

Livingston County

ARPA Local Fiscal Recovery Fund Project Information Form

Local Fiscal Recovery Fund Resources

- <u>Final Rule</u>, January 2022, effective April 2022: Finalized version of the interim final rule, with amendments. Implements the Coronavirus State Fiscal Recovery Fund and the Coronavirus Local Fiscal Recovery Fund established under the American Rescue Plan Act.
- <u>Compliance and Reporting Guidance</u>, version 4.2, updated August 2022: Guidance that
 reflects the Final Rule, as opposed to the Interim Final Rule (May 2021) and provides
 clarity on recipient's compliance and reporting responsibilities, such as statutory eligible
 uses and award terms and conditions.
- Overview of the Final Rule, January 2022: Provides a summary of major provisions of the final rule and should be used as a simplified user guide; does not include all funding requirements.
- <u>Project and Expenditure Report User Guide</u>, version 3.1, updated July 2022: Provides information on using the Treasury's Portal to submit SFRF Project and Expenditure Reports; supplement to the Compliance and Reporting Guidance. Guidehouse is primarily responsible for understanding this user guide, but FAQs on page 106 may be of general interest.
- <u>Frequently Asked Questions</u>, updated July 2022: Based on final rule and offers guidance on eligible uses.

Definitions

- Project: A project is a grouping of closely related activities that together are intended to achieve a specific goal or directed toward a common purpose. Recipients have the flexibility to define their projects in a way that provides the greatest clarity on the work which will be performed.
- **Expenditure Category:** Each project for which SFRF funds were used should be scoped to align to a single Expenditure Category. There may be multiple projects assigned to a single Expenditure Category. Required programmatic data varies based on the project's assigned Expenditure Category.
- **Obligations:** An obligation is an order placed such as a contract and similar transactions that require payment (e.g., grant, loan, or other arrangement).
- **Expenditures:** An expenditure is the amount that has been incurred as a liability of the entity (the service has been rendered or the good has been delivered to the entity and payment is due)
- **Subaward:** An award provided by the Recipient to a subrecipient for the subrecipient to carry out part of a Federal award received by the Recipient. A subaward may be provided through any form of legal agreement, including an agreement that the Recipient



considers a contract. For reporting purposes, subaward types include contracts, grants, loans, direct payments, or government transfers.

Project Name: Howell City Drain

County Department or Organization Making Request: Livingston County Drain

Commissioner

Primary Contact/Project Owner

Name: Kenneth E. Recker II

Title: Chief Deputy Drain Commissioner

Email: krecker@livgov.com Phone: 517-552-6772

Estimated Cost: \$250,000

Estimated Project Timeline March 6 – April 30, 2023

Implementing Entity (Department, Agency, Organization): Livingston County Drain Commissioner and Howell City Drain Drainage District

Project Description to include impact of COVID-19, intended impact of project, and general description of services (50-250 words) (Project leaders are encouraged to provide the County with any additional materials to describe their projects)

Address historical remnant of an enclosed drainage system. 14" vitrified clay pipe to be replaced has 42" reinforced concrete pipe (RCP) discharging to it upstream, and 54" RCP carrying flows under Grand River, then westerly to the Shiawassee River. This section of 14" failing drainage tile serves 437 acres of land and 427 individual properties within the City of Howell and Howell Township. Historical problems with this system have resulted in flooding of buildings (specifically the American Red Cross facility) and property within the district. The district is characterized by heavy institutional land uses, including a significant Howell Public School Complex, the County Jail, a full-service Hospital, and some residential properties towards the east and southeastern parts of the District. The City of Howell has entered into an agreement with the Drainage District authorizing our office to improve the drain pursuant to the Michigan Drain Code (MCL 280.196(5), to facilitate this application.

What was the harm caused by COVID to justify this project? Not Applicable for Infrastructure Projects

How does this project address the impact from COVID-19? Not Applicable for Infrastructure Projects

Describe who the beneficiaries of this project are perceived to be.



Lands within the Howell City Drain Drainage District. This would include properties (and the owners of these properties), and public roads (City and State Roads) within the Drainage District. The district comprises significant commercial, institutional, and residential land uses.

Is this a new project or an expansion of an existing project? If existing, please explain the purpose of the expansion.

This is improvement of an existing drainage system, by replacing a section of 14" pipe that is over 100 years old with a new 54" RCP.

Describe the structure of the program (i.e. what is the flow of the funding, are there any contractors/subrecipients/beneficiaries?) (see Appendix C for information on non-Federal entities)

The Michigan Drain Code (Act 40 of the Public Acts of 1956, as amended), is the governing law for Drains in the State of Michigan. It dictates the structure improvement of established county drains. In this case, bids were received for the project in January of 2023. Based on bid results J. Sebastian Trucking & Excavating of Springport, Michigan, has been contracted for the project.

Will this project involve capital expenses?	
Yes ⊠	
No □	

Describe how the investment creates a lasting impact to improve economic, environmental, social and health outcomes for residents.

The inadequate capacity of the section of pipe to be replaced is well documented over the last 25 years, in part due to two flooding events at the American Red Cross Facility, located at 1372 West Grand River Avenue in Howell. The last event was precipitated by a significant summer storm (greater than 1% chance event) on August 12, 2021.

An effort to previously replace this section of pipe failed in 2004, when the landowner on the northwest corner of Highlander Way and Grand River declined to participate in an project that was funded in part by the Michigan Department of Transportation. This project will improve the reliability of the system to serve the commercial, institutional, and residential property within the Drainage District.

Describe how this project will leverage funds from other public, private, and non-profit sources. (if applicable)

Livingston County ARPA funds are to provide 50% of the project cost. Remaining funds will be paid by the City of Howell in accordance with a Contract between the City and the Drain Commissioner dated December 19, 2022.

Describe the financial sustainability plan for the years beyond County funding. (if applicable) MCL 280.196 (Section 196 of the Michigan Drain Code) addresses maintenance parameters for county drains under the Michigan Drain Code. Necessary maintenance



will be assessed to the drainage district by law as has been historically done. Historically, maintenance expenses for this drain have been paid for at-large by the City.

Accountability Measures

What are the performance indicators (inputs, outputs, outcomes) that the project would track to measure impact?

Work orders for drain maintenance, when compared against historical maintenance within the area work is proposed, would help establish the success or failure of the repairs. We anticipate the elimination of calls from the Red Cross facility and the Howell Public Schools during high water events. The remainder of the system, which is more properly sized to convey urban drainage, will operate significantly better without this small section of pipe in the middle of it. Work performed by J. Sebastian Trucking & Excavating will be inspected by Livingston County Drain Commissioner and City of Howell (Department of Public Works) staff. Work orders on this drain will be tracked through a program called Cityworks.

Describe the internal controls (e.g., process documentation, procurement) that will be used to ensure use of funds is consistent with SLFRF guidance. Who will be responsible for data collection, compliance, and reporting for this project?

The Drain Commissioner is the chief executive officer for the Drain, per the Michigan Drain Code, Act 40 of the Public Acts of 1956, as amended. As such, Brian Jonckheere (the elected Drain Commissioner) is formally responsible for maintaining compliance with internal controls outlined in the Michigan Drain Code. Pay requests will be prepared by J. Sebastian Trucking & Excavating, and reviewed by GEI (Brian Cenci, P.E.) and Livingston County Drain Commissioner staff for accuracy prior to authorizing payment.

For projects addressing negative economic impacts and serving impacted or disproportionately impacted communities, as defined in the Final Rule (see Appendices A and B).

Does the project target any populations, demographics, and/or geographic regions presumed to be *impacted* by COVID-19?

Not applicable for infrastructure projects.

- (a) Would the eligibility requirements for the program or service be such that the primary intended beneficiaries' income is (1) at or below 300 percent of the Federal Poverty Guidelines, or (2) at or below 65 percent of the AMI for Livingston County?

 Not applicable for infrastructure projects.
- (b) Does the project target individuals eligible for any of the qualifying federal programs listed in Appendix B, number 2?
 Not applicable for infrastructure projects.



Does the project target any populations, demographics, and/or geographic regions presumed to be *disproportionately impacted* by COVID-19?

Not applicable for infrastructure projects.

- (c) Would the eligibility requirements for the program or service be such that the primary intended beneficiaries' income is (1) at or below 185 percent of the Federal Poverty Guidelines, or (2) at or below 40 percent of the AMI for Livingston County?

 Not applicable for infrastructure projects.
- (d) Does the project target individuals eligible for any of the qualifying federal programs listed in Appendix C, number 2?
 Not applicable for infrastructure projects.



Appendix A: Guidelines for Identifying *Impacted*Households or Communities

Based on the SLFRF Final Rule, recipients may presume that an individual, household, or community was <u>impacted</u> by the pandemic and eligible for the associated services enumerated in the rule if any of the following criteria are met:

1. The primary intended beneficiaries' income¹ is at or below 65 percent of Livingston County's Area Median Income or at or below 300 percent of the Federal Poverty Guidelines.²

Size of household	N	Moderate incom	ne
	65% AMI	300% FPG	Threshold
1	45,435	38,640	38,640
2	51,935	52,260	52,260
3	58,435	65,880	65,880
4	64,870	79,500	79,500
5	70,070	93,120	93,120
6	75,270	106,740	106,740
7	80,470	120,360	120,360
8	85,670	133,980	133,980

- 2. The primary intended beneficiaries are eligible for any of the following federal programs:
 - a. Children's Health Insurance Program (CHIP)
 - b. Childcare Subsidies through the Child Care and Development Fund (CCDF)
 Program
 - c. Medicaid
 - d. National Housing Trust Fund (HTF), for affordable housing programs only
 - e. Home Investment Partnerships Program (HOME), for affordable housing programs only

¹ "Recipients can measure income for a specific household or the median income for the community, depending on whether the response they plan to provide serves specific households or the general community. The income thresholds vary by household size; recipients should generally use income thresholds for the appropriate household size but can use a default household size of three when easier for administration or when measuring income for a general community." Overview of the Final Rule, p. 17. https://home.treasury.gov/system/files/136/SLFRF-Final-Rule-Overview.pdf

² Thresholds from the U.S. Treasury's Tool for Determining Low and Moderate Income (LMI) Households. Last updated February 2022. https://home.treasury.gov/system/files/136/SLFRF-LMI-tool.xlsx



Appendix B: Guidelines for Identifying Disproportionately Impacted Households or Communities

Based on the SLFRF Final Rule, recipients may presume that an individual, household, or community was <u>disproportionately impacted</u> by the pandemic and eligible for the associated services enumerated in the rule if any of the following criteria are met:

 The primary intended beneficiaries' income³ is at or below 40 percent of Muskegon County's Area Median Income or at or below 185 percent of the Federal Poverty Guidelines.⁴

Size of household		Low income	
	40% AMI	185% FPG	Threshold
1	27,960	23,828	27,960
2	31,960	32,227	32,227
3	35,960	40,626	40,626
4	39,920	49,025	49,025
5	43,120	57,424	57,424
6	46,320	65,823	65,823
7	49,520	74,222	74,222
8	52,720	82,621	82,621

- 2. The primary intended beneficiaries are eligible for any of the following federal programs:
 - a. Temporary Assistance for Needy Families (TANF)
 - b. Supplemental Nutrition Assistance Program (SNAP)
 - c. Free and Reduced-Price Lunch (NSLP) and/or School Breakfast (SBP) programs
 - d. Medicare Part D Low-income Subsidies Supplemental Security Income (SSI)
 - e. Subsidies Supplemental Security Income (SSI)
 - f. Head Start and/or Early Head Start
 - g. Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)
 - h. Section 8 Vouchers
 - i. Low-Income Home Energy Assistance Program (LIHEAP)
 - j. Pell Grants

³ "Recipients can measure income for a specific household or the median income for the community, depending on whether the response they plan to provide serves specific households or the general community. The income thresholds vary by household size; recipients should generally use income thresholds for the appropriate household size but can use a default household size of three when easier for administration or when measuring income for a general community." Overview of the Final Rule, p. 19. https://home.treasury.gov/system/files/136/SLFRF-Final-Rule-Overview.pdf

⁴ Thresholds from the U.S. Treasury's Tool for Determining Low and Moderate Income (LMI) Households. Last updated February 2022. https://home.treasury.gov/system/files/136/SLFRF-LMI-tool.xlsx



3. The primary intended beneficiaries live in a Qualified Census Tract (QCT) (Low-Income Housing Tax Credit Qualified Census Tracts must have 50 percent of households with incomes below 60 percent of the Area Median Gross Income (AMGI) or have a poverty rate of 25 percent or more.) *Note – there are no QCTs in Livingston County, MI* (https://www.huduser.gov/portal/datasets/qct.html#2022)



Appendix C: Non-Federal Entities

The Local Fiscal Recovery Funds are subject to 2 C.F.R. Part 200: Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards ("Uniform Guidance"). Uniform Guidance provide recipients of federal grants a set of standards related to procurement, internal controls, subrecipient monitoring, auditing practices, and more.

A key part of compliance with Uniform Guidance is subrecipient monitoring. As part of administering SLFRF, it is critical that non-Federal entities⁵ are properly identified. Appropriate classification is important as it impacts procurement and subrecipient monitoring requirements. If you are unsure of a non-Federal entity's classification, please contact Guidehouse for additional resources.

In determining whether an agreement between the County and a non-Federal entity casts the latter as a subrecipient, contractor, or beneficiary, the substance of the relationship is more important than the form of the agreement. All of the characteristics listed below may not be present in all cases, and the County must use judgment in classifying each agreement as a subaward or a procurement contract.

The three classifications of recipients are as follows:

Subrecipient: A subaward for the purpose of carrying out a portion of a Federal award and creates a Federal assistance relationship. Characteristics include:

- (1) Determines who is eligible to receive Federal assistance;
- (2) Has its performance measured in relation to whether objectives of a federal program were met;
- (3) Has responsibility of programmatic decision-making;
- (4) Is responsible for adherence to applicable Federal program requirements specified in the Federal award; **and**
- (5) In accordance with it's agreement, uses the Federal funds to carry out a program for a public purpose specified in authorizing statute, as opposed to providing goods or services for the benefit of the [County].⁶

Contractor: A contract is for the purpose of obtaining goods and service for the non-Federal entity's own use and creates a procurement relationship. Characteristics include:

- (1) Provides the goods and services within normal business operations;
- (2) Provides similar goods or services to many different purchasers;
- (3) Normally operates in a competitive environment;
- (4) Provides goods or services that are ancillary to the operation of the Federal program; and

9

⁵ Note: Non-Federal entity refers to subrecipients, contractors, and beneficiaries. Final Rule generally refers to anyone receiving a payment from the County as a "subrecipient." In the Public Health and Economic Impacts sections, the Final Rule does identify eligible beneficiaries as part of the distinctions between the general public, impacted, and disproportionately impacted. In the reporting guidance and reports, all non-Federal entities are jointly referred to as "subrecipients."

⁶ https://www.law.cornell.edu/cfr/text/2/200.331



(5) Is not subject to compliance requirements of the Federal program as a result of the agreement, though similar requirements may apply for other reasons.⁷

Beneficiaries: Households, small businesses, or nonprofits that receive assistance based on impacts of the pandemic that they experienced.⁸ Beneficiaries are not subject to audit pursuant to the Single Audit Act and 2 C.F.R. Part 200, Subpart F.

⁷ https://www.law.cornell.edu/cfr/text/2/200.331

⁸ https://home.treasury.gov/system/files/136/SLFRF-Final-Rule-Overview.pdf



Appendix D: Capital Expenditures

The Local Fiscal Recovery Funds are subject to 2 C.F.R. Part 200: Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards ("Uniform Guidance"). Uniform Guidance provide recipients of federal grants a set of standards related to procurement, internal controls, subrecipient monitoring, auditing practices, and more.

The SLFRF Final Rule adopts several definitions from the Uniform Guidance including for capital expenditures, capital assets, equipment, and supplies. These definitions are noted below:⁹

- Capital expenditure: Expenditure to acquire capital assets or to make additions, improvements, modifications, replacements, rearrangements, reinstallations, renovations, or alterations to capital assets that materially increase their value or useful life
- Capital asset: Tangible or intangible assets used in operations having a useful life of more than one year which are capitalized in accordance with Generally Accepted Accounting Principles (GAAP); includes lands, facilities, equipment, and intellectual property
- **Equipment:** Tangible personal property (including information technology systems) having a useful life of more than one year and a per-unit acquisition cost which equals or exceeds the lesser of the capitalization level established by the non-Federal entity for financial statement purposes, or \$5,000

Supplies, meaning all tangible personal property other than those included as "equipment," are not considered capital expenditures.

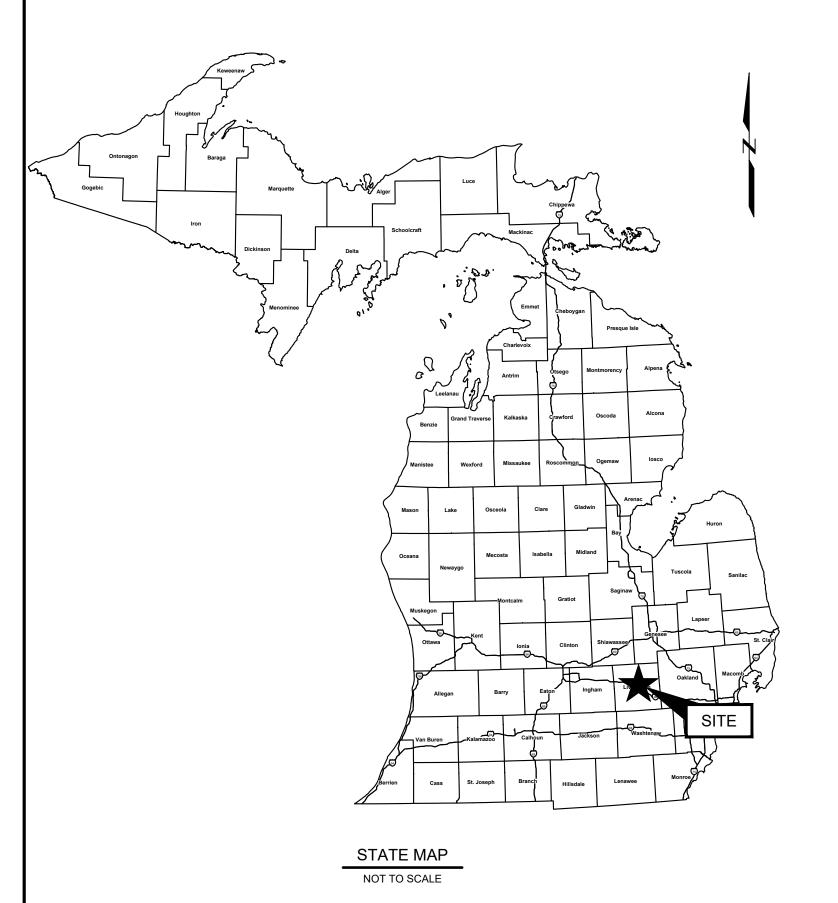
Recipients may also use SLFRF funds for pre-project development costs that are tied to or reasonably expected to lead to an eligible capital expenditure. For example, pre-project costs associated with planning and engineering for an eligible project are considered an eligible use of funds.

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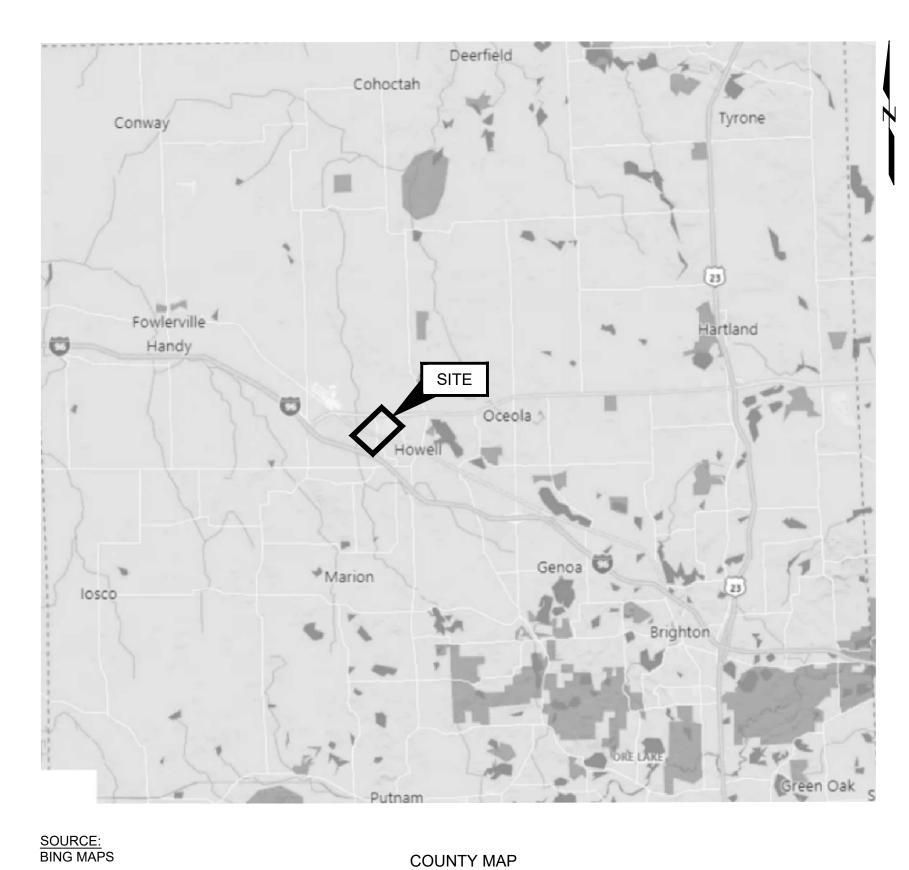
⁹ https://home.treasury.gov/system/files/136/SLFRF-Final-Rule.pdf

HOWELL CITY DRAIN STORM SEWER CONSTRUCTION

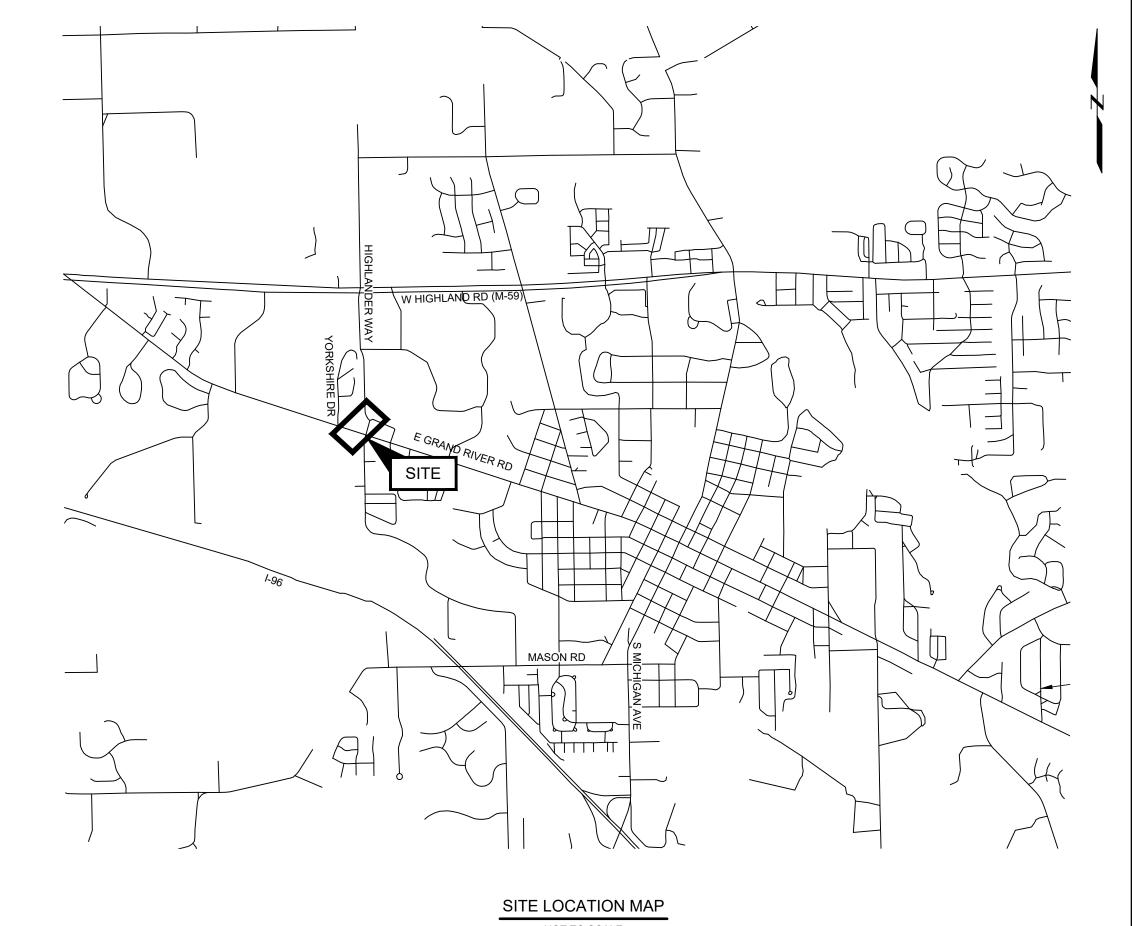
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DATE



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SHEET NO.

SHEET INDEX

TITLE **COVER SHEET** STORM SEWER PLAN & PROFILE **DETAILS** SOIL BORINGS

OWNER

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DARRIN BURNS - ENGINEERING SURVEYOR DBURNS@LIVGOV.COM

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MDAVIS@CITYOFHOWELL.ORG

CITY OF HOWELL WATER & SANITARY SEWER MATT DAVIS -DIRECTOR OF PUBLIC SERVICES

611 E. GRAND RIVER HOWELL, MI 48843

CONSUMERS ENERGY - GAS STEVEN SORIA - GEN ENG TECH ANL II PHONE: (800) 477-5050 STEVEN.SORIA@CMSENERGY.COM



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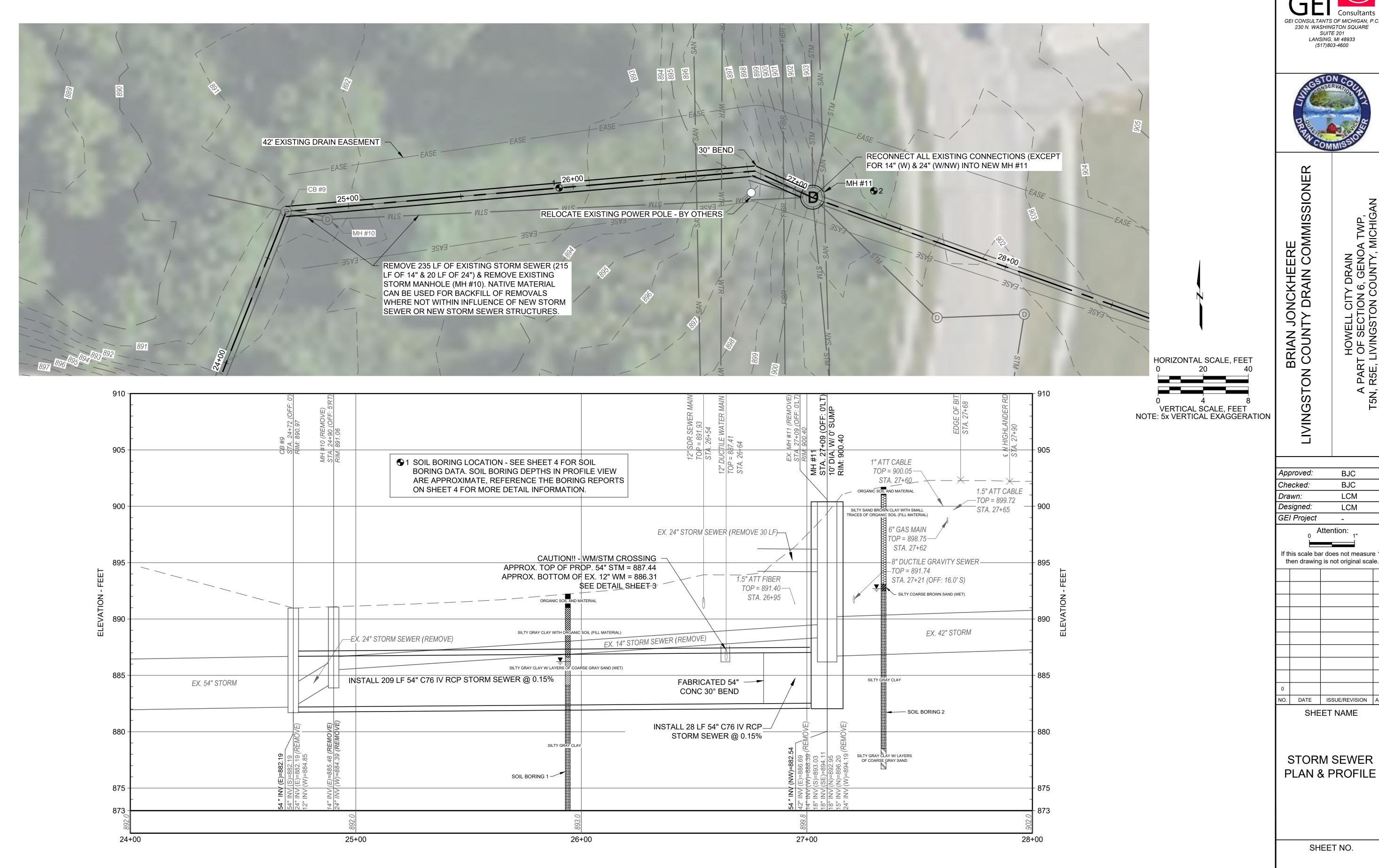
COVER SHEET

SHEET NO.

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ENGINEER OF RECORD:

BRIAN J. CENCI, P.E. #53847







BJC BJC LCM LCM GEI Project

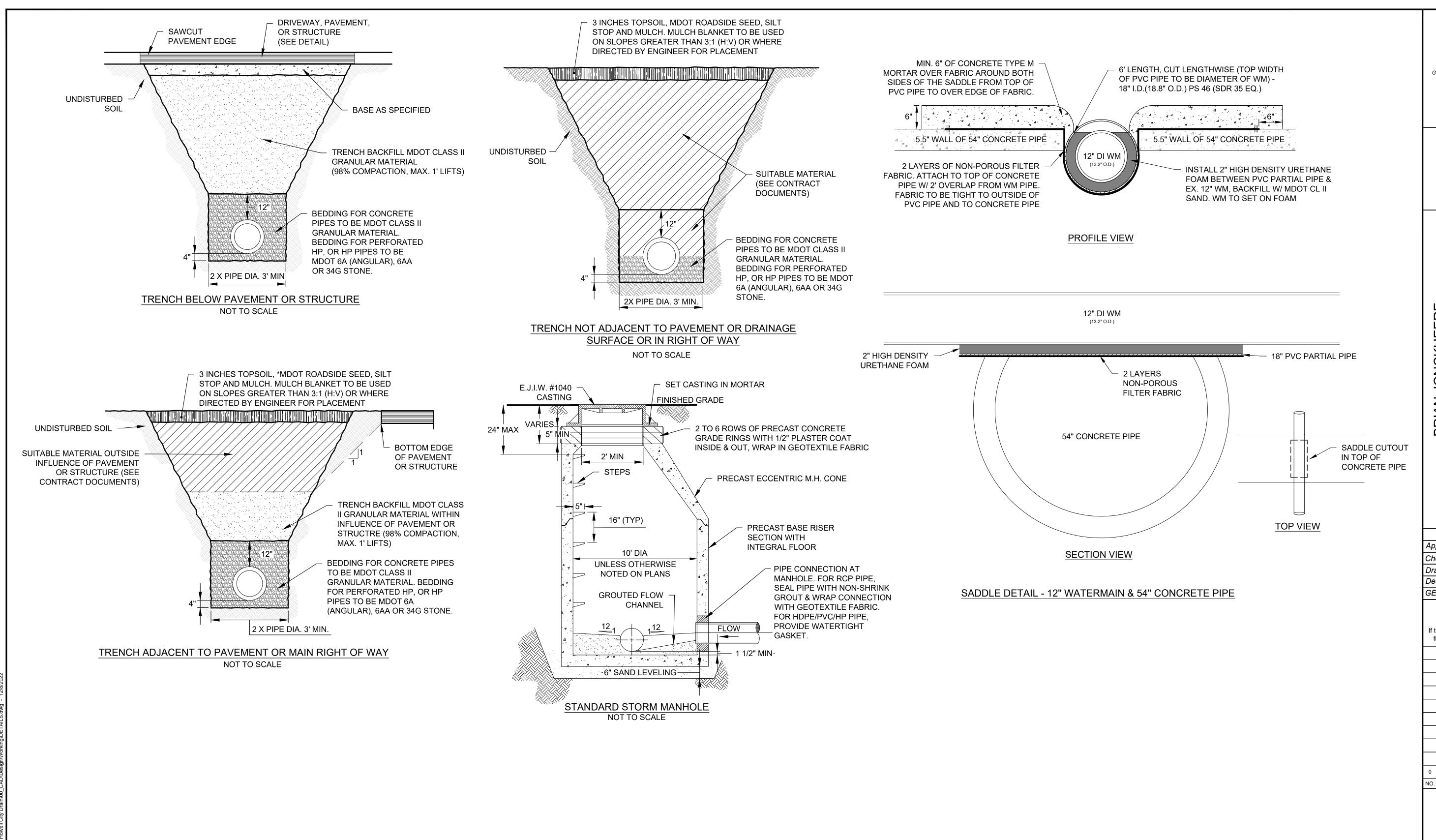
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NO. DATE ISSUE/REVISION APP SHEET NAME

STORM SEWER

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BRIAN JONCKHEERE ON COUNTY DRAIN COMMISSIONER

HOWELL CITY DRAIN PART OF SECTION 6, GENOA TWP, R5E, LIVINGSTON COUNTY, MICHIGAN

Approved: BJC BJC Checked: LCM Drawn: Designed: GEI Project 2200156 Attention:

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DETAILS

SHEET NO.

(517) 546-6121 FAX (517) 546-1478

HASTINGS TESTING ENGINEERS AND ENVIRONMENTAL INC. "Testing to keep America on a firm foundation"

4841 GOLF CLUB ROAD . HOWELL, MI 48843

REPORT OF SOIL BORING

TESTED FOR: L.C.D.C. REPORT # :7329 CLIENT # :4978 2300 East Grand River Avenue DATE :11/21/22 PAGE

LOCATION : Highlander Way - Soil Boring #1 - See Enclosed Diagram

MT 48843

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HASTINGS TESTING ENGINEERS AND ENVIRONMENTAL INC.

"Testing to keep America on a firm foundation" 4841 GOLF CLUB ROAD • HOWELL, MI 48843

REPORT OF SOIL BORING

TESTED FOR: L.C.D.C. REPORT # :7329 CLIENT # :4978 2300 East Grand River Avenue DATE :11/21/22

PAGE :2 MI 48843

LOCATION : Highlander Way - Soil Boring #1 - See Enclosed Diagram

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MI 48843

HASTINGS TESTING ENGINEERS AND ENVIRONMENTAL INC. "Testing to keep America on a firm foundation" 4841 GOLF CLUB ROAD • HOWELL, MI 48843

REPORT OF SOIL BORING

TESTED FOR: L.C.D.C.

REPORT # :7329 CLIENT # :4978 DATE :11/21/22 PAGE :3

LOCATION : Highlander Way - Soil Boring #1 - See Enclosed Diagram

2300 East Grand River Avenue

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FAX (517) 546-1478

HASTINGS TESTING ENGINEERS AND ENVIRONMENTAL INC. "Testing to keep America on a firm foundation" 4841 GOLF CLUB ROAD . HOWELL, MI 48843

REPORT OF SOIL BORING

TESTED FOR: L.C.D.C. 2300 East Grand River Avenue

BACKFILL MATERIAL: Existing Material

REPORT # :7329 CLIENT # :4978 DATE :11/21/?2 PAGE :4

LOCATION : Highlander Way - Soil Boring #1 - See Enclosed Diagram

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	Type of Sample: SS - Split Spoo SL - Split Spoo ST - Shelby Tul	on With 1	Liner	Sam	oler nt m	18" w ade at	ith 140 6" inte	# Hammer,		
D	DRILLING METHOD: Trailer Mount DRILLING FOREMAN: L. Caudill				OUND OUND	WATER	FNCOUNT	OMPLEATION		

(517) 546-6121 FAX (517) 546-1478

REPORT # :7330

GROUND WATER AFTER

GROUND WATER ENCOUNTERED AT :6'-0" BEG

GROUND WATER AFTER COMPLEATION:31-0" BEG

:1 Hour

HASTINGS TESTING ENGINEERS AND ENVIRONMENTAL INC.

4841 GOLF CLUB ROAD . HOWELL, MI 48843

REPORT OF SOIL BORING

TESTED FOR: L.C.D.C. 2300 East Grand River Avenue

Howell

DRILLING METHOD : Trailer Mounted Auger

DRILLING FOREMAN :L. Caudill BACKFILL MATERIAL: Existing Material

> CLIENT # :4978 DATE :11/21/22 PAGE :1 MI 48843

	Soil Description	Depth in	Sample &		N Val	% Water	Natural WT.	Unconfine	ed Strength
zane	9025	Feet	Type	*			PCF	Str. PSF	Fail Strai
	Organic Soil and Material	0.5						a 10	
	Silty Sandy Brown Clay with	1.0							
	small traces of Organic Soil	1.5		8					
	(fill material)	2.0		11				li li	
	ĕ Ď.	2.5	SS1	13	24	8.6		8000.	
		3.0							
		3.5		6					
		4.0		10		- PO. 20079. 1 3000			
		4.5	SS2	11	21	9.4		9000.	
	n A	5.0		Etter of Etter for	[
		5-5							Ray Bulliani (1966) - 1966 - 1966 - 1966 - 1966 - 1966 - 1966 - 1966 - 1966 - 1966 - 1966 - 1966 - 1966 - 1966
		6.0		6			6 O 200 T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
		6.5		7			л ž		
	0	7.0	SS3	7	14	10.1		7500.	
				E DE SERVICIO					
	Type of Sample: SS = Split Spoo SL = Split Spoo ST = Shelby Tub	iner	Samp	ler	18" wi		Hammer, F	ing 2" UU alling 30"	
1	DRILLING METHOD :Trailer Mount DRILLING FOREMAN :L. Caudill BACKFILL MATERIAL:Existing Mate		GROUND WATER ENCOUNTERED AT 91-0" BEG GROUND WATER AFTER COMPLEATION:9'-0" BEG GROUND WATER AFTER :1 Hour						



DRILLING METHOD : Trailer Mounted Auger

BACKFILL MATERIAL: Existing Material

DRILLING FOREMAN : L. Caudill

(517) 546-6121 FAX (517) 546-1478

GROUND WATER AFTER

GROUND WATER ENCOUNTERED AT :6'-0" BEG

GROUND WATER AFTER COMPLEATION: 3 0 0 BEG

GROUND WATER AFTER COMPLEATION: 9 - 0 " BEG

:1 Hour

GROUND WATER AFTER

:1 Hour

HASTINGS TESTING ENGINEERS AND ENVIRONMENTAL INC.

4841 GOLF CLUB ROAD • HOWELL, MI 48843

REPORT OF SOIL BORING

TESTED FOR: L.C.D.C.

DRILLING FOREMAN :L. Caudill

BACKFILL MATERIAL: Existing Material

REPORT # :7330 CLIENT # :4978 DATE :11/21/22 PAGE : 2

Howell MI 48843

2300 East Grand River Avenue

LOCATION : Highlander Way - Soil Boring #2 - See Enclosed Diagram

802 XV	.459 6	2000	09	Seec.	- ALTH	100		0 8	
Soil Description	Depth in	 Sample &			% Water		Unconfin	ed Strength	
	Feet	Type	*	l var		PCF	Str. PSF	Fail Strain	
Silty Sandy Brown Clay with	7.5						2		
 small traces of Organic Soil	8.0		1	i i		ž.		L.	
[(fill material)	8.5		3	1					
 Silty Coarse Brown Sand (wet)	9.0		3						
Silty Gray Clay	9.5	SS4	3	6	14.8		2000.		
	10.0			ৱ					
	10.5								
	11.0								
	11.5					٥			
	12.0	hi h							
	12.5				Trie dans in an Other				
	13.0	ĺ							
Įs	13.5		3			1			
	14.0		4	N. T. Gar., 181, 241, C. St.					
Type of Sample: SS = Split Spo SL = Split Spo ST = Shelby Tu	on With	Liner	Samı	oler	18" w.	ration T th 140 ‡ 6" inter	Hammer,	ving 2" OD Falling 30"	
DRILLING METHOD : Trailer Moun	ted Auge	ľ	GRO	DUND	WATER	ENCOUNTE	ERED AT	:91-0" BEG	



ST - Shelby Tube

DRILLING METHOD :Trailer Mounted Auger

BACKFILL MATERIAL: Existing Material

DRILLING FOREMAN :L. Caudill

PAGE :3

GROUND WATER AFTER

:1 Hour

Count made at 6" intervals.

GROUND WATER AFTER

GROUND WATER ENCOUNTERED AT :61-0" BEG

GROUND WATER AFTER COMPLEATION: 3 - 0 BEG

:1 Hour

HASTINGS TESTING ENGINEERS AND ENVIRONMENTAL INC. "Testing to keep America on a firm foundation" 4841 GOLF CLUB ROAD . HOWELL, MI 48843

REPORT OF SOIL BORING

TESTED FOR: L.C.D.C. REPORT # :7330 CLIENT # :4978 2300 East Grand River Avenue DATE :11/21/22

MI 48843

BACKFILL MATERIAL: Existing Material

LOCATION : Highlander Way - Soil Boring #2 - See Enclosed Diagram

110		CHANG MA					Of a Mark Case Call Article Date (Mark Mark Andrews Accessed Andrews		N. C. CHILL CO. C.	
	Soil Description	Depth	 Sample &		N	% Water	Natural WT.	Unconfin	ed Sti	ength
	Solit Description	Feet	Type	*	Val	Water	P C F	Str. PSF	Fail	Strain
	Silty Gray Clay	14.5	SS5	6	10	13.4		3500.		
	1	15.0								
		15.5								
	,n	16.0								
		16.5								
		17.0								
		17.5	68							
		18.0								
		18.5		8	Dance		U			
) 	19.0		9				II U Less rosse va — s — s — s — s — s — s — s — s — s —		
		19.5	SS6	7	16	12 7		6000.		
		200		3.		(07.140.694h				
		20.5				0				
		21.0								
									ļ.,	
£	Type of Sample: SS - Split Spoo SL - Split Spoo ST - Shelby Tuk	on With I	iner	Samp	oler	18" W			Fallir	
	DRILLING METHOD : Trailer Mount DRILLING FOREMAN : L. Caudill	WATER		ERED AT	:9'-0' :9'-0'					

GROUND WATER AFTER

:1 Hour

HASTINGS TESTING ENGINEERS AND ENVIRONMENTAL INC. "Testing to keep America on a firm foundation"

4841 GOLF CLUB ROAD • HOWELL, MI 48843

REPORT OF SOIL BORING

TESTED FOR: L.C.D.C.

REPORT # :7330 CLIENT # :4978 DATE :11/21/22

PAGE :4

MI 48843 Howell

2300 East Grand River Avenue

LOCATION : Highlander Way - Soil Boring #2 - See Enclosed Diagram

	Soil Description	Depth in	Sample &	Blow Count	N Val	% Water	Natural WT.	Unconfine	ed Strength
	U.A. S. (IZ-SSHE)	Feet	Туре	*			PCF	Str. PSF	Fail Strain
Ē	Silty Gray Clay	21.5			11.0			ī	
		22.0							
		22.5							
		23.0							
	Silty Gray Clay with layers of	23.5		14					
	Coarse Gray Sand	24.0		20					
# # #		24.5	SS7	27	47	11.5		4000	
	End Of Soil Boring #2	25.0				MS0: 2222			
	Type of Sample: SS = Split Spoo SL = Split Spoo ST = Shelby Tub	n With I	Liner	* Standard Penetration Test - Driving 2" OD Sampler 18" with 140 # Hammer, Falling 30 Count made at 6" intervals.					
	DRILLING METHOD :Trailer Mount DRILLING FOREMAN :L. Caudill BACKFILL MATERIAL:Existing Mate		GROUND WATER ENCOUNTERED AT :9'-0" B GROUND WATER AFTER COMPLEATION:9'-0" B GROUND WATER AFTER :1 Hour						

GEI CONSULTANTS OF MICHIGAN, P.C. 401 S. WASHINGTON SQUARE SUITE 103 LANSING, MI 48933 (517)803-4600



BRIAN JONCKHEERE LIVINGSTON COUNTY DRAIN COMMISSIONE HOWELL CITY DRAIN PART OF SECTION 6, GENOA TWP, R5E, LIVINGSTON COUNTY, MICHIGAN

Approved: BJC BJC Checked: LCM Drawn: Designed: LCM GEI Project 2200156 Attention:

If this scale bar does not measure 1" then drawing is not original scale.

NO. DATE ISSUE/REVISION APP SHEET NAME

SOIL BORINGS

SHEET NO.