



CARDBOARD BOAT FLOAT

JUNE 2ND – 4TH, 2017

LEADERS GUIDE

(LAST UPDATED 1/29/17)

TIDEWATER COUNCIL, BSA
1032 HEATHERWOOD DRIVE
VIRGINIA BEACH, VA 23455
WWW.TIDEWATERBSA.COM

PIPSICO SCOUT RESERVATION
57 PIPSICO ROAD
SPRING GROVE, VA 23881
WWW.PIPSCOBSA.COM



CARDBOARD BOAT FLOAT 2017

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BOAT FLOAT INFORMATION

- When** June 2- 4, 2017 (Friday – Sunday)
- Be Prepared. There is no rain/snow date for the event. All units should prepare for foul weather.
- What** An AWESOME and Fun opportunity for participants to strive and meet the challenges. Use team building to design and build a powered boat, human or otherwise, made of corrugated cardboard which is capable of completing three trips around a course that is approximately a total of 200 yards long.
- Where** Pipsico Scout Reservation
57 Pipsico Road
Spring Grove, VA 23881
- Contact** Evan Sommerfeld
Camp Director
757-497-2688 ext. 212
Email: esommerf@bsamail.org
- Wes Parker
VP of Camping Operations
757-635-2696
Email: wparker@pipsicobsa.com
- Register** Tidewater Council Service Center
1032 Heatherwood Drive
Virginia Beach, VA. 23455
- Cost** \$14 per Scout, \$12 per adult If paid in full by May 20, 2017
- \$19 per Scout, \$17 per adult If paid in full after May 20, 2017

NO REGISTRATIONS WILL BE ACCEPTED AFTER MAY 27, 2017

THERE WILL BE NO ON-SITE REGISTRATION. ALL PARTICIPANTS ARE TO REGISTER THRU THE TIDEWATER COUNCIL SERVICE CENTER.

- Refunds** Units must notify the Scout Office before camp begins if a Scout will not be attending. Refunds of pre-paid program fees will be made by check from the Scout Service Center following the program weekend only in the case of documented illness or family emergency. No Refunds can be given if the Council is notified **after May 30, 2017**, as pre-paid expenses will already have been incurred. No refunds for partial attendance will be granted.

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INTRODUCTION

The Tidewater Council, Boy Scouts of America welcomes you to the Cardboard Boat Float 2017 at Pipsico Scout Reservation (PSR). We have a fun-filled weekend planned and we will strive to make it an enjoyable experience for all. This event will provide a great opportunity for Scouts to hone their creative problem solving and teamwork skills while having lots of fun in the process. 2017 is bringing new innovation and also intense competition so that units can compete for the highly coveted King Neptune Trophy!

NEW FOR 2017, participants will have the opportunity to challenge themselves even further by competing in our brand new “Fake it ‘til you make it” Class! A brand new division all to its own, where participants will bring their cardboard supplies and build their vessels in a race against the clock to see which unit can construct the sturdiest vessel and complete the race course without plummeting to the depths of the James River!

The NEW Cardboard Boat Float hopes to draw on the enthusiasm from years past, while also attracting new participants. Hosted again at Pipsico Scout Reservation, a Nationally Accredited Camping Facility, the event will take place along the shore of the James River. Special permission has been granted for Boy Scout, Venture Scout and Cub Scout units to participate in this event on the James River.

Participants will strive to meet the challenge - using team building - to design and build a powered boat, human or otherwise, made of corrugated cardboard which is capable of completing three trips around a course that is approximately 200 yards long. During this event, we follow and enforce all of the policies, rules and regulations of the Boy Scouts of America and the Tidewater Council.

For updates please refer to the Pipsico website at click on the “Special Events” link at the top of the page.

RULES AND REGULATIONS

There shall be four divisions of boats, with Division I-III being divided into three categories. These divisions are:

Division I: Cubs/Webelos

Division II: Scouts (age11-17)

Division III: Venturing/ Sea Scouting & Exploring

Division X: “Fake it ‘til you make it” Class (See Page 6)

Division I and II boats must be propelled by canoes paddles, kayak oars, or team made oars from the same materials as their boats. These, as well as decorations, may be constructed from materials other than cardboard. All other parts of the boat, including the hull, decking, cowling, superstructure, oar locks, seating and rudder, must be corrugated cardboard. Nuts, bolts, washers and staples are not permitted.

Division III boats must meet the requirements of boats of the other two Divisions with the exception of the propulsion and steering systems. These, including propellers, paddlewheels, sails and rudders, do not need to be made of cardboard but materials used must not contribute significantly to the structural rigidity of the boat. Propulsion and steering must be designed and fabricated by the entrant. In addition, the connections between the propulsion and steering systems must be made of corrugated cardboard. Nuts, bolts, washers and staples are not permitted.

The three categories for division’s I-III are determined by the crew size for the boat as follows:

- Guppy – 2 crewmembers
- Whale – 6 to 7 crewmembers
- Dolphin – 3 to 4 crewmembers
- Luxury Liner – 7+? Crewmembers

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CONSTRUCTION (FOR DIVISION I-III BOATS)

1. **Max individual sheet** cardboard thickness for **Guppy and Dolphin Class** is .5 inches. **Any thickness** of corrugated cardboard is permitted for **Whale and Luxury Liner Classes**. For ALL CLASSES waxed cardboard, carpet tubes and barrels are not allowed. Cardboard can be layered to create additional thickness to the vessel.
2. While tape may be used on seams, joint and patches, only paper tape (reinforced type is best) is permitted.
3. Caulking may be used, but only on seams and edges.
4. A one-part enamel or lacquer paint and/or polyurethane varnish or water seal IS permitted. **Do not use tar-based substances, epoxy glue, duct tape, fiberglass resin or any two-part substances, including two-part varnishes or paint.** Applied paint must be allowed to dry for at least 24 hours prior to launching.
5. Styrofoam or any other flotation-type foam is unacceptable.
6. Boats must be free of sharp edges or anything that could pose a danger.
7. The crew/passenger area of the boat must not be permanently enclosed above the shoulders of the occupants
8. There is no restriction on decorative materials as long as they do not aid in the flotation or propulsion of the boat and do not create a fire or safety hazard.
9. All boats must display their unit number on a vertical surface of the boat. Such number must be at least 6" tall.
10. For boats made and raced by Cub Scouts, total height of boat\crew, with crew on board and seated, must not exceed three feet above the level of the water's surfaces.

RACE (FOR DIVISION I-III BOATS)

1. Each boat must have a designated Captain. He/She must check in at the registration area on the day of the race at a time to be announced prior to the day of the race.
2. Each boat must pass a qualification inspection prior to the heats.
3. Heats will start at a time to be announced by the time of registration.
4. A heat will be run separately for all boats of each Category of each Division.
5. The three boats with the fastest times in the heats will be run in the semi-finals and the fastest two of them will be advanced to the finals where the final winner will be determined.
6. If three or fewer boats are entered in any- Category, they will race in the Heats and finals only.
7. If only one boat is entered in any Division's Category, it will be awarded First Place by default for that Category and will be allowed to race in another Category, to be selected by the Race Committee, in that Division.
8. If no boat finishes in the finals, winners will be based upon semifinal results or, in case no more than three boats are entered, heat results.
9. To qualify as a finalist, participants must have correctly navigated the racecourse around the buoys and all crewmembers must have been in the boat as it crossed the finish line.
10. Any boat not ready to race at the designated time will be disqualified.
11. Navigating crews for Division I and II boats will start in the boats
12. All participants must have passed the BSA "swimmer" test within the last twelve months.
13. All participants must wear appropriately sized, properly fastened, US Coast Guard approved PFD's (life jackets). (Some PFD's are available in camp, mostly youth sizes)
14. Each occupant must be visible while the boat is in the water
15. Participants must retrieve their boat, or its remains, from the water after it has finished racing.

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“FAKE IT ‘TIL YOU MAKE IT” DIVISION OUTLINE/ RULES

The true awesomeness that is the “Fake it ‘til you make it” division comes from the patrol demonstration of Scout skills, patrol spirit, patrol teamwork, and craftsmanship that must be shown to accomplish goals and develop a truly unique watercraft. The overall challenge is for a patrol of no more than 8 youth to build a boat that will carry 2 different patrol members to complete 3 different points based tasks. Each team will be given a secret base kit of materials that will be announced at the flag ceremony on Saturday morning.

Patrols wishing to participate in the “Fake it ‘til you make it” Division MUST make their intent know before the event. Please indicate how many patrols will be participating in this division on your registration form. (Please note this Division is open to Boy Scout and Venture Units only)

Starting at 9:30 AM, patrols will commence building a vessel that they think will best help them complete the three challenges that have been presented before them. Throughout the building time on Saturday morning, participants will have opportunities to compete in challenges for additional items to complete their kits. These challenges will test participants Scouting knowledge and allow them to win helpful items that just might make their vessels take home the coveted “Fake it ‘til you make it” Trophy!

The patrols will work from 9:00 AM– 12:00 PM to build a craft (and any other helpful gadgets) to complete the 3 tasks beginning after lunch.

BONUS BOX CHALLENGE

At 11:00, the Patrol Leaders and one member from each patrol will meet with the Division Organizer for a special challenge. There will be 4 surprise boxes that may or may not contain items that can be helpful to your build. Each one will be different and unknown. The last place patrol in the challenge will get first choice of a box and then open it for the others to see. The next patrol may take an open box or an unopened box. If an open box is taken from a patrol, the patrol leader will choose another unopened box. The contents may be used, saved, or traded by the Patrol Quartermaster

AWARDS

For each Category in each Division:

First Place -- To first boat to finish in Final, (Semifinal or Heats if Final or Semifinal, respectively, is not run).

Second Place -- To boat that finishes last in final or second in Semifinal if Final is not run.

Third Place – To boat that finishes last in Semifinal

KING NEPTUNE AWARD

Most creative design, best use of corrugated cardboard and shows most spirit for each Division.

DAVY JONES AWARD

Awarded to the crew of boat that sinks in most spectacular fashion in each Division.



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TENTATIVE SCHEDULE OF EVENTS

Friday

5:00-9:30 PM Check-in
9:30 PM Leaders Meeting (Cub Master, Den Leaders, SM/ASM, SPL Crew Leaders)
@ Base Camp OA Shelter
10:30-11:00 Wind-down time
11:00 Taps (all quiet and fires out)

Saturday

7:30-8:15 AM Breakfast in Campsites
8:30 AM Opening- Base Camp Flag Poles
9:00 AM **Boats to the Waterfront!**
Class, race, and crew organization
9:30-noon Morning Boat Races
"Fake it 'til you make it" Class Construction
Noon -1:30 AM Lunch Break
1:30-2:00 PM Afternoon Class, race, and crew organization
Final "Fake it 'til you make it" Class construction modifications
2:00-4:30 PM Afternoon boat races
5:00 PM Lowering of colors
5:05-6:30 PM Dinner in Sites
7:30-8:30 PM Camp Fire (w/skits), Awards Ceremony (Yes, they will be @ this time)
(Base Camp OA Shelter)
11:00 PM Taps (all quiet and fires out)

Sunday

7:00 AM – 9:00 AM Breakfast in the Campsites
9:00 AM – 9:30 AM Non-denominational Service (Base Camp OA Shelter)
9:45 AM–10:30 AM Common area clean-up, break down camp
10:30 AM All Units Leave Camp, SAFE DRIVE HOME!



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GENERAL EVENT INFORMATION:

CHECK-IN

Check-in will be from 5:30 PM till 9:30 PM on Friday evening or between 7:30 AM & 8:00 AM. Saturday. Check-in will be at the Burton Center, the building of Base Camp (Camp Lions). You should plan to arrive Friday evening in order to take maximum advantage of the full program. Do not arrive early, there will be no one to check you in, you may NOT enter the campsites prior to check-in.

For the safety of Scouts walking through camp, only vehicles pulling trailers will be allowed in camp. The trailer must be unhooked and parked in the designated area adjacent to your campsite. No trailers are to be parked past the wooden post located inside the campsites. Tow vehicles are to be **immediately** moved to the front parking lot. All other vehicles are to stay in the parking lots and any additional gear or Scouts will have to hike in or can utilize one of the available carts, located at the Burton Center. Your cooperation is greatly appreciated.

CHECK OUT

Check out will be on Sunday after the closing Church service and will be on Scouts honor. Please ensure that your camping area is left better than what you found it (Leave No Trace) and that your latrines have been swept clean and toilet lids are down. If your group plans to leave on Sunday, please leave by 10:30 AM.

MEALS

All meals for Boat Float will be provided and prepared by the individual units. Units **will** need to provide and prepare meals in their respective campsites. **NO MEALS ARE PROVIDED FOR THIS EVENT** During the mid-day break and before and after the campfire, the Pipsico Snack Shack will be open to provide hot food, snacks, and beverages for purchase to those who are interested.



VISITORS & GUESTS

Visitors are welcomed and encouraged to attend and watch the daytime activities and campfire. The individual Unit Leaders in Charge at the event are responsible for the behavior of all guests visiting his/ her unit or its members. The Unit Leader in Charge is also responsible for ensuring that his unit's visitors and guests are aware of the camp's health and safety rules and procedures, and that they are followed. Visitors and guests are not permitted to spend the night.

ADULT LEADERS

All units must ensure that they meet the BSA two-deep leadership requirement in camp at all times. BSA policy requires at least two adult leaders be in camp at all times; one must be 21 years or older. See Guide to Safe Scouting for clarification. Troops should be organized under the Patrol method, led by their Senior Patrol Leader for, Crews under the President and Packs under the Den Leader or Cubmaster.

STAFF

Weekend events are staffed by volunteers. The Boy Scouts of America is a volunteer run program. Every unit that participates in the event is expected to provide some form of contribution to the success of that event. Staff positions are available for direct program support as well as logistical support. Please inform the event chairman of the names and contact information for those volunteers in your unit who may help contribute to the event's success. Please e-mail Wes Parker at wparker@pipsicobsa.com.

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GENERAL RULES

- All camping will utilize Leave No Trace techniques.
- No open fires are permitted except in designated campfire rings.
- Scouts are not to roam through the campsites.
- Unit leaders are responsible for their units at all times.
- All vehicles are to be parked in the designated parking areas.
- Members will remain in their unit area between taps and reveille unless on authorized errands.
- No one will enter the camping area of another unit without permission.
- Campers are expected to conduct themselves in a manner that will bring credit to their unit and the BSA.

CAMPSITES

Campers need to provide their own tents and beddings. All Pipsico tents and cots are in storage for the winter. Sites will be assigned based on registration date and unit size. Units are encouraged to set up their campsite with their unit identification number, an American Flag, unit flag, and patrol flags.

TRADING POST

The Pipsico Trading Post will be OPEN throughout the weekend for your convenience. In addition to outdoor program materials, our Trading Post offers a variety of snacks and drinks, and a wide selection of camping supplies, Scouting materials, and special Pipsico Scout Reservation souvenirs. Remember that the proceeds from the Trading Post support your Scouting programs! Feel free to bring some extra spending money for your retail therapy. MasterCard and Visa are accepted for transactions over \$10.

WATER AND BATH FACILITIES

Drinking water will be available in every campsite, at the OA shelter in Base Camp, and at the Gregson Center at the front of the Reservation. Units are encouraged to bring 2 to 5 gallon containers for transporting water. Participants must also ensure they have portable water supplies for use while transition between the program areas throughout the day on Saturday.

Primary bathroom facilities are latrines inside of each campsite and limited use "enclosed" toilet facilities are available (both male and female) at the front of the Reservation at the Gregson Center and at the Burton Center in Base Camp. Shower and toilet facilities will also be available at the Pool.

PARKING

Absolutely no vehicles are permitted on the grass fields or inside of campsites. Gear is to be unloaded at campsite entrances and all vehicles shall be returned to the parking lot immediately upon completion of unloading. **Please make every effort to unload completely prior to setting up.** Trailer parking is available at certain campsites (Please note on the registration form if you unit plans on bringing a trailer). All parking for Base Camp will be either at the Burton Center parking lot, at the overflow lot next to the lake, or at the barn if required. If overflow parking at the barn is used, a shuttle service will be available. Arrangements will be made for Special Needs Visitors, Scouts and Scouters as requested.

ATTIRE/UNIFORM

Units are encouraged to wear the "official Field Uniform" (referred to as a Class A uniform) during Check-in, Check-out, all Camp Fire programs and Religious Services. At all other times participants are encouraged to wear an activity uniform ("Class B"), consisting of a unit or camp T-shirt with Scout pants or shorts.

Obviously those Scouts directly participating in the Cardboard Boat Float should wear clothing (**including close toed shoes**) that can get wet. Leaders must monitor their units to ensure that clothing reflects good taste and Scouting standards.

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MEDICAL MATTERS

MEDICALS

According to BSA Policy, all Scouts and leaders should complete an Annual Health and Medical Record form (parts A&B only) for all Scouting activities. This is just the health history form (excluding the physician's portion). **IT IS THE RESPONSIBILITY OF THE UNIT** to obtain and maintain copies of these forms for members of their unit for all activities they conduct. Medical forms will NOT be turned in at check-in. The official BSA form is located here: http://www.Scouting.org/filestore/HealthSafety/pdf/680-001_AB.pdf.

MEDICAL TREATMENT

All units should bring a unit first aid kit and treat injuries within their capabilities. Units must report all injuries and other medical situations to the camp staff at the Health Lodge, even those they treat themselves. Qualified medical personnel will be on duty at the Health Lodge at all times. If necessary, the camp staff will contact emergency medical services and ambulance services using 911. Unit leaders are expected to control all medications within their units.

PRESCRIPTION MEDICATIONS

All prescription drugs are kept and administered by the unit. It is to be kept in a secured location out of the reach of the children. If medication requires refrigeration, it can be checked in with the Health Officer at check-in. By law, medications must be in a container with a typed label from the pharmacy.

EMERGENCY PROCEDURES

Pipsico Scout Reservation maintains emergency procedures to meet, and in some cases, exceed the standards set by the Boy Scouts of America. It is essential for everyone's safety that every member of your unit fully understands that these procedures exist - their life, your life, or someone else's life could depend on it. Please be sure to follow only instructions delivered by the staff chain of command. Likewise, if an emergency arises, or is brought to your attention, please notify the nearest staff member immediately so that we may launch the appropriate procedures. Do not attempt to resolve an emergency situation alone. Notify the nearest staff member. In the event that an emergency arises, an alarm will sound from the program administration building. When this alarm is heard, all units and participants are required to assemble on the field in front of the Dining Hall and await further instruction.

YOUTH PROTECTION POLICIES

Leaders are asked to review the Guide to Safe Scouting before attending camp and ensure compliance by their unit with policies as detailed in the Guide, particularly in respect of youth protection policies. Failure to comply with Guide to Safe Scouting and youth protection policies will result in disciplinary action. Key portions of the youth protection policies found in the Guide to Safe Scouting are reproduced below. Other Guide to Safe Scouting policies are also contained elsewhere in this guide.

Adult leaders must respect the privacy of youth members and protect their own privacy at all times. Except in emergencies, adults and youth may not enter each other's designated sleeping and shower areas. No Scout may share a tent with an adult who is not his own parent or guardian.

GENERAL POLICIES-

ALCOHOLIC BEVERAGES & DRUGS

Alcohol and illegal drugs are prohibited. All prescription drugs are kept and administered by an adult within the unit. (See the Prescription Medications section above.)

CELL PHONE POLICY

We request that Scouts not take cell phones to program sessions or, at the very least, to turn them off during sessions. Use of cell phones during program sessions is inconsiderate to other participants and, in some cases can

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be extremely dangerous (Scouts participating in shooting sport activities, should not be distracted by a ringing phone).

ELECTRONIC DEVICES

Radios, cell phones, CD players, video games, and other personal electronic devices detract from the camping experience and provide an inviting target for theft. Do not bring them into camp. If you permit them during travel to and from camp, please leave them in the car during your stay at camp. Youth campers are not permitted to have two-way radios or pagers in camp, as these have proven to be highly disruptive of the camp routine.

FIRES, STOVES, TENTS & OPEN FLAMES

Fires will be authorized depending on the status of State and City fire prohibitions in effect the weekend of the event. All ground fires are permitted in the fire rings at each camp site. The staff will update units on the current fire policy at check-in. Units must post water buckets or a fire extinguisher in the fire area. Cutting of live trees, shrubs, or vegetation is prohibited.

For safety reasons, there are to be **no open flames in tents**. This ban on open flames in tents includes a ban on the use of matches, candles, kerosene, propane or liquid lanterns in tents. Lighting in tents is to be provided by battery-powered lanterns or flashlights only. It is, however, acceptable to use a lantern under a dining fly. All cooking fires, campfires and stoves are to be attended while they are burning. Fires are only to be built in designated areas and must be extinguished so that they are cold to the touch when unattended.

INITIATIONS, HAZING & MILITARY TRAINING

Corporal punishment, hazing, initiation of any sort, and military training and drill are not permitted in the Boy Scouts of America.

LIQUID FUELS

Adult leaders only may use stoves and lanterns requiring liquid fuel. Extra fuel must be turned over to the Quartermaster for safekeeping in locked storage.

MONEY & VALUABLES

Each family must decide how much spending money a Scout should take to camp. Each Scout is, however, responsible for the safeguarding of his money and personal property. It is recommended that expensive cameras, watches, and personal entertainment devices be left at home. Regardless, all items should be clearly marked, with the boy's name and unit number.

PETS

No pets are allowed in camp. Please ensure that anyone planning to visit your unit during the event is also aware of this rule.

RESTRICTED AREAS

The following areas are off limits to all campers: The Ranger's home and maintenance areas, camp staff living areas, the kitchen and food storage areas (except for authorized adult volunteers,) any program area where staff is not present, and the cliffs along the James River. Scouts may visit the waterfront for beach combing or fishing only when staff is present or when accompanied by an adult leader.

SMOKING & VAPING

Anyone under 18 years old is prohibited from using tobacco in any form while at camp. Adults who smoke must do so out of sight of any youth members. Smoking is prohibited in any tent or building. Cigarette butts must be field stripped and placed in a trash receptacle.

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TAPS/LIGHTS OUT

A Scout is courteous. All Scouts should be in their designated campsites at 10:30 PM to wind-down the day's activities. Taps is at 11 PM. Unit leaders must ensure that fires and lanterns are out and that all their youth have retreated to their tents and are quiet.

TELEPHONES

Should anyone need to contact a camper on an important matter, the number is (757) 254-2436. This is a business phone, and cannot be tied up with personal calls. Parents will not be able to speak to their children on this line. If adult leaders need to receive regular calls at camp, bring a cell phone or pager, or make arrangements to check with their office on a regular schedule.

TRAILERS

If your unit plans on bringing a trailer, please provide this information on the registration form. Specific campsites have been designated for unit use when a unit has a trailer. The requesting unit is permitted to have one trailer in the designated area at the perimeter of their campsite until checkout.

TRASH DISPOSAL

Participants should practice Leave No Trace principles to the maximum extent practicable. If you packed it in - you pack it out! All units are expected to police their camping area and remove all trash to the dumpsters located behind the dining hall or at the front of camp near the barn. Trash that will not fit in the dumpsters becomes the responsibility of the unit to remove from the campground. Do not pile trash next to the dumpsters. If the dumpsters are full at time of checkout then units **MUST** pack out their trash and make arrangements for proper disposal.

VEHICLES IN CAMP

Since safety is our number one priority, vehicles are not permitted past the Burton Center parking lot unless authorized by the ranger for unit gear drop off. Any vehicle that is authorized to drive beyond the Burton Center must remain on the main road. Absolutely no vehicles are permitted on grass or in campsites. Likewise, no vehicles authorized in camp may block the loading dock at the rear of the Dining Hall.

No other motorized vehicles (golf carts, etc.) will be allowed in camp at any time except for use by designated camp staff. If the need arises for a vehicle to be in camp, approval **MUST** first be obtained from the Camp Director (Evan Sommerfeld) or Camp Ranger (Jenny Sommerfeld). Special arrangements will be available for Special Needs Visitors, Scouts and Scouters as requested.

Vehicle owners, and operators, who drive beyond the Burton Center parking lot do so at their own risk. Tidewater Council will not accept responsibility for any vehicle damage within camp.

WEAPONS, KNIVES, FULL AXES, FIREWORKS, & FIREARMS

Pipsico provides all necessary and appropriate equipment for our shooting programs. Personal firearms, ammunition, bows and arrows are not permitted in camp. Also, no water guns are permitted at camp.

Pocketknives may be carried by adult leaders and any Scout who has earned the Totin' Chip or Whittling Chip. Fireworks & firearms of any kind are prohibited in camp. Law Enforcement Officer's please notify the council prior to camp of any special requirements by your department.

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CHECK-IN FORM

(Turn in at Registration)

Unit Type (Circle One) Troop / Pack / Crew / Ship Unit # _____ Council _____

District _____

ONSITE ADULT CONTACT-

Name: _____

Cell Phone #: _____

You have been pre-registered with-

Youth: _____

Adults: _____

Total: _____

You are checking-in with-

Youth: _____

Adults: _____

Total: _____

Amount due: _____

Amount paid: _____

Balance due: _____



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UNIT ROSTER

Troop/ Crew/ Ship/ Pack #: _____

Senior Youth Leader: _____ Adult Leader: _____

Youth:

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Adults:

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Notes: Computer generated forms with similar content are acceptable.

Turn in at Check-in.

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APPENDIX A: REGISTRATION FORM

SEE OFFICIAL FORM AT <http://www.PipsicoBSA.com>

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APPENDIX B: HOW TO GET TO CAMP

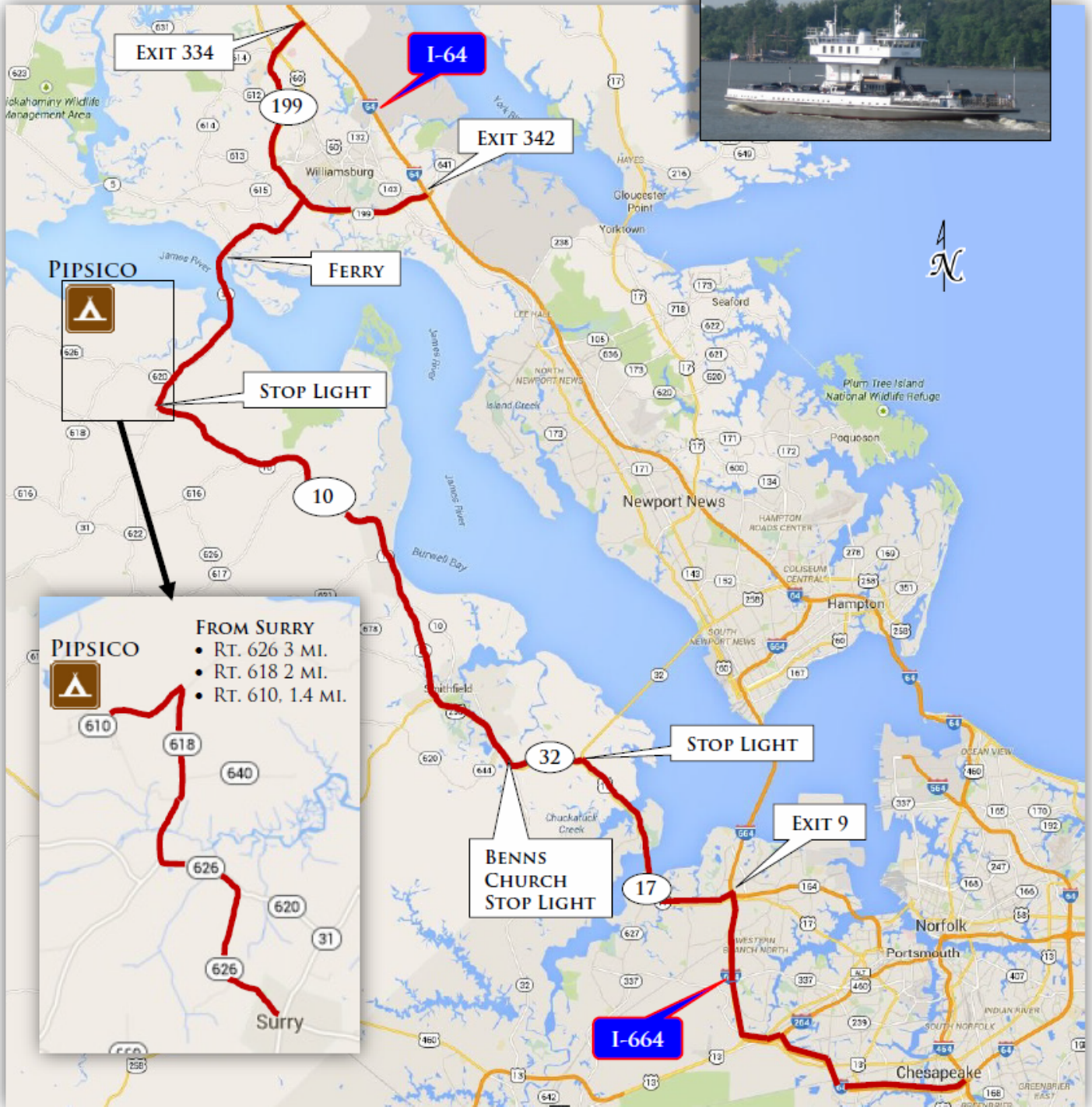
Pipsico is located at **57 Pipsico Road; Spring Grove Virginia, 23881**, midway between Norfolk and Richmond.

Pipsico is centrally located to a host of attractions including the first permanent English settlement at Jamestown, just a short distance away via the nearby ferry.

Many other fascinating historical sites from the first 250 years of American history are within easy driving distance (an hour or so). Among these are Colonial Williamsburg, numerous restored colonial plantations, the Revolutionary War battlefield at Yorktown, and Civil War battlefields around Richmond and Petersburg.

For those who want more modern adventure, local amusement parks include Busch Gardens and Water Country USA. A short drive from camp brings visitors to the naval base in Norfolk, the Atlantic Ocean beaches and boardwalk at Virginia Beach, and much more.

Detailed Directions can be found online: <http://pipsicobsa.com/resource-bank/>



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APPENDIX C: BOAT BUILDING TIPS AND TECHNIQUE

DEVELOPING A CONCEPT:

Determine Division/Category to enter.

Develop a theme

Sketch a creative idea on paper.

- Calculate length, width, draft, balance,
- Consider size and weight of crew.

Build a scale model.

PREPARING FOR CONSTRUCTION:

Secure adequate work and storage space.

Gather supplies. Those suggested are as follows:

- Corrugated cardboard – three layers for floor, two layers for walls,
- Acrylic latex caulk,
- String line for straight edge, right angle or squaring tool
- carpet knife or X-acto knife, extra blades,
- Wood glue, Liquid Nail panel adhesive, or DAP contact cement,
- Water sealer, polyurethane,
- Foam brush,
- Paint brush or roller, paints, including latex house paint,
- paper tape, masking tape,
- creasing tool (scissors work well),
- Clamps (spring and quick),
- Measuring tape.

CONSTRUCTION STEPS:

1. Transfer model or concept to cardboard,
2. Mark lines,
3. Cut cardboard,
4. Bend cardboard,
5. Brace,
6. Glue,
7. Tape,
8. Seal,
9. Waterproof
 - Materials listed in Construction rules.

PROPULSION:

Division I and II paddling type – canoe or kayak paddles, rowboat oars, or team made oars.

Division III type – rotational wheel or propeller or other.

TESTING:

Test prior to the event or take your chance! ☺

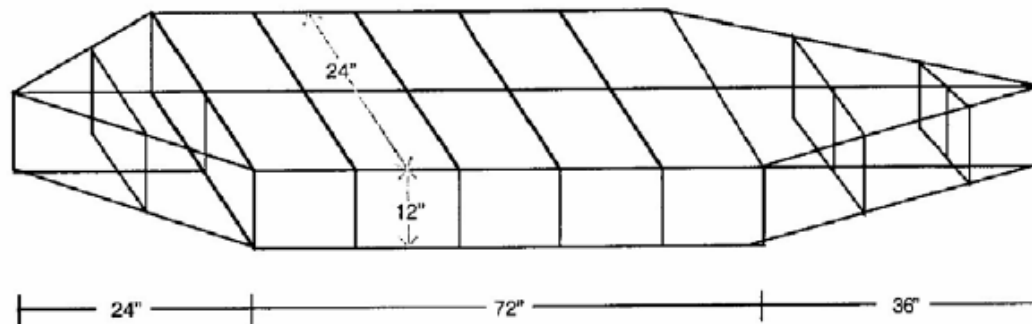
DEVELOPING A CONCEPT

Before you develop a concept, consider these fundamentals of boat design.

A boat floats and displaces a quantity of water equal to the weight of the boat of the crew. If the weight you put into a boat is greater than the weight of the water the boat displaces, the boat sinks.

Water weight approximately 60 pounds per one cubic foot (12"x12"x12" cube).

For illustration, let's look at the smallest size boat, a guppy with a single crew member. Once you understand this example, it'll be easy to calculate for a larger boat.



The above sketch is 24" wide, 12" high and 72" long, with an additional 24" tail and 36" nose, which makes the overall length 132" or 11 feet. The inside volume of the boat it is 17 cubic feet ($L \times W \times H = 6' \times 2' \times 1' = 12'$, plus 2' for the tail and 3' for the nose). As we stated earlier, water is 60 pounds per cubic foot; therefore, this boat's total displacement weight is 1,020 pounds (17'x60 lbs.)

The side of the boat is 12" high; therefore, it takes 85 pounds to push the boat down into the water 1" (1,020 pounds divided by 12=85 pounds). If a single crew member weights 170 pounds, the boat will be pushed down into the water 2" (a 2" draft or waterline). The weight of the boat was not included in these calculations, so the actual draft would be slightly higher. A 2" draft gives the boat approximately 10" before water enters the boat from a wave.

That's the basis of floating (designing) a boat with one crew member. If you put two crew members in this boat (add 175 lbs.), the draft would be 4" and would leave only 8" to the top of the boat-maybe ok for smooth water, but a little wave action might sink the boat.

Therefore, more crew members require a larger boat, to displace more water and still keep the draft small relative to the side of the boat to protect from wave action and sinking.

Now, let's look at other aspects that influence the final design of the boat, such as:

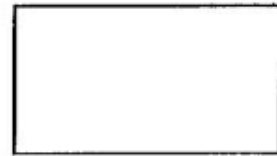
- Hull and Prow Types
- Stability
- Balance

TYPES OF HULLS

Hulls with flat surfaces are easier to build but are not as stable in the waters as others.



A



B



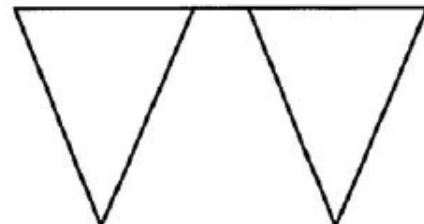
C



D



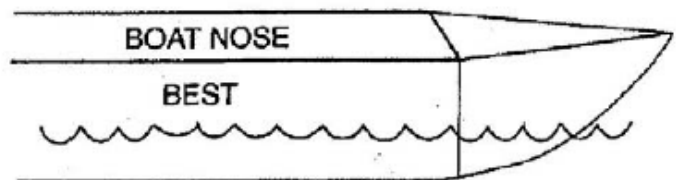
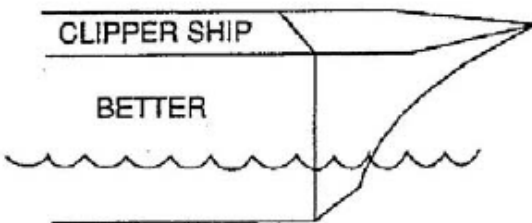
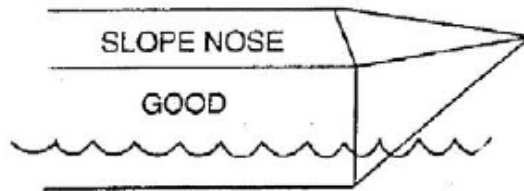
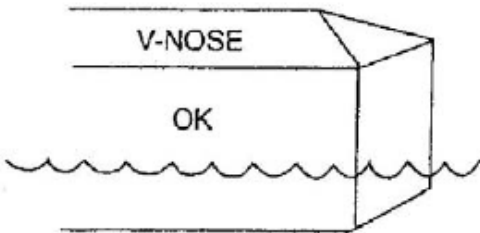
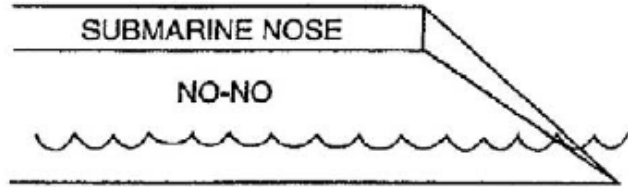
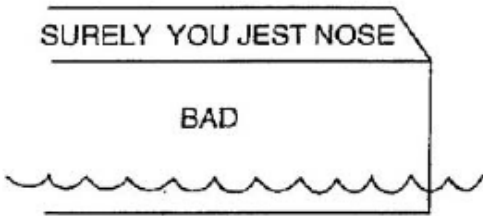
E



F

TYPES OF PROWS

Some bow types deflect water better in wave action than others. Keep in mind that you'll need to blend your prow shape with your hull bottom shape or "footprint." Consider where the waterline will be when your boat is loaded

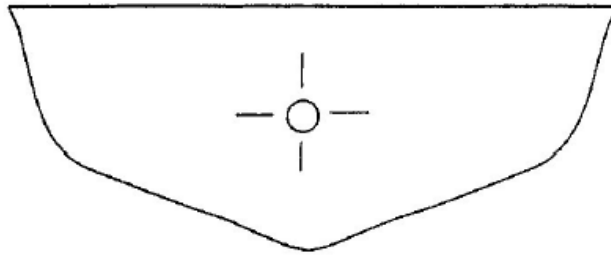


CARDBOARD BOAT FLOAT 2017

BOAT STABILITY/DESIGN CREATIVITY

Center of Gravity

The next area to consider is boat stability. The sketch below shows a cross section of a hull and the center of gravity (CG). As crewmembers position themselves in a boat, some of their body obviously sticks out of the boat. The lower the crew sits in the boat, the lower the CG. Your goal is to make the CG at or below the draft (waterline). This makes the boat more and more difficult to tip over.



Balance

The balance of the boat forward and aft is also very important for proper performance. The center of the boat forward and aft is approximately in the middle of the boat. When positioning the crew, keep the most weight to the rear of the boat. By doing this, the prow will tend to stay up in rough water, keeping water from entering the boat from the fronts.

Design Creativity

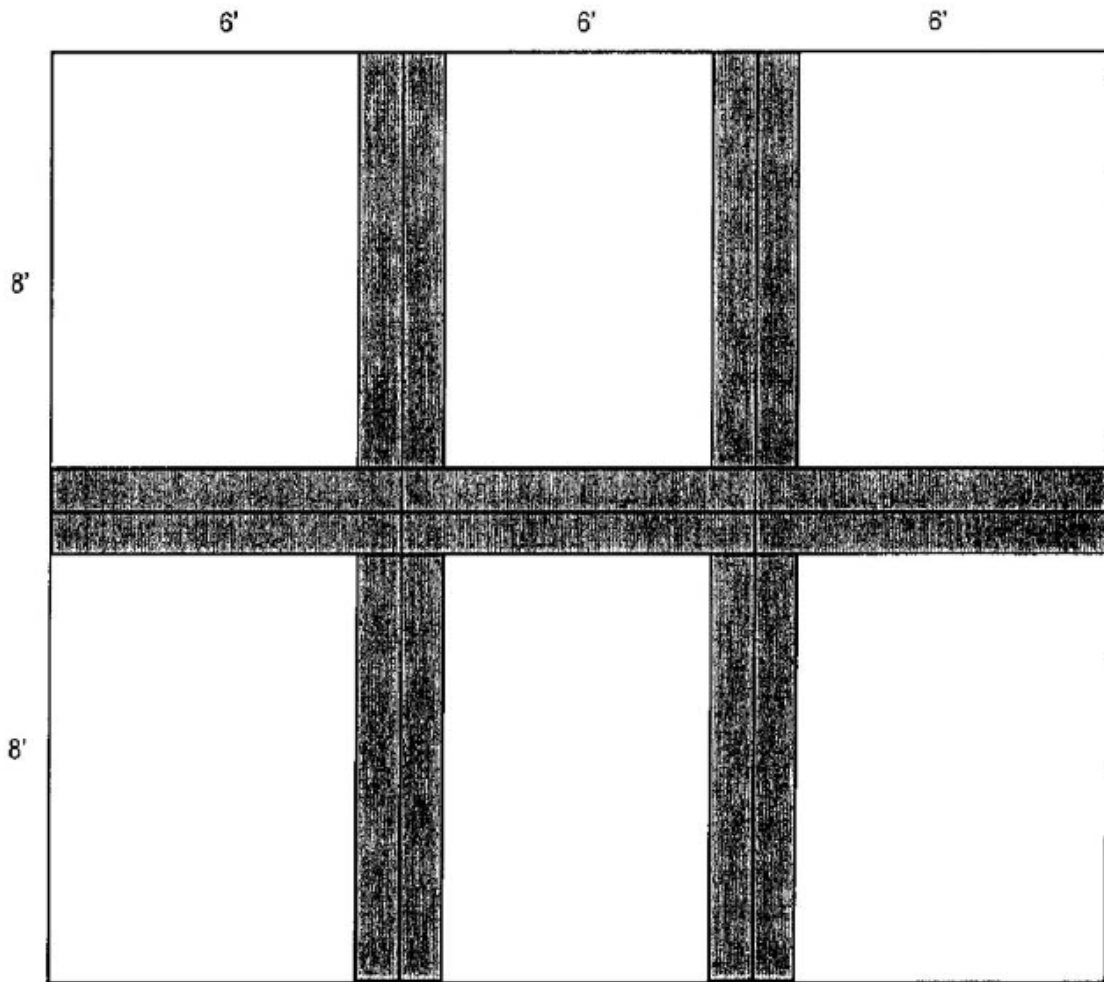
So far, we have only discussed the technical issues of boat design. The more creative part of your boat building project is the boat's theme and decoration (for both boat and crew). The sky is the limit, as long as you follow basic construction rules, which are listed elsewhere in these instructions.

Your boat could look like a Viking ship, a rowboat, a battleship, a tugboat or even banana, a tube of toothpaste or a school bus. Whatever suits your fancy let your imagination be your guide.

CARDBOARD BOAT FLOAT 2017

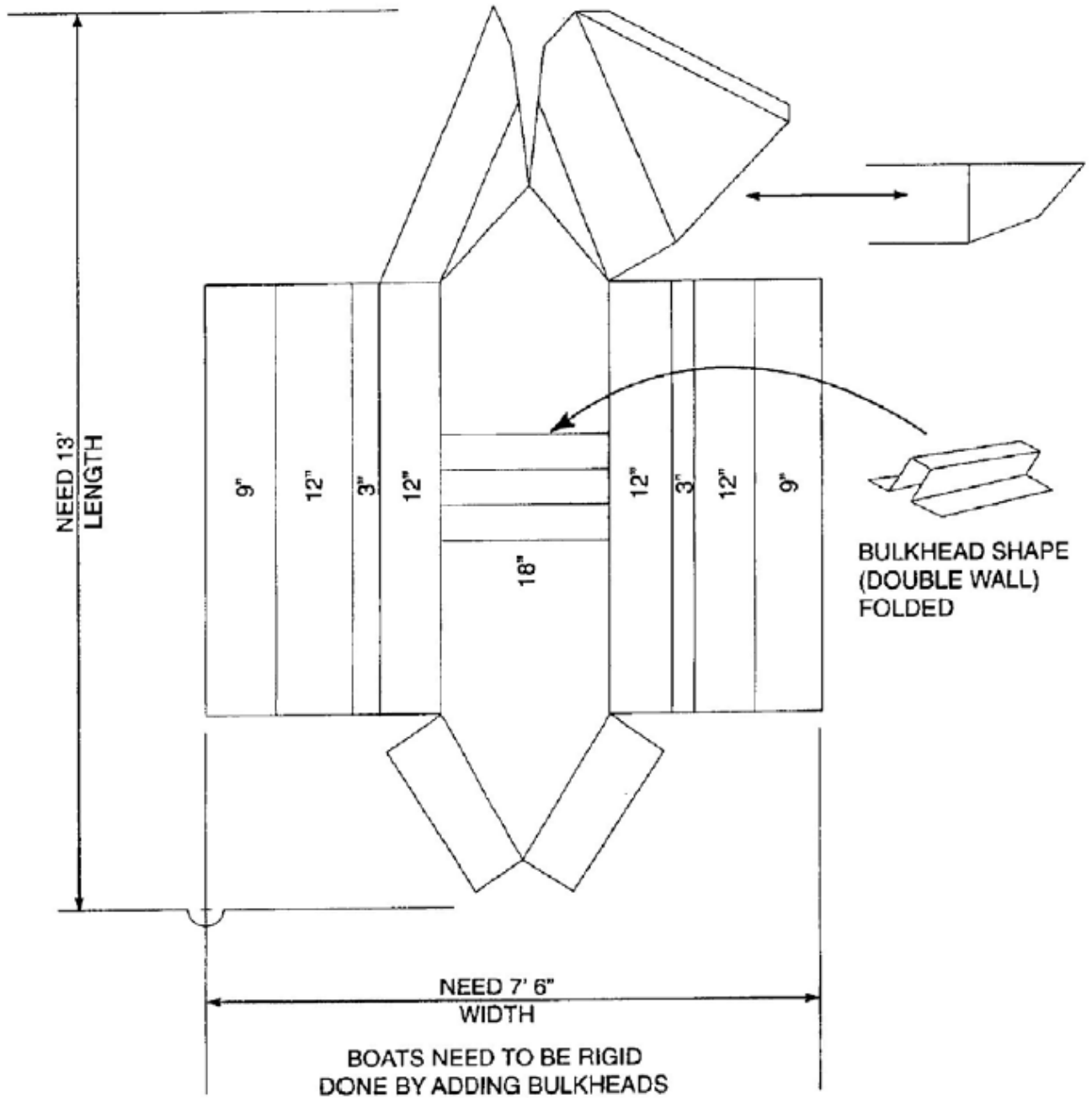
APPENDIX D: CONSTRUCTION CONCEPTS:

If possible, cut your boat from one sheet of cardboard. As shown below, several sheets of cardboard can be spliced together to make a big sheet. For example splicing six pieces, each 6'X8' produces one large 18'X16' sheet as shown below. Of course splicing fewer pieces together can create smaller sheets.

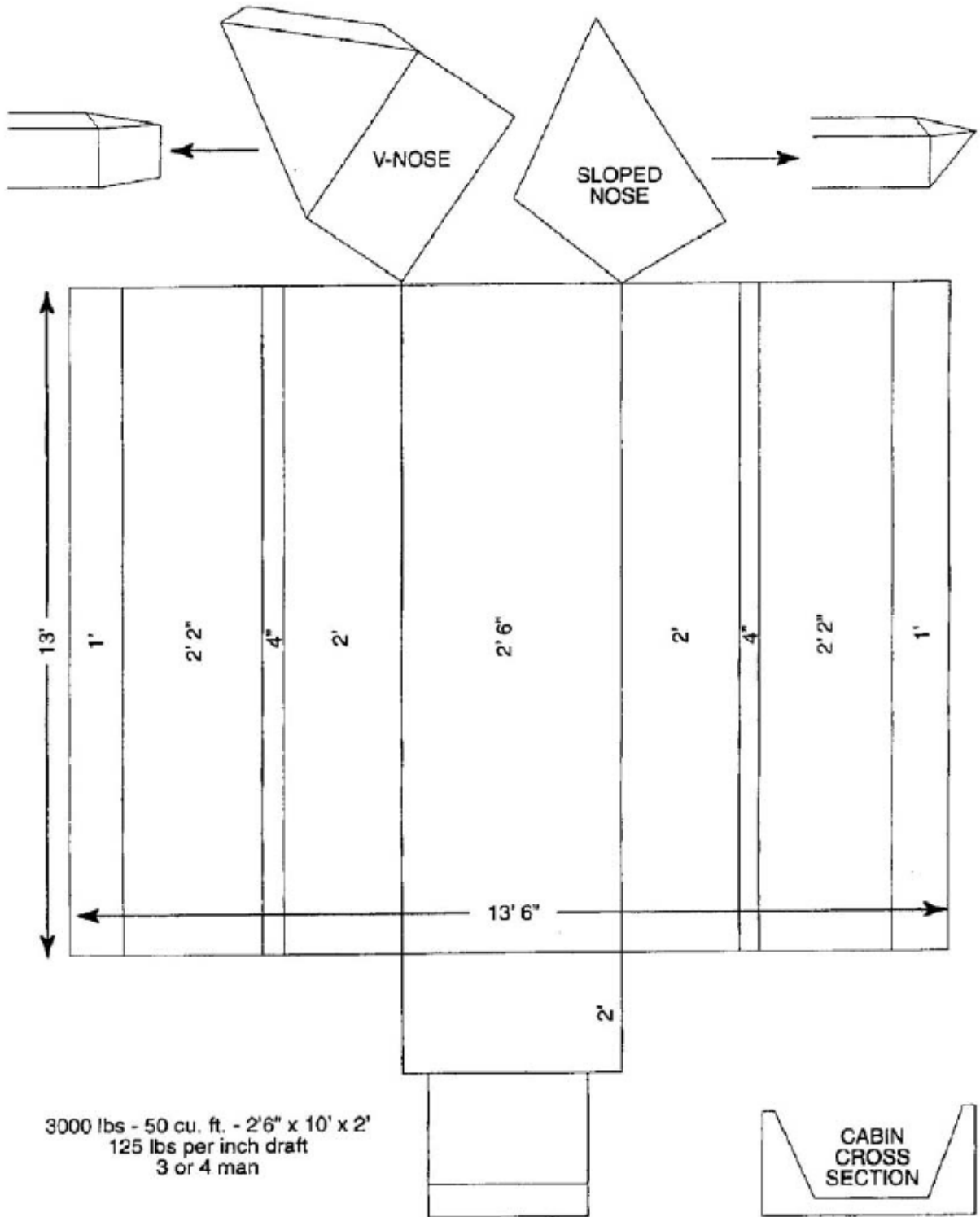


SAMPLE GUPPY DIMENSIONS

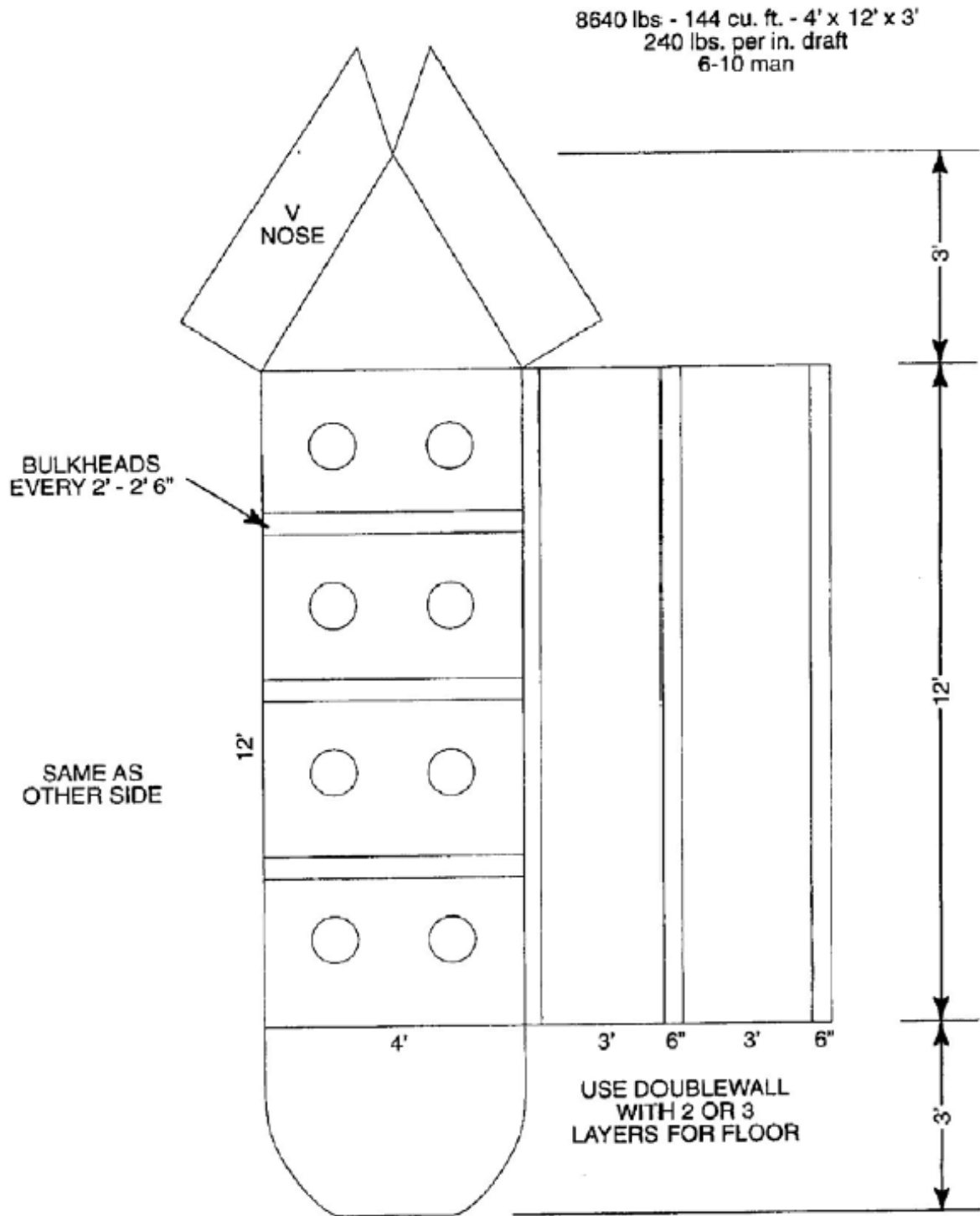
720 LBS.	12 cu. ft. - 1 man	18" x 8' x 1'	8' CABIN
1200 LBS.	20 cu. ft. - 2 man	2' x 10' x 1'	3' NOSE 2' TAIL



SAMPLE DOLPHIN DIMENSIONS



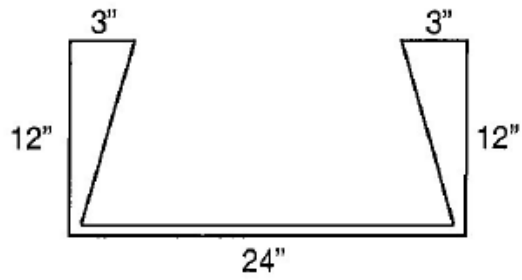
SAMPLE WHALE DIMENSIONS



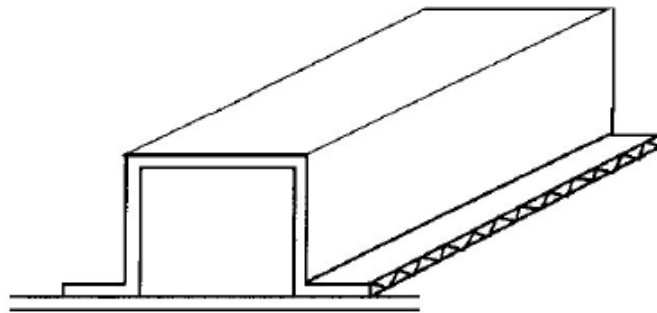
CARDBOARD BOAT FLOAT 2017

APPENDIX E: OTHER CONSTRUCTION TECHNIQUES

Cross section of boat using a large piece of cardboard:

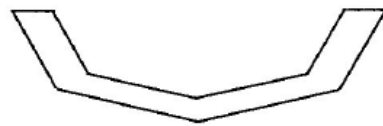


Stiffeners glued to the inside bottom and side of the boat as strength:

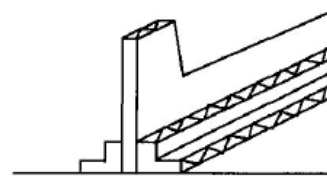


Stiffeners run the length of the boat

Attaching bulkheads to adjacent cardboard (outer boat skin)



Bulkhead side view



How to attach bulkheads