

## Texas Commission on Environmental Quality Waste Permits Division Correspondence Cover Sheet

Date: <u>6-11-2025</u> Facility Name: <u>TREEFARM SWC IH-635 and IH-35</u> Permit or Registration No.: <u>62055</u> Nature of Correspondence:

Initial/New

Response/Revision to TCEQ Tracking No.: <u>30701846</u>(from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

Applications	Reports and Notifications
New Notice of Intent	Alternative Daily Cover Report
Notice of Intent Revision	Closure Report
New Permit (including Subchapter T)	Compost Report
New Registration (including Subchapter T)	Groundwater Alternate Source Demonstration
🗌 Major Amendment	Groundwater Corrective Action
Minor Amendment	Groundwater Monitoring Report
Limited Scope Major Amendment	Groundwater Background Evaluation
Notice Modification	Landfill Gas Corrective Action
Non-Notice Modification	Landfill Gas Monitoring
Transfer/Name Change Modification	Liner Evaluation Report
Temporary Authorization	Soil Boring Plan
Voluntary Revocation	Special Waste Request
Subchapter T Disturbance Non-Enclosed Structure	Other:
Other:	

## Table 1 - Municipal Solid Waste Correspondence

#### Table 2 - Industrial & Hazardous Waste Correspondence

Applications	Reports and Responses
New	Annual/Biennial Site Activity Report
🗌 Renewal	CPT Plan/Result
Post-Closure Order	Closure Certification/Report
🗌 Major Amendment	Construction Certification/Report
Minor Amendment	CPT Plan/Result
CCR Registration	Extension Request
CCR Registration Major Amendment	Groundwater Monitoring Report
CCR Registration Minor Amendment	🗌 Interim Status Change
Class 3 Modification	🗌 Interim Status Closure Plan
Class 2 Modification	Soil Core Monitoring Report
Class 1 ED Modification	Treatability Study
Class 1 Modification	Trial Burn Plan/Result
Endorsement	Unsaturated Zone Monitoring Report
Temporary Authorization	Waste Minimization Report
Voluntary Revocation	Other:
335.6 Notification	
Other:	





## SUBCHAPTER T PERMIT APPLICATION

30 Texas Administrative Code (TAC) 330 Subchapter T §330.951 - §330.964

635 EXCHANGE TCEQ RE NAME: TREEFARM SWC IH-635 AND IH-35 11645 Newberry St City of Dallas, Dallas County, Texas 75229-2033



October 1, 2024 Revised November 12, 2024; December 6, 2024; April 23, 2025; May 13, 2025; June 11, 2025

PREPARED FOR:

Texas Commission on Environmental Quality Municipal Solid Waste Permit Section – MC124 12100 Park 35 Circle Austin, TX 78753

**PREPARED BY:** 

The Vertex Companies, LLC 3030 LBJ Freeway, Suite 1620 Dallas, TX 75234

PHONE 214.499.9234

TCEQ CN606339471 TCEQ RN111728465 TCEQ MSW REGISTRATION 67109, MSW62055 (Pending) APPLICANT: PR III/CRE 635 Exchange Owner, LP 1200 N 52ND Street Phoenix, AZ 85008



# **TCEQ Core Data Form**

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

## **SECTION I: General Information**

1. Reason for Submission (If other is checked please describe in space provided.)						
New Permit, Registration or Authorization ( <i>Core Data Form should be submitted with the program application.</i> )						
Renewal (Core Data Form should be submitted with the	Renewal (Core Data Form should be submitted with the renewal form) Other					
2. Customer Reference Number (if issued)	Follow this link to search	3. Regulated Entity Reference Number (if issued)				
CN	<u>Central Registry**</u>	RN 111728465				

## **SECTION II: Customer Information**

4. General Cu	General Customer Information 5. Effective Date for Customer Information Updates (mm/dd/yyyy)												
New Custon	New Customer   Update to Customer Information   Change in Regulated Entity Ownership     Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)												
The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).													
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John) <u>If new Customer, enter previous Customer below:</u>													
PR III/CRE 635 E	Exchange O	wner, LP											
7. TX SOS/CP/ 805592101	7. TX SOS/CPA Filing Number     8. TX State Tax ID (11 digits)       805592101     32095549021					9. Federal Tax ID10. DUN applicable(9 digits)NA83-2331161			<b>10. DUNS</b> applicable) NA	Number <i>(if</i>			
11. Type of Cu	ustomer:		Corporat	tion				Individ	lual	ual Partnership: 🗌 Gene			eral 🛛 Limited
Government:	City 🗌 (	County	Federal	Local 🗌 Stat	e 🗌 Other			Sole P	roprietorship 🗌 Other:				
12. Number o	of Employ	ees							13. l	ndepender	ntly Ow	ned and Ope	arated?
⊠ 0-20   □ 2	21-100	101-25	0 251-	500 🗌 501	l and higher				🛛 Yes 🗌 No				
14. Customer	Role (Pro	posed or a	Actual) – <i>as i</i>	t relates to the	e Regulated Er	ntity list	ted o	n this form.	Please o	check one of	the follo	owing	
Owner	al Licensee	Ope	rator sponsible Pa	rty 🗌	wner & Opera VCP/BSA App	itor Ilicant				Other:			
15. Mailing	1200 N 5	2ND STRE	ET										
Address:					_				-				
	City Phoenix State AZ			ZIP 85008 ZIP + 4									
<b>16. Country Mailing Information</b> (if outside USA)			17. E-Mail Address (if applicable)										
18. Telephone Number 19. Extension or 0			on or C	ode 20. Fax Number (if applicable)									

017	004 0000
01/	334-3000

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## **SECTION III: Regulated Entity Information**

21. General Regulated Entity Information (If 'New Regulated Entity" is selected, a new permit application is also required.)								
New Regulated Entity	New Regulated Entity 🔲 Update to Regulated Entity Name 🛛 Update to Regulated Entity Information							
The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).								
22. Regulated Entity Nam	<b>ie</b> (Enter name	of the site where the	regulated action	is taking plac	ce.)			
TREEFARM SWC IH-635 AND	IH-35							
23. Street Address of	11645 Newberry St							
the Regulated Entity:								
<u>(No PO Boxes)</u>	City	Dallas	State	тх	ZIP	75229	ZIP + 4	2033
24. County	Dallas							

If no Street Address is provided, fields 25-28 are required.

25. Description to	SWC I-635 a	ind I-35E							
Physical Location:									
26. Nearest City						State		Nea	rest ZIP Code
Dallas TX 75229									
Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).									
27. Latitude (N) In Decim	al:	32.903729°		28. Lo	ongitude (W	/) In Decim	nal:	-96.90804	46°
Degrees	Minutes		Seconds	Degre	es	Mi	nutes		Seconds
32		54	13.42		96		54		28.97
29. Primary SIC Code	30.	Secondary SIC	Code	31. Primar	y NAICS Co	de	32. Secon	dary NAI	CS Code
(4 digits)	(4 d	(4 digits) (5			or 6 digits) (5 or 6 dig			ts)	
NA	NA			NA			NA		
33. What is the Primary E	33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)								
Vacant									
	NA								
34. Mailing									
Address:						-			1
	City		State		ZIP			ZIP + 4	
35. E-Mail Address:	35. E-Mail Address: NA								
36. Telephone Number			37. Extension or	Code	38. Fa	ax Numbei	r (if applicabl	e)	
(NA) -					( )	) -			

**39. TCEQ Programs and ID Numbers** Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

Dam Safety	Districts	Edwards Aquifer	Emissions Inventory Air	Industrial Hazardous Waste
Municipal Solid Waste	New Source Review Air		Petroleum Storage Tank	D PWS
Sludge	Storm Water	Title V Air	Tires	Used Oil
Voluntary Cleanup	Wastewater	Wastewater Agriculture	Water Rights	Other:

## **SECTION IV: Preparer Information**

40. Name:	Nick Crame	r		41. Title:	Project Lead	
42. Telephon	e Number	43. Ext./Code	44. Fax Number	45. E-Mail Ad	ddress	
(214) 499-923	34		( ) -	ncramer	@vertexeng.com	

## **SECTION V: Authorized Signature**

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

(817) 994-9806
8.29.24
e:

## CREATION

September 5, 2024

MC 124 Texas Commission on Environmental Quality Municipal Solid Waste Permit Section 12100 Park 35 Circle Austin, TX 78753

Re: Signatories to Applications Municipal Solid Waste (MSW) Development Permit Application TREEFARM IH-635 AND IH-35 11645 Newberry St Dallas, Dallas County, TX 75229-2033 TCEQ CN606135689, RN111728465, MSW67109

PR III/CRE 635 Exchange Holdings, LP is pleased to submit the enclosed Subchapter T Permit Application. As required by 30 TAC §305.44, the applicant makes the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

We trust this information is acceptable. Should you require additional information or have any questions regarding this report, please contact the undersigned at 602.600.6363.

Sincerely, BY:

Name: Taylor Mitcham Title: Authorized Signatory



Texas Commission on Environmental Quality

## Application for Development Permit for Proposed Enclosed Structure Over Closed Municipal Solid Waste Landfill

## **Application Tracking Information**

Applicant Name: PR III/CRE 635 Exchange Owner, LP						
Facility Name: TREEFARM SWC IH-635 AND IH-35						
Development Permit Number:						
Initial Submission Date: 10.01.24						
Revision Date: 6.11.25						

Use this form to apply for a development permit for proposed enclosed structure over a closed municipal solid waste (MSW) landfill. Rules about use of land over a closed MSW landfill are in <u>Title 30</u>, <u>Texas Administrative Code</u><sup>1</sup>, Chapter 330, Subchapter T. Instructions for completing this form are provided in form <u>TCEQ 20785-instr</u><sup>2</sup>. Include a Core Data Form, available at <u>www.tceq.texas.gov/goto/coredata</u> with the application. If you have questions, contact the Municipal Solid Waste Permits Section by email to <u>mswper@tceq.texas.gov</u>, or by phone at 512-239-2335.

If you have an existing enclosed structure, use form <u>TCEQ-20786</u><sup>3</sup>, Registration for Existing Enclosed Structure Over Closed Municipal Solid Waste Landfill. If you are proposing a non-enclosed structure, use form <u>TCEQ-20787</u><sup>4</sup>, Authorization to Disturb Final Cover Over Closed Municipal Solid Waste Landfill for Non-Enclosed Structure.

## **Application Data**

## 1. Application Type

- New Development Permit 🗌 Revisions of Existing Permit
- □ Transfer of an Existing Permit

If existing Permit, indicate the Permit Number: \_\_\_\_

## 2. Submission Type

Initial Submission

□ Notice of Deficiency (NOD) Response

<sup>&</sup>lt;sup>1</sup> www.tceq.texas.gov/goto/view-30tac

<sup>&</sup>lt;sup>2</sup> www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/20785-instr.pdf

<sup>&</sup>lt;sup>3</sup> www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/20786.pdf

<sup>&</sup>lt;sup>4</sup> www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/20787.pdf

#### 3. Application Fee

The application fee for a development permit is \$2,500.

Paid by Check

Paid Online

If paid online, ePay Confirmation Number:

## 4. Enrollment in Other TCEQ Programs

Indicate if the site is enrolled in the Voluntary Cleanup Program or other Remediation Program.

🗌 Yes 🔳 No

If Yes, indicate the program: \_\_\_\_\_

#### 5. Development Type

Is the development a single-family or double-family home that is not part of a housing subdivision?

🗌 Yes 🔳 No

If "Yes", the construction is exempt from the development permit requirement.

#### 6. Enclosed Structure Description

Provide a brief description of the proposed enclosed structure for which the development permit is requested.

The proposed development includes the development of the subject property with an office/warehouse facility comprised of three, single-story buildings containing approximately 595,688-square feet of total building area with associated concrete drive, parking areas, rights of way, sidewalks and landscaping. The office/warehouse facility is anticipated to feature office space within the accompanying warehouse space. Onsite soils will be graded to provide the design contours and elevations of the proposed project. In all instances, where cover soils are disturbed or removed, a minimum of two feet of cover soils over waste will be maintained.

#### 7. Soil Tests

Size of the property (acres): 36.2936

Was the existence of the landfill determined through:

🗌 Test I

🗌 Test II

Test III

Other. Please describe: \_\_\_\_\_

If soil tests were performed prior to development in accordance with 30 TAC §330.953, the test results shall be included in this application.

## 8. Notification of MSW Landfill Determination

If soil tests were used to determine the presence of a closed MSW landfill, provide evidence that the engineer who performed the soil tests has notified the following persons of that determination in accordance with 30 TAC §330.953(d).

Each owner and lessee

Executive Director

Local Government Officials

Regional Council of Governments

## 9. Landfill Permit Status

What is the permit status of the landfill?

Active MSW Permit Landfill in Post-Closure Care

Revoked MSW Permit Non-Permitted Landfill

If the landfill is still in the post-closure care period subject to an active MSW Permit, this development permit application for proposed enclosed structures shall be accompanied by a Permit Modification application prepared in accordance with 30 TAC §305.70, and by a certification signed by an independent engineer in accordance with 30 TAC §330.957(b)(2).

If the landfill has completed the post-closure care period, but the MSW permit has not been revoked (site affected by an active MSW Permit), a Voluntary Revocation request of the MSW Permit shall be submitted in accordance with 30 TAC §330.465 prior to the submittal of this development permit application for proposed enclosed structures over a closed MSW landfill.

## **10. Electronic Versions of Application**

TCEQ will publish electronic versions of the application online. Applicants must provide a clean copy of the administratively complete application and technically complete application. TCEQ will also publish electronic versions of NOD responses online.

11. Public Place for Copy of Application							
Name of the Public Place: Park Forest Branch Library							
Physical Address: 3421 Forest Ln							
<sub>City:</sub> Dallas	County: Dallas	State: <u>TX</u> Zip Code: 75234					
Phone Number: 214.670.6333							
Normal Operating Hours: Mon-Tues (9A-5P); W-TH (9A-8P); Fri (9A-5P); Sat (9A-4P); Sun (Closed)							

12. Party Responsible for Publishing Notice
Indicate who will be responsible for publishing notice:
Applicant Consultant
Contact Name: Nick Cramer
Title: Project Lead
Email Address:
13. Alternative Language Notice

Use the Alternative Language Checklist on Public Notice Verification Form TCEQ-20244-Waste-NAORPM available at

<u>www.tceq.texas.gov/permitting/waste\_permits/msw\_permits/msw\_notice.html</u> to determine if an alternative language notice is required.

Is an alternative language notice required for this application?

Yes No

Indicate the alternative language: Spanish

## **14. Confidential Documents**

Does the application contain confidential documents?

🗌 Yes 🔳 No

If "Yes", cross-reference the confidential documents throughout the application and submit as a separate attachment in a binder clearly marked "CONFIDENTIAL."

## **15. Permits and Construction Approvals**

Mark the following tables to indicate status of other permits or approvals.

#### **Permits and Construction Approvals**

Permit or Approval	Received	Pending	Not Applicable
Zoning Approval		Х	
Preliminary Subdivision Plan		Х	
Final Plat		Х	
Fire Inspector's Approval		Х	
Building Inspector's Approval on Plans		Х	
Water Service Tap		Х	
Wastewater Service Tap		Х	
On-site Wastewater Disposal System Approval			Х

## **Other Environmental Permits**

Other Environmental Permits (list)	Received	Pending

16. General Project In	formation			
Facility Name: TREEFARM SWC IH-635 AND IH-35				
SubT Development Permit N	umber (if available):			
Regulated Entity Reference Number (if issued): <b>RN</b> <u>111728465</u>				
Street or Physical Address: 11645 Newberry St				
<sub>City:</sub> Dallas	<sub>County:</sub> Dallas	_ State: TX Zip Code: 75229		
Phone Number:				
<i>If Regulated Entity Reference Number has not been issued for the facility, complete a Core Data Form (TCEQ-10400) and submit it with this application.</i>				

17. Contact Information
Applicant (Lessee/Project Owner) <sub>Name:</sub> PR III/CRE 635 Exchange Owner, LP
Customer Reference Number (if issued): <b>CN</b> <sup></sup> Mailing Address: <u>1200 N 52ND Street</u>
City: Phoenix County: Maricopa State: AZ Zip Code: 85008
Phone Number:
Email Address:
If Customer Reference Number has not been issued, complete a Core Data Form (TCEQ- 10400) and submit it with this application. List the Applicant as the Customer.
Property Owner
Name: PR III/CRE 635 Exchange Owner, LP
Mailing Address: 1200 N 52ND Street
City: Phoenix County: Maricopa State: AZ Zip Code: 85008
Phone Number: <u>817.994.9806</u>
Email Address:
If the Property Owner is the same as Applicant, indicate "Same as "Applicant".
Consultant (if applicable)
Firm Name: The Vertex Companies, LLC
Texas Board of Professional Engineers and Land Surveyors Firm Number: F-15099
Mailing Address: 3030 LBJ Freeway, Ste 1620
City: Dallas County: Dallas State: TX Zip Code: 75234
Consultant Name: Richard J. Tobia
Phone Number: 214.499.9234
Email Address:
Engineer Who Performed Soil Tests
Firm Name: Reed Engineering Group, Ltd.
Texas Board of Professional Engineers and Land Surveyors Firm Number: <u>F-3114</u> Mailing Address: 2424 Stutz Drive, Suite 400
Texas Board of Professional Engineers and Land Surveyors Firm Number: F-3114 Mailing Address: 2424 Stutz Drive, Suite 400 City: Dallas State: TX Zin Code: 75235
Texas Board of Professional Engineers and Land Surveyors Firm Number:   F-3114     Mailing Address:   2424 Stutz Drive, Suite 400     City:   Dallas     County:   Dallas     State:   TX     Zip Code:   75235     Engineer Name   Ronald Reed
Texas Board of Professional Engineers and Land Surveyors Firm Number:   F-3114     Mailing Address:   2424 Stutz Drive, Suite 400     City:   Dallas     County:   Dallas     State:   TX     Zip Code:   75235     Engineer Name:   Ronald Reed     Phone Number:   214.350.5600

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18. Other Gove	ernmental Entities Information:		
Fire Chief, Fire M	arshal or Fire Inspector Information		
Fire Department Na	ame: Dallas Fire-Rescue; Office of the	Fire Marshal	
Person's Name: M	Ir. Ricky E. Butler, Senior Planning Engineer/Senior Fire Preve	ention Officer	
Mailing Address:	320 East Jefferson Street, Ste. 204		
<sub>City:</sub> Dallas	<sub>County:</sub> Dallas	State: TX	Zip Code: 75203
Phone Number: (2	214) 948-4602		
Email Address: ric	ky.butler@dallasfire.gov		
Local Floodplain	Authority (if applicable)		
Authority Name:	City of Dallas Floodplain and Drainage Ma	nagement	
Contact Person's N	lame: David Phan, P.E., CFM		
Street or P.O. Box:	2245 Irving Boulevard, Second Floor		
<sub>City:</sub> Dallas	<sub>County:</sub> Dallas	State: TX	Zip Code: 75207
Phone Number: 21	14-671-2219		
Email Address: Flo	oodplainManagement@dallas.gov		
City Mayor Inform	mation		
City Mayor's Name	Eric L. Johnson, Mayor		
Office Address: 1	500 Marilla Street,Suite 5EN		
<sub>City:</sub> Dallas	<sub>County:</sub> Dallas	State: TX	Zip Code: 75201
Phone Number: 21	14-670-3301		
Email Address: http://	s://dallascityhall.com/government/citymayor/Pages/contact.aspx		
City Health Autho	ority Information		
Contact Person's N	ame: No City Health Authority exists for the City of Dallas and these serv	ices are provided by the C	County.
Office Address:			
City:	County:	State:	Zip Code:
Phone Number:			
Email Address:			

Director of Public Works		
Department Name: City of Dallas Public Works		
Contact Person's Name: Dr. Ghassan Khankarli, Director		
Office Address: 320 E. Jefferson Blvd		
City: Dallas County: Dallas	State: TX	Zip Code: 75203
Phone Number: 214-671-0737		
Email Address:		
Director of Utilities		
Utility Name: City of Dallas Water Utilities		
Contact Person's Name: Ms. Sarah Standifer, Director		
Office Address: 1500 Marilla Street, 4AN		
City: Dallas County: Dallas	State: TX	Zip Code: 75201
Phone Number: 214-670-3146		
Email Address:		
Director of Planning		
Agency Name: City of Dallas Planning & Urban Design Dep	partment	
Contact Person's Name: Ms. Andrea Gilles; Interim Directo	or	
Office Address: 1500 Marilla Street, 1FN		
City: Dallas County: Dallas	State: TX	Zip Code: 75201
Phone Number: 214-671-8900		,
Email Address: pud@dallascityhall.com		
Building Inspector		
Agency Name. City of Dallas Plan Review & Field Service Ins	pections	
Contact Person's Name Mr. Carlton King, Supervisor NW	District Office	Э
Office Address: 320 E. Jefferson Blvd.		
City: Dallas County: Dallas	State. TX	Zin Code: 75203
Phone Number: 214-948-4480	<u> </u>	
Email Address:		
County Sudge Information		
County Judge's Name: <u>Them Studge Stay Semana</u>		
city Dallas	Chata TX	75202
County: <u>Sando</u> County: <u>Sando</u>	State: <u>17</u>	
Email Address. dcjudge@dallascounty.org		
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	<b>.</b> .				
County Engine					
County Engineer	r's Name: MS. Cecella Rutherford, PE			<u> </u>	
County Engineer	r's P.E. Registration No.: 100037				
Office Address:	500 Elm Street, Suite 5300		-		
<sub>City:</sub> Dallas	County: Dallas	_ State: T	ГХ	Zip Code:	75202
Phone Number:	214-653-6677				
Email Address:		-			
County Health	Authority				
Agency Name:	Dallas County Health and Human Servic	es			
Contact Person's	s Name: Dr. Philip Huang, MD, MPH				
Office Address:	2377 North Stemmons Freeway		-		
City: Dallas	County: Dallas	State:	ГХ	Zip Code:	75207
Phone Number:	214-819-2000				
Email Address:					
State Represe	ntative Information				
District Number	: <u>103</u>				
State Represent	ative's Name: Representative Rafael Ancl	nia			
District Office Ad	ddress: 1111 West Mockingbird Lane, Ste	1010			
City: Dallas	County: Dallas	_ State: T	ΓX	Zip Code:	75247
Phone Number:	214-943-6081				
Email Address:					
State Senator	Information				
District Number	: <u>12</u>				
State Senator's	Name: Senator Tan Parker				
District Office Ad	ddress: 8226 Douglas Ave. #625				
City: Dallas	County: Dallas	_ State: T	ΓX	Zip Code:	75225
Phone Number:	214-361-3561				
Email Address:					

Council of Government (COG)
COG Name: North Central Texas County of Governments
COG Representative's Name: Ms. Edith Marvin
COG Representative's Title: Director of Environment and Development
Street Address or P.O. Box: <u>600 Six Flags Dr.</u>
City: Arlington County: Tarrant State: TX Zip Code: 76011
Phone Number: <u>817-695-9211</u>
Email Address:
Local Government Jurisdiction
Is the property located within the limits or in the ETJ of any City?
Yes No
If "Yes" city regulations may apply. Issuance of Development Permit for an Enclosed Structure does not exempt the applicant from complying with city codes and zoning.
Within City Limits of: Dallas
Within Extraterritorial Jurisdiction of City of:
19. Deed Recordation
■ Verify that the property owner filed a written notice for record in the real property records in the county where the land is located in accordance with 30 TAC §330.962 stating: (a) the former use of the land; (b) the legal description of the tract of land that contains the closed MSW landfill; (c) notice that restrictions on the development or lease of the land exist in the Texas Health and Safety Code and in MSW rules; and (d) the name of the owner.
A certified copy of the Notice to Real Property Records is included in this application in accordance with 30 TAC §330.957(p).

## 20. Notice to Buyers, Lessees, and Occupants of the Structure

Did the property owner give written notice to all prospective buyers, lessees and/or occupants of the structure in accordance with 30 TAC §330.963 stating the land's former use as a landfill, and the structural controls in place to minimize potential future danger posed by the closed MSW landfill?

☐ Yes ■ New Structure Not Yet Constructed

If "Yes" certified copies of the notices shall be submitted to TCEQ in accordance with 30 TAC §330.957(p).

If "New Structure Not Yet Constructed" a draft notice to all prospective buyers, lessees and/or occupants of the proposed structure, and procedures for its implementation upon structure's construction shall be included in this application.

## 21. Notice of Lease Restrictions on the Property

Is the property leased?

🗌 Yes 🔳 No

If "Yes", verify that the property owner provided written notice to all prospective lessees of the property in accordance with 30 TAC §330.964 concerning:

 $\hfill \hfill \hfill$ 

(b) the prohibitions or requirements for future disturbance of the final cover?

 $\Box$  A certified copy of the notice is included in the application in accordance with 30 TAC §330.957(p).

# Professional Engineer's Certification of No Potential Threat to Public Health or the Environment

The applicant's engineer for this project shall complete one of the following certifications:

"I, \_\_\_\_\_\_, Texas PE Number \_\_\_\_\_, certify that the proposed development is necessary to reduce a potential threat to public health or the environment. Further, I certify that the proposed development will not damage the integrity or function of any component of the Closed Municipal Solid Waste Landfill Unit, including, but not limited to, the final cover, containment systems, monitoring system, or liners. This certification includes all documentation of all studies and data on which I relied in making these determinations."

Engineer's seal, with signature and date:

Engineering Firm Name: \_\_\_\_\_

Texas Board of Professional Engineers and Land Surveyors Firm Number:

Or:

" I, <u>**Richard James Tobia**</u>, Texas PE Number <u>**138981**</u>, certify that the proposed development will not increase or create a potential threat to public health or the environment. Further, I certify that the proposed development will not damage the integrity or function of any component of the Closed Municipal Solid Waste Landfill Unit, including, but not limited to, the final cover, containment systems, monitoring system, or liners. This certification includes all documentation of all studies and data on which I relied in making these determinations."

Engineer's seal, with signature and date:



Engineering Firm Name: **Richard James Tobia** 

Texas Board of Professional Engineers and Land Surveyors Firm Number: \_\_\_\_\_\_

## Signature Page

#### Applicant Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: PR III/CRE 635 Exchange/Owner, LP Title	e: Authorized Signatory
Signature: (David Sellers	) Date: <u>6/12/25</u>
Email Address: tmitcham@creationequity.com	
SUBSCRIBED AND SWORN to before me by the said I	David Scillers
On this <u>12<sup>th</sup></u> day of <u>June</u> , 2025	
My commission expires on the <u>9</u> <sup>th</sup> day of <u>March</u>	, 2026
Notary's Name: Ryan Byler Ry Rod	RYAN BYLER
Notary Public in and for	Notary Public - State of Arizona MARICOPA COUNTY
MoncopaCounty, Arizona	Commission # 623843 Expires March 9, 2026

#### **Property Owner Authorization**

To be completed by the property owner if the property owner is not the applicant.

I, the o	wner of the property identified by
the address	,hereby authorize the
applicant to proceed with the project described in this appli necessary authorizations in order to conduct this project. I owner, I am responsible for maintaining the integrity of the landfill.	cation, and to apply for any understand that, as property final cover over the closed MSW
Property Owner Name:	
Signature:	Date:
Email Address:	-
SUBSCRIBED AND SWORN to before me by the said	
On this day of,	
My commission expires on the day of,	
Notary's Name:	
Notary Public in and for	
County, Texas	

TCEQ-20785 (Rev. 05-06-24) Application for Development Permit for Proposed Enclosed Structure Over Closed Municipal Solid Waste Landfill Page 13 of 16

## **Attachments for New Development Permit**

## **Required Attachments**

## A. Narrative

Attachment	Attachment Number
Proposed Project Description	PG 6
Existing Conditions Summary	PG 11
Legal Authority	PG 13
Evidence of Competency	PG 13
Notice of Engineer Appointment	PG 13
Notices of Coordination with Governmental Agencies and Officials	PG 13
Geology and Soil Statement	PG 14
Groundwater and Surface Water Statement	PG 15
Foundation Plans	PG 16
Soil Tests	PG 20
Closure Plan	PG 21
Structures Gas Monitoring Plan	PG 22
Site Operating Plan	PG 21
Safety and Evacuation Plan	PG 28

## B. Maps and Plans

Attachment	Attachment Number
Adjacent Landowners Map	Figure 119
Adjacent Landowners List	Figure 120
Electronic List or Mailing Labels	Separate Cover
General Location Map	Figure 2
General Topographic Map	Figure 3
Site Layout Plan with Limits of Waste Disposal Area	Figure 5
Foundation Plans	Page 16; Figures 15-28
Structure Layout Plan	Figure 6
Methane Monitoring Equipment Location Plans	Figure 36
Construction Details and Engineering Drawings	Figures 1-120

## C. Copies of Legal Documents

Attachment	Attachment Number
Property Legal Description	Figure 1
Notice of Landfill Determination	Closed (TDH Permit No. 63); App A & D
Notice to Real Property Records	Арр К
Notices to Buyers, Lessees, and Occupants	App L
Notices of Lease Restrictions (if applies)	App L

## Additional Attachments as Applicable

Attachment	Attachment Number
TCEQ Core Data Form(s)	Preceeding
Confidential Documents	
Soil Tests Boring Logs	App C
Other maps, plans and engineering drawings	Figures 1-120
Methane Monitoring Equipment Specifications	App I
Methane Monitoring Report	
🗌 Waste Disposal Manifests	
Fee Payment Receipt	Preceeding
Final Plat Record of Property	

## **Attachments for Revisions to Existing Development Permit**

## **Required Attachments**

#### A. Revised Pages

Attachment	Attachment Number
Marked (Redline/Strikeout) Pages	
Unmarked Revised Pages	

#### **B. Narrative**

Attachment	Attachment Number
Description of Proposed Revisions	
Foundation Plans (if revised)	
Closure Plan (if revised)	
Site Operating Plan (if revised)	
Structures Gas Monitoring Plan (if revised)	
Safety and Evacuation Plan (if revised)	

## C. Maps and Plans

Attachment	Attachment Number
General Location Map	
Site Layout Plan	
Structure Layout Plan	
Methane Monitoring Equipment Location Plans	

## **Additional Attachments as Applicable**

Attachment	Attachment Number



TCEQ-20785 TCEQ Delivery Confirmation



## Texas Commission on Environmental Quality Waste Permits Division Correspondence Cover Sheet

Date: <u>10-1-2023</u> Facility Name: <u>TREEFARM SWC IH-635 and IH-35</u> Permit or Registration No.: <u>67109</u>

Nature of Correspondence:

Initial/New

Response/Revision to TCEQ Tracking No.: \_\_\_\_\_ (from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

Applications	Reports and Notifications
New Notice of Intent	Alternative Daily Cover Report
Notice of Intent Revision	Closure Report
New Permit (including Subchapter T)	Compost Report
New Registration (including Subchapter T)	Groundwater Alternate Source Demonstration
Major Amendment	Groundwater Corrective Action
Minor Amendment	Groundwater Monitoring Report
Limited Scope Major Amendment	Groundwater Background Evaluation
Notice Modification	Landfill Gas Corrective Action
Non-Notice Modification	Landfill Gas Monitoring
Transfer/Name Change Modification	Liner Evaluation Report
Temporary Authorization	Soil Boring Plan
Voluntary Revocation	Special Waste Request
Subchapter T Disturbance Non-Enclosed Structure	Other:
Other:	

## Table 1 - Municipal Solid Waste Correspondence

## Table 2 - Industrial & Hazardous Waste Correspondence

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Renewal	CPT Plan/Result	
Post-Closure Order	Closure Certification/Report	
Major Amendment	Construction Certification/Report	
Minor Amendment	CPT Plan/Result	
CCR Registration	Extension Request	
CCR Registration Major Amendment	Groundwater Monitoring Report	
CCR Registration Minor Amendment	Interim Status Change	
Class 3 Modification	Interim Status Closure Plan	
Class 2 Modification	Soil Core Monitoring Report	
	Treatability Study	
ELDAA BOWIE	Trial Burn Plan/Result	
Administrative Assistant	Unsaturated Zone Monitoring Report	
<u>[</u>	Waste Minimization Report	
Region 4 DFW Region	Other:	
Texas Commission on Environmental Quality		
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## SUBCHAPTER T PERMIT APPLICATION

30 Texas Administrative Code (TAC) 330 Subchapter T §330.951 - §330.964

635 EXCHANGE TCEQ RE NAME: TREEFARM SWC IH-635 AND IH-35 11645 Newberry St City of Dallas, Dallas County, Texas 75229-2033



October 1, 2024 Revised November 12, 2024; December 6, 2024; April 23, 2025; May 13, 2025; June 11, 2025

#### **PREPARED FOR:**

Texas Commission on Environmental Quality Municipal Solid Waste Permit Section – MC124 12100 Park 35 Circle Austin, TX 78753

#### PREPARED BY:

The Vertex Companies, LLC 3030 LBJ Freeway, Suite 1620 Dallas, TX 75234

PHONE 214.499.9234

TCEQ CN606339471 TCEQ RN111728465 TCEQ MSW REGISTRATION 67109, MSW62055 (Pending) APPLICANT: PR III/CRE 635 Exchange Owner, LP 1200 N 52ND Street Phoenix, AZ 85008



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\*\*\*\*\*



October 1, 2024

#### **TEXAS ADMINISTRATIVE CODE**

TITLE 30	ENVIRONMENTAL QUALITY
PART 1	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CHAPTER 330	MUNICIPAL SOLID WASTE
SUBCHAPTER T	USE OF LAND OVER CLOSED MSW LANDFILLS

#### RULES §330.951 - §330.964

This document presents supporting information for a development permit application in accordance with 30 Texas Administrative Code (TAC) 330 Subchapter T §330.951 - §330.964. Approval of this permit application is required prior to construction over sites that are considered by the Texas Commission on Environmental Quality (TCEQ) as closed municipal solid waste landfills (CMSWLFs). The following sections include data concerning a 36.2936-acre tract of land located at 11645 Newberry Street in Dallas, Texas (the "site"). The proposed construction includes the development of the subject property with an office/warehouse facility comprised of three, single-story buildings containing approximately 595,688-square feet of total building area with associated concrete drives, parking areas, rights of way, sidewalks and landscaping. The site is owned and will be developed by PR III/CRE 635 Exchange Holdings, LP (the Owner and Applicant). The following permit application report follows the format of 30 TAC 330 Subchapter T.



#### §330.951

## DEFINITIONS

Unless otherwise noted, all terms contained herein are defined by their plain meaning. As used, words in the singular include the plural and words in the plural include the singular. The following words and terms, when used herein have the following meanings.

(1) Fill and select fill -- clean material suitable for site engineering purposes.

(2) Onsite, site, and area of permitted boundary -- Defined on Page 1 of this permit application report (Rules §330.951 -§330.964) as the "36.2936-acre tract of land located at 11645 Newberry Street in Dallas, Texas (the "site")" that is further described in the Alta Survey and the Property Legal Description (**Figures 1.1 and 1.2**, respectively).

(3) Vapor Methane Mitigation System (VMMS) Barrier -- A co-extruded Polyethylene (PE) and Ethylene Vinyl Alcohol (EVOH) stand-alone liner (PE layer, PE liner) that is rolled out in approximately 10-ft by 150' strips (Figure 33, Detail 2; Figure 35). A spray-applied asphaltic compound is used to seam overlaps, penetrations, and termination surfaces [brush-finished concrete (walls, footings, etc)] (Figure 34; Figure 35, Details 1 and 2; Figure 39). This VMMS barrier as used herein is synonymous with the terms "combination PE and spray-applied vapor barrier", vapor barrier, vapor membrane.

Treefarm SWC IH-635 and IH-35 Subchapter T Permit Application



October 1, 2024 Revised April 23, 2025 Page 2
#### **APPLICABILITY AND EXEMPTIONS**

#### §330.952(a) Applicability

The Applicant is proposing to develop this property with three onsite enclosed structures and the property overlies a closed municipal solid waste landfill (CMSWLF). Therefore, Chapter 330 Subchapter T is applicable.

#### §330.952(b) Exemptions

No exemptions apply.



#### SOIL TEST REQUIRED BEFORE DEVELOPMENT

The site was evaluated as part of a geotechnical investigation that was summarized in a report titled 'Geotechnical Investigation, W W Tree Farms, Newberry Street, Dallas, Texas'; dated August 31, 2021, respectively; and sealed by Ronald F. Reed, PE, Reed Engineering Group. The geotechnical report is included in **Appendix D**.

Notifications are discussed in Section §330.957(g).



### DEVELOPMENT PERMIT, DEVELOPMENT AUTHORIZATION, AND REGISTRATION REQUIREMENTS, PROCEDURES, AND PROCESSING

#### §330.954(a)

The Applicant is proposing to develop the site which overlies a closed municipal solid waste landfill (CMSWLF). Therefore, Chapter 330 Subchapter T is applicable.

#### §330.954(b)

The Applicant will follow all guidance regarding public meetings and notices thereto.

#### §330.954(c)

The site overlies the closed City of Dallas - T. M. Dye Tract Landfill whose permit expired on January 13, 1982. The landfill was closed in accordance with applicable regulations regarding closure and post closure care. Please note, the onsite closed landfill was not subject to a post-closure maintenance period and was not subject to further permit compliance inspections. Therefore, this rule is not applicable. Information related to the closed City of Dallas - T. M. Dye Tract Landfill (Texas Department of Health Solid Waste Permit No. 63) from the North Central Texas Council of Governments (NCTCOG) is included in **Appendix A**.

#### §330.954(d)

The Applicant is proposing to develop the site with new enclosed structures, therefore this rule does not apply.

#### §330.954(e)

The Applicant is proposing to develop the site with new enclosed structures, therefore this rule does not apply.



#### MISCELLANEOUS

#### §330.955(a)

The proposed foundation will be slab-on-grade and will be supported by Controlled Modulus Columns<sup>TM</sup> (CMCs) and, as such, there will be no enclosed area under the natural grade of land or under the grade of the final cover.

#### §330.955(b)

A final cover consisting of a laterally continuous layer of 2-feet (minimum) of compacted clay (the "cap" or "cover") will be maintained onsite in order to protect the integrity and function of the final cover. Furthermore, the cover will be maintained in such a manner as to provide positive drainage across the site to drain any seepage or infiltrating water towards site boundaries. In areas where there are currently not sufficient cover materials, additional will be added.

#### §330.955(c)

Any excavated municipal solid waste (MSW) will be transported offsite for disposal at an authorized facility. Exposed MSW will be managed per Section **§330.955(h)** of this application.

#### §330.955(d)

The proposed development will include an office/warehouse facility comprised of three, singlestory buildings containing approximately 595,688-square feet of total building area with associated Civil, Mechanical, Electrical, Plumbing, and Landscaping infrastructure including, but not necessarily limited to, the design outlined in the **Figures** section of this application (the Design).

The proposed foundation will be slab-on-grade that will be supported by CMCs.

CMCs will be installed with drilling equipment using displacement tooling to eliminate MSW spoils. Prior to installing CMCs, the site will be prepared using dynamic compaction.

### **Dynamic Compaction (DC)**

DC will be utilized in the building footprint and site improvement areas (pavements) to eliminate the need for excavation and replacement of the MSW for site development. DC work will involve the mobilization of a DC crane & equipment and repeated dropping of a steel weight on a uniform grid to densify the upper MSW for in-situ ground improvement. During the DC activities the existing site subgrade will be compacted and the resulting craters backfilled with clean select fill material and compacted per §330.955(g) and §330.957(q). The DC work will result in a homogenized subgrade with improved load-carrying characteristics for pavement and building areas.

### <u>Controlled Modulus Columns™ (CMCs)</u>

Treefarm SWC IH-635 and IH-35 Subchapter T Permit Application



October 1, 2024 Revised April 23, 2025 Page 6 CMCs will be installed within the building limits for support of the structure and slab on grade. The CMCs will be installed with drilling equipment using displacement tooling to eliminate MSW spoils. CMCs are installed by advancing the displacement tooling to the required depth, and grouted immediately during tooling retraction with a cement-based readymix grout which eliminates open hole drilling and groundwater migration. The CMC installation reinforces and further densifies the MSW to improve bearing capacity and settlement control for building support.

DC and CMCs are further discussed in white pages that are included in **Appendix B**. Any MSW and/or groundwater encountered during DC and/or CMC installation will be managed per this section of the application; **§330.955**.

Authorization of this application infers that all pilings, borings or other penetrations of the final cover related to the Design are also authorized.

#### §330.955(e)

Authorization of this application infers that all pilings, borings or other penetrations of the final cover related to the Design are also authorized. See Section **§330.955(e)**.

#### §330.955(f)

Any water that comes in contact with waste will be considered contaminated water and will be properly discharged in a manner that will not cause surface water or groundwater contamination.

### §330.955(g)

Locations where waste is removed shall be backfilled and compacted with clean high-plasticity or low-plasticity clay to exceed the existing grade and provide positive drainage; maintaining a cover of a minimum of two-feet of compacted clay. If MSW is encountered during installation of liquid bearing utilities, the MSW will be managed per **§330.955(c)** and two-feet of compacted clay will be placed between observed MSW and the liquid bearing utilities on the sides and the bottom of the excavation.

#### §330.955(h)

Excavated MSW will be containerized within Department of Transportation (DOT)-approved 55gallon drums, roll off bins and/or placed on an impermeable synthetic material, as appropriate, prior to offsite disposal. MSW stored onsite overnight will be covered with an impermeable membrane (or equivalent) to limit exposure. Subsurface MSW that will be exposed overnight will be covered with clean soil or an impermeable membrane material (or equivalent) to limit exposure.

Treefarm SWC IH-635 and IH-35 Subchapter T Permit Application



October 1, 2024 Revised April 23, 2025 Page 7

### APPLICATION FOR PROPOSED OR EXISTING CONSTRUCTIONS OVER A CLOSED MUNICIPAL SOLID WASTE LANDFILL UNIT, GENERAL REQUIREMENTS

### §330.956(a) General Requirements

This application has been submitted before the public meeting (at the date of initial submission, no public meeting has been scheduled). The Applicant on behalf of the Owner, will comply with the design, construction, and operating procedures proposed in the application.

#### §330.956(b) General Requirements

The Owner is responsible for providing the executive director data of sufficient completeness, accuracy, and clarity to provide assurance that operation of the facility will pose no reasonable probability of adverse effects to the health, welfare, or physical property of residents and occupants of the structures, and the environment. The Owner is responsible for determining and reporting to the executive director any site-specific conditions that require special design considerations. The proposed development shall be in compliance with all applicable state and federal laws.

# §330.956(c) Application submittal per §330.57(e) - (h), relating to Permit and Registration Applications for Municipal Solid Waste Facilities

#### §330.57(e) Number of copies

This rule is not applicable. Per TCEQ-20785-instr (Rev. 5-06-24), an original and two copies of the application have been submitted to MSW Permits Section (MC 124) in Austin (an original and one copy) and to the TCEQ Regional Office in Dallas-Fort Worth (one copy).

#### §330.57(f) Preparation

Preparation of the application conforms with the Texas Occupations Code, Texas Engineering Practice Act, Chapter 1001 and the Texas Geoscience Practice Act, Chapter 1002.

#### §330.57(g) Application format

The submitted application will follow the format in this rule.

#### §330.57(h) Application drawings

The submitted application will follow the format in this rule.

#### §330.956(d)(1)

The prevailing wind direction with a wind rose is included as Figure 3.

Treefarm SWC IH-635 and IH-35 Subchapter T Permit Application



### §330.956(d)(2)

Water well data from an Environmental Data Resources, Inc. water well report dated September 16, 2024 indicates two water well logs (Water Well Logs 460545 and 574433) were located within 500-feet southeast of the proposed development permit boundary with the proposed use listed as 'Industrial'. The well logs state the industrial wells were completed on January 25, 2017 and May 19, 2021, respectively. The well locations are shown as **Figure 3** and the water well report is included in **Appendix C**.

### §330.956(d)(3)

Any area streams, ponds, lakes and wetlands are included in Figures 3, 13 and 14.

### §330.956(d)(4)

The property boundary of the site is included on the sealed ALTA Survey that is included as **Figure 1A** and **Figure 1B**.

### §330.956(d)(5)

Easements are included on the sealed ALTA survey that is included as Figure 1A and Figure 1B.

#### §330.956(d)(6)

An area search did not reveal the presence of schools, licensed day care facilities, hospitals, or other health care facilities within 1,000-feet of the site. The search radius is included as **Figure 3**.



### CONTENTS OF THE DEVELOPMENT PERMIT AND WORKPLAN APPLICATION

#### §330.957(a) General Requirements

The application follows the general requirements in §330.956 of this title (relating to Application for Proposed or Existing Constructions Over a Closed Municipal Solid Waste Landfill Unit, General Requirements).

#### §330.957(b)(1) Engineer's Certification

I, Richard James Tobia, P.E. #138981, certify that the proposed development is necessary to reduce a potential threat to public health or the environment, or that the proposed development will not increase or create a potential threat to public health or the environment. Further, I certify that the proposed development will not damage the integrity or function of any component of the Closed Municipal Solid Waste Landfill Unit, including, but not limited to, the final cover, containment systems, monitoring system, or liners. This certification includes all documentation of all studies and data on which I relied in making these determinations.

Richard James Tobia, PE License No. 138981



October 7, 2024

Date

# §330.957(b)(2) Landfills In Post Closure Care

The site overlies the closed City of Dallas - T. M. Dye Tract Landfill whose permit expired on January 13, 1982. The landfill was closed in accordance with applicable regulations regarding closure and postclosure care. Please note, the onsite closed landfill was not subject to a post-closure maintenance period and was not subject to further permit compliance inspections. Therefore, this rule is not applicable. Information related to the closed City of Dallas - T. M. Dye Tract Landfill (Texas Department of Health Solid Waste Permit No. 63) from the NCTCOG is included in **Appendix A**.

### §330.957(c) Existing Conditions Summary

The site is described in ALTA/NSPS Land Title Survey that was signed and sealed by J. Andy Dobs RPLS No. 6196, Kimley-Horn and Assoc., Inc.; and dated September 27, 2024. The ALTA/NSPS survey is included as **Figure 1A** and describes the site as being 36.2936-acres in a tract of land situated in the William M. Cochran Survey, Abstract 279, City of Dallas, Dallas County, Texas and being all of a called 36.2936-acre tract of land described in the Specialty Warranty Deed to PR III/CRE 635 Exchange Holdings, LP and recorded in a vesting deed that was executed on November 26, 2024. A General Location Map and a United States Geological Survey (USGS) Topographic Map are provided as **Figures 2** and **3**, respectively, within **§330.957(j)** of this document. The vesting deed is included in **Appendix K**.

The site is currently vacant, unimproved land with remnants of a former tenant that operated the site as a tree farm. Stockpiles of fill are located in the south portion of the site.

The USGS Topographic map indicates the topography throughout the site and surrounding area slopes gently to the west.

This area of Dallas is zoned for mixed use and is characterized by high density retail, office, hotel and/or multifamily residential uses in combination on single or contiguous building sites. An area search did not reveal the presence of schools, licensed day care facilities, hospitals, or other health care facilities within 1,000-feet of the site. This search radius and a wind rose indicating a prevailing wind from the south is presented as **Figure 3**.

An aerial photograph sourced from Google Earth and dated 2019 at a scale of 1-inch = 500-feet is included as **Figure 4**.

### §330.957(c)(1)Condition of Final Cover

The condition of the final cover over the proposed development area was evaluated as part of a geotechnical investigation from a report titled 'Geotechnical Investigation; WW Treefarms; Newberry Street; Dallas, Texas'; sealed by Ronald F. Reed, Texas PE 48174, Reed Engineering Group; and dated August 31, 2021.

The Reed 2021 investigation spatially covered the site with geotechnical borings that were drilled to depths between 28- to 60-feet. A 1.5- to 13-feet thick cover layer consisting of high to

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October 1, 2024 Revised December 6, 2024 Page 11 moderate plasticity (CH to CL) silty clay to sandy clay to gravelly clay with some gravel base observed at the surface in some borings, with MSW encountered from 1.5- to 42-feet below ground surface (bgs) and groundwater observed from one- to 34-feet bgs. Co-mingled MSW and soil was observed at varying locations and would likely have been associated with daily cover of the former landfill. Subsurface strata may be generally described as fill with MSW and alluvial soils overlying weathered then unweathered shale of the Cretaceous Eagle Ford formation. The geotechnical reports are included in **Appendix D**.

# §330.957(c)(2)Waste Characterization

Samples collected during geotechnical investigations indicate the MSW was consistent with typical municipal solid waste, and contained unsorted glass, plastic, wood, cloth, paper, metal, and other materials. Co-mingled MSW and soil was observed at varying locations, as discussed in

**§**330.957(c)(1).

### §330.957(c)(3)Gas Production

A subsurface methane gas survey, consisting of 18 landfill gas monitoring locations, was performed at the site on May 2023. The survey was conducted to evaluate the potential for migration of landfill gases and analysis of specific landfill gas concentrations. The survey indicated the presence of methane at concentrations ranging from 0% to 34.1% by volume in shallow and deeper depths (ranging between 3- and 5-feet bgs). Additionally, three soil vapor samples were containerized and submitted for laboratory analysis from locations that were selected based on site coverage, the proposed building footprints and the surveyed methane concentrations. Refer to Section **§330.957(t)(2)(G)**, Landfill Gas Analysis, for a discussion of the methane survey. The methane survey report is included as **Appendix E**.

### §330.957(c)(4)Potential Environmental Impacts

The proposed development would not result in degradation or cause impact to the soil and/or groundwater beneath the site. Upon development of the project, the impervious surfaces provided by roofs and pavement will serve as cover and, along with engineered surface grading, will serve to reduce and minimize infiltration of surface water into the underlying MSW mass.

The noted methane production could potentially pose a threat to occupants of the enclosed structure without the mitigation measures that are proposed herein.

Private water and wastewater utility lines are proposed to transect the site from offsite public connections, running across the site to through-slab connections within the facility. It is not anticipated that methane gas will accumulate and migrate in/along buried utility trenches because the water and wastewater lines will be installed within double containment with two-feet (min) of compacted clay, or equivalent, placed between the protected water-bearing utilities and any adjacent MSW.

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Vapor intrusion to the proposed enclosed structures from methane migration at the throughslab penetrations will be prevented by using a sub-slab vapor barrier and by sealing any throughslab penetrations [Reference Figure 35, Details 1 and 2, and Figure 39, Note (I)]. The wastewater and water plans are included as Figure 70 through Figure 85.

Additionally, a methane mitigation system and a structures gas monitoring plan have been developed to mitigate these potential impacts and are included herein; reference:

- §330.957(m)(1) Methane Migration Control and Ventilation;
- §330.957(n)(3) Dimensional Control Plan Water and Wastewater Utilities Plan;
- §330.957(t)(2)(A) Site Characteristics Buried Utilities;
- §330.957(t)(2)(D) Gas Monitoring System and Equipment;
- §330.961(g) Conduits;
- §330.961(b)(1).

# §330.957(d) Legal Authority

PR III/CRE 635 EXCHANGE OWNER LP (Applicant) will undertake the development of the proposed project. A Certificate of Incorporation issued by the State of Texas Secretary of State is included in **Appendix F**.

# §330.957(e) Evidence of Competency

The development of the proposed project is being undertaken by the Applicant whose Principal, and Authorized Signatory, is Mr. Taylor Mitcham.

# §330.957(f) Notice of Appointment

The Notice of Appointment letter is included, in accordance with 330.957(f), in **Appendix G**. The Applicant has engaged the following:

Environmental:	The Vertex Companies, LLC
Geotechnical:	Reed Engineering Group, Ltd
Civil Engineer:	Kimley-Horn and Associates, Inc.
Structural Engineer:	Hunt & Joiner, Inc.
Architect:	LGE DESIGN BUILD

# §330.957(g) Notice of Coordination

Notice of Coordination letters were mailed in accordance with 330.957(g). An example of the sent letter, a list of recipients, along with shipping and delivery confirmation documents are included in **Appendix H**.



### §330.957(h) Legal Description

The Legal Description is included hereunder as Figure 1B.

#### §330.957(i) Site Drawing

A metes and bounds map of the site depicting vacant land is presented as **Figure 1A**. A scaled site drawing indicating that the lateral extent of onsite coincides with the property line is presented as **Figure 5**. A proposed site development plan is included in **Figure 29**.

§330.957(j) Maps

§330.957(j)(1) General Location Map

A site General Location Map is included as Figure 2.

§330.957(j)(2)	General Topographic Map
A USGS Topographic	Map is included as <b>Figure 3</b> .

### §330.957(k) Geology and Soils Statement

#### **Geology and Soils**

The site geology consists of alluvial sands and clays overlying weathered and unweathered shale of the Cretaceous-age Eagle Ford Formation. The alluvial soils are terrace deposits associated with deposition within the floodplain of the ancestral Trinity River and its tributaries. Migration of the ancestral river channel resulted in deposition of channel sands immediately above the Eagle Ford Shale bedrock. Typically, these deposits were overlain by sandy clays and clays typical of overbank and floodplain deposition. Geotechnical borings revealed the observed deposits consist principally of brown, dark brown, yellow-brown, and gray silty clay, sandy clay, clayey sand, fine sand, and fine to coarse gravelly sands with varying amounts of sand and soil fill with intermixing with MSW from depths as shallow as 1.5-feet bgs and extending to depths of 42-feet bgs. The alluvial soils are underlain by weathered and unweathered shale of the Eagle Ford Formation. Dark gray shale was observed at depths of approximately 23- to 52-feet bgs. In its unweathered state the Eagle Ford is typically dark gray, calcareous, and soft (rock classification) with low permeability. Weathering of the formation produces highly plastic clay soils. The Eagle Ford is considered an aquitard, inhibiting the vertical migration of groundwater. The Eagle Ford Shale at the site is estimated to be approximately 100-200-feet thick. The geotechnical report is discussed in §330.957(c)(1) and is included in Appendix D. A plan of borings with cross section lines is included as Figure 8. Geologic cross sections A-A', and B-B' are illustrated in Figures 9 and **10**, respectively. A map detailing the thickness of soil cover and thickness of underlying MSW is included as Figure 11 and 12.

#### Leachate Pathways

A typical soil profile within the project area is expected to consist of a soil cover layer overlying co-mingled MSW and soil. Based on the geotechnical investigations, the soil cover layer ranges

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between 1.5- to 13-feet and consists generally of silty clay to sandy clay to gravelly clay. Shale was observed at depth across the site. The underlying shale is considered an aquitard, inhibiting the vertical migration of groundwater. Soil borings and observed water levels in borings indicate free water in the MSW mass, suggesting the MSW mass and water-bearing clays are in direct hydraulic communication. A bottom clay liner was not encountered during the geotechnical investigations. Groundwater is anticipated to be present throughout the year. The relationship between erosion, leachate and the proposed development of the site are discussed in §330.957(I).

Landfill Gas Pathways - The methane survey established that production of methane associated with the decomposition of organic debris is occurring. If the upper clay soils desiccate, cracks may develop providing conduits (preferential pathways) for migration of methane to the surface. Geotechnical borings indicate the MSW fill is intermixed with clay soil material. Voids within the MSW mass are expected to facilitate movement of landfill gas. Figure 12 details the thickness of MSW beneath the site.

### §330.957(I) Groundwater and Surface Water Statement

#### Groundwater

Groundwater was encountered or indicated in all of the soil borings completed as part of the geotechnical investigation. Groundwater seepage occurred at depths ranging between approximately 6- and 36-feet bgs. Seepage depths and equilibrated water levels place the elevation of groundwater within, and therefore in direct hydraulic communication with, the MSW mass. Groundwater is anticipated to be present throughout the year, although the depth to groundwater is expected to fluctuate with seasonal and annual rainfall and will possibly increase upon construction of the proposed buildings and their associated impermeable surfaces due to related decreased onsite infiltration. Groundwater flow direction is anticipated to be to the west toward the Elm Fork of the Trinity River.

A water well survey performed by Environmental Data Resources, Inc., identified two industrial groundwater wells within 500-feet southeast of the site [Reference §330.956(d)(2)] that were installed January 25, 2017 and May 19, 2021 [Texas Well Report #'s 460545 and 57443, respectively]. The Water Well Report is included as Appendix C.

As the proposed development will decrease recharge to the underlying groundwater, and based on the observed composition of MSW located in the subsurface of the site [Reference §330.957(c)(2)], that the composition is municipal in nature, and that the groundwater is not used by the City of Dallas for drinking water, it is not anticipated that the groundwater resource has been adversely affected by onsite MSW or will be adversely affected by the proposed development.

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### Surface Water

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) of the site shows the site is in an area of minimal flood hazard with the exception of the north, west and south edges of the site. The FIRM is included as **Figure 13**.

### Wetlands

The site was inspected for the presence of sensitive ecological areas by noting environmental indicators (e.g., wetland vegetation, floodplains, marshy areas, ponds of water, low-lying areas, or streams) located on or immediately adjoining the site. During the site reconnaissance, low-lying areas were observed in the western and southern portions of the site. A review of the U.S. Fish and Wildlife (USFWS) National Wetlands Inventory (NWI) Map indicates that an unnamed tributary of the Farmer's Branch of the Trinity River transects the northwest and the far west portions of the site.

The NWI Maps are a preliminary tool to identify potential wetland areas by overlaying infrared aerial photography on USGS topographic maps to identify "wet" areas as potential wetland areas. The USFWS NWI map is included as **Figure 14**.

The Applicant has coordinated with the local floodplain authority to raise the site above the regulatory floodway and other low-lying areas by adding clean fill to reach design elevations. Furthermore, proposed development the will include the placement of impermeable surfaces on what is currently unimproved ground through the installation of the total building area, along with associated concrete drives, parking areas, rights of way, and sidewalks. The installation of impermeable surfaces onsite will decrease soil erosion, and subsequent offsite soil transport, and will also reduce surface water infiltration to the underlying shallow aquifer thereby decreasing the leaching of MSW contaminants of concern (COCs) to groundwater.

A property management firm will be engaged to monitor the site for surface cracks in parking lots and other asphalt or concrete structures (surface crack features) and subsidence in similar areas and across the site (subsidence features) per the Permit Application Report Section §330.957(n)(3).

Therefore, the proposed development is not anticipated to adversely impact groundwater underlying the site and/or to proximate surface waters. Documentation of coordination with the floodplain authority is included in **Appendix I.** 

#### §330.957(m) Foundation Plans Foundation Design

The geotechnical investigation is included in **Appendix D**. The foundation of the proposed buildings will overlie DC fill and will consist of a structural slab supported on CMCs [Reference §330.955(d)].

### §330.957(m)(1) Methane Migration Control and Ventilation

A methane mitigation system will be installed beneath each of the proposed buildings. The systems will consist of a minimum of a 12-inch-thick layer of an open graded, clean aggregate material [ENV-12 Notes (C)(2)] placed beneath, and prior to pouring, the floor slab. Geotextile filter fabric will be placed on the surface of the clean aggregate layer to prevent introduction of fine soil or other particulate matter into the permeable aggregate layer and to protect the

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October 1, 2024 Revised April 23, 2025 Page 16 overlying vapor barrier. A combination polyethylene (PE) and spray-applied vapor barrier will be situated above the geotextile filter and will directly underlie the poured cement floor slab; reference Figure 33 Detail 2.

The vapor barrier will be sealed to the interior of the tilt-wall concrete panels by means of manufacturer approved methods to prevent vapor intrusion into the enclosed structure; [reference Figure 34]. A network of perforated gas collection pipes (low profile vents) will be embedded in the aggregate material beneath the geotextile filter and overlying vapor barrier (Figure 30 through Figure 32). The pipes will be routed to vertical risers that will vent above breathing height on the proposed buildings' roof. The vent lines will be fashioned with windoperated syphon ventilators to provide a positive draw on the ventilation system collection piping (Figure 33.2).

Per Rule 330.957(m)(1)(F), automatic methane gas sensors shall be installed within the venting pipe and/or permeable gas layer and inside the building or any other structure in order to trigger an audible alarm when methane gas concentrations greater than 20% of the lower explosive limit are detected.

The methane gas sensors are further discussed in Section §330.961(b)(1)(C) of this application.

Where it is necessary to penetrate the vapor barrier, the penetrated portion and related utilities will be properly sealed per manufacturer's specifications as to prohibit methane gas entering the structure; reference Figures 35 (Details 1 and 2) and Figure 39 Note I.

Methane sensors will be installed in locations that spatially cover the empty warehouse interior space and where water and/or wastewater utilities will penetrate the vapor barrier in the proposed buildings' pump rooms.

Methane sensors will be installed in tenant lease spaces, where water and/or wastewater slab penetrations are planned and also to spatially cover common areas such as offices, conference rooms and/or warehouse spaces. These changes will be addressed in future modifications to this permit application to be submitted per 30 TAC §330.961(b)(1)(D) after the space is leased and the design is complete. Future modifications will be included in Appendix M and will supersede any plans todifferences exist modifications date. Where between the and the preceding permit, the modifications in Appendix M will govern.

Figures 29 through 39 illustrate the placement of the vapor barrier, ventilation lines, and associated details.

#### §330.957(n) **Other Plans**

General notes for the other (civil engineering) plans are included as Figure 41.

#### §330.957(n)(1) Grading and Drainage

The site will be graded to achieve the planned contours that facilitate positive drainage of surface water from the site. The grading plans (Figures 51-56), erosion plans (Figures 86-87), stormwater plans (Figures 58-69), landscape plans (Figures 89 – 108) are included herein.



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### §330.957(n)(2) Irrigation Systems

The irrigation system consists of a network of buried piping, spray heads, valves, and controllers to apply irrigation to all areas of the project that are not improved with buildings or pavement. The irrigation system will be a dry system; a system that is only pressurized when distributing irrigation water.

The irrigation system will be equipped with a flow sensor and master valve located at the irrigation water meter(s) that will close, turning off the water to the mainline when the system is not scheduled to operate. The flow sensors will monitor high and low flow and leak detection. If there are any irregularities the system operator will be notified. The master valve will shut off the flow of water into the system when the irrigation system is not scheduled to run. With flow sensors and the master valve there will be no uncontrolled water through the system or unknown leaks. The irrigation water will be supplied by the City of Dallas. The irrigation plans are included as **Figures 109 – 118**; respectively.

# §330.957(n)(3) Dimensional Control Plan

The dimensional control plans are included as **Figure 43** through **Figure 47.** Other relevant plans include the paving plans (**Figures 48-50**) and are discussed in this section. The plans illustrate the proposed structure and related improvements of the project.

### **Paving Plans**

A property management firm will be engaged to monitor the site for surface cracks in parking lots and other asphalt or concrete structures (surface crack features), subsidence in similar areas and across the site (subsidence features).

The property management firm will mitigate any:

- surface crack features utilizing industry standard methods not limited to use of an industry standard sealants and/or resurfacing any area where sealants are ineffective;
- any subsidence features per Permit Application Report Section §330.957(n)(1).

By mitigating surface crack and subsidence features, infiltration of precipitation will also be eliminated, thereby preventing precipitation from recharging the aquifer.



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#### Water and Wastewater Utilities Plan

Facility water will be supplied for domestic use and fire protection by the City of Dallas. The site sanitary sewer service will be connected to the City sanitary sewer system. Figure 70 through Figure 85 illustrate the water and sanitary sewer utility plans. The facility water and the sanitary sewer conduits that lie within the CMSWLF shall be installed with a leak detection system. The leak detection system could include double-contained water-bearing utilities that will be monitored utilizing a leak detection system in the lowest points in each line that send an alarm to a panel located in the fire pump room (Figure 37); or an equivalent method.

#### **Disposal of Waste Materials**

The proposed construction activities may potentially encounter MSW during installation of the water and/or sewer lines. Excavated MSW will be managed according to procedures outlined in Sections **330.955(h)** and **330.955(c)** of this application. Where beneficial, containment berm(s) will be constructed around waste pile(s) to limit contact with stormwater run-on.

If excavation activities result in subsurface exposed waste, this material will be managed according to procedures outlined in the Section §330.955(h) and §330.955(g), as related to the installation of liquid bearing utilities, of this application. Diversion berms will be installed where beneficial around exposed area(s) to limit contact with stormwater. Locations where waste is removed will be managed according to procedures outlined in Section §330.957(g) of this document.

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### **Drainage Control and Leachate**

Stormwater runoff control measures will be used to minimize leachate generation. Temporary diversion berms will be used upslope of all excavations where waste is exposed to minimize the amount of surface water coming into contact with waste materials. In addition, temporary containment berms may be constructed around areas of exposed waste to collect surface water to prevent contaminated water from discharging to surface waters.

In view of the management procedures described above, especially the covering of waste and precautions implemented in advance of inclement weather, the generation of leachate or contaminated water is expected to be minimal. However, if leachate or contaminated water is generated, the water will be collected and disposed in accordance with standards set forth herein and in accordance with City and State requirements for disposal of such water. Any leachate or contaminated water encountered or generated during construction will be stored within DOT-approved 55-gallon drums and/or onsite storage tank(s) (of type, volume and/or number to be determined based on the volume encountered) prior to offsite disposal via the following methods (or combination thereof):

- Onsite storage then disposal into the City of Dallas sanitary sewer that will require City approval prior to disposal. Said approval will likely include, but may not be limited to, analysis of any leachate/contaminated water and subsequent comparison of these analytical results to the local wastewater treatment plant acceptable quality and quantity limits.
- Onsite storage and offsite disposal via vacuum truck transport that will require a vacuum truck to transport any leachate/contaminated water to an approved wastewater treatment facility.
- In areas where waste is excavated, all waste will be properly transported to an approved MSW landfill. No waste will be left exposed overnight.

### **Erosion and Sediment Control During Construction**

The contractor will be required to file a Notice of Intent (NOI) for coverage under the general stormwater permit for construction activities of the Texas Pollutant Discharge Elimination System (TPDES) prior to beginning work. As part of the coverage under TPDES, the contractor will install appropriate erosion control devices in accordance with a Storm Water Pollution Prevention Plan (SWPPP), which must be in place prior to filing the NOI.

The provisions of the SWPPP will include measures to control sediment discharge during construction that may not be limited to the use of earthen berms, hay bales, and/or silt fencing down-gradient of slopes that may experience erosion (including material stockpiles). Erosion damage from rainfall events will be repaired by the contractor after such events. All erosion control measures will also be inspected and maintained throughout the development process. Drainage control measures will be put in place to minimize the amount of contaminated water

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generated during the project and to collect any leachate from the excavation process. Such berms will also be maintained as necessary to meet SWPPP requirements and to control erosion.

With respect to erosion on soil cover over waste materials, any cover damage to the existing landfill, or in areas where cover must be maintained over MSW materials that are part of construction, will be repaired immediately and steps taken to prevent a recurrence of that type of damage. The Erosion Control Plan and Details Sheets are included as **Figures 85** and **86**.

#### **Construction Quality Assurance Plan**

The Construction Quality Assurance Plan for the installation of the vapor barrier is included herein as **§330.958**.

#### Limits of the Waste Disposal Area

A scaled site drawing, indicating that the lateral extent of onsite MSW within coincides with the property line, is presented as **Figure 5**.

#### **Adjacent Property Owners**

The adjacent property owners are shown in Figure 119, a tabulation of such is included as Figure 120, and mailing labels for said owners is included under separate cover.

#### **Mineral Interest Ownership**

In the State of Texas, the minerals are conveyed together with the surface of the land unless they are specifically separated. The vesting deed shows that there are no mineral conveyances of record for this property. As such the current owner of the property also owns all the minerals. The vesting deed is included in **Appendix K**.

#### §330.957(o) Soil Tests

The presence of the former landfill is confirmed via NCTCOG records. The existence of onsite buried MSW was observed during a geotechnical investigation. The geotechnical investigation report along with related boring logs are included in **Appendix D**. Notification of the findings were made to the appropriate officials per §330.953(d); [Reference §330.957(p)]

### §330.957(p) Certified Copies of Notices

Pursuant to the CMSWLF-PART A APPLICATION FORM, notices to real property records, buyers, lessees, and occupants are included in **30 TAC §330.962**, **30 TAC §330.963**, and **§330.964** of this permit application. In addition, notification of local, state, and federal government officials and agencies is discussed in **§330.957(g)**.

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#### §330.957(q) Site Closure Plan

A final cap/cover of a minimum of two feet of compacted clay will be placed throughout the entire permitted area, except for those portions covered by a structure and the final six inches of cover will consist of topsoil capable of sustaining native plant growth, and will be seeded or sodded immediately following the application of final cover to minimize erosion.

Removal of any trees or stumps would utilize a tracked excavator and/or bulldozer (or equivalent). Tree removal could include, excavations, backfilling and compaction operations and final grading of the impacted area. Refer to Figures 89-33 for the Tree Preservation Plans and to the following Application Sections for how these operations will be conducted to both maintain the final cover and to manage any encountered MSW.

- Application TCEQ-20785 (Rev. 05-06-24) Section 6 (reference restoring final cover in the last sentence);
- Application §330.955(b) Miscellaneous;
- Application §330.955(c) Miscellaneous
- Application §330.955(g) Miscellaneous
- Application §330.955(h) Miscellaneous
- Application §330.957(n)(1) Grading and Drainage;
- Application §330.957(n)(3) Dimensional Control Plan
- Application §330.957(q) Site Closure Plan
- Appendix D Subsurface Report Geotechnical Report and compaction procedures.

In areas where there are currently not sufficient cover materials, additional compacted clay will be added. Clean fill soil will be placed above the cap to the proposed surface design grade. The surface slope of the project will be raised to design grade with clean fill soil to achieve a sufficient grade to preclude ponding of surface water. Periodic examination of the surface shall be performed to identify areas of subsidence or surface water ponding. These areas will be backfilled with soil to reflect the design grade as discussed above.

#### §330.957(r) **Operational Requirements Plan**

The operational requirements, including the necessary procedures, practices, record keeping, and reporting, described in the Site Closure Plan, Site Operating Plan, Structures Gas Monitoring Plan (SGMP), and Safety and Evacuation Plan shall be implemented and maintained by the Applicant. A copy of this development permit application, along with all required registration information including the Site Closure Plan, Site Operating Plan, the SGMP Plan, Safety and Evacuation Plan, and all other documents, plans, and correspondence required by 30 TAC §330.951 - §330.963, shall be maintained onsite in the general office of the Applicant.

The Applicant shall retain the operating record of the facility for the life of the proposed structure. Any deviation from the Development Permit and incorporated plans or other related documents associated with the development will be approved by the Executive Director of the TCEQ.

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### §330.957(s) Site Operating Plan

### Introduction

The proposed project consists of the development of the site as an office/warehouse facility with three, single-story buildings (Buildings A, B and C) containing approximately 144,216-, 208,000-, and 243,472-square feet, respectively, of total building area, along with associated concrete drives, parking areas, rights of way, sidewalks, and landscaping. The buildings will be constructed of concrete tilt-up walls. Underground utilities including water, wastewater, and a storm drainage system will service the property. The development will occur over a CMSWLF.

### §330.957(s)(1) Onsite Equipment

The facility will be used for typical office/warehouse purposes with typical office/warehouse equipment employed within the facility.

#### §330.957(s)(2) Site Procedures

The facility will be used for typical office/warehouse purposes and industrial/manufacturing operations are not expected. All personnel will be trained in the use and maintenance of onsite equipment per the manufacturer's guidance. The facility electrical and mechanical systems will be installed by licensed professionals according to all applicable and approved City and State permits and appropriate building codes.



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### §330.957(s)(3) Implementation

No specific equipment requirements are necessary; the operational requirements, as specified in §330.957(r) of this application, will be followed.

Landfill gas shall be monitored in accordance with the SGMP described in §330.957(t) and the results of which will be managed according to §330.957(u) Safety and Evacuation Plan.

As the new enclosed structures will be constructed above the CMSWLF unit, they shall be equipped with continuous methane gas sensors and monitoring systems to monitor any methane concentrations within. The methane sensors will be calibrated per manufacturer's specifications to ensure proper working order. Methane sampling will be conducted according to §330.961(b)(2)(A).

All records associated with maintenance and calibration of methane sensors, results from gas monitoring activities, and all other record keeping requirements set forth in §330.961(h) will be maintained accordingly.

### §330.957(t) Structure Gas Monitoring Plan

#### §330.957(t)(1) General

The purpose of this SGMP is to document the procedures which the Applicant shall follow to ensure that methane gas concentrations in the proposed enclosed structure does not exceed 1% by volume (20% of the Lower Explosive Limit).

Additionally, this SGMP will document how the Applicant will comply with all requirements of **30 TAC §330.957(s)**. The developer of the project shall ensure that the concentrations of methane generated by the CMSWLF unit will not exceed 20% of the lower explosive limit for methane in the enclosed facility structure. Automatic methane gas sensors will be located inside the buildings and will be designed to trigger an audible alarm if the volumetric concentration of methane in air exceeds 1% (20% of the lower explosive limit). Additionally, the enclosed structures will incorporate a vapor barrier and ventilation system beneath the floor slabs.

### §330.957(t)(2) Requirements for Structures Gas Monitoring Plan (SGMP)

# §330.957(t)(2)(A) Site Characteristics

The proposed development is a 36.2936-acre tract of land located at 11645 Newberry Street within the city limits of Dallas, Dallas County, Texas. The proposed development is an

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October 1, 2024 Revised April 23, 2025 Page 22 office/warehouse facility comprised of three, single-story buildings (Building A, B and C) containing approximately 144,216-, 208,000-, and 243,472-square feet, respectively, of total building area, along with associated concrete drives, parking areas, rights of way, sidewalks, and landscaping. The building will be constructed of concrete tilt-up walls, placed on spread footings. Underground utilities including water, wastewater, and a storm drainage system will service the property. A dry irrigation system will be installed to irrigate the landscaped areas.

### Location of Buildings Relative to Waste

Available records for the site indicate it is underlain by buried MSW and therefore the proposed buildings will overlie the buried MSW. A scaled site drawing indicating the lateral extent of the onsite MSW coincides with the property line is presented as **Figure 5**, and **Figure 29** depicts the proposed site plan.

# Nature and Age of Waste and Potential to Generate Landfill Gas

The site operated as a Type I City of Dallas landfill from the mid-1970s until the early 1980s, when it was reportedly closed. The subsurface conditions are discussed Section **§330.957(c)(1)**. A Methane Gas Survey was completed in May 2023 and indicated the presence of methane in concentrations ranging from 0.0% to 34.1% percent by volume. The methane survey is discussed in **Sections §330.957(c)(3) and §330.957(t)(2)(G)**.

### **Routes of Entry of Gas into Structures**

A combined polyethylene and spray-on liner will be placed beneath the slab of the enclosed structure. If it is necessary to penetrate the liner during construction, the penetrated portion and related utilities will be properly sealed as to not allow methane gas to enter the structure; reference **Figure 35**, **Details 1** and **2**, and **Figure 39 Note (I)**. Penetrations to the slab may also occur where utilities are planned to enter the facility in the pump room and where utility lines enter tenant lease spaces. Through-slab penetrations will be addressed in future modifications to this permit application to be submitted after the space is leased and the design is complete.

It is not anticipated that methane will enter the onsite structures because all foundation penetrations will be sealed against the vapor barrier to prevent vapor intrusion. Section **§330.957(t)(2)(D)** Gas Monitoring System and Equipment discusses post-construction monitoring for methane to mitigate potential methane intrusion.

### **Ignition Sources**

Ignition sources within both enclosed warehouse buildings may include typical forklifts, automatic inventory moving machinery and office equipment including computers, coffee makers, refrigerators, HVAC, lighting, microwave ovens, miscellaneous electrical appliances, printing and copying equipment, as well as other general office and commercial equipment. The air conditioning units and heaters will be located on the roof.

### **Buried Utilities**

Facility water will be supplied for domestic use and fire protection by the City of Dallas. Sanitary sewer service will be connected to the City sanitary sewer system. It is not anticipated that

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methane gas will accumulate and migrate in/along buried utility trenches because water and wastewater lines and the trench bedding material will be enclosed and sealed within double containment. Figure 70 through Figure 85 illustrate the water and sanitary sewer utility plans.

#### Occupancy

The site will consist of three, single-story occupied warehouses containing separate office and warehouse spaces. Building Codes and Life Safety Plans (Figures 121-123) state an occupancy of 407, 589, and 678 for Buildings A, B, and C, respectively.

#### Depth of Final Cover over Waste

The subsurface conditions are discussed Section §330.957(c)(1). The project grading plans (Figure 51 through Figure 56) calls for the grading of soil throughout the property. A sufficient thickness of cover (i.e. a minimum of two feet) will remain or be added. Additionally, a majority of the site will be covered with impermeable surfaces including parking and drive areas, and buildings.

### §330.957(t)(2)(B) Design Characteristics of Structures

The design characteristics of the proposed structure's landfill gas accumulation prevention, detection, and elimination systems are discussed in Section §330.957(m)(1) of this application.

The enclosed structure will be equipped with continuous methane monitoring sensors. The sensor units will be placed in office and warehouse areas. The methane gas sensors are further discussed in section §330.961(b)(1)(C) of this application.

# §330.957(t)(2)(C) Ventilation System

A ventilation system designed to passively vent methane gas from the sub floor will be installed beneath the enclosed structure. The ventilation system will consist of a 12-inch aggregate layer placed between the subgrade and overlying barrier membrane. A network of perforated gas collection pipes (low profile vents) will be embedded in the aggregate material beneath the geotextile filter fabric and overlying vapor barrier. The pipes will be routed to vertical risers that will vent above the breathing height on the roof of the building, removed from probable ignition sources. The vent lines will be fashioned with wind-operated syphon ventilator(s) to provide a positive draw on the ventilation system and are planned in such a way as to spatially cover the internal space footprint. **Figure 30** through **Figure 33.2** illustrate the methane ventilation system.

### §330.957(t)(2)(D) Gas Monitoring System and Equipment

Continuous methane gas monitors will be installed within the planned enclosed structure. Initially, the finished building will be a pre-leased shell with pending build-to-suit lease space. As such, menthane sensors are proposed herein to spatially cover the internal space of the proposed building. Additional sensor locations will be proposed to any additional enclosed areas once the

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October 1, 2024 Revised April 23, 2025 Page 24 interior layout has been determined. Prior to modifying a subject lease space, revisions of the sensor locations will be submitted to the TCEQ per **30 TAC §330.961(b)(1)(E)**. The methane monitoring system is detailed in **Figure 36**.

The Honeywell E3 Point sensors and the 301C control panel (or equivalent) are proposed for continuous monitoring of the onsite structure. The units would operate off 120-VAC and shall be configured to trigger a minimum 85-dB alarm if the volumetric concentration of methane in air exceeds a maximum of 1.0% by volume (20% LEL). The manufacturer's specifications are included as **Appendix J.1**.

Gas monitoring equipment will be checked for calibration and operation per manufacturer's specifications, and repairs or replacements will be made on an as-needed basis. A record of the maintenance will be maintained in the site operating record.

# §330.957(t)(2)(E) Implementation

The continuous gas-sensing monitors will be installed immediately upon completion of the enclosed structure. The building will be monitored on a monthly basis after construction using field instrumentation. All monthly monitoring results shall be placed in the operating record of the site and submitted to the executive director of TCEQ upon request. The units will be tested and calibrated in accordance with the manufacturer's recommendations.

# §330.957(t)(2)(F) Landfill Gas Sampling and Analysis Plan

The following landfill gas sampling and analysis plan shall be utilized in the event additional analysis of landfill gas is required.

# In-situ Landfill Gas Sample Collection Equipment and Techniques

Should a landfill gas meter (GEM 5000, or equivalent) detect methane at 20% of the LEL, or greater, within the facility, then the following equipment and techniques will be used to obtain landfill gas samples suitable for analysis:

- The sampling train will consist of the following items, as appropriate:
  - Vent riser sampling port (ENV-6 Detail 1);
  - a sufficient length of 1/4" Teflon tubing;
  - a Landtec Model GA-90 oxygen (O<sub>2</sub>), carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>) landfill gas analyzer or equivalent;
  - required valves; and
  - a SUMMA<sup>®</sup> canister or Tedlar bag equipped with a sampling pump.
- The tubing will be purged of at least three line-volumes. Prior to sample collection, the gas drawn from the sampling points will be analyzed using the gas analyzer(s) to determine the relative concentrations of methane, oxygen, and carbon dioxide. The value of CH<sub>4</sub>, CO<sub>2</sub>, and



O<sub>2</sub> will be recorded. The sample location with the highest methane concentration will be used for the sampling.

• The sample will be entered into a chain-of-custody and immediately delivered to an accredited analytical laboratory for analysis.

### Sample Quality Assurance and Quality Control (QA/QC)

QA/QC of field samples shall be maintained by adherence to the following protocols and by EPA guidance, not limited to Oswer Publication 9200.2-154 Oswer Technical Guide For Assessing And Mitigating The Vapor Intrusion Pathway From Subsurface Vapor Sources To Indoor Air; OSWER Publication 9200.2-154, and dated June 2015, and references included therein:

- Field Samples shall be collected by experienced personnel and shall be performed in accordance with the procedures described above.
- Analytical Methods shall be appropriate for the analysis and will comprise the following analyses; reference Section §330.957(t)(2)(G) of this application:
  - A mass balance analysis for major components such as methane, other light hydrocarbons, carbon monoxide, and water vapor measured with fairly high precision (i.e., 5.0% 10% relative error) ASTM D 1946, TO-3, TO-15 and Harvey, A. (1998); Campbell G.S. and Norman J (1998).
  - Trace analyses for hydrogen sulfide, mercaptans, and ammonia ASTM D 5504, OSHA ID-188/OSHA ID-164; and
  - Analysis for volatile organic compounds via United States Environmental Protection Agency Compendium Method TO-15.
  - SUMMA<sup>®</sup> canisters will be individually checked, tested, and certified clean by the laboratory for air tightness and proper vacuum prior to being shipped to VERTEX.
- <u>Quality Assurance and Quality Control</u> shall be verified by the collection of field duplicate(s) and using a trip blank, as necessary or appropriate. The standard program of instrument calibrations, method blanks, replicates and spikes used for laboratory QA/QC shall conform to the laboratories standard operating procedures. The Laboratory Quality Control Report shall accompany the Laboratory Reports.
- <u>Documentation of Landfill Gas Sampling</u> shall include the following information provided by the field sampling personnel and the analytical laboratory:
  - a plan of showing the location of the sample location relative to the existing structure;
  - field sampling data sheets including any duplicate samples; and
  - laboratory results documented by the analytical laboratory in a laboratory report format, including the Sample Chain-of-Custody and QA/QC results.

These data shall be entered into the operating record of the facility and submitted to TCEQ upon request.

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### Sampling Protocol for Field Measurements of Gas Emissions

Field measurements of gas emissions shall be performed by personnel familiar with the calibration, maintenance, and operation of the landfill gas monitoring equipment.

### §330.957(t)(2)(G) Landfill Gas Analysis

A Methane Gas Survey, consisting of 19 sample locations and was conducted on May 18, 2023. Measurements of methane concentrations in soil vapor were collected at an interval of approximately one sample per one- to two-acres across the site, including from areas coincident with the proposed structure and drive/parking areas. The survey included a screening of soil gas for methane and the subsequent collection and laboratory analysis of soil vapor as further described below.

The investigation was performed by preparing a series of 4 -inch diameter soil borings to depths of between 4- and 5-bgs, generally placing the sample depth within the zone of the landfill cover soils. A direct push drill rig with 4-inch rotary flight augers was used to advance the borings. The soil borings were allowed to equilibrate prior to sampling. Methane concentrations were measured utilizing a Landtec GEM 2000 Portable Gas Analyzer. The percent by volume was read directly from the GEM analyzer.

The gas survey confirmed the presence of methane in soil gas throughout the site. The volumetric percentage of methane ranged from 0% to 34.1% by volume in samples monitored from each of the vertical depth horizons.

The three locations with the highest measured methane concentrations within/proximate to each proposed building footprint (soil borings LS-I, LS-N, and LS-R) were selected for further soil gas testing and were subsequently converted into soil vapor points SV-1, SV-2, and SV-3, respectively. The vapor points were generally constructed by placing six-inches of clean silica sand at the bottom of each borehole, after which a length of implant tipped, Teflon-lined tubing was inserted into the boring until the implant rested on top of the six-inch sand layer. An additional six-inches of clean silica sand was then placed downhole around and above the implant-tipped tubing and the remaining borehole was sealed with hydrated bentonite compacted in six-inch lifts to near-surface. The open above-ground tubing was connected inparallel to both a 50 milliliter (ml) syringe for purging purposes and to a six-liter, laboratorysupplied summa canister equipped with a regulator set at a flow rate of 200 milliliters per minute (ml/min). Note that each canister was individually checked, tested, and certified by the laboratory for air tightness and proper vacuum prior to being shipped to VERTEX. Prior to sampling, a minimum of three volumes of soil gas were purged from the downhole tubing. Following this purge, and a subsequent leak test, the tube vacuum and bentonite seal were observed for indications of a compromise. After passing the quality control testing, the summa canister was opened and the initial starting pressure from the canister vacuum gauge was noted on the laboratory chain of custody. At the end of the test, each summa canister was sealed with a slight vacuum and the final vacuums were noted on the laboratory chain of custody.

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The filled summa cannisters were submitted to ALS Laboratories in Simi Valley, California for an analysis of the landfill gas per **TAC §330.957(t)(2)(G)** as follows:

- Ammonia per OSHA ID-188/ OSHA ID-164.
- Fixed gases per ASTM D 1946;
- Light hydrocarbon analysis per EPA Method TO-3;
- Volatile Organic Compounds (VOCs) per EPA Method TO-15;
- Sulfur analysis including hydrogen sulfide per ASTM D 5504;
- Water vapor.

A summary of the landfill gas analytical results and the analytical report are included as **Appendix E**.

# §330.957(u) Safety and Evacuation Plan

### Construction Safety and Evacuation Plan

- The presence of methane will be monitored when conducting subsurface work utilizing a RAE Systems QRAE 21 Four Gas Meter (or equivalent).
- When registering less than 10% lower explosive limit, the work will proceed with caution.
- If a methane sensor reads between 10% and 20% lower explosive limit, this reading should be checked with a hand-held methane meter to confirm the reading.
- In the event a consistent lower explosive limit reading of 20% or greater are observed, construction operations shall cease and personnel shall immediately leave the 20-foot area around the observed lower explosive limit exceedance (20% or greater of lower explosive limit). The monitoring operator shall increase his radius of survey to include the nearest piece of operating equipment (i.e. excavator, etc.). In the event a methane reading of 20% or greater of lower explosive limit occurs in the expanded sample radius, the equipment will be turned off and the operator and other personnel shall immediately leave the expanded sample radius. Personnel may employ fans to disperse any observed methane concentrations in air. Operations may commence once methane concentrations decline to less than 20% of lower explosive limit.
- In the event of fire, all onsite personnel will move to a location upwind of the fire. The site superintendent or his appointee shall call the City of Dallas Fire Department. The site superintendent or his appointee shall verify and ensure that all project personnel are present or accounted for.
- Smoking shall not be permitted within 20-feet of any open excavation that exhibits detectable methane concentrations.

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- Construction operations that could result in the generation of sparks or other ignition sources (i.e. grinding, drilling, welding, engine maintenance) shall not occur within 20-feet of any open excavation which exhibits detectable methane concentrations.
- Every effort shall be made to access open excavations from an upwind direction.
- No personnel shall be allowed to return to the fire area until the City of Dallas Fire Department has indicated the work area is safe to re-occupy.

### Occupied Safety and Evacuation Plan

The building owners/operators and/or property management company will be trained in the function and operation of the methane monitoring systems by the methane sensor installation company or manufacturer's representative. The term owners/operators refers to the owners of the buildings as well as any personnel, managers, and/or other personnel who would be responsible for conduct within the building either during business hours or when the building is closed to the public. These individuals will be responsible for responding to the audible alarms will consist of discussions on the nature of project development, specifically the hazards of methane, and the evacuation procedures. Additionally, as part of the lease agreement, the building owners/operators will discuss in detail the nature of the project development, specifically the hazards of methane, and the evacuation procedures with lessees.

The following procedures relating to landfill gas safety and evacuation shall be added to any existing Safety Plan currently maintained onsite by the Applicant.

- Smoking shall not be permitted within 20-feet of a methane vent outlet.
- Field operations, which could result in the generation of sparks or other ignition sources (i.e. grinding, drilling, welding, engine maintenance) shall not be permitted within 20-feet of a methane vent.
- If a methane sensor reads between 10% and 20% lower explosive limit, this reading should be checked with a hand-held methane meter to confirm the reading.
- In the event a continuous methane detector sounds an audible alarm within the affected building, the employee monitoring the system shall notify the receptionist, the facility manager, or a corporate officer in the affected lease space of the situation. The manager or corporate officer shall notify, using all appropriate methods to be determined by the owner, all employees that that they must evacuate the affected building(s) immediately. Additional operation-specific protocols will be established by the operator and approved by the owner.
- The corporate officers or facility managers of the affected building shall immediately notify the City of Dallas Fire Department that a methane monitor(s) has indicated a build-up of methane in excess of 20% of the lower explosive limit. The officers shall inform the City of

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Dallas Fire Department that evacuation of the affected building is under way. The officer shall request the City of Dallas Fire Department to respond to the facility.

- When the evacuation announcement is made, all personnel present in the affected structure shall immediately cease their activities and leave the building via the nearest exit.
- A corporate officer or manager shall make a survey of the affected building to ensure that all personnel and/or guests have been evacuated from the building. All doors will be locked to prevent re-entry to the affected building by guests or personnel without the approval of the corporate officers or facility managers.
- After exiting the building, all personnel exiting the building shall meet in the parking area to the south of the building. The corporate officer or facility manger identified above shall verify and ensure that all staff personnel are present and accounted for. One or more designated officials shall be stationed a safe distance from the affected building(s) (i.e. 50-feet or more) to prevent personnel from approaching the affected building. After it has been confirmed that all personnel and members are present, all persons shall remain in the parking lot to await the arrival of the City of Dallas Fire Department.
- No personnel shall be allowed to return to the building until the City of Dallas Fire Department has indicated the building is safe to re-occupy. The corporate officer or manager shall provide access to the affected building.

Within seven days of the incident, the detected concentration of methane gas levels and a description of the steps taken to protect human health will be placed in the operating record.

Within 60 days of the incident, a plan describing the nature and extent of the problem and the implemented remedy will be placed in the operating record of the facility and submitted to the executive director.



### CONSTRUCTION PLANS AND SPECIFICATIONS

Construction Plans and Specification of the development will be maintained at the site at all times during construction. Construction will begin only after a building permit has been issued by the City of Dallas.

After completion of construction, one set of as-built construction plans and specifications shall be maintained at the permitted development. Plans maintained at the structure shall be made available for inspection by executive director representatives.



### REQUIREMENTS FOR REGISTRATION OF AN EXISTING STRUCTURE BUILT OVER A CLOSED MUNICIPAL SOLID WASTE LANDFILL UNIT

Not Applicable

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### CONTENTS OF AUTHORIZATION REQUEST TO DISTURB FINAL COVER OVER A CLOSED MUNICIPAL SOLID WASTE LANDFILL FOR NON-ENCLOSED STRUCTURES

Not Applicable



### OPERATIONAL REQUIREMENTS FOR AN ENCLOSED STRUCTURE OVER A CLOSED MUNICIPAL SOLID WASTE LANDFILL UNIT

### §330.961(a) General

### §330.961(a)(1) Documents

All pertinent documents relating to the operation of the facility including the development permit, the site Operating Plan, Closure Plan, SGMP, Safety and Evacuation Plan, and as-built drawings and specifications shall be considered part of the operating record and shall be maintained onsite in an office at the permitted development.

### §330.961(a)(2) Operating Record

The owner or operator will retain the operating record for the life of the structure.

### §330.961(a)(3) Deviation from the Development Permit

Any deviation from the development permit or plans will require notification of the executive director of TCEQ. Lease agreements and ownership transactions will include a notice of the existing development permit and the requirement of TCEQ notification. Approval by the executive director of TCEQ will be obtained prior to implementing changes to the site and deviations from this permit application.

# §330.961(a)(4) Site Incidents

The development permit holder shall notify the executive director of, and any local pollution agency with jurisdiction that has requested to be notified, any incident involving the facility relative to the development permit or registration and provisions for the remediation of the incident.

### §330.961(b) Landfill Gas Control

Landfill gas shall be monitored in accordance with the SGMP described in 330.957(t).

### §330.961(b)(1) Landfill Gas Monitoring

### §330.961(b)(1)(A) Equipment for Monitoring

The new enclosed structure built over the CMSWLF unit shall be equipped with devices to monitor methane accumulations within the building at areas where potential gas buildup may be of concern. Refer to section §330.957(t)(2)(D) of this application for more information.

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# §330.961(b)(1)(B) Onsite Monitoring

Monitoring of the onsite structure will include a continuous monitoring system integral to the enclosed structure.

### §330.961(b)(1)(C) Continuous Monitoring

The interior of enclosed structure built over the MSW areas will be monitored on a continuous basis. The Honeywell E3 Point sensors and the 301C control panel are proposed for continuous monitoring of the onsite structure. The units operate off 120-VAC and shall be configured to trigger a minimum 85-dB alarm if the volumetric concentration of methane in air exceeds a maximum of 1.0% by volume (20% of the lower explosive limit) within the venting pipe or permeable layer, and/or inside the structure. Structures will be monitored after they have been closed overnight or for the weekend to allow for an accurate assessment of gas accumulation. Any building will be evacuated and then inspected prior to reoccupation in the event of a power failure. The manufacturer's specifications are included as **Appendix J**.

### §330.961(b)(1)(D) Monitored Areas

Continuous methane gas monitors will be installed in the enclosed structure. The gas monitors will be placed in locations where gas accumulation is probable, including utility penetration locations, floor seams/cracks that are not sealed further and in the vicinity of ignition sources.

### §330.961(b)(1)(E) System Modifications

The gas monitoring and control systems shall be modified as needed to reflect modifications to the structure such as changes to the office and warehouse layout.

§330.961(b)(2) Reporting

### §330.961(b)(2)(A) Sampling for Methane

The onsite structure shall be monitored utilizing a continuous monitoring system. Additionally, the building will be monitored for lower explosive limit using a handheld landfill gas meter on a monthly basis. All monthly monitoring results shall be placed in the operating record of the site within seven working says and will be made available for inspection by the executive director, and any local pollution agency with jurisdiction that has requested to be notified.

In the event a continuous methane detector sounds an audible alarm then protocol outlined in Section §330.961(a)(4) Site Incidents, and in §330.957(u), the Safety and Evacuation Plan, will be followed.

If the methane gas limit in 330.961(b)(1) is exceeded, the owner, operator, or lessee will notify the executive director and take action in accordance with 330.371(c).

The gas monitoring system is discussed in Section §330.957(t)(2)(D).

### §330.961(b)(2)(B) Sampling for Specified Trace Gasses

Based on the results from the Landfill Gas Analysis, sampling for specified trace gases is not anticipated to be conducted unless otherwise requested by the TCEQ. Refer to Section §330.957(t)(2)(G) for more details. October 1, 2024

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### §330.961(c) Air Criteria

### §330.961(c)(1) Air Pollution Requirements

The development is subject to TCEQ jurisdiction concerning burning and air pollution. The owner or operator will comply with applicable regulatory requirements including permits and record keeping in accordance with the State Implementation Plan.

### §330.961(c)(2) Ventilation of the CMSWLF and Enclosed Structures

Ventilation of the enclosed structure and the CMSWLF will be in accordance with appropriate TCEQ rules and regulations.

#### §330.961(d) Ponded Water

The site shall be graded to prevent the ponding of surface water over areas of buried MSW. Areas adjacent to foundation grade beams and footings shall be sloped away from the foundation to prevent ponding of water. Ponded water shall be eliminated as quickly as possible and the area of ponding shall be filled and graded within seven-days of the occurrence.

#### §330.961(e) Water Pollution Control

Surface water shall not be allowed to come in contact with exposed MSW. All exposed MSW shall be covered with a minimum of two feet of compacted clay soil and/or removed and disposed in a permitted landfill.

Berms and/or diversion structures shall be constructed to prevent surface water run-on from upgradient properties.

#### §330.961(f) Groundwater Monitoring

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The site received its official closure, with no restrictions noted, in 1982. The sanitary landfill permit was revoked in 2000. Therefore, the CMSWLF does not have a groundwater monitoring system, and no groundwater monitoring is proposed with this permit application. Groundwater monitoring may be required by the executive director and shall be conducted per TAC Title 30, CHAPTER 330, Subchapter J (30 TAC §330.401-330.421).

### §330.961(g) Conduits

Potable water lines, fire suppression water lines, and sanitary sewer lines that lie over or within the MSW mass shall be double contained. Irrigation lines and stormwater lines that typically do not convey water consistently will not be double contained.

The irrigation lines will not be pressurized except when irrigating and will be additionally equipped with controllers, master valves and sensors that will shut the system down if a loss of pressure (leak) is detected. As such, double containment is not required for the irrigation system.

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The stormwater system is gravity-fed (i.e. unpressurized and non-continuous flow) through open pipes with sufficient drainage slope. The system is designed to quickly carry intermittent flows of rainfall offsite that, if the site were not developed, would otherwise naturally infiltrate and recharge the shallow groundwater underlying the site.

Leaks within conduits will be prevented by installation of said utilities by licensed professionals following all applicable building codes and permits. Evidence of leakage will be inspected for quarterly via industry standard methods that include, but may not be limited to, visually inspecting the property for wet spots or lush vegetation (as applicable), sinkholes and/or unlevel ground that are inconsistent with site grading, and/or monitoring usage meters for inconsistent data. If a quarterly inspection indicates potential leakage from a conduit, pressure testing and/or tracer gas testing will be performed for verification. In addition to a quarterly inspection, additional visual inspections will be conducted monthly as part of the methane monitoring [reference Sections §330.957(t)(2) (E), §330.961(b)(2)(A) of this report].

Leaks will be repaired by licensed professionals using industry standard excavation and utility repairing methods that will follow all applicable building codes and permits, including (but not limited to) 30 TAC §330.951 - §330.964 and, more specifically, §330.955 on page 6, and §330.957(n)(3) Dimensional Control Plan on Page 19 included herein. Records of all inspections, testing, and repairs will be maintained on site.

Where practical, fluid transmitting utility lines will be placed in imported fill soils placed over the existing cover soils.



## §330.961(h) Record keeping Requirements

## §330.961(h)(1) Maintenance of Files

The owner or operator shall promptly record and retain in the operating record the following information:

## §330.961(h)(1)(A) Gas Monitoring

All results from gas monitoring and any mitigation plans pertaining to control of landfill gas will be maintained in the operating record.

## §330.961(h)(1)(B) Unit Design Documentation

All unit design documentation for the placement of gas monitoring systems or leachate or gas condensate removal or disposal related to the CMSWLF unit will be maintained in the operating record.

## §330.961(h)(1)(C) Correspondence

Copies of all correspondence with the TCEQ relating to the development permit will be maintained in the operating record.

## §330.961(h)(1)(D) Operation and Maintenance

All documents relating to the operation and maintenance of the building, site, or monitoring systems as they relate to the development permit will be maintained in the operating record.

## §330.961(h)(1)(E) Other Documents

Any other document(s) as specified by the approved development permit or by the executive director will be maintained in the operating record.

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# §330.961(h)(2) Written Notification

The owner or operator will provide written notification to the executive director, and any local pollution agency with jurisdiction that has requested to be notified, for each occurrence that is required to be documented by the record keeping section of this permit. All information maintained in the operating record shall be available at all reasonable times for inspection by the executive director or his representative.

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# §330.962

## NOTICE TO REAL PROPERTY RECORDS

The recorded notice is included in **Appendix K**.

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# §330.963(a)

# NOTICE TO BUYERS, LESSEES, AND OCCUPANTS

The recorded notice is included in **Appendix L**.

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# §330.963(b)

## NOTICE TO LESSEES AND OCCUPANTS

A blank notice is included in **Appendix L**.

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# §330.964

# LEASE RESTRICTIONS

Lease restrictions are written within notices located in Appendix L.

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FIGURES



### FLOOD STATEMENT

According to Federal Emergency Management Agency's Flood Insurance Rate Map No. 48113C0170K for Dallas, Dallas County, Texas and incorporated areas, dated June 7, 2014, as affected by LOMR 17-06-3383P, effective 5/29/2018, this property is located within

ZONE X (UNSHADED) defined as "Areas determined to be outside the 0.2% annual chance floodplain"

ZONE X (SHADED) defined as "Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood"

ZONE AE defined as "Special flood hazard areas (SFHAs) subject to inundation by the 1% annual chance flood (Base Flood Elevations

If this site is not within an identified special flood hazard area, this flood statement does not imply that the property and/or the structures thereon will be free from flooding or flood damage. On rare occasions, greater floods can and will occur and flood heights may be increased by man-made or natural causes. This flood statement shall not create liability on the part of the surveyor

### NOTES:

- 1. Visible evidence of current earth moving work, building construction or building additions were observed at the time of survey
- 2 Bearings are based State Plane Coordinate System, North Texas Central Zone 4202, North American Datum of 1983 (2011).
- erved on the subject property at the time of the sur
- ress listed on the Dalias County Central Appraisal District website at the time of survey was listed as 11645 Newberry SL. No iddress was found on the subject property at the time of the survey.
- 5. No parking was observed on the subject property at the time of the survey.
- 6. The surveyor was able to physically access the Property to and from Newberry Street, a public right of way.
- Visible above ground utilities observed at the time of survey are plotted on this survey.
- ription set forth in the Title Commitment describes the same property that is depicted on this Survey.
- ption of the Property describes a mathematically closed figure with no gaps, gores or strips
- At the time of this Survey, there was no observable evidence of the Property being used as a solid waste dump, sump or sanitary landfill.
- At the time of this Survey, there was no observable evidence of cemeteries or burial grounds on the Property
- There are no known proposed changes in street right-of-way lines. There was no evidence of recent street or sidewalk construction or repairs observed at the time of the survey and surveyor did not contact a controlling jurisdiction. 12.
- 13. No off-site easements were found or disclosed in the documents provided to or obtained by the Surveyor. No off-site easements and tenances are shown hereon

### SIGNIFICANT OBSERVATIONS:

- 1. Billboard crossing north property line.
- 2. Powerpoles and overhead line crossing north property line as shown.

4/26/24	UPDATED NEW TITLE COMM
4/9/24	UPDATED NEW TITLE COMM
3/19/24	UPDATED TITLE COMMITME COMMENTS.
3/11/24	UPDATED NOTES, ZONING N OBSERVASTIONS
3/6/24	ADDED ZONING INFORMATI
3/5/24	UPDATED TITLE COMMITME COMMENTS.
DATE	REVISION DESCRIPTION
	4/26/24 4/9/24 3/19/24 3/11/24 3/6/24 3/5/24 DATE



### MEASURED PROPERTY DESCRIPTION

TRACT 2 (Easement Estate):

Public Records of Dallas County, Texas

BEING a tract of land situated in William M. Cochran Survey, Abstract No. 279, City of Dallas, Dallas County, Texas and being all of a called 36.2936 acre tract of land described in Special Varrany Deed to Newberry Distribution Owner, LLC, recorded in Instrument No. 202100372754, Official Public Records, Dallas County, Texas and being more particularly described as follows:

BEGINNING at a mag nail found at the intersection of the west right-of-way line of Newberry Street (a variable width right-of-way) and the south right-of-way line of Interstate Highway 635 (a variable width right-of-way) and for the northeast corner of said 36.2936 acre tract;

THENCE with said west right-of-way line of Newberry Street, the following courses and distances

South 00°54'04" East, a distance of 1,017.63 feet to a mag nail found for corner th 00°15'08" East, a distance of 528.02 feet to a mag nail found for the southeast corner of said 36.2936 acre tract;

North 89°37'53" West, a distance of 386.34 feet to a 5/8-inch iron rod with plastic cap stamped "KHA" set for corner South 03\*3525" West, a distance of 20.85 feet to a 5/8-inch iron rod with plastic cap stamped "KHA" set for corner; South 04\*3350" West, a distance of 20.855 feet to a 5/8-inch iron rod with plast c cap stamped "KLA" set for corner; South 04\*3347" West, a distance of 137.17 feet to a 5/8-inch iron rod with plast c cap stamped "KHA" set for corner; South 88\*30'29" West, a distance of 222.05 feet to a 5/8-inch iron rod with plastic cap stamped "KHA" set for corner, from said point

a 5/8-Inch iron rod found bears North 82'58'06' Week, a distance of 0.43 feet; North 01'09'14" East, a distance of 63.04 feet to a 1/2-Inch iron rod with illegible yellow cap found for com-South 88\*38'35" West, a distance of 260.85 feet to a 1/2-inch iron rod with plastic cap stamped "DC&A" found for the southwest corner of said Newberry Distribution Owner, LLC tract and being in the east line of a tract of land described in Deed Without Warranty to Dallas Area Rapid Transit (DART), recorded in Instrument No. 201500321792 of said Official Public Records;

THENCE with said east line of the DART tract, the following courses and distances:

North 08°49'32" East, a distance of 893.97 feet to a 5/8-inch iron rod with plastic cap stamped "KHA" set for corner; lorth 89"50'32" East, a distance of 25.31 feet to a 5/8-inch iron rod with plastic cap stamped "KHA" set for corner North 08°49'32" East, a distance of 924.45 feet to a 1/2-inch iron rod with "RLG INC." cap found for the northwest corner of said Newberry Distribution Owner, LLC tract and being in said south right-of-way line of Interstate Highway 635

THENCE departing said east line of the DART tract and with said south right-of-way line of Interstate Highway 635, the following courses

North 88°31'26" East, a distance of 539.38 feet to a 1/2-inch iron rod with "RLG INC." cap found for corner; North 80°18'18" East, a distance of 234.09 feet to a 1/2-inch iron rod found for corner, North 88°15'59" East, a distance of 10.00 feet to the POINT OF BEGINNING and containing 1,580,950 square feet or 36,2936 acres. of land, more or less

Bearings are based State Plane Coordinate System, North Texas Central Zone 4202, North American Datum of 1983 (2011).

Description of measured bearings and distances based on this survey

### RECORD PROPERTY DESCRIPTION

TRACT 1

BEING a 1,580,949 square foot (36.2936 acre) tract of land situated in the William M. Cochran Survey, Abstract No. 279, City of Dallas, Dallas County, Texas, being all of a called 36.376 acre tract of land described in a Special Warranty Deed to LD FOLSOM LAND LLC recorded in Instrument Number 202000003105, Official Public Records, Dallas County, Texas, and being more particularly described as follows:

BEGINNING at a MAG nail set at the intersection of the west right-of-way line of Newberry Street (variable width right-of-way) and the South right-of-way line of Lyndon B. Johnson Freeway, a.k.a. Interstate 655 (a variable width right-of-way, created by Volume 74082, Page 564, Deed Records, Dallas County, Texas) for the northeast corner of said LD Folsom Land tract, from which a found 1/2" ion rod with yellow plastic cap stamped "HALFF ASSOCIATES" for the northwest corner of Lot 1, Block B/6558, Columbia Center West, an addition to the City of Dallas, Dallas County, Texas, according to the plat recorded in Volume 88208, Page 2310, Deed Records, Dallas County, Texas, bears North 86° 30' 55" East, a distance of 52.03 feet,

THENCE along the common line between said Newberry Street and said 36.376 acre tract, the following courses and distances:

South 00°54'04" East, a distance 1,017.63 feet to a MAG nail set for corner; South 00°15'08" East, a distance 528.02 feet to a MAG nail set for the southeast corner of said 36.376 acre tract, from which a found 1/2\* iron rod with yellow plastic cap (illegible) for a southwest corner of Lot 2A, Block B/6557, of said Columbia Center West, bears South 36° 21' 19" East, a distance of 110.33 feet:

THENCE North 89\*37'53" West, along a south line of said 36.376 acre tract, passing a 1/2" iron rod with a red plastic cap stamped PEISER-MANKIN-SURVEY' found for the northeast corner of a called 2.69 acre tract, passing a 1/2' iron rod with a red plastic cap stamped "PEISER-MANKIN-SURVEY' found for the northeast corner of a called 2.69 acre tract of land described in a Special Warranty Deed to 11517 Newberry, LP, recorded Volume 2003093, Page 10287, Deed Records, Dallas County, Texas, at 10.35 feet and continuing for a total distance of 386.34 feet to a 1/2'' iron rod with yellow plastic cap stamped "PEISER-MANKIN-SURVEY" bears South 37" 17'' 55" East, a distance of 5.17 feet;

THENCE South 03\*5825" West, along said common line between said 36.376 acre tract and said 2.69 acre tract, a distance 220.82 feet to a point for an exterior ell corner of said 36.376 acre tract and the northeast corner of a called 0.256 acre tract of land described as Tract in a Special Warranty Deed with Vendor's Lien to HNG Properties, LLC, recorded in Instrument No. 201500006463, Official Public Records, Dallas County, Texas, from which a found 1/2" iron rod bears South 39' 09 57" East, a distance 01.39 feet;

THENCE South 89"33'50" West, along the common line between said 36.376 acre tract and said 0.65 acre tract, a distance 208.55 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for an interior ell comer for said 36.376 acre tract and the northwest comer of said 0.65 acre tract, from which a found " iron rod with punch hole bears South 07" 34' 27" West, a distance of 7.23 feet;

THENCE South 04\*33'47" West, along the common line between said 36.376 acre tract and said 0.65 acre tract, a distance 137.17 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set on the north line of a track and old obscribed in a Special Warranty Deed with Vendor's Lien to GATLIN DENTON PARTNERSHIP, LP, recorded in Instrument Number 20080069286, Official Public Records, Dallas County, Texas;

THENCE South 88"30'29" West, along the common line between said 36.376 acre tract and said GATLIN DENTON PARTNERSHIP tract, a distance 222.05 feet to a an exterior eli corner of said 36.376 acre tract, from which a found 5/8" iron rod bears North 82" 58' 06" West, a distance of 0.43 feet;

THENCE North 01 "09'14" East, along a west line of said 36.376 acre tract, a distance 63.04 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for an interior ell comer of said 36.376 acre tract;

THENCE South 88\*38'35" West, along a south line of said 36.376 acre tract, a distance 260.85 feet to a 1/2" iron rod with yellow plastic cap stamped "DC&A" found on the east line of a tract of land described in Special Warranty Deed to the CITY OF DALLAS, recorded in Volume 86057, Page 342, Deed Records, Dallas County, Texas, for the southwest comer of said 36.376 acre tract;

THENCE along the common line between said 36.376 acre tract and said CITY OF DALLAS tract, the following bearings and distances:

North 08°49'32" East, passing at a distance of 75.10 feet a 1/2" iron rod found and continuing for a total distance 893.97 feet to a 1/2" from rod with yellow plastic cap stamped "RLG INC" set for corner; North 89"50"32" East, a distance 25.31 feet to a 1/2" from rod with yellow plastic cap stamped "RLG INC" set for corner, from which a

found 1/2" iron rod bears South 04° 22' 12" East, a distance of 2.36 feet:

North 08'49'32" East, a distance 924.45 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set on the south right-of-way line of said Lyndon B. Johnson Freeway, for the northwest corner of said 36.376 acre tract;

THENCE along the common line between the south right-of-way line of said Lyndon B. Johnson Freeway and the north line of said 36.376 acre tract, the following bearings and distances

North 88\*31'26" East, a distance 539.38 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for corner; North 85 '1 Co East, a distance 34.09 feet to a 1/2' into dowing yearsy passion day sampler TLCS into set to Lonner, North 85' 18' East, a distance 34.09 feet to a 1/2' into rod with yellow plastic cap stamped 'RLG INC' set for comer; North 88' 15'59' East, a distance 10.00 feet to the **POINT OF BEGINNING**, containing 1,580,949 square feet or 36.2936 acres of land, more or less

Bearings are based State Plane Coordinate System, North Texas Central Zone 4202, North American Datum of 1983 (2011).

Record description based on a called 36.2936 acre tract of land described in Special Warranty Deed to Newberry Distribution Owner, LLC, recorded in Instrument No. 202100372754, Official Public Records, Dallas County, Texas. Copyright © 2024 ley-Horn and Associates, Inc. All rights reserved

### OTES ADDRESSING SCHEDULE B EXCEPTIONS:

provided by Commonwealth Land Title Insurance Compa ent for Title Ins 5173710-CW-TX-CP-LAZ, effective date of July 29, 2024, issued August 7, 2024.

- The surveyed property is all of the land described in the Special Warranty Deed recorded in Volume 2000195, Pag Official Public Records of Dallas County, Texas, containing Deed Restrictions for property use against concre batching plant, garbage plant or trash transfer station, recycling center, chemical plant or processing facility, jur slaughterhouse without the consent of Prologis Development Services Incorporated or its successors as own described in Exhibit C of said Special Warranty Deed; is blanket in nature
- he surveyed property is a portion of the land described in Affidavit to the Public recorded in Volume 81246, Pa roperty Records, Dallas County, Texas; is blanket in nature.
- 10g. The Vehicular and Pedestrian Easement recorded in Volume 84104, Page 3449, Real Property Records, Dallas does lie within the subject property and is shown h
- Due to the vague description of the Texas Power and Light Company Easement recorded in Volume 2762, Pa Property Records, Dallas County, Texas and assigned to Dallas Power and Light Company recorded in Volume 355 Real Property Records, Dallas County, Texas, the surveyor is unable to determine the exact location at the time of th
- The Sanitary Sewer Easement recorded in Volume 76093, Page 874, Real Property Records of Dallas County. within the subject property and is shown hered

The Drainage Easement recorded in Volume 84104, Page 3441, Real Property Records of Dallas County, Texas the subject property and is shown hereo

10k. Intentionally Deleted

The Permanent Sanitary Sewer Easement recorded in Instrument No. 201600185191, Official Public Records, Texas does lie within the subject property and is shown hereon. 101

The surveyed property is all of property described in Notice to Real Property Records of Closed Municipal Solid recorded in Instrument No. 202300058413, Official Public Records, Dallas County, Texas; is blanket in nature.

Moved to Schedule C

- 100 The surveyed property is all of property described in Special Warranty Deed recorded in Instrument No. 20210037 Public Records, Dallas County, Texas; is blanket in nature.
- The Sanitary Sewer Easement recorded in Volume 5012, Page 271, Deed Records, Dallas County, Texas does
- The surveyed property is all of property described as Exhibit B in Valley Storage Easement Agreement recorded in I 202100370709, Official Public Records, Dallas County, Texas; is blanket in nature.

The surveyed property is all of the property described in Exhibit A in First Amendment to Valley Storage Easeme recorded in Instrument No. 202400151853, Official Public Records, Dallas County, Texas.

The surveyed property is all of the property described in Exhibit A in Second Amendment to Valley Storage Easeme recorded in Instrument No. 202400151854, Official Public Records, Dallas County, Texas.

Lot Size -

Pursuant to the Memorandum, provided by Winstead PC, dated December 12, 2023, the the surveyed property has a c isification of "IR" Industrial Research, the setback, height, floor area and parking requir Front Yard Setback -

Side and Rear Yard Setback - 0 feet/ 30 feet where adjacent to or directly across an alley from an R, R(A), D, D(A), TH, TH num Height -200 feet

Floor Area Ratio (FAR) -.5 for retail and personal service uses:

.75 for any combination of lodging, office, and retail and personal service uses; and 2.0 for all uses combined

Maximum Structure Height - 200 feet

Lot Coverage (max) -80%

No Minimum

Minimum Parking Required - 1 parking space per 1,000 square feet of floor area for developments consisting of up to 2 feet of total floor area, plus

1 parking space per 4,000 square feet of floor area for developments in excess of 20,000 s

2 loading spaces are required for a building between 50,000 and 100,000 square feet in size additional loading space is required for each additional 100,000 square feet of building floor a

For office use, the Zoning Ordinance requires 1 parking space per 333 square feet of floor

Refer to City of Dallas Zoning Ordinance and the Unified Development Code for additional regulations and requirements Setbacks not graphically shown as they require interpretation. This Zoning note shall not create liability on the part of the surveyor.

### Figure 1B, Page F.2,

6	4/26/24	UPDATED NEW TITLE COMMIT
5	4/9/24	UPDATED NEW TITLE COMMIT
4	3/19/24	UPDATED TITLE COMMITMENT COMMENTS.
3	3/11/24	UPDATED NOTES, ZONING NO OBSERVASTIONS
2	3/6/24	ADDED ZONING INFORMATION
1	3/5/24	UPDATED TITLE COMMITMENT COMMENTS.
No.	DATE	REVISION DESCRIPTION

10f.	Т
	P

Perpetual easement for drainage, flow, runoff and movement of water as more fully described in Valley Storage Easement Agreement

granted to Newberry Distribution Owner, LLC, by instrument filed December 13, 2021, under Instrument No. 202100370709, Officia

THENCE departing said west right-of-way line of Newberry Street and with the south lines of said 36.2936 acre tract, the following

npany, GF. No.						
Page 7712 of the increte or asphalt , junkyard, and/or wmer of the land						
Page 1213, Real						
as County, Texas						
, Page 281, Real 3599, Page 128, of the survey.						
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Figure 2; Page F.3; October 1, 2024



Figure 3; Page F.4; October 1, 2024; REVISED APRIL 23, 2025





Figure 5; Page F.6; October 1, 2024

WITHONALLY

Treefarm SWC IH-635 and IH-35 Subchapter T Permit Application



October 1, 2024 Figure 6; Page F.7



Figure 7; Page F.8; October 1, 2024





Figure 9; Page F.10; October 1, 2024



Figure 10; Page F.11; October 1, 2024



Figure 11; Page F.12; October 1, 2024





Figure 13; Page F.14; October 1, 2024



- RAL Building Code: International Building Code (IBC), 2021 Edition. Material Codes: ASCE 7-16, "Minimum Design Load & Associated Criteria for Buildings & Other AISC 360-16. "Specification for Structural Steel Buildings"
- AISC 341-16, "Seismic Provisions for Structural Steel Buildings" ACI 318-10, "Building Code Requirements for Structural Concrete and Commen TMS 402-16, "Building Code Requirements and Specification for Nasonry Struc Design Gravity Loads:
- Roof Collateral Dead Load = 10 psf Roof Live Load (Reducible) = 20

Design Wind Loads: Strength (Ultimate) Design Wind Speed (V<sub>ULT</sub>) = 105 mph Allowable (ASD) Design Wind Speed (VASD) = 81.3 mph Risk Category = II Wind Exposure Category = B Internal Pressure Coeff, GC<sub>pt</sub> = +/-0.18

## Components and Cladding: Refer Components and Cladding Diagram and Schedule

Design Snow Loads: Ground Snow Load, pg= 5 psf Flat Roof Snow Load, pr = 5 psf Snow Exposure Factor, c<sub>s</sub> = 0.9

## Snow Load Importance Factor, i = 1.0Thermal Factor, $c_i = 1.0$ Design Seismic Loads: Seismic Importance Factor, I = 1.0

Risk Category = II 5% Damped Spectral Response Acceleration Parameter, S<sub>3</sub> = 0.101 I-sec Period Spectral Response Acceleration Parameter, S1 = 0.054 Site Class = D 5% Damped Spectral Response Coefficient, Soc = 0.108 I-sec Period Spectral Response Coefficient, Spt = 0.087 

### GENERAL CONDITIONS

- The general contractor shall verify all dimensions and conditions at the job site, and shall be esponsible for conditions of all work and materials, including those firmished by
- subcontractors. GC2 Discrepancies and/or variations shall immediately be reported to the architect. GC3 The Drawings and Specifications are complementary and together comprise the Construction Documents. Anything shown on the Drawings and not mentioned in the Specifications, or mentioned in the Specifications and not shown on the Drawings, shall specifications, or menioned in the Specifications and not shown on the Drawings, shall have the same effect as if shown or mentioned in both. In the event of a conflict between the Drawings and the Specifications, the general contractor shall immediately report the variation to the Architect and shall, unless directed otherwise by the Architect, perform the more executed institution.
- 305
- Comparise installation: Details show on the Dowings decide obtaining by the Activities, percent with inde-bearing show on the Dowings by all tilk is conditions. If endina latures are not fully shown or specified on the Dowings or in the Specifications, their construction shall be of the same character is shown or specified in similar conditions. If endina latures are not the activities and verdimanship shall be performed in accodance with local standards and to the activities provisions of the queening building code. These Dowings and Specifications represent the finished structure. Unless otherwise indicated, they do not indicate the method of construction. The contractor shall provide all measures necessary to protect the structure, workners, and other persons suring construction. Such measures shall include, but not be limited to busing, storing br construction equipment, adving for the building, shoring for the earth banks, forms, scaffiding, pariming, safety nets, support and Thoring for cranes, gin poles, etc. The constructor shall supervise and direct the work, and he shall be solely responsible for all constructions. Such accessing and direct the work, and he shall be solely responsible for all constructions. Such the structure is all not include inspection of the above items.

### 3C7 Ref architect for waterproofing and flashing requirements. 3C8 All excavations shall be sloped, shored, or shielded in accordance with OSHA requirements.

- GC9 These Drawings show only representative and typical details to assist the contractor. The Drawings do not illustrate every condition. All attachments, connections, fastenings, etc., shall be properly socured is conformance with the best practice, and the contractor shall be responsible for providing and installing them. C010 The use of reproductions of these Drawings by any contractor, subcontractor, seeter, fabricator, or material supplier in lisu of peparation of hop drawings signifies his acceptance d all informations show heremo as correct, and deligated himself to any job expense, real or implied, arising due to any errors that may occur hereon.
- DEFERRED SUBMITTALS
- Open-web steel joists and joist girders [Refer Open-Web Steel Joist and Joist Girders section]. DS2 • Metal stairs, handrails, and guardrails [Refer Structural Steel section]

- Functions GENERAL Foundation and subgrade preparation shall be in accordance with the soils analysis report to be preserved by ReveE Engineering. Contractor shall audmit release and shall be in the engineer with a placement plan for each foundation settingholing, orate beam, and lab. Provide a placement elevation for each foundation of splices. Include be schedules, shapes of bert barn, spacing of bars, contraction of splices.
- ccation of splices. rector shall coordinate and venity exterior firish grades from civil grading plan with the lation plans to ensure a minimum '10° cover is provided over top of piess/lootings. In ion, the bottom of footing shall meet frost depth requirement, Notify engineer of any the bottom. onflicts or deviations.
- conflicts or deviations. All subgrade preparation, fil and fil placement, and foundation construction shall be performed in strict accordance with the structural plans and the soils analysis report listed above and shall be observed, tested, and approved by a qualified geotechnical engineer prior
- proceeding. I organic and deleterious material, and or any other unsuitable material, shall be removed thin the building pad area, and beyond openings and other settlemant sensitive areas.
- Slabs shall rest on a methane barier consisting of a high-density plastic sprayed on a filter States that risk on a metaline came consisting to a high-rooting planet, spriper or a fault fabric over 12 lonkes of the exclaiming, rounded gravel over prepared subgrade. a) The free-dimining, rounded gravel shall consist of crushed stone meeting ASTM C 33 Size of 2 or coarse: and shall be compared in filts not to exceed 8 in thickness to a density not less than 60% of the relative density as determined by ASTM D 4254.

b) The prepared sugrade will consist of on-site soils or select fill with a plasticity index (P.1.) between 4 and 15 and shall be compacted in its not to exceed 8° in thickness to a density not less than 95% of ASTM D050 Standard Proctor density at or above optimum moisture

- content. Install worb brainier at the following locations unless indicated otherwise on the Drawings: 1. Under indicate status or grade 2. Under and on interior versicial face of perimeter grade beams Any standing water on the surface of the wapor barrier shall be removed or dried prior to controlle placement. Status on grade have blow of the surface of the wapor barrier shall be removed or dried prior to controlle placement. Status on grade have blow of the surface of the wapor barrier shall be removed or dried prior to controlle placement. Status on grade have blow of the surface of the wapor barrier shall be removed or dried prior Status on grade have blow of the surface of F9
- F10 Ref architect for waterproofing requirements for retaining wals, basement walls and elevator

- FOOTINGS FFT The foundations have been designed using a ret allowable soil bearing value of 3,000 prf deal load and 4,000 prf total load for spread and continuous bodrigs bearing on ground that is improved through specialized ground-improvement totringways. FF2 The foundations have been designed to bear on ground that is dynamically compacted. The the foundations have been designed to bear on ground that is dynamically compacted. The different tohone assumed for the design. a) Final bearing values telow the footing areas are to be submitted by the geotechnical engineer.
- b) Potential settlement shall be limited to a maximum allowable total and differential
- etterment of 1 inch and 0.5 inches, respectively. ) Disturbance of the dynamically compacted ground shall be avoided. Disturbed soils hould be replaced with compacted on-site or select fill.
- ensure or empaces with comparted on-site or select fill, of 1-stating equivalenterists are as port the Dynamic Compaction design. Tests should be performed, unless otherwise specified, by the geotechnical engineer. Spread fociling, continuous footing and grade beam dimensions and/or locations may not be allend without approval by the engineer.
- ETE oncrete work shall be executed in strict accordance with ACI 318, Building Code equirements for Structural Concrete and, except as modified by these Contract ocuments, shall conform to all requirements of ACI 301, littest edition, Specifications for Structural Concrete.

Location	28 Day Strength fc (psi)	Maximum w/cm ratio	Exposure Class ACI 318	Total Air Content (percent) Ref Note 3
Exterior slabs-on-grade, grade beams, and all other concrete permanently exposed to the exterior not otherwise noted	3,500	0.55	F1,S0,C0	5% +/- 1 1/2%
Tilt-up Concrete Panels	4,000	0.55	F0,S0,C0	<3%
Panel Grout Mix (at continuous footings)	5,000	0.45	F0,50,C0	+3%
Warehouse slabs-on-grade	4,000	0.55	F0,S0,C0	<3%
Warehouse pier caps supporting moment frames	6,000	0.55	F0,50,C0	<3%
Footings, piers, and all other concrete not otherwise noted	3.000	0.55	F0.S0.C0	<3%

Notes: 1. Percent air entrainment indicated is based on the Exposure Class and ½" and larger ggregate size. Reference Act 318, Table 19.3.3.1, Total AF Content for Concrete Exposed 0 cycles of Freezing and Thraveng to runalier aggregate sizes. 2. Above concrete specifications do not apply to chil concrete (swing, flatwork).

- Portand Cement shall conform to ASTM C-150, Type I or as required for the specified posure Class. Alternative combinations of cementitious materials are sted for suitate resistance and meeting the criteria in ACI 26.4.2.2(c).
- C4 C5 Aggregates for normal weight concrete shall conform to ASTM C-33.
- Aggregates for light weight concrete shall conform to ASTM C-330. Maximum dy unit weight of lightweight concrete shall be 115 lbs per cubic foot, unless indicated otherwise the drawlores. C6
- the drawings. The nominal maximum aggregate size shall be 1 inch, except shall be 1 1/2" maximum at cotings and piers. In addition, the nominal maximum aggregae size shall not be larger than i) one-fifth of the rarrowest dimension between sides of form, (ii) one-third of the depth of sides, or (ii) three-louths of the minimum clear distance between einforcing bars, bundles stats, or (ii) three-fourths or the minimum clear distance between reimorching bars, to of bars, prestressed reinforcement, individual lendons, bundled tendons, or between
- einforcing and florm. Where By sah is included, maximum By ash content shall be 25 percent by weight. Journator shall sabmit proposed concrete mix design for each type of concrete to be us as indicated on the Contact Drawings. Proposed mix design shall comply with ACI 301, be used
- as indicated on the contrast permission of the second seco
- C10 C11
- Level and a placement elevation for each well, include bar schedules, shapes of barn bars, spacing of bars, and location of splices. Meteor occurrent to have a hard inoted finish and shall not centralia an air estraining admixture of have a total air content gradest than 3%. The sharing specified on the mix design as determined by ASTM CH3/CH3/CH3M shall be used with ACI 117. Concrete shall not have shall be also a designation of segregation. Shall be in accordance with ACI 117. Concrete shall not have shall be independence of segregation. See architectural and mechanical plans for welfication of air depressions, openings, cast-in-place accession, etc.
- CI
- ructed to have a minimum flatness of Ff = 35 and a min G16 All foor slabs shall be co An non-status shall be constructed to have a minimum sample of r1 = 30 and a mini-leveness of FL= 25. Correct the statis surface if composite overall value is less than specified and/or flocal value is less than 3/5 of specified value. Correct defects as acceptable to the architect by grinding, leveling compound or by removal and replace the defective work. Re-measure corrected areas by he same process.
- Concrete Clear Cover, unless noted otherwise on the CONCRETE CAST AGAINST AND PERMANENTLY drawings, shall conform as follows CRETE EXPOSED TO EARTH OR WEATHER
- No 3 - No 5 ..... CENTERED

# **GENERAL NOTES**

- IN CONTACT WITH GROUND Slabs, Walls and Joists: No 11 and Smaller ...... No 14 No 18...... Beams and Columns:
- Beams and Columns: Primary reinforcement, ties. Stimups and Spirals ...1-1/2"
- ances for Co C19
- Telenances for Concrete Construction. Concrete placed during hot weather shall be placed in accordance with ACI 305R Hot Weather Concreting. Concrete at time of discharge shall not exceed 85 degrees F. Provide exportation corrun emasures to prevent rapid weapcrision form the free horomete. Concrete placed during codd weather shall be placed in accordance with ACI 305R Codd Weather Concreteing. Protect Concrete work if the average of the highest and lowest ambient at temperatures is expected to be less than 40 degrees F for 3 uccessive days. Minimum concrete temperatures and length or grotection pends that corrupt with KCI 305R.
- edges shall have 3/4" chamfers
- on drawings or by architect. Chamfered edges are not required at grade beams and slab edges

### CONCRETE AND MASONRY ANCHORS

- NCRETE AND MASONEY ANCHORS Whene increased on the develops, post-installed anchors shall be as indicated below. Poposed subalitudions shall be submitted to the enginee for agrowal. Post-installed expansion anchors into cracked and uncracked concrete and grouted CMU cells onry shall be HBI KWM. BOR-T22 expansion anchors per K2C ESF4-206 (concrete) & ESR-4567 (second) unless indicated otherwise. Embednenet depth indicated is the minimum effective embednent death. Refer to manufacture's installation including minimum hole depth to achieve the specified minimum effective depth and longue requirements. Do not over-forque expansion anchors. Post-installed athereview anchors shall be installed threshold and answer anchors shall be ATT-554 Crauba 30 threaded rod, HM-5-8 threaded rod, deformed refar, or whree indicated HT-72 rod. Epony anchors shall be installed to f150 for the allowable tensile capacity of the archor. Unless indicated otherwise, provide the Biolowal anchors:
- sted to 150% of the anowate tensile capacity of the archor. Unless indicated otherwise, provide the following anchores: a) Anchors is concrete shall use Hitl HIT-HY 200 A/R V3 adhesive per low cure applications or where indicated, use Hitl HIT-RE 500 epoxy adh evan
- 3814. b) Anchons is grouted and ungrouted CMU shall use Hiti HIT-HY 270 adhesive per ESR-4143. In ungrouted CMU, provide the HIT screen table. Prover Antuated Tastesens (FMT) to concrete shall be 0.157° diameter, Hitli XU nails per ESR-2280 installed in accordance with the manufecturen's instructions. Minimum embediment 1-12° unless noted christiane Minimum spacing between testeners shall be 4 embediment 1-12° unless noted christiane shall be 10° of concentration by the specified embedment. Installers shall be cettified by Hiti, Inc. and shall have a current Hitli issued cerement license.
- Post-installed screw anchors into cracked and uncracked concrete and grouted CMU cells only shall be HBI HUS E2 Screw Anchors per ICC ESR-3027 (concrete) & ESR-3036 (masonr) unless indicated otherwise. Emedenders depth is the minimum effective enbedment depth. Refer to manufacturer's instructions for installation including minimum hed depth to achieve the specified innimum effective depth and screpting enguinements. Pre-dill the hole with a standard ANSI didl bit with the same diameter as the anchor and install with an impact vence. Provide anchors with a dismater and anchor length marking on the head. Unless roted otherwise, anchors shall be carbon steel with zinc electroplating.

### REINFORCEMENT

- DRCEMENT A reinforcement shall conform to ASTM A-615 Grade 60. Reinforcing steel shall be designed, detailed, fabricated and placed in accordance with the insert ACI Detailing Manual (3P-68) and CSR Manual of Standard Practice. Corner reinforcing bars shall be used at all corners and intersections. See Typical Corner
- Bar Detail. reson. s in reinforcement shall occur at points of minimum stress and, unless noted wise, with a minimum lap as indicated in the Development Length and Lap Splice
- Scheckle. Except as provided in ACI 318, Building Code Requirements for Structural Concrete, and approved by the engineer, all redding of reinforcement shall conform to AWS D1.4 Structural Versing: Code, Renthoring Status, provide 345 bars each side of openings in cast-inplace walls or structural sides. Extend bars 370 past openings in each direction. For slabs-on-grade, previde one #4xF-0° diagonal bar at all re-entrant comers. See foundation planes.
- 87

- TILT-UP CONCRETE PANELS TI Al vertical reinforcement shall be located at the center of the concrete panels, and all herizontal reinforcement shall be tied to the inside face of the vertical reinforcement, unless
- panel thicknesses are noted on drawings. Typical panel reinforcing shall be as noted on the drawings and details. Provide 2- #5 bars each side of all openings. Extend bars 3'-0" past openings in each
- Т3 Т
- direction. Litting inserts and reintercing shall be designed under the direct supervision of a Professi Engineer licensed in the State in which the project is located. Concrete panels shall be Engineer increase in the excelled position unit they can be permanently anchored and traced second securely in the excelled position unit they can be permanently anchored and traced at the elevated foors and roof as specified in the erection design. The elevated foors and cof framing and deck shall be completely isstalled before panel braces are removed. Reinfecting shown on these documents has been designed for final, in yalace load conditions
- Rainforcing shown on house documents has been designed for feal, in-place lead conditions only. All inserts, braces, strong-backs, and other required lifting accessories shall be furnished and institled by the contractor, and shall be located in accordance with accepted published librature, such as Reitmond Sulfatti No. 8, Products for Proceed/Prestressed Concrete prever cracitly due to encicit the stresses. Should appoint inserts of brows not be provided to meet the above criteria, the contractor shall be reisonable for providing special reinforcing a may to required, to prever fravancia cross them occurring in the pueries during timing and handling operations. The cost for any additional reinforcement required for filling and exciton shall be the resonability of the contractor. Ar relief holes shall be provided in all embd plates with minimum 12 incl least dimension on the top subcord the cost for any additional reinforcement required for filling and exciton on the top subcord in the contractor shall be the resonable to the resonability of the contractor. Ar relief holes shall be provided in all embd plates with minimum 12 incl least dimension on the top subcord in the cost position. Ar relief holes shall be 12 claimeter minimum correct at 12 °CC max. Display being the contractor and the shall be the cost of the casting position. Subcord and the cost of the casting position are reliable and the cost of the casting of the share the reliable subcord and beatings. Subcord and the cost of the casting position share the share the stationship to adjacent components. How each structure concrete life panel elevation with dimensions, structure embadded items, opering, charatters, and reveals. b) Panel interline beating submittal whall be signed and saled by the responsible Designer. Even bound heaviers that of the sended to read endormezent.

- Form bond breaker shall not be applied to panel reinforcement.
- TP Goncrete for panels shall have reached a sufficient compansive strength at the time of encition to withstand al local sascotated with lifeig and arrection. Tio Cane used to lit concrete panels shall not be driven on building slab-orgarde. Ti Al deadman brace supports, lised, shall be killy removed prior to placement of slab, paiving or flatwork unless othewise approved by engineer. Where deadman braces are removed, subgrade shall be prepared and compacted per foundation notes.

- Reference architectural drawings for all panel finishes.
   Fully grout between bottom of panel and boting or pier. Use non-shrink grout per Structural Boted roces for panels supported by piers. For panels supported by continuous footings use panel grout mix as specified in concrete specifications.
   Care what be exercised or placement and compaction of finishe leave-out a dijacent to the concrete panels. All fill shall be piaced in loose lifts and compacted at missing event of the additional is the endershift and ender clara schedule the amenicative the medicative of the medicative of the medicative of the additional is the endershift and ender clara schedule at the amenicative of the medicative of the med context as detailed in the geotechnical report. Any rebar shall be appropriately manipulated to ensure proper compaction. Vagor barrier shall be suitably placed and lapped.

S16

S17

S18

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J4

JB

GN VERSION General Notes Ver. 08/30/24 12:07:09

METAL DECK

T15 All concrete edges shall have 3/4" chamfers unless otherwise noted on drawings or by architect. Chamfers shall terminate each side of steel embed plates that are at the edge of

# MASCNRY In accurdance with the Unit Strength Method, concrete masorry units shall conform to ASTM C-10 with a minimum compressive strength of 2,000 ps, average net area. Concrete masorry below finished foor shall be nornal weight units and shall have all cells fully grouted. Concrete masorry above finished foor shall be light weight or normal weight and shall be grouted only at intriferect cells and bond beams, unless noted otherwise.

- All motar for unit masonry shall be Type S complying with ASTM G270 by proportion requirements. Portland cement (ASTM C-150 Type 1 or 2) shall be used in all mortars
- requestions. Fortiand cellinining (Schrift Chor) right for 2 ji state do used in an inclusate All grout shall correspond to the requirements of ASTM C-476, with a minimum 28-days compressive transfer of 2,000 pai. Course grout shall be used unless the clear grout space is 2 incluse or less. Portiand cemmit (ASTM C-160 Type 1 or 2) shall be used in all grout instead of macrony cement.
- instead of macony cement. All concrete macony shall have a minimum 28-day compressive strength (fm) of 2.000 psi. Compressive strength (fm) shall be determined by the Unit Strength Method. Contractor shall submit shop drawings as follows: a) Elevations of each wall, with repar locations, size and spacing. Provide bending and M4 M5
- a) Ententions of each war, with recar locations, size and cutting schedules for bent bars.
   b) Submit proposed mix designs for each type of mortar.
   c) Submit proposed mix designs for each type of grout.
- All head and bed joints shall be completely filled with mortar. All reinforcement shall be completely surrounded by mortar or grout, and shall have a clear distance between reinforcing bas and the interior of the maxonry unit of at least 12°, except where the cross webs of heliow units support induced in inforcement. Paratile inforcing bass shall be separated by a minimum of the nominal bar size or 1°,
- whichever is greater. All vertical cells, bord beams, and lintels containing reinforcing bars shall be completely MB
- All whiclaid cells, bord beams, and initials containing reintoning bars share or compare filled with grout. Macrony walls shall have cured to a sufficient strength, or shall be adequately based and shoed, to resist the lateral pressure of the grout during places Shore all horizontal macrony beams and initials or 22 doys after grouting or until the mascarry reaches a compressive strength of 1,500 psi prior to removing the shores an horizon. braces. Grouting procedure for block lifts exceeding five feet: provide clean-out openings at the bottom of the lift in every cell to be filled. Grout lift not to exceed 6'.0" and total pour de shall be per TMS 402-16.

M12 Reference lintel schedule for typical masonry lintel reinforcement. Extend reinforce 0\* minimum bevond each end of lintel.

STRUCTURAL STEEL S1 Structural steel shall be as follows: Wide-fange beams - ASTM A-952 (Fy=50 ksi) HSS members - ASTM A-900, Grade C

Steel pipes · ASTN A-53, Grade B

**S**5

-

**S**7

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\$10

\$12

S13

0° minimum beyond each end of intell.
101 All histocical joint inificement shall be bishicated of gahanized double or triple 9 gage wine as required conforming to ASTM -4951. Joint reinforcement shall be spaced at 16° maximum. Log all horizontal joint seinforcement of minimum.
M14 Provide temporary bacing and shoring for all mesony valits to resist all lateral loads during construction will be masony has been yropert anchiced to the building structure and has reached an minimum compressive strength of 1.500 psi.

Since pipes - ASTM A-AS, Grade B Plates, roda and other mixeliance statel - ASTM A-36 Anchor rods shall be ASTM F1554. Grade 38, unless noted otherwise. Grade 55 nds shall be wetable in accordance with the requirements of Supplemental Section 51 of ASTM F1554 and painted with write paint mark per the supplemental section. S1 of ASTM F1554 and painted with write paint mark per the supplemental section. S1 of ASTM F1554 and painted with write paint mark per the supplemental section. Rollech KSS Members: The wall thickness for related HSS members shown on the plans is the minimum thickness for structural purposes. The Contractor shall increase the wall blickness or employ other constraints in means are regarded to prevent disortion, surging, or theaded shall anothers shall be helions disting and meet ADTM A-101, Furch5 kis. Deformed bar anchons shall be helions disting and meet ADTM A-101, Furch5 kis. Deformed bar anchons shall be helions disting and meet and meet ADTM A-101, Furch5 kis. Deformed bar anchons shall be helions disting and meet and meet ADTM A-101, Furch5 walds shall be marking and the helions disting and meet and meet ADTM A-101, Furch5 walds shall be marking and the helion disting and meet and the anchons for the helions disting makes in accordance with ecommendations of the helions Stud Welling Division, Loran, Ohio. Attemate welding processes must be mixed in addenate by the explores.

engineer. Non-strink Gout: Non-shrirk, non-metallic aggregate type, complying with ASTM C1107/C1107M and capable of developing a minimum compressive strength of 7,000 psi at

8 days. Structural steel shall be detailed, fabricated, and erected in accordance with AISC

specifications. All shop and field welding shall be exceeding, and erected in accordance with AISC All shop and field welding shall be exceeded by certified welders in accordance with the latest edition of the American Welding Society specifications. Shop connectors shall be welded unless noted otherwise. Field connections shall be as indicated on the drawings. All shows shall be ASTM A-307. All permanent bolts shall be ASTM F3125, Grade A326.

A325. Connection Design: Design of connections shall be performed by the fabricator under the supervision of a registered engineer and shall contom to AISC specifications. Non-composite beam connections shall be capable of supporting 55% of the maximum total undern fixed of the member scan as shown in Part 3 of the ASIC Steel Construction Manual on the provide the member scan as shown in Part 3 of the ASIC Steel Construction Manual and the maximum control of the provide the steep steep steep scale steep st

otherwise noted. Contractor shall submit silve dreamings as follows: a) Complete details, exection plans, schedules and diagrams for fabrication and assembly of structural stelf members. Indicate properties, profiles, sizes, spacing, camber, headed stud anchos, welds, amdocations of sourcural members, coming, statutments, and basterers.

b) Design of connections performed by the fabricator under the supervision of a registered engineer and shall conform to AISC specifications.
 c) Structural drawings shall not be reproduced in whole or in part for shop drawing submitted.

A streams part non-ting at ensure outs, entous, and other anchorages, liciuding anche bolt properties, profiles, sizes, spacing, and templates.
 All structural steel, except embedded or galvanized items, shall be painted with one shop coat of rust inhibitive paint. Primer paint shall be gray in color, unless specified otherwise it the Aruhitest.

d) Erection plan locating all ancher bolts, embeds, and other anchorages, including ancher

smain to per into 440-10. If placement of grout is stopped for 1 hour or longer, provide horizontal construction joints by stopping grout at least 1-127 inches below top of the course of block. A continuous bond beam shall be related as the top course of all concrete masonry walls unless atherwise dealled. The bond beams shall be related as therware given by all reinforcement shall penetrate of minimum itso the bond beams at top of wall.



have a current Hill-issued operators license. Design of pre-manufactured metal statis shall be performed by the steel fibricator under the superstation of a registered engineer and shall contern to AISC specifications. The manufacture shall also be representable for the anchorage of the states to the structure. The manufacture shall also provide mactions in order to confirm the statir support by the primar structure. The step demining shall include details, anchorage, and metaditions and shall be signed and sealed by the registered engineer support and cases of the load of 100 part and concentrated like load of 300 lbs. Refer to architectural drawings for handball and guardball quirements. Handrails and guardrails shall be designed by the manufacturer for oncurrent load cases of a linear load of 50 plf and a concentrated load of 200 lbs.

Design of pre-manufactured roof access ladders shall be performed by the steel tabricat: bengin or permanancium toxi access aloues anal be permitted by the setter abricator under the supervision of a registered engineer and shill confirm to ASC and OSHA specifications. The manufacture shall also period reactions in order to confirm the ladde support by the primary structure. The shop drawings shall include details, anchorage, and support by any presence are the stop drawings shall include details, anchorage, it reactions and shall be signed and sealed by the registered engineer responsible for the design. Laddes shall be designed by the manufacturer for live loads as required by the current OSHA specifications.

AL DECK All metal round deck shall be 15% 22 gaps, 80 hal type B deck as manufactured by Vulorish or approved equal uniass neted otherwise. Steer food decks have been designed and shall be constructed in accordance with ANSISDIA-BOL 0. Site laps shall be lastened with 101 folks or Hill 5-SLC screws, minimum 3 per span unless noted otherwise on drawings. Roof deck shall be attached uning one of the following options: a) SIP diameter puddle wolds in a 30% pattern at Intermediate and end supports. Edgs weeks parallel to selests shall be 6° on center. b) Hill XHSN 24 (ESR-2592) where the steel base naterial thickness is 118° <rtf=28. d XHSN 24 (ESR-278) where the steel base naterial thickness is 118° <rtf=38. pattern at intermediate and end supports. Edge fasteners parallel to sheets shall be 6° on center.

Il metal deck panels shall span across a minimum of four joist, beam or wall supports resulting in minimum 3 spans. D3 All metal rcof deck shall receive one shop coat of galvanized coating.

All deck that is permanently exposed to the weather, including caropy decking, shall have G90/2275 galvanized coating unless noted otherwise.

OPEN-WEB STEEL JOISTS AND JOIST GIFDERS J1 All steel joists and joist griders shall be detailed, fabricated and erected in accordance with AISC and SJI specifications for open-web steel joists. "K". "LH" or "DLH" series as applicable, and joist griders.

applicable, and joid grides. Stell joists and joid grides shall be designed by or under direct supervision of a Professional Engineer licensed in the State in which the Preject is located. Contractor shall shown shop drawings as follows: a) Enection plan showing locatisms of joists, standards designations, joist exert statisms, brief and an advantage and advantage of the state of the conducations, attachments, and special connections, joint seat extensions, bridging, connections, attachments, and special connections, joint seat extensions, bridging, b) include manuecturers certification that josts are concept with s1 states Specifications, including material testing and inspecton as specified by SJI Standard Specifications.

spontantins, including instantia testing and respective as particular by so summary Specifications. Steel joists shall be welded to supporting members unless noted dherwise. Steel joists an joist grinder shall be boltet to supports at column locations. All noncomits indeging shall be welded or bottet to josis. Steel joists, joist griders and accessores shall be painted with one shop coat of rust.

Shell possi, plass genes and accessories sina or paretor win of an and count of inst. Inhibitive paint. Steel josts and jost ginders have been designed for 4 psf collateral joist leading to fire sprinkers. Ref Sprinker Pige Support Detail br support of mains. Steel joists designated with the term "ADELCACh" shell be designed by the manufacturer is support the "ADELCACH" loading as included on the noof framing plans, sections and detail in addition to the specified design loads.







REVISION



DATE



# DATE: 08.30.24

	GENERAL NOTES
ISSUE DATE:	08.26.2024
DRAWN BY:	LR
CHECKED BY:	MM/OG/SD
PROJECT No:	







ABBREVIAT	ION DESCRIPTION	ABB
&	AND	LLV
(N)	NEW	LONG
0	AT	Ls
AB	ANCHOR BOLT	LSH
ACI	AMERICAN CONCRETE INSTITUTE	LSV
ADDL	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	MAX
AISI	AMERICAN IRON AND STEEL UNSTITUTE	MECH
ARCH	ARCHITECTURAL	MFR
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MIN
BL	BLOCK LINTEL	MISC
BO	BOTTOM OF	MJ
BOD	BOTTOM OF DECK	MO
BOF	BOTTOM OF FOUTING BOTTOM OF STEEL	NO
BOT	BOTTOM	NS
BRG	BEARING	NTS
BTW	BETWEEN	NWC
CFMF	COLD FORMED METAL FRAMING	OC
CG	CENTER OF GRAVITY	OD
<u>ເ</u>	CONTRACTION JOINT	OH
	CENTER LINE	OPNG
CMU	CONCRETE MASONRY UNIT	PAF
CONC	CONCRETE	P.I
CONN	CONNECTION	PL
CONST	CONSTRUCTION	PLF
CONT	CONTINUOUS	PROJ
CTG	CORNER TRUSS GIRDER	PS
D	DEPTH	PSF
DBA	DOUBLE	PSI
DEMO. (D)	DEMOLISH	QTY
DIA Ø	DIAMETER	REF
EA	EACH	REINF
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM	REQD
EJ	EXPANSION JOINT	RO
ELEV	ELEVATION	RTU
EOC	EDGE OF CONCRETE	SCHEL
EOR	ENGINEER OF RECORD	SIM
EOS	EDGE OF SLAB	SJI
EQ	EQUAL	SMS
EW	EACH WAY	SPA
EXIST, (E)	EXISTING	SPECS
EXP	EXPANSION	SQ
	FOUNDATION	SID
ES	FAR SIDE	STRU
FT	FEET	T&B
FV	FIELD VERIFY	T&G
GA	GAGE	тв
GC	GENERAL CONTRACTOR	TG
GYP BD	GYPSUM BOARD	TGB
	HUKIZUNIAL	TN
HDA HT	HEIGHT	TO
HVT	HEAVY TIMBER	TOC
INFO	INFORMATION	TOF
ISO	ISOLATION	TOJ
JBE	JOIST BEARING ELEVATION	TOM
JG	JOIST GIRDER	TOS
JST	JOIST	TP
JI		TYP
KSI	KIPS PER SQUARE INCH	UNO
L	LENGTH	VERT
LBS	POUNDS	VF
Ld	DEVELOPMENT LENGTH	VIF
Ldh	STANDARD HOOK DEVELOPMENT LENGTH	W
LEH	LONG EDGE HORIZONTAL	WF
	LONG FROM LEDTION	hA/D

ABBREVIATIONS LIST					
BREVIATION	DESCRIPTION				
	LONG LEG VERTICAL				
G	LONGITUDINAL				
	LAP SPLICE				
	LONG SIDE HORIZONTAL				
	MAXIMUM				
	MOMENT CONNECTION				
н	MECHANICAL				
	MANUFACTURER				
	MINIMUM				
	MISCELLANEOUS				
	MOMENT JOIST				
	MASONRY OPENING				
	NUMBED				
	NOT TO SCALE				
)	NORMAL WEIGHT CONCRETE				
	ON CENTER				
	OUTSIDE DIAMETER				
	OPPOSITE HAND				
G	OPENING				
	OPPOSITE				
	POWER AUTUATED FASTENER				
	PLATE				
	POUNDS PER LINEAR FOOT				
J	PROJECTION				
-	PANEL STEP				
	POUNDS PER SQUARE FOOT				
	POUNDS PER SQUARE INCH				
	POST TENSION				
r	REFERENCE / REFER TO				
r- D	REINFORCING				
0	ROUGH OPENING				
	ROOF TOP UNIT				
ED	SCHEDULE				
	STEEL DECK INSTITUTE				
	SIMILAR				
	STEEL JOIST INSTITUTE				
	SHEET METAL SCREWS				
00	SPACES				
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	SOLARE				
	STANDARD				
	STEEL				
UC	STRUCTURAL				
	TOP AND BOTTOM				
	TONGUE AND GROOVE				
	TOP OF BEAM				
	TOP OF GINDER (STEEL); TRUSS GIRDER (WOOD)				
	THICKNESS				
	TOENAIL				
	TOP OF				
	TOP OF CONCRETE				
	TOP OF FOOTING				
	TOP OF JOIST				
	TOP OF MASONRY				
	TOP OF STEEL				
	TRANSVERSE				
Car					
	UNLESS NOTED OTHERWISE				
т	VERTICAL				
-	VALLEY FRAMING				
	VERIFY IN FIELD				
	WIDTH				
	WIDE FLANGE				
	WORK POINT				
<b>K</b>	WELDED WIRE REINFORCEMENT				





terior #2 roof pressure = 0.0 psf

SYMBOLS / HATCHING LEGEND							
m <sup>m</sup>	STEP IN ELEVATION	⊨	BEAM SPLICE				
<b>\$</b>	REFERENCED ELEVATIONS	*	MOMENT CONNECTION				
X SX	SECTION CUT	$\boxtimes$	OPENING IN SLAB				
(X) SX	ELEVATION		REVISIONS / ADDENDUMS				
<u>X/SX</u>	PLAN OR		SAND/NON-SHRINK GROUT				
l'L_J	SECTION DETAIL		EARTH				
0	GRID LINE		ROCK FILL/GRAVEL				
WP	WORK POINT		ROOF TOP UNIT (RTU)				
	DIRECTION OF	****	CONCRETE MASONRY WALL (CMU)				
	METAL DECK SPAN		CONCRETE TILT-UP WALL (PANEL)				
	NOTE: NOT ALL SYMBOLS O	OR HATCHES WILL BE USED	)				









Back     Back	Jon's generations' ensions (alignment, root opening, root face, bevel) inniness (condition of steel surfaces) king (tack weld quality and location) diton and finish of access holes illet welds ensions (alignment, gaps at root) inniness (condition of steel surfaces) king (tack weld quality and location) diffing equipment abricator or enector, as applicable, shall maintain a system by which a welds fing equipment abricator or enector, as applicable, shall maintain a system by which a welds in member can be identified. Stamps, if used, shall be the low-stress type. INSPECTION TASKS DURING WELDING (AISC 380 TABLE NS.4.2) Inspection Tasks During Welding nd handling of welding consumables aging gover cracked tack welds eertal conditions of speed within limits ipplation and temperature weld ings on welding equipment ell speed ceted welding materials diding gap stype/flow rate met applied pass temperature maintained (min./max.) expression (F, V, H, OH) echniques pass and final cleaning h pass within polle limitations h pass meets quality requirements thand installation of steel headed stud anchors INSPECTION TASKS AFTER WELDING (AISC 380 TABLE NS.4.3) Inspection Tasks After Welding stand discoptance or rejection of welds gover the speet site visual acceptance or theria d profiles d size erout sistly s	P O overho has we QC O O O O O O O P O O P P P P P P P P P	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Back     Back     Fit-up of     finaluding     including     including     including     Configur     Configur     Configur     Configur     Configur     Configur     Configur     Conford     Tac     Conford     Tac     Conford     Conford	Join & Bennes Y  Preparations  ensions (alignment, root opening, root face, bevel) ensions (alignment, root opening, root face, bevel) infiness (condition of steel surfaces) king (tack weld quality and location) filet welds ensions (alignment, gaps at root) (AISC 380 TABLE NS.4.2) Inspection Tasks During Welding ent landing of welding consumables loging o source control ig over cracked tack welds ental conditions ig over cracked tack welds ental conditions d speed within limbs d s	P 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
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Bac     Bac     Bac     Bac     Joi     Dir     Joi     Dir     Cle     Tac     Configura     Tac     Check w     Tac     Check w     Pac     Pac     No weld     Environn     Wir	Inspectionary ( preparations ensions (alignment, root opening, root face, bevel) miness (condition of steel surfaces) king (tack weld quality and location) tion and finish of access holes liftet welds ensions (alignment, gaps at root) unliness (condition of steel surfaces) king (tack weld quality and location) diding equipment diding equipment surfactor or erector, as applicable, shall maintain a system by which a welder r member can be identified. Stamps, if used, shall be the low-stress type. INSPECTION TASKS DURING WELDING (AISC 300 TABLE IN SA-2) Inspection Tasks During Welding nd handling of welding consumables kaging source control g over cracked tack welds ental conditions	P O O O O O O O O O	0 0 
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Bac Fit-up of fincluding     Joir     Dim     Cles     Tac Configure     Tac Configure     Tac Check w I. The f joint o	Intersection of the set of the se	P 0 0 r who has w	O O  elded a
Bac     Bac     Fit-up of     fincluding     Joir     Dim     Clee     Tac     Configura     Fit-up of     Dim     Clee     Tac     Check w     The f     joint of	Intersectional y preparations ensions (alignment, root opening, root face, bevel) niness (condition of steel surfaces) king (tack weld quality and location) dion and finish of access holes lifte welds ensions (alignment, gaps at root) niness (condition of steel surfaces) king (tack weld quality and location) diding equipment diding equipment diding equipment diding equipment diding equipment diding equipment diding explicit weld shall be the low-stress type. INSPECTION TASKS DURING WELDING (AISC 360 TABLE NS.4.2)	P O O r who has w	O O – elded a
Bac     Bac     Fit-up of     fincluding     Joir     Dim     Cles     Tac     Configura     Fit-up of     Dim     Cles     Tac     Check w     I. The f     joint o	Jon & Bernery / preparations ensions (alignment, root opening, root face, bevel) niness (condition of steel surfaces) king (tack weld quality and location) titon and finish of access holes litte welds ensions (alignment, gaps at root) miness (condition of steel surfaces) king (tack weld quality and location) adding equipment districator or erector, as applicable, shall maintain a system by which a welde mmemor can be identified. Stamps, if used, shall be the low-stress type. NBSFECTION TASKSE NURBING WEI TINGC	P O O r who has w	O O – elded a
Bac     Bac     Fit-up of     fincluding     Joir     Dim     Cles     Tac     Configura     Fit-up of     Dim     Cles     Tac     Check w      Tac     Check w      Tac	Join gennesy ; preparations ensions (alignment, root opening, root face, bevel) ning(sack weld quality and location) tion and finish of access holes illet welds ensions (alignment, gaps at root) ninferss (condition of steel surfaces) ting (ack weld quality and location) dding equipment dding equipment and location)	P O O r who has w	O O – elded a
Bac     Fit-up of     fincluding         Joir         Dim         Cle         Tac     Configura     Fit-up of         Oir         Cle         Tac     Check     m     Cles      Tac     Check     m	Join is generally ( preparations ; inniferss (condition of steel surfaces) king (tack weld quality and location) tion and finish of access holes iilet welds ensions (alignment, gaps at root) miness (condition of steel surfaces) king (tack weld quality and location)	P 0 0	0
Bac Fit-up of including Joir Dim Cles Tac Configura Fit-up of Dim Cles	Join & Benner J. terpenations ensions (alignment, root opening, root face, bevel) anliness (condition of steel surfaces) ition and finish of access holes itide welds ensions (alignment, gaps at root) anliness (condition of steel surfaces)	P 0 0	0
Bac Fit-up of including Joir Dim Cles Tac Configure Fit-up of Dim	provise generation () environment, root opening, root face, bevel) anliness (condition of steel surfaces) ining (tack weld quality and location) tition and finish of access holes illet welds environs (alignment, gaps at root)	P 0	0
Bac Fit-up of including Joir Dim Cles Tac Configure	Jone generacy ; typeparations antiness (condition of steel surfaces) ing (tack weld quality and location) tion and finish of access holes titor welfs	P 0	0
Bac Fit-up of including Joir Dim Cles Tac	prens genneury) preparations ensions (alignment, root opening, root face, bevel) niliness (condition of steel surfaces) ing (lack weld quality and location)	P	
Bac Fit-up of including Join Dim Clevered	t preparations ensions (alignment, root opening, root face, bevel) aniness (condition of steel surfaces)	Р	Ŭ
Bac Fit-up of (including     Joir	t preparations	Р	· ·
Bac Fit-up of including	(one geomeny)		0
• Bac	ioint geometry)		
	king type and fit (if applicable)		
• Tac	king (tack weld quality and location)		
<ul> <li>Dir</li> <li>Clever</li> </ul>	ensions (alignment, root opening, root face, bevel) anliness (condition of steel surfaces)	0	0
- Joir	t preparations		
Fit-up of	groove welds (including joint geometry)	-	-
waterial i Welder id	oentmication (type/grade) lentification system <sup>1</sup>	0	0
Manufac	urer certifications for welding consumables available	P	P
Welding	nonedure specifications (WPS) available	P	P
Maldar	Inspection Tasks Prior To Welding	QC	QA
	(AISC 360 TABLE N5.4-1)		
- 118	INSPECTION TASKS PRIOR TO WELDING		
0- Ob	serve these items on a random basis. Operations need not be delayed pend	ing these ins	pections.
QA-Qu apr	ality Assurance shall be provided by others when required by the authority ha licable building code, purchase owner, or engineer of record (EOR)	aving jurisdic	tion (AHJ)
QC - Qu	ality Control shall be provided by the fabricator and erector.		
	SPECIAL INSPECTIONS AND VERIFICATIONS OF STEEL CONST	RUCTION	
req	uires quality control inspections.	ane organiza	
GC	, a certificate of compliance stating that the work is fabricated under the insp accial inspector or under the inspection services of a nationally recognized to	ections serv	ices of ation that
req SI4 Ins	urred inspections in addition to the special inspections listed below. pection of fabricators - Fabricator shall submit to the RDPiRC, with a coov to	the owner a	ind the
bui	ding code, and any amendments to the building code for this jurisdiction, to during addition to the building code for this jurisdiction, to during addition to the section of the section	determine all	the
han SI3 The	e been resolved. se inspections are in addition to the inspections specified in Section 110 of t	he IBC Bol	ier to the
iter	ns. A i-inal Report of Required Inspections", or similar form as required by t mitted to the City by the RDPIRC once construction is completed and all nor	ne city, shal 1-compliance	i be e items
iss	uce or invon-compliance report, or similar form as required by the city. Or les are resolved, the special inspector shall submit a Field Report indicating	compliance	of these
GC	and the RDPIRC. If the non-compliant work persists, then the special inspe-	ctor shall su	bmit a
the	"Report of Required Special Inspections", or similar form as required by the	city, after the	e work is
All the	reports shall be submitted to the following individuals: the RDPiRC, the Engi GC, Subcontractors, and, if requested, the building official. The special inso	neer of Reco rector shall s	ard, aubrnit
and	testing technicians.		
not	be in the employ of the general contractor (GC), subcontractors or material e of an owner/contractor, the building official shall specify who employs the	suppliers. In special inspe	the
SI2 In g	rder to comply with the code requirements, the special inspectors and testin	g technician	s may

	INSPECTION TASKS PRIOR TO BOLTING (AISC 360 TABLE N5.6-1)			1		
	Inspection Tasks Prior To Bolting	QC	QA	1		
Ma	nufacturer's certifications available for fastener materials	0	P	1		
Fas	teners marked in accordance with ASTM requirements	0	0	1		
Cor	rect fasteners selected for the joint detail (grade, type, bolt length if	0	0	1		
Cor	rads are to be excluded from snear plane)	0	0	1		
Cor	necting elements, including the appropriate faving surface condition	~	-	1		
and	hole preparation, if specified, meet applicable requirements	0	0			
Pre	-installation verification testing by installation personnel observed and		0	1		
doc	umented for fastener assemblies and methods used	۲	0			
Pro	tected storage provided for bolts, nuts, washers and other fastener	0	0	1		
con	nponents	v				
	INSPECTION TASKS DURING BOLTING (AISC 360 TABLE N5.6-2)					
	Inspection Tasks During Bolting	QC	QA	1		
Fas	tener assemblies placed in all holes and washers and nuts are positioned		-	1		
ası	required	0	0			
Joir	nt brought to the snug-tight condition prior to the pretensioning operation	0	0			
Fas	tener component not turned by the wrench prevented from rotating	0	0	1		
Fas	teners are pretensioned in accordance with the RCSC Specification,	0	0			
pro	gressing systematically from the most rigid point toward the free edges			4		
	INSPECTION TASKS AFTER BOLTING (AISC 360 TABLE N5.6-3)					
	Inspection Tasks After Bolting	QC	QA			
Doo	cument acceptance or rejection of bolted connections	Р	Р	1		
	REQUIRED SPECIAL INSPECTIONS OF CONC	RETE CONS	RUCTION	(IBC TA	BLE 1705.3)	
	TYPE	CONTINUO SPECIAL INSPECTIO	US PER SPE	IODIC ECIAL ECTION	REFERENCED STANDARD <sup>1</sup>	IBC REFERENCE
1.	Inspect reinforcement, including prestressing tendons, and verify placement.	-		x	ACI 318: Ch. 20, 25.2, 25.3, 26.6.1 - 26.6.3	-
2	Reinforcing bar welding:					
-	<ul> <li>Verify weldability of reinforcing bars other than ASTM A706:</li> </ul>	-		X	AWS D1.4	
	<li>b. Inspect single-pass fillet welds, maximum 5/16"; and</li>	-		х	ACI 318: 26.6.4	-
	c. Inspect all other welds.	X		-	1	
3.	Inspect anchors cast in concrete. Inspect embedded items cast in concrete.	-		х	ACI 318: 17.8.2	-
4.	Inspect anchors post-installed in hardened concrete members <sup>2</sup> .				ACI 318: 17.8.2.4	
	<ul> <li>Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.</li> </ul>	x		_	ACI 318: 17.8.2.4	-
	<li>Mechanical anchors and adhesive anchors not defined in 4.a.</li>	-		х	ACI 318: 17.8.2	
5.	Verify use of required design mix.	_		x	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2
6.	Prior to concrete placement, fabricate specimens for strength tests. perform				ASTM C172, ASTM C31	
7	slump and air content tests, and determine the temperature of the concrete.	x		-	ACI 318: 26.5, 26.12	-
	inspecieu culture anu snoti ete piacement loi proper application techniques.	x		-	ACI 318: 26.5	-
8.	Verify maintenance of specified curing temperature and techniques.	-	_	X	ACI 318: 26.5.3 - 26.5.5	-
Ы.	Not Used		_			
	a. Not Used	_	_	_	-	_
10	Inspect erection of precast concrete members	_		x	ACI 318: 26.9	
11.	Verify in-situ concrete strength:			~	101010.2010	
	Prior to removal of shores and forms from beams and structural slabs	_		X	ACI 318: 26.11.2	-
	b. Not Used	-		_	1	
12.	Inspect formwork for shape, location and dimensions of the concrete member being formed.	_		x	ACI 318: 26.11.1.2(b)	-
1. 2.	Where applicable, see Section 1705.13. Specific requirements for special inspection shall be included in the research rep ACI 318, or other qualification procedures. Where specific requirements are not shall be approved by the building official prior to the commencement of the work	oort for the and provided, spec	hor issued	by an apj on requir	proved source in accordan ements shall be specified b	ce with 17.8.2 in by the RDPiRC and
	REQUIRED SPECIAL INSPECTIONS OF OPEN-WEB STEEL JOISTS	AND JOISTS	GIRDERS	IBC TAE	3LE 1705.2.3)	
	ТҮРЕ	CONTINUOUS SPECIAL INSPECTION	S PERIO SPEC	DIC IAL TION	REFERENCED STANDARD1	
1.	Installation of open-web steel joists and joist girders		+			

	INSPECTION	INSPECTION	STANDARD			
Installation of open-web steel joists and joist girders.						
End connections - welding or bolted.	-	х	SJI specifications listed in Section 2207.1			
Bridging - horizontal or diagonal.	-	-	-			
- Standard bridging.	-	x	SJI specifications listed in Section 2207.1			
<ul> <li>Bridging that differs from the SJI specifications listed specifications listed in Section 2207.1.</li> </ul>	-	x	_			
<ol> <li>Special inspections for steel seismic force-resisting systems are not required in SDC B &amp; C when R=3.</li> </ol>						

	SPECIAL INSPECTION AND VERIFICATION OF COLD-FORMED METAL DECK (SDI-ANSI QA/QC 2022)				
	TASKS	QUALITY CONTROL TASK	QUALITY ASSURANCE TASK	F	
1.	Inspection or execution tasks prior to deck placement				
	<ul> <li>Verify compliance of materials (deck and all deck accessories) with construction documents, including profiles, material properties, and base metal thickness</li> </ul>	Р	Р	20	
	<li>b. Document acceptance or rejection of deck and deck accessories</li>	P	P		
2.	Inspection or execution tasks after deck placement				
	<ul> <li>Verify compliance of deck and all deck accessories' installation with construction documents</li> </ul>	Р	Р	SC	
	<li>b. Verify deck materials are represented by the mill certifications that comply with the construction documents</li>	-	Р		
	c. Document acceptance or rejection of installation of deck and deck accessories	P	P		
3.	Inspection or execution tasks prior to welding				
	<ul> <li>Welding procedure specifications (WPS) available</li> </ul>	0	0	S	
	<li>b. Manufacturer certifications for welding consumables available</li>	0	0	20	
	<li>c. Material identification (type/grade)</li>	0	0		
	d. Check welding equipment	0	0		
4.	Inspection or execution tasks during welding				
	a. Use of qualified welders	0	0	S	
	<li>b. Control and handling of welding consumables</li>	0	0	20	
	<li>c. Environmental conditions (wind speed, moisture, temperature)</li>	0	0		
	d. WPS followed	0	0		
5.	Inspection or execution tasks after welding				
	a. Verify size and location of welds, including support, sidelap, and perimeter welds	P	P	SE 20	
	<li>b. Welds meet visual acceptance criteria</li>	P	P		
	c. Verify repair activities	P	P		
	<ul> <li>Document acceptance or rejection of welds</li> </ul>	P	P		
б.	Inspection or execution tasks prior to mechancial fastening				
	<ul> <li>Manufacturer installation instructions available for mechanical fasteners</li> </ul>	0	0	20	
	<ul> <li>b. Proper tools available for fastener installation</li> </ul>	0	0		
	c. Proper storage for mechanical fasteners	0	0		
7.	Inspection or execution tasks during mechancial fastening			SE	
	<ul> <li>Fasteners are positioned as required</li> </ul>	0	0	20	
	b. Fasteners are installed in accordance with manufacturer's instructions	0	0		
8.	Inspection or execution tasks after mechancial fastening				
	<ul> <li>Check spacing, type, and installation of support fasteners</li> </ul>	P	P		
	<li>b. Check spacing, type, and installation of sidelap fasteners</li>	P	P	SL	
	<li>c. Check spacing, type, and installation of perimeter fasteners</li>	P	P	2	
	d. Verify repair activities	P	P	1	
	e. Document acceptance or rejection of mechanical fasteners	P	P	i i	

Decounter advector repeated or repeated or intervalinate advectors advect

P - Perform these tasks prior to final acceptance for each item or element. 'Document', within the listed Tasks above, shall mean the inspector shall prepare reports or other appropriate written documentation indicating that the work has or has not been performed in accordance with the construction documents.

	REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS (IBC TABLE 1705.6)		
	ТҮРЕ	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1.	Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	-	x
2.	Verify excavations are extended to proper depth and have reached proper material.	-	X
3.	Perform classification and testing of compacted fill materials.	-	X
4.	During fill placement, verify use of proper materials and procedures in accordance with the provisions of the approved geotechical report. Verify densities and lift thicknesses during placement and compaction of compacted fill.	x	-
5.	Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	-	x

## REQUIRED VERIFICATION AND INSPECTION OF MASONRY CONSTRUCTION

MINIMUM VERIFICATION REQUIREMENTS - LEVEL 2 QUALITY ASSURANCE (TMS 602 TABLE 3)

### MINIMUM VERIFICATION

Prior to construction, verification of compliance and submittals. Prior to construction, verification of f<sub>m</sub> and f<sub>AAC</sub>, except where specifically exempted by the Code. During construction, verification of Slump flow and Visual Stability Index (VSI) when self-consolidating grout is delivered to the series dride

	MINIMUM SPECIAL INSPECTIO	NS (TMS 602 TABLE 4)		
INSPECTION TASK		FREQUENCY (4)	REFEREN	
		LÉVEL 2	TMS 402	
As	masonry construction begins, verify that the following are in compliance:			
a.	Proportions of site-prepared mortar	Р	-	
b.	Not Used	-	-	
C.	Grade, type and size of reinforcement, connectors, anchor bolts, and prestressing tendons and anchorages	Р	-	
d.	Not Used	-	-	
e.	Not Used	-	-	
f.	Not Used	-	-	
Pri	or to grouting, verify that the following are in compliance:			
a.	Grout space	P	-	
b.	Not Used	-	-	
C.	Placement of reinforcement, connectors, and anchor bolts	Р	Section 6.1, 6.3.1, 6.3.6, & 6.3.7	
d.	Proportions of site-prepared grout and prestressing grout for bonded tendons	Р	-	
Ve	rify compliance of the following during construction:			
a.	Materials and procedures with the approved submittals	P	-	
b.	Placement of masonry units and mortar joint construction	P	-	
C.	Size and location of structural members	P	-	
d.	Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction	Р	Section 1.2.1(e), 6.2.1 & 6.3.1	
e.	Welding of reinforcement	С	Section 6.1.6.1.2	
f.	Preparation, construction, and protection of masonry during cold weather (temperature below 40° F) or hot weather (temperature above 90° F)	Р	-	
g.	Not Used	-	-	
h.	Placement of grout and prestressing grout for bonded tendons is in compliance	С	-	
Ĺ	Not Used	-	-	
ОЬ	serve preparation of grout specimens, mortar specimens, and/or prisms	Р	-	
Fre	S: equency refers to the frequency of the inspection, which may be continuou table. $NR = Not Required, P = Periodic, C = Continuouswind for the FLE 5000 course for d A AO exercise.$	s during the listed task or	periodically during the li	

(c) Required for the first 5000 square feet of AAC masonry.
 (c) Required after the first 5000 square feet of AAC masonry

# SPECIAL INSPECTIONS



















TCEQ





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3 53.1.4

XXXXXXXXXXXX

6° CONCRETE SLAB-ON-GRADE REINFORCED w/#3 BARS AT 18° OC EACH WAY, OVER PREPARED SUBGRADE

CONC GRADE

REF ARCH

NOTES: 1. COORDINATE TOP OF CONC PIER ELEVATION w/ CIVIL GRADES. PROVIDE 2-0" MIN COVER BELOW EXTERIOR FINISH GRADE. 2. REF ARCH FOR DUMPSTER PAD LOCATION AND BOLLARDS AS READ. 3. GROUT SOLID ALL CELLS WITH REINFORCING, AND ALL CELLS BELOW GRADE.

BOLLARDS AS REQD REF ARCH

8" CMU WALL

2/S3.1.4

S3.1.4






















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Figure 30 Page F.31; October 1, 2024





Figure 32; Page F.33; October 1, 2024



Figure 33; Page F.34; October 1, 2024





Figure 33.2; Page F.34; October 1, 2024





Figure 35; Page F.36; October 1, 2024



Figure 36; Page F.37; October 1, 2024





Figure 37; Page F.38; October 1, 2024



Figure 38; Page F.39; October 1, 2024

# Notes:

## A. General

1. The Vapor/Methane Mitigation System (VMMS) presented in these plans and specifications shall be utilized in the construction of the building to prevent vapor and methane intrusion into the finished building. The basis of design is a sheet membrane and associated passive venting system as described in these plans.

2. The VMMS membrane will serve as a moisture barrier and may replace vapor and/or moisture barrier specified in other construction plans. The VMMS membrane and this design are not intended to be used as a waterproofing system

3. The VMMS construction shall consist of, but not be limited to, the following:

a. Supply and install low profile vent (LPV) gas piping and associated fittings.

- b. Supply and install VMMS Membrane, 20-mil, multilayer with EVOH.
- c. Supply and install 3-ounce non-woven geotextile fabric between the stone base and membrane layer.
- d. Perform smoke testing of membrane.
- e. Supply and install vapor vent riser(s).

f. Supply and install methane monitoring system.

g. Supply and install syphon vent on risers

## B. Vapor Vent System

1. An passive vapor vent system shall be installed beneath the slab as detailed in this drawing set. 2. Footing and column penetrations shall be submitted for review and approval by the STRUCTURAL ENGINEER.

3. Roof-mounted exhaust shall be located at a distance not less than 10 feet from any building air intake or building edge. These shall not be located in any known wind shadow and shall extend to a minimum elevation of one foot above the top of any obstructions or parapet wall or 4 feet above the roof, whichever is greater.

4. All vent piping shall be sloped to a sub-grade drainage point.

5. Materials of construction shall comply with the applicable Plumbing and Mechanical Codes.

6. Riser pipe shall be located adjacent to I-beams and shall be protected from physical damage.

7. Riser pipe monitoring ports and valves shall be installed within accessible sections. Port locations shall be approved by OWNER, ARCHITECT, and VMMS ENGINEER.

8. The riser pipes shall be fully supported through the entire height of the building such that no downward force (due to the weight of the riser pipe) is exerted on the sub-slab vent piping.

# C. Membrane

1. The VMS Membrane shall consist of a 20-mil, multilayer with EVOH, underslab sheeting barrier with spraved seams.

2. A 12-inch layer of open graded aggregate such as subrounded AASHTO #57, subrounded 3/4- to 1-inch minus stone, or similar, from an unimpacted source shall be provided below the VMMS Membrane as a LPV bedding material and is integral to the design of the system. This is considered a Class 1 Division 2 Hazardous Environment. All infrastructure (included but not limited to electrical conduit) installed through the aggregate layer will follow all regulations required thereto.

3. The subgrade under the VMMS Membrane shall be rolled smooth and flat and be free of sharps. 4. Membrane shall be placed above a minimum 3-ounce non-woven geotextile fabric with a minimum

puncture strength of 50 pounds

5. The membrane shall be a chemically-resistant, high strength, multi-layer sheeting with minimum thicknesses of 20-mils, installed in accordance with the manufacturer's specifications.

6. The VMMS Membrane shall be placed beneath the floor slab and select footings in accordance with these plans and details

7. The protective layer shall not be placed on top of any concrete piers or extruded rebar.

8. Reinforcing steel, piping, forms, etc. shall not bear directly on or penetrate the VMMS Membrane and equipment shall not be driven over the membrane. Plastic rebar supports shall be used for reinforcing steel. 9. VMMS identification placard shall be installed in mechanical rooms. This placard is to be placed on the walls at eye level and shall not be covered over. The location of this notification shall be next to the methane monitoring panel.

## D. Quality Assurance

1. The VMMS SUBCONTRACTOR shall be trained and approved by the VMMS Manufacturer.

2. The VMMS SUBCONTRACTOR shall coordinate work with all other SUBCONTRACTORS, the VMMS ENGINEER and OWNER or their designated representative.

3. The installation of the VMMS Membrane shall be closely monitored by the VMMS ENGINEER or a manufacturer certified inspector designated by the VMMS ENGINEER. OWNER is responsible for authorizing the VMMS ENGINEER to conduct inspection services.

4. All surfaces to receive VMMS Membrane shall be inspected and approved by the VMMS SUBCONTRACTOR for the performance of this scope of work and by the VMMS ENGINEER prior to commencing work.

## E. Submittals

1. The VMMS SUBCONTRACTOR shall provide the VMMS ENGINEER with a letter from the manufacturer (a) confirming that the VMMS SUBCONTRACTOR is certified by the manufacturer for installation of the Vapor Mitigation System product; and (b) warranting its product to be free of defects when that product is installed by the VMMS SUBCONTRACTOR.

2. The VMMS SUBCONTRACTOR shall submit any updates/revisions to the manufacturer's product data, MSDS, and recommended installation procedures to the VMMS ENGINEER for review and approval at least one week prior to the construction of the VMMS Membrane.

3. Sources and particle size distribution of aggregates must be approved by the STRUCTURAL ENGINEER and VMMS ENGINEER

4. The VMMS SUBCONTRACTOR shall submit representative samples of the following materials, if different than that specified within, to the VMMS ENGINEER for approval:

- a. LPV gas piping.
- b. Underslab sheeting barrier materials and geomembrane fabrics.
- c. Asphaltic emulsion material

5. At the completion of installation, the VMMS SUBCONTRACTOR shall submit a letter to the VMMS ENGINEER and OWNER certifying that installation was completed in accordance with the project plans and specifications and the procedures recommended by the manufacturer.

6. Prior to placing the concrete slab over the VMMS Membrane, the VMMS SUBCONTRACTOR shall certify in writing that the VMMS Membrane has been tested in accordance with the manufacturer's specifications and is free of any leaks and tears/punctures.

## F. Job Conditions

1. The areas adjacent to the VMMS Membrane installation areas are to be protected from overspray by the VMMS SUBCONTRACTOR for the performance of this scope of work during the installation process.

2. Work is to be performed only when existing and forecasted weather conditions are within manufacturer recommendations for the material and product to be applied.

3. For smaller areas with minimal clearance, the VMMS Membrane may be applied by hand.

4. All plumbing, electrical, mechanical and structural items that will pass through the VMMS Membrane shall be positively secured in their proper positions and appropriately protected prior to application of the VMMS Membrane.

5. The VMMS Membrane shall be installed before placement of reinforcing steel. If reinforcing steel is present at the time of application, all exposed reinforcement shall be masked prior to membrane application.

6. Stakes used to secure the concrete forms shall not penetrate the membrane after it has been installed. If stakes need to puncture the membrane after it has been installed, the VMMS ENGINEER should be notified. and necessary repairs need to be made by the VMMS SUBCONTRACTOR.

7. The VMMS Membrane shall be protected with plywood (or similar material) if equipment is to be placed on the membrane during construction activities.

### G. Warranty

1. The manufacturer shall warrant its products to be free of defects. This warranty only applies when the products are applied by a manufacturer-approved VMMS SUBCONTRACTOR and that the required respective products are used.

## H. Materials

1. All materials are to be delivered to the project site in their original unbroken packages bearing the manufacturer's label showing brand, weight, volume, and batch number.

2. Materials are to be stored at the project site in strict compliance with the manufacturer's instructions. I. Installation

1. Concrete surfaces where VMMS Membrane is applied, shall be light broom finished or smoothed, free of any dirt, debris, loose material, release agents or curing compounds.

2. Aggregate bedding material shall be rolled smooth. The finished surface shall be smooth, uniform, and free of debris and standing water.

3. Trenches and footing excavations shall be oversized and sloped as necessary to accommodate installation of the vapor membrane.

4. All seams shall be overlapped a minimum of six inches and spraved.

5. Any open utility or other trench present at the time of application shall be lined with the vapor barrier extending at least six inches onto the adjoining sub-grade.

6. Appropriate care shall be exercised to protect the VMMS Membrane and prevent penetrations subsequent to its application. The VMMS Membrane shall be protected from pedestrian traffic and kept free of dirt and debris, to the extent possible, until the concrete slab is poured.

7. All penetrations shall be cleaned and prepared in accordance with manufacturer's specifications to provide proper adhesion of the VMMS products.

8. All penetrations shall be secured prior to placement of the VMMS Membrane. Sufficient space shall be maintained between penetrations to allow proper sealing around the entire penetration circumference. Where penetrations are concentrated, a concrete penetration bank or other allowable means of securing penetrations shall be constructed prior to VMMS Membrane placement.

9. The membrane shall be cut around penetrations so that it lays flat on the sub-grade. There should not be a gap larger than 1/8-inch between the membrane and the penetration.

10. Apply one coat of asphaltic trowel grade or asphaltic emulsion spray to the membrane and around the pene-trations at a thickness of 30-mils. Penetrations should be treated in a 6-inch radius around the penetration and three inches onto the penetration object.

11. Membrane shall be used as an embedded laver collar placed after the first application of the asphaltic emul-sion spray or asphaltic trowel grade. Then spray or trowel apply a 30-mil coat over the embedded reinforcing strip ensuring complete saturation of the embedded strip and tight-seal around the penetration.

12. Where vent lines, piping, electrical conduits, etc. penetrate the VMMS Membrane, a 3-inch collar of base lay-er and asphaltic emulsion layer shall be provided to create a gas-tight seal around the penetration.

## J. Inspections

1. The inspection of all vapor control measures shall be performed by the VMMS ENGINEER or their designated representative. At a minimum, inspection shall take place at the following stages of the installation

- a. During the installation of the vent piping;
- b. During the installation of the VMMS Membrane and foundation form work.
- c. Smoke testing of the VMMS Membrane and prior to the placement of concrete

d. During and at the completion of the risers for the sub-slab vent piping.

# K. Upon startup of the VMMS

1. The VMMS ENGINEER or their designated representative shall inspect and approve the VMMS ventilation piping installation and prior to pouring the concrete slab, the VMMS ENGINEER or their designated representative shall inspect and approve the VMMS Membrane in accordance with these plans and specifications. Construction of the floor slab shall not proceed without written certification of the successful installation and testing of the VMMS Membrane by the VMMS SUBCONTRACTOR.

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3. The VMMS Membrane should be tested in the manner described in Note #4 below. 4. The VMMS Membrane shall be smoke tested at a minimum of two test points per every 5,000 square feet or additional as necessary to test the entire extent of the VMMS Membrane. Smoke test shall be performed within 12 hours of concrete placement. Areas of failure shall be marked, repaired, and retested.

5. Voids left by smoke testing shall be patched by the VMMS SUBCONTRACTOR by overlapping the void by a minimum of two inches. A thin tack coat of asphaltic emulsion shall be applied to adhere to the patch. Spray or trowel applied asphaltic emulsion shall then be applied to a 100-mil minimum dry thickness, extending at least three inches beyond the patch.

6. Prior to placement of concrete, the VMMS SUBCONTRACTOR shall certify in writing that the VMMS Membrane has been installed and tested in accordance with the manufacturer's specification and is free of any leaks.

# L. Standard of Care and Limitations

1. Services listed in this specification as being required by the VMMS ENGINEER are dependent upon owner authorization of said services and notifications to the VMMS ENGINEER of project status by the VMMS Installation SUBCONTRACTOR. If such services are not performed by the VMMS ENGINEER, manufacturer warranties may be voided.



# **CONSTRUCTION DOCUMENTS** PAVING, GRADING, DRAINAGE, AND UTILITY IMPROVEMENTS 635 EXCHANGE

# **CITY OF DALLAS** DALLAS COUNTY, TEXAS LOT 1, BLOCK A/6556

PLAN SUBMITTAL LOG

TCEQ SUBMITTAL NOT FOR CONSTRUCTION AUGUST 26TH, 2024



MAPSCO PAGES: 22-C **SEPTEMBER 2024** 

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THE PROPERTY OWNER IS LIABLE TO RESTORE/REPLACE ANY DAMAGED CITY APPROVED/CONTROLLED INFRASTRUCTURE IN THE PUBLIC RIGHT-OF-WAY

APPROVAL FROM THE CHIEF ARBORIST IS REQUIRED BEFORE ANY TREES MAY BE REMOVED DURING DEMOLITION OR CONSTRUCTION

# DEVELOPER

CREATION EQUITY 1280 E. LEVEE ST DALLAS, TEXAS 75207 CONTACT: TAYLOR MITCHAM



LGE DESIGN BUILD 1280 E, LEVEE ST DALLAS, TEXAS 75207 CONTACT: JONATHAN EVANS

ARCHITECT



10101 REUNION PLACE SUITE 400 SAN ANTONIO, TEXAS 78216 CONTACT: BLAINE MIKULIK, PLA, LI

S234-174 WWXX-XXX DPXX-XXX



Figure 40; Page F.41; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION

### KH GENERAL NOTES

OVERALL: RUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THESE PLANS, GITY (OR TOWN) STANDARD DETAILS AND SPECIFICATIONS, SEOTECHNICAL REPORT AND ALL ISSUED ADDENDA, AND COMMONLY ACCEPTED CONSTRUCTION STANDARDS. THIE CITY IONS SHALL GOVERN WHERE OTHER SPECIFICATIONS DO NOT EXIST. IN CASE OF CONFLICITING SPECIFICATIONS OR DETALS. THE

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SPECIFICATIONS. CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION TRAFFIC USES THE STABILIZED ENTRANCE AT ALL TIMES FOR ALL

SITE ENTRY AND EXITS SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT THE TRACKING AND FLOWING OF SEDIMENT AND DIRT ONTO OFF-SITE ROADWAYS. ALL SEDIMENT AND DIRT FROM THE SITE THAT IS DEPOSITED ONTO AN OFF-SITE ROADWAY SHALL BE REMOVED THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SILT AND DEBRIS FROM THE AFFECTED OFF-SITE ROADWAYS THAT ARE A RESULT OF THE

18. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SILT AND DEBRIS FROM THE AFECTED OF-SITE ROADWAYS THAT ARE A RESULT OF THE CONSTRUCTION, AS REQUESTED BY OWIRE AND OTTY. AT A MINIMUM, THIS SHOLLD OCCUR ONCE PER DAY FOR THE OFF.SITE ROADWAYS, 17. WHEN WASHING OF VEHICLES IS REQUIRED TO REMOVE SEDIMENT PRIOR TO EXITING THE SITE, IT SHALL BE DONE IN AN AREA STABLIZED WITH REQUESTION TO A PROVIDED SEDIMENT TRAP BMP. 8. CONTRACTOR SHALL INSTALL A TEMPORARY SEDIMENT BASIN FOR ANY ONSITE DRAINAGE AREAS THAT ARE GREATER THAN 10 ACRES, PER 0. CONTRACTOR SHALL INSTALL A TEMPORARY SEDIMENT BASIN FOR ANY ONSITE DRAINAGE AREAS THAT ARE GREATER THAN 10 ACRES, PER 0. CONTRACTOR SHALL INSTALL A TEMPORARY SEDIMENT BASIN FOR ANY ONSITE DRAINAGE AREAS THAT ARE GREATER THAN 10 ACRES, PER 0. CONTRACTOR SHALL INSTALL A TEMPORARY SEDIMENT BASIN FOR ANY ONSITE DRAINAGE AREAS THAT ARE GREATER THAN 10 ACRES, PER 0. CONTRACTOR SHALL INSTALL A TEMPORARY SEDIMENT BASIN FOR ANY ONSITE DRAINAGE AREAS THAT ARE GREATER THAN 10 ACRES, PER 0. CONTRACTOR SHALL AREANGE FOR AN APPROPRIATE DESISTING TO BE PROVIDED 19. ALL FIRST MIPOSED FOR SEDIMENT OR DIRT DISCHARGED FROM THE SITE SHALL BE PAID BY THE RESPONSIBLE CONTRACTOR. 20. WHEN SEDIMENT OR DIRT HAS CLOGGED THE CONSTRUCTION DE PROVIDED 10. CONTRACTORS CONSTRUCTION AND REPRACED AND THE SHALL BE PAID BY THE RESPONSIBLE CONTRACTOR. 20. WHEN SEDIMENT OR DIRT HAS CLOGGED THE CONSTRUCTION AND FERACED RUNDEF FROM THE WASH-DOWN OPERATION SHALL NOT BE ALLOWED 10. DRAIN DIRECTLY OFT SITE WASHED DOWN OR REPRACED, RUNDEF FROM THE WASH-DOWN DERATION SHALL NOT BE ALLOWED 10. DRAIN DIRECTLY OFT SITE WASHED DOWN OR REPRACED, RUNDEF FROM THE WASH-DOWN DERATION SHALL NOT BE ALLOWED 21. TEMPORARY SEEDIMO OR OTHER APPROVED STABILIZATION SHALL TO CONTROL SEDMENTATION. PERIOD CREADED GON ON NEW 21. TEMPORARY SEEDIMO OR OTHER APPROVED STABILIZATION SHALL BE MINATED WITHIN 11 DAYS OF THE LAST DISTURBANCE OF ANY AREA, 22. CONTRACTOR IN THE AREA IS EXPECTED WITHIN 21 DAYS OF THE LAST DISTURBANCE OF ANY AREA, 22. CONTR

23.UPON COMPLETION OF FINE GRADING, ALL SURFACES OF DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED. STABILIZATION IS ACHIEVED WHEN THE AREA IS EITHER COVERED BY PERMANENT IMPERVIOUS STRUCTURES, SUCH AS BUILDINGS, SIDEWALK, PAVEMENT, OR A UNIFORM

STORM WATER DISCHARGE AUTHORIZATION: 1. CONTRACTOR SHALL COMPLY WITH ALL FCGQ AND EPA STORM WATER POLLUTION PREVENTION REQUIREMENTS. 2. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE TCEQ GENERAL PERMIT TO DISCHARGE UNDER THE TEXAS POLLUTANT

CHARGE ELIMINATION SYSTEM TAR 150000. I CONTRACTOR PHALL BENGET HAT ALL PRIMARY OPERATORS SUBMIT A NOI TO TECO AT LEAST SEVEN DAYS PRIOR TO COMMENCING NSTRUCTION (IF APPLICABLE), OR IF UTILIZING ELECTRONICS SUBMITTAL, PRIOR TO COMMENCING CONSTRUCTION. ALL PRIMARY OPERATOR: ALL PROVIDE A COPY OF THE SIGNED NOI TO THE OPERATOR OR ANY MASI (TYPICALITY HE CITY) RECEIVING DISCHARGE FROM THE SITE NITRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPP) IE APPLICAB UDMING POSTIME SITE NOTICE, INSPECTIONS, DOCUMENTATION, AND SUBMISSION OF AVIT INFORMATION REQUIRED BY THE TECO AND EPA CARLE

1/-ITRACTORS AND SUBCONTRACTORS PROVIDING SERVICES RELATED TO THE SWPPP SHALL SIGN THE REQUIRED CONTRACTOR 

THE USWIT MALTUR AND SHALL BE NETAINED ON-SITE DURING CONSTRUCTION. A NOTICE OF TERMINITION (NOT) SHALL BE SUBMITTED TO TEGE VANY PRIMARY OPERATOR WITHIN 30 DAYS AFTER ALL SOLD ISTURING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND A UNIFORM VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY STRUCTURES, A TRANSFER OF OPERATIONAL CONTROL HAS OCCURRED, OR THE OPERATOR HAS OBTINED ALTERNATIVE AUTHORIZATION UNDER A DIFFERENT PERMIT. A COPY OF THE NOT SHALL BE PROVIDED TO THE OPERATOR OF ANY MSA RECEIVING DISCHARGE FROM THE SITE.

DEMOLITION: I. KH IS NOT RESPONSIBLE FOR THE MEANS AND METHODS EMPLOYED BY THE CONTRACTOR TO IMPLEMENT THIS DEMOLITION PLAN. THIS PRELIMINARY DEMOLITION PLAN SIMPLY INDICATES THE KNOWN OBJECTS ON THE SUBJECT TRACT THAT ARE TO BE DEMOLISHED AND R

SITE: CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS REGARDING THE DEMOLITION OF OBJECTS ON THE SITE AND THE DISPOSAL OF THE DEMOLISHED MATERIALS OFF-SITE. IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO REVIEW THE SITE, DETERMINE THE APPLICABLE REQUILITIONS, RECEIVE THE RECOLURED PERMITS AND AUTHORIZATIONS, AND COMPLY. (HI) DOES NOT REPRESENT THAT THE REPORTS AND SURVEYS REFERENCED ABOVE ARE ACCURATE, COMPLETE, OR COMPREHENSIVE SHOWING ALL ITEMS THAT WILL NEET DOE DEMOLISHED AND REMOVED. SURPACE PAVEMENT WILL NEET DOE DEMOLISHED AND REMOVED.

TRACTOR AND GRADING SUBCONTRACTOR SHALL VERIFY THE SUITABILITY OF EXISTING AND PROPOSED SITE CONDITIONS INCLUDING IND DIMENSIONS BEFORE START OF CONSTRUCTION. THE CIVIL ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.

CONTRACTOR SHALL OFTAIN ANY REQUIRED GRADING FEMAL TREAT FROM THE GITY. UNLESS OTHERWISE NOTED, PROPOSED CONTOURS AND SHOT ELEVATIONS SHOWN IN PAUED AREA REFLECT TOP OF PAVEMENT SURFACE. IN LOCATIONS ALONG A CURB LINE, ADD SINCHES (OR THE HEIGHT OT HE CURB) TO THE PAVING GRADE FOR TOP OF CURB ELEVATION. HEOROSCO THE CONTOURS AND ANY THE PAVEMENT ARE TO TOP OF THIS HED GRADE PROPOSED OFTED AND AND ADDRIVE REPORTED FROM THE PAVE TO BE SIGNATED GRADUATE AND TO BE USED IN CASE OF INFORMED OFTED OFTED AND AND THE PROVINCE AND DESIGNATED GRADUATION FROM DESIGNATED REPORTED OFTED OFTED AND AND THE PROVINCE AND DESIGNATED GRADUATION FOR DESIGNATED GRADUATION FROM DESIGNATION FROM DESIGNATED GRADUATION FROM DESIGNATED GRAD

INSTED FOR THE SHALL TRANSITION UNIFORMLY BETWEEN THE FINISHED ELEVATIONS SHOWN. TOURS AND SPOT GRADES SHOWN ARE ELEVATIONS OF TOP OF THE FINISHED SURFACE. WHEN PERFORMING THE GRADING OPERATIONS,

CONTOURS AND SPOT GRADES SHOWN ARE ELEVATIONS OF TOP OF THE FINSHED SURFACE. WHEN PERFORMING THE GRADING OPERATIONS, THE CONTRACTOR SHALL PROVIDE AN APPROPRIATE ELEVATION HOLD-DOWN ALLOWANCE FOR THE HICKNESS OF PAVEMENT. SIDEWALK, TOPSOLL, MILCH, STONE, LANDSCAPING, RIP-RAP AND ALL OTHER SURFACE MATERIALS THAT WILL CONTRIBUTES OF PAVEMENT. SIDEWALK, TOPSOLL, MILCH, STONE, LANDSCAPING, RIP-RAP AND ALL OTHER SURFACE MATERIALS THAT WILL CONTRIBUTES OF PAVEMENT. SIDEWALK, TOPSOLL, MILCH, STONE, LANDSCAPING, RIP-RAP AND ALL OTHER SURFACE MATERIALS THAT WILL CONTRIBUTES OF PAVEMENT. SIDEWALK, FOR EXAMPLE, THE LIMITS OF EARTHWORK IN PAVED RAES IS THE BOTTOM OF THE PAVEMENT SECTION. NO REPRESENTATIONS OF EARTHWORK IN PAVEM PAKED RESS OF THE SOLTANCE ARE NOT A SUBJECT ON. NO REPRESENTATIONS OF EARTHWORK IN PAVED RAES IS THE BOTTOM OF THE PAVEMENT SECTION. NO REPRESENTATIONS OF EARTHWORK IN PAVED RAES IS THE BOTTOM OF THE PAVEMENT SECTION. NO REPRESENTATIONS OF EARTHWORK IN PAVED RESS OF THE CONTRACT OR SHALL PROVIDE THEIR SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CIVIL ENGINEER. ALL GRADING AND EARTHWORK SHALL COMPLY WITH THE PROJECTS FINAL GEOTECHNICAL REPORT (OR LATEST EDITION), INCLUDING SUBSEQUENT ADDENDA. ALL EXCAVATED IN SUNCLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED. UNUSABLE EXCAVATED MATERIAL AND ALL WASTE RESULTING FROM SITE CLEARING AND GRUBBING SHALL BE REMOVED FROM THE SITE AND APPROPRIATELY DISPOSED BY THE CONTRACTOR AT NO ADDITIONAL EXPRENSE.

DDITIONAL EXPENSE. SION CONTROL DEVICES SHOWN ON THE EROSION CONTROL PLAN FOR THE PROJECT SHALL BE INSTALLED PRIOR TO THE START OF

ANOMIN CONTROL DEVICES ON CONTROL FLAN, DETAILS, GENERAL NOTES, AND SWEPP FOR ADDITIONAL INFORMATION TO THE STANTON REARDING. REFERENCE EROSION CONTROL FLAN, DETAILS, GENERAL NOTES, AND SWEPP FOR ADDITIONAL INFORMATION AND REQUIREMENTS. BEFORE ANY EARTHWORK IS PERFORMED, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF THE PROJECTS PROPERTY LINE AND ISTE IMPROVEMENTS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY ENGINEERING AND SURVEYING FOR LINE AND READ READ

SITE IMPROVEMENTS. THE CONTRACTOR SHALL PROVIDE ALL INCESSARY ENGINEERING AND SURVEYING FOR UNLE AND GRADE CONTROL IS CONTRACTOR TO DISPOSE OF ALL EXCESS EXCAVATION MATERIALS IN A MANNER THAT ADHERES TO LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS. THE CONTRACTOR SHALL KEPS RECORD OF WHERE EXCESS EXCAVATION WAS DISPOSED, ALONG WITH THE RECEIVING LANDOWNERS APPROVAL TO DO SO. LONGWINERS APPROVAL TO DO SO. LONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF TOPSOIL AT THE COMPLETION OF FINE GRADING. CONTRACTOR SHALL REFER TO LANSCARE ARCHITECTURE FLANS FOR SPECIFICATIONS AND REQUIREMENTS FOR TOPSOIL. CONTRACTOR SHALL MAINTAIN ADEDUATE SITE OR REMOVAL AND REPLACEMENT OF CONSTRUCTION, INCLUDING MAINTAINING EXISTING DITCHES CONTRACTOR SHALL MAINTAIN ADEDUATE SITE OR RAINAGE DURING ALL PHASES OF CONSTRUCTION, INCLUDING MAINTAINING EXISTING DITCHES OR CULVERTIS FREE OF OBSTRUCTIONS AT ALL TIMES. IN CEARTHORY FILL SHALL BE FLACED IN ARY LESSTING DRAINAGE WAY, SWALE CHAINEL, DITCH, CREEK, OR FLOODPLAIN FOR ANY REASON OR

OR CULVERTS FREE OF OBSTRUCTIONS AT ALL TIMES. IS NO EARTHWORK FLL SHALL BE PLACED IN ANY EXISTING DRAINAGE WAY, SWALE, CHANNEL, DITCH, CREEK, OR FLOODPLAIN FOR ANY REASON OR MAY LENGTH OF TIME, UNLESS THESE FLANS SPECIFICALLY INDICATE THIS IS REQUIRED. 18 REFER TO DIRENSION CONTROL FLAN, AND FWY EXISTING DRAINAGE WAY, SWALE, CHANNEL, DITCH, CREEK, OR FLOODPLAIN FOR ANY REASON OR MAY LENGTH OF TIME, UNLESS THESE FLANS SPECIFICALLY INDICATE THIS IS REQUIRED. 19 THE CONTRACTOR SHORE ILL AND AND GRIB THE SITE AND FLACE. COMPACT, AND CONDITION FILL PER THE PROLECT GEOTECHNICAL ENGINEER'S 19 THE CONTRACTOR IS RESPONSIBLE FOR ALL SOLDS TESTING AND CERTIFICATION, UNLESS SPECIFICD OTHERWISE BY OWNER. ALL SOLDS TESTING SHALL BCOORDINATED UNT HIT LA PROPROMENTE CITY INSPECTOR AND SHALL COMPLY WITH CITY STANDARD SPECIFICATIONS THE FILL CONTRACTOR IS RESPONSIBLE FOR ALL SOLDS TESTING SHALL BE PERFORMED BY AN APPROVED IN DEPENDENT A GENOTY OR TESTING SOLS. THE OWNER SHALL BRYNOW THE AGENOVY NOMINATED BY THE CONTRACTOR FOR ADIS TESTING. 21 ALL COMES OF SOLDS TEST RESULTS SHALL BE ERRORMED BY AN APPROVED INDEPENDENT A GENOTY FOR TESTING SOLS. THE OWNER SHALL BRYNOW THE AGENOVY NOMINATED BY THE CONTRACTOR FOR ADIS TESTING. 21 ALL COMES OF SOLDS TEST RESULTS SHALL BE ERRORMED BY AN APPROVED INDEPENDENT A GENOTY FOR TESTING SOLS. THE OWNER SHALL BRYNOW THE AGENOVY NOMINATED BY THE CONTRACTOR FOR ADIS TESTING. 21 ALL COMES OF SOLDS TEST RESULTS SHALL BE ERRORMED BY AN APPROVED INDEPENDENT A GENOVY FOR TESTING SOLS. THE OWNER 21 ALL COMES OF SOLDS TEST RESULTS SHALL BE ERRORMED BY AN APPROVED INDEPENDENT A GENOVY FOR MITHE SETTING ADALES. 21 ALL COMES OF SOLDS TEST RESULTS SHALL BE ERRORMED BY AN APPROVED INDEPENDENT A GENOVY THE GONTRACTOR SHALL APPROVE 21 ALL COMES OF SOLDS. THE ORDER THE SOLD SHALL BALL BALL BE FORT TO THE ORDER OF THE SOLD SHALL BALL BALL BE DEVICED TO THE DRUDING SOLD FOR THE SOLD SHALL BALL BETTING 22 THE SOOPE OF WORK FOR CONT. MORNATED BY AND APPROVENENT ADAL SHALL BETTING 23 THE SOOPE O

CONTRACTOR ARE ADVISED TO DBTAIN A GEOTECHNICAL ENDINEER RECOMMENDATION SPECIFIC TO FLATWORK ADJACENT TO THE BUILDING, IF NONE IS CURRENTLY EXISTING. SUBFICIENT POSITIVE SLOPE ANVEY FROM THE BUILDING POIL SCHUEVED FOR ENTIRE PERMETER OF THE SC CONTRACTOR SHALL BURKET IS GRADING OFERATIONS AND IN THE FINAL CONDITION. IF THE CONTRACTOR OBSERVES THAT THIS WILL NOT BE ACHIEVED THE CONTRACTOR SHALL CONDING OFERATIONS AND IN THE FINAL CONDITION. IF THE CONTRACTOR OBSERVES THAT THIS WILL NOT BE ACHIEVED THE CONTRACTOR SHALL CONTACT THE ENDINEER TO REVIEW THE LOCATION. 28 THE CONTRACTOR SHALL CORDINATE WITH THE ENDINEER TO REVIEW THE LOCATION. 20 BY OTHER MEANS APPROVED BY THE CITY. A TIO ADDITIONAL COST TO THE OWNER. 27 CONTRACTOR SHALL COORDINATE WITH THE UTILITY ADJUSTEMENTS AND/OR RELOCATIONS NEEDED FOR GRADING OPERATIONS AND TO ACCOMMODATE PROPOSED GRADE, INCLUDING THE UNKNOWN UTILITES NOT SHOWN ON THESE FUNAS. CONTRACTOR SHALL REFER TO THE GENERAL NOTES 'OVERALL'SECTION THESE FUNAS FOR ADDITIONAL INFORMATION. 28 CURRENT ADVISION ON THESE THANS ARE APPROPOSED GRADE, INCLUDING THE UNKNOWN UTILITIES NOT SHOWN ON THESE FUNAS CONTRACTOR SHALL REFER TO THE GENERAL NOTES 'OVERALL'SECTION THESE FUNAS FOR ADDITIONAL INFORMATION. 28 CURRENT ADVISION ON THESE THE ONE AND ARE ADVISIONATE. CONTRACTOR SHALL REPORT ANY DISCREPANCIES FOUND IN THE FIELD THAT AFFECT THE GRADING PLAN TO THE CIVIL ENDINEER 20 CORDING ON NOTION THE FOUND ENDINEER AND ARE ARCHITECT OF ANY CONFLICTS WITH THE TREE PRESERVATION PLAN BY THE LANDSCAPE ARCHITECT FRICK TO COMMENCING THE WORK. 31 REFER PROTECTION MEASURES SHALLE BIN ACCORDANCE WITH THE CITY STANDARD TREE PROSECTION DETALS AND THE APPROVED TREE PROSERVATION PLANS BY THE LANDSCAPE ARCHITECT.

DITRACTOR SHALL REFER TO THE LANDSCAPING AND TREE PRESERVATIONS PLANS FOR ALL INFORMATION AND DETAILS REGARDING EXISTING REES TO BE REMOVED AND PRESERVER.

TREES TO BE REMOVED AND PRESERVED. INO TREE SHALL BE REMOVED UNLESS A TREE REMOVAL PERMIT HAS BEEN ISSUED BY THE CITY, OR CITY HAS OTHERWISE CONFIRMED IN WRITING THAT ONE IS NOT NEEDED FOR THE TREE(S). INO TREE SHALL BE REMOVED OR DAMAGED WITHOUT PRIOR AUTHORIZATION OF THE OWNER OR OWNER'S REPRESENTATIVE. EXISTING TREES SHALL BE PRESERVED WHENEVER POSSIBLE AND GRADING IMPACT OT THEM HELD TO A MINIMUM. AFTER PHACEMENT OF SUBGRADE ADIP RIOR TO FLACEMENT OF PAVEMENT, CONTRACTOR SHALL TEST AND OBSERVE PAVEMENT AREAS FOR EVIDENCE OF PONDING AND IMADEQUATE SLOPE FOR DRAINAGE. ALL AREAS SHALL ADEQUATELY DRAIN TOWNER THE INTENDED STRUCTURE TO CONVEY STORMWATER RUNGEF. CONTRACTOR SHALL IMBEDIATELY NOTEY OWNER AND ENGINEEN FAWY AREAS OF POOR DRAINAGE ARE

D. DR FIELD ADJUSTMENT OF PROPOSED SPOT GRADES IS ALLOWED. IF THE APPROVAL OF THE CIVIL ENGINEER IS OBTAINED

RETAINING WALLS: 1. RETAINING WALLS SHOWN ARE FOR SITE GRADING PURPOSES ONLY, AND INCLUDE ONLY LOCATION AND SURFACE SPOT ELEVATIONS AT THE TO

AND BOTTOM OF THE WALL. S RETAINING WALL DEVENTS STALL BE SELECTED BY THE OWNER. 3. RETAINING WALL DESION SHALL BE PROVIDED BY OTHERS AND SHALL FIT IN THE WALL ZONE OR LOCATION SHOWN ON THESE PLANS. STRUCTURAL DESION AND PREMITTING OR RETAINING WALLS, RALLINGS, AND OTHER WALL SAFETY DEVICES SHALL BE PERFORMED BY A LICENSED ENGINEER AND ARE NOT PART OF THIS PLAN SET. 6. RETAINING WALL DESION SHALL MEET THE INTER OF THE GRADING PLAN AND SHALL ACCOUNT FOR ANY INFLUENCE ON ADJACENT BUILDING FOUNDATIONS. UTILITIES, PROFERTY LINES AND OTHER CONSTRUCTABILITY NOTES. 8. RETAINING WALL LENGINEER SHALL CONSULT THESE FLANS AND THE GEOTECHNICAL REPORT FOR POTENTIAL CONFLICTS.

PAVING: : AVING MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE PLANS, THE CITY STANDARD DETAILS AND SPECIFICATIONS, FINAL GEOTECHNICAL REPORT AND ALL ISSUED ADDENDA. AND COMMONLY ACCEPTED CONSTRUCTION STANDARDS. THE CITY

SPECIFICATIONS SHALL GOVERN WHERE OTHER SPECIFICATIONS DO NOT EXIST. IN CASE OF CONFLICTING SPECIFICATIONS OR DETAILS, THE MORE RESTRICTIVE SPECIFICATION/DETAIL SHALL BE FOLLOWED. ALL PRIVATE OVERSTE PAVING AND PAVING SUBGRADE SHALL COMPLY WITH THE PROJECT'S FINAL GEOTECHNICAL REPORT (OR LATEST E DITION), INCLUDING ALL ADDENDA. ALL FIRELANE PAVING AND PAVING SUBGRADE SHALL COMPLY WITH CITY STANDARDS AND DETAILS. IF THESE ARE DIFFERENT THAN THOSE IN THE GEOTECHNICAL REPORT, THEN THE MORE RESTRICTIVE SHALL BE FOLLOWED.

ALL FIRELANE PAVING AND PAVING SUBGRADE SHALL COMPLY WITH CITY STANDARDS AND DETAILS. IN THESE AND EPECIFICATIONS. CONTRACTOR 15 RESPONSIBLE FOR ALL PAVING AND PAVING SUBGRADE SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS. CONTRACTOR 15 RESPONSIBLE FOR ALL PAVING AND PAVING SUBGRADE TESTING AND CERTIFICATION, UNLESS SPECIFICATIONS. CONTRACTOR 15 RESPONSIBLE FOR ALL PAVING AND PAVING SUBGRADE TESTING AND CERTIFICATION, UNLESS SPECIFICATIONS. CONTRACTOR 15 RESPONSIBLE FOR ALL PAVING AND PAVING SUBGRADE TESTING AND CERTIFICATION, UNLESS SPECIFICATIONS. CONTRACTOR 15 RESPONSIBLE FOR ALL PAVING AND PAVING SUBGRADE. TOWER SHALL APPROPRIATE CITY INSPECTOR. TESTING SHALL BE CONTRACTOR 15 RESPONSIBLE FOR PAVING AND PAVING SUBGRADE. TESTING SHOLES THE FAVING AND PAVING SUBGRADE. THALL BE THE CONTRACTORS RESPONSIBLITY TO SHOW, BY THE STANDARD TESTING FROCEDURES OF THE PAVING AND PAVING SUBGRADE. THAT THE VORK CONSTRUCTOR DEETS THE ROLECT FEQUIDEVENTS AND CITY SEPCIFICATIONS. DUE TO THE FORTINIL FOR DIFFERINTIAL SOLL MOVEMENT ADJACENT TO THE BUILDING. THE CONTRACTOR SHALL ADHERE TO GEOTECHNICAL REPORTS RECOMMENDATION FOR SUBGRADE REPRARATION SPECIFIC TO TATION KALDACENT TO THE PROPOSED BUILDONG. THE OWNER AND CONTRACTOR ARE ADVISED TO OBTAIN A GEOTECHNICAL ENGINEER RECOMMENDATION SPECIFIC TO FLATWORK ADJACENT TO THE BUILDING, THE OWNER AND CONTRACTOR ARE ADVISED TO OBTAIN A GEOTECHNICAL ENGINEER RECOMMENDATION SPECIFIC TO FLATWORK ADJACENT TO THE BUILDING, THE ONLE SO URRENTLY EXISTING.

NOME IS CURRENTLY EXISTING. CUBE RAMPS ALONG PUBLICS STREETS AND IN THE PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED BASED ON THE CITY STANDARD CONSTRUCTION DETAIL AND SPECIFICATIONS. PRIVATE CURB RAMPS ON THE STELLE CONSTRUCTION DETAIL AND SPECIFICATIONS. PRIVATE CURB RAMPS ON THE STELLE CONSTRUCTION DETAIL CONFORM TO ADA AND TAS STANDARDS. JALL ACCESSIBLE RAMPS, CURB RAMPS, STRIPING, AND PAYEMENT MARKINGS SHALL CONFORM TO ADA AND TAS STANDARDS. JALL ACCESSIBLE RAMPS, CURB RAMPS, STRIPING, AND PAYEMENT MARKINGS SHALL CONFORM TO ADA AND TAS STANDARDS. JALL ACCESSIBLE RAMPS, CURB RAMPS, STRIPING, AND PAYEMENT MARKINGS SHALL CONFORM TO ADA AND TAS STANDARDS. LAW COMPONENTS OF THE FRANCE TSERVING MULTIFAMILY DWELINGS IN BUILDINGS THAT HAVE 4 OR MORE UNITS PER BUILDING SHALL ALS CONFORM TO THE FAR HOUSING ACT, AND COMPLY WITH THE FAIR HOUSING ACT DESIGN MANUAL BY THE US DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.

URBAR LÖVELDVIRHEL CONSTRUCT PROPOSED PAVEMENT TO MATCH EXISTING PAVEMENT WITH A SMOOTH, FLUSH, CONNECTION. 3. CONTRACTOR SHALL CONSTRUCT PROPOSED PAVEMENT MARKINGS FOR FIRE LANES, PARKING STALLS, HANDICAPPED PARKING SA ADM DISCELLANEOUS STRIPING WITHIN PARKING LOT AND AROUND BUILDING AS SHOWN ON THE PLANS. ALL PAINT AND PAVEMENT MARKING

AND FROM EVERY DOOR AND ALONG SIDEWALKS, ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND ACCESSIBLE ROUTES. IN NO CASE SHALL AN ACCESSIBLE RAMP SLOPE EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SUOPE EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGTIDUINAL SIDEWALK SLOPE EXCEED 5.0 PERCENT. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 5.0 PERCENT.

STORM DRAINAGE: 1. ALL STORM SEWER MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS 2. THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE

L PVC TO RCP CONNECTIONS AND ALL STORM PIPE C

E SHALL LUNGITUUMNA SUBLEWICH SUFFE EAVEEL WY FUNCTION FUNCTION FUNCTION FOR BOARDS PRIOR TO PLACING PAVEMENT TO VERIFY ITRACTOR SHALL TAKE FIELD SLOPE MEASUREMENTS ON FINISHED SUBGRADE AND FORM BOARDS PRIOR TO PLACING PAVEMENT TO VERIFY TADATAS SLOPE REQUIREMENTS ARE PROVIDED. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA AND TAS SLOPE COMPLIANCE ISSUES.

WIN SEVERY. CONTRACTOR SHALL FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING STORM SEVER LITIES THAT ARE TO BE CONNECTED TO, PRIOR TO START OF CONSTRUCTION OF ANY STORM SEWER, AND SHALL NOTIFY THE ENGINEER OF CONFLICTS DISCOVERED.

TANY CONFLICTS DISCOVERED. THE CONTRACTOR SHALL VERY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF CUBB INLETS AND GRATE INLETS AND ALL UTILITIES CROSSING THE STORM SEWER. FLOW LINE, TOP-OF-CUBB, RIM, THROAT, AND GRATE ELEVATIONS OF PROPOSED INLETS SHALL BE VERIFIED WITH THE GRADING PLAN AND FIELD CONDITIONS PROR TO THEIR INSTALLATION. ALL PUBLIC STORM SEWER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO CITY PUBLIC WORKS STANDARD DETALS AND SPECIFICATIONS. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS. ALL PRIVATE STORM SEWER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO CITY PUBLIC WORKS STANDARD DETALS AND SPECIFICATIONS. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS. ALL PRIVATE STORM SEWER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO THE APPLICABLE PLUMBING CODE. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.

LI PVC TO KOP CONNECTIONS AND ALL STOOM PIPE COUNCETION IS WITERING STRUCTURES OR OTHER STOOM PIPES SHALL HAVE A CONCRETE DLAR AND BE GROTEED TO ASSURE THE CONNECTION IS WATERIGHT. LI PUBLIC STORM SEWER LINES SHALL BE MINIMUM CLASS III RCP. PRIVATE STORM SEWER LINES 18-INCHES AND GREATER SHALL BE CLASS III POR OTHER PROVED MATERIAL HERE COVER EXCEEDS 20-FEET OR IS LESS THAN 2-FEET, CLASS IN RCP SHALL BE USED.

IF CONTRACTOR PROPOSES TO USE HDPE OR PVC IN LIEU OF RCP FOR PRIVATE STORM SEWER, CONTRACTOR SHALL SUBMIT TECHNICAL DATA TO THE OWNER, ENGINEER AND CITY ENGINEER/INSPECTOR FOR APPROVAL PRIOR TO ORDERING THE MATERIAL. ANY PROPOSED HDPE AND PVC

TO THE OWNERE, ENGINEER AND CITY ENGINEER/INSPECTOR FOR APPROVAL PRIOR TO ORDERING THE MATERIAL. ANY PHOPOSED HUPE AND PYO SHALL BE WATERTICHT. 12 THE CONTRACTOR SHALL PROVIDE CONSTRUCTION SURVEYING FOR ALL STORM SEWER LINES. 13 EMBEDMENT FOR ALL STORM SEWER LINES, PUBLIC OR PRIVATE, SHALL BE PRE MANUFACTURES SPECIFICATIONS. 14 ALL WYE CONNECTIONS AND PIPE BENDS ARE TO BE PREFARRICATED AND INSTALED PER MANUFACTURES SPECIFICATIONS. 15 USE & FOOT JOINTS WITH BEVELED ENDS IF ADDIS OF STORM SEWER IS LESS THAN 100 FEET. 16 THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL BEOINERE IN THE STATE OF TEXAS, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERWIGHT WITHOUT FRIOR WITTEN APPROAL OF THE CITY.

POND NOTES:
1. ANY PONDS THAT ARE INTENDED TO HOLD WATER INDEFINITELY SHALL BE CONSTRUCTED WATERTIGHT.
2. FOR ANY PONDS INTENDED TO HOLD WATER INDEFINITELY. THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT FOR POND LINER
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SPECIFICATIONS A GEOTECHNICAL BIOINDED FOR JULIE AND APPROVE ALL POND LINER MATERIAL, PLACEMENT PROCEDURES, AND PROVIDE TESTING TO ENSURE THE POND LINER MATERIAL, PLACED IS WATERITOHT. STORM SEVER THES AND HEADWALLS THAT CONNECT TO A POND INTENDED TO HOLD WATER INDEFINITELY SHALL BE INSTALLED WITH WATERITOHT JOINTS TO AT LEAST 1-FOOT ABOVE THE NORMAL POOL WATER SURFACE ELEVATION. ANY GRAVEL OR OTHER PERVIOUS SIMEDIMENT AROUND PIES OF OUTFALL STRUCTURES NEAR THE POND SHALL BE ELIMINATED FOR AT LEAST 20-FEET FROM THE POND SO NO ROUTE FOR WATER TO LEAK THROUGH THE EMBEDMENT MATERIAL IS PROVIDED. BACKFILL IN THESE AREAS SHALL BE OF MERVIOUS NATERIAL FOR ANY FONDS INTENDED TO HOLD WATER INDEFINITELY: THE WATER LEVEL FOLLOWING COMPLETION AND FILLING OF THE POND SHALL BE FOR ANY FONDS INTENDED TO HOLD WATER INDEFINITELY: THE WATER MERVING COMPLETION AND FILLING OF THE POND SHALL BE FOR MAY FONDS INTERDED TO HOLD WATER INDEFINITELY: THE WATER MERVING COMPLETION AND FILLING OF THE POND SHALL BE FOR MAY FONDS INTERDED TO HOLD WATER INDEFINITELY: THE WATER MERVING COMPLETION AND FILLING OF THE POND SHALL BE FOR MAY FONDS INTERDED TO HOLD WATER INDEFINITELY: THE WATER MERVING COMPLETION AND FILLING OF THE POND SHALL BE FOR MAY FONDS INTERDED TO HOLD WATER INDEFINITELY: THE WATER MERVING COMPLETION AND FILLING OF THE POND SHALL BE FOR MAY FONDS INTERDED TO HOLD WATER INDEFINITELY: THE WATER MERVING COMPLETION AND FILLING OF THE POND SHALL BE FOR MAY FONDS INTERDED TO HOLD WATER INDEFINITELY: THE WATER MERVING COMPLETION AND FILLING THE POND SHALL BE FOR MAY FONDS INTERDED TO HOLD WATER INDEFINITELY: THE WATER MERVING COMPLETION AND FILLING THE POND SHALL BE FOR MAY FONDS INTERDED TO HOLD WATER INDEFINITELY THE WATER MERVING OF THE FOND SHALL BE FOR MAY FONDS INTERDED TO HOLD WATER INDEFINITELY THE WATER MERVING ON THE CONTRACTOR TO VERIFY

THAT THE POND IS WATERTICHT. FOR ANY PONDS INTENDED TO HOLD WATER INDERNIELY. THE POND WATER LIVEL BHALL ALSO BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION SO THAT IT REMAINS FULL TO ITS DESIGN WATER LEVEL, AND IS NOT LOWERED, AS THIS MAY DRY-OUT THE POND LIVER AND RISK ITS WATERTICHT PROPERTIES.

ALL WAITER AND WRATE WAITER MAIL THE VIEW AND OCCUMENTATION OF AN OPENATION OF ALL EXISTING WATER AND WASTEWATER SPECIFICATIONS. CONTRACTOR SHALL FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING WATER AND WASTEWATER FACILITIES THAT RAE TO BE CONNECTED TO, PRIOR TO START OF CONSTRUCTION OF ANY WATER OR WASTEWATER CONSTRUCTION, AND SHALL NOTIFY THE ENSINEER OF ANY CONFLICTS DISCOVERED. CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITY SERVICES ENTERING THE BUILDING. THE CONTRACTOR SHALL FELL VERIFY THE ELEVATION OF ALL UTILITY CROSSINGS PRIOR TO THE INSTALLATION OF ANY IPPE. THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES INCESSARY FOR COMPLETE INSTALLATION OF THE WATED ADM WASTEWATER MREVITWERHING.

THE BIT OTICLIF CONTINUE OR STALL FROM LEAKE SAID AF DUTIENTIALES AND AFTER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO THE APPLICABLE PLUMBING CODE. ALL PRAVATES FOR REQUIRED CONSTRUCTIONS.

ALL PRIVATE WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHEER TO THE APPLICABLE PLUMBING CODE. CONTRACTOR SHALL ARANGE FOR REQUIRED CITY INSPECTIONS.
 RIES SPRINKLER LINES SHALL BE DESIGNED AND INSTALLED BY A LICENSED FIRE SPRINKLER CONTRACTOR, AND COMPLY TO THE APPLICABLE CODES AND INSPECTIONS REQUIRED. THESE PLANS WERE PREPARED WITHOUT THE BENEFIT OF THE FIRE SPRINKLER DESIGN. CONTRACTOR BIBLIONED STATUS AND ADDITED THESE PLANS WERE PREPARED WITHOUT THE BENEFIT OF THE FIRE SPRINKLER DESIGN. CONTRACTOR DI CONTRACTOR SHALL TARCI REQUIRED SANTERY PRECATIONS, FOLLOWIGA MOY CITY, TCCO, AND AWWAS TANDARDS, TO KEEP WATER PIPE AND FITTINGS CLEAN AND CAPPED AT TIMES WHEN INSTALLATION IS NOT IN PROGRESS.
 LI CONTRACTOR SHALL TARCING CONSTRUCTION SURVEYING FOR ALL WATER AND WASTEWATER LINES.
 LI LAWATER AND WASTEWATER SERVICES SHALL TER PIPE AND VERTIONS ON THE PROGRESS.
 MATER AND WASTEWATER SERVICES SHALL TERMINATE SFEET OUTSIDE THE BUILDING, UNLESS MOTED OTHERWISE.
 LI LAWATER AND WASTEWATER SERVICES SHALL TERMINATE SFEET OUTSIDE THE BUILDING, UNLESS MOTED OTHERWISE.
 NOTICE THAT'S BEQUIRED, AND THEM AND WASTEWATER CONSTRUCTION TO AVOID INTERRUPTION OF SERVICE TO SURROUNDING PROFERITES.

PROFERTES. CONTRACTOR SHALL MAINTAIN WATER SERVICE AND WASTEWATER SERVICE TO ALL CUSTOMERS THROUGHOUT CONSTRUCTION (IF NECESSARY BY USE OF TEMPORARY METHODS APPROVED BY THE CITY AND OWNER). THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BEALLOWED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL WATER AND WASTEWATER LINES CROSSING THE PROJECT SEVER MAINS, AND SAWITARY SEVER

16. THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL WATER AND WASTEWATER LINES CROSSING THE PROJECT. THE CONTRACTOR SHALL REPARE ALL DAMAGED LINES NMEDIATELY ALL REPARS OF EXISTING WATER MAINS, WATER SERVICES, SEWER MAINS, AND SANITARY SEVER SERVICES ARE SUBSIDIARY TO THE WORK, AND NO ADDITIONAL COMFENSATION SHALL BE ALLOWED. 17 VALVE ADJUSTIMENTS SHALL BE CONSTRUCTED SUCH THAT THE COVERS ARE A FINISHED SUB-RACK GRADE OF THE PROPOSED PAVEMENT. 18. THE ENDS OF ALL EXISTING WATER MAINS THAT ARE CUT, BUT NOT REMOVED, SHALL BE FLUGGED AND DABHODINED IN FLACE. THIS WORK SHALL 19. LI FIER MYNARTS, VALVES, TEES, BENDS, WYES, REDUCERS, FITTINGS, AND ENDS SHALL BE FLUGGED AND ADAMONED IN FLACE. THIS WORK SHALL 19. LI FIER MYNARTS, VALVES, TEES, BENDS, WYES, REDUCERS, FITTINGS, AND ENDS SHALL BE MECHANICALLY RESTRAINED AND/ORT THRUST BLOCKED TO CITY STANDARDS. 20. CONTRACTOR SHALL INSTALL A FULL SECOMENT OF WATER OR WASTEWATER NEW EXCHANGED AT ALL UTILITY CROSSINGS SO THAT THE JOINTS ARE GREATER THAN SHEET FROM THE CROSSING. 21. ALL CROSSINGS AND LOCATIONS WHERE WASTERWATER IN LESS THAN 9-FEET FROM WATER, WASTEWATER CONSTRUCTION AND MATERIALS 22. ALL CROSSING AND LOCATIONS WHERE WATER IS LESS THAN 9-FEET FROM WATER, WATER CONSTRUCTION AND MATERIALS 22. ALL CROSSING AND LOCATIONS WHERE WATER IS LESS THAN 9-FEET FROM WATER, WATER CONSTRUCTION AND MATERIALS 22. ALL CROSSING AND LOCATIONS WHERE WATER IS LESS THAN 9-FEET FROM WATER, WATER CONSTRUCTION AND MATERIALS 22. ALL CROSSING AND LOCATIONS WHERE WATER IS LESS THAN 9-FEET FROM WATER, WATER CONSTRUCTION AND MATERIALS 22. ALL CROSSING AND LOCATIONS WHERE WATER IS LESS THAN 9-FEET FROM WATER, WATER CONSTRUCTION AND MATERIALS 22. ALL CROSSING AND LOCATIONS WHERE WATER IS LESS THAN 9-FEET FROM WATER WATER CONSTRUCTION AND MATERIALS 22. ALL CROSSING AND LOCATIONS WHERE WATER IS LESS THAN 9-FEET FROM WATER WATER CONSTRUCTION AND MATERIALS SHALL

COMPLY WITH TCEQ CHAPTER 290.44. ALL WATER AND WASTEWATER SHALL BE TESTED IN ACCORDANCE WITH THE CITY, AWWA, AND TCEQ STANDARDS AND SPECIFICATIONS. AT A

CONTRACTOR SHALL PROVIDE BACKWATER VALVES FOR PLUMBING FIXTURES AS REQUIRED BY THE APPLICABLE PLUMBING CODE (E.G. FLOOR BLORINARIUM SHALL PHOVIDE BACKWAILEY VALUES FOR PULMINING FAIT UNES AS REDUIRED BY THE APPLICABLE FULMINING COUE (E.G. FLOX ECONTRON OF DUTUES UNIT SENTINGENE DE CONTROL DE CON

30. THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER

WATER AND WASTEWATER: 1. ALL WATER AND WASTEWATER MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND

IONS. CTIONS ENTERING STRUCTURES OR OTHER STORM PIPES SHALL HAVE A CONCRETE



# ABBREVIATIONS AND DEFINITIONS

		IVIE	MATCH EXISTING ELEVATION
A	AREA	MH	MANHOLE
ADA	AMERICANS WITH DISABILITIES ACT	MIN	MINUTE / MINIMUM
AWWA	AMERICAN WATER WORKS ASSOCIATION	NO	NUMBER
B-B	BACK TO BACK	NOI	NOTICE OF INTENT, REF. TCEQ GENERAL PERMIT
BC	BEGIN CURVE	NOT	NOTICE OF TERMINATION, REF. TCEQ GENERAL
BC	BACK OF CURB		PERMIT
BCR	BEGIN CURB RETURN	NTS	NOT TO SCALE
BMP	BEST MANAGEMENT PRACTICE	OC	ON CENTER
BOC	BACK OF CURB	OFF	OFFSET
BVCE	BEGIN VERTICAL CURVE ELEVATION	OSHA	OCCUPATIONAL SAFETY AND HEALTH
BVCS	BEGIN VERTICAL CURVE STATION		ADMINISTRATION
BW	BOTTOM OF WALL	PC	POINT OF CURVATURE
CFS	CUBIC FEET PER SECOND	PCC	PORTLAND CEMENT CONCRETE / POINT OF
CITY	CITY, TOWN, OR OTHER APPLICABLE LOCAL		COMPOUND CURVATURE
	GOVERNMENT JURISDICTION	PGL	PROPOSED GRADE LINE
C/L	CENTERLINE	PI	POINT OF INFLECTION
CL	CENTERLINE	PROP	PROPOSED
CONC	CONCRETE	PRC	POINT OF REVERSE CURVATURE
CY	CUBIC YARD	PSI	POUNDS PER SQUARE INCH
DEMO	DEMOLITION	PT	POINT OF TANGENCY
DG	DECOMPOSED GRANITE	PVC	POLYVINYL CHLORIDE
DTL	DETAIL	PVI	POINT OF VERTICAL INFLECTION
EA	EACH	PVMT	PAVEMENT
EC	END CURVE	RCP	REINFORCED CONCRETE PIPE
ECR	END CURB RETURN	ROW	RIGHT OF WAY
EG	EXISTING GROUND	RT	RIGHT
EL	ELEVATION	SF	SQUARE FEET
ELEC	ELECTRICAL / ELECTRICITY	SS	SANITARY SEWER
ELEV	ELEVATION	SSMH	SANITARY SEWER MANHOLE
EPA	UNITES STATES ENVIRONMENTAL PROTECTION	STA	STATION
	AGENCY	STD	STANDARD
ESMT	EASEMENT	SY	SQUARE YARD
EVCE	END VERTICAL CURVE ELEVATION	TAS	ARCHITECTURAL BARRIERS TEXAS
EVCS	END VERTICAL CURVE STATION		ACCESSIBILITY STANDARDS
EX.	EXISTING	TC	TOP OF CURB
F-F	FACE TO FACE	TCEQ	TEXAS COMMISSION OF ENVIRONMENTAL
FG	FINISHED GROUND		QUALITY
FH	FIRE HYDRANT	TEMP	TEMPORARY
FL	FLOW LINE	TXDOT	TEXAS DEPARTMENT OF TRANSPORTATION
FOC	FACE OF CURB	TXMUTCD	TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL
FT	FEET		DEVICES
HGL	HYDRAULIC GRADE LINE	TW	TOP OF WALL
КН	KIMLEY-HORN AND ASSOCIATES, INC.	TYP	TYPICAL
KHA	KIMLEY-HORN AND ASSOCIATES, INC.	VC	VERTICAL CURVE
LAT	LATERAL	WTR	WATER
LF	LINEAR FEET	WW	WASTEWATER
1 T	LEFT		



Figure 41; Page F.42; October 1, 2024 \*THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION



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# CONTRACTOR SHALL SECURE ALL PERMITS REQUIRED FOR DEMOLITION AND SHALL NOTIFY ALL R AND UTILITY AGENCIES AFFECTED BY DEMOLITION PRIOR TO STARTING DEMOLITION.

PRIOR TO DEMOLITION, PROPER PHASING OF EROSION CONTROL DEVICES ARE TO BE INSTALLED

NOTES

- SHOULD REMOVAL AND/OR RELOCATION ACTIVITIES DAMAGE FENCING, LIGHTING, STORM INLET STRUCTURES OR ANY OTHER APPURTEMANCE, THEIN THE CONTRACTOR SHALL PROVIDE NEW MATERIALS/STRUCTURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- ALL DEMOLITION AND CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE SITE IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS.
- ALL BARRICADES AND WARNING SIGNS SHALL CONFORM TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ARE GENERALLY LOCATED TO AFFORD MAXIMUM PROTECTION TO THE PUBLIC AS WELL AS CONSTRUCTION PERSONNEL AND EQUIPMENT AND TO ASSUME AN EXPEDITUOL TRAFFIC FLOW AT ALL TIMES. DURING THE PROGRESS OF WORK, THE CONTRACTOR SHALL PROVIDE ACCESS FOR LOCAL TRAFFIC.
- CTOR MAY LIMIT SAW CUT & PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REV LICTION PLANS, BUT IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMEN RESPONSIBLE FOR ITS REMOVAL, REFLACEMENT, AND/OR REPAR. SHALL BE RE
- ALL PAVING AND CURB TO BE REMOVED ARE TO BE REMOVED USING FULL-DEPTH SAWCUT 2' OFF EXIS
- ANY ADDITIONAL CONCRETE PAVING, FOOTINGS OR STRUCTURES NOT IDENTIFIED ON THIS PLAN SHALL BE LOCATED BY CONTRACTOR AND SUBMITTED TO ENGINEER FOR APPROVAL.
- CONTRACTOR SHALL EXERCISE EXTREME CAUTION AS SITE CONTAINS PRIVATE AND PUBLIC UTILITIES. CONTRACTOR SHALL CALL DIG TESS AT LEAST 72 HOURS PRIOR TO COMMENCING DEMOLITION OR CONSTRUCTION ACTIVITES. CONTRACTOR SHALL CONTACT ANY OTHER UTILITY CONFANIES WING DO NOT SUBSCRIBET OT HE DIG TESS PROGRAM FOR LINE MARKINGS. THE CONTACT ANY DIAGED COMENDIAL TY FOR VERIFYING LOCATIONS OF EXISTING UTILITIES, SHOWN OR NOT SHOWN, AND FOR REPARING ANY DAMAGE DONE TO THESE FACILITIES.
- . ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC CABLE, AND GAB LINES REQUIRED TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTLITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTLITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTLITY SERVICE. CONTRACTOR SHALL PAY CLOSE ATTENTION TO EXISTING UTLITES WITHIN ROAD NIGHT OF WAYS DURING CONSTRUCTION.
- EXISTING IMPROVEMENTS NOT LABELED TO BE DEMOLISHED, REMOVED, OR RELOCATED SHALL REMAIN. IF IMPRO ARE FOUND WHERE THIS IS NOT CLEAR WHAT IS INTENDED, CONSULT ENGINEER PRIOR TO PROCEEDING WITH REMO
- A TRAFFIC CONTROL PLAN (TCP) MUST BE SUBMITTED TO DEPARTMENT OF PUBLIC WORKS FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. NO TRAFFIC LANE OR SIDEWALK ALONG ANY PUBLIC STREET OR ALLEY IS TO BE CLOSED WITHOUT APPROPRIATE FEMANTID, CLOSINE OF ANY TRAFFIC LANE MUST BE RESTRICTED TO THE HOURS OF \$33 AM TO \$34 PM WORKOAYS (HOURS MAY DIFFER IN BOHOOL ZONES). CONTRACT MUST CALL TRAFFIC SAFETY COORDINATORS, DEPARTMENT OF FUBLIC WORKS AT (214) 984259 FOR REVIEW AND TO REQUEST A RESOLUTO-PWAY FEMILT FRIOR TO START OF



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	08/26/2024
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Sonal Stand	REVIEWED BY:	DRA
08/26/2024 T FOR CONSTRUCTION -	AET	SC

TY OF DALLAS, DALLAS COUNTY, TEXAS DATE FILE NUMBER SHEET CP 08/26/2024 XXXX XXXX C04.01

	TBM #2: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF NEWBERRY S TOPOGRAPHIC SUBVEY BY BLIG DATED 12/20/2021							
	TOPOGRAPHIC SUR	VEY BY RLG D/	ATED 12/20/2021.	E	ELEV: 440.			
	TBM #3: "X" CUT FO	NEWBERRY	STREET PE					
	TOPOBIOLENIC SUR	1	ELEV: 441.					
	CONTRACT INFORMATION							
	CONTRACT NO.							
	CONTRACTOR							
		REV	ISIONS					
REV NO.	DATE		DESCRIPTION		BY			
	Kir	nley	/ <b>»Hor</b> i	1				
2024 KIMLE 2600 N	EY-HORN AND ASSOC	IATES, INC. E 400, RICHARI	TX F-928 PH: 972-770-1 DSON, TEXAS 75080 WWV	1300 FAX: N.KIMLEY-HO	972-239-38 RN.COM			
PLAT NO	. BLDG PER	MIT NO.	DEV ENGINEERIN	G TRACKIN	IG NOS.			
S234-174		DXXXX	XX-XXX	XX	-XXX			
	[	Demoli	TION PLAN					
		635 EX	CHANGE					
	11	645 NE	WBERRY ST					
	DE	/ELOPM	ENT SERVICES					
				TEVAO				

BENCHMARK LIST TBM #1: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF NEW TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2014

ELEV: 438.0

EODEOTINE	GOVERNMENTAL
COLOCITIES -	COTENTINE IT IT

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Figure 42; Page F.43; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.



	-								
E STANDARD SPECIFICATIONS FOR PUBLIC WORKS ON, AND THE CITY OF DALLAS STANDARD CONSTRUCTION		IS SPACE RESERVE	D - BLDG INSPEC	TION					
Y INTERPRETATION OF THE STANDARD SPECIFICATIONS FOR 8, NND ANY MATTER WHICH REQUIRES THE APPROVAL OF THE ERING OR HIS DESIGNEE BEFORE ANY COMBINICUTION INVOLVING THESE DECISIONS MIGHT BE WHICH ARE MADE DURING THE									
NCES OR TO VERIFY LOCATIONS OF EXISTING WATER AND (3) THREE WORKING DAYS PRIOR TO CONSTRUCTION.									
AINAGE FACILITIES IN THE PUBLIC RIGHT-OF-WAY SHALL BE 8. STANDARD CONSTRUCTION DETAILS. FILE 251D-1. LATEST									
OVAL AND REPLACEMENT OF DART FACILITIES. CONTRACTOR CAN									
49-3102 UILDING FACE.									
AL AND REPLACEMENT OF CONCRETE PAVEMENT, DRIVES, ES ONLY, IF PAVEMENT IS MORE THAN 5 YEARS OLD, THE FOLLOWED. IF PAVEMENT IS 5 YEARS OLD OR LESS, THE ENTIRE		THIS SPACE RESER	VED - ENG NEER	NG					
2 #4 REBAR WITH #4 VERTICAL PINS AT 18" O.C.; OR INTEGRAL JAR AND #3 STIRRUP8 AT 18" O.C. PROVIDE DOWLED AT TRUCK PARKING, PROVIDE 6" HIGH CURBS AT AUTO PARKING, DG, AND DRIVEWAYS.									
PARTMENT OF PUBLIC WORKS FOR REVIEW AND APPROVAL ALONG ANY PUBLIC STREET OR ALLEY IS TO BE CLOBED TO LANE MUST BE RESTRUCTED TO THE HOURS OF 3:30 AM TO 3:30 NTRACT MUST CALL TRAFFIC GAFETY COORDINATORS, EW AND TO REQUEST A RIGHT-OF-WAY PERMIT PRIOR TO START									
E NOTED.									
SECTECH FOR DETAILS. IOLES, ELECTRICAL MANHOLES, FIRE HYDRANTS, VALVE BOXES, JES IF NECESSARY.									
PPROACH NOTES	ו								
RESSIVE STRENGTH AT 28 DAYS AFTER PLACEMENT.									
FINISHED MECHANICALLY WITH APPROVED POWER-DRIVEN HEN THE STREET IS 200' IN LENGTH OR LONGER. A VIBRATING									
SIVE STRENGTH AT 28 DAYS AFTER PLACEMENT.									
NG, ON SECTIONS WHERE THE PAVEMENT WIDTH IS NOT IIC WIDTHS ARE GREATER THAN THAT OF AVAILABLE FINISHING LEY PAVING, AND ELSEWHERE WHERE MECHANICAL FINISHING									
HAN 9", SPACED ON 24" CENTERS. #4 BARS ARE REQUIRED FOR									
I 24" CENTERS. NVING DESIGN MANUAL, STARTING ON PAGE V-2, SUBGRADE D SOLF PJ, PLEASE CHOOSE THE OPTION THAT COMPLIES WITH IS SUBGRADE COMENT MODIFIED SUBGRADE. OR COMENT									
IENT IS 98% STANDARD PROCTOR DENSITY AT MINUS 2% TO									
RUPT CHANGES IN ALIGNMENT OR WIDTH. OR EVERY 150 FEET.			TBM #1: "X	CUT FOUND	ON AN	BENCHMARK INLET ON THE E DATED 12/20/20	LIST AST SIDE OF NEV 21.	/BERRY S	TREET
LIS REQUIRED EVERY 12" ON CENTER AND MUST BE GREASED			TBM #2: "X	CUT FOUND		INLET ON THE E	AST SIDE OF NEW	E VBERRY S	LEV: 43
D LONGITUDINAL DUMMY JOINTS ALONG CENTER LINE OF ALL			TOPOGRAF	HIC SURVEY	BY RLG	DATED 12/20/20	21.	E	LEV: 44
FEET WIDE, ADDITIONAL SIMILAR JOINTS ON 10 FOOT CENTERS IR THAN 30 FEET.			TBM #3: "X" TOPOGRAF	CUT FOUND	BY RLG	INLET ON THE E	AST SIDE OF NEV 21.	/BERRY S	TREET
OF THE SAME COMPRESSIVE STRENGTH AS THE PAVEMENT.					CON		PMATION		
	=		CONTRAC	T NO.		INACTINE	DAT	E	
AMPS, AND CURB AND GUTTER NOTES			CONTRA	CTOR					
COMPRESSIVE STRENGTH AT 28 DAYS AFTER PLACEMENT.					RE	VISIONS	5		
IMUM 95% OF STANDARD PROCTOR DENSITY WITHIN MINUS 2%		REV NO.	DAT	E		DESCRI	PTION		B
TER8.		<u> </u>						$\dashv$	
ED WITH #4 BARS.			<u> </u>		_		_		
D 83" DEEP WITH AN APPROVED TOOL (SAW CUT) IN 15 FOOT				(im	le	v»ŀ	lorn		
UPT CHANGES IN ALIGNMENT OR WIDTH, RADII POINTS, OR		© 2024 KIML			8, INC.	TX F-928	PH: 972-770-1300	FAX:	972-239
INTS SHOULD MATCH WITH EXISTING REDWOOD JOINTS IN THE		2600 N PLAT NO	CENTRAL EX	PY, SUITE 400	D, RICH	DEV EN	75080 WWW.KI	ILEY-HOP	G NOS
EL IS REQUIRED AT ALL EXPANSION JOINTS AND THE PAVEMENT		S234-174	ŧ YY	YYMMDDX	0000	XX-	XXX	XX-	XXX
NGTH OF PAVEMENT. K-OF-CURB, WITH A 5° DOWEL.			OVER	ALL DI	MEN	ISION CO	NTROL F	<b>'LAN</b>	
DF-CURB.		<u> </u>		6	35 F	XCHAN	)F		
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Call before you dig.	ALL STREET	REVIEWED BY:	DRAWN BY:	DATE		FILE	NUMBER	S	HEET
- NOT FOR CONSTR	8/26/2024 RUCTION -	AET	SCP	08/26/20	124	XXXX	XXXX	C	)5.0
Figure 43; Page F.44; October	1, 2024	THIS PLAN	IS FOR T	CEQ PERM	ITTING	3 PURPOSES	ONLY. NOT FO	R CONS	TRUC
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		PROPOSED	BUILDING B ARI	EA	208,000 S.F.			
	PROPOSED BUILDING C AR			A 243,472 8.5			UF.	
		OFFICE ARE	A BUILDING A		7,211 S.F			
		OFFICE ARE	A BUILDING B		10,400 S.F.			
		OFFICE ARE	A BUILDING C			12,174 8.	F.	
	REQUIRED AUTO PARKING SPACES					253		
	PROPOSED AUTO PARKING SPACES					491		
		ADA PARKIN	G SPACES PRO	OVIDED		9		
		PROPOSED	TRAILER LOADI	NG SPACES		132		
		1 SPACE RE	QUIRED FOR EV	ERY 333 SF OF OFF	ICE SP/	NCE.		
		1 SPACE RE	QUIRED PER 10	00 SF FOR FIRST 20,	000 SF	OF WAREHO	USE SPACE	
r		1 SPACE RE	QUIRED PER 40	00 SF OF REMAINDE	R SF O	F WAREHOUS	SE SPACE	
			1	BENCHMARK LIST				
	TBM :	F1: "X" CUT FO GRAPHIC SUR	UND ON AN INL	LET ON THE EAST SI ATED 12/20/2021.	DEOF	NEWBERRY	STREET PER	
						E	ELEV: 438.06'	
	твм :	2: "X" CUT FO	UND ON AN INL	LET ON THE EAST SI	DE OF	NEWBERRY	STREET PER	
	TOPO	GRAPHIC SUR	VEY BY RLG DA	TED 12/20/2021.			ELEV: 440.15	
	TBM :	R: "X" CUT FO	UND ON AN INL	LET ON THE EAST SI ATED 12/20/2021	DE OF	NEWBERRY	STREET PER	
						1	ELEV: 441.51'	
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REV NO.		DATE		DESCRIPTION	N		BY	
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	Kimley <b>»Horn</b>							
© 2024 KIMLE 2600 N (	EY-HOR	AND ASSOC	ATES, INC. E 400, RICHARD	TX F-928 PH: 97 DSON, TEXAS 75080	2-770-1 WWW	300 FAX: KIMLEY-HO	972-239-3820 RN.COM	
PLAT NO	).	BLDG PER	MIT NO.	DEV ENGINE	ERINO	3 TRACKIN	IG NOS.	
S234-174	4	YYYYMM	DXXXX	XX-XXX		XX-	-XXX	
	DI	MENSIC		TROL PLAN	N (1	OF 4)		
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			635 EX	CHANGE				
		11	635 EX 645 NE\	CHANGE WBERRY S	т			
		11 DEV	635 EX 645 NE\ /ELOPME	CHANGE WBERRY S ENT SERVIC	TES			

PROPOSED BUILDING DATA SUMMARY TABLE

144,216 S.F

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Figure 44; Page F.45; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION

FILE

NUMBER

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SHEET

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IMAGES XREFS LAST SAVED PLOTTED BY PLOTTED BY



# **Kimley**»Horn TX F-928

2024 KIMLEY-HORN AND FAX: 972-239-38 2600 N CENTRAL EXPY, SUITE 400, RIG 75080 WWW.KIML PLAT NO. BLDG PERMIT NO. DEV ENGINEERING TRACKING NOS. S234-174 YYYYMMDDXXXX XX-XXX XX-XXX

# DIMENSION CONTROL PLAN (2 OF 4)

635 EXCHANGE							
11645 NEWBERRY ST							
DEVELOPMENT SERVICES							
CITY OF DALLAS, DALLAS COUNTY, TEXAS							
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 $\star$ Call before you dig. CENSE 08/26/2024

Figure 45; Page F.46; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.



Figure 46; Page F.47; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION



Figure 47; Page F.48; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION



# ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS, LATEST EDITION, AND THE CITY OF DALLAS STANDARD CONSTRUCT DETAILS.

NOTES

- DURING THE CONSTRUCTION OF THESE IMPROVEMENTS, ANY INTERPRETATION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS, AND ANY MATTER WHICH REQUIRES THE APPROVED BY THE DIRECTOR OF POINTIES OF HIS DEGRESS BEFORE ANY CONSTRUCTION INVOLUT THAT DECISION COMMENCES, ASSUMPTIONS ABOUT WHAT THESE DECISIONS MIGHT BE WHICH ARE MADE DURING THE BIDING FHASE WILL HAVE NO BEAMING ON THE DECISION.
- FOR ADJUSTMENT OF DALLAS WATER UTILITIES APPURTENANCES OR TO VERIFY LOCATIONS OF EXISTING WATER AND WASTEWATER MAINS IN AREA, CALL (214) 570-1770 AT LEAST (3) THREE WORKING DAYS PRIOR TO CONSTRUCTION. STREETS, ALLEYS, SIDEWALKS, DRIVEWAYS, AND STORM DRAINAGE FACILITIES IN THE PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE CITY OF DALLAS, STANDARD CONSTRUCTION DETAILS, FILE 251D-1, LATEST
- CONSTRUCTED IN CONFORM
- AN APPROVAL FROM DART IS REQUIRED PRIOR TO ANY REMOVAL AND REPLACEMENT OF DART FACILITIES. CONTRACTOR CAN CONTACT ALI RABIEE, P.E. AT 214-749-2905, OR AICP AT 241-749-3102 REFERENCE ARCHITECTURAL PLANS FOR DETAILS ALONG BUILDING FACE.
- SAWCUT LINES SHOWN THE DESIGN PLANS FOR THE REMOVAL AND REPLACEMENT OF CONCRETE PAVEMENT, DRIVES, SLABS, SIDEWALKS, ETC. ARE FOR INFORMATIONAL PURPOSES ONLY. IF PAVEMENT IS MORE THAN 5 YEARS OLD, THE PAVEMENT CUT NAD REPAR TEXNORADS MANUAL MUST BE FOLLOWED. IF PAVEMENT IS 5 YEARS OLD OR LESS, THE ENTIRE CONCRETE PANEL MUST BE REPLACED.
- CONCRETE CURBS TO BE REINFORCED WITH A MINIMUM OF 2 #4 REBAR WITH #4 VERTICAL PINS AT 18" O.C.; OR INTEGRAL CONCRETE CURB-NNO-GUTTERS REINFORCED WITH 4 #4 REBAR AND #3 STIRRUPS AT 18" O.C. PROVIDE DOWLED CONSTRUCTION JOINTS AS REQUIRED. PROVIDE 12" CURBS AT THOUR PARKING. PROVIDE 6" HIGH CURBS AT AUTO PARKING, INCLUDING AUTO PARKING LOT PERIMETER, INTERIOR ISLANDS, AND DRIVEWAYS.
- A TRAFFIC CONTROL PLAN (TCP) MUST BE SUBMITTED TO DEPARTMENT OF PUBLIC WORKS FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. NO TRAFFIC LANE OR SIDEWALK ALONG ANY PUBLIC STREET OR ALLEY 18 TO BE (CLOSED WITHOUT APPROPRIATE PERMIT(S). CLOSURE OF ANY TRAFFIC LANE MUST BE RESTRICTED TO THE HOURS OF 9:30 AM TO 3:30 PM WORKDAYS (HOURS MAY DIFFE IN SCHOOL ZONES). CONTRACT MUST CALL TRAFFIC SAFETY COORDINATORS, RTMENT OF PUBLIC WORKS AT (214) 949-4290 FOR REVIEW AND TO REQUEST A RIGHT-OF-WAY PERMIT PRIOR TO START
- 10. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- 11. ALL CURBS ARE 6" IN HEIGHT UNLESS OTHERWISE NOTED.
- 12. ALL CURB RADII ARE 3' UNLESS DIMENSIONED OTHERWISE
- 13. PAVEMENT SECTIONS SHOWN FOR REFERENCE ONLY. SEE GEOTECH FOR DETAILS.
- CONTRACTOR TO ADJUST EXISTING SANITARY SEWER MANHOLES, ELECTRICAL MANHOLES, FIRE HYDRANTS, VALVE BOXES, WATER METERS, ETC. TO MATCH PROPOSED FINISHED GRADES IF NECESSARY.

# PUBLIC DRIVE APPROACH NOTES

- MACHINE FINISH CLASS TEST STRENGTH IS 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS AFTER PLACEMENT
- NCRETE BASE AND PAVEMENT WILL BE REQUIRED TO BE FINISHED MECHANICALLY WITH APPROVED POWER-ORIVEN CHINES WHEN THE STREET IS WIDER THAN 27 FEET OR WHEN THE STREET IS 200 IN LENGTH OR LONGER. A VIBRATING RED IS NOT CONSIDERED A PAVING MACHINE.
- ISH CLASS TEST STRENGTH IS 4,500 PSI COMPRESSIVE STRENGTH AT 28 DAYS AFTER PLACEMENT.
- HAND FINISHING WILL BE PERMITTED ON PAVEMENT WIDENING, ON SECTIONS WHERE THE PAVEMENT WIDTH IS NOT UNIFORM, AT INTERSECTIONS, WHERE REQUIRED MONOLITHIC WIDTHS ARE GREATER THAN THAT OF AVAILABLE FINISHING MACHINES, ON STREETS LESS THAN 200 FEET IN LENGTH, ALLEY PAVING, AND ELSEWHERE WHERE MECHANICAL FINISHING IS NOT SPECIFIED OR REQUIRED YO (TY SPECIFICATIONS).
- IMUM PAVEMENT DEPTH IS 8".
- #3 BARS ARE REQUIRED FOR CONCRETE THICKNESS LESS THAN 9", SPACED ON 24" CENTERS. #4 BARS ARE REQUIRED FOR CONCRETE THICKNESS THAT IS 9" OR GREATER, SPACED ON 24" CENTERS.
- SPECIPY SUBGRADE PREPARATION. IN SECTION V OF THE PAVING DESIGN MANUAL, STARTING ON PAGE V-2, SUBGRADE REQUIREMENTS ARE PROVIDED BABED ON STREET TYPE AND SOL P.1, PLEASE CHOOSE THE OPTION THAT COMPLIES W THE REQUIREMENTS COMPACTED SUBGRADE, UNE TREATED SUBGRADE, CASEMENT MODIFIED SUBGRADE, OR CEMENT THE REQUIREMENTS: CO STABILIZED SUBGRADE.
- STANDARD SUBGRADE COMPACTION UNDER STREET PAVEMENT IS 98% STANDARD PROCTOR DENSITY AT MINUS 2% TO PLUS 4% OF OPTIMUM MOISTURE TO THE DEPTH SPECIFIED.
- REDWOOD EXPANSION JOINTS ARE REQUIRED AT ALL ABPRUPT CHANGES IN ALIGNMENT GINNING AT THE CURB RETURN.
- 10. AT ALL EXPANSION JOINTS, 24" LONG, #8 (1") SMOOTH DOWEL IS REQUIRED EVERY 12" ON CENTER AND MUST BE GREA
- SAWED TRAVERSED DUMMY JOINTS SPACED 15 FEET. SAWED LONGITUDINAL D SINGLE ROAD WAY SECTIONS EXCEPT PAVING LESS THAN 14 FEET WIDE. ADDI EACH SIDE OF CENTER LINE FOR ROAD WAY SECTIONS WIDER THAN 30 FEET.
- 12. INTEGRAL CONCRETE CURB AND CURB & GUTTER SHALL BE OF THE SAME COMPRESSIVE STRENGTH AS THE PAVI

# PUBLIC SIDEWALKS, BARRIER-FREE RAMPS, AND CURB AND GUTTER NOTES

- CLASS TEST STRENGTH FOR SIDEWALK IS 3,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS AFTER PLACE
- 2. CLASS TEST STRENGTH FOR CURB AND GUTTER IS 4,500 PSI COMPRESSIVE STRENGTH AT 28 DAYS AFTER PLACEMENT
- STANDARD SUBGRADE COMPACTION FOR SIDEWALKS IS MINIMUM 95% OF STANDARD PROCTOR DENSITY WITHIN MINUS 2% TO PLUS 4% OF OPTIMUM MOISTURE CONTENT
- 4. SIDEWALKS REQUIRE MINIMUM #3 BARS SPACED ON 24" CENTERS
- ALL CURBS WITHIN CITY RIGHT OF WAY MUST BE REINFORCED WITH #4 BARS
- 6. CURB AND GUTTER MUST BE DESIGNED AND CONSTRUCTED TO PROVIDE POSITIVE DRAINAGE
- SEPARATE CONCRETE CURB AND GUTTER SHALL BE MARKED 83" DEEP WITH AN APPROVED TOOL (SAW CUT) IN 15 FOOT SECTIONS. INSTALL #4 "L-SHAPED" REBAR DOWELS (12" INTO EXISTING PAVEMENT), EVERY 18" EPOXIED IN.
- 1" REDWOOD EXPANSION JOINTS ARE REQUIRED AT ALL ABRUPT CHANGES IN ALIGNMENT OR WIDTH, RADII POINTS, OR EVERY 80 FEET, BEGINNING AT THE CURB RETURN.
- IF SIDEWALK IS LOCATED AT BACK-OF-CURBS, REDWOOD JOINTS SHOULD MATCH WITH EXISTING RI STREET.
- AT ALL EXPANSION JOINTS, 24" LONG, #5 (34") SMOOTH DOWEL IS REQUIRED AT ALL EXPANSION JOINTS AND THE PAVEMENT DEPTH TRANSITIONS FROM 4" TO 5" THICK, OVER THE 24" LENGTH OF PAVEMENT.
- 11. 8" FOOTING IS REQUIRED FOR SIDEWALKS LOCATED AT BACK-OF-CURB, WITH A 6" DOWEI
- 12. SIDEWALK MUST BE MINIMUM 5' WIDE IF LOCATED AT BACK-OF-CURB.



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Figure 48; Page F.49; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION

# NOTES ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS, LATEST EDITION, AND THE CITY OF DALLAS STANDARD CONSTRUCT DETAILS.

- DURING THE CONSTRUCTION OF THESE IMPROVEMENTS, ANY INTERPRETATION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS, AND ANY MATTER WHICH REQUIRES THE APPROVED SYNTHE DIRECTOR OF ENGINEERING OF HIS DESINCE BEFORE ANY CONSTRUCTION INVOLVING THAT DECISION COMMENCES. ASSUMPTIONS ABOUT WHAT THESE DECISIONS MIGHT BE WHICH ARE MADE DURING THE BIDING PHASE WILL HAVE NO BEARING ON THE DECISION.
- FOR ADJUSTMENT OF DALLAS WATER UTILITIES APPURTENANCES OR TO VERIFY LOCATIONS OF EXISTING WATER AND WASTEWATER MAINS IN AREA, CALL (214) 670-1770 AT LEAST (3) THREE WORKING DAYS PRIOR TO CONSTRUCTION.
- STREETS, ALLEYS, SIDEWALKS, DRIVEWAYS, AND STORM DRAINAGE FACILITIES IN THE PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE CITY OF DALLAS, STANDARD CONSTRUCTION DETAILS, FILE 251D-1, LATEST EDITION. AN APPROVAL FROM DART IS REQUIRED PRIOR TO ANY REMOVAL AND REPLACEMENT OF DART FACILITIES. CONTRACTOR CAN CONTACT ALI RABIEE, P.E. AT 214-749-2905, OR AICP AT 241-749-3102
- 6. REFERENCE ARCHITECTURAL PLANS FOR DETAILS ALONG BUILDING FACE.
- SAWCUT LINES SHOWN THE DESIGN PLANS FOR THE REMOVAL AND REPLACEMENT OF CONCRETE PAVEMENT, DRIVES, SLASS, SIDEWALKS, ETC. ARE FOR INFORMATIONAL PURPOSES ONLY. IF PAVEMENT IS MORE THAN S YEARS OLD, THE PAVEMENT CUT AND REPARE TRADARDS MANUAL MUST BE FOLLOWED. IF PAVEMENT IS S YEARS OLD OR LESS, THE ENTIRE CONCRETE PANEL MUST BE REPLACED.
- CONCRETE CURBS TO BE REINFORCED WITH A MINIMUM OF 2 #4 REBAR WITH #4 VERTICAL PINS AT 18" O.C.; OR INTEGRAL CONCRETE CURB-AND-GUTTERS REINFORCED WITH 4# REBAR AND #3 STIRRUPS AT 18" O.C. PROVIDE DOWLED CONSTRUCTION JOINT 3A REQUIRED. PROVIDE 12" CURBS AT TRUCK PARKING. FROVIDE 6\* HIGH CURBS AT AUTO PARKING, INCLUDING AUTO PARKING LOT PERIMETER, INTERIOR ISLANDG, AND DRIVEWAYS.
- A TRAFFIC CONTROL PLAN (TCP) MUST BE SUBMITTED TO DEPARTMENT OF PUBLIC WORKS FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. NO TRAFFIC LAWE OR SIDE/WLK, ALONG ANT PUBLIC STREET OR ALLEY IS TO BE (LOGED WINDOUT APPROPRIATE FREMINES). LOSINGE OF ANY TRAFFIC LAWE MUST BE REVENTCED TO THE HOURS OF 330 ANTO 3:30 PM MORRAYS (HOURS MAY DIFFER IN SCHOOL SOMES). CONTRACT MUST CALL TRAFFIC SAFETY COORDINATORS, DEPARTMENT OF JUBLIC WORKS AT (216) 544–540 FOR REVIEW AND TO REQUEST A INSHIT-OF-WAY PERMIT PRIOR TO START
- 10. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- 11. ALL CURBS ARE 6" IN HEIGHT UNLESS OTHERWISE NOTED.
- 12. ALL CURB RADII ARE 3' UNLESS DIMENSIONED OTHERWISE
- 13. PAVEMENT SECTIONS SHOWN FOR REFERENCE ONLY. SEE GEOTECH FOR DETAILS. 14. CONTRACTOR TO ADJUST EXISTING SANITARY SEWER MANHOLES, ELECTRICAL MANHOLES, FIRE HYDRANTS, VALVE BOXES, WATER METERS, ETC. TO MATCH PROPOSED FINISHED GRADES IF NECESSARY.

## PUBLIC DRIVE APPROACH NOTES

- 1. MACHINE FINISH CLASS TEST STRENGTH IS 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS AFTER PLACEMENT.
- CONCRETE BASE AND PAVEMENT WILL BE REQUIRED TO BE FINISHED MECHANICALLY WITH APPROVED POWER-ORIVEN MACHINES WHEN THE STREET IS WIDER THAN 27 FEET OR WHEN THE STREET IS 30P IN LENGTH OR LONGER. A VIBRATING SOFRED IS NOT CONSIDERED A PAVING MACHINE.
- 3. HAND FINISH CLASS TEST STRENGTH IS 4,500 PSI COMPRESSIVE STRENGTH AT 28 DAYS AFTER PLACEMENT.
- HAND FINISHING WILL BE PERMITTED ON PAVEMENT WIDENING, ON SECTIONS WHERE THE PAVEMENT WIDTH IS NOT UNIFORM, AT INTERSECTIONS, WHERE REQUIRED MONOLITHIC WIDTHS ARE GREATER THAN THAT OF AVAILABLE FINISHING MACHINES, ON STREETS LESS THAN 200 FEET IN LENGTH, ALLEY PAVING, AND ELSEWHERE WHERE MECHANICAL FINISHING IS NOT SPECIFIED OR REQUIRED FOR THY SPECIFICATIONS.
- MINIMUM PAVEMENT DEPTH IS 8".
- #3 BARS ARE REQUIRED FOR CONCRETE THICKNESS LESS THAN 9", SPACED ON 24" CENTERS. #4 BARS ARE REQUIRED FOR CONCRETE THICKNESS THAT IS 9" OR GREATER, SPACED ON 24" CENTERS.
- SPECIFY SUBGRADE PREPARATION. IN SECTION V OF THE PAVING DESIGN MANUAL, STARTING ON PAGE V-2, SUBGRADE REQUIREMENTS ARE PROVIDED BASED ON STREET TYPE AND SOL P.1, PLEASE CHOOSE THE OPTION THAT COMPLIES WITH THE REQUIREMENTS: COMPACTED SUBGRADE, LIME TREATED SUBGRADE, CEMENT MODIFIED SUBGRADE, OR CEMENT STABLIZED SUBGRADE.
- STANDARD SUBGRADE COMPACTION UNDER STREET PAVEMENT IS 98% STANDARD PROCTOR DENSITY AT MINUS 2% TO PLUS 4% OF OPTIMUM MOISTURE TO THE DEPTH SPECIFIED.
- 1\* REDWOOD EXPANSION JOINTS ARE REQUIRED AT ALL ABPRUPT CHANGES IN ALIGNMENT OR WIDTH, OR EVERY 150 FEET, BEGINNING AT THE CURB RETURN.
- 10. AT ALL EXPANSION JOINTS, 24" LONG, #8 (1") SMOOTH DOWEL IS REQUIRED EVERY 12" ON CENTER AND MUST BE GREASED AND CAPPED
- SAWED TRAVERSED DUMMY JOINTS SPACED 15 FEET. SAWED LONGITUDINAL DUMMY JOINTS ALONG CENTER LINE OF ALL SINGLE ROAD WAY BECTIONS EXCEPT PAVING LESS THAN 14 FEET WIDE. ADDITIONAL SIMILAR JOINTS ON 15 FOOT CENTERS EACH SIDE OF CENTER LINE FOR ROAD WAY SECTIONS WIDER THAN 35 FEET.
- 12. INTEGRAL CONCRETE CURB AND CURB & GUTTER SHALL BE OF THE SAME COMPRESSIVE STRENGTH AS THE PAVEMENT.

# PUBLIC SIDEWALKS, BARRIER-FREE RAMPS, AND CURB AND GUTTER NOTES

- 1. CLASS TEST STRENGTH FOR SIDEWALK IS 3,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS AFTER PLACE
- 2. CLASS TEST STRENGTH FOR CURB AND GUTTER IS 4,500 PSI COMPRESSIVE STRENGTH AT 28 DAYS AFTER PLACEMENT.
- 3. STANDARD SUBGRADE COMPACTION FOR SIDEWALKS IS MINIMUM 95% OF STANDARD PROCTOR DENSITY WITHIN MINUS 2% TO PLUS 4% OF OPTIMUM MOISTURE CONTENT.
- 4. SIDEWALKS REQUIRE MINIMUM #3 BARS SPACED ON 24" CENTERS
- 5. ALL CURBS WITHIN CITY RIGHT OF WAY MUST BE REINFORCED WITH #4 BARS
- 6. CURB AND GUTTER MUST BE DESIGNED AND CONSTRUCTED TO PROVIDE POSITIVE DRAINAGE
- SEPARATE CONCRETE CURB AND GUTTER SHALL BE MARKED 83" DEEP WITH AN APPROVED TOOL (SAW CUT) IN 15 FOOT SECTIONS. INSTALL #4 "L-SHAPED" REBAR DOWELS (12" INTO EXISTING PAVEMENT), EVERY 18" EPOXIED IN.
- 1" REDWOOD EXPANSION JOINTS ARE REQUIRED AT ALL ABRUPT CHANGES IN ALIGNMENT OR WIDTH, RADII POINTS, OR EVERY 80 FEET, BEGINNING AT THE CURB RETURN.
- IF SIDEWALK IS LOCATED AT BACK-OF-CURBS, REDWOOD JOINTS SHOULD MATCH WITH EXISTING REDWOOD JOINTS IN THE STREET.
- AT ALL EXPANSION JOINTS, 24" LONG, #5 (34") SMOOTH DOWEL IS REQUIRED AT ALL EXPANSION JOINTS AND THE PAVEMENT DEPTH TRANSITIONS FROM 4" TO 5" THICK, OVER THE 24" LENGTH OF PAVEMENT.
- 11. 8" FOOTING IS REQUIRED FOR SIDEWALKS LOCATED AT BACK-OF-CURB, WITH A 6" DOWEL.
- 12. SIDEWALK MUST BE MINIMUM 5' WIDE IF LOCATED AT BACK-OF-CURB.



- 4,000 PSI. CONCRETE @ 28 DAYS (FOR MACHINE FINISH) - OR
- 4,500 PSI. CONCRETE @ 28 DAYS (HAND FINISH)
- MINIMUM OF 3.5 TO 8.5 PERCENT ENTRAINED AIR CEMENT STABILIZED SUBGRADE.-

CEMENT STABLIZED SUBGRADE --CONTRACTOR TO FOLLOW SPECIFICATIONS OUTLINED IN SECTION 301.3.5 - CEMENT STABLIZETON OF SUBGRADE SOLLO FTHE CITY OF DALLAS 2011 ADDENDUM TO THE NCTCOS PUBLIC WORKS CONTRUCTION STANDARDS FOR CEMENT STABLIZED SUBGRADE. MININUU OF SYS MAXIMUM STANDARD PROCTOR DRY DENSITY (ASTM D 659) IN THE RANGE OF 2 TO 4 FERCENT POINTS OF OFTIMUM MOISTURE CONTENT. 3.00 PRI. CONCERT.

IMUM OF 0 TO +4 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT

# 3,000 PSI. CONCRETE --@ 28 DAYS WITH #3 BARS @24" O.C. BOTH WAYS

LIME STABLEDE DURGADE IMMILIUM 6% HYDRATED LIME (8Y DRY NOL ONFORMANCE WITH TXDO'T IN CONFORMANCE WITH TXDO'T STAMO SPECIFICATION INTEL 28.0 MINIMUM OF SPECIFICATION INTEL 28.0 OCTOR DRY DENGTY (ADTM) SENJAT A-IMUM OF OT 0-4 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT.

N.T.S.

CONCRETE 3,000 PSI COMPRESSIVE STRENGTH

PAVEMENT (PRIVATE)

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WITH #3 BARS @24" O.C. BOTH WAYS

HEAVY DUTY PAVEMENT (PUBLIC) N.T.S.

# 

LIME STABILIZED SUBGRADE WITH MINIMUM 6% HYDRATED LIME (BY DRY SOLW EVENHT) IN CONFORMANCE WITH TXDOT STANDARD SPECIFICATION ITEM 280. MINIMUM OF 55% MAXIMUM STANDARD PROCTOR ORY DEMSITY (ASTM D 55%) AT A-3,000 PSI COMPRESSIVE STRENGTH SUBGRADE

# HEAVY DUTY PAVEMENT (PRIVATE)

- N.T.S. CONCRETE 3,000 PSI COMPRESSIVE STRENGTH

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- PAVEMENT (PRIVATE)

- - NOTES

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MEDIUM DUTY

3.000 PSI, CONCRETE

@ 28 DAYS WITH #3 BARS @24" O.C. BOTH WAYS 6" SCARIFIED AND RECOMPACTED SUBGRADE MINIMUM OF 95% MAXIMUM NDARD PROCTOR DENSITY -(ASTM D 598) AT OR ABOVE INUM MOISTURE CONTENT. LIGHT DUTY

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© 2024 KIMLI 2600 N	EY-HORN AND CENTRAL EXI	ASSOCIATES, INC PY, SUITE 400, RIC	. TX F-928 HARDSON, TEXA	PH: 972-770-1300 8 75080 WWW.KI	FAX:	972-239-382 RN.COM	
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CONTRACT NO.

CONTRACTOR

LEGEND PROPERTY LINE \_\_\_\_ EXISTING EASEMENT \_\_\_\_\_ PROPOSED EASEMENT \_\_\_\_\_ PROPOSED FIRE LANE PROPOSED 4" SIDEWALK PROPOSED 5" LIGHT DUTY CONCRETE PAVEMENT (PRIVATE) PROPOSED 6" MEDIUM DUTY ,<del>\* \* \* \* \* \* \* \* \*</del> CONCRETE PAVEMENT (PRIVATE) PROPOSED 7" HEAVY DUTY CONCRETE PAVEMENT (PRIVATE) PROPOSED 8" HEAVY DUTY CONCRETE PAVEMENT (PUBLIC) BENCHMARK LIST TBM #1: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF NEWB TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021.

TBM #3: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF NEWBERRY STREET PER TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021.

CONTRACT INFORMATION

REVISIONS

TBM #2: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF NEW TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021.

ELEV: 438.0

ELEV: 440.1

ELEV: 441.5

DATE

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Figure 49; Page F.50; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.



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UMBER - NOT FOR CONSTRUCTION - AET SCP 08/26/2024 XXXX XXXX C06.51

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© 2024 KIMLEY- 2600 N CER	HORN AND ASSOC	ATES, INC. E 400, RICHARI	TX F-928 DSON, TEXA	PH: 972-770-1 8 75080 WWV	300 FAX	972-239-38 RN.COM	
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C	ITY OF DA	LLAS, DA	LLAS C	OUNTY,	TEXAS		

LOCATE AT EDGE OF PARKING SPACE UNLESS ACCOMPANIED BY "VAN" LETTERING

CONTRACT INFORMATION

DESCRIPTION

REVISIONS

ELEV: 438.0

ELEV: 440.15

ELEV: 441.5

BY

SHEET

DATE

Accessible Parking Symbol Detail (Private)



Figure 50; Page F.51; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.



08/26/2024 AET SCP 08/26/2024 XXXX XXXX C07.01 Figure 51; Page F.52; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION

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	ELE	ATION AT TOP	OF WALL	•	560 TW	
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			BENCHMARK	LIST		
	TBM #1: "X" TOPOGRAP	CUT FOUND OF	AN INLET ON THE E	AST SIDE OF NEW	BERRY	STREET PER
					E	LEV: 438.06'
	TBM #2: "X" TOPOGRAP	CUT FOUND OF	AN INLET ON THE E RLG DATED 12/20/202	AST SIDE OF NEW	BERRY	STREET PER
					E	LEV: 440.15'
	TBM #3: "X" TOPOGRAP	CUT FOUND ON HIC SURVEY BY	RLG DATED 12/20/202	AST SIDE OF NEW 11.	BERRY	STREET PER
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Figure 52; Page F.53; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.



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Figure 53; Page F.54; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.





MACE S



MAGES XPEFS LAST SAVED PLOTTED BY

Figure 55; Page F.56; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION







ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS, LATEST EDITION, AND THE CITY OF DALLAS DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION ADDENDUM.

ING THE CONSTRUCTION OF THESE IMPR NTS. ANY INTERPRETATION OF THE STANDARD SP DURING THE CONSTRUCTION OF THESE IMPROVEMENTS, ANT INTERPRETATION OF THE STANDARD SPECIFICATIONS FOR UPULC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS, AND ANY MATTER WHICH REQUIRES THE APPROVAL OF THE OWNER, MUST BE APPROVED BY THE DIRECTOR OF PUBLIC WORKS AND TRANSPORTATION OR HIS DESIGNEE BEFORE ANY CONSTRUCTION WOLVING THE DESIGNE COMMENCES, ASSUMPTIONS ABOUT WHAT THESE DECISIONS MIGHT BE WHICH ARE MADE DURING THE BIDDING PHASE WILL HAVE NO BEARING ON THE DECISION.

FOR ADJUSTMENT OF DALLAS WATER UTILITIES APPURTENANCES OR TO VERIFY LOCATIONS OF EXISTING WATER AND WASTEWATER MAINS IN AREA, CALL (214) 670-1770 AT LEAST (3) THREE WORKING DAYS PRIOR TO CONSTRUCTION.

SPOT ELEVATIONS SHALL TAKE PRECEDENCE OVER SLOPE LABELS AT ALL TIMES.

1 NOCRAT POLITICA MOLUCIA

IMAGES XPEFS LAST SAVED PLOTTEDBY DWOPATH

CONTRACTOR TO FOLLOW FILL PLACEMENT CRITERIA PER GEOTECHNICAL REPORT (REED NO. 24779)





PROPERTY LINE	
PROPOSED CONTOUR	
EXISTING CONTOUR	560
TOP OF PAVEMENT ELEVATION	<b>e</b> - 560
PROPOSED RIDGE LINE	RRR
TOP OF CURB ELEVATION	- 560, TC
NO CURB	- 560, 0° CF
PAVEMENT ELEVATION AT THROAT OF INLET	- 560, FL INLET
TOP OF INLET AT GRATE ELEVATION	- 560, TG INLET
MATCH TO EXISTING ELEVATION	ъ— 560, ME
ELEVATION AT BOTTOM OF WALL	●- 560, BW
ELEVATION AT TOP OF WALL	■— 560, TW
ELEVATION AT RIM	€- 560, RIM





Figure 56; Page F.57; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.



	DRAINAGE AREA TABLE							
DRAINAGE AREA NO.	AREA (ac)	RUNOFF COEFFICIENT "C"	RAINFALL INTENSITY "I"100 (in/hr)	TIME OF CONCENTRATION (minutes)	TOTAL FLOW Q100 (cfs)			
A-1	0.73	0.90	9.61	10.00	6.3			
A-2	0.80	0.90	9.61	10.00	6.9			
A-3	0.80	0.90	9.61	10.00	6.9			
A-4	1.22	0.90	9.61	10.00	10.6			
A-5	0.82	0.90	9.61	10.00	7.1			
A-6	1.94	0.90	9.61	10.00	16.7			
A-7	0.82	0.90	9.61	10.00	7.1			
A-8	0.89	0.90	9.61	10.00	7.7			
A-9	0.74	0.90	9.61	10.00	6.4			
A-10	0.50	0.90	9.61	10.00	4.3			
B-1	0.69	0.90	9.61	10.00	6.0			
B-2	0.31	0.90	9.61	10.00	2.6			
C-1	1.48	0.90	9.61	10.00	12.8			
C-2	0.57	0.90	9.61	10.00	4.9			
C-3	1.04	0.90	9.61	10.00	9.0			
C-4	1.05	0.90	9.61	10.00	9.1			
C-5	0.80	0.90	9.61	10.00	6.9			
C-6	0.79	0.90	9.61	10.00	6.8			
C-7	0.54	0.90	9.61	10.00	4.7			
D-1	0.93	0.90	9.61	10.00	8.1			
D-2	0.67	0.90	9.61	10.00	5.8			
D-3	0.89	0.90	9.61	10.00	7.7			
D-4	0.82	0.90	9.61	10.00	7.1			
D-5	0.66	0.90	9.61	10.00	5.7			
D-6	0.82	0.90	9.61	10.00	7.1			
D-7	0.66	0.90	9.61	10.00	5.7			
D-8	0.62	0.90	9.61	10.00	5.3			
D-9	0.89	0.90	9.61	10.00	7.7			
D-10	0.62	0.90	9.61	10.00	5.3			
D-11	0.88	0.90	9.61	10.00	7.6			
D-12	0.82	0.90	9.61	10.00	7.1			
D-13	0.82	0.90	9.61	10.00	7.1			
D-14	0.79	0.90	9.61	10.00	6.8			
E-1	1.26	0.90	9.61	10.00	10.9			
F-1	0.45	0.90	9.61	10.00	3.9			
F-2	0.50	0.90	9.61	10.00	4.3			

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Know what's below. Call before you dig. CENSE 08/26/2024 NOT FOR CON

Figure 57; Page F.58; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION

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# NOTES ALL CURB INLETS, TYPE "Y" INLETS, AND GRATE INLETS TO BE CONSTRUCTED UTILIZING CITY OF DALLAS STANDARD 251-D DETAILS. 20-FOOT CURB INLETS TO BE CONSTRUCTED WITH TWO (2) - TEN FOOT STANDARD INLETS. BEE CITY OF DALLAS DRAINAGE DETAILS, FILE 251-D, NAGES 2001 THROUGH 2004.

- DWALLS TO BE CONSTRUCTED UTILIZING TXDOT STANDARD DETAILS (BRIDGE DIVISION). HEADWALL LIMITS AND NGS ARE DETERMINED BY THE GRADING AND DRAINAGE FLANG AND ARE INTENDED TO BE CONSTRUCTED IN NNDE WITH THE STANDARD DETAIL REFERENCED FOR THE HEADWALL THE STANDARD DETAIL ALONE IS NOT IT TO DETERMINE THE DIMENSIONS OF OR CONSTRUCT THE HEADWALL REFERENCE GRADING DETAILS ON SHEET ONS AND DETAILS AT EACH HEADWALL LOCATIO
- NAGE FACILITIES IN PUBLIC DRAINAGE EASEMENTS SHALL BE CONSTRUCTED IN NDARD CONSTRUCTION DETAILS, FILE 251D-1, LATEST EDITION.
- PROPOSED TYPE B MANHOLES AND PRECAST JUNCTION BOXES SHALL HAVE MANHOLE STEPS PER CITY OF DALLAS STANDARD DETAIL 251D-2008. OFFSET MANHOLE FRAME AND COVER TO ALLOW FOR ACCESS TO STEPS.
- ATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIE FOR NORTH CENTRAL TEXAS, LATEST EDITION, AND THE CITY OF DALLAS DEPARTMENT OF PUBLIC WORKS
- UCTION FOR NORTH CENTRAL TEXAS, AND ANY MATTER WHIL WED BY THE DIRECTOR OF PUBLIC WORKS AND TRANSPORT LVING THAT DECISION COMMENCES. ASSUMPTIONS ABOUT WHAT THESE DECISIONS MIGHT BE WHIC E BIDDING PHASE WILL HAVE NO BEARING ON THE DECISION.
- TREETS, ALLEYS, SIDEWALKS, DRIVEWAYS, AND STORM DRAINAGE FACILITIES IN THE PUBLIC RIG CONSTRUCTED IN CONFORMANCE WITH THE CITY OF DALLAS, STANDARD CONSTRUCTION DETAILS, 2510-
- FOR ALL PUBLIC STORM DRAIN LINES IS 1" CRUSHED LIMESTONE, FROM 6" BELOW THE PIPE TO HALF
- IOLE STRUCTURES IN PAVEMENT SHALL BE BLOCKED OUT IN 1" REDWOOD (DIAMOND SH
- M DRAIN PIPES SHALL BE MINIMUM CLASS III RCP. ALL STORM DRAIN LINES MUST BE VIDEOED BY THE CONTRACTOR AFTER THE PAVING WORK ABOVE THE PIPE IS COMPLETE.
- SPOT ELEVATIONS SHALL TAKE PRECEDENCE OVER SLOPE LABELS AT ALL TIMES.
- CTOR TO FOLLOW FILL PLACEMENT CRITERIA PER GEOTECHNICAL REPORT (REED PR
- FRIC CONTROL PLAN (TCP) MUST BE SUBMITTED TO THE DEPARTMENT OF PUBLIC WORKS FOR REVIEW AND Ley TRAFRIC SAFETY COORDINATORS PROBE TO START OF CONSTRUCTION, NO TRAFRIC LINE OR SIDEWALL ADU LE STREET OR ALLEY IS TO BE COORDINATION FIRST OSTANNOST THE APPROPRIME FERMINS). CLOSURE OF ANY IT DE BE RESTRICTED TO THE HOURS OF \$30 A.M. TO 330 P.M. WORKDAYS (HOURS MAY DIFFER IN SCHOOL 2008) TO MUST CALL (14) SAF4230 TO REQUEST APPROVAL OF TO F MOTO OSTANA RAIN-OF-MAY FERMIT. ANY PUBLIC LANE MUST BE BE RES
- EMBEDMENT MATERIAL FOR ALL PUBLIC STORM DRAIN LINES IS 1° CRUSHED LIMESTONE FROM 5° BELOW PIPE TO HALF WAY U THE PIPE (OR TO THE SPRING LINE).
- 15. HAND FINISH CLASS TEST STRENGTH IS 4,500 PSI COMPRESSIVE STRENGTH AT 28 DAYS AFTER PLACEMENT FOR ALL CAST-IN-PLACE STORM DRAIN PIPES AND STRUCTURES.

 $\sim$ 8  $\sim$ IEL P. GA WARNING: CONTRACTOR TO Know what's below. VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. Call before you dig. CENS ONAL ~~~~ Figure 58; Page F.59; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

	REVISIONS						
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			Kimle	₽y≫ŀ	lorn		
	© 2024 KIMLEY-HORN AND ASSOCIATES, INC. TX F-528 PH: 972-770-1300 FAX: 97. 2600 N CENTRAL EXPY, SUITE 400, RICHARDSON, TEXAS 75080 WWW.KIMLEY-HORN						
	PLAT NO. BLDG PERMIT NO.				DEV ENGINEERING TRACKIN		
	S234-174	4 YY	YYMMDDXXXX	XX-XXX XX			
	OVERALL STORM SEWER PLAN 635 EXCHANGE						
D.							
Examp.	11645 NEWBERRY ST DEVELOPMENT SERVICES CITY OF DALLAS, DALLAS COUNTY, TEXAS						
TACHER							
15							
IN SHORE	REVIEWED BY:	DRAWN BY:	DATE	FILE	NUMBER	SHEET	
08/26/2024	AET	SCP	08/26/2024	XXXX	XXXX	C09 01	

BENCHMARK LIST TBM #1: "X" CUT FOUND ON AN INLET ON THE EAST SID TOPOGRAPHIC SURVEY BY RLG DATED 13/20/2024

SURVEY BY RLG DATED 12/2

ONTRACT NO.

CONTRACTOR

TBM #3: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF NEWBERRY STREET PER TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021.

CONTRACT INFORMATION

ELEV: 438.0

V OTREET S

ELEV: 440.15

ELEV: 441.5

DATE

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POLITISA IMAGES XREFS LAST SAVED PLOTTED BY DWGPATH



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© 2024 KIML 2600 N	EY-HORN AND CENTRAL EXI	ASSOCIATES, INC Y, SUITE 400, RIC	X TX F-928	PH: 972-770-1300 75080 WWW.Kik	FAX: 972-239-38		
PLAT NO	). BLC	G PERMIT NO.	DEV EI	NGINEERING TI	RACKING NOS.		
S234-174	4 YY	YYMMDDXXXX	XX-	XXX	XX-XXX		
	STORM SEWER PLAN (1 OF 4)						
635 EXCHANGE							
	11645 NEWBERRY ST						
		DEVELO	PMENT SEF	RVICES			
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Figure 60; Page F.61; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

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# LOT 1, BLOCK BR558 UMBIA CENTER WEST V 85208, PG. 2310 D.R.D.C.T

			DENCHMARK	LIGT					
	TBM #1: "X"	CUT FOUND ON A	N INLET ON THE E	AST SIDE OF NEW	BERRY STREET PER				
	TOPOGRAP	TOPOGRAFRIC SORVET BY RUS DATED 1220/2021.							
	TBM #2: "X"	TBM #2: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF NEWBERRY STREET PI TOPOGRAPHIC SURVEY BY BLG DATED 12/20/2021							
	TOPOGRAP	HIC SURVEY BY RI	LG DATED 12/20/20.	21.	ELEV: 440.15"				
	TBM #3: "X"	TBM #3: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF NEWBERRY STREET PER TOPOGRAPHIC SURVEY BY BLG DATED 12/20/2021							
	TOPOGRAP	TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021. ELEV: 441.5							
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	CONTRAC	T NO.		DAT	E				
	CONTRA	CTOR							
		RE	VISIONS	6					
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© 2024 KIML 2600 N	EY-HORN AND CENTRAL EX	ASSOCIATES, INC PY, SUITE 400, RIC	TX F-928 HARDSON, TEXAS	PH: 972-770-1300	FAX: 972-239-3820 ILEY-HORN.COM				
PLAT NO	D. BLC	og permit no.	DEV EN	IGINEERING TI	RACKING NOS.				
S234-17	4 YY	YYMMDDXXXX	XX-	XX-XXX X					
STORM SEWER PLAN (2 OF 4)									
635 EXCHANGE									
11645 NEWBERRY ST									
		DEVELOF	PMENT SEF	RVICES					
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08/26/2024

Figure 61; Page F.62; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.



Figure 62; Page F.63; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION



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IMM.GES XREFS LAST SAVED PLOTTED BY DWVGPATH

Figure 63; Page F.64; October 1, 2024 THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION




Figure 64; Page F.65; October 1, 2024 THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION



IMAGES XREFS LAST SAVED PLOTTEDBY DWOPATH











Figure 65; Page F.66; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION









Figure 66; Page F.67; October 1, 2024 THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION



Figure 67; Page F.68; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION



IMAGES XREFS LAST SAVED PLOTTEDBY DWOPATH







Figure 68; Page F.69; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.









Figure 69; Page F.70; October 1, 2024 \*THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.





Figure 70; Page F.71; October 1, 2024 THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION



Figure 71; Page F.72; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION



Figure 72; Page F.73; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION



Figure 73; Page F.74; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION





# stitled: statute: statute: strooptet accidente of AM POLITING, SARAHIR 202 CORE OF AM POLITING, IMAGES XPEFS LAST SAVED PLOTTEDBY DWGPATH



Figure 74; Page F.75; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION



Figure 75; Pa

- NOT FOR CONSTRUCTION -	AET	SCP
ge F.76; October 1, 2024	'THIS PLAN	IS FOR

TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

- BACXFILL (CLEAN SAND/GRAVEL)	© 2024 KIMLE 2600 N	EY-HORN AND	ASSOCIATES, INC PY, SUITE 400, RIC	. TX F-928 HARDSON, TEXAS	PH: 972-770-130 75080 WWW.K	0 FAX: 972-239-382 IMLEY-HORN.COM			
UTILITY PIPE	PLAT NO	PLAT NO. BLDG PERMIT NO. DEV ENGINEERING TRAC							
MUNICIPAL SOLID WASTE (MSW), CO-MINGLED SOIL/MSW	S234-174	4 YY	YYMMDDXXXX	XX-	XXX	XX-XXX			
- CLEAN COMPACTED CLAY		PR	IVATE WA	ATER PLA	N (1 OF 4	4)			
			635	EXCHANC	<b>BE</b>				
A CONTRACTOR	11645 NEWBERRY ST								
DANIFI P. GAITACHER			DEVELOF	PMENT SEF	RVICES				
OW. 120260		CITY O	F DALLAS,	DALLAS C	ounty, t	EXAS			
ou dig.	REVIEWED BY:	DRAWN BY:	DATE	FILE	NUMBER	SHEET			
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CONTRACT NO.

CONTRACTOR

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REV NO.	DAT	E		DESCR	IPTION		BY
© 2024 KIML 2600 N	EY-HORN AND CENTRAL EX	ASSOCIATES PY, SUITE 400,		TX F-928 RDSON, TEXAS	PH: 972-770-130 3 75080 WWW.K	O FAJ	K: 972-239-3820 ORN.COM
PLAT NO	). BLC	DG PERMIT	NO.	TRACK	NG NOS.		
S234-17	4 YY	YYMMDDXX	XX	X-XXX			
	PR		NAT	ER PLA	N (1 OF	4)	
		63	5 E)	(CHAN(	ЭE		
		1164	5 NE	WBERF	RY ST		
		DEVEL	OPN	ENT SEF	RVICES		
	CITY O	F DALLA	S, D	ALLAS C	OUNTY, T	EXAS	\$
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BENCHMARK LIST TBM #1: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF TOPOGRAPHIC SURVEY BY RLG DATED 12/00/0554

TBM #2: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF I TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021.

TBM #3: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF NEWBERRY STREET PER TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021.

CONTRACT INFORMATION

ELEV: 438.0

OV OTDEET DO

ELEV: 440.15

ELEV: 441.5

DATE

TAPE SEAM VIA (1) EXTRUSION WEIDING, OR (2) TWO-SIDED BUTYL TAPE APPLIED ON CLEAN/DRY SURFACE BACKFILL (CLEAN SAND/GRAVEL)

BACKFILL (CLEAN

GRAPHIC SCALE IN FEET 20 40 PACE RESERVED - BLDO IS SPACE RESERVED - ENG NEER F



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		[			<b></b>	RAPHIC SCALE	IN FEET			
				NOF						
IEET (	210.07									
		THIS SPACE RESERVE	D-BLDG INSPECT	ION						
FERENCE C10 ONTINUATION ATER LINE (TY	1.03 FOR DF PUBLIC P.)									
					DEV	ELOPER NOTES	3			
				1. ALL 2. ALL DET	WATER FITTINGS WATER LINES MU	TO BE POLY WRA	PPED. AND EMBEDDED PER ROL AND			
T VOL		THIS SPACE RESER	VED - ENG NEER N			ENV-10.				
LOCK BR5 NTER WE PG. 2310				1. REFER	R TO SHEET CO3.0	NOTES 1 FOR GENERAL N	OTES.			
LOT 1, BI UMBIA CE 88208, D.R				2. UTILIT ENVEL FOR R CONT	Y CONNECTIONS OPE. BUILDING O EFERENCE. SEE / NUATION.	TERMINATE 5' FRO CONNECTIONS AND ARCHITECT AND M	M BUILDING METERS SHOWN EP PLANS FOR			
S.				3. FIRE 8 LICEN	PRINKLER LINE 3 SED FIRE SPRINK	HALL BE SIZED AN LER CONTRACTOR	D INSTALLED BY A			
				4. REFER FOR A 5. ALL D	R TO TCEQ DESIGN LL UTILITY CROSS IMENSIONS TO FA	N GUIDELINES (CH BINGS. ICE OF CURB UNLE	APTER 217 AND 290) 388 NOTED			
- FYINTING				OTHE	RWISE.					
LINE, REF	16-14W		PROPERT	TY LINE	LEGEN	ID				
			PROPOSI	ED STORM LINE		- r ss r	ssr ss			
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			EXISTING	WASTEWATER LI	NE					
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			EXISTING	WASTEWATER M	NHOLE	C	)			
			TBM \$1: "X"	CUT FOUND ON A	BENCHMARK	LIST EAST SIDE OF NEV	VBERRY STREET PER			
			TOPOGRAP	CUT FOUND ON A	G DATED 12/20/20	21. EAST SIDE OF NEV	ELEV: 438.06' VBERRY STREET PER			
A (1) EXTRUSI	ON WEDING; OR (2) TWO-		TOPOGRAP	CUT FOUND ON A	G DATED 12/20/20	EAST SIDE OF NEV	ELEV: 440.15' VBERRY STREET PER			
TAPE APPLIED	ON CLEAN/DRY SURFACE AVEL)		ТОРОВКАР				ELEV: 441.51			
			CONTRAC	T NO	TRACTINE		E			
			CONTRAC							
EAM VIA	NG-01	REV NO.	DAT	E KE	DESCR	DIPTION	BY			
O-SIDED BUTYI	TAPE I/DRY SURFACE.									
HOL O			ŀ	Cimle	y»ŀ	lorn	I			
- BACKFILL (C	IEAN SAND/GRAVEL)	© 2024 KIMLI 2600 N	EY-HORN AND CENTRAL EXP	ASSOCIATES, INC PY, SUITE 400, RIC	TX F-928 HARDSON, TEXA	PH: 972-770-1300 8 75080 WWW.Kill	FAX: 972-239-3820			
_ MUNCIPAL CO-MINGLE	SOLID WASTE (MSW), D SOIL/MSW	PLAT NO S234-174	4 YY	yymmddxxxx	DEV EI XX-	XXX	XX-XXX			
- CLEAN COM	URACIED CLAT		PR	IVATE WA	ATER PLA	N (2 OF 4	)			
	TE OF TEND			635 11645 N	EXCHAN(	JE RY ST				
	DANIEL P. GALLACHER		DEVELOPMENT SERVICES							
OW.	120260 S	REVIEWED		F DALLAS,	DALLAS C	COUNTY, TEXAS				
sa aiy.	08/26/2024	BY:	BY:	DATE	FILE		C10.07			
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Figure 76; Page F.77; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.



Figure 77; Page F.78; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION



Figure 78; Page F.79; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

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Figure 79 Page

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Kimley <b>»Horn</b>												
© 2024 KIMLE 2600 N	© 2024 KIMLEY-HORN AND ABSOCIATES, INC. TX F-928 PH: 972-770-1300 FAX: 972-239-382 2600 N CENTRAL EXPY, SUITE 400, RICHARDSON, TEXAS 75080 WWW.KIMLEY-HORN.COM											
PLAT NO	. BLC	OG PERMIT NO.	DEV E	NGINEERING	TRACKING NOS.							
S234-174	I YY	YYMMDDXXXX	XX	XXX	XX-XXX							
	635 EXCHANGE											
		11645 N	NEWBERF	RY ST								
		DEVELOF	PMENT SER	RVICES								
	CITY O	F DALLAS,	DALLAS C	OUNTY, T	EXAS							
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SEAL SEAM VIA (1) EXTRUSION WELDING, OR (2) TWO-SIDED BUTYL TAPE APPLED ON CLEAN/DRY SURFACE.

CLEAN COMPACTED CLAY

TAPE SEAM VIA (1) EXTRUSION WELDING, OR (2) TWO-SIDED BUTYL TAPE APPLIED ON CLEAN/DRY SURFACE BACKRILL (CLEAN SAND/GRAVEL)

TBM #3: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF NEWBERRY STREET PER TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021. ELEV: 441.51 CONTRACT INFORMATION CONTRACT NO. DATE CONTRACTOR REVISIONS REV NO. DESCRIPTION DATE BY

BENCHMARK LIST TBM #1: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021.

TBM #2: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF I TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021.

ELEV: 438.0 RY STREET PE

ELEV: 440.15





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Figure 80; Pa

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	EDANIEL P. GALLAGHER	
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u dig.	Sonal China	
	08/26/2024	

BACKFILL (CLEAN SAND/GRAVEL)

CLEAN COMPACTED CLAY

UTILITY PIPE

Kimley <b>»Horn</b>										
© 2024 KIMLEY-HORN AND ASSOCIATES, INC. TX F-928 PH: 972-770-1300 FAX: 972-239-3820 2600 N CENTRAL EXPY, SUITE 400, RICHARDSON, TEXAS 75080 WWW.KIMLEY-HORN.COM										
PLAT NO. BLDG PERMIT NO. DEV ENGINEERING TRACKING NOS										
S234-174	4 YY	YYMMDDXXXX	XX-	XXX	XX-XXX					
	PRIVATE WATER PROFILE (2 OF 2)									
		635	EXCHAN	GE						
		11645 N	NEWBERF	RY ST						
		DEVELOF	PMENT SEP	RVICES						
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	<b>Kimley»Horn</b>												
© 2024 KIML 2600 N	EY-HORN AND ASSOC CENTRAL EXPY, SUIT	ATES, INC. E 400, RICHAR	TX F-928 DSON, TEXAS	PH: 972-770-1 75080 WWW	300 FAX	972-239-38 RN.COM							
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TAPE SEAM VIA (1) EXTRUSION WELDING, OR (2) TWO-SIDED BUTYL TAPE APPLIED ON CLEAN/DRY SURFACE

BENCHMARK LIST TBM #1: "X" CUT FOUND ON AN INLET ON THE EAST SIDE TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2031 TBM #2: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021. TBM #3: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF NEWBERRY STREET PER TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021.

ELEV: 438.0 RY STREET PE

ELEV: 440.15

ELEV: 441.51

THIS SPACE RESERVED - BLDG INSP THIS SPACE RESERVED - ENG NEER NG







635 EXCHANGE 11645 NEWBERRY ST DEVELOPMENT SERVICES CITY OF DALLAS, DALLAS COUNTY, TEXAS DATE FILE NUMBER SHEET AET SCP 08/26/2024 XXXX XXXX C10.12

Figure 81; Page F.82; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION



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Figure 82; Page F.83; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION



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Figure 83; Page F.84; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION









Figure 85; Page F.86; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.



Figure 86; Page F.87; October 1, 2024 "THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

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IMAGES XPEFS LAST SAVED PLOTTEDBY DWGPATH









08/26/2024

Figure 87; Page F.88; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.



POUTBO FOUTBO

IMAGES XPEFS LAST SAVED PLOTTEDBY DWGPATH

# NOTES

- ALL MATERIAL AND WORK SHALL CONFORM TO THE LATEST EDITION OF CITY OF DALLAS STANDARDS STID AS AMENDED, CITY OF DALLAS DEPARTMENT OF TRANSPORTATION (DOOT) TRAFFIC SIGNS STANDARDS AND TEXAS MANUL ON UNFORM TRAFFIC CONTROL DEVICES (TMUTCO) STANDARD PLANS, UNLESS OTHERWISE APPROVED BY THE CITY.
- ALL GROUND MOUNTED SIGNS MUST BE FABRICATED AND INSTALLED FOLLOWING CITY OF DALLAS TRAFFIC SIGN STANDARDS DATED JUNE 2021, SIGNS SHALL USE ANDI STANDARD BG1525 ALUMINUM BLANKS, ALL TRAFFIC SIGN MOUNTING DETAILS MUST COMPLY WITH SMEET 1 OF THE CITY OF DALLAS TRAFFIC SIGN STANDARDS.
- ALL STOP SIGNS MUST BE 36" STANDARD WITH FULL LENGTH RED RETROREFLECTIVE STRIP APPLIED TO THE POST
- ALL PAVEMENT MARKINGS MUST BE THERMOPLASTIC AND MUST FOLLOW CITY OF DALLAS 251D STANDARD
   STOP BARS MUST BE 18" WHITE THERMOPLASTIC.
- CROSSWALKS MUST BE LADDER STYLE 10' WIDE WHITE THERMPOPLASTIC. PAVERS/STAMPED COND BE OUTLINED WITH 5' SOLD WHITE THERMOPLASTIC.
- STREET NAME BLADE FABRICATION AND INSTALLATION MUST BE PER SHEET 3A OF TRAFFIC SIGN STANDARDS
- CONTRACTOR SHALL REMOVE ALL CONFLICTING STRIPES, PAVEMENT MARKINGS, AND RAISED PAVEMENT ACCORDANCE WITH THE PLANS AND AS DIRECTED BY THE ENGINEER.
- CONTRACTOR SHALL REPLACE/RESTORE ALL SIGNING AND STRIPING WITHIN PROJECT LIMITS DAMAGE PROJECT TO CURRENT CITY STANDARDS, (CONTACT CITY INSPECTOR BEFORE INSTALLING SIGNS OR DAR RYDBERG, DARKYDBERGØDALLSCOTTVALLCOM).
- THE OWNER IS RESPONSIBLE TO MITIGATE ANY DAMAGE OR CHANGES TO EXISTING SIGNS OR MARKING DEVELOPMENT UPON REVIEW AND INSPECTION BY CITY'S INSPECTORS.
- 1. CONTRACTOR IS RESPONSIBLE TO RESTORE IMPACTED SCHOOL FLASHER EQUIPMENT DURING CONSTS CITY STANDARDS. CONTRACTOR BHALL CONTACT ALFRED LEMON (ULFRED.LEMON) (BOALLASCITYHALL) WITH THE CITY OF DALLAS TRAFFIC SIGNAL OPERATION DIVISION PRIOR TO THE RELOCATION OF IN EQUIPMENT. ALL EXISTING EQUIPMENT MUST BE RETURNED TO THE CITY OF DALLAS DEPARTMENT CONTACT: DEPARTMENT OF TRANSPORTATION, 3204 CANTON STREET, DALLAS, TX 75226, O: 214-670-ALFRED.LEMON(BOALLASCITHALL.COM.
- 12. A TRAFFIC CONTROL PLAN (TCP) MUIT BE BUBINITED TO DEPARTMENT OF PUBLIC WORKS FOR REVIEW TO CONSTRUCTION. ON TRAFFIC LANE OR BUBWAIK AURON ANY PUBLIC STREET OR ALLEY IS TO APPROPRIATE PERMIT(B). CLOSURE OF ANY TRAFFIC LANE MUIST BE RESTRICTED TO THE HOURS OF WORKDAYS (HOURS MAY DIFFER IN SCHOOL ZONES). CONTRACTOR MUIST CALL TRAFFIC SAR DEPARTMENT OF PUBLIC WORKS AT (214) \$454250 FOR REVIEW AND TO REQUEST A RIGHT-OF-WAY PE OF CONSTRUCTION.
- THE RECORD ENGINEER CERTIFIES THAT NO BIGNS OR PAVEMENT MARKING IN PUBLIC RIGHTS-OF-WAY THIS DEVELOPMENT. THE OWNER IS RESPONSIBLE TO MITIGATE MY DAMAGE OR CHANGES TO EXISTIN SURROUNDING THIS DEVELOPMENT UPON REVIEW AND INSPECTION BY CITYS OR THIRDEVENTY TRANSPORTATION AT (214)-670-6904 BEFORE REMOVING/REINSTALLING ANY NEW TRAFFIC BIGNS.



D OR ALTERED BY THE				REV	ISIONS	6					
PAVEMENT MARKINGS,	REV NO.	DAT	E		DESCRI	PTION		BY			
SS SURROUNDING THIS											
RUCTION TO CURRENT COM OR 214-670-4812)				_							
EW SCHOOL FLASHER OF TRANSPORTATION. +4812, C: 469-559-3093,		Kimley <b>Horn</b>									
AND APPROAL PRIOR	© 2024 KIML 2600 N	EY-HORN AND	D ASSOCIATE PY, SUITE 40	ES, INC. ID, RICHAR	TX F-928 RDSON, TEXAS	PH: 972-770-1300 75080 WWW.KI	I FAX: MLEY-HO	: 972-239-3820 RN.COM			
9:30 A.M. TO 3:30 P.M.	PLAT NO	). BLC	BLDG PERMIT NO.			DEV ENGINEERING TRACKING NO					
RMIT PRIOR TO START	S234-174	4 YY	YYYYMMDDXXXX			XXX	XX	-XXX			
S NEEDED AS PART OF S SIGNS OR MARKINGS ISPECTORS, CONTACT		5	SIGNA	GE &	STRIPIN	ig plan					
ann	635 EXCHANGE										
A STATE OF TELEVILLE		11645 NEWBERRY ST									
DANIEL P. GALLAGHER		DEVELOPMENT SERVICES									
W. 120260		CITY O	F DALL	AS, D	ALLAS CO	OUNTY, TI	EXAS				
ou dig.	REVIEWED BY:	DRAWN BY:	DATE	E	FILE	NUMBER	\$	SHEET			
08/26/2024 - NOT FOR CONSTRUCTION -	AET	SCP	08/26/20	024	XXXX	XXXX	C	12.01			
F.89; October 1, 2024	<b>'THIS PLAI</b>	IS FOR TO	CEQ PERM	AITTING I	PURPOSES	ONLY. NOT FO	RCON	STRUCTION			

CONTRACT NO.

CONTRACTOR

BENCHMARK LIST TBM #1: "X" CUT FOUND ON AN INLET ON THE EAST SIDE TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2014

TBM #2: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021.

TBM #3: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF NEWBERRY STREET PER TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021.

CONTRACT INFORMATION

ELEV: 438.0

OV OTDEET DO

ELEV: 440.15

ELEV: 441.51

DATE

THIS SPACE RESERVED - BLOG INFECTION

IS SPACE RESERVED - ENG NEER



IMAGES XPEFS LAST SAVED PLOTTED BY



Figure 89; Page F.90; October 1, 2024 \*THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.





Figure 90; Page F.91; October 1, 2024 THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.





Figure 91; Page F.92; October 1, 2024 \*THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

LOT 1, BLOCK BN558 COLUMBIA CENTER WEST V 82206, PG, 2310 D.R.D.C.T



Figure 92; Page F.93; October 1, 2024 \*THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.





Figure 93; Page F.94; October 1, 2024 \*THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

	Nowharry Tree Farm - City of Dallas					Newbarry Tree Farm - City of Dallas														
Tag Number	DBH	Common Name	Scientific Name	Condition	Trunk Action	Location	Class	Replacement Ratio	Mitigation Required	Tag Number	DBH	Common Name	Scientific Name	Condition	Trunk	Action	Location	Class	Replacement Ratio	Mitigation Required
1000	7	Pecan Plack Wellow	Carya Ibnomensis	Healthy	Single Remove	Floodplain Floodplain	Class )	11	7	9479	6	American Elm	Ulmus отенсато Иlmus отенсато	Healthy	Single	Remain	DIA	Unprotected	N/A	N/A
1001	10	American 6Im	Ulmus americana	Healthy	Single Remove	Floed plain	Class 2	11	10	9481	14	American Elm	Ulmus americana Ulmus americana	Healthy	Single	Remain	DIA	Class 2	N/A	N/A
1003	16	Black Willow	Salix nigra	Healthy	Single Remove	floodplain	Class 2	11	16	9482	14	Eastern Cottonwood	Populus dekoides	Heilthy	Single	Remain	DIA	Class 3	N/A	N/A
1005	9 6	Chinaberry	Suiz rugra Meha azedorach	Healthy	Single Remove	Elood pliain	Unprotected	04:) N/A	3.6 N/A	9484	ь q	Green Ash	Coryanilmonensis Etaxinus pennivivanica	Healthy Healthy	Single Single	Remain	DIA	Class 2	N/A N/A	N/A N/A
1006	24	American Elm	Ulmus americana	Declining	Multi Remove	Floodplain	Unprotected	N/A	N/A	9485	10	Hackberry	Celtis laevigata	Heilthy	Single	Bemain	DIA	Class 3	N/A	N/A
1007	8	American Elm	Ulmus americana	Healthy	Single Remove	f losd plain Flored at sea	Class 3	11	8	9486	10	American Elm	Ulmus americana	Healthy	Single	Remain	DIA	Class 2	N/A	N/A
1008	14	Green Ash	Fraxinus penniylvanica	Healthy	Single Remove	Floed plain	Unprotected	N A	N/A	9487	6	Green Ash	Наклия репляриалса	Healthy	Single	Remain	DIA	Unprotected	N/A	N/A
1010	11	Pecan	Carya Ibinoinensis	Healthy	Single Remain	floodplain	Class 3	10	11	9489	15	Eastern Cottonwood	Populus dekoides	Healthy	Single	Remain	DIA	Class 3	N/A	N/A
1012	23	Pecan Eastern Cottonwood	Carya Ilmomensis Ranaka dakardas	Healthy	Single Berriove	Elord plain	Class 3 Class 3	11		9490	16	Eastern Cottonwood	Papulus detoides Populus detoides	Healthy	Single	Remain	DIA	Class 3 Class 3	N/A N/A	N/A N/A
1012	23	Eastern Cottonwood	Populus deitoides	Healthy	Single Remove	Floodplain	Class 1	11	23	9492	6	American Him	Vimuj americano	Healthy	Single	Remain	DIA	Unprotected	N/A	N/A
1014	16	Eastern Cottonwood	Populas deitoides	Healthy	Single Remain	floodplain	Class )	11	16	9493	8	Green Ash	Froxinas perinsplvanica	Healthy	Single	Remain	DIA	Class 2	N/A	N/A
1015	2	Eastern Cottonwood Pecan	Populus deitoides Carva ibinaianasis	Healthy	Single Remain	Floodplain	Class 2	N/A	2 N/A	9494	9	Green Ash American fim	Froxinus pennsylvanica Ulmus americana	Healthy Healthy	Single	Remain .	DIA	Upprotected	N/A N/A	N/A N/A
1017	6	Fackberry	Celtis laevigara	Declining	Single Remain	Oifsite	Linprotected	N/A	N/A	9496	8	American Ilm	Ulmu; americano	Healthy	Single	Remain	DIA	Class 2	N/A	N/A
1018	17	Post Oal	Quercus stellata	Healthy	Single Remain	Olfsite	Significant	N/A	N/A	9497	7	Green Ash	Froxinus penni dvanica	Healthy	Single	Remain	DIA	Unprotected	N/A	N/A
1019	8	Chittemwood Fatkberry	Sideroxylon lanuginosum Ceitis laeviaota	Declining Declining	Single Remain	Flood plain	Unprotected	N/A N/A	N/A N/A	9499	13	Green Ash American Elm	Fraxinus pennsylvanica Ulmus americana	Healthy Healthy	Single	Remain . Remain	DIA	Class 2 Class 2	N/A N/A	N/A
1021	g	Packberry	Celtis laevigara	Healthy	Single Remain	Offsite	Class 3	N/A	N/A	9500	8	Hackberry	Celtri lacuigata	Healthy	Single	Bemain	DIA	Class 3	N/A	N/A
1022	10	American Elm	Olmus americana	Healthy	Single Remain	Olfsite	Class 2	N/A	N/A	9501	11	Eastern Cottonwood	Populus dekoides	Healthy	Single	Remain	DIA	Class 3 Class 3	N/A	N/A
1023	11	Pecan	Carya Winobensis	Healthy	Single Remain	Oifsite	Class 2	N/A	N/A	9502	15	Eastern Cottonwood	Populus deltaides	Healthy	. Single	Remain	DIA	Class 3	N/A	N/A
1025	\$	Paikberry	Celts laevigata	Healthy	Single Remain	Olfsite	Unprotected	N/A	N/A	9504	20	Castern Cottonwood	Populus dekoides	Healthy	Single	Bemain	PIA	Class 3	N/A	N/A
1026	6 20	Fackberry Eastern Cottonwood	Celta laevigata Panuics debarder	Healthy	Single Remain	Olfsite DIA	Unprotected	N/A N/A	N/A N/A	9505	7	Green Ash	Frexings pennsylvanica Frexings pennsylvanica	Healthy Healthy	Single	Remain	DIA	Unprotected	N/A	N/A N/A
1027	6	Pecan	Carya Winowensis	Healthy	Single Remain	DIA	Unprotected	N/A	N/A	9507	6	Green Ash	Fraxinus penasylvanica	Healthy	Single	Remain	bia	Unprotected	N/A	N/A
1029	11	American Elm	Ulmas americano	Healthy	Forked Remain	DIA	Class 2	N/A	N/A	9508	9	American Elm	Ulmus americano	Heilthy	Single	Remain	DIA	Class 2	N/A	N/A
1030	8	Pecan Box Eider	Caryaillinoinensis Acer neaundo	Healthy Healthy	Single Remove	Floodplain floodplain	Class 1 Class 1	11	<u>8</u> 9	9509	10	American Elm Green Ash	Olmus amencana Fraxinus pennsvluanica	Healthy Healthy	<u>Single</u> Single	Remain Remain	DIA	Class 2 Class 2	N/A N/A	N/A N/A
1032	)	Paikberry	Celbi laevigata	Healthy	Forked Remove	Flored plain	Class 3	11	7	9511	14	American Um	Vimul amencano	Healthy	Single	Bemain	DIA	Class 2	N/A	N/A
1033	12	Pecan Pecan	Carya illinainensis	Healthy	Single Remove	Floedplain	Class 3	11	12	9512	22	Eastern Cottonwood	Populus deltoides	Healthy Health	Single	Remain	DIA	Class 3	N/A	N/A
1034	22	Black Willow	Salix nigra	Declining	Single Remove	f losd plain	Unprotected	N/A	10 N/A	9513	9	American Elm	Ulmut appensana	Healthy Healthy	, Single	Remain	DIA	Class 2	N/A	N/A
1036	7	Box Elder	Acernegundo	Healthy	Single Remove	Floed plain	Class 1	11	7	9515	11	American Elm	Ulmus americano	Decining	Single	Remain	DIA	Unprotected	N/A	N/A
1037	15	Red Mulberry	Morus rubra	Declining	Single Remove	Floodplain	Unprotected	N/A	N/A	9516	9	Hackberry Chicago Sim	Celtis la evigata	Healthy	Single	Remain	DIA	Class 3 Class 3	N/A	N/A
1038	13	American Bm	Ulmus amencanu	Healthy	Single Remove	Floedplain	Class 1	11	13	9517	10	Hackberry	Cetto laevigata	Healthy	Single	Bemain	DIA	Class 3	N/A	N/A
1040	11	Box Elder	Ace: negundo	Healthy	Single Remove	Floed plain	Class 3	11	11	9519	10	Osage orange	Maclu a pomifera	Decining	Single	Remain	DIA	Unprotected	N/A	N/A
1041	13	Box E'd'er American Flux	Acernegundo Diaux americano	Healthy	Single Remove	Floedplain	Class 1 Class 1	11	13	9520	11	Green Ash Osage-orange	Froxinas pennsylvanica Mariura pomižera	Healthy Healthy	Single	Remain	DIA	Class 2 Class 3	N/A N/A	N/A N/A
1043	8	Red Mulberry	Worus robra	Healthy	Single Remove	Floed plain	Class 2	11	8	9577	10	Hackberry	Celtri laevigata	Healthy	Single	Remain	Ofsite	Class 3	N/A	N/A
1044	18	Eastern Cottonwood	Populus deitoides	Healthy	Single Remove	Floodplain	Class 1	11	18	9523	14	Hackbeiry	Celta laevigota	Healthy	Single	Remain	Ofsite	Class 3	N/A	N/A
1045	15	American Elm Batkborry	Ulmus americana Celhs laewanta	Healthy	Single Remove Single Remove	f loodplain DIA	Class 3 Linucotected	11 N/A	15 N/4	9524	10	Green Ash Green Ash	Fraxinus pennsylvanica Fraxinus pennsylvanica	Healthy Healthy	Single Mult	Remain .	DIA	Class 2 Class 2	N/A N/A	N/A N/A
9429	10	Patkberry	Celts laevigata	Healthy	Single Remove	DIA	Class 3	0.4-1	4	9576	13	Hackberry	Celtri laevigota	Healthy	Single	Remain	DIA	Class 3	N/A	N/A
9430	2	Chillese Elm	Ulmus parufalia	Healthy	Single Remain	DIA	Unprotected	N/A	N/A	9527	21	Green Ash	Froxinus permi plvanica	Decining	Noto	Remain	DIA	Unprotected	N/A	N/A
9431	9	Chinese Elm Green Ash	Ulmus parvifolia Leoxinus peansylvanco	Healthy	Single Remain	DIA	Class 2 Class 2	N/A N/A	N/A	9528	19	Black Willow	Letta laevigata Salut niara	Healthy Healthy	Single	Remain .	DIA Offsite	Class 3	N/A N/A	N/A
9433	10	Chulese Fim	Ulmus parufalia	Healthy	Single Remain	DIA	Class 2	N/A	N/A	9530	6	American film	Ulmui ameocana	Deciring	Single	Remove	Floadplain	Unprotected	N/A	N/A
9434	9	Patkberry	Celta laevigata	Healthy	Single Remain	DIA	Class 3	N/A	N/A	9531	14	Black Willow	Solix nigra	Healthy	Single	Remain	Fluedplain	Class 1	N/A	N/A
9436	12	American Elm	Ulmus americana Ulmus americana	Declining	Single Remain	DIA	Class 2 Linprotected	N/A N/A	N/A	9533	12	American Elm	Ulmus атеосапа Ulmus атеосапа	Healthy	Single	Remain	Finadpialo	Class 1	N/A	N/A
9437	11	American Elm	Ulmas americana	Declining	Single Remain	DIA	Unprotected	N/A	N/A	9534	20	American tim	Ulmui americano	Healthy	Forked	Reniove	PIA	Class 2	0.7:1	L4
9438	- 8	Packberry Deposicos film	Ceita laevigata	Healthy	Single Remain	DIA	Class 3	N/A	N/A	9535	19	American Elm Blact Willow	Salix niaro	Healthy Hazard	Single	Remove	Floadplain	Class 1 Unprotected	N/A	19 N/A
9440	6	Green Ash	Frexines permiy/vanca	Healthy	Single Remain	DIA	Unprotected	N/A	N/A	9537	14	American film	Ulmus americana	Healthy	Single	Remove	filosoplain	Class 1	1:1	14
9441	13	Green Ash	Егоктиз репозу/уатка	Healthy	Forked Remain	DIA	Class 2	N/A	N/A	9538	11	Green Ash	Froxious penntylvanica	Heilthy	Single	Remove	Floodplain	Unprotected	N A	N/A
9443	12	American Elm American Elm	Ulmus americana Ulmus americana	Healthy Healthy	forked Remain	DIA DIA	Class 2 Class 2	N/A N/A	N/A N/A	9540	31	Black Willow	Salar nigra	Healthy	Mulh	Remove	flosdplain	Class 1	10	31
9:44	12	American Elm	Ulmas americana	Declining	Single Remain	DIA	Unprotected	N/A	N/A	9541	13	American film	Ulmui amencano	Healthy	Single	Remove	Flordplain	Class 1	1:1	13
9445	8	Box Eider	Acer negundo	Declining	Single Remain	DIA	Unprotected	N/A	N/A	9542	8 1F	American Elm American Elm	Ulmus amentaria Ulmus americana	Bealthy	Single	Remove	Fluedplain	Unprotected Class 1	N/A 1.3	N/A 15
9446	12	Green Ash	Limus americana Froxinus permisilvanso	Healthy	Single Remain	DIA	Class 2 Class 2	N/A N/A	N/A N/A	9544	9	Pecan	Caryailkoonensis	Healthy	Single	Remove	finadplain	Class 1	1:5	9
0110	8	Chinese Elm	Ulmos parrifalia	Healthy	Multi Remain	DIA	Cluss 2	N/A	N/4	9545	8	American Elm	Gimuj amencano	Heilthy	Single	Remove	Floroplan	Class 1	1:1	8
9440	13 Ч	Green Ash American Nim	Proxinus pennsylvanica Ultrus americano	Declining Meanby	Single Remain	DIA	Clavs 2	N/A N/A	N/A	9546	51 6	American Elm	Salix nigra Ulmus americana	Healthy	Single Single	Remove	Floadplain	Class 1 Class 1	10	6
9451	10	Green Ash	Froxinus penniylyaniga	Healthy	Single Remain	DIA	Class 2	N/A	N/A	9548	1/	Hlack Willow	Salw nigra	Declining	Single	Remove	Elnadplain	Unprotected	N/A	N/A
9452	16	American Elm	Ulmus americana	Healthy	Single Remain	DIA	Class 2	N/A	N/A	9549	15	Hackberry	Celtis faevopata	Healthy	Single	Reniove	Floodplain	Class 1	11	15
9453	11	Green Ash	Eletis (devigata Elekinyis permi vivansi o	Healthy	Single Remain	DIA	Class 3 Class 7	N/A N/A	N/A N/A	9550	6	Hackberry	Celtà laevigata	Healthy	Farked	Remove.	Flordplain	Class 1	10	6
9455	12	Patkberry	Celts laevigata	Healthy	Multi Remain	DIA	Class 3	N/A	N/A	9557	8	Hackberry	Celta laevaata	Healthy	Single	Remove	Flowdiplain	Class 1	1:1	8
9456	11	American Elm	Ulmus americana	Healthy	Single Remain	DIA	Class 2	N/A	N/A	9553	9 26	Pecan Black Willow	Coryaillinoirensis Solie piece	Healthy	Single	Remove	Floadplain	Class 1	11	9
9458	16	American Elm	Umas americany	Healthy	Forked Remain	DIA	Class 2	N/A N/A	N/A	9555	6	Pecan	Carya illinainensis	Healthy	Single	Remove	Floadplain	Class 1	10	6
9459	13	American Elm	Ulmus americana	Healthy	Single Remain	DIA	Class 2	N/A	N/A	9556	6	Pecan	(a/yaillinoinensis	Healthy	Single	Remove	Flowdplain	Class 1	1:1	6
9460	14	Fackberry	Celts laevigara	Healthy	Multi Remain	DIA	Class 3	N/A	N/A	9557	6	Pecan	Carya illinoinensis	Healthy	Single	Remove	Floodplain	Class 1	11	6
9402	6	Chinese Elm	Ulmos parvifalla	Declining	Forked Remain	DIA	Unprotected	N/A	N/A	9559	6	Hackberry	Celta laevigata	Healthy	Single	Remain	Difsite	Unprotected	N/A	N/A
9463	15	Green Ash	Frexinus pennsylvanica	Healthy	Forked Remain	DIA	Class 2	N/A	N/A	9560	8	Persimmon	Παξργισς νημηταία	Healthy	Single	Remove	Floatplain	Class 1	N/A	N/A
9464	14	Green Ash Amoritans Ren	Linxinus penniylvanico Ultruo americano	Healthy	Single Remain	Elosdiptain Elosdiptain	Class 3 Class 3	N/A N/A	N/A	9561	6 8	Becan Hackberry	Corya illinois ensis Celtis la evanata	Healthy Healthy	Single Single	Remove	Floodplain	Class 1 (Lass 1	11	в я
9466	8	Black Willow	Safix nigra	Hatard	Single Remove	DIA	Unprotected	N/A	N/A	9503	31	Black Willow	Salix nigra	Declining	Nulti	Remove	Flosdplain	Unprotected	N/A	N/A
9467	9	Black Willow	δοίν <b>χ π</b> υρτ <del>α</del>	Declining	Single Remove	DIA	Unprotected	N/A	N/A	9564	8	Pecan	Carya illinoinensis	Healthy	Single	Remove	Floedplain	Class 1	11	8
9408	8	American Bim Chinese Elm	Ulmus amencana Illmus nan Ialur	Healthy	Single Bernave	DIA Elevatetaia	Class 2 Class 3	0.7:1	5.0	9565	15 10	Eastern Cottonwood	Populus delaides Quercus viraenano	Hazard	Single Single	Remove	Floadplain	Unprotected Class 1	N/A 10	N/A 10
9470	17	Green Ash	Frakinus penniyivanica	Declining	Single Remain	Floodplain	Unprotected	N/A	N/A	9567	10	American Elm	Ulmut omencana	Healthy	Single	Remove	Fluedplain	Cluss 1	1:1	10
9471	g	American Elm	Ulmus americana	Healthy	Single Berriove	Floodplain	Clays 5	11	ų	9568	16	Pecan	Corya illinoinensis	Healthy	Single	Remove	Floedplain	Class 1	1:	16
9472	8	American Elm American Elm	Ulmus americana Ulmus americana	Healthy	Single Remove Single Remain	Eloed plain Offsite	Class 2 Unprotected	N/A	8	9570	10	Hackberry Hackberry	Cellà laevigota Cellà laeviaata	Declining .	Single	Remain .	Díste	Unprotected	N/A N/A	N/A
9474	12	Green Ash	Fraxinus pennisylvanica	Healthy	Single Remain	DIA	Class 2	N/A	N/A	9571	11	Hackberry	Cetta la evigata	Healthy	5mgle	Bemain	Offsite	Class 3	N/A	N/A
9475	11	American Elm	Ulmus americana	Healthy	Multi Romain	DIA	Class 2	N/A	N/A	9572	9	Hatkberry	Celta laevajata Suteronden konstanto	Declining	Single Forker	Remain .	Ofsite Office	Unprotected	N/A	N/A N/A
9477	8 9	American Elm	eroxinus pennsylvanica Ulmus americana	Healthy	Single Remain	DIA	Class 2 Class 2	N/A N/A	N/A	9575	6	Hackberry	Celtis loevigata	Healthy	Farked	Remain	Ofisite	Unprotected	N/A	N/A
9478	26	Fastern Cottonwood	Papulus deitaxles	Healthy	Single Remain	DIA	Clays 3	N/A	N/A	9575	6	Hackberry	Celtis laevigata	Healthy	Single	Remain	Ofisite	Unprotected	N/A	N/A
9479	6	American 8Im	Ulmus americana	Healthy	Single Remain	DIA	Unprotected	N/A	N/A	9576	6	Live Dak	Quercus virgenana	Healthy	Single	Remove	DIA	Unprotected	N/A	N/A



NOT FOR CONSTRUCTION -

Figure 94; Page F.95; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

	Newberry Tree Farm - City of Dallas							Newberry Tree Farm - City of Dallas													
Tag Number	DBH	Common Name	Scientific Name	Condition	Trunk	Action	Location	Class	Replacement Ratio	Mitigation Required	Tag Number	DBH	Common Name	Scientific Name	Condition	Trunk	Action	Location	Class	Replacement Ratio	Mitigation Required
9577 9578	11 9	Pecan Box Elder	Carya illinainensis Acer negundo	Healthy Declining	Single Multi	Remove Remove	Floed plain Floed plain	Class 1 Unprotected	11 N/A	11 N/A	9680 9681	18 8	Eastern Cottonwood Green Ash	Populas dehoides Frexious pennsylvanica	Declining Healthy	Single Single	Remove	Floed p! ain Floed p! ain	Unprotected Unprotected	N/A N A	N/A N/A
9579	4	Pecan Green Ash	Carya Ibnomensis Fassaus permustrativa	Healthy	Single	Remove	Llosdplain Elosdplain	Class 2 Unrurster tod	11 N/A	9 N/A	9587	/	Green Ash Green Ash	Frexings pennisylvanica Frexing pennisylvanica	Healthy	Single	Bemove	Floodp!ain Electrolain	Unprotected	N/A	N/A N/A
9581	9	Box Sider	Acernegundo	Healthy	Single	Remove	Floedplain	Class 2	11	9	9684	6	Green Ash	Frexious pennsylvanice	Healthy	Single	Remove	Floodp!ain	Unprotected	N/A	N/A
9582 9583	12	American Elm American Elm	Ulmus americana Ulmus americana	Healthy Healthy	Single	Remove	DIA	Class 2 Class 2	0.7:1	8.4 5.6	9685 9686	13	Green Ash Green Ash	Гляхтия реллиулатса Егохтив реплиулатса	Healthy	Single Multi	Remove	Flowdp:ain Flowdp!ain	Unprotected Unprotected	N/A NA	N/A N/A
9584 9585	6 10	American Elm Packberry	Ulmus americana Celos laevigata	Declining Healthy	Single Multi	Remove Remove	DIA	Unprotected Class 3	N/A 0.4-1	N/A 4	9587 9588	7	Green Ash Green Ash	Frexinus pennsylvanica	Healthy Healthy	Single Single	Remove	Floedp!ain Llosdu!ain	Unprotected Unprotected	N/A N/A	N/A
9586	6	Patkberry Patkbore	Ceits laevigota Celts laevigota	Healthy	Single	Remove	DIA	Unprotected	N/A	N/A	9689	6	Green Ash	Frexings permission	Healthy	Single	Remove	Flood plain	Unprotected	N/A	N/A
9588	y y	American Bim	Ulmus amencana	Healthy	Single	Remove	DIC	Class 2	0.4.1	6.3	9691	,	Green Ash	Frexinus penniyivanica Trexinus penniyivanica	Healthy	Single	Remove	Flood plain Flood plain	Unprotected	N/A	N/A
9589 9590	7	American Elm American Elm	Ulmus americana Ulmus americana	Healthy Healthy	Single	Remove	DIA	Unprotected	N/A N/A	N/A N/A	9692 9693	6 7	Green Ash Green Ash	Froxinus permisylvanica Froxinus permisylvanica	Healthy Healthy	Single Single	Remove Remove	Floed plain Floed plain	Unprotected Unprotected	N/A N/A	N/A N/A
9591	y 12	American Bin American Bin	Ulmus americana Ulmus americana	Healthy	Single	Remove	DIA	Unprotected	N/A N/A	N/A N/A	9694	8	Green Ash	Traxinus pennsylvanica	Healthy	Single	Remove	Hoseptan Elevelution	Unprotected	R A.	N/A
9593	8	Patkberry	Celta laevigata	Healthy	Single	Remove	DIA	Class 3	0.4.1	3.2	9696	9	American Elm	Ulmus americana	Healthy	Single	Remove	Floedp!ain	Class 1	11	9
9594 9595	26 8	Fackberry	Celtis laevigara	Healthy	Multi	Remove	ноерган DIA	Class 3	N/A 0.4.1	N/A 3.2	9697 9698	12	American Elm Green Ash	Ulmus americana Froxinus pennsylvanica	Healthy Healthy	Single Single	Remove	Flowdp!ain Flowdp!ain	Class 1 Unprotected	11 Κ.Λ	12 N/A
9596 9597	6 6	Black Willinw Eastern Cottonwood	Sala rugra Populas delaudes	Healthy Healthy	Single	Remain Remain	Elosdplain Floedplain	Class 3 Class 3	N/A N/A	N/A N/A	9699	14	American Elm American Elm	Ulmus americana Ulmus americana	Healthy Healthy	Single Single	Remove	Flood plain Flood plain	Class 1 Class 1	11	14
0598	8	Eastern Cottonwood	Populus deitoides Celtu Inquinato	Healthy	Single	Remain	Floodplain	Class 1	N/A	N/A	9701	3	American Plm	Ulmus americana	Healthy	Single	Bemove	Floed plain	Class 1	11	9
9500	19	American Elm	Ulmui americana	Declining	Farked	Remove	Floedplain	Unprotected	N/A	N/A	9702	12	Green Ash	Frexinus pennsylvanica	Healthy	Single	Remove	Floedp!ain	Unprotected	5 A	N/A
9601	7 18	American Elm American Elm	Ulmus americana Ulmus americana	Healthy Healthy	Single	Remove	Floed plain Floed plain	Class 1 Class 1	11	18	9/04 9705	9 8	Green Ash Green Ash	Traxmus penniylianica Froxinus penniylianica	Healthy Healthy	Single Single	Bemove Remove	Flowdp!ain Flowdp!ain	Unprotected Unprotected	КА КА	N/A N/A
960-3 960-4	25 /	Blact Willow American Elm	Solix nigra Ulmus americana	Declining Healthy	Single Single	Remove	Floødplain Floødplain	Unprotected Class 2	N/A 11	N/A	9706 9707	6	American Elm Green Ash	Ulmus americana Litoxious peonoluciosa	Healthy Healthy	Single Single	Remove	Floedp!ain	Class 1 Unprotected	11 N/4	6 N/4
9605	8	American Elm	Ulma, americana	Healthy	Single	Remove	Flood plain	Class 1	11	8	9708	12	Pecan	Caryo Winging asis	Healthy	Single	Remove	Floed plain	Cluss 1	11	12
9507	0	Chinaberry	Melio azedarach	Healthy	Single	Remove	DIA	Unprotected	N/A	10 N/A	9709 9710	9	Box Elder	Proxinus pennsylvanica Acer negundo	Healthy Healthy	Single Single	Remove Remove	Floedp!ain Floedp:ain	Class 1	қ ж 11	N/A 9
9508	6	Chinaberry American Elm	Melia ozedorach Ulmus americana	Healthy Healthy	Single Single	Remove Remove	DIA	Unprotected Class 2	N/A 0.71	N/A 7,7	9711 9712	7	American Bim American Bim	Ulmus americano Ulmus americano	Healthy Declining	Single	Remove Remove	Floedp!ain Floedp!ain	Class I Unprotected	11 N/A	7 N/A
9610 9511	11	American Elm American Elm	Ulmas americono Ulmas americono	Healthy Healthy	Forked	Remove	Floed plain Floed plain	Class 1	11	11	9713	9	Green Ash	Fraxinus pennsylvanica	Healthy	Single	Remove	Floodp!ain	Unprotected	N A	N/A
9612	7	Chinaberry	Meha azedarach	Declining	Single	Remove	floodplain	Unprotected	N/A	N/A	9715	13	American Elm	Ulmus americana	Healthy	Single	Remove	Floed p! ain	Class 1	11	13
9613	ј2 Б	American film	Ulmui americana Ulmui americana	Declining	Single	Remove	Flood plain Flood plain	Unprotected	N/A N/A	N/A N/A	9716	16	Green Ash Green Ash	Frexinus pennsylvanica Frexinus pennsylvanica	Healthy Healthy	Multi Multi	Remove	Floedp!ain Floedp!ain	Unprotected Unprotected	<u>қа</u> ка	N/A
9615 9636	11	Box Eider Amerikan Elm	Acer negundo Ulmus americana	Healthy Healthy	Single Single	Remove	Floodplain Floodplain	Class 1 Class 2	11	11	9718	7	Green Ash	Froxinus pennsylvanica Froxinus pennsylvanica	Healthy Healthy	Single	Remove	Floedp!ain Floedp!ain	Unprotected	N/A N A	N/A N/A
96]7	9	Bax Elder Bax Elder	Ace: negundo	Declining	Single	Remove	Floed plain Floed plain	Unprotected	N/A	N/A	9/20	6	Chinese tallow	Triadca sebijera	Healthy	Larked	Remove	Hotelphan Hotelphan	Class 1	11	6
9619	15	American Elm	Ulmus americana	Healthy	Single	Remove	Floedplain	Class 2	11	15	9721 9722	- <del>33</del> 6	Black Willow Persimmon	Solix nigra Diospyros virginiano	Healthy	Farked Multi	Remove	Floedp!ain Floedp!ain	Class 1 Class 2	N/A	33 N/A
9620	10	American Elm Peçan	Ulmus americana Carya Ilinoixertsis	Healthy Healthy	Single	Remove	Floødplain Floødplain	Class 3 Class 3	11	10 8	9773 9724	25	Eastern Cottonwood Black William	Populus dečoides Soliciolara	Healthy	Single Single	Remove	f losdplam Floodplain	Class 1 Unprotected	11 N/A	25 N/4
9622	13	American Elm Blact Wellow	Ulmas americana Salix mara	Declining	Single	Remove	Floed plain	Unprotected	N/A	N/A 14	9725	9	Black Willow	Salix nigra	Healthy	Single	Remove	Floedp!ain	Class 1	11	9
9624	9	American Elm	Ulmus americana	Declining	Single	Remove	Floodplain	Unprotected	N/A	N/A	9726	19	Black Willow Black Willow	Sala: nigra	Healthy	Forked	Remove	Floodptain Floodptain	Class 1 Class 1	11	19
9625	6	Eastern Redeedar Eastern Redeedar	Juniperus virginiono Juniperus virginiono	Healthy Healthy	Single	Remove	Floedplain Floedplain	Class 1 Class 1	11	6	9728 9729	23 17	Black Willow Black Willow	Salix nigra Salix nigra	Declining	Single Single	Remove	Floedp!ain Floedp!ain	Unprotected Unprotected	N/A N/A	N/A N/A
9627 9628	8 13	Americao 61m Eastern Redoedar	Ulmus americana Juniperus virginiana	Declining Healthy	Single Multi	Remove Remove	Floed plain Floed plain	Unprotected Class 1	N/A 11	N/A - 13	9/30	6	Green Ash	Traxinus pennisylvanica	Healthy	Multi Single	Remove	Hordplain Electricia	Unprotected	N/A	N/A
9629	14	American Elm Chia Asuraz	Ulmus americana Midia a malaran h	Healthy	Single	Remove	Elosdatain	Class 2 Unrurofer bud	11 N/A	14	9732	0	Green Ash	Fraxinus pennsylvanica	Healthy	Single	Remove	Floodp!ain	Unprotected	NA	N/A
9631	6	Eastern Cottonwood	Populus detoides	Healthy	Single	Remove	Floedplain	Class 2	11	6	9734	10	Green Ash Green Ash	Frexinus penniylianica Frexinus penniylianica	Healthy	Single Single	Remove	Floedp!ain	Unprotected	N/A N A	N/A N/A
9633	7	Eastern Cottonwood Fastern Cottonwood	Populus deboides Populus deboides	Healthy Healthy	Multi Single	Remove	Flowdplain Flowdplain	Class 5 Class 5	11	12	9735 9/36	15 16	Green Ash Black Willow	Frexinus pennisylvanica Salix niara	Declining	Single Single	Remove	Floedp!ain Lloedu!am	Unprotected	N A N/A	N/A
9634 9635	8	Eastern Cottonwood Eastern Cottonwood	Popakis dekoides Popakis dekoides	Healthy	Single Single	Remove Remove	Eloed plain Eloed plain	Class 3 Class 3	11	8	9737	7	Green Ash	Froxinus pennisylvanica	Healthy	Multi Nulti	Bemove	Floed p! ain	Unprotected	N/A	N/A
9536	9	Eastern Cottonwood	Populas deitoides	Healthy	Single	Remove	Floodplain	Class 1	11	9	9/39	16	Black Willow	Salux nigra	Declining	Single	Remove	Floedp:ain Floedp:ain	Unprotected	N/A N/A	N/A
9637	7	Chinaberry	Meha uzedarach	Healthy	Forked	Remove	Floodplain	Unprotected	N/A	N/A	9740 9741	12	Chinese tallow Green Ash	Triadza sebifera Frazinus pennsylvanica	Declining Healthy	Single Multi	Remove	Floedp!ain Floedp!ain	Unprotected Unprotected	N/A K A	N/A N/A
9639	7 8	Pecan Pecan	Carya ilinainensis Carya ilinoinensis	Healthy Healthy	Single Single	Remove Remove	Flood plain Flood plain	Class 2 Class 2	11	7 8	9742	33	Black Willow Green Ash	Salwinigra Europas negatulararia	Declining Healtho	Muth	Remove	filosod pitain Elosod pitain	Unprotected	N/A NA	N/A N/4
966 1 964 7	я 19	American Rim Fasterii Cottonwood	Ubout americana Papulas deltaides	Healthy	Single	Remove	Eleadolain Eleadolain	Class 3 Class 3	11	я 19	9744	8	Box Elder	Acer negundo	Healthy	Single	Remove	Floed p! ain	Class 1	11	8
9643	10	American film	Ulmus americana	Healthy	Single	Remove	Flordplain	Class 2	11	10	9745 9746	19	Green Ash Haikberry	Coltis la evigata	Healthy Healthy	Mu:1i Single	Remove	Floodp!ain Floodp!ain	Class 1	<u>БА</u> 11	N/A /
9645	9 8	Box E-der L:ve Oak	Acet negunao Quercus virginiano	Healthy Healthy	Single Single	Remove	Floedplain Floedplain	Class 2 Class 2	11	3	9747 9748	7	American Elm American Elm	Ulmus americana Ulmus americana	Healthy Healthy	Mu:1i Single	Remove	DIA Floodplain	Unprotected Class 1	N/A 11	N/A 6
9646 9647	19 6	American Him Box Elder	Ulmus americana Acei negundo	Healthy Healthy	Single	Remove	Floed plain Floed plain	Class 3 Class 3	11	19 6	9/49	6	American Fim	Ulmus americanti Anni americanti	Healthy	Single	Remove	Hasdplain Elementation	Class 1	11	6
0648 9649	9	Live Oak Live Oak	Ouercus virginiano Quercus virginiano	Healthy Healthy	Single	Remove	Floodplain Cloodplain	Class 1 Class 2	11	9	9751	11	Chinaberry	Metho used/much	Healthy	Furked	Benove	Flowdplain	Crass 1 Onprotected	NA	N/A
9550	6	Red Mulberry	Morus rubro	Declining	Single	Remove	Hostplain	Unprotected	N/A	N/A	9752 9753	17 6	Black Willow Black Willow		Declining Declining	Single Single	Remove Remove	Elordplain Floredplain	Unprotected Unprotected	N/A N/A	N/A N/A
9652	8 8	Live Dak	Quercus virginiana Quercus virginiana	Healthy	Single	Remove	Floedplain	Class 2 Class 2	11	8	9754 9755	18 9	Black Willow Green Ash	Salix nigra Traxous pennivizanica	Declining Declining	5ingle Larked	Remove	Floedp!ain Floedp!ain	Unprotected Unprotected	N/A N/A	N/A
9653	0	Live Oak Post Oak	Quercus virginiano Quercus stellata	Healthy Healthy	Forked	Remove Remove	DIA	Class 3 Unprotected	0.4:1 N/A	3.6 N/A	9756	8	Green Ash	Froxinus penniylyanıta	Healthy	Single	Remove	Flood plain	Unprotected	N A	N/A
9655	13	American Elm Box Elder	Ulmus americana Aces pequado	Declining	Single	Remove	Floed plain Floed plain	Unprotected	N/A	N/A	9757 9758	20 6	Chittamwood	wasara pomijera Siderovylon lanuginosum	Healthy	farked	Remain	DIA	Unprotected	N/A N/A	N/A N/A
9657	6	Box Elder	Acer negundo	Healthy	Single	Remove	Floodplain	Class 1	11	6	9759 9760	19	Post Oak Post Oak	Quercus stellata Quercus stellata	Healthy Healthy	Single Single	Remain Remain	DIA DIA	Significant Significant	N/A N/A	N/A N/A
9658	6	Box Fider Pecan	Acer negundo Carpo limpinensis	Healthy Healthy	Single Single	Remove	Eloodplain Floodplain	Class 5 Class 5	11	6	9761	15	Post Dak Post Dak	Quercus stellata Quercus stellata	Healthy	Single	Remain	DIA DIA	Significant Significant	N/A N/A	N/A N/A
9560 956 1	11 9	Pecan Pecan	Carya illinainensis Carya illinainensis	Healthy	Single	Remove Remove	Floed plain Floed plain	Class 1 Class 1	11	11	9763	15	Post Dal.	Quertus stellata	Declining	Single	Remain	DIA	Unprotected	N/A	N/A
9662	32	American Elm	Ulmus americana	Healthy	farked	Remove	f losd plain	Class ?	11	32	9764 9765	20	Post Dak crape myrtle	Quercus stellata Loperstraema urdxa	Healthy Healthy	Single Multi	Remain Remain	DIA	Significant Class 2	N/A N/A	N/A N/A
9063 9664	6	Pecan	Carya ilinainensis	Healthy	Single	Remove	Floed plain	Class 1 Class 1	11	6	9766 9767	6	Hatkberry Post Dak	Celos laevigata Quercus stellata	Healthy Healthy	Single Mu:1i	Remain	DIA	Unprotected Unprotected	N/A N/A	N/4
9666	10	American Elm American Elm	Ulmus americana Ulmus americana	Healthy Healthy	Single	Remove Remove	Floodplain Floodplain	Class 3 Class 3	11	10	9/68	6	Chinaperry	Melia azedarach	Healthy	Single	Remain	DIA	Unprotected	N/A	N/A
9567	12	American (Im	Ulmus americana Acce poque de	Healthy	Single	Remove	Floed plain Floed plain	Class 1	11	12	9709 9770	22 15	Post Dak Post Dak	Quercus stellata	Healthy	Single	Remain	DIA DIA	Significant	N/A N/A	N/A N/A
9569	6	American Elm	Ulmus americana	Healthy	Single	Remove	Floodplain	Class 1	11	6	9//1 9772	1.3 13	Post Dak Osage orange	Querrus stellara Maclara pomífera	Healthy Healthy	Single	Remain Remain	DIA	Significant Class 3	N/A N/A	N/A N/A
9670 9571	8 6	Box Elder Pecan	Azer negundo Carya Unovertsis	Healthy	Muiti Single	Remove Remove	Floødplain Floødplain	Class 3 Class 3	11	6	9773	16	Post Dal	Quercus stellata	Healthy	Single	Remain	DIA	Significant	N/A	N/A
9672 9673	10	Box Elder Patkberry	Ace: regundu Ceito laevinata	Declining Healthy	Single	Remove Remove	Floed plain Floed plain	Unprotected Class 1	N/A 11	N/A g	9774 9775	17	Post Dak Post Dak	Quercus scellata	Healthy	Single	Remain	DIA	Significant	N/A N/A	N/A N/A
9674	9	Mackberry	Celts laevigara	Healthy	Multi	Remove	floodplain	Class 2	11	9	977G 9777	14 18	Post Dak Post Dak	Quercus stellata Quercus stellata	Healthy Healthy	Single Single	Remain Remain	DIA DIA	Significant Significant	N/A N/A	N/A N/A
9675 9676	11 16	Black Willow	ο οια τοιξητά Σταιτα στα στα	Healthy Healthy	Single	Remove Remove	Floed plain Floed plain	Class 1 Class 1	11	11	9778 9779	e A	Eastein Rediedar Hercoles deb	Juniperus virginiana Zpothovylien slave, kessula	Healthy	Single	Remain	DIA Eleadolaio	Class 2 Class 1	N/A	N/A 6
9677 9578	6 12	Box Elder American Elm	Acer negundo Ulmus americana	Healthy Hazard	Single Single	Remove Remove	Floed plain Floed plain	Class 2 Unprotected	11 N/A	6 N/A	9780	7	Red Mulberry	Marus rubra	Healthy	Single	Remove	flosdptain	Class 1 Class 1	11	7
9679	12	Box Elder	Acernegunda	Healthy	Muiti	Remove	Llosdplain	Class 3	11	12	9761	14	Green Ash	Frexinus pennsylvanica	Healthy	Single	Remove	Flood p! ain	Unprotected	N A	N/A



08/26/2024 - NOT FOR CONSTRUCTION - BDM LC 08/2 Enum 95: Page 595: October 1, 2024 ITHIS PLAN IS FOR TOPO R

Figure 95; Page F.96; October 1, 2024 \*THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

			Binuña			of Dallar								Nouto		and City	of Dalla	,			
Tag Number	DBH	Common Name	Scientific Name	rry free Fa	rm - City Trunk	Action	Location	Class	Replacement Ratio	Mitigation Required	Tag Number	DBH	Common Name	Scientific Name	Condition	m - City Trunk	Action	s Location	Class	Replacement Ratio	Mitigation Required
9782	7	Green Ash	Froxinus pennisylvanica	Healthy	Single	Remove	Floed plain	Unprotected	N/A	N/A	0336	7	Chinaberry	Melia azedarach	Healthy	Single	Remove	Floed plain	Unprotected	N/A	N/A
9/84	7	Box Fider	Acerneguoda	Declining	Single	Remove	Flood plain	Unprotected	N/A	N/A	9887	7	Chinabieny	Meho ozedorach Meho ozedorach	Healthy Healthy	Single	Remove	Floed plain	Unprotected	N/A	N/A
9785	28	Black Willow Green Ash	Банх ондект Есонопия переналічного	Declining Healthy	Multi	Remove	Floed plain	Unprotected Lignrotected	N/A N/A	N/A N/A	9883	7	Green Ash Blact Willow	Frexinus pennsylvanica Solix niora	Healthy	Multi	Remove	DIA Eloedolain	Unprotected	N/A N/A	N/A
9/87	8	Green Ash	Traxinus penniyivanica	Healthy	Muiti	Remove	Flood plain	Unprotected	h A	N/A	9885	8	American Elm	Ulmus americana	Healthy	Single	Reniave	riordplam	Class 1	11	8
9788 9789	8	Green Ash Green Ash	Froxinus permiylvanica Froxinus permiylvanica	Healthy Healthy	Multi	Remove	Flowd plain Flowd plain	Unprotected	N/A	N/A N/A	9886 9687	7	Hercules Club Eastern Cottonwood	Zunthoxylam clava hercula Popukis dekoides	Healthy Healthy	Forked Single	Remove Remove	Floed plain Floed plain	Class 1 Class 1	11	18
9790	8	Green Ash	Froxinuspennsylvanica	Healthy	Multi	Remove	Floodplain	Unprotected	N A	N/A	9888	15	Eastern Cottonwood	Populus deitoides	Declining	Single	Remove	Floedplain	Unprotected	N/A	N/A
9/91	8	Green Ash Green Ash	Frexinus pennsylvanica Frexinus pennsylvanica	Healthy	Single	Remove	Elosod pilain Flosod pilain	Unprotected Unprotected	6 A 16 A	N/A N/A	9889 9890	9	American Elm	Populus detoides Ulmui aminicana	Healthy	Single	Remave	Elosol plain Flood plain	Class 1 Class 1	11	9
9793	10	Green Ash	Fraxinus pennsylvanica	Healthy	Single	Remove	Floed plain	Unprotected	ς A	N/A	9891	8	American Elm	Ulmus americana	Healthy	Single	Remove	Floedplain	Class 1	11	8
9794	9	Green Ash Fecăn	Erekinus pennsylvanica Carya ibinomensis	Healthy Healthy	Single	Remove Remain	Floodplain Floodplain	Class 3	N/A	N/A	9892 9893	9 25	Green Ash Eastern Cottonwood	Populas deltaides	Healthy	Single	Remove	Floedplain	Class 1	11	N/A 25
9796	10	American Elm	Ulmus americana	Healthy	Single	Remove	Floodplain	Class 2	11	10	9694	16	Eastern Cottonwood	Populas dekoides	Healthy	Single	Remove	Floedplain	Class 1	11	16
9797	14	Osage-orange	Maclura pomifera	Healthy	Multi	Remove	Floed plain Floed plain	Class 2 Class 1	11	14	9896	16	Fastern Cottonwood	Populus decordes Populus decordes	Healthy	Single	Remove	Hoedplain Hoedplain	Class 1 Class 1	11	16 .
9/99	10	Green Ash	Troxinus pennyylvanica	Healthy	Muite	Remove	Lloedplain Floudelain	Unprotected	N A K A	N/A	9897	8	Green Ash	Frexingis permissivanta	Healthy	Single	Remain	Floodplain	Class I Class I	N/A	N/A
9800	7	Penimmon	Diospyras virginiana	Healthy	Multi	Remove	Flood plain	Class 2	N/A	N/A N/A	0800	6	American Elm	Dimus americana	Healthy	Single	Remove	Floedplain	Class 1 Class 1	11	6
9802	16	American Elm	Ulmus americana	Healthy	Single	Remove	Llosdplain Elementation	Class 3	11 E A	16	9900	7	American Elm	Ulmu) amendarip	Healthy	Single	Remove	Flood plain Elevated siz	Class 1	11	7
9604	6	Green Ash	Froxinus penniyivanica	Healthy	Single	Remove	Floedplain	Unprotected	N/A	N/A	9902	13	Eastern Cottonwood	Populus deitoides	Healthy	Single	Remain	Floedplain	Class 1	N/A	N/A
9805 9816	19	American Elm Port Oal	Ulmus americana	Healthy	Single	Remove	Floodplain	Class 1 Sugady and	11	19 N/6	9903 Parts	18	Fastern Cottonwood	Populus detoides Parinte detoides	Healthy	Single	Remain	Hosdplain Elevatettiin	Class 1	N/A	N/A
9807	13	Post Oal	Quercus stellata	Healthy	Single	Remain	DIA	Significant	N/A	N/A	9905	8	Osage-orange	Mociura pomifero	Healthy	Farked	Remove	Floedplain	Class I	11	8
26080	19 18	Post Oal. Post Oak	Quertus stelloto Quertus stelloto	Healthy Healthy	Single	Remain	DIA	Significant Significant	N/A N/A	N/A N/6	9906	15	Green Ash	Froxinus pennisylvanica	Healthy Healthy	Single	Remove	Floedplain Lloedplain	Unprotected Class 1	N A 11	N/A
9810	12	Post Gal	Quertus stelloto	Healthy	Single	Remain	DIA	Significant	N/A	N/A	9908	6	Japanese Privet	Ligustrum jopunica	Healthy	Single	Remain	Floodplain	Unprotected	N/A	N/A
9811	18	Post Oal	Quercus stellata	Healthy	Single	Remain	DIA	Significant	N/A	N/A	9909	14	Eastern Cottonwood	Populus deitoides	Healthy	Single	Remove	Floed plain	Class 1	11	14
9813	6	Northern Catalpa	Catalpa speciosa	Healthy	forked	Remain	DIA	Linprotected	N/A	N/A	9911	25	Eastern Cottoinwood	Populas detoides	Healthy	Single	Remove	Flowdphain	Class 1	11	25
9814	7.6	Post Oal	Quercus stellata	Healthy	Multi	Remain	DIA Distantation	Significant	N/A	N/A	9912	13	Eastern Cottonwood	Popukis deitoides	Hazərd	Single	Remove	Floed plain	Unprotected	N/A	N/A
9615	9	Pecan Pecan	Carya Minoinensis	Healthy	Single	Remove	Floodplain	Class 1 Class 1	11	9	9914	6	Green Ash	Traxinus pennsylvanca	Healthy	Single	Remove	Hoedplain	Unprotected	N/A	10 N/A
9817	11	Green Ash	Frakinus penniyivanica	Healthy	Single	Remove	filosdplain Flosdulae	Unprotected	N A 11	N/A	9915	9	American Elm	Ulmus americana	Healthy	Single	Remove	Floodplain	Class I	11	9
9818	9	Green Ash	Fraxinus penniylvanica	Healthy	Multi	Remove	Flood plain	Unprotected	N A	9 N/A	9916 9917	8 6	American Elm American Elm	Ulmus americana Ulmus americana	Healthy Healthy	Single	Remove	Floodplain	Class 1 Class 1	11	6
9870	6	Green Ash	Fraxinus pennsylvanica	Healthy	Single	Remove	floodplain	Linprotected	N/A	N/A	9918	7	AmericanElm	Ulmui americanu	Healthy	Single	Remove	Floodplain	Class 1	11	7
9823	8	Green Ash	Froxinus penniyivanica Froxinus penniyivanica	Declining	Single	Remove	Floed plain	Unprotected	N/A	N/A N/A	9919	9	American Elm	Ulmus americana Ulmus americana	Healthy	Single	Remove	Floedplain	Class 1 Class 1	11	0
9823	29	Black Willow	Solix nigra	Hazard	Multi	Remove	Floodplain	Unprotected	N/A	N/A	9921	6	Pecan	Сапуа Этогленыя	Healthy	Single	Remove	Hoseptain	Class 1	11	6
9874	15 6	Green Ash Green Ash	Froxinus penniyivanica Froxinus penniyivanica	Healthy	Single	Remove	Floed plain	Unprotected	N/A	N/A N/A	9922 9923	11	Green Ash American Elm	Ulmus americana	Healthy	Single	Remove	Floed plain Floed plain	Class 1	ыл. 1¢	N/A 11
9826	14	Pecan	Carvailhooinensis	Healthy	Single	Remove	Floed plain	Class 1	11	14	9924	20	Eastern Cottonwood	Populus deitoides	Healthy	Single	Remove	Flordplain	Class 1	11	20
9827 9828	18 6	American Elm Green Ash	Ulmus americana Trasinus penniylianica	Healthy Healthy	Single	Remove	Flood plain Flood plain	Class 2 Unprotected	N/A	18 N/A	9925 9926	10	American Elm Eastern Cottonwood	Papekis detaides	Healthy Healthy	Single	Remove	Eloed plain Floed plain	Class 1 Class 1	11	25
9829	8	Green Ash	Froxinus penniylvanica	Declining	Single	Remove	Floedplain	Unprotected	N/A	N/A	9927	6	Hatkberry	Celts laevigata	Healthy	Single	Remove	Floedplain	Class 1	11	6
9830 9831	8 13	Green Ash Osage-orange	Froxinus pennsylvanica Maciura pomifera	Declining	Single Multi	. Remove Remove	Floed plain Floed plain	Unprotected	N A	N/A N/A	9928 9929	9	Hackberry Hackberry	Celts laevguta Celts laevguta	Healthy	Single Single	Remove	Floodplain	Class 1 Class 1	11	6
9832	28	Dsage-orange	Maclura pamifera	Declining	Muiti	Remain	DIA	Unprotected	N/A	N/A	9930	7	Harkberry	Celts laevigata	Healthy	Single	Remove	Floodplain	Class 1	11	7
9833 9834	7	Post Gal Osage-orange	Oren us stellata Maciara pomifera	Healthy Healthy	Single Multi	Remain	DIA	Unprotected	N/A N/A	N/A N/A	9931 9932	7	Hatkberry Hatkberry	Celts laevigata Celts laevigata	Healthy Healthy	Single	Remove	Floed plain Floed plain	Class I Class 1	11	7
9835	20	Post Oak	Quercus steilata	Healthy	Multi	Remain	DIA	Significant	N/A	N/A	0033	,	Hackberry	Celts lzevigata	Healthy	Single	Remove	Floodplain	Class 1	11	,
9835	14	Post Qal Post Oak	Quercus stellata	Healthy	Single	Remain	DIA	Significant	N/A N/A	N/A N/A	9934 9935	9	Harkberry	Cells laevigata	Healthy	Single	Remove	Floed plain	Class 1 Class 1	11	9
9838	17	Past Dak	Quercus stellata	Healthy	Single	Remain	DIA	Significant	N/A	N/6	9936	10	Box Elder	Acer negundo	Declining	Farked	Remove	Floedplain	Unprotected	N/A	N/A
9839	14	Post Oal	Querros stellata	Healthy	Single	Remain	DIA	Significant	N/A	N/A N/A	9937	6	Hackberry	Celts laeviguta	Healthy	Single	Remove	DIA	Unprotected	N/A N/A	N/A N/A
9841	13	Past Oal	Quercus stellata	Healthy	Single	Remain	DIA	Significant	N/A	N/4	9939	10	Pecan	Caryoilhnoinensis	Healthy	Single	Remove	Floedplain	Class 1	11	10
9842	13	Post Qal	Quercus stellata	Healthy	Single	Remain	Olfsite	Significant	N/A	N/A N/A	9941 9941	6	Peçan	Сапуа Шпоренью	Declining	Single	Remove	Hoedplain	Unprotected	N/A	N/A N/A
9844	19	Post Oal	Quercus stellata	Healthy	Single	Remain	Olisite	Significant	N/A	N/A	9942	14	Box Elder	Ace: regundo	Declining	Multi	Remove	Flood plain	Unprotected	N/A	N/4
9846	14	Past Oal. Chittantwood	Quertus stellota Sideroxylan lanuginosum	Healthy Healthy	Single Farked	Remain	Offsite	Class 2	N/A N/A	N/A	9944	13 6	Pecan	Acer negundo Carya ilunoinensis	Hazard	Single Single	Remove	Floed plain	Class 1	N/A 11	N/A 6
9847	17	Live Oak	Quercus varprisino	Healthy	Forked	Remain	Olfsite	Class 2	N/A	N/A	9945	9	Hackbeiry	Celta laeviguta	Healthy	Single	Remove	Flood plain	Class 1	11	9
9849 9849	35	Post Oal	Quercus stellata	Healthy	Multi	Remain	DIA	Significant	N/A	N/A N/A	9947	6	Hackberry	Ceitis laevigata	Healthy	Single	Remove	Floedplain	Class 1	11	6
9850	10	Post Oal	Quercus stellata	Healthy	Single	Remain	Offsite	Class 2	N/A	N/A	9948	9	Harkberry	Cellis laevigata	Healthy	Single	Remove	Hotelplain	Class 1	11	9
9851	12	Chittamwood	Sideroxylon lanugino.um	Healthy	Multi	Remain	Offsite	Class 2	N/A N/A	N/A N/A	9949 9050	7	Hackberry	Celto laevigata	Healthy	Single	Remove	DIA	Unprotected	N/A	N/A
0853	6	black walnut	Juglans nigra	Healthy	Single	Remain	Floed plain	Class 1	N/A 11	N/A	0051	6	Hackberry	Celts: Inevigate	Healthy	Single	Reniove	Floodplain	Class 1	11	6
9855	11	American Elm	Ulmas americana	Healthy	Single	Remove	Floed plain	Class 2	11	11	9952 9953	6	Hackberry	Cela laevigata	Healthy	Single	веточе Веточе	Flord plain	Class 1	11	6
9856	7	Pecan Enters Contents	Carya Minoinensis Banulus dažentas	Healthy	Single	Remove	Floodplain	Class 1	11	7	9954	7	Hackberry	Ceits laevigata	Healthy	Single	Remove	Floedplain	Class 1	11	7
9857	16	Eastern Cottonwood	Populus deltoides	Healthy	Single	Remove	Floodplain	Class 2 Class 1	11	16	9956	16	Box Elder	Ace: negundo	Hazard	Multi	Remove	Floodplain	Unprotected	N/A	//A
9859	6	Live Dak	Quercas virginiana	Healthy	Single	Remove	Floedplain	Class 1	11	6	0057	12	Hatkberry	Celto laevigota	Healthy	Multi	Remove	Floedplain	Class 1	11	12
9861	9	Pecan Pecan	Carya Winomensis	Healthy	Single	Remove	rio-optain Floadplain	Class 2	11	6	9958	6	Green Ash	Earya Ilinoihensis Fraxinus permiyikanisa	Healthy Healthy	Single	Remove	T loedplain DIA	Unprotected	N/A	5 N/A
9862	7	Pecan	Carya Ilmomensis	Healthy	Single	Remove	Floed plain	Class 1	11	7	9960	6	Green Ash	Frexinus penniy/varia	Healthy	Single	Remove	DIA	Unprotected	N/A	N/4
9603	9	Post Oal. Post Oal.	Quercus stellata Quercus stellata	Healthy Healthy	Single	Remove	Floydplain	Class 1 Class 1		9	9961 9962	20	Box filder	Mena azedarach Acer negunda	Healthy Healthy	5 ingle	Remain Remove	Floedplain Floedplain	Class 1 Class 1	N/A 11	N/A 8
9865	6	Post Oak	Quercus stellata	Healthy	Single	Remain	D: A	Unprotected	N/A	N/A	9963	9	American Elm	Ulmus americana	Healthy	Single	Remove	DIA	Class 2	0.7.1	6.3
9867	/	American Em Groep Ash	Umis antericana Freziouspennsylvanica	Healthy Healthy	single Single	Remove	El A Flojdplain	Uass 2 Unprotected	N/A N/A	N/A N/A	9964 9965	7	American Elm Green Ash	Ulmus americana Frazinus pennisvivanica	Healthy Healthy	Single Single	Remove	DIA Floedplain	Unprotected	N/A N/A	N/A N/A
9868	7	Green Ash	Frexiouspennsylvanica	Healthy	Single	Remove	Floodplain	Unprotected	N/A	N/A	9966	)	Haikberry	Cells laevigata	Healthy	Single	Remove	Hotelplain	Cla% 1	11	)
9869 9870	27	- Green Ash Eastern Cottonwood	Popylys deknides	Healthy Healthy	j Single Single	Remove	Floydplain Floydplain	Unprotected Class 1	чљ '1	27	9967 9968	6	Hatkberry Hatkberry	Celta laevigata Celta laevigata	Healthy Healthy	Single Single	Remove	Floed plain Floed plain	Class I Class 1	11	6
9871	9	Persimmon	Diospyros virginiana	Healthy	Mult	Remove	Floydplain	Class 1	N/A	N/A	9969	12	Green Ash	freemespennighanea	Healthy	Gingle	Renieve	floodplain	Unprotected	h A	N/A
9872	6 8	. Hercules-dub Persimmon	Zanthoxy)im clava-herculis Biospyras viramane	Healthy Healthy	Single   Mult	Remain Remove	Floadolain Floadolain	Class 1 Class 1	N/A N/A	N/A N/A	9970 9971	8	Chinabelity Hackborry	Meha ozedarach Celta laeviaata	Declining Healthy	Multi Sinela	Remove	Floød plain Floød plain	Unprotected Class 1	N/A 11	N/A 7
9874	1	American Em	Ulmis antercana	Healthy	Single	Remove	Fleadplain	Class 1	1	1	9977	9	Chinaberry	Melia azedarach	Healthy	Single	Reniove	Floedplain	Unprotected	N A	N/A
9875 9876	7	Black Willow	Caryonlinomensis Solix niara	Healthy Hazard	Single Mult.	Remove	Floydolain Floydolain	Class 1 Unprotected	· 1	7 N/A	9973 9974	8	Chinaberry Chinaberry	Melia ozedorach Melia ozedorach	Healthy Healthy	Single Single	Remove Remove	DIA Floedulain	Unprotected	N/A N Å	N/A N/A
9877	6	Chinese tallow	Triodco sebijero	Healthy	Single	Remove	Floodplain	Class 1	11	6	9975	7	Chinaberry	Melia azedorach	Declining	Single	Remove	DIA	Unprotected	N/A	N/A
9878 9879	8	Chinaberry Chinaberry	Melin azedproch Melin uzedproch	Healthy Healthy	Single Multi	Remove Remove	Floodplain	Unprotected	N/A N A	N/A N/A	9976	6 9	Chinaberry Chinaberry	Meha azedarach Meha azedarach	Healthy Healthy	Single Multi	Renique	DIA	Unprotected	N/A N/A	N/A N/A
										· · · · · · · · · · · · · · · · · · ·									1		<u> </u>



08/26/2024 BDM LC

Figure 96; Page F.97; October 1, 2024 \*THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

			Newbe	rry Tree Far	m - City	of Dalla	s			
Tag Number	ØBH	Common Name	Scientific Name	Condition	Trunk	Action	Location	Class	Replacement Ratio	Mitigation Required
9978	23	American Elm	Ulmus americana	Healthy	Single	Remove	Floydolain	Class 1	.1	23
9979	20	Black Willow	Solix nigro	Healthy	Single	Remove	Floodplain	Class 1	' 1	20
9980	13	Chinaberry	Melia azedozach	Healthy	Mult-	Remove	D'A	Unprotected	N/A	N/A
9981	8	Chinaberry	Melia azedazach	Healthy	Multa	Remove	D'A	Unprotected	N/A	N/A
9982	6	American [Im	Wmus americana	Healthy	Forked	Remove	D.A	Unprotected	N/A	N/A
9983	9	American Elm	Ulmus americana	Healthy	Mult	Remove	D'A	Class 2	0.7.1	6.3
9984	6	Hatkberry	Celtis Inevigata	Declining	Single	Remove	Floodplain	Unprotected	N/A	N/A
9985	7	Hatkberry	Celtis laevigata	Declining	Single	Remove	Floydolain	Unprotected	N/A	N/A
9986	9	Harkbeiny	Celtis Inevigato	Healthy	Single	Remove	Floodplain	Class 1	'1	9
9987	13	American Elm	Ulmus americana	Healthy	Single	Remove	Floidolain	Class 1	.1	13
9988	11	Green Ash	Frexinus pennsylvanica	Healthy	Single	Remove	Floadplain	Unprotected	N A	N/A
9989	25	Black Willow	Solix nigra	Healthy	Single	Remove	Floudglain	Class 1	11	25
99996	9	Green Ash	Frexinus pennsylvanica	Healthy	Single	Remove	Floadolain	Unprotected	N A	N/A
9993	1	American tim	What americana	Healthy	Forked	Remove	D'A	Unprotected	N/A	N/A
9992	7	American Elm	Ulmus americana	Healthy	Forked	Remove	D'A	Unprotected	N/A	N/A
9993	12	Black Willow	Salix nigro	Healthy	Single	Remove	Floodplain	Class 1	'1	12
9994	20	Eastern Cottonwood	Populus deltoides	Healthy	Single	Remove	Floodolain	Class 1	11	20
0005	11	Amorican Elm	Ulmus americana	Healthy	Single	Romovo	Floodolain	Class 1	'1	11
9996	20	Eastern Cottonwood	Populus deitoides	Healthy	Single	Remove	Floudglain	Class 1	1	20
9997	6	American Elm	Ulmus americana	Healthy	Single	Remove	Floodolain	Class 1	1	6
99998	12	American fim	Ulmus americana	Healthy	Single	Remove	Floodplain	Class 1	1	12
9999	9	American Elm	Ulmus americana	Healthy	Single	Remove	Floydolain	Class 1	· 1	9

ree Inches Being Removed	Tree Inches	Mitigation Inches
atalstee inches being removed - Class ( - 1:1	7781	2761
oral tree inches being removed - Class 7 - 0.7:1	680	476.0
ntal tree inches being removed - Class 3 - 11.4:2	498	199 Z
oral tree inches being removed - Significant + 3.5(1)	580	870
otal tree inches being removed - Historic - 3:1	0	0
otal tree inches being removed	4539	4326.2

## TREE INVENTORY CONDUCTED BY AND/OR UNDER THE SUPERVISION OF:

Alex Brown ISA Certified Arborist TX-4383A Kimley-Horn and Associates

NOTE: The following tree health descriptions are based on a rapid visual assessment of indicators which are easily identifiable from ground level and with the unaided evel for thee inventory purposes ONLY.

HEALTHY: TREE SHOW SIGNS OF GROWTH. INDICATORS OF DISEASE OR DIEBACK NOT OBSERVED.

DECLINING: TREE SHOWS VISIBLE SIGNS OF DISEASE (SUCH AS FUNGUS, SLIME FLUX, OR BARK SLOUGHING) OR DIEBACK. HAZARD: TREE SHOWS VISIBLE SIGNS OF DECAY, LIMB FAILURE AND/OR INSTABILITY.



BDM LC NOT FOR CON STRUCTION

Figure 97; Page F.98; October 1, 2024 \*THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

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MAILCATORY PROVISIONS		
General Sub-Regulation IN	8-91.0%	F1 01 (
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ALL PROPOSED LANDSCAPE IMPROVEMENTS SHALL BE PROVIDED A PERMANENT IRRIGATION SYSTEM PER CITY OF DALLAS CODE OF ORDINANCES.
PLANTINE ON SYSTEM PER CITY OF DALLAS CODE OF ORDINANCES.
I. CONTRACTOR SHALL BE RESPONSELE RIN VERIFINE THE LOCATIONS OF ALL INDERBOUND UTULES, PPES, STRUCTURES, AND LIKE RINKS IN THE FELD PROR TO THE INSTALLATION OF ANY PLANT MATERIAL.
I. ITS THE RESPONSELLY OF THE CONTRACTOR TO ADVISE THE LOCATIONS OF ALL INDERBOUND UTULES, PPES, STRUCTURES, AND LIKE RINKS IN THE FELD PROR TO THE INSTALLATION OF ANY OLD ON STEE WHICH ANY ADVISE THE LOCATION OS SOFINI ON THE STRUCTURES AND LIKE RINK IN THE FELD PRIOR TO THE INSTALLATION OF ANY OLD ON STEE WHICH AND AS SOVINT ON THESE DANAWOS.
J. ALL PART MATERIA. SANLL BE MANTANED IN A HEALTY, GROWING CONDON AND MIXT EE REPLACED WITH SO DAYS WITH PLANT MATERIAL.
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ONTACTOR TO PROVIDE STEEL EDGING BETWEEN ALL PLANT QUARTITES ARE LOTED TO THE NATIONS.
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IMAGES XREFS LAST SAVED PLOTTED BY DWG PATH

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	ROOT	CAL	SIZE	REMARKS
TREES							
$\odot$	uc	15	ULMUS CRASSIFOLIA / CEDAR ELM	888	5" CAL	12"-14" HT.	FULL AND MATCHING
$\odot$	PC	45	PISTACIA CHINENSIS / CHINESE PISTACHE	888	3" CAL	12"-14" HT.	FULL AND MATCHING
$\otimes$	qv	7	QUERCUS VIRGINIANA / LIVE OAK	888	3" CAL	121-141 HT.	FULL AND MATCHING
1. 1. 1.	BR	16	BETULA NIGRA / RIVER BIRCH	868	3" CAL	8'-10' HT.	SINGLE STRAIGHT CENTRAL LEADER, FULL AND MATCHING
$\bigotimes$	qs	47	QUERCUS SHUMARDII / SHUMARD RED OAK	888	5" CAL.	12'-14' HT.	PULL AND MATCHING
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	ROOT	SIZE	SPACING	REMARKS
SHRUBS							
$\odot$	IC	65	ILEX CORNUTA ' DWARF BURFORD' / DWARF BURFORD HOLLY	CONT.	24° HT.	56° O.C.	FULL AND MATCHING
$\odot$	MP	150	MYRICA PUSILLA / DWARF SOUTHERN WAX MYRTLE	CONT.	24° HT.	50° 0.C.	FULL AND MATCHING
٢	IN	125	ILEX VOMITORIA ' NANA' / DWARF YAUPON	CONT.	12"-18" HT.	50° 0.C.	FULL AND MATCHING
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT.	SIZE	SPACING	REMARKS
GROUND	COVERS						
ution line line line line line line line lin	LG	618	LIRIOPE GIGANTEA / GIANT LIRIOPE	CONT.	12° HT.	24" O.C.	FULL AND MATCHING
	LP	449	LANTANA MONTEVIDENSIS / TRAILING LANTANA	CONT.	8"-12" HT.	50° 0.C.	FULL AND MATCHING
AGGREGA	RR	16,383 SF	RIVER ROCK / RIVER ROCK	ŊA	ŊA	N/A	5"-5" COBBLE SIZE, LOCALLY SOURCED.
TURF/GR/	SSES 500	95,828 SF	CYNODON DACTYLON / BERMUDA GRASS	N/A	N/A	N/A	SOD TO HAVE TIGHT, SAND FILLED JOINTS AND BE FREE OF WEEDS.
• • • •	SEED	60,867 SF	CYNDDON DACTYLON / CYNODON DACTYLON	N/A	N/A	N/A	HYDROSEED.



Figure 98; Page F.99; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.



Allindy : xE B/2 6/2024 1 CHA/MIZ, L (Mintley-from IMAGES XREFS LAST SAVED PLOTTED BY DWGPATH

IANA / LIVE OAK

NUTA "DWARF BURFORD" / DWARF BURFORD HOLL

NTEA / GIANT LIBIOP

DACTYLON / CYNODON DACTYLO





# Know what's below. Call before you dig.

BENCHMARK LIST TBM \$1: "X" CUT FOUND ON AN INLET ON THE EAST SIDE TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021. ELEV: 438.0 TBM #2: "X" CUT FOUND ON AN INLET ON THE EAST SID TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021. OTREET R ELEV: 440.1

TBM #3: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF NEWBERRY STREET PER TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021. ELEV: 441.5

CONTRACT INFORMATION

CONTRACTOR

ONTRACT NO.

REVISIONS REV NO. DATE DESCRIPTION BY Kimley **»Horn** 2024 KIMLEY-FAX: 972-239 2600 N CENTRAL EXPY, SUITE 400, R PLAT NO. BLDG PERMIT NO. DEV ENGINEERING TRACKING NOS. S234-174 YYYYMMDDXXXX XX-XXX XX-XXX LANDSCAPE PLAN 635 EXCHANGE 11645 NEWBERRY ST DEVELOPMENT SERVICES CITY OF DALLAS, DALLAS COUNTY, TEXAS

FILE

XXXX

NUMBER

XXXX

SHEET

LP-100



08/26/2024 Figure 99; Page F.100; October 1, 2024 \*THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION

LC

BDM

DATE


08/26/2024 Figure 100; Page F.101; October 1, 2024 THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION

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BDM

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SHEET

LP-101



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ARDII / SHUMARD RED OAI

ILEX CORNUTA 'DWARF BURFORD' / DWARF BURFORD HOLLY

CYNODON DACTYLON / CYNODON DACTYLON



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# Know what's below. Call before you dig.

BENCHMARK LIST TBM #1: "X" CUT FOUND ON AN INLET ON THE EAST SIDE TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021 ELEV: 438.0 TBM #2: "X" CUT FOUND ON AN INLET ON THE EAST SIDE O TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021. Y STREET PE

ELEV: 440.15 TBM #3: "X" CUT FOUND ON AN INLET ON THE EAST SIDE OF NEWBERRY STREET PER TOPOGRAPHIC SURVEY BY RLG DATED 12/20/2021.

ELEV: 441.5 CONTRACT INFORMATION

DATE

CONTRACT NO. CONTRACTOR

REVISIONS REV NO. DATE DESCRIPTION BY Kimley »Horn TX F-928 PH: 972-770-1300 ATES, INC. © 2024 KIMLEY-HORN AND FAX: 972-239-3 2600 N CENTRAL EXPY, SUITE 400, RICH 75080 WWW.KIML PLAT NO. BLDG PERMIT NO. DEV ENGINEERING TRACKING NOS. S234-174 YYYYMMDDXXXX XX-XXX XX-XXX LANDSCAPE PLAN 635 EXCHANGE 11645 NEWBERRY ST DEVELOPMENT SERVICES CITY OF DALLAS, DALLAS COUNTY, TEXAS

FILE

XXXX XXXX

NUMBER

SHEET

LP-102



NOT FOR CO

08/26/2024 Figure 100; Page F.101; October 1, 2024 THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

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BY:

BDM

DATE





Figure 102; Page F.103; October 1, 2024 THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.



Figure 103; Page F.104; October 1, 2024THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION



Figure 104; Page F.105; October 1, 2024 THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

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Figure 105; Page F.106; October 1, 2024 THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION

### SECTION 329300: PLANTING

#### PART 1 GENERAL 11 011000000

- A. THE SCOPE OF WORK INCLUDES ALL LABOR, MATERIALS, APPLIANCES, TOOLS, EQUIPMENT, FACILITIES, PORTATION AND SERVICES NECESSARY FOR, AND INCIDENTAL TO PERFORMING ALL OPERATIONS IN CONNECTION WITH FURNISHING, DELIVERY, AND INSTALLATION OF PLANT (ALSO KNOWN AS "LANDSCAPING") COMPLETE AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN
- B. THE SCOPE OF WORK IN THIS SECTION INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING: 1. LOCATE, PURCHASE, DELIVER AND INSTALL ALL SPECIFIED PLANTS
- 2. WATER ALL SPECIFIED PLANTS.
- 3. MULCH, FERTILIZE, STAKE, AND PRUNE ALL SPECIFIED PLANTS
- 4. MAINTENANCE OF ALL SPECIFIED PLANTS UNTIL THE BEGINNING OF THE WARRANTY PERIOD.
- 5. PLANT WARRANTY.
- 6. CLEAN UP AND DISPOSAL OF ALL EXCESS AND SURPLUS MATERIAL

7. MAINTENANCE OF ALL SPECIFIED PLANTS DURING THE WARRANTY PERIOD. 1.2 CONTRACT DOCUMENTS

- A. SHALL CONSIST OF SPECIFICATIONS AND GENERAL CONDITIONS AND THE CONSTRUCTION DRAWINGS. THE INTENT OF THESE DOCUMENTS IS TO INCLUCE ALL LABOR, MATERIALS, AND SERVICES NECESSARY FOR THE PROPER DECUMINO OF THE WORK: THE DOCUMENTS ARE TO BE CONSIDERED AS ONE. WHATEVER IS CALLED FOR BY ANY PARTS SHALL BE AS BINDING AS IF CALLED FOR IN ALL PARTS.
- 1.3 RELATED DOCUMENTS AND REFERENCES

A RELATED DOCUMENTS:

1. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION I SPECIFICATIONS APPLY TO WORK OF THIS SECTION

# 2. RELATED SPECIFICATION SECTIONS

b. LAWN AND GRASSES

- 8. REFERENCES: THE FOLLOWING SPECIFICATIONS AND STANDARDS OF THE ORGANIZATIONS AND DOCUMENTS A. SEE CONTRACT GENERAL CONDITIONS FOR POLICY AND PROCEDURE RELATED TO SUBMITTALS LISTED IN THIS PARAGRAPH FORM A PART OF THE SPECIFICATION TO THE EXTENT REQUIRED BY THE REFERENCES THERETO. IN THE EVENT THAT THE REQUIREMENTS OF THE FOLLOWING REFERENCED STANDARDS AND SPECIFICATION CONFLICT WITH THIS SPECIFICATION SECTION THE REQUIREMENTS OF THIS SPECIFICATION SHALL PREVAIL. IN THE EVENT THAT THE REQUIREMENTS OF ANY OF THE FOLLOWING REFERENCED STANDARDS AND SPECIFICATIONS CONFLICT WITH EACH OTHER THE MORE STRINGENT REQUIREMENT SHALL PREVAIL OR AS DETERMINED BY THE OWNERS REPRESENTATIVE.
- 1. ANSI 250.1 AMERICAN STANDARD FOR NURSERY STOCK, MOST CURRENT EDITION 2. ANSI A 300 - STANDARD PRACTICES FOR TREE, SHRUB AND OTHER WOODY PLANT MAINTENANCE, MOST
- 3. INTERPRETATION OF PLANT NAMES AND DESCRIPTIONS SHALL REFERENCE THE FOLLOWING DOCUMENTS WHERE THE NAMES OR PLANT DESCRIPTIONS DISAGREE BETWEEN THE SEVERAL DOCUMENTS, THE MOST DOCUMENT SHALL PREVAIL a. USDA - THE GERMPLASM RESOURCES INFORMATION NETWORK (WWW.ARS-GRIN.GOV/NPGS.HTML)
- b. MANUAL OF WOODY LANDSCAPE PLANTS; MICHAEL DIRR; STIPES PUBLISHING, CHAMPAIGN, ILLINOIS; MOST CURRENT EDITION.
- c. THE NEW SUNSET WESTERN GARDEN BOOK, OXMOOR HOUSE, MOST CURRENT EDITION.
- 5. GLOSSARY OF ARBORICULTURAL TERMS, INTERNATIONAL SOCIETY OF ARBORICULTURE, CHAMPAIGN IL, MOST CURRENT EDITION

### VERIFICATION

- A. ALL SCALED DIMENSIONS ON THE DRAWINGS ARE APPROXIMATE. BEFORE PROCEEDING WITH ANY WORK, THE CONTRACTOR SHALL CAREFULLY CHECK AND VEHIO' ALL DIMENSIONS AND QUANTITIES, AND SHALL IMMEDIATE. WHICH THE OWNERS REPRESENTATIVE OF ANY DISCHARGE SHALE OBSIDE THE INFORMATION ON THE DRAWINGS AND THE ACTUAL CONDITIONS, RETRAINING FINID DOING ANY WORK IN SAID AREAS UNTL. GIVEN APPROVALT DOI OS DO YTHE OWNERS REPRESENTATIVE.
- 8. IN THE CASE OF A DISCREPANCY IN THE PLANT QUANTITIES BETWEEN THE PLAN DRAWINGS AND THE PLANT CALL OUTS, LIST OR PLANT SCHEDULE. THE NUMBER OF PLANTS OR SQUARE FOOTAGE OF THE PLANTING BED ACTUALLY DRAWN ON THE PLAN DRAWINGS SHALL BE DEEMED CORRECT AND PREVAIL

#### 1.5 PERMITS AND REGULATIONS

- A. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS RELATED TO THIS SECTION OF THE WORK UNLESS PREVIOUSLY EXCLUDED UNDER PROVISION OF THE CONTRACT OR GENERAL CONDITIONS. THE CONTRACTOR MAY HAVE REGARDING THE CONTRACTOR MAY HAVE REGARDING THE WORK SHALL COMPLY WITH ALL LAVES AND ORDINANCES BEARING ON THE OPERATION OR CONDUCT OF THE WORK AS DRAWING MINISTRATIVE PROCEDURES DURING CONSTRUCTION AND PROJECT WORK SCHEDULE. AS DRAWN AND SPECIFIED. IF THE CONTRACTOR OBSERVES THAT A CONFLICT EXISTS BETWEEN PERMIT REQUIREMENTS AND THE WORK OUTLINED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL 1.13 QUALITY ASSURANCE PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE IN WIRTING INCLUDING A DESCRIPTION OF MAY INCESSARY A. SUBSTANTIAL COMPLETION ACCEPTANCE - ACCEPTANCE OF THE WORK PRIOR TO THE START OF THE CHANGES AND CHANGES TO THE CONTRACT PRICE RESULTING FROM CHANGES IN THE WORK.
- B. WHEREVER REFERENCES ARE MADE TO STANDARDS OR CODES IN ACCORDANCE WITH WHICH WORK IS TO BE PERFORMED OR TESTED, THE EDITION OR REVISION OF THE STANDARDS AND CODES CURRENT ON THE EFFECTIVE DATE OF THIS CONTRACT SHALL APPLY, UNLESS OTHERWISE EDIPESSU'S VERT FORTH.
- IN CASE OF CONFLICT AMONG ANY REFERENCED STANDARDS OR CODES OR BETWEEN MY REFERENCED STANDARDS AND CODES AND THE SPECIFICATIONS, THE MORE RESTRICTIVE STANDARD SHALL APPLY OR OWNER'S REPRESENTATIVE SHALL DETERMINE WHICH SHALL GOVERN.

## 1.6 PROTECTION OF WORK PROPERTY AND PERSON

A. THE CONTRACTOR SHALL ADEQUATELY PROTECT THE WORK, ADJACENT PROPERTY, AND THE PUBLIC, AND SHALL BE RESPONSIBLE FOR ANY DAMAGES OR INJURY DUE TO HIS/HER ACTIONS

#### 1.7 CHANGES IN THE WORK

- A. THE OWNER'S REPRESENTATIVE MAY ORDER CHANGES IN THE WORK, AND THE CONTRACT SUM SHOULD BE ADJUSTED ACCORDINGLY. ALL SUCH ORDERS AND ADJUSTMENTS PLUS CLAIMS BY THE CONTRACTOR FOR EXTRA COMPENSATION MUST BE MADE AND APPROVED IN WRITING BEFORE EXECUTING THE WORK INVOLVED.
- B. ALL CHANGES IN THE WORK, NOTFICATIONS AND CONTRACTOR'S REQUEST FOR INFORMATION (RFI) SHALL CONFORM TO THE CONTRACT GENERAL CONDITION REQUIREMENTS.
- 1.8 CORRECTION OF WORK

A THE CONTRACTOR AT THEIR OWN COST, SHALL RE-EXECUTE ANY WORK THAT FAILS TO CONFORM TO THE EQUIREMENTS OF THE CONTRACT AND SHALL REMEDY DEFECTS DUE TO FAULTY MATERIALS OR FORWANISHIP UPON WRITTEN NOTICE FROM THE OWNER'S REPRESENTATIVE. AT THE SOONEST AS POSSIBLE TIME THAT CAN BE COORDINATED WITH OTHER WORK AND SEASONAL WEATHER DE

### 1.9 DEFINITIONS

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- ALL TERMS IN THIS SPECIFICATION SHALL BE AS DEFINED IN THE "GLOSSARY OF ARBORICULTURAL TERMS" OR AS MODIFIED BELOW
- A. BOXED TREES: A CONTAINER ROOT BALL PACKAGE MADE OF WOOD IN THE SHAPE OF A FOUR-SIDED BOX B. CONTAINER PLANT: PLANTS THAT ARE GROWN IN AND/OR ARE CURRENTLY IN A CONTAINER INCLUDING BOXED
- C. DEFECTIVE PLANT: ANY PLANT THAT FAILS TO MEET THE PLANT QUALITY REQUIREMENT OF THIS SPECIFICATION. . END OF WARRANTY FINAL ACCEPTANCE: THE DATE WHEN THE OWNER'S REPRESENTATIVE ACCEPTS THAT THE 1.14 PLANT WARRANTY FULANTS AND WORK IN THIS SECTION MEET ALL THE REQUIREMENTS OF THE WARRANTY. IT IS INTENDED THAT INTERNAL INC. THE REQUIREMENTS OF THE WARRANTY. IT IS INTERNED THAT A THE CONTRACTOR AGREES TO REPLACE DEFECTIVE WORK AND DEFECTIVE PLANTS. THE OWNER'S SHIP WARRANTY FOR PLANTING, PLANTING SOL, AND IRRIGATION WORK RUN THE MATER CONCURBENT WITH FACH OTHER
- E. FIELD GROWN TREES (B&B): TREES GROWING IN BELD SOIL FOR AT LEAST 12 MONTHS PRIOR TO HARVEST. HEALTHY: PLANTS THAT ARE GROWING IN A CONDITION THAT EXPRESSES LEAF SIZE, CROWN DENSITY, COLOR;
- AND WITH ANNUAL GROWTH RATES TYPICAL OF THE SPECIES AND CULTIVAR'S HORTICULTURAL DESCRIPTION ADJUSTED FOR THE PLANTING SITE SOIL, DRAINAGE AND WEATHER CONDITIONS. G. KINKED ROOT: A ROOT WITHIN THE ROOT PACKAGE THAT BENDS MORE THAN 90 DEGREES.
- H. MAINTENANCE: ACTIONS THAT PRESERVE THE HEALTH OF PLANTS AFTER INSTALLATION AND AS DEFINED IN THIS SPECIFICATION.
- MAINTENANCE PERIOD: THE TIME PERIOD, AS DEFINED IN THIS SPECIFICATION, WHICH THE CONTRACTOR IS TO PROVIDE MAINTENANCE.
- NORMAL: THE PREVAILING PROTOCOL OF INDUSTRY STANDARD(S).
- OWNER'S REPRESENTATIVE: THE PERSON APPOINTED BY THE OWNER TO REPRESENT THEIR INTEREST IN THE REVIEW AND APPROVAL OF THE WORK AND TO SERVE AS THE CONTRACTING AUTHORITY WITH THE CONTRACTOR. THE OWNER'S REPRESENTATIVE MAY APPOINT OTHER PERSONS TO REVIEW AND APPROVE ANY ASPECTS OF THE WORK
- REASONABLE AND REASONABLY: WHEN USED IN THIS SPECIFICATION RELATIVE TO PLANT QUALITY. IT IS INTENDED TO MEAN THAT THE CONDITIONS CITED WILL NOT AFFECT THE ESTABLISHMENT OR LONG TERM STABILITY, HEALTH OR GROWTH OF THE PLANT. THIS SPECIFICATION RECOGNIZES THAT IT IS NOT POSSIBLE TO PRODUCE PLANTS FREE OF ALL DEFECTS, BUT THAT SOME ACCEPTED INDUSTRY PROTOCOLS AND STANDARDS RESULT IN PLANTS UNACCEPTABLE TO THIS PROJECT.

WHEN REASONABLE OR REASONABLY IS USED IN RELATION TO OTHER ISSUES SUCH AS WEEDS, DISEASED. INSECTS, IT SHALL MEAN AT LEVELS LOW ENOUGH THAT NO TREATMENT WOULD BE REQUIRED WHEN APPLYING RECOGNIZED INTEGRATED PLANT MANAGEMENT PRACTICES.

THIS SPECIFICATION RECOGNIZES THAT SOME DECISIONS CANNOT BE TOTALLY BASED ON MEASURED HINDINGS AND THAT PRIORESIONAL JUDGMENT IS REQUIRED. IN CASES OF DIFFENING OPHION, IT: WINER'S REPRESENTATIVES ZIVERTI SHALL DETEXIMINE WHICH CONDITIONS ARE JUDGED AS RESOLVABLE. ROOT BALL: THE MASS OF ROOTS INCLUDING ANY SOIL OR SUBSTRATE THAT IS SHIPPED WITH THE TREE

- N. ROOT BALL PACKAGE THE MATERIAL THAT SUBBOLINDS THE ROOT BALL DURING SHIPPING. THE ROOT
- AROUND THE ROOT BALL FOR SHIPPING. 0. BOOT COLLAB (BOOT CROWN BOOT B ARE TRUNK FLABE, B ARE): THE REGION AT THE BASE OF THE TRUNK
- HERE THE MAJORITY OF THE STRUCTURAL ROOTS JOIN THE PLANT STEM. USUALLY AT OR NEAR GROUN P. SHRUB: WOODY PLANTS WITH MATURE HEIGHT APPROXIMATELY LESS THAN 15 FEET.
- Q. SPADE HARVESTED AND TRANSPLANTED: FIELD GROWN TREES THAT ARE MECHANICALLY HARVESTED AND
- IMMEDIATELY TRANSPLANTED TO THE FINAL GROWING SITE WITHOUT BEING REMOVED FROM THE DIGGING MACHINE R. STEM: THE TRUNK OF THE TREE.
- S. SUBSTANTIAL COMPLETION ACCEPTANCE: THE DATE AT THE END OF THE PLANTING, PLANTING SOL, AND IRRIGATION INSTALLATION WHERE THE OWNER'S REPRESENTATIVE ACCEPTS THAT ALL WORK IN THESE SECTIONS IS COMPLETE AND THE WARRANTY PERIOD HAS BEGIN. THIS DATE MAY BE DIFFERENT THAN THE DATE OF SUBSTANTIAL COMPLETION FOR THE OTHER SECTIONS OF THE PROJECT.
- F. STEM GRDLING ROOT: ANY ROOT MORE THAN 14 NICH DIAMETER CURRENTLY TOUCHING THE TRUNK, OR WITH THE POTENTIAL TO TOUCH THE TRUNK, BOOYE THE ROOT COLLAR APPROXIMATELY TANGENT TO THE TRUNK CIRCUMPERENCE OR CIRCLING THE TRUNK, ROOTS SHALL BE CONSIDERED AS STEM GIRDLING THAT HAVE, OR ARE LIKELY TO HAVE IN THE FUTURE, ROOT TO TRUNK BARK CONTACT. 1.15 SELECTION AND OBSERVATION OF PLANTS
- IL STRUCTURAL BOOT: ONE OF THE LARGEST BOOTS EMERGING FROM THE BOOT COLLAR V. TREE: SINGLE AND MULTI-STEMMED PLANTS WITH MATURE HEIGHT APPROXIMATELY GREATER THAN 15 FEET.
- 1.10 SUBMITTALS
- B. SUBMIT ALL PRODUCT SUBMITTALS 4 WEEKS PRIOR TO INSTALLATION OF PLANTINGS.
- C. PRODUCT DATA: SUBMIT MANUFACTURER PRODUCT DATA AND LITERATURE DESCRIBING ALL PRODUCTS REQUIRED by THIS SECTION TO THE OWNER'S REPRESENTATIVE FOR APPROVAL. PROVIDE SUBMITTAL FOUR WEEKS BEFORE THE INSTALLATION OF PLANTS.
- D. SAMDLES' SUBMIT SAMDLES OF FACH DRODUCT AND MATERIAL WHERE BEOLIDED BY THE SPECIFICATION TO NAMPLES SUBMIT SAMPLES OF CACH PHOLOGY AND MATCHINE WHEN INSURING OF THE SPECIMENTATION OF THE OWNERS REPRESENTATIVE FOR APPROVAL LABEL SAMPLES TO INDICATE PRODUCT, CHARACTERISTICS, NO LOCATIONS IN THE WORK, SAMPLES WILL BE REVIEWED FOR APPEARANCE ONLY. COMPLIANCE WITH ALL OTHER REQUIREMENTS IS THE EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR
- F. CLOSE OUT SUBMITTALS: SUBMIT TO THE OWNER'S REPRESENTATIVE FOR APPROVAL
- 1. PLANT MAINTENANCE DATA AND REQUIREMENTS. WARRANTY PERIOD SITE VISIT RECORD: IF THERE IS NO MAINTENANCE DURING THE WARRANTY PERIOD, AFTER EACH SITE VISIT DURING THE WARRANTY PERIOD, BY THE CONTRACTOR, AS REQUIRED BY THIS SPECIFICATION, SUBMIT A WRITTEN RECORD OF THE VISIT, INCLUDING ANY PROBLEMS, POTENTIAL PROBLEMS, AND ANY RECOMMENDED CORRECTIVE ACTION TO THE OWNER'S REPRESENTATIVE FOR APPROVAL.

### 1.11 OBSERVATION OF THE WORK

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B. THE OWNER'S REPRESENTATIVE SHALL BE INFORMED OF THE PROGRESS OF THE WORK SO THE WORK MAY BE OBSERVED AT THE FOLLOWING KEY TIMES IN THE CONSTRUCTION PROCESS. THE OWNER'S REPRESENTATIVE SHALL BE AFFORDED SUFFICIENT TIME TO SCHEDULE VISIT TO THE SITE. FAILURE OF THE OWNER'S REPRESENTATIVE TO MAKE FIELD OBSERVATIONS SHALL NOT RELIEVE THE CONTRACTOR FROM MEETING ALL THE REQUIREMENTS OF THIS SPECIFICATION

- 1. SITE CONDITIONS PRIOR TO THE START OF PLANTING: REVIEW THE SOIL AND DRAINAGE CONDITIONS. 2. COMPLETION OF THE PLANT LAYOUT STAKING: REVIEW OF THE PLANT LAYOUT.
- 3. PLANT QUALITY: REVIEW OF PLANT QUALITY AT THE TIME OF DELIVERY AND PRIOR TO INSTALLATION. REVIEW TREE QUALITY PRIOR TO UNLOADING WHERE POSSIBLE, BUT IN ALL CASES PRIOR TO PLANTING.
- 4. COMPLETION OF THE PLANTING: REVIEW THE COMPLETED PLANTING.

### 1.12 PRE-CONSTRUCTION CONFERENCE

1 13 OUALITY ASSURANCE

# VARBANTY PERIOD

- 1. ONCE THE CONTRACTOR COMPLETES THE INSTALLATION OF ALL ITEMS IN THIS SECTION, THE OWNER'S REPRESENTATIVE WILL OBSERVE ALL WORK FOR SUBSTANTIAL COMPLETION ACCEPTANCE UPON WRITTEN REQUEST OF THE CONTRACTOR. THE REQUEST SHALL BE RECEIVED AT LEAST TEN CALENDAR DAYS BEFORE THE ANTICIPATED DATE OF THE OBSERVATION.
- SUBSTAILTAL COMPLETION ACCEPTANCE BY THE OWNER'S REPRESENTATIVE SHALL BE FOR GENERAL CONFORMANCE TO SPECIFIED SEE, CHARACTER AND QUALITY AND NOT RELEVE THE CONTRACTOR OF RESPONSIBILITY FOR FULL CONFORMANCE TO THE CONTRACT DOCUMENTS, INCLUDING CORRECT SPECIES.
- 3. ANY PLANTS THAT ARE DEEMED DEFECTIVE AS DEFINED UNDER THE PROVISIONS BELOW SHALL NOT BE 1.16 PLANT SUBSTITUTIONS FOR PLANTS NOT AVAILABLE

# THE OWNER'S REPRESENTATIVE WILL PROVIDE THE CONTRACTOR WITH WRITTEN ADXNOWLEDGMENT OF THE DATE OF SUBSTANTIAL COMPLETION ACCEPTANCE AND THE BEGINNING OF THE WARRANTY PERIOD AND PLANT MAINTENANCE PERIOD (FPLANT MAINTENANCE BIG NEULUED).

- C. CONTRACTOR'S QUALITY ASSURANCE RESPONSIBILITIES: THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DUALITY CONTROL OF THE WORK
- D. INSTALLER QUALIFICATIONS: THE INSTALLER SHALL BE A FIRM HAVING AT LEAST 5 YEARS OF SUCCESSFUL EXPERIENCE OF A SCOPE SIMILAR TO THAT REQUIRED FOR THE WORK, INCLUDING THE HANDLING AND PLANTING OF LARGE SPECIMEN TREES IN URBAN AREAS. THE SAME FIRM SHALL INSTALL PLANTING SOIL 1.17 SITE CONDITIONS (WHERE APPLICABLE) AND PLANT MATERIAL.
- INSTALLER FIELD SUPERVISION: WHEN ANY PLANTING WORK IS IN PROGRESS, INSTALLER SHALL MAINTAIN, ON SITE, A FULL-TIME SUPERVISOR WHO CAN COMMUNICATE IN ENGLISH WITH THE OWNER'S REPRESENTATIVE
- INSTALLER'S FIELD SUPERVISOR SHALL HAVE A MINIMUM OF FIVE YEARS DOPENIENCE AS A FIELD SUPERVISOR INSTALLING PLANTS AND TREES OF THE QUALITY AND SCALE OF THE PROPOSED PROJECT, AND WHO CAN COMMUNICATE IN ENGLISH WITH THE OWNER'S REPRESENTATIVE.
- THE INSTALLER'S CREW SHALL HAVE A MINIMUM OF 3 YEARS EXPERIENCED IN THE INSTALLATION ( Planting Soil, plantings, and irrigation (where applicable) and interpretation of Soil Planting plans and irrigation plans.
- SUBMIT REFERENCES OF PAST PROJECTS, EMPLOYEE TRAINING CERTIFICATIONS THAT SUPPORT THAT THE CONTRACTORS MEETS ALL OF THE ABOVE INSTALLER QUALIFICATIONS AND APPLICABLE LICENSURES.
- REPRESENTATIVE SHALL MAKE THE FINAL DETERMINATION IF PLANTS MEET THESE SPECIFICATIONS OR THAT PLANTS ARE DEFECTIVE.
- B. PLANTS WARRANTY SHALL BEGIN ON THE DATE OF SUBSTANTIAL COMPLETION ACCEPTANCE AND CONTINUE FOR THE FOLLOWING PERIODS, CLASSED BY PLANT TYPE:
- 1. TREES 1 YEAR.
- 2. SHRUBS 1 YEAR.
- 3. GROUND COVER AND PERENNIAL FLOWER PLANTS 1 YEAR.
- 4. BULBS, ANNUAL FLOWER AND SEASONAL COLOR PLANTS FOR THE PERIOD OF EXPECTED BLOOM OR PRIMARY DISPLAT
- C. WHEN THE WORK IS ACCEPTED IN PARTS, THE WARRANTY PERIODS SHALL EXTEND FROM EACH OF THE PARTIAL SUBSTANTIAL COMPLETION ACCEPTANCES TO THE TERMINAL DATE OF THE LAST WARRANTY PERIOD. THUS, ALL WARRANTY PERIODS FOR EACH CLASS OF PLANT WARRANTY, SHALL TERMINATE AT ONE TIME. ALL PLANTS SHALL BE WARRANTED TO MEET ALL THE REQUIREMENTS FOR PLANT QUALITY AT INSTALLATION IN THIS SPECIFICATION DEPECTIVE PLANTS SHALL BE REQUIREMENTS FOR PLANT QUALITY AT INSTALLATION IN THIS SPECIFICATION DEPECTIVE PLANTS SHALL BE REQUIREMENTS. THE OWNER'S REPLECEMENTS ARE REQUIREMENTS. THE OWNER'S REPRESENTATIVE SHALL MAKE THE FINAL DETERMINATION THAT PLANTS ARE

DEFECTIVE.

E. PLANTS DETERMINED TO BE DEFECTIVE SHALL BE REMOVED IMMEDIATELY UPON NOTIFICATION BY OWNER'S REPRESENTATIVE AND REPLACED WITHOUT COST TO THE OWNER, AS SOON AS WEATHER CONDITIONS PERMIT AND WITHIN THE SPECIFIED PLANTING PERIOD.

ANY WORK REQUIRED BY THIS SPECIFICATION OR THE OWNER'S REPRESENTATIVE DURING THE PROGRESS OF

THE WORK, TO CORRECT PLANT DEFECTS INCLUDING THE REMOVAL OF ROOTS OR BRANCHES, TO OBSERVE FOR OR CORRECT ROOT DEFECTS SHALL NOT BE CONSIDERED AS GROUNDS TO VOID ANY CONDITIONS OF THE AVARAMIN, IN THE EVENT THAT THE CONTRACTOR DECEDE THAT SUCH REMOVATION OF MANY COMPROMISE THE FUTURE HEALTH OF THE FLANT, THE FLANT OR FULATIS IN QLESTION SHALL BE RELECTED AND REPLACED WITH FLANTS THAT ON ONIT CONTRAIN DEFECTS THAT REQUER REMOVATION OF CORRECTION 1. ALL FLANTS, B A. STANDARDS AND MEASUREMENT: PROVIDE PLANTS OF QUANTITY, SIZE, GENUS, SPECIES, AND VARIETY OR CULTIVARS AS SHOWN AND SCHEDULED IN CONTRACT DOCUMENTS

- G. THE CONTRACTOR IS EXEMPT FROM REPLACING PLANTS, AFTER SUBSTANTIAL COMPLETION ACCEPTANCE AND ITY PERIOD. THAT ARE REMOVED BY OTHERS, LOST OR DA D DUE TO OCCUPANCY DURING THE WA PROJECT LOST OR DAMAGED BY A THIRD PARTY, VANDALISM, OR ANY NATURAL DISASTER
- H. REPLACEMENTS SHALL CLOSELY MATCH ADJACENT SPECIMENS OF THE SAME SPECIES. REPLACEMENTS SHALL BE SUBJECT TO ALL REQUIREMENTS STATED IN THIS SPECIFICATION. MAKE ALL NECESSARY REPAIRS DUE TO PLANT REPLACEMENTS, SUCH REPAIRS SHALL BE DONE AT NO EXTRA COST TO THE OWNER.
- THE WARRANTY OF ALL REPLACEMENT PLANTS SHALL EXTEND FOR AN ADDITIONAL ONE-YEAR PERIOD FROM HE DATE OF THEIR ACCEPTANCE AFTER REPLACEMENT. IN THE EVENT THAT A REPLACEMENT PLANT IS NOT ACCEPTABLE DURING OR AT THE END OF THE SAID EXTENDED WARRANTY PERIOD, THE OWNERS EPRESENTATIVE MAY ELECT ONE MORE REPLACEMENT ITEMS OR CREDIT FOR EACH ITEM. THESE TERTIARY REPLACEMENT ITEMS ARE NOT PROTECTED UNDER A WARRANTY PERIOD.
- J. DURING AND BY THE END OF THE WARRANTY PERIOD, REMOVE ALL ABOVE GROUND TREE ASSESSMENTS PRESENT (IE: THEE WHAP, TES, AND GUYNG) UNLESS AGREED TO BY THE OWNERS'S REPRESENTATIVE TO REMAIN IN PLACE. ALL THEES THAT DO NOT HAVE SUPROBIL CONTREST OR TO AND AN UNDERLY OR THOSE REQUIRED BY THE OWNERS'S REPRESENTATIVE. K. END OF WARRANTY RINAL ACCEPTANCE - ACCEPTANCE OF PLANTS AT THE END OF THE WARRANTY PERIOD

1. AT THE END OF THE WARRANTY PERIOD, THE OWNER'S REPRESENTATIVE SHALL OBSERVE ALL WARRANTED WORK, UPON WRITTEN REQUEST OF THE CONTRACTOR. THE REQUEST SHALL BE RECEIVED AT LEAST TEN

2. END OF WARRANTY FINAL ACCEPTANCE WILL BE GIVEN ONLY WHEN ALL THE REQUIREMENTS OF THE WORK UNDER THIS SPECIFICATION AND IN SPECIFICATION SECTION IRRIGATION HAVE BEEN MET

A THE OWNER'S REPRESENTATIVE MAY REVIEW ALL PLANTS SUBJECT TO APPROVAL OF SIZE, HEALTH, QUALITY, CHARACTER, ETC. REVIEW OR APPROVAL OF ANY PLANT DURING THE PROCESS OF SELECTION, DELIVERY, INSTALLATION AND ESTABLISHMENT FERIOD SANLING TO PREVINT THAT PLANT FROM LATER RELECTION IN THE EVENT THAT THE PLANT QUALITY CHANGES OR PREVIOUSLY EVISITING DEFECTS BECOME APPARENT THAT WERE

NOT OWNERTED. 8. PLANT CBLECTON: THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO SELECT AND OBSERVE ALL PLANTS AT THE NURSERY PRIOR TO DELIVERY AND TO REJECT PLANTS THAT DO NOT MEET SPECIFICATIONS AS SET FORTH IN THIS SPECIFICATION. IF A PARTICULAR DEFECT OR SUBSTANDARD DELIVERT CAN BE CORRECTED AT THE NURSERY, AS DETERMINED BY THE OWNERS REPRESENTATIVE. THE ARGED OWN REMEDY MAY BE APPLED BY THE NURSERY OR THE CONTRACTOR PROVIDED THAT THE CORRECTION ALLOWS THE PLANT TO MEET THE REMEMBRIS SET FORTH IN THIS SPECIFICATION. ANY WORK TO CORRECT PLANT DEFECTS SHALL BE AT THE CONTRACTORS EXPENSE.

THE OWNER'S REPRESENTATIVE MAY MAKE INVASIVE ORSERVATION OF THE TREE'S BOOT SYSTEM IN THE

THE UMMETS INCEPTEENTIATIVE WAT MORE INVESTIGATION OF THE INCE INCUT INTELLISM IN THE AREA OF THE ROOT COLLAR AND THE TOP OF THE MOOT BALL IN GENERAL IN ORDER TO DETERMINE THAT THE THEE MEETS THE QUALITY REQUIREMENTS FOR DETTING THE ROOT COLLAR AND PRESENCE OF ROOTS ABOVE THE ROOT COLLAR, SUCH OBSERVITIONS WILL NOT HARM THE PLANT.

CALENDAR DAYS BEFORE THE ANTICIPATED DATE FOR FINAL OBSERVATION

2. CORRECTIONS ARE TO BE UNDERTAKEN AT THE NURSERY PRIOR TO SHIPPING.

D. ALL PLANTS THAT ARE REJECTED SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND ACCEPTABLE REPLACEMENT PLANTS PROVIDED AT NO COST TO THE OWNER.

E. SUBMIT TO THE OWNER'S REPRESENTATIVE, FOR APPROVAL, PLANT SOURCES INCLUDING THE NAMES AND LOCATIONS OF NURSENEE PROPOSED AS SOURCES OF ACCEPTABLE PLANTS, AND A LIST OF THE PLANTS THEY WILL PROVIDE THE PLANT IS TALL INCLUE THE OTTAINCLA LAD COMMON NAME AND THE SIZE AT THE TIME OF SELECTION. OBSERVE ALL INURSERY MATERIALS TO DETERMINE THAT THE MATERIALS MEET THE

TREES SHALL BE PURCHASED FROM THE GROWING NURSERY, RE-WHOLESALE PLANT SUPPLIERS SHALL NOT

INCES SHALL BE FUNCTINGED FROM THE UNDERWIS INDIGET. THE "FINDLEGAGE FUNIT SUPPLIEDS SHALL NU BE USED AS SOURCES UNLESS THE CONTRACTOR CAN CERTIFY THAT THE REQURED TREES ARE UNT DIRECT AVAILABLE FROM A ERROWING NURSERY. WHEN RE-WHOLESALE SUPPLIESS ARE UNTLEED, THE CONTRACTOR SHALL SUBMIT THE NAME AND LOCATION OF THE GROWING NURSERY FROM WHERE THE TREES WERE ORTANOD BY THE NEWHOLESALE SELLET. THE RE-WHOLESALE SURSERY SHALL BE RESPONSIBLE FOR ANY

ENTATIVE TO OBSERVE THE BOOT SYSTEM OF ALL PLANTS AT THE NURSERY OR JOB SITE PRIOR TO

OBSERVATION MAY BE AS FREQUENT AND AS EXTENSIVE AS NEEDED TO VERIFY THAT THE PLANTS MEET THE

H. EACH TREE SHALL HAVE A NUMBERED SEAL APPLIED BY THE CONTRACTOR. THE SEAL SHALL BE PLACED ON A

LATERAL BRANCH ON THE NORTH SIDE OF THE TREE. THE SEAL SHALL BE A TAMPER PROOF PLASTIC SEAL

DO NOT PLACE SEALS ON BRANCHES THAT ARE SO LARGE THAT THERE IS NOT SUFFICIENT ROOM FOR THE BRANCH GROWTH OVER THE PERIOD OF THE WARRANTY.

THE OWNER'S REPRESENTATIVE MAY CHOOSE TO ATTACH THEIR SEAL TO EACH PLANT, OR A REPRESENTATIVE SAMPLE. VIEWING AND,OR SEALING OF PLANTS BY THE OWNER'S REPRESENTATIVE AT THE NURSERY DOES NOT PRECLUDE THE OWNER'S REPRESENTATIVE'S RIGHT TO RELECT MARTENIAL WHILE ON SITE. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ANY UP CHARGE FOR THE OWNER'S REPRESENTATIVE TO ATTACH THEIR SEAL TO

WHERE REQUESTED BY THE OWNER'S REPRESENTATIVE, SUBMIT PHOTOBRAPHS OF PLANTS ON REPRESENTATIVE SAMPLES OF PLANTS, PHOTOBRAPHS SHALL BE LEGBLE AND CLEARLY OSPICT THE PLANT SPECIMEN, EACH SUBMITTED IMAGE SHALL CONTAIN A HEIGHT REFERENCE, SUCH AS A MEASURING STICK. TH APPROVAL OF PLANTS BY THE OWNER'S REPRESENTATIVE VIA PHOTOBRAPH DOES NOT PRECLUDE THE OWNER'S REPRESENTATIVE'S INGHT TO REJECT MATERIAL WHILE ON STE.

A. SUBMIT ALL REQUESTS FOR SUBSTITUTIONS OF PLANT SPECIES, OR SIZE TO THE OWNER'S REPRESENTATIVE,

FOR APPROVAL, PRIOR TO PURCHASING THE PROPOSED SUBSTITUTION. REQUEST FOR SUBSTITUTION SHALL ACCOMPANIED WITH A LIST OF NURSERIES CONTACTED IN THE SEARCH FOR THE REQUIRED PLANT AND A

RECORD OF OTHER ATTEMPTS TO LOCATE THE REQUIRED MATERIAL. REQUESTS SHALL ALSO INCLUDE SOURCES OF PLANTS FOUND THAT MAY BE OF A SMALLER OR LARGER SIZE, OR A DIFFERENT SHAPE OR HABIT

THAN SPECIFIED, OR PLANTS OF THE SAME GENUS AND SPECIES BUT DIFFERENT CULTIVAR ORIGIN, OR WHICH MAY OTHERWISE NOT MEET THE REQUIREMENTS OF THE SPECIFICATIONS, BUT WHICH MAY BE AVAILABLE FOR

A. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF ALL SURFACE AND SUB-SURFACE

CONDITIONS, AND TO NOTIFY THE OWNER'S REPRESENTATIVE, IN WRITING, OF ANY CIRCUMSTAN WOULD NEGATIVELY IMPACT THE HEALTH OF PLANTINGS. DO NOT PROCEED WITH WORK UNTIL

B. IT IS THE BESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE LOCAL GROWING CONDITIONS AND

C. THIS SPECIFICATION REQUIRES THAT ALL PLANTING SOIL AND IRRIGATION (IF APPLICABLE) WORK BE

ARE SUITABLE IN ACCORDANCE WITH LOCALLY ACCEPTED HORTICULTURAL PRACTICES.

COMPLETED AND ACCEPTED PRIOR TO THE INSTALLATION OF ANY PLANTS

IF ANY SPECIFIED PLANTS WILL BE IN CONFLICT WITH THESE CONDITIONS. REPORT ANY POTENTIAL CONFLICTS,

1. PLANTING OPERATIONS SHALL NOT BEGIN UNTIL SUCH TIME THAT THE IRRIGATION SYSTEM IS COMPLETELY

DO NOT INSTALL PLANTS INTO SATURATED OR FROZEN SOILS. DO NOT INSTALL PLANTS DURING INCLEMENT WEATHER, SUCH AS RAIN OR SNOW OR DURING EXTREMELY HOT, COLD OR WINDY CONDITIONS.

A. CONTRACTOR SHALL CAREFULLY EXAMINE THE CML, RECORD, AND SURVEY DRAWINGS TO BECOME FAMILIAR WITH THE EXISTING UNDERGROUND CONDITIONS BEFORE DIGGING.

POSSIBLE DAMAGE. HAND EXCAVATE, AS REQUIRED. MAINTAIN GRADE STAKES SET BY OTHERS UNTIL PARTIES CONCERNED MUTUALLY AGREE UPON REMOVAL.

C. NOTIFICATION OF LOCAL UTILITY LOCATOR SERVICE (AS NOTED ON DRAWINGS) IS REQUIRED FOR ALL PLANTING

AREAS THE CONTRACTOR IS RESPONSIBLE FOR KNOWING THE LOCATION AND AVOIDING UTILITIES THAT ARE NOT COVERED BY THE LOCAL UTILITY LOCATOR SERVICE.

B. DETERMINE LOCATION OF UNDERGROUND UTILITIES AND PERFORM WORK IN A MANNER THAT WILL AVOID

D. ACTUAL PLANTING SHALL BE PERFORMED DURING THOSE PERIODS WHEN WEATHER AND SOIL CONDITIONS

OPERATIONAL FOR THE AREA(S) TO BE PLANTED, AND THE IRRIGATION SYSTEM FOR THAT AREA HAS BEEN PRELIMINARILY OBSERVED AND APPROVED BY THE OWNER'S REPRESENTATIVE.

INSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

IN WRITING, TO THE OWNER'S REPRESENTATIVE.

1.18 PLANTING AROUND UTILITIES

PART 2 PRODUCTS

6 THE CONTRACTOR SHALL BEQUIRE THE GROWER OR RE-WHOLESALE SUPPLIER TO PERMIT THE OWNERS

PLANTING INCLUDING BANDOM REMOVAL OF SOLL OR SUBSTRATE ABOUND THE BASE OF THE PLANT

BEARING THE CONTRACTORS NAME AND A UNIQUE SEVEN-DIGIT NUMBER EMBOSSED ON THE SEAL.

WHERE REQUESTED BY THE OWNER'S REDRESENTATIVE, SUBMIT DHOTOGRAPHS OF DUANTS OR

BEQUIREMENTS OF THE SPECIFICATIONS AND CONFORM TO BEQUIREMENTS

C. THE CONTRACTOR SHALL BEAR ALL COST RELATED TO PLANT CORRECTIONS

EMENTS OF THIS SECTION

UIRED PLANT QUALITY CERTIFICATIO

SPECIFIC PLANTS

SUBSTITUTION

NOT OBSERVED

### 2.3 ANNUAL FLOWERING AND SEASONAL COLOR PLANTS

I. ALL PLANTS, INCLUDING THE ROOT BALL DIMENSIONS OR CONTAINER SIZE TO TRUNK CALIPER RATIO,

SHALL CONFORM TO ANSI 250.1 "AMERICAN STANDARD FOR NURSERY STOCK" LATEST EDITION, UNLESS MODIFIED BY PROVISIONS IN THIS SPECIFICATION. WHEN THERE IS A CONTACT BY EMPERITING SPECIFICATION AND ANSI 360.1, THIS SPECIFICATION SECTION SHALL BE CONSIDERED CORRECT.

PLAYTS LARGER THAN SPECIFICD MAY BE USED IF ACCEPTABLE TO THE OWNER'S REPRESENTATIVE. USE OF SUCH PLAYTS SHALL NOT INCREASE THE CONTRACT PRICE. IF LARGER PLAYTS ARE ACCEPTED THE ROOT BALL SIZE SHALL BE IN ACCORDINCE WITH ANSI Z-60.1. LARGER PLAYTS MAY NOT BE ACCEPTED THE ROOT RESULTING ROOT BALL CANNOT BE HT INTO THE REQUIRED PLAYTING SPACE.

IF A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE AND NOT LESS THAN 50 PERCENT OF THE PLANTS, SHALL BE AS LARGE AS THE MAXIMUM SIZE SPECIFIED. THE MEASUREMENTS.

SPECIFIED ARE THE MINIMUM AND MAXIMUM SIZE ACCEPTABLE AND ARE THE MEASUREMENTS AFTER

ERVATION FOR PLANT DISEASE. PESTS, AND WEEDS, OBSERVATION CERTIFICATES REQUIRED BY LAW

GENERAL: PROVIDE HEALTHY STOCK, GROWN IN A NURSERY AND REASONABLY FREE OF DIE-BACK, DISEASE, INSECTS, EGGS, BORES, AND LARVAE. AT THE TIME OF PLANTING ALL PLANTS SHALL HAN ROOT SYSTEM, STEM, AND BRANCH FORM THAT WILL NOT RESTRICT NORMAL GROWTH, STABILITY

CLEARANCE FROM THE LOCAL COUNTY AGRICULTURAL COMMISSIONER, IF REQUIRED, SHALL BE OBTAINED BEFORE PLANTING THEES ORIGINATING OUTSIDE THE COUNTY IN WHICH THEY ARE TO BE PLANTED.

- PARTS SHALL BE HEALTRY WITH THE COLOR, SHAPE, SIZE AND DISTRIBUTION OF TRUNK, STEMS, BRANCHES, BUDS AND LEAVES NORMAL TO THE PLANT TYPE SPECIFIED. THER QUALITY ABOVE THE SOIL LINE SHALL COMPLY WITH THE PROJECT CROWN ACCEPTIANCE DETAILS AND THE COLLOWING:

1.) CROWN: THE FORM AND DENSITY OF THE CROWN SHALL BE TYPICAL FOR A YOUNG SPECIMEN OF THE SPECIES OR CULTIVAR PRUNED TO A CENTRAL AND DOMINANT LEADER.

A.) CROWN SPECIFICATIONS DO NOT APPLY TO PLANTS THAT HAVE BEEN SPECIFICALLY TRAINED IN

2.) LEAVES: THE SIZE, COLOR, AND APPEARANCE OF LEAVES SHALL BE TYPICAL FOR THE TIME OF YEAR AND STAGE OF GROWTH OF THE SPECIES OR OULTWAR. TREES SHALL NOT SHOW SIGNO OF PROLONGED MOISTING STRESS OR OVER WATERING AS MOLICATED BY WILLTED, SHRIVELED, OR DEAD

APPROPRIATE FOR THE AGE AND SIZE OF THE SPECIES OR CULTIVAR. TREES SHALL NOT HAVE DEAD,

3.) BRANCHES: SHOOT GROWTH (LENGTH AND DIAMETER) THROUGHOUT THE CROWN SHOULD BE

A.) MAIN BRANCHES SHALL BE DISTRIBUTED ALONG THE CENTRAL LEADER NOT CLUSTERED TOGETHER. THEY SHALL FORM A BALANCED CROWN APPROPRIATE FOR THE CULTIVARYS

DIAMETER OF THE CENTRAL LEADER MEASURED 1 INCH ABOVE THE BRANCH UNION

B.) BRANCH DIAMETER SHALL BE NO LARGER THAN TWO-THIRDS (ONE-HALF IS PREFERRED) THE

C.) THE ATTACHMENT OF THE LARGEST BRANCHES (SCAFFOLD BRANCHES) SHALL BE FREE OF

4.) TRUNK: THE TREE TRUNK SHALL BE RELATIVELY STRAIGHT, VERTICAL, AND FREE OF WOUNDS THAT PENETRATE TO THE WOOD (PROPERLY MADE PRUNING CUTS, CLOSED OR NOT, ARE ACCEPTABLE AND ARE NOT CONSIDERED WOUNDS), SUNBURNED AREAS, CONKS (FUNGAL FRUITING BODIES), WOOD

CRACKS, SAP LEAKAGE, SIGNS OF BORING INSECTS, GALLS, CANKERS, GIRDLING TIES, OR LESIONS

PORARY BRANCHES, UNLESS OTHERWISE SPECIFIED, CAN BE PRESENT ALONG THE LOWER

TRUNK BELOW THE LOWEST MAIN (SCAFFOLD) BRANCH, PARTICULARLY FOR TREES LESS THAN T INCH IN CALIPER. THESE BRANCHES SHOULD BE NO GREATER THAN 30-ANCH DIAMETER. CLEAR TRUNK SHOLDD BE IN OMORE THAN 40% OF THE TOTAL HIGHT OF THE TREE, UNLESS OTHERWIS SPECIFIED ON THE DRAIMINGS (WHICHEVER IS GREATER).

b. TREES SHALL HAVE ONE CENTRAL LEADER AS NOTED IN PLANT LIST. IF THE LEADER WAS HEADED, A

1.) ALL THEES ARE ASSUMED TO HAVE ONE CENTRAL LEADER TREES UNLESS A DIFFERENT FORM IS SPECIFIED IN THE PLANT LIST OR DRAWINGS.

GRAFT REJECTION, ALL GRAFTS SHALL BE VISIBLE ABOVE THE SOIL LINE.

WITH THE PROJECT ROOT ACCEPTANCE DETAILS AND THE FOLLOWING

1.) THE ROOTS SHALL BE REASONABLY FREE OF SCRAPES, BROKEN OR SPLIT WOOD.

C. ALL GRAFT UNIONS, WHERE APPLICABLE, SHALL BE COMPLETELY CLOSED WITHOUT VISIBLE SIGN OF

d. TRUME CALIPER AND TAPER SHALL BE SUFFICIENT SO THAT THE LOWER RIVE FEET OF THE TRUME REMAINS VERTICAL WITHOUT A STAKE AUXILIARY STAKE MAY BE USED TO MAINTAIN A STRAIGHT

a. PLANT ROOTS SHALL BE NORMAL TO THE PLANT TYPE SPECIFIED. ROOT OBSERVATIONS SHALL TAKE PLACE WITHOUT IMPACTING TREE HEALTH. ROOT QUALITY AT OR BELOW THE SOIL LINE SHALL COMPLY

2) THE ROOT SYSTEM SHALL BE REASONABLY FREE OF INJURY FOR MIDIT (E.G., INCECTS AND PATHOGENS) AND ABIOTIC (E.G., HERBICIDE TOXICITY AND SALT INJURY) AGENTS. WOUNDS RESULTING FROM ROOT PRUNING USED TO PRODUCE A HIGH QUALITY ROOT SYSTEM ARE NOT CONSIDERED INJURIES.

3.) A MINIMUM OF THREE STRUCTURAL ROOTS REASONABLY DISTRIBUTED AROUND THE TRUNK (NOT CLUSTERED ON ONE SIDE) SHALL BE FOUND IN EACH PLANT. ROOT DISTRIBUTION SHALL BE UNFORM THROUGHOUT THE ROOT BALL, AND GROWTH SHALL BE APPROPRIATE FOR THE SPECIES.

A.) PLANTS WITH STRUCTURAL ROOTS ON ONLY ONE SIDE OF THE TRUNK (J ROOTS) SHALL BE

THE SUBJECT PARTY OF THE SECTION OF THE SECTION OF THE SUBJECT AND SUBJECT AND

6.) AT TIME OF OBSERVATIONS AND DELIVERY, THE ROOT BALL SHALL BE MOIST THROUGHOUT. ROOTS

SHALL NOT SHOW SIGNS OF EXCESS SOIL MOISTURE CONDITIONS AS INDICATED BY STUNTED,

4.) THE ROOT COLLAR SHALL BE WITHIN THE UPPER 2 INCHES OF THE SUBSTRATE/SOIL. TWO

5.) THE ROOT SYSTEM SHALL BE REASONABLY FREE OF STEM GIRDLING ROOTS OVER THE ROOT COLLAR OR KINKED ROOTS FROM NURSERY PRODUCTION PRACTICES.

ACKAGES SHALL BE BEDUBED WHERE INDICATED ON THE PLANT LIST OR IN THIS SPECIFICATION, ANY TYPE OF BOOT

1. ALL BALLED AND BURLAPPED PLANTS SHALL BE RELD GROWN, AND THE ROOT BALL PACKAGED IN A BURLAP AND TWINE AND/OR BURLAP AND WIRE BASKET PACKAGE.

2. PLANTS SHALL BE HARVESTED WITH THE FOLLOWING MODIFICATIONS TO STANDARD NURSERY PRACTICES.

A PRIOR TO DIGGING ANY TREE THAT FAILS TO MEET THE REQUIREMENT FOR MAXIMUM SOIL AND ROOTS

ABOVE THE ROOT COLLAR, CAREFULLY REMOVED THE SOIL FROM THE TOP OF THE ROOT BALL OF EACH PLANT, USING HAND TOOLS, WATER OR AN AIR SPADE, TO LOCATE THE ROOT COLLAR AND ATTAIN THE

Soil depth over the structural roots requirements. Remove all stem Girdling Roots Above the Root Collar. Care must be exercised not to damage the surface of the Root

THEES SHALL BE DUGFOR A MINIMUM OF A WEEKS AND A MAAMMIN OF S2 WEEKS FHILDN TO SIMPPINE. THEES DUG FOR S2 WEEKS FRONT OF SIMPINE AND ENHERD AS HANDENDEO-OF. DISGING IS DEFINED AS CUITING ALL ROOTS AND LIFTING THE THEE OUT OF THE GROUND AND ETHER MOWING IT TO A NEW LOCATION IN THE MINISERY OF PLACING IF BACK NOT TO THE SAME HOLE THESS THAT AN ARE STORED OUT OF THE GROUND SHALL BE FLACED IN A HOLDING AREA PROTECTED FROM EXTREMES OF WIND AND SUN WITH THE ROOT BALL PROTECTED BY COVERING WITH MULCH OR STHAWA AND RINGRED SUMFICIENTLY TO KEEP MOISTURE IN THE ROOT BALL ABOVE WILT POWIT AND BELOW SATURATION

C TWINE AND BURLAP USED FOR WRAPPING THE ROOT BALL PACKAGE SHALL BE NATURAL

. CONTAINER PLANTS MAY BE PERMITTED ONLY WHEN INDICATED ON THE DRAWING, IN THIS SPECIFICATION, OR APPROVED BY THE OWNER'S REPRESENTATIVE.

CONTAINER CLASS SIZE SHALL CONFORM TO ANSI Z60.1 FOR CONTAINER PLANTS FOR EACH SIZE AND TYPE OF PLANT.

BIODEGRADABLE MATERIAL. IF THE BURLAP DECOMPOSES AFTER DIGGING THE TREE THEN THE ROOT BALL SHALL BE RE-WRAPPED PRIOR TO SHIPPING IF ROOTS HAVE NOT YET GROWN TO KEEP ROOT BALL

b. TREES SHALL BE DUG FOR A MINIMUM OF 4 WEEKS AND A MAXIMUM OF 52 WEEKS PRIOR TO SHIPPING.

New Leader (with a live terminal bud) at least one-half the diameter of the pruning cut

DISEASED, BROKEN, DISTORTED, OR OTHERWISE INJURED BRANCHES.

THE NURSERY AS TOPIARY, ESPALIER, MULTI-STEM, CLUMP, OR UNIQUE SELECTIONS SUCH AS

B. PROPER IDENTIFICATION: ALL TREES SHALL BE TRUE TO NAME AS ORDERED OR SHOWN ON PLANTING PLANS

AND SHALL BE LABELED INDIVIDUALLY OR IN GROUPS BY GENUS, SPECIES, VARIETY AND CULTIVAR

C. COMPLIANCE: ALL TREES SHALL COMPLY WITH FEDERAL AND STATE LAWS AND REGULATIONS REQUIRING

ING WHERE PRUNING IS BEDLIBED

SHALL ACCOMPANY EACH SHIPMENT OF PLANTS.

HEALTH FOR THE EXPECTED LIFE OF THE PLANT

CONTORTED OR WEEPING CULTIVARS.

2 REANT OLIVE ITY ABOVE THE SOLE LINE

MECHANICAL INJURY)

SHALL BE PRESENT

UTION SHALL BE

ISOLIDATE LOW CUMULING HAVE BEEN CURRECTED. SHULD SUBJURPACE DRAMAGE OR SOL CONDITIONS BE ENCOUNTERED WHICH WOULD BE DETRIMENTAL TO GROWTH OR SURVIVAL OF PLANT MATERIAL. THE CONTRACTOR SHALL NOTEY THE OWNER'S REPRESENTATIVE N. WRITING, STATUSE THE CONDITIONS AND SUBJURT A PROPOSAL COVERING COST OF CORRECTIONS, FIESHE SHALL, REMAIN RESPONSIBLE FOR PLANT MATERIAL UNDER THE WARRANTY CLAUSE BALL PACKAGES SHALL BE REQUIRED WHERE INDICATED ON THE SPECIFICATION. ANY TYPE OF ROO CONDITIONS, HESHE SHALL, REMAIN RESPONSIBLE FOR PLANT MATERIAL UNDER THE WARRANTY CLAUSE BALL PACKAGES THAT IS NOT SPECIFICATION. THE SPECIFICATION SHALL NOT BE PERMITTED.

LEADER IN THE UPPER HALF OF THE TREE.

DISCOLORED, DISTORTED, OR DEAD ROOTS

COLLAR AND THE TOP OF THE STRUCTURAL BOOTS

CONTAINER (INCLUDING ABOVE-GROUND FABRIC CONTAINERS AND BOXES) PLANTS

2. PROVIDE PLANTS SHALL BE ESTABLISHED AND WELL ROOTED IN REMOVABLE CONTAINERS

A. BALLED AND BURLAPPED PLANTS

INTACT DURING SHIDDING

PLANT QUALITY AT OR BELOW THE SOIL LINE:

PLANT QUALITY:

A. CONTAINER OR FLAT-GROWN PLANTS SHOULD BE SIZED AS NOTED IN THE PLANTING PLAN. PLANTS SHALL BE

![](_page_186_Figure_102.jpeg)

![](_page_186_Figure_103.jpeg)

Figure 106; Page F.107; October 1, 2024 THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION

- 2.4 PLANTING SOIL
- A. PLANTING SOIL AS USED IN THIS SPECIFICATION MEANS THE SOIL AT THE PLANTING SITE, OR IMPORTED AS MODIFIED AND DEFINED IN SPECIFICATION SECTION PLANTING SOIL. IF THERE IS NO PLANTING SOIL SPECIFICATION, THE TERM PLANTING SOIL SHALL MEAN THE SOIL AT THE PLANTING SITE WITHIN THE PLANTING
- B. PLANTING SOIL SHALL BE PER PLANTING SOILS PLAN

### 2.5 MULCH

- A MULCH SHALL BE COARSE, GROUND, FROM HARDWOOD TREES AND WOODY BRUSH SOURCES. THE SIZE BANG MUCH SHALL BE COARSE, GROUND, FROM HAROWOOD THEES AND WOODY BRUSH SOURCES. THE SEE FAMILE SHALL BE A MINIMUM (ESS THAN 255 ON ELSS OF VUULINE) FINE PARTICLES 36 MICH OF LOSS IN SIZE, AND A MAXIMUM SEE OF INDIVIDUAL IFECES (LARGEST 20% OF LLSS OF VOLUME) SHALL BE APPROXIMATELY 1 TO 1-1/22 INCH IN DIAMETER AND MAXIMUM LEIGTH APPROXIMATELY 1 O 5°, PIECES LARGER THAN 8 INCH LONG THAT ARE VISIBLE ON THE DURFACE OF THE MUCH AFTEN INSTALLATION SHALL BE REMOVED.
- 1. IT IS UNDERSTOOD THAT MULCH QUALITY WILL VARY SIGNIFICANTLY FROM SUPPLIER TO SUPPLIER AND GION TO REGION. THE ABOVE REQUIREMENTS MAY BE MODIFIED TO CONFORM TO THE SOURCE MATERIAL FROM LOCALLY RELIABLE SUPPLIERS AS APPROVED BY THE OWNER'S REPRESENTATIVE
- B. SUBMIT SUPPLIER'S PRODUCT SPECIFICATION DATA SHEET AND A ONE GALLON SAMPLE FOR APPROVAL

### 2.6 TREE STAKING AND GUYING MATERIAL

- A. TREE STAKING SHALL BE PER PLANTING DETAILS
- B. ARBOR STAKE OR APPROVED EQUAL. MANUFACTURER: WWW.ARBORSTAKES.COM
- C. SUBMIT MANUFACTURER'S PRODUCT DATA FOR APPROVAL
- 2.7 CHEMICAL OR BIOLOGICAL ADDITIVES
- A. PER SOILS TEST RESULTS.
- 2.8 COMPOST

## A. LIVING EARTH COMPOST OR APPROVED EQUAL

MANUFACTURER: LIMING EARTH: 972-869-4332

### 2.10 PLANTER POTTING SOIL

A. LIVING EARTH CONTAINER POTTING SOIL OR APPROVED EQUAL 1. MANUFACTURER: LIVING EARTH: 972-869-4332

# PART 3 EXECUTION

### 3.1 SITE EXAMINATION

A. EXAMINE THE SURFACE GRADES AND SOIL CONDITIONS TO CONFIRM THAT THE REQUIREMENTS OF THE PECIFICATION SECTION - PLANTING SOIL - AND THE SOIL AND DRAINAGE MODIFICATIONS INDICATED ON THE PLANTING SOIL PLAN AND DETAILS (IF APPLICABLE) HAVE BEEN COMPLETED. NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING OF ANY UNSATISFACTORY CONDITION

### 3.2 DELIVERY, STORAGE AND HANDLING

- A PROTECT MATERIALS FROM DETERIORATION DURING DELIVERY AND STORAGE. ADEQUATELY PROTECT PLANTS FROM DRYING OUT, EXPOSURE OF ROOTS TO SUN, WIND OR EXTREMES OF HEAT AND COLD TEMPERATURES. IF PLANTING IS DELAYED MORE THAN 24 HOURS AFTER DELIVERY, SET PLANTS IN A LOCATION PROTECTED FROM SUN AND WIND, PROVIDE ADEQUATE WATER TO THE ROOT BALL PACKAGE DURING THE SHIPPING AND
- 1. ALL PLANT MATERIALS MUST BE AVAILABLE FOR OBSERVATION PRIOR TO PLANTING
- 2. USING A SOIL MOISTURE METER, PERIODICALLY CHECK THE SOIL MOISTURE IN THE ROOT BALLS OF ALL PLANTS TO ASSURE THAT THE PLANTS ARE BEING ADEQUATELY WATERED. VOLUMETRIC SOIL MOISTURE SHALL BE MAINTAINED ABOVE WILTING POINT AND BELOW FIELD CAPACITY FOR THE ROOT BALL SUBSTRATE OR SOIL
- B. DO NOT DELIVER MORE PLANTS TO THE SITE THAN THERE IS SPACE WITH ADEQUATE STORAGE CONDITIONS. PROVIDE A SUITABLE REMOTE STAGING AREA FOR PLANTS AND OTHER SUPPLIES.
- 1. THE OWNER'S REPRESENTATIVE OR CONTRACTOR SHALL APPROVE THE DURATION, METHOD AND LOCATION OF STORAGE OF PLANTS.
- C. PROVIDE PROTECTIVE COVERING OVER ALL PLANTS DURING TRANSPORTING

#### 3.3 PLANTING SEASON

A PLANTING SHALL ONLY BE PERFORMED WHEN WEATHER AND SOLL CONDITIONS ARE SUITABLE FOR PLANTING THE MATERIALS SPECIFIED IN ACCORDANCE WITH LOCALLY ACCEPTED PRACTICE BELOW UNLESS OTHERW. VPPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE. IN THE EVENT THAT THE CONTRACTOR REQUES PLANTING OUTSIDE THE DATES OF THE PLANTING SEASON, APPROVAL OF THE REQUEST DOES NOT CHANG THE BEQUIREMENTS OF THE WARBANTY

#### 3.4 ADVERSE WEATHER CONDITIONS

- A. NO PLANTING SHALL TAKE PLACE DURING EXTREMELY HOT, DRY, WINDY OR FREEZING WEATHER.
- 3.5 COORDINATION WITH PROJECT WORK
- A. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER WORK THAT MAY IMPACT THE COMPLETION OF THE
- 8. PRIOR TO THE START OF WORK, PREPARE A DETAILED SCHEDULE OF THE WORK FOR COORDINATION WITH
- C. COORDINATE THE RELOCATION OF ANY IRRIGATION LINES. HEADS OR THE CONDUCTS OF OTHER UTILITY LINES. THAT ARE IN CONFLICT WITH TREE LOCATIONS. ROOT BALLS SHALL NOT BE ALTERED TO FIT AROUND LINES. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONFLICTS ENCOUNTERED.

### 3.6 LAYOUT AND PLANTING SEQUENCE

- A. RELATIVE POSITIONS OF ALL PLANTS AND TREES ARE SUBJECT TO APPROVAL OF THE OWNER'S REPRESENTATIVE
- B. NOTIFY THE OWNER'S REPRESENTATIVE, ONE (1) WEEK PRIOR TO LAYOUT. LAYOUT ALL INDIVIDUAL TREE AND SHRUB LOCATIONS, PLACE PLANTS ABOVE SURFACE AT PLANTING LOCATION OR PLACE A LABELED STAKE AT PLANTING LOCATION. LAYOUT BED LIKES WITH PANT FOR THE OWNER'S REPRESENTATIVES APPROVAL SECURE THE OWNER'S REPRESENTATIVES ACCOUNTING BEFORE DUCING AND START OF PLANTING WORK.
- C. WHEN APPLICABLE, PLANT TREES BEFORE OTHER PLANTS ARE INSTALLED.
- D. IT IS UNDERSTOOD THAT PLANTS ARE NOT PRECISE OBJECTS AND THAT MINOR ADJUSTMENTS IN THE LAYOUT WILL BE REQUIRED AS THE PLANTING PLAN IS CONSTRUCTED. THESE ADJUSTMENTS MAY NOT BE APPARENT UNTL SOME OR ALL OF THE PLANTS ARE INSTALLED. MAKE ADJUSTMENTS AS REQUIRED BY THE OWNER'S REPRESENTATIVE INCLUDING RELOCATING FREVOUSLY INSTALLED FLANTS.

### 3.7 SOIL PROTECTION DURING PLANT DELIVERY AND INSTALLATION

- A. PROTECT SOIL FROM COMPACTION DURING THE DELIVERY OF PLANTS TO THE PLANTING LOCATIONS, DIGGING OF PLANTING HOLES AND INSTALLING PLANTS.
- WHERE POSSIBLE DELIVER AND PLANT TREES THAT REQUIRE THE USE OF HEAVY MECHANIZED EQUIPMEN WHERE POSSIBLE DELIVER AND PLANT TREES THAT REQUELT THE USE OF HEAVY MECHANICED EQUIPMENT PRIOR TO FINAL SOLL PREPARATION AND TLUNG, WHERE POSSIBLE, RESTRICT THE DRIVING LANES TO ONE AREA INSTEAD OF DRIVING OVER AND COMPACTING A LARGE AREA OF SOIL
- 2. TILL TO A DEPTH OF 6 INCHES, ALL SOIL THAT HAS BEEN DRIVEN OVER DURING THE INSTALLATION OF

### 3.8 SOIL MOISTURE

A VOLUMETRIC SOIL MOISTURE LEVEL IN BOTH THE PLANTING SOIL AND THE BOOT BALLS OF ALL PLANTS, PRIOR TO, DURING AND AFTER PLANTING SHALL BE ABOVE PERMANENT WILTING POINT AND BELOW FIELD CAPACIT FOR EACH TYPE OF SOIL TEXTURE WITHIN THE FOLLOWING RANGES

PERMANENT WILTING POINT	FIELD CAPACITY
5 - 8%	12-18%
14 - 25%	27-36%
11 - 22%	31 - 36%
22 - 27%	38 - 41%
	PERMANENT WILTING POINT 5 - 8% 14 - 25% 11 - 22% 22 - 27%

- BE THE DIGITAL SOIL MOISTORE METER. DSMM500 BY GENERAL SPECIALTY TOOLS AND INSTRUMENTS. OR APPROVED FOUNALENT
- B. THE CONTRACTOR SHALL CONFIRM THE SOIL MOISTURE LEVELS WITH A MOISTURE METER. IF THE MOISTURE IS TOO HIGH, SUSPEND PLANTING OPERATIONS UNTIL THE SOIL MOISTURE DRAINS TO BELOW RELD CAPACIT 3.9 INSTALLATION OF PLANTS; GENERAL

deficient actions converz (Arreny-fr

- A. OBSERVE EACH PLANT AFTER DELIVERY AND PRIOR TO INSTALLATION FOR DAMAGE OF OTHER CHARACTERISTICS THAT MAY CAUSE REJECTION OF THE PLANT. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONDITION OBSERVED.
- B. NO MORE PLANTS SHALL BE DISTRIBUTED ABOUT THE PLANTING BED AREA THAN CAN BE PLANTED AND
- C. THE BOOT SYSTEM OF EACH PLANT, REGARDLESS OF BOOT BALL PACKAGE TYPE, SHALL BE OBSERVED BY THE CONTRACTOR, AT THE TIME OF PLANTING TO CONFIRM THAT THE ROOTS MEET THE REQUIREMENTS ROOT QUALITY IN PART 2 PRODUCTS: PLANTS GENERAL: PLANT QUALITY. THE CONTRACTOR SHALL ENTS FOR PLAN INDERTAKE AT THE TIME OF PLANTING, ALL MODIFICATIONS TO THE ROOT SYSTEM REQUIRED BY THE OWNER'S REPRESENTATIVE TO MEET THESE QUALITY STANDARDS

- . MODIFICATIONS, AT THE TIME OF PLANTING, TO MEET THE SPECIFICATIONS FOR THE DEPTH OF THE ROOT COLLAR AND REMOVAL OF STEM BROLLINS ROOTS AND CHCILING ROOTS MAY MAKE THE PLANT UNSTABLE OR STRESS THE PLANT TO THE POINT THAT THE OWNERS REPRESENTATIVE MAY CHOOSE TO REJECT THE PLANT RATHER THAN PERMITTING THE MODIFICATION.
- ANY MODIFICATIONS REQUIRED BY THE OWNER'S REPRESENTATIVE TO MAKE THE ROOT SYSTEM CONFORM TO THE PLANT QUALITY STANDARDS OUTLINED IN PART 2 PRODUCTS: PLANTS GENERAL QUALITY, OR OTHER REQUIREMENTS RELATED TO THE FERMITED ROOT BALL PACKAGE, SHALL NOT BE CONDERED AS GROUNDS TO MODIEY OR VOID THE PLANT WARBANTY
- 3. THE RESULTING ROOT BALL MAY NEED ADDITIONAL STAKING AND WATER AFTER PLANTING. THE OWNER'S REPRESENTATIVE MAY REJECT THE PLANT IF THE ROOT MODIFICATION PROCESS MAKES THE TREE UNSTABLE OR IF THE TREE IS NOT HEALTHY AT THE END OF THE WARRANTY PERIOD. SUCH PLANTS SHALL STILL BE COVERED UNDER THE WARRANTY
- 4. THE CONTRACTOR REMAINS RESPONSIBLE TO CONFIRM THAT THE GROWER HAS MADE ALL REQUIRED ROOT MODIFICATIONS NOTED DURING ANY NURSERY OBSERVATION
- D. CONTAINER AND BOXED BOOT BALL SHAVING (IE REQUIRED -SEE DRAWINGS FOR CONDITIONS): THE OUTER JURFACES OF ALL PLANTS IN CONTAINERS AND BOXES, INCLUDING THE TOP, SIDES AND BOTTOM OF THE RO MALL SHALL BE SHAVED TO REMOVE ALL CIRCUNG, DESCENDING, AND MATTED ROOTS, SHAVING SHALL BE DALL CHALL DE CHA USING SAWS, KNIVES, SHARP SHOVELS OR OTHER SUITABLE EQUIPMENT THAT IS CAPABLE O KING CLEAN CLITS ON THE BOOTS, SHAVING SHALL BEMOVE A MINIMUM OF ONE INCH OF BOOT MAT OF UP TO 2 INCHES AS REQUIRED TO REMOVE ALL ROOT SEGMENTS THAT ARE NOT GROWING REASONABLY RADIA TO THE TRUNK
- E. EXPOSED STEM TISSUE AFTER MODIFICATION: THE REQUIRED ROOT BALL MODIFICATIONS MAY RESULT IN STEM TISSUE THAT HAS NOT FORMED TRUNK BARK BEING EXPOSED ABOVE THE SOIL LINE. IF SUCH CONDITION OCCURS, WRAP THE EXPOSED PORTION OF THE STEM IN A PROTECTIVE WRAPPING WITH A WHITE FILTER ABRIC, SECURE THE FABRIC WITH BIODEGRADABLE MASKING TAPE. DO NOT USE STRING, TWINE, GREEN NURSERY TIES OR ANY OTHER MATERIAL THAT MAY GIRDLE THE TRUNK IF NOT REMOVED
- F. EXCAVATION OF THE PLANTING SPACE: USING HAND TOOLS OR TRACKED MINI-EXCAVATOR, EXCAVATE THE PLANTING HOLE INTO THE PLANTING SOIL TO THE DEPTH OF THE ROOT BALL MEASURED AFTER ANY ROOT BALL MODIFICATION TO CORRECT ROOT PROBLEMS, AND WIDE ENOUGH FOR WORKING ROOM AROUND THE ROOT BALL OR TO THE SIZE INDICATED ON THE DRAWING OR AS NOTED BELOW.
- FOR TREES AND SHRUBS PLANTED IN SOIL AREAS THAT ARE NOT TILLED OR OTHERWISE MODIFIED TO A DEPTH OF AT LEAST 12 NOHES OVER A DISTANCE OF MORE THAN 10 FEET RADIUS FROM EACH TREE, OR 5 FEET RADIUS FROM EACH SHRUB, THE SOLL AROUND THE ROOT BALL SHALL BE LOOSENED AS DEFINED BELOW OR AS INDICATED ON THE CHANNINGS.
- a. THE AREA OF LOOSENING SHALL BE A MINIMUM OF 3 TIMES THE DIAMETER OF THE ROOT BALL AT THE SURFACE SLOPING TO 2 TIMES THE DIAMETER OF THE ROOT BALL AT THE DEPTH OF THE ROOT BALL
- SUMMED SUMME TO THE ONLY THE AND UNKNOWN THE SUL AND TURNING THE SOLL TO THE DEFINITION THE THE OF THE OTHER SOLL AND TURNING THE SOLL TO REDUCE THE COMPACTION. THE SOLL DOES NOT HAVE TO BE REMOVED FROM THE HOLE, JUST DUG, LITED AND TURNED. LITTING AND TURNING MAY BE ACCOMPLISHED WITH A TRACKED MINI EXCAVATOR, OR H
- 2. IF AN AUGER IS USED TO DIG THE INITIAL PLANTING HOLE, THE SOIL AROUND THE AUGER HOLE SHALL BE LOOSENED AS DEFINED ABOVE FOR TREES AND SHRUBS PLANTED IN SOIL AREAS THAT ARE NOT TILLED OR LOOSENED AS DEFINED OTHERWISE MODIFIED.
- 3. THE MEASURING POINT FOR ROOT BALL DEPTH SHALL BE THE AVERAGE HEIGHT OF THE OUTER EDGE OF THE BOOT BALL AFTER ANY REQUIRED BOOT BALL MODIFICATION
- 4. IF MOTORIZED EQUIPMENT IS USED TO DELIVER PLANTS TO THE PLANTING AREA OVER EXPOSED PLANTING BEDS, OR USED TO LOOSEN THE SOIL OR DIG THE PLANTING HOLES, ALL SOIL THAT HAS BEEN DRIVEN OVER SHALL BE TILLED TO A DEPTH OF 6 INCHES.
- G. FOR TREES TO BE PLANTED IN PREPARED PLANTING SOIL THAT IS DEEPER THAN THE ROOT BALL DEPTH, COMPACT THE SOIL UNDER THE ROOT BALL USING A MECHANICAL TAMPER TO ASSURE A FIRM BEDDING FOR THE ROOT BALL. IF THERE IS MORE THAN 12 INCHES OF PLANTING SOIL UNDER THE ROOT BALL EXCAVATE AND TAMP THE PLANTING SOIL IN LIFTS NOT TO EXCEED 12 INCHES.
- H. SET TOP OUTER EDGE OF THE ROOT BALL AT THE AVERAGE ELEVATION OF THE PROPOSED FINISH. SET THE PLANT PLUMB AND UPRIGHT IN THE CONTEN OF THE PLANTING HOLE. THE THEE GRAFT, IF APPLICABLE, SHALL BE VISIBLE ABOVE THE GRADE. DO NOT PLACE SOIL ON TOP OF THE ROOT BALL.
- THE OWNER'S REPRESENTATIVE MAY REQUEST THAT PLANTS ORIENTATION BE ROTATED WHEN PLANTED BASED ON THE FORM OF THE PLANT.
- J. BACKFILL THE SPACE AROUND THE ROOT BALL WITH THE SAME PLANTING SOIL OR EXISTING SOIL THAT WAS BICAVATED FOR THE PLANTING SPACE. SEE SPECIFICATION SECTION PLANTING SOIL, FOR REQUIREMENTS TO MOORY THE SOL WITHIN THE PLANTING BED. K BRACE BOOT BALL BY TAMPING DI ANTING SOIL ABOUND THE LOWER DORTION OF THE BOOT BALL DI ACE.
- NTING SOIL ABOUND BASE AND SIDES OF BALL IN SIX-INCH (6") LIFTS LIGHT LIFT USING FOOT PRESSURE OR HAND TOOLS TO SETTLE BACKRUL, SUPPORT THE TREE AND FLIMINATE VOIDS DO NOT OVER COMPACT THE BACKELL OR LISE MECHANICAL OR PNEUMATIC TAMPING FOLIPMENT, OVER COMPACTION SHALL BE DEFINED AS GREATER THAN 85% OF MAXIMUM DRY DENSITY, STANDARD PRO GREATER THAN 250 PSI AS MEASURED BY A CONE PENETROMETER WHEN THE VOLUMETRIC SOIL MOISTURE IS OWER THAN RELD CAPACITY
- 1. WHEN THE PLANTING HOLE HAS BEEN BACKFILLED TO THREE QUARTERS OF ITS DEPTH, WATER SHALL BE POURED AROUND THE ROOT BALL AND ALLOWED TO SOAK INTO THE SOIL TO SETTLE THE SOIL. DO NOT FLOOD THE PLANTING SPACE. IF THE SOIL IS ABOVE FIELD CAPACITY, ALLOW THE SOIL TO DRAIN TO BELOW FIELD CAPACITY BEFORE FINISHING THE PLANTING, AIR POCKETS SHALL BE ELIMINATED AND BACKFILL CONTINUED UNTIL THE PLANTING SOIL IS BROUGHT TO GRADE LEVEL.
- WHERE INDICATED ON THE DRAWINGS, BUILD A 4 INCH HIGH, LEVEL BERM OF PLANTING SOIL AROUND THE OUTSIDE OF THE ROOT BALL TO RETAIN WATER. TAMP THE BERM TO REDUCE LEAKING AND EROSION OF THE
- M. THOROUGHLY WATER THE PLANTING SOIL AND ROOT BALL IMMEDIATELY AFTER PLANTING.
- N. REMOVE ALL NURSERY PLANT IDENTIFICATION TAGS AND RBBONS AS PER OWNERS REPRESENTATIVE INSTRUCTIONS. THE OWNERS REPRESENTATIVES SEALS ARE TO REMAIN ON PLANTS UNTIL THE END OF THE WARRANTY PENIOD.
- 0. REMOVE ANY CORRUGATED CARDBOARD TRUNK PROTECTION AFTER PLANTING P. FOLLOW ADDITIONAL REQUIREMENTS FOR THE PERMITTED ROOT BALL PACKAGES.
- 3.10 PERMITTED ROOT BALL PACKAGES AND SPECIAL PLANTING REQUIREMENTS
- A. THE FOLLOWING ARE PERMITTED ROOT BALL PACKAGES AND SPECIAL PLANTING REQUIREMENTS THAT SHALL BE FOLLOWED DURING THE PLANTING PROCESS IN ADDITION TO THE ABOVE GENERAL PLANTING
- REQUIREMENTS. B. BALLED AND BURLAPPED PLANTS
- 1. AFTER THE ROOT BALL HAS BEEN BACKFILED, REMOVE ALL TWINE AND BURLAP FROM THE TOP OF THE ROOT BALL CUT THE BURLAP AWAY AS INDICATED ON DRAWINGS; DO NOT FOLD DOWN ONTO THE PLANTING SOIL
- IF THE PLANT IS SHIPPED WITH A WIRE BASKET REMOVE THE BASKET WIRES JUST BEFORE THE FINAL BACKFILLING OF THE TREE AS INDICATED ON THE DRAWINGS.
- 3. EARTH ROOT BALLS SHALL BE KEPT INTACT EXCEPT FOR ANY MODIFICATIONS REQUIRED BY THE OWNER'S REPRESENTATIVE TO MAKE ROOT PACKAGE COMPLY WITH THE REQUIREMENT IN PART 2 PRODUCTS
- C CONTAINER REANTS 1. THIS SPECIFICATION ASSUMES THAT MOST CONTAINER PLANTS HAVE SIGNIFICANT STEM GIRDLING AND
- CIRCLING ROOTS, AND THAT THE ROOT COLLAR IS TOO LOW IN THE ROOT BALL 2. REMOVE THE CONTAINER.
- 3. PERFORM ROOT BALL SHAVING AS DEFINED IN INSTALLATION OF PLANTS: GENERAL ABOVE
- 4. REMOVE ALL ROOTS AND SUBSTRATE ABOVE THE ROOT COLLAR AND THE MAIN STRUCTURAL ROOTS ACCORDING TO ROOT CORRECTION DETAILS SO ROOT SYSTEM CONFORMS TO ROOT OBSERVATIONS
- 5. REMOVE ALL SUBSTRATE AT THE BOTTOM OF THE BOOT BALL THAT DOES NOT CONTAIN BOOTS.
- 6. USING A HOSE POWER WASHER OR AIR EXCAVATION DEVICE, WASH OUT THE SUBSTRATE FROM ABOUND THE TRUNK AND TOP OF THE REMAINING ROOT BALL AND FIND AND REMOVE ALL STEM GIRDLING ROOTS WITHIN THE BOOT BALL ABOVE THE TOP OF THE STRUCTURAL BOOTS.
- 3.11 GROUND COVER, PERENNIAL AND ANNUAL PLANTS
- A. ASSURE THAT SOIL MOISTURE IS WITHIN THE REQUIRED LEVELS PRIOR TO PLANTING. IRRIGATION, IF REQUIRED, SHALL BE APPLIED AT LEAST 12 HOURS PRIOR TO PLANTING TO AVOID PLANTING IN MUDDY SOILS.
- B. ASSURE THAT SOIL GRADES IN THE BEDS ARE SMOOTH AND AS SHOWN ON THE PLANS. C. PLANTS SHALL BE PLANTED IN EVEN, TRIANGULARLY SPACED ROWS, AT THE INTERVALS CALLED OUT FOR ON THE DRAWINGS, UNLESS OTHERWISE NOTED. THE FIRST ROW OF ANNUAL PLOWER PLANTS SHALL BE 6 INCHES FROM THE RED EDGE UNLESS. INTERVISE INTERVISE TOTED.
- D. DIG PLANTING HOLES SUFFICIENTLY LARGE ENOUGH TO INSERT THE ROOT SYSTEM WITHOUT DEFORMING TH ROOTS. SET THE TOP OF THE ROOT SYSTEM AT THE GRADE OF THE SOIL.
- E. SCHEDULE THE PLANTING TO OCCUR PRIOR TO APPLICATION OF THE MULCH. IF THE BED IS ALREADY MULCHED, PULL THE MULCH FROM ABOUND THE HOLE AND PLANT INTO THE SOIL, DO NOT PLANT THE BOOT SYSTEM IN THE MULCH. PULL MULCH BACK SO IT IS NOT ON THE BOOT BALL SUBFACE.
- F. PRESS SOIL TO BRING THE ROOT SYSTEM IN CONTACT WITH THE SOIL.
- G. SPREAD ANY EXCESS SOIL AROUND IN THE SPACES BETWEEN PLANTS

H. APPLY MULCH TO THE BED BEING SURE NOT TO COVER THE TOPS OF THE PLANTS WITH OR THE TOPS OF THE

Sufficient to maintain plants in a healthy condition. Such notification must be made in a

MELY PERIOD SO THAT THE OWNER'S REPRESENTATIVE MAY TAKE CORRECTIVE ACTIO

3.24 MAINTENANCE DURING THE WARRANTY PERIOD BY THE PLANT INSTALLER

WITHOUT THE OWNER'S REPRESENTATIVE'S WRITTEN PERMISSIO

ANSWER QUESTIONS ABOUT PAST MAINTENANCE.

PROVIDE THE FOLLOWING MAINTENANCE TASKS:

PER YEAR

DISEASE AND INSECT OUTBREAKS.

TOP OF THE BOOT BALL SUBFACE.

OWNER'S REPRESENTATIVE

END OF SECTION 32 9300

3.25 END OF WARRANTY FINAL ACCEPTANCE / MAINTENANCE OBSERVATION

PROVINCIAL AND FEDERAL REQUIREMENTS.

B. GENERAL REQUIREMENTS:

A. NOTIFICATION MUST DEFINE THE MAINTENANCE NEEDS AND DESCRIBE ANY CORRECTIVE ACTION REQUIRED

IN THE EVENT THAT THE CONTRACTOR FAILS TO VISIT THE SITE AND OR NOTFY, IN WRITING, THE OWNER REPRESENTATIVE OF MAINTENANCE NEEDS, LACK OF MAINTENANCE SHALL NOT BE USED AS GROUNDS FO VIDDING OR MODEVING THE FORVISIONS OF THE WARRANTY.

A. DURING THE WARRANTY PERIOD, PROVIDE ALL MAINTENANCE FOR ALL PLANTINGS TO KEEP THE PLANTS IN A HEALTHY STATE AND THE PLANTING AREAS CLEAN AND NEAT.

1. ALL WORK SHALL BE UNDERTAKEN BY TRAINED PLANTING CREWS UNDER THE SUPERVISION OF A FOREMAN

WITH A MINIMUM OF 5 YEARS EXPERIENCE SUPERVISING COMMERCIAL PLANT MAINTENANCE CREWS

2. ALL CHEMICAL AND FERTILIZER APPLICATIONS SHALL BE MADE BY LICENSED APPLICATORS FOR THE TYPE OF CHEMICALS TO BE USED. ALL WORK AND CHEMICAL USE SHALL COMPLY WITH ALL APPLICABLE LOCAL

ASSURE THAT HOSES AND WATERING EQUIPMENT AND OTHER MAINTENANCE EQUIPMENT DOES NOT BLOCK PATHS OR BE PLACED IN A MAINER THAT MAY CREATE TRIPPING HAZAROS. USE STANDARD SAFETY WARNING BARRIERS AND OTHER PROCEDURES TO MAINTAIN THE SITE IN A SAFE MAINER FOR VISITORS AT ALL TIMES.

4. ALL WORKERS SHALL WEAR REQUIRED SAFETY EQUIPMENT AND APPAREL APPROPRIATE FOR THE TASKS

5. THE CONTRACTOR SHALL NOT STORE MAINTENANCE EQUIPMENT AT THE SITE AT TIMES WHEN THEY ARE NOT IN USE UNLESS AUTHORIZED IN WRITING BY THE OWNER'S REPRESENTATIVE.

6. MAINTENANCE VEHICLES SHALL NOT PARK ON THE SITE INCLUDING WALKS AND LAWN AREAS AT ANY TIME

MAINTAIN A DETAILED LOG OF ALL MAINTENANCE ACTIVITIES INCLUDING TYPES OF TASKS, DATE OF TASK TYPES AND QUANTITIES OF MATERIALS AND PRODUCTS USED, WATERING TIMES AND AMOUNTS, AND

8. MEET WITH THE OWNER'S REPRESENTATIVE A MINIMUM OF THREE TIMES A YEAR TO REVIEW THE

NUMBER OF EACH CREW. PERIODICALLY REVIEW THE LOGS WITH THE OWNER'S REPRESENTATIVE, AND SUBMIT A COPY OF THE LOGS AT THE END OF EACH YEAR OF THE MAINTENANCE AGREEMENT.

PROGRESS AND DISCUSS ANY CHANGES THAT ARE NEEDED IN THE MAINTENANCE PROGRAM. AT THE END OF THE WARRANTY PERIOD ATTEND A HAND OVER MEETING TO FORMALLY TRANSFER THE

ESPONSIBILITIES OF MAINTENANCE TO THE OWNER'S REPRESENTATIVE. PROVIDE ALL INFORMATION ON AST MAINTENANCE ACTIVITIES AND PROVIDE A LIST OF CRITICAL TASKS THAT WILL BE NEEDED OVER THE

Next 12 Months. Provide all maintenance logs and soil test data. Make the contractor's Supervisor available for a minimum of one year after the end of the warranty period to

WATERING; PROVIDE ALL WATER REQUIRED TO KEEP SOIL WITHIN AND AROUND THE ROOT BALLS AT OPTIMUM MOISTURE CONTENT FOR PLANT GROWTH.

MONITOR SOL MOISTURE TO PROVIDE SUFFICIENT WATER. CHECK SOIL MOISTURE AND ROOT BALL MOISTURE WITH A SOIL MOISTURE METER ON A REGULAR BASIS AND RECORD MOISTURE READING DO NOT OVER WATER.

2. SOIL NUTRIENT LEVELS: TAKE A MINIMUM OF 4 SOIL SAMPLES FROM AROUND THE SITE IN THE SPRING AND

all and have them tested by an accredited agricultural soil testing LAB for chemica composition of plant required nutrients, pH, salt and % organic matter. Test results shal

INCLUDE LABORATORY RECOMMENDATIONS FOR NUTRIENT APPLICATIONS. APPLY FERTILIZERS AT RATES ECOMMENDED BY THE SOIL TEST.

a. MAKE ANY OTHER SOIL TEST AND/OR PLANT TISSUE TEST THAT MAY BE INDICATED BY PLANT NDITIONS THAT MAY NOT BE RELATED TO SOIL NUTRIENT LEVELS SUCH AS SOIL CONTAMINATED BY

PLANT PRUNING: REMOVE CROSS OVER BRANCHING, SHORTEN OR REMOVE DEVELOPING CO DOMINAN LEADERS, DEAD WOOD AND WINTER-DAMAGED BRANCHES. UNLESS DIRECTED BY THE OWNER REPRESENTATIVE, DN OTO TEAR PLANTS OR MAKE HEADING CUTS.

4. RESTORE PLANTS: RESET ANY PLANTS THAT HAVE SETTLED OR ARE LEANING AS SOON AS THE CONDITIO

5. GUYING AND STAKING: MAINTAIN PLANT GUYS IN A TAUGHT POSITION. REMOVE TREE GUYS AND STAKING

6. WEED CONTROL: KEEP ALL BEDS FREE OF WEEDS, HAND-REMOVE ALL WEEDS AND ANY PLANTS THAT DO

7. TRASH REMOVAL: REMOVE ALL TRASH AND DEBRIS FROM ALL PLANTING BEDS AND MAINTAIN THE BEDS IN

8. PLANT PEST CONTROL: MAINTAIN DISEASE, INSECTS AND OTHER PESTS AT MANAGEABLE LEVELS

1 DEANT REDEACEMENT: REDEACE ALL DEANTS THAT ARE DEFECTIVE AS DEFINED IN THE WARRANTY

PLANTIN REPORTED IN THE ARE POINTS THAT ARE DETENTIVE AS DETINED IN THE WARDAYL PROVISIONS, AS SCONT AS THE PUART DECLINE GONOUS AND IN STITUATE WEATHER AND SESSION OF PLANTING AS OUTLINED IN ABOVE SECTIONS. PLANTS THAT BECOME DEFECTIVE DURING THE MAINTENANC PERIOD SHALL BE COVERED AND REPLACED UNDER THE WARRANTY PROVISIONS.

2. MULCH: REFRESH MULCH ONCE A YEAR TO MAINTAIN COMPLETE COVERAGE BUT DO NOT OVER MULCH. AT

No time shall the overall mulch thickness be greater that 4 inches. Do not apply mulc

WITHIN 6 INCHES OF THE TRUNKS OR STEMS OF ANY PLANTS, REPLACEMENT MULCH SHALL MEET TH

BED EDGING: CHECK AND MAINTAIN EDGES BETWEEN MULCH AND LAWN AREAS IN SMOOTH NEAT LINES AS ORIGINALLY SHOWN ON THE DRAWINGS.

4. LEAF, FRUIT AND OTHER PLANT DEBRIS REMOVAL: REMOVE FALL LEAF, SPENT FLOWERS, FRUIT AND PLANT

PART ACCUMULATIONS FROM BEDS AND PAVED SURFACES. MAINTAIN ALL SURFACE WATER DRAINS FREE OF DEBRIS. DEBRIS REMOVAL SHALL BE UNDERTAKEN AT EACH VISIT TO WEED OR PICK UP TRASH IN BEDS.

5. DAMAGE FROM SITE USE: REPAIR OF DAMAGE BY SITE VISITORS AND EVENTS, BEYOND NORMAL WEAR, ARE

NOT PART OF THIS MAINTENANCE. THE OWNER'S REPRESENTATIVE MAY REQUEST THAT THE CONTRACTOR REPAR DAMAGE EDES ON FLANTINGS FOR AN ADDITIONAL COST. ALL ADOITIONAL WORK SHALL BE APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE.

A. AT THE END OF THE WARRANTY AND MAINTENANCE PERIOD THE OWNER'S REPRESENTATIVE SHALL OBSERVE THE WORK AND ESTABLISH THAT ALL PROVISIONS OF THE CONTRACT ARE COMPLETE AND THE WORK IS

1. IF THE WORK IS SATISFACTORY, THE MAINTENANCE PERIOD WILL END ON THE DATE OF THE FINAL

IF THE WORK IS DEEMED UNSATISFACTORY, THE MAINTENANCE PERIOD WILL CONTINUE AT NO ADDITIONAL EXPENSE TO THE OWNER UNTIL THE WORK HAS BEEN COMPLETED, OBSERVED, AND APPROVED BY THE

B. FAILURE TO PASS OBSERVATION: IF THE WORK FAILS TO PASS FINAL OBSERVATION, ANY SUBSEQUENT OBSERVATIONS MUST BE RESCHEDULED AS PER ABOVE. THE COST TO THE OWNER FOR ADOITIONAL OBSERVATIONS WILL BE CHARGED TO THE CONTRACTOR AT THE PREVAILING HOURY FAITE OF THE OWNER.

Requirements of the original approved material. Mulch shall be no more than one inch on

APPROVAL OF THE OWNER'S REPRESENTATIVE. SCHEDULE WEEDING AS NEEDED BUT NOT LESS 12 TIMES

A NEAT AND TIDY APPEARANCE. THE NUMBER OF TRASH AND DEBRIS REMOVAL VISITS SHALL BE NO LESS THAN 12 TIMES PER YEAR AND MAY COINCIDE WITH OTHER MAINTENANCE VISITS.

MANAGEABLE LEVELS SHALL BE DEFINED AS DAMAGE TO PLANTS THAT MAY BE NOTICEABLE TO A PROFESSIONAL BUT NOT TO THE AVERAGE PERSON. USE LEAST INVASIVE METHODS TO CONTROL PLANT

AFTER THE FIRST FULL GROWING SEASON UNLESS DIRECTED BY OWNER'S REPRESENT

D. THE OWNER'S REPRESENTATIVE MUST APPROVE IN ADVANCE THE USE OF ALL CHEMICAL PESTICIDE APPLICATIONS.

NOT ADDEAR ON THE DIANTING DIAN CHEMICAL WEED CONTROL IS DERI

OTHER CHEMICALS OR LACK OF CHEMICAL UPTAKE BY THE PLANT.

a. MAINTAIN ALL WATERING SYSTEMS AND EQUIPMENT AND KEEP THEM OPERATIONAL

WATER FACH PLANTING AREA AS SOON AS THE PLANTING IS COMPLETED, APPLY ADDITIONAL WATER TO KEEP THE SOIL MOISTURE AT THE REQUIRED LEVELS. DO NOT OVER WATE 3.12 STAKING AND GUYING A. DO NOT STAKE TREES UNLESS SPECIFICALLY REQUIRED BY THE CONTRACT DOCUMENTS. OR IN THE EVENT

PLUMB.

3.13 STRAIGHTENING PLANTS

3.15 PRUNING OF TREES AND SHRUBS

3. PLANTS SHALL STAND PLUMB AFTER STAKING.

C. DO NOT STRAIGHTEN PLANTS BY PULLING THE TRUNK WITH GUYS.

3.14 INSTALLATION OF FERTILIZER AND OTHER CHEMICAL ADDITIVES

F. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS

G. NO TREE PAINT OR SEALANTS SHALL BE USED.

TO 2 INCHES WHEN ABUTTING PAVEMENT.

3.16 MULCHING OF PLANTS

3.17 PLANTING BED FINISHING

3.18 WATERING

3.19 CLEAN-UP

SITE NO LESS THAN ONCE A WEEK.

NEIGHBORING PROPERTY

OF THE WARRANTY PERIOD.

3.20 PROTECTION DURING CONSTRUCTION

REPLACE DAMAGED WORK IMMEDIATELY

CONTRACTOR SHALL MAINTAIN ALL PLANTS

3.22 SUBSTANTIAL COMPLETION ACCEPTANCE

SECTIONS IS COMPLETE.

SHALL BE KEPT REASONABLY FREE OF WEEDS, GRASS.

3.23 MAINTENANCE DURING THE WARRANTY PERIOD BY OTHERS

3.21 PLANT MAINTENANCE PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE

WORK AT THE SITE.

4 STAKES SHALL BE DRIVEN TO SUFFICIENT DEPTH TO HOLD THE TREE BIGID

THAT THE CONTRACTOR FEELS THAT STAKING IS THE ONLY ALTERNATIVE WAY TO KEEP PARTICULAR TREES

1. THE OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO REQUIRE THAT TREES ARE STAKED OR TO REJECT STAKING AS AN ALTERNATIVE WAY TO STABILIZE THE TREE.

2. TREES THAT REQUIRED HEAVILY MODIRED ROOT BALLS TO MEET THE ROOT QUALITY STANDARDS MAY BECOME UNSTABLE. THE OWNER'S REPRESENTATIVE MAY CHOOSE TO REJECT THESE TREES RATHER THAN UTILEE STAKING TO TEMPORARILY SUPPORT THE TREE.

B. MAINTAIN ALL PLANTS IN A PLUMB POSITION THROUGHOUT THE WARRANTY PERIOD. STRAIGHTEN ALL TREES

CONTROLLED RELEASE FERTILIZERS SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS, STANDARD HORTICULTURAL PRACTICES, AND PER THE SOIL TEST RECOMMENDATIONS.

ADDRESSING STRUCTURAL DEFECTS AS SHOWN IN DETAILS: FOLLOW RECOMMENDATIONS IN "STRUCTURAL

A PRUNE PLANTS AS DIRECTED BY THE OWNER'S REPRESENTATIVE PRUNING TREES SHALL BE LIMITED TO

PRUNING: A GUIDE FOR THE GREEN INDUSTRY" PUBLISHED BY URBAN TREE FOUNDATION. VISALIA CA

C. EXCEPT FOR PLANTS SPECIFIED AS MULTI-STEMMED OR AS OTHERWISE INSTRUCTED BY THE OWNER'S REPRESENTATIVE, PRESERVE OR CREATE A CENTRAL LEADER.

D. PRUNING OF LARGE TREES SHALL BE DONE USING POLE PRUMERS OR IF NEEDED, FROM A LADDER OR HYDRAULIC LIFT TO GAIN ACCESS TO THE TOP OF THE TREE, OO NOT CLIMB IN NEWLY PLANTED TREES. SMAL TREES CAN BE STRUCTURALLY PRIMED BY LYING THEM OVER BEFORE PLANTING, PRUNING MAY ALSO BE PERFORMED AT THE NURSERY PRIOR TO SHIPPIG.

REMOVE AND REPLACE EXCESSIVELY PRUNED OR MALFORMED STOCK RESULTING FROM IMPROPER PRUNING THAT OCCURRED IN THE NURSERY OR AFTER.

A. APPLY MULCH BEFORE SETTLEMENT TO DEPTH SHOWN ON PLANS, COVERING THE ENTIRE PLANTING BED AREA. INSTALL NO MORE THAN 1 INCH OF MULCH OVER THE TOP OF THE ROOT BALLS OF ALL PLANTS. TAPER

B. FOR TREES PLANTED IN LAWN AREAS THE MULCH SHALL EXTEND TO A 4 FOOT RADIUS AROUND THE TREE OR TO THE EXTENT INDICATED ON THE PLANS.

C. LIFT ALL LEAVES, LOW HANGING STEMS AND OTHER GREEN PORTIONS OF SMALL PLANTS OUT OF THE MULCH

B. SEPARATE THE EDGES OF PLANTING BEDS AND LAWN AREAS WITH A SMOOTH. FORMED EDGE CUT INTO THE

DIRECTED BY THE OWNER'S REPRESENTATIVE. BED EDGE LINES SHALL BE A DEPICTED ON THE DRAWINGS.

A. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO ENSURE THAT ADEQUATE WATER IS PROVIDED TO ALL

B. HAND WATER ROOT BALLS OF ALL PLANTS TO ASSURE THAT THE ROOT BALLS HAVE MOISTURE ABOVE WILT PORT AND BELOW RELD CAPACITY. TEST THE MOISTURE CONTENT IN EACH ROOT BALL AND THE SOIL OUTSI THE ROOT BALL TO DETERMINE THE WATER CONTENT.

A. DURING INSTALLATION, KEEP THE SITE FREE OF TRASH, PAVEMENTS REASONABLY CLEAN AND WORK AREA IN AN ORDERLY CONDITION AT THE END OF EACH DAY, REMOVE TRASH AND DEBRIS IN CONTAINERS FROM THE

B. ONCE INSTALLATION IS COMPLETE, WASH ALL SOIL FROM PAVEMENTS AND OTHER STRUCTURES. ENSURE THAT MULCH IS CONFINED TO PLANTING BEDS AND THAT ALL TAGS AND FLAGGING TAPE ARE REMOVED FROM

C. MAKE ALL REPAIRS TO GRADES, RUTS, AND DAMAGE BY THE PLANT INSTALLER TO THE WORK OR OTHER

D. REMOVE AND DISPOSE OF ALL EXCESS PLANTING SOIL, SUBSOIL, MULCH, PLANTS, PACKAGING, AND OTHER MATERIAL BROUGHT TO THE SITE BY THE CONTRACTOR.

A. THE CONTRACTOR SHALL PROTECT PLANTING AND RELATED WORK AND OTHER SITE WORK FROM DAMAGE

DUE TO PLANTING OPERATIONS, OPERATIONS BY OTHER CONTRACTORS OR TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION UNTIL SUBSTANTIAL COMPLETION ACCEPTANCE. TREAT, REPAIR OR

PLANTS, OR ANY OTHER PARTS OF THE WORK OR EXISTING FEATURES TO REMAIN, INCLUDING ROOTS, TRUNK

OR BRANCHES OF LARGE EXISTING TREES, SOIL, PAVING, UTILITIES, LIGHTING, IRRIGATION, OTHER FINISHED WORK AND SURFACES INCLUDING THOSE ON ADJACENT PROPERTY, SHALL BE CLEANED, REPAIRED OR

REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER. THE OWNER'S REPRESENTATIVE SHALL DETERMINE WHEN SUCH CLEANING, REPLACEMENT OR REPAIR IS SATISFACTORY.

B. MAINTENANCE DURING THE PERIOD PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE SHALL CONSIST OF

PRUNING, WATERING, CULTIVATING, WEEDING, MULCHING, REMOVAL OF DEAD MATERIAL, REPAIRING AND REPLACING OF TREE STAKES, TIGHTENING AND REPAIRING OF GUYS, REPAIRING AND REPLACING OF DAMAGED

TREE WRAP MATERIAL, RESETTING PLANTS TO PROPER GRADES AND UPRIGHT POSITION, AND FURNISHING AND APPLYING SUCH SPRAYS AS ARE NECESSARY TO KEEP PLANTINGS REASONABLY FREE OF DAMAGING INSECTS AND DISEASE, AND IN HEALTHY CONDITION. THE THRESHOLD FOR APPLYING INSECTICIDES AND HERBICIDE SHALL FOLLOW ESTABLISHED INTEGRATED PEST MANAGEMENT (IPM) PROCEDURES. MULCH AREAS

A. UPON WRITTEN NOTICE FROM THE CONTRACTOR, THE OWNERS REPRESENTATIVE SHALL REVIEW THE WORK AND MAKE A DETERMINATION IF THE WORK IS SUBSTANTIALLY COMPLETE.

B. THE DATE OF SUBSTANTIAL COMPLETION OF THE PLANTING SHALL BE THE DATE WHEN THE OWNER'S REPRESENTATIVE ACCEPTS THAT ALL WORK IN PLANTING, PLANTING SOIL, AND IRRIGATION INSTALLATION

C. THE PLANT WARRANTY PERIOD REGINS AT DATE OF WRITTEN NOTIFICATION OF SUBSTANTIAL COMPLETION

A AFTER SUBSTANTIAL COMPLETION ACCEPTANCE THE CONTRACTOR SHALL MAKE SUFFICIENT SITE VISITS TO OBSERVE THE OWNER'S MAINTENANCE AND BECOME AWARE OF PROBLEMS WITH THE MAINTENANCE IN TIME TO REQUEST CHANGES. UNTIL THE DATE OF END OF WARRANTY FINAL ACCEPTANCE.

1. NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING IF MAINTENANCE, INCLUDING WATERING, IS NOT

DATE OF SUBSTANTIAL COMPLETION FOR THE OTHER SECTIONS OF THE PROJECT.

ROM THE OWNER'S REPRESENTATIVE. THE DATE OF SUBSTANTIAL COMPLETION MAY BE DIFFERENT THAN THE

1. NOTIFICATION SHALL BE AT LEAST 7 DAYS PRIOR TO THE DATE THE CONTRACTOR IS REQUESTING THE

B. DAMAGE DONE BY THE CONTRACTOR, OR ANY OF THEIR SUB-CONTRACTORS TO EXISTING OR INSTALLED

A. DURING THE PROJECT WORK PERIOD AND PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE, THE

THE SITE. THE OWNER'S REPRESENTATIVE'S SEALS ARE TO REMAIN ON THE TREES AND REMOVED AT THE END

1. IMMEDIATELY CLEAN UP ANY SPILLED OR TRACKED SOIL FUEL OIL TRASH OR DEBRIS DEPOSITED BY THE CONTRACTOR FROM ALL SURFACES WITHIN THE PROJECT OR ON PUBLIC RIGHT OF WAYS AND

TURF WITH THE BED MULCH LEVEL SLIGHTLY LOWER. 1 AND 2 INCHES. THAN THE ADJACENT TURF SOD OR AS

TAIL AND THE POINT OF INSTALLATION UNTIL THE DATE OF SUBSTANTIAL COMPLETION ACCEPTANCE. THE CONTRACTOR SHALL ADJUST THE AUTOMATIC IPRICATION SYSTEM, IF AVAILABLE, AND APPLY ADDITIONAL OR ADJUST FOR LESS WATER USING HOGES AS REQUIRED.

A. AFTER PLANTING, SMOOTH OUT ALL GRADES BETWEEN PLANTS BEFORE MULCHING.

B. ALL PRUNING SHALL BE PERFORMED BY A PERSON EXPERIENCED IN STRUCTURAL TREE PRUNING.

THAT MOVE OUT OF PLUMB INCLUDING THOSE NOT STAKED. PLANTS TO BE STRAIGHTENED SHALL BE

EXCAVATED AND THE ROOT BALL MOVED TO A PLUMB POSITION, AND THEN RE-BACKFILLED.

A. DO NOT APPLY ANY SOLUBLE FERTILIZER TO PLANTINGS DURING THE FIRST YEAR AFTER TRANSP UNLESS SOL TEST DETERMINES THAT FERTILIZER OR OTHER CHEMICAL ADDITIVES IN REQUIRED. CHEMICAL ADDITIVES ONLY UPON THE APPROVAL OF THE OWNER'S REPRESENTATIVE.

![](_page_187_Picture_100.jpeg)

Figure 107; Page F.108; October 1, 2024 THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION

# SECTION 32 9210: LAWNS AND GRASSES

# PART 1 - GENERAL

- A. RUNNINGAULES A. RUNNISH ALL LABOR, MATERIAL, EQUIPMENT RELATED SERVICES AND SUPERVISION NECESSARY FOR OR INCIDENTAL TO THE INSTALLATION OF THE LAWNS AND GRASSES AS SHOWN OR INDICATED ON THE DRAWNINGS AND/OR AS SPECIFIC.

- SPECIFIED. B. WORK INCLUDED: 1. SOIL PREPARATION AND FINE GRADING. 2. FERTILIZATION. 3. GRASS SODOING
- 4. SEEDING
- 1.2 SUBMITTALS

A. DELIVERY RECEIPTS AND INVOICES: SUBMIT ORIGINAL DELIVERY RECEIPTS AND INVOICES FOR MATERIALS USED.

- B. PRODUCT DATA: SUBMIT SAMPLE LABEL OR SPECIFICATION OF FERTILIZER. C. CERTIFICATE: SUBMIT STATE CERTIFICATE STATING VARIETY AND PURITY OF GRASS SOD.
- D SOIL FERTILITY TEST REPORTS-Solution of the owners representative.
   Solution of the owners representative.
   Solution of the owners representative.
   Owners for the owners representative.
   Solution of the owners representative.
- 1.3 PROTECTION
- A. PROTECT PAVING SURFACES, CURBS, UTILITIES, PLANT MATERIALS, AND OTHER EXISTING IMPROVEMENTS FROM DAMAGE BY HEAVY EQUIPMENT. B. LOCATE AND STAKE IRRIGATION HEADS, VALVE RISERS AND EQUIPMENT PRIOR TO BEGINNING SOIL PREPARATION WORK
- C. DURING WORK AND MAINTENANCE PERIOD, MAINTAIN TOPSOIL IN PLACE AT ESTABLISHED GRADES. REPLACE TOPSOIL AND GRASS LOSSES DUE TO EROSION.
- D. PROTECT IN PLACE WORK FROM DAMAGE BY HEAVY EQUIPMENT. PREPARE, GRADE, LEVEL, AND REPLANT DAMAGED
- 1.4 SUBSTANTIAL COMPLETION & PROJECT CLOSEOUT
- A. A CERTIFICATE OF SUBSTANTIAL COMPLETION WILL BE ISSUED WHEN THE WORK PERFORMED UNDER THE CONTRACT HAS BEEN REVIEWED AND FOUND, TO THE OWNER'S REPRESENTATIVE'S BEST KNOWLEDGE, INFORMATION, AND BELIEF, TO BE SUBSTANTIALLY COMPLETE. SUBSTANTIAL COMPLETION IS THE STAGE IN THE PROGRESS OF THE WORK WHEN THE WORK OR DESIGNATED PORTION THEREOF IS SUFFICIENTLY COMPLETE IN ACCORDANCE WITH TH CONTRACT DOCUMENTS SO THE OWNERS CAN OCCUPY OR UTLIZE THE WORK FOR ITS INTENDED USE. THE DATE OF SUBSTANTIAL COMPLETION OF THE PROJECT OF PORTION THEREOF IS ALSO THE DATE OF COMMENCEMENT OF APPLICABLE GUARANTEES AS SPECIFIED.
- APPLICABLE GUARANTEES AS SPECIFIED. 8. A LIST OF ITEMS TO BE COMPLETED ON CORECTED WILL BE ATTACHED TO THE CENTRICATE OR SUBSTANTIAL COMPLETION. THE FAILURE OF INCLUE ANY ITEMS ON SUCH LIST DOES NOT ALTER THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE ALL WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. C. THE CONTRACTOR WILL COMPLETE ON CORRECT THE WORK ON THE LIST OF TEMS WITHIN A SPECIFIC NUMBER OF DAYS AS SHOWN ON THE CENTRICATE OF SUBSTANTIAL COMPLETION.
- D. UPON COMPLETION AND RE-INSPECTION OF ALL CORRECTED ITEMS LISTED, THE OWNER'S REPRESENTATIVE WILL RECOMMEND TO THE OWNER THAT THE WORK OF THIS SECTION IS READY FOR FINAL ACCEPTANCE.
- 1.5 QULITY ASSURANCE A. GENERAL: COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK. 8. PERSONNEL: EMPLOY ONLY EXPERIENCED PERSONNEL WHO ARE FAMILIAR WITH THE REQUIRED WORK. PROVIDE SUPERVISION FA QUALIFIED FOREMAN.
- 1.6 GUARANTEE
- GUARANTEE LAWINS AND GRASSES FOR ONE YEAR AFTER DATE OF FINAL ACCEPTANCE AT THE END OF THIS GUARANTEE FERIOD, ALL LAWIN AND GRASS AREAS WILL HAVE ADHIVED COVERAGE OF THE SPECIFIED GRASS AT A DENSITY OF 1005 COVENED, FIRE OF VEEDS, UNDERSMALE GRASS SPECIES, DESCES, ADM NORTCETS, REFLACE DEAD MATERIALS AND MATERIALS AND THIS OF VEEDS, UNDERSMALE GRASS SPECIES, DESCES, ADM NORTCETS, REFLACE DEAD MATERIALS AND MATERIALS AND THIS OF VEEDS, UNDERSMALE GRASS SPECIES, DESCES, ADM NORTCETS, REFLACE DEAD MATERIALS AND MATERIALS AND THIS OF VEEDS, UNDERSMALE GRASS SPECIES, DESCES, ADM NORTCETS, REFLACE DEAD MATERIALS AND MATERIALS AND THIS OF VEEDS AND THE OFFICIENT OF VEEDS AND THE OWNED AS SOON AS WEATHER PERMITS AND ON NOTIFICIATION DY THE OWNED SPECIES. B. REPLACE LAWNS AND GRASSES WITH SAME KIND AS ORIGINALLY PLANTED. AT NO COST TO THE OWNER. PROTECT
- IRRIGATION SYSTEM AND OTHER PIPING, CONDUIT, OR OTHER WORK DURING REPLACEMENT. REPAIR DAMAGE IMMEDIATELY. 1.7 JOB CONDITIONS
- A. DO NOT INSTALL SOD OR SEED ON SATURATED OR FROZEN SOIL.
- B. SOD AND SEED INSTALLATION SHALL BE SUBJECT TO SUITABILITY OF THE WEATHER AND OTHER CONDITIONS AFFECTING SOD GROWTH
- 1.8 PROGRESS MEETINGS A. CONTRACTOR SHALL ATTEND ALL PROGRESS MEETINGS AS REQUESTED BY THE OWNER'S REPRESENTATIVE DURING INSTALLATION.
- 1.9 QUANTITY VERIFICATION A. THE BIDDING CONTRACTOR IS RESPONSIBLE FOR THE INCLUSION OF ALL MATERIALS, LABOR AND EQUIPMENT AS THE BOLVINE OWITHING THE ADVISOR THE CONCENTION THE MACENSING OF ALL WATERING, DEAD AND EQUIFIENT AS OUTLINED IN THE ADVISOR AND SPECIFICATION. THE MACENSING OF ALL DAVISOR THE BOLONG CONTRACTOR AS A COMPENSIVE AND THE QUANTITIES ARE APPROXIMATE. VERIFICATION OF ALL QUANTITIES IS THE SOLE RESPONSIBILITY OF THE BODING CONTRACTOR. ANY DISCREPANCIES MUST BE REPORTED TO THE OWNERS REPRESENTATIVE PROOF TO SUBJECT OF BOL.

PART 2 PRODUCTS

2.1 GRASS A. GENERAL

- SOD SHALL BE NURSERY GROWN ON CULTIVATED AGRICULTURAL SOILS. SOD SHALL HAVE BEEN MOWED REGULARLY AND CAREFULLY AND OTHERWISE MAINTAINED FROM PLANTING TO HARVEST. SOD SHALL BE OF SPECIES INDICATED.
- THICKNESS OF CUT: SOD SHALL BE CUT TO THE SUPPLIER'S STANDARD WIDTH AND LENGTH. MAXIMUM ALLOWABLE DEVIATION FROM STANDARD WIDTHS AND LENGTHS SHALL BE PLUS OR MINUS. 25 INCHES ARD WIDTHS AND LENGTHS SHALL BE PLUS OR MINUS .25 INCHES ON WIDTH AND PLUS OR MINUS 5% ON LENGTH.
- BROKEN STRIPS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTED.
- STRENGTH OF SOD STRIPS: SOD STRIPS SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE IF SUSPENDED VERTICALLY WHEN GRASPED IN THE UPPER 10% OF THE SECTION. MOISTURE CONTENT: SOO SHALL NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY WET OR DRY) MAY ADVERSELY AFFECT ITS SURVIVAL. SOD SHALL BE STORED IN A COMPACT
- EXCLOSIFIET THE UNLINE MAIL AND TAKEN AND AND THE IT IS AUTIVAL. SOU STALL BE UNDER IN A COMPACI FOUND TO PREVENT DRIVING OUT ON PREZENS. THE LIMITATIONS: SOO SHALL BE HARVESTED, DELIVERED, AND TRANSPLANTED WITHIN A SO-HOUR PREVIO UNLESS A QUITALE PRESERVATION METHOD IS APPROVED BY THE OWNER'S REPRESENTATE FOR TO DELIVERY: SOO NOT TRANSPLANTED WITHIN THE PRIVOS SHALL BE INSPECTED FOR APPROVAL BY THE OWNER'S REPRESENTATION FOR TO ITS INSTALLATION.
- THATCH: SOD SHALL BE FREE OF TH
- DISEASES. NEMATODES AND INSECTS: SOD SHALL BE FREE OF DISEASES, NEMATODES, AND SOIL-BORNE INSECTS.
- 10. WEEDS: SOD SHALL BE FREE OF OBJECTIONABLE GRASSY AND BROADLEAF WEEDS.

CYNODON DACTYLON (COMMON BERMUDA GRASS) C. SEED

- J. SEED: FRESH, CLEAN, AND NEW CROP SEED MIKTURE. A COMPOSED OF THE FOLLOWING VARIETIES, MIKED TO THE SPECIFIED PROPORTIONS BY WEIGHT, AND TESTED TO MINIMUM PERCENTARES OF PURITY AND GERMINATION. SHALL BE FREE OF. FOA ANNUA, BENT GRASS, AND
- B. RATE: 2 3 POUNDS PER 1,000 SQUARE FEET.

TYPES PARTS PURITY GERMINATION

BERMUDA GRASS 100% 95% 95%

22 MULCH

- A. HYDRO-MULCH: CELLULOSE FIBER MULCH SHALL CONSIST OF SPECIALLY PREPARED CELLULOSE PROCESSED INTO A Inderdender Schleden ander Schleden und Schleden ander Schleden an
- SEEDLINGS. 2.3 TOPSOIL
- A. GENERAL TOPSOIL
- 1. REFERENCE PLANTING SOIL PLANS. SEEDING ACCESSORIES
- ELUMINA ALCESSIONES WEED NILLER I WEED RESSARY IN THE OPINION OF THE LANDCCAPE ARCHITECT, AN APPLICATION OF BROADLEAF WEED KILLER MAY BE APPLED PRIOR TO FINAL ACCEPTANCE. ORTHO WEED-B-GONE OR EQUAL AT A RATE OF 3 TEASPOONCIGALLON OF WATER OR 3 CUPS (25 C2) FER SO GALLONS OF WATER GHALL DE APPLIED AT LEAST 44 HOURS BEFORE WATERING OR ANTICIPATED RAINFALL. B. MULCH TACKIRER
- APPLY LIQUID TACKIFIER UNIFORMLY AT THE RATE OF 60 GALLONS PER ACRE, IF NEEDED, TO KEEP STRAW MULCH IN PLACE. C. GROUND LIMESTONE
- GROUND LIMESTONE SHALL CONTAIN NOT LESS THAN 85% OF TOTAL CARBONATES AND GROUND TO SUCH FINENESS THAT 50% WILL PASS THROUGH A NO. 100 MESH SIEVE, AND 90% WILL PASS THROUGH A NO. 20 MESH SIEVE.

2.5 FERTILIZER A GENERAL

dod24034 80.60004 CHAVEZ

MAGES XREFS LAST SAVED PLOT TED BY

- FERTILIZER SHALL BE COMMERCIAL PRODUCT, UNFORM IN COMPOSITION, FREE PLOWING, AND SUITABLE FOR APPLICATION WITH APPROVED EQUIPMENT.
   DEUXER PRITUZENT OS TIER HULLY LABLE LOO DIRGINAL CONTAINERS.
   FERTILIZEN WHICH NAS BEEN DRYOGED TO HIGH HUMIDITY AND MOISTURE HAS BECOME CARED OR OTHERWISE DAMAGED, MANON IT UNGUITABLE FOR USE, WILL NOT BE ACCEPTABLE.
   INTUL APPLICATION
   TO MUTORPH

- 17% NITROGEN 17% PHOSPHORIC ACID 17% POTASH
- C. SECOND APPLICATION: 21% NITROGEN
- 0% PHOSPHORIC ACID 0% POTASH

# PART 3 EXECUTION

- 3.1 GENERAL EXECUTE GRASS PLANTING OPERATIONS ACROSS SLOPE AND PARALLEL TO FINISHED GRADE CONTOURS 3.2 PRE-PLANT WEED CONTROL
- THE-THAIN WEED COMINDIA. I. HIRIAITED AND NON-HRIGATED GRASS AREAS: 1. IF GRASSY OR BROADLEAF WEEDS DOIST ON SITE AT THE BEGINNING OF WORK, SPRAY WITH A NON-SELECTIVE SYSTEMIC CONTRACT HERBICIDE, AS RECOMMENDED AND APPLIED BY AN APPROVED LICENSED LANDSCAPE PEST CONTROL ADVISOR AND APPLICATOR. LEAVE SPRAYED PLANTS INTACT FOR AT LEAST 15 DAYS TO ALLOW
- CLEAR AND REMOVE THESE EXISTING WEEDS BY MOWING OR GRUBBING OFF ALL PLANT PARTS AT LEAST 0.25 Inches below the surface of the soil over the entire area to be planted.
- B. IRRIGATED GRASS AREAS ONLY: AFTER IRRIGATION SYSTEM IS OPERATIONAL, APPLY WATER FOR 5 TO 10 DAYS AS NEEDED TO ACHIEVE WEED
- AFTER HINDING STOLDN'S OFENALDING, AFTER WALEN YOU'S TO TO DATA SA REDUE TO ALTERNY FREE GEMMIANDIN, HAPY CONTACT HERICIDES AN OWNER'S REPRESENTATIVE UTLEUNS MECHANICAL AND CHRASS AREAS WED FREE UNTL. FINAL ACCEPTANCE BY OWNER'S REPRESENTATIVE UTLEUNS MECHANICAL AND CHRACL. THREATMENT.
- 3.3 SOIL PREPARATION
- A. TILLAGE:
- TILLAGE SHALL BE ACCOMPLISHED TO LOOSEN ALL AREAS OF COMPACTED SOIL. WHEN PLACEMENT OF TOPSOIL IS SPECIFIED, TILL COMPACTED AREAS PRIOR TO PLACEMENT.
- THE WAR TO ACCURENT, ILL LUMPRALED APPEAS FINITH TO FLAEMENT. 2. TILL WITH HEAVY DUTY DIGC, ROTOTILER, OR CHSEL-TYPE BREAKING PLOW, CHSELS SET NOT MORE THAN 10 INCHES APART. TILL TO A DEPTINGE TO 10 SINGE 1. INTIAL TILLAGE SHALL BE DONE IN CROSSING PATTERN FOR DOUBLE COVERAGE THEN FOLLOWED BY A DISC HARROW
- B. CLEANING: REMOVE DEBRIS, BUILDING MATERIALS, RUBBISH, WEEDS, AND STONES LARGER THAN 1 INCH IN DIAMETER.
- USE ROCK PICK OR OTHER MACHINERY TO GATHER SURFACE STONES LARGER THAN 1 INCH IN DIAMETER C FINE GRADING
- AFTER TILLAGE AND PLACEMENT OF TOPSOIL, LEVEL, FINE GRADE, AND DRAG WITH A WEIGHTED SPIKE HARROW OR FLOAT DRAG.
- ELIMINATE RUTS, DEPRESSIONS, HUMPS, AND OBJECTIONABLE SOIL CLODS.
- 3.4 FERTILIZING
  - A. THE FERTILIZER TYPES AND RATES SPECIFIED HEREIN ARE APPLICABLE UNLESS COUNTERMANDED BY THE SOIL FERTILITY TEST CORRECTIVE RECOMMENDATIONS, IN WHICH CASE THEY WILL BE APPLICABLE.
  - B. BERMUDA SODDING: INITIAL APPLICATION: APPLY NO MORE THAN 5 DAYS PRIOR TO COMMENCEMENT OF SODDING OPERATIONS AT A
  - RATE OF 20 POUNDS PER 1,000 SQUARE FEET. INCORPORATE INTO SOIL WITH A CHAIN HARROW.
  - SECOND AND THIRD APPLICATIONS: APPLY EVERY 25 DAYS AFTER SODDING AT A RATE OF 10 POUNDS PER
  - 3. IRRIGATE THE AREA WITH A MINIMUM OF 25 INCHES OF WATER TO PROPERLY INCORPORATE THE FERTILIZER NTO THE TURF
- 3.5 PLANTING SOD A. WEATHER CONDITIONS
  - SCHEDULE WORK FOR PERIODS OF FAVORABLE WEATHER.

ANY AREAS EXC

C. FERTILIZER

EROSION CONTROL

3.9 CLEAN-UP

310 MAINTENANC

END OF SECTION 329210

3.7

3.8

APPROVED EQUAL, ON OTHER CRO-ESTABLISH A SOLID LAWN AREA.

A. REMOVE EXCESS MATERIAL AND DEBRIS FROM SITE.

WATERING: AS NECESSARY

IANDRAU TRANSTORE LAWKS A. GRASS SEED: PER SEED TYPE. B. FERTILIZER: PER SOIL TEST REPORT RECOMMENDATIONS.

A. MAINTAIN EXISTING ESTABLISHED GRADES, PROTECT TRUE AND EVEN DURING OPERATIONS.

A. DURING WORK AND MAINTENANCE PERIOD, MAINTAIN TOPSOIL IN PLACE AT ESTABLISHED GRADES. REPLACE TOPSOIL AND TURF GRASS LOSSES DUE TO EROSION.

A. UNTIL FINAL ACCEPTANCE, MAINTAIN LAWN AND GRASS AREAS BY WATERING, MOWING, WEEDING, SPRAYING, Cleaning and Replacing as necessary to keep the turf and grass in a vigorous, healthy condition

MOWING: a) MOW NEWLY PLANTED GRASS AREAS WEEKLY AFTER INITIAL GROWTH REACHES 1.5 TO 2 INCHES. WEEDING: REMOVE WEEDS AND FOREIGN GRASS OVER LAWN AND GRASS AREAS AT LEAST ONCE A WEEK HERBICIDES MAY BE USED ONLY WHEN AFFROVED BY THE OWNER'S REPRESENTATIVE.

- SOD PLACEMENT ON DAYS WHICH. IN THE JUDGMENT OF THE OWNER'S REPRESENTATIVE, ARE TOO HOT, COLD. SUNNY, DRY, OR WINDY FOR OPTIMAL INSTALLATION MAY BE PROHIBITED B. PLACEMENT PATTERN:
- THE RRST ROW SHALL BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PARALLEL TO THE FIRST ROW AND TIGHTLY ABUTTING EACH OTHER.
- AND TIGHTET ADDIT TIME DATE OTHER. 2. LATERAL JOINTS SHALL BE STAGGERED. CARE SHALL BE EXERCISED TO ENSURE THAT THE SOO IS NEITHER STRETCHED NOR OVERLAPPED. JOINTS MUST BE BUTTED TIGHTLY TO PREVENT VOIDS THAT COULD PERMIT AIR D DRY OUT ROOT
- TO UNY OUT HUD." MANEDIATELY AFTER PLACING, SOD SHALL BE PRESSED FRMLY INTO CONTACT WITH BED BY TAMPING OR ROLLING TO ELIMINATE AIR POCKETS. FOLLOWING TAMPING, SCREINED TOPEOU, SHALL BE URED TO FIL ALL CRACKS AND EXCESS SOIL, SHALL BE WORKED INTO THE SOU WITH RAKES OR OTHER SUITABLE EQUIPMENT. SOD SHALL NOT BE SMOTHERED WITH DECKSS FILL SOIL.
- NOW SHOLE NOT BE SIMULTARY WITH DOCESS THE SOLE. In Slopes Steeper than 3 to 1, sod shall be secured by Galvanized Pins, wood pegs or other inctions approved by the owners representative.
- METHODS APPROVED BY THE OWNER'S HEPHESHTATIVE. 5. IMMEDIATELY AFTER SODDING OPERATIONS HAVE BEEN COMPLETED, THE ENTIRE SURFACE SHALL BE COMPACTED WITH A ROLLER OR OTHER APPROVED EQUIPMENT. THE COMPLETED AREA AFTER SODDING SHALL BE UNIFORMLY EVEN, FIRM, AND TRUE TO FINISHED GRADE LINES. C WATERING
- LEDWA:: MITAL INSTALLATION: WATER MUST BE APPLED WITHIN 2 HOURS OF EXPOSITE OF THE 500 TO SUN OR NNO. WATER NEWY LAD 500 UNIT, SATURATION OF THE ENTRE AREA S AFARENT. AS A RESULT OF NITAL RINGLING, STANDON WATER MAY EXPENSIVILATION CORRELT TO HEAVY RING OF MAY COLOR. CONTINUE TO RINGATE DALY IN SHORTER DURATIONS OF THE ENTRE AREA STATS THOROUGHLY WEE BUT WITHOUT STANDING WATER. THE CONTINUE TO AN ADDRESSION REGARD REQUENCY OF APPLICATIONS INLL WARY AT
- INT LOCATIONS DUE TO WEATHER CONDITIONS AND INDIVIDUAL SITE CHARACTERISTIC AFTER 7 TO 10 DAYS: CHECK FOR NEW ROOT GROWTH BY LIFTING CORNERS OF SOD BLOCKS. IF CONSISTENT ROOT GROWTH OVER THE ENTIRE SITE IS OBSERVED, WATER APPLICATIONS CAN BE REDUCED TO ONCE EVERY
- OTHER DAY. 3. AFTER 12 TO 14 DAYS: RECHECK FOR ADDITIONAL ROOTING. IF SOD BLOCKS ARE DIFFICULT TO PULL UP OR
- ADDITIONAL NEW ROOTS ARE PRESENT ALLOW THE AREA TO DRY TO THE EXTENT THAT MOWING CAN BE PERFORMED.
- 3.6 SEEDING LAWNS A. SEEDING LIMITS: ALL GROUND AREA WITHIN THE INDICATED PROJECT LIMIT LINES, OR ANY ADDITIONAL AREA WHICH
- SEEDING LIMITS: ALL GROUND AREA WITHIN THE NOICATED PROJECT LIMIT LINES, OR ANY ADDITIONAL AREA WHICH HAS GEEN DISTURBED NAW YWAR PITHE CONSTRUCTION OPERATIONS, FAULU EE NIE GRAGED AND PLANTED N SEED OR SOD UNLESS OTHERWISE INDICATED DIN THE DRAWINGS TO BE COVERED WITH TREES, SHRUBG, STRUCTURES), WALLS, ROADS, OR OTHER JURFACED AREAS. RESPONDISHLITY: THE CONTRACTOR SHALL UTLES ALL SUCH MEASURES AS MAY BE NECESSARY, INCLUDING, BUT NOT LIMITED TO, PROTECTIVE FINCING, SOD, OR ENGLIDE AND CONTROL, NETTING TO PRODUCE A FINISHED CONTINUOUS BLANKET OT TURY OFFICIAL LAREA SEGNIATED TO RECEIVE TURY.

EAS EXCEEDING 5:1 SLOPE SHOULD BE TREATED WITH EROSION CONTROL BLANKETS BY CURLEX®, VED EQUAL, OR OTHER EROSION CONTROL METHODS DEEMED NECESSARY BY THE CONTRACTOR TO

APPLY FERTILIZER TO INDICATED TURF AREAS AT A RATE EQUAL TO 1.0 POUND OF ACTUAL NITROGEN PER 1,000 SQUARE FEET (430 POUNDS OF FERTILIZER PER ACRE).

JAGARTE FEET (450 POUNDS OF PERTILIZER PER ACRE).
 APPLY FERTILIZERS PW VECHANCAL, ROTARY OR DROP TYPE DISTRIBUTOR, THOROUGHLY AND EVENLY INCORPORATED INTO SOLIT O. DEPTH OF 3: 9 ENGLING OR OTHER APPROVED METHOD. FERTILIZE AREAS INACCESSBLE TO POWER EQUIPMENT WITH HAND TOOLS AND INCORPORATE INTO SOLI.
 RESTOR FERARED AREAS TO SPECIFIED CONDITION IF ERODED, SETTLED, OR OTHERWISE DISTURBED, AFTER INFORMATION AND PRIOR TO SEEDING.

USE A HYDROMULCHER (SPRAYER) AND APPLY MOXTURE(S) AT THE FOLLOWING RATES. MIX IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

![](_page_188_Picture_100.jpeg)

Figure 108; Page F.109; October 1, 2024 THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION

### IRRIGATION NOTES

- TRIGATION CONT RERIGATION CONTRACTOR SHALL TEST EXISTING STATC PRESSURE ON SITE FRIOR TO CONSTRUCTION. SHOULD EXISTING SITE PRESSURE BE BELOW 65 P3I, CONTRACTOR SHALL CONTACT THE IRRIGATION DESIGNEER PRIOR TO COMMENCEMENT OF CONSTRUCTION. COORDINATE IRRIGATION STALL CONSTRUCTION STALL CONSTRUCTION TO PROVIDE COMPLETE 100% COVERAGE WITH MINIMUM OVERSPRAY. THE IRRIGATION CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO ENSURE PROPER COVERAGE AT NO ADDITIONAL COST TO THE GWINER. ALL CONSTRUCTION SHALL CONSTRUCTIONS TO CONTRACTOR SHALL ALSO BE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ENSURE THAT ALL CONSTRUCTION SHALL CONSTRUCTIONS HOLD FOR TO CITY. COUNTY, STATE, MAIN DE PEDERA, REGOVERING HEALL ALSO BE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ENSURE THAT ALL CONSTRUCTION SHALL CONSTRUCTIONS TO CITY. COUNTY, STATE, MAIN DE PEDERA, REGUREMENTE. IN FAILL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ENSURE THAT ALL CONSTRUCTION SHALL CONSTRUCTIONS TO CITY. COUNTY, STATE, MAIN DE PEDERA, REGOVERING HEALL SO THAL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ENSURE COMMENCEMENT OF OPERATIONS ON-STIC CONFERS OF THE PERMIT SHALL BE SHALT TO THE OWNERG BANALL BE ALL CONSTRUCTOR. LATERAL, PRE SHALL BE NOTALED AT A MINIMUM DEPTH OF 12 NOTES. MAININE PRE AND WIRES SHALL BE INSTALTO CONTRACTOR TO PROVIDE FINAL HARD WIRE TO LECTRICAL FORMULES INFL. CONTRACTOR SHOULDER CONTRACTOR. INCIDENT INFORMATION CONTRACTOR TO PROVIDE THAL HARD WIRE TO LECTRICAL FORMULES INFL. CONTRACTOR SHALL AND MINISTRUCTURE OF ADDITIONS TO PROVIDE FINAL HARD WIRE TO LECTRICAL FORMULES INFL. CONTRACTOR SHOULDER CONTRACTOR IN STATUS ON TRACTOR TO PROVIDE FINAL HARD WIRE TO LECTRICAL FORMULES INFL. CONTRACTOR TO PROVIDE FINAL HARD WIRE TO LECTRICAL FORMULES INFL. CONTRACTOR TO PROVIDE FINAL HARD WIRE TO LECTRICAL FORMULES INFL. CONTRACTOR TO PROVIDE FINAL HARD WIRE TO LECTRICAL FORMULES INFL. CONTRACTOR TO PROVIDE FINAL HARD WIRE TO LECTRICAL FORMULES INFL. CONTRACTOR TO PROVIDE FINAL HARD WIRE TO LECTRICAL FORMUL
- --C WIRE SHALL BE A MINIMUM OF 14 GAUGE, U.L. APPROVED FOR DIRECT BURIAL, SINGLE CONDUCTOR "IRRIGATION WIRE". CONTRACTOR TO C N. WIRE SPLICES SHALL BE ENCASED IN A WATERPROOF WIRE CONNECTOR UL APPROVED AND FILLED WITH SILICONE. NFIRM WIRE SIZE PRIOR TO
- UNI, WIRE SPLUES SPHELE BEINGED ELE COATED IN WALLEMENDUNG LOMMOUTUR LAMMOUTUR AUD FILLED WITH SILCORE. IV ALVES AND VALVE BOXES SHALLE ELCOATED IN LADSCAPE BESINGT INFANDE AND CONTINI ONE CLISIC FOOT OF CLEMA GRAVEL BEINEATH VALVE. LABEL REMOTE BOXES WITH OME-WORL ALVEN AUFAN AUMERIC KONTONIO CONSILARE DOX FOR AUTO INFALLER AND MUNERIC STATION USE 107 COUND AVLE SOXES FOR ELECTRIC VALVES AND GUIDE AND GUIDE IN SA 5.5 °ECTAD
- ALPHA CONTROLLER AND NUMERIG STATION. USE 10" ROUND VALVE BOXED FOR ELECTRIC VALVES AND QUICK COUPLING VALVES. USE 15" X 3.5" RECTANGULAR BOX FOR DRIP VALVES UNLESS NOTED OTHERWISE. DOUBLE CHECK ASSEMBLY SHALLE BE CACE ACCORDING TO LOCAL COOLS. USE FUG SWING JOINT ASSEMBLIES TO CONTECT ALL BERAY AND ROTOR HEADS. CONTRACTOR IS TO CONTACT PROPRIATE AUTHORITIES AND LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, EQUIPMENT QUANTIES, AND UTILITY LOCATIONS PRIOR TO BEGINNING WORK. ELEVES SHALL BE INSTALLED BY GAERRAL CONTRACTOR UNLESS OTHERWISE NOTED. SLEEVE MATERIAL SHALL BE PVC, SCHD. 40. CONTRACTOR SHALL EXTEND SLEEVES 18 INCHESS BEYOND EDGE OF ALL PAVEMENT AVERIENT SHALL BE FLACED FOR RRIGATION VALVES AND DRIVGATION LINES ARE TO BE FLACED IN SEPARATE SLEEVES. SEE SLEEVING DETAL. ALL PRESSURE MAINLINES UNDER ASFALLS E FLACED A MINIMUM OF 2' UNDER MALCH. UNDER ASFALLS E FLACED A MINIMUM OF 2' UNDER MALCH.
- LICENSED IRRIGATION CONTRACTOR SHALL ADJUST SPRY NOZZES FOR "HEAD-TO-HEAD" COVERAGE AND ADJUST FOR MINMUM OVERSPRAY ONTO PAVEMENT. NO OVE ONTO STREETS OR SIDEWALKS. IRRIGATION CONTRACTOR SHALL SUPPLY AND CONSTRUCT IRRIGATION SYSTEM WITH ALL MATERIALS AND PER MANUFACTURER SPECIFICATIONS SHOWN ON THIS PLAN. I PREFERS MATERIALS THAT DIFFER FORM THE THIS PLAN, THEY SHALL BE APPROVED BY THE IRRIGATION DESIGNER PRIOR TO CONSTRUCTOR. VERIFY CONTROLLER AND RAIN SENSOR LOCATION AND MANULINE POINT OF CONNECTION AT PROJECT SITE WITH ONWER. EXENTION THESE TO REMAIN ARE TO BE PROTECTED FORM OMANGE. DO NOT THEACHOR OR EXCAVATE WITHIN THE CRITICAL ROOT ZONE OF ANY TREE. IRRIGATION LATERAL LINES, MAIN LINES AND EQUIPMENT MAY BE SHOWN OUTSIDE PROPERTY LINES ON THIS PLAN, ALL IRRIGATION LINES AND EQUIPMENT ARE TO BE WIT WITHIN THE LIMPT OF THE PROPERTY LINE.

TION CONTRACTOR'S POINT OF

- WITHIN THE LIMITS OF THE PROPERTY LINE. SUPPLY LINE AND METRIES TO BE PROVIDED BY IGENERAL CONTRACTOR. BACKFLOW PREVENTER TO BE PROVIDED BY IRRIGATION CONTRACTOR. IRRIGAT URRIGATION CONTRACTOR BHALL REVIEW WINTERDATED ACTESS IRRIGATION CONTRACTOR BHALL REVIEW WINTERDATION PROCEDURES FOR IRRIGATION SYSTEM WITH OWNERD REPRESENTATIVE. ALL FLANT MATERIAL IN TREE HOLDING AREAS BHALL BE MANULLY WATEREDIRATIONATED TO KEEP MOIST UNTIL PLANTED. MANULME, VALVES, AND WIRING ARE SHOWN ON DRAWINGS FOR CLARITY, SHOULD BE LOCATED IN ACCESSIBLE GREEN SPACE. CONTRACTOR TO COORD CONFLICTS WITH UTILITIES STRUCTURES, ETC.
- CONFLICTS WITH UTLITIES I STRUCTURES, ETC. 2. INSTALLATION OF WORK SHALL BE COORDINATED WITH OTHER CONTRACTORS IN SUCH A MANNER AS TO ALLOW FOR A SPEEDY AND ORDERLY COMPLETION OF ALL WORK ON THE BITE. 3. BET JEPRAY HEADS 4' FROM BACK OF CUBB OR 24' IF PAYEMENT HAS NO CURB. 4. CONTRACTOR SHALL PROVIDE "A-SULT DRAWINGS OF THE FRAM. INSTALLATION TO OWNER AT SUBSTANTIAL COMPLETION BEFORE RECEIVING FINAL PAYMENT. "AS-BULT" DRAWINGS TO COLOR CODED BY ZONE ON 8.5''X IT', LAMINATED, AND PLACED IN CONTROLLER. 5. ALL DRIP ZONES SHALL BE NOTHALLED WITH A BLE-FLUISHING DIS CHITER, OR APPROVED EQUAL. 5. INSTALL ALL IRRIGATION COMPONENTS AS PER MANUFACTURERS REQUIREMENTS. 7. IRRIGATION HEADS AND COMPONENTS AS PER MANUFACTURERS REQUIREMENTS. 7. IRRIGATION HEADS AND COMPONENTS ANAL BE LOCATED A MINIMUM OF 24' FROM ALL BUILDINGS TO AVOID ADVERSE PERFORMANCE OF FOUNDATIONS AND BLABS. 8. NO LATERALS LESS THAN 34' DIAMETER.

## IRRIGATION SCHEDULE

CHAVE.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
(1) OBHE-VAN (12) 12HE-VAN (10) 10HE-VAN (15) 15HE-VAN	RAIN BIRD 1804-U-PRS HE-VAN SERIES Turp Spray 41N, Pop-UP Sprinkler with CO-Molded Wiper Seal. 1/2IN. NPT Female Threaded Nult. Pressure Regulating.	712
▲ 123 △ □ 25 50 10 20	TORD 3705-F8-PC PRESSURE-COMPENSATING FLOOD BUBBLER NOZZLE ON 3705 FXED RISER.	109
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
¢	RAIN BIRD 3004-PC-LA 1.0 Turf Rotor, 4.0N. Pop-UP, plastic riser. Adjustable to full circle. Low angle Nozzle.	68
2	RAIN BIRD 5004-PC-LA 2.0 Turf Rotor, 4.0N. Pop-up, plastic riser. Adjustable to rull circle. Low angle Nozzle.	15
30	RAIN BIRD 3004-PC-LA 3.0 Turf Rotor, 4.0N. Pop-UP, plastic riser. Adjustable to full circle. Low angle Nozzle.	<b>9</b> 1
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	RAIN BIRD LFV-100 1IN. LOW FLOW DV VALVE	12
0	RAIN BIRD OPERIND DRIP SYSTEM OPERATION INDICATOR, STEM RISES ON. FOR CLEAR VISIBILITY WHEN DRIP System is charged to a minimum of 20051. Includes 10m. of 1/4in. Distribution Tubing with connection ritting Pre-installed.	12
	AREA TO RECEIVE DRIPLINE NETABIN TI CV-020-12	
	TECHLINE PRESSURE COMPENSATING LANDSCAPE DRIPLINE WITH CHECK VALVE. 0.26 GPH EMITTERS AT 12" 0.0. DRIPLINE LATERALS SPACED AT 12" APART, WITH EMITTERS OFFSET CONTINUES AD INTERNATIONAL ADDITIONAL ADDITICAL ADDITIONAL ADD	9,471 L.F.
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	OTY
	RAIN BIRD PEB	58
×	CONFIGURATION. SHUT OFF VALVE	5
- MA	RAIN BIRD PEB 2*	,
₩ A	PLASTIC INDUSTRIAL MASTER VALVES. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION. RAIN RIDE PER 2*	
MAR.	PLASTIC INDUSTRIAL MASTER VALVES. LOW PLOW OPERATING CAPABILITY, GLOBE CONFIGURATION.	1
Ŵ	RAIN BIRD PEB 2* PLASTIC INDUSTRIAL MASTER VALVES. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION.	1
(BFA)	FEBC0 850 2" DOUBLE CHECK BACKFLOW PREVENTION	1
œ	FEBC0 850 2* DOUBLE CHECK BACKFLOW PREVENTION	1
œ	FEBCO 850 2* DOUBLE CHECK BACKFLOW PREVENTION	1
CA	RAIN BIRD ESP-2WIRE (120VAC) 30 STATION 2-WIRE, INDORRY OUTDOOR CONTROLLER W/ DECODER AUTO-ADDRESS. FOR RESIDENTIAL OR LIGHT COMMERCIAL USE. LINK WIR MODULE AND FLOW SENSOR READY. USE WITH 2W1-SINELS STATION DECODERS AND STANDARD DIRECT BURKLI WIRE.	1
CB	RAIN BIRD ESP-2WIRE (120VAC) 30 STATION 2-WIRE, INDORY OUTDOOR CONTROLLER W/ DECODER AUTO-ADDRESS. FOR RESIDENTIAL OR LIGHT COMMERCIAL USE. LINK WIR MODULE AND FLOW SENSOR READY. USE WITH 2W1-SINGLE STATION DECODERS AND STANDARD DIRECT BURKLI WIRE.	1
CC	RAIN BIRD ESP-2WIRE (120VAC) 30 STATION 2-WIRE, INDORY OUTDOOR CONTROLLER W/ DECODER AUTO-ADDRESS. FOR RESIDENTAL OR LIGHT COMMERCIAL USE. LINK WIR MODULE AND FLOW SENSOR READY. USE WITH 2W1-51MELE STATION DECODERS AND STANDARD DIRECT BURKLI WIRE.	1
ø	RAIN BIRD 2W-1 ESF-2WIRE DECODER FOR TWO-WIRE SYSTEM. INSTALL IN VALVE BOX FOR VALVE. OPERATES ONE VALVE/SOLENDICI. INSTALL, WITH STANDARD DIRECT BURIAL IRRIGATION WIRE AND STANDARD IRRIGATION WIRE COMMETCIONS.	70
¢\$	RAIN BIRD WR2-RP5 WIRELESS RAIN/FREEZE SENSOR.	5
<b>S</b> A	RAIN BIRD LIFS-200 2NL ULTRASONIC FLOW SENSORS, WITH GLASS FILLED NYLON BODY, OPERATING RANGE 1 GPM TO 200 GPM. SIZE FOR FLOW NOT ACCORDING TO PIPE SIZE.	1
	RAIN BIRD UF5-200 2IN. ULTRASONIC FLOW SENSORS, WITH GLASS FILLED IN'LON BODY. OPERATING RANGE 1 GPM TO 200 GPM. SIZE FOR FLOW NOT ACCORDING TO PIPE SIZE.	1
3	RAIN BIRD UFS-200 20N. ULTRASONIC FLOW SENSORS, WITH GLASS FILLED NYLON BODY. OPERATING RANGE 1 GPM TO 200 GPM. SEE FOR FLOW NOT ACCORDING TO PIPE SIZE.	1
ма	WATER METER 2"	1
ME	WATER METER 2"	1
MC	WATER METER 2"	1
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21	19,891 L.F.
	IRRISATION MAINLINE: PVC SCHEDULE 40	8,861 L.F.
	PIPE SLEEVE: PVC SCHEDULE 40	1,892 L.F.
	Valve Number	
(#•)#• #••)	Valve Row Valve Size	

![](_page_189_Figure_24.jpeg)

Figure 109; Page F.110; October 1, 2024 THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

![](_page_190_Figure_0.jpeg)

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![](_page_191_Figure_0.jpeg)

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Figure 112; Page F.113; October 1, 2024\*THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION

![](_page_193_Figure_0.jpeg)

Figure 113; Page F.114; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION

![](_page_194_Figure_0.jpeg)

Figure 114; Page F.115; October 1, 2024 \*THIS PLAN IS FOR TCEO PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

![](_page_195_Figure_0.jpeg)

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SCH	EDULE			-(	NORTH			
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20					K		ITC	1
	MANUFACTURER/MODEL RAIN BIRD 5004-PC-LA 1.0	8			<u></u>		V. T. O	-
	RAIN BIRD 5004-PC-LA 2.0						91j	
	RAIN BIRD 5004-PC-LA 3.0					105 L	1-100	
	MANUFACTURER/MODEL				FA			
-	RAIN BIRD LFV-100	8			1 1 11	104	I-10	1.
	RAIN BIRD OPERIND	THIS S	PACE RESERVED	BLDG INSPECTION		10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	ai g	
	AREA TO RECEIVE DRIPLINE NETARIM TLCV-026-12							
=)	MANUFACTURER/MODEL	ka -				103 L	I-10	2
	SHUT OFF VALVE							<u>+ ^ _</u>
	RAIN BIRD PEB 2*							
	RAIN BIRD PEB 2*							
	RAIN BIRD PEB 2*							
	FEBC0 850 2*							
	FEBC0 850 2*	IHS	SPACE RESERVES	D-ENGINEERING				
	FEBC0 850 2*							
	RAIN BIRD ESP-2WIRE (120VAC)							
	RAIN BIRD ESP-2WIRE (120VAC)							
	RAIN BIRD ESP-2WIRE (120VAC)							
	RAIN BIRD 2W-1							
	RAIN BIRD UFS-200							
	RAIN BIRD UFS-200							
	RAIN BIRD UFS-200							
	WATER METER 2*							
	WATER METER 2*							
	WATER METER 2*							
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR	21						
	IRRIGATION MAINLINE: PVC SCHEDULE 40				N	$\sim\sim$	$\sim$	1
:==	PIPE SLEEVE: PVC SCHEDULE 40					ARNING: CONTR RIFY PRESENCE	AND EX	ACT S
#•	Valve Number Valve Flow				7	RIOR TO CONST	RUCTIC	X
10	Valve Size			0	~	$\sim \sim$	V	20
				- 8	Kn	ow what's	bel	ow.
						Call bet	fore y	ou dig.
			TBM #1: "X"	CUT FOUND ON	BENCHMARK AN INLET ON THE E	LIST AST SIDE OF NEW	BERRY :	STREET PER
			TOPOGRAP	HIC SURVEY BY R	LG DATED 12/20/20	21.	E	LEV: 438.06
			TBM #2: "X" TOPOGRAP	CUT FOUND ON A	AN INLET ON THE E	AST SIDE OF NEW 21.	BERRY :	STREET PER
			TBM #3: "X"	CUT FOUND ON	AN INLET ON THE E	AST SIDE OF NEW	BERRY	STREET PER
			TOPOGRAPI	HIC SURVEY BY R	ILG DATED 12/20/20	21.	6	ELEV: 441.51'
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		REVIEWED BY:	DRAWN BY:	DATE	FILE	NUMBER	s	HEET
	08/26/2024	MLF	LC	08/26/2024	XXXX	XXXX	11	105

Figure 115; Page F.116; October 1, 2024 \*THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

![](_page_196_Figure_0.jpeg)

direby : direby : direby : direby : CHANEZ

IMAGES XREFS LAST SAVED PLOTTEDBY DWGPATH

Figure 116; Page F.117; October 1, 2024 "THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION

![](_page_197_Figure_0.jpeg)

SECTION VIEW

![](_page_197_Picture_3.jpeg)

Figure 117; Page F.118; October 1, 2024 \*THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

## IPPICATION SCHEDUIE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY			
(1) OBHE-VAN (12) 12HE-VAN (10) 10HE-VAN (15) 15HE-VAN	RAIN BIRD 1804-U-PRS HE-VAN SERIES TURF SPRAY 41N, POC-UP SPRINKLER WITH CO-MOLDED WIPER SEAL, 1/2IN, NPT FEMALE THREADED INLET. PRESSURE REGULATING.	712			
▲ 10 △ □ 25 50 10 20	TORD 5705-FB-PC PRESSURE-COMPENSATING FLOOD BUBBLER NOZZLE ON 5705 FIXED RISER.	109			
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY			
	RAIN BIRD 3004-PC-LA 1.0 Turf Rotor, 4.0N. Pop-UP, plastic riser. Adjustable to full circle. Low angle Nozzle	68			
2	RAIN BIRD 3004-PC-LA 2.0 Turf Rotor, 4.0m. Pop-up, plastic riser. Adjustable to full circle. Low angle Nozzle.	15			
3	RAIN BIRD 3004-PC-LA 3.0 Turf Rotor, 4.0N. Pop-UP, plastic riser. Adjustable to full circle. Low angle Nozzle.	<b>9</b> 1			
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY			
	RAIN BIRD LFV-100 1IN. LOW RLOW DV VALVE	12			
0	RAIN BIRD OPERIND DRIP SYSTEM OPERATION INDICATOR, STEM RISES ON, FOR CLEAR VISIBILITY WHEN DRIP SYSTEM IS CHARGED TO A MINIMUM OF 2019J. INCLUDES 1014. OF 1/4H. DISTRIBUTION TUBINS WITH CONNECTION HTTING PRE-INSTALLED.	12			
	AREA TO RECEIVE DRIPLINE				
	TECHLINE PRESSURE COMPENSATING LANDSCAPE DRIPLINE WITH CHECK VALVE. 0.26 GPH Emitters at 12° 0.C. DRIPLINE LATERALS SPACED AT 12° APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. 17MM.	9,471 L.F.			
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY			
<b>+</b>	RAIN BIRD PEB PLASTIC INDUSTRIAL REMOTE CONTROL VALVE. LOW PLOW OPERATING CAPABILITY, GLOBE CONSIGURATION	58			
M	SHUT OFF VALVE	3			
•	RAIN BIRD PEB 2* PLASTIC INDUSTRIAL MASTER VALVES. LOW PLOW OPERATING CAPABILITY, GLOBE CONFIGURATION.	1			
•	RAIN BIRD PEB 2* Plastic industrial master valves. Low Plow operating capability, globe configuration.	1			
<b>@</b>	RAIN BIRD PEB 2" PLASTIC INDUSTRIAL MASTER VALVES. LOW PLOW OPERATING CAPABILITY, GLOBE CONFIGURATION.	1			
(EFA)	FEBCO 850 2" DOUBLE CHECK BACKFLOW PREVENTION	1			
Ē	FEBC0 850 2* DOUBLE CHECK BACKFLOW PREVENTION	1			
Ē	FEBCO 850 2* DOUBLE CHECK BACKFLOW PREVENTION	1			
CA	RAIN BIRD ESP-2WIRE (120VAC) 30 STATION 2-WIRE, INDORY OUTDOOR CONTROLLER W/ DECODER AUTO-ADDRESS. FOR RESIDENTILG OF LIGHT COMMERCIAL, USE. LINK WIR MODULE AND R-DW SENSOR READY, USE WITH 2W-1 SINGLE STATION DECODERS AND STANDARD DIRECT BURIAL WIRE.	1			
CB	RAIN BIRD ESP-2WIRE (120VAC) 30 STATION 2-WIRE, INDORY OUTDOOR CONTROLLER W/ DECODER AUTO-ADDRESS. FOR RESIDENTILG OF LIGHT COMMERCIAL USE. LNK WIR MODULE AND R.DW SENSOR READY, USE WITH 2W-1 SINGLE STATION DECODERS AND STANDARD DIRECT BURIAL WIRE.	1			
CC	RAIN BIRD ESP-2WIRE (120VAC) 30 STATION S-WIRE, MIDORY OUTDOOR CONTROLLER W/ DECODER AUTO-ADDRESS. FOR RESIDENTIAL OR LIGHT COMMERCIAL USE. LIM: WIFI MODULE AND FLOW SENSOR READY. USE WITH 2W1-3 INSUE STATION DECODERS AND STANDARD DIRECT BURAL WIRE.	1			
D	RAIN BIRD 2W-1 ESP-2WIRE DEDODER FOR TWO-WIRE SYSTEM. INSTALL IN VALVE BOX FOR VALVE. OPERATES ONE VALVE/SOLENKID. NOTALL WITH STANDARD DIRECT BURNAL IRRIGATION WIRE AND STANDARD IRRIGATION WIRE CONNECTORS.	70			
<b>€</b> \$	RAIN BIRD WR2-RFS WIRELESS RAINFREEZE SENSOR.	3			
<b>S</b> A	RAIN BIRD UFS-200 21N. ULTRASONIC FLOW SEKSORS, WITH GLASS FILLED NYLON BODY, OPERATING RANGE 1 GPM TO 200 GPM. SIZE FOR FLOW NOT ACCORDING TO PIPE SIZE.	1			
69	RAIN BIRD UFS-200 21N. ULTRASONIC FLOW SENSORS, WITH GLASS FILLED NYLON BODY. OPERATING RANGE 1 GPM TO 200 GPM. SIZE FOR FLOW NOT ACCORDING TO PIPE SIZE.	1			
8	RAIN BIRD UF5-200 21N. Ultrasonic Flow Sensors, with Glass Filled Nylon Body. Operating Range 1 GPM to 200 GPM. Size For Flow not according to Pipe Size.	1			
ма	WATER METER 2"	1			
MB	WATER METER 2"	1			
MC	WATER METER 2"	1			
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21	19,891 L.F.			
	IRRIGATION MAINLINE: PVC SCHEDULE 40	8,801 L.F.			
,	PIPE SLEEVE: PVC SCHEDULE 40 Valve Callout	1,892 L.F.			
#• #•	Valve Number Valve Flow				
$\leftarrow$					

### VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	PSI	PSI @ POC	PRECIP
14	RAIN BIRD LPV-100	1*	AREA FOR DRIPLINE	5.54	59.1	49.5	0.41 in/h
18	RAIN BIRD PEB	1-1/2"	TURF SPRAY	21.98	50.7	41.5	1.44 in/h
10	RAIN BIRD PEB	1.	BUBBLER	0.7	51.1	41.5	1.19 m/h
28	RAIN BIRD FEB	1-1/2-	ADEA COD ODIDI INC	28.7	290	41.0	0.41 m/h
20	BAIN BIRD L PV-100	i.	AREA FOR DRIPLINE	5.58	59.2	40.4	0.41 inft
3A	RAIN BIRD PEB	1-1/2"	TURF SPRAY	27.0	29.4	41.5	1.55 in/h
5B	RAIN BIRD PEB	1*	BUBBLER	2.25	51 5	41.7	1.55 in/h
30	RAIN BIRD PEB	1-1/2"	TURF ROTOR	15.14	30 0	40.5	0.45 in/h
44	RAIN BIRD PEB	1-1/2"	TURF SPRAY	25.54	29.9	41.0	1.67 in/h
40	RAIN BIRD LEV-100	1-1/2*	TURE ROTOR	14.6	30.0	40.5	0.41 mm
5A	RAIN BIRD PEB	1-1/2	TURF SPRAY	15 55	29.9	40.5	1.77 in/h
38	RAIN BIRD PEB	1-1/2"	TURF SPRAY	24.25	502	41.5	1.58 in/h
5C	RAIN BIRD PEB	1-1/2"	TURF SPRAY	20.55	29 5	40.6	2.24 in/h
6A	RAIN BIRD LPV-100	1.	AREA FOR DRIPLINE	2.09	38.4	48.0	0.41 in/h
08	RAIN BIRD PEB	1-1/2	TURF SPRAY	22.59	29.0	41.2	1.74 m/h
78	RAIN BIRD LPV-100	i.	AREA FOR DRIPLINE	5.1	38.5	48.7	0.41 inft
78	RAIN BIRD PEB	1.	BUBBLER	1.8	51.4	41.7	1.55 in/h
70	RAIN BIRD LPV-100	1*	AREA FOR DRIPLINE	5.9	387	48.9	0.41 in/h
8A	RAIN BIRD LPV-100	1.	AREA FOR DRIPLINE	2.1	38.5	48.0	0.41 in/h
88	RAIN BIRD PEB	1-1/2	TURF SPRAY	19.42	50.4	41.0	1.54 in/h
80	RAIN BIRD PEB	1-1/2"	TURF SPRAY	13.43	31.1	41.7	1.74 mm
OR .	RAIN BIRD PER	1-1/2"	TURESPRAY	24.75	29.6	41.6	1.85 m/h
90	RAIN BIRD PEB	1	BUBBLER	4.55	32.5	42.6	1.41 in/h
10A	RAIN BIRD PEB	1-1/2"	TURF ROTOR	20.07	50.1	41.5	0.54 m/h
108	RAIN BIRD PEB	1-1/2"	TURF SPRAY	24.52	297	41.0	1.7 in/h
100	RAIN BIRD PEB	1-1/2"	TURF SPRAY	27.45	32.6	45.1	2.55 in/h
11A	RAIN BIRD PEB	1-1/2*	TURF ROTOR	20.07	518	45.1	0.55 m/h
110	RAIN BIRD PER	1-1/2*	TURE SPRAY	22.58	35.5	42.0	1.05 m/h
124	RAIN BIRD PEB	1	BUBBLER	11 25	33 6	44.1	1.55 in/h
128	RAIN BIRD PEB	1-1/2"	TURF ROTOR	22.5	51 5	45.0	0.77 in/h
120	RAIN BIRD PEB	1-1/2"	TURF SPRAY	54.85	296	45.2	2.42 in/h
15A	RAIN BIRD PEB	1-1/2"	TURF ROTOR	15 58	50 2	40.8	0.55 in/h
138	RAIN BIRD PEB	1.1.00	BUBBLER TUBE BOTOR	0.3	32.0	42.8	1.55 m/h
144	RAIN BIRD PEB	1.	TURE SPRAY	15 51	285	39.5	1.27 in/h
148	RAIN BIRD PEB	1-1/2"	TURF SPRAY	24.25	32.9	44.8	2.05 in/h
140	RAIN BIRD PEB	1-1/2"	TURF ROTOR	20.8	51 6	42.9	0.74 in/h
15A	RAIN BIRD PEB	1-1/2"	TURF SPRAY	20.05	50.2	41.2	2.21 in/h
158	RAIN BIRD PEB	1-1/2	TURF SPRAY	20.80	35.4	45.8	1.80 in/h
150	RAIN BIRD PER		BUBBLER	27	51.6	41.8	1.00 m/m
168	BAIN BIRD PER	1-1/2"	TURE SPRAY	20.15	51.7	42.0	1.84 m/h
100	RAIN BIRD PEB	1-1/2"	TURF SPRAY	27.47	29.0	42.1	1.57 in/h
17A	RAIN BIRD PEB	1-1/2"	TURF ROTOR	15 61	502	41.1	0.54 m/h
178	RAIN BIRD PEB	1-1/2"	TURF SPRAY	25.09	32.4	44.1	1.99 in/h
170	RAIN BIRD PEB	1-1/2"	TURF SPRAY	28.39	297	42.4	1.84 in/h
188	RAIN BIRD PER	1-1/2*	TURESPRAY	27.60	50.5	42.8	2 08 inft
194	RAIN BIRD PEB	1-1/2"	TURE BOTOR	20.05	517	45.5	0.51 inft
198	RAIN BIRD PEB	1"	BUBBLER	9.9	55 2	45.0	1.55 in/h
20A	RAIN BIRD PEB	1-1/2"	TURF SPRAY	24.90	29.4	41.1	1.54 in/h
208	RAIN BIRD PEB	1-1/2	TURF SPRAY	22.2	35 0	44.5	1.7 in/h
21A	RAIN BIRD PEB	1-1/2"	TURF SPRAY	24.97	29.4	41.1	1.47 in/h
210	RAIN BIRD LPV-100	1-1/22	TURE ROTOR	10.05	38.3	40.4	0.55 mb
228	RAIN BIRD LPV-100	1	AREA FOR DRIPLINE	5.22	38 5	48.8	0.41 inft
25A	RAIN BIRD PEB	1-1/2"	TURF SPRAY	51.5	29 7	42.7	2.04 in/h
258	RAIN BIRD PEB	1-1/2"	TURF SPRAY	28.79	50 0	42.5	1.61 in/h
24A	RAIN BIRD PEB	1-1/2"	TURF SPRAY	19 98	557	44.7	1.99 in/h
248	RAIN BIRD PEB	1-1/2	TURF SPRAY	27.0	50.5	42.5	1.54 in/h
238	RAIN BIRD PEB	1-1/2"	TURE SPRAY	27.21	20.0	40.1	1.90 m/1
20A	RAIN BIRD PEB	1	BUBBLER	3.6	32.4	42.0	1.55 in/h
268	RAIN BIRD LPV-100	1*	AREA FOR DRIPLINE	5.62	38.0	48.8	0.41 in/h
27A	RAIN BIRD PEB	1-1/2"	TURF ROTOR	21.5	50 0	41.2	0.44 inft

## GENERAL IRRIGATION SPECIFICATIONS AND NOTES A. EXTENT:

INCLUDES FURNISHING ALL LABOR, MATERIALS AND EQUIPMENT FOR THE PROPER INSTALLATION OF THE IRROATION SYSTEM. THE WORK INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING: (1) TRENCHING AND BACKFLL, (2) AUTOMATICALLY CONTINUED LOW VOLUME IRRIGATION SYSTEM, (3) TEST ALL SYSTEMS AND MAKE OPERATIVE, (4) "ABULLY TOWNINGS.

### B. GENERAL:

- LISENTS NO FREE OTAN ALL RENET NO PAY ESUISED FEE TO AN OUVERNMENTAL ASENCY HAND LISENCTION OVER THE WORK INSECTIONS REQUIRED BY LOAD, GODINANCES DISINGHT THE COURSE OF CONSTRUCTION SHALL BE ARRANGED AS REQUIRED ON COMPLETION OF THE WORK, SATISFACTORY EVIDENCE SHALL BE LINNEDED TO THE GWINES CONSTRUCTION REPRESENTATIONE TO SHOT WHAT ALL WORK IN WIS SEEN INSTALLED IN ACCORDINGS WITH THE STATE AND LOCAL BUILDING/FULMEING CODE AND ALL OTHER CODE REQUIREMENTS.
- 2. APPROVAL: WHEREVER THE TERMS 'APPROVE' OR 'APPROVED' ARE USED IN THE SPECIFICATIONS, THEY SHALL MEAN THE APPROVAL OF THE OWNER'S CONSTRUCTION REPRESENTATIVE IN WRITING.
- 3. BEFORE ANY WORK IS STARTED, A CONFERENCE SHALL BE HELD BETWEEN THE CONTRACTOR AND THE OWNER'S CONSTRUCTION REPRESENTATIVE CONCERNING THE WORK UNDER THIS CONTRACT.
- 4. COORDINATION: COORDINATE AND COOPERATE WITH OTHER CONTRACTORS TO ENABLE THE WORK TO PROCEED AS RAPIDLY AND EFFICIENTLY AS POSSIBLE

5. INSPECTION OF SITE:

NATE-DURING TO BIEL A CONTRACTOR SHALL ACQUART THEMBELVES WITH ALL SITE CONDITIONS. SUBMISSION OF THEIR PROPOSAL SHALL BE CONSIDERED EVIDENCE THAT THE DAMINISTON HAS BEEN CONDUCTED. SHOLLD UTLITES HOT BADOWN CONTRACTOR LINES FROM THAT THE DAMINISTON HAS BEEN CONDUCTED. SHOLLD UTLITES HOT BADOWN CONTRACTOR LINES FROM THAT THE DAMINISTON HAS BEEN CONDUCTED. SHOLLD UTLITES HOT BADOWN CONTRACTOR LINES FOR ANY NO ALL DAMAGE THERETO ASIDING FROM HIS OFERATIONS SUBBEQUENT TO DISCOVERY OF SHOLT UTLITES HAS HAVEN AND ALL DAMAGE THERETO ASIDING FROM HIS OFERATIONS SUBBEQUENT TO

B. CONTRACTOR SHALL MAKE RECESSARY ADJUSTMENTS IN THE LAYOUT AS MAY BE REQUIRED TO CONNECT TO EXISTING STUBIOLTS, SHOULD SUCH STUBS NOT BE LOCATED EXACTLY AS SHOWN, NAD AS MAY BE REQUIRED TO WORK AROUND EXISTING WORK AT NO INCREASE IN COST TO THE COWRERS CONSTRUCTION REPRESENTATIVE.

6. PROTECTION OF EXISTING PLANTS AND SITE CONDITIONS: THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT SITE CONDITIONS TO REMAIN. SHOULD DAMAGE BE INCURRED, THE CONTRACTOR SHALL REPAIR. THE DAMAGE TO ITS ORGINAL CONTIGNATION E CONTRACTORS SKRENES.

7. THE OWNER RESERVES THE RIGHT TO SUBSTITUTE, ADD, OR DELETE ANY MATERIAL OR WORK AS THE WORK PROGRESSES. ADJUSTMENTS TO THE CONTRACT PRICE SHALL BE NEGOTIATED IF DEEMED NECESSARY BY THE OWNER ON A PER TOLEM DASIS.

8. THE OWNER RESERVES THE RIGHT TO REJECT MATERIAL OR WORK WHICH DOES NOT CONFORM TO THE CONTRACT DOCUMENTS. REJECTED WORK SHALL BE REMOVED OR CORRECTED AT THE EARLIEST TIME POSSIBLE.

9. WORK SCHEDULE: WITHIN 10 DAYS AFTER AWARD OF THE CONTRACT, THE CONTRACTOR SHALL SUBMIT TO THE OWNER A WORK SCHEDULE.

CONSTITUENTS OF CONTRACTOR DEVELOPMENT AND A SUBJECT DRAWING ON A FULL-BZE PLAN SET WHICH SHALL SHOW DEVINTIONS FROM THE BID DOCUMENTS WORE DURING CONSTRUCTION AFECTING THE MANU LIKE FIRS. DEVINTIONS FROM THE BID DOCUMENTS WORE DURING CONSTRUCTION AFECTING THE MANU LIKE FIRS. DEVINCENCE HOS SHOW AFFRONZE SUBSTITUTIONS OF SEZE MATERIAL AND MANUFACTURES HAVE AND CATALOO NAME AND CATALOO NUMERS. THE DRAWINGS SHALL BE DELIVERED TO THE TENANTS CONSTRUCTION REPRESENTATION BEFORE FIRS. COOPTINGE OF WORK

11. FINAL ACCEPTANCE: FINAL ACCEPTANCE OF THE WORK MAY BE OBTAINED FROM THE OWNER'S CONSTRUCTION REPRESENTATIVE UPON THE SATISFACTORY COMPLETION OF ALL WORK.

12. GUARANTEE: ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM DATE OF ACCEPTANCE ADAINST ALL DEFECTS IN MATERIAL, SQIIJAMENT AND WORKINNESHP, GUARANTEE SHALL ALSO COVER REPAR OF DAMAGE TO ANY PART OF THE FREMASES RESULTION FOR THE SAY OF OTHER DEFECTS IN MATERIAL, BOUMENT MO WORKINASHP TO THE SATISFACTION OF THE TENANTS CONSTRUCTION REPRESENTATIVE, REPARS, IF REGURED, SHALL BE DORE MONTENT AT NO GOTTO THE COMER.

13. A LAMINATED PLAN (\$ 1/2 X 11) SHOWING THE DIFFERENT IRRIGATION ZONES IN COLOR, PREPARED BY THE IRRIGATION CONTRACTOR, SHALL BE POSTED IN THE MECHANICAL ROOM OR WITHIN CONTROLLER CABINET.

C. MATERIALS:

MA I ENIALS: 1. DENERAL-AL MATERIALS THROUGHOUT THE SYSTEM SHALL BE NEW AND IN PERFECT CONDITION. 2. PLASTE DRIVE ALL WAR LINES AND LATERAL LINES SHALL BE CLASS 200 POLYNIWI, CHLORDE (PIC) PPE AND SHALL COMPLY WITH ONE OF THE FOLLOWING STRADARDS: ASTMO 1755, ASTMO TASS, AGTINO 2001, AMWA 4000, OR AWMA CASS, SORTRA PRE SHALL HAVE AN IMMUM VALL HORKESS AS REPORTED HOR TASS. PIC GARKETS BITTINOS SHALL CONFORMING TO ASTMO 3138. GARKETS SHALL CONFORM TO ASTM 4 77, SOLVENT-WELD PVC FITTINGS SHALL MEET THE REQUIREMENTS OF SCHEDLE 40 AS SET FORTH IN ASTMO 2464, CONFORMING TO ASTM D-1754 AND D-231

3. PLASTIC FITTINGS: ALL SOLVENT-WELD PVC FITTINGS SHALL MEET THE REQUIREMENTS OF SCHEDULE 40 AS SET FORTIN N ASTIN D 2466, SCHEDULE 40 SCHEMT-WELD, PCU/VINYL, CHLORDE (PVC) STANDARD WEIGHT AS MANUFACTURED BY SLOWE, LOSGO, OR APPROVED SCHUL.

4. SOLVENT CEMENT: PVC CEMENT SHALL MEET ASTM D 2554 AND PVC CLEANER-TYPE SHALL MEET ASTM F 656.

5. SPRIMLER HEAD REPORTS CONFERENCE AND A CONFERENCE PRECIMILIES CUT INITIA STANDARD PRECUTTING TOD, WITH SHARE OTTERES, EXAMPLE TO FLUX UNDERSIGN OF PRECIMAL BLOCK AND LEARNAN LA ROMAN DE SARES CUT ALL THREADS ACCURATELY WITH SHARE DES, NOT MORE THAN THREAS) FULL THREADS SHALL SHOW BEYOND FITTINGS WHEN PRE IS MORE UP, SASSENEES SHALL BLOCK DER ACT EXTERNAL STANDARD DES INDERSINGES AND LEAR STANDARD DES AND THREASES FULLY AND A STANDARD DES AND A STANDARD DES AND A STANDARD DES AND THREADS SHALL SHOW BEYOND FITTINGS WHEN PRE IS MORE UP, SASSENEES SHALL BLOCK THAN THREASS SHALL SHOW BEYOND FITTINGS WHEN PRE IS MORE UP, SASSENEES SHALL BLOCK THAN THREASS FULLY SHALL SHOW BEYOND FITTINGS WHEN PRE IS MORE UP, SASSENEES SHALL BLOCK THAN THREASS FULLY SHALL SHOW BEYOND FITTINGS WHEN PRE IS MORE UP, SASSENEES SHALL BLOCK THAN THREASS FULLY SHALL SHOW BEYOND FITTINGS WHEN PRE IS MORE UP, SANDARD SHALL SH

6. AUTOMATIC CONTROLLER: SEE LEGEND 7. REMOTE CONTROL VALVES: SEE LEGEND

A TREMOTE DATING. TARKING SECTION. SYSTEMS TO USE 24 YOLT SOLID UL APPROVED FOR DIRECT BURAL IN GROUND. IMMINUM WIRE SIZE: 14 GAUGE. ALL SPLICES BHALL DE MADE WITHIN YALVE BOX. TWO-WIRE SYSTEMS TO UTLIZE CONTROL WIRING FRAME/ACTURES TANDARDS.

9. SLEEVES FOR CONTROL WRING: UNDER ALL WALKS AND PAVED AREAS AND WHERE INDICATED ON DRAWINGS. MINIMUM PVC SCHEDULE 40 PLASTIC PIPE.

10. SPRINKLER HEADS/ DRIP LINE: SEE LEGEND

11. QUICK COUPLING VALVES: SHALL BE NOTED ON DRAWINGS.

# D. WORKMANSHIP: VEGENERATIONS HIP: 1. LAY OUT WORK AS ACCURATELY AS POSSIBLE TO THE DR ARE GENERALLY DIAGRAMMATIC TO THE EXTENT THAT SWIN SHOWN.

CONTRACTOR SHALL BE RESPONSIBLE FOR FULL AND SHALL MAKE ANY NECESSARY MINOR ADJUSTMENTS AT NO A REPRESENTATIVE 3. ANY MAJOR REVISIONS TO THE IRRIGATION SYSTEM MUST ALONG WITH ANY CHANGE IN CONTRACT PRICE.

E. INSTALLATION:

1. EXCAVATION AND TRENCHING:

A PERFORM ALL EXCAVATIONS AS REQUIRED FOR THE SECTION, INCLUDING SHORING OF EARTH BANKS TO PE UNDERGROUND INSTALLATIONS, ETC., DAMAGED OR CI APPROVED BY THE OWNER.

TRENCHES SHALL BE MADE WIDE ENOUGH TO ALLOW TRENCHES FOR PIPE LINES SHALL BE MADE OF SUFFICI GRADE AS FOLLOWS: 1) 24" MINIMUM BELOW BOTTOM PAVEMENT PER S NON-PRESSURCED LATERALS.

NON-PRESSURIZED LATERALS. 2) MIN MUM COVER OVER IRRIGATION LINES TO HE AREAS ARE AS FOLLOWS: 12° COVER OVER LATERALS 18° COVER OVER MAINLINE

C. MAINTAIN ALL WARNING SIGNS, SHORING, BARRICA SAFETY ORDERS OF THE DIVISION OF INDUSTRIAL SAF

2. PIPE LINE ASSEMBLY: A. INSTALL REMOTE CONTROL VALVES WHERE SHOWN CLOSER THAN 12-18 INCHES TO WALK EDGES, WALLS, A BUILDINGS.

ENLANTIC PIPE AND PITTINGS SHALL BE SOLVENT WE MANUFACTURER OF THE PIPE, EXCEPT WHERE SCREW BE THOROUGHLY CLEANED OF DIRT, DUST AND MOISTL BRISTLE BRUSH. C. PIPE MAY BE ASSEMBLED AND WELDED ON THE SUP TO ALLOW FOR EXPANSION AND CONTRACTION.

D. MAKE ALL CONNECTIONS BETWEEN PLASTIC PIPE A USING PLASTIC MALE ADAPTERS.

E JOINTS: 1. PIPE SIZES 2 1/2 INCH OR SMALLER SHALL HAVE B 2. PIPE SIZES LARGER THAN 2 1/2 INCH SHALL HAVE 3. THRUST BLOCKING SHALL BE REQUIRED WHEN PI

3. SPRINCLER HEADS/ DRIPLINE: A. INSTALL ALL SPRINCLERS/ DRIPLINE AS DETAILED O B. DO NOT SCALE PLANS FOR EXACT HEAD LOCATION.

CLOSING OF PIPE AND FLUSHING LINES:
 A. CAP OR PLUG ALL OPENINGS AS SOON AS LINES HAY MATERIALS THAT WOULD OBSTRUCT THE PIPE. LEAVE I OF INSTALLATION.

E. THOROUGHLY FLUSH OUT ALL WATER LINES BEFORE HYDRANTS.
 C. TEST IN ACCORDANCE WITH PARAGRAPH ON HYDRO D. UPON COMPLETION OF THE TESTING, THE CONTRAC HEADS FOR PROPER DISTRIBUTION.

# 5. INSPECTIONS:

A. SPRINKLER/ DRIPLINE LAYOUT AND SPACING INSPEC ACCURATELY INSTALLED IN THE FIELD. IT WILL ALSO PI TO MEET RELD CONDITIONS. SPACING SHOULD BE WIT B. PIPE INSTALLATION DEPT IN SPECTICIDE: ALL PIPES PREVIOUSLY DESCRIBED IN SECTION 'E' OF THESE SPEI C. OPEN TRENCH INSPECTION: THE TRENCH AND ALL WHERE OPEN TRENCH INSPECTION IS REQUIRED. D. INSPECTIONS WILL BE PERFORMED THROUGHOUT MADE BY THE GOVERNING AGENCY/ OWNER TO ENSUR THE IRRIGATION CODES.

6. HYDROSTATIC TESTS:

A. REQUEST THE PRESENCE OF THE OWNER AND/OR O ADVANCE OF TESTING.

B. TESTING TO BE ACCOMPLISHED AT THE EXPENSE O C. CENTER LOAD PIPING WITH SMALL AMOUNT OF BA

D. APPLYING A CONTINUOUS AND STATIC WATER PRES CURED AT LEAST 3 HOURS AND WITH THE RISERS CAPI 1) MAIN LINES AND SUBMAINS TO BE TI FOR 2 HOURS. 2) NO PRESSURE LOSS IS ALLOWED FO

E. FOR PVC AND O-RING GASKET PIPE THE ALLOWABLE PER HOUR AS DETERMINED BY THE FOLLOWING FORM

L-NP0<sup>10</sup>/ 1,850 IN WHICH: L-ALLOWABLE LEAKAGE, IN GALLON

N-NUMBER OF JOINTS D-PIPE DIAMETER IN INCHES P-AVERAGE TEST PRESSURE IN PSI (

F. REPAIR LEAKS RESULTING FROM TESTS.

7. AUTOMATIC CONTROLLERS: A. CONNECT REMOTE CONTROL VALVES TO CONTROL STATION SETTING BEGINNING WITH STATIONS 1, 2, 3, E

8. AUTOMATIC CONTROL WIRING: A. INSTALL CONTROL WIRING, SPRINKLER MAINS AND I

B. INSTALL CONTROL WIRES AT LEAST 18" BELOW FINIS BELOW MAIN LINE. EXPANSION CURLS SHALL BE PROVID SOLENCID AND AT LEAST EVERY THREE HUNDRED (300) WRAPPING AT LEAST FIVE (5) TURNS OF WIRE ARCUND / WITHDRAWING THE ROD).

C. CONTROL WIRE SPLICES WILL BE ALLOWED ONLY RU AND LOCATION TO BE SHOWN ON AS-BUILT PLANS. D. ALL WIRING PASSING UNDER EXISTING OR FUTURE F PLASTIC OR GALVANIZED STEEL CONDUIT EXTENDING /

E. FOR CONVENTIONAL SYSTEMS, CONTRACTOR SHALL CONTROLLER TO FARTHEST VALVE TO SERVE AS BACK

9. BACKFILL AND COMPACTING:

A AFTER SYSTEM IS OPERATING AND REQUIRED TEST EXCAVATIONS AND TRENCHES WITH CLEAN SOLL FREE ABOVE THE TOP OF PIPE SHALL BE FREE OF ROCKS OR BACKFILL MATERIAL SHALL BE FREE OF ROCKS OR STO

B. BACKFILL FOR ALL TRENCHES, REGARDLESS OF THE MIN MUM 90% DENSITY.

C. COMPACT TRENCHES IN AREAS TO BE PLANTED BY MAY BE USED IN THOSE AREAS. D. DRESS OFF ALL AREAS TO FINISH GRADES.

10. PROTECTIVE RADIUS OF EXISTING TREES: A. AN AUGER IS TO BE USED TO TUNNEL UNDER EXISTIN PROTECTIVE RADIUS OF EXISTING TREES AND ONLY IF T UNREASONABLE HARDSHIP.

F. CLEAN-UP:

. REMOVE FROM THE SITE ALL DEBRIS RESULTING FROM W

IMAGES XREFS LAST SAVED PLOTTEDBY DWGPATH

![](_page_198_Figure_78.jpeg)

AWINGS. THE DRAWINGS, THOUGH CAREFULLY DRAWN, NG JOINTS, OFFSETS, AND ALL FITTINGS ARE NOT							
D COMPLETE COVERAGE OF ALL IRRIGATED AREAS AND ADDITIONAL COST TO THE OWNER'S CONSTRUCTION							
T BE SUBMITTED AND ANSWERED IN WRITTEN FORM,							
E INSTALLATION OF THE WORK INCLUDING UNDER THIS							
REVENTI CAVE-INS, HESTONE ALL SURFACES, EXISTING UT AS A RESULT OF THE EXCAVATIONS TO AND IN A MANNER							
W A MINIMUM OF 6 INCHES BETWEEN PARALLEL PIPE LINES. IENT DEPTHS TO PROVIDE THE MINIMUM COVER FROM FINISH	•						
SLEEVING INSTALLATION DETAIL FOR MAIN LINE.18" MINIMUM EADS/ DRIPLINE EXCEPT VEHICLE TRAFFIC	FOR						
	THISS	PACE RESERVED	BLDG NSPECTION				
NDES, FLARES AND RED LANTERNS AS REQUIRED BY THE FETY AND LOCAL ORDINANCES.							
N AND GROUP TOGETHER WHERE PRACTICAL, PLACE NO AND OTHER PAVEMENTS, PLACE A MINIMUM OF 24" FROM							
SLDED USING SOLVENTS AND METHODS RECOMMENDED BY							
ND METAL VALVES OR STEEL PIPE WITH THREADED FITTINGS							
FELL AND SOCKET JOINTS							
E SNAP CONNECTIONS WITH RUBBER GASKET JOINTS. PIPE SIZE IS 4" OR GREATER.	THIS	SPACE RESERVE	D - ENG NEER NG				
N DRAWINGS.							
WE BEEN INSTALLED TO PREVENT THE ENTRANCE OF IN PLACE UNTIL REMOVAL IS NECESSARY FOR COMPLETION							
E INSTALLING HEADS, DRIPLINE, VALVES AND OTHER							
OSTATIC TESTS. CTOR SHALL COMPLETE ASSEMBLY AND ADJUST SPRINKLER							
CTORE VERIFICATION THAT THE INHIGHTION DESIGN IS PROVIDE FOR ALTERATION OR MODIFICATION OF THE SYSTEM THIN 5% OF THE DESIGN SPACING.	4						
IN THE SYSTEM SHALL BE INSTALLED TO DEPTHS AS CIFICATIONS. JOINTS AND EVERY TRANSITION IN PIPE SIZE, WILL BE OPEN							
THE DURATION OF THE INSTALLATION. INSPECTION MAY BE RECOMPLIANCE WITH DESIGN INTENT, SPECIFICATIONS, AND							
OWNERS REPRESENTATIVE IN WRITING AT LEAST 48 HOURS	N						
FIRE CONTRACTOR AND IN THE PRESENCE OF THE OWNER.							
KFILL TO PREVENT ARCHING OR SLIPPING UNDER PRESSURE	E.				~~/		
XFILL TO PREVENT ARCHING OR SLIPPING UNDER PRESSURI SSURE OF 125 PSI WHEN WELDED PLASTIC JOINTS HAVE PED AS FOLLOWS:	E			<b>M</b>	ARNING: CONTE		×7
XFIL TO PREVENT ARCHING OR SLIPPING UNDER PRESSUR SSURE OF 125 PSI WHEN WELDED PLASTIC JOINTS HAVE PED AS FOLLOWS: ESTED OR SOLVENT WELD IMMINIME/ PIPE.	E				ARNING: CONTS RIFY PRESENCE DCATION OF ALL PRIOR TO CONST	AND EX UTILIT RUOTIO	
XRIL TO PREVENT AROHING OR SUPPING UNDER PRESSUR SSURE OF 125 PBI WHEN WELDED PLASTIC JOINTS HAVE PED AS FOLLOWS: ESTED OR SOLVENT WELD MAINLINE/ PPE. ELEMAGE SHALL NOT EXCEED THE NUMBER OF GALLONS	E		•		ARNING: CONTR RIFY PRESENCE DOATION OF ALL FRIOR TO CONST	AND EX LUTILIT RUOTIO	
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Figure 118; Page F.119; October 1, 2024 'THIS PLAN IS FOR TCEQ PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION.

![](_page_199_Figure_0.jpeg)

Figure 119; Page F.120; October 1, 2024

MAP ID	OWNER	OWNER ADDRESS			
1	MCA DEVELOPMENT LLC	500 CRESCENT CT., STE 350	DALLAS	TX	75201
2	TX MANHATTAN LAND LLC	1603 LBJ FRWY., STE 800	DALLAS	ТХ	75234
3	MERCER CROSSING COMMERCIAL PPTY ASSOC	1512 CRESCENT DR., # 112	CARROLLTON	ТХ	75006
4	ADRIMICH LTD	2101 CROWN RD.	DALLAS	ТХ	75229
5	HNG PROPERTIES LLC	6508 COLLEYVILLE BLVD., STE 300	COLLEYVILLE	ТХ	76034
6	GATLIN DENTON PARTNERSHIP LP	PO BOX 384	FERRIS	ТХ	75125
7	11517 NEWBERRY LP	6513 COLLEYVILLE BLVD., STE 400	COLLEYVILLE	ТХ	76034
8	PROLOGIS MRA I LLC	1800 WAZEE ST.	DENVER	со	80202
9	PLDAB LLC	1800 WAZEE ST.	DENVER	со	80202
10	PROLOGIS MACQUARIE TEXAS	1800 WAZEE ST.	DENVER	со	80202
12	PARAGON INDUSTRIES II INC	4285 N GOLDEN STATE BLVD.	FRESNO	CA	93722
11	DART	PO BOX 660163	DALLAS	ТХ	75266
13	MOSER DEV CORP	PO BOX 1076	ROCKWALL	ТХ	75087
14	MOSER DEV CORP	PO BOX 1076	ROCKWALL	тх	75087
15	MOSER DEV CORP	PO BOX 1076	ROCKWALL	ТХ	75087
16	MERCER CROSSING INDUSTRIAL LAND LTD	1722 ROUTH ST., STE 770	DALLAS	ТХ	75201
17	MERCER CROSSING INDUSTRIAL LAND LTD	1722 BOUTH ST., STE 770	DALLAS	TX	75201

![](_page_200_Picture_1.jpeg)

ADJACENT PROPERTY OWNERS - TABULATED			Σ	
635 EXCHANGE	DATE:	October 2024	UC UC	
TCEQ RE NAME: TREEFARM SWC IH-635 AND IH-35	DRAWN BY:	AM	XEN	201
11645 NEWBERRY ST	CHECKED BY:	NC	RTE	503
CITY OF DALLAS, DALLAS COUNTY, TEXAS 75229-2033	VERTEX PROJECT #:	94088	Ϋ́E	

![](_page_200_Picture_3.jpeg)

![](_page_201_Figure_0.jpeg)

![](_page_202_Figure_0.jpeg)

![](_page_203_Figure_0.jpeg)

![](_page_204_Picture_0.jpeg)

**APPENDIX A** 

**Landfill Information** 

Page A.1; October 1, 2024

THE VERTEX COMPANIES, LLC 3030 LBJ FWY, STE 1620 DALLAS, TX 75234

BETTERING OUTCOMES | VERTEXENG.COM 214.499.9234

# Closed Landfill Inventory Background Data Tracking Form

County: Dallas Site number: P63 Permitted Unauthorized: Location: 11535 NewVery

ltem Number	Item Description	Data Source	Date	Contact	Comment
1	storm Water Mon itoring Reports	SWQ Engineer City of Pallas	4/9/01	Lisa Jowell	
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1					

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Page 1 of 4

P63

# **Dallas Central Appraisal District**

**Commercial Property** 

Account Number: 00000604225000000

# PROPERTY LOCATION DATA

**Property Name:** 

Street Address:11645 NEWBERRY STMapsco:22-CMarket Area:

YAHOO! Maps

# VALUATION DATA

Tax Year: 2001 Proposed	Tax Agent:	n/a -
Total Improvement Value:	\$0.00	
Total Land Value:	\$1,531,500.00	
2001 Proposed Total Market Value	\$1,531,500.00	

# **OWNERSHIP DATA**

Owner Name: TRANSCONTINENTAL REALTYAddress:1800 VALLEY VIEW LN # 300City:DALLASState: TXZip:752348922

# LEGAL DESCRIPTION

Legal Line 1: BLK 6556 Legal Line 2: ACS 35.1583 Legal Line 3: NEWBERRY ST 613.57 FR CROWN RD Legal Line 4: VOL2000195/7712 DD10042000 CO-DC Legal Line 5: 6556 000 000 1006556 000 Deed Transfer Date: 20001006

http://www.dallascad.org/DCADcom.cfm

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# MAIN IMPROVEMENT DATA

SPTB Code:	C12
Building Class	0
Year Built	0
Number of Units	0
Number of Stories	0
Number of Buildings	0
Foundation Area	0

# LAND DATA

Zoning:	Dimensions:	Total Land Value:
MU3	1,531,496 Sq. Ft.	\$1,531,500.00

# VALUATION METHODS

Cost Approach:	D	epreciation:	
Building Area	0	Physical	0.00%
<b>Total Area for Account</b>	0	Functional	0.00%
Additional Features:		Economic	0.00%
Heat A/C	0	<b>Total Depreciation</b>	0.00%
Escalators	0	Percent Good	100.00%
Elevators	0		
Sprinklers	0		
Features	0		
<b>Total Value of Additional Features</b>	0		
Additional Improvement Value			
<b>Total Improvement Value</b>		\$0.00	
Total Land Value		\$1,531,500.00	
<b>Total Market Value by Cost Approach</b>		\$1,531,500.00	
Income Approach			
Net Leasable Area		0	
Total Area		0	
Total Land Value		\$1,531,500.00	
<b>Total Improvement Value</b>		\$0.00	
Total Market Value by Income Approa	ch	\$0.00	

http://www.dallascad.org/DCADcom.cfm

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Dallas CAD - Commercial Properties

# Page 3 of 4

# TAXING JURISDICTIONS

Entity Type	Entity Name	2000 Tax Rate
City:	City Of Dallas	(.006675000)
County:	Dallas County	(.002016670)
College:	Dallas Co. Community College	(.000500000)
Hospital:	Parkland Hospital	(.002540000)
School:	Dallas ISD	(.015475300)
<b>Special District:</b>		0

# EXEMPTION DATA

Taxing Jurisdiction	General Homestead	Over 65	Disabled Person	Disabled Vet	Taxable Value
City	\$0.00	\$0.00	\$0.00	\$0.00	\$1,531,500.00
County	\$0.00	\$0.00	\$0.00	\$0.00	\$1,531,500.00
College	\$0.00	\$0.00	\$0.00	\$0.00	\$1,531,500.00
Hospital	\$0.00	\$0.00	\$0.00	\$0.00	\$1,531,500.00
School	\$0.00	\$0.00	\$0.00	\$0.00	\$1,531,500.00
Special District 1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Totally					

Exempt: Over 55 Surviving Spouse:

# PROPERTY HISTORY

Market Values	2000	1999	1998	1997	1996	
Improvement	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Land	\$612,600.00	\$765,750.00	\$765,750.00	\$765,750.00	\$774,130.00	
Market	\$612,600.00	\$765,750.00	\$765,750.00	\$765,750.00	\$774,130.00	
Cap-Hmstd	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Spec. Asmt.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Taxable Values	2000	1999	1998	1 <b>997</b>	1996	
Taxable Values County Taxable	<b>2000</b> \$612,600.00	<b>1999</b> \$765,750.00	<b>1998</b> \$765,750.00	<b>1997</b> \$765,750.00	<b>1996</b> \$774,130.00	
Taxable Values County Taxable City Taxable	2000 \$612,600.00 \$612,600.00	<b>1999</b> \$765,750.00 \$765,750.00	<b>1998</b> \$765,750.00 \$765,750.00	<b>1997</b> \$765,750.00 \$765,750.00	<b>1996</b> \$774,130.00 \$774,130.00	
Taxable Values County Taxable City Taxable School Taxable	2000 \$612,600.00 \$612,600.00 \$612,600.00	<b>1999</b> \$765,750.00 \$765,750.00 \$765,750.00	<b>1998</b> \$765,750.00 \$765,750.00 \$765,750.00	<b>1997</b> \$765,750.00 \$765,750.00 \$765,750.00	<b>1996</b> \$774,130.00 \$774,130.00 \$774,130.00	
Taxable Values County Taxable City Taxable School Taxable Spec Dist - Taxable	2000 \$612,600.00 \$612,600.00 \$612,600.00 \$0.00	1999 \$765,750.00 \$765,750.00 \$765,750.00 \$0.00	<b>1998</b> \$765,750.00 \$765,750.00 \$765,750.00 \$0.00	1997 \$765,750.00 \$765,750.00 \$765,750.00 \$0.00	<b>1996</b> \$774,130.00 \$774,130.00 \$774,130.00 \$0.00	
Taxable Values County Taxable City Taxable School Taxable Spec Dist - Taxable Hosp - Taxable	2000 \$612,600.00 \$612,600.00 \$612,600.00 \$0.00 \$612,600.00	1999 \$765,750.00 \$765,750.00 \$765,750.00 \$0.00 \$765,750.00	1998 \$765,750.00 \$765,750.00 \$765,750.00 \$0.00 \$765,750.00	1997 \$765,750.00 \$765,750.00 \$765,750.00 \$0.00 \$765,750.00	1996 \$774,130.00 \$774,130.00 \$774,130.00 \$0.00 \$774,130.00	

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http://www.dallascad.org/DCADcom.cfm

![](_page_209_Picture_0.jpeg)

Improvements (Certified 2008)

No Improvements.

http://www.dallascad.org/AcctDetailCom.aspx?ID=00000604225000000

Page A.6, October 1, 2024 10/7/2008

![](_page_210_Picture_0.jpeg)

No Improvements.

Page A.7, October 1, 2024 10/18/2007

http://www.dallascad.org/AcctDetailCom.aspx?ID=00000604225000000

Page 1 of	P63	S Viewer
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ACCC # 00000604225000000

http://maps.dallascad.org/website/dcad/MapFrame.htm

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![](_page_212_Figure_0.jpeg)

This map is informational only. No representation is made or warranty given as to its content. User assumes all risk of use. MapQuest and its suppliers assume no responsibility for any loss or delay resulting from such use.

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...:2luraw0atn&SNVData=3mad3-h.fy%28aawu42\_%29fzwuyz%3bpq%7cs9z,p7%3b8aq.hqu%37/26/01

![](_page_213_Figure_0.jpeg)

TEXAS STATE DEPARTMENT OF HEALTH 1100 West A9th Street Austin, Texas 78756 MUNICIPAL SOLID WASTE DISPOSAL SITE . APPLICATION FOR PERMIT SHORT FORM (FOR APPLICANTS HAVING TSDH APPROVAL STATUS) Please complete all items. At least seven copies of, this application should be submitted. If the site is to be located within the area of jurisdiction of a city, ninc copies of this application should be submitted. This form may be reproduced. Failure to provide necessary information may result in delay in the processing of the application. PLEASE TYPE OR PRINT IN BLACK INK ALL INFORMATION. I. SITE LOCATION, APPLICANT, OWNER, & OPERATOR A. Site Address or Location: \_\_\_\_\_. M. Dye Tract Landfill 11535 Newberry, Dallas, Texas B. Name of Applicant: City of Dallas (Director of Sanitation) Mailing Address:\_\_\_\_ 2721 Municipal Street Telephone 214 748-9711 Dallas, Texas Zip Code 75215

C. Name, address, telephone number and title of persons employed by or authorized to act for the applicant in connection with this application (for example: sttorneys, consulting engineer firms, soils engineering firms, company's pollution control agent, etc.).

Mr. John A. Teipel, P.E. Director of Sanitation City of Dallas 2721 Municipal Street Dallas, Texas 75215

D. Name and address of operator or persons in charge of facility:

Name : John A. Teipel, P.E., Director of Sanitation

2721 Municipal Address:

Telephone 214 748-9711

Dallas, Texas

Zip Code 75215

HUNICIPAL SOLID WASTE PERMIT APPLICATION TSDH (October 1974) SHORT FORM

N 32°54.30' Approx Center of Site W 96° 54.50'

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Ple3 Dallas

5

3

SUMMARY SHEET

Solid Waste Permit Application No. 63

# City of Dalles 2721 Municipal Street Dallas, Texas 75215

has applied under the provisions of Article 4477-7, Vernon's Texas Civil Statutes, to the Texas Department of Health Resources for a permit to operate a Type I landfill in Dallas County.

- I. <u>Site Location:</u> The landfill is located at 11535 Newberry Street in the City of Dallas, Dallas County, Texas. It is also described as situated at the following geographic coordinates N 32°54.30' W 96°54.50'.
- II. Site and Area Description: This is an existing landfill, roughly rectangular and approximately 1000 feet wide x 1750 feet long, bordered on the west by the Dallas city limits and C.R.I.&G. Railroad, bordered on the east by Newberry Street, and bordered on the north and south by industrial property. General land use in the area surrounding the site is for industrial and residential purposes.
- III.<u>Materials Description:</u> Materials to be disposed of will consist of approximately 270 tons average per day of municipal solid waste generated by a population of 870,000 persons. (There are other disposal sites, proportion of quantity is not designated.)
- IV. <u>Disposal Method:</u> Disposal will be accomplished using a Type I landfill; information on compaction, depth of cover or frequency of operating cycle was not provided. However, daily compaction and cover with six (6) inches of soil is assumed for Type I landfills.
- V. <u>Water Uses:</u> No information on water uses was submitted with the permit application.
- VI. Review Comments Summary:

A. Region V, TDHR: Engineer advises he has no objection to the permit.

- B. <u>Texas water Quality Board</u>: The site does not present a hazard to ground & surface water quality of the area. This decision based on the consideration that permeable sediments above the Eagle Ford Formation will be separated from solid waste with six (6) feet of selected impermeable clay material as outlined in applicant's technical report.
- C. Texas Air Control Board: Recommends approval of the site.

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63
## SAMLTARY LANDFILL AGREEMENT

THE STATE OF TEXAS

COUNTY OF DALLAS

## KROWN ALL HEN BY THESE PRESENTS :

63

. That J. E. R. CHILTON, III, LOMA ALTO CORPORATION, THOMAS MONTGOMERY DYE.

AND DONALD J. BELCHER, of the County of Dallas, State of Texas, does hereby grant unto the City of Dallos, Texas, a municipal corporation, the license and right to enter upon and use the following described property lying and being

situated in Dallas County, Texas, for the purpose of depositing and disposing

of garbage, rubbish and other refuse in a sanitary landfill thereon, to-wit:

BEING in the Un. Cochran Survey, Abstract No. 279, Dallas County, Texas, and being in Plock 6556, official City numbers, and being a tract of land corveyed to J. E. R. Chilton Ill and long Alto Corporation by Jack Lively by deed dated November 29, 1951, and recorded in Volume 220, Page 0268 of the Deed Records of Dallas County, Texas, and being a tract of land conveyed as an undivided interest to Thomas Montgomery Dye and Donald J. Eelcher by said J. E. R. Chiltop III and Loma Alto Corporation by deed dated June 28, 1967 and recorded in Volume 700066, Page 3059 of said Deed Records and also being the tract of land of which further undivided interest was conveyed to Thomas Montgomery Dye by J. E. R. (Chilton by daed dated November 25, 1970 and recorded in Volume 71007, Page 0015 of the aforementioned Deed Records, the land herein conveyed being more particularly

BEGINNING at the intersection of the southeast line of the C. R. I. & G. Reilroad's 100-foot wide right of way, also being the northwest line of Block 6556 with the south line of that certain tract of land conveyed to J. E. R. Chilton, III, et al, by the aforementioned instrument recorded in Volume 220, Page 0258 of said Deed Records, sold south line also being the south line of Block 6556;

THENCE N 09°27' E along said southeast line of the C. R. I. & G. Railroad's 100foot wide right of way and along the northwest line of Block 6556, a distance of 817.0 feet to a point for corner in the northerly terminus of said 100-foot wide right-of-way also being the beginning of a 150-foot right-of-way of said C. R. I. & G. Railroad;

**n** .

THENCE S 89°56' E, a distance of 25.34 feet to the southeast line of the C. R. I. 6 G. Railread's 150-foot wide right of way also being a northwest line of Block

THENCE N 09"27' E along said southeast line of the C. P. I. & G. Railroad's 150fort wide right of way and along the northwest line of Elock 6556, a distance of 1414.09 fest to the north line of that certain tract of land conveyed to J. F. R. Chilton et al, by the aforemantioned instrument recorded in Volume 220, Page 0268 of sold Deed Records and also being the northerly boundary line of Block 6556;

THENCE eastward along said north line of the land conveyed to J. E. R. Chilton by instrument recorded in Volume 220, Page 0268, a distance of 212.57 feet to a point for corner, said corner boing the northwest corner of a tract of land conveyed to the City of Farners Branch by instrument recordend in Vol -9 4655, Page 625 of said Deed Records;

THENCE S 01'0?' I along the west line of the aforeventioned tract of land couveyed to the City of Farmars Branch, a distance of 85.0 feet to the southwest corner of said tract conveyad to the City of Farmers Breach;

THENCE N 69\*58' E along the couth line of the land beretofore mantlened in a conveyance to the City of Farsers branch, a distance of 90.0 feat to the nouth-

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63

THENCE N 24\*43'06" E along the nouthnest line of the land heretofore mantlaned in a conveyance to the City of Farmers Branch, a distance of 61.33 fast to the southwest line of a 40-fost wide road as mentioned in the said conveyance of J. E. E. Chilton et al, recorded in Volume 220, Page 0263 of said Dead Records, sold 40-fost wide road new known as Forest Lane:

THENCE S 83"00' E slong the southwast line of a 40-foot wide road (Foreat Lane), a distance of 156.91 fast to an angle point;

THENCE N 39°03' E along the couth line of said 40-fnot wide road (Forest fane), a distance of 203.76 feet to the west line of Neuberry Street (50-foot wide);

THENCE S GD<sup>\*</sup>34' E along said west line of Newberry Street, a distance of L173.43 feet to angle point:

THENCE S 00°21'25" W and continuing along said west line of Nauberry Street, a distance of SD5.6 feat to the south line of the aforementioned tract of land conveyed to J. F. R. Chilton by instrument recorded in Volume 220, Page 0269 of said Deed Records;

THENCE N 89\*59' W along said south line, a distance of 1089.9 feet to the place of beginning and containing approximately 44.44 acres of land and being subject to all natural drainage ways and being subject to a semitary sever easement recorded in Volume 5012, Fage 271 of said Deed Records.

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It is agreed that the City of Dallay at its discretion shall have the right to dispose of garbege, rubbish and other refuse in a sanitary landfill constructed and operated in accordance with standards of good practice and official requirements and standards of state regulatory agencies having jurisdiction over sonitary landfill operations.

It is egreed that the consideration to be received by Grantors harsin is the enhancement which will accrue to the above described property as a result of the rights herein granted to the sold City of Dallas.

It is further agreed that this agreement shall commence on the date it is accepted by the City Council of the City of Dallas, and that the City shall have the right, after one hundred eighty (180) days written notice to Grantor, to cancel this agreement and discontinue name at its election. Grantor shall likewise have the right, after one hundred eighty (180) days written notice to the City of Dallas, to cancel this agreement, and after such period, the City shall no longer dispose of garbage, trash or refuse on such property.

Grantor stipulates and covenants that it mans the above described property. and that it will hold the City of Dalles, its employees, agenin, and contractors

5.



Page A.15, October 1, 2024







## AREA TO BE FILLED UNDER THIS APPLICATION

P63

## AREA WHERE FILL HAS BEEN COMPLETED

USTEE	8.	ED M. RALEY 11520 NEWBERRY DALLAS, TEXAS 75229
001 A. LITTLE	9.	R. A. & CHRISTINE WILCOX BOX 41 TRENTON TEXAS
NDT	10	DVE TRUCKING CONDAMY
75067	10.	P. O. BOX 6117 DALLAS, TEXAS 75222
29	11.	ROY O. BAKER 11509 .NEWBERRY DALLAS, TEXAS 75229
29	12.	LOMA ALTO CORP. P. O. BOX 8105 DALLAS, TEXAS 75205
29	13.	JAMES F. DENNIS 10977 HARRY HINES BLVD. DALLAS, TEXAS 75220
29	14.	CHICAGO, ROCK IS. & GULF R. R. 807 TEXAS AND PACIFIC BLDG. FT. WORTH, TEXAS 76102



Page A.18, October 1, 2024

SITE NAME Dye CITY Dallas OWNER/OPERATOR (If known) City of Dallas TYPE OF OWNERSHIP Private (Obtained throug SITE DESCRIPTION Municipal Site HOW IDENTIFIED (i.e., citizen's complaints, City of Dallas Personnel SITE STATUS Closed (TDH Permit No. 63 AREA OF SITE (in acres) Est. 44 Indicate the major site activity(ies) by ma LANDFILL DRUM SPECIFY DETAILS OF SITE ACTIVITIES Municipal Waste. Opened May, 1974 - Closed	SITE ID SITE ID SITE ID SITE ID SITE A SITE A SITE A N 32 <sup>0</sup> 54.3 <sup>1</sup> SITE A N 32 <sup>0</sup> 54.3 <sup>1</sup> SITE A N 32 <sup>0</sup> 54.3 <sup>1</sup> SITE A	ENTIFICATI STREET (or of 11535 N STATE Texas .andfill / .andfill / .cTIVITY appropriate INI	ON ther identifier) ewberry St ZIP CODE Agreement) Agreement)	LONGITUDE (deg	DATE IDENTIFIED (mo., day, & yr.) gminsec.)
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	d March 3, 9	980 (F111	complete	d)	
	WASTE RELAT	TED INFORM	ATION		
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1. UNKNOWN 2. LIQUID	3. SOLID	4. SLUDG		. GAS	
WASTE CHARACTERISTICS					-
1. UNKNOWN 2. CORROSIVE	3. IGNITABLE	4. RADIO	ACTIVE 5.	HIGHLY YOLAT	ILE
6. TOXIC 7. REACTIVE	38. INERT	9. FLAMM	ABLE		
]10. OTHER (specify): residential	1.				
LIST SUBSTANCES OF GREATEST CONCER	RN WHICH MAY BE	ON THE SITE	E (place in desce	nding order of haz:	ard)
(attach additional information)					i de la com
None					
ADDITIONAL COMMENTS OR NARRATIVE (attach additional information)	E DESCRIPTION OF	SITUATION	KNOWN OR RE	PORTED TO EXI	ST AT THE SITE.
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REGIONAL PLANNING COMMISSION				in the first	the Mark and Brender

Page A.19, October 1, 2024

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CITY Dallas OWNER/OPERATOR (# 4	nov(n)	S	Texa	15	ZIPCOD	E	COUNTY Dalla TELEPHON	S IE NUMBER	33		
City of Dalla	s		200	San .		Here and	670-4	491	Toro the		
TYPE OF OWNERSHIP Private (Obte	fined thro	ugh Sanitary La	Indfil	T1 Ag	rement	) )					
SITE DESCRIPTION Municipal Sit	e.						26.2				
ROWIDENTIFIED (Le., citizen's complaints, public official, etc.) City of Dallas Personnel & Records											
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LANDFARM	0	PEN DUMP		MID	NIGHT DUN	IPING	Provinci 4	concert (speen) /	And State		
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X 10. OTHER (specify):	resident	lal.		2.1 .	St. et al.						
LIST SUBSTANCES OF GR (attach.additional information	EATEST CON	GERN WHICH MAY BE	DN TH	E SITE (	place in desc	cending ord	ler of hazard	4))			
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ADDITIONAL COMMENTS (attach additional information	OR NARRAT	WE DESCRIPTION OF	TUA	rion Kn	IOWN OR R	EPORTED	TO EXIST	AT THE SITE.	010		
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REGIONAL PLANNING	COMMISSIC	NI.	- 7F2.50	- O'L	1 200		and the second		5157 B		
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UNCAGOO	The second second second second	And the second s	ALC: NOT THE OWNER.			the second se		the second s			

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Surveyed Landfills - Digital Information A: 3 (please fill out as completely as possible)											
Date: June/16/97 Your name: My Tangestane											
Name of County: DALLAS Name of City: DALLAS											
Permit # $4$ Are There Curves? (YES / NO) -16630 - Alteractive W/r Starting Coordinates (x,y): 2481583.3 451015.6 $25.15$											
Gap Calculated in MapDraw: <u>48</u> Acreage Calculated in MapDraw: <u>25.52</u> ac.											
Acreage Given in Information Package: 25.520											
Have These Files Been Saved On Network File Directory? (VES / NO)											
Name of MapDraw Map File / Text File (.map/.txt)? LF63a. Hart- [Lf63a]											
Arc/Info COGO Date: <u>6(30</u> Your name: <u>Sub Yuan</u> Was This Site Digitized? (YES / NO)											
Date: 6/30 Your name: Such Yuan											
Was This Site Digitized? (YES / NO)											
Error of Closure Calculated in COGO: 17.25											
Acreage Value Calculated in COGO:											
Has Topology Been Built for the Coverage (YES/ NO)											
What State Plane Zone is This County in? <u>5351</u>											
Name of .E00 file?											
Has This File Been Saved On Network File Directory? (YES / NO)											
Problem reading PF63 information off tx+ f map int Comments: - Re entered ander 1f63a.											
17.17.25 9-1											
Page A.22, October 1, 2024											

- 4

SHE INVENTORY .. .. Permit # 63 Amendment NO. 1.1.1.1.4.1.4.1 APPLICATION -SITEMAPS YES Inspection MAPS NO CLOSURE affidavit legal <u>yes</u> Map Comments. .... · ... Page A.23, October 1, 2024

P63

#### AFFIDAVIT TO THE PUBLIC

#### STATE OF TEXAS

COUNTY OF DALLAS

FIELD HOTES DIF

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Before me, on this day personally appeared the undersigned, <u>Larry F. Ferguson, Larry F. Ferguson, trustee, Loma Alto Corporation, \*\*</u> who, after being by me duly sworn under oath, states that he is the owner of record of that certain tract or parcel of land lying and being situated in Dallas County, Texas, and being more particularly described as follows:

#### DESCRIPTION OF PROPERTY BOUNDARY

BEING in the Wm. Cochran Survey, Abstract No. 279, Dallas County, Texas, and being in Block 6556, official City numbers, and being a tract of land conveyed to J. E. R. Chilton III and Loma Alto Corporation by Jack Lively by deed dated November 29, 1961, and recorded in Volume 220, Page 0268 of the Deed Records of Dallas County, Texas, and being a tract of land conveyed as an undivided interest to Thomas Montgomery Dye and Donald J. Belcher by said J. E. R. Chilton III and Loma Alto Corporation by deed dated June 28, 1967 and recorded in Volume 70066, Page 0059 of said Deed Records and also being the tract of land of which further undivided interest was conveyed to Thomas Montgomery Dye by J. E. R. Chilton by deed dated November 25, 1970 and recorded in Volume 71007, Page 0015 of the aforementioned Deed Records, the land herein conveyed being more particularly described as follows:

BEGINNING at the intersection of the southeast line of the C.R.I. & G. Railroad's 100-foot wide right of way, also being the northwest line of Block 6556 with the south line of that certain tract of land conveyed to J. E. R. Chilton, III, et al, by the aforementioned instrument recorded in Volume 220, Page 0268 of said Deed Records, said south line also being the south line of Block 6556;

THENCE N  $09^{0}27$ ' E along said southeast line of the C.R.I.& G. Railroad's 100-foot wide right-of-way and along the northwest line of Block 6556, a distance of 817.0 feet to a point for corner in the northerly terminus of said 100-foot wide rightof-way also being the beginning of a 150-foot right-of-way of said C.R.I.& G. Railroad;

THENCE S 89<sup>0</sup>56' E, a distance of 25.34 feet to the southeast line of the C.R.I.& G. Railroad's 150-foot wide right-of-way also being a northwest line of Block 6556; w

\*\*acting through its President, J. E. R. Chilton III, Thomas Montgomery Dye, Donald J. Belcher and Nancy Foote Belcher.

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THENCE N 09<sup>0</sup>27' E along said southeast line of the C.R.I.& G. Railroad's 150-foot wide right-of-way along the northwest line of Block 6556, a distance of 1414.09 feet to the north line of that certain tract of land conveyed to J. E. R. Chilton et al, by the aforementioned instrument recorded in Volume 220, Page 0268 of said Deed Records and also being the northerly boundary line of Block 6556;

THENCE eastward along said north line of the land conveyed to J. E. R. Chilton by instrument recorded in Volume 220, Page 0268, a distance of 212.57 feet to a point for corner, said corner being the northwest corner of a tract of land conveyed to the City of Farmers Branch by instrument recorded in Volume 4655, Page 625 of said Deed Records;

THENCE S 01<sup>0</sup>02' E along the west line of the aforementioned tract of land conveyed to the City of Farmers Branch, a distance of 85.0 feet to the southwest corner of said tract conveyed to the City of Farmers Branch;

THENCE N 88<sup>0</sup>58' E along the south line of the land heretofore mentioned in a conveyance to the City of Farmers Branch, a distance of 90.0 feet to the southeast corner of same;

THENCE N 24<sup>0</sup>43'06" E along the southeast line of the land heretofore mentioned in a conveyance to the City of Farmers Branch, a distance of 61.33 feet to the southwest line of a 40-foot wide road as mentioned in the said conveyance of J. E. R. Chilton et al, recorded in Volume 220, Page 0268 of said Deed Records, said 40-foot wide road now known as Forest Lane;

THENCE S 83<sup>0</sup>00' E along the southwest line of a 40-foot wide road (Forest Lane), a distance of 156.91 feet to an angle point;

THENCE N 89<sup>0</sup>03' E along the south line of said 40-foot wide road (Forest Lane), a distance of 208.76 feet to the west line of Newberry Street (50-foot wide);

THENCE S 00<sup>0</sup>34' E along said west line of Newberry Street, a distance of 1373.43 feet to angle point;

THENCE S 00<sup>0</sup>21'25" W and continuing along said west line of Newberry Street, a distance of 805.6 feet to the south line of the aforementioned tract of land conveyed to J. E. R. Chilton by instrument recorded in Volume 220, Page 0268 of said Deed Records;

THENCE N 89<sup>0</sup>59' W along said south line, a distance of 1089.9 feet to the place of beginning and containing approximately 44.44 acres of land and being subject to all natural drainage ways and being subject to a sanitary sewer easement recorded in Volume 5012, Page 271 of said Deed Records to the second second second to the second second second second to the second sec

The undersigned further states that from the year 1974 to the year 1980, a Solid Waste Disposal Site was operated on a portion of the above described tract of land, more particularly described as follows:

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FIELD NOTES OK

DESCRIPTION OF LANDFILL BOUNDARY

13

FIELD NOTES O.K.

ALL THAT certain lot, tract or parcel of land lying and being situated in the City and County of Dallas, Texas, more particularly described as follows:

BEING in the Wm Cochran Survey, Abstract No. 279, Dallas County, Texas and being in Block 6556, official City numbers, and being a part of the land described in a Sanitary Landfill Agreement dated August 4, 1971 and approved by Council Resolution 71-3232, said Resolution being in the files of the Office of the City Secretary, City of Dallas, Texas, a portion of which is more particularly described as follows:

BEGINNING at a point on the west line of Newberry Street, said point being a distance of 220 feet, more or less, southward along said west line of Newberry Street from the south line of Forest Lane;

THENCE southward along the west line of Newberry Street and S along the east line of a filled area, a distance of 1397 feet, more or less, to a point for corner;

THENCE angle right  $96^{\circ}31'41"$  and westward along the south boun-  $\nu s_{3} 2 \delta_{1} W$  dary line of said filled area, a distance of 932 feet, more or less, to a point for corner;  $\nu q^{\circ} 2^{-5} q^{\circ} C$ 

THENCE angle right 92<sup>0</sup>03' and northward along the west boundary '' of said filled area, a distance of 1159 feet, more or less to a point for corner;

THENCE angle right  $48^{0}37'44"$  and northeastward along the north-N57'' 13' 25''E' west boundary line of said filled area, a distance of 322 feet, more or less, to a point for corner;

THENCE angle right  $36^{\circ}19'30"$  and eastward along the north boun- 5%.4542Fdary line of said filled area, a distance of 483 feet, more or less, to the place of beginning and containing approximately 25.52 acres of land, the land herein described being subject to all natural drainage ways and a sanitary sewer easement recorded in Volume 5012, Page 271, of said Deed Records.

The undersigned further states that the City of Dallas, Texas was the operator of said Solid Waste Disposal Site.

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P63. 4.51 Far 9 95 Branch-1.1.32 114 FAIDERSA FILM ×-1-635 LYNDCH 3 JOHNSON Pare Cale + Arcert 314 NORTHAVEN RECPER in ŋ 2 DALI 3 0 ----E. OWW. E 14 b "/3" MAP CITY OF DALLAS AUBLIC WEEKS DEPT. REAMSE DISADEAL DIV 9 RECADSED TYPE 1 CANFADE CANDELL 3

Page A.28, October 1, 2024



PROPOSED SOUTH R.O.W. LINE OF I-635 L.B.J. FRWY. SCALE 1= 300' MAP "B" LARSON STREET OWNERSHIP MAP CITY OF DALLAS PUBLIC WORKS DEPT. REFUSE DISPOSAL DIVISION PROPOSSO TYPE I SANITARY LANDFILL DYE TRACT -- 1. ... DUE IDEIA DIVE 0.20.7/ Page A.29, October 1, 2024







## Appraisal District and County Records Search Log

Date of Records Search	8-16-01
Name of Researcher	R1SZ
NCTCOG Site Location	
Map Coordinates (App. Dist./Mapsco)	

### First Choice Tract

Geo Number or Reference Number	00000604225000000
Abstract	
Tract	
Block	6556 Ac 35,1583
Lot	
Date of last transaction	
Volume and Page	200195/11/2
Owner Name	Inanscortinental Reatty
Owner Address	Investors, Inc.
	1800 1000000 Turn # 300
	Calle and active
	NULLIS, TX 15234
Site Address as recorded	Neufrerin St. 613,57 FR Chown Rd.
Confidence in Location 1 to 4	
	8

### Second Choice Tract (if applicable)

Geo Number or Reference Number	
Abstract	
Tract	
Block	
Lot	
Date of last transaction	
Volume and Page	
Owner Name	
Owner Address	
Site Address as recorded	
Confidence in Location 1 to 4	

Plat Map Obtained?	
Is the parcel part of a larger tract or has it been subdivided?	

Comments:

# TEAM Consultants, Inc.

Geotechnical, Environmental, Construction Materials Testing

June 20, 2000 Team Project No. 002021E Report No. 1

City of Dallas Department of Street and Sanitation Services Solid Waste Disposal Operations 9500 Harry Hines Boulevard Dallas, Texas 75220

Attn: Mr. Sury T. Suryanarayanan, P.E. J.

STORM WATER DISCHARGE MONITORING REPORTS NPDES PERMIT NO. TXS000701 NO. 2 - DYE LANDFILL 11535 NEWBERRY STREET DALLAS, DALLAS COUNTY, TEXAS

Dear Mr. Suryanarayanan:

Submitted herewith are the EPA Discharge Monitoring Reports (DMR's) for the referenced facility. The reports are applicable to the storm water sampling event accomplished on May 1, 2000.

Please review the DMR's and advise of any clarification or revisions required. If acceptable to you as presented, please have each of the DMR pages signed and dated in the spaces provided on the forms. The original (signed) and two copies of the reports are to be submitted to the EPA Region VI office in Dallas. A suggested "draft" of the transmittal letter is enclosed for your consideration. The reports must be submitted to EPA no later than October 28, 2000.

This sampling event fulfills sampling requirements for the first year of monitoring and reporting of analytical test results for stormwater run-off samples collected both upstream and downstream in a stream adjacent to this former landfill site. The city's stormwater permit specifies that after one year of sampling, analytical results are to be evaluated to determine the need for continuation of sampling. None of the parameters evaluated for sampling events conducted to date were observed to exceed general permit requirements.

Please feel free to call the undersigned at (817) 467-5500 if you have any questions.

Sincerely, TEAM Consultants, Inc. James Knight, P. Senior Project Er iàmes knight JK/li Copies submitted: 3 2970 S. Walton Walker, Suite 101 Dallas, TX 75211 (214) 331-4395 Fax (214) 331-439 3101 Pleasant Valley, Suite 101 Arlington, TX 76015 (817) 467-5500 Fax (817) 468-9920

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different) NAME CITY OF DALLAS ADDRESS DEPARTMENT OF STR	NATIONAL DISCI VICES PERMI	POLLUTANT DISCH IARGE MONI (2-16) (SU00701 IT NUMBER	DISCUA	ORT (DMR) ORT (DMR) (17-19) IA RGE NUMBER			Form Ap OMB No Approval	proved ), 2040-0004   expires 6-30-91					
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(REPLACES EPA FORM T-10, WHICH MAY NOT BE USED )

PAGE 1 of 4

Page A.34, October 1, 2024

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PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)			NATIONA DISC	L POLLUTANT DIS MARGE MON (2-16)	CHARGE ELIMINAT	ION SYSTEM (NPDE 'ORT (DMR) (17-19)	3)		Form /	Approved	
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PERMITTLE NAME/ADDRESS (Includ Facility Name/ Location if different)			DIS	AL POLLUTANT DISC	HARGE ELIMINAT	ION SYSTEM (NPDE)	5)		Form A	noraved			
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Total Organic Carbon (TOC)	SAMPLE MEASUREMENT PERMIT	0= 0 =				ATEIMUE	10	mg/i	(02-03)	(64-68)		(69-7) G	))
Oil and Grease	REQUIREMENT SAMPLE MEASUREMENT						<1.0						8
	PERMIT REQUIREMENT SAMPLE	The second	-			2		mg/r				G	8
pH	MEASUREMENT PERMIT REQUIREMENT				1	-	6.9	Standard Units			1.038	<u> </u>	
Total Recoverable Arsenic	SAMPLE MEASUREMENT PERMIT						<0.020	mg/l				G	
Total Recoverable Barium	REQUIREMENT SAMPLE MEASUREMENT	traitiait c	<u>.</u>				0.3			04		6	oj 253
	PERMIT REQUIREMENT SAMPLE	Million.			a said	a des tra	4.0		den er	-3 %	in the	G	Als
Total Recoverable Cadmium	MEASUREMENT PERMIT REQUIREMENT					Station 4	<0.004	mg/l			2. 19-10	G	
Total Recoverable Chromium	SAMPLE MEASUREMENT PERMIT	6474 J (2)					<0.005	mg/l				G	2.41
NAME/TITLE PRINCIPAL EXECUTIV	REQUIREMENT	I CERTIFY UNDER	PENALTY OF LAW 1	HAT I HAVE PERSO	S NALLY EXAMINED		5.0						
JODY PUCKETT DIRECTOR OF SANITATION CITY OF DALLAS	SERVICES	AND AN FAMILIA ON MY INQUIRY OUTAINING THE I IS TRUE, ACCURA SIGNIFICANT PEN THE POSSIBILITY	IR WITH THRENFORA OF THOSE INDIVIDUA INFORMATION, I DEL ITE, AND COMPLETE IALTIES FOR SUBMIT OF FINE AND INIPRIS	IATION SUMMITTED ALS IMMEDIATELY I JEVE THE SUDMITTE I AM AWARE THAT TING FALSE INFORM ONMENT. SEE II U	TIEREIN AND BASS RESPONSIBLE FOR 20 INFORMATION THERE ARE RATION, INCLUDIN S C. Art 1001 AND		4. Puck	EXECUTIVE	214	670-3555		DATE	
TYPED OR PRINTED COMMENT AND EXPLANATION OF ANY VIO	DLATIONS (Reference at	and or maximum imp and or maximum imp attachments here).	(Penalues under these s risonment of between 6	natues may include fines months and 5 years).		OFFIC	ER OR AUTHORIZ	ED AGENT	AREA	NUMBER	YEAR	MO	DAY
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PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different) NAME CITY OF DALLAS ADDRESS DEPARTMENT OF ST 9500 HARRY HINES B	REET & SANFI OULEVARD	TATION SER	NATIONAL DISC VICES	L POLLUTANT DISC CHARGE MON (2-16) NS000701 ITT NUMBER	TIARGE ELIMINATI	ON SYSTEM (NPDE ORT (DMR) (17-19) 1B RGE NUMBER	5)		Form A OMB N Approva	pproved la. 2040-0004 al expires 6-30-9	મ <sub></sub>		••••
DALLAS, TEXAS 7522	20	********************************	(A)	MONITORI	NG PERIO		]	CLOSED SA	NITARY	LANDFILL SP	TE		
LOCATION 11535 NEWBERRY STREET	1 1		FROM 00	04 01	TO 00	MO DAY 09 30	-	Chark has	a if No Dia			- 9	6
DALLAS, TEXAS		*********************	(20-21)	(22-23) (24-25	(26-27)	(28-29) (30-31)	-	NOTE: Read	instructio	ant before come	deting this (	torm	
PARAMETER (32-37)	$\left \right>$	(3 Card Only) (46-53) AVERAGE	QUANTITY O (54-61) MAXIMUM	R LOADING	(4 Card Only) (38-45)	QUALI (46-53)	TY OR CONCE (54-61)	NTRATION	NO. EX	FREQUENCY OF ANALYSIS	S.	AMPLE TYPE	1
	SAMPLE					ATEMOL	MAAIMONI	UNITS	(02-03)	(04-08)		69-70)	
rotal Cyanide	MEASUREMENT						<0.02	mg/l	1 1			G	
	PERMIT REQUIREMENT	V	a particular .		1496-011	÷	<u>.</u>					v 1494	tensi.
Total Recoverable Lead	SAMPLE												
Four Recover and Lead	PERMIT				[]	<del></del>	<0.010	mg/l				G	
	REQUIREMENT		The state of the				1.5						1.2.1
	SAMPLE									100		1000	1.79.94
Total Recoverable Mercury	MEASUREMENT						<0.0002	mg/l	1 1			G	
	PERMIT	×. 83	Number of Street, Stre			No. 2 House						New 22	wie
	REQUIREMENT		Participation of the			10000110000	0.01				1.1		1.1
Total Recoverable Selenium	SAMPLE									1.274			
	DEDATE				-		<0.020	mg/l 👘		*		G	
	DEADIDEMENT	29	1. 						1 1			. 2	64.52
	SAMPLE						0,2					1	1. 1.
Total Recoverable Silver	MEASUREMENT						<0.007	mg/l				<u> </u>	
	PERMIT	1.27	Colf mental (n)				-0.007	***B'*				G	
	REQUIREMENT	and the second	Martin and State		COLUMN 1		0.2						57.1
Acute Whole Effluent Toxicity *	SAMPLE												
IGED	MEASUREMENT						0				·	G	1.1
5	PERMIT	· =@										- 25	
Acute Whole Effluent Toxicity * TEE3D	SAMPLE								┼──┼				2
	PERMIT						0					<u>G</u>	
	REQUIREMENT		Same Marthers										3-34
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JODY PUCKETT DIRECTOR OF SANITATION S CITY OF DALLAS	SERVICES	AND AN FAMILI ON MY INQUIRY ODTAINING THE IS TRUE, ACCUR SIGNIFICANT PE THE POSSIBILITY	AR WITH THE INFORM OF THOSE INDIVIDUA INFORMATION, I BELI ATE, AND COMPLETE. NALTIES FOR SUDMIT Y OF FINE AND IMPRIS	NATION SUBMITTEL MLS INIMIEDIATELY IEVE THE SUBMITT I AM AWARE THAT TING PALSE INFOR ONMENT SEE IS (	) HEREIN AND BASS RESPONSIBLE FOR ED INFORMATION I THERE ARE MATION, INCLUDIN US C. AN 1001 AND		M. Puce	EXECUTIVE	214	670-3555			
TV91'D DD BUNTCO		JUSC AN DI	(Penalties under these st	atues may include line	5 Mp to \$ 10,000	OFFI	CER OR AUTHORIZ	ED AGENT	AREA				
COMMENT AND EXPLANATION OF ANY VIO	LATIONS (Reference a	and or maximum in	prisonment of between 6 r	nonths and 5 years)		[*			CODE	NUMBER	YEAR I	10	DAY
* Results are summarize	ed on the attache	d Table VI-A											
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Page A.40, October 1, 2024

Facility Name/ Location if different) NAME CITY OF DALLAS ADDRESS DEPARTMENT OF S 9500 HARRY HINES DALLAS	TREET & SANFI BOULEVARD	ATIONSER	NATIONA DISC	AL POLLUTANT DIS CHARGE MON (2-16) "XS000701 MIT_NUMBER	CHARGE ELIMINA NITORING RE	TION SYSTEM (NPDE PORT (DMR) (17-19) 1B ARGE NUMBER	<b>-</b> ]		Form A OMB t Approv	Approved No. 2040-0004 rat expires 6-30-9	91.		
FACILITY NO. 2 - DYE LANDFILL LOCATION 11535 NEWBERRY STREE	22U 2T		FROM 00		ING PERIC	NO DAY	]	CLOSED SA	NITARY	LANDFILL SI	<u>re</u>		
DALLAS, TEXAS		*****	(20-21)	(22-23) (24-25	(26.27)	(28-29) (30-31)	1	Check here	if No Di	scharge			
PARAMETER (32-37)		(3 Card Only) (46-53)	QUANTITY O (54-61)	RLOADING	(4 Card Only) (38-45)	QUALI (46-53)	TY OR CONCE (54-61)	NOTE: Read	NO,	FREQUENCY	leting th	SAMI	LE
Acute Whole Effluent Toxicity *	SAMPLE	ATENAGE,	NIALINIUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)		(69.7	1E 101
IGEOC	MEASUREMENT		2.4								+	(0)-1	01
	PERMIT		18.20 the sec		01335210	S 51 -	0					G	2003
Acute Whole Effluent Toxicity *	REQUIREMENT	Shorth A	Southe in		1420 - 243	27 A.	Sec. 26			* ÷0.ar	3 4	12 10	
TEE6C	MEASUREMENT												1.47.85
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	MEASUREMENT												52.5
	PERMIT		- The second of		Stan weeks	6.849 UT							
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	ALEASUDENEARE								<b>├──</b> -		<u> </u>		- 11 R
	PERMIT	100000 a		4									
	REQUIREMENT	PAR SAL ST	1.1.1.1.1.1		7.65.253	1210	20 500 11			2 X			_
	SAMPLE		and the last state of			103 M N	이 같이 많이 많다.		$\sim$		31	12	
	MEASUREMENT				1								
	PERMIT	623 - <sup>67</sup>	1152	ŀ							÷		8
	REQUIREMENT	578 ( 17 G	577445		nantos	1. Die	20.0						
	MEASUDEMENT		1							1,000	13 L		
	PERMIT			L									
	REQUIREMENT				CON WEITER			ł					
NAME/TITLE PRINCIPAL EXECUTIVE	OFFICER	I CERTIFY UNDER	PENALTY OF LAW TH	AT LIAVE PERSON	ALLY EXAMINED	540.0 M 10				- <u>S</u> ea			
JODY PUCKETT DIRECTOR OF SANITATION S CITY OF DALLAS	SERVICES	AND AM FAMILIA ON MY INQUIRY C OBTAINING FILE IN IS TRUE, ACCURAT SIGNIFICANT PERA THE POSSIBILITY C	R WITH THE INFORMA DF THOSE INDIVIDUAL NFORMATION, EDIELIE HE, AND COMPLETE E. AUTIES FOR SUMMITTI DF FINE AND IMPRISOI	ATION SUBARTED I S IMMEDIATELY R VETHE SUBARTED AM AWARE THATT ING FALSE INFORM, NMENT SEE IN U.S	HEREIN AND BASE ESPONSIBLE FOR D INFORMATION THERE ARE ATION, INCLUDING C. AJ. 1001 AND	1) ;	4. ferch	/	TELEPH	ONE		DATE	
TYPED OR PRINTED		33 U S C. Ari. 1319	(Penalties under these state	oes may include fines a	ep to \$ 10,000	OFFICI	ER OR AUTHORIZES	AGENT	214	670-3555			
COMMENT AND EXPLANATION OF ANY VIOL	ATIONS (Reference all a	liachments bere	tsonment of between 6 mo	onths and 5 years)					CODE	NIMPER			
* Results are summarize	d on the attached	Table VI-A								NUMBER	EAR	MO	_DAY_
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									_	Page A.4	1, Octo	ber 1	, 2024

## ATTACHMENT A

## DISCHARGE MONITORING REPORT (DMR) NO. 2 - DYE LANDFILL 11535 NEWBERRY STREET DALLAS, TEXAS PERMIT NO. TXS000701

### **Description of Selected Sampling Points**

The City of Dallas stormwater permit provides that surface water quality and biotic monitoring be conducted both upstream and downstream in streams located adjacent to former landfill sites. The locations of the former landfill sites are shown on the attached sheet A-2. The influence of stormwater runoff from each of the sites will greatly depend on the relative quantity of water contributed by the site to the total flow in the stream. Only grab samples were obtained for analysis. Additionally, in order to allow the water quality and flow conditions of the adjacent stream to stabilize as much as practicable and to facilitate interpretation of the analytical data as it relates to the impact of the closed landfill, sufficient time was allowed for runoff to accumulate and/or runoff from stream flows adjacent to the site rather than at a specific site outfall, the measurement of flow rates were determined to be "not applicable" for the purposes of this DMR report. Stream sampling point locations for the site are shown on the attached sheet A-3.



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Page A.44, October 1, 2024

	T	ABLE VI-A (Sheet 1 of 2	2)		
Permittee:	ERMI #156089	·····			
NPDES No.:	N/A	1			
Outfall No.:	Site 2 Dye 1A		_		
	-15		3		
Date	Composite Collected		- Time (	Composite Collected	
FROM: 05/01/	00 TO: grab	FROM:	0900	TO: grab	
Test initiated:	1410	05/04/00	date		
Dilution water used:	Rece	eiving water	X	Synthetic water	

## DATA TABLE FOR DAPHNIA PULEX PERCENT SURVIVAL

TIME	REP	0%	6%	13%	25%	50%	100%
	A	100.0	100.0	100.0	100.0	100.0	100.0
	В	100.0	100.0	100.0	100.0	100.0	100.0
24H	С	100.0	100.0	100.0	100.0	100.0	100.0
	D	100.0	100.0	100.0	100.0	100.0	100.0
	Mean	100.0	100.0	100.0	100.0	100.0	100.0

1. Is the mean survival at 24 hours >50% in the 100% dilution?

.

<u>X</u> YES \_\_\_\_ NO

If you report a NO, enter a 1 on the DMR Form, Parameter No. TGE3D. Otherwise, enter a 0.

Is there a statistically significant difference in survival at the 100% dilution as compared to the control (0%)?

\_\_\_\_ YES \_\_\_\_ NO

If you report a YES, enter a 1 on the DMR Form, Parameter No. TEE3D. Otherwise, enter a 0.

Prepared by: _	Darco Huthul
	procession property

Huther & Associates

Page A.45, October 1, 2024

Permittee:	ERM	MI #1560	89	TABLE	5 VI-A (SI	leet 2 of 2	)			
NPDES No .:	N/A									
Jutfall No.:	Site	2 Dye 1/	A							
			e.				11			
	Date (	'omnosite	Collecter	đ			<b></b>	- ·		
FROM: 05	5/01/00	TO:	σι σι	rah		EDOM.	1 m	e Composi	te Collected	
	_	-	8			-	0900	10:	grat	2
lest initiated:		1235			05/04/0	)0	date			
21	- 4		-							
Juution water us	ea:		I	Receiving	water		<u>X</u>	Sy	nthetic water	
	DAT	FA TABI	LE FOR	PIMEPHA	LES PR	OMELAS	PERCEN	T SURVIV	AL	
	526 11			C. Propage	10 10/302/11/2	N. S.	1000		1	
	TIME	REP	0%	6%	13%	25%	50%	100%		
	. differ_ :	A	100.0	100.0	100.0	100.0	100.0	100.0		
	24H	<u> </u>	100.0	100.0	100.0	100.0	100.0	100.0	-	
	2741	 	100.0	100.0	100.0	100.0	100.0	100.0		
		Maan	100.0	100.0	100.0	100.0	100.0	100.0		
		wean	100.0	100.0	100.0	100.0	100.0	100.0		
3. Is the m	lean surviv	val at 24 h	nours > 50	0% in the	100% dilı	ution?				
							X YES	5	NO	
If you	report a.N	IO, enter	alon	the DMR	Form D	aramatar l	No. TOES	C Other		0
,		io, oner			i onti, r	atametet 1	NO. 10E0	C. Utterv	vise, enter a	0.
<i></i>										
<ol> <li>Is there (0%)?</li> </ol>	a statistic:	ally signi	ficant diff	erence in	survival a	it the 1009	% dilution	as compare	d to the cont	rol
							YES		<u>X</u> NO	
If you r	eport a Y	ES, enter	ralon	the DMR	. Form, P	arameter	No. TEE6	C. Otherv	vise, enter a	0.
	-									
	)	$\bigtriangledown$								
pared by:	Alle	UTU	<u>MAIN</u>						Huthe	er & Associates
· · · · · ·	_			1					Pag	ge A.46, October 1, 2024

2		TABL	E VI-A (Sneet 1 of 2	.)		
Permittee!	ERMI #156090					-
NPDES No.:	N/A					_
Outfall No.:	Site 2 Dye 1B					-
54	0 2					
D	ate Composite Collec	:ted		Time	Composite C	collected
FROM:05/0	01/00 TO:	grab	FROM:	0910	TO:	grab
Test initiated:	1425		05/04/00	date		
Dilution water used		Receivin	g water	Х	Synthe	tic water

## DATA TABLE FOR DAPHNIA PULEX PERCENT SURVIVAL

TIME	REP	0%	6%	13%	25%	50%	100%
1.000 (State 1997)	А	100.0	100.0	100.0	100.0	100.0	100.0
	В	100.0	100.0	100.0	100.0	100.0	100.0
24H	С	100.0	100.0	100.0	100.0	100.0	100.0
	D	100.0	100.0	100.0	100.0	100.0	100.0
	Mean	100.0	100.0	100.0	100.0	100.0	100.0

1. Is the mean survival at 24 hours >50% in the 100% dilution?

<u>X</u> YES \_\_\_\_ NO

If you report a NO, enter a 1 on the DMR Form, Parameter No. TGE3D. Otherwise, enter a 0.

2. Is there a statistically significant difference in survival at the 100% dilution as compared to the control (0%)?

\_\_\_\_\_ YES \_\_\_\_\_ NO

If you report a YES, enter a 1 on the DMR Form, Parameter No. TEE3D. Otherwise, enter a 0.

Prepared by: \_\_\_\_\_

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Huther & Associates

Page A.47, October 1, 2024

Permittee: -	ERMI #156090	TABLE VI-A	(Sheet 2 of 2	.)		he may
NPDES No.:	N/A	<u> </u>				
Outfall No.:	Site 2 Dye 1B					15
	Date Composite Colle	ected		Time C	omposite Collect	ed
FROM: 05/0	)1/00 TO:	grab	FROM:	0910	TO:	grab
Test initiated:	1335	05/	04/00	date		
Dilution water used	:	Receiving water		X	Synthetic w	ater
		25				

## DATA TABLE FOR PIMEPHALES PROMELAS PERCENT SURVIVAL

TIME	RÉP	0%	6%	13%	25%	50%	100%
10 X	A	100.0	100.0	100.0	100.0	100.0	100.0
2009	B	100.0	100.0	100.0	100.0	100.0	100.0
24H	С	100.0	100.0	100.0	100.0	90.0	90.0
	D	100.0	100.0	100.0	100.0	100.0	100.0
	Mean	100.0	100.0	100.0	100.0	97.5	97.5

3. Is the mean survival at 24 hours >50% in the 100% dilution?

<u>X</u> YES <u>NO</u>

If you report a NO, enter a 1 on the DMR Form, Parameter No. TGE6C. Otherwise, enter a 0.

4. Is there a statistically significant difference in survival at the 100% dilution as compared to the control (0%)?

\_\_\_\_\_ YËS \_\_\_X\_\_ NO

If you report a YES, enter a 1 on the DMR Form, Parameter No. TEE6C. Otherwise, enter a 0.

repared by: Juce Hutthey

Huther & Associates

Page A.48, October 1, 2024
Status of Landfill Research Form	14
Permit No. 63 Issue Date 8-29-75 County Dallas Permitted Acr	es 44,44
Technical Pkg Submitted for Permit	No
Date Closed to Waste Recpt. 3/3/80 File Loc. CR Siche	
Date of Final Cover Inspection 5/19/80 File Loc Ch wienfiche	
*Date Affidavit(s) Approved $\frac{\sqrt{29/82}}{(If none, please indicate so)}$ Acreage Closed $\frac{25.52}{}$	
File Loc. OR microfiche # 4, Row 5, last column -> fiche #5, Row	.1, 1.9
Closure Plan Exists? Yes Unbrown File Loc No	8
Date Closure Plan Approved File Loc	
Date(s) Post Closure StartedFile Lo	c. (R. fiche
Date(s) Post Closure Ends Not downwrsted,	JC
Length of Post Closure Period: 5 yrs 30 yrs Other (no. of yrs.)	
*File Closed Date None File Loc	
*Date of "Inactive Status" Acknowledgment Letter <u>Nove</u> File Loc. (If none, please indicate so) Name of Researcher <u>Arten Avaluan</u>	
Date Research Conducted 10/26 / 99	
* copy needed	
	NPC)
	M Page A 49 October 1

John Hall, Chairman Pam Reed, Commissioner Peggy Garner, Commissioner



# TEXAS WATER COMMISSION

PROTECTING TEXANS' HEALTH AND SAFETY BY PREVENTING AND REDUCING POLLUTION

October 21, 1992

Mr. Dennis Schmidt, MAI Abbott & Associates, Inc. 3100 South Gessner, Suite 425 Houston, Texas 77063

Re: Solid Waste - Dallas County T.M. Dye - Permit No. 63

Dear Mr. Schmidt:

This is in response to your request for information, dated July 2, 1992, concerning closed landfills and the subject site. Enclosed is a copy of 31 Texas Administrative Code Section 330.154 concerning post-closure use of landfills. This will aid you in resolving your situation. Also, you should be aware that the Commission is preparing revisions to our current regulations on the post-closure use of landfills. These revisions should be published for public comment within the next 30 days. The last inspection of the subject landfill was on August 21, 1981. This landfill has been closed since 1980.

If you have any questions concerning this letter or if we may be of any assistance to you regarding municipal solid waste, you may contact me here in Austin at P.O. Box 13087, Austin, Texas 78711; telephone number (512) 834-6683 or you may prefer to contact Mr. Charles D. Gill, District Manager, at 1019 N. Duncanville Road, Duncanville, Texas 75116-2201; telephone number (214) 298-6171. When responding, please forward a copy of all correspondence to the district office as well as to our central office.

Sincerely,

Michael D. Graeber, P.E., Team Leader Permits Section Municipal Solid Waste Division

MDG/mae Enclosure

cc: TWC District 4 Office

PRINTED ON RECYCLED PAPER

Closed Landfill Inventory	http://www.ncicog.dst.tx.us/envir/sw/abndiil/abdata.asp?id=63&Status=PERCt	INET Texas Closed Landfill Inventory	http://www.nctcorg.dst.ts.us/envir/sw/abndfilWahdata.asp?id=63&Status=PERCOGN
DFWINFO.com	Donartmonte Coaste Contractio	APP CITY	TY DAILAS
	Search Contact US	APP ST	TX
		APP ZIP	76216
	Texas Closed Landfill Inventory	APP 71P4	Al Jacio
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	I Climited	OHIG_AG	CHES 40.17
Purkly Parkly	Landfill Site	POP_SER	AVED 87000
Part Bank	The states CO	AREA_SE	ERVED NW DALLAS
Hope	ram Facility: 03	TONS_DA	AY 270
1 ber	and the second s	YDS_DAY	Y 0
Land Service	- Manager	EST_CL_C	OT \$9800101
		RIVER_CC	20 a
	Above Man Represents the Americania I pretion of the E-site.	BUS_TYP	PE 0
The following altributes are co	intained in the data base distributed with the Closed Landfill Inventory. The detail	OWN_NAM	IME THOMAS M. DYE
available to any one site is	subject to the quality of the source information available to the project staff.	OWN_ADD	0 6210 N CENTRAL EXPRESSWAY
	Data Available For Facility 63	OWN_CIT	TY DALLAS
	Click Here for Attribute Descriptions	DWN_ST	ТХ
10	93	OWN_ZIP	P 75206
PERMIT NO	64 64	OWN_ZIP4	P4
ALIENCALENT	63	STAT_REN	am
DATE BEC	antinua	RESP_EM	NG DLH
TYPE FACE	19/50128	STATDATE	TE
FIFE PROC	1	A_OPEN_C	DATE 19710101
SHE SIANS	DR	A CLOSE	DATE 19820128
COUNTY_CD	57	UPDATE	2
HEGION_CD	1 · · · · · · · · · · · · · · · · · · ·	REVIEWER	ER
coa	4	X COORD	0 945897775
NEAR_CITY	DALLAS	Y cooan	D Thiston
SITELOC	11535 NEWBERRY - T.M. DYE TRACT		(Personal)
ETJ	N CITY LIMITS		
LATIT_DEG	32		NCTCOG II Salid Worth Base II Taure Clevel 1 - 1781
LATIT_MIN	54.3		HALLAND II SOURT MARIE LAGE II TEXES POSED FOUNDIN LUNCUOLA
LATIT_DO	32.905	And the second s	
LONGLIDEO	90	s	Send your comments or suggestions to: etinio@ndcog.dst.br.us. or call (817) \$95-9150
LONGI, MIN	54.5		Last updated: January 1998
LONGI_DD	-96.908333		Copyright © 1998 North Central Texas Council of Governments
ACCURACY	1		616 Six Flags Dr. P.O. Box 5888 Artington, Taxas 76005-5888
SOURCE	0		
APP.,NAME	"DALLAS, CITY OF/TM DYE"		
A second property of the second se	2721 MUNICIPAL STREET		
APP_ADDRESS			
APP_ADDRESS			
APP_ADDRESS			

Page A.51, October 1, 2024



## Closed Landfill Inventory Parcel Verification Reporting Form

For each permitted landfill (PERMAPP site), please fill out the following information, to the extent possible, and return the forms by April 15, 1999, to Ms. Cheryl Hare, MC 132, Waste Planning Section, TNRCC, P.O. Box 13087, Austin, TX 78711-3087. Attach any additional documents and information that you find in your search which may be useful for completing the inventory. If the information that is not available, write N/A.

Landfill Permit Number	63
County	Dallas
<b>Council of Governments Region</b>	NCTCOG
Information verified through county land records [y/n]. If no, explain verification method/source.	Y
Date Verified	4/19/99
Plat Map Attached [y/n]	Y
POB* Latitude	Lat. Degrees: Lat. Minutes (incl. decimals):
POB* Longitude	Long. Degrees: Long. Minutes (incl. decimals):
County Parcel Number/Account Number **	00000604225000000 (35.1583 acres)
Physical Address**	11645 Newberry St.
Legal Block Number**	Dallas Block Number 6556
Current Landowner(s) ** Name & Address	Fol Mac JV Suite 800 16475 Dallas Pkwy Addison, TX

\*Point of Beginning - Try to verify the latitude/longitude of the POB for the landfill facility boundary. The latitude/longitude for each site listed in the attribute files in your CLI Atlas may or may not correspond to the accurate POB for the boundary lines.

\*\*If the site has been subdivided into two or more parcels, list the available information for each parcel.

Site Number<u>P63</u> County<u>Dallas</u>

Dyp Site

Site Visit Information

Date of Site Visit	8-23-00	
Name of Researcher	KINISB, DB	
NCTCOG Site Location		
Map Coordinates (App. Dist./Mapsco)	220	
Digital Picture Number		
Photo Subject Description		

Actual Location: (including new map coordinates if necessary)

between RR tracks and Newberry

Land Use: (circle: residential, mixed use, commercial, water, vacant) (also include a narrative description of what it looks like ie. any signs, building types, businesses, visual dumping, physical features helpful for locating such as rivers, etc.)

Vacant land - covered over-forsale

Comments:

Sketch:





Landfiel63 6555 8 6556 \* SCHOOL DISTRICT\_ DALLAS updated 1-28-97 Lyndon B. Johnson Freens # 15181 Page A 56, October 1, 2024



Page A.57, October 1, 2024 Plate 3









AREA TO BE FILLED UNDER THIS APPLICATION

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ROAD

## AREA WHERE FILL HAS BEEN COMPLETED

OWNERSHIP

- 1. THE STATE OF TEXAS
- 2. GROVER H. HOPE, TRUSTEE P. O. BOX 87 ADDISON, TEXAS 75001
- 3. ESTATE OF MRS. E. A. LITTLE C/O MRS. W. E. BERNDT RT. 3 BOX 127 LEWISVILLE, TEXAS 75067
- 4. N. W. BAKER 11540 NEWBERRY DALLAS, TEXAS 75229
- 5. LESTER HILL 11538 NEWBERRY DALLAS, TEXAS 75229
- 6. W. F. ABERCROMBIE 11534 NEWBERRY DALLAS, TEXAS 75229
- 7. HORACE E. SARTIN 11524 NEWBERRY DALLAS, TEXAS '75229

- 8. ED M. RALEY 11520 NEWBERRY DALLAS, TEXAS 75229
- 9. R. A. & CHRISTINE WILCOX BOX 41 TRENTON, TEXAS
- 10. DYE TRUCKING COMPANY P. O. BOX 6117 DALLAS, TEXAS 75222
- 11. ROY O. BAKER 11509 ,NEWBERRY DALLAS, TEXAS 75229
- 12. LOMA ALTO CORP. P. O. BOX 8105 DALLAS, TEXAS 75205
- 13. JAMES F. DENNIS 10977 HARRY HINES BLVD. DALLAS, TEXAS 75220
- 14. CHICAGO, ROCK IS. & GULF R. R. 807 TEXAS AND PACIFIC BLDG. FT. WORTH, TEXAS 76102













## CLOSED AND ABANDONED MUNICIPAL SOLID WASTE LANDFILL INVENTORY NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

DALLAS COUNTY PERMITTED SITES	
PERMIT NUMBER	63
Date Opened	[19710101
Date Closed	19820129
Size in Acres	40
Applicant Name	DALLAS, CITY OF/TM DYE
Original Owner Name	THOMAS M. DYE
LOCATION	
COG Accuracy	[1
Latitude Decimal Degrees	32.88046
Longitude Decimal Degrees	-96.90612
Site Location Description	11535 NEWBERRY - T.M. DYE TRACT
COG Location Description	between RR tracks and Newbery
Near City	DALLAS
L and Units	acct# 00000604225000000 blk 6556
	1000000422000000, DR.0000

Wednesday, December 12, 2001	Page 3 of 6 8
Wednesday, December 12, 2001	

Page A.65, October 1, 2024

## CLOSED AND ABANDONED MUNICIPAL SOLID WASTE LANDFILL INVENTORY NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

DALLAS COUNTY PERMITTED SITES	
	63
CURRENT LAND USE AND LAND OW	NER - YEAR 2000/2001
Current Land Use	vacant
Current Land Owner	Transcontinental Realty
Current Owner Address	1800 Valley View Ln #300
	Dallas
	75234
COG COMMENT	vacant land covered over; for sale sign
INVENTORY STATUS	site visit 8/23/00
ITEMS AVAILABLE FOR REFERENCE	
Photo	Ν
Metes and Bounds	Y
Location map	Y
File map	Y
Affidavit to Public	Υ

Wednesday, December 12, 2001	Page 4 of 6 8

#### AFFIDAVIT TO THE PUBLIC

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#### STATE OF TEXAS

COUNTY OF DALLAS

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Before me, on this day personally appeared the undersigned, <u>Larry F. Ferguson, Larry F. Ferguson, trustee, Loma Alto Corporation, \*\*</u> who, after being by me duly sworn under oath, states that he is the owner of record of that certain tract or parcel of land lying and being situated in Dallas County, Texas, and being more particularly described as follows:

#### DESCRIPTION OF PROPERTY BOUNDARY

BEING in the Wm. Cochran Survey, Abstract No. 279, Dallas County, Texas, and being in Block 6556, official City numbers, and being a tract of land conveyed to J. E. R. Chilton III and Loma Alto Corporation by Jack Lively by deed dated November 29, 1961, and recorded in Volume 220, Page 0268 of the Deed Records of Dallas County, Texas, and being a tract of land conveyed as an undivided interest to Thomas Montgomery Dye and Donald J. Belcher by said J. E. R. Chilton III and Loma Alto Corporation by deed dated June 28, 1967 and recorded in Volume 70066, Page 0059 of said Deed Records and also being the tract of land of which further undivided interest was conveyed to Thomas Montgomery Dye by J. E. R. Chilton by deed dated November 25, 1970 and recorded in Volume 71007, Page 0015 of the aforementioned Deed Records, the land herein conveyed being more particularly described as follows:

BEGINNING at the intersection of the southeast line of the C.R.I. & G. Railroad's 100-foot wide right of way, also being the northwest line of Block 6556 with the south line of that certain tract of land conveyed to J. E. R. Chilton, III, et al, by the aforementioned instrument recorded in Volume 220, Page 0268 of said Deed Records, said south line also being the south line of Block 6556;

THENCE N 09<sup>0</sup>27' E along said southeast line of the C.R.I.& G. Railroad's 100-foot wide right-of-way and along the northwest line of Block 6556, a distance of 817.0 feet to a point for corner in the northerly terminus of said 100-foot wide rightof-way also being the beginning of a 150-foot right-of-way of said C.R.I.& G. Railroad;

THENCE S 89<sup>0</sup>56' E, a distance of 25.34 feet to the southeast line of the C.R.I.& G. Railroad's 150-foot wide right-of-way also being a northwest line of Block 6556;

\*\*acting through its President, J. E. R. Chilton III, Thomas Montgomery Dye, Donald J. Belcher and Nancy Foote Belcher.

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THENCE N  $09^{0}27'$  E along said southeast line of the C.R.I.& G. Railroad's 150-foot wide right-of-way along the northwest line of Block 6556, a distance of 1414.09 feet to the north line of that certain tract of land conveyed to J. E. R. Chilton et al, by the aforementioned instrument recorded in Volume 220, Page 0268 of said Deed Records and also being the northerly boundary line of Block 6556;

THENCE eastward along said north line of the land conveyed to J. E. R. Chilton by instrument recorded in Volume 220, Page 0268, a distance of 212.57 feet to a point for corner, said corner being the northwest corner of a tract of land conveyed to the City of Farmers Branch by instrument recorded in Volume 4655, Page 625 of said Deed Records;

THENCE S 01<sup>0</sup>02' E along the west line of the aforementioned tract of land conveyed to the City of Farmers Branch, a distance of 85.0 feet to the southwest corner of said tract conveyed to the City of Farmers Branch;

THENCE N 88<sup>0</sup>58' E along the south line of the land heretofore mentioned in a conveyance to the City of Farmers Branch, a distance of 90.0 feet to the southeast corner of same;

THENCE N 24<sup>0</sup>43'06" E along the southeast line of the land heretofore mentioned in a conveyance to the City of Farmers Branch, a distance of 61.33 feet to the southwest line of a 40-foot wide road as mentioned in the said conveyance of J. E. R. Chilton et al, recorded in Volume 220, Page 0268 of said Deed Records, said 40-foot wide road now known as Forest Lane;

THENCE S 83°00' E along the southwest line of a 40-foot wide road (Forest Lane), a distance of 156.91 feet to an angle point;

THENCE N 89<sup>0</sup>03' E along the south line of said 40-foot wide road (Forest Lane), a distance of 208.76 feet to the west line of Newberry Street (50-foot wide);

THENCE S 00<sup>0</sup>34' E along said west line of Newberry Street, a distance of 1373.43 feet to angle point;

THENCE S 00<sup>0</sup>21'25" W and continuing along said west line of Newberry Street, a distance of 805.6 feet to the south line of the aforementioned tract of land conveyed to J. E. R. Chilton by instrument recorded in Volume 220, Page 0268 of said Deed Records;

THENCE N 89<sup>0</sup>59' W along said south line, a distance of 1089.9 feet to the place of beginning and containing approximately 44.44 acres of land and being subject to all natural drainage ways and being subject to a sanitary sewer easement recorded in Volume 5012, Page 271 of said Deed Records  $_{\rm N}{\rm e}$ 

The undersigned further states that from the year 1974 to the year 1980, a Solid Waste Disposal Site was operated on a portion of the above described tract of land, more particularly described as follows:

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#### DESCRIPTION OF LANDFILL BOUNDARY

ALL THAT certain lot, tract or parcel of land lying and being situated in the City and County of Dallas, Texas, more particularly described as follows:

BEING in the Wm Cochran Survey, Abstract No. 279, Dallas County, Texas and being in Block 6556, official City numbers, and being a part of the land described in a Sanitary Landfill Agreement dated August 4, 1971 and approved by Council Resolution 71-3232, said Resolution being in the files of the Office of the City Secretary, City of Dallas, Texas, a portion of which is more particularly described as follows:

BEGINNING at a point on the west line of Newberry Street, said point being a distance of 220 feet, more or less, southward along said west line of Newberry Street from the south line of Forest Lane;

THENCE southward along the west line of Newberry Street and along the east line of a filled area, a distance of 1397 feet, more or less, to a point for corner;

THENCE angle right 96°31'41" and westward along the south boun-  $\sqrt{83.2319}$  w dary line of said filled area, a distance of 932 feet, more or less, to a point for corner;

THENCE angle right 92<sup>0</sup>03' and northward along the west boundary of said filled area, a distance of 1159 feet, more or less to a point for corner;

THENCE angle right 48°37'44" and northeastward along the north- $N57^{\circ}1725^{\circ}t$ west boundary line of said filled area, a distance of 322 feet, more or less, to a point for corner;

THENCE angle right 36<sup>0</sup>19'30" and eastward along the north boun- 5<sup>76,456,25</sup> dary line of said filled area, a distance of 483 feet, more or less, to the place of beginning and containing approximately 25.52 acres of land, the land herein described being subject to all natural drainage ways and a sanitary sewer easement recorded in Volume 5012, Page 271, of said Deed Records.

The undersigned further states that the City of Dallas, Texas was the operator of said Solid Waste Disposal Site.

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Page A.71, October 1, 2024





Texas State Department of Health

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BOARD OF HEAL TH

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JAMES E. PEAVY, M.D., M.P.H. COMMISSIONER OF HEALTH

FRATISL, DUFF, M.D., Dr. P.H. DEPUTY COMMISSIONER

AUSTIN, TEXAS 78756

HAMPTON C. ROBINSON, M.D., CHAIRMAN ROBERT D. MORETON, M.D., VICE-CHAIRMAN ROYCE E. WISENBAKER, M.S. ENG., SECRETARY N.L. BARKER JR., M.D. CHARLES MAX COLE, M.D. MICKIE G. HOLCOMB, D.O. JOHN M. SMITH JR., M.D. W. KENNETH THURMOND, D.D.S. JESS WAYNE WEST, R. PH.

September 4, 1975

file

Honorable Wes Wise Mayor of Dallas Main and Harwood Streets Dallas, Texas 75201

Subject: Solid Waste - Dallas County City of Dallas - Solid Waste Permit No. 63 11535 Newberry - T. M. Dye Tract Coordinates N 32°54.30' W 96°54.50'

Dear Mayor Wise:

A permit for your solid waste disposal facility is enclosed. We appreciate your cooperation in our evaluation and approval procedures.

Acceptance of this permit constitutes an acknowledgement that the permittee will comply with all of the terms, provisions, conditions, limitations, and restrictions embodied in this permit; with the "Municipal Solid Waste Regulations" of the Texas Department of Health Resources; and with the pertinent laws of the State of Texas.

Your solid waste disposal facility is subject to inspection by State and local authorities and public health officials at any time. If this Department can provide any further information or should you have any questions regarding the requirements of this Department's "Municipal Solid Waste Regulations", please feel free to contact us at any time.

Sincerely,

G. R. Herzik, Jr., P. E. Deputy Director for Environmental and Consumer Health Protection Texas Department of Health Resources

- cc: Region V, TDHR Dallas City Health Department Dallas County Health Department
- MRS:nmr Enclosure



Texas State Bepartment of Health

JAMES E. PEAVY, M.D., M.P.H. COMMISSIONER OF HEALTH

FRATIS L. DUFF, M.D., Dr. P.H. DEPUTY COMMISSIONER

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BOARD OF HEAL TH

HAMPTON C. ROBINSON, M.D., CHAIRMAN ROBERT D. MORETON, M.D., VICE-CHAIRMAN ROYCE E. WISENBAKER, M.S. ENG., SECRETARY N.L. BARKER JR., M.D. CHARLES MAX COLE, M.D. MICKIE G. HOLCOMB, C.O. JOHN M. SMITH JR., M.D. W. KENNETH THURMOND, D.D.S. JESS WAYNE WEST, R. PH.

Permit No. 63

Coordinates N 32°54.30' W 96°54.50'

PERMIT FOR A MUNICIPAL SOLID WASTE DISPOSAL SITE issued under provisions of Article 4477-7, Vernon's Texas Civil Statutes, and the Texas Department of Health Resources' "Municipal Solid Waste Regulations"

Permittee

Name:	City	of	Dallas		
Address:	Main	and	Harwood	St	reets
	Dalla	ıs,	Texas	752	.01

Site OwnerName:Thomas M. DyeAddress:6210 N. Central Expressway<br/>Dallas, Texas75206

Legal Description of Site: The legal description as submitted in the application is hereby made a part of this permit.

Size & Location of Site: This is an existing landfill, roughly rectangular and approximately 1,000 feet wide x 1,750 feet long. The landfill is located at 11535 Newberry Street in the City of Dallas, Dallas County, Texas; geographic coordinates: N 32°54.30' W 96°54.50'.

Operational Classification of Site: Type I

Waste Disposal Methods Used at Site: Sanitary landfill utilizing daily refuse compaction and cover.

Description of Waste Materials that Will be Processed at the Site: Approximately 270 tons per day of solid waste generated by a population of 870,000 in the City of Dallas.

Standard Provision: Acceptance of this permit constitutes an acknowledgement that the permittee will comply with all of the terms, provisions, conditions, limitations, and restrictions embodied in this permit, with the "Municipal Solid Waste Regulations" of the Texas Department of Health Resources and with the pertinent laws of the State of Texas.

Special Provisions: See Attachment - "Special Provisions for Municipal Solid Waste Permit No. 63".

This permit will be valid until cancelled or revoked by the Director of the Texas Department of Health Resources or until the site is completely filled and rendered unusable, whichever occurs first.

Given under my Hand and Seal of Office at Austin, Texas on the 29 day of August, 1975.

Fratis L. Duff, M. D., Deputy Director Texas Department of Noglth Page A.74, October 1, 2024 City of Dallas 1. Dye Permit Application No. 63 Page 2

SPECIAL PROVISIONS FOR MUNICIPAL SOLID WASTE PERMIT NO. 63

A. <u>Groundwater Protection</u>: All excavations shall, prior to being used to receive solid waste, be properly lined with a minimum of three (3) feet of selected impermeable clay material to properly separate the solid waste from the Eagle Ford formation.

## B. Surface Water Protection:

- 1. The operator of this land disposal facility shall provide suitable working face dikes and/or any other suitable water diversion methods to control and minimize the flow of rain or surface water onto and/or through the disposal area to minimize contact between the water and solid waste.
- 2. Rainfall runoff within the landfill trenches shall not be discharged from the site but may be used for compaction of the waste.

## C. Odor and Air Pollution Control:

- 1. Any ponded water at the site must not become a source of obnoxious odors.
- 2. Open burning at the site is not authorized.
- D. <u>Site Development and Operation</u>: Uncontrolled access and dumping by unauthorized persons of unauthorized materials shall be controlled by providing a man-proof fence or other suitable means of site access control.
- E. <u>Site Closing</u>: The applicant shall, when disposal operations are completed and/or before abandonment of the site, completely and properly close the disposal area in accordance with the regulations of the Texas Department of Health Resources pertaining thereto.

F. Surety Bond: Not required.

City of Dallas i. Dye Permit Application No. 63 Page 3

> LEGAL DESCRIPTION OF TRACT OF LAND OWNED BY THOMAS M. DYE FOR USE AS A SOLID WASTE DISPOSAL FACILITY

STATE OF TEXAS

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COUNTY OF DALLAS

BEING in the Wm. Cochran Survey, Abstract No. 279, Dallas County, Texas, and being in Block 6556, official City numbers, and being a tract of land conveyed to J. E. R. Chilton III and Loma Alto Corporation by Jack Lively by deed dated November 29, 1961, and recorded in Volume 220, Page 0268 of the Deed Records of Dallas County, Texas, and being a tract of land conveyed as an undivided interest to Thomas Montgomery Dye and Donald J. Belcher by said J. E. R. Chilton III and Loma Alto Corporation by deed dated June 28, 1967 and recorded in Volume 700066, Page 0059 of said Deed Records and also being the tract of land of which further undivided interest was conveyed to Thomas Montgomery Dye by J. E. R. Chilton by deed dated November 25, 1970 and recorded in Volume 71007, Page 0015 of the aforementioned Deed Records, the land herein conveyed being more particularly described as follows:

BEGINNING at the intersection of the southeast line of the C. R. I. & G. Railroad's 100-foot wide right of way, also being the northwest line of Block 6556 with the south line of that certain tract of land conveyed to J. E. R. Chilton III, et al, by the aforementioned instrument recorded in Volume 220, Page 0268 of said Deed Records, said south line also being the south line of Block 6556;

THENCE N 09°27' E along said southeast line of the C. R. I. & G. Railroad's 100foot wide right of way, and along the northwest line of Block 6556, a distance of 817.0 feet to a point for corner in the northerly terminus of said 100-foot wide right-of-way also being the beginning of a 150-foot right-of-way of said C. R. I. & G. Railroad;

THENCE S 89°56' E,a distance of 25.34 feet to the southeast line of the C. R. I. & G. Railroad's 150-foot wide right of way also being a northwest line of Block 6556;

THENCE N 09°27' E along said southeast line of the C. R. I. & G. Railroad's 150foot wide right of way and along the northwest line of Block 6556, a distance of 1414.09 feet to the north line of that certain tract of land conveyed to J. F. R. Chilton et al, by the aforementioned instrument recorded in Volume 220, Page 0268 of said Deed Records and also being the northerly boundary line of Block 6556;

THENCE eastward along said north line of the land conveyed to J. E. R. Chilton by instrument recorded in Volume 220, Page 0268, a distance of 212.57 feet to a point for corner, said corner being the northwest corner of a tract of land conveyed to the City of Farmers Branch by instrument recorded in Volume 4655, Page City of Dalla: M. Dye Permit Application No. 63 Page 4 (Legal description, cont'd.)

625 of said Deed Records;

THENCE S 01°02' E along the west line of the aforementioned tract of land conveyed to the City of Farmers Branch, a distance of 85.0 feet to the southwest corner of said tract conveyed to the City of Farmers Branch;

THENCE N 88°58' E along the south line of the land heretofore mentioned in a conveyance to the City of Farmers Branch, a distance of 90.0 feet to the south-east corner of same;

THENCE N 24°43'06" E along the southeast line of the land heretofore mentioned in a conveyance to the City of Farmers Branch, a distance of 61.33 feet to the southwest line of a 40-foot wide road as mentioned in the said conveyance of J. E. R. Chilton et al, recorded in Volume 220, Page 0268 of said Deed Records, said 40-foot wide road now known as Forest Lane;

THENCE S 83°00' E along the southwest line of a 40-foot wide road (Forest Lane), a distance of 156.91 feet to an angle point;

THENCE N 89°03' E along the south line of said 40-foot wide road (Forest Lane), a distance of 208.76 feet to the west line of Newberry Street (50-foot wide);

THENCE S 00°34' E along said west line of Newberry Street, a distance of 1373.43 feet to angle point;

THENCE S 00°21'25" W and continuing along said west line of Newberry Street, a distance of 805.6 feet to the south line of the aforementioned tract of land conveyed to J. E. R. Chilton by instrument recorded in Volume 220, Page 0268 of said Deed Records;

THENCE N 89°59' W along said south line, a distance of 1089.9 feet to the place of beginning and containing approximately 44.44 acres of land and being subject to all natural drainage ways and being subject to a sanitary sewer easement recorded in Volume 5012, Page 271 of said Deed Records.

# **MSW (MUNICIPAL SOLID WASTE)**

# (MSW)

## PERMIT #

FILE TYPE:

VOL#

**INCLUSIVE DATES:** 

Media Code/Format: M

MicroficheRoll Microfilm

Page A.78, October 1, 2024

# NOTICE OF DOCUMENT QUALITY

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

THE QUALITY OF THE FOLLOWING DOCUMENT(S) IS SUCH THAT ALL OR PORTIONS OF THE MICROFILMED IMAGE MAY BE DIFFICULT TO READ OR ILLEGIBLE

Some reason for poor quality:

There are multiple densities per page, different types of ink, faded documents and some documents are different colors. Many of the photographs are of poor quality.

Facility/Site Information:		Help	ion ispector Info: Help
Permit # _63 . If Per	mit # needs to be changed, click	on Reg	ion: 04 🕶 Arlington
County: 057 DALLAS	iit #" for information.	Insp	ector: MDELANE
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Site name: City of Dallas			
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nspection/Activity Information:			Help
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For Regions 04 and 12 only: Date Tire	Application Received:	- Click on the	annropriate letter type below:
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Additional Letter Type: having difficulty, please contact Cristina J	arosek at 512-239-2974 or E-mail a	Additional Le	se read the help screens first to
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## TEXAS NATURAL RESOURCE CONSERVATION COMMISSION MSW INSPECTION REPORT Inspection Type: Inactive Landfill Initiative

Inspection Date:	7/27/0	)1		Time:	13	40 hrs.	Pict	ures Tal	ken?	Yes	Сору	To:	Permits	5
Permit No. 63			Type:	e: 1 Reg		gion: 4		Facility County		:	Dall	llas		
Weather Conditio	Clear,	Clear, warm, dry												
Entity Name / Per	mittee:	City of Dallas												
Entity Representa	tive:		Ramon F. Miguez, P.E., Assistant City Manager											
Entity Address:			1500 Marilla Street Dallas, Texas 75201											
Entity Phone Num	ber:		214/67	70-3308								1		
<b>Operation Descrip</b>	otion:		Inactive Type I landfill											
Facility Contact:			Sury S	Suryanaray	yan, P.	E., Senior	Engin	neer. City	of Dall	as				
Facility Address:			Southwest corner of the intersection of Newberry Street and the south I-635 frontage road, Dallas, T3						d, Dallas, TX					
Facility Phone Nu	mber:		214/670-4486											
Person(s) Contact	ed:		Sury Suryanarayan, P.E., Senior Engineer, City of Dallas											
Person(s) Particip	ating:		Sury Suryamarayan, Cynthia Hackathorn of R-4											
TNRCC Inspector			Micha	el Delane	у									-
Purpose of Inspec	tion:		Inactiv	ve Landfil	l Initia	tive	Nex	t Inspec	tion:	N/A	L	ast ispect	ion:	Unknown

INSPECTION REPORT ATTACHMENTS								
Landfill Forms	Landfill Forms Continued	Waste Tire Forms		Used Oil/Filter Forms				
Type 1-4 Landfill Checklist	Type 1-4 Closed Site Checklist	Tire Generator Checklist		UO/UOF Collection Center Ckl.				
Site Development Plan Checklist	Unauthorized Site Checklist	Tire Transporter Checklist		Used Oil Handler Checklist				
Site Operating Plan Checklist	Processor (Type 5) Checklist	Tire Storage Site Checklist		Used Oil Filter Handler Cklst.				
Record Keeping Checklist	Liquid Waste Processor Cklst.	Tire Facility Checklist		Miscellaneous Forms				
Landfill Gas Checklist	Medical Waste Checklist	Tire Transport Facility Cklst		Attachment Page(s)				
Landfill Gas Well Report	Compost Checklist	Land Reclamation Checklist	x	Photograph Page(s)				
Asbestos Checklist		PEL Inspection Checklist	x	Site Diagram				
Groundwater Checklist				Property Ownership Page				
Groundwater Well Report			x	IOM				
Closure Checklist			x	MSW Inactive Landfill Checklist				

TNRCC Representative's Signature:	Muchael Delancy	Date:	8/22/01
Approved By:	John All	Date:	8/22/07

# **TEXAS NATURAL RESOURCE CONSERVATION COMMISSION** MSW INSPECTION REPORT Page 2

Permit No.	89	Facility Name:	City	of Dallas	County Name:	Dallas	
Inspection Date:	7/27//01	TNRCC Investiga	tor:	Michael Delaney			

VERBAL OR WRITTEN VIOLATIONS NOTED						
No.	Rule Cited	Description of Violation				
1.	N/A	N/A				
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

## Texas Natural Resource Conservation Commission Investigation Report

## City of Dallas Permit No. 63 Inactive Landfill Initiative Investigation Conducted July 27, 2001

## INTRODUCTION

On July 27, 2001, the writer met with Mr. Sury Suryanarayan, P.E., Senior Engineer, City of Dallas, to review information maintained by the City regarding the referenced site. Subsequently, on August 1, 2001, the writer, accompanied by Ms. Cynthia Hackathorn of Region 4, conducted an on-site investigation of the site. The site is located in the southwest corner of the intersection of Newberry Street and the south I-635 frontage road in the City of Dallas (reference attached map).

### GENERAL FACILITY INFORMATION

On July 27, 2001, information obtained from the City of Dallas revealed that the Texas Department of Health (TDH) originally issued Permit No. 63 to the City on August 29, 1975 for a Type I landfill consisting of 44.44 acres. The site owner was identified as Thomas M. Dye. A TDH letter dated July 3, 1980 (copy attached) revealed that the site had been previously closed. The attached map provided by the City identified the site as being closed during March 1980. The City reported that a "Request for Voluntary Revocation of Permit" would be completed and submitted to MSW Permits.

The review of available records in Region 4 identified a TNRCC letter dated September 28, 2000 (copy attached) which reported that the permit for the facility expired on January 13, 1982 and that the landfill was not subject to a post-closure maintenance period. A Site Inspection Report dated June 4, 1993 (copy attached) identified concentrations of arsenic, barium, chromium, lead, nickel, and vanadium above 3 times background levels for sediment samples collected off-site from Farmers Branch Creek near the northwest corner of the site. In addition, the report identified concentrations of lead, benzene, chlorobenzene, xylene, and 1,4 dichlorobenzene above 3 times background levels for ground water samples collected near the western boundary of the site. A State Superfund Candidate Site Eligibility/Status Sheet (copy attached) recommends that, based on the results of the report, the site be monitored for suspected ground water contamination and potential off-site contaminant migration.

During the August 1, 2001 on-site investigation, previous disposal of concrete and asphalt was observed on the surface of the landfill. It appeared that access to the site has since been restricted and "No Dumping, No Trespassing" signs had been posted. Installed monitoring wells were observed along the north and east sides of the site. The site appeared to have adequate vegetation with the

City of Dallas Permit No. 63 Page 2 August 22, 2001

exception of various bare locations near the middle of the site.

## SUMMARY

Based on review of information maintained by the City of Dallas, it appears that the site has been previously closed. The review of records in Region 4 indicated that the permit for the facility previously expired. In addition, information in the Region 4 files recommended that the site be monitored for suspected ground water contamination and potential off-site contaminant migration.

Signed

Michael Delaney

Environmental Investigator Region 4/DFW

Approved

Robert A. Jefferson

Solid Waste Team Leader Region 4/DFW

8/22/01 Date

22/01

Date
# TEXAS NATURAL RESOURCE CONSERVATION COMMISSION MSW INACTIVE LANDFILL CHECKLIST

Page 1

Permit: MSW-	63	Facility Name:	City of Dallas	County Name:	Dallas
Investigation Date:	7/27/01	TNRCC Investig	ator:	Michael D.	elaney

# INVESTIGATION RESULTS

No.	Citation	Description	Y	N	Note
1.	330.111 & 330.113	Record Keeping Maintained			NIO
2.	330.253(e)(7)	Signs Posted-Final Closure			NIO
3.	330.254(a)	Cover Erosion	1		
4.	330.254(a)	Subsidence/Ponding	1		
5.	330.254(a)	Additional Vegetation Needed	1		
6.	330.254(a)	Leachate or Methane Migration			NO

Additional Observations & Comments:

Any documented violation requires a comment. Note: N/A = Not Applicable N/O = Not Observed N/R = Not required at this time. Y = The requirement is met. N = The requirement is not met. Rev. 4/14/2000



Page A.86, October 1, 2024



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JUL 7 1980

# Texas Department of Health

Robert Bernstein, M.D., F.A.C.P. Commissioner

24

1100 West 49th Street Austin, Texas 78756 (512) 458-7111

A. M. Donnell, Jr., M.D., M.P.H., F.A.C.P. Deputy Commissioner

JUL 3 1980

Honorable Robert S. Folsom Mayor of Dallas Dallas City Hall Dallas, Texas 75201

Subject: Solid Waste - Dallas County City of Dallas - Permit No. 63 11535 Newberry

Dear Mayor Folsom:

We have been advised by our regional personnel that the above subject municipal solid waste site has been closed.

Municipal solid waste sites can generate flammable gases for many years after closure and can also contain materials which could be harmful if dug up by unknowing future landowners.

In accordance with the Department's "Municipal Solid Waste Management Regulations", Subsection F-2.15, the site operator shall prepare an "Affidavit to the Public" and cause the same to be filed in the Deed Records in the Office of the County Clerk of the County in which the site is located. The affidavit shall include a legal description of the property on which the site is located and shall specify the area actually filled with solid waste. A certified copy of the affidavit shall be obtained from the County Clerk after recording and filed with the Department. Enclosed is a suggested format for the affidavit.

Your permit application will be cancelled upon receipt of the signed request for voluntary cancellation letter, which is enclosed.

Upon receipt of the certified copy of your affidavit as recorded with the County Clerk and your voluntary cancellation letter, the Department's file for your permit application will be closed.

Your cooperation in closing this site is greatly appreciated.

Sincerely yours,

LBS flich PE

/// Jack C. Cardichael, P.E. Director Division of Solid Waste Management RIS:dkm Enclosure cc: Region 5, TDH Dallas County Health Department Dallas City Health Department Mr. John Teipel, P.E., Director of Streets & Sanitation Mr. R. Ross Howard, Jr., P.E., Department of Sanitation Operations

Page A.87, October 1, 2024

Robert J. Huston, *Chairman* R. B. "Ralph" Marquez, *Commissioner* John M. Baker, *Commissioner* Jeffrey A. Saitas, *Executive Director* 



# TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

September 28, 2000

Ms. Patricia F. Sharkey Mayer, Brown, and Platt 190 South La Salle Street Chicago, Illinois 60603-3441

Re: Municipal Solid Waste (MSW) - Dallas County City of Dallas - T. M. Dye Landfill 11535 Newberry Street, Dallas, Texas Permit No. MSW- 0063 Mail Log File No. 3734

Dear Ms. Sharkey:

This is in response to your letter dated September 12, 2000, requesting information regarding the above referenced landfill. We offer the following answers to your seven questions. Rule citations are from 30 Texas Administrative Code (30 TAC) Chapter 330.

- Question: Is the TNRCC satisfied that the T. M. Dye Landfill was "closed" in accordance with all applicable Texas Department of Health ("TDH") regulations in 1982? Answer: Yes. A search of our files shows that all of the appropriate steps were taken by the City of Dallas to "close" the landfill under the rules applicable at the time and that the facility permit expired of its own terms on January 13, 1982.
- 2. Question: Do any TNRCC regulations and/or TDH regulations governing "closure" of solid waste landfills currently apply to the T. M. Dye Landfill? If so, please provide citations to those regulations. Answer: Yes, although this site was "closed" in accordance with applicable rules regarding closure and post-closure, 30 TAC Subchapter T entitled "Use of Land Over Closed Municipal Solid Waste Landfills" may apply.

Section 330.954 entitled "Development Permit and Registration Requirements, Procedures, and Processing," will apply if an enclosed structure will be built on the closed landfill.

Ms. Patricia F. Sharkey Page 2 Re: Permit No. MSW-0063

Section 330.955(a) entitled "Prohibitions" states that the integrity of the final cover of a closed municipal solid waste landfill shall not knowingly be violated, disturbed, altered, removed, or interrupted in any way without the prior written approval of the executive director.

Section 330.955(b) states that penetrations of the final cover or liner systems will not be allowed without the prior written approval of the executive director. These include, but are not limited to, borings, piers, spread footings, foundations for light standards, fence posts, anchors, deadman anchors, manholes, on-site disposal systems, recreational facilities, etc.

Section 330.955(c) states that any non-hazardous municipal solid waste removed from a closed municipal solid waste landfill for any reason including residuals from a soil test shall not be deposited in or reapplied on the landfill but must be properly transported to a permitted municipal solid waste facility.

- 3. Question: Is the TNRCC satisfied that the T. M. Dye Landfill has completed "postclosure" in accordance with all applicable TDH and/or TNRCC regulations? Answer: Yes, our records show that the landfill was not subject to a post-closure maintenance period and that the permit expired of its own terms January 13, 1982. Copies of the pertinent information regarding closure of the subject site are enclosed.
- 4. Question: Do any TNRCC regulations and/or TDH regulations governing "postclosure" of solid waste landfills currently apply to the T. M. Dye Landfill? Answer: The landfill was not subject to a post-closure maintenance period so existing or previous rules relating to post-closure maintenance period requirements are not applicable. However, as indicated in item #2 above, current rules relating to the use of land over closed municipal solid waste landfills may apply.
- 5. Question: Will the T. M. Dye Landfill be subject to an inspection based on the TNRCC list of inactive landfills to determine whether these landfills properly completed "closure" and "post-closure" requirements? Will the T. M. Dye Landfill be removed from the list? Answer: The permit for the subject site expired of its own terms on January 13, 1982 so the site is not subject to further permit compliance inspections. The TNRCC inactive landfill list has been updated to indicate the permit for the subject facility has expired.
- Question: Chapter 330, Subchapter T, and Chapter 330, section 330.255 provide different requirements for closed landfills. Please indicate which regulations would apply to the use of land overlying the T. M. Dye Landfill. Answer: As indicated in item #2 above, 30 TAC Subchapter T entitled "Use of Land Over Closed Municipal





Ms. Patricia F. Sharkey Page 3 Re: Permit No. MSW-0063

Solid Waste Landfills" may apply. Section 330.255 does not apply to the subject site because the permit for the facility has expired (Section 330.255 applies only to facilities whose permit has not expired).

7. Question: Apart from the regulations cited in response to the questions above, are there any municipal solid waste regulations which apply to the T. M. Dye Landfill? Answer: No other municipal solid waste regulations are known to apply.

If we can be of further assistance, please contact Mr. Wayne Lee, P. E. of the TNRCC's Municipal Solid Waste (MSW) Permits Section at (512) 239-6815. Thank you for allowing us to assist you.

Sincerely,

Jungen Stong

Burgess Stengl, Team Leader MSW Permits Section - Permits Team III Waste Permits Division

BHS/JF/WL

Enclosures

### FLUOR DANIEL ARCS TEAM

June 4, 1993

Members Fluor Daniel Inc. 17 Corporation PELAssociates Inc. Life Systems, Inc.

Program Office 12790 Ment Drive Suite 200, LB 169 Dollas, TX 75251 Tei 2141 450-4100 Fax, 2141 450-4101

FDI/ARCS # 2023

U.S. Environmental Protection Agency Attn: Stacey Bennett (6E-SH) Work Assignment Manager Region VI 1445 Ross Avenue Suite 1000 Dallas, Texas 75202

> CONTRACT NO. 68-W9-0013 SITE INSPECTION REPORT (PART A, ADDENDUM) DALLAS CITY LANDFILL SITE TXD980750509 DALLAS, DALLAS COUNTY, TEXAS <u>SITE INSPECTIONS</u> WA # 25-6JZZ

Dear Ms. Bennett:

Transmitted with this letter is the referenced Site Inspection Report (Part A, Addendum), which includes the analytical results, data tables, data packages, and a discussion of the results. This report should be added to the Part A report submitted on October 5, 1992. The PreScore for this site is now being performed and will be submitted under separate cover.

Should you have any questions, please contact myself or Jonathan Stewart at (214) 450-4100.

Sincerely, allala Clail

J. Dougías Cheek ARCS Project Hydrologist

Jonathan M. Stewart ARCS Project Manager

Enclosure



SITE INSPECTION REPORT (PART A, ADDENDUM) FOR DALLAS CITY LANDFILL TXD980750509 WA # 25-6JZZ

EPA Project Manager

Date

Project Manager

Date

Team Leader

Date





#### SITE INSPECTION REPORT (PART A, ADDENDUM) FOR DALLAS CITY LANDFILL TXD980750509 WA # 25-6JZZ

#### TABLE OF CONTENTS

ITEM	DESCRIPTION PAGE	AGE
3.0	SITE INSPECTION RESULTS	. 1
TABL	25	
3	Sample Summary Table	
4	Summary of Soil Sample Results	

- 5 Summary of Sediment Sample Results
- 6 Summary of Groundwater Sample Results

#### FIGURES

3 Sample Locations

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#### SITE INSPECTION REPORT (PART A, ADDENDUM) FOR DALLAS CITY LANDFILL TXD980750509 WA # 25-6JZZ

#### 3.0 SITE INSPECTION RESULTS

#### Analytical Results Chronology

Fluor Daniel conducted a sampling event that occurred on August 29, 1992. Samples collected during the field work phase of the SI were shipped to Southwestern Laboratories of Oklahoma and IT Analytical Services for analysis by the Contract Laboratory Program (CLP). Analytical results were received from the CLP in Fluor Daniel's Dallas office on December 17, 1992. The data validation package transmittal from International Technology Corporation, Fluor Daniel's ARCS Team subcontractor, was received on March 9, 1993.

#### Quality Control Procedures

During sample collection, Fluor Daniel followed the previously approved sampling and quality assurance project plans for sampling, packaging and shipping samples to the CLF. The analytical packages were evaluated with respect to data completeness and contractual compliance by the Houston EPA Environmental Services Division Surveillance Branch. The data were then validated by International Technology Corporation to assess the quality assurance/quality control procedures utilized by the laboratory. Data validation was in accordance with the most current USEPA Data Validation Guidelines and regional instructions. The data validation packages are included as Attachment A.

The validation process involves scrutinizing various aspects of analytical procedures to fully assess data quality. Analytical procedures reviewed during the validation process include 1) laboratory holding time, 2) laboratory equipment

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calibrations, 3) blanks, 4) interference checks, 5) ICP serial dilutions, 6) duplicates, 7) matrix spike recovery, 8) field duplicate samples, 8) internal standards performance, 9)sample verification, 10) compound quantification and reported detection limits, and 11) system performance. Based on the review of the various aspects of data analysis, the data validator may assign data qualifiers as necessary. Typically, the following code letters and the associated definitions are used as data validation qualifiers.

"B" - Analyte was detected above the instrument detection limit but below the contract required detection limit.

"U" - An analysis of the analyte was made, but was not detected. The associated numerical value is the sample quantitation limit.

"J" - The associated numerical value is an estimated quantity.

"UJ" - An analysis of the analyte was made, but was not detected. The sample quantitation limit is an estimated quantity.

"R" - The data for the analyte is unusable.

#### Summary Table

The sample location map is presented in Part A and again in this addendum as Figure 3 Sample Location Map. Table 3 Sample Summary Table of this addendum summarizes sample numbers, matrices and locations. Table 4 Summary of Soil Sample Results, Table 5 Summary of Sediment Sample Results, and Table 6 Summary of Groundwater Sample Results, summarize station location, concentrations, standard CLP qualifiers and comparisons to background concentrations.

#### Discussion of Results

A total of 11 soil, sediment and groundwater samples were collected and analyzed for TAL metals and cyanide, volatile organics, semi-volatile organics, pesticides, and PCB's. Four

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samples were collected from the surface soil (three on-site and one background). Three sediment samples were taken from Farmers Branch Creek (one background, one at a point of entry, and one down stream of the site). In addition, two on-site monitoring wells were sampled and a trip blank was taken.

Data are presented in Tables 4, 5 and 6 for inorganic and organic constituents. Background sample results and three times background results are also presented for comparison with samples that were collected from similar matrices. Analyte concentrations that represent the three times background concentration or quantitation limit are designated in this report as Background Benchmark Concentrations (BBC). Quantitation limits were used as the BBC when background samples did not indicate a concentration above the detection limit.

Analytes that exceeded the BBC were observed in sediment samples 8 and 9 and groundwater samples 6 and 10. The sediment samples that exceeded the BBC are arsenic (4.8 mg/kg), barium (68.4 mg/kg), chromium (10.3 mg/kg), lead (34.3 mg/kg) nickel (16.4 mg/kg) and vanadium (31.1 mg/kg) in sample 8, and arsenic (4.3 mg/kg), barium (79.7 mg/kg), chromium (11.3 mg/kg), lead (19.1 mg/kg) nickel (14.9 mg/kg) and vanadium (31.2 mg/kg) in sample 9. Sample 10 was a duplicate sample of sample 6. The following analytes exceeded the BBC for sample 6 : lead (74.5 ug/l), benzene (30 ug/l), chlorobenzene (13 ug/l), xylene (70 ug/l), and 1,4 dichlorobenzene (20 ug/l).

#### Summary

The Dallas City Landfill (Dye Landfill) is an inactive landfill located on Newberry Road and LBJ Freeway approximately one mile west of Interstate 35 in Dallas, Dallas County, Texas. The site was a former municipal landfill for

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the City of Dallas and operated from 1974 to the spring of 1980.

The site was assessed in February of 1992 by Maxim Engineers, Inc. Four borings were drilled and two monitoring wells were installed. During Fluor Daniel's sampling effort, two wells were sampled and a summary of the findings is presented in Table 6. Elevated levels of lead, benzene, chlorobenzene, and xylene were detected in the groundwater samples.

Sediment samples were also taken from the Farmers Branch Creek. Both the point of entry and the downstream sample showed concentration levels that exceeded the BBC for arsenic, lead, barium, chromium, nickel, and vanadium.

Risk to the groundwater is minimal since the City of Dallas does not use groundwater as a source for drinking water. The elevated levels of contaminants in the sediment samples are also considered minimal because the Farmers Branch Creek is a Tributary of the Trinity River. The Trinity River is used for industrial waste discharge in Dallas County and is not used for drinking water. According to the Texas Water Quality Board the water quality in the upper portion of the Trinity River is poor. There are problems with depressed oxygen levels and elevated fecal coliform levels. The Trinity River is not used for recreational activities in the Dallas County area.

The vegetative cover on the landfill is extensive and allows limited exposure to the soil. A two feet thick cap was constructed upon closure of the landfill. Therefore risk associated from the soil exposure pathway is minimal. Because exposure to the soil on the site was insignificant, no air sampling was proposed and no risk is believed to be associated with the air migration pathway.

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TABLE 3 SAMPLE SUMMARY TABLE

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# TABLE 3 SAMPLE SUMMARY TABLE Dallas City Landfill

SAMPLE NUMBER	CLP NUMBER	CLP NUMBER ORGANICS	MATRIX	LOCATION
1	MFW136	FY105	SOIL	BACKGROUND
2	MFW137	FY106	SOIL	SOUTHWESTERN BOUNDARY
3	MFW138	FY107	SOIL	SOUTHWESTERN BOUNDARY
4	MFW139	FY108	SOIL	NORTHWESTERN BOUNDARY
5	MFW132	FY101	WATER	BACKGROUND
6	MFW133	FY102	WATER	WESTERN BOUNDARY
7	MFW140	FY109	SEDIMENT	BACKGROUND
8	MFW141	FY110	SEDIMENT	FARMERS BRANCH CREEK
9	MFW142	FY111	SEDIMENT	FARMERS BRANCH CREEK DOWNSTREAM
10	MFW134	FY103	WATER	WESTERN BOUNDARY
11	MFW135	FY104	WATER	BLANK

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TABLE 4 SUMMARY OF SOIL SAMPLE RESULTS

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-			

#### TABLE 4 SUMMARY OF SOIL SAMPLE RESULTS Dallas City Landfill

PARAMETER	BACKGROUND STATION 01 (MG/KG) QUAL	3 X BACKGROUND	SOUTHWESTERN BOUNDARY STATION 02 (MG/KG) QUAL	SOUTHWESTERN BOUNDARY ( dup of) STATION 03 (MG/KG) QUAL	NORTHWESTERN BOUNDARY STATION 04 (MG/KG) QUAL
Arsenic	4.5	13.5	2.9	4.1	4.2
Barium	102	306	98.1	74.8	29.1 B
Chromium	10.9 J	32.7	21.9 J	22.4	7.4 J
Lead	201 J	603	15.9 J	128 J	9.1 J
Mercury	0.11 UJ	0.33	0.19 J	0.11 UJ	0.11 UJ
Nickel	134	40.2	27.5	30	15.8
Vanadium	26.3	78.9	30.2	32.1	27.3
Zinc	56.6	169.8	48.6	50.1	23.4

B - Analyte was detected above the Instument Detection Limite but below the Contract Required Detection Limit.

J - The associated value is an estimate.

U - The material was analyzed for but was not detected above the associated value.

UJ - The material was analyzed for but was not detected. The associated value is an esimate.

TABLE 5

SUMMARY OF SEDIMENT SAMPLE RESULTS

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		TABLE :	5	
SUMMARY	OF	SEDIMENT	SAMPLE	RESULTS
	C	Dallas City L	andfill	

PARAMETER INORGANICS	BACKGROUND STATION 07 (MG/kg) QUAL	3 X BACKGROUND	NORTHWESTERN CORNER STATION 08 (MG/kg) QUAL	DOWNSTREAM STATION 09 (MG/kg) QUAL
Arsenic	1.4 B	4.2	4.8	4.3
Barium	5.3 B	15.9	68.4	79.7
Chromium	3 J	9	(10.3 J	(11.3 J)
Lead	4.7 J	14.1	34.3 J	19.1 J
Mercury	0.3 J	0.9	0.15 UJ	0.14 UJ
Nickel	3.6 U	10.8	16.4	14.9
Vanadium	5.3 B	15.9	31.1	31.2
Zinc	51.3	153.9	55.1	45.3

B - Analyte was detected above the Instument Detection Limite but below the Contract Required Detection Limit.

J - The associated value is an estimate.

U - The material was analyzed for but was not detected above the associated value.

UJ - The material was analyzed for but was not detected. The associated value is an esimate.

3.1 - Analyte is greater than 3X the background concentration or quantitation limit.

TABLE 6 SUMMARY OF GROUNDWATER RESULTS

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#### TABLE 6 SUMMARY OF GROUNDWATER SAMPLE RESULTS Dallas City Landfill

PARAMETER INORGANICS	BACKGROUND STATION 05 (UG/L) QUAL	3 X BACKGROUND	WESTERN BOUNDARY STATION 06 (UG/L) QUAL	WESTERN AUDO BOUNDARY STATION 10 (UG/L) QUAL	BLANK STATION 11 (UG/L) QUAL
Arsenc	9.7 B	29.1	9.8 8	16.9	2 U
Barium	· 123 B	369	236 J	237 J	78
Chromium	16.9 J	50.7	27.2 J	33.6 J	4 J
Copper	35.8	107.4	17.9 B	26	4.2 8
Lead	13.7 J	41.1	74.5 J	114 J	2 UJ
Mercury	0.2 R	0.6	0.46 J	0.62 J	0.2 R
Nickel	40.6	121.8	80.5	84	15 UJ
Vanadium	60.1	180.3	15.2 B	24.8 8	6 R
Zinc	209	627	184	301	8 U
ORGANICS					
Benzene	21	6	30	24	10 U
Toluene	10 U	10	1 J	10 U	10 U
Chlorobenzene	10 U	10	13	10	10 U
Ethylbenzene	10 U	10	5 J	4 J	10 U
Xylene	10 U	10	(70)	67	10 U
Phenol	10 U	10	9 J	5 Le	10 U
1.4 Dichlorobenzene	10 U	10	20 J	(18 J	10 U
2-Methylphenol	10 U	10	3 J	3 J	10 U
4-Methylphenol	10 U	10	4 J	4 J	10 U

B - Analyte was detected above the Instument Detection Limite but below the Contract Required Detection Limit.

J - The associated value is an estimate.

U - The material was analyzed for but was not detected above the associated value.

UJ - The material was analyzed for but was not detected. The associated value is an esimate.

R - Data for analyte is unuseable.

3.1

- Analyte is greater than 3X the background concentration or quantitation limit.

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FIGURE 3 SAMPLE LOCATIONS



VER/H - verifie 5 historical reviewed by date updated/by date entered/by E/NE - elis EO/IR - emergency order/immediate remov 00-0 TBR/REF - to be referred/referred SSC - site NS/NFA - non-site/no further action AT YAT ing HR-I/C/R - HRS in progress/complete/revised ESC - enfo an screening comm. SN/A - sampling needed/active facility FO/RIFS/EPA/AG - Field Ops/Remedial Investigation Feasibility Study/Environmental Protection Agency/Attorney General

# STATE SUPERFUND CANDIDATE SITE ELIGIBILITY / STATUS SHEET

SITE NAME (and aka's) Dallas C:	ity Landfill
EPA #	#0063 Other #
LOCATION Newberry Road and LI	BJ Freeway
CITYDallas	COUNTY Dallas
TYPE OF OPERATION Inactive Municipal Landfil	DATE OF OPERATION1974 to 1980
TNRCC REGN# 04 REFERRAL SOURCE	E/DATE: EPA H ESC AG 9/28/93
SSDAT ACTION VER 7/06/94 EO TAKEN/DATE: SS-C IR	HR-I REF HR-C HR-R
CURRENT STATUS: EL NE NS NFA SN A FO CONTAMINANTS OF CONCERN (COC), ANALY AND PATHWAY: (See Narrative Below File reviewed by J. D. Thompson and Central File Record Review	)RIFS EPA TBR other TICAL RESULTS (if any) & WASTE QUANTITY w) Based upon <u>Region File Review</u> information, the site is currently a/an:
0 active facility - not eligible for Superfund refer to Field Operations. A/FO	0 eligible inactive facility - prioritize for HRS Package preparation. EL
o active/inactive facility- currently under TNRCC enforcement. NE/TER FO; NE/TER ESC	<ul> <li>o inactive facility with insufficient data for screening purposes - referred to field operations for sampling inspection. FO/SN</li> </ul>
inactive facility - no enforcement action/referral to Field Operations.	O Non-site based on EPA/INRCC investigation conducted on NS
0 eligible inactive facility - prioritize for immediate removal determination and HRS package preparation. EL	O No further action under state superfund based on EPA/TNRCC investigation conducted on NFA

COMMENTS: The former Dallas City Landfill, located at the intersection of Newberry Road and I-635 (LBJ Freeway), Dallas, Tx., (see attached Site Location Map) is currently an inactive municipal landfill that operated from 1974 to the Spring of 1980. The landfill apparently accepted only municipal and household waste. Results of an EPA SSI conducted on August 29, 1992 showed above Background Benchmark Concentrations (BBC) contaminants of lead, benzene, xylene, chlorobenzene, and 1,4 dichlorobenzene in a groundwater sample (duplicated) collected from a single on-site monitoring well. Only lead (74.5 and 114 ug/L) and benzene (30 and 24 ug/L) exceeded the EPA Primary Drinking Water Standards, but values were below the TNRCC clean-up levels for Risk Reduction Std #2/Res GW. In addition, sediment samples from Farmers Branch Creek adjacent to the site were noted above sediment BBCs, but were not replicated in on-site surface soil samples (see attached Sample Location Map and Summary Tables). Further investigation may conclude that the elevated sediment samples from the creek were not the results of either surface water or airborne migrated on-site contaminants.

RECOMMENDATION: Refer this site to the Field Operations Municipal Solid Waste Program for compliance monitoring of suspected groundwater contamination and potential off-site contaminant migration. Since there is a viable property owner and enforcement action has not been exhausted, the site is currently not eligible under the State Superfund Program.

ames D. J.

Approved

00063 LD JOL 001 2000-01

PICTURE # 1





PICTURE \$3

00063 00



PICTURE #4



# 00063 00



City of Dallas Permit No. 63 Dallas, Texas

Picture #01 Date/Time: 7/27/01 @ 1340 to 1530 hours

Description: Concrete and asphalt previously disposed onsite.

State .

Muchael Delenney

City of Dallas Permit No. 63 Dallas, Texas

Picture #02 Date/Time: 7/27/01 @ 1340 to 1530 hours

Description: Landfill (background) in southwest corner of intersection of Newberry Street and south I-635 frontage road.

Muchael Delaney

City of Dallas Permit No. 63 Dallas, Texas

Picture #03 Date/Time: 7/27/01 @ 1340 to 1530 hours

Description: Bare location near middle of landfill.

City of Dallas Permit No. 63 Dallas, Texas

Picture #04 Date/Time: 7/27/01 @ 1340 to 1530 hours

Description: Bare location near middle of landfill.

machael Delang

City of Dallas Permit No. 63 Dallas, Texas

Picture #05 Date/Time: 7/27/01 @ 1340 to 1530 hours

Description: Monitoring well at northeast corner of site.

muchael Delaney

Robert J. Huston, Chairman R. B. "Ralph" Marquez, Commissioner John M. Baker, Commissioner Jeffrey A. Saitas, Executive Director



TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

September 28, 2000

Ms. Patricia F. Sharkey Mayer, Brown, and Platt 190 South La Salle Street Chicago, Illinois 60603-3441

Re: Municipal Solid Waste (MSW) - Dallas County City of Dallas - T. M. Dye Landfill 11535 Newberry Street, Dallas, Texas Permit No. MSW-0063 Mail Log File No. 3734

Dear Ms. Sharkey:

This is in response to your letter dated September 12, 2000, requesting information regarding the above referenced landfill. We offer the following answers to your seven questions. Rule citations are from 30 Texas Administrative Code (30 TAC) Chapter 330.

- Question: Is the TNRCC satisfied that the T. M. Dye Landfill was "closed" in 1. accordance with all applicable Texas Department of Health ("TDH") regulations in 1982? Answer: Yes. A search of our files shows that all of the appropriate steps were taken by the City of Dallas to "close" the landfill under the rules applicable at the time and that the facility permit expired of its own terms on January 13, 1982.
- Question: Do any TNRCC regulations and/or TDH regulations governing "closure" 2. of solid waste landfills currently apply to the T. M. Dye Landfill? If so, please provide citations to those regulations. Answer: Yes, although this site was "closed" in accordance with applicable rules regarding closure and post-closure, 30 TAC Subchapter T entitled "Use of Land Over Closed Municipal Solid Waste Landfills" may apply.

Section 330.954 entitled "Development Permit and Registration Requirements, Procedures, and Processing," will apply if an enclosed structure will be built on the closed landfill.

Ms. Patricia F. Sharkey Page 2 Re: Permit No. MSW-0063

Section 330.955(a) entitled "Prohibitions" states that the integrity of the final cover of a closed municipal solid waste landfill shall not knowingly be violated, disturbed, altered, removed, or interrupted in any way without the prior written approval of the executive director.

Section 330.955(b) states that penetrations of the final cover or liner systems will not be allowed without the prior written approval of the executive director. These include, but are not limited to, borings, piers, spread footings, foundations for light standards, fence posts, anchors, deadman anchors, manholes, on-site disposal systems, recreational facilities, etc.

Section 330.955(c) states that any non-hazardous municipal solid waste removed from a closed municipal solid waste landfill for any reason including residuals from a soil test shall not be deposited in or reapplied on the landfill but must be properly transported to a permitted municipal solid waste facility.

- 3. Question: Is the TNRCC satisfied that the T. M. Dye Landfill has completed "postclosure" in accordance with all applicable TDH and/or TNRCC regulations? Answer: Yes, our records show that the landfill was not subject to a post-closure maintenance period and that the permit expired of its own terms January 13, 1982. Copies of the pertinent information regarding closure of the subject site are enclosed.
- 4. Question: Do any TNRCC regulations and/or TDH regulations governing "postclosure" of solid waste landfills currently apply to the T. M. Dye Landfill? Answer: The landfill was not subject to a post-closure maintenance period so existing or previous rules relating to post-closure maintenance period requirements are not applicable. However, as indicated in item #2 above, current rules relating to the use of land over closed municipal solid waste landfills may apply.
- 5. Question: Will the T. M. Dye Landfill be subject to an inspection based on the TNRCC list of inactive landfills to determine whether these landfills properly completed "closure" and "post-closure" requirements? Will the T. M. Dye Landfill be removed from the list? Answer: The permit for the subject site expired of its own terms on January 13, 1982 so the site is not subject to further permit compliance inspections. The TNRCC inactive landfill list has been updated to indicate the permit for the subject facility has expired.
- Question: Chapter 330, Subchapter T, and Chapter 330, section 330.255 provide different requirements for closed landfills. Please indicate which regulations would apply to the use of land overlying the T. M. Dye Landfill. Answer: As indicated in item #2 above, 30 TAC Subchapter T entitled "Use of Land Over Closed Municipal

Ms. Patricia F. Sharkey Page 3 Re: Permit No. MSW-0063

Solid Waste Landfills" may apply. Section 330.255 does not apply to the subject site because the permit for the facility has expired (Section 330.255 applies only to facilities whose permit has not expired).

7. Question: Apart from the regulations cited in response to the questions above, are there any municipal solid waste regulations which apply to the T. M. Dye Landfill? Answer: No other municipal solid waste regulations are known to apply.

If we can be of further assistance, please contact Mr. Wayne Lee, P. E. of the TNRCC's Municipal Solid Waste (MSW) Permits Section at (512) 239-6815. Thank you for allowing us to assist you.

Sincerely,

Jungen.

Burgess Stengl, Team Leader MSW Permits Section - Permits Team III Waste Permits Division

BHS/JF/WL

Enclosures

## MAYER, BROWN & PLATT

190 SOUTH LA SALLE STREET

CHICAGO, ILLINOIS 60603-3441

PATRICIA F. SHARKEY DIRECT DIAL (312) 701-7952 DIRECT FAX (312) 706-9113 psharkey@mayerbrown.com MAIN TELEPHONE 312-782-0600 MAIN FAX 312-701-7711

3

September 12, 2000

#### VIA FACSIMILE AND FIRST CLASS U.S. MAIL

Manager Municipal Solid Waste Permit Section MC 124 Texas Natural Resource Conservation Commission P.O. Box 13087 Austin, Texas 78711-3087

> Re: City of Dallas: T.M. Dye Landfill; 11535 Newberry Street, Dallas, Texas; Permit No. : 63

Dear Sir or Madam:

On behalf of a prospective purchaser of the above referenced property, we request clarification from the Texas Natural Resource Conservation Commission ("TNRCC") on the following points:

- Is the TNRCC satisfied that the T.M. Dye Landfill was "closed" in accordance with all applicable Texas Department of Health ("TDH") regulations in 1982 ? (See attached January 8, 1992 and January 29, 1982.)
- Do any TNRCC regulations and/or TDH regulations governing "closure" of solid waste landfills currently apply to the T.M. Dye Landfill? If so, please provide citations to those regulations.
- 3. Is the TNRCC satisfied that the T.M. Dye Landfill has completed "post-closure" in accordance with all applicable TDH and/or TNRCC regulations?

CHICAGO BERLIN CHARLOTTE COLOGNE HOUSTON LONDON LOS ANGELES NEW YORK WASHINGTON INDEPENDENT MEXICO CITY CORRESPONDENT: JAUREGUI, NAVARRETE, NADER Y ROJAS INDEPENDENT PARIS CORRESPONDENT: LAMBERT & LEE

#### MAYER, BROWN & PLATT

September 12, 2000 Page 2

- Do any TNRCC regulations and/or TDH regulations governing "post-closure" of solid waste landfills currently apply to the T.M. Dye Landfill? If so, please provide citations to those regulations.
- 5. We understand that the TNRCC has prepared a list of inactive landfills which it plans to inspect within the next fiscal year to determine whether these landfills properly completed "closure" and "post-closure" requirements. Based upon your answers to the above, will the T.M. Dye Landfill be the subject of such an inspection? If not, will it be removed from the TNRCC list?
- 6. It appears that Chapter 330, Subchapter T and Chapter 330, Rule 330.255 provide different substantive and administrative requirements for the use of land over closed municipal solid waste landfills. Please indicate which regulations would apply to the use of land overlying the T.M. Dye Landfill.
- 7. Apart from the regulations cited in response to the questions above, are there any other municipal solid waste regulations which apply to the T.M. Dye Landfill?

Thank you very much for your assistance in clarifying the status of this landfill and the applicability of TNRCC and TDH regulations. The TNRCC Solid Waste Permit Section staff has been very helpful in responding to our inquiries over the phone and tracking down documentation on this old landfill. As time is of the essence in this transactional context, we particularly appreciate the TNRCC's prompt response to our questions. Please call me at (312) 701-7952 if you have any questions about the scope of information we are requesting.

Sincerely,

Patricia F. Sharkey

cc:

Wayne Lee John Forehand

1038183.1 91200 1042C 00669306



Page A.119, October 1, 2024

SEP-07-00 THU 08:01 AM ARCHDIS GERAGHTY&MILLER TNRCC Muni Solid Waste Fax:512-239-6000

in on Line 10, 51245-12930 FAX NO. 51245-12930 Sep 6 2000 17:42

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JAN 2 9 1982

Madorable Jack Evans Nayor of Lallus Dellas Ciry Hall Dallas, Texas 75201

Subject: Solid Wasta - Dallas County City of Dallas Permit Do. 63 11535 Newberry

Dear Mayor Byans:

A copy of the affidavit showing the location of the subject site as . filed with the sounty clock mas been received.

Your cooperation in properly closing this site is appreciated.

Sincerely yours,

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L. S. Griffith, Jr., P.E., Director Surveillance and Enforcement Division Sureau of Solid Whate Management

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CC: Region 5. TDP Dallas County Hamily Department Dallas City Lealth Department Mr. Join Taipol, P.C., Director of Straute stud Samisacion Kr. Ross Howard, Jr., P.E., Department of Samitation Operations

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## MAYER, BROWN & PLATT

190 SOUTH LA SALLE STREET

CHICAGO, ILLINOIS 60603-3441

### FACSIMILE COVER SHEET

MAIN TELEPHONE 312-782-0600 MAIN FAX 312-701-7711

Date & Time of Transmission: Tuesday, September 12, 2000 2:09:56 PM

FAX TO:	FROM:
Manager, Solid Waste Permit Section	Patricia F Sharkey
FIRM: TNRCC	NO. OF PAGES: 05
FAX NO: 1-512-239-6000	TELEPHONE: (312) 701-7952
	DID FAX NO: (312)706-9113

#### IF YOU HAVE ANY TRANSMISSION DIFFICULTY, PLEASE CONTACT THE TRANSMITTER AT THE TELEPHONE NUMBER LISTED ABOVE

When transmitting to our machines, please include your cover sheet and number all pages consecutively.

## SPECIAL INSTRUCTIONS:

Please note we are resending the letter, previously sent earlier today, with the attachments.

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. IF THE READER OF THIS MESSAGE IS NOT THE INTENDED RECIPIENT, OR THE EMPLOYEE OR AGENT RESPONSIBLE FOR DELIVERING THE MESSAGE TO THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISSEMINATION, DISTRIBUTION OR COPYING OF THIS COMMUNICATION IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS COMMUNICATION IN ERROR, PLEASE NOTIFY US IMMEDIATELY BY TELEPHONE AND RETURN THE ORIGINAL MESSAGE TO US AT THE ABOVE ADDRESS VIA THE U.S. POSTAL SERVICE. THANK YOU.

#### Transmitter: (312) 701-7952

CHICAGO BERLIN CHARLOTTE COLOGNE HOUSTON LONDON LOS ANGELES NEW YORK WASHINGTON INDEPENDENT MEXICO CITY CORRESPONDENT: JAUREGUI, NAVARRETE, NADER Y ROJAS INDEPENDENT PARIS CORRESPONDENT: LAMBERT ARMENIADES Page A.121, October 1, 2024 9/12/00 2:22 PAGE 2/5

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## MAYER, BROWN & PLATT

190 SOUTH LA SALLE STREET

CHICAGO, ILLINOIS 60603-3441

PATRICIA F. SHARKEY DIRECT DIAL (312) 701-7952 DIRECT FAX (312) 706-9113 psharkey@mayerbrown.com

September 12, 2000

#### VIA FACSIMILE AND FIRST CLASS U.S. MAIL

Manager Municipal Solid Waste Permit Section MC 124 Texas Natural Resource Conservation Commission P.O. Box 13087 Austin, Texas 78711-3087

> Re: City of Dallas: T.M. Dyc Landfill; 11535 Newberry Street, Dallas, Texas; <u>Permit No. : 63</u>

Dear Sir or Madam:

On behalf of a prospective purchaser of the above referenced property, we request clarification from the Texas Natural Resource Conservation Commission ("TNRCC") on the following points:

- Is the TNRCC satisfied that the T.M. Dye Landfill was "closed" in accordance with all applicable Texas Department of Health ("TDH") regulations in 1982 ? (See attached January 8, 1992 and January 29, 1982.)
- Do any TNRCC regulations and/or TDH regulations governing "closure" of solid waste landfills currently apply to the T.M. Dye Landfill? If so, please provide citations to those regulations.
- 3. Is the TNRCC satisfied that the T.M. Dye Landfill has completed "post-closure" in accordance with all applicable TDH and/or TNRCC regulations?

CHICAGO BERLIN CHARLOTTE COLOGNE HOUSTON LONDON LOS ANGELES NEW YORK WASHINGTON INDEPENDENT MEXICO CITY CORRESPONDENT. JAUREGUI, NAVARRETE, NADER Y ROJAS INDEPENDENT PARIS CORRESPONDENT: LAMBERT & LEE

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HAIN TELEPHONE 312-782-0800 HAIN FAX 312-701-7711

## MAYER, BROWN & PLATT

September 12, 2000 Page 2

> Do any TNRCC regulations and/or TDH regulations governing "post-closure" of solid waste landfills currently apply to the T.M. Dye Landfill? If so, please provide citations to those regulations.

3/5

- 5. We understand that the TNRCC has prepared a list of inactive landfills which it plans to inspect within the next fiscal year to determine whether these landfills properly completed "closure" and "post-closure" requirements. Based upon your answers to the above, will the T.M. Dye Landfill be the subject of such an inspection? If not, will it be removed from the TNRCC list?
- 6. It appears that Chapter 330, Subchapter T and Chapter 330, Rule 330.255 provide different substantive and administrative requirements for the use of land over closed municipal solid waste landfills. Please indicate which regulations would apply to the use of land overlying the T.M. Dye Landfill.
- 7. Apart from the regulations cited in response to the questions above, are there any other municipal solid waste regulations which apply to the T.M. Dye Landfill?

Thank you very much for your assistance in clarifying the status of this landfill and the applicability of TNRCC and TDH regulations. The TNRCC Solid Waste Permit Section staff has been very helpful in responding to our inquiries over the phone and tracking down documentation on this old landfill. As time is of the essence in this transactional context, we particularly appreciate the TNRCC's prompt response to our questions. Please call me at (312) 701-7952 if you have any questions about the scope of information we are requesting.

Sincerely,

Patricia F. Sharke

cc:

Wayne Lee John Forehand

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 For PFS - No Transmission Information Available
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 SEP-07-00 THU 08:01 AM ARCADIS GERAGHTY&MILLER
 FAX NO. 5124512930

 TNRCC Muni Solid Waste Fax:512-239-6000
 Sep 6 2000 17:42

JAN E + THE

Mondarable Just Ivany Nayor of Lating Dellas Ciry Hall Datias, Taxas 75201

Subject: Solid Wasts - Dallas County City of Dallas Formit Do. 63 11535 Neuberry

Dear Mayor Evala:

A copy of the affidavit showing the location of the subject site as . filed with the tourty clock man been received.

Your cooperation is properly closing this site is appreciated.

Sincerely yours,

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L. J. Griffich. Jr., P.Z., Director Surveillance and Enforcement Division Duronu of Solid Waste Management.

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GCI Begion 5, TDM Dullas Gouaty Heslay Department Rallas City Health Department Mr. John Taipel, P.J., Director of Streate shi Sanitation Mr. Rook Howard, Jt., P.S., Department of Sanitation Operations

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MAYER, BROWN & PLATT

190 SOUTH LA SALLE STREET

CHICAGO, ILLINOIS 60603-3441

## FACSIMILE COVER SHEET

MAN TELEPHONE 312-782-0500 MAIN FAX 312-701-7711

Date & Time of Transmission: Tuesday, September 12, 2000 10:48:32 AM

FAX TO:	FROM:
Manager, Solid Waste Permit Sec.	Patricia F. Sharkey
FIRM: TNRCC	NO. OF PAGES: 03
FAX NO: 1-512-239-6000	<b>TELEPHONE:</b> (312) 701-7952
	DID FAX NO: (312)706-9113

IF YOU HAVE ANY TRANSMISSION DIFFICULTY, FLEASE CONTACT THE TRANSMITTER AT THE TELEPHONE NUMBER LISTED ABOVE

When transmitting to our machines, please include your cover sheet and number all pages consecutively.

SPECIAL INSTRUCTIONS:

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Transmitter: (312) 701-7952

CHICAGO BERLIN CHARLOTTE COLOGNE HOUSTON LONDON LOS ANGELES NEW YORK WASHINGTON INDEPENDENT MEXICO CITY CORRESPONDENT: JAUREGUI, NAVARRETE, NADER Y ROJAS INDEPENDENT PARIS CORRESPONDENT: LAMBERT ARMENIADES 9/12/00 10:58 PAGE 2/3



## MAYER, BROWN & PLATT

190 SOUTH LA SALLE STREET

CHICAGO, ILLINOIS 60603-3441

PATRICIA F. SHARKEY DIRECT DIAL (312) 201-2052 DIRECT FAX (312) 206-9113 psharkey@mayerbrown.com MAIN TELEPHONE 312-782-0600 MAN FAX 312-701-7711

September 12, 2000

#### VIA FACSIMILE AND FIRST CLASS U.S. MAIL

Manager Municipal Solid Waste Permit Section MC 124 Texas Natural Resource Conservation Commission P.O. Box 13087 Austin, Texas 78711-3087

> Rc: City of Dallas: T.M. Dye Landfill; 11535 Newberry Street, Dallas, Texas; Permit No. : 63

Dear Sir or Madam:

On behalf of a prospective purchaser of the above referenced property, we request clarification from the Texas Natural Resource Conservation Commission ("TNRCC") on the following points:

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- Do any TNRCC regulations and/or TDH regulations governing "closure" of solid waste landfills currently apply to the T.M. Dye Landfill? If so, please provide citations to those regulations.
- 3. Is the TNRCC satisfied that the T.M. Dye Landfill has completed "post-closure" in accordance with all applicable TDH and/or TNRCC regulations?

CHICAGO BERLIN CHARLOTTE COLOGNE HOUSTON LONDON LOS ANGELES NEW YORK WASHINGTON INDEPENDENT MEXICO CITY CORRESPONDENT: JAUREGUI, NAVARRETE, NADER Y ROJAS INDEPENDENT PARIS CORRESPONDENT: LAMBERT & LEE

1038183.1 91200 1042C 00669306

MAYER, BROWN & PLATT

September 12, 2000 Page 2

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Sincerely, Patricia F. Sharkey

CC:

Wayne Lee John Forehand

1038183.1 91200 10420 00669306



**APPENDIX B** 

**Menard White Pages** 

Page B.1, October 1, 2024

THE VERTEX COMPANIES, LLC 3030 LBJ FWY, STE 1620 DALLAS, TX 75234

BETTERING OUTCOMES | VERTEXENG.COM 214.499.9234



## August 28, 2024

Attention:	Drew Graham Creation Equity 1280 E. Levee St. Dallas, TX 75207
Subject: Name & Location:	Summary of Ground Improvement Design 635 Exchange (fka Tree Farm) 11645 Newberry Street, Dallas TX Menard Group USA - File No. 105966 rev0

Dear Mr. Graham,

As requested, we are providing a written summary of the planned Ground Improvements for support of the proposed warehouse development and subject project. This summary is understood to accompany the project plans as part of the permitting process. Attached to this summary are two white papers that provide illustration and details of the planned ground improvement techniques.

## **Dynamic Compaction (DC)**

Dynamic compaction will be utilized in the building footprint and site improvement areas (pavements) to eliminate the need for excavation and replacement of the municipal solid waste (MSW) for site development. DC work will involve the mobilization of a DC crane & equipment and repeated dropping of a steel weight on a uniform grid to densify the upper MSW for in-situ ground improvement. During the DC activities the existing site subgrade will be compacted and the resulting craters backfilled with select fill material. The DC work will result in a homogenized subgrade with improved load-carrying characteristics for pavement and building areas.

## Controlled Modulus Columns™ (CMCs)

CMCs will be installed within the building limits for support of the structure and slab on grade. The CMCs will be installed with drilling equipment using displacement tooling to eliminate MSW spoils. CMCs are installed by advancing the displacement tooling to the required depth, and grouted immediately during tooling retraction with a cement-based readymix grout which eliminates open hole drilling and groundwater migration. The CMC installation reinforces and further densifies the MSW to improve bearing capacity and settlement control for building support.

Regards,

Kevin Scott, P.E. Menard USA

Texas Office 2060 North Loop West, Suite 240 Houston, Texas 77018 (713) 672-5612

Ground Improvement Specialists



## **Dynamic Compaction**

Dynamic compaction is a costeffective technique used for deep ground densification. High energy waves created by the repeated impact of heavy weights compact areas of loose granular soils, uncontrolled fills, or waste materials to increase density and collapse voids. Dynamic compaction was introduced in the USA by Menard in 1978 after being developed by Menard's parent company in France, and has been used successfully on thousands of projects around the world.

#### Implementation

Dynamic compaction consists of repeatedly lifting and dropping heavy steel weights (also known as pounders) weighing 15 to 40 tons from heights of 30 to 120 feet. The weights are dropped from a crane in virtual free fall. The design of the dynamic compaction program is empirically based and considers the target improvement, ground conditions, groundwater elevation, and site configuration. The required design energy is delivered to the ground through the most efficient combination of drop height, weight, number of drops per location, and grid spacing of impact points. The achievable depth of treatment depends on subsurface conditions, pounder weight, and drop height. On-site test trials are typically used to verify design assumptions and confirm program parameters.

#### Advantages and Applications

Because crane mobilization can be



Dynamic Compaction is performed by repeatedly dropping heavy weights on the ground in a predetermined grid pattern

relatively costly, dynamic compaction is typically most economical for sites with relatively large footprints. The technique is most commonly used to densify granular soils, homogenize the bearing properties of variable fills, compressing and collapsing voids in landfills, and breaking/crushing karstic limestone layers. Dynamic compaction can efficiently reduce total and differential settlement, increase bearing capacity, and mitigate liquefaction.

With Dynamic Compaction, in-situ improvement occurs without the addition of materials such as stone or cement/grout into the ground making dynamic compaction one of the most environmentally sustainable ground improvement techniques. The technique relies on imparting energy into the ground, so special care must be taken when vibration- or settlement- sensitive structures are present at or near the site.

## Advantages of Dynamic Compaction Include:

- Simple implementation no materials are added to the ground
- Economical, particularly for large-footprint sites
- Eliminates removal and replacement or traditional foundations such as piling
- Very low carbon footprint as compared to other forms of ground improvement or traditional foundations
- Does not generate spoil

Page B.3, October 1, 2024



# **Controlled Modulus Columns (CMC)**<sup>®</sup>

Controlled Modulus Columns (CMC)<sup>®</sup> are vertical, grouted elements that typically range in diameter from approximately 12 inches to 18 inches. CMCs were developed by Menard's French affiliate, Menard Soltraitement, in 1994 and were patented in the US in 1999. Menard's first CMC project in the USA was for the support of a Lowes Home Improvement Store in S. Burlington Vermont in 2004. Since that time, with the industry-wide acceptance of CMC, the technique is now generically referred to as rigid inclusions.

#### Installation

CMCs are typically installed with displacement-type drilling equipment but may sometimes be installed via driven casing. With displacement installation processes, the surrounding soils are displaced laterally, and only a minimal amount of spoil is generated. The drilled-in elements are installed with virtually no vibration. CMCs may be installed in a grid pattern under uniformly loaded structures, but can be installed in arrays to accommodate concentrated loads. CMCs are installed by advancing the tooling to the target depth, retracting the tooling, and filling with cement-based grout as the tooling is retracted - grout is discharged at the base of the hollow tooling. CMCs have been installed to depths of over 150 feet.

#### **Advantages and Applications**

The combined effect of reinforcement and densification from the installation



Controlled Modulus Columns (CMC)<sup>®</sup> are grouted columns formed using specially-designed tooling that displaces soil laterally, producing very little spoil. As the auger is extracted, a column of cement-based grout is formed.

process improves characteristics of the ground resulting in a composite system. The load from the structure is distributed to the soil and CMCs, with the proportion of load carried by the soils depending on the stiffness of the soils – the stiffer the soil, the higher proportion of the stresses carried by the soil. Typically, a layer of compacted stone known as a Load Transfer Platform (LTP) is designed to span across the top of the CMCs to help distribute the load from the structure to the elements.

CMCs are well adapted to high surface loading conditions and strict settlement requirements and are used to support slabs-on-grade, foundations, embankments, and other structures on compressible clays, fills and organic soils.

## Advantages of CMCs include:

- Effective in very soft soils
- Can be installed to extremely deep depths
- High load carrying capability
- Only minimal spoils generated during installation
- Does not provide a pathway for groundwater contamination migration

Learn more and see Controlled Modulus Columns (CMC)<sup>®</sup> in action here: https://youtu.be/N2L-xfa7dZg



**APPENDIX C** 

Water Well Report

Page C.1, October 1, 2024

THE VERTEX COMPANIES, LLC 3030 LBJ FWY, STE 1620 DALLAS, TX 75234

BETTERING OUTCOMES | VERTEXENG.COM 214.499.9234

## 11645 Newberry Street

11645 Newberry Street Dallas, TX 75229

Inquiry Number: 7753490.1 September 16, 2024

## The EDR TX Water Well Report



6 Amstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

Page C.2, October 1, 2024

## **Environmental Data Resources, Inc.** Water Well Review Report

EDR reviewed available records made public by the state of Texas at the Texas Water Development Board (TWDB) and the Texas Commission Environmental Quality (TCEO) and obtained information identifying the approximate location of public and private water wells within the requested Area of Review (AOR). EDR researched the located and plotted water wells identified on county highway maps or USGS 7.5 minute topographic maps at the TWDB. EDR transferred the approximate water well locations onto a map for the client's review.

EDR cannot guarantee the accuracy of the information provided by state agencies. This review is intended to provide the user with a "working approximation" of reported well locations. The following are guidelines used to review available driller logs for water wells associated with client site information within the AOR.

- Identify Located Wells within the AOR according to the TWDB maps.
- Identify Plotted Wells within the AOR according to the TWDB maps.
- Identify Partially Numbered Wells within the AOR according to the TCEQ files containing records submitted by the well driller.
- Identify Unnumbered Wells within the AOR according to the TCEQ files containing records submitted by the well driller.

#### **Description of Terms**

#### Area of Review-(AOR):

Area of review is a 1/2 mile radius around client specified coordinate of target property.

#### Located Water Well:

Well locations that have been field checked by a TWDB or USGS staff member, spotted on a USGS 7.5' Topographical or county highway map, assigned a unique identification number, and filed at the TWDB.

#### **Plotted Water Well:**

Approximate well locations spotted on county highway maps by the TWDB staff members according to information submitted on the driller's log. The accuracy of the location for these wells is dependent on the driller. The state assigned unique identification numbers to these wells, but in high-density areas, a single identification number may represent multiple well locations. The TWDB eliminated this plotting activity in June 1986.

**Partially Numbered Water Well:** Water well locations established to within a 2.5 minute topographic quadrangle and identified by the TCEQ according to maps submitted with the driller's log. Each water well was assigned a State ID number by the TCEQ. **Note:** This method for recording water well locations was procedure from 1986 to 1991.

#### **Unnumbered Water Well:**

Well locations identified on the driller's logs and corresponding driller's maps maintained by the TCEQ records. Note: The TCEO implemented this procedure in 1991.

#### **Disclaimer - Copyright and Trademark Notice**

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## **Environmental Data Resources, Inc.**

#### Water Well Review

Site Name: 11645 Newberry Street	Inquiry #: 7753490.1				
Site Address: 11645 Newberry Street					
City: Dallas	State: TX	Zip: 75229			
		NUMBER IDENTIFIED WITHIN AOR			
LOCATED		2			
PLOTTED		0			
PARTIALLY NUMBERED		0			
UNNUMBERED		0			
TOTAL NUMBER IDENTIFIED		2			

LOCATED WELLS: SEARCHED TWDB STATE GRID 33-01-9 – IDENTIFIED WATER WELL LOGS 460545, 574433

PLOTTED WELLS: SEARCHED TCEQ STATE GRID 33-01-9 – NO WATER WELL LOGS IDENTIFIED IN 1/2 MILE RADIUS

PARTIALLY NUMBERED WELLS: SEARCHED TCEQ STATE GRID 33-01-9 – NO WATER WELL LOGS IDENTIFIED IN 1/2 MILE RADIUS

UNNUMBERED WELLS: SEARCHED TCEQ UNNUMBERED WELL FILES FOR DALLAS COUNTY – NO WATER WELL LOGS IDENTIFIED IN 1/2 MILE RADIUS

TEXAS WATER DEVELOPMENT BOARD (TWDB)

LOCATED WELL LOG EXHIBIT

STATE OF TEXAS WELL REPORT for Tracking #460545					
Owner:	Norberto Gonzales	Owner Well #:	1		
Address:	11507 Newberry St Dallas, TX 75229	Grid #:	33-01-9		
Well Location	11507 Newberry St	Latitude:	32° 54' 04.65" N		
	Dallas, TX 75229	Longitude:	096° 54' 27.81" W		
Well County:	Dallas	Elevation:	No Data		
Type of Work:	New Well	Proposed Use:	Industrial		

Drilling Start Date: 1/10/2017 Drilling End Date: 1/25/2017

	Diameter (in.,	) Top D	epth (ft.)	Bottom Depth (ft.)	
Borehole:	12	0		40	
	7.088		40	700	
Drilling Method:	Mud (Hydraulic)	Rotary			
Borehole Completion:	gravel packed				
	Top Depth (ft.)	Bottom Depth (ft.)	Des	cription (number of sacks & material)	
Annular Seal Data:	0	150		Cement 37 Bags/Sacks	
Seal Method: <b>Pressure</b> Distance to Property Line (ft.): 50+			operty Line (ft.): 50+		
Sealed By: Driller		Distance to Septic Field or other concentrated contamination (ft.): <b>100+</b>			
		Distance to Septic Tank (ft.): No Data			
			Method	d of Verification: owner	
Surface Completion:	Steel Cased				
Water Level:	220 ft. below lan	d surface on No Data	a		
Packers:	No Data				
Type of Pump:	Submersible	Pump Depth (ft.): 440			
Well Tests:	Bailer	Yield: 10 GPM with 20 ft. drawdown after 1 hours			

	Strata Depth (ft.)	Water Type		
Water Quality:	No Data	No Data		
		Chemical Analysis Made	: No	
	Did the driller	knowingly penetrate any strata which contained injurious constituents?	No	
	The driller did cer described well, in landowner or pers completed or plug	tify that while drilling, deepening o jurious water or constituents was e son having the well drilled was info gged in such a manner as to avoid i	r otherwise ncountere rmed that njury or po	e altering the above d and the such well must be ollution.
Certification Data:	The driller certified th driller's direct superv correct. The driller u the report(s) being re	nat the driller drilled this well (or the we ision) and that each and all of the stat inderstood that failure to complete the eturned for completion and resubmitta	ell was drille ements her required ite	ed under the rein are true and ems will result in
Company Information:	ACTION WATER N PO BOX 7 RHOME, TX 7607	WELLS INC 8		
Driller Name:	David Joe Miles	License	Number:	2156
Comments:	No Data			

### Lithology: DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description	
0	30	topsoil & gravel & sand	
30	400	shale grey	
400	440	shale & lime streaks	-
440	500	medium sand	
500	680	sandy shale	
680	700	grey shale	

#### Casing: BLANK PIPE & WELL SCREEN DATA

Dla (in.)	Туре	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5		New Steel		2	700
8		New Steel		10	40
4.5	Perforated or Slotted	New Steel	116	47	700

## IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation P.O. Box 12157 Austin, TX 78711 (512) 334-5540

	STATE OF TEXAS WELL REPORT for Tracking #574433					
Owner:	N G Concrete	Owner Well #:	No Data			
Address:	11507 Newberry St. Dallas, TX_75229	Grid #:	33-01-9			
Well Location:	11507 Newberry St.	Latitude:	32° 54' 03.73" N			
	Dallas, TX 75229	Longitude:	096° 54' 27.85" W			
Well County:	Dallas	Elevation:	No Data			
Type of Work:	New Well	Proposed Use:	Industrial			

Drilling Start Date: 5/19/2021 Drilling End Date: 5/19/2021

	Diameter (in.)		Top Depth (ft.)		Bottom Depti	h (ft.)
Borehole:	12.25		0		420	
	8.75		2	20	420	
Drilling Method:	Air Rotary					
Borehole Completion:	Filter Packed					
	Top Depth (ft.)	Bottom Dep	th (ft.)	(ft.) Filter Material		Size
Filter Pack Intervals:	100	420		Gravel		3/8
	Top Depth (ft.)	Bottom	Bottom Depth (ft.)		Description (number of sacks & materi	
Annular Seal Data:	0		10	Cement 3 Bags		/Sacks
	10		100	Bentonite 35 Bags/Sacl		js/Sacks
Seal Method: Hand Mixed Distance to Property Line (ft.): 15'			5'			
Sealed By: Driller			Dista conc	ance to Septio	c Field or other tamination (ft.): N	lone
	•		Distance to Septic Tank (ft.): None			
				Method	l of Verification: ta	аре
Surface Completion: Surface Sleeve Installed Surface Completion by Driller					n by Driller	
Water Level:	No Data					
Packers:	No Data					
Type of Pump:	Submersible					
Well Tests:	Estimated Yield: 100			м		

	Strata Depth (ft.)	Water Type		
Water Quality:	No Data	No Data		
		Chemical Analysis	Made: No	
	Did the driller	knowingly penetrate any strata contained injurious constitu	which lents?: <b>No</b>	
Certification Data:	The driller certified th driller's direct supervi correct. The driller us the report(s) being re	at the driller drilled this well (or ision) and that each and all of the nderstood that failure to comple turned for completion and result	the well was drille the statements here te the required ite bmittal.	ed under the ein are true and ems will result in
Company Information:	Erwin Drilling			
	6991 FM 4 Jacksboro, TX  76	458		
Driller Name:	Brandon Erwin	Lic	cense Number:	59667
Comments:	No Data			

## Lithology: DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	11	dark top soil
11	15	sand & gravel
15	240	gray shale
240	255	hard sand
255	259	sand & shale
259	261	sandy lime
261	279	sand & shale layers
279	295	sand
295	300	gray shale
300	340	sand
340	355	sand with shale layers
355	357	lime
357	370	sand
370	380	sand & shale layers
380	397	sand
397	420	green/gray shale

## Casing: BLANK PIPE & WELL SCREEN DATA

Dla (in.)	Туре	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
5	Blank	New Plastic (PVC)	80	0	320
5	Perforated or Slotted	New Plastic (PVC)	80 0.020	320	340
5	Blank	New Plastic (PVC)	80	340	360
5	Perforated or Slotted	New Plastic (PVC)	80 0.020	360	400
5	Blank	New Plastic (PVC)	80	400	420

## IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation P.O. Box 12157 Austin, TX 78711 (512) 334-5540 TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ)

PLOTTED WELL LOG EXHIBIT

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No plotted wells identified in TCEQ files within  $\frac{1}{2}$  mile radius

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ)

PARTIALLY NUMBERED WELL LOG EXHIBIT

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No partially numbered wells identified in TCEQ files within  $\frac{1}{2}$  mile radius

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ)

UNNUMBERED WELL LOG EXHIBIT

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No unnumbered wells identified in TCEQ files within  $^{1\!\!/_2}$  mile radius



**APPENDIX D** 

Subsurface Report(s)

Page D.1, October 1, 2024

THE VERTEX COMPANIES, LLC 3030 LBJ FWY, STE 1620 DALLAS, TX 75234

BETTERING OUTCOMES | VERTEXENG.COM 214.499.9234 PROJECT NO. 23380 AUGUST, 2021 REPORT NO. 2

## GEOTECHNICAL INVESTIGATION WW TREE FARMS NEWBERRY STREET DALLAS, TEXAS

Presented To: PROVIDENT REALTY ADVISORS, INC. DALLAS, TEXAS

 
 REED
 ENGINEERING

 GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
 GROUP

August 31, 2021 Project No. 23380 Report No. 2

Provident Realty 10210 N. Central Expressway, Suite 300 Dallas, Texas 75231 ATTN: Mr. John R. Bunten, Jr.

## GEOTECHNICAL INVESTIGATION WW TREE FARMS NEWBERRY STREET DALLAS, TEXAS

Gentlemen:

Transmitted herewith are copies of the referenced report. Should you have any questions concerning our findings or if you desire additional information, do not hesitate to call.

Sincerely,

REED ENGINEERING GROUP, LTD. Registration Number F-3114

Derrin G. Williams Project Geologist

Ronald F. Reed, P.E. Principal Engineer

DGW/RFR/mt

copy submitted via e-mail only



September 1, 2021

2424 STUTZ DRIVE, SUITE 400 DALLAS, TX 75235 tel 214.350.5600 fax 214.350.0019 www.reed-engineering.com GEOTECHNICAL ENGINEERING ENVIRONMENTAL CONSULTING CONSTRUCTION MATERIALS TESTING

Page D.3, October 1, 2024

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## **INTRODUCTION**

## **Project Description**

This report presents the results of a geotechnical investigation performed for two proposed office/warehouse buildings to be constructed on Newberry Street in Dallas, Texas. The general orientation of the buildings are shown on the Plan of Borings, Plate 1 of the report **Illustrations**.

The project consists of 2 tilt-wall buildings that will be 103,066 and 431,698 square feet in size. Associated site paving is also included in the development.

Finished floor has been set at Elev. 445.0 and 445.75 for the buildings. If these are modified in excess of one foot, this office should be provided with a site grading plan to allow for evaluation and modification of the recommendations, if necessary.

## Authorization

This investigation was authorized by Mr. John R. Bunten, Jr. of Provident Realty.

## **Purpose and Scope**

The purpose of this investigation has been to evaluate the general subsurface conditions and provide recommendations for:

- design of the foundation systems;
- floor slabs;
- pavement subgrade; and
- site preparation and earthwork compaction criteria.

- 1 -

August 31, 2021
The investigation has included drilling sample borings, performing laboratory testing, analyzing engineering and geologic data and developing geotechnical recommendations. The following sections present the methodology used in this investigation.

Recommendations provided herein are site-specific and were developed for the project discussed in the report **Introduction**. Persons using this report for other than the intended purpose do so at their own risk.

# FIELD AND LABORATORY INVESTIGATIONS

#### General

The field and laboratory investigations have been conducted in accordance with applicable standards and procedures set forth in the 2020 Annual Book of ASTM Standards, Volumes 04.08 and 04.09, "Soil and Rock." These volumes should be consulted for information on specific test procedures.

# **Field Investigation**

Subsurface conditions were evaluated by 49 sample borings drilled to depths of 28 to 60 feet between January 2020 and August 2021. Between January 2020 and April 2021 a large fill pile was placed on the south end of the project making this area inaccessible to a drilling rig. The locations of the borings are shown on Plate 1 of the report **Illustrations**. Borings were located in the field using a GPS (global positioning system) unit. The accuracy of this unit is estimated to be within plus or minus one meter. Borings were advanced between sampling intervals by means of a truck-mounted drilling rig equipped with continuous flight augers. Samples of cohesive soils were obtained with 3-inch diameter Shelby tubes (ASTM D1587).

Delayed water level observations were made in the open boreholes to evaluate ground water conditions. The borings were backfilled with bentonite at completion of field operations.

Sample depth, description of materials, field tests, water conditions and soil classification [Unified Soil Classification System (USCS), ASTM D2488] are presented on the Boring Logs, Plates 2 through 50. Keys to terms and symbols used on the logs are included as Plates 51 and 52.

Elevations shown on the boring logs are approximate, and have been interpolated to the nearest foot based on topographic information provided by Merriman Anderson Architects. The large fill pile on the south end of the site is not represented on the plan that was provided.

# **Laboratory Testing**

All samples were returned to the laboratory and visually logged in accordance with the USCS. The consistency of cohesive soils was evaluated by means of a pocket penetrometer. Results of the pocket penetrometer readings are presented on the boring logs.

Laboratory tests were performed to evaluate index properties and confirm visual classification of selected samples. Tests and ASTM designations are provided in Table 1.

TABLE 1. TESTS CONDUCTED AND ASTM DESIGNATIONS				
Type of Test	ASTM Designation			
Atterberg Limits	D4318			
Moisture Content	D2216			
Partial Gradation	D1140			
Organic Carbon Content	D2974			
Consolidation	D2435			

The results of these tests are summarized on Plate 53 through 68.

# **GENERAL SITE CONDITIONS**

### Physiography

The site consists of an existing tree farm on Newberry Street in Dallas, Texas. The site was previously a municipal waste dump site. Ground cover consists mostly of rows of trees with drives between them. The southern portion of the site is a large fill pile.

# **Geology and Stratigraphy**

Subsurface conditions encountered in the borings consist of fill and municipal waste over terraced alluvial soil and weathered grading to unweathered shale of the Cretaceous Eagle Ford Formation.

The waste has a soil cap over it, which consisted of unsorted dark brown to dark gray to brown to gray, high to moderate plasticity (CH to CL) silty clay to sandy clay to gravelly clay. Some gravel base was encountered at the surface in some borings. The soil cap varied between 1-1/2

- 4 -

to 13 feet thick. Below these depths, trash was encountered. The municipal waste was consistent with typical waste, and contained unsorted glass, plastic, wood, cloth, paper, metal, and other materials. The waste contained some soil at varying locations likely associated with daily cover. The waste was also scarcer along the edges of the site, especially on the far north end of the site. The waste extended to depths of 12 to 42 feet.

Boring B-2 did not encounter any waste, and is believed to have been drilled beyond the former trash pit.

The alluvial soil, below the waste, consisted of dark brown to brown to yellowish-brown to brownish-yellow CH to CL silty clay to sandy clay with some sand and gravel encountered in the southern borings. The alluvial soil extended beyond the termination depths of two borings.

Below depths of 23 to 52 feet (Elev. 421 to 388), dark gray, soft (rock classification) unweathered shale was encountered. Two borings encountered some weathered shale above the unweathered shale. The remaining 47 borings were all terminated within dark gray, unweathered shale.

### **Ground Water**

Ground water seepage was encountered in all 49 borings during drilling operations at depths of 6 to 36 feet. Based on post-drilling water level observations, ground water was present in all 49 borings at depths of 1 to 34 feet. The ground water is perched within the trash. Based on extensive experience in the area, water is present throughout the year.

The water should be considered a "hazardous waste" and treated accordingly. Based on previous experience, after testing, it generally can be disposed of in a sanitary sewer; however, confirmation with the sanitation department will be necessary.

#### **Texas Health and Safety Code and TCEQ Comment**

Pursuant to the Texas Health and Safety Code, Chapter 361, §361.538 and 30 Texas Administrative Code 330, §330.953, the subject site is located within a portion of the closed City of Dallas Landfill. Appropriate soil tests as required by these regulations have been conducted to determine if the site is within an area used for landfill activities. Based on these data, the buildings will require a Development Permit, as described in §361.532 and §§330.951-330.963, Subchapter T.

### Seismic Site Classification

The site has been classified with respect to seismic design criteria contained in the 2018 International Building Code (IBC), Section 1613, and ASCE 7-10, Chapter 20. The criteria require characterization of the upper 100 feet of subsurface materials. Based on the ASCE 7-10 criteria, the site is classified as Site Class C in accordance with Table 20.3-1.

### ANALYSIS AND RECOMMENDATIONS

### **Potential Vertical Movements**

<u>Potential Heave</u> - Potential Vertical Movements (PVM) were evaluated using an empirical procedure developed by McDowell<sup>1</sup> and modified by the Texas Department of Transportation, TxDOT Test Method 124-E<sup>2</sup>. Based on the PVM calculations and past experience, potential movements are estimated to be on the order of one to two inches, considering dry to moist conditions. Movement will be associated with seasonal changes in the upper clay fill.

<u>Potential Settlement</u> – Twelve (12) to 42 feet of municipal waste and fill was encountered in all of the borings. Settlement of municipal fill is associated with consolidation of loosely compacted soil and organic material, migration of fine-grained soils into voids, and decomposition of organics. The potential for settlement of this type of fill is difficult to predict due to the inconsistency of the material at each location. Based on the thickness and past experience, settlement of two to four feet should be anticipated across the site.

# Foundation and Site Improvements, General

A pier and beam structure with a suspended floor is anticipated. Because of the large magnitude of settlement, the use of dynamic compaction is anticipated to limit settlement of the site paving, flatwork, and utilities.

<sup>&</sup>lt;sup>1</sup> McDowell, C. "The Relation of Laboratory Testing to Design for Pavements and Structures on Expansive Soils." (1959) Quarterly of the Colorado School of Mines, Volume 54, No. 4, 127-153.

<sup>&</sup>lt;sup>2</sup> "Method for Determining the Potential Vertical Rise, PVR." (1978). Texas Department of Transportation, Test Method Tex-124-E.

Dynamic compaction is a process where a heavy weight is dropped from a set height to impart dynamic forces on the subgrade. The technique is a proprietary process. Three of the firms that have performed the procedure in the Dallas area are TerraSystems, Inc., Densification, Inc., and Menard Group USA. They should be contacted for specific procedures and costs.

In general, dynamic compaction results in significant settlement. Based on experience with similar projects, settlement of the ground surface during the dynamic compaction process varies from two to four feet. Considering the thickness of municipal waste, post-construction settlements of one to five inches, dependent upon the specific thickness of waste should be anticipated; however, because of their experience, either of the dynamic compaction contractors should be able to provide a better estimate of movement.

As an alternative to a pier/pile foundation and suspended floor slab, grout columns with a crushed rock load transfer platform and a ground-supported floor slab can be used. This option and design is a proprietary process, and specific recommendations for this should be provided by the designer.

#### **Foundation - General**

Considering the subsurface conditions, the use of either straight-shaft piers or an auger cast pile foundation system is anticipated. Either can be coupled with a ground-poured structurally suspended floor. Due to the need for casing of all straight-shaft piers and the spoils needing to go to a landfill, the auger cast pile foundation is recommended. Design criteria for auger cast piles and the floor slab are provided below.

The recommendations provided are based on finished floors at Elev. 445.0 and 445.75 feet. If the finished floors elevations are altered by more than one foot, this office should be consulted for additional analysis and recommendations.

### Foundation Design, Auger Cast Piles Option

An alternative to conventionally drilled piers is auger cast piles. Dark gray, unweathered shale was encountered at depths varying from approximately 23 to 52 feet (Elev. 421 to 388).

Auger cast piles will develop capacity principally through side friction through the upper soils and friction and end bearing in the dark gray, unweathered shale. With this site being a former landfill, only the dark gray, unweathered shale can be counted on for both friction and end bearing. Essentially, the auger cast pile system for this site is a method for design and installation of the foundation that eliminates casing and limits spoils that will need to go to a landfill.

An average working friction of 4.0 kips per square foot (ksf) is anticipated within the upper 10 feet of dark gray, unweathered shale. Additional capacity will be obtained through end bearing, estimated to be 22.0 ksf within the dark gray, unweathered shale. The end bearing should only be applied below a depth of 5 feet within the dark gray, unweathered shale. Below a depth of 10 feet in the dark gray, unweathered shale, the working friction can be increased to 5.0 ksf.

A <u>minimum</u> of one pile load test is recommended to confirm the design pile capacity. The test pile should be conducted where the greatest amount of fill and trash is located and the shale was the deepest. The pile should be loaded to double the design working load or to when the pile settles one inch, whichever occurs first. This should be confirmed with the pile construction company. If numerous pile sizes/loads will be used, there should be numerous pile tests. This office can assist in recommended pile test locations.

### **Tilt-Wall Panels**

Fill on the outside of perimeter tilt walls should be placed in a controlled manner. Backfill should consist of site-excavated clays, or equal, placed and compacted in accordance with the **Earthwork** section. If bedding soils must be used adjacent to the perimeter of the buildings, the clay/bedding soil interface should be sloped to drain away from the buildings. Compaction criteria are included in the **Earthwork** section.

# Floor Slabs, Suspended Floor Option

As stated above, the floor slabs for the buildings may be structurally suspended. Due to the settlement that will occur following construction, the floor slabs can be constructed on-grade. A void will form below the slabs as the subgrade settles.

A methane barrier will be required to meet TCEQ regulations. Design of the barrier system is beyond the scope of services, but generally consists of a high density plastic on a filter fabric over free draining gravel that is tied to a methane venting system.

If rounded gravel is used for the free draining material, it will not support vehicle traffic. Pumping of the concrete for the floor should be anticipated, at least for the initial pours.

# **Dock-High Walls**

Lateral earth pressures against dock walls will be a function of the backfill within the "active zone" of earth pressure. The "active zone" can be estimated as an included angle of 45° from the vertical, extended upward from the base of the wall.

Considering backfill using site-excavated soils, lateral earth pressures can be estimated based on an equivalent fluid pressure of 75 pounds per cubic foot (pcf) for <u>at-rest</u> conditions. Alternatively, imported "select" fill may be used as backfill in the active zone. Considering "select" fill, lateral earth pressures can be estimated based on an equivalent fluid pressure of 55 pcf at-rest conditions.

The lateral earth pressure values do not incorporate specific factors of safety. If applicable, factors of safety should be integrated into the structural design of the wall.

# **Retaining Walls**

Retaining walls will be subject to lateral loads associated with lateral earth pressures. The magnitude of the earth pressure will be a function of:

- the type and compaction of backfill behind the walls within the "active" zone and
- the allowable rotation of the top of the wall.

The active zone is defined as the wedge of soil defined by the surface of the wall and a plane inclined 45° from the vertical passing through the base of the wall.

Considering backfill using site-excavated soils compacted in lifts to the density and moisture outlined in the **Earthwork** section, the lateral load soil pressures can be estimated based on an equivalent fluid pressure of 55 pcf "active" pressure or 75 pcf "at-rest" pressure. Rotation, or lateral movement of the top of the wall, equal to 0.02 times the height of the wall will be necessary for on-site soil backfill for the "active" condition.

Alternatively, imported "select" fill may be used as backfill in the wedge of soil in the "active zone" as defined above. Considering "select" fill compacted in lifts to the density and moisture in the **Earthwork** section, lateral load pressures can be estimated based on an equivalent fluid pressure of 35 pcf "active" pressure or 55 pcf "at-rest" pressure. Lateral movement of the top of the wall equal to 0.001 times the height of the wall will be necessary for the "active" pressure condition for "select" fill backfill.

The lateral pressures are applicable for horizontal surface grades and non-surcharged, drained conditions.

A drainage system should be installed behind the base of retaining walls to limit development of excess hydrostatic pressures. The drainage system should consist, as a minimum, of 12-inch by 12-inch pocket drains spaced approximately 15 feet on-center, installed near the base of the wall.

Fill in the pocket drains should consist of durable crushed stone such as ASTM C33, Size 67 or coarser, wrapped in filter fabric (ADS 600 or equivalent). If the "select" fill option to reduce lateral pressures is used, a compacted clay cap is recommended within the upper two feet of the surface to limit surface water infiltration behind the walls.

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Retaining walls may be founded on spread or continuous footings placed a minimum of 18 inches into, on-site soils or compacted and tested fill. Footings should be proportioned for a maximum bearing pressure of 3,000 pounds per square foot (psf). Movement of the footings and walls should be anticipated, especially if deep dynamic compaction is not performed.

Passive resistance to lateral movement can be estimated based on an equivalent fluid pressure of 400 pcf for on-site soils. This value is applicable for footings founded on on-site soils or compacted and tested fill. In addition to passive resistance, a coefficient of friction between the base of the footing and the underlying soil equal to 0.42 may be used.

The lateral earth pressure values do not incorporate specific factors of safety. Factors of safety, if applicable, should be integrated into the structural design of the wall.

Any earth slope greater than eight feet in height should be evaluated for global stability. This also applies to slopes combined with retaining walls that have a combined height in excess of eight feet. Global stability analysis was not within the scope of the present investigation. This office can assist in the analysis if desired.

The recommendations above are applicable for retaining walls that are not subject to inundation by water. Modification of the recommendations may be necessary for wet applications (such as detention ponds, water features and along creek beds). This office should be provided with grading plans and wall layouts to review for any necessary modifications to the recommendations for wet applications.

### **Site Utilities**

State regulations require conduits transporting fluids buried within or over municipal fill to have double containment.

It is anticipated the water, gas and electric utilities will be placed within the upper three to four feet. Based on the borings, and anticipated settlement associated with the deep dynamic compaction process, the majority of these utilities will be in the soil cover over the municipal fill. Therefore, it is not anticipated that the soil excavated for the utilities will need to be disposed of in a landfill.

### Earthwork, General

Proper compaction of soil requires both the correct moisture content and "compactive effort" or energy. The compactive effort, or energy, imparted into the soil by the equipment used for compaction, has to be compatible with the lift thickness. The lighter the equipment (lower contact pressure), the thinner the loose lift of soil has to be to achieve adequate compaction.

If the lift of soil is too thick for the energy (compactive effort) exerted by the equipment, insufficient energy will be transferred through the full lift thickness, resulting in a lens of loose, settlement-prone soil at the bottom of the lift.

For example, if track-mounted equipment such as a "dozer" is used for compaction, the thickness of lift will vary with the track contact pressure. For a Caterpillar D-6, with a contact pressure of approximately 1,000 psf, a maximum loose lift thickness of 6 inches (compacted lift of 4 inches) is needed to achieve compaction. For a Caterpillar D-10, with a contact pressure of approximately 3,000 psf, a maximum loose lift thickness of 8 inches (compacted lift of 6 inches) is needed to achieve compaction.

If the upper five to six inches of an excessively thick lift is well compacted, it can meet density, and therefore the loose, relatively thin lens at the bottom of the lift will not be detected by density testing resulting in the potential for settlement of under-compacted lenses. Accurately determining lift thickness is virtually impossible after the fact in large-scale mass earthwork operations, and can only be controlled by the earthwork contractor by "experience".

Alternatively, if the earthwork contractor's field personnel do not have sufficient experience, a surveyor would need to be hired to accurately survey each lift to evaluate if excessive lifts are being placed.

For equipment with a relatively light contact pressure (any type of equipment with a contact pressure of less than approximately 2,000 psf), there is virtually no "factor of safety" relative to the lift thickness. It is therefore recommended that, if track-mounted equipment is used for compaction, equipment with a minimum contact pressure of 2,500 psf be specified for mass earthwork operations.

#### Earthwork

All vegetation and topsoil containing organic material should be cleared and grubbed at the beginning of earthwork construction. Areas of the site that will underlie fill or within the buildings should be scarified to a depth of 6 inches and recompacted to a minimum of 95 percent and a maximum of 100 percent of the maximum density, as determined by ASTM D698, "Standard Proctor". The moisture content should range from +1 to +4 percentage points above optimum.

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It is recommended that one-point swell tests at a pressure of 450 psf be performed on laboratory samples compacted to the above recommended density and moisture. If test results indicate that the swell will exceed one percent, the field moisture should be adjusted to limit the potential for swell to less than one percent.

Site-excavated soils should be placed in <u>maximum</u> eight-inch loose lifts (note, loose lift thickness must be compatible with the compaction equipment) and compacted to the moisture and density requirements outlined above. The soils should be uniformly blended with water to achieve the required moisture content.

The final 6 inches of subgrade below pavement should be compacted to a minimum of 95 percent of Standard Proctor, at or above optimum moisture.

Areas where compaction utilizing hand-held equipment will be required, such as for site utilities and perimeter "leave-out strips" (tilt-wall construction), should be compacted to a density of between 95 and 100 percent of Standard Proctor, at a moisture content of between +1 to +4 percentage points above optimum.

Proper backfilling around the building perimeters will reduce the potential for water seepage beneath the structures. Fill against the perimeter of the foundations should consist of siteexcavated clays, or equal, placed and compacted in accordance with the recommendations outlined above.

"Select" fill is defined as <u>uniformly blended</u> clayey sand with a Plasticity Index (PI) of between 4 and 15. "Select" fill should be placed in maximum 8-inch loose lifts and compacted to at least 95 percent of the Standard Proctor density, at a moisture content between -2 to +3 percentage points of optimum moisture.

Crushed stone utilized for the drainage system behind retaining walls should consist of durable gravel meeting ASTM C33 Size 67 or coarser. Gravel should be placed in maximum 8-inch loose lifts and compacted to a minimum of 60 percent of the relative density as determined by ASTM D4254.

Lime stabilization should be conducted in accordance with TxDOT "Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges," 2014 Edition, Item 260. Lime-stabilized soils should be compacted to a minimum of 95 percent of Standard Proctor density, ASTM D698 at or above optimum moisture content.

# **Flatwork and Pavement Subgrade Modification**

**General** - As stated above, settlement on this site is anticipated to be between two and four feet, and will occur as the trash breaks down. If this stated magnitude of potential movement of the flatwork around the buildings and pavement is acceptable, no remedial earthwork will be necessary. If it is not acceptable, it is recommended that subgrade modification be performed. Subgrade modification for the paving should consist of deep dynamic compaction. Following the deep dynamic compaction, settlement should be limited to approximately one to five inches.

#### Pavement

As stated above, potential settlement on this site is anticipated to be on the order of two to four feet. If this stated magnitude of potential settlement of the pavement is acceptable, no remedial earthwork will be necessary. If it is not acceptable, it is recommended that deep dynamic compaction be performed. Even if performed properly, settlement of one to five inches should be anticipated in the pavement areas.

The specific pavement section will be dependent upon:

- 1. traffic loads and frequency;
- 2. pavement type and strength;
- 3. desired pavement life and ending condition; and
- 4. strength and condition of the subgrade.

Information regarding the specific traffic loads and frequency is not available. Therefore, analysis was performed for a range of traffic conditions, and design thickness versus traffic load diagrams were developed. The pavement designer, typically the civil engineer, should review the anticipated traffic with the building owner or end user. If the anticipated traffic will vary from the stated values in the following paragraphs, this office can provide alternative sections upon request.

The pavement type has been identified as concrete. Analysis was performed for both 3,000 pounds per square inch (psi) and 4,000-psi compressive strength concrete. A 20-year life was used for the analysis. Total pavement life was based on a <u>six</u>-day week. Analysis was performed in accordance with procedures developed by the American Association of State Highway and Transportation Officials (AASHTO).

The upper surface soils consist of CH clays. When these soils are moist, they are relatively soft. For purposes of pavement analysis, the subgrade was assumed to be recompacted in accordance with the density and moisture recommendations in the **Earthwork** section and in a moist condition. An effective modulus of subgrade reaction, k, of 100 pounds per cubic inch (pci) was used for the analysis.

The effective k value of the subgrade can be increased to 200 pci by stabilization of the upper 6 inches with a minimum of six percent hydrated lime. Lime should be placed and compacted in accordance with Item 260 of the current edition of TxDOT "Standard Specifications for Construction of Highways, Street and Bridges." The lime-stabilized subgrade should be compacted to a minimum of 95 percent Modified Proctor, ASTM D1557, at or above optimum moisture.

Generally, it is more cost effective to increase the pavement thickness than to lime-stabilize the subgrade. However, stabilization does provide an all-weather working platform for the contractor, and this may be beneficial from a construction perspective, especially if construction will occur during the wetter part of the year. Stabilization is also recommended if the traffic speed exceeds 30 miles per hour (mph).

Considering the above discussion, analysis was made for both unlimited repetitions of cars and light trucks and for multiple repetitions of loaded tractor trailers. Analysis indicates a pavement thickness of 4.5 inches of 3,000-psi concrete will be adequate for car and light truck traffic. A minimum 5-inch section over a scarified and recompacted subgrade is recommended.

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Pavements subject to multiple repetitions of tractor-trailer traffic were analyzed using both 3,000- and 4,000-psi concrete. Trailers were assumed to be loaded to the maximum allowable weight, 80 kips, consisting of two sets of tandem axles loaded to 32 kips and one 16-kip axle. Recommended sections for various rates of truck traffic, based on number of repetitions per day for a six-day week, are provided in the following tables considering a subgrade k value of 100 pci and 200 pci. The sections are based on 20-year service life.

The values presented in Tables 2 through 5 below represent the <u>minimum thickness</u> of the pavement section that should be constructed for the corresponding traffic volume. Allowance for variations that can occur during construction should be incorporated in the plan.

TABLE 2. (K=100 PCI) NUMBER OF TRUCK REPETITIONS VS. PAVEMENT THICKNESS 3,000-PSI COMPRESSIVE STRENGTH			
Pavement Thickness (inches)	No. of Repetitions (per day)		
6 (minimum recommended for fire lanes)	12		
7	30		
8	65		
9	140		
10	280		

# TABLE 3. (K=100 PCI) NUMBER OF TRUCK REPETITIONS VS. PAVEMENT THICKNESS 4,000-PSI COMPRESSIVE STRENGTH

Pavement Thickness (inches)	No. of Repetitions (per day)
6	18
7	45
8	105
9	220
10	440

TABLE 4. (K=200 PCI, LIME-STABILIZED SUBGRADE) NUMBER OF TRUCK REPETITIONS VS. PAVEMENT THICKNESS 3,000-PSI COMPRESSIVE STRENGTH			
Pavement Thickness (inches)	No. of Repetitions (per day)		
6 (minimum recommended for fire lanes)	18		
7	42		
8	90		
9	185		
10	350		

# TABLE 5. (K=200 PCI, LIME-STABILIZED SUBGRADE) NUMBER OF TRUCK REPETITIONS VS. PAVEMENT THICKNESS 4,000-PSI COMPRESSIVE STRENGTH

Pavement Thickness (inches)	No. of Repetitions (per day)
6	28
7	65
8	140
9	280
10	550

The values are based on Terminal Serviceability Index (pt) of 2.0, Overall Standard Deviation (Sd) of 0.35, Reliability (R) of 90 percent, Load Transfer Coefficient (J) of 3.2, and Drainage Coefficient (Cd) of 1.0.

Analysis of Tables 2 and 3 indicates an approximate 50 to 57 percent increase in the number of truck repetitions can be obtained by increasing the concrete strength from 3,000 psi to 4,000 psi. An increase of approximately 100 to 150 percent is realized by increasing the thickness of the pavement by 1 inch.

Analysis of the allowable repetitions was also performed considering a stabilized subgrade (Tables 4 and 5). For any given pavement thickness and strength of concrete, an increase in the number of repetitions equal to 25 to 50 percent of the non-stabilized repetitions is realized.

Considering the relative costs associated with stabilizing the subgrade, a greater increase in repetitions (i.e., pavement life) is realized by increasing the pavement thickness or strength versus stabilization of the subgrade.

Pavements should be lightly reinforced if shrinkage crack control is desired. Reinforcing for 5and 6-inch pavements should consist of the equivalent of #3 bars (metric #10) at 24 inches oncenter, and 18 inches on-center for pavements of 7-inch thickness or greater.

Pavement sections should be saw-cut at an approximate spacing in feet of 2.5 to 3 times the pavement thickness expressed in inches, not to exceed a maximum spacing of 20 feet. (For example, a 5-inch pavement should be saw-cut in approximate 12.5- to 15-foot squares.) The actual joint pattern should be carefully designed to avoid irregular shapes. Load transfer devices at transverse joints should be provided as necessary. Recommended jointing techniques are discussed in detail in "Guide for Design and Construction of Concrete Parking Lots," published by the American Concrete Institute<sup>3</sup>.

At the truck courts of the buildings where the pavement abuts the buildings, it is recommended that the last six inches of pavement be swept up three to four inches to decrease the chances of water ponding adjacent to the buildings.

There may be some areas of the paving were a full depth flexible base pavement section could be used. These areas may be for extra parking or long term trailer storage. Deep dynamic compaction could be eliminated in these areas and substituted for maintenance of the flexible base section. If desired, this options can be discussed further.

<sup>&</sup>lt;sup>3</sup> "Guide for Design and Construction of Concrete Parking Lots" (1987). American Concrete Institute, Publication MSP 34, Silver Spring, MD.

The above sections are based on the stated analysis and traffic conditions. The pavement designer, typically the civil engineer, should review the anticipated traffic with the building owner or end user. If the anticipated traffic will vary from the stated values above, this office can provide alternative sections upon request. Additional thickness or subgrade stabilization may be required to meet the City of Dallas development code.

#### **Pavement Joints**

Detailing of the pavement is beyond the proposed scope of geotechnical services. However, the following discussion is offered to assist the pavement designer and reduce some of the typical ambiguity associated with joint detailing.

There are four common types of pavement joints: contraction or saw joints, isolation joints, construction joints, and expansion joints. Each of these are defined and discussed in the following paragraphs.

**Contraction Joints** – Contraction or saw joints are installed in concrete to reduce the potential for random shrinkage cracks associated with drying of the plastic concrete. Concrete shrinks (contracts) at an approximate rate varying from 0.0002 inch/inch to .0008 inch/inch, dependent upon the specific water to cement ratio. The higher shrinkage is for a higher water to cement ratio. Using an average coefficient of 0.00047 inch/inch results in 0.56 inches of shrinkage per 100 feet of pavement.

The general "rule of thumb" is to space contraction joints three times the concrete thickness, where the thickness is expressed in inches and the spacing is expressed in feet, up to a maximum spacing of 20 feet. For example, a 6-inch thick pavement should have contraction joints spaced at approximately 18 feet on-center.

The joint is commonly constructed by sawing a groove to a depth of approximately 1/3 the thickness of the slab. The purpose of this groove is to create a weakened plane, thus inducing a shrinkage crack to form. The weakened plane must be constructed while the concrete remains relatively plastic, generally within the first four to six hours of placement, or else shrinkage cracks will have already formed.

A limited amount of mild steel is generally used to reduce formation of random contraction joints. The typical amount of steel is #3 reinforcing bars (metric #10) at approximately 24 inches on-center for 5- and 6-inch pavement. The spacing is typically reduced to 18 inches on-center for pavements of 7-inch thickness or greater.

Local practice is to extend the reinforcing uninterrupted through the saw joint. This practice can restrict formation of the joint, leading to an increase in the potential for shrinkage cracks occurring outside the formed joint. This practice is; however, beneficial from an expansive soil perspective in that it reduces the potential for opening of un-reinforced joints associated with heave of the subgrade. **Isolation Joints** – Isolation joints are placed in concrete to separate various elements. For example, an isolation joint is generally used where concrete pavement abuts the building foundation. There is generally no structural connection between the two constructed elements.

**Construction Joints** – Construction joints are required by the contractor to delineate various placement operations. An example of a typical construction joint is the bulkhead at the end of a pour, or the bulkhead used to delineate individual pour strips.

Transfer of stress through a typical <u>contraction</u> (saw) joint is a result of interlocking of the concrete aggregate in the non-sawed portion of the joint and the steel traversing the joint. Because the <u>construction</u> joint is formed, there is no interlocking of the concrete aggregate. For this reason, it is recommended that as a minimum, the quantity of contraction steel be doubled through a construction joint. For example, if the contraction steel is equal to #3 bars at 18 inches on-center, it is recommended that additional #3 bars be added, spaced 9 inches from the contraction steel. The added bars should be a minimum of three feet in length centered at the formed joint.

Alternatively, smooth dowels can be used to increase the amount of reinforcing through the construction joint. The amount of dowel steel varies and should be detailed by the pavement designer.

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**Expansion Joints** – Expansion joints are used in concrete to allow for thermal expansion and or contraction. The thermal coefficient of concrete varies dependent upon the coarse aggregate from approximately 6.6 x  $10-6/^{0}F$  for quartz to  $3.8 \times 10-6/^{0}F$  for limestone. The majority of coarse aggregate used in concrete within the North Texas region consists of limestone, therefore the lower value of the thermal coefficient is considered to be applicable. Use of  $3.8 \times 10-6/^{0}F$  results in an estimated 0.46 inches of expansion or contraction per 100 feet of concrete per  $100^{0}F$  change in the concrete temperature. Based on the calculation presented for the average plastic shrinkage, the potential for thermal expansion (0.46 inches per 100 feet of concrete per  $100^{0}F$ ) is less than the average anticipated plastic shrinkage (0.56 inches per 100 feet of concrete).

In conclusion, the above analysis indicates that for the average construction project and where limestone is used for the coarse aggregate, the need for expansion joints is limited.

# **Construction Observation and Testing Frequency**

It is recommended the following items (as a minimum) be observed and tested by a representative of this office during construction.

# Observation:

- Fill placement and compaction.
- Deep dynamic compaction.
- Foundation construction and concrete placement.

# Testing:

- Earthwork
  - One test per 5,000 square feet per lift within fills below the buildings.
  - One test per 10,000 square feet per lift within fills in the paving area.
  - One test per 150 linear feet per lift in utility and grade beam backfill.
  - One test per 100 linear feet per lift in retaining wall backfill.

The purpose of the recommended observation and testing is to confirm the proper foundation bearing stratum and the earthwork and building pad construction procedures.





					REED ENGI	NEERING
Proj Dati	ject N e Con	lumber: 2 npleted: 1/	3380WW Tree Farms3380Newberry Street/24/2020Dallas, Texas		Location: See F	GROUP
Depth (ft)	Sample	rec % (rqd %) Graphic Log	DESCRIPTION OF STRATA	Standard F Blows 10 20 30 Pocket Pene Tons P	Penetration Lests per Foot - ⊕ 40 50 60 trometer Readings er Sq. Ft ₩ 4 5+ 4 5+ 1	Elev. (ft)
-			SANDY CLAY, dark brown, very stiff to stiff (Fill) (CH)	*	4 43* 43*	441  
5- - - - - - - - - - - - - - - - - - -			TRASH, w/plastic, glass & clothing (Fill)	▼ - - - - - - - - - - -	el ón 1/29/2020	- 436
15- - - - - - - - - - - - - -	-		SILTY CLAY, dark brown (CH - CL)	Seepage - - -	dụring drilling	425 - 
25-			SILTY CLAY, yellowish-brown (CH - CL)			420
30- - - - - - - - - - - - - - - - - - -						
40- - 45-			-w/gravel @ 42' SANDY CLAY, brownish-yellow & gray (CH - CL)			- - - - - - - - - - - - - - - - - - -
50- - - - 	-		SHALE, dark gray, soft			
	-		Total Depth = 55 feet Seepage encountered @ 16' during drilling. Water @ 24' after 5 minutes. Dry & blocked @ 16' @ end of day. Water @ 6' & blocked @ 22-1/2' on 1/29/2020.			
BORING LOG B-01 PLATE 2						

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REED ENGINEERING




Project Number : 23380 WW Tree Farms Newberry Street									
Date Completed : 1/30/2020 Dallas, Texas Location: See Plaf									
Depth (ft)	Sample	rec % (rqd %) Graphic Log	DESCRIPTION OF STRATA	Standard Penetration Tests           Blows per Foot - ⊕           10         20         30         40         50         60           Pocket Penetrometer Readings Tons Per Sq. Ft ¥         1         2         3         4         4.5+         4.5++	Elev. (ft)				
-			GRAVEL BASE (Approximately 6")	*	438 437.5				
- - 5-			concretions (Fill) (CH) -w/shale seams above 3'		435				
- - - 10-			TRASH, w/cloth, wood & plastic (Fill)	▼ Water level on 1/31/2020	430				
- - - 15—				∑Seepage during drilling 	-				
- - - 20-					-				
- - - 25-					-				
- - - 30-			-w/more wood below 28'		410				
			SHALE, dark gray, soft		406				
35					-				
40				-	-				
45			Total Depth = 40 feet Seepage encountered @ 12' during drilling. Dry after 5 minutes. Dry & blocked @ 9-1/2' @ end of day. Water @ 8' & blocked @ 9' on 1/31/2020						
- - 50 -									
- - 55									
- - 60									
-									
BORING LOG B-09 PLATE 10 GEOTECHNICAL CONSULTANTS									

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Project Number : 23380 WW Tree Farms												
Det	0		Newberry Street									
Date	Date Completed : 1/29/2020 Dallas, Texas											
				Location: See Plate Standard Penetration Lests	e 1							
Depth	ble	a hic 8)		Blows per Foot - ⊕ 10 20 30 40 50 60	Flev							
(ft)	Sam	C at C	DESCRIPTION OF STRATA	Pocket Penetrometer Readings Tons Per Sq. Ft *	(ft)							
			GRAVEL BASE (Approximately 5")	<u>1 2 3 4 4.5+ 4.5++</u>	444							
-			SILTY CLAY, dark brown & brown, hard to stiff, w/some calcareous		443.5							
-			concretions (Hill) (CH)		-							
5-				▼ Water:le¥ef on 1/30/2020 _	139.5							
-	-	1   XX	TRASH, W/WOOD, glass & metal (Fill)	- *	430.3 -							
-					-							
10-			SILTY CLAY, dark gray (Fill) (CH - CL)		434							
-			TRASH (Fill)	∑: Seepage during drilling	432 -							
-					-							
15-	-				-							
-												
				-	-							
20-					-							
-					-							
- 25-			SANDY CLAY, dark gray (CH - CL)		420							
					-							
-			SANDY CLAY, brownish-yellow & gray (CH - CL)		417							
30-		///			-							
-												
-			Total Depth = 30 feet									
35-			Seepage encountered @ 12' during drilling. Water @ 28' after 5									
-			minutes. Dry & blocked @ 6-1/2' @ end of day. Water @ 5' & blocked @ 6-1/2' on 1/30/2020.									
-	1											
40-												
-												
-												
45-												
-												
50-												
- 50												
-	1											
55-												
-												
-												
60-												
-	1											
-												
BORING LOG B-14 PLATE 15												
GEOTECHNICAL CONSULTANTS -												

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Project Number 23380 WW Tree Farms										
Newberry Street										
Date Completed : 3/18/2021 Dallas, Texas										
Location: See Plate 1										
	e	ic)		Standard Penetration Tests Blows per Foot - ⊕						
Depth (ft)	amp	ec % Log	DESCRIPTION OF STRATA	10 20 30 40 50 60 Pocket Penetrometer Readings	Elev. (ft)					
()	ű	<u>د ج</u> ۵		Tons Per Sq. Ft <del>X</del> 1 2 3 4 4.5+ 4.5++	(/					
-			SILTY CLAY, light gray & dark brown, hard, w/limestone particles &		440					
-			SILTY CLAY, dark brown & brown, stiff to very stiff, w/trace of sand,	*	438.5 -					
			limestone particles, wood, rope, plastic & iron stains (Fill) (CH)	*	-					
			SILTY CLAY, dark gray & brownish vallow, you stiff to medium stiff	▼ : Water:level on 3/24/2021 : - *	434					
-			w/iron stains & trace of gravel (Fill) (CH)	∑ 💥 Seepagik during drilling	422 -					
- 10			TRASH, carpet, glass, paper, metal, wood & cloth, w/some silty clay lavers (Fill)		432 -					
10-					-					
-			-w/12" dark brown silty clay layer @ 12'		428					
15				-	-					
- 15				-	100 5					
-			-w/18" dark brown silty clay layer @ 16.5'		423.5 -					
20-					-					
- 20					-					
-					_					
25					-					
25-					-					
-					-					
30	>		SHALE, dark gray, soft	100 Blows = 1/2 inch	411					
- 30					-					
-					-					
35-	>			100 Blows = 1/2 inch	-					
-			Total Denth = 35 feet							
40-										
			minutes. Water @ 8' & blocked @ 11' @ end of day. Water @							
-			5-1/2' & blocked @ 8' on 3/24/2021.							
45-										
-										
-										
50-										
-										
-										
55-										
-										
60-										
-										
-										
BO	BORING LOG B-27 PLATE 28									
GEOTECHNICAL CONSULTANTS										



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GROUF WW Tree Farms Project Number: 23380 **Newberry Street** Date Completed : 5/20/2021 **Dallas**, Texas Location: See Plate 1 Standard Pene Sample Graphic Blows per Foot - ⊕ %% Depth 8 10 20 30 40 50 60 Elev. DESCRIPTION OF STRATA <u>8</u> <u>5</u> Pocket Penetrometer Readings Tons Per Sq. Ft. - ₩ (ft) (ft) SILTY CLAY, dark brown, very stiff, w/trace of sand & gravel (Fill) 441 (CH) 439.5 SILTY CLAY, dark brown, stiff to very stiff, w/trace of sand (Fill) Water level on 5/21/2021 (CH) 436.7 w/iron stains @ 4.5' 5 ..... SANDY CLAY, dark brown, very stiff to stiff, w/iron stains & trace of gravel (Fill) (CH) 436.5 Seepage during drilling : Ж 433.5 -w/trace of wood @ 7.5' -Ð 432 TRASH, newspaper, cloth, plastic, glass & wood, w/dark brown sandy 10 clay seams (Fill) ⊕ 15 : () 20· ⊕ 25 413 SHALE, dark gray, soft 50 Blows = 4 inches 30 ÷ ÷ ..... ÷ ł 100 Blows:= 4 inches 35 100 Blows = 2-1/2 inches į . 40-Total Depth = 38 feet Seepage encountered @ 7' during drilling. Water @ 17' after 5 minutes. Water @ 5' & blocked @ 4-1/2' @ end of day. Water @ 4' 45 & blocked @ 7' on 5/21/2021. 50 55 **60 BORING LOG B-46** PLATE 47

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GROUP

WW Tree Farms Project Number: 23380 **Newberry Street** Date Completed : 5/20/2021 **Dallas**, Texas Location: See Plate 1 Standard Pene Sample Graphic Blows per Foot - ⊕ rec % (rqd %) Depth 8 10 20 30 40 50 60 Elev. DESCRIPTION OF STRATA Pocket Penetrometer Readings Tons Per Sq. Ft. - ₩ (ft) (ft) GRAVELLY CLAY, dark brown, hard, w/sand (Fill) (CL) 430 ...... ¥ 428 SILTY CLAY, dark brown, very stiff to hard, w/some iron stains & trace of sand (Fill) (CH) 425.5 SILTY CLAY, dark brown & gray, very stiff, w/sand & iron stains & 5 ÷ trace of gravel (Fill) (CH) ¥ Water level on 5/21/2021 423 TRASH, plastic, cloth, wood, glass & newspaper, w/some dark brown : sandy clay seams (Fill) ⊕ 10 ⊕ 15 ⊕ 20· Seepage during drilling : 407 SHALE, dark gray, soft ÷ i ÷ ÷ ..... 25 10 Blows = 4-1/2 inches **30** ÷ ..... i 100 Blows:= 3 inches 35 Total Depth = 35 feet **40** Seepage encountered @ 23' during drilling. Water @ 17' after 5 minutes. Water @ 8' & blocked @ 13' @ end of day. Water @ 7-1/2' & blocked @ 14' on 5/21/2021. 45 50 55 **60 BORING LOG B-48** PLATE 49

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				REED	ENGINEERI	NG		GROUF
Project Number : Date Completed :	23380 1/24/2020	WW Tree Farms Newberry Street Dallas, Texas		Location:	GRO See Plate 1	UP		Fill
tt) taphic Log	DESCR	IPTION OF STRATA	10	SPT N VALUE 20 30 40 50	60	Elev. (ft)	M	Type of Fill
	SANDY CLAY, dark brown, v	ery stiff to stiff (Fill) (CH)	Pocket Pe	enetrometer Readings Tons Pe	r Sq. Ft ¥ + 4,5++ -	I41		Clay (CL) (LL<50)
	TRASH, w/plastic, glass & cl	othing (Fill)	¥. ₩ź	¥ ≆ atër level on 1/29/2	020	- - 136 - -		Clay (CH) (LL>50)
								SILT (ML) (LL<50)
	SILTY CLAY, dark brown (Cl	1 - CL)		eepage during drifti	ng	- - 125 -		SILT (MH) (LL>50)
	SILTY CLAY, yellowish-brown	n (CH - CL)				- - 120 -		CLAYEY SAND (SC)
								SILTY SAND (SM)
								SAND (SP-SW)
								CLAYEY GRAV (GRAVELLY CL
	-w/gravel @ 42' SANDY CLAY, brownish-yelle	ow & gray (CH - CL)				 399 = 398 = 		GRAVEL (GP-GW)
								(weathered) SHALE (unweathered)
	SHALE, dark gray, soft					390 — - - - -		(weathered) LIMESTONE (unweathered)
	Total Depth = 55 ft Seepage encountered @ 16'	during drilling. Water @ 24' after 5' @ end of day. Water @ 6' & bl	5 ocked					(weathered) SANDSTONE (unweathered)
DODING LO	@ 22-1/2' on 1/29/2020.				PLATE 2			
				— GEOTECHNICAL CO	NSULTANTS	<u>,</u>		
UNDISTURB (Shelby Tub NX-Core)	e&	STANDARD PENETRATION TEST	<u>√</u> = v	Vater level at time of dri	lling.			
	,	THD CONE PENETROMETER TEST	<u>▼</u> = S	Subsequent water level a	and date.			
KEYS TO S	YMBOLS USED O	N BORING LOGS						PLATE 5'

### SOIL PROPERTIES

### COHESIONLESS SOILS

0 - 4 .....Very Loose 4 - 10 .....Loose

10 - 30 ......Medium Dense 30 - 50 .....Dense 50 + .....Very Dense

Relative

Density

SPT

N-Values

(blows / foot)

# COHESIVE SOILS

Pocket Penetrometer (T.S.F.)

Consistency

<0.25	Very Soft
0.25-0.50	Loose
0.50-1.00	Medium Stiff
1.00-2.00	Stiff
2.00-4.00	Very Stiff
4.00 +	Hard

### **ROCK PROPERTIES**

### HARDNESS

### DIAGNOSTIC FEATURES

Very Soft	Can be dented with moderate finger pressure.
Soft	Can be scratched easily with fingernail.
Moderately Hard	Can be scratched easily with knife but not with fingernail.
Hard	Can be scratched with knife with some difficulty; can be broken by light to moderate
	hammer blow.
Very Hard	Cannot be scratched with knife; can be broken by repeated heavy hammer blows.

### DEGREE OF WEATHERING DIAGNOSTIC FEATURES

# Slightly Weathered Slight discoloration inwards from open fractures. Weathered Discoloration throughout; weaker minerals decomposed; strength somewhat less than fresh rock; structure preserved. Severely Weathered Most minerals somewhat decomposes; much softer than fresh rock; texture becoming indistict but fabric and structure preserved. Completely Weathered Minerals decomposes to soil; rock fabric and structure destroyed (residual soil).

### **KEYS TO DESCRIPTIVE TERMS ON BORING LOGS**

PLATE 52

**GEOTECHNICAL CONSULTANTS** --Page D.85, October 1, 2024

# **Summary of Classification and Index Property Tests**

Boring <u>No.</u>	Depth (feet)	Moisture Content _(%)_	Liquid Limit _(%)_	Plastic Limit _(%)_	Plasticity Index _(PI)
B-1	1.5 - 3.0	25.5	60	20	40
B-2	1.5 - 3.0	21.6	49	19	30
B-3	1.5 - 3.0	24.5	57	22	35
B-4	1.5 - 3.0	20.7	52	18	34
B-6	1.5 - 3.0	18.1	46	15	31
B-7	1.5 - 3.0	23.4	62	21	41
B-8	1.5 - 3.0	27.2	68	20	48
B-9	1.5 - 3.0	20.3	56	17	39
B-12	1.5 - 3.0	18.1	56	18	38
B-19	1.5 - 3.0	22.7	59	17	42

SUMMARY OF LABORATORY TEST RESULTS

# Summary of Classification and Index Property Tests

Boring <u>No.</u>	Depth (feet)	Moisture Content _(%)_	Liquid Limit _(%)	Plastic Limit _(%)_	Plasticity Index (PI)
B-22	1.5 - 3.0	23.8	62	16	46
B-25	1.5 - 3.0	21.8	60	16	44
B-28	1.5 - 3.0	15.0	41	18	23
B-30	1.5 - 3.0	16.8	46	16	30

SUMMARY OF LABORATORY TEST RESULTS

### Summary of Classification and Index Property Tests

Boring <u>No.</u>	Depth (feet)	Moisture Content _(%)_	Liquid Limit _(%)_	Plastic Limit _(%)_	Plasticity Index (PI)	Percent Passing No. 200 <u>Sieve</u>	Percent Passing No. 4 <u>Sieve</u>
B-31	1.5 - 3.0	24.2	67	21	46	83	
	3.0 - 4.5	26.6			-		
	14.0 - 15.0	24.9			•		
	19.0 - 20.0	24.2	52	19	33		
	24.0 - 25.0	26.3	100 M	cost inte	•		
	29.0 - 30.0	23.0					
B-32	1.5 - 3.0	23.3	55	21	34	75	
	19.0 - 20.0	26.8	53	19	34		
B-33	1.5 - 3.0	26.9					
	3.0 - 4.5	25.6	61	20	41	88	
	4.5 - 6.0	24.4					
B-34	1.5 - 3.0	24.9	57	20	37	57	
	3.0 - 4.5	24.8					
	19.0 - 20.0	28.5		420 1945			
	24.0 - 25.0	28.0					
	29.0 - 30.0	25.5				`	
B-35	1.5 - 3.0	23.0					
	3.0 - 4.5	27.5					
	4.5 - 6.0	23.2	59	20	39	66	
	6.0 - 7.0	28.3			alle son .		
	24.0 - 25.0	23.4			AND BOT		
	29.0 - 30.0	24.4					
	34.0 - 35.0	21.9			<u> </u>		

SUMMARY OF LABORATORY TEST RESULTS

# Summary of Classification and Index Property Tests

Boring <u>No.</u>	Depth (feet)	Moisture Content _(%)_	Liquid Limit _(%)_	Plastic Limit _(%)_	Plasticity Index (PI)	Percent Passing No. 200 <u>Sieve</u>	Percent Passing No. 4 <u>Sieve</u>
B-36	1.5 - 3.0 3.0 - 4.5	24.6 23.1	57	19	38	72	
B-37	1.5 - 3.0	23.8	37	17	20	60	
	3.0 - 4.5	25.7			<b></b> 1		
B-38	1.5 - 3.0	24.1	58	14	44	80	99
	3.0 - 4.5	20.5			·		
B-39	1.5 - 3.0	21.8	53	17	36	89	
	9.0 - 10.0	21.2					
	19.0 - 20.0	17.2					
B-40	4.5 - 6.0	21.7	52	17	35	68	
B-41	1.5 - 3.0	22.5					
	3.0 - 4.5	24.2	 65	 1 E	·		
	4.5 - 6.0	24.4	65	15	50	92	100
B-42	1.5 - 3.0	27.7		 18		 68	 83
	5.0 - 4.5	21.0	03	10	01	00	00
B-43	1.5 - 3.0 3.0 - 4.5	27.7 28.5	64 	17 	47	81 	97 
	15 20	27 0	61	21	40	86	
D-44	3.0 - 4.5	25.0					

SUMMARY OF LABORATORY TEST RESULTS

# Summary of Classification and Index Property Tests

Depth <u>(feet)</u>	Moisture Content _(%)_	Liquid Limit <u>(%)</u>	Plastic Limit _(%)	Plasticity Index (PI)	Passing No. 200 <u>Sieve</u>	Passing No. 4 <u>Sieve</u>
1.5 - 3.0	25.3	65	21	44	77	
3.0 - 4.5	27.9					
1.5 - 3.0	26.4					
3.0 - 4.5	29.1					
4.5 - 6.0	21.1	61	17	44	57	97
1.5 - 3.0	16.5	59	22	37		
3.0 - 4.5	21.1					
1.5 - 3.0	20.5					
3.0 - 4.5	22.9	58	15	43	92	100
4.5 - 6.0	30.2					
1.5 - 3.0	13.6	43	17	26		
3.0 - 4.5	17.6					
	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	Depth (feet)Moisture Content (%) $1.5 - 3.0$ $3.0 - 4.5$ $25.3$ $27.9$ $1.5 - 3.0$ $3.0 - 4.5$ $26.4$ $29.1$ $4.5 - 6.0$ $1.5 - 3.0$ $21.1$ $26.4$ $21.1$ $1.5 - 3.0$ $3.0 - 4.5$ $21.1$ $1.5 - 3.0$ $3.0 - 4.5$ $16.5$ $21.1$ $1.5 - 3.0$ $3.0 - 4.5$ $20.5$ $22.9$ $4.5 - 6.0$ $1.5 - 3.0$ $3.0 - 4.5$ $20.5$ $22.9$ $3.0 - 4.5$ $1.5 - 3.0$ $3.0 - 4.5$ $13.6$ $17.6$	Depth (feet)Moisture Content (%)Liquid Limit (%) $1.5 - 3.0$ $3.0 - 4.5$ $25.3$ $27.9$ $65$ $$ $1.5 - 3.0$ $3.0 - 4.5$ $26.4$ $29.1$ $$ $$ $1.5 - 3.0$ $4.5 - 6.0$ $26.4$ $21.1$ $$ $1.5 - 3.0$ $3.0 - 4.5$ $29.1$ $21.1$ $$ $1.5 - 3.0$ $3.0 - 4.5$ $16.5$ $21.1$ $59$ $$ $1.5 - 3.0$ $3.0 - 4.5$ $20.5$ $22.9$ $$ $1.5 - 3.0$ $30.2$ $20.5$ $$ $$ $1.5 - 3.0$ $30.2$ $20.5$ $$ $$ $1.5 - 3.0$ $30.2$ $13.6$ $43$ $3.0 - 4.5$ $43$ $$	Depth (feet)Moisture Content (%)Liquid Limit (%)Plastic Limit (%) $1.5 - 3.0$ $3.0 - 4.5$ $25.3$ $27.9$ $65$ $$ $21$ $$ $1.5 - 3.0$ $3.0 - 4.5$ $27.9$ $$ $$ $1.5 - 3.0$ $3.0 - 4.5$ $26.4$ $29.1$ $$ $$ $1.5 - 3.0$ $3.0 - 4.5$ $29.1$ $21.1$ $$ $$ $1.5 - 3.0$ $3.0 - 4.5$ $21.1$ $61$ $17$ $1.5 - 3.0$ $3.0 - 4.5$ $20.5$ $21.1$ $$ $$ $1.5 - 3.0$ $3.0 - 4.5$ $22.9$ $30.2$ $58$ $$ $15$ $$ $1.5 - 3.0$ $30.2$ $13.6$ $17.6$ $43$ $$ $17$ $$	Depth (feet)Moisture Content ( $\%$ )Liquid Limit ( $\%$ )Plastic Limit ( $\%$ )Plasticity Index ( $\%$ )1.5- 3.025.36521443.0- 4.527.91.5- 3.026.43.0- 4.529.14.5- 6.021.16117441.5- 3.016.55922373.0- 4.521.11.5- 3.020.51.5- 3.020.51.5- 3.020.51.5- 3.013.64317263.0- 4.517.6	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

SUMMARY OF LABORATORY TEST RESULTS

# Summary of Organic Carbon Content Determination ASTM D 2974

Boring No.	Depth <u>(feet)</u>	Organic Carbon Content <u>(%)</u>
B-31	3-4.5	3.7
B-32	3-4.5	3.8
B-32	14-15	2.1
B-33	14-15.5	21.2
B-33	24-25.5	7.9
B-34	9-10.5	81.8
B-35	14-15.5	40.0
B-36	9-10.5	4.8
B-36	14-15.5	6.2
B-36	19-20.5	1.9
B-37	9.0-10.0	13.2
B-37	14-15.5	10.2
B-37	19-20.5	28.3
B-37	24-25.5	11.2

SUMMARY OF LABORATORY TEST RESULTS

# Summary of Organic Carbon Content Determination ASTM D 2974

		Organic Carbon					
Boring <u>No.</u>	Depth <u>(feet)</u>	Content <u>(%)</u>					
B-37	29-30.5	5.3					
B-37	39-40.5	27.8					
B-38	9-10.5	3.3					
B-39	24-25.5	20.6					
B-39	29-30.5	42.3					
B-40	9-10.5	9.1					
B-40	14-15.5	16.4					
B-40	19-20.5	40.7					
B-40	24-25.5	12.9					
B-41	14-15.5	3.5					
B-42	9-10.5	10.4					
B-43	19-20.5	3.8					
B-44	9-10.5	13.2					
B-44	14-15.5	10.6					
_ABORATORY TEST RESULTS							

SUMMARY OF

# Summary of Organic Carbon Content Determination ASTM D 2974

			Organic Carbon	
	Boring <u>No.</u>	Depth <u>(feet)</u>	Content <u>(%)</u>	
	B-44	19-20.5	20.6	
	B-44	24-25.5	6.9	
	B-44	29-30.5	6.4	
	B-45	9-10.5	8.9	
	B-45	14-15.5	8.6	
	B-45	29-30.5	26.2	
	B-46	14-15.5	4.0	
	B-47	9-10.5	25.7	
	B-47	14-15.5	17.5	
	B-47	19-20.5	19.7	
	B-47	24-25.5	13.0	
	B-47	29-30.5	12.0	
	B-48	4.5-6	26.0	
	B-49	14-15.5	6.3	
	B-49	19-20.5	3.7	
SUMMARY O	F LABORATORY	TEST RESULTS		PLATE 60



















CONSOLIDATION TEST





**APPENDIX E** 

**Methane Survey** 

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THE VERTEX COMPANIES, LLC 3030 LBJ FWY, STE 1620 DALLAS, TX 75234

BETTERING OUTCOMES | VERTEXENG.COM 214.499.9234



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Tables

### Table 1. Summary of Landfill Gas Analytical Results Treefarm SWC IH-635 and IH-35 11645 Newberry Street Dallas, Texas 75229 VERTEX Project No. 94088

TABLE 1 SUMMARY OF LANDEUL GAS CONCENTRATIONS												
VAPOR PROBE ID	DEPTH	METHANE % BY VOLUME	% OF LOWER EXPLOSIVE LIMIT (LEL)	CARBON DIOXIDE % BY VOLUME	OXYGEN % BY VOLUME	TEMPERATURE		IEN % TEMPERATURE		RELATIVE HUMIDITY (%)	SAT. VAPOR DENSITY (KG/M <sup>3</sup> ) <sup>(1)</sup>	WATER VAPOR (KG/M <sup>3</sup> ) <sup>(2)</sup>
						(°F)	(°C)					
LS-A	5'	0.0	0	1.5	1.5	80.2	26.8	87.4	0.0246856	0.022		
LS-B	5'	0.9	18	3.1	3.1	89.1	31.7	69	0.0326318	0.023		
LS-C	5'	0.0	0	0.8	0.8	81.0	27.2	85.1	0.026976	0.023		
LS-D	5'	6.0	120	5.1	5.1	84.9	29.4	71.7	0.029771	0.021		
LS-E	5'	3.3	66	1.2	1.2	81.3	27.4	78.3	0.026683	0.021		
LS-F	5'	0.3	6	3.6	3.6	79.5	26.4	79.9	0.0252448	0.020		
LS-G	5'	0.1	2	0.5	0.5	76.1	24.5	86.5	0.0224405	0.019		
LS-H	5'	6.3	126	3.2	3.2	86.5	30.3	68.6	0.0315959	0.022		
LS-I/SV-1*	5'	33.7	674	16.4	16.4	86.7	30.4	62.5	0.0314272	0.020		
LS-J	5'	1.4	28	0.4	0.4	85.3	29.6	70	0.029449	0.021		
LS-K	5'	33.6	672	9.0	9.0	84.6	29.2	64.2	0.030093	0.019		
LS-L	5'	2.6	52	3.0	3.0	81.9	27.7	73.5	0.0262435	0.019		
LS-M	5'	0.0	0	0.9	0.9	91.2	32.9	53.5	0.0340529	0.018		
LS-N/SV-2*	5'	34.1	682	11.0	11.0	88.2	31.2	59.2	0.0335148	0.020		
LS-O	5'	1.1	22	3.4	3.4	95.4	35.2	52.8	0.0413668	0.022		
LS-P	5'	0.0	0	0.3	0.3	99.0	37.2	57.7	0.045849	0.026		
LS-Q	5'	0.0	0	2.7	2.7	90.3	32.4	53.1	0.0349774	0.019		
LS-R/SV-3*	5'	4.6	92	4.1	4.1	98.8	37.1	51.2	0.04608	0.024		

(1) \* = Sample location selected for laboratory analysis

(2) -- = Not Applicable

(3) Harvey, A. (1998), Thermodynamic Properties of Water: Tabulation From the IAPWS Formulation 1995 for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use, NIST Interagency/Internal Report (NISTIR), National Institute of Standards and Technology, Gaithersburg, MD.

(4) Campbell G.S. and Norman J (1998), An Introduction to Environmental Biophysics (Modern Acoustics and Signal) 2nd Edition, Springer Science+Business Media, 286p.



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### Table 2 (Page 1 of 2). Summary of Landfill Gas Analytical Results Treefarm SWC IH-635 and IH-35 11645 Newberry Street Dallas, Texas 75229 VERTEX Project No. 94088

Sample Designation	CAS Number	Units	SV-1	SV-2	SV-3		
Laboratory Sample Designation			P2302295-001	P2302295-002	P2302295-003		
Sample Date			5/18/2023	5/18/2023	5/18/2023		
Ammonia by NIOSH 6015M							
Ammonia		mg/m <sup>3</sup>	<sdl< td=""><td><sdl< td=""><td><sdl< td=""></sdl<></td></sdl<></td></sdl<>	<sdl< td=""><td><sdl< td=""></sdl<></td></sdl<>	<sdl< td=""></sdl<>		
Fixed Gasses							
Hydrogen	1333-74-0	%, V/V	<sdl< td=""><td><sdl< td=""><td><sdl< td=""></sdl<></td></sdl<></td></sdl<>	<sdl< td=""><td><sdl< td=""></sdl<></td></sdl<>	<sdl< td=""></sdl<>		
Oxygen*	7782-44-7	%, V/V	0.45	1.76	2.15		
Nitrogen	7727-37-9	%, V/V	3.87	27.7	13.3		
Carbon Monoxide	630-08-0	%, V/V	<sdl< td=""><td><sdl< td=""><td><sdl< td=""></sdl<></td></sdl<></td></sdl<>	<sdl< td=""><td><sdl< td=""></sdl<></td></sdl<>	<sdl< td=""></sdl<>		
Methane	74-82-8	%, V/V	63.8	43.6	63.7		
Carbon Dioxide	124-38-9	%, V/V	31.9	26.8	20.8		
Light Gasses by ASTM D1946							
C2 as Ethane		ppmV	8.9	7.8	24		
C3 as Propane		ppmV	5.8	3.3	5.7		
C4 as n-Butane		ppmV	9.2	12	10		
C₅ as n-Pentane		ppmV	2.4	1.7	2.6		
C <sub>6</sub> as n-Hexane		ppmV	1.3	0.75	1.8		
C <sub>6</sub> + as n-Hexane		ppmV	43	130	41		
Merc	captans and Other Su	Ilfur Gase	es By ASTM D5504				
Hydrogen Sulfide	7783-06-4	µg/m³	36	16	<sdl< td=""></sdl<>		
Carbonyl Sulfide	463-58-1	µg/m³	24	410	<sdl< td=""></sdl<>		
Methyl Mercaptan	74-93-1	µg/m³	<sdl< td=""><td><sdl< td=""><td><sdl< td=""></sdl<></td></sdl<></td></sdl<>	<sdl< td=""><td><sdl< td=""></sdl<></td></sdl<>	<sdl< td=""></sdl<>		
Ethyl Mercaptan	75-08-1	µg/m³	<sdl< td=""><td><sdl< td=""><td><sdl< td=""></sdl<></td></sdl<></td></sdl<>	<sdl< td=""><td><sdl< td=""></sdl<></td></sdl<>	<sdl< td=""></sdl<>		
Dimethyl Sulfide	75-18-3	µg/m³	32	26	50		
Carbon Disulfide	75-15-0	µg/m³	290	550	68		
All Others	Varies	mg/m <sup>3</sup>	Varies	Varies	Varies		

Notes

• Units presented in micrograms per cubic meter (µg/m3).

• <SDLs = Analyte not detected above sample detection limits (SDL).

• Bold = Notes a concentration greater than the SDL.

• J = Result is less than the reporting limit but greater than or equal to the adjusted detection limit and the concentration is an approximate value.

• -- = Not Applicable.

• Full analytical results, including QA/QC information and data flags, are detailed in the laboratory analytical reports.

• Vapor samples collected by VERTEX and submitted to ALS Environmental for analysis.

\*\* Refer to laboratory analytical report for full list of target analytes.



### Table 2 (Page 2 of 2). Summary of Landfill Gas Analytical Results Treefarm SWC IH-635 and IH-35 11645 Newberry Street Dallas, Texas 75229 VERTEX Project No. 94088

Sample Designation	CAS Number	Units	SV-1	SV-2	SV-3
Laboratory Sample Designation			P2302295-001	P2302295-002	P2302295-003
Sample Date			5/18/2023	5/18/2023	5/18/2023
Volatile Organic Co	mpounds (VOCs	) by EPA Compe	ndium Method TO	-15	
Propene	115-07-1	μg/m <sup>3</sup>	980	750	<1.9
Dichlorodifluoromethane (CFC 12)	75-71-8	μg/m <sup>3</sup>	140	210	920
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	76-14-2	μg/m <sup>3</sup>	<1.2	2,700	<1.2
Vinyl Chloride	75-01-4	μg/m <sup>3</sup>	57	78	13
Chloroethane	75-00-3	μg/m <sup>3</sup>	2.7 J	<2.4	4.1 J
Ethanol	64-17-5	μg/m <sup>3</sup>	47 J	41 J	16 J
Acrolein	107-02-8	μg/m <sup>3</sup>	2.3 J	<5.4	<2.2
Acetone	67-64-1	μg/m <sup>3</sup>	320	500	560
2-Propanol (Isopropyl Alcohol)	67-63-0	μg/m <sup>3</sup>	26	<8.0	21
Methylene Chloride	75-09-2	μg/m <sup>3</sup>	3.1 J	<5.4	<2.2
Trichlorotrifluoroethane (CFC 113)	76-13-1	μg/m <sup>3</sup>	3.2 J	7.5 J	1.1 J
Carbon Disulfide	75-15-0	μg/m <sup>3</sup>	130	290	28
trans-1,2-Dichloroethene	156-60-5	μg/m <sup>3</sup>	2.6 J	4.6 J	<1.1
1,1-Dichloroethane	75-34-3	μg/m <sup>3</sup>	1.9 J	<2.8	<1.1
2-Butanone (MEK)	78-93-3	μg/m <sup>3</sup>	64	130	42
cis-1,2-Dichloroethene	156-59-2	μg/m <sup>3</sup>	13	41	9.1
n-Hexane	110-54-3	μg/m <sup>3</sup>	610	500	1,200
Chloroform	67-66-3	ug/m <sup>3</sup>	18	<2.6	<1.0
Tetrahydrofuran (THF)	109-99-9	ug/m <sup>3</sup>	18	97	<0.98
Benzene	71-43-2		750	240	640
Cyclohexane	110-82-7		200	390	520
Trichloroethene	79-01-6		3.8 J	20	<1.1
n-Heptane	142-82-5		430	170	240
4-Methvl-2-pentanone	108-10-1		<1.1	7.7 J	<1.1
Toluene	108-88-3	110/m <sup>3</sup>	26	48	5.8 J
1.2-Dibromoethane	106-93-4	11g/m <sup>3</sup>	<0.91	<2.2	<0.91
n-Octane	111-65-9	11g/m <sup>3</sup>	80	260	97
Tetrachloroethene	127-18-4	11g/m <sup>3</sup>	13	11 J	1.2 J
Chlorobenzene	108-90-7	110/m <sup>3</sup>	1000	83	480
Ethylbenzene	100-41-4	μσ/m <sup>3</sup>	36	250	10
m p-Xvlenes	179601-23-1	με/	61	140	11 J
Stvrene	100-42-5	μσ/m <sup>3</sup>	3.8 J	11 J	<1.3
o-Xvlene	95-47-6	μσ/m <sup>3</sup>	48	68	7.1 J
n-Nonane	111-84-2	μσ/m <sup>3</sup>	77	1.300	330
Cumene	98-82-8	με/m <sup>3</sup>	220	300	30
alpha-Pinene	80-56-8	$\mu g/m^3$	370	13 000	600
n-Propylhenzene	103-65-1	με/m <sup>3</sup>	200	270	22
4-Fthyltoluene	622-96-8	με/m <sup>3</sup>	<1 2	98	<1.2
1 3 5-Trimethylbenzene	108-67-8	με/m <sup>3</sup>	61 J	40	2.9 J
1 2 4-Trimethylbenzene	95-63-6	μg/m <sup>3</sup>	21	120	10
1 3-Dichlorobenzene	541-73-1	$\mu g/m^3$	43 J	38 J	<1 2
1 4-Dichlorobenzene	106-46-7	μα/m <sup>3</sup>	290	640	70
1.2-Dichlorobenzene	95-50-1	με/	12	50	45 J
I Jimonana	5080-27-5	$\mu g/m^3$	<16	870	<16
	06 10 9	μg/11	~1.0	0/U	~1.0
	90-12-0	μg/m	<1.J	< 3.0	<1.J
Naphthalene	91-20-3	μg/m ័	6.4 J	5.3 J	<1.9
All Others	Varies	$\mu g/m^3$	Varies	Varies	Varies

Notes

 $\bullet$  Units presented in micrograms per cubic meter (µg/m3).

• <SDLs = Analyte not detected above sample detection limits (SDL).

• Bold = Notes a concentration greater than the SDL.

• J = Result is less than the reporting limit but greater than or equal to the adjusted detection limit and the concentration is an approximate value.

• -- = Not Applicable.

• Full analytical results, including QA/QC information and data flags, are detailed in the laboratory analytical reports.

• Vapor samples collected by VERTEX and submitted to ALS Environmental for analysis.

\*\* Refer to laboratory analytical report for full list of target analytes.



Laboratory Analytical Report



# LABORATORY REPORT

May 30, 2023

Nick Cramer The Vertex Companies, Inc. 1600 Corporate Court, Suite 100 Irving, TX 75038

### RE: Tree farm / 75395

Dear Nick:

Enclosed are the results of the samples submitted to our laboratory on May 22, 2023. For your reference, these analyses have been assigned our service request number P2302295.

The ammonia samples were sent for analysis to ALS - Salt Lake City. Workorder: 34-2314367. Please find their reports attached.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at <u>www.alsglobal.com</u>. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

ALS | Environmental

Sue Anderson Project Manager



Client: The Vertex Companies, Inc. Project: Tree farm / 75395 Service Request No: P2302295

### CASE NARRATIVE

The samples were received intact under chain of custody on May 22, 2023 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

### <u>C1 through C6 Hydrocarbon Analysis</u>

The samples were analyzed per modified EPA Method TO-3 for C1 through >C6 hydrocarbons using a gas chromatograph equipped with a flame ionization detector (FID). This procedure is described in laboratory SOP VOA-TO3C1C6. This method is included on the laboratory's DoD-ELAP scope of accreditation, however it is not part of the NELAP accreditation.

### Fixed Gases Analysis

The samples were also analyzed for fixed gases (hydrogen, oxygen, nitrogen, carbon monoxide, methane and carbon dioxide) according to ASTM D1946-90 using a gas chromatograph equipped with a thermal conductivity detector (TCD). This procedure is described in laboratory SOP VOA-EPA3C. This method is not included on the laboratory's NELAP or DoD-ELAP scope of accreditation.

### Sulfur Analysis

The samples were also analyzed for twenty sulfur compounds per ASTM D 5504-20 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). All compounds with the exception of hydrogen sulfide and carbonyl sulfide are quantitated against the initial calibration curve for methyl mercaptan. This method is included on the laboratory's NELAP scope of accreditation, however it is not part of the DoD-ELAP accreditation.

### Volatile Organic Compound Analysis

The samples were also analyzed for volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. This procedure is described in laboratory SOP VOA-TO15. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. The method was modified to include the use of helium as a diluent gas in place of zero-grade air for container pressurization. When necessary, analytical sample volumes were adjusted by a correction factor for containers pressurized with helium. A summary sheet has been included listing the affected samples. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the NELAP or DoD-ELAP accreditation.

The spike recoveries of Methylene Chloride, 1,1,2-Trichloroethane and 1.2-Dibromoethane in the Laboratory Control Sample (LCS) and for Methylene Chloride in the Duplicate Laboratory Control Sample (DLCS) analyzed on May 30, 2023 were outside the laboratory generated control criteria. The



recovery errors equate to a potential low bias. However, the spike recoveries of the analytes in question were within the method criteria; therefore, the data quality has not been significantly affected. No corrective action was necessary.

The lower surrogate control criterion was exceeded for Toluene-d8 in sample SV-2 (P2302295-002) analyzed on May 28, 2023. However, the associated spike recoveries of target compounds and the surrogate recoveries in the other associated samples were acceptable, indicating the analysis was in control. The surrogate outlier has been flagged accordingly.

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.4 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.



# CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	https://dec.alaska.gov/spar/csp/lab-approval/list-of-approved-labs	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure- certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental- laboratories/index.html	E871020
Louisiana DEQ (NELAP)	https://internet.deq.louisiana.gov/portal/divisions/lelap/accredited- laboratories	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental- health/dwp/professionals/labCert.shtm	2022028
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	006-999-456
New Jersey DEP (NELAP)	https://dep.nj.gov/dsr/oqa/certified-laboratories/	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryA ccreditation/Pages/index.aspx	4068-011
Pennsylvania DEP	hhttp://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory- Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413- 22-13
Utah DOH (NELAP)	https://uphl.utah.gov/certifications/environmental-laboratory-certification/	CA016272022 -14
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at <u>www.alsglobal.com</u>, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

### ALS ENVIRONMENTAL

### DETAIL SUMMARY REPORT

Client: The Vertex Companies, Inc. Service Request: P2302295 Tree farm / 75395 Project ID: NIOSH 6015M-Sub-Out to ALS-SLC ASTM D 5504-20 - Sulfur Can FO-15 Modified - VOC Cans FO-3 Modified - C1C6+ Can ASTM D1946-90(2006) - Fxd Gases Car Date Received: 5/22/2023 Time Received: 09:20 Date Time Container Pi1 Pf1 Client Sample ID Lab Code Matrix Collected Collected ID (psig) (psig) Х SV-1 P2302295-001 Air 5/18/2023 16:48 SSC00055 -1.73 4.20 Х Х Х SV-2 P2302295-002 Air 5/18/2023 18:46 SSC00447 -1.80 4.05 Х Х Х Х SV-3 P2302295-003 5/18/2023 19:31 SSC00611 -1.76 4.17 Х Х Х Х Air SV-1 P2302295-004 Air 5/18/2023 17:33 Х SV-2 P2302295-005 Air 5/18/2023 19:30 Х SV-3 P2302295-006 20:03 Х Air 5/18/2023

# ALS ENVIRONMENTAL Sample Volume Correction for Helium Pressurization for SCAN Analysis

				Sample	Adjusted
Sample ID	<u>Pi</u>	<u>Pf</u>	<u>DF</u>	<u>Volume (L)</u>	<u>Volume (L)</u>
P2302295-001	-1.73	4.20	1.46	0.089	0.100
P2302295-002	-1.80	4.05	1.45	0.089	0.100
P2302295-003	-1.76	4.17	1.46	0.089	0.100
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	4				

# Air - Chain of Custody Record & Analytical Service Request

Page of

55 Park Center Drive, Suite A	ni Valley, California 93065	ione (805) 526-7161
2655	Simi	Phon

VISTER VS VSG Requested Turnaround Time in Business Days (Surcharges) please circle 1 Dav (100%) 2 Dav (75%) 3 Dav (56%) 4 Dav (35%) 5 Dav (25%) 10 Dav-Standard

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							2		ALS Contact:		
Company Name & Address (Reporting 1	Information)			Project Name							
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Project Manager NYCK Cramer	1			P.O. # / Billing Inform	nation wable @ vcrtex	CON CON			ې ۱۹۱ کالا ۱۹۱ کالا		Comments
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Email Address for Result Reporting	Cheng , LOm			Sampler (Print & Sign)	Tyler Mar	fin leller	Master		EU -		specific instructions
Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	OT A93		
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Relinquished by: (Signature)			Date:	Time:	Received by. (Signa	ature		C	2223	2549	Cooler / Blank Temperature °C
					10151						

#### ALS Environmental Sample Acceptance Check Form

Client	: The Vertex C	ompanies, Inc.	Sampi			Work order:	P2302295			
Project	Tree farm / 75	5395			_					
Sample	(s) received on:	5/22/23		]	Date opened:	5/22/23	by:	ADAV	ĪD	
Note: This	form is used for <u>al</u>	ll samples received by ALS.	The use of this f	orm for custody se	eals is strictly mo	eant to indicate presen	ce/absence and n	ot as an ir	ndication	of
compliance	e or nonconformity.	. Thermal preservation and	pH will only be e	valuated either at	the request of th	e client and/or as requ	ired by the metho	od/SOP.		<b>N</b> 1/A
1	Wara somela				9			<u>Yes</u>		$\underline{N/A}$
1	Did sample	containers property in		ent sample ID	:					
2	Did sample o	ontainers arrive in goo								
3	Were chain-o	f-custody papers used	and filled out	?						
4	Did sample co	ontainer labels and/or	tags agree wi	th custody pap	ers?					
5	Was sample v	volume received adequ	ate for analys	is?						
6	Are samples w	within specified holding	g times?					X		
7	7 Was proper <b>temperature</b> (thermal preservation) of cooler at receipt adhered to?					X				
								_	_	_
8	8 Were custody seals on outside of cooler/Box/Container?						×			
	Location of seal(s)? Sealing Lid?							×		
	Were signature and date included?							X		
	Were seals intact?					X				
9	Do containe	ers have appropriate <b>p</b>	eservation, a	ccording to me	ethod/SOP or	Client specified i	nformation?			X
	Is there a clie	ent indication that the s	ubmitted samp	oles are <b>pH</b> pro	eserved?					X
	Were <u>VOA v</u>	vials checked for prese	nce/absence of	f air bubbles?						X
	Does the clier	nt/method/SOP require	that the analy	st check the sa	mple pH and	if necessary alter	it?			X
10	Tubes:	Are the tubes capp	bed and intact?	)				X		
11	Badges:	Are the badges pr	operly capped	and intact?						$\mathbf{X}$
	0	Are dual bed bad	ges separated a	nd individuall	y capped and	intact?				X
Lah	Comula ID	Container	Deminud	Dessional		VOA Haadamaaa	Derei			
Lad	Sample ID	Description	Required	nH	nH	(Drasanaa/Absanaa)	Keceij	pt / Pres Commo	ervation	L
<b>D2</b> 20220	<u> </u>	Description	pm	рп	pm	(Tresence/Absence)		Comme	115	
P230229	5-001.01	6.0 L Silonite Can								
F230229 P230229	5-002.01	6.0 L Silonite Can								
P230229	5-004.01	Tube (NIOSH 6015)								
P230229	5-005.01	Tube (NIOSH 6015)								
P230229	5-006.01	Tube (NIOSH 6015)								

Explain any discrepancies: (include lab sample ID numbers):

Sample -004,-005,-006 were not listed on the COC, Sample Id, Time and date collected were taken from the sample container.

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

#### RESULTS OF ANALYSIS Page 1 of 1

Client: Client Sample ID: Client Project ID:	The Vertex Companies, Inc. SV-1 Tree farm / 75395		ALS Project ID: P2 ALS Sample ID: P2	302295 302295-001
Ū			1	
Test Code:	EPA TO-3 Modified		Date Collected: 5/1	18/23
Instrument ID:	HP5890 II/GC8/FID		Date Received: 5/2	22/23
Analyst:	Kylan Malloy/Gilbert Gutierrez		Date Analyzed: 5/2	24/23
Sampling Media:	6.0 L Silonite Canister		Volume(s) Analyzed:	1.0 ml(s)
Test Notes:			•	
Container ID:	SSC00055			
	Initial Pressure (psig): -1.73	Final Pressure (psig):	4.20	

Container Dilution Factor: 1.46

Compound	Result	MRL	Data
	ppmV	ppmV	Qualifier
Methane	530,000	0.73	
$C_2$ as Ethane	8.9	0.73	
C <sub>3</sub> as Propane	5.8	0.73	
C <sub>4</sub> as n-Butane	9.2	0.73	
C <sub>5</sub> as n-Pentane	2.4	0.73	
C <sub>6</sub> as n-Hexane	1.3	0.73	
C <sub>6</sub> + as n-Hexane	43	1.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

#### RESULTS OF ANALYSIS Page 1 of 1

Client: Client Sample ID: Client Project ID:	The Vertex Companies, Inc. SV-2 Tree farm / 75395		ALS Project ID: P2 ALS Sample ID: P2	302295 302295-002
Test Code:	EPA TO-3 Modified		Date Collected: 5/1	8/23
Instrument ID:	HP5890 II/GC8/FID		Date Received: 5/2	22/23
Analyst:	Kylan Malloy/Gilbert Gutierrez		Date Analyzed: 5/2	24/23
Sampling Media:	6.0 L Silonite Canister		Volume(s) Analyzed:	1.0 ml(s)
Test Notes:				
Container ID:	SSC00447			
	Initial Pressure (psig): -1.80	Final Pressure (psig):	4.05	

Container Dilution Factor: 1.45

Compound	Result	MRL	Data
	ppmV	ppmV	Qualifier
Methane	440,000	0.73	
$C_2$ as Ethane	7.8	0.73	
C <sub>3</sub> as Propane	3.3	0.73	
C <sub>4</sub> as n-Butane	12	0.73	
C <sub>5</sub> as n-Pentane	1.7	0.73	
C <sub>6</sub> as n-Hexane	0.75	0.73	
$C_6$ + as n-Hexane	130	1.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

## RESULTS OF ANALYSIS

Page 1 of 1

Client:	The Vertex Companies, Inc.			202205
Client Sample ID:	SV-3		ALS Project ID: P2.	502295
Client Project ID:	Tree farm / 75395		ALS Sample ID: P2.	302295-003
Test Code:	EPA TO-3 Modified		Date Collected: 5/1	8/23
Instrument ID:	HP5890 II/GC8/FID		Date Received: 5/2	2/23
Analyst:	Kylan Malloy/Gilbert Gutierrez		Date Analyzed: 5/2	4/23
Sampling Media:	6.0 L Silonite Canister		Volume(s) Analyzed:	1.0 ml(s)
Test Notes:				
Container ID:	SSC00611			
	Initial Pressure (psig): -1.76	Final Pressure (psig):	4.17	

Container Dilution Factor: 1.46

Compound	Result	MRL	Data
	ppmV	ppmV	Qualifier
Methane	550,000	0.73	
$C_2$ as Ethane	24	0.73	
C <sub>3</sub> as Propane	5.7	0.73	
C <sub>4</sub> as n-Butane	10	0.73	
C <sub>5</sub> as n-Pentane	2.6	0.73	
C <sub>6</sub> as n-Hexane	1.8	0.73	
$C_6$ + as n-Hexane	41	1.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

#### RESULTS OF ANALYSIS Page 1 of 1

Client:	The Vertex Companies, Inc.		
Client Sample ID:	Method Blank	ALS Project ID: P230	)2295
Client Project ID:	Tree farm / 75395	ALS Sample ID: P230	)524-MB
Test Code:	EPA TO-3 Modified	Date Collected: NA	
Instrument ID:	HP5890 II/GC8/FID	Date Received: NA	
Analyst:	Kylan Malloy/Gilbert Gutierrez	Date Analyzed: 5/24/	/23
Sampling Media: Test Notes:	6.0 L Silonite Canister	Volume(s) Analyzed:	1.0 ml(s)

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	ND	0.50	
$C_2$ as Ethane	ND	0.50	
C <sub>3</sub> as Propane	ND	0.50	
C <sub>4</sub> as n-Butane	ND	0.50	
C <sub>5</sub> as n-Pentane	ND	0.50	
C <sub>6</sub> as n-Hexane	ND	0.50	
C <sub>6</sub> + as n-Hexane	ND	1.0	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

#### LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client:	The Vertex Companies, Inc.
Client Sample ID:	Duplicate Lab Control Sample
Client Project ID:	Tree farm / 75395

ALS Project ID: P2302295 ALS Sample ID: P230524-DLCS

Test Code:	EPA TO-3 Modified	Date Collected: NA	
Instrument ID:	HP5890 II/GC8/FID	Date Received: NA	
Analyst:	Kylan Malloy/Gilbert Gutierrez	Date Analyzed: 5/24/23	
Sampling Media:	6.0 L Silonite Canister	Volume(s) Analyzed:	NA ml(s)
Test Notes:			

	Spike Amount	Re	sult			ALS			
Compound	LCS / DLCS	LCS	DLCS	% Re	covery	Acceptance	RPD	RPD	Data
	ppmV	ppmV	ppmV	LCS	DLCS	Limits		Limit	Qualifier
Methane	1,000	938	919	94	92	87-111	2	5	
Ethane	1,000	942	925	94	93	87-114	1	5	
Propane	1,000	991	973	99	97	92-120	2	6	
n-Butane	1,000	999	977	100	98	91-121	2	6	
n-Pentane	1,000	986	962	99	96	89-118	3	6	
n-Hexane	1,000	1,070	1,040	107	104	92-125	3	6	

#### RESULTS OF ANALYSIS Page 1 of 1

Client:	The Vertex Companies, Inc.				
<b>Client Sample ID:</b>	SV-1		AL	S Project ID: P2	2302295
<b>Client Project ID:</b>	Tree farm / 75395		ALS	S Sample ID: P2	2302295-001
Test Code:	ASTM D1946		Da	te Collected: 5/	18/23
Instrument ID:	Agilent 8890/GC38/TCD		Da	te Received: 5/	22/23
Analyst:	Lorena Montero-Abrams		Da	te Analyzed: 5/	23/23
Sample Type:	6.0 L Silonite Canister		Volume(	s) Analyzed:	0.10 ml(s)
Test Notes:					
Container ID:	SSC00055				
	Initial Pressure (psig): -1.73	Final Pressure (psig):	4.20		
			Co	ntainer Dilution	Factor: 1.46
CAS #	Compound		Result	MRL	Data
			%, v/v	%, v/v	Qualifier
1333-74-0	Hydrogen		ND	0.15	
7782-44-7	Oxygen*		0.450	0.15	
7727-37-9	Nitrogen		3.87	0.15	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Carbon Monoxide

**Carbon Dioxide** 

Methane

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ND

63.8

31.9

0.15

0.15

0.15

\* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

630-08-0

74-82-8

124-38-9

#### RESULTS OF ANALYSIS Page 1 of 1

Client: Client Sample ID: Client Project ID:	The Vertex Companies, Inc. SV-2 Tree farm / 75395		AL AL	S Project ID: P2 S Sample ID: P2	2302295 2302295-002
Test Code: Instrument ID: Analyst:	ASTM D1946 Agilent 8890/GC38/TCD Lorena Montero-Abrams		Da Da Da	ate Collected: 5/ ate Received: 5/ ate Analyzed: 5/	/18/23 /22/23 /23/23
Sample Type:	6.0 L Silonite Canister		Volume	(s) Analyzed:	0.10 ml(s)
Test Notes:					
Container ID:	SSC00447				
	Initial Pressure (psig): -1.80	Final Pressure (psig):	4.05		
			Co	ontainer Dilutior	1 Factor: 1.45
CAS #	Compound		Result	MRL	Data
			%, v/v	%, v/v	Qualifier
1333-74-0	Hydrogen		ND	0.15	
7782-44-7	Oxygen*		1.76	0.15	
7727-37-9	Nitrogen		27.7	0.15	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Carbon Monoxide

**Carbon Dioxide** 

Methane

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ND

43.6

26.8

0.15

0.15

0.15

\* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

630-08-0

74-82-8

124-38-9

#### RESULTS OF ANALYSIS Page 1 of 1

Client: Client Sample ID: Client Project ID:	The Vertex Companies, Inc. SV-3 Tree farm / 75395		AI AL	LS Project ID: P2 LS Sample ID: P2	2302295 2302295-003
Test Code: Instrument ID: Analyst:	ASTM D1946 Agilent 8890/GC38/TCD Lorena Montero-Abrams		D D D	ate Collected: 5/ ate Received: 5/ ate Analyzed: 5/	18/23 22/23 23/23
Sample Type:	6.0 L Silonite Canister		Volume	e(s) Analyzed:	0.10 ml(s)
Test Notes:					
Container ID:	SSC00611				
	Initial Pressure (psig): -1.76	Final Pressure (psig):	4.17		
			C	ontainer Dilution	Factor: 1.46
CAS #	Compound		Result	MRL	Data
	-		%, v/v	%, v/v	Qualifier
1333-74-0	Hydrogen		NE	0.15	
7782-44-7	Oxygen*		2.15	0.15	
7727-37-9	Nitrogen		13.3	0.15	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Carbon Monoxide

**Carbon Dioxide** 

Methane

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ND

63.7

20.8

0.15

0.15

0.15

\* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

630-08-0

74-82-8

124-38-9

#### RESULTS OF ANALYSIS Page 1 of 1

Client:	The Vertex Companies, Inc.	
<b>Client Sample ID:</b>	Method Blank	ALS Project ID: P2302295
Client Project ID:	Tree farm / 75395	ALS Sample ID: P230523-MB
Test Code:	ASTM D1946	Date Collected: NA
Instrument ID:	Agilent 8890/GC38/TCD	Date Received: NA
Analyst:	Lorena Montero-Abrams	Date Analyzed: 5/23/23
Sample Type:	6.0 L Silonite Canister	Volume(s) Analyzed: 0.10 ml(s)

CAS #	Compound	Result	MRL %, v/v	Data Oualifier
1333-74-0	Hydrogen	ND	0.10	<u> </u>
7782-44-7	Oxygen*	ND	0.10	
7727-37-9	Nitrogen	ND	0.10	
630-08-0	Carbon Monoxide	ND	0.10	
74-82-8	Methane	ND	0.10	
124-38-9	Carbon Dioxide	ND	0.10	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

\* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

Test Notes:

#### RESULTS OF ANALYSIS Page 1 of 1

Client:	The Vertex Companies, Inc.	
<b>Client Sample ID:</b>	Batch QC	ALS Project ID: P2302295
<b>Client Project ID:</b>	Tree farm / 75395	ALS Sample ID: P2302246-001
Test Code:	ASTM D1946	Date Collected: 5/17/23
Instrument ID:	Agilent 8890/GC38/TCD	Date Received: 5/18/23
Analyst:	Lorena Montero-Abrams	Date Analyzed: 5/23/23

 $0.10 \, ml(s)$ 

Volume(s) Analyzed:

#### Container Dilution Factor: 1.43

CAS #	Compound	Result	MRL	Data
		%, v/v	%, v/v	Qualifier
1333-74-0	Hydrogen	ND	0.14	
7782-44-7	Oxygen*	1.71	0.14	
7727-37-9	Nitrogen	11.0	0.14	
630-08-0	Carbon Monoxide	ND	0.14	
74-82-8	Methane	19.5	0.14	
124-38-9	Carbon Dioxide	14.1	0.14	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

6.0 L Silonite Canister

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

\* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

Sample Type:

Test Notes:

#### LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client:	The Vertex Companies, Inc.
Client Sample ID:	Lab Control Sample
Client Project ID:	Tree farm / 75395

ALS Project ID: P2302295 ALS Sample ID: P230523-LCS

Test Code:	ASTM D1946	Date Collected: NA	
Instrument ID:	Agilent 8890/GC38/TCD	Date Received: NA	
Analyst:	Lorena Montero-Abrams	Date Analyzed: 5/23	/23
Sample Type:	6.0 L Silonite Canister	Volume(s) Analyzed:	NA ml(s)
Test Notes:			

					ALS	
CAS #	Compound	Spike Amount	Result	% Recovery	Acceptance	Data
		ppmV	ppmV		Limits	Qualifier
1333-74-0	Hydrogen	39,700	43,000	108	96-117	
7782-44-7	Oxygen*	25,100	25,300	101	92-112	
7727-37-9	Nitrogen	49,800	50,000	100	89-113	
630-08-0	Carbon Monoxide	49,600	51,900	105	96-113	
74-82-8	Methane	40,000	41,100	103	95-111	
124-38-9	Carbon Dioxide	49,600	50,800	102	93-112	

\* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

#### LABORATORY DUPLICATE SUMMARY RESULTS

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Client:	The Vertex Companies, Inc.
Client Sample ID:	Batch QC
Client Project ID:	Tree farm / 75395

ALS Project ID: P2302295 ALS Sample ID: P2302246-001DUP

Test Code:	ASTM D1946	Date Collected: 5/1	17/23	
Instrument ID:	Agilent 8890/GC38/TCD	Date Received: 5/18/23		
Analyst:	Lorena Montero-Abrams	Date Analyzed: 5/23/23		
Sample Type:	6.0 L Silonite Canister	Volume(s) Analyzed:	0.10 ml(s)	
Test Notes:				

			Duplicate				
CAS #	Compound	Sample Result	Sample Result	Average	% RPD	RPD	Data
		%, v/v	%, v/v			Limit	Qualifier
1333-74-0	Hydrogen	ND	ND	-	-	5	
7782-44-7	Oxygen*	1.71	1.71	1.71	0	7	
7727-37-9	Nitrogen	11.0	11.1	11.05	0.9	7	
630-08-0	Carbon Monoxide	ND	ND	-	-	5	
74-82-8	Methane	19.5	19.7	19.6	1	5	
124-38-9	Carbon Dioxide	14.1	14.3	14.2	1	6	

ND = Compound was analyzed for, but not detected.

\* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

## RESULTS OF ANALYSIS

Page 1 of 1

Client:	The Vertex Companies, Inc.					
<b>Client Sample ID:</b>	SV-1			ALS Project ID:	P2302295	
Client Project ID:	Tree farm / 75395			ALS Sample ID: P2302295-001		
Test Code:	ASTM D 5504-20			Date Collected:	5/18/23	
Instrument ID:	Agilent 6890A/GC13/SCD			Time Collected:	16:48	
Analyst:	Stephanie Reynoso			Date Received:	5/22/23	
Sample Type:	6.0 L Silonite Canister			Date Analyzed:	5/23/23	
Test Notes:				Time Analyzed:	13:31	
Container ID:	SSC00055			Volume(s) Analyzed:	1.0 ml(s)	
	Initial Pressure (psig): -1	.73	Final Pressure (psig):	4.20		

Container Dilution Factor: 1.46

CAS #	Compound	Result	MRL	Result	MRL pphV	Data
7783-06-4	Hydrogen Sulfide	μg/m 36	μg/m 10	<u> </u>	73	Qualifier
162 58 1	Carbonyl Sulfido	24	10	20	7.5	
403-36-1		24	10	9.9	7.3	
/4-93-1	Methyl Mercaptan	ND	14	ND	7.3	
75-08-1	Ethyl Mercaptan	ND	19	ND	7.3	
75-18-3	Dimethyl Sulfide	32	19	13	7.3	
75-15-0	Carbon Disulfide	290	11	94	3.7	
75-33-2	Isopropyl Mercaptan	ND	23	ND	7.3	
75-66-1	tert-Butyl Mercaptan	ND	27	ND	7.3	
107-03-9	n-Propyl Mercaptan	ND	23	ND	7.3	
624-89-5	Ethyl Methyl Sulfide	ND	23	ND	7.3	
110-02-1	Thiophene	ND	25	ND	7.3	
513-44-0	Isobutyl Mercaptan	ND	27	ND	7.3	
352-93-2	Diethyl Sulfide	ND	27	ND	7.3	
109-79-5	n-Butyl Mercaptan	ND	27	ND	7.3	
624-92-0	Dimethyl Disulfide	ND	14	ND	3.7	
616-44-4	3-Methylthiophene	ND	29	ND	7.3	
110-01-0	Tetrahydrothiophene	ND	26	ND	7.3	
638-02-8	2,5-Dimethylthiophene	ND	33	ND	7.3	
872-55-9	2-Ethylthiophene	ND	33	ND	7.3	
110-81-6	Diethyl Disulfide	ND	18	ND	3.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

## RESULTS OF ANALYSIS

Page 1 of 1

Client:	The Vertex Companies, Inc.			
<b>Client Sample ID:</b>	SV-2		ALS Project ID:	P2302295
Client Project ID:	Tree farm / 75395	ALS Sample ID: P2302295-00		
Test Code:	ASTM D 5504-20		Date Collected:	5/18/23
Instrument ID:	Agilent 6890A/GC13/SCD		Time Collected:	18:46
Analyst:	Stephanie Reynoso		Date Received:	5/22/23
Sample Type:	6.0 L Silonite Canister		Date Analyzed:	5/23/23
Test Notes:			Time Analyzed:	13:53
Container ID:	SSC00447		Volume(s) Analyzed:	1.0 ml(s)
	Initial Pressure (psig): -1.80	Final Pressure (psig):	4.05	

Container Dilution Factor: 1.45

CAS #	Compound	Result	MRL ug/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Oualifier
7783-06-4	Hydrogen Sulfide	<u>16</u>	10	<u> </u>	7.3	Quanner
463-58-1	Carbonyl Sulfide	410	18	170	7.3	
74-93-1	Methyl Mercaptan	ND	14	ND	7.3	
75-08-1	Ethyl Mercaptan	ND	18	ND	7.3	
75-18-3	Dimethyl Sulfide	26	18	10	7.3	
75-15-0	Carbon Disulfide	550	11	180	3.6	
75-33-2	Isopropyl Mercaptan	ND	23	ND	7.3	
75-66-1	tert-Butyl Mercaptan	ND	27	ND	7.3	
107-03-9	n-Propyl Mercaptan	ND	23	ND	7.3	
624-89-5	Ethyl Methyl Sulfide	ND	23	ND	7.3	
110-02-1	Thiophene	ND	25	ND	7.3	
513-44-0	Isobutyl Mercaptan	ND	27	ND	7.3	
352-93-2	Diethyl Sulfide	ND	27	ND	7.3	
109-79-5	n-Butyl Mercaptan	ND	27	ND	7.3	
624-92-0	Dimethyl Disulfide	ND	14	ND	3.6	
616-44-4	3-Methylthiophene	ND	29	ND	7.3	
110-01-0	Tetrahydrothiophene	ND	26	ND	7.3	
638-02-8	2,5-Dimethylthiophene	ND	33	ND	7.3	
872-55-9	2-Ethylthiophene	ND	33	ND	7.3	
110-81-6	Diethyl Disulfide	ND	18	ND	3.6	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

## RESULTS OF ANALYSIS

Page 1 of 1

Client:	The Vertex Companies, In	IC.			
<b>Client Sample ID:</b>	SV-3			ALS Project ID: P23	302295
Client Project ID:	Tree farm / 75395			ALS Sample ID: P23	802295-003
Test Code:	ASTM D 5504-20			Date Collected: 5/1	8/23
Instrument ID:	Agilent 6890A/GC13/SCD			Time Collected: 19:	31
Analyst:	Stephanie Reynoso			Date Received: 5/2	2/23
Sample Type:	6.0 L Silonite Canister			Date Analyzed: 5/2	3/23
Test Notes:				Time Analyzed: 14:	14
Container ID:	SSC00611			Volume(s) Analyzed:	1.0 ml(s)
	Initial Pressure (psig):	-1.76	Final Pressure (psig):	4.17	

Container Dilution Factor: 1.46

CAS #	Compound	Result	MRL ug/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	10	ND	7.3	<u> </u>
463-58-1	Carbonyl Sulfide	ND	18	ND	7.3	
74-93-1	Methyl Mercaptan	ND	14	ND	7.3	
75-08-1	Ethyl Mercaptan	ND	19	ND	7.3	
75-18-3	Dimethyl Sulfide	50	19	20	7.3	
75-15-0	Carbon Disulfide	68	11	22	3.7	
75-33-2	Isopropyl Mercaptan	ND	23	ND	7.3	
75-66-1	tert-Butyl Mercaptan	ND	27	ND	7.3	
107-03-9	n-Propyl Mercaptan	ND	23	ND	7.3	
624-89-5	Ethyl Methyl Sulfide	ND	23	ND	7.3	
110-02-1	Thiophene	ND	25	ND	7.3	
513-44-0	Isobutyl Mercaptan	ND	27	ND	7.3	
352-93-2	Diethyl Sulfide	ND	27	ND	7.3	
109-79-5	n-Butyl Mercaptan	ND	27	ND	7.3	
624-92-0	Dimethyl Disulfide	ND	14	ND	3.7	
616-44-4	3-Methylthiophene	ND	29	ND	7.3	
110-01-0	Tetrahydrothiophene	ND	26	ND	7.3	
638-02-8	2,5-Dimethylthiophene	ND	33	ND	7.3	
872-55-9	2-Ethylthiophene	ND	33	ND	7.3	
110-81-6	Diethyl Disulfide	ND	18	ND	3.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

#### RESULTS OF ANALYSIS Page 1 of 1

Client:The Vertex Companies, Inc.Client Sample ID:Method BlankClient Project ID:Tree farm / 75395

Test Code:	ASTM D 5504-20
Instrument ID:	Agilent 6890A/GC13/SCD
Analyst:	Stephanie Reynoso
Sample Type:	6.0 L Silonite Canister
Test Notes:	

ALS Project ID: P2302295 ALS Sample ID: P230523-MB

Date Collected: NA Time Collected: NA Date Received: NA Date Analyzed: 5/23/23 Time Analyzed: 07:49 Volume(s) Analyzed: 1.0 ml(s)

CAS #	Compound	Result	MRL	Result	MRL	Data
		μg/m³	µg/m³	ppbV	ppbV	Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

#### LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

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# Client:The Vertex Companies, Inc.Client Sample ID:Duplicate Lab Control SampleClient Project ID:Tree farm / 75395

ALS Project ID: P2302295 ALS Sample ID: P230523-DLCS

Test Code:	ASTM D 5504-20	Date Collected: NA	
Instrument ID:	Agilent 6890A/GC13/SCD	Date Received: NA	
Analyst:	Stephanie Reynoso	Date Analyzed: 5/23/23	
Sample Type:	6.0 L Silonite Canister	Volume(s) Analyzed: NA ml	(s)
Test Notes:			

		Spike Amount	Re	sult			ALS			
CAS #	Compound	LCS / DLCS	LCS	DLCS	% Re	covery	Acceptance	RPD	RPD	Data
		ppbV	ppbV	ppbV	LCS	DLCS	Limits		Limit	Qualifier
7783-06-4	Hydrogen Sulfide	1,000	893	977	89	98	72-122	10	18	
463-58-1	Carbonyl Sulfide	1,000	938	1,070	94	107	72-121	13	17	
74-93-1	Methyl Mercaptan	1,000	1,100	1,230	110	123	74-127	11	18	

#### RESULTS OF ANALYSIS

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# Client:The Vertex Companies, Inc.Client Sample ID:SV-1Client Project ID:Tree farm / 75395

Test Code:	EPA TO-15 Modified
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst:	Simon Cao
Sample Type:	6.0 L Silonite Canister
Test Notes:	
Container ID:	SSC00055

ALS Project ID: P2302295 ALS Sample ID: P2302295-001

Date Collected: 5/18/23 Date Received: 5/22/23 Date Analyzed: 5/26/23 Volume(s) Analyzed: 0.10 Liter(s)

Initial Pressure (psig): -1.73

Final Pressure (psig): 4.20

Canister Dilution Factor: 1.46

CAS #	Compound	Result	MRL	MDL	Result	MRL	MDL	Data
		μg/m³	μg/m³	μg/m³	ppbV	ppbV	ppbV	Qualifier
115-07-1	Propene	980	7.7	1.9	570	4.5	1.1	
75-71-8	Dichlorodifluoromethane (CFC 12)	140	7.7	1.3	29	1.6	0.26	
74-87-3	Chloromethane	ND	7.6	1.3	ND	3.7	0.61	
76-14-2	1,2-Dichloro-1,1,2,2- tetrafluoroethane (CFC 114)	ND	7.6	1.2	ND	1.1	0.18	
75-01-4	Vinyl Chloride	57	7.4	0.83	22	2.9	0.33	
106-99-0	1,3-Butadiene	ND	7.7	1.3	ND	3.5	0.58	
74-83-9	Bromomethane	ND	7.4	1.1	ND	1.9	0.28	
75-00-3	Chloroethane	2.7	7.6	0.96	1.0	2.9	0.37	J
64-17-5	Ethanol	47	73	5.4	25	39	2.9	J
75-05-8	Acetonitrile	ND	15	1.9	ND	8.7	1.1	
107-02-8	Acrolein	2.3	15	2.2	1.0	6.4	0.96	J
67-64-1	Acetone	320	77	18	140	32	7.4	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	7.6	1.2	ND	1.4	0.21	
67-63-0	2-Propanol (Isopropyl Alcohol)	26	15	3.2	11	6.1	1.3	
107-13-1	Acrylonitrile	ND	15	1.6	ND	6.9	0.74	
75-35-4	1,1-Dichloroethene	ND	7.9	1.1	ND	2.0	0.27	
75-09-2	Methylene Chloride	3.1	7.7	2.2	0.90	2.2	0.63	J
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	7.7	1.1	ND	2.5	0.34	
76-13-1	Trichlorotrifluoroethane (CFC 113)	3.2	7.9	1.1	0.42	1.0	0.14	J
75-15-0	Carbon Disulfide	130	16	2.3	43	5.0	0.75	
156-60-5	trans-1,2-Dichloroethene	2.6	7.9	1.1	0.66	2.0	0.27	J
75-34-3	1,1-Dichloroethane	1.9	7.9	1.1	0.48	1.9	0.28	J
1634-04-4	Methyl tert-Butyl Ether	ND	7.9	0.92	ND	2.2	0.26	
108-05-4	Vinyl Acetate	ND	73	18	ND	21	5.0	
78-93-3	2-Butanone (MEK)	64	15	1.6	22	5.2	0.54	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

#### RESULTS OF ANALYSIS

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# Client:The Vertex Companies, Inc.Client Sample ID:SV-1Client Project ID:Tree farm / 75395

Test Code:EPA TO-15 ModifiedInstrument ID:Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9Analyst:Simon CaoSample Type:6.0 L Silonite CanisterTest Notes:Container ID:SSC00055

ALS Project ID: P2302295 ALS Sample ID: P2302295-001

Date Collected: 5/18/23 Date Received: 5/22/23 Date Analyzed: 5/26/23 Volume(s) Analyzed: 0.10 Liter(s)

4.20

Initial Pressure (psig): -1.73

Final Pressure (psig):

Canister Dilution Factor: 1.46

CAS #	Compound	Result	MRL	MDL	Result	MRL	MDL	Data
		μg/m <sup>3</sup>	µg/m³	µg/m³	ppbV	ppbV	ppbV	Qualifier
156-59-2	cis-1,2-Dichloroethene	13	7.7	1.1	3.4	2.0	0.28	
141-78-6	Ethyl Acetate	ND	31	4.1	ND	8.5	1.1	
110-54-3	n-Hexane	610	7.7	1.6	170	2.2	0.46	
67-66-3	Chloroform	18	7.7	1.0	3.7	1.6	0.21	
109-99-9	Tetrahydrofuran (THF)	18	15	0.98	6.2	5.0	0.33	
107-06-2	1,2-Dichloroethane	ND	7.9	0.86	ND	1.9	0.21	
71-55-6	1,1,1-Trichloroethane	ND	7.7	0.96	ND	1.4	0.18	
71-43-2	Benzene	750	7.9	1.1	240	2.5	0.35	
56-23-5	Carbon Tetrachloride	ND	7.6	1.1	ND	1.2	0.17	
110-82-7	Cyclohexane	200	15	2.2	57	4.5	0.64	
78-87-5	1,2-Dichloropropane	ND	7.7	0.96	ND	1.7	0.21	
75-27-4	Bromodichloromethane	ND	7.9	1.1	ND	1.2	0.17	
79-01-6	Trichloroethene	3.8	7.7	1.1	0.71	1.4	0.20	J
123-91-1	1,4-Dioxane	ND	7.7	0.92	ND	2.1	0.26	
80-62-6	Methyl Methacrylate	ND	16	2.8	ND	3.9	0.68	
142-82-5	n-Heptane	430	7.7	1.2	110	1.9	0.30	
10061-01-5	cis-1,3-Dichloropropene	ND	7.9	1.2	ND	1.7	0.27	
108-10-1	4-Methyl-2-pentanone	ND	16	1.1	ND	3.9	0.26	
10061-02-6	trans-1,3-Dichloropropene	ND	7.4	1.6	ND	1.6	0.35	
79-00-5	1,1,2-Trichloroethane	ND	7.7	0.79	ND	1.4	0.14	
108-88-3	Toluene	26	7.7	0.95	6.9	2.1	0.25	
591-78-6	2-Hexanone	ND	16	0.96	ND	3.9	0.24	
124-48-1	Dibromochloromethane	ND	7.9	1.0	ND	0.93	0.12	
106-93-4	1,2-Dibromoethane	ND	7.6	0.91	ND	0.99	0.12	
123-86-4	n-Butyl Acetate	ND	15	1.1	ND	3.1	0.22	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

#### RESULTS OF ANALYSIS

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# Client:The Vertex Companies, Inc.Client Sample ID:SV-1Client Project ID:Tree farm / 75395

Test Code:EPA TO-15 ModifiedInstrument ID:Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9Analyst:Simon CaoSample Type:6.0 L Silonite CanisterTest Notes:Container ID:SSC00055

ALS Project ID: P2302295 ALS Sample ID: P2302295-001

Date Collected: 5/18/23 Date Received: 5/22/23 Date Analyzed: 5/26/23 Volume(s) Analyzed: 0.10 Liter(s)

Initial Pressure (psig): -1.73

Final Pressure (psig): 4.20

Canister Dilution Factor: 1.46

		Result	MRL	MDL	Result	MRL	MDL	Data
CAS #	Compound	μg/m³	$\mu g/m^3$	μg/m³	ppbV	ppbV	ppbV	Qualifier
111-65-9	n-Octane	80	7.9	1.8	17	1.7	0.38	
127-18-4	Tetrachloroethene	13	7.7	1.0	1.9	1.1	0.15	
108-90-7	Chlorobenzene	1,000	7.7	1.0	220	1.7	0.23	
100-41-4	Ethylbenzene	36	7.7	1.1	8.2	1.8	0.25	
179601-23-1	m,p-Xylenes	61	16	2.0	14	3.7	0.47	
75-25-2	Bromoform	ND	7.9	1.6	ND	0.76	0.16	
100-42-5	Styrene	3.8	7.7	1.3	0.89	1.8	0.30	J
95-47-6	o-Xylene	48	7.7	1.1	11	1.8	0.26	
111-84-2	n-Nonane	77	7.7	1.3	15	1.5	0.25	
79-34-5	1,1,2,2-Tetrachloroethane	ND	7.7	1.1	ND	1.1	0.16	
98-82-8	Cumene	220	7.9	1.1	46	1.6	0.23	
80-56-8	alpha-Pinene	370	16	1.2	67	2.9	0.21	
103-65-1	n-Propylbenzene	200	7.9	1.1	41	1.6	0.23	
622-96-8	4-Ethyltoluene	ND	8.0	1.2	ND	1.6	0.25	
108-67-8	1,3,5-Trimethylbenzene	6.1	7.7	1.1	1.2	1.6	0.23	J
95-63-6	1,2,4-Trimethylbenzene	21	7.7	1.1	4.3	1.6	0.22	
100-44-7	Benzyl Chloride	ND	31	1.8	ND	5.9	0.34	
541-73-1	1,3-Dichlorobenzene	4.3	7.7	1.2	0.71	1.3	0.19	J
106-46-7	1,4-Dichlorobenzene	290	7.7	1.2	48	1.3	0.20	
95-50-1	1,2-Dichlorobenzene	12	7.9	1.2	1.9	1.3	0.19	
5989-27-5	d-Limonene	ND	16	1.6	ND	2.9	0.29	
96-12-8	1,2-Dibromo-3-chloropropane	ND	16	1.5	ND	1.7	0.15	
120-82-1	1,2,4-Trichlorobenzene	ND	16	1.9	ND	2.2	0.26	
91-20-3	Naphthalene	6.4	8.0	1.9	1.2	1.5	0.36	J
87-68-3	Hexachlorobutadiene	ND	7.7	1.6	ND	0.73	0.15	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

#### RESULTS OF ANALYSIS

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# Client:The Vertex Companies, Inc.Client Sample ID:SV-2Client Project ID:Tree farm / 75395

Test Code:	EPA TO-15 Modified
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst:	Wida Ang
Sample Type:	6.0 L Silonite Canister
Test Notes:	
Container ID:	SSC00447

ALS Project ID: P2302295 ALS Sample ID: P2302295-002

Date Collected: 5/18/23 Date Received: 5/22/23 Date Analyzed: 5/28/23 & 5/30/23 Volume(s) Analyzed: 0.040 Liter(s) 0.0040 Liter(s)

Initial Pressure (psig): -1.80

Final Pressure (psig): 4.05

Canister Dilution Factor: 1.45

CAS #	Compound	Result	MRL	MDL	Result ppbV	MRL ppbV	MDL pphV	Data Qualifier
115-07-1	Propene	750	<u>19</u>	4.7	440	11	2.7	Quainter
75-71-8	Dichlorodifluoromethane (CFC 12)	210	19	3.2	41	3.9	0.64	
74-87-3	Chloromethane	ND	19	3.1	ND	9.1	1.5	
76-14-2	1,2-Dichloro-1,1,2,2- tetrafluoroethane (CFC 114)	2,700	19	3.0	380	2.7	0.44	
75-01-4	Vinyl Chloride	78	18	2.1	31	7.2	0.81	
106-99-0	1,3-Butadiene	ND	19	3.2	ND	8.7	1.4	
74-83-9	Bromomethane	ND	18	2.7	ND	4.8	0.69	
75-00-3	Chloroethane	ND	19	2.4	ND	7.1	0.91	
64-17-5	Ethanol	41	180	13	22	96	7.1	J
75-05-8	Acetonitrile	ND	36	4.7	ND	22	2.8	
107-02-8	Acrolein	ND	36	5.4	ND	16	2.4	
67-64-1	Acetone	500	190	44	210	80	18	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	19	2.9	ND	3.4	0.52	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	37	8.0	ND	15	3.2	
107-13-1	Acrylonitrile	ND	37	4.0	ND	17	1.8	
75-35-4	1,1-Dichloroethene	ND	20	2.7	ND	4.9	0.68	
75-09-2	Methylene Chloride	ND	19	5.4	ND	5.5	1.6	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	19	2.6	ND	6.1	0.83	
76-13-1	Trichlorotrifluoroethane (CFC 113)	7.5	20	2.8	0.98	2.6	0.36	J
75-15-0	Carbon Disulfide	290	39	5.8	93	12	1.9	
156-60-5	trans-1,2-Dichloroethene	4.6	20	2.7	1.2	4.9	0.68	J
75-34-3	1,1-Dichloroethane	ND	20	2.8	ND	4.8	0.70	
1634-04-4	Methyl tert-Butyl Ether	ND	20	2.3	ND	5.4	0.63	
108-05-4	Vinyl Acetate	ND	180	44	ND	51	12	
78-93-3	2-Butanone (MEK)	130	38	4.0	44	13	1.4	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

#### RESULTS OF ANALYSIS

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# Client:The Vertex Companies, Inc.Client Sample ID:SV-2Client Project ID:Tree farm / 75395

Test Code:	EPA TO-15 Modified
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst:	Wida Ang
Sample Type:	6.0 L Silonite Canister
Test Notes:	
Container ID:	SSC00447

ALS Project ID: P2302295 ALS Sample ID: P2302295-002

Date Collected: 5/18/23 Date Received: 5/22/23 Date Analyzed: 5/28/23 & 5/30/23 Volume(s) Analyzed: 0.040 Liter(s) 0.0040 Liter(s)

Initial Pressure (psig): -1.80

Final Pressure (psig): 4.05

Canister Dilution Factor: 1.45

CAS #	Compound	Result	MRL	MDL	Result	MRL	MDL	Data
		μg/m³	μg/m³	µg/m³	ppbV	ppbV	ppbV	Qualifier
156-59-2	cis-1,2-Dichloroethene	41	19	2.7	10	4.8	0.69	
141-78-6	Ethyl Acetate	ND	76	10	ND	21	2.8	
110-54-3	n-Hexane	500	19	4.0	140	5.5	1.1	
67-66-3	Chloroform	ND	19	2.6	ND	3.9	0.53	
109-99-9	Tetrahydrofuran (THF)	97	36	2.4	33	12	0.82	
107-06-2	1,2-Dichloroethane	ND	20	2.1	ND	4.8	0.53	
71-55-6	1,1,1-Trichloroethane	ND	19	2.4	ND	3.5	0.44	
71-43-2	Benzene	240	20	2.8	74	6.1	0.87	
56-23-5	Carbon Tetrachloride	ND	19	2.7	ND	3.0	0.43	
110-82-7	Cyclohexane	390	38	5.4	110	11	1.6	
78-87-5	1,2-Dichloropropane	ND	19	2.4	ND	4.2	0.52	
75-27-4	Bromodichloromethane	ND	20	2.8	ND	2.9	0.42	
79-01-6	Trichloroethene	20	19	2.6	3.6	3.6	0.49	
123-91-1	1,4-Dioxane	ND	19	2.3	ND	5.3	0.63	
80-62-6	Methyl Methacrylate	ND	40	6.9	ND	9.7	1.7	
142-82-5	n-Heptane	170	19	3.1	40	4.7	0.75	
10061-01-5	cis-1,3-Dichloropropene	ND	20	3.0	ND	4.3	0.66	
108-10-1	4-Methyl-2-pentanone	7.7	40	2.6	1.9	9.7	0.65	J
10061-02-6	trans-1,3-Dichloropropene	ND	18	4.0	ND	4.1	0.88	
79-00-5	1,1,2-Trichloroethane	ND	19	2.0	ND	3.5	0.36	
108-88-3	Toluene	48	19	2.4	13	5.1	0.63	
591-78-6	2-Hexanone	ND	40	2.4	ND	9.7	0.58	
124-48-1	Dibromochloromethane	ND	20	2.5	ND	2.3	0.30	
106-93-4	1,2-Dibromoethane	ND	19	2.2	ND	2.5	0.29	
123-86-4	n-Butyl Acetate	ND	36	2.6	ND	7.6	0.56	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

#### RESULTS OF ANALYSIS

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# Client:The Vertex Companies, Inc.Client Sample ID:SV-2Client Project ID:Tree farm / 75395

Test Code:EPA TO-15 ModifiedInstrument ID:Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9Analyst:Wida AngSample Type:6.0 L Silonite CanisterTest Notes:Container ID:SSC00447

ALS Project ID: P2302295 ALS Sample ID: P2302295-002

Date Collected: 5/18/23 Date Received: 5/22/23 Date Analyzed: 5/28/23 & 5/30/23 Volume(s) Analyzed: 0.040 Liter(s) 0.0040 Liter(s)

Initial Pressure (psig): -1.80

Final Pressure (psig): 4.05

Canister Dilution Factor: 1.45

		Result	MRL	MDL	Result	MRL	MDL	Data
CAS #	Compound	μg/m³	μg/m³	μg/m³	ppbV	ppbV	ppbV	Qualifier
111-65-9	n-Octane	260	20	4.4	56	4.2	0.93	
127-18-4	Tetrachloroethene	11	19	2.5	1.6	2.8	0.37	J
108-90-7	Chlorobenzene	83	19	2.6	18	4.2	0.56	
100-41-4	Ethylbenzene	250	19	2.7	58	4.4	0.63	
179601-23-1	m,p-Xylenes	140	40	5.1	32	9.2	1.2	
75-25-2	Bromoform	ND	20	4.0	ND	1.9	0.39	
100-42-5	Styrene	11	19	3.1	2.7	4.5	0.73	J
95-47-6	o-Xylene	68	19	2.8	16	4.4	0.64	
111-84-2	n-Nonane	1,300	19	3.2	240	3.7	0.62	
79-34-5	1,1,2,2-Tetrachloroethane	ND	19	2.7	ND	2.8	0.39	
98-82-8	Cumene	300	20	2.8	61	4.0	0.57	
80-56-8	alpha-Pinene	13,000	400	30	2,300	72	5.3	D
103-65-1	n-Propylbenzene	270	20	2.8	56	4.0	0.57	
622-96-8	4-Ethyltoluene	98	20	3.1	20	4.1	0.63	
108-67-8	1,3,5-Trimethylbenzene	40	19	2.8	8.0	3.9	0.57	
95-63-6	1,2,4-Trimethylbenzene	120	19	2.7	25	3.9	0.55	
100-44-7	Benzyl Chloride	ND	76	4.4	ND	15	0.84	
541-73-1	1,3-Dichlorobenzene	3.8	19	2.9	0.63	3.2	0.48	J
106-46-7	1,4-Dichlorobenzene	640	19	3.0	110	3.2	0.49	
95-50-1	1,2-Dichlorobenzene	50	20	2.9	8.3	3.3	0.48	
5989-27-5	d-Limonene	870	40	4.0	160	7.2	0.72	
96-12-8	1,2-Dibromo-3-chloropropane	ND	40	3.6	ND	4.1	0.38	
120-82-1	1,2,4-Trichlorobenzene	ND	40	4.7	ND	5.4	0.64	
91-20-3	Naphthalene	5.3	20	4.7	1.0	3.8	0.90	J
87-68-3	Hexachlorobutadiene	ND	19	4.0	ND	1.8	0.37	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

D = The reported result is from a dilution.

#### RESULTS OF ANALYSIS

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# Client:The Vertex Companies, Inc.Client Sample ID:SV-3Client Project ID:Tree farm / 75395

Test Code:	EPA TO-15 Modified
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst:	Simon Cao
Sample Type:	6.0 L Silonite Canister
Test Notes:	
Container ID:	SSC00611

ALS Project ID: P2302295 ALS Sample ID: P2302295-003

Date Collected: 5/18/23 Date Received: 5/22/23 Date Analyzed: 5/26/23 Volume(s) Analyzed: 0.10 Liter(s)

4.17

Initial Pressure (psig): -1.76

Final Pressure (psig):

Canister Dilution Factor: 1.46

CAS #	Compound	Result µg/m³	MRL µg/m <sup>3</sup>	MDL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	ND	7.7	1.9	ND	4.5	1.1	
75-71-8	Dichlorodifluoromethane (CFC 12)	920	7.7	1.3	190	1.6	0.26	
74-87-3	Chloromethane	ND	7.6	1.3	ND	3.7	0.61	
76-14-2	1,2-Dichloro-1,1,2,2- tetrafluoroethane (CFC 114)	ND	7.6	1.2	ND	1.1	0.18	
75-01-4	Vinyl Chloride	13	7.4	0.83	5.0	2.9	0.33	
106-99-0	1,3-Butadiene	ND	7.7	1.3	ND	3.5	0.58	
74-83-9	Bromomethane	ND	7.4	1.1	ND	1.9	0.28	
75-00-3	Chloroethane	4.1	7.6	0.96	1.6	2.9	0.37	J
64-17-5	Ethanol	16	73	5.4	8.4	39	2.9	J
75-05-8	Acetonitrile	ND	15	1.9	ND	8.7	1.1	
107-02-8	Acrolein	ND	15	2.2	ND	6.4	0.96	
67-64-1	Acetone	560	77	18	230	32	7.4	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	7.6	1.2	ND	1.4	0.21	
67-63-0	2-Propanol (Isopropyl Alcohol)	21	15	3.2	8.7	6.1	1.3	
107-13-1	Acrylonitrile	ND	15	1.6	ND	6.9	0.74	
75-35-4	1,1-Dichloroethene	ND	7.9	1.1	ND	2.0	0.27	
75-09-2	Methylene Chloride	ND	7.7	2.2	ND	2.2	0.63	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	7.7	1.1	ND	2.5	0.34	
76-13-1	Trichlorotrifluoroethane (CFC 113)	1.1	7.9	1.1	0.14	1.0	0.14	J
75-15-0	Carbon Disulfide	28	16	2.3	8.9	5.0	0.75	
156-60-5	trans-1,2-Dichloroethene	ND	7.9	1.1	ND	2.0	0.27	
75-34-3	1,1-Dichloroethane	ND	7.9	1.1	ND	1.9	0.28	
1634-04-4	Methyl tert-Butyl Ether	ND	7.9	0.92	ND	2.2	0.26	
108-05-4	Vinyl Acetate	ND	73	18	ND	21	5.0	
78-93-3	2-Butanone (MEK)	42	15	1.6	14	5.2	0.54	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

#### RESULTS OF ANALYSIS

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# Client:The Vertex Companies, Inc.Client Sample ID:SV-3Client Project ID:Tree farm / 75395

Test Code:EPA TO-15 ModifiedInstrument ID:Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9Analyst:Simon CaoSample Type:6.0 L Silonite CanisterTest Notes:Container ID:SSC00611

ALS Project ID: P2302295 ALS Sample ID: P2302295-003

Date Collected: 5/18/23 Date Received: 5/22/23 Date Analyzed: 5/26/23 Volume(s) Analyzed: 0.10 Liter(s)

4.17

Initial Pressure (psig): -1.76

Final Pressure (psig):

Canister Dilution Factor: 1.46

CAS #	Compound	Result	MRL	MDL	Result	MRL	MDL	Data
		μg/m³	µg/m³	µg/m³	ppbV	ppbV	ppbV	Qualifier
156-59-2	cis-1,2-Dichloroethene	9.1	7.7	1.1	2.3	2.0	0.28	
141-78-6	Ethyl Acetate	ND	31	4.1	ND	8.5	1.1	
110-54-3	n-Hexane	1,200	7.7	1.6	330	2.2	0.46	
67-66-3	Chloroform	ND	7.7	1.0	ND	1.6	0.21	
109-99-9	Tetrahydrofuran (THF)	ND	15	0.98	ND	5.0	0.33	
107-06-2	1,2-Dichloroethane	ND	7.9	0.86	ND	1.9	0.21	
71-55-6	1,1,1-Trichloroethane	ND	7.7	0.96	ND	1.4	0.18	
71-43-2	Benzene	640	7.9	1.1	200	2.5	0.35	
56-23-5	Carbon Tetrachloride	ND	7.6	1.1	ND	1.2	0.17	
110-82-7	Cyclohexane	520	15	2.2	150	4.5	0.64	
78-87-5	1,2-Dichloropropane	ND	7.7	0.96	ND	1.7	0.21	
75-27-4	Bromodichloromethane	ND	7.9	1.1	ND	1.2	0.17	
79-01-6	Trichloroethene	ND	7.7	1.1	ND	1.4	0.20	
123-91-1	1,4-Dioxane	ND	7.7	0.92	ND	2.1	0.26	
80-62-6	Methyl Methacrylate	ND	16	2.8	ND	3.9	0.68	
142-82-5	n-Heptane	240	7.7	1.2	60	1.9	0.30	
10061-01-5	cis-1,3-Dichloropropene	ND	7.9	1.2	ND	1.7	0.27	
108-10-1	4-Methyl-2-pentanone	ND	16	1.1	ND	3.9	0.26	
10061-02-6	trans-1,3-Dichloropropene	ND	7.4	1.6	ND	1.6	0.35	
79-00-5	1,1,2-Trichloroethane	ND	7.7	0.79	ND	1.4	0.14	
108-88-3	Toluene	5.8	7.7	0.95	1.5	2.1	0.25	J
591-78-6	2-Hexanone	ND	16	0.96	ND	3.9	0.24	
124-48-1	Dibromochloromethane	ND	7.9	1.0	ND	0.93	0.12	
106-93-4	1,2-Dibromoethane	ND	7.6	0.91	ND	0.99	0.12	
123-86-4	n-Butyl Acetate	ND	15	1.1	ND	3.1	0.22	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

#### RESULTS OF ANALYSIS

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# Client:The Vertex Companies, Inc.Client Sample ID:SV-3Client Project ID:Tree farm / 75395

Test Code:EPA TO-15 ModifiedInstrument ID:Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9Analyst:Simon CaoSample Type:6.0 L Silonite CanisterTest Notes:Container ID:SSC00611

ALS Project ID: P2302295 ALS Sample ID: P2302295-003

Date Collected: 5/18/23 Date Received: 5/22/23 Date Analyzed: 5/26/23 Volume(s) Analyzed: 0.10 Liter(s)

Initial Pressure (psig): -1.76

Final Pressure (psig): 4.17

Canister Dilution Factor: 1.46

		Result	MRL	MDL	Result	MRL	MDL	Data
CAS #	Compound	μg/m³	μg/m³	μg/m³	ppbV	ppbV	ppbV	Qualifier
111-65-9	n-Octane	97	7.9	1.8	21	1.7	0.38	
127-18-4	Tetrachloroethene	1.2	7.7	1.0	0.18	1.1	0.15	J
108-90-7	Chlorobenzene	480	7.7	1.0	100	1.7	0.23	
100-41-4	Ethylbenzene	10	7.7	1.1	2.4	1.8	0.25	
179601-23-1	m,p-Xylenes	11	16	2.0	2.5	3.7	0.47	J
75-25-2	Bromoform	ND	7.9	1.6	ND	0.76	0.16	
100-42-5	Styrene	ND	7.7	1.3	ND	1.8	0.30	
95-47-6	o-Xylene	7.1	7.7	1.1	1.6	1.8	0.26	J
111-84-2	n-Nonane	330	7.7	1.3	62	1.5	0.25	
79-34-5	1,1,2,2-Tetrachloroethane	ND	7.7	1.1	ND	1.1	0.16	
98-82-8	Cumene	30	7.9	1.1	6.2	1.6	0.23	
80-56-8	alpha-Pinene	600	16	1.2	110	2.9	0.21	
103-65-1	n-Propylbenzene	22	7.9	1.1	4.4	1.6	0.23	
622-96-8	4-Ethyltoluene	ND	8.0	1.2	ND	1.6	0.25	
108-67-8	1,3,5-Trimethylbenzene	2.9	7.7	1.1	0.59	1.6	0.23	J
95-63-6	1,2,4-Trimethylbenzene	10	7.7	1.1	2.1	1.6	0.22	
100-44-7	Benzyl Chloride	ND	31	1.8	ND	5.9	0.34	
541-73-1	1,3-Dichlorobenzene	ND	7.7	1.2	ND	1.3	0.19	
106-46-7	1,4-Dichlorobenzene	70	7.7	1.2	12	1.3	0.20	
95-50-1	1,2-Dichlorobenzene	4.5	7.9	1.2	0.76	1.3	0.19	J
5989-27-5	d-Limonene	ND	16	1.6	ND	2.9	0.29	
96-12-8	1,2-Dibromo-3-chloropropane	ND	16	1.5	ND	1.7	0.15	
120-82-1	1,2,4-Trichlorobenzene	ND	16	1.9	ND	2.2	0.26	
91-20-3	Naphthalene	ND	8.0	1.9	ND	1.5	0.36	
87-68-3	Hexachlorobutadiene	ND	7.7	1.6	ND	0.73	0.15	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

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# Client:The Vertex Companies, Inc.Client Sample ID:Method BlankClient Project ID:Tree farm / 75395

Test Code:	EPA TO-15 Modified	Date Collected: NA		
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received: NA		
Analyst:	Simon Cao	Date Analyzed: 5/26/23		
Sample Type:	6.0 L Silonite Canister	Volume(s) Analyzed:	1.00 Liter(s)	
Test Notes:				

Canister Dilution Factor: 1.00

ALS Project ID: P2302295

ALS Sample ID: P230526-MB

CAS #	Compound	Result	MRL	MDL	Result	MRL	MDL	Data
		μg/m³	$\mu g/m^3$	μg/m³	ppbV	ppbV	ppbV	Qualifier
115-07-1	Propene	ND	0.53	0.13	ND	0.31	0.076	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.53	0.087	ND	0.11	0.018	
74-87-3	Chloromethane	ND	0.52	0.086	ND	0.25	0.042	
76-14-2	1,2-Dichloro-1,1,2,2-	ND	0.52	0.084	ND	0 074		
/0112	tetrafluoroethane (CFC 114)	T(D)	0.52	0.001		0.071	0.012	
75-01-4	Vinyl Chloride	ND	0.51	0.057	ND	0.20	0.022	
106-99-0	1,3-Butadiene	ND	0.53	0.088	ND	0.24	0.040	
74-83-9	Bromomethane	ND	0.51	0.074	ND	0.13	0.019	
75-00-3	Chloroethane	ND	0.52	0.066	ND	0.20	0.025	
64-17-5	Ethanol	ND	5.0	0.37	ND	2.7	0.20	
75-05-8	Acetonitrile	ND	1.0	0.13	ND	0.60	0.077	
107-02-8	Acrolein	ND	1.0	0.15	ND	0.44	0.065	
67-64-1	Acetone	ND	5.3	1.2	ND	2.2	0.51	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.52	0.081	ND	0.093	0.014	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1.0	0.22	ND	0.42	0.090	
107-13-1	Acrylonitrile	ND	1.0	0.11	ND	0.47	0.051	
75-35-4	1,1-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-09-2	Methylene Chloride	ND	0.53	0.15	ND	0.15	0.043	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.53	0.072	ND	0.17	0.023	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.54	0.076	ND	0.070	0.0099	
75-15-0	Carbon Disulfide	ND	1.1	0.16	ND	0.34	0.051	
156-60-5	trans-1,2-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-34-3	1,1-Dichloroethane	ND	0.54	0.078	ND	0.13	0.019	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	0.063	ND	0.15	0.017	
108-05-4	Vinyl Acetate	ND	5.0	1.2	ND	1.4	0.34	
78-93-3	2-Butanone (MEK)	ND	1.0	0.11	ND	0.35	0.037	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

## RESULTS OF ANALYSIS

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## Client:The Vertex Companies, Inc.Client Sample ID:Method BlankClient Project ID:Tree farm / 75395

Test Code:	EPA TO-15 Modified	Date Collected: N	A
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received: N	А
Analyst:	Simon Cao	Date Analyzed: 5/	26/23
Sample Type:	6.0 L Silonite Canister	Volume(s) Analyzed:	1.00 Liter(s)
Test Notes:			

ALS Project ID: P2302295 ALS Sample ID: P230526-MB

#### Canister Dilution Factor: 1.00

CAS #	Compound	Result	MRL	MDL	Result	MRL	MDL Data
	-	μg/m³	µg/m³	μg/m³	ppbV	ppbV	ppbV Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.53	0.075	ND	0.13	0.019
141-78-6	Ethyl Acetate	ND	2.1	0.28	ND	0.58	0.078
110-54-3	n-Hexane	ND	0.53	0.11	ND	0.15	0.031
67-66-3	Chloroform	ND	0.53	0.071	ND	0.11	0.015
109-99-9	Tetrahydrofuran (THF)	ND	1.0	0.067	ND	0.34	0.023
107-06-2	1,2-Dichloroethane	ND	0.54	0.059	ND	0.13	0.015
71-55-6	1,1,1-Trichloroethane	ND	0.53	0.066	ND	0.097	0.012
71-43-2	Benzene	ND	0.54	0.077	ND	0.17	0.024
56-23-5	Carbon Tetrachloride	ND	0.52	0.074	ND	0.083	0.012
110-82-7	Cyclohexane	ND	1.1	0.15	ND	0.31	0.044
78-87-5	1,2-Dichloropropane	ND	0.53	0.066	ND	0.11	0.014
75-27-4	Bromodichloromethane	ND	0.54	0.077	ND	0.081	0.011
79-01-6	Trichloroethene	ND	0.53	0.072	ND	0.099	0.013
123-91-1	1,4-Dioxane	ND	0.53	0.063	ND	0.15	0.017
80-62-6	Methyl Methacrylate	ND	1.1	0.19	ND	0.27	0.046
142-82-5	n-Heptane	ND	0.53	0.085	ND	0.13	0.021
10061-01-5	cis-1,3-Dichloropropene	ND	0.54	0.083	ND	0.12	0.018
108-10-1	4-Methyl-2-pentanone	ND	1.1	0.073	ND	0.27	0.018
10061-02-6	trans-1,3-Dichloropropene	ND	0.51	0.11	ND	0.11	0.024
79-00-5	1,1,2-Trichloroethane	ND	0.53	0.054	ND	0.097	0.0099
108-88-3	Toluene	ND	0.53	0.065	ND	0.14	0.017
591-78-6	2-Hexanone	ND	1.1	0.066	ND	0.27	0.016
124-48-1	Dibromochloromethane	ND	0.54	0.070	ND	0.063	0.0082
106-93-4	1,2-Dibromoethane	ND	0.52	0.062	ND	0.068	0.0081
123-86-4	n-Butyl Acetate	ND	1.0	0.073	ND	0.21	0.015

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

#### RESULTS OF ANALYSIS Page 3 of 3

#### Client: The Vertex Companies, Inc. Client Sample ID: Method Blank Client Project ID: Tree farm / 75395

<b>T</b> ( <b>G</b> 1			
Test Code:	EPA TO-15 Modified	Date Collected: NA	
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received: N	A
Analyst:	Simon Cao	Date Analyzed: 5/	26/23
Sample Type:	6.0 L Silonite Canister	Volume(s) Analyzed:	1.00 Liter(s)
Test Notes:			

ALS Project ID: P2302295 ALS Sample ID: P230526-MB

Canister Dilution Factor: 1.00

		Result	MRL	MDL	Result	MRL	MDL	Data
CAS #	Compound	μg/m³	$\mu g/m^3$	μg/m³	ppbV	ppbV	ppbV	Qualifier
111-65-9	n-Octane	ND	0.54	0.12	ND	0.12	0.026	
127-18-4	Tetrachloroethene	ND	0.53	0.069	ND	0.078	0.010	
108-90-7	Chlorobenzene	ND	0.53	0.071	ND	0.12	0.015	
100-41-4	Ethylbenzene	ND	0.53	0.075	ND	0.12	0.017	
179601-23-1	m,p-Xylenes	ND	1.1	0.14	ND	0.25	0.032	
75-25-2	Bromoform	ND	0.54	0.11	ND	0.052	0.011	
100-42-5	Styrene	ND	0.53	0.086	ND	0.12	0.020	
95-47-6	o-Xylene	ND	0.53	0.077	ND	0.12	0.018	
111-84-2	n-Nonane	ND	0.53	0.089	ND	0.10	0.017	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.53	0.074	ND	0.077	0.011	
98-82-8	Cumene	ND	0.54	0.077	ND	0.11	0.016	
80-56-8	alpha-Pinene	ND	1.1	0.082	ND	0.20	0.015	
103-65-1	n-Propylbenzene	ND	0.54	0.077	ND	0.11	0.016	
622-96-8	4-Ethyltoluene	ND	0.55	0.085	ND	0.11	0.017	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	0.077	ND	0.11	0.016	
95-63-6	1,2,4-Trimethylbenzene	ND	0.53	0.074	ND	0.11	0.015	
100-44-7	Benzyl Chloride	ND	2.1	0.12	ND	0.41	0.023	
541-73-1	1,3-Dichlorobenzene	ND	0.53	0.080	ND	0.088	0.013	
106-46-7	1,4-Dichlorobenzene	ND	0.53	0.082	ND	0.088	0.014	
95-50-1	1,2-Dichlorobenzene	ND	0.54	0.079	ND	0.090	0.013	
5989-27-5	d-Limonene	ND	1.1	0.11	ND	0.20	0.020	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.1	0.10	ND	0.11	0.010	
120-82-1	1,2,4-Trichlorobenzene	ND	1.1	0.13	ND	0.15	0.018	
91-20-3	Naphthalene	ND	0.55	0.13	ND	0.10	0.025	
87-68-3	Hexachlorobutadiene	ND	0.53	0.11	ND	0.050	0.010	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

### RESULTS OF ANALYSIS

Page 1 of 3

# Client:The Vertex Companies, Inc.Client Sample ID:Method BlankClient Project ID:Tree farm / 75395

Test Code:	EPA TO-15 Modified	Date Collected: NA		
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received: NA		
Analyst:	Wida Ang	Date Analyzed: 5/28/23		
Sample Type:	6.0 L Silonite Canister	Volume(s) Analyzed:	1.00 Liter(s)	
Test Notes:				

Canister Dilution Factor: 1.00

ALS Project ID: P2302295

ALS Sample ID: P230528-MB

CAS #	Compound	Result	MRL	MDL	Result	MRL	MDL	Data
		μg/m³	μg/m³	μg/m³	ppbV	ppbV	ppbV	Qualifier
115-07-1	Propene	ND	0.53	0.13	ND	0.31	0.076	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.53	0.087	ND	0.11	0.018	
74-87-3	Chloromethane	ND	0.52	0.086	ND	0.25	0.042	
76-14-2	1,2-Dichloro-1,1,2,2- tetrafluoroethane (CFC 114)	ND	0.52	0.084	ND	0.074	0.012	
75-01-4	Vinyl Chloride	ND	0.51	0.057	ND	0.20	0.022	
106-99-0	1,3-Butadiene	ND	0.53	0.088	ND	0.24	0.040	
74-83-9	Bromomethane	ND	0.51	0.074	ND	0.13	0.019	
75-00-3	Chloroethane	ND	0.52	0.066	ND	0.20	0.025	
64-17-5	Ethanol	ND	5.0	0.37	ND	2.7	0.20	
75-05-8	Acetonitrile	ND	1.0	0.13	ND	0.60	0.077	
107-02-8	Acrolein	ND	1.0	0.15	ND	0.44	0.065	
67-64-1	Acetone	ND	5.3	1.2	ND	2.2	0.51	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.52	0.081	ND	0.093	0.014	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1.0	0.22	ND	0.42	0.090	
107-13-1	Acrylonitrile	ND	1.0	0.11	ND	0.47	0.051	
75-35-4	1,1-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-09-2	Methylene Chloride	ND	0.53	0.15	ND	0.15	0.043	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.53	0.072	ND	0.17	0.023	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.54	0.076	ND	0.070	0.0099	
75-15-0	Carbon Disulfide	ND	1.1	0.16	ND	0.34	0.051	
156-60-5	trans-1,2-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-34-3	1,1-Dichloroethane	ND	0.54	0.078	ND	0.13	0.019	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	0.063	ND	0.15	0.017	
108-05-4	Vinyl Acetate	ND	5.0	1.2	ND	1.4	0.34	
78-93-3	2-Butanone (MEK)	ND	1.0	0.11	ND	0.35	0.037	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

## RESULTS OF ANALYSIS

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## Client:The Vertex Companies, Inc.Client Sample ID:Method BlankClient Project ID:Tree farm / 75395

Test Code:	EPA TO-15 Modified	Date Collected: NA		
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received: N	А	
Analyst:	Wida Ang	Date Analyzed: 5/28/23		
Sample Type:	6.0 L Silonite Canister	Volume(s) Analyzed:	1.00 Liter(s)	
Test Notes:				

ALS Project ID: P2302295 ALS Sample ID: P230528-MB

#### Canister Dilution Factor: 1.00

CAS #	Compound	Result	MRL	MDL	Result	MRL	MDL Data	
	-	μg/m³	µg/m³	μg/m³	ppbV	ppbV	ppbV Qualifie	r
156-59-2	cis-1,2-Dichloroethene	ND	0.53	0.075	ND	0.13	0.019	_
141-78-6	Ethyl Acetate	ND	2.1	0.28	ND	0.58	0.078	
110-54-3	n-Hexane	ND	0.53	0.11	ND	0.15	0.031	
67-66-3	Chloroform	ND	0.53	0.071	ND	0.11	0.015	
109-99-9	Tetrahydrofuran (THF)	ND	1.0	0.067	ND	0.34	0.023	
107-06-2	1,2-Dichloroethane	ND	0.54	0.059	ND	0.13	0.015	
71-55-6	1,1,1-Trichloroethane	ND	0.53	0.066	ND	0.097	0.012	
71-43-2	Benzene	ND	0.54	0.077	ND	0.17	0.024	
56-23-5	Carbon Tetrachloride	ND	0.52	0.074	ND	0.083	0.012	
110-82-7	Cyclohexane	ND	1.1	0.15	ND	0.31	0.044	
78-87-5	1,2-Dichloropropane	ND	0.53	0.066	ND	0.11	0.014	
75-27-4	Bromodichloromethane	ND	0.54	0.077	ND	0.081	0.011	
79-01-6	Trichloroethene	ND	0.53	0.072	ND	0.099	0.013	
123-91-1	1,4-Dioxane	ND	0.53	0.063	ND	0.15	0.017	
80-62-6	Methyl Methacrylate	ND	1.1	0.19	ND	0.27	0.046	
142-82-5	n-Heptane	ND	0.53	0.085	ND	0.13	0.021	
10061-01-5	cis-1,3-Dichloropropene	ND	0.54	0.083	ND	0.12	0.018	
108-10-1	4-Methyl-2-pentanone	ND	1.1	0.073	ND	0.27	0.018	
10061-02-6	trans-1,3-Dichloropropene	ND	0.51	0.11	ND	0.11	0.024	
79-00-5	1,1,2-Trichloroethane	ND	0.53	0.054	ND	0.097	0.0099	
108-88-3	Toluene	ND	0.53	0.065	ND	0.14	0.017	
591-78-6	2-Hexanone	ND	1.1	0.066	ND	0.27	0.016	
124-48-1	Dibromochloromethane	ND	0.54	0.070	ND	0.063	0.0082	
106-93-4	1,2-Dibromoethane	ND	0.52	0.062	ND	0.068	0.0081	
123-86-4	n-Butyl Acetate	ND	1.0	0.073	ND	0.21	0.015	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

#### RESULTS OF ANALYSIS Page 3 of 3

#### Client: The Vertex Companies, Inc. Client Sample ID: Method Blank Client Project ID: Tree farm / 75395

Test Code:	EPA TO-15 Modified	Date Collected: N	A	
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received: N	А	
Analyst:	Wida Ang	Date Analyzed: 5/28/23		
Sample Type:	6.0 L Silonite Canister	Volume(s) Analyzed:	1.00 Liter(s)	
Test Notes:				

ALS Project ID: P2302295 ALS Sample ID: P230528-MB

Canister Dilution Factor: 1.00

		Result	MRL	MDL	Result	MRL	MDL	Data
CAS #	Compound	μg/m³	$\mu g/m^3$	μg/m³	ppbV	ppbV	ppbV	Qualifier
111-65-9	n-Octane	ND	0.54	0.12	ND	0.12	0.026	
127-18-4	Tetrachloroethene	ND	0.53	0.069	ND	0.078	0.010	
108-90-7	Chlorobenzene	ND	0.53	0.071	ND	0.12	0.015	
100-41-4	Ethylbenzene	ND	0.53	0.075	ND	0.12	0.017	
179601-23-1	m,p-Xylenes	ND	1.1	0.14	ND	0.25	0.032	
75-25-2	Bromoform	ND	0.54	0.11	ND	0.052	0.011	
100-42-5	Styrene	ND	0.53	0.086	ND	0.12	0.020	
95-47-6	o-Xylene	ND	0.53	0.077	ND	0.12	0.018	
111-84-2	n-Nonane	ND	0.53	0.089	ND	0.10	0.017	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.53	0.074	ND	0.077	0.011	
98-82-8	Cumene	ND	0.54	0.077	ND	0.11	0.016	
80-56-8	alpha-Pinene	ND	1.1	0.082	ND	0.20	0.015	
103-65-1	n-Propylbenzene	ND	0.54	0.077	ND	0.11	0.016	
622-96-8	4-Ethyltoluene	ND	0.55	0.085	ND	0.11	0.017	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	0.077	ND	0.11	0.016	
95-63-6	1,2,4-Trimethylbenzene	ND	0.53	0.074	ND	0.11	0.015	
100-44-7	Benzyl Chloride	ND	2.1	0.12	ND	0.41	0.023	
541-73-1	1,3-Dichlorobenzene	ND	0.53	0.080	ND	0.088	0.013	
106-46-7	1,4-Dichlorobenzene	ND	0.53	0.082	ND	0.088	0.014	
95-50-1	1,2-Dichlorobenzene	ND	0.54	0.079	ND	0.090	0.013	
5989-27-5	d-Limonene	ND	1.1	0.11	ND	0.20	0.020	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.1	0.10	ND	0.11	0.010	
120-82-1	1,2,4-Trichlorobenzene	ND	1.1	0.13	ND	0.15	0.018	
91-20-3	Naphthalene	ND	0.55	0.13	ND	0.10	0.025	
87-68-3	Hexachlorobutadiene	ND	0.53	0.11	ND	0.050	0.010	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

## RESULTS OF ANALYSIS

Page 1 of 3

# Client:The Vertex Companies, Inc.Client Sample ID:Method BlankClient Project ID:Tree farm / 75395

Test Code:	EPA TO-15 Modified	Date Collected: NA		
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received: N	A	
Analyst:	Wida Ang	Date Analyzed: 5/30/23		
Sample Type:	6.0 L Silonite Canister	Volume(s) Analyzed:	1.00 Liter(s)	
Test Notes:				

Canister Dilution Factor: 1.00

ALS Project ID: P2302295

ALS Sample ID: P230530-MB

CAS #	Compound	Result	MRL	MDL	Result	MRL	MDL	Data
		μg/m³	µg/m³	µg/m³	ppbV	ppbV	ppbV	Qualifier
115-07-1	Propene	ND	0.53	0.13	ND	0.31	0.076	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.53	0.087	ND	0.11	0.018	
74-87-3	Chloromethane	ND	0.52	0.086	ND	0.25	0.042	
76-14-2	1,2-Dichloro-1,1,2,2-	ND	0.52	0.084	ND	0.074	0.012	
	tetrafluoroethane (CFC 114)			<b></b>		0.00	0.012	
75-01-4	Vinyl Chloride	ND	0.51	0.057	ND	0.20	0.022	
106-99-0	1,3-Butadiene	ND	0.53	0.088	ND	0.24	0.040	
74-83-9	Bromomethane	ND	0.51	0.074	ND	0.13	0.019	
75-00-3	Chloroethane	ND	0.52	0.066	ND	0.20	0.025	
64-17-5	Ethanol	ND	5.0	0.37	ND	2.7	0.20	
75-05-8	Acetonitrile	ND	1.0	0.13	ND	0.60	0.077	
107-02-8	Acrolein	ND	1.0	0.15	ND	0.44	0.065	
67-64-1	Acetone	ND	5.3	1.2	ND	2.2	0.51	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.52	0.081	ND	0.093	0.014	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1.0	0.22	ND	0.42	0.090	
107-13-1	Acrylonitrile	ND	1.0	0.11	ND	0.47	0.051	
75-35-4	1,1-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-09-2	Methylene Chloride	ND	0.53	0.15	ND	0.15	0.043	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.53	0.072	ND	0.17	0.023	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.54	0.076	ND	0.070	0.0099	
75-15-0	Carbon Disulfide	ND	1.1	0.16	ND	0.34	0.051	
156-60-5	trans-1,2-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-34-3	1,1-Dichloroethane	ND	0.54	0.078	ND	0.13	0.019	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	0.063	ND	0.15	0.017	
108-05-4	Vinyl Acetate	ND	5.0	1.2	ND	1.4	0.34	
78-93-3	2-Butanone (MEK)	ND	1.0	0.11	ND	0.35	0.037	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

## RESULTS OF ANALYSIS

Page 2 of 3

## Client:The Vertex Companies, Inc.Client Sample ID:Method BlankClient Project ID:Tree farm / 75395

Test Code:	EPA TO-15 Modified	Date Collected: N	А	
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received: N	А	
Analyst:	Wida Ang	Date Analyzed: 5/30/23		
Sample Type:	6.0 L Silonite Canister	Volume(s) Analyzed:	1.00 Liter(s)	
Test Notes:				

ALS Project ID: P2302295 ALS Sample ID: P230530-MB

#### Canister Dilution Factor: 1.00

CAS #	Compound	Result	MRL	MDL	Result	MRL	MDL Data	
	-	μg/m³	µg∕m³	μg/m³	ppbV	ppbV	ppbV Qualifie	er
156-59-2	cis-1,2-Dichloroethene	ND	0.53	0.075	ND	0.13	0.019	_
141-78-6	Ethyl Acetate	ND	2.1	0.28	ND	0.58	0.078	
110-54-3	n-Hexane	ND	0.53	0.11	ND	0.15	0.031	
67-66-3	Chloroform	ND	0.53	0.071	ND	0.11	0.015	
109-99-9	Tetrahydrofuran (THF)	ND	1.0	0.067	ND	0.34	0.023	
107-06-2	1,2-Dichloroethane	ND	0.54	0.059	ND	0.13	0.015	
71-55-6	1,1,1-Trichloroethane	ND	0.53	0.066	ND	0.097	0.012	
71-43-2	Benzene	ND	0.54	0.077	ND	0.17	0.024	
56-23-5	Carbon Tetrachloride	ND	0.52	0.074	ND	0.083	0.012	
110-82-7	Cyclohexane	ND	1.1	0.15	ND	0.31	0.044	
78-87-5	1,2-Dichloropropane	ND	0.53	0.066	ND	0.11	0.014	
75-27-4	Bromodichloromethane	ND	0.54	0.077	ND	0.081	0.011	
79-01-6	Trichloroethene	ND	0.53	0.072	ND	0.099	0.013	
123-91-1	1,4-Dioxane	ND	0.53	0.063	ND	0.15	0.017	
80-62-6	Methyl Methacrylate	ND	1.1	0.19	ND	0.27	0.046	
142-82-5	n-Heptane	ND	0.53	0.085	ND	0.13	0.021	
10061-01-5	cis-1,3-Dichloropropene	ND	0.54	0.083	ND	0.12	0.018	
108-10-1	4-Methyl-2-pentanone	ND	1.1	0.073	ND	0.27	0.018	
10061-02-6	trans-1,3-Dichloropropene	ND	0.51	0.11	ND	0.11	0.024	
79-00-5	1,1,2-Trichloroethane	ND	0.53	0.054	ND	0.097	0.0099	
108-88-3	Toluene	ND	0.53	0.065	ND	0.14	0.017	
591-78-6	2-Hexanone	ND	1.1	0.066	ND	0.27	0.016	
124-48-1	Dibromochloromethane	ND	0.54	0.070	ND	0.063	0.0082	
106-93-4	1,2-Dibromoethane	ND	0.52	0.062	ND	0.068	0.0081	
123-86-4	n-Butyl Acetate	ND	1.0	0.073	ND	0.21	0.015	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
## RESULTS OF ANALYSIS Page 3 of 3

## Client: The Vertex Companies, Inc. Client Sample ID: Method Blank Client Project ID: Tree farm / 75395

Test Code:	EPA TO-15 Modified	Date Collected: N	A
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received: N	A
Analyst:	Wida Ang	Date Analyzed: 5/	30/23
Sample Type:	6.0 L Silonite Canister	Volume(s) Analyzed:	1.00 Liter(s)
Test Notes:			

ALS Project ID: P2302295 ALS Sample ID: P230530-MB

Canister Dilution Factor: 1.00

		Result	MRL	MDL	Result	MRL	MDL	Data
CAS #	Compound	μg/m³	μg/m³	μg/m³	ppbV	ppbV	ppbV	Qualifier
111-65-9	n-Octane	ND	0.54	0.12	ND	0.12	0.026	
127-18-4	Tetrachloroethene	ND	0.53	0.069	ND	0.078	0.010	
108-90-7	Chlorobenzene	ND	0.53	0.071	ND	0.12	0.015	
100-41-4	Ethylbenzene	ND	0.53	0.075	ND	0.12	0.017	
179601-23-1	m,p-Xylenes	ND	1.1	0.14	ND	0.25	0.032	
75-25-2	Bromoform	ND	0.54	0.11	ND	0.052	0.011	
100-42-5	Styrene	ND	0.53	0.086	ND	0.12	0.020	
95-47-6	o-Xylene	ND	0.53	0.077	ND	0.12	0.018	
111-84-2	n-Nonane	ND	0.53	0.089	ND	0.10	0.017	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.53	0.074	ND	0.077	0.011	
98-82-8	Cumene	ND	0.54	0.077	ND	0.11	0.016	
80-56-8	alpha-Pinene	ND	1.1	0.082	ND	0.20	0.015	
103-65-1	n-Propylbenzene	ND	0.54	0.077	ND	0.11	0.016	
622-96-8	4-Ethyltoluene	ND	0.55	0.085	ND	0.11	0.017	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	0.077	ND	0.11	0.016	
95-63-6	1,2,4-Trimethylbenzene	ND	0.53	0.074	ND	0.11	0.015	
100-44-7	Benzyl Chloride	ND	2.1	0.12	ND	0.41	0.023	
541-73-1	1,3-Dichlorobenzene	ND	0.53	0.080	ND	0.088	0.013	
106-46-7	1,4-Dichlorobenzene	ND	0.53	0.082	ND	0.088	0.014	
95-50-1	1,2-Dichlorobenzene	ND	0.54	0.079	ND	0.090	0.013	
5989-27-5	d-Limonene	ND	1.1	0.11	ND	0.20	0.020	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.1	0.10	ND	0.11	0.010	
120-82-1	1,2,4-Trichlorobenzene	ND	1.1	0.13	ND	0.15	0.018	
91-20-3	Naphthalene	ND	0.55	0.13	ND	0.10	0.025	
87-68-3	Hexachlorobutadiene	ND	0.53	0.11	ND	0.050	0.010	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

Client:	The Vertex Companies, Inc.
Client Project ID:	Tree farm / 75395

ALS Project ID: P2302295

Test Code:EPA TO-15 ModifiedInstrument ID:Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9Analyst:Simon CaoSample Type:6.0 L Silonite Canister(s)Test Notes:Feat Notes:

Date(s) Collected: 5/18/23 Date(s) Received: 5/22/23 Date(s) Analyzed: 5/26 - 5/30/23

		1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene		
Client Sample ID	ALS Sample ID	Percent	Percent	Percent	Acceptance	Data
		Recovered	Recovered	Recovered	Limits	Qualifier
Method Blank	P230526-MB	112	88	98	70-130	
Method Blank	P230528-MB	114	90	101	70-130	
Method Blank	P230530-MB	114	89	103	70-130	
Lab Control Sample	P230526-LCS	111	90	101	70-130	
Lab Control Sample	P230528-LCS	112	91	105	70-130	
Lab Control Sample	P230530-LCS	115	81	105	70-130	
Duplicate Lab Control Sample	P230526-DLCS	111	89	99	70-130	
Duplicate Lab Control Sample	P230528-DLCS	111	90	104	70-130	
Duplicate Lab Control Sample	P230530-DLCS	114	88	103	70-130	
SV-1	P2302295-001	110	73	79	70-130	
SV-2	P2302295-002	111	68	77	70-130	S
SV-3	P2302295-003	110	70	78	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery. S = Surrogate recovery not within specified limits.

## LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 3

# Client:The Vertex Companies, Inc.Client Sample ID:Duplicate Lab Control SampleClient Project ID:Tree farm / 75395

Simon Cao

EPA TO-15 Modified

6.0 L Silonite Canister

Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Test Code:

Analyst:

Instrument ID:

Sample Type:

Test Notes:

## ALS Project ID: P2302295 ALS Sample ID: P230526-DLCS

Date Collected: NA Date Received: NA Date Analyzed: 5/26/23 Volume(s) Analyzed: 0.125 Liter(s)

		Spike Amount	Re	sult			ALS			
CAS #	Compound	LCS / DLCS	LCS	DLCS	% Re	covery	Acceptance	RPD	RPD	Data
		μg/m³	$\mu g/m^3$	$\mu g/m^3$	LCS	DLCS	Limits		Limit	Qualifier
115-07-1	Propene	42.4	37.5	37.5	88	88	56-128	0	25	
75-71-8	Dichlorodifluoromethane (CFC 12)	42.4	42.1	41.6	99	<b>98</b>	71-112	1	25	
74-87-3	Chloromethane	42.0	37.9	37.9	90	90	53-126	0	25	
76-14-2	1,2-Dichloro-1,1,2,2-				96	95	62-121		25	
/0-14-2	tetrafluoroethane (CFC 114)	42.8	41.0	40.7	70	)3	02-121	1	23	
75-01-4	Vinyl Chloride	42.0	41.3	41.9	98	100	63-123	2	25	
106-99-0	1,3-Butadiene	42.0	44.9	44.2	107	105	63-135	2	25	
74-83-9	Bromomethane	42.0	39.4	39.8	94	95	71-112	1	25	
75-00-3	Chloroethane	42.4	40.7	40.8	96	96	66-117	0	25	
64-17-5	Ethanol	220	192	193	87	88	57-117	1	25	
75-05-8	Acetonitrile	42.8	38.2	37.9	89	89	59-131	0	25	
107-02-8	Acrolein	88.0	86.0	86.4	98	98	71-123	0	25	
67-64-1	Acetone	212	191	192	90	91	60-117	1	25	
75-69-4	Trichlorofluoromethane (CFC 11)	42.0	42.2	41.7	100	99	71-114	1	25	
67-63-0	2-Propanol (Isopropyl Alcohol)	82.8	94.6	95.0	114	115	61-124	0.9	25	
107-13-1	Acrylonitrile	83.6	80.1	79.3	96	95	65-130	1	25	
75-35-4	1,1-Dichloroethene	40.8	40.7	40.3	100	99	74-114	1	25	
75-09-2	Methylene Chloride	40.8	36.7	36.7	90	90	75-112	0	25	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	42.4	44.6	45.3	105	107	57-127	2	25	
76-13-1	Trichlorotrifluoroethane (CFC 113)	42.0	41.6	41.4	99	99	73-114	0	25	
75-15-0	Carbon Disulfide	86.0	80.3	80.1	93	93	70-113	0	25	
156-60-5	trans-1,2-Dichloroethene	43.2	44.3	44.4	103	103	76-119	0	25	
75-34-3	1,1-Dichloroethane	43.2	41.2	41.5	95	96	70-114	1	25	
1634-04-4	Methyl tert-Butyl Ether	43.2	43.5	43.2	101	100	72-118	1	25	
108-05-4	Vinyl Acetate	220	268	268	122	122	56-137	0	25	
78-93-3	2-Butanone (MEK)	82.8	80.3	79.8	97	96	74-121	1	25	

## LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 3

# Client:The Vertex Companies, Inc.Client Sample ID:Duplicate Lab Control SampleClient Project ID:Tree farm / 75395

Simon Cao

EPA TO-15 Modified

6.0 L Silonite Canister

Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Test Code:

Analyst:

Instrument ID:

Sample Type:

Test Notes:

## ALS Project ID: P2302295 ALS Sample ID: P230526-DLCS

Date Collected: NA Date Received: NA Date Analyzed: 5/26/23 Volume(s) Analyzed: 0.125 Liter(s)

		Spike Amount	Re	sult			ALS			
CAS #	Compound	LCS / DLCS	LCS	DLCS	% Re	covery	Acceptance	RPD	RPD	Data
		μg/m³	$\mu g/m^3$	μg/m³	LCS	DLCS	Limits		Limit	Qualifier
156-59-2	cis-1,2-Dichloroethene	42.8	42.1	42.2	98	99	73-117	1	25	
141-78-6	Ethyl Acetate	79.6	74.6	75.2	94	94	59-161	0	25	
110-54-3	n-Hexane	42.4	41.2	41.2	97	97	55-130	0	25	
67-66-3	Chloroform	43.2	41.8	41.0	97	95	71-114	2	25	
109-99-9	Tetrahydrofuran (THF)	80.4	76.8	75.4	96	94	73-114	2	25	
107-06-2	1,2-Dichloroethane	40.8	46.3	45.3	113	111	71-119	2	25	
71-55-6	1,1,1-Trichloroethane	42.0	43.3	42.8	103	102	73-119	1	25	
71-43-2	Benzene	40.8	40.9	40.8	100	100	72-113	0	25	
56-23-5	Carbon Tetrachloride	42.0	44.7	45.3	106	108	67-123	2	25	
110-82-7	Cyclohexane	85.2	78.1	77.2	92	91	70-119	1	25	
78-87-5	1,2-Dichloropropane	42.8	39.7	39.7	93	93	70-118	0	25	
75-27-4	Bromodichloromethane	43.2	43.7	43.4	101	100	74-119	1	25	
79-01-6	Trichloroethene	42.4	40.4	39.8	95	94	74-115	1	25	
123-91-1	1,4-Dioxane	42.4	45.0	44.6	106	105	77-124	0.9	25	
80-62-6	Methyl Methacrylate	85.6	93.4	95.1	109	111	78-126	2	25	
142-82-5	n-Heptane	42.8	41.0	41.3	96	96	70-119	0	25	
10061-01-5	cis-1,3-Dichloropropene	42.4	49.1	49.1	116	116	81-126	0	25	
108-10-1	4-Methyl-2-pentanone	85.2	93.3	92.9	110	109	73-129	0.9	25	
10061-02-6	trans-1,3-Dichloropropene	39.2	44.1	44.2	113	113	80-127	0	25	
79-00-5	1,1,2-Trichloroethane	43.2	42.9	42.6	99	99	78-117	0	25	
108-88-3	Toluene	42.8	37.4	37.3	87	87	70-118	0	25	
591-78-6	2-Hexanone	85.2	91.6	90.4	108	106	74-132	2	25	
124-48-1	Dibromochloromethane	42.8	38.7	38.6	90	90	69-137	0	25	
106-93-4	1,2-Dibromoethane	40.8	38.0	37.7	93	92	76-128	1	25	
123-86-4	n-Butvl Acetate	84.8	92.9	91.9	110	108	75-134	2	25	

## LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 3 of 3

# Client:The Vertex Companies, Inc.Client Sample ID:Duplicate Lab Control SampleClient Project ID:Tree farm / 75395

Simon Cao

EPA TO-15 Modified

6.0 L Silonite Canister

Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Test Code:

Analyst:

Instrument ID:

Sample Type:

Test Notes:

## ALS Project ID: P2302295 ALS Sample ID: P230526-DLCS

Date Collected: NA Date Received: NA Date Analyzed: 5/26/23 Volume(s) Analyzed: 0.125 Liter(s)

		Spike Amount	Re	sult			ALS			
CAS #	Compound	LCS / DLCS	LCS	DLCS	% Re	covery	Acceptance	RPD	RPD	Data
		μg/m³	$\mu g/m^3$	μg/m³	LCS	DLCS	Limits		Limit	Qualifier
111-65-9	n-Octane	42.4	38.3	37.5	90	88	68-120	2	25	
127-18-4	Tetrachloroethene	42.8	38.3	38.0	89	89	63-130	0	25	
108-90-7	Chlorobenzene	43.2	36.9	36.6	85	85	70-118	0	25	
100-41-4	Ethylbenzene	43.6	38.9	38.0	89	87	71-123	2	25	
179601-23-1	m,p-Xylenes	86.0	78.3	77.1	91	90	67-127	1	25	
75-25-2	Bromoform	43.6	42.6	41.9	<b>98</b>	96	65-149	2	25	
100-42-5	Styrene	42.8	40.9	40.0	96	93	76-132	3	25	
95-47-6	o-Xylene	43.2	38.7	38.4	90	89	69-124	1	25	
111-84-2	n-Nonane	42.8	39.8	39.3	93	92	64-127	1	25	
79-34-5	1,1,2,2-Tetrachloroethane	43.2	38.0	37.6	88	87	69-128	1	25	
98-82-8	Cumene	42.4	38.0	37.8	90	89	69-125	1	25	
80-56-8	alpha-Pinene	43.2	40.4	40.1	94	93	68-129	1	25	
103-65-1	n-Propylbenzene	42.4	38.8	38.0	92	90	70-127	2	25	
622-96-8	4-Ethyltoluene	43.6	40.0	40.2	92	92	69-127	0	25	
108-67-8	1,3,5-Trimethylbenzene	43.2	38.9	38.6	90	89	66-129	1	25	
95-63-6	1,2,4-Trimethylbenzene	42.4	39.2	39.1	92	92	63-142	0	25	
100-44-7	Benzyl Chloride	85.6	98.6	98.8	115	115	73-145	0	25	
541-73-1	1,3-Dichlorobenzene	42.8	40.1	39.4	94	92	67-136	2	25	
106-46-7	1,4-Dichlorobenzene	42.8	40.0	39.5	93	92	63-134	1	25	
95-50-1	1,2-Dichlorobenzene	42.4	38.6	38.2	91	90	64-139	1	25	
5989-27-5	d-Limonene	41.6	40.0	39.9	96	96	63-137	0	25	
96-12-8	1,2-Dibromo-3-chloropropane	83.2	84.3	83.2	101	100	72-145	1	25	
120-82-1	1,2,4-Trichlorobenzene	88.0	90.3	88.2	103	100	62-154	3	25	
91-20-3	Naphthalene	44.0	50.1	49.6	114	113	62-156	0.9	25	
87-68-3	Hexachlorobutadiene	43.6	40.1	39.0	92	89	55-142	3	25	

## LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 3

# Client:The Vertex Companies, Inc.Client Sample ID:Duplicate Lab Control SampleClient Project ID:Tree farm / 75395

Wida Ang

EPA TO-15 Modified

6.0 L Silonite Canister

Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Test Code:

Analyst:

Instrument ID:

Sample Type:

Test Notes:

## ALS Project ID: P2302295 ALS Sample ID: P230528-DLCS

Date Collected: NA Date Received: NA Date Analyzed: 5/28/23 Volume(s) Analyzed: 0.125 Liter(s)

		Spike Amount	Re	sult			ALS			
CAS #	Compound	LCS / DLCS	LCS	DLCS	% Re	covery	Acceptance	RPD	RPD	Data
		μg/m³	$\mu g/m^3$	μg/m³	LCS	DLCS	Limits		Limit	Qualifier
115-07-1	Propene	42.4	31.9	31.2	75	74	56-128	1	25	
75-71-8	Dichlorodifluoromethane (CFC 12)	42.4	37.9	37.5	89	88	71-112	1	25	
74-87-3	Chloromethane	42.0	32.4	32.4	77	77	53-126	0	25	
76 14 2	1,2-Dichloro-1,1,2,2-				00	07	62 121		25	
/0-14-2	tetrafluoroethane (CFC 114)	42.8	37.6	37.1	00	0/	02-121	1	23	
75-01-4	Vinyl Chloride	42.0	36.7	36.2	87	86	63-123	1	25	
106-99-0	1,3-Butadiene	42.0	39.6	39.0	94	93	63-135	1	25	
74-83-9	Bromomethane	42.0	34.7	35.5	83	85	71-112	2	25	
75-00-3	Chloroethane	42.4	34.5	34.5	81	81	66-117	0	25	
64-17-5	Ethanol	220	160	160	73	73	57-117	0	25	
75-05-8	Acetonitrile	42.8	31.3	31.2	73	73	59-131	0	25	
107-02-8	Acrolein	88.0	72.4	71.7	82	81	71-123	1	25	
67-64-1	Acetone	212	162	160	76	75	60-117	1	25	
75-69-4	Trichlorofluoromethane (CFC 11)	42.0	37.8	38.0	90	90	71-114	0	25	
67-63-0	2-Propanol (Isopropyl Alcohol)	82.8	79.8	78.9	96	95	61-124	1	25	
107-13-1	Acrylonitrile	83.6	67.7	65.6	81	<b>78</b>	65-130	4	25	
75-35-4	1,1-Dichloroethene	40.8	34.7	35.7	85	88	74-114	3	25	
75-09-2	Methylene Chloride	40.8	32.1	31.7	79	<b>78</b>	75-112	1	25	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	42.4	32.8	38.0	77	90	57-127	16	25	
76-13-1	Trichlorotrifluoroethane (CFC 113)	42.0	38.0	38.0	90	90	73-114	0	25	
75-15-0	Carbon Disulfide	86.0	69.6	68.6	81	80	70-113	1	25	
156-60-5	trans-1,2-Dichloroethene	43.2	38.6	37.7	89	87	76-119	2	25	
75-34-3	1,1-Dichloroethane	43.2	35.8	35.2	83	81	70-114	2	25	
1634-04-4	Methyl tert-Butyl Ether	43.2	38.4	37.9	89	88	72-118	1	25	
108-05-4	Vinyl Acetate	220	233	233	106	106	56-137	0	25	
78-93-3	2-Butanone (MEK)	82.8	68.1	67.4	82	81	74-121	1	25	

## LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 3

# Client:The Vertex Companies, Inc.Client Sample ID:Duplicate Lab Control SampleClient Project ID:Tree farm / 75395

Wida Ang

EPA TO-15 Modified

6.0 L Silonite Canister

Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Test Code:

Analyst:

Instrument ID:

Sample Type:

Test Notes:

## ALS Project ID: P2302295 ALS Sample ID: P230528-DLCS

Date Collected: NA Date Received: NA Date Analyzed: 5/28/23 Volume(s) Analyzed: 0.125 Liter(s)

		Spike Amount	Re	sult			ALS			
CAS #	Compound	LCS / DLCS	LCS	DLCS	% Re	covery	Acceptance	RPD	RPD	Data
		μg/m³	$\mu g/m^3$	μg/m³	LCS	DLCS	Limits		Limit	Qualifier
156-59-2	cis-1,2-Dichloroethene	42.8	36.3	36.2	85	85	73-117	0	25	
141-78-6	Ethyl Acetate	79.6	64.0	62.8	80	79	59-161	1	25	
110-54-3	n-Hexane	42.4	34.6	34.3	82	81	55-130	1	25	
67-66-3	Chloroform	43.2	36.7	36.0	85	83	71-114	2	25	
109-99-9	Tetrahydrofuran (THF)	80.4	66.0	64.7	82	80	73-114	2	25	
107-06-2	1,2-Dichloroethane	40.8	41.4	41.0	101	100	71-119	1	25	
71-55-6	1,1,1-Trichloroethane	42.0	39.1	39.1	93	93	73-119	0	25	
71-43-2	Benzene	40.8	35.4	34.9	87	86	72-113	1	25	
56-23-5	Carbon Tetrachloride	42.0	41.5	41.6	99	99	67-123	0	25	
110-82-7	Cyclohexane	85.2	68.3	67.9	80	80	70-119	0	25	
78-87-5	1,2-Dichloropropane	42.8	34.4	33.6	80	79	70-118	1	25	
75-27-4	Bromodichloromethane	43.2	39.4	39.0	91	90	74-119	1	25	
79-01-6	Trichloroethene	42.4	36.2	35.5	85	84	74-115	1	25	
123-91-1	1,4-Dioxane	42.4	39.1	38.2	92	90	77-124	2	25	
80-62-6	Methyl Methacrylate	85.6	81.7	83.4	95	97	78-126	2	25	
142-82-5	n-Heptane	42.8	36.1	34.7	84	81	70-119	4	25	
10061-01-5	cis-1,3-Dichloropropene	42.4	43.2	42.6	102	100	81-126	2	25	
108-10-1	4-Methyl-2-pentanone	85.2	80.5	78.6	94	92	73-129	2	25	
10061-02-6	trans-1,3-Dichloropropene	39.2	38.6	38.7	98	99	80-127	1	25	
79-00-5	1,1,2-Trichloroethane	43.2	37.9	37.2	88	86	78-117	2	25	
108-88-3	Toluene	42.8	33.7	33.3	79	<b>78</b>	70-118	1	25	
591-78-6	2-Hexanone	85.2	78.7	78.2	92	92	74-132	0	25	
124-48-1	Dibromochloromethane	42.8	36.7	35.6	86	83	69-137	4	25	
106-93-4	1,2-Dibromoethane	40.8	35.1	34.0	86	83	76-128	4	25	
123-86-4	n-Butyl Acetate	84.8	79.6	79.0	94	93	75-134	1	25	

## LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 3 of 3

# Client:The Vertex Companies, Inc.Client Sample ID:Duplicate Lab Control SampleClient Project ID:Tree farm / 75395

Wida Ang

EPA TO-15 Modified

6.0 L Silonite Canister

Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Test Code:

Analyst:

Instrument ID:

Sample Type:

Test Notes:

## ALS Project ID: P2302295 ALS Sample ID: P230528-DLCS

Date Collected: NA Date Received: NA Date Analyzed: 5/28/23 Volume(s) Analyzed: 0.125 Liter(s)

		Spike Amount	Re	sult			ALS			
CAS #	Compound	LCS / DLCS	LCS	DLCS	% Re	covery	Acceptance	RPD	RPD	Data
		μg/m³	$\mu g/m^3$	μg/m³	LCS	DLCS	Limits		Limit	Qualifier
111-65-9	n-Octane	42.4	33.1	33.1	<b>78</b>	78	68-120	0	25	
127-18-4	Tetrachloroethene	42.8	36.4	35.7	85	83	63-130	2	25	
108-90-7	Chlorobenzene	43.2	33.5	33.4	<b>78</b>	77	70-118	1	25	
100-41-4	Ethylbenzene	43.6	35.0	34.5	80	79	71-123	1	25	
179601-23-1	m,p-Xylenes	86.0	70.9	69.9	82	81	67-127	1	25	
75-25-2	Bromoform	43.6	41.2	40.3	94	92	65-149	2	25	
100-42-5	Styrene	42.8	36.8	36.5	86	85	76-132	1	25	
95-47-6	o-Xylene	43.2	35.0	34.8	81	81	69-124	0	25	
111-84-2	n-Nonane	42.8	34.2	33.6	80	79	64-127	1	25	
79-34-5	1,1,2,2-Tetrachloroethane	43.2	33.6	33.0	<b>78</b>	76	69-128	3	25	
98-82-8	Cumene	42.4	35.0	34.4	83	81	69-125	2	25	
80-56-8	alpha-Pinene	43.2	36.0	36.4	83	84	68-129	1	25	
103-65-1	n-Propylbenzene	42.4	35.3	34.5	83	81	70-127	2	25	
622-96-8	4-Ethyltoluene	43.6	37.3	36.6	86	84	69-127	2	25	
108-67-8	1,3,5-Trimethylbenzene	43.2	35.8	35.4	83	82	66-129	1	25	
95-63-6	1,2,4-Trimethylbenzene	42.4	36.1	35.8	85	84	63-142	1	25	
100-44-7	Benzyl Chloride	85.6	89.4	90.0	104	105	73-145	1	25	
541-73-1	1,3-Dichlorobenzene	42.8	37.1	36.2	<b>8</b> 7	85	67-136	2	25	
106-46-7	1,4-Dichlorobenzene	42.8	37.0	36.4	86	85	63-134	1	25	
95-50-1	1,2-Dichlorobenzene	42.4	35.8	35.6	84	84	64-139	0	25	
5989-27-5	d-Limonene	41.6	34.7	35.2	83	85	63-137	2	25	
96-12-8	1,2-Dibromo-3-chloropropane	83.2	78.1	77.0	94	93	72-145	1	25	
120-82-1	1,2,4-Trichlorobenzene	88.0	83.4	82.1	95	93	62-154	2	25	
91-20-3	Naphthalene	44.0	44.6	45.0	101	102	62-156	1	25	
87-68-3	Hexachlorobutadiene	43.6	38.7	37.5	89	86	55-142	3	25	

## LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 3

# Client:The Vertex Companies, Inc.Client Sample ID:Duplicate Lab Control SampleClient Project ID:Tree farm / 75395

Wida Ang

EPA TO-15 Modified

6.0 L Silonite Canister

Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Test Code:

Analyst:

Instrument ID:

Sample Type:

Test Notes:

## ALS Project ID: P2302295 ALS Sample ID: P230530-DLCS

Date Collected: NA Date Received: NA Date Analyzed: 5/30/23 Volume(s) Analyzed: 0.125 Liter(s)

		Spike Amount	Re	sult			ALS			
CAS #	Compound	LCS / DLCS	LCS	DLCS	% Re	covery	Acceptance	RPD	RPD	Data
		μg/m³	$\mu g/m^3$	μg/m³	LCS	DLCS	Limits		Limit	Qualifier
115-07-1	Propene	42.4	27.9	28.5	66	67	56-128	2	25	
75-71-8	Dichlorodifluoromethane (CFC 12)	42.4	36.0	36.2	85	85	71-112	0	25	
74-87-3	Chloromethane	42.0	28.0	29.4	67	70	53-126	4	25	
76 14 2	1,2-Dichloro-1,1,2,2-				70	70	62 121		25	
/0-14-2	tetrafluoroethane (CFC 114)	42.8	33.5	33.7	/ð	19	02-121	1	25	
75-01-4	Vinyl Chloride	42.0	26.8	27.2	64	65	63-123	2	25	
106-99-0	1,3-Butadiene	42.0	29.3	30.6	70	73	63-135	4	25	
74-83-9	Bromomethane	42.0	31.3	31.6	75	75	71-112	0	25	
75-00-3	Chloroethane	42.4	30.4	31.4	72	74	66-117	3	25	
64-17-5	Ethanol	220	141	144	64	65	57-117	2	25	
75-05-8	Acetonitrile	42.8	27.6	28.2	64	66	59-131	3	25	
107-02-8	Acrolein	88.0	64.1	65.0	73	74	71-123	1	25	
67-64-1	Acetone	212	144	147	68	69	60-117	1	25	
75-69-4	Trichlorofluoromethane (CFC 11)	42.0	36.1	36.3	86	86	71-114	0	25	
67-63-0	2-Propanol (Isopropyl Alcohol)	82.8	71.5	73.5	86	89	61-124	3	25	
107-13-1	Acrylonitrile	83.6	58.6	61.5	70	74	65-130	6	25	
75-35-4	1,1-Dichloroethene	40.8	32.4	32.6	79	80	74-114	1	25	
75-09-2	Methylene Chloride	40.8	28.6	29.5	70	72	75-112	3	25	$\mathbf{L}$
107-05-1	3-Chloro-1-propene (Allyl Chloride)	42.4	31.4	35.2	74	83	57-127	11	25	
76-13-1	Trichlorotrifluoroethane (CFC 113)	42.0	35.7	36.0	85	86	73-114	1	25	
75-15-0	Carbon Disulfide	86.0	62.4	63.3	73	74	70-113	1	25	
156-60-5	trans-1,2-Dichloroethene	43.2	35.1	35.3	81	82	76-119	1	25	
75-34-3	1,1-Dichloroethane	43.2	32.1	32.7	74	76	70-114	3	25	
1634-04-4	Methyl tert-Butyl Ether	43.2	34.9	35.9	81	83	72-118	2	25	
108-05-4	Vinyl Acetate	220	209	214	95	97	56-137	2	25	
78-93-3	2-Butanone (MEK)	82.8	60.9	62.7	74	76	74-121	3	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

L = Laboratory control sample recovery outside the specified limits, results may be biased low.

## LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 3

# Client:The Vertex Companies, Inc.Client Sample ID:Duplicate Lab Control SampleClient Project ID:Tree farm / 75395

Wida Ang

EPA TO-15 Modified

6.0 L Silonite Canister

Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Test Code:

Analyst:

Instrument ID:

Sample Type:

Test Notes:

## ALS Project ID: P2302295 ALS Sample ID: P230530-DLCS

Date Collected: NA Date Received: NA Date Analyzed: 5/30/23 Volume(s) Analyzed: 0.125 Liter(s)

		Spike Amount	Re	sult			ALS			
CAS #	Compound	LCS / DLCS	LCS	DLCS	% Re	covery	Acceptance	RPD	RPD	Data
		μg/m³	μg/m³	μg/m³	LCS	DLCS	Limits		Limit	Qualifier
156-59-2	cis-1,2-Dichloroethene	42.8	33.3	34.1	78	80	73-117	3	25	
141-78-6	Ethyl Acetate	79.6	55.9	57.0	70	72	59-161	3	25	
110-54-3	n-Hexane	42.4	31.2	31.5	74	74	55-130	0	25	
67-66-3	Chloroform	43.2	33.9	34.7	<b>78</b>	80	71-114	3	25	
109-99-9	Tetrahydrofuran (THF)	80.4	59.0	59.9	73	75	73-114	3	25	
107-06-2	1,2-Dichloroethane	40.8	39.0	39.2	96	96	71-119	0	25	
71-55-6	1,1,1-Trichloroethane	42.0	36.9	37.8	88	90	73-119	2	25	
71-43-2	Benzene	40.8	31.8	32.8	<b>78</b>	80	72-113	3	25	
56-23-5	Carbon Tetrachloride	42.0	39.5	40.7	94	97	67-123	3	25	
110-82-7	Cyclohexane	85.2	61.3	63.2	72	74	70-119	3	25	
78-87-5	1,2-Dichloropropane	42.8	30.6	31.4	71	73	70-118	3	25	
75-27-4	Bromodichloromethane	43.2	36.9	37.7	85	87	74-119	2	25	
79-01-6	Trichloroethene	42.4	33.6	34.1	79	80	74-115	1	25	
123-91-1	1,4-Dioxane	42.4	34.8	35.4	82	83	77-124	1	25	
80-62-6	Methyl Methacrylate	85.6	75.5	79.2	88	93	78-126	6	25	
142-82-5	n-Heptane	42.8	31.0	32.4	72	76	70-119	5	25	
10061-01-5	cis-1,3-Dichloropropene	42.4	38.9	40.4	92	95	81-126	3	25	
108-10-1	4-Methyl-2-pentanone	85.2	71.3	72.7	84	85	73-129	1	25	
10061-02-6	trans-1,3-Dichloropropene	39.2	32.0	36.7	82	94	80-127	14	25	
79-00-5	1,1,2-Trichloroethane	43.2	31.5	35.0	73	81	78-117	10	25	L
108-88-3	Toluene	42.8	29.8	30.3	70	71	70-118	1	25	
591-78-6	2-Hexanone	85.2	68.7	70.4	81	83	74-132	2	25	
124-48-1	Dibromochloromethane	42.8	33.4	33.9	<b>78</b>	79	69-137	1	25	
106-93-4	1,2-Dibromoethane	40.8	30.8	31.9	75	78	76-128	4	25	L
123-86-4	n-Butyl Acetate	84.8	69.1	71.0	81	84	75-134	4	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result. Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

L = Laboratory control sample recovery outside the specified limits, results may be biased low.

## LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 3 of 3

# Client:The Vertex Companies, Inc.Client Sample ID:Duplicate Lab Control SampleClient Project ID:Tree farm / 75395

Wida Ang

EPA TO-15 Modified

6.0 L Silonite Canister

Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Test Code:

Analyst:

Instrument ID:

Sample Type:

Test Notes:

## ALS Project ID: P2302295 ALS Sample ID: P230530-DLCS

Date Collected: NA Date Received: NA Date Analyzed: 5/30/23 Volume(s) Analyzed: 0.125 Liter(s)

		Spike Amount	Re	sult			ALS			
CAS #	Compound	LCS / DLCS	LCS	DLCS	% Re	covery	Acceptance	RPD	RPD	Data
		μg/m³	$\mu g/m^3$	μg/m³	LCS	DLCS	Limits		Limit	Qualifier
111-65-9	n-Octane	42.4	28.8	29.3	68	69	68-120	1	25	
127-18-4	Tetrachloroethene	42.8	33.0	33.8	77	79	63-130	3	25	
108-90-7	Chlorobenzene	43.2	30.1	30.6	70	71	70-118	1	25	
100-41-4	Ethylbenzene	43.6	31.0	31.8	71	73	71-123	3	25	
179601-23-1	m,p-Xylenes	86.0	63.7	64.8	74	75	67-127	1	25	
75-25-2	Bromoform	43.6	37.6	38.3	86	88	65-149	2	25	
100-42-5	Styrene	42.8	32.9	33.7	77	79	76-132	3	25	
95-47-6	o-Xylene	43.2	31.6	32.3	73	75	69-124	3	25	
111-84-2	n-Nonane	42.8	29.8	30.6	70	71	64-127	1	25	
79-34-5	1,1,2,2-Tetrachloroethane	43.2	29.8	30.1	69	70	69-128	1	25	
98-82-8	Cumene	42.4	31.3	32.0	74	75	69-125	1	25	
80-56-8	alpha-Pinene	43.2	32.2	33.4	75	77	68-129	3	25	
103-65-1	n-Propylbenzene	42.4	31.4	32.2	74	76	70-127	3	25	
622-96-8	4-Ethyltoluene	43.6	33.4	34.3	77	79	69-127	3	25	
108-67-8	1,3,5-Trimethylbenzene	43.2	32.7	33.0	76	76	66-129	0	25	
95-63-6	1,2,4-Trimethylbenzene	42.4	32.7	31.5	77	74	63-142	4	25	
100-44-7	Benzyl Chloride	85.6	80.1	78.3	94	91	73-145	3	25	
541-73-1	1,3-Dichlorobenzene	42.8	33.7	33.9	79	79	67-136	0	25	
106-46-7	1,4-Dichlorobenzene	42.8	33.7	33.7	79	79	63-134	0	25	
95-50-1	1,2-Dichlorobenzene	42.4	32.5	32.9	77	<b>78</b>	64-139	1	25	
5989-27-5	d-Limonene	41.6	30.7	27.6	74	66	63-137	11	25	
96-12-8	1,2-Dibromo-3-chloropropane	83.2	71.8	75.7	86	91	72-145	6	25	
120-82-1	1,2,4-Trichlorobenzene	88.0	77.8	79.1	88	90	62-154	2	25	
91-20-3	Naphthalene	44.0	41.1	41.7	93	95	62-156	2	25	
87-68-3	Hexachlorobutadiene	43.6	35.7	36.9	82	85	55-142	4	25	



# ANALYTICAL REPORT

Report Date: May 24, 2023

Phone: (805) 526-7161

E-mail:

Workorder: **34-2314367** Client Project ID: P2302295 Purchase Order: 54P2302295 Project Manager: Bevan Meade

Simi Valley, CA 93065

ALS Environmental Laboratory 2655 Park Center Drive

Sue Anderson

## **Analytical Results**

Suite A

Sample ID: <b>SV-1</b> Lab ID: 2314367001	Sampling L	ocation: P2302295	Collected: 0 Received: 0	)5/18/2023 )5/23/2023	
Method: NIOSH 6015 Mod.	Med	lia: SKC 226-10-06, Sil (Sulfuric acid) (100/	Instrument: WET01		
Dilution: 1	Sampling Paramet	er: Air Volume 16.125	Analyzed: 05/24/20	023 (307232)	
	Result				
Analyte	(ug/sample)	Result (mg/m³)	Result (ppm)	RL (ug/sample)	
Ammonia	<1.2	<0.074	<0.11	1.2	

Sample ID: <b>SV-2</b> Lab ID: 2314367002	Sampling I	-ocation: P2302295	Collected: 0 Received: 0	)5/18/2023 )5/23/2023	
Method: NIOSH 6015 Mod.	Мес	lia: SKC 226-10-06, Sil (Sulfuric acid) (100/	ica gel tube (200mg)	Instrument: WET01	
Dilution: 1	Sampling Parame	ter: Air Volume 13.125	Analyzed: 05/24/2	023 (307232)	
Analyte	Result	Posult (ma/m³)	Pesult (nnm)	PL (ug/sample)	
Analyte	(ug/sumple)	Result (ing/in )	Result (ppin)	KE (ug/sample)	
Ammonia	<1.2	<0.091	<0.13	1.2	

Sample ID: SV-3 Lab ID: 2314367003	Sampling L	ocation: P2302295	Collected: 0 Received: 0	5/18/2023 5/23/2023	
Method: NIOSH 6015 Mod.	Med	lia: SKC 226-10-06, Sil (Sulfuric acid) (100/	Instrument: WET01		
Dilution: 1	Sampling Paramet	er: Air Volume 11.25 L	Analyzed: 05/24/20	23 (307232)	
Analyte	Result (ug/sample)	Result (mg/m³)	Result (ppm)	RL (ug/sample)	
Ammonia	<1.2	<0.11	<0.15	1.2	

## Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method (Analysis Batch)	Analyst	Peer Review
NIOSH 6015 Mod. (307232)	/S/ Karley Neilson 05/24/2023 17:06	/S/ Christopher R. Hansen 05/24/2023 17:38

ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, 84123 USA | PHONE +1 801 266 7700 | FAX +1 801 268 9992 | WEB http://www.alsglobal.com/slt ALS GROUP USA, CORP. An ALS Limited Company

	I P N L A	

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Wed, 05/24/23 5:44 PM



# ANALYTICAL REPORT

# Workorder: 34-2314367

Client Project ID: P2302295 Purchase Order: 54P2302295 Project Manager: Bevan Meade

## Laboratory Contact Information

ALS Environmental 960 W Levoy Drive Salt Lake City, Utah 84123 Phone: (801) 266-7700 Email: Web: www.alsglobal.com/slt

## General Lab Comments

The results provided in this report relate only to the items tested. Samples were received in acceptable condition unless otherwise noted. The following was provided by the client: Sample ID, Collection Date, Sampling Location, Media Type, Sampling Parameter. Collection Date, Media Type, and Sampling Parameter can potentially affect the validity of the results. Samples have not been blank corrected unless otherwise noted. This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP)	101574	http://www.aihaaccreditedlabs.org
	DOECAP-AP Washington	L22-62 C596	http://www.pjlabs.com https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Lab oratory-Accreditation
Dietary Supplements	PJLA (ISO 17025)	L22-61	http://www.pjlabs.com

## Definitions

LOD = Limit of Detection = MDL = Method Detection Limit, A statistical estimate of method/media/instrument sensitivity.

- LOQ = Limit of Quantitation = RL = Reporting Limit, A verified value of method/media/instrument sensitivity.
- ND = Not Detected, Testing result not detected above the LOD or LOQ.
- NA = Not Applicable.

\*\* No result could be reported, see sample comments for details.

< Means this testing result is less than the numerical value.

() This testing result is between the LOD and LOQ and has higher analytical uncertainty than values at or above the LOQ.



# Quality Control Sample Batch Report

### **Analysis Information**

# Workorder: 2314367

Limits: Historical/Performance Basis: ALS Laboratory Group Preparation: NA Batch: NA Prepared By: NA Analysis: NIOSH 6015 Mod. Batch: IWC/4049 (HBN: 307232) Analyzed By: Karley Neilson

Blank			
LMB: 823227 Analyzed: 05/24/2023 15:48 Units: ug/sample			
Analyte	Result	MDL	RL
Ammonia	ND	NA	1.20

## Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 823228 Analyzed: 05/24/2023 15:49 Dilution: 1 Units: ug/sample						LCSD: 8 Analyzed: 0 Dilution: 1 Units: u	23229 5/24/2023 g/sample	15:51		
Analyte	Result	Target	% Rec	QC L	imits	Result	% Rec	RPD	QC Li	mits
Ammonia	21.3	24.3	87.7	74.2	103.0	21.3	87.5	0.225	0.0	20.0

## QC Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Workorder	Analyst	Peer Review
2314367	/S/ Karley Neilson 05/24/2023 17:06	/S/ Christopher R. Hansen 05/24/2023 17:38

## Symbols and Definitions

- \* Analyte above reporting limit or outside of control limits
- Sample result is greater than 4 times the spike added
- Sample and Matrix Duplicate less than 5 times the reporting limit
- Result is above the calibration range
- # The Matrix Spike, Matrix Spike duplicate or Matrix Duplicate is reported for your information only. The sample matrix may be inappropriate for the method selected.
- RPD Relative % Difference (Spike / Spike Duplicate)
- ND Not Detected (U Qualifier also flags analyte as not detected) NA - Not Applicable
- QC results are not adjusted for moisture correction, where applicable

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5/24/2023 5:44:00 PM

roject Number: P. roject Manager: Su AP: L/ oject Name: Lab Code San P23 02295-004 SV- P23 02295-005 SV- P23 02295-006 SV- P23 02295-006 SV-	2302295 ue Anderson AB QAP TreeCarm nple ID -1 - 2 - 3 - P2302295-	# of Cont.	Matrix Air Air Air	Samj Date 5/18/23 5/18/23 5/18/23	ple Time 1733 1930 2003	Lab ID Salt Lake City ALS Salt Lake City ALS Salt Lake City ALS	A None X	WME COU 6.125L 3./25L 11.250L	LECTED	
Lab Code     San       P23 02295-004     SV-       P23 02295-005     SV-       P23 02295-006     SV-       P23 02295-006     SV-       est Comments     isc Out 1 - None	nple ID -1 - 2 3 - P2302295-	# of Cont.	Matrix Air Air Air	Samj Date 5/18/23 5/18/23 5/18/23 -10-04 NIOSH 6015M	ple Time 1733 1930 2003 1 Ammonia	Lab ID Salt Lake City ALS Salt Lake City ALS Salt Lake City ALS	X Vo X I X I	WME COU 6.125L 3./25L 11.250L	UECTET J	
P23 02295-004 SV- P23 02295-005 SV- P23 02295-006 SV- P23 02295-006 SV- Strain Comments isc Out 1 - None	P2302295-	5-004,5,6	Air Air Air	5/18/23 5/18/23 5/18/23	1733 1930 2003	Salt Lake City ALS Salt Lake City ALS Salt Lake City ALS	X X X	6.125L 3./25L 11.250L		
P2302295-005 SV- P2302295-006 SV- est Comments isc Out 1 - None	2 — 3 — P2302295-	5-004,5,6	Air Air	5/18/23 5/18/23	1930 2003	Salt Lake City ALS Salt Lake City ALS	X X	3./25L 11.250L		
est Comments isc Out 1 - None	3 P2302295-	5-004,5.6	Air 224	5/18/23	2003	Salt Lake City ALS	X	1.250		
est Comments isc Out 1 - None	P2302295-	5-004,5,6	224	-10-04 NIOSH 6015M	1 Ammonia	a				
Special Instructions/(	Comments			Tu	urnaround	1 Requirements	Re	port Requiremen	nts	Invoice Information
· ·	- Lient project N	lame / ID			RUSH (Su	rcharges Apply)	I. Results O	nly		
Ser	Report using client project nd Report to <u>Sue Anderson@Al</u> Send Invoice AP and cc	LSGlobal.com		PLEAS	<b>SE CIRCI</b> 1 2	<b>LE WORK DAYS</b> 3 4 5	III. Results +	+ QC and Calibra	tion Summaries	PO# 54P2302295
-	ALSUSA AccountsPayable@als	sglobal.com		S7	TANDAR	D	IV. Data Va	lidation Report w	rith Raw Data	
H - Test is On Hold	P - Test is Authorized	ed for Prep Only	,	Request Request	ted FAX D	Date:	PQL/MDL/J EDD	N N		Bill to
linquished By:	$\frown$		~	5-22	-230	1080	1 5	23.23		in a second s



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**APPENDIX F** 

**Certificate of Incorporation** 

Page F.1, October 1, 2024

THE VERTEX COMPANIES, LLC 3030 LBJ FWY, STE 1620 DALLAS, TX 75234

BETTERING OUTCOMES | VERTEXENG.COM 214.499.9234 Corporations Section P.O.Box 13697 Austin, Texas 78711-3697



Jane Nelson Secretary of State

# Office of the Secretary of State

The undersigned, as Secretary of State of Texas, does hereby certify that the attached is a true and correct copy of each document on file in this office as described below:

PR III/CRE 635 EXCHANGE OWNER, LP Filing Number: 805592101

Application for Registration

Page E.61, October 1, 2024

June 18, 2024

In testimony whereof, I have hereunto signed my name officially and caused to be impressed hereon the Seal of State at my office in Austin, Texas on August 22, 2024.



Jellon

Jane Nelson Secretary of State

Phone: (512) 463-5555 Prepared by: SOS-WEB Come visit us on the internet at https://www.sos.texas.gov/ Fax: (512) 463-5709 TID: 10266

Dial: 7-1-1 for Relay Services Document: 1395341910003



1. The entity is a foreign limited partnership. The name of the entity is:

# PR III/CRE 635 EXCHANGE OWNER, LP

2A. The name of the entity in its jurisdiction of formation does not contain the word "limited partnership," or "limited" (or an abbreviation thereof). The name of the entity with the word or abbreviation that it elects to add for use in Texas is:

2B. The entity name is not available in Texas. The assumed name under which the entity will qualify and transact business in Texas is:

3. Its federal employer identification number is:

Federal employer identification number information is not available at this time.

4. It is organized under the laws of: **DELAWARE, USA** and the date of its formation in that jurisdiction is: **6/17/2024** 

5. As of the date of filing, the undersigned certifies that the foreign limited partnership currently exists as a valid limited partnership under the laws of the jurisdiction of its formation.

6. The date on which the foreign entity intends to transact business in Texas, or the date on which the foreign entity first transacted business in Texas is: <u>06/20/2024</u>

7. The principal office address of the limited partnership is: 655 Broad Street, 14th Floor, Newark, NJ, USA 07102

■8A. The initial registered agent is an organization by the name of:

# C T Corporation System

□8B. The initial registered agent is an individual resident of the state whose name is:

□8C. The business address of the registered agent and the registered office address is:

# 1999 Bryan Street Suite 900 Dallas TX 75201-3136

# **Consent of Registered Agent**

A. A copy of the consent of Registered Agent is attached.

OR

B. The consent of the registered agent is maintained by the entity.

9. The entity hereby appoints the Secretary of State of Texas as its agent for service of process under the circumstances set forth in section 5.251 of the Texas Business Organizations Code.

10. The name and address of each governing person is:

ME OF GOVERNING PERSON (Enter the name of either an individual or an organization, but not both:) :	
INDIVIDUAL	
3	
ORGANIZATION	
R III/CRE 635 Exchange GP LLC	
DRESS OF GOVERNING PERSON :	
55 Broad Street, 14th Floor Newark NJ, USA 07102	

## **Supplemental Provisions / Information**

[The attached addendum, if any, is incorporated herein by reference.]

## Effectiveness of Filing

A. This document becomes effective when the document is filed by the secretary of state.

OR

 $\square$ B. This document becomes effective at a later date, which is not more than ninety (90) days from the date of its signing. The delayed effective date is:

## Execution

The undersigned affirms that the person designated as registered agent has consented to the appointment. The undersigned signs this document subject to the penalties imposed by law for the submission of a materially false or fraudulent instrument and certifies under penalty of perjury that the undersigned is authorized under the provisions of law governing the entity to execute the filing instrument.

Date: June 18, 2024

## Kenneth Van Winkle, Jr., Authorized Person

Signature and title of authorized person on behalf of the foreign limited partnership

FILING OFFICE COPY



**APPENDIX G** 

**Notice of Appointment** 

Page G.1, October 1, 2024

THE VERTEX COMPANIES, LLC 3030 LBJ FWY, STE 1620 DALLAS, TX 75234

BETTERING OUTCOMES | VERTEXENG.COM 214.499.9234

# CREATION

September 5, 2024

MC 124 Texas Commission on Environmental Quality Municipal Solid Waste Permit Section 12100 Park 35 Circle Austin, TX 78753

Re: Notice of Appointment Municipal Solid Waste (MSW) Development Permit Application TREEFARM IH-635 AND IH-35 11645 Newberry St Dallas, Dallas County, TX 75229-2033 TCEQ CN606135689, RN111728465, MSW67109

PR III/CRE 635 Exchange Holdings, LP is pleased to submit this Notice of Appointment as required by 30 TAC §330.957(f).

Notice of Appointment: The names of the Project Engineers for the TREEFARM IH-635 AND IH-35 site who are acting for the benefit of the Applicant on the above referenced project are as follows:

Environmental: The Vertex Companies, LLC Geotechnical: Reed Engineering Group, Ltd. Civil Engineer: Kimley-Horn and Associates, Inc. Structural Engineer: Hunt & Joiner, Inc. Architect: LGE DESIGN BUILD

We trust this information is acceptable. Should you require additional information or have any questions regarding this report, please contact the undersigned at 602.600.6363.

Sincerely, BY:

Name: Taylor Mitcham Title: Authorized Signatory



**APPENDIX H** 

**Notification Letters** 

Page H.1, October 1, 2024

THE VERTEX COMPANIES, LLC 3030 LBJ FWY, STE 1620 DALLAS, TX 75234

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214.499.9234



VERTEX PROJECT

September 10, 2024

Mr. Ricky E. Butler Sr Planning Eng/Sr Fire Prev Officer City of Dallas Fire-Rescue; Office of the Fire Marshal 320 East Jefferson Street, Ste. 204; Dallas, TX 75203

 Re: Notice of Closed MSW Landfill Facility and Coordination Development of Property TREEFARM IH-635 AND IH-35
11645 Newberry St; Dallas, Dallas County, TX 75229-2033

Dear Mr. Butler:

It has been determined that the above referenced site is a closed municipal solid waste landfill facility (CMSWLF). In accordance with Texas Health and Safety Code, Chapter 361, Subchapter R and 30 TAC §330.951 - §330.964, this letter serves as a notice of the following conditions.

The Vertex Companies, LLC is acting as Consultant to the Developer of the Property, PR III/CRE 635 Exchange Holdings, LP, who is planning to improve the Property with a proposed office/warehouse facility. As appropriate, the project development will be coordinated through your agency or organization. Furthermore, there are restrictions on the development and leasing of the Property in the above regulations due to the existence of a closed municipal solid waste landfill on the Property.

As part of the process, a permit application will be submitted to the Texas Commission on Environmental Quality (TCEQ). A Notice of Opportunity to Request a Public Meeting will be published in The Dallas Morning News and Al Dia (as appropriate). The notice will provide both an electronic link to the application and a public location where a hardcopy of the application will be available for viewing. If needed, a public hearing will be held. The time and location of the public hearing will be sent to you if/when it is established.

Should you have questions or concerns about this project, please contact me at (214) 499-9234 or ncramer@vertexeng.com.

Respectfully submitted,

Nick Cramér, MS, CPSS, PG Project Lead

Texas Registered Geoscience Firm 50494; Texas Registered Engineering Firm F-15099

Page H.2, October 1, 2024

# Table 1. Summary of Notifications for Ownership Transfer and RN Change Wildlife Phase III Building 12 Tract 501 Wildlife Parkway, Grand Prairie, Texas 75050 TCEO CN606191666: RN111554879: MSW 62045

		I CEC CN000131000, NN 1113	740/2/ ANCINI /2/04/				
		Recipient		Address	Tracking No.	Initial Mailing Date	Delivery Date
1	Mr. Ricky E. Butler; Sr Planning Eng/Sr Fire Prev Officer	Dallas Fire-Rescue; Office of the Fire Marshal	City of Dallas	320 East Jefferson Street, Ste. 204	778490295376	9/12/2024	9/13/2024
2	Mr. David Phan, P.E., CFM; Interim Engineering Program Administrator	Dallas Floodplain and Drainage Management	<b>City of Dallas</b>	2245 Irving Boulevard, Second Floor	778490435229	9/12/2024	9/13/2024
e	Mayor Eric Johnson		<b>City of Dallas</b>	1500 Marilla Street; Ste. 5EN	778490503969	9/12/2024	9/13/2024
4	Dr. Ghassan Khankarli, Director	City of Dallas Department of Public Works	<b>City of Dallas</b>	320 E. Jefferson Blvd	778490570841	9/12/2024	9/13/2024
5	Ms. Sarah Standifer, Director	Director of Utilities	<b>City of Dallas</b>	1500 Marilla Street; Ste. 4AN	778490644343	9/12/2024	9/13/2024
9	Ms. Andrea Gilles; Interim Director	Planning & Urban Design Department	<b>City of Dallas</b>	1500 Marilla Street; Ste. 1FN	778491425154	9/12/2024	9/13/2024
2	Mr. Carlton King	Supervisor NW District Office	<b>City of Dallas</b>	320 E. Jefferson Blvd.	778491527219	9/12/2024	9/13/2024
8	Hon. Clay Jenkins	County Judge	Dallas County	500 Elm Street; Suite 7000	778492366787	9/12/2024	9/13/2024
6	Ms. Cecelia Rutherford, PE	Assistant Director; Engineering and Construction Division	Dallas County	500 Elm Street; Suite 5300	778492285459	9/12/2024	9/13/2024
10	Dr. Philip Huang, MD, MPH	Director/Health Authority	Dallas County	2377 N Stemmons Fwy	778491953640	9/12/2024	9/13/2024
11	Rep. Rafael Anchia; District 103	State Representative		1111 West Mockingbird Lane, Ste 1010	778491868570	9/12/2024	9/13/2024
12	Sen. Tan Parker; District 12	State Senator		8226 Douglas Ave. #625	778491785721	9/12/2024	9/13/2024
13	Ms. Edith Marvin	Director of Environment and Development	NCTCOG	600 Six Flags Dr.	778491718768	9/12/2024	9/16/2024

# FedEx.

Locations  $\sim$ Support  $\sim$  Sign Up or Log In

# Summary Tracking Results

TRACKING ID	SHIP DATE	SHIPPER CITY, STATE	RECIPIENT CITY, STATE	STATUS	DELIVERED DATE	SCHEDULED DELIVERY DATE	SEI
778490295376	9/12/24	DALLAS, TX	DALLAS, TX	Delivered	9/13/24 10:46 AM		Fea
778490435229	9/12/24	DALLAS, TX	DALLAS, TX	Delivered	9/13/24 11:01 AM		Fea
778490503969	9/12/24	DALLAS, TX	DALLAS, TX	<b>Delivered</b>	9/13/24 12:38 PM		Fea
778490570841	9/12/24	DALLAS, TX	DALLAS, TX	<b>Delivered</b>	9/13/24 10:46 AM		Fea
778490644343	9/12/24	DALLAS, TX	DALLAS, TX	<b>Delivered</b>	9/13/24 12:31 PM		Fea
778491425154	9/12/24	DALLAS, TX	DALLAS, TX	<b>Delivered</b>	9/13/24 12:36 PM		Fea
778491527219	9/12/24	DALLAS, TX	DALLAS, TX	<b>Delivered</b>	9/13/24 1:49 PM		Fea
778492366787	9/12/24	DALLAS, TX	DALLAS, TX	<b>Delivered</b>	9/13/24 3:44 PM		Fea
778491953640	9/12/24	DALLAS, TX	DALLAS, TX	<b>Delivered</b>	9/13/24 3:54 PM		Fea
778491868570	9/12/24	DALLAS, TX	DALLAS, TX	<b>Delivered</b>	9/13/24 11:08 AM		Fea
778491785721	9/12/24	DALLAS, TX	DALLAS, TX	Delivered	9/13/24 1:40 PM		Fea
778491718768	9/12/24	DALLAS, TX	ARLINGTON, TX	<b>Delivered</b>	9/16/24 12:11 PM		Fea



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Page H.11, October 1, 2024



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**APPENDIX I** 

**Floodplain Coordination** 

Page I.1, October 1, 2024

THE VERTEX COMPANIES, LLC 3030 LBJ FWY, STE 1620 DALLAS, TX 75234

BETTERING OUTCOMES | VERTEXENG.COM 214.499.9234

From:	Torres, Danny
To:	Taylor, Annamarie
Subject:	FW: Tree Farm Flood Study (Farmers Branch Overflow Channel)
Date:	Monday, September 9, 2024 3:26:31 PM
Attachments:	image001.png
	image002.png
	image003.png
	image004.png
	image005.png

#### Danny Torres, P.E., CFM

Kimley-Horn | 13455 Noel Road, Two Galleria Office Tower, Suite 700, Dallas, TX 75240 Direct: 972 910 2935 | Mobile: 512 567 1303

From: Whittaker, Olivia <olivia.whittaker@dallas.gov>
Sent: Wednesday, January 31, 2024 10:44 AM
To: Torres, Danny Phan, David <david.phan@dallas.gov>; Khan, Raheel <raheel.khan@dallas.gov>
Cc: Burkes, Bobby <bobby.burkes@dallas.gov>
Subject: RE: Tree Farm Flood Study (Farmers Branch Overflow Channel)

Sure, here is what we told Cardinal:

- 1. Permission letters from all property owners.
- 2. Proof that the other development that was planned for use of that valley storage area never happened, and will not happen in the future. Mention was made in the report text that "The Loop Road project was never constructed, resulting in a total volume surplus of 84.2 ac-ft." Please provide proof of documentation that it was not built and that it will not be built in the future.
- 3. There will need to be an appropriate easement on the valley storage area.
- 4. A valley storage maintenance agreement will need to be executed.
- 5. Appropriate H&H calculations to show valley storage balances work. Please provide a site plan exhibit with valley storage calculations shown and reference the exhibit in the report so it's visually clear. Please submit the digital pdf and CAD file of the site plan.
- 6. Inclusion of the PK report as an appendix to your report.
- 7. Everything explained clearly within your report so that there are no future questions as to what happened. Mention of Elm Fork and Farmers Branch floodway, floodplain appears throughout the report. Can you please provide two separate exhibits of the site with each floodplain shown? One exhibit of the Elm Fork Floodplain with the proposed site and a separate exhibit of the Farmers Branch floodplain with the proposed site? Based on the report, it seems difficult to determine and not easy to follow. It also does not appear the model files were included either.

Thanks,

Olivia Whittaker, P.E., CFM Senior Engineer Dallas Water Utilities Floodplain Management City of Dallas | DallasCityNews.net 2245 Irving Blvd., 2<sup>nd</sup> Floor Dallas, Texas 75207 O: 214-671-2211 olivia.whittaker@dallas.gov



?

As mandated by Congress through the National Flood Insurance Program (NFIP), all buildings located in the Special Flood Hazard Area (SFHA) or high-risk flood zones with mortgages from federally regulated or insured lenders are required to have flood insurance. Even when not required, the Federal Emergency Management Agency (FEMA) encourages property owners and renters in high risk, moderate risk, and low risk flood zones to purchase flood insurance that covers the building(s) and the personal property within the building(s). Some lenders may require coverage even if the building(s) is located outside of the SFHA in lower flood risk areas. The City of Dallas regulates to newer flood studies that identifies additional areas within high-risk flood zones that may not be shown in FEMA's SFHA. If your home or business is within the City of Dallas regulatory floodplain, we encourage property owners and renters to purchase flood insurance to cover the building(s) and the personal property within.

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From: Torres, Danny 
Sent: Wednesday, January 31, 2024 10:25 AM
To: Whittaker, Olivia <<u>olivia.whittaker@dallas.gov</u>>; Phan, David <<u>david.phan@dallas.gov</u>>; Khan, Raheel <<u>raheel.khan@dallas.gov</u>>
Cc: Burkes, Bobby <<u>bobby.burkes@dallas.gov</u>>
Subject: RE: Tree Farm Flood Study (Farmers Branch Overflow Channel)

External Email!

Olivia,

I forgot to ask for this earlier—can you provide the list of items DWU FM would need to approve the off-site valley storage for this site?

When I spoke to Bobby, he mentioned an email saying "after internal discussions, DWU FM has decided to allow off-site valley storage as proposed, if applicant can provide [X, Y, Z]." I recall that it included signed memoranda from the neighbors acknowledging that granting a valley storage easement would prohibit future development in those areas.

Thanks,

Danny Torres, P.E., CFM Kimley-Horn | 13455 Noel Road, Two Galleria Office Tower, Suite 700, Dallas, TX 75240 Direct: 972 910 2935 | Mobile: 512 567 1303

From: Whittaker, Olivia < <u>olivia.whittaker@dallas.gov</u> >				
Sent: Friday, January 19, 2024 8:01 AM				
To: Torres, Danny <	Phan, David < <u>david.phan@dallas.gov</u> >; Khan,			
Raheel < <u>raheel.khan@dallas.gov</u> >				
Cc: Burkes, Bobby < <u>bobby.burkes@dallas.gov</u> >				
Subject: RE: Tree Farm Flood Study (Farmers Branch G	Overflow Channel)			

Danny – We don't have the model so I'd either ask the City of Farmers Branch or get it from FEMA.

Olivia Whittaker, P.E., CFM						
Senior Engineer						
Dallas Water Utilities						
Floodplain Management						
City of Dallas   DallasCityNews.net						
2245 Irving Blvd., 2 <sup>nd</sup> Floor						
Dallas, Texas 75207						
O: 214-6 <b>7</b> 1-2211						
olivia.whittaker@dallas.gov						
? ? ?						

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From: Torres, Danny <

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Sent: Thursday, January 18, 2024 9:45 AM

**To:** Whittaker, Olivia <<u>olivia.whittaker@dallas.gov</u>>; Phan, David <<u>david.phan@dallas.gov</u>>; Khan, Raheel <<u>raheel.khan@dallas.gov</u>>

Cc: Burkes, Bobby <<u>bobby.burkes@dallas.gov</u>>

Subject: RE: Tree Farm Flood Study (Farmers Branch Overflow Channel)

### External Email!

### Olivia,

Thanks for connecting me with Bobby. We discussed the status of the Tree Farm fill permit; in short:

- Cardinal Strategies submitted a fill permit application for Provident Realty Advisors ~ 2022 to support the proposed industrial development of a former tree farm at 11641 Newberry Street.
- The Cardinal application did not include much technical detail (modeling, workmaps). DWU FM issued comments requesting that detail in March 2023 without response.
- DWU FM had internal discussions and agreed in principle to off-site valley storage replacement as long as the applicant could provide a list of deliverables (such as signed letters from neighbors acknowledging that development is prohibited within a valley storage easement).

Provident is now selling the land to a new developer who's engaged Kimley-Horn for the fill permit. I have a few questions for you:

- Can you confirm whether we must resubmit a new application + fee, or if we can inherit Provident's application? The new developer is also proposing industrial development with a very similar layout to Provident's.
- Would you please share any effective hydrologic and hydraulic modeling for Farmer's Branch Creek and Farmer's Branch Creek Overflow Channel?
  - It looks like the Overflow Channel was last studied for the Mercer Crossing development in 2017-18 (LOMR 17-06-3338P).
  - I'm requesting hydrologic modeling to support a timing study for Paving & Drainage.

Thanks,

### Danny Torres, P.E., CFM

Kimley-Horn | 13455 Noel Road, Two Galleria Office Tower, Suite 700, Dallas, TX 75240 Direct: 972 910 2935 | Mobile: 512 567 1303

From: Whittaker, Olivia < <u>olivia.whittaker@dallas.g</u>	<u>:0V</u> >
Sent: Tuesday, January 2, 2024 7:51 AM	
To: Torres, Danny <	Phan, David < <u>david.phan@dallas.gov</u> >;
Dewailly, Kimberly < <u>kimberly.dewailly@dallas.gov</u> ;	>; Khan, Raheel < <u>raheel.khan@dallas.gov</u> >
Cc: Fergusson, Chris <	Burkes, Bobby
< <u>bobby.burkes@dallas.gov</u> >	

Subject: RE: Tree Farm Flood Study (Farmers Branch Overflow Channel)

Hi Danny,

I'm adding Bobby Burkes to the chain, he was the review for Tree Farm/Newberry and should be able to answer your questions.

Thanks,



Olivia Whittaker, P.E., CFM Senior Engineer Dallas Water Utilities Floodplain Management City of Dallas | DallasCityNews.net 2245 Irving Blvd., 2<sup>nd</sup> Floor Dallas, Texas 75207 O: 214-671-2211 olivia.whittaker@dallas.gov



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From: Torres, Danny < Sent: Tuesday, December 26, 2023 2:01 PM To: Phan, David <<u>david.phan@dallas.gov</u>>; Whittaker, Olivia <<u>olivia.whittaker@dallas.gov</u>>; Dewailly, Kimberly <<u>kimberly.dewailly@dallas.gov</u>>; Khan, Raheel <<u>raheel.khan@dallas.gov</u>> Cc: Fergusson, Chris < Subject: Tree Farm Flood Study (Farmers Branch Overflow Channel)

### External Email!

Hello DWU FM team,

I hope you're all having a happy holidays. I'm reaching out to see if you've ever had talks about this Tree Farm site (11641 Newberry Street, near the southwest corner of 635 and I-35), and to clarify the City's policy on off-site valley storage mitigation.

A developer has engaged us to look at the former Tree Farm site. The site has Zone AE floodplain and regulatory floodway from Farmers Branch Creek Overflow Channel (snip below). The developer gave us a flood study prepared by Cardinal Strategies dated July 2022 (attached, and summarized below), which outlines a potential site plan on the property and proposes off-site valley storage mitigation.

### KH Questions for DWU FM:

- Has DWU FM ever received a formal fill permit application for the site?
- Does the City accept off-site valley storage mitigation à la the CDC? If so, is it acceptable to claim/preserve another (earlier) development's surplus valley storage? Or to get credit for off-site valley storage, must the off-site valley storage be created in tandem with a new development?



### Cardinal Strategies Flood Study (July 2022)

The Cardinal Strategies study assumes a site plan with fill only in the ineffective flow area of Farmers Creek Branch Overflow Channel. Assuming no WSE or velocity impacts, the study suggests off-site valley storage mitigation as follows:

- On-site existing valley storage loss from the was approximated as 14.2 AC-ft.
- An off-site easement is shown to preserve 16 AC-ft of valley storage:
  - Mercer Crossing (11700 Luna Road, Farmers Branch, TX) was developed in 2013. It's immediately downstream of WW Tree Farm (across the railroad);
  - Mercer Crossing's CDC application showed a large net increase in floodplain storage volume (+53.9 AC-ft), assuming that Mercer Loop Road (30.2 AC-ft floodplain fill) would be constructed. Mercer Loop Road was never constructed, so Mercer Crossing's net floodplain storage volume is even larger (+84.2 AC-ft).
  - In 2023, the Mercer Crossing landowners granted a Valley Storage Easement to the Tree Farm landowner, granting 16 AC-ft of valley storage in the Farmers Branch Overflow Channel west of the railroad.

Thanks,

### Danny Torres, P.E., CFM

**Kimley-Horn** | 13455 Noel Road, Two Galleria Office Tower, Suite 700, Dallas, TX 75240 Direct: 972 910 2935 | Mobile: 512 567 1303

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### APPENDIX J Manufacturer's Specifications

- J.1: Honeywell 301C Gas Detection Network Controller/Gas Monitor;
- J.2: OPW Fibrelite Composite Manholes;
- J.3: PermAlertTM PFS Float Switch; and
- J.4: Potter Adjustable Deadband Pressure Switch.

Page J.1, October 1, 2024



**APPENDIX J.1** 

## Honeywell 301C Gas Detection Network Controller/Gas Monitor

Page J.1.1, October 1, 2024

THE VERTEX COMPANIES, LLC 3030 LBJ FWY, STE 1620 DALLAS, TX 75234

BETTERING OUTCOMES | VERTEXENG.COM 214.499.9234 301C

# Honeywell





Gas detection network controller offering safety, energy efficiency, and ease of installation

### The 301C Controller continuously monitors and controls toxic, combustible, and refrigerant gases as well as oxygen. Rely on the 301C for safety, energy efficiency, and easy installation of your gas detection network.

Using an addressable RS-485 communication protocol, the 301C uses daisy chain wiring to connect up to 96 transmitters in three loops. This simplifies installation, in turn lowering costs. The 301C's powerful zoning, voting, and averaging abilities significantly reduce operational and maintenance costs. And what's more, the newly updated 301C cuts commissioning time and hassle.

### Flexible Logic Capabilities Reduce Operational Costs

Choose the 301C as the centerpiece for building a gas detection network compliant with the industry's most demanding safety and energy guidelines, such as California Title 24 Part 6. The 301C controller offers automatic sensor identification and unique zoning capabilities which permit the grouping of multiple sensor readings. Readings from transmitters in a given zone can be evaluated via averaging or voting. For example, voting can be used to activate fans only when one-third of the sensors in a zone report gas. This can avoid an excessive response to a single car idling. Time delays can be configured at the leading edge of a gas response (to prevent false alarms) or on the trailing edge (to reduce power cycling of a fan.) Outlier detection can be used to identify when a single sensor reading is higher than others. Responses can also be made conditional on time of day, day of week, or other external input. This flexibility can precisely match the needs of each installation, thus saving energy and extending equipment life.

### **User Friendly**

- Zero maintenance
- Automatic quick self-test and warm-up
- Continuous alphanumeric display

### Inexpensive, Reliable and Energy Efficient

- · Low installation costs
- Allows for up to 126 zoning groups which can save energy and extend fan and relay life
- Manages up to 180 events with programmable latching alarms
- California Title 24 network option

### **Flexible Operation**

- BACnet/IP available
- Interchangeable transmitters able to detect different gases
- Expands to handle up to 96 transmitters or relay modules
- Programmable time delays
- Integrated time clock enables scheduling of system operations

### Safety Measures

- Full array of visual indicators and integrated 65dBA alarm levels
- Fully programmable relays (can be set as fail-safe or not)

### **Beneficial Options**

- Available in a heavy duty industrial housing (model number 96D)
- Datalogging option

### 🖷 BAÇnet

BAChet is a registered trademark of ASHRAE. ASHRAE does not endorse, approve or test products for compliance with ASHRAE standards. Compliance of listed products to the requirements of ASHRAE Standard 135 is the responsibility of BACnet International (BI). BTL is a registered trademark of BL\*

BL

Find out more www.honeywellanalytics.com

### **Contact Honeywell Analytics:**

Honeywell Analytics Inc. 405 Barclay Blvd. Lincolnshire, IL USA 60069 Tel: 847.955.8200 Toll free: 800.538.0363 Fax: 847.955.8210

www.honeywell.com

### The 301C Controller: Centerpiece of a Complete Gas Detection Network for the Intelligent Building



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# E<sup>3</sup>Point<sup>®</sup>

# Honeywell





Make your operation run more intelligently to protect people, property and your bottom line

# E<sup>3</sup>Point Toxic and Combustible Gas Monitor



### **Flexible Operation**

- Comes in standalone, standalone with remote (dual gas mode) or network versions
- Connects to analog or digital systems
   Works with virtually any BAS including
- BACnet, ModbusWall or duct mount
- Factory-calibrated cartridges

#### **Cost Effective**

- Saves energy through Demand Control Ventilation (DCV)
- Simplifies installation/maintenance through plug-n-play sensor
- Remote sensor option provides dual gas monitoring (standalone version only)
- Optimizes BAS, fire, ventilation and other security systems

### Versatile Communications

- Works through BAS to improve fault diagnostics and collect data on gas concentation levels, sensor condition, etc.
- Couple with 301C to log data and daisy-chain up to 96 E<sup>3</sup>Point units

### Advanced Sensing Technology

- Detects CO, NO<sub>2</sub>, O<sub>2</sub>, H<sub>2</sub>, H<sub>2</sub>S, CH<sub>4</sub>, C<sub>3</sub>H<sub>8</sub>
- Advanced electrochemical (for toxic gases) and catalytic bead (for combustible gases) sensor performance
- Uses patented Reflex<sup>®</sup> and smart cartridge technologies

### **Range of Accessories**

- · Factory-calibrated replacement cartridges
- Power transformer
- Vandal-resistant steel wire detector guards
- Tamper-proof screws
- Horns and strobes

### Electrical Certifications

- US (ANSI/UL 61010-1)
- Canada (CSA C22.2 No. 61010-1)

\* pending - call your sales rep for information

### Efficient Operations

Smart sensor design, extreme temperature range, etc. optimize building performance

### Energy Savings

On-demand ventilation controls energy use

### Main Unit

E<sup>3</sup>Point goes beyond protection to offer your

building greater performance and productivity.



E<sup>3</sup>Point

Plug-N-Play Sensor Cartridge





Remote Unit

Ergonomic features built into E<sup>3</sup>Point include a hinged door for maintenance ease.

### Plug-N-Play Ease

E<sup>3</sup>Point's plug-n-play sensor is factory calibrated and works out of the box. Upon installation, E<sup>3</sup>Point automatically configures for quick operation. You benefit from easier installation and maintenance, and greater adaptability to changing building and safety requirements.

### Reflex<sup>®</sup> Keeps You Safer

Only Honeywell's patented Reflex<sup>®</sup> technology adds this extra degree of precision and diligence to sensor monitoring to make doubly sure you're safe. Reflex bounces electrical signals into the E<sup>3</sup>Point electrochemical sensor cell at regular intervals, a form of electronic bump testing and continuous monitoring of cell response.

### Oscilloscope graph shows cell responding to Reflex pulse, indicating sensor condition.



GREEN shows optimal sensor condition (dynamic responsiveness to gas).

RED shows degraded sensor condition (indicating cell dry-out or failure).

# Reduces cost of installation, operation and maintenance

Economical

Value

# **Flexible Applications**



E<sup>3</sup>Point integrates easily with your building's analog or digital infrastructure as a standalone unit or network addressable device. Here are four installation examples to make E<sup>3</sup>Point work for you.

### E<sup>3</sup>Point Standalone Single-Sensor Operation

A low-cost application for buildings with minimal gas monitoring requirements typical of a small facility. Offers easy installation, commissioning and operaton. Two on-board relays can activate fan or strobe.



### E<sup>3</sup>Point Standalone Dual-Gas Sensor Operation

Economical application adds option of a second (remote) sensor for dual gas monitoring. Two on-board relays can activate ventilation or strobes.



### E<sup>3</sup>Point/Modbus Configuration



Supports Modbus protocol to daisy-chain E<sup>3</sup>Point detectors, providing up to 96 points of monitoring on a serial bus. Excellent option for controllerbased (VA301C) installations common in larger applications. A relay output is provided as an option for activating ventilation directly (e.g. when fan is located in close proximity to detector).

### E<sup>3</sup>Point/BACnet IP Configuration



E<sup>3</sup>Point outputs directly to BACnet or other BAS. Alarms, strobes and horns are activated through BAS with link to DCV/HVAC controls. This system design supports new and retrofit installations for large buildings, and can couple with a controller to effectively integrate wired system components. A relay output is provided as an option for activating ventilation directly (e.g. when fan is located in close proximity to detector).

### **Dual-Gas Detection In Many Combinations**

### E<sup>3</sup>Point Expands the Range of Gas Detection to Serve Practically All Building Areas, Including Outbuildings



E<sup>3</sup>Point's standalone, dual-gas configuration monitors two gases simultaneously and cost effectively, in any of the following combinations: toxic-toxic, toxic-combustible, oxygen-toxic, or oxygen-combustible. -

Building Environment	Gases Present (Detected by E <sup>3</sup> Point)
Parking Structure	CO, NO <sub>2</sub> , C <sub>3</sub> H <sub>8</sub>
Loading Dock	CO, NO <sub>2</sub> , C <sub>3</sub> H <sub>8,</sub> H <sub>2</sub>
 Transport Terminal	CO, NO <sub>2</sub> , C <sub>3</sub> H <sub>8,</sub> CH <sub>4</sub>
Golf Cart Maintenance/ Battery Charging Area	CO, NO <sub>2</sub> , CH <sub>4</sub> , O <sub>2</sub> , H <sub>2</sub>
Maintenance Garage	CO, NO <sub>2</sub> , C <sub>3</sub> H <sub>8</sub> , O <sub>2</sub> , H <sub>2</sub> S, H <sub>2</sub>
Hospital/Ambulance Bay	CO, NO <sub>2</sub> , C <sub>3</sub> H <sub>8,</sub> O <sub>2</sub>
Fire/Police Station	CO, NO <sub>2</sub> , C <sub>3</sub> H <sub>8</sub> , O <sub>2</sub> , H <sub>2</sub> , H <sub>2</sub> S
Boiler Room	CO, CH <sub>4</sub> , C <sub>3</sub> H <sub>8</sub>
Battery Charging Rooms & Hydrogen Tanks	H <sub>2</sub>
Commercial Kitchen	C <sub>3</sub> H <sub>8,</sub> CO, CH <sub>4</sub>
Indoor Stadium/Arena	CH4, CO, C3H8

Find out more www.honeywellanalytics.com

#### Contact Honeywell Analytics:

Honeywell Analytics, Inc. 4005 Matte Blvd., Unit G Brossard, QC, Canada J4Y 2P4 Tel: 450.619.2450 Toll-free: 800.563.2967 Fax: 888.967.9938

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# Honeywell

# **E**<sup>3</sup>**Point**<sup>®</sup> SPECIFICATIONS

### Toxic and Combustible Gas Detector Standalone Platform (Single or Dual-Gas Monitoring)



General Specifications						
Uses	Wall or duct-mounted gas detector for monitoring carbon monoxide (CO), nitrogen dioxide (NO <sub>2</sub> ), oxygen (O <sub>2</sub> ), methane (CH <sub>4</sub> ), hydrogen (H <sub>2</sub> ), hydrogen sulphide (H <sub>2</sub> S), and propane (C <sub>3</sub> H <sub>8</sub> ), installed as a standalone device with single-gas or dual-gas monitoring.					
Size	20.56 x 14.90 x 6	6.72cm (8.09 x 5.87 x 2	.65") (H x W x D); Remo	ote Sensor: 3.5 x 4.5 x	6.5 cm (1.36 x 1.75 x 2.56")	
Power Requirement	24 Vac nominal (	17-27Vac), 50/60 Hz,	0.35 A; 24Vdc nomina	l (20-38Vdc); with rer	note sensor: 7 W max.	
<b>Optional Main AC Input</b>	120Vac nominal,	$\pm$ 10% (with on-board	l transformer)			
Relay Output	2 DPDT relays, 5	A @ 250Vac; 5A @ 30	Vdc			
Communications	4-20mA					
<b>Operating Environment</b>	Commercial, Indo	or, Extreme Temperatu	re Environments			
Operating Temperature	H₂S, NO₂, O₂, CH₂ CO: -20 to 50°C	,, H₂, C₃Hଃ: -40 to 50°C (-4 to 122°F)	; (-40 to 122ºF)			
Sensor Type	Electrochemical of	cell (CO, NO <sub>2</sub> , H <sub>2</sub> S, O <sub>2</sub> )	catalytic (CH4, H2, C3H	в,)		
Response Time	T90 < 50 second With ECLAB T90	ls < 240 seconds				
Display	8 character, 2 lin	e backlit I CD				
Visual Indicators	Green LED: Powe Amber LED 1: Ala Amber LED 2: Ala	er arm/Fault arm/Fault				
Audible Alarm	>85 dBA at 3 m	>85 dBA at 3 m (10 ft)				
Accuracy	$\pm$ 3% of full scale	e @ 25℃				
Detection Ranges and Alar	m Levels					
Gas	Resolution	Range	Alarm A	Alarm B	Alarm C	
CO (Carbon monoxide)	1 ppm	0-250 ppm	25 ppm	100 ppm	225 ppm	
$H_2S$ (Hydrogen sulfide)	0.1 ppm	0-50 ppm	10 ppm	15 ppm	20 ppm	
NO2 (Nitrogen dioxide)	0.1 ppm	0-10 ppm	0.7 ppm	2 ppm	9 ppm	
O <sub>2</sub> (Oxygen)	0.1% vol.	0-25% vol.	19.5% vol.	22% vol.	22.5% vol.	
H <sub>2</sub> (Hydrogen)	0.5% LEL	0-100% LEL	25% LEL	50% LEL	90% LEL	
CH4 (Methane)	0.5% LEL	0-100% LEL	25% LEL	50% LEL	90% LEL	
C <sub>3</sub> H <sub>8</sub> (Propane)	0.5% LEL	0-100% LEL	25% LEL	50% LEL	90% LEL	
Enclosure						
	Polycarbonate					
Certification						
	CSA C22.2 No. 6	1010-1, UL 61010-1;	FCC part 15; ICES-00	3 issue 4; ISO 9001-2	2008	
Find out more	Please Note: While every effort has been m	ade to ensure accuracy in this publica	ation, no responsibility can be accept	ed for errors or omissions.		

www.honeywellanalytics.com Toll free: 1 800 563 2967 While every effort has been made to ensure accuracy in this publication, no responsibility can be accepted for errors or omissi Data may change, as well as legislation, and you are strongly advised to obtain copies of the most recently issued regulations, standards, and guidelines. This publication is not intended to form the basis of a contract.

# Honeywell

# **301C** SPECIFICATIONS

### Controller

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General Specification					
Use	Controller for centralized gas detection monitoring with real-time gas reading, selective alarm activation and low cost installation				
Power Requirement	17-27 VAC, 24-38 VDC, 500mA				
Size	11 (W) x 8 (H) x 2.8 (D) in. (28 x 20.3 x 7 cm)				
Weight	2.4 lbs. (1.1 kg)				
Network Capacity	Three RS-485 channels for up to 96 transmitter inputs				
Digital Communication	Optional BACnet/IP interface, BTL listed as a smart sensor				
Communication Line Lengths	Up to 2,000 ft. (609 m) per channel T-Tap: 65 ft. (20 m), maximum per T-Tap 130 ft. (40 m), maximum for all T-Tap combined				
Relay Output	5 A, 30 VDC or 250 VAC (resistive load)				
Alarm Levels	Four fully programmable alarm levels				
Time Delays	0, 30 sec, 45 sec, 1-99 minutes before and after alarm				
Outputs	4 DPDT relays (alarms and/or fault); 65dBA buzzer				
Events Flexible programming that can include: alarms, gas concentrations, faults, real time clock, voting, optional outlier deter and time since calibration					
Display	Large 122 x 32 dot matrix display				
<b>Operating Humidity Range</b>	0 to 95% RH (non-condensing)				
Operating Temperature Range	-4° to 122°F (-20° to 50°C)				
Security	Password protection for tamper resistance				
Zoning	Up to 126 programmable zones				
Optional Memory	2GB removable SD Card for configuration, readings, and even	nts			
Ratings and Certification					
Certified to	For USA: Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part 1: General Requirements (ANSI/UL 61010-1, 2nd Edition, Dated July 12, 2004 Including Revisions Through October 28, 2008) For Canada: Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part 1: General Requirements (CAN/CSA C22.2 No. 61010-1:04, 2nd Edition, Dated July 12, 2004 Including General Instruction 1 – Octob 2008 (Reaffirmed 2009))				
Certified by	Intertek				
Designed to comply with	h IEC 61010-1:2010 (Third Edition) California Title 24, Part 6, and associated administrative regulations In Part 1				

#### Find out more

www.honeywellanalytics.com Toll free: 1 800 563 2967

Please Note:

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#### Honeywell 301C User Manual

### **LED Definitions**

The controller is equipped with 7 LEDs that provide a status for each function related to that indicator:

Alarm A:	A blinking red light indicates that an event has been activated. A constant red light indicates that one or more transmitters has reached Alarm A or Alarm 1.
Alarm B	When the red indicator is on, one or more transmitters has reached Alarm B or Alarm 2.
Alarm C	When the red indicator is on, one or more transmitters has reached Alarm C.
Power:	Green indicates that the unit is powered up and functional
Fault:	When the amber LED is on, it indicates a fault (i.e. a
	communication, maintenance or device problem)
Tx:	When the amber LED is blinking, it indicates that the
	controller is sending information or requests on the
	communication channel.
Rx:	When the green LED is blinking, it indicates that the
	controller is receiving information.

Each of these functions is linked to parameters programmed in the control unit, which we will discuss in the following section.

### **System Operation**

The system operates in four different modes that allow it to use, analyze, debug, and simulate the actions that the system can perform. These modes are: Normal, Single Tx, Debug and Simulate. The default system operation mode is Normal. The other modes are available through the Tests menu (option 8 from the Main Menu).

Note: Systems services may be disrupted by some menu operations. Specifically, viewing the "events" dialogue may inhibit event operation.

Using the Programming Menus

### Using the Programming Menus

The programming menus provide a series of options that let you customize your gas detection system. Press the enter key to access the programming menus. If no buttons are pressed for 2 minutes, the unit exits programming mode to normal operation.



CAUTION: Only qualified, knowledgeable personnel should use the programming functions of this unit. Factory settings conform to specific standards. See <u>Specifications</u>. Any changes made to Alarm Levels may affect manufacturer's stated standards compliance.

### Main Menu Options

Each menu option provides access to further sub-menus. Consult the following pages of this manual for menu use instructions.

Menu Option	Description				
Password	Protects programming menus from unauthorized access.				
Display	Provides a choice of discrete display.				
Relay	Defines whether the relays will be latched, failsa	fe or activated.			
Buzzer	Provides a choice between activated or silenced				
Alarm	Allows configuration of various alarm levels .				
Restore	Restores the device's factory configured calibration settings.				
Temp	Sets the maximum temperature level.				
SetZero	Sets the sensor zero.				
SetSpan	Calibrates the sensor span.				
TestMode Simulates events for testing purposes without affecting the sensor readings. Used during installation.					
Memory	Reserved for authorized Honeywell Analytics tee	chnicans only.			
Quit? Exits the programming menus and returns the device to normal operation mode.					

E<sup>3</sup>Point Standalone Gas Monitor User Manual

Specifications

# Specifications

## General Technical Specifications

Input power:	24 VAC nominal, 17-27 VAC, 50/60 Hz, 0.35 A 24 VDC nominal, 20-38 VDC	
Optional main AC input power:	120 Vac nominal, $\pm$ 10% (with on-board transformer) @ 0.35 A	
Relay output :	2 DPDT relays, 5A @ 250 VAC	
Operating environment:	Commercial, indoor	
Operating temperature range:	H <sub>2</sub> S, NO <sub>2</sub> , O <sub>2</sub> , Comb.: -40 to 50°C (-40 to 122°F) CO: -20 to 50°C (-4°F to 122°F) Available option CO: -40 to 50°C (-40 to 122°F)	
Operating humidity range:	15 to 90% RH non-condensing	
	CO = 1  ppm	
Resolution:	$H_2^2 S = 0.1 \text{ ppm},$ NO <sub>2</sub> = 0.1 ppm CH <sub>4</sub> , H <sub>2</sub> , C <sub>3</sub> H <sub>8</sub> = 0.1% LEL	
Operating altitude:	Maximum 2000m (6562 ft)	
Audible alarm:	>85 dB at 3 m (10 ft)	
Display:	8 character, 2 line LCD	
Visual Indicators:	Green LED: Power Amber LED 1: Alarm/Fault Amber LED 2: Alarm/Fault	
Enclosure:	Polycarbonate	
Dimensions (H x W x D):	20.56 x 14.90 x 6.72 cm (8.09 x 5.87 x 2.65 in.)	
Baud rate:	9600 (with 301C controller) CSA C22.2 No. 61010-1, UL61010	
Certifications:		

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Specifications

Sensor Type	Gas	Range	Detection unit	Alarm A Level	Alarm A Hysteresis
Electrochemical	CO	0/250	ppm	25	-5
Electrochemical	02	0/25	%	19.5	0.5
Electrochemical	H <sub>2</sub> S	0/50	ppm	10.0	-1.0
Electrochemical	NO <sub>2</sub>	0/10	ppm	0.7	-0.1
Catalytic combustion	(CH₄)	0/100 (5.0% v/v)	% LEL	25.0	-5.0
Catalytic combustion	(H <sub>2</sub> )	0/100 (4.0% v/v)	% LEL	25.0	-5.0
Catalytic combustion	(C3H8)	0/100 (2.1% v/v)	% LEL	25.0	-5.0
	LEL values in accordance to IPCS				

### E<sup>3</sup>Point Detection Specifications

Accuracy is the difference in means of 10 calibration measurements at mid-range and 10 measurements at mid-range, at 25 °C and 45% RH. This difference is presented as a calculated percent of full scale.

Alarm hysteresis allows the alarm level to be adjusted by the value shown. Example: Alarm Level A can be adjusted by a hysteresis of 5 such that the alarm level A can be set anywhere between 20% and 30% LEL.

#### Specifications

	Gas	Alarm B Level	Alarm B Hysteresis	Alarm C Level	Alarm C Hysteresis	Accuracy at 25°	Display Resolution
	CO	100	-20	225	-20	3%	1 ppm
	02	22.0	-0.5	22.5	-0.5	3%	0.1%
	H₂S	15.0	-1.0	20.0	-5.0	3%	0.1 ppm
	NO <sub>2</sub>	2.0	-1.0	9.0	-1.0	3%	0.1 ppm
Г	(CH₄)	50.0	-5.0	90.0	-5.0	3%	0.1%
	(H <sub>2</sub> )	50.0	-5.0	90.0	-5.0	3%	0.1%
	(C3H8/)	50.0	-5.0	90.0	-5.0	3%	0.1%

Accuracy is the difference in means of 10 calibration measurements at mid-range and 10 measurements at mid-range, at 25°C and 45% RH. This difference is presented as a calculated percent of full scale.

E<sup>3</sup>Point Standalone Gas Monitor User Manual

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### **APPENDIX J.2**

**OPW Fibrelite Composite Manholes** 

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THE VERTEX COMPANIES, LLC 3030 LBJ FWY, STE 1620 DALLAS, TX 75234

### Fibrelite Composite Manholes

Fibrelite offers the retail petroleum industry's leading watertight, easy to remove, non-bolted composite manhole covers in a large selection of shapes and sizes. From general tank sump access to multiport and single port fill sump applications to interstitial sumps and monitoring wells, Fibrelite has every application covered.

Multiple colors are available – Contact OPW Customer Service for pricing, availability, and lead times.

### **Materials**:

**Cover:** Fiberglass

Frame: Fiberglass

Skirt: Fiberglass Cover Includes Frame and Skirt

### Features & Benefits:

- UV resistant
- Round, square and rectangular (wide range of sizes)
- Anti-slip surface no costly injury claims
- Will not corrode
- Watertight, sealed design
- No bolts required
- Monolithic structure eliminates delaminating



- Ergonomic, single person removal and replacement with Fibrelite lifting handle
- Locks available for all covers
- Available in any color
- Heavy Duty (HD40) covers available for truck stops, bus depots and industrial applications

### Complete Cover Assemblies Ordering Specifications - Complete Grade Level "Flat" Composite Manholes

Part #	Description	Color	Skirt I.D.	Cover O.D.	Skirt Length	Wt.
FL120BLACK-SK12	12" Black Flat Composite Manhole Cover Bonded	Black	12"	15"	12"	26 lbs
FL180BLACK-SK12	18" Black Flat Composite Manhole Cover Bonded	Black	18"	21.2"	12"	40 lbs
FL600BLACK-SK12	24" Black Flat Composite Manhole Cover Bonded	Black	24"	27"	12"	76 lbs
FL760BLACK-SK12	30" Black Flat Composite Manhole Cover Bonded	Black	30"	33"	12"	89 lbs
FL90BLACK-SK12	36" Black Flat Composite Manhole Cover Bonded	Black	36"	38.5"	12"	109 lbs
FL90GRAY-SK12	36" Gray Flat Composite Manhole Cover Bonded	Gray	36"	38.5"	12"	109 lbs
FL100BLACK-SK12	40" Black Flat Composite Manhole Cover Bonded	Black	40"	44"	12"	142 lbs
FL100GRAY-SK12	40" Gray Flat Composite Manhole Cover Bonded	Gray	40"	44"	12"	142 lbs



Complete Grade Level "Flat" Composite Manholes

Contact OPW for custom length skirts, heavy duty or colored covers 1-800-422-2525.

#### **Replacement Parts - Replacement Covers**

Part #	Description	Color	Skirt I.D.	Cover O.D.	Cover Ht.	Wt.
FL120BLACK	12" Dia. Black Flat Sealed Composite Cover	Black	12"	15"	3.91"	13 lbs
FL180BLACK	18" Dia. Black Flat Sealed Composite Cover	Black	18"	21.2"	3.84"	22 lbs
FL600BLACK	24" Dia. Black Flat Sealed Composite Cover	Black	24"	27"	3.84"	46 lbs
FL760BLACK	30" Dia. Black Flat Sealed Composite Cover	Black	30"	33"	3.84"	59 lbs
FL90BLACK	36" Dia. Black Flat Sealed Composite Cover	Black	36"	38.5"	3.84"	75 lbs
FL100BLACK	40" Dia. Black Flat Sealed Composite Cover	Black	40"	44"	3.84"	110 lbs
FL100GRAY	40" Dia. Gray Flat Sealed Composite Cover	Gray	40"	44"	3.84"	110 lbs
FL36BLACK	36" Dia. Black Raised Composite Cover	Black	36"	40"	3.84"	66 lbs
FL36GRAY	36" Dia. Gray Raised Composite Cover	Gray	36"	40"	3.84"	66 lbs
FL42BLACK	42" Dia. Black Raised Composite Cover	Black	42"	46.5"	3.84"	93 lbs



\* Add HD to Part Numbers above to specify Heavy-Duty H40 Rated Covers

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### **Ordering Specifications**

### Frames "Mounting Frame"

Part #	Description	Skirt I.D.	Manhole Type	Weight (lbs)
FL120F	12" Composite Frame For FL120 Covers	12"	Flat	7.7
FL180F	18" Flat Composite Frame For FL180 Covers	18"	Flat	11
FL600F	24" Flat Composite Frame For FL600 Covers	24"	Flat	17
FL760F	30" Flat Composite Frame For FL760 Covers	30"	Flat	18
FL90F	36" Flat Composite Frame For FL90 Covers	36"	Flat	20
FL100F	40" Composite Frame For FL100 Covers	40"	Flat	26



Frames - Flat Fiberglass Mounting Ring

### **Ordering Specifications**

### Skirts

Part #	Description	Skirt I.D.	Manhole Type	Skirt Length	Weight (lbs)
FL120-SK12	12" Deep FRP Skirt To Fit FL120	12"	Flat	12"	5
FL180-SK12	12" Deep FRP Skirt To Fit FL180	18"	Flat	12"	7
FL600-SK12	12" Deep FRP Skirt To Fit FL600	24"	Flat	12"	10
FL760-SK12	12" Deep FRP Skirt To Fit FL760	30"	Flat	12"	12
FL90-SK12	12" Deep FRP Skirt To Fit FL90 Flat	36"	Flat	12"	14
FL100-SK12	12" Deep FRP Skirt To Fit FL100	40"	Flat	12"	16
FL100-SK10-46	10" Deep FRP Stepped Skirt To Fit FL100	40"	Flat	10"	15



### **Ordering Specifications**

### **Cover Accessories**

Part #	Description
FL7	Lifting Handle For Raised Covers - FL42/FL36
FL7A	Lifting Handle With Foot Pedal For Watertight Covers - FL100/FL90/FL180
FL7A-ENCL	Enclosure To House FL7A Handles
KEY-HREP-10-76-90	Key Housing Repair Kit & Compound
FIB-KHB	Replacement Rubber Bung
FIB-KHP	Rubber Key Housing Plug
FIB2-RL-KEY	Key For FIB2-RL Cover Lock
FL120-SEAL	12" Replacement Gasket For FL120
FL180-SEAL	18" Replacement Gasket For FL180
FL600-SEAL	24" Replacement Gasket For FL600
FL760-SEAL	30" Replacement Gasket For FL760
FL90-SEAL	36" Replacement Gasket For FL90
FL100-SEAL	40" Replacement Gasket For FI100





### **APPENDIX J.3**

PermAlertTM PFS Float Switch

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THE VERTEX COMPANIES, LLC 3030 LBJ FWY, STE 1620 DALLAS, TX 75234



### PFS

The **PFS** probe is a hermetically sealed reed float switch that signals the presence of liquids. The probe resets immediately after the liquid presence of liquids drops

below the activation level.

The unique design of the PFS probe integrator eliminates the need for additional power at the probe.

A **PFS** probe is available for the PAL-AT<sup>®</sup> or LiquidWatch<sup>®</sup> systems.

The **PFS** can easily be connected to a PAL-AT cable "sensing string" providing increased utilization of the PAL-AT capabilities. Each assembly includes a probe integrator with 60 ft (18 m) of jumper cable to connect to the sensing string, and 20 ft (6 m) of lead cable to attach the float switch to the probe integrator and a NEMA 4X junction box.

The **PFS** probe for LiquidWatch includes a ½" NPT cord grip and a probe adapter incorporated in the 20 ft (6 m) long probe lead wire. Additional lead wire is used if necessary.

### PAL-AT NOTE:

• A "-S" probe must be connected in the first 5,000 ft (1,500 m) of the sensing string.

• A "-L" probe must be connected more than 5,000 ft (1500 m) from the PAL-AT panel.

• Each probe integrator includes junction box, two connectors and three 1/2" NPT cord grips.

### PART NUMBERS:

PAL-AT:		LiquidWatch	<u>n</u> :
PFS-S PFS-L JBXHTM	8027623 8027910 8027883	PFS-LW	8027902

JBXHTM high temperature modification replaces polyester junction box with a fiberglass box.



#### PROBE TECHNICAL DATA:

- Operating Temperature: -40°F to 176°F (-40°C to 80°C)
- Diameter: 1.63" (43 mm)
- Lead Length: 20 ft (6 m)
- Activation Level: Water: (S.G. = 1.0) 1.0" (25 mm)
   Oil: (S.G. = .75) 1.5" (37 mm)
- Housing: PVC
- Float: Buna-N
- · Special Materials Available on Request

JUNCTION BOX: (PAL-AT ONLY)

•NEMA 4X (IP66): 10" x 8" x 4"

(250 mm x 200 mm x 100 mm)

- Maximum Temperature: 150°F (65°C)
- Maximum Temperature of Probe Integrator 140°F (60°C) in Hazardous Areas
- JBXHTM enclosure available for maximum operating temperature of 176°F (80°C)

#### APPLICATIONS:

Sumps 
 Manholes



PFS FLOAT SWITCH W/ MOUNTING BRACKET







The **PWS** probe detects all conductive liquids - water, acid, bases, chemicals, etc. Its solid-state, stainless steel construction allows it to be used in

corrosive environments and reset quickly after removal from a liquid.

The unique design of the **PWS** probe eliminates the need for external power at the probe.

A **PWS** probe is available for the PAL-AT<sup>®</sup> or LiquidWatch<sup>®</sup> system.

The **PWS** probe for the PAL-AT can easily be connected to a cable "sensing string" providing increased utilization of the PAL-AT capabilities. Each probe assembly includes a probe integrator with 60 ft (18 m) of jumper cable to connect to the sensing string, 20 ft (6 m) of lead wire to attach the probe to the probe integrator and a NEMA 4X junction box.

NOTE: A PWS probe cannot be installed on a sensing string connected to a PAL-AT ZBA zener barrier assembly (in hazardous areas)

The **PWS** probe for Liquid-Watch includes a probe adapter and  $\frac{1}{2}$ " NPT cord grip. Additional lead wire is used if necessary.

### PAL-AT NOTE:

• A "-S" probe must be connected in the first 5,000 ft (1,500 m) of the sensing string.

• A "-L" probe must be connected more than 5,000 ft (1,500 m) from the PAL-AT panel.

• Each probe integrator includes junction box, two connectors and three 1/2" NPT cord grips.

#### PROBE TECHNICAL DATA:

- Operating Temperature: -40°F to 176°F (-40°C to 80°C)
- Length: 1.50" (38 mm)
- Diameter: .625" (16 mm)
- Lead Length: 20 ft (6 m)
- Activation Level (min): .62" (16 mm)
- Material: 316 Stainless Steel

#### JUNCTION BOX: (PAL-AT ONLY)

• NEMA 4X (IP66): 10" x 8" x 4"

(250 mm x 200 mm x 100 mm)

- Maximum Temperature: 150°F (65°C)
- JBXHTM enclosure available for maximum operating temperature of 176°F (80°C)

#### APPLICATIONS:

- Sumps Manholes Double Wall Tank
- Sealed Trenches Drip Panels
- Indoor Water Detection



### PROBE ASSEMBLY DETAIL

#### PART NUMBERS:

PAL-AT:		LiquidWate	<u>ch</u> :
PWS-S	8027630	PWS-LW	8027904
PWS-L	8027940		
JBXHTM	8027883		

JBXHTM high temperature modification replaces polyester junction box with a fiberglass box.

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### **LiquidWatch<sup>®</sup> Leak Detection System** Product Data



### **PRODUCT FEATURES / BENEFITS**

- Sensing of organic liquids (hydrocarbons and solvents) or water
- Vapor and gases are ignored
- Remote monitoring capability with an RS-232 interface and relays
- UL Listed for Class I, Division 1, Groups C & D sensor circuits optional
- NEMA 4X Enclosure
- Up to 64 probes and 16 programmable alarm relays available

LiquidWatch<sup>®</sup> Leak Detection System has been engineered to meet a broad range of customer needs. The system can be configured with up to 64 probes and 16 programmable alarm relays. The modular design allows for meeting current needs while allowing for future expansion of the system.

LiquidWatch employs a two line, 20 character backlit LCD with a membrane keypad for operator interface. The probe circuits are supervised and provide alarms for probe active, short and break conditions. The system can be programmed for a probe activation to operate one of 16 optional relays for remote alarm indication or operation of a shutdown procedure.

LiquidWatch monitoring units are equipped with normally energized 10 A, 250 VAC, SPDT relays: one common alarm relay and up to 16 optional programmable relays (in modules of four). The alarm console can be located up to 20,000 ft (6000 m) from the probes. The probe modules (eight probes per module) can be mounted remotely to reduce wiring costs.

LiquidWatch can monitor a variety of liquids with standard PermAlert

probes. The PHLR probe is a unique probe for detecting common hydrocarbon liquid fuels. The inexpensive sensor elements can be cleaned and reused or easily replaced. The probe ignores hydrocarbon vapors to eliminate false alarms.

The PWS water probe detects water and all conductive liquids. There are also several float switches available in different configurations.

**LiquidWatch** monitoring units can monitor any other dry contact switch (float switch, thermostat, high level switch, etc.) using the LiquidWatch Probe Adapter.

Madal	DertNe	Description
Wodel	Part No.	Description
LW64	8027570	LiquidWatch Monitoring Unit
LW64-IS	8027571	LiquidWatch Intrinsically Safe – UL Listed
RPM-8	8027636	LiquidWatch Probe Module
ORM-4	8027637	LiquidWatch Relay Module
PA-10	8027638	LiquidWatch Probe Adapter to Interface with Non-Std Probes
PHLR-LW	8027890	LiquidWatch Hydrocarbon Probe Assembly
PFS-LW	8027902	LiquidWatch Float Probe Assembly
PSTV-LW	8027903	LiquidWatch 2" Tank Well Float Probe Assembly
PWS-LW	8027904	LiquidWatch Water Probe Assembly
PTHL-LW	8027906	LiquidWatch Tank Overfill Probe Assembly
Contact PermAle	ert for special prol	pe requirements

### PART 1 - SYSTEM 1.1

The discreet point monitoring system (D.P.M.S.) shall consist of a monitoring unit, probe module, [relay module] and probes. The D.P.M.S. shall be capable of detecting liquids in contact with the sensor probe connected to the monitoring panel. It shall not detect vapors or gases.

### 1.2

When liquid is detected, an audible alarm shall sound and LCD readout of the probe activation shall be visible on the front display. The standard D.P.M.S. with one probe module shall alarm within 30 seconds after probe activation. The D.P.M.S. with additional probe modules may take up to 2 minutes to activate the alarm.

### 1.3

The system supplier shall have at least ten years' experience in the manufacturing of leak detection systems.

### PART 2 – COMPONENTS

### 2.1

The standard sensors shall be probes. The hydrocarbon probe shall reset after exposure to volatile hydrocarbon liquids when the liquid evaporates. The probe shall be resettable after exposure to nonvolatile fuels by flushing the sensor elements in a common hydrocarbon solvent or replacing the elements. The probe shall be designed for easy disassembly and cleaning. Lead wires shall be shielded, #22 AWG conductor. with color-coded insulation.

#### 2.2

The use of other probes such as float switches, ground water monitoring or other devices shall use a dry contact to indicate an alarm condition. Float switch probes shall be resettable after fluids are removed and shall use material of construction suitable for contact with liquids to be sensed.

### 2.3

The monitoring panel shall be modular in design and accept up to 64 probes and 16 programmable alarm relays.

The LCD shall provide indication of the system's status. When a probe alarms, the type of alarm (active, short or break) and the probe number shall be indicated. Using the membrane keypad the operator shall be able to program the system and review the history archive. An RS-232 interface port shall be available for use in remote monitoring of the unit usina ASCII commands. The enclosure shall be NEMA 4X.

### PART 3 - SAFETY

### 3.1

The unit must be UL Listed and provide connections for intrinsically safe sensor circuits for use in Class I, Division 1, Groups C & D hazardous locations (as required).

### TECHNICAL DATA:

- Unit Dimensions 11.31" H x 9.31" W x 5.43" D (287 mm x 236 mm x 138 mm)
- Power: 120/240 VAC 50/60 Hz, 8 VA
- Unit Weight: 7 lb (3.2 kg)
- Unit Operating Temperature: 0°F to 120°F (-18°C to 50°C)
- LW-2, LW-4 and MC-15 w/PVC jacket are intended for normally dry environments.

### ALARM OUTPUTS:

- Audible Alarm
- Red Led Optical Alarm
- Activation of 10 A Output Relays

#### Typical PHLR Response Times

Liquid*	Response Time (@ 70°F)
1, 1, 1, Trichlorethane	<1 minute
Acetone	
MEK	
Xylene	
Naptha	
Gasoline	
Diesel Fuel	<5 minutes**
Kerosene	
Jet Fuel	
Crude Oil	
Alcohols	not detected

\* Long exposure to some aggressive solvents like acetone or xylene may soften the epoxy sealing the probe, requiring probe replacement.

\*\* Response time at room temperature. Response times will be longer for lower temperatures

The information contained in this document is subject to change without notice. PermAlert, a Division of PERMA-PIPE, Inc., believes the information contained herein to be reliable, but makes no representations as to accuracy or completeness. PermAlert offers a sole and exclusive warranty as is stated in the Standard Terms and Conditions of Sale for these products. In no event will PermAlert be liable for any indirect, incidental or consequential damages.

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**APPENDIX J.4** 

Potter Adjustable Deadband Pressure Switch

Page J.4.1, October 1, 2024

BETTERING OUTCOMES | VERTEXENG.COM 214.499.9234

THE VERTEX COMPANIES, LLC 3030 LBJ FWY, STE 1620 DALLAS, TX 75234



ADPS Adjustable Deadband Pressure Switch

### Features

- · Independent set and reset points
- · Adjustable range of 25-300 PSIG
- Corrosion resistant
- For control of pumps, compressors, etc. when used with a motor starter



### Description

The Model ADPS is an Adjustable Deadband Pressure Switch with independent set and reset points that are adjustable throughout the entire operating range of the switch. The minimum deadband (minimum span between set and reset points) may be obtained at any point in the operating range of the switch. A change in pressure greater than the high setting will reposition the switch mechanism to open or close a single snap-action electrical switch.

This control device is designed for use as an operating control in applications sensing air, water, or any fluid not harmful to the pressure connection, diaphragm or nitrile pressure-sealing o-ring.

*NOTE:* This device is not intended for applications in explosive environments or use with hazardous fluids.

### NOTICE

The instances where an operating control would result in personal injury and/or loss of property, it is the responsibility of the installer to add devices (safety, limit controls) that protect against, or systems (alarm, supervisory systems) that warn of control failure.

Direct control of motors with HP ratings greater than those shown could damage the ADPS switch, resulting in sprinkler system damage and unintentional water flow. The installation of a pressure relief valve set at or below the systems maximum operating pressure is recommended.

### **Technical Specifications**

Adjustable Operating Range	25-300 PSIG
Minimum Deadband	12 PSIG*
Proof Pressure	400 PSIG
Factory Setting	90/60 PSIG
Ambient/Media Temperature Range	-4°F to 180°F (-20°C to 82°C)
Construction	<ul> <li>NEMA Type 4Xm (IP66) enclosure for indoor or outdoor use. (To maintain 4X rating, use appropriate Type 4 conduit hub.)</li> <li>Forged brass Pressure Connections</li> <li>Aluminum Diecast Base with Polymer Enclosure</li> <li>Beryllium Copper Diaphragm</li> <li>Nitrile Pressure Sealing O-ring</li> </ul>
Switch Contact	<ul> <li>Snap-action SPDT (Form C)</li> <li>15 Amps at 125 VAC*</li> <li>8 Amps at 250 VAC*</li> <li>1/8 HP at 125 VAC</li> <li>1/4 HP at 250 VAC</li> <li>* Non-inductive loads only</li> </ul>

\*12 PSI is at the mid-range of the device. The differential may be as high as 20 PSI when the ADPS is adjusted closer to the extremes of the adjustable range.

Potter Electric Signal Company, LLC

St. Louis, MO

Phone: 800-325-3936

www.pottersign


## **Mounting and Installation**

The Model ADPS is typically mounted in an upright position on a flat surface by two <sup>1</sup>/<sub>4</sub>" screws through the mounting flanges on the base or by two <sup>1</sup>/<sub>4</sub> - 20 screws into the back of the base. (See Fig. 1 for mounting dimensions.) Locate the switch where vibration, shock, and ambient temperature fluctuations are minimal.

# NOTICE

To avoid damage to the switch, always hold a wrench on the pressure connection hex when tightening pressure connections. Never tighten the pressure connection by turning the switch housing into the fitting.

Fig 1



## Wiring

Use properly rated temperature supply wire for the anticipated service temperature. Make all electrical connections in accordance with the National Electrical Code and local regulations. A wiring check may be performed by manually actuating the switch actuator on the side of the snap-action switch inside the enclosure. (See Fig. 3)

# NOTICE

Do not loosen or remove the two (2) screws that secure the switch to the switch mounting bracket.





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## Adjustments

The two thumb adjustment dials, accessible through the enclosure cover, are used to adjust the set point and reset point of the switch. The dial scales and pointer may be used to give an indication of the low and high set points.

The high setting adjustment dial is calibrated for increasing pressure. The low setting adjustment dial is calibrated for decreasing pressure. For best accuracy, make the final adjustments with a pressure gauge at the actual working media pressure and temperature encountered in the application.

The minimum deadband (minimum span between set and reset points) may be obtained at any point in the operating range of the switch.

When the desired settings are obtained, replace the adjustment cover. The adjustment cover and enclosure cover can be made tamper resistant by a single sealing wire inserted through the hole in the locking bar.

The repeatability of the set and reset points is typically  $\pm 1\%$  of the operating range.

The Symbol of Protection

#### Fig 3



## **Ordering Information**

Model	Description	Stock No.
ADPS-300-IB	Adjustable Deadband Pressure Switch	1370010

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**APPENDIX K** 

30 TAC §330.962 Notice to Real Property Records and Deeds

Page K.1, October 1, 2024

THE VERTEX COMPANIES, LLC 3030 LBJ FWY, STE 1620 DALLAS, TX 75234 IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

#### SPECIAL WARRANTY DEED

## THE STATE OF TEXAS

#### KNOW ALL MEN BY THESE PRESENTS:

#### **COUNTY OF DALLAS**

NEWBERRY DISTRIBUTION OWNER LLC, a Delaware limited liability company (called "<u>Grantor</u>"), in consideration of TEN AND NO/100 (\$10.00) DOLLARS and other good and valuable consideration in hand paid by PR III/CRE 635 EXCHANGE OWNER, LP, a Delaware limited partnership, whose address is 1200 N. 52<sup>nd</sup> Street, Phoenix, AZ 85008 (called "<u>Grantee</u>"), the receipt and sufficiency of which are acknowledged and confessed, has GRANTED, BARGAINED, SOLD AND CONVEYED, and by these presents GRANTS, BARGAINS, SELLS and CONVEYS unto Grantee, the real property in Dallas County, Texas, described on <u>Exhibit A</u> attached to and made a part of this Special Warranty Deed for all purposes (the "<u>Property</u>"), together with all of Grantor's right, title and interest in (i) any improvements located on the Property, (ii) any adjacent streets, roads, alleys, easements and rights-of-way, (iii) any entitlements, permits or licenses pertaining to the Property or any improvements, (iv) water and water rights, and oil, gas and mineral rights pertaining in any way to the Property and (v) any rights, titles and interests appurtenant to the Property or the foregoing.

This conveyance is made and accepted subject solely to those items on <u>Exhibit B</u> attached to this Special Warranty Deed to the extent same are valid and affect the Property (such matters being referred to as the "<u>Permitted Exceptions</u>").

TO HAVE AND TO HOLD the Property, subject to the Permitted Exceptions, unto Grantee, its successors and assigns, forever, subject to the Permitted Exceptions; and, subject to the Permitted Exceptions, Grantor binds itself and its successors and assigns, to WARRANT AND FOREVER DEFEND all and singular the Property unto Grantee, its successors and assigns, against every person whomsoever lawfully claiming or to claim the same, or any part thereof, by, through or under Grantor, but not otherwise.

Real property ad valorem taxes and assessments having been prorated to the date of this Special Warranty Deed, Grantee assumes and agrees to pay when due all such ad valorem property taxes and assessments for the year 2025 and subsequent years.

Dated as of December 4, 2024.

#### **GRANTOR:**

# NEWBERRY DISTRIBUTION OWNER LLC,

a Delaware limited liability company

By: Newberry Distribution Investor Holdings, LLC, a Delaware limited liability company its Managing Member

By: Provident Newberry Distribution LP, a Texas limited partnership its Managing Member

By: Provident Newberry Distribution GP LLC, a Texas limited liability company its General Partner

By: awes J President øe.

STATE OF TEXAS

#### COUNTY OF DALLAS

The foregoing instrument was ACKNOWLEDGED before me this  $\sqrt[4]{4}$  day of  $\sqrt[4]{10}$ , 2024, by Julian Hawes Jr., the vice president of Provident Newberry Distribution GP LLC, a Texas limited liability company, the general partner of Provident Newberry Distribution LP, a Texas limited partnership, the managing member of Newberry Distribution Investor Holdings, LLC, a Delaware limited liability company, the managing member of Newberry Distribution Owner LLC, a Delaware limited liability company, on behalf of said limited liability company.

[SEAL]

My Commission Expires:

Notary Public, State of Texas Ange & Urdy (Printed Name of Notary Public)



#### **EXHIBIT A**

#### PROPERTY

**BEING** a tract of land situated in William M. Cochran Survey, Abstract No. 279, City of Dallas, Dallas County, Texas and being all of a called 36.2936 acre tract of land described in Special Warranty Deed to Newberry Distribution Owner, LLC, recorded in Instrument No. 202100372754, Official Public Records, Dallas County, Texas and being more particularly described as follows:

**BEGINNING** at a mag nail found at the intersection of the west right-of-way line of Newberry Street (a variable width right-of-way) and the south right-of-way line of Interstate Highway 635 (a variable width right-of-way) and for the northeast corner of said 36.2936 acre tract;

THENCE with said west right-of-way line of Newberry Street, the following courses and distances:

South 00°54'04" East, a distance of 1,017.63 feet to a mag nail found for corner; South 00°15'08" East, a distance of 528.02 feet to a mag nail found for the southeast corner of said 36.2936 acre tract;

**THENCE** departing said west right-of-way line of Newberry Street and with the south lines of said 36.2936 acre tract, the following courses and distances:

North 89°37'53" West, a distance of 386.34 feet to a 5/8-inch iron rod with plastic cap stamped "KHA" set for corner;

South 03°58'25" West, a distance of 220.82 feet to a 5/8-inch iron rod with plastic cap stamped "KHA" set for corner;

South 89°33'50" West, a distance of 208.55 feet to a 1/2-inch iron rod with plastic cap stamped "RLG INC." found for corner;

South 04°33'47" West, a distance of 137.17 feet to a 5/8-inch iron rod with plastic cap stamped "KHA" set for corner;

South 88°30'29" West, a distance of 222.05 feet to a 5/8-inch iron rod with plastic cap stamped "KHA" set for corner, from said point a 5/8-inch iron rod found bears North 82°58'06" West, a distance of 0.43 feet;

North 01°09'14" East, a distance of 63.04 feet to a 1/2-inch iron rod with illegible yellow cap found for corner;

South 88°38'35" West, a distance of 260.85 feet to a 1/2-inch iron rod with plastic cap stamped "DC&A" found for the southwest corner of said Newberry Distribution Owner, LLC tract and being in the east line of a tract of land described in Deed Without Warranty to Dallas Area Rapid Transit (DART), recorded in Instrument No. 201500321792 of said Official Public Records;

THENCE with said east line of the DART tract, the following courses and distances:

North 08°49'32" East, a distance of 893.97 feet to a 5/8-inch iron rod with plastic cap stamped "KHA" set for corner;

North 89°50'32" East, a distance of 25.31 feet to a 5/8-inch iron rod with plastic cap stamped "KHA" set for corner;

SPECIAL WARRANTY DEED ACTIVE 704028969 North 08°49'32" East, a distance of 924.45 feet to a 1/2-inch iron rod with "RLG INC." cap found for the northwest corner of said Newberry Distribution Owner, LLC tract and being in said south right-of-way line of Interstate Highway 635;

**THENCE** departing said east line of the DART tract and with said south right-of-way line of Interstate Highway 635, the following courses and distances:

North 88°31'26" East, a distance of 539.38 feet to a 1/2-inch iron rod with "RLG INC." cap found for corner;

North 80°18'18" East, a distance of 234.09 feet to a 1/2-inch iron rod found for corner;

North 88°15'59" East, a distance of 10.00 feet to the **POINT OF BEGINNING** and containing 1,580,950 square feet or 36.2936 acres of land, more or less.

#### ALSO KNOWN AS: (RECORD PROPERTY DESCRIPTION)

**BEING** a 1,580,949 square foot (36.2936 acre) tract of land situated in the William M. Cochran Survey, Abstract No. 279, City of Dallas, Dallas County, Texas, being all of a called 36.376 acre tract of land described in a Special Warranty Deed to LD FOLSOM LAND LLC, recorded in Instrument Number 20200003105, Official Public Records, Dallas County, Texas, and being more particularly described as follows:

**BEGINNING** at a MAG nail set at the intersection of the west right-of-way line of Newberry Street (variable width right-of-way) and the south right-of-way line of Lyndon B. Johnson Freeway, a.k.a. Interstate 635 (a variable width right-of-way, created by Volume 74082, Page 564, Deed Records, Dallas County, Texas) for the northeast corner of said LD Folsom Land tract, from which a found 1/2" iron rod with yellow plastic cap stamped "HALFF ASSOCIATES" for the northwest corner of Lot 1, Block B/6558, Columbia Center West, an addition to the City of Dallas, Dallas County, Texas, according to the plat recorded in Volume 88208, Page 2310, Deed Records, Dallas County, Texas, bears North 86° 30' 55" East, a distance of 52.03 feet;

**THENCE** along the common line between said Newberry Street and said 36.376 acre tract, the following courses and distances:

South 00°54'04" East, a distance 1,017.63 feet to a MAG nail set for corner; South 00°15'08" East, a distance 528.02 feet to a MAG nail set for the southeast corner of said 36.376 acre tract, from which a found 1/2" iron rod with yellow plastic cap (illegible) for a southwest corner of Lot 2A, Block B/6557, of said Columbia Center West, bears South 36° 21' 19" East, a distance of 110.33 feet;

**THENCE** North 89°37'53" West, along a south line of said 36.376 acre tract, passing a 1/2" iron rod with a red plastic cap stamped "PEISER-MANKIN-SURVEY" found for the northeast corner of a called 2.69 acre tract of land described in a Special Warranty Deed to 11517 Newberry, LP, recorded Volume 2003093, Page 10287, Deed Records, Dallas County, Texas, at 10.35 feet and continuing for a total distance of 386.34 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for an interior ell corner of said 36.376 acre tract, from which a found 1/2" iron rod with red plastic cap stamped "PEISER-MANKIN-SURVEY" bears South 37° 17' 55" East, a distance of 5.17 feet;

**THENCE** South 03°58'25" West, along said common line between said 36.376 acre tract and said 2.69 acre tract, a distance 220.82 feet to a point for an exterior ell corner of said 36.376 acre tract and the

northeast corner of a called 0.65 acre tract of land described as Tract 1 in a Special Warranty Deed with Vendor's Lien to HNG Properties, LLC, recorded in Instrument No. 201500006463, Official Public Records, Dallas County, Texas, from which a found 1/2" iron rod bears South 39° 09' 57" East, a distance of 0.39 feet;

**THENCE** South 89°33'50" West, along the common line between said 36.376 acre tract and said 0.65 acre tract, a distance 208.55 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for an interior ell corner for said 36.376 acre tract and the northwest corner of said 0.65 acre tract, from which a found 1" iron rod with punch hole bears South 07° 34' 27" West, a distance of 7.23 feet;

**THENCE** South 04°33'47" West, along the common line between said 36.376 acre tract and said 0.65 acre tract, a distance 137.17 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set on the north line of a tract of land described in a Special Warranty Deed with Vendor's Lien to GATLIN DENTON PARTNERSHIP, LP, recorded in Instrument Number 20080069286, Official Public Records, Dallas County, Texas;

**THENCE** South 88°30'29" West, along the common line between said 36.376 acre tract and said GATLIN DENTON PARTNERSHIP tract, a distance 222.05 feet to a an exterior ell corner of said 36.376 acre tract, from which a found 5/8" iron rod bears North 82° 58' 06" West, a distance of 0.43 feet;

**THENCE** North 01 °09'14" East, along a west line of said 36.376 acre tract, a distance 63.04 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for an interior ell corner of said 36.376 acre tract;

**THENCE** South 88°38'35" West, along a south line of said 36.376 acre tract, a distance 260.85 feet to a 1/2" iron rod with yellow plastic cap stamped "DC&A" found on the east line of a tract of land described in Special Warranty Deed to the CITY OF DALLAS, recorded in Volume 86057, Page 342, Deed Records, Dallas County, Texas, for the southwest corner of said 36.376 acre tract;

**THENCE** along the common line between said 36.376 acre tract and said CITY OF DALLAS tract, the following bearings and distances:

North 08°49'32" East, passing at a distance of 75.10 feet a 1/2" iron rod found and continuing for a total distance 893.97 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for corner;

North 89°50'32" East, a distance 25.31 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for corner, from which a found 1/2" iron rod bears South 04° 22' 12" East, a distance of 2.36 feet;

North 08°49'32" East, a distance 924.45 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set on the south right-of-way line of said Lyndon B. Johnson Freeway, for the northwest corner of said 36.376 acre tract;

**THENCE** along the common line between the south right-of-way line of said Lyndon B. Johnson Freeway and the north line of said 36.376 acre tract, the following bearings and distances:

North 88°31'26" East, a distance 539.38 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for corner;

North 80°18'18" East, a distance 234.09 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for corner;

North 88°15'59" East, a distance 10.00 feet to the **POINT OF BEGINNING**, containing 1,580,949 square feet or 36.2936 acres of land, more or less.

Bearings are based State Plane Coordinate System, North Texas Central Zone 4202, North American Datum of 1983 (2011).

Record description based on a called 36.2936 acre tract of land described in Special Warranty Deed to Newberry Distribution Owner, LLC, recorded in Instrument No. 202100372754, Official Public Records, Dallas County, Texas.

#### EXHIBIT B

#### PERMITTED EXCEPTIONS

- 1. The restrictive covenants recorded in Volume 2000195, Page 7712, Real Property Records, Dallas County, Texas.
- 2. Terms, provisions, and conditions of Affidavit to the Public filed December 18, 1981, recorded in Volume 81246, Page 1213, Real Property Records, Dallas County, Texas.
- 3. Easement granted by Fol-Mac Joint Venture to City of Dallas, filed May 24, 1984, recorded in Volume 84104, Page 3449, Real Property Records, Dallas County, Texas.
- 4. Easement granted by Jack Lively to Texas Power & Light Company, filed February 7, 1947, recorded in Volume 2782, Page 281, Real Property Records, Dallas County, Texas. Assigned to Dallas Power & Light Company by instrument filed December 13, 1951, recorded in Volume 3599, Page 128, Real Property Records, Dallas County, Texas.
- 5. Easement granted by Loma Alto Corporation, et al to the City of Dallas, filed May 13, 1976, recorded in Volume 76093, Page 874, Real Property Records, Dallas County, Texas.
- 6. Easement granted by Fol-Mac Joint Venture to the City of Dallas, filed May 24, 1984, recorded in Volume 84104, Page 3441, Real Property Records, Dallas County, Texas.
- Terms, provisions, conditions, and easements contained in Trinity River Authority of Texas Permanent Sanitary Sewer Easement with Temporary Access Easements, filed July 11, 2016, recorded under Clerk's File No. 201600185191, Real Property Records, Dallas County, Texas.
- Consequences, if any, of the existence of a closed landfill on the subject property as evidenced by notice filed March 28, 2023, recorded in Clerk's File No. 202300058413, Real Property Records, Dallas County, Texas.
- 9. Terms, conditions, stipulations, and provisions of that unrecorded billboard lease by and between FOL-MAC Joint Venture and/or successors in interest, as landlord, and Lamar Advertising Co., as successor to Impact Outdoor Advertising, Inc., as tenant, and Amendments and Assignments made thereto, as evidenced by Special Warranty Deed filed December 14, 2021, recorded under Clerk's File No. 202100372754, Real Property Records, Dallas County, Texas.
- 10. Easement granted to Trinity River Authority of Texas for sanitary sewer lines as set out in instrument recorded under Volume 5012, Page 271, Deed Records of Dallas County, Texas.
- 11. Terms, conditions and other matters as set out on that certain Valley Storage Easement Agreement filed December 13, 2021, under Instrument No. 202100370709, Official Public Records of Dallas County, Texas, as amended by that First Amendment to Valley Storage Easement Agreement filed July 30, 2024, under Instrument No. 202400151853, Official Public Records of Dallas County, Texas, and by that Second Amendment to Valley Storage Easement Agreement filed July 30, 2024, inder Instrument No. 202400151854, Official Public Records of Dallas County, Texas.

 Notice to Buyers, Lessees and Occupants of Closed Municipal Waste Landfill, filed September 11, 2024, recorded in County Clerk's File No. 202400183312, Real Property Records, Dallas County, Texas. Sendera Title

GEN 1904577. VVVV

#### NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

#### SPECIAL WARRANTY DEED

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STATE OF TEXAS

COUNTY OF DALLAS

KNOW ALL MEN BY THESE PRESENTS:

THAT LD FOLSOM LAND, LLC, a Delaware limited liability company ("*Grantor*") for and in consideration of the sum of Ten Dollars (\$10.00) cash and other good and valuable consideration paid by NEWBERRY DISTRIBUTION OWNER, LLC, a Delaware limited liability company ("*Grantee*"), whose mailing address is 10210 Central Expressway, Suite 300, Dallas, Texas 75231, HAS GRANTED, BARGAINED, SOLD and CONVEYED, and by these presents DOES GRANT, BARGAIN, SELL and CONVEY unto Grantee all that certain land situated in Dallas County, Texas, and described on **Exhibit "A"** which is attached hereto and incorporated herein by reference for all purposes, together with all appurtenances thereon or in anywise appertaining thereto and all buildings, structures, fixtures and improvements located thereon and together with all right, title and interest of Grantor, if any, in (i) rivers, streams, and strips and gores, if any, between the Property and abutting properties and any easements, licenses, rights-of-way, reservations, riparian and water rights, privileges and rights of ingress and egress appurtenant to the Property, (ii) any adjacent street, alley, road or right-of-way, opened or proposed, abutting or adjacent to the Property (said land, improvements and appurtenances being herein together referred to as the "*Property*").

This conveyance is made subject to the Permitted Exceptions set forth in **Exhibit "B"** hereto, to the extent the same are valid and subsisting and affect the Property. Except for ad valorem taxes assessed against the Property for the calendar year in which this conveyance becomes effective (which are hereby assumed by Grantee), Grantee does not assume or in any manner agree to pay or indemnify Grantor for any indebtedness secured by any lien against, or interest in, the Property or any portion thereof.

TO HAVE AND TO HOLD the Property unto Grantee, and Grantee's heirs, legal representatives, successors and assigns forever, and Grantor does hereby bind Grantor, and Grantor's heirs, legal representatives, successors and assigns to WARRANT and FOREVER DEFEND, all and singular the Property unto Grantee and Grantee's heirs, legal representatives, successors and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof, by, through or under Grantor, but not otherwise, subject, however, as aforesaid.

#### SIGNATURE PAGE FOLLOWS

Special Warranty Deed - Page 1

Executed to be effective the <u>3</u> day of December, 2021.

\$ \$ \$ \$

#### GRANTOR:

# LD FOLSOM LAND, LLC, a Delaware limited liability company

R. Neil Crouch, II, President

STATE OF TEXAS

#### COUNTY OF DALLAS

This instrument was acknowledged before me on the  $2r^{2}$  day of December, 2021, by R. Neil Crouch, II, President of LD Folsom Land, LLC, a Delaware limited liability company, on behalf of said limited liability company.



Name (Print): <u>Keblecca L. Ford</u> Notary Public, State of Texas My commission expires: <u>5/26/2024</u>

Special Warranty Deed - Grantor Signature Page

#### Exhibit "A"

Being a 1,580,949 square foot (36.2936 acre) tract of land situated in the William M. Cochran Survey, Abstract No. 279, City of Dallas, Dallas County, Texas, being all of a called 36.376 acre tract of land described in a Special Warranty Deed to LD FOLSOM LAND LLC, recorded in Instrument Number 202000003105, Official Public Records, Dallas County, Texas, and being more particularly described as follows:

BEGINNING at a MAG nail set at the intersection of the west right-of-way line of Newberry Street (variable width right-of-way) and the south right-of-way line of Lyndon B. Johnson Freeway, a.k.a. Interstate 635 (a variable width right-of-way, created by Volume 74082, Page 564, Deed Records, Dallas County, Texas) for the northeast corner of said LD Folsom Land tract, from which a found 1/2" iron rod with yellow plastic cap stamped "HALFF ASSOCIATES" for the northwest corner of Lot 1, Block B/6558, Columbia Center West, an addition to the City of Dallas, Dallas County, Texas, according to the plat recorded in Volume 88208, Page 2310, Deed Records, Dallas County, Texas, bears North 86° 30' 55" East, a distance of 52.03 feet;

THENCE along the common line between said Newberry Street and said 36.376 acre tract, the following courses and distances:

South 00°54'04" East, a distance 1,017.63 feet to a MAG nail set for corner;

South 00°15'08" East, a distance 528.02 feet to a MAG nail set for the southeast corner of said 36.376 acre tract, from which a found 1/2" iron rod with yellow plastic cap (illegible) for a southwest corner of Lot 2A, Block B/6557, of said Columbia Center West, bears South 36° 21' 19" East, a distance of 110.33 feet;

THENCE North 89°37'53" West, along a south line of said 36.376 acre tract, passing a 1/2" iron rod with a red plastic cap stamped "PEISER-MANKIN-SURVEY" found for the northeast corner of a called 2.69 acre tract of land described in a Special Warranty Deed to 11517 Newberry, LP, recorded Volume 2003093, Page 10287, Deed Records, Dallas County, Texas, at 10.35 feet and continuing for a total distance of 386.34 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for an interior ell corner of said 36.376 acre tract, from which a found 1/2" iron rod with red plastic cap stamped "PEISER-MANKIN-SURVEY" bears South 37° 17' 55" East, a distance of 5.17 feet;

THENCE South 03°58'25" West, along said common line between said 36.376 acre tract and said 2.69 acre tract, a distance 220.82 feet to a point for an exterior ell corner of said 36.376 acre tract and the northeast corner of a called 0.65 acre tract of land described as Tract 1 in a Special Warranty Deed with Vendor's Lien to HNG Properties, LLC, recorded in Instrument No. 201500006463, Official Public Records, Dallas County, Texas, from which a found 1/2" iron rod bears South 39° 09' 57" East, a distance of 0.39 feet;

THENCE South 89°33'50" West, along the common line between said 36.376 acre tract and said 0.65 acre tract, a distance 208.55 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for an interior ell corner for said 36.376 acre tract and the northwest corner of said 0.65 acre tract, from which a found 1" iron rod with punch hole bears South 07° 34' 27" West, a distance of 7.23 feet;

Special Warranty Deed - Exhibit A - Page 1

Page: 3 of 7 Page K.12, October 1, 2024 Revised December 6, 2024 THENCE South 04°33'47" West, along the common line between said 36.376 acre tract and said 0.65 acre tract, a distance 137.17 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set on the north line of a tract of land described in a Special Warranty Deed with Vendor's Lien to GATLIN DENTON PARTNERSHIP, LP, recorded in Instrument Number 20080069286, Official Public Records, Dallas County, Texas;

THENCE South 88°30'29" West, along the common line between said 36.376 acre tract and said GATLIN DENTON PARTNERSHIP tract, a distance 222.05 feet to a an exterior ell corner of said 36.376 acre tract, from which a found 5/8" iron rod bears North 82° 58' 06" West, a distance of 0.43 feet;

THENCE North 01°09'14" East, along a west line of said 36.376 acre tract, a distance 63.04 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for an interior ell corner of said 36.376 acre tract;

THENCE South 88°38'35" West, along a south line of said 36.376 acre tract, a distance 260.85 feet to a 1/2" iron rod with yellow plastic cap stamped "DC&A" found on the east line of a tract of land described in Special Warranty Deed to the CITY OF DALLAS, recorded in Volume 86057, Page 342, Deed Records, Dallas County, Texas, for the southwest corner of said 36.376 acre tract;

THENCE along the common line between said 36.376 acre tract and said CITY OF DALLAS tract, the following bearings and distances:

North 08°49'32" East, passing at a distance of 75.10 feet a 1/2" iron rod found and continuing for a total distance 893.97 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for corner;

North 89°50'32" East, a distance 25.31 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for corner, from which a found 1/2" iron rod bears South 04° 22' 12" East, a distance of 2.36 feet;

North 08°49'32" East, a distance 924.45 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set on the south right-of-way line of said Lyndon B. Johnson Freeway, for the northwest corner of said 36.376 acre tract;

THENCE along the common line between the south right-of-way line of said Lyndon B. Johnson Freeway and the north line of said 36.376 acre tract, the following bearings and distances:

North 88°31'26" East, a distance 539.38 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for corner;

North 80°18'18" East, a distance 234.09 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for corner;

North 88°15'59" East, a distance 10.00 feet to the POINT OF BEGINNING, containing 1,580,949 square feet or 36.2936 acres of land, more or less.

Special Warranty Deed - Exhibit A - Page 2

Page:4 of 7 Page K.13, October 1, 2024 Revised December 6, 2024

#### Exhibit "B"

#### PERMITTED EXCEPTIONS

- 1. Taxes and assessments for the year 2022 and subsequent years, not yet due and payable.
- 2. Rights of tenants in possession, as tenants only, pursuant to written but unrecorded leases in effect as of the date hereof, which leases are described as (1) Lease dated December 1, 2002 by and between Transcontinental Investors, Inc., as landlord, and W.W. Tree Farms, as tenant, as amended by that certain First Amendment to Lease Agreement dated May 3, 2013, that certain Second Amendment to Lease Agreement dated July 1, 2013, that certain Third Amendment to Lease Agreement dated July 1, 2013, and that certain Fourth Amendment to Lease Agreement of even date herewith and any further Amendment and Assignments made thereto; and (2) Unrecorded Billboard Lease by and between FOL-MAC Joint Venture and/or successors in interest, as landlord, and Lamar Advertising co., as successor to Impact Outdoor Advertising, Inc., as tenant, and Amendments and Assignments made thereto.
- An easement to Texas Power & Light Company, dated September 27, 1946, executed by Jack Lively, recorded in Volume 2782, Page 281, of the Deed Records, Dallas County, Texas; affected by instrument recorded in Volume 3599, Page 128, Deed Records, Dallas County, Texas, and as noted on survey dated June 21, 2021, last revised on December 2, 2021, prepared by Brian R. Wade, RPLS No. 6098.
- An easement to Trinity River Authority of Texas, filed December 2, 1958, executed by Jack Lively, recorded in Volume 5012, Page 271, of the Deed Records, Dallas County, Texas, and as shown on survey dated June 21, 2021, last revised on December 2, 2021, prepared by Brian R. Wade, RPLS No. 6098.
- An easement to City of Dallas, dated March 8, 1976, executed by Lomo Alto Corporation, recorded in Volume 76093, Page 874, of the Deed Records, Dallas County, Texas, and as shown on survey dated June 21, 2021, last revised on December 2, 2021, prepared by Brian R. Wade, RPLS No.6098.
- An easement to City of Dallas, dated February 10, 1984, executed by Fol-Mac Joint Venture, recorded in Volume 84104, Page 3441, of the Deed Records, Dallas County, Texas, and as shown on survey dated June 21, 2021, last revised on December 2, 2021, prepared by Brian R. Wade, RPLS No. 6098.
- An easement to City of Dallas, dated February 10, 1984, executed by Fol-mac Joint Venture, recorded in Volume 84104, Page 3449, of the Deed Records, Dallas County, Texas, and as shown on survey dated June 21, 2021, last revised on December 2, 2021, prepared by Brian R. Wade, RPLS No. 6098.
- An easement to Trinity River Authority of Texas, dated March 9, 2016, executed by Ocean Beach Partners, L.P., recorded in Instrument No. 201600185191, of the Official Public Records, Dallas County, Texas, and as shown on survey dated June 21, 2021, last revised on December 2, 2021, prepared by Brian R. Wade, RPLS No. 6098.
- 9. Affidavit to the Public of portion of property operated as Solid Waste Disposal Site executed by Larry F. Ferguson, et al, filed December 18, 1981, recorded in Volume 81246, Page 1213, Deed Records, Dallas County, Texas.
- 10. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument dated April 25, 2006, filed July 11, 2006, under Instrument No.

Special Warranty Deed - Exhibit B - Page 1

200600250818, of the Official Public Records of Dallas County, Texas. As affected by Waiver of Surface Rights dated December <u>3</u>, 2021, filed December <u>13</u>, 2021, under Instrument No.\_\_\_, Official Public Records of Dallas County, Texas.

- 11. Terms, conditions, stipulations, and provisions of that unrecorded Lease Agreement, dated December 1, 2002, by and between Transcontinental Investors, Inc., as landlord, and W.W. Tree Farms, as tenant, as amended by that certain First Amendment to Lease Agreement dated May 3, 2013, that certain Second Amendment to Lease Agreement dated July 1, 2013, and that certain Third Amendment to Lease Agreement dated July 1, 2013, that certain Fourth Amendment to Lease Agreement of even date herewith and any further Amendment and Assignments made thereto and any further Amendments and Assignments made thereto.
- 12. Terms, conditions, stipulations, and provisions of that unrecorded billboard lease by and between FOL-MAC Joint Venture and/or successors in interest, as landlord, and Lamar Advertising Co., as successor to Impact Outdoor Advertising, Inc., as tenant, and Amendments and Assignments made thereto, and as noted on survey dated June 21, 2021, last revised on December 2, 2021, prepared by Brian R. Wade, RPLS No. 6098.

Special Warranty Deed - Exhibit B - Page 2

Page K.15, October 1, 2024 Revised December 6, 2024

#### Dallas County John F. Warren Dallas County Clerk

Instrument Number: 202100372754

eRecording - Real Property

Recorded On: December 14, 2021 03:38 PM

Number of Pages: 7

" Examined and Charged as Follows: "

Total Recording: \$46.00

## \*\*\*\*\*\*\*\*\*\*\*\* THIS PAGE IS PART OF THE INSTRUMENT \*\*\*\*\*\*\*\*\*\*\*

Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY because of color or race is invalid and unenforceable under federal law.

#### File Information:

Document Number:	202100372754
Receipt Number:	20211214000800
Recorded Date/Time:	December 14, 2021 03:38 PM
User:	Hilga R
Station:	CC15

## Record and Return To: Simplifile

#### STATE OF TEXAS COUNTY OF DALLAS

I hereby certify that this Instrument was FILED In the File Number sequence on the date/time printed hereon, and was duly RECORDED in the Official Records of Dallas County, Texas.

John F. Warren Dallas County Clerk Dallas County, TX

## NOTICE TO REAL PROPERTY RECORDS OF CLOSED MUNICIPAL SOLID WASTE LANDFILL [30 TAC §330.962]

THE STATE OF TEXAS§§\$KNOW ALL MEN BY THESE PRESENTS:COUNTY OF DALLAS§

## OWNER: NEWBERRY DISTRIBUTION OWNER, LLC ("Owner")

## PROPERTY: See attached Exhibit "A"

Pursuant to Chapter 361, Subchapter R of the Health and Safety Code (the "<u>Code</u>") and the rules of the Texas Commission on Environmental Quality published in Sections 330.951 through 330.963 of Subchapter T, Chapter 330, Title 30 of the Texas Administrative Code (the "<u>TCEQ</u><u>Rules</u>"), the undersigned, in his or her capacity of Owner stated below, and not in his or her individual capacity, after being duly sworn, hereby states under oath that the following information is true and correct:

- 1. <u>Prior Use of the Property as a Municipal Solid Waste Landfill</u>. The Property operated as a Type I City of Dallas landfill from the mid-1970s until the early 1980s, when it was reportedly closed.
- 2. Legal Description of the Property Containing the Closed Municipal Solid Waste Landfill. See attached Exhibit "A".
- 3. <u>Notice of Restrictions on Development or Lease of the Property</u>. The public is hereby given notice that the Code and the TCEQ Rules contain restrictions on the development and leasing of the Property due to the existence of a closed municipal solid waste landfill on the Property.
- 4. <u>Name of the Owner</u>. The Owner of the Property is NEWBERRY DISTRIBUTION OWNER, LLC

[SIGNATURE PAGE FOLLOWS]

**EXECUTED AND SWORN TO** this 21 day of March, 2023.

## **OWNER: NEWBERRY DISTRIBUTION OWNER, LLC**, a Delaware limited liability company

- By: Newberry Distribution Investor Holdings, LLC, a Delaware limited liability company its Managing Member
  - By: Provident Newberry Distribution LP, a Texas limited partnership its Managing Member
    - By: Provident Newberry Distribution GP LLC, a Texas limited liability company its General Partner

Bv: Julian Hawes, Jr., Vice President

STATE OF TEXAS § S COUNTY OF DALLAS §

This instrument was sworn to and subscribed before me on the 21 day of March 2023, by Julian Hawes, Jr. Vice President of Provident Newberry Distribution GP LLC, a Texas limited liability company, as General Partner of Provident Newberry Distribution LP, a Texas limited partnership, as the managing member of Newberry Distribution Investor Holdings LLC, a Delaware limited liability company, as the managing member of Newberry Distribution Owner LLC, a Delaware limited liability company, on behalf of said limited liability companies.

and adams Name (Print):

Notary Public, State of Texas My commission expires: 10 - 5 - 24

(SEAL)

TANA ADAME

lotary Public, State of Texas

Comm. Expires 10-08-2024 Notary ID 126685970

## EXHIBIT A

## **Legal Description**

Being a 1,580,949 square foot (36.2936 acre) tract of land situated in the William M. Cochran Survey, Abstract No. 279, City of Dallas, Dallas County, Texas, being all of a called 36.376 acre tract of land described in a Special Warranty Deed to LD FOLSOM LAND LLC, recorded in Instrument Number 20200003105, Official Public Records, Dallas County, Texas, and being more particularly described as follows:

BEGINNING at a MAG nail set at the intersection of the west right-of-way line of Newberry Street (variable width right-of-way) and the south right-of-way line of Lyndon B. Johnson Freeway, a.k.a. Interstate 635 (a variable width right-of-way, created by Volume 74082, Page 564, Deed Records, Dallas County, Texas) for the northeast corner of said LD Folsom Land tract, from which a found 1/2" iron rod with yellow plastic cap stamped "HALFF ASSOCIATES" for the northwest corner of Lot 1, Block B/6558, Columbia Center West, an addition to the City of Dallas, Dallas County, Texas, according to the plat recorded in Volume 88208, Page 2310, Deed Records, Dallas County, Texas, bears North 86° 30' 55" East, a distance of 52.03 feet;

THENCE along the common line between said Newberry Street and said 36.376 acre tract, the following courses and distances:

South 00°54'04" East, a distance 1,017.63 feet to a MAG nail set for corner;

South 00°15'08" East, a distance 528.02 feet to a MAG nail set for the southeast corner of said 36.376 acre tract, from which a found 1/2" iron rod with yellow plastic cap (illegible) for a southwest corner of Lot 2A, Block B/6557, of said Columbia Center West, bears South 36° 21' 19" East, a distance of 110.33 feet;

THENCE North 89°37'53" West, along a south line of said 36.376 acre tract, passing a 1/2" iron rod with a red plastic cap stamped "PEISER-MANKIN-SURVEY" found for the northeast corner of a called 2.69 acre tract of land described in a Special Warranty Deed to 11517 Newberry, LP, recorded Volume 2003093, Page 10287, Deed Records, Dallas County, Texas, at 10.35 feet and continuing for a total distance of 386.34 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for an interior ell corner of said 36.376 acre tract, from which a found 1/2" iron rod with red plastic cap stamped "PEISER-MANKIN-SURVEY" bears South 37° 17' 55" East, a distance of 5.17 feet;

THENCE South 03°58'25" West, along said common line between said 36.376 acre tract and said 2.69 acre tract, a distance 220.82 feet to a point for an exterior ell corner of said 36.376 acre tract and the northeast corner of a called 0.65 acre tract of land described as Tract 1 in a Special Warranty Deed with Vendor's Lien to HNG Properties, LLC, recorded in Instrument No. 201500006463, Official Public Records, Dallas County, Texas, from which a found 1/2" iron rod bears South 39° 09' 57" East, a distance 0f 0.39 feet;

THENCE South 89°33'50" West, along the common line between said 36.376 acre tract and said 0.65 acre tract, a distance 208.55 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for an interior ell corner for said 36.376 acre tract and the northwest corner of said 0.65 acre tract, from which a

#### 2023 - 202300058413 03/28/2023 08:48 AM Page 4 of 5

found 1" iron rod with punch hole bears South 07° 34' 27" West, a distance of 7.23 feet;

THENCE South 04°33'47" West, along the common line between said 36.376 acre tract and said 0.65 acre tract, a distance 137.17 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set on the north line of a tract of land described in a Special Warranty Deed with Vendor's Lien to GATLIN DENTON PARTNERSHIP, LP, recorded in Instrument Number 20080069286, Official Public Records, Dallas County, Texas;

THENCE South 88°30'29" West, along the common line between said 36.376 acre tract and said GATLIN DENTON PARTNERSHIP tract, a distance 222.05 feet to a an exterior ell corner of said 36.376 acre tract, from which a found 5/8" iron rod bears North 82° 58' 06" West, a distance of 0.43 feet;

THENCE North 01°09'14" East, along a west line of said 36.376 acre tract, a distance 63.04 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for an interior ell corner of said 36.376 acre tract;

THENCE South 88°38'35" West, along a south line of said 36.376 acre tract, a distance 260.85 feet to a 1/2" iron rod with yellow plastic cap stamped "DC&A" found on the east line of a tract of land described in Special Warranty Deed to the CITY OF DALLAS, recorded in Volume 86057, Page 342, Deed Records, Dallas County, Texas, for the southwest corner of said 36.376 acre tract;

THENCE along the common line between said 36.376 acre tract and said CITY OF DALLAS tract, the following bearings and distances:

North 08°49'32" East, passing at a distance of 75.10 feet a 1/2" iron rod found and continuing for a total distance 893.97 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for corner;

North 89°50'32" East, a distance 25.31 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for corner, from which a found 1/2" iron rod bears South 04° 22' 12" East, a distance of 2.36 feet;

North 08°49'32" East, a distance 924.45 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set on the south right-of-way line of said Lyndon B. Johnson Freeway, for the northwest corner of said 36.376 acre tract;

THENCE along the common line between the south right-of-way line of said Lyndon B. Johnson Freeway and the north line of said 36.376 acre tract, the following bearings and distances:

North 88°3126" East, a distance 539.38 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for corner;

North 80°18'18" East, a distance 234.09 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for corner;

North 88°15'59" East, a distance 10.00 feet to the POINT OF BEGINNING, containing 1,580,949 square feet or 36.2936 acres of land, more or less.

Notice of Closed Municipal Solid Waste Landfill -- EXHIBIT A

## Dallas County John F. Warren Dallas County Clerk

Instrument Number: 202300058413

eRecording - Real Property

Recorded On: March 28, 2023 08:48 AM

Number of Pages: 5

**Record and Return To:** 

Simplifile

" Examined and Charged as Follows: "

Total Recording: \$38.00

## \*\*\*\*\*\*\*\*\*\*\* THIS PAGE IS PART OF THE INSTRUMENT \*\*\*\*\*\*\*\*\*\*

Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY because of color or race is invalid and unenforceable under federal law.

#### File Information:

Document Number:	202300058413
Receipt Number:	20230327001011
Recorded Date/Time:	March 28, 2023 08:48 AM
User:	Hilga R
Station:	CC15

#### STATE OF TEXAS COUNTY OF DALLAS

I hereby certify that this Instrument was FILED In the File Number sequence on the date/time printed hereon, and was duly RECORDED in the Official Records of Dallas County, Texas.

John F. Warren Dallas County Clerk Dallas County, TX

Page K.21, October 1, 2024 Revised December 6, 2024



**APPENDIX L** 

30 TAC §330.963

- Notice to Buyers, Lessees and Occupants
- Notice to Lessees and Occupants

Page L.1, October 1, 2024

## NOTICE TO BUYERS, LESSEES, AND OCCUPANTS OF CLOSED MUNICIPAL SOLID WASTE LANDFILL [30 TAC §330.963]

THE STATE OF TEXAS

COUNTY OF DALLAS

KNOW ALL MEN BY THESE PRESENTS:

OWNER: Newberry Distribution Owner LLC ("<u>Owner</u>")

§ §

§

PROPERTY: See attached Exhibit "A"

Pursuant to Chapter 361, Subchapter R of the Health and Safety Code (the "<u>Code</u>") and the rules of the Texas Commission on Environmental Quality published in Sections 330.951 through 330.963 of Subchapter T, Chapter 330, Title 30 of the Texas Administrative Code (the "<u>TCEQ</u> <u>Rules</u>"), the undersigned, in his or her capacity of Owner stated below, after being duly sworn, hereby states under oath that the following information is true and correct:

- 1. <u>Prior Use of the Property as a Municipal Solid Waste Landfill</u>. The Property operated as a Type I City of Dallas landfill from the mid-1970s until the early 1980s (MSW 63), when it was reportedly closed.
- 2. <u>Legal Description of the Property Containing the Closed Municipal Solid Waste Landfill</u>. See attached <u>Exhibit "A"</u>.
- 3. <u>Notice of Restrictions on Development or Lease of the Property</u>. The public is hereby given notice that the Code and the TCEQ Rules contain restrictions on the development and leasing of the Property due to the existence of a closed municipal solid waste landfill on the Property.
- 4. <u>Name of the Owner</u>. The Owner of the Property is Newberry Distribution Owner LLC.

## [SIGNATURE PAGE FOLLOWS]

#### **OWNER:**

**NEWBERRY DISTRIBUTION OWNER, LLC,** a Delaware limited liability company

aej 181 By: Name: CASE VAN LARE Title: Wie Ansidut of General Pertur

STATE OF TEXAS

COUNTY OF PAUAS

This instrument was acknowledged before me on <u>SEPTEMBER 9, 20 Jy</u> VICE PRESIDENT OF by <u>CASE VAN LARE GENERAL PARATER NEW BEREY</u> DISTRIBUTION OWNER, LLC

June Adame

NOTARY PUBLIC

[NOTARY PUBLIC STAMP]



Notice of Closed Municipal Solid Waste Landfill - Signature Page

## EXHIBIT A

## Legal Description

## **MEASURED PROPERTY DESCRIPTION**

**BEING** a tract of land situated in William M. Cochran Survey, Abstract No. 279, City of Dallas, Dallas County, Texas and being all of a called 36.2936 acre tract of land described in Special Warranty Deed to Newberry Distribution Owner, LLC, recorded in Instrument No. 202100372754, Official Public Records, Dallas County, Texas and being more particularly described as follows:

**BEGINNING** at a mag nail found at the intersection of the west right-of-way line of Newberry Street (a variable width right-of-way) and the south right-of-way line of Interstate Highway 635 (a variable width right-of-way) and for the northeast corner of said 36.2936 acre tract;

**THENCE** with said west right-of-way line of Newberry Street, the following courses and distances:

South  $00^{\circ}54'04''$  East, a distance of 1,017.63 feet to a mag nail found for corner; South  $00^{\circ}15'08''$  East, a distance of 528.02 feet to a mag nail found for the southeast corner of said 36.2936 acre tract;

**THENCE** departing said west right-of-way line of Newberry Street and with the south lines of said 36.2936 acre tract, the following courses and distances:

North 89°37'53" West, a distance of 386.34 feet to a 5/8-inch iron rod with plastic cap stamped "KHA" set for corner;

South 03°58'25" West, a distance of 220.82 feet to a 5/8-inch iron rod with plastic cap stamped "KHA" set for corner;

South 89°33'50" West, a distance of 208.55 feet to a 1/2-inch iron rod with plastic cap stamped "RLG INC." found for corner;

South 04°33'47" West, a distance of 137.17 feet to a 5/8-inch iron rod with plastic cap stamped "KHA" set for corner;

South 88°30'29" West, a distance of 222.05 feet to a 5/8-inch iron rod with plastic cap stamped "KHA" set for corner, from said point a 5/8-inch iron rod found bears North 82°58'06" West, a distance of 0.43 feet;

North 01°09'14" East, a distance of 63.04 feet to a 1/2-inch iron rod with illegible yellow cap found for corner;

South 88°38'35" West, a distance of 260.85 feet to a 1/2-inch iron rod with plastic cap stamped "DC&A" found for the southwest corner of said Newberry Distribution Owner, LLC tract and being in the east line of a tract of land described in Deed Without Warranty to Dallas Area Rapid Transit (DART), recorded in Instrument No. 201500321792 of said Official Public Records;

THENCE with said east line of the DART tract, the following courses and distances:

Notice of Closed Municipal Solid Waste Landfill -- EXHIBIT A

North 08°49'32" East, a distance of 893.97 feet to a 5/8-inch iron rod with plastic cap stamped "KHA" set for corner;

North 89°50'32" East, a distance of 25.31 feet to a 5/8-inch iron rod with plastic cap stamped "KHA" set for corner;

North 08°49'32" East, a distance of 924.45 feet to a 1/2-inch iron rod with "RLG INC." cap found for the northwest corner of said Newberry Distribution Owner, LLC tract and being in said south right-of-way line of Interstate Highway 635;

**THENCE** departing said east line of the DART tract and with said south right-of-way line of Interstate Highway 635, the following courses and distances:

North 88°31'26" East, a distance of 539.38 feet to a 1/2-inch iron rod with "RLG INC." cap found for corner; North 80°18'18" East, a distance of 234.09 feet to a 1/2-inch iron rod found for corner; North 88°15'59" East, a distance of 10.00 feet to the **POINT OF BEGINNING** and containing 1,580,950 square feet or 36.2936 acres of land, more or less.

Bearings are based State Plane Coordinate System, North Texas Central Zone 4202, North American Datum of 1983 (2011).

Description of measured bearings and distances based on this survey.

## RECORD PROPERTY DESCRIPTION

## TRACT 1:

**BEING** a 1,580,949 square foot (36.2936 acre) tract of land situated in the William M. Cochran Survey, Abstract No. 279, City of Dallas, Dallas County, Texas, being all of a called 36.376 acre tract of land described in a Special Warranty Deed to LD FOLSOM LAND LLC, recorded in Instrument Number 20200003105, Official Public Records, Dallas County, Texas, and being more particularly described as follows:

**BEGINNING** at a MAG nail set at the intersection of the west right-of-way line of Newberry Street (variable width right-of-way) and the south right-of-way line of Lyndon B. Johnson Freeway, a.k.a. Interstate 635 (a variable width right-of-way, created by Volume 74082, Page 564, Deed Records, Dallas County, Texas) for the northeast corner of said LD Folsom Land tract, from which a found 1/2" iron rod with yellow plastic cap stamped "HALFF ASSOCIATES" for the northwest corner of Lot 1, Block B/6558, Columbia Center West, an addition to the City of Dallas, Dallas County, Texas, according to the plat recorded in Volume 88208, Page 2310, Deed Records, Dallas County, Texas, bears North 86° 30' 55" East, a distance of 52.03 feet;

**THENCE** along the common line between said Newberry Street and said 36.376 acre tract, the following courses and distances:

South 00°54'04" East, a distance 1,017.63 feet to a MAG nail set for corner;

South 00°15'08" East, a distance 528.02 feet to a MAG nail set for the southeast corner of said 36.376 acre tract, from which a found 1/2" iron rod with yellow plastic cap (illegible) for a southwest corner of Lot 2A, Block B/6557, of said Columbia Center West, bears South 36° 21' 19" East, a distance of 110.33 feet;

**THENCE** North 89°37'53" West, along a south line of said 36.376 acre tract, passing a 1/2" iron rod with a red plastic cap stamped "PEISER-MANKIN-SURVEY" found for the northeast corner of a called 2.69 acre tract of land described in a Special Warranty Deed to 11517 Newberry, LP, recorded Volume 2003093, Page 10287, Deed Records, Dallas County, Texas, at 10.35 feet and continuing for a total distance of 386.34 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for an interior ell corner of said 36.376 acre tract, from which a found 1/2" iron rod with red plastic cap stamped "PEISER-MANKIN-SURVEY" bears South 37° 17' 55" East, a distance of 5.17 feet;

**THENCE** South 03°58'25" West, along said common line between said 36.376 acre tract and said 2.69 acre tract, a distance 220.82 feet to a point for an exterior ell corner of said 36.376 acre tract and the northeast corner of a called 0.65 acre tract of land described as Tract 1 in a Special Warranty Deed with Vendor's Lien to HNG Properties, LLC, recorded in Instrument No. 201500006463, Official Public Records, Dallas County, Texas, from which a found 1/2" iron rod bears South 39° 09' 57" East, a distance of 0.39 feet;

**THENCE** South 89°33'50" West, along the common line between said 36.376 acre tract and said 0.65 acre tract, a distance 208.55 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for an interior ell corner for said 36.376 acre tract and the northwest corner of said 0.65 acre tract, from which a found I" iron rod with punch hole bears South 07° 34' 27" West, a distance of 7.23 feet;

**THENCE** South 04°33'47" West, along the common line between said 36.376 acre tract and said 0.65 acre tract, a distance 137.17 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set on the north line of a tract of land described in a Special Warranty Deed with Vendor's Lien to GATLIN DENTON PARTNERSHIP, LP, recorded in Instrument Number 20080069286, Official Public Records, Dallas County, Texas;

**THENCE** South 88°30'29" West, along the common line between said 36.376 acre tract and said GATLIN DENTON PARTNERSHIP tract, a distance 222.05 feet to a an exterior ell corner of said 36.376 acre tract, from which a found 5/8" iron rod bears North 82° 58' 06" West, a distance of 0.43 feet;

**THENCE** North 01 °09'14" East, along a west line of said 36.376 acre tract, a distance 63.04 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for an interior ell corner of said 36.376 acre tract;

**THENCE** South 88°38'35" West, along a south line of said 36.376 acre tract, a distance 260.85 feet to a 1/2" iron rod with yellow plastic cap stamped "DC&A" found on the east line of a tract of land described in Special Warranty Deed to the CITY OF DALLAS, recorded in Volume 86057, Page 342, Deed Records, Dallas County, Texas, for the southwest corner of said 36.376 acre tract;

**THENCE** along the common line between said 36.376 acre tract and said CITY OF DALLAS tract, the following bearings and distances:

North 08°49'32" East, passing at a distance of 75.10 feet a 1/2" iron rod found and continuing for a total distance 893.97 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for corner;

North 89°50'32" East, a distance 25.31 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for corner, from which a found 1/2" iron rod bears South 04° 22' 12" East, a distance of 2.36 feet;

North 08°49'32" East, a distance 924.45 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set on the south right-of-way line of said Lyndon B. Johnson Freeway, for the northwest corner of said 36.376 acre tract;

**THENCE** along the common line between the south right-of-way line of said Lyndon B. Johnson Freeway and the north line of said 36.376 acre tract, the following bearings and distances:

North 88°31'26" East, a distance 539.38 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for corner;

North 80°18'18" East, a distance 234.09 feet to a 1/2" iron rod with yellow plastic cap stamped "RLG INC" set for corner;

North 88°15'59" East, a distance 10.00 feet to the **POINT OF BEGINNING**, containing 1,580,949 square feet or 36.2936 acres of land, more or less.

Bearings are based State Plane Coordinate System, North Texas Central Zone 4202, North American Datum of 1983 (2011).

Record description based on a called 36.2936 acre tract of land described in Special Warranty Deed to Newberry Distribution Owner, LLC, recorded in Instrument No. 202100372754, Official Public Records, Dallas County, Texas.

## TRACT 2 (Easement Estate):

Perpetual easement for drainage, flow, runoff and movement of water as more fully described in Valley Storage Easement Agreement granted to Newberry Distribution Owner, LLC, by instrument filed December 13, 2021, under Instrument No. 202100370709, Official Public Records of Dallas County, Texas.

## Dallas County John F. Warren Dallas County Clerk

Instrument Number: 202400183312

eRecording - Real Property

Recorded On: September 11, 2024 11:33 AM

Number of Pages: 7

**Record and Return To:** 

Simplifile

" Examined and Charged as Follows: "

Total Recording: \$45.00

## \*\*\*\*\*\*\*\*\*\*\* THIS PAGE IS PART OF THE INSTRUMENT \*\*\*\*\*\*\*\*\*\*

Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY because of color or race is invalid and unenforceable under federal law.

#### File Information:

Document Number:	202400183312
Receipt Number:	20240911000033
Recorded Date/Time:	September 11, 2024 11:33 AM
User:	Tineka S
Station:	Cc102

#### STATE OF TEXAS COUNTY OF DALLAS

I hereby certify that this Instrument was FILED In the File Number sequence on the date/time printed hereon, and was duly RECORDED in the Official Records of Dallas County, Texas.

John F. Warren Dallas County Clerk Dallas County, TX

## [EXHIBIT]

## NOTICE TO LESSEES AND OCCUPANTS

## OF CLOSED MUNICIPAL SOLID WASTE LANDFILL

## [30 TAC §330.963]

## LANDLORD: PR III/CRE 635 Exchange Holdings, LP ("Landlord")

PROPERTY: See attached <u>Schedule "A"</u> (the "<u>Property</u>")

In compliance with Chapter 361, Subchapter R of the Health and Safety Code (the "<u>Code</u>") and the rules of the Texas Commission on Environmental Quality published in Sections 330.951 through 330.963 of Subchapter T, Chapter 330, Title 30 of the Texas Administrative Code (the "<u>TCEQ Rules</u>"), you are hereby notified of the following:

- 1. <u>Prior Use of the Property as a Municipal Solid Waste Landfill</u>. Historical information indicates that the Property operated as a Type I City of Dallas landfill from the mid-1970s until the early 1980s (MSW 63), when it was reportedly closed.
- 2. <u>Structural Controls</u>. To minimize the potential future danger posed by the closed municipal solid waste landfill on the Property, Landlord has instituted the following structural controls on the Property:
  - a. A methane gas control system consisting of a methane barrier and ventilation system has been installed beneath the building on the Property. Automatic methane gas sensors have been installed within the venting pipe, the permeable gas layer and/or inside the building and any other structure in order to trigger an audible alarm when methane gas concentrations greater than 20% LEL methane are detected. The property manager of the Property (the "<u>Manager</u>") is trained in the operation and assessment of the methane monitoring system.
  - b. The following Safety Plan has been instituted on the Property:
    - i. Smoking shall not be permitted within 20-feet of any methane vent outlet on the Property. Methane Vent outlets are located on the roof of the building.
    - Field operations, which could result in the generation of sparks or other ignition sources (i.e. grinding, drilling, welding, engine maintenance) shall not be permitted within 20-feet of any methane vent on the Property. Methane Vent outlets are located on the roof of the building.
    - iii. In the event that a continuous methane detector sounds an audible alarm within a building on the Property, the Manager shall notify the lessees and current occupants in any affected building of the alarm and shall

communicate the need to evacuate an affected building immediately. Additional operation-specific protocols will be established by the Manager.

- iv. The Manager shall immediately notify the City of Dallas Fire Department (the "<u>Fire Department</u>") that a methane monitor has indicated a build-up of methane in excess of 20% LEL methane. Manager shall inform the Fire Department that evacuation of the affected building is under way and shall request that the Fire Department respond to the Property.
- v. When the evacuation announcement is made, all occupants present in the affected building shall immediately cease their activities and leave the building via the nearest exit.
- vi. The Manager shall make a survey of the affected building to ensure that all current occupants have been evacuated from the building. All doors will be locked to prevent re-entry to the affected building without the approval of the Manager.
- vii. After exiting the affected building, all occupants shall meet in the parking area adjacent to the building. The Manager shall verify and ensure that all occupants are present and accounted for. One or more designated officials shall be stationed a safe distance from the affected building (i.e. 50-feet or more) to prevent persons from approaching the affected building. After it has been confirmed that all occupants are present, all persons shall remain in the parking lot to await the arrival of the Fire Department.
- viii. No personnel shall be allowed to return to the building until the Fire Department has indicated the building is safe to re-enter. Manager shall not approve re-entry into the affected building until Manager has received the Fire Department's approval.
- ix. A summary of the evacuation details including the location and concentration of methane shall be entered into the operating record and submitted to the Texas Commission on Environmental Quality.

## [SIGNATURE PAGE FOLLOWS]



**APPENDIX M** 

Permit Modifications (Not Applicable)

Page M.1, October 1, 2024

THE VERTEX COMPANIES, LLC 3030 LBJ FWY, STE 1620 DALLAS, TX 75234

BETTERING OUTCOMES | VERTEXENG.COM 214.499.9234



The Vertex Companies, LLC For All Inquiries call 214.499.9234 **vertexeng.com**