April 15, 2016

# THE "BAD AND UGLY" ART OF PURCHASING A CONTAMINATED PROPERTY - PART II

By

Jasbinder Singh

## PART II OF THE 2-PART SERIES –DISCOVERY OF THE CONTAMINATION AND ITS AFTERMATH

Part I of the 2-Part Series, using the purchase of the Ashwell property as an example, illustrated a pattern of behavior (on the part of town officials and the majority of the council) that disrespects our town charter and harms our welfare. or erodes checks and balances inherent in the Town charter and makes it difficult to hold public officials accountable. Part II continues the examination of such a pattern of behavior. It starts with the discovery of the contamination in June, 2015 and discusses how the Town Manager, Mayor and the outside counsel gained the Council's acceptance of the final contract without providing **any** written information about the contamination and thereby preventing any meaning discussion of the facts. It is a fascinating story about how to make a Town Council a bystander and keep town residents in the dark. Had it not been for environmental regulations requiring disclosure, the public would have never known the details of this case**.**

## 1. KEEP THE COUNCIL IN THE DARK ABOUT THE DISCOVERY OF THE CONTAMINATION AS LONG AS POSSIBLE

By the end of May 2015, the Town and Mr. Ashwell had signed the Contract containing the "As is, Where is" provision. The purchase was complete except for the fact that the Town could back out of the contract at the end of the 90-day due diligence period, if "unacceptable" levels of contamination were found. The investigators did find troublesome contamination.

The 90-day site inspection period, which had been reduced essentially to 60 days during the ensuing negotiations, was too short to conduct both Phase I and Phase II of the environmental investigations. The Town moved quickly. [1] Immediately after signing the contract, it hired an engineering consultant through its outside counsel. In order to save time, the consultant decided to do both Phase I & II studies simultaneously. Within a week or two, the yet incomplete Phase I study had established that:

- Four Underground Storage Tanks had been removed from the site in 1990
- Substantial residual contamination had been left behind in spite of taking several corrective actions between 1990 and 1992,[2] and
- No samples had ever been taken to gauge the contamination of soils underneath the floor of the repair shop, but it was known that an underground hydraulic lift had never been removed and its fluid had probably leaked into the soils.

**The Consultant recommended that any future construction or excavation at the site should consider the presence of residual contamination from the early 1990s**

and sought permission to begin the Phase II study immediately. If the Town Manager and the Mayor did not know about the residual contamination from the 1990s earlier, they knew it now – by the third week of June. They could have alerted the council of its existence immediately, but they waited for further tests.

**On June 26, 2015**, the consultants took 5 soil samples from the site and found that the sample taken from location B1 (click initial soil samples to see the location) contained total petroleum hydrocarbons (TPH), Diesel-Range Organics (DRO) at a concentration of 262 mg/kg and exceeded the VDEQ Reporting Limit of 100 mg/kg. Now, what was the Town going to do? Take more samples or not? Even though the results were available on June 30th, **the Town took its time in deciding whether to take additional samples** to determine the extent of the contamination particularly around location B1. Perhaps, it was hoping that the problem would go away.

**On August 3rd**, more than a month after the discovery of the contamination, the consultants took additional soil samples in the area surrounding location B1. (Click additional samples to view the locations) The analysis found that:

- **Diesel contaminants were present in six (6) of the ten (10) samples** analyzed at concentrations ranging from 19.4 mg/kg to 1,920 mg/kg. The concentration in four of the six samples (EB-2, EB-4, EB-7 and EB-9) exceeded the VDEQ reporting limit of 100 mg/kg. Concentration levels at EB-9 exceeded 500 mg/kg, the threshold above which more stringent disposal regulations apply.

- **Gasoline contaminants were present in seven (7) of the ten (10) samples** at concentrations ranging from 0.36 mg/kg in EB-9 to 603 mg/kg in EB-2. Two (2) of the seven (7) samples exceeded the VDEQ reporting limit of 100 mg/kg.

**On August 19th,** the consultants submitted the second draft of their report. They had estimated that (1) approximately 4,150 cy or 7,054 tons of petroleum impacted soil would have to be removed from the site, and that (2) it would cost $339,000 to dispose of this soil. **However, this cost estimate was abnormally low**, because the consultants had not taken into consideration several normal cost elements, such as; the cost of excavation, testing the soil and the ground water, treating and hauling away the contaminated groundwater, backfilling the excavations with clean soil, supervision of the operations by engineers, and obtaining necessary permits and certifications. (click here for a comparison of three different cost estimates)

It was also low, because the consultants did not have much basis (due to a very small sample) to draw the two plumes and estimate the concentrations of contaminants in horizontal and vertical planes. The JPI study, in comparison, had "conservatively" estimated that 5,500 cy of contaminated soil would have to excavated and disposed of. The JPI study's costs, if inflated to today's dollars, would amount to about $736,000. However, they would be much larger if we accept the figures from the estimates made by ECC engineers in 1992 for the VWCB (based on ***competitive*** bids). Even if we do not inflate those numbers without taking into inflation, it is estimated that the tasks listed under the JPI proposal would amount to $944,364. In comparison, if we use the same method, the estimates made by the Towns' consultants should be close to $700,000 without accounting for inflation.

NO MATTER HOW WE LOOK AT THESE FIGURES, THE TOWN'S ESTIMATE OF $335,474 WAS ABNORMALLY LOW.

The Town Manager and the Mayor called for an "Emergency" close door meeting on August 20th to discuss the "newly" discovered information.

## 2. DO NOT PROVIDE CONTAMINATION REPORTS OR OTHER IMPORTANT INFORMATION BEFORE AND DURING "CLOSE-DOOR" MEETINGS

**On August 26th**, the Council met in an emergency session. The Mayor and two councilmembers joined in via phone from remote locations. The Mayor explained that the express purpose of the meeting was to inform the Council that the Town had found environmental contamination at the Property and had called the meeting to:

- Seek Council's advice on "how to negotiate" with Ashwell in the light of the fact that he had not provided the 2007 environmental assessment (prepared for JPI, a development company) to the town on a timely basis as required by the contract and that soil contamination had been discovered.[3]

- Inform the council that it had to decide **that day** whether to back out of the contract or to exercise the option to have an additional 30 days to make the final decision to purchase the Property.

*In hindsight, none of these claims for holding the meeting makes sense. Consider the following:*

**a. Seek Council Advice:** As discussed in Part I of this 2-Part Series, the "As is, Where is" provision stated that:

*"The Town shall buy the Property from Seller in its **"as is, where is"** condition as to the improvements on the Real Property **with all fault** and **without any warranty**, express or implied as to the condition of the Property …"*

By adding the "As is, Where is" provision, Ashwell had protected himself against potential liabilities. What useful advice could she possibly get from the council, if Ashwell had no incentive to renegotiate the contract?

The tenor of the council discussion on August 26th had suggested that none of the councilmembers was aware of the "As is, Where is" provision.[4] The Mayor did not volunteer its existence, because that would have established that her claim to seek the council's advice was disingenuous. The Town Manager also did not say anything about this provision either.

**b. The need to discuss the contamination with the Council**: The Mayor and the Town Manager also made it difficult to have any meaningful conversation by not providing any written information about the contamination to the councilmembers before

or during the meeting. The councilmembers had no inkling of the what was at stake before going into the meeting.[5] During the meeting, the Town Manager repeatedly downplayed the magnitude of the contamination by asserting that the site contained nothing but “dirty soil". At one stage, Councilmember Singh had to interject by saying “Mr. Town Manager, there was no such thing as “dirty” soil under environmental regulations. It either contains hazardous contaminants or it does not.”

The Mayor had sounded as if the Town had found contamination only a few days earlier in August. The facts, however, tell a different story. She could have informed the council:

- In the second week of June when the consultants had discovered that the site contained considerable residual contamination from the 1990s.
- Shortly after June 26th when a sample in the area of concern showed that the soil contamination exceeded reporting thresholds.
- Shortly after August 3rd when about 60% of the samples were found to contain chemicals at concentrations above the reportable thresholds.

Accordingly, the council did not have to make a decision at this late hour; it could have done so much earlier, if given an opportunity. Of course, the mayor could have shared information about the past investigations several months earlier in March and April before she accepted the "As is, Where is" provision, but she did not. She chose not to seek council's advice and consent when it was really important to do so. Consequently, the mayor's claim to seek council's advice at this stage did not hold water. The mayor and the Town Manager were keeping the real reason(s) for the meeting up their sleeves.

The Town Manager did not provide any information to support his claim that the site contained nothing but "dirty soil" either. The recent Phase I and Phase II reports show that he was fully aware of the results of the studies and of the recommendation that any future construction or excavation at the site should consider the presence of residual contamination from the early 1990s. Informed sources in the Herndon community have told us that the Town Manager was active in resolving various contamination issues in and around the Property in the late 1980s and 1990s. Therefore, it is reasonable to assume that he was aware that the Property was not completely remediated in the 1990s and that even when it was monitored for a long time, it was not monitored for soil contamination. None of this information was provided to the council before it became publicly available on November 2nd.

Looking back, with the aid of the information available now, we can reasonably conclude that the mayor and the Town Manager were keeping the real reason(s) for the meeting up their sleeves.

**c. Delay in Receiving JPI Report:** At the start of the meeting, the Town Manager had claimed that Ashwell had still not provided JPI’s 2007 Phase II report that had been due within 5 days of signing the contract and that this was another reason for requesting the council to make its decision at the last hour. He indicated that he would be receiving the report in the forthcoming days. Notwithstanding this claim, even if Ashwell had provided

the 2007 report to the Town within the first week of June, it would have mattered very little for the following reasons:

- *Town had or should have had full knowledge of the prior contamination:* The Town was the major partner in the clean-up of the Ashwell property in 1993. In any discussions, Ashwell could have argued that both parties had the same knowledge regarding the residual contamination and the JPI study would have added little, if any, material information.[6]

- *Initial Phase I & Phase II results had come in 2-3 weeks **after** the JPI report was supposed to be delivered.* Such a short advance notice would not have mattered much, if at all.

Thus, their claim that that the delivery of the JPI report caused the delay in communicating the contamination information to the council was disingenuous at best. On the contrary, there are more than enough reasons to conclude that the Mayor and the Town Manager waited until August 26th to put pressure on the Council to accept their contention that the site contained a little "dirty soil" and accept the already approved contract (to purchase the Property) without any further modifications.[7]

In the absence of any information about the contamination and about the "As is, Where is" provision, some councilmembers vigorously contended that the Town should go back to Ashwell and renegotiate the price, that is, after exercising the option to have another 30 days to make the final decision to purchase the property.[8] Now, the Mayor and the Town Manager were forced to schedule another meeting to convince the council to accept the contract. They were also forced to go back to Ashwell to negotiate in some manner, even though they had agreed to provide him immunity from further liabilities back in April.

The day after the "Emergency" meeting, Councilmember Singh asked the Town Manager for a copy of the new contamination reports and JPI's 2007 report. He was given the Phase II report dated August 19th (but not the Phase I report) and the JPI report. Both reports were labeled, "Confidential, Not to be Copied or Disclosed". Singh could read the reports, but could not discuss them with anyone. Both reports provided useful information about the contamination, but they did not contain all of the information needed to put this story together. For instance, Singh did not learn about the timing of the initial discovery of the contamination in June and July until after the Phase I report was made public on November 2nd. However, they enabled him to ask a few questions during the next close-door meeting.

**3. THE FINAL MEETING - FORCE THE COUNCIL TO ACCEPT THE CONTRACT WITHOUT PROVIDING FULL INFORMATION.**

The next close-door meeting took place about a month later – to decide whether the Town should accept the contract. The money had to be transferred to Ashwell by September 30th. Once again, the Council was facing a deadline and the decision had to be made that night. Apparently, there were two issues on the table: (1) whether the contamination of the property or the cost of remediation was serious enough to reject the

contract and (2) whether Ashwell had given sufficient ground during the negotiations. However, nobody mentioned them. When the meeting started nobody really knew how the discussions would proceed.

Rather than providing a formal visual presentation (of the Power Point variety), the council was subjected to a winding and convoluted verbal presentation by two engineering consultants who had prepared the Phase I and Phase II reports. Surprisingly, they did not even present the findings of their own reports. Therefore, a discussion of the seriousness of the contamination was out of the question. Clearly, the presentation had been choreographed. As Mr. Grayson Hanes, the outside counsel, watched, the consultants made the following misleading assertions:

- *Contaminated soils, such as those found in the Ashwell case have been left in place in many projects and implied that they could be left in place*. What they did not say is that the concentration of contaminants was high enough that if the soil was ever disturbed, the cost of disposal would exceed several hundreds of thousands of dollars. Interestingly, what they did not address is (i) how the two existing buildings (including their foundations) and the old abandoned hydraulic lift could be dug out without disturbing the soil?, and (ii) how any future builder would build a structure on the contaminated property without disturbing the land.

## THE CONSULTANTS' ASSUMPTIONS AND CONTENTIONS WERE INVALID.

The invalidity has been demonstrated by the fact that the two downtown development proposals received by the Town last month would require the removal of much, if not all, of the contaminated soil and then some.

- *They had not encountered any groundwater during the investigation.* What they did not tell is that no groundwater samples were taken and their estimates of the cost of remediation did not include the cost of pumping, treating and disposing of the contaminated groundwater. In an unguarded moment, one of them acknowledged that the groundwater is most likely contaminated. The 2007 JPI study, on the other hand, had taken and tested groundwater samples and found them to be contaminated with hazardous chemicals. Based on the results of the 1990s studies, the town's consultants should have presumed that groundwater would be contaminated and tested it. (click to view Comparative costs of remediation.....)

- *The most likely corrective action would be the placement of a vapor barrier to prevent the “escape” of volatile organics from the ground.* What they did not say is that the concentrations of VOCs in the soils were generally well below the strictest health thresholds, that is, they posed little or no danger to human health even without the vapor barrier. The site had already been used for a long time without a vapor barrier and the DEQ had not raised any objection for the use in the past. The consultants did not mention this fact.

And, then popped up a surprise - that Mr Ashwell had agreed to a price reduction to account for the cost of the vapor barrier, which he had estimated to be about $12,000.

The consultants said that their estimate of the vapor barrier was $120,000. There was a big difference between the two figures, but Mr. Ashwell had agreed to meet the town half way, or $60,000 to close the deal. Now it was up to council to agree to this increase in the negotiated price.

They then popped another surprise. They distributed a map of the two contaminant-plumes to the council members, but did not explain anything (click Page from Phase II Revised -ECS AdditionalPhaseII24770- CReportRevised Sept 2015). It was clear from the discomforting looks that most councilmembers did not know what they were really looking at. This was the only piece of paper they had the privilege of viewing out of several hundreds pages. After "allowing" councilmembers to look at the diagram for a minute or so, the Mayor asked everyone to return the paper copies to her. No one asked any questions and no one explained anything. As explained in a preceding section, the plumes were based on a handful of samples that were not statistically sufficient.

It is not clear what the purpose of this exercise was.

NOT EVEN EXPERIENCED ENGINEERS, MUCH LESS CLUELESS COUNCILMEMBERS, COULD HAVE EVALUATED THE PLUMES IN A MINUTES OR SO

and ask some decent questions during the available time. Often, contaminant plumes are subjected to hours or days of long discussions in order to fully understand their validity and implications. Having inexperienced councilmembers look at them for 90 seconds was nothing short of a cruel joke. However, the Mayor and the Town Manager could say to the public that experienced engineers had fully informed the councilmembers before the latter made their decision.

One take on this meeting is that the Town had notified Ashwell that (1) the council was not happy that he had not given the JPI report on a timely basis, (2) a couple of the councilmembers were insisting on a reduction in the negotiated price and (3) he needed to be flexible. Even though he did not have to (because the contract contained the "As is, Where is" provision), he agreed to decrease the negotiated price by $60,000 and bring the matter to a close. He had given up a small amount to let the Town save its face after he had forced them to accept the "As is, Where is" provision whose costs would exceed $800,000.

The council voted 6-1 to accept the modified contract.

COUNCILMEMBER SINGH VOTED NOT AGAINST THE DEVELOPMENT OF THE DOWNTOWN, BUT AGAINST IMPRUDENT DECISIONS TO THROW AWAY MORE THAN $800,000 IN PUBLIC FUNDS AND THE PATTERN OF BEHAVIOR DOCUMENTED IN THIS ARTICLE.

At last, the Mayor, the Town Manager, the Town Attorney, the outside counsel and members of the town staff had finally been successful in gaining approval of the Contract without providing little or no information about the environmental contamination to the town council. They had essentially side stepped the council - the primary policy making body in the Town.


The Town buys Ashwell's contaminated property: June 2015

## 4. PERSPECTIVES ON TOWN'S POTENTIAL LIABILITY

They may have fooled the council and the public; but, they could not hide the reports or wish away the town's potential liabilities. In accordance with environmental regulations, the Town had to make the data public if it were to sell its land to future developers. On November 2nd, it made all past environmental studies public and put them on its website and invited interested developers to submit their bids. It was surprising to find the JPI report on the website because the Town Manager had been resistant to releasing it to the public. Councilmember Singh had fought for its release to the public. Were it not for the outside counsel's advice, it probably would still be marked "confidential and privileged" and we would not have had the benefit of having several critical pieces of information. Were it not for environmental laws requiring full disclosure, the public would not have learned about the 1990s investigations. Unfortunately for the Mayor and the Town Manager, Councilmember Singh decided to read the documents and write this story.

The Town also posted two letters it received from the Virginia Dept. of Environmental Quality regarding on its website. Some may claim that the DEQ's determinations, conveyed through the letters, absolve the Town from its potential liabilities. Such claims would also be disingenuous.

**On September 2, 2015**, the Town received a *Site Status* letter. It stated that, *"… DEQ believes that contaminant concentrations found in the soil samples are consistent with closed Pollution Complaint Number (PC#) 1990-1343. The contaminant concentrations do not warrant further investigation. Should future environmental problems occur which the DEQ determines are related to this site, additional investigation and corrective action may be required…"*

The question is how would future environmental problems occur? Back in 2007, the consultants for the JPI study put the importance of the Site Status letter in proper perspective, by noting that, *"The Site Status Letter would state that the VDEQ will not reopen the pollution complaint for the site (PC Number 90-1343) and that no further corrective action for the site is required by the VDEQ.*

***"However, petroleum-impacted soil excavated from this property during planned redevelopment will still require the special off-site disposal considerations described above..."***

Therefore, JPI had anticipated that the disturbance of the soil would have the potential for creating future environmental problems and the Town have to follow additional regulatory requirements.

**On September 30th,** the Town received *a Bona fide Prospective Purchaser Letter***,** which stated that "*…it appears that Herndon qualifies to assert the liability protections afforded a bona fide prospective purchaser under§ 10.1-1234(8). However, should it be determined that Herndon … has not satisfactorily exercised appropriate care... with respect to hazardous* ***substances*** *…* ***by taking reasonable steps to stop any continuing release, prevent any threatened future release, and prevent or limit human, environmental, or natural resource exposure…****" (Emphasis Added)*

THIS MEANS, THE TOWN WOULD STILL BE ON THE HOOK FOR $800,000, IF NOT MORE,

for the remediation of the site if it disturbs the soil. The fact is it would disturb the soil and the groundwater when it demolishes buildings and excavates the existing foundations, removes underground pipes and utilities, digs up the old hydraulic lift under the repair stations and constructs any building on Ashwell's Property. The Town could have avoided the wasteful expenditure, if it had taken time to negotiate with Mr. Ashwell.

With these savings, the Town could have, among other things, (1) bought several pieces of snow removal equipment (A big snow removing truck costs about $160,000), (2) paid for several new police vehicles, (3) constructed an attractive fence along Sterling Road between Herndon Parkway and Rock Hill Rd, (4) improved a neighborhood park, given money for scholarships or reduced taxes.

**PROLOGUE - The Other Costs**

Direct monetary costs are only a small part of the story. This article documents a pattern of behavior in which key Town officials, the Mayor, consultants and outside counsels worked together to sideline the Town Council and undermine its authority at every step of the process. Consider the following:

- The council was given no information about the past contamination even though it was central to this case.
- The Town, in fact, provided no contamination reports to the council before, during and after the meetings that usually were called at the last minute and were designed to force the council to make decisions under the pressure of

deadlines.The Town Manager generally provided vague qualitative information in the meetings.

- The Mayor called an Emergency meeting to discuss the "newly discovered" contamination, but provided no written information before, during and after the meeting.
- In the final meeting a month later, though the Mayor *allowed* councilmembers to view a diagram containing contaminant plumes for 90 seconds or so. She allowed no discussion of the information.
- The consulting engineers, rather than discussing their reports, gave a rather misleading presentation during the final meeting.
- There is a strong probability that there was a handshake agreement that the Town would buy the property "as is" for $3.519 million, but Mayor and Town Manager did not bother to tell the council of this provision.
- The Mayor and the Town Manager did not discuss the "As is, Where is" provision with the council before they agreed to include in the contract. In fact, they did not ever mention it.
- The Town Attorney omitted any discussion of the Provision in his presentations to the Council and the public.

Consequently, the record is very clear. The Mayor and the Town Manager kept the council and the public were kept in the dark through a joint, coordinated and concerted effort.

Unfortunately, this case is not an isolated example of this pattern of behavior on the part of the Mayor and the Town Manager. Its costs are many. It undermines the authority of the council to make public policy. It promotes a lack of transparency and distrust in the government. It makes it difficult to hold public officials accountable. It discourages our citizens from participating in government affairs. The costs of these drawbacks of this pattern of behavior are likely to far outweigh the cost of remediating this site.

## Footnotes

[1] A Phase I study essentially consists of conducting a literature search. Its purpose is to discover and establish past contamination at or near the site. A Phase II study, on the other hand, consists of taking soil borings and/or groundwater samples to determine whether contamination exists at the site. Normally, a Phase II study follows the Phase I study, because the latter helps determine the location and depth of samples that must be taken. In this case, due to the need to decide whether or not the Town should proceed with the purchase, both Phase I and Phase II studies were conducted concurrently.

[2] As a part of the final corrective action, the Town of Herndon and Ashwell entered a cooperative agreement in 1992, to install a storm sewer through the southeast portion of the Property. About 4,250 tons of petroleum-impacted soil and 9,500 gallons of petroleum-impacted groundwater were removed or recovered during construction. Mr. Ashwell, the Town and the Virginia Department of Environmental Quality were aware of the residual contamination.

[3] The contract had required Ashwell to "… forward … to Town …within 5 days … all information in **Seller's possession or control** including… environmental reports, geotechnical reports…" The TM explained that it had not only been difficult for Ashwell to obtain the 2007 report from the consultant but also that Ashwell had not considered it "material" for purposes of this contract. The TM indicated Mr. Ashwell was now going to provide it very soon.

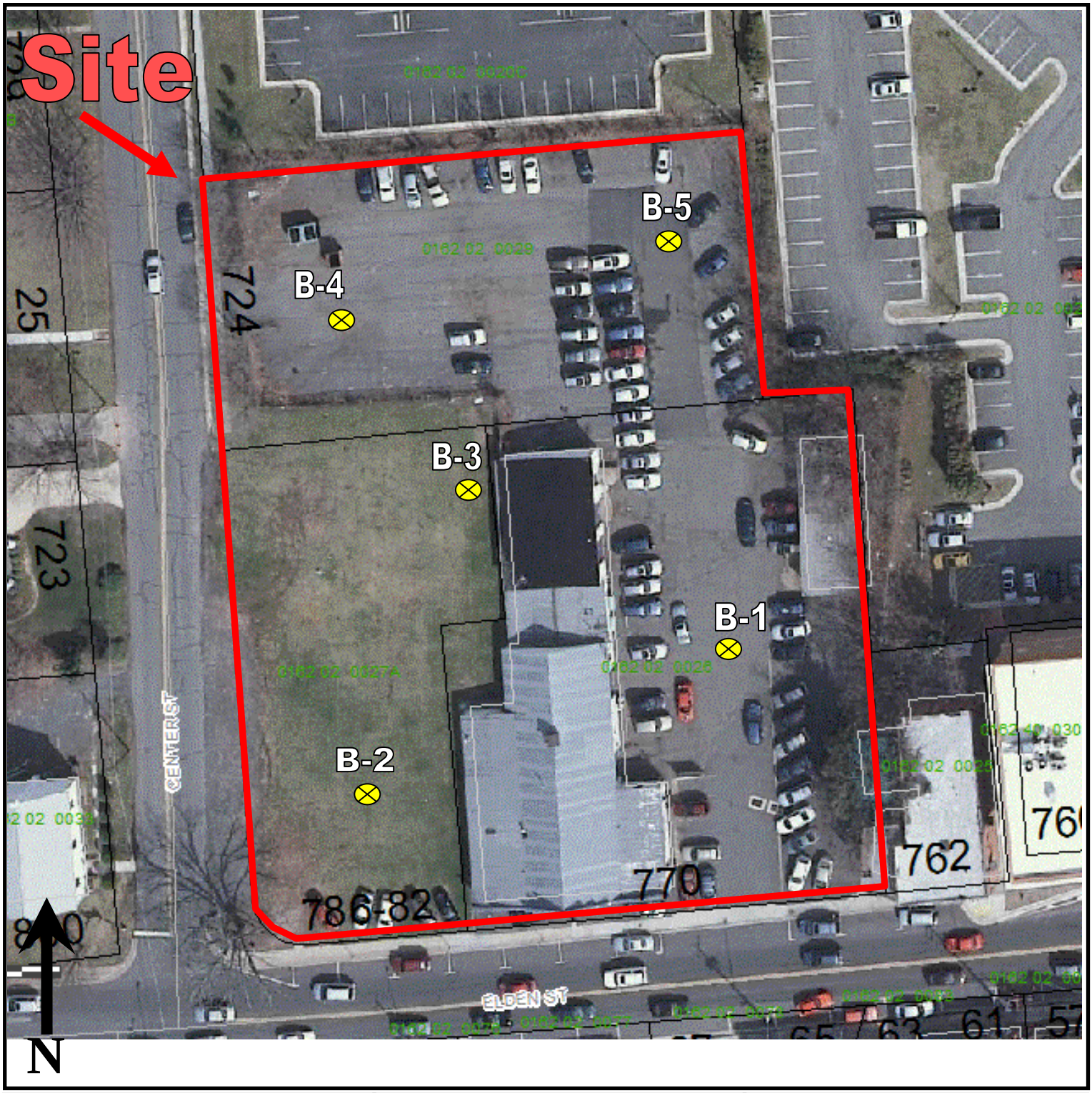
[4] It was not until September 3rd that Councilmember Singh read the contract carefully and came across the "As is, Where is" Provision. He regretted that he had missed reading this extremely important provision (he was then busy writing another article about the Ashwell property). As he had reflected upon the events of the past 6 months, he realized that no one in authority, the Town Attorney, the Town Manager, or the Mayor had even mentioned the "As Is, Where is" provision to the council in any work session or public meeting. And, that is when he decided to write this aricle.

[5] On August 21, (two days after the second draft of the Phase II report was submitted) Councilmember Mitchell had asked the Town Manager for materials related to the next close-door meeting, but was not given any documents.

[6] Both parties knew that, (1) a large part of Property had not been remediated, (2) groundwater was probably contaminated, (3) the hydraulic lift under the floor had not been removed and most likely had leaked fluids into the adjoining soils, and (4) auto-dealers had continued to repair vehicles even after 1994

[7] None of the councilmembers asked the Mayor or the Town Manager what they knew about the contamination or the cost of remediating the site. They knew a lot. Clearly, they wanted to keep the councilmembers in the dark and hope that the pressure of the deadline would force the Councilmembers to accept the contract without any further modifications.

[8] Councilmembers Singh, Kirby and Mitchell contended that the appraisals were based on the assumption that the property was environmentally clean and that the negotiating range was based on it. Little did they know that the Town had no leverage in the negotiations, because of the language of the "As is, Where is" provision. Their arguments did help as discussed in the next section.




| | | |
|---|---|---|
| **Phase II Environmental Site Assessment**<br><br>**770, 782-786 Elden Street; 724 Center Street Herndon, VA** | ECS Mid-Atlantic, LLC<br>14026 Thunderbolt Pl., Suite 100<br>Chantilly, VA 20151<br><br>ECS LLC MID-ATLANTIC | **Boring Location Diagram**<br><br>**ECS Project No. 24770-A**<br><br>**Not to scale** |

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W E

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LEGEND

- B-# — BORINGS COMPLETED 06/25/15
- EB-# — BORINGS COMPLETED 08/03/15
- APPROXIMATE LOCATION OF FORMER UST FIELD
- APPROXIMATE LOCATION OF UNDERGROUND CULVERT
- APPROXIMATE LOCATION OF CONTAMINATION

PLUME 1
3,657-SF

PLUME 2
8,136-SF

SCALE (IN FEET)

20 40

40 0

# ELDEN STREET PARCELS
## 770 ELDEN STREET
### HERNDON, VIRGINIA

# ESTIMATED PETROLEUM PLUME (REV 8/26/15)
## FIGURE 2

| ECS REVISIONS |
|---|
| |
| |
| |

| ENGINEER | DRAFTING |
|---|---|
| KC04 | JAA |

SCALE: 1" - 40'

PROJECT NO.: 01:24770-C

SHEET: 1 OF 1

DATE: 08/18/15

S:\01-ARES\Data\Environmental\RPT\24000\24770-C Additional Boring\drafting\24770C_Figure 2 Soil Plumes_REV082615.dwg

**COMPARISON OF THREE ESTIMATES OF THE COSTS OF THE DISPOSAL OF CONTAMINATED SOIL FROM THE ASHWELL PROPERTY**

| ELEMENTS OF COSTS | Bid Data Submitted By ECC to VWCB (1992 $s) | 2007 JPI Study (2007 $s) Ashwell Property Only | 2015 ECS Study (2015 $s) | Comments |
|---|---|---|---|---|
| **AMOUNT OF SOIL REMOVED (CY)** | 2,000 | 5,500 | 4,149 | |
| 1. Cost of Excavation, Seggregation & Loading Soils in Trucks | 62530 | 0 | 0 | Values have not been estimated (marked as zero) |
| 2. Cost of Transportation & Disposal | 156000 | 396000 | 298728 | |
| 3. Cost of GW Treatment & Disposal | | | | |
| Storage of Storage GW & Contaminated Water | 79500 | 0 | 0 | |
| Set up of Equipment | 0 | 40000 | 0 | |
| Cost of Dewatering ($20,000/month) | 0 | 20000 | 0 | |
| Treatment & Dispoal of Water (not bid in ECC data and not provided in others) | 0 | 0 | 0 | |
| Discharge Permit | 0 | 15000 | 0 | |
| 4. Removal of Underground Hydraulic Tank | 0 | 0 | 0 | |
| 5. Voluntary Remediation Permit | 0 | 125000 | 0 | |
| 6. Engineering Oversight | 45375 | 75000 | 0 | |
| 7. Contingency | 0 | 10000 | 59746 | |
| **Total Estimated Cost** | 343405 | 681000 | 358474 | |
| **Cost Per Ton** | **95** | **69** | **48** | |
| Cost of Remediation - JPI Studies, if estimated using the $95/ton figure (Col 2), not adjusted for inflation | | **944364** | **712394** | |