

CITY COUNCIL MEETING

AGENDA ITEM I



CITY OF FRANKLIN, NH
COUNCIL AGENDA REPORT
JANUARY 5, 2015

Subject: Franklin City Council to consider setting public hearings on two resolutions:

The first public hearing is on Resolution 05-15, to determine whether to fund the "Cross Street Tank Rehabilitation Project" and the "U.S. Route 3 / Industrial Park Drive Water Main Relocation Project".

A second public hearing will be needed for Resolution 06-15 authorizing the City to participate in the State of New Hampshire Department of Environmental Services (NHDES), Drinking Water State Revolving Fund (DWSR) or to determine some other form or combination of funding mechanism for financing each project.

Date: December 26, 2014

Recommended Motion:

Councilor Moves:

I move that the Franklin City Council schedule a public hearing on Resolution 05-15 at 6:05 P.M. on Monday January 12, 2015 and a second public hearing on Resolution 06-15 at 6:06 P.M. on Monday January 12, 2015 in the City Council Chambers at Franklin City Hall.

Mayor calls for a second and a vote.

Discussion:

On several occasions I have spoken to the City Council and the Municipal Services Committee about the need for future capital infrastructure projects in the Water and Sanitary Sewer Departments that should be initiated in Fiscal Year 2016. At the present time, I am attempting to gain consensus with regard to undertaking and funding two critical projects that need to be underway in the early summer of 2015. Without direction from the City Council on moving forward and funding these in a timely fashion, it will result in major implications especially relating to project timelines and towards securing funding. The two projects listed above are the subject matter that needs to be addressed. With respect to action needed by the City Council here is the proposed process I am recommending:

(1) City Council sets and conducts two public hearings on Resolutions 05-15 and 06-15 on 1/12/15. The first public hearing on Resolution 05-15 is simply to consider if the City Council desires to move forward with the two projects listed above.

(2) The second public hearing on Resolution 06-15 will focus on what type of funding mechanism will be utilized should there be the positive consensus to move forward. Various funding scenarios will be presented by City Staff. Based on my research, it appears that the most attractive and affordable option for project funding is to utilize a \$765,000 NHDES/DWSRF grant/loan program. Currently, there is at least 15% grant forgiveness with an interest rate that varies from 1.9% to 3.1%, depending on which type loan is selected. If this option is chosen then the second resolution will need to be passed which will authorize the City Manager and /or Mayor to enter into an agreement with NHDES for funding utilizing the DWSRF program. If a vote is taken to proceed then both resolutions could be approved at the February 2, 2015 City Council Meeting, based on the direction the City Council provides us at the two public hearings.

(3) Additionally, should the City Council come to a positive decision at the two public hearings on January 12, 2015 relative to a funding mechanism then action will be necessary to raise the revenue to support the loan payments. On January 12, 2015 a public hearing and agenda item could be scheduled for the February 2, 2015 City Council Meeting. The public hearing and subsequent vote would consider a proposed change to Chapter 160-1 "Water Fees" of the Franklin City Code. City Staff will have the ability the night of January 12, 2015 to prepare such an Ordinance in order that the February 2nd public hearing and subsequent agenda item can be scheduled.

Timing is critical if we are to move forward and meet construction timeline goals on both projects for the upcoming 2015 construction season. Work should commence towards the beginning to middle of July 2015. If this schedule is to be achieved then funding; design; state agency reviews; preparation of plans and bid documents; advertising and contract awards; especially those established for the NHDOT project must be underway in early February. My best estimate on the project planning phase is about 160 days. This is period of time necessary once the City Council take the necessary actions identified above to the point that construction gets underway.

Concurrences:

The Franklin Water Department operates as a Federally Licensed Public Water System with 2,314 service connections. Being a Public Water System, we are required to meet stringent operating standards established by the United States Environmental Protection Agency (USEPA) in compliance with the "Safe Drinking Water Act". Additionally, this City Department must comply and operate within the regulatory requirements adopted by the State of New Hampshire, Department of Environmental Services. We have six state licensed public water system operators. Typical ongoing requirements include: NHDES Sanitary Survey Inspections; quarterly billing; customer service; bi-monthly water sampling for bacteria and e-coli to ensure water quality; disinfection; water filtration; operation and maintenance of the system; adequate storage capacity; minimum and maximum pressure requirements to the customer and the very important function of fire protection and hydrant maintenance.

Back in October of 2014 the Municipal Services Committee met to discuss several upcoming challenges facing the Water Department, Sanitary Sewer Department and the Winnepesaukee River Basin Program. The minutes taken at that meeting summarize these challenges. The

Committee felt it would be best to take up the three operating departments at separate workshops after the first of the New Year when we have any new City Council members.

Fiscal Impact:

Water Rates:

- The Water Fund operates as a City Enterprise Fund
- Rates support operations, maintenance and administrative costs for the Water Department.
- Support Capital Projects.
- Fund Debt Service.
- Are necessary to keep a public water system reliable, operable and in compliance.
- Franklin's "Water Commodity Charge" had remained unchanged since October 2007 until the \$ 0.24 cent increase in FY15. Over the past seven years we have funded operations and maintenance by utilizing money from retained earnings.
- The \$20 "Quarterly Availability Charge" has remained unchanged for 27 years.
- Communities with higher rates tend to be very proactive by investing in necessary Capital Projects.

Challenges:

- Extensive aging infrastructure, in need of on-going capital investment, spread out over a large geographic area, with a very limited customer base.
- Meeting future regulatory requirements.
- Two major capital projects are going to be difficult to defer and are my major concern. Action can be taken by the City Council to authorize borrowing from the State of New Hampshire, Department of Environmental Services, Drinking Water State Revolving Fund (DWSRF). Both of the water projects below are now approved for funding once we enter into the formal DWSRF contract with the State.
- The first project known as the "U.S. Route 3 / Industrial Park Drive Water Main Relocation Project" is associated with the upcoming the "NHDOT Reconstruction of U.S. Route 3 Project" to be undertaken in the vicinity of the Franklin Industrial Park. The project is due to be advertised by NHDOT for public bid this spring with initial construction work to begin in July 2015. The City Water Department is required to relocate 1,540 linear feet of 12" water main which is going to be in conflict with the NHDOT infrastructure replacement. Although we have worked closely with NHDOT Staff to minimize the state project impact on our 12" City water main, our Engineers Estimated Opinion of Probable Cost is \$250,000. This is the Water Departments cost that NHDOT will not pay for! The water main relocation is one of the first tasks that need to be undertaken on this project thus funding; design; review and bid phases of the project need to begin as soon as possible with a bid award and construction beginning by July 2015.
- A second critical project that has been deferred for several years and must be undertaken is the 500,000 gallon "Cross Street Water Tank Rehabilitation Project". This tank is leaking in several locations and in need of maintenance before it is beyond the point of repair. Replacement cost is at about \$1,400,000 thus, tank rehabilitation is the recommended alternative. Rehabilitation will give another 25 to 30 years of useful life for this steel tank. This reservoir supplies water to the "Willow Hill Service Area" thus, if it fails we will be unable to supply an adequate

water supply and fire protection to the Willow Hill Neighborhoods and Central Street from Sanborn Street to the Tilton Town Line. Subsequent to the approval of the FY15 Water Budget, I applied for this funding under the DWSRF Program. Franklin was approved for grant/ loan funding in the amount of \$515,000. The annual interest rate on a 20 year fixed loan is 3.1% which includes at least 15% forgiveness on the loan.

- Knowing the **criticality** of both projects and that both are very time sensitive, I contacted NHDES Staff on December 9, 2015 seeking the possibility of additional DWSRF funding. NHDES Staff have informed me that my request for additional funding has also been approved to include the "U.S. Route 3, Water Main Relocation Project" and that both projects can be incorporated into one grant/ loan contract. The total combined projects costs are \$765,000 with a minimum of 15 % grant forgiveness. Based on this information, the Finance Director will provide us with various amortization schedules for consideration. If we are to take advantage of this funding mechanism Staff will need the time necessary to satisfy all the DWSRF requirements. If the City Council desires to move ahead with DWSRF funding, a public hearing and subsequent vote will need to be taken on Resolution 06-15 authorizing the Mayor and City Manager to execute a DWSRF contract. This vote can be taken at the February 2, 2015 meeting. Interest rates are low and the competitive bidding climate continues to be very favorable. I am not sure we have any better options available to us.
- Any type of funding option chosen will require some form of loan because the City ratepayer can not support a \$765,000 capital budget request to be funded in one year. Therefore, we must also decide on whether to increase the "Water Commodity Charge" or increase the "Quarterly Water Availability Charge" as our funding source on the loan. I believe the latter option is the most logical approach. To pay off the debt incurred by these two projects, by increasing the \$20 "Quarterly Water Availability Charge" provides a stable and consistent source of revenue in the fund as it does not rely on water consumption. It also distributes the increase equally to all customers thus, in my opinion this option deserves strong consideration and discussion. Should the City Council decide to increase the "Quarterly Availability Charge" from \$20 to \$28 per quarter it would raise approximately \$73,600 in additional annual revenue. This would be sufficient to cover a fifteen year \$765,000 DWSRF Loan.

Revenues:

- Metered water consumption is the primary source of revenue for the department.
- Over the past two fiscal years water consumption is down by about 850,000 cubic feet. This appears to be the trend over the past three years.
- The reason for less water consumption is primarily due to vacant properties, loss of customer base and water conservation measures by customers. Unfortunately we still must maintain the extensive water system regardless of the number of customers.
- For every 12 cent increase in the "Water Commodity Charge" the fund generates an additional \$25,000 in annual revenue.
- For every dollar we increase the current \$20 "Quarterly Availability Charge" the fund generates an additional \$9,200 in annual revenue.
- Retained Earnings in the Water Fund have gone from approximately \$125,000 in 2005 to projected \$477,338 at the end of FY 2014.

- While increasing retained earnings and holding rates stable, roughly \$11,500,000 dollars worth of critical infrastructure improvements have been accomplished since 2008.
- As a result of this investment, the water system is far more reliable.

Expenditures:

- The overall cost of doing business to pump, treat, meter and deliver water has steadily increased since 2003 at an average cost of 3.5% per year.
- The overall percentage for fuel, oil, vehicle parts, propane, electricity, disinfection chemicals, and personnel related expenses and most other costs directly associated with operation and maintenance of a water system have increased by 24% since 2007.
- Although there have been numerous improvements and the cost of operation and maintenance has risen, we have been able to cover these by offsetting expenses with retained earnings rather than propose increasing water rates.
- Regulatory requirements relative to operating a public water system have also become more complex due to new regulatory requirements.
- Costs associated with specialized contractual services such as engineering; well rehabilitation; meter replacement; reconditioning of pumps and motors; laboratory analysis, scada communications and programming and many other types of maintenance/service contracts are all essential to the operation of the system.
- Due to the age of the system, a significant amount of distribution system maintenance is necessary to keep it operable. Customer assistance due to the age and size of the system has also increased. This involves considerable staff time.
- For the first time since 2007, the proposed Water Department Budget for FY 15 only funds basic operation and maintenance with no provisions for capital projects.
- We are in the process of finalizing the Water Departments "Capital Efficiency Plan" (CEP). The CEP will identify and prioritize short and long term needs. The last study performed on the system was finalized in 2003.

Alternatives:

Continued operation, maintenance and upkeep of the City Water Department are essential to supply clean potable water; adequate capacity and fire protection. This is one of the most basic components of our City's infrastructure. Without reliable facilities there is the negative effect towards attracting and maintaining residential, commercial and industrial growth. More importantly every City institution both private and public, rely on water to function. We must also consider the quality of life that safe, clean drinking water provides to our customers!

Because the Water Department is Federally and State regulated, involves public health, and must be reliable, it is my role as the registered owner/operator of this system to operate and maintain it in the most economical manner, satisfying our license requirements while always considering the long term effect on the ratepayer.

It is my duty in this capacity to advocate for the long term viability of our City Water System as well as the ratepayer. Great strides have been made with the support of the City Council, Ratepayer, State and Federal Governments to get this system where it needs to be. As you can see from this report I have great concerns with respect to future costs, the magnitude of the work that extends well into the future and how the water fund can support our long term needs.



CITY OF FRANKLIN, NEW HAMPSHIRE

"The Three Rivers City"

316 Central Street
Franklin, NH 03235

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Resolution 05-15

A Resolution requesting guidance from the Franklin City Council relative to the appropriation of funds necessary to undertake two major Water Department Infrastructure Projects in the Summer of 2015.

In the Year of our Lord, Two Thousand Fourteen.

WHEREAS, the State of New Hampshire, Department of Transportation has completed 90% design drawings on the "U.S. Route 3 / Industrial Park Drive Reconstruction Project" and the Engineers Opinion of Probable Cost for the City Water Department to relocate 1,540 linear feet of its 12" water main and associated appurtenances, determined to be in conflict with new state highway infrastructure, is now estimated at \$250,000; and

WHEREAS, the Municipal Services Director, with ongoing assistance from several independent companies that specialize in the inspection; condition assessment and rehabilitation of steel water tanks have determined that the 500,000 gallon Cross Street Water Tank is in such a condition that if tank rehabilitation is not undertaken this next construction season, it will be subject to additional failure, along with the possibility that the tank could be nearing the point that it will be beyond the option of structural repair, thereby raising significant concern due to the fact that the Cross Street Tank provides sole water storage capacity for the entire "Willow Hill Service Area"; and

WHEREAS, for these two projects to be accomplished in a timely manner, with a construction start date of mid July 2015, it will necessitate project funding in the estimated amount of \$765,000; preparation and filing of final loan/grant applications; project design including plans, specifications and bid documents; agency plan review; environmental review; State of New Hampshire Governor and Council approval; authorization to bid and final completion of the bid phase and award in a period within an approximate 160 day cycle; and

NOW, THEREFORE BE IT RESOLVED by the Franklin City Council, Franklin, New Hampshire realizing the need of these projects for the purpose of protecting public health and safety, hereby adopts Resolution 05-15 with the understanding that Resolution 06-15 will be necessary to authorize borrowing along with a change to Chapter 160-1 "Water Fees" of the Franklin City Code to support the revenue necessary to finance the two projects.

**Resolution #05-15
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Roll Call Vote:

Councilor Clarenbach	_____	Councilor Dzujna	_____
Councilor Giunta	_____	Councilor Wells	_____
Councilor Boyd	_____	Councilor Feener	_____
Councilor Desrochers	_____	Councilor Barton	_____
Councilor Starkweather	_____		

Approved: _____
Mayor

Passed: _____

I Certify that said vote has not been amended or repealed and remains in full force and effect as of the date of this Certification and that Katie Gargano is the City Clerk for the City of Franklin, Franklin, New Hampshire.

A true copy

Attested _____
Katie Gargano, City Clerk

Date: _____



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CITY OF FRANKLIN NOTICE OF PUBLIC HEARING & MEETING

In accordance with the provision of Chapter 31, Division 2 of the Franklin Municipal Code, notice is hereby given that the City of Franklin will hold a Public Hearing on Monday, January 12 at 6:05 p.m. in the Council Chambers, Franklin City Hall concerning Resolution #05-15 relative to the appropriation of funds necessary to undertake two major Water Department Infrastructure Projects in the summer of 2015.



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RESOLUTION 06-15

A Resolution granting the City Manager the authority to file an application for the State of New Hampshire Drinking Water State Revolving Fund (DWSRF) Program and designating the City Manager as the City's authorized representative.

WHEREAS, the City of Franklin, Franklin, New Hampshire after thorough consideration of the nature of its water system needs, hereby determines that the undertaking of certain works, generally described as the "Cross Street Water Storage Tank Rehabilitation Project and Route 3/Industrial Park Drive Water Main Relocation Project" is desirable and in the public interest, and to that end it is necessary to apply for assistance from the Drinking Water State Revolving Fund (DWSRF) in an amount not to exceed \$765,000; and

WHEREAS, the City of Franklin has examined and duly considered the provisions of RSA 486:14 and the New Hampshire Code of Administrative Rules Chapter Env-Dw 1100, which relate to loans from the Drinking Water State Revolving Fund and deems it to be in the public interest to file a loan application and to authorize other actions in connection therewith; and

NOW, THEREFORE, BE IT RESOLVED BY the Franklin City Council, Franklin, New Hampshire, the governing body of said City of Franklin as follows:

1. That Elizabeth Dragon, City Manager for the City of Franklin is hereby authorized on behalf of the City of Franklin (City) to file an application for a loan to be made in accordance with New Hampshire Code of Administrative Rules Chapter Env-Dw 1100, furnishing such information, data, and documents pertaining to the City for a loan as may be required; and otherwise to act as the authorized representative of the City in connection with this application and if such loan be made, is the designated authorized representative of the City responsible for furnishing such information, data and documents pertaining to disbursements for the loan;
2. That if such loan be made, the City of Franklin agrees to repay the loan as stipulated in the loan agreement;
3. That certified copies of this resolution be included as part of the application to be submitted for a loan;

By a Roll Call vote.

Roll Call Vote:

Councilor Clarenbach _____

Councilor Desrochers _____

Councilor Giunta _____

Councilor Dzujna _____

Councilor Boyd _____

Councilor Feener _____

Councilor Barton _____

Councilor Wells _____

Councilor Starkweather _____

Resolution 06-15

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Approved:

Mayor

Passed:

Date

I certify that said vote has not been amended or repealed and remains in full force and effect as of the date of this Certification and that Katie A. Gargano, is the City Clerk for the City of Franklin, Franklin, New Hampshire.

A true copy, attested:

City Clerk

Date:

CERTIFYING AUTHORIZATION TO BORROW

I, the undersigned, the duly qualified and acting City Clerk/Tax Collector of the City of Franklin, Franklin, New Hampshire herein called the "applicant" and keeper of the records of the applicant, including the journal of the proceedings of the City of Franklin herein called the "Governing Body" do hereby certify:

1. That the attached Resolution #06-15 is a true and correct copy of the Resolution as finally adopted at a meeting of the Governing Body held on the ___ day of _____, 2015 and duly recorded in my office;
2. That said meeting was duly convened and held in all respects in accordance with law and to the extent required by law; due and proper notice of such meeting was given; and a legal quorum was present throughout the meeting; and a legally sufficient number of members of the governing body voted in the proper manner and for the adoption of said Resolution including publication, if required, have been duly fulfilled, carried out, and otherwise observed; and that I am authorized to execute this certificate;
3. That if an impression of the seal has been affixed below, it constitutes the official seal of the City of Franklin and this Certificate is hereby executed under such official seal; but if no seal has been affixed, the Applicant does not have an official seal;

IN WITNESS WHEREOF, I have hereunto set my hand this ___ day of _____, 2015.

(seal)

Katie A. Gargano,

City Clerk City of Franklin



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CITY OF FRANKLIN NOTICE OF PUBLIC HEARING & MEETING

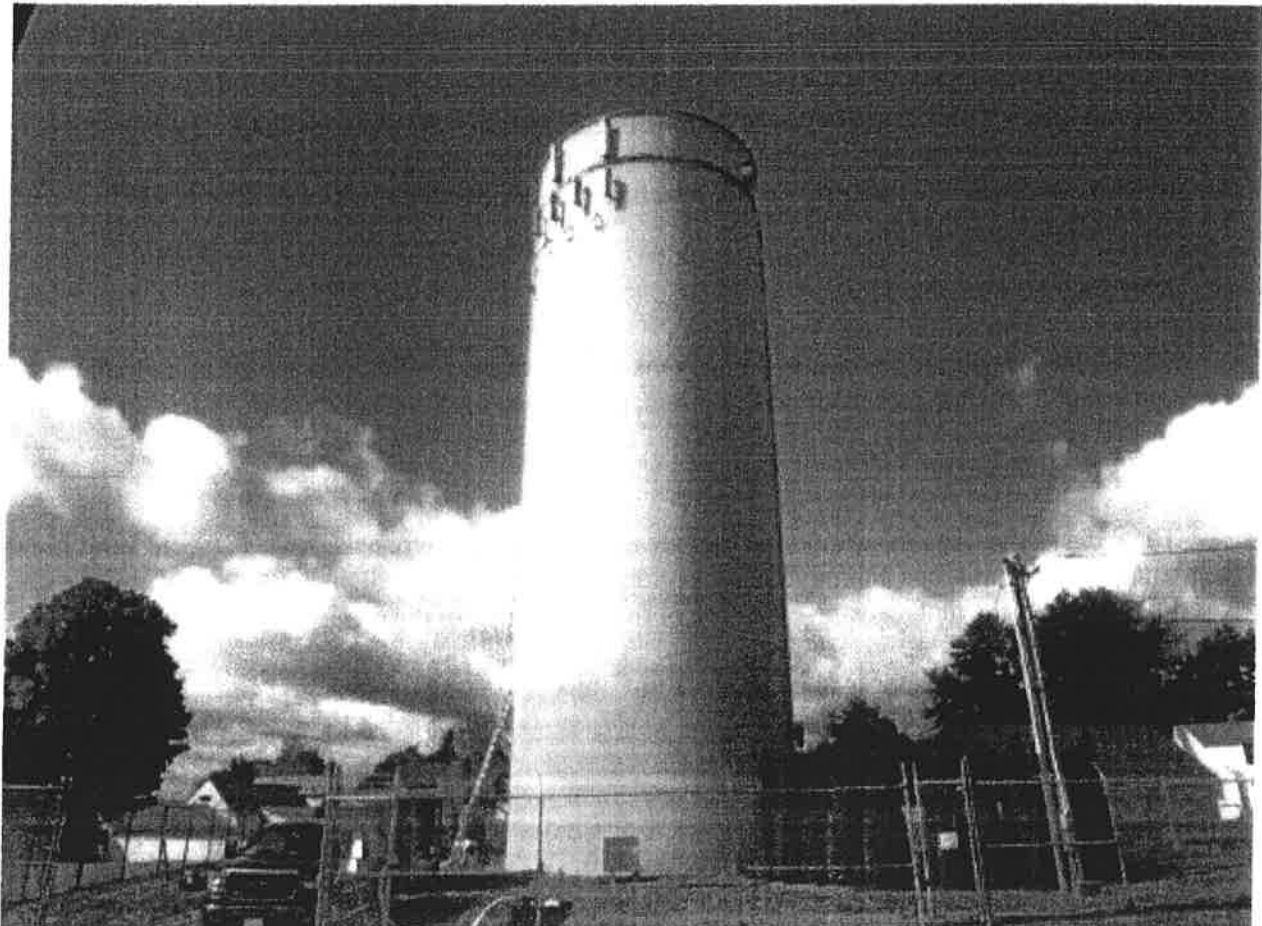
In accordance with the provision of Chapter 31, Division 2 of the Franklin Municipal Code, notice is hereby given that the City of Franklin will hold a Public Hearing on Monday, January 12 at 6:06 p.m. in the Council Chambers, Franklin City Hall concerning Resolution #06-15 relative to the filing of any application to the State of New Hampshire Drinking Water State Revolving Fund.



***INSPECTION AND CLEANING OF THE CROSS STREET
500,000-GALLON WELDED STEEL WATER STORAGE TANK***

***FRANKLIN WATER WORKS
FRANKLIN, NEW HAMPSHIRE***

OCTOBER 5, 2009





***INSPECTION AND CLEANING OF THE CROSS STREET
500,000-GALLON WELDED STEEL WATER STORAGE TANK***

***FRANKLIN WATER WORKS
FRANKLIN, NEW HAMPSHIRE***

OCTOBER 5, 2009

SCOPE:

On October 5, 2009, Underwater Solutions Inc. conducted an inspection and cleaning of the Cross Street 500,000-gallon welded steel water storage tank to provide information regarding the overall condition and integrity of this structure and removed the sediment accumulation found on the floor of the structure.

EXTERIOR INSPECTION:

The entire exterior of this water storage tank (and components) was inspected to include walls and coating, anchor bolts, manway, ladders, overflows, roof, vent and hatch.

Walls and Coating

The exterior wall panel surfaces, to include all welds between panels, were inspected and found sound while numerous coating chips, ranging from 1/4" to 1" in diameter, exist throughout the lowest 25' of the tank causing exposure of the underlying of the steel.

These coating chips appear to be the result of objects striking the tank and cause mild surface corrosion of the steel.

The protective coating applied to these panels and welds presently yields poor adhesion value resulting in exposure of the primer throughout approximately 10% of all wall panel surfaces, particularly throughout the lowest 25' of the tank.

***INSPECTION AND CLEANING OF THE CROSS STREET
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No obvious fatigue (pitting) of the steel was witnessed within these exposed areas at the time of this inspection.

All remaining wall panel and weld surfaces yield decline in film thickness of the protective coating caused by weathering and near expiration.

Anchor Bolts

Ten, 1-1/2" diameter anchor bolts extend up from the concrete foundation through 12" tall chairs welded to the lowest row of wall panels.

Each bolt was found having a nut properly secured in place while the protective coating applied to the chairs, yields exposed primer and moderate surface corrosion where the nuts contact the chairs.

Manway

One 24" by 18" inside diameter manway was inspected penetrating the lowest wall panel located approximately 21" above the ground.

The protective coating applied to this manway was found with coating chips and failure on all hardware causing exposure of the steel.

No obvious fatigue of the steel was witnessed within these exposed areas at the time of this inspection.

This manway was found properly secured in place and is free of obvious leakage at this time.

Ladders

A ladder extends from approximately 20' above the ground up to the roof dome supported to the tank wall with 8 sets of welded standoffs.

A fall prevention device is securely bolted to the ladder, remaining in good working condition at this time.

This structure provides good safe access to the roof at this time.

A second ladder (rotating) was found securely bolted to the vent extending down to the edge of the roof dome.

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This ladder is sound and free of obvious failures at this time.

Overflows

Two, 24" by 6" overflow cutouts are located approximately 6" below the junction where the roof and walls meet.

Each overflow cutout, was properly screened and unobstructed at the time of this inspection.

Roof

The steel panel roof dome, to include the welds between panels, appeared sound and free of obvious failures at the time of this inspection.

The protective coating applied to these roof dome surfaces was found weathered and chalky, due to decline in film thickness, causing exposure of the primer throughout approximately 15% of all panel surfaces.

Vent

A vent is located within the center of the roof dome having a 6" inside diameter standing 12" tall.

An 18" outside diameter cap and perimeter screening are securely installed over this vent preventing access to the interior of the tank.

Hatch

One 30" inside diameter hatch provides access to the interior of the tank through the roof.

This hatch was found in good working condition and is properly secured with a lock preventing unwanted access to the tank interior.

INTERIOR INSPECTION:

The entire interior of this water storage tank (and components) was inspected to include sediment accumulations, floor, manway, piping, walls and coating, overhead, overflow and aesthetic water quality.

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Sediment Accumulations

A uniform layer of accumulated precipitate was found on all floor surfaces averaging 6" in depth.

Upon completing this inspection, all floor surfaces were vacuumed.

Floor

After removing all accumulated precipitate, these steel floor panels and welds between panels, were inspected and found free of obvious fatigue.

The protective coating applied to these surfaces remains having good adhesion value at this time.

Heavy staining was found throughout all floor surfaces due to the accumulation of precipitate after cleaning.

Manway

One 27" by 20" outside diameter manway was inspected, penetrating the lowest row of wall panels, located approximately 20" above the floor.

Numerous coating blisters exist throughout approximately 80% of this manway due to adhesion loss.

Approximately 40% of these coating blisters have ruptured and expose the underlying steel causing surface corrosion.

Fatigue, (pitting) of the steel was found within all areas having exposed steel ranging in depth from barely detectable levels to 1/16".

This manway was found properly and securely bolted in place and is free of leakage at this time.

Piping

A 10" inside diameter flush pipe penetration within the tank floor is located approximately 16" in from the wall.

This pipe was free of obstructions and had no flow at the time of this inspection.

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Walls and Coating

All interior wall surfaces were inspected beginning at the floor and by spiraling the circumference up to the water surface.

These interior wall panels and welds between panels, were inspected and found having coating blisters throughout approximately 80% of all surfaces and all elevations of the tank due to adhesion loss.

Approximately 40% of these coating blisters have ruptured, resulting in exposure of the underlying steel and cause surface corrosion.

Fatigue, (pitting) of the steel was found throughout all exposed areas of steel ranging in depth from 1/16" to 1/8".

Moderate staining exists on all wall surfaces beginning approximately 12" below the overflow cutouts and extends down to the floor.

Overhead

The entire overhead was inspected from the water surface.

These overhead panel welds between panels and angle iron supports were found appearing sound at the time of this inspection.

The protective coating applied to all overhead surfaces shows mild blotch rusting throughout approximately 20% of all surfaces.

No fatigue, (pitting) of the steel was witnessed at the time of this inspection.

Overflows

The overflow consists of two 24" by 6" inside diameter cutouts within the top wall panel located approximately 6" below the junction where the roof and walls meet.

This overflow was found without obstructions at the time of this inspection.

Aesthetic Water Quality

The aesthetic water quality within this tank was found to be good.

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This condition caused our visibility during this inspection to be unlimited.

CONCLUSION:

It is the opinion of Underwater Solutions Inc. that although this welded steel water storage tank appears mostly sound and without leakage at this time, it requires rehabilitation within the near future.

The protective coating applied to the exterior wall panels has weathered and yields poor adhesion of the secondary coating causing exposure of the primer throughout the lowest 25' of these surfaces.

Numerous coating chips, caused by objects striking the tank, have caused steel exposure throughout the lowest 25' of these walls, while no fatigue (pitting) of the steel was evident.

The protective coating applied to these roof panel surfaces was found having decline in film thickness causing the primer to show through the coating.

All roof surfaces remain sound and without fatigue (pitting) of the steel at this time.

We recommend re-coating the exterior wall panel and roof dome surfaces in an effort to protect the steel.

All components affixed to this structure are properly installed and with the screens on the vent and the overflows properly installed preventing access to the interior of the tank.

These interior wall panel and weld surfaces yield poor adhesion value of the protective coating causing exposure of the underlying steel resulting in surface corrosion.

Fatigue, (pitting) of the steel was witnessed throughout all areas of exposure ranging in depth from 1/16" to 1/8".

We recommend removing the present interior wall coating system and re-coating these surfaces using an A.N.S.I./N.S.F.61 approved coating for use in structures containing potable water and should be done in the near future, as continued exposure of the steel will result in further fatigue (pitting) and eventually result in failure.

All interior surfaces should be re-evaluated after all coating has been removed to determine the most suitable means of re-surfacing the areas having fatigue.

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All overhead panels, welds and supports were found appearing sound while the protective coating applied to these surfaces yields decline in film thickness resulting in blotch rusting, yet no fatigue was seen at the time of this inspection.

We recommend re-coating the interior overhead surfaces using an A.N.S.I./N.S.F.61 approved coating for use in structures containing potable water and should be done when the interior walls are rehabilitated.

All floor panel and weld surfaces appeared sound and with the protective coating applied to these steel panels having good adhesion value after removing the accumulated precipitate.

Heavy staining exists throughout all floor surfaces due to the accumulation of precipitate.

The piping within this structure remained unobstructed at the time of this inspection.

Upon completing this inspection, all floor surfaces of the tank were vacuumed.

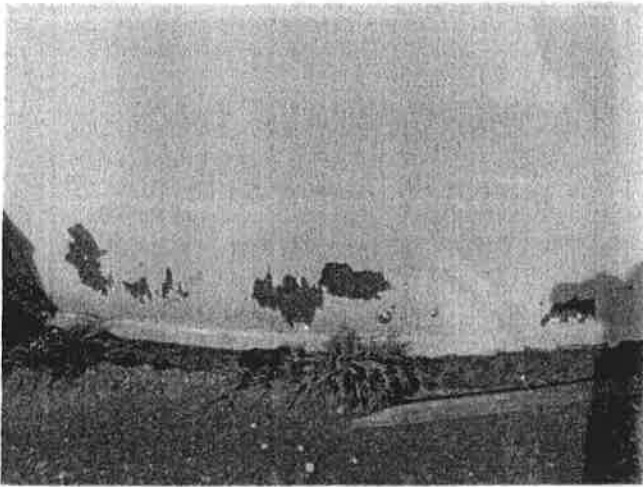
As always, we recommend re-inspection and cleaning of all water storage facilities in accordance with A.W.W.A. Standards and local guidelines.



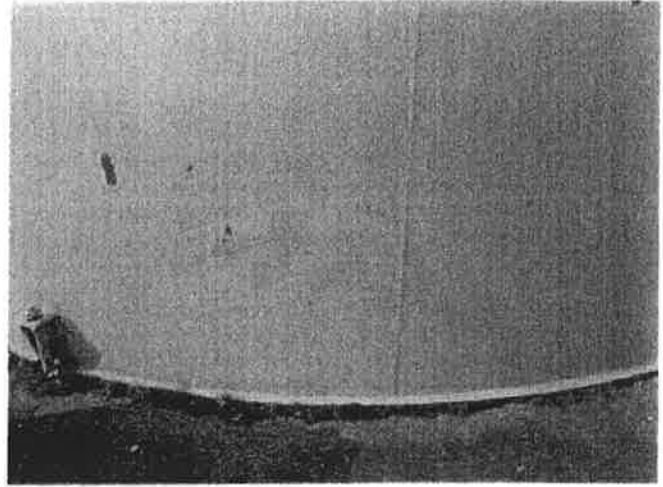
UNDERWATER SOLUTIONS INC.
William T. Cornish, President

This report, the conclusions, recommendations and comments prepared by Underwater Solutions Inc. are based upon spot examination from readily accessible parts of the tank. Should latent defects or conditions which vary significantly from those described in the report be discovered at a later date, these should be brought to the attention of a qualified individual at that time. These comments and recommendations should be viewed as information to be used by the Owner in determining the proper course of action and not to replace a complete set of specifications. All repairs should be done in accordance with A.W.W.A. and/or other applicable standards.

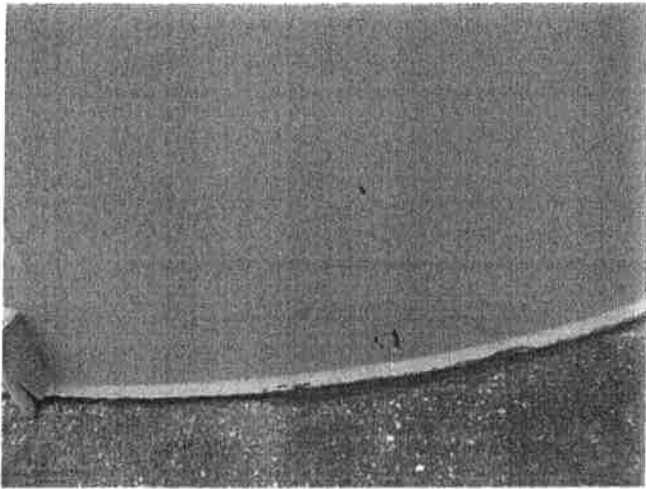
WTC/jld



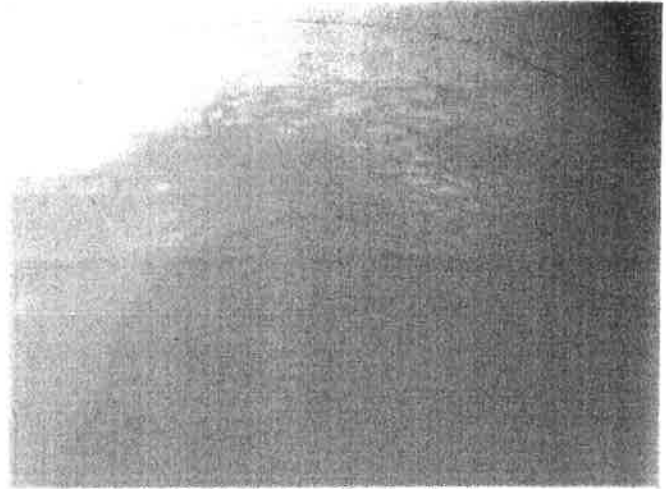
1 *Exterior Walls Yielding Coating Failure, Coating Chips, Exposed Steel And Corrosion*



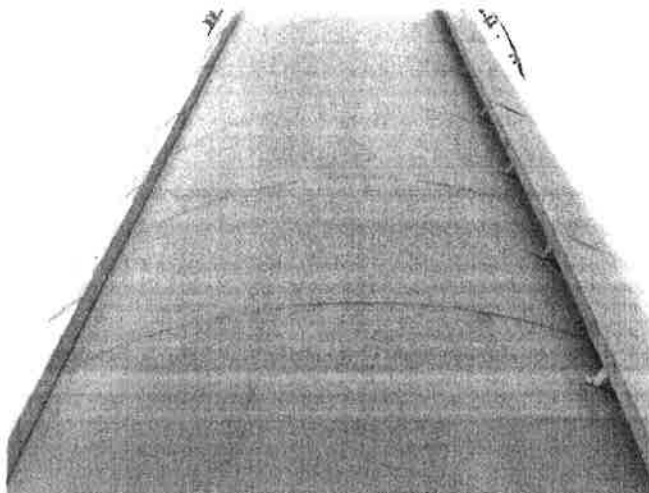
2 *Exterior Walls Yielding Coating Failure, Coating Chips, Exposed Steel And Corrosion*



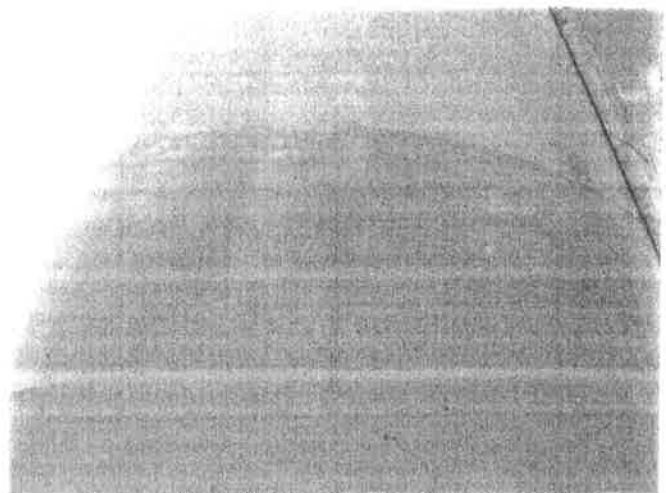
3 *Exterior Walls Yielding Coating Failure, Coating Chips, Exposed Steel And Corrosion*



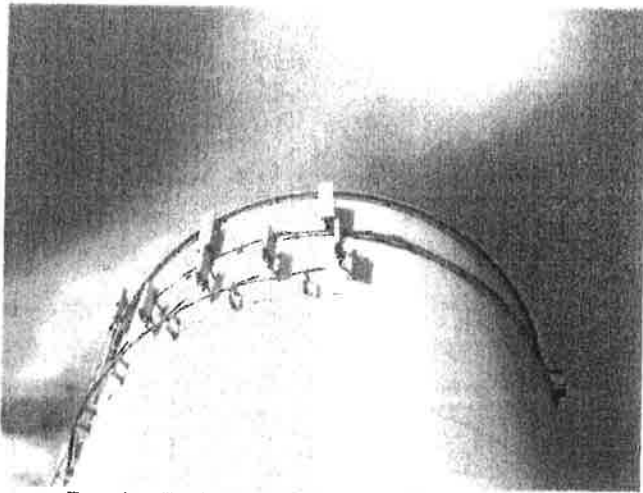
4 *Exterior Walls Yielding Coating Failure, Coating Chips, Exposed Steel And Corrosion*



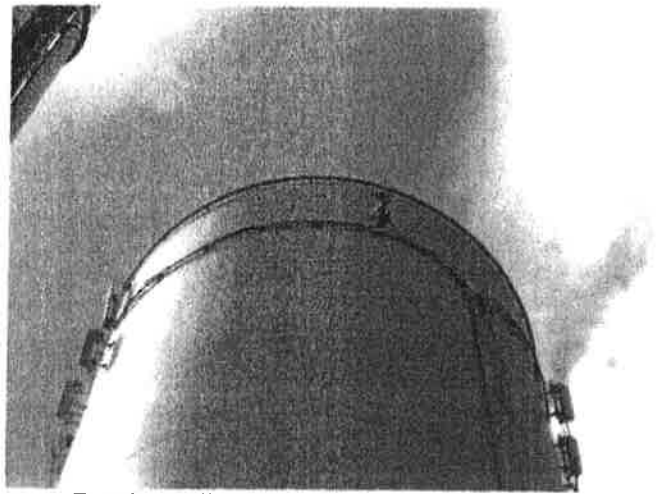
5 *Exterior Walls Yielding Coating Failure, Coating Chips, Exposed Steel And Corrosion*



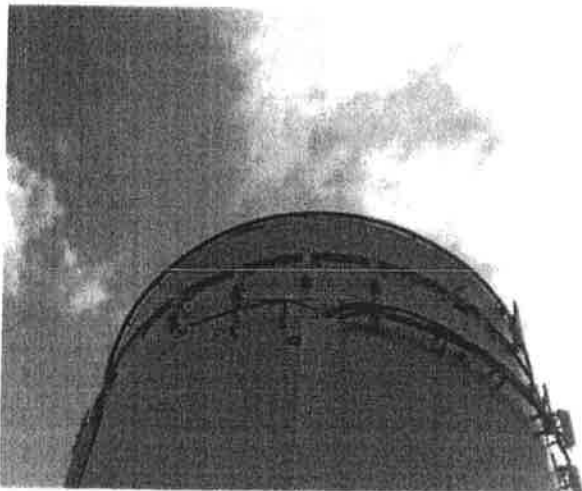
6 *Exterior Walls Yielding Coating Failure, Coating Chips, Exposed Steel And Corrosion*



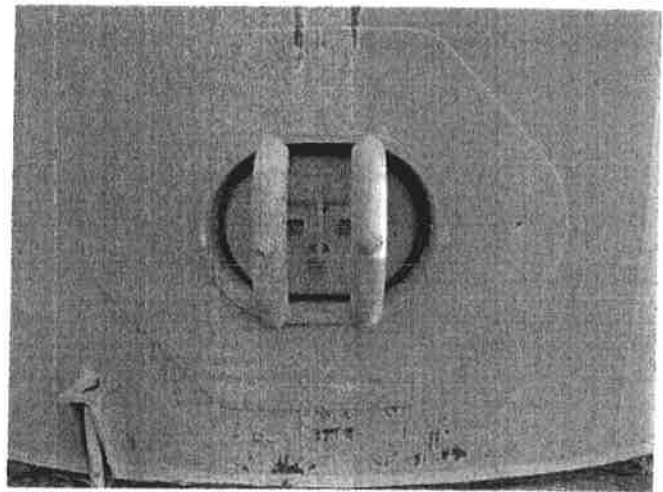
7 *Exterior Walls Yielding Coating Failure, Coating Chips, Exposed Steel And Corrosion*



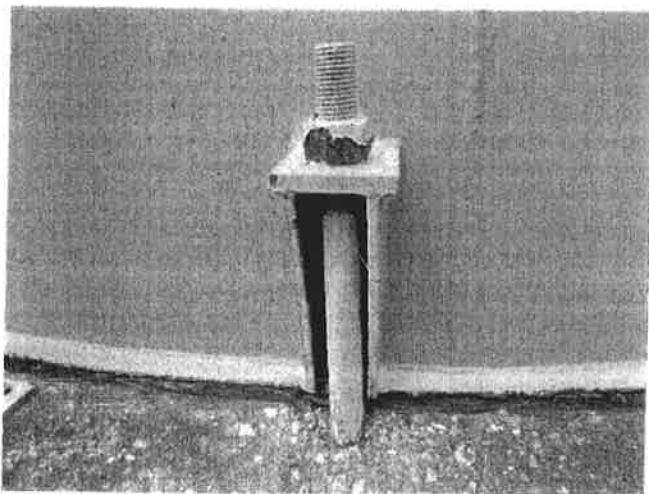
8 *Exterior Walls Yielding Coating Failure, Coating Chips, Exposed Steel And Corrosion*



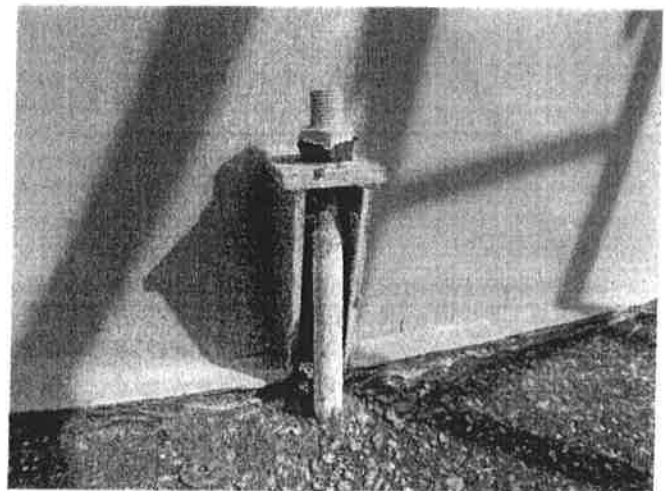
9 *Exterior Walls Yielding Coating Failure, Coating Chips, Exposed Steel And Corrosion*



10 *Manway*



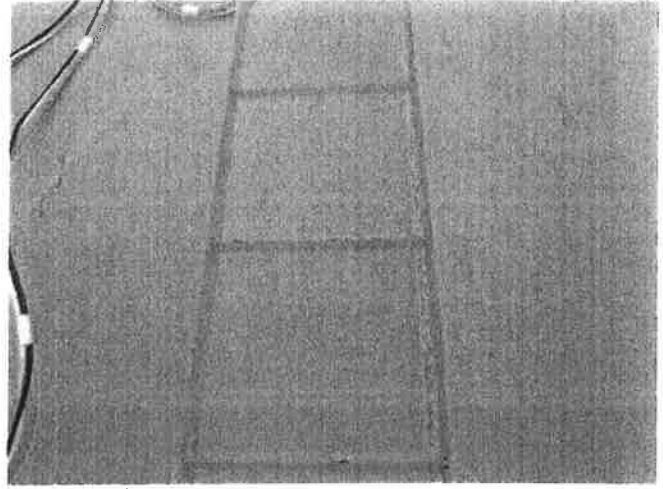
11 *One Of Ten Anchor Bolts With Coating Failure*



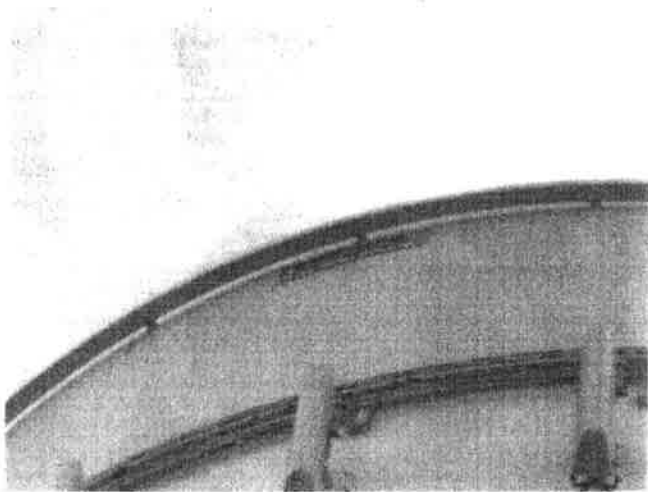
12 *One Of Ten Anchor Bolts With Coating Failure*



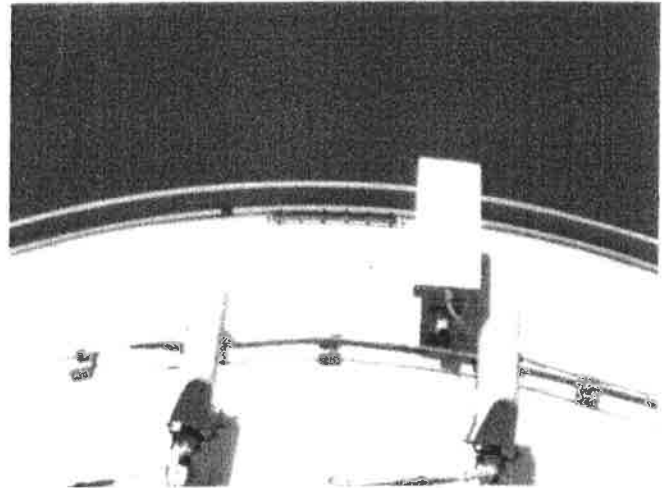
13 *Ladder*



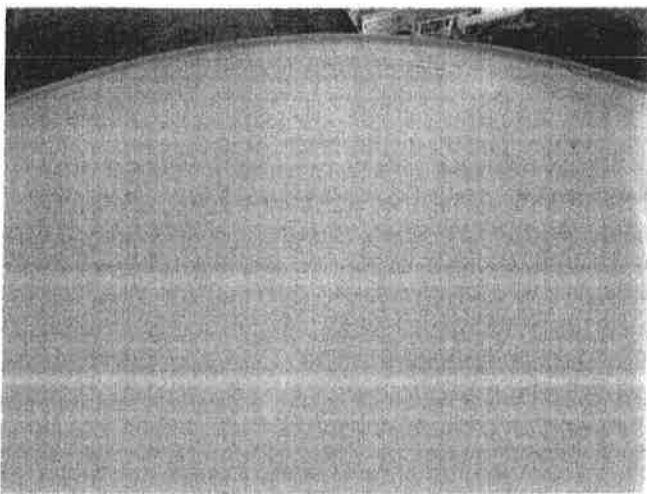
14 *Ladder*



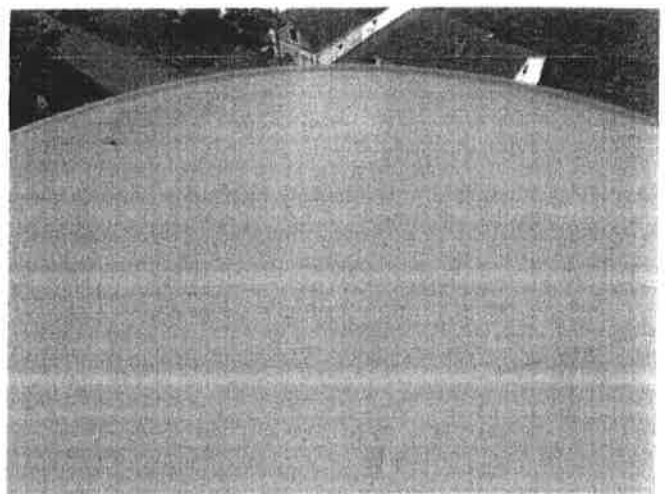
15 *Overflow*



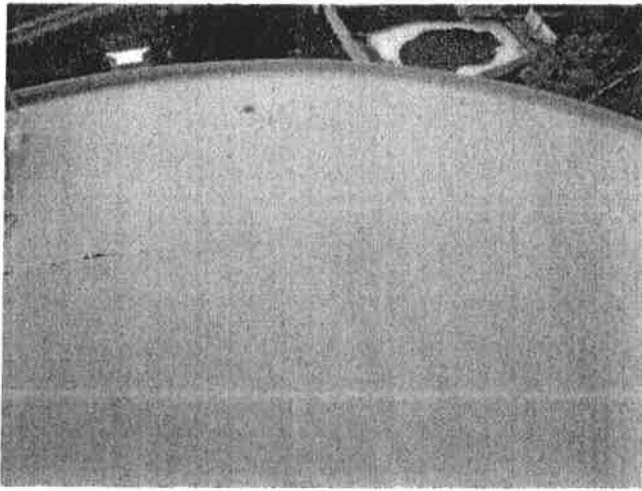
16 *Overflow*



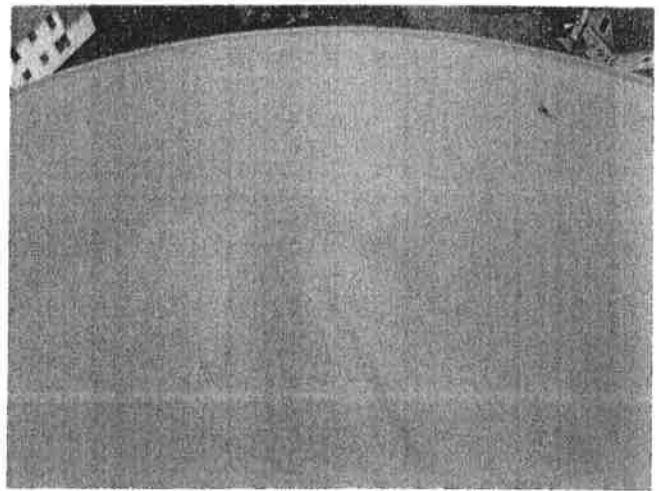
17 *Roof Dome Panels Yielding Expired Coating*



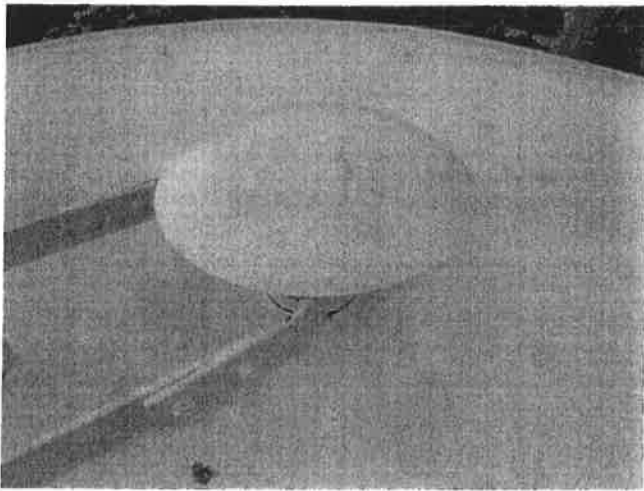
18 *Roof Dome Panels Yielding Expired Coating*



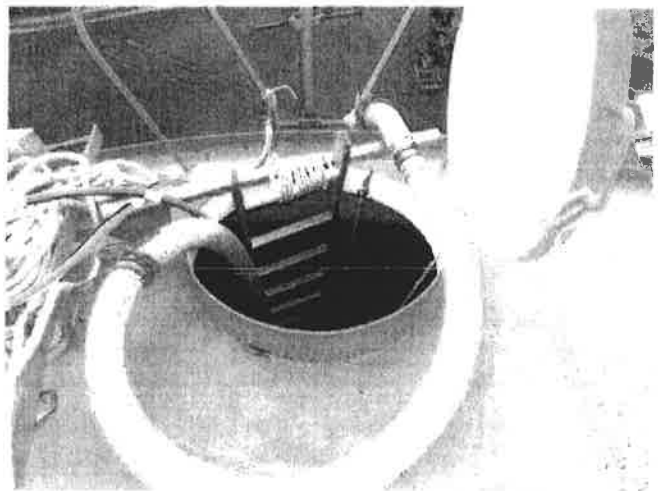
19 *Roof Dome Panels Yielding Expired Coating*



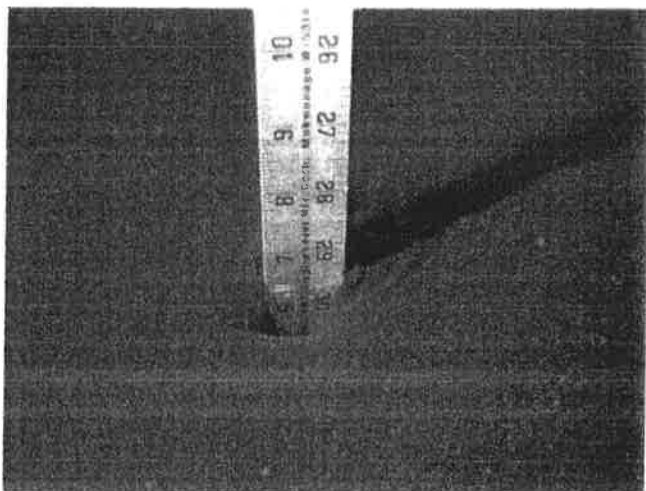
20 *Roof Dome Panels Yielding Expired Coating*



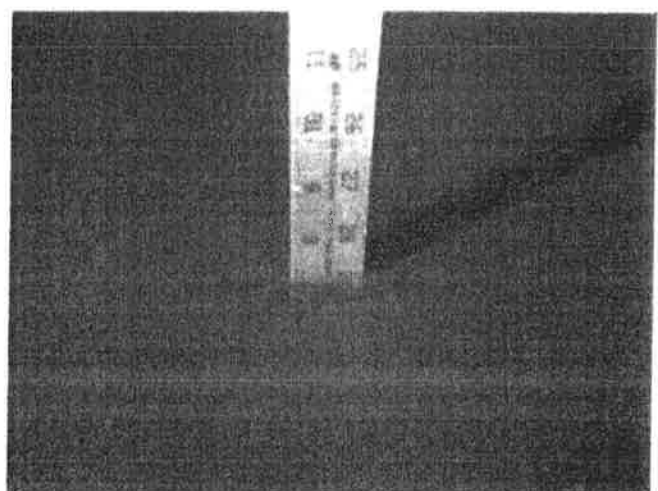
21 *Vent*



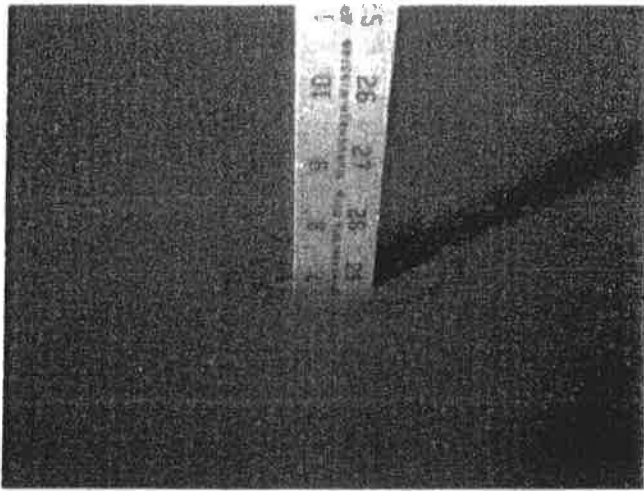
22 *Hatch*



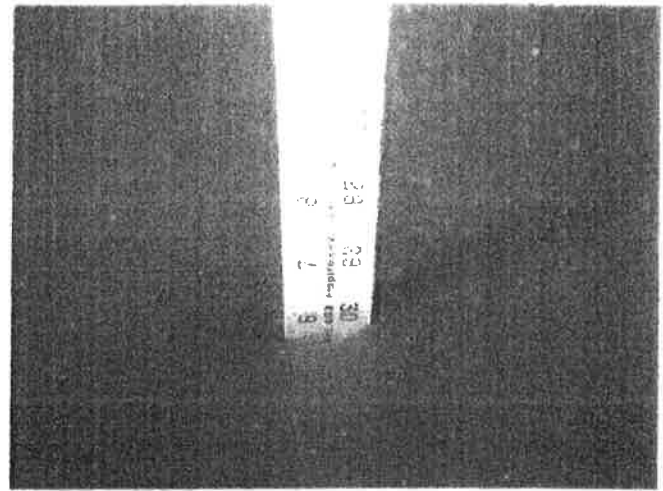
23 *Layer Of Precipitate*



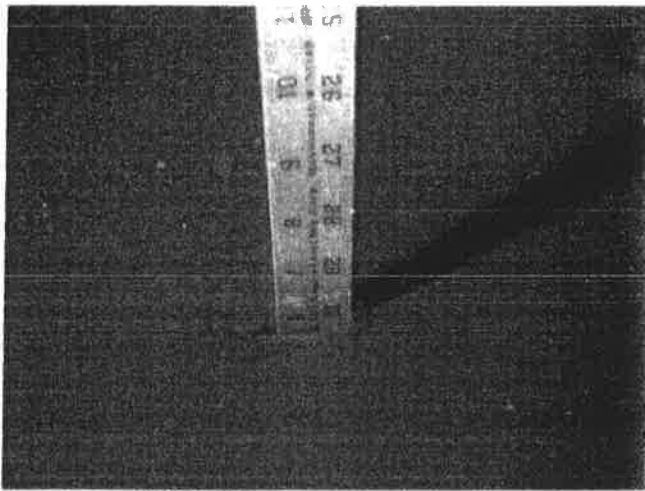
24 *Layer Of Precipitate*



25 *Layer Of Precipitate*



26 *Layer Of Precipitate*



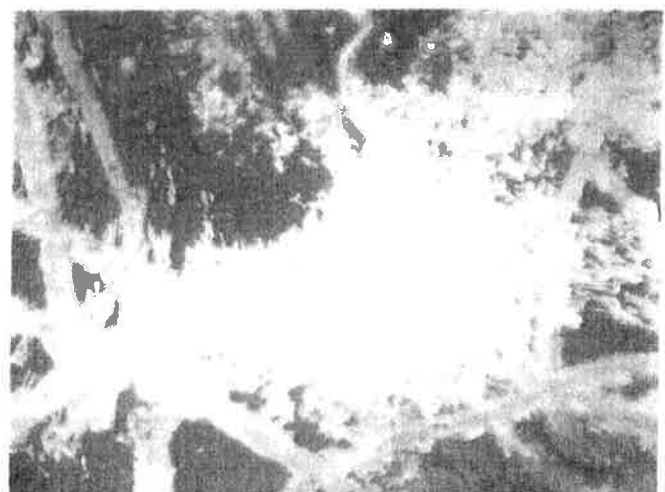
27 *Layer Of Precipitate*



28 *Floor Panels Found Yielding Heavy Staining After Cleaning*



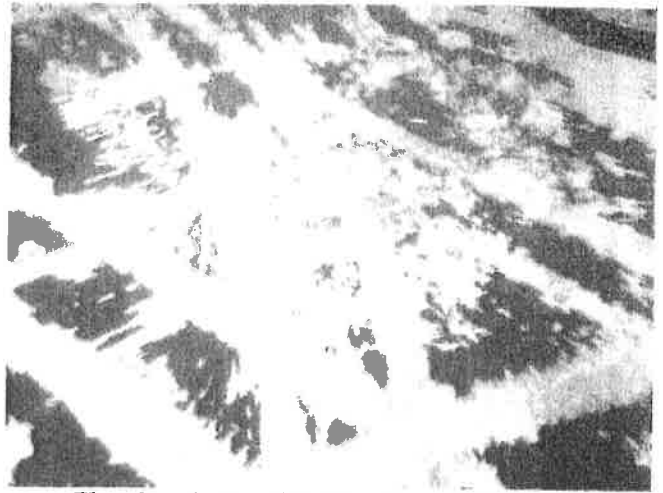
29 *Floor Panels Found Yielding Heavy Staining After Cleaning*



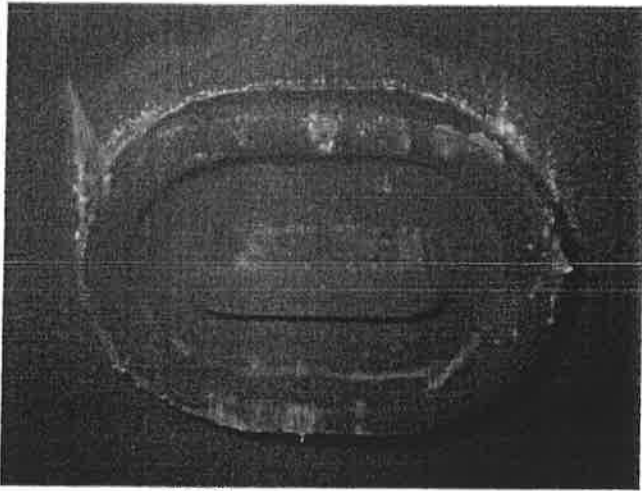
30 *Floor Panels Found Yielding Heavy Staining After Cleaning*



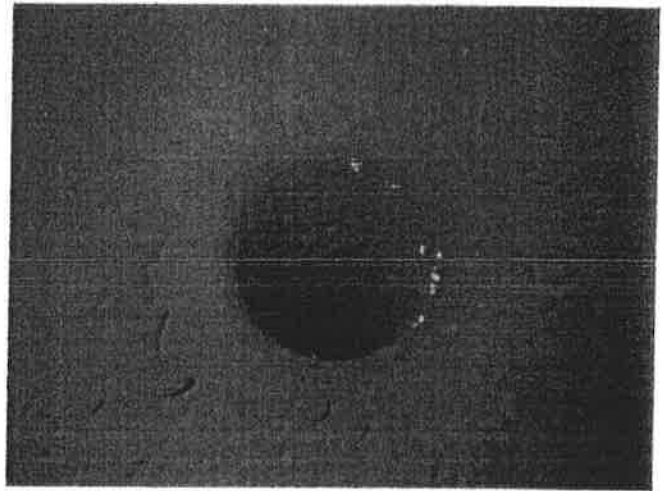
31 *Floor Panels Found Yielding Heavy Staining After Cleaning*



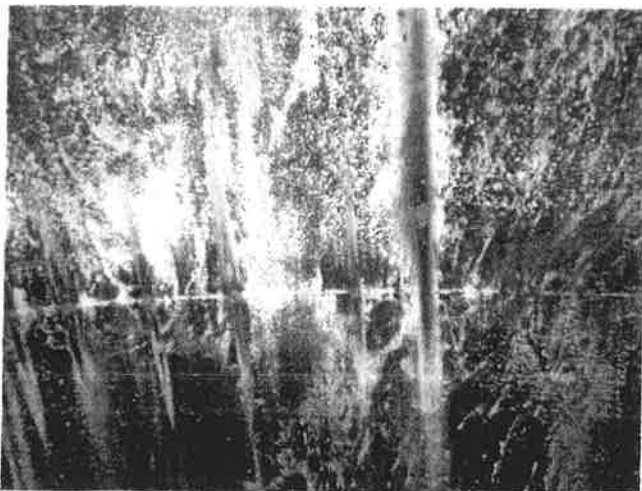
32 *Floor Panels Found Yielding Heavy Staining After Cleaning*



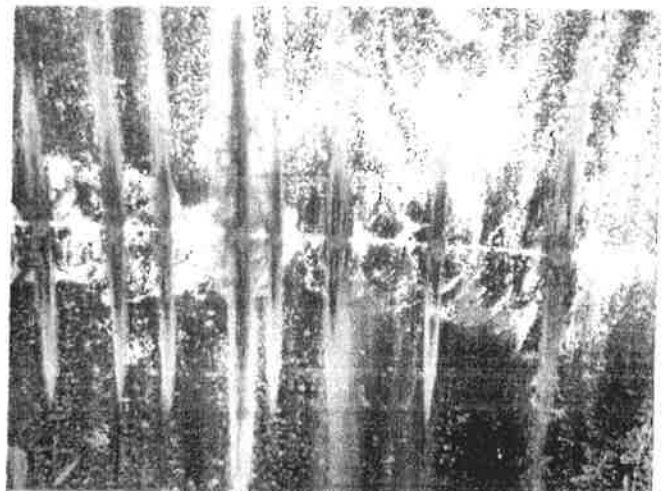
33 *Manway Yielding Heavy Staining, Coating Failure And Corrosion*



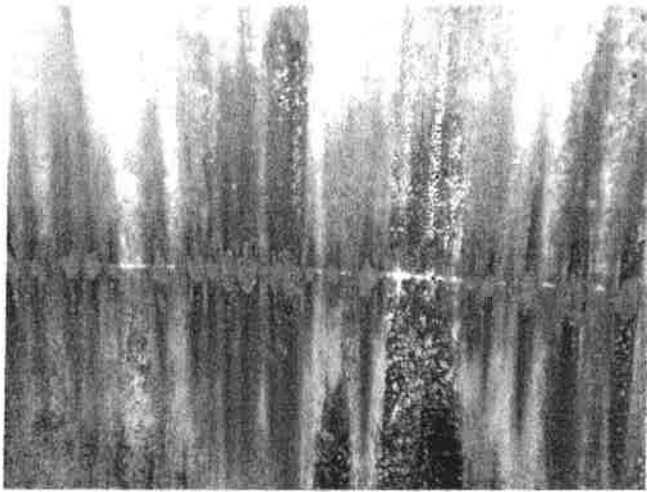
34 *Piping*



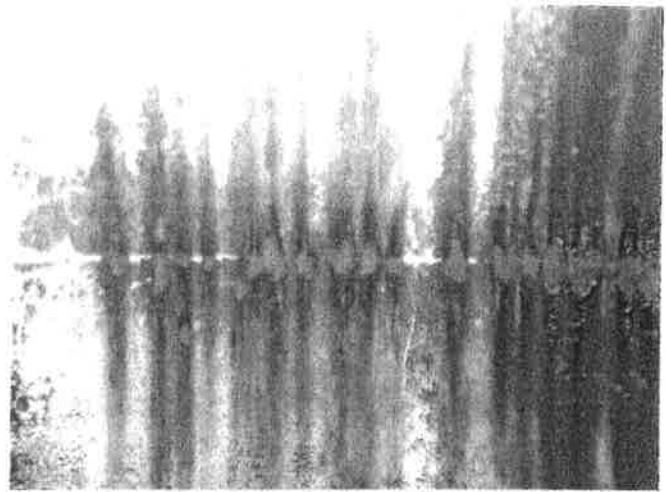
35 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



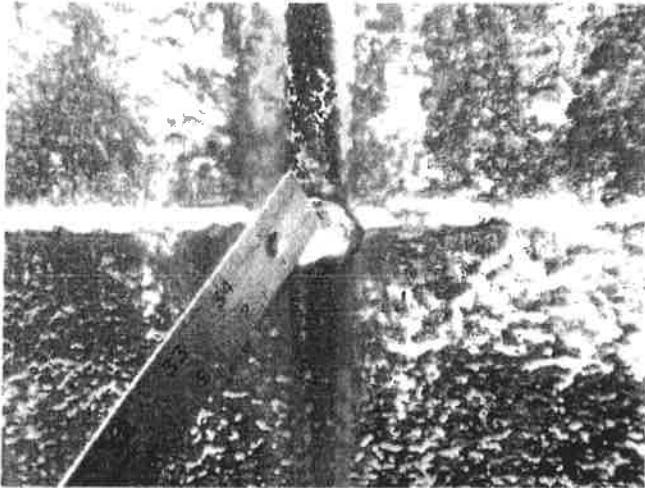
36 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



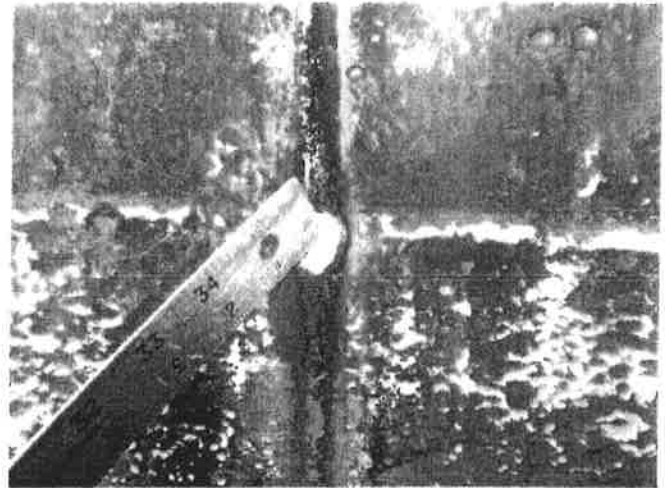
37 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



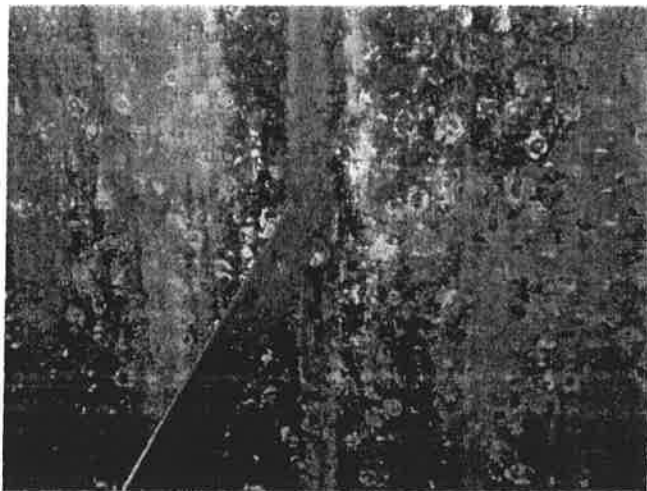
38 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



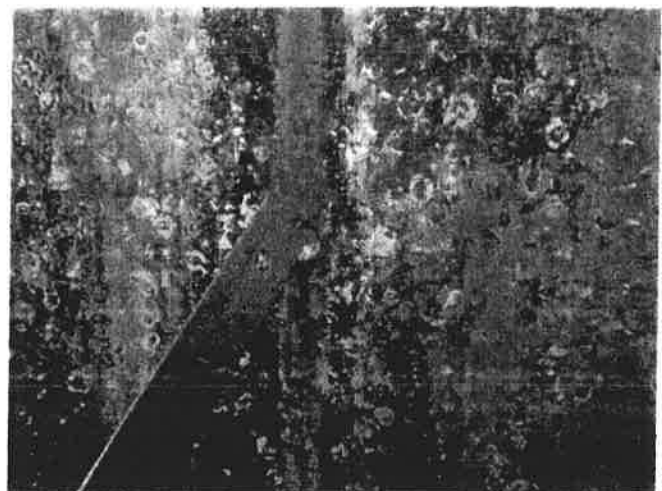
39 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



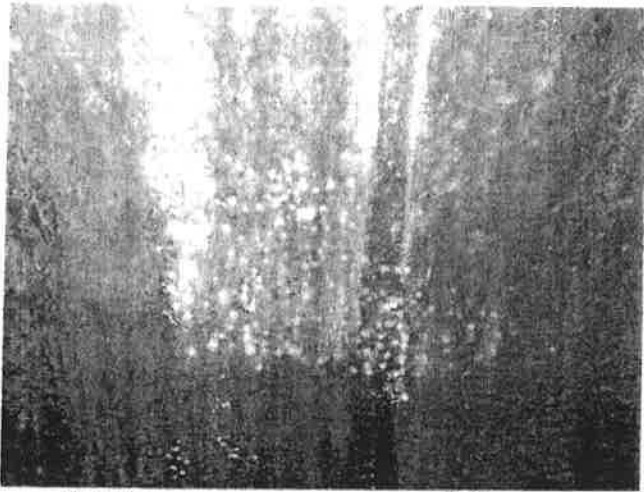
40 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



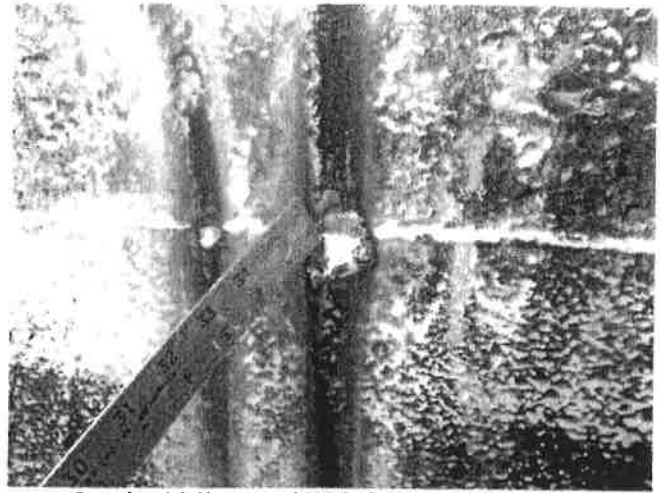
41 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



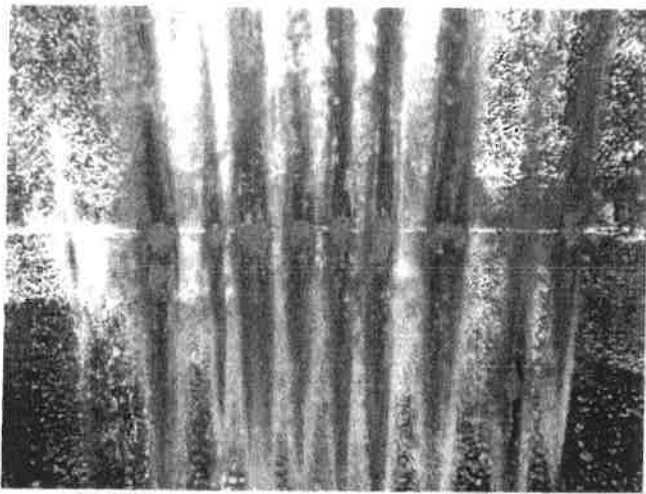
42 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



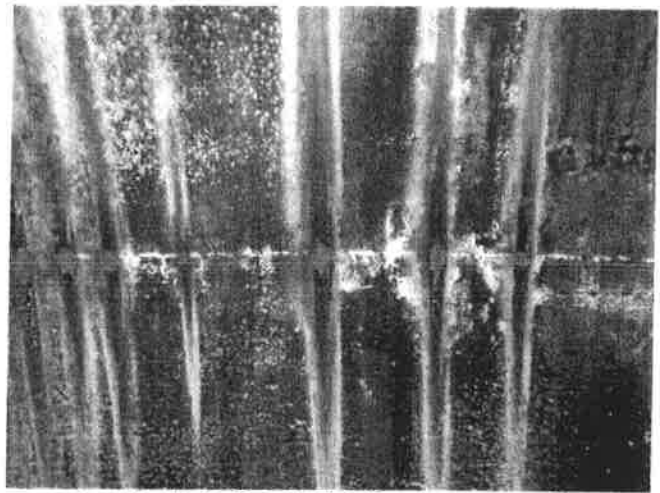
43 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



44 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



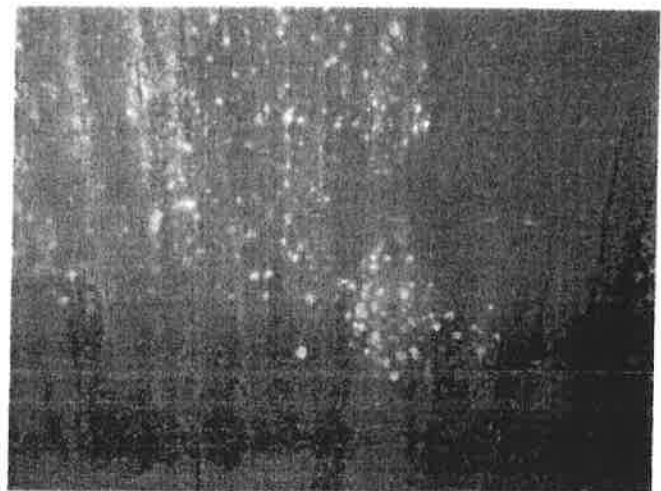
45 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



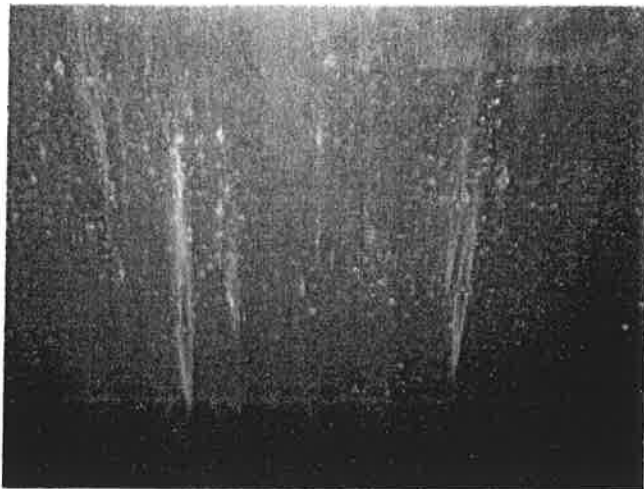
46 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



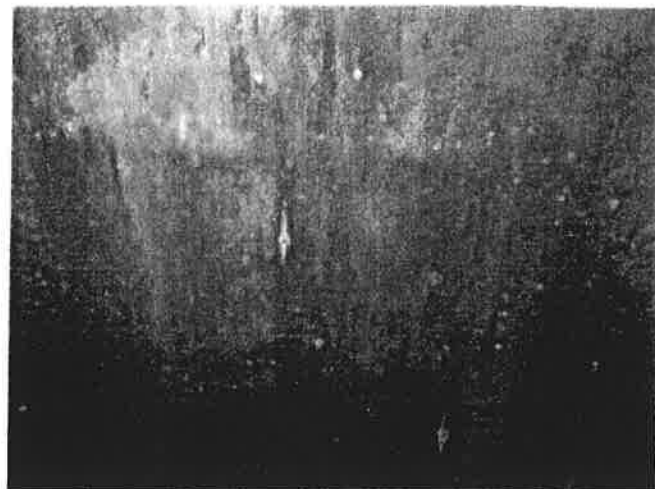
47 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



48 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



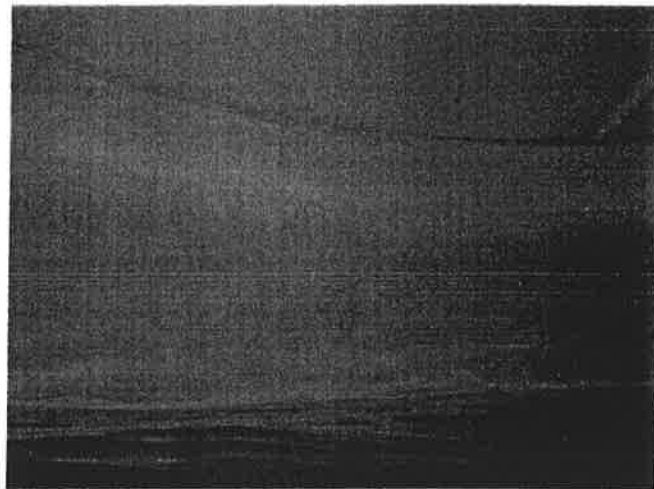
49 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



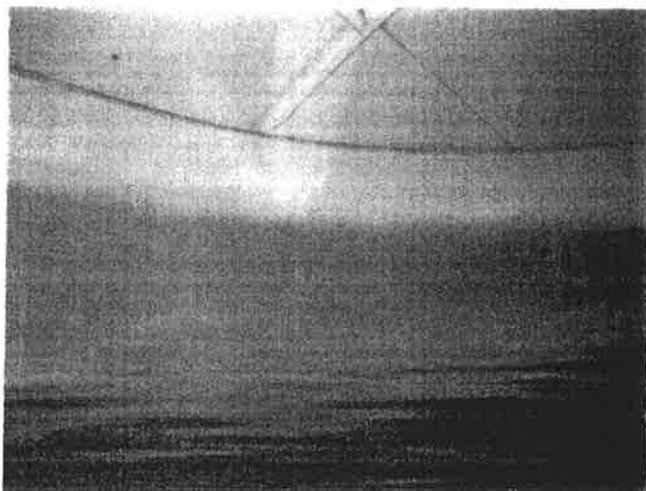
50 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



51 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



52 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



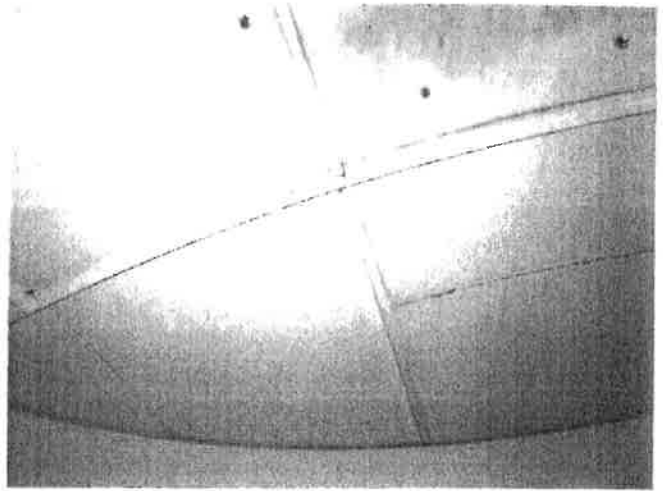
53 *Interior Walls Found With Coating Failure, Exposed Steel, Corrosion, Pitting And Staining*



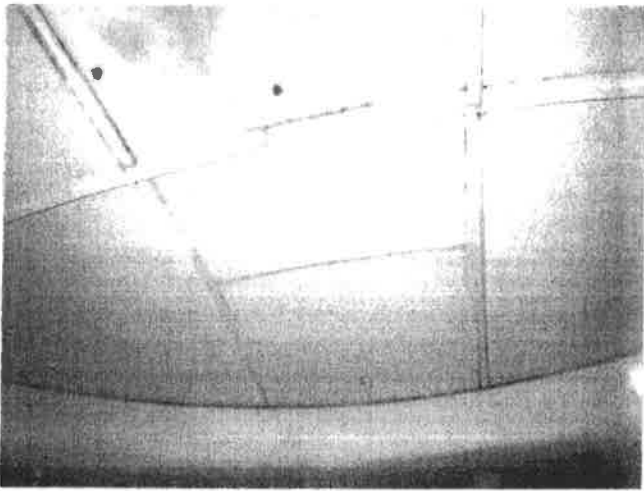
54 *Overhead Panels Yielding Expired Coating And Blotch Rusting*



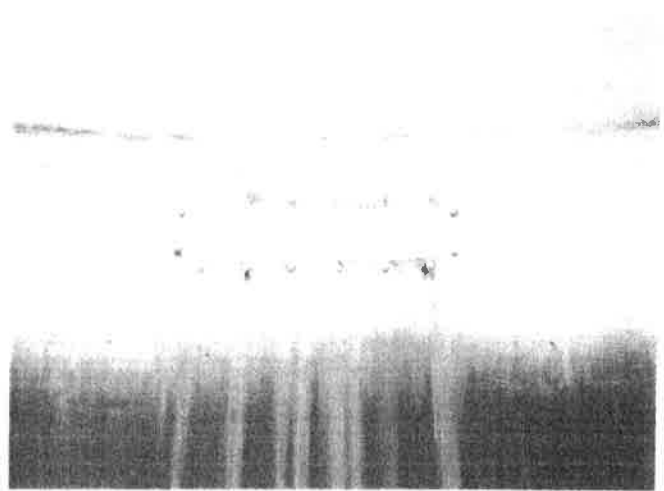
55 *Overhead Panels Yielding Expired Coating And Blotch Rusting*



56 *Overhead Panels Yielding Expired Coating And Blotch Rusting*



57 *Overhead Panels Yielding Expired Coating And Blotch Rusting*



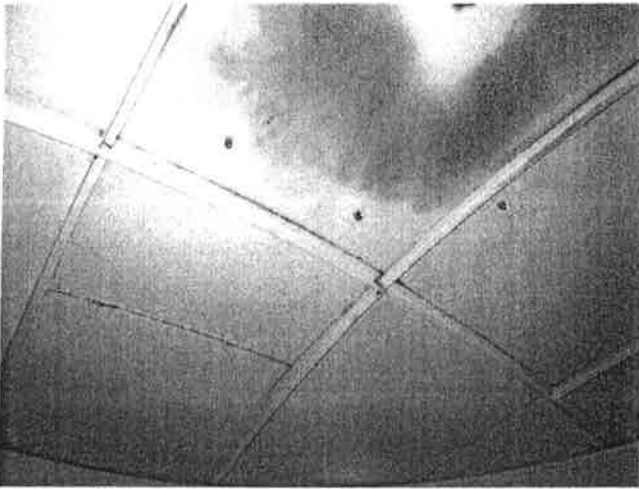
58 *Overflow*



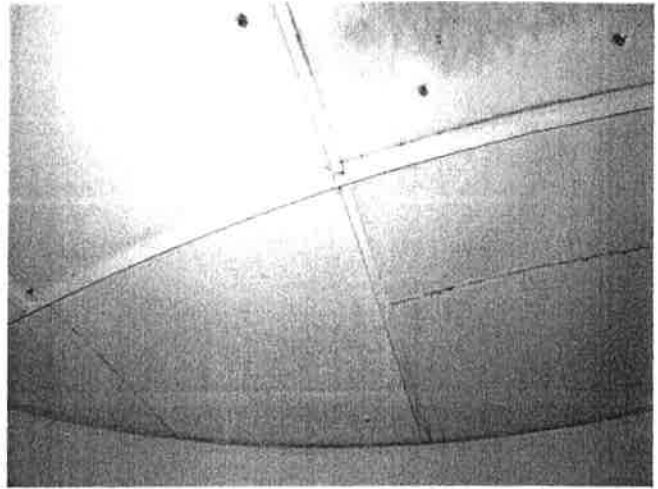
59 *Overflow*



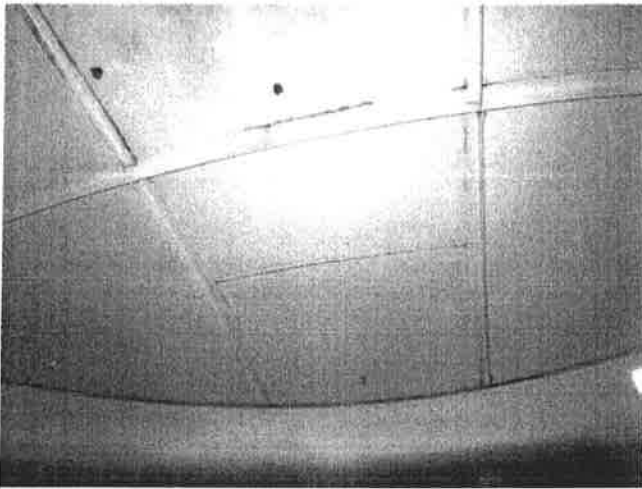
60 *Discharge During Cleaning*



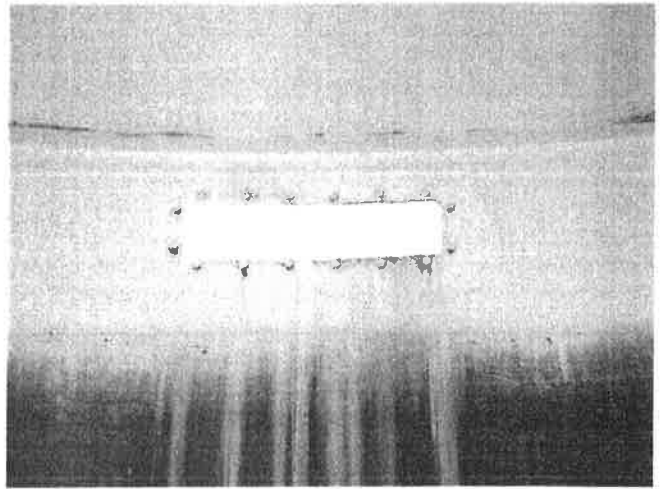
55 *Overhead Panels Yielding Expired Coating And Blotch Rusting*



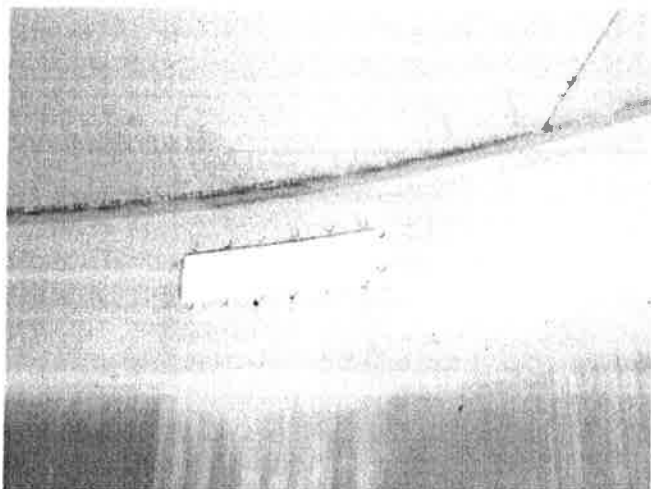
56 *Overhead Panels Yielding Expired Coating And Blotch Rusting*



57 *Overhead Panels Yielding Expired Coating And Blotch Rusting*



58 *Overflow*



59 *Overflow*



60 *Discharge During Cleaning*

City Responsibility

FRANKLIN MUNICIPAL SERVICES
 NHDOT Project: FRANKLIN NH 13928A

November 12, 2014

Preliminary estimate of quantities to relocate 12" DI water main
 where the existing water main is in conflict with proposed drainage improvements.

NON-PARTICIPATING

Item No.	Description	Unit	Quantity	Unit Cost	Total
202.31	FILL ABANDONED PIPE	CY	1.00	\$200.00	\$200.00
202.41	REMOVAL OF EXISTING PIPE 0" - 24" DIAMETER	LF	0.0	\$11.00	\$0.00
611.05206	6" CEMENT LINED DUCTILE IRON WATER PIPE, CL 52	LF	110	\$70.00	\$7,700.00
611.05212	12" CEMENT LINED DUCTILE IRON WATER PIPE, CL 52	LF	1,540	\$100.00	\$154,000.00
611.50107	3/4" COPPER WATER PIPE	LF	50	\$40.00	\$2,000.00
611.5012	2" COPPER WATER PIPE	LF	30	\$60.00	\$1,800.00
611.51007	3/4" CORPORATION STOP	EA	2	\$2,000.00	\$4,000.00
611.5102	2" CORPORATION STOP	EA	1	\$3,500.00	\$3,500.00
611.5202	2" CURB STOP	EA	1	\$700.00	\$700.00
611.70006	6" FITTING	EA	8	\$500.00	\$4,000.00
611.70012	12" FITTING	EA	38	\$900.00	\$34,200.00
611.71006	6" GATE VALVE	EA	3	\$1,300.00	\$3,900.00
611.74	CHLORINE INJECTION TAP	EA	3	\$725.00	\$2,175.00
611.81	HYDRANT	EA	1	\$3,500.00	\$3,500.00
611.184	REMOVING HYDRANT	EA	1	\$1,000.00	\$1,000.00
611.951	WATER MAIN INSULATION	SY	8.0	\$18.00	\$144.00

Note: Unit prices based on NHDOT Weighted Average Unit prices for 2014 - Q1 and Q2 and 2013 - Q3 and Q4, Group A, where available and other group prices when no Group is listed. In addition, these unit prices were verified by the Franklin Municipal Services Department.

SUB-TOTAL		\$222,819.00
10% Constr. Engr.		\$22,281.90
TOTAL		\$245,100.90

State Responsibility

FRANKLIN MUNICIPAL SERVICES
NHDOT Project: FRANKLIN NH 13928A

November 12, 2014

Preliminary estimate of quantities to relocate 12" DI water main
where the existing water main is in conflict with proposed drainage improvements.

PARTICIPATING

Item No.	Description	Unit	Quantity	Unit Cost	Total
611.05206	6" CEMENT LINED DUCTILE IRON WATER PIPE, CL 52	LF	65	\$70.00	\$4,550.00
611.05212	12" CEMENT LINED DUCTILE IRON WATER PIPE, CL 52	LF	350	\$100.00	\$35,000.00
611.70012	12" FITTING	EA	7	\$900.00	\$6,300.00
611.71006	6" GATE VALVE	EA	1	\$1,300.00	\$1,300.00
611.71012	12" GATE VALVE	EA	3	\$2,600.00	\$7,800.00
611.74	CHLORINE INJECTION TAP	EA	1	\$725.00	\$725.00
611.81	HYDRANT	EA	1	\$3,500.00	\$3,500.00
				SUB-TOTAL	\$59,175.00
				10% Constr. Engr.	\$5,917.50
				TOTAL	\$65,092.50

Note: Unit prices based on NHDOT Weighted Average Unit prices for 2014 - Q1 and Q2 and 2013 - Q3 and Q4, Group A, where available and other group prices when no Group is listed. In addition, these unit prices were verified by the Franklin Municipal Services Department.

LEGEND

WATER MAINS

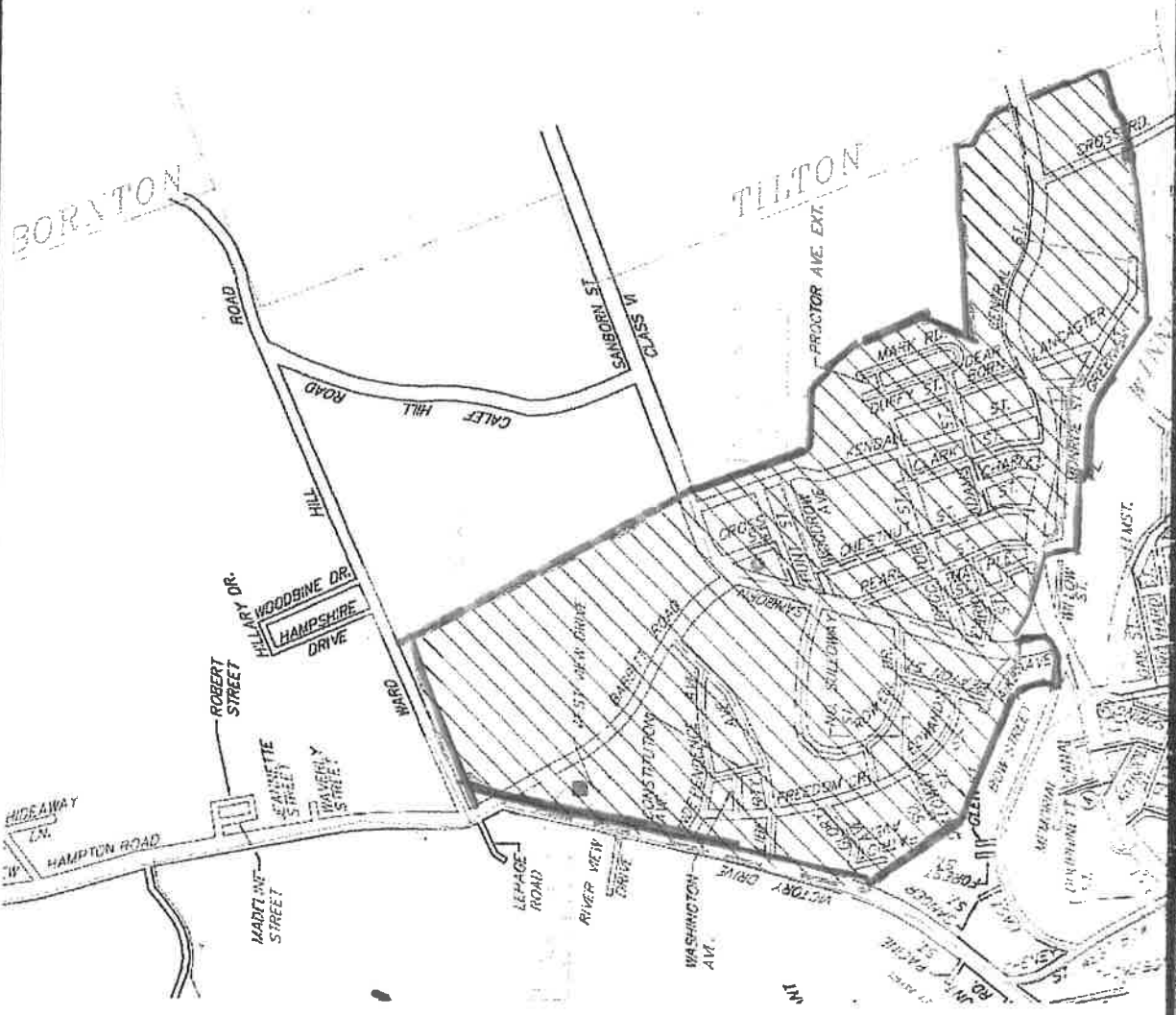
- 16" DIA.
- 12"
- 10"
- 8"
- 6"

4" DIA. OR LESS
HIGH SERVICE AREA

WATER FACILITIES

○ STORAGE

■ BOOSTER PUMPING STATION



**WILLOW HILL STORAGE
TANK AND SERVICE AREA**

SECTION 1 – SYSTEM DESCRIPTION

A. Source

- a. Acme Well Field: Two wells constructed in 1964: Acme #1 (GPW 1N 001) is 76 feet deep and Acme #2 (GPW 2S 002) is 80 feet. Both have a 24" well casing inside a 42-inch set caisson. Pumps located in underground vaults (8'x12') Below ground vertical turbine pumps had original yield of 710(Acme 1) and 700 gpm (Acme 2), respectively. Acme #1 is currently at 400 gpm and Acme #2 at 500 gpm. Acme Well No. 1 was contaminated during the 1980's with Trichloroethylene (TCE). The groundwater cleanup project, which was completed in 1992, allowed use of the well. Currently the well area is covered by the Groundwater Management Permit Number GWP-198705001-F-004, approved by the Department of Environmental Services (Department). This permit is issued for a period of 5 years to monitor the effects of past discharges of volatile organic compounds for both wells was issue in 2010. Monitoring is required by ACME Staple Company. The system has an emergency diesel generator and is monitored by the SCADA controls. Documents for specifications available at Municipal Services Office at 43 Bow Street
- b. Franklin Falls Well: (GPW 3 004) One well constructed in 1986. Vertical turbine pump original capacity 1,000 gpm, modified in 2006 to include a VFD. Current pump capacity 500 gpm with maximum capacity of 900 gpm. Pump building concrete block (25' x20') Building addition in 1994 for chemical feed (11' x12') Abandoned in 2012. Generator was added to the well in 2012.
- c. Sanbornton Well: (Ptw Field 003) Well Field constructed in 1948. Original 30 wells, in 2008 there are fifty-one 2 ½ inch driven wells. Pump station building concrete with brick veneer (24'x27') Pumping station equipped with two vacuum rotary pumps (5HP), pneumatic tank, with two De Laval horizontal split case centrifugal 50HP pumps, capable of 500gpm. Station received electrical upgrade in 2006, pump rebuilt new motors. New generator Kohler .

B. Treatment

a. Acme Well/Franklin Falls Treatment System:

- 1) The Acme treatment plant was constructed in 2012. Water from the Franklin Falls Wells is transported across the River with a 12-inch main. The Acme Wells 1 and 2 are also connected to the treatment plant. Operator can choose which wells will feed the treatment plant at any given time. The wells are treated for excessive iron and manganese, disinfected and pH adjusted and introduced into the water system. The system uses the well pumps to pressurize the treatment system. Detailed operations protocols are maintained at the plant.
- 2) The building has exterior dimensions of 65' x66'. The first floor has 4,100 sq ft and the second floor mezzanine has 1,400 sq. ft. The basement area is for the backwash water tank which uses 1,300 square feet and the remaining area is 1,400 sq ft of cold

storage. The treatment plant first floor includes the filter room, laboratory, office, locker/bathroom, plan storage, dry chemical feed and wet chemical feed area.

- 3) Treatment chemicals are turned on and off based on flow rate entering the Treatment Plant. Chemicals are adjusted by flow only, not source water quality. Balancing takes place by the operator dependent of what sources are being used at the time.
- 4) Treatment System Design Summary

The detailed Operations Plan for the WTP is located at the treatment plant building

Process Equipment

Firm Flow rate	1,000 gpm
Filter service rate at Design flow	5.22 gpm/ft ²
Minimum Total Filter Bed Surface Area	201 ft ²
Filter vessel material	Painted steel
Piping.....	Ductile iron or Epoxy coated Carbon steel
Number of Vertical Vessels	4
Surface Area per Filter	50.3 ft ²
Dimensions of Media Bed	8 ft diameter
GreensandPlus™ Media:	
Depth of GreensandPlus Media (ES 0.3 to 0.35 mm)....	18 inches
Depth of Anthracite Media	18 inches
Depth of Support Gravel	16 inches
Filter service rate required during Backwash	4.00 gpm/ft ²
Filter backwash system	Air/water and water
Maximum filter backwash rate	12 gpm/ft ²
Daily backwash waste produced	24,000 gallons
Daily filter to waste produced	3,000 gallons
Generator.....	Kohler

Process Pumping Equipment

Supernatant Pumps

Type of Pumps:	multi-stage centrifugal
Number of Pumps:	2
Rated Capacities:	40 gpm @ 300 feet TDH
Motor Horsepower.....	.5

Sludge Pump

Type of Pumps	Single-speed, end-suction centrifugal
Number of Pumps:	1
Rated Capacities:	100 gpm @ 25 feet TDH
Motor Horsepower:.....	1.5

Chemicals

Sodium Hypochlorite

Chemical Uses	Oxidation and Disinfection
State	Bulk Liquid (12.5% solution)
Chemical delivery ...	275 gallon bulk totes or truck load to bulk tanks
Bulk Tank.....	545 gallons

Tote Tank.....	275 gallons
Day Tank	35 gallons
Number of feed pumps..	plus 1 installed spare
Application point	Raw, Finished water
Pump type.....	Diaphragm, LMI
Oxidation Design dosage	4.0 mg/L
Residual Design dosage	2.0 mg/L
Residual at end of water system.....	0.2 mg/L
Number of transfer pumps	1

Sodium Carbonate (Soda Ash)

Chemical Uses	pH Adjustment
State	Dry (50lb bag)
Equipment... volumetric feeder, Acrison W-105 Dry Chemical feeder	
Solution Make-up.....	14% Sodium Carbonate Solution
Number of feed pumps	1 plus 1 installed spare
Application point	Raw, Finished water
Design dosage	25 mg/L
Metering pump.....	LMI

Orthophosphate

Chemical Uses	Corrosion Control
State	55 Gallon Drums (36% solution)
Number of feed pumps.....	1 plus 1 installed spare
Application point	Finished water
Design dosage	3 mg/L

- b. Sanbornton Well Field; Well Field constructed in 1948 >Original 30 wells, in 2008. There are fifty-one 2 ½ inch driven wells. Pump station building concrete with brick veneer (24'x27'). Specifications and manuals available at 43 West Bow Street

1) Treatment System Summary

Pumping station equipped	with two vacuum rotary pumps (5HP)
Tank.....	pneumatic tank
Pumps.....	two De Laval horizontal split case centrifugal 50HP
Pump Capacity	capable of 500gpm
Generator.....	Kohler
Chemical	300 gallon sodium carbonate 1 LMI metering pump
Chemical.....	150 gallon sodium hypochlorite, 1 LMI metering pump

C. Booster Stations

a. *Babbitt Road Booster Station*

- 1) Purpose of Station: Pumps water from the main hydraulic system to the Cross Street Tank. Above ground booster station constructed in 1964. Building concrete with brick veneer (16'x20') . Numerous upgrades , the latest was 2003. Pumps are called on and off by the level of water in the Cross Street tank. Pumps run 1 at a time and alternate each cycle.

Pumps 2
Horsepower 15 HP
Pump Capacity 300 gallons per minute
GeneratorPropane

b. *Pleasant Street Booster Pump Station*

- 1) Pumps water from the main hydraulic system to the Million Gallon tank on Pleasant Street. There are approximately 200 homes serviced by this pressure zone. Water pumps to tank, intermediate pressure reducing valve decreases pressure to the homes in the lower service area of this high pressure zone. This is the service area which includes the Winnepesaukee River Basin Treatment Plant. Pumps are called on and off by the level of water in the Pleasant Street Million Gallon tank. Pumps run 1 at a time and alternate each cycle.

Pumps 2
Horsepower 20 HP
Pump Capacity 250 gallons per minute
GeneratorPropane

Specs available at ACME plant

D. Distribution System:

- a. Franklin has a low service area which receives water directly from the wells or treatment plant. This service area contains three tanks which provide emergency storage and maintain the hydraulic grade line. There is the Cross Street high service area which received water from the Babbitt Road booster station and is located on the north side of the Pemigewasset River and east of Victory Drive. The East Pleasant Street Service area receives water from the Pleasant Street Booster station. It services a nursing home and some residential housing. This service area has a 3' and 6" pressure reducing valve which lowers pressure of the system for service to the upper part of the area south of the Pemigewasset River and the WRBP treatment Plant. Service Area maps are available at the treatment plant, 43 West Bow Street and from CAI technologies.
- b. Franklin has 325 hydrants connected to a pressurized water system, 12 hydrants connected to the water system which need to be pressurized with a fire truck interconnection and additional 14 dry hydrants which are connected to ponds, tanks, or other water sources.
- c. Most of the distribution system is either cast iron or ductile iron pipe. The River Crossing pipe is plastic and there are a few areas of transite (asbestos cement) pipe in the system.

E. Tanks

- a. All detailed specifications and drawings for the tanks are located at the municipal offices. Tanks require weekly visual inspection. The following is a list of all the Tanks in the system

	Year Built	Base Elevation	Overflow Elevation	Height* (Ft)	Diameter (Ft)	Capacity (Gal)
<u>Low Service Tank</u>						
North Main Street	2013	Prestressed Concrete	556.5	20	65	500,000
Salisbury Road	2012	Prestressed Concrete	556.5	36.5	50	500,000
Pleasant Street	1991	Prestressed Concrete	556.5	17	87.5	760,000
<u>High Service Tank</u>						
Cross Street	1964	Steel	660	90	31	500,000
E. Pleasant Street	1972	Steel	845	85	45	1,000,000

*Height to Overflow

North Main and Salisbury Road have Solar Bee GS-12 mixing (pump system)
 North Main 10" altitude valve with 12" check valve bypass
 Salisbury Road 12" altitude valve with 12" check valve bypass

Water Department Administration / Ten Year Goals and Objectives
January 2105

"U.S. Route 3/Industrial Park Drive Water Main Relocation Project"- 1,540 linear feet
Secure funding and coordinate subsurface utility work during the summer of 2015.

Water System Global Information System (G.I.S.) Data Collection and Mapping Project

- Data Collection of all Water Department infrastructure by Cartographics, Inc.
- Verification of data with Staff and J.Levy
- Setup G.I.S. Software and program evaluation
- Update all building Tie cards to curb stops, valves etc.

Water Department – Capital Efficiency Plan (C.E.P.)

- The CEP will be the basis for a new Capital Improvements Program
- Assess, Plan, Fund, Repair, Rebuild and Replace
- Develop and implement the City Water Department / Capital Improvement Program (CIP) FY 15 to FY20. This will consist of pipe replacement and abandonment of old water main.

Cross Street Water Tank Repair/ Prep/ Sandblast and Paint Interior and Exterior

- Re appropriate in FY 16 Budget
- Perform work in summer of 2015

East Pleasant Street, Million Gallon Tank

- Perform initial analysis to tie East Pleasant Street high pressure service area into Willow Hill high pressure service area.
- Work with Tilton/Northfield on potential connection of that system to the Franklin system.

Water Department – Leak Detection Survey (2015) and Customer Audit

- Complete systematic survey of all three pressure zones.

Meter Replacement Program

- Complete the replacement of all sizes of water meters a balance of about 450 meters.
- Transition from manual read to radio read technology for water meter readings and billing.

Water Department Operations and Maintenance Plan for each service area, tank maintenance, flushing, maintenance activity by stations.

- City Staff to work with City Engineer on various O and M Plans

Water Department Cross Connection Control and Backflow Prevention Program

- Continue with Citywide Cross Connection Survey and Inventory
- Updated list of customer base and those requiring devices
- On-going testing program twice per calendar year to meet NHDES requirements

Water Department – Develop Source Water Protection Program

- Meet with NHDES Staff to review Technical Aspects and seek Planning Board approval



The State of New
Hampshire
**DEPARTMENT OF ENVIRONMENTAL
SERVICES**



**Thomas S. Burack,
Commissioner**

December 19, 2014

Brian Sullivan, Municipal Services Director
City of Franklin
43 West Bow Street
Franklin, NH 03235

Subject: Drinking Water State Revolving Loan Fund (DWSRF)
FY 2014 Project Priority List-Additional Funds

Dear Brian:

The purpose of this letter is to inform you that additional FY2014 DWSRF funds are available for the City of Franklin for the U.S. Route 3 /Industrial Park Drive Water Main Replacement Project for \$250,000 in addition to the \$515,000 for the Cross Street Tank Rehabilitation Project for a total loan amount of \$765,000. Based on the information submitted in the pre-application, the City of Franklin is eligible for 15% principal forgiveness of the final amount of funds disbursed for the projects.

The next step to move forward with project funding is to submit a final application. The documents are listed on the enclosed checklist and available on line at <http://des.nh.gov/organization/divisions/water/dwgb/capacity/dwsrf.htm>.

We understand that final authorization to borrow funds for the two projects will be in March. Be advised, funding for this project is available until June 30, 2015.

We ask that you keep us informed of progress made toward seeking the authority to borrow. Should your project not move forward, please contact us as soon as possible. If you have any questions, please contact me at 271-7017 or johnna.mckenna@des.nh.gov.

Sincerely,

Johnna McKenna
Drinking Water and Groundwater Bureau

Estimated Repayment Schedule

Input		Year	Begin Bal.	Forgiveness	Interest	Principal	Payment	Ending Bal.
Loan Amt	\$765,000.00	1	\$765,000.00	\$8,196.43	-	54,343.38	\$54,343.38	702,460.19
Charge Rate	0.0297	2	702,460.19	\$8,196.43	20,863.07	33,480.32	\$54,343.38	660,783.44
Payments	15	3	660,783.44	\$8,196.43	19,625.27	34,718.12	\$54,343.38	617,868.90
Forgiveness %	0.15	4	617,868.90	\$8,196.43	18,350.71	35,992.68	\$54,343.38	573,679.79
		5	573,679.79	\$8,196.43	17,038.29	37,305.09	\$54,343.38	528,178.27
		6	528,178.27	\$8,196.43	15,686.89	38,656.49	\$54,343.38	481,325.35
		7	481,325.35	\$8,196.43	14,295.36	40,048.02	\$54,343.38	433,080.91
		8	433,080.91	\$8,196.43	12,862.50	41,480.88	\$54,343.38	383,403.60
		9	383,403.60	\$8,196.43	11,387.09	42,956.30	\$54,343.38	332,250.87
		10	332,250.87	\$8,196.43	9,867.85	44,475.53	\$54,343.38	279,578.91
		11	279,578.91	\$8,196.43	8,303.49	46,039.89	\$54,343.38	225,342.59
		12	225,342.59	\$8,196.43	6,692.67	47,650.71	\$54,343.38	169,495.45
		13	169,495.45	\$8,196.43	5,034.01	49,309.37	\$54,343.38	111,989.66
		14	111,989.66	\$8,196.43	3,326.09	51,017.29	\$54,343.38	52,775.94
		15	52,775.94	\$0.00	1,567.45	52,775.94	\$54,343.38	0.00
				\$114,750.00	\$164,900.75	\$650,250.00	\$815,150.75	

Estimated Repayment Schedule

Input		Year	Begin Bal.	Forgiveness	Interest	Principal	Payment	Ending Bal.
Loan Amt	\$765,000.00	1	\$765,000.00	\$6,039.47	-	44,799.89	\$44,799.89	714,160.64
Charge Rate	0.03168	2	714,160.64	\$6,039.47	22,624.61	22,175.28	\$44,799.89	685,945.89
Payments	20	3	685,945.89	\$6,039.47	21,730.77	23,069.12	\$44,799.89	656,837.29
Forgiveness %	0.15	4	656,837.29	\$6,039.47	20,808.61	23,991.28	\$44,799.89	626,806.54
		5	626,806.54	\$6,039.47	19,857.23	24,942.66	\$44,799.89	595,824.41
		6	595,824.41	\$6,039.47	18,875.72	25,924.17	\$44,799.89	563,860.76
		7	563,860.76	\$6,039.47	17,863.11	26,936.78	\$44,799.89	530,884.51
		8	530,884.51	\$6,039.47	16,818.42	27,981.47	\$44,799.89	496,863.57
		9	496,863.57	\$6,039.47	15,740.64	29,059.25	\$44,799.89	461,764.85
		10	461,764.85	\$6,039.47	14,628.71	30,171.18	\$44,799.89	425,554.20
		11	425,554.20	\$6,039.47	13,481.56	31,318.33	\$44,799.89	388,196.39
		12	388,196.39	\$6,039.47	12,298.06	32,501.83	\$44,799.89	349,655.09
		13	349,655.09	\$6,039.47	11,077.07	33,722.81	\$44,799.89	309,892.81
		14	309,892.81	\$6,039.47	9,817.40	34,982.48	\$44,799.89	268,870.85
		15	268,870.85	\$6,039.47	8,517.83	36,282.06	\$44,799.89	226,549.32
		16	226,549.32	\$6,039.47	7,177.08	37,622.80	\$44,799.89	182,887.04
		17	182,887.04	\$6,039.47	5,793.86	39,006.03	\$44,799.89	137,841.54
		18	137,841.54	\$6,039.47	4,366.82	40,433.07	\$44,799.89	91,369.00
		19	91,369.00	\$6,039.47	2,894.57	41,905.32	\$44,799.89	43,424.21
		20	43,424.21	\$0.00	1,375.68	43,424.21	\$44,799.89	(0.00)
				\$114,750.00	\$245,747.74	\$650,250.00	\$895,997.74	

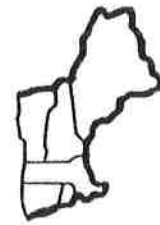
Estimated Repayment Schedule

Input	Year	Begin Bal.	Forgiveness	Interest	Principal	Payment	Ending Bal.
Loan Amt	1	\$765,000.00	\$12,750.00	\$0.00	71,839.39	\$71,839.39	680,410.61
Charge Rate	2	680,410.61	\$12,750.00	13,472.13	58,367.25	\$71,839.39	609,293.36
Payments	3	609,293.36	\$12,750.00	12,064.01	59,775.38	\$71,839.39	536,767.98
Forgiveness %	4	536,767.98	\$12,750.00	10,628.01	61,211.38	\$71,839.39	462,806.60
	5	462,806.60	\$12,750.00	9,163.57	62,675.81	\$71,839.39	387,380.79
	6	387,380.79	\$12,750.00	7,670.14	64,169.25	\$71,839.39	310,461.54
	7	310,461.54	\$12,750.00	6,147.14	65,692.25	\$71,839.39	232,019.30
	8	232,019.30	\$12,750.00	4,593.98	67,245.40	\$71,839.39	152,023.89
	9	152,023.89	\$12,750.00	3,010.07	68,829.31	\$71,839.39	70,444.58
	10	70,444.58	\$0.00	1,394.80	70,444.58	\$71,839.39	-
			\$114,750.00	\$68,143.85	\$650,250.00	\$718,393.85	



New England Inspection, Inc.

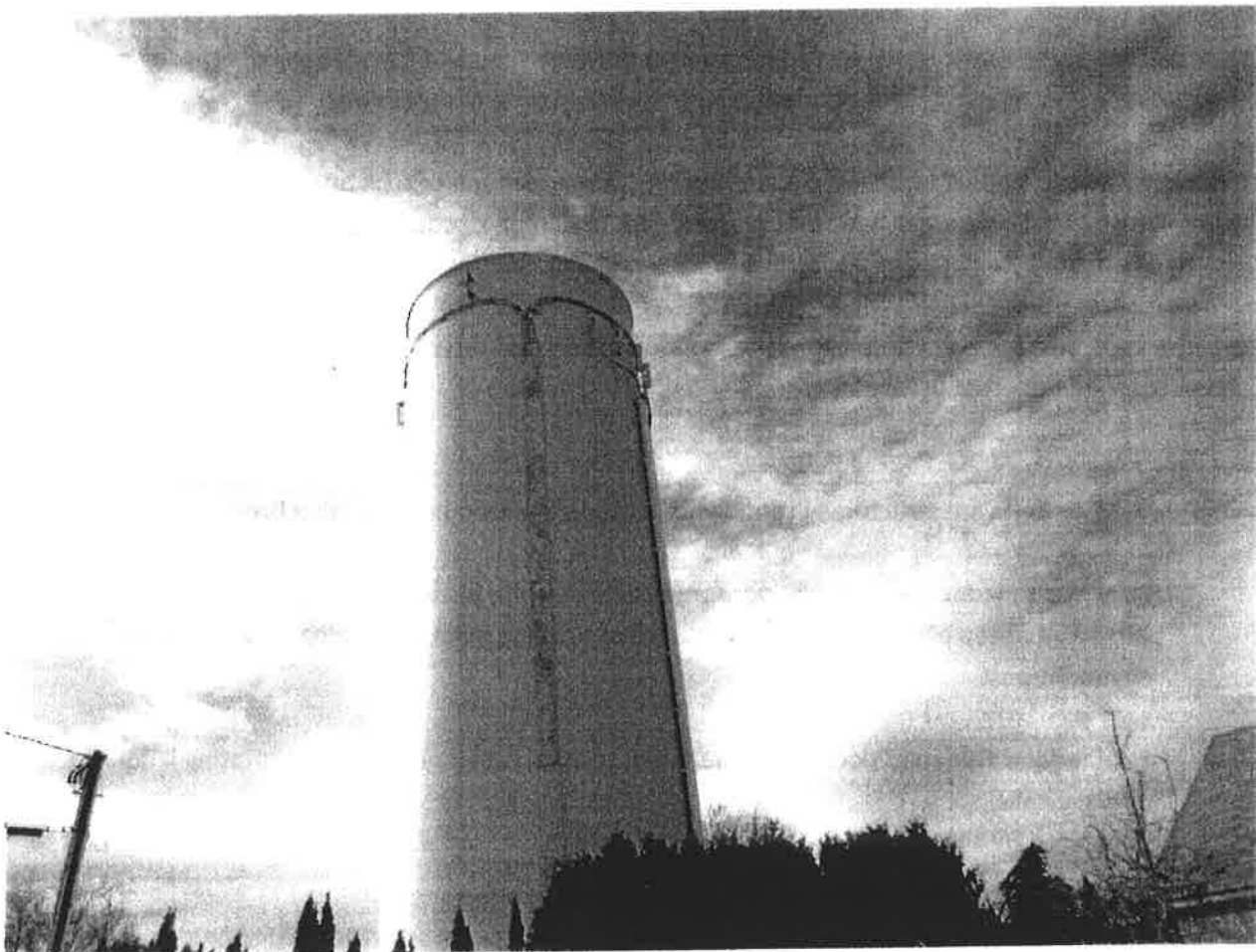
105 Otis Allen Rd., Sanford, ME 04073
Tel: (207) 324-3200 • Fax: (207) 324-3200



Franklin, NH Water Department

Cross St Standpipe

2013





New England Inspection, Inc.

105 Otis Allen Rd., Sanford, ME 04073
Tel: (207) 324-3200 • Fax: (207) 324-3200



March 25, 2013

City of Franklin
Water Department
43 West Bow St.
Franklin, NH 03235

On March 14, 2013 we performed an evaluation of your Cross St. Standpipe water storage tank. Our findings are as follows:

Foundation: some repair is needed, trees growing between tank and foundation, all caulking and vegetation including grass, trees etc should be removed at time of repainting.

Exterior sidewalls appear to be in fair condition with the exception of rock bruises, more present at lower elevations. Some areas have moderate de-lamination of topcoat.

*note: where stud welding was performed no cleaning and painting was done to repair damaged areas.

Exterior roof: is in fair condition, with the exception of some of the welds and attachments which are showing some moderate breakdown.

Exterior accessories:

Anchor bolts are structurally sound with a moderate amount of coating breakdown.

Roof access ladder: Fair condition, some coating repair needed. No grab on safety cable. Dismount at top of ladder is very difficult to use due to bolts protruding on both sides of dismount post.

Roof ladder: Fair condition with some minor coating repair needed (roof rotating ladder).

Cables for antenna system were positioned behind the roof access ladder making it difficult to safely climb ladder.

Center roof vent: Structurally is in good condition, the bird screen (punched steel) needs cleaning and painting.

Attachment Studs were never cleaned and painted properly.

Roof hatch: structurally good, minor cleaning needed before painting.

Interior: inspection was performed for the roof access hatch only (non-intrusive). A large amount of ice was found on the water as well as sidewall.

Interior Roof: Appears structurally sound, but is need of cleaning and painting.

Interior sidewalls: Have heavy staining with a moderate amount of rust and coating failure.

One third of the interior sidewall (sun side) appears to have more advanced corrosion, this being where the tank is now leaking, some greater repair may be needed in this area.

Interior Floor was inaccessible at time of inspection.

Recommendations:

Install wear-box and a minimum of a 10" overflow pipe extending from the existing cutout on the upper portion of the top ring, extending to 30" above the foundation.

Interior should be totally abrasively blasted, evaluate and repair any pitting or damage and fully relined.

Foundation: all grout should be removed and cleaned properly and new grout be reapplied prior to finish coat of exterior.

Antenna Companies should rework their cable system to allow unobstructed access. The antenna company should be held responsible for any repairs needed both interior and exterior due to the method used to install antenna system.

All exterior surfaces should be power washed, power tool clean any and all damaged spots, spot primed, spot mid-coat, and a full coat of finish should be applied.