

2017 New London-Waterford Speedbowl

Grand American Factory Stock Division Rules

(Last Updated: 1-11-17)

NLWS Factory Stock Competition and Tech Contacts:

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All additions to this Rulebook are noted in BOLD and Red. All Deletions are noted by a Strikethrough (XXXX)

<u>Drivers & Car Owners are required to familiarize one's self with the General Track Rules as well as</u> the Grand American division rulebook.

By registering as an owner or driver you agree to be knowledgeable and bound by the contents found in these divisional rules and in the General Rules.

Any car that competes at the Lee USA Speedway, in the Ironman Division is eligible to compete under their rules.

All Wednesday Night Divisions are required to utilize Scoring Transponders. More information is contained inside this rulebook.



8.0 General Grand American Division Rules

- **A.** The Grand American Division is designed to promote greater interest in stock car racing and to allow new and inexperienced drivers and car owners to compete. Any competitor who has competed in any racing division within the last 2 years may WILL NOT be eligible to compete in any Grand American event without specific approval from the New London-Waterford Speedbowl. Driver eligibility is the decision of the track officials.
- **B.** In the following rules you will see the term "stock OEM" used. This means "original equipment manufacturer". These parts must come on your standard production car.
- **C.** No carbon fiber or titanium parts allowed.
- **D.** None of the following will be allowed in or on any engine or driveline component or part: abrasive cleaning, acid dipping, chemical milling, coating, epoxying, finishing, grinding, painting, plating, polishing, porting, etc.
- **E.** The rules herein are for the New London-Waterford Speedbowl only, with no expressed or implied agreement with any other Division or Speedway as to their interpretation and/or method of inspection.
- **F.** All equipment must be approved by track officials. No equipment is considered to be approved by reason of having passed through a technical or safety inspection unobserved. No car will be considered as having passed inspection for the event until the finish is made official.
- **G.** All engine models, equipment changes, or modifications not specifically addressed in this rule book must be submitted **in writing** to the New London-Waterford Speedbowl for consideration of approval prior to competition.
- H. All equipment is subject to the approval of the New London-Waterford Speedbowl Officials.
- **I.** Once a car has been presented to the New London-Waterford Speedbowl Officials for pre-race or post-race inspection the entire car and all of its components become subject to inspection. This includes but is not limited to items verbally designated for inspection before or following a particular event.
- **J.** All rule changes and updates made during the course of the season for the current rulebook will be posted to the New London-Waterford Speedbowl website (www.speedbowlct.com). This will serve as the only form of official notification until the **printing publication** of the 2018 New London-Waterford Speedbowl rule book.

K. SAFETY EQUIPMENT (All Divisions):

Helmets: SA2005, SA2010 or SA2015 rated full-face helmets are mandatory for all motor vehicle events. The helmet and a face shield or other acceptable eye protection must be worn at all times during any event.

Seatbelts: Each car must be equipped with an SFI rated and approved 5 or 6 point seat belt system. The belt latching mechanism must provide a common connection and release for the lap belts, shoulder belts, and the anti-submarine (crotch) belt(s). The seat belts must be installed in accordance with the directions provided by the belt supplier and/or manufacturer. The belts must be bolted to the roll cage/frame using the appropriate diameter Grade 8 bolts, washers, and locknuts. Where the shoulder harness lays across your shoulders, it must pass over a bar located at shoulder height, and the belts must pass through the



cut-out in the seat without contacting the seat cut-out. Date stamps must be visible and must indicate that all belts are no more than 3 years old.

Please refer to the following information regarding seat belt installation:

http://www.circletrack.com/safety/ctrp 0712 seat harness mount/index.html

Seats: Each car must be equipped with a commercially manufactured aluminum oval track racing seat. The seat must be securely and professionally mounted to the roll cage, utilizing **minimum** 3/8" diameter Grade 8 bolts, washers, and locknuts. The seat must be installed in a steel frame that is welded to the roll cage structure. It cannot be attached to the floorboard. The installation of the seat must be acceptable to track officials. All seats are required to have commercially manufactured and padded head supports, and leg supports (2 of each). The 4 supports must be installed in accordance with the directions provided by the supplier and/or manufacturer.

Please refer to the following information regarding seat installation:

http://www.stockcarracing.com/howto/134_0406_seat_mounting/index2.html

Window Nets: An SFI rated nylon window net must be installed in the left side door window opening. It must be positioned to cover the driver. The window net must be rib type, made from 3/4" or 1" wide nylon material with a minimum 1" and a maximum of 2-1/4" square opening between the ribs. The minimum window net size is approximately 22" wide by 16" high. All window net mounts must be a minimum 1/2" diameter solid steel rod on the bottom and a minimum 1" wide by 3/16" thick flat steel bar, or a minimum 1/2" diameter solid steel round bar on the top, with mounts welded to the roll cage. The window net, when in the closed position, must fit tight and be secured with a lever-type quick release latch acceptable to Track Officials. The lever must be secured by a detent ball in the lever and may be supplemented by a Velcro® fastener only – pins or clips will not be permitted. The latch must mount at the top in the front to roof bar (#3) and release from the inside. Date stamps must be visible and must indicate that the net is no more than 3 years old.

Fire Safety: Each car must have an approved fire extinguisher or FireBottle type suppression system installed for the driver's safety. All extinguishers and systems must be securely and mechanically fastened, and be fully functional and operational. The fire extinguisher or system must be of an approved class of 1301 Halon or equivalent.

Fire Suits; Each driver must wear an SFI rated and approved fire suit, and should wear SFI approved undergarments, including a top, bottom, and socks.

Gloves and Shoes: SFI approved fire retardant racing gloves and shoes are mandatory.

L. Driver Eligibility – All drivers must be at least 14 years of age or higher to compete in the Grand American division. All drivers under the age of 18 must have a completed waiver form on file with the New London Waterford Speedbowl.

8.0.1 Scoring Transponder Location

Transponder mounting brackets will be installed on the inside (or outside) of the right rear frame rail. If there is no frame rail then the location must be as close to where there would be a frame rail on a conventional chassis. The round post of the bracket must be on top and the square tab on the bottom flush with the lower edge of the frame rail. The bracket must be mounted with its center line exactly 35 inches rearward from the front bumper and must be completely vertical to the ground. Transponders are required on the cars at all times. Any car not registering a transponder signal during practice will be blackflagged to be made aware of their scoring transponders failure and is required to remedy it before proceeding further in the event.



Transponders are available from: AMB, US, Inc. 32 Highlands Parkway, Suite 104 Smyrna, GA 30082 Tel 678-816-4000 Fax 678-816-4001

8.1 Approved Models

A. Open to most midsize American made front wheel drive cars. Cars must be a model year 10 years or older from the published date of the rulebook. Cars can be 2 doors, 4 doors, or station wagons. Cars must have 6 Cylinder Engines and Automatic Transmissions ONLY. Eligible vehicles include The Ford Taurus, Chevrolet Lumina, Monte Carlo, Pontiac Grand Prix, Olds Cutlass. Buick Regal and other similar cars will comprise most of the field.

Some cars with a 104" wheelbase midsize cars like the Pontiac Grand Am, Chevy Malibu, and Ford Contour, may be penalized by adding weight

Vehicles not eligible for competition are:

- -Any foreign cars (Nissan, Toyota, Honda, etc.)
- Ford SVT, Mercury Cougar, Chevy Caviler Z-24
- Mid-engine or rear engine cars.
- Rotary engine cars.
- All-wheel drive cars.
- Turbo/Super charged cars.
- Cars with 4 wheel or all-wheel steering.
- B. Any 6 Cyl Enduro Car that meets the rules contained in this rulebook will be allowed to compete. These rules include but are not limited to all safety requirements such as seats, safety harnesses, window nets, etc.
- **B.** C. Only cars determined to meet the applicable specifications are eligible to compete in the Grand American division. You must call or email the New London-Waterford Speedbowl to find out if your make/model/year car is eligible for competition.

8.2 Car Body Requirements

- **A.** The car body must be STOCK OEM and retain all factory listed dimensions, lines and angles. All body mounts must be in stock location and OEM dimension.
- **B.** Wheel openings may be trimmed no more than 1"for tire clearance.



- C. EXTERIOR: All bolt-on components and trim must be removed.
- **D.** INTERIOR: All bolt-on components and flammable material must be removed. The left interior door **support** panel may be removed.
- **E.** BODY: All body panels, except the driver's side door, must have all of the interior panels left intact. Cars that have any gutting done to any panels other than the driver's side door and areas required for roll cage installation may be assessed a weight penalty.
- Sun/moon roofs must be completely covered and welded with 24 gauge (.024") minimum magnetic sheet steel, and be neat appearing.
- **F.** The Vehicle Identification Number (VIN) of car being used must be on the windshield bed/dashboard and be clearly visible.

8.3 Car Weights

- **A.** In previous seasons, the Thursday Divisions used a weight penalty after 2 wins. Beginning in 2016, weight will not be used as a "penalty" for multiple wins. After a competitors 2nd win, they will not be allowed to have a handicapped starting spot higher than 6th in any feature event. Also the previous weeks Feature Winner will start LAST in the following weeks feature event, regardless of how many wins they have.
- B. All Cars will be weighed either at the first attended race or as soon as reasonably possible.
- **C.** Car weights may be adjusted to equal out competition.
- **D.** All lead will be mounted in minimum of 25 lbs. blocks, securely bolted through the floorboard or in a position designated by New London-Waterford Speedbowl Officials.
- **E.** 100 lbs. will be added each time you refuse pre-race or post- race inspection. **Also a loss of handicap for the next 2 attended events will be assessed.**
- F. No ballast weight allowed except at the direction of New London-Waterford Speedbowl Officials.

8.4 Detailed Care Body Requirements

- **A. WINDSHIELD:** All Grand Americans must have OEM glass removed. The glass windshield must be replaced with 1/8" thick polycarbonate (lexan). The windshield must be bolted or riveted in along all four sides. You may not use side windows, quarter windows, or a rear window. Windshield must be supported in center top to bottom and braced to windshield bar.
- **B. REAR VIEW MIRROR:** One approved 2" x 10" or smaller single panel rear view mirror mounted in the center of the car is allowed. If the mirror is larger than 2" X 10" it must be painted black to obscure anything larger than the allowable 2" X 10" area. Mirrors that do not meet this rule will be removed for that event. One 1"-3" spot mirror is allowed.



- **C. FIREWALLS:** The front firewall must completely seal the driver's compartment from the engine compartment. The rear firewall must completely seal the driver's compartment from the fuel cell/trunk area. All holes in either firewall must be suitably covered with a minimum of .024" / 24 gauge magnetic steel sheet.
- **D. BUMPERS:** The OEM bumpers made for your car must be used. You may not compete without a securely, mechanically fastened front and rear bumper. Bumpers and bumper mounts may not be reinforced.

8.5 Engine

- **A.** The engine and all of its components must remain unmodified and completely STOCK OEM for your car according to your VIN Code.
- **B.** Must be a V 6-cylinder, fuel-injected motor, stock for year and make and model of car being used in (Completely Stock). Engine size and Transmission must be car for car (will be checked by VIN code).
- **C.** You may not do any modifications or machining to any part of the engine or its components.
- **D.** The block, rotating assembly, cylinder head, injection system, camshaft(s) and valve train, and intake manifold must remain unmodified and completely STOCK OEM.
- **E.** the Stock OEM compression ratio must be maintained for your make/model/year.
- F. Fuel injectors will be inspected and must match OEM for your make/model car.
- **G. Air filter/housing:** The STOCK OEM air filter housing with a paper filter must be used. Cold Air Boxes, or any other aftermarket component are not allowed. Air Boxes located behind the engine in its stock location, may be relocated within the engine compartment, however, no added duct work will be permitted for said air intake system.
- **H. FUEL PUMP:** The STOCK OEM electric fuel pump must be used. All electric fuel pumps must be wired through the oil pressure switch so when the engine stops running, the fuel pump stops running. You may not compete without having your electric fuel pump wired in this manner.
- **I. MISC:** The pulleys, oil pan, valve cover(s), and timing cover must remain unmodified and completely STOCK OEM for your engine / car.

8.6 Car Electrical System

- **A.** The alternator, starter, ignition system, and engine management controls must remain unmodified and completely STOCK OEM for your engine / car, according to your VIN Code.
- B. Computer chip must be the STOCK OEM chip for your engine / car according to your VIN Code.
- **C.** All electrical switches must be located on the dash panel or within easy reach of the driver.



- D. A master battery switch must be installed within reach of the driver and clearly marked "on" & "off".
- **E. Battery:** The battery may either be placed in the stock location or be moved to a secure box located behind the driver's seat. If placed behind the driver, the battery must be encased in a metal or plastic box and secured appropriately with a minimum of two bolts thru the floor and a cross bar on top of the battery. The battery must be completely sealed from the driver's compartment. Gel Batteries are permitted and recommended.

8.7 Engine Cooling System

- A. WATER PUMP: Must be completely STOCK OEM for your engine.
- **B. FAN:** Must be STOCK OEM for your car.
- **C. RADIATOR:** Must be STOCK OEM for your car. Water and "water wetter" brand additive are the only coolants allowed. A 1 gallon over flow can, mounted under the hood must be used.

8.8 Engine Exhaust System

- **A. EXHAUST MANIFOLD:** The unmodified, STOCK CAST OEM exhaust manifold must be used. Factory headers will not be allowed. NO EXCEPTIONS!
- B. EXHAUST PIPE: The STOCK OEM exhaust pipe must be used back to the muffler.
- C. MUFFLER: The catalytic converter may be removed. Car may have any stock muffler. The muffler should be installed so it is removable for tech inspection processes. Exhaust system must extend rearward and exit behind the driver with a 90 Degree Downspout facing towards the ground.

8.9 Drive Train

D. REAR END / TRANSAXLE / TRANNY: The driveline and all of its components must remain unmodified and completely STOCK OEM for your car according to your VIN Code. The driveline unit must be an "open", "single leg" unit, allowing only one wheel to drive the vehicle. You may not do any modifications or machining to any part of the driveline or its components. **STOCK OEM automatic transmissions ONLY.**

8.10 Tires and Wheels

A. WHEELS: STOCK OEM steel wheels must be used. If your car came with Aluminum Wheels you may run a stock steel wheel. No universal wheels are allowed. Right side wheels may be reinforced, and must run 1" Luq Nuts. All four wheels must be the same width, offset, and backspace.



- **B. TIRES:** Any DOT street legal, 60 series or numerically higher "H" rated (or less) with a UTOG wear rating of 300 or higher may be run. Rating must be clearly visible on the tires. Tires must be 13",14" or 15" diameter. Radials only, **No Bias-Ply or Tube Type Tires allowed**. No less than a 3-1/2" side wall height is allowed. No Directional Tires are allowed. All four tires must be the same size. Example: If you run 205/70-14's, then all four tires must be 205/70-14's.
- **C.** The tires cannot extend outward beyond the fenders and quarter panels. You may not alter the shape of the fenders and quarter panels to meet this rule. If your tires stick out beyond your fenders or quarter panels, you may have to correct the issue.

8.11 Suspension

- **A. Front Components:** All of the front & rear suspension components must be the unmodified, STOCK OEM components that came on your car. All suspension components must remain stock as manufactured with the exception of adding camber adjustments on the left front and right front suspension only. Right front and left front upper strutmounts may be slotted for camber adjustments only. No top strut crossover supports allowed. No adding rear camber to rear suspension.
- **B. Rear Components:** All of the rear suspension components must be the unmodified, STOCK OEM components that came on your car.
- **C. Swaybar:** Must be STOCK OEM for your car. Maximum front swaybar diameter is 1-1/4". You may run the STOCK OEM rear sway bar if your car was originally equipped with one, per your VIN Code. Stock sway bar links must be run, no adjustable links.
- **D. Coil Springs:** All springs must be stock as manufactured, No changing, cutting or lowing of springs allowed, must be stock (OEM). Spring must be the same diameter on the left and right side (same spring gauge). If you replace any part you must have the sales slip with you if asked by track official. No altered or high performance components permitted. No weight jacking devices to increase or decrease spring rate, but the use of a single rubber spring spacer may be used. Maximum 1 spring rubber per wheel, **spacer must be located within the coils of the spring.** No rubbers will be located on top or under the **spring.** Spacer length cannot exceed more than one coil length. No steel spacers, no spring knuckles allowed.
- **E. Shocks / Struts:** The shocks / struts must be unmodified, STOCK OEM or direct replacement shocks / struts. They must match from side to side, and mounted in the stock location. If you replace any part you must have the sales slip with you if asked by track official. No altered or high performance components permitted. All mounting holes, locations, and hardware must remain STOCK OEM.
- **F. Spindles & hubs, upper and lower a-frames, and rear trailing arms:** Must be the unmodified, STOCK OEM components that came on your car. All mounting holes, locations, and hardware must remain STOCK OEM.
- **G.** The only modification of the suspension allowed is as follows:
- -Front Strut towers may be slotted for camber adjustments.
- -Maximum camber allowed in the Right Front is +/-4 degrees.
- -Maximum camber allowed in the Left Front is +/-1 degrees.
- -No other modifications are allowed.
- -All mounting holes, locations, and hardware must remain STOCK OEM.
- -Grand American OEM wheelbase must be maintained, plus or minus 1/2".



- **H.** No unapproved poly type or hard bushings will be permitted for use.
- **I.** Any modifications to the Front or Rear Suspension that do not meet the approval of the New London Waterford Speedbowl staff will have to be corrected and may be deemed illegal.

8.12 Steering System

- **A.** Steering rack, power steering pump and reservoir, tie-rods and sleeves must be the unmodified, STOCK OEM components that came on your car.
- **B.** All mounting holes, locations, and hardware must remain STOCK OEM.

8.13 Brake System

- **A. BRAKE COMPONENTS:** The fully operational STOCK OEM 4 wheel hydraulic disc/drum brake system must be used.
- **B.** All brake components must be STOCK OEM.
- **C.** All brake components must be in their STOCK OEM location.
- **D.** No brake components may be altered for weight reduction.
- **E.** ABS Systems must be disabled or removed.

8.14 Fuel and Fuel Tank

- **A. DEFINITION:** The word "Fuel", whenever used in this document shall be understood to mean automotive gasoline which complies with the specifications given in this section. **The words "Fuel Tank"** refer to the factory Fuel Tank, or a commercially available Racing Fuel Cell. It is recommended that Racing Fuel Cells be used whenever possible.
- **B. FUEL SPEC'S:** Pump gas must be used, no racing fuel. You may not mix or blend any fuels, or use any additives. Several testing procedures will be utilized to insure that all racers use only approved fuels. Icing or cooling of the fuel system is not permitted at any time. Gasoline may be tested and certified at any event through the application of various chemical analyses as considered appropriate by officials.
- **C. FUEL SYSTEM:** Fuel cells, containers, or check valves which appear to be damaged will not be allowed in competition. Fuel cell vent check valves are mandatory.
- D. Fuel Tank: The Stock Fuel Tank may be used. Tank may remain in the factory location under the car. It is recommended that the tank be relocated into the trunk area. If the tank is relocated inside the trunk it must be secured with 2 horizontal straps and 2 vertical straps. Also a maximum of 4 round holes no larger than 1-3/4" must be drilled thru the trunk floor to allow and fuel that would accumulate in the trunk to drain out in case of an accident or a tank failure. When the factory fuel tank is installed in a Station Wagon, a sheet metal firewall must separate the fuel cell



from the driver's compartment. The rearward edge of the fuel cell may be no further forward than 14" from the farthest point of the rear bumper.

- **D. FUEL CELL:** The use of a commercially manufactured fuel cell is **recommended** mandatory. The maximum fuel cell capacity, including the filler spout and overflow, is 12 gallons. No material other than standard foam as provided by the fuel cell manufacturer is permitted to make the fuel cell meet the 12 gallon capacity.
- **E. FUEL CELL CONTAINER:** The use of a magnetic steel fuel cell container is mandatory **when using a Fuel Cell**. The fuel cell must be encased in a steel container of not less than 22 gauge (.030") steel. Fuel cells must be fitted within the container so that the maximum capacity, including filler spout will not exceed 12 gallons.
- **F. FUEL CELL AND FUEL CELL CONTAINER INSTALLATION:** The fuel cell and fuel cell container must be installed as far forward as possible, centered in the chassis. The fuel cell container must be secured on top by 1" x 1" square steel tubing or 1" x 1/8" thick steel straps, two lengthwise and two crosswise. The straps must be located as close to the fuel filler/check valve housing as possible. No cutting of trunk/ Station Wagon floorboard when installing a fuel cell. A maximum of 4 round 1-3/4" holes must be drilled in the trunk area to allow for drainage in case of a fuel issue. When installed in a Station Wagon a sheet metal firewall must separate the fuel cell from the driver's compartment. The rearward edge of the fuel cell may be no further forward than 14" from the farthest point of the rear bumper.
- **G. FUEL FILLER:** The fuel cell-cap must be painted white and have your car number on it for identification.
- **H. FUEL CELL VENT:** A 1" maximum ID vent to outside of body at left rear corner must be used. A fuel vent check valve is mandatory.
- I. FUEL LINES: Only one fuel line is permitted from fuel cell to fuel pump, and one fuel line permitted from fuel pump to carb/injection unit. The fuel line can be no larger than 1/2" ID. The fuel line from cell to pump must remain under floor of car. Cars using the factory Fuel Tank can utilize the existing stock fuel lines.
- **J. FUEL SHUT-OFF:** A 1/4 turn fuel shut-off valve is required in the fuel line. Fuel shutoff must be located in passenger side of driver's compartment, clearly labeled and easily accessible by safety personnel. The valve must be open when the handle is aiming front to back, and the valve must be closed when the handle is aiming left to right.

8.15 Accessories

8.15.1 Radios

- **A.** One way communication from the Race Director/Tower to the driver is mandatory.
- **B.** A scanner or Raceceiver must be used.
- **C.** The preferred scanner is the Raceceiver scanner used by 600 racing.



- **D.** If a scanner other than the Raceceiver is used it must be locked onto the track tower frequency. Monitoring the track is your responsibility. You may be placed at the tail end of the field for failure to monitor the track frequency.
- **E.** No other type of communication, one way or two way, is permitted. Drivers found using any type of communicating device other than the Raceceiver or scanner locked on track frequency may be disqualified for that event.
- **F.** If the Raceceiver is not working, you may be black flagged from the event if it presents a problem on the race track.

8.15.2 Electronics

- **A.** No onboard computers, automated electronics, recording devices or digital readout gauges of any kind are permitted.
- **B.** All teams must get approval before using any in-car camera equipment.
- C. All Video Recording Devices must be registered with the New London Waterford Speedbowl.
- **D.** A Video Camera Registration Form must be filled out and on file with the New London Waterford Speedbowl prior to using any recording devices.

8.16 Roll Cage

- **A.** All bars described must be made with 1-3/4"x .095" wall (HREW or DOM) steel tubing. If your car does not have a frame to attach the cage to, then 2" x 3" rectangular tubing extending as far forward and rearward as possible inside the passenger's compartment. All of the bars must land within the driver's compartment. No bars may extend forward or rearward beyond the front and rear firewalls.
- **B.** A "main roll cage hoop" must be installed over the driver's head, tight against the roof, out to the doors and down to the frame or steel plates.
- **C.** A "roof hoop" (halo) must attach to the main hoop on each side, as high as possible, made as wide as possible, and extend as far forward as possible toward the windshield.
- **D.** Two "front down bars" (one on each side) must be installed from the forward outer radius of the roof hoop (halo) and run forward and down along the front window post to the floor area by the drivers and passengers feet, being welded to the frame or the steel plates.
- **E.** A minimum of four "driver's door bars" must be convex in shape, curving out towards the door skin. They must be welded from the main roll cage hoop to the front down bar. The door bars should be evenly spaced from top to bottom. **Roll Bar Gussets should be used whenever possible.**
- **F.** A minimum of three "passenger door bars" must be straight bars, evenly spaced from top to bottom, welded in the same locations as the left side door bars.



- **G.** Two "rear down bars" (one on each side) must be installed from the top of the main hoop (backside) down to the frame before the rise in the frame (by the base of the rear firewall). These two bars may not extend through the rear firewall.
- **H.** A "shoulder bar" must be installed at shoulder level, left to right, between the two uprights of the main roll cage hoop, at shoulder height.
- **I.** A "petty bar" must be installed from the middle (left to right) of the "shoulder bar" and angle forward and down to the bottom of the right side "front cage down bar" or attach to the frame or the steel plate in that area. The petty bar must not extend forward through the firewall.
- **J.** A "dash bar" must be installed by joining the two front down bars together, left to right, at the dashboard height.
- **K.** A "middle windshield bar" must be installed in the middle (left to right) of the Dash bar, curving forward and up toward the windshield, and attaching to the middle (left to right) of the forward bar of the roof halo.
- **L.** All cars must have a foot protection bar, made from 1-3/4" diameter roll cage tubing installed on the left side of the roll cage. The foot protection bar must be located at the pedal assembly, when viewed from the side and above. The foot protection bar must be installed between the left front roll cage "down bar" and the left frame rail. This bar must be padded.
- **M.** An "ear" bar, located vertically by the drivers head is mandatory. It should be placed as far forward as possible, while still allowing the driver easy entry and exit from the car. Additional bars may be added for safety but must not extend through the front or rear firewall for attaching purposes. Commercially manufactured roll bar padding must be used on all bars within driver's reach. No car with less than the minimum roll cage standards will be allowed to compete. All mandatory roll cage tubing must be placed as described.
- **N.** A rear hoop is allowed (optional) on all cars. If installed it must be made of 1-3/4"x.095 Wall round steel tubing (HREW or DOM). Due to the various types of cars being run the only requirement is that the rear hoop attaches horizontally to the 2 "rear down bars" on each side and is adequately supported.
- **O.** A magnetic steel anti-intrusion plate (door bar plate) made from a minimum thickness of .080 must be securely welded to the outside of the left side door bars. The anti-intrusion plate(s) must fill the area between the horizontal centerlines of the top and bottom door bars, and vertical centerlines of main roll bar, and the left front roll bar leg. The plate(s) must be formed to match the curvature of the door bars. Individual plates, if used, should be made as large as possible. All plate(s) must have the corners welded. To facilitate emergency removal of the left side door bars, the anti-intrusion plate(s) must have 2-1/4 inch diameter holes cut in the anti-intrusion plate, to allow the "jaws of life" to get access to the roll cage door bars.

New London-Waterford Speedbowl officials reserve the right to interpret any and all of the above the written rules in any way, under the guidelines of the published Factory Stock Division rules.