CACC Legacy Classification applicable for Knox Mountain Hill Climb
These classes are ONLY open to drivers and cars that participated in these classes in 2023 or earlier.

14. General Definitions & Guidelines

A. Automobile (Car):
Any self-propelled land vehicle, running on at least four (4) wheels, not in a line, which must be in contact with the ground when at rest.

B. Sedan:
A car capable of transporting four or more average size adults in a normal seating position.

C. Model:
A group of cars of a given manufacturer (make) which have virtually identical bodies but are readily distinguished from other models of the same make by virtue of a major difference in body appearance and /or chassis design. The names by which a manufacturer designates these groups have no bearing in this definition even though two groups may be designated identically.

D. Standard Parts and Equipment:
Any item of standard or optional equipment that could have been ordered with the specific year, make and model of car, installed on the production line, and delivered to the dealer in Canada or the USA. Dealer-installed options, except as required by factory directives, are not included in this definition no matter how common such equipment may be. Except for authorized modifications as listed for each vehicle category, the vehicle must compete as delivered from the manufacturer with standard equipment only.

E. Open and Closed Cars:
Open cars are cars with a convertible or targa top.

Closed cars are cars having full windshields and full roofs as part of the body structure. T-tops are included in this definition.

F. Series Produced:
Except for Modified Category, all vehicles that are not otherwise listed in the car classification lists must have been series-produced, in quantities of at least 1,000 units in a 12 consecutive month period for legal road use. The vehicle must have been equipped with normal road touring equipment and normally sold through manufacturer's retail sales outlets in Canada and the USA.

Right hand drive models must have been series-produced, in quantities of at least 1,000 units in a 12 consecutive month period in their home country and be eligible (legal) for importation into Canada under Canadian importation laws. Right hand drive vehicles are only eligible for the following categories: SPX & GTS.

Right hand drive vehicles may be classified by the Time Attack Rules Committee.

G. Burden of Proof:
The participant has the burden of proving that his car conforms to these rules by his owner's manual, manufacturer's shop manual, manufacturer's catalogs, or any other official manufacturer's documentation, which must be in possession at the event. At the minimum, the entrant must be able to present a manufacturer's shop manual. All manufacturers' documentation must be for non-competition purposes. If the protested participant possesses all applicable documentation, but the documentation does not contain sufficient information regarding the protested item, the burden of proof then shifts the protester to prove that item illegal. Failure to provide the appropriate manufacturer's documentation when requested shall result in disqualification.

H. Tread:

Tread is the part of the tire that makes contact with the road surface during normal driving conditions. When a straight-edged measuring device is placed across the running surface, 'tread' is defined as the area of the tire that is parallel to this straight edge (reasonable allowances made for the slight natural curvature of the inflated tire). Any other part of the tire that makes an included angle of not more than 45 degrees from the straight-edge is also considered tread. Parts of the tire making and included angle of 45 degrees or more from the straight-edge shall not be considered tread.

I. Track:

The distance between the centerlines of the wheels as competed without driver, measured as follows: From centerline to centerline of wheels. Alternatively, it may be measured from the inside of one wheel at the hub centerline height to the outside of the other wheel, then conversely from the outside of the first wheel at hub centerline to the inside of the second wheel. The two dimensions obtained are to be added together and divided by two to obtain the average. Measurements to be taken at both front and rear of the wheels and averaged to compensate for toe in/out. Wheel rim width shall be measured at the base of the bead seat.

J. Special Considerations:

Because of the variation in vehicle design and manufacturing, the CACC Rules Committee may authorize specific alternate specifications for specified models of cars under exceptional circumstances as they occur. Such instances may occur where the design or construction of a certain model of car may not meet the requirements of an item in this rule book. Such specific authorizations will be published in future editions of this rule book or on the CACC website.

K. Ineligible Vehicles:

Vehicles having a high center of gravity and a narrow track, including SUVs, minivans and 4WD pickups are not eligible to compete. Any vehicle that is taller than it is wide is not eligible for competition. Extra caution should be exercised with non-traditional vehicles (e.g. trucks using racing slicks).

Exception: If the vehicle is listed in Appendix A & B, ASN –SCCA Classes and Bumping approved list of eligible vehicles, then the vehicle is accepted for competition.

With the vehicle tires inflated to the vehicle/tire manufacturer's specifications, the measurements are to be taken from the ground to the tallest point of the vehicle for the Overall Vehicle Height and the track measurement from the outside of the tire to the outside of the tire on the same axel for the Track Width.

15. TECHNICAL INSPECTION:

Technical inspection shall be mandatory for all cars with special attention given to brakes, suspension, throttle linkages, and loose articles in the car. The responsibility to ensure that the cars and driver's equipment complies with all regulations and is safe rests solely on the entrant and driver. The very act of presenting a car for any Technical Inspection is deemed to be an acceptance of this responsibility.

A. Tire Condition:

i. Each tire must have visible tire compound safe for racing purposes. No cord material may be exposed at any portion of the tire. Due to the nature of modern day race tires, measurable tread depth may not be able to be obtained at two points on the tread, which are 180 degrees apart

around the tire's circumference, and within the center one-half of the tread surface that normally touches the ground – so tire safety and inspection is up to the discretion of technical inspection.

ii. Tires may not be recapped in any way. Tires may not have cord visible at any time during the event, even if previously approved at safety inspection.

B. Swing Axle Vehicles:
Vehicles with rear swing axles will be prohibited unless they are decambered at least to zero (0) degrees or have adequate provision for limiting axle travel or "jacking". Stock axle straps may not be considered adequate.

C. Tonneau Covers:
Tonneau covers must be removed.

D. Window Requirements:
Closed, fixed roof and open cars may have both front door windows fully open.

E. Fluid Recovery Systems:
All cars shall have fluid recovery systems. Where OEM systems have been removed, approved minimum one litre catch tanks for all fluids must be used.

F. On-board Cameras & Radio Systems:
The mounting of on-board or in-car cameras is allowed providing the method of mounting satisfies the following conditions:

i. In car camera or video recording equipment is permitted provided the installation is approved by the scrutineers and subject to the provision that any photographic film or video recording made during the track session may be impounded by the Steward.
ii. All cameras and/or lens units mounted to the outside of a vehicle shall be secured so that contact with objects on course are minimized or, failing that, contact shall only cause minimal damage.
iii. No passenger may film in-car while holding a camera free-hand while a vehicle is on course.
iv. Final approval of camera mounts rests with the technical inspector under consultation with the Steward.

G. Remove Hub Caps:
Hub caps, wheel discs, and trim rings that are not bolted, or otherwise permanently attached, to the wheel must be removed.

16. VEHICLE NOISE CONSIDERATIONS:

A. Noise Limit:
Adequate muffling devices must be installed on all cars with a sound level to a maximum of 96 decibels unless there is an alternate noise limit for that facility/track listed in the Time Attack rule book. Organizers may apply to CACC for alternate noise limits if the facility/track requires or

permits, but such limits must be sent out to all participants in the Supplementary Regulations one month in advance of the event and be posted at the site on the day of the event.

B. Noise Measurement:
Measuring shall be done perpendicular from the vehicle from a distance of fifty feet from the vehicle wherever safe to do so. The final decision as to adequacy shall rest with the Steward.

C. Alternate Noise Limits

i.	River's Edge Road Course, Mission	~~95 dB~~
ii.	JIBC/YPK Integrated Training Centre, Pitt Meadows	TBA
iii.	Knox Mountain Park, Kelowna	~~96 Db~~

17. TIME ATTACK CLASSIC AMERICAN MUSCLE CATEGORY

This section is necessary for Time Attack classification CAM-C, CAM-T AND CAM-S.

A. Eligible Vehicles:

i. Vehicle must be either a domestic automobile or truck (pick-up or SUV) of front-engine/rear-wheel-drive (FE/RWD) configuration.

ii. Vehicle must be licensed and insured, as well as fully "street legal" (lights, wipers, etc.).

iii. Windshield and side glass must be present. Lexan® or equivalent may be used.

iv. Excluded: Dodge/SRT Viper (2013-17); Jeep military/CJ/Wrangler models.

B. Body Allowances:

i. Body panels may be modified or replaced in the original standard locations. Frame may be modified or replaced. Vehicle perimeter and wheelbase must be full-scale to the original model. Incidental wheelbase changes resulting from the allowed replacement of suspension components/or modification of suspension design are allowed. This is not an allowance to shorten or lengthen the chassis/body (e.g., change the scale from the original).

ii. Interior and exterior must have a "finished" look.

iii. Front seating may be replaced or modified. Rear seating may be removed or modified. If removed, the rear seat bottom area must be finished (e.g., carpeted, metal). The driver's seating area must not cross the vehicle longitudinal centerline and not intrude into the OE rear seat bottom cushion area.

iv. Upholstered interior panels (door panels, kick panels, etc.) may be replaced with another upholstered or finished panel. Non-upholstered interior panels may be replaced with a

panel of any material. Alternate panels must cover any opening(s) the OE panel(s) concealed.

v. The dashboard may be modified, but must be finished and cover the original area.

vi. Headliner may be replaced or removed.

vii. Exposed metal interior surfaces must be covered, painted, and/or coated. (No "race car" interiors, please.)

viii. Fuel tank/cell may be modified or replaced and must be separated from the driver/passengers as originally manufactured or by a metal panel/bulkhead if the OE structure is modified. Fuel must not vent into the driver/passenger compartment directly or indirectly.

ix. Front splitter, air dam, and/or spoiler may be added below the bumper, but must not extend past the perimeter of the original body excluding non-integral bumpers except OE or equivalent for the body style.

x. Rear spoiler may be added, but may extend no more than 10" from the original body nor past the perimeter of the body. No rear wings may be added except OE or equivalent.

xi. Body electrical system components and wiring are unrestricted.

C. Wheel and Tire Allowances:

i. Any wheels are allowed. Non-metallic wheels must be certified/approved from an appropriate, recognized standards organization (e.g., FIA, SFI, SAE, TUV, etc.).

ii. DOT tires with a UTQG Treadwear Grade of 200 or higher are permitted. Excluded: Kumho Ecsta V720 ACR; Michelin Pilot Sport Cup 2 and Pilot Sport Cup 2 ZP; Yokohama ADVAN A052.

D. Brake, Suspension, and Steering System Allowances:

Components, lines, hoses, and method of attachment are unrestricted.

E. Engine and Drive Train Allowances:

Components (internal and external) are unrestricted.

F. Classic American Muscle Classes:

i. **CAM C** (Contemporary) (car and truck body styles from 1990-on, plus CAM-T cars meeting CAM-C minimum weight)

Included: Chevrolet SS (2014-16); Pontiac G8 (2008-09) and GTO (2004-06).

Sedans/coupes with seating originally for 4 or more adults and trucks.

Interior floor covering(s) may be replaced, but not removed.

Weight without driver, minimum (lbs.).....3250

Additional weight for Lexan® windshield (lbs.).....+150

ii. **CAM T** (Traditional) (car and truck body styles originating from 1954-89)

Examples: Camaro (-1992), Mustang (-1993), Barracuda (-1974)

All CAM-C restrictions apply except minimum weight below.

Weight without driver (lbs.), minimum.....2950

iii. **CAM S** (Sports) (all eligible vehicles)

Sports cars, sedans/coupes, trucks, and 1965-67 Cobra roadster replica "kit cars" with seating for 2 or more adults.

Interior floor covering may be removed.

Weight without driver (lbs.), minimum: Corvette (1984-on); Viper (-2012).....2900

Weight without driver (lbs.), minimum: all other cars.....2500

Additional weight for Lexan® windshield (lbs.).....+150

18. STREET PREPARED & STREET PREPARED X VEHICLE MODIFICATION AND PREPARATION

A. General Modification Guidelines:

With respect to the modifications and the applicable Time Attack Preparation Points, the following general guidelines shall apply. There are three types of modifications outlined in this rule book.

B. Authorized:

These are modifications that are specifically listed in each car category description. Regardless of whether such a modification is listed in the Time Attack Preparation Point Schedule, any authorized modification shall not incur preparation points.

C. Restricted:

These are modifications that are not specifically listed as authorized in each car category. Restricted modifications are those that are listed in the Time Attack Preparation Point Schedule and are not specifically prohibited in the appropriate car category. If a restricted modification is made, the applicable preparation points must be incurred. If a modification is not authorized, nor listed in the Time Attack Preparation Point Schedule, then it is prohibited.

D. Prohibited:

These are modifications that are specifically prohibited in a car category description, or are not authorized, nor listed in the Time Attack Preparation Point Schedule. Regardless of whether preparation points are taken, a prohibited modification will render a car ineligible for competition under the category where such modifications are not allowed.

E. Substitution of Coachwork:

Where substitution of coachwork is permitted (either with or without incurring preparation points), the replacement panel must completely replace the original panel and must be without holes or other interruptions in the continuity of the surface unless specifically listed in the authorized modifications of the category. Coachwork is defined as all external panels and pieces of the body exposed to the airstream. The material of replacement panels must be metal, glass-reinforced plastic, or other suitable fire-resistant material.

F. Substitution of Suspension:

Except for when the appropriate preparation points are assessed, standard equipment suspension springs, and torsion bars must be used. They may not be modified in any way nor have their points of attachment modified. When an intermediary device is used between the spring/torsion bar and its point of attachment to the frame or body, this device also may not be modified in any way. Torsion bars must be set within the manufacturers specifications for non-competition purposes.
For Street Prepared and Street Prepared X category vehicles, the original system of suspension may not be changed to another system of suspension (i.e., A-arm to MacPherson strut).

G. Compliance with GCRs:

All modifications to the vehicle must be in compliance with all other applicable rules and regulations. No modifications are allowed unless specifically authorized in this rule book. Assume that if the rule does not specifically say you can, then you can't.

H. Minor Modifications:

Any minor modifications including minor notching, bending, clearancing, grinding, the drilling of holes, affixing, relocating/strengthening of brackets, removal of small parts, and similar operations performed in order to facilitate the installation of allowed parts or modifications for that particular category is permitted as long as it does not provide any intrinsic performance benefit in and of itself, does not provide a weight reduction of more than 1 lb., and is not explicitly prohibited elsewhere within these rules. Competitors are strongly cautioned to make the minimum amount of modification required to affix a given part, and not to make unduly tortured interpretations of this rule. When in doubt, approximately equivalent weight should be added to compensate the questionable weight removal.

Modifications to the firewall in order to allow for increased engine setback, and any modification that changes the location of a suspension pickup point, are explicitly forbidden.

19. TIME ATTACK STREET PREPARED CATEGORY

This section is necessary for Time Attack classification SP1 through SP4.

Eligibility:

Cars must be run as specified by the factory with only standard equipment as defined by these Rules. This requirement refers not only to individual parts, but to combinations thereof which would have been ordered together on a specific car. Option package conversions may be performed between specific

vehicles of a particular make and model, but only between configurations from within a particular model year. Such conversions must be totally complete and the resultant car must meet all requirements of this section.

A. Authorized Modifications:

The modifications detailed below are the only 'authorized' modifications in Street Prepared category.

Authorized modifications do not incur "preparation points".

B. Allowable Preparation Points:

The vehicle is permitted a maximum of fifteen (15) preparation points under the preparation point system detailed in Section 21.

C. Bodywork and Interior:

The addition or use of alternate accessories, gauges, indicators, lights, mirrors, and other appearance, comfort, and convenience modifications which have no effect on performance and/or handling are permitted.

The steering wheel may be modified or substituted.

The shift knob may be modified or substituted. This does not include the shifter lever, handle, body or mechanism.

Any fuel-filler cap may be used. Monza style gas caps must be secured against accidental opening.

The folding, but not removal of the windshield and/or the convertible top is permitted, providing the mechanism is standard equipment.

The removal of the spare tire(s), tools, and jack is permitted.

Any alternate front fender is permitted, providing it is the same size, shape, and at least the same weight as the original.

Any alternate restraint harness is permitted as long as it meets or exceeds the minimum standards as outlined in the CACC GCR.

Any spoiler/air dam may be added or modified, provided it is at least the same weight as the original spoiler/air dam or the panel(s) it replaces.

Standard fuel tank must remain unaltered in dimensions and mounting.

Tow-bar brackets and hooks may be installed, and the appropriate modifications to the bumper and/or frame in order to install them are permitted, provided such modifications do not reduce the weight of the vehicle.

In order to provide engine induction or ventilation, the addition of grills or air scoops is permitted. The removal, modification or substitution of hood liners is permitted.

Cut-outs for oil coolers are permitted.

Spoilers, body kits, rear wings, etc. are allowed. Only minor modification to the standard bodywork is allowable to fit an aftermarket body panel. Rear wings other than O.E.M. may not extend higher than the

highest point of the roofline, may not extend rearward more than the rear most edge of the factory bodywork, and may be no wider than the widest point on the body not including side mirrors or aftermarket accessories. The intent of this rule is to allow as wide a variety of appearance kits as possible while maintaining some limits on wing/spoiler technology.

In order to provide clearance for tires and wheels:

i) Flares may be added and may be made of an alternate material.

ii) The exterior contour of the fenders may be altered, provided that the fender opening profile (approximate size, location, and shape) viewed from the side of the vehicle is unchanged.

iii) Modifications to the interior fender panels are permitted in order to facilitate the addition of fender flares or the alteration of the exterior contour of the fenders, provided such modifications serve no other function. Fender panels may be modified or removed provided this change does not result in any openings between the wheel wells and the passenger, engine, or luggage compartments.

Where tires extend beyond bodywork, no modification to the fender opening profile may be performed to allow for this.

D. Suspension:

If suspension points are taken in the Street Prepared category, then any suspension component may be altered or replaced in any way, provided that the configuration remains the same as the original manufacturer.

The bushing attaching the end of the strut to the body or frame on a strut type suspension is a suspension bushing, not a shock absorber bushing. Suspension bushings, including but not limited to those which carry the weight of the car and determine ride height, may not be replaced with bushings of a different material or dimension.

The steering system and its associated linkages will be considered as part of the suspension system.

The addition, substitution, or modification of any part of a front or rear suspension anti-sway bar system is allowed subject to the applicable preparation points.

Suspension bump stops may be altered or substituted but not removed.

Any camber/caster alteration device is allowed provided preparation points for suspension are already taken.

If the appropriate suspension points are taken, then the suspension mounting/pickup points may be modified or relocated.

The addition of/or modification of Traction Bars, Ladder Bars and Torque Arms is permitted. Mounting points and method of attachment are unrestricted.

E. Brakes:

The addition of a brake cooling system is permitted. The brake backing plates may be modified or removed. Minor modification to the interior fender panels and interior front body panels are permitted in order to facilitate the installation of the brake cooling system, provided such minor modifications serve no other function. Water-cooled braking systems are prohibited.

Substitution of brake hydraulic lines with braided metal lines is permitted.

Any part of the braking system may be changed, provided it still operates simultaneously on all four wheels.

F. Tires & Wheels:

Any make, model, and size of tire may be used, provided there is both a DOT approval stamp and an approval number on the tire. Wheel/tire combinations may extend beyond the original factory bodywork.

Any size and offset of road wheel may be used, providing the wheel/tire combination fits within the standard wheel well opening.

When viewed from directly above the outermost edge of the fender (using the hub center-line as the viewing axis) from an angle perpendicular to the ground, no portion of the tread may be visible. This assessment shall be performed with the vehicle parked on a level surface and tires inflated to a minimum of 20psi and not more than the allowable maximum pressure as stated on the tire itself. No modifications to the bodywork or suspension may be performed to facilitate installation.

G. Engine and Drive Train:

The make of spark plugs, points, ignition coil, and high tension wires is free, providing the number of such items does not change from that originally installed in the car.

On cars made before January 01, 1968, any ignition system using the standard distributor may be used.

Any ignition system or part may be used. Ignition settings and curves may be altered beyond manufacturer's specifications.

Alternate ECU's /chips may be used on normally aspirated vehicles. Alternate ECU's/chips may be used on forced induction vehicles only if the ECU/chip does not DIRECTLY alter boost settings. If boost settings are directly altered by the ECU/chip then the appropriate preparation points must be taken as per the preparation point table.

Any alternate battery the same size of the OEM battery may be used. Location may be altered subject to preparation points.

The carburetor metering rods and jets may be changed.

Any alternate fuel pump may be used, providing the number of fuel pumps remains as standard.

Installation of vents, catch tanks, and oil coolers on the engine, transmission, or differential is permitted. If no vents or catch tanks are added, OEM systems must be in place.

Normal maintenance machine work is permitted, provided that the service limits specified by the manufacturer are not exceeded.

The use of alternate engine and drive train parts which are normally expendable, such as seals, gaskets, bearings, valve seats, and valve guides, are permitted, provided they are of the same type, number, and dimensions as standard.

Cylinders and or liners may be overbored up to 0.040” over the nominal stock bore dimension, and appropriate standard oversized pistons may be used. Non-stock pistons of the same weight, dimensions, and configuration as the original may be used.

Any alternate exhaust system, with the exception of the exhaust manifold and emission control components, is permitted. Muffler systems are authorized, except that they must terminate behind the driver. Exhaust heat shields may not be removed. Exhaust systems must comply with CACC noise limits.

Exhaust emission control air pumps, nozzles, associated lines and fittings, EGR devices, and evaporator canisters may not be modified in any way except that they may be completely removed. Catalytic converters and thermal reactors may be replaced with aftermarket units or removed.

The engine cooling fan(s) may be modified, substituted or removed. The radiator may be modified or substituted.

Removal of / or use of any alternate air cleaner assembly is permitted. Cold air induction ducting upstream of the air cleaner is allowed. On vehicles so equipped, the duct between the air flow/mass sensor and the throttle body is considered part of the air cleaner assembly/system.

The transmission shifter and/or mechanism may be changed or modified. Any shift linkage may be used.

No engine modifications are permitted within the cylinder head(s) and/or the engine block.

Substitution or addition of fuel pumps and pressure regulators, but not fuel distribution units, is permitted. Any other fuel system modification is subject to preparation points.

The clutch may be modified or substituted. The clutch is defined as the linkage, throw-out bearing, disc, pressure plate, and pilot bearing. Alternate torque converters may be used.

The transmission, differential, and transaxle may be modified or substituted, provided that neither the original suspension configuration, nor drive layout is changed. Modifications include any or all mechanical or hydraulic components relating to the transfer, application and distribution of power flow from the input shaft of the transmission up to and including the drive axle(s).

Fuel cells are permitted provided all the following restrictions are met: the capacity of the fuel cell may differ by no more than 20% from that of the original tank, the installation of the fuel cell is in accordance with the CACC GCR's and the fuel cell manufacturer specifications and the car meets all applicable Time Attack Passing or Hill Climb safety standards including those for roll over protection and the installation of a fire extinguisher or fire suppression system.

H. Fasteners:

Nuts, cap screws, studs, washers, etc., may be replaced by similar items of unrestricted origin.

I. Updating and Backdating of Parts:

Interchange of components between various years of the same model (see 6.1.C) produced by the same manufacturer under the same brand name is permitted, subject to the following restrictions.

The vehicle on which the component is installed must now compete in the same class as the vehicle from which the component was taken.

The component must be standard equipment on the vehicle from which it was taken.

No modification is permitted to the vehicle or component in order to facilitate the installation of the component.

The resulting engine specifications including the specifications of all engine components (exhaust manifold(s), carburetor/injection system, etc., with the exception of the clutch and transmission units) must conform to the specifications of a single vehicle model and model year.

The resulting suspension specifications including the specifications of all suspension components (spring rates, sway bar systems, etc., except shock absorbers) must conform to the specifications of a single vehicle model and model year.

The suspension and engine specifications together must conform to the specifications of a single vehicle model and model year, except where any different specification is permitted under authorized modifications for the vehicle category.

The vehicle from which the component is taken must have the same drive train configuration as that on which the component will be installed.

Updated/backdated items may only be further modified as per all other items in the Street Prepared Category rules.

J. Body Structure Modifications:

Any chassis, frame, engine reinforcement or brace is permitted. Method of attachment is unrestricted providing the original chassis and frame remain intact. i.e.: no cutting or removal of the original structure.

It is permitted to add or replace any lateral brace (strut bar and/or tie bars) at either or both ends of the car. Strut bars are permitted with all types of suspension.

20. TIME ATTACK STREET PREPARED X CATEGORY

This section is necessary for Time Attack classification SPX1 through SPX3.

Cars legal and eligible for Street Prepared class as per the current CACC Time Attack regulations with the following additional allowed modifications:

Any Turbocharged and Supercharged vehicles are classified to their actual displacement multiplied by a factor of 1.7

Rotary Engines are classified by taking twice the difference between the minimum and maximum working volume of any one working chamber, multiplied by the number of chambers.

Engines not originally produced in a vehicle may be swapped following these restrictions:

I) Engine blocks must be production units from the same manufacturer as the vehicle they are used in. I.e. Honda vehicles may only have a Honda engine

II) Any swapped engine must have the same number of cylinders as the engine that it replaces. I.e. a vehicle with a 4 cylinder engine may only swap a 4 cylinder engine. Note as per Street Prepared Regulations, Update/Backdate is allowed. I.e. a V8 engine may be swapped into a V6 Camaro if allowed by Update/Backdate regulations.

III) Badges that exist as marketing aliases for the manufacturer will be recognized as equivalents. I.e. Toyota and Lexus engines will be considered equivalent.

21. TIME ATTACK PREPARATION POINT SCHEDULE (for Street Prepared and Street Prepared X vehicles)

A. Method of Assessment:

A vehicle with modifications, except those permitted under General Vehicle Preparation or those permitted under authorized modifications for the category in which the vehicle is entered, shall be assessed preparation points according to this section.

B. Negative Points:

The negative points assessed for roll-over protection and fire extinguishers may only be used to offset other points assessed under "weight reduction"

Guide to the Points Table:

X - Indicates the modification is permitted but may be subject to applicable preparation points. See the "Authorized Modifications" of each category for further clarification on preparation point assessment.

X* - Indicates the modification is authorized with no preparation points assessed.

Weight Reduction			SP & SPX
Lightweight or removed panel. A panel is defined as a convertible top, trunk or hatchback (or similar) lid, door, fender, hood, grille, valance, or any other coachwork panel that may be unbolted or unfastened from the body structure.	1 pt. each		X
Lightweight bumper assembly or part of the bumper assembly removed, including bumper hardware, brackets, and energy-absorbing devices.	1 pt. per front or rear		X
Removal of or lightweight windshield or rear window, including the window hardware and trim.	1 pt. each		X
Removal of or lightweight side windows, including the window hardware	2 pts. any or all		X
Removal of exterior light assemblies, including the light hardware and trim.	2 pts. any or all		X
Interior trim removal, defined as interior body panels, dashboard, headliner, sun visors, carpet, underpad, sound insulation, and any other interior dress-up or comfort items.	2 pts. any or all		X
Removal or substitution of a front seat or any/all of the rear seat(s). Removal of the seat also permits the removal of the seat belt(s) for that seat(s).	1 pt. each		X
Battery, change in location	1 pt. each		X
Installation of roll-over protection which meets all specifications	-2 pts.		X

contained in Appendix A. If the roll-over protection is a roll cage, then the driver's side anti-intrusion tubes may extend into the door. The inner door structural panel may be modified, but not removed to facilitate this type of side protection. The stock impact beam and the outside door latch/lock operating mechanism shall not be removed.			
Installation of any number of securely attached and fully charged 2.5 lb. (5BC) or larger fire extinguisher. Fire extinguishing systems that meet the requirements of GCR 20.6 are also permitted.	-1 pt.		X

Running Gear and Suspension			SP & SPX
The addition, substitution, or modification of any part of a front or rear suspension anti sway bar system, per front or rear.	1 pt. each		X
Any other suspension modification(s).	3 pts.		X

Engine and Drive Train			SP & SPX
Locked differential other than OEM. All wheel drive vehicles will be considered as having 3 differentials, all of which shall be assessed points on an individual basis.	Single differential (1pt). Multiple differentials (2pts).		X
Tubular headers, other than OEM	2 pts.		X
Turbocharger, supercharger, or NO2 injection.	4 pts.		X
Carburetor/fuel injection*/induction system*: any unauthorized modification which results in an increase in the number of venturies/air throttles. * Definition of induction system: "All points that are exposed to air intake from the air inlet to the orifice of the cylinder head port face." * Definition of fuel injection system: fuel metering unit, fuel distribution unit, injection nozzle(s), air duct, air throttle	4 pts.		X
Any other internal engine modification(s), subject to the restrictions below: Reciprocating engine: The cylinder bore diameter may be increased, provided the resulting increase can be achieved within the standard equipment block/barrels without the need to add material to the block/barrels. The number and location of the camshafts and valves may not be changed. The stroke may not be changed. Rotary engine: The capacity of the working chambers may be increased, provided the resulting increase can be achieved within the standard rotor housing without the need to add material to the housing. The rotor is free, provided the number of lobes and rotors is not changed.	4 pts.		X

Flywheel change or modifications (except when part of engine modifications done as described in the above allowance).	2 pts.		X
Any modifications/substitution of turbo chargers	2 pts.		X
Any modifications/substitution of boost control devices	2 pts.		X
Change of controller (ECM and/or management chip) where the ECM also controls boost and/or shift points as applicable.	2 pts.		X
Modification and/or substitution of any or all external engine components and/or accessories. Eligible components include: Any accessory pulleys and belts of the same type (e.g., V-belt, serpentine) as standard may be used. This allowance applies to accessory pulleys only (e.g. alternator, water pump, power steering pump, and crankshaft drive pulleys with or without pulley-damper/balancer assemblies). It does not allow replacement, modification, or substitution of pulleys, cogs, gears, or belts which are part of cam, layshaft, or ignition drive or timing systems, etc. Supercharger drives are excluded from this allowance. Alternate pulley materials may be used. They may serve no other purpose. Any alternate water pumps, alternators, cooling and oiling systems (beyond allowable items). The original system (wet sump or dry sump) of engine oiling must be retained. Any oiling system component may be added, modified or substituted.	2pts unless the full 4pts (Street Prepared Only) for internal engine items already taken.		X

22. VEHICLE CLASSIFICATION LIST

GENERAL CONSIDERATIONS

A. Responsibility for Classifying:

It is the responsibility of the competitor to correctly classify their entered vehicle. A competitor needing assistance in classifying his vehicle should ask the event organizer for help. A competitor incorrectly classifying his vehicle may be excluded by the event steward or the chief steward.

B. Unclassified Vehicles:

Unclassified vehicles (those not listed in the class lists) may be tentatively classified by the event Clerk of the Course. Tentatively classified vehicles may be reclassified by the CACC Time Attack Committee.

C. Classification Request:

A competitor or an official may submit a written classification request to the CACC Time Attack Committee. All requests must include detailed vehicle information and are subject to the following timetable:

Prior to January 1 of the current year, a classification request for the addition or review of any eligible vehicle may be submitted.

After January 1 of the current year, a classification request must be limited to the following:

An existing classified vehicle became available in a configuration which may appreciably alter its performance potential.

A new model vehicle became available which is not listed in the current CACC/SCCA class lists.

The committee shall endeavor to process requests within thirty (30) days of receipt. All classification and amendments shall be published as CACC bulletins.

D. Declaration of Preparation:

A competitor must complete a preparation declaration if requested and declare all variations from authorized modifications or standard equipment.

E. Re-Classification or Re-Alignment of Car Classes:

The CACC Time Attack Committee may classify or reclassify vehicles during the year.

F. Class Corrections:

The CACC Time Attack Committee may correct improperly classified vehicles, subject to the grievance procedures contained in the CACC GCR.

23. ROLL BARS and ROLL CAGES

A. General:

These specifications are only sufficient for Time Attack, the specifications in CACC GCR 16 are highly recommended.

B. Basic Design Considerations:

The basic purpose of the roll bar, roll cage is to protect the driver in case the vehicle rolls over. This purpose should not be forgotten.

The top of the roll bar shall not be below the top of the driver's helmet when the driver is in the normal driving position, and shall not be more than 15.24 cm (6 inches) behind the driver. It is strongly suggested that the roll bar be at least 7.62 cm (3 inches) above the drivers' helmet. In the case of two drivers, both drivers must be the roll bar height requirement, however, only one driver must be within six inches of the roll bar. In a closed car with a roll bar/cage, it must be as close as possible to the interior top of the car.

The roll bar must be designed to withstand compression forces resulting from the weight of the car coming down on the roll structure, and to take fore-and-aft loads resulting from the car skidding along the ground on the roll structure.

Two verticals forming the sides of the hoop shall not be less than 38.10 cm (15 inches) apart, inside dimension. It is desirable that the roll bar extend the full width of the cockpit to provide maximum bearing area in all soil conditions during rollovers.

The roll bar vertical members in a formula car must be not less than 38.10 cm (15 inches) apart, inside dimension, at their attachment points to the uppermost main chassis member.

An inspection hole of at least 4.7 mm (3/16 inch) diameter must be drilled in a non-critical area of a roll bar member to facilitate verification of wall thickness. This should be at least 7.63 cm (3 inches) from

any weld or bend. If a CACC vehicle log book is to be issued, tube thickness may be verified by ultrasonic testing by a CACC official.

It is recommended that steel gusset plates be used at all welds. Gussets should be at least 5.0 cm (2 inches) long on each leg and 4.7 mm (3/16 inches) thick.

It is recommended that roll bar be coated only with a light coat of paint. If however, a roll bar is chrome-plated, it is recommended that the structure be normalized.

Post or tripod types of roll bar are not acceptable.

C. Material:

After 9/22/85, aluminum is not an acceptable alternate material. Cars using aluminum roll bars/cages must file proof that the structure was approved prior to 9/22/85

The roll bar hoop and all braces must be of seamless DOM mild steel tubing. Chrome alloy tubing such as 4130 is not recommended since the strength of the area adjacent to welds will be impaired if the structure is not normalized, and because of the difficulty in making satisfactory welds.

The size of tubing to be used shall be determined on the basis of weight of the car. The following minimum sizes are required:

Roll Bar

Over 1134 kg (2500 lbs.)	1.50 o.d. x 0.120" wall or 1.75" x 0.095" wall
Over 680 kg (1500 lbs.)	1.50" o.d. x 0.950" wall
Under 680 kg (1500 lbs.)	1.375" o.d. x 0.95" wall

Roll Cage

Over 1225 kg (2700 lbs.)	1.50 o.d. x 0.120" wall or 1.75" x 0.095" wall
Over 770 kg (1700 lbs.)	1.50" o.d. x 0.950" wall or 1.625" x 0.080"
Under 770 kg (1700 lbs.)	1.375" o.d. x 0.080" wall

Mounting plates and gussets shall be 4.7 mm (3/16 inch) minimum thickness

Where bolts are used, the bolts shall be at least 10 mm, class 8.8 (3/8 inch, grade 5) dia. automotive quality (SAE). Aircraft quality is highly recommended. Square head bolts and nuts are prohibited.

D. Fabrication:

One contiguous length of tubing must be used for the hoop member with smooth continuous bends and no evidence of crimping or wall failure.

All Welding must be of the highest possible quality with full penetration and will be subject to very critical inspection. Arc welding, particularly heliarc, should be used wherever possible.

E. Bracing:

It is recommended that bracing be of the same size tubing that is used for the roll bar hoop itself.

All roll bars must in a fore-and-aft direction with the brace attached within the top one-third of the roll hoop, and at an angle of at least thirty degrees from the vertical. It is strongly recommended that two (2) such braces be used, parallel to the sides of the car, and placed at the outer extremities of the roll hoop. Such braces should extend to the rear wherever possible.

It is suggested that roll bars include a transverse brace from the bottom of the hoop on one side, to the top of the hoop on the other side.

F. Mounting Plates:

Roll bars and braces must be attached to the frame of the car wherever possible. Mounting plates for this purpose where desired.

In the case of cars with unitized or frameless construction, mounting plates may be used to secure the roll bar structure to the floor of the car. The important consideration is that the load be distributed over as large an area as possible. A backup plate of equal size and thickness must be used on the opposite side of the panel with the plates through-bolted together.

G. Removable Roll Bars:

Removable roll bars and braces must be very carefully designed and constructed to be at least as strong as a permanent installation. If one tube fits inside another tube to facilitate removal, the removable portion must bottom on the permanent mounting, and at least two (2) bolts must be used to secure such a joint. The telescope section must be at least 20.8 cm (8 inches) in length.

H. Installation on Cars of Frameless Design:

It is important that roll bar structures be attached to cars in such a way as to spread the loads over a wide area. It is not sufficient to simply attach the roll bar to a single tube or junction of tubes. The roll bar must be designed in such a way as to be an extension of the frame itself, not simply an attachment to the frame. Considerable care must be used to add as necessary to the frame structure itself in such a way as to properly distribute the loads. It is not true that a roll bar can only be as strong as any single tube in the frame.

On cars of frameless construction, consideration should be given to using a vertical roll bar hoop of 360 degrees completely around the inside of the car, and attached with suitable mounting plates. This type of roll bar them becomes a substitute for the frame.

I. Sedans and Coupes:

It is recommended but not mandatory that all closed cars utilize a roll cage type construction. One hoop shall be placed behind and above the drivers head from one side of the car to the other, with another similar hoop in front supporting the front pillars. Horizontal connecting bars should connect the two hoops at each side of the top. A transverse brace should be used on the rear hoop from the bottom of one side to the top of the other side. A diagonal brace should be used on each side of the car extending from the top of the rear hoop to the floor at the rear of the car.

J. Other Roll Bar Designs:

Roll bars of alternate materials or design may be accepted by the Technical and Safety Inspector upon presentation of data verifying strength equivalence.

24. TIME ATTACK CLASSIFICATIONS

The following classifications are the official classes for all Hill Climb, Time Attack – Passing and Time Attack – No Passing events.

A. Classic American Muscle (CAM) Category:

Cars legal and eligible for CAM class as per the current CACC Time Attack regulations.

Classes are:

CAM-C (Contemporary)

CAM-T (Traditional)

CAM-S (Sports)

B. Street Prepared Category:

i. Cars legal and eligible for Street Prepared classes as per the current CACC Time Attack regulations. Cars legal and eligible for IP as per the current CACC Race rule book, cars legal and eligible for IT as per the current SCCA Race rule book. IP and IT cars may only use their respective race series rules for modification allowances. No interchange of preparation rules is allowed.

ii. Any turbocharger or supercharged engine cars are classified according to their actual displacement multiplied by a factor of 1.7.

iii. Rotary engine cars are classified by taking twice the difference between the minimum and maximum working volume of any one working chamber, multiplied by the number of chambers.

Classes are:

SP-1	under 1800 c.c.
SP-2	1800 c.c. – 2500c.c.
SP-3	2501c.c. - 4000 c.c.
SP-4	4001c.c. - and over.

C. Street Prepared X Category:

i. Cars legal and eligible for Street Prepared X classes as per the current CACC Time Attack regulations.

ii. Any turbocharger or supercharged engine cars are classified according to their actual displacement multiplied by a factor of 1.7.

iii. Rotary engine cars are classified by taking twice the difference between the minimum and maximum working volume of any one working chamber, multiplied by the number of chambers.

Classes are:

SPX-1	under 1800cc
SPX-2	1800cc-2800cc

SPX-3 2801cc and over

D. GT Category:

A vehicle competing in the GT category must conform to the CACC GCR's except for the following items:

i. fire system (minimum of a fire extinguisher in place)
ii. fuel cell
iii. windshield clips/straps
iv. master on/off switch.
v. tow eyes
vi. scatter shields
vii. door glass
viii. breather/overflow systems (not required if OEM system in place)
ix. steering lock system (O.E.M.) does not have to be removed
x. second passenger side door bar
xi. foot box intrusion bars
xii. sunroof/T-tops

Cars conforming to and legal for current CACC/SCCA GT classifications and cars legal for Prepared under the current CACC Autoslalom regulations may compete in this category

Classes are:
GT-1, 2, 3, Lite

E. GTS Category:

Cars prepared beyond the GT category. A vehicle competing in the GTS category must conform to the CACC GCR's except for the following items:

i. fire system (minimum of a fire extinguisher in place)
ii. fuel cell
iii. windshield clips/straps
iv. master on/off switch.
v. tow eyes
vi. scatter shields
vii. door glass
viii. breather/overflow systems (not required if OEM system in place)
ix. steering lock system (O.E.M.) does not have to be removed
x. second passenger side door bar
xi. foot box intrusion bars

xii. sunroof/T-tops

Turbocharged and supercharged cars are classified according to their actual displacement multiplied by a factor of 1.7.

Rotary engine cars are classified by taking twice the difference between the minimum and maximum working volume of any one working chamber, multiplied by the number of chambers.

Classes are:

GT-U	under 1800c.c.
GT-X	1800c.c. – 2500c.c.
GT-M	2501c.c. - 4000 c.c.
GT-O	4001c.c. and over

F. Formula & Sports Racing Category:

Cars must conform to current race regulations for respective classes. Cars not conforming to current open wheel regulations will be bumped to Formula Libra.

Classes are:

FV	FV, F440/F500, and VW powered dune buggies.
FF	FF1600, FF2000, FC
SR	Sports Racer
FA	FA, FSV, F Libre, modified open wheel cars.