



GRAND HAVEN CHARTER TOWNSHIP

Grand Haven Charter Township
13300 168th Avenue, Grand Haven, MI 49417
Phone: (616) 842-5988 | Fax: (616) 842-9419 |
building@ghtmi.gov

Residential Swimming Pools, Hot Tubs, Spas

Separate Applications Must be Completed for Plumbing, Mechanical, or Electrical Work Permits

I. Owner/ Job Location <input type="checkbox"/> Owner is Applicant (if homeowner is applicant, complete Section I and continue to Section IV)			
Name of Property Owner		Home Phone	Cell
Address		City	State Zip
Job Location (if different than above)			
Parcel #		Email (REQUIRED)	
II. Builder/Contractor/Licensee Information			
Company Name		Company Address	
Business Phone		Cell	Fax
Email (REQUIRED)			
Licensee Name		State Builder's License #	Expiration Date
Federal ID # (or reason for exemption)		Workers Comp (or reason for exemption)	UIA Employer # (or reason for exemption)
III. Builder's Affidavit			
<i>Section 23a of the State Construction Code Act of 1972, 1972 PA 230, MCL 125.1523A, prohibits a person from conspiring to circumvent the licensing requirements of this state relating to persons who are to perform work on a residential building or a residential structure. Violators of Section 23a are subject to civil fines. I hereby certify that the proposed building work is authorized by the owner of record and that I have been authorizing by the owner to make this application as his/her authorized agent, and we agree to conform to all applicable laws of the State of Michigan. All information submitted on this application is accurate to the best of my knowledge.</i>			
Signature of Licensee			Date
IV. Homeowner Affidavit			
<i>I hereby certify the work described in this permit application shall be done by myself on my own dwelling in which I am living, or about to occupy. All work shall be done in accordance with the codes and shall not be backfilled, enclosed, dry walled, covered-up, or used until it has been inspected or approved by the appropriate inspector. I understand my responsibility to arrange for the required inspections and I agree not to move anything into, or use the building in any way, until I have received written approval to do so from the appropriate inspector. I understand that for any such affidavit connected to a building permit, I (or appropriate licensed contractors) am required to obtain additional permits before installing any electrical, plumbing, heating, air conditioning, fireplace, wood stove, ventilation component, or other similar work. I understand all of the above and acknowledge that failure to comply with the above requirements may cause revocation of the building permit and/or legal action to be taken against me.</i>			
Signature of Homeowner			Date

V. Project Description			
A. Type of Improvement (check one)			
<input type="checkbox"/> SWIMMING POOL <ul style="list-style-type: none"> • Must complete information for private swimming pool form. • Swimming pool plans with cross sections must be provided. 		Manufacturer/Model:	Dimensions of Swimming Pool:
<input type="checkbox"/> HOT TUB/SPA		Manufacturer/Model:	
<input type="checkbox"/> BARRIER ONLY			
B. Must indicate how compliance with 2015 ISpsc Section 310/APSP7 will be met (entrapment protection for swimming pool and spa suction outlets):			
C. Total Project Value (including cost of materials and labor for the swimming pool, hot tub/spa, and barrier):			
\$			
D. Swimming Pool/Hot Tub/Spa Barrier Information - SEE 2015 ISpsc			
<ul style="list-style-type: none"> • Swimming pools must use either an automatic safety cover compliant with ASTM 1346 OR use a barrier. • Hot tubs and spas must use either a manual safety cover compliant with ASTM 1346 OR use a barrier. 			
Swimming Pool Only: Automatic Safety Cover		ASTM Numbers:	
Hot Tub Only: Manual Safety Cover		ASTM Numbers:	
Barrier (Fence)	Barrier Material (treated wood, metal, vinyl, chain link, etc.):	Height of Barrier:	Total Length of Barrier:
	The largest size of any openings in the barrier: (If chain link fencing is used, 1.25" mesh must be installed.)	Maximum distance from the bottom of the barrier to the ground:	
	How many gates? <i>(Please show gate swing direction, gate latching mechanism, self-closing, self-latching & capability of being locked on an attached diagram.)</i>	Will any portion of the house be used as part of the barrier? If yes, indicate the specific type of water hazard entrance alarm(s) to be used on the windows and doors:	
E. Diving Equipment			
Diving Equipment Manufacturer and Model:			
If a diving board will be installed the manufacturer's installation instructions must be submitted with the application. The location of the diving board must be shown on the submitted plans, including proof that a minimum of six feet (6') of water will be below the tip of the diving board.			
VI. Plan Review Required			
Any electrical work requires a separate electrical permit and related inspections. Any mechanical work, such as swimming pool heater installation, requires a separate mechanical permit and related inspections. Detailed construction documents must be submitted with any application for a building permit, unless waived by the building official when code compliance can be determined based on the description in the application, and the appropriate fee(s) must be paid in full before a permit can be issued. Construction documents must be sealed and signed by an architect or professional engineer in accordance with 1980, PA 299 as amended. The seal and signature are not required for one and two family dwellings less than 3,500 square feet of calculated floor area and public works less than \$15,000 in total construction cost. The building official also reserves the right to require architect or engineer supervision on any other construction method deemed unusual or non-typical.			

VII. Site Plan with Setbacks (or attach a site plan and/or survey)

North

Tip: use an aerial map to draw the Site Plan,
go to <https://gis.miottawa.org>, and
click Property Mapping Lite

West

East

South

Notes:

Information for Private Swimming Pool		
A. Swimming Pool Construction		
Manufacturer:	Model Number:	Swimming Pool Type: <input type="checkbox"/> Above-Ground <input type="checkbox"/> In-Ground
Swimming Pool Size:		Water Depth:
Diameter or Length & Width:		Shallow End: Deep End:
Swimming Pool Material:		
<input type="checkbox"/> Gunite <input type="checkbox"/> Vinyl Liner <input type="checkbox"/> Fiberglass <input type="checkbox"/> Other:		
Surface Cleaning:		
<input type="checkbox"/> Skimmers (One skimmer is required for each 800 square feet of surface area) <input type="checkbox"/> Gutters		
B. Diving Board		
<i>If diving board will be installed the manufacturer's installation instructions must be submitted with the application. The location of the diving board must be shown on the submitted plans, including proof that a minimum of six feet (6') of water will be below the tip of the diving board.</i>		
Is a diving board included in this project? <input type="checkbox"/> Yes <input type="checkbox"/> No		Diving Swimming Pool Type: <input type="checkbox"/> Non-Diving <input type="checkbox"/> III <input type="checkbox"/> I <input type="checkbox"/> IV <input type="checkbox"/> II <input type="checkbox"/> V
C. Safety Features:		
Above-Ground Swimming Pool <i>These items are required:</i> <input type="checkbox"/> Manufacturer's safety sign and sticker will be installed. <input type="checkbox"/> Ladder manufacturer's safety signs and sticker will be installed.		In-Ground Swimming Pool: <i>This is required:</i> <input type="checkbox"/> Shallow/deep transition rope and floats will be installed.
D. Water Treatment		
Swimming Pool Capacity (Gallons):	Filter Capacity (Gallons per Hour):	Time it takes to complete one water turnover cycle (<i>must be less than 12 hours</i>):
Swimming pool filter meets the requirement of the National Sanitation Foundation Standard 50 entitled "Circulation System Components for Swimming Pools, Spas, or Hot Tubs." <input type="checkbox"/> Yes <input type="checkbox"/> No		The swimming pool owner has been, or will be upon completion, instructed in the care and maintenance of the swimming pool, including water treatment. <input type="checkbox"/> Yes <input type="checkbox"/> No
E. Swimming Pool Barrier and Entrapment Protection		
Swimming pool barrier will be provided by: <input type="checkbox"/> Swimming Pool Contractor <input type="checkbox"/> Homeowner – with permit holder responsible for barrier code compliance.		Entrapment protection will be provided by: <input type="checkbox"/> Swimming Pool Contractor
F. Enclosure Agreement		
<i>I understand that necessary safety precautions must be met during construction and that the swimming pool barrier and entrapment protection requirements of the 2015 ISPC must be completed prior to filling the swimming pool with water.</i>		
Print Name of Enclosure Provider		Date
Signature of Enclosure Provider		Date

VIII. Local Government Agency to Complete This Section						
TYPE OF DOCUMENTATION	REQUIRED?		APPROVED	DATE	NUMBER	BY
A. Proof of Ownership	YES	NO				
B. Site Plan (Showing Proposed Setbacks)	YES	NO				
C. Survey	YES	NO				
D. EGLE Permit	YES	NO				
E. Erosion Control Permit	YES	NO				
F. Swimming Pool Information Form	YES	NO				
G. Pool Plans with Cross Sections	YES	NO				
H. Other	YES	NO				

Type of Construction	Use Group	Base Fee
Square Feet		
Approval Signature		
Title	Date	

Zoning District Information	
Zoning Approval Signature	
Title	Date



RESIDENTIAL SWIMMING POOLS, HOT TUBS AND SPAS

January 2024

**Grand Haven Charter Township
Building Department Guide
Pools, Hot Tubs, Spas**



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INTRODUCTION

Grand Haven Charter Township has prepared this guidebook to assist you in the process of building an above-ground or in-ground residential swimming pool, hot tub, or spa within the Township. This guidebook contains important information that will help you understand the building permit and construction process from application to completion. We have included details for areas that have generated confusion or delays in the past. The information is presented in a start-to-finish sequence to guide you as you progress through your project.

A building permit is required for all residential swimming pools, hot tubs or spas that have any of the following:

- A pool, hot tub, or spa intended for swimming or bathing, capable of a water depth greater than 24" deep.
- A permanent water-recirculation system
- Construction that involves structural materials

This guidebook contains many procedures and requirements. We urge you to read through it completely. It may save you valuable time in completing your project. We hope this guidebook is helpful and we encourage you to provide us with any suggestions you may have.

Note: This guidebook is only intended to be a guide and is not all inclusive of the Michigan Residential Building Code (MRC) or the International Swimming Pool and Spa Code (ISPSA). For complete details of all requirements, please consult those two codes. The information in this guidebook is subject to change without notice.

BEFORE YOU BUILD

Location. Residential swimming pools, hot tubs, or spas shall not be located within any easement, above a septic field or tank, or water well. Overhead wires (electric, phone, cable) shall not be located over a pool, diving structure, any pool platform or within 10-feet of the water's edge. All wires beyond 10-feet must be at least 22-½-feet above the ground, deck, patio, or other walking surface below the wires.

Verify the location of all underground utilities by calling **MISS DIG at 811**.

Setbacks. All residential above-ground swimming pools, including decks, shall be setback at least 10-feet from all property lines. All residential in-ground swimming pools shall be at least 5-feet from all property lines. Hot tubs and spas are considered exempt from zoning setback requirements.

Pool Fences/Barriers to Create an Enclosure. Hot tubs and spas may use an approved lockable safety cover as a barrier. In-ground pools may use an approved automatic safety cover as a barrier. Any swimming pool, hot tub, or spa without an approved automatic safety cover shall be enclosed to create a pool barrier. Common barriers include approved fencing, the walls of a house, the walls of above-ground pools, gates, and alarms on doors and windows. See "Construction Requirements" – pages 10-14 for more information.

OTHER PERMITS THAT MAY BE REQUIRED

The following is a list of other permits that maybe required for your project. Please review the list below and obtain the required permits prior to applying for the building permit from Grand Haven Charter Township. Failure to submit the appropriate permits will cause a delay in the project schedule.

The following are types of permits issued by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) under the provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA).

1. Part 353, Sand Dunes Protection and Management:
 - a. A permit is required for alteration of lands identified as critical dune areas including removal of vegetation, site contour changes, and any construction activities.
2. Part 323, Shorelands Protection and Management:
 - a. Environmental Areas – a permit is required for any dredging, filling, alteration of drainage or vegetation, or construction of a structure within a designated area.
 - b. High Risk Erosion Areas – a permit is required for construction of any permanent structure, which will require a set-back from the bluff, within a designated area.
 - c. Flood Risk Areas- a permit is required for construction of any permanent structure with a designated flood area.
3. Part 325, Great Lakes Submerged Lands:
 - a. A permit is required for any filling, dredging, or construction of a permanent structure (groin, seawall, dock) below the ordinary high water mark of any of the Great Lakes.
4. Part 31, Flood Plain/Water Resources Protection:
 - a. A permit is required for any filling, grading, or construction of a building within the 100-year floodplain of any river, stream, or lake.
5. Part 303, Wetland Protection:
 - a. A permit is required for any dredging, filling, draining, or construction in any wetland contiguous to a lake or stream, or any isolated wetland at least five acres in size.
6. Part 301, Inland Lakes, and Streams:
 - a. A permit is required for any dredging, filling, or construction of a permanent structure below the ordinary high water mark of any inland stream, or lake greater than five acres in size. A permit is also required for dredging within 500 feet of a lake or stream.

EGLE Contact Information:

Grand Rapids District, Water Resources Division
350 Ottawa Ave, NW, Grand Rapids, MI 49503
Ph: 616-356-0500 | Fax: 616-356-0202
www.michigan.gov/egle

The following are types of permits issued by Ottawa County:

1. Part 91, Soil Erosion and Sedimentation Control: (NREPA, 1994 PA 451, as amended):
 - A permit is required for any earth changes greater than one acre in size or within 500 feet of a lake, river or stream.

Ottawa County Water Resources (OCWR) Soil Erosion Contact Information:

Ottawa County Water Resources Department
Soil Erosion & Sediment Control Agency
Ph: 616-994-4528 | 616-994-4530 | Fax: 616-994-4529
www.miottawa.org/Departments/Drain

Please note: These are some of the common items that may cause delays in the permit process. If your project is beyond the scope of this guidebook, additional requirements may be necessary. Please call the Building Department at 616-842-5988 or email building@ghtmi.gov if you have any questions.

FROM APPLICATION TO COMPLETION

A General Guide through the Complete Process

Information Required for Permit Application

A. Building Permit Application

- Applications are available online at www.ghl.org or at front desk. Applications shall be filled out completely.
- Also submit any required permits from the “OTHER PERMITS THAT MAY BE REQUIRED” section.

B. Site Plan

- See “Site Plan Requirements” – page 15 and “Sample Site Plans” – pages 16-17.

C. Construction Drawings – Two Complete Sets – POOLS ONLY

- Above-ground pools
 - Provide two sets of manufacturer’s drawings and specifications.
 - The plans submitted shall contain complete details of the pool barrier.
 - See “Construction Requirements” – pages 10-14.
- In-ground Pools
 - Provide complete construction details showing the size, spacing and location of all structural members and reinforcement.
 - Provide pool plan view drawings and cross section drawings with notes, details, and dimensions. See “Pool Section Details” – page 19.
 - Indicate the location and provide details and dimensions for the diving board.
 - Indicate the location and provide details of the steps and/or ladder.
 - The plans submitted shall contain complete details of the pool barrier.
 - See “Construction Requirements” – pages 10-14.

D. Manufacturer Info – Hot Tubs or Spas

- Provide manufacturer’s drawings and specifications.
- The plans submitted shall contain complete details of the barrier.
- See “Construction Requirements” – pages 10-14.
- Information about the safety cover shall be included if a fence style barrier is not being installed.

E. Fence/Barrier Details

- See “Construction Requirements,” pages 10-14 & “Barrier and Gate Details – page 18.

F. Registration of Builder's License

- The Contractor shall be currently registered with Grand Haven Charter Township to be able to submit a building permit application.
- Contractors not currently registered can register at the time of application by providing or presenting the following:
 - Contractor's Registration Application
 - Available at the front desk or online and needs an original signature by the license holder.
 - The original or a copy of your Builder's License
 - The original or a copy of a photo ID.

G. Plans Reviewed and Approved

All building permit applications for residential swimming pools, hot tubs, or spas will be processed in the order they are received.

The Permit Technician will perform initial review of the application to verify all required documents are provided with the application. Plans are reviewed in the order they are received, based on the application date. Generally, permits take about two weeks from submission to being issued. The timeline may vary depending on the season and obtaining required application documents.

Construction drawings will be reviewed for compliance with Township Ordinances, this guidebook, the Michigan Residential Code (MRC), and the International Swimming Pool and Spa Code (ISPSC).

The permit applicant will be notified if the plans do not meet the requirements, or if any additional information is required.

H. Permit Ready

A Building Inspector will contact the permit applicant when the permit application has been processed and is ready to be issued. Permit fees will be provided upon notification.

I. Mechanical and Electrical Permits

Typically required and can be obtained after the building permit has been issued. All items to be installed shall be listed on the appropriate applications.

- Separate Electrical permits are required for electrical work.
- Separate Mechanical permits are needed for any mechanical work, including pool heaters.

When the required permits are obtained, construction may begin.

Revisions to the residential swimming pool, hot tub, or spa after issuance of the Building Permit may require re-submittals and reapproval from the Building Department.

The following items shall be maintained throughout the construction process:

- The street address shall be posted on the house and visible from the street.
- All construction materials and debris shall be contained on the property.
- Temporary soil erosion control shall be erected and maintained (as applicable).

INSPECTION REQUESTS

Procedure to Request an Inspection

1. Contact the Township offices at least 24 hours in advance of the inspection.
 - Please call 616-842-5988 or email building@ghtmi.gov to schedule an inspection.
2. Provide:
 - Builder name,
 - Property Address
 - Permit Number
 - Type of Inspection Required.
 - Indicate morning or afternoon preference (exact times cannot be specified due to unforeseen circumstances).
 - Contact name and number
3. The permit must be posted in an accessible location easily seen from the street.
4. All approvals are indicated by a GREEN sticker. If you do not receive a GREEN sticker by 5:00pm the day of your scheduled inspection, you are required to contact the building department.

DO NOT PROCEED UNTIL YOU HAVE OBTAINED THE GREEN APPROVAL STICKER

Normal business hours are Monday through Friday 8:00am through 5:00pm.
Inspections are typically performed mornings 9:30 – 11:30am and afternoons 2:30 – 4:30pm.

Approved plans shall be on site for all inspections. Your residential swimming pool, hot tub, or spa will be reviewed and inspected in accordance with the requirements of the Michigan Residential Code (MRC). As your project progresses, the Building Department will need to perform the following inspections (as applicable to your type of project):

- **Underground Mechanical Inspection** (as applicable)
 - Underground gas lines shall be inspected before covering.
 - All work shall comply with the Michigan Residential Code (MRC).

- **Underground Electrical Inspection**

After grounding, bonding and all underground Electrical work is completed, the Electrical work shall be inspected before covering. The following will be verified:

 - Proper materials approved for pool installations have been used.
 - Wiring from house to pool is at least 18-inches below grade.
 - All work complies with the Michigan Residential Code (MRC).

- **Steel or Structural Inspection** (for In-Ground Pools only)
 - Required before concrete, gunite or backfill.
 - Structural steel and reinforcement shall be installed in accordance with the approved plans and the manufacturer's requirements.

- **Final Mechanical Inspection** (as applicable). After all mechanical equipment and gas piping are installed and operational.
 - Above-ground gas piping and the pool heater have been properly installed with the correct materials.
 - Pool heaters have been provided with a readily accessible on/off switch to allow shutting off the heater without adjusting the thermostat setting.
 - Pool heaters do not have continuously running pilot lights.

- **Final Electrical Inspection.** After all electrical equipment, switches, plugs, covers, and fixtures are installed and operational.
 - All grounding and bonding have been completed. See "Electrical Grounding Details" –see page 19.
 - Ground fault circuit interrupters operate properly. The proper breaker size has been installed.
 - Timer switches have been installed that can automatically turn off and on heaters and pumps according to preset schedules.
 - Please Note: The Inspector may need access to the inside of the house to complete the Electrical inspection.

- **Final Building Inspection.** After Mechanical and Electrical inspections (as applicable) are done and the pool enclosure/barrier is completed. A final inspection is required for all residential swimming pools, hot tubs, and spas.

Common items the Inspector looks for are:

- Window and door alarms have been installed on all required windows and doors (Please Note: The Inspector will need access to the inside of the house to check the alarm operation.)
- The proper type and installation of fencing and gates. See “Sample Fence/Barrier and Gate Details” – see page 18.
- Alternatively, an approved automatic safety cover compliant with ASTM-1346 may serve as the barrier to an in-ground pool.
- Swimming pool walls and floor slope.
- Diving board requirements (if applicable).
- Rope and float assembly is present.
- A vapor retardant pool cover is available on the water surface of the pool or nearby.
- An approved safety cover compliant with ASTM-1346 has been installed on the hot tub or spa if a barrier is not being installed.
- Ladder installation (as applicable).

This itemized list is provided as a guide to help you understand the process for installing a residential swimming pool, hot tub, or spa in Grand Haven Charter Township. It covers the most common types of projects. If your project is beyond the scope of this guidebook, it may require additional information, inspections or permits. Please call the Building Department at 616-842-5988 or email building@ghtmi.gov if you have any questions on how to apply this guidebook to your specific project.

CONSTRUCTION REQUIREMENTS

This information is provided in a “user-friendly” format as a general guide to help you apply the common Michigan Residential Code requirements to your project. It covers the most common types of projects. The actual Michigan Residential Code language may contain additional requirements or exceptions that may apply if your project is beyond the scope of this guidebook.

Your residential swimming pool, hot tub or spa will be reviewed and inspected in accordance with the following:

- Building Code** | 2015 Michigan Residential Code (2015 MRC) and, by reference, the 2015 International Swimming Pool and Spa Code (2015 ISPSC)
- Mechanical Code** | 2015 Michigan Residential Code (2015 MRC)
- Electrical Code** | 2015 Michigan Residential Code (2015 MRC)
- Plumbing Code** | 2015 Michigan Residential Code (2015 MRC)

1. **Residential Swimming Pool, Hot Tub, and Spa Construction.** The residential swimming pool, hot tub, or spa shall be installed and/or constructed in accordance with the manufacturer’s installation instructions, the approved construction drawings, and the approved site plan.
 - a. **Safety Precautions** shall be maintained throughout construction. Residential swimming pools, hot tubs or spas shall not be filled with water until the pool fence/barrier requirements of the Michigan Residential Code are completed. See Pool Fence/Barrier used as enclosure information – pages 11-14.
 - b. **Wall Slopes:** (this typically applies to in-ground pools only) The wall slopes around the pool shall not exceed 11% to a depth of 2 feet 9 inches (2’-9”) from the top. Please provide wall slope details on the pool sections. See “Pool Section Details” – page 19.
 - c. **Floor Slopes:** (this typically applies to in-ground pools only) The slope of the floor on the shallow side of the transition point shall not exceed one unit vertical to seven units horizontal. The slope of the floor on the deep side of the transition point shall not exceed one unit vertical to three units horizontal. Please provide floor slope details on the pool sections. See “Pool Section Details” – page 19.
 - d. **Surface Cleaning:** All residential swimming pools shall be provided with a re-circulating skimmer or overflow gutters to remove scum and foreign matter from the surface of the water. Please indicate the type of surface cleaning to be used on the “Pool Information Form.”
 - e. **Steps and Ladders:** A minimum of one way to get out of the swimming pool shall be provided. Treads of steps and ladders shall have a slip resistant surface. All steps and ladders shall comply with the requirements outlined in the Michigan Residential Code and the International Swimming Pool and Spa Code. Construction plans shall show the location and details of the steps and/or ladders.
 - f. **Water Treatment:** Swimming pool filters shall have the capacity to filter the total volume of water in the pool at least once every 12 hours. The pool owner shall be instructed in the care and maintenance of the pool by the supplier or builder, including treatment. This information shall be included on the “Pool Information Form.”
 - g. **Diving Boards:** (this typically applies to in-ground pools only) The International Swimming Pool and Spa Code referenced in the Michigan Residential Code has specific requirements for the installation of diving boards, dependent on your residential swimming pool configuration. Please refer to the International Swimming Pool and Spa Code for specific requirements. If your residential swimming pool will have a diving board, you will need to provide information that shows how your diving board will comply with the International Swimming Pool and Spa Code requirements. The following must be provided:
 - i. Manufacturer’s installation instructions.
 - ii. Proof that there will be at least six (6’) feet of water depth under the tip of the diving board.
2. **Pool Fence/Barrier Used as an Enclosure.** All residential swimming pools, hot tubs, or spas shall be protected by a barrier enclosure to make the area inaccessible to children. Approved fencing, walls of the pool, walls of the house, gates, and door and window alarms may be part

of barrier used as the enclosure. Enclosures are not required for hot tubs or spas when an approved lockable safety cover that has been tested in accordance with ASTM F-1346-91 (2010) and bears a tag stating compliance has been installed. Enclosures are also not required for residential swimming pools protected with an approved automatic safety cover compliant with ASTM-1346.

Residential swimming pool, hot tub and spa enclosures shall meet the following requirements:

Fences

- a. The fence/barrier shall be 48 inches above the grade measured on the side of the fence/barrier that faces away from the swimming pool, hot tub or spa.

Please Note: If property within 3-feet of a fence/barrier slopes upward or contains a retaining wall or some similar climbing feature, the fence/barrier will have to either be increased in height or moved further back onto the property containing the residential swimming pool, hot tub or spa to accommodate the height difference at the adjacent property. This requirement ensures that the 48” barrier/fence height is properly maintained around and within 3 feet of the entire residential swimming pool, hot tub or spa and that higher surfaces cannot be used to help climb over the fence/barrier.

- b. The maximum vertical clearance between the fence/barrier and surfaces that are not solid, such as grass or gravel shall be 2 inches measured on the side of the fence/barrier that faces away from the residential swimming pool, hot tub or spa.
- c. The maximum vertical clearance between the barrier and a solid surface such as concrete shall not exceed 4-inch measured on the fence/barrier that faces away from the residential swimming pool, hot tub, or spa.
- d. Openings in the fence/barrier shall not allow the passage of a 4-inch diameter or larger sphere (openings shall be less than 4”).
- e. The following regulations apply for fences used as a barrier:
 - i. **Solid Fences/Barriers** - Brick or masonry walls shall not contain indentations or protrusions that would create a toehold or make the fence/ barrier climbable.
 - ii. **Closely Spaced Horizontal Members** - Where the fence/barrier is composed of horizontal and vertical members (wood, aluminum, picket, etc.) and the distance between the tops of the horizontal members is less than 45-inches, the horizontal members shall be located on the residential swimming pool, hot tub or spa side of the fence/barrier. Spacing between vertical members shall not exceed one and three quarters inches (1 ¾”) inches.
 - iii. **Widely Spaced Horizontal Members** - Where the fence/barrier is composed of horizontal and vertical members (wood, aluminum, picket, etc.) and the distance between the tops or the horizontal members is forty-five inches (45”) or more, spacing between vertical members shall not exceed four inches (4”).
 - iv. **Chain Link Fences** - Chain link/mesh fences shall not have openings formed by the diagonal chain link members that are more one and three quarters inches (1 ¾”). **Only one and one quarter inch (1 ¼”) chain link mesh or smaller material can comply with the maximum opening size requirements.**

Gates

- a. Access gates shall comply with the fence/barrier requirements.
- b. Gates shall be equipped to accommodate a locking device.
- c. Pedestrian access gates shall open outward away from the residential swimming pool, hot tub or spa and shall be self-closing and have a self-latching device.
- d. Utility or service gates not intended for pedestrian use shall remain locked when not in use.
- e. Double or multiple gates shall have at least one leaf secured in place and the adjacent leaf shall be secured with a self-latching device. The release mechanism is required to be at least fifty-four (54") inches above the grade.
- f. If the release mechanism of the self-latching device is located less than least fifty-four (54") inches from the grade, the following requirements apply:
 - i. The release mechanism shall be located on the swimming pool, hot tub, or spa side of the gate at least three (3") inches below the top of the gate.
 - ii. The gate and fence/barrier shall not have an opening greater than one-half (1/2") inch within eighteen inches (18") of the release mechanism.

Doors and Windows

Doors and windows that form part of a residential swimming pool, hot tub or spa barrier enclosure and provide direct access to the residential swimming pool, hot tub or spa from a house, garage or accessory building area shall comply with the following requirements:

- a. Each door and window shall contain a listed and labeled hazard entrance alarm (per UL 2017) that produces an audible warning when the door or window and its screen, if present, are opened.
- b. The audible warning shall start immediately after the door or window and its screen, if present, are opened.
- c. The audible warning shall sound continuously for at least thirty (30) seconds.
 - i. The alarm shall be capable of being heard throughout the house.
 - ii. The alarm shall automatically reset under all conditions.
 - iii. The alarm shall be equipped with a deactivation device such as a touch pad or switch.
 - iv. The deactivation device shall temporarily deactivate the alarm for not more than fifteen (15) seconds to allow a single opening for the door from either direction.
 - v. The deactivation device shall be located at least fifty-four inches (54") above the floor.
- d. A listed and labeled safety cover that meets the requirements of ASTM 1346 may be used in lieu of door and window alarms for a hot tub or spa. The safety cover must be automatic if used as a barrier for an in-ground pool.

Above-Ground Residential Swimming Pools

- a. The walls of the above-ground residential swimming pool can be used as part of the fence/barrier if the top of the pool walls are at least forty-eight inches (48”) above the grade for the entire perimeter within three (3’) feet of the pool **and the pool manufacturer allows the walls to serve as the barrier. Most soft sided swimming pool manufacturers do not allow the swimming pool walls to be used as the pool fence/barrier.**
- b. Ladders or steps used to access the residential swimming pool, hot tub or spa shall be capable of being secured, locked, or removed to prevent access. Ladders or steps may be enclosed with fencing/barriers and gates that meet fence/barrier requirements.

Hot Tubs and Spas

- a. Hot tubs and spas shall be provided with an approved lockable safety cover that has been tested in accordance with ASTM F-1346-91(2010). All approved safety covers shall have a tag indicating that the cover has passed the ASTM F-1346-91(2010) test.
- b. Safety covers are not required when hot tubs or spas are enclosed by a fence/barrier that meets all the guidelines mentioned above.

3. Entrapment Protection

Residential swimming pools, hot tubs and spas shall have suction outlets provided in accordance with ANSI/ASPS/ICC-7 2103.

4. Wood Decks Constructed Near a Residential Swimming Pool, Hot Tub or Spa

Wood decks constructed near a residential swimming pool, hot tub or spa shall comply with the requirements of the Residential Wood Deck Construction Guide (based on the Michigan Residential Code) and the International Swimming Pool and Spa Code (general requirements and requirements for above-ground pools).

SITE PLAN REQUIREMENTS

A site plan containing all the information and details noted below shall be submitted with the Building Permit application. See “Sample Site Plan” – page 16-17 for examples. The site plan can be drawn by the homeowner, contractor, land surveyor, engineer, or architect.

The site plan shall contain the following information:

1. Applicant’s name and telephone number.
2. Property address.
3. The north arrow, street right-of-way and street name.
4. Lot dimensions.
5. Location and dimensions of the proposed residential swimming pool, hot tub, or spa on the property.
6. Location and dimensions of all structures (house, shed, etc.) on the property.
7. Setback from the proposed pool/hot tub or spa to all property lines, easements, and buildings.
8. Show the location of all fencing and gates. Indicate gate swing direction.
9. Show the location of all overhead wires. Include the distance between the wires and the water’s edge, and the height of the wires above the ground, deck, patio, or other walking surface below the wires.
 - Overhead wires (electrical, phone or cable) shall not be located over a pool or within 10 feet of the water’s edge. All wires beyond 10-feet, shall be at least 22-½-feet above the ground, deck, patio, or other walking surface below the wires.

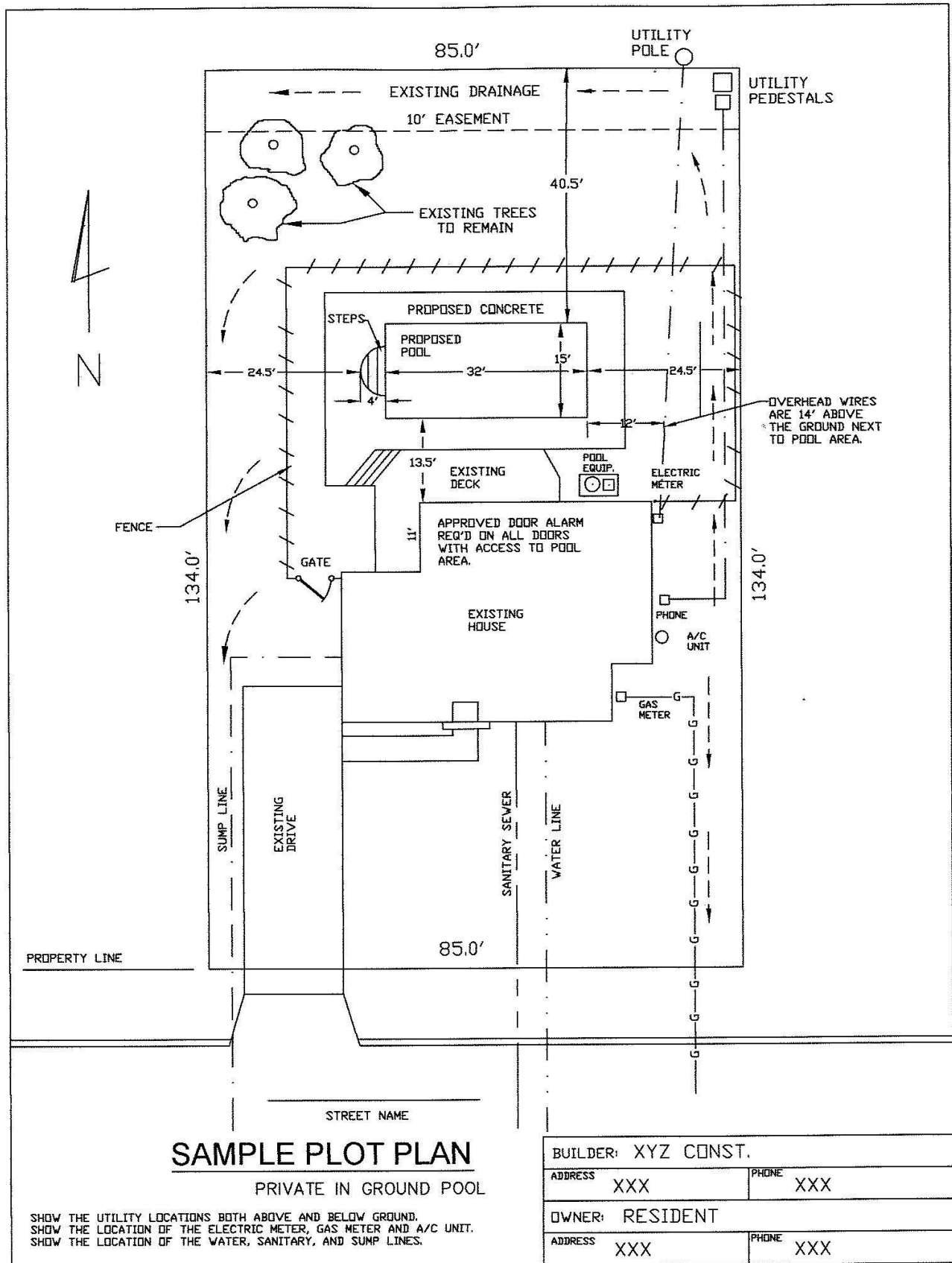
TIP

Use an aerial map to draw the Site Plan

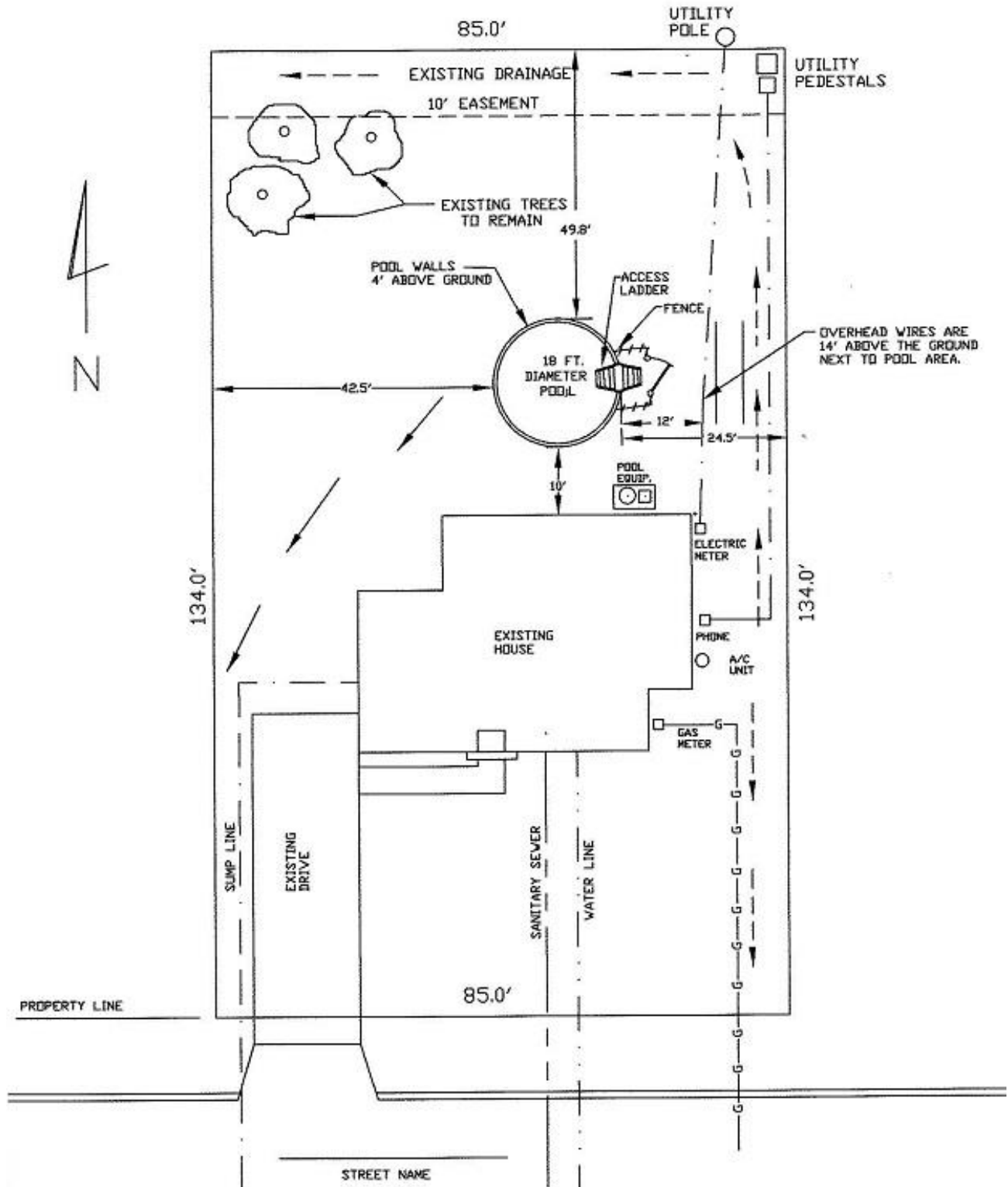
Go to <https://gis.miottawa.org>

Click **Property Mapping Lite**

SAMPLE SITE PLAN



SAMPLE SITE PLAN



SAMPLE PLOT PLAN

PRIVATE ABOVE GROUND POOL

SHOW THE UTILITY LOCATIONS BOTH ABOVE AND BELOW GROUND.
 SHOW THE LOCATION OF THE ELECTRIC METER, GAS METER AND A/C UNIT.
 SHOW THE LOCATION OF THE WATER, SANITARY, AND SUMP LINES.

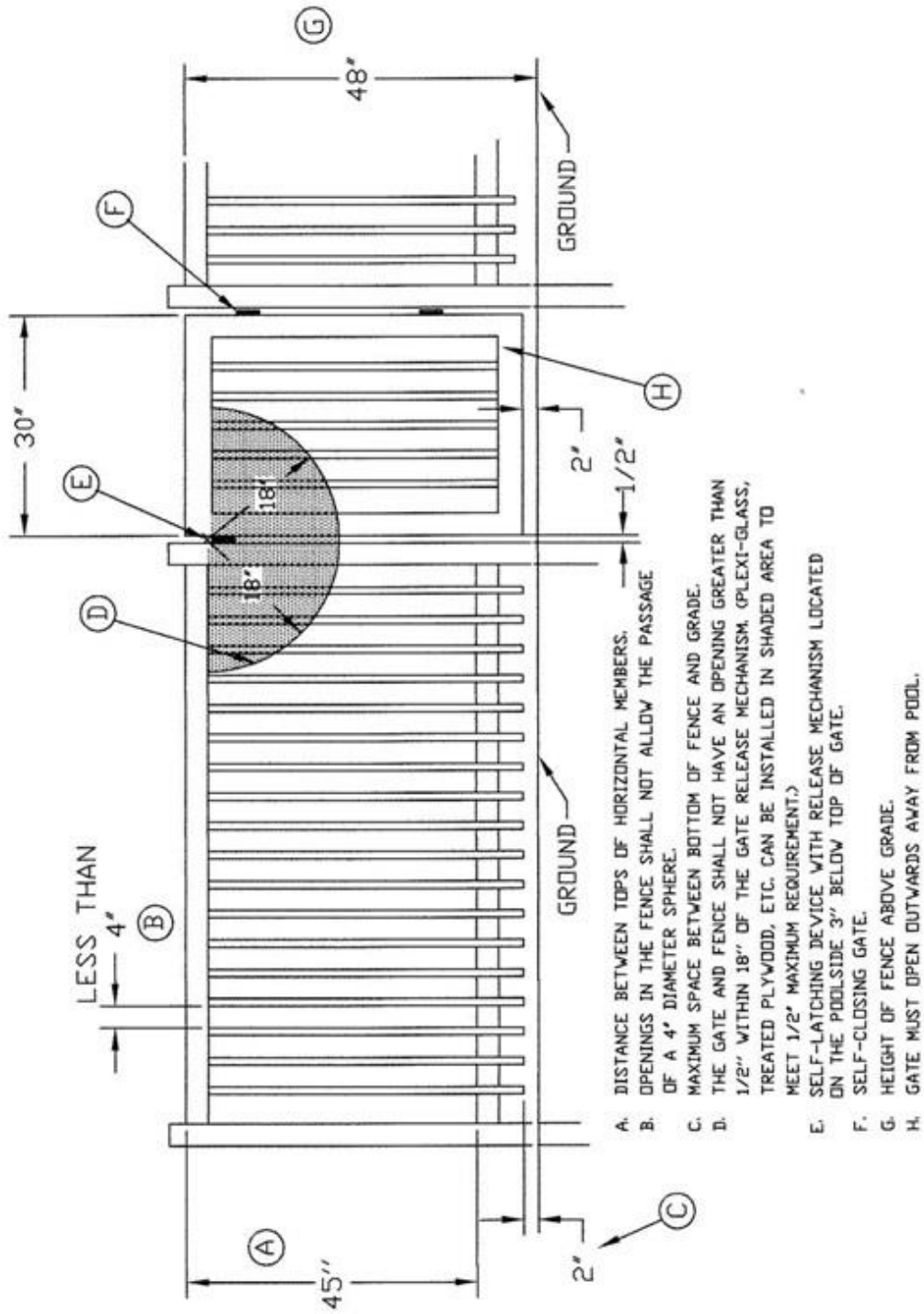
BUILDER: XYZ CONST.

ADDRESS XXX	PHONE XXX
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OWNER: RESIDENT

ADDRESS XXX	PHONE XXX
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BARRIER DETAILS



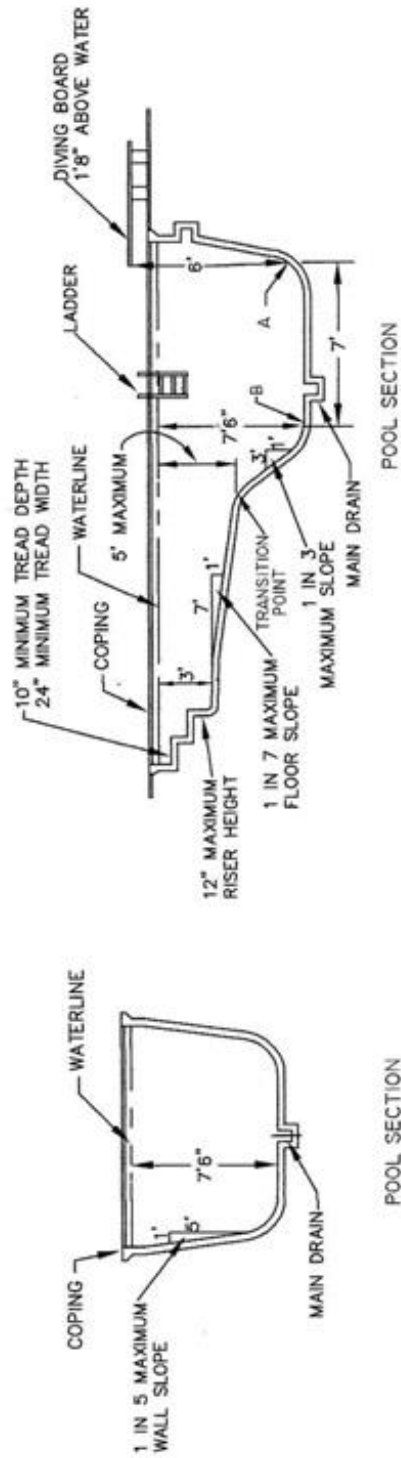
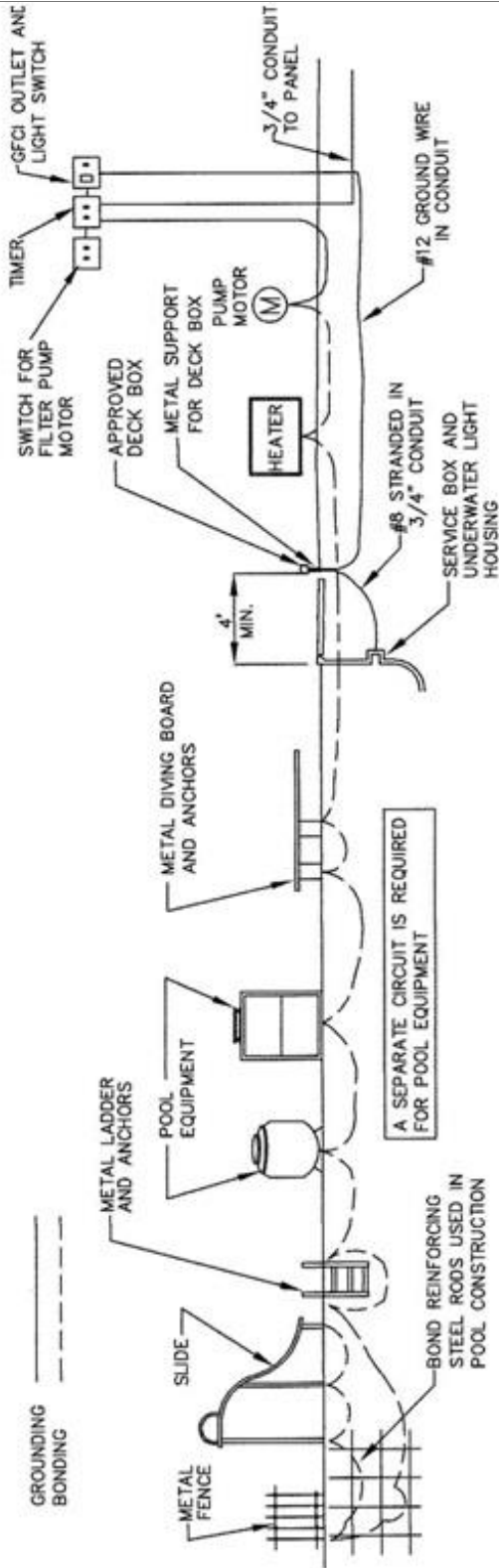
SAMPLE FENCE & GATE DETAILS

SCALE 1/2" = 1'

POOL DETAILS

ELECTRICAL BONDING AND GROUNDING:

BONDING - #8 SOLID WIRE SHALL BE USED TO BOND ALL EQUIPMENT TOGETHER WITH APPROVED PRESSURE CONNECTORS.
 GROUNDING - ALL ELECTRICAL EQUIPMENT LOCATED WITHIN 5' OF THE WATER'S EDGE MUST BE GROUNDING, I.E. JUNCTION BOXES, TRANSFORMERS, PANELBOARDS, WET AND DRY NICHE LIGHTS, MOTORS, ETC. ALL ELECTRICAL WORK MUST COMPLY TO SECTION E4101 OF M.R.C.



ELECTRICAL GROUNDING AND POOL SECTION DETAILS

NOT TO SCALE