Our Review of Your Application

The Edwards Aquifer Program staff conducts an administrative and technical review of all applications. The turnaround time for administrative review can be up to 30 days as outlined in 30 TAC 213.4(e). Generally administrative completeness is determined during the intake meeting or within a few days of receipt. The turnaround time for technical review of an administratively complete Edwards Aquifer application is 90 days as outlined in 30 TAC 213.4(e). Please know that the review and approval time is directly impacted by the quality and completeness of the initial application that is received. In order to conduct a timely review, it is imperative that the information provided in an Edwards Aquifer application include final plans, be accurate, complete, and in compliance with <u>30 TAC 213</u>.

Administrative Review

1. <u>Edwards Aquifer applications</u> must be deemed administratively complete before a technical review can begin. To be considered administratively complete, the application must contain completed forms and attachments, provide the requested information, and meet all the site plan requirements. The submitted application and plan sheets should be final plans. Please submit one full-size set of plan sheets with the original application, and half-size sets with the additional copies.

To ensure that all applicable documents are included in the application, the program has developed tools to guide you and web pages to provide all forms, checklists, and guidance. Please visit the below website for assistance: <u>http://www.tceq.texas.gov/field/eapp</u>.

- 2. This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.
- 3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.
- 4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.

An appointment should be made to resubmit the application. The application is re-examined to ensure all deficiencies are resolved. The application will only be deemed administratively complete when all administrative deficiencies are addressed.

- 5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.
- 6. If the geologic assessment was completed before October 1, 2004 and the site contains "possibly sensitive" features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

Technical Review

- 1. When an application is deemed administratively complete, the technical review period begins. The regional office will distribute copies of the application to the identified affected city, county, and groundwater conservation district whose jurisdiction includes the subject site. These entities and the public have 30 days to provide comments on the application to the regional office. All comments received are reviewed by TCEQ.
- 2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be

clearly marked, features identified in the geologic assessment should be flagged, roadways marked and the alignment of the Sewage Collection System and manholes should be staked at the time the application is submitted. If the site is not marked the application may be returned.

- 3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or will be denied. Please note that because the technical review is underway, whether the application is withdrawn or denied the application fee will be forfeited.
- 4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

Mid-Review Modifications

It is important to have final site plans prior to beginning the permitting process with TCEQ to avoid delays.

Occasionally, circumstances arise where you may have significant design and/or site plan changes after your Edwards Aquifer application has been deemed administratively complete by TCEQ. This is considered a "Mid-Review Modification". Mid-Review Modifications may require redistribution of an application that includes the proposed modifications for public comment.

If you are proposing a Mid-Review Modification, two options are available:

- If the technical review has begun your application can be denied/withdrawn, your fees will be forfeited, and the plan will have to be resubmitted.
- TCEQ can continue the technical review of the application as it was submitted, and a modification application can be submitted at a later time.

If the application is denied/withdrawn, the resubmitted application will be subject to the administrative and technical review processes and will be treated as a new application. The application will be redistributed to the affected jurisdictions.

Please contact the regional office if you have questions. If your project is located in Williamson, Travis, or Hays County, contact TCEQ's Austin Regional Office at 512-339-2929. If your project is in Comal, Bexar, Medina, Uvalde, or Kinney County, contact TCEQ's San Antonio Regional Office at 210-490-3096

Please fill out all required fields below and submit with your application.

1. Regulated Entity N	owe's	Home C	enters,	, LLC	2. Regulated Entity No.:						
3. Customer Name: Lowe's Home Centers, LLC							4. Customer No.:				
5. Project Type: (Please circle/check one)	New		Modification			Extension		Exception			
6. Plan Type: (Please circle/check one)	k one) WPAP CZP SCS UST AST EXP EXT		Technical Clarification	Optional Enhanced Measures							
7. Land Use: (Please circle/check one)	Resider	ntial	Non-r	itial		8. Sit	e (acres):	+/-31.09			
9. Application Fee:	\$6,500 + \$ \$7,6	1,153 = 53	10. Pe	ermar	nent E	BMP(s):	one (1)			
11. SCS (Linear Ft.):	2,30	7	12. AS	ST/US	ST (No	o. Tar	nks):	none			
13. County:	William	ison	14. W	aters	hed:			Berry Creek			

Application Distribution

Г

Instructions: Use the table below to determine the number of applications required. One original and one copy of the application, plus additional copies (as needed) for each affected incorporated city, county, and groundwater conservation district are required. Linear projects or large projects, which cross into multiple jurisdictions, can require additional copies. Refer to the "Texas Groundwater Conservation Districts within the EAPP Boundaries" map found at:

http://www.tceq.texas.gov/assets/public/compliance/field_ops/eapp/EAPP%20GWCD%20map.pdf

For more detailed boundaries, please contact the conservation district directly.

AUSTITIREGION										
County:	Hays	Travis	Williamson							
Original (1 req.)										
Region (1 req.)			_							
County(ies)										
Groundwater Conservation District(s)	Edwards Aquifer Authority Barton Springs/ Edwards Aquifer Hays Trinity Plum Creek	Barton Springs/ Edwards Aquifer	NA							
City(ies) Jurisdiction	Austin Buda Dripping Springs Kyle Mountain City San Marcos Wimberley Woodcreek	Austin Bee Cave Pflugerville Rollingwood Round Rock Sunset Valley West Lake Hills	Austin Cedar Park Florence ✔Georgetown Jerrell Leander Liberty Hill Pflugerville Round Rock							

San Antonio Region									
County:	Bexar	Comal	Kinney	Medina	Uvalde				
Original (1 req.)									
Region (1 req.)									
County(ies)									
Groundwater Conservation District(s)	Edwards Aquifer Authority Trinity-Glen Rose	Edwards Aquifer Authority	Kinney	EAA Medina	EAA Uvalde				
City(ies) Jurisdiction	Castle Hills Fair Oaks Ranch Helotes Hill Country Village Hollywood Park San Antonio (SAWS) Shavano Park	Bulverde Fair Oaks Ranch Garden Ridge New Braunfels Schertz	NA	San Antonio ETJ (SAWS)	NA				

ustin Region

I certify that to the best of my knowledge, that the application is complete and accurate. This
application is hereby submitted to TCEQ for administrative review and technical review.

Todd Simmons Print Name of Customer/Authorized Agent -1.4 S Signature of Customer/Authorized Agent

09-27-2023

Date

FOR TCEQ INTERNAL USE ONLY								
Date(s)Reviewed:		Date Administratively Complete:						
Received From:		Correct Number of Copies:						
Received By:		Distribution Date:						
EAPP File Number:		Complex:						
Admin. Review(s) (No.):		No. AR Rounds:						
Delinquent Fees (Y/N):		Review Time Spent:						
Lat./Long. Verified:		SOS Cust	omer Verification:					
Agent Authorization Complete/Notarized (Y/N):		Fee	Payable to TCEQ (Y/N):					
Core Data Form Complete (Y/N):		Check:	Signed (Y/N):					
Core Data Form Incomplete Nos.:		Less than 90 days old (Y/N):						

General Information Form

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge and Transition Zones and Relating to 30 TAC §213.4(b) & §213.5(b)(2)(A), (B) Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **General Information Form** is hereby submitted for TCEQ review. The application was prepared by:

Print Name of Customer/Agent: Freeland & Kauffman, Inc. - Attn: Todd Simmons

Date:<u>09-27-2023</u>

Signature of Customer/Agent:

- 10-44 5

Project Information

- 1. Regulated Entity Name: Lowe's Home Centers, LLC
- 2. County: Williamson
- 3. Stream Basin: Berry Creek
- 4. Groundwater Conservation District (If applicable): N/A
- 5. Edwards Aquifer Zone:



6. Plan Type:

V WPAP	AST
SCS	UST
Modification	Exception Request

7. Customer (Applicant):

Contact Person: <u>KK Yeow</u> Entity: <u>Lowe's Home Centers, LLC</u> Mailing Address: <u>1000 Lowe's Boulevard</u> City, State: <u>Mooresville, NC</u> Telephone: <u>214-491-7835</u> Email Address: <u>kk.yeow@lowes.com</u>

Zip: <u>28117</u> FAX: _____

8. Agent/Representative (If any):

Contact Person: <u>Todd Simmons, PE</u> Entity: <u>Freeland & Kauffman, Inc.</u> Mailing Address: <u>209 West Stone Avenue</u> City, State: <u>Greenville, SC</u> Telephone: <u>864-672-3426</u> Email Address: <u>tsimmons@fk-inc.com</u>

Zip: <u>29609</u> FAX: _____

9. Project Location:

The project site is located inside the city limits of <u>Georgetown.</u>

_ The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of _____.

- The project site is not located within any city's limits or ETJ.
- 10. The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

Existing vacant parcel on north side of Jesse Cocke Dr. @ west side of IH-35 access road, & east side of existing Holt Cat facility

- 11. Attachment A Road Map. A road map showing directions to and the location of the project site is attached. The project location and site boundaries are clearly shown on the map.
- 12. Attachment B USGS / Edwards Recharge Zone Map. A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') of the Edwards Recharge Zone is attached. The map(s) clearly show:
 - Project site boundaries.
 - VIUSGS Quadrangle Name(s).

W Boundaries of the Recharge Zone (and Transition Zone, if applicable).

I Drainage path from the project site to the boundary of the Recharge Zone.

- 13. The TCEQ must be able to inspect the project site or the application will be returned. Sufficient survey staking is provided on the project to allow TCEQ regional staff to locate the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment.
 - Survey staking will be completed by this date:07-15-2023

- 14. Attachment C Project Description. Attached at the end of this form is a detailed narrative description of the proposed project. The project description is consistent throughout the application and contains, at a minimum, the following details:
 - Area of the site
 Offsite areas
 Impervious cover
 Permanent BMP(s)
 Proposed site use
 - Site history
 - Previous development
 - Area(s) to be demolished
- 15. Existing project site conditions are noted below:
 - Existing commercial site
 Existing industrial site
 Existing residential site
 Existing paved and/or unpaved roads
 Undeveloped (Cleared)
 Undeveloped (Undisturbed/Uncleared)
 Other: _____

Prohibited Activities

- 16. I am aware that the following activities are prohibited on the Recharge Zone and are not proposed for this project:
 - (1) Waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);
 - (2) New feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;
 - (3) Land disposal of Class I wastes, as defined in 30 TAC §335.1;
 - (4) The use of sewage holding tanks as parts of organized collection systems; and
 - (5) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).
 - (6) New municipal and industrial wastewater discharges into or adjacent to water in the state that would create additional pollutant loading.
- 17. I am aware that the following activities are prohibited on the Transition Zone and are not proposed for this project:
 - (1) Waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);
 - (2) Land disposal of Class I wastes, as defined in 30 TAC §335.1; and

(3) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

Administrative Information

- 18. The fee for the plan(s) is based on:
 - For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur.
 - For an Organized Sewage Collection System Plan or Modification, the total linear footage of all collection system lines.
 - For a UST Facility Plan or Modification or an AST Facility Plan or Modification, the total number of tanks or piping systems.
 - A request for an exception to any substantive portion of the regulations related to the protection of water quality.
 - A request for an extension to a previously approved plan.
- 19. Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

TCEQ cashier

 Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
 San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

- 20. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
- 21. Mo person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.

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20

15

County Rd 190 A

A REAL PROVIDENCE

Cowes of Georgeton, TX

SIN 35 Service Ro

35

SIH 35 Service Rd

(U)

Lakeway Dr

Aviator Gallery

Attport Rd

School



1000 ft

Vanguard Truck Centers - Georgetown

Norrell Electric - Georgetown El

SIH 35 Service Ra

35



Edwards Aquifer Viewer Custom Print



Edwards Aquifer Boundary

TX Counties

7.5 Minute Quad Grid

TCEQ_EDWARDS_OFFICIAL_MAPS

0.25 0.5 mi 0.13 ┥ 0.2 0.4 0.8 km 0

Edwards Aquifer Boundary central line City/Place

> County of Williamson, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA, TCEQ

LOWE'S GEORGETOWN - PROJECT DESCRIPTION

Area:

This +/-31.09 acre project is located on the west side of IH-35 access and on the north side of Jesse Cocke Drive in Georgetown Texas. The purpose is to build a +/-110,341 sf Lowe's retail building with associated parking areas, driveways, utilities, stormwater management systems, and landscaping in addition to providing 3 residual properties for future development.

Offsite Areas:

Adjacent to the west side of the project is the existing Holt Cat facility which has a +/-5.03 ac drainage area that sheds water onto the project's parcel. A proposed stormdrain in the northwest corner of the project will carry the off-site run on around the proposed improvements to discharge on the south side of the existing private access drive as does the pre-developed drainage pattern.

Impervious cover:

In the existing conditions, no impervious areas are on-site. The proposed conditions include +/-10.05 acres of impervious for the Lowe's tract and account for +/-3.84 acres of impervious for Parcel 1, +/-4.01 acres of impervious for Parcel 2, +/-2.55 acres of impervious for Parcel 3 which totals 20.46 acres of impervious for the future developed condition.

Permanent BMP's:

A shared wet-detention basin is proposed on the northern side of the site adjacent to the private access drive that will serve the future-developed conditions of the site for both water quality and quantity requirements.

<u>Proposed Site Use:</u> The proposed use is commercial development for retail uses.

<u>Site History:</u> The site is historically un-developed and was historically used for farming and ranching.

<u>Previous Development:</u> No previous development has occurred on the site.

<u>Area(s) to be Demolished:</u> No area(s) are proposed to be demolished.



Environmental Services, Inc.

GEOLOGIC ASSESSMENT APPROXIMATELY 75-ACRE GEORGETOWN TRACT BETWEEN AIRPORT ROAD AND INTERSTATE 35 GEORGETOWN, WILLIAMSON COUNTY, TEXAS HJN 160186 GA

PREPARED FOR:

BEFCO ENGINEERING, INC. LA GRANGE, TEXAS

PREPARED BY:

HORIZON ENVIRONMENTAL SERVICES, INC. TBPG FIRM REGISTRATION NO. 50488



NOVEMBER 2016

160186 75 ac Georgetown Tract GA

CORPORATE HEADQUARTERS 1507 S Interstate 35 ★ Austin, TX 78741-2502 ★ (512) 328-2430 ★ www.horizon-esi.com Certified WBE/HUB/DBE/SBE



TABLE OF CONTENTS

I. GEOLOGIC ASSESSMENT FORM (TCEQ-0585)

II. ATTACHMENTS:

- A GEOLOGIC ASSESSMENT TABLE
- B STRATIGRAPHIC COLUMN
- C DESCRIPTION OF SITE GEOLOGY
- D SITE GEOLOGIC MAP
- E SUPPORTING INFORMATION
- F ADDITIONAL SITE MAPS
- G SITE PHOTOGRAPHS
- H ADDITIONAL DATA

Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: James Killian

Telephone: 512 328-2430

Date: 14 October 2016

Fax: 512 328-1804

Representing: <u>Horizon Environmental Services, Inc. and TBPG Firm Registration No. 50488</u> (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:

Jullie



Regulated Entity Name: <u>75-acre tract, between Airport Road & I-35, Georgetown, Williamson</u> <u>Co., Texas</u>

Project Information

- 1. Date(s) Geologic Assessment was performed: 10 October 2016
- 2. Type of Project:

\ge	WPAP
\boxtimes	SCS

- 3. Location of Project:

\times	Reck	nar	ge	Zone
			-	

Transition Zone

Contributing Zone within the Transition Zone

- 4. X Attachment A Geologic Assessment Table. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.
- 5. Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

C 11 N	^ *	.
Soil Name	Group*	Thickness(feet)
Crawford clay,		
0-1% slopes		
(CfA)	D	1 to 3
Denton silty		
clay, 1-3%		
slopes (DnB)	D	1 to 3
Denton silty		
clay, 3-5%		
slopes (DnC)	D	1 to 3
Eckrant cobbly		
clay, 1-8%		
slopes (EaD)	D	1 to 3

Table 1 - Soil Units, InfiltrationCharacteristics and Thickness

Soil Name	Group*	Thickness(feet)
Houston Black clay, 0-1%		
slopes (HuA)	D	4 to 6

- * Soil Group Definitions (Abbreviated)
 - A. Soils having a high infiltration rate when thoroughly wetted.
 - B. Soils having a moderate infiltration rate when thoroughly wetted.
 - C. Soils having a slow infiltration rate when thoroughly wetted.
 - D. Soils having a very slow infiltration rate when thoroughly wetted.
- 6. Attachment B Stratigraphic Column. A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.
- 7. Attachment C Site Geology. A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.
- 8. Attachment D Site Geologic Map(s). The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1": 400'

Applicant's Site Plan Scale: 1" = <u>200</u>' Site Geologic Map Scale: 1" = <u>200</u>' Site Soils Map Scale (if more than 1 soil type): 1" = <u>500</u>'

- 9. Method of collecting positional data:
 - Global Positioning System (GPS) technology.
 - Other method(s). Please describe method of data collection: _____
- 10. The project site and boundaries are clearly shown and labeled on the Site Geologic Map.
- 11. Surface geologic units are shown and labeled on the Site Geologic Map.
- 12. Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.
 - Geologic or manmade features were not discovered on the project site during the field investigation.
- 13. The Recharge Zone boundary is shown and labeled, if appropriate.
- 14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.
 - There are $\underline{2}$ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
 - \boxtimes The wells are not in use and have been properly abandoned.
 - The wells are not in use and will be properly abandoned.
 - igtimes The wells are in use and comply with 16 TAC Chapter 76.
 - There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

15. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.



ATTACHMENT A

GEOLOGIC ASSESSMENT TABLE

GEOL	GEOLOGIC ASSESSMENT TABLE							PROJECT NAME: 75-acre tract, Airport Road, Georgetown, Williamson Co., T									n Co., TX			
	LOCATIC	DN				FEA	FEATURE CHARACTERISTICS							EVAL	UAT	ION	PHYS	SICAL	. SETTING	
1A	1B *	1C*	2A	2B	3		4	5 5A 6		7	8A	8B	9	10		11		12		
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIME	NSIONS (FEET)	TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENS	ΙΤΙVΙΤΥ	CATCHME (ACF	ENT AREA RES)	TOPOGRAPHY
						Х	Y	Z		10						<40	<u>>40</u>	<1.6	<u>>1.6</u>	
F-1	30.507961	97.676469	F	20	Qt/Kdg	250	10		N15E	10	-		C,F,O	7	37	Х		Х		Hillside
M-1	30.67615	97.67615	MB	30	Kdg/Ked	0.2	0.2			0			Ν, Χ	5	35	Х		Х		Hillside
M-2	30.6762	97.66866	MB	30	Qt/Ked	0.2	0.2			0			Ν, Χ	5	35	Х		Х		Hillside
* DATUN	1:																			
2A TYPE		TYPE			2B POINTS	8A INFILLING														
С	Cave				30		N	None	, exposed	d bec	Irock									
SC	Solution cavity				20		с	Coar	se - cobb	les, t	reakdo	wn, sand	l, gravel							
SF	Solution-enlarge	ed fracture(s)			20		0	1 005	e or soft r	nudi	or soil d	organics	leaves sti	cks dark co	lors					
F.	Fault				20		F	Fines	compac	ted o	lav-rich	sedimer	nt. soil prof	ile, grav or r	ed color	s				
0	Other natural be	edrock features			5		v	Vege	tation. Gi	ve de	etails in	narrative	descriptio	n.		-				
MB	Manmade featu	ire in bedrock			30		FS	Flows	stone, cer	nent	s, cave	deposits								
SW	Swallow hole				30		х	Othe	r material	s: M-	1 plugg	ged & ab	andoned	well; M-2 ce	emented	d well	casin	g		
SH	Sinkhole				20	20														
CD	Non-karst close	d depression			5	5 12 TOPOGRAPHY														
z	Zone, clustered	l or aligned featu	res		30				Clif	f, H	illtop	, Hillsi	de, Dra	inage, F	Flood	plair	n, St	ream	bed	
2	STATE OF TE	TAS SAL	I have r	ead, I u	nderstood, a	nd I ha	ive fol	lowed	the Texa	is Co	mmissi	on on En	vironmenta	al Quality's I	nstructio	ons to	Geolo	ogists.	The	



I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. Th information presented here complies with that document and is a true representation of the conditions observed in the field.

My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213. Date : October 10, 2016

Jame P. Willen

Sheet ___1___ of __1____

TCEQ-0585-Table (Rev. 10-01-04)



ATTACHMENT B STRATIGRAPHIC COLUMN



160186 - Holt Cat Georgetown\Graphics\160186A12GA_Strat.mxd | GLS | 10-27-2016



ATTACHMENT C DESCRIPTION OF SITE GEOLOGY

Geologic information for the subject site obtained via literature review is provided in Attachment E, Supporting Information.

A geologic assessment of the 75-acre Georgetown Tract was conducted pursuant to Texas rules for regulated activities on the Edwards Aquifer Recharge Zone (EARZ) (30 TAC 213). The subject site is a rural homestead with open pastureland and farmland located between Airport Road and Interstate 35, in Georgetown, Williamson County, Texas. Assessment findings were used to develop recommendations for site construction measures intended to be protective of water resources at the subject site and adjacent areas.

The entire subject site is located within the EARZ, as defined by the Texas Commission on Environmental Quality (TCEQ). The EARZ occurs where surface water enters the subsurface through exposed limestone bedrock containing faults, fractures, sinkholes, and caves.

Most of the subject site has thin, overlying deposits of Terraces along Streams (Qt). Additionally, a small portion located near the northwestern corner of the site is underlain by the Del Rio Clay and Georgetown Formation undivided (Kdg) (UT-BEG 1981). Underlying the Del Rio Clay and Georgetown Formation undivided is the Edwards Limestone (Ked).

One natural geologic feature (fault, F-1) and 2 manmade features (water wells, M-1 and M-2) were identified at the subject site. Further information pertaining to the geologic and manmade features is presented in the following Attachments D, E, and F. Photographs of the subject site are presented in Attachment G.



ATTACHMENT D SITE GEOLOGIC MAP





ATTACHMENT E SUPPORTING INFORMATION

1.0 INTRODUCTION AND METHODOLOGY

This report and any proposed abatement measures are intended to fulfill Texas Commission on Environmental Quality (TCEQ) reporting requirements (TCEQ, 2005). This geologic assessment includes a review of the subject site for potential aquifer recharge and documentation of general geologic characteristics for the subject site. Horizon Environmental Services, Inc. (Horizon) conducted the necessary field and literature studies according to TCEQ *Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones* (TCEQ, 2004).

Horizon walked transects spaced less than 50 feet apart, mapped the locations of features using a sub-foot accurate Trimble Geo HX handheld GPS, and posted processed data utilizing GPS Pathfinder Office software, topographic maps, and aerial photographs. Horizon also searched the area around any potential recharge features encountered to look for additional features. When necessary, Horizon removed loose rocks and soil (by hand) to preliminarily assess each feature's subsurface extent while walking transects. However, labor-intensive excavation was not conducted during this assessment. Features that did not meet the TCEQ definition of a potential recharge feature (per TCEQ, 2004), such as surface weathering, karren, or animal burrows, were evaluated in the field and omitted from this report.

The results of this survey do not preclude the possibility of encountering subsurface voids or abandoned test or water wells during the clearing or construction phases of the proposed project. If a subsurface void is encountered during any phase of the project, work should be halted until the TCEQ (or appropriate agency) is contacted and a geologist can investigate the feature.

2.0 ENVIRONMENTAL SETTING

2.1 LOCATION AND GENERAL DESCRIPTION

The subject site is located between Airport Road and Interstate 35, in Georgetown, Williamson County, Texas (Attachment F, Figure 1). The subject site consists of approximately 75 acres of open pastureland and farmland located within an area that is experiencing rapid residential and commercial development. A rural homestead with associated livestock pens and work sheds is located at the west side of the site.

2.2 LAND USE

Current land use on the subject site is agricultural and rural single-family residential. Pastureland for cattle grazing occurs on the majority of the site, and an unoccupied one-story house is located on the western portion of the Property. The eastern portion of the site is cropland for livestock feed (hay production). Surrounding lands are generally used for single-family residential, agricultural, and/or retail commercial purposes.



2.3 TOPOGRAPHY AND SURFACE WATER

The subject site is situated on gently sloping terrain within the San Gabriel River watershed (Attachment F, Figures 2 and 3). Surface elevations on the subject site vary from a minimum of approximately 730 feet above mean sea level, within an unnamed tributary of Pecan Branch near the west side of the site, to a maximum of approximately 750 feet above mean sea level near the center (USGS, 1986). Drainage on the site occurs primarily by overland sheet flow from north to south into Pecan Branch, which eventually drains into Berry Creek.

2.4 EDWARDS AQUIFER ZONE

The subject site is within the Edwards Aquifer Recharge Zone (TCEQ, 2016) (Attachment F, Figure 2). The Recharge Zone is described as an area where the stratigraphic units constituting the Edwards Aquifer crop out, including the outcrops of other geologic formations in proximity to the Edwards Aquifer, where caves, sinkholes, faults, fractures, or other permeable features would create a potential for recharge of surface waters into the Edwards Aquifer.

2.5 SURFACE SOILS

Six soil units are mapped within the subject site (NRCS, 2016) (Attachment F, Figure 4). Generally, the soil series are similar in their physical, chemical, and engineering properties, with the principal exception being rock fragment content and thickness. The soil units are described in further detail below.

Crawford clay (CfA) is on foot slopes and shallow valleys on uplands. The surface layer is neutral, dark grayish-brown clay about 6 inches thick. The layer below, to 32 inches, is neutral, dark brown clay. The substratum is fractured, whitish limestone. This soil is well drained, and permeability is very slow. Surface runoff is slow, and the available water capacity is low (NRCS, 2016).

Denton silty clay (DnB) is in shallow valleys and narrow drainageways on uplands. The surface layer is dark brown, silty clay about 33 inches thick. The layer below, to 36 inches, is very pale brown, silty clay loam. The underlying material is fractured limestone and limy material. This is a well drained and slowly permeable soil. Runoff is medium, and the available water capacity is medium (NRCS, 2016).

Denton silty clay (DnC) is in shallow valleys on short side slopes on uplands. The upper layer is dark brown, silty clay about 18 inches thick. The subsoil, to a depth of about 25 inches, is light brown, silty clay loam. The underlying material is limestone interbedded with weathered limestone and limy material. This soil is well drained, and runoff is medium. Permeability is slow, and the available water capacity is medium (NRCS, 2016).

Eckrant cobbly clay (EaD) is on undulating uplands. The surface layer is about 13 inches thick. The upper part is dark grayish-brown, cobbly clay, and the lower part is dark brown, cobbly clay. The underlying material is coarsely fractured indurated limestone. This soil is well



drained, and permeability is moderately slow. Runoff is rapid, and the available water capacity is very low (NRCS, 2016).

Houston Black clay (HuA) is on high ridges and in valleys on uplands. This soil has a dark gray, clay upper layer about 26 inches thick. The layer below, to 52 inches, is dark grayish-brown clay that has mottles of light yellowish-brown. The underlying layer, to 62 inches, is mottled reddish-yellow and brown shaly clay. This soil is moderately well drained, and permeability is very slow. Runoff is very slow because of the nearly level slope. The available water capacity is high (NRCS, 2016).

Krum silty clay (KsA) is on high terraces. This soil has a surface layer of dark grayishbrown, silty clay about 6 inches thick. The subsurface layer, to 26 inches, is very dark grayishbrown, silty clay. The subsoil, to 44 inches, is brown, silty clay. The underlying layer, to 72 inches, is reddish-yellow, silty clay that has a few concretions and soft masses of calcium carbonate. This soil is well drained, and runoff is slow. The permeability is moderately slow, and the available water capacity is high (NRCS, 2016).

2.6 WATER WELLS

A review of TCEQ and Texas Water Development Board (TWDB) records revealed no water wells on the subject site and 9 wells within 0.5 miles of the subject site (TCEQ, 2016; TWDB, 2016). According to the TWDB records, all of the wells are reportedly completed within the Edwards Aquifer at total depths ranging from 148 to 200 feet.

Two private water wells (M-1 and M-2) were observed on the subject site during Horizon's site survey. One abandoned and/or plugged well (M-1) is located immediately west of an unoccupied rock house within a concrete slab near an unused rock cistern at the western portion of the site. This well appears to have been filled and/or plugged to within about 5 feet of the concrete surface. The second private well (M-2) is located about 600 feet due east/southeast of the homestead well, near a small shed that is currently used to water livestock.

The results of this assessment do not preclude the existence of undocumented or abandoned wells on the site. If a water well or casing is encountered during construction, work should be halted near the object until the TCEQ is contacted. If any on-site wells are not intended for future use, they should be capped or properly abandoned according to the Administrative Rules of the Texas Department of Licensing and Regulation (TDLR), 16 Texas Administrative Code (TAC), Chapter 76. A plugging report must be submitted by a licensed water well driller to the TDLR Water Well Driller's Program, Austin, Texas. TCEQ publication RG-347, "Landowner's Guide to Plugging Abandoned Water Wells," provides specific guidance. If a well is intended for use, it must comply with 16 TAC §76.



2.7 GEOLOGY

Literature Review

A review of existing literature indicates most of the subject site is predominately underlain by recent (Quaternary-age) fluviatile terrace deposits (Qt – terraces along streams; i.e., gravel, sand, silt, and clay with more gravel in older, higher terraces) (UT-BEG, 1981), with an estimated maximum thickness of up to approximately 20 feet at higher surface elevations. Underlying these recent deposits is the Del Rio Clay and Georgetown Formation undivided (Kdg). This unit crops out in the northwestern corner of the subject site with an estimated maximum thickness of about 130 feet. The Del Rio Clay is calcareous and gypsiferous, becoming less calcareous and more gypsiferous upward, and pyrite is common. It is blocky, medium-gray, weathers light gray to yellowish-gray, with some thin lenticular beds of highly calcareous siltstone. Marine megafossils include abundant *Exogyra arietina* and other pelecypods; thickness ranges from 40 to 70 feet. The Georgetown Formation consists of limestone and marl. It is fine-grained, argillaceous, nodular, moderately indurated, and light gray; some limestone is hard, brittle, thick-bedded, and white. Marine megafossils include *Kingena wacoensis* and *Gryphaea washitaensis*; thickness ranges from 30 to 80 feet (UT-BEG, 1981).

The subject site is located within the Balcones Fault Zone. Available geologic reports indicate the nearest mapped fault (geologic feature F-1) traverses across the northwestern portion of the site, trending from southwest to northeast (azimuth: N10-15°E) (UT-BEG, 1981). In general, the rock strata beneath the site dip to the southeast at about 10 to 30 feet per mile. The site Stratigraphic Column is provided as Attachment B, and the Site Geologic Map is Attachment D.

Field Assessment

A field survey of the subject site was conducted by a licensed Horizon geologist on 10 October 2016. Horizon identified 1 natural geologic feature, an inactive fault (F-1), on the subject site that meets the TCEQ definition of a potential recharge feature. Two manmade features (M-1 and M-2, private water wells, previously discussed) were identified at the subject site.

Additionally, no springs or creeks were identified at the subject site. According to the Texas Parks and Wildlife Department (TPWD) Natural Diversity Database (NDD) data, there are no occupied sites for any federally listed salamander species within 1 radial mile of the subject site (TPWD, 2016).

The geologic and manmade features were evaluated for their potential to be a significant pathway for fluid movement into the Edwards Aquifer. The Geologic Assessment Table (Attachment A) summarizes this evaluation and assigns each feature's sensitivity a total point value. Features with a point value of 40 or higher are deemed to be sensitive groundwater recharge features and should be protected during site development pursuant to TCEQ rules for protection of the Edwards Aquifer (30 TAC 213).

3.0 CONCLUSIONS AND RECOMMENDATIONS

One natural geologic feature (F-1) and 2 manmade features (M-1 and M-2) were identified at the subject site. Based on assessment findings, the geologic and manmade features would not require protection or mitigation pursuant to TCEQ rules for protection of the Edwards Aquifer (30 TAC 213).

Additionally, no springs, tributaries, and/or creeks were identified within the recharge zone of the subject site that would require protection or mitigation pursuant to the City of Georgetown Edwards Aquifer Recharge Zone Water Quality Ordinance No. 2013-59.

The site generally appears well suited to development prospectuses. It should be noted that soil and drainage erosion would increase with ground disturbance. Native grasses and the cobbly content of the soil aid to prevent erosion. Soil and sedimentation fencing should be placed in all appropriate areas prior to any site-disturbing activities.

Because the subject site is located over the Edwards Aquifer Recharge Zone, it is possible that subsurface voids underlie the site. The nature of the immediate subgrade area is fault-influenced, which can result in variable-sized voids in materials that may otherwise not be noted as void- or cave-forming. If any subsurface voids are encountered during site development, work should halt immediately so that a geologist may assess the potential for the void(s) to provide meaningful contribution to the Edwards Aquifer.



vironmental Services, Inc.

4.0 REFERENCES

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ATTACHMENT F

ADDITIONAL SITE MAPS











ATTACHMENT G

SITE PHOTOGRAPHS




PHOTO 1 View of subject site along Airport Road, location of buried inactive fault (F-1) in background, facing north



PHOTO 2 Opposite view along Airport Road, facing south



PHOTO 3 View of old homestead area with private water well (M-1) near unused rock cistern, facing northeast



PHOTO 4 View of second private water well (M-2, next to golf cart) at work shed near west central part of site, facing northwest



ATTACHMENT H

ADDITIONAL DATA

Surface Soils, continued from GA worksheet, Table 1:

Soil Series Unit Names, Infiltration Characteristics & Thickness					
Soil Series Unit Name & Subgroup**	Group*	Thickness (feet)			
Krum silty clay, 0-1% slopes (KsA)	D	4 to 6			

	*Soil Hydrologic Groups Definitions <i>(Abbreviated)</i>
Α.	Soils having a <u>high infiltration</u> rate when thoroughly wetted.
В.	Soils having a <u>moderate</u> <u>infiltration</u> rate when thoroughly wetted.
C.	Soils having a <u>slow infiltration</u> rate when thoroughly wetted.
D.	Soils having a <u>very slow</u> <u>infiltration</u> rate when thoroughly wetted.
**S <u>Cla</u> Cou	ubgroup Classification – See <u>ssification of Soil Series</u> Table in unty Soil Survey.

Water Pollution Abatement Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Water Pollution Abatement Plan Application Form** is hereby submitted for TCEQ review and Executive Director approval. The form was prepared by:

Print Name of Customer/Agent: Freeland & Kauffman, Inc. - Attn: Todd Simmons

Date: 10-24-2023

Signature of Customer/Agent:

Regulated Entity Name: Lowe's Home Centers, LLC

Regulated Entity Information

- 1. The type of project is:
 - Residential: Number of Lots:
 Residential: Number of Living Unit Equivalents:
 Commercial
 Industrial
 Other:
- 2. Total site acreage (size of property):<u>31.09 ac</u>
- 3. Estimated projected population: 327 pm peak hr trips on IH 35 Access * 2 people per trip = 654 people
- 4. The amount and type of impervious cover expected after construction are shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	136,848	÷ 43,560 =	3.14
Parking	301,040	÷ 43,560 =	6.91
Other paved surfaces	453,247	÷ 43,560 =	10.41
Total Impervious Cover	891,135	÷ 43,560 =	20.46

Total Impervious Cover 20.46 ÷ Total Acreage 31.09 X 100 = 65.81 % Impervious Cover

- 5. **Attachment A Factors Affecting Surface Water Quality**. A detailed description of all factors that could affect surface water and groundwater quality that addresses ultimate land use is attached.
- 6. 🖌 Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

For Road Projects Only

Complete questions 7 - 12 if this application is exclusively for a road project.

- 7. Type of project:
 - TXDOT road project.

County road or roads built to county specifications.

City thoroughfare or roads to be dedicated to a municipality.

Street or road providing access to private driveways.

8. Type of pavement or road surface to be used:

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Concrete
Asphaltic concrete pavement
Other:
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9. Length of Right of Way (R.O.W.): _____ feet.

Width of R.O.W.: _____ feet. L x W = _____ $Ft^2 \div 43,560 Ft^2/Acre = _____ acres.$

10. Length of pavement area: _____ feet.

Width of pavement area: _____ feet.L x W = ____ $Ft^2 \div 43,560 Ft^2/Acre = ____ acres.Pavement area _____ acres \div R.O.W. area _____ acres x 100 = ____% impervious cover.$

11. A rest stop will be included in this project.

A rest stop will not be included in this project.

12. Maintenance and repair of existing roadways that do not require approval from the TCEQ Executive Director. Modifications to existing roadways such as widening roads/adding shoulders totaling more than one-half (1/2) the width of one (1) existing lane require prior approval from the TCEQ.

Stormwater to be generated by the Proposed Project

13. Attachment B - Volume and Character of Stormwater. A detailed description of the volume (quantity) and character (quality) of the stormwater runoff which is expected to occur from the proposed project is attached. The estimates of stormwater runoff quality and quantity are based on the area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

Wastewater to be generated by the Proposed Project

14. The character and volume of wastewater is shown below:

¹⁰⁰ % Dom	estic	8,488	_Gallons/day
% Indu	strial		_Gallons/day
% Com	mingled		_Gallons/day
TOTAL ga	llons/day_ <u>8,488</u> _		

15. Wastewater will be disposed of by:

On-Site Sewage Facility (OSSF/Septic Tank):

Attachment C - Suitability Letter from Authorized Agent. An on-site sewage facility will be used to treat and dispose of the wastewater from this site. The appropriate licensing authority's (authorized agent) written approval is attached. It states that the land is suitable for the use of private sewage facilities and will meet or exceed the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285 relating to On-site Sewage Facilities.

Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

Sewage Collection System (Sewer Lines):

- Private service laterals from the wastewater generating facilities will be connected to an existing SCS.
- Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.
 - The SCS was previously submitted on_____.
- The SCS was submitted with this application.
 -] The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval.

The sewage collection system will convey the wastewater to the <u>North Lake Water Treatment Plant</u> Treatment Plant. The treatment facility is:

\checkmark	Existing.
	Proposed

16. All private service laterals will be inspected as required in 30 TAC §213.5.

Site Plan Requirements

Items 17 – 28 must be included on the Site Plan.

17. The Site Plan must have a minimum scale of 1'' = 400'.

Site Plan Scale: 1" = 60' & 100'

18. 100-year floodplain boundaries:

Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.

No part of the project site is located within the 100-year floodplain.

The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): <u>48491C0291F, Effective 12-20-2019</u>

19. The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, buildings, roads, open space, etc. are shown on the plan.

The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, open space, etc. are shown on the site plan.

20. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):

There are _____ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply)

The wells are not in use and have been properly abandoned.

The wells are not in use and will be properly abandoned.

The wells are in use and comply with 16 TAC §76.

There are no wells or test holes of any kind known to exist on the project site.

21. Geologic or manmade features which are on the site:

All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.

No sensitive geologic or manmade features were identified in the Geologic Assessment.

Attachment D - Exception to the Required Geologic Assessment. A request and justification for an exception to a portion of the Geologic Assessment is attached.

- 22. The drainage patterns and approximate slopes anticipated after major grading activities.
- 23. Areas of soil disturbance and areas which will not be disturbed.
- 24. Cocations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
- 25. M Locations where soil stabilization practices are expected to occur.
- 26. Surface waters (including wetlands).

V/A

27. M Locations where stormwater discharges to surface water or sensitive features are to occur.

There will be no discharges to surface water or sensitive features.

28. 🗹 Legal boundaries of the site are shown.

Administrative Information

- 29. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
- 30. Any modification of this WPAP will require Executive Director approval, prior to construction, and may require submission of a revised application, with appropriate fees.





VECNITY MAP	REVISIONS PRE-BID SET POST BID SET DATE DESCRIPTION DESCRIPTION DESCRIPTION <th< th=""></th<>
POST-DEVELOPMENT DRAINAGE <u>AREA IA</u> SIZE ±29,09 AC.; WEIGHTED CN: 93 GROUNDCOVER SOIL C: GRASS, GOOD COND. (±3.01 AC) CN: 74 IMPERVIOUS COVER (±22.25 AC) CN: 98 SOIL D: GRASS, Good COND. (±3.83 AC) CN: 80 Tc = 18.66 MIN. SHEET FLOW FOR 75' • 100% SLOPE + SHALLOW CONC. FLOW FOR 200' • 1.00% SLOPE +	IEXOL/2023 IEXOL/
CHANNEL FLOW FOR 1,475° © 5.9 FPS	
CITY PROJECT NO: 2023-68-SDP	AND DOLOED OF OUR OF OU

GRADING & DRAINAGE NOTES

I. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY.

2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

3. STORM PIPE SHALL BE AS NOTED IN THE SPECIFICATIONS.

4. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS. THIS WORK MUST BE COORDINATED WITH THE CITY OF GEORGETOWN.

5. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.

6. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.

7. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".

8. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. CONSTRUCTION GENERAL PERMIT.

9. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.

IO. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.

II. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.

12. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT.

13. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H2O) LOADING AND BE INSTALLED ACCORDINGLY.

4. SITE GRADING SHALL NOT PROCEED UNTIL APPROPRIATE EROSION CONTROL MEASURES HAVE BEEN INSTALLED AS PER THE PLANS.

15. AFTER PERMITS HAVE BEEN OBTAINED & EROSION CONTROL MEASURES INSTALLED, THE CONTRACTOR SHALL GRADE BUILDING PAD, GARDEN CENTER $\boldsymbol{\xi}$ APRONS TO ±0.1 FT OF SUBGRADE AS PER SITEWORK SPECIFICATIONS.

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16. IMMEDIATELY APPLY & COMPACT STONE BASE FOR BUILDING PADS TO O-O.5" OF CONCRETE SUBGRADE AS PER SITEWORK SPECIFICATIONS. STONE SHALL BE APPLIED PRIOR TO EXCAVATING INTERIOR AND PERIMETER FOOTINGS.

17. CONTRACTOR SHALL PROVIDE 2'X2'X6' THICK CONCRETE APRON AT ALL CLEANOUTS OUTSIDE OF BUILDING.

18. ALL SITEWORK SHALL BE DONE IN STRICT ACCORDANCE WITH DIVISION 2 OF LOWE'S SITEWORK SPECIFICATIONS.

19. ALL EXISTING STRUCTURES, UNLESS OTHERWISE NOTED TO REMAIN, FENCING, TREES, & ETC. WITHIN CONSTRUCTION AREA SHALL BE REMOVED AND DISPOSED OF OFF-SITE. ANY BURNING ON SITE SHALL BE SUBJECT TO LOCAL ORDINANCES AND THE SITEWORK SPECIFICATIONS.

20. ALL ROOF DRAINS TO BUILDING SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON THE PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT THE END.

21. GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO GRADING START.

22. ALL DRAINAGE STRUCTURES SHALL BE PRE-CAST CONCRETE.

23. ALL PROPOSED DRAINAGE STRUCTURES ARE SHOWN FOR REFERENCE PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR ACCURATE LOCATION OF THE STRUCTURE(S) SUCH THAT THE APPLICABLE CASTING IS CORRECTLY ALIGNED WITH SURFACE FEATURES AS DESIGNED.

24. TOPOGRAPHIC INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY BY MANHARD CONSULTING. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.

> PRIOR TO STARTING WORK, CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS. ALL EXISTING ITEMS THAT ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS ARE TO BE RELOCATED/REMOVED AS NEEDED & CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION AND FOR INCLUDING ALL COSTS IN BASE BID.









	STORMORAIN STRU	ICTURE TA	BLE	
STR. NO.	TYPE	RM	INV. IN	INV. OUT
RI	RISER STRUCUTRE			
1	HEADWALL	739.38	735.00 (2)	
2	COMBINATION INLET	750.00	735.23 (3)	735.18 (1)
3	GRATE INLET	750.75	735.45 (4)	735.4O (2)
4	COMBINATION INLET	749.55	738.46 (8) 735.92 (5)	735.83 (3)
5	COMBINATION INLET	748.IO	739.36 (9) 736.78 (6)	736.73 (4)
6A	GRATE INLET	746.00		737.71 (6)
6	COMBINATION INLET	746.00	 /4ບ.ວວ (/) 	737.41 (5)
7	GRATE INLET	748.60		742.50 (6
8	GRATE INLET	750.75		742.50 (4
9	GRATE INLET	748.65		
Ю	HEADWALL	739.92	735.OO (II)	
1	COMBINATION INLET	747.55	735.30 (12)	735.25 (10
12	COMBINATION INLET	747.30	735,49 (13)	735.44 (10
13	GRATE INLET	747.60	735.75 (14)	735.70 (12
14	GRATE INLET	748.05	736.17 (15) 741.46 ()	736.12 (13)
15	COMBINATION INLET	748.05	736.60 (16)	736.55 (14
16	GRATE INLET	748.05	737.04 (17)	736.97 (15
17	GRATE INLET	748.05	737,46 (18) 744,10 ()	737.41 (16)
18	COMBINATION INLET	747.00		737.84 (17
19	GRATE INLET			
20	HEADWALL	740.46	735.00 (21)	
21	COMBINATION INLET	746.15	736.OO (31) 735.19 (22)	735. 1 4 (2C
22	COMBINATION INLET	744.56	735.57 (23) 743.20 0	735.52 (21
23	COMBINATION INLET	748.60	736.14 (24) 743.90 0	736.09 (22
24	COMBINATION INLET	749.55	736.93 (25) 744.52 () 743.90 () 743.90 ()	736.88 (23
25	COMBINATION INLET	749.65	737.52 (26) 744.18 0 743.85 0 744.65 0	737.47 (24
26	COMBINATION INLET	748.40	738.15 (27) 740.85 (29)	738.IO (25
27	COMBINATION INLET	748.40		741.85 (26
28	COMBINATION INLET	748.40		743.50 (2)
29	COMBINATION INLET	750.00		742.53 (26
30	GRATE INLET	750.00		742.78 (29
31	COMBINATION INLET			
32	HEADWALL	736.94	735.00 (33)	
33	COMBINATION INLET	750.80		742.14 (32
34	GRATE INLET			
35	HEADWALL	736.94	735.00 (36)	
36	COMBINATION INLET	751.85		741.89 (35
37	GRATE INLET			
38	HEADWALL	736.94	735.00 (39)	
39	COMBINATION INLET	746.90		741.80 (38
40	GRATE INLET			
41	HEADWALL		742.00 (RI)	
42	HEADWALL			
43	HEADWALL			
44A	TXDOT AREA DRAIN - FG	743.00	739.98 (44 B)	739.98 (44
44D	DBL. TXDOT AREA DRAIN - FG	743.00	740.83 (45)	740.58 (44
44C	TXDOT AREA DRAIN - FG	743.00	740.38 (44D)	740.38 (44
44B	TXDOT AREA DRAIN - FG	743.00	740.18 (44C)	740.18 (44,
44	SAETY END TREATMENT			
45	SAETY END TREATMENT	744.04		741.83 (44[

ON-SITE STORM DRAIN PIPE TABLE						
STORMORAIN PIPE	SIZE	LENGTH	SLOPE	INV. IN	INV. OUT	
1 - 2	42"	49'	O.37%	735.00'	735.18'	
2 - 3	42"	56'	O.31%	735.23'	735.40'	
3 - 4	36"	126'	0.30%	735.45'	735.83	
4 - 5	36"	270'	0.30%	735.92'	736.73'	
4 - 8	18"	25'	15.84%	738.46'	742.50'	
5 - 6	24"	210'	0.30%	736.78'	737.41′	
5 - 9	18"	26'	12.31%	739.36'	742.50'	
6 - 6A	18"	49'	O.51%	737.46	737.71'	
6 - 7	15"	29'	6.68%	740.55'	742.50'	
Ю-1	48'	40'	O.63%	735.00'	735.25'	
11 - 12	48'	46'	O.31%	735.30	735.44'	
12 - 13	42"	71'	0.30%	735.49'	735.70'	
13 - 14	42"	124'	0.30%	735.75'	736.12'	
14 - 15	36"	124'	O.31%	736.17'	736.55'	
15 - 16	36"	124'	0.30%	736.60'	736.97'	
16 - 17	36"	124'	0.30%	737.04'	737.41′	
17 - 18	30"	125'	0.30%	737.46	737.84'	
18 - 19	24"	73'	5.89%	737.89	742.21'	
20 - 21	54"	34'	O.41%	735.00'	735.14'	
21 - 22	48'	109'	0.30%	735.19'	735.52'	
21 - 31	15"	65'	1.53%	736.00'	737.00'	
22 - 23	48'	175'	0.30%	735.57'	736.09'	
23 - 24	48'	248'	0.30%	736.14'	736.88'	
24 - 25	48'	180'	0.30%	736.93'	737.47'	
25 - 26	42"	195'	0.30%	737.52	738 .I O'	
26 - 27	18"	250'	1.48%	738.15'	741.85'	
26 - 29	30'	224'	O.75%	740.85'	742.53'	
27 - 28	15"	258'	O.62%	741.90'	743.50'	
29 - 3O	24'	26'	O.78%	742.58'	742.78'	
32 - 33	15"	58'	12.37%	735.00'	742.14'	
33 - 34	15"	51'	O.51%	742.24	742.50'	
35 - 36	15"	61'	1.32%	735.00'	741.89'	
36 - 37	15"	41'	O.51%	741.99'	742.20'	
38 - 39	15"	91'	7.45%	735.00'	741.80'	
39 - 40	15"	38'	9.36%	741.90'	745.50'	
41 - R1	18"	25'	1.98%	742.00'	742.50'	
42 - 43	30"	438'	O.25%	743.00'	744.09'	
44 - 44A	(2)18"	99'	0.20%	739.78'	739.98'	
44A - 44B	(2)18"	99'	0.20%	739.98	740.18'	
44B - 44C	(2)18"	99'	0.20%	740,18'	740.38'	
44C - 44D	(2)18"	99'	0.20%	740.38	740.58'	
44D - 45	(2)15"	104'	O.96%	740.83	741.83	

NOTE: STORM DRAIN PIPE

FROM DS 44 - DS 45 DO BE

"DOUBLE" OR TWO RUNS OF

PIPE AT THE SIZE CALLED

FOR IN THE PIPE TABLE

2023-68-SDP

/					
	BA	RBY	E OF 13905 /CENS /ONAL	TETA SIMUST	× × ×
			Engineers * Landscape Architects 209 West Stone Avenue	Greenville, South Carolina 29609 (864) 233-5497	TEXAS REGISTERED ENGINEERING FIRM: F8891
	LOWE'S 1000 MOO 7	S HC LOW RES '04.7	OME CI	ENTER OULEV , NC 28)0 (PH.	S, LLC ARD 3117
	CENTERS, LLC OR PART IS PR WRITTEN CON: COPYRIGHT 20	. ANY U OHIBITI SENT O 20 ALL	SE OR REP ED WITHOU F LOWE'S H RIGHTS RE	RODUCTION JT THE EXPI HOME CENT SERVED	NIN WHOLE RESSED ERS, LLC.
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	GI.I GRADING PLAN I OF 2		LOWES OF:	GEORGETOWN	CITY OF GEORGETOWN, TEXAS DRAWN BY: CRD CHECKED BY: BTS
	CII CRADING PLAN 1 OF 2 DELAN 1 OF 2 DELAN 1 OF 2	AL DATE SET		GEORGETOWN	CITY OF GEORGETOWN, TEXAS DRAWN BY: CRD CHECKED BY: BTS CHECKED BY: BTS
	CONSTILISSUE I DRAMING PLAN 1 OF 2	AL DATE DATE RUC DATE NG N		12/C RETOWN	CITY OF GEORGETOWN, TEXAS DRAWN BY: CRD CHECKED BY: BTS



CITY PROJECT NO:



TURE TABLE						
RIM	INV. IN	INV. OUT				
739.38	735.00 (2)					
750.00	735.23 (3)	735,18 (1)				
748.40	738. 1 5 (27) 740.85 (29)	738.IO (25)				
748.40		741.85 (26)				
736.94	735.00 (33)					
750.80		742,14 (32)				
736.94	735.00 (36)					
751.85		741.89 (35)				
736.94	735.00 (39)					
746.90		741.80 (38)				
	742.00 (R1)					
743.00	739.98 (44 B)	739.98 (44)				
743.00	740.83 (45)	740.58 (44C)				
743.00	740.38 (44D)	740.38 (44B)				
743.00	740.18 (44C)	740.18 (44A)				
741.99						

ON-SITE STORM DRAIN PIPE TABLE							
STORMORAIN PIPE	SIZE	LENGTH	SLOPE	INV. IN	INV. OUT		
I - 2	42"	49'	O.37%	735.00'	735,18'		
26 - 27	18"	250'	1.48%	738.15'	741.85'		
27 - 28	15"	258'	O.62%	741.90'	743.50'		
32 - 33	15"	58'	12.37%	735.00'	742.14'		
33 - 34	15"	51'	O.51%	742.24	742.50'		
35 - 36	15"	61'	11.32%	735.00'	741.89		
36 - 37	15"	41'	O.51%	741.99'	742.20'		
38 - 39	15"	91'	7.45%	735.00'	741.80'		
39 - 4 0	15"	38'	9.36%	741.90'	745.50'		
41 - RI	18"	25'	1.98%	742.00'	742.50'		
44 - 44 A	18"	99'	0.20%	739.78'	739.98'		
44A - 44B	18"	99'	0.20%	739.98'	740.18'		
44B - 44C	18"	99'	0.20%	740.18'	740.38'		
44C - 44D	18"	99'	0.20%	740.38'	740.58'		
44D - 45	15"	104'	O.96%	740.83	741.83'		





for stability and operation following every runoff producing repairs will be made immediately to maintain all practices as

been approximately 50% filled. Gravel will be cleaned or replaced when the sediment pool no longer drains properly.



SITE PLAN NOTES

I. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY OF GEORGETOWN, TX REGULATIONS AND CODES AND O.S.H.A. STANDARDS.

2. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.

3. ALL DISTURBED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL, SOD AND WATER.

4. ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED. ALL RADII ARE 3' UNLESS OTHERWISE NOTED

5. EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY

SUCH, ALL COST SHALL BE INCLUDED IN BASE BID.

7. SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM TOPOGRAPHIC SURVEY PREPARED BY MANHARD CONSULTING.

8. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH DIVISION 2 OF LOWE'S STANDARD SITE WORK SPECIFICATIONS.

9. CONTRACTOR TO ENSURE ALL PAVEMENT, CONCRETE, AND CURB TIE-INS HAVE A NEAT, SMOOTH AND UNIFORM LINE BOTH HORIZONTALLY AND VERTICALLY. <u>CITY NOTES</u>

I. ALL LIGHTING FIXTURES SHALL BE DESIGNED TO COMPLETELY CONCEAL AND FULLY SHIELD, WITHIN AN OPAQUE HOUSING, THE LIGHT SOURCE FROM VISIBILITY FROM ANY STREET RIGHT-OF-WAY. THE CONE OF LIGHT SHALL NOT CROSS ANY ADJACENT PROPERTY LINE. THE ILLUMINATION SHALL NOT EXCEED 2 FOOT CANDLES AT A HEIGHT OF 3' AT THE PROPERTY LINE. ONLY INCANDESCENT, FLUORESCENT, COLOR-CORRECTED HIGH-PRESSURE SODIUM, OR METAL HALIDE MAY BE USED. ALL VEHICLE OR PEDESTRIAN ACCESS SHALL BE SUFFICIENTLY LIGHTED TO ENSURE SECURITY OF PROPERTY AND PERSONS.

2. ALL ROOF, WALL, AND GROUND MOUNTED EQUIPMENT MUST BE SCREENED IN ACCORDANCE WITH CHAPTER 8 OF THE UDC. IF ROOF AND WALL MOUNTED EQUIPMENT OF ANY TYPE INCLUDING DUCT WORK AND LARGE VENTS IS PROPOSED IT SHALL BE SHOWN ON THE SITE PLAN AND SCREENING IDENTIFIED. SCREENING OF MECHANICAL EQUIPMENT SHALL RESULT IN THE MECHANICAL EQUIPMENT BLENDING IN WITH THE PRIMARY BUILDING AND NOT APPEARING SEPARATE FROM THE BUILDING AND SHALL BE SCREENED FROM VIEW OF ANY RIGHTS-OF-WAY OR ADJOINING PROPERTIES.

3. PER CHAPTER 8, THE DUMPSTER ENCLOSURES MUST BE ONE FOOT ABOVE THE HEIGHT OF THE WASTE CONTAINER. USE PROTECTIVE POLES IN CORNERS AND AT IMPACT AREAS. FENCE POSTS SHALL BE OF RUST PROTECTED METAL OR CONCRETE. A MINIMUM 6' SLAB IS REQUIRED AND MUST BE SLOPED TO DRAIN, THE ENCLOSURE MUST HAVE STEEL FRAMED GATES WITH SPRING LOADED HINGES AND FASTENERS TO KEEP CLOSED. SCREENING MUST BE ON ALL FOUR SIDES BY MASONRY WALLS OR APPROVED FENCE OR SCREENING WITH OPAQUE GATES.

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10' SETBACK

PARCEL AREA TABLE			
SUBDIVISION AREA		1,354,223 SF, 31.09 AC	
LOWE'S PARCEL AR	EA	760,118 SF, 17.45 AC	
PARCEL I AREA		219,223 SF, 5.03 AC	
PARCEL 2 AREA		229,016 SF, 5.26 AC	
PARCEL 3 AREA		145,862 SF, 3.35 AC	
DATA TABLE		ABLE	
PROPOSED USE		GENERAL RETAIL	
LEGAL DESCRIPTION	HOLT TEXAS, LTD. ET AL DOC. NO. 2017008885		
ZONING DISTRICT	PUD ORD. NO. 2017-07 WITH BASE DISTRICT OF IN		
OVERLAY DISTRICT	HIGHWAY GATEWAY		
AIRPORT ZONE(S)	HORIZONTAL SURFACE		
PROPOSED TOTAL IMPERVIOUS COVER	891,011 SF, 65.8%		
NO. LOTS	5		
PROJECTED AVERAGE DAILY TRIPS	3,500		
AM PEAK HOUR	98 IN / 74 OUT		
PM PEAK HOUR	128 IN / 133 OUT		

PRIOR TO STARTING WORK, CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS. ALL EXISTING ITEMS THAT ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS ARE TO BE RELOCATED/REMOVED AS NEEDED & CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION AND FOR INCLUDING ALL COSTS IN BASE BID.





<u>SITE LEGEND</u>

- (A) PROPOSED 24" CONCRETE CURB & GUTTER, SEE DETAILS
- (B) THE PROPOSED CONCRETE CURB & GUTTER TO EXISTING CURB & GUTTER, PROVIDE SMOOTH GUTTER PAN WIDTH TRANSITION AS NEEDED
- C) 16 10' WIDE CONTRACTOR PARKING SPACES W/ "PRO PARKING" SIGN, SEE DETAIL
- (D) CART RETURN (TYP.), FURNISHED AND INSTALLED BY LOWE'S
- (E) 9'X18' HANDICAPPED SPACE WITH SIGN ('VAN' INDICATES
- (F) THE PROP. PAVEMENT TO EXISTING PAVEMENT, MATCH
- (G) "STOP" SIGN (RH) & STOP BAR, SEE DETAILS

VAN ACCESSIBLE), SEE DETAILS

GRADE AND ALIGNMENT

- (H) "VETERAN" PARKING, PROVIDE SIGNAGE PER DETAIL (TYP. 4)
- (I) "CURBSIDE PRODUCT PICKUP PARKING". PROVIDE STRIPING
- AND SIGNAGE PER DETAIL, (TYP. OF 6) (J) 6' WIDE STRIPED CROSSWALK W/ 4"SWSL
- (K) PAINTED TRAFFIC DIRECTIONAL ARROW (TYP.), SEE DETAILS
- (L) CONCRETE WHEEL STOP, SEE DETAILS
- (M) END CURB & GUTTER FOR FUTURE CONNECTION BY OTHERS
- (N) 5' CONCRETE SIDEWALK
- (0) THE PROPOSED SIDEWALK TO EXISTING
- (P) TYPE I ACCESSIBLE RAMP
- (Q) TYPE I ACCESSIBLE RAMP
- (R) 3' WIDE CONCRETE FLUME, SEE STORM DRAIN DETAILS
- (S) REMOVE EXISTING CURB & GUTTER
- (T) REMOVE EXISTING SIDEWALK
- (U) "FIRE LANE TOW AWAY ZONE" PAINTED IN 4" HIGH WHITE PAINT . 30' O.C. MAX SPACING ON 6' WIDE SINGLE RED LINE ON FACE OF CURB OR ON PAVEMENT WHERE NO CURB EXISTS
- (V) (2) RED STIMSONITE MODEL 88 AB (OR APPROVED EQUAL) 6" FROM CENTERLINE OF FDC WITH REFLECTIVE ENDS FACING DIRECTION OF VEHICULAR TRAFFIC

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12/01/2023

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CONSTRUCTION SET

RAWING NUMBER:

SSUE DATE:

<u>SITE PLAN NOTES</u>

I. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY OF GEORGETOWN, TX REGULATIONS AND CODES AND O.S.H.A. STANDARDS.

2. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.

3. ALL DISTURBED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL, SOD AND WATER.

4. ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED. ALL RADII ARE 3' UNLESS OTHERWISE NOTED

5, EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH, ALL COST SHALL BE INCLUDED IN BASE BID.

7. SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM TOPOGRAPHIC SURVEY PREPARED BY MANHARD CONSULTING.

8. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH DIVISION 2 OF LOWE'S STANDARD SITE WORK SPECIFICATIONS.

9. CONTRACTOR TO ENSURE ALL PAVEMENT, CONCRETE, AND CURB TIE-INS HAVE A NEAT, SMOOTH AND UNIFORM LINE BOTH HORIZONTALLY AND VERTICALLY.

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<u>IO' SETBACK</u>

PROPERTY-LINE

50'R-

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Pos

	<u>SITE LE</u>	<u>GEND</u>
<u>EXISTING</u>	PROPOSED	DESCRIPTION
		NUMBER OF SPACES PER ROW
		CART CORRAL
		SIGN
	<u>گ</u>	HANDICAP SYMBOL
		HD CONCRETE PAVEMENT
		HEAVY DUTY PAVING
	•••	LIGHT POLES
		CURB & GUTTER
		OUTDOOR DISPLAY - GENER
		OUTDOOR STORAGE AREA - GENER
		RETAINING WALL
		FIRE LANE STRIPING

<u>SITE LEGEND</u>

- (A) PROPOSED 24" CONCRETE CURB & GUTTER, SEE DETAILS (B) THE PROPOSED CONCRETE CURB & GUTTER TO EXISTING CURB & GUTTER, PROVIDE SMOOTH GUTTER PAN WIDTH
- TRANSITION AS NEEDED
- (C) 16 10' WIDE CONTRACTOR PARKING SPACES W/ PRO PARKING" SIGN, SEE DETAIL
- (D) CART RETURN (TYP.), FURNISHED AND INSTALLED BY LOWE'S
- (E) 9'X18' HANDICAPPED SPACE WITH SIGN ("VAN' INDICATES VAN ACCESSIBLE), SEE DETAILS
- (F) THE PROP. PAVEMENT TO EXISTING PAVEMENT, MATCH GRADE AND ALIGNMENT
- (G) "STOP" SIGN (RH) & STOP BAR, SEE DETAILS
- (H) "VETERAN" PARKING, PROVIDE SIGNAGE PER DETAIL (TYP. 4)
- (1) "CURBSIDE PRODUCT PICKUP PARKING". PROVIDE STRIPING AND SIGNAGE PER DETAIL, (TYP. OF 6)
- (J) 6' WIDE STRIPED CROSSWALK W/ 4"SWSL
- (K) PAINTED TRAFFIC DIRECTIONAL ARROW (TYP.), SEE DETAILS
- (L) CONCRETE WHEEL STOP, SEE DETAILS
- (M) END CURB & GUTTER FOR FUTURE CONNECTION BY OTHERS
- (N) 5' CONCRETE SIDEWALK
- (0) THE PROPOSED SIDEWALK TO EXISTING
- (P) TYPE I ACCESSIBLE RAMP
- (Q) TYPE I ACCESSIBLE RAMP
- (R) 3' WIDE CONCRETE FLUME, SEE STORM DRAIN DETAILS
- (S) REMOVE EXISTING CURB & GUTTER
- (T) REMOVE EXISTING SIDEWALK

PROPERTI LINE

- (U) "FIRE LANE TOW AWAY ZONE" PAINTED IN 4" HIGH WHITE PAINT . 30' O.C. MAX SPACING ON 6' WIDE SINGLE RED LINE ON FACE OF CURB OR ON PAVEMENT WHERE NO CURB EXISTS
- (V) (2) RED STIMSONITE MODEL 88 AB (OR APPROVED EQUAL) 6' FROM CENTERLINE OF FDC WITH REFLECTIVE ENDS FACING DIRECTION OF VEHICULAR TRAFFIC

SITE VICINITY MAP NTS SITE DATA <u>ACREAGE</u> OVERALL PROJECT LOWE'S TRACT ±31,09 AC ±17.45 AC MAIN BUILDING: SALES FLOOR 94,775 S.F. TOOL RENTAL 2,694 S.F. OFFICE/BUSINESS 3,249 S.F. REVEIVING/STORAGE 6,334 S.F. UTILITY ROOMS 1,750 S.F. VESTIBULES/ASSEMBLY 1,438 S.F. MAIN BUILDING TOTAL 10,241 S.F. Ž∣ GARDEN CENTER: SHADE STRUCTURES 5,988 S.F. COVERED AREA 14,542 S.F. FMAN, OPEN AREA 6.007 S.F. GARDEN CENTER TOTAL 26,607 S.F. PARKING REQUIREMENTS: LOWE'S PARKING REQ'D: STANDARD 320 KAL HANDICAPPED TOTAL PARKING REQ'D 331 RATIO = 3.00 (SPACES/I,000 SF) **and** * La West (864) 'PED LOCAL PARKING REQ'D: STANDARD 331 HANDICAPPED TOTAL PARKING REQ'D 338 AND 2,6 Mi€ RATIO + 4.0 PER 1,000 SF FOR PRST 20,000 BUILDING SF + 2.0 PER 1,000 SF FOR 90,241 BUILDING SF + 2.5 PER 1,000 SF FOR 26,607 SF GARDEN CENTER + 1 PER 2,500 SF OF 26,635 SF OUTDOOR DISPLAY - GENERAL PARKING PROVIDED: STANDARD 325 HANDICAPPED Ĥ

TOTAL PARKING PROVIDED 338

RATIO = 3.07 (SPACES/I,000 SF)

LOT I HOLT CAT SUBDIVISION - LOT I DOC. NO. 2018016666

SCALE I = 60'

2023-68-SDP

CITY PROJECT NO:

REVISIONS

DESCRIPTION

12/01/202

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LOWE'S HOME CENTERS, LLC

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 $igtriangletic \operatorname{PRE-BID}\operatorname{SET}$ $igtriangletic \operatorname{POST}\operatorname{BID}\operatorname{SI}$ issue date $igtriangletic \operatorname{SISUE}\operatorname{DATE}$

DATE

RAWING NUMBER:

Organized Sewage Collection System Application

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(c), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Regulated Entity Name: Lowe's Home Centers, LLC

 Attachment A – SCS Engineering Design Report. This Engineering Design Report is provided to fulfill the requirements of 30 TAC Chapter 217, including 217.10 of Subchapter A, §§217.51 – 217.70 of Subchapter C, and Subchapter D as applicable, and is required to be submitted with this SCS Application Form.

Customer Information

2. The entity and contact person responsible for providing the required engineering certification of testing for this sewage collection system upon completion (including private service connections) and every five years thereafter to the appropriate TCEQ region office pursuant to 30 TAC §213.5(c) is:

Contact Person: <u>KK Yeow</u> Entity: <u>Lowe's Home Centers, LLC</u> Mailing Address: <u>1000 Lowes Boulevard</u> City, State: <u>Mooresville, NC</u> Telephone: <u>214-491-7835</u> Email Address: <u>KK.Yeow@Lowes.com</u>

Email Address: <u>KK.Yeow@Lowes.com</u> The appropriate regional office must be informed of any changes in this information within 30 days of the change.

Zip: 28117

Fax:

3. The engineer responsible for the design of this sewage collection system is:

Contact Person: <u>Todd Simmons</u> Texas Licensed Professional Engineer's Number: <u>139055</u> Entity: <u>Freeland & Kauffman, Inc.</u> Mailing Address: <u>209 West Stone Avenue</u> City, State: <u>Greenville, SC</u> Zip: <u>29609</u> Telephone: <u>864-672-3426</u> Fax:_____ Email Address: <u>tsimmons@fk-inc.com</u>

Project Information

4. Anticipated type of development to be served (estimated future population to be served, plus adequate allowance for institutional and commercial flows):

	Residential: Number of single-family lots:
	Multi-family: Number of residential units:
\checkmark	Commercial
	Industrial
	Off-site system (not associated with any development)
	Other:

5. The character and volume of wastewater is shown below:

100	% Domestic	<u>8,488</u> gallons/day
	% Industrial	gallons/day
	% Commingled	gallons/day
-	Total gallons/day: ^{8,488}	

- 6. Existing and anticipated infiltration/inflow is <u>zero</u> gallons/day. This will be addressed by:
- 7. A Water Pollution Abatement Plan (WPAP) is required for construction of any associated commercial, industrial or residential project located on the Recharge Zone.

The WPAP application for this development was approved by letter dated _____. A copy of the approval letter is attached.

The WPAP application for this development was submitted to the TCEQ on 10-24-23, but has not been approved.

A WPAP application is required for an associated project, but it has not been submitted. There is no associated project requiring a WPAP application.

8. Pipe description:

Table 1 - Pipe Description

Pipe Diameter(Inches)	Linear Feet (1)	Pipe Material (2)	Specifications (3)
8	2,307	PVC	SDR-26

Total Linear Feet: 2,307

- (1) Linear feet Include stub-outs and double service connections. Do not include private service laterals.
- (2) Pipe Material If PVC, state SDR value.
- (3) Specifications ASTM / ANSI / AWWA specification and class numbers should be included.

9. The sewage collection system will convey the wastewater to the Georgetown Treatment Plant. The treatment facility is:

Existing
Proposed

10. All components of this sewage collection system will comply with:

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The City of Georgetown standard specifications. Other. Specifications are attached.

- 11. Mo force main(s) and/or lift station(s) are associated with this sewage collection system.
 - A force main(s) and/or lift station(s) is associated with this sewage collection system and the Lift Station/Force Main System Application form (TCEQ-0624) is included with this application.

Alignment

- 12. It There are no deviations from uniform grade in this sewage collection system without manholes and with open cut construction.
- 13. V There are no deviations from straight alignment in this sewage collection system without manholes.

Attachment B - Justification and Calculations for Deviation in Straight Alignment without Manholes. A justification for deviations from straight alignment in this sewage collection system without manholes with documentation from pipe manufacturer allowing pipe curvature is attached.

For curved sewer lines, all curved sewer line notes (TCEQ-0596) are included on the construction plans for the wastewater collection system.

Manholes and Cleanouts

14. Manholes or clean-outs exist at the end of each sewer line(s). These locations are listed below: (Please attach additional sheet if necessary)

Line	Shown on Sheet	Station	Manhole or Clean- out?
1	13 Of 66	18+36	manhole
2	12 Of 66	4+71	manhole
	Of		

Table 2 - Manholes and Cleanouts

Line	Shown on Sheet	Station	Manhole or Clean- out?
	Of		
	Of		
	Of		

- 15. Manholes are installed at all Points of Curvature and Points of Termination of a sewer line.
- 16. The maximum spacing between manholes on this project for each pipe diameter is no greater than:

Pipe Diameter (inches)	Max. Manhole Spacing (feet)
6 - 15	500
16 - 30	800
36 - 48	1000
≥54	2000

- Attachment C Justification for Variance from Maximum Manhole Spacing. The maximum spacing between manholes on this project (for each pipe diameter used) is greater than listed in the table above. A justification for any variance from the maximum spacing is attached, and must include a letter from the entity which will operate and maintain the system stating that it has the capability to maintain lines with manhole spacing greater than the allowed spacing.
- 17. All manholes will be monolithic, cast-in-place concrete.

The use of pre-cast manholes is requested for this project. The manufacturer's specifications and construction drawings, showing the method of sealing the joints, are attached.

Site Plan Requirements

Items 18 - 25 must be included on the Site Plan.

18. The Site Plan must have a minimum scale of 1'' = 400'.

Site Plan Scale: 1" = 60' & 100'.

- 19. The Site Plan must include the sewage collection system general layout, including manholes with station numbers, and sewer pipe stub outs (if any). Site plan must be overlain by topographic contour lines, using a contour interval of not greater than ten feet and showing the area within both the five-year floodplain and the 100-year floodplain of any drainage way.
- 20. Lateral stub-outs:
 - M The location of all lateral stub-outs are shown and labeled.
 - No lateral stub-outs will be installed during the construction of this sewer collection system.

21. Location of existing and proposed water lines:

In the entire water distribution system for this project is shown and labeled.

If not shown on the Site Plan, a Utility Plan is provided showing the entire water and sewer systems.

There will be no water lines associated with this project.

22. 100-year floodplain:

After construction is complete, no part of this project will be in or cross a 100-year floodplain, either naturally occurring or manmade. (Do not include streets or concrete-lined channels constructed above of sewer lines.)

After construction is complete, all sections located within the 100-year floodplain will have water-tight manholes. These locations are listed in the table below and are shown and labeled on the Site Plan. (Do not include streets or concrete-lined channels constructed above sewer lines.)

Table 3 - 100-Year Floodplain

Line	Sheet	Station
	of	to

23. 5-year floodplain:

- After construction is complete, no part of this project will be in or cross a 5-year floodplain, either naturally occurring or man-made. (Do not include streets or concrete-lined channels constructed above sewer lines.)
 - After construction is complete, all sections located within the 5-year floodplain will be encased in concrete or capped with concrete. These locations are listed in the table below and are shown and labeled on the Site Plan. (Do not include streets or concrete-lined channels constructed above sewer lines.)

Line	Sheet	Station
	of	to

Table 4 - 5-Year Floodplain

- 24. Vegal boundaries of the site are shown.
- 25. The *final plans and technical specifications* are submitted for the TCEQ's review. Each sheet of the construction plans and specifications are dated, signed, and sealed by the Texas Licensed Professional Engineer responsible for the design on each sheet.

Items 26 - 33 must be included on the Plan and Profile sheets.

26. All existing or proposed water line crossings and any parallel water lines within 9 feet of sewer lines are listed in the table below. These lines must have the type of pressure rated pipe to be installed shown on the plan and profile sheets. Any request for a variance from the required pressure rated piping at crossings must include a variance approval from 30 TAC Chapter 290.

] There will be no water line crossings.

There will be no water lines within 9 feet of proposed sewer lines.

Table 5 - Water Line Crossings

Line	Station or Closest Point	Crossing or Parallel	Horizontal Separation Distance	Vertical Separation Distance
1	5+53	crossing		1.50'
1	5+75	crossing		4.86'
1	5+85	crossing		4.82'
2	1+20	crossing		1.50'

27. Vented Manholes:

No part of this sewer line is within the 100-year floodplain and vented manholes are not required by 30 TAC Chapter 217.

A portion of this sewer line is within the 100-year floodplain and vented manholes will be provided at less than 1500 foot intervals. These water-tight manholes are listed in the table below and labeled on the appropriate profile sheets.

A portion of this sewer line is within the 100-year floodplain and an alternative means of venting shall be provided at less than 1500 feet intervals. A description of the alternative means is described on the following page.

A portion of this sewer line is within the 100-year floodplain; however, there is no interval longer than 1500 feet located within. No vented manholes will be used.

Line	Manhole	Station	Sheet

Table 6 - Vented Manholes

Line	Manhole	Station	Sheet

28. Drop manholes:

There are no drop manholes associated with this project.

Sewer lines which enter new or existing manholes or "manhole structures" higher than 24 inches above the manhole invert are listed in the table below and labeled on the appropriate profile sheets. These lines meet the requirements of 30 TAC §217.55(I)(2)(H).

Table 7 - Drop Manholes

Line	Manhole	Station	Sheet

29. Sewer line stub-outs (For proposed extensions):

The placement and markings of all sewer line stub-outs are shown and labeled.

No sewer line stub-outs are to be installed during the construction of this sewage collection system.

30. Lateral stub-outs (For proposed private service connections):

] The placement and markings of all lateral stub-outs are shown and labeled.

No lateral stub-outs are to be installed during the construction of this sewage collection system.

31. Minimum flow velocity (From Appendix A)

Assuming pipes are flowing full; all slopes are designed to produce flows equal to or greater than 2.0 feet per second for this system/line.

32. Maximum flow velocity/slopes (From Appendix A)

Assuming pipes are flowing full, all slopes are designed to produce maximum flows of less than or equal to 10 feet per second for this system/line.

Attachment D – Calculations for Slopes for Flows Greater Than 10.0 Feet per Second. Assuming pipes are flowing full, some slopes produce flows which are greater than 10 feet per second. These locations are listed in the table below. Calculations are attached.

	Table 8 - Flo	ws Greater	Than 10	Feet pe	er Second
--	---------------	------------	---------	---------	-----------

Line	Profile Sheet	Station to Station	FPS	% Slope	Erosion/Shock Protection

33. Assuming pipes are flowing full, where flows are ≥ 10 feet per second, the provisions noted below have been made to protect against pipe displacement by erosion and/or shock under 30 TAC §217.53(I)(2)(B).

Concrete encasement shown on appropriate Plan and Profile sheets for the locations listed in the table above.

 Steel-reinforced, anchored concrete baffles/retards placed every 50 feet shown on appropriate Plan and Profile sheets for the locations listed in the table above.
 N/A

Administrative Information

- 34. The final plans and technical specifications are submitted for TCEQ review. Each sheet of the construction plans and specifications are dated, signed, and sealed by the Texas Licensed Professional Engineer responsible for the design on each sheet.
- 35. Standard details are shown on the detail sheets, which are dated, signed, and sealed by the Texas Licensed Professional Engineer, as listed in the table below:

Standard Details	Shown	n on S	Sheet
Lateral stub-out marking [Required]	N/A	of	
Manhole, showing inverts comply with 30 TAC §217.55(I)(2) [Required]	22	of	66
Alternate method of joining lateral to existing SCS line for potential future connections [Required]	N/A	of	
Typical trench cross-sections [Required]	23	of	66
Bolted manholes [Required]	22	of	66
Sewer Service lateral standard details [Required]	22	of	66
Clean-out at end of line [Required, if used]	N/A	of	
Baffles or concrete encasement for shock/erosion protection [Required, if flow velocity of any section of pipe >10 fps]	N/A	of	
Detail showing Wastewater Line/Water Line Crossing [Required, if crossings are proposed]	19	of	66
Mandrel detail or specifications showing compliance with 30 TAC §217.57(b) and (c) [Required, if Flexible Pipe is used]	24	of	66

Table 9 - Standard Details

Standard Details	Shown on Sheet
Drop manholes [Required, if a pipe entering a manhole is more than 24 inches above manhole invert]	N/A of

- 36. All organized sewage collection system general construction notes (TCEQ-0596) are included on the construction plans for this sewage collection system.
- 37. All proposed sewer lines will be sufficiently surveyed/staked to allow an assessment prior to TCEQ executive director approval. If the alignments of the proposed sewer lines are not walkable on that date, the application will be deemed incomplete and returned.

Survey staking was completed on this date: _____

- 38. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
- 39. Any modification of this SCS application will require TCEQ approval, prior to construction, and may require submission of a revised application, with appropriate fees.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Organized Sewage Collection System Application** is hereby submitted for TCEQ review and executive director approval. The system was designed in accordance with the requirements of 30 TAC §213.5(c) and 30 TAC §217 and prepared by:

Print Name of Licensed Professional Engineer: Todd Simmons

Date: <u>09-27-2023</u>

Place engineer's seal here:

Signature of Licensed Professional Engineer:

TCEQ-0582 (Rev. 02-11-15)

Appendix A-Flow Velocity Table

Flow Velocity (Flowing Full) All gravity sewer lines on the Edwards Aquifer Recharge Zone shall be designed and constructed with hydraulic slopes sufficient to give a velocity when flowing full of not less than 2.0 feet per second, and not greater than 10 feet per second. The grades shown in the following table are based on Manning's formula and an n factor of 0.013 and shall be the minimum and maximum acceptable slopes unless provisions are made otherwise.

Pipe Diameter(Inches)	% Slope required for minimum flow velocity of 2.0 fps	% Slope which produces flow velocity of 10.0 fps
6	0.50	12.35
8	0.33	8.40
10	0.25	6.23
12	0.20	4.88
15	0.15	3.62
18	0.11	2.83
21	0.09	2.30
24	0.08	1.93
27	0.06	1.65
30	0.055	1.43
33	0.05	1.26
36	0.045	1.12
39	0.04	1.01
>39	*	*

Table 10 - Slope Velocity

*For lines larger than 39 inches in diameter, the slope may be determined by Manning's formula (as shown below) to maintain a minimum velocity greater than 2.0 feet per second when flowing full and a maximum velocity less than 10 feet per second when flowing full.

$$v = \frac{1.49}{n} \times R_h^{0.67} \times \sqrt{S}$$

Figure 1 - Manning's Formula

Where:

v = velocity (ft/sec)
n = Manning's roughness coefficient
(0.013)
Rh = hydraulic radius (ft)
S = slope (ft/ft)

Lowe's Georgetown Georgetown, Texas

Engineer's Report

Northwest Quadrant of Jessee Cooke Dr. @ IH-35 City of Georgetown, Williamson County, Texas

Original Submittal: October 23, 2023

FREELAND and KAUFFMAN, Inc.

*Engineers * Landscape Architects* 209 West Stone Avenue Greenville, South Carolina 29609 Tel: 864.233.5497

INDEX	
	Cover i
	Index ii
I.	Executive Summary
II.	Sewer Flow Calculations
III.	Sewer Line Computations

I. <u>SEWER FLOW CALCULATIONS</u>

ENGINEE 209 Wes	RS • LANDSCAPE ARCHITECTS t Stone Avenue	John Lowels Coorgo	own TV		lob No .	Data: 10/22/2022
Greenville	e, South Carolina 29609	JOD. LOWE'S GEOLGE			Computed By: CR	Dale. 10/23/2023
864-233-5	5497 9015				Checked By: Checked By:	<i>.</i>
004-233-0	0910				onecked by:	
Calculati	ion for: Sewer Flo	w Calculations				
GWI =	700 gpd/idm					
BWF =	175 gpd / 1,660 sf of buildir	ng				
RDII =	1,000 gpd / ac	-				
LOWE'S	STRACT					
If of 8"	471 or	0.0892	miles			
lf of 6"	364 or	0.0689	miles			
idm =	(0.0892 * 8) + (0.0689 * 6)	= 1.1273				
GWI =	700 gpd/idm * 1.1273 idm	=	789	gpd		
BWF* =	391,500 g / 365 days =		1,073	gpd		
* Lowe's	s flow based on 2022 use rec	ords of Store No. 1802	in Mt. Pleasant	t, Texas		
RDII =	1,000 gpd / ac * 17.45 ac =		17,450	gpd		
DWF =	GWI + BWF = 789 gpd + 12	,058 gpd =	1,862	gpd		
PDWF =	DWF * PF = 1,862 *1.4 =		2,618	gpd		
PWWF =	= PDWF + RDII = 17,450 + 8	67 =	20,068	gpd		
<u>OUTLO1</u>	<u>Г 1</u>					
lf of 8"	419 or	0.0794	miles			
lf of 6"	400 or	0.0758	miles			
idm =	(0.0794 * 8) + (0.0758 * 6)	= 1.0894				
GWI =	700 gpd/idm * 1.0894 idm	=	763	gpd		
BWF =	175 gpd / 1,660 sf * (35,00	0 sf / 1,600) =	3,828	gpd		
RDII =	1,000 gpd / ac * 5.03 ac =		5,030	gpd		
DWF =	GWI + BWF = 763 gpd + 3,8	328 gpd =	4,591	gpd		
PDWF =	DWF * PF = 4,591 *1.4 =		6,456	gpd		
PWWF =	= PDWF + RDII = 5,030 + 2,1	38 =	11,486	gpd		

FREELAND and KAUFFMAN, INC.

ENGINEERS • LANDSCAPE ARCHITECTS							
209 West Stone Avenue	Job: Lowe's	Georgetown, 1	ГХ		Job No.:	Date: 10/23	8/2023
Greenville, South Carolina 29609 864-233-5497		. .			Computed By:	CRD	
864-233-8915					Checked By:		
UUILUI 2		0 1650 milos					
lf of 6" 400 or		0.1037 miles 0.0758 miles					
idm = (0.0794 * 8) + (0.0758 * 6)	_	1 7818					
		1.7010					
GWI = 700 gpd/idm * 1.0894 idm =	=		1,247	gpd			
BWF = 175 gpd / 1,660 sf * (20,20	0 sf / 1,600) =		2,209	gpd			
RDII = 1,000 gpd / ac * 5.26 ac =			5,260	gpd			
DWF = GWI + BWF = 1,247 gpd + 2	2,209 gpd =		3,457	gpd			
PDWF = DWF * PF = 3,457 * 1.4 =			4,861	gpd			
PWWF = PDWF + RDII = 5,260 + 1,6	010 =		10,121	gpd			
OUTLOT 3							
If of 8" 538 or	(0.1019 miles					
lf of 6" 400 or	(0.0758 miles					
idm = (0.0794 * 8) + (0.0758 * 6)	= .	1.2697					
GWI = 700 gpd/idm * 1.0894 idm =	=		889	gpd			
BWF = 175 gpd / 1,660 sf * (12,60	Osf / 1,600) =		1,378	gpd			
RDII = 1,000 gpd / ac * 3.35 ac =			3,350	gpd			
DWF = GWI + BWF = 889 gpd + 1,3	378 gpd =		2,267	gpd			
PDWF = DWF * PF = 2,267 * 1.4 =			3,188	gpd			
PWWF = PDWF + RDII = 1,056 + 3,3	50 =		6,538	gpd			
PEAKING FACTOR							
PF = 2.8(DWF)^-0.0732 = (2.8(12)	,177))^-0.0732 =	=	1.4				
PROJECT TOTAL							
GWI =			3,688	apd			
BWF =			8,488	apd			
RDII =			31,090	apd			
DWF =			12,177	gpd			
PDWF = DWF * PF = 12,176 * 1.4 =			17,123	gpd			
PWWF = PDWF + RDII = 5,672 + 31,	,090 =		48,213	gpd			

FREELAND and KAUFFMAN, INC.

II. <u>SEWER LINE COMPUTATIONS</u>

LOWE'S GEORGETOWN - GRAVITY SEWER LINE ANALYSIS

												10/23/2023												
						Additional	Additional	Additional	Additional		Additional	Additional	Additional	Accumulated			Peak	Peak	Full-Flow	Line	65% Line	85% Line		
	Up-Stream	Down-Stream	Elevation			GWI	BWF	RDII	DWF	Peaking	PDWF	PDWF	PWWF	Peak Daily	Peak Line	Line	Line Flow	Velocity	Velocity	Capacity	Capacity	Capacity		Line
Pipe No.	Elevation	Elevation	Change	Length (ft)	% Slope	Flow (gpd)	Flow (gpd)	Flow (gpd)	Flow (gpd)	Factor	Flow (gpd)	Flow (cfs)	Flow (gpd)	Flow (gpd)	Flow (cfs)	Size (ft)	Depth (in)	(fps)	(fps)	(cfs)	(cfs)	(cfs)	n	Material
H-I	747.70	746.38	1.32	329	0.40%	889	1,378	3,350	2,267	1.4	3,188	0.0048	6,538	6,538	0.0098	0.67	0.60	0.90	2.85	0.99	0.64	0.55	0.010	PVC
G-H	746.28	746.04	0.24	58	0.41%									6,538	0.0098	0.67	0.60	0.91	2.88	1.01	0.66	0.56	0.010	PVC
F-G	745.94	745.34	0.60	150	0.40%									6,538	0.0098	0.67	0.60	0.90	2.85	0.99	0.64	0.55	0.010	PVC
E-F	745.24	744.36	0.88	219	0.40%	1,247	2,209	5,260	3,457	1.4	4,861	0.0073	10,121	16,659	0.0250	0.67	0.90	1.21	2.85	0.99	0.64	0.55	0.010	PVC
D-E	744.26	743.20	1.06	264	0.40%									16,659	0.0250	0.67	0.90	1.21	2.85	0.99	0.64	0.55	0.010	PVC
C-D	743.10	742.44	0.66	165	0.40%									16,659	0.0250	0.67	0.90	1.21	2.85	0.99	0.64	0.55	0.010	PVC
B-C	742.34	741.44	0.90	228	0.40%									16,659	0.0250	0.67	0.90	1.21	2.85	0.99	0.64	0.55	0.010	PVC
K-J	743.43	742.09	1.34	335	0.40%	789	1,073	17,450	1,862	1.4	2,618	0.0039	20,068	36,727	0.0551	0.67	1.30	1.53	2.85	0.99	0.64	0.55	0.010	PVC
B-J	741.99	741.44	0.55	137	0.40%									36,727	0.0551	0.67	1.30	1.53	2.85	0.99	0.64	0.55	0.010	PVC
A-B	741.31	739.81	1.50	384	0.40%	763	3,828	5,030	4,591	1.4	6,456	0.0097	11,486	48,213	0.0723	0.67	1.50	1.66	2.85	0.99	0.64	0.55	0.010	PVC
EXISTA	739.71	739.56	0.15	35	0.40%									48,213	0.0723	0.67	1.50	1.66	2.85	0.99	0.64	0.55	0.010	PVC
Total						3,688	8,488	31,090	12,177	1.4	17,123	0.0257	48,213	48,213										
Ca	pacity Vmin =	2.0	fps																					
Ca	acity Vmax =	10.0	fps																					
	PDWF Max =	65.0%	line capacity																					
	PWWF Max =	85.0%	line capacity																					

SITE PLAN NOTES

I. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY OF GEORGETOWN, TX REGULATIONS AND CODES AND O.S.H.A. STANDARDS.

2. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.

3. ALL DISTURBED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL, SOD AND WATER.

4. ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED. ALL RADII ARE 3' UNLESS OTHERWISE NOTED

5. EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY

SUCH, ALL COST SHALL BE INCLUDED IN BASE BID.

7. SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM TOPOGRAPHIC SURVEY PREPARED BY MANHARD CONSULTING.

8. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH DIVISION 2 OF LOWE'S STANDARD SITE WORK SPECIFICATIONS.

9. CONTRACTOR TO ENSURE ALL PAVEMENT, CONCRETE, AND CURB TIE-INS HAVE A NEAT, SMOOTH AND UNIFORM LINE BOTH HORIZONTALLY AND VERTICALLY. <u>CITY NOTES</u>

I. ALL LIGHTING FIXTURES SHALL BE DESIGNED TO COMPLETELY CONCEAL AND FULLY SHIELD, WITHIN AN OPAQUE HOUSING, THE LIGHT SOURCE FROM VISIBILITY FROM ANY STREET RIGHT-OF-WAY. THE CONE OF LIGHT SHALL NOT CROSS ANY ADJACENT PROPERTY LINE. THE ILLUMINATION SHALL NOT EXCEED 2 FOOT CANDLES AT A HEIGHT OF 3' AT THE PROPERTY LINE. ONLY INCANDESCENT, FLUORESCENT, COLOR-CORRECTED HIGH-PRESSURE SODIUM, OR METAL HALIDE MAY BE USED. ALL VEHICLE OR PEDESTRIAN ACCESS SHALL BE SUFFICIENTLY LIGHTED TO ENSURE SECURITY OF PROPERTY AND PERSONS.

2. ALL ROOF, WALL, AND GROUND MOUNTED EQUIPMENT MUST BE SCREENED IN ACCORDANCE WITH CHAPTER 8 OF THE UDC. IF ROOF AND WALL MOUNTED EQUIPMENT OF ANY TYPE INCLUDING DUCT WORK AND LARGE VENTS IS PROPOSED IT SHALL BE SHOWN ON THE SITE PLAN AND SCREENING IDENTIFIED. SCREENING OF MECHANICAL EQUIPMENT SHALL RESULT IN THE MECHANICAL EQUIPMENT BLENDING IN WITH THE PRIMARY BUILDING AND NOT APPEARING SEPARATE FROM THE BUILDING AND SHALL BE SCREENED FROM VIEW OF ANY RIGHTS-OF-WAY OR ADJOINING PROPERTIES.

3. PER CHAPTER 8, THE DUMPSTER ENCLOSURES MUST BE ONE FOOT ABOVE THE HEIGHT OF THE WASTE CONTAINER. USE PROTECTIVE POLES IN CORNERS AND AT IMPACT AREAS. FENCE POSTS SHALL BE OF RUST PROTECTED METAL OR CONCRETE. A MINIMUM 6' SLAB IS REQUIRED AND MUST BE SLOPED TO DRAIN, THE ENCLOSURE MUST HAVE STEEL FRAMED GATES WITH SPRING LOADED HINGES AND FASTENERS TO KEEP CLOSED. SCREENING MUST BE ON ALL FOUR SIDES BY MASONRY WALLS OR APPROVED FENCE OR SCREENING WITH OPAQUE GATES.

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10' SETBACK

PARCEL AREA TABLE							
SUBDIVISION AREA	1,354,223 SF, 31.09 AC						
LOWE'S PARCEL AR	EA	760,118 SF, 17.45 AC					
PARCEL I AREA		219,223 SF, 5.03 AC					
PARCEL 2 AREA		229,016 SF, 5.26 AC					
PARCEL 3 AREA		145,862 SF, 3.35 AC					
DAT	ABLE						
PROPOSED USE	GENERAL RETAIL						
LEGAL DESCRIPTION	HOLT TEXAS, LTD. ET AL DOC. NO. 2017008885						
ZONING DISTRICT	PUD ORD. NO. 2017-07 WITH BASE DISTRICT OF IN						
OVERLAY DISTRICT	HIGHWAY GATEWAY						
AIRPORT ZONE(S)	HORIZONTAL SURFACE						
PROPOSED TOTAL IMPERVIOUS COVER	891,011 SF, 65.8%						
NO. LOTS	5						
PROJECTED AVERAGE DAILY TRIPS	3,500						
AM PEAK HOUR	98 IN / 74 OUT						
PM PEAK HOUR		128 IN / 133 OUT					

PRIOR TO STARTING WORK, CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS. ALL EXISTING ITEMS THAT ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS ARE TO BE RELOCATED/REMOVED AS NEEDED & CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION AND FOR INCLUDING ALL COSTS IN BASE BID.

<u>SITE LEGEND</u>

- (A) PROPOSED 24" CONCRETE CURB & GUTTER, SEE DETAILS
- (B) THE PROPOSED CONCRETE CURB & GUTTER TO EXISTING CURB & GUTTER, PROVIDE SMOOTH GUTTER PAN WIDTH TRANSITION AS NEEDED
- C) 16 10' WIDE CONTRACTOR PARKING SPACES W/ "PRO PARKING" SIGN, SEE DETAIL
- (D) CART RETURN (TYP.), FURNISHED AND INSTALLED BY LOWE'S
- (E) 9'X18' HANDICAPPED SPACE WITH SIGN ('VAN' INDICATES
- (F) THE PROP. PAVEMENT TO EXISTING PAVEMENT, MATCH
- (G) "STOP" SIGN (RH) & STOP BAR, SEE DETAILS

VAN ACCESSIBLE), SEE DETAILS

GRADE AND ALIGNMENT

- (H) "VETERAN" PARKING, PROVIDE SIGNAGE PER DETAIL (TYP. 4)
- (I) "CURBSIDE PRODUCT PICKUP PARKING". PROVIDE STRIPING
- AND SIGNAGE PER DETAIL, (TYP. OF 6) (J) 6' WIDE STRIPED CROSSWALK W/ 4"SWSL
- (K) PAINTED TRAFFIC DIRECTIONAL ARROW (TYP.), SEE DETAILS
- (L) CONCRETE WHEEL STOP, SEE DETAILS
- (M) END CURB & GUTTER FOR FUTURE CONNECTION BY OTHERS
- (N) 5' CONCRETE SIDEWALK
- (0) THE PROPOSED SIDEWALK TO EXISTING
- (P) TYPE I ACCESSIBLE RAMP
- (Q) TYPE I ACCESSIBLE RAMP
- (R) 3' WIDE CONCRETE FLUME, SEE STORM DRAIN DETAILS
- (S) REMOVE EXISTING CURB & GUTTER
- (T) REMOVE EXISTING SIDEWALK
- (U) "FIRE LANE TOW AWAY ZONE" PAINTED IN 4" HIGH WHITE PAINT . 30' O.C. MAX SPACING ON 6' WIDE SINGLE RED LINE ON FACE OF CURB OR ON PAVEMENT WHERE NO CURB EXISTS
- (V) (2) RED STIMSONITE MODEL 88 AB (OR APPROVED EQUAL) 6" FROM CENTERLINE OF FDC WITH REFLECTIVE ENDS FACING DIRECTION OF VEHICULAR TRAFFIC

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<u>SITE PLAN NOTES</u>

I. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY OF GEORGETOWN, TX REGULATIONS AND CODES AND O.S.H.A. STANDARDS.

2. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.

3. ALL DISTURBED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL, SOD AND WATER.

4. ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED. ALL RADII ARE 3' UNLESS OTHERWISE NOTED

5, EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH, ALL COST SHALL BE INCLUDED IN BASE BID.

7. SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM TOPOGRAPHIC SURVEY PREPARED BY MANHARD CONSULTING.

8. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH DIVISION 2 OF LOWE'S STANDARD SITE WORK SPECIFICATIONS.

9. CONTRACTOR TO ENSURE ALL PAVEMENT, CONCRETE, AND CURB TIE-INS HAVE A NEAT, SMOOTH AND UNIFORM LINE BOTH HORIZONTALLY AND VERTICALLY.

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<u>IO' SETBACK</u>

PROPERTY-LINE

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	<u>SITE LE</u>	GEND
<u>EXISTING</u>	PROPOSED	DESCRIPTION
lO		NUMBER OF SPACES PER ROW
		CART CORRAL
	0	SIGN
	Ê.	HANDICAP SYMBOL
		HD CONCRETE PAVEMENT
		HEAVY DUTY PAVING
	•••	LIGHT POLES
		CURB & GUTTER
		OUTDOOR DISPLAY - GENER
		OUTDOOR STORAGE AREA - GENER
		RETAINING WALL
		FIRE LANE STRIPING

<u>SITE LEGEND</u>

- (A) PROPOSED 24" CONCRETE CURB & GUTTER, SEE DETAILS (B) THE PROPOSED CONCRETE CURB & GUTTER TO EXISTING CURB & GUTTER, PROVIDE SMOOTH GUTTER PAN WIDTH
- TRANSITION AS NEEDED
- (C) 16 10' WIDE CONTRACTOR PARKING SPACES W/ PRO PARKING" SIGN, SEE DETAIL
- (D) CART RETURN (TYP.), FURNISHED AND INSTALLED BY LOWE'S
- (E) 9'X18' HANDICAPPED SPACE WITH SIGN ("VAN' INDICATES VAN ACCESSIBLE), SEE DETAILS
- (F) THE PROP. PAVEMENT TO EXISTING PAVEMENT, MATCH GRADE AND ALIGNMENT
- (G) "STOP" SIGN (RH) & STOP BAR, SEE DETAILS
- (H) "VETERAN" PARKING, PROVIDE SIGNAGE PER DETAIL (TYP. 4)
- (1) "CURBSIDE PRODUCT PICKUP PARKING". PROVIDE STRIPING AND SIGNAGE PER DETAIL, (TYP. OF 6)
- (J) 6' WIDE STRIPED CROSSWALK W/ 4"SWSL
- (K) PAINTED TRAFFIC DIRECTIONAL ARROW (TYP.), SEE DETAILS
- (L) CONCRETE WHEEL STOP, SEE DETAILS
- (M) END CURB & GUTTER FOR FUTURE CONNECTION BY OTHERS
- (N) 5' CONCRETE SIDEWALK
- (0) THE PROPOSED SIDEWALK TO EXISTING
- (P) TYPE I ACCESSIBLE RAMP
- (Q) TYPE I ACCESSIBLE RAMP
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- (V) (2) RED STIMSONITE MODEL 88 AB (OR APPROVED EQUAL) 6' FROM CENTERLINE OF FDC WITH REFLECTIVE ENDS FACING DIRECTION OF VEHICULAR TRAFFIC

SITE VICINITY MAP NTS SITE DATA <u>ACREAGE</u> OVERALL PROJECT LOWE'S TRACT ±31,09 AC ±17.45 AC MAIN BUILDING: SALES FLOOR 94,775 S.F. TOOL RENTAL 2,694 S.F. OFFICE/BUSINESS 3,249 S.F. REVEIVING/STORAGE 6,334 S.F. UTILITY ROOMS 1,750 S.F. VESTIBULES/ASSEMBLY 1,438 S.F. MAIN BUILDING TOTAL 10,241 S.F. Ž∣ GARDEN CENTER: SHADE STRUCTURES 5,988 S.F. COVERED AREA 14,542 S.F. FMAN, OPEN AREA 6.007 S.F. GARDEN CENTER TOTAL 26,607 S.F. PARKING REQUIREMENTS: LOWE'S PARKING REQ'D: STANDARD 320 KAL HANDICAPPED TOTAL PARKING REQ'D 331 RATIO = 3.00 (SPACES/I,000 SF) **and** * La West (864) 'PED LOCAL PARKING REQ'D: STANDARD 331 HANDICAPPED TOTAL PARKING REQ'D 338 AND RATIO + 4.0 PER 1,000 SF FOR PRST 20,000 BUILDING SF + 2.0 PER 1,000 SF FOR 90,241 BUILDING SF + 2.5 PER 1,000 SF FOR 26,607 SF GARDEN CENTER + 1 PER 2,500 SF OF 26,635 SF OUTDOOR DISPLAY - GENERAL PARKING PROVIDED:

325

STANDARD

HANDICAPPED

TOTAL PARKING PROVIDED 338

RATIO = 3.07 (SPACES/I,000 SF)

LOT I HOLT CAT SUBDIVISION - LOT I DOC. NO. 2018016666

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LOWE'S HOME CENTERS, LLC

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SITE UTILITY NOTES

I. LOCATION OF SITE UTILITIES SHALL BE VERIFIED BY CONTRACTOR THE PROPER UTILITY COMPANY PROVIDING SERVICE.

2. UTILITY CONTRACTOR SHALL PROVIDE 2' x 2' x 6" THICK CONCRETE APRON AT ALL CLEANOUTS OUTSIDE OF BUILDING.

3. UTILITY CONTRACTOR WILL BE RESPONSIBLE FOR ALL TAP AND TIE ON FEES REQUIRED, AS WELL AS COST OF UNDERGROUND SERVICE CONNECTIONS TO THE BUILDING.

4. ELECTRICAL SERVICE TO PAD MOUNTED TRANSFORMER SHALL BE RUN UNDERGROUND, FROM ROAD RIGHT OF WAY TO TRANSFORMER LOCATION. ASSOCIATED COST BY UTILITY CONTRACTOR.

5. GENERAL CONTRACTOR SHALL FURNISH (2) - 4" TELEPHONE CONDUIT(S) AS SHOWN ON PLAN, VERIFY LOCATION OF TIE IN AT TELEPHONE COMPANY'S SERVICE LINE. PROVIDE NYLON PULL CORDS INSIDE CONDUIT.

6. THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS, TEES, AND FIRE HYDRANTS.

7. DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPE OR FITTING.

8. ALL WATER AND SANITARY LEADS TO BUILDING SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT END.

9. ALL FIRE HYDRANTS SHALL BE PROVIDED WITH AN APPROVED GATE VALVE A MAXIMUM OF 5'-0" FROM HYDRANT.

IO. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.

II. GENERAL CONTRACTOR SHALL HAVE APPROVAL OF ALL GOVERNING AGENCIES HAVING JURISDICTION OVER THIS SYSTEM PRIOR TO INSTALLATION.

12. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH DIVISION 2 OF LOWE'S STANDARD SITE SPECIFICATIONS.

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13. REFER TO FIRE PROTECTION SHEETS FOR LOCATION AND DETAIL OF FIRE LINE LEAD IN.

14, FIRE LINE SHALL BE STUBBED UP I' ABOVE FFE IN SPRINKLER ROOM.

15. REFER TO PLUMBING SHEETS FOR LOCATION OF SEWER, DOMESTIC, AND IRRIGATION CONNECTIONS.

> PRIOR TO STARTING WORK, CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS. ALL EXISTING ITEMS THAT ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS ARE TO BE RELOCATED/REMOVED AS NEEDED & CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION AND FOR INCLUDING ALL COSTS IN BASE BID.

PIPE MATERIAL SPECIFICATIONS SANITARY SEWER PIPE SHALL BE AS FOLLOWS AS INDICATED ON PLAN: 8" PVC SDR26 PIPE PER ASTM D 3034 6" & 4" SERVICE CONNECTIONS PVC SDR26 PER ASTM D 3034 WATER LINES SHALL BE AS FOLLOWS:

4" - 12" - DUCTILE IRON PIPE PER AWWA CI51 CLASS 350 W/ CEMENT LINING PER AWWA CIO4 ξ BITUMINOUS OUTSIDE COATING PER AWWA CI51 ξ CIIO OR

PVC DR-18 PER AWWA C900, C905, OR C909 CLASS 150 SMALLER THAN 3" - SOFT COPPER TUBE TYPE "K" OR "L" PER ASTM B88

OR HARD COPPER TUBE TYPE "L' OR "M" PER ASTM B88

OR PVC SCH. 40 PER ASTM D2846, D2846M, & SDR II

OR PEX TUBING PER ASTM E876, SDR 9



		SANITAI	RY SEWER S	TRUCTURE TA	BLE	
STR. NO.	STATION	RIM	INV. IN	INV. OUT	NORTH	EAST
А	O+36	749.50	739.81 (B)	739.71 (E2)	10220360.84	3135140.95
В	4+19	747.50	741.44 (C) 741.44 (J)	741.34 (A)	10220502.70	3135497.09
С	6+47	746.90	742.44 (D)	742.34 (B)	10220613.00	3135696.41
D	8+15	749.00	743.20 Œ	743.IO (C)	10220778.23	3135701.54
Е	10+79	750.95	744.36 (F)	744.26 (D)	10220994.43	3135852.98
E2	0+00	749.65	739.56 (A)	739.46 (EI)	10220327.76	3135154.18
F	12+98	750.80	745.34 (G)	745.24 (E)	10221186.47	3135958.09
G	l4+48	751.75	746.O4 (H)	745.94 (F)	10221132.27	3136098.08
Н	15+07	751.25	746.38 (1)	746.28 (G)	10221186.74	3136119.17
I	18+36	752.90		747.7O (H)	10221498.39	3136224.79
J	+ 37	748.45	742.09 (K) 742.09 ()	741.99 (B)	10220636.96	3135472.18
К	4+7	749.30	743.53 0	743.43 (၂)	10220961.46	3135554.04

	SANITARY SEWER PIPE TABLE					
PIPE ID.	SIZE	LENGTH	SLOPE	MATERAIL	INV. IN	INV. OUT
E2 - A	8"	36'	0.42%	PVC	739.56'	739.71'
в - С	8"	228'	0.40%	PVC	741.44'	742.34
C - D	8"	165'	0.40%	PVC	742.44'	743.10'
D - E	8"	264'	0.40%	PVC	743.20'	744.26'
F - G	8"	150'	0.40%	PVC	745.34'	745.94'
G - H	8"	58'	0.41%	PVC	746.04'	746.28'
E - F	8"	219'	0.40%	PVC	744.36'	745.24'
J - K	8"	335'	0.40%	PVC	742.09'	743.43'
H - I	8"	329'	0.40%	PVC	746.38'	747.70'
B - J	8"	137'	0.40%	PVC	741.44'	741.99'
A - B	8"	383'	0.40%	PVC	739.81′	741.34'

PIPE MATERIAL SPECIFICATIONS SANITARY SEWER PIPE SHALL BE AS FOLLOWS AS INDICATED ON PLAN: 8" PVC SDR26 PIPE PER ASTM D 3034 6" & 4" SERVICE CONNECTIONS PVC SDR26 PER ASTM D 3034

WATER LINES SHALL BE AS FOLLOWS: 4" - 12" - DUCTILE IRON PIPE PER AWWA CI51 CLASS 350 W/ CEMENT LINING PER AWWA CIO4 & BITUMINOUS OUTSIDE COATING PER AWWA CI51 & CIIO OP. PVC DR-18 PER AWWA C900, C905, OR C909 CLASS 150

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SMALLER THAN 3" - SOFT COPPER TUBE TYPE "K" OR "L" PER ASTM B88 OR HARD COPPER TUBE TYPE "L' OR "M" PER ASTM B88

OR PVC SCH. 40 PER ASTM D2846, D2846M, & SDR II

OR PEX TUBING PER ASTM F876, SDR 9

> PRIOR TO STARTING WORK, CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS. ALL EXISTING ITEMS THAT ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS ARE TO BE RELOCATED/REMOVED AS NEEDED & CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION AND FOR INCLUDING ALL COSTS IN BASE BID.



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	SCALE F - 60'

- $\langle \overline{A} \rangle$ GAS SERVICE LINE BY GAS COMPANY. CONTRACTOR RESPONSIBLE FOR COORDINATION & ALL FEES.
- $\langle Z \rangle$ Gas meter, by Gas company, W/ Bollard Protection. Contractor responsible for coordination ξ
- $\langle \Upsilon \rangle$ FIRE HYDRANT ASSEMBLY WITH 6' GATE VALVE AND BOLLARD PROTECTION, SEE DETAILS
- $\langle X \rangle$ "PRO AIR" PEDESTAL W/ I" PVC POWER CONDUIT FROM BUILDING, RE: ARCH. FOR EXACT LOCATION
- $\langle W \rangle$ gas line continued, by gas company, to the to existing main. Contractor responsible for

- $\langle S \rangle$ 6° SANITARY SEWER SERVICE EXIT (EL: 747.50), RE: ARCH FOR EXACT LOCATION
- $\langle R \rangle$ valit for 12 double-check fire backflow w/ a GUS approved flow detection device per GUS standards (; specifications
- $\langle \mathbb{Q} \rangle$ 2" IRRIGATION RPZ BACKFLOW PREVENTION PER GEORGETOWN UTILITIES STANDARDS & SPECIFICATIONS
- (0) 2" DOMESTIC BACKFLOW PREVENTION PER GEORGETOWN UTILITIES STANDARDS & SPECIFICATIONS
- $\langle N \rangle$ 2" DOMESTIC WATER METER PER GEORGETOWN UTILITIES STANDARDS & SPECIFICATIONS
- $\langle M \rangle$ underground elec./tel by service providers. Contractor responsible for coordination ξ all fees.
- $\langle L \rangle$ power pole by georgetown electric. Contractor responsible for coordination ξ all fees.
- $\langle \overline{K} \rangle$ (2) 4° PVC TELEPHONE CONDUITS BY CONTRACTOR WITH PULL ROPE W/ MIN. 100 LBS PULLING STRENGTH
- (J) (4) 2" PVC ELECTRICAL CONDUITS BY CONTRACTOR WITH PULL ROPE W/ MIN. 100 LBS PULLING STRENGTH
- (1) GENERATOR ON CONTRACTOR PROVIDED PAD PER GEORGETOWN ELECTRIC STANDARDS & SPECIFICATIONS
- $\langle H \rangle$ concrete transformer pad by georgetown electric, contractor responsible for coordination

- $\langle \overline{\mathbb{C}}
 angle$ 12" FIRE LINE ENTRY TO BE STUBBED 1.0' ABOVE FINISHED FLOOR ELEV., RE: ARCH, FOR EXACT LOCATION

SEE SHEET OII FOR UTILITY NOTES.

SITE

VICINITY MAP NTS

PAJESTKA OF CITY OF GEORGETOWN .

CONTRACTOR TO CONTRACT RICHARD

512-930-8498 FOR TEMPORARY POWER.

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FREEL LOWE'S HOME CENTERS, LLC 1000 LOWE'S BOULEVARD

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 REVISIONS

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 ISSUE DATE
 △ ISSUE DATE

DATE DESCRIPTION



12/01/20



uii utility plan 1-2	LOWES OF:	GEORGETOWN	CITY OF GEORGETOWN, TEXAS	DRAWN BY: CRD CHECKED BY: BTS

ORIGINAL

ISSUE DATE:

PERMIT SET

SSUE DATE:

SSUE DATE:

CONSTRUCTION SET

DRAWING NUMBER:

12/01/2023

		SCALE I - 60'
JECT	NO:	2023-68-SDP

SANITARY SEWER STRUCTURE TABLE						
STR. NO.	STATION	RIM	INV. IN	INV. OUT	NORTH	EAST
Α	O+36	749.50	739.81 (B)	739.71 (E2)	10220360.84	3135140.95
В	4+19	747.50	7 41. 44 (C) 741.44 (J)	741.34 (A)	10220502.70	3135497.09
С	6+47	746.90	742.44 (D)	742.34 (B)	10220613.00	3135696.41
D	8+15	749.00	743.20 (E)	743.IO (C)	10220778.23	3135701.54
Е	IO+79	750.95	744.36 (F)	744.26 (D)	10220994.43	3135852.98
E2	0+00	749.65	739.56 (A)	739.46 (ED)	10220327.76	3135154.18
F	12+98	750.80	745.34 (G)	745.24 (E)	10221186.47	3135958.09
G	I4+48	751.75	746.O4 (H)	745.94 (F)	IO221132.27	3136098.08
н	15+07	751.25	7 46. 38 (D	746.28 (G)	10221186.74	3136119.17
I	18+36	752.90		747.7O (H)	10221498.39	3136224.79
J	l+37	748.45	742.O9 (K) 742.O9 ()	741.99 (B)	10220636.96	3135472.18
к	4+71	749.30	743.53 0	743.43 (J)	10220961.46	3135554.04

	SANITARY SEWER PIPE TABLE					
PIPE ID.	SIZE	LENGTH	SLOPE	MATERAIL	INV. IN	INV. OUT
E2 - A	8"	36'	O.42%	PVC	739.56'	739.71'
в - С	8"	228'	0.40%	PVC	741.44	742.34'
C - D	8"	165'	0.40%	PVC	742.44'	743.10'
D - E	8"	264'	0.40%	PVC	743.20'	744.26'
F - G	8"	150'	0.40%	PVC	745.34'	745.94'
G - Н	8"	58'	0.41%	PVC	746.04'	746.28'
E - F	8"	219'	0.40%	PVC	744.36'	745.24'
J - K	8"	335'	0.40%	PVC	742.09'	743.43'
н - і	8"	329'	0.40%	PVC	746.38'	747.70'
B - J	8"	137'	0.40%	PVC	741.44	741.99'
A - B	8"	383'	0.40%	PVC	739.81'	741.34'

<u>UTILITY LEGEND</u>

 $\langle \underline{A} \rangle$ 2° DOMESTIC WATER ENTRY, RE: ARCH. FOR EXACT LOCATION $\langle B \rangle$ 2" IRRIGATION LINE ENTRY, RE; ARCH. FOR EXACT LOCATION

 $\langle \overline{\mathbb{C}} \rangle$ 12' FIRE LINE ENTRY TO BE STUBBED 1.0' ABOVE FINISHED FLOOR ELEV., RE: ARCH, FOR EXACT LOCATION

 $\langle D \rangle$ FDC (FIRE DEPARTMENT CONNECTION)

 $\langle E \rangle$ 6' SANITARY SEWER SERVICE EXIT (EL: 748.00), RE: ARCH FOR EXACT LOCATION

 $\langle F \rangle$ 6° SANITARY SEWER SERVICE LINE • 1.00% MIN. SLOPE, 300' MIN. COVER

 $\langle \overline{G} \rangle$ 6° CLEANOUT • 75' O.C. MAX SPACING

 $\langle H \rangle$ concrete transformer pad by georgetown electric, contractor responsible for coordination

 $\langle 1 \rangle$ generator on contractor provided pad per georgetown electric standards & specifications

(J) (4) 2° PVC ELECTRICAL CONDUITS BY CONTRACTOR WITH PULL ROPE W/ MIN. 100 LBS PULDING STRENGTH INSTALLED WITH MIN. 30° COVER

K (2) 4" PVC TELEPHONE CONDUITS BY CONTRACTOR WITH PULL ROPE W/ MIN. 100 LBS PULLING STRENGTER INSTALLED WITH MIN. 30" COVER

 $\langle L \rangle$ POWER POLE BY GEORGETOWN ELECTRIC. CONTRACTOR RESPONSIBLE FOR COORDINATION & ALL FEES.

 $\langle M \rangle$ underground electrel by service providers. Contractor responsible for coordination ξ all fees.

 $\langle N \rangle$ 2° DOMESTIC WATER METER PER GEORGETOWN UTILITIES STANDARDS & SPECIFICATIONS

 \bigcirc 2° DOMESTIC BACKFLOW PREVENTION PER GEORGETOWN UTILITIES STANDARDS & SPECIFICATIONS

 $\langle P \rangle$ 2" IRRIGATION WATER METER PER GEORGETOWN UTILITIES STANDARDS & SPECIFICATIONS

 $\langle \overline{0} \rangle$ 2" IRRIGATION RPZ BACKFLOW PREVENTION PER GEORGETOWN UTILITIES STANDARDS & SPECIFICATIONS

 $\langle \mathbb{R} \rangle$ valit for 12 double-check fire backflow W/ A GUS approved flow detection device per GUS standards ξ specifications

 $\langle S \rangle$ 6° SANITARY SEWER SERVICE EXIT (EL: 747.50), RE: ARCH FOR EXACT LOCATION

 $\langle T \rangle$ OIL/WATER SEPARATOR (RE: ARCH.)

 $\langle U \rangle$ 6' SANITARY SEWER SERVICE EXIT (EL: 744.75), RE: ARCH FOR EXACT LOCATION

 $\langle V \rangle$ FIRE HYDRANT PER CITY OF GEORGETOWN STANDARDS & SPECIFICATIONS

 $\langle W \rangle$ gas line continued, by gas company, to the to existing main. Contractor responsible for COORDINATION & ALL FEES

 $\langle \overline{X} \rangle$ "PRO AIR" PEDESTAL W/ I" PVC POWER CONDUIT FROM BUILDING, RE: ARCH, FOR EXACT LOCATION

 $\langle Y \rangle$ FIRE HYDRANT ASSEMBLY WITH 6' GATE VALVE AND BOLLARD PROTECTION, SEE DETAILS

 $\langle \overline{Z} \rangle$ Gas meter, by Gas company, W/ Bollard Protection. Contractor responsible for coordination ϵ ALL FEES.

 $\langle A \rangle$ GAS SERVICE LINE BY GAS COMPANY. CONTRACTOR RESPONSIBLE FOR COORDINATION ξ ALL FEES. $\langle BI \rangle$ 45° BEND

(CI) 12" GATE VALVE

(DI) 12"X12" TEE

(E) 12"X6" TEE

(F) 11.25° BEND

 $\langle G \rangle$ 2" TAPPING SLEEVE & VALVE (WET TAP)

(HI) 12" FULL-BODY TAPPING SLEEVE

 $\langle II \rangle$ CONCRETE ENCASEMENT

(J) UNDERGROUND ELECTRIC CONDUITS BY CITY OF GEORGETOWN, CONTRACTOR RESPONSIBLE FOR COORDINATION AND PAYMENT OF ANY/ALL ASSOCIATED FEES

PIPE MATERIAL SPECIFICATIONS SANITARY SEWER PIPE SHALL BE AS FOLLOWS AS INDICATED ON PLAN: 8" PVC SDR26 PIPE PER ASTM D 3034 6" & 4" SERVICE CONNECTIONS PVC SDR26 PER ASTM D 3034 WATER LINES SHALL BE AS FOLLOWS: 4" - 12" - DUCTILE IRON PIPE PER AWWA CI51 CLASS 350 W/ CEMENT LINING PER AWWA CIO4 & BITUMINOUS OUTSIDE COATING PER AWWA CI51 & CIIO PVC DR-18 PER AWWA C900, C905, OR C909 CLASS 150 SMALLER THAN 3" - SOFT COPPER TUBE TYPE "K" OR "L" PER ASTM B88 ΩP. HARD COPPER TUBE TYPE "L' OR "M" PER ASTM B88

Pop

PEX TUBING PER ASTM F876, SDR 9







PRIOR TO STARTING WORK, CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS. ALL EXISTING ITEMS THAT ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS ARE TO BE RELOCATED/REMOVED AS NEEDED & CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION AND FOR INCLUDING ALL COSTS IN BASE BID.





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- 8" PVC SDR26 PIPE PER ASTM D 3034 6" & 4" SERVICE CONNECTIONS PVC SDR26 PER ASTM D 3034
- PER AWWA CIO4 & BITUMINOUS OUTSIDE COATING PER AWWA CI51 & CIIO





Temporary Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Temporary Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Freeland & Kauffman, Inc. - Attn: Todd Simmons

Date: 09-27-2023

Signature of Customer/Agent:

Regulated Entity Name: Lowe's Home Centers, LLC

Project Information

Potential Sources of Contamination

Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.

1. Fuels for construction equipment and hazardous substances which will be used during construction:

The following fuels and/or hazardous substances will be stored on the site: waste, contaminated soil,

These fuels and/or hazardous substances will be stored in:

petroleum fuel, fertilizers, solid waste, sanitary waste, contaminated soil, landscape materials and construction materials

Aboveground storage tanks with a cumulative storage capacity of less than 250 gallons will be stored on the site for less than one (1) year.

Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.
 Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ

- prior to moving the tanks onto the project.
- Fuels and hazardous substances will not be stored on the site.
- 2. Attachment A Spill Response Actions. A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.
- 3. Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.
- 4. Attachment B Potential Sources of Contamination. A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

Sequence of Construction

- 5. **Attachment C Sequence of Major Activities**. A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.
 - For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.
 - For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.
- 6. Mame the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: <u>Berry Creek</u>

Temporary Best Management Practices (TBMPs)

Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. All structural BMPs must be shown on the site plan.

7. Attachment D – Temporary Best Management Practices and Measures. TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information is attached:

	A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.
	A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.
	A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.
	A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.
8.	The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.
	Attachment E - Request to Temporarily Seal a Feature. A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.
	There will be no temporary sealing of naturally-occurring sensitive features on the site.
9.	Attachment F - Structural Practices. A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.
10.	Attachment G - Drainage Area Map. A drainage area map supporting the following requirements is attached:
	For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.
	For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.
	For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect
	There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.
 11. Attachment H - Temporary Sediment Pond(s) Plans and Calculations. Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information

must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.

🗌 N/A

- 12. Attachment I Inspection and Maintenance for BMPs. A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.
- 13. All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.
- 14. If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
- 15. Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.
- 16. V Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.

17. Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices. A schedule of the interim and permanent soil stabilization practices for the site is attached.

- 18. Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
- 19. Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

- 20. All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.
- 21. If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.
- 22. Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

ATTACHMENT A (SILL RESPONSE ACTIONS)

SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC)

The Contractor will train all personnel in the proper handling and cleanup of spilled Hazardous Substances or Oil. No spilled Hazardous Substances or Oil will be allowed to come in contact with storm water discharges. If such contact occurs, the storm water discharge will be contained on site by measures such as, but not limited to absorbents, booms, static resistant pads, sump booms and other clean up equipment (see Spill Kit contents) until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated storm water. It shall be the responsibility of the Contractor's Superintendent to be properly trained, and to train all personnel in spill prevention and clean up procedures.

For diesel fuel, oil, hydraulic fluids, other petroleum products and other chemicals: The following requirements apply to the storage and handling of chemicals on the site. If you are already implementing controls as part of an SPCC Plan or other spill prevention plan that meet or exceed the requirements of Part 2.3.3.c of the EPA Construction General Permit, you may continue to do so and will be considered in compliance with these provisions provided you reference the applicable parts of the SPCC or other plans in this SWPPP as required in Part 7.2.6b. viii of the EPA Construction General Permit.

- 1. If any chemical container (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning solvents, additives for soil stabilization, concrete curing compounds, and additives, etc.) has a storage capacity of less than 55 gallons:
 - a. The containers must be water-tight, and must be kept closed, sealed, and secured when not being actively used;
 - b. Store containers a minimum of 100 feet from receiving waters, constructed or natural site features, and storm drain inlets;
 - c. If stored outside, use a secondary containment pallet or similar device to capture small leaks or spills; and
 - d. Have a spill kit available on site that is in good working conditions (i.e., not damaged, expired, or used up) and ensure personnel are available to respond immediately in the event of a leak or spill.
- 2. If any chemical container has a storage capacity of 55 gallons or more:
 - a. The containers must be water-tight, and must be kept closed, sealed, and secured when not being actively used;
 - b. Store containers a minimum of 100 feet from receiving waters, constructed or natural site drainage features, and storm drain inlets.
 - c. Provide either (1) cover (e.g., temporary roofs) to minimize the exposure of these containers to precipitation and to stormwater, and (2) secondary containment (e.g., curbing, spill berms, dikes, spill containment pallets, double-wall, above ground storage tank); and,
 - d. Have a spill kit available on site that is in good working condition (i.e., not damaged, expired, or used up) and ensure personnel are available to respond immediately in the event of a leak or spill
- 3. In order to prevent or minimize the potential for a spill of Hazardous Substances or Oil to come into contact with storm water, the following steps will be implemented:
 - a) Only the minimum practical quantity of all such materials will be kept at the Project.
 - b) A spill control and containment kit (spill kit) shall be as described in Section 822.4.a.8 of this SWPPP.
 - c) Manufacturer's recommended methods for spill cleanup will be clearly posted inside the job trailer wall and site personnel will be trained regarding these procedures and the location of the MSDS information and cleanup supplies.
 - d) It is the Contractor's responsibility to ensure shall Hazardous Waste discovered or generated at the Project site is disposed of properly by a licensed hazardous material disposal company. The Contractor is responsible for not exceeding Hazardous waste storage requirements mandated by the EPA or state and local authorities.

- e) The General Contractor must be prepared to provide to InfoTrack (a service contracted by Lowe's to aid in spill reporting and described in 822.C.29b) below) the exact location, address and phone number of the Project site, date and time of the discharge, type of material, estimate of the quantity, source of the discharge, description of all affected media, cause of discharge, any damages or injuries, actions being used to stop, remove, and mitigate the effects of the discharge, whether an evacuation might be needed and the names of individuals and/or organizations that have been contacted in addition to Info Track.
- 4. In the event of a spill of Hazardous Substances or Oil, the following procedures must be followed:
 - a) Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly. You are prohibited from hosing the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.
 - b) All measures must be taken to contain and abate the spill and to prevent the discharge of the Hazardous Substance or Oil to storm water or off-site. (The spill area must be kept well ventilated and personnel must wear appropriate protective clothing to prevent injury from contact with the Hazardous Substances.)
 - c) Contact Info Track at 1-888-429-6281 (1-888-HAZMAT 1) to determine whether the spill is reportable. Info Track has been contracted by Lowe's to provide this service to Lowe's facilities, including new construction. You must state that you are working on a Lowe's new construction site.
 - d) If the spill is determined to be reportable Info Track will notify the EPA immediately. Because of the difficulty in determining reportable quantities, Lowe's contracts for the expertise and support of Info Track. All spills of Hazardous Substances or Oil must be discussed with Info Track in order to determine if a reportable quantity has been released.
 - e) Contact the Lowe's Project Manager or the Operator's Engineer immediately after discussing the spill with Info Track.
 - f) If the release is equal to or in excess of a reportable quantity, the SWPPP must be modified within seven (7) calendar days of knowledge of the discharge to provide a description of the release, the circumstances leading to the release, and the date of the release. The SWPPP must identify measures to prevent the recurrence of such releases and to respond to such releases. Critical Incident Form (Form G-1) must be completed in accordance with this requirement.
 - g) If the release is determined to not be reportable (less than a reportable quantity) it shall be noted on a Weekly Inspection Report as an unsatisfactory item with a Task for corrective action and shall be noted and dated when implemented.
- 5. The Contractor's Superintendent will be the spill prevention and response coordinator. He will designate the individuals who will receive spill prevention and response training. These individuals will each become responsible for a particular phase of prevention and response. The names of these personnel will be posted in the material storage area and in the office trailer onsite.

Critical Incident & Reportable Quantity For Please complete entire section	rm G-1 Lowe's of (Georgetown, TX)
Inspector's Name:	
Inspector's Qualifications:	
Date:	
Time:	
Phase of Construction (check all that apply):	
[] Clearing/Grubbing	[] Rough Grading
[] Paving	[] Final Grading
[] Building Construction	[] Infrastructure
[] Final Stabilization	[] Construction Complete
Weather at the time of the inspection (check all that	<u>at apply)</u> :
[] Clear	[] Sleet
[] Rain	[] High Winds
[] Fog	[] Cloudy
[] Snow	[] Other
Current temperature (indicate if C or F):	
General Information	
Description of Non-compliant Incident 1. Please describe the non-compliant incident and it	ts cause:
2. Please indicate date non-compliant incident start	red:
3. Please indicate time non-compliant incident start	ed:
4. Please indicate date non-compliant incident ende	ed:
5. Please indicate time non-compliant incident ende	ed:

6. If non-compliance has not been corrected, please provide anticipated date of compliance below:

Modification

7. Please describe steps taken or planned to reduce, eliminate, and prevent re-occurrence of the noncompliance. Complete Modification Report within 48 hours to Revise SWPPP if event is reportable.

8. Provide SWPPP revision date for the above Modification Report: _______ Polluant Description
9. Please indicate pollutant spilled or released:
Sediment [] Petroleum []
Hazardous Substance [] Other (describe) []
10. If potential spill or release is a hazardous substance or oil please contact
Info-Track at 1-888-429-6280 to determine if the spill is "reportable". Has the
spill or release been determined to be "Reportable"? []YES []NO

11. Please indicate approximate quantity (in gallons or liters, pounds or kilograms, tons or tones):

12. Please list any agencies notified by Info Track:

I certify under penalty of perjury that I personally conducted this inspection and I personally prepared this inspection summary report noting the deficiencies in BMPs and the corrective actions taken. I certify that the information in this report is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including fines and imprisonment for knowing violations

Qualified Inspector	
Signature	Date

In the event of a Hazardous Substances or Oil spill or release the Qualified Inspector is to contact Info Track at 1-888-429-6281 to determine if the release is equal or in excess of a reportable quantity. If the Hazardous Substances or Oil spill is in excess of a reportable quantity or there is off-site sediment releases complete Form G-1. In addition to completing the Form, assure all measures are taken to contain and abate the spill or sediment release to prevent the discharge from entering surface waters and contact Lowe's Project Manager or the Operator's Engineer immediately. If Form G-1 is completed the Qualified Inspector must also complete a Modification Report (Form D-1) within seven (7) calendar days of knowledge of the spill or discharge to identify measures to prevent the recurrence of such spills or releases and to respond to such spills or releases. If a release is determined not to be reportable (less than a reportable quantity or not an off-site sediment discharge) it shall be noted on the Weekly Inspection Report (Form C-1) as an unsatisfactory item with a Task for Corrective Action (Form C-3) and shall be noted and dated when completed.

ATTACHMENT B

A. POTENTIAL SOURCES OF POLLUTION

Following is a list of pollutant-generating activities and potential inventory of pollutants or pollutant constituents associated with those activities which could be exposed to rainfall or snowmelt, and could be discharged from the construction site. General Contractor must take into account where potential spills and leaks could occur that contribute pollutants to stormwater discharges, and any known hazardous or toxic substances that will be disturbed or removed during construction. The following materials management practices and pollution prevention measures will be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff. All exterior materials storage areas shall be inspected at the frequency listed in Section 801.1. The Contractor's Superintendent will be responsible for ensuring that these procedures are followed.

Pollutant-Generating Activity	Pollutants or Pollutant Constituents (that could be discharged if exposed to stormwater)	Location on Site (or reference SWPPP site map where this is shown)
Clearing, Grading, Excavating	Sediment & Green Waste	Anywhere on site - See Phase I & II Erosion and Sediment Control Plans
Concrete Work	Heavy Metals, pH, Solvents, Concrete Washout	See site map for concrete washout location(s) - concrete work at building and parking field locations
Paving	Petroleum Based Products	Parking and loading areas
Material Delivery	Heavy Metals, Petroleum Products, Hazardous Waste Spills	Construction staging (lay-down) area and areas adjacent to building
Blasting Operations	рН	Anywhere on site - See Phase I ESC Plan
Painting and Cleaning	Paints and Solvents, Cleaning Products	Building area
Demolition	Trash and Debris, Hazardous Wastes, Solid Wastes	See Demolition Plan & Phase I ESC Plan
General Construction	Sanitary Waste, Solid Waste, Trash and Debris, Hazardous Waste Spills	Anywhere on site. See Site Map for Sanitary and Solid Waste Locations
Vehicle & Equipment Use, Fueling and Storage	Heavy Metals, Petroleum Products	Anywhere on site.
Landscape Construction	Fertilizers, Nutrients, Pesticides, Herbicides,	Area of site not covered by building and parking - pervious areas
De-Watering	Sediment and Nutrients	See Phase I ESC Plan & Site Map
Hazardous Waste Spills	Heavy Metals, Petroleum Products	Anywhere on site

B. GOOD HOUSEKEEPING SOURCE CONTROL PRACTICES

Good housekeeping practices will be followed during all onsite construction activities. An effort will be made to store only enough products on-site at one time required to do the job. All materials stored onsite will be stored in a neat, orderly manner and, if possible, under roof or in a containment area. The

Contractor will be responsible for showing the location of all materials storage areas on the Site Map. At minimum, all containers will be stored with their lids on when not in use. Drip pans shall be provided under all dispersers. Products will be kept in the original containers with the original manufacturer's label in legible condition. Substances will not be mixed with one another unless recommended by the manufacturer. Whenever possible, all product will be used up before disposing of the container. Manufacturer's recommendations for proper use and disposal will be followed. The Contractor's Superintendent will be responsible for daily inspections to ensure proper use and disposal of materials.

C. HAZARDOUS MATERIALS

The following practices shall be used to reduce the risks associated with hazardous substances. Material Safety Data Sheets (MSDSs) for each product with hazardous properties that is used at the Project will be obtained and used for the proper management of potential wastes that may result from these products. An MSDS will be posted in the immediate area where such products are stored and/or used and another copy of each MSDS will be maintained in the job trailer t the Project. Each employee who must handle a Hazardous Substance will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the product he/she is using, particularly regarding spill control techniques. Products will be kept in original containers with the original labels in legible condition. Original labels and MSDSs will be procured and used for each product. If surplus product must be disposed of, manufacturer's and local/state/federal requirements for methods of proper disposal shall be followed.

It is imperative that all Hazardous Waste be properly identified and handled in accordance with all applicable Hazardous Waste Standards, including the storage, transport and disposal of the Hazardous Wastes. The General Contractor's Superintendent is responsible for properly identifying and handling or seeking assistance in properly identify or handling any Hazardous Waste. There are significant penalties for the improper handling of Hazardous Wastes. Hazardous Waste may include certain Hazardous Substances, as well as pesticides, paints, paint solvents, cleaning solvents, pesticides, contaminated soils, and other materials, substances or chemicals that have been discarded (or will be discarded) as being out-of-date, contaminated, or otherwise unusable, and can include the containers for those substances; other materials and substances can also be or become Hazardous Wastes. The Contractor's Superintendent is also responsible for ensuring that all site personnel are instructed as to these Hazardous Waste requirements and also that the requirements are being followed. The following standards will apply:

- (a) Separate hazardous or toxic waste from construction and domestic waste;
- (b) Store waste in sealed containers, constructed of suitable materials to prevent leakage and corrosion, and labeled in accordance with applicable Resource Conservation and Recovery Act (RCRA) requirements and all other applicable Federal, State, Tribal, or Local requirements;
- (c) Store all outside containers with appropriately-sized secondary containment (e.g., spill berms, dikes, spill containment pallets) to prevent spills from being discharged, or provide a similarly effective means designed to prevent the discharge of pollutants from these areas (e.g., storing chemicals in a covered area, having a spill kit available on site);
- (d) Dispose of hazardous or toxic waste in accordance with manufacturer's recommended method of disposal and in compliance with Federal, State, Tribal or Local requirements;
- (e) Follow all other Federal, State, Tribal, and local requirements regarding hazardous or toxic waste; and,
- (f) Clean-up all wastes immediately using dry clean-up methods where possible, and dispose of used materials properly. Do not clean surfaces or spills by hosing down area. Eliminate the source of the spill to prevent a discharge.

All petroleum tanks and fueling areas shall be inspected and monitored for leaks at the inspection frequency listed in Section 801.I, and receive regular preventive maintenance to reduce the chance of leakage or spills. All petroleum containers shall be water-tight tight and clearly labeled. Secondary containment for all petroleum products stored outside shall be provided and shall comply with the following criteria:

- a. Any petroleum storage tanks stored onsite will be located within a containment area that is designed with an impervious surface between the tank and ground. Containment shall be sufficiently impervious to contain petroleum products. Impervious surface shall be defined as a surface containing any spill for a minimum of 48 hours without penetration to any environmental media (e.g., soil, groundwater, etc.). All containment systems must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank or pipe, will not escape the system before cleanup can occur;
- b. The secondary containment must be designed to provide a volume of 110% of the volume of the largest tank:
- c. Any mobile petroleum tank shall be parked in a vehicle service area surrounded by a berm, with an impervious surface between the tank(s) and ground that provides a containment volume equal to 110% of the largest tank;
- d. Accumulated rainwater in any secondary containment areas or other areas where petroleum is stored should be collected, inspected and/or tested so that it can be characterized properly and the rainwater can be properly and economically disposed or released on-site. Rainwater contaminated with petroleum products or spills from contaminated containment areas are to be properly disposed of by a licensed hazardous waste transporter;
- e. Drip pans shall be provided for all dispensers. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations. Asphalt paving machines shall not be cleaned on the Project site;
- f. Secondary containment will not be required for oil-filled self-propelled operational equipment if the Contractor inspects and complies with CWA CFR 40 Part 112;
- g. Petroleum fueled equipment (stationary non-self-propelled): Petroleum fueled equipment such as pumps and generators are to be provided with secondary containment for the entire footprint of the equipment sufficient to contain 110% of the largest petroleum tank serving the equipment. This requirement is for all stationary non-propelled equipment, including handheld equipment when not in use;
- h. Diversion channels, stormwater and retention ponds shall not be used to provide secondary containment for petroleum products; and
- i. Location requirements:
 - i. All petroleum storage tanks shall be located a minimum of 100 linear feet from drainageways, storm inlets and surface waters;
 - ii. All fixed petroleum storage tanks shall be located and updated as needed on the Site Map(s); and,
 - iii. A Spill Kit shall be provided on the site. The Spill Kit shall be in good working condition (i.e., not damaged, expired or used up) and include personal safety devices such as 2 aprons, 2 shoe booties, 2 chemical goggles, 2 solvent resistant gloves, absorbents, containment booms, static resistant pads, sump booms, and clean up equipment including a 55-gallon steel drum, drum liner, solvent resistant broom, non-spark and solvent resistant shovel, and residue bags. The spill kit shall be located in or near the construction trailer and shall be accessible at all times by trained personnel. The spill kit provides an active countermeasure that will be quickly and immediately be deployed after a small volume spill or any discharge of petroleum.

If the maximum total aggregate above ground storage capacity (for the total area covered by the permit) exceeds 1,320 gallons (including both bulk and operational equipment volumes in fuel tanks 55 gallons and greater), then a Spill Prevention Control and Countermeasures ("SPCC") Plan must be prepared and implemented. If the total above ground storage capacity (for the total area covered by the permit) is equal or less than 10,000 gallons, the General Contractor may prepare a self-certified Plan by completing Forms G-2 ("Self-Certification Statement") and Form G-3 ("Facility Description and

Potential Tank, Equipment and Operational Equipment Failure Resulting in Spills"), each of which are included within this SWPPP, so long as the site meets certain requirements (addressed on Form G-2) for its reportable discharge history. Forms G-2 and G-3, must be appropriately completed prior to beginning operations. If the site operations do not meet the requirements for a reportable discharge as discussed on Form G-2, a SPCC Plan must be prepared separate from this SWPPP and certified by a Professional Engineer.

E. SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC)

The Contractor will train all personnel in the proper handling and cleanup of spilled Hazardous Substances or Oil. No spilled Hazardous Substances or Oil will be allowed to come in contact with storm water discharges. If such contact occurs, the storm water discharge will be contained on site by measures such as, but not limited to absorbents, booms, static resistant pads, sump booms and other clean up equipment (see Spill Kit contents) until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated storm water. It shall be the responsibility of the Contractor's Superintendent to be properly trained, and to train all personnel in spill prevention and clean up procedures.

For diesel fuel, oil, hydraulic fluids, other petroleum products and other chemicals: The following requirements apply to the storage and handling of chemicals on the site. If you are already implementing controls as part of an SPCC Plan or other spill prevention plan that meet or exceed the requirements of Part 2.3.3.c of the EPA Construction General Permit, you may continue to do so and will be considered in compliance with these provisions provided you reference the applicable parts of the SPCC or other plans in this SWPPP as required in Part 7.2.6b. viii of the EPA Construction General Permit.

- 1. If any chemical container (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning solvents, additives for soil stabilization, concrete curing compounds, and additives, etc.) has a storage capacity of less than 55 gallons:
 - a. The containers must be water-tight, and must be kept closed, sealed, and secured when not being actively used;
 - b. Store containers a minimum of 100 feet from receiving waters, constructed or natural site features, and storm drain inlets;
 - c. If stored outside, use a secondary containment pallet or similar device to capture small leaks or spills; and
 - d. Have a spill kit available on site that is in good working conditions (i.e., not damaged, expired, or used up) and ensure personnel are available to respond immediately in the event of a leak or spill.
- 2. If any chemical container has a storage capacity of 55 gallons or more:
 - a. The containers must be water-tight, and must be kept closed, sealed, and secured when not being actively used;
 - b. Store containers a minimum of 100 feet from receiving waters, constructed or natural site drainage features, and storm drain inlets.
 - c. Provide either (1) cover (e.g., temporary roofs) to minimize the exposure of these containers to precipitation and to stormwater, and (2) secondary containment (e.g., curbing, spill berms, dikes, spill containment pallets, double-wall, above ground storage tank); and,
 - d. Have a spill kit available on site that is in good working condition (i.e., not damaged, expired, or used up) and ensure personnel are available to respond immediately in the event of a leak or spill
- 3. In order to prevent or minimize the potential for a spill of Hazardous Substances or Oil to come into contact with storm water, the following steps will be implemented:
 - a) Only the minimum practical quantity of all such materials will be kept at the Project.
 - b) A spill control and containment kit (spill kit) shall be as described in Section 822.4.a.8 of this SWPPP.
 - c) Manufacturer's recommended methods for spill cleanup will be clearly posted inside the job trailer wall and site personnel will be trained regarding these procedures and the location of the MSDS information and cleanup supplies.

- d) It is the Contractor's responsibility to ensure shall Hazardous Waste discovered or generated at the Project site is disposed of properly by a licensed hazardous material disposal company. The Contractor is responsible for not exceeding Hazardous waste storage requirements mandated by the EPA or state and local authorities.
- e) The General Contractor must be prepared to provide to InfoTrack (a service contracted by Lowe's to aid in spill reporting and described in 822.C.29b) below) the exact location, address and phone number of the Project site, date and time of the discharge, type of material, estimate of the quantity, source of the discharge, description of all affected media, cause of discharge, any damages or injuries, actions being used to stop, remove, and mitigate the effects of the discharge, whether an evacuation might be needed and the names of individuals and/or organizations that have been contacted in addition to Info Track.
- 4. In the event of a spill of Hazardous Substances or Oil, the following procedures must be followed:
 - a) Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly. You are prohibited from hosing the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.
 - b) All measures must be taken to contain and abate the spill and to prevent the discharge of the Hazardous Substance or Oil to storm water or off-site. (The spill area must be kept well ventilated and personnel must wear appropriate protective clothing to prevent injury from contact with the Hazardous Substances.)
 - c) Contact Info Track at 1-888-429-6281 (1-888-HAZMAT 1) to determine whether the spill is reportable. Info Track has been contracted by Lowe's to provide this service to Lowe's facilities, including new construction. You must state that you are working on a Lowe's new construction site.
 - d) If the spill is determined to be reportable Info Track will notify the EPA immediately. Because of the difficulty in determining reportable quantities, Lowe's contracts for the expertise and support of Info Track. All spills of Hazardous Substances or Oil must be discussed with Info Track in order to determine if a reportable quantity has been released.
 - e) Contact the Lowe's Project Manager or the Operator's Engineer immediately after discussing the spill with Info Track.
 - f) If the release is equal to or in excess of a reportable quantity, the SWPPP must be modified within seven (7) calendar days of knowledge of the discharge to provide a description of the release, the circumstances leading to the release, and the date of the release. The SWPPP must identify measures to prevent the recurrence of such releases and to respond to such releases. Critical Incident Form (Form G-1) must be completed in accordance with this requirement.
 - g) If the release is determined to not be reportable (less than a reportable quantity) it shall be noted on a Weekly Inspection Report as an unsatisfactory item with a Task for corrective action and shall be noted and dated when implemented.
- 5. The Contractor's Superintendent will be the spill prevention and response coordinator. He will designate the individuals who will receive spill prevention and response training. These individuals will each become responsible for a particular phase of prevention and response. The names of these personnel will be posted in the material storage area and in the office trailer onsite.

F. PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, AND LANDSCAPE MATERIALS

In storage areas, provide either (1) cover such as plastic sheeting or temporary roofs to minimize the exposure of these chemicals to precipitation and stormwater, or (2) a similarly effective means designed

to minimize the discharge of pollutants from these areas; and comply with all application and disposal requirements included on the registered pesticide, herbicide, insecticide, and fertilizer label. Discharge of fertilizers containing nitrogen or phosphorus in runoff shall be minimized The application of pesticides, herbicides, insecticides and fertilizers shall be limited to the active growing season. Carefully review the plans and select only the slow-release type of fertilizer specified. Fertilizers will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked in the soil to limit exposure to storm water. Avoid application during heavy rain and never apply to frozen ground. Application of fertilizer to stormwater conveyance channels or other storm water facilities where water will flow is not permitted. Follow all federal, state and local requirements regarding application. Storage of all fertilizer shall be in sealed containers or in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

G. BUILDING MATERIALS

Minimize the exposure of building materials, construction wastes, trash, landscape materials (green waste), fertilizers, pesticides, herbicides, detergents and other materials present on the site to precipitation and to stormwater. Provide either (1) cover with plastic sheeting or temporary roofs to minimize the exposure of these products to precipitation and to stormwater, or (2) s similarly effective means designed to minimize the discharge of pollutants form these areas. Clean up and dispose of waste in designated waste containers and clean up immediately if containers overflow.

All containers will be tightly sealed and stored when not in use. Slurry from stucco, form release oils, excess paint, paint solvents, cleaning soaps and solvents may not be discharged from the site and must be properly disposed of according to manufacturer's instructions or state and federal regulations.

H. CONCRETE WASH WASTE

The Project may require the use of multiple concrete wash out areas. These concrete washes out areas are to be made available to all trades and subcontractors working on the Project. The Contractor may designate certain wash out areas for particular trades or subcontractors, but the Contractor is responsible for the management of all concrete washout areas on the Project. All concrete wash out areas will be located in an area where the likelihood of the area contributing to storm water discharges is negligible. If required, additional BMPs must be implemented to prevent concrete wastes from contributing to storm water discharges. The location of concrete wash out area(s) must be identified on the Site Map by the Contractor once the locations have been determined. In addition, a standard detail on the construction of the concrete wash out is included on [*Plan Sheet Name & #*].

Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site, but only in specifically designated diked and impervious washouts which have been prepared to prevent contact between the concrete wash and storm water. Waste generated from concrete wash water (liquid wastes) shall not be dumped or allowed to be discharged into constructed or natural drainage ways, inlets, receiving waters or highway right of ways, or any location other than the designated concrete washout. Do not allow liquid wastes to be disposed of through infiltration or otherwise be disposed of on the ground. Comply with all applicable State, Tribal or Local requirements. Proper signage designating the "Concrete Washout" shall be placed near the facility. Concrete Washouts shall be located at minimum 100 linear feet from drainage ways, inlets and surface waters. Waste concrete may be poured into forms to make riprap or other useful concrete products.

The hardened residue from the concrete wash out diked areas will be disposed of in the same manner as other non-hazardous construction waste materials or may be broken up and used on site as deemed appropriate by the Contractor. Maintenance of the washout is to include removal of hardened concrete. Facility shall have sufficient volume to contain all the concrete waste resulting from washout and a minimum freeboard of 12 inches. Facility shall not be filled beyond 95% capacity and shall be cleaned out once 75% full unless a new facility is constructed. The Contractor's Superintendent will be responsible for seeing that these procedures are followed.

Saw-cut Portland Cement Concrete (PCC) slurry shall not be allowed to enter storm drains or Watercourses. Any saw-cut PCC mixed with stormwater may not be discharged from the site. Saw-cut residue should not be left on the surface of pavement or be allowed to flow over and off pavement. Residue from saw-cutting and grinding shall be collected by vacuum and disposed of in the concrete washout facility.

I. MASONRY MIXING AREA

Non-stormwater discharges into storm drainage systems or waterways containing slurries from concrete or mortar mixing operations shall not be permitted. Masonry mixing areas shall be located a minimum distance of 100 linear feet from drainage ways, inlets and surface waters and all storm water runoff from these areas shall be contained by a berm or other measures. Run-on water to these areas will be diverted to prevent mixing of clean water and water contaminated with concrete slurry.

J. EQUIPMENT SERVICE AREA

Any equipment parking, storage or servicing on the site shall be conducted in an equipment service area. This area shall be protected by a temporary perimeter berm preventing all surface runoff from leaving the area, or equivalent measure, and shall be located a minimum distance of 100 linear feet from drainage ways, inlets and surface waters. Any external washing of trucks and other construction vehicles (as permitted) must be confined to this area. Ensure there are no discharges of soaps, solvents, or detergents in equipment and vehicle wash water. For storage of soaps, detergents or solvents, provide either (1) cover to minimize exposure of these detergents to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas. No engine degreasing or asphalt equipment or tool washing is permitted. Ensure adequate supplies are available at all times to handle spills, leaks, and disposal of used liquids. Use drip pans and absorbents under and around leaky vehicles. Dispose of or recycle oil and oily wastes in accordance with federal, state and/or local requirements. Clean up all spills or contaminated surfaces immediately.

Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge. Contractor shall identify the equipment service area on the Site Map

K. SOLID AND CONSTRUCTION WASTE

All waste materials will be collected and stored in an appropriately covered container and/or securely contained metal dumpster rented from a local waste management company which must be a licensed solid waste management company. For waste containers (dumpsters) that have lids, keep waste container lids closed when not in use, and close lids at the end of the business day and during storm events. Any waste containers (dumpsters) that do not have lids, provide either (1) cover (e.g., tarp, plastic sheeting, temporary roof) to minimize exposure of wastes to precipitation, or (2) a similarly effective means designed to minimize the discharge of pollutants (e.g., secondary containment). The dumpster will comply with all local and state solid waste management regulations.

All trash and non-recyclable construction debris from the site will be deposited in the dumpster. Construction debris that will undergo source separation as part of a construction waste management plan shall be placed in appropriately marked dumpsters or bins. Once building construction has commenced, dumpsters will be emptied when 95% full, or more often if necessary to prevent over-flow and the trash will be hauled to a landfill. Source separated recyclable construction debris will be hauled to a materials recovery or recycling facility. No construction waste materials will be buried on site. All personnel will be instructed by the Qualified Inspector regarding the correct procedures for waste disposal or waste materials recycling procedures.

All waste dumpsters and roll-off containers will be located in an area where the likelihood of the containers contributing to storm water discharges is negligible. Solid waste containers shall be located no less than 50 feet from any storm inlet, drainage way, or surface water. If required, additional BMPs must be implemented, such as gravel bags, wattles, Dikes, berms, and fences around the base, to prevent

wastes from contributing to storm water discharges. The location of waste dumpsters and roll-off containers must be identified on the Site Map by the Contractor once the locations have been determined

L. SANITARY WASTE

A minimum of one portable sanitary unit will be provided for every ten (10) workers on the site. All sanitary waste will be collected from the portable units a minimum of one time per week by a licensed portable facility provider in complete compliance with local and state regulations.

All sanitary waste units shall be positioned to that they are secure and will not be tipped or knocked over and located in an area where the likelihood of the unit contributing to storm water discharges is negligible. Additional containment BMPs must be implemented, such as gravel bags or specially designed plastic skid containers around the base, to prevent wastes from contributing to storm water discharges. The location of sanitary waste units must be identified on the Site Map by the contractor once the locations have been determined.

M. CONTAMINATED SOIL

Any contaminated soils (resulting from spills of Hazardous Substances or Oil or discovered during the course of construction) which may result from Construction Activities will be contained and cleaned up immediately in accordance with the SWPPP and in accordance with applicable state and federal regulations. Contaminated soils not resulting from Construction Activities, or which pre-existed Construction Activities, but which are discovered by virtue of Construction Activities, should be reported in the same manner as spills (see Section 822.C below), but with sufficient information to indicate that the discovery of an existing condition is being reported. If there is a release that occurs by virtue of the discovery of existing contamination, this should be reported as a spill, if it otherwise meets the requirements for a reportable spill.

N. DEMOLITION

For demolition of any structure with at least 10,000 square feet of floor space built or renovated before January 1, 1980: (1) Implement controls to minimize the exposure of polychlorinated biphenyl (PCB) containing building materials, including paint, caulk, and pre-1980 florescent lighting fixtures to precipitation and stormwater; and (2) Ensure that disposal of such materials is performed in compliance with applicable state, federal and local laws.

CONSTRUCTION SEQUENCE (PHASE)

I. OBTAIN ALL NECESSARY PERMITS AND APPROVALS.

2. CONTRACTOR TO SCHEDULE PRE-CONSTRUCTION CONFERENCE WITH CITY OF GEORGETOWN UTILITY SYSTEMS ENGINEERING DEPARTMENT, THE OWNER'S PROJECT MANAGER, AND THE ENGINEER.

3. CONSTRUCT TEMPORARY CONSTRUCTION EXIT AT LOCATION SHOWN ON THE SWPPP PLAN SHEET AND POST THE JOB SITE PERMIT BOARD AT THE PROJECT ENTRANCE.

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4. CLEAR & GRUB ONLY AREAS NECESSARY TO INSTALL PERIMETER PROTECTION MEASURES (SILT FENCE, & ROCK OUTLETS). INSTALL PERIMETER MEASURES (SILT FENCE, & ROCK OUTLETS).

5. LOCATE (AND MARK ON SWPPP DRAWINGS) LOCATION OF THE TOPSOIL STOCKPILE AREA. PROVIDE SEDIMENT FENCE AND TEMPORARY SEEDING.

6. CLEAR & GRUB AREAS FOR PHASE I BMPS & INSTALL MEASURES AS SHOWN ON THE PLAN. THIS INCLUDES TEMPORARY SEDIMENT BASINS I & 2 (W/ OUTFALL SYSTEM), TEMPORARY DIVERSIONS, AND AREAS REQUIRED TO EITHER OBTAIN FILL (OR WASTE) MATERIAL TO CONSTRUCT THESE ITEMS. REFER TO POND SECTION & RISER DRAWING FOR SEDIMENT CONDITION RISER DETAILS OF TEMPORARY SEDIMENT BASINS I & 2.

7. INPLEMENT TEMPORARY OR PERMANENT STABILIZATION IMMEDIATELY (AS SOON AS PRACTICABLE, BUT NO LATER THAN FOURTEEN DAYS FROM WHEN LAND DISTURBING ACTIVITIES HAVE CEASED.

8 CONTRACTOR TO NOTIFY THE OWNER'S CONSTRUCTION MANAGER AND/OR DESIGN ENGINEER FOR INSPECTION PRIOR TO PROCEEDING WITH PHASE II.

#### CONSTRUCTION SEQUENCE (PHASE II)

I. BEGIN MASS CLEARING & GRUBBING OPERATIONS REQUIRED FOR PREPARATION OF LOWE'S BUILDING PAD. LIMIT CLEARING AND GRUBBING AS MUCH AS POSSIBLE TO ONLY THOSE AREAS REQUIRED.

2. PROVIDE TEMPORARY SEEDING, THROUGHOUT CONSTRUCTION, FOR AREAS OF THE SITE THAT REMAIN DISTURBED FOR MORE THAN 14 DAYS. 3. PROVIDE CONTINUAL MAINTENANCE OF SEDIMENT CONTROLS, BASINS, ETC.

4. INSTALL STORM DRAIN SYSTEM. PROVIDE INLET PROTECTION ON ANY PIPE LEFT OPEN OVERNIGHT. PROVIDE INLET PROTECTION ON INLETS AS THEY ARE INSTALLED. DIRECT WATER TO INLETS, AS GRADES DICTATE. ONCE UPSTREAM DRAINAGE AREA CAN BE DIVERTED TO STORM DRAIN SYSTEM, PHASE OUT TEMPORARY SEDIMENT BASIN 2.

5. INSTALL 24' WIDE STABILIZED ACCESS AND 30,000 SF STABILIZED LAYDOWN AREA.

6. FINALIZE BUILDING PAD & APPLY STONE BASE STABILIZATION. PHASE THIS WORK, AS PRACTICABLE, AND APPLY STONE BASE AS SOON AS GRADES AND SCHEDULE ALLOW.

7. INSTALL UTILITIES, REMAINING STORM DRAIN SYSTEM, ETC. PROVIDE INLET PROTECTION ON INLETS AS THEY ARE INSTALLED. DIRECT RUNOFF TO INLETS, AS GRADES DICTATE.

#### 8. FINALIZE PAVEMENT SUB-GRADE PREPARATION.

9. CONSTRUCT ALL CURB & GUTTER AND STORM DRAIN INLETS/MANHOLES AS SHOWN ON THE PLANS (SEE GRADING PLANS FOR FINAL RIM ELEVATIONS). INLET PROTECTION MAY BE REMOVED TEMPORARILY FOR THIS CONSTRUCTION. REPLACE ANY REMOVED INLET PROTECTION AT THE END OF EACH DAY. PLACE NEW INLET PROTECTION AS ADDITIONAL STORM DRAIN INLETS ARE INSTALLED.

10. INSTALL BASE MATERIAL AS REQUIRED FOR PAVEMENT.

II. COMPLETE BUILDING, FINAL GRADING, SODDING, PLANTING, AND MULCH STABILIZATION.

12. INSPECT AND CLEAN STORM DRAINAGE SYSTEM.

13. REMOVE PERIMETER PROTECTION MEASURES (SEDIMENT FENCING, AND ETC.) AND CONVERT SEDIMENT BASIN I FROM TEMPORARY TO PERMANENT CONDITIONS (SEE POND SECTION & RISER DRAWING) ONCE FINAL STABILIZATION IS ACHIEVED.

14. BMP INSPECTIONS, MAINTENANCE, RECORD KEEPING, AND SITE POSTING SHALL CONTINUE UNTIL FINAL STABILIZATION AND SUBMITTAL (AND ACCEPTANCE WHERE REQUIRED) OF THE NOTICE OF TERMINATION.

15. REMOVE TEMPORARY CONSTRUCTION EXITS ONLY PRIOR TO PAVEMENT CONSTRUCTION IN THESE AREAS (THESE AREAS ARE TO BE PAVED LAST).

16. CLEAN UP SITE.

| CONSTRUCTION SCHEDULE                                     |           |            |            |            |             |
|-----------------------------------------------------------|-----------|------------|------------|------------|-------------|
| ΑCTIVITY                                                  | MONTH 1-2 | MONTHS 3-4 | MONTHS 5-6 | MONTHS 7-8 | MONTHS 9-12 |
| MAINTAIN EROSION<br>CONTROL BMP'S                         | XXXXXX    | XXXXXX     | XXXXXX     | XXXXXX     | XXXXXX      |
| CLEARING AND GRUBBING<br>FOR PERMINENT CONTROLS           | XXXXXX    |            |            |            |             |
| CONSTRUCTION OF<br>PERMINENT CONTROLS                     | XXXXXX    |            |            |            |             |
| DEMOLITION OF ANY EXISTING<br>BUILDING AND PAVEMENT       |           |            |            |            |             |
| IMPLEMENT PHASE SEQUENCING<br>AND VERIFCATION PROCESS     |           |            |            |            |             |
| INSTALL TEMPORARY SEDIMENT<br>BASIN AND REMAINING BMP'S   | XXXXXX    |            |            |            |             |
| ROUGH GRADING                                             | XXXXXX    | xxxxxx     |            |            |             |
| INSTAL SEWER, WATER AND<br>STORM DRAIN SYSTEMS            |           | XXXXXX     | XXXXXX     |            |             |
| BEGIN BUILDING PAD AND<br>BUILDING CONSTRUCTION           |           |            | XXXXXX     | XXXXXX     |             |
| INSTALL CURBING, AND<br>PREPARE PARKING LOT FOR<br>PAVING |           |            | XXXXXX     | XXXXXX     |             |
| BEGIN PAVING                                              |           |            |            | XXXXXX     | XXXXXX      |
| SEEDING AND/OR LANDSCAPING                                |           |            |            | XXXXXX     | XXXXXX      |
| REMOVAL OF EROSION<br>CONTROLS                            |           |            |            |            | XXXXXX      |

### ATTACHMENT D Temporary Best Management Practices & Measures

- 1. On-Site run-on upgradient flows will be routed around the proposed basins by a proposed permanent storm drain pipe where on-site run-on is not co-mingles with untreated construction run-off.
- 2. Surface Water Pollution the proposed temporary basins and silt fence will cause pollutants to be removed from construction stormwater before being discharged.
- 3. Pollution prevented from entering streams the proposed temporary basins and silt fence will cause the removed sediemtn and turbity to remain on site.
- 4. Maintain existing flow the proposed temporary basins and silt fence will discharge to existing drainage patterns.

### ATTACHMENT F STRUCTURAL PRACTICES

The Proposed temporary sediment basins will limit runoff discharge of pollutants by removing the velocity from construction stormwater to allow sediment and turbityh to settle out before discharging fromt the site.



### SWPPP NOTES

I. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES (INCLUDING STORMWATER POLLUTION PREVENTION PLAN PER SECTION 800 OF SITE DEVELOPMENT CRITERIA), THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE APPROVED NPDES SWPPP DRAWINGS DURING CONSTRUCTION OPERATIONS.

2. GENERAL CONTRACTOR SHALL STRICTLY AHDERE TO THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) DURING CONSTRUCTION OPERATIONS.

3. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL PHASE I AND PERIMETER SEDIMENT EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

4. ALL EXPOSED AREAS SHALL BE STABILIZED OR SEEDED IMMEDIATELY WHEN GRADING OR EXCAVATING ACTIVITIES HAVE PERMANENTLY CEASED.

5. SOIL STABILIZATION (TEMPORARY OR PERMANENT) SHALL BE APPLIED TO PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3:1 (H:V) AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. SOIL STABILIZATION (TEMPORARY OR PERMANENT) SHALL BE APPLIED TO ALL OTHER DISTURBED AREAS AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 DAYS OF FROM THE LAST DAY OF LAND-DISTURBING ACTIVITY.

6. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF RAIN PER 24 HOUR PERIOD.

7. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE. IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SEDIMENT FROM LEAVING THE SITE.

8. GENERAL CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.

9. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED AS DEEMED NECESSARY BY SITE

INSPECTIONS. IO, IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS

SHALL BE COVERED WITH FILTER FABRIC. II. COMPACT AND MAINTAIN 30' WIDE DRIVE FROM ACCESS ROAD TO LAYDOWN AREA AND 30' WIDE DRIVE FROM LAYDOWN AREA TO BUILDING PAD. DRIVE TO BE

CONSTRUCTED OF 6' COMPACTED STONE AND LAYDOWN AREA TO BE CONSTRUCTED OF 3' TO 4' COMPACTED STONE. COORDINATE LOCATION OF LAYDOWN AREA WITH OWNER'S PROJECT MANAGER.

13. GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.

14. ALL WORK TO BE DONE IN STRICT ACCORDANCE WITH DIVISION 2 OF STANDARD SPECIFICATIONS.

15. ALL SLOPES GREATER THAN 3:1 TO RECEIVE EROSION CONTROL MATTING.

6. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE ANY SEDIMENTS BEFORE BEING PUMPED INTO ANY WATERS OF THE STATE.

17. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

18. SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASINS AND TRAPS BEFORE IT IS 25% FULL AND FROM SILT FENCE WHEN SEDIMENT REACHES 1/4 THE HEIGHT OF THE SILT FENCE.

#### CONSTRUCTION SEQUENCE (PHASE I) 1. OBTAIN ALL NECESSARY PERMITS AND APPROVALS.

2. CONTRACTOR TO SCHEDULE PRE-CONSTRUCTION CONFERENCE WITH CITY OF GEORGETOWN UTILITY SYSTEMS ENGINEERING DEPARTMENT, THE OWNER'S PROJECT MANAGER, AND THE ENGINEER. 3. CONSTRUCT TEMPORARY CONSTRUCTION EXIT AT LOCATION SHOWN ON THE SWPPP PLAN SHEET AND POST THE JOB SITE PERMIT BOARD AT THE PROJECT ENTRANCE.

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4. CLEAR & GRUB ONLY AREAS NECESSARY TO INSTALL PERIMETER PROTECTION MEASURES (SILT FENCE, & ROCK OUTLETS). INSTALL PERIMETER MEASURES (SILT FENCE, & ROCK OUTLETS). 5. LOCATE (AND MARK ON SWPPP DRAWINGS) LOCATION OF THE TOPSOIL STOCKPILE AREA. PROVIDE SEDIMENT FENCE AND TEMPORARY SEEDING.

6. CLEAR & GRUB AREAS FOR PHASE I BMPS & INSTALL MEASURES AS SHOWN ON THE PLAN. THIS INCLUDES TEMPORARY SEDIMENT BASINS I & 2 (W/ OUTFALL SYSTEM), TEMPORARY DIVERSIONS, AND AREAS REQUIRED TO EITHER OBTAIN FILL (OR WASTE) MATERIAL TO CONSTRUCT THESE ITEMS. REFER TO POND SECTION & RISER DRAWING FOR SEDIMENT CONDITION RISER DETAILS OF TEMPORARY SEDIMENT BASINS I & 2. 7. IMPLEMENT TEMPORARY OR PERMANENT STABILIZATION IMMEDIATELY (AS SOON AS PRACTICABLE, BUT NO LATER THAN FOURTEEN DAYS FROM WHEN LAND DISTURBING ACTIVITIES HAVE CEASED. 8 CONTRACTOR TO NOTIFY THE OWNER'S CONSTRUCTION MANAGER AND/OR DESIGN ENGINEER FOR INSPECTION PRIOR TO PROCEEDING WITH PHASE II.

### CONSTRUCTION SEQUENCE (PHASE ID

I. BEGIN MASS CLEARING & GRUBBING OPERATIONS REQUIRED FOR PREPARATION OF LOWE'S BUILDING PAD. LIMIT CLEARING AND GRUBBING AS MUCH AS POSSIBLE TO ONLY THOSE AREAS REQUIRED. 2. PROVIDE TEMPORARY SEEDING, THROUGHOUT CONSTRUCTION, FOR AREAS OF THE SITE THAT REMAIN DISTURBED FOR MORE THAN 14 DAYS. 3. PROVIDE CONTINUAL MAINTENANCE OF SEDIMENT CONTROLS, BASINS, ETC.

4. INSTALL STORM DRAIN SYSTEM. PROVIDE INLET PROTECTION ON ANY PIPE LEFT OPEN OVERNIGHT. PROVIDE INLET PROTECTION ON INLETS AS THEY ARE INSTALLED. DIRECT WATER TO INLETS, AS GRADES DICTATE. ONCE UPSTREAM DRAINAGE AREA CAN BE DIVERTED TO STORM DRAIN SYSTEM, PHASE OUT TEMPORARY SEDIMENT BASIN 2. 5. INSTALL 24' WIDE STABILIZED ACCESS AND 30,000 SF STABILIZED LAYDOWN AREA.

6. FINALIZE BUILDING PAD & APPLY STONE BASE STABILIZATION. PHASE THIS WORK, AS PRACTICABLE, AND APPLY STONE BASE AS SOON AS GRADES AND SCHEDULE ALLOW. 7. INSTALL UTILITIES, REMAINING STORM DRAIN SYSTEM, ETC. PROVIDE INLET PROTECTION ON INLETS AS THEY ARE INSTALLED. DIRECT RUNOFF TO INLETS, AS GRADES DICTATE.

8. FINALIZE PAVEMENT SUB-GRADE PREPARATION. 9. CONSTRUCT ALL CURB & GUTTER AND STORM DRAIN INLETS/MANHOLES AS SHOWN ON THE PLANS (SEE GRADING PLANS FOR FINAL RIM ELEVATIONS). INLET PROTECTION MAY BE REMOVED TEMPORARILY FOR THIS CONSTRUCTION. REPLACE ANY REMOVED INLET PROTECTION AT THE END OF EACH DAY. PLACE NEW INLET PROTECTION AS ADDITIONAL STORM DRAIN INLETS ARE INSTALLED.

10. INSTALL BASE MATERIAL AS REQUIRED FOR PAVEMENT.

II. COMPLETE BUILDING, FINAL GRADING, SODDING, PLANTING, AND MULCH STABILIZATION. 12. INSPECT AND CLEAN STORM DRAINAGE SYSTEM.

13. REMOVE PERIMETER PROTECTION MEASURES (SEDIMENT FENCING, AND ETC.) AND CONVERT SEDIMENT BASIN I FROM TEMPORARY TO PERMANENT CONDITIONS (SEE POND SECTION & RISER DRAWING) ONCE FINAL STABILIZATION IS ACHIEVED.

IA. BMP INSPECTIONS, MAINTENANCE, RECORD KEEPING, AND SITE POSTING SHALL CONTINUE UNTIL FINAL STABILIZATION AND SUBMITTAL (AND ACCEPTANCE WHERE REQUIRED) OF THE NOTICE OF TERMINATION.
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LAST). 16. CLEAN UP SITE.



## SWPPP NOTES

I. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES (INCLUDING STORMWATER POLLUTION PREVENTION PLAN PER SECTION 800 OF SITE DEVELOPMENT CRITERIA). THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE APPROVED NPDES SWPPP DRAWINGS DURING CONSTRUCTION OPERATIONS.

2. GENERAL CONTRACTOR SHALL STRICTLY AHDERE TO THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) DURING CONSTRUCTION OPERATIONS.

3. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL PHASE I AND PERIMETER SEDIMENT EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

4. ALL EXPOSED AREAS SHALL BE STABILIZED OR SEEDED IMMEDIATELY WHEN GRADING OR EXCAVATING ACTIVITIES HAVE PERMANENTLY CEASED.

5. SOIL STABILIZATION (TEMPORARY OR PERMANENT) SHALL BE APPLIED TO PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3'I (H'V) AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. SOIL STABILIZATION (TEMPORARY OR PERMANENT) SHALL BE APPLIED TO ALL OTHER DISTURBED AREAS AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 DAYS OF FROM THE LAST DAY OF LAND-DISTURBING ACTIVITY.

6. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF RAIN PER 24 HOUR PERIOD.

7. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE. IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SEDIMENT FROM LEAVING THE SITE.

8. GENERAL CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.

9. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED AS DEEMED NECESSARY BY SITE INSPECTIONS.

IO. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.

II. COMPACT AND MAINTAIN 30' WIDE DRIVE FROM ACCESS ROAD TO LAYDOWN AREA AND 30' WIDE DRIVE FROM LAYDOWN AREA TO BUILDING PAD. DRIVE TO BE CONSTRUCTED OF 6' COMPACTED STONE AND LAYDOWN AREA TO BE CONSTRUCTED OF 3' TO 4' COMPACTED STONE. COORDINATE LOCATION OF LAYDOWN AREA WITH OWNER'S PROJECT MANAGER.

13. GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.

14. ALL WORK TO BE DONE IN STRICT ACCORDANCE WITH DIVISION 2 OF STANDARD SPECIFICATIONS.

15. ALL SLOPES GREATER THAN 3:1 TO RECEIVE EROSION CONTROL MATTING.

6. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE ANY SEDIMENTS BEFORE BEING PUMPED INTO ANY WATERS OF THE STATE.

17. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

18. SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASINS AND TRAPS BEFORE IT IS 25% FULL AND FROM SILT FENCE WHEN SEDIMENT REACHES 1/4 THE HEIGHT OF THE SILT FENCE.

PRIOR TO STARTING WORK, CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS. ALL EXISTING ITEMS THAT ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS ARE TO BE RELOCATED/REMOVED AS NEEDED & CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION AND FOR INCLUDING ALL COSTS IN BASE BID.





#### CONSTRUCTION SEQUENCE (PHASE )

I. OBTAIN ALL NECESSARY PERMITS AND APPROVALS. 2. CONTRACTOR TO SCHEDULE PRE-CONSTRUCTION CONFERENCE WITH CITY OF GEORGETOWN UTILITY SYSTEMS ENGINEERING DEPARTMENT, THE OWNER'S PROJECT MANAGER, AND THE ENGINEER.

3. CONSTRUCT TEMPORARY CONSTRUCTION EXIT AT LOCATION SHOWN ON THE SWPPP PLAN SHEET AND POST THE JOB SITE PERMIT BOARD AT THE PROJECT ENTRANCE. 4. CLEAR & GRUB ONLY AREAS NECESSARY TO INSTALL PERIMETER PROTECTION MEASURES (SILT FENCE, & ROCK OUTLETS). INSTALL PERIMETER

MEASURES (SILT FENCE, & ROCK OUTLETS). 5. LOCATE (AND MARK ON SWPPP DRAWINGS) LOCATION OF THE TOPSOIL STOCKPILE AREA. PROVIDE SEDIMENT FENCE AND TEMPORARY SEEDING.

6. CLEAR & GRUB AREAS FOR PHASE I BMPS & INSTALL MEASURES AS SHOWN ON THE PLAN. THIS INCLUDES TEMPORARY SEDIMENT BASINS I & 2 (W/ OUTFALL SYSTEM), TEMPORARY DIVERSIONS, AND AREAS REQUIRED TO EITHER OBTAIN FILL (OR WASTE) MATERIAL TO CONSTRUCT THESE ITEMS. REFER TO POND SECTION & RISER DRAWING FOR SEDIMENT CONDITION RISER DETAILS OF TEMPORARY SEDIMENT BASINS I & 2. 7. IMPLEMENT TEMPORARY OR PERMANENT STABILIZATION IMMEDIATELY (AS SOON AS PRACTICABLE, BUT NO LATER THAN FOURTEEN DAYS FROM WHEN LAND DISTURBING ACTIVITIES HAVE CEASED. 8 CONTRACTOR TO NOTIFY THE OWNER'S CONSTRUCTION MANAGER AND/OR DESIGN ENGINEER FOR INSPECTION PRIOR TO PROCEEDING WITH PHASE II.

#### CONSTRUCTION SEQUENCE (PHASE II)

I. BEGIN MASS CLEARING & GRUBBING OPERATIONS REQUIRED FOR PREPARATION OF LOWE'S BUILDING PAD. LIMIT CLEARING AND GRUBBING AS MUCH AS POSSIBLE TO ONLY THOSE AREAS REQUIRED. 2. PROVIDE TEMPORARY SEEDING, THROUGHOUT CONSTRUCTION, FOR AREAS OF THE SITE THAT REMAIN DISTURBED FOR MORE THAN 14 DAYS.

 PROVIDE CONTINUAL MAINTENANCE OF SEDIMENT CONTROLS, BASINS, ETC.
 INSTALL STORM DRAIN SYSTEM. PROVIDE INLET PROTECTION ON ANY PIPE LEFT OPEN OVERNIGHT. PROVIDE INLET PROTECTION ON INLETS AS THEY ARE INSTALLED. DIRECT WATER TO INLETS, AS GRADES DICTATE. ONCE UPSTREAM DRAINAGE AREA CAN BE DIVERTED TO STORM DRAIN SYSTEM, PHASE OUT TEMPORARY SEDIMENT BASIN 2.
 INSTALL 24' WIDE STABILIZED ACCESS AND 30,000 SF STABILIZED LAYDOWN AREA.

6. FINALIZE BUILDING PAD & APPLY STONE BASE STABILIZATION. PHASE THIS WORK, AS PRACTICABLE, AND APPLY STONE BASE AS SOON AS GRADES AND SCHEDULE ALLOW. 7. INSTALL UTILITIES, REMAINING STORM DRAIN SYSTEM, ETC. PROVIDE INLET PROTECTION ON INLETS AS THEY ARE INSTALLED. DIRECT RUNOFF

TO INLETS, AS GRADES DICTATE. 8. FINALIZE PAVEMENT SUB-GRADE PREPARATION.

9. CONSTRUCT ALL CURB & GUTTER AND STORM DRAIN INLETS/MANHOLES AS SHOWN ON THE PLANS (SEE GRADING PLANS FOR FINAL RIM ELEVATIONS), INLET PROTECTION MAY BE REMOVED TEMPORARILY FOR THIS CONSTRUCTION, REPLACE ANY REMOVED INLET PROTECTION AT THE END OF EACH DAY. PLACE NEW INLET PROTECTION AS ADDITIONAL STORM DRAIN INLETS ARE INSTALLED.

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12. INSPECT AND CLEAN STORM DRAINAGE SYSTEM.

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LIMITS OF -

DISTURBANCE

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5. SOIL STABILIZATION (TEMPORARY OR PERMANENT) SHALL BE APPLED TO PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3:1 (4:1/) AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. SOIL STABILIZATION (TEMPORARY OR PERMANENT) SHALL BE APPLIED TO ALL OTHER DISTURBED AREAS AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 DAYS OF FROM THE LAST DAY OF LAND-DISTURBING ACTIVITY.

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IL COMPACT AND MAINTAIN 30' WIDE DRIVE FROM ACCESS ROAD TO LAYDOWN AREA AND 30' WIDE DRIVE FROM LAYDOWN AREA TO BUILDING PAD. DRIVE TO BE CONSTRUCTED OF 6' COMPACTED STONE AND LAYDOWN AREA TO BE CONSTRUCTED OF 3' TO 4' COMPACTED STONE. COORDINATE LOCATION OF LAYDOWN AREA WITH OWNER'S PROJECT MANAGER.

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14. ALL WORK TO BE DONE IN STRICT ACCORDANCE WITH DIVISION 2 OF STANDARD SPECIFICATIONS.

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16. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE ANY SEDIMENTS BEFORE BEING PUMPED INTO ANY WATERS OF THE STATE.

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18. SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASINS AND TRAPS BEFORE IT IS 25% FULL AND FROM SILT FENCE WHEN SEDIMENT REACHES 1/4 THE HEIGHT OF THE SILT FENCE.





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IO. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.

IL COMPACT AND MAINTAIN 30' WIDE DRIVE FROM ACCESS ROAD TO LAYDOWN AREA AND 30' WIDE DRIVE FROM LAYDOWN AREA TO BUILDING PAD. DRIVE TO BE CONSTRUCTED OF 6' COMPACTED STONE AND LAYDOWN AREA TO BE CONSTRUCTED OF 3' TO 4' COMPACTED STONE. COORDINATE LOCATION OF LAYDOWN AREA WITH OWNER'S PROJECT MANAGER.

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#### CONSTRUCTION SEQUENCE (PHASE I) 1. OBTAIN ALL NECESSARY PERMITS AND APPROVALS.

2. CONTRACTOR TO SCHEDULE PRE-CONSTRUCTION CONFERENCE WITH CITY OF GEORGETOWN UTILITY SYSTEMS ENGINEERING DEPARTMENT, THE OWNER'S PROJECT MANAGER, AND THE ENGINEER. 3. CONSTRUCT TEMPORARY CONSTRUCTION EXIT AT LOCATION SHOWN ON THE SWPPP PLAN SHEET AND POST THE JOB SITE PERMIT BOARD AT THE PROJECT ENTRANCE.

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4. CLEAR & GRUB ONLY AREAS NECESSARY TO INSTALL PERIMETER PROTECTION MEASURES (SILT FENCE, & ROCK OUTLETS). INSTALL PERIMETER MEASURES (SILT FENCE, & ROCK OUTLETS).
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#### CONSTRUCTION SEQUENCE (PHASE ID

I. BEGIN MASS CLEARING & GRUBBING OPERATIONS REQUIRED FOR PREPARATION OF LOWE'S BUILDING PAD. LIMIT CLEARING AND GRUBBING AS MUCH AS POSSIBLE TO ONLY THOSE AREAS REQUIRED. 2. PROVIDE TEMPORARY SEEDING, THROUGHOUT CONSTRUCTION, FOR AREAS OF THE SITE THAT REMAIN DISTURBED FOR MORE THAN 14 DAYS. 3. PROVIDE CONTINUAL MAINTENANCE OF SEDIMENT CONTROLS, BASINS, ETC.

4. INSTALL STORM DRAIN SYSTEM. PROVIDE INLET PROTECTION ON ANY PIPE LEFT OPEN OVERNIGHT. PROVIDE INLET PROTECTION ON INLETS AS THEY ARE INSTALLED. DIRECT WATER TO INLETS, AS GRADES DICTATE. ONCE UPSTREAM DRAINAGE AREA CAN BE DIVERTED TO STORM DRAIN SYSTEM, PHASE OUT TEMPORARY SEDIMENT BASIN 2. 5. INSTALL 24' WIDE STABILIZED ACCESS AND 30,000 SF STABILIZED LAYDOWN AREA.

6. FINALIZE BUILDING PAD & APPLY STONE BASE STABILIZATION. PHASE THIS WORK, AS PRACTICABLE, AND APPLY STONE BASE AS SOON AS GRADES AND SCHEDULE ALLOW. 7. INSTALL UTILITIES, REMAINING STORM DRAIN SYSTEM, ETC. PROVIDE INLET PROTECTION ON INLETS AS THEY ARE INSTALLED. DIRECT RUNOFF TO INLETS, AS GRADES DICTATE.

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 REMOVE PERIMETER PROTECTION MEASURES (SEDIMENT FENCING, AND ETC.) AND CONVERT SEDIMENT BASIN I FROM TEMPORARY TO PERMANENT CONDITIONS (SEE POND SECTION & RISER DRAWING) ONCE FINAL STABILIZATION IS ACHIEVED.

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## SWPPP NOTES

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IO. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.

II. COMPACT AND MAINTAIN 30' WIDE DRIVE FROM ACCESS ROAD TO LAYDOWN AREA AND 30' WIDE DRIVE FROM LAYDOWN AREA TO BUILDING PAD. DRIVE TO BE CONSTRUCTED OF 6' COMPACTED STONE AND LAYDOWN AREA TO BE CONSTRUCTED OF 3' TO 4' COMPACTED STONE. COORDINATE LOCATION OF LAYDOWN AREA WITH OWNER'S PROJECT MANAGER.

13, GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.

14. ALL WORK TO BE DONE IN STRICT ACCORDANCE WITH DIVISION 2 OF STANDARD SPECIFICATIONS.

15. ALL SLOPES GREATER THAN 3:1 TO RECEIVE EROSION CONTROL MATTING.

6. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE ANY SEDIMENTS BEFORE BEING PUMPED INTO ANY WATERS OF THE STATE.

17. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

18. SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASINS AND TRAPS BEFORE IT IS 25% FULL AND FROM SILT FENCE WHEN SEDIMENT REACHES 1/4 THE HEIGHT OF THE SILT FENCE.

PRIOR TO STARTING WORK, CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS. ALL EXISTING ITEMS THAT ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS ARE TO BE RELOCATED/REMOVED AS NEEDED & CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION AND FOR INCLUDING ALL COSTS IN BASE BID.





#### CONSTRUCTION SEQUENCE (PHASE )

I. OBTAIN ALL NECESSARY PERMITS AND APPROVALS. 2. CONTRACTOR TO SCHEDULE PRE-CONSTRUCTION CONFERENCE WITH CITY OF GEORGETOWN UTILITY SYSTEMS ENGINEERING DEPARTMENT, THE OWNER'S PROJECT MANAGER, AND THE ENGINEER.

 CONSTRUCT TEMPORARY CONSTRUCTION EXIT AT LOCATION SHOWN ON THE SWPPP PLAN SHEET AND POST THE JOB SITE PERMIT BOARD AT THE PROJECT ENTRANCE.
 CLEAR & GRUB ONLY AREAS NECESSARY TO INSTALL PERIMETER PROTECTION MEASURES (SILT FENCE, & ROCK OUTLETS). INSTALL PERIMETER

MEASURES (SILT FENCE, & ROCK OUTLETS). 5. LOCATE (AND MARK ON SWPPP DRAWINGS) LOCATION OF THE TOPSOIL STOCKPILE AREA. PROVIDE SEDIMENT FENCE AND TEMPORARY SEEDING.

6. CLEAR & GRUB AREAS FOR PHASE I BMPS & INSTALL MEASURES AS SHOWN ON THE PLAN. THIS INCLUDES TEMPORARY SEDIMENT BASINS I & 2 (W/ OUTFALL SYSTEM), TEMPORARY DIVERSIONS, AND AREAS REQUIRED TO EITHER OBTAIN FILL (OR WASTE) MATERIAL TO CONSTRUCT THESE ITEMS. REFER TO POND SECTION & RISER DRAWING FOR SEDIMENT CONDITION RISER DETAILS OF TEMPORARY SEDIMENT BASINS I & 2. 7. IMPLEMENT TEMPORARY OR PERMANENT STABILIZATION IMMEDIATELY (AS SOON AS PRACTICABLE, BUT NO LATER THAN FOURTEEN DAYS FROM WHEN LAND DISTURBING ACTIVITIES HAVE CEASED. 8 CONTRACTOR TO NOTIFY THE OWNER'S CONSTRUCTION MANAGER AND/OR DESIGN ENGINEER FOR INSPECTION PRIOR TO PROCEEDING WITH PHASE II,

#### CONSTRUCTION SEQUENCE (PHASE II)

I. BEGIN MASS CLEARING & GRUBBING OPERATIONS REQUIRED FOR PREPARATION OF LOWE'S BUILDING PAD. LIMIT CLEARING AND GRUBBING AS MUCH AS POSSIBLE TO ONLY THOSE AREAS REQUIRED. 2. PROVIDE TEMPORARY SEEDING, THROUGHOUT CONSTRUCTION, FOR AREAS OF THE SITE THAT REMAIN DISTURBED FOR MORE THAN 14 DAYS.

 PROVIDE CONTINUAL MAINTENANCE OF SEDIMENT CONTROLS, BASINS, ETC.
 INSTALL STORM DRAIN SYSTEM. PROVIDE INLET PROTECTION ON ANY PIPE LEFT OPEN OVERNIGHT. PROVIDE INLET PROTECTION ON INLETS AS THEY ARE INSTALLED. DIRECT WATER TO INLETS, AS GRADES DICTATE. ONCE UPSTREAM DRAINAGE AREA CAN BE DIVERTED TO STORM DRAIN SYSTEM, PHASE OUT TEMPORARY SEDIMENT BASIN 2.
 INSTALL 24' WIDE STABILIZED ACCESS AND 30,000 SF STABILIZED LAYDOWN AREA.

6. FINALIZE BUILDING PAD & APPLY STONE BASE STABILIZATION. PHASE THIS WORK, AS PRACTICABLE, AND APPLY STONE BASE AS SOON AS GRADES AND SCHEDULE ALLOW. 7. INSTALL UTILITIES, REMAINING STORM DRAIN SYSTEM, ETC. PROVIDE INLET PROTECTION ON INLETS AS THEY ARE INSTALLED. DIRECT RUNOFF

TO INLETS, AS GRADES DICTATE. 8. FINALIZE PAVEMENT SUB-GRADE PREPARATION.

9. CONSTRUCT ALL CURB & GUTTER AND STORM DRAIN INLETS/MANHOLES AS SHOWN ON THE PLANS (SEE GRADING PLANS FOR FINAL RIM ELEVATIONS). INLET PROTECTION MAY BE REMOVED TEMPORARILY FOR THIS CONSTRUCTION. REPLACE ANY REMOVED INLET PROTECTION AT THE END OF EACH DAY. PLACE NEW INLET PROTECTION AS ADDITIONAL STORM DRAIN INLETS ARE INSTALLED.

10. INSTALL BASE MATERIAL AS REQUIRED FOR PAVEMENT. II. COMPLETE BUILDING, FINAL GRADING, SODDING, PLANTING, AND MULCH STABILIZATION.

12. INSPECT AND CLEAN STORM DRAINAGE SYSTEM.

 REMOVE PERIMETER PROTECTION MEASURES (SEDIMENT FENCING, AND ETC.) AND CONVERT SEDIMENT BASIN I FROM TEMPORARY TO PERMANENT CONDITIONS (SEE POND SECTION & RISER DRAWING) ONCE FINAL STABILIZATION IS ACHIEVED.
 BMP INSPECTIONS, MAINTENANCE, RECORD KEEPING, AND SITE POSTING SHALL CONTINUE UNTIL FINAL STABILIZATION AND SUBMITTAL (AND

ACCEPTANCE WHERE REQUIRED) OF THE NOTICE OF TERMINATION. 15. REMOVE TEMPORARY CONSTRUCTION EXITS ONLY PRIOR TO PAVEMENT CONSTRUCTION IN THESE AREAS (THESE AREAS ARE TO BE PAVED LAST).

LIMITS OF-

DISTURBANCE

-WIRE-BACKED

SILY FENCE

-PERMANENT

Poo

SEEDING

16. CLEAN UP SITE.

### SWPPP NOTES

I. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES (INCLUDING STORMWATER POLLUTION PREVENTION PLAN PER SECTION 800 OF SITE DEVELOPMENT CRITERIA). THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE APPROVED NPDES SWPPP DRAWINGS DURING CONSTRUCTION OPERATIONS.

2. GENERAL CONTRACTOR SHALL STRICTLY ANDERE TO THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) DURING CONSTRUCTION OPERATIONS.

3. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL PHASE I AND PERIMETER SEDIMENT EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

4. ALL EXPOSED AREAS SHALL BE STABILIZED OR SEEDED IMMEDIATELY WHEN GRADING OR EXCAVATING ACTIVITIES HAVE PERMANENTLY CEASED.

5. SOIL STABILIZATION (TEMPORARY OR PERMANENT) SHALL BE APPLIED TO PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3:1 (H:V) AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. SOIL STABILIZATION (TEMPORARY OR PERMANENT) SHALL BE APPLIED TO ALL OTHER DISTURBED AREAS AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 DAYS OF FROM THE LAST DAY OF LAND-DISTURBING ACTIVITY.

6. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF RAIN PER 24 HOUR PERIOD,

7. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE. IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SEDIMENT FROM LEAVING THE SITE.

8. GENERAL CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.

9. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED AS DEEMED NECESSARY BY SITE INSPECTIONS.

IO. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.

IL COMPACT AND MAINTAIN 30' WIDE DRIVE FROM ACCESS ROAD TO LAYDOWN AREA AND 30' WIDE DRIVE FROM LAYDOWN AREA TO BUILDING PAD. DRIVE TO BE CONSTRUCTED OF 6' COMPACTED STONE AND LAYDOWN AREA TO BE CONSTRUCTED OF 3' TO 4' COMPACTED STONE, COORDINATE LOCATION OF LAYDOWN AREA WITH OWNER'S PROJECT MANAGER.

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15. ALL SLOPES GREATER THAN 3:1 TO RECEIVE EROSION CONTROL MATTING.

16. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE ANY SEDIMENTS BEFORE BEING PUMPED INTO ANY WATERS OF THE STATE.

17. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

18. SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASINS AND TRAPS BEFORE IT IS 25% FULL AND FROM SILT FENCE WHEN SEDIMENT REACHES 1/4 THE HEIGHT OF THE SILT FENCE.



PRIOR TO STARTING WORK, CONTRACTOR IS RESPONSIBLE

FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS. AL







CITY PROJECT NO: 2023-68-SDP




| G7.01 | SECTION G7 – LOAMING, HYDROSEEDING AND PERMANENT EROSION CONTROL                                                                                                                                                                                                                                                                                                         |       |  |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--|
| G7.01 |                                                                                                                                                                                                                                                                                                                                                                          |       |  |
|       | SCOPE OF WORK                                                                                                                                                                                                                                                                                                                                                            |       |  |
|       | A. This specification covers the requirements to provide erosion control and place topsoil, finish grade, apply fertilizer, hydraulically apply seed and mulch and maintain all seeded areas as shown on the Plans                                                                                                                                                       |       |  |
| C7.02 | and as specified herein, including all areas disturbed by the Contractor.                                                                                                                                                                                                                                                                                                |       |  |
| 67.02 | A. Within 30 days after the Notice to Proceed, the Contractor shall submit to the Engineer or the City for                                                                                                                                                                                                                                                               |       |  |
|       | approval, samples of all materials to be used and all other pertinent data to illustrate conformance to the specification found within.                                                                                                                                                                                                                                  |       |  |
| G7.03 | TOPSOIL                                                                                                                                                                                                                                                                                                                                                                  | G7.04 |  |
|       | A. Topsoil shall be fertile, friable, natural topsoil typical of topsoil of the locality and shall be obtained from<br>a well drained site that is free of flooding. It shall be without admixture of subsoil or slag and free of<br>stones lumps plants or their roots sticks clay peat and other extraneous matter and shall not be                                    |       |  |
|       | delivered to the site or used while in a frozen or muddy condition. Topsoil as delivered to the site or stockpiled shall have pH between 6.0 and 7.0 and shall contain not less than three (3) percent organic matter as determined by loss of ignition of moisture-free samples dried at 100 degrees Celsius. The topsoil shall meet the following mechanical analysis: |       |  |
|       | Percentage Passing                                                                                                                                                                                                                                                                                                                                                       |       |  |
|       | 1-inch screen opening 100                                                                                                                                                                                                                                                                                                                                                |       |  |
|       | No. 10 mesh     95 - 100       No. 270 mesh     35 - 75                                                                                                                                                                                                                                                                                                                  |       |  |
|       | 0.002 mm* 5 - 25                                                                                                                                                                                                                                                                                                                                                         |       |  |
|       | * Clay size fraction determined by pipette or hydrometer analysis.                                                                                                                                                                                                                                                                                                       |       |  |
|       | B. At least 10 days prior to anticipated start of topsoiling operations, a one (1) pint sample of topsoil material shall be delivered by the Contractor to a laboratory for testing and approval. All testing shall be at the sale superses of the Contractor. Passed on tests performed by the laboratory, the topsoil shall be                                         | G7.05 |  |
|       | at the sole expense of the Contractor. Based on tests performed by the laboratory, the topsoll shall be<br>identified as acceptable, acceptable with certain fertilizer and limestone applications or unacceptable. If<br>the topsoil is found acceptable the fertilizer and lime requirements will be as specified or as                                                |       |  |
|       | recommended by the laboratory. If the topsoil is found unacceptable, the Contractor shall be responsible<br>for identifying another source of topsoil and shall incur all expenses associated with testing additional                                                                                                                                                    |       |  |
|       | samples. All topsoil incorporated into the site work shall match the sample provided to the laboratory for<br>testing. Topsoil stockpiled under other Sections of these Specifications may be used subject to the testing<br>and approval outlined above. Contractor will be responsible for screening stockpiled topsoil and                                            |       |  |
|       | providing additional topsoil as required at his/her own expense.                                                                                                                                                                                                                                                                                                         |       |  |
|       | C. Lime shall be ground limestone containing not less than 85-percent calcium and magnesium carbonates<br>and be ground to such fineness that at least 50-percent shall pass a 100-mesh sieve and at least 90-percent<br>shall pass a 20-mesh sieve                                                                                                                      |       |  |
|       | <ul> <li>D. All planting shall be done between May 1 and September 15 except as specifically authorized in writing.</li> </ul>                                                                                                                                                                                                                                           |       |  |
|       | If planting is authorized to be done outside the dates specified, the seed shall be planted with the addition of winter fescue (Kentucky 31) at a rate of 100 lbs. per acre.                                                                                                                                                                                             |       |  |
|       |                                                                                                                                                                                                                                                                                                                                                                          |       |  |
|       | G7-1 LOAMING, HYDROSEEDING<br>AND PERMANENT EROSION CONTROL                                                                                                                                                                                                                                                                                                              |       |  |
|       | <ul> <li>project, that the installed grass areas be at least the quality and condition as during acceptance.</li> <li>b. Rehydromulch unacceptable areas during the guaranty period. Guaranty shall not include damage or loss of lawn due to acts of God, acts of vandalism or negligence on the part of the City.</li> </ul>                                           | G7.08 |  |
|       | E. <u>Native Grass Hydromulching-Products</u>                                                                                                                                                                                                                                                                                                                            | 67.00 |  |
|       | 1. <u>Grass Seed</u> : Common Bermuda grass, hulled, minimum 82% pure live seed. All grass seed shall be free from porious weed, grade "A" recent grap recleaned and treated with appropriate                                                                                                                                                                            |       |  |
|       | fungicide at time of mixing. Seed shall be furnished in sealed, standard containers with dealer's guaranteed analysis.                                                                                                                                                                                                                                                   |       |  |
|       | 2. <u>Mulch</u> : Conwed regular wood fiber mulch or approved equal.                                                                                                                                                                                                                                                                                                     |       |  |
|       | 3. <u>Fertilizer</u> : 18-18-5, water-soluble or an approved equal.                                                                                                                                                                                                                                                                                                      |       |  |
|       | 4. <u>Topsoil</u> : Supply high quality imported topsoil of loamy character to the limits shown on the Plans, high in humus and organic content from local agriculture source. Topsoil to be free from clay, lumps, coarse sands, stopes, roots and other foreign matter. There shall be no toxic                                                                        |       |  |
|       | amounts of acid or alkaline elements. Soil to be used for on-site mixing of backfill.                                                                                                                                                                                                                                                                                    |       |  |
|       | <ul> <li>F. <u>Native Grass Hydromulching-Execution</u></li> <li>1. Preparation: Fine grade to final elevation removing any debris and insuring the seedbed is</li> </ul>                                                                                                                                                                                                | G7.09 |  |
|       | smooth.                                                                                                                                                                                                                                                                                                                                                                  |       |  |
|       | 2. <u>Installation</u> : Use a hydromulcher (sprayer) and apply the mixture at the following rate. (Mix in accordance with Manufacturer's recommendations.)                                                                                                                                                                                                              |       |  |
|       | a. Hydromulch mixture shall contain 2.5-lbs. of common Bermuda grass seed per 1,000-<br>sq. ft. hydromulch applied.                                                                                                                                                                                                                                                      |       |  |
|       | b. Mulch – 60-lbs. per 1,000-sq. ft.                                                                                                                                                                                                                                                                                                                                     |       |  |
|       | c. Fertilizer – 25-lbs (18-18-5) per 1,000-sq. ft.                                                                                                                                                                                                                                                                                                                       |       |  |
|       | <ul> <li><u>General Maintenance</u></li> <li>Water the completed installation as necessary to insure completion of orass</li> </ul>                                                                                                                                                                                                                                      |       |  |
|       | b. Maintain grass areas until complete germination and establishment of all areas.                                                                                                                                                                                                                                                                                       |       |  |
|       | c. Correct defective work as soon as apparent. Maintenance shall include, but not be limited to weeding and fertilizing                                                                                                                                                                                                                                                  |       |  |
|       | d. <u>Clean up</u> : Remove trash and debris from the site.                                                                                                                                                                                                                                                                                                              |       |  |
|       | e. <u>Acceptance</u> : Substantial completion inspection to determine acceptance of grass areas will be made by the City after complete permination and coverage has been attained                                                                                                                                                                                       |       |  |
| G7.07 | MAINTENANCE OF DEVELOPING GRASS                                                                                                                                                                                                                                                                                                                                          |       |  |
|       | A. The Contractor shall water and maintain all grassed areas until final acceptance. He shall also re-fertilize at the rate of one (1) pound of nitrogen and one (1) pound of phosphorous per 1,000-sq. ft. every 60 days until the grass is accepted.                                                                                                                   |       |  |
|       | G7-4 LOAMING HYDROSFFDING                                                                                                                                                                                                                                                                                                                                                |       |  |

he seed shall be furnished and delivered premixed in the proportions specified within. A Manufacturer's Certificate of Compliance to the specified mixes shall be submitted by the Manufacturers for each seed pe. These certificates shall include the guaranteed percentages of purity, weed content and germination f the seed and also the net weight and date of shipment. No seed may be sown until the Contractor has ubmitted the certificates.

eed shall be delivered in sealed containers bearing the dealer's guaranteed analysis.

fulch shall be a specially processed cellulose fiber containing no growth or germination-inhibiting actors. It shall be manufactured in such a manner that after addition and agitation in slurry tanks with vater, the fibers in the material become uniformly suspended to form a homogeneous slurry. When prayed on the ground, the material shall allow absorption and percolation of moisture. Each package of ne cellulose fiber shall be marked by the manufacturer to show the air-dry weight content and not contain n excess of 10-percent moisture.

xcelsior matting blanket installed in all drainage swales and ditches shall be in accordance with Section 6- SEDIMENTATION AND TEMPORARY EROSION CONTROL.

TION OF TOPSOIL

Inless otherwise shown on the plans, topsoil shall be placed to a minimum compacted depth of six (6) iches on all parts of the site not covered with structures, pavement, or existing woodland.

or all areas to be seeded:

- Fertilizer (10-20-10) shall be applied at the rate of 30-lbs. per 1,000-sq. ft. or as determined by the soil test.
- Seed shall be applied at the rate of five (5) lbs. per 1,000-sq. ft.
- Fiber mulch shall be applied at the rate of 40-lbs. per 1,000-sq. ft.

after the topsoil is placed and before it is raked to true lines and rolled, limestone shall be spread evenly ver the loam surface and thoroughly incorporated by heavy raking to at least one half the depth of topsoil.

he application of fertilizer may be performed hydraulically in one (1) operation with hydroseeding and ber mulching. The Contractor is responsible for cleaning all structures and paved areas of unwanted eposits of the hydroseeded mixture.

### ATION OF TOPSOIL

reviously established grades, as shown on plans shall be maintained in a true and even condition.

ubgrade shall be prepared by tilling prior to placement of topsoil to obtain a more satisfactory bond etween the two layers. Tillage operations shall be across the slope. Tillage shall not take place on lopes steeper than two (2) horizontal to one (1) vertical or where tillage equipment cannot be operated. illage shall be accomplished by disking or harrowing to a depth of nine (9) inches parallel to contours. illage shall not be performed when the subgrade is frozen, excessively wet, extremely dry or in other onditions which would not permit tillage. The subgrade shall be raked and all rubbish, sticks, roots and tones larger than two (2) inches shall be removed. Subgrade surfaces shall be raked or otherwise oosened immediately prior to being covered with loam.

opsoil shall be placed over approved areas to a depth sufficiently greater than required so that after atural settlement and light rolling, the complete work will conform to the lines, grades and elevations idicated. No loam shall be spread in water or while frozen or muddy.

after topsoil has been spread, it shall be carefully prepared by scarifying or harrowing and hand raking. Il stiff clods, lumps, roots, litter and other foreign material shall be removed from the loamed area and isposed of by the Contractor. The areas shall also be free of smaller stones, in excessive quantities, as

G7-2

LOAMING, HYDROSEEDING AND PERMANENT EROSION CONTROL

reas which, due to settling or improper leveling, do not have positive drainage shall be re-leveled with opsoil and replanted with grass.

reas damaged by erosion, vehicle ruts and similar damage shall be re-leveled with topsoil and eplanted. Finished ground surface shall be sufficiently smooth and level to facilitate mowing.

ANCE

Vork under this section shall be considered acceptable when finish graded surfaces are level and wellrained, when there are no bare spots larger than three (3) square feet, when no more than 10 percent of the total area has bare spots larger than one (1) square foot, when not more than 15 bare spots larger than ix (6) inches square and the grass is at least two (2) inches high, and when other requirements listed erein are met.

acceptance of work normally coincides with final acceptance of the entire project. However, seasonal actors may be cause for delay in grass planting, development, and acceptance.

he City will accept responsibility for normal maintenance when grass is accepted. However, the Contractor shall remain responsible for any subsequent grass damage that he causes and for warranty of naterials and workmanship for a period of not less than one (1) year from the time of acceptance.

he Contractor shall furnish full and complete written instruction for maintenance of the seeded areas to ne City at the time of acceptance.

to separate payment will be made for finish grading, placement of topsoil or grass planting and ertilizing. All related costs shall be included in the proper item of the Proposal and Bid Schedule.

END OF SECTION

### G7-5

determined by the Engineer or the City. The whole surface shall then weighing not more than 100-lbs per foot of width. During the rolling settlement of rolling shall be filled with additional loam and the surface sh a smooth and even finished grade is created.

- Seeding shall be done within 10 days following soil preparation. Seed sha E. the rates and percentages indicated. The spraying equipment and mixture s the mixture is sprayed over an area, the grass seed and mulch shall be equ rates. Prior to the start of work, the Contractor shall furnish the Engineer v the number of pounds of materials to be used per 100-gallons of water. The the number of square feet of seeding that can be covered with the quantity hydroseeder. Upon completion of seeding operations, the Contractor shall City with a certified statement on the actual quantity of solution applied.
- F. In order to prevent unnecessary erosion of newly topsoiled and graded slo drainageways, the Contractor shall carry out seeding and mulching as soo completed a unit or portion of the project. A unit or portion of the project s or Engineer. When protection of newly loamed and graded areas is necess of the normal seeding season, the Contractor shall protect those areas by approved by the Engineer and the City and shall be responsible for preve beyond the limit of work.
- When newly graded subgrade areas cannot be topsoiled and seeded by G. conditions and will remain exposed for more than 30 days, the Contractor s erosion and washouts in accordance with Section G6- SEDIMENTA EROSION CONTROL, or by other measures as approved by the Engli application of topsoil, any such materials applied for erosion control sh incorporated into the subgrade by disking. Fertilizer shall be applied pri-
- H. On slopes, the Contractor shall provide against washouts by a method app City. Any washout which occurs shall be regraded and reseeded at the C sod is established.

#### G7.06 HYDROMULCHING

- Fertilizer: 18-18-5, (Nitrogen, Phosphoric Acid, Potash) show release g Α. 1,000-sq. ft.
- B. Water: The Contractor shall provide water necessary for grass planting a by the City.
- C. Planting Seasons: Grass planting by sodding, sprigging, or hydromulc between May 1 and September 15.

#### D. Hydromulching General

- Submit Manufacturer's product specifications and guaranteed pu
- Product Delivery, Storage and Handling 2.
  - Deliver fertilizer to site in original unopened conta guaranteed chemical analysis, name, trademark and con
- Store fertilizer in a dry location and protect from weath b.
- Guaranty and Replacement 3.

G7-3 AND PERMAN

### 1.3.8 <u>Temporary Vegetation</u>

Vegetation is used as a temporary or permanent stabilization techn disturbed by construction, but not covered by pavement, buildings, or othe a temporary control, vegetation can be used to stabilize stockpiles and b are inactive for long periods of time.

Vegetative techniques can and should apply to every construction pr exceptions. Vegetation effectively reduces erosion in swales, stockpiles, medium slopes, and along roadways.

Other techniques may be required to assist in the establishment of vegetati techniques include erosion control matting, mulches, surface roughenin dikes to direct runoff around newly seeded areas, and proper grading velocities during construction. (NCTCOG, 1993b)

### Materials:

The type of temporary vegetation used on a site is a function of the availability of water for irrigation. For areas that are not irrigated, divided into two temporary planting seasons and one season for planting warm weather groundcovers. These periods are shown in Figure 1-18 f and Williamson Counties. Planting times for Bexar, Comal, Kinney, Med Counties are shown in Figure 1-19. Appropriate temporary vegetation for are shown in Table 1-3 and Table 1-4.

Other vegetation may perform as well as the recommended varieties, es irrigation is available. County agricultural extension agents are a go suggestions for other types of temporary vegetation. All seed should be h Dept. of Agriculture certified seed.

Installation:

- (1) Interim or final grading must be completed prior to seeding, minim slopes. In addition, all necessary erosion structures such as diversions, should also be installed.
- (2) Seedbed should be well pulverized, loose, and uniform.
- (3) Fertilizer should be applied at the rate of 40 pounds of nitrogen at phosphorus per acre, which is equivalent to about 1.0 pounds phosphorus per 1000 square feet. Compost can be used instead of applied at the same time as the seed.

|                                                                                                           | ] |          |       |            |   | RE'                                                                                | VISIONS<br>SET ATE POST BID SET                                                                                                          |       |
|-----------------------------------------------------------------------------------------------------------|---|----------|-------|------------|---|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------|
| a ba mallad with a band mallar                                                                            |   |          |       |            |   | DATE                                                                               | DESCRIPTION                                                                                                                              |       |
| ng, all depressions caused by<br>hall be regraded and rolled until                                        |   |          |       |            |   |                                                                                    |                                                                                                                                          |       |
| hall be applied hydraulically at<br>shall be so designed that when                                        |   |          |       |            |   |                                                                                    |                                                                                                                                          |       |
| qual in quantity to the specified<br>with a certified statement as to<br>his statement shall also specify |   |          |       |            |   |                                                                                    |                                                                                                                                          |       |
| y of solution in the Contractor's<br>all furnish the Engineer and the                                     |   |          |       |            |   |                                                                                    |                                                                                                                                          |       |
| opes and unnecessary siltation of<br>oon as he/she has satisfactorily                                     |   |          |       |            |   |                                                                                    |                                                                                                                                          |       |
| shall be determined by the City<br>ssary at a time which is outside<br>what ever means necessary as       |   |          |       |            | • | <br>                                                                               |                                                                                                                                          | <br>• |
| vention of siltation in the areas                                                                         |   |          |       |            |   | AT ST.                                                                             | E OF TEL                                                                                                                                 |       |
| because of season or weather<br>r shall protect those areas against<br>ATION AND TEMPORARY                |   |          |       |            |   | *<br>BARRY                                                                         | TO SIMMONS                                                                                                                               |       |
| gineer and the City. Prior to<br>hall be removed or thoroughly<br>rior to spreading of topsoil.           |   |          |       |            |   | 1 Alex                                                                             | 139055 (CENSED.)                                                                                                                         |       |
| proved by the Engineer and the<br>ontractor's expense until a good                                        |   |          |       |            |   |                                                                                    | I2/01/2023                                                                                                                               | •     |
|                                                                                                           |   |          |       |            |   |                                                                                    | δ                                                                                                                                        |       |
| granular at a rate of 25-lbs per                                                                          |   |          |       |            |   | Ž                                                                                  | <i>ст</i> я<br>79<br>F88                                                                                                                 |       |
| and maintenance until acceptance                                                                          |   |          |       |            |   | AAN,                                                                               | <i>rrchite</i><br>anue<br>296(<br>FIRM:                                                                                                  |       |
| lching shall normally be done                                                                             |   |          |       |            |   |                                                                                    | <i>De A</i><br>⇒ Av∉<br>rolina<br>3,497<br>≣RING                                                                                         |       |
| ourity analysis for fertilizer.                                                                           |   |          |       |            |   | KA                                                                                 | 7 <i>dscat</i><br>Stone<br>h Ca<br>233-5<br>NGINE                                                                                        |       |
|                                                                                                           |   |          |       |            |   | and                                                                                | * La<br>Nest<br>Sout<br>364)<br>ZED E                                                                                                    |       |
| ainers bearing Manufacturer's onformance to State Law.                                                    |   |          |       |            |   | ą                                                                                  | <i>9ers</i><br>09 v<br>ville,<br>(8<br>(8<br>GISTEI                                                                                      |       |
| ther.                                                                                                     |   |          |       |            |   | ELA<br>ELA                                                                         | Engin<br>24<br>Greer<br>AS RE                                                                                                            |       |
|                                                                                                           |   |          |       |            |   |                                                                                    | TEX                                                                                                                                      |       |
| OAMING, HYDROSEEDING<br>NENT EROSION CONTROL                                                              |   |          |       |            |   |                                                                                    | OME CENTERS. LLC                                                                                                                         | •     |
|                                                                                                           | _ |          |       |            |   | 1000 LOV<br>MOORE:<br>704.                                                         | VE'S BOULEVARD<br>SVILLE, NC 28117<br>758.1000 (PH.)                                                                                     |       |
|                                                                                                           |   |          |       |            |   | THIS DRAWING IS TH<br>CENTERS, LLC. ANY I<br>OR PART IS PROHIBI<br>WRITTEN CONSENT | E PROPERTY OF LOWE'S HOME<br>JSE OR REPRODUCTION IN WHOLE<br>ED WITHOUT THE EXPRESSED<br>OF LOWE'S HOME CENTERS, LLC.<br>RIGHTS RESERVED |       |
|                                                                                                           |   |          |       |            |   |                                                                                    |                                                                                                                                          |       |
|                                                                                                           |   |          |       |            |   | ſ                                                                                  | e a a a a a a a a a a a a a a a a a a a                                                                                                  |       |
| nique for areas<br>her structures. As                                                                     |   |          |       |            |   |                                                                                    |                                                                                                                                          |       |
| barren areas tilat                                                                                        |   |          |       |            |   |                                                                                    | Ш                                                                                                                                        |       |
| , berms, mild to                                                                                          |   |          |       |            |   |                                                                                    | 31                                                                                                                                       |       |
| tion. These other                                                                                         |   |          |       |            |   |                                                                                    |                                                                                                                                          |       |
| to limit runoff                                                                                           |   |          |       |            |   |                                                                                    |                                                                                                                                          |       |
|                                                                                                           |   |          |       |            |   | ▕                                                                                  |                                                                                                                                          |       |
| season and the<br>the year can be                                                                         |   |          |       |            |   |                                                                                    |                                                                                                                                          | •     |
| for Hays, Travis,<br>dina, and Uvalde                                                                     |   |          |       |            |   |                                                                                    | AS<br>BTS                                                                                                                                |       |
| r these two areas                                                                                         |   |          |       |            |   | 4                                                                                  | HEX<br>KED BY                                                                                                                            |       |
| especially where<br>good source for                                                                       |   |          |       |            |   | AILS                                                                               | Š,                                                                                                                                       | -     |
| iigh quality, U.S.                                                                                        |   |          |       |            |   |                                                                                    |                                                                                                                                          |       |
| imizing all steen                                                                                         |   |          |       |            |   |                                                                                    |                                                                                                                                          |       |
| s dikes, swales,                                                                                          |   |          |       |            |   | MP                                                                                 | СО<br>Ш<br>Ш                                                                                                                             |       |
|                                                                                                           |   |          |       |            |   | 0)<br>()                                                                           | К<br>С<br>К<br>Г                                                                                                                         |       |
| nd 40 pounds of<br>of nitrogen and<br>of fertilizer and                                                   |   |          |       |            |   | ED4.(                                                                              | О́Щ Ѓ                                                                                                                                    |       |
|                                                                                                           |   |          |       |            |   |                                                                                    |                                                                                                                                          |       |
|                                                                                                           |   |          |       |            |   | PERMIT SE<br>ISSUE DAT                                                             | 12/01/2023<br>T<br>E:                                                                                                                    | 1     |
|                                                                                                           |   |          |       |            |   | CONSTRUC                                                                           | CTION SET<br>E:<br>NUMBER:                                                                                                               |       |
|                                                                                                           |   |          | NIC : | 2072_68_Cr |   | (                                                                                  | 751                                                                                                                                      |       |
|                                                                                                           |   | I RUJLUI |       | 2020-00-0L | ノ |                                                                                    | ノノー                                                                                                                                      | 1     |



| CONSTRUCTION SCHEDULE                                               |           |            |            |            |             |  |
|---------------------------------------------------------------------|-----------|------------|------------|------------|-------------|--|
| ACTIVITY                                                            | MONTH 1-2 | MONTHS 3-4 | MONTHS 5-6 | MONTHS 7-8 | MONTHS 9-12 |  |
| MAINTAIN EROSION<br>CONTROL BMP'S                                   | xxxxxx    | xxxxxx     | XXXXXX     | XXXXXX     | XXXXXX      |  |
| CLEARING AND GRUBBING<br>FOR PERMINENT CONTROLS                     | XXXXXX    |            |            |            |             |  |
| CONSTRUCTION OF<br>PERMINENT CONTROLS                               | XXXXXX    |            |            |            |             |  |
| <i>DEMOLITION OF ANY EXISTING<br/>BUILDING AND PAVEMENT</i>         | XXXXXX    |            |            |            |             |  |
| <i>IMPLEMENT PHASE SEQUENCING</i><br><i>AND VERIFCATION PROCESS</i> | XXXXXX    |            |            |            |             |  |
| INSTALL TEMPORARY SEDIMENT<br>BASIN AND REMAINING BMP'S             | XXXXXX    |            |            |            |             |  |
| ROUGH GRADING                                                       | XXXXXX    | XXXXXX     |            |            |             |  |
| INSTAL SEWER, WATER AND<br>STORM DRAIN SYSTEMS                      |           | xxxxxx     | XXXXXX     |            |             |  |
| BEGIN BUILDING PAD AND<br>BUILDING CONSTRUCTION                     |           |            | XXXXXX     | XXXXXX     |             |  |
| INSTALL CURBING, AND<br>PREPARE PARKING LOT FOR<br>PAVING           |           |            | XXXXXX     | XXXXXX     |             |  |
| BEGIN PAVING                                                        |           |            |            | XXXXXX     | XXXXXX      |  |
| SEEDING AND/OR LANDSCAPING                                          |           |            |            | XXXXXX     | XXXXXX      |  |
| REMOVAL OF EROSION<br>CONTROLS                                      |           |            |            |            | xxxxxx      |  |

Table 1-3 Temporary Seeding for Hays, Travis, and Williamson Counties(Northcutt, 1993)

|      | Climate               | Species (lb/ac)     |             |
|------|-----------------------|---------------------|-------------|
| 30   | Temporary Cool Season | Tall Fescue         | 4.0         |
|      |                       | Oats                | 21.0        |
|      |                       | Wheat (Red, Winter) | <u>30.0</u> |
|      |                       | Total               | 55.0        |
| 30   | Cool Season Legume    | Hairy Vetch         | 8.0         |
| g 31 | Temporary Warm Season | Foxtail Millet      | 30.0        |

Table 1-4 Temporary Seeding for Bexar, Comal, Kinney, Medina, and Uvalde Counties (Northcutt, 1993)

|    | Climate               | Species (lb/ac)     |             |
|----|-----------------------|---------------------|-------------|
| 30 | Temporary Cool Season | Tall Fescue         | 4.0         |
|    |                       | Oats                | 21.0        |
|    |                       | Wheat (Red, Winter) | <u>30.0</u> |
|    |                       | Total               | 55.0        |
| 30 | Cool Season Legume    | Hairy Vetch         | 8.0         |
| 31 | Temporary Warm Season | Foxtail Millet      | 30.0        |

(4) Seeding rates should be as shown in Table 1-3 and Table 1-4 or as recommended by the county agricultural extension agent.

(5) The seed should be applied uniformly with a cyclone seeder, drill, cultipacker seeder or hydroseeder (slurry includes seed, fertilizer and binder).

(6) Slopes that are steeper than 3:1 should be covered with appropriate soil stabilization matting as described in the following section to prevent loss of soil and seed.

Temporary irrigation should be provided according to the schedule described below, or to replace moisture loss to evapotranspiration (ET), whichever is greater. Significant rainfall (on-site rainfall of  $\frac{1}{2}$ " or greater) may allow watering to be postponed until the next scheduled irrigation.

| Time Period                                                             | Irrigation Amount and Frequency                                                                        |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Within 2 hours of installation                                          | Irrigate entire root depth, or to germinate seed                                                       |
| During the next 10 business days                                        | Irrigate entire root depth every Monday,<br>Wednesday, and Friday                                      |
| During the next 30 business<br>days or until Substantial<br>Completion  | Irrigate entire root depth a minimum of once<br>per week, or as necessary to ensure vigorous<br>growth |
| During the next 4 months or<br>until Final Acceptance of the<br>Project | Irrigate entire root depth once every two week<br>or as necessary to ensure vigorous growth            |

Refer to Figure 1, below, for average rainfall/ET data for the Edwards aquifer area data shall serve as a guide to the overall watering regime; however, actual frequence amount of irrigation water used shall be weather-dependent.



If cool weather induces plant dormancy, water only as necessary to maintain plant h Irrigate in a manner that will not erode the topsoil but will sufficiently soak the depth of roots.

Inspection and Maintenance Guidelines:

- (1) Temporary vegetation should be inspected weekly and after each rain evelocate and repair any erosion.
- (2) Erosion from storms or other damage should be repaired as soon as practi regrading the area and applying new seed.

(3) If the vegetated cover is less than 80%, the area should be reseeded.

|                                         |      |         |     |          |      | REVISIONS         ◇ PRE-BID SET       △ POST BID SET         ISSUE DATE       △ ISSUE DATE         DATE       DESCRIPTION                                                                   |
|-----------------------------------------|------|---------|-----|----------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                         |      |         |     |          |      |                                                                                                                                                                                             |
| inate seed                              |      |         |     |          |      |                                                                                                                                                                                             |
| iday,                                   |      |         |     |          |      |                                                                                                                                                                                             |
| vigorous                                |      |         |     |          |      |                                                                                                                                                                                             |
| y two weeks,<br>growth                  |      |         |     |          |      |                                                                                                                                                                                             |
| quifer area. This<br>al frequency and   |      |         |     |          |      | STATE OF TEL                                                                                                                                                                                |
|                                         |      |         |     |          |      | * * *<br>BARRY TOT SIMMONS                                                                                                                                                                  |
|                                         |      |         |     |          |      | SIONAL ENGINE                                                                                                                                                                               |
|                                         |      |         |     |          |      | U B                                                                                                                                                                                         |
|                                         |      |         |     |          |      | N, N                                                                                                                                                    |
| tain plant health.<br>y soak the entire |      |         |     |          |      | A Venu<br>Olina 2<br>ERING FI                                                                                                                                                               |
|                                         |      |         |     |          |      | L <sup>th</sup> Car<br>Stone<br>233-5<br>ENGINE                                                                                                                                             |
| ch rain event to                        |      |         |     |          |      | D and<br>"S * L<br>West<br>(864)<br>STERED<br>STERED                                                                                                                                        |
| n as practical by                       |      |         |     |          |      | <b>TLAN</b><br>709<br>709<br>709<br>709<br>709<br>709                                                                                                                                       |
| d.                                      |      |         |     |          |      |                                                                                                                                                                                             |
|                                         |      |         |     |          |      | LOWE'S HOME CENTERS, LLC<br>1000 LOWE'S BOULEVARD                                                                                                                                           |
|                                         |      |         |     |          |      | MOORESVILLE, NC 28117<br>704.758.1000 (PH.)<br>THIS DRAWING IS THE PROPERTY OF LOWE'S HOME<br>CENTERS, LLC, ANY USE OR REPRODUCTION IN WHOLE<br>OR PART IS PROHIBITED WITHOUT THE EXPRESSED |
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|                                         |      |         |     |          |      |                                                                                                                                                                                             |
|                                         |      |         |     |          |      |                                                                                                                                                                                             |
|                                         |      |         |     |          |      |                                                                                                                                                                                             |
|                                         |      |         |     |          |      |                                                                                                                                                                                             |
|                                         |      |         |     |          |      | │                                                                                                                                                                                           |
|                                         |      |         |     |          |      |                                                                                                                                                                                             |
|                                         |      |         |     |          |      | C-5<br>EXAS                                                                                                                                                                                 |
|                                         |      |         |     |          |      |                                                                                                                                                                                             |
|                                         |      |         |     |          |      |                                                                                                                                                                                             |
|                                         |      |         |     |          |      |                                                                                                                                                                                             |
|                                         |      |         |     |          |      | S S S S S S S S S S S S S S S S S S S                                                                                                                                                       |
|                                         |      |         |     |          |      |                                                                                                                                                                                             |
|                                         |      |         |     |          |      | ORIGINAL<br>ISSUE DATE: 12/01/2023                                                                                                                                                          |
|                                         |      |         |     |          |      | ISSUE DATE:<br>CONSTRUCTION SET<br>ISSUE DATE:                                                                                                                                              |
|                                         | CITY | PROJECT | NO: | 2023-68- | -SDP | DRAWING NUMBER:                                                                                                                                                                             |
|                                         |      |         |     |          | (    |                                                                                                                                                                                             |



for stability and operation following every runoff producing rainfall but in no case less than once every week. Any needed repairs will be made immediately to maintain all practices as 2. The sediment basins will be cleaned out when the level of or replaced when the sediment pool no longer drains properly. and gravel inlet protection device when storage capacity has been approximately 50% filled. Gravel will be cleaned or replaced when the sediment pool no longer drains properly. will be repaired as necessary to maintain a barrier.





for stability and operation following every runoff producing rainfall but in no case less than once every week. Any needed repairs will be made immediately to maintain all practices as 2. The sediment basins will be cleaned out when the level of or replaced when the sediment pool no longer drains properly. and gravel inlet protection device when storage capacity has been approximately 50% filled. Gravel will be cleaned or replaced when the sediment pool no longer drains properly. will be repaired as necessary to maintain a barrier.



| Weekly Inspection Report Fo<br>Please complete entire section                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | rm C-1                  | Lowe's of <i>(Georg</i> | etown, TX) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------|------------|
| Inspector's Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         |                         |            |
| Inspector's Qualifications:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                         |                         |            |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                         |                         |            |
| Time:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                         |                         |            |
| Phase of Construction (check all the second | hat apply):             |                         |            |
| [] Clearing/Grubbing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         | [ ] Rough Grading       |            |
| [] Paving                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         | [ ] Final Grading       |            |
| [ ] Building Construction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         | [ ] Infrastructure      |            |
| [ ] Final Stabilization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                         | [ ] Construction Comp   | blete      |
| Type of Inspection:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                         |            |
| [] Regular                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         | [ ] Storm Event         |            |
| [ ] Pre-Storm Event                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         | [ ] Post-Storm Event    |            |
| [ ] Dewatering Discharge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                         |                         |            |
| Has there been a storm event sinc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | e the last inspection?  |                         | []YES []NO |
| Approximate amount of precipita                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | tion in last 24 hours:  |                         |            |
| Weather at the time of the inspec                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | tion (check all that ap | oply):                  |            |
| [] Clear                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                         | [] Sleet                |            |
| [] Rain                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                         | [ ] High Winds          |            |
| []Fog                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                         | [] Cloudy               |            |
| [ ] Snow                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                         | [] Other                |            |
| Current temperature (indicate if C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <u>; or F):</u>         |                         |            |
| General Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                         |            |

**Discharge Information** 

1. Are there any stormwater discharges at the time of the inspection? [] YES [] NO

2. If answer to previous question is yes, please reference the discharge point (by number on the Site Map) and describe the discharge clarity (1 = Clear, 10 = Cloudy), floating solids (Presence or Absence) and/or oil sheen (Presence or Absence):

|                    | Discharge Clarity | Floating Solids | Oil Sheen |
|--------------------|-------------------|-----------------|-----------|
| Discharge Point #1 |                   |                 |           |
| Discharge Point #2 |                   |                 |           |
| Discharge Point #3 |                   |                 |           |
| Discharge Point #4 |                   |                 |           |
| Discharge Point #5 |                   |                 |           |

Construction stormwater inspector must also check for signs of visible erosion and sedimentation that may have occurred and are attributable to the discharge and, if applicable, on the banks of any waters of the U.S. flowing within or immediately adjacent to the site. Check also for signs of sedimentation such as sand bars, at points downstream from the point of discharge that could be attributable to the discharge. If erosion or sedimentation impacts are observed, record and create a Task for corrective action.

3. Are construction dewatering discharges occurring during this inspection? [] YES [] NO If yes complete requested information below: indicate approximate times dewatering discharge began and ended on the day of inspection, estimate rate (in gallons per day) of discharge on the day of the inspection, and whether or not a sediment plume, or a visible sheen, or a visible hydrocarbon deposit exists on the bottom or shoreline of the receiving water. Attach photographs of (1) dewatering water prior to treatment by a stormwater control and the final discharge after treatment; (2) the stormwater control; and (3) the point of discharge to any waters of the U.S. flowing through or immediately adjacent to the site.

| Time dewatering discharge Began:<br>Estimated rate of discharge in gallons per day: | Ended:                                   |
|-------------------------------------------------------------------------------------|------------------------------------------|
| If any downstream impacts are observed record below                                 | and create a Task for corrective action. |
|                                                                                     |                                          |
|                                                                                     |                                          |
|                                                                                     |                                          |
|                                                                                     |                                          |

4. Have any turbidity sampling, pH testing, or visual monitoring of discharge points (pipes, culverts and ditches) been performed as part of this inspection? [] YES [] NO

If answer to previous question is yes, please attach results report to SWPPP Binder.

Construction Sequence and Modifications

5. Are construction activities in sequence with the "Sequence of Construction Activities"?

6. If answer to previous question is no, a Modification Report must be completed within 48 hours.

7. Please check any BMPs that have been removed since the last inspection:

| Sediment Trap                | []                             | Construction Exit          | []        |
|------------------------------|--------------------------------|----------------------------|-----------|
| Sediment Basin               | []                             | Resource Barrier           | []        |
| Concrete Washout             | []                             | Temporary Diversion        | []        |
| Fuel Containment             | []                             | Slope Drain                | []        |
| Sediment Fence               | []                             | Rip Rap Apron              | []        |
| Wattle                       | []                             | Check Dam                  | []        |
| Inlet Protection             | []                             |                            | []        |
| 8. Please check any BMPs     | that have been installed since | e the last inspection:     |           |
| Sediment Trap                | []                             | Construction Exit          | []        |
| Sediment Basin               | []                             | Resource Barrier           | []        |
| Concrete Washout             | []                             | Temporary Diversion        | []        |
| Fuel Containment             | []                             | Slope Drain                | []        |
| Sediment Fence               | []                             | Rip Rap Apron              | []        |
| Wattle                       | []                             | Check Dam                  | []        |
| Inlet Protection             | []                             | Construction Exit          | []        |
| Sediment Trap                | []                             |                            | []        |
|                              |                                |                            |           |
| Perimeter Protection         |                                |                            |           |
| 9. Based on your inspection  | on have you observed any def   | iciencies with             |           |
| perimeter protection BMF     | PS?                            |                            | [ ] YES   |
| 10. If Yes please indicate v | which BMP is deficient and cre | eate a TASK for corrective | e action: |
| Sediment Fence               | []                             | Construction Exit          | []        |
| Wattle                       | []                             | Resource Barrier           | []        |
|                              |                                |                            |           |
|                              |                                |                            |           |

Runoff Control

| 11. Based on your inspection have you observed any deficiencies with runoff |         |      |
|-----------------------------------------------------------------------------|---------|------|
| control BMPs?                                                               | [ ] YES | []NO |
|                                                                             |         |      |

[]NO

12. If Yes please indicate which BMP is deficient and create a TASK for corrective action:

Diversion Swale [] Rip Rap Apron []

| Diversion Berm [ ]                                                             | Check Dam [ ]                                |    |
|--------------------------------------------------------------------------------|----------------------------------------------|----|
| Slope Drain [ ]                                                                |                                              |    |
| 13. Are discharge points and receiving water                                   | rs free of sediment deposits? [] YES [] N    | 0  |
| Sediment Control                                                               |                                              |    |
| 14. Based on your inspection have you obser sediment control BMPs?             | rved any deficiencies with []YES []N         | NO |
| 15. If Yes please indicate which BMP is defici                                 | ent and create a TASK for corrective action: |    |
| Inlet Protection [ ]                                                           | Dust Control [ ]                             |    |
| Sediment Trap [ ]                                                              | SF Rock Outlet [ ]                           |    |
| Sediment Basin [ ]                                                             |                                              |    |
| Materials Management                                                           |                                              |    |
| 16. Based on your inspection have you obser materials management BMPs?         | rved any deficiencies with []YES []N         | ١O |
| 17. If Yes please indicate which BMP is defici                                 | ent and create a TASK for corrective action: |    |
| Staging Area [ ]                                                               | Concrete Washout [ ]                         |    |
| Soil Stockpile [ ]                                                             | Masonry Mixing Area [ ]                      |    |
| Sanitary Facility [ ]                                                          | Concrete Saw-cut [ ]                         |    |
| Solid Waste [ ]                                                                | Non-stormwater []                            |    |
| Trash and Debris [ ]                                                           |                                              |    |
| Petroleum and Hazardous Waste                                                  |                                              |    |
| 18. Based on your inspection have you obser petroleum or hazardous waste BMPs? | rved any deficiencies with [] YES [] N       | NO |
| 19. If Yes please indicate which BMP is defici                                 | ent and create a TASK for corrective action: |    |
| Secondary Containment [ ]                                                      | Spills (reportable) [ ]                      |    |
| Spills (small) [ ]                                                             | No SPCC Plan [ ]                             |    |
|                                                                                |                                              |    |
|                                                                                |                                              |    |

Stabilization

20. Based on your inspection have you observed any deficiencies with [] YES [] NO stabilization BMPs?

21. If Yes please indicate which BMP is deficient and create a TASK for corrective action:

| Temporary Stabilization                               | []                             | Slope Stabilization              | []                     |
|-------------------------------------------------------|--------------------------------|----------------------------------|------------------------|
| Permanent Stabilization                               | []                             | Channel Stabilization            | []                     |
| 22. As of today work on the                           | e following areas has begun (d | or is continued):                |                        |
| Sediment Basins/Traps                                 | []                             | Side Parking Field               | []                     |
| Mass Grading                                          | []                             | Side Drives                      | []                     |
| Out Lots                                              | []                             | Rear Loading Area                | []                     |
| Entry Drive                                           | []                             | Off-Site                         | []                     |
| Front Parking Field                                   | []                             | Pervious Areas                   | []                     |
| 23. As of today work on the immediate stabilization): | e following areas has perman   | ently ceased ( <i>please cre</i> | eate a TASK to provide |
| None                                                  | []                             | Side Parking Field               | []                     |
| Sediment Basins/Traps                                 | []                             | Side Drives                      | []                     |
| Out Lots                                              | []                             | Rear Loading Area                | []                     |
| Entry Drive                                           | []                             | Off-Site                         | []                     |
| Front Parking Field                                   | []                             | Pervious Areas                   | []                     |
| 24. As of today temporary of                          | or permanent stabilization ha  | s been initiated in the f        | ollowing areas:        |
|                                                       |                                |                                  |                        |

| None                  | [] | Side Parking Field [ ] |
|-----------------------|----|------------------------|
| Sediment Basins/Traps | [] | Side Drives [ ]        |
| Out Lots              | [] | Rear Loading Area [ ]  |
| Entry Drive           | [] | Off-Site [ ]           |
| Front Parking Field   | [] | Pervious Areas [ ]     |

I certify under penalty of perjury that I personally conducted this inspection and I personally prepared this inspection summary report noting the deficiencies in BMPs and the corrective actions taken. I certify that the information in this report is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including fines and imprisonment for knowing violations

| Qualified   | Inspector |
|-------------|-----------|
| Signature _ |           |

CHECK AND SIGN ONLY IF THIS IS TRUE: There were NO incidents of non-compliance noted during the inspection. The facility is in compliance with the SWPPP and the Storm Water General Permit. [] Yes

"I certify that, based on no incidents of non-compliance identified during the inspection, the site is in compliance with the SWPPP and the Construction General Permit" (Signature meting Appendix I, I.11 Signatory Requirements or reference State General Permit applicable section).

Lowes Project Manager: \_\_\_\_\_\_Second Operator: \_\_\_\_\_

\*Note: The Compliance Certification above is only to be signed by Lowe's Duly Authorized Representative (Project Manager) when there are no "unsatisfactory" conditions and the construction phasing/sequencing is consistent with the SWPPP, rendering the site in full compliance with the SWPPP and the Construction General Permit.

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 gathered and evaluated 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 that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. [Modify text to match state certification if applicable]

Operator (Delegated Signatory)

Signature \_\_\_\_\_ Date \_\_\_\_\_

Second Operator Signature (only necessary if there is a second Operator)

| Signature  |   |
|------------|---|
| orginataro | _ |

Date

Lowe's of (Georgetown, TX)

NOTE: ALL WEEKLY AND RAIN EVENT INSPECTION REPORTS MUST BE SIGNED BY THE QUALIFIED INSPECTOR, AND BY THE LOWE'S PROJECT MANAGER (DELEGATED SIGNATORY) AND BY THE SECOND OPERATOR (CONTRACTOR OR BY THEIR DELEGATED SIGNATORY) WHEN ALSO AN OPERATOR

ALL COMPLETED INSPECTION REPORTS MUST BE AVAILABLE DURING NORMAL BUSINESS HOURS (PRINTED AND PLACED IN SWPPP LEDGER)

### Compliance Inspection Report Form C-2

(Lowe's PM, Lowe's NPDES Compliance Team, Third Party)

Please complete entire section

Inspector's Name:

Inspector's Qualifications:

| I                                                                                                           | Date:                                                                              |                                                              |                                               |
|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------|
| I                                                                                                           | Time:                                                                              |                                                              |                                               |
| Phase of Construction (ch                                                                                   | eck all that apply):                                                               |                                                              |                                               |
| [] Clearing/Grubbing                                                                                        |                                                                                    | [ ] Rough Grading                                            |                                               |
| [] Paving                                                                                                   |                                                                                    | [ ] Final Grading                                            |                                               |
| [ ] Building Construction                                                                                   | on                                                                                 | [] Infrastructure                                            |                                               |
| [ ] Final Stabilization                                                                                     |                                                                                    | [ ] Construction Comp                                        | lete                                          |
| Type of Inspection:                                                                                         |                                                                                    |                                                              |                                               |
| [] Regular                                                                                                  |                                                                                    | [ ] Storm Event                                              |                                               |
| [ ] Pre-Storm Event                                                                                         |                                                                                    | [ ] Post-Storm Event                                         |                                               |
| [ ] Dewatering Dischar                                                                                      | rge                                                                                |                                                              |                                               |
|                                                                                                             |                                                                                    |                                                              |                                               |
| Has there been a storm ev                                                                                   | vent since the last inspectio                                                      | <u>n</u> ?                                                   | []YES []NO                                    |
| Approximate amount of p                                                                                     | recipitation in last 24 hours                                                      | 2.                                                           |                                               |
| Weather at the time of th                                                                                   | e inspection (check all that                                                       | <u>apply)</u> :                                              |                                               |
| [] Clear                                                                                                    |                                                                                    | [ ] Sleet                                                    |                                               |
| [] Rain                                                                                                     |                                                                                    | [ ] High Winds                                               |                                               |
| []Fog                                                                                                       |                                                                                    | [] Cloudy                                                    |                                               |
| [] Snow                                                                                                     |                                                                                    | [] Other                                                     |                                               |
| <u>Current temperature (indi</u>                                                                            | icate if C or F):                                                                  |                                                              |                                               |
| General Information                                                                                         |                                                                                    |                                                              |                                               |
| Discharge Information                                                                                       |                                                                                    |                                                              |                                               |
| 1. Are there any stormwa                                                                                    | ter discharges at the time o                                                       | f the inspection?                                            | []YES []NO                                    |
| <ol> <li>If answer to previous que<br/>Map) and describe the dis<br/>and/or oil sheen (Presence)</li> </ol> | uestion is yes, please refere<br>scharge clarity ( 1 = Clear, 10<br>e or Absence): | ence the discharge point (by<br>D = Cloudy), floating solids | y number on the Site<br>(Presence or Absence) |
|                                                                                                             | Discharge Clarity                                                                  | Floating Solids                                              | Oil Sheen                                     |
| Discharge Point #1                                                                                          |                                                                                    |                                                              |                                               |
| Discharge Point #2                                                                                          |                                                                                    |                                                              |                                               |

| Discharge Point #3 |  |  |
|--------------------|--|--|
| Discharge Point #4 |  |  |
| Discharge Point #5 |  |  |

3. Have any turbidity sampling, pH testing, or visual monitoring of discharge points (pipes, culverts and ditches) been performed as part of this inspection? [] YES [] NO

If answer to previous question is yes, please attach results report to SWPPP Binder.

**Construction Sequence and Modifications** 

| 4. Are construction activities in sequence with the "Sequence of Construction |         |      |
|-------------------------------------------------------------------------------|---------|------|
| Activities"?                                                                  | [ ] YES | []NO |

5. If answer to previous question is no, a Modification Report must be completed within 48 hours.

6. Please check any BMPs that have been removed since the last inspection:

| Sediment Trap            | []                      | Construction Exit             | [] |
|--------------------------|-------------------------|-------------------------------|----|
| Sediment Basin           | []                      | Resource Barrier              | [] |
| Concrete Washout         | []                      | Temporary Diversion           | [] |
| Fuel Containment         | []                      | Slope Drain                   | [] |
| Sediment Fence           | []                      | Rip Rap Apron                 | [] |
| Wattle                   | []                      | Check Dam                     | [] |
| Inlet Protection         | []                      |                               | [] |
| 7. Please check any BMPs | that have been installe | ed since the last inspection: |    |
| Sediment Trap            | []                      | Construction Exit             | [] |

- Sediment Basin [] Resource Barrier []
- Concrete Washout [] Temporary Diversion []
  - Slope Drain [ ]
    - Rip Rap Apron []
    - Check Dam [ ]
    - Construction Exit []
  - Sediment Trap [ ] \_\_\_\_\_ [ ]

**Perimeter Protection** 

Fuel Containment []

Sediment Fence []

Inlet Protection []

Wattle []

| 8. Based on your inspection have you obser<br>perimeter protection BMPs?   | rved any deficiencies with [ ] YES             | []NO |
|----------------------------------------------------------------------------|------------------------------------------------|------|
| 9. If Yes please indicate which BMP is defic                               | ient and create a TASK for corrective action:  |      |
| Sediment Fence [ ]                                                         | Construction Exit []                           |      |
| Wattle [ ]                                                                 | Resource Barrier [ ]                           |      |
| Runoff Control                                                             |                                                |      |
| 10. Based on your inspection have you obsection control BMPs?              | erved any deficiencies with runoff [ ] YES     | []NO |
| 11. If Yes please indicate which BMP is defi                               | cient and create a TASK for corrective action: |      |
| Diversion Swale [ ]                                                        | Rip Rap Apron [ ]                              |      |
| Diversion Berm [ ]                                                         | Check Dam [ ]                                  |      |
| Slope Drain [ ]                                                            |                                                |      |
| 12. Are discharge points and receiving wate                                | ers free of sediment deposits? [] YES          | []NO |
| Sediment Control                                                           |                                                |      |
| 13. Based on your inspection have you obse<br>sediment control BMPs?       | erved any deficiencies with [ ] YES            | []NO |
| 14. If Yes please indicate which BMP is defi                               | cient and create a TASK for corrective action: |      |
| Inlet Protection [ ]                                                       | Dust Control []                                |      |
| Sediment Trap [ ]                                                          | SF Rock Outlet []                              |      |
| Sediment Basin [ ]                                                         |                                                |      |
| Materials Management                                                       |                                                |      |
| 15. Based on your inspection have you obsembles materials management BMPs? | erved any deficiencies with [ ] YES            | []NO |
| 16. If Yes please indicate which BMP is defi                               | cient and create a TASK for corrective action: |      |
| Staging Area [ ]                                                           | Concrete Washout []                            |      |
| Soil Stockpile [ ]                                                         | Masonry Mixing Area []                         |      |
| Sanitary Facility [ ]                                                      | Concrete Saw-cut [ ]                           |      |
| Solid Waste [ ]                                                            | Non-stormwater [ ]                             |      |
| Trash and Debris [ ]                                                       |                                                |      |

### Petroleum and Hazardous Waste

| 17. Based on your inspection have you observed any deficiencies with | [ ] YES | []NO |
|----------------------------------------------------------------------|---------|------|
| petroleum or hazardous waste BMPs?                                   |         |      |

| 18. If Yes please indicate which BMP is deficient and create a TASK for corrective action: |                                                       |                       |
|--------------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------|
| Secondary Containment []                                                                   | Spills (reportable)                                   | []                    |
| Spills (small) [ ]                                                                         | No SPCC Plan                                          | []                    |
| Stabilization                                                                              |                                                       |                       |
| 19. Based on your inspection hav stabilization BMPs?                                       | e you observed any deficiencies with                  | []YES []NO            |
| 20. If Yes please indicate which B                                                         | MP is deficient and create a TASK for corrective      | e action:             |
| Temporary Stabilization [ ]                                                                | Slope Stabilization                                   | []                    |
| Permanent Stabilization []                                                                 | Channel Stabilization                                 | []                    |
| 21. As of today work on the follo                                                          | wing areas has begun (or is continued):               |                       |
| Sediment Basins/Traps [ ]                                                                  | Side Parking Field                                    | []                    |
| Mass Grading [ ]                                                                           | Side Drives                                           | []                    |
| Out Lots []                                                                                | Rear Loading Area                                     | []                    |
| Entry Drive [ ]                                                                            | Off-Site                                              | []                    |
| Front Parking Field [ ]                                                                    | Pervious Areas                                        | []                    |
| 22. As of today work on the follo <i>immediate stabilization</i> ):                        | wing areas has permanently ceased ( <i>please cre</i> | ate a TASK to provide |
| None []                                                                                    | Side Parking Field                                    | []                    |
| Sediment Basins/Traps [ ]                                                                  | Side Drives                                           | []                    |
| Out Lots []                                                                                | Rear Loading Area                                     | []                    |
| Entry Drive [ ]                                                                            | Off-Site                                              | []                    |
| Front Parking Field [ ]                                                                    | Pervious Areas                                        | []                    |
| 23. As of today temporary or per                                                           | manent stabilization has been initiated in the fo     | ollowing areas:       |
| None []                                                                                    | Side Parking Field                                    | []                    |
| Sediment Basins/Traps [ ]                                                                  | Side Drives                                           | []                    |
| Out Lots []                                                                                | Rear Loading Area                                     | []                    |
| Entry Drive [ ]                                                                            | Off-Site                                              | []                    |
| Front Parking Field [ ]                                                                    | Pervious Areas                                        | []                    |
| Stormwater Compliance Site & S                                                             | WPPP                                                  |                       |

24. Is the site posted as required (NOI, NOC, and Form I-1)?

[]YES []NO

| 25. Is there a rain gauge on site?                                         | [ ] YES | []NO |
|----------------------------------------------------------------------------|---------|------|
| 26. Is the SITE MAP up-to-date and posted on the job trailer wall?         | []YES   | []NO |
| 27. Is the SWPPP on-site and accessible?                                   | [ ] YES | []NO |
| 28. Based on your SWPPP review, are there any deficiencies with the SWPPP? | []YES   | []NO |

29. If Yes please indicate which item(s) are deficient with the on-site SWPPP and create a TASK for corrective action:

| Start Date                       | [] | Engineer's Signature               | [] |
|----------------------------------|----|------------------------------------|----|
| Receiving Water is<br>Identified | [] | Pre-Construction<br>Meeting Agenda | [] |
| Operator's Signature             | [] | NOI sent to MS4                    | [] |
| GC Signature                     | [] | NOI and NOC                        | [] |
| Subcontractor Signature          | [] | General Permit                     | [] |
| Contact Information              | [] | Modifications                      | [] |
| Delegated Signatory              | [] | ESA Eligibility Info               | [] |

I certify under penalty of perjury that I personally conducted this inspection and I personally prepared this inspection summary report noting the deficiencies in BMPs and the corrective actions taken. I certify that the information in this report is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including fines and imprisonment for knowing violations

Qualified Inspector (Lowe's PM, Lowe's NPDES Compliance Team or Third Party)

Signature \_\_\_\_\_ Date \_\_\_\_\_

NOTE: ALL LOWE'S PROJECT MANAGER, LOWE'S NPDES COMPLIANCE TEAM AND THIRD PARTY INSPECTION REPORTS MUST BE SIGNED ALL COMPLETED REPORTS MUST BE AVAILABLE DURING NORMAL BUSINESS HOURS (PRINTED AND PLACED IN SWPPP LEDGER)

Corrective Action Log Form C-3

Lowe's of (Georgetown, TX)

### Tasks

Corrective actions are actions taken to repair, modify, or replace, clean-up or remedy a potential violation. Tasks necessary to complete corrective actions must be logged from all inspection reports into this document. Qualified Inspectors, Lowe's Project Managers, Third Party Inspectors and Lowe's NPDES Compliance Team inspectors are to clearly describe corrective action task identified in inspection reports in the 'Task Description 'section of this Log. Qualified Inspector (GC Superintendent) is to document completion dates of all corrective actions. Any minor corrective action shall be initiated immediately after discovery and completed by the close of the next work day. Any major corrective actions must be initiated within 24 hours, and must be complete within 48 hours of date created. This document verifies and describes diligence performed by the Qualified Inspector to complete all corrective actions as part of the construction process.

| Entry<br>Date<br>(month/<br>day/yr) | Task Description | Date<br>Completed | Operator<br>(Delegated<br>Signatory)<br>Signature |
|-------------------------------------|------------------|-------------------|---------------------------------------------------|
|                                     |                  |                   |                                                   |
|                                     |                  |                   |                                                   |
|                                     |                  |                   |                                                   |
|                                     |                  |                   |                                                   |
|                                     |                  |                   |                                                   |
|                                     |                  |                   |                                                   |
|                                     |                  |                   |                                                   |

| Entry<br>Date<br>(month/<br>day/yr) | Task Description | Date<br>Completed | Operator<br>(Delegated<br>Signatory)<br>Signature |
|-------------------------------------|------------------|-------------------|---------------------------------------------------|
|                                     |                  |                   |                                                   |

| Entry<br>Date<br>(month/<br>day/yr) | Task Description | Date<br>Completed | Operator<br>(Delegated<br>Signatory)<br>Signature |
|-------------------------------------|------------------|-------------------|---------------------------------------------------|
|                                     |                  |                   |                                                   |

| Entry<br>Date<br>(month/<br>day/yr) | Task Description | Date<br>Completed | Operator<br>(Delegated<br>Signatory)<br>Signature |
|-------------------------------------|------------------|-------------------|---------------------------------------------------|
|                                     |                  |                   |                                                   |

I certify under penalty of perjury that I personally conducted this inspection and I personally prepared this inspection summary report noting the deficiencies in BMPs and the corrective actions taken. I certify that the information in this report is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including fines and imprisonment for knowing violations Qualified Inspector

| Signature                                                                       | Date                           |
|---------------------------------------------------------------------------------|--------------------------------|
| Lowe's Project Manager                                                          |                                |
| Signature                                                                       | Date                           |
| Modification Report Form<br>Please complete entire section<br>Inspector's Name: | D-1 Lowe's of (Georgetown, TX) |
| Inspector's Qualifications:                                                     |                                |
| Date:                                                                           |                                |
| Time:                                                                           |                                |

Modification Report Number:

Phase of Construction:

- [] Clearing/Grubbing
- [] Paving
- [] Building Construction
- [] Final Stabilization

- [ ] Rough Grading
- [ ] Final Grading
- [] Infrastructure
- [ ] Construction Complete

General Information

Changes/Modifications Required

1. List changes required to the SWPPP (text, plan, or field changes):

2. List reason for Changes/Modifications:

3. Changes are to be completed on or before: \_\_\_\_\_\_

I certify under penalty of perjury that I personally conducted this inspection and I personally prepared this inspection summary report noting the deficiencies in BMPs and the corrective actions taken. I certify that the information in this report is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including fines and imprisonment for knowing violations

| Qualified Inspector |      |
|---------------------|------|
| Signature           | Date |

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 gathered and evaluated 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 that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. [Modify text to match state certification if applicable]

**Operator (Delegated Signatory)** 

| Signature                                                      | Date      |
|----------------------------------------------------------------|-----------|
| Second Operator Signature (only necessary if there is a second | Operator) |
| Signature                                                      | Date      |

NOTE: ALL MODIFICATION REPORTS MUST BE SIGNED BY THE QUALIFIED INSPECTOR and SIGNED BY THE LOWE'S PROJECT MANAGER (AND OTHER OPERATOR). ALL COMPLETED REPORTS MUST BE AVAILABLE DURING NORMAL BUSINESS HOURS (PRINTED AND PLACED IN SWPPP LEDGER)

| Temporary Structural |                                              | Temporary Stabilization |      |                                                                |                         |
|----------------------|----------------------------------------------|-------------------------|------|----------------------------------------------------------------|-------------------------|
|                      | ВМР                                          | Plan Sheet<br>Reference |      | ВМР                                                            | Plan Sheet<br>Reference |
| X                    | Inlet Protection                             | 40-52                   | X    | Temporary Seeding                                              | 40-52                   |
| X                    | Outlet Protection                            | 40-52                   |      | Temporary Mulching                                             |                         |
|                      | Perimeter Protection                         |                         | X    | Rolled Erosion Control Product<br>(RECP)                       | 40-52                   |
| X                    | Stabilized Construction<br>Entrance/Exit     | 40-52                   | X    | Slope Tracking (Soil<br>Roughening)                            | 40-52                   |
| X                    | 30,000 square foot<br>Lay-down Area          | 40-52                   |      | Watering to Minimize Wind<br>Erosion                           |                         |
| X                    | Temporary Sediment Basin                     | 40-52                   |      | Chemical Stabilization                                         |                         |
|                      | Temporary Gravel and Riprap<br>Sediment Trap |                         |      | Other                                                          |                         |
|                      | Temporary Rock Dam<br>Sediment Trap          |                         |      | Other                                                          |                         |
|                      | Check Dam                                    |                         |      | Other                                                          |                         |
| X                    | Sediment Fence                               | 40-52                   | Perm | anent Stabilization                                            |                         |
|                      | Brush Barrier                                |                         |      | BMP                                                            | Plan Sheet<br>Reference |
|                      | Temporary Stream Crossing                    |                         | X    | RECP (all slopes exceeding 3:1<br>(3 horizontal to 1 vertical) | 40-52                   |
|                      | Pipe Slope Drain                             |                         | Х    | Permanent Seeding                                              | 40-52                   |
|                      | Wind Fence                                   |                         | X    | Permanent Planting (vegetative landscaping)                    | 53-66                   |
|                      | Temporary Diversion<br>Channels              |                         |      | Mulching                                                       |                         |
| X                    | Temporary Diversion Berms                    | 40-52                   |      | Vegetation Protection                                          |                         |
|                      | Materials Management                         |                         |      | Construction Dewatering                                        |                         |
|                      | ВМР                                          | Plan Sheet<br>Reference |      | ВМР                                                            | Plan Sheet<br>Reference |
| X                    | Concrete Washout Pit                         |                         |      |                                                                |                         |
|                      | Small Equipment<br>Secondary Containment     |                         |      |                                                                |                         |

## Permanent Stormwater Section

### **Texas Commission on Environmental Quality**

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(C), (D)(Ii), (E), and (5), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

### Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Permanent Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Freeland & Kauffman, Inc. - Attn: Todd Simmons

Date: 09-27-2023

Signature of Customer/Agent

Regulated Entity Name: Lowe's Home Centers, LLC

### Permanent Best Management Practices (BMPs)

# Permanent best management practices and measures that will be used during and after construction is completed.

1. Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.



- 2. These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.
  - The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is: <u>City of Georgetown Drainage Criteria Manual</u>

□ N/A

3. W Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.

\_\_\_\_\_N/A

- 4. Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.
  - The site will be used for low density single-family residential development and has 20% or less impervious cover.
  - The site will be used for low density single-family residential development but has more than 20% impervious cover.
  - The site will not be used for low density single-family residential development.
- 5. The executive director may waive the requirement for other permanent BMPs for multifamily residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.
  - Attachment A 20% or Less Impervious Cover Waiver. The site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is attached.
  - The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.
  - The site will not be used for multi-family residential developments, schools, or small business sites.
- 6. **Attachment B BMPs for Upgradient Stormwater**.

|     |              | <ul> <li>A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is attached.</li> <li>No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.</li> <li>Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.</li> </ul> |
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| 7.  |              | Attachment C - BMPs for On-site Stormwater.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|     |              | <ul> <li>A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is attached.</li> <li>Permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff.</li> </ul>                                                                                                               |
| 8.  |              | Attachment D - BMPs for Surface Streams. A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is attached. Each feature identified in the Geologic Assessment as sensitive has been addressed.                                                                                                                                                                                                                                                                                                                                    |
|     | $\checkmark$ | Î N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 9.  |              | The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction.                                                                                                                                                                                                                                                                                                                                            |
|     |              | <ul> <li>The permanent sealing of or diversion of flow from a naturally-occurring sensitive feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed.</li> <li>Attachment E - Request to Seal Features. A request to seal a naturally-occurring sensitive feature, that includes, for each feature, a justification as to why no reasonable and practicable alternative exists, is attached.</li> </ul>                                                                                                                                          |
| 10. |              | Attachment F - Construction Plans. All construction plans and design calculations for<br>the proposed permanent BMP(s) and measures have been prepared by or under the<br>direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and<br>dated. The plans are attached and, if applicable include:                                                                                                                                                                                                                                                                              |
|     |              | <ul> <li>Design calculations (TSS removal calculations)</li> <li>TCEQ construction notes</li> <li>All geologic features</li> <li>All proposed structural BMP(s) plans and specifications</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                           |
|     |              | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| 11. <b>M</b> Attach<br>inspec<br>measu | ment G - Inspection, Maintenance, Repair and Retrofit Plan. A plan for the tion, maintenance, repairs, and, if necessary, retrofit of the permanent BMPs and res is attached. The plan includes all of the following:                    |
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| Pre<br>me                              | pared and certified by the engineer designing the permanent BMPs and<br>asures                                                                                                                                                           |
| Pro                                    | rofit                                                                                                                                                                                                                                    |
| M/A d                                  | liscussion of record keeping procedures                                                                                                                                                                                                  |
| 12. Attach<br>recogn<br>pilot-se       | <b>ment H - Pilot-Scale Field Testing Plan</b> . Pilot studies for BMPs that are not<br>nized by the Executive Director require prior approval from the TCEQ. A plan for<br>cale field testing is attached.                              |
| N/A                                    |                                                                                                                                                                                                                                          |
| 13. Attach<br>of the<br>and ch         | ment I -Measures for Minimizing Surface Stream Contamination. A description measures that will be used to avoid or minimize surface stream contamination anges in the way in which water enters a stream as a result of the construction |

and development is attached. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity, which increase erosion that results in water quality degradation.

M/A

### Responsibility for Maintenance of Permanent BMP(s)

## Responsibility for maintenance of best management practices and measures after construction is complete.

14. M The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.

🗌 N/A

15. A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

\_\_\_\_ N/A

### Lowe's of Georgetown, TX

#### Post Construction Stormwater BMP Operation and Maintenance Plan

- 1. Local Jurisdiction, Stormwater Authority, or MS4 is: City of Georgetown
- 2. There *is not* an active NPDES Post Construction Permit for this facility
- 3. If there is/will be a Post Construction NPDES permit for this facility indicate whether or not renewal or re-permitting is required and the frequency.
- 4. Immediate receiving water or MS4 for facility is un-named tributary of Berry Creek
- 5. Immediate receiving water *is not* on the list of 303(d) Impaired Waterways.
- 6. If discharge is to 303(d) Impaired Waterway indicate whether TMDL has been developed and attach to this plan if applicable.
- 7. Name and Contact information for Design Engineer:
  - Todd Simmons, PE Freeland & Kauffman, Inc. 209 West Stone Avenue Greenville, SC 29609 864-672-3426 tsimmons@fk-inc.com
- 8. Applicable Plans and Reports for this facility: Site Development Plans & Stormwater Management Report
- 9. Applicable Maintenance Agreements for this facility
- 10. Schedule

| Non-Structural<br>BMPs | (1) Description<br>of the Practice                                                                                                                                         | (2)<br>Performance<br>and<br>Management<br>Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                | (3)<br>Inspection<br>Frequency                                                           | (4)<br>Inspection<br>Personnel<br>Qualification<br>Requirement                                                                                                                                                                                                                                                 | (5)<br>Inspection<br>Action<br>Required | (6)<br>Submittal<br>Requirements<br>and Records<br>Retention                                                                                                                                                                                                                                                                                                                                   |
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| Permanent<br>Seeding   | Used to control<br>runoff and<br>erosion on<br>disturbed areas<br>by establishing<br>perennial<br>vegetative<br>cover from<br>seed. See<br>landscape plan<br>for locations | If erosion<br>occurs, surface<br>should be<br>repaired,<br>reseeded, and<br>re-mulched.<br>Maintenance<br>activities that<br>should be<br>carried out after<br>vegetation is<br>established are<br>mowing, litter<br>removal, spot<br>vegetation<br>repair.<br>Perennial<br>vegetative<br>cover from<br>seeding has<br>been shown to<br>remove<br>between 50 and<br>100 percent of<br>total suspended<br>solids (TSS)<br>from<br>stormwater<br>runoff, with an<br>average<br>removal of 90<br>percent (USEPA,<br>1993) | Frequent<br>inspections<br>should be<br>continued until<br>vegetation is<br>established. | Must be<br>thoroughly<br>experienced in<br>stormwater<br>system<br>maintenance<br>and inspections<br>and certified by<br>the state in<br>aquatic<br>herbicide<br>application.<br>Must provide<br>labor, tools,<br>equipment and<br>insurance and<br>all other items<br>needed to<br>provide these<br>services. | Erosion,<br>Vegetation<br>Management    | Inspections to<br>include an<br>assessment of<br>the current<br>condition,<br>recommended<br>service (routine,<br>specific or non-<br>routine) and<br>suggested<br>adjustments in<br>frequency of<br>inspection.<br>Minimum<br>records include<br>date inspection<br>or service was<br>performed,<br>detailed<br>description of<br>work, before<br>and after<br>photographic<br>documentation. |

| Permanent<br>Planting | Controls erosion<br>by physically<br>protecting bare<br>soils from<br>raindrop<br>impact,<br>overland flow,<br>and wind. Plant<br>root systems<br>bind soil<br>particles while<br>the surface<br>vegetation<br>reduces the<br>velocity of<br>overland flow<br>allowing<br>suspended<br>particles to be<br>filtered out. See<br>landscape plan<br>for locations. | Perennial<br>vegetative<br>cover from<br>seeding has<br>been shown to<br>remove<br>between 50 and<br>100 percent of<br>total suspended<br>solids (TSS)<br>from<br>stormwater<br>runoff, with an<br>average<br>removal of 90<br>percent (USEPA,<br>1993)                                                                                                                                                                                                                                                  | Spring and Fall<br>inspections for<br>dead or dying<br>vegetation.                                                                   | Must be<br>thoroughly<br>experienced in<br>stormwater<br>system<br>maintenance<br>and inspections<br>and certified by<br>the state in<br>aquatic<br>herbicide<br>application.<br>Must provide<br>labor, tools,<br>equipment and<br>insurance and<br>all other items<br>needed to<br>provide these<br>services. | Vegetation<br>Management,<br>Replanting and<br>disposal of dead<br>vegetation                                                                                              | Inspections to<br>include an<br>assessment of<br>the current<br>condition,<br>recommended<br>service (routine,<br>specific or non-<br>routine) and<br>suggested<br>adjustments in<br>frequency of<br>inspection.<br>Minimum<br>records include<br>date inspection<br>or service was<br>performed,<br>detailed<br>description of<br>work, before<br>and after<br>photographic<br>documentation. |
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| Mulching              | A temporary<br>erosion control<br>practice in<br>which materials<br>such as straw,<br>hay, wood<br>chips, wood<br>fibers, or gravel<br>are placed on<br>exposed or<br>recently planted<br>soil surfaces.<br>See landscape<br>plan for<br>locations                                                                                                              | Soil loss<br>reduction for<br>different<br>mulches ranges<br>from 53 to 99<br>percent. Water<br>velocity<br>reductions<br>range from 24<br>to 78 percent.<br>Mulches must<br>be anchored<br>(such as organic<br>binders) to<br>resist wind and<br>water<br>displacement.<br>Mulch binders<br>should be<br>applied at rates<br>recommended<br>by the<br>manufacturers.<br>Oil based<br>binders are not<br>permitted to be<br>applied on<br>Lowe's projects.<br>Mulch should<br>be reapplied in<br>spring. | Periodically as<br>conditions<br>require (after<br>wind and rain<br>storms).<br>Routine<br>inspections<br>should occur in<br>Spring. | Must be<br>thoroughly<br>experienced in<br>stormwater<br>system<br>maintenance<br>and inspections<br>and certified by<br>the state in<br>aquatic<br>herbicide<br>application.<br>Must provide<br>labor, tools,<br>equipment and<br>insurance and<br>all other items<br>needed to<br>provide these<br>services. | Erosion,<br>loosened or<br>removed<br>material, re-<br>mulch every<br>spring as<br>necessary to<br>maintain<br>coverage or<br>more frequently<br>as conditions<br>require. | Inspections to<br>include an<br>assessment of<br>the current<br>condition,<br>recommended<br>service (routine,<br>specific or non-<br>routine) and<br>suggested<br>adjustments in<br>frequency of<br>inspection.<br>Minimum<br>records include<br>date inspection<br>or service was<br>performed,<br>detailed<br>description of<br>work, before<br>and after<br>photographic<br>documentation. |
| Sod                   | Erosion control<br>practice that<br>involves laying a                                                                                                                                                                                                                                                                                                           | Watering is very<br>important to<br>maintain                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Frequently<br>during first few<br>weeks after                                                                                        | Must be<br>thoroughly<br>experienced in                                                                                                                                                                                                                                                                        | Vegetation<br>management.                                                                                                                                                  | Inspections to<br>include an<br>assessment of                                                                                                                                                                                                                                                                                                                                                  |

|                                                                                                 | continuous<br>cover of grass<br>sod on exposed<br>soils. See<br>landscape plan<br>for locations.                                                                                                                                                    | adequate<br>moisture in the<br>root zone and<br>prevent<br>dormancy.<br>Maintenance<br>activities should<br>be carried out<br>after vegetation<br>is established.<br>Maintenance<br>includes<br>mowing, litter<br>removal, and<br>spot vegetation<br>repair. Sod has<br>been shown to<br>remove up to<br>99 percent of<br>total suspended<br>solids (TSS). | installation,<br>until sod is fully<br>rooted. Annual<br>inspections for<br>dead or dying<br>areas. | stormwater<br>system<br>maintenance<br>and inspections<br>and certified by<br>the state in<br>aquatic<br>herbicide<br>application.<br>Must provide<br>labor, tools,<br>equipment and<br>insurance and<br>all other items<br>needed to<br>provide these<br>services.                                            |                                                                                                                      | the current<br>condition,<br>recommended<br>service (routine,<br>specific or non-<br>routine) and<br>suggested<br>adjustments in<br>frequency of<br>inspection.<br>Minimum<br>records include<br>date inspection<br>or service was<br>performed,<br>detailed<br>description of<br>work, before<br>and after<br>photographic<br>documentation.                                                  |
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| Structural<br>BMPs                                                                              | (1) Description<br>of the Practice                                                                                                                                                                                                                  | (2)<br>Performance<br>and<br>Management<br>Requirements                                                                                                                                                                                                                                                                                                    | (3)<br>Inspection<br>Frequency                                                                      | (4)<br>Inspection<br>Personnel<br>Qualification<br>Requirement                                                                                                                                                                                                                                                 | (5)<br>Inspection<br>Action<br>Required                                                                              | (6)<br>Submittal<br>Requirements<br>and Records<br>Retention                                                                                                                                                                                                                                                                                                                                   |
| Outlet<br>Protection using<br>Riprap (Riprap<br>Apron with filter<br>fabric or washed<br>stone) | A permanent,<br>erosion-<br>resistant layer<br>made of stones.<br>It is intended to<br>protect soil<br>from erosion in<br>areas of<br>concentrated<br>flow and to<br>dissipate<br>velocity. See<br>grading plan for<br>locations and<br>dimensions. | Riprap can<br>prevent erosion<br>from the<br>protected area.<br>If damaged,<br>repairs should<br>be made<br>promptly to<br>prevent a<br>progressive<br>failure (head<br>cutting). Control<br>of weed and<br>brush growth<br>may be needed<br>in some areas.                                                                                                | Annually                                                                                            | Must be<br>thoroughly<br>experienced in<br>stormwater<br>system<br>maintenance<br>and inspections<br>and certified by<br>the state in<br>aquatic<br>herbicide<br>application.<br>Must provide<br>labor, tools,<br>equipment and<br>insurance and<br>all other items<br>needed to<br>provide these<br>services. | Structural<br>erosion, level of<br>sediment<br>deposition,<br>damage, pipe<br>perforation,<br>debris,<br>vegetation. | Inspections to<br>include an<br>assessment of<br>the current<br>condition,<br>recommended<br>service (routine,<br>specific or non-<br>routine) and<br>suggested<br>adjustments in<br>frequency of<br>inspection.<br>Minimum<br>records include<br>date inspection<br>or service was<br>performed,<br>detailed<br>description of<br>work, before<br>and after<br>photographic<br>documentation. |
| Storm Drainage<br>System                                                                        | Underground<br>and above<br>ground storm<br>system to<br>convey<br>stormwater                                                                                                                                                                       | Remove any<br>sediment<br>accumulation<br>and buildup of<br>trash and<br>debris. Repair                                                                                                                                                                                                                                                                    | Annually.                                                                                           | Must be<br>thoroughly<br>experienced in<br>stormwater<br>system<br>maintenance                                                                                                                                                                                                                                 | Sediment<br>accumulation<br>and debris.                                                                              | Inspections to<br>include an<br>assessment of<br>the current<br>condition,<br>recommended                                                                                                                                                                                                                                                                                                      |

|                                     | runoff to a<br>detention<br>facility or to off-<br>site discharge<br>points.                                                                                                                                      | damage to pipe.<br>Inspect for<br>depressions and<br>evidence of<br>sinkholes<br>outside pipe,<br>near inlets and<br>surrounding<br>area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | and inspections<br>and certified by<br>the state in<br>aquatic<br>herbicide<br>application.<br>Must provide<br>labor, tools,<br>equipment and<br>insurance and<br>all other items<br>needed to<br>provide these<br>services.                                                                                   |                                                                                                                                                                                                                                                                                                                                                               | service (routine,<br>specific or non-<br>routine) and<br>suggested<br>adjustments in<br>frequency of<br>inspection.<br>Minimum<br>records include<br>date inspection<br>or service was<br>performed,<br>detailed<br>description of<br>work, before<br>and after<br>photographic<br>documentation.                                                                                              |
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| Stormwater<br>Detention<br>Facility | Captures first<br>flush of runoff<br>to facilitate<br>sedimentation<br>and settling of<br>pollutants from<br>paved area.<br>Controlled<br>discharge to<br>mimic pre-<br>development<br>runoff rate and<br>volume. | USEPA<br>estimates an<br>average total<br>suspended<br>solids removal<br>rate from 55 to<br>100 percent<br>with an average<br>of 70 percent.<br>Erosion from<br>the<br>embankment or<br>stones moved<br>from the flow of<br>channels should<br>be replaced<br>immediately.<br>Trash and<br>debris from<br>around<br>dewatering<br>devices should<br>be removed<br>promptly after<br>rainfall events.<br>Sediment<br>should be<br>removed from<br>the basin<br>periodically.<br>Disposal of<br>waste from any<br>facility to be<br>conducted in<br>accordance with<br>federal, state<br>and local<br>regulations.<br>Maintain<br>vegetation at<br>appropriate | Annually. | Must be<br>thoroughly<br>experienced in<br>stormwater<br>system<br>maintenance<br>and inspections<br>and certified by<br>the state in<br>aquatic<br>herbicide<br>application.<br>Must provide<br>labor, tools,<br>equipment and<br>insurance and<br>all other items<br>needed to<br>provide these<br>services. | Off-site<br>pollutant<br>discharges,<br>sediment<br>accumulation,<br>level of debris<br>buildup,<br>vegetation,<br>grass and weed<br>control, aquatic<br>vegetation,<br>primary,<br>secondary and<br>emergency<br>spillway,<br>dewatering<br>device, energy<br>dissipaters,<br>embankment<br>and side slope<br>erosion, water<br>levels, and pest<br>control. | Inspections to<br>include an<br>assessment of<br>the current<br>condition,<br>recommended<br>service (routine,<br>specific or non-<br>routine) and<br>suggested<br>adjustments in<br>frequency of<br>inspection.<br>Minimum<br>records include<br>date inspection<br>or service was<br>performed,<br>detailed<br>description of<br>work, before<br>and after<br>photographic<br>documentation. |

|  | levels (including<br>aquatic<br>vegetation).<br>Assure<br>vegetation<br>maintenance on<br>pond side<br>slopes. |  |  |
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|  |                                                                                                                |  |  |

(1) Describe BMP practice in narrative form by type and provide number of items/locations.

(2) Provide performance and design criteria such as specifications, expected life span and general nature of maintenance requirements. Identify the responsible party for providing inspections.

(3) List inspection frequency needed such as after each storm, weekly, monthly, quarterly, semi-annual, annual, or long term. Distinguish between required and desired inspections.

(4) List required qualifications of inspection personnel

(5) Describe specific inspection action required such as excess sediment, structural/mechanical, erosion, vegetation management, soil testing for fertility, etc...

(6) Indicate if and when inspection reports are to be submitted to local jurisdiction and if time period, if any, records are to be retained.

### GRADING & DRAINAGE NOTES

I. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY.

2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

3. STORM PIPE SHALL BE AS NOTED IN THE SPECIFICATIONS.

4. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS. THIS WORK MUST BE COORDINATED WITH THE CITY OF GEORGETOWN.

5. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.

6. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.

7. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".

8. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. CONSTRUCTION GENERAL PERMIT.

9. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.

IO. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.

II. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.

12. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT.

13. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H2O) LOADING AND BE INSTALLED ACCORDINGLY.

4. SITE GRADING SHALL NOT PROCEED UNTIL APPROPRIATE EROSION CONTROL MEASURES HAVE BEEN INSTALLED AS PER THE PLANS.

15. AFTER PERMITS HAVE BEEN OBTAINED & EROSION CONTROL MEASURES INSTALLED, THE CONTRACTOR SHALL GRADE BUILDING PAD, GARDEN CENTER  $\boldsymbol{\xi}$ APRONS TO ±0.1 FT OF SUBGRADE AS PER SITEWORK SPECIFICATIONS.

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16. IMMEDIATELY APPLY & COMPACT STONE BASE FOR BUILDING PADS TO O-O.5" OF CONCRETE SUBGRADE AS PER SITEWORK SPECIFICATIONS. STONE SHALL BE APPLIED PRIOR TO EXCAVATING INTERIOR AND PERIMETER FOOTINGS.

17. CONTRACTOR SHALL PROVIDE 2'X2'X6' THICK CONCRETE APRON AT ALL CLEANOUTS OUTSIDE OF BUILDING.

18. ALL SITEWORK SHALL BE DONE IN STRICT ACCORDANCE WITH DIVISION 2 OF LOWE'S SITEWORK SPECIFICATIONS.

19. ALL EXISTING STRUCTURES, UNLESS OTHERWISE NOTED TO REMAIN, FENCING, TREES, & ETC. WITHIN CONSTRUCTION AREA SHALL BE REMOVED AND DISPOSED OF OFF-SITE. ANY BURNING ON SITE SHALL BE SUBJECT TO LOCAL ORDINANCES AND THE SITEWORK SPECIFICATIONS.

20. ALL ROOF DRAINS TO BUILDING SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON THE PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT THE END.

21. GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO GRADING START.

22. ALL DRAINAGE STRUCTURES SHALL BE PRE-CAST CONCRETE.

23. ALL PROPOSED DRAINAGE STRUCTURES ARE SHOWN FOR REFERENCE PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR ACCURATE LOCATION OF THE STRUCTURE(S) SUCH THAT THE APPLICABLE CASTING IS CORRECTLY ALIGNED WITH SURFACE FEATURES AS DESIGNED.

24. TOPOGRAPHIC INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY BY MANHARD CONSULTING. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.

> PRIOR TO STARTING WORK, CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS. ALL EXISTING ITEMS THAT ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS ARE TO BE RELOCATED/REMOVED AS NEEDED & CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION AND FOR INCLUDING ALL COSTS IN BASE BID.









|          | STORMORAIN STRU            | ICTURE TA | BLE                                                |                     |
|----------|----------------------------|-----------|----------------------------------------------------|---------------------|
| STR. NO. | TYPE                       | RM        | INV. IN                                            | INV. OUT            |
| RI       | RISER STRUCUTRE            |           |                                                    |                     |
| 1        | HEADWALL                   | 739.38    | 735.00 (2)                                         |                     |
| 2        | COMBINATION INLET          | 750.00    | 735.23 (3)                                         | 735.18 (1)          |
| 3        | GRATE INLET                | 750.75    | 735.45 (4)                                         | 735.4O (2)          |
| 4        | COMBINATION INLET          | 749.55    | 738.46 (8)<br>735.92 (5)                           | 735.83 (3)          |
| 5        | COMBINATION INLET          | 748.IO    | 739.36 (9)<br>736.78 (6)                           | 736.73 (4)          |
| 6A       | GRATE INLET                | 746.00    |                                                    | 737.71 (6)          |
| 6        | COMBINATION INLET          | 746.00    | <br>/4ບ.ວວ (/)<br>                                 | 737.41 (5)          |
| 7        | GRATE INLET                | 748.60    |                                                    | 742.50 (6           |
| 8        | GRATE INLET                | 750.75    |                                                    | 742.50 (4           |
| 9        | GRATE INLET                | 748.65    |                                                    |                     |
| Ю        | HEADWALL                   | 739.92    | 735.OO (II)                                        |                     |
| 1        | COMBINATION INLET          | 747.55    | 735.30 (12)                                        | 735.25 (10          |
| 12       | COMBINATION INLET          | 747.30    | 735,49 (13)                                        | 735.44 (10          |
| 13       | GRATE INLET                | 747.60    | 735.75 (14)                                        | 735.70 (12          |
| 14       | GRATE INLET                | 748.05    | 736.17 (15)<br>741.46 ()                           | 736.12 (13)         |
| 15       | COMBINATION INLET          | 748.05    | 736.60 (16)                                        | 736.55 (14          |
| 16       | GRATE INLET                | 748.05    | 737.04 (17)                                        | 736.97 (15          |
| 17       | GRATE INLET                | 748.05    | 737,46 (18)<br>744,10 ()                           | 737.41 (16)         |
| 18       | COMBINATION INLET          | 747.00    |                                                    | 737.84 (17          |
| 19       | GRATE INLET                |           |                                                    |                     |
| 20       | HEADWALL                   | 740.46    | 735.00 (21)                                        |                     |
| 21       | COMBINATION INLET          | 746.15    | 736.OO (31)<br>735.19 (22)                         | 735. <b>1</b> 4 (2C |
| 22       | COMBINATION INLET          | 744.56    | 735.57 (23)<br>743.20 0                            | 735.52 (21          |
| 23       | COMBINATION INLET          | 748.60    | 736.14 (24)<br>743.90 0                            | 736.09 (22          |
| 24       | COMBINATION INLET          | 749.55    | 736.93 (25)<br>744.52 ()<br>743.90 ()<br>743.90 () | 736.88 (23          |
| 25       | COMBINATION INLET          | 749.65    | 737.52 (26)<br>744.18 0<br>743.85 0<br>744.65 0    | 737.47 (24          |
| 26       | COMBINATION INLET          | 748.40    | 738.15 (27)<br>740.85 (29)                         | 738.IO (25          |
| 27       | COMBINATION INLET          | 748.40    |                                                    | 741.85 (26          |
| 28       | COMBINATION INLET          | 748.40    |                                                    | 743.50 (2)          |
| 29       | COMBINATION INLET          | 750.00    |                                                    | 742.53 (26          |
| 30       | GRATE INLET                | 750.00    |                                                    | 742.78 (29          |
| 31       | COMBINATION INLET          |           |                                                    |                     |
| 32       | HEADWALL                   | 736.94    | 735.00 (33)                                        |                     |
| 33       | COMBINATION INLET          | 750.80    |                                                    | 742.14 (32          |
| 34       | GRATE INLET                |           |                                                    |                     |
| 35       | HEADWALL                   | 736.94    | 735.00 (36)                                        |                     |
| 36       | COMBINATION INLET          | 751.85    |                                                    | 741.89 (35          |
| 37       | GRATE INLET                |           |                                                    |                     |
| 38       | HEADWALL                   | 736.94    | 735.00 (39)                                        |                     |
| 39       | COMBINATION INLET          | 746.90    |                                                    | 741.80 (38          |
| 40       | GRATE INLET                |           |                                                    |                     |
| 41       | HEADWALL                   |           | 742.00 (RI)                                        |                     |
| 42       | HEADWALL                   |           |                                                    |                     |
| 43       | HEADWALL                   |           |                                                    |                     |
| 44A      | TXDOT AREA DRAIN - FG      | 743.00    | 739.98 (44 <b>B</b> )                              | 739.98 (44          |
| 44D      | DBL. TXDOT AREA DRAIN - FG | 743.00    | 740.83 (45)                                        | 740.58 (44          |
| 44C      | TXDOT AREA DRAIN - FG      | 743.00    | 740.38 (44D)                                       | 740.38 (44          |
| 44B      | TXDOT AREA DRAIN - FG      | 743.00    | 740.18 (44C)                                       | 740.18 (44,         |
| 44       | SAETY END TREATMENT        |           |                                                    |                     |
| 45       | SAETY END TREATMENT        | 744.04    |                                                    | 741.83 (44[         |

|                 | ON-SITE STORM DRAIN<br>PIPE TABLE |        |        |         |                  |  |
|-----------------|-----------------------------------|--------|--------|---------|------------------|--|
| STORMORAIN PIPE | SIZE                              | LENGTH | SLOPE  | INV. IN | INV. OUT         |  |
| 1 - 2           | 42"                               | 49'    | O.37%  | 735.00' | 735.18'          |  |
| 2 - 3           | 42"                               | 56'    | O.31%  | 735.23' | 735.40'          |  |
| 3 - 4           | 36"                               | 126'   | 0.30%  | 735.45' | 735.83           |  |
| 4 - 5           | 36"                               | 270'   | 0.30%  | 735.92' | 736.73'          |  |
| 4 - 8           | 18"                               | 25'    | 15.84% | 738.46' | 742.50'          |  |
| 5 - 6           | 24"                               | 210'   | 0.30%  | 736.78' | 737.41′          |  |
| 5 - 9           | 18"                               | 26'    | 12.31% | 739.36' | 742.50'          |  |
| 6 - 6A          | 18"                               | 49'    | O.51%  | 737.46  | 737.71'          |  |
| 6 - 7           | 15"                               | 29'    | 6.68%  | 740.55' | 742.50'          |  |
| Ю-1             | 48'                               | 40'    | O.63%  | 735.00' | 735.25'          |  |
| 11 - 12         | 48'                               | 46'    | O.31%  | 735.30  | 735.44'          |  |
| 12 - 13         | 42"                               | 71'    | 0.30%  | 735.49' | 735.70'          |  |
| 13 - 14         | 42"                               | 124'   | 0.30%  | 735.75' | 736.12'          |  |
| 14 - 15         | 36"                               | 124'   | O.31%  | 736.17' | 736.55'          |  |
| 15 - 16         | 36"                               | 124'   | 0.30%  | 736.60' | 736.97'          |  |
| 16 - 17         | 36"                               | 124'   | 0.30%  | 737.04' | 737.41′          |  |
| 17 - 18         | 30"                               | 125'   | 0.30%  | 737.46  | 737.84'          |  |
| 18 - 19         | 24"                               | 73'    | 5.89%  | 737.89  | 742.21'          |  |
| 20 - 21         | 54"                               | 34'    | O.41%  | 735.00' | 735.14'          |  |
| 21 - 22         | 48'                               | 109'   | 0.30%  | 735.19' | 735.52'          |  |
| 21 - 31         | 15"                               | 65'    | 1.53%  | 736.00' | 737.00'          |  |
| 22 - 23         | 48'                               | 175'   | 0.30%  | 735.57' | 736.09'          |  |
| 23 - 24         | 48'                               | 248'   | 0.30%  | 736.14' | 736.88'          |  |
| 24 - 25         | 48'                               | 180'   | 0.30%  | 736.93' | 737.47'          |  |
| 25 - 26         | 42"                               | 195'   | 0.30%  | 737.52  | 738 <b>.I</b> O' |  |
| 26 - 27         | 18"                               | 250'   | 1.48%  | 738.15' | 741.85'          |  |
| 26 - 29         | 30'                               | 224'   | O.75%  | 740.85' | 742.53'          |  |
| 27 - 28         | 15"                               | 258'   | O.62%  | 741.90' | 743.50'          |  |
| 29 - 3O         | 24'                               | 26'    | O.78%  | 742.58' | 742.78'          |  |
| 32 - 33         | 15"                               | 58'    | 12.37% | 735.00' | 742.14'          |  |
| 33 - 34         | 15"                               | 51'    | O.51%  | 742.24  | 742.50'          |  |
| 35 - 36         | 15"                               | 61'    | 1.32%  | 735.00' | 741.89'          |  |
| 36 - 37         | 15"                               | 41'    | O.51%  | 741.99' | 742.20'          |  |
| 38 - 39         | 15"                               | 91'    | 7.45%  | 735.00' | 741.80'          |  |
| 39 - 40         | 15"                               | 38'    | 9.36%  | 741.90' | 745.50'          |  |
| 41 - R1         | 18"                               | 25'    | 1.98%  | 742.00' | 742.50'          |  |
| 42 - 43         | 30"                               | 438'   | O.25%  | 743.00' | 744.09'          |  |
| 44 - 44A        | (2)18"                            | 99'    | 0.20%  | 739.78' | 739.98'          |  |
| 44A - 44B       | (2)18"                            | 99'    | 0.20%  | 739.98  | 740.18'          |  |
| 44B - 44C       | (2)18"                            | 99'    | 0.20%  | 740,18' | 740.38'          |  |
| 44C - 44D       | (2)18"                            | 99'    | 0.20%  | 740.38  | 740.58'          |  |
| 44D - 45        | (2)15"                            | 104'   | O.96%  | 740.83  | 741.83           |  |
|                 |                                   |        |        |         |                  |  |

NOTE: STORM DRAIN PIPE

FROM DS 44 - DS 45 DO BE

"DOUBLE" OR TWO RUNS OF

PIPE AT THE SIZE CALLED

FOR IN THE PIPE TABLE

2023-68-SDP

| / |                                                               |                                           |                                                           |                                                    |                                                                               |
|---|---------------------------------------------------------------|-------------------------------------------|-----------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------|
|   | BA                                                            | RBY                                       | E OF<br>13905<br>/CENS<br>/ONAL                           | TETA<br>SIMUST                                     | × × ×                                                                         |
|   |                                                               |                                           | Engineers * Landscape Architects<br>209 West Stone Avenue | Greenville, South Carolina 29609<br>(864) 233-5497 | TEXAS REGISTERED ENGINEERING FIRM: F8891                                      |
|   | LOWE'S<br>1000<br>MOO<br>7                                    | S HC<br>LOW<br>RES<br>'04.7               | OME CI                                                    | ENTER<br>OULEV<br>, NC 28<br>)0 (PH.               | S, LLC<br>ARD<br>3117                                                         |
|   | CENTERS, LLC<br>OR PART IS PR<br>WRITTEN CON:<br>COPYRIGHT 20 | . ANY U<br>OHIBITI<br>SENT O<br>20 ALL    | SE OR REP<br>ED WITHOU<br>F LOWE'S H<br>RIGHTS RE         | RODUCTION<br>JT THE EXPI<br>HOME CENT<br>SERVED    | NIN WHOLE<br>RESSED<br>ERS, LLC.                                              |
|   |                                                               | ſ                                         |                                                           |                                                    |                                                                               |
|   |                                                               |                                           |                                                           |                                                    |                                                                               |
|   | GI.I GRADING PLAN I OF 2                                      |                                           | LOWES OF:                                                 | GEORGETOWN                                         | CITY OF GEORGETOWN, TEXAS<br>DRAWN BY: CRD CHECKED BY: BTS                    |
|   | CII CRADING PLAN 1 OF 2<br>DELAN 1 OF 2<br>DELAN 1 OF 2       | AL<br>DATE<br>SET                         |                                                           | GEORGETOWN                                         | CITY OF GEORGETOWN, TEXAS<br>DRAWN BY: CRD CHECKED BY: BTS<br>CHECKED BY: BTS |
|   | CONSTILISSUE I<br>DRAMING PLAN 1 OF 2                         | AL<br>DATE<br>DATE<br>RUC<br>DATE<br>NG N |                                                           | 12/C<br>RETOWN                                     | CITY OF GEORGETOWN, TEXAS<br>DRAWN BY: CRD CHECKED BY: BTS                    |



CITY PROJECT NO:



| TURE TABLE |                                     |              |  |  |  |  |  |
|------------|-------------------------------------|--------------|--|--|--|--|--|
| RIM        | INV. IN                             | INV. OUT     |  |  |  |  |  |
|            |                                     |              |  |  |  |  |  |
| 739.38     | 735.00 (2)                          |              |  |  |  |  |  |
| 750.00     | 735.23 (3)                          | 735,18 (1)   |  |  |  |  |  |
| 748.40     | 738. <b>1</b> 5 (27)<br>740.85 (29) | 738.IO (25)  |  |  |  |  |  |
| 748.40     |                                     | 741.85 (26)  |  |  |  |  |  |
|            |                                     |              |  |  |  |  |  |
| 736.94     | 735.00 (33)                         |              |  |  |  |  |  |
| 750.80     |                                     | 742,14 (32)  |  |  |  |  |  |
|            |                                     |              |  |  |  |  |  |
| 736.94     | 735.00 (36)                         |              |  |  |  |  |  |
| 751.85     |                                     | 741.89 (35)  |  |  |  |  |  |
|            |                                     |              |  |  |  |  |  |
| 736.94     | 735.00 (39)                         |              |  |  |  |  |  |
| 746.90     |                                     | 741.80 (38)  |  |  |  |  |  |
|            |                                     |              |  |  |  |  |  |
|            | 742.00 (R1)                         |              |  |  |  |  |  |
| 743.00     | 739.98 (44 <b>B</b> )               | 739.98 (44)  |  |  |  |  |  |
| 743.00     | 740.83 (45)                         | 740.58 (44C) |  |  |  |  |  |
| 743.00     | 740.38 (44D)                        | 740.38 (44B) |  |  |  |  |  |
| 743.00     | 740.18 (44C)                        | 740.18 (44A) |  |  |  |  |  |
| 741.99     |                                     |              |  |  |  |  |  |
|            |                                     |              |  |  |  |  |  |

| ON-SITE STORM DRAIN<br>PIPE TABLE |      |        |        |         |          |
|-----------------------------------|------|--------|--------|---------|----------|
| STORMORAIN PIPE                   | SIZE | LENGTH | SLOPE  | INV. IN | INV. OUT |
| I - 2                             | 42"  | 49'    | O.37%  | 735.00' | 735,18'  |
| 26 - 27                           | 18"  | 250'   | 1.48%  | 738.15' | 741.85'  |
| 27 - 28                           | 15"  | 258'   | O.62%  | 741.90' | 743.50'  |
| 32 - 33                           | 15"  | 58'    | 12.37% | 735.00' | 742.14'  |
| 33 - 34                           | 15"  | 51'    | O.51%  | 742.24  | 742.50'  |
| 35 - 36                           | 15"  | 61'    | 11.32% | 735.00' | 741.89'  |
| 36 - 37                           | 15"  | 41'    | O.51%  | 741.99' | 742.20'  |
| 38 - 39                           | 15"  | 91'    | 7.45%  | 735.00' | 741.80'  |
| 39 - 4O                           | 15"  | 38'    | 9.36%  | 741.90' | 745.50'  |
| 41 - RI                           | 18"  | 25'    | 1.98%  | 742.00' | 742.50'  |
| 44 - <b>44</b> A                  | 18"  | 99'    | 0.20%  | 739.78' | 739.98'  |
| 44A - 44B                         | 18"  | 99'    | 0.20%  | 739.98' | 740.18'  |
| 44B - 44C                         | 18"  | 99'    | 0.20%  | 740.18' | 740.38'  |
| 44C - 44D                         | 18"  | 99'    | 0.20%  | 740.38' | 740.58'  |
| 44D - 45                          | 15"  | 104'   | O.96%  | 740.83  | 741.83'  |









PRIOR TO STARTING WORK, CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS. ALL EXISTING ITEMS THAT ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS ARE TO BE RELOCATED/REMOVED AS NEEDED & CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION AND FOR INCLUDING ALL COSTS IN BASE BID.







5

TION NLET RIM:748.10

760

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9

**NLET** 148.65

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760



ALWAYS CALL

DIG

One free, easy call gets your utility lines marked AND helps protect you from iury and expense. marked AND helps protect you from injury and expense. Safe Digging Is to Accident: Always Call B11 Before You Dig Know which being Always and the form Know what's below. Always call 811 before you dig.

EVERY DIGGING JOB REQUIRES A CALL - EVEN SMALL PROJECTS LIKE PLANTING TREES OR SHRUBS. IF YOU HIT AN UNDERGROUND UTILITY LINE WHILE DIGGING, YOU CAN HARM YOURSELF OR THOSE AROUND YOU, DISRUPT SERVICE TO AN ENTIRE NEIGHBORHOOD AND POTENTIALLY BE RESPONSIBLE FOR FINES AND REPAIR COSTS. SMART DIGGING MEANS CALLING 811 BEFORE EACH JOB. WHETHER YOU ARE A HOMEOWNER OR A PROFESSIONAL EXCAVATOR, ONE CALL TO 811 GETS YOUR UNDERGROUND UTILITY LINES MARKED FOR FREE.

CITY PROJECT NO:

VERTICAL SCALE I" = 6"

HORIZONTAL SCALE 1 = 60'

2023-68-SDP

6




760 \_\_\_\_ 740 \_\_\_\_\_ \_\_\_\_\_ 725

PRIOR TO STARTING WORK, CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS. ALL EXISTING ITEMS THAT ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS ARE TO BE RELOCATED/REMOVED AS NEEDED & CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION AND FOR INCLUDING ALL COSTS IN BASE BID.



NOTE: ALL STORMDRAIN JOINTS TO BE WATER-TIGHT

STORM DRAIN PIPE SHALL BE AS NOTED IN THE SPECIFICATIONS











ALWAYS CALL

DIG

One free, easy call gets your utility lines marked AND helps protect you from injury and expense. Safe Diging is No Accident: Always Call B11 Before You Dig

Know what's below. Always call 811 before you dig.





PRIOR TO STARTING WORK, CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS. ALL EXISTING ITEMS THAT ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS ARE TO BE RELOCATED/REMOVED AS NEEDED & CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION AND FOR INCLUDING ALL COSTS IN BASE BID.







STORM DRAIN PIPE SHALL BE AS NOTED IN THE SPECIFICATIONS

NOTE: ALL STORMDRAIN JOINTS TO BE WATER-TIGHT



ALWAYS

DIG

free, easy call gets your utility lines rked AND helps protect you from ry and expense. Safe Digging Is No Accident: Always Call 811 Before You Dig v what's below. Always call 811 before you o

EVERY DIGGING JOB REQUIRES A CALL - EVEN SMALL PROJECTS LIKE PLANTING TREES OR HRUBS. IF YOU HIT AN UNDERGROUND UTILIT INE WHILE DIGGING, YOU CAN HARM YOURSELE OR THOSE AROUND YOU, DISRUPT SERVICE TO N ENTIRE NEIGHBORHOOD AND POTENTIALLY BE RESPONSIBLE FOR FINES AND REPAIR COSTS.

SWART DIGGING MEANS CALLING 811 BEFORE EACH JOB. WHETHER YOU ARE A HOMEOWNER OF A PROFESSIONAL EXCAVATOR, ONE CALL TO 81 GETS YOUR UNDERGROUND UTLITY LINES MARKED FOR FREE.





|                                               |            |         |             | <b>c</b>                                                                                                                                                           |
|-----------------------------------------------|------------|---------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                               |            |         |             |                                                                                                                                                                    |
|                                               |            |         |             | DATE DESCRIPTION                                                                                                                                                   |
| LUSH)                                         |            |         |             |                                                                                                                                                                    |
| -(1) 1″ (25mm) DIA<br>HANDLING HOLE           |            |         |             |                                                                                                                                                                    |
| (2) PICKBARS                                  |            |         |             |                                                                                                                                                                    |
| 2″<br>[51mm]                                  |            |         |             |                                                                                                                                                                    |
|                                               |            |         |             |                                                                                                                                                                    |
|                                               |            |         |             |                                                                                                                                                                    |
|                                               |            |         |             | • • • • • • • • • • • • • • • • • • •                                                                                                                              |
| 8mm) LETTERS<br>D FLUSH)                      |            |         |             | STATE OF TET                                                                                                                                                       |
| 1/2"                                          |            |         |             | BARRY TO SIMMONS                                                                                                                                                   |
|                                               |            |         |             | 139055 A                                                                                                                                                           |
| 2″<br>[51mm]                                  |            |         |             | 12/01/2023                                                                                                                                                         |
|                                               |            |         |             |                                                                                                                                                                    |
| 1 1/2"<br>[38mm] 4 1/2"<br>[114mm]            |            |         |             |                                                                                                                                                                    |
|                                               |            |         |             |                                                                                                                                                                    |
|                                               |            |         |             |                                                                                                                                                                    |
|                                               |            |         |             | NEERIN                                                                                                                                                             |
|                                               |            |         |             |                                                                                                                                                                    |
| VORKS INC CATALOC                             |            |         |             | <b>A</b><br><b>A</b><br><b>A</b><br><b>A</b><br><b>A</b><br><b>A</b><br><b>A</b><br><b>A</b>                                                                       |
| EWER".                                        |            |         |             | AND<br>209<br>anville<br>EGIST                                                                                                                                     |
| VORKS, INC. REFERENCE                         |            |         |             | Gree EFL                                                                                                                                                           |
| NOTE: ADOPTED 6/21/2006                       |            |         |             |                                                                                                                                                                    |
| SD11                                          |            |         |             |                                                                                                                                                                    |
| rs 1/2003<br>r: Approved br:<br>RS TRB        |            |         |             | 1000 LOWE'S BOULEVARD<br>MOORESVILLE, NC 28117                                                                                                                     |
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|                                               |            |         |             |                                                                                                                                                                    |
|                                               |            |         |             |                                                                                                                                                                    |
|                                               |            |         |             |                                                                                                                                                                    |
|                                               |            |         |             |                                                                                                                                                                    |
|                                               |            |         |             |                                                                                                                                                                    |
|                                               |            |         |             |                                                                                                                                                                    |
|                                               |            |         |             |                                                                                                                                                                    |
| ~6" DEPTH OF 2000 PSI                         |            |         |             | │ └, ━━ /                                                                                                                                                          |
| CONCRETE WITH<br>6" X 6" X #6 WIRE MESH       |            |         |             |                                                                                                                                                                    |
|                                               |            |         |             | လူး                                                                                                                                                                |
|                                               |            |         |             |                                                                                                                                                                    |
|                                               |            |         |             |                                                                                                                                                                    |
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|                                               |            |         |             | S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S                                                                        |
| Architect/Engineer assumes                    |            |         |             |                                                                                                                                                                    |
| nsibility for appropriate<br>f this standard. |            |         |             |                                                                                                                                                                    |
| NOTE: ADOPTED 6/21/2006                       |            |         |             | ISSUE DATE: 12/01/2023<br>PERMIT SET                                                                                                                               |
| SD39<br>TS 1/2003                             |            |         |             | CONSTRUCTION SET<br>ISSUE DATE:                                                                                                                                    |
| r: APPROVED BY:<br>RS TRB                     |            |         |             |                                                                                                                                                                    |
|                                               | CITY PROJE | ECT NO: | 2023-68-SDP | 032                                                                                                                                                                |
|                                               |            |         |             |                                                                                                                                                                    |



### SELECT STREET ----SUBBASE \_\_\_\_\_ \_\_\_\_\_ (SEE SURFACED STREETS DETAILS AND SPECS.) \*\* 1.1.1 6" PIPE 0.D. 6" PIPE 0.D. + 12" ا فُ BEDDING SHALL BE REQUIRED MARF AS PER TYPICAL BEDDING FABRIC OR SPECIFICATIONS IN CITY OF GEORGETOWN > JOINT CONSTRUCTION SPECIFICATIONS. NOTES 1. DENSITY TESTS SHALL BE TAKEN IN ACCORDANCE WITH THE CITY OF GEORGETOWN 1. PIPE SHALL BE REINFORCED CONCRETE PIPE CLASS III UNLESS THE DE A STRONGER CLASS. 2. CONTRACTOR OR ENGINEER MAY USE FLOWABLE BACKFILL AS AN ALTERNATE BACKFILL MATERIAL 2. ALL FITTINGS AND WYES SHALL BE MANUFACTURED AND NOT CONSTRU WITHOUT PRIOR APPROVAL FROM THE CITY. 3. ALL JOINTS SHALL BE WRAPPED WITH MARF1-140-N GEOTEXTILE FABR EQUIVALENT. EACH JOINT SHALL BE WRAPPED WITH 18" WIDE FABRIC \*PIPE LESS THAN 20" DIAMETER \*20" DIAMETER PIPE AND LARGER *The Architect/Engineer assumes The Architect/Engineer assumes* responsibility for appropriate responsibility for appropriate use of this standard. use of this standard. REVISION NOTE: ADOPTED 6/21/2006 CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS CONSTRUCTION STANDARDS AND DETAILS SD41 GEORGETOWN TRENCH AND EMBEDMENT DETAIL TRENCH AND EMBEDMENT DETAIL UNDER PROPOSED ROADWAY (PROFILE) FOR STORM SEWER NTS 1/2003 DRAWN BY: APPROVED BY: MRS TRB 6" NOTE:

DIAMETER OF MANHOLE SHALL BE REVIEWED BY THE GENERAL CONTRACTOR TO DETERMINE A LEGEND OF STANDARD MANHOLE DIMENSIONS WITH RESPECT TO PROPOSED PIPE SIZES, NUMBER AND GEOMETRY. OVER SIZE MANHOLES SHALL BE PROVIDED IF MINIMUM 6" WALL DIMENSION BETWEEN PIPES IS NOT MANUFACTURED.



|                                                                                                                                | •                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                | REVISIONS                                                                                                                                                                                    |
|                                                                                                                                | DATE DESCRIPTION                                                                                                                                                                             |
|                                                                                                                                |                                                                                                                                                                                              |
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|                                                                                                                                |                                                                                                                                                                                              |
| SURFACE                                                                                                                        |                                                                                                                                                                                              |
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|                                                                                                                                |                                                                                                                                                                                              |
|                                                                                                                                | BARRY TO SIMMONS                                                                                                                                                                             |
| -140-N GEOTEXTILE                                                                                                              | SIONAL ENGINE                                                                                                                                                                                |
| R APPROVED EQUIVALENT                                                                                                          | 12/01/2023                                                                                                                                                                                   |
|                                                                                                                                |                                                                                                                                                                                              |
| DEPTH OF PIPE REQUIRES                                                                                                         |                                                                                                                                                                                              |
| RUCTED ON THE PROJECT                                                                                                          |                                                                                                                                                                                              |
| RIC OR APPROVED<br>CENTERED ON THE JOINT.                                                                                      |                                                                                                                                                                                              |
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|                                                                                                                                | Sourcest Vest Vest Vest Vest Vest Vest Vest V                                                                                                                                                |
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|                                                                                                                                | ILA<br>2C<br>REG                                                                                                                                                                             |
|                                                                                                                                |                                                                                                                                                                                              |
| REVISION NOTE: ADOPTED 6/21/2006                                                                                               |                                                                                                                                                                                              |
| SD42                                                                                                                           | LOWE'S HOME CENTERS, LLC                                                                                                                                                                     |
| DRWWN BY: APPROVED BY:<br>MRS TRB                                                                                              | 1000 LOWE'S BOULEVARD<br>MOORESVILLE, NC 28117<br>704.758.1000 (PH.)                                                                                                                         |
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|                                                                                                                                | COPYRIGHT 2020 ALL RIGHTS RESERVED                                                                                                                                                           |
|                                                                                                                                |                                                                                                                                                                                              |
| 6"<br>P.C. CONCRETE                                                                                                            |                                                                                                                                                                                              |
| 6" WELDED WIRE FABRIC                                                                                                          | / 3                                                                                                                                                                                          |
| $\begin{array}{c} \bullet \\ \bullet $ |                                                                                                                                                                                              |
| COMPACTED SUBGRADE 1/2" EXPANSION JOINT MATERIAL                                                                               |                                                                                                                                                                                              |
| PER PLANS                                                                                                                      |                                                                                                                                                                                              |
| /2" EXPANSION                                                                                                                  |                                                                                                                                                                                              |
|                                                                                                                                | │ └╷╺━┛╽│                                                                                                                                                                                    |
| 2'-0" (MIN)<br>SEE GRADING PLAN<br>FOR LENGTH                                                                                  |                                                                                                                                                                                              |
| <u>A</u> A A SECTION B-B                                                                                                       |                                                                                                                                                                                              |
| CONCRETE FLUME                                                                                                                 | XXX                                                                                                                                                                                          |
| N.1.S.                                                                                                                         |                                                                                                                                                                                              |
|                                                                                                                                |                                                                                                                                                                                              |
|                                                                                                                                |                                                                                                                                                                                              |
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|                                                                                                                                |                                                                                                                                                                                              |
|                                                                                                                                | ISSUE DATE: 12/01/2023<br>PERMIT SET<br>ISSUE DATE:                                                                                                                                          |
|                                                                                                                                | CONSTRUCTION SET<br>ISSUE DATE:                                                                                                                                                              |
|                                                                                                                                | DRAWING NUMBER:                                                                                                                                                                              |



## CROSS PIPE LENGTHS AND PIPE RUNNER LENGTHS 12

|                         |              |            |           |           |           |           |           | Pipe Runr | ner Length |            |            |           |           |           |
|-------------------------|--------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|-----------|-----------|-----------|
| Nominal<br>Culvert L.D. | Pipe Culvert | Cross Pipe |           | 3:1 Sid   | e Slope   |           |           | 4:1 Sid   | le Slope   |            |            | 6:1 Sid   | e Slope   |           |
|                         |              | Lengen     | 0° Skew   | 15° Skew  | 30° Skew  | 45° Skew  | 0° Skew   | 15° Skew  | 30° Skew   | 45° Skew   | 0° Skew    | 15° Skew  | 30° Skew  | 45° Skew  |
| 24"                     | 1' - 7''     | 3' - 5''   | N/A       | N/A       | N/A       | 5' - 10'' | N/A       | N/A       | N/A        | 8' - 1''   | N/A        | N/A       | N/A       | 12' - 9'' |
| 27''                    | 1' - 8''     | 3' - 8''   | N/A       | N/A       | 5' - 5''  | 6' - 11'' | N/A       | N/A       | 7' - 7''   | 9' - 7''   | N/A        | N/A       | 11' - 11" | 14' - 11" |
| 30''                    | 1' - 10''    | 3' - 11''  | N/A       | N/A       | 6' - 4''  | 8' - 0''  | N/A       | N/A       | 8' - 9''   | 1 1' - 0'' | N/A        | N/A       | 13' - 8'' | 17' - 0'' |
| 33''                    | 1' - 11''    | 4' - 2''   | 6' - 2''  | 6' - 5''  | 7' - 3''  | 9' - 1''  | 8' - 6''  | 8' - 10'' | 10' - 0''  | 12' - 5''  | 13' - 3''  | 13' - 9"  | 15' - 5"  | 19' - 2'' |
| 36"                     | 2' - 1''     | 4' - 5''   | 6' - 11'' | 7' – 3''  | 8' - 2''  | 10' - 2'' | 9' - 6''  | 9' - 11'' | 11' - 2''  | 13' - 10'' | 14' - 9''  | 15' - 3"  | 17' - 2'' | 21' - 3"  |
| 42"                     | 2' - 4''     | 4' - 11''  | 8' - 6''  | 8' - 10'' | 9' - 11'' | 12' - 4'' | 11' - 7'' | 12' - 0'' | 13' - 6''  | 16' - 8''  | 17' - 9"   | 18' - 5"  | 20' - 8'' | 25' - 7"  |
| 48''                    | 2' - 7''     | 5' - 5''   | 10' - 1'' | 10' - 5'' | 11' - 9'' | N/A       | 13' – 7'' | 14' - 2'' | 15' - 10'' | N/A        | 20' - 9"   | 21' - 6"  | 24' - 2'' | N/A       |
| 54''                    | 3' - 0''     | 5' - 11''  | 11' - 8'' | 12' - 1'' | N/A       | N/A       | 15' - 8'' | 16' - 3'' | N/A        | N/A        | 23' - 10"  | 24' - 8'' | N/A       | N/A       |
| 60"                     | 3' - 3''     | 6' - 5''   | 13' - 3'' | N/A       | N/A       | N/A       | 17' - 9'' | N/A       | N/A        | N/A        | 26' - 10'' | N/A       | N/A       | N/A       |

| 11            | 11 0       | 12 1        | 17/7        | 1           | V/ A | 15 0                    | 10          |
|---------------|------------|-------------|-------------|-------------|------|-------------------------|-------------|
| - 5"          | 13' - 3''  | N/A         | N/A         | I           | V/A  | 17' - 9''               |             |
| TYP           | PICAL PIP  | PE CULV     | ERT MI      | ITERS       | С    | ONDITION<br>AR          | IS V<br>E N |
| Side<br>Slope | 0°<br>Skew | 15°<br>Skew | 30°<br>Skew | 45°<br>Skew | С    | Nominal<br>Sulvert I.D. |             |
| 3:1           | 3:1        | 3.106:1     | 3.464:1     | 4.243:1     | 1.   | 2" thru 21"             | S           |

4.619:1

6.928:1

4.141:1

6.212:1

| $\bigcirc$  |                         |                        |                           |
|-------------|-------------------------|------------------------|---------------------------|
| 45°<br>Skew | Nominal<br>Culvert I.D. | Single<br>Pipe Culvert | Multiple<br>Pipe Culverts |
| 4.243:1     | 12" thru 21"            | Skews thru 45°         | Skews thru 45°            |
| 5.657:1     | 24"                     | Skews thru 45°         | Skews thru 30°            |
| 8.485:1     | 27"                     | Skews thru 30°         | Skews thru 15°            |
|             | 30"                     | Skews thru 15°         | Skews thru 15°            |
|             | 33"                     | Skews thru 15°         | Always required           |
|             | 36"                     | Normal (no skew)       | Always required           |
|             | 42" thru 60"            | Always required        | Always required           |
|             |                         |                        |                           |

## ESTIMATED CONCRETE RIPRAP QUANTITIES (CY) (5)

| Nominal      |         | 3:1 Sid  | le Slope |          |         | 4:1 Sid  | e Slope  |          |         | 6:1 Sid  | e Slope  |          |
|--------------|---------|----------|----------|----------|---------|----------|----------|----------|---------|----------|----------|----------|
| Culvert I.D. | 0° Skew | 15° Skew | 30° Skew | 45° Skew | 0° Skew | 15° Skew | 30° Skew | 45° Skew | 0° Skew | 15° Skew | 30° Skew | 45° Skew |
| 12"          | 0.4     | 0.4      | 0.5      | 0.5      | 0.5     | 0.5      | 0.5      | 0.6      | 0.7     | 0.7      | 0.7      | 0.8      |
| 15''         | 0.5     | 0.5      | 0.5      | 0.6      | 0.6     | 0.6      | 0.6      | 0.7      | 0.7     | 0.7      | 0.8      | 0.9      |
| 18''         | 0.5     | 0.5      | 0.6      | 0.6      | 0.6     | 0.7      | 0.7      | 0.8      | 0.8     | 0.8      | 0.9      | 1.0      |
| 21''         | 0.6     | 0.6      | 0.6      | 0.7      | 0.7     | 0.7      | 0.8      | 0.9      | 0.9     | 0.9      | 1.0      | 1.2      |
| 24"          | 0.6     | 0.7      | 0.7      | 0.8      | 0.8     | 0.8      | 0.8      | 1.0      | 1.0     | 1.0      | 1.1      | 1.3      |
| 27''         | 0.7     | 0.7      | 0.8      | 0.9      | 0.8     | 0.9      | 0.9      | 1.1      | 1.1     | 1.1      | 1.2      | 1.4      |
| 30''         | 0.8     | 0.8      | 0.8      | 0.9      | 0.9     | 0.9      | 1.0      | 1.2      | 1.2     | 1.2      | 1.3      | 1.6      |
| 33''         | 0.8     | 0.8      | 0.9      | 1.0      | 1.0     | 1.0      | 1.1      | 1.3      | 1.3     | 1.4      | 1.5      | 1.7      |
| 36''         | 0.9     | 0.9      | 0.9      | 1.1      | 1.1     | 1.1      | 1.2      | 1.4      | 1.4     | 1.5      | 1.6      | 1.8      |
| 42''         | 1.0     | 1.0      | 1.1      | 1.3      | 1.2     | 1.3      | 1.3      | 1.6      | 1.6     | 1.7      | 1.8      | 2.1      |
| 48''         | 1.1     | 1.1      | 1.2      | N/A      | 1.4     | 1.4      | 1.5      | N/A      | 1.9     | 1.9      | 2.1      | N/A      |
| 54''         | 1.3     | 1.3      | N/A      | N/A      | 1.6     | 1.6      | N/A      | N/A      | 2.1     | 2.1      | N/A      | N/A      |
| 60"          | 1.4     | N/A      | N/A      | N/A      | 1.7     | N/A      | N/A      | N/A      | 2.3     | N/A      | N/A      | N/A      |

Provide pipe runner of the size shown in the tables. Provide cross pipe of the same size as the pipe runner. Provide cross pipe stub out and bottom anchor pipe of the next smaller size pipe as shown in the Standard Pipe Sizes and Max Pipe Runner Lengths table.

- 2 This standard allows for the placement of only one pipe runner across each culvert pipe opening. In order to limit the clear opening to be traversed by an errant vehicle, the following conditions must be met:
  - For 60" culvert pipes, the skew must not exceed 0°. For 54" culvert pipes, the skew must not exceed 15°. For 48" culvert pipes, the skew must not exceed 30°. For all culvert pipe sizes 42" and less, the skew must not exceed 45°.
  - If the above conditions cannot be met, the designer should consider using a safety end treatment with flared wings. For further information, refer to the TxDOT Roadway Design Manual.
- 3 Miter = slope of mitered end of pipe culvert.

4:1

6:1

4:1

6:1

- (4) Riprap placed beyond the limits shown will be paid for as concrete riprap in accordance with Item 432, "Riprap".
- <sup>(5)</sup> Quantities shown are for one end of one reinforced concrete pipe (RCP) culvert. For multiple pipe culverts or for corrugated metal pipe (CMP) culverts, quantities will need to be adjusted. Riprap quantities are for Contractor's information only.

# WHERE PIPE RUNNERS NOT REQUIRED 2

| STAN<br>MAX  | DARD PI<br>PIPE RU | PE SIZE<br>NNER LE | S AND <sup>(1)</sup><br>NGTHS |
|--------------|--------------------|--------------------|-------------------------------|
| Pipe<br>Size | Pipe<br>0.D.       | Pipe<br>I.D.       | Max Pipe<br>Runner Length     |
| 2" STD       | 2.375"             | 2.067"             | N/A                           |
| 3" STD       | 3.500"             | 3.068''            | 10' - 0''                     |
| 4" STD       | 4.500"             | 4.026"             | 19' - 8''                     |
| 5" STD       | 5.563"             | 5.047"             | 34' - 2''                     |
|              |                    |                    |                               |

|                   | exas Departme                                                     | nt of Tran                                   | nspo                       | rtation                                                      | 7         | B<br>D<br>S | ridge<br>ivisio<br>tanda | n<br>ard           |
|-------------------|-------------------------------------------------------------------|----------------------------------------------|----------------------------|--------------------------------------------------------------|-----------|-------------|--------------------------|--------------------|
| S                 | AFETY E                                                           | ND '                                         | TR                         | REA                                                          | TI        | ИΕ          | N7                       | -                  |
|                   | FOR IZ"                                                           | DIA I                                        | O                          | 60"                                                          | DI        | 4           |                          |                    |
|                   | PIP<br>TYPE II ~                                                  | CROS                                         | VEI<br>55<br>ET            | rts<br>DRAI<br><b>P-C</b>                                    |           | GE          |                          |                    |
| FILE:             | PIP<br>TYPE II ~<br>setpcdse-20.dgn                               | E CUL<br>CROS<br>SL                          | VEI<br>55<br>ET            | RT <i>S</i><br>DRAI<br>Г <b>Р-С</b><br>к: сат                | NA<br>DW: | IGE         | Ск:                      | GAF                |
| FILE:<br>CTxD0T   | PIP<br>TYPE II ~<br>setpcdse-20.dgn<br>February 2020              | E CUL<br>CROS<br>DN: GAF                     | VEI<br>55 1<br>ET<br>555 1 | RTS<br>DRAI<br>P-C<br>K: CAT<br>JOB                          | NA<br>Dw: | JRP         | CK:<br>HIGHWA            | GAF                |
| FILE:<br>CTXDOT   | PIP<br>TYPE II ~<br>setpcdse-20.dgn<br>February 2020<br>REVISIONS | PE CULY<br>CROS                              | VEI<br>55 1<br>ET<br>sect  | RTS<br>DRAI<br><sup>(</sup> P-C<br><sup>(K: CAT</sup><br>JOB | NA<br>Dw: | JRP         | CK:<br>HIGHWA            | GAF<br>Y           |
| FILE:<br>(C)TxD0T | PIP<br>TYPE II ~<br>setpcdse-20.dgn<br>February 2020<br>REVISIONS | E CULY<br>CROS<br>DIN: GAF<br>CONT S<br>DIST | VEI<br>55 1<br>ET          | RTS<br>DRAI<br>P-C<br>K: CAT<br>JOB                          |           | JRP         | CK:<br>HIGHWA<br>SHE     | GAF<br>Y<br>ET NO. |



CITY PROJECT NO: 2023-68-SDP







## GRATE INLET

- NOTES: 1. CONCRETE SHALL BE 4,000SPI MINIMUM FOR ALL PRECAST CONCRETE STORM STRUCTURES.
- 2. PRECAST CONCRETE STRUCTURES MAY ONLY BE INSTALLED TO DEPTHS CERTIFIED AS
- ACCEPTABLE BY THE MANUFACTURER. 3. BRICK MAY BE USED TO ADJUST FRAME, GRATE, & HOOD TO SURFACE ELEVATION A MAXIMUM

OF 12 INCHES.



FLEXIBLE PIPE N.T.S. (HDPE) OR (PVC) OR (CMP > 48"Ø)

\_\_\_\_ O.D. \_\_\_\_

- 6" MIN.

- NOTE: MINIMUM TRENCH WIDTH (T.W.) SHALL BE THE GREATER OF (1.25 O.D. + 12") OR (O.D. + 16")
  - LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT 8. FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF
  - DEBRIS, ORGANICS AND ROCKS LARGER THAN 3". 9. ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED,
  - SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES.
  - 10. DESIGN ENGINEER SHALL DESIGNATE ON THE PLANS WHERE WATERTIGHT JOINTS ARE TO BE REQUIRED.

BEDDING SHALL BE DUMPED CLASS I-A WORKED BY HAND. OR CLASS I-B COMPACTED TO 85% STANDARD PROCTOR. LOCAL CODE PERMITTING WITH GEOTECHNICAL ENGINEER AND OWNER APPROVAL, NATIVE SOIL MAY BE USED FOR BEDDING PROVIDED IT MEETS THE EMBEDMENT AND BACKFILL MATERIALS IN TABLE 1 EXCLUDING CLASS IV-A.

- HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I-A, OR CLASS I-B OR CLASS II COMPACTED TO 95% STANDARD PROCTOR. PEA GRAVEL SHALL NOT BE USED AS A HAUNCHING MATERIAL. CLASS III MATERIAL SHALL BE ALLOWED FOR RIGID PIPE COMPACTED AT 95% STANDARD PROCTOR.
- INITIAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 90% STANDARD

GENERAL NOTES PROCTOR, OR CLASS III COMPACTED 95% STANDARD PROCTOR. CLASS I & II MATERAIL SHALL BE USED FOR FLEXIBLE PIPE WHEN FILL HEIGHTS EXCEED 8'.

- 4. FINAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 90% STANDARD PROCTOR, OR CLASS III COMPACTED TO 95% STANDARD PROCTOR.
- FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IV-A COMPACTED TO 95% STANDARD PROCTOR.
- 6. ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321. (SEE TABLE 1)
- 7. ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE 11. REPLACE WET OR UNSUITABLE SOIL AS NECESSARY TO

|                                         |             | TABLE 1: CLASSES OF EMBEDMENT        | AND BACK  | FILL MATERI        | ALS     |             |                 |
|-----------------------------------------|-------------|--------------------------------------|-----------|--------------------|---------|-------------|-----------------|
| ASTM D 2321                             | ASTM D 2487 |                                      |           | % PASSING          |         | ATTER       | RBERG LIMITS    |
| CLASS                                   | SOIL GROUP  | INATERIAL TYPE                       | 1 1/2 IN. | NO. 4              | NO. 200 | LL          | PI              |
| IA                                      | NONE        | MANUFACTURED OPEN GRADED AGGREGATES  | 100%      | <u>&lt;</u> 10%    | <5%     | NOI         | N PLASTIC       |
| IB                                      | NONE        | MANUFACTURED DENSE GRADED AGGREGATES | 100%      | <u>&lt;</u> 50%    | <5%     | NON         | N PLASTIC       |
|                                         | GW          |                                      |           | <50% OF<br>"COARSE |         |             |                 |
| "                                       | GP          |                                      | 100%      | FRACTION"          | <5%     | NO          | N PLASTIC       |
| "                                       | SW          | COARSE-GRAINED SOILS, CLEAN          | 100 %     | >50% OF            | -070    | 100         |                 |
|                                         | SP          |                                      |           | FRACTION"          |         |             |                 |
|                                         | GM          |                                      |           | <50% OF<br>"COARSE |         |             | <4 OR <"A" LINE |
|                                         | GC          |                                      | 100%      | FRACTION"          | 12% TO  |             | <7 OR >"A" LINE |
| ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | SM          | COARSE-GRAINED SOILS W/ FINES        | 100 %     | >50% OF            | 50%     |             | >4 OR <"A" LINE |
|                                         | SC          |                                      |           | FRACTION"          |         |             | >7 OR >"A" LINE |
| 117 4                                   | ML          |                                      | 100%      | 100%               | >50%    | ~50         | <4 OR <"A" LINE |
| IV-A                                    | CL          | FINE-GRAINED SUILS                   | 100%      | 100%               | ~30%    | < <i>30</i> | >7 OR >"A" LINE |

## TRENCH AND BEDDING DETAILS













- CONCRETE SHALL BE 4,000SPI MINIMUM FOR ALL PRECAST CONCRETE STORM STRUCTURES. 2. PRECAST CONCRETE STRUCTURES MAY ONLY BE INSTALLED TO DEPTHS CERTIFIED AS ACCEPTABLE BY THE
- MANUFACTURER. 3. BRICK MAY BE USED TO ADJUST FRAME, GRATE, & HOOD TO SURFACE ELEVATION A MAXIMUM OF 12 INCHES.

## STORM MANHOLE





PROVIDE A SUITABLE BASE, AS DIRECTED BY GEOTECHNICAL

12. WHERE GROUND WATER IS PRESENT CLASS I-A MATERIAL

SHALL BE WRAPPED WITH A NON-WOVEN GEO-TEXTILE,

EXCLUDING BEDDING MATERIAL BETWEEN 4" & 6" THICK.

SOIL TYPE AND CLASSIFICATIONS FOR THIS PROJECT.

14. CONTRACTOR SHALL REFER TO THE LATEST VERSION OF

13. CONTRACTOR SHALL REFER TO GEOTECHNICAL REPORT FOR

ASTM STANDARDS PRIOR TO CONSTRUCTION AND SHALL

COMPLY WITH THESE STANDARDS DURING CONSTRUCTION.

ENGINEER OR OWNER.



∠ \_/ + + \_ \_'\_ \_ + + + \\_ →

|         | ALL S      | LOPES  |                 | SLOPE   | /2:   | SLOP    | E 2:1  | SLOP   | E 3:1  |
|---------|------------|--------|-----------------|---------|-------|---------|--------|--------|--------|
| D       | Н          | R      | С               | А       | В     | А       | m      | А      | B      |
| 12"-24" | 3'-3"      | 3 5/8" | 2'-7"           | 6'-11"  | 3'-9" | 8'-4"   | 5'-O"  | II'-3" | 7'-6"  |
| 27"     | 3'-6"      | 4"     | 2 <b>'-</b> II" | 7'-9"   | 4'-2" | 9'-3"   | 5'-6"  | 12'-6" | 8'-3"  |
| 30"     | 3'-9"      | 4 1/2" | 3'-3"           | 8'-6"   | 4'-6" | IO'-2"  | 6'-0"  | 13'-8" | 9'-0"  |
| 36"     | 4' 10-1/4" | 5 1/2" | 3'-11"          | 10'-1"  | 5'-3" | 12'-0"  | 7'-0"  | 16′-1" | 10'-6" |
| 42"     | 4'-9"      | 6 3/8" | 4'-7"           | II'-6"  | 6'-0" | 13'-10" | 8'-0"  | 18'-6" | 12'-0" |
| 48"     | 5'-3"      | 6 1/2" | 5'-1"           | 12'-11" | 6'-9" | 15′-6"  | 9'-0"  | 20'-8" | 13'-5" |
| 54"     | 5'-9"      | 6 3/4" | 5'-8"           | 4'-4"   | 7'-6" | 17'-3"  | 10'-0" | 23'-0" | 15'-0" |
| 60"     | 6'-3"      | 7"     | 6'-2"           | 15′-9"  | 8'-3" | 18'-11" | II'-O" | 25'-3" | 16'-6" |

F/G —

REINFORCED -

LOWE'S DIVISION 2 6" MIN.

48" MIN.

CURB INLET

CERTIFIED AS ACCEPTABLE BY THE MANUFACTURER.

ELEVATION A MAXIMUM OF 12 INCHES.

1. CONCRETE SHALL BE 4,000SPI MINIMUM FOR ALL PRECAST CONCRETE STORM

PRECAST CONCRETE STRUCTURES MAY ONLY BE INSTALLED TO DEPTHS

BRICK MAY BE USED TO ADJUST FRAME, GRATE, & HOOD TO SURFACE

CONCRETE SLAB

REFERENCE

SECTION 02630 OF

STANDARD SITE

SPECIFICATIONS

AND PROJECT

SPECIAL

DUTY TRAFFIC

STRUCTURE, HEAVY

PROVISIONS

PRECAST

RATING

NOTES:

.3

STRUCTURES.



(N.T.S.)

REINFORCED CONCRETE HEADWALL

T= 8" FOR DOWNSTREAM HEADWALLS; T= (R+6") FOR UPSTREAM HEADWALL







– NEENAH R-3246 TYPE C GRATE

– MIRAFI 140N NON-WOVEN

FILTER FABRIC OR EQUAL

- WASHED STONE

└── 1" DIA. WEEP HOLE,

CAST IN PLACE

CONCRETE INVERT

- 12" THICK

WASHED STONE

3 REQ'D

EJ 7030M2 GRATE, T1 BACK



SSUE DATE:

ISSUE DATE:

CONSTRUCTION SET

DRAWING NUMBER:



for stability and operation following every runoff producing repairs will be made immediately to maintain all practices as

been approximately 50% filled. Gravel will be cleaned or replaced when the sediment pool no longer drains properly.



| AND and KAUFFMAN, INC.         ERS • LANDSCAPE ARCHITECTS         st Stone Avenue       Job: Lowe's of Georgetown, TX       Job No.:       Date: 11/3/2023         e, South Carolina 29609       Computed By: CRD         -5497       Checked By: BTS         -8915       Checked By: BTS | FREELAND and KAUFFMAN, INC.         ENGINEERS • LANDSCAPE ARCHITECTS         209 West Stone Avenue       Job: Lowe's of Georgetown, TX       Job No.:       Date: 11/3/2023         Greenville, South Carolina 29609       Computed By: CRD       64:233-5497         864-233-54915       Checked By: BTS | FREELAND and KAUFFMAN, INC.         ENGINEERS • LANDSCAPE ARCHITECTS         209 West Stone Avenue       Job: Lowe's of Georgetown, TX       Job No.:       Date:       11/3/2023         Greenville, South Carolina 29609       Computed By:       CRD         864-233-5497       Checked By:       BTS         864-233-8915       Checked By:       BTS | <u>,</u> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| ion for: Pond 1 NENT POOL VOLUME REQUIRED                                                                                                                                                                                                                                                 | FOREBAY VOLUME PROVIDED<br>AVERAGE INC. CUM.<br>ELEV. HEIGHT AREA (SF) AREA (SF) VOL. (CF) VOL. (CF)                                                                                                                                                                                                      | PERMANENT POOL + WATER QUALITY VOLUME REQUIRED         P. Pool Vreq'd = 116,431 cf       (from TCEQ TSS Removal Calculations, 85%)         W.Q. Vreq'd = 97,026 cf       (from TCEQ TSS Removal Calculations, 85%)                                                                                                                                        | <u>(</u> |
| Vreq'd = 116,431 cf (from TCEQ TSS Removal Calculations, 85%) VENT POOL VOLUME PROVIDED                                                                                                                                                                                                   | 735     8,295     0.0     0       1     11,318.0       736     14,341     11,318.0     11,318                                                                                                                                                                                                             | Total Vreq'd = 213,457 cf PERMANENT POOL + WATER QUALITY VOLUME PROVIDED                                                                                                                                                                                                                                                                                  |          |
| AVERAGE         INC.         CUM.           HEIGHT         AREA (SF)         AREA (SF)         VOL. (CF)           88,887         0.0         0           1         94,024,3         1                                                                                                    | 1     17,392.3       737     20,444     17,392.3       1     23,523.2       738     26,603     23,523.2                                                                                                                                                                                                   | P. Pool Vprov. = 965,607 cf<br>W.Q. Vprov. = 97,828 cf<br>Total Vprov. = 1,063,435 cf > or = 213,457 so provided capacity is sufficient                                                                                                                                                                                                                   |          |
| 99,161 94,024.3 94,024<br>1 104,354.7<br>109,548 104,354.7 198,379                                                                                                                                                                                                                        | 1     29,710.6       739     32,818     29,710.6       1     35,954.5                                                                                                                                                                                                                                     | WATER QUALITY + STORM STORAGE VOLUME<br>AVERAGE INC. CUM.                                                                                                                                                                                                                                                                                                 |          |
| 1 114,798.3<br>120,048 114,798.3 313,177<br>1 125,354.9                                                                                                                                                                                                                                   | 740     39,091     35,954.5     117,899       1     42,255.0       741     45,419     42,255.0                                                                                                                                                                                                            | ELEV.         HEIGHT         AREA (SF)         AREA (SF)         VOL. (CF)         VOL. (CF)           742.50         182,978         0.0         0           0.50         187,848.7         187,848.7                                                                                                                                                    |          |
| 130,662     125,354.9     438,532       1     136,024.7       141,388     136,024.7                                                                                                                                                                                                       | 1     48,612.0       742     51,805     48,612.0     208,765       0.50     57,253.8                                                                                                                                                                                                                      | 743     192,719     93,924.3     93,924       1     195,679.6     195,679.6       744     198,640     195,679.6     289,604                                                                                                                                                                                                                               |          |
| 1 146,807.5<br>152,227 146,807.5 721,364<br>1 157,703.5<br>163,180 157,703,5 879,068                                                                                                                                                                                                      | 742.50 62,703 28,626.9 237,392 = Vprov.<br>Vprov. = 237,392 > or = 193,121<br>Vrrov = 24.6% > or = 20% and $cor = 25%$                                                                                                                                                                                    | 1 201,628.2<br>745 204,617 201,628.2 491,232<br>0.50 207,330.4<br>745 50 210,044 102,665 3 504,807                                                                                                                                                                                                                                                        |          |
| 0.50 173,078.8<br>182,978 86,539.4 <b>965,607</b> = Vprov.                                                                                                                                                                                                                                | WATER QUALITY VOLUME REQUIRED                                                                                                                                                                                                                                                                             | ALLOWABLE WATER QUALITY RELEASE                                                                                                                                                                                                                                                                                                                           |          |
| Vprov. = 965,607 > or = 116,431 so permanent pool volume is sufficient                                                                                                                                                                                                                    | Vreq'd = 97,026 cf (from TCEQ TSS Removal Calculations, 85%)                                                                                                                                                                                                                                              | Wqvol from TCEQ Spreadsheet (85%): 97,026 cf                                                                                                                                                                                                                                                                                                              |          |
| <u>VVOLUME REQUIRED</u><br>Vreq'd = 15% to 25% of permanent pool volume<br>Vreq'd = 20% * 1,166,374 cf<br>Vreq'd = 193,121 cf                                                                                                                                                             | WATER QUALITY VOLUME PROVIDED           742.50         182,978         0.0         0           0.50         187,848.7         93,924.3         93,924           1         195,679.6         105,679.6         289,604                                                                                     | Allowable Release: WQv / 24 hours<br>Allowable Release: 97,026 / 86,400 sec.<br>Allowable Release: 1.12 cfs                                                                                                                                                                                                                                               |          |
|                                                                                                                                                                                                                                                                                           | V @ 743.02 = 97,828<br>Vprov. = 97,828 > or = 97,026 so water quality volume is sufficient                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                           |          |



| REELAND and KAUFFM                                                       | AN, INC.                                                    |                                       |                                           |                                        |                 |       |           |
|--------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------|-------------------------------------------|----------------------------------------|-----------------|-------|-----------|
| ENGINEERS • LANDSCAPE AR                                                 | RCHITECTS                                                   |                                       |                                           |                                        |                 |       |           |
| 209 West Stone Avenue                                                    |                                                             | Job: Lov                              | we's of Ge                                | orgetown, TX                           | Job No.:        | Date: | 11/3/2023 |
| Freenville, South Carolina 2960                                          | 09                                                          |                                       |                                           |                                        | Computed By: CR | 2D    |           |
| 64-233-8915                                                              |                                                             |                                       |                                           |                                        | Checked By: B1  | S     |           |
| $\Delta \equiv \Delta$                                                   | <b></b>                                                     |                                       |                                           |                                        |                 |       |           |
| A = A<br>G = 3<br>H = H                                                  | 32.174 ft/s^<br>lead (top of                                | 2<br>water sur                        | face - cent                               | erline of orifice)                     |                 |       |           |
| A = A<br>G = 3<br>H = H                                                  | 32.174 ft/s^<br>lead (top of                                | 2<br>water sur                        | face - cent                               | erline of orifice)                     |                 |       |           |
| A = A<br>G = 3<br>H = H<br>Orifice Diameter =                            | 32.174 ft/s^<br>lead (top of<br>5                           | 2<br>water sur<br>in =                | face - cent<br>0.4167                     | erline of orifice)<br>ft               |                 |       |           |
| A = A<br>G = 3<br>H = H<br>Orifice Diameter =<br>Orifice Radius =        | 32.174 ft/s^<br>lead (top of<br>5<br>2.5                    | 2<br>water sur<br>in =<br>in =        | face - cent<br>0.4167<br>0.2083           | erline of orifice)<br>ft<br>ft         |                 |       |           |
| A = A<br>G = 3<br>H = H<br>Orifice Diameter =<br>Orifice Radius =<br>A = | 5<br>32.174 ft/s^<br>lead (top of<br>5<br>2.5<br>3.14 * R^: | 2<br>water sur<br>in =<br>in =<br>2 = | face - cent<br>0.4167<br>0.2083<br>0.1363 | erline of orifice)<br>ft<br>ft<br>ft^2 |                 |       |           |

| •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| MOORE<br>704.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| THIS DRAWING IS TH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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### Attachment G – Lowe's of *Georgetown, TX* Post Construction Stormwater BMP Operation and Maintenance Plan

1. Maintenance Schedule schedule:

| Non-Structural<br>BMPs | (1) Description<br>of the Practice                                                                                                                                                                                                        | (2)<br>Performance<br>and<br>Management<br>Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                | (3)<br>Inspection<br>Frequency                                                           | (4)<br>Inspection<br>Personnel<br>Qualification<br>Requirement                                                                                                                                                                                                                                                 | (5)<br>Inspection<br>Action<br>Required                                       | (6)<br>Submittal<br>Requirements<br>and Records<br>Retention                                                                                                                                                                                                                                                                                                                                   |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Permanent<br>Seeding   | Used to control<br>runoff and<br>erosion on<br>disturbed areas<br>by establishing<br>perennial<br>vegetative<br>cover from<br>seed. See<br>landscape plan<br>for locations                                                                | If erosion<br>occurs, surface<br>should be<br>repaired,<br>reseeded, and<br>re-mulched.<br>Maintenance<br>activities that<br>should be<br>carried out after<br>vegetation is<br>established are<br>mowing, litter<br>removal, spot<br>vegetation<br>repair.<br>Perennial<br>vegetative<br>cover from<br>seeding has<br>been shown to<br>remove<br>between 50 and<br>100 percent of<br>total suspended<br>solids (TSS)<br>from<br>stormwater<br>runoff, with an<br>average<br>removal of 90<br>percent (USEPA,<br>1993) | Frequent<br>inspections<br>should be<br>continued until<br>vegetation is<br>established. | Must be<br>thoroughly<br>experienced in<br>stormwater<br>system<br>maintenance<br>and inspections<br>and certified by<br>the state in<br>aquatic<br>herbicide<br>application.<br>Must provide<br>labor, tools,<br>equipment and<br>insurance and<br>all other items<br>needed to<br>provide these<br>services. | Erosion,<br>Vegetation<br>Management                                          | Inspections to<br>include an<br>assessment of<br>the current<br>condition,<br>recommended<br>service (routine,<br>specific or non-<br>routine) and<br>suggested<br>adjustments in<br>frequency of<br>inspection.<br>Minimum<br>records include<br>date inspection<br>or service was<br>performed,<br>detailed<br>description of<br>work, before<br>and after<br>photographic<br>documentation. |
| Permanent<br>Planting  | Controls erosion<br>by physically<br>protecting bare<br>soils from<br>raindrop<br>impact,<br>overland flow,<br>and wind. Plant<br>root systems<br>bind soil<br>particles while<br>the surface<br>vegetation<br>reduces the<br>velocity of | Perennial<br>vegetative<br>cover from<br>seeding has<br>been shown to<br>remove<br>between 50 and<br>100 percent of<br>total suspended<br>solids (TSS)<br>from<br>stormwater<br>runoff, with an<br>average<br>removal of 90                                                                                                                                                                                                                                                                                            | Spring and Fall<br>inspections for<br>dead or dying<br>vegetation.                       | Must be<br>thoroughly<br>experienced in<br>stormwater<br>system<br>maintenance<br>and inspections<br>and certified by<br>the state in<br>aquatic<br>herbicide<br>application.<br>Must provide<br>labor, tools,<br>equipment and                                                                                | Vegetation<br>Management,<br>Replanting and<br>disposal of dead<br>vegetation | Inspections to<br>include an<br>assessment of<br>the current<br>condition,<br>recommended<br>service (routine,<br>specific or non-<br>routine) and<br>suggested<br>adjustments in<br>frequency of<br>inspection.<br>Minimum<br>records include                                                                                                                                                 |

|                                                                                                 | overland flow<br>allowing<br>suspended<br>particles to be<br>filtered out. See<br>landscape plan<br>for locations.                                                                                                                                  | percent (USEPA,<br>1993)                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                      | insurance and<br>all other items<br>needed to<br>provide these<br>services.                                                                                                                                                                                                                                    |                                                                                                                      | date inspection<br>or service was<br>performed,<br>detailed<br>description of<br>work, before<br>and after<br>photographic<br>documentation.                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sod                                                                                             | Erosion control<br>practice that<br>involves laying a<br>continuous<br>cover of grass<br>sod on exposed<br>soils. See<br>landscape plan<br>for locations.                                                                                           | Watering is very<br>important to<br>maintain<br>adequate<br>moisture in the<br>root zone and<br>prevent<br>dormancy.<br>Maintenance<br>activities should<br>be carried out<br>after vegetation<br>is established.<br>Maintenance<br>includes<br>mowing, litter<br>removal, and<br>spot vegetation<br>repair. Sod has<br>been shown to<br>remove up to<br>99 percent of<br>total suspended<br>solids (TSS). | Frequently<br>during first few<br>weeks after<br>installation,<br>until sod is fully<br>rooted. Annual<br>inspections for<br>dead or dying<br>areas. | Must be<br>thoroughly<br>experienced in<br>stormwater<br>system<br>maintenance<br>and inspections<br>and certified by<br>the state in<br>aquatic<br>herbicide<br>application.<br>Must provide<br>labor, tools,<br>equipment and<br>insurance and<br>all other items<br>needed to<br>provide these<br>services. | Vegetation<br>management.                                                                                            | Inspections to<br>include an<br>assessment of<br>the current<br>condition,<br>recommended<br>service (routine,<br>specific or non-<br>routine) and<br>suggested<br>adjustments in<br>frequency of<br>inspection.<br>Minimum<br>records include<br>date inspection<br>or service was<br>performed,<br>detailed<br>description of<br>work, before<br>and after<br>photographic<br>documentation. |
| Structural BMPs                                                                                 | (1) Description<br>of the Practice                                                                                                                                                                                                                  | (2)<br>Performance<br>and<br>Management<br>Requirements                                                                                                                                                                                                                                                                                                                                                    | (3)<br>Inspection<br>Frequency                                                                                                                       | (4)<br>Inspection<br>Personnel<br>Qualification<br>Requirement                                                                                                                                                                                                                                                 | (5)<br>Inspection<br>Action Required                                                                                 | (6)<br>Submittal<br>Requirements<br>and Records<br>Retention                                                                                                                                                                                                                                                                                                                                   |
| Outlet<br>Protection using<br>Riprap (Riprap<br>Apron with filter<br>fabric or washed<br>stone) | A permanent,<br>erosion-<br>resistant layer<br>made of stones.<br>It is intended to<br>protect soil<br>from erosion in<br>areas of<br>concentrated<br>flow and to<br>dissipate<br>velocity. See<br>grading plan for<br>locations and<br>dimensions. | Riprap can<br>prevent erosion<br>from the<br>protected area.<br>If damaged,<br>repairs should<br>be made<br>promptly to<br>prevent a<br>progressive<br>failure (head<br>cutting). Control<br>of weed and<br>brush growth<br>may be needed<br>in some areas.                                                                                                                                                | Annually                                                                                                                                             | Must be<br>thoroughly<br>experienced in<br>stormwater<br>system<br>maintenance<br>and inspections<br>and certified by<br>the state in<br>aquatic<br>herbicide<br>application.<br>Must provide<br>labor, tools,<br>equipment and<br>insurance and<br>all other items                                            | Structural<br>erosion, level of<br>sediment<br>deposition,<br>damage, pipe<br>perforation,<br>debris,<br>vegetation. | Inspections to<br>include an<br>assessment of<br>the current<br>condition,<br>recommended<br>service (routine,<br>specific or non-<br>routine) and<br>suggested<br>adjustments in<br>frequency of<br>inspection.<br>Minimum<br>records include<br>date inspection<br>or service was                                                                                                            |

|                                     |                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                               |           | needed to<br>provide these<br>services.                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                               | performed,<br>detailed<br>description of<br>work, before<br>and after<br>photographic<br>documentation.                                                                                                                                                                                                                                                                                        |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Storm Drainage<br>System            | Underground<br>and above<br>ground storm<br>system to<br>convey<br>stormwater<br>runoff to a<br>detention<br>facility or to off-<br>site discharge<br>points.                                                     | Remove any<br>sediment<br>accumulation<br>and buildup of<br>trash and<br>debris. Repair<br>damage to pipe.<br>Inspect for<br>depressions and<br>evidence of<br>sinkholes<br>outside pipe,<br>near inlets and<br>surrounding<br>area.                                                                                                                                                                                          | Annually. | Must be<br>thoroughly<br>experienced in<br>stormwater<br>system<br>maintenance<br>and inspections<br>and certified by<br>the state in<br>aquatic<br>herbicide<br>application.<br>Must provide<br>labor, tools,<br>equipment and<br>insurance and<br>all other items<br>needed to<br>provide these<br>services. | Sediment<br>accumulation<br>and debris.                                                                                                                                                                                                                                                                                                                       | Inspections to<br>include an<br>assessment of<br>the current<br>condition,<br>recommended<br>service (routine,<br>specific or non-<br>routine) and<br>suggested<br>adjustments in<br>frequency of<br>inspection.<br>Minimum<br>records include<br>date inspection<br>or service was<br>performed,<br>detailed<br>description of<br>work, before<br>and after<br>photographic<br>documentation. |
| Stormwater<br>Detention<br>Facility | Captures first<br>flush of runoff<br>to facilitate<br>sedimentation<br>and settling of<br>pollutants from<br>paved area.<br>Controlled<br>discharge to<br>mimic pre-<br>development<br>runoff rate and<br>volume. | USEPA<br>estimates an<br>average total<br>suspended<br>solids removal<br>rate from 55 to<br>100 percent<br>with an average<br>of 70 percent.<br>Erosion from<br>the<br>embankment or<br>stones moved<br>from the flow of<br>channels should<br>be replaced<br>immediately.<br>Trash and<br>debris from<br>around<br>dewatering<br>devices should<br>be removed<br>promptly after<br>rainfall events.<br>Sediment<br>should be | Annually. | Must be<br>thoroughly<br>experienced in<br>stormwater<br>system<br>maintenance<br>and inspections<br>and certified by<br>the state in<br>aquatic<br>herbicide<br>application.<br>Must provide<br>labor, tools,<br>equipment and<br>insurance and<br>all other items<br>needed to<br>provide these<br>services. | Off-site<br>pollutant<br>discharges,<br>sediment<br>accumulation,<br>level of debris<br>buildup,<br>vegetation,<br>grass and weed<br>control, aquatic<br>vegetation,<br>primary,<br>secondary and<br>emergency<br>spillway,<br>dewatering<br>device, energy<br>dissipaters,<br>embankment<br>and side slope<br>erosion, water<br>levels, and pest<br>control. | Inspections to<br>include an<br>assessment of<br>the current<br>condition,<br>recommended<br>service (routine,<br>specific or non-<br>routine) and<br>suggested<br>adjustments in<br>frequency of<br>inspection.<br>Minimum<br>records include<br>date inspection<br>or service was<br>performed,<br>detailed<br>description of<br>work, before<br>and after<br>photographic<br>documentation. |

|  | removed from<br>the basin<br>periodically.<br>Disposal of<br>waste from any<br>facility to be<br>conducted in<br>accordance with<br>federal, state<br>and local<br>regulations.<br>Maintain<br>vegetation at<br>appropriate<br>levels (including<br>aquatic<br>vegetation).<br>Assure<br>vegetation<br>maintenance on<br>pond side<br>slopes. |  |  |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
|  |                                                                                                                                                                                                                                                                                                                                               |  |  |
|  | <u>.</u>                                                                                                                                                                                                                                                                                                                                      |  |  |

#### Agent Authorization Form For Required Signature Edwards Aquifer Protection Program Relating to 30 TAC Chapter 213 Effective June 1, 1999

| Ĩ               | Richard Goodman                                                 |  |
|-----------------|-----------------------------------------------------------------|--|
|                 | Print Name                                                      |  |
|                 | Vice President                                                  |  |
|                 | Title - Owner/President/Other                                   |  |
| of              | Lowe's Home Centers, LLC<br>Corporation/Partnership/Entity Name |  |
| have authorized | Todd Simmons, PE<br>Print Name of Agent/Engineer                |  |
| of              | Freeland & Kauffman, Inc.<br>Print Name of Firm                 |  |

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

- 1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to \$10,000 per day per violation.
- 2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.
- 3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.
- 4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.
- 5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

Applicant's Signature 3

October 12,2023 Date

THE STATE OF North Conduce

County of Iredell §

BEFORE ME, the undersigned authority, on this day personally appeared <u>kichaud.</u> <u>Goodman</u> known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 12th day of October, 202.3

- Ve

LORA ANN RITCHIE Notary Public, North Carolina Iredell County Commission Expires My

Lova Ann Ritchie

Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 11-19-2024

## **Owner Authorization Form**

**Texas Commission on Environmental Quality** for Required Signature Edwards Aquifer Protection Program Relating to 30 TAC Chapter 213 Effective June 1, 1999

#### Land Owner Authorization

| ١, | Joseph | Brian | Richter, | Jr. | of |
|----|--------|-------|----------|-----|----|
| ١, | Joseph | Brian | Richter, | Jr. | 0  |

Land Owner Signatory Name

Alpia New Braunfels Square, Ltd.

Land Owner Name (Legal Entity or Individual)

am the owner of the property located at ne quadrant of Jesse Cocke Dr. @ IH-35 access

Legal description of the property referenced in the application

and am duly authorized in accordance with §213.4(c)(2) and §213.4(d)(1) or §213.23(c)(2) and §213.23(d) relating to the right to submit an application, signatory authority, and proof of authorized signatory.

I do hereby authorize Lowe's Home Centers, LLC

Applicant Name (Legal Entity or Individual)

to conduct Construction of new retail facility including parking areas, drives, utilities, stormwater management, & landscaping in addition to 3 outparcers for future development by others.

Description of the proposed regulated activities at +/-31.09 acres of Doc. No. 2017008885 in Williamson County, TX.

Precise location of the authorized regulated activities

### Land Owner Acknowledgement

I understand that Alpia New Braunfels Square, Ltd.

Land Owner Name (Legal Entity or Individual)

Is ultimately responsible for compliance with the approved or conditionally approved Edwards Aquifer protection plan and any special conditions of the approved plan through all phases of plan implementation even if the responsibility for compliance and the right to possess and control the property referenced in the application has been contractually assumed by another legal entity. I further understand that any failure to comply with any condition of the executive director's approval is a violation is subject to administrative rule or orders and penalties as provided under §213.10 (relating to Enforcement). Such violation may also be subject to civil penalties and injunction.

Land Owner Signature

Land Owner Signature THE STATE OF § UNAN County of § TOMAN 1/3/23 Date

BEFORE ME, the undersigned authority, on this day personally appeared <u>Joseph Brian</u> Richfur Jr. known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and *g*onsideration therein expressed.

GIVEN under my hand and seal of office on this 11 day of Moundary 2023.



| 10000 | na parte       | NOTARY PUBLIC     |
|-------|----------------|-------------------|
| Dia   | na Rae.Vo      | gel               |
|       | Typed or Print | ed Name of Notary |

0

MY COMMISSION EXPIRES:01/25/2025

Attached: (Mark all that apply)

Lease Agreement

Signed Contract

Deed Recorded Easement

Other legally binding document

### Applicant Acknowledgement

| I, Richard Goodman                    | of                  | Lowe's Home Centers, LLC                       |
|---------------------------------------|---------------------|------------------------------------------------|
| Applicant Signatory Name              |                     | Applicant Name (Legal Entity or Individual)    |
| acknowledge that Alpia New E          | Braunfels Sq        | uare, Ltd.                                     |
| Land (                                | Owner Name (Lega    | al Entity or Individual)                       |
| has provided Lowe's Home (            | Centers, LLC        |                                                |
| Appl                                  | icant Name (Legal   | Entity or Individual)                          |
| with the right to possess and control | ol the property ref | erenced in the Edwards Aquifer protection plan |

|                   |         |        | -        |     |
|-------------------|---------|--------|----------|-----|
| Same Same         | I OWO'S | Homo   | Contore  |     |
| l understand that | LUWES   | IUUIIE | Centers, | LLU |

Applicant Name (Legal Entity or Individual)

is contractually responsible for compliance with the approved or conditionally approved Edwards Aquifer protection plan and any special conditions of the approved plan through all phases of plan implementation. I further understand that failure to comply with any condition of the executive director's approval is a violation is subject to administrative rule or orders and penalties as provided under §213.10 (relating to Enforcement). Such violation may also be subject to civil penalties and injunction.

### Applicant Signature

| Maria Combon 10                                                                                                                                       | 11.6.23                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant Signature 202-                                                                                                                              | Date                                                                                                                                          |
| THE STATE OF & NORTH CAROLINEL                                                                                                                        |                                                                                                                                               |
| County of § WEDEN                                                                                                                                     |                                                                                                                                               |
| BEFORE ME, the undersigned authority, on this da<br>known to me to be the person whose name is sub<br>acknowledged to me that (s)he executed same for | is personally appeared <u>RICHARA 6000</u> (March Scribed to the foregoing instrument, and r the purpose and consideration therein expressed. |
| GIVEN under my hand and seal of office on this ${\mathcal Q}$                                                                                         | May of NOVEMber 2023.                                                                                                                         |
| Megan Hammond<br>NOTARY PUBLIC<br>Iredell County<br>North Carolina<br>My Commission Expires 10/31/2024                                                | Megan Hammond<br>Typed or Printed Name of Notary                                                                                              |

MY COMMISSION EXPIRES: 10131 120

## Application Fee Form

| <b>Texas Commission on Environme</b>    | ntal Quality                       |                        |            |        |                    |
|-----------------------------------------|------------------------------------|------------------------|------------|--------|--------------------|
| Name of Proposed Regulated Entit        | ty:Lowe's Home Centers, L          | <u>LC</u>              |            |        |                    |
| Regulated Entity Location: ne quadra    | ant of Jesse Cocke Dr. @ IH        | I-35 Access            |            |        |                    |
| Name of Customer: Lowe's Home Ce        | nters, LLC                         |                        |            |        |                    |
| Contact Person: Freeland & Kauffman, In | <u>c - Attn: Todd Simmons</u> Phon | e: <u>864-672-3426</u> | <u>i</u>   |        |                    |
| Customer Reference Number (if is        | sued):CN                           |                        |            |        |                    |
| <b>Regulated Entity Reference Numb</b>  | er (if issued):RN                  |                        |            |        |                    |
| Austin Regional Office (3373)           |                                    |                        |            |        |                    |
| Hays                                    | Travis                             |                        | <b>V</b> W | illiar | mson               |
| San Antonio Regional Office (3362       | 2)                                 |                        |            |        |                    |
| Beyar                                   | Medina                             |                        |            | hlev   | 2                  |
| Comal                                   | Kinney                             |                        |            | aia    | -                  |
| Application fees must be paid by c      | heck certified check c             | or money orde          | er navah   | le to  | o the <b>Texas</b> |
| Commission on Environmental O           | <b>Jality</b> Your canceled c      | heck will serv         | e as vou   | r rea  | reint <b>This</b>  |
| form must be submitted with you         | <b>In fee payment</b> This pa      | avment is beir         | ng submi   | itter  | to:                |
|                                         |                                    |                        |            |        |                    |
| Austin Regional Office                  |                                    | an Antonio Re          | egional O  |        | e<br>D. Cashian    |
|                                         |                                    | vernight Deliv         | /ery to: I | CEU    | 2 - Cashler        |
| Revenues Section                        | 1                                  | 2100 Park 35           | Circle     |        |                    |
| Mail Code 214                           | В                                  | uilding A, 3rd         | Floor      |        |                    |
| P.O. Box 13088                          | A                                  | ustin, TX 7875         | 53         |        |                    |
| Austin, TX 78711-3088                   | (                                  | 512)239-0357           |            |        |                    |
| Site Location (Check All That Appl      | y):                                |                        |            |        |                    |
| 🗹 Recharge Zone                         | Contributing Zone                  |                        | Transi     | tion   | Zone               |
| Type of Plai                            | า                                  | Size                   |            |        | Fee Due            |
| Water Pollution Abatement Plan,         | Contributing Zone                  |                        |            |        |                    |
| Plan: One Single Family Residentia      | l Dwelling                         | 31.09                  | Acres      | \$     | 6,500.00           |
| Water Pollution Abatement Plan,         | Contributing Zone                  |                        |            |        |                    |
| Plan: Multiple Single Family Reside     | ential and Parks                   |                        | Acres      | \$     |                    |
| Water Pollution Abatement Plan,         | Contributing Zone                  |                        |            |        |                    |
| Plan: Non-residential                   |                                    |                        | Acres      | \$     |                    |
| Sewage Collection System                |                                    | 2,307                  | L.F.       | \$     | 1,153.00           |
| Lift Stations without sewer lines       |                                    |                        | Acres      | \$     |                    |
| Underground or Aboveground Sto          | rage Tank Facility                 |                        | Tanks      | \$     |                    |
| Piping System(s)(only)                  |                                    |                        | Each       | \$     |                    |
| Exception                               |                                    |                        | Each       | \$     |                    |
| Extension of Time                       |                                    |                        | Each       | \$     |                    |
|                                         |                                    |                        | Eddil      |        |                    |
| 1.4                                     | ~                                  |                        | Luon       |        |                    |

### Application Fee Schedule

#### Texas Commission on Environmental Quality

Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

|                                                         | Project Area in |          |
|---------------------------------------------------------|-----------------|----------|
| Project                                                 | Acres           | Fee      |
| One Single Family Residential Dwelling                  | < 5             | \$650    |
| Multiple Single Family Residential and Parks            | < 5             | \$1,500  |
|                                                         | 5 < 10          | \$3,000  |
|                                                         | 10 < 40         | \$4,000  |
|                                                         | 40 < 100        | \$6,500  |
|                                                         | 100 < 500       | \$8,000  |
|                                                         | ≥ 500           | \$10,000 |
| Non-residential (Commercial, industrial, institutional, | < 1             | \$3,000  |
| multi-family residential, schools, and other sites      | 1 < 5           | \$4,000  |
| where regulated activities will occur)                  | 5 < 10          | \$5,000  |
|                                                         | 10 < 40         | \$6,500  |
|                                                         | 40 < 100        | \$8,000  |
|                                                         | ≥ 100           | \$10,000 |

Organized Sewage Collection Systems and Modifications

| Project                   | Cost per Linear<br>Foot | Minimum Fee-<br>Maximum Fee |
|---------------------------|-------------------------|-----------------------------|
| Sewage Collection Systems | \$0.50                  | \$650 - \$6,500             |

Underground and Aboveground Storage Tank System Facility Plans and Modifications

|                                                   | Cost per Tank or | Minimum Fee-    |
|---------------------------------------------------|------------------|-----------------|
| Project                                           | Piping System    | Maximum Fee     |
| Underground and Aboveground Storage Tank Facility | \$650            | \$650 - \$6,500 |

Exception Requests

| Project           | Fee   |
|-------------------|-------|
| Exception Request | \$500 |

Extension of Time Requests

| Project                   | Fee   |
|---------------------------|-------|
| Extension of Time Request | \$150 |



## **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 | e describe in space provided.)     |                                                  |
|------------------------------------------------------|------------------------------------|--------------------------------------------------|
| New Permit, Registration or Authorization (Core L    | Data Form should be submitted with | the program application.)                        |
| Renewal (Core Data Form should be submitted wi       | th the renewal form)               | C Other                                          |
| 2. Customer Reference Number (if issued)             | Follow this link to search         | 3. Regulated Entity Reference Number (if issued) |
| CN 601551385                                         | <u>Central Registry**</u>          | RN                                               |

### **SECTION II: Customer Information**

| 4. General Cu                | eneral Customer Information 5. Effective Date for Customer Information Updates (mm/dd/yyyy)                                                                                                  |                    |                              |                           |                                |                 |         |              |               |                                      |           |                                       |                |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------|---------------------------|--------------------------------|-----------------|---------|--------------|---------------|--------------------------------------|-----------|---------------------------------------|----------------|
| New Custor                   | 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 Custome<br>(SOS) or Texa | r Name su<br>Is Comptro                                                                                                                                                                      | bmitte<br>oller of | d here may l<br>Public Accou | be updated<br>ints (CPA). | automaticall                   | y base          | d on v  | what is cu   | irrent d      | and active                           | with th   | e Texas Secre                         | etary of State |
| 6. Customer                  | Legal Nam                                                                                                                                                                                    | e (If an           | individual, pri              | nt last name              | first: eg: Doe, J              | ohn)            |         |              | <u>lf new</u> | · Customer, e                        | enter pre | vious Custome                         | er below:      |
| Lowe's Home C                | Centers, LLC                                                                                                                                                                                 |                    |                              |                           |                                |                 |         |              |               |                                      |           |                                       |                |
| 7. TX SOS/CP<br>800411737    | A Filing Nu                                                                                                                                                                                  | umber              |                              | 8. TX Stat                | <b>e Tax ID</b> (11 di<br>81   | igits)          |         |              | 9. Fee        | <b>deral Tax II</b><br>its)<br>48358 | D         | 10. DUNS (<br>applicable)<br>18810275 | Number (if     |
| 11. Type of C                | ustomer:                                                                                                                                                                                     |                    | Corporat                     | tion                      |                                |                 |         | 🗌 Individ    | ual           |                                      | Partne    | rship: 🗌 Gen                          | eral 🗌 Limited |
| Government: [                | City 🗌 🕻                                                                                                                                                                                     | County [           | 🗌 Federal 🔲                  | Local 🗌 Sta               | ate 🗌 Other                    |                 |         | 🗌 Sole Pr    | oprieto       | orship                               | 🗌 Otl     | her:                                  |                |
| 12. Number                   | of Employ                                                                                                                                                                                    | ees                |                              |                           |                                |                 |         |              | 13. lı        | ndepender                            | tly Ow    | ned and Ope                           | erated?        |
| 0-20                         | 21-100                                                                                                                                                                                       | ] 101-2            | 50 🗌 251-                    | 500 🛛 50                  | 01 and higher                  |                 |         |              | 🗆 Ye          | es (                                 | No No     |                                       |                |
| 14. Custome                  | r Role (Proj                                                                                                                                                                                 | posed or           | Actual) – as i               | t relates to tl           | he Regulated Er                | ntity list      | ed on t | this form. I | Please c      | heck one of                          | the follo | wing                                  |                |
| Owner                        | al Licensee                                                                                                                                                                                  |                    | erator<br>esponsible Pa      | rty [                     | Owner & Opera<br>] VCP/BSA App | ntor<br>olicant |         |              |               | Other:                               |           |                                       |                |
| 15. Mailing                  | 1000 Low                                                                                                                                                                                     | e's Boul           | evard                        |                           |                                |                 |         |              |               |                                      |           |                                       |                |
| Address:                     |                                                                                                                                                                                              |                    |                              |                           |                                |                 |         |              |               |                                      |           |                                       | 1              |
|                              | City                                                                                                                                                                                         | Moore              | esville                      |                           | State                          | NC              |         | ZIP          | 2811          | 7                                    |           | ZIP+4                                 |                |
| 16. Country I                | Mailing Inf                                                                                                                                                                                  | formati            | on (if outside               | USA)                      |                                |                 | 17.     | E-Mail A     | ddress        | (if applicabl                        | le)       |                                       |                |
|                              |                                                                                                                                                                                              |                    |                              |                           |                                |                 | kk.y    | eow@lowe     | es.com        |                                      |           |                                       |                |
| 18. Telephon                 | e Number                                                                                                                                                                                     | •                  |                              |                           | 19. Extensio                   | on or C         | ode     |              |               | 20. Fax N                            | lumber    | (if applicable)                       |                |

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

| 21. General Regulated En                               | tity Informa               | ation (If 'New Reg                 | ulated Entity" is selec                  | ted, a new pe             | ermit applica | tion is also require | d.)                                     |                 |
|--------------------------------------------------------|----------------------------|------------------------------------|------------------------------------------|---------------------------|---------------|----------------------|-----------------------------------------|-----------------|
| New Regulated Entity                                   | Update to                  | Regulated Entity                   | Name 🔲 Update t                          | o Regulated               | Entity Inform | ation                |                                         |                 |
| The Regulated Entity Nan<br>as Inc, LP, or LLC).       | ne submitte                | d may be updat                     | ted, in order to me                      | et TCEQ Coi               | re Data Stai  | ndards (removal      | of organization                         | al endings such |
| 22. Regulated Entity Nam                               | ie (Enter nam              | ne of the site where               | e the regulated action                   | is taking pla             | ice.)         |                      |                                         |                 |
| Lowe's Home Centers, LLC                               |                            |                                    |                                          |                           |               |                      |                                         |                 |
| 23. Street Address of the Regulated Entity:            | 2301 H. IH 3               | н. ін 35                           |                                          |                           |               |                      |                                         |                 |
| (No PO Boxes)                                          | City                       | Georgetown                         | State                                    | TV                        | 710           | 79626                | 710 + 4                                 |                 |
| 24 County                                              | \\/illiamaa                | Georgetown                         | State                                    |                           | 211           | /8020                | 217 7 4                                 |                 |
| 24. County                                             | vvinamsc                   | лт<br>                             |                                          |                           |               |                      |                                         |                 |
|                                                        |                            | If no Stree                        | et Address is provid                     | led, fields 2             | 25-28 are re  | quired.              |                                         |                 |
| 25. Description to                                     | NE quadran                 | it of Jesse Cocke D                | r @ IH 35 access                         |                           |               |                      |                                         |                 |
| Physical Location:                                     |                            |                                    |                                          |                           |               |                      |                                         |                 |
| 26. Nearest City                                       |                            |                                    |                                          |                           |               | State                | Nea                                     | rest ZIP Code   |
| Georgetown                                             |                            |                                    | and and                                  |                           |               | тх                   | 7862                                    | 6               |
| Latitude/Longitude are re<br>used to supply coordinate | equired and<br>es where no | l may be added,<br>one have been p | /updated to meet i<br>rovided or to gain | TCEQ Core I<br>accuracy). | Data Stando   | ards. (Geocoding     | of the Physical                         | Address may be  |
| 27. Latitude (N) In Decim                              | al:                        |                                    |                                          | 28. L                     | ongitude (\   | V) In Decimal:       |                                         |                 |
| Degrees                                                | Minutes                    |                                    | Seconds                                  | Degre                     | ees           | Minutes              |                                         | Seconds         |
| 30                                                     | 2                          | 40                                 | 51.40                                    |                           | 97            |                      | 39                                      | 53.38           |
| 29. Primary SIC Code                                   | 30.                        | Secondary SIC                      | Code                                     | 31. Prima                 | ry NAICS Co   | ode 32.              | Secondary NAI                           | CS Code         |
| (4 digits)                                             | (4 d                       | ligits)                            |                                          | (5 or 6 digi              | ts)           | (5 o                 | r 6 digits)                             |                 |
| 5211                                                   |                            |                                    |                                          | 44180                     |               |                      |                                         |                 |
| 33. What is the Primary E                              | Business of                | this entity? (De                   | o not repeat the SIC o                   | r NAICS desc              | ription.)     |                      |                                         |                 |
| retail                                                 |                            |                                    |                                          |                           |               |                      |                                         |                 |
| 34. Mailing                                            | 1000 Low                   | es Boulevard                       |                                          |                           |               |                      |                                         |                 |
| Address:                                               |                            |                                    |                                          |                           |               |                      |                                         |                 |
|                                                        | City                       | Mooresville                        | State                                    | NC                        | ZIP           | 28117                | ZIP + 4                                 |                 |
| 35. E-Mail Address:                                    | kk.y                       | yeow@lowe.com                      |                                          | 1                         | 1             | 1                    |                                         | I               |
| 36 Telephone Number                                    |                            |                                    | 37. Extension or                         | Code                      | 38 1          | ax Number (if a      | oplicable                               |                 |
| so. relephone rumber                                   |                            |                                    | ST. EXECUSION OF                         | couc                      | 55.1          |                      | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |                 |

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<br>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:    | Todd Simmo | ns, PE        |                | 41. Title:         | Engineer of Record |  |
|--------------|------------|---------------|----------------|--------------------|--------------------|--|
| 42. Telephon | e Number   | 43. Ext./Code | 44. Fax Number | 45. E-Mail Address |                    |  |
| (864)672-342 | 6          |               | () -           | tsimmons@          | fk-inc.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.

| Eno T                    | CE PRESIDENT         |  |  | Lowe's Home Centers, LLC | Company:         |
|--------------------------|----------------------|--|--|--------------------------|------------------|
| ( 704 ) 758- <b>1000</b> | Phone: (704)758-1000 |  |  | RICHARD GOODMAN          | Name (In Print): |
|                          | Date:                |  |  | Mining and mon           | Signature:       |
|                          | Date:                |  |  | 1 mind mont              | Signature:       |