



# Group Corvair Comments

GROUP CORVAIR'S NEWSLETTER FOR THE NATIONAL CAPITAL AREA



VOLUME LII, No. 3

March 2024



## *First Group Corvair Social Meeting of 2024!*

### CALENDAR OF COMING EVENTS

#### March

- 16 – Group Corvair Social Meeting.** 5:30 p.m., Beijing of Greenbelt Chinese restaurant, 131 Center Way, Greenbelt. Please RSVP to Bob Hall or Jim Simpson by Friday, 9 March so we can make a reservation.
- 19 – Group Corvair Zoom Meeting.** 7:30 p.m. Zoom link details will be sent out the weekend before; check your email.

#### April

- 16 – Group Corvair Zoom Meeting.** 7:30 p.m. Zoom link details will be sent out the weekend before; check your email.
- 19 – 20 – Springfest, Helen GA.** Their website is: [www.corvairspringfest.com](http://www.corvairspringfest.com). Or contact Joan Law, 229-326-3099 or [cjlaw@gmail.com](mailto:cjlaw@gmail.com) for info.

## May

4 – Corvair Track Classic, Motorsports Park, Hastings, NE. [www.Corvairmuseum.org](http://www.Corvairmuseum.org), or [www.Corvairtrackclassic.com](http://www.Corvairtrackclassic.com) for info.

19 – Corvair Ranch Open House. 9 AM to 5 PM, 1079 Bon-Ox Rd., Gettysburg, PA.

**21 – Group Corvair Zoom Meeting.** 7:30 p.m. Zoom link details will be sent out the weekend before; check your email.

## June

8 – NECC Motorsports High Performance Driving Event – New York Safety Track. Info: <https://tinyurl.com/ykn8csks> or <http://www.neccmotorsports.com/>

**18 – Group Corvair Zoom Meeting.** 7:30 p.m. Zoom link details will be sent out the weekend before; check your email.

## July

**16 – Group Corvair Zoom Meeting.** 7:30 p.m. Zoom link details will be sent out the weekend before; check your email.

20 – NECC Motorsports High Performance Driving Event – Pocono South Track. Info: <https://tinyurl.com/mw6hzray> or <http://www.neccmotorsports.com/>

21 – 26 – Corvair International Convention, Dayton, OH. The 21<sup>st</sup> and 26<sup>th</sup> are not officially part of the convention, but the host club includes them in their schedule. <https://www.daytoncorvairclub.com/gallery>

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## Last Call to Pay Your Dues?

You know who you are, and no more procrastinating! Send your check made out to Group Corvair to me (Jim Simpson) at the address above. Thanks!

## From the Oval Garage

Bob Hall

That shade tree mechanic's assistant, Day Light Savings Time, is here along with warming temperatures. Ever notice how much easier it is to loosen a nut or bolt when it's 70-75 degrees?

Our February social gathering at Nonna Angela's Italian Bistro was a rousing success with good food, good conversation and twelve Corvair people in attendance. It was great to see Mike and Liz Coale and Barry and Barbara Grofic in person again. We plan to have another dinner social gathering on Saturday March 16th at 5:30 pm at the Beijing Chinese restaurant in historic Greenbelt. Please **RSVP to me or Jim by Friday, March 9th** so we can have tables arranged to seat us together (and if you can't RSVP in time come anyway—we'll find a way to fit

you in). We are also looking at locations in the Frederick area for a dinner meeting in April that will be closer to club members nearby. Please let us know if you have a favorite restaurant to recommend. The social meetings are a nice complement to our separate Zoom business meetings.

We still hope to visit Lee Hamilton in March to see his progress in resurrecting the late model Buick aluminum V8 conversion first done by Pete Fraley. Lee has rebuilt the engine, and the next step is to get it reinstalled. For those who may not have met Lee before, he was a Chevrolet dealer mechanic with a great deal of experience with Corvairs before he retired and had his own shop specializing in our favorite car. When Lee worked on my Corsa (clutch and pressure plate) and Greenbrier (differential swap to a posi-traction unit) I met owners of cars from Pennsylvania and Delaware who had brought their cars to Lee because of his reputation for professional work at a fair price.

I hope all of you are making steady progress with your Corvairs. If you have any special tool needs or need an extra hand or two let us know.

## **Minutes of the February Virtual Meeting**

**Marolyn Simpson**

On February 20<sup>th</sup>, eight Group Corvair members started logging into the monthly Zoom business meeting at 7:30 pm. While we were waiting for everyone to join the meeting, we talked about Pete Fraley's V8 Corvair. Bob Hall had talked to Lee Hamilton, who currently owns the car, about coming to see it for a club activity, but no date was set. Pete made many modifications to the car including the taillights. There is a question about the original car Pete used to make the V8, so we need to find the vin number which will tell us if the car started out as the Corsa turbo that Jerry Yates had given to Pete or a "500" as some remember.

At 7:52 Bob H. called the meeting to order. The minutes were approved as they appeared in the last newsletter. Jim Simpson gave the treasurer's report. The balance is increasing due to the payment of dues. The major expense for the last month was paying the CORSA chapter fee of \$35.

Planning is underway for the 2026 national convention in Gettysburg. The main organizers will need helpers from area clubs including Group Corvair. And they are looking for event chairpersons. So, if you are interested in taking charge of one of the events (everything from rally to hospitality), check last month's newsletter for the contact information.

Several long time Group Corvair members introduced themselves to our newest member (and current vice president), Mark Shiffler.

Bob H. contacted Barb and Berry Grofic to let them know the club could be a resource for troubleshooting any problems they may have with their car. They appear to be having some problems with the heater. A discussion on heaters followed. The consensus was that they work very well provided all the shrouding, seals, and associated hoses are in good condition.

The possibility of another social meeting in March came up. One suggestion was meeting in the Frederick area. (It now appears the next social meeting will be more "local", and we'll give Frederick a try a bit later in the spring.)

The next discussion topic was on Corvair radios. Everyone agreed that between the dated technology and the changes in AM programming, some kind of update or conversion would be a very good idea. Even the addition of an FM-to-AM converter would be a major improvement for anyone who doesn't have an AM/FM radio. Even better would be the addition of Bluetooth capability so you could link your phone to the radio. (A quick look on the internet shows several possibilities; most require some kind of FM radio capability.)

Dave Edsinger related his experience of acquiring two Corvairs from a former Corvair enthusiast that had sat for about 26 years. It was an interesting story.

There are several important dates coming up in the Corvair world. May 19 is the open house at the Corvair Ranch. This is always a fun event. The national convention is July 21-26 in the Dayton, OH area. And the Rockville show will be October 19<sup>th</sup>. (We'll have more information coming as it becomes available.)

The last discussion of the evening was on fuel pumps. There seems to be a general agreement that the current mechanical pumps are far from reliable. Clark's Corvair Parts is in the process of having new ones made, but no date has been announced for them yet. Therefore, most folks are taking a hard look at installing an electric pump



even if that requires the addition of controlling electronics and safety shut-off switches. There are a number of options to consider including in-tank or external, rotary vane or impulse, and just where to mount it.

Jim made a motion to adjourn. The meeting was adjourned at 9:08 pm.

## Dinner at Nonna Angela's Italian Restaurant

Marolyn Simpson

Italian! Group Corvair members get together for dinner and great conversation every month or two, but it has been quite a while since we have had Italian cuisine. Bob Hall made reservations for us at the Nonna Angela's Italian Restaurant in Crofton for February 10 at 6:00 pm. We had a great response with 12 members signing up. The table was large and square so we could seat three people on each side, which made the conversation easy. Nearly everyone ordered something different, so we had quite a variety of dishes. Even though there was plenty of food in the main course most folks also ordered dessert which was a real highlight of the meal. We managed to get two photos of the group, one appears on the front and the other on the rear of the newsletter.

## Mark's Corsa Restoration – Part 6, the Saga Continues

Mark Shiffler

**The cold weather report.** In January I receive supplies from Clark's and, while I have been away some, have completed some of the interior work through January and February.

First up on the work pile was door cards. After receiving the new ones, I pulled the old ones out of storage and removed and cleaned all the chrome pieces from the old cards and 'super glued' them to

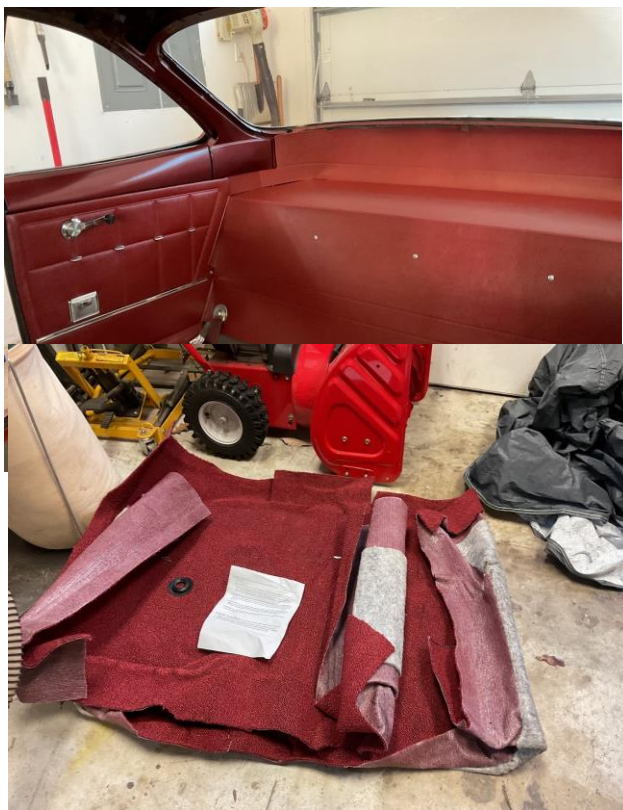


the new door cards. New snap posts and plastic receivers were installed on the cards and in the car. In looking at the screws at the bottom on the door I figured out they were self-drilling and tapping so that was easy. I also quickly buffed the rear panel ash trays, glad to report they look unused. The original papers were installed behind the cards, and I am happy with the results.

Next up was sound insulation materials on the floor and rear area of the car. I used Silless sound deadener 1/4" material that I

ordered from Amazon. The installation was time consuming but pretty forgiving once I got started and worked out a process. It took about 1 1/3 boxes of the material to cover the front to rear of the car. The brown area below the rear shelf is the factory insulation pad which was salvageable from the disassembly process. You can also see at the top I needed to add 3/4 plywood to the top of the cardboard spacers I ordered from Clark's to have the shelf support at the right height.





Ultimately, I pulled those pieces (Plywood + Cardboard) out and substituted a full-size piece of 1 ½" rigid foam insulation sitting on top of the ¼" sound proofing to make the right height spacer.

The finished product looks pretty good. I added new seat belts as the black original were rather moldy and corroded.

Last up was carpet and the door sill aluminum pieces. Took my time and used a small steamer that I had to help soften the carpet and allow me to get it pushed in place.

Next up will be recovering the seats. I have 1000 hog rings on hand and a ¼" staple gun. So far, I have finished the rear seat bottom and am working on the seat back. Not looking forward to



the bucket seats but they need to be done.

Finally for this installment I have talked to my painter and am taking a pile of the small interior pieces to him to be painted to match the inside of the car.

Next month, and hopefully the conclusion to the story Seat covering/installation; small painted part installation, an alignment by Mike Coale, and a headliner installation (maybe or maybe not by me) The goal is on the road by 1 April!!!

## Tech Topics

Jim Simpson

**Brake Balance.** The March 2024 issue of the Corvair Minnesota *Leaky Seel* newsletter had a article about installing a brake proportioning valve on an early model convertible. The car had been retrofitted with a dual master cylinder backed up with a power brake booster. The author noted that it had a tendency to lock up the rear brakes quite easily and he installed a proportioning valve to fix the problem.

That article prompted an email discussion between Mark Shiffler and me over the pros and cons of brake proportioning valves and front/rear brake balance on Corvairs. I thought I'd offer my thoughts and opinions on Corvair brakes in this article.

The first things to recognize is that virtually every car ever made has some form of front to rear brake proportioning. That is, by design, the brakes on the front and rear perform differently. The engineers, when designing the car, recognize that the front and rear weights are different – front engine cars, particularly front wheel drive cars, have much more of their weight over the front wheels. Rear engine cars – Corvairs, Porsches, etc., -- have more weight over the rear wheels. Even if you ignore dynamic effects, such as weight transfer during braking, it's obvious that you would like the brakes at the end with the most weight (tire traction) to have more braking effect. The alternative – same braking power on both ends – would result in the wheels with the least traction (determined by weight on the wheels) always locking up before the other end and thus have lower overall stopping power.



In addition, there's the car's handling to consider. If you lock up the rear wheels, particularly with a rear-weight biased car, the rear end tends to slew to one side or the other resulting in a spin if you can't correct quickly enough. So ideally, if you can't reliably ensure all four wheels lock at the same time, you'd prefer to have the front wheels lock slightly before the rears producing understeer and then you can modulate the brakes to maintain control.

I'm going to focus on the late model Corvair since I don't have much experience with the early models. Although much of this applies to all Corvairs as well as cars in general. The Chevrolet engineers certainly recognized that much of the Corvair's weight was over the rear wheels. The actual distribution is 36% up front with 64% in the rear. Chevrolet compensated for that with a combination of different sized brake shoes and wheel cylinders front and back. According to Chevrolet specifications, while the front and rear brake drums are the same diameter (9.5"), the front brakes are 2" wide while the rears are 2.5". But the important difference for brake balance is the size of the wheel cylinders.

The late model Corvair uses 0.875" diameter pistons in the front wheel brake cylinders and 0.9375" pistons in the rear. If you take a look at the text box to the right, you'll see that is what makes the difference in front to rear brake balance. It's the pressure that these wheel cylinders apply to the brake shoes that controls the relative braking power.

If you do the math and calculate the relative areas of the pistons, you'll see that the front brake cylinders apply 46.6% of the total pressure to the brake shoes and the rears 53.4%. (This is confirmed by the Chevrolet engineering technical report which states that the **"Distribution of braking effort (theoretical, percent) is Front Wheels 46%, Rear Wheels 54%"**). Note that this puts more braking on the front than just the static weight distribution would imply.

This brings up the dynamic effects of braking, or "weight transfer". When you apply the brakes, since the center of gravity of the car is higher than the centerline of the front axle, some of the weight of the car "shifts" away from the rear and toward the front. You can see this on most cars as the front end "dips" under heavy braking. Obviously this shift forward – so-called "weight transfer" – depends on just how hard you are braking. Very light braking results in essentially no weight transfer; very hard braking equals more weight transfer. This weight transfer changes just how much traction the front and rear tires have. So under heavy braking, the front tires are capable of more stopping power while the rears have less. (See the text box – friction, or traction in this case, is equal to the coefficient of friction times the force – weight – applied.)

This is where things get tricky for the designers, particularly when you don't have things like modern anti-lock braking systems (ABS) to compensate for changes in traction. Our Corvairs were all built long before this modern technical wizardry was even conceived of. The designers had to make a choice of just where (in terms of "how hard braking") to optimize the brakes. They had to consider both normal and panic situations, material wear, and of course, cost. (Keep in mind that cost can be a major driver; every penny counts in a competitive market.)

### Friction, Brake Size and Stopping Power

A little background on friction and brake size. Friction is what stops a car. When the brake shoe on a drum brake (or pad on a disc brake) contacts the brake drum (or disc), the friction between the two transforms the kinetic energy (motion) of the car into heat which is dispersed into the environment.

Most people assume that the size (area) of the brake is what determines the total friction. That is incorrect! By definition, friction is determined by two and only two factors – the coefficient of friction which is determined by the materials (brake shoe and metal drum) and the force that's applied pressing them together. In mathematical terms, this is  $\text{Friction} = \text{Coefficient of Friction} \times \text{Applied Force}$ . Size (once outside of microscopic dimensions) is not a factor.

Where size becomes important is dispersing the heat that is generated. Here's a picture of a rather extreme example on a race car:



As you can see that brake disc is dissipating a LOT of heat! This is a case where bigger is better!

In addition, a larger brake surface provides more material to wear for longer life. Again, bigger is better – big brakes just wear more slowly.

Here's a good source with more explanation:  
<https://mechanicsdiary.com/brake-rotor-myths/>

My assumption is that they chose to optimize for something less than all-out road racing conditions. That is, they assumed that 99.9+ % of all braking was “regular, go to the grocery store” type driving so they wanted to optimize the brake shoe and tire wear for those conditions. Under these conditions, there’s little weight transfer. Hence they put larger brake shoes, with more wear area, on the rear where most of the weight was. Thus the front and rear brake shoes (and tires) would wear at more or less the same rates. Then they picked the wheel cylinder piston diameters with hard braking in mind. Presumably they made a calculation, and likely road tested prototype cars, to determine the weight transfer under panic braking and then picked wheel cylinder piston sizes to make use of that weight transfer. And they came pretty close. But it’s pretty tough to get it just right with a simple, static, design. A more nearly optimal system would change things dynamically. Given that we can’t install an adaptive system such as a computer controlled ABS system, what can we do to better optimize the brakes?

One approach is to be able to dynamically control the front to rear brake effectiveness. A way to do that is to install a brake proportioning valve in the hydraulic line to the rear brakes. These are deceptively simple devices. (The Wilwood brakes site ( <https://shop.wilwood.com/blogs/news/how-does-a-proportioning-valve-work> ) has a good explanation as to how they work.) Under “normal” braking, proportioning valves do nothing. That is, they let equal hydraulic pressure go to all four wheels. But under heavy braking, where the hydraulic pressure is high, they start limiting the pressure going to the rear brakes. A proportioning valve doesn’t stop the rear brakes from working, but it changes the proportion of braking, essentially making the front brakes relatively more effective.

Many sources will be more than happy to sell you an adjustable brake proportioning valve for under \$50 (plus shipping). Installation does require modifying the brake line between the master brake cylinder and the rear brake, either by cutting and making new double flares on the existing line or installing new brake line segments. And of course you’ll need to bleed the brakes. Once installed, the proportioning valve needs to be adjusted to give optimum performance. Again, the Wilwood brakes site above gives good instruction.

Do you need a proportioning valve? If you are road racing or autocrossing, I’d say definitely yes. That’s the only way you are going to wring the best out of your existing brakes. It might be only a small amount, but when you are worried about fractions of a second in a lap or an autocross run, it matters. On a car that never sees a track, it’s a bit more of a judgement call. How many of you with a modern car have ever actually actuated the ABS? Very rarely, if ever, I’m sure. But it’s really nice to have when you need it. Same with a proportioning valve that will help prevent losing control in a panic braking situation. That’s when it pays for itself.

## Vair Vendor

**Wanted: Late Model Coupe, 110/PG.** Rick Sanford, in Myrtle Beach, has a friend who wants a nice Corvair ready to drive and show. Not interested in a restoration project. Contact Rick Sanford, 843-231-225, [ricksanford2020@gmail.com](mailto:ricksanford2020@gmail.com)

### For Sale: Early and Late Parts:

’64 3.27 differential, \$40; ’64 3.27 4-speed transaxle, \$100; ’64 Sylder engine lid, \$120;  
’64 Convertible top frame, \$65; ’64 4-door NOS left quarter panel (GM # 6279405), \$200  
’64 2 each front cross members, complete with brakes, shocks, springs. Very good condition: one from a Sylder, \$175, other \$150; ’62 – ’64 Convertible rear quarter window glass, left and right, \$30  
’65 – ’69 underbody plastic heater duct, \$30; ’65 – ’69 Convertible corner weight, \$15  
? year – Engine cover with fan bearing, \$20; 3 standard transmission bell housings, \$30 each.

**Original GM Luggage Rack**, 4-post as used on ’65 – ’69 Corvairs and C2 Corvettes. Good condition, chrome is fair and adequate for a daily driver but for a show car, needs to be rechromed. It has black plastic bullets filling the ends of the tubes. Asking \$170.

Prices are negotiable. Contact Bob Lewis, 301-246-4278, [rtl1936@gmail.com](mailto:rtl1936@gmail.com).

(5/23)

**Wanted: Right Front (passenger side) FC wheel arch and rocker panel.** Prefer NOS but a very clean used one would be acceptable. Michael Coale, 443-994-2559 or [mikecoale@verizon.net](mailto:mikecoale@verizon.net)

(8/23)

**For Sale: Mike Coale is thinning his collection: 1965 Corsa coupe body**, no drive train, gold interior (with ’66 front seats), Corsa dash. Fair condition, but highly restorable. \$1,500 or best offer.

**1965 Corsa convertible body**, power top, Corsa dash, steering wheel, no seats, but has correct door panels. It does have a '64 engine/positrac differential, and empty 4-speed case in it to allow it to roll around. Fair condition, but highly restorable. \$1,500 or best offer.

**1965 Monza convertible**, complete, 110 hp, powerglide. Silver with red interior, older restoration, decent condition. Asking \$3,000.

**1965 Monza Four-Door**, 4-speed. White, fair condition, but highly restorable. \$1,500 or best offer.

**1967 Monza convertible**, 110, Powerglide. Relatively rare – only 2,109 convertibles were produced in 1967. Complete, including the “Protecta Plate.” Asking \$3,500. All have titles. Contact Mike Coale, [mikecoale@verizon.net](mailto:mikecoale@verizon.net) or 443-994-2559.

(5/23)

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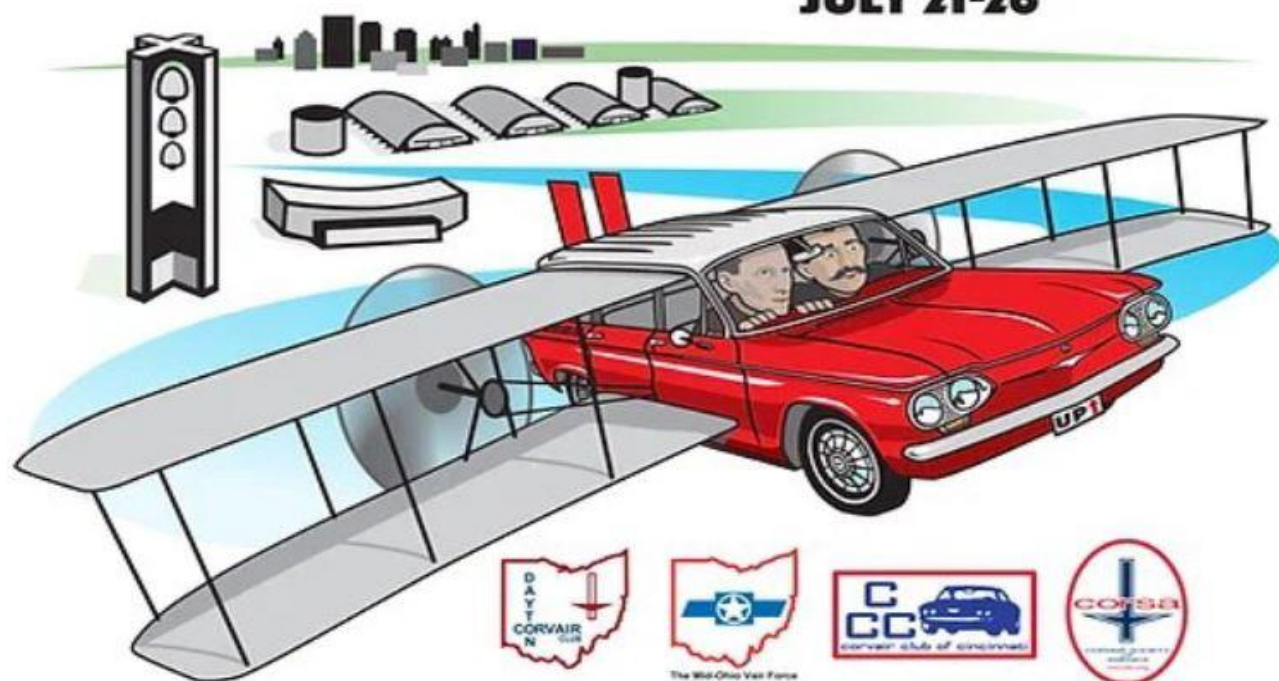
[www.corvair.com](http://www.corvair.com).

Check out their “What’s New” page for Clark’s newest offerings. There is some interesting stuff there including a modern replacement for the “guts” of the Spyder and Corsa tachometers.



# CORVAIRBORNE!

**2024 INTERNATIONAL  
CORVAIR CONVENTION  
JULY 21-26**



**MARRIOTT AT THE UNIVERSITY OF DAYTON  
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**MORE INFORMATION ON  
[WWW.DAYTONCORVAIRCLUB.COM](http://WWW.DAYTONCORVAIRCLUB.COM)**



**Outside Nonna Angela's Italian Restaurant. Mike and Liz Coale are Hiding in the Rear.**