

ADDENDUM No. 2

ITB No. 4563

Hoover, Greene, & Hill Improvement Project

Bids Due: March 8, 2019 at 10:00 A.M. (Local Time)

The following changes, additions, and/or deletions shall be made to the Invitation to Bid for Hoover, Greene, & Hill Improvement Project, ITB No. 4563, on which proposals will be received on/or before March 8, 2019, at 10:00 A.M. (local time).

The information contained herein shall take precedence over the original documents and all previous addenda (if any), and is appended thereto. **This Addendum includes 44 pages total.**

Bidder is to acknowledge receipt of this Addendum No. 2, including all attachments (if any) in its Bid by so indicating on page ITB-1 of the Invitation to Bid Form. Bids submitted without acknowledgment of receipt of this addendum will be considered nonconforming.

The following forms provided within the ITB document must be included in submitted bids:

- City of Ann Arbor Prevailing Wage Declaration of Compliance
- City of Ann Arbor Living Wage Ordinance Declaration of Compliance
- Vendor Conflict of Interest Disclosure Form
- City of Ann Arbor Non-Discrimination Ordinance Declaration of Compliance

Bids that fail to provide these completed forms listed above upon bid opening will be rejected as non-responsive and will not be considered for award.

I. CORRECTIONS/ADDITIONS/DELETIONS

Changes to the Bid document which are outlined below are referenced to a page or Section in which they appear conspicuously. The Bidder is to take note in its review of the documents and include these changes as they may affect work or details in other areas not specifically referenced here.

Section/Page(s)

Change

BF-1 thru BF-5 Delete pages BF-1 through BF-5 of the bid form pages of the contract documents. Replace these pages with BF-1-R1 through BF-5-R1 that are pages ADD-2-6 through ADD-2-14 of this addendum. In addition, the following pay item was modified and/or added.

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Est. Quantity</u>
240	Non-Hazardous Contam'd Mat'l Handling and Disposal (LM)	CYD	200
283	Conduit, Directional Bore, 3 inch	Ft	2,942

- C-1 Delete Article III (B) and replace with “(B) The entire work for this Contract shall be completed within One Hundred Ninety-Four (194) consecutive calendar days.”
- C-1 Delete “\$2,500.00” from Article III (C) and replace with “\$1,300.00”.
- DS-11 thru DS-13 Delete the existing Detailed Specification entitled “Progress Schedule.” Replace with the Detailed Specification entitled “Progress Schedule” dated February 22, 2019. This detailed specification is pages ADD-2-15 through ADD-2-17 of this addendum.

Comment: The Detailed Specification has been revised for the extended construction timeframe and staging changes.

- DS-19 thru DS-27 Delete the existing Detailed Specification entitled “Maintaining Traffic and Construction Sequencing.” Replace with the Detailed Specification entitled “Maintaining Traffic and Construction Sequencing” dated February 22, 2019. This detailed specification is pages ADD-2-18 through ADD-2-26 of this addendum.

Comment: The Detailed Specification has been revised for the extended construction timeframe and staging changes.

- DS-87 Delete “with a maximum loss by washing of 8%” from the existing Detailed Specification entitled “Subbase and Aggregate Base” section b.

Comment: The Detailed Specification has been revised to remove the 8% loss by wash of the 21AA limestone aggregate.

- ADD-27 thru
ADD-29 Add the Detailed Specification entitled “Non-Hazardous Contaminated Material.” This Detailed Specification shall become page DS-164 through DS-166 of the contract documents. This detailed specification is ADD-2-27 through ADD-2-29 of this addendum.

Comment: The Detailed Specification is being added as it was inadvertently omitted from the originally published contract documents.

Section/Page(s) **Change**

- Plan Sheet 1 of 83 Updated Sheet List Table to include modified sheets and additional maintenance of traffic plan sheets. This plan sheet is dated 02/22/19 and designated as part of Addendum No. 2.
- Plan Sheet 3 of 83 Added Non-Hazardous Contam’d Mat’l Handling and Disposal (LM) pay item to Note Sheet. The Contractor shall note that the quantities on this sheet have been revised from those as presented on the revised bid forms and shall update them as appropriate.

Plan Sheet 32 of 83 Remove plan sheet 32, "Water Main Plan and Profile – Hill Street", and replace with plan sheet 32 dated 02/22/19 and designated Addendum No. 2 (copy attached). Changes as noted on sheet. Dimension added in profile view below track to top of conduit and jack and bore casing pipe. Dual 3-inch conduits shall be bored under tracks. Additional signs required at railroad ROW (to be installed by City).

Plan Sheet 37 of 83 Remove plan sheet 37, "Water Main Plan & Profile – Hoover Ave Stat 10+00 to Sta 14+00" and replace with plan sheet 37 dated 02/22/19 and designated Addendum No.2 (copy attached). Changes as noted on sheet. Dimension added in profile view below track to top of jack and bore casing pipe. Additional signs required at railroad ROW (to be installed by City).

Plan Sheet 71 of 83 Remove sheet 71 and replace with "Hoover MOT – Westbound Lane" plan sheet 71 dated 02/22/19 and designated Addendum No. 2 (copy attached). Changes as noted on sheet.

Comment: The plan sheet has been revised for the extended construction timeframe and staging changes.

Plan Sheet 72 of 83 Remove sheet 72 and replace with "Hoover MOT – Eastbound Lane" plan sheet 72 dated 02/22/19 and designated Addendum No. 2 (copy attached). Changes as noted on sheet.

Comment: The plan sheet has been revised for the extended construction timeframe and staging changes.

Plan Sheet 73 of 83 Remove sheet 73 and replace with "Hoover MOT – Railway Closure" plan sheet 73 dated 02/22/19 and designated Addendum No. 2 (copy attached). Changes as noted on sheet.

Comment: The plan sheet has been revised for the extended construction timeframe and staging changes.

Plan Sheet 74 of 83 Remove sheet 74 and replace with "Main Street MOT at Hoover" plan sheet 74 dated 02/22/19 and designated Addendum No. 2 (copy attached). Changes as noted on sheet.

Comment: The plan sheet has been revised for the extended construction timeframe and staging changes.

Plan Sheet 75 of 83 Remove sheet 75 and replace with "State Street MOT at Hoover" plan sheet 75 dated 02/22/19 and designated Addendum No. 2 (copy attached). Changes as noted on sheet.

Comment: The plan sheet has been revised for the extended construction timeframe and staging changes.

Plan Sheet 76 of 83 Remove sheet 76 and replace with "Keech-Greene MOT Southbound

Lane” plan sheet 76 dated 02/22/19 and designated Addendum No. 2 (copy attached). Changes as noted on sheet.

Comment: The plan sheet has been revised for the extended construction timeframe and staging changes.

Plan Sheet 76A of 83 Add sheet 76A “Keech-Greene MOT Northbound Lane” dated 02/22/19 and designated Addendum No. 2 (copy attached). Changes as noted on sheet.

Comment: The plan sheet has been revised for the extended construction timeframe and staging changes.

Plan Sheet 77 of 83 Remove sheet 77 and replace with “Hill Street Detour – Fifth Open” plan sheet 77 dated 02/22/19 and designated Addendum No. 2 (copy attached). Changes as noted on sheet.

Comment: The plan sheet has been revised for the extended construction timeframe and staging changes.

Plan Sheet 77A of 83 Add sheet 77A “Hill Street Detour – Fifth Closed” dated 02/22/19 and designated Addendum No. 2 (copy attached). Changes as noted on sheet.

Comment: The plan sheet has been revised for the extended construction timeframe and staging changes.

Plan Sheet 83 of 83 The Contractor shall note that the quantities on this sheet have been revised from those as presented on the revised bid forms and shall update them as appropriate.

II. QUESTIONS AND ANSWERS

The following Questions have been received by the City. Responses are being provided in accordance with the terms of the ITB. Offerors are directed to take note in their review of the documents of the following questions and City responses as they affect work or details in other areas not specifically referenced here.

Question 1: Does the project adhere to the 8% wash requirement identified in the subbase and aggregate base specification?

Answer 1: *Requirement for maximum loss by washing of 8% of the aggregate base will be removed from this project and the corresponding pay item will be clarified in this addendum.*

Question 2: What is the required fill material for the exploratory excavation areas?

Answer 2: *Approved backfill material(s) as specified by the indicated Trench Detail.*

Question 3: How far back will joints have to be restrained for the water main capping (if required) at both bore pit locations?

Answer 3: *Cut and cap water main, install thrust block if possible, provide restrained joints at the first two location upstream of cap. This work shall be included in the pay item “6 inch Water Main Abandon”.*

Question 4: Will a non-hazardous specification and pay item be added to project?

Answer 4: Yes.

Question 5: Is there a fee (or can it be waived) for the water main corps in gate wells?

Answer 5: *There is a fee and it will not be waived. The Contractor is responsible for submitting payment.*

Question 6: Can the Hoover and Hill water main jack and bores be constructed simultaneously?

Answer 6: No.

Question 7: The construction timeframe to have the project completed by August 20, 2019 is too tight. Can the project timeframe be extended?

Answer 7: *Yes. The project is being extending into the Fall 2019 with a completion date of November 15, 2019.*

Question 8: Will the Pre-Bid meeting sign in sheet be made available?

Answer 8: *Yes. The Pre-Bid Meeting Notes and sign-in sheet are attached to this Addendum.*

Respondents are responsible for any conclusions that they may draw from the information contained in the Addendum.

BID FORM

Section 1 – Schedule of Prices

Company: _____

Project: **Hoover, Greene, & Hill Improvement Project**

City of Ann Arbor File No.: 2018-031

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
130	Protective Fencing	Ft	2,000	_____	_____
140	Exploratory Excavation, (0-10 ft. deep) (Trench Det 1, Modified)	Ea	16	_____	_____
201	Certified Payroll Compliance and Reporting	LSUM	1	_____	_____
202	General Conditions, Max <u>\$370,000.00</u>	LSUM	1	_____	_____
203	Audio-visual Recording	LSUM	1	_____	_____
204	Traffic Regulator Control	LSUM	1	_____	_____
205	Barricade, Type III, High Intensity, Lighted, Furn & Oper	Ea	20	_____	_____
206	Channelizing Device, 42 inch, High Intensity, Furn & Oper	Ea	225	_____	_____
207	Plastic Drum, High Intensity, Furn & Oper	Ea	55	_____	_____
208	Sign, Type B, Temp, Prismatic, Special, Furn & Oper	Sft	500	_____	_____
209	Sign, Type A, Temp, Prismatic, Furn & Oper	Sft	60	_____	_____
210	Sign, Type B, Temp, Prismatic, Furn & Oper	Sft	1,400	_____	_____
211	Lighted Arrow, Type C, Furn & Oper	Ea	4	_____	_____
212	Sign, Portable, Changeable Message, NTFCIP- Compliant, Furn & Oper	Ea	4	_____	_____
213	Remove Special Marking	Sft	300	_____	_____
214	Concrete Barrier, Temp, Furn & Oper	Ft	100	_____	_____
215	Sign Cover	Ea	10	_____	_____
216	Pedestrian Barrier with Fence, Temp	Ft	100	_____	_____
217	Pedestrian Type II Barricade, Temp	Ea	30	_____	_____
218	Pedestrian Type II Channelizer, Temp	Ft	300	_____	_____
219	Pedestrian Path, Temp	Ft	100	_____	_____
220	Pedestrian Ramp, Temp	Ea	6	_____	_____
221	Pavt Mrkg, Sprayable Thermopl, 4 inch, Yellow	Ft	8,000	_____	_____
221	Pavt Mrkg, Sprayable Thermopl, 4 inch, White	Ft	4,200	_____	_____
222	Pavt Mrkg, Thermoplastic, 24 inch Stop Bar	Ft	400	_____	_____
223	Pavt Mrkg, Thermopl, 12 inch Crosswalk	Ft	2,300	_____	_____

Sub-Total This Page \$ _____

BID FORM

Section 1 – Schedule of Prices

Company: _____

Project: **Hoover, Greene, & Hill Improvement Project**

City of Ann Arbor File No.: 2018-031

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
224	Pavt Mrkg, Ovly Cold Plastic, Railroad Sym	Ea	4	_____	_____
224	Pavt Mrkg, Ovly Cold Plastic, Bike Arrow Sym	Ea	11	_____	_____
224	Pavt Mrkg, Ovly Cold Plastic, Bike Sym	Ea	11	_____	_____
224	Pavt Mrkg, Ovly Cold Plastic, Sharrow Sym	Ea	10	_____	_____
224	Pavt Mrkg, Ovly Cold Plastic, Rt Arrow Sym	Ea	7	_____	_____
224	Pavt Mrkg, Ovly Cold Plastic, Lt Arrow Sym	Ea	7	_____	_____
226	Minor Traffic Devices, Max <u>\$180,000.00</u>	LSUM	1	_____	_____
228	Parking Meters, Remove	Ea	7	_____	_____
229	Erosion Control, Inlet Filter	Ea	65	_____	_____
230	Sewer, Any Size or Depth, Rem	Ft	2,500	_____	_____
231	Dr Structure, Any Size or Depth, Rem	Ea	21	_____	_____
233	Curb and Gutter, Any Type or Size, Rem	Ft	4,000	_____	_____
234	Sidewalk and Ramps, Remove	Sft	10,300	_____	_____
235	Driveway Approach, Remove	Sft	2,600	_____	_____
236	Pavement, Remove	Syd	16,400	_____	_____
238	Machine Grading, Modified, Greene	Sta	13.5	_____	_____
238	Machine Grading, Modified, Hill	Sta	5.75	_____	_____
238	Machine Grading, Modified, Hoover	Sta	27	_____	_____
240	Non-Hazardous Contam'd Mat'l Handling & Disposal	Cyd	200	_____	_____
241	Subgrade Undercutting, Type IIB	Cyd	200	_____	_____
242	Structure Covers, Special	Lbs	39,800	_____	_____
243	6 inch, Wrapped Underdrain	Ft	3,500	_____	_____
244	Aggregate Base Course, 21AA, Modified	Ton	6,350	_____	_____
245	Maintenance Gravel, 21AA, Modified	Ton	500	_____	_____
246	Flowable Fill (Backfill)	Cyd	30	_____	_____
250	Curb and Gutter, Conc, Match Existing, Special	Ft	1,550	_____	_____
251	Curb and Gutter, Conc, AA Det SD-R-1, Special	Ft	1,800	_____	_____

Sub-Total This Page \$ _____

BID FORM

Section 1 – Schedule of Prices

Company: _____

Project: **Hoover, Greene, & Hill Improvement Project**

City of Ann Arbor File No.: 2018-031

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
252	Driveway Opening, Conc, Detail M, P-NC	Ft	650	_____	_____
255	Sidewalk, Concrete, 4 inch, Special	Sft	2,850	_____	_____
255	Sidewalk, Concrete, 6 inch, Special	Sft	80	_____	_____
256	Sidewalk Ramp, Concrete, 6 inch, Special	Sft	1,000	_____	_____
257	Sidewalk, Concrete, 8 inch, S2 Special	Sft	5,280	_____	_____
258	Sidewalk Ramp, Concrete, 8 inch, S2 Special	Sft	1,090	_____	_____
259	Drive Approach, Conc, 6 inch, Non-Reinf	Sft	2,000	_____	_____
260	Concrete Drive Approach, 8 inch, Non-Reinf, P-NC	Sft	600	_____	_____
261	Detectable Warning Surface, Modified	Ft	341	_____	_____
263	Sidewalk, Conc or Clay Brick Pavers, Rem and Reinstall	Sft	360	_____	_____
264	Cold Milling HMA Surface, Modified	Syd	1,050	_____	_____
265	Hand Patching, Modified	Ton	50	_____	_____
266	HMA, 3E1	Ton	2,790	_____	_____
267	HMA, 4E1	Ton	1,370	_____	_____
268	HMA, 5E1	Ton	1,860	_____	_____
270	No Parking Sign	Ea	120	_____	_____
272	Irrigation System, Protection and Maintenance	LSUM	1	\$10,000.00	\$10,000.00
274	Project Clean-Up and Restoration, Special - Greene	LSUM	1	_____	_____
274	Project Clean-Up and Restoration, Special - Hill	LSUM	1	_____	_____
274	Project Clean-Up and Restoration, Special - Hoover	LSUM	1	_____	_____
276	Topsoil Surface, 4 inch	Syd	1,200	_____	_____
277	Seeding and Mulching	Syd	1,200	_____	_____
278	Storm Control Structure, R1	Each	1	_____	_____
278	Storm Control Structure, R2	Each	1	_____	_____
278	Storm Control Structure, R3	Each	1	_____	_____
278	Storm Control Structure, R97-51067	Each	1	_____	_____

Sub-Total This Page \$ _____

BID FORM

Section 1 – Schedule of Prices

Company: _____

Project: **Hoover, Greene, & Hill Improvement Project**

City of Ann Arbor File No.: 2018-031

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
281	Pedestrian Light, Remove and Re-Install	Each	2	_____	_____
282	Handhole Assembly, 12 inch x 18 inch	Ea	17	_____	_____
283	Conduit, Directional Bore, 3 inch	Ft	2,942	_____	_____
284	D.I., CI-56, Water Main, w/Poly Wrap, 12 inch, Bored in Steel Casing	Ft	232	_____	_____
285	PC 350, D.I. Water Main, w/Poly Wrap, 12 inch, Tr Det I, Mod	Ft	3,297	_____	_____
285	PC 350, D.I. Water Main, w/Poly Wrap, 4 inch, Tr Det I, Mod	Ft	17	_____	_____
285	PC 350, D.I. Water Main, w/Poly Wrap, 8 inch, Tr Det I, Mod	Ft	105	_____	_____
286	90 deg Bend, 12 inch	Ea	2	_____	_____
286	45 deg Bend, 12 inch	Ea	80	_____	_____
286	22.5 deg Bend, 12 inch	Ea	2	_____	_____
286	11.25 deg Bend, 12 inch	Ea	2	_____	_____
286	90 deg Bend, 4 Inch	Ea	1	_____	_____
287	Reducer, 12 inch x 6 inch	Ea	14	_____	_____
287	Reducer, 8 inch x 6 inch	Ea	8	_____	_____
288	Tee, 12 inch x 12 inch x 12 inch	Ea	12	_____	_____
288	Tee, 12 inch x 12 inch x 10 inch	Ea	1	_____	_____
288	Tee, 12 inch x 12 inch x 4 inch	Ea	1	_____	_____
288	Tee, 12 inch x 12 inch x 6 inch	Ea	1	_____	_____
288	Tee, 12 inch x 12 inch x 8 inch	Ea	8	_____	_____
289	Fire Hydrant Assy, w/Extensions, Complete	Ea	9	_____	_____
290	Gate Valve-in-Box, 12 inch	Ea	6	_____	_____
290	Gate Valve-in-Box, 4 inch	Ea	1	_____	_____
291	Gate Valve-in-Well, 12 inch	Ea	14	_____	_____
292	Tapping Sleeve, 16 inch x 16 inch x 12 inch, Valve and Box	Ea	1	_____	_____
292	Tapping Sleeve, 10 inch x 10 inch x 4 inch, Valve and Box	Ea	1	_____	_____
293	Line Stop, Ductile Iron Pipe, 8 inch	Ea	1	_____	_____
293	Line Stop, Ductile Iron Pipe, 6 inch	Ea	7	_____	_____
294	6 inch Water Main, Abandon	Lft	4,966	_____	_____

Sub-Total This Page \$ _____

BID FORM

Section 1 – Schedule of Prices

Company: _____

Project: **Hoover, Greene, & Hill Improvement Project**

City of Ann Arbor File No.: 2018-031

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
295	Water Main, Abandon w/Flowable Fill	Lft	145	_____	_____
296	Gate Valve-in-Box, Abandon	Ea	13	_____	_____
297	Gate Valve-in-Well, Abandon	Ea	10	_____	_____
298	Fire Hydrant, Rem	Ea	7	_____	_____
299	Tapping Sleeve, Valve and Well, Remove	Ea	1	_____	_____
320	RCP, Sewer, C76, CL-IV, 12 inch, Tr Det I	Ft	12	_____	_____
321	RCP, Sewer, C76, CL-IV, 15 inch, Tr Det I	Ft	40	_____	_____
322	RCP, Sewer, C76, CL- IV, 36 inch, Tr Det I	Ft	754	_____	_____
323	RCP, Sewer, C76, CL- IV, 48 inch, Tr Det I	Ft	491	_____	_____
335	SDR35, PVC Tee	Ea	2	_____	_____
350	SDR 35 PVC Riser	VFt	10	_____	_____
353	SDR 35 PVC Service Lead	Ft	40	_____	_____
360	Type I Manhole (0-10 ft. Deep)	Ea	2	_____	_____
361	Type I Manhole Add'l Depth	Vf	10	_____	_____
362	Type II Manhole (6' Dia.) (0-10 ft. deep)	Ea	8	_____	_____
363	Type II Manhole (6' Dia.) Add'l Depth	Vf	9	_____	_____
367	Single Inlet	Ea	6	_____	_____
460	Excavate & Backfill for Water Service Tap and Lead	Lft	400	_____	_____
564	Reconstruct Structure	Ea	3	_____	_____
566	Adjust Structure Cover	Ea	75	_____	_____
567	Adjust Monument Box or Gate Valve Box	Ea	4	_____	_____
568	Additional Depth Structure-Adjustment/Repair	Vft	20	_____	_____
703	Silt Fence	Ft	1,000	_____	_____

Sub-Total This Page \$ _____

Sub-Total Page BF-1 \$ _____

Sub-Total Page BF-2 \$ _____

Sub-Total Page BF-3 \$ _____

Sub-Total Page BF-4 \$ _____

Grand Total Bid **\$ _____**

BID FORM

Section 2 – Material, Equipment and Environmental Alternates

The Base Bid proposal price shall include materials and equipment selected from the designated items and manufacturers listed in the bidding documents. This is done to establish uniformity in bidding and to establish standards of quality for the items named.

If the Contractor wishes to quote alternate items for consideration by the City, it may do so under this Section. A complete description of the item and the proposed price differential must be provided. Unless approved at the time of award, substitutions where items are specifically named will be considered only as a negotiated change in Contract Sum.

If an environmental alternative is bid the City strongly encourages bidders to provide recent examples of product testing and previous successful use for the City to properly evaluate the environmental alternative. Testing data from independent accredited organizations are strongly preferred.

<u>Item Number</u>	<u>Description</u>	<u>Add/Deduct Amount</u>
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If the Bidder does not suggest any material or equipment alternate, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any material or equipment alternate under the Contract.

Signature of Authorized Representative of Bidder _____ Date _____

BID FORM

Section 3 - Time Alternate

If the Bidder takes exception to the time stipulated in Article III of the Contract, Time of Completion, page C-2, it is requested to stipulate below its proposed time for performance of the work. Consideration will be given to time in evaluating bids.

If the Bidder does not suggest any time alternate, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any time alternate under the Contract.

Signature of Authorized Representative of Bidder _____ Date _____

BID FORM

Section 4 - Major Subcontractors

For purposes of this Contract, a Subcontractor is anyone (other than the Contractor) who performs work (other than or in addition to the furnishing of materials, plans or equipment) at or about the construction site, directly or indirectly for or on behalf of the Contractor (and whether or not in privity of Contract with the Contractor), but shall not include any individual who furnishes merely the individual's own personal labor or services.

Contractor agrees that all subcontracts entered into by the Contractor shall contain similar wage provision to Section 4 of the General Conditions covering subcontractor's employees who perform work on this contract.

For the work outlined in these documents the Bidder expects to engage the following major subcontractors to perform the work identified:

<u>Subcontractor (Name and Address)</u>	<u>Work</u>	<u>Amount</u>
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If the Bidder does not expect to engage any major subcontractor, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT expect to engage any major subcontractor to perform work under the Contract.

Signature of Authorized Representative of Bidder _____ Date _____

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
PROGRESS SCHEDULE

WT:VCM/CEW

1 of 3

02/22/19

a. Description.- Examination of Plans, Specifications, and Work Site: Bidders shall carefully examine the Bid Form, plans, specifications and the work site until the Bidder is satisfied as to all local conditions affecting the contract and the detailed requirements of construction. The submission of the bid shall be considered prima facie evidence that the Bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and all requirements of the contract.

The entire work under this Contract shall be completed in accordance with, and subject to, the scheduling requirements as outlined below, and all other requirements of the Contract Documents.

1. By no later than **April 22, 2019** the Contractor shall submit a detailed schedule (Gantt chart) of work for the Engineer's review and approval. The proposed schedule must fully comply with the scheduling requirements contained in this Detailed Specification. The Contractor shall update the approved work schedule each week and present it to the Engineer at the weekly progress meeting.
2. The Contractor will receive two (2) copies of the Contract, for his/her execution, on or before **April 22, 2019**. The Contractor shall properly execute both copies of the Contract and return them, with the required Bonds and Insurance Certificate, to the City by **April 29, 2019**.
3. Contractor may begin construction on the project on **May 6, 2019** and only after receiving the copy of executed contract documents and the Notice to Proceed from the City. Appropriate time extensions shall be granted if the Notice to Proceed is delayed due to the circumstances controlled by the City.
4. By **November 15, 2019** or within **one-hundred and ninety-four (194)** calendar days from the date of Notice to Proceed for the work on Hoover, Greene and Hill Improvement Project, the Contractor must install the new water main; all of the required service leads to the water main; all storm sewer and related work; and complete all the remaining work under this Contract for Hoover, Greene, & Hill Improvement Project including, but not limited to installation of the storm water structures, the restoration of all disturbed areas, permanent placement of hot mix asphalt and/or concrete, turf restoration, pavement markings, and the removal of any and all traffic control devices. Failure to complete all work as specified herein within the times specified herein, including time extensions granted thereto as determined by the Engineer, shall entitle the City to deduct from the payments due the Contractor "Liquidated Damages", and not as a penalty, for each and every calendar day beyond the allowed number of calendar days to complete the above specified work.

DS-11

ADD-2-15

b. Staging Sequence.- The work of this Contract is separated into three stages. The construction sequence for this project shall be as follows:

Stage 1 shall consist of Hoover Street, from Main Street to State Street, and Greene, from Hill Street to Keech Street constructed as part-width in two stages (**Stage 1A and 1C**), with WB Hoover, EB Keech, and NB Greene traffic detoured at all times.

The Main Street/Hoover intersection work will require a closure of NB Main Street traffic for one weekend; referred to as **Stage 1D**. The detour will be to Pauline Boulevard, to Seventh Street, to Madison Street. SB Main Street traffic will be reduced to one lane. All lanes must be open to traffic by the end of the day.

The State Street/Hoover Ave intersection work will be completed in one week and will require a full closure of EB Hoover Ave at this intersection. State Street will maintain one lane in each direction; referred to as **Stage 1E**. EB Hoover Ave will be detoured to Division Street, to Hill Street, to State Street.

Stage 1C shall consist of Hoover Avenue being closed down for six (6) weeks between Greene Road and Division Street to allow for the water main jack-and-bore installation, water main work, storm sewer work, gas line installation, 3-inch conduit installation, and related road and sidewalk construction. Hoover Closure shall begin on or after May 6, 2019. Hoover Closure and related work cannot overlap with Hill Street Closure and related work.

Stage 2 shall consist of work on Greene and Keech Street. Greene and Keech work shall be performed using part-width construction and maintain one-lane of one-way traffic operations. Greene and Keech will maintain southbound and westbound traffic and detour northbound and eastbound traffic, respectively. The detour will utilize Main Street to Hoover Ave for Keech, and Main Street to Hill Street for Greene. The contractor will remove and reinstall the westbound stop bar at Hill Street and Main Street intersection, as directed by the Engineer, to accommodate right turns by large vehicles. Northbound Greene and eastbound Keech is closed at all times with construction in two stages (**Stages 2A and 2B**) – one stage to construct each bound of traffic.

Stage 3 shall consist of the full road closure of Hill Street, from near Adams Street to Fifth Avenue. Closure shall begin after completion of Stage 1C and can occur simultaneously with Stage 1 and 2 work with approval from Engineer and installation of applicable maintenance of traffic control devices. Closure can be no longer than six (6) weeks in duration.

In order to allow sufficient time to complete the road construction of the project, any water main installation not begun by October 1, 2019 may, at the sole discretion of the Engineer, be postponed until the following construction season, or eliminated from this Contract entirely. If any portion of the project is postponed or eliminated, the Contractor must still complete all work on the remaining portion of the project, including paving up through the wearing course, within the current construction season. The Contractor will not

be entitled to receive any additional compensation for the elimination or postponement of work from the enactment of this contract clause.

The Contractor may propose to adjust the limits or sequencing of construction in order to complete the work more efficiently. Changes to the recommended construction sequence must be approved in writing by the Engineer prior to construction and must assure all required coordination with other projects and time lines.

The City will not allow any shut down of existing water mains without prior written approval of construction methods and timing of shut down, by the City of Ann Arbor and the Engineer. All water main valves are to be operated by City of Ann Arbor personnel.

Time is of the essence in the performance of the work of this contract. The Contractor is expected to mobilize sufficient personnel and equipment, and work throughout all authorized hours in order to complete the project by the final completion date. Costs for the Contractor to organize, coordinate, and schedule all of the work of the project, will not be paid for separately, but shall be included in the bid price of the Contract Item "General Conditions, Max. \$_____"

Failure to complete all work as specified herein within the times specified herein, including time extensions granted thereto as determined by the Engineer, shall entitle the City to deduct from the payments due the Contractor, "Liquidated Damages", and not as a penalty, for delays in the completion of the work for each and every calendar day beyond the completion date for each sub-phase, as detailed in the phasing above.

Liquidated Damages will be assessed until the required work is completed in the current construction season. If, with the Engineer's approval, work is extended beyond seasonal limitations, the assessment of Liquidated Damages will be discontinued until the work is resumed in the following construction season.

MEASUREMENT AND PAYMENT

Costs for the Contractor to organize, coordinate, and schedule all of the work of the project, will not be paid for separately, but shall be included in the bid price of the Contract Item "**General Conditions, Max.\$_____**" If the City elects to terminate this Construction Contract due to non-performance, contract items paid for on a Lump Sum basis will be pro-rated based on percentage equal to the percentage of the contract work completed.

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
**MAINTAINING TRAFFIC
AND
CONSTRUCTION SEQUENCING**

WT:VCM/CEW

1 of 9

02/22/19

General.- Traffic shall be maintained in accordance with Sections 104.11, 810, 811, 812, 919, and 920 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, the 2011 edition of the Michigan Manual of Uniform Traffic Control Devices (MMUTCD) as amended, applicable supplemental specifications, as directed by the Engineer, except as herein provided.

The following, and herein included, Michigan Department of Transportation (MDOT) Maintaining Traffic Typical and Work Zone Device Details apply to the project: M0020a, M0040a, M0110a, M0140a, M0231a, M0240a, WZD-100-A, and WZD-125-E.

These maintaining traffic provisions are subject to change in the event of special community activities.

The Contractor shall furnish, erect, maintain and upon completion of the work remove all traffic control devices and warning lights within the project and around the perimeter of the project for the safety and protection of through and local traffic. This includes, but is not limited to; advance, regulatory, and warning signs; barricades and channeling devices at intersecting streets on which traffic is to be maintained; barricades at the ends of the project and at right-of-way lines of intersecting streets, temporary concrete barriers, temporary pedestrian paths and ramps, and moving traffic control devices for construction operations.

Materials.- The materials and equipment shall meet the requirements specified in the sections designated of the MDOT 2012 Standard Specifications for Construction, the MMUTCD, and all Special Provisions contained in these Contract Documents.

All signs shall be of sizes shown on the plans, unless otherwise directed by the Engineer. Install temporary signs that are to remain in the same place for 14 days or more on driven posts. Install all other temporary signs on portable supports. All signs shall have a minimum bottom height of 7.0 feet.

Channelizing devices required for all lane closures shall be plastic drums. 42 inch channelizing devices are permissible with approval from the Engineer.

Cold Patching Material shall meet the requirements of the City of Ann Arbor Standard Specifications for Construction and as approved by the Engineer.

DS-19

ADD-2-18

Permits.- Prior to the start of construction, the Contractor shall obtain a "Right-of-Way" Permit from City of Ann Arbor Planning and Development Services and a "Lane Closure" Permit from City of Ann Arbor Project Management Services Unit. The fees for these permits will be waived. The lane closure permit must be obtained at least 48 hours in advance of any proposed street or lane closing. Other permits are required.

Work Restrictions.- Only perform work on Sunday if it is of an emergency nature or if it is necessary to ensure vehicular and pedestrian traffic safety, and only perform it with prior approval by the City.

Perform no construction activities or interruptions to traffic, including lane closures, on Sundays and during the Memorial Day, U-M Graduations, Independence Day, Labor Day, U-M Move-In Days, and holiday periods unless otherwise authorized by the Engineer. Contractor to coordinate with City and U-M on these and other restricted dates and provide detailed Gantt chart detailing work schedule. All streets and sidewalks that can be open shall be open to motorized and non-motorized traffic. The Engineer will also not permit any trucking on or off site during these times.

During non-working periods, any area with uncompleted work shall have plastic drums at specific locations and protective fencing, as directed by the Engineer, and at no additional cost to the project.

Do not impact traffic on major streets between the hours of 7:00 a.m. to 9:00 a.m. and from 3:30 p.m. to 6:00 p.m. unless otherwise approved by the Engineer or as specified on the Lane Closure Permit. Make all major changes in traffic control either between 9:00 a.m. and 3:30 p.m. or between 6:00 p.m. and 7:00 a.m. in order to minimize interference with rush hour traffic. All traffic controls must be in place and ready for traffic each day by 7:00 a.m. and 3:30 p.m. The Engineer will permit temporary obstruction of traffic for loading and unloading of trucks if the Contractor provides traffic regulators (flag persons) in conformance with Part VI of the MMUTCD. During temporary obstructions, a minimum of two traffic regulators are required.

Maintain access to businesses, residences, and side street(s) within the CIA for the duration of the project. The Contractor shall make every effort to coordinate its operations to minimize interruptions that may impact this access. The Contractor shall notify the Engineer forty-eight (48) hours in advance of any work planned on or near business or residential driveways, and stage work so that it is part-width when it is necessary to work in these areas. The Engineer will not allow the Contractor to prohibit access to businesses and residences during any phase of construction, unless agreed upon with the property owner(s). The Engineer may require traffic regulator (flag) control at its discretion and will direct the Contractor to provide it when necessary to maintain safe access to businesses, residences, and side street(s).

Construction Influence Area (CIA).- The CIA shall include the area from POB to POE within the Right-of-way of Greene St., Hoover Ave., and Hill St. The CIA shall also

include the affected portions of the driveways along and contiguous with these roadways.

In addition, the CIA shall include the rights-of-way of all roadway segments used for detours and all locations that contain advance warning and/or regulatory signs, pavement markings, plastic drums, traffic delineators, and all other project related traffic maintenance items. The CIA shall also include those portions of private property outside of the roadway Rights-of-way as shown in the plans within the "Water Main Easement" areas.

Police and Fire.- The Contractor shall notify local police, fire departments and emergency response units a minimum of three business days (72 hours) prior to the closure of any roads, or traffic shifts causing restricted movements of traffic or restricted access.

Work Performed by City of Ann Arbor Signs and Signals Unit.- No additional or extra compensation will be paid for any delays caused by City of Ann Arbor Signs and Signals.

Signal Modifications

Signal timing and phasing modifications are anticipated for construction at the State Street and Hoover Avenue intersection. Modifications may also be required at the Main Street and Hill Street intersection, and the Main Street and Pauline Street intersection. Contractor shall coordinate work with the City ahead of changes in the traffic control.

Sign Reinstallation

As necessary during construction, the Contractor shall be responsible for logging the legend and location of any signs that:

1. Must be removed to facilitate the construction process;
2. Are to be permanently removed, or;
3. Are to be permanently relocated.

City of Ann Arbor Signs and Signals will remove and store the signs. After construction is complete, but before opening any roadway to traffic, Signs and Signals will reinstall all signs in their proper, permanent location. To coordinate sign removal and installation/reinstallation, the Contractor shall notify the Signs and Signals Unit at least five (5) working days (Monday-Friday) in advance of when the sign work will need to be completed. It is the responsibility of the Contractor to ensure that City of Ann Arbor Signs and Signals Unit is scheduled, kept apprised of the progress of construction, and notified a second time immediately (4 working hours) prior to the need to complete the sign work. The removal and installation/reinstallation of all signs shall be completed by the City of Ann Arbor Signs and Signals Unit.

Maintenance of Traffic, General.- Unless otherwise indicated on the drawings, residential side streets shall not be closed to through traffic except during construction operations of short duration and only with written approval of the Engineer.

The Contractor shall maintain at least one lane of through traffic along each street during the course of the Project's construction during non-working hours. Lane width shall be a minimum of 10 feet wide. Contractor shall schedule work in order to maintain traffic flow and under no circumstances stop traffic for prolonged periods as determined by the Engineer. The Contractor shall suspend work within the CIA during peak traffic hours and/or when construction activities are unduly hampering or delaying traffic flow as determined by the Engineer.

Mailboxes requiring relocation due to construction shall be removed and reset immediately by the Contractor in a temporary location approved by the Engineer and meeting the requirements of the United States Postal Service. This work shall be included in the contract pay item "General Conditions, Max. \$_____".

The Contractor shall coordinate his operations with all Utilities, Contractors and/or sub-Contractors performing work on this and other projects within, or adjacent to, the Construction Influence Area (CIA). The contractor shall avoid conflicts in maintaining traffic operations, signing, and orderly progress of other contract work.

Maintenance.- A minimum of one (1) driveway shall be maintained at all times to all residences and businesses. Walks, driveways, and entrances to houses shall not be blocked. Vehicular and pedestrian access shall be maintained to all properties.

Exploratory Excavations, utility crossings, and all other openings created by the Work over which vehicular traffic will be maintained shall receive a minimum cover of 3 inches of Cold-Patching material that is thoroughly compacted in place.

Signs and Pavement Markings.- When lane closures are in place, the Contractor shall completely cover all conflicting warning, regulatory and guide signs in accordance with Section 812.03.D.2 of the Standard Specifications for Construction, 2012 edition, and all applicable details therein.

Construction.- This provision does not detail all the project work. It is intended to indicate major project requirements and assist the Contractor in developing, for the review and approval of the Engineer, the Progress Schedule for the project.

The Contractor shall notify the Engineer a minimum of 5 working days prior to the implementation of any detours, road closures, ramp or lane closures, and major traffic shifts. The Contractor shall also notify City of Ann Arbor Signs and Signals regarding

signal work as specified in the section entitled "Work Performed by City of Ann Arbor Signs and Signals Unit."

Contractor required to perform dewatering required to construct utilities. All storm sewer on mainline systems shall be reconnected prior to leaving the work site each day to maintain drainage flows. If contractor cannot reconnect the piping system at the end of each day, then the Contractor shall provide, install, and maintain bypass pumping equipment, operations and related supervision at no additional cost.

Stage 1: Hoover Avenue Work & Detour Routes

Hoover Ave work shall be performed using part-width construction and maintain one-lane of one-way traffic operations.

Hoover Avenue will maintain eastbound traffic and detour westbound traffic. The westbound detour will utilize State Street to Packard to Hill Street to Main Street.

Channelizing devices will be used to close the left turn lane (with sign R3-2) NB State St and right turn lane (with sign R3-1) on SB State St to prevent wrong way traffic on Hoover.

The contractor will use channelizing devices to close off the westbound left turn lane at Hill Street and Main Street intersection, as directed by the Engineer, to accommodate right turns by large vehicles.

Westbound Hoover is closed at all times with construction in two stages (**Stages 1A and 1B**) – one stage to construct each bound of traffic.

Coordinate maintenance of traffic with Division resurfacing project.

Maintain traffic operations at the Hoover/Greene/Keech intersection, Main Street/Hoover intersection, and State Street/Hoover intersection at all times.

The Main Street/Hoover intersection work will require a closure of NB Main Street traffic for one weekend; referred to as **Stage 1D**. The detour will be to Pauline Boulevard, to Seventh Street, to Madison Street. SB Main Street traffic will be reduced to one lane. All lanes must be open to traffic by the end of the day.

The State Street/Hoover Ave intersection work will be completed in one week and will require a full closure of EB Hoover Ave at this intersection. State Street will maintain one lane in each direction; referred to as **Stage 1E**. EB Hoover Ave will be detoured to Division Street, to Hill Street, to State Street.

Stage 1C: Hoover Avenue Full-Closure & Detour Routes

DS-23

ADD-2-22

Hoover Avenue will be closed down for six (6) weeks between Greene Road and Division Street to allow for the water main jack-and-bore installation, water main work, storm sewer work, gas line installation, 3-inch conduit installation, and related road and sidewalk construction.

Hoover Closure shall begin on or after May 6, 2019. Hoover Closure and related work cannot overlap with Hill Street Closure and related work.

Division Street must be open to 2-way traffic flow from Hill Street to Hoover Avenue.

The detours for Hoover Avenue will remain in effect. An additional detour will be required along Greene to Hill Street, to Division and returning to Hoover Avenue.

Maintain traffic operations at the Hoover/Greene/Keech intersection, Main Street/Hoover intersection, and State Street/Hoover intersection at all times.

Stage 2: Greene/Keech Street Work & Detour Routes

Greene and Keech work shall be performed using part-width construction and maintain one-lane of one-way traffic operations.

Greene and Keech will maintain southbound and westbound traffic and detour northbound and eastbound traffic, respectively. The detour will utilize Main Street to Hoover Ave for Keech, and Main Street to Hill Street for Greene. The contractor will remove and reinstall the westbound stop bar at Hill Street and Main Street intersection, as directed by the Engineer, to accommodate right turns by large vehicles.

Northbound Greene and eastbound Keech is closed at all times with construction in two stages (**Stages 2A and 2B**) – one stage to construct each bound of traffic.

Coordinate maintenance of traffic with Division resurfacing project.

Maintain traffic operations at the Hoover/Greene/Keech intersection, and Hill St/Hoover intersection at all times.

Stage 3: Hill Street Full-Closure & Detour Routes

Hill Street will be closed down for six (6) weeks between Adams Avenue and Fifth Avenue to allow for the water main jack-and-bore installation, water main work, dual 3-inch conduit installation, and related road and sidewalk construction.

Hill Closure shall begin after the Stage 1C work is completed and reopened to one-way traffic. Hill Closure and related work cannot overlap with Hoover Avenue Closure and related work.

Eastbound and westbound Hill detours will be routed on Hill-Madison-Main Street.

The intersection at Hill and Fifth shall remain open to traffic at all times. The contractor will be allowed to close the Hill/Fifth intersection for one weekend (within the 6-week closure) to perform pavement removals, water main, service, and connection installations, aggregate placement, paving, restorations, and related work. Detours to be modified and routed on Hill, Division, Madison, and Main Street during this intersection closure.

Pedestrians and Bicyclists

If the work involves closing a bicycle lane, BICYCLE (sym) W11-1 and SHARE THE ROAD W16-1P will be used to direct bicycle traffic into the vehicular lane.

For work on the north side of Hoover, a pedestrian detour is used and detours pedestrians to the south side of Hoover. When the south side of Hoover is under construction, every other pedestrian crossing must be maintained. Use the included typical to close the appropriate crossings.

For work affecting pedestrian crossings, use the included typical details to maintain pedestrian traffic.

Major Work Tasks - The following major work tasks are included in each stage of work:

1. Implement the traffic control as shown on the project plans, and as directed by the Engineer for this stage of the construction. Coordinate with the City of Ann Arbor Signs and Signals Unit as needed.
2. Install all needed soil erosion and sedimentation control measures. The Contractor shall install only those devices necessary to perform the work of this particular stage or to meet the appropriate Federal, State, or Local regulations.
3. Remove only road and sidewalk surfaces necessary to facilitate utility construction using part-width construction. Maintain HMA road surface for travel and pedestrian sidewalk access.
4. Install water main, test, accept, connect to system and install leads. The Contractor shall provide reasonable access for vehicles and pedestrians to all residences at all times during construction.
5. Install water services. The Contractor is to maintain traffic at all times. The lead trench shall be backfilled and compacted to asphalt surface and maintained.
6. Coordinate with DTE gas line installation.

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ADD-2-24

7. Install storm water sewer and manholes and related sanitary sewer improvements.
8. Install 3-inch conduits, handholes, and related work.
9. Place and compact aggregate base course as directed by the Engineer.
10. Fine grade aggregate base course.
11. Construction of bituminous base course. Place HMA material as shown on the plans and as directed by the Engineer. Provide the needed traffic control devices to perform this work and maintain traffic as approved by the Engineer.
12. Completion of restoration and all other construction activities, except as indicated in the following line item.
13. Coordinate with City and install all signing. Temporarily cover signs in conflict with construction maintenance of traffic.
14. Construction of the bituminous wearing course:
 - a. Immediately prior to paving the wearing course, adjust structure covers.
 - b. Place bituminous wearing course. Provide the needed traffic control devices to perform this work and maintain traffic as approved by the Engineer.
 - c. Place any required pavement markings.
15. Install pavement markings.
16. Reasonable access to all side streets and driveways shall be maintained at all times. The Contractor is to coordinate construction in front of driveways, and the actual driveway construction (where applicable), with affected property owners as detailed elsewhere herein.

Bituminous Paving.- The Contractor shall perform the work of this Contract while maintaining traffic in accordance with Contract Documents as specified herein. No traffic shall be allowed on newly placed asphalt surfaces until rolling has been satisfactorily completed and the surface has cooled sufficiently to prevent damage from traffic. This is to be accomplished by traffic regulators (flag persons) and by relocating traffic control devices to prevent traffic from entering the work area until such time that traffic can be safely maintained without damaging the new construction. The Contractor shall provide traffic regulators in sufficient number to maintain traffic as described herein, and to keep traffic off sections being surfaced, and provide for safe travel at all times as directed by the Engineer.

Each pressure distributor, paver and roller shall be equipped with at least one approved flasher light which shall be mounted on the equipment so as to give a warning signal ahead and behind.

The paving of the top course shall be conducted under traffic by utilizing traffic regulators (flag persons), channelizing devices and signs in accordance with Part VI of the current edition of the Michigan Manual of Uniform Traffic Control devices (MMUTCD) as amended. The installation and removal of minor traffic control devices needed for the maintenance of traffic during the paving of final wearing course and the furnishing of traffic regulators shall be paid as "Minor Traffic Devices" and "Traffic Regulator Control" as appropriate.

Measurement and Payment.- The estimated quantities for maintaining traffic is based on the maintenance of traffic plans. Any additional signing, traffic control devices, pavement markings, or the like required to expedite the construction, beyond that which is specified, shall be at the Contractor's sole expense.

The completed work as measured shall be paid at the contract unit price for the following contract pay items:

<u>Contract Pay Item</u>	<u>Pay Unit</u>
Item 204: Traffic Regulator Control	Lump Sum
Item 205: Barricade, Type III, High Intensity, Lighted, Furn & Oper	Each
Item 206: Channelizing Device, 42 inch, High Intensity, Furn & Oper	Each
Item 207: Plastic Drums, High Intensity, Furn & Oper	Each
Item 208: Sign, Type B, Temp, Prismatic, Special, Furn & Oper.....	Square Foot
Item 209: Sign Type A, Temp, Prismatic, Furn & Oper	Square Foot
Item 210: Sign, Type B, Temp, Prismatic, Furn & Oper	Square Foot
Item 211: Lighted Arrow, Type C, Furn & Oper	Each
Item 212: Sign, Portable, Changeable Message, NTFICIP-Compliant, Furn & Oper .	Each
Item 213: Remove Special Marking.....	Square Foot
Item 214: Concrete Barrier, Temp, Furn & Oper	Feet
Item 215: Sign Cover.....	Each

The unit price for this item of work shall include all labor, material, and equipment costs required to perform the work specified herein and includes both furnishing and operating the devices.

CITY OF ANN ARBOR
SPECIAL PROVISION
FOR
NON-HAZARDOUS CONTAMINATED MATERIAL

WT:VCM/CEW

1 of 3

02/22/19

a. Description. This work shall include all labor, equipment, laboratory testing, and materials necessary to handle, transport, and dispose of non-hazardous contaminated material as described herein, as shown on the plans, and as directed by the Engineer.

If non-hazardous contaminated soils within the roads rights-of-way on Hoover, Hill and Greene are encountered, then these soils shall not be used elsewhere or disposed of in a manner inconsistent with this special provision, or applicable federal, state, or local regulations unless otherwise directed by the Engineer.

b. Method of Construction. This work shall be performed in accordance with Sections 204 and 205 of the MDOT 2012 Standard Specifications for Construction, and City of Ann Arbor standards, except as modified herein or as directed by the Engineer.

The Contractor shall have all manifests signed by its representative, the Engineer's representative, the authorized representative of the waste hauler and the waste disposal facility.

c. Excavation of Non-Hazardous Contaminated Material. Non-Hazardous contaminated material shall be excavated as shown on the plans and/or as directed by the Engineer.

d. Temporary Storage of Non-Hazardous Contaminated Material. Excavated non-hazardous contaminated material which is to be temporarily stockpiled shall be placed on plastic sheeting or tarps having a minimum thickness of 6 mils or in trucks, roll-off boxes, or other containers, such that no liquid may escape from the containment. At the end of each work day, the non-hazardous contaminated material shall be covered securely with plastic sheeting of 6 mils thickness or greater.

Excavated non-hazardous material shall be disposed of as soon as approval is received from the disposal site. In no case shall this material be stockpiled for longer than 30 days prior to disposal.

The Contractor is responsible for the necessary coordination such that his/her work activities are not adversely impacted by the stockpiling of contaminated soil. Stockpiled soil shall not impair sight distance or drainage.

e. Sampling and Analysis of Non-Hazardous Contaminated Material. The Contractor shall be responsible for all sampling and analysis required for the disposal of non-hazardous contaminated material. The analysis required shall be dictated by the Type II disposal facility to be utilized for disposal.

If the results of the analysis show the material to be hazardous, as defined by Part 111, of the Natural Resources and Environmental Act, Act 451, P.A. 1994, the Engineer shall be notified immediately. The material shall then be disposed of as directed by the Engineer.

f. Disposal of Non-Hazardous Contaminated Material. Disposal of non-hazardous contaminated material shall be at a licensed Type II sanitary landfill. The Contractor shall submit at the preconstruction meeting the name of the Type II landfill to be used for disposal, the sampling and analysis requirements of the landfill, and verification that the use of the proposed landfill will meet the requirements of the County solid waste plan.

The disposal must be acceptable to the City and therefore approval must be obtained from the Engineer prior to commencing disposal operations. Prior to obtaining approval for the disposal from the City, the Contractor shall provide a copy of the laboratory analysis to the Engineer.

g. Measurement and Payment. The completed work as described will be paid for at the contract unit price for the following contract item (pay item):

<u>Contract Item (Pay Item)</u>	<u>Pay Unit</u>
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Item 240: Non-Hazardous Contam'd Mat'l Handling & Disposal (LM).....	Cubic Yard
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Non-Hazardous Contaminated Material Handling and Disposal will be measured by volume in cubic yards, loose measure, as contained in the hauling unit. Under no circumstance will the Contractor be paid for quantities of this material that have not been approved for payment by the Engineer and as measured and tracked by the Engineer and the Contractor. The Contractor will not be paid "standard amounts" that have been determined by the disposal facility; only measured volumes as computed by the Engineer will be paid. Prior to payment, the Engineer shall be given receipts from the disposal facility for the number of cubic yards disposed of at that facility. Payment shall include all costs for materials, labor and equipment needed for storage, loading, transportation, and disposal of the non-hazardous contaminated material. Disposal costs shall include all documentation required by the landfill. Payment for this item shall be the same, regardless of whether or not the Contractor temporarily stores the contaminated material; the Contractor shall not be paid for re-handling of the material due to construction staging, stockpiling, or other related activities.

Payment for excavation and handling of non-hazardous contaminated materials shall be included with the related items of work.

Hoover, Greene, & Hill Improvement Project

Pre-Bid Meeting Minutes

February 8, 2019

2:00 p.m. @ 6th Floor Conference Room, City Hall

I. Introductions

This project consists of the replacement of water main within Hoover Street (from Main to State) and Hill Street (Adams to Fifth) and storm sewer work within Hoover Street and Greene Avenue. After each road segment is completed, the streets will be resurfaced. There are specified segments of curb and gutter, and sidewalk and ramps replacement. Water main casing shall be jack and bored under the railroad crossings on Hill and Hoover. There is also a 3-inch conduit directional bore as part of this project.

II. Addendum Items

- a. Addendum #1 – to be issued by Friday, February 15th with following:
 - i. Pre-Bid minutes, including sign in sheet
 - ii. City Wage Rate information
 - iii. Other updates

III. General

- a. Project Overview
 - i. Questions Due – Feb 13, 2019 @ 2:00 p.m.
 - ii. Bid Opening – Feb 22, 2019 @ 2:00 p.m.
 - iii. Project Area & Scope of work
- b. Standard Specifications and Detailed Specifications
 - i. Progress Schedule
 - 1. Detailed Schedule - April 8, 2019
 - 2. Bonds & Insurance Certificates – April 15, 2019
 - 3. Starting Date – April 22, 2019
 - 4. Completion Date – August 20, 2019
 - 5. Hours of work: 7:00 a.m. to 8:00 p.m. Monday thru Saturday (Sundays with permission)
 - ii. General Conditions were discussed.
 - iii. Utility Clause were reviewed for anticipated projects in the area, as listed in the detailed specification.
 - iv. Railroad Requirements were discussed.
 - v. Machine Grading was discussed.
 - vi. Water Main and Appurtenances (Installation & Testing) was reviewed.
 - vii. Special Concerns (local traffic access, tree protection...)

IV. Construction

- a. Utility Construction
 - i. Water Main & Railroad crossings
 - 1. Installation and Testing
 - 2. Exploratory excavation
 - ii. Storm sewer & edge drain

1. Exploratory excavation
 - iii. Communication Conduit
- b. Road Rehabilitation and Paving
 - i. Aggregate Base Course
 - ii. HMA - 3 layer pavement section
- c. Sidewalk and ADA Ramps – ADA compliance MUST be achieved at all locations
- d. Landscape Items and Restoration
 - i. Tree protection
 - ii. Topsoil and Hydroseeding
- e. Construction Phasing was discussed and consideration for extending the construction timeframe will be reviewed and reported in future addendum.
- f. Maintenance of Traffic during construction
 - i. Phase I, IA & IB Discussion
 - ii. Portable Changeable Message Boards will need to be setup 10 days prior to the establishment of the detour routes.
 - iii. Contractor responsible for maintaining access to driveways and sidewalks during construction and notifying residents/owners when access will be unavailable (i.e. during paving, concrete work).
 - iv. Coordination w/ City, U-M, and applicable agencies, residents, and owners.

V. Other Items

- a. Coordination with DTE on their gas line installation in Hoover between Main Street to Division was discussed.
- b. Schedule was discussed further and City to consider extending project into the fall of 2019.
- c. For specific contractor questions and answers discussed during the pre-bid meeting see Addendum #2.

Contact Information:

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Project Manager
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Fax: (734) 994-1744
E-mail: cwall@a2gov.org

PRE-PROPOSAL MEETING SIGN-IN SHEET

PROJECT:

**Hoover, Greene & Hill Improvement Project
ITB #4563**

File No.: 2018-031

Date: February 8, 2019

PLEASE PRINT (All information needs to be filled in to receive meeting minutes)

NAME	REPRESENTING	MAILING ADDRESS	TELEPHONE	EMAIL
Chris Wall Project Manager	City of Ann Arbor - Engineering	Address: <u>301 E. Huron St., P.O. Box 8647</u> City, State: <u>Ann Arbor, MI</u> Zip: <u>48107-8647</u>	Direct: (734) <u>794-6410, x43661</u> Mobile: Fax: (734) 996-3064	cwall@a2gov.org
Nick Hutchinson City Engineer	City of Ann Arbor - Engineering	Address: <u>301 E. Huron St., P.O. Box 8647</u> City, State: <u>Ann Arbor, MI</u> Zip: <u>48107-8647</u>	Direct: (734) <u>794-6000, x43633</u> Mobile: Fax: (734) 994-1744	NHutchinson@a2gov.org
Vaughn Martin Lead Project Engr	Wade Trim (City Consultant)	Address: <u>2521 Northline Rd</u> City, State: <u>Taylor, MI</u> Zip: <u>48180</u>	Office: (734) <u>947-2690</u> Mobile: () _____ Fax No. () _____	vmartin@wadetrim.com
John Heavy	Fonson	Address: <u>7644 Whitmore Lake Road</u> City, State: <u>Brighton, MI</u> Zip: <u>48116</u>	Office: (810) <u>231-5188</u> Mobile: (810) <u>522-7965</u> Fax No. (810) <u>231-5404</u>	Jheavy@Fonsoninc.com
Nick Wineka	Anglin Civil	Address: <u>13000 Newburgh Rd</u> City, State: <u>Livonia, MI</u> Zip: <u>48150</u>	Office: (248) <u>397-4200</u> Mobile: (810) <u>623-6482</u> Fax No. () _____	nick@anglincivil.com
Mike Haeussler	D.N. Higgins	Address: <u>3900 Travis Pointe Rd</u> City, State: <u>Ann Arbor, MI</u> Zip: <u>48108</u>	Office: (734) <u>996-9500</u> Mobile: (734) <u>260-1732</u> Fax No. () _____	mikeh@dnhiggins.com
John Niemiec	E.T. Mackenzie Company	Address: <u>6400 Jackson</u> City, State: <u>Ann Arbor, MI</u> Zip: <u>48103</u>	Office: (734) <u>761-5050</u> Mobile: (734) <u>216-0995</u> Fax No. (734) <u>761-5323</u>	jniemiec@mackenzieco.com
Jacob Bailey	Bailey Excavating	Address: <u>1073 Toro Dr</u> City, State: <u>Jackson, MI</u> Zip: <u>49201</u>	Office: (517) <u>750-3030</u> Mobile: (517) <u>750-0371</u> Fax No. (517) <u>750-1095</u>	JacobBailey@Bailey-Excavating.com

C:\pwork\mflanagan\0849816\1 COVER.dwg - _o2 standard bw.stb - Plot Date: 2/22/2019 11:49:10 AM

Sheet Number	Sheet Title
1	COVER
2	LEGEND
3	NOTES
4	OVERALL UTILITY PLAN
5	ALIGNMENT PLAN - HILL STREET
6	ALIGNMENT PLAN - GREENE STREET STA 0+00 TO STA 5+50
7	ALIGNMENT PLAN - GREENE STREET STA 5+50 TO STA 10+00
8	ALIGNMENT PLAN - GREENE STREET STA 10+00 TO STA 14+77
9	ALIGNMENT PLAN - HOOVER AVENUE STA 0+00 TO STA 5+00
10	ALIGNMENT PLAN - HOOVER AVENUE STA 5+00 TO STA 10+00
11	ALIGNMENT PLAN - HOOVER AVENUE STA 10+00 TO STA 15+00
12	ALIGNMENT PLAN - HOOVER AVENUE STA 15+00 TO STA 20+50
13	ALIGNMENT PLAN - HOOVER AVENUE STA 20+50 TO STA 26+14
14	TYPICAL SECTIONS - HILL STREET STA 0+29 TO STA 5+49
15	TYPICAL SECTIONS - GREENE STREET STA 0+83.24 TO STA 6+96.80
16	TYPICAL SECTIONS - GREENE STREET STA 7+90.43 TO STA 14+77.39
17	TYPICAL SECTIONS - HOOVER AVENUE STA 0+27 TO STA 7+40
18	TYPICAL SECTIONS - HOOVER AVENUE STA 7+40 TO STA 15+90
19	TYPICAL SECTIONS - HOOVER AVENUE STA 15+90 TO STA 25+94
20	SOIL EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS
21	WATER DETAILS
22	STORM DETAILS
23	STORM DETAILS
24	MISCELLANEOUS DETAILS
25	MISCELLANEOUS DETAILS
26	SESC AND REMOVAL PLAN - HILL STREET
27	SESC AND REMOVAL PLAN - GREENE STREET
28	SESC AND REMOVAL PLAN - GREENE STREET
29	SESC AND REMOVAL PLAN - HOOVER AVENUE
30	SESC AND REMOVAL PLAN - HOOVER AVENUE
31	SESC AND REMOVAL PLAN - HOOVER AVENUE
32	WATER MAIN PLAN AND PROFILE - HILL STREET
33	HILL WATER MAIN CONNECTIONS - ADAMS ST, GREENE ST, HYDRANTS
34	WATER MAIN PLAN AND PROFILE - HOOVER AVE STA 0+00 TO STA 3+00
35	WATER MAIN PLAN AND PROFILE - HOOVER AVE STA 3+00 TO STA 6+00
36	WATER MAIN PLAN AND PROFILE - HOOVER AVE STA 6+00 TO STA 10+00
37	WATER MAIN PLAN AND PROFILE - HOOVER AVE STA 10+00 TO STA 14+00
38	WATER MAIN PLAN AND PROFILE - HOOVER AVE STA 14+00 TO STA 18+00
39	WATER MAIN PLAN AND PROFILE - HOOVER AVE STA 18+00 TO STA 22+00
40	WATER MAIN PLAN AND PROFILE - HOOVER AVE STA 22+00 TO STA 26+22
41	HOOVER WATER MAIN CONNECTIONS - BROWN ST, GREENE ST
42	HOOVER WATER MAIN CONNECTIONS - UM, SYBIL ST, MARY ST
43	STORM PLAN & PROFILE - HOOVER AVE STA 0+00 TO STA 3+50
44	STORM PLAN & PROFILE - HOOVER AVE STA 3+50 TO STA 6+72
45	STORM PLAN & PROFILE - GREENE ST SOUTH STA 0+00 TO STA 3+50
46	STORM PLAN & PROFILE - GREENE ST SOUTH STA 3+50 TO STA 7+09
47	STORM PLAN & PROFILE - GREENE ST NORTH STA 0+00 TO STA 4+88
48	PAVING PLAN & PROFILE - HILL STREET
49	PAVING PLAN & PROFILE - GREENE STREET STA 0+00 TO STA 5+50
50	PAVING PLAN & PROFILE - GREENE STREET STA 5+50 TO STA 10+00
51	PAVING PLAN & PROFILE - GREENE STREET STA 10+00 TO STA 15+20
52	PAVING PLAN & PROFILE - HOOVER AVENUE STA 0+00 TO STA 5+00
53	PAVING PLAN & PROFILE - HOOVER AVENUE STA 5+00 TO STA 10+00
54	PAVING PLAN & PROFILE - HOOVER AVENUE STA 10+00 TO STA 15+00
55	PAVING PLAN & PROFILE - HOOVER AVENUE STA 15+00 TO STA 20+50
56	PAVING PLAN & PROFILE - HOOVER AVENUE STA 20+50 TO STA 26+14
57	PAVING PLAN & PROFILE - HOOVER AVENUE STA 25+00 TO POE
58	ADA RAMP DETAIL GRADES - HILL STREET
59	ADA RAMP DETAIL GRADES - GREENE STREET
60	ADA RAMP DETAIL GRADES - GREENE STREET
61	ADA RAMP DETAIL GRADES - HOOVER AVENUE
62	ADA RAMP DETAIL GRADES - HOOVER AVENUE
63	ADA RAMP DETAIL GRADES - HOOVER AVENUE
64	ADA RAMP DETAIL GRADES - HOOVER AVENUE
65	ADA RAMP DETAIL GRADES - HOOVER AVENUE
66	ADA RAMP DETAIL GRADES - HOOVER AVENUE
67	STRIPING AND SIGNAGE PLAN - HILL STREET
68	STRIPING AND SIGNAGE PLAN - GREENE STREET
69	STRIPING AND SIGNAGE PLAN - HOOVER AVE STA 0+00 TO STA 18+50
70	STRIPING AND SIGNAGE PLAN - HOOVER AVE STA 18+50 TO STA 26+14
71	HOOVER MOT - WESTBOUND LANE
72	HOOVER MOT - EASTBOUND LANE
73	HOOVER MOT - RAILWAY CLOSURE
74	MAIN STREET MOT AT HOOVER
75	STATE STREET MOT AT HOOVER
76	KEECH-GREENE MOT SOUTHBOUND LANE
76A	KEECH-GREENE MOT NORTHBOUND LANE
77	HILL STREET DETOUR - FIFTH OPEN
77A	HILL STREET DETOUR - FIFTH CLOSED
78	HOOVER PED DETOUR - NORTH
79	ALTERNATE PEDESTRIAN ROUTE (APR) DETOUR
80	ALTERNATE PEDESTRIAN ROUTE (APR) BYPASS
81	TPAR RAMPS
82	TPAR WALKWAY DEVICES
83	QUANTITY SHEET

CITY OF ANN ARBOR ENGINEERING

HOOVER, GREENE & HILL IMPROVEMENT PROJECT

BID No. ITB# 4563, FILE No. 2018-031

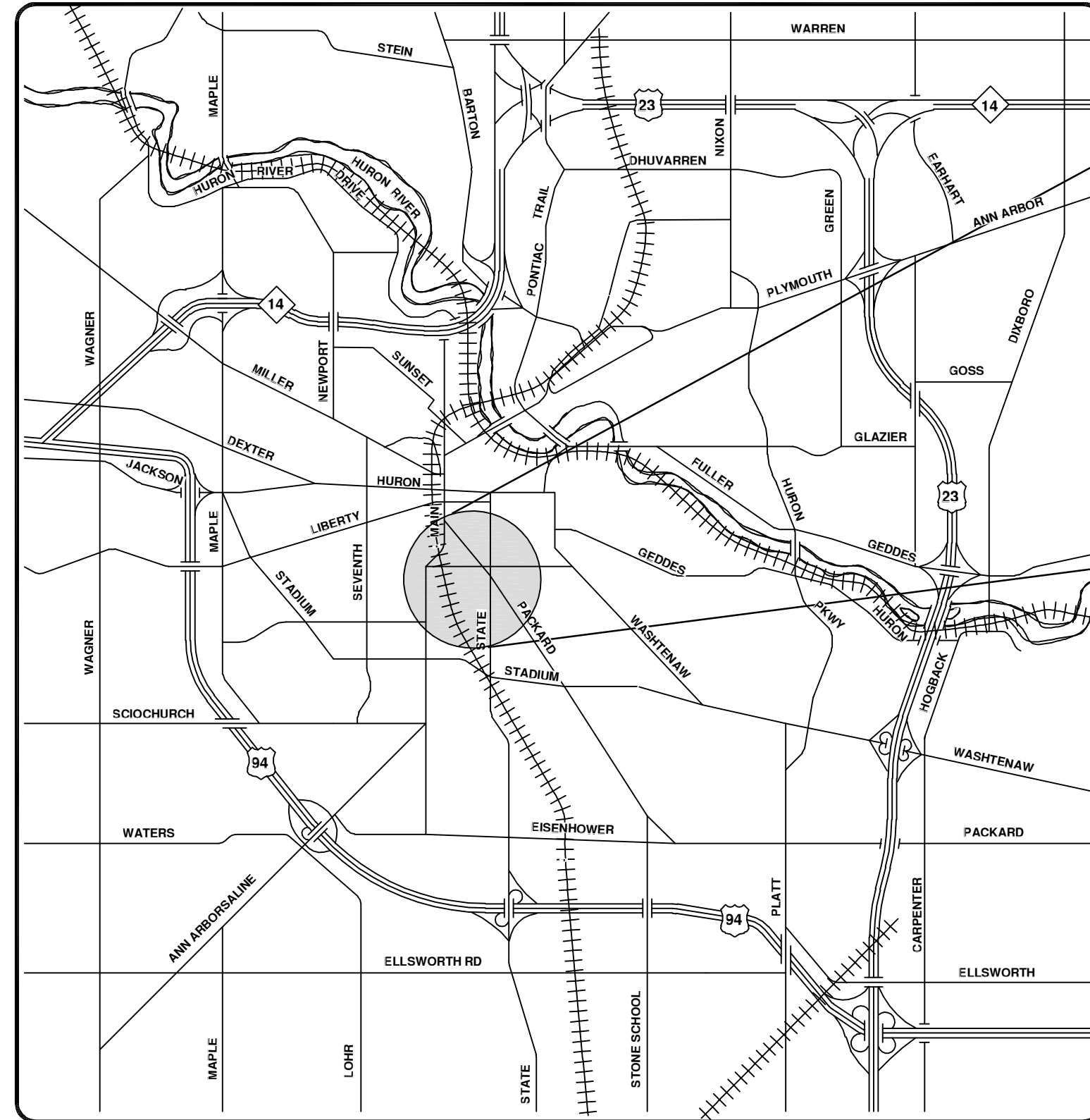
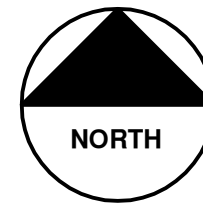


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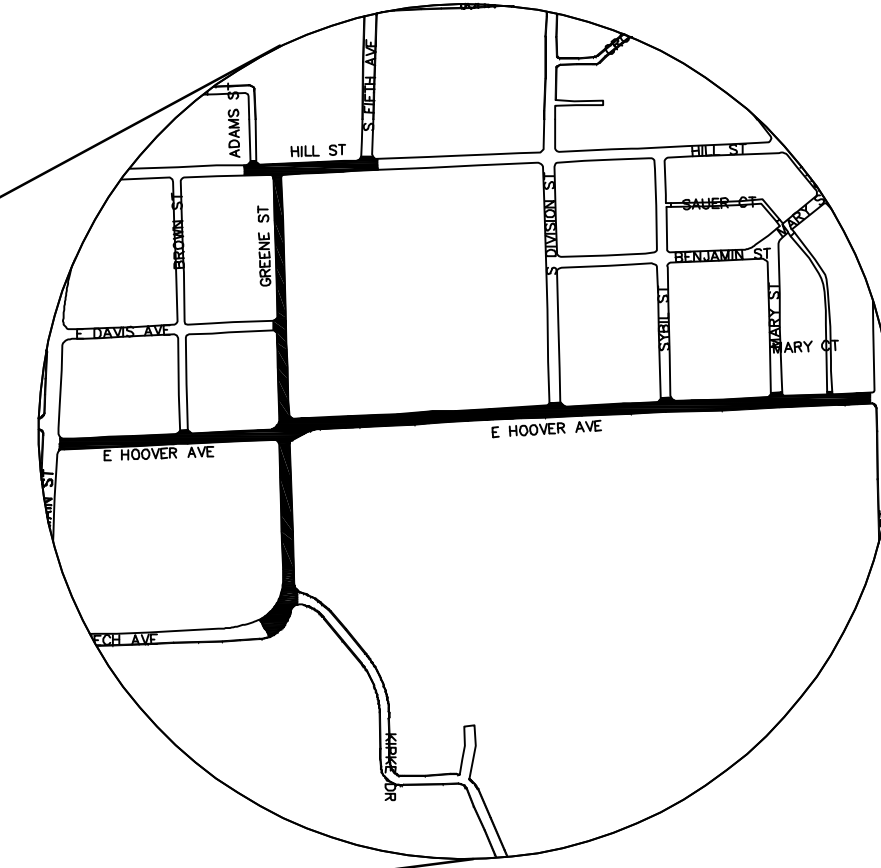
FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

THE UNDERGROUND LOCATIONS SHOWN FOR NATURAL GAS, TELEPHONE, ELECTRICAL POWER, CABLE TV AND FIBER OPTIC LINES ARE APPROXIMATE. THE CITY OF ANN ARBOR ASSUMES NO RESPONSIBILITY FOR THEIR ACCURATE REPRESENTATION IN THIS DRAWING. MISS DIG MUST BE CONTACTED PRIOR TO CONSTRUCTION TO LOCATE THESE UTILITIES.

THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE 1994 EDITION OF THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS, IT'S DETAILS, WHICH ARE INCLUDED BY REFERENCE, AND THIS PROJECT'S CONTRACT DOCUMENTS. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT.



VICINITY MAP



REV.	DATE	DESCRIPTION
01	2/22/19	ADDED #2
		PG./C
		CEW
		CHECKED
		DRAWN

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PUBLIC SERVICES
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734.764.8410
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

SCALE
HOOVER, GREENE, & HILL IMPROVEMENT PROJECT
HOOVER AVENUE FROM S. MAIN STREET TO S. STATE STREET
HILL STREET FROM S. DIVISION STREET TO FIFTH AVENUE
GREENE STREET FROM KEECH AVENUE TO HILL STREET
INCLUDED WORK: WATER MAIN REPLACEMENT, ROAD RESURFACING, STORM SEWER IMPROVEMENTS, SIDEWALK UPGRADES

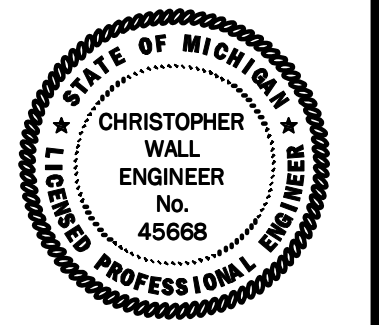
DRAWING No.
2018-031-1

SHEET No.

1 OF 83

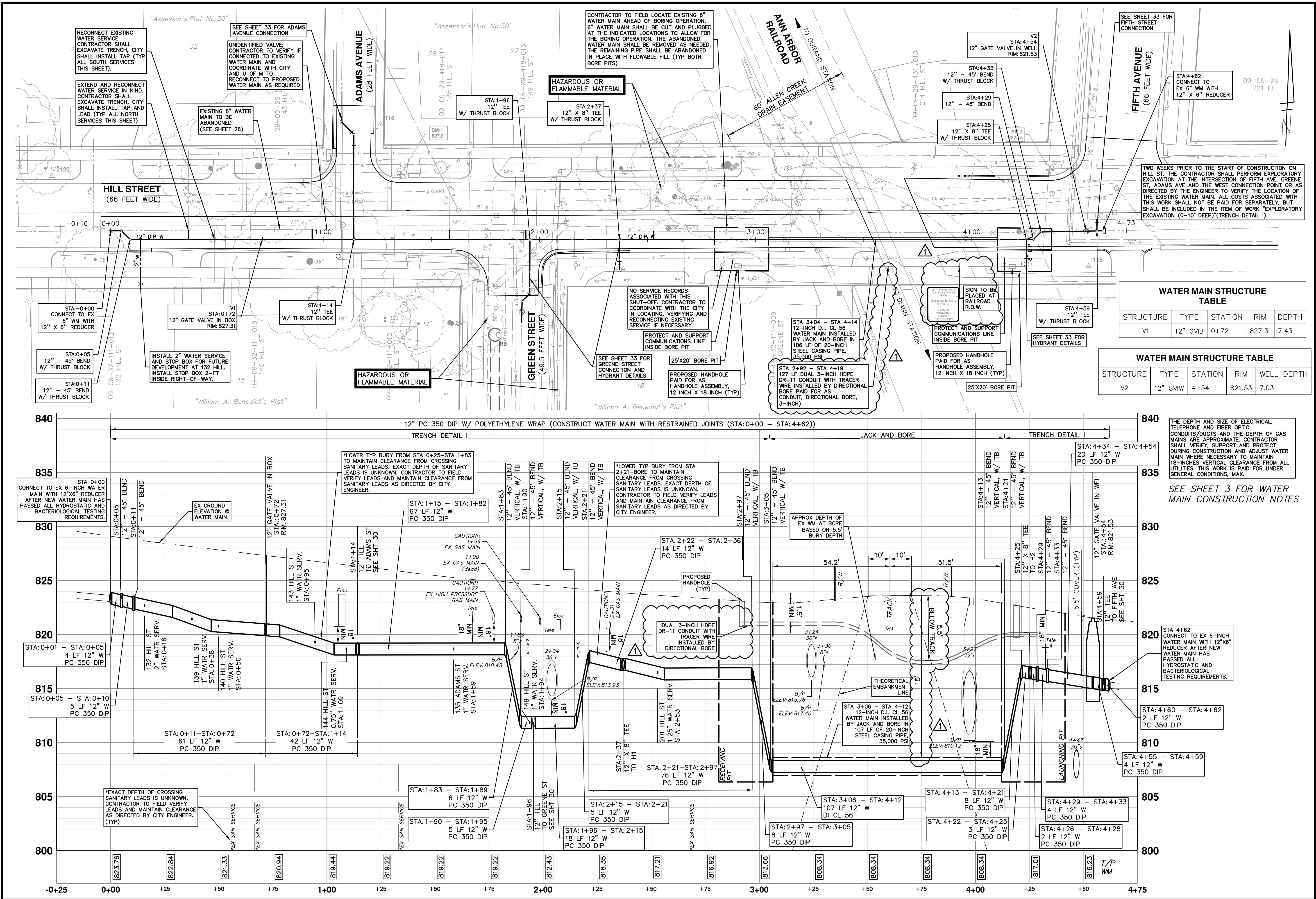
PREPARED UNDER THE SUPERVISION OF

CHRISTOPHER WALL, P.E. - MI LICENSE No. 45668
PROJECT MANAGER



2/5/2019
DATE

© HOOVER, GREENE, & HILL IMPROVEMENT PROJECT; BID No. ITB# 4563; 2018-031



WATER MAIN STRUCTURE TABLE

STRUCTURE	TYPE	STATION	RIM	DEPTH
V1	12" GVB	0+72	827.31	7.43

WATER MAIN STRUCTURE TABLE

STRUCTURE	TYPE	STATION	RIM	WELL DEPTH
V2	12" GVM	4+54	821.53	7.03

SEE SHEET 3 FOR WATER MAIN CONSTRUCTION NOTES

THE DEPTH AND SIZE OF ELECTRICAL, TELEPHONE AND FIBER OPTIC CONDUITS/DUCTS AND THE DEPTH OF GAS MAINS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY, SUPPORT AND PROTECT DURING CONSTRUCTION AND ADJUST WATER MAIN WHERE NECESSARY TO MAINTAIN 18-INCHES VERTICAL CLEARANCE FROM ALL UTILITIES. THIS WORK IS PAID FOR UNDER GENERAL CONDITIONS, MAX.

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

HOOVER, GREENE, & HILL

IMPROVEMENT PROJECT

WATER MAIN PLAN AND PROFILE - HILL STREET

REV.	DATE	DESCRIPTION
01	2/22/19	DRAWN
		CHECKED
		PG./JC
		CEW

SHEET No. **32 OF 83**
 SCALE PLAN: 1" = 20'
 PROFILE: 1" = 4'
 DRAWING No. **2018-031-32**

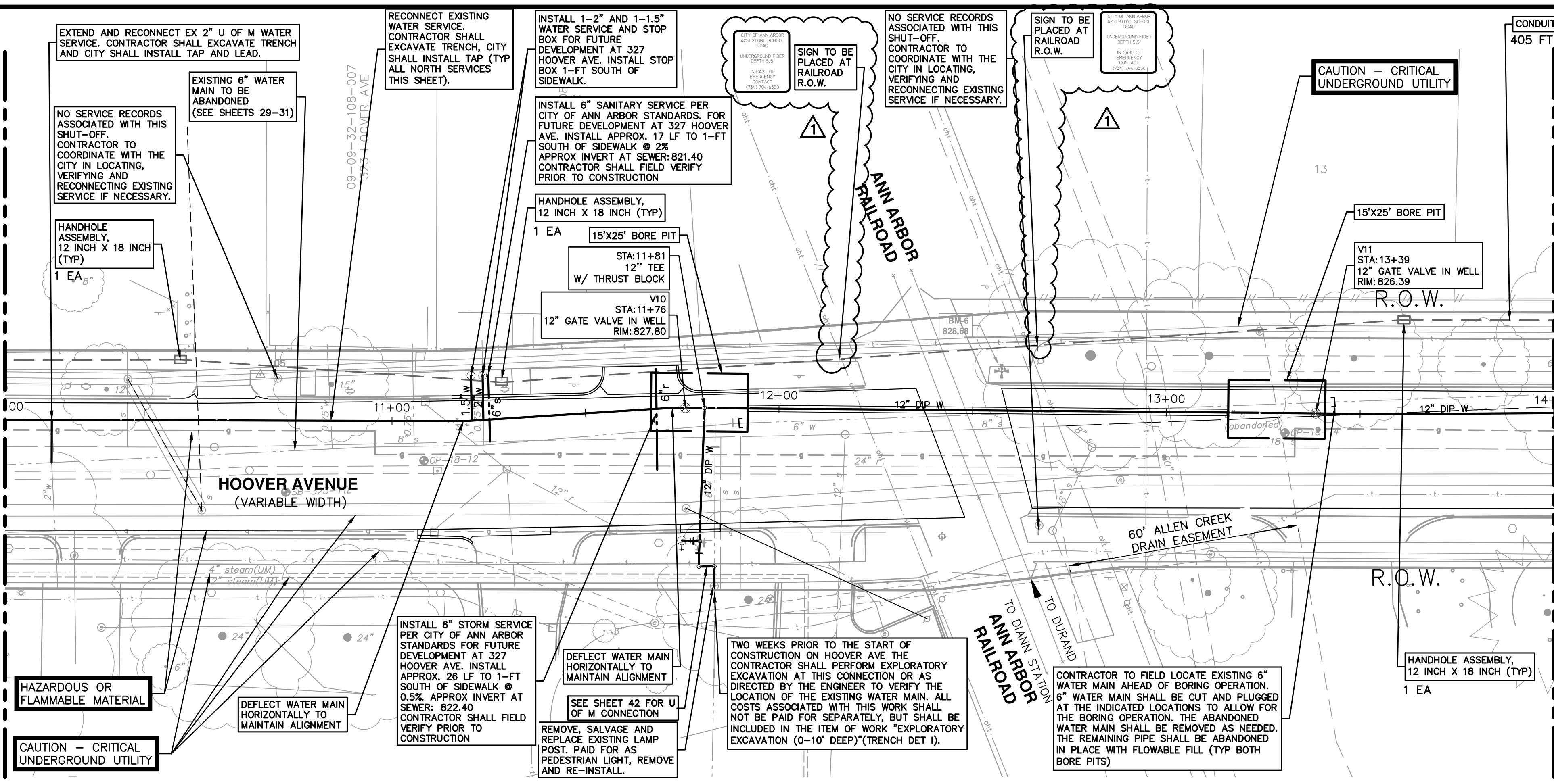
c:\pwwork\m\m\anogan\00549816\10 PROPOSED WATER MAIN - HOOVER AVENUE.dwg Dwg Created: 2-Nov-18 - o2_standard bw.stb - Plot Date: 22-Feb-19

MATCH LINE STA 14+00
SEE SHEET 36

MATCH LINE STA 14+00
SEE SHEET 36

MATCH LINE STA 14+00
SEE SHEET 38

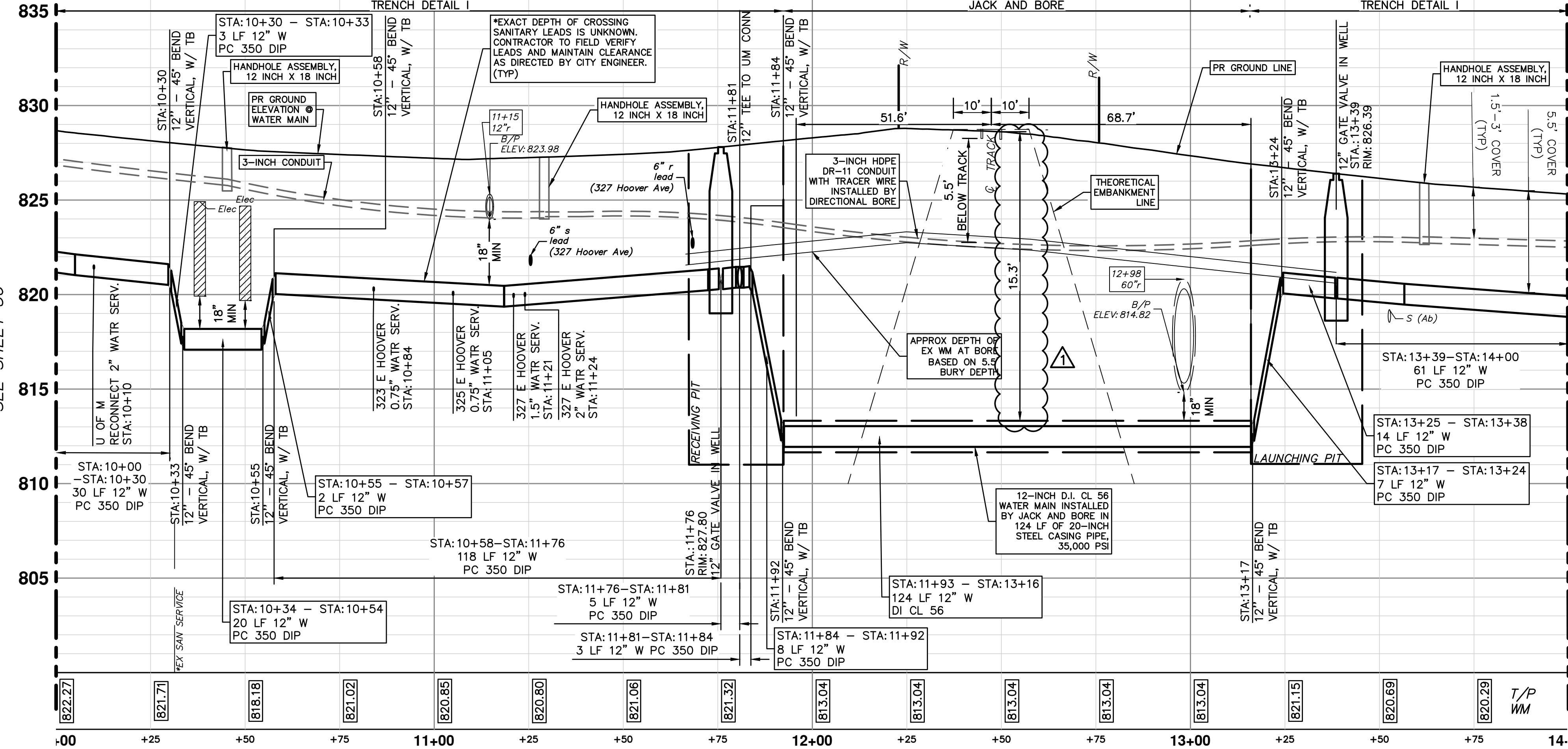
MATCH LINE STA 14+00
SEE SHEET 38

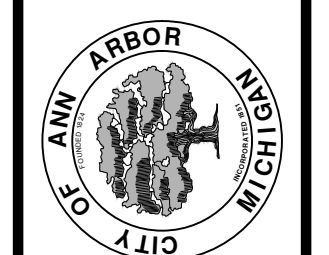


WATER MAIN STRUCTURE TABLE				
STRUCTURE	TYPE	STATION	RIM	WELL DEPTH
V10	12" GWV	11+76	827.80	8.13
V11	12" GWV	13+39	826.39	7.11

12" PC350 DIP W/ POLYETHYLENE WRAP
CONSTRUCT WATER MAIN WITH RESTRAINED JOINTS (STA 10+00-STA 14+00)

THE DEPTH AND SIZE OF ELECTRICAL, TELEPHONE AND FIBER OPTIC CONDUITS/DUCTS AND THE DEPTH OF GAS MAINS ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY AND ADJUST WATER MAIN WHERE NECESSARY TO MAINTAIN 18-INCHES VERTICAL CLEARANCE FROM ALL UTILITIES. THIS WORK IS PAID FOR UNDER GENERAL CONDITIONS, MAX.





CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

HOOVER, GREENE, & HILL
IMPROVEMENT PROJECT

WATER MAIN PLAN & PROFILE - HOOVER AVE STA 10+00 TO STA 14+00

37 OF 83

SCALE PLAN: 1" = 20'

PROFILE: 1" = 4'

DRAWING NO. 2018-031-37

SHEET NO.

ADDENDUM #2

REV. 01

DATE 2/22/19

DESCRIPTION

PG./JC

CEW

DRAWN

CHECKED

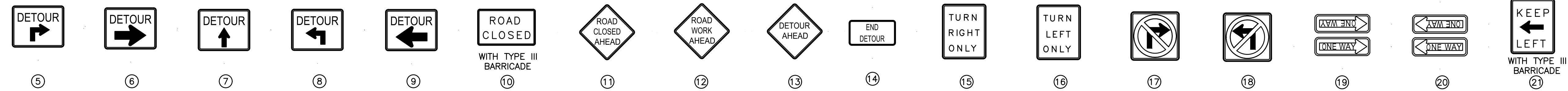
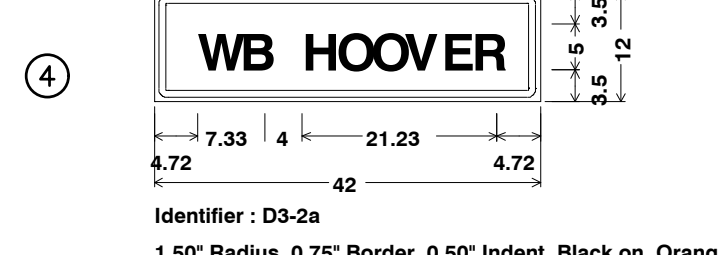
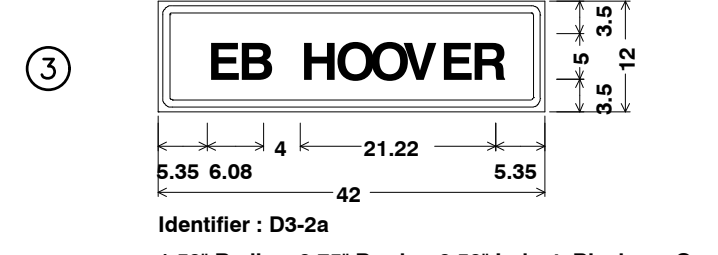
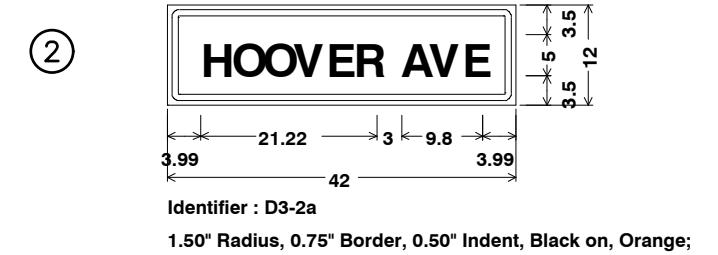
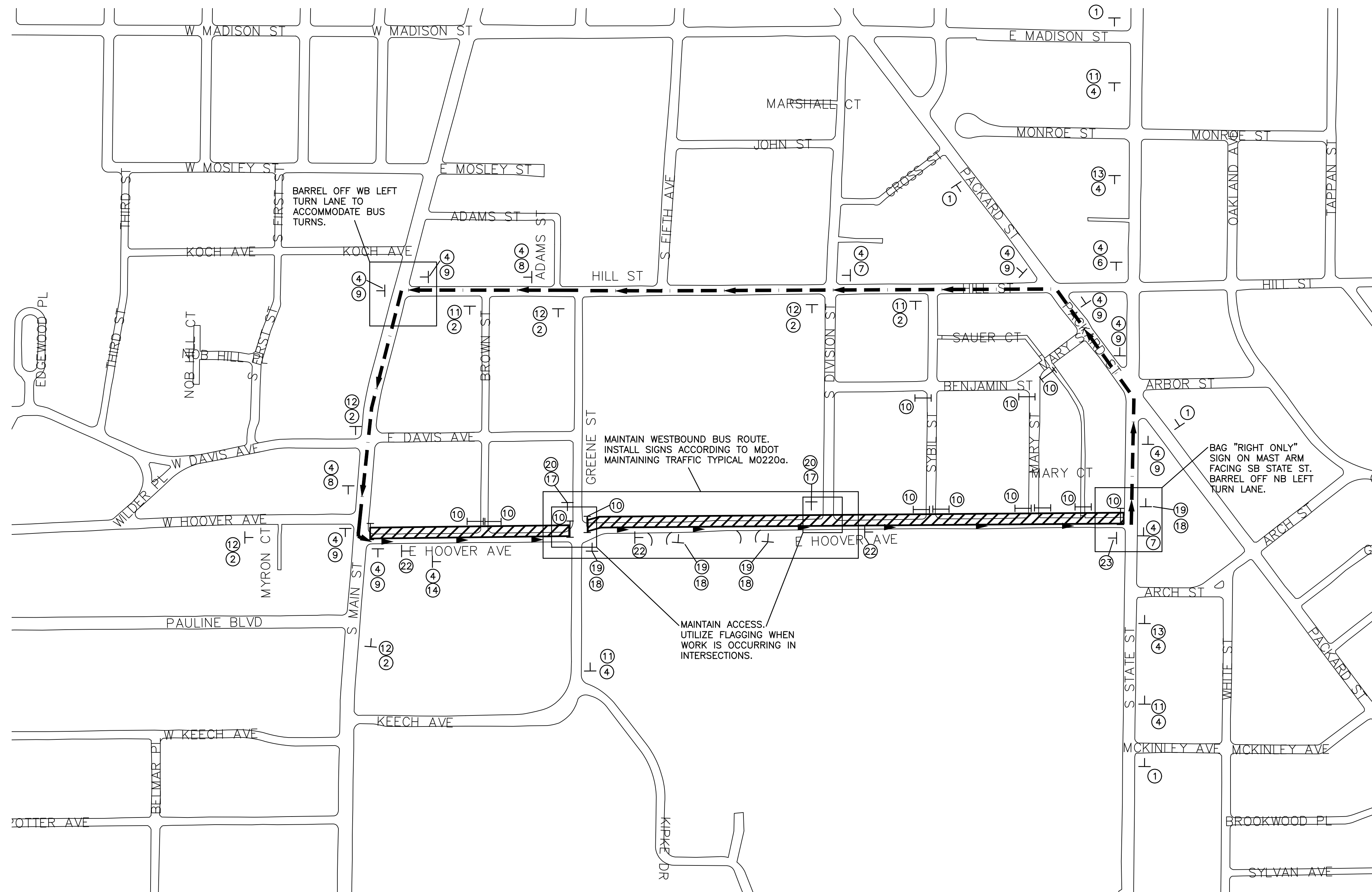
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STAGE 1A:
HOOVER AVE: NORTH SIDE CLOSURE,
EB TRAFFIC MAINTAINED ON SOUTH SIDE,
WB TRAFFIC DETOURED

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01	2/22/19				

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HOOVER, GREENE, & HILL IMPROVEMENT PROJECT

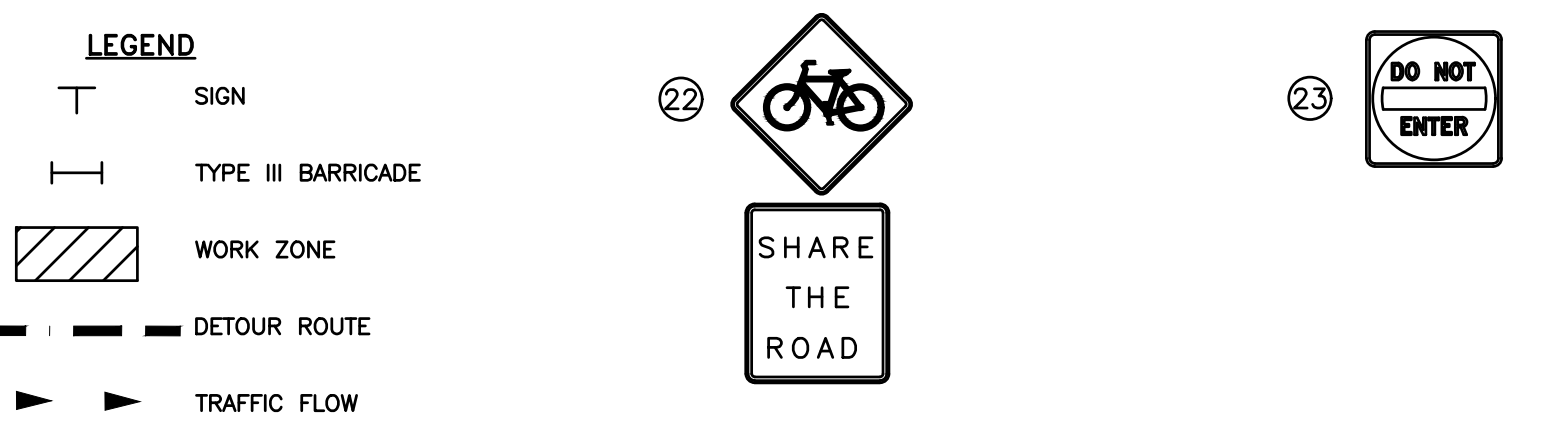
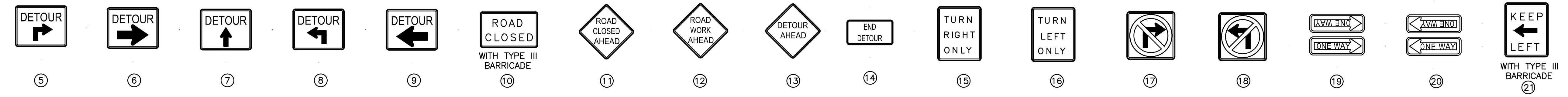
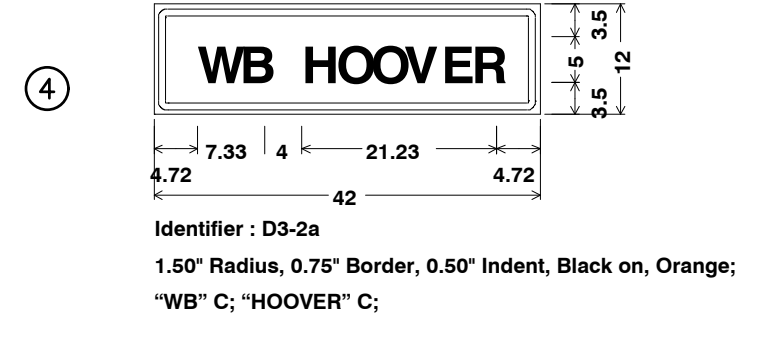
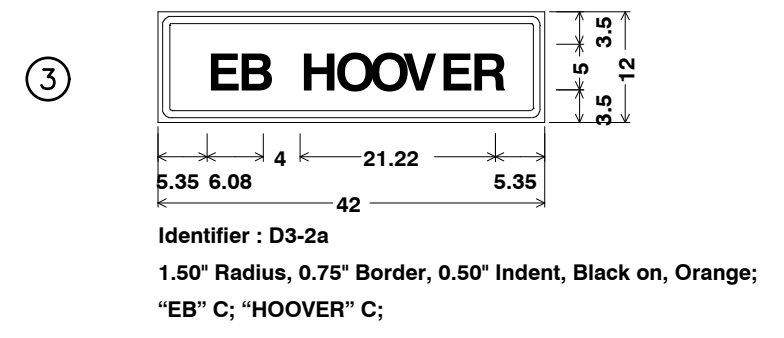
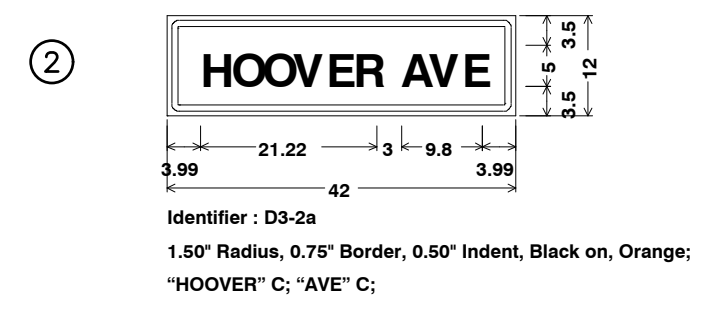
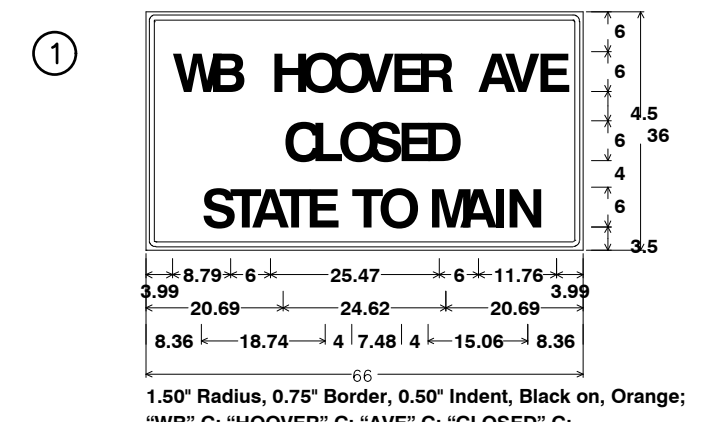
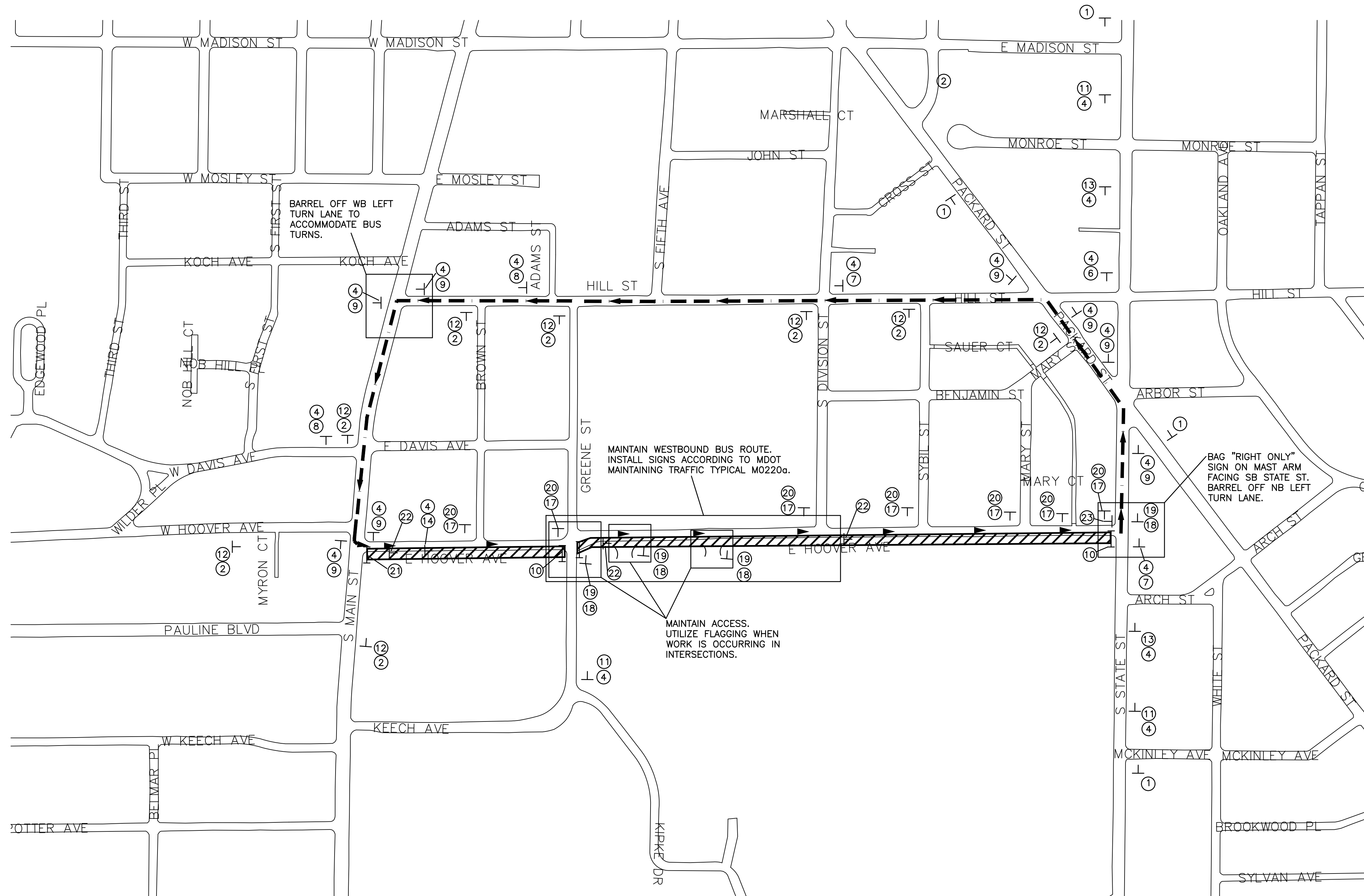
HOOVER MOT - WESTBOUND LANE

SCALE: NTS

DRAWING No. 2018-031-71

SHEET No. 71 OF 83

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STAGE 1B:
HOOPER AVE: SOUTH SIDE CLOSURE,
EB TRAFFIC MAINTAINED ON NORTH SIDE,
WB TRAFFIC DETOURED

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REV.	DATE	DESCRIPTION	DRAWN	CHECKED
01	2/22/19		PG/JC	CEW

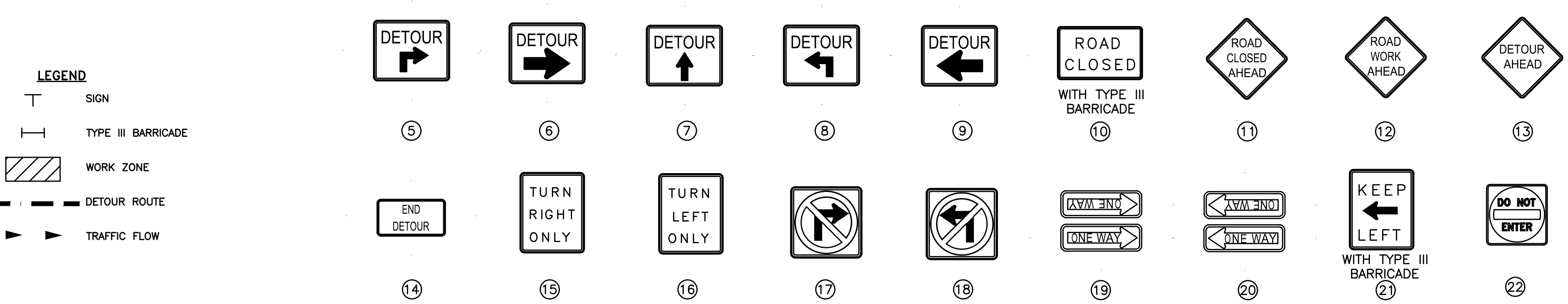
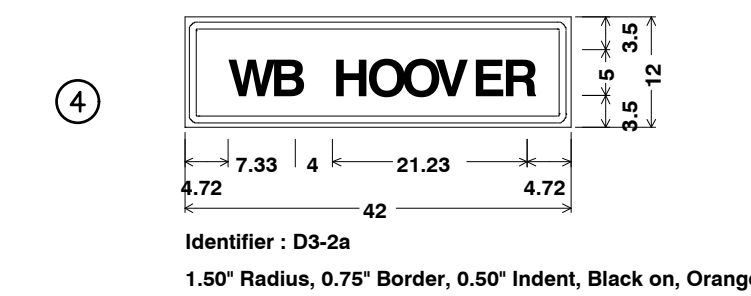
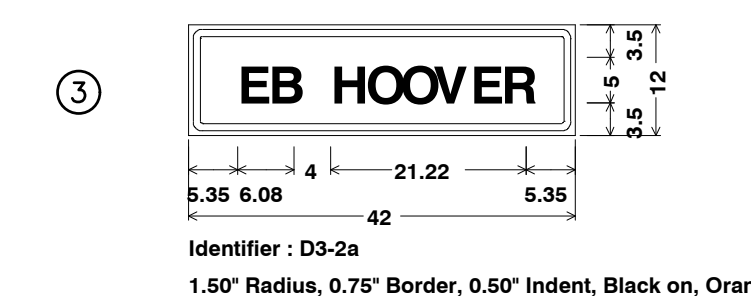
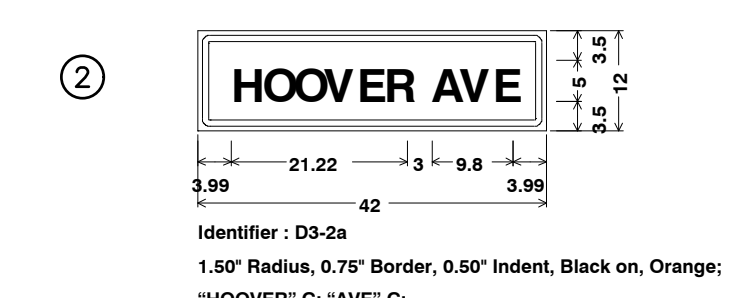
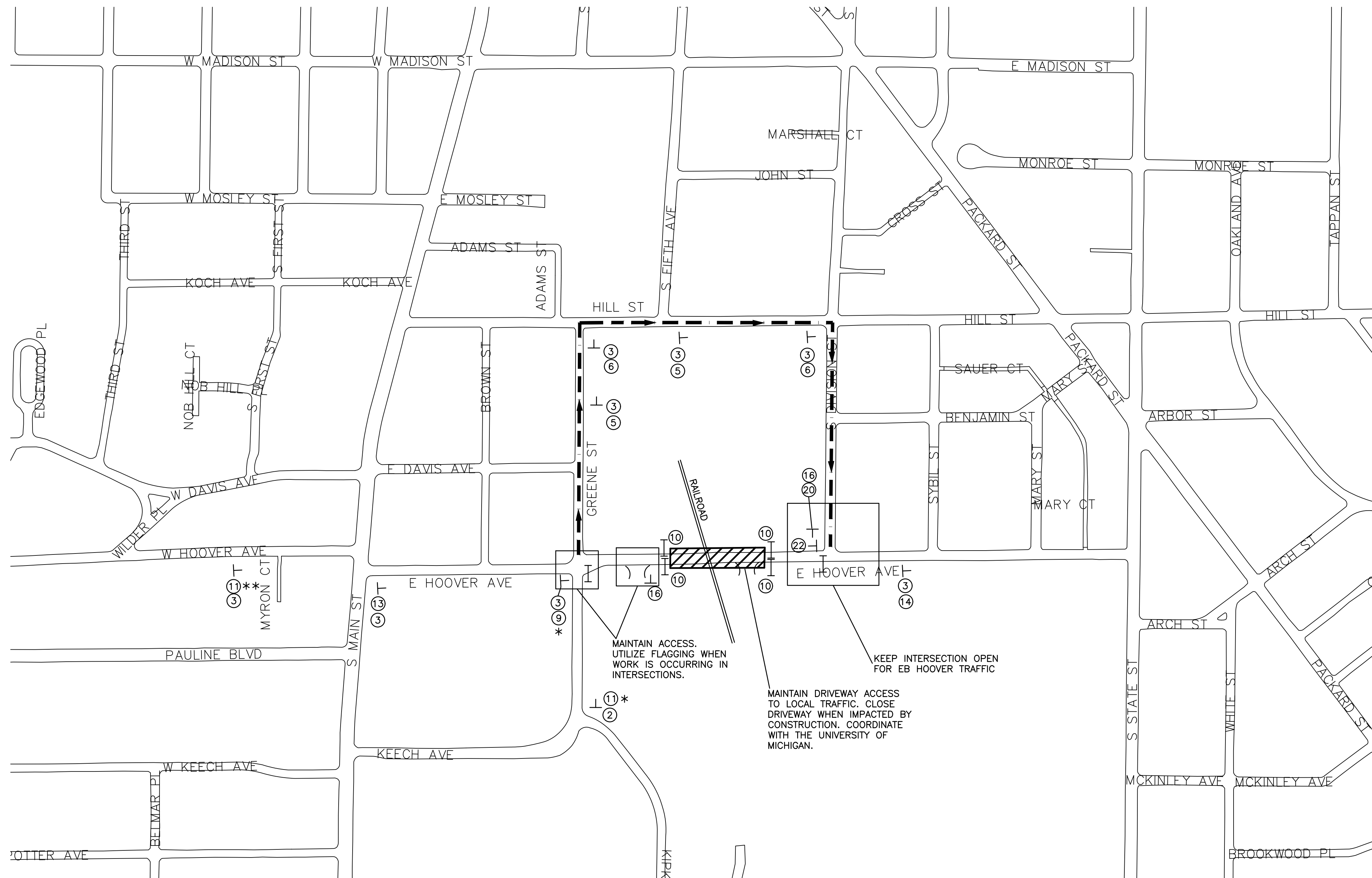
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HOOPER, GREENE, & HILL
IMPROVEMENT PROJECT
HOOPER MOT - EASTBOUND LANE

SCALE: NTS
SHEET No.

DRAWING No. **2018-031-72**
72 OF 83

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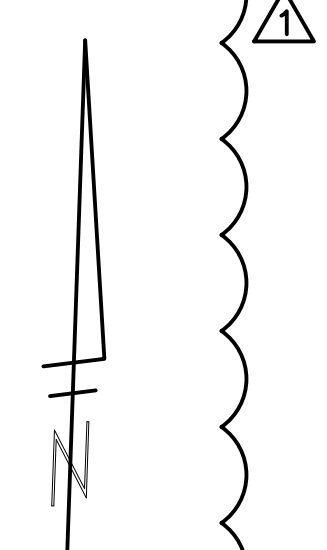


STAGE 1C:
HOOPER ST CLOSURE AT RAILROAD

NOTE: TEMPORARY CONDITION ANTICIPATED TO OCCUR IN CONJUNCTION WITH WB HOOPER DETOUR. TWO-WAY TRAFFIC MUST BE MAINTAINED ON DIVISION ST FROM HOOPER TO HILL. COORDINATE WITH DIVISION RESURFACING PROJECT. HILL ST MUST BE OPEN TO TRAFFIC.

* PLACE SIGNS NEXT TO SIGNS ALREADY IN PLACE FOR WB HOOPER CLOSURES - STAGES 1 AND 2

**COVER/REMOVE CONFLICTING SIGN FROM PREVIOUS STAGES



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		CEW CHECKED

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HOOPER, GREENE, & HILL IMPROVEMENT PROJECT

HOOPER MOT - RAILWAY CLOSURE

SCALE: NTS

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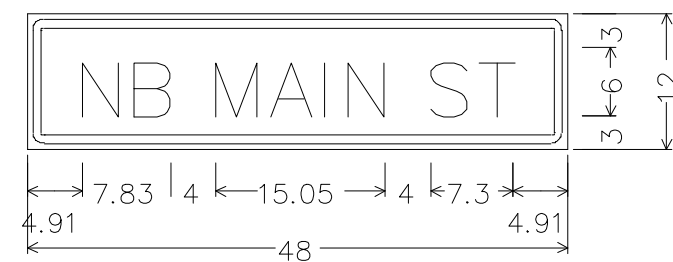
SHEET No. 73 OF 83

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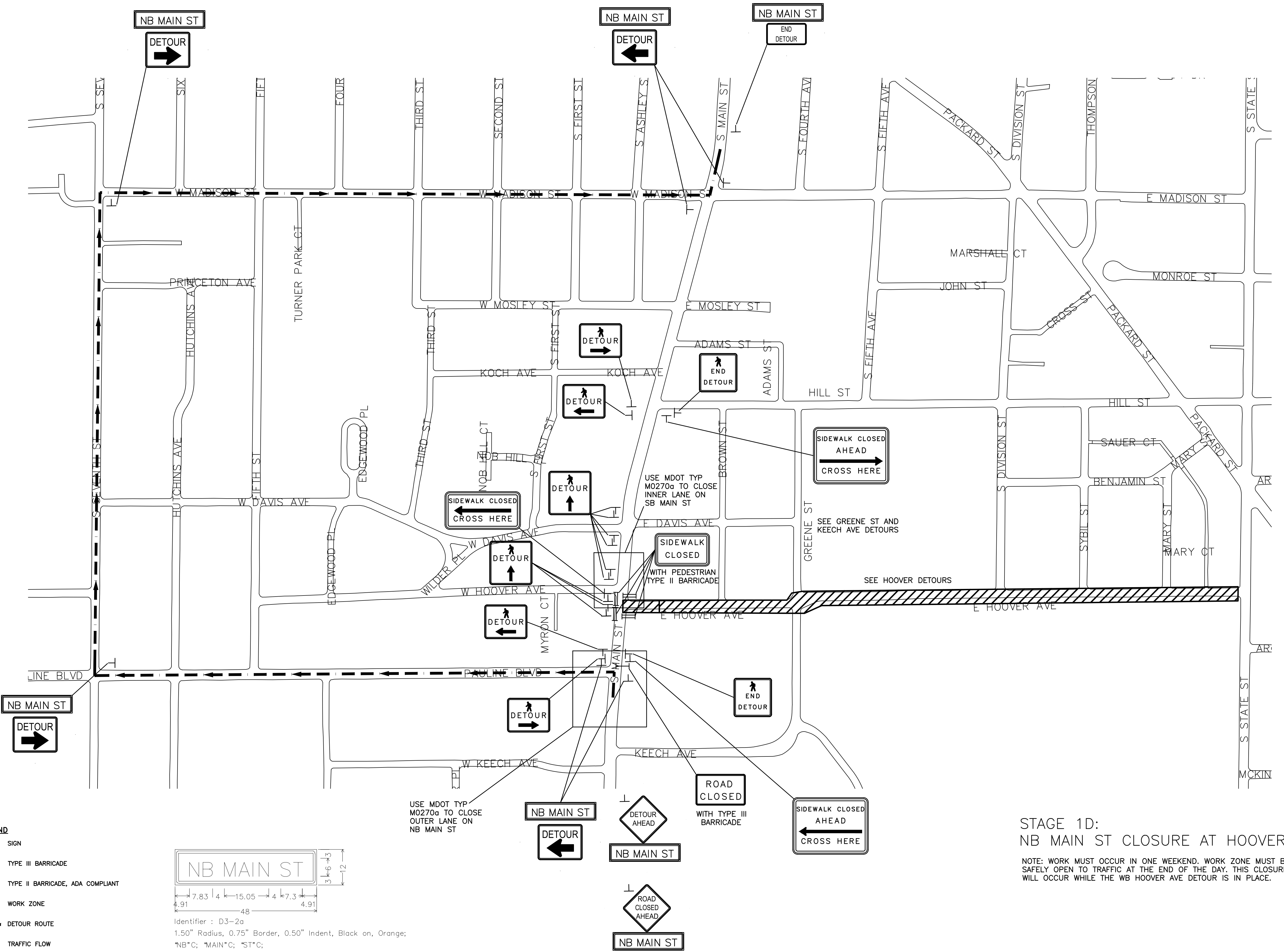
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LEGEND

- T SIGN
- I TYPE III BARRICADE
- II TYPE II BARRICADE, ADA COMPLIANT
- WORK ZONE
- DETOUR ROUTE
- TRAFFIC FLOW



Identifier : D3-2a
 1.50" Radius, 0.75" Border, 0.50" Indent, Black on, Orange;
 *NB*C; *MAIN*C; *ST*C;



**STAGE 1D:
 NB MAIN ST CLOSURE AT HOOVER**

NOTE: WORK MUST OCCUR IN ONE WEEKEND. WORK ZONE MUST BE SAFELY OPEN TO TRAFFIC AT THE END OF THE DAY. THIS CLOSURE WILL OCCUR WHILE THE WB HOOVER AVE DETOUR IS IN PLACE.

811
 Know what's below.
 Call Before you dig.

REV.	DATE	DRAWN	CHECKED
01	2/22/19	PG/JC	CEW

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

HOOVER, GREENE, & HILL IMPROVEMENT PROJECT

MAIN STREET MOT AT HOOVER

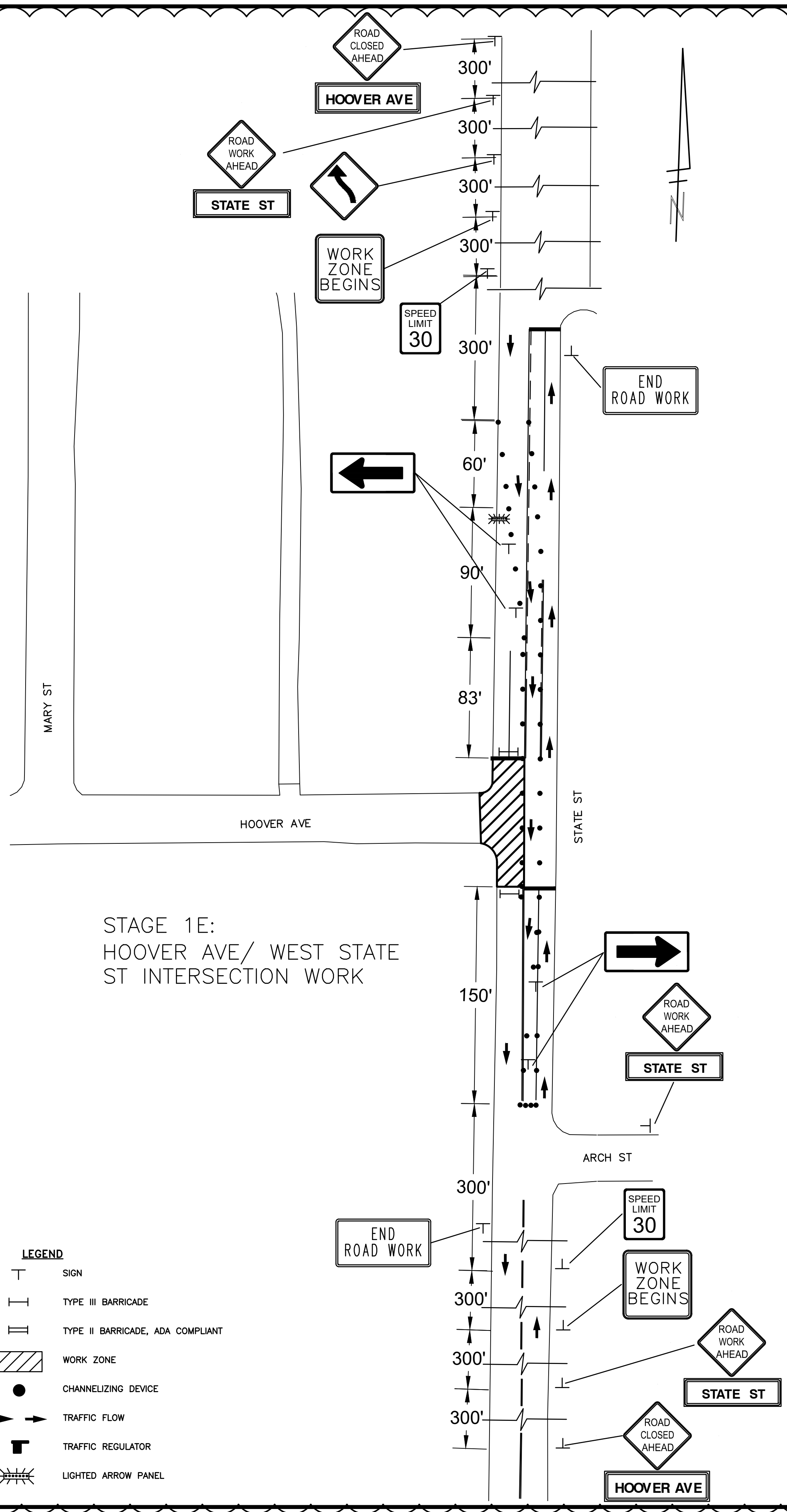
SCALE NTS

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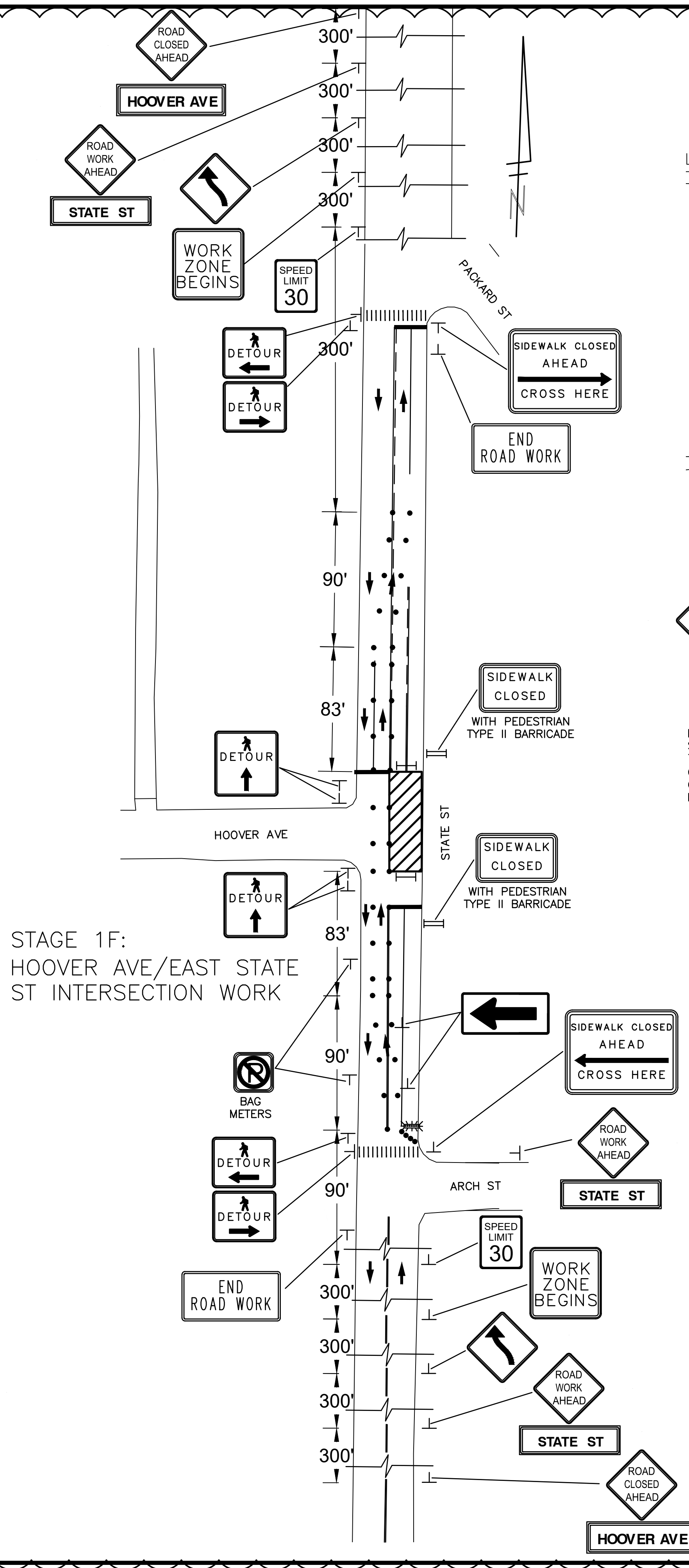
SHEET No. 74 OF 83

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 PUBLIC SERVICES
 301 EAST HURON STREET
 ANN ARBOR, MI 48106-6647
 ANN ARBOR: 734-794-4410
 www.a2gov.org

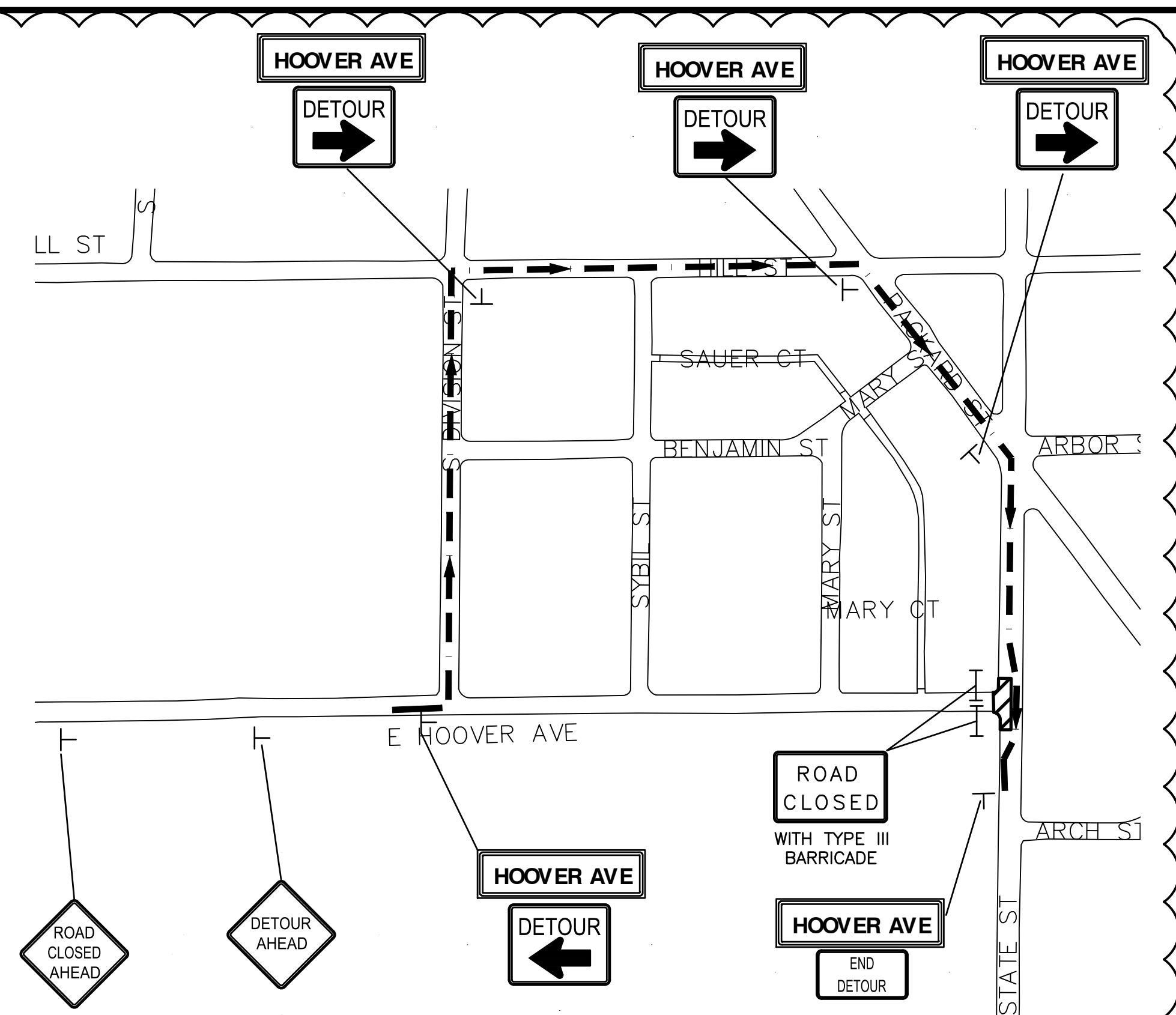
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STAGE 1E:
HOOVER AVE/ WEST STATE ST INTERSECTION WORK



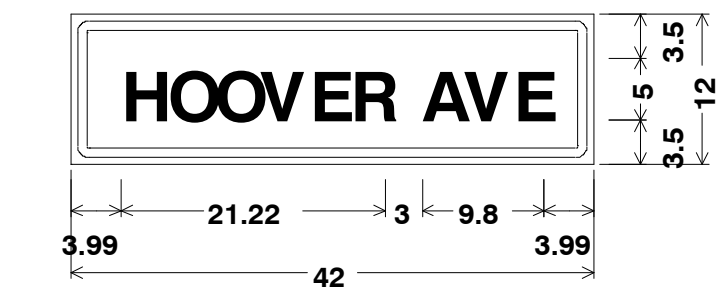
STAGE 1F:
HOOVER AVE/EAST STATE ST INTERSECTION WORK



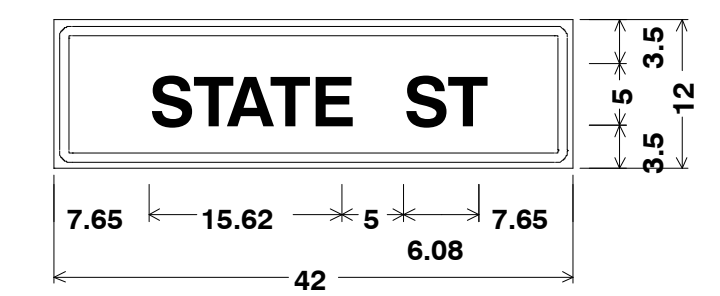
STAGE 1E:
HOOVER AVE/STATE ST INTERSECTION WORK

NOTE: THE EB HOOVER AVE DETOUR MUST NOW DETOUR TO DIVISION ST TO HILL ST TO STATE ST. WORK ZONE MUST BE SAFELY OPEN TO TRAFFIC AT THE END OF THE DAY. WHEN WORK IS BEING COMPLETED IN THE HOOVER/STATE INTERSECTION, WORK MUST OCCUR IN ONE WEEKEND. THIS CLOSURE WILL OCCUR WHILE THE HOOVER AVE DETOUR IS IN PLACE.

- LEGEND**
- T SIGN
 - || TYPE III BARRICADE
 - || TYPE II BARRICADE, ADA COMPLIANT
 - ▨ WORK ZONE
 - CHANNELIZING DEVICE
 - TRAFFIC FLOW
 - T TRAFFIC REGULATOR
 - ⚡ LIGHTED ARROW PANEL



Identifier : D3-2a
1.50" Radius, 0.75" Border, 0.50" Indent, Black on, Orange;
"HOOVER" C; "AVE" C;



Identifier : D3-2a
1.50" Radius, 0.75" Border, 0.50" Indent, Black on, Orange;
"STATE" C; "ST" C;

811
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REV.	DATE	DRAWN	CHECKED
01	2/22/19	CEW	

ADDITIONAL #2 DESCRIPTION

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CITY OF ANN ARBOR - ENGINEERING

HOOVER, GREENE, & HILL

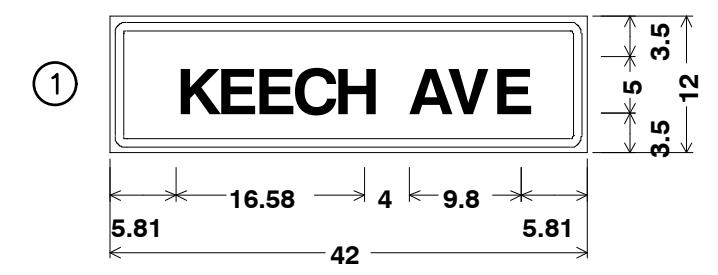
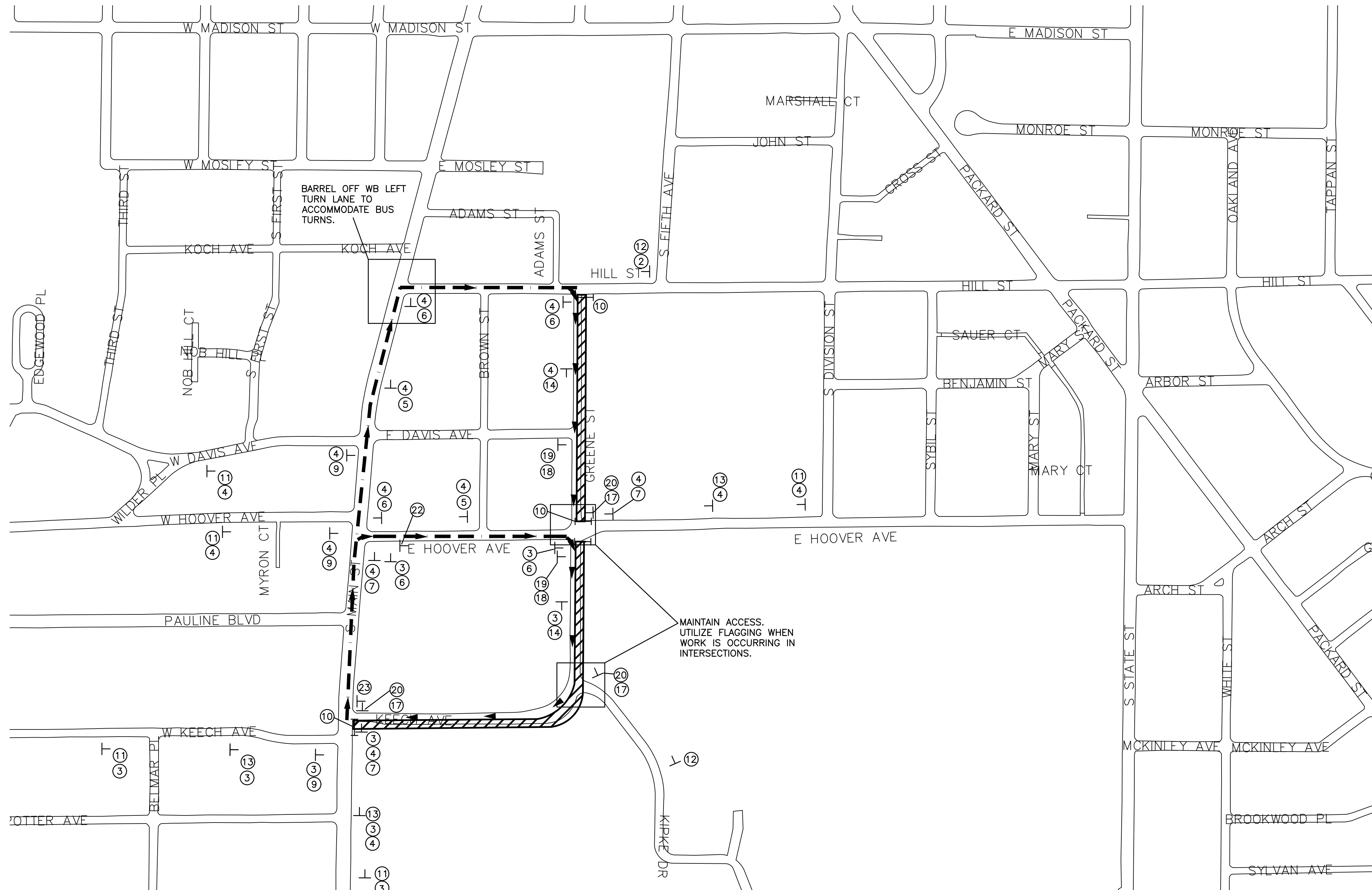
IMPROVEMENT PROJECT

STATE STREET MOT AT HOOVER

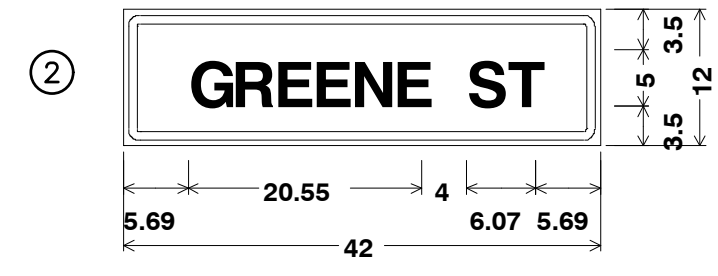
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DRAWING No. 2018-031-75

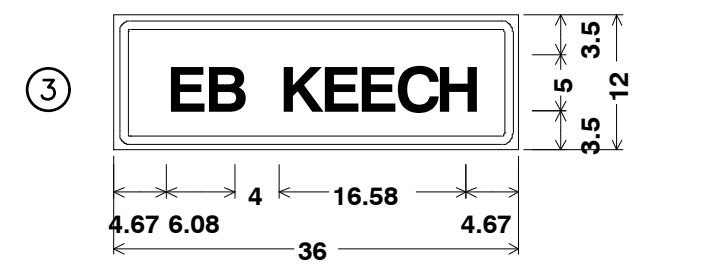
SHEET No. 75 OF 83



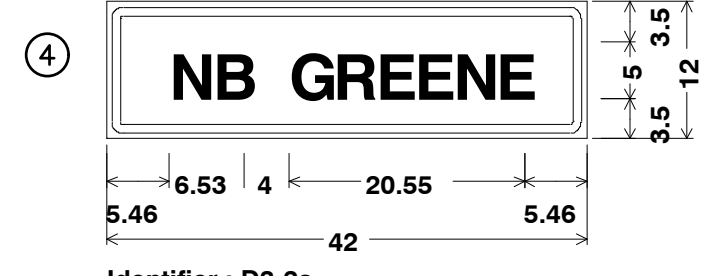
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1.50" Radius, 0.75" Border, 0.50" Indent, Black on, Orange;
"KEECH" C; "AVE" C;



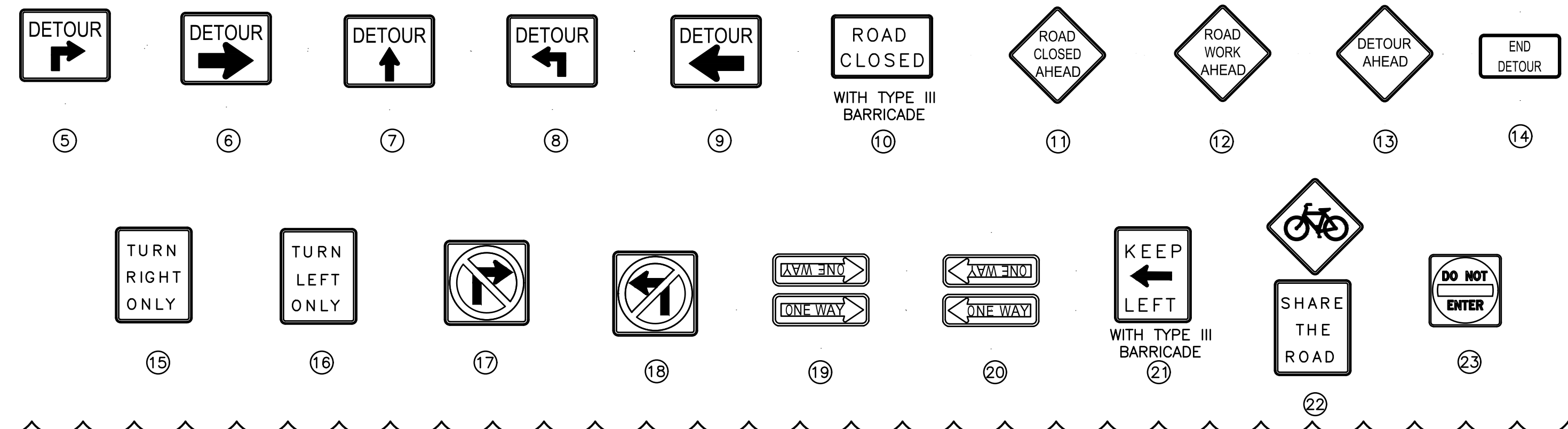
Identifier : D3-2a
1.50" Radius, 0.75" Border, 0.50" Indent, Black on, Orange;
"GREENE" C; "ST" C;



Identifier : D3-2a
1.50" Radius, 0.75" Border, 0.50" Indent, Black on, Orange;
"EB" C; "KEECH" C;



Identifier : D3-2a
1.50" Radius, 0.75" Border, 0.50" Indent, Black on, Orange;
"NB" C; "GREENE" C;

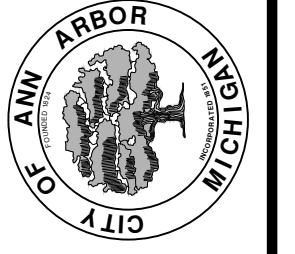


STAGE 2A:
KEECH/GREENE: EAST SIDE CLOSURE
SB GREEN TRAFFIC MAINTAINED ON WEST SIDE,
NB GREENE TRAFFIC DETOURED



REV.	DATE	DESCRIPTION	PG./JC	CW	CHECKED
01	2/22/19				

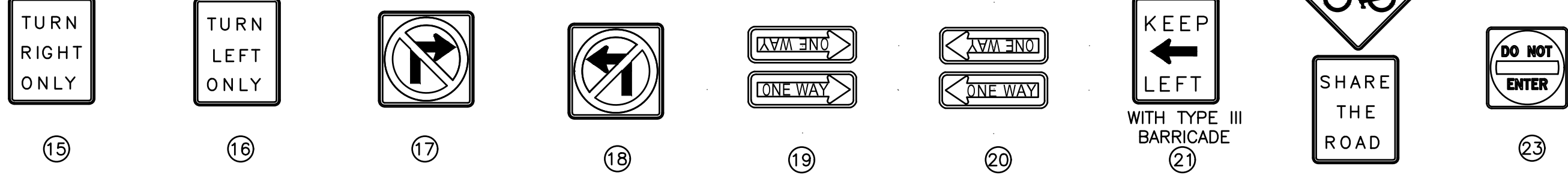
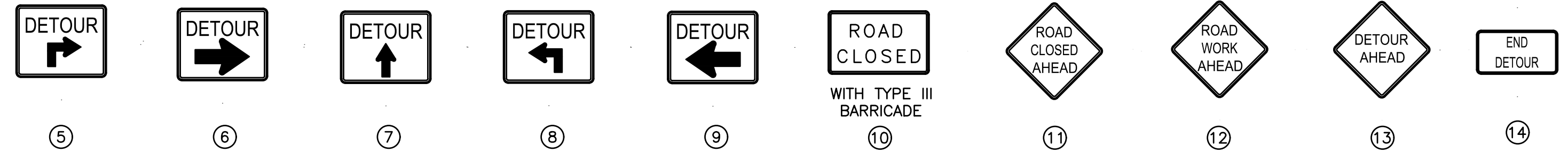
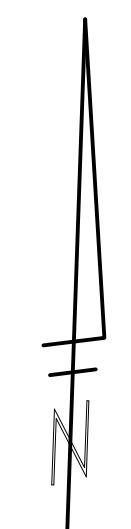
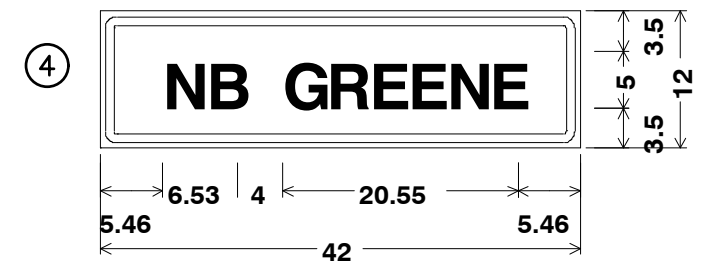
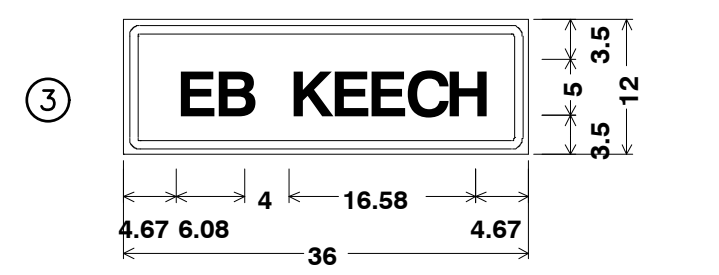
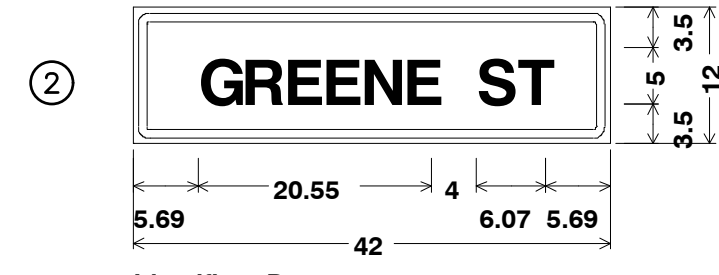
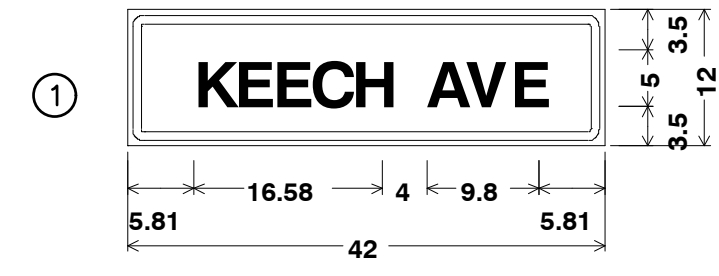
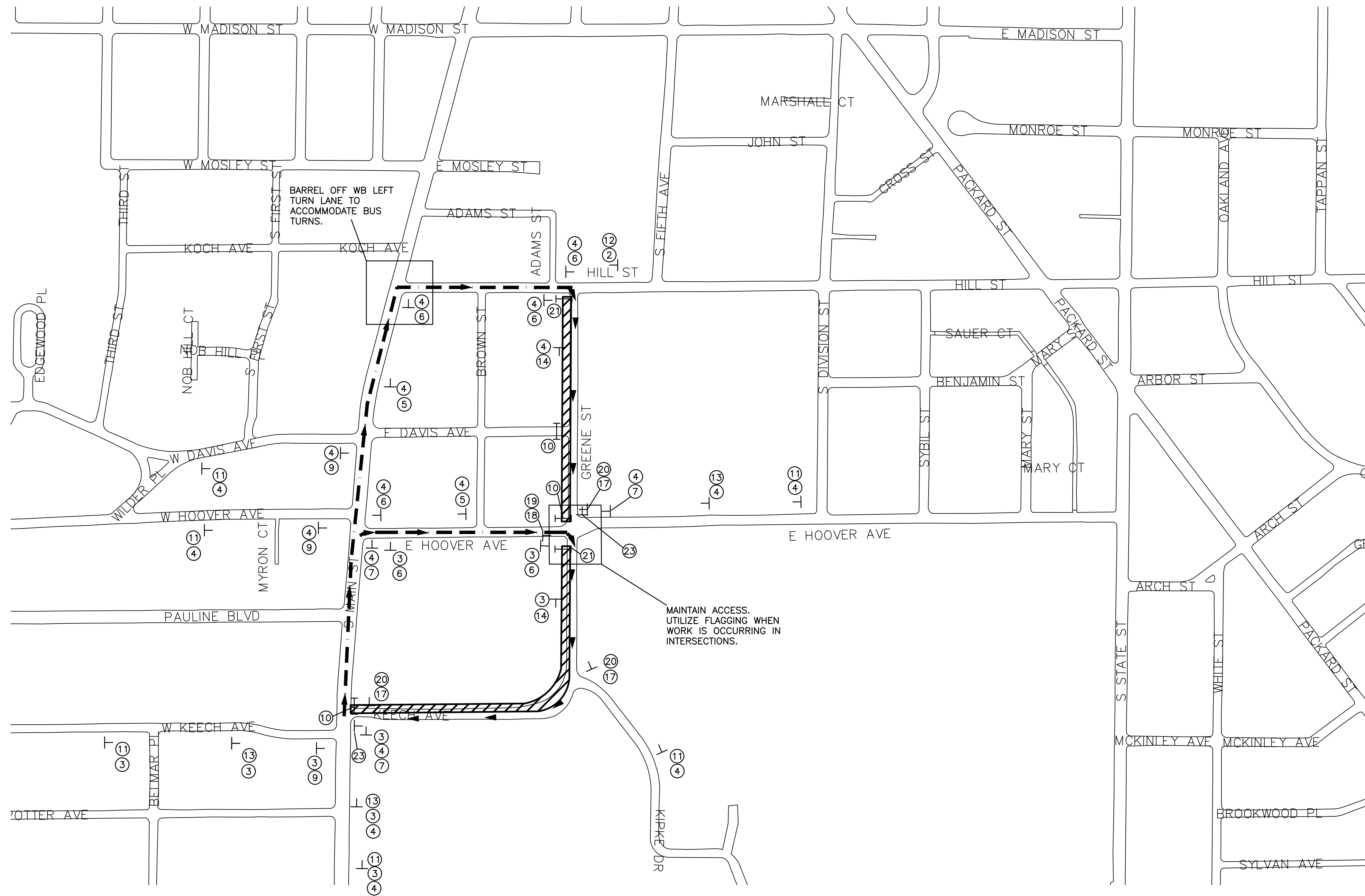
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CITY OF ANN ARBOR - ENGINEERING
HOOVER, GREENE, & HILL
IMPROVEMENT PROJECT
KEECH-GREENE MOT SOUTHBOUND LANE

SCALE NTS
DRAWING No. 2018-031-76

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STAGE 2B:
 KEECH/GREENE: WEST SIDE CLOSURE
 SB GREEN TRAFFIC MAINTAINED ON EAST SIDE,
 NB GREENE TRAFFIC DETOURED

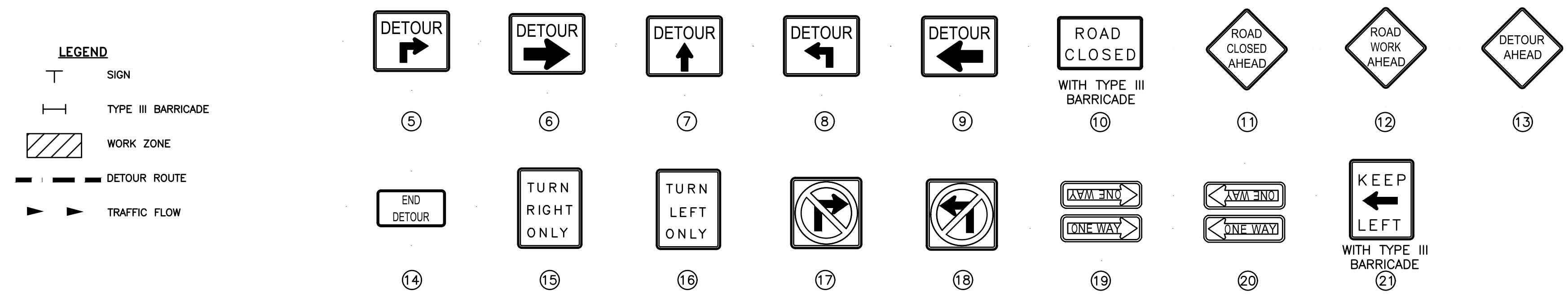
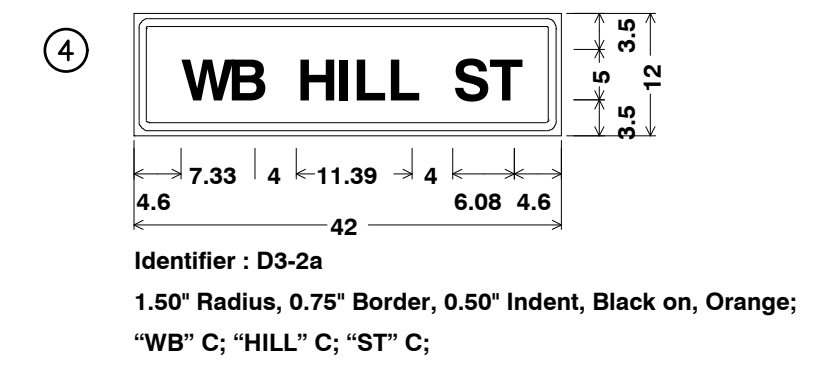
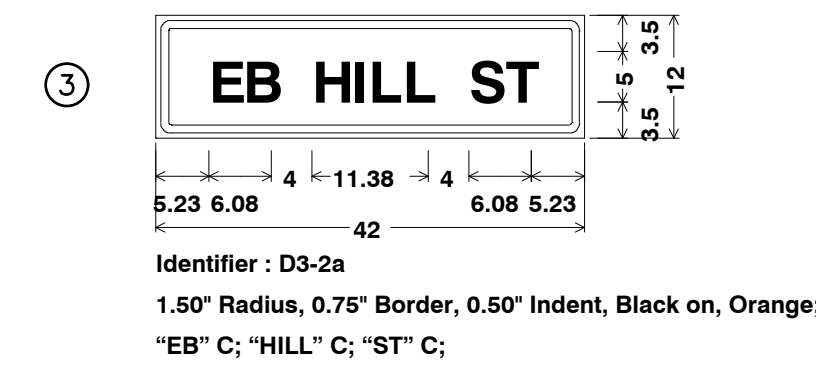
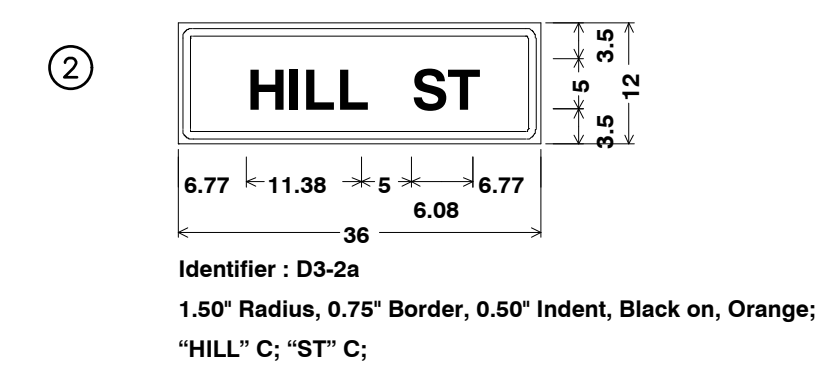
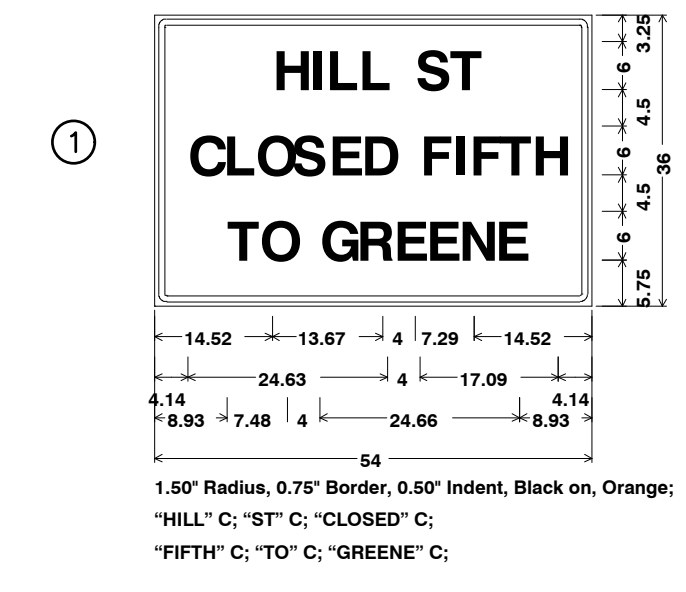
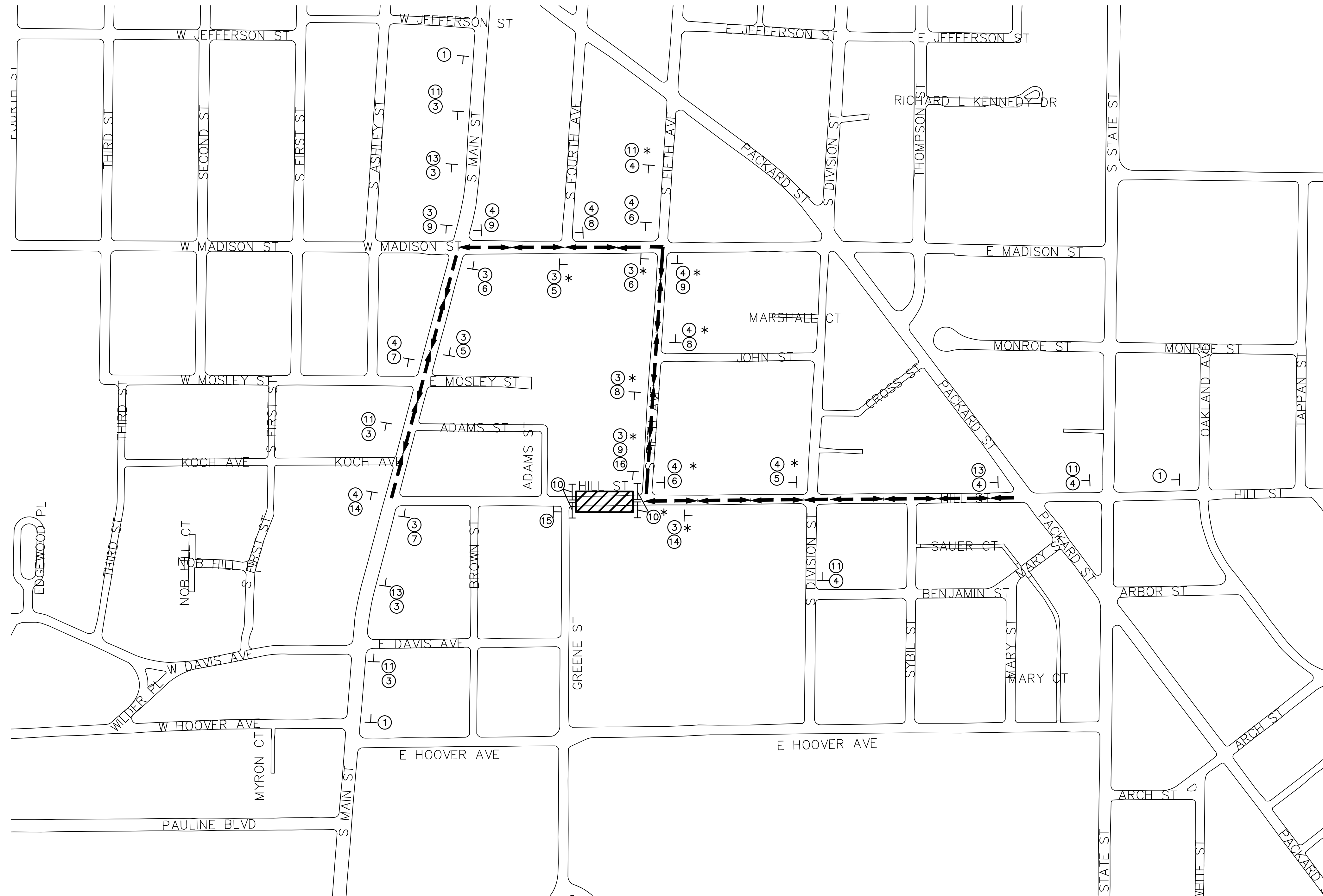
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01	ADDENDUM #2	2/22/19	PG/JC	CEW

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
HOOVER, GREENE, & HILL IMPROVEMENT PROJECT
 KEECH-GREENE MOT NORTHBOUND LANE

SCALE: NTS
 SHEET No. **76A OF 83**

DRAWING No. **2018-031-76A**



STAGE 3A:
HILL ST: CLOSURE GREENE TO FIFTH,
EB AND WB DETOUR
FIFTH STREET OPEN TO TRAFFIC

* INDICATES SIGNS TO BE REMOVED OR RELOCATED DURING FIFTH STREET CLOSURE

NOTE: HOOVER ST MUST REMAIN OPEN DURING THIS CLOSURE. COORDINATE WITH DIVISION RESURFACING PROJECT.

Know what's below.
Call Before you dig.

REV.	DATE	DESCRIPTION
01	2/22/19	PG/JC CEW CHECKED
		DATE DRAWN
		DESCRIPTION

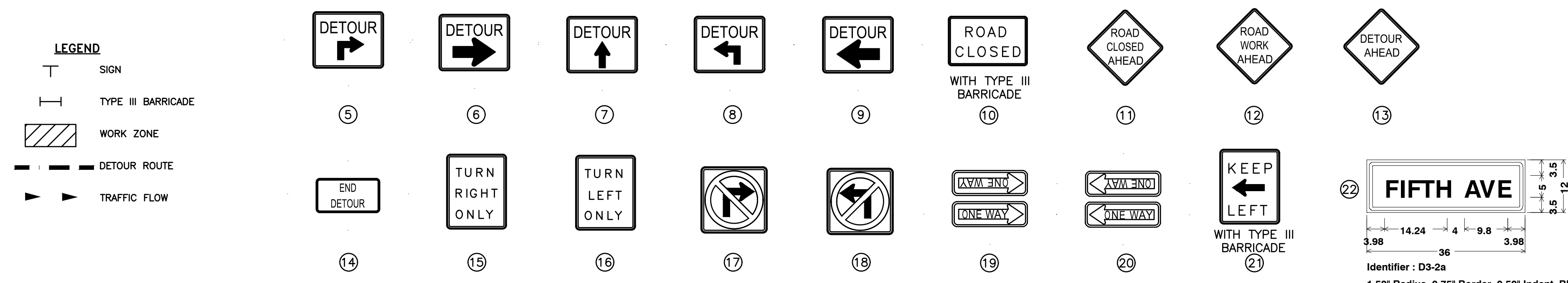
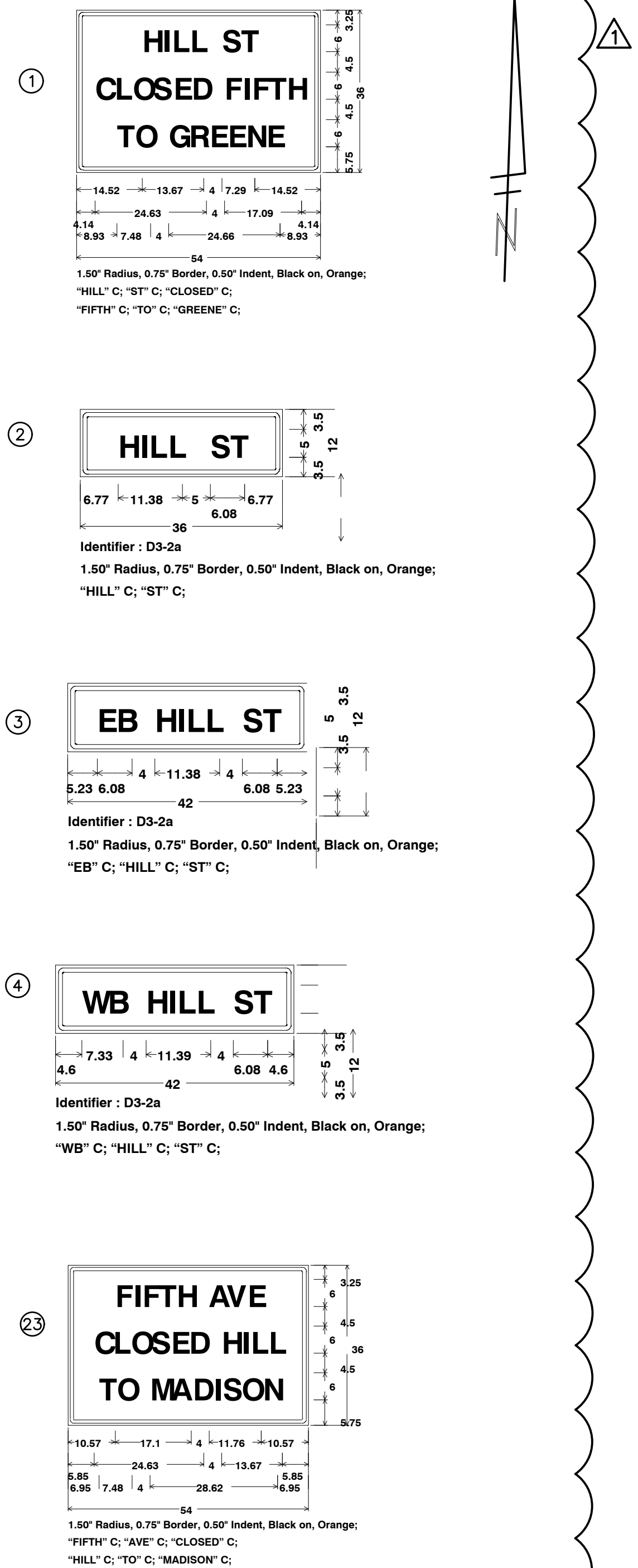
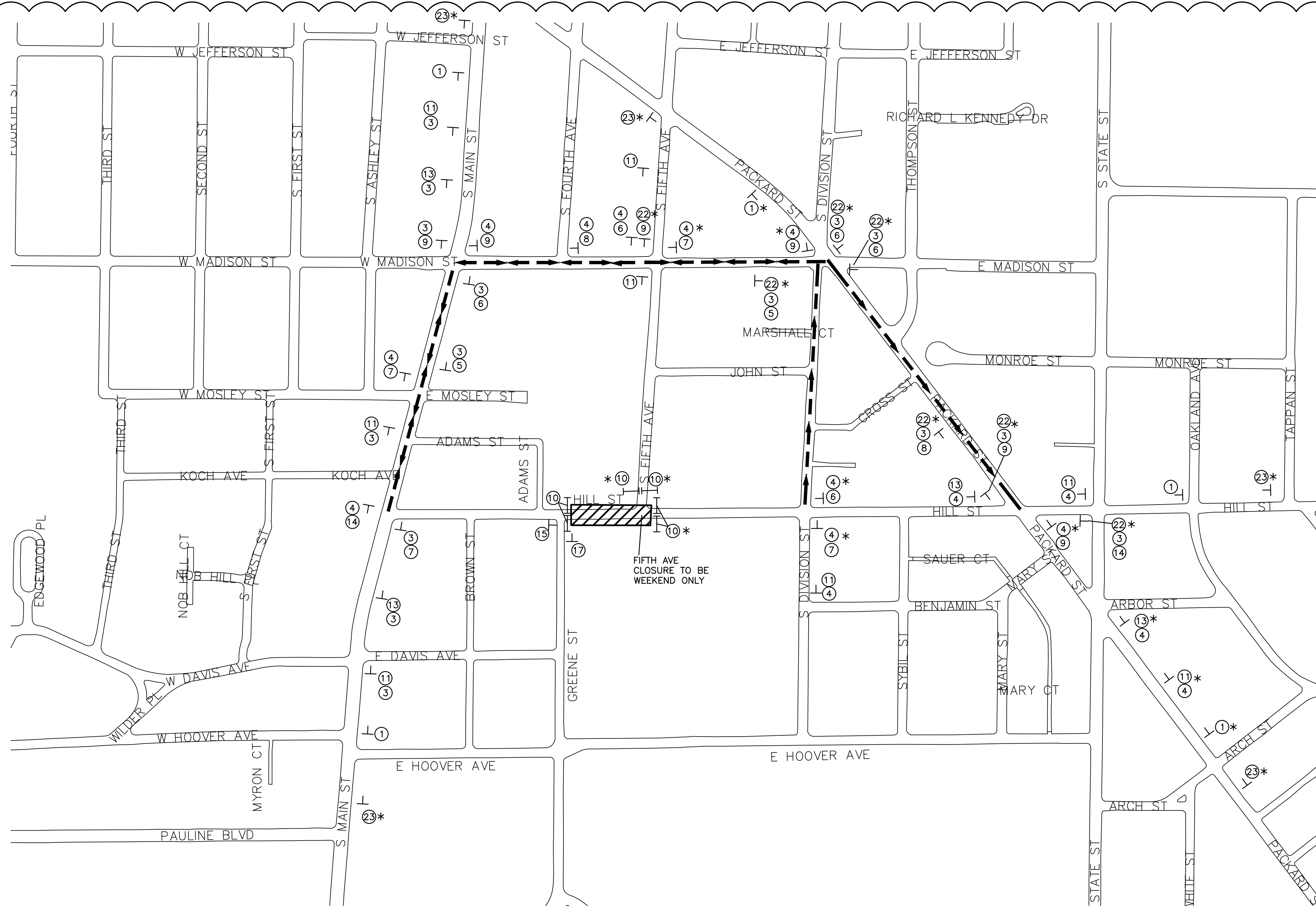
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HOOPER, GREENE, & HILL IMPROVEMENT PROJECT
HILL STREET DETOUR - FIFTH OPEN

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

SCALE NTS
DRAWING No. 2018-031-77
SHEET No. 77 OF 83


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STAGE 3B:
HILL ST: CLOSURE GREENE TO FIFTH,
EB AND WB DETOUR
FIFTH STREET: CLOSURE HILL TO MADISON

* INDICATES SIGNS PLACED DURING FIFTH STREET CLOSURE

NOTE: HOOVER ST MUST REMAIN OPEN DURING THIS CLOSURE. DETOUR PEDESTRIANS ACCORDING TO ATTACHED TYPICAL. COORDINATE WITH DIVISION RESURFACING PROJECT.




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REV.	DATE	DRAWN	CHECKED
01	2/22/19	PG/JC	CEW

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HOOVER, GREENE, & HILL IMPROVEMENT PROJECT

HILL STREET DETOUR - FIFTH CLOSED

SCALE NTS



DRAWING No. 2018-031-77A

SHEET No. 77A OF 83