NOTE: Based on the scope of work, additional documentation may be required. See www/detroitmi.gov/hdc **for scope-specific requirements.**

PROJECT DETAILS – TELL US ABOUT YOUR PROJECT

Instructions: Add project details using the text box in each section. If your details exceed the space provided, attach the details via the attachment icon for that section.

ePLANS PERMIT NUMBER:
(only applicable if you've already applied for permits through ePLANS) N/A

GENERAL

1. DESCRIPTION OF EXISTING CONDITION
Please tell us about the current appearance and conditions of the areas you want to change. You may use a few sentences or attach a separate prepared document on the right. (For example, "existing roof on my garage is covered in gray asphalt shingles in poor condition.")

Basement stairwell was open to the elements. To determine whether this well was the cause of basement flooding, we built a structure over this stairwell. The flooding stopped, and we are seeking approval of the structure.

2. PHOTOGRAPHS
Help us understand your project. Please attach photographs of all areas where work is proposed.

3. DESCRIPTION OF PROJECT
In this box, tell us about what you want to do at the areas described above in box #1. (For example, Install new asphalt shingle roofing at garage.)

Constructed walls and a roof over top of the stairwell using historic approved materials left over from our exterior renovation project (COA #20-6662).

4. DETAILED SCOPE OF WORK
In this box, please describe all steps necessary to complete the work described in box #3. (For example, "remove existing shingles, replace wood deck as necessary, replace wood eaves, install roof vents, replace rotted fascia boards, paint, clean worksite.")

- Walls with cedar scallop siding matching COA #20-6662
- Trim, fascia, and gutter system to match COA #20-6662
- Exterior door matching COA #20-6662
- Shed roof with rolled roofing over top of stairwell

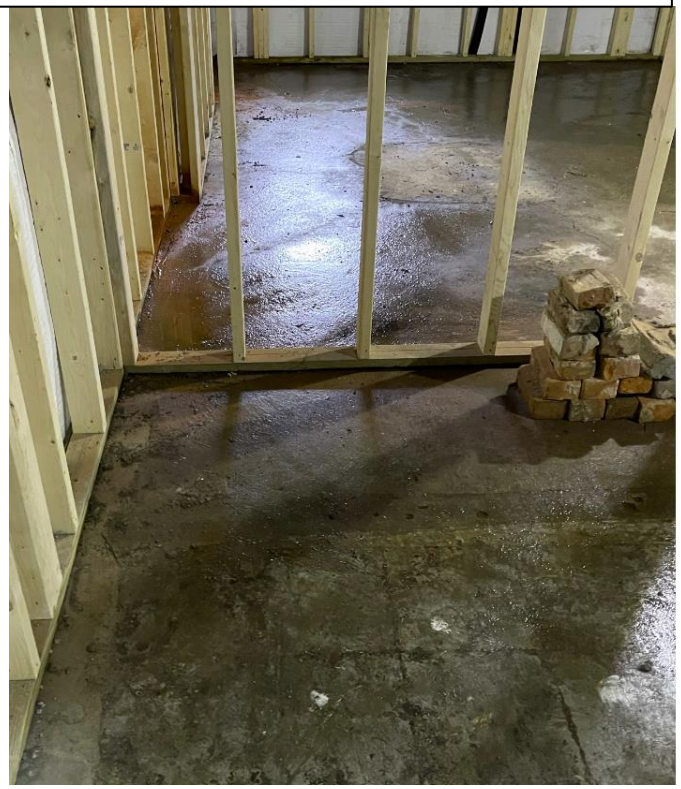
5. BROCHURES/CUT SHEETS
Please provide information on the products or materials you are proposing to install. For example, a brochure on the brand and color of the shingles proposed.

ADDITIONAL DETAILS

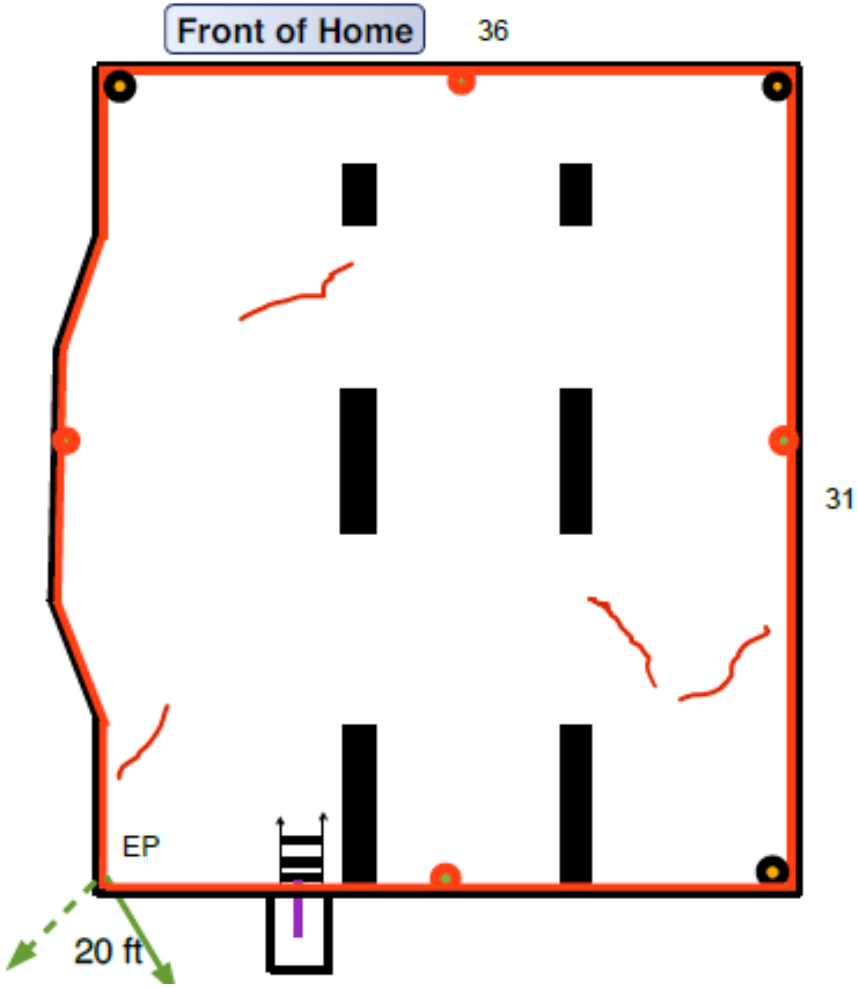
Basement Floor & Stairwell Waterproofing Issues

Stairwell water intrusion

Basement living area water intrusion



Basement Floor Plan – Interior Perimeter Drain



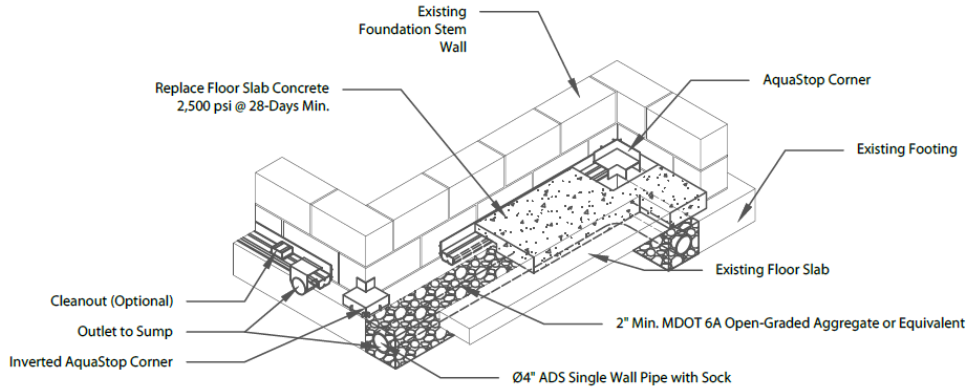
Itemized Price Breakdown (discounted rates):
- Remove existing AquaStop and replace with a 2-step system (AquaStop w/ drainage tile): $9700 reduced to $4850
-Install 4 AquaStop Inspection Ports and 3 DT cleanouts: No charge
-Tie back entrance floor drain pipe to drain tile system: Included
- Exterior Discharge Relocation/Extension: No Charge
- Permits: Included

FSM will not warrant against water coming up through floor due to no drainage along interior footing walls.

ADDITIONAL FSM RECOMMENDATIONS BELOW:

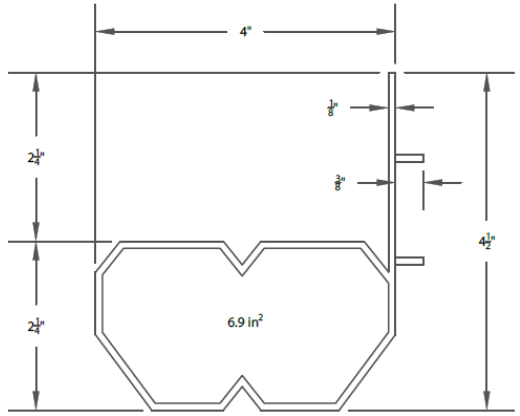
- DT cleanout
- 2 Step System (AquaStop/DT)
- Finger Drain Tie In
EP - Existing Pump
- Aquastop Inspection Ports
- Existing Discharge (remove)
- New Discharge

Basement Floor Plan – Interior Perimeter Drain



1 AquaStop Perimeter Drainage System - Conceptual View

Scale: 1:40



2 AquaStop - Section View

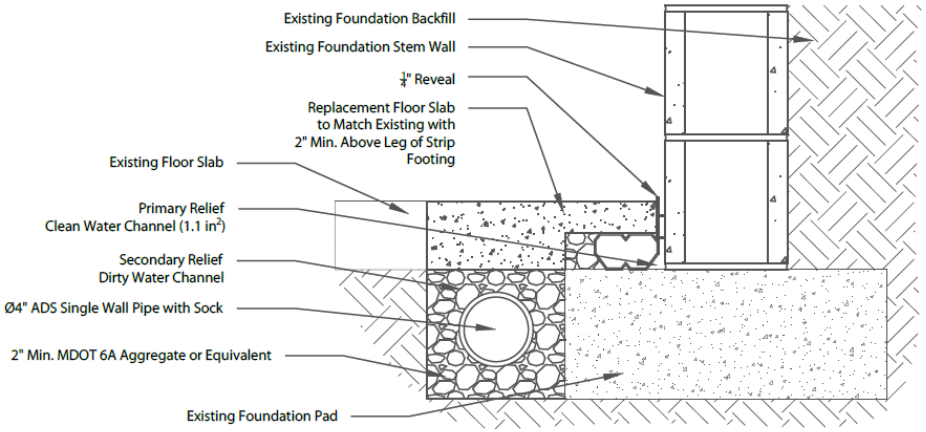
Scale: 1:2

General Notes:

1. The installation of the AquaStop drainage system shall adhere to all applicable local and state building codes and ordinances. Alternative drainage system details may be required for projects zoned as other than residential.
2. The AquaStap drainage system is a PVC product manufactured in 10-foot lengths. Outlets, corners, fasteners, and cleanouts are constructed of the same PVC. Corner cleanouts are available; however, are not depicted in this drawing set.
3. AquaStop shall function to collect water along the full-length of the constructed system and shall be installed at the connection of the foundation stem-wall and footing.
4. Sump outlets shall be located at 150-foot intervals along the length of the drainage system.
5. Sections of drainage channel shall be butt-jointed. Connection of butt-joint shall consist of tight-fitting snap-on fasteners.
6. Outletted water shall discharge to an approved discharge location (e.g. sump pit).
7. Backfill aggregate shall consist of MDOT 6A open-graded aggregate or equivalent.
8. Placed concrete shall consist of 2,500 psi @ 28-days or better.

Construction Sequence:

1. Remove approximately 12" of existing concrete slab in front of interior of foundation stem wall leaving rough edge on face of floor slab.
2. Drill two (2) Ø½" holes in existing masonry block at 8" O.C..
3. Place drainage system flush with foundation stem wall and flush with top of foundation footing. Fasten sections of drainage system with tight-fitting snap-on fasteners.
4. Excavate area for placement of drain tile in front of footing. Drain tile should be flush with bottom of footing.
5. Connect outlets to approved discharge location.
6. Backfill remaining excavation beneath top of discharge channel with MDOT 6A open-graded aggregate or equivalent. Cover aggregate with 6 mil plastic barrier.
7. Place floor slab concrete mix. Concrete shall have a minimum thickness of 2 inches.



3 Drainage System - Section View

Scale: 1:10

MGD P.E.
21522 Gregory Street
Dearborn, MI 48124
(734) 545-3607
www.mgdpe.com

STATE OF MICHIGAN
MICHAEL G. DAGHER
ENGINEER
No. 62589
LICENSED PROFESSIONAL ENGINEER

STANDARD DETAIL

AquaStop Perimeter Drainage System with Drain Tile

Date:	1/23/2020
Drawn:	M. Dagher, P.E.
Version:	R1
Paper Size:	8.5"x11"

FSM
FOUNDATION SYSTEMS OF MICHIGAN
877-DRY-MICH
32985 Schoolcraft Road
Livonia, Michigan 48150

Basement Stairwell Plan – Roof & Gutter System

Roof: peel & stick rolled roofing with metal drip edge

Rafters: 24” on center

Trim: matching 1x6 pine facia and gutter

Door: 3/0x6/8 exterior steel

Header: double 2x10 doorway

Window: matching window taped to building wrap

Walls:
2x4s 16” on-center
7/16 OSB sheathing
Guilding wrap
Matching natural cedar siding

Flashing: aluminum Z at base

Basement Stairwell Plan – Roof & Gutter System

Sill: sill sealer beneath 2x4 pressure treated plate, secured with Simpson bolts

Drain: existing floor drain

Basement Stairwell Plan – Roof & Gutter System

36” landing

36” landing