A Report From

MIKE PIETSCH, P.E. CONSULTING SERVICES, INC.

To

THE CITY OF ROUND ROCK

Concerning a Possible Improvement In The City of Round Rock's ISO Public Protection Classification

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Submitted by:

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What is ISO?

To help establish appropriate fire insurance premiums for residential and commercial properties, insurance companies need reliable, up-to-date information about a municipality's fire protection services. ISO provides that information through the Public Protection Classification (PPC) program.

What is the PPC Program?

ISO collects information on a community's public fire protection and analyzes the data using their Fire Suppression Rating Schedule (FSRS). ISO then assigns a Public Protection Classification from 1 to 10. Class 1 represents the best public protection, and Class 10 indicates less than the minimum recognized protection.

By classifying a community's ability to extinguish or control a structural fire, ISO assists communities in evaluating their public fire protection infrastructure. The program provides an objective, countrywide standard that assists communities in planning and budgeting for facilities, equipment, and training. By securing lower fire insurance premiums for communities with better public protection, the PPC program provides incentives and rewards for communities that choose to improve their firefighting services.

ISO has extensive information on more than 47,000 fire-response jurisdictions.

Fire Suppression Rating Schedule (FSRS)

The Fire Suppression Rating Schedule is the manual ISO utilizes in reviewing the firefighting capabilities of individual communities. This schedule evaluates the three major items comprising a community's fire suppression infrastructure and develops a numerical grading called a Public Protection Classification (PPC). The items considered are Fire Alarm, Fire Department, and Water Supply.

Fire Alarms

Ten percent of the grading point total is based on how efficiently calls for emergency service are received and dispatched. ISO Field Representatives will evaluate the communications center. They consider the number of operators at the center, the telephone service, including the number of telephone lines coming into the center, and the listing of emergency numbers in the principal telephone directory. Field Representatives will also evaluate the number of dispatch circuits and how the center notifies firefighters of an emergency.

Fire Department

Fifty percent of the grading point total is based on the infrastructure of the fire department. ISO reviews the distribution fire companies throughout the graded area and verifies that the fire department tests its pumps regularly. The ISO Field Representative will inventory each engine; ladder and service company to verify the nozzles, hose loads, breathing apparatus, and other major equipment. ISO also reviews the fire-company records to determine:

- type and extent of training provided to fire-company personnel
- number of people who participate in training
- firefighter response to emergencies
- maintenance and testing of the fire department's equipment
- number of engine, ladder and service companies available for response to first alarm structural fires
- the location of these companies to minimize response times to fire emergencies

Water Supply

Forty percent of the grading point total is based on the community's water supply. This item focuses on whether the community has sufficient water supply for fire suppression beyond maximum daily consumption. ISO surveys all components of the water supply system, including pumps, storage, and filtration. Field Representatives will observe fire-flow tests at representative locations in the community to determine the rate of flow provided by the distribution system. Last, they count the distribution of fire hydrants no more than 1,000 feet from the location of all needed fire flows (targeted structures).

Texas Addendum

Unique to the State of Texas is a document titled the Texas Addendum (sometimes called the Texas Exception). This document analyzes the effectiveness of the Fire Marshal and Building Code Offices and assigns additional credit for compressed air foam systems on in-service engines. A second section of this document assigns credit to communities that allowed a certain percentage of their firefighters to attend Fireman's Training School and volunteer firefighters that have obtained at least the basic firefighter certification. Mathematically, this section could add an additional 11.39 points to a grading point total. Normally 4 to 7 additional grading points are achieved via the Texas Addendum.

The Effect of PPC Code on Fire Insurance Premiums

Most insurance companies use ISO's PPC codes in establishing premiums for both commercial and residential property policies. Here's how it works:

PPC and Commercial Fire Insurance Premiums

Insurers determine insurance premiums for commercial properties after analyzing size, construction type, occupancy, protection (such as fire extinguishers and automatic sprinklers), and exposure to adjacent structures. For individual properties, either Class rating or specific rating applies. In Class rating, the insurer develops rates for similar types – or Classes – of buildings, such as small churches, schools, or motels.

Specific rating includes an on-site survey and analysis of conditions at the particular property to determine the premium rate. Insurers use specific rating for buildings protected by automatic sprinklers, buildings with specific hazards or processes, or other properties that do not meet the criteria for Class rating.

Both Class rating and specific rating consider the Public Protection Classification at the property. Insurers develop their rating systems in order that the lower (better) the PPC at a given commercial property, the lower the insurance rate.

How ISO Surveys a Community

A community may request an ISO survey anytime they wish. At that time an ISO Field Representative will be assigned the survey. He will contact the community and set a time convenient to both the community and ISO. He will analyze the community's fire defenses as outlined under the "Explanation of the FSRS". An extensive amount of support data will be required to verify answers to specific questions that are utilized to analyze the three major items that comprise a community's grading point total. When all the questions are answered and the support data is properly formatted the Field Representative will return to his office and complete the grading. When he completes the grading he submits it for review. After the review is complete the grading is then submitted to the State Fire Marshal's Office for their approval. When the State Fire Marshal's Office approves the grading the community is notified via a letter to the City Manager or Mayor of their new rating. This entire process normally takes around one year.

Executive Summary

Based on information obtained during my recent survey of the City of Round Rock the fire department will be required by the ISO Fire Suppression Rating Schedule to have ten (10) engine companies, three (3) ladder companies and one (1) service company in-service to respond to structural alarms of fire operating out of ten (10) fire stations. A company implies both apparatus and staffing. Two reserve engines and a reserve ladder truck will also be required.

However, with several key fire station relocations the number of required fire stations and corresponding engine companies will be reduced from ten (10) to eight (8). Reducing the number of required fire stations from ten (10) to eight (8) would save the one time expense of two (2) fire stations and two (2) engines. More significant would be the savings associated with the perpetual cost of manning these two (2) engines coupled with the maintenance costs associated with the additional stations and apparatus. Relocating these stations would lay an excellent foundation for all required future fire stations.

At present the City of Round Rock has the ISO equivalent of six (6) engine companies, one (1) ladder company and one (1) service company operating out of six (6) fire stations. I realize Round Rock has a seventh fire station (on Oakmont south of Chandler). However, this station does not house a structural engine company, only a service company (rescue vehicle). Without a structural engine company assigned to this station the majority of the grading credits based on the ISO rating document will not be available. Therefore, for this report, the existing seventh station will not be considered as in-service. A caveat to not housing a structural engine company at this station is that approximately 35% of the homes in the far northwest city limits will be rated at an ISO Class 10 (no recognized fire protection) due to the fact that this area is over 5-road miles from a first responding structural engine company.

Adequate reserve engines are provided. An apparatus that will receive very little credit as a reserve ladder truck is also provided. Due to the fact that ISO's Fire Suppression Rating Schedule places little emphasis on reserve apparatus, I would not even consider providing a reserve ladder truck unless a new ladder truck was on order and an older ladder truck was available at no or very little expense.

At present the City of Round Rock has an ISO Public Protection Classification (PPC) of 4. My study indicates that the City of Round Rock would achieve an ISO **Class 3,** with the existing fire defense infrastructure (please see the accompanying information at the conclusion of this report), if the support data required by ISO was properly formatted and presented to the Field Representative.

Improving the ISO Public Protection Classification (PPC) from a 4 to a 3 would save the commercial property owners within 5-road miles of a City of Round Rock fire station and 1000-feet of a fire hydrant a possible **9 per cent** (effect of lowering the PPC from a 4 to a 3). The residential property owners within 5 road-miles of a City of Round Rock fire station and 1000 feet of a fire hydrant would save a possible ***3 per cent*** (effect of lowering the PPC from a 4 to a 3).

If a sufficient number of the suggested improvements were implemented so that an ISO PPC of 2 were attained the commercial property owners within 5 road-miles of a

City of Round Rock fire station and 1000 feet of a fire hydrant would save a possible ***11 per cent*** (effect of lowering the PPC from a 4 to a 2). The residential property owners within 5 road-miles of a City of Round Rock fire station and 1000 feet of a fire hydrant would save a possible ***10 per cent*** (effect of lowering the PPC from a 4 to a 2).

If a sufficient number of the suggested improvements were implemented so that an ISO PPC of 1 were attained the commercial property owners within 5 road-miles of a City of Round Rock fire station and 1000 feet of a fire hydrant would save a possible ***13 per cent*** (effect of lowering the PPC from a 4 to a 1) and the residential property owners within 5 road-miles of a City of Round Rock fire station and 1000 feet of a fire hydrant would save a possible ***11 per cent*** (effect of lowering the PPC from a 4 to a 1).

An ISO PPC of 3 is critical to the commercial property owners and an ISO PPC of 2 is critical to the homeowners.

Since the City of Round Rock is presently a Class 4 this would result in a two-class (4 to a 2) improvement if an ISO PPC of 2 was attained. Normally, all improvements two classifications or more are edited at ISO's home office in New York (much more severe edit) not Austin. I know this as a fact; I edited these ratings for over eleven years.

It has been my experience that an improvement of two classifications or better needs to move well into the new class in order to remain in that class after the review is complete. I would not feel comfortable submitting a grading less than 83.00 to New York if a Public Protection Classification of 2 was the mission of the City of Round Rock.

If the mission of the City of Round Rock were a Public Protection Classification of 1 the grading point total would need to exceed 93.00.

Analysis of the Grading

In this report I will analyze a grading scenario that should result if an ISO Public Protection Survey was requested. For this scenario a point total to two decimal places will result. This point total should occur if an ISO Public Protection Survey was requested.

In 1990 the point total developed by ISO for the City of Round Rock was 61.97 (ISO PPC 4). My study indicates that the point would be **70.53** (ISO PPC 3) if an ISO survey commenced with the City of Round Rock's fire defense infrastructure, as it existed on December 2, 2005. Please see the accompanying grading summary at the conclusion of this report for the development of this point total.

At the conclusion of this scenario will be a list of suggested improvements, which, if implemented, would allow the City of Round Rock to improve its ISO rating to a Public Protection Classification of 2 or 1. All of the suggestions are prioritized by their importance and tempered by their cost. These suggested improvements relate only to fire insurance classification for the City of Round Rock. They are not for property loss prevention or life safety purposes and no life safety or property loss prevention suggestions are made.

Grading Scenario

The Basic Fire Flow will be 3500-gpm. Ten (10) engine companies, three (3) ladder companies, and one (1) service company will be required in-service operating out of ten (10) fire stations. By relocating several key fire stations the number of required fire stations along with the ten (10) corresponding engine companies (apparatus and staffing) can be reduced to eight (8) as pointed out in the executive summary. Based on the Round Rock Fire Department having the ISO equivalent of six (6) engine companies, one (1) ladder company and one (1) service operating out of six (6) fire stations the point total for this scenario is **70.53 (ISO Class 3)**. Please see the grading summary at the conclusion of this report for a more detailed explanation. The grading point total of 70.53 will be the benchmark for improving this classification to **83.00 (Class 2) or 93.00 (Class 1).** The suggestions are as follows:

General

1. An excellent map exists that demonstrates the streets and existing fire hydrants within the city limits of the City of Round Rock. Making sure each hydrant (public and private) available to the Round Rock Fire Department is plotted on this map is critical to improving the ISO Public Protection Classification of your community. This suggestion is an **absolute.** No point total will be demonstrated.

2. A second map must be developed that demonstrates the built-upon and non built-upon area with the desired graded boundary served by the Round Rock Fire Department. This map must also demonstrate the areas within the city limits of Round Rock that cannot be built upon (flood plain, golf course, lake, etc.). Due to recent changes within ISO's technical documents this map may not be required. I suggest we have the ability the produce this map if needed. This suggestion is an **absolute.** No point total will be demonstrated.

Fire Department

For a community to provide a reasonable level of protection under the analysis system used, a fire department should have suitably located apparatus of proper types. In general, the maximum response distances for the first due engine company should not exceed 1.5-miles and for the first due ladder/service truck company should not exceed 2.5-miles. Critical to the rapid suppression of a fire is the need for sufficient firefighters arriving with the first responding apparatus. A comprehensive training program is essential for these firefighters to insure effective fire ground operations.

At the present time, the apparatus needs of your community under the ISO rating document could be reasonably satisfied by maintaining 10 engine companies, 3 ladder companies and 1 service company in-service with 2 engines and 1 ladder truck in reserve.

Consideration should be given to implementing the following suggestions:

1. Provide a suitable training facility consisting of a four-story drill tower, a fire building, a flammable liquids pit (substituting classroom training along with videos is acceptable when the EPA does not allow the burning of flammable liquids) and adequate classroom space. This training facility should be at one location on at least a two-acre site. For proper training and testing of apparatus at least two fire hydrants and a drafting pit should also be provided.

   To obtain ISO credit this facility must be utilized. As a minimum, eight drills of three-hour duration should be accomplished for each firefighter on an annual basis. These drills must be at the training facility. Four of these drills must be multi-company; the remaining four drills can be single-company or multi-company. Two of either type must be at night. Records must be maintained documenting the drills for full credit. If a training facility was provided and utilized to extend described within this suggestion the grading point total would be improved by **4.19 points.**

2. Making sure that each engine in-service is provided with a minimum of 1000-feet of 5-inch hose. This suggestion is an **absolute.** It must be accomplished if Round Rock is to improve its ISO PPC with the least possible expenditures.

3. For better first due response distances, consideration should be given to the erection of four (4) additional fire stations <u>if fire station relocations are not a viable option.</u>

   a. A seventh fire station should be erected in the vicinity of Eagles Nest and Terra. This station should house an engine company (apparatus and staffing) and a service company (apparatus and staffing). At present housing this new engine company at the existing station on Oakmont will satisfy this deficiency. However as the area within 1.5-road miles of the Eagles Nest and Tierra location develops this additional station may be required.

b. An eighth fire station should be erected in the vicinity of Sam Bass and Woods housing an engine company (apparatus and staffing).

c. A ninth fire station should be erected in the vicinity of Gattis School Rd and East Rock (just west of Grimes Blvd). This station should house an engine company (apparatus and staffing).

d. A tenth fire station should be erected in the vicinity of Hilton Head and Bobby Jones. This station should house an engine company (apparatus and staffing).

If these fire stations were erected, as well as the suggested apparatus housed at the four (4) stations and the additional firefighters provided; **9.79 points** would be added to the grading point total.

4. Provide four (4) additional engine companies (apparatus and staffing) to be housed at the proposed four (4) stations demonstrated under #3 above. The point total for providing these engine companies is part of the point total demonstrated in #3 above. Therefore no additional point total improvement will be demonstrated.

5. Provide the fire department with two additional fully equipped elevating platform or aerial ladder truck companies (company implies apparatus and staffing). The aerial device should a minimum of 85-feet in height. One of the aerial ladder truck companies (apparatus and staffing) should be housed at existing fire station #3. The second aerial ladder truck company (apparatus and staffing) should be housed at existing fire station #4. If both aerial ladder truck companies were placed into service **6.19 points** would be added to grading point total. If either were placed into service approximately **3.00 points** would be added to grading point total.

6. The deployment of apparatus and staffing should be as follows <u>if fire station relocations are not an option:</u>

a. Existing fire station #1 (central fire station on Lamar St.) – engine company (apparatus and staffing) and ladder truck company (apparatus and staffing).

b. Existing fire station #2 (Blair and Bellview) – engine company (apparatus and staffing).

c. Existing Fire station #3 (Old West and Rawhide) – engine company (apparatus and staffing) and the proposed second ladder truck company (apparatus and staffing)

d. Existing fire station #4 (Gattis School and Rolling Ridge) – engine company (apparatus and staffing) and the proposed third ladder truck company (apparatus and staffing).

e. Existing fire station #5 (Deep Woods and Dragon) – engine company (apparatus and staffing).

f. Existing fire station #6 (On Joe Dimaggio north of Hwy. 79) – engine company (apparatus and staffing)

g. Proposed fire station #7 (Eagles Nest and Terra) – engine company (apparatus and staffing) and the service company (rescue vehicle) (apparatus and staffing) currently housed at this station.

h. Proposed fire station #8 – (Sam Bass and Woods) – engine company (apparatus and staffing)

i. Proposed fire station #9 (Gattis School Rd and East Rock (just west of Grimes Blvd) – engine company (apparatus and staffing).

j. Proposed fire station #10 (Hilton Head and Bobby Jones) – housing an engine company (apparatus and staffing).

7. <u>If relocating fire stations is a viable option</u> then to improve first due response distances the following relocated fire stations are suggested: Please note that if the following relocations are implemented the need for two of the four proposed additional fire stations is removed. Fire station #1 (Central), fire station #2, fire station #3, and fire station #6 remain at their current locations.

   a. Relocate existing fire station #4 to the vicinity of Forest Creek and Red Bud. This station should continue to house an engine company (apparatus and staffing)

   b. Relocate existing fire station #5 to the vicinity of Woods and Sam Bass. This station should continue to house an engine company (apparatus and staffing).

   c. Erect a new fire station (#7) in the vicinity of Terra and Eagles Nest. This station should house an engine company (apparatus and staffing) and the service company (apparatus and staffing) currently housed at the station on Oakmont south of Chandler.

   d. Erect a new fire station (#8) in the vicinity of Joyce and Gattis School Rd. This station should house an engine company (apparatus and staffing) and the suggested third aerial ladder truck company (apparatus and staffing).

   If these two (2) fire stations were relocated and the two (2) suggested new stations erected, as well as the suggested apparatus housed at the four (4) stations and the additional firefighters provided; **9.28 points** would be added to the grading point total.

8. The deployment of apparatus and staffing should be as follows if fire station relocations are an option:

   a. Existing fire station #1 (central fire station on Lamar St.) – engine company (apparatus and staffing) and a ladder truck company (apparatus and staffing).

   b. Existing fire station #2 (Blair and Bellview) – engine company (apparatus and staffing).

   c. Existing fire station #3 (Old West and Rawhide) – engine company (apparatus and staffing) and the proposed second ladder truck company (apparatus and staffing).

   d. Relocated fire station #4 (Forest Creek and Red Bud) – engine company (apparatus and staffing).

   e. Relocated fire station #5 (Woods and Sam Bass) – engine company (apparatus and staffing).

   f. Existing fire station #6 (On Joe Dimaggio north of Hwy. 79) – engine company (apparatus and staffing).

   g. New fire station #7 (Eagles Nest and Terra) – engine company (apparatus and staffing) and service company (apparatus and staffing)

   h. New fire station #8 (Joyce and Gattis School Rd.) – engine company (apparatus and staffing) and the proposed third ladder truck company (apparatus and staffing).

9. Properly preplan all the commercial structures within the boundaries of the City of Round Rock and update them semiannually. This would **add 1.73 points** the grading point total. At present none of the commercial structures have been preplanned within the last 5 years.

10. The City of Round Rock is to be commended for allowing a certain portion of their firefighters to attend the spring or summer session of Fireman's Training School. Each additional firefighter allowed to attend either session of Fireman's Training School would **add 0.09 points.** This credit is available within the body of The Texas Addendum not the Fire Suppression Rating Schedule.

11. Having engine #5 pump tested annually. This is an abbreviated standard service test not a 4-hour certification test. At present records documenting this testing is not available. This will **add 0.21 points** to the grading point total.

12. Providing a load test and ultrasonic test for the aerial ladder truck currently housed at central fire station on an annual basis. Actually the load test is required annually and the ultrasonic test once every 5-years. However, most testing organizations perform both tests annually and there is no or very little

cost difference when also performing the ultrasonic test along with the load test. This would **add 0.96 points** to the grading point total.

13. As future annexations and subsequent development occur in the far northwest section of Round Rock an additional station will be required in the vicinity of Sendero Springs and F.M. 1431. This station should house an engine company and a service company. Since this station is not presently required no point total improvement will be demonstrated.

14. The single most deficient item within the entire rating process for the City of Round Rock is the lack of firefighters responding to structural alarms of fire. The ISO Rating Document requires that 6 firefighters per company be on duty with each of the existing engines and ladder trucks. This level of staffing is needed at the fire site for optimum utilization of the apparatus, and when the staffing level drops below 4 firefighters per company, the ability to utilize the apparatus effectively is seriously impaired.

    I would deem this report incomplete unless I point out that no fire department in Texas maintains 6 firefighters per company on-duty with each of the first due apparatus. However, many communities strive to maintain a minimum of 4 firefighters on duty with each of the existing companies. An increase in the paid personnel on duty by one firefighter will increase the grading point total by **0.71 points**. Please note that there exists a possible 15 points available for staffing. The City of Round Rock received 7.50 of these 15 available points.

15. Provide the department with the following additional equipment for each existing engine: a 2.5 or 5-inch hose clamp and a distributing, piercing, or cellar nozzle. Providing this additional equipment will **add 0.26 points** to the grading point total.

    Prior to purchasing this additional equipment please discuss with me, as part of this contract, equipment substitution and/or reassignment from other apparatus.

Receiving and Handling Alarms of Fire

In order to assure a timely response to fire emergencies a communications center must have adequate telephone facilities (emergency and business circuits) for the general public to report emergencies, sufficient operators on duty and the facilities to dispatch fire department companies without interruption.

Consideration should be given to implementing the following suggestions.

1. Properly list the emergency and business number for fire emergencies in the white pages of the primary telephone directory under the title "City of Round Rock Fire Department". At present a listing is not available for the emergency number. If this listing were provided **0.10 points** would be added to the grading point total.

2. Provide monitoring for integrity of the dispatch circuit in accordance with NFPA 1221. This will **add 1.5 points**.

Water Supply

For a water supply works to be considered adequate under the analysis system used, it should be able to deliver the basic fire flow (maximum of 3500-gm) for a 3-hour period and during that period provide consumption demands at the maximum daily rate.

The arterial mains and secondary feeder mains should be of sufficient capacity to deliver the needed fire flows throughout the community. The arterial mains should extend to all areas of the community; they should be looped for mutual support and spaced at approximately 3000-foot intervals or less. The minimum size distribution main should be 6-inches (8-inches is preferred) in diameter and this size used only in widely spaced residential areas when the gridiron is such that there is not over 600-feet between connections to other mains. A 6-inch dead-end main is not considered satisfactory for supplying fire hydrants. A minimum size of 8-inch pipe (10-inch is preferred) should be used in commercial and high-density residential areas and this size pipe should be limited to areas with an excellent gridiron. This will help insure meeting the corresponding fire demand throughout the community.

Before the water supply available can be fully utilized by the fire department, there must be sufficient fire hydrants in the vicinity of the subject buildings. The number of hydrants required varies with the fire flow demand but when the spacing is not over 300-feet in commercial, industrial and institutional areas and not over 600-feet in one and two family dwelling areas, sufficient hydrants normally will be available. Hydrants should conform to the American Water Works Association Standards. The connection from the distribution main to the hydrant should be not less than 6-inches in diameter. All hydrants should be inspected twice per year with a pressure test (a pressure test is not a flow test); complete records should be kept of all inspections.

Consideration should be given to implementing the following suggestions:

1. Improving arterial looping, distribution system gridirons, and hydrant distribution will help improve the water supply item of the grading (35 of the possible 106.50 grading points are assigned to this item). This is the most heavily weighted item within the development of the grading point total. My study indicates that the water supply item would grade 30.86 out of this possible 35 points. This leaves a possible **4.14 points** available within this grading item. The results based on a flow-testing program throughout the city limits of Round Rock will determine how many of these 4.14 points are obtained. A quantitative method does not exist to analyze prospective improvements in this aspect of the grading until such improvements are implemented; therefore, no additional point total will be shown.

2. Fire hydrants should be inspected semi-annually with proper records maintained throughout the city limits of Round Rock. Each hydrant should be pressure tested semi-annually (a pressure test is **not** a flow test) as part of the hydrant inspection process. This would **add 1.03 points** the grading point total. At present the hydrants are inspected annually with pressure tests. Records are in an excellent format to receive ISO credit.

Fire Safety Control

The consistent, systematic application of fire safety control regulations combined with a good public education program in fire prevention can be an important factor in reducing the overall incidence of fire and the consequent fire losses. Successful execution of such programs necessitates that a sufficient number of properly trained personnel be provided. A nationally recognized body of model fire prevention, building and safety codes represent the combined knowledge of many experts in this field and, when adopted with little or no modifications, afford a community the opportunity for reasonable control of hazardous materials and building construction.

Consideration should be given to implementing the following suggestions:

1. Provide two additional full-time inspector/investigators to the Fire Marshals Office. This would **add 1.22 points** to the grading point total via the Texas Addendum. This item may be prorated.

   Each additional inspector/investigator will **add 0.61points** to the grading point total.

2. The City of Round Rock is to be commended for adopting the most recent edition of the International Fire and Building Codes.

Summary of Suggested Improvements

When enough of the suggested improvements are implemented so that the point total exceeds the number 83.00, I would feel comfortable requesting a future survey if the mission of the City of Round Rock is to obtain an ISO Public Protection Classification of 2.

The point total to exceed is 93.00 if the mission of the City of Round Rock is an ISO PPC of 1.

Plan of Action

1. Implement the suggested improvements that are economically feasible within the budget constraints of the City of Round Rock. If these implemented suggestions allow the grading point total developed for the City of Round Rock to exceed the number 83.00 a request for re-survey should be sent to ISO's Regional Office in Austin if the mission of the City of Round Rock is an ISO PPC of 2.

2. Request a survey from ISO. Once a Field Representative is assigned to the City of Round Rock the City of Round Rock should initiate a request for a pre-survey packet. This packet is extremely time consuming and tedious to complete. I know as I designed this packet in 1997 for all the Field Representatives throughout the United States. My assistance would save City Officials a considerable amount of time in filling out this packet. Also the ISO Field Representative will have the extensive amount of required support data properly formatted to maximize Round Rock's ISO rating.

3. Set a mutually convenient time for the City of Round Rock and the ISO Field Representative to complete the ISO rating survey for the City of Round Rock. The information transfer would proceed if I assist the City of Round Rock throughout the survey process. This will save your City Officials a great deal of time and allow them to continue their normal daily activities. In addition the ISO Field Representative will receive the exact information he requires.

Conclusion

Accomplish as many improvements as possible that will have a significant impact on the emergency response and the ISO Rating for the City of Round Rock. When these improvements are implemented, request an ISO survey.

I appreciate the opportunity afforded me by the City of Round Rock and look forward to working with your community in the future.

Sincerely,

W. Michael Pietsch

W. Michael Pietsch, P.E.
Civil Engineer

WMP/sp

Grading Summary Sheet

The City of Round Rock

Classification 3 – 70.53

I. Receiving & Handling Fire Alarms

a.	Item 414	-	1.90	2
b.	Item 422	-	3.00	3
c.	Item 432	-	3.50	5
			Total 8.40	*Maximum = 10*

II. Fire Department

a.	Item 513	-	5.78	10
b.	Item 523	-	0.63	1
c.	Item 532	-	5.00	5
d.	Item 549	-	1.69	5
e.	Item 553	-	0.21	1
f.	Item 561	-	2.19	4
g.	Item 571	-	7.50	15
h.	Item 581	-	4.32 + 0.85 (CTT)	9
			Total 28.17	*Maximum = 50*

III. Water Supply

a.	Item 616	-	30.86	35
b.	Item 621	-	2.00	2
c.	Item 631	-	1.97	3
			Total 34.83	*Maximum = 40*

IV. Divergence* *-6.15*

V. Addendum *Total 5.28* *Maximum = 6.50*

TOTAL: 70.53

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VI.	*Total:*		*Maximum Credit:*
	Fire Alarm	8.40	10.00
	Fire Department	28.17	50.00
	Water Supply	34.83	40.00
	Divergence*	-6.15	
	Addendum Credit	5.28	6.50
		70.53	**106.50**

Class 3

Credit	*Relative Classification*
90.00 - 100.00	1
80.00 - 89.99	2
70.00 - 79.99	***3***
60.00 - 69.99	4
50.00 - 59.99	5
40.00 - 49.99	6
30.00 - 39.99	7
20.00 - 29.99	8
10.00 - 19.99	9
00.00 - 9.99	10

*Divergence is a reduction in credit to reflect a difference in the relative credits for Fire Department and Water Supply.