

Guidelines for Aids to Navigation (ATON) Plans

Updated 9/12/2023

General Requirements: An Aids to Navigation (ATON) plan is generally required when a proposed project will have a potential impact on recreational boating. The main purpose of an ATON plan is to ensure the safety of recreational boaters who may attempt to travel through or near an area impacted by a project. If a project will occur over, in, or on a Commonwealth waterway where recreational boating occurs, it is likely a plan will be required. In determining whether a project will impact recreational boating, the Pennsylvania Fish and Boat Commission (Commission) will look at several factors, including but not limited to the following areas:

Is the waterway used by recreational boaters?

1. Is the waterway designated as a Water Trail? Information on the Pennsylvania Water Trail program can be found at <http://www.fishandboat.com/watertrails/trailindex.htm>. In addition to an ATON plan, these waters will also require Section 4(f) documentation. If there are questions regarding the designation or beginning/end of a Water Trail, please refer to the point of contact listed in this document.
2. Is the waterway listed in Keystone Canoeing, or on the websites AmericanWhitewater.org, paddling.com, or kayakguru.com?
3. Is there a public access area in the vicinity? Commission-owned or managed access areas, as well as other publicly accessible launch ramps, can be found at: <https://www.fishandboat.com/Boat/Boating/Pages/default.aspx>
4. Is the area regularly used by boaters? When a waterway is not an officially designated Water Trail, included on the American Whitewater website, paddling or kayaking websites, or on the Commission's list of public access areas, an ATON plan may still be required if the area is regularly used by boaters.

Will the project impact recreational boating?

1. Will a causeway be used? If a causeway is to be utilized (either partial or full width), an ATON plan will be required.
2. Will there be encroachment? Projects that do not involve a causeway but do include other forms of encroachment such as cofferdams, equipment in the waterway, or closure of portions of the waterway due to overhead work require an ATON plan.

If there is a project that does not fit into either of the above categories but is believed to impact recreational boating, information should be forwarded to the Commission's Bureau of Boating for final determination.

What should an ATON Plan include?

Once a determination has been made that an ATON plan is required, a complete package including the following items should be forwarded to the Commission:

1. **Narrative** – A 1- or 2-page narrative outlining project location, scope, dates of construction, and description of proposed ATON plan. Must include mailing address for individual to whom ATON plan approval is to be forwarded.
2. **Maps** – Quadrangle map showing overview of area AND additional map showing close-up view of the project area in relation to waterway, nearby access areas, marinas, or other boating related points of interest.
3. **Photographs** – Include views of the waterway both upstream and downstream, as seen from the project location.
4. **Project plan(s)** – Copy of project plan(s) similar to those prepared for E&S controls, indicating causeways, encroachments or other impacts to recreational boating AND proposed ATON, including both signs and buoys. Projects involving more than one phase should include a plan for each phase showing specific ATON for each specific phase. These plans should be prepared specifically for ATON and NOT be a copy of another necessary plan (such as those prepared for E&S approval) with ATON added. This allows for better focus on ATON placement without unnecessary information for this review.
5. **Examples of proposed ATON** – Drawing or photos of all proposed signs and buoys, including proper symbol and wording, is a required aspect of the ATON plan. Examples of many of the more popular signs and buoys are attached.

PFBC -277

All projects including floating structures or private ATON (buoys) require an ATON permit in addition to ATON plan approval. [Form PFBC-277 “Application to Install Floating Structure\(s\) or Private Aids to Navigation”](#) must be submitted at least 60 days prior to installation of any such items. Permit applications must be submitted via USPS and require payment of the application fee at time of submission. Permit applications submitted directly by PENNDOT do not require payment of this fee. Permits are issued on an annual basis, expiring December 31st of each year, and must be renewed annually for multiple-year projects. Permits issued to PENNDOT are valid for three years.

Signs & ATON

Projects occurring on smaller waterways utilized primarily by non-powered paddlecraft such as canoes and kayaks (due to size of waterway and/or depth of water) require only land-based signs. Larger waterways, or those where power boat use is a common or potential activity, require water-based ATON (buoys) during boating season AND shore-based signs during non-boating season. Boating season is generally defined as April 1st thru Nov 1st annually.

Warning Signs — Required on all projects for which an ATON plan is issued and must be placed at least 200 feet upstream and downstream of the project in locations visible to boaters at all times.

Channel Signs — Required when a portion of a waterway is blocked to recreational traffic and boaters must be directed to the safest passage route. These signs may identify either “Safe Channel” or simply “Channel.” (See Attachment B.)

Portage Signs — Required when project activities either close a waterway to boating traffic or make passage through the open area too dangerous. These signs must be placed upstream and downstream of the project to identify entry to a land-based portage trail allowing non-powered boaters to maneuver around the project area. Design of these signs will be similar to Channel Signs with necessary change in wording.

Buoys — Must be standard 6-foot inland regulatory buoys. The majority of these buoys are white in color and include standard symbols identifying the nature of the restriction in orange, with text in black letters. (See Attachment D.) If channel buoys are required, they will be similar in size and either red or green in color. Depending upon the waterway and the nature of the project, some or all of the required buoys may need to be lighted. Lighting must conform to U.S. Coast Guard standards.

De Minimis

Commission staff may determine the proposed project has negligible impact to the waterway and recreational boating and the requirement for ATON placement may be waived. This decision is at the discretion of the ATON plan reviewer.

U.S. Coast Guard Approval

If the project is occurring on federally navigable waters under joint jurisdiction, a copy of a USCG PATON Permit or letter from the local USCG District stating a waiver has been granted is required. This approval takes longer to obtain than Commission review and should be sought as soon as possible.

Submitting ATON Plans

As of 2013, ***all*** ATON plans must be submitted to one central office for review, regardless of the type of project or area of the Commonwealth in which the project is located. Submission of plans or questions to other Commission offices may result in delays. Plans may be mailed to:

**Pennsylvania Fish and Boat Commission
Bureau of Boating
ATON Plan Review
PO Box 67000
Harrisburg PA 17106**

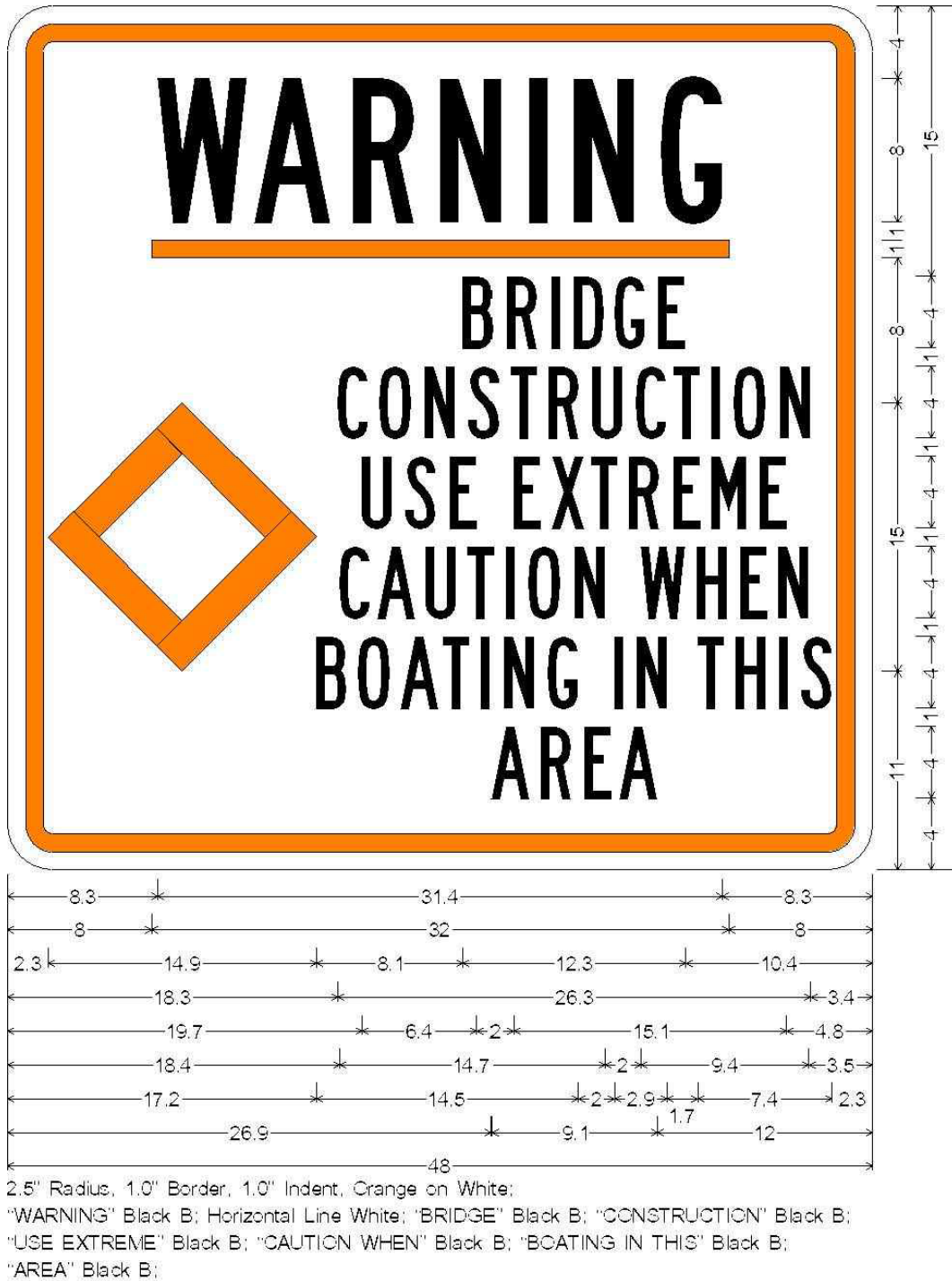
Plans may also be submitted via email (3MB or less) to: RA-FB-ATONPLANS@pa.gov

All telephone inquiries should be directed to: **717-705-7816**

Attachments:

- A. Sample bridge work signage
- B. Sample channel marker signage
- C. Sample Buoy diagram
- D. Sample Buoy symbols and meanings
- E. Sample Warning Boats keep out signage

Attachment A



Sample Bridge Work Signage

Attachment B Sample Channel Marker Signage

Start border 1" from edge of sign



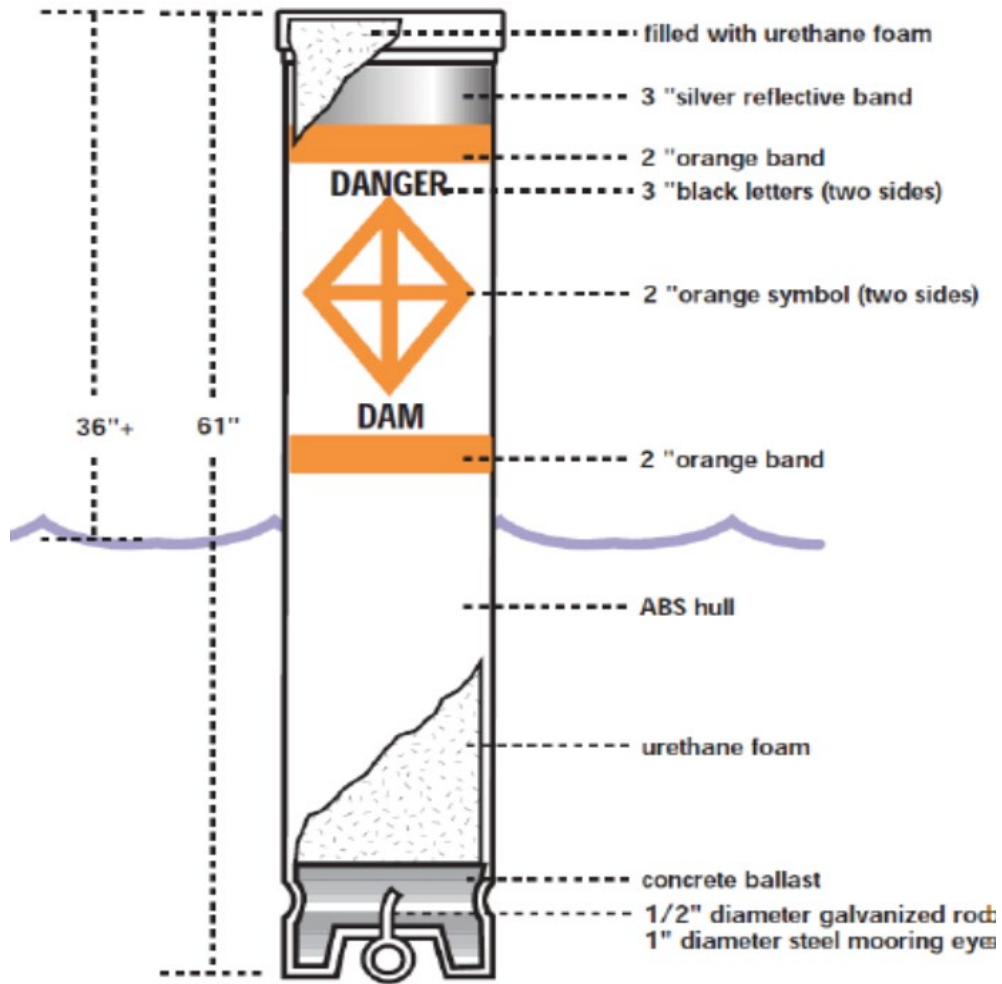
4' Wide x 2' High Sign

All letters and arrow (black) and in proportion to size of sign

.080 Gauge Aluminum (recommendation only)


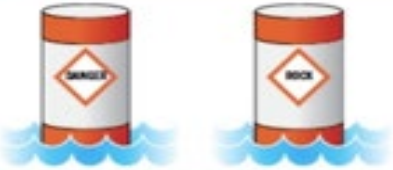






Engineer Grade Reflective Paper (White Background)

Attachment C Buoy Diagram

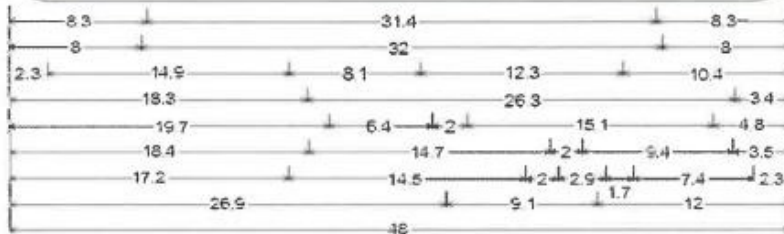


**Other examples:
DANGER KEEP OUT
KEEP OUT
BOATS KEEP OUT**

Attachment D Buoy symbols and meanings

Symbol	Meaning	Examples
	<p>Danger A diamond shape alerts boaters to hazards</p>	
	<p>Restricted Operations Marks with a circle indicate areas with regulated operations</p>	
	<p>Exclusion A diamond shape with a cross means boats are prohibited from the area</p>	
	<p>Information Marks with a square provide helpful information such as directions, distances, and locations</p>	

Attachment E Warning Boats Keep Out



2.5" Radius, 1.0" Border, 1.0" Indent, Orange on White:
 "WARNING" Black B; Horizontal Line White; "BRIDGE" Black B; "CONSTRUCTION" Black B;
 "USE EXTREME" Black B; "CAUTION WHEN" Black B; "BOATING IN THIS" Black B;
 "AREA" Black B;

Table of widths and spaces:

8.3	5.0	0.4	4.3	1.2	3.4	1.5	3.3	1.5	1.0	1.5	3.4	1.5	3.4	8.3														
8.0	32.0	8.0																										
2.3	14.9	8.1	1.7	0.7	1.7	0.8	0.5	0.7	1.7	0.6	1.7	0.7	1.5	10.4														
18.3	C	1.7	0.6	1.8	0.8	1.7	0.7	1.7	0.6	1.5	0.6	1.7	0.7	1.7	0.8	C	1.7	0.4	I	1.5	0.6	I	0.5	0.7	1.8	0.8	1.7	3.4
19.7	U	1.7	0.7	1.7	0.8	1.5	2.0	1.5	0.6	1.8	0.4	1.5	0.6	1.7	0.7	1.5	0.6	H	2.0	0.7	1.5	4.8						
18.4	C	1.7	0.4	2.2	0.6	1.6	0.6	1.5	0.6	0.5	0.8	1.8	0.8	1.6	2.0	2.5	0.6	1.7	0.8	1.5	0.6	1.7	3.5					
17.2	R	1.6	0.6	1.9	0.6	2.1	3.2	1.5	0.6	0.5	0.7	1.7	0.8	C	1.7	2.0	I	0.5	0.7	1.7								
		1.7	1.5	0.6	1.7	0.7	0.5	0.8	1.6	2.3																		
...	A	...	R	...	E	...	A	...																				