCH | |
| DATE: 06/2011 FILE: 1339-351-11 CAD: B.5-WITH PROJECT CDC.DWG | DRAWN BY: SRF DESIGN BY: CRM REVIEWED BY: JPY | Weaver Boos Consultants TBPE REGISTRATION NO. F-3727 |
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| | | FORT WORTH, TX SOUTH BEND, IN SPRINGFIELD, IL ST. LOUIS, MO |
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SECTION 1444+74



6-30-11 HHO-C-41

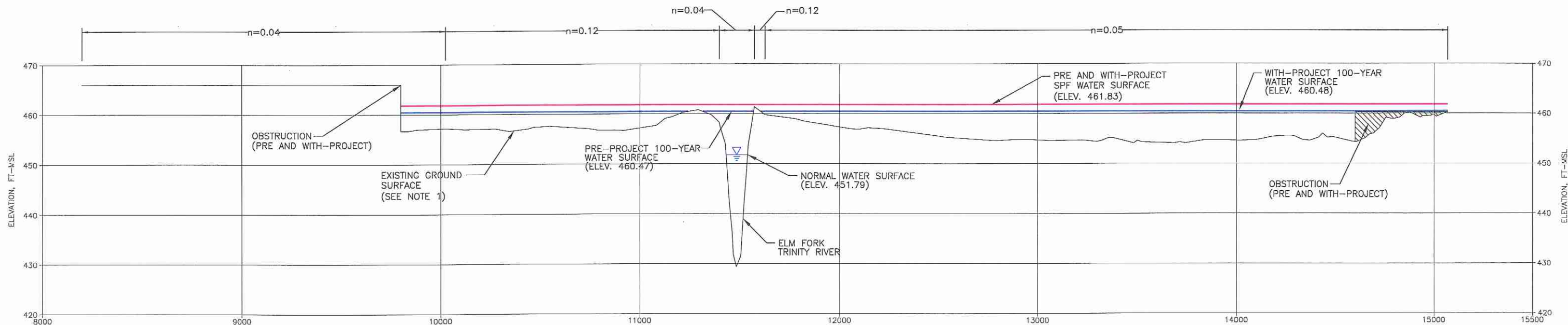
NOTE:

1. THE SECTION GEOMETRIC INFORMATION IS IDENTICAL FOR BOTH THE PRE-PROJECT AND WITH-PROJECT CONDITIONS.

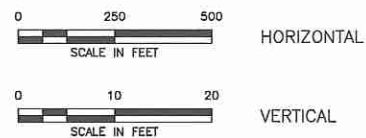
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SECTION 1437+56

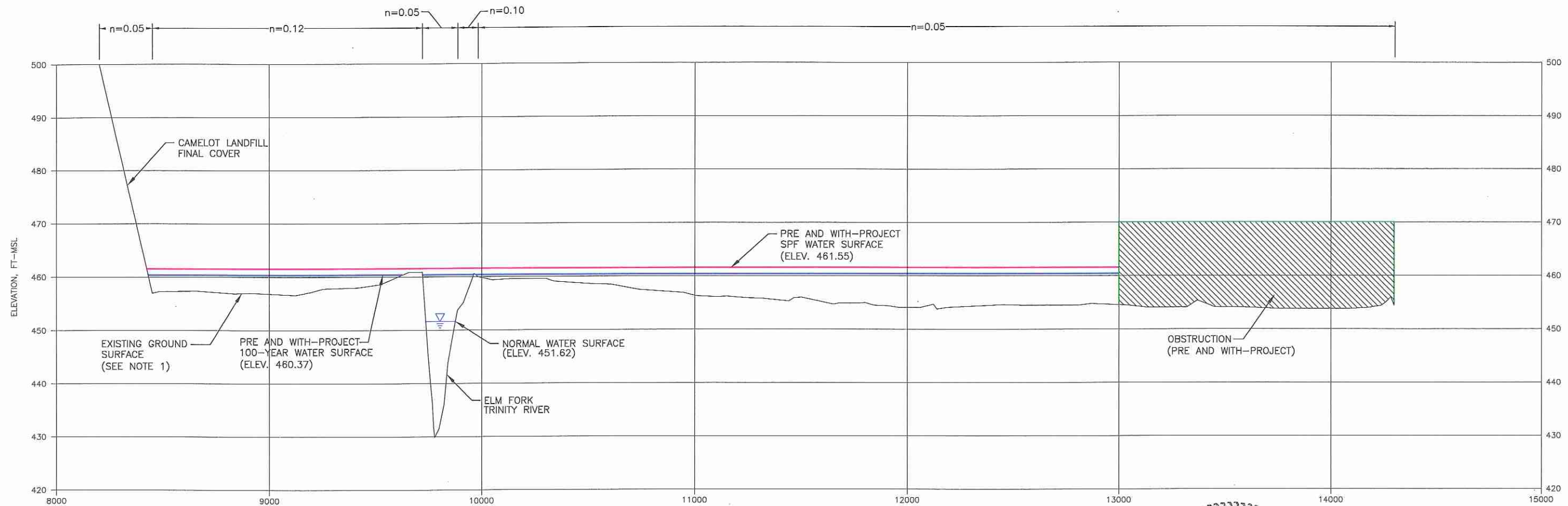


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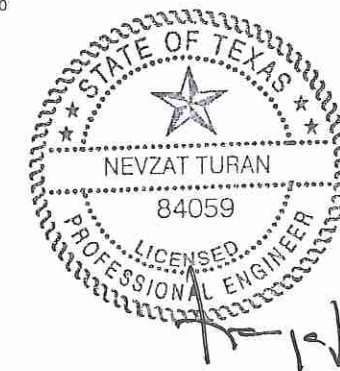
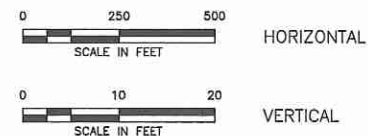
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III-O-C-42

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| REVISIONS | | Weaver Boos Consultants TBPE REGISTRATION NO. F-3727 | | | | | | | | | | | |
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SECTION 1429+00



NOTE:

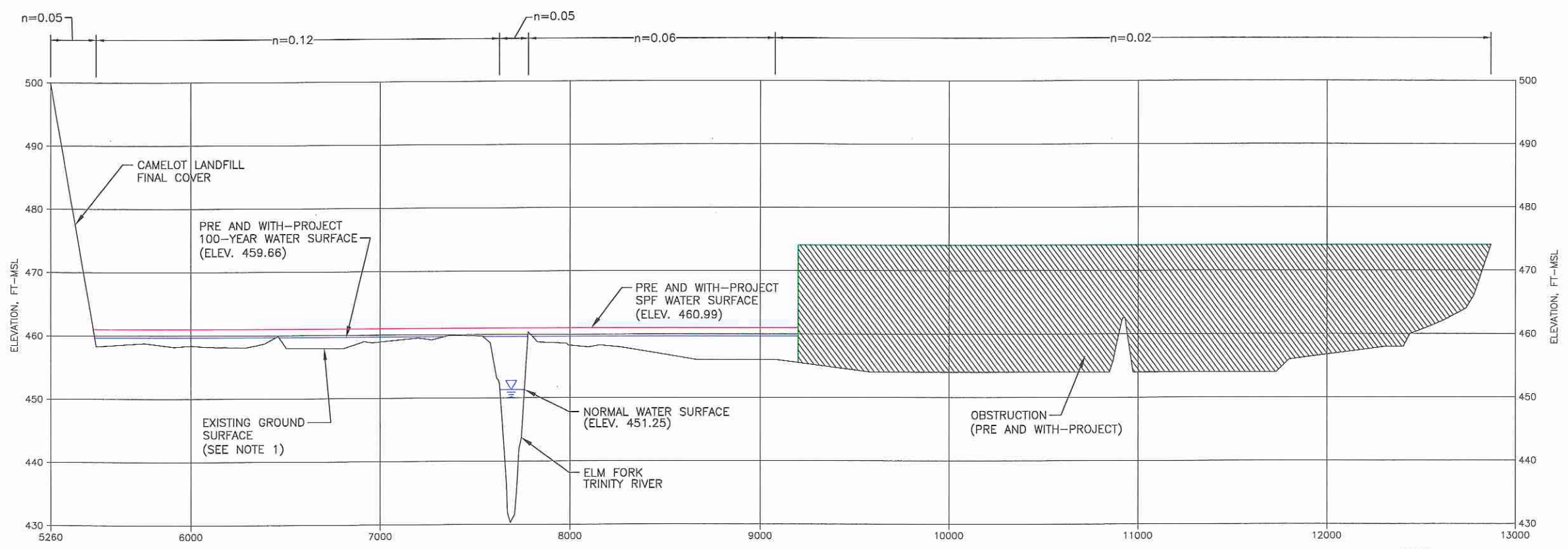
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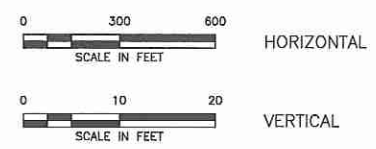
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| DRAWN BY: SRP DESIGN BY: CRM REVIEWED BY: JPY | | FORT WORTH, TX SOUTH BEND, IN SPRINGFIELD, IL ST. LOUIS, MO | | | | | | | | | | | | | | |
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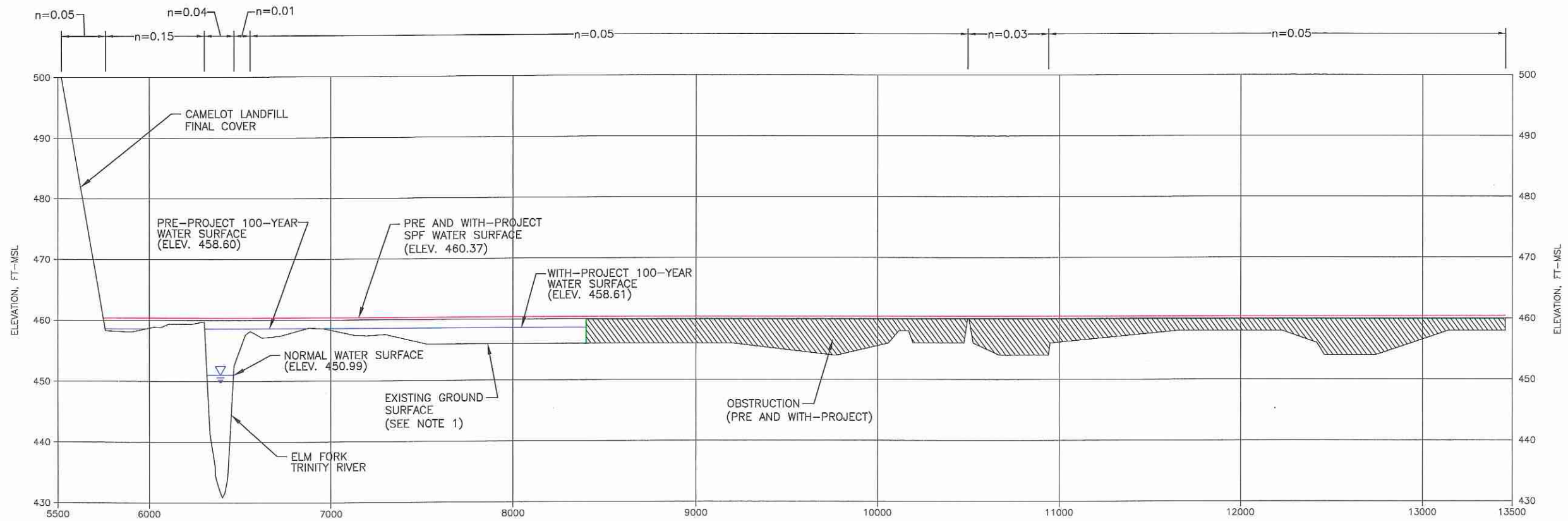
SECTION 1415+18



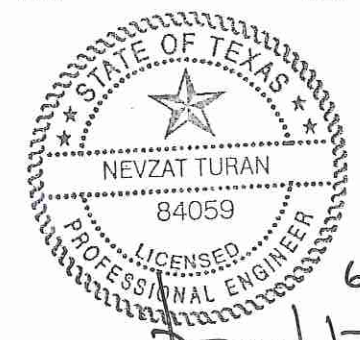
NOTE:
 1. THE SECTION GEOMETRIC INFORMATION IS IDENTICAL FOR BOTH THE PRE-PROJECT AND WITH-PROJECT CONDITIONS.

III-O-C-44

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SECTION 1396+43



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[Handwritten Signature]

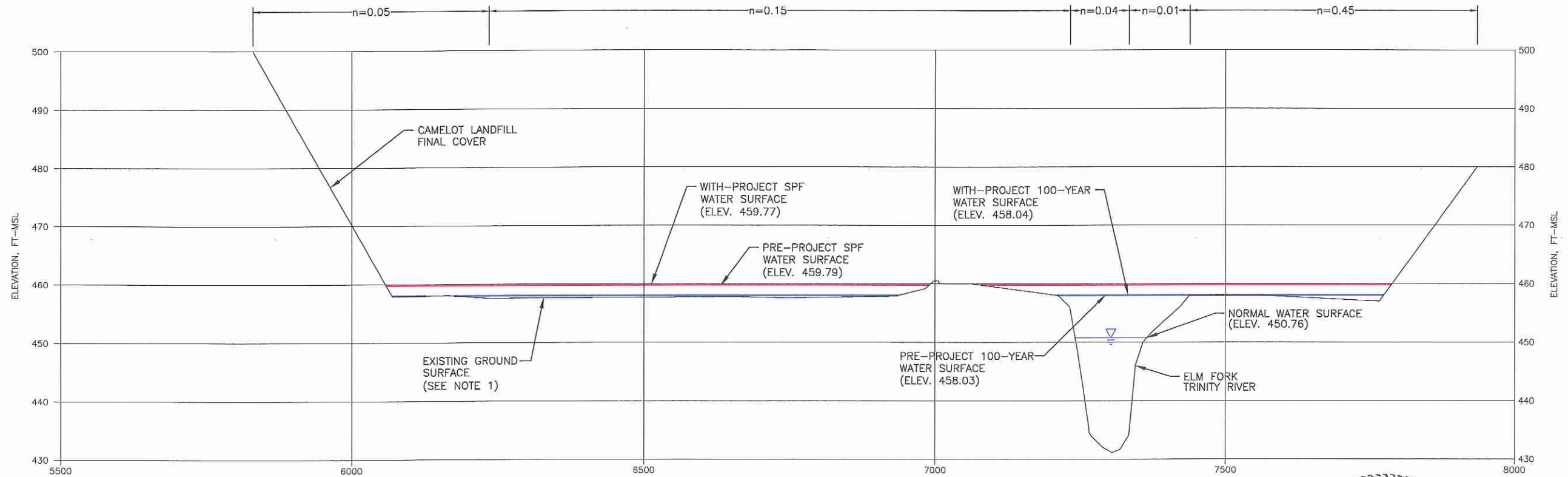
NOTE:

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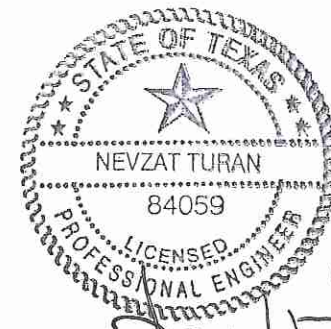
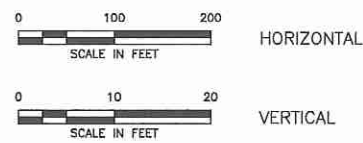
III-O-C-45

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| FORT WORTH, TX SOUTH BEND, IN SPRINGFIELD, IL ST. LOUIS, MO | | DRAWING B.10 | | | | | | | | | | | | | | |

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SECTION 1385+14



6-30-11

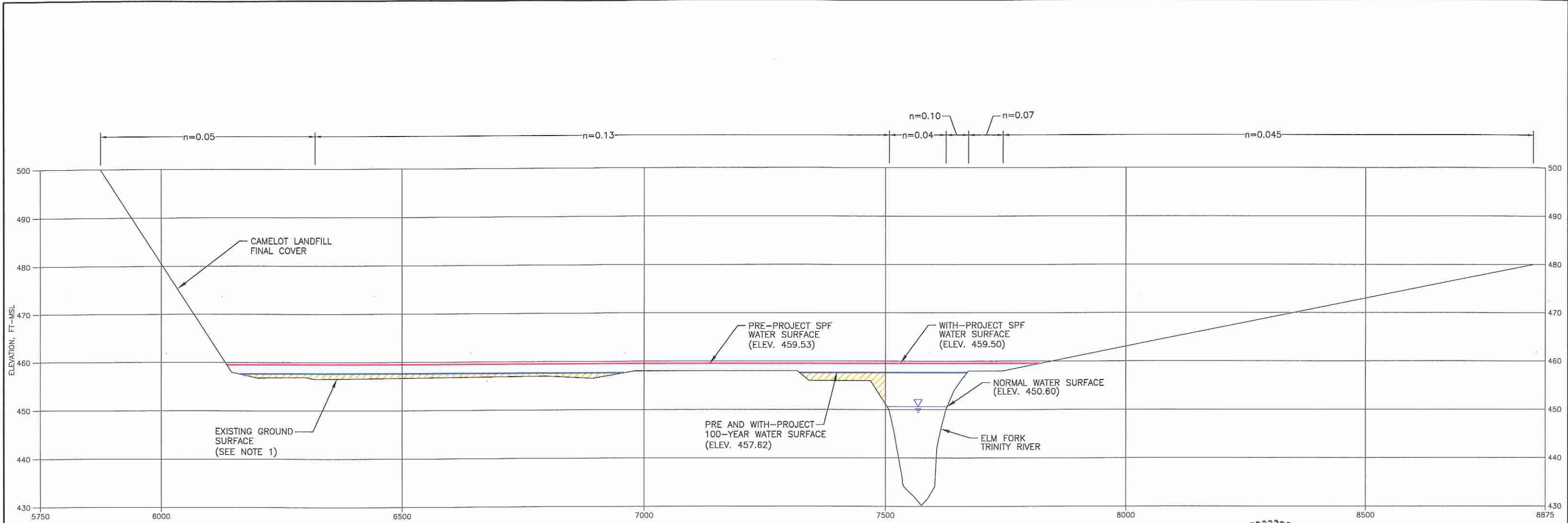
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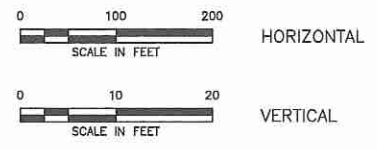
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III-O-C-46

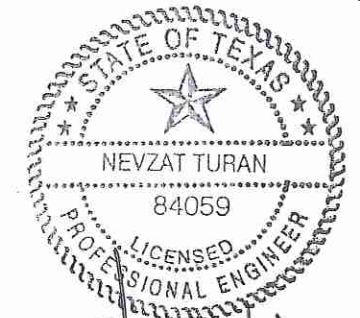
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SECTION 1378+78



LEGEND
 INEFFECTIVE FLOW (PRE AND WITH-PROJECT)



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 6-30-11

III-C-47

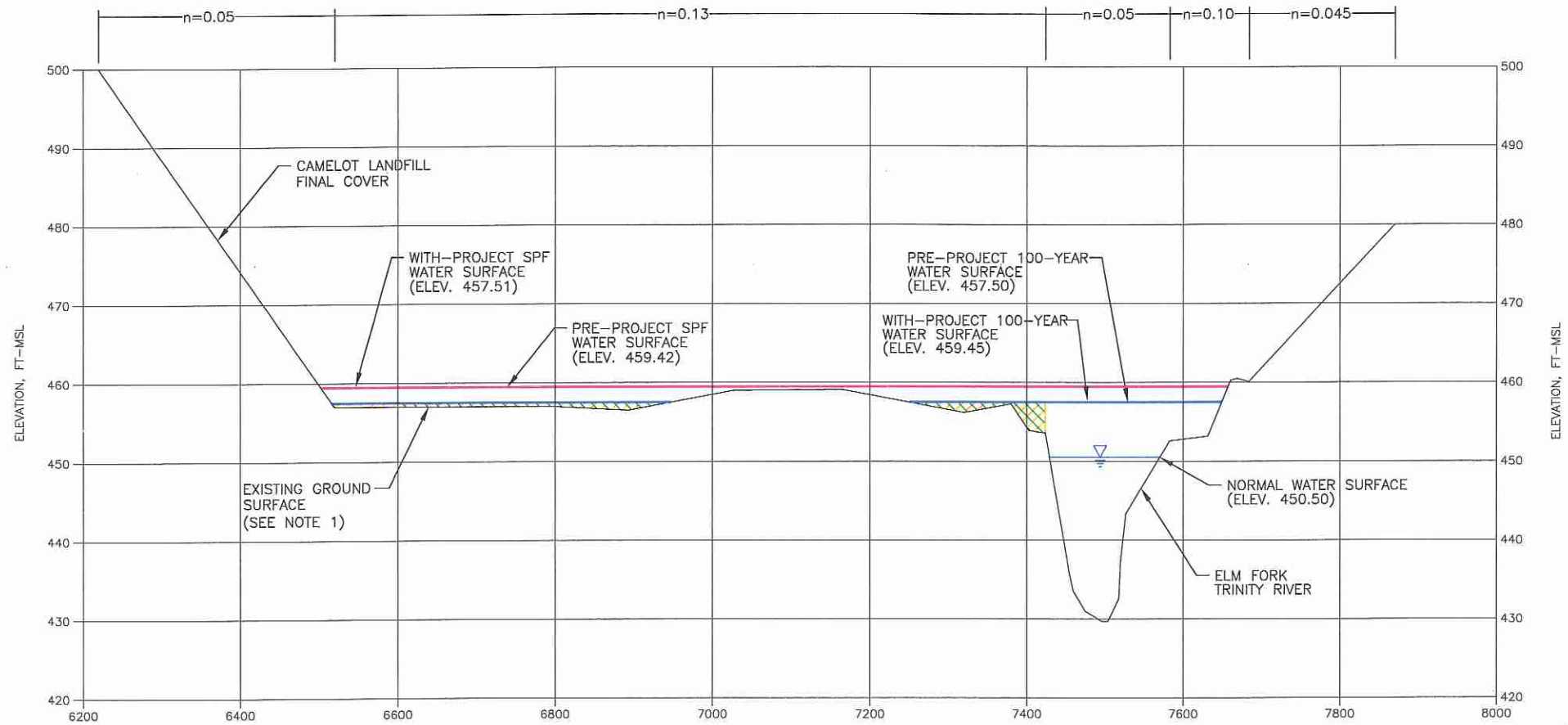
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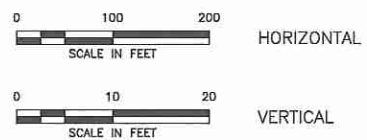
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| | DATE: 05/2011 FILE: 1339-351-11 CAD: B.12-1378+78.DWG | DRAWN BY: SRF DESIGN BY: CRM REVIEWED BY: JPY |
| REVISIONS | | CHICAGO, IL NAPERVILLE, IL COLUMBUS, OH DENVER, CO |
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| | | DRAWING B.12 |

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SECTION 1373+52

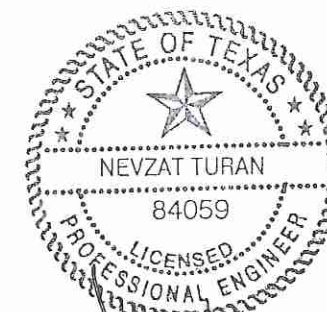


LEGEND

- INEFFECTIVE FLOW (PRE-PROJECT)
- EFFECTIVE FLOW (WITH-PROJECT)

NOTE:

1. THE SECTION GEOMETRIC INFORMATION IS IDENTICAL FOR BOTH THE PRE-PROJECT AND WITH-PROJECT CONDITIONS.

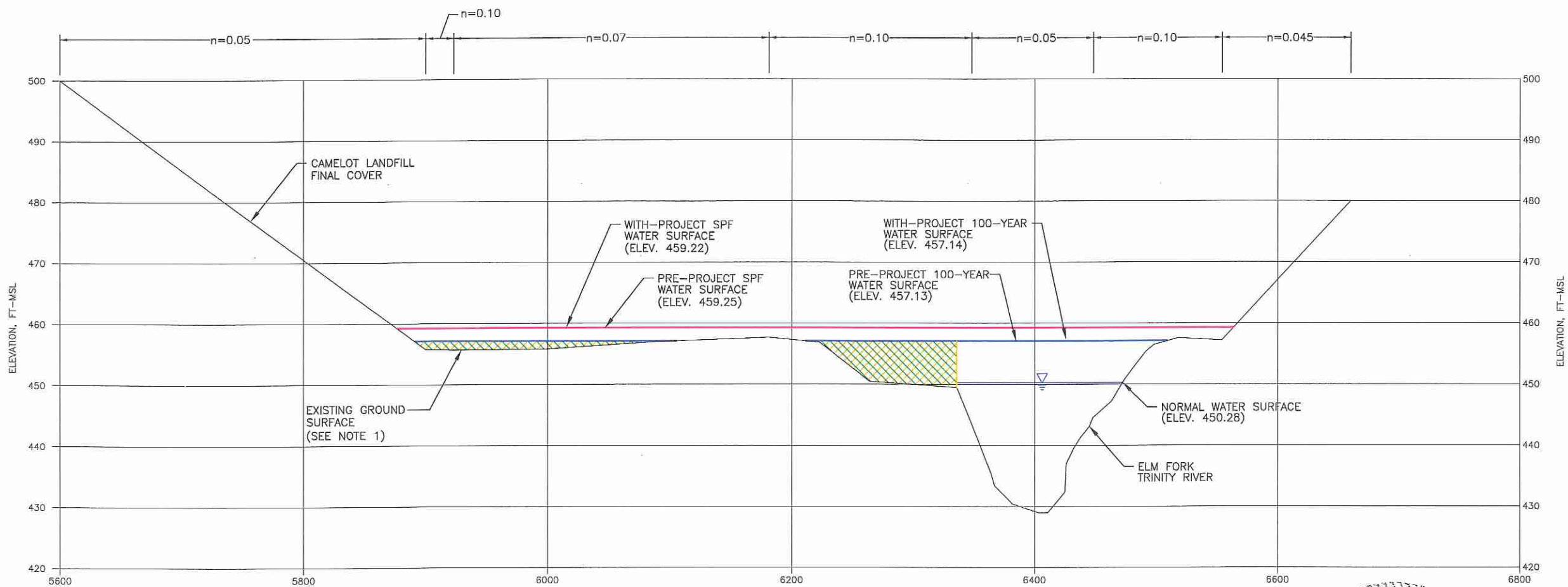


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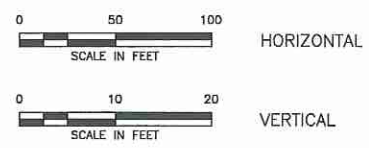
6-30-11

III-O-C-48

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| CHICAGO, IL NAPERVILLE, IL COLUMBUS, OH DENVER, CO | | FORT WORTH, TX (817) 735-9770 GRIFFITH, IN SOUTH BEND, IN SPRINGFIELD, IL ST. LOUIS, MO | | | | | | | | | | | | | | | |
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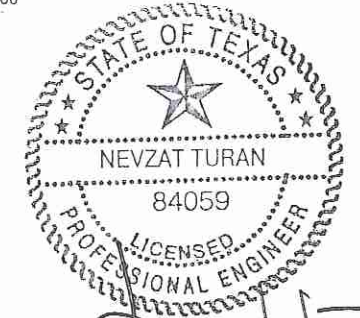


SECTION 1361+49



- LEGEND**
- INEFFECTIVE FLOW (PRE-PROJECT)
 - EFFECTIVE FLOW (WITH-PROJECT)

NOTE:
 1. THE SECTION GEOMETRIC INFORMATION IS IDENTICAL FOR BOTH THE PRE-PROJECT AND WITH-PROJECT CONDITIONS.

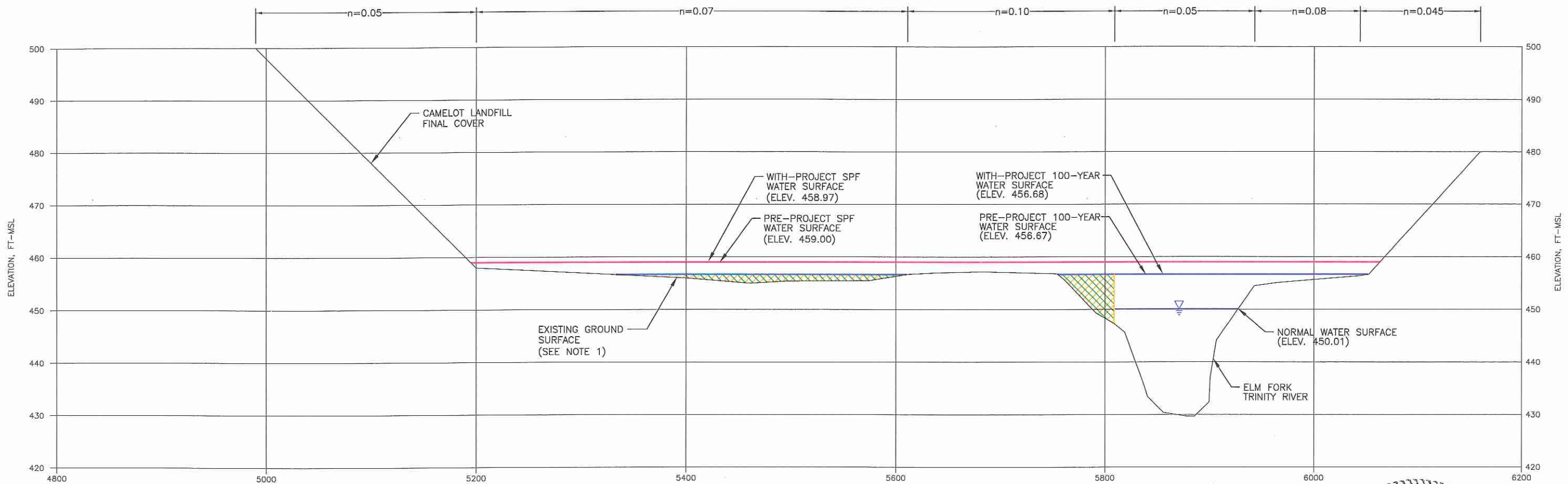


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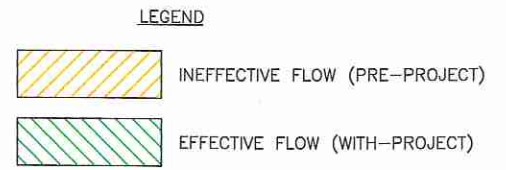
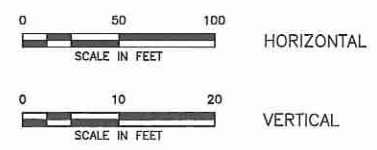
III-C-49

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SECTION 1353+70



NOTE:
 1. THE SECTION GEOMETRIC INFORMATION IS IDENTICAL FOR BOTH THE PRE-PROJECT AND WITH-PROJECT CONDITIONS.

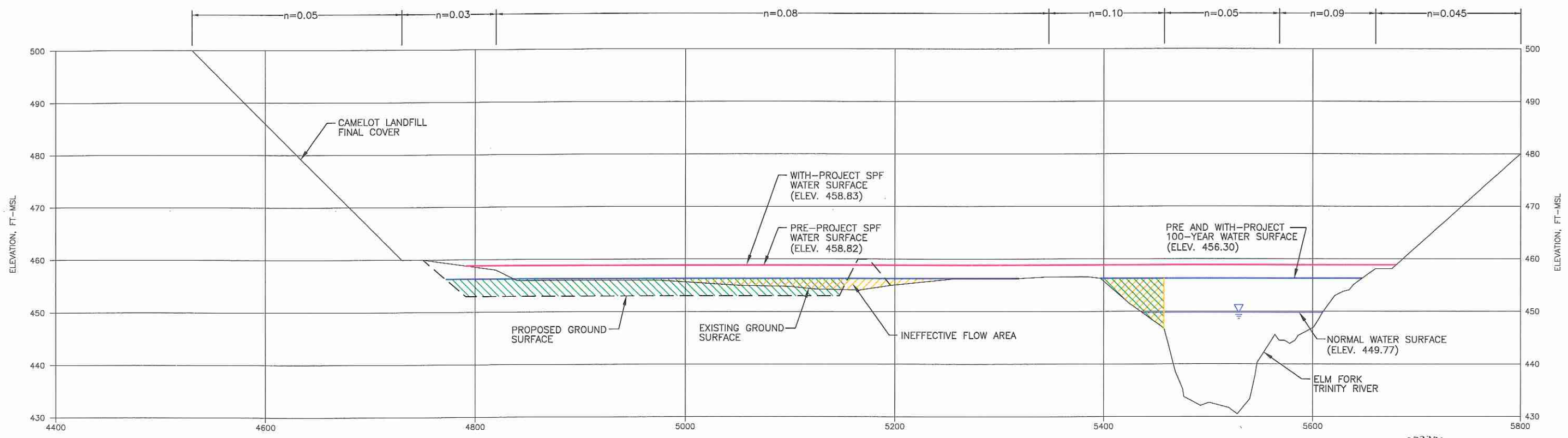


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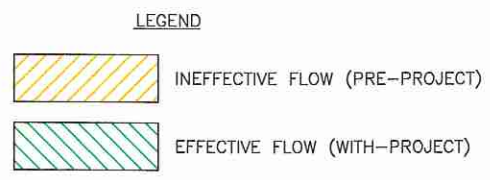
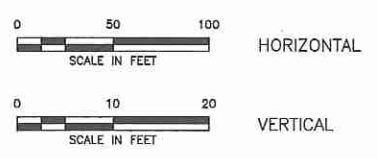
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| | DATE: 05/2011 FILE: 1339-351-11 CAD: B.15-1353+70.DWG | DRAWN BY: SRF DESIGN BY: CRM REVIEWED BY: JPY | CAMELOT LANDFILL DENTON COUNTY, TEXAS | | | | | | | | | | |
| REVISIONS | | Weaver Boos Consultants TBPE REGISTRATION NO. F-3727 | | | | | | | | | | | |
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| | | DRAWING B.15 | | | | | | | | | | | |

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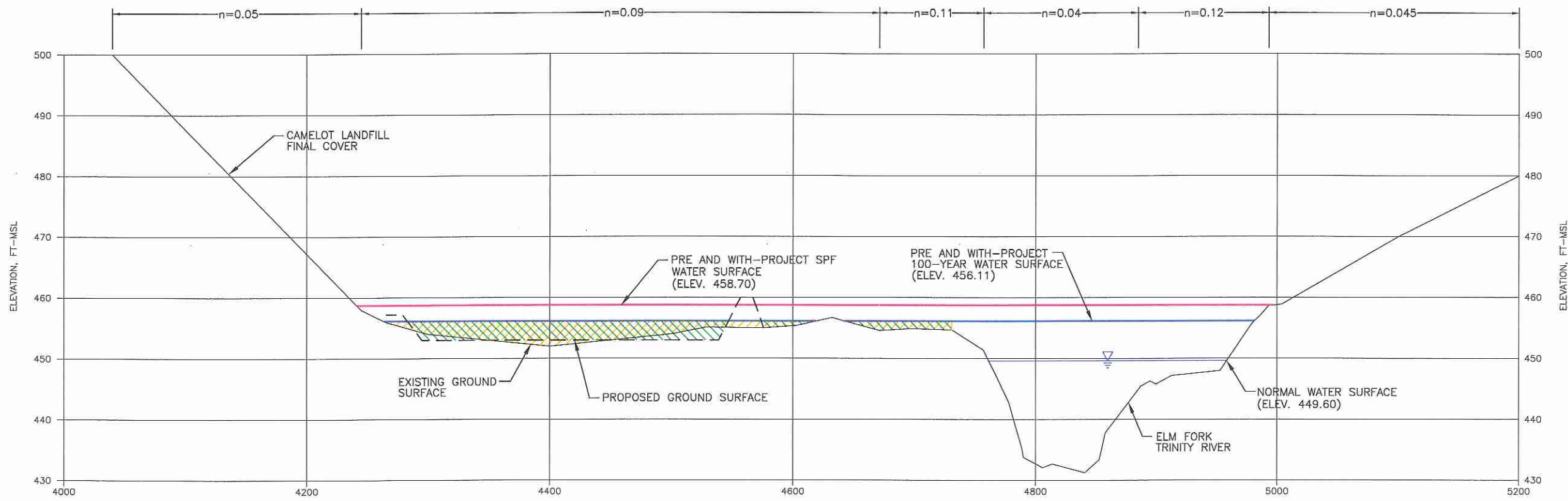
SECTION 1345+38



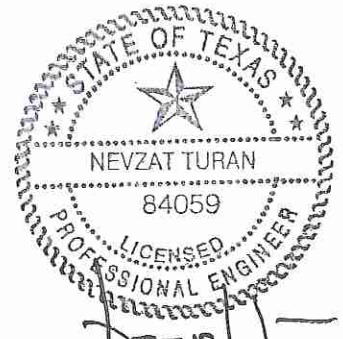
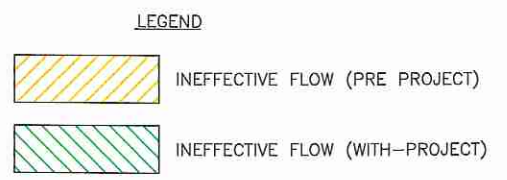
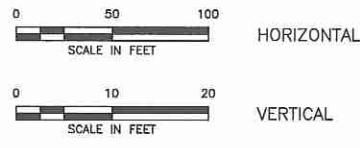
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[Signature]
 6-30-11

III-O-C-51

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| CHICAGO, IL NAPERVILLE, IL COLUMBUS, OH DENVER, CO FORT WORTH, TX (817) 735-9770 GRIFFITH, IN SOUTH BEND, IN SPRINGFIELD, IL ST. LOUIS, MO | | DRAWING B.16 | | | | | | | | | | | | | | | |



SECTION 1336+34

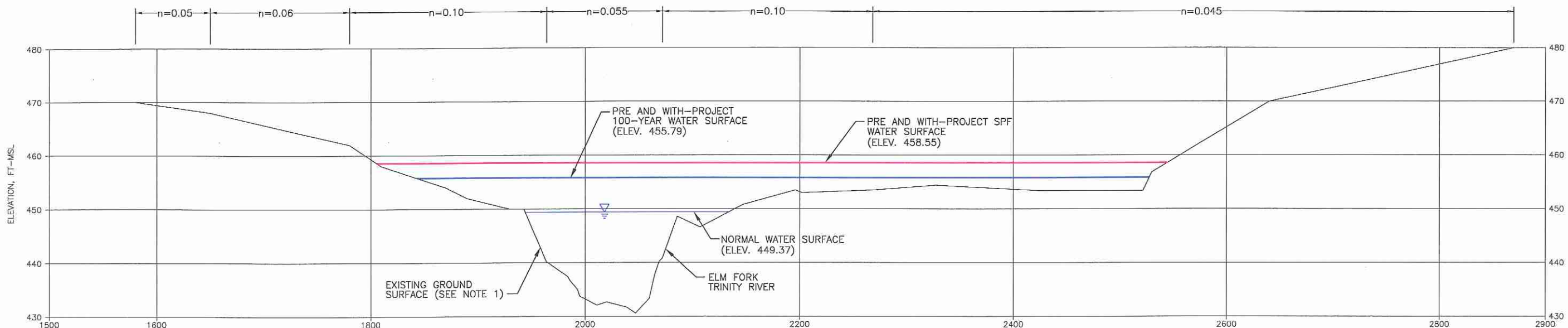


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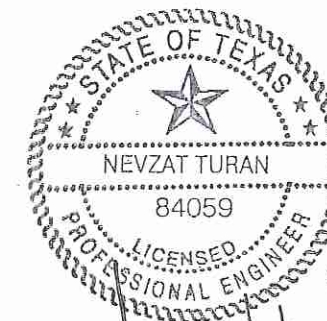
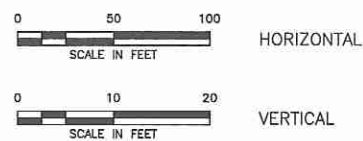
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| CHICAGO, IL | FORT WORTH, TX | GRIFFITH, IN | | | | | | | | | | | | | | | | | | |
| MAPERVILLE, IL | COLUMBUS, OH | SOUTH BEND, IN | | | | | | | | | | | | | | | | | | |
| DENVER, CO | (817) 735-9770 | SPRINGFIELD, IL | | | | | | | | | | | | | | | | | | |
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SECTION 1326+56



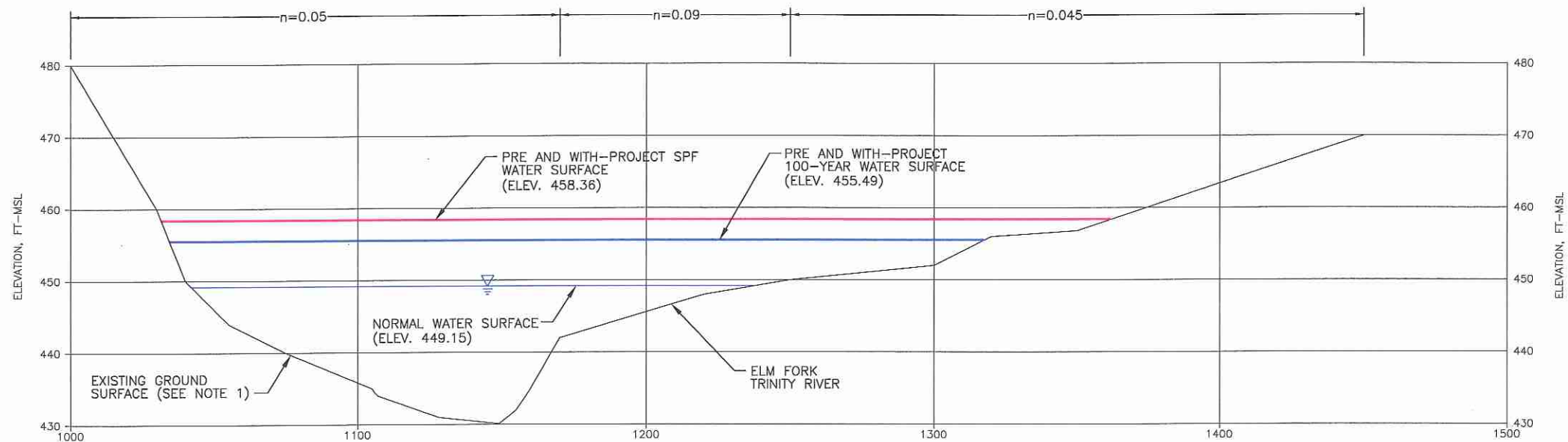
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NOTE:

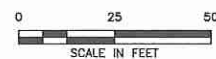
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III-O-C-53

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SECTION 1319+98



HORIZONTAL



VERTICAL



6-30-11

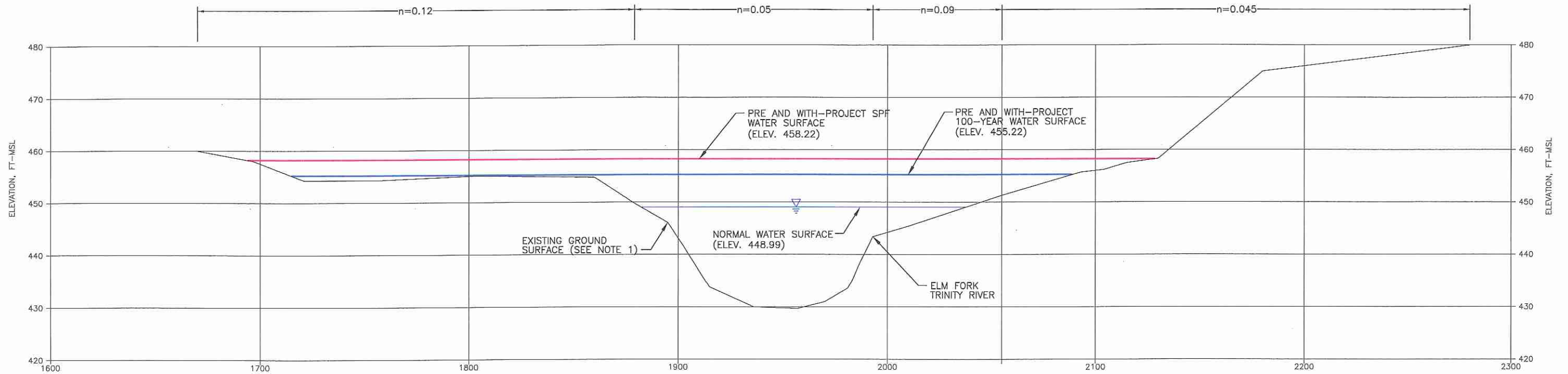
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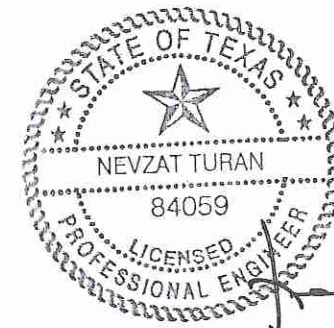
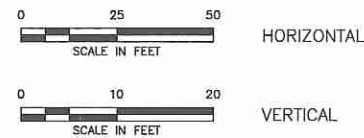
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SECTION 1315+32



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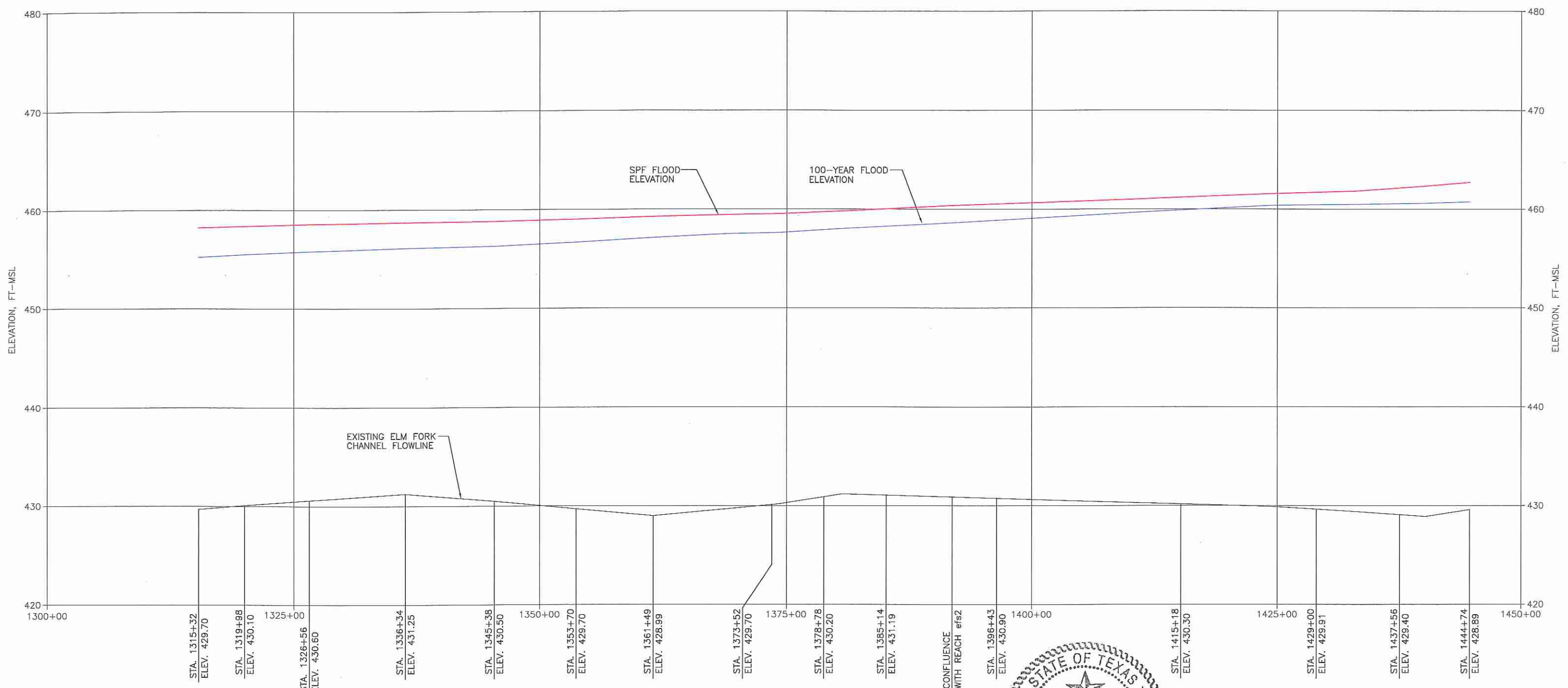
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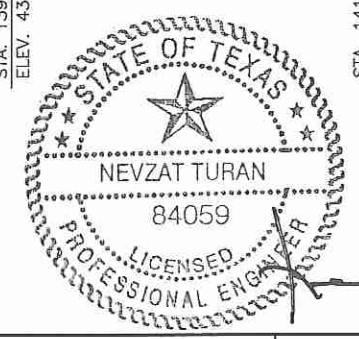
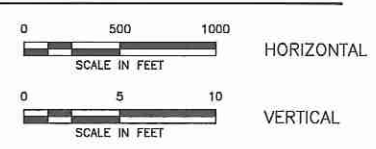
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PRE-PROJECT PROFILE



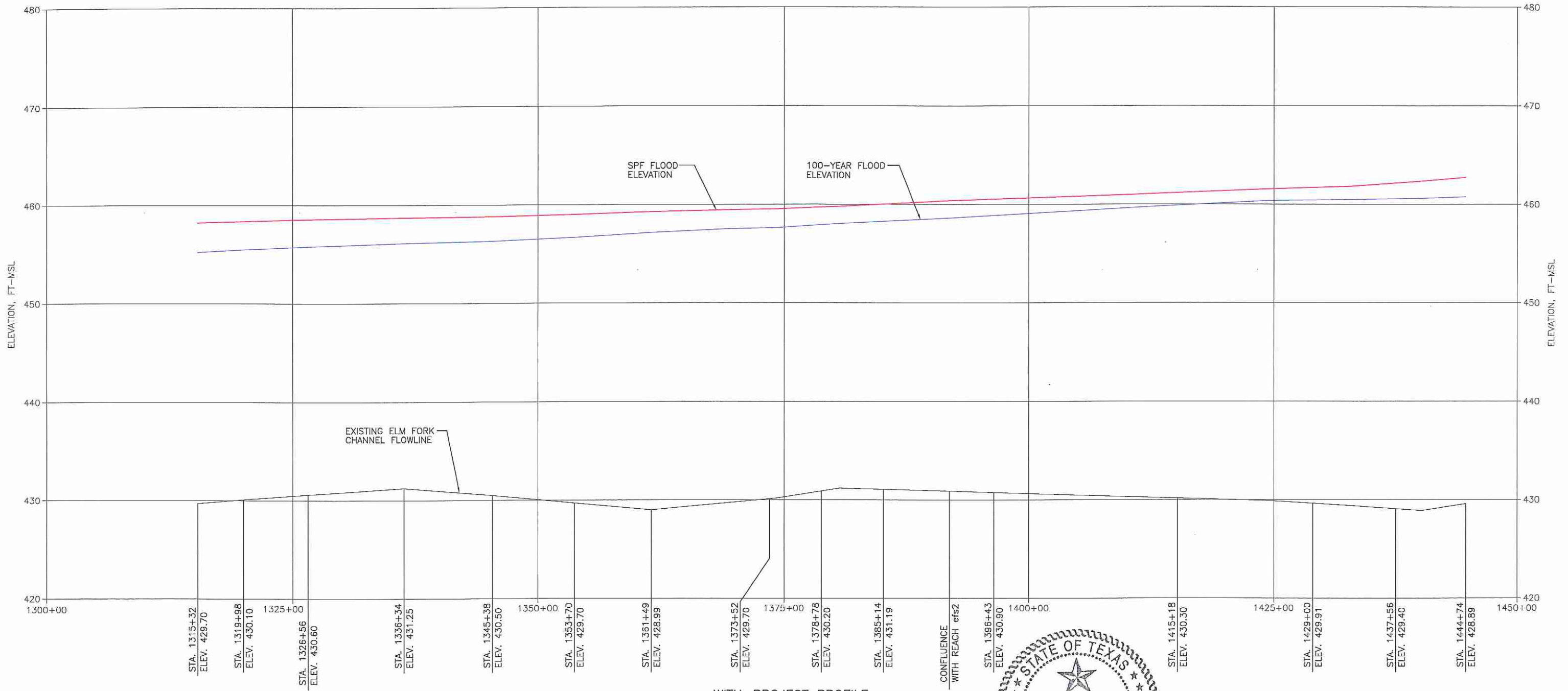
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NOTE:
 1. THE CREEK SHOWN ON THIS PROFILE IS LOCATED WITHIN THE CITY LIMITS OF THE CITY OF LEWISVILLE.

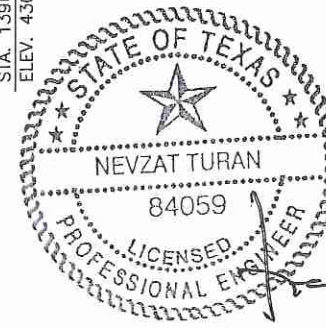
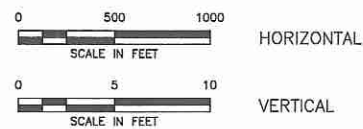
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APPENDIX E
VALLEY STORAGE CALCULATIONS

VALLEY STORAGE CALCULATIONS SUMMARY

Purpose

The purpose of this appendix is to demonstrate that the existing valley storage consumed by the proposed continued development of the landfill will be offset by the creation of valley storage within the project area. As shown on Figures E.1 and E.2, valley storage will be created behind the existing Elm Fork embankments to offset the valley storage consumed by the proposed expansion.

A summary of the surfaces used to estimate both the pre-project valley storage and the with-project valley storage is provided on Figure E.2. In addition, the pre-project valley storage and with-project valley storage is graphically illustrated on Figures E.3 through Figure E.6.

Calculation Method

An AutoCAD-based software package was used to estimate both the pre-project valley storage and with-project valley storage for the 100-year and SPF storm events. To calculate the valley storage volumes, 3D surfaces are first created in AutoCAD for (1) the pre-project 100-year and SPF floodplains, (2) the with-project 100-year and SPF floodplains, (3) the 2007 topography received from dfwmaps.com, and (4) the 2007 dfwmaps.com topography merged with the landfill completion plan.

AutoCAD then calculates the volume between a specified floodplain surface and a topography surface. For example, Figure E.3 shows the results of the pre-project 100-year valley storage calculation, which is the volume between the pre-project 100-year floodplain and the dfwmaps.com 2007 topography. Similarly, Figure E.6 shows the results of the with-project SPF valley storage calculation, which is the volume between the with-project SPF floodplain and the 2007 dfwmaps.com topography merged with the landfill completion plan.

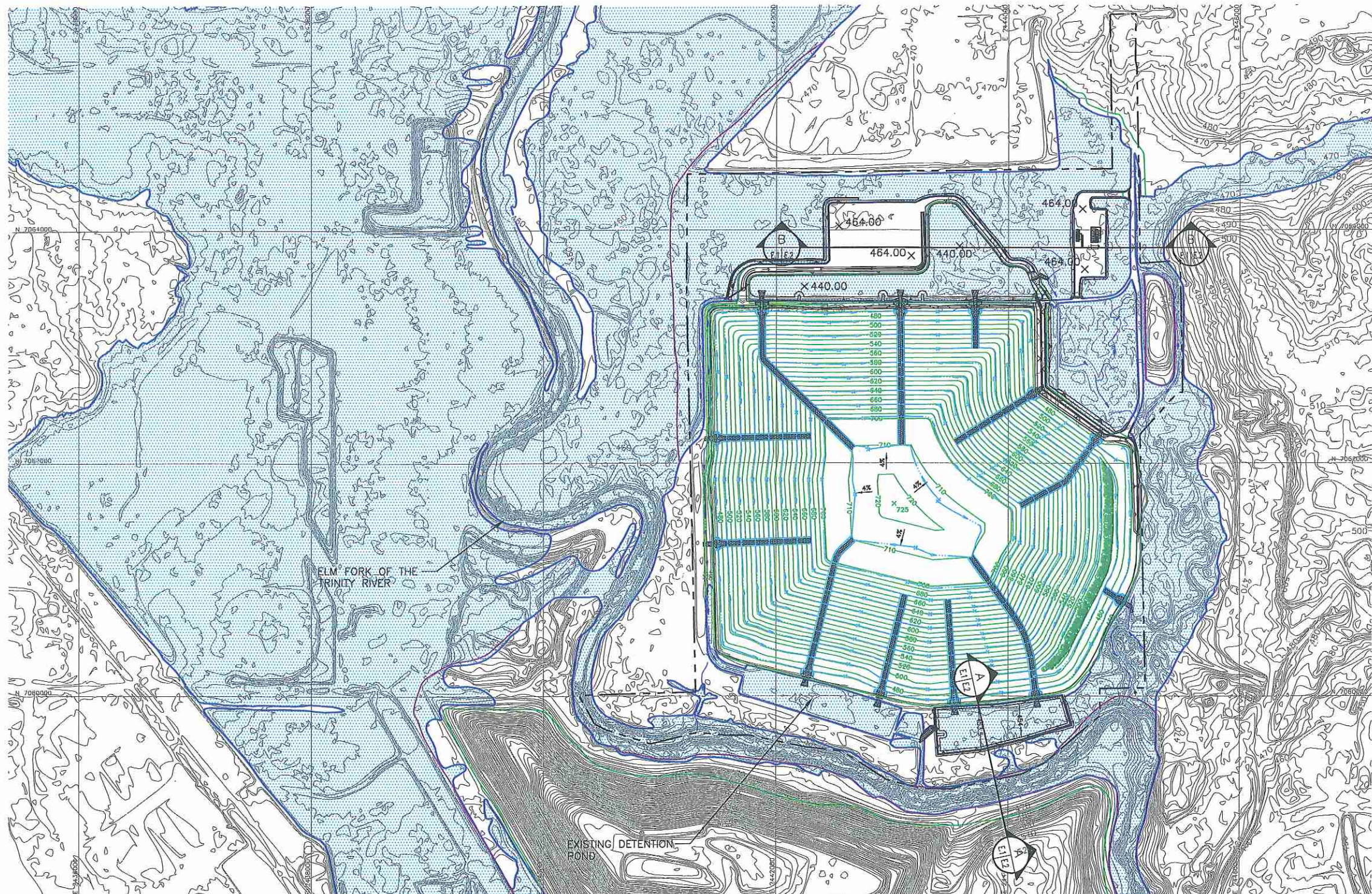
To demonstrate the changes in available valley storage between the pre- and with-project conditions, tick marks are included on Figures E.3 through E.6. The tick marks indicate the elevation difference between the designated floodplain surface (i.e., pre-project 100-year) and the designated topography (i.e., 2007 dfwmaps.com topography merged with the landfill completion plan) at specific locations. For this application, tick marks are provided on a 250-foot grid throughout the project area. Green tick marks indicate the distance in feet that the topography is below the floodplain elevation. Red tick marks

indicate the distance in feet that the topography is above the floodplain elevation in that location. AutoCAD calculates the total volume of valley storage, and the results are summarized on the tables in Figures E.3 through E.6.

Results and Conclusion

As shown on Figures E.2 through E.6, for the proposed project, there is no loss of valley storage during the 100-year storm event (106 acre feet or approximately 171,000 cubic yards of valley storage is created) and there is a net gain of valley storage during the SPF event of approximately 3 percent. The CDC manual states that the maximum allowable decrease for the 100-year flood and SPF are 0.0 percent and 5.0 percent, respectively. The net increase of 100-year and SPF valley storage demonstrates compliance with the CDC valley storage requirements.

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- LEGEND**
- PROPOSED PERMIT BOUNDARY
 - PROPOSED LIMIT OF WASTE
 - N 7064000 STATE PLANE COORDINATE SYSTEM
 - 500 EXISTING CONTOURS (SEE NOTE 1)
 - 500-YEAR FLOODPLAIN (WBC SEPTEMBER, 2010)
 - FLOODWAY BOUNDARY (WBC SEPTEMBER, 2010)
 - 100-YEAR FLOODPLAIN (WBC SEPTEMBER, 2010)
 - ▲ ▼ FILL/CUT SLOPE INDICATORS
 - 520 PROPOSED FINAL CONTOUR (SEE NOTE 2)
 - DRAINAGE LETDOWN
 - DRAINAGE SWALE

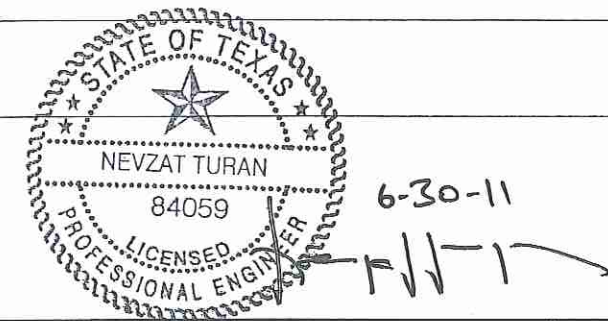
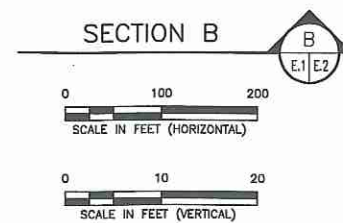
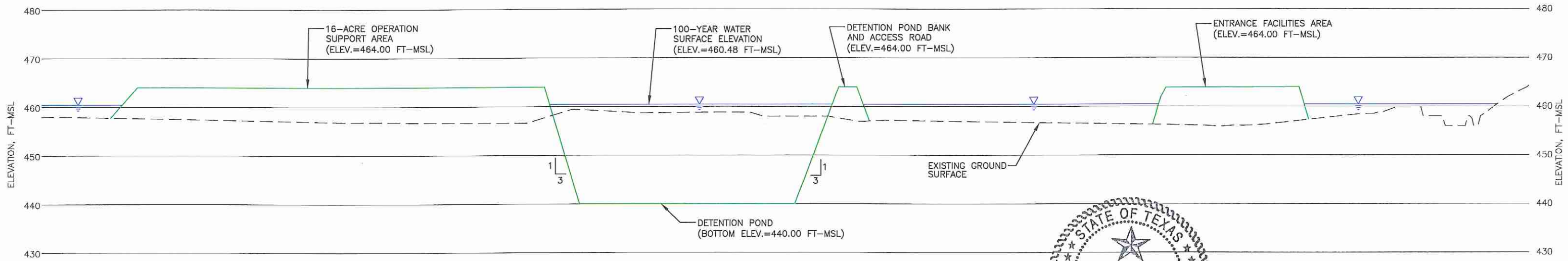
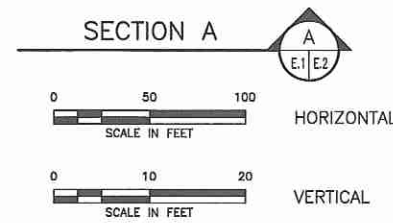
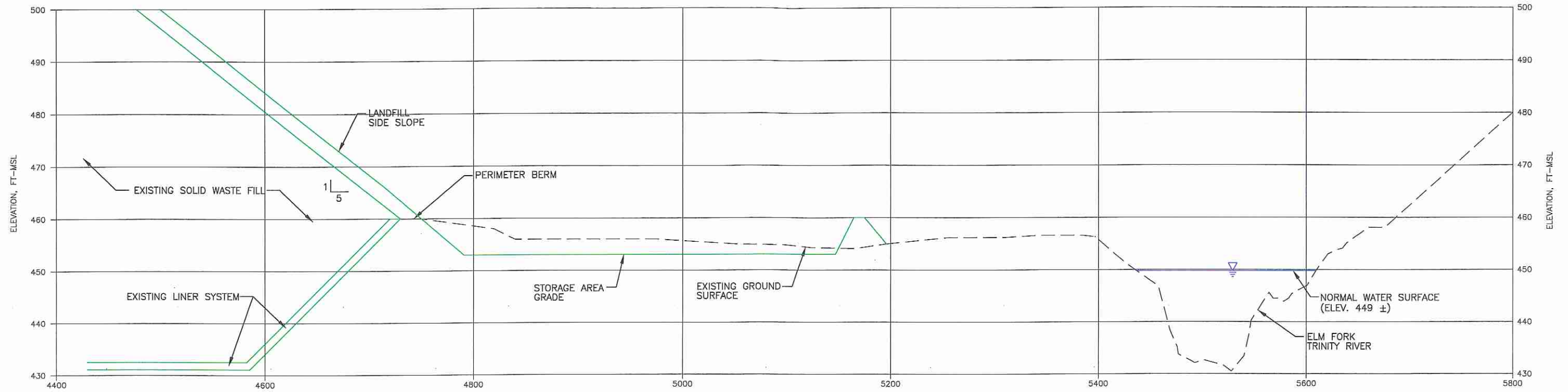
- NOTE:**
1. CONTOURS AND ELEVATIONS PROVIDED BY DFWMAPS.COM FROM AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN JANUARY TO MARCH 2007.
 2. PERMIT BOUNDARY REPRODUCED FROM A LEGAL DESCRIPTION PROVIDED BY PEISER SURVEYING CO. IN NOVEMBER 2010.



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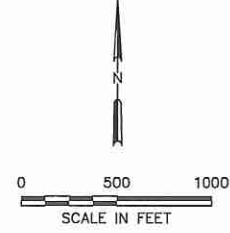
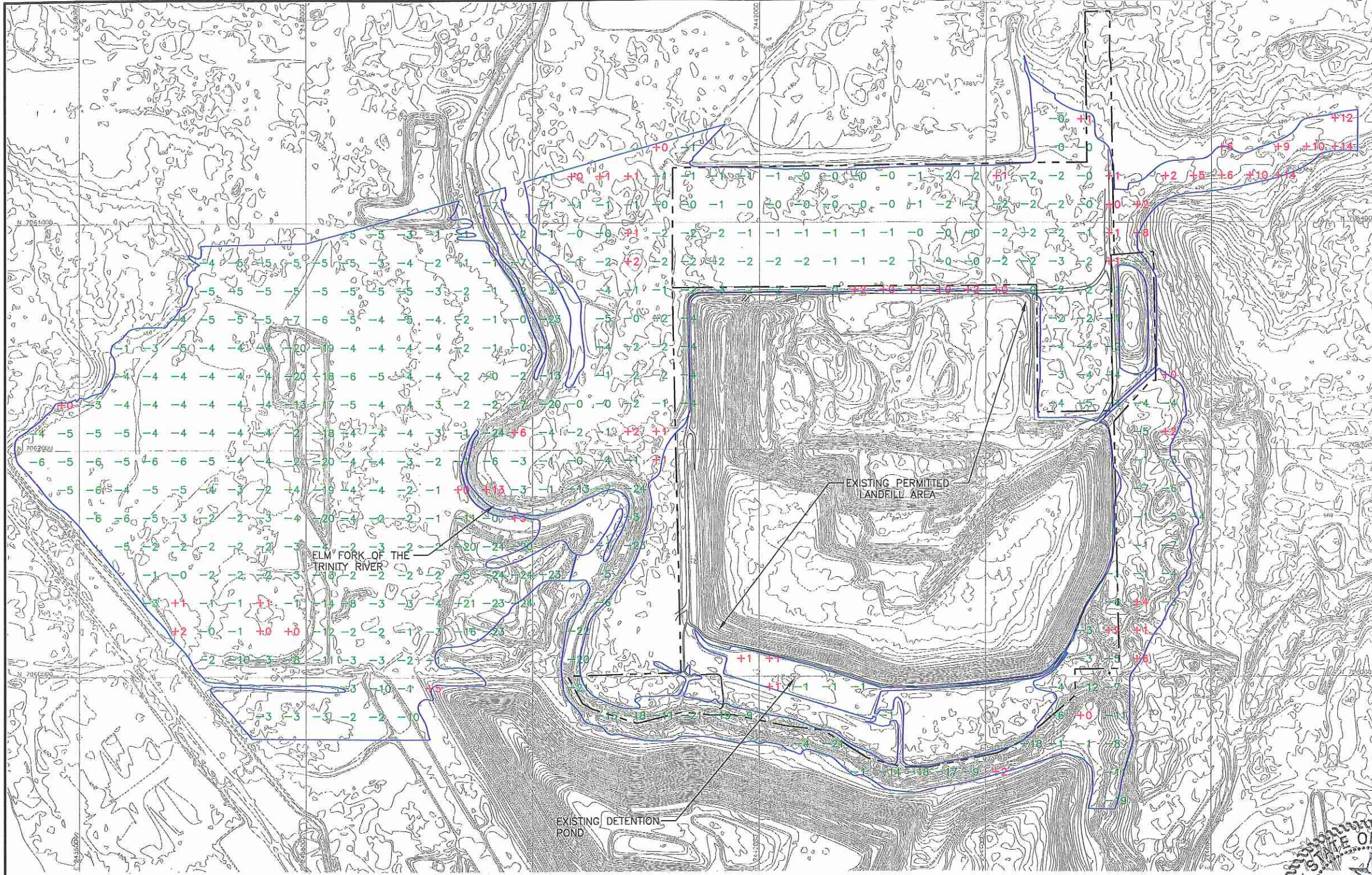
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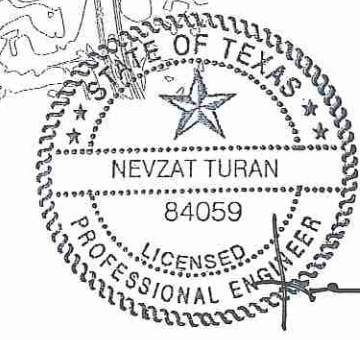


- LEGEND**
- PROPOSED PERMIT BOUNDARY
 - EXISTING PERMIT BOUNDARY
 - N 7064009 STATE PLANE COORDINATE SYSTEM
 - 500 EXISTING CONTOURS (SEE NOTE 1)
 - 4 DEPTH OF VALLEY STORAGE (SEE NOTE 2)
(THE ELEVATION DIFFERENCE OF THE 2007 TOPOGRAPHY BELOW THE 100-YEAR WATER SURFACE)
 - +2 HEIGHT ABOVE 100 YEAR FLOODPLAIN
(THE ELEVATION DIFFERENCE OF THE 2007 TOPOGRAPHY ABOVE THE 100-YEAR WATER SURFACE)
 - 100 YEAR FLOODPLAIN

- NOTE:**
1. CONTOURS AND ELEVATIONS PROVIDED BY DFWMAPS.COM FROM AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN JANUARY TO MARCH 2007.
 2. VALLEY STORAGE IS NOT CALCULATED FOR ELEVATIONS BELOW THE NORMAL WATER SURFACE ELEVATION IN THE ELM FORK OF THE TRINITY RIVER DURING A 4,000 CFS EVENT (E.G. 451.79 FT-MSL FOR THE NORTH DETENTION POND AND 450.28 TO 449.60 FT-MSL FOR THE TWO SOUTH PONDS).
 3. PROPOSED PERMIT BOUNDARY WAS PREPARED BY PEISER SURVEYING CO. IN NOVEMBER 2010.

VALLEY STORAGE SUMMARY

| CONDITION | BOTTOM SURFACE | TOP SURFACE | 100-YEAR | SPF |
|---------------------------|--|--|-------------|-------------|
| PRE-PROJECT | 2007 TOPOGRAPHY PROVIDED BY NCTCOG | 100-YEAR FLOODPLAIN (455.22 FT-MSL TO 460.59 FT-MSL) AND SPF FLOODPLAIN (458.22 FT-MSL TO 462.34 FT-MSL) | 2,475 AC-FT | 3,194 AC-FT |
| WITH-PROJECT | 2007 TOPOGRAPHY PROVIDED BY NCTCOG AND PROPOSED LANDFILL COMPLETION PLAN | 100-YEAR FLOODPLAIN (455.22 FT-MSL TO 460.59 FT-MSL) AND SPF FLOODPLAIN (458.22 FT-MSL TO 462.34 FT-MSL) | 2,581 AC-FT | 3,285 AC-FT |
| PERCENT INCREASE/DECREASE | | | + 4.28% | + 2.85% |

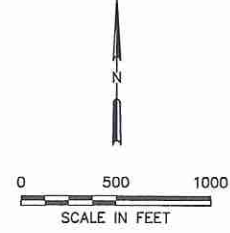
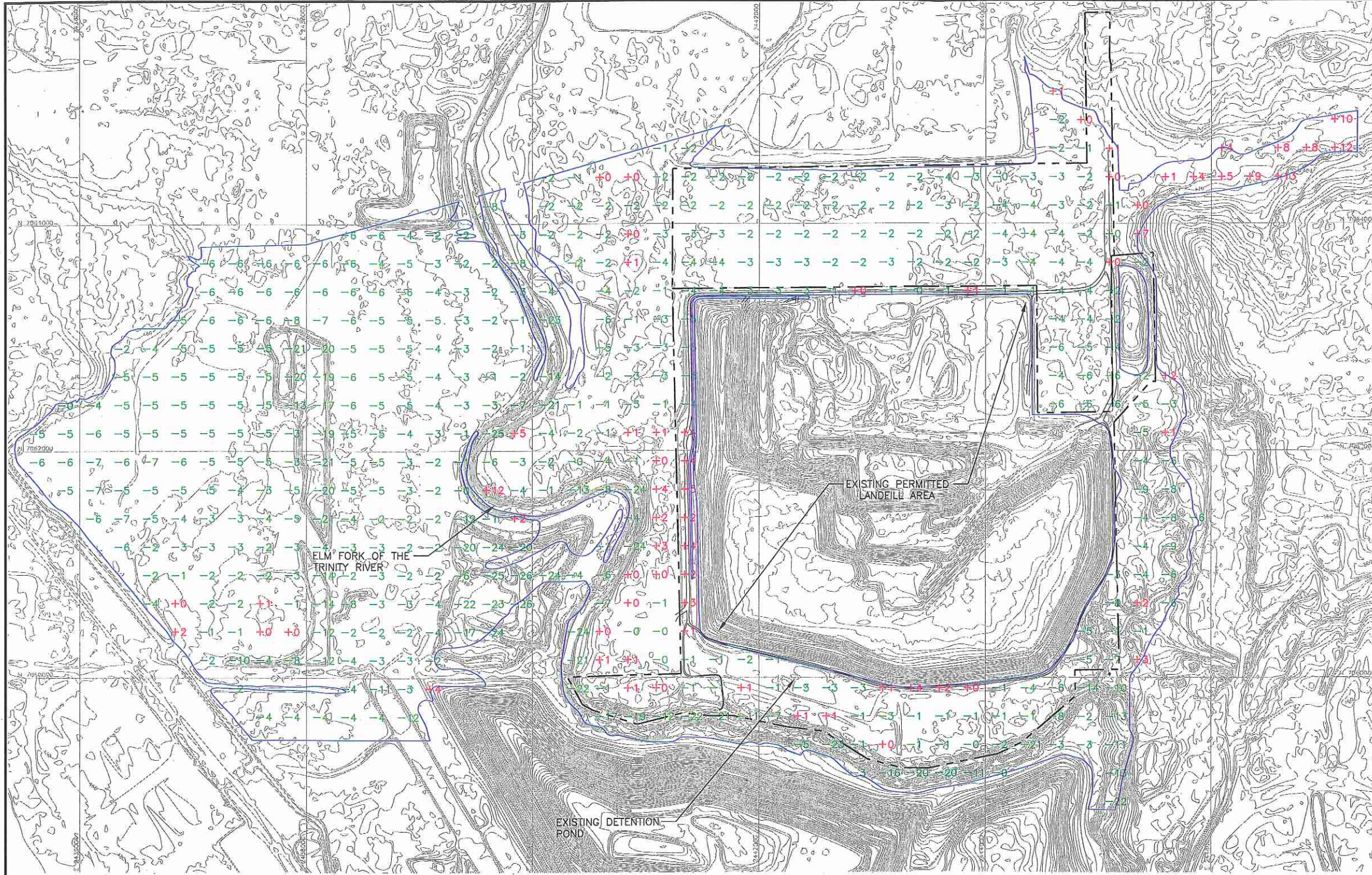


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| | CITY OF FARMERS BRANCH | |
| DATE: 06/2011 FILE: 1339-351-11 DWR: E3-100 YR STORAGE PRE/PROJ/DWG | DRAWN BY: VRS DESIGN BY: CRM REVIEWED BY: JPY | REVISIONS NO. DATE DESCRIPTION |
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| | | FIGURE E.3 |

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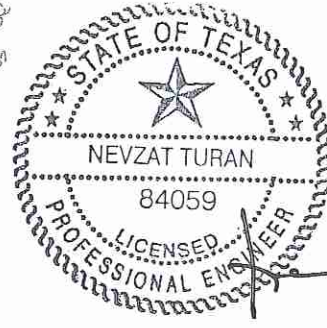


- LEGEND**
- PROPOSED PERMIT BOUNDARY
 - EXISTING PERMIT BOUNDARY
 - N 7064000 STATE PLANE COORDINATE SYSTEM
 - EXISTING CONTOURS (SEE NOTE 1)
 - 4 DEPTH OF VALLEY STORAGE (SEE NOTE 2)
(THE ELEVATION DIFFERENCE OF THE 2007 TOPOGRAPHY BELOW THE SPF WATER SURFACE)
 - +2 HEIGHT ABOVE SPF FLOODPLAIN
(THE ELEVATION DIFFERENCE OF THE 2007 TOPOGRAPHY ABOVE THE SPF WATER SURFACE)
 - SPF FLOODPLAIN

- NOTE:**
1. CONTOURS AND ELEVATIONS PROVIDED BY DFWMAPS.COM FROM AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN JANUARY TO MARCH 2007.
 2. VALLEY STORAGE IS NOT CALCULATED FOR ELEVATIONS BELOW THE NORMAL WATER SURFACE ELEVATION IN THE ELM FORK OF THE TRINITY RIVER DURING A 4,000 CFS EVENT (e.g. 451.79 FT-MSL FOR THE NORTH DETENTION POND AND 450.28 TO 449.60 FT-MSL FOR THE TWO SOUTH PONDS).
 3. PROPOSED PERMIT BOUNDARY WAS PREPARED BY PEISER SURVEYING CO. IN NOVEMBER 2010.

VALLEY STORAGE SUMMARY

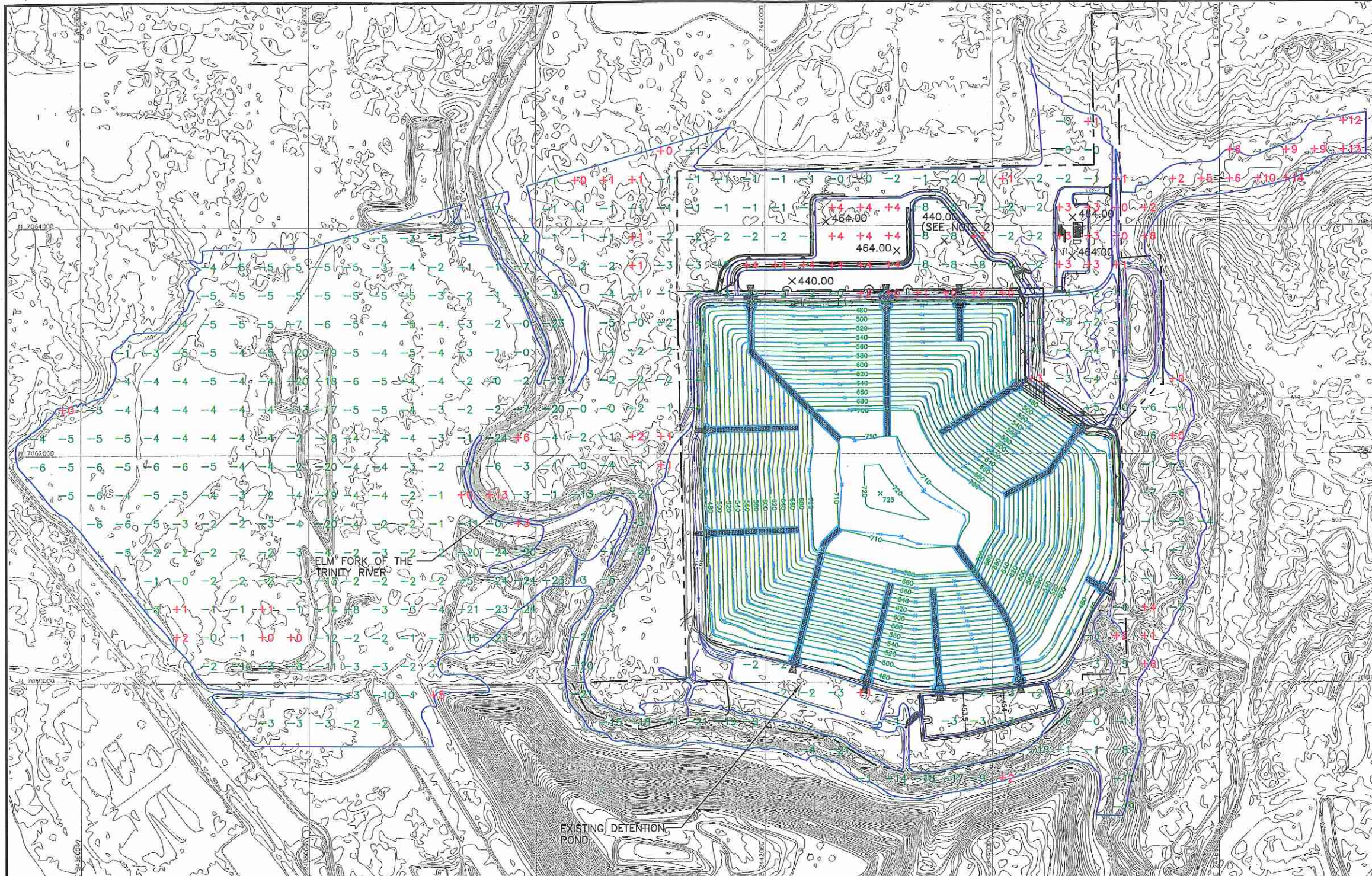
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|---------------------------|--|--|-------------|-------------|
| PRE-PROJECT | 2007 TOPOGRAPHY PROVIDED BY NCTCOG | 100-YEAR FLOODPLAIN (455.22 FT-MSL TO 460.59 FT-MSL) AND SPF FLOODPLAIN (458.22 FT-MSL TO 462.34 FT-MSL) | 2,475 AC-FT | 3,194 AC-FT |
| WITH-PROJECT | 2007 TOPOGRAPHY PROVIDED BY NCTCOG AND PROPOSED LANDFILL COMPLETION PLAN | 100-YEAR FLOODPLAIN (455.22 FT-MSL TO 460.59 FT-MSL) AND SPF FLOODPLAIN (458.22 FT-MSL TO 462.34 FT-MSL) | 2,581 AC-FT | 3,285 AC-FT |
| PERCENT INCREASE/DECREASE | | | + 4.28% | + 2.85% |



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| | CITY OF FARMERS BRANCH | | | | | | | | | | | | | |
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| <small>CHICAGO, IL NAPERVILLE, IL COLUMBUS, OH DENVER, CO</small> | | <small>FORT WORTH, TX SOUTH BEND, IN SPRINGFIELD, IL ST. LOUIS, MO</small> FIGURE E.4 | | | | | | | | | | | | |

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- LEGEND**
- PROPOSED PERMIT BOUNDARY
 - PROPOSED LIMIT OF WASTE
 - N 7064000 --- STATE PLANE COORDINATE SYSTEM
 - 500 --- EXISTING CONTOURS (SEE NOTE 1)
 - 4 --- DEPTH OF VALLEY STORAGE (SEE NOTE 2) (THE ELEVATION DIFFERENCE OF THE 2007 TOPOGRAPHY WITH THE PROPOSED LANDFILL COMPLETION PLAN BELOW THE 100-YEAR WATER SURFACE)
 - +2 --- HEIGHT ABOVE 100-YEAR FLOODPLAIN (THE ELEVATION DIFFERENCE OF THE 2007 TOPOGRAPHY WITH THE PROPOSED LANDFILL COMPLETION PLAN ABOVE THE 100-YEAR WATER SURFACE)
 - 100-YEAR FLOODPLAIN
 - 454 --- VALLEY STORAGE POND CONTOUR
 - 520 --- PROPOSED FINAL CONTOUR
 - DRAINAGE LETDOWN
 - DRAINAGE SWALE

- NOTES:**
- CONTOURS AND ELEVATIONS PROVIDED BY DFWMAPS.COM FROM AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN JANUARY TO MARCH 2007.
 - VALLEY STORAGE IS NOT CALCULATED FOR ELEVATIONS BELOW THE NORMAL WATER SURFACE ELEVATION IN THE ELM FORK OF THE TRINITY RIVER DURING A 4,000 CFS EVENT (e.g. 451.79 FT-MSL FOR THE NORTH DETENTION POND AND 450.28 TO 449.60 FT-MSL FOR THE TWO SOUTH PONDS).
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VALLEY STORAGE SUMMARY

| CONDITION | BOTTOM SURFACE | TOP SURFACE | 100-YEAR | SPF |
|---------------------------|--|--|-------------|-------------|
| PRE-PROJECT | 2007 TOPOGRAPHY PROVIDED BY NCTCOG | 100-YEAR FLOODPLAIN (455.22 FT-MSL TO 460.59 FT-MSL) AND SPF FLOODPLAIN (458.22 FT-MSL TO 462.34 FT-MSL) | 2,475 AC-FT | 3,194 AC-FT |
| WITH-PROJECT | 2007 TOPOGRAPHY PROVIDED BY NCTCOG AND PROPOSED LANDFILL COMPLETION PLAN | 100-YEAR FLOODPLAIN (455.22 FT-MSL TO 460.59 FT-MSL) AND SPF FLOODPLAIN (458.22 FT-MSL TO 462.34 FT-MSL) | 2,581 AC-FT | 3,285 AC-FT |
| PERCENT INCREASE/DECREASE | | | + 4.28% | + 2.85% |

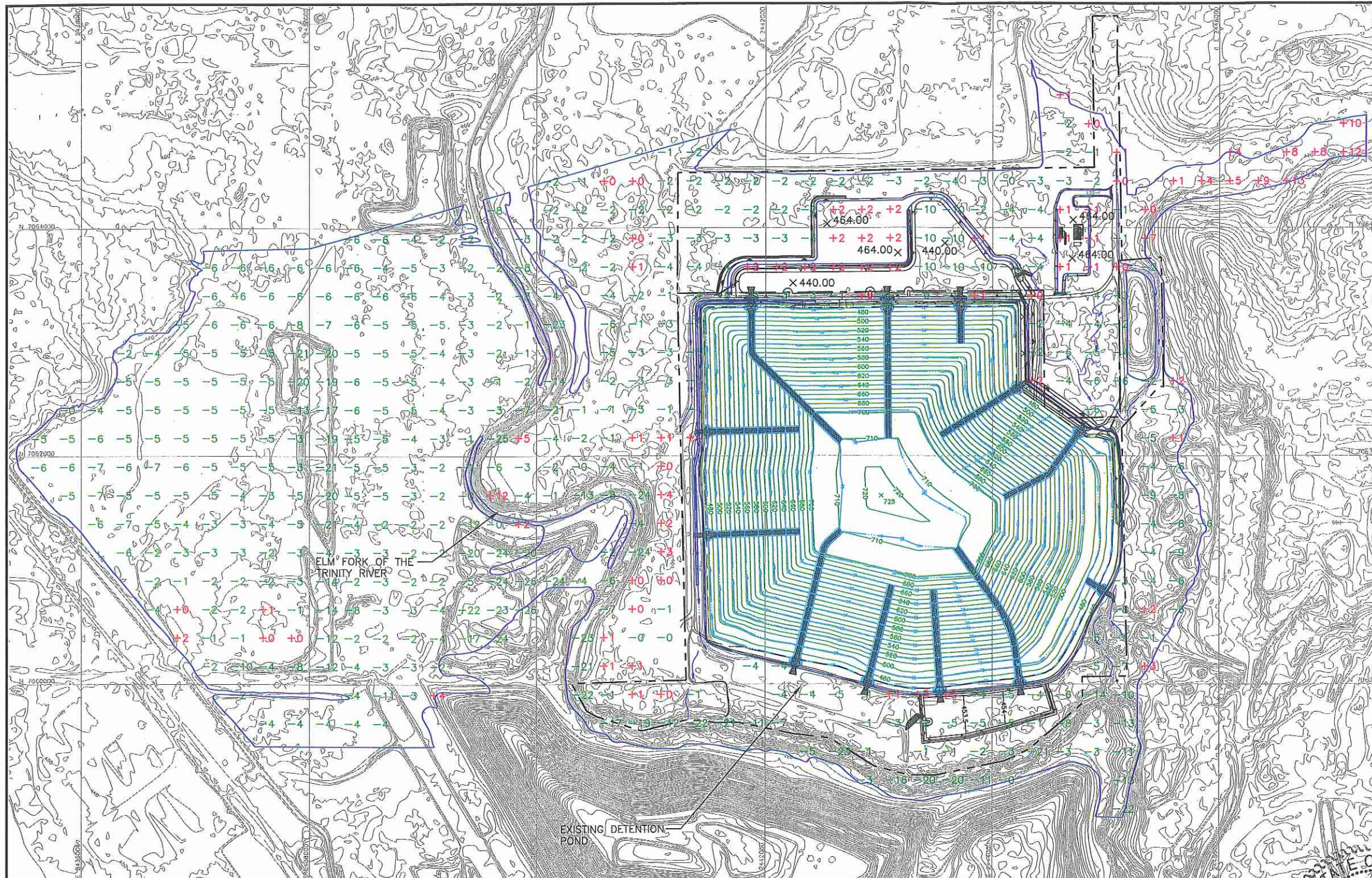


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| DATE: 06/2011 FILE: 1339-351-11 CAD: E.6-SPF STORAGE W/PROJ.DWG | DRAWN BY: VRS DESIGN BY: CRM REVIEWED BY: JPY | REVISIONS NO. DATE DESCRIPTION | |
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| | | | FIGURE E.5 |

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- LEGEND**
- PROPOSED PERMIT BOUNDARY
 - PROPOSED LIMIT OF WASTE
 - N 7064000 STATE PLANE COORDINATE SYSTEM
 - 500 EXISTING CONTOURS (SEE NOTE 1)
 - 4 DEPTH OF VALLEY STORAGE (SEE NOTE 2) (THE ELEVATION DIFFERENCE OF THE 2007 TOPOGRAPHY WITH THE PROPOSED LANDFILL COMPLETION PLAN BELOW THE SPF WATER SURFACE)
 - +2 HEIGHT ABOVE SPF FLOODPLAIN (THE ELEVATION DIFFERENCE OF THE 2007 TOPOGRAPHY WITH THE PROPOSED LANDFILL COMPLETION PLAN ABOVE THE SPF WATER SURFACE)
 - SPF FLOODPLAIN
 - 454 VALLEY STORAGE POND CONTOUR
 - 520 PROPOSED FINAL CONTOUR
 - DRAINAGE LETDOWN
 - DRAINAGE SWALE

- NOTES:**
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VALLEY STORAGE SUMMARY

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| PERCENT INCREASE/DECREASE | | | + 4.28% | + 2.85% |



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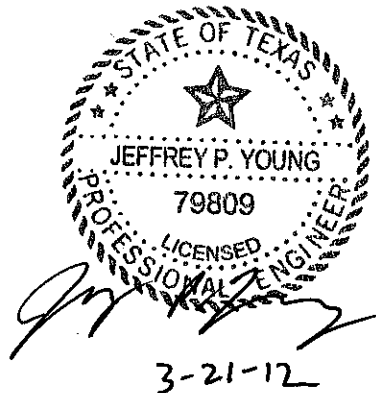
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| | | FORT WORTH, TX SOUTH BEND, IN SPRINGFIELD, IL ST. LOUIS, MO |
| | | FIGURE E.6 |

**CAMELOT LANDFILL
CITY OF LEWISVILLE, DENTON COUNTY
TCEQ PERMIT NO. MSW-1312B**

MAJOR PERMIT AMENDMENT APPLICATION

PART IV – SITE OPERATING PLAN

Prepared for
City of Farmers Branch
March 2012



Prepared by

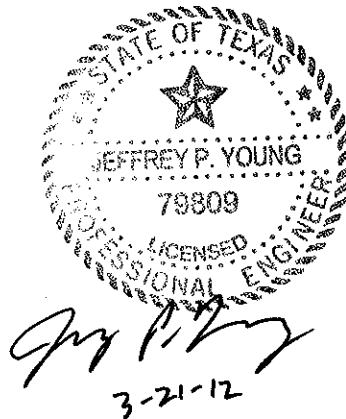
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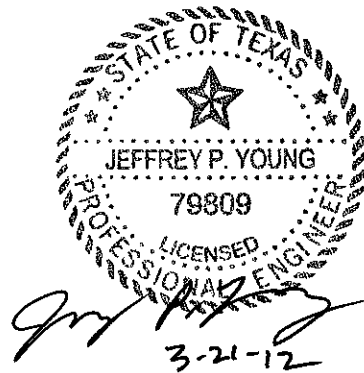
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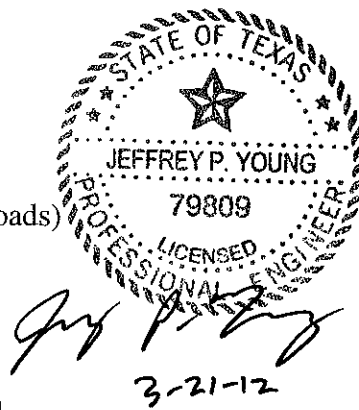
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APPENDIX IVA

Example Load Inspection Report

APPENDIX IVB

Alternative Daily Cover Operating Plan

APPENDIX IVC

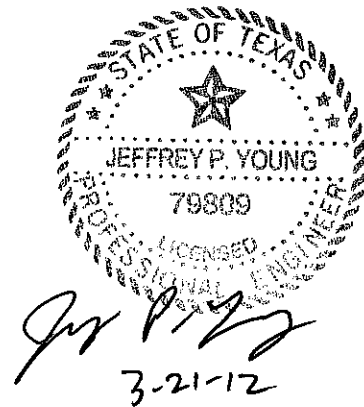
Waste Acceptance Plan

APPENDIX IVD

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LIST OF ACRONYMS

ADC – Alternative Daily Cover

ADCOP – Alternative Daily Cover Operating Plan

CFR – Code of Federal Regulations

DOT – Department of Transportation

EPA – U.S. Environmental Protection Agency

FWS – U.S. Fish and Wildlife Service

GCCS – Gas Collection and Control System

GLER – geomembrane liner evaluation report

LCS – leachate collection system

LFG – landfill gas

MSDS – Material Safety Data Sheets

msl – mean sea level

MSW – Municipal Solid Waste

NRACM – nonregulated asbestos-containing material

OSHA – Occupational Health and Safety Administration

PCBs – polychlorinated biphenyls

RACM – regulated asbestos-containing material

RCRA – Resource Conservation Recovery Act

SDP – site development plan

LIST OF ACRONYMS (Continued)

SLER – soils and liner evaluation report

SPCC – Spill Prevention Control and Countermeasure

SOP – Site Operating Plan

SWP3 – Stormwater Pollution Prevention Plan

TAC – Texas Administrative Code

TCEQ – Texas Commission on Environmental Quality

TxDOT – Texas Department of Transportation

WWTP – wastewater treatment plant

1 INTRODUCTION

This Site Operating Plan (SOP) has been prepared for the Camelot Landfill consistent with Title 30 TAC §330.65. The purpose of this SOP is to provide guidance to site management and operating personnel to meet the general and site specific requirements of §330, Subchapters D and E. This document also provides a guide for site management to maintain the facility in compliance with the engineering design and applicable regulatory requirements of the TCEQ. The plan may also serve as a reference source and assist in personnel training. This SOP, the permit, and the current TCEQ regulations will be kept onsite throughout the facility's operating life.

Consistent with §330.127(3), the operating procedures outlined in this SOP will be followed and will be considered a part of the operating record of the facility. Landfill operations will be conducted in a professional manner by trained and qualified personnel who will be responsible for placement of waste in approved disposal cells utilizing equipment and procedures and standard industry practices to ensure protection of operating personnel, human health, and the environment.

Wherever the term “executive director” or “TCEQ” is used in this SOP, these terms shall refer to the executive director of the TCEQ or the designated representative of the TCEQ. References to information in the permit or permit application for this facility shall refer to the most current version of these documents, including any amendments, modifications, or revisions as approved.

If any questions arise regarding this SOP, Camelot Landfill personnel should consult with:

1. Texas Commission on Environmental Quality
Municipal Solid Waste Section
Austin, Texas
Telephone: (512) 239-2334
2. Texas Commission on Environmental Quality, Region 4
Fort Worth, Texas
Telephone: (817) 588-5703
3. Texas General Land Office
Spill Reporting Telephone: 1-800-832-8224

2 PERSONNEL AND TRAINING

2.1 Personnel

This section lists the personnel involved with the operation of the Camelot Landfill. The Camelot Landfill Management Team and Site Personnel are listed on the organizational chart shown on Figure 2.1. The following subsections describe the personnel involved with operating the Camelot Landfill. In addition, a summary table noting the various site personnel and training requirements listed in the following section is provided in Table 2.1.

2.1.1 Camelot Landfill Management Team

The landfill operation is under the direction of the City Manager for the City of Farmers Branch (City). The City is the permittee and site operator of the Camelot Landfill facility and is responsible for overall operation of the facility. Pursuant to an agreement with the City, Camelot Landfill TX, LP is the contract operator of the landfill. Camelot Landfill TX, LP is an indirect, wholly-owned subsidiary of Republic Services, Inc. (Republic).

Republic's South Region Senior Vice President has ultimate management and oversight responsibilities for all Republic Services, Inc. hauling and disposal operations within the South Region (which includes Texas). The Area President is responsible for all hauling, transfer station, and landfill operations in the district. The Area President's responsibilities include staff management, financial planning, as well as other management responsibilities. The Area President reports to the Senior Vice President. The General Manager is responsible for operations oversight at several landfills in the area including the Camelot Landfill. The General Manager reports to the Area President. Other corporate resources that are available to the Camelot Landfill management team are discussed in Section 2.1.8.

2.1.2 Landfill Manager/Site Manager

The Landfill Manager (also known as Site Manager) is responsible for daily operations, administers the facility's SDP, SOP, and will also serve as the emergency coordinator. This person is responsible for assuring that adequate personnel and equipment are available to provide facility operation in accordance with this SOP, the SDP, TCEQ regulations, and other applicable local, state or federal regulations. The Landfill Manager will also be trained to implement the requirements listed in the site's SWP3 and SPCC plans. The Landfill Manager will maintain an adequate level of competency, training and experience to fulfill these duties. The Landfill Manager reports directly to the General

Manager. The Landfill Manager will designate individual(s) to fulfill his duties during periods when the Landfill Manager is unavailable. This individual will have the same qualifications and training as the landfill manager. Wherever this SOP provides that responsibility or authority is assigned to the Landfill Manager, this responsibility or authority may be automatically transferred to the individual(s) so designated by the Landfill Manager for this duty. The designated individual will have a minimum of 6 months of landfill operation experience or 6 months of on-the-job training by the Landfill Manager or General Manager. All onsite employees which may include Scale Operators, Equipment Operators, Mechanics, Spotters, and Laborers are under the supervision of the Landfill Manager or his designee. The Landfill Manager is responsible for hiring and terminating personnel in these positions.

The Landfill Manager must hold a Class A License and will have a minimum of 6 months of landfill operation experience or 6 months of on-the-job training by the General Manager. The Landfill Manager must be familiar with the specific operating procedures set forth in this plan and will participate in training with other employees. The Landfill Manager, or his designee, is also responsible for routine site inspections as described herein.

The Landfill Manager's responsibilities include the following:

1. Directing site personnel including Laborers, Spotters, Equipment Operators, Scale Operators, and Mechanics in the performance of tasks necessary for daily site operations.
2. Identifying any additional equipment or personnel necessary for normal operations in the event of equipment breakdowns, changes in waste volumes accepted, or other circumstances.
3. Performing inspections and completing inspection forms and checklists. The Landfill Manager may delegate this responsibility to other staff.
4. Monitoring and evaluating the performance of employees with respect to assigned duties and compliance with regulatory requirements.
5. Anticipating changes to the operating practices necessary due to changes in the weather, disposal location, or other conditions affecting site operations.
6. Ensuring that inspections and monitoring (e.g., leachate collection system, GCCS, perimeter LFG monitoring, and groundwater monitoring) are completed on schedule and in accordance with all requirements.
7. Monitoring and abating any nuisance conditions, such as litter, odor, dust, and mud tracking.

2.1.3 Scale Operators

The primary job of the Scale Operators, stationed near the site entrance, is to maintain complete and accurate records of vehicles and solid waste entering the facility. The Scale

Operator will be trained in site safety procedures, to visually check for unauthorized wastes, to weigh vehicles, collect waste disposal fees, and direct vehicles to the working face. The Scale Operator reports to the Landfill Manager or his designee. Specifically, Scale Operators are required to: (1) monitor the incoming vehicles for type of waste and exclude prohibited waste; (2) inspect waste loads to confirm that they are authorized for disposal; (3) review manifests and other shipping documents; (4) record incoming waste loads; (5) review and confirm special waste documents; and (6) accept tipping fees. Scale Operators should direct visitors to their destination within the facility.

Scale Operators receive training from the Landfill Manager or an outside source with respect to special waste evaluation and acceptance. Any questions regarding acceptance of special waste are to be addressed to the Landfill Manager or his designee, the Special Waste Department or the Special Waste Liaison.

The minimum qualifications for the scale operators are being able to fulfill the duties described in this section. In addition, a high school diploma, GED certificate or equivalent academic training is required. Scale operators will also complete a 90-day on-the-job training program administered by the Landfill Manager or his designee or General Manager.

2.1.4 Equipment Operators

The Equipment Operators report to the Landfill Manager or his designee. Equipment Operators are responsible for the safe operation of the equipment. As the personnel most closely involved with the actual landfill operation, these employees are responsible for being alert for potentially dangerous conditions, or careless and improper actions on the part of nonemployees and other persons while on the premises. Equipment Operators monitor and direct unloading vehicles and can also be responsible for maintenance, construction, litter abatement, and general site cleanup. Equipment Operators are also responsible for identifying prohibited wastes as discussed in Section 4.2. The Equipment Operators will intervene as necessary to prevent accidents. Equipment Operators will also report any operational problems to the Landfill Manager or his designee. Equipment Operators that are hired on the basis of previous heavy equipment experience may be assigned to operate specific types of equipment without additional training. Upon their employment, all Equipment Operators without experience in the equipment assigned will receive on-the-job training and oversight from an experienced operator until the new operator becomes proficient on the particular piece(s) of equipment to which he has been assigned, or until he is reassigned to a different piece of equipment for which his previous training or experience is adequate. Equipment Operators may also be required to assist in bird control activities under the supervision of the Landfill Manager or his designee.

All Equipment Operators are required to wear safety equipment, as appropriate, for their work assignments.

The minimum qualifications for the equipment operators are being able to fulfill the duties described in this section. In addition, the equipment operators will have a

minimum of 6 months of equipment operation experience or complete a 90-day on-the-job training program administered by a supervisor.

2.1.5 Spotters and Laborers

Spotters and Laborers will be assigned to collect litter, direct waste vehicles at the working face, and perform other tasks as needed. Spotters and Laborers are also responsible for identifying prohibited wastes as discussed in Section 4.2. Spotters and Laborers will either be Camelot Landfill employees or contract employees or a combination of both. Laborers may also be required to assist in bird control activities under the supervision of the Landfill Manager or his designee.

Spotters and Laborers will be required to wear safety equipment, as appropriate for their work. Contract employee oversight will be by a Camelot Landfill employee. Spotters and Laborers report to the Landfill Manager or his designee.

The minimum qualifications for the spotters and laborers are being able to fulfill the duties described in this section. Spotters and laborers will also complete a 90-day on-the-job training program.

2.1.6 Mechanics

Mechanics perform necessary and routine maintenance on equipment. Mechanics may substitute as Equipment Operators, if needed, provided they have received the required training. Mechanics report to the Landfill Manager or his designee. The minimum qualifications for the mechanics are being able to fulfill the duties described in this section (i.e., Section 2.1.6). Mechanics will also complete a 90-day on-the-job training program. The site may also use third party mechanics to perform maintenance on the equipment.

2.1.7 Other Site Personnel

Other Site Personnel or Laborers may be employed from time to time in categories such as maintenance, construction, litter abatement, and general site cleanup. Other Site Personnel and Laborers report to the Landfill Manager or his designee. The Landfill Manager or his designee will verify that “other site personnel” employed at the site receive training that is consistent with their job description. The Landfill Manager or his designee will utilize Table 2.1 as a guide to assigning the training requirements for “other site personnel.” Also, additional personnel will be utilized in the event of a temporary waste inflow increase due to a large special event project.

2.1.8 Other Corporate Resources

Republic Services, Inc. possesses additional solid waste management and operational resources, including consulting and management resources which are available to site personnel, as needed. The Landfill Manager or General Manager can contact appropriate personnel to provide additional assistance at any time.

The Special Waste Department will provide review and approval of pre-authorized requests for special wastes received at the site. The Special Waste Liaison/Compliance Coordinator may also provide this pre-authorization approval for special wastes and will provide oversight for special waste acceptance by the Scale House Staff and assist with other site regulatory matters, as requested by the General Manager or Landfill Manager. The special waste liaison/compliance coordinator shall have a minimum of 6 months of experience performing the duties described above as well as complete a 90-day on-the-job training program.

The Safety Manager and the Environmental Manager support the General Manager and Landfill Manager. The Environmental Manager is responsible for environmental compliance, engineering, and construction issues as well as verifying that the site is developed consistent with the SDP (minimum qualification – degree from an accredited university).

2.2 Training

The Landfill Manager and the Camelot Landfill management team will train the Equipment Operators, Scale Operators, Mechanics, Laborers, and Spotters in the contents of this SOP, as applicable. Camelot Landfill personnel will be trained pursuant to any applicable TCEQ regulations regarding training of MSW facility personnel. Site personnel will receive training in safety procedures, contingency plans, and the requirements of the permit for this facility, as applicable. Site training and safety meetings will be scheduled at least once per month. If a regular monthly scheduled meeting is canceled, it will be rescheduled or combined with the scheduled training in the following month. Site personnel shall be scheduled for attendance at training sessions to allow site operations to continue during training sessions. Although training topics for each month may vary, training shall be conducted at least annually for each of the following topics:

- Load inspection procedures
- Detection and control of hazardous wastes, PCB wastes, and other prohibited wastes
- Asbestos waste management
- Waste handling procedures (acceptable and prohibited wastes)
- Emergency Response
- Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment, communications or alarm systems
- Health and Safety
- Fire Safety (e.g., fire extinguisher use, fire protection, fire prevention, and evacuation procedures)

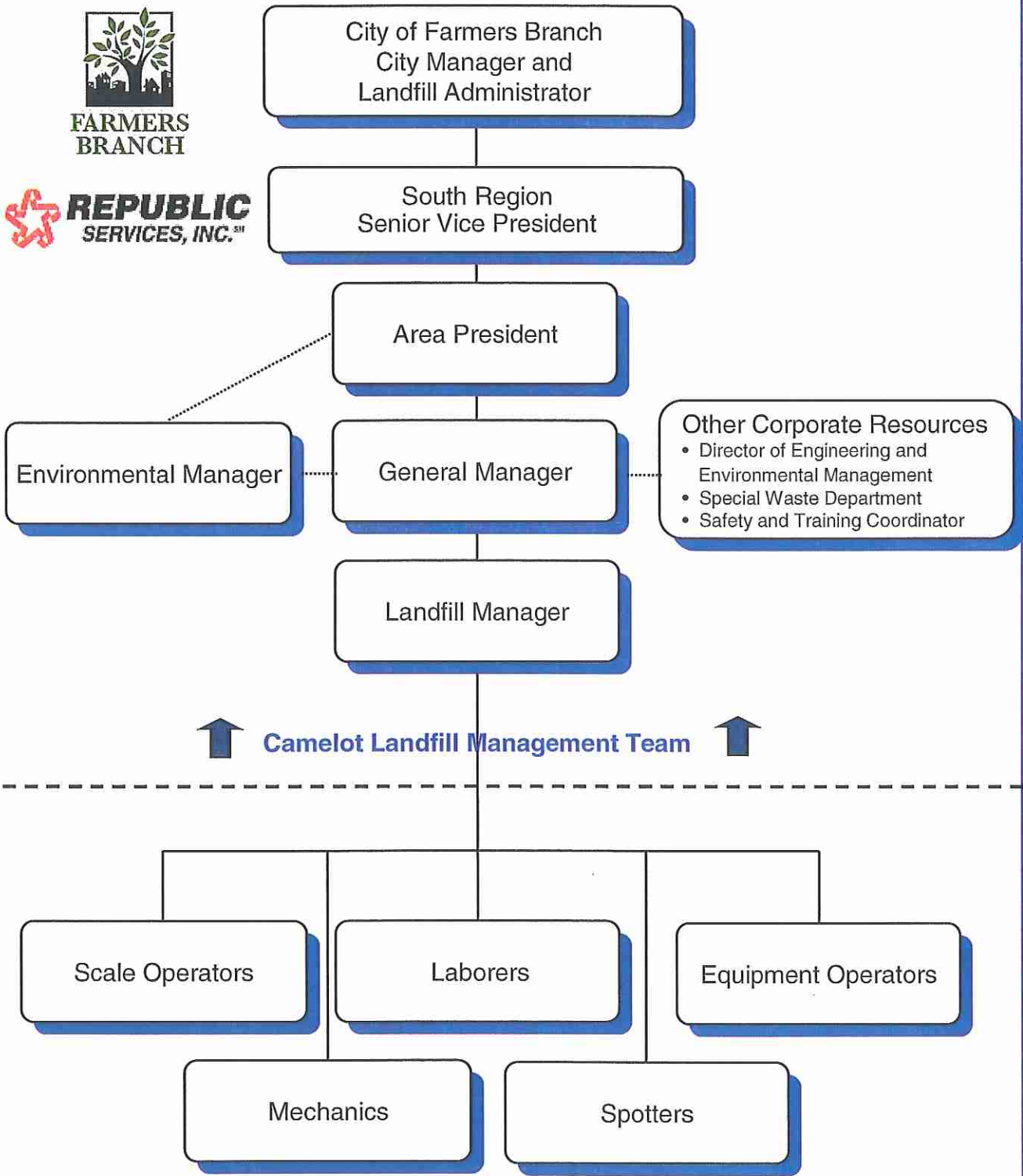
- Litter control and windblown waste pick-up
- Record Keeping
- Odor Detection and Control
- Properties of methane gas and safety procedures for methane gas
- Response to groundwater spills (i.e., compliance with SPCC Plan)
- Shutdown of operations (i.e., end of day closure procedures)
- Identification of protected, threatened, and endangered species (refer to Section 4.14)
- Access control and site security

At a minimum, facility personnel will be trained in the procedures noted above (as applicable; also refer to Table 2.1 for required training topics within 6 months of the effective date of their initial employment or promotion to a new position.

In addition to the above, staff conducting random inspection procedures specified in this SOP will receive training on all aspects of the completion of random inspections and instruction on the identification of all special and prohibited wastes. Staff conducting random inspection procedures will maintain a thorough understanding of the SOP and will be trained in the following areas: (1) customer notification and load inspection procedures, (2) identification of regulated hazardous, PCB, and prohibited waste, (3) waste-handling procedures, (4) health and safety, and (5) recordkeeping. These personnel will have knowledge of barrel types, possible types of liquids, and company names on trucks that could be industrial or hazardous waste generators or generators of other unauthorized waste. In addition, key on-site personnel may attend the Texas Environmental Training & Compliance training course for waste screening or other TCEQ approved course.

Records of training procedures, topics covered, and personnel attending will be placed in the Site Operating Record. Records will include a written description of the type and amount of both introductory and continuing training that is provided to each employee. Records will also note that an annual review of the training that is provided will be completed. Selected equipment operators, and other personnel may also receive training at TCEQ-sponsored or other appropriate training courses, as deemed appropriate by the Landfill Manager or his designee or General Manager.

Figure 2.1 Camelot Landfill Organization Chart



**Table 2.1
Site Personnel and Training Summary**

| Position | Minimum Qualifications | Job Description | Required Training Topics | | | | | | | | | | | | | | |
|---------------------------------------|--|------------------------|--------------------------|-----------------|--------------------|---------------------------------|--------|-----------------|-----------------|------|--------------------|------------------|----------------|--------------------|-------|---|---|
| | | | Site Orientation | Site Operations | Endangered Species | Prohibited Waste Identification | Safety | Fire Prevention | Load Inspection | SPCC | Emergency Response | Landfill License | Litter Control | Random Inspections | SWPPP | | |
| Landfill Manager | Class A License | Refer to Section 2.1.2 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Scale House Staff | The minimum qualifications for the Scale House Staff are being able to fulfill the duties described in Section 2.1.3, as well as a high school diploma or equivalent and the completion of a 90-day on-the-job training program (refer to Section 2.1.3 for more information). | Refer to Section 2.1.3 | X | | X | X | X | X | X | X | X | | X | | | X | |
| Equipment Operators | The minimum qualifications for the Equipment Operators are being able to fulfill the duties described in Section 2.1.4, as well as a minimum of 6 months of experience or the completion of a 90-day on-the-job training program. | Refer to Section 2.1.4 | X | | X | X | X | X | X | X | X | | X | | | X | |
| Spotters and Laborers ¹ | The minimum qualifications for the Spotters and Laborers are being able to fulfill the duties described in Section 2.1.5, as well as the completion of a 90-day on-the-job training program. | Refer to Section 2.1.5 | X | | X | X | X | X | X | X | X | | X | | | X | |
| Mechanics | The minimum qualifications for the Mechanics are being able to fulfill the duties described in Section 2.1.6, as well as the completion of a 90-day on-the-job training program. | Refer to Section 2.1.6 | X | | X | X | X | X | X | X | X | | X | | | X | |
| Special Waste Department ² | The Special Waste Liaison/Compliance Coordinator shall have a minimum of 6 months experience performing the duties described in Section 2.1.8. In addition, personnel filling these positions will complete a 90-day on-the-job training program. | Refer to Section 2.1.8 | X | | X | | | | | | | | | | | X | |

¹Laborers that are only hired to collect windblown waste will only be required to receive training for the following items: Site Orientation, Safety, and Litter Control.

²The special waste liaison/compliance coordinator may not be located at the site. This individual may be located in another facility or office.

3 EQUIPMENT

Sufficient quantity and quality of equipment will be provided onsite at the Camelot Landfill to conduct site operations in accordance with the volume of waste accepted at the facility, design requirements and permit conditions.

The equipment listed in Table 3.1 will be available for use at the facility. Equipment requirements may vary in accordance with the method of landfill operations or the waste acceptance rate at any given time. Additional equipment will be provided by Camelot Landfill as required for increasing volumes of incoming solid waste. Other similar types of equipment by other manufacturers may be substituted on an as-needed basis, at the discretion of the Landfill Manager or General Manager. The equipment and scale house will be equipped with fire extinguishers. Backup equipment will be made available to Camelot Landfill on an as needed basis from other area Republic landfills or other sources. The backup equipment will be equivalent to the equipment requirements listed in Table 3.1.

**Table 3.1
Equipment Dedicated to the Camelot Landfill**

| Equipment ⁹ | Minimum Number of Equipment Needed for Each Range of Waste Volume ^{1,6,7} | | | | Typical Size ¹ | Function |
|-------------------------------------|--|--|--|---|---------------------------|--|
| | 0 1,500 Tons/Day ⁴ | 1,500 3,000 Tons/Day ⁴ | 3,000 6,000 Tons/Day ⁴ | 6,000 10,000 Tons/Day ⁴ | | |
| Compactor(s) | 1 | 1 | 2 | 3 | 115,000 lbs | Trash compaction |
| Dozer(s) | 1 | 2 | 2 | 3 | 140 hp or 35,000 lbs | Movement and placement of refuse and soil. May also be used to assist with waste compaction. |
| Articulated Dump Truck ⁵ | 1 | 1 | 2 | 2 | Up to 40 tons | Excavation and Hauling of soil and fire fighting support |
| Excavator | 1 | 1 | 1 | 2 | 10 foot reach | Excavation of soil, fire fighting support |
| Motorgrader | 1 | 1 | 1 | 1 | 50 hp | Maintenance of interior roads |
| Pickup Truck(s) | 1 | 1 | 2 | 2 | ¼ ton | Personnel use for litter control, maintenance |
| Water Truck(s) | 1 | 1 | 1 | 1 | 2,000 gallons | Dust control, compaction of earth fills, fire fighting support |
| Maintenance Truck(s) ² | 1 | 1 | 1 | 1 | ¼ ton | Equipment maintenance |
| Pumps with Hose | 1 | 1 | 1 | 1 | 2" to 6" diameter pump | Pumping of stormwater |
| ADC Equipment | 1 | 1 | 1 | 1 | 900 gallons | Application of ADC |
| Light Plant ³ | 1 | 1 | 1 | 1 | 2 – 250 watt fixtures | Adequate lighting at active face |
| Wind Screens | 6 | 8 | 10 | 15 | 8'x8' | Working face litter control |

¹ Number, types, and equipment manufacturers will vary based on operational needs.

² As an alternative, the site may contract equipment maintenance with a third party. Under this scenario, maintenance equipment would only be on-site, as needed.

³ Only needed if site operates during low or no natural light conditions.

⁴ The waste volume will be determined by the sum of waste acceptance listed on the previous four TCEQ quarterly summary reports (as required by 30 TAC 330.125(h)).

⁵ As an alternate or in conjunction with the articulated dump truck and excavator, a scraper may also be used for excavation and hauling of soil. One scraper will be equivalent to one articulated dump truck and excavator.

⁶ If a second MSW working face is in operation, the equipment requirements for the working face will match the waste volume that is disposed of at the other working face. However, other than the compactor or dozer, most of the equipment may be shared between working face (e.g., motor grader, pickup truck, water truck, maintenance truck, etc.)

⁷ As noted in Section 4.20.5, a separate area will be used for disposal of Regulated Asbestos-Containing Material (RACM). Equipment needs for this area include a dozer and water truck (or water from an above ground storage tank) which will be used on a part-time basis.

⁸ Limited equipment is needed for the Citizens Convenience Center and the Wood Waste Processing Area. Roll-off containers will be emptied by using collection vehicles in the Citizens Convenience Center. Refer to Appendix IVD for the list of equipment that will be used to operate the Wood Waste Processing Area.

⁹ The site may contract with a third party for street sweepers.

Compactors will be used for spreading and compacting the refuse. An excavator and hauling trucks (or scraper) will be used for various purposes at the Camelot Landfill,

including excavating of the cover material used in the site operations and in fire fighting support. The dozer is mainly used to spread waste at the active face, spread cover material, and assist with waste compaction. The motorgrader will be used for activities such as road maintenance, ditch construction, surface water control, and final grading of the completed fill areas. The water truck(s) will be used for dust control and moisture conditioning of soil materials, as necessary, and will be utilized, if necessary, in the event of a fire at the facility. The water trucks will be equipped with appropriate equipment to facilitate fire fighting. The windscreens and temporary litter fencing will be used to control windblown waste and litter as discussed in Section 4.5. The maintenance truck is used to provide service to the other site operating vehicles. In addition to the above, miscellaneous pick-ups, vans, and other light utility vehicles as well as instruments and safety and training equipment will be on-site as necessary to assist with site operations.

For information relating to methane monitoring at the Camelot Landfill, see the Landfill Gas Management Plan. For information relating to leachate monitoring, and the control of contaminated water, see the Leachate and Contaminated Water Plan. Equipment needed for the application of ADC is discussed in Appendix IVB. Other miscellaneous equipment will be required for the maintenance of the machinery and other duties. This equipment will be kept onsite and will include an air compressor, power equipment, and tools.

4 OPERATIONAL PROCEDURES

4.1 Access Control

Public access to the waste fill area is controlled by the entrance facilities, which houses the Scale Operators, located in the northeast portion of the facility. The site entrance facilities are staffed during hours of operation. The Scale Operators control access and monitors all vehicles entering and exiting the site.

4.1.1 Site Security

Site security measures are designed to prevent unauthorized persons from entering the site, to protect the facility and its equipment from possible damage caused by trespassers, and to prevent disruption of facility operations caused by unauthorized site entry.

Unauthorized access to the site is minimized by controlling access with perimeter fencing (minimum 4-foot high, 3-strand barbed wire fences), gated entrance, natural barriers (e.g., existing trees, dense foliage, and Elm Fork of the Trinity River), and a closed circuit television system monitoring the entrance and exit. The perimeter fence and gate will be inspected every week. Repairs and maintenance will be performed as necessary. Refer to Section 4.23 of this SOP for site inspection and maintenance schedule.

In the event of a breach of the access controls (e.g., a portion of a fence is impacted in a way that it no longer prevents access to the site), the TCEQ Regional Office will be notified within 24 hours of detection of the breach. The breached area will be temporarily repaired within 24 hours of detection and will be permanently repaired by the time specified to the TCEQ Regional Office when it was reported in the initial breach report. In this case, the TCEQ Regional Office will also be notified when the permanent repair is completed. If a permanent repair can be made within 8 hours of detection, no notification to the TCEQ Regional Office is required. Temporary repairs may consist of a barbed wire fence, a 3-foot-high earthen berm, equipment, a security guard posted in the area of the breach or other barriers.

Entry to the active portion of the site will be restricted to designated personnel, approved waste haulers, and properly identified persons whose entry is authorized by Camelot Landfill management. Visitors will be allowed on the active area only when accompanied by a site representative (note that third party contractors and vendors completing construction, maintenance, or monitoring activities will not be considered visitors for the purpose of access control).

4.1.2 Traffic Control

Access to the landfill site is provided by Huffines Boulevard, located at the north side of the site. All waste hauling vehicles must enter the site through the entrance facility located at the northeast corner of the site.

Solid waste transportation vehicles will be directed to appropriate unloading areas by signs located along the landfill access road. These vehicles will deposit their loads and depart the site. No private or commercial solid waste vehicles will be allowed access to any areas other than the active portion of the landfill. Site personnel will provide traffic directions as necessary to facilitate safe movement of vehicles.

Within the site, signs will be placed along the landfill access road, beginning at the gated entrance, at a frequency adequate for users to be able to understand where disposal areas are located and which roads are to be used for ingress and egress. Roads not being used for access to disposal areas will be blocked or otherwise marked for no entry.

4.2 Unloading Wastes

4.2.1 Unloading Areas

The Camelot Landfill accepts general municipal solid wastes as well as brush, rubbish, construction/demolition waste, and certain special wastes outlined in Section 4.20 of this SOP. Wastes are disposed of or processed at the following three types of unloading areas at the Camelot Landfill.

- **MSW Unloading Area or Working Face.** The vast majority of all wastes accepted at this facility are disposed of at the working face. The working face includes areas where waste has been deposited for disposal but has not been covered with soil.
- **RACM Unloading and Disposal Area.** The RACM unloading area will be designated by the Landfill Manager as noted in Section 4.20.5.
- **Citizens Convenience Center.** This unloading area is used by the general public (i.e., small-vehicle landfill customers) to dispose of their waste in an area separate from the MSW working face. This improves site safety by reducing traffic at the MSW working face. The Citizens Convenience Center uses water tight containers and is located over a paved area. Citizens will be directed to the Convenience Center by site personnel at the entrance facility. Signs will be posted to assist citizens traveling to the Convenience Center. Waste material is offloaded from the small-vehicles to roll-off containers. The size of the roll-off containers will range between 20 and 40 cubic yards. The site then hauls the roll-off containers periodically to the MSW working face for disposal. The Citizens Convenience Center will not accept sharps. The maximum amount of waste stored at the Convenience Center is 200 cubic yards. The roll-off containers will be emptied at least at the end of each day the site is open or more frequently if needed. Storage for recycling may also occur in this area.

- Wood Waste Processing Area. The wood waste processing area will process wood waste materials as discussed in Appendix IVD. If developed, the storage areas will primarily be used on an intermittent basis for unprocessed and processed wood waste.

4.2.2 Waste Excluded From Disposal at the Site

The following wastes are specifically excluded from disposal at the site:

- Regulated hazardous wastes (refer to Section 6 for more information)
- Liquid wastes that do not pass the paint filter test, except as allowed under Section 4.20.1 of this SOP
- Grease trap wastes, except as allowed under Section 4.20.1 of this SOP
- Waste prohibited by the TCEQ (see 30 TAC §330.15(e))

4.2.3 Waste Unloading Procedures

Scale Operators, Equipment Operators, Laborers, and Spotters will monitor the incoming waste. Scale Operators control site access and monitor incoming vehicles for unauthorized wastes by (1) receiving manifests and other shipping documents, (2) recording incoming waste loads, (3) completing a visual inspection of the vehicle (including a video camera inspection of the top of the vehicle's contents), and (4) interviewing the driver, as necessary. Any nonconforming issues will be reported to the Landfill Manager or his designee. If the non-conforming issues involve Special or Industrial wastes, the Landfill Manager or his designee will review Sections 4.20 and 6.2 of the SOP to verify that all requirements for acceptance of Special and Industrial waste have been met before the material is accepted for disposal. The procedures for handling prohibited waste that is not discovered until after it is unloaded are discussed in Section 6.2.

Equipment Operators, Spotters, Laborers, or other field personnel will be present at all areas where waste is being unloaded to monitor unloading of waste. These personnel will be familiar with the rules and regulations governing the various types of waste that can or cannot be accepted into this facility and will be trained to identify prohibited wastes before being assigned to this task (refer to Section 2.2 for training procedures). The personnel will also be trained and have a basic understanding of both industrial and hazardous waste and their transportation and disposal requirements. The Spotters and Equipment Operators have the authority and responsibility to reject unauthorized loads, have unauthorized material removed by the transporter, and have the unauthorized material removed by on-site personnel or otherwise properly managed by the facility.

Solid waste unloading will be controlled to prevent disposal in locations other than those specified by site management. For example, random load inspections will be conducted as outlined in Section 6.2 of this SOP. Any allowable waste deposited in an unauthorized area will be immediately removed and disposed of properly at the current working face. The Spotters and Equipment Operators or other site personnel will actively investigate

any approved waste haul vehicles that do not dispose of their waste in an authorized area. In the event that an authorized load of waste has been deposited in an unauthorized area, site personnel will notify the Landfill Manager and the waste load will be promptly relocated to the authorized working face area.

4.2.4 Maximum Size of the Unloading Area

As discussed previously, the following four types of unloading areas exist at the Camelot Landfill.

- MSW Unloading Area or Working Face
- RACM Unloading and Disposal Area
- Citizens Convenience Center
- Wood Waste Processing Area

The MSW unloading and working face area is discussed below. The RACM unloading and disposal area is discussed in Section 4.20.5 (maximum size 50 feet by 50 feet). The maximum size of the convenience center is 250 feet x 200 feet. The wood waste processing area is discussed in Appendix IVD (maximum size 550 feet x 850 feet).

Control(s) will also be used to confine the working face to as small an area as practical consistent with the rate of incoming waste and safe and efficient working face operations. The maximum size of the working face will be limited to the area listed on the next page for a range of waste accepted at the facility.

Maximum Working Face Size¹

| Incoming Waste ² Accepted | Maximum Working Face Size ^{3,4,5} (width by length) |
|--------------------------------------|---|
| 0 – 1,500 Tons/Day | 150 feet by 175 feet (or 26,250 sf) ⁶ |
| 1,500 – 3,000 Tons/Day | 250 feet by 325 feet (or 81,250 sf) ⁶ |
| 3,000 – 6,000 Tons/Day | 375 feet by 450 feet (or 168,750 sf) ⁶ |
| 6,000 – 10,000 Tons/Day | 525 feet by 600 feet (or 315,000 sf) ⁶ |

¹Typically only 1-working face will be utilized. However, a second working face may be used in some cases (e.g., during a time when the active face is transitioned to a new cell). The typical maximum number of working faces to be used at the site is two. Additional working faces may be used if required to accommodate site operations. If more than two working faces will be used, the landfill will notify the region office prior to opening a third working face.

²For the maximum working face size, the incoming waste tonnage accepted will be determined by the sum of waste acceptance listed on the previous four TCEQ quarterly summary reports. If daily waste inflow increases, the maximum working face size may be increased to accommodate existing waste inflow rates.

³The working face maximum size listed above is based on the maximum area needed to spread and compact waste in uniform lifts. The working face does not include areas used to move waste from a MSW Tipper to the working face.

⁴During the placement of the first lift of MSW in a newly constructed cell, the maximum working face size listed above does not apply provided that odors, vectors, and windblown litter are controlled consistent with standard operating conditions.

⁵The maximum working face size listed above does not apply to areas that have less than a six-foot thick waste column left before the final permitted grades are achieved provided that odors, vectors, and windblown waste are controlled consistent with standard operating conditions.

⁶The width and length shown above is for guidance purposes only. The maximum working face size will be governed by the area listed above.

The working face includes areas where waste has been deposited for disposal but has not been covered with soil. The working face includes areas that are covered with Alternative Daily Cover and the area where waste collection vehicles deposit waste onto the working face. As discussed in Part III, Appendix III C (Leachate and Contaminated Water Plan) the working face area is surrounded by a contaminated water containment berm and stormwater diversion berm. The area within the containment and diversion berms includes the following.

- Working Face Area (as defined above)
- Waste Collection Vehicle Access Area (area where waste collection vehicles access the working face)
- Contaminated Water Storage Area (as noted in Part III – Appendix III C this area is designed to contain stormwater that has contacted the working face)

Note that the waste collection vehicle access area and contaminated water storage area will be covered with soil daily cover. A portion of this area will be covered by aggregate used to ensure all-weather access to the working face.

4.2.5 Prohibited Waste

Prohibited waste that is not discovered until after it is unloaded shall be immediately returned to the vehicle that delivered the waste. That party shall be responsible for the proper disposal of this rejected waste at a permitted facility. In the event the unauthorized waste is not discovered until after the vehicle that delivered it is gone, the waste shall be segregated and controlled to the extent possible. The unauthorized waste will be covered with soil or ADC and no additional filling will occur over that area until the unauthorized waste is removed and properly disposed of. Survey stakes or similar markings will be placed around the perimeter of the area that contains the unauthorized waste so that it is clear where the unauthorized waste is located. Alternatively, the unauthorized waste may be segregated by placing the unauthorized waste in a roll-off or similar container.

An effort shall first be made to identify the entity that deposited the prohibited waste and have them return to the site and properly dispose of the waste. In the event that identification is not possible, Camelot Landfill will notify the TCEQ within 24 hours to seek guidance on how properly to dispose of the waste as soon as practical. A record of each unauthorized material removal event will be maintained in the Site Operating Record.

Signs with directional arrows and/or portable traffic barricades will help to restrict traffic to designated unloading areas. Signs will be placed along the access route to the current unloading areas. In addition, rules for waste disposal and prohibited waste will be prominently displayed on signs at the site entrance. Refer to Section 6 of this SOP for additional waste handling procedures.

Tires will only be accepted for disposal if they are split, quartered, or shredded.

4.3 Hours of Operation

The facility is permitted to be open for operation and waste acceptance Monday through Friday, from 3:00 am to 7:30 pm and Saturday 4:00 am to 3:00 pm. The site will be closed for waste acceptance on Sundays and certain holidays. Outside of these permit hours, operation of the site for special occasions, special purpose events, holidays or other special considerations may occur if prior authorization by TCEQ is granted. The operating hours will be posted on the site entrance sign. Transportation of non-waste materials and heavy equipment operation can occur at any time within the permitted operating hours and between the hours listed below (this includes construction-related activities).

- Between 7:30 pm and 9:30 pm Monday through Friday
- Between 3:00 pm and 5:00 pm on Saturday

In addition, between the hours of 2:00 am to 3:00 am Monday through Friday the facility may operate heavy equipment in preparation for incoming waste collection vehicles which will be permitted to enter the site at 3:00 am. Also, between the hours of 7:30 pm to 9:30 pm the site may operate equipment to place daily and/or intermediate cover soils or complete other maintenance activities.

The site may also operate up to 5 days per year with extended operating hours to accommodate additional waste inflow due to a holiday or special event. During these 5 days the operating hours will be expanded to 3:00 am to 9:00 pm. The site will notify the TCEQ Regional Office prior to each extended hour day.

4.4 Site Signs

A sufficient number of signs that are readily visible will be utilized for proper management and operation of the Camelot Landfill. A sign will be displayed at the entrance to the site. This sign will be readable from the site entrance, will measure at least 4 feet by 4 feet, and have lettering of at least 3 inches in height that state the name of the site, type of site, hours and days of waste acceptance, the TCEQ permit number, and local emergency fire department phone number. The sign displayed at the site entrance will also list an emergency 24-hour contact phone number(s) that reach an individual with the authority to obligate the facility at all times that the facility is closed (e.g., 911). The Landfill Manager will be responsible for the accuracy of the information posted on the site sign. An additional sign will be posted containing a description of all excluded wastes. Signs prohibiting smoking, receipt of hazardous waste, receipt of Class 1 waste, and scavenging will be posted near the scale house.

Within the site, signs will be placed along the landfill access road, beginning at the gated entrance, at a frequency adequate for users to be able to understand where unloading areas are and which roads are to be used. Roads not being used for access to the unloading area will be blocked or otherwise marked for no entry.

4.5 Control of Windblown Wastes and Litter

Windblown wastes will be controlled at the Camelot Landfill by the methods used in Table 4.1.

4.6 Easements and Buffer Zones

4.6.1 Easements

Six easements exist within the permit boundary as shown on Drawing I/IIA.1 in Appendix I/IIA. Two sanitary sewer easements (a varying width 20-foot to 30-foot easement and a 10-foot by 20-foot easement) are located along the western side of the permit boundary. A 20-foot electrical easement is located along the eastern side of the permit boundary. This easement serves the existing maintenance area. This easement will be abandoned prior to the development of this portion of the site. A 40-foot right-of-way dedication and a 40-foot sanitary sewer easement cross the northern portion of the permit boundary. A 20-foot utility easement is located in the northeast corner of the site near the existing entrance facilities. No solid waste unloading, storage, disposal, or processing operations will occur within any easement at the Camelot Landfill. Also, no waste disposal is allowed within 25 feet of the centerline of an easement. Easements are or will be marked as specified in Section 4.7 of this SOP.

4.6.2 Buffer Zones

No solid waste unloading, storage, disposal, or processing operations will occur within any buffer zone at the Camelot Landfill. In accordance with Title 30 TAC 330.543(b)(2)(B) and (C), the buffer zones vary around the perimeter of the site, but generally they are not less than 50 feet between the permit boundary and existing waste (the limits of waste that was permitted as part of MSW Permit No. 1312A) and 125 feet from the newly permitted limits of waste (refer to parts I/II, Appendix I/IIC – Location Restrictions Demonstration for more information). The only exception is the existing 100,000-gallon leachate storage tank, which is located about 25 feet from the permit boundary. However, as discussed in Parts I/II, Appendix I/IIC – Section 2, an area over 150 feet wide is located between the leachate storage tank and the limits of waste. This area also includes the all-weather perimeter road to allow the safe passage of emergency vehicles.

Internal separation distances between processing and disposal units are shown in Appendix I/IIC, Drawing I/IIC-1. The buffer zones around the site will provide for the safe passage of fire fighting or other emergency vehicles. All buffer zones will be clearly marked as specified in Section 4.7 of this SOP.

**Table 4.1
Windblown Waste and Litter Control Plan**

| Item | Plan |
|--|---|
| Containment of Waste Within Collection Vehicle | Waste transportation vehicles using this facility will be encouraged to use adequate covers or other means of containment. The adequacy of covers or containment of incoming wastes will be checked at the facility entrance. The Scale Operators will visually inspect each vehicle entering the site to verify that the load is secured. A sign will be posted at the entrance indicating that vehicles shall be covered (or secured) or an additional fee will be charged. Vehicles attempting to enter the site with unsecured loads will be documented and the list can be provided to law enforcement officials, if necessary. An additional surcharge fee will be demanded from unsecured vehicles. |
| Daily Cover | Daily cover (e.g., soil or ADC) will be applied at least once every 24 hours to assist with the control of windblown waste. The working face size may be reduced by the application of daily cover to assist with the control of windblown waste. |
| Portable Fencing | Portable fencing will be used for the confinement of windblown material in the areas adjacent to the working face area. Such fences shall be located along the downwind length of the working face area. The litter control fences will be constructed of screens attached to portable frames or other appropriate anchor methods. The litter control fence will be at least eight feet in height and will be located as close as practical to the working face area to control windblown waste and litter. Each day, the Landfill Manager or his designee will review weather forecasts to verify that the litter control fences will be positioned downwind from the MSW working face. |
| Temporary Fencing | Temporary fencing may also be installed on the downwind side of the working face. The purpose of the temporary fencing is to catch windblown waste that escapes the portable fencing discussed above. The temporary fence will either consist of additional portable fencing described above or will be constructed using metal or wooden posts and fence material, or netting. The secondary fence shall have a minimum height of four feet and a minimum length of at least 175 feet (or match the maximum length of the working face as noted in the table in Section 4.2.). The Landfill Manager or designee shall determine the appropriate fence location and actual length. Additional fences may be used as necessary for effective litter control based on the actual filling location, filling direction, wind direction, and wind speed. Any litter control fencing which is damaged by equipment or traffic shall promptly be repaired or replaced. |
| Perimeter Fencing | Tall perimeter fencing may also be used for the control of windblown waste and litter. Tall perimeter fencing may be installed between any waste filling area and the permit boundary. The tall perimeter fence will typically be at least ten feet in height. The actual length and height of the perimeter fencing used will be determined by the Landfill Manager or his designee, based on the need for this additional litter control measure, filling location, average wind direction, average wind speed, height of fill above natural ground surface, and proximity of working face to the permit boundary. |
| Earthen Berms | The construction of earthen berms may be used for the control of windblown waste and litter. The berms can provide a wind break against prevailing winds. It is at the Site Operators discretion as to the locations and usage of the berms. |
| Windblown Waste Collection | As part of the overall site maintenance program, facility personnel will collect windblown waste materials that may have accumulated throughout the site, on fences and gates, and onsite access roads a minimum of once a day that the site is in operation. Such waste will be taken to and disposed of at the working face. The collection of windblown waste will be an ongoing activity at the site each day the site is in operation, including the Citizens Convenience Center area. The inspection and clean up of wind blown waste will be documented in the Site Operating Record daily. |
| RACM Area | As noted in Section 4.20.5, RACM wastes will be covered immediately after they are placed in the landfill unit. Therefore, windblown waste in this area is not an issue. |

4.7 Landfill Markers and Benchmark

Landfill markers will be installed to clearly mark significant features as described in §330.143(b). The markers will be steel, plastic, or wooden posts (or other TCEQ-approved material) and will extend at least 6 feet above the ground surface. The markers will not be obscured by vegetation and will be placed in sufficient numbers to clearly show the required boundaries. Markers will be installed with an offset where markers otherwise would not be visible. Markers that are removed or destroyed will be replaced within 15 days of their removal or destruction. Landfill markers will be inspected monthly to ensure they are installed and maintained in accordance with the requirements of this SOP and will be maintained and repaired as necessary. Refer to Section 4.23 of this SOP for site inspection and maintenance schedule. Inspection results and repairs will be documented in the Site Operating Record. Markers will be repainted as needed to retain visibility.

The landfill markers color scheme is listed below.

Landfill Markers

| Marker | Color |
|----------------------------|--------|
| Site Boundary | Black |
| Buffer Zone | Yellow |
| Easements and Right-of-Way | Green |
| Grid System | White |
| SLER/GLER | Red |
| Floodplain | Blue |

The site boundary markers will be placed at each corner of the site and along each boundary line spaced no greater than 300 feet apart. Fencing will be placed within these markers as required. The buffer zone markers will be placed along each buffer zone boundary at all corners and between corners at intervals of 300 feet.

The easement and right-of-way markers will be spaced no greater than 300 feet apart. The markers will be placed along the centerline of an easement and along the boundary of a right-of-way at each corner within the site and at the intersection of the permit boundary.

The landfill grid will be based on either the state plane coordinate system or a local coordinate system established by the site. The landfill grid system markers will be spaced no greater than 100 feet apart measured along perpendicular lines. Intermediate markers will be installed in the case where markers cannot be seen from opposite boundaries. The grid system markers will be maintained during the active life of the site. Placement of the landfill grid system markers may be made along a buffer zone boundary.

The SLER/GLER markers will be placed so that all areas for which a SLER/GLER has been submitted and approved by the TCEQ are readily determinable. Such markers are to provide site workers immediate knowledge of the extent of approved disposal areas. These markers will be located so that they are not destroyed during operations unless operations extend into the next SLER/GLER. The location of these markers will be tied into the landfill grid system. SLER/GLER markers will not be placed inside the evaluated areas.

A permit modification to allow for a change in the floodplain marker locations for Permit No. MSW-1312A was approved by TCEQ on June 20, 2003. Similar to the existing floodplain markers, the proposed floodplain markers will allow the site to accurately delineate the floodplain without installing an abundance of floodplain markers that would hinder maintenance of the facility. Floodplain markers will be placed at intervals no greater than 300 feet. These markers will be placed along the boundary of the 100-year floodplain as shown in Appendix IVE.

A permanent benchmark has been established at the site, as shown in Parts I/II, Appendix I/IIA, Drawing I/IIA.1 – General Site Plan. The benchmark elevation has been surveyed from a known United States Coast and Geodetic Survey benchmark or other reliable benchmark. The benchmark is a bronze survey marker located on the northeast corner (Latitude: N33°02'00.79" and Longitude: E96°56'35.6") of the site and is stamped with elevation and survey date and set in concrete.

4.8 Control of Waste Spilled on Route to the Site

The Landfill Manager or his designee will take steps to encourage that vehicles hauling waste to the working face arrive on-site with a tarpaulin, net, or other means to properly secure the load. As discussed in Section 4.5, waste transportation vehicles using this facility will be required to use adequate covers or other means of containment. The adequacy of covers or containment of incoming wastes will be checked at the facility entrance. The Scale House Attendant will visually inspect each vehicle entering the site to verify that the load is secured. A sign will be posted at the entrance indicating that vehicles shall be covered (or secured) or an additional fee will be charged. Vehicles attempting to enter the site with unsecured loads will be documented and the list can be provided to law enforcement officials, if necessary. An additional fee will be demanded from unsecured vehicles.

The Landfill Manager or his designee will be responsible for the cleanup of waste materials (e.g., solid waste material that has left the vehicle) along and within the right-of-way of all public access roads serving the site for a distance of two miles in either direction from the entrance to the site. Cleanup for the spilled solid waste materials will be performed once per day that the site is open for waste acceptance. The access roads within a distance of two miles from the site entrance are Huffines Boulevard, State Highway 121 Business, Midway Road, Holfords Prairie Road, and State Highway 121. Laborers performing litter and spilled solid waste materials collection will be required to

wear appropriate safety equipment. A log shall be maintained to document the date and time the roads are checked and whether litter was observed and when it was collected.

The Landfill Manager or his designee will consult with TxDOT officials (or other applicable local agencies with maintenance authority over the roads) concerning cleanup of state highways and right-of-ways consistent with §330.145. The TxDOT District Office or other applicable local agencies will be contacted to discuss the procedures for litter cleanup on, and within, right-of-ways along state highways in the vicinity of the site. Documentation of this TxDOT coordination will be maintained in the Site Operating Record. If TxDOT will not allow access to their right-of-ways for litter cleanup, this documentation will be maintained in the Site Operating Record.

4.9 Disposal of Large Items

Large, heavy, or bulky items may be disposed of at the working face. Items that can be classified as large, heavy, or bulky can include, but are not limited to, white goods (household appliances), air conditioner units, metal tanks, large metal pieces, and automobiles. If the scale operators or the Landfill Manager or his designee do not believe a specific large, heavy, or bulky item can be incorporated into the working face without adversely disrupting site operations or that it might cause an issue with compaction or settlement, then the item will not be accepted for disposal. Refrigerators, freezers, air conditioning units, or other items containing chlorinated fluorocarbon (CFC) refrigerant shall be handled in accordance with 40 CFR §82.156(f), as amended. Items containing CFCs will not be accepted unless the CFC contained in the item has been captured and sent to an approved CFC disposal site or recycling facility and the generator or transporter provides written certification that the CFC has been evacuated from the unit. Items such as electrical equipment, which contains PCBs, will be excluded from waste fill. Procedures for detecting and excluding PCBs are provided in Section 6.

Large items will be reduced in size at the working face to the extent practical. Care will be taken during disposal of large items to ensure that: (1) large items are excluded from the initial 5 feet of waste placed over the liner system, (2) large items are placed so that they do not interfere with continued waste filling, and (3) that other, smaller municipal solid waste is placed and compacted around them. Large items that cannot be disposed of at the working face may either be recycled or disposed of in another permitted facility.

4.10 Air Quality and Odor Management Plan

The site will comply with all the applicable air quality rules and regulations. The site will be required to operate in accordance with the New Source Performance Standards (NSPS) for MSW landfills.

Steps will be taken to limit the impact of the facility's operation on air quality. Among the measures to be employed are the following:

- Accidental fires will be controlled as outlined in Section 7 of this SOP.
- Open burning of waste will not be permitted at this facility.
- Incoming waste will be promptly compacted into the working face area. Daily cover will be placed consistent with the procedures specified in Section 4.18.2.
- Ponded water at the site will be controlled as detailed in Section 4.19 of this SOP.
- The Gas Collection and Control System (GCCS) will be expanded and operated in accordance with all applicable requirements.
- As discussed in Section 4.12, the landfill haul roads and access roads will be maintained in a reasonable dust-free condition by periodic spraying from a water truck. During dry weather conditions, the Landfill Manager or his designee will routinely inspect the site and establish a frequency, if necessary, to spray the access roads with water to prevent nuisance conditions from developing.

The site management team (e.g., Landfill Manager or his designee, Environmental Manager, and General Manager) will verify that Camelot Landfill does not violate any applicable air quality and/or LFG requirements (refer to Appendix III I – Landfill Gas Management Plan for more information). The Environmental Manager is responsible for verifying and documenting compliance with the site's operating permit and any other applicable regulations. Current permits will be maintained in the Site Operating Record.

The site management team will maintain the required probe monitoring data and GCCS records as described in the Landfill Gas Management Plan.

Odors shall be controlled at the site and will be reduced if they occur in accordance with this Odor Management Plan. Sources of landfill odor can vary considerably and may include the wastes being delivered to the landfill, the open working face, surface emissions from the covered portion of the landfill, the landfill GCCS system, the leachate collection system, the Citizens Convenience Center, or the wood waste processing area. Many of the wastes received at a landfill are a source of odor upon receipt, such as sludge and dead animals. Other wastes have the potential for becoming a source of odor by their biodegradable characteristics, generating gases as they advance through the decomposition process. The generation of LFG within the landfill is one of the primary sources of odor. To address potential LFG odors, the Camelot Landfill has installed and operates a LFG collection and control system (GCCS). One of the primary objectives of this system is to remove the LFG from within the landfill before it can percolate to the landfill surface and enter the atmosphere. The LFG that is recovered from within the landfill is conveyed to a landfill gas-to-energy facility for beneficial reuse or to a flare to be thermally destroyed. As landfill operations progress the GCCS has been, and will continue to be, expanded as necessary. Leachate may also be a source of odor if not properly handled or disposed of in a timely manner. Among the measures that may be employed to reduce potential odors are the following.

- Minimize the size of the working face area.

- Increase the thickness of daily cover applied to the working face.
- Prevent ponded water, consistent with the procedures outlined in Section 4.19.
- Place daily and intermediate cover to the specified thickness over the fill area. The Landfill Manager or his designee will visually inspect daily and intermediate cover areas to confirm that no trash is exposed and no significant erosion of cover material has occurred. Erosion rills located on daily cover, intermediate cover, or final cover areas will be promptly repaired (more information in Section 4.18).
- Assess the effectiveness of the LFG extraction system and make all necessary repairs to the system or expand the system, as needed, to control odors.
- Identify any waste stream that requires special attention to control odor. If the Scale Operator notes a load with significant odors, they will notify the working face personnel. The load will be promptly covered with soil or solid waste when it arrives at the working face.
- Inspect the leachate collection and storage system to confirm that it is functioning as designed (e.g., inspect piping and storage tank system to verify no leaks have occurred). Vapor tight gaskets will be used on leachate risers if odor issues are identified at the risers.
- Inspect and evaluate leachate recirculation procedures. Leachate recirculation will be temporarily suspended if the odor issue is a result of recirculation activities. Leachate recirculation procedures will be evaluated to determine the cause of the odors and to mitigate the odor issue before the leachate recirculation activities are resumed.
- Inspect the Citizens Convenience Center to verify that odors are controlled. If odors become an issue, the stored material will be systematically removed until the odors are eliminated.
- Inspect the wood waste processing area to verify that odors are controlled. If odors become an issue, the stored material will be systematically removed until the odors are eliminated.
- Removal of leachate from the site should be performed under appropriate weather conditions.
- Evaluate the possible use of misters and chemical deodorizers when other controls do not reduce or eliminate significant odors. If it is determined that misters or deodorizers will help minimize odors, a permit modification or other applicable authorization will be submitted to TCEQ for approval.

The Landfill Manager or his designee will evaluate the perimeter of the site on days when the site is open for waste acceptance to assess the performance of site operations to control odors.

4.11 Disease Vector Control

Camelot Landfill personnel will control on-site populations of disease vectors, which include rodents, excessive bird populations, flies, mosquitoes, and other insects or animals capable of transmitting diseases to humans. The primary means of control will be to prevent, inhibit, or deter vectors from coming into contact with deposited waste through proper waste compaction and daily cover application. Waste deposited at a working face area will be promptly compacted in accordance with Section 4.17. Daily cover and/or ADC will be applied at the end of each operating day in accordance with Section 4.18.2. A schedule of inspections is provided in Section 4.23 (refer to daily cover item).

Documentation of these inspections will be maintained in the Site Operating Record. If site inspections identify the need for additional vector controls, the site will implement a control program by contracting with a licensed commercial pesticide applicator, or other qualified pest control specialist to perform the following services:

1. Develop a pest management program for the vectors identified.
2. Implement the additional vector management practices.
3. Assist in the development of vector specific awareness training materials for site personnel.
4. Assist the site in distributing these training materials and providing any necessary training activities on vector awareness and control for site personnel.

The site has a bird abatement program that incorporates the use of pyrotechnic devices, or an alternative bird abatement program, to control birds at the active working face area. The most recent revision of the bird abatement plan will be maintained in the Site Operating Record.

4.12 Maintenance of Site Access

The Camelot Landfill has an existing asphalt paved entrance road at Huffines Boulevard. In addition, the landfill access roads are constructed with a crushed-stone surface or similar material surface to provide for all weather access area from the unloading areas to public access roads (i.e., mud on vehicles will “spin off” on the access roads within the landfill before the vehicle returns to the public access road). During wet weather conditions, the Landfill Manager or his designee will routinely inspect the site and implement measures to further minimize mud tracking onto public access roads, as necessary (e.g., temporary wheel washing procedures).

The landfill haul and access roads will be maintained in a reasonable dust-free condition by periodic spraying from a water truck. During dry weather conditions, the Landfill Manager or his designee will routinely inspect the site and establish a frequency, if necessary, to spray the landfill access roads with water to prevent nuisance conditions

from developing. Litter and other debris along the landfill access roads will be removed, consistent with the schedule requirements listed in Section 4.23 of this SOP (i.e., litter or other debris will be picked-up on a daily basis). Grading equipment will be used as necessary to control or remove mud accumulations on roads as well as minimize depressions, ruts, and potholes. In addition, all on-site and other access roadways will be maintained on a regular basis. Mud and assorted debris tracked onto public roadways will be removed at least once per day on days when mud and associated debris are being tracked onto public roadways to the extent that mud can be reasonably considered to be associated with landfill operations. Refer to Section 4.23 of this SOP for site inspection and maintenance list (this list also includes documentation requirements which are also explained in Section 9).

4.13 Salvaging and Scavenging

For purposes of this SOP, salvaging is the removal of waste materials from the working face or waste hauling vehicles at the entrance for reuse or recycling. Salvaging will be prohibited at all times. Various site personnel (e.g., equipment operators and spotters) will guard against salvaging and scavenging activities. Scavenging is the uncontrolled and unauthorized removal of materials at any point in the solid waste management system, including but not limited to the removal of waste deposited at the working face or active disposal area. Scavenging will be prohibited at all times.

4.14 Endangered Species

Information regarding endangered species is located in Parts I/II, Section 12, in accordance with §330.61(n) and §330.551. No endangered or threatened species have been documented at the site nor has a critical habitat for such species been identified at the site. Neither the facility nor its operation will result in the destruction or adverse modification of the critical habitat of endangered or threatened species or cause or contribute to the taking of endangered or threatened species. If endangered or threatened species are encountered during site operations, Texas Parks and Wildlife and U.S. Fish and Wildlife Department will be notified.

4.15 Control of Landfill Gas

The control and monitoring of landfill gas for the Camelot Landfill will be in accordance with the Landfill Gas Management Plan (Part III, Appendix III D). The Landfill Gas Management Plan was developed in accordance with §330.371 and provides for required reports and other submittals to be included in the Site Operating Record and submitted to the Executive Director (refer to Section 4.10 for additional information).

As noted in the Landfill Gas (LFG) Management Plan, monitoring for the presence of methane gas at the site will be conducted on a quarterly basis. In particular, the LFG

monitoring probes will be monitored for the possibility of subsurface perimeter methane concentrations exceeding the lower explosive limit (LEL). Additionally, on-site structures will be checked to ensure that methane concentrations do not exceed 25 percent of the LEL. The allowable limits and details of gas recovery are more fully described in the Landfill Gas Management Plan.

Monitoring for combustible gas concentrations will be performed quarterly within all site structures and at the LFG monitoring probes. Required reports and other submittals will be included in the Site Operating Record and submitted to the executive director, as necessary.

In the event that methane levels that exceed allowable limits are detected (25% of the LEL for methane in facility structures or 100% of the LEL at LFG monitoring probes), the TCEQ will be notified and steps will be implemented to protect human health, in accordance with the contingency plan presented in the Landfill Gas Management Plan. Documentation of the LFG measurements and of the protective measures implemented will be placed in the Site Operating Record within seven (7) days. A remediation plan for any methane gas exceedances as described in the Landfill Gas Management Plan will be implemented within 60 days of the methane detection. This remediation plan will be submitted to TCEQ to describe the proposed remediation activities.

4.16 Treatment of Oil, Gas, and Water Wells

There are no known water wells or oil wells (existing or abandoned) on the site. If a water well is proposed in the future, a permit modification will be submitted to the TCEQ to meet the requirements of §330.161. Any wells encountered will be plugged in accordance with all applicable rules and regulations of the TCEQ, the Railroad Commission of Texas, or other applicable State agencies.

Therefore, if an abandoned oil, gas, or water well is located, the Landfill Manager will provide written notification to the TCEQ's Executive Director of their location within 30 days after discovery during the course of facility development. If any wells are encountered, they will be exposed, the casing cut to a minimum of 2 feet below the excavation, and the well capped and plugged in accordance with all applicable rules and regulations of the TCEQ, the Railroad Commission of Texas, or other applicable state agency.

The Landfill Manager or his designee will provide written notification to the Executive Director of the location of any existing or abandoned water wells within the facility upon discovery during site development. Within 30 days of such a discovery, the Landfill Manager or his designee will provide written notification and certification to the Executive Director of the TCEQ that all such wells have been capped, plugged, and closed in accordance with all applicable rules and regulations of the TCEQ or other applicable state agency. If a water well is proposed in the future, a permit modification will be submitted to the TCEQ to meet the requirements of §330.161. Water wells that

will be used to supply the facility may remain in use provided they are outside of the monitoring well network and are not affected by landfill operations.

For crude oil or natural gas wells, or other wells associated with mineral recovery that are under the jurisdiction of the Railroad Commission of Texas, within 30 days after the plugging of any such well, the Landfill Manager will provide the Executive Director of the TCEQ with written certification that all such wells have been properly capped, plugged, and closed in accordance with all applicable rules and regulations of the Railroad Commission of Texas.

A copy of the well plugging report to be submitted to the appropriate state agency will also be submitted to the executive director of the TCEQ within 30 days after the well has been plugged.

In the event that an abandoned well causes a change to the liner installation plan, a permit modification will be submitted to the Executive Director in accordance with §330.131(d).

4.17 Compaction of Solid Waste

Compaction of incoming waste facilitates efficient use of available space, minimizes settlement and consolidation, and promotes proper application of daily, intermediate, and final cover. Landfill compactor(s) or similar equipment will be used to compact waste at Camelot Landfill. Unless otherwise documented in the Site Operating Record, the Landfill Manager or his designee will instruct the Equipment Operators to spread waste in lifts that are approximately two feet thick. The compactor will typically make two to four passes to compact the waste. A pass is defined as one direction of travel. The Equipment Operators will be trained to determine whether the compaction equipment is functioning as designed to ensure that the waste lift is adequately compacted. The number of passes required may be increased depending upon the nature of the waste that is being compacted.

To prevent the formation of potentially unstable interim slope conditions, the sequence of fill will be developed in a manner that solid waste will be compacted in horizontal lifts starting from the top of the liner protective cover (both for the Subtitle D Liner System and the Overliner System). After obtaining TCEQ approval for each newly constructed liner (i.e., approval of the GLER), the filling operation will start at the bottom of the landfill and continue vertically in horizontal lifts. Under no condition will the maximum allowable interim slopes or slope lengths be exceeded (refer to Part III, Appendix III E for allowable interim slope lengths) without prior TCEQ authorization.

4.18 Soil Management, Placement, and Compaction of Daily, Intermediate, and Final Cover

4.18.1 Soil Management

Management of soil (or earthen material) for use in and around the landfill area will be an ongoing process at the Camelot Landfill. Soil will be obtained from onsite and offsite soil borrow sources as needed for facility operations. Earthen material for use as daily cover, intermediate cover, final cover, and other uses will be available for the site.

The earthen material will consist of soil that has not previously come in contact with waste and will be of sufficient volume to meet the fire protection requirements specified in Section 7.7. The stockpile will typically be located within the undeveloped, permitted portion of the waste disposal footprint or on the top deck of the landfill near the unloading areas. The stockpiles will not be located in a buffer zone or located in a manner that would block access of fire and emergency equipment. Also, the stockpile will be located in an area that does not affect drainage structures. As this earthen material is used, it will be replenished and/or located as soon as practical but shall at all times be maintained to meet the fire protection requirements specified in Section 7.7. Both the volume of earthen material required to be maintained within 1,000 feet of each working face and the volume of the earthen material to cover each working face with at least a 1 day application of 6 inches of daily cover will be documented on the Cover Application Log (refer to Section 4.18.5 and Section 7.7.4 for an example earthen material calculation).

4.18.2 Daily Cover

Daily cover of waste is used to control disease vectors, windblown waste, odors, fires, and scavenging and to promote runoff from the fill area. At least once every 24 hours, the exposed solid waste fill area(s) will be covered by (1) at least 6 inches of soil cover material that has not been previously mixed with garbage, rubbish, or other solid waste, or (2) an approved Alternate Daily Cover (ADC) material.

As discussed in Section 4.2, the working face includes where waste has been deposited for disposal but has not been covered with soil. The working face includes areas that are covered with alternate daily cover and the area where waste collection vehicles deposit waste onto the working face. As discussed in the Leachate and Contaminated Water Management Plan, the working face is surrounded by a contaminated water containment berm and stormwater diversion berm. The area within the containment and diversion berms includes:

- working face area (as defined above),
- waste collection vehicle area (area where waste collection vehicles access the working face),

- containment water storage area (this area is designated to contain stormwater that has contacted the working face).

ADC information is included in Appendix IVB of this SOP. The plan addresses the following items.

- Description and thickness of the alternative cover material
- Effect of ADC on vectors, fires, odors, and windblown litter
- Application and operational methods to be utilized at the site when using the ADC
- Chemical composition of the material and the MSDS(s) for the ADC

ADC is used to cover waste that will be filled again within a 24-hour period. ADC is only used in areas that are surrounded by the containment berm. This practice allows collection of runoff generated by an area covered with ADC to be contained and managed as contaminated water.

As mentioned above, ADC information is included in Appendix IVB. The remaining portion of this section details the procedures to be used if soil daily cover is utilized. To ensure that the soil daily cover soil will be adequate (i.e., minimize vectors, prevent contaminated stormwater runoff, prevent odors, etc.) the following procedures will be followed:

- The daily cover will be sloped to drain.
- The daily cover will be spread and compacted with a minimum of two passes with the dozer tracks to minimize infiltration of stormwater, graded to drain, and will not have any waste visibly protruding through it.
- The Landfill Manager, or his designee, will document where daily cover has been placed and visually inspect during placement that a minimum of 6 inches (compacted thickness) of daily cover soil has been placed and that no waste is exposed through it. The Landfill Manager or his designee shall document, on a daily basis, the daily cover placement area and indicate that he (or his designee) has visually verified the thickness and condition in the Cover Application Log (discussed further in Section 4.18.5 of this SOP).
- The Landfill Manager, or his designee, will inspect all daily cover areas for erosion, exposed waste or other damage each day the site is in operation. Repairs will be made as necessary. Erosion gullies or washed-out areas will be repaired within 24 hours after the area is accessible (i.e., after the cover soils and slopes dry out enough to allow access by earth-moving equipment without causing rutting of cover soils).
- The Landfill Manager, or his designee, will inspect for seeps from daily cover. All seepage water from waste below the daily cover will be controlled by placement of soil berms and diverted to a contaminated water collection area.

Contaminated water will be treated as outlined in the Leachate and Contaminated Water Plan.

Inactive areas with 6 inches of daily cover will be inspected each day the site is in operation for erosion, ponded water, seeps, protruding waste, or other detrimental conditions that may cause contaminated runoff from the daily cover. The Landfill Manager, or his designee, will place additional cover, as needed, to repair erosion, prevent ponded water and seeps, and cover protruding waste. After a period of 180 days, an additional 6 inches of earthen material not previously mixed with garbage, rubbish or other solid waste will be placed over the daily cover for a total of not less than 12 inches of cover. This 12-inch-thick layer of cover soil will be classified as “intermediate cover” as described in Section 4.18.3 of this SOP. If the area becomes active again, the cover soil may be stripped off for use as daily cover in other areas.

4.18.3 Intermediate Cover

All areas that receive waste and then become inactive for longer than 180 days will be covered with an additional 6 inches of compacted cover material, for a total cover thickness of at least 12 inches. The intermediate cover will be graded and maintained to prevent ponding. In addition, the top 6 inches of earthen material used for intermediate cover will be suitable for sustaining native plant growth and will be seeded following the placement of intermediate cover soils. Seeding will occur during a standard growing season when it is feasible to establish vegetation. The establishment of vegetation is desirable to reduce erosion, which helps to maintain the cover’s integrity and improve the aesthetic appearance of the landfill, and aid in sediment control.

The sequence of intermediate cover placement with respect to waste placement is included in detail in Parts I/II, Appendix I/IIA – Facility Layout Maps. The Landfill Manager or his designee will inspect intermediate cover at the site on a weekly basis. In addition, intermediate cover will be inspected at the Camelot Landfill within 72 hours of any rainfall event of 0.5 inches or more (i.e., 0.5 inches during a 24-hour period). Erosion gullies or washed-out areas will be repaired within 5 days of detection by restoring the cover material, grading, compacting, and seeding, if necessary, unless the TCEQ Regional Office approves otherwise, based on the extent of the damage requiring more time to repair, or the repairs are delayed because of weather conditions. The landfill manager or his designee will inspect for seeps from intermediate cover. All seepage water from waste below the intermediate cover will be controlled by placement of soil berms and diverted to contaminated water collection area. Contaminated water will be treated as outlined in the Leachate and Contaminated Water Management Plan (refer to Section 4.22).

4.18.4 Final Cover

Final cover placement will occur as areas of the site are filled to the design top-of-waste grades. Final cover placement over individual areas will be in accordance with the Final Closure Plan and will permit ongoing landfill operations to continue until the time of

final closure. Surface water will be managed throughout the active life of the site to minimize infiltration into the filled areas and to minimize contact with solid waste. Erosion of final or intermediate cover will be repaired within 5 days after the initial inspection by restoring the cover material, grading, compacting, and seeding unless the TCEQ Regional Office approves otherwise, based on the extent of the damage requiring more time to repair, or the repairs are delayed because of weather conditions. The date of detection of erosion and date of completion of repairs, including reasons for any delays, must be documented in the Cover Application Log (refer to Section 4.18.5). Such periodic inspections and restorations are required during the entire operational life and for the postclosure maintenance period. Refer to Section 4.23 of this SOP for a Site Inspection and Maintenance list.

Final cover placement over completed portions of the site will consist of the following steps:

- Survey controls will be implemented to control the filling of solid waste to the bottom level of the final cover system.
- A surveyed grid system on 100-foot centers will be established, or other suitable surveying or plans will be used to control placement of final cover.
- When the appropriate design landfill height of the proposed final cover is reached, the top of the landfill will be regraded and reshaped as needed.
- During the first growing season following application of the final cover system, the site will be vegetated with appropriate grasses to minimize erosion.
- The surface water management system will be constructed as indicated in the stormwater management plan.
- The final cover system layers will be constructed. Testing of the various components of the final cover system will be performed in accordance with the Final Closure Plan.
- A final cover certification report complete with an as-built survey will be prepared by an independent licensed professional engineer and submitted to the TCEQ for approval.
- The TCEQ-approved final cover certification report will be maintained in the Site Operating Record and the Final Cover Application Log (see Section 4.18.5 of this SOP) will be updated to reflect the area where final cover has been placed, the date final cover was constructed, and the thickness applied that date. The TCEQ Regional Office will also be notified that final cover placement has occurred at the site.

The final cover system, including the erosion control structures (drainage swales and chutes) will be maintained during and after construction. During the active life of the site, the Landfill Manager or his designee will inspect the final cover system on a weekly basis. In addition, during the active life of the landfill, inspections of the final cover will

occur within 72 hours of a rainfall event of 0.5 inches or more (i.e., 0.5 inches during a 24-hour period). Postclosure care inspection procedures are outlined in the Postclosure Care Plan.

4.18.5 Cover Application Log

Throughout the landfill operation, a Cover Application Log will be maintained by the Landfill Manager or his designee, and be readily available for inspection in accordance with §330.65(h). For intermediate cover and daily cover, the log will specify the date cover (no exposed waste) was accomplished, the area covered (by use of the grid system), how it was placed, when it was completed, and the last area covered. For final cover, the log will show the final cover area, specify the area covered, the date cover was applied, the thickness applied that date, and reference the final cover certification report for each area. The signature of the Landfill Manager, or his designee, will certify each entry that the work was accomplished as stated in the log. Repairs will be documented in the log. The date of detection of erosion, or other repair issue, date of completion of repair (including reasons for any delays) will be included to document the report. In addition, both the volume of earthen material required to be maintained within 1,000 feet of each working face and the volume of the earthen material to cover each working face with at least a 1 day application of 6 inches of daily cover will be recorded each day on the Cover Application Log.

4.19 Prevention of Poned Water

Site grading and maintenance will minimize the ponding of water over areas containing waste. Should ponding occur, the water will be removed as soon as practicable from areas not designated as stormwater collection areas in the Site Development Plan. Records of ponding preventive and corrective activities will be kept in the Site Operating Record. The depressions will be filled and regraded as quickly as possible, but no later than 7 days from the end of the rainfall event (i.e., the end of the rainfall event is equivalent to the term "occurrence" as defined by §330.167). If the ponded water has come into contact with waste, leachate, or contaminated soils, it will be treated as contaminated water and handled in accordance with the Leachate and Contaminated Water Plan. As discussed in the Leachate and Contaminated Water Plan, contaminated water will be removed via a vacuum truck and transported to an off-site permitted treatment facility (refer to Section 4 of the Leachate and Contaminated Water Plan).

The site will be inspected weekly and within 72 hours of a rainfall event of 0.5 inches or more to verify that no unauthorized ponded water areas exist (refer to Section 4.23). Ponded water in areas not over waste, such as in excavations, and detention ponds, is not prohibited so long as ponding in other areas does not cause or contribute to nuisance conditions. Ponding in these areas will be monitored to prevent nuisance odors. In addition, excavations will be pumped out as necessary to maintain the area as accessible to earth-moving equipment. Detention ponds will be maintained to perform as designed. Water contained in basins or excavations may be used for dust control.

4.20 Disposal of Special Waste

Special wastes, as defined in §330.3, may be accepted at the facility in accordance with §330.171(b) and (c) and the Waste Acceptance Plan (WAP) included in Appendix IVC. Special wastes other than those approved in the following paragraphs may be accepted if these wastes meet the acceptance requirements listed in the WAP. As specified in §330.171(b)(2) and the WAP, requests for approval to accept certain types of special wastes shall be submitted to the TCEQ or maintained in the Site Operating Record and will include the following:

- A complete description of the chemical and physical characteristics of each waste and the quantity and rate at which each waste is produced and/or the expected frequency of disposal.
- If special handling instructions are required, they will be provided as part of the pre-approval process; including, the proposed procedures for handling waste and listing required protective equipment for operating personnel and onsite emergency equipment.
- Procedures and responsibilities for containment and cleanup of any accidental spills occurring during the delivery and/or disposal operation will be conducted. Typically, this will include:
 - Employees involved in cleanup should make use of their spill control kits which may include: respirators, disposable coveralls, shoe covers, gloves, and safety glasses or goggles.
 - Other site personnel will be directed away from the area until cleanup is complete.
 - Excavate the waste material and transport it to the working face.
 - Wash any contaminated equipment or machinery.
 - If applicable, wash all other personal protective equipment with soap and water.
 - If applicable, check respirator, refit with new filter cartridges, and place into a resealable, air-tight container for future use.

When special wastes are to be disposed of at the Camelot Landfill, a complete transporter and/or generator profile will be required prior to acceptance of the special wastes. This profile includes:

- A list of customers generating these special wastes, identifying each of the generator's special wastes (with supporting chemical analysis, where applicable) for which disposal is being requested.
- A copy of any generator registrations (TCEQ and USEPA) that further identifies the character of those wastes.

- A written declaration by the generator that the waste stream is non-hazardous waste.
- An estimate of the anticipated quantity, rate, and frequency of disposal for each special waste.

The above-listed information will be maintained in the Site Operating Record.

Following review of this information, the Landfill Manager or his designee or an appropriate Camelot Landfill representative will notify the generator in writing as to which, if any, of the requested wastes will be accepted for disposal. The above-listed information will be maintained in the Site Operating Record. In addition, the generator waste profile will be re-evaluated at a minimum of 3 years to verify consistency with the original approved waste profile. Camelot Landfill TX, LP will require the generator to complete a new waste profile as part of this re-evaluation process. The re-evaluated waste profile information will be maintained in the Site Operating Record.

A waste discrepancy form or similar documentation will be placed in the Site Operating Record when one or more of the following occurs:

1. A special waste arrives without a waste manifest or required shipping document.
2. An industrial or special waste arrives and the waste material does not match the description on the waste manifest or other shipping document.
3. An industrial or special waste arrives and the waste differs from the approved waste based upon QA/QC review or other monitoring.
4. The volume of the waste is not consistent with the information on the shipping documents.

The Scale Operators, Landfill Manager, Special Waste Liaison, or Environmental Manager will attempt to resolve any waste discrepancies. If the discrepancy can be resolved, the waste may be accepted and the discrepancy form will be filed to document the resolution of the discrepancy in the Site Operating Record. If the discrepancy cannot be resolved, the waste shipment will be rejected and a discrepancy form prepared and filed for the rejected waste shipment.

In addition, the special wastes identified in Sections 4.20.1 through 4.20.8 may be accepted at the facility without prior written authorization in accordance with §330.171(c).

4.20.1 Sludges

Sludges, grease trap waste, grit trap waste or liquid waste from municipal sources will be accepted if the material has been treated or processed, and has passed the paint filter test and is certified to contain no free liquid, as prescribed in §330.171(c)(7). The material

will be required to have passed a paint filter test, as documented on the Generator Waste Profile, prior to disposal at the working face of the landfill.

4.20.2 Dead Animals

The Camelot Landfill may receive dead animals or slaughterhouse wastes. Dead animals and slaughterhouse wastes will be buried at the working face and covered with a minimum of 3 feet of other solid waste or a minimum of 2 feet of soil immediately upon receipt. Additional waste or soil will be added over the dead animals if objectionable odors are created by the dead animals or slaughterhouse wastes.

4.20.3 Empty Containers

Empty containers, which have been used for pesticides, herbicides, fungicides, or rodenticides will be accepted and disposed of in accordance with Title 30 TAC §330.171(c)(5) and as outlined below.

1. These containers may be disposed of at the landfill working face provided that:
 - (i) the containers are triple-rinsed prior to receipt at the site; and
 - (ii) the containers are rendered unusable prior to or upon receipt at the site.
2. Empty containers accepted at the site will be covered by the end of the same working day they are received.
3. Those containers for which triple-rinsing is not feasible or practical (e.g., paper bags, cardboard containers) may be disposed of by placing them in the active working face and covering them with three feet of waste by the end of the day they were received. Containers from industrial locations must be classified as a Class 2 waste or Class 3 waste.

4.20.4 Nonregulated Asbestos-Containing Materials

Non-regulated asbestos-containing materials (non-RACM) may be accepted for disposal provided the wastes are placed on the active working face and covered in accordance with Section 4.18 of this SOP. Under no circumstances shall any material containing non-RACM be placed on any surface or roadway which is subject to vehicular traffic or disposed of by any other means by which the material could be crumbled into a friable state.

4.20.5 Regulated Asbestos-Containing Material (RACM)

RACM may be accepted at the facility in accordance with §330.171(c)(3). Prior to initial receipt of RACM at this facility, the Landfill Manager will dedicate a specific area of the site for receipt of RACM and notify the TCEQ in writing of the designated area. RACM disposal locations will be identified by surveying and marked on a current site drawing at the site. The identified area will be surveyed by a registered professional surveyor. Each load of RACM that arrives on-site will be documented. This documentation will include

the volume of material, and the location and depth of its disposal. As the operation continues, the Landfill Manager or his designee will notify the TCEQ in writing of any new dedicated areas for RACM. The RACM disposal area will not be larger than 50 feet by 50 feet.

Delivery of RACM will be coordinated by the Landfill Manager so that the waste will arrive during times that it can be properly managed by site personnel.

RACM will be accepted at the site only if it is contained in tightly closed containers or bags, or wrapped as necessary with 6-mil-thick polyethylene.

RACM will be placed in landfill cells such that it will not be exposed as a result of erosion or weathering. At a minimum, the RACM will be placed at least 20 feet away from exterior final sideslopes, and at least 10 feet below final grade. During unloading and placement of RACM in the waste fill, care will be exercised to prevent breaking open the bags or containers. One foot of soil cover or 3 feet of asbestos-free municipal solid waste will be placed over the RACM immediately after it is placed in the landfill.

RACM that has been designated as Class I industrial solid waste, will be disposed of in accordance with §330.173(c) and in accordance with this section of the Site Operating Plan.

Shipments of Class 1 RACM must be accompanied by a waste manifest document. The waste manifest is to be completed by the generator and transporter, and shall accompany the driver of each waste load. The facility will then verify pre-authorization for disposal and complete the destination section of each manifest and return one copy of the completed manifest to the driver. One copy of the completed waste manifest will also be returned to the waste generator within 30 days after receipt of the waste. Manifests are prepared in triplicate and the remaining copy will be filed in the Site Operating Record. Acceptable manifests will include at least the following information:

1. Identity and telephone number of the generator;
2. Type and quantity of waste obtained from the generator;
3. TCEQ registration number and TCEQ waste code (if applicable);
4. Specific site for disposal.

A waste discrepancy form or similar documentation will be completed when:

1. Class 1 RACM arrives without a properly completed waste manifest;
2. Class 1 RACM arrives and the waste material does not match the description on the waste manifest;
3. Class 1 RACM arrives and the information on the manifest is determined to be incorrect; or

4. Class 1 RACM arrives which does not match the information given in the original approval submitted by the generator.

The Scale Operators, Landfill Manager or his designee, Special Waste Liaison, Environmental Manager, or General Manager will attempt to resolve any waste discrepancies. If the discrepancy can be resolved, the waste may be accepted and the discrepancy form will be filed with the shipping documents to document the resolution of the discrepancy. If the discrepancy cannot be resolved, the waste shipment will be rejected and a discrepancy form prepared and filed for the rejected waste shipment.

The Landfill Manager or his designee will contact the transporter and/or generator and notify them of the identification of any unauthorized waste. The transporter and/or generator will be required to take all necessary steps to determine the origin and to assure that in the future such wastes are either not collected or are taken to a facility approved to accept such waste. The appropriate state agency will also be contacted to provide the name and contact information of the transporter and to report measures taken to resolve the arrival of unauthorized waste (e.g. returned to the transporter or disposed of by Camelot Landfill at an approved facility). Multiple instances of unauthorized wastes found from the same transporter or generator may result in Camelot Landfill refusing to accept waste from that transporter or generator.

All information and documents pertaining to Class 1 RACM profiled for disposal and delivered to the landfill for disposal including but not limited to, all records concerning measurements and analyses performed at the site, shall be retained in the Site Operating Record.

Additionally, the TCEQ Monthly Waste Receipt Summary will be prepared by the Landfill Manager, or his designee, and submitted to the TCEQ. This report will be submitted consistent with TCEQ requirements. Reports will be on forms provided by the TCEQ and submitted to the Registration and Reporting Section. The facility will file reports including those months in which they receive no Class 1 RACM at the facility unless the TCEQ grants an exception. The reports will summarize the quantity, character, generator identity, and the method of storage, processing and disposal of each Class 1 RACM shipment received, and itemizes by manifest document number as required by the TCEQ.

In addition and according to 30 TAC §330.675, a Quarterly Municipal Solid Waste Fee Report will be submitted to the TCEQ on a form provided by the TCEQ. In addition to a statement of the amount of Class 1 RACM received for processing or disposal, the report will contain other information requested on the form, typically including amount of other wastes received, the facility operator's name, address, and phone number, the permit number, and other information as requested. The required quarterly report will be submitted to the TCEQ within the timeframe required by the TCEQ.

In the event that bags or containers that contain RACM rupture, they will be immediately contained by spraying the area with water to prevent the spread of RACM. Also, earthen

dikes, berms or by other appropriate measures will be constructed to contain the spill. The Landfill Manager, or designee, shall be promptly notified of the spill and shall coordinate the collection and disposal of the spilled RACM. The spilled RACM will be picked up mechanically or by employees wearing proper protective equipment and re-packaged for disposal.

Upon closure of the facility, a notation indicating that the site accepted RACM will be placed in the real property records of Denton County. This notation will indicate where the RACM was disposed of on the property by showing its location on a site diagram. A copy of this documentation will be provided to the TCEQ.

4.20.6 Industrial Waste

Class 2 and Class 3 industrial solid wastes will be accepted at the facility. Industrial waste (nonhazardous) is defined by §330.3 as solid waste resulting from or incidental to any process of industry or manufacturing, or mining or agricultural operations, classified as follows:

- Class 2 Industrial Solid Waste - any individual solid waste or combination of industrial solid wastes that cannot be described as Class 1 or Class 3, as defined in §335.506 (relating to Class 2 waste determination). Examples of Class 2 Industrial Waste include “plant trash” or waste originating in the facility offices or plant production areas that are composed of paper and/or wooden packaging materials, glass, aluminum foil, aluminum cans, aluminum scrap, stainless steel, steel, iron scrap, plastics, styrofoam, rope, twine, uncontaminated rubber, uncontaminated wooden materials, equipment belts, wiring, uncontaminated cloth, metal buildings, empty containers with a holding capacity of five gallons or less, uncontaminated floor sweepings, or food packaging, that are produced as a result of plant production.
- Class 3 Industrial Solid Waste - any inert and essentially insoluble industrial solid waste, including materials such as rock, brick, glass, dirt, and certain plastics and rubber, etc. that are not readily decomposable as defined in §335.507 (relating to Class 3 waste determination).
- Class 1 Industrial Solid Waste that is defined as Class 1 only because of its asbestos content will be accepted and handled in accordance with the procedures listed in Section 4.20.5.

4.20.7 Health Care Facility Waste

Special wastes from health care related facilities that have been treated in accordance with the procedures specified in Subchapter Y of the TCEQ regulations (relating to Medical Waste Management) will be accepted.

4.20.8 Municipal Hazardous Waste from a Conditionally Exempt Small Quantity Generator (CESQG)

CESQG will be accepted at this facility provided the amount of waste does not exceed 220 pounds (100 kilograms) per month per generator, and provided the Landfill Manager or his designee authorizes the acceptance of the waste.

4.21 Prevention of Discharge of Contaminated Water

The Landfill Manager or his designee shall implement necessary steps to control and prevent the discharge of contaminated water from the facility. No discharge of contaminated water shall occur without obtaining specific written authorization from the TCEQ prior to the discharge. All water coming in contact with waste or contaminated soils will be treated as contaminated water. Runon and runoff for the 25-year, 24-hour storm event will be controlled following the procedures set forth in the Surface Water Drainage Plan and the Leachate and Contaminated Water Plan. The landfill will be operated consistent with §330.15(h) regarding discharge of solid wastes or pollutants into waters of the United States.

As discussed in Part III, Appendix IIIC, contaminated water that collects behind the containment berm will be pumped into tanker trucks and transported to a properly permitted privately-owned treatment facility or a POTW for treatment. Contaminated water will be removed as soon as practicable from the area behind the contaminated water containment berm (refer to Section 4.23 for additional information and record keeping requirements). Contaminated water may also be transported to the leachate storage tanks. When contaminated water is stored in the leachate storage tanks, no leachate recirculation will occur, and a sign will be posted on the tank stating "No Recirculation." When the tank containing the contaminated water is emptied, the sign will be removed.

Purged water from the site's groundwater monitoring wells will be disposed of consistent with the methods and procedures listed in the Groundwater Sampling and Analysis Plan (e.g., purged water can be disposed in the facility leachate collection system via storage tanks, accessible risers, or other access points; facility condensate tanks; solidification facility; facility working face; or at a waste water treatment plant connection).

As discussed in Section 4.2.1, the Citizens Convenience Center uses watertight containers and is located over a paved area. In addition, waste spilled at the working face will be picked up daily, thus eliminating the potential for contaminated water.

4.22 Leachate and Contaminated Water Plan

Leachate and contaminated water will be controlled at the Camelot Landfill as specified in the Leachate and Contaminated Water Management Plan. Consistent with Title 30 TAC §330.177, recirculation of leachate will only occur over the areas underlain by a Subtitle D liner system (i.e., composite liner system with a leachate collection system). Leachate will

be recirculated by surface spraying at the working face. Leachate will be distributed from a water truck or other comparable equipment using a spray bar or hose to distribute leachate back to the working face (i.e., within the active waste fill area that is contained by the containment berm).

The following performance standards will govern the application rate of leachate recirculation.

- The rate of leachate recirculation will not exceed the moisture holding capacity of the landfill. For example, the application rate will be applied so that no seeps or ponding is observed in the vicinity of the recirculation area. In addition, leachate recirculation over a specific phase will cease if the leachate flow rate to a sump approaches the capacity of the pump within the sump. If this occurs, recirculation activities will move to another phase.
- Leachate recirculation will not occur immediately before, during, or immediately after rainfall events, or during freezing temperatures that could affect the holding-capacity of the waste.
- Leachate recirculation will not occur during high wind events.

The leachate generated from the landfill will be recirculated to the landfill working face, and excess quantities of leachate will be directed to the leachate storage facilities.

4.23 Site Inspection and Maintenance List

| ITEM | TASK | Frequency | Inspector | Inspection Documentation |
|------------------------------------|--|---|-----------------------------------|--|
| Fence/Gates | Inspect perimeter fence and gates for damage. Make repairs if necessary. | Weekly | Landfill Manager or Designee | Document inspection in the Site Operating Record |
| Windblown Waste | Police working face area, wind fences, access roads, entrance areas, and perimeter fence for loose trash. Clean up as necessary. | Daily as specified in Section 4.5. | Landfill Manager or Designee | Document inspection in the Site Operating Record |
| Waste Spilled on Route to the Site | Police the entrance areas and all roads at least 2 miles from the site entrances for loose trash. Clean up as necessary. | Daily as specified in Section 4.8. | Landfill Manager or Designee | Document inspection in the Site Operating Record |
| Landfill Markers | Inspect all landfill markers for damage, color-coding, and general location. Correct or replace damaged markers within 15 days of discovery. | Monthly | Landfill Manager or Designee | Document inspection in the Site Operating Record |
| Site Access Road | Inspect site access road for damage from vehicle traffic, erosion, or excessive mud accumulation. Maintain as needed with crushed rock or stone. Grading equipment will be used at least once per week to minimize depressions, ruts, and potholes. Tracked mud and associated debris at the entrance to the facility must be removed at least once per day on days when mud and associated debris are being tracked onto public roadways to the extent that mud can be reasonably considered to be associated with landfill operations. | Tracked mud and debris will be removed daily. Grading equipment will be used at a minimum of once per week to minimize depressions, ruts, and potholes. | Landfill Manager or Designee | Document inspection and repairs in the Site Operating Record |
| Daily Cover | Inspect for proper placement, thickness, and compaction. Correct problems as needed. Verify that vectors are not an issue. | Daily at the active face and all daily cover areas will be inspected within 24 hours of a rainfall event of 0.5 inches or more. | Landfill Manager or Designee | Document inspection in the Site Operating Record |
| Intermediate Cover | Inspect for proper placement, thickness, erosion, compaction and for presence of waste or other contamination. Correct problems as needed. | Weekly and within 72 hours of a rainfall event of 0.5 inches or more. | Landfill Manager or Designee | Document in the Site Operating Record |
| Final Cover | Inspect for proper placement, thickness, compaction, slope, settlement and erosion. Maintenance will be ongoing throughout postclosure care period. Correct problems as needed. | Weekly and within 72 hours of a rainfall event of 0.5 inches or more. | Landfill Manager or Designee | Document in the Site Operating Record |
| Leachate | Measure depth of leachate in sump, as required. | Weekly | Landfill Manager or Designee | Document in the Site Operating Record |
| Leachate Storage Tanks | Measure leachate levels in storage tank and volume of leachate removed from the site. | Daily | Landfill Manager or Designee | Document in the Site Operating Record |
| Site Signs | Inspect all site signs for damage, general location, and accuracy of posted information. | Weekly | Landfill Manager or Designee | Document in the Site Operating Record |
| Ponded Water | Inspect site for unauthorized ponded water areas as described in Section 4.19. Correct problems as needed. Document all corrective actions taken to remove ponded water. | Weekly and within 72 hours of a rainfall event of 0.5 inches or more. | Landfill Manager or Designee | Document in the Site Operating Record |
| Odor | Inspect the perimeter of the site to assess the performance of site operations to control odor. | Daily | Landfill Manager or Designee | Document in the Site Operating Record |
| Perimeter Channels/Ponds | Inspect perimeter channels and detention ponds to verify that they are functioning as designed (e.g., excess sediment removed, outlet structures intact, and erosion control measures intact). | Weekly and within 72 hours of a rainfall event of 0.5 inches or more. | Landfill Manager or Designee | Document in the Site Operating Record |
| GCCS | Verify GCCS is operating and maintained in accordance with all applicable requirements. | Monthly | Environmental Manager or Designee | Document in the Site Operating Record |
| Landfill Gas Monitoring | The landfill gas monitoring system will be inspected to verify that it is functioning as designed. | Quarterly | Landfill Manager or Designee | Document in the Site Operating Record |
| Easements / Buffer Zones | The buffer zones and easement areas will be inspected to verify that the applicable markers are in place and that access has not been obstructed. | Weekly. | Landfill Manager or Designee | Document in the Site Operating Record |
| Fire Protection Plan | Consistent with Section 7, inspections will be completed to verify that the various components of the Fire Protection Plan are functioning as designed (e.g., fire extinguishers, stockpile requirements, water trucks or storage tanks). | Stockpile and water truck or tanks will be inspected daily, fire extinguishers will be inspected annually. | Landfill Manager or Designee | Document in the Site Operating Record |
| Groundwater Monitoring System | The groundwater monitoring system will be inspected to verify the groundwater wells are functioning as designed. | Weekly. | Landfill Manager or Designee | Document in the Site Operating Record |
| Random Waste Inspections | Consistent with Sections 6.2 and 6.3, random inspections will be completed on a daily basis. Record Keeping requirements are listed in Section 6.3. | Daily | Landfill Manager or Designee | Document in the Site Operating Record |
| Dewatering System | Inspect active groundwater dewatering system, riser, pump, and electric system to ensure proper operation. | Weekly (record volume monthly) | Landfill Manager or Designee | Document in the Site Operating Record |

4.24 Visual Screening of Daily Operations

The facility will continue to operate the landfill in a manner that will provide the maximum screening possible within the requirements of the design. Existing vegetation in the buffer zones shall be maintained, where possible, to provide visual screening. As shown on Drawing I/IIA.12 (Access Control Plan) in Appendix I/IIA of Parts I/II, existing trees and vegetation provide a visual buffer for the site.

During below ground disposal operations, the landfill will not require visual screening of deposited waste. As the landfill is developed above ground, the landfill will construct final cover as the landfill reaches final contours. As the site is developed, the visual effect of the disposal activities will be minimized through the use of screening provided by fencing, planted vegetation, and natural vegetation located within the buffer zone.

Significant buffers are provided in the areas surrounding the landfill. To the south of the site is the DFW Recycling and Disposal Facility (TCEQ Permit No. MSW-946). A heavily vegetated floodplain area with an abundant number of trees is located to the west of the facility. To the north is a 1,000-foot buffer zone between the limits of waste and the permit boundary. A mostly industrial area is located north of the permit boundary. To the east of the facility is a recreational area (i.e., golf course) which provides a buffer between the site and the majority of residences. In addition, a 100-foot-wide landscape bench is included on the eastern side slope. Details of the landscape area are provided in Part III, Appendix IIIA-A, Drawings A.13 and A.14. The landscape bench will provide additional screening along the eastern slope of the landfill.

4.25 Waste Relocation Plan

4.25.1 Introduction

Existing waste within the 5.1-acre inactive MSW unit located in the northeast portion of the site and the historical waste fill area located north of the current fill area will be relocated to the main 198.3-acre disposal area within the Camelot Landfill. The general sequence of development of the landfill is shown on Parts I/II, Appendix I/IIA, Drawing I/IIA.4 through Drawing I/IIA.7. As shown on Drawing I/IIA.5, the waste relocation will occur for the historic waste fill area prior to the development of the northern detention pond and waste in the 5.1-acre inactive waste unit will be relocated prior to the development of Cell 12. An excavator and dump truck will be used to excavate the waste from the two waste relocation areas. The excavated waste will be transported to the MSW working face for disposal. The following sections detail the waste removal procedures, waste inspection procedures, odor control, and notification and reporting requirements.

4.25.2 Waste Removal Procedures

The active waste removal area will be subject to the same requirements as the landfill's working face area. For the purpose of this section (Section 4.25), the active waste removal area is defined as the area that waste will be removed from the 5.1-acre inactive MSW unit or the historical waste fill area on a daily basis. The active waste removal area will be that area where existing waste is exposed due to excavation activities. The maximum size of the active waste removal area will be 1 acre. The active waste removal area will be covered with daily cover (soil or an approved ADC), consistent with the requirements listed in Section 4.18.2 of Part IV – Site Operating Plan. Additional ADC materials will be utilized, as necessary, to control dust.

The existing cover soils will remain in-place until the waste removal area is moved to a new location. It is anticipated that waste removal activities will occur in periodic events. If no waste is to be relocated for a period of 30 days or more; then, intermediate cover will be applied to the waste removal area, consistent with the requirements listed in Part IV – Section 4.18.3. In addition, a contaminated water containment berm and stormwater diversion berm will be used in the active waste removal area, consistent with the Stormwater Management Plan included in Appendix III C.

In summary, the Camelot Landfill will manage surface waters in the waste removal area of the landfill to minimize the amount of stormwater that will come in contact with waste. Contaminated water will be managed consistent with §330.56(o). Surface water will be controlled through the use of diversion berms, stormwater diversion ditches, and sumps. To promote runoff and prevent ponding, the operational cover will be graded and maintained. Contaminated water will be contained by the containment berm at the active waste removal area, as shown in Appendix III C, Appendix III C-C. At no time will contaminated water be allowed to discharge into waters of the United States. Storage and disposal of contaminated water is discussed in Appendix III C.

4.25.3 Waste Inspection Procedures

Equipment Operators or other field personnel will be present at the active waste removal area to monitor waste removal activities. These personnel will be familiar with the rules and regulations governing the various types of waste that can or cannot be relocated to the working face and will be trained to identify prohibited wastes before being assigned to this task (refer to Part IV – Section 2.2 for training procedures). The personnel will also be trained and have a basic understanding of both industrial and hazardous waste and their transportation and disposal requirements. The spotters and equipment operators have the authority and responsibility to segregate prohibited wastes. In the event that prohibited waste is found, the Spotter or Equipment Operator will notify the Landfill Manager and waste removal activities will be discontinued. At this point the Landfill Manager or other site personnel will notify the TCEQ within 24-hours and seek guidance on how to properly dispose of the waste.

4.25.4 Odor Control

The following procedures will be implemented if odors become an issue during waste relocation activities.

- Minimize the size of the active waste removal area.
- Increase the thickness of daily cover applied to the active waste removal area.
- Prevent ponded water, consistent with the procedures outlined in Part IV – SOP.
- Evaluate the possible use of misters and chemical deodorizers when other controls do not reduce or eliminate significant odors. In the event that it is determined that misters or deodorizers will help minimize odors, a permit modification or other applicable authorization request will be submitted to TCEQ for approval.

The Landfill Manager or his designee will evaluate the waste removal area on a daily basis to assess the performance of the odor control measures implemented.

4.25.5 Notification and Reporting Requirements

Thirty days prior to the initiation of each waste relocation event, the site will notify the TCEQ Regional Office. In addition, the site will also notify the TCEQ Regional Office after each waste relocation event has been completed. Documentation of all waste relocation activities will be maintained in the Site Operating Record.

During waste relocation activities, the quantity of relocated waste will be documented on a waste relocation log on a daily basis. This log will be maintained in the Site Operating Record.

4.25.6 Final Grading

Historic Waste Fill Area

Compacted soil backfill will be placed, if needed, to achieve the final detention pond grades shown on the drawings in Appendix III F. Soil used as backfill will be free of debris and foreign objects.

5.1-Acre Inactive Unit

After waste excavation activities are complete (e.g., all waste material and visually stained soil removed), compacted soil backfill will be placed to the grades shown on Drawing A.1 in Appendix III A-A. The area will be graded to create a uniform slope that will prevent ponding of stormwater. Soil used as backfill will be free of debris and foreign objects.

5 SEQUENCE OF DEVELOPMENT

The sequence of development of the Camelot Landfill is provided in Parts I/II, Appendix I/IIA, Drawing I/IIA.2 – Sector Development Sequence. The site will be developed according to the Sector Development Plans shown on Drawings I/IIA.4 through I/IIA.8 in Appendix I/IIA of Parts I/II.

6 DETECTION AND PREVENTION OF DISPOSAL OF PROHIBITED WASTES

6.1 General

In accordance with EPA's RCRA Subtitle D criteria, 40 CFR 258.20, and 30 TAC §330.127(5), the Camelot Landfill will implement a program to exclude prohibited wastes as defined in 30 TAC §330.15(e), including but not limited to, regulated hazardous and PCB waste as defined in 40 CFR 261 and 30 TAC §330.3. Consistent with applicable portions of these regulations (and other TCEQ applicable regulations, such as §330.171 and §335 Subchapter R) only non-regulated material that contains PCBs, which have a PCB content of 50 ppm or less, can be accepted for disposal at the Camelot Landfill with prior approval from the TCEQ. The program will include training site personnel to know in detail what the prohibited wastes are, how to perform a random inspection, how to control site access, what training will be provided for site personnel, and what procedures are required in the event of identification of prohibited wastes. The detection and exclusion program at the Camelot Landfill will include at least the following steps:

- Inform customers of the types of wastes that are excluded from disposal
- Inform vehicle drivers and transfer station operators of the wastes that are to be excluded
- Random inspections of incoming loads
- Records of all inspections
- Training for facility personnel to recognize prohibited waste
- Notification to TCEQ of any incident involving the disposal of regulated hazardous or PCB waste at the landfill
- Provisions for remediation of the incident

6.2 Load Inspection Procedure

As noted in Section 4.2, Scale Operators, Equipment Operators, Spotters, and Laborers will monitor the incoming waste. Should any indication of prohibited waste be detected, the Landfill Manager, or his designee, will conduct a thorough evaluation of the load. The driver will be directed to a load inspection area located at or near the working face

where the load will be discharged from the vehicle. The inspector will break up the waste pile and inspect the material for any prohibited waste.

Prohibited waste that is not discovered until after it is unloaded shall be promptly returned to the vehicle that delivered the waste. That party shall be responsible for the proper disposal of this rejected waste at a permitted facility. In the event the unauthorized waste is not discovered until after the vehicle that delivered it is gone, the waste shall be segregated and controlled to the extent possible (e.g., the unauthorized waste will be covered with soil and/or ADC and no additional filling will occur over the unauthorized waste until it is properly disposed of). Survey stakes or similar markings will be placed around the perimeter of the area that contains the unauthorized waste so that it is clear where the unauthorized waste is located. Alternately, the unauthorized waste may be segregated by placing the unauthorized waste in a roll-off or similar container.

An effort shall first be made to identify the entity that deposited the prohibited waste and have them return to the site and properly dispose of the waste. In the event that identification is not possible, Camelot Landfill will notify the TCEQ and seek guidance on how properly to dispose of the waste within 24 hours.

In addition to inspecting suspicious loads, random inspections will be undertaken. Random inspections will be supervised by the Landfill Manager or designee. Staff conducting random inspections will receive training on the random inspection procedures in this plan and instruction on the recognition of regulated hazardous waste and PCB waste. Random inspections will be conducted at or near the working face to facilitate disposal of authorized waste after random inspections have been completed.

Except as provided herein, all waste loads will be subject to random inspections. At least one vehicle per day, that the site is in operation, shall be scheduled for a random inspection. The Landfill Manager shall determine the procedure for the random selection of the waste hauling vehicle that will be selected. The following criteria shall be utilized in the development of the selection procedure:

- The random selection procedure shall objectively select a waste hauling vehicle each day that the facility accepts waste.
- The random selection procedure shall ensure that waste hauling vehicles are selected at varying times during the appropriate days of each week.
- The random selection procedure shall apply to all non-excluded waste hauling vehicles that transport waste to the site.

If inclement weather or other conditions precludes the random inspection from being performed on the scheduled day, the delayed random inspection shall be performed at the same scheduled time on the next day that the site is operating. Thus, if a scheduled random inspection is delayed, there will be two random inspections performed the next operating day.

The loads which are excluded from random inspections are listed below:

- Waste from transfer stations (meeting the criteria stated below)
- Asbestos wastes
- Loads for which other steps have been taken to ensure that regulated hazardous wastes or PCB wastes are excluded

The Camelot Landfill may accept waste from transfer stations. Wastes received from transfer stations will not be screened at the site if the transfer station is permitted or registered by the TCEQ and random screening procedures are conducted at the transfer station. Copies of the transfer station TCEQ permit or registration number, and a letter certifying that random waste screening is conducted at the transfer station will be included in the documentation for transfer station loads excluded from random inspection procedures. Transfer station loads not meeting these criteria and vehicles containing special waste will be subject to random inspections.

Inspections at or near the working face will be conducted away from: 1) the immediate working face, 2) turn around areas and 3) normal travel routes. Spreading of the waste for inspection may be accomplished by using mechanized equipment or hand implements. Inspectors shall observe the waste materials as the waste discharged from the truck is spread and separated. The waste shall be sufficiently spread to determine its character and composition. Inspectors shall wear appropriate personal protective equipment during the inspection which includes, at a minimum, the following:

1. Gloves;
2. Work boots;
3. Clothing which minimizes contact of waste;
4. High visibility clothing; and
5. Hardhat.

Additional personal protective equipment will be used if regulated hazardous waste or PCB waste is identified. In the event that regulated hazardous waste or PCB waste is identified during an inspection, waste inspection activities shall cease until inspection personnel obtain sufficient protective equipment, if needed. This additional equipment may include:

1. Respirator with appropriate cartridge filters (i.e., organic vapor or particulate);
2. Tyvek suit or coveralls;
3. Eye protection.

6.3 Recordkeeping

The Landfill Manager is required to maintain and include in the Site Operating Record the following:

- Load inspection reports
- Reports on quantities and disposal of authorized waste
- Records of regulated hazardous or PCB waste notifications sent to TCEQ
- Personnel training records

Load inspection reports, recorded on standardized forms, will be completed for each inspected load. The reports should include at a minimum, the date and time of inspection, the name of the hauling company and driver, the size of the load, indicators of prohibited waste, and results of the inspection. A copy of an example load inspection report form is included in Appendix IVA of this SOP. The actual form that will be used at the time of inspection may vary from the sample provided in Appendix IVA, but must contain at least the information specified in this paragraph.

The TCEQ will be notified within 24 hours whenever regulated hazardous or PCB waste is detected. Records of the notification will be kept in the site operating record and will include the date and time of notification, the individual contacted, and the information reported.

6.4 Training

Individuals responsible for inspecting incoming loads shall receive at least annual training in the provisions and procedures of this section (refer to Section 2.2 for additional information). Training shall be conducted by site employees or contract personnel experienced in waste inspection and detection requirements. Training shall be scheduled and attendance will be recorded. The training outline shall incorporate the requirements and procedures of this section. Training shall include state and federal laws and regulations for managing prohibited waste. The training will at a minimum include the following topics:

1. Safety requirements during inspection procedures
2. Wastes prohibited from disposal at the site
3. Methods of identifying prohibited wastes
4. Various labels used for waste identification
5. Safety procedures if prohibited wastes are encountered
6. Procedures for managing prohibited wastes encountered

Documentation of training will be placed in the Site Operating Record.

6.5 Managing Prohibited Wastes

Unknown wastes undergoing analysis by Camelot Landfill personnel must be properly segregated and protected against the elements, secured against unauthorized removal, and isolated from other waste and activities.

Known prohibited wastes detected during the inspection will be returned immediately to the transporter or generator. If the transporter or generator is not available, the waste will be safely stored until provisions for removal can be arranged.

Prohibited waste that is not discovered until after it is unloaded shall be promptly returned to the vehicle that delivered the waste. That party shall be responsible for the proper disposal of this rejected waste at a permitted facility. In the event the unauthorized waste is not discovered until after the vehicle that delivered it is gone, the waste shall be segregated and controlled to the extent possible. The unauthorized waste will be covered with soil and no additional filling will occur over that area until the unauthorized waste is removed and properly disposed of. Survey stakes or similar markings will be placed around the perimeter of the area that contains the unauthorized waste so that it is clear where the unauthorized waste is located. An effort shall first be made to identify the entity that deposited the prohibited waste and have them return to the site and properly dispose of the waste. In the event that identification is not possible, Camelot Landfill will notify the TCEQ and seek guidance on how properly to dispose of the waste within 24 hours. A record of each unauthorized material removal event shall be maintained in the Site Operating Record.

If regulated hazardous waste or PCB wastes are detected, the TCEQ will be notified. As soon as is practical, the transporter will be required to remove the regulated hazardous waste or PCB waste from the site. Prior to removal, the transporter must obtain an EPA identification number, package the waste in accordance with TxDOT regulations, and properly manifest the waste designating a permitted facility to treat, store, or dispose of the hazardous waste.

6.6 Managing Mishandled or Undeclared Special Waste

If a mishandled or undeclared special waste is not discovered until after it is unloaded, site personnel will notify the Landfill Manager or his designee. The special waste will be segregated and controlled. The mishandled or undeclared special waste will be covered with soil and/or ADC and no additional filling will occur over that area until the special waste is removed and properly disposed of. Survey stakes or similar markings will be placed around the perimeter of the area that contains the special waste so that it is clear where the special waste is located. The Landfill Manager or his designee or his designee will then develop a plan to properly dispose of the mishandled or undeclared special

waste material consistent with the approved special waste handling procedures outlined in Section 4.20. A record of unauthorized material removal will be maintained in the Site Operating Record.

7 FIRE PROTECTION PLAN

The purpose of this section is to set forth the Fire Protection Plan for the site. This plan addresses each operational activity that stores, processes, or disposes of combustible materials. These areas at the Camelot Landfill include:

- Each Unloading Area (Working Face, RACM Unloading Area, Citizen Convenience Center, and Wood Waste Processing Area). Refer to Sections 7.7, 7.8, and 7.9 for fire fighting information regarding these areas.
- Vehicles and Heavy Equipment used at the site. Refer to Section 7.5 for fire fighting information for vehicles and heavy equipment.
- On-site Structures (scale house and maintenance building). Refer to Section 7.6 for fire fighting information regarding on-site structures.

In addition to the above, the following subsections present information regarding fire protection training, fire protection standards, accidental fires, fire prevention procedures, and contacting the fire department and TCEQ.

7.1 Fire Protection Training

Within thirty days of initial employment and thereafter at least annually, all employees, except personnel with administrative duties only, will receive the following fire training and instruction.

1. Detailed review and discussion of the Fire Protection Plan.
2. Training on fire prevention and hazard awareness.
3. Specific instruction on operation, use and limitation of the portable fire extinguishers and other fire fighting equipment (e.g., water cannon and water truck).
4. Instruction on the properties of methane gas and proper safety procedures.
5. Facility evacuation procedures.
6. Fire fighting techniques.
7. Emergency response.
8. First aid.

Personnel with administrative duties only will receive annual fire protection training on facility evacuation procedures and fire prevention as designated by the Landfill Manager or his designee. Each training session for both operating and administrative personnel will be documented with a form identifying the type of training, topics covered, trainer, and attendees. Training records will be retained in the site operating record.

7.2 Fire Protection Standards

7.2.1 Posted Information

The following fire protection information will be posted at the site:

1. Emergency contact phone number(s) for site personnel at the main entrance to the site.
2. "No Smoking" signs posted at the entrance.

7.2.2 Fire Safety Rules

The following fire safety rules may be posted at the scale house.

1. Do not attempt to fight fire alone.
2. Be familiar with the use and limitations of fire-fighting equipment.
3. Alert other facility personnel in the area.
4. Assess extent of fire and likelihood that the fire will spread.
5. Contact the local fire department at 911, as necessary.
6. Attempt to contain or extinguish the fire until the fire department arrives if the fire can be safely fought with onsite fire-fighting equipment.

7.2.3 Burning Waste Loads (Hot Loads)

Steps will be taken to identify incoming "hot loads" prior to their being unloaded for disposal at the working face. The Scale Operators, Equipment Operators, Spotters, and Laborers must be alert for signs of hot loads, such as smoke, steam, or heat being released from incoming waste loads.

Fire-fighting methods include smothering with soil, separating burning material from other waste, or spraying with water from the water truck. A small fire may be controlled with a hand-held extinguisher.

In the event of a fire within a vehicle or piece of equipment, the vehicle will be brought to a safe stop away from any fuel storage area or exposed waste. The vehicle or equipment will be driven away from the active area(s) and the load ejected in the hot load area, which is any space, preferably at least 50 feet away from a road, with either no waste

deposited or waste with at least six inches of soil cover. A water truck, bulldozer, or other equipment will be used to extinguish the burning waste load. The waste will be covered with an adequate amount of soil to ensure it is extinguished. The load will be inspected by the Landfill Manager, or his designee, before disposal. During inspection, if the soil is removed, which would allow oxygen to contact the waste, the load will be observed for hot spots or flare-ups. No smoldering or smoking waste will be placed in the working face area for permanent burial until all hot spots or flare-ups have been extinguished.

If it is not possible to move a burning vehicle away from fuel storage or exposed waste, the local fire department shall be called at 911, as necessary. While awaiting the arrival of the local fire department, all reasonable measures should be employed to extinguish the fire and prevent it from spreading beyond the vehicle.

7.3 Accidental Fires

Open burning of waste at the site is not permissible. All fires will be extinguished using the protocols stated in this section. Proper compaction and earth cover will be used to minimize the potential for accidental fires.

7.4 Preventive Procedures

Fuel spills will be controlled immediately. Soil contaminated with spilled fuel will be excavated and, if authorized, disposed of at the active face. Contaminated soils may be excavated using a shovel for small areas or with heavy equipment as appropriate. Onsite brush and vegetation will be controlled through mowing at least annually to reduce the possibility of brush fires from spreading to the landfill or off-site.

The compaction of the waste as it is disposed, and the subsequent covering with daily soil cover or ADC, will reduce the potential for fires by reducing voids within the waste and the amount of oxygen available for combustion. The daily cover or ADC serves as a physical, non-combustible barrier to a fire.

In addition, equipment that is used at the working face may be routinely cleaned through the use of high pressure water or steam cleaners. The high pressure water or steam cleaning will remove combustible waste and caked material which can cause equipment overheating and increase fire potential. The amount of water used to clean the equipment will be minimized.

Each piece of heavy equipment at the site listed in Table 3.1 will carry a portable fire extinguisher. Fire extinguishers will be inspected and certified at least annually. Once any extinguisher has been used, it will be refilled or replaced as soon as possible. The piece of equipment shall not be returned to normal service without a fire extinguisher installed.

7.5 Vehicle or Equipment Fire

If equipment or other site vehicles experience a fire, the operator will attempt to bring the vehicle or equipment to a safe stop, away from fuel supplies, uncovered solid waste, and other vehicles. The operator will attempt to shut off the engine and engage the brake. Lowering of any implements should be attempted as a means to prevent subsequent movement of the vehicle.

7.6 Structure Fire

The local fire department will be called at 911 for all structure fires. No site personnel will enter a structure on fire. Fire extinguishers will be placed in all of the onsite structures (e.g., scale house, maintenance building, and office building). The fire extinguishers will be checked and certified annually. Once an extinguisher is used, it is to be replaced as soon as possible.

7.7 Working Face(s) Fire Protection Plan

7.7.1 Working Face Fire Protection Requirements (§330.115)

§330.129 sets forth the following two methods for fire protection:

- Maintain a source of earthen material large enough to cover the working face with 6 inches of earth material within a 1-hour period, or
- An alternate method that is approved by the Executive Director of the TCEQ.

The plan set forth in this section provides an alternate method to the prescriptive fire protection plan included in the first bullet listed above. This plan utilizes both water and earthen material (as well as fire extinguishers for small fires) to provide fire protection for each working face. This alternate plan provides a more comprehensive fire protection plan than the prescriptive plan. By keeping a water source near the working face, the site will be able to fight and control fires more effectively than just through the use of covering working face fires with soil. For example, fires can be controlled much more quickly with the application of water as soon as a fire is detected rather than having to move equipment to cover the burning area with soil.

7.7.2 Working Face Fire Fighting Plan

When a fire is detected within material at the working face, the spotter (or Equipment Operator) will first redirect incoming loads away from the affected area. Working face fires will be extinguished by one of the following techniques.

- If the area of burning waste is small (e.g., an area of 10 feet by 10 feet or less), and is a surface fire, it will be extinguished using a fire extinguisher located on the

equipment at the working face. Additional measures will be used, if necessary, to fully extinguish the fire. After the fire is extinguished, the affected portion of the working face will remain closed while the area is inspected to verify the fire is completely extinguished. Inspection of the fire area will be conducted by the Landfill Manager or his designee.

- The burning waste material will be removed (i.e., “cut out” of the working face by a dozer or similar equipment) from the working face to an area where it can be covered with 6 inches of soil. The water truck may also be used to extinguish the burning waste. The working face area in which the burning waste was removed will be covered with 6-inches of soil. The affected portion of the working face will remain closed while the area is inspected to verify the fire is completely extinguished. Water that is used to fight the fire will be contained by the contaminated water containment berm. Contaminated water will be managed as specified in the Leachate and Contaminated Water Plan. This option is applicable to an approximate burning waste area of 30 feet by 30 feet.
- The burning waste material within the working face will be sprayed with water from one of the water trucks (or tanks) stationed near the working face. The working face area which contained the burning waste will be covered with 6 inches of soil to smother the fire. Upon extinguishing a fire at the working face through smothering with soil, that portion of the working face will remain closed while the area is inspected to verify the fire is completely extinguished. Inspection of the fire area will be conducted by the Landfill Manager or his designee. Inspection of the fire area will be conducted by the Landfill Manager or his designee. Water that is used to fight the fire will be contained by the contaminated water containment berm. Contaminated water will be managed as specified in the Leachate and Contaminated Water Plan. This option is applicable to an approximate burning waste area of 50 feet by 50 feet.
- The burning waste material within the working face will be sprayed with water from one of the water trucks (or tanks) stationed near the working face. Then the burned (or burning) waste material will be removed from the working face to an area where it can be covered with 6 inches of soil. The working face area in which the burning waste was removed will be covered with 6-inches of soil. The affected portion of the working face will remain closed while the area is inspected to verify the fire is completely extinguished. Inspection of the fire area will be conducted by the Landfill Manager or his designee. Contaminated water will be managed as specified in the Leachate and Contaminated Water Plan. This option is applicable to the entire working face.

In each case listed above, after the Landfill Manager or his designee confirms that the fire has been extinguished, waste filling operations in that area may resume. In the extent that the fire cannot be controlled using the methods above, the local fire department will be called at 911 (refer to Section 7.11 for additional information regarding contacting the fire department).

7.7.3 Water Trucks or Storage Tank Requirements

As specified below, a water source will be maintained near each working face (either a water truck(s) or storage tank(s)). The water truck(s) or tank(s) will be equipped with a water cannon and positioned to assist with the fighting of any potential working face fire.

| Maximum Working Face Size (width by length) | No. of Water Trucks or Tanks¹ (minimum capacity of 2,000 gallons) |
|--|---|
| 150 feet by 175 feet (or 26,250 sf) | 1 (or 2,000 gallons) |
| 250 feet by 325 feet (or 81,250 sf) | 1 (or 2,000 gallons) |
| 375 feet by 450 feet (or 168,750 sf) | 2 (or 4,000 gallons) |
| 525 feet by 600 feet (or 315,000 sf) | 3 (or 6,000 gallons) |

¹ The tank or truck size will be based on the required volume. For example, a water truck that has a 4,000-gallon tank is acceptable for a working face size of 375 by 450 feet.

The on-site stormwater detention ponds will be used as a source of water for fire control. In addition, the water level in the tank(s) will be verified once per day to ensure that each tank(s) contains at least 2,000 gallons of water. Also, during periods of freezing temperatures measures will be taken to ensure that the tank(s) remain operational.

As noted in Section 7.7.2, the water trucks or tanks will be used to both keep a fire from spreading and also to extinguish fires. The additional water trucks used for site operations (refer to Table 3.1) will also be available to assist with fire fighting activities. Each water truck or portable tank will be refilled, as needed, to provide a constant source of water at the working face for fire fighting purposes.

7.7.4 Soil Stockpile Requirements

A soil stockpile will be maintained within 1,000 feet of each working face. The stockpile will be used to (1) smother burning waste material at the working face or (2) placed over burning waste material that has been cut out of the working face. The stockpile will be sized to cover 25 percent of the size of each working face. In addition, enough earthen material (i.e., soil stockpiles and soil within borrow areas) will be maintained on-site to cover the entire working face within 24 hours. The earthen material requirements are listed in the following table.

| Size of Working Face | Earthen Material Volume Requirements | | |
|-------------------------------------|--|--|--|
| Area of Working Face in Square Feet | Volume of Earthen Material Required to Cover the Working Face Area with 6 inches of Soil | Volume of Earthen Material Required to Cover the Working Face Area with 6 inches of Soil | Volume of Earthen Material Required to be Maintained Within 1,000 feet of the Working Face |
| 26,250 ft ² | 13,125 ft ³ * | 486 yd ³ | 122 yd ³ |
| 81,250 ft ² | 40,625 ft ³ * | 1,505 yd ³ | 377 yd ³ |
| 168,750 ft ² | 84,375 ft ³ * | 3,125 yd ³ | 781 yd ³ |
| 315,000 ft ² | 157,500 ft ³ * | 5,833 yd ³ | 1,458 yd ³ |

* 26,250 ft² x 0.5 ft (0.5 foot thickness is obtained by using a 6-inch thickness of cover for a 1-day period over the working face).

Along with the list of equipment, calculations that show how the specified equipment can cover 25 percent or 100 percent of the working face in one-hour will also be maintained in the Site Operating Record. The calculations will consider the following.

- Capacities of loading and unloading equipment
- Transportation route to the stockpile and working face
- Time needed to spread available soil on the working face (note that the top 6 inches of areas adjacent to the working face that have 12 inches of intermediate cover may be used as a soil source).

An example calculation is listed below.

Largest stockpile to be located within 1,000 feet for 100 percent coverage of 0 to 1,500 tons/day working face (refer to the table in Section 7.7.4).

$$\text{Volume of Cover} = V_c = 486 \text{ cy}$$

Assume:

$$\text{Truck Capacity} = TR_c = 20 \text{ cy}$$

$$\text{Number of Trucks} = N_{TR} = 3$$

$$\text{Average Truck Velocity} = v_A = 12 \text{ mph} = 1,056 \text{ fpm}$$

$$\text{Time to Cover Working Face} = t = 60 \text{ min}$$

Total Number of Loads (L):

$$L = V_c / TR_c = 486 \text{ cy} / 20 \text{ cy} = 25 \text{ loads}$$

Number of Feet Traveled for Truck (D_{TR}) in t:

$$D_{TR} = v_A \times t = 1,056 \text{ fpm} \times 60 \text{ min} = 63,360 \text{ ft}$$

Distance of Stockpile from Working Face (D_s):

$$D_s = (D_{TR} / (L / N_{TR})) = 63,360 \text{ ft} / (25 \text{ loads}/3 \text{ trucks}) = 2,534 \text{ ft (round trip)}$$
$$D_s = 2,534 \text{ ft} / 2 = 1,267 \text{ ft}$$

Therefore, in this case a 486 cy stockpile could be maintained within 1,267 feet of the working face. However, a minimum distance of 1,000 feet is specified.

Largest stockpile to be located within 1,000 feet for 25% coverage (refer to the table in Section 7.7.4).

$$\text{Volume of Cover} = V_c = 1,458 \text{ cy}$$

Assume:

$$\text{Truck Capacity} = TR_c = 20 \text{ cy}$$
$$\text{Number of Trucks} = N_{TR} = 3$$
$$\text{Average Truck Velocity} = v_A = 12 \text{ mph} = 1,056 \text{ fpm}$$
$$\text{Time to Cover Working Face} = t = 60 \text{ min}$$

Total Number of Loads (L):

$$L = V_c / TR_c = 1,458 \text{ cy} / 20 \text{ cy} = 73 \text{ loads}$$

Number of Feet Traveled for Truck (D_{TR}) in t :

$$D_{TR} = v_A \times t = 1,056 \text{ fpm} \times 60 \text{ min} = 63,360 \text{ ft}$$

Distance of Stockpile from Working Face (D_s):

$$D_s = (D_{TR} / (L / N_{TR})) = 63,360 \text{ ft} / (73 \text{ loads}/3 \text{ trucks}) = 2,604 \text{ ft (round trip)}$$
$$D_s = 2,604 \text{ ft} / 2 = 1,302 \text{ ft}$$

Therefore, in this case a 1,458 cy stockpile could be maintained within 1,302 feet of the working face. However, a minimum distance of 1,000 feet is specified.

A water source near the working face at all times and a soil stockpile within 1,000 feet will facilitate a quick response to fires at the working face. Any working face fire will be controlled quickly so that it will not spread. Because of the quick response provided by this plan, working face fires will encompass no more than 10 percent to 15 percent of the working face. Therefore, by maintaining a soil stockpile within 1,000 feet of the working face, which is large enough to cover 25 percent of the working face, enough soil will be available to cover the area with burning waste, including a significant contingency.

Old stockpiles, which have been replaced, may be used as daily cover or intermediate cover. At least monthly, the Landfill Manager, or his designee, will evaluate the maximum anticipated working face area for the current conditions (refer to Section 4.2 for the specified range of working face areas) and will evaluate the available soil

stockpile volume and location for sufficiency. This evaluation (and the evaluation of needed equipment) will be maintained in the Site Operating Record. The maximum anticipated size of the working face shall be calculated and a minimum volume of earthen material (i.e., soil stockpiles or soil within borrow areas) shall be determined to cover the maximum anticipated working area for each working face, with at least a 1-day application of 6 inches of daily cover. The volume of earthen materials available shall be estimated by determining the cubic yards of material hauled or placed during the creation of the stockpile or measuring the current stockpile or borrow area dimensions and applying appropriate geometric volume formulas. Each evaluation will be documented in the Site Operating Record. The minimum equipment listed in Table 3.1 will provide for sufficient equipment to transport and spread soil from the stockpile or borrow area to the working face.

7.8 RACM Area Fire

A soil stockpile of at least 50 cubic yards will be maintained within 100 feet of the RACM disposal area. This stockpile will cover the 50 foot by 50 foot maximum disposal area size with 6 inches of soil in the event of a fire in this area.

7.9 Convenience Center Fire

If a fire occurs in the Convenience Center, site personnel will first redirect incoming loads away from the affected area. Fire-fighting methods include the use of fire extinguishers and/or smothering with soil, or spraying with water from the water truck. Upon extinguishing the fire, the portion of the Convenience Center area affected by the fire will remain closed while the area is inspected to verify the fire is completely extinguished. Inspection of the fire area will be conducted by the Landfill Manager or his designee. The Convenience Center will be equipped with a minimum of two 10A rated fire extinguishers, or equivalent. The fire extinguishers shall be located in an area that is clearly visible, and easily accessible from the Convenience Center unloading area.

7.10 Wood Waste Processing Area Fire

If a fire occurs in the wood waste processing area, field personnel will first redirect incoming loads away from the affected area. Fire-fighting methods include separating burning material from other waste or spraying with water from the water truck. A small fire may be controlled with a hand-held extinguisher. Upon extinguishing the fire, the portion of the wood waste processing area affected by the fire will remain closed while the area is inspected to verify the fire is completely extinguished. Inspection of the fire area will be conducted by the Landfill Manager or his designee.

7.11 Contacting Fire Department and TCEQ

In the event of a fire at the facility, the Landfill Manager, or his designee, if needed will call 911, or the local fire department, and report the fire. If fire fighting assistance is needed from the local fire department, the Landfill Manager will also notify Scale Operators, who will direct the fire department personnel to the scene of the fire.

If a fire occurs that is not extinguished within 10-minutes of detection, the TCEQ's Regional Office will be contacted no later than four hours by telephone, and in writing within 14 days with a description of the fire and the resulting response.

During each calendar year, the Landfill Manager or his designee will invite the local fire department to tour the facility so that they may be informed about site operations and the facility's layout (e.g., familiarization with the location of access roads and water sources).

In addition, this fire protection plan will be reviewed by the Landfill Manager or his designee and the landfill management team after the occurrence of a significant fire to determine if modifications to the plan are warranted.

8 SAFETY

8.1 General Site Safety

Properly trained personnel using well-maintained equipment to perform standard work procedures in accordance with OSHA guidelines will promote site safety. Limiting access to the active areas to only authorized personnel will enhance site safety. In the event of an emergency, planned emergency response procedures will be followed.

All site personnel will receive appropriate site-specific training in at least the following areas:

- Safe work practices
- Equipment and vehicle safety
- Site access controls
- Hazardous material communication
- Fire safety
- Emergency response
- Employee rights and responsibilities

A record of training will be maintained to confirm that each employee has received the proper training (refer to Section 2.2 for additional information).

Well-maintained equipment is vital to the safe conduct of daily landfill operations. Therefore, all site equipment will be maintained in proper working order and all safety guards, backup alarms, and engine kill switches will be operational. Equipment Operators will perform an equipment check at the beginning of each workday. Fire extinguishers will be inspected routinely (refer to Section 7 for additional information). Records of all inspections will be maintained as part of the Site Operating Record.

Access to the site will be limited to authorized personnel as described in Section 4.1 of this SOP. Access is controlled by a combination of signs and physical barriers. Site personnel are responsible to be alert for the entrance of unauthorized personnel or the entrance of authorized personnel into prohibited areas.

In the event of an emergency, site personnel will assess the situation, notify the Landfill Manager or designee, and take appropriate actions such as rendering aid, calling for assistance, or closing access to the emergency scene. Emergency numbers will be posted.

These include:

| | |
|----------------|------------------------------|
| Ambulance | <u>911</u> |
| Fire | <u>911 or (972) 219-3580</u> |
| Sheriff/Police | <u>911 or (972) 219-3600</u> |

8.2 Preparedness and Prevention Measures

Preparedness and prevention measures have been developed to minimize both frequency and severity of accidents and emergency situations threatening human health. Preparedness and prevention measures depend largely on the attentiveness and state of readiness of facility personnel. Preparedness and prevention measures have been developed for one general category and two specific areas of the site: the Scale House and the onsite access routes. These preparedness and prevention measures are detailed in the following sections.

8.2.1 General

General preparedness and prevention measures that will be followed at the Camelot Landfill are:

- Access controls will provide for the safety of non-landfill personnel.
- Routine preventive maintenance of equipment will be provided.
- A management representative will perform site inspections as noted in Section 4.23.
- Appropriate personnel safety equipment will be kept onsite and maintained in good repair.
- Adequate turning area for hauling vehicles will be provided.
- Salvaging and scavenging will not be allowed.
- Waste unloading will be restricted to designated areas only.
- Site personnel will be alert for possible hazardous or other unauthorized wastes.
- Nonapproved wastes will be controlled or contained and removed as necessary.

8.2.2 Scale House

Preventive measures that will be implemented at the Scale House include the following:

- Visually screen all incoming wastes for unauthorized wastes.
- Monitor incoming wastes to ensure that all wastes loads are adequately covered, or otherwise secured or contained.
- Visually observe incoming vehicles for evidence of improper operation, faulty equipment, or other conditions that could be hazardous to personnel or other persons on site.
- Maintain access to appropriate emergency equipment and first-aid materials.
- Provide emergency telephone numbers that are conspicuously posted in the scale house, office (if separate from the scale house), and the breakroom.

8.2.3 Landfill Access Road

Preventive measures that will be implemented for the landfill access road include:

- Display speed limit, directional, and other precautionary signs on-site.
- Provide road passable for two-way traffic.
- Maintain roadway free from obstructions.
- Enforce requirements for safe operation of vehicles onsite.

9 RECORDKEEPING REQUIREMENTS

The Landfill Manager will maintain a copy of the permit (including any permit modifications), the approved SDP, the SOP, the Groundwater Sampling and Analysis Plan, the Final Closure Plan, the Postclosure Care Plan, the Landfill Gas Management Plan, the Leachate and Contaminated Water Plan, a copy of all state and federal regulations referred to in this plan, and any other required plans or documents onsite at all times during the active life of the facility. Consistent with §330.125(c), the landfill will maintain the Site Operating Record in an organized format which allows the information to be easily located and retrieved. Additionally, all information contained in the Site Operating Record will be furnished upon request to the Executive Director and will be made available for inspection by the Executive Director. As required by the TCEQ, the Site Operating Record will be maintained at the site and made available to the TCEQ upon request.

The Landfill Manager is responsible for recording and retaining in the Site Operating Record the information listed in Table 9.1.

The Landfill Manager or his designee will retain all information contained within the Site Operating Record and all plans required for the facility for the life of the facility including the postclosure care period. The above listed items will be incorporated into the Site Operating Record within seven working days of the completion of the item/record or receipts of the analytical data.

In addition to the above, the permittee shall provide written notice in the form of a Soils and Liner Evaluation Report (SLER) and/or Geomembrane Liner Evaluation Report (GLER) detailing the final construction and lining of a new disposal cell, as described in Title 30 TAC §330.341. The reports shall be submitted to the TCEQ for review 14 days prior to the placement of any waste in the new cell. If verbal or written response from the TCEQ is not provided by the end of the 14th day following TCEQ receipt of the report(s), placement of solid waste may begin. All SLER and GLER approvals will be maintained in the Site Operating Record.

**Table 9.1
Record Keeping Requirements**

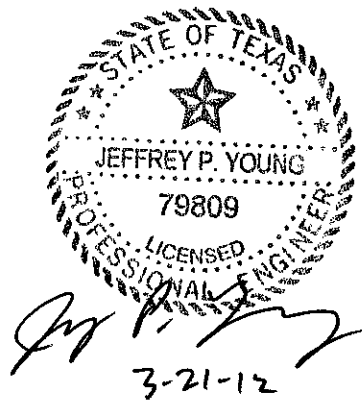
| Item | Rule Citation |
|--|---|
| All location restriction demonstrations | §330.125(b)(1) |
| Inspection logs and records, training procedures, and notification procedures relating to excluding the receipt of prohibited waste | §330.125(b)(2) |
| Inspection records and training procedures relating to fire prevention and site safety | §330.125(c) |
| All inspection documentation noted on Table 4.23 – Site Inspection and Maintenance List | §330.125(b)(12) |
| Fire Occurrence Notices | §330.129 |
| Personnel training records and operator licenses. Training records (including operator licenses) for current employees will be kept for at least three years from the date the employee last worked at the facility. | §330.125(e), §330.125(f), §335.586(d), and §335.586(e) |
| Landfill Gas Management Plan | §330.159 |
| Cover Application Logs (including documentation of soil stockpile and earthen material as noted in Section 4.18) | §330.165(h) |
| Results from gas monitoring events and any remediation plans relating to explosive and other gases | §330.125(b)(3) |
| Unit design documentation for the placement of leachate or gas condensate in the landfill | §330.125(b)(4) |
| Bird Abatement Plan | §330.151 |
| Documentation of Vector Inspections | §330.151 |
| Leachate sump level measurements | §330.125(b)(12) |
| Leachate disposal records | §330.125(b)(12) |
| All inspection logs and reports and all demonstrations, certifications, findings, monitoring, testing, and analytical data relating to groundwater monitoring and corrective action | §330.125(b)(5) |
| Closure plans and monitoring, testing, or analytical data relating to postclosure requirements | §330.125(b)(6) |
| Postclosure care plans and monitoring, testing, or analytical data relating to postclosure requirements | §330.125(b)(6) |
| Cost estimates and financial assurance documentation relating to financial assurance for closure and postclosure care | §330.125(b)(7) |
| Copies of all correspondence and responses relating to the operation of the facility, modifications to the permit, approvals, and other matters pertaining to technical assistance. | §330.125(b)(9) |
| Any and all documents, manifests, scale tickets, generator waste profile sheets, etc., involving special waste (including RACM acceptance records) | §330.125(b)(10) §330.171(c)(3)(B) |
| A record of each unauthorized material removal event | §330.133(b) |
| Annual waste acceptance rate documentation including Quarterly and Annual Solid Waste Summary Reports required by §330.675 | §330.125(h) |
| A record of alternate operations hours | §330.135(d) |
| Access control breach and repair notices | §330.131 |
| Special Waste Operating Plan Compliance Documentation | §330.145(b)(11) |
| Special Waste Contingency Plan Compliance Documentation | §330.145(b)(11) |
| Other documents as specified by the approved permit or by the Executive Director of the TCEQ | §330.125(b)(12) |
| Monthly Marker Inspection Reports | §330.143(a) |
| For any spray-applied alternative daily cover (ADC) material, records of the application rate and total amount of ADC applied to the working face on those days in which ADC is applied. | §330.125(b)(11) |
| The executive director may set alternative schedules for recordkeeping and notification requirements if contaminants migrate off-site as indicated by groundwater sampling, except for notification requirements for any proposed lateral expansion located within a six-mile radius of any airport runway end used by turbojet or piston-type aircraft or notification relating to landowners whose property overlies any part of the plume of contamination. | §330.125(g) |
| Waste relocation activities (including notices to the Regional Office and the quantity of waste relocated). Refer to Part IV, Section 4.25 – Waste Relocation Plan for additional information. | §330.125(b)(12) |

**CAMELOT LANDFILL
CITY OF LEWISVILLE, DENTON COUNTY
TCEQ PERMIT NO. MSW-1312B**

MAJOR PERMIT AMENDMENT APPLICATION

**PART IV – SITE OPERATING PLAN
APPENDIX IVA
EXAMPLE LOAD INSPECTION REPORT**

Prepared for
City of Farmers Branch
March 2012



Prepared by

Weaver Boos Consultants, LLC–Southwest
TBPE Registration No. F-3727
6420 Southwest Blvd., Suite 206
Fort Worth, Texas 76109
817-735-9770

WBC Project No. 1339-351-11-02-6C

This document is intended for permitting purposes only.

LOAD INSPECTION REPORT

| LOAD INSPECTION DESCRIPTION | | | | | |
|--|------------------------------|--|-------------------------|--|-----------------------------|
| Date of Inspection: | | Time of Inspection: | | Ticket Number: | |
| Name of Inspector: | | | | | |
| Name of Hauling Company: | | | | | |
| Driver's Name: | | | | | |
| Vehicle Identification: | | Load Size: | | | |
| SOURCE IDENTIFICATION | | | | | |
| LOW RISK SOURCES | | MEDIUM RISK SOURCES | | HIGH RISK SOURCES | |
| <input type="checkbox"/> Residential | | <input type="checkbox"/> Dry Cleaners | | <input type="checkbox"/> Large Manufacturing | |
| <input type="checkbox"/> Office Buildings | | <input type="checkbox"/> Auto Body Repair | | <input type="checkbox"/> Doctor's Office | |
| <input type="checkbox"/> Schools | | <input type="checkbox"/> Small Manufacturing | | <input type="checkbox"/> Hospital | |
| <input type="checkbox"/> Farms | | <input type="checkbox"/> Nursing Homes | | <input type="checkbox"/> Paint Manufacturers | |
| <input type="checkbox"/> Apartments | | <input type="checkbox"/> Other | | <input type="checkbox"/> Print Shops | |
| <input type="checkbox"/> Restaurants | | | | <input type="checkbox"/> Waste Brokers | |
| <input type="checkbox"/> Department Stores | | | | <input type="checkbox"/> POTW's | |
| <input type="checkbox"/> Other | | | | <input type="checkbox"/> Other | |
| LOAD CONTENTS | | | | | |
| Household Wastes | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Transformers/Capacitors | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Wood, Sawdust | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Labeled Hazardous Waste | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Metal | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Batteries | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Paper, Cardboard | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Oil | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Yard Waste, Brush, Stumps | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Medical | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Containers > 5 gallons | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Radioactive | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Bulk Liquids | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Soil | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Powders, Dusts | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Asphalt, Concrete, Rock | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Roofing Material | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Food Waste | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Tires | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Other | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Does Waste Match the Waste Hauler's Description? | | | | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Unusual Odors? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Unusual Colors? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Heat, Excessive Smoke? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | | | |
| ACTION TAKEN | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Signature of Inspector: | | | Signature of Driver: | | |
| | | | | | |



Date: _____

Time: _____

SPECIAL WASTE INSPECTION SHEET

Initial
 Random
 Suspicious
 Recertification

Disposal Facility: _____ Waste Profile #: _____
 Generator Name: _____
 Name of Waste: _____
 Transporter Name: _____
 Transporter Phone No: _____
 Driver Name: _____
 Vehicle License Plate No. & State / Truck No: _____
 Manifest #: _____ Liquid Solid No. of Units: _____

Physical Screening

Indicate yes or no for each of the following tests. Note any discrepancies. Do the characteristics of the waste match the provided information on the special waste profile?

| Characteristics | Profile | Yes | No | Comments and/or Observations |
|-----------------|---------|--------------------------|--------------------------|------------------------------|
| Color | _____ | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Odor | _____ | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Physical State | _____ | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Free Liquids | _____ | <input type="checkbox"/> | <input type="checkbox"/> | _____ |

If waste fails one or more of the physical screening tests, the waste is deemed unacceptable for disposal and should be rejected.

Waste Accepted

_____ Inspector Signature _____ Date _____

Waste Rejected

Reasons for Rejection

- Extraneous and/or Unauthorized Material
- Free Liquids (if approved solid)
- Suspected Hazardous Waste
- Does Not Match Profile
- Suspected PCB Waste
- Other

Comments

_____ Inspector Signature _____ Date _____

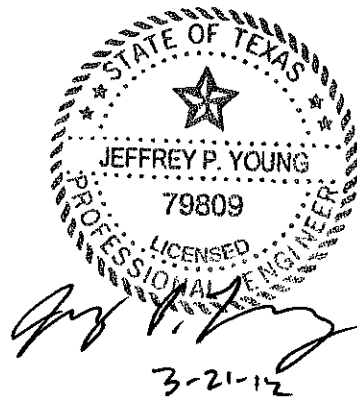
_____ General Manager or Designee _____ Date _____

**CAMELOT LANDFILL
CITY OF LEWISVILLE, DENTON COUNTY
TCEQ PERMIT NO. MSW-1312B**

MAJOR PERMIT AMENDMENT APPLICATION

**PART IV – SITE OPERATING PLAN
APPENDIX IVB
ALTERNATIVE DAILY COVER OPERATING PLAN**

Prepared for
City of Farmers Branch
March 2012



Prepared by

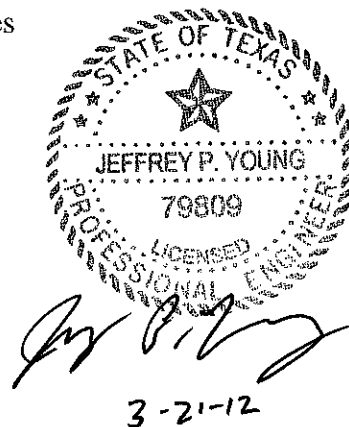
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WBC Project No. 1339-351-11-02-6C

This document is intended for permitting purposes only.

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| | 2.2 Chemical Characteristics | IVB-2 |
| 3 | OPERATIONAL METHODS | IVB-3 |
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1 INTRODUCTION

This Alternate Daily Cover Operating Plan (ADCOP) has been prepared for the Camelot Landfill consistent with §330.165(d). The purpose of this ADCOP is to address the following issues:

- Description and thickness of the Alternative Daily Cover (ADC) material
- Chemical composition of the material and the Material Safety Data Sheets (MSDS) for the ADC (if applicable)
- Operation methods to be utilized at the site when using the ADC
- Effect of the ADC on vectors, fires, odors, and windblown litter

As specified in the Site Operating Plan (SOP), the facility's operating hours are Monday through Friday from 3:00 AM to 7:30 PM, and Saturday from 4:00 AM to 3:00 PM. Consistent with the SOP, 6 inches of compacted earthen material will be applied at least once every 24 hours. ADC may also be used to cover exposed waste in lieu of soil daily cover. However, if the area in which ADC has been used is not filled over with waste within 24 hours, the area will be covered with a minimum of six inches of daily cover soil.

Under TCEQ Permit No. MSW-1312A, the site was approved to use BioCover, a spray-on type ADC on a permanent basis. The BioCover ADC was approved by the TCEQ on October 26, 2001.

2 MATERIAL CHARACTERISTICS

2.1 Description of ADC Material

The following ADC material, or its equivalent, may be used at the site. If an equivalent material is used, a demonstration documenting how the ADC material is equivalent to the materials listed in this plan will be placed in the Site Operating Record.

BioCover is produced by Profile Products LLC. BioCover consists of wood fiber, corrugated fiber, and hydro-colloid based tackifier. BioCover is mixed with water and a guar gum tackifier and applied with a hydromulch machine. BioCover mixtures will form a crust-like barrier after application. Additional information on BioCover is included in Appendix IVB-1.

2.2 Chemical Characteristics

Chemical characteristics of BioCover are included in Appendix IVB-1. BioCover is not reactive, ignitable, or corrosive under the expected conditions (e.g., high temperature, intense sunlight).

3 OPERATIONAL METHODS

This section discusses the operational procedures that will be used to employ the approved ADC material. Site personnel will verify that the waste fill area has been covered with the minimum required thickness at the completion of each working day.

3.1 Spray-Type ADCs

Spray-type ADCs will be applied to the working face using a FINN T90 (900-gallon capacity) or similar equipment following the procedure listed below.

1. The operator will become familiar with this ADCOP and BioCover. This ADCOP includes information on BioCover in Appendix IVB-1 as well as the MSDS for this product; however, manufacturer's instructions included with the ADC material itself should be followed as well.
2. The operator will not operate the hydroseed machine until they have been trained by qualified personnel. Site personnel that are responsible for the application of ADC materials will receive training in the operation of the equipment, mixing procedures, and application methods.
3. The operator will mix the spray ADC according to the manufacturer's recommendation. Then, using the hydroseed machine, the operator will apply the ADC from at least two different directions to achieve a minimum thickness of 0.25 inches over the exposed waste at the working face.

4 ADC MATERIAL PERFORMANCE AND INSPECTION PROCEDURES

4.1 ADC Performance

The ADC material included in this plan has been successfully used at other MSW landfill sites in Texas to control vectors, fires, odors, and windblown litter and waste. The BioCover material specified in this plan forms a crust-like barrier over the waste, and this crust-like surface services as a physical barrier. BioCover will control vectors and windblown waste by creating a physical barrier between the atmosphere and waste (e.g., the cohesive nature of the ADC material will prevent windblown waste and the crust-like barrier of each ADC has been proven to prevent vectors). The cohesive nature of BioCover also minimizes the airflow between the active face and the atmosphere, which minimizes the fire hazard and odor potential.

4.2 Verification and Inspection Procedures

At the end of each working day, landfill personnel will inspect the working face to verify that the minimum thickness of an approved ADC has been placed over the working face in accordance with this ADCOP. Landfill personnel will routinely (quarterly at a minimum; see Section 5) assess the effectiveness of each ADC in controlling vectors, fires, odors, and windblown litter and waste. Daily application of ADC will be documented and maintained in the Site Operating Record.

In the event that the ADC does not control vectors, fires, odors, or windblown waste, then the ADC application process will be re-evaluated to verify that this ADC material adequately covers the working face and serves its intended purpose. Any required changes to the ADC operational procedures will be documented in the Site Operating Record.

5 STATUS REPORTS

In accordance with Title 30 TAC §330.165(d), the site will obtain a temporary authorization before trial use of a new ADC other than BioCover. Consistent with Title 30 TAC §330.165(d)(2), a status report for new ADC materials will be submitted on a two month basis to the TCEQ describing the effectiveness of the alternative materials, any problems that may have occurred, and corrective actions required as a result of such problems. If no problems occur within six consecutive months of use, a permit modification completed consistent with Title 30 TAC §305.70(k)(1) will be submitted to the TCEQ to use the new ADC materials on a permanent basis.

APPENDIX IVB-1
BIOCOVER MSDS

MSDS Material Safety Data Sheet

PROFILE Products, LLC



BioCover@SS

MSDS Number: CON059

Revision Date: 2/11/10

Page 1 of 5

1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

PROFILE Products, LLC
750 LAKE COOK ROAD
SUITE 440
BUFFALO GROVE, IL 60089

Contact:

Telephone Number: (847) 215-1144
FAX Number: (847) 215-0577
E-Mail: profileproducts.com
Web www.profileproducts.com

Product Name: BioCover@SS
Revision Date: 2/11/10
MSDS Number: CON059
CAS Number: Not applicable
Product Use: Erosion control mulch for hydraulic seeding

Product Description: Green dyed wood fibers and a proprietary binder mixture.

2 HAZARDS IDENTIFICATION

Route of Entry: Inhalation, skin contact, eye contact

Target Organs:

Inhalation: Wood may cause sneezing, irritation, and dryness of the nose and throat. Dust may aggravate pre-existing respiratory conditions.

Skin Contact: Wood dust can cause irritation. Skin absorption is not known to occur.

Eye Contact: Wood dust can irritate the eyes.

Ingestion: No reports of human ingestion.

NFPA-ratings (scale 0-4): Health = 1, Fire = 2, Reactivity = 0

OSHA Classification: Wood dust is a hazardous substance as defined by the Hazard Communication Standard 29CFR 1910.1200

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

| Cas # | Perc. | Chemical Name |
|---------|-------------|---------------|
| 9000300 | Proprietary | Guar gum |

MSDS Material Safety Data Sheet

PROFILE Products, LLC



BioCover®SS

MSDS Number: CON059

Revision Date: 2/11/10

Page 2 of 5

4 FIRST AID MEASURES

Inhalation: Usually not a problem. Remove to fresh air if respiratory irritation develops, and get medical aid promptly if irritation persists.

Skin Contact: Usually not a problem. Wash off with running water if irritation is experienced.

Eye Contact: Open eyelids and flush with water.

Ingestion: Get medical attention.

5 FIRE FIGHTING MEASURES

Flash Point: Not applicable

Flash Point Method: Not applicable

Autoignition Temperature: 200-206°C (400-500°F)

Flammability Classification: Combustible product

Conditions to avoid: In contact with flames or hot surfaces

Flammable- Extinguish with water; same as a wood fire

6 ACCIDENTAL RELEASE MEASURES

Scoop up product. Wear goggles and respirator if dust is produced in unventilated areas. Wet product will be slippery.

7 HANDLING AND STORAGE

Handling Precautions: Clean up areas where dust settles. Minimize blowdown or other practices that generate high airborne dust concentrations.

Storage Requirements: Store in a cool, dry place. Keep away from sources of ignition.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: None required for outdoor mixing and application. Use dust collection system for indoor handling operations.

Protective Equipment: Eye Protection: Wear goggles when emptying bags and during other operations where there is a risk of dust entering the eyes.
Gloves: Leather, plastic or rubber gloves could be worn to minimize skin irritation.
Respirators: When handling methods generate dust at concentrations that exceed occupational exposure limits, wear a NIOSH approved respirator. A fabric respirator or a facepiece respirator with dust cartridges will generally provide adequate protection.
Footwear: The product is slippery when wet. Wear appropriate footwear.

MSDS Material Safety Data Sheet

PROFILE Products, LLC



BioCover@SS

MSDS Number: CON059

Revision Date: 2/11/10

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9 PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|------------------------|---|------------------------------|--------------------|
| Appearance: | Dyed green wood fibers - Pine & mixed hardwoods | | |
| Physical State: | Wood Fibers | Boiling Point: | |
| Odor: | Mild wood odor | Freezing/Melting Pt.: | |
| pH: | | Solubility: | |
| Vapor Pressure: | N/A | Spec Grav./Density: | lighter than water |
| Vapor Density: | | | |

10 STABILITY AND REACTIVITY

| | |
|--|---|
| Stability: | Stable product |
| Conditions to avoid: | Contact with strong acids and oxidizers may generate heat. Product may ignite at temperatures in excess of 200°C (400°F). |
| Materials to avoid (incompatibility): | Strong acids and oxidizers |
| Hazardous Decomposition products: | |
| Hazardous Polymerization: | Will not occur. |

11 TOXICOLOGICAL INFORMATION

EFFECTS OF CHRONIC EXPOSURE:

Inhalation: Frequent and repeated exposure to wood dust is associated with an increased risk of developing nasal cancer.
Skin Contact: Although rare, wood dust may cause dermatitis in sensitized people.

Occupational Exposure Limits:

Wood dusts- All other species: ACGIH (2007): TLV-TWA 1 mg/m³ (Inhalable fraction); A4

Particulates Not Otherwise Regulated (PNOR): OSHA: PEL-TWA 15 mg/m³ (Total Dust); 5 mg/m³ (Respirable fraction)

Irritancy: Wood dust is a mild irritant

Sensitization: Some wood dusts may cause allergic skin reactions

MSDS Material Safety Data Sheet

PROFILE Products, LLC



BioCover®SS

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12 ECOLOGICAL INFORMATION

Guar Gum (CAS# 9000-30-0) is listed as an inert ingredient permitted for use in nonfood use pesticide products by EPA. It is also classified under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) as a minimal risk inert substance (List 4A) meaning that as a pesticide, guar gum is considered by the EPA to pose little or no risk to humans or the environment. The US Department of Agriculture (USDA) National Organic Program (NOP) also allows the use of Guar Gum in a variety of applications, but primarily as a pesticide in organic production operations. Finally, Guar Gum is listed on the Generally Recognized as Safe (GRAS) list by the Food and Drug Administration.

96-hr Survival $LC_{50} = >100\%$ for *Daphnia magna* when runoff generated using ASTM D7101 (4"/hr rainfall rate) was tested according to EPA-821-R-02-012.

13 DISPOSAL CONSIDERATIONS

Normally can be disposed of as a wood residue. Ensure disposal is in compliance with local, provincial (state), and federal regulations.

14 TRANSPORT INFORMATION

DOT Class: Not regulated #

MSDS Material Safety Data Sheet

PROFILE Products, LLC



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MSDS Number: CON059

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REGULATORY INFORMATION

COMPONENT / (CAS/PERC) / CODES

*Guar gum (9000300 n/a%) TSCA

REGULATORY KEY DESCRIPTIONS

MASS = MA Massachusetts Hazardous Substances List
NRC = Nationally Recognized Carcinogens
OSHAWAC = OSHA Workplace Air Contaminants
PA = PA Right-to-Know List of Hazardous Substances
TXAIR = TX Air Contaminants with Health Effects Screening Level

CERCLA = Superfund clean up substance
CSWS = Clean Water Act Hazardous substances
EHS302 = Extremely Hazardous Substance
EPCRAWPC = EPCRA Water Priority Chemicals
HAP = Hazardous Air Pollutants
NJES = NJ Extraordinarily Hazardous Substances
NJHS = NJ Right-to-Know Hazardous Substances
OSHAPSM = OSHA Chemicals Requiring process safety management
SARA313 = SARA 313 Title III Toxic Chemicals

TSCA = Toxic Substances Control Act

16

OTHER INFORMATION

END OF MSDS DOCUMENT

APPENDIX IVB-2
BIOCOVER APPROVAL LETTER

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION



MODIFICATION TO

MUNICIPAL SOLID WASTE PERMIT N° MSW-1312A

City of Farmer's Branch/Camelot Landfill

Municipal Solid Waste Permit No. MSW-1312A is hereby modified as follows:

Description of Change:

The addition of BioCover as an alternate daily cover in accordance with the provisions found in Title 30 of the Texas Administrative Code, Section 330.133(c).

Permit Section Revised:

Site Operating Plan, Site Layout Plan

Part IV, SOP-Alternate Daily Cover Operating Plan

Part IV, SOP-Paragraph 4.18.2, Daily Cover, Page 14, and Appendix A

This modification is a part of Permit No. MSW-1312A and should be attached thereto.

APPROVED, ISSUED, AND EFFECTIVE in accordance with 30 Texas Administrative Code Section 305.70(c) and Section 330.133(c).

ISSUED DATE:

OCT 26 2001

[Handwritten Signature]

For the Commission

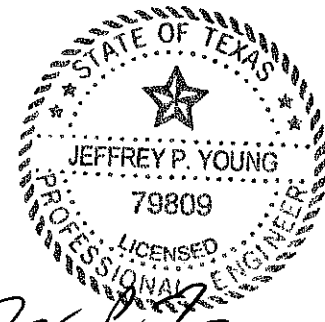
| | | |
|--|----------------------------|-----------------------|
| TARRANT COUNTY, TEXAS FAX TRANSMISSION RECORD | | Date of Page: 1/27/01 |
| To: <i>Frank M. Ford</i> | From: <i>Frank M. Ford</i> | |
| Co: | Co: <i>Fossil</i> | |
| Dept: | Phone # <i>xt 6687</i> | |
| Fax #: | FAX #: | |

**CAMELOT LANDFILL
CITY OF LEWISVILLE, DENTON COUNTY
TCEQ PERMIT NO. MSW-1312B**

MAJOR PERMIT AMENDMENT APPLICATION

**PART IV – SITE OPERATING PLAN
APPENDIX IVC
WASTE ACCEPTANCE PLAN**

Prepared for
City of Farmers Branch
March 2012



Jeffrey P. Young
3-21-12

Prepared by

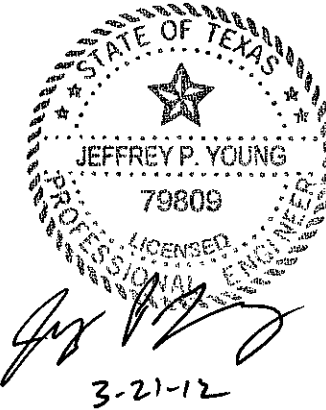
Weaver Boos Consultants, LLC–Southwest
TBPE Registration No. F-3727
6420 Southwest Blvd., Suite 206
Fort Worth, Texas 76109
817-735-9770

WBC Project No. 1339-351-11-02-6C

This document is intended for permitting purposes only.

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APPENDIX IVC-A
Special Waste Profile (SWP) Sheet

APPENDIX IVC-B
Uniform Nonhazardous Waste Manifest

TABLES AND FIGURES

Table 6-1 Special Waste Handling and Disposal Procedures Summary

IVC-13

1 INTRODUCTION

This Waste Acceptance Plan (WAP) outlines the acceptance requirements and review and approval process that will be used to accept special waste as defined by the Texas Commission on Environmental Quality (TCEQ) for disposal at the Camelot Landfill (MSW Permit No. 1312B). This WAP is designed to define procedures which will be followed to determine whether or not the facility is permitted to accept a specific waste for disposal. This WAP also outlines the procedures for identifying and preventing the disposal of unacceptable wastes that are delivered to the facility.

The objectives of the WAP are as follows.

- Verify that the waste is not a regulated hazardous waste.
- Verify that the waste meets permit criteria for acceptance at the landfill.
- Verify that the waste meets facility criteria for acceptance at the landfill.
- Establish the necessary conditions to ensure the safe and environmentally sound management (collection, storage, transportation, and disposal) of the waste.

The TCEQ solid waste regulations define a special waste as a “solid waste or combination of solid wastes that because of its quantity, concentration, physical, or chemical characteristics, or biological properties requires special handling and disposal to protect the human health or the environment.” Although the regulations define specific wastes as special waste, the rules also include the above catch-all-definition. This broad definition of special waste covers many wastes that are routinely disposed of at Municipal Solid Waste Landfills (MSWLFs).

The TCEQ rules specifically state that the receipt of treated medical waste, dead animals, asbestos and certain empty containers do not require prior written approval, if handled in accordance with the provisions stated in the rules. However, Texas Administrative Code (TAC) Title 30, Section §330.171(b)(1) states that approvals for other special wastes will be waste specific and/or site specific. This WAP addresses requirements of the TCEQ rules to allow site-specific authorization to accept special wastes meeting acceptance criteria set forth in Section 3 – Evaluation Guidelines of this plan. In general, only wastes determined to be nonhazardous as defined by the United States EPA in 40 CFR Part 261 or by applicable state solid waste regulations (including all applicable permit conditions for the facility), and meeting the acceptance criteria of the WAP, will be accepted at the Camelot Landfill.

2 DEFINITIONS

Listed below are definitions of some common terms as used in this WAP. Terms not defined below carry the common industry definition. Note that if any of the definitions listed below conflict with a definition listed in a federal, state or local regulation applicable to the landfill, the regulatory definition will govern.

Conditionally Exempt Small Quantity Hazardous Waste Generator

A generator who generates less than 100 kg of hazardous waste in a calendar month.

Commercial Solid Waste

All types of solid waste generated by stores, offices, restaurants, warehouses, and other non-manufacturing activities, excluding residential and industrial wastes.

Household Waste

Any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

Industrial Process Waste

Any solid waste generated as a direct or indirect result of the manufacture of a product or the performance of a service and any such waste which would pose a present or potential threat to human health or the environment or with inherent properties which make the disposal of such waste in a landfill difficult to manage by normal means.

Industrial Solid Waste

Solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of RCRA. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment.

Leachate

A liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.

Municipal Solid Waste Landfill (MSWLF) Unit

A discrete area of land or an excavation that receives household waste, and that is not a land application unit, surface impoundment, injection well, or waste pile. A MSWLF unit also may receive other types of RCRA Subtitle D wastes, such as commercial solid waste, non-hazardous sludge, conditionally exempt small quantity generator waste and industrial solid waste. Such a landfill may be publicly or privately owned. A MSWLF unit may be a new MSWLF unit, an existing MSWLF unit or a lateral expansion.

Pollution Control Waste

Any solid waste generated as a direct or indirect result from the removal of contaminants from the air, water, or land which may pose a present or potential threat to human health or the environment or with inherent properties which make the disposal of such waste in a landfill difficult to manage by normal means.

RCRA

Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. Section 6901 et seq.

Sludge

Any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.

Solid Waste

Any garbage, or refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved materials in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permit under 33 USC 1342, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (68 Statute. 923).

Special Waste

Waste material that could present a potential hazard to human health or the environment if not properly managed and meets applicable State and Local regulatory definition of a

special waste. The majority of this waste material is generated from a manufacturing process or is generated from the spill of various materials on the soil.

SWP Sheet

Special Waste Profile Sheet or Site approved waste profile document.

Special Waste Coordinator/Analyst

Site personnel authorized to review and approve SWP. This person is typically located in the corporate office and is trained in special waste acceptance procedures and regulations.

TCEQ

Texas Commission on Environmental Quality

USEPA

United States Environmental Protection Agency

Wastes Generated Out of State (30 TAC Section §335.508)

All nonhazardous industrial waste generated outside the state of Texas and transported into or through Texas for processing, storage, or disposal is classified as Class 1 unless the waste satisfies the Class 2 or 3 criteria as defined in 30 TAC §§335.506-508. A Class 2 or 3 waste determination, accompanied by all supporting process knowledge and analytical data, must be submitted to the TCEQ for approval.

Wastestream

A separate and distinct waste type generated from a particular process at a generating location.

In order to further clarify the definition of special wastes, and for the specific purpose of this WAP, special wastes shall be defined as those listed below (these definitions are reproduced from §330.3(148)).

- (A) Hazardous waste from conditionally exempt small-quantity generators meeting the requirements of 30 TAC §335.78.
- (B) Class 1 industrial nonhazardous waste;
- (C) Untreated medical waste;
- (D) Municipal wastewater plant sludges, other types of domestic sewage treatment plant sludges, and water-supply treatment plant sludges;
- (E) Septic tank pumpings;
- (F) Grease and grit trap wastes;

- (G) Wastes from commercial or industrial wastewater treatment plants; air pollution control facilities; and tanks, drums, or containers used for shipping or storing any material that has been listed as a hazardous constituent in 40 Code of Federal Regulations (CFR) Part 261, Appendix VII but has not been listed as a commercial chemical product in 40 CFR §261.33(e) or (f);
- (H) Slaughterhouse wastes;
- (I) Dead animals;
- (J) Drugs, contaminated foods, or contaminated beverages, other than those contained in normal household waste;
- (K) Pesticide (insecticide, herbicide, fungicide, or rodenticide) containers;
- (L) Discarded materials containing asbestos;
- (M) Incinerator trash
- (N) Soil contaminated by petroleum products, crude oils, or chemicals in concentrations of greater than 1,500 milligrams per kilogram total petroleum hydrocarbons; or contaminated by constituents of concern that exceed the concentrations listed in Table 1 of §335.521(a)(1);
- (O) Used oil;
- (P) Waste from oil, gas, and geothermal activities subject to regulation by the Railroad Commission of Texas when those wastes are to be processed, treated, or disposed of at a solid waste management facility;
- (Q) Waste generated outside the boundaries of Texas that contains:
 - (i) any industrial waste
 - (ii) any waste associated with oil, gas, and geothermal exploration, production, or development activities; or
 - (iii) any item listed as a special waste in this paragraph;
- (R) lead acid storage batteries; and
- (S) used oil-filters from internal combustion engines.

Refer to Section 6 for additional information regarding special waste handling and disposal procedures. Only the waste listed in Section 6 will be accepted at the site under this WAP.

3 EVALUATION GUIDELINES

Before accepting special waste for disposal at the facility, the waste generator must have the following: (1) TCEQ waste code (for industrial wastes), (2) TCEQ registration number (for industrial waste) (3) TCEQ authorization (if applicable), and (4) approved SWP (including appropriate analytical data). Appendix IVC-A contains a standard SWP form. A SWP form similar to those found in Appendix IVC-A can be used. As shown in Appendix IVC-A, information used to classify the waste by process knowledge (e.g. MSDS, description of generation source, etc.) will be included on the SWP, as needed (see Section 3.2 for more information). Each special waste must be evaluated to ensure that it is acceptable for disposal at this facility. The following guidelines are provided to assist in reviewing SWPs.

3.1 Hazardous Waste Determination

Only waste determined to be “nonhazardous” as defined by the United States EPA in 40 CFR 261 or by applicable state solid waste regulations will be accepted at the Camelot Landfill.

3.1.1 Listed Wastes

Listed Wastes are industrial wastes listed, by name, as hazardous by the USEPA. Listed Wastes are categorized by the USEPA in the CFR categories:

- 40 CFR §261.31 lists 13 hazardous wastes resulting from non-specific sources. These include spent solvents, sludges, and similar materials. It is important to closely evaluate dried paints, paint strippings, and spray paint booth wastes for the potential to fall under this category. If a waste falls under this category it is considered an F-listed waste.
- 40 CFR §261.32 lists 76 hazardous wastes resulting from non specific sources. These wastes include various types of sludges, still bottoms, spent catalysts, and other materials from specific industrial operations. If a waste falls under this category it is considered a K-listed waste.
- 40 CFR §261.33(e) lists 196 chemical products defined as acute hazardous wastes. If a waste falls under this category it is considered a P-listed waste.
- 40 CFR §261.33(f) lists 200 chemical products that are classified as toxic wastes. If a waste falls under this category it is considered a U-listed waste.

A material that is a listed hazardous waste will always remain a hazardous waste regardless of how the material came to be a waste. Listed Wastes are defined above, and those wastes that may be included as listed wastes in the future by the USEPA or TCEQ, will not be accepted for disposal at the Camelot Landfill.

3.1.2 Characteristic Wastes

Wastes can be designated as hazardous based upon characteristics of the respective waste. A waste may be hazardous by any one or more of the following characteristics: toxicity, ignitability, corrosivity, or reactivity. To determine if a waste is considered hazardous for one of these characteristics, certain analytical or test methods must be performed on the specific waste stream. A general summary for identifying if a waste exhibits one or more of the four characteristics is described below.

- **Ignitability (40 CFR §261.21):** In general, any waste having a flash point less than 60 Celsius (140° F) is considered hazardous and not acceptable for disposal. A waste is also considered hazardous for ignitability when under standard temperature and pressure is capable of causing a fire through friction, absorption or spontaneous chemical change, and which will burn vigorously when ignited.
- **Corrosivity (40 CFR §261.22):** In general, any waste that exhibits a pH of less than or equal to 2.0 or greater than 12.5 is considered corrosive. The literal reading of the regulations state that these values are for liquid wastes.
- **Reactivity (40 CFR §261.23):** Any waste that is normally unstable and readily undergoes violent change without detonating, reacts violently with water, or forms toxic fumes when mixed with water is reactive. This category also addresses wastes which contain sulfide and cyanide.
- **Toxicity (§ 40 CFR 261.24):** Toxicity testing was developed to simulate the leaching of contaminants from a landfill. The current procedure to perform this test is the TCLP extraction. The extraction is analyzed for up to 40 different constituents.

The definitions and characteristic properties set forth in the CFR references above are subject to change by the USEPA. However, at no time will waste determined to be characteristically hazardous be accepted for disposal at the Camelot Landfill.

3.2 Analytical Requirements

Analytical data or process knowledge confirming that the waste is acceptable for disposal at the Camelot Landfill will be included with a completed SWP. The special waste analyst will have a complete understanding of all the referenced regulations and applicable sampling and testing requirements referenced on the SWP (see Appendix IVC-A).

Any analytical data submitted to the Camelot Landfill for use in the waste evaluation process shall meet the following criteria:

1. Analytical data must be less than 12 months old.
2. The analytical report must be final copy, legible, complete and signed.
3. The analytical data must “correlate” with information contained in the SWP.
4. The results must have the units of measure identified.
5. The detection levels should be included for results that are “non-detected”.
6. The reference of methods employed must accompany the analytical data.
7. Analytical sampling, analysis, and interpretations must be in strict accordance with current local, state and federal regulatory requirements.

3.3 Special Waste Acceptance Criteria

The Special Waste Analyst will utilize waste-specific chemical and characteristic information submitted by the generator on the SWP and accompanying analytical test results to determine the acceptability of a waste for disposal at the Camelot Landfill. The Special Waste Analyst will be responsible for maintaining and utilizing current regulations and regulatory guidelines and constituent limits for evaluation of wastes. The Special Waste Analyst also will be responsible for knowing and applying applicable future changes to State and Federal disposal regulations, review and acceptance procedures.

Process knowledge may be used to confirm that a waste stream is nonhazardous. Process knowledge is the combination of historic and procedural data that substantiates a nonhazardous classification of a particular process or waste stream. The following items are examples of data that may be used to support a process knowledge determination.

1. Historical analysis of representative samples from the waste stream.
2. Review of constituents present in the stream and their physical properties.
3. Review of the process characteristics to insure the process does not introduce any hazardous characteristics.
4. Review of MSD sheets for the components and manufacturer’s literature.
5. Identification of potential contaminants, by-products or decomposition products.

Special Waste review procedures will include:

- The SWP will be reviewed for completeness. The review will include:
 - The SWP must be completely and legibly filled out by the generator of the waste with all appropriate addresses, contact names, phone and fax numbers, and signatures.
 - The “Waste Stream Information” must include sufficient information to provide the Special Waste Analyst a clear understanding of the waste’s type, origin, shipping method, and anticipated frequency of disposal. This information will be used by Special Waste Analyst to compare the

waste with the appropriate state and Federal regulations. If the description is not explicit, additional information will be requested of the generator.

- The "Physical Characteristics of Waste" must include information on the chemical and physical properties of the waste sufficient to allow the Special Waste Analyst to identify the waste, and correlate the waste properties to the appropriate state and Federal regulations. It is important that all portions of this section of the SWP be completed by the generator, and that the generator certifies the information in the subsequent section on the SWP.
- Site Specific Evaluation – It will be confirmed that all special waste acceptance is acceptable in accordance with the following: (1) TCEQ and local regulations, (2) landfill permits, and (3) TCEQ and local determinations (if applicable).
- The Special Waste Analyst may request additional information from the generator before rendering a decision. This may include additional analytical, process description, MSDS, or other applicable information. After review of the SWP is completed, the Special Waste Analyst will complete the appropriate section of the SWP, and copies of the approval shall be provided to the generator.

4 PRE-RECEIPT AND RECORDKEEPING

The landfill must have the approved SWP prior to acceptance of the waste for disposal. The landfill must keep the approved SWP on file in the Site Operating Record for the life of the site including the postclosure care period.

Landfill personnel will visually compare the material presented for disposal to the SWP to confirm that the physical characteristics (i.e., color, odor, and appearance) of the material match those detailed on the SWP. In the event that the physical characteristics of the waste differ from the approved waste stream, the waste load will be rejected. The generator will be notified of the reasons for rejecting the load. Additional process and chemical analyses may be required to further characterize the waste.

A complete TCEQ Waste Manifest (if applicable) or Uniform Nonhazardous Waste Manifest (if applicable) will accompany each load of special waste delivered to the facility. A copy of the Uniform Nonhazardous Waste Manifest is included in Appendix IVC-B.

5 RECERTIFICATION FREQUENCY

Generators of special waste are required to recertify their waste, at a minimum, every 3 years after the original analytical date unless otherwise specified in the plan. This requirement is needed to verify that the waste has not significantly changed from the initial characterization. This requirement does not apply to wastes that are accepted for disposal on a one-time basis (i.e., spill clean-ups).

The facility may require the generator to recertify their waste more frequently than every 3 years. This is especially important for waste streams that are variable due to process variations or if changes in the manufacturing process have occurred.

6 DISPOSAL PROCEDURES

The landfill personnel will exercise appropriate care and safeguards when disposing of special wastes. Only onsite personnel who have received special waste training will be utilized for disposal of special wastes. Specific handling/disposal procedures for certain wastes (e.g., dead animals, certain empty containers) will be in accordance with the TCEQ rules regarding their proper disposal (e.g., 30 TAC §330.171). The U. S. Drug Enforcement Agency will be contacted for specific destruction and disposal requirements of controlled substances (e.g., nonhazardous drugs, prescription medication). Disposal requirements for industrial waste will be in accordance with 30 TAC §330.173 – Disposal of Industrial Wastes. A summary of special waste handling and disposal procedures is included in Table 6-1.

In the event that there is a spill during the delivery and/or disposal operation of the proposed special waste, the landfill personnel will first attempt to stop the release at the source. Then the landfill personnel will recover or clean up the spilled material. Any cover soils (e.g., intermediate cover) that have come in contact with the special waste will be collected and disposed of at the active working face. The affected area will then be recovered consistent with the requirements of the SOP.

**Table 6-1
Special Waste Handling and Disposal Procedures Summary
Camelot Landfill**

| Special Waste | Estimated Quantity and Rate of Disposal | Description | Handling Procedures | Onsite Emergency Equipment |
|--|---|---|---|---|
| Materials from oil, gas and geothermal activities | 5 tons/day | Materials subject to regulation by the Railroad Commission of Texas (RRC) when these materials are to be processed, treated, or disposed of at the facility. | Disposed of at the active face consistent with Section 4.2 of the SOP (Control of the Unloading Wastes). | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |
| Dead animals and slaughterhouse wastes | 1 ton/day | Dead animals (other than single household pets and other single small animals) and slaughterhouse wastes. | Verify a minimum of 3 feet of solid waste or 2 feet of soil is placed over dead animals or slaughterhouse wastes. | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |
| Soil and sorbent material contaminated by petroleum substances | 10 tons/day | Materials as defined in 30 TAC §335.1 (relating to definition of petroleum substances) or chemicals listed in 30 TAC §335.521(a)(1) (relating to constituents of concern and their maximum leachable concentrations). | Disposed of at the active face consistent with Section 4.2 of the SOP (Control of the Unloading Wastes). | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |
| Petroleum-contaminated soils | 150 tons/day | Soils with a total petroleum hydrocarbon (TPH) concentration of less than 1,500 mg/kg. | Disposed of at the active face consistent with Section 4.2 of the SOP (Control of the Unloading Wastes). | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |
| Certain types of medical wastes | 1 ton/day | Special wastes from health care related facilities that have been treated in accordance with the procedures specified in Subchapter Y of the TCEQ regulations (relating to Medical Waste Management). | Disposed of at the active face consistent with Section 4.2 of the SOP (Control of the Unloading Wastes). | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |
| Discarded materials containing asbestos (non-RACM) | 5 tons/day | Materials that contain non-regulated asbestos-containing materials (e.g., shingles). | Disposed of at the active face consistent with Section 4.2 of the SOP (Control of the Unloading Wastes). | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |

**Table 6-1 (Continued)
Special Waste Handling and Disposal Procedures Summary
Camelot Landfill**

| Special Waste | Estimated Quantity and Rate of Disposal | Description | Handling Procedures | Onsite Emergency Equipment |
|--|---|--|--|---|
| Nonhazardous empty containers | 1 ton/day | Empty containers with a holding capacity greater than 5 gallons which have held either pesticides (e.g. insecticides, herbicides, fungicides, or rodenticides) or hazardous chemicals/constituents as defined in 40 CFR §261.7(b)(1)(2)(3), Appendix VIII, or listed in §261.33(e) or (f). | Disposed of at the active face consistent with Section 4.2 of the SOP (Control of the Unloading Wastes). | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |
| Municipal hazardous waste from conditionally exempt small quantity generators | 0.5 ton/day | Hazardous waste from conditionally exempt small quantity generators meeting the requirements of 30 TAC §330.3 (148)(A). | Disposed of at the active face consistent with Section 4.2 of the SOP (Control of the Unloading Wastes). | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |
| Nonhazardous drugs, contaminated foods, and contaminated beverages | 0.5 ton/day | Nonhazardous drugs (not including manufacturing wastes), and contaminated food and beverages other than those contained in normal household waste. | Verify a minimum of 1 foot of waste or 6 inches of dirt is placed over non hazardous drug material. | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |
| Municipal wastewater treatment plant sludges, or other types of domestic sewage treatment plant sludges, water-supply treatment plant sludges, and septic tank pumping | 50 tons/day | Materials regulated under Chapter 312 – related to sludge use, disposal, and transportation and those sludges other than those regulated under Chapter 312 (relating to sludge use, disposal, and transportation). | Disposed of at the active face consistent with Section 4.2 of the SOP (Control of the Unloading Wastes). | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |
| Grease and grit trap waste | 1 ton/day | Solidified grease and grit trap material, typically produced by restaurants. | Disposed of at the active face consistent with Section 4.2 of the SOP (Control of the Unloading Wastes). | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |

**Table 6-1 (Continued)
Special Waste Handling and Disposal Procedures Summary
Camelot Landfill**

| Special Waste | Estimated Quantity and Rate of Disposal | Description | Handling Procedures | Onsite Emergency Equipment |
|---|---|--|--|---|
| Incinerator ash | 1 ton/day | Ash produced by incinerators. | Verify disposal of ash material occurs in non-windy conditions. | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |
| Filter media | 1 ton/day | Paint filters, glycol filters, molecular sieves, and other types of filter media, but not including those contained in normal household waste or used in oil filters from internal combustion engines. | Disposed of at the active face consistent with Section 4.2 of the SOP (Control of the Unloading Wastes). | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |
| Abrasive wastes | 1 ton/day | Blasting grit, steel shot, etc. | Disposed of at the active face consistent with Section 4.2 of the SOP (Control of the Unloading Wastes). | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |
| Demolition debris contaminated with lead | 1 ton/day | Demolition debris contaminated with lead for structures which have received on or more coats of lead based paint. | Disposed of at the active face consistent with Section 4.2 of the SOP (Control of the Unloading Wastes). | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |
| Class 2 and Class 3 industrial solid wastes as identified by 30 TAC §330.3, except plant trash as defined in 30 TAC §335.508(3), from in-state generators | 1 ton/day | Class 2 and Class 3 industrial solid wastes as identified by 30 TAC §330.3, except plant trash, as defined in 30 TAC §335.508(3), from in-state generators. Plant trash from in-state generators will be accepted at this facility but will not be considered a special waste. Plant trash from out-of-state generators will be considered a special waste in accordance with 30 TAC §330.3(148)(Q). | Disposed of at the active face consistent with Section 4.2 of the SOP (Control of the Unloading Wastes). | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |

**Table 6-1 (Continued)
Special Waste Handling and Disposal Procedures Summary
Camelot Landfill**

| Special Waste | Estimated Quantity and Rate of Disposal ¹ | Description | Handling Procedures | Onsite Emergency Equipment |
|---|--|--|--|---|
| Any other nonhazardous solid waste or combination of solid wastes | 1 ton/day | Any other nonhazardous solid waste or combination of solid wastes, that because of its quantity, concentration, physical or chemical characteristics, or biological properties requiring special handling prior to disposal to protect human health and/or the environment. If improperly handled, transported, stored processed, disposed of, or otherwise managed, such waste may pose a present or potential danger to human health or the environment. | Disposed of at the active face consistent with Section 4.2 of the SOP (Control of the Unloading Wastes). | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |
| Waste generated outside the boundaries of Texas | 1 ton/day | Waste generated outside the boundaries of Texas that meets the definition of the above-referenced special wastes. | Disposed of at the active face consistent with Section 4.2 of the SOP (Control of the Unloading Wastes). | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |
| Nonhazardous industrial solid waste generated out-of-state | 1 ton/day | Nonhazardous industrial solid waste generated out-of-state that have a Class 2 or Class 3 classification. | Disposed of at the active face consistent with Section 4.2 of the SOP (Control of the Unloading Wastes). | No specific equipment is required for the disposal of this material. Standard landfill equipment is listed in Section 3 of the SOP. |

¹ The expected quantity and rate of disposal is an estimated value and is not limited to these disposal rates.

7 WASTE DISCREPANCIES AND REJECTED LOADS

Documentation for profiled wastes that arrive for disposal is reviewed at the facility. Any discrepancies (i.e., missing documentation, incomplete documents, questionable waste characteristics) will be resolved prior to acceptance of the waste. In the event the discrepancies cannot be resolved, the waste load will be rejected. Discrepancies, which will cause a load to be rejected, include but are not limited to:

- An approval letter is not on file at the landfill.
- A special waste arrives without a manifest.
- A special waste arrives, and the waste does not match the description on the waste manifest.
- A special waste arrives, and the information on the manifest is not complete or is incorrect.
- A special waste arrives which does not match the information provided on the SWP.
- A special waste arrives and the SWP is expired or outdated.

In the event that the description or physical characteristics of a waste being received at the landfill differs from that of an approved waste stream, the load will be stopped and the generator/customer will be required to provide additional process knowledge and/or chemical analysis data to adequately identify the waste.

Regulated hazardous waste, PCBs, radioactive, or other prohibited waste are not authorized for disposal. If such wastes are suspected or discovered, they will be isolated until the material can be adequately identified. Appropriate handling procedures will be used to manage the material.

If the suspect material is determined to be a regulated hazardous waste, contain regulated levels of PCB, or other prohibited material, the TCEQ will be notified of the incident and the planned disposition/remediation of the material. The proper disposition/ remediation of the prohibited waste will be specific to the waste and will be implemented upon TCEQ concurrence and approval.

8 PERSONNEL TRAINING

Appropriate facility personnel will receive initial training on special waste identification, screening, and management procedures. Refresher training will be provided to appropriate personnel on a regular basis (i.e., annually). The training will be conducted by either in-house staff or outside specialists familiar with proper special waste management procedures and the requirements of this WAP. Documentation of the training will be placed in the personnel files.

APPENDIX IVC-A
SPECIAL WASTE PROFILE (SWP) SHEET



Requested Disposal Facility: --- Select a Facility ---

Waste Profile #

Saveable fill-in form. Restricted printing until all required (yellow) fields are completed.

Sales Rep #:

I. Generator Information

Generator Name:
Generator Site Address:
City: County: State: Zip:
State ID/Reg No: State Approval/Waste Code: NAICS #:
Generator Mailing Address (if different):
City: County: State: Zip:
Generator Contact Name: Email:
Phone Number: Ext: Fax Number:

IIa. Transporter Information

Transporter Name: Contact Name:
Transporter Address:
City: County: State: Zip:
Phone: Fax: State Transportation Number:

IIb. Billing Information

Bill To: Contact Name:
Billing Address: Email:
City: State: Zip: Phone:

III. Waste Stream Information

Name of Waste:
Process Generating Waste:
Type of Waste: INDUSTRIAL PROCESS WASTE POLLUTION CONTROL WASTE
Physical State: SOLID SEMI-SOLID POWDER LIQUID
Method of Shipment: BULK DRUM BAGGED OTHER:
Estimated Annual Volume: --- Select Volume Type ---
Frequency: ONE TIME ANNUAL
Disposal Consideration: LANDFILL SOLIDIFICATION BIOREMEDIATION

IV. Representative Sample Certification

NO SAMPLE TAKEN

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent rules? YES or NO
Sample Date: Type of Sample: COMPOSITE SAMPLE GRAB SAMPLE
Sample ID Numbers:



| |
|-----------------|
| Waste Profile # |
| |

V. Physical Characteristics of Waste

| | | | | | |
|---------------------------|-----------------|---|----------|-----|-------------------|
| Characteristic Components | | % by Weight (range) | | | |
| 1. _____ | | _____ | | | |
| 2. _____ | | _____ | | | |
| 3. _____ | | _____ | | | |
| 4. _____ | | _____ | | | |
| 5. _____ | | _____ | | | |
| Color | Odor (describe) | Does Waste Contain Free Liquids? <input type="checkbox"/> YES or <input type="checkbox"/> NO | % Solids | pH: | Flash Point °F |

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) Including Chain of Custody and Required Parameters Provided for this Profile

| | |
|---|---|
| Does this waste or generating process contain regulated concentrations of the following Pesticides and/or Herbicides: Chlordane, Endrin, Heptachlor (and it epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33? | <input type="checkbox"/> Yes or <input type="checkbox"/> No |
| Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm)[reference 40 CFR 261.23(a)(5)]? | <input type="checkbox"/> Yes or <input type="checkbox"/> No |
| Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761? | <input type="checkbox"/> Yes or <input type="checkbox"/> No |
| Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents? | <input type="checkbox"/> Yes or <input type="checkbox"/> No |
| Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations? | <input type="checkbox"/> Yes or <input type="checkbox"/> No |
| Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCDD), or any other dioxin as defined in 40 CFR 261.31? | <input type="checkbox"/> Yes or <input type="checkbox"/> No |
| Is this a regulated Radioactive Waste as defined by Federal and/or State regulations? | <input type="checkbox"/> Yes or <input type="checkbox"/> No |
| Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations? | <input type="checkbox"/> Yes or <input type="checkbox"/> No |
| Is this waste a reactive or heat generating waste? | <input type="checkbox"/> Yes or <input type="checkbox"/> No |
| Does the waste contain sulfur or sulfur by-products? | <input type="checkbox"/> Yes or <input type="checkbox"/> No |
| Is this waste generated at a Federal Superfund Clean Up Site? | <input type="checkbox"/> Yes or <input type="checkbox"/> No |
| Is this waste from a TSD facility, TSD like facility or consolidator? | <input type="checkbox"/> Yes or <input type="checkbox"/> No |

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services Inc.

Authorized Representative Name And Title (Type or Print)

Company Name

Authorized Representative Signature

Date



EXPRESS WASTE PROFILE

Requested Disposal Facility:

| |
|-----------------|
| Waste Profile # |
| |
| Sales Rep # |

Saveable fill in form. Restricted printing until all required (yellow) fields are completed.

I. Generator Information

| | | | |
|--|----------------------------|--|----------|
| Generator Name: | | | |
| Generator Site Address: | | | |
| City: | County: | State: <input type="text" value="Select a State"/> | Zip: |
| State ID/Reg No: | State Approval/Waste Code: | (if applicable) | NAICS #. |
| Generator Mailing Address (if different): <input type="checkbox"/> | | | |
| City: | County: | State: <input type="text" value="Select a State"/> | Zip: |
| Generator Contact Name: | | Email: | |
| Phone Number: | Ext: | Fax Number: | |

IIa. Transporter Information

| | | | |
|----------------------|---------------|------------------------------|------|
| Transporter Name: | Contact Name: | | |
| Transporter Address: | | | |
| City: | County: | State: | Zip: |
| Phone: | Fax: | State Transportation Number: | |

IIb. Billing Information

| | | | |
|------------------|---------------|------|--------|
| Bill To: | Contact Name: | | |
| Billing Address: | Email: | | |
| City: | State: | Zip: | Phone: |

III. Waste Stream Information

| | | | |
|---|---|---|---|
| Name of Waste: (Petroleum products-applies only to contaminated media and debris). | <input type="checkbox"/> Diesel Fuel | <input type="checkbox"/> Weathered Wood | <input type="checkbox"/> Friable Asbestos |
| | <input type="checkbox"/> Home Heating Fuel #1-6 | <input type="checkbox"/> RCRA Empty Containers | <input type="checkbox"/> Non Friable Asbestos |
| <input type="checkbox"/> Kerosene | <input type="checkbox"/> Treated Medical Waste | <input type="checkbox"/> Cured Asphalt | |
| <input type="checkbox"/> Aviation Fuel | <input type="checkbox"/> Animal Carcass | <input type="checkbox"/> Tires | |
| <input type="checkbox"/> Hydraulic Fluid | <input type="checkbox"/> Plant Trash | <input type="checkbox"/> Food Products (Including Animal Food) | |
| <input type="checkbox"/> Unleaded Gasoline (UST Corrective Action) | <input type="checkbox"/> Meth Contaminated Debris | | |
| Process Generating Waste: | | | |
| Method of Shipment: <input type="checkbox"/> BULK <input type="checkbox"/> DRUM <input type="checkbox"/> BAGGED <input type="checkbox"/> OTHER: | | | |
| Estimated Annual Volume: | | <input type="text" value="Select Volume Type"/> | |
| Frequency: <input type="checkbox"/> ONE TIME <input type="checkbox"/> ANNUAL | | | |

IV. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true and accurate description of the waste material being offered for disposal. I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue. I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services, Inc.

| | |
|--|----------------------|
| <input type="text"/> | <input type="text"/> |
| Authorized Representative Name/Title (Type or Print) | Company Name |
| <input type="text"/> | <input type="text"/> |
| Authorized Representative Signature | Date |

APPENDIX IVC-B
UNIFORM NONHAZARDOUS WASTE MANIFEST



NON-HAZARDOUS WASTE MANIFEST

0110657

Please print or type

| | | |
|---------------------------------|--------------------------|--------------|
| 1. Generator's US EPA ID Number | Manifest Document Number | 2. Page 1 of |
|---------------------------------|--------------------------|--------------|

| | |
|--------------------------------------|---------------------------------------|
| Generator's Name and Mailing Address | 5. Generating Location (if different) |
| 4. Phone () | 6. Phone () |

| | | |
|--------------------------------|---------------------|---------------------------|
| 7. Transporter #1 Company Name | 8. US EPA ID Number | 9. Transporter #1's Phone |
|--------------------------------|---------------------|---------------------------|

| | | |
|---------------------------------|----------------------|----------------------------|
| 10. Transporter #2 Company Name | 11. US EPA ID Number | 12. Transporter #2's Phone |
|---------------------------------|----------------------|----------------------------|

| | | |
|---|----------------------|----------------------|
| 13. Designated T/S/D Facility Name and Site Address | 14. US EPA ID Number | 15. Facility's Phone |
|---|----------------------|----------------------|

| 16. Waste Shipping Name and Description | 17. Allied Waste Approval # and Exp. Date | 18. Containers | | 19. Total Quantity | 20. Unit Wt/Vol |
|---|---|----------------|------|--------------------|-----------------|
| | | No. | Type | | |
| a. | | | | | |
| b. | | | | | |
| c. | | | | | |
| d. | | | | | |

21. Additional Descriptions for Materials Listed Above

22. Special Handling Instructions and Additional Information

23. GENERATOR'S CERTIFICATION: I certify the materials described on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

| | | | | |
|--------------------|-----------|-------|-----|------|
| Printed/Typed Name | Signature | Month | Day | Year |
|--------------------|-----------|-------|-----|------|

24. Transporter #1: Acknowledgement of Receipt of Materials

| | | | | |
|--------------------|-----------|-------|-----|------|
| Printed/Typed Name | Signature | Month | Day | Year |
|--------------------|-----------|-------|-----|------|

25. Transporter #2: Acknowledgement of Receipt of Materials

| | | | | |
|--------------------|-----------|-------|-----|------|
| Printed/Typed Name | Signature | Month | Day | Year |
|--------------------|-----------|-------|-----|------|

26. Discrepancy Indication Space

Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest (except as noted in item 19)

| | | | | |
|--------------------|-----------|-------|-----|------|
| Printed/Typed Name | Signature | Month | Day | Year |
|--------------------|-----------|-------|-----|------|

IVC-B-1

ORIGINAL - RETURN TO GENERATOR

COM000033

GENERATOR
TRANSPORTER
FACILITY

| | | | | |
|---|------------------------|--|-----------------------------|---|
| UNIFORM HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Manifest Tracking Number 006052187 JJK |
| 5. Generator's Name and Mailing Address | | Generator's Site Address (if different than mailing address) | | |

Generator's Phone: _____

| | |
|--|--------------------|
| 6. Transporter 1 Company Name | U.S. EPA ID Number |
| 7. Transporter 2 Company Name | U.S. EPA ID Number |
| 8. Designated Facility Name and Site Address | U.S. EPA ID Number |

Facility's Phone: _____

| 9a. HM | 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers | | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Waste Codes | | |
|--------|--|----------------|------|--------------------|-------------------|-----------------|--|--|
| | | No. | Type | | | | | |
| 1. | | | | | | | | |
| 2. | | | | | | | | |
| 3. | | | | | | | | |
| 4. | | | | | | | | |

14. Special Handling Instructions and Additional Information

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____

16. International Shipments Import to U.S. Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____

Transporter signature (for exports only): _____

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____

Transporter 2 Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____

18. Discrepancy

18a. Discrepancy Indication Space Quantity Type Residue Partial Rejection Full Rejection

Manifest Reference Number: _____

18b. Alternate Facility (or Generator) _____ U.S. EPA ID Number _____

Facility's Phone: _____

18c. Signature of Alternate Facility (or Generator) _____ Month _____ Day _____ Year _____

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

| | | | |
|----------|----------|----------|----------|
| 1. _____ | 2. _____ | 3. _____ | 4. _____ |
|----------|----------|----------|----------|

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a

Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____

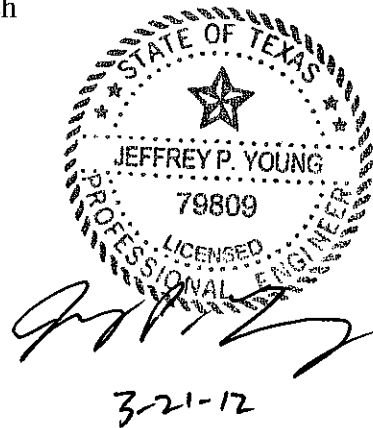
IVC-B-2

**CAMELOT LANDFILL
CITY OF LEWISVILLE, DENTON COUNTY
TCEQ PERMIT NO. MSW-1312B**

MAJOR PERMIT AMENDMENT APPLICATION

**PART IV – SITE OPERATING PLAN
APPENDIX IVD
WOOD WASTE STORAGE AND PROCESSING AREA
OPERATING PLAN**

Prepared for
City of Farmers Branch
March 2012



Prepared by

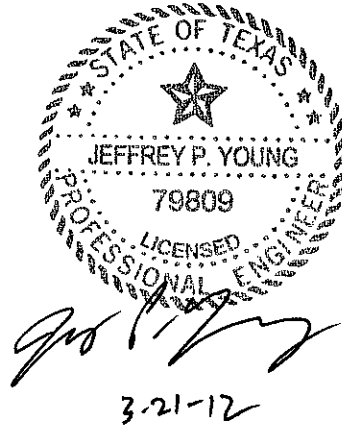
Weaver Boos Consultants, LLC–Southwest
TBPE Registration No. F-3727
6420 Southwest Blvd., Suite 206
Fort Worth, Texas 76109
817-735-9770

WBC Project No. 1339-351-11-02-6C

This document is intended for permitting purposes only.

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1 INTRODUCTION

The purpose of this appendix is to provide a Wood Waste Storage and Processing Area Operating Plan for the Camelot Landfill. The wood waste processing (e.g., grinding/chipping) facility will be located north of the waste disposal area, as shown on Drawing A.1 in Part III, Appendix IIIA. This facility may operate periodically after the area is initially developed.

The wood waste processing operation is considered an exempt facility under 30 TAC §332.3(d) and complies with each applicable general regulatory requirement listed in Title 30 Texas Administrative Code (TAC) §332 (i.e. 30 TAC §332.3(d), §332.4, §332.8(a), and §332.8(b)).

The materials to be processed at the facility consist of wood, clean yard trimmings, brush trimmings, and other feedstock materials that are allowed under 30 TAC §332.3(d) (composting/wood chipping operations exempt from facility notification, registration, or permit). The processed wood chips may be distributed to local citizens, governmental agencies, and/or used on-site for vegetation enhancement, erosion control, and to facilitate operations.

The facility will consist of a material receiving area, a material processing area that will include a tub grinder to reduce material size (grinder to be brought to site as needed), and a wood chip storage area. The location of the wood waste processing area provides a setback distance of more than 50 feet.

2 SITE OPERATIONS

2.1 Accepted Waste

Source-separated wood waste, clean yard trimmings, brush trimmings, and other feedstock materials that are allowed under 30 TAC §332.3(d) from area residents, landscape companies, local businesses, and other landfill customers will be directed to a material off-loading and storage area located within the Wood Waste Storage and Processing Area. Those loads that are determined to possess an excessive amount of non-wood waste will be directed to the landfill working face for disposal. The operation is exempt from notification, registration, or permit requirements, because the facility processes only source-separated wood waste, clean yard trimmings, brush trimmings, and other feedstock materials that are allowed under 30 TAC §332.3(d).

2.2 Waste Exclusion Program

Landfill personnel will monitor the unloading of the wood waste and remove non-wood waste material that may be commingled with the incoming loads. Removed non-wood waste material will be transported to the landfill working face for disposal. The facility will not process unauthorized materials such as dead animal carcasses, meat feedstocks, fish feedstocks, dairy material feedstocks, oils and greases, or MSW materials.

2.3 Material Handling and Processing

Trucks delivering wood waste material to the site will access the processing area using the existing access roads. Wood waste materials requiring size reduction will be moved from the wood waste stockpile, by a front-end loader or similar equipment, to the tub grinder for grinding/chipping. Once the wood waste material is processed, the wood chips will be stored in the processed wood chip storage area. The wood chips will be stored in this area until an end-use is identified. Consistent with the facility's Site Operating Plan, the operation will be conducted in a manner that prevents nuisance conditions from developing. Personnel will control on-site populations of disease vectors, which include rodents, excessive bird populations, flies, and other insects or animals capable of transmitting diseases to humans.

2.4 Surface Water Protection Plan

Consistent with TCEQ policy, stormwater that contacts clean wood waste material or the processed wood chips is not considered contaminated. Therefore, the stormwater runoff

from the wood waste processing area will be handled as uncontaminated stormwater runoff, consistent with the site's TPDES stormwater permit. If during operations, stormwater runoff impacts the stored wood material (e.g., erosion of the stockpiled material), straw bales or a silt fence will be constructed downstream of the processing and storage area to prevent washout. Note that runoff from the wood waste area is conveyed to a stormwater detention pond before being discharged from the site.

2.5 Air Quality

Per 30 TAC §332.8, and consistent with the facility's Site Operating Plan, dust created by the use of the site access road and from the wood waste processing operation will be controlled by watering the affected areas with the site's water truck.

A setback distance from all property boundaries to the edge of the area receiving, processing, or storing feedstock of finished product will be more than 50 feet at any time. The receiving chamber on the grinder will be adequately filled prior to commencement of grinding and will remain filled during grinding operations to control emissions from the receiving chamber. In addition, the operator will have portable watering equipment available during the grinding operation to control dust when stockpiling ground material. All conveyors which off-load materials from grinders at a point which is not enclosed inside a building will have available water to control dust when stockpiling ground material.

2.6 Facility Closure

Upon decommissioning of the wood waste processing area, remaining wood waste material will be disposed of at the working face of the landfill. Processed wood chip material will either be distributed consistent with the distribution plan of this permit or disposed of at the working face of the landfill.

2.7 Distribution Plan

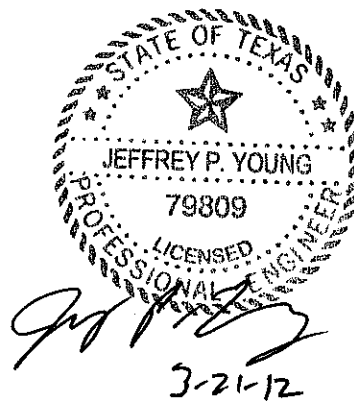
The end-product wood chips will be made available to local community and city/county/state governmental agencies for beneficial reuse. Site personnel will measure and record the quantity of wood waste diverted from the facility (bulk volume delivered to the site). Camelot Landfill may also use the wood chip material to promote the vegetative final cover layer.

**CAMELOT LANDFILL
CITY OF LEWISVILLE, DENTON COUNTY
TCEQ PERMIT NO. MSW-1312B**

MAJOR PERMIT AMENDMENT APPLICATION

**PART IV – SITE OPERATING PLAN
APPENDIX IVE
FLOODPLAIN MARKER PLAN**

Prepared for
City of Farmers Branch
March 2012

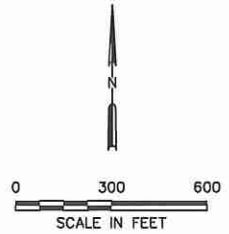
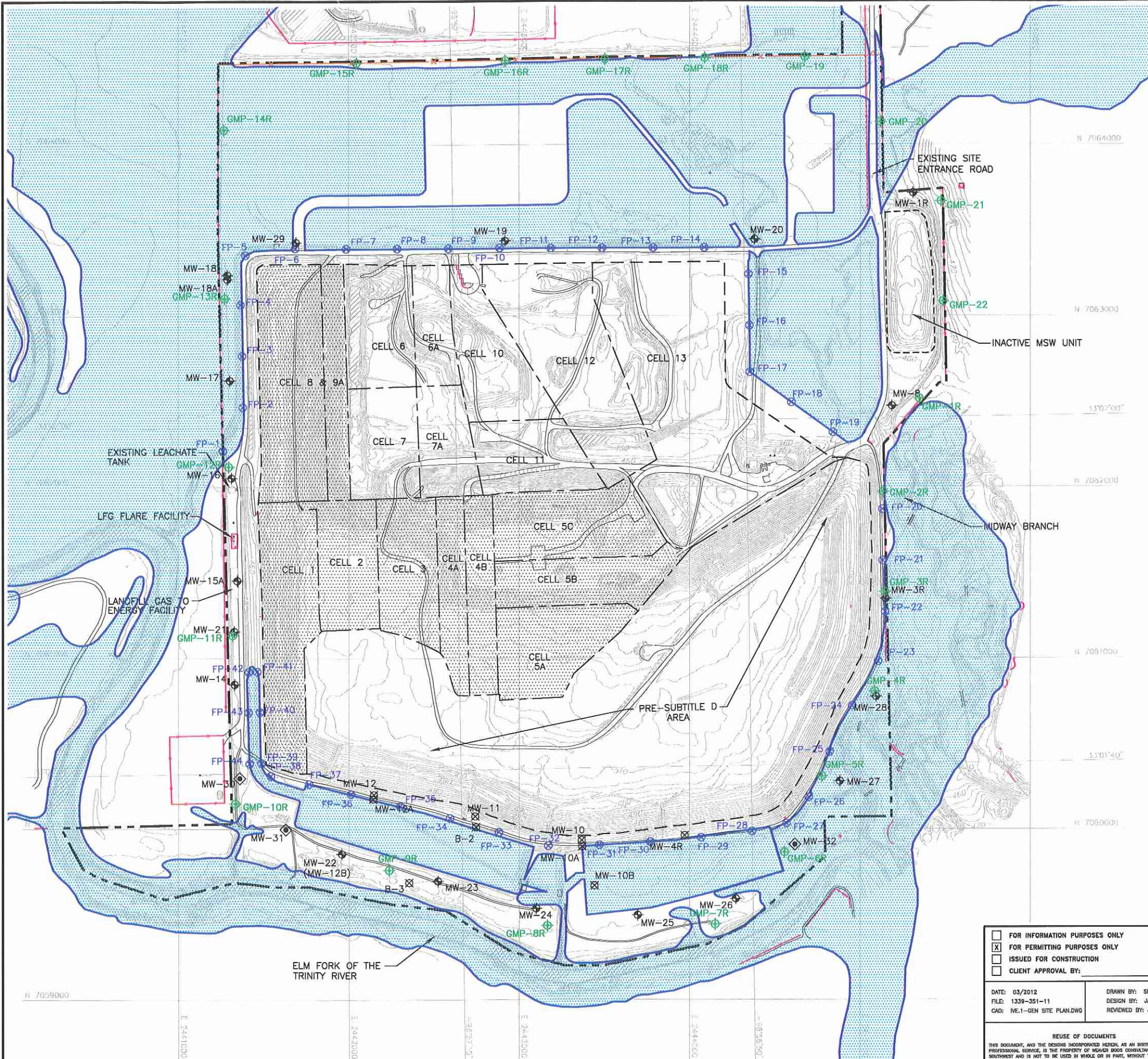


Prepared by

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WBC Project No. 1339-351-11-02-6C

This document is intended for permitting purposes only.



LEGEND

- PERMIT BOUNDARY (SEE NOTE 2)
- - - LIMIT OF WASTE
- STATE PLANE COORDINATE SYSTEM
- GEODETIC COORDINATE SYSTEM
- EXISTING CONTOUR
- MW-8 EXISTING GROUNDWATER MONITORING WELL
- MW-30 PROPOSED GROUNDWATER MONITORING WELL
- GMP-20 PROPOSED LANDFILL GAS MONITORING PROBE
- MW-12 OBSERVATION WELL
- FP-1 PROPOSED FLOODPLAIN MARKER
- EXISTING SUBTITLE D COMPOSITE LINED AREA
- EXISTING FENCE
- PROPOSED FENCE
- 100-YEAR FLOODPLAIN (SEE NOTE 3)

- NOTE:**
1. CONTOURS AND ELEVATIONS PROVIDED BY METROPOLITAN AERIAL SURVEYS COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 8-28-10. THE GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 1983. ELEVATIONS ARE BASED ON NAVD 88.
 2. PERMIT BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION PREPARED BY PIESER SURVEYING CO. DATED NOVEMBER 2010. THE PERMIT BOUNDARY FOR TCEQ PERMIT NO. MSW-1312A IS SHOWN ON FIGURE 1/II-3.1.
 3. FLOODPLAIN INFORMATION IS INCLUDED IN APPENDIX III.O.



IVE-1

| <input type="checkbox"/> FOR INFORMATION PURPOSES ONLY <input checked="" type="checkbox"/> FOR PERMITTING PURPOSES ONLY <input type="checkbox"/> ISSUED FOR CONSTRUCTION <input type="checkbox"/> CLIENT APPROVAL BY: | PREPARED FOR CITY OF FARMERS BRANCH | MAJOR PERMIT AMENDMENT FLOODPLAIN MARKER PLAN CAMELOT LANDFILL DENTON COUNTY, TEXAS <i>Weaver Boos Consultants</i> TBPE REGISTRATION NO. F-3727 | | | | | | | | | | | |
|--|---|--|---|-----|------|-------------|--|--|--|--|--|--|--|
| | DATE: 03/2012 FILE: 1339-351-11 CAD: ME.1-GEN SITE PLAN.DWG | | REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> | NO. | DATE | DESCRIPTION | | | | | | | |
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