2025 Limited Late Model Rules

For any technical questions, please thoroughly read these rules, the Stafford Motor Speedway Late Model rules, and any applicable NASCAR Weekly Racing Series Late Model Stock rules, then email tech@staffordspeedway.com.

2025 Rule Changes
20H – 11.2 FRONT SUB-FRAME
20E- 16.1 FUEL CELL

PREFACE

The rules herein shall refer to Stafford Motor Speedway as "SMS". These rules are intended to create affordable and fair competition. While they offer a good outline, every item cannot be covered by a written rule. If you have questions regarding something not detailed in these rules, please consult an SMS Official for clarification before proceeding. These rules are for SMS only with no expressed or implied agreement with any other speedway or series as to their interpretation, implementation, and method of inspection by their technical inspectors and officials. No car, component or equipment will be considered as having been approved by reason of having previously passed through inspection unobserved. No car, component or equipment will be considered as having passed inspection for the event until the finish is made official.

The request for new or modified parts or components not specifically addressed in the current version of this rule book must be submitted in writing, via email, to tech@staffordspeedway.com for consideration of approval on or prior to August 1, 2025 unless otherwise authorized by SMS to be considered for competition for the 2025 season.

All equipment is subject to the approval of SMS Officials. You may be assessed penalties including but not limited to: added weight, fines, loss of points, loss of handicapping, and suspension, car parts, components, and/or equipment deemed as not in compliance with these rules. Any car part, component, and/or equipment which does not conform to specifications or tolerances contained in the 2025 rule book or is not otherwise approved by SMS may not be used in competition in 2025.

By engaging in competition at SMS, you hereby agree to have read the 2025 NASCAR Weekly Racing Series rulebook, The 2025 SMS General rulebook and the 2025 SMS Limited Late Model rulebook. You may not compete without a roof, hood, trunk lid, windshield, bumpers, fenders, quarter panels, air cleaner or mufflers.

All 2025 NASCAR Weekly Racing Series (NWRS for Late Model Stock) rules and 2025 SMS Late Model rules will be enforced for the SMS Limited Late Models, when applicable, with the following changes and/or additions (EIRI). SMS Officials decisions regarding rules are final and non-appealable.

DRIVER ELIGIBILITY- All SMS Limited Late Model drivers must have a Stafford Limited Late Model driver's license. Drivers must be at least 15 years of age. Cross division competition will be permitted upon approval and a maximum of 3 times throughout the 2025 season. All cross competition must be approved by Stafford Motor Speedway. See below matrix for allowed cross competition in 2025.

	Cross Competition				
Full-Time Division	**SS**	**LLM**	**SKL**	**LM**	**SK**
Street Stock		**YES**	**YES**	**YES**	**YES**
Limited Late Model	**NO**		**YES**	**YES**	**YES**
SK Light Modified	**NO**	**YES**		**YES**	**YES**
Late Model	**NO**	**NO**	**NO**		**YES**
SK Modified®	**NO**	**NO**	**NO**	**YES**	

DEFINITION OF STOCK– In the following rules you will see the term OEM Stock used. This means Original Equipment Manufacturer. The parts must come on a standard production car. Special "Off-Road" or racing parts are not permitted unless pre-approved. No carbon fiber or titanium engine, chassis or body parts are permitted.

20F- 1 COMPETING CHASSIS – American made full-frame car with a minimum of 108" wheelbase as factory listed for that year and model. Firebirds, Camaros, Mustangs, convertibles, station wagons or two passenger sports cars are not permitted. Body may be different from frame and engine, but engine and frame parts must be from the same corporate line (i.e. GM, Ford, Chrysler). If you are in doubt about the eligibility of a make or model, check before you build it.

20F- 2.1 BODIES –
Please note that the Five Star gen 6 body and the AR gen 6 re-skin body (individual panels or complete) are not approved for use in 2025.
All bodies must be stock for frames being used or be aftermarket SMS approved.

See NASCAR Late Model Stock Car Division rule book for additional body specifications. Original dimensions of all bodies must remain as manufactured, except for changes which may be necessary for tire clearance. All aftermarket Limited Late Model bodies will be subject to the NGB or S2 body type measurements. SMS Officials will use the NGB or S2 type templates to ensure the measurements from car to car are the same.

All measurements from the NASCAR rule book and the NGB or S2 book are the same plus one (1) inch for vertical measurements. Tolerances are built into the templates, with the exception of the 18- ¼" min deck lid length, all other measurements that say minimum or maximum shall be considered as exact for this division. Any other models must be approved by SMS. Older cars with higher roof heights will be adjusted according to the rule. All vertical body measurements will be done at 5" ride height.

The following bodies (and any identically dimensioned alternatives) are approved for the Limited Late Model division-

AR Bodies NGB series:
Cadillac CTS
Chevy Malibu
Pontiac G8

AR Bodies Muscle series:
Chevy Camaro

Dodge Challenger
Ford Mustang

FiveStar Bodies North American Sportsman series:
Chevy Camaro
Ford Mustang

FiveStar Bodies S2 series:
Chevy Impala
Dodge Charger
Ford Fusion
Toyota Camry

20F- 2.2 OVERALL CAR WEIGHT – All specified weight requirements are with the driver and race gear, seated in the car. The minimum weight at all times is 3,100 lbs. The maximum left side weight percentage is 55%. Any car found to be under the minimum overall car weight allowance will be penalized one position for every pound under the minimum weight. This does not apply to left side weight requirements.

20F- 2.3 ADDED CAR WEIGHT – Added weight must be in block form, be magnetic steel or lead, and be of no less than five (5) pound blocks (no pellets). All weight must be bolted to the frame rail and above the lowest edge of the frame rail where it is mounted. Added weight must be painted white with the car number painted in black. No added weight is permitted inside the driver's compartment. Weight must be welded in a box or attached with two or more 7/16" diam. (minimum) grade 8 bolts, washers and locking nuts. A "lead box" made from magnetic steel rectangular or square tubing may be welded to the outside edge of the drivers side frame rail. The bottom of the lead box may not be lower than the frame where it is attached. The lead box must have suitable end caps or bolts used to retain the lead. All lead boxes shall be acceptable to SMS Officials. All other weight must be bolted to the inside of the frame rail and above the lowest edge of the frame where weight is mounted. It is the team's responsibility to inspect their lead mounting on a regular basis. Cars that have lead come off their car will be assessed (at a minimum) a $500 safety violation fine.

20F- 2.4 CAR WEIGHTS AFTER RACE – Cars will be weighed as they come off the racetrack, with the driver and helmet positioned in the seat. Nothing may be added, removed, or changed on the car prior to being scaled. An amount equal to one half of one percent (.5%) of the total weight will be added to scale reading for loss in weight due to race wear. Minimum post-race weight will be 3085 lbs.

20F- 3 DETAILED BODY REQUIREMENTS –
All side panels, nose and tail, roof and roof posts must be from the approved list. Unapproved bodies and/or unapproved individual body panels are not permitted for competition. Please note that the Five Star gen 6 body and the AR gen 6 re-skin body (individual panels or complete) are not approved for use in 2025.

You may not compete without the roof, windshield, hood, trunk or front fenders in place.

Aftermarket bodies may be used in place of stock. Hood and roof only may be made of fiberglass. Front fenders must be steel or plastic. Rear quarters must be steel, plastic or fiberglass. Body must be straight, stock, and mounted in the stock location on the frame. Lowering, chopping, channeling or streamlining of any body parts (including roof) is not permitted. Stock window openings must be maintained. Replacement body parts must meet NASCAR templates. Body skirts or lower body rocker panel flares are not permitted. Rolled under rocker panels are recommended.
Rear spoilers are not permitted, a rear wing is required in 2025.

Approved Rear Wing Models:
– ARP New Era Adjustable Wing
– Five Star adjustable wing # 664-6800
– Big Haus USA part #003 contact davidarute@staffordspeedway.com to order.

20F- 3.1.1 FRONT AIR DAM – Approved air dams must maintain 5" ground clearance.

20G- 3.2.1 WINDSHIELD / WINDSHIELD BRACES – A polycarbonate windshield must be used in lieu of a standard glass windshield. The windshield must be clear (no tint permitted). A 1" wide border may be painted/taped on the sides of the front windshield. Full windshield is required to be made of clear 1/8" thick Polycarbonate. The windshield must maintain the OEM Stock angle and fit the SMS template. The windshield must have a minimum of two (2) metal straps or braces 1/8 inch by one (1) inch installed inside the windshield. The straps must be bolted to the roof panel or roll bar at the top and the dash panel at the bottom with minimum 5/16 inch diameter bolts. A piece of rubber stripping must be installed between the windshield and straps. The straps must be installed in a manner that will not obstruct the vision of the driver. Windshield fasteners must be acceptable to SMS Officials. Driver and/or passenger side windows are not permitted. **NOTE:** Rear window and side windows are permitted only if an approved rear wing is utilized.

20G- 3.2.2 REAR WINDOW – An optional full clear Polycarbonate rear window is approved. Two (2) metal straps or braces 1/8 inch by one (1) inch are required inside and outside. The rear window must maintain the OEM Stock angle and fit the SMS template. Access holes in the rear window for the rear jacking bolts must not exceed a maximum diameter of 1-1/4 inches. The rear window must be securely fastened in place with bolts or rivets.

20G-3.2.3 SIDE WINDOW GLASS/WINDOW NET – All door window (side) glass must be removed. A clear flat polycarbonate vent deflector panel may be installed at the bottom of the windshield "A" post. The deflector may extend a maximum of eight (8) inches rearward from the lower rear edge of the "A" post. The rear edge of the vent deflector must be vertical. Quarter window openings must maintain the OEM Stock size, shape and location for your year/make/model. Optional quarter windows are approved, and they must be flat clear polycarbonate and must cover the entire quarter window opening. If quick release fasteners are used, they must be the flush mount type. All other fasteners must be acceptable to SMS Officials. Only one (1) air inlet in each quarter window is permitted. The maximum hose size is three (3) inches. Ducts that are installed in the direction to create vacuum (suction) are not permitted. A commercially manufactured, SFI rated nylon window net must be installed in the driver's side

door window opening. It must be positioned to cover the entire window opening. Window nets may not be used beyond three (3) years from the date of manufacture. The window net must be rib type, made from minimum ¾ inch, maximum one (1) inch wide nylon material with a minimum one (1) inch and a maximum 2-1/4 inches square opening between the ribs. The minimum window net size must be 22 inches wide by 16 inches high. All window net mounts must be a minimum ½ inch diameter solid steel rod on the bottom and a minimum one (1) inch wide by 3/16 inch thick flat steel or a minimum ½ inch diameter solid steel rod on the top, with mounts welded to the roll cage. The window net must fit tight and be secured with a lever-type quick release latch. The lever must be secured by a detent ball in the lever and may be supplemented by Velcro® fastener only – pins or clips are not permitted. The latch must mount at the top in the front to roof bar (#3) and release from the inside.

20F- 3.2.5 REAR VIEW MIRROR – One (1) single pane rear view mirror, with a maximum size of 8' x 2", may be mounted at the top of the windshield. No multi-image or side mirrors. Drivers wearing approved head and neck restraint devices may use one (1) spot mirror that must be mounted to the #10 A bar. The Spot Mirror must be a maximum diameter of three inches (3").

20F- 3.3 DASH BOARD – Stock dashboard may be removed but must be replaced with magnetic sheet steel, a minimum of 24-gage (0.025 inch thick), of similar design the full width of the body.

20F- 3.4 FIREWALLS

A. Front firewall must be no further than 2.250″ from the front edge of frame rails and be made of minimum .031″ magnetic sheet metal with all holes covered using sheet metal a minimum of .031″ thickness. The front firewall must extend down to the top of the floor. The bottom 8.0″ may angle no more than 70 Degrees, before going upward at 90 Degrees.

B. Rear firewall must be made of minimum .031″ magnetic sheet metal securely installed over the rear seat back brace and top shelf or "hat rack", completely closing off the trunk compartment.

C. The top shelf or "hat rack" must be positioned horizontal and approximately level, attaching to the #7 bar. On the driver side of the hat rack, there must be a containment area for the seat belts. This can be constructed by making a cut out 42″ from the back edge of the hat rack. The inverted box should go from the top of the hat rack to the top of the #6 bar. This box should be approximately 13.500″ by 8.250″ and be angled at 70 degrees and must be welded in place.

D. The interior area of the car must be completely enclosed from front to rear with fire walls made of not less than 22 gage (.031 inch thick) magnetic sheet steel. The floor area on the left side must not be lower than the top of the frame rails except an area maximum 24 inches by 24 inches directly under the seat where the floor may be dropped not lower than two (2) inches above the bottom of the frame rail. The floor area on the right side of the seat may be a maximum eight (8) inches to the top of the driveshaft tunnel and extend to the right door panel. All interior panels must be welded. Door bars may not be paneled on the inside. All door bars above eight (8) inches must be visible from inside car. The floor must be sealed to the bottom of

the door on both sides of the car. The rear seat area must seal to the rear firewall.

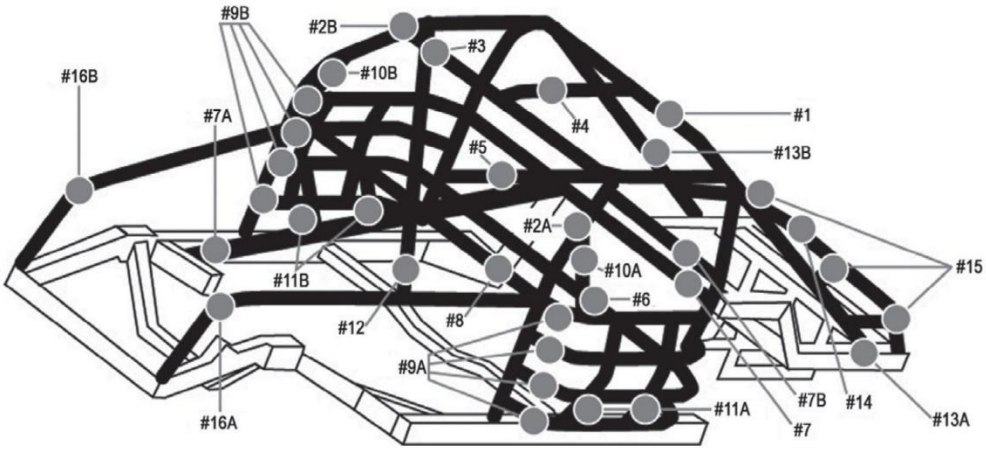
E. Door bars may not be covered on the interior of the car and must be visible for inspection from the inside of the car.

Reminder for main cage construction-

You must have 4 door bars on each side, with door bars being curved, not straight, as described below in the NASCAR Weekly Racing Series Rulebook

The door bars (#9A & B), on both the left and right sides, must have a minimum of four (4) bars equally spaced from top to bottom that must be welded horizontally between the vertical uprights of the main roll bar (#1) and the front roll bar legs (#2A & B). All door bars must each be a continuous length of tubing. The top door bar on each side must maintain a minimum vertical height of 20 inches from the top of the main frame rails and match up with the intersection of the dash panel bar (#8) at the roll bar legs (#2A & B) at the front and the intersection of the horizontal shoulder bar (#7) at the main roll bar (#1) at the rear. All door bars must be convex in shape except the bottom door bar on each side which may be straight. The door bars (#9A & B) must have a minimum of six (6) vertical supports per side with two (2) equally spaced between each door bar. These supports must be made from a minimum of 1-3/4 inches by 0.090 inch wall thickness magnetic steel seamless round tubing (not numbered but shown in the left side view of Diagrams #3, #4 & #5).

DIAGRAM #5 - BASIC NASCAR ROLL CAGE STRUCTURE
(SOME BARS REMOVED FOR CLARITY)



20F- 3.5 DOORS –

A. Doors may be steel or aluminum. External nerf bars, made of a maximum1" round tubing may be used. The nerf bars must be located between the front and rear wheel only, be spindle height, must fit tight to the body panels, and must be painted the same color as the body panels that its attached to. The ends of the nerf bars must be turned into and go through the body or be bolted at the end of the bar with a flush bolt that goes through the body to an interior bar of the same length as the outside bar to prevent hooking. The outside bar must have the ends rounded. Spreading or narrowing of the body is not permitted. Doors must have OEM Stock contour.

B. Cars must have a magnet steel anti-intrusion plate minimum 0.090 inch thick, installed on the outboard side of the left side door bars. (See NASCAR rule book 20F-3.5-B for mounting instructions & diagram).

20F- 3.6 FENDERS / QUARTER PANELS- Front fenders and rear quarter panels may be steel, aluminum, or plastic.

20F- 3.7 GRILLES – Grill openings must remain stock for body make/model used. A screen must be used in the grille opening. An open grille area (without a screen) is not permitted.

20F- 3.8 HOODS, ROOF
A. Hoods may be made of fiberglass or approved composite. The sides of the hood must seal tight to the fenders. The back of the hood (including the raised area of the non-functioning scoop) must fit tight to the windshield. The hood must be in place at all times.

B. Hood must be held closed with quick release pins across the front. Quick release pins or hinges may be used across the rear.

C. Holes in the hood or any functioning air scoops are not permitted. Hoods must lay flat.

D. Openings or cut-outs are not permitted in the hood.

E. All roofs must be the same size and shape of a production roof. Steel or fiberglass roof permitted. Roof panels must be permanently mounted in the stock position the same as a stock production roof for the year/make/model being used.

20F- 3.9 REAR DECK LID / TRUNKS – The rear deck lid / trunk may be steel or aluminum. Fiberglass is not allowed. The rear deck lid must maintain the same dimensions, angles and bodylines as the stock production car. Lid may be held closed with quick release pins and/or hinges. Flat-back or shortened cars are not permitted.

20F- 3.10 BUMPERS/BUMPER COVERS – The bumpers/bumper covers must be acceptable to SMS Officials and meet the following requirements:

A. The front and rear bumpers and/or bumper covers must be installed in the same location as far as height, width, and depth as a stock factory production bumper.

B. Magnetic steel tubing must be used to reinforce the front and rear bumper covers. The tubing must not be exposed and must remain behind the bumper covers.

C. The front and rear bumpers/bumper covers must be solid. Holes are not permitted.

D. All front and rear bumper covers must be painted the same color as the car including bolts and rivets.

MANDATORY REAR BARS- To help create a better alignment of all "front bumper -to-rear bumper" contact, two bars made of 1 ¼" OD round magnetic steel tubing must be added to the fuel saver bar and connect to the bottom of the main rear bumper bar. These two bars may have one 90 degree bend in them and may be bolted or welded in place. These are the only bars that will be exposed from the bumper cover.

20F- 3.11 IDENTIFICATION –
A. Numbers / Graphics- All car number configuration and design is subject to approval by SMS Officials. Single or double-digit numbers are permitted. The size, color, and style of numbers must be adequate to permit prompt identification by SMS Officials at all times. Numbers must be solid, at least 18 inches high, measured vertically, excluding borders and silhouettes, must be neatly attached to or painted on both sides of the car on the center of the door or in an optional location under the A-Post, directly behind the front fenders. Door numbers must be a minimum of four (4) inches in width, and slant no more than 30 degrees from vertical. The tops and bottoms of all numbers must be even (not staggered). Two (2) digit numbers must have a minimum separation of two (2) inches between the numbers including borders. All graphics must have a minimum separation of two (2) inches from any number including borders. A solid number 24 inches high, excluding borders and silhouettes, must be neatly attached to or painted on the roof, reading from the driver's side. Solid numbers, as large as possible, must be attached to or painted on the uppermost corner of the right side windshield and the right rear taillight cover. The use of number decals is acceptable if SMS Officials determine that the number is legible. Mirror foil numbers and decals are not permitted. Paint schemes using a mirrored or holographic appearance are not permitted. All car numbers are owned by and will be assigned by SMS Officials for use by the car owner. Car numbers are not transferable or assignable by the car owner.

B. Decals and Advertising- SMS may refuse, restrict, or assign the size or placement of decals, identification, and advertising of any kind on a car for any reason. SMS may refuse to permit a Competitor to participate in an Event if we determine that any advertising, sponsorship or similar agreement to which the Competitor (or a car owner, driver or crew member associated with the Competitor) is or will be a party, is detrimental to the sport, to NASCAR, Series Sponsor, or to the Promoter for any reason, including without limitation, the public image of the sport. Decals, advertising logos, text or identification of sponsors are not permitted on the most rearward vertical portion of the rear bumper cover. Decals, advertising logos, text or identification of sponsors are not permitted forward of the hood pins on the front of the car. Decals, advertising logos, text or identification of sponsors must not be on the roof panel unless otherwise authorized by SMS Officials. Decals, advertising logos, text or identification of sponsors must not extend past the seam between the hood and front fenders.

20F- 3.12 BODY TEMPLATES – Templates may be used. The decision of SMS Officials is final. All vertical body measurements are measured at the minimum ride height rule.

20F- 5 GENERAL ENGINE REQUIREMENTS– The only SMS approved service center for the GM Performance Factory Sealed Circle Track Crate Engines is:

R.A.D. Auto Machine – Ludlow, MA – 1-413-583-4414

R.A.D. Auto Machine is the exclusive service center for all "602" GM Performance Factory Sealed Circle Track Crate Engines at Stafford Motor Speedway. No other engine builder's seals will be permitted for competition at Stafford. To compete at Stafford, all engines must be sealed by R.A.D. Auto Machine and approved by SMS Officials.

The GM part number 88958602 superseded by GM part number 19258602 factory sealed circle track "602" crate engine is the only engine permitted. The motor may be purchased and delivered to R.A.D. Auto Machine, or you may purchase the engine through R.A.D. Auto Machine. This engine requires specific changes made to it to compete, and the work will be performed at R.A.D. Auto Machine, then the engine will be resealed by SMS Officials. Any service work requiring the removal of any seal bolts must also be scheduled with and approved by SMS Officials before the seal bolts are removed (see engine package "B" below). Tampering with seals will result in penalties and loss of eligibility of the engine to compete in the Limited Late Model division. All engines must be sealed and documented to compete at SMS. All of the parts specified and/or that come stock OEM on these engines must remain as delivered, with no modifications or alterations of any kind.

Engines may not be disassembled without being in need of repair. A maximum overbore of .030″ will be permitted. The maximum static compression ratio is 9.5 to 1. Please call R.A.D Auto Machine or email the SMS technical staff at tech@staffordspeedway.com with any questions on these rules.

20F- 5-A ADDITIONAL DETAILED SMS 602 SPEC/CRATE ENGINE REQUIREMENTS

"Stock" GM 602 Engine Components

- Harmonic Balancer: 8" O.D. 10.5LBs Min. GM#12555879, Power Bound: pb-1046ss
- Rocker Arms: GM Only gm#10089648 kit#12495490
- Valve Springs: GM# 10212811-16 Compcams 981-16
- Spring Retainers must be stock GM 602 GM#10241744 kit#24503856 min weight 15.5 grams locks must be stock min weight 2.8 grams

20F- 5-A CRATE ENGINE "A" REQUIREMENTS – GM factory bottle cap sealed and additional Stafford Speedway Seals Required. Internal changes to this factory sealed engine are: new valve springs. The "A" package engine is factory standard bore.

20F- 5-B CRATE ENGINE "B" REQUIREMENTS – Once you have disassembled the "A" engine package (for rebuild or repair), additional work is required to bring the engine up to the "B" specification. Please consult your authorized SMS service center for details and price (dependent on service required).

20F- 5.1 ENGINE LOCATION-

A. Engine must be in the OEM Stock location for a V8 in your year/make/model chassis. OEM Stock engine location is: The engine must be centered from left-to-right in the chassis, and the

distance between centerlines of the forward most fuel pump bolt hole to the upper idler-arm mounting bolt hole must measure 8.75” inches +/- .25” inch. All bolt holes/locations must be OEM Stock.

B. The crankshaft centerline (vertical dimension) to ground may be a minimum of 12-3/4”, measured at the center of the harmonic balancer when car is at 5” ride height / blocks.

20F- 5.10 CARBURETOR – The Holley two-barrel model #4412 carburetor must be used. All parts must be a Holley manufactured part for the 4412 model. Polishing, grinding, resizing, or reshaping of any part or orifice is not permitted. The body, base plate, metering block, and bowl must be a standard Holley 4412 part, HP parts are not permitted. OEM type gaskets, jets and power valve must be used. The diameter of every hole in the carburetor must pass the standard NASCAR /SMS pin and tooling gauges as part of our routine tech process.

(1) Body of carburetor and metering block: No polishing, grinding, or reshaping of any part. Drilling of additional holes or plugging holes is not permitted.

(2) The choke may be removed, but all screw holes must be permanently sealed.

(3) Choke Horn: Choke horn may not be removed.

(4) Boosters: Boosters may not be changed. Size or shape must not be altered. Height must remain standard.

(5) Venturi: Venturi area must not be altered in any manner. Casting ring must not be removed.

(6) Alterations to allow additional air to be picked up below the opening of the venturi such as altered gaskets, base plates and drilling holes into the carburetor will not be permitted.

(7) Base Plate: Base plate must not be altered in shape or size.

(8) Butterflies: The stock Holley 4412 or Stainless Steel Holly part #346 butterflies must be used. They may not be thinned or tapered. The Butterflies must remain as manufactured and must maintain the Holley production tolerance thickness of .0438” to .0398”. Idle holes may be drilled in butterflies. Screw ends may be cut even with shaft, but screw heads must remain standard.

(9) Throttle Shaft: Shaft must remain standard and must not be thinned or cut in any manner.

20F- 5.10.4 CARBURETOR ADAPTER – The Big Haus U.S.A. #001 aluminum adapter plate must be used. One standard gasket per side, maximum gasket thickness of .075” permitted. Alterations of any kind to the adapter plate are not permitted.

20F- 5.12.1 CARBURETOR AIR FILTER / AIR FILTER HOUSING-
A. Only a round dry type paper air filter element maintaining a minimum 12 inches and maximum 14 inches diameter is permitted. The air filter element must maintain a minimum of 1

½” inches, maximum three and a half (3.5”) inches in height. All air must be filtered through the element.

B. Only a round, metal filter housing (top and bottom) is permitted. The top and bottom of the air filter housing must be solid with no holes. A maximum of one (1) inch lip is permitted from the air filter element to the outer edge of the air filter housing top and bottom. The air filter housing carburetor mounting ring must have only one (1) round hole, a minimum of five (5) inches in diameter. It is permissible to attach a shield to the front area of the air filter housing up to a maximum of one half of the air filter circumference. The shield must not be higher than the height of the air filter element. The air filter housing metal top and bottom must be of the same diameter. The air filter housing must be centered and sit level on the carburetor. Air induction, ducts, baffles, tubes, funnels, or anything that may control the air entering inside of, or between the air filter and carburetor is not permitted.

C. The bottom of the air filter element must measure within one (1) inch of the carburetor’s top flange. A spacer may be used between the carburetor and the air cleaner so long as the one (1) inch specification is not exceeded.

D. No part of the air filter or air filter housing may protrude through the hood.
You may not compete without the air filter and air filter housing in place.

20F- 6.1 IGNITION SYSTEM–
E. The distributor must be the same type that comes on a 602 crate engine.

F. Adjustable timing controls are not permitted.

G. Retard or ignition delay devices are not permitted.

H. An MSD #8728 or #8727CT external RPM limiter with a 6,400-RPM chip / setting is mandatory. The violet wire of the MSD #8728 or #8727CT must be cut back flush to the unit’s housing. The green and the white wires of the MSD #8728 or #8727CT must run directly to the coil negative. The MSD #8728 or #8727CT must be mounted on the engine side of the firewall in plain view. SMS Officials may require the replacement of the RPM chip with a track issued chip at any time during an event. RPM limiters must be fully functional and operational at all times.

20F- 6.2 STARTER – Stock OEM type (full size or mini-starter) only. Must be in stock position and operate at all times.

20F- 6.5 BATTERY – One (1) 12-volt Gel or Glass Mat type battery with a minimum weight of 17 lbs must be used. The battery must be located in an enclosed battery box, complete with a cover. It may be installed under the hood area behind the front spindles, in the front firewall, or in front of the rear axle housing behind the rear firewall. The battery must be completely closed / sealed off on the driver side of the firewall. The battery box must be mounted between the frame rails and must not extend below the bottom of the frame rail. Any battery change that happens

during competition must be installed in the battery box. Accessories to regulate the power supply will not be permitted.

20F- 6.7 ACCESSORIES – Onboard computers, electronics, telemetry, or recording devices of any kind are not permitted.

20F- 6.7.1 RADIOS – Monitoring of SMS Race Control on Frequency 461.1375 is mandatory via a RELIANT R416 Receiver, Raceceiver Microscanner, Victory GT-18 Receiver or similar receiver. The approved Receiver must be mounted in plain view for ease of inspection. You may be black flagged and removed from the event for failure to monitor Race Control.
Two way communication is not permitted.
Track Frequency Limited Late Model- 461.13750 UHF
Waddell Communications www.waddellcommunications.com 860-573-8821

20F- 6.7.2 TRANSPONDERS – A Transponder is required on the car at all times. See the **SMS General Rules** for locating transponders properly. Any car not registering a transponder signal during practice will be black-flagged to be made aware of their scoring transponders failure and is required to remedy it before proceeding further in the event. TR2 and X2 Transponders are available from MyLaps America.

MYLAPS AMERICA
www.mylaps.com
32 Highlands Parkway Suite 104
Smyrna, GA 30082
Tel 678-816-4000

20F- 7 ENGINE COOLING SYSTEM – Only water or SMS approved coolants or additives may be used in the cooling systems. Coolant lines to the engine block, intake or cylinder heads are not permitted. Ethylene Glycol or Propylene Glycol coolants are not permitted.

20F- 7.1 WATER PUMP
A. A stock OEM type pump must be used. Electric pumps are not permitted.
D. Any serpentine or V-belt pulley system is permitted. Pulleys must be steel or aluminum.

20F- 7.2 FAN – Stock OEM type mechanical or electric fans are permitted.

20F- 7.4 RADIATOR
A. An OEM stock type radiator must be used in the stock location.
D. All cars must be equipped with an approved overflow catch can under the hood by the right front fender. The overflow hose coming out of the catch can must run up through a fitting in the cowl, at the base of the windshield on the right side.

20F- 8 ENGINE OIL SPECIFICATIONS – Combustion enhancing oils or additives are not permitted.

20F-9 ENGINE EXHAUST SYSTEM
A. The Kooks #15055, # 6250200, FlowRite FR275FF, or the Beyea SSA-23N1-3SS header must be used.

B. Headers may not be modified, other than for interior and exterior coatings.

C. The exhaust header flange must mount directly to the cylinder head with no spacers between the flange and the cylinder head.

D. The header collector must be used as supplied and may not be modified.

E. Exhaust pipes must be a maximum of 3″ dia. exhaust tubing and run from the header back to within 12" of the rear end housing, then turn down a minimum of 45 degrees. Pipes may not exit out the side of the car. Both exhaust pipes must be independent with no connection between them.

F. LOBAK RCM 25-12-30 or the stainless KOOKS #R300-10 mufflers must be used and are required at all times. Modifications or repairs of any type are not permitted on the muffler. Both muffler flanges must be intact. Mufflers must be removable for inspection.

G. Thermal wrap is not permitted anywhere on the exhaust system.

H. Only one muffler and exhaust pipe per side of the car is permitted.

I. The exhaust system is subject to approval by SMS Officials.

NOTE: The life expectancy for all mufflers is two years. Each team is responsible for inspecting their mufflers to insure they are not illegal due to wear. A muffler will be deemed illegal if it is missing one or more of the internal baffles. You may not compete without the mufflers.

20F- 10 ENGINE DRIVE TRAIN – FLYWHEEL AND CLUTCH –
Flywheel- OEM Stock dimension steel, or aftermarket replacement billet steel flywheel for engine type, weighing a minimum of 12.5 lbs must be used. Flat surface machining allowed only on the face of the flywheel, any cutting or machining on the back side of the flywheel is not permitted.

Pressure Plate- OEM stock type 10.5" steel pressure plate must be used. See weight requirement below.

Clutch Disc- OEM stock type 10.5" steel full 360 degree disc or Magnus part # 384152F and 384152C must be used.

The weight of the Pressure Plate must be a minimum of 12.2 lbs.
Clutch disc minimum weight 2.5 lbs. and a maximum weight of 3.8 lbs. (fasteners not included). Drilling or lightening of any part is not permitted. Solid magnetic steel fasteners must be used.

20F- 10.3 BELL HOUSING- Only a commercially manufactured magnetic steel bell housing may be used. The bell housing must enclose the flywheel 360 degrees with minimum 3/16" inch magnetic steel. Any modifications you make to the bell housing must be done with 3/16" steel and welded in place (no bolt on pieces). A commercially manufactured bell housing (like the Quarter Master # 008110440) with a bolt on the bottom cover may be used. An opening no larger than 3 ½ x 4 inches may be used for throw out bearing access. This hole may be covered with sheet metal.

20F- 10.4 MANUAL TRANSMISSION

A. Only OEM production stock 3 & 4 speed transmissions may be used. Top loader transmissions are not permitted. Gear ratio must be of stock OEM production.

B. Only cast iron housings are permitted. Aluminum or magnesium transmission housings are not permitted.

C. Only OEM type, steel, angle cut forward gears are permitted. Square cut forward gears are not permitted.

D. All forward and reverse gears must be in working order, and they must be operational from inside the driver's compartment. All transmissions must have a constant engagement of the input shaft with gear and countershaft with cluster gears.

E. Five-speed transmission, with gears removed, are not permitted.

F. Quick change transmissions are not permitted.

G. Automatic or semi-automatic transmissions are not permitted.

H. Machining or lightening of any internal rotating or non-rotating parts including gears, shafts and case is not permitted. Gun drilled transmission shafts are not permitted. Welding on any internal part is not permitted.

I. Additional or different from OEM bearings other than the tail-shaft, which may have roller bearings, are not permitted.

J. Auxiliary, over or under drive transmissions are not permitted. High gear must have a ratio of 1 to 1 and no other gear may have a ratio higher than 1.20 to 1. The shifter and all of its components must be made of steel or aluminum.

20F- 10.5 DRIVESHAFT

A. Drive shaft, universal joints, and yoke must be magnetic steel and be similar in design to the standard production type. The drive shaft must be made of one-piece magnetic steel and must be either 2-3/4 inches or 3 inches in diameter.

B. Two (2) 360 degree solid magnetic steel brackets with no holes or slots, not less than 2 two (2) inches wide and ¼ inch thick, must be placed around the drive shaft. The front bracket must

be welded to the rear suspension crossmember and the rear bracket must be welded or bolted, with a minimum of two 3/8-inch diameter bolts on each side, to the horizontal tunnel bar (#6).

C. All drive shafts must be painted white.

20F- 10.6 REAR AXLE – Ford nine inch (9") floater or non-floater must be used.
A. The center of the rear end housing must be within 1" of the centerline of the track width, front and rear.

B. Differential may be locked only by welding the spider gears, mini spool or a full size heavy-duty spool only. Posi-Traction, Limited- Slip, Detroit Lockers, or any type of ratcheting differential is not permitted.

C. Rear axle housing must be a continuous housing between the backing plates. Only one-piece, magnetic steel rear end axle housings will be permitted.

D. Racing axles are mandatory on both sides for all Ford rears. Axles must retain all stock dimensions. Full floating double splined rear axles may be used. Only one-piece, solid magnetic steel axles allowed. Hollow or drilled axles will not be permitted. Full floating double splined rear axle minimum weight is 9.0 lbs. Axle splines must be straight cut, not crowned.

E. Only magnetic steel axles, drive plates, bearings, and axle housings are allowed. Aluminum parts are not permitted in or on the rear axle assembly, except for the axle caps. The spool (carrier) must weigh a minimum of 7.00 lbs.

F. Cambered rear axle housings will not be permitted. Cambered components of any type are not permitted in or on the rear axle housing assembly. The method used to check camber will be the SMS Officials' option.

A GM Metric type 4 link rear suspension must be used.
Stock upper trailing arms for the chassis used must attach to the frame in the stock location. Stock upper trailing arms may be replaced with DCA P/N 17811 or J.C.I. P/N J.C.I. -09-03-04B. Upper trailing arms can be ordered 1 inch shorter than stock. Directly from DCA or J.C.I. Mounting brackets on the axle tubes may be moved but rear axle assembly housing must be centered in the chassis.

G. The right rear lower trailing arm may be as described below or you may use the Hamm adjustable trailing arm #GHC-1937J. The Hamm #GHC-1937J arm may not be modified or altered. Stock lower trailing arms for the chassis used must attach to the frame in the stock location. Stock lower trailing arms may be replaced with DCA P/N 17812., J.C.I. P/N JCI-03-01B or Hamm's Welding P/N GHC-1925-RB. Mounting brackets on the axle tubes may be moved but the rear must be centered in the chassis. The lower trailing arm brackets may not be longer than 6", as measured from the bottom of the axle tube to the lower end of the bracket. The trailing arm, the bracket, and the bushing must have one ½" diameter hole in them, and you must use a ½" diameter bolt.

Left and right brake rotors must be an equal distance from the frame rails.

H. Springs must be mounted on axle housing in stock location for frame being used.

I. Aluminum parts in or on the rear axle assembly, other than wheel spacers and axle caps are not permitted.

20F- 10.6.1 REAR GEAR – The rear ring and pinion gears must be stock type. The ring gear must weigh a minimum of 12 lbs. The spool (carrier) with 2 bearings installed (less bearing cups) must weigh a minimum of 7.00 lbs. The Ford gear ratio of 4.57 must be used.

20F- 10.7 WHEELS – Magnetic steel racing wheels are mandatory. Maximum wheel width is eight (8) inches. The offset of all four wheels must measure the same (+ or – 1/4″). No part of any tire may be outside of the body. Only solid, one-piece, heavy-duty magnetic steel lug bolts and standard one (1) inch hex, solid, one-piece magnetic steel lug nuts are permitted. The first thread on each lug bolt must be visible from the front of the lug nut when the lug nut is installed. Modifications to the lug bolt or lug nut are not permitted. Bleeder valves are not permitted. Tape is not permitted on the wheels. Any device, modification or procedure that is used to release pressure (beyond normal pressure adjustments) from the tire is not permitted.

NOTE- The 7” wide Left side rims used in previous years may be used again for 2025 but must be the same offset as the Right side rims.

20F- 10.8 TIRES – Hoosier Tire East of Manchester, CT. is the sole tire supplier for the Limited Late Model Division. The approved compounds are Hoosier 27.5/8-15 880 and Hoosier 26.5/8-15 880. All tires used at SMS must be purchased at the track on race day. SMS Officials may confiscate and/or impound tires at any time for inspection. The JTR Eagle PPM tire chemical tester will be set at a fixed level and will be strictly enforced throughout the 2025 season.

Each tire will carry a special bar coded serial number. The legibility of the bar code is the sole responsibility of the team. Drivers must use the Stafford Speedway Tire App (driver.staffordspeedway.com) for tire inventory and allotment.

Drivers that have non-inventoried tires on their car during qualifying or feature events will be penalized.

In the event a driver changes cars for qualifying or feature racing, their tire inventory must accompany them to the new car (EIRI).

The amount of extra tires allowed for longer distance feature events will be determined by SMS Officials.

If a tire cannot be identified, it will be considered illegal.
SMS Officials may change or amend these rules at any time.

20F- 10.8.1 TIRES PHYSICAL REQUIREMENTS
F. Minimum Tire Pressures for all inspection purposes are fifteen (15) psi for both left side tires and twenty five (25) psi for both right side tires. Air may be added to the tires to achieve only the minimum tire pressures during inspections, per an SMS provided tire pressure gauge.

20H- 11.1 STOCK OEM FRAMES – All frames must be stock for year, make and model. Front and rear spring pockets may be altered for jacking bolts. No plating or reinforcing of the frame in any way beyond or outside of the following specifications. Unibody cars are not permitted.

A. The Hamm's Welding front frame section may be installed from the front edge of the front spring pocket forward that incorporates the correct OEM steering box, idler arm and sway bar mounting locations. The front frame horns may be replaced with 2"x 3" .083" square tubing from the forward most 1/2" measuring hole to the front bumper. No other part of front frame rails can be replaced with tubing.

B. The front cross member must remain stock. The raised portion of the front cross member may be replaced with steel flat stock welded in flush with the rest of the cross member, maintaining a minimum two inch (2") thickness of the stock cross member for oil pan clearance only.

C. Rear frame rails may be replaced with 2"x 3" .083" magnetic steel square tubing from the rear edge of stock upper crossmember back, only if following stock configuration height, width, and length. Optionally the replacement rear frame rails may extend parallel rearward maintaining a minimum width of the stock frame rails width at rear most edge of the upper crossmember. The rear crossmember must be installed and be in the Stock OEM location.

D. No offset or shortening of frame rails.

E. Frames must measure within a ¼ inch of all factory specifications for year, make, and model used. All measuring cups or holes must remain unaltered.

F. Tubing of a size and length that will not protrude from the stock frame may be located inside the driver's side frame rail. All roll cage bars normally attaching to the drivers side frame rail must be welded directly to the supplemental tubing.

G. Tubing may be utilized as a replacement for the stock transmission crossmember. Any non-stock replacement transmission crossmember must be located perpendicular at 90 degrees to the stock frame rails and no further towards the rear of the car than to have the rear edge of the tubing even with the rear edge of the transmission housing.

H. Additional X-tubing may be added so long as the tubing connects to the crossmember. The X-tubing must attach within the two corners of each frame turnout. The X-tubing may not extend past any of the frame turnouts and must not be attached to the perimeter frame rails short of the frame turnouts.

FORD FRAMES – Ford full-size frames, (LTD, Crown Victoria, Lincoln Continental) 1979 and newer may be shortened to 108" wheelbase. Frame must be shortened in the center section only using the same area on both sides.
1. An approved front sub-frame attached eighty six (86) inches from the rear axle centerline.
2. An approved rear-sub frame attached from the rear of the main frame rails.
3. Any frame competing with factory OEM main frame side rails must remain OEM.
4. If any part of the OEM frame (Center-section) Main Rails is replaced these parts must be replaced with stock OEM GM frame sections.

20H – 11.2 OPTIONAL X-Y-G TUBE FRAME REQUIREMENTS- The only approved aftermarket frames will be the mandrel bent X-Y-G tube frames, as manufactured, with no modifications, by Johnson Chassis (Part # JCI 09-011) or Hamm's Welding (Part #GHC-54108, mandrel or mitered). The only approved front clip assemblies are the Johnson or Hamm manufactured mandrel or mitered sub-frames. Johnson or Hamm mandrel bent rear clips, or conforming mitered rear clips are permitted. All vertical measurements are taken on 5" ride height blocks.

A. Main Frame
(1) A tubular magnetic steel frame must be used. Offset frames will not be permitted. The main frame side rails must be parallel and be an equal distance from the centerline of the frame. The main frame side rails must be Stock OEM "C" channel rails, Hamm's part # GHC-664235 fabricated "C" channel rails, or fabricated as described herein: The main frame side rails must be the same size (left and right, height and width), constructed using a single tube, and must be magnetic steel box tubing three (3) inches in width by four (4) inches in height with a minimum wall thickness of not less than 1/8 inch meeting ASTM A-500 specification. The main frame side rails start at a distance of 20 inches forward of the rear axle centerline and extend forward a length of 66 inches. When measured from the outside of the left frame rail to the outside of the right frame rail, a width of 54 inches (+/- 1/2 inch), must be maintained. The distance from the outside edge of the main frame side rails, left and right, must be the same, measured from the centerline of the tread width, front and rear.

(2) Sub-frame kick outs must be constructed using a single tube and must be magnetic steel box tubing three (3) inches in width by four (4) inches in height with a minimum wall thickness of 1/8 inch meeting the ASTM A-500 specification. The sub-frame kick-outs must turn in 90 degrees to the main frame side rails and be welded to the inside ends of the main frame rails. The open ends of the sub-frame kick-outs must be closed by welding caps on the ends or bolting weight containment caps. The distance from the front of the front kick-out to the rear of the rear kick-out must be 66 inches. The front kick-out must measure 86 inches from the rear axle centerline.

(3) A crossmember constructed of magnetic steel box tubing, two (2) inches by two (2) inches with a minimum wall thickness of 0.083 inch meeting the ASTM A-500 specification, must be welded between the main frame side rails at a distance of 48 inches from the rear axle centerline.

(4) All frames must have diagonal cross bracing constructed of a minimum one 1” x 1” 0.065 wall thickness tubing.

(5) All crossmembers and diagonal bracing must be installed flush to the top of the main frame side rails. Center of crossmembers a maximum width of 12 inches may be dropped for driveline clearance. No part of the crossmembers or diagonal bracing will be permitted to extend lower than the main frame side rails.
(6) If the optional tubular metric frame is used, the center-to-center dimension of the main roll bar #1 and the rear axle must be a minimum of 23-1/2 inches.

B. Rear Sub-Frame
(1) The rear sub-frame rails must be configured and attached in the same location on the left side and right side to the sub-frame kick-outs four (4) inches in from the outside edge of the main frame rails. The rear sub-frame when measured from the outside edge of the left sub-frame rail to the outside edge of the right sub-frame rail must measure 46 inches, and this width must be maintained for the entire length of the sub-frame. The rear sub-frame must angle rearward and upward at an angle between 45 degrees and 50 degrees to a maximum height of 22 inches from the ground (on five (5) inch blocks), then angle rearward parallel to the main frame rails a maximum distance of 16 inches, then angle down to a minimum height of 11 inches and a maximum height of 14 inches from the ground. The rear sub-frame must be constructed using magnetic steel box tubing, two (2) inches in width by three (3) inches in height, with a minimum wall thickness of 1/8 inch and must be similar in design and configuration to standard OEM automotive rear kick-ups.

(2) The rear sub-frame tail section must extend rearward at a minimum height of 11 inches and a maximum height of 14 inches, to a maximum length of 38 inches from the centerline of the rear axle. The rear sub-frame tail section side rails must be parallel to the main frame side rails and have a minimum length of 24 inches. The rear sub-frame tail section must be constructed using magnetic steel box tubing two (2) inches in width by three (3) inches in height with a minimum wall thickness of 0.083 inches.

(3) The rear sub-frame must incorporate the mounting locations for the rear springs, shock absorbers, panhard bar, and fuel cell, ending with a crossmember constructed of magnetic steel box tubing two (2) inches in width by three (3) inches in height with a minimum wall thickness of 0.083 inches a maximum length of 38 inches from the centerline of the rear axle.

(4) A reinforcement bar, made from round magnetic steel tubing, minimum 1-1/2 inches in diameter with a minimum wall thickness of 0.083 inches, must extend below the rear sub-frame section behind the fuel cell. This reinforcement bar must be as wide as the rear sub-frame rails and extend as low as the bottom of the fuel cell with two (2) vertical uprights evenly spaced between the sub-frame rails and attached to the rear crossmember. Two (2) support bars, one (1) located on each corner, must angle upwards and be welded to the rear sub-frame side rails. See the Construction Guidelines in the rear pages of the rulebook.

(5) Weight containers, if used, must only be attached to the inside of the frame rails and must not be lower than the bottom of the frame rails.

(6) The back of the rear sub frame from the center line of the rear end may be mitered to conform to the rules stated above. This will be the only mitered section allowed, excluding the front radiator support.

20H – 11.2 FRONT SUB-FRAME

C. The front sub-frame must be constructed by the following guidelines: All of the vertical dimensions checked will be done at 5" ride ht. Many dimensions will come from a front frame kick-out that is eighty six (86) inches from the rear axle centerline constructed of three (3) inches wide by four (4) inches magnetic steel tubing with a minimum wall thickness of 0.125 inch meeting ASTM A-500 specifications. The GM-Metric tubular mainframe width will be an O.E.M. dimension of fifty four (54) inches from the outside of the left frame rail to the outside of the right frame rail and a length of sixty six (66) inches starting at a point eighty six (86) inches forward from the rear axle centerline constructed using three (3) inch wide by four (4) inch high magnetic steel tubing with a minimum wall thickness of 0.125 inches.

(1) A GM-Metric type front steer tubular front sub-frame must be constructed using two (2) inch wide by four (4) inch high magnetic steel tubing with a wall thickness of 0.125-inch meeting ASTM A-500 specifications. The front sub-frame rails must be parallel to each other both vertically and horizontally. The front sub-frame rails must be parallel both vertically and horizontally to the mainframe rails from the jack bolts forward. All front steer assemblies must maintain a dimension of 31 inches from the center of the left side frame rail to the center of the right side frame rail at a point from the jack bolt extending forward in front of the steering assemblies. Spring bucket and jack bolts may be cut into left side and right side frame rails. Top of spring buckets will maintain a vertical height of 15- ¼ inches (+/- 1/2 inch). Jack bolts will maintain a centerline distance of 33- 1/2 inches (+/- 1/2 inch) measured at top of spring bucket from left side to right side and be located equal distance from centerline left and right. A distance of 21 inches (+/- 1/4 inch) must be maintained from the front frame kick-outs forward to the jack bolts centerline. Jack bolts will be allowed a maximum angle of five (5) degrees from vertical. The front sub frame rails may angle outwards and downwards from the jack bolts to the front frame kick-out to a maximum distance of 41 inches. If frame rails are angled outward a wishbone made from round magnetic steel seamless tubing 1- ½ inch by .083 minimum wall thickness meeting ASTM A-519 specification must extend from dash bar #8 to an area at the rear lower a-frame mount and continue to connect at an intersection of roof support bar #12 and diagonal bar # 7A. The front frame extensions using two (2) inch wide by three (3) inch high minimum wall thickness of 0.083 inch magnetic steel tubing meeting ASTM A-500 specifications must angle out and forward and extend a distance of twelve (12) inches forward of the forward most top steering box bolt to a minimum distance of 33 inches from the center of the left side frame rail extension to the center of the right side frame extension. This forward top steering box bolt will be a horizontal distance of 39 inches from the front frame kick-out and a vertical height of 15 inches (+/- 1/2 inch). (steering box bolt location will be inspected with a fixture that will read zero (0) degrees with the frame on five (5) inch ride height blocks) At a point four (4) inches in front of the top steering box bolt a two (2) inch wide by four (4) inch high magnetic steel tubing with a minimum wall thickness of 0.125 inch meeting ASTM A-500

specification must extend rearward a distance of 34 inches than angle down 30 degrees to the front frame kick-out. A distance of 24- ½ inches (+/- 1/8 inch) must be maintained from the front of the sub-frame kick-outs to the center of an O.E.M. three quarter (3/4) inch pin boss located on the mainframe centerline at the front of the front sub-frame crossmember. O.E.M. pin boss will be used for locating inspection fixtures. The front sub-frame crossmember must be mounted at the centerline of the front sub-frame at a 90 degree angle to the main frame side rails against the back of the 3/4 inch pin boss and be constructed using two (2) inch high by four (4) inch wide magnetic steel tubing with a minimum wall thickness of 0.125 inches meeting the ASTM A-500 specifications. A minimum thickness of one hundred thousandths (0.100) 12ga. magnetic steel must be used to construct the remainder of the front sub-frame crossmember. The front mounting points for the front lower a-frames must be constructed using minimum 3/16 inch thickness magnetic steel. The front mounting points for the front lower A-frames must be 9- 3/8 inches, measured from the centerline of the front sub-frame to the centerline of the mounting bolt at the front side of the mount and a vertical height of seven (7) inches (+/- ¼ inch). The rear mounting points for the lower A-frames must be constructed using minimum 3/16 inch thickness magnetic steel. The rear mounting points for the lower A-frame must be 13 inches (+/- ¼ inch) measured from the centerline of the front sub-frame to the centerline of the mounting bolt at the rear side of the mount and the vertical height will be 6- 7/8 inches (+/- 1/4 inch). Adjustable insert slugs may be used on the rear mounting bolt to maintain a distance of 22 inches (+/- 1/2 inch) from the center of the lower ball joint to the leading edge of the mainframe side rail and kick-out. A 1/2 inch round by 15 inch long solid steel pin must pass freely through these points during inspection. When measuring either the right side or left side the distance from the centerline of the bottom ball joint to the centerline of the sub-frame must be equal. The mounting plates for the upper A-frames must be welded to the top of the sub-frame rails and be parallel with the centerline of the sub frame rails. A distance of 37 inches will be maintained from the top idler arm bolt centerline to the front frame kick-out with a vertical height of 14 inches (+/- 1/4 inch). The GM-Metric tubular replacement mandrel bent front clip subframe must weigh a minimum of 95 lbs. A bare front sub-frame must be submitted to SMS Officials for weigh in and approval. Front sub-frame must be acceptable to SMS Officials before it can be used in competition.
(2) Approved front sub-frames (front clip): Stock OEM Metric. Hamm's Welding P/N GHC-54108, (mandrel or mitered), ~~Hamm's Welding P/N GHC-54108-Z61(mitered w/ crossmember change)~~, or Johnson Chassis P/N JCI 09-011

20F – 12.1 COIL SPRINGS / SPRING MOUNTS / JACKING BOLTS- One (1) spring rubber insert, not to exceed one (1) full coil, acceptable to SMS Officials will be permitted on each spring. Only one (1) spring per wheel will be permitted. Progressive or digressive rate springs are not permitted. Any wrapping or binding of the coils will not be permitted. All upward and downward chassis movement must be limited by the suspension's natural compression or the bottoming of the chassis against the race track. Any compression or rebound limiting device or procedure is not permitted. One of the ways SMS Officials will check for chassis travel limiting devices is as follows: With your car's front wheels rolled up onto the SMS 1" thick pads, the car's valence (air dam) must travel downward beyond the top of the pad (over-travel the ground) when three (3) crewmembers push down on it.

Front Coil Spring– Must meet the following:
Manufactured from round magnetic steel wire.

Have consistent wire diameter from top to bottom.
May not exceed **$130** in retail advertised price.
All the coils must be active.
Must maintain consistent spacing between coils.
Must be 8-1/4” to 11” in free height.
Must be 5-1/4” to 5-3/4” in outside diameter.

Front Spring Mounts- The front coil spring mounts must be located on the lower A-frame for the bottom mount and the top mount must be a bucket-type and be welded to the front sub-frame rails and be the same on both the left and right side. The upper and lower coil spring mount must support the front coil spring for 360 degrees of each coil spring mount. The upper coil spring seat must be flat. The jacking bolts must be installed, using a solid threaded sleeve welded completely into the frame spring bucket, in a manner acceptable to SMS Officials for the purpose of raising or lowering the car. Jacking bolts and the threaded sleeves must be the same thread configuration on the left and right side. Front jacking bolts will not be permitted to be located through the frame rails. The front jacking bolts when measured from the inside wall of the front sub-frame rail to the center of the jacking bolt mount must not be less than three (3) inches and not more than four (4) inches. The front jacking bolts must be mounted on the centerline of the front crossmember, plus or minus (+/-) one (1) inch. The front jacking bolts must be in the same location on both sides. The front jacking bolts must be perpendicular to the sub-frame rails. The front jacking bolts must be mounted on the vertical centerline of the lower spring bucket.

Rear Coil Springs- Must meet the following:
Each rear coil spring may not exceed 400lbs. in rate.
The spring will be checked for rate through several inches of travel, and must not be higher than 400 lbs. per inch (+/-).
Manufactured from round magnetic steel wire.
Consistent wire diameter from top to bottom.
May not exceed **$130** in retail advertised price.
All the coils must be active.
Must maintain consistent spacing between coils.
Both coil ends closed and ground.
The closed ends of the coil spring must not have a gap larger than 1/8”.
Must be 10” to 15” in free height.
Must be 4-3/4” to 5-1/4” in outside diameter.

Rear Spring Mounts- All upper and lower rear coil spring mounts must be located between the rear frame side rails. Only one (1) rear jacking bolt frame mount per side will be permitted. Jacking bolts will be permitted to be located through the frame rails. The center of the jacking bolt must not extend further than the center of the frame rail from the inside edge. Jacking bolts located through the frame rails must have a solid sleeve extending through the frame from top to bottom and be welded completely into the frame rails.Jacking bolts and threaded sleeves must be the same on the left and right side. The rear jacking bolts must be mounted on the vertical centerline of the lower spring mount. The hole in the rear coil spring upper mount plate must be round and must not be larger than 1/16 inch diameter than the rear coil spring mounting bolt. The

upper and lower coil spring mount must support the coil spring for 360 degrees of each coil spring mount. The upper coil spring seat must be flat.

20F- 12. 2 FRONT SWAY BAR-
A. One front Stock OEM or stock type replacement sway bar may be used**.** The sway bar must be magnetic steel, one-piece, and can be no larger than 1-1/4" (1.250") in diameter. The sway bar must be used as it is manufactured. Modifications to the sway bar are not permitted. Front sway bar must mount under the frame, in the stock location, and attach to the lower A-Frames in their stock location. Splined sway bars are not permitted.

B. The right side must attach to the lower a-frame with bolts or heim joints. The left side may be a bump pad configuration or attach to the lower a-frame with bolts or heim joints.

C. Rubber frame bushings may be replaced with metal bushings or eye/lollypop type mounts.

D. Heim joints (spherical rod ends) may be used for attaching the sway bar ends to their mounts. Front sway bars must be for the purpose of anti-roll only. The front sway bar must freely rotate in its mounts. The movement of the front sway bar arms must not be prevented or restricted beyond that of normal use as an anti-roll bar.

20F- 12. 3 SHOCK ABSORBERS – One shock per wheel. Coil over Shocks, Adjustable Shocks, or Rebuildable Shocks are not permitted. All shocks subject to SMS Officials approval.

A. The only approved shocks will be the Pro WB Series (welded bearing, steel, gas cell, non-rebuildable), and due to the recent supply and manufacturing shortage, The AFCO 14 Series (welded bearing, twin tube, gas, non-adjustable, non-rebuildable) steel shock.

B. Front shocks may be mounted on the outside of the frame rail.

C. Rear shocks must be mounted to the crossmember within one (1) inch of stock, inside the frame rails.

D. Adjustable shock absorber mounts of any type will not be permitted.

E. The rear shock absorbers must not angle inboard towards the center of the car, more than 30 degrees from vertical and be within one (1) inch of the original position.
Front shocks must be installed so that the shock can extend a minimum of 2" when the car is at ride height.
Rear shocks must be installed so that the shock can extend a minimum of 2" when the car is at ride height.

20F- 12. 4 A-FRAMES
All bushings must be concentric.
A. Lower A-frames must be GM Metric OEM Stock or OEM aftermarket replacement and be mounted in the stock location. Lower A-frame must be GM Metric OEM Stock, or the following aftermarket:

Hamm's Welding GHC-1425727 (L-R),
Hamm's Welding GHC-1425727-10deg.-R.
Johnson Chassis JCI-09-02-01M (L-R),
Johnson Chassis JCI-09-02-01R (L-R),

The lower a-frames must be in the stock location for the chassis being run. The lower A-Frames are not allowed to be altered from OEM configuration, except for the flat surface of the right front Ball joint helix end may be cut and moved 10 degrees for ball joint bind clearance purposes only, when Chrysler screw-in type ball joint is used. The only other additions that will be allowed to the A-Frames will be the shock mount and the Sway-bar perch or mounting bracket. Lower a-frame rubber bushings may be replaced with concentric steel bushings or mono-balls.
The A-Frames must be acceptable to SMS Officials.

A-1. The length of the lower a-frame must be 14-1/4 inches, from the center of the ball joint to the centerline of the mounting points. A-frames must fit the SMS template. The location of the center of the lower ball joints must be an equal distance from the centerline of the front sub-frame rails plus or minus (+/-) 3/8 inches. Both lower A-frames must be the same length (no offsets permitted). The General Motors Type A-frame must be constructed using magnetic steel tubing. General Motors type A-frame must weigh a minimum 12-1/2 pounds complete with ball joint, bushings and/or monoballs, and coil spring Helix.

B. Upper A-frames may be GM Metric, OEM Stock, non-adjustable tubular magnetic steel with a cross shaft and steel bushings not to exceed $140 retail value, or Hamm's Welding part number GHCupperXX (1st X is length designation and 2nd X is ball joint angle). Upper ball joints must be GM Metric OEM Stock. Shimming of the upper ball joint is permitted. Only stock zero-offset or stock replacement upper control arm shafts are permitted.

C. Lower ball joints may be replaced with "pressed-in" stock type extended lower ball joints in stock position or with standard factory stock OEM production Chrysler screw-in type or standard factory stock OEM production Chrysler screw-in type direct replacement ball joints in the stock location on the A-frames.

D. User rebuildable or serviceable ball joints will be permitted. Adjustable and monoball style joints are not permitted. Ball joints must be stock appearing, heavy-duty magnetic steel construction and must be acceptable to SMS Officials. The ball joints must not have any adjustment with the exception of a free play adjustment in the housing for the ball and socket. The total length of the ball joint pin from the top of the ball joint housing to the top of the pin must not exceed 3.375 inches for both upper and lower ball joints.

The upper and lower a-frames must be installed in the stock OEM location / stock OEM mounting points.

20F- 12. 5 SPINDLES AND HUBS – The Stock OEM steel spindle and hub may be changed to heavy duty steel OEM unit. The Coleman steel spindle P/N 19975 or Coleman steel spindle P/N

19976 for right & left sides may also be used. Right and Left side spindles must be a matched pair (matching part numbers). The steering arms and caliper brackets must be steel.
From the Coleman website:
For ease of ordering all spindle parts are sold individually. To put together a complete spindle you will need to order each part separately. You will need: 1-spindle upright, 1-steering arm, 1-brake bracket, 2-steering arm bolts and 2-brake bracket bolts for each spindle. These spindles feature aluminum or steel steering arms, gusseted steel upright, and steel caliper brackets. The spindles are available in two heights:
Part number 19975 is referred to as 8″ but is actually 7-3/4″ tall.
Part number 19976 is referred to as 9" but is actually 8-1/2" tall.
Both have 10 degree spindle inclination with 3 3/4″ spindle pin height.

The maximum overall height of the spindle, from the lower ball joint block to the upper ball joint block is 8-1/2". Teams are responsible to measure their spindles for correct height.

The tie rod hole in the steering arm must be equal to the OEM unit. The spindles must be bolt on units and not be altered in any way. The only modification allowed to the spindle will be for lower ball joint installation: the lower ball joint hole may be reamed or tapered to fit the lower ball joint pin. The spindles must match from side to side and be from the same make and model. The Track width must remain stock. SMS supplied spindles must fit your car. Spindles and hubs must be steel, aluminum spindles or hub assemblies are not permitted.

Heavy duty, magnetic steel, tapered wheel bearings must be used. The hub assembly must be magnetic steel, aluminum parts are not permitted. Low drag components are not permitted. Two standard steel wheel bearings, a wheel bearing seal, a torque nut and a standard nut locking mechanism are the only components permitted on each spindle/hub assembly. For other steering rules see the NWAAS rulebook.

20F- 12. 6 TRACK WIDTH – Maximum track width measured outside the tire bulge at wheel center height will be 74 ¾". Metal spacers will be permitted to utilize the maximum allowable track width. Spacers, if used, must be the same thickness left and right, however, the front and rear do not have to match.

20F- 12. 7 WHEELBASE – GM Metric chassis or XYG must measure 108" +/- ¼". All other chassis year/make/model must be +/- ¼" from the factory listed wheelbase.

20F- 12.8.2 GROUND CLEARANCE – A minimum of five (5) inches of ground clearance must be maintained at all times measured at the lowest point of the frame rail. No part of the frame, body, sheet metal or bumper may be lower than 5" from ground. All ground clearance requirements are with the driver in the car.

20F- 12. 9 BODY HEIGHT – Minimum height for the roof is 49 inches measured 10" rearward from the centerline where the windshield and roof meet. See NWRS rule book plus one (1) vertical inch.

20F- 12.11 WEIGHT TRANSFER DEVICES — Jacking bolts are permitted on the front and rear springs. Tools used to adjust the jacking bolts must be removed when the car is racing. Upper rear spring perch may be trimmed only enough to accommodate new pocket. No hydraulic, electric or mechanical weight jacking or shifting devices are permitted.

20F – 13 STEERING COMPONENTS- All steering components must be acceptable to SMS Officials and meet the following minimum requirements:

A. All cars must be equipped with a magnetic steel steering shaft.

B. All steering boxes must be mounted in the stock location and the stock position at an angle of not less than 10 degrees on GM type front sub-frames. Any means of raising or changing the steering box position will not be permitted.

C. Tie rods, drag links, pitman arms, idler arms, and component parts must be heavy duty magnetic steel. Holes and/or other modifications in steering components that, in the judgment of SMS Officials, have been made with the intent of weight reduction will not be permitted.

C-1. An OEM centerlink and idler arm, or a commercially manufactured non-adjustable stock type replacement is permitted.

D. The center top of the steering post must be padded with at least two (2) inches of resilient material acceptable to SMS Officials.

E. A quick-release steering wheel coupling with a metal housing, acceptable to SMS Officials, must be used. The steering wheel coupling should meet the SFI 42.1 specification.

F. Rack and pinion steering will not be permitted. All steering components must be made of magnetic steel including but not limited to drag links, pitman arms, idler arms, steering arms, and steering boxes.

G. Only magnetic steel spoke steering wheels will be permitted.

H. The power steering pump must be mounted and driven off the front of the engine.

I. All steering boxes must be constructed of magnetic cast steel.

J. The use of two (2) universal joints, a minimum of 12 inches apart, in front of the firewall and a collapsible steering section in the steering shaft is recommended and must be acceptable to SMS Officials.

K. Stock type steering box must be used. Rack and pinion steering will not be permitted.

L. Inner tie rod: Tapered fit, non-threaded pin, magnetic steel tie rod end must be used on the inner tie rod. Outer tie rod: Tapered fit, non-threaded pin, magnetic steel tie rod end or heim joint (magnetic steel spherical rod end) is permitted. Tie rod sleeve: Stock OEM type or aftermarket

radius rod (steel or aluminum) may be used. Tie rod sleeve bolts and/or jam nuts must be magnetic steel.

20F- 13.1 STEERING WHEEL – A NASCAR approved quick release steel coupling on steering wheel is mandatory. Center-top of the steering wheel must be padded with at least 2" resilient material.

20F- 14 BRAKES – Stock type hydraulic brakes, operating all four wheels is required. Stock OEM type single piston steel caliper disc brakes are allowed on front and rear. Two-piece steel rotors may be used, no aluminum hats or hubs. Only magnetic cast iron or cast steel round circular rotors permitted. Rotors must be vein type with a minimum thickness of 1", and cannot be drilled, slotted, or grooved. Only factory dust clean out allowed. The brake rotors must be bolted to the hubs. Floating brake rotors are not permitted. All rotors and brake components subject to SMS Officials approval. Aftermarket master cylinder(s) and pedal may be used but must be of swing pedal design. No drilling or lightening of rotors or drums. An adjustable proportioning valve is permitted. Accu-Brake type systems are not permitted. Only single stage master cylinders are permitted.

20F- 14.2 – BRAKE COOLING – No fans or blowers will be permitted for cooling purposes in brake duct systems. Additionally, there will be no fans or blowers permitted anywhere on the car for cooling unless specified elsewhere in these rules.

20F- 15 FUEL SPECIFICATIONS

A. The fuels listed below are permitted for use in the Limited Late Model division. Any blending of fuels or use of any additives is not permitted.

Brand Name	Grade of Fuel
Sunoco Race Fuel	260GTX
Sunoco Race Fuel	94 EZ

These fuels are available for purchase at SMS.

Several testing procedures will be utilized to ensure that all racers use the approved fuel. Fuel samples taken must exactly match all of the manufacturer's printed specifications, or penalties may result.

B. Icing or cooling of the fuel system is not permitted in the garage, pit or racing area.

C. Gasoline may be tested and certified at any event through the application of various chemical analyses as considered appropriate by officials. Gasoline may be checked before, during and after racing events.

D. Nothing may be placed in the fuel line except a standard fuel filter. The use of any type of fuel catalyst or other fuel-altering device is prohibited.

20F- 16 FUEL SYSTEM – See NWRS rule book

20E- 16.1 FUEL CELL – Must meet NASCAR specifications with a fuel cell bladder made of a material that returns to its original size and shape after deformation. Rotational molded bladders are not permitted. It is highly recommended that the fuel cell bladder be no more than six (6) years old. Competitors must provide bladder model, serial number, and date(s) to SMS Officials before competing. If a gas cap is used it must be painted white with the car number on it for identification.

The approved fuel cells at SMS are as follows:
ATL - Super Cell 100, 200 and 500 Series
Fuel Safe - Sportsman Cell and Pro Series Cell
Schultz Engineered Products - SRP Ultimate Series

20F- 16.2 FUEL CELL CONTAINER – See NWRS rule book

20F- 16.3 FUEL CELL / FUEL CELL CONTAINER INSTALLATION – The fuel cell container must be centered between the frame rails with a minimum 8-inch ground clearance with the car's frame set on five- inch (5") high blocks under all four outer corners of the frame. If a reinforcement bar is installed per NWRS rule book. The maximum distance permitted from the center of the rear axle to the center of the reinforcement bar is 37- ½ inches. A single magnetic steel anti-intrusion plate may be installed on the bottom of the fuel cell framework. It may be no larger than the bottom of the cell, and it may be a maximum of 1/8" thick. For additional specifications see the NWRS rule book.

20F- 16.4 FUEL FILLER / VENT REQUIREMENTS – See NWRS rule book

20F- 16.4. 1 FUEL FILLER – Must use conventional fuel fill on top of cell. A dry-break quarter panel fuel filler is not permitted.

20F- 16.5.3 FUEL SHUT-OFF – A 1/4-turn fuel shut-off valve of minimum 3/8-inch NPT with minimum 4-inch handle is required in the fuel line. The fuel shut-off valve must be located 8-inches inboard of the passenger side frame rail's outside edge and 24-inches forward of the main roll bar (#1 bar). The fuel shut-off valve must be mounted securely to the underside of the driver's compartment sheet metal. The fuel shut-off valve shank must protrude through a maximum 1-inch diameter hole in the sheet metal to the interior of the driver's compartment. The fuel shut-off valve handle must be parallel with the sheet metal that the valve is mounted to. The fuel shut-off valve handle must be a minimum of 4-inches in length, red in color with a minimum of 1-inch clearance from the sheet metal throughout its full travel. A minimum 6-inch by 6-inch square area must be painted white with the fuel shut-off valves ON and OFF positions clearly labeled with 1/2-inch tall, black in color lettering. The shut-off valve must rotate clockwise from the ON position with the handle parallel with the frame rail, pointing towards the rear of the car, to the OFF position with the handle perpendicular to the frame rail pointing toward the driver.

20F- 17. 4 ROLL BARS OEM FRAME– See NWRS rule book. The following are additional requirements and clarifications for the installation of roll bars. All NWRS rule book specifications must be followed. No plating of the frame. A maximum of 38.875 inches from the

center line of the front lower ball joints to the centerline of the roll cage front legs (referred to as bar #2a & #2b) will be permitted. A maximum of 82.625 inches from the centerline of the front lower ball joints to the centerline of the main roll bar (referred to as bar #1) will be permitted. The centerline to centerline of these two bars starting at the front roll cage leg must maintain a minimum measurement of 43 inches and a maximum of 45- 3/8 inches. The main roll bar must be mounted vertical (90 degrees) on the center section of the frame with no offset or setback. The #1 bar must be centered to the chassis. The roof bar (referred to as #3) must be within 4" of the side window and/or door openings on both sides, as well as the front windshield. All roll bars must follow the contour of the body. The #2A & #2B bars must be no more than two (2) inches behind the length of the A-pillar in the stock location. Offset or setback roll cages are not permitted.

20M -18 ROLL BARS X-Y-G FRAME– Roll cage #1 bar must be located a minimum distance of 22-1/2 inches and a maximum 24-1/2 inches forward of the rear axle centerline. Roll bar #1 must be in the same location on the left side and Right side. SMS Officials may request an access hole be added or any obstructions be removed to acquire a straight-line measurement from the back of Roll bar # 1 to the centerline of the rear axle. The main roll bar must be mounted vertical (90 degrees) on the center section of the frame with no offset or setback. The #1 bar must be centered to the chassis. The roof bar (referred to as #3) must be within 4" of the side window and/or door openings on both sides, as well as the front windshield. All roll bars must follow the contour of the body. The #2A & #2B bars must be no more than two (2) inches behind the length of the A-pillar in the stock location. Offset roll cages are not permitted. All inspection dimensions will be measured with the car at 5" ride height.

NOTICE – Competitors are solely and directly responsible for the safety of their race cars and racing equipment and are obligated to perform their duties (whether as a car owner driver or crew members) in a manner designed to minimize to the degree possible the risk of injury to themselves and others.

Rules For Pit Road:
If you choose to come down pit road during an event to have your car inspected for damage or leaks: Bring your car to the stand on pit road. Your car will be inspected (but not serviced or repaired) for damage and leaks. If your car is OK, you will be instructed to join the field at the rear of the running order. If, in the judgment of SMS pit road officials, your car has damage or leaks that are not safe, you will be done for the event.
If you are told to come to pit road for an inspection: Bring your car to the stand on pit road. Your car will be inspected for damage and leaks. If your car is OK, you will be instructed to join the field. If, in the judgment of SMS pit road officials, your car has damage or leaks that are not safe, you will be done for the event.
Drive-through penalty: If you are assessed a drive-through penalty for an on-track incident, you must come to pit road immediately, and drive through / down pit road at 25mph, rejoining the field at the exit of pit road.
Black flagged from the event: If you are black-flagged out of the event, you must come to pit road immediately.

CONTINGENCIES – Contingency Sponsors are a valuable part of SMS program. Contingency stickers must be displayed for either product or monetary considerations. Each division will be notified as to what stickers are required to be eligible for contingency rewards. The stickers must be displayed on both sides of the car. In particular, the decals must be mounted on the driver's side of the car in such a manner that they are clearly visible in a photograph. Contingency stickers must be used as supplied by SMS. Alterations to the stickers are not permitted.