Appendix L

Greg Burress, IMCO – Interview Transcript

Pipeline Rupture and Fire
Bellingham, Washington
June 10, 1999
DCA-99-MP-008

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Re: OLYMPIC PIPELINE COMPANY; Pipeline Rupture and Fire, June 10, 1999, Bellingham, Washington.	DCA-99-WP-008

INTERVIEW OF GREG BURRESS

August 16, 1999

Bellingham, WA

APPEARANCES:

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REPORTED BY: AMY SMELTZER, CSR
CSR #SM-EL-TA-L278CJ

August 16, 1999

ORIGINAL

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(Exhibits retained by Allan Beshore.)

BE IT REMEMBERED that the interview of GREG BURRESS was conducted on August 16, 1999, at the hour of 10:33 a.m., at 126 Kellogg Road at the Days Inn, Bellingham, Washington, before AMY SMELTZER, CSR, a Certified Shorthand Reporter and Notary Public in and for the State of Washington.

WHEREUPON, the following proceedings were had and testimony given, to-wit:

GREG BURRESS, called as a witness in the above-entitled cause and testified as follows:

QUESTIONS BY MR. BESHORE:

Q. Greg, my name is Allan Beshore, and I'm the lead investigator with NTSB investigating the pipeline rupture and fire that happened on June 10th here in Bellingham. And I want to thank you for coming in today and answering some questions we might have for you. I appreciate your time.

I'm going to start off and ask you a few questions, and then I'm going to probably run out at some point. So these other gentlemen may have an opportunity -- or may have questions for you also so I want them to introduce themselves.

MR. BEU: I'm Doug Beu, Olympic Pipeline

operations manager.

MR. HOLCOMB: Greg, I'm Ron Holcomb for Washington State Department of Ecology investigating on the accident for the Department of Ecology.

Q. And Greg, you have a representative here with you if he'd identify himself for the record.

MR. FLOYD: I'm Francis Floyd. I'm representing Greg and IMCO.

Q. And just for the record if you could state your full name.

A. James Gregory Burress.

Q. And you're employed by whom?

A. IMCO General Construction.

Q. Greg, how long have you worked for IMCO?

A. Roughly 11 years.

Q. And what's your position with them?

A. Superintendent.

Q. How long have you been a superintendent with them?

A. Seven years.

Q. As you're aware, we're primarily interested in the construction activity that was associated with the water treatment plant expansion and work back in the '90s. Were you superintendent for them at that point?

A. Yes.

Q. And that was your role throughout the project?

A. Yes.
Q. If you could just kind of go back, I guess, Greg. Let's just go back and start from when you became aware of the project, what your involvement was and just maybe in your own words how it progressed and what you were doing and just run us through it.
A. I was working on another project at the time. I don't remember which one, east side of the mountains. And we got this project in Bellingham. And I was asked to be the superintendent and said I would. I came up and ran the job. The job was started before I got there, but it was minimal work setting up trailers and stuff like that.
Q. So were you involved in the bidding process on the project at all?
A. No.
Q. So you say the project had just barely gotten underway when you were assigned to it?
A. Uh-huh.
Q. Had there been any construction activity at all or just site preparation?
A. There had been one tie-in of a water line, a bypass line.
Q. And was that anywhere near the pumping station itself in that area?

A. I don't remember exactly. It was up near the existing pump station.
Q. Okay. Let's just, Greg, if you could -- okay. So you were superintendent. So you were out on the project every day?
A. Yes.
Q. Let's go -- let's just jump right into it here. Did you personally have any contacts, I guess, with folks from Olympic Pipeline?
A. Yes.
Q. Do you recall who those folks might have been?
A. I don't remember their names. There was two gentlemen that came out. And our specs and drawings required us to notify Olympic Pipeline before we did any work near the pipeline and we did that. And there was two guys that came out, and they were on rotating shifts so they could be there a hundred percent of the time we were doing any work near or on -- near the pipe.
Q. Do you remember who you talked to in the office?
A. Nope. I had a 1-800 number to call, I think. I called them up and they came out. That number may have been possibly in the drawings and specs.
Q. Oh, it was maybe listed on one of the prints?
A. Could have been, yeah.
Q. So were those people out there frequently?

A. Constantly.
Q. Constantly? For what period of time?
A. We notified them before we started work around the pipeline, and they were there any time we had it exposed until the backfill was complete.
Q. How many times do you remember was the pipeline exposed? I mean the Olympic's gasoline pipe to be specific.
A. I honestly don't know. I remember it being exposed one time for sure. On the drawings or the pictures it looked like more than that, but I remember one time. I think it was 18-inch ductile we were installing and had to go near it.
Q. Was that underneath it?
A. Uh-huh.
Q. We'll get into the pictures here in a few minutes and kind of talk about that a little bit further. But let me -- I'll probably jump around here a little bit. Sorry about that.

So you don't know if the person at Olympic that you spoke to on the phone was the same two people that were out on-site?
A. No.
Q. Was this the same two -- I mean, was it just two people and that was the only two people from Olympic you saw?

A. Yup.
Q. And you don't recall what their names were?
A. No.
Q. Did they -- before you kicked the project off, did they -- did you have any special direction from Olympic in terms of precautions you were expected to take, that kind of thing? Is that in the bid documents?
A. I wasn't involved in the bidding of it. I know it was in the plans and specs that we were to notify them.
Q. Did they give you any direction as to what they expected you to do while you were working by their pipeline?
A. No, just use care around it. And they would be there to witness all our work.
Q. Did you hand excavate that part of the --
A. Uh-huh.
Q. -- when you got near it?
A. Yup.
Q. How close do you think you went with a hoe before you started hand excavation?
A. Well, we had people in the ditch all the time potholing till we found it, but I would say within a couple feet.
Q. So you had somebody in the ditch spotting --
A. Uh-huh.
Q. -- the pipe when you were digging it out?

Was that one of the guys from Olympic or were they just watching you?

A. They were just watching it. It was our guys in the ditch.

Q. But they were pretty diligent in being there quite a bit of the time or would you characterize that to be fair?

A. Yeah.

Q. So they weren't sitting up in a pickup truck somewhere. They were out --

A. They were actually on-site where they could visually see the pipe.

Q. You don't remember how many times they were out there or do you remember any dates that they might have been out there?

A. No.

Q. By "times" I don't mean the time of the day. I mean the number of times that you contacted them, let them know that you were going to be working around the line. Do you recall?

A. No. I just remember them being there from the first time we encountered it till we were finished with it.

Q. Was that -- so was that some duration or period of time they were out there daily for some period?

A. Uh-huh.

Q. How long do you think that might have been?
A. I don't remember.
Q. You don't recall?
A. No.
Q. In terms of excavation, do you -- you saw the gasoline pipeline when it was exposed; is that right?
A. Uh-huh.
Q. Was there anything unusual, any damage to it, anything that you observed on the line?
A. No.
Q. Was it coated?
A. I don't know. It had been in the ground a long time. It looked like dirt. It didn't look like it had much for a backfill around it. It just looked like the dirt that was around it.
Q. So you guys didn't clean it off or inspect it or anything?
A. Olympic probably did but we never did.
Q. Did you see them get down there in the ditch and inspect the pipelines where it was exposed?
A. Uh-huh.
Q. So after you exposed it, they would get down and look at it close?
A. Uh-huh.
MR. FLOYD: Greg, you have to answer

"yes" or "no." "Uh-huh" is --

A. Yes.

Q. It will drive Amy crazy.

MR. BESHORE: Thanks, Francis.

Q. What did the bid -- I said bid documents. I'm sorry about that, the plans and specifications. What kind of precautions did they call for you to take in the vicinity of the pipeline, anything specific?

A. They just called for notification of Olympic Pipeline representatives.

Q. So that was about all that was specified?

A. That's all I can remember.

Q. What kind of coating materials did you guys use in the water line?

A. It was -- it came from the factory. It's a steel pipe with a -- I guess you'd call it a primer. It looks like a real thin paint. And there's tape wrapped with two different types of tape. That's what -- it came factory that way. And then we welded the joints on the water line. We wrapped this tape on it, the two large bore pipes. That's a 16 and 72 inch. And the smaller pipe was ductile iron, and it was bagged and taped and cad welded.

Q. So it was cad welded. You mean bonded across the joints?

A. Uh-huh.
Q. With wire -- jump of wires?
A. Yup.
Q. Did you use any Mastic materials? Do you know the brush-on tar stuff?
A. Probably on the ductile but nothing on the steel water lines.
Q. Where would you use that on the ductile?
A. On the bolts.
Q. So you'd dope up -- or tar up the bolts and then bag the rest of the line?
A. Bag all the line even over the bolts.
Q. But you do coat up the bolts so they don't --
A. Before you bag it, correct.
Q. Let's go back to -- I guess do you recall any damages occurring to facilities during the project, not just the gas pipeline but any other damages that might occur that you guys might have caused as you were doing excavation?
A. There was a line to a hydrant broken.
Q. Was that broken during digging or did --
A. Uh-huh.
Q. -- something run over it?
A. It was broken during digging.
Q. Was there any other lines that were broken or damaged

that you recall?

A. Not that I recall. I just remember the hydrant line.

Q. Do you recall any indications or any discussions about possible damage to the gasoline pipeline?

A. No.

Q. So nobody expressed any concern to you that they -- or you never heard anybody might have accidentally damaged the line or anything?

A. No.

Q. And I'm not saying that they did. I'm just speaking in the hypothetical.

Assuming that they -- that your operator had damaged a line, what would you expect -- you know, if that occurred, what would your expectation be that they would do at that point?

A. Number one, they'd notify me. Number two, Olympic would know because they were there witnessing the work.

Q. But you would expect to be notified by your operator if he thought --

A. Yes.

Q. -- he had caused any damage?

A. Yes.

Q. And you were never -- you never were notified to such?

A. There was no damage.

Q. Then what would you have done with that information?

Would you -- I guess let's follow this hypothetical process on through. Assuming for a moment that damage might have occurred, what then would you do? Would you talk to Barrett's people? Would you talk to Olympic's people? Let's run the scenario through.

A. I'd talk with the Olympic representatives that were on-site. We talked daily about our work and about what they were doing or what we were doing. And they would have looked at it and decided what needed to be done as far as repairs or stopping work or what have you.

Q. So you would have coordinated directly with Olympic's personnel?

A. Yes.

Q. And I'm not -- but was Barrett there? Would they have known?

A. Yeah.

Q. Would you have brought it to their attention, I guess, would be the question?

A. Yes. Barrett was on-site. They had an on-site inspector.

Q. And was he out there most of the time or was he -- Barrett's inspector?

A. I'd say he was on our site 70 percent of the time. They had another project going, the water tower right next to us, and they were also inspecting on that. He

was probably there 30 percent of the time, on our job 70.

Q. When he was there, was he there at the excavation watching what was going on or was he inside the building in meetings or something like that? I'm trying to design what you --

A. He was usually on-site. I don't think he had an office to sit in. He was usually on-site walking around and watching the progression of work.

Q. So he was pretty diligent in viewing what was happening out in the excavation areas?

A. I think so.

Q. I guess that was a question and I rephrased it as -- so you would think -- that would be a fair characterization?

A. Yes.

Q. Now, we talked a little bit to Frank about different operators that might have been on the job site. Who do you recall being out there doing the excavation work?

A. Cal VanderPol.

Q. Do you recall any other operators being involved in the project?

A. Brett Lucas. Possibly Cal's brother might have. I don't remember if he was there or not but --

Q. Is his last name also VanderPol?

A. Yes.
Q. Are both of those people still employed by IMCO?
A. Calvin and Mike are.
Q. What about this Lucas?
A. No.
Q. How long has he been gone?
A. Three or four years.
Q. Do you recall how much excavation he would have been involved in and where that might have been on the project?
A. Probably would have been coming from the water tower and the two big bore pipes.
Q. So were those constructed from the water tower back to the plant or from the plant out?
A. From the water tower toward the plant.
Q. And he would have been involved -- would he have been involved in any excavation activity in the vicinity of this, well, where the pipe was removed that we looked at the other day?
A. I don't recall.
Q. Was he -- did he resign?
A. He went to work for Wilder to be at home.
Q. So he left on good terms with IMCO; is that --
A. As far as I know.
Q. I mean, you didn't run him off. He left on good terms

--

A. Yeah.

Q. -- as far as you know?

A. He left on good terms.

Q. In terms of the -- so the bulk of the excavation was done by Calvin; is that correct?

A. I believe so, yes.

Q. Would you characterize him as being a pretty good operator?

A. Yes.

Q. Is he one of your better ones?

A. Yes.

Q. Let's go -- okay. Here's another question I had. In terms of oversight, how often was somebody from the City out there, not Barrett but somebody from the City of Bellingham?

A. The City had a guy inside the plant that had operator and was very interested in the project. He was there eight hours a day, five days a week running the plant.

Q. Was he outside quite a bit looking around?

A. Yeah.

Q. Was it more from a curiosity perspective or did you guys report to him?

A. We didn't report to him, no.

Q. So all your reporting was to Barrett's people? I mean

your interaction.

A. Yes.

Q. Now you looked through these photographs; is that right?

A. Yeah.

Q. This is a book that's previously been identified as Franklin Exhibit A from July 14th. I just wanted to clarify a couple of things. Maybe this jogs your recollection too. But we can just kind of flip through these photographs. And the first ones are the large diameter pipes being installed.

A. That's a 72 inch.

Q. Let's go to -- let me know the first one that might show indications that the gasoline pipeline would have been exposed as we're flipping through here.

A. I'm not sure. That could have been it there because I remember this line went -- I believe this line went underneath it.

Q. For reference, we're on page five, the left-hand photograph.

A. Yeah. That's the same -- I think this is it. I'm not positive, but I think that was it because this line came out of the pump station and went down real low. And I think that's probably the one that went under it.

Q. Now we're on page six this photograph on the left side,

the pipe to the top of the photograph that crosses across the ditch. Is that the one you're pointing to, Greg, --

A. I believe so, yeah.

Q. -- that you believe is the gasoline line exposed across the top of the newly installed -- that would be the intake line to the pump station; is that correct?

A. I think that's just a pressure line. I think this comes out of the pump station pressurized.

Q. Oh. Was that the 24 inch that tied to the existing 16 inch?

A. Where's your contract drawings?

Q. Let's go to -- well, if we're going to have Greg draw on them, we'll label a new set. But we'll go ahead and just look at these. We're looking now at Exhibit B.

A. This is the line we're looking at right there, the 24 inch, right there (indicating). And I think your gas line is there (indicating). That's where it goes under it. I think that's what we're looking at here is that line.

Q. And that's -- now, is that the -- is that the discharge line or is that the intake line?

A. I think the way this works -- I can't recall. It's been a long time. But I think there's pumps in here and I think it was pressured out into the line to build

pressure as it came out. The 72 was -- I think this was coming off the water tower and this was putting pressure into it to pump it to wherever it went to service. I don't recall, but I think somehow these pumps pressurized the system. I don't remember how that worked.

MR. BESHORE: For the record, Greg's pointing to the line that comes out of the north side of the pump station and goes and ties into the arch diameter 48-inch water line.

A. And that's this one here (indicating).

Q. That's the same line that's shown --

A. Both pictures.

Q. -- in the pictures on page six?

A. Uh-huh.

Q. We'll go on through the photographs. It looks like -- let's look at the photograph on page eight on the left-hand side. Would this be pretty much the same view?

A. I think it's looking at it the opposite direction. I think you're looking up the line.

Q. And where would you -- where would the gas line -- which of these is the gasoline line?

A. I assume it's that one (indicating). I don't -- I'm not sure. The other picture showed two lines. This

one only shows one. This one's right at ground level. That's not one of them. I can't be positive.

MR. BESHORE: And there's -- he's referring to the top line across the ditch in the left-hand photograph.

Q. Just stop me if anything jogs your memory, Greg, and I'll flip on back to another one I was going to ask you about. Now on page 12 there's some views of the -- was this the new line that was installed, the upper photograph?

A. Yeah, that's the new line going to the pump station on the south side tying into an existing line here. That's all existing pipe.

Q. Now, do you recall if this gasoline pipeline was exposed in this area where this valve was installed, this tee?

A. I don't recall it being exposed. I remember that this other end these views we looked at there. That's where I recall it.

Q. North of the --

A. North of the pump station.

Q. The northern half.

So you don't recall being -- you don't remember seeing it in this area?

A. Uh-uh.

Q. This last photograph on page 15, the lower photograph, is that -- that's another view of the same tie-in. That thrust block, is that something you guys installed?
A. Yes.
Q. So the concrete pour there was work that you all did, --
A. Yes.
Q. -- IMCO?
And you don't recall the line being exposed during that process, the gasoline line?
A. No.
Q. Now let's go back to page four and five on the left-hand photograph on page four. Is either one of those the gasoline lines, Greg? Can you tell?
A. I can't tell. I would -- no, I can't tell.
Q. Maybe this picture here would be easier for you to recall on page five.
A. It doesn't look familiar in this area. I don't remember what those lines were.
Q. Well, do you recall a gasoline line being exposed during the installation at all of that 72-inch water line?
A. (No audible response.)
Q. So you don't recall that?

A. No.
Q. So you just recall one --
A. I recall working around the gas line on the north side of the pump station. That's when I remember it the most.
Q. Let's maybe talk time frames here. Would Olympic's people, were they out there during the time frame the 72-inch line was installed?
A. I don't recall. I don't remember. It's been a long time ago --
Q. Sure.
A. -- which happened first and which happened second.
Q. But they weren't there -- I mean, these projects didn't occur all at the same time, I guess? Help me out in terms of how you planned your construction. Would the 72-inch line have been installed kind of as a continuous project, then gone over and did this 24-inch line and the tie-in or was that occurring all at the same time?
A. I remember working from the water tower backwards up toward the pump station -- or towards the clear well and then working north of the pump station continuing on around and tying into the existing lines that were even farther north.
Q. When you were actually constructing the pumping

station, you know, the footings, the physical station itself, was Olympic's people out there during that process?

A. I don't remember. We were doing excavation of the pipeline and the pump station at the same time so there was a good chance they could have been.

Q. So that kind of occurred simultaneously?

A. Uh-huh, yes.

Q. What I'm trying to get here is if that project was over. Were Olympic's people recontacted when the 72-inch line was crossing and then come back out?

A. I don't know. I can't remember.

Q. I think that takes care of the pictures. Was there anything else in the pictures that jogged your memory that I should ask about or that you had comments on that would help us out?

A. I don't think so.

Q. I'm going to go ahead -- I need to collect my thoughts. I'm going to go ahead and see if Doug has any questions.

MR. BEU: Yeah, sure do. Doug Beu again, Olympic Pipeline.

QUESTIONS BY MR. BEU:

Q. I'd like to visit with you and talk a little bit about

the 24-inch tee joint between 24 inch and the -- I guess it was the 16 inch. Do you know which tee I'm talking about?

A. Yeah.

Q. You've got the drawings right there.

MR. FLOYD: He wants to talk to me for one second.

MR. BESHORE: Okay.

(Off the record.)

(Exhibits A and B were marked for identification purposes.)

MR. BESHORE: Just we went ahead and what we did was label a set of those drawings with Exhibit A for the blown-up portion and Exhibit B for the smaller version. And I think, Doug, you were in the process of asking questions concerning the tee to the existing 16 inch.

MR. BEU: Right.

Q. And some of my questions I guess Allan may have already asked, and if so, I apologize. I'll try to skip those or word them differently or whatever.

But when the 24 to 16 tee was installed, were you aware that the location of that tee joint had been moved from the originally planned location about 50 feet south of the pump station?

A. I don't recall if I knew it had been moved.
Q. Who supervised the survey and marking of the location for the excavation for the tee?
A. I did.
Q. Given that the location of the tee was changed from the original plan, which you say you don't remember, how did IMCO know where to dig the hole for the tee?
A. I don't remember.
Q. And was the survey done from a revised drawing or was the location just eyeballed?
A. If it was on the drawings, located on the drawings, that's where we would have put it.
Q. During the survey and marking of the area for the 24-inch tee, was an Olympic Pipeline person present?
A. During the survey?
Q. Right. Well, during the marking and excavation.
A. Probably during the excavation, probably not during survey.
Q. Do you know who it was? I guess you've been asked that before. But do the names Kevin Whitmer or Ken Roberts ring a bell?
A. I'd be guessing. I don't recall.
Q. I'll skip some questions here that you've already been asked.

What did the Olympic person do during the survey

and marking process?

A. I don't remember if they were even there during the survey.

Q. Did the person -- did that person inform IMCO that Olympic's pipeline was directly underneath where the tee was going to be installed?

A. If they weren't there, they couldn't have informed us.

Q. Let's see.

MR. BESHORE: Why don't we give them a few minutes to read this and go off the record.

(Off the record.)

Q. This document indicates that you changed the location of the 24-inch tee in the field; is that correct?

A. I'm not sure that it changed the location of the 24-inch tee. I think it's just gussying (phonetic) up here on the end of it. What it's talking about is the footings by the building being conflict there, possibly this slab right here in the picture (indicating). I'm not sure what this is talking about, but it states being next to a footing. And the only footing I see is on the building at this end up here, which is quite aways over from the tee.

Q. On this drawing, Exhibit A, I guess could you just kind of draw in there where it was moved to or from or --

A. I think it says it's ten feet away from the building

instead of 12. So we would have just moved it two foot closer right there (indicating).

Q. What about on down here, would that have moved as well?

A. I don't know. I doubt if it would have moved from this drawing because this can be changed up here by lengthening this piece obviously. If you lengthen the first piece out of the tee, that will move this. So I doubt if that would have moved the tee in line.

Q. You wouldn't have been able to use a (unintelligible), would you, if you didn't move the tee as well if you move that back and forth?

A. Sure you would have. If you would have ran this, nothing changes. Just your distance changes. And 90 is still the same.

MR. BESHORE: You had a straight piece in one of these --

MR. BURRESS: Right.

MR. BESHORE: -- and bring it out here?

MR. BURRESS: Right.

MR. BESHORE: I know this is not going to show up at all here. I don't mean to interject on Doug, but I do have a question. Down at the bottom it's talking about the condensed density backfill. Would that be -- that wouldn't be around the footing here, would it?

MR. BURRESS: Well, it would have been all around this pipe.

MR. BESHORE: Because it's talking about a conflict with the 72 inch.

MR. BURRESS: The 72 inch had CDF all the way through here.

MR. BESHORE: So let's go to the bottom of that form where it's talking about if necessary chip away a bit of the CDF to make room for the connection fittings. Would he be talking about this tie-in location?

MR. BURRESS: Could have been there or here. If there's CDF here, it could have been at the 90 where it was conflicting with the CDF. It looks like to me that there's CDF right there (indicating). That's probably where their concern was that this was going to hit that. That's what it appears to me. But that's probably the CDF for the encasement of the 72 inch, and this would have ran into it.

MR. BESHORE: So we're on page 14, the upper photograph, looking at the 90 degree elbow that -- let's identify that on this exhibit here as -- well, Greg kind of tried to draw a couple lines. I'll make them darker and call that point "A" to indicate moving the 90 on that line a little bit to the north

approximately a couple feet at the pump station.

And just for the record, too, I'll identify this contract clarification interpretation request to be Exhibit C. Okay. Go ahead.

MR. FLOYD: I have a question on that. The City's number down there, was that marked in this investigation or is that what they had --

MR. BEU: I don't know.

MR. FLOYD: Do you know?

MR. BESHORE: I don't know where the designation came from. I don't know where Doug got this for sure.

This is an inspection report dated July 7th, '94 that we'll also -- we'll label this as Exhibit D. Take a few minutes, spend as much time as you need, Greg, to read through that.

BY MR. BEU (continuing):

Q. Inspection report No. 97 says that "Problems arose when the hole for the tee was not positioned properly and the plan to tap into the 16 inch was abandoned today with reschedule tomorrow." Is this the same issue that was discussed in the fax we just looked at?

A. I'm not sure. It sounds like it may be. They're talking about a 16 and 24 inch.

Q. It also talks about revisions to the distance of 90

degree elbow from 12 feet to nine feet so that the edges of the reducers are not in the CDF when tee is inserted. Does that indicate that the tee was moved or relocated?

A. Well, it talks about a 90 degree elbow. It seems the 90 degree elbow is at the tee.

Q. Can you describe where the erroneous hole was in relation to where the tee was finally installed and how many feet away north or south?

A. No.

Q. Who supervised the actual digging of the trench for the 24-inch tee?

A. Either Calvin or myself.

Q. Were one of you present for the entire trench digging project?

A. I don't know. It was a long time ago.

Q. That's fine. Who did the actual backhoe work at that location?

A. I don't know.

Q. Was a bucket spotter used, somebody that was watching when they were digging?

A. Probably. It's common practice to.

Q. Was Olympic's pipe marked in that area?

A. I don't recall.

Q. How wide was the trench for the 24-inch pipe?

A. Does it show in the pictures? There's a picture of it right there (indicating).
Q. Do you know how wide that is? I can't estimate from that.
A. I guess eight to ten feet where the tee is.
Q. How wide would you usually dig a hole for a 24-inch pipe?
A. As wide as it needed to be.
Q. How wide was the hole where the tee was installed? That's what you just answered, right?
A. Yes.
Q. How deep was the hole for the 24-inch tee?
A. The picture's going to show it better than I can guess. It shows the depth there.
Q. Do you recall how deep they excavated below the bottom of where the tee would go?
A. Low enough to get hand tools in to tighten bolts.
Q. Can you estimate --
A. No.
Q. -- a distance?
A. No.
Q. In other words, how much excavation did you do to create working space below the tee joint, an extra foot, an extra two feet?
A. I don't know.

MR. BESHORE: Let's look at this photograph here on page 14 on the lower photo there. That gives -- that's what we're talking about, right, Greg, --

MR. BURRESS: Right.

MR. BESHORE: -- where the pipe is actually almost above the man's waist that's standing down on the bottom of the ditch? Is my perspective accurate or is the angle --

MR. BURRESS: We've got two feet of pipe below, you know, if you're looking at the top of the pipe. I would guess 18, 20 inches below the bottom of the pipe.

MR. BESHORE: That's the lower photo on page 13.

Q. Do you know what backhoe was used? I guess in the pictures it was a big, orange Hitachi.

A. Uh-huh.

Q. Is that what would have been used there at that location?

A. There were two Hitachis on-site. There was a 400 and a 150. I don't recall which was used, but I would assume the 150.

MR. BESHORE: Would that be a small or a larger one?

MR. BURRESS: Small one.

Q. I guess at the time the hole for the 24-inch tee was dug, did you know that Olympic's pipeline was directly underneath where it was going to be installed?

A. I don't recall.

Q. When did you find out that Olympic's pipeline was directly under the tee? Was it after the pipe ruptured?

A. I don't remember.

Q. You still don't know?

A. Well, I saw that it was under the tee.

Q. How did it happen that you didn't know where Olympic's pipe was?

A. I didn't say that I didn't know.

Q. Oh.

A. I said I didn't recall.

Q. During excavation for the tee joint -- I guess earlier you said that you used hand digging. Is there anything else that you did to protect the pipeline, any other measures that you might have --

A. We would have had to hand dig underneath this line. There's no way to get a machine in there. We would have had to hand dig underneath that line.

Q. Is that the only steps IMCO took to protect that line was to hand dig?

A. That's all I recall.

MR. BESHORE: Let me clarify just that you're talking about you had to hand dig under the existing water line to affect the tie. Is that what you're talking about?

MR. BURRESS: That and hand digging around the gas line I think is the question you were asking.

MR. FLOYD: At different locations.

MR. BURRESS: At a different location than that.

Q. Do you believe Olympic's pipeline was hit by IMCO during the excavation for the tee?

A. Absolutely not.

Q. Can you explain the basis for that answer?

A. Well, I think if we would have hit the pipe we would have found out about it right then.

Q. Describe as best you can remember exactly when the Olympic person was present during the excavation for the 24-inch tee. Every day?

A. I don't remember when they were there.

Q. Who was responsible for contacting Olympic when IMCO was going to excavate near their pipe?

A. I was.

Q. Do you know if Olympic was ever called about the

24-inch tee?

A. I don't remember when we called them. I know we called them when we were working around their line.

Q. What records did IMCO keep of its phone notifications to Olympic?

A. I don't know. It was probably in a daily report.

MR. BESHORE: I'm sorry. Let's go -- just for the confusion, Jeff Thistle walked in from the City of Bellingham and so that's who Jeff is.

Because there was some confusion there, I just want to -- Doug had asked what kind of a record would be retained of when you made phone calls to Olympic and you mentioned -- I'm sorry. I didn't catch your answer.

MR. BURRESS: Possibly in our daily reports.

MR. BESHORE: Now, is that something that you would have to make available to us?

MR. BURRESS: I don't think it's available. I don't know. I don't know if we have that or not.

MR. BESHORE: Thank you.

MR. HOLCOMB: Do you have any daily reports in your possession that you're aware of?

MR. BURRESS: No.

BY MR. BEU (continuing):

Q. Did you have any involvement in deciding to put in the concrete thrust block behind the tee joint?

A. It was probably shown on the drawings.

Q. Did you have any involvement in deciding to put it there?

A. What's that mean? I don't understand. Following the drawings and doing what was required of me?

Q. No, I didn't see them draw the drawing, just that you weren't involved with the decision or --

A. I wasn't involved in the design of the drawings.

Q. Do you know who made that decision?

A. Probably Barrett.

Q. I didn't see them out here. That's why I'm asking these questions is because I don't see them on the design.

A. Well, there's a detail right there "2 on P-2."

Q. So when was it decided to install the thrust block?

A. Probably when they designed the drawings.

Q. Was any extra excavation necessary for the thrust block?

A. Doesn't appear to be.

Q. Can you describe how it was installed?

A. We're back to native ground.

Q. Was the thrust block put in after the tee joint had

already been installed and buried?
A. After it had been installed but not buried.
Q. Can you describe how the tee was backfilled?
A. No.
Q. Did you oversee the backfill process?
A. I was superintendent on the job. I oversaw everything.
Q. Was a large chunk of concrete placed in the backfill over Olympic's pipe?
A. No, not that I'm aware of.
Q. Was the same CDF backfill poured in the hole over Olympic's pipe?
A. I don't remember. I remember the CDF on the 72-inch pipe.
Q. After the 24-inch tee was backfilled, was it ever re-excavated at any time?
A. I don't believe so, no.
Q. I guess now I've got some questions about the blue 12-inch PVC duct that's directly north of the rupture area. When the PVC duct was installed in relation to the installation of the tee joint -- when was it installed in relation to the tee?
A. Would have had to have been after.
MR. BESHORE: I don't mean to interject, but you're familiar with the PVC duct he's talking about? Is it one of those pictures? Do you remember

seeing it out there?

MR. BURRESS: I don't think it's shown on any of these drawings, but I know where it was at. It was shown on these -- I don't think it's shown on any of these pictures.

MR. BESHORE: But you saw it when you went out back there and looked around after this happened, too, I guess?

MR. BURRESS: Uh-huh.

MR. BESHORE: Okay. Go ahead.

BY MR. BEU (continuing):

Q. Do you know how many days after it was installed after the tee?

A. I don't recall. I just know it was afterwards because it's higher.

Q. Can you describe the process of surveying and marking the location of the PVC line?

A. It's probably on the drawings of coordinates of where they wanted their pole box. And then it would have been ran from the pole box direct to the pump station, from the pole box direct to the water tower or storage tank, whichever you want to call it.

Q. Can you describe the process of excavating the trench for the PVC line?

A. Just dug with a backhoe.

Q. With a backhoe?
A. Uh-huh.
Q. Do you know who did the excavating?
A. No.
Q. Which backhoe was used to excavate for the PVC duct; do you recall?
A. No.
Q. When the excavation for the PVC duct was done, did you know that Olympic's pipeline crossed directly underneath where the duct was going to be?
A. Uh-huh.
MR. FLOYD: "Yes"?
A. Yes.
Q. How did you learn that Olympic's pipe was under the tee?
A. We had --
Q. Oh, I'm sorry, under the PVC. We're off the tee, under the PVC line.
A. We had had it exposed other places on the job, and it's shown on the drawings as well.
Q. How deep below the -- how deep below the PVC did you believe Olympic's pipe was?
A. I don't think we have any pictures of that, but it's quite aways below it.
Q. Where did you get that information "it was quite aways

below it"?

A. I know that from looking at it after the blast. And at the time we had it exposed over here, you could probably shoot (phonetic) an elevation on it there and here and know that it was below.

Q. How wide was the trench for the PVC duct?

A. Three feet.

Q. How wide would you usually dig a hole for a 12-inch pipe?

A. Three feet.

Q. How deep was the trench for the PVC duct?

A. Shallow, three to four feet.

Q. How deep did you excavate below the bottom of the duct of where the duct would go?

A. Six inches for bedding.

Q. During the excavation for the PVC duct, what steps did IMCO take to protect Olympic's pipe from damage?

A. We were a long ways above it.

Q. So you really didn't do anything to protect the pipe because you were a long aways above it?

A. We weren't near the pipe.

Q. So it didn't require you to do anything. Is that what you're saying?

A. Uh-huh. I'm saying we weren't near it.

Q. So I've got to ask this question. Do you believe

Olympic's pipe was damaged by IMCO during the excavation for the PVC duct?

A. No.

Q. And during the excavation for the PVC duct, was an Olympic person ever present?

A. I don't remember.

Q. After the PVC duct was installed and buried, was it ever re-excavated?

A. I don't believe so.

Q. Is there anything else about the project you think we ought to know?

A. No.

Q. How do you think the damage occurred to Olympic's pipe?

MR. FLOYD: Don't answer that.

MR. BEU: Okay. Thank you very much. I appreciate it.

MR. BESHORE: Ron, do you have any questions?

MR. HOLCOMB: Yeah. Greg, Ron Holcomb, Department of Ecology.

QUESTIONS BY MR. HOLCOMB:

Q. Had you worked on any -- been superintendent on any projects similar to this where you had either an Olympic pipeline or Transmountain pipeline running

through a project?

A. Off the top of my head I don't know that I was superintendent on any jobs. I've worked around them before. We've been on jobs where we had to expose them, same with electrical utilities or telephone or anything like that. But I don't think I was superintendent on any jobs.

Q. But would you call this somewhat of a complex project with having that pipe running under areas you were excavating?

A. Not necessarily. I mean, there was -- no.

Q. Did the fact that the pipeline was running through that area -- were there any special precautions and concerns that were kind of just built into your daily activities or the overall project?

A. Sure.

Q. And what were -- can you describe those?

A. We knew the pipe was there and we were doing everything we could to protect it and notifying Olympic and being very cautious around it. I mean, it's a live pipeline. We didn't want to have any problems with it.

Q. When you got there, you indicated that there was some activity that the construction trailers or whatever were being set up. The Olympic pipeline, was it located through the construction area? I mean, was it

flagged in any way before there was any excavation?
A. Yeah. We called the 1-800 locate number and everything is located, phone lines, gas lines, power lines, whatever.
Q. So before any dirt was really moved, I mean, you knew where the pipeline was running?
A. Yes.
Q. So there was no question about whenever you might be near it?
A. No.
Q. And then the procedure was to call --
A. Yes.
Q. -- Olympic?
A. Yes.
Q. And this I think you have answered, but I just want to make sure. Olympic Pipeline employees were physically there whenever --
A. Yes.
Q. -- activities were going on near the pipe?
A. Yes.
Q. And any time the pipe was exposed, the Olympic people physically got down and into the trench?
A. Yes.
Q. And examined the pipe?
A. Yes.

Q. And were there any problems that were ever brought to your attention --

A. No.

Q. -- by the Olympic folks?

Were there any problems brought to your attention during excavation that, you know, your backhoe operator's, you know, going too fast or working too close?

A. No.

Q. So everything was, I guess, just passive, just observing? There was no discussion?

A. There was no problems.

Q. No problems noted.

Was there any part of the cathodic protection system for the pipeline in the area of this construction?

A. Say that again.

Q. For the cathodic protection system for the pipeline as far as buried electrical, the anodes.

A. For Olympic's pipeline?

Q. Yeah.

A. Oh. I don't recall seeing any. We had cathodic on our pipes.

Q. I'm going to refer to these inspection reports. This would be No. 84. This is the one that I assume was

done by Barrett. It's dated June 20th.

MR. FLOYD: We don't have a copy.

MR. BESHORE: Do you have copies?

MR. HOLCOMB: I don't have extra, but we can --

MR. BESHORE: Why don't we go off the record, and I'll go get some copies made.

(Off the record.)

Q. If you could look at this one No. 84. It's dated 6/20/94.

(Exhibits C, D, and E were marked for identification purposes.)

Q. I just want to ask you about kind of this part about the spreading material on minor compaction. Efforts made -- and I know there's a note in there "careful not to damage piping." Do you recall kind of the process, what was --

A. This was over top of the 72- and 16-inch pipe coming from the reservoir. We had to use a special kind of backfill around the pipe. I don't recall if it was pea gravel or what it was coming from the reservoir up to a foot above the pipe. And then we could use any material over top of that so we were using some of the excavating material near the reservoir. And we didn't want to beat on it and hoe pack it and damage any of

the pipe.

Q. So there was just extra effort made not to damage pipe when you were doing this?

A. Uh-huh, yes.

Q. Back to the Olympic Pipeline representatives on-site. When they came, I mean, was there any kind of, you know, due to site safety or anything where they had to sign in or was there some record of their --

A. We had signs at the office that everybody on-site had to check in at the office before they went on-site. So they would have had to stop and say, "Hey, I'm here and I'm on-site."

Q. But it didn't require anybody to sign anything?

A. (No audible response.)

Q. Regarding the 72-inch pipe, was that a -- just kind of from your experience, is that something unusual putting in something that, I mean, size?

A. No.

Q. You've worked with that size?

A. (No audible response.)

Q. So when it came to that, it went right over the -- I mean, obviously you knew where the Olympic pipeline was. The 72-inch went over the pipeline.

A. Okay.

Q. I mean, based on the diagram --

A. Right.
Q. Based on the size of that pipe and the installation of that, was there any special care or anything taken when that was installed over the Olympic pipe?
A. Possibly the CDF encasement may have been their design reason for it. I don't know. That's the only place we used CDF on the 72 inch that I recall. We didn't use any out by the pump station. It may have been designed that way (unintelligible).
Q. And do you recall when that part of the project was going on whether Olympic folks were there?
A. I don't recall.
Q. If it was -- if you were near the pipe, I mean, you --
A. If we would have been near the pipe and known that we were going to be near it, they would have been notified and brought out to the site.
Q. Report No. 63, the May 19th, '94. Actually, I'm just really interested in about the first sentence there where it talks about the breakage of the fire hydrant line. Do you recall that?
A. Yes.
Q. And do you -- what were the circumstances of how that happened?
A. There was a fire hydrant line that was very shallow running from here to here (indicating). I think this

is probably it. This is a sump pump discharge. I don't think it's shown on here. That's a different line. I think that's why it was hit right at this. There was two feet of cover on it and I don't think it was shown on the drawings. We were scraping down there for topsoil placement, basically clean-up, you know, just taking the loose material off top and we hit the pipe. And it fed a hydrant out here. We shut the valve, turned it off and that was the end of it, repaired the line, replaced a sticker pipe.

Q. Now, is that somewhat of an unusual occurrence?

A. Yes.

Q. Take us through as far as who you notified, other folks within your company.

A. The City came out to shut the valve off. We weren't sure of the location of the shut-off for that line so they came out, found the valve and shut it off.

Q. Did you -- who else did you let know?

A. I would -- I think our inspector was there from Barrett. He was on-site but --

Q. Is that something you would normally dig up to find?

A. He knew about it. He knew about it. He was -- I don't remember the exact circumstances, but I remember breaking the line. And it ran for - I don't know - probably less than 15 minutes, 10, 15 minutes. Then we

shut it off. But we let -- we needed pumps. We called our office for pumps and then "Why" and, you know, "We broke a line." Everybody was concerned it was the main 16 inch, which it wasn't. It was a hydrant.

Q. Who do you report to in the company? Who is your supervisor?

A. Project manager whoever it may be. Each job it's a different project manager.

Q. So that's who, I mean, if you had problems you would report to that person?

A. Yes.

Q. Do you recall who that was?

A. Chris Hart.

Q. Report No. 78, June 10. Could you explain what the damage conduit, what that is referring to?

A. It was a direct bury phone line that was hit by the excavator.

Q. And where was that approximately?

A. I'm not sure, probably out in the roadway somewhere. Underground telephone, it's this dashed line here, I believe (indicating).

MR. BESHORE: That's on Exhibit B.

Q. No. 81, June 15th. I'm just interested actually in kind of the first sentence of the second paragraph there.

A. Second paragraph or second --
Q. On the first -- it is the second page.
A. Page two?
Q. Page two, the second sentence there about the damage to the loading area.
A. Loading area.
Q. I'm just wondering if you can explain what that --
A. I'm not sure who Jim Lutz is. It doesn't ring a bell. We were required to take out a floor inside the building, an overhead floor between the lower level and the upper level to install some new silos. When we did that, we hammered it out with a - what do you call it - minimax is what it's called. A demolition subcontractor came in, demoed the floor and in doing so caused some cracks on the upper walls. We shorted it up to limit that as much as possible.
Q. So that was up in actually the treatment plant?
A. In the treatment plan.
Q. And the work you're saying was actually done by a subcontractor?
A. Action Concrete, I think, was our sub.
Q. I think the only -- just the last question is - and I know you kind of answered it - was when the work on that tee was being done, the gasoline pipeline was right under that. And I mean, did you recall that at

the time when you were working on that?
A. I don't honestly remember. I don't recall.
Q. Would you expect, though, knowing from where the line was marked that that would have triggered a call to Olympic?
A. Probably.
Q. But you don't recall whether they were actually on-site when that --
A. No, I don't recall the dates they were on-site.

MR. HOLCOMB: Okay. Thank you.

MR. BESHORE: Jeff, do you have any questions?

MR. THISTLE: No.

MR. BESHORE: I have a couple kind of follow-ups.

QUESTIONS BY MR. BESHORE:
Q. And I don't mean to beat this to death, but as far as contacting Olympic, do you remember how many times you might have called them out?
A. No. I know there was different areas of work that we exposed it and they were called more than once to come out and, you know, visually watch us work in a section, do our expose and look at an inspection. And if we were done in that area or backfill, whatever, they

weren't obviously on-site till we exposed another area and then they would be called and brought out again.

Q. And they may be there a couple of days?

A. And I don't know how many times that was, right, or weeks.

Q. And if the line was -- if they knew -- I mean, you didn't call them if they knew at the end of the day that the line -- if you were going to still be working on that area again tomorrow, they would just come tomorrow. You didn't have to call them?

A. Right.

Q. But you can't recall how many times, how many areas we're talking?

A. No.

Q. Did you keep any, like, a log or notes or something that you might still have that are not, you know, company records per se but --

A. No.

Q. -- some little field books or something like that you might have still?

A. Not from that long ago, '94.

Q. I've got a lot of older stuff in my basement.

Just on this Exhibit C. I hadn't seen that form before. Would that be -- is that what you guys use for, like, change orders or is that something

different?

A. It's like an RFI, request for information or clarification or do you have a question about something where you write something down to the inspector -- or, excuse me, engineer. Then you receive direction from them off of one of those. Then they direct you what to do.

Q. That could, I guess, evolve into a change order but this is not, quote, a change order?

A. Right.

Q. And then this Exhibit D again refers to -- we talked about this. This refers to reducers are not in CDF when tee is inserted. Would there have been -- this is talking about moving this 90 and all this. There would not have been any other reducers shown on that print, would there, other than --

A. There is a reducer up here (indicating).

Q. There's a reducer right out of the pump station?

A. Uh-huh.

Q. But then the only other reducers would be, I guess, on the tee reducing down the 16 inch. Is that --

A. On this line. I'm sure there's other reducers on the job on different lines, but on this line that would be two here and one there (indicating).

Q. Now just people alluded to it, but we were, I guess,

told that at one point the line was going to come actually over here and tie in on the south side at 72 inch and that that modification was made. Are you aware of --

A. I don't think I ever saw a design where it went over here (indicating). The only drawings I saw were these (indicating).

Q. Where it was already moved to the north side of that large line?

A. Uh-huh. They may have changed that in their design. I don't know. I don't remember ever seeing it shown over here on our contract drawings.

Q. And just to kind of follow up too. You probably already answered it. But in terms of the relocating or moving this, you know, excavating once and then having to move, you don't remember the details of that, why that job was stopped and delayed a day?

A. Probably because shutdown windows because service is -- it's a large part of Alabama Hill, is it? And it has to be shut down in nonpeak hours. So if we got in there and encountered something that slowed us down, we would have rescheduled for the next day because we were out of our shutdown window.

Q. And one of those things might be starting to excavate and having to relocate something that caused you the

delay?

A. It could have been. Could have been more rock in there than we thought, excavation went slow. It could have been a lot of things.

Q. Now, when after -- or as far as concrete work, do you recall them ever, like, just kind of washing the truck out in the area there where they might have had some extra concrete in the -- do you know what I'm -- you know, they'll dump the rest of it somewhere just to get it out of the truck.

A. Not in the hole. The only concrete there was the thrust block as far as I know.

Q. So you didn't see them doing any other concrete in that area besides the thrust block?

A. No, I don't think so.

Q. Was that -- would that have been the only concrete work in -- I mean, aside from the building obviously. But I mean in the ditching were there any other thrust blocks or anything that were installed or would that have been the only --

A. There would have been thrust blocks on other lines. There may have been a thrust block up here on this 90. I would assume there probably was. There was CDF on this pipe. There was concrete in other areas.

Q. But in the specific location around that tee or --

there wasn't any concrete put around that 12-inch PVC line. Would there have been any reason for --

A. I don't think so, no.

Q. You don't remember any other concrete in that area?

A. No.

Q. Now, you mentioned check-in records. There were check-in -- or you mentioned checking in. You didn't mention records. I was going to ask you about records. There's no --

A. It would have been a verbal check-in.

Q. So they just said, "I'm here from Olympic" and somebody says, "Oh, okay" and explain who they are. But there's no record kept of that?

A. That's typical on our sites that you put up a sign that says "All visitors or subs must check in at main office." They come in your shack, tell you they're there and they let them go.

Q. But that's not recorded?

A. No.

Q. Is there anything else you can think of that we haven't asked or that we should have or that you can think of that might help us out in terms of --

A. No.

Q. -- our role here?

A. Nope.

MR. BESHORE: Any further follow-ups, Ron?

MR. HOLCOMB: Unfortunately I skipped a couple.

QUESTIONS BY MR. HOLCOMB:

Q. First, if we could look at No. 69, May 27th. Actually, down at the bottom where it says "between 11:30 and 12:30 the 16-inch water line lost pressure."

A. I can't read part of that, a something placed across hole.

Q. The question is just do you remember the damage, what that incident --

A. I don't remember damage to a 16-inch line. I remember the fire hydrant, but I don't remember --

Q. So you don't remember any damage to any other water line other than the --

A. I don't remember any damage to a 16-inch line, only the eight inch.

Q. And then No. 58, which actually is dated November but I think it should be May also just in order. It might take awhile to read that one.

A. Okay.

Q. Have you got the second page on that one?

A. I just have two of two, yeah.

Q. There should be --

A. Oh, okay. I've got number one. It was behind it. Sorry. I just read the second page.

MR. BESHORE: Let's go off the record.

(Off the record.)

Q. The second page was the one of interest about the CDF being delivered and it said both the gasoline and 16-inch water line are covered with CDF. I just wonder does that bring back any recollections of the activities on that part of the project and whether Olympic folks were --

A. No.

Q. -- present?

You don't recall the pipeline being exposed and covered --

A. No.

MR. HOLCOMB: Okay. Thanks.

MR. BESHORE: Is that it? That's it for me. Thank you, Greg.

(Interview concluded 12:15 p.m.)

CERTIFICATE

STATE OF WASHINGTON)
)SS
COUNTY OF WHATCOM)

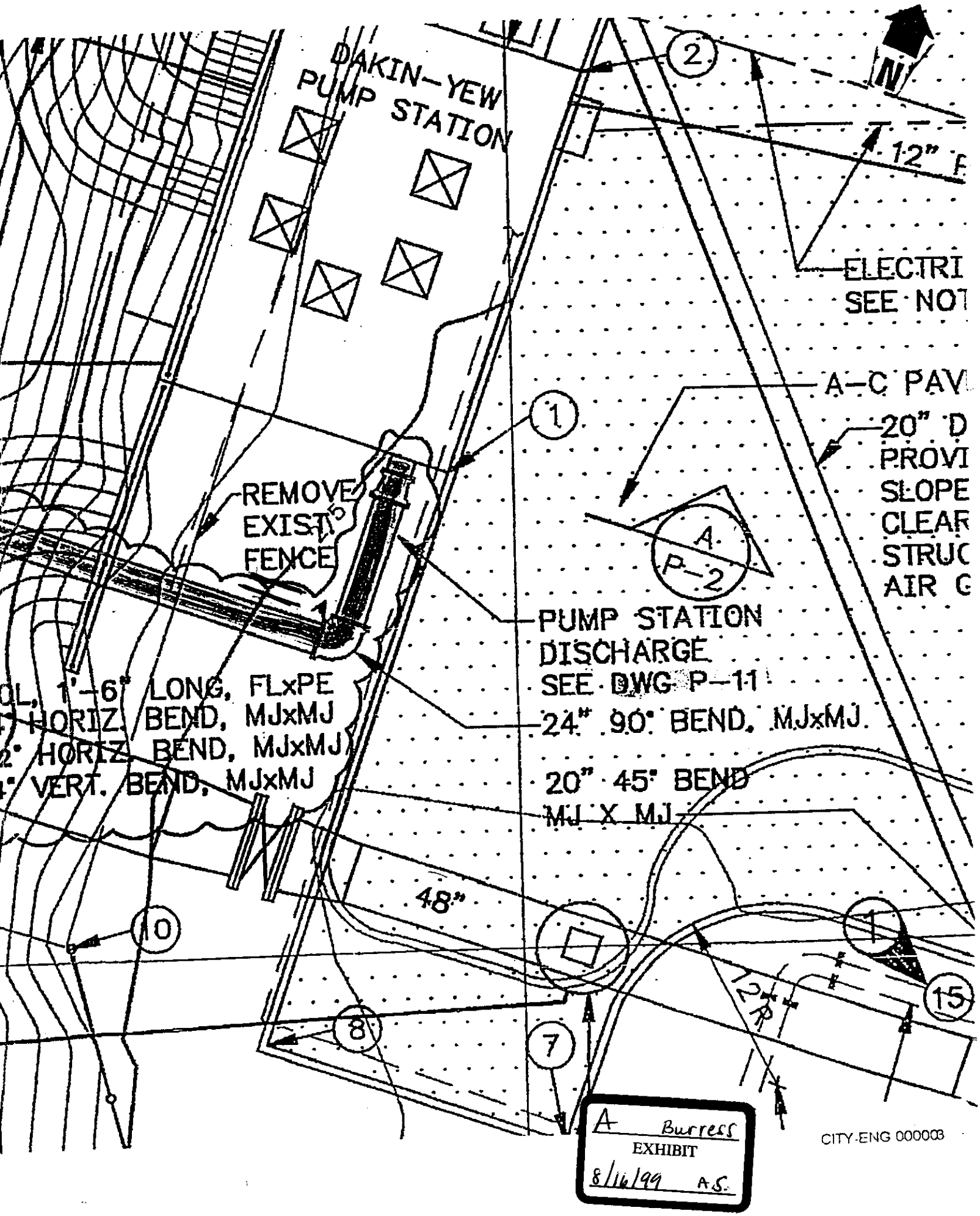
I, AMY SMELTZER, CSR, a Notary Public in and for the State of Washington, residing at Bellingham in said county and state, do hereby certify:

That the foregoing interview of GREG BURRESS was taken before me and completed on August 16, 1999, and thereafter transcribed under my direction; that the interview is a full, true and accurate transcript of the testimony of said witness to the best of my ability;

That I am not a relative, employee, attorney or counsel of any party to this action or a relative or employee of any such attorney or counsel, and I am not financially interested in the said action or the outcome thereof;

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal this 18th day of August.

Amy Smeltzer
Notary Public in and for the State of Washington, residing at Bellingham.
My Commission expires Oct. 9, 2001.



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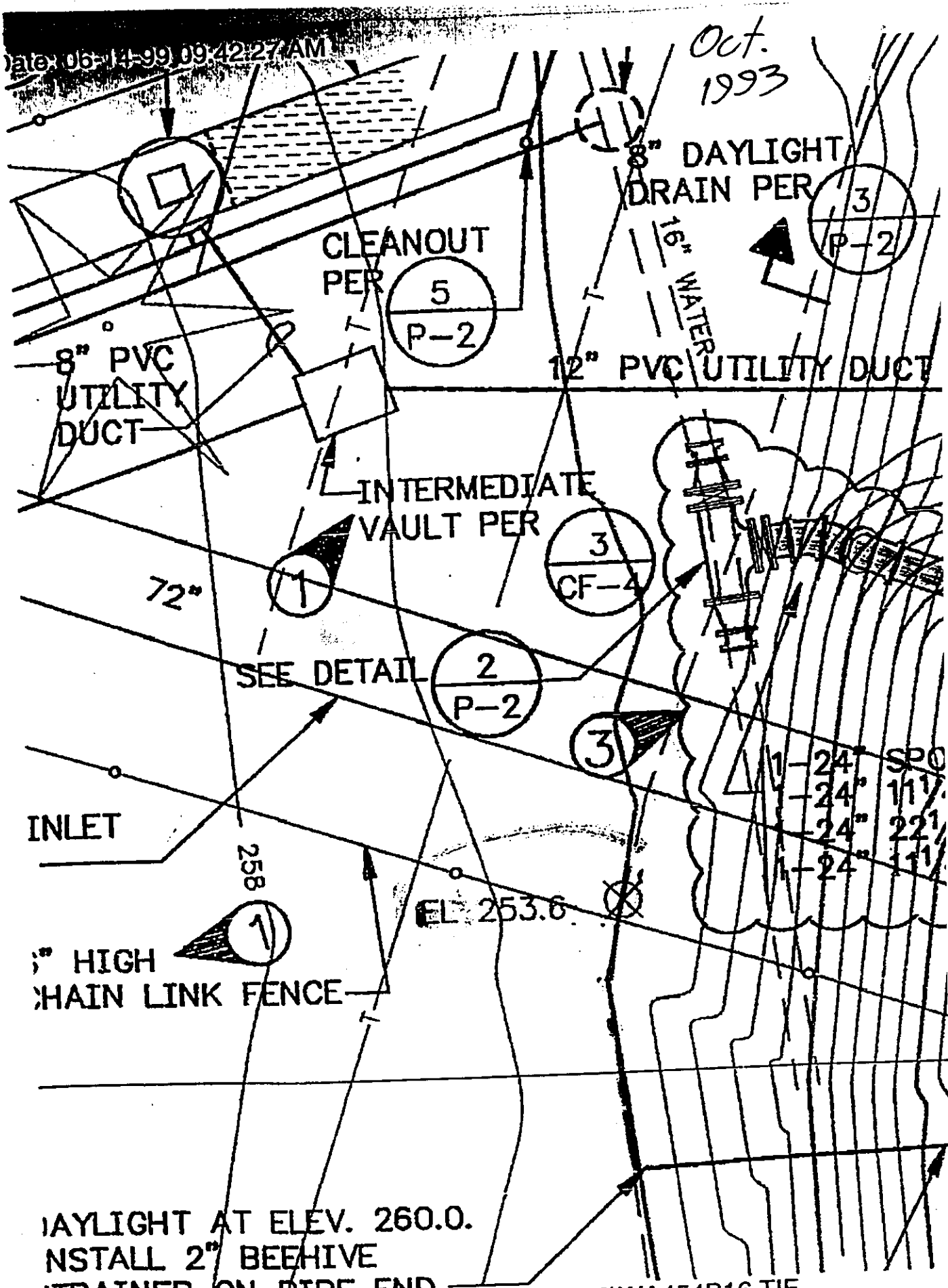

Date: 06-14-99 09:42:27 AM
Oct. 1993
8" DAYLIGHT DRAIN PER 3 P-2
16" WATER
CLEANOUT PER 5 P-2
8" PVC UTILITY DUCT
12" PVC UTILITY DUCT
INTERMEDIATE VAULT PER 3 CF-4
72"
1
SEE DETAIL 2 P-2
3
INLET
258
1
EL. 253.6
" HIGH
CHAIN LINK FENCE
DAYLIGHT AT ELEV. 260.0.
INSTALL 2" BEEHIVE
STRAINER ON PIPE END
Title: \\ENGSRV3\DRIVE-E\FACETS\BHM003#2\WA454B16.TIF

RECORD DRAWING
WA 454B 16

NOTES:

1. EXISTING LAWN SPRINKLER SYSTEM IS NOT SHALL REPAIR AND/OR REPLACE SYSTEM CI CONSTRUCTION TO RESTORE SYSTEM TO ORI CONFIGURATION PRIOR TO CONSTRUCTION.
2. ELECTRICAL CONDUITS PER E-3. INSTALL CONDUITS IN CONTROL DENSITY FILL BETWEEN GARAGE DOOR AND PUMP STATION HANDHOLES AND UNDERNEATH ALL ROAWAYS. PROVIDE 2" MINIMUM CONTROL DENSITY FILL AROUND ALL CONDUITS.
3. PROVIDE ¼ INCH NYLON PULL ROPE IN EACH OF THE FIVE UTILITY DUCTS.
4. CONNECT 4" WATER TO 16" WATER WITH 4" DOUBLE STRAP TAPPING SADDLE AND 4" GV.
5. HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING PIPELINES ARE SHOWN AS BEST KNOWN AT THE TIME THIS DESIGN WAS PREPARED. ACTUAL LOCATION MAY VARY FROM THOSE SHOWN. THE CONTRACTOR SHALL PROVIDE ADDITIONAL PIPE AND FITTINGS AS NECESSARY TO CONNECT TO EXISTING PIPELINES AT ACTUAL LOCATIONS.
6. CONSTRUCT A CRUSHED LIMESTONE PATHWAY FROM THE PUMP STATION ENTRANCE DOOR TO THE CRUSHED SURFACING ROADWAY. PATHWAY SHALL BE 4' WIDE. CRUSHED LIMESTONE SHALL BE 4 INCHES COMPACTED THICKNESS. GRADATION OF CRUSHED LIMESTONE SHALL BE SIMILAR TO CRUSHED SURFACING TOP COURSE.

COORDINATE LISTING

LOCATION NO.	NORTH	EAST	ELEVATION/COMMENT
1	642,831.56	1,614,395.66	275.1/S.E. COR. PUMP STA.
2	642,857.43	1,614,404.96	274.6/N.E. COR. PUMP STA.
3	642,874.6	1,614,445.7	RADIUS POINT
4	642,858.8	1,614,453.9	274.7 TOP OF PAVEMENT
5	642,797.5	1,614,432.5	275.9 TOP OF PAVEMENT
6	642,798.6	1,614,416.3	RADIUS POINT
7	642,787.1	1,614,462.5	275.8 TOP OF PAVEMENT
8	642,794.2	1,614,382.9	275.4 TOP OF PAVEMENT
9	642,780	1,614,375	CONNECT NEW FENCE TO EXIST. FENCE
10	642,801	1,614,370	NEW FENCE
11	642,825	1,614,298	NEW FENCE
12	642,850	1,614,289	NEW FENCE
13	642,862		NEW FENCE
14	642,914	1,614,388	℄ AIR GAP MANHOLE
15	642,797	1,614,432	20° 45° BEND
16	642,866	1,614,396	24" 45° BEND
17	642,926	1,614,369	24" 45° BEND

EXISTING
CITY OF BELLINGHAM
WATER TREATMENT PLANT

E 1,614,500

N 642,900

N 642,800

CONNECT ANODE BED TO 24" DIP PER 1/C-12
PVC CHLORINATION MANIFOLD
OUT SUMP PUMP DISCHARGE
R/ GAP MANHOLE PER 4/P-2
SEE DWG C-14 FOR CHANGES TO THIS AREA
REMOVE EXIST. FENCE
6" DIP SEWER PROVIDE UNIFORM SLOPE BETWEEN EXIST. 6" SAN. AND CONNECTION DOWNSTREAM OF AIR GAP MH.
EXISTING A-C PAVEMENT
MATCH EXIST. LOCATIONS AND ELEVATIONS
SAWCUT EXIST. CURBS AND PAVEMENT/ REMOVE PAVEMENT AND CURBS SOUTHERLY OF CUT LINE
6"-22½° BEND
PLUG 18" X 18" WYE
REMOVE ABANDONED SEPTIC TANK-BACKFILL WITH STRUCTURAL BACKFILL
24" 45° BEND MJ X MJ
REMOVE EXIST. CURB (TYP)
CONNECT TO EXIST. 6" SAN. WITH FITTINGS AND ADAPTERS AS REQUIRED. INSTALL CLEANOUT PER 5/P-2
REMOVE 6" SAN. AND CLEANOUT
CONCRETE CURB
BRICK
REMOVE EXIST. SIDEWALK CONSTRUCT NEW SIDEWALK PER 1/P-2
YARD LIGHT (TYP.)
12" PVC UTILITY DUCT
ELECTRICAL CONDUITS SEE NOTE 2
A-C PAVEMENT
20" D.I. OVERFLOW PROVIDE UNIFORM SLOPE BETWEEN CLEARWELL OUTLET STRUCTURE AND AIR GAP MH.
AS REQUIRED FOR SPACE BETWEEN CURB AND STAIRS. EXTEND SIDEWALK AT SAME WIDTH, NORTH AND SOUTH TO END OF CURBS.
REMOVE EXIST. SIDEWALK. CONSTRUCT NEW SIDEWALK PER 1/P-2
SIGN
FLANGE INSULATION AND TEST STA. PER 1/C-13 3/C-13
VAULT
CLEARWELL OUTLET STRUCTURE
REMOVE 16" W
BFV VALVE BOX
CONNECT TO EXIST. 16" WATER OUTSIDE FACE OF WALL WITH FITTINGS AND ADAPTERS AS REQUIRED.
RETAINING WALL TOP EL.=282.2
16" 90° BEND, MJ X MJ
EXISTING 16" PIPE AND FITTINGS TO BE REMOVED AS REQUIRED. SEE DWG T-1.
16" VERTICAL BEND AS REQ'D, MJ X MJ
FACE OF CLEARWELL WALL
6" DIP PLANT SERVICE
6" 90° BEND, MJ x MJ ROTATE BEND UPWARD. CONNECT TO EXIST. 16"W WITH THRUST RESTRAINT FITTINGS AND ADAPTERS AS REQUIRED OR USE THRUST BLOCK.

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON CONSTRUCTION RECORDS AND INFORMATION PROVIDED BY THE CONTRACTOR.

GEORGE R. NOLL — STATE OF WASHINGTON — PROFESSIONAL ENGINEER — EXPIRES 2/22/97

DIRK VAN WOERKOM — STATE OF WASHINGTON — PROFESSIONAL ENGINEER — EXPIRES 2/9/97

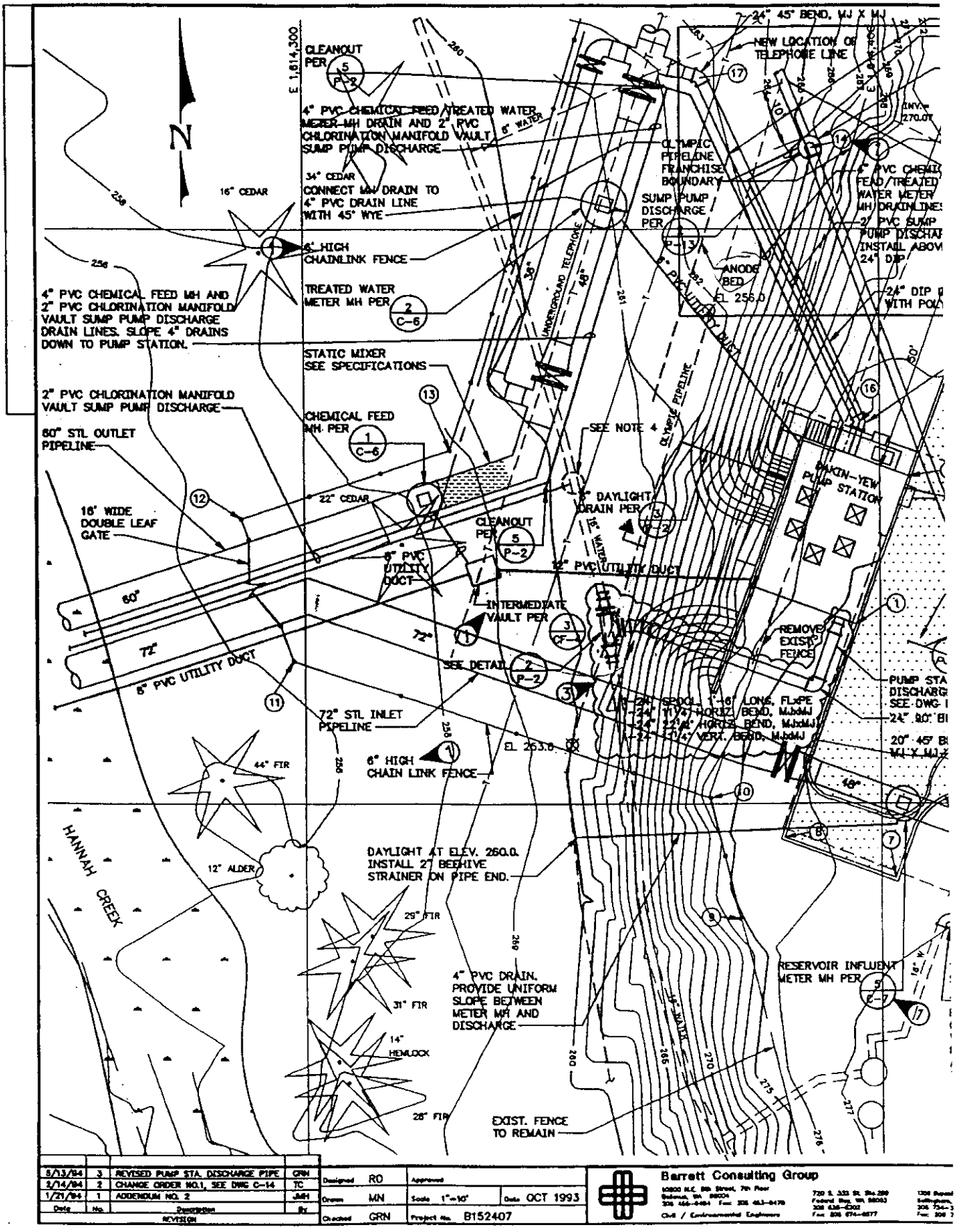
CITY OF BELLINGHAM
DAKIN YEW PUMP STATION,
RESERVOIR PIPELINES, AND CHEMICAL FEED

PUMP STATION SITE PLAN

DRAWING NO. P-1
SHEET NO. 16 of 66

B Burress
EXHIBIT
8/16/99 A.S.

Date: 06-12-99 01:05:50 PM



Date	No.	Description	By
5/13/94	3	REVISED PUMP STA. DISCHARGE PIPE	GRN
2/14/94	2	CHANGE ORDER NO.1, SEE DWG C-14	TC
1/21/94	1	ADDENDUM NO. 2	JMH

REVISION

Designed	RO	Approved	
Drawn	MN	Scale 1"=10'	Date OCT 1993
Checked	GRN	Project No. B152407	

Barrett Consulting Group

Civil / Environmental Engineers

Title: \\ENGSRV3\DRIVE-E\FACETS\BHM003#2\WA454B16.TIF

CONTRACT CLARIFICATION/INTERPRETATION REQUEST

REQUEST NO. 45

DATE: 7/7/94

PROJECT: Dakin View PROJECT NO. 1313

CONTRACTOR: Emco general Const.

CLARIFICATION/INTERPRETATION REQUESTED BY: Greg Burress

REGARDING: PLAN SHEET 25 OF 66 SPEC. SECTION: 2600 RESPOND BY:

DESCRIPTION: Ø 1061 profile for 24

Per my conversation with George Nordby - on the 24" Discharge line we decided due to the fact the CDF Vent & the 72" Conflicted with the BK24T the 24" would be roughly 10' away from pump station instead of the ~~12'~~ 12' shown. & Be very close to the retaining wall ftg where it stepped up ~~this~~ this. Didn't seem to be a problem run it at elevations shown - But iff the 24" ended up closer to the pump station & passed under the lower retaining wall ftg: we were to run the 24" flat ~~the~~ until the pipe was past the wall then 45° up to the 90° outside the Bldg. please see attached drawings & respond if this is your feeling of what came out of the conversations.

Thank you Greg

Greg Burress
PREPARED BY
7/7/94
DATE

C Burress
EXHIBIT
8/16/99 A.S.

RESPONSE ASSIGNED TO:

☒ PROJECT MANAGER ☐ PROJECT DESIGN MANAGER ☐

It is OK to move piping 2' closer to end of retaining wall. If this does not work The pipe can be laid flat under The retaining wall and a 45° fitting added as suggested. Note: The desired option is to provide clearance by moving The pipe closer to The footing. If necessary Chip away a bit of The CDF to make room for the connection fittings.

SIGNED George R Nordby
DATE 7/7/94

CITY-ENG 000314

Inspection Report

Report No. 97

Page _____ of _____

Date 7-7-94

Project Dakin-Yew Pump Station BCG Project No. B152412

Owner City of Bellingham Contract No. 454-B

Contractor IMCO General Construction Co. Sup't/Foreman Gregg Burress

Crew Size _____ Subcontractor(s) _____

Day: M T W (Th) F Sa S Time Start 5:00 Time Stop 5:30

Site Condition Good Weather Fair Temperature 55-78°

Equipment	Equipment	Equipment
Same as 7-6-94		

REPORT (including discussions with Contractor)

City personnel on site and began closing valves on 16" to isolate work at 5:05 AM and completed at 5:40. I notified Gregg. Three man crew was working on removing material from beneath the 16" line. I asked Gregg about connecting hose to 4" tap and he didn't have flange. He planned to pump water. I asked about all the sediment and he will line the drainable area with Visqueen. This plan was changed and the use of 55 gallon can to catch water from Tee and pump from there. Removal of water began at 6:40 and it took ~1 hour.

Problems arrose when hole for tee was not possitioned properly and the plan to tap into 16" was abandoned today with reschule tomorrow. Revisions to the distance of 90° elbow from 12' to ±9'± so edge of reducers are not in CDF when tee is inserted. The pipe still needs to pass beneath the second wall footing.

Water pressure was restored ~ 8:30 by City personnel. Some of the hole dug for today's work was back-filled and area excavated to fit tee in near the CDF placement. Work begins at valve shut-off, ~4AM.

Excavation continued and was complete for 24" pipe, to be placed beneath Olympic line to connect pump station to loop system installed previously.

Carpenters assembling parts and bolting some of the iron for beams inside

CONS-26d 1/94

D Burress
EXHIBIT
8/16/95 A.S.

BCG Field Representative Tom Franklin

Inspection Report

Report No. 97

Page _____ of _____

Date 7-7-94

Project Dakin-Yew Pump Station

BCG Project No. B152412

CONTINUATION OF REPORT

the filtration plant to support second level silo ash floor. There are some electrical conduit on south wall (2), and black 1" pipe on flume concrete face where the south west W14X38 beam is to be attached. These appear to require relocation but will confirm with Roy Bailey tomorrow.

Harbor Mechanical welders are continuing their work, completing the outside welds and beginning work inside. They may finish tomorrow, if not over the weekend.

CONS-27
Revised 7/93

BCG Field Representative Tom Franklin

Inspection Report

Report No. 55

Page _____ of _____

Date 5-9-94

Project Dakin-Yew Pump Station BCG Project No. B152412

Owner City of Bellingham Contract No. 454-B

Contractor IMCO General Construction Co. Sup't/Foreman Greg Burress

Crew Size 2 + 1 labor Subcontractor(s) None

Day: (M) T W Th F Sa S Time Start 700 Time Stop 530

Site Condition Good Weather Fair Temperature 45-70°

Equipment	Equipment	Equipment
Five Crane	Hyster Z40B fork-lift	2 end dump truck 3 hr. ea.
Hitachi EX400 LC backhoe	air compressor	
JD 792 backhoe	Cat 950 loader	
JD 410 B backhoe	Kubota KX-41	

REPORT (including discussions with Contractor)

Excavation continuing for pump station. Vertical faces are being exposed up to ~15' on all sides within rock strata. I asked Cris Tait if any shoring will be placed and he said no. After discussing with John Hatch, I called Wash. State L&I representative Darrell Keith, 428-1350 of Mt. Vernon, to arrange a consultation.

I talked to L&I and arranged for inspector to come to site at 9 AM, wednesday 5-11-94. I told him excavation nearly complete but that nobody would go into hole until consultation. I informed Greg Burress and he will comply. He plans to pour CDF tomorrow if possible.

Excavation this PM to expose 16" water and HP gas line within 72" pipe alignment. It was done with Cascade Pipeline inspector present. The gas pipe was resting on rock and only native material around pipe was removed.

I contacted Intermountain Corrosion Service to arrange holiday testing of pipe coming to site later this week. Specifics will be arranged today.

CONS-26d
1/94

BCG Field Representative

E Burress
EXHIBIT
8/16/99 A.S.

1/2

Inspection Report

Report No. 58

Page _____ of _____

Date 11-12-94

Project Dakin-Yew Pump Station BCG Project No. B152412

Owner City of Bellingham Contract No. 454-B

Contractor IMCO General Construction Co. Sup't/Foreman Gregg Barress

Crew Size 1 for, 2 carp, 4 labor Subcontractor(s) None

Day: M T W (Th) F Sa S Time Start 700 Time Stop 5:30

Site Condition Good Weather PC Temperature 46--60°

Equipment	Equipment	Equipment
Erie Crane	Hyster Z90B forklift	2 end dump trucks
Hitachi EX400LS back-hoe	air compressor	
JD792 back-hoe with hoe ram	Cat 950 loader	
JD410B back-hoe		

REPORT (including discussions with Contractor)

Continued haul and excavation of 60" & 72" trenches from creek diversion pipe Toward pump station.

Kyle Robinson of Intermountain Corrosion Service Holiday tested the two pieces on site. Both have passed Holiday test, but both have mechanical damage, and the piece delivered today, the first all bell & spigot and has ~~sp~~ sharp bend at one end, does not have minimum coating, needing 80 mil. minimum, but in the low 70s. I informed Gregg of the unacceptable thickness.

Pour of bottom slab for pump station began ~ 9:30. The only problems remaining when pour began was setting water stop and moving east wall dowels to proper location. The water stop was fixed during pour, but new dowels will be needed as their too close to inside wall face. During the pour, the box placed to block-out for sump floated ~2". I informed Gregg and what can be done will be today.

The concrete pour finished at 12 noon. Continued floating and final positioning of water stop took more time. By 1:30 the floor hardener, # Surflex by Euclid and Re~~x~~-seal cure compound was applied. 10 bags @ 50# and 10 gallons of compound applied.

Once one of the pipe cradles could support the flange/spigot section, CDF was delivered and placed during the PM. No excavation this PM, because the

CONS-26d
1/94

BCG Field Representative Tom Franklin

Inspection Report

Report No. 58

Page _____ of _____

Date 11-12-94

Project **Dakin-Yew Pump Station**

BCG Project No. **B152412**

CONTINUATION OF REPORT

CDF truck to crane movement superceded. Both the gas line and 16" water line are covered with CDF. Two cradles are in place and CDF delivery lasted till 5:30 PM, placing 96 C.Y. Only minimal amount of rock required.

Much grit from hardener was creating a non-skid surface, rather than smooth surface. The power finisher was used to flatten rough areas. This after the cure/sealer was applied. Several hundred flies were attracted to the acrylic sealer and became part of the finish.

I talked to Gregg Burress about damage to coating on pipe. It needs to be taken down to metal, reprimed and coated as discussed in the repair specifications.

CONS-27
Revised 7/93

BCG Field Representative Tom Franklin

Inspection Report

Report No. 63

Page _____ of _____

Date 5-19-94

Project Dakin-Yew Pump Station

BCG Project No. B152412

Owner City of Bellingham

Contract No. 454-B

Contractor IMCO General Construction Co. Sup't/Foreman Gregg Burress

Crew Size 1 foreman, 3 iron, 3 carp 3 labor Subcontractor(s) None

Day: M T W (Th) F Sa S Time Start 700 Time Stop 530

Site Condition Good Weather Fair Temperature 45-68°

Equipment	Equipment	Equipment
Erie Crane	Hyster Z90B fork-lift	Hobart 350G welder
Hitachi EX 400LS back-hoe	air compressor	1 ton flatbed truck.
JD 792 back-hoe with hoe pack	Cat 950 loader	
JD 410B back-hoe	4 end dump trucks	

REPORT (including discussions with Contractor)

During excavation and haul of top soil above 60" loop and haul ramp, the back-hoe broke 8" line feeding fire hydrant at NE corner of plant parking. A valve was used to close system and other valves on 16" line used until this valve was found. Bellingham has decided that this hydrant can be left unoperative the 2-3 weeks to install pipe. I asked Gregg about draining the 16" line and since Imco broke the fire hydrant that was to be used to drain system for 16" top, Imco will provide activity to drain pipe.

Welder continuing welds outside of 72" joints.

Iron workers still placing outer layer of rebar in pump station. They will work tomorrow on this and begin monday on pipe support walls.

Carpenters placing forms on west side of western wall of Hannah Creek support system. Rebar to be placed monday.

Excavation of 60" pipe trench proceeding to horizontal angle. Trucks hauling off site; I requested copy of grading permit, as Imco needs it. Excavation encountering rock as indicated in profile. Delivery of 36" + 48" piping for loop system today.

CONS-26d
1/94

BCG Field Representative Con Franklin

Inspection Report

Report No. 64

Page _____ of _____

Date 5-27-94

Project Dakin-Yew Pump Station BCG Project No. B152412

Owner City of Bellingham Contract No. 454-B

Contractor IMCO General Construction Co. Sup't/Foreman Gregg Burress

Crew Size 4 (Gregg, Lance, 3 laborers) Subcontractor(s) None

Day: M T W Th (F) Sa S Time Start 700 Time Stop 530

Site Condition Good Weather PC Temperature 48–65°

Equipment	Equipment	Equipment
Erie Crane	Hyster 290B forklift	
Hitachi EX400LS back-hoe	JD 95D loader	
JD 792 with back-hoe	air compressor	
JD 410B back-hoe		

REPORT (including discussions with Contractor)

The pieces of the loop system are together and blocked with cradles. Welds are yet to be made on non-flanged pieces.

Excavation nearing completion at new waterline tie-in the ±200' run of trench is exposed. Gregg and I decided to close the road in this area and have pedestrians cross over to the land road. I suggested a sign be made and physical barriers be erected.

Carpenters and ironworkers making last minute adjustments to rebar and forms, embeds and placing treemies. The concrete pour began at 10:30 AM and was completed at 2:45 PM. Roughened surface on top of wall. The first load of concrete was too wet and extended pour time to obtain maximum vibration of mix and to raise air content, originally tested at 3% and air entrainment added at site.

Between 11:30 and 12:30, the 16" waterline lost pressure due to damage by Hitachi back-hoe, in vicinity where 16" crosses the back-wash pipe. A band was placed across hole and rubber gasket sealed leak. Ray Bailey and City crew on site and fixed leak.

Fence placed at both ends of 60' trench filled with water. Pedestrians forced to land road for weekend. Siren sensor fixed today by Imco.

CONS-26d
1/94

BCG Field Representative Tom Franklin

Inspection Report

Report No. 78

Page _____ of _____

Date 6-10-94

Project Dakin-Yew Pump Station BCG Project No. B152412

Owner City of Bellingham Contract No. 454-B

Contractor IMCO General Construction Co. Sup't/Foreman Gregg Burress

Crew Size 1 operator 1 labor Subcontractor(s) None

Day: M T W Th (F) Sa S Time Start 700 Time Stop 330

Site Condition Good Weather PC Temperature 52 - 70°

Equipment	Equipment	Equipment
JD 792 with hoe pack		
JD 950 loader		

REPORT (including discussions with Contractor)

Operator and labor on site unloading 60" pipe sections being delivered today.

Back-filling the 60" trench beneath 60" storage pipe and utilities to angle point 5+07. Telephone conduit repair by US West continues as back-fill proceeds and areas are available. Several wire splices made to repair damaged conduit due to excavation activities. This work lasted ~2 hours.

Harbor Mechanical on site this PM, completing welds in 60" line between Hannah Creek and the loop system for back-fill operation to proceed next week.

CONS-26d
1/94

BCG Field Representative Tom Franklin

Inspection Report

Report No. 81

Page _____ of _____

Date 6-15-94

Project Dakin-Yew Pump Station BCG Project No. B152412

Owner City of Bellingham Contract No. 454-B

Contractor IMCO General Construction Co. Sup't/Foreman Gregg Burress

Crew Size 3carp, 3op, 3labor Subcontractor(s) None

Day: M T (W) Th F Sa S Time Start 700 Time Stop 530

Site Condition Good Weather PC. Temperature 48-63°

Equipment	Equipment	Equipment
Erie Crane	Hyster forklift	
JD 792 with bee pack	JD 950 loader	
JD 410 B backhoe	air compressor	
Hitachi back-hoe	6 truck and trailer combos.	

REPORT (including discussions with Contractor)

I once worked late yesterday, till 11 PM, on back-filling Hannah Creek. I talked to Calvin about all the fill is inside the pipe anchors, and only where the pump out valve for 60" pipe is there any fill outside the anchors. Fill was placed to absorb loading for west anchor. The pump out valve for 72" was placed using the same dimensions for 60", and is too close to have a plumb casing and positive separation from pipe coating. It will be moved. Densities taken on bedding material 4' below top of anchors.

Coating of pump station with waterproofing, first coat placed at times yesterday and beginning at 5:30 AM today. I asked Gregg his intentions and they were to place CDF tomorrow. I said at. cut requires 24-48 hrs. and no rain during drying time, and the bottom sill is not removed from wall. The sill was removed and coating applied. I said mill testing per layer is required and must be done. Gregg will get a gauge and test 1 each 100°. CDF placement will not be done till monday.

Further discussings between Gregg and John Hatch have established the coating need not be gauge tested, but coverage rate determined. About 25 gallons used, 20-25 required. Another coating is planned for tomorrow PM.

CONS-26d
1/94

BCG Field Representative Lon Oranchak

Inspection Report

Report No. 81

Page _____ of _____

Date 6-15-94

Project **Dakin-Yew Pump Station**

BCG Project No. **B152412**

CONTINUATION OF REPORT

By noon, back-hoe is across Hannah Creek cleaning up and piling debris to south of pipe alignment.

Jim Lutz visited site and observed damage to loading area and wall next to pilot filters. Jim and I talked to Gregg and obtained shoring drawing for shoring to be installed. The timber presently placed will be removed when other material arrives on site. Material arrived for the shoring and it is being assembled.

Gregg took elevation shots on ground line between Hannah Creek and the reservoir. These elevations are 2-3' higher than O.G. in profile. I will obtain the level notes.

Harbor Mechanical's Rodney Staples on site ~1:30 PM and began ~~welding~~ the outside weld of 60" and will complete the 5 joints today. He also brought welding procedure and material certification of filler material.

Removal of 72" pump out piping to move valve from underneath pipe accomplished. Rock needed to be taken out to fit riser unit.

Process piping vault in garage of filtration plan is formed for walls and will be poured late today. No forms except for inside, concrete to earth bearing surface. I told Imco no testing for 3 C.Y. concrete is needed.

CONS-27
Revised 7/93

BCG Field Representative Lon Franklin

Inspection Report

Report No. 84

Page _____ of _____

Date ~~6-19~~ 6-20-94

Project Dakin-Yew Pump Station BCG Project No. B152412

Owner City of Bellingham Contract No. 454-B

Contractor IMCO General Construction Co. Sup't/Foreman Gregg Burress

Crew Size 3op, 3carp, 3labor Subcontractor(s) None

Day: (M) T W Th F Sa S Time Start 700 Time Stop 530

Site Condition Good Weather Fair Temperature 52-70°

Equipment	Equipment	Equipment
Erie Crane	Hyster fork-lift	
Hitachi back-hoe	JD 410B back-hoe	
JD loader	air compressor	
JD792 with hoe pack	end dump truck	

REPORT (including discussions with Contractor)

Placement of CDF around 2 walls of pump station and apth spring line of 72" pipe, from butterfly valve to telephone line crossing. This took the entire day, as CDF around pump station required a slow pour rate. Drain rock had been placed to allow seepage away out and no more than 3' in 3 hours was placed.

Excavation of rock from reservoir 60" and 72" dia. pipe toward pump station began. Water control in area is Imco's responsibility and pumps / hoses setup to maintain dry holes for bedding. The rock debris was hauled and deposited in 60" trench back-filled to +1' above pipe with bedding gravel. The hoe pack is spreading material and minor compaction efforts made. (Care not to damage pipe made).

~175 Yd.³ placed for pump station and 72" pipe. The CDF forms placed on south side of pump station moved about 1½' at bottom and CDF placement terminated until forms reinforced (~45 minutes).

Some water seepage occurring near reservoir work area, bedding being removed where saturated and replaced. Anvil will take densities prior to pipe placement.

CONS-26d
1/94

BCG Field Representative Tom Franklin

Inspection Report

Report No. 96

Page _____ of _____

Date 7-6-94

Project Dakin-Yew Pump Station BCG Project No. B152412

Owner City of Bellingham Contract No. 454-B

Contractor IMCO General Construction Co. Sup't/Foreman Gregg Burress

Crew Size 4 carp, 1 cem, 3 L. Subcontractor(s) None Harbor Mechanical - 2 welders

Day: M T (W) Th F Sa S Time Start 700 Time Stop 5:30

Site Condition Good Weather O/C - Fair Temperature 55 - 75°

Equipment	Equipment	Equipment
Hitachi back hoe	Hyster fork lift	
JD 792 with bucket	JD 410B back-hoe	
Cat 95E loader	Iron Crane	
Cat 966 loader	air compressor	

REPORT (including discussions with Contractor)

Carpenters working to prepare soda ash foundation for pour this AM, setting 11 AM to start. The concrete showed up at 11 AM but foundation not ready, with half the anchor bolts not set and drain pipe not positioned. It took till 11:35 to arrange everything and begin toting concrete by wheel barrow. Providing good clearance on steel mats took adjustments and the drain was/it low enough to be in the concrete. It was lowered, and cement hardener applied, then acrylic compound.

Excavation of 24" between pump station and large diameter pipe began, with Olympic Pipeline representative on site during excavation near line. More work tomorrow. Efforts this PM on exposing 16" water line for Tamerra's water line tie-in, and 4" top to drain to storage pipe system.

Welding continuing on butt strap welds, and others left, including the 72" butt strap. The 60" was manipulated to obtain the 2" minimum lap required by taking excess from joint at west pipe ends. A second welder was added today with this activity holding up back-fill. Requested copy of welder's certification.

CONS-26d
1/94

BCG Field Representative Ken Franklin

Inspection Report

Report No. 97

Page _____ of _____

Date 7-7-94

Project Dakin-Yew Pump Station BCG Project No. B152412

Owner City of Bellingham Contract No. 454-B

Contractor IMCO General Construction Co. Sup't/Foreman Gregg Burress

Crew Size _____ Subcontractor(s) _____

Day: M T W (Th) F Sa S Time Start 5:00 Time Stop 5:30

Site Condition Good Weather Fair Temperature 55-78°

Equipment	Equipment	Equipment
Same as 7-6-94.		

REPORT (including discussions with Contractor)

City personnel on site and began closing valves on 16" to isolate work at 5:05 AM and completed at 5:40. I initiated Gregg. Three man crewwas working on removing material from beneath the 16" line. I asked Gregg about connecting hose to 9" tap and he didn't have flange. He planned to pump water. I asked about all the sediment and he will line the drainable area with Visqueen. This plan was changed and the use of 55 gallon can to catch water from Tee and pump from there. Removal of water began at 6:40 and it took ½ hour.

Problems arose when hole for tee was not positioned properly and the plan to tap into 16" was abandoned today with resultant tunneling. Revisions to the distance of 90° elbow from 12' to ±9'± so edge of reducers are outside CDF when tee is inserted. The pipe still needs to pass beneath the second wall footing.

Water pressure was restored ~ 8:30 by City personnel. Some of the hole dug for today's work was back-filled and area excavated to fit tee in near the CDF placement. Work begins at valve shut-off, ~ 4AM.

Excavation continued and was complete for 24" pipe to be placed beneath Olympic line to connect pump station to loop system installed previously.

Carpenters assembling parts and bolting some of the iron for beams inside

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BCG Field Representative Tom Trimble

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Date 7-7-94

Project **Dakin-Yew Pump Station**

BCG Project No. **B152412**

CONTINUATION OF REPORT

the filtration plant to support second level silo ash floor. There are some electrical conduit on south wall (2), and black 1" pipe on flume concrete face where the south west w14x38 beam is to be attached. These appear to require relocation but will confirm with Ray Bailey tomorrow.

Harbor Mechanical welders are continuing their work, completing the outside welds and beginning work inside. They may finish tomorrow, if not over the weekend.

BCG Field Representative Tom Dranchak

Inspection Report

Report No. 98

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Date 7-8-94

Project Dakin-Yew Pump Station BCG Project No. B152412

Owner City of Bellingham Contract No. 454-B

Contractor IMCO General Construction Co. Sup't/Foreman Gregg Barress

Crew Size _____ Subcontractor(s) _____

Day: M T W Th (F) Sa S Time Start 7:00 Time Stop 5:30

Site Condition Good Weather Fair Temperature @ 53-75°

Equipment	Equipment	Equipment
Hitachi back-hoe	Cat 950 loader	
Erie Crane	Hyster fork-lift	
JD 792 w/ ram line		
JD 410B back hoe		

REPORT (including discussions with Contractor)

City of Bellingham water valve crew began closing the 16" water line down at 9 AM and Imco personel on site at 5:15 AM to begin draining line for tee insertion for 24" pump station connection. The connecting area has been excavated near 72" pipe. CDF insulation by bulk and Imco began cutting pipe ~ 6 AM. The pipe was mostly drained by 6:30.

Ray Bailey came to site and observed progress. I asked him to look at utilities in filtration plant which obstruct installation of floor beams in soda ash silo vicinity. The black pipe connected to flume is old soda ash connection and water pipe painted blue with insulation is heat source. Both will be removed monday, as Ray will send City personel to aid in removal. Triad electrician will be here monday to seek resolution to wiring conflicts monday as well.

I asked Gregg to accomplish repair of 16" near 60/48" tee in that was damaged in late May. This was undertook while work on Tee was in progress.

Carpenters are installing expansion anchors for beam attachments in soda ash vicinity. Core drilling bits only down to 1" require 1" instead of 7/8" anchor bolts. This was approved by John Hatch.

Replacement of gasket for bell of 16" near the repaired pipe that

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BCG Field Representative Ian Donaldson

Inspection Report

Report No. 98

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Date 2-8-94

Project **Dakin-Yew Pump Station**

BCG Project No. **B152412**

CONTINUATION OF REPORT

one foot spool replaced in existing system. A 5" section of pipe was cut, which included hole punched in it by Imco. This work was completed and water turned on ~11 AM.

Work assembling 24" DI. from pump station to loop connection was started.

Removal of bracing on wall forms of pump station begun. No form removed till Tuesday, when cure is off.

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Revised 7/93

BCG Field Representative Con Franklin

Inspection Report

Report No. 99

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Date 7-11-94

Project Dakin-Yew Pump Station — BCG Project No. B152412

Owner City of Bellingham — Contract No. 454-B

Contractor IMCO General Construction Co. — Sup't/Foreman Gregg Burress

Crew Size 3 carp 1 sup 1 labor — Subcontractor(s) None

Day: (M) T W Th F Sa S — Time Start 700 — Time Stop 530

Site Condition Good — Weather Fair — Temperature 55-75°

Equipment	Equipment	Equipment
Erie Crane	Hyster fork-lift	
Cat 950 Loader	air compressor	
Hitachi ~~Hyster~~ backhoe		
JD 792 backhoe w/thumb		

REPORT (including discussions with Contractor)

Carpenters assembling beams and parts for pump station second floor support. Most metal faces are painted with primer, and a pre-assembled unit with bolts snug tight to clips. A support tower on floor with support beams and clips will be welded to embeds.

Welding of joints was completed over the weekend and tested by Harbor Mechanical. Wrapping joints with coating and holiday testing is to be done today; I will observe the tests.

I talked to Kurt of Bellingham maintenance and arranged for him to turn system off within the plant so piping can be removed where beams are to be placed, as shown on sheet 4. Three pipe are to be cut, capped and moved to pass thru beams to be placed. Kurt turned the system off and drained area pipes to be moved.

I told Gregg that raceway in northwest corner of silo placement is abandoned and can be removed by Trio. Trio will also move conduits to H VAC on south concrete block wall. Plant personnel notified of vent off status tomorrow. A soda ash pipe was plugged and removed from flume by Kurt today, because it's in vicinity of beam plate to be welded to flume. Other connections maybe required but not in flume, for soda ash mixture.

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BCG Field Representative Tim Drake

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Date 7-11-94

Project Dakin-Yew Pump Station

BCG Project No. B152412

CONTINUATION OF REPORT

Pipe wrapping and repair of damaged areas being done this PM.

An effort by operator of hoe-pac mounted on JD792 to begin back-fill of 72-60" trench this PM was stopped, as no special effort to compact beneath the pipes (such as jumping jack tampers as has been done) and labor working on pipe wrapping. Gregg stopped the back-filling until attention can be paid to it by laborers tomorrow.

Harbor Mechanical welder welding clips to embedded plates in pump station, beginning in early PM.

Work assembling angle at 24" DI tee begun, with a 33° bend inserted off a 1' flange using a mego lug.

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Revised 7/93

BCG Field Representative Tom Franklin

Inspection Report

Report No. 103

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Date 7-18-94

Project Dakin-Yew Pump Station BCG Project No. B152412

Owner City of Bellingham Contract No. 454-B

Contractor IMCO General Construction Co. Sup't/Foreman Gregg Burress

Crew Size 3 carp 3 op 3 labs Subcontractor(s) Triad - 2 electricians

Day: (M) T W Th F Sa S Time Start 700 Time Stop 530

Site Condition Good Weather Fair Temperature 55-75°

Equipment	Equipment	Equipment
Hitachi EX 150 back-hoe	JD 410 B back-hoe	
JD 792 with tree pads	Hydraulic fork lift	
~~JD~~ 955 Cat loader	air compressor	
Link crane		

REPORT (including discussions with Contractor)

Carpenters working on forms for roof of pump station, determining slope of vent and hatch top as well as locations of curb and any rebar too high, so it can be located. A pipe will be placed on these #6 bar at NE corner 11½" too high to bend around. 3" dia.

Shoring for roof is transmitted directly thru second floor beams where shoring is in middle of structure. Both long walls have bolts embedded drilled for shoring support. Beams will be formed from bottom, to false roof forms.

Back-filling of 60" and 72" pipes is progressing well. About 2/3 of distance is being covered and remainder completed by tomorrow at this rate. Anvil on site testing and densities are ranging from 90% to 97%. I talked to Gregg about material above the 90% density requirements. Here's +1.5' above the pipe, which will require 96% test results. Piping on the south side and middle of pipes require excavation and increment of material. Once these trenches are back-filled a roller will attain the required densities.

Triad personnel is unloading chlorination equipment and beginning preparation for chlorine start-up. Action Concrete Co. on site drilling holes in chlorine room floor for placing conduits.

Excavation for 24" D.I. connecting pump station to line was begun,

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BCG Field Representative Carl Terrell

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Date 7-18-94

Project Dakin-Yew Pump Station

BCG Project No. B152412

CONTINUATION OF REPORT

again, as trench didn't run true to line and error made in layout, which made connection impossible. A widened trench was dug to the north and past the gas line (with Gas Co. personnel present) to allow pipe placement. This work will proceed tomorrow.

Back filling large diameter pipe is going faster than I expected. Truck and trailer access to corridor aids the process and less rehandling is needed.

BCG Field Representative Tom Durkin