



# HOFFMAN ESTATES

GROWING TO GREATNESS

March 11, 2022

**SUBJECT: VILLAGE OF HOFFMAN ESTATES  
ARIZONA BOULEVARD STORM SEWER REPLACEMENT PROJECT  
ADDENDUM NO. 1**

To Whom It May Concern:

Please make reference of the following changes to the above contract:

PLANS:

1. The "DETAILS" sheet C6.1 has been revised to reflect changes to the details for Manhole, Catch Basin, and Inlet. Replace Sheet C6.1 dated 3/2/2022 with revised Sheet C6.1 Addendum #1 dated 3/10/2022.
2. The "DETAILS" sheet C6.2 has been revised to add the detail for Weephole. Replace Sheet C6.2 dated 3/2/2022 with revised Sheet C6.2 Addendum #1 dated 3/10/2022.

SPECIFICATIONS:

1. The project specifications are hereby amended to include the subsurface exploration and laboratory analysis report by Midland Standard Engineering & Testing, Inc. of South Elgin, Illinois and dated January 6, 2022.

**THESE CHANGES TO THE ABOVE DOCUMENTS MUST BE REFLECTED IN THE BIDS SUBMITTED TO THE VILLAGE. THE ABOVE CLARIFICATION HAS BEEN MADE TO ASSIST YOU IN PREPARING YOUR PROPOSAL.**

Also attached please see letter to clarify some questions and concerns regarding the Arizona Blvd Storm Sewer Replacement Project.

**PLEASE SIGN BELOW TO VERIFY RECEIPT OF THE ADDENDUM AND RETURN WITH YOUR BID.**

Company/Bidder: \_\_\_\_\_ Date: \_\_\_\_\_

Name & Title: \_\_\_\_\_ Signature: \_\_\_\_\_

Please direct any questions to the Village Engineering Division, at (847) 252-5800 or [roadconstruction@hoffmanestates.org](mailto:roadconstruction@hoffmanestates.org).

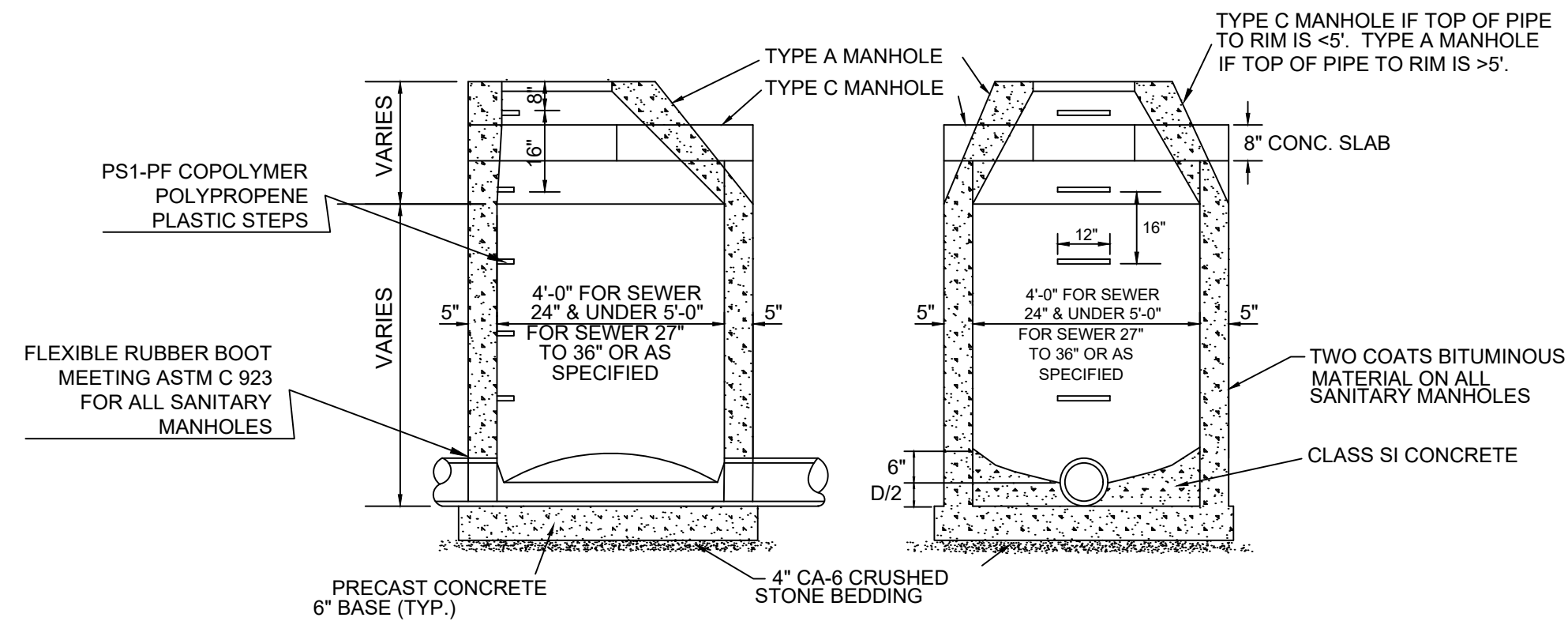
Sincerely,

Alan Wenderski, P.E.  
Director of Engineering

1

FRAME AND GRATE TYPES

- B6.12 CURB - NEENAH R-3278-A OR APPROVED EQUAL.
- M3.12 CURB - NEENAH R-3501-P OR APPROVED EQUAL.
- DEPRESSED CURB - NEENAH R-2504 W/TYPE D GRATE, R-3205, OR APPROVED EQUAL.



MANHOLE TYPES A & C

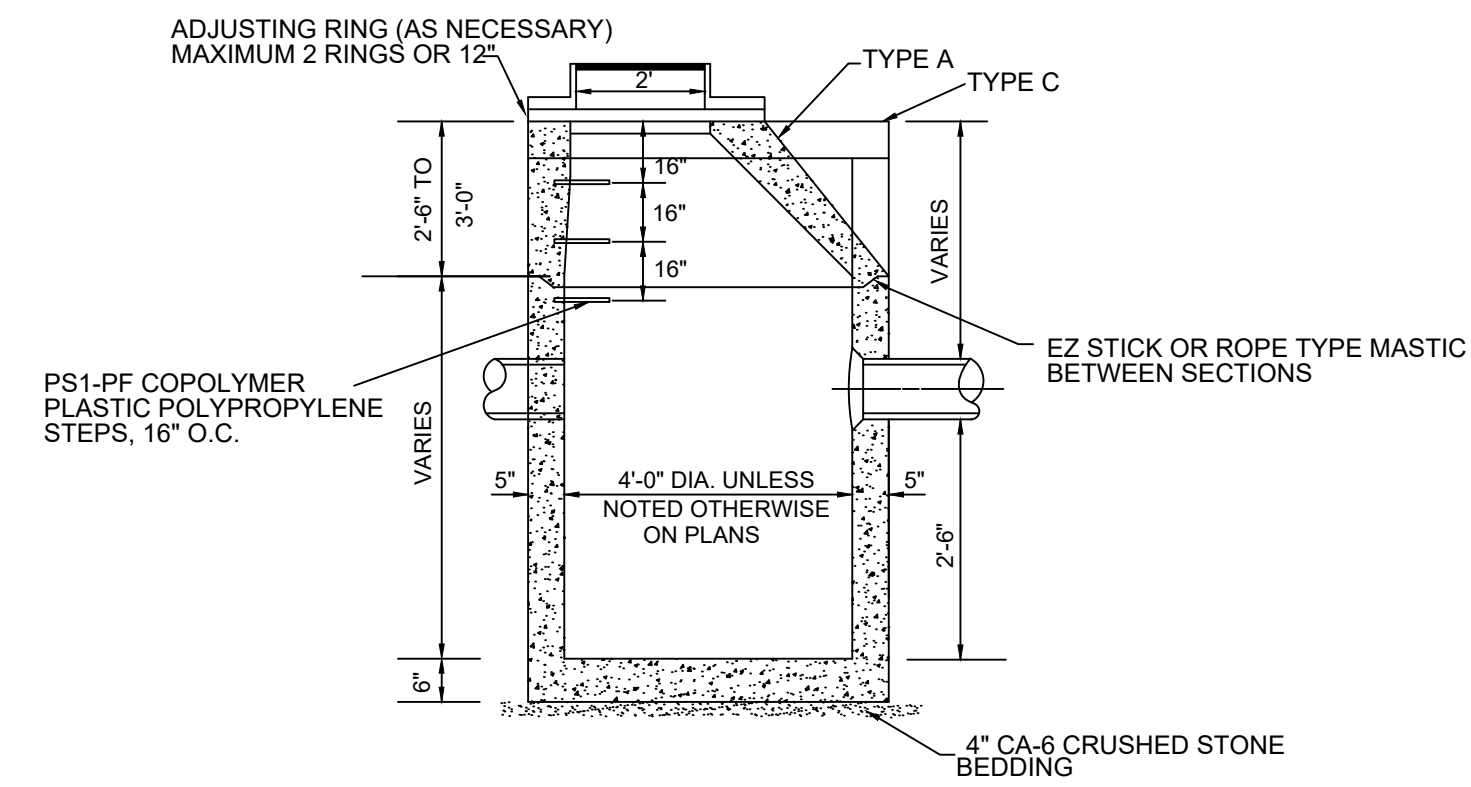
NOTES:

1. ONLY PRECAST STRUCTURES ALLOWED.
2. MAXIMUM TWO (2) ADJUSTING RINGS, MAXIMUM TOTAL HEIGHT, TWELVE (12) INCHES.
3. MANHOLE SECTIONS TO BE JOINED WITH ROPE TYPE MASTIC (E-Z STICK OR EQUAL).
4. PRECAST CONCRETE BASE MUST BE INTEGRALLY CAST WITH THE LOWEST WALL SECTION.
5. ALL GRATES PROVIDED SHALL BE BICYCLE SAFE.
6. ALL SANITARY SEWER MANHOLES SHALL HAVE A CHIMNEY SEAL FROM CRETEX OR APPROVED EQUAL.
7. ALL STORM STRUCTURES LOCATED IN THE PAVEMENT SHALL FOLLOW THE WEEPHOLE DETAIL.

1 Manhole Detail (Not to Scale)

FRAME AND GRATE TYPES

- B6.12 CURB - NEENAH R-3278-A OR APPROVED EQUAL.
- M3.12 CURB - NEENAH R-3501-P OR APPROVED EQUAL.
- DEPRESSED CURB - NEENAH R-2504 W/TYPE D GRATE, R-3205, OR APPROVED EQUAL.



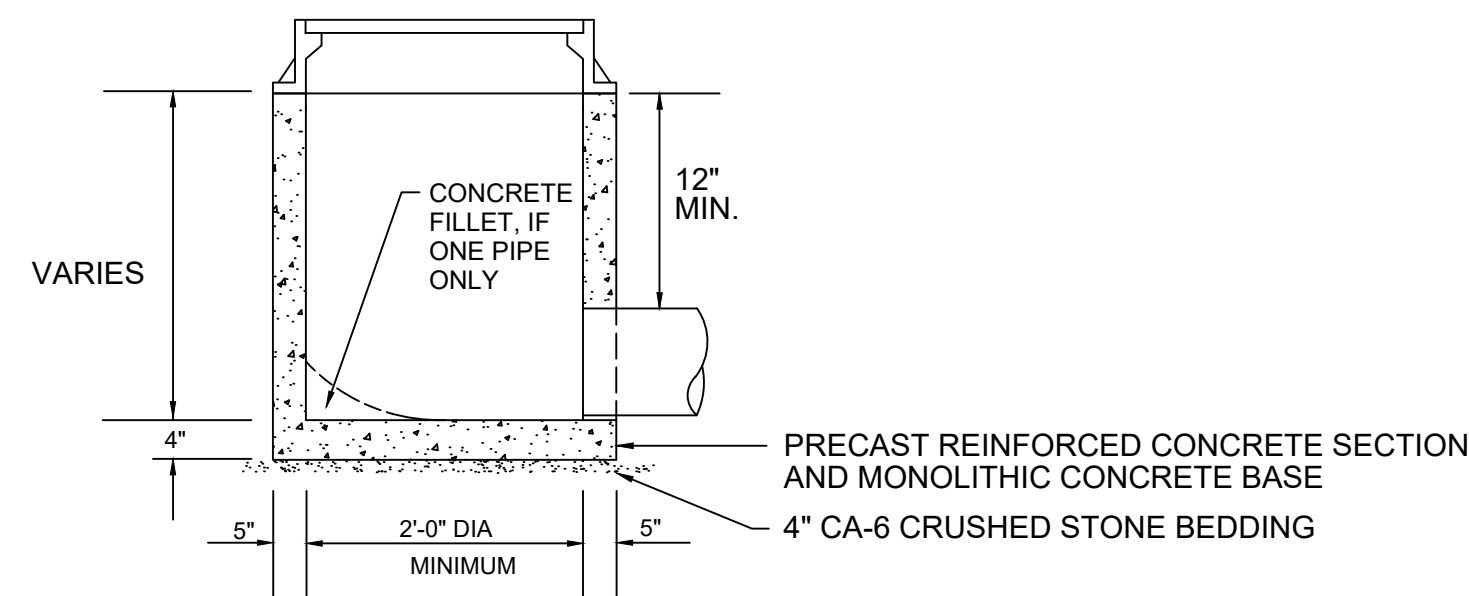
NOTES:

1. ONLY PRECAST STRUCTURES ALLOWED.
2. PRECAST CONCRETE BASE MUST BE INTEGRALLY CAST WITH THE LOWEST WALL SECTION.
3. THE FRAME AND GRATE SHALL BE MORTARED TO THE CONCRETE STRUCTURE.
4. ALL STRUCTURES LOCATED IN THE PAVEMENT SHALL FOLLOW THE WEEPHOLE DETAIL.

2 Catch Basin Detail (Not to Scale)

FRAME AND GRATE TYPES

- B6.12 CURB - NEENAH R-3278-A OR APPROVED EQUAL.
- M3.12 CURB - NEENAH R-3501-P OR APPROVED EQUAL.
- DEPRESSED CURB - NEENAH R-2504 W/TYPE D GRATE, R-3205, OR APPROVED EQUAL.

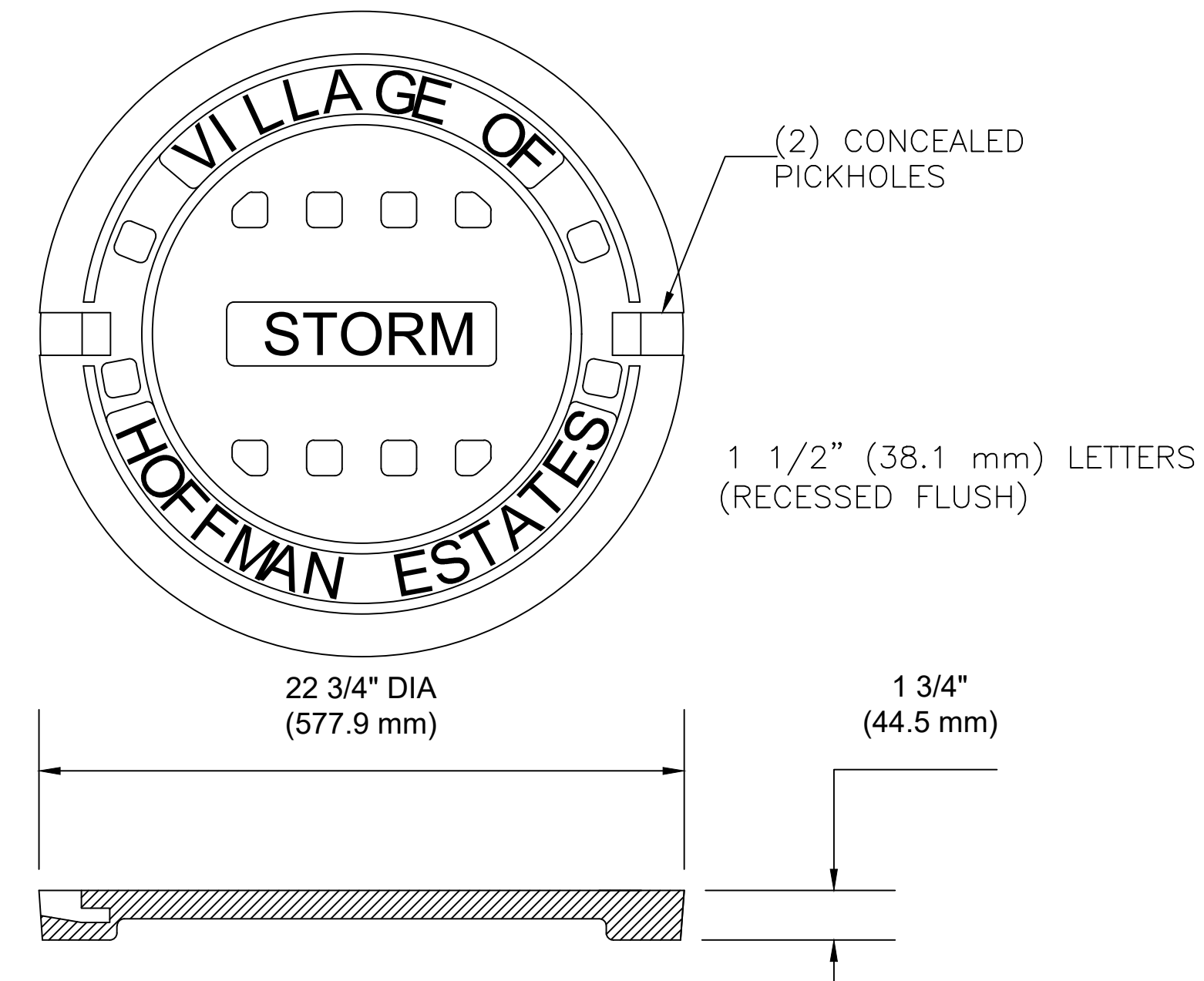


NOTES:

1. ONLY PRECAST STRUCTURES ALLOWED.
2. MAXIMUM TWO (2) ADJUSTING RINGS, MAXIMUM TOTAL HEIGHT, TWELVE (12) INCHES.
3. FRAME AND GRATE SHALL BE MORTARED TO THE INLET STRUCTURE.
4. PRECAST CONCRETE BASE MUST BE INTEGRALLY CAST WITH THE LOWEST WALL SECTION.
5. ALL GRATES PROVIDED SHALL BE BICYCLE SAFE.
6. ALL STRUCTURES LOCATED IN THE PAVEMENT SHALL FOLLOW THE WEEPHOLE DETAIL.

3 Inlet Detail (Not to Scale)

NOTE:  
PRIVATE SYSTEMS OR SERVICES SHALL NOT INCLUDE "VILLAGE OF HOFFMAN ESTATES" ON THE STORM COVER.



HEAVY DUTY  
MAT'L ASTM A48 CL35  
MACHINED BEARING SURFACE  
COVER WT: 125 LBS (56.7 kg)

STORM COVER DETAIL			
SCALE	NONE	NO.	REVISIONS
DATE	5-25-05	1.	MISC UPDATES
DRAFTER	SLW		SW 2/10
VILLAGE OF HOFFMAN ESTATES TRANSPORTATION & ENGINEERING DIVISION		FILE NAME:	SHEET NO.
		STRMCVR.DWG	1 OF 1

4 Storm Cover Detail (Not to Scale)

Scale bar measures 1" at full scale



LEGEND

1	Addendum #1	3/10/22
No.	Revision/Issue	Date

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture  
8755 W. HIGGINS ROAD, SUITE 835  
CHICAGO, ILLINOIS 60631  
OFFICE (773) 693-9200  
FAX (847) 740-2888  
CHICAGO@HEYASSOC.COM

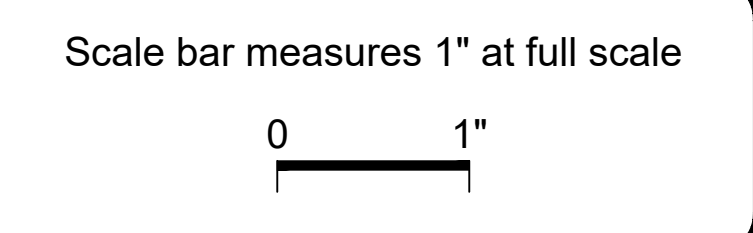
PROFESSIONAL DESIGN FIRM  
LICENSE NO. 184-002429

Arizona Boulevard Storm  
Sewer Replacement Project  
Village of Hoffman Estates

Details

PROJECT NO:	21-0332	DRAWING NO.	
DESIGNED BY	TCT	C6.1	
DRAWN BY	TCT, MAA		
CHECKED BY	PML	SHEET NO.	
APPROVED BY	PML	13	OF 17
ISSUE DATE	3/2/2022		

Bid Set



LEGEND

1	Addendum #1	3/10/22
No.	Revision/Issue	Date

**Hey and Associates, Inc.**  
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 8755 W. HIGGINS ROAD, SUITE 835  
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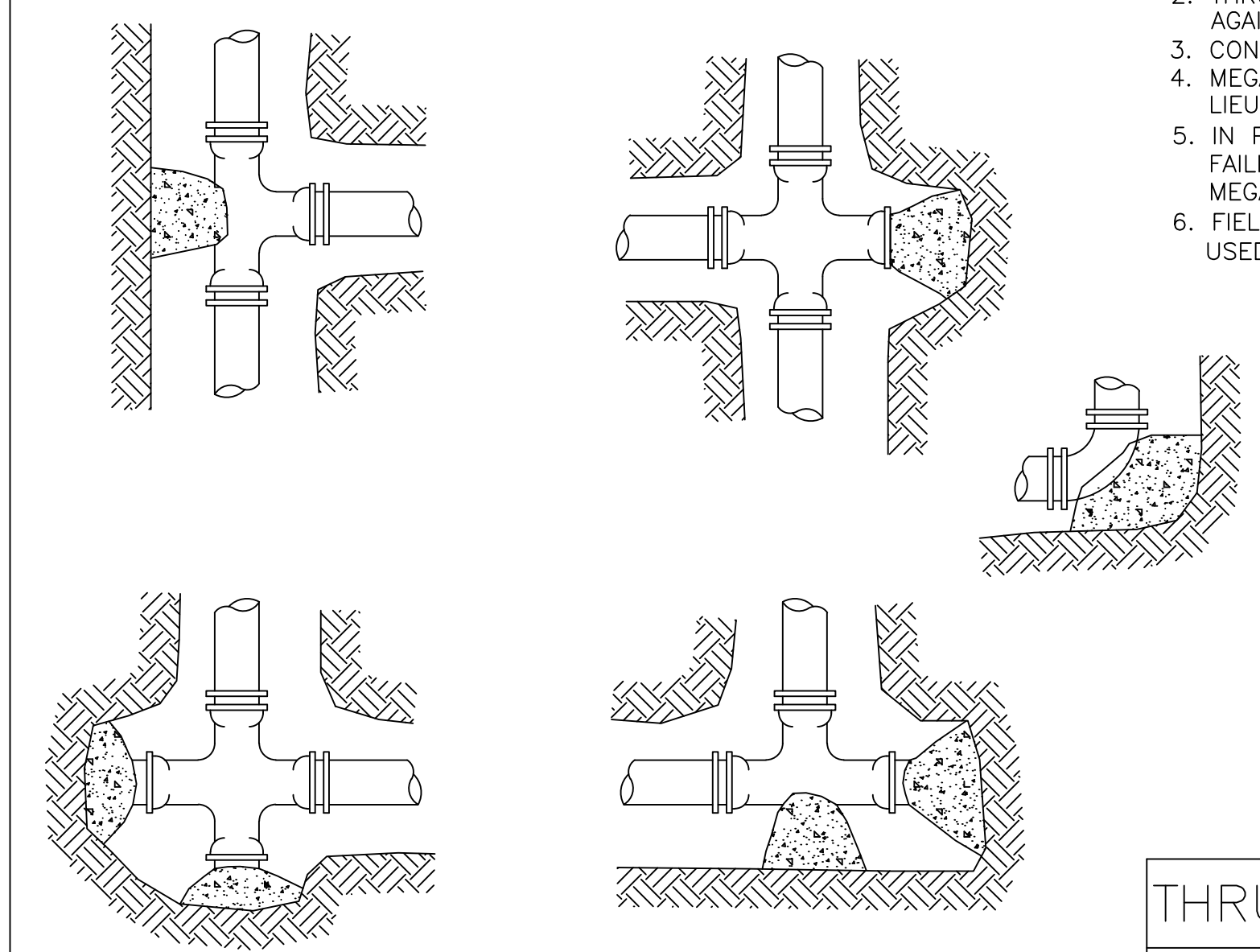
**Arizona Boulevard Storm Sewer Replacement Project**  
 Village of Hoffman Estates

Details

PROJECT NO:	21-0332	DRAWING NO:	<b>C6.2</b>
DESIGNED BY:	TCT	SHEET NO:	
DRAWN BY:	TCT, MAA		
CHECKED BY:	PML	14 OF 17	
APPROVED BY:	PML		
ISSUE DATE:	3/2/2022		

Bid Set

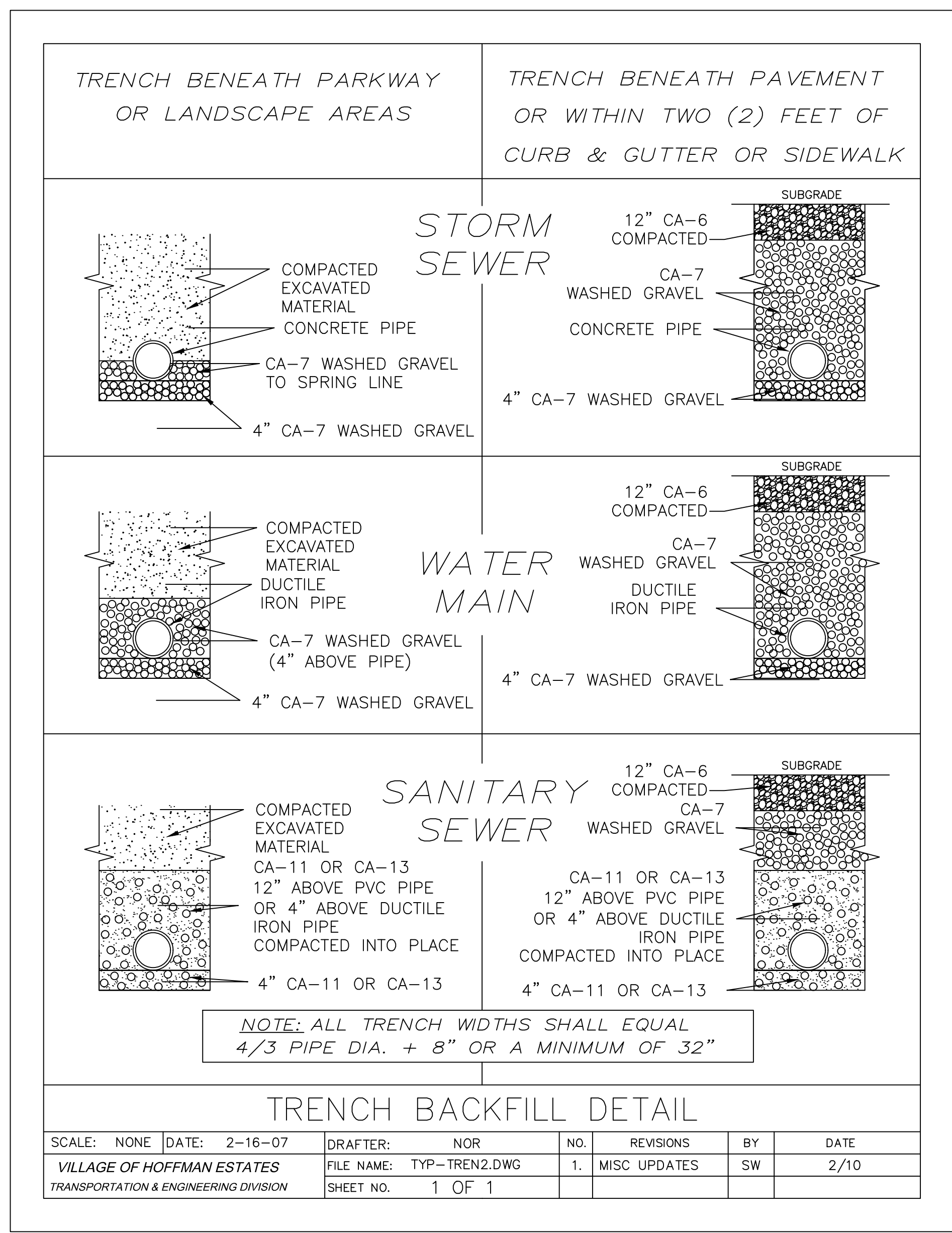
- NOTES:
1. THRUST BLOCKS SHALL BE AT ALL TEES AND BENDS OF 11-1/4" OR GREATER AND AT ALL DEAD END WATER MAINS.
  2. THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL.
  3. CONCRETE SHALL BE 3000 P.S.I. (MIN.)
  4. MEGA-LUGS CAN BE USED IN LIEU OF THRUST BLOCKS.
  5. IN POOR SOIL CONDITIONS OR IN FAILING OR FALLING TRENCH WALLS, MEGA-LUGS MUST BE USED.
  6. FIELD LOK GASKET CAN BE USED IN LIEU OF THRUST BLOCKS.



THRUST BLOCKING DETAIL

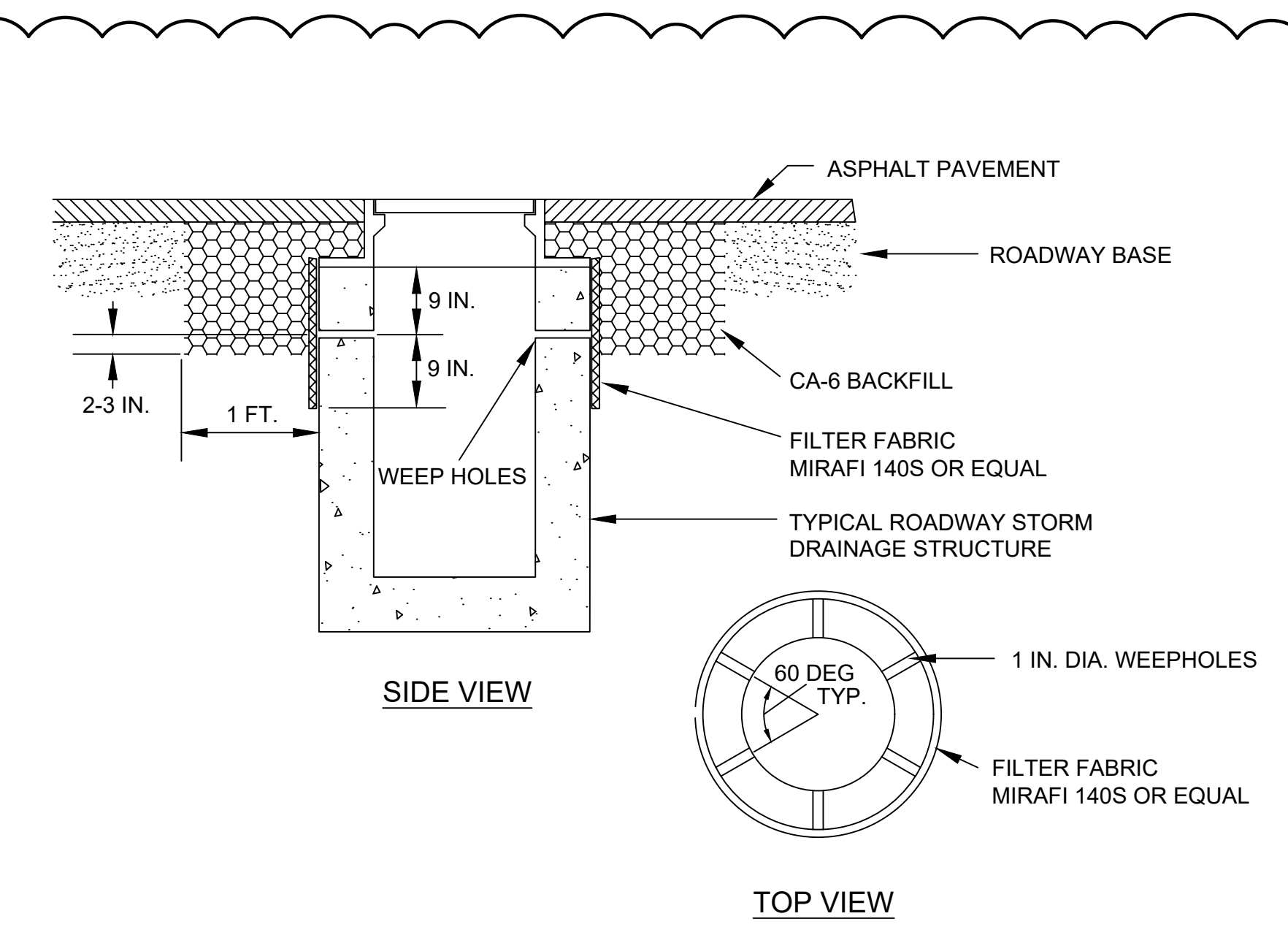
SCALE:	NONE	NO.	REVISIONS	BY	DATE
DATE:	5-25-05	1.	MISC UPDATES	SW	2/10
DRAFTER:	SLW				
VILLAGE OF HOFFMAN ESTATES TRANSPORTATION & ENGINEERING DIVISION	FILE NAME: THRSBLK.DWG	SHEET NO. 1 OF 1			

1 Thrust Blocking Detail (Not to Scale)



SCALE:	NONE	DATE:	2-16-07	DRAFTER:	NOR	NO.	REVISIONS	BY	DATE
VILLAGE OF HOFFMAN ESTATES TRANSPORTATION & ENGINEERING DIVISION	FILE NAME: TYP-TREN2.DWG	SHEET NO. 1 OF 1	1.	MISC UPDATES	SW	2/10			

2 Trench Backfill Detail (Not to Scale)



- NOTES:
1. SECURE FILTER FABRIC WITH CLAMPS OR MASTIC.
  2. THIS DETAIL APPLIES TO ALL NEW STORM STRUCTURES IN PAVEMENT, INCLUDING INLETS, CATCH BASINS AND MANHOLES.

3 Weephole Detail (Not to Scale)

File: P:\210001-0332 Hoffman Estates - Arizona Blvd Storm Sewer\05 CAD\21-0332 Arizona Boulevard - Bid Set.dwg Plot Date: March 10, 2022 Plotter: by: Todd Thornton

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WWW.MSETINC.COM

**MIDLAND STANDARD ENGINEERING & TESTING, INC.**

410 Nolen Drive South Elgin, Illinois 60177  
(847) 844-1895 f(847) 844-3875

January 6, 2022

Mr. Patrick Lach, P.E.  
**Hey & Associates, Inc.**  
8755 W. Higgins Road, Suite 835  
Chicago, Illinois 60631

Re: Soil Exploration and Analysis  
**Arizona Boulevard Storm Sewer**  
Hoffman Estates, Illinois  
MSET File No. 21731

Dear Mr. Lach:

Midland Standard Engineering & Testing, Inc. (MSET) has conducted a subsurface exploration and laboratory analysis for the above referenced project.

Scope and Purpose

The purpose of this exploration and analysis was to determine the various soil profile components, the engineering characteristics of the materials, the existing pavement section, and to provide criteria for use by the design engineers in preparing project plans for the new storm sewer. The work included sample scanning and testing for soil disposal at a CCDD facility. The scope of this exploration included a geological reconnaissance of the site, subsurface exploration, soil testing, and an engineering analysis and evaluation of the material encountered.

General

The exploration and analysis of the subsurface conditions reported herein are considered in sufficient detail and scope to form a reasonable basis for final design. This report has been prepared for the exclusive use and specific application to the proposed project.

The recommendations submitted are based on the available soil information and the preliminary site plans furnished to us. Any revision in the plans for the proposed improvement from those enumerated in this report should be brought to the attention of the Soils Engineer so that he may determine if changes in the recommendations are required. If deviations from the noted subsurface conditions are encountered during construction, they should also be brought to the attention of the Soils Engineer.

The Soils Engineer warrants that the findings, recommendations, specifications or professional advice contained herein have been promulgated after being prepared in accordance with generally accepted professional engineering practice in the fields of foundation engineering, soil mechanics and engineering geology. No other warranties are implied or expressed.

After the plans are more complete, it is recommended the Soils Engineer be provided the opportunity to review the final design and specifications, in order that the soil recommendations may be properly interpreted and implemented. At that time, it may be necessary to submit supplementary recommendations.

## FIELD EXPLORATION

### General

The geotechnical field investigation to determine the engineering characteristics of the subsurface materials for the sewer included a making six (6) soil borings along the storm sewer alignment to depths of fifteen (15) feet below the ground surface. Reference the attached Boring Location Diagram for details of the boring locations. The ground surface elevation at the boring locations was determine using a Trimble Catalyst GNSS Receiver.

### Drilling Equipment

The geotechnical soil brings were drilled using a Geoprobe® 3100 drill rig equipped with a rotary head. The holes were advanced using hollow stem augers. The drill rig was equipped with an automatic drop hammer for standard penetration testing.

### Sampling and Standard Penetration Test Procedures-Geotechnical Borings

Representative samples were obtained by the use of split-spoon sampling procedures in accordance with A.S.T.M. Procedure D-1586.

During the split-spoon sampling procedures, a standard penetration test was performed in accordance with current A.S.T.M. D-1586 Procedures. At sampling intervals, advancement of the boring was stopped and all loose material removed from the borehole. The sampler was than lowered into the hole and seated in undisturbed soil by pushing or tapping, taking suitable precautions that the rods were reasonably tight. The sampling spoon was then advanced by driving with an automatic drop hammer. During the sampling procedure, the standard penetration value (N) of the soil was determined. The standard penetration value (N) is defined as the number of blows of a one hundred-forty pound (140 lb) hammer required to advance the spoon sampler one foot (12") into the soil.

The results of the standard penetration tests indicate the relative density and comparative consistency of the soils and thereby provide a basis for estimating the relative strength and compressibility of the soil profile components. The results of standard penetration tests can be found on the boring logs, which are attached.

### Strength Tests

During the field borings operations, samples of the predominately cohesive soil from the split-spoon sampling device were tested using a calibrated soil penetrometer to aid in determining the strength of the soil. Consideration must be given to the manner in which the values of the unconfined compressive strengths were obtained. Split-spoon sampling techniques provided a representative, but somewhat disturbed, soil sample.

#### Water Level Measurements

Water level observations were made during and after the boring operations and are noted on the boring logs presented herewith. In relatively previous soils, such as sandy soils, the indicated elevations are considered reliable groundwater levels. In relatively impervious soils, the accurate determination of the groundwater elevation may not be possible, even after several days of observation. Seasonal variations, temperatures, and recent rainfall conditions may influence the levels of the groundwater table, and volumes of water depend on the permeability of the soils.

### LABORATORY TESTING

#### Scope-Geotechnical

A supplemental laboratory-testing program was conducted to ascertain the pertinent engineering characteristics for the subsurface materials necessary in analyzing the behavior of the proposed construction. The soils laboratory work was performed in accordance with applicable A.S.T.M. standards. The laboratory-testing program included visual classification and moisture content determinations on all split-spoon samples. All cohesive soil samples obtained from the split-spoon were also tested for unconfined compressive strength ( $Q_u$ ). Select samples were subjected to soil pH testing. The results of this laboratory testing are presented on the attached boring logs.

### PROJECT DESCRIPTION AND FINDINGS

#### Project and Site Description

The proposed storm sewer for this project consists of a 152 foot long section along the east side of Cumberland and then a 983 foot, east-west run along the south side of Arizona Boulevard. We anticipate the storm sewer would be located from 6 to 7 feet below the ground surface.

#### Subsurface Conditions

The general soil profile encountered in the borings is very stiff to hard Lean CLAY with moisture contents,  $M_c$  of 16 to 23 percent and continuous to a depth of 15 feet. There are occasional lower strength zones in the CLAY, such as at B-1, the CLAY was stiff from a depth of 3 to 10 feet with  $M_c$  of 13 to 41 percent and  $Q_u$  of 1.16 to 1.98 tsf. At borings B-5 and B-6, from a depth of 3 to 8 feet, the CLAY contains more sand and was in a moist condition.

Ground water measurements were made during drilling and at the completion of the boring. All borings were found to be dry during these measurements. The long term ground water level for design can be taken as the change to all grey soil coloration that occurs at a depth of 8.0 to 10.5 feet in the borings.

Details of the soil encountered in the borings is shown on the attached 'Log of Boring' sheet.

Pipe Subgrade Soil Conditions

The soil anticipated to be exposed at pipe subgrade level based on the soil borings is shown in the table below. Pipe support should be developed by providing a minimum of six (6) to eight (8) inches of IDOT CA-05 or CA-07, bedding layer.

Boring Number	Location	Estimated Pipe Invert Depth	Soil Description	Subgrade Treatment
B-1	Cumberland	6 feet	Stiff Fat CLAY, CL, Qu=1.16 tsf	Standard Pipe Bedding
B-2	Arizona	6 feet	Very stiff Lean CLAY, CL Qu=3.76 tsf	Standard Pipe Bedding
B-3	Arizona	7 feet	Hard Lean CLAY, CL Qu=4.50 tsf	Standard Pipe Bedding
B-4	Arizona	6 feet	Hard Lean CLAY, CL Qu=4.97 tsf	Standard Pipe Bedding
B-5	Arizona	7 feet	Very stiff Lean CLAY, CL Qu=3.0 tsf	Standard Pipe Bedding
B-6	Arizona	7 feet	Very stiff Lean CLAY, CL Qu=2.79tsf	Standard Pipe Bedding

GENERAL DESIGN AND CONSTRUCTION CONSIDERATIONS

Excavation and Trench Support

Stiff to hard natural CLAY was encountered in most of the borings and shallow depth trenches are expected to stand nearly vertical for short periods of time. Softer zones in the CLAY were noted at B-1 and B-5. Please note that OSHA and local codes require the use of shoring and bracing in the excavations during foundation and utility installation, the contractor should be well versed in these requirements.

Sewer and Structure Backfill

All excavation and trench backfill work should be conducted in accordance with Article 550 of the Standard Specifications for Road and Bridge Construction. All structural elements should be backfilled in accordance with Article 502.10 'Backfilling', in Excavation for Structures Section 502 of the Standard Specifications for Road and Bridge Construction.

Protection of Adjacent Utilities and Roadways

Excavations extending below any existing utility components and the adjacent roadway may cause future settlement problems if not protected. Procedures for the protection of any existing utilities and roadway should be reviewed and presented to the supervising engineer, prior to the start of work.

Closure

The recommendations presented herein are based on the information available at the time of this writing. After the plans and specifications are more complete, we welcome the opportunity to review them with respect to prevailing soil and ground water conditions.

At that time, it may be necessary to conduct further analysis and submit supplementary recommendations. If the plans are changed with respect to the location of the sewer or culverts, the soils information must be reviewed to determine whether it is pertinent to the new plans.

Thank you for the opportunity to provide our services to you on this project. If you have any questions or require further analysis, do not hesitate to contact us.

Sincerely,  
MIDLAND STANDARD ENGINEERING & TESTING, INC.

William J. Wyzgala, P. E.  
Project Engineer

Attachments: Boring Location Map  
Boring Logs B-1 through B-6  
General Notes  
IEPA form LPC-662







LEGEND

Symbol	Description
(Symbol)	(Description)
(Symbol)	(Description)

**Hey and Associates, Inc.**  
 Engineering, Ecology and Landscape Architecture  
 26575 West Commonwealth Drive, Suite 601  
 Overland Park, KS 66205  
 Phone: (913) 746-8888  
 Fax: (913) 746-8888  
 Email: [Voulp@heyassoc.com](mailto:Voulp@heyassoc.com)  
 Professional Director: Erik  
 License No. 184-002429

Arizona Boulevard Storm  
 Sewer  
 Hoffman Estates, Illinois

Drainage Plan

Project No.	Sheet No.	Scale
21-032	C2.1	1" = 40'

Concept Plan



MSET Project 21731

PROJECT: Arizona Blvd Storm Sewer

SITE LOCATION: Hoffman Estates, IL

BORING LOCATION: 1053356.542E, 1958001.809N

CLIENT: Hey & Associates

DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE		TESTS			REMARKS
				TYPE/ INTERVAL	NO.	N-VALUE Blows per ft.	Wc%	Dry Unit Weight, pcf	
0		TOPSOIL - Dark Brown and Black CLAY (6")	781.6						
		Brown Lean CLAY with Sand, CL, very stiff	781.1	SS	1	5	26		2.0 (Qp)
2.5		Brown Fat CLAY with Sand, CH, stiff	778.6	SS	2	9	36	77	1.82
5		Grey, trace Brown Fat CLAY, CH, stiff	776.1	SS	3	2	41	77	1.16
7.5		Brown and Grey Lean CLAY with Sand, CL, stiff	773.6	SS	4	13	18	111	1.98
10		Grey Lean CLAY with Sand, CL, hard to very stiff	771.1	SS	5	10	21	105	4.46
12.5				SS	6	14	19	96	2.99
15		End of Boring at 15.0'	766.6						

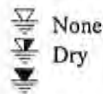
pH = 7.89

WATER LEVEL OBSERVATIONS, ft.

DURING DRILLING:

IMMEDIATELY AFTER DRILLING:

DELAYED READING AFTER



MSET

BORING STARTED: 12/16/21




BORING COMPLETED: 12/16/21

LOGGED BY: MF

BORING METHOD: HSA

PROJECT: Arizona Blvd Storm Sewer SITE LOCATION: Hoffman Estates, IL  
 BORING LOCATION: 1053433.124E, 1957872.467N CLIENT: Hey & Associates

DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE		TESTS			REMARKS	
				TYPE/ INTERVAL	NO.	N-VALUE Blows per ft.	Wc%	Dry Unit Weight, pcf		Unconfined Compressive Strength, tsf
0		TOPSOIL - Black CLAY (7")	781.5							
		Black Lean CLAY with Sand, CL, very stiff	780.9	SS	1	11	29	79	2.41	pH = 7.88
2.5		Brown Lean CLAY with Sand, CL, hard to very stiff	778.5	SS	2	7	22	101	4.42	
				SS	3	12	21	91	3.76	
5				SS	4	17	19	108	6.40	
				SS	5	10	20	95	3.26	
7.5				SS	6	7	21	105	3.57	
10		Grey Lean CLAY with Sand, CL, hard to very stiff	773.5							
12.5										
15		End of Boring at 15.0'	766.5							

WATER LEVEL OBSERVATIONS, ft.  
 DURING DRILLING:  None  
 IMMEDIATELY AFTER DRILLING:  Dry  
 DELAYED READING AFTER 






BORING STARTED: 12/16/21  
 BORING COMPLETED: 12/16/21  
 LOGGED BY: MF  
 BORING METHOD: HSA

PROJECT: Arizona Blvd Storm Sewer SITE LOCATION: Hoffman Estates, IL  
 BORING LOCATION: 1053609.424E, 1957870.963N CLIENT: Hey & Associates

DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE		TESTS			REMARKS
				TYPE/ INTERVAL	NO.	N-VALUE Blows per ft.	Wc%	Dry Unit Weight, pcf	
0		TOPSOIL - Black CLAY (8")	780.2						
		Light Grey and Brown Lean CLAY with Sand, CL, very stiff	779.5						
2.5				SS	1	6	20	104	2.83
5				SS	2	6	22	93	3.22
7.5				SS	3	9	22	101	4.50
10				SS	4	9	23	88	2.10
12.5		Grey Lean CLAY with Sand, CL, very stiff to stiff	769.7						
				SS	5	6	22	102	2.83
15				SS	6	6	22	99	1.82
		End of Boring at 15.0'	765.2						

pH = 7.70

WATER LEVEL OBSERVATIONS, ft.  
 DURING DRILLING:  None  
 IMMEDIATELY AFTER DRILLING:  Dry  
 DELAYED READING AFTER 



BORING STARTED: 12/16/21  
 BORING COMPLETED: 12/16/21  
 LOGGED BY: MF  
 BORING METHOD: HSA

PROJECT: Arizona Blvd Storm Sewer SITE LOCATION: Hoffman Estates, IL  
 BORING LOCATION: 1053780.71E, 1957855.452N CLIENT: Hey & Associates

DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE		TESTS			REMARKS
				TYPE/ INTERVAL	NO.	N-VALUE Blows per ft.	Wc%	Dry Unit Weight, pcf	
0	TOPSOIL	TOPSOIL - Black CLAY (7")	778.8						
0		Brown Lean CLAY with Sand, CL, stiff to hard	778.2						
2.5				SS	1	9	16	93	1.48
5				SS	2	10	19	109	5.28
7.5				SS	3	11	20	93	4.97
10				SS	4	15	22	103	5.66
12.5		Grey Lean CLAY with Sand, CL, very stiff to hard	768.3						
12.5				SS	5	10	20	94	3.61
15				SS	6	14	20	107	4.50
15		End of Boring at 15.0'	763.8						

pH = 7.83

WATER LEVEL OBSERVATIONS, ft. DURING DRILLING:  None IMMEDIATELY AFTER DRILLING:  Dry DELAYED READING AFTER:  None	 <b>MSET</b>	BORING STARTED: <u>12/16/21</u> BORING COMPLETED: <u>12/16/21</u> LOGGED BY: <u>MF</u> BORING METHOD: <u>HSA</u>
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PROJECT: Arizona Blvd Storm Sewer



SITE LOCATION: Hoffman Estates, IL

BORING LOCATION: 1054003.636E, 1957799.036N

CLIENT: Hey & Associates

DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE			TESTS			REMARKS
				TYPE/ INTERVAL	NO.	N-VALUE Blows per ft.	Wc%	Dry Unit Weight, pcf	Unconfined Compressive Strength, tsf	
0		TOPSOIL - Black CLAY (8- 1/2")	776.8							
2.5		Brown and Grey Lean CLAY with Sand, CL, very stiff sand seam at 2.0'	776.1	SS	1	12	26		2.0 (Qp)	
5		Brown and Grey Sandy Lean CLAY, (SC), stiff to soft	773.8	SS	2	4	23	86	1.0 Qp	
7.5		Brown and Grey Lean CLAY with Sand, CL, very stiff	771.3	SS	3	6	22		3.0 (Qp)	
10		Grey Lean CLAY with Sand, CL, very stiff	768.8	SS	4	9	20	95	3.69	
12.5				SS	5	10	20	105	3.88	
15				SS	6	11	21	96	2.56	
		End of Boring at 15.0'	761.8							

pH = 8.07




WATER LEVEL OBSERVATIONS, ft.  
 DURING DRILLING:  None  
 IMMEDIATELY AFTER DRILLING:  Dry  
 DELAYED READING AFTER



BORING STARTED: 12/16/21  
 BORING COMPLETED: 12/16/21  
 LOGGED BY: MF  
 BORING METHOD: HSA

PROJECT: Arizona Blvd Storm Sewer SITE LOCATION: Hoffman Estates, IL  
 BORING LOCATION: 1054237.084E, 1957723.863N CLIENT: Hey & Associates

DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE		TESTS			REMARKS
				TYPE/ INTERVAL	NO.	N-VALUE Blows per ft.	Wc%	Dry Unit Weight, pcf	
0		TOPSOIL - Black CLAY (8")	775.0						
		Brown and Grey Lean CLAY with Sand, CL, very stiff to hard	774.3	SS	1	8	18	91	2.41
2.5									
				SS	2	8	19	105	6.83
5									
		Grey Sandy Lean CLAY, SC moist at 6.0'	769.5	SS	3	7	23		
7.5									
		Grey Lean CLAY with Sand, CL, very stiff	767.0	SS	4	8	22	105	2.79
10									pH = 7.42
				SS	5	7	22	97	2.56
12.5									
		moist at 13.5'		SS	6	9	18	110	2.79
15		End of Boring at 15.0'	760.0						

WATER LEVEL OBSERVATIONS, ft.  
 DURING DRILLING:  None  
 IMMEDIATELY AFTER DRILLING:  Dry  
 DELAYED READING AFTER  None



BORING STARTED: 12/16/21  
 BORING COMPLETED: 12/16/21  
 LOGGED BY: MF  
 BORING METHOD: HSA



## GENERAL NOTES

### PARTICLE SIZE DESCRIPTION & TERMINOLOGY

Coarse Grained or Granular Soils have more than 50% of their dry weight retained on a #200 sieve; they are described as: boulders, cobbles, gravel or sand. Fine Grained soils have less than 50% of their dry weight retained on a #200 sieve; they are described as: clays or clayey silts if they are cohesive and silts if they are non-cohesive. In addition to gradation, granular soils are defined on the basis of their relative in-place density and the fine grained soils on the basis of their strength or consistency and their plasticity.

Major Component of Sample	Size Range	Descriptive Term of Components Also Present in Sample	Approximate Quantity (Percent)
Boulders	Over 8 in. (200 mm)	Trace	1 - 9
Cobbles	8 inches to 3 inches (200 mm to 75mm)		
Gravel	3 inches to #4 sieve (75mm to 4.75mm)	Little	10 - 19
Sand	#4 to #200 sieve (4.75mm to 0.075mm)	Some	20 - 34
Silt	Passing #200 sieve (0.075mm to 0.002mm)	And	35 - 50
Clay	Smaller than 0.002mm		

### RELATIVE DENSITY AND CONSISTENCY CLASSIFICATION

#### GRANULAR SOILS

DENSITY CLASSIFICATION	APPROXIMATE RANGE OF N *
Very Loose	0 - 3
Slightly Dense	4 - 9
Medium Dense	10 - 29
Dense	30 - 49
Very Dense	50 - 80
Extremely Dense	80 +

#### COHESIVE SOILS

CONSISTENCY	UNCONFINED COMPRESSIVE STRENGTH, $Q_u$ - TSF	APPROXIMATE RANGE OF N *
Very Soft	0.25	0 - 2
Soft	0.25 - 0.49	3 - 4
Firm	0.50 - 0.99	5 - 8
Stiff	1.00 - 1.99	9 - 15
Very Stiff	2.00 - 3.99	16 - 30
Hard	4.00 - 8.00	31 - 50
Very Hard	8.00 +	Over 50

\* STANDARD PENETRATION TEST (ASTM D1586) - A 2.0" outside-diameter, split barrel sampler is driven into undisturbed soil by means of a 140 pound weight falling freely through a vertical distance of 30 inches. The sampler is normally driven 3 successive 6 inch increments. The total number of blows required for the final 12 inches of penetration is the Standard Penetration Resistance (N).



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Source Site Certification by Owner or Operator for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-662

Revised in accordance with 35 Ill. Adm. Code 1100, as  
amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by source site owners and operators to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1) (A), that soil (i) was removed from a site that is not potentially impacted property and is presumed to be uncontaminated soil and (ii) is within a pH range of 6.25 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: Arizona Boulevard Storm Sewer Office Phone Number, if available: N/A

Physical Site Location (Street, Road): Arizona Boulevard, Cumberland Street to Chandler Street

City: Hoffman Estates State: IL Zip Code: 60169

County: Cook Township: Schaumburg

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.041627 Longitude: -88.076967  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Hoffman Estates Public Works

Name: Hey & Associates, Inc

Street Address: 2305 Pembroke Avenue

Street Address: 8755 W. Higgins Road, Suite 835

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Hoffman Estates State: IL

City: Chicago State: IL

Zip Code: 60169 Phone: (847) 490-6800

Zip Code: 60631 Phone: \_\_\_\_\_

Contact: \_\_\_\_\_

Contact: Patrick Lach

Email, if available: PublicWorks@HoffmanEstaes.org

Email, if available: plach@heyassoc.com

Project Name: Sycamore Golf Club  
Latitude: 42.041627 Longitude: -88.076967  
(Decimal Degrees) (-Decimal Degrees)

**Source Site Certification**

**III. Descriptions of Current and Past Uses of Source Site**

Describe the current and past uses of the site and nearby properties.\* Attach additional information as needed. The description must take into account, at a minimum, the following for the source site and for nearby property: (1) use of the properties for commercial or industrial purposes; (2) the use, storage or disposal of chemical or petroleum products in individual containers greater than 5 gallons or collectively more than 50 gallons; (3) the current or past presence of any storage tanks (above ground or underground); (4) any waste storage, treatment or disposal at the properties; (5) any reported releases or any environmental cleanup or removal of contaminants; (6) any environmental liens or governmental notification of environmental violations; (7) any contamination in a well that exceeds the Board's groundwater quality standards; (8) the use, storage, or disposal of transformers or capacitors manufactured before 1979; and (9) any fill dirt brought to the properties from an unknown source or site.

Number of pages attached: \_\_\_\_\_

Soil sample was obtained from soil borings made for the project. Samples were transported to the laboratory for pH testing.

\*The description must be sufficient to demonstrate that the source site is not potentially impacted property, thereby allowing the source site owner or operator to provide this certification.

**IV. Soil pH Testing Results**

Describe the results of soil pH testing showing that the soil pH is within the range of 6.25 to 9.0 and attach any supporting documentation.

Number of pages attached: 1

pH testing meets the requirements herein, see attached pH soil report dated 12/27/21.

**V. Source Site Owner, Operator or Authorized Representative's Certification Statement and Signature**

In accordance with the Illinois Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I William Wyzgala (owner, operator or authorized representative of source site) certify that this site is not a potentially impacted property and the soil is presumed to be uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. I further certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. Additionally, I certify that I am either the site owner or operator or a duly authorized representative of the site owner or site operator and am authorized to sign this form. Furthermore, I certify that all information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

- Owner
- Owner's Duly Authorized Representative
- Operator
- Operator's Duly Authorized Representative

William Wyzgala  
Printed Name  
William Wyzgala  
Signature

1/6/22  
Date

pH of Soil  
ASTM D 4972/ AASHTO T289

Project # 21731  
Project Name: Arizona Blvd Storm Sewer  
Location Hoffman Estates, IL

Date Received: 12/27/21  
Date Tested: 12/28/21  
Tested by: MN

Sample# B-1: SS-2 (3.5-5')

pH   Distilled Water  
 CaCl

Sample# B-5: SS-2 (3.5-5')

pH   Distilled Water  
 CaCl

Sample# B-2: SS-2 (3.5-5')

pH   Distilled Water  
 CaCl

Sample# B-6: SS-4 (8.5-10')

pH   Distilled Water  
 CaCl

Sample# B-3: SS-3 (6-7.5')

pH   Distilled Water  
 CaCl

Sample# \_\_\_\_\_

pH   Distilled Water  
 CaCl

Sample# B-4: SS-3 (6-7.5')

pH   Distilled Water  
 CaCl

Sample# \_\_\_\_\_

pH   Distilled Water  
 CaCl



# HOFFMAN ESTATES

GROWING TO GREATNESS

March 11, 2022

**SUBJECT: VILLAGE OF HOFFMAN ESTATES  
ARIZONA BLVD STORM SEWER REPLACEMENT PROJECT**

To Whom It May Concern:

This letter is meant to clarify some questions and concerns regarding the Arizona Blvd Storm Sewer Replacement Project. This is not considered an addendum, but an additional resource for your information and consideration.

1. Trench Backfill specification does not state materials to be used for Trench Backfill. Detail on Sheet C6.2 calls for CA-7. Is this correct?

*Yes, Trench Backfill materials specified for the project is CA-7 as per Trench Backfill detail.*

2. Is Trench Backfill included in the unit cost for Water Service Line.

*Yes, the Special Provision for Water Service Line states that the unit price shall include "all work necessary to complete the work", including Trench Backfill. See Trench Backfill Detail..*

3. The Special Provision and detail for Water Service Line includes removal of the old water service line corp at the main and installation of a stainless steel repair sleeve over the old tap in the water main. This work may require a water main shut down in accordance with the project specifications. Is this correct?

*Yes, the work specified is correct and a water shut down will be required to perform work. As stated in the project specifications work shall be scheduled in an efficient manner to reduce the amount of water main shutdowns needed for the project.*

4. The details for storm sewer structures require "boots" for all sewer pipe connections. Is this correct?  
*No, Addendum #1 revises the details for storm sewer structures; manhole, catch basin, and inlet.*

5. Is the Contractor responsible for construction staking and layout for the project?

*No, the Village (Owner/Engineer) is responsible for construction staking and layout.*

The above clarifications have been made to assist you in preparing your bid. Thank you for your consideration.

Sincerely,

Alan Wenderski, P.E.  
Director of Engineering