Council Chamber City Hall, Saskatoon, Sask. Tuesday, January 4, 1994, at 7:00 p.m.

#### MINUTES OF REGULAR MEETING OF CITY COUNCIL

**PRESENT:** His Worship Mayor Dayday in the Chair;

Councillors Mostoway, Penner, McCann, Cherneskey, Mann,

Thompson, Waygood, Birkmaier and Hawthorne;

City Commissioner Irwin;

A/Director of Planning and Development Coveyduck;

Director of Works and Utilities Gustafson;

Director of Finance Richards;

City Solicitor Dust; City Clerk Mann;

City Councillors' Assistant Kanak

#### **PRESENTATION**

His Worship the Mayor presented the City of Saskatoon Citation for Laudable Conduct Certificates to Max Hnatiuk, for rescuing an occupant from an apartment building fire on December 2, 1993, and to Lorna Bainbridge and Karen Barnhill, for rescuing a family from a burning residence on December 12, 1993.

Moved by Councillor Penner, Seconded by Councillor McCann,

- 1) that the amount of \$6,161.81 under Recommendation 2b) of Clause B9, Report No. 27-1993 of the City Commissioner, on page 35 of the minutes of meeting of City Council held on December 20, 1993, be corrected to read "\$6,613.07"; and
- 2) that the minutes of the regular meeting held on December 20, 1993, as amended, be approved.

CARRIED.

Councillor Thompson rose on a point of privilege regarding an article in the December 31, 1993

issue of <u>The Globe and Mail</u> entitled "Nice work if you can get it (and you can get it if you don't try)" and an article in the January 3, 1994 issue of <u>The StarPhoenix</u> entitled "Waste Not Want Not".

Moved by Councillor Thompson, Seconded by Councillor Penner,

THAT the articles be referred to the Personnel and Organization Committee to investigate and report on the allegations brought forward.

CARRIED.

#### **HEARINGS**

2a) Proposed Street Closing Portion of Attridge Drive Proposed Bylaw No. 7390 (File No. CK. 6295-1)

#### REPORT OF CITY CLERK:

"Attached is a copy of Clause A1, Report No. 24-1993 of the City Commissioner, which was adopted by City Council at its meeting held on November 8, 1993.

Council, at its meeting held on November 8, 1993, gave notice of its intention to consider the proposed street closing and instructed the City Solicitor to take further necessary steps in respect of the matter.

The City Solicitor has now advised that all preliminary proceedings in connection with the closing of the street have been taken including the receipt of approval of the Deputy Minister of Highways and Transportation and the advertisement of the notice of proposed closing and the service of such notice on abutting property owners.

Accordingly, Council, at this meeting, is to consider and determine any submissions and objections to the proposed street closing prior to consideration of Bylaw No. 7390, a copy of which is attached.

Also attached is a copy of a communication dated December 20, 1993, from Kirk Blomquist, Field Supervisor, University of Saskatchewan."

The City Clerk advised that a letter dated January 4, 1994, was received from Mr. Blomquist

withdrawing his objections to the proposed street closing.

His Worship Mayor Dayday ascertained that there was no one present in the gallery who wished to address Council with respect to the matter.

Moved by Councillor Thompson, Seconded by Councillor Mostoway,

THAT the submitted correspondence be received.

CARRIED.

Moved by Councillor Penner, Seconded by Councillor Cherneskey,

THAT the hearing be closed.

CARRIED.

Moved by Councillor Penner, Seconded by Councillor Cherneskey,

THAT Council consider Bylaw No. 7290.

CARRIED.

2b) Hearing
Proposed Street Closing
Portion of 115th Street and Part of N-S Road Allowance
Adjacent to NW 1/4 32-36-4 W3rd
Proposed Bylaw No. 7391
(File No. CK. 6295-1)

#### REPORT OF CITY CLERK:

"Attached is a copy of Clause A2, Report No. 26-1993 of the City Commissioner, which was adopted by City Council at its meeting held on December 6, 1993.

Council, at its meeting held on December 6, 1993, gave notice of its intention to consider the proposed street closing and instructed the City Solicitor to take further necessary steps in respect to the matter.

The City Solicitor has now advised that all preliminary proceedings in connection with the closing of the street have been taken including the receipt of approval of the Deputy Minister of Highways and Transportation and the advertisement of the notice of proposed closing and the service of such notice on abutting property owners.

Accordingly, Council, at this meeting, is to consider and determine any submissions and objections to the proposed street closing prior to consideration of Bylaw No. 7391, a copy of which is attached."

His Worship Mayor Dayday ascertained that there was no one present in the gallery who wished to address Council with respect to the matter.

Moved by Councillor Cherneskey, Seconded by Councillor Mostoway,

THAT the hearing be closed.

CARRIED.

Moved by Councillor Penner, Seconded by Councillor Cherneskey,

THAT Council consider Bylaw No. 7391.

CARRIED.

#### **COMMUNICATIONS TO COUNCIL**

The following communications were submitted and dealt with as stated:

#### A. ITEMS WHICH REQUIRE THE DIRECTION OF CITY COUNCIL

### 1) Wayne Olson, Chair Snowarama '94. dated December 13

Requesting permission to ride snowmobiles on City property from Olympic Fine Meats along Dundonald Avenue to the outskirts of the City for the Annual Timmy's Snowarama on February 5, 1994. (File No. CK. 205-1)

**RECOMMENDATION:** that the request be approved subject to Administrative conditions.

Moved by Councillor Mann, Seconded by Councillor Cherneskey,

THAT the request be approved subject to Administrative conditions.

CARRIED.

# 2) Patricia Hladun, Administrative Assistant Saskatoon Folkfest Inc., dated December 16

Expressing appreciation to Council for the support provided to Folkfest '93, and providing a copy of the 1993 Annual Report of Saskatoon Folkfest Inc. (A copy of the report is available for viewing in the City Clerk's Office.) (File No. CK. 430-21)

**RECOMMENDATION:** that the information be received.

Moved by Councillor Cherneskey, Seconded by Councillor Birkmaier,

THAT the information be received.

CARRIED.

# 3) Sherry Buller, President Alliance for Life - Saskatoon, Inc., dated January 3

Requesting Council to proclaim the week of February 28 - March 6, 1994 as "Saskatoon Respect for Life Week" in Saskatoon. (File No. CK. 205-5)

**RECOMMENDATION:** that His Worship the Mayor be authorized to proclaim the week of

February 28 - March 6, 1994 as "Saskatoon Respect for Life Week" in Saskatoon

Moved by Councillor Cherneskey, Seconded by Councillor Mann,

THAT His Worship the Mayor be authorized to proclaim the week of February 28 - March 6, 1994 as "Saskatoon Respect for Life Week" in Saskatoon.

CARRIED.

# 4) Gary Mearns, Chair Saskatoon Crime Stoppers, dated December 22

Requesting Council to proclaim the month of January, 1994 as Crime Stoppers Month in Saskatoon. (File No. CK. 205-5)

**RECOMMENDATION:** that His Worship the Mayor be authorized to proclaim the month of January, 1994 as Crime Stoppers Month in Saskatoon.

Moved by Councillor Birkmaier, Seconded by Councillor McCann,

THAT His Worship the Mayor be authorized to proclaim the month of January, 1994 as Crime Stoppers Month in Saskatoon.

CARRIED.

# 5) Judy Ledding Box 835 Rosetown, SK, dated December 23

Commenting regarding Monument to the Unborn in Woodlawn Cemetery. (File No. CK. 4280-1)

**RECOMMENDATION:** that the information be received.

Moved by Councillor Mostoway, Seconded by Councillor Cherneskey,

THAT the information be received.

CARRIED.

# 6) Gay Caswell 320 29th Street West, dated December 27

Commenting regarding closure of Mayfair Pool. (File No. CK. 613-1)

**RECOMMENDATION:** that the information be received.

Moved by Councillor McCann, Seconded by Councillor Waygood,

THAT the information be received.

CARRIED.

# 7) Alderman Ron Hayter, President, Federation of Canadian Municipalities and Honourable Lloyd Axworthy, Minister, Human Resources Development, undated

Submitting information and application form for the 1994 Five-Star Community Awards. (File No. CK. 150-5)

**RECOMMENDATION:** that the letter be referred to the Administration.

Moved by Councillor Penner, Seconded by Councillor Cherneskey,

THAT the letter be referred to the Administration.

CARRIED.

# 8) Marlene Hall, Secretary <u>Development Appeals Board, dated December 29</u>

Submitting Notice of Development Appeals Board Hearing regarding proposed renovations to multiple-unit dwelling to convert to office with deficiencies in site frontage, site area and side yard setback at 606 Queen Street. (File No. CK. 4352-1)

9) Marlene Hall, Secretary <u>Development Appeals Board, dated December 30</u>

Submitting Notice of Development Appeals Board Hearing regarding existing one-unit dwelling with south side yard deficiency/encroachment at 542 Delayen Crescent. (File No. CK. 4352-1)

**RECOMMENDATION:** that the information be received.

Moved by Councillor McCann, Seconded by Councillor Mann,

*THAT the information be received.* 

CARRIED.

# 10) Kenneth Kolb, Chair Saskatoon Area Ambulance District Board, dated December 30

Advising Council that the Saskatoon Area Ambulance District Board has signed an amalgamation agreement transferring responsibility for pre-hospital emergency services to the Saskatoon District Health Board effective January 1, 1994. (File No. CK. 175-13)

**RECOMMENDATION:** that the information be received and the members of the Saskatoon Area Ambulance District Board be thanked for their service.

Moved by Councillor Penner, Seconded by Councillor McCann,

THAT the information be received and the members of the Saskatoon Area Ambulance District Board be thanked for their service.

#### *IN AMENDMENT*

Moved by Councillor Thompson, Seconded by Councillor McCann,

AND THAT the information be referred to the Planning and Development Committee for a report.

THE AMENDMENT WAS PUT AND CARRIED.
THE MOTION AS AMENDED WAS PUT AND CARRIED.

#### B. ITEMS WHICH HAVE BEEN REFERRED FOR APPROPRIATE ACTION

# 1) Ted Cholod, President Saskatchewan Urban Municipalities Association, dated December 21

Submitting 1994 SUMA Membership Fee Statement. Referred to the Legislation and Finance Committee. (File No. CK. 155-3)

### 2) Debra Morgan 2 - 821 Eastlake Avenue, dated December 23

Expressing concern regarding changes made to bus routes 1 and 9. Referred to the Works and Utilities Committee. (File No. CK. 7310-1)

#### **RECOMMENDATION:** that the information be received.

Moved by Councillor Cherneskey, Seconded by Councillor Mann,

THAT the information be received.

CARRIED.

#### REPORTS

City Commissioner Irwin submitted Report No. 1-1994 of the City Commissioner; and

Councillor Hawthorne, Member, presented Report No. 1-1994 of the Works and Utilities Committee.

Moved by Councillor Cherneskey, Seconded by Councillor Penner,

THAT Council go into Committee of the Whole to consider the following reports:

a) Report No. 1-1994 of the City Commissioner; and

*Report No. 1-1994 of the Works and Utilities Committee.* 

CARRIED.

His Worship Mayor Dayday appointed Councillor Penner as Chair of the Committee of the Whole.

Council went into Committee of the Whole with Councillor Penner in the Chair.

Committee arose.

Councillor Penner, Chair of the Committee of the Whole, made the following report:

THAT while in Committee of the Whole, the following matters were considered and dealt with as stated:

#### "REPORT NO. 1-1994 OF THE CITY COMMISSIONER

#### **Section A - Works and Utilities**

A1) 1993 Capital Budget - 1994-1997 Capital Plan Project No. 1053 Clarifier Cover Insulation Water Treatment Plant (File Nos. CC 1703 and 670-3)

Report of the Manager, Water and Pollution Control Department, December 20, 1993:

"The current Water Utility Capital Budget includes \$183,000 for carrying out the upgrading of the No. 3 Clarifier at the City of Saskatoon's Water Treatment Plant. Clarifier No. 3 is a cylindric concrete tank with a diameter of 37 metres and is covered by an aluminum geodesic dome. The

scope of construction work includes the installation of an insulated ceiling assembly for the aluminum dome and the installation of a nominal heating and ventilation system.

The existing clarifier cover was installed in 1983 with the intention of adding insulation in the future if required. Based on the past several years, it has become apparent that the cover itself will not prevent freezing of the water at the clarifier surface. An air bubbler system has been used to prevent the freezing, however, this system upsets the operation and results in deteriorated water quality.

Tenders for the insulation and heating system for Clarifier No. 3 were received and opened on December 2, 1993. The bids are summarized as follows (copy of tabulation attached):

Contractor	Location	Base Bid
Earl's Mechanical Insulation Ltd.	Saskatoon, Sask.	\$131,855.48
Stanco Projects Ltd.	Richmond, B.C.	\$176,088.79

The consulting firm of Catterall & Wright Limited has completed a commercial and technical bid evaluation. Earl's Mechanical Insulation Ltd., the low bidder, was found to meet all qualifications necessary to carry out the required work.

The summary of the total contract cost and appropriate taxes is as follows:

Base Price (including P.S.T.)	\$131,855.48
G.S.T. (7%)	9,229.88
Contract Amount	\$141,085.36
G.S.T. Rebate (4%)	(\$5,274.22)
Contract Net Cost	\$135,811.14

#### **RECOMMENDATION**:

that City Council accept the low bid meeting specifications submitted by Earl's Mechanical Insulation Ltd., for the insulation of Clarifier No. 3 cover and the installation of a heating and ventilation system within the existing cover structure, at a total estimated cost of \$141,085.36, including

P.S.T. and G.S.T.; and,

2) that His Worship the Mayor and the City Clerk be authorized to execute the contract documents, as prepared by the City Solicitor, under the Corporate Seal.

ADOPTED.

A2) Local Improvement Procedure Bylaw Amendment Establishment of Uniform Rates for the 1994 Local Improvement Program Proposed Bylaw No. 7388 (File No. CC 4140-1)

Report of the City Solicitor, December 20, 1993:

"Pursuant to instructions received from the Engineering Department dated December 10, 1993, we have prepared and enclose herewith, for City Council's consideration, proposed Bylaw No. 7388 to amend the Local Improvement Procedure Bylaw No. 5257. Same establishes uniform rates for the various 1994 Local Improvement projects.

In accordance with Section 23(5) of <u>The Local Improvements Act</u>, the proposed Bylaw must either receive the unanimous approval of all members of Council or be tabled at the Council meeting and written notice given and announced that it will be considered at the next following meeting of City Council."

**RECOMMENDATION:** that Council consider Bylaw No. 7388 at this meeting.

IT WAS RESOLVED: that Council give notice of its intention to consider Bylaw No. 7388 at its meeting to be held on January 17, 1994.

A3) Communications to Council From: Darryl Kotyk, President Bob Porat, Past-President Saskatoon Water Ski Club

Date: October 7, 1993

**Subject:** Requesting permission for the Saskatoon Water Ski Club

to use the 58th Street Storm Retention Pond

(File Nos. CC 5520-1 and 7820-1)

At its meeting on October 12, 1993, City Council referred the above-noted correspondence (copy attached) to the Administration for a report.

Report of the City Engineer, December 20, 1993:

"At the July 19, 1993, meeting of City Council, Mr. Bob Porat, President of the Saskatoon Water Ski Club submitted a request for permission to use the Storm Retention Pond located at 58th Street as a temporary site for skiing and training. City Council, at that meeting, adopted the motion `that the Saskatoon Water Ski Club be granted permission to use the Storm Retention Pond located at 58th Street subject to Administrative conditions'.

The Administrative conditions were as per the attached Indemnification Agreement, dated July 21, 1993, between The City of Saskatoon and the Saskatoon Water Ski Club Corporation.

In reviewing the Waterski Club's latest request for the use of the Storm Retention Pond during 1994, the Engineering Department is satisfied that the Club has complied with the Agreement and is therefore recommending that the Term of the Agreement be extended from August 31, 1993, to September 30, 1995. The proposed two-year extension is at the request of the Water Ski Club, to which the Engineering Department has no objections."

**RECOMMENDATION:** that the Term of the attached Indemnification Agreement between

The City of Saskatoon and the Saskatoon Water Ski Club

Corporation, be extended to September 30, 1995.

ADOPTED.

A4) 1993 Capital Budget - 1994-1997 Capital Plan Capital Project No. 877 City-Wide Trunking Radio Communication System (File No. CC 1000-7)

Report of the City Engineer, December 7, 1993:

#### "Background:

In the 1991 Capital Budget, \$50,000 was approved for research and preliminary design of a City-Wide Trunking Radio Communication System. On December 1, 1992, the Director of Works and Utilities submitted a report to A Committee of the Whole Council regarding the problems being experienced by the Fire and Police Departments with existing two-way radio communications, the effects of these problems on their operations, and recommending the acquisition of a trunking radio system that addresses the problems in the short term and will address the problems of other civic departments over the long term.

At the Special Meeting of City Council held on December 14 and 15, 1992, during consideration of the 1993 Capital Budget/1994-1997 Capital Plan, the following funding requirements were identified and approved for the 1993/1994 Capital Budget:

	<u>1993</u>	1994	Total
Police	\$998,000	\$125,000	\$1,123,000
Fire	_\$702,000	\$0	_\$702,000
	\$1,700,000	\$125,000	\$1,825,000

#### **Objectives:**

In early 1993, the Engineering Department did further investigation into the features and capability of Trunking Radio technology, and the suitability of Trunking technology for the City's radio communication needs for both the present and future. This investigation confirmed there were major advantages to Trunking.

Some of the major advantages to a Radio Trunking System are:

- 1. Provides Police and Fire Departments with enhanced features and capabilities not possible with current systems.
- 2. Provides effective Inter-agency communications for Police, Fire and other Public Safety Agencies on the system for both routine and emergency situations.

- 3. Provides better radio coverage and less interference by operating in the 800 MHz frequency band.
- 4. Provides expansion capabilities to accommodate other Civic departments in the future. This will alleviate congestion and provide better system backup for many departments.
- 5. The cost effectiveness of the system improves as more radio users are added to the system. The joint use of common repeater hardware improves equipment utilization while reducing maintenance and operational costs.

# **Request for Proposals:**

The Engineering Department began preparation of a proposal document to define the functional and technical requirements for a new Trunking Radio Communication System. The basis for the proposal document was the radio communication requirements as defined by the Association of Public Safety Communications Officers (APCO). This set of requirements is generally referred to as the APCO 16 standard.

A steering committee consisting of members from the Police, Fire, EMO, Engineering and Purchasing Departments was established to obtain user input and assist in the preparation of a Request for Proposal document for a Trunking Radio Communication System. The Request for Proposal document was completed and issued by the Central Purchasing and Stores Department on July 26, 1993, and closed September 23, 1993.

#### **Proposal Evaluation:**

In response to the Request for Proposals issued by the City, replies were received from:

Ericsson GE Mobile Communications Canada Inc. Motorola Canada Limited SaskTel Mobility

The proposals were screened by the Central Purchasing and Stores Department to ensure compliance with purchasing procedures and bid requirements. Proposals were then turned over to the evaluation team for analysis.

The evaluation team included members from the key user departments (Police, Fire, EMO, Purchasing and Engineering). The initial evaluation revealed that all three proposals were technically similar, however, the proposal from SaskTel Mobility differed from the others by offering a lease/purchase arrangement. A preliminary cost analysis showed that for a 15-year life cycle, and the expected equipment quantities, the overall cost (identified later in this document) to the City would be substantially higher with the lease/purchase than the purchase only proposals.

The SaskTel Mobility proposal is also based on Ericsson GE equipment, so the equipment component is the same as the equipment in the Ericsson GE proposal. With this in mind, the evaluation team focused their efforts on the proposals from Motorola and Ericsson GE.

The evaluation team considered the merits of the two proposals based on the following functional areas that needed to be addressed from the viewpoint of the user:

#### 1. Operational Features:

This area dealt mainly with the system features and capabilities from the view point of the end user. Simply put, what does the system offer a radio user, or radio dispatcher who must use the system everyday and may be relying totally on the radio system in an emergency situation?

### 2. Technical Capability:

This dealt with the technical capabilities of the system. Most of the issues dealt with here are not obvious to the end user. This is the most difficult area to assess as there are technical differences between suppliers. The key areas are:

Migration to APCO 25
Trunking of data
Backup system
Status/message capability
Site integration
Voice encryption
Selective Alarm Dispatch
Future expansion
System management capabilities

#### 3. Equipment Suitability:

Portables, mobiles and other equipment must meet the needs of the end users.

#### 4. Manufacturer's Capability:

This involves the manufacturers ability to supply and install the system, technical resources of the manufacturer, and the long-term commitment of the manufacturer to supporting and maintaining the system.

#### 5. Cost:

The overall system cost must take into consideration initial purchase costs, future expansion costs and on-going operational costs.

#### **Assessment of Proposals**

# 1. Operational Features:

Both proposals meet virtually all the APCO 16 requirements, therefore they are essentially equivalent in operational features and capabilities.

Advantage: Neither.

#### 2. Technical Capability:

#### 2.1 Migration to APCO 25.

The APCO 25 standard currently being drafted calls for a fully digital capable radio system based on an open architecture. Both firms are committed to supporting future APCO 25 requirements. All radios purchased now would be usable on an APCO 25 system. Motorola has clearly stated in its proposal response that the system infrastructure (repeaters and console hardware) will provide migration to an APCO 25 compliant system. Ericsson GE have not.

Advantage: Motorola.

# 2.2 Trunking of data.

Both proposals support trunking of data. Both offer appropriate radio hardware, PC interfacing hardware and software for PC to PC data communications by radio. Motorola operates at a maximum of 3000 bps (bits per second) and Ericsson GE at 9600 bps. APCO 25 proposes a minimum of 9600 bps in future and Motorola will be committed to that.

Advantage: Ericsson GE at present.

Advantage: Neither with future APCO 25 compliance.

#### 2.3 Backup system.

Both proposals include a five-repeater standby system located at Saskatoon Tower with switch-over to the backup system by a simple one-switch manual operation. It requires no action from radio users. Motorola proposal includes transfer of console operations as well. Ericsson GE requires minor additional hardware.

Advantage: Neither.

Please note that the backup system proposed by SaskTel does not provide all

trunking features, and can be activated only by SaskTel technical support staff.

#### 2.4 Status/message capability.

Both proposals address status/messaging for Fire Department use by utilizing a data connection directly to the system management computer or using an RF link attached to a PC with appropriate software.

Advantage: Neither.

#### 2.5 Site Integration.

One of the options requested in the proposal was to integrate the main (Luther Towers) and standby (Saskatoon Tower) sites into one system to address site redundancy and increase system capacity. Further discussions with both suppliers identified similar capabilities. This issue may be addressed further by APCO 25.

Advantage: Neither.

### 2.6 Voice encryption.

The proposal includes equipping two repeaters with appropriate hardware to allow encrypted radio-to-radio communications for special Police operations. Motorola requires special hardware to equip each repeater. Ericsson GE does not. However, this special hardware should provide future APCO 25 compatibility.

Advantage: Ericsson GE at present.

Advantage: Motorola in future.

#### 2.7 Selective Alarm Dispatch.

The proposal called for the ability to make selective Alarm Radio dispatches from Central Alarm Headquarters to any combination of Fire Halls on the Trunking System. Motorola has addressed the issue of selective alarm dispatch. Ericsson GE requires further evaluation and probably additional cost.

Advantage: Motorola.

#### 2.8 Future expansion.

Both proposals provide adequate future capacity. The main site can be expanded by the addition of repeaters and appropriate RF multicoupling. System management computer and central console electronics have adequate capacity to handle city growth.

Advantage: Neither.

# 2.9 System management capabilities.

Both proposals offer system management and control features as called for in the Request for Proposal. Both systems support remote user access with adequate future capacity.

Advantage: Neither.

# 3. Equipment Suitability:

#### 3.1 Portables.

The Motorola proposal is based on the Motorola MTS2000 portable for both Police and Fire. This unit offers all the requested features, including Emergency ID, Selective calling, Telephone Interconnect and status/message on suitably equipped models if required. This is a recent but market tested product. It is also one of the smallest and lightest radios currently available in trunking. Also a lower priced companion product (the MTX8000) is available for non-emergency users, which is the same size and uses all the same accessories.

The Ericsson GE proposal is based on the M-PA radio for Police use. It offers the same features, but is larger, heavier and an older product. The PCS portable is proposed for Fire Department use. A major programming cost is required to support Emergency ID. This is a lower-tier product using BNC antenna connectors and does not meet Mil 810C or 810D specifications for weather proofing. Therefore, in the evaluation, Fire radios have been upgraded to the M-PA at the additional cost. Advantage: Motorola.

#### 3.2 Warranty.

All system hardware with the exception of radios carries a one-year parts and labour warranty. Motorola portables and mobiles carry a <u>two-year</u> warranty. Ericsson GE portables and mobiles carry a <u>one-year</u> warranty.

Advantage: Motorola.

#### 4. Manufacturer's Capability:

Both Motorola and Ericsson GE are recognized world-wide as the two major manufacturers of Trunking Radio Systems. Both have the technical resources and expertise to supply, install and support the system. Motorola maintains sales and technical support staff in Saskatoon and Regina and all major Canadian Cities. Ericsson maintains sales and technical

support offices in Calgary. Local technical support for Ericsson GE will be provided by third party agencies.

Advantage: Motorola.

#### 5 Contract Cost:

Based on user requirements provided by the Police and Fire Departments, cost estimates for the three proposals are as follows. All taxes are extra.

Motorola Canada Limited

\$1,495,000

Ericsson GE Mobile Communications \$1,580,000

SaskTel Mobility

\$1,604,844

The SaskTel Mobility proposal is based on hardware purchase costs of \$923,844 plus an estimated 15-year radio air time cost of \$330,000. Costs for telephone interconnect, logging recorder interfacing and lease lines will add an additional \$176,000. This calculation assumes that only 25 radios would be equipped with telephone interconnect and usage would be 25 minutes of peak connect air time per radio per month. The telephone interconnect access fee costs \$10 per radio per month, with telephone air time charges billed at 75 cents per minute peak time and 45 cents per minute off-peak. Rental of the backup system and the system controller will cost an additional \$175,000. A present value calculation of ten percent for 15 years was used to arrive at these figures. Costs of DOC (Department of Communications) radio licensing and site operation included in the SaskTel proposal have been removed to obtain a fair comparison. Total estimated cost for the SaskTel proposal under the current system needs is \$1,604,844.

If an additional 400 radios are added to the SaskTel system and operated for the last ten years, there would be an additional present value cost to the City of \$455,000 for Network air time. This does not include additional telephone interconnect services or other charges. For a City-owned system, it would cost the City \$80,000 to add four repeaters to handle the additional radios - Difference \$375,000.

A major disadvantage to the SaskTel proposal is that the City would not have access to the system management and reporting functions provided by the system computer. Access would be restricted to SaskTel personnel. The City could also be subject to service charges

for making system changes such as the addition of a talk group to a radio or adding radios to the system. If network airtime is leased by the month, the City would be subject to a \$200 cancellation fee for removing a radio from the system.

The backup system proposed by SaskTel does not provide full-system trunking, requires physical transfer of cable connections and can be activated only by SaskTel technical support staff which may not be on site. Since the Trunking system must support emergency service providers on a 24-hour basis, the backup system must be available for immediate use when required.

#### 6. Project Cost:

Purchase Price	\$1,495,000
PST	134,550
GST	104,650
Contract Cost	\$1,734,200

Less GST Rebate 59,800
Net Cost \$1,674,400

Implementation of the Trunking system is expected to cost the City an additional \$75,000. This includes project administration and engineering, removal and disposal of old site equipment, installation assistance to the system supplier, configuration and loading of system software, installation of mobiles, technical and radio system operator training.

Total project costs are estimated to be \$1,750,000.

Estimated salvage value of existing equipment is \$50,000.

Total cost of project after salvage is \$1,700,000.

Approved budget is \$1,700,000.

Pricing for the Motorola and Ericsson GE proposals is competitive and compares favourably with original project cost estimates.

Motorola has been a major radio equipment supplier to the City of Saskatoon for over 20 years and has maintained an excellent track record."

1)

#### **RECOMMENDATION:**

- that City Council accept the proposal submitted by Motorola Canada Limited, for the supply and installation of the Trunking Radio Communication System, for a total estimated cost of \$1,734,200, including GST and PST; and,
- 2) that His Worship the Mayor and the City Clerk be authorized to execute the contract documents, as prepared by the City Solicitor, under the Corporate Seal.

ADOPTED.

A5) Proposed Development and Servicing
(Extension) Agreement - The City of
Saskatoon and Westland Properties Ltd.
- Hurley Crescent and Kerr Road Area of
the Erindale Neighborhood
(File No. CC 297-1)

Report of the City Solicitor, December 23, 1993:

"In keeping with the instruction of the Works and Utilities Committee at its meeting held on December 1, 1993, and the further specific directions of the City Engineer, I have prepared and forward herewith proposed form of Development and Servicing (Extension) Agreement as between The City of Saskatoon and Westland Properties Ltd. for consideration. The proposed Agreement pertains to the Hurley Crescent and Kerr Road areas of the Erindale neighbourhood, and has been drawn in the form of an extension to an earlier concluded master agreement pertaining to this neighborhood. The proposed Agreement sets forth all standard development conditions and requirements."

#### **RECOMMENDATION:**

- 1) that the proposed form of Development and Servicing (Extension) Agreement as between The City of Saskatoon and Westland Properties Ltd. be approved; and,
- 2) that His Worship the Mayor and the City Clerk be authorized to execute such Agreement on behalf of The City of Saskatoon, and affix the corporate seal

thereto.

ADOPTED.

#### **Section B - Planning and Development**

B1) Leisure Services Department
Arts and Heritage Program
(File Nos. CC 1700-10 and 710-1)

Report of the General Manager, Leisure Services Department, December 21, 1993:

#### "Background

As a result of a recommendation from the Task Force to Review Current Civic Programs, Services and General Government of The City of Saskatoon, City Council directed (during its November 22, 1993, meeting) the City's Administration to consider service reductions which will achieve annual savings of \$34,800 to the Operating Budget of the Arts and Heritage Program of the Leisure Services Department. In passing its resolution, City Council expressed a preference for achieving these savings by eliminating all directly-delivered programs and the Administration's research services to the Municipal Heritage Advisory Committee. (A copy of the report which resulted in this resolution has been attached.)

On December 20, 1993, City Council considered certain reductions to the Arts and Heritage Program which would implement the November 23, 1993, directive. These reductions consisted of terminating the City's contract with the Meewasin Valley Authority for heritage interpretive-services at the Marr Residence and Nutana Cemetery and the cancelling of the 1993-94 Heritage Awards. In addition, City Council resolved, in part:

'that the Administration provide a further report on the implementation of City Council's November 22, 1993, resolution to realize budgetary savings in 1994 in the Leisure Services Department's Arts and Heritage Program'.

The following report addressed the remaining service changes which are being proposed to implement the November 22, 1993, directive.

#### Art-in-the-Park

Art-in-the-Park is a two-week summer program which is held annually in Kiwanis Park. The Showmobile is used as a venue to showcase approximately 150 local amateur and professional performers. Thirty-four performances are scheduled each season, with an audience of

approximately 2,300 people. For the past two years, the delivery of this program has been contracted out to the Y.W.C.A. and to the Saskatoon Multicultural Council (i.e. one week for each).

In accordance with City Council's preference to eliminate all directly-delivered programs, the City's Administration will not budget in 1994 for any funding for Art-in-the-Park and will notify the Y.W.C.A and the Saskatoon Multicultural Council of this action. The Leisure Services Department will attempt to identify agencies which might be willing to take over this deleted service (starting with the Y.W.C.A. and the Saskatoon Multicultural Council) and will provide, if required, start-up and operational advice and expertise (but no financial support). However, the Department is not optimistic that another agency will be able to obtain sufficient funding to continue Art-in-the-Park.

#### Marr Residence -- Property and Use

City Council's December 20, 1993, decision to delete funding for heritage interpretive-services at the Marr Residence raises questions about the City's position on the designated heritage property which it owns, in general, and about the long-term future of the Marr Residence, in particular. City Council has designated, by bylaw, the Marr Residence as a municipal heritage site. The main floor of the house will now be vacant year-round. The second floor is leased to the Saskatchewan Society for Education through Art; this lease expires on June 30, 1996, but may be terminated earlier by either party giving six months' notice.

Initial administrative discussions have identified a number of options for the future use of this facility. These include leasing the main floor for office space, renting out the main floor (e.g. for meetings) on an hourly basis, leasing the entire building to a residential tenant (which would likely be less detrimental for this relatively fragile structure, than would public access or office use), rezoning the site for residential use, and selling the property. The City's Administration will also explore the possibility of finding another delivery-agency to take over the unfunded interpretation program. However, the Department is not optimistic that it will be successful. (When the City issued a call for tenders from organizations to provide a funded interpretive-service at the Marr Residence, only one tender was submitted.) In order that these options and the associated policy-issues can be considered, City Council should ask the Planning and Development Committee to undertake a review of the City's continued ownership of the Marr Residence and its on-going use.

#### Marr Residence -- Artifacts

The deletion of funding for heritage interpretive-services at the Marr Residence will also have consequences for the future of the artifacts that have been placed in this facility for interpretative purposes. These include a small number of furniture and household items, such as books, a flat iron, a butter churn, and an ice-cream maker. If there is no further use for these items, they could be sold, be donated to another heritage-delivery agency, or be returned to the original donors. Alternatively, if City Council feels that there is a possibility that interpretive programming could be reinstated at the Marr Residence when economic circumstances permit (and assuming that City

Council does not decide to sell the property), then the artifacts could be stored in accordance with professional-conservation standards. This option may require obtaining professional-conservation advice.

#### Municipal Heritage Advisory Committee

City Council's November 22, 1993, directive includes eliminating the provision in the City's 1994 Operating Budget to finance research services to the Municipal Heritage Advisory Committee. Consequently, beginning on January 1, 1994, the City's Administration will no longer provide the Committee with historical-research services (conducted either by the City's staff or by contract) on potential heritage properties.

An initial administrative review of City Council Policy C10-002 (Municipal Heritage Property) has identified that the policy presumes that funding for research services and other heritage activities will increase over time. (A copy of this policy document has been attached to this report.) Since the anticipated funding has not been realized, the City's Administration will undertake a detailed review of Policy C10-002 and will provide a further report on amendments to this Policy, as well as to Bylaw No. 6111 (A bylaw to establish a Municipal Heritage Advisory Committee)."

The recommendations in this report concerning the Art-in-the-Park and the research services to the Municipal Heritage Advisory Committee will result, when combined with City Council's resolutions concerning the Heritage Awards Program and the interpretive-services contract with the Meewasin Valley Authority, in a total cost-reduction to the Arts and Heritage Program of \$34,300 in 1994. (The \$500 difference from City Council's November 22, 1993, resolution pertains to a contractual commitment pertaining to the cancelled 1993-94 Heritage Awards which City Council decided, on December 20, 1993, to pay out in 1994.) The reductions will be reflected in the Leisure Services Department's operating budgets for Program Development.

#### **RECOMMENDATION**:

- 1) that funding for the Art-in-the-Park program be deleted from the City's 1994 Operating Budget;
- 2) that the Planning and Development Committee undertake a review and provide City Council with recommendations on:
  - a) the City's continued ownership of the Marr Residence and its on-going use (in light of City Council's December 20, 1993, decision to delete all funding for heritage programming within this building), and
  - b) the future storage or disposal of the interpretive

artifacts which have been utilized at the Marr Residence:

- 3) that funding for research services to the Municipal Heritage Advisory Committee be deleted from the City's 1994 Operating Budget;
- 4) that the Administration undertake a review and provide a further report on City of Saskatoon Policy C10-002 (Municipal Heritage Property) and Bylaw No. 6111 (A bylaw to establish a Municipal Heritage Advisory Committee), with the resulting administrative report and recommendations being forwarded to the Planning and Development Committee for discussion with the Municipal Heritage Advisory Committee before being submitted to City Council for consideration; and,
- 5) that a copy of this report be forwarded to the Municipal Heritage Advisory Committee for information.

ADOPTED.

### Section C - Finance

C1) Enquiry - Councillor Cherneskey (December 6, 1993) Commissions - Sale of Surplus City Assets (File No. CC 1250-1)

<sup>&</sup>quot;How much did the City pay in total commissions for auction services in 1993, for the sale of surplus city assets exclusive of cars."

Report of the Manager, Central Purchasing and Stores Department, December 21, 1993:

"The City of Saskatoon contracted with Longworth Auction Services in 1993 and paid commissions of \$12,680.73 for auction services for the sale of surplus city assets."

#### **RECOMMENDATION:** that the information be received.

IT WAS RESOLVED: 1) that the information be received; and

2) that Council be advised regarding the sale of surplus City assets.

# C2) Investments (File No. CC 1790-3)

Report of the City Treasurer, December 21, 1993:

"With the approval of the Investment Committee, the attached list indicates purchases and sales for the City's various funds."

**RECOMMENDATION:** that City Council approve the above purchases and sales.

ADOPTED.

# C3) Fire Department Computer System (File No. CC 261-1)

The Fire Department had agreed to lease a computer-aided dispatch system from CriSys Corporation of Markham, Ontario. The system provides an interface with the City's Geographic Information System to provide dispatchers with a geographical presentation of an individual's address, hydrant locations and water mains. The system can also provide the preplan of any building, including floor layout, any hazardous material stored, and any special dangers a building

may have. The system also dispatches and tracks all emergency fire vehicles, and provides the recommended response to any incident, including the appropriate responses for multiple incidents occurring, at the same time.

The report-writing feature provides for a record of all inspections, an analysis of all incidents, and various special reports, as required. The overall system is one of the first direct applications to benefit from all the work done to develop our City's Geographic Information System.

Due to the rapidly changing technology, the Department believed the best decision was to lease the equipment for a four-year period. The lease costs were to be absorbed by the Department as no new funding is to be provided. The City Comptroller, in reviewing the lease arrangements of approximately \$1,400 per month for 48 months, determined that the rate of return for the lease term was approximately 15%, and that the lease had been sold to a third party. As the original intent of the lease is not available from this third party, we are recommending purchase of the equipment for \$50,000. The Administration, therefore, proposes to cancel the lease and to arrange for internal borrowing at current interest rates. It is estimated that this decision will save the City approximately \$10,000.

#### **RECOMMENDATION:**

that City Council concur in the Administration's decision to cancel the lease for the Fire Department's computer-aided dispatch system, and that the lease be replaced by a four-year internal loan to purchase the system.

ADOPTED.

C4) City of Regina 1993 Tax Survey (File Nos. CC 1920-2 and 100-1)

Each year the City of Regina surveys the major cities in Canada to analyze the property tax incidence in each city. In 1993, 19 cities completed the survey. Although the detailed survey is attached, the highlights of the City of Saskatoon are:

#### I. TOTAL PROPERTY TAXES - SINGLE FAMILY RESIDENCE

The City with its low tax increase in 1993 again improved its relative position in the survey from the fourth lowest taxes in this category in 1992, to the third lowest in 1993. It should be noted that the lowest-cost city, St. John's, does not levy a school tax, therefore of cities which levy both a property and a school tax, Saskatoon has the second lowest taxes in the survey for 1993 for single family residences.

#### II. TOTAL PROPERTY TAXES - MULTI-FAMILY RESIDENCE

For the last few years, Saskatoon has remained in eighth place in this category.

#### III. TOTAL PROPERTY AND BUSINESS TAX ON SAMPLE COMMERCIAL PROPERTY

Saskatoon has again improved its position in this category from the fourth position in 1992, to third in 1993. This is due in part to a low mill rate increase in 1993, and the fact that the business tax has been frozen at 14.5% of rental value for several years.

#### IV. TOTAL PROPERTY AND BUSINESS TAX ON SAMPLE INDUSTRIAL PROPERTY

Saskatoon maintained its ranking with the second lowest taxes in this category.

The survey results demonstrate that in difficult economic times, with decreasing revenues and off-loading of costs from other levels of government, the City has been able to manage well. Our tax incidence and tax increases have obviously been lower than other cities, allowing Saskatoon to continually maintain or improve its relative ranking with respect to property and business tax.

#### **RECOMMENDATION:** that the information be received.

IT WAS RESOLVED: 1) that the information be received; and

2) that the appropriate organizations within the City be provided with a copy of the report.

# C5) 1994 Preliminary Property Assessment Roll (File No. CC 1620-1)

Report of the City Assessor, December 23, 1993:

"I am attaching a summary statement of the 1994 Preliminary Property Assessment Roll as at January 1, 1994. This statement shows the net taxable assessment to be 1,151,883,500, being a .928 percent increase over the 1993 amount of 1,141,289,970. The assessments as stated are subject to Board of Revision action.

I am also attaching a comparative statement of the last six years' assessment totals of the City

denoting taxable and percentage increases in assessments.

Attached also is the 1994 breakdown of school support for limited companies, corporations without share capital and private ownership other than corporations.

The assessment notices will be mailed on January 4, 1994, with the last date of appeal being January 24, 1994."

**RECOMMENDATION:** that the information be received.

ADOPTED.

C6) 1993 Debenture Bylaw
Local Improvements Constructed in 1992
Fully Registered, Serial Type Debentures
Proposed Bylaw No. 7383
(File Nos. CC 4140-1 & 1750-2)

Report of the City Solicitor, December 23, 1993:

"As instructed by City Council at its meeting held on December 6, 1993, we have made the necessary application to the Saskatchewan Municipal Board with respect to the Debenture Bylaw regarding Local Improvements constructed in 1992. By way of telephone conversation this date, we have been advised by the Board that the required Authorization was issued today, December 23, 1993, and we expect to be receiving the formal documentation for that Authorization sometime next week.

Accordingly, we have prepared and enclose herewith, for the consideration of Council, proposed Debenture Bylaw No. 7383. The Bylaw provides for the issuing of fully registered, serial type debentures in the amount of \$136,664.64, which amount is to be repaid over a period of 10 years, bearing interest at the rate of 7 1/4% per annum, and will cover the cost of the following local improvement works constructed in 1992:

Works	Amount	
Paving New Base	\$	9,500.00
Concrete Sidewalks, Curbs & Gutters		127,164.64

Total \$ 136.664.64.

**RECOMMENDATION:** that Council consider Bylaw No. 7383, at this meeting.

ADOPTED.

C7) Approved Capital Budget 1994/ Capital Plan 1995-1998 (File No. CC 1702-1)

Attached, for Council's information, is the Approved Capital Budget 1994/Capital Plan 1995-1998.

**RECOMMENDATION**: that the information be received.

ADOPTED.

#### Section D - Services

# D1) Routine Reports Submitted to City Council

Schedule of Accounts Paid December 14, 1993 December 17, 1993 \$821,748.58

FROM

TO

(File No. CC 1530-2)

Schedule of Accounts Paid December 17, 1993 December 22, 1993

\$1,382,674.41

**SUBJECT** 

(File No. CC 1530-2)

Schedule of Accounts Paid \$912,142.49 (File No. CC 1530-2) December 22, 1993

December 23, 1993

**RECOMMENDATION**: that

that the information be received.

ADOPTED.

D2) Amendment - Council Procedure Bylaw - Quorum - Leisure Services Advisory Board (File No. CC 175-4)

Report of the City Solicitor, December 15, 1993:

"City Council, at its meeting held on November 8, 1993, resolved:

- `1) that the quorum required for the Leisure Services Advisory Board be seven members; and
- 2) that the City Solicitor be requested to amend The Council Procedure Bylaw accordingly.'

We have prepared and enclose herewith proposed Bylaw No. 7384 for Council's consideration."

**RECOMMENDATION:** that City Council consider Bylaw No. 7384.

ADOPTED.

# REPORT NO. 1-1994 OF THE WORKS AND UTILITIES COMMITTEE

Composition of Committee

Councillor D.L. Birkmaier, Chair

Councillor B. Dyck Councillor O. Mann Councillor M. Hawthorne

# 1. Secondary Sewage Treatment Upgrade Aeration Blower Equipment (Files CK, 7800-4 and 670-2)

Your Committee has considered the following report of the Manager, Water and Pollution Control Department, dated December 2, 1993:

"The engineering services required for the design of the secondary sewage treatment plant expansion are being provided by the consortium of Stanley Associates Engineering Ltd./Cochrane·SNC·Lavalin. In order to complete the detailed design, a preliminary commitment must be made with respect to certain mechanical equipment needed in the new treatment process. The commitment is required now so that the plant expansion can be designed around the equipment. Tenders have been called for the supply of aeration blower equipment required for bioreactor operation.

The bioreactor is an essential component of the secondary sewage treatment process where the soluble organic matter is removed by microorganisms in the presence of oxygen. The bioreactor consists of a series of concrete basins where air is supplied by blowers to provide a sufficient amount of oxygen required by microorganisms. A total of four blowers, three duty units and one standby, supplying 390 m³/min. each and driven by 700 hp motors, will be installed in a designated utility building. The estimated cost of the bioreactor is \$17,448,000. In order to complete the bioreactor/utility building design at this time, shop drawings for the aeration blower equipment must be available to our consultants.

An accepted method to obtain shop drawings is to tender and award a supply contract for mechanical equipment separate from the construction contract. The construction contract and related specifications will then be based on installing the equipment that has been preapproved. The terms of this supply contract are such that the only financial commitment by the City, at this time, is for the preparation and supply of shop drawings. The tendered cost for the equipment will be included in the construction contract bid documents. In effect, the successful bidder on the bioreactor/utility building construction contract will assume the responsibilities for this sub-contract for the price agreed upon by the City of Saskatoon under this tender. Council approved a similar contract for the supply of clarifier equipment on Oct. 28, 1993.

Tenders for the supply only of aeration blower equipment were received and opened on October 26, 1993. The bids are summarized as follows (copy of tabulation attached):

Company Name	Location	Base Bid (including G.S.T. & P.S.T.)	Shop Drawing Price	Total Supply Price (Including G.S.T. & P.S.T.)
Hoffman Indust. of Canada Ltd. Atlas Copco Comptec Inc. Turblex Inc. Roots Division Dresser Canada Inc.	Toronto, Ont.	\$1,128,796.00	\$16,784.04	\$1,145,580.04
	Voorheesville, NY	\$1,361,296.25	\$20,440.80	\$1,381,737.05
	Springfield, MO	\$1,446,496.80	\$21,233.80	\$1,467,730.60
	Mississauga, Ont.	\$2,769,749.40	\$41,147.89	\$2,810,897.29

The total supply price, however, represents only the initial capital cost of the blower equipment. Due to variations in blower performance and type, two other significant factors have to be considered in evaluating the tenders. The first factor is the power cost life cycle. In order to evaluate this, bids were required to include power performance guarantees. The second factor deals with the type of blower (i.e. multi vs single-stage). The Hoffman bid is for multi-stage blowers. Single-stage blowers require less space resulting in lower capital cost for the building housing the blowers. In addition, single-stage blowers are able to operate more efficiently at cooler temperatures than multi-stage units, resulting in annual cost savings on inlet air heating. It is common practice within the industry to evaluate blower tenders using the total life cycle costs, including both initial capital and operating costs. The instructions to bidders clearly outlined the manner in which a life cycle evaluation would be made (see 00200-17 attached). Total life cycle cost breakdown over a 20-year period for each of the tenders is as follows:

Company Name	Total Supply Price	Evaluated Power Cost	Heating & Building Space Credit	Total Life Cycle Cost
Atlas Copco Comptec Inc. Turblex Inc. Hoffman Indust. of Canada Ltd. Roots Division Dresser Canada Inc.	\$1,381,737.05	\$2,708,875.00	(\$147,580.00)	\$3,943,032.05
	\$1,467,730.60	\$2,792,800.00	(\$147,580.00)	\$4,112,950.60
	\$1,145,580.04	\$3,124,625.00		\$4,270,205.04
	\$2,810,897.29	\$2,889,812.50	(\$147,580.00)	\$5,553,529.79

The consulting firm of Stanley Associates Engineering Ltd. (SAEL) has completed a commercial and technical bid evaluation. Based on the life cycle cost evaluation, Atlas Copco Comptec Inc. was found to be the lowest qualified bidder. The Atlas bid, however, included qualifications to three standard clauses within the General Conditions of the Department's front-end documents (00705-13, 25, 28). These clauses are related to the unlimited liability and liquidated damages and are standard clauses currently used in the Engineering Department's front-end documents as well. Despite extended negotiations between the consultants and the supplier, Atlas Copco Comptec Inc. was not prepared to withdraw the qualifications to its bid. Consequently, the bid cannot be recommended for acceptance.

Turblex Inc., the second low bidder based on the life cycle cost evaluation, was found to meet all requirements necessary to supply the specified equipment. The life cycle cost evaluation carried out by SAEL was subjected to sensitivity analyses by Department staff in order to determine the impact of various rates of interest and inflation and the cost of borrowing. The additional evaluation supported the recommendation of Turblex Inc. The Turblex Inc. bid also includes discharge valves which were not required by the specifications and the bid can be reduced by an additional \$44,000."

#### **RECOMMENDATION:**

- 1) that the pre-selection quotation for the supply of aeration blower equipment tendered by Turblex Inc. be accepted and specified in the tender documents for bioreactor/utility building construction;
- 2) that the bid documents for the bioreactor/utility building construction include a Prime Cost Sum of \$1,395,456.80 (G.S.T. and P.S.T. included) for the supply of equipment;
- 3) that the cost of shop drawings (\$20,467.84 G.S.T. and P.S.T. included) be charged to Project #790-1, which provides funds for the detailed design of the sewage treatment expansion; and
- 4) that the Central Purchasing and Stores Department be authorized to issue a purchase order to Turblex Inc. for the supply of shop drawings.

ADOPTED.

2. Sewage Treatment Plant Expansion, Preliminary Design Staffing Plan - Pollution Control Plant (Files CK. 7800-4 and 670-2)

City Council, at its meeting held on August 3, 1993, reviewed the preliminary design report for the upgrade of the City's sewage treatment plant prepared by Stanley Associates Engineering

- "1) that the information be received; and
- 2) that the matter of the staffing component and the noise level created by the expansion be referred to the Works and Utilities Committee for a report."

In accordance with resolution 2) above, your Committee has considered the following report of the Manager, Water and Pollution Control Department, December 8, 1993:

#### "STAFFING

An important part of the Stanley report dealt with the staffing levels required to operate the upgraded and expanded facility. Based on an evaluation of secondary treatment plants throughout Western Canada, the United States Environmental Protection Agency's guidelines for minimum staffing requirements, and experience with the commissioning and operations of treatment plants designed by the consultants, a recommendation of increasing the existing staff complement by 19 to 21 staff years was made.

A number of factors should be considered when evaluating the recommended staffing level. Firstly, Stanley Associates Engineering Ltd. are one of a select few consulting firms in the world that are familiar with the BNR (Biological Nutrient Removal) process that will be used in the upgraded treatment plant. Secondly, secondary treatment processes, and more specifically the BNR process, are highly sensitive and complex. Operating the process requires the successful development and maintenance of four massive and separate bacteriological cultures, separating and thickening tons of solids, and transferring those solids throughout the process in carefully monitored/controlled quantities that ensure these cultures continue to live and function. This is done, unlike most industrial processes, with a raw material, namely sewage, which continuously changes in quantity and which changes drastically throughout the day in nature and strength. The process requires the operation and maintenance of \$29,000,000 (replacement value) worth of complex equipment and \$32,000,000 (replacement value) worth of buildings and treatment tankage which are spread over an area of approximately 19 acres. All of this is carried out in the presence of a process that produces daily tons of a highly combustible and explosive gas and a process that handles tons of highly toxic chlorine gas. In addition to the impact of process sensitivity and safety factors the question of public health of the employees and the neighbouring community further complicates the treatment operation.

The staffing levels recommended by the consultants have not, however, been accepted totally without question. Management at the Sewage Treatment Plant have carried out an indepth evaluation of secondary treatment plant work loads and staffing levels. BNR plants in Alberta and British Columbia have been toured and both management and staff at these plants have been interviewed by the Manager and Superintendent of the Saskatoon plant. Ten municipal plants utilizing secondary and/or BNR processes were surveyed and staff hours per rated capacity were established and used to project reasonable staffing levels at

the Saskatoon plant. The scope and size of existing trades (electrical, instrumentation, mechanical) preventative maintenance programs and work back logs were evaluated and related to existing and future equipment inventories. Industrial standards and EPA minimum guidelines were then used as criteria to develop a proposed staffing plan. Table I outlines the proposed staffing plan.

Table I: Secondary Treatment Staffing (Staff Years)						
	Propo	osed	Treatment Plants Surveyed (Mean)	EPA Min. Standards (Mean)		
	Increase	Total				
OPERATORS	7.6	15.0	22	23		
TRADES						
Electrical	0.5	1.1	4.5			
Instrumentation	0.5	1.3	3.5	14		
Mechanical	2.0	5.6	10.2			
BUILDING/GRDS.	0.7	4.0	4.3	3		
CLEANING	1.0	2.0	3.0			
LABORATORY	1.0	3.3	7.0	2.5		
STORES KEEPER	1.0	1.0	1.0			
CLERICAL (Util II)		1.0	2.0	5		
MANAGEMENT	1.0	2.5	4.0			

15.3 36.8 66.5 47.5

## Operators

The number of hours per day that a treatment plant must be staffed is dictated by:

- 1) The sensitivity of the receiving stream and/or the flexibility of the regulatory agency with respect to effluent quality.
- 2) The diurnal variation of the influent wastewater quality and quantity.
- 3) The sensitivity of the process.
- 4) The physical size of the plant and complexity of equipment.

Based on these criteria, all of the sources investigated indicate that the treatment plant must be staffed 24 hours per day. It is anticipated that a 3-person 12-hour day shift and a 2-person 12-hour night shift would be most effective. The Water Treatment Plant currently successfully utilizes 2-person 12-hour shifts. A 3-person day shift is required to carry out all the process side stream operations (digested sludge pumpout, digester transfer pumping, fermented sludge pumping, scum pumping, grit/screenings hauling, etc.)

An operating crew made up of 4 operators, 6 assistant operators, and a 5-person relief crew is required to cover the proposed shift schedule, vacations, sick time, statutory holidays, and time- in-lieu. Preliminary evaluation of the logistics of the schedule and a 15-person crew indicates that theoretically, approximately 1.3 staff years from this crew could be available to assist with plant maintenance. While the proposed shifts are preferred, management will continue to evaluate other scheduling options (i.e. 8-hour shifts with 3, 2 and 2 person crews) in an attempt to optimize the operating staff complement.

#### Trades Maintenance

The existing maintenance team's time is currently allocated between the treatment plant, the remote sludge handling facilities, and 22 lift stations scattered throughout the City. The allocation of trades to the sewage treatment plant is:

	Staff Years
electrical	0.6
instrumentation	0.8
mechanical	3.6

Even a cursory evaluation of the equipment required to operate the upgraded plant indicates that electrical motors, switchgear, controls, etc., will increase by two to three times suggesting the need for, at the least, an additional electrician. The situation with respect to instrumentation for process controls is the same. Surveys of similar-sized treatment plants indicated that two electricians and two instrument technicians were a bare minimum. The proposed staffing plan is based on the assumption that the requirements for two additional staff could possibly be addressed by a dual-trade position. There are currently treatment plants in Western Canada that are realizing staffing efficiencies by utilizing tradespeople who are qualified both as electricians and instrument technicians. One dual-trade position will be bulletined at the Saskatoon plant.

Mechanical maintenance staffing requirements are more difficult to predict. Existing preventative maintenance work orders, existing unscheduled maintenance records, and current back logs indicated that the doubling of the equipment will significantly increase maintenance staffing requirements. All staffing guidelines and standards recommend staffing increases that, based on current knowledge/experience, appear to be excessively large. For instance, industrial standards indicate that the annual cost of equipment maintenance programs generally falls between 7 and 15 percent of the capital investment in all process and operating equipment. The labour component should range between 30 and 50 percent of the annual maintenance cost. Using the estimated equipment value of \$29,000,000 and current average mechanical maintenance salaries, the minimum recommended staffing requirements would be 17.4 staff years. Other guidelines ranged from 10 to 13 staff years.

Due to the questionability of the guidelines, the mechanical maintenance supervisor was simply asked to speculate on staffing requirements. Based on the availability of 1.3 staff years of maintenance work from the relief operating crew and 0.9 staff years from the proposed automation upgrade at the lift stations (Capital Project #1119), a recommendation for only 2.0 additional mechanics was made. The proposed complement is obviously less than any recommended guidelines however it may be adequate in the early years of operation depending upon the performance of the equipment and warranty agreements.

## • Building Cleaning/Grounds Maintenance

The expanded facilities will require the maintenance of \$33,000,000 worth of buildings and approximately 19 acres of grounds. Building maintenance programs (HVAC systems, structures, doors, windows, roofing, painting, etc.) generally call for an annual expenditure in the range of 1.5 to 3 percent of the building value with the labour component ranging from 30 to 50 percent. That would indicate a minimum building maintenance staff of 5.0 staff years is required. Building cleaning services are considered to be in excess of this requirement because cleaning standards are site specific. For instance, the cleaning services

for a high-rise apartment are significantly different than for an industrial complex. The expanded facility will result in approximately 18,000 square meters of floor space that includes administrative offices, laboratory work areas, control rooms, maintenance shops and offices, and equipment rooms (pumps, blowers, compressors, etc.). Cleaning services at wastewater treatment plant include far more than normal janitorial services. Operating areas are subject to spills and flooding. Cleaning operations often require the removal of raw human wastes, greases and scums, digested/fermented solids, chemicals, etc., before the floor is even visible for cleaning. These situations present a serious health risk to the employees and can create odour problems for neighbouring residents. Open treatment tanks require the timely removal of bacterial slimes and/or deposits of free board scum/grease in order to prevent odour problems. It is estimated that, at the very least, a 2-person crew is required to maintain minimum cleanliness standards.

In addition, 19 acres of landscaped grounds in a highly visible/sensitive area must be maintained. Based on generally accepted ratios of 0.5 staff per acre and assuming that grounds work is only required in summer (no provision for road and parking lot cleaning/maintenance in the winter) an increase of three staff years of temporary labour is required.

The above totals indicate that a building/grounds staffing complement of 10 staff years or an increase of 5.7 staff years is required. The proposed plan, however, calls for an increase of only 1.7 staff years (1 buildings/grounds labourer and 0.7 staff years of temporary labour).

## Laboratory Operations

Research specialists, design engineers, management, and operators currently involved with BNR processes emphasize the importance of continual and timely reporting of process changes for successful operation of a BNR plant. The addition of a minimum of one laboratory technologist has been recommended by all sources. The proposed plan calls for the addition of one technologist, however, the early retirement program and the recent discontinuation of a water sampling program formerly carried out by the Public Health Department has created the need for an additional technologist at the Water Treatment Plant. The laboratory supervisor is currently evaluating the possibility of consolidating the water treatment and sewage treatment programs and revising work hours in order to effect improvements in efficiency. Depending upon the success of negotiations with the Union, it may not be necessary to increase the sewage treatment laboratory complement.

#### · Storeskeeper

An operation the size of the upgraded facility cannot possibly function without readily available materials, supplies, parts, and tools. The record keeping, ordering, stocking,

invoicing, pick-ups, and distributions of these materials and tools will require a minimum of 1.0 staff year. The audit of the Water Treatment Plant's Building and Grounds Maintenance Program carried out by the Audit Services Department in April of 1991 recommended that the Water Treatment Plant implement an inventory control program to deal with controlling materials and tools. In this regard, the requirements of the upgraded sewage facility will be even greater.

#### Clerical

Currently clerical duties are carried out by an employee classified in a Utility II position. The employee does not have typical clerical skills and therefore only carries out specific duties related to operations reporting, purchase orders, maintaining files, payroll records, and telephone operations. Word processing and other clerical services are provided, when possible, by the Clerk at the Water Treatment Plant. It has been proposed to continue the existing practice until it can be clearly shown that a Clerk position must be added. Clerical support services will continue to be provided by the Department clerical staff which are located at the Water Treatment Plant.

#### • Management

The proposed plan calls for the addition of an exempt position which will provide minor supervisory support and, more importantly, will provide support services for the process and management computer systems within the Department (sewage treatment, water treatment, and project management divisions).

Currently a plant manager and a superintendent carry out the supervision and administration duties of the treatment plant, the lift stations, and the sludge handling facilities. Based on the current allotment of time to the treatment plant, including laboratory supervision, the management complement is 1.5 staff years which results in a management to staff ratio of 1:13.3. During vacations and or sick time, the plant is often operated without supervision other than from the Department Manager via the telephone. An addition of one supervisory position would eliminate this situation and would maintain an acceptable management to staff ratio (1:13.8). Generally accepted ratios range from 1:12 to 1:15.

The position will be bulletined for an individual with a high level of skills in the areas of process control and management computer systems. The Water Treatment Plant has one of the most up-to-date process control systems in the country. The system includes four process computers and eight PLC's functioning on system hardware and software estimated

in excess of \$500,000 in value. The sewage treatment upgrade will incorporate a similar system with likely an increase in hardware and software. The proposed upgrade of the monitoring system for City's lift stations will result in the addition of another \$100,000 worth of computer control equipment. In addition, the Department functions with the support of 19 management and data processing computers utilizing 10 different software packages on a local network linking system. Upon completion of the upgrade, the combined computer systems for the Department will include in excess of \$1,000,000 worth of highly complex hardware and software. Currently the support services for these systems are handled in bits and pieces by various members of the staff, generally as an emergency function. It is imperative that the following services are effected in a consolidated, comprehensive, and timely fashion by a member of the management team:

- · Management and backups for the local area network.
- Programming changes for a wider range of applications such as budgeting, preventative maintenance, inventory control, project management, industry billing, and regulatory reporting.
- · PLC and MMI software programming including system upgrades and enhancements.
- · Security systems programming and maintenance.
- · Systems documentation and systems inventory control.
- · Systems planning, budgeting, and standardization.
- · Software training and support.

#### · Summary

The proposed staffing increases will result in a labour cost increase of approximately \$475,000. Total operating costs, however, are anticipated to increase by only \$200,000 due to a reduction of \$1,315,000 in chemical treatment costs and potential power savings due to co-generation using digester gas.

The proposed staffing complement is clearly a minimum. This is borne out by studies of wastewater treatment plants in Massachusetts where private contracts for the maintenance, operation, and management of treatment plants are common. The studies report that private contracts resulted in staffing levels as much as 25 percent less than municipally-operated plants. The reported staffing:design flow ratio for the privately-operated plants was as low as 0.46 staff years per million litres per day of design capacity. The ratio resulting from the proposed staffing plan for Saskatoon is 0.31 staff years per million litres of design capacity.

The proposed staffing plan is based, on the need to minimize operating costs and yet not jeopardize the success of the operation. It should be kept in mind that, while the proposed plan minimizes operating costs, it recommends staffing levels less than those recommended by the City's consultants. Management is of the opinion that the proposed staffing level, while adequate, will result in a situation where the staff and the process will often be operating on the edge. The consequences of which can only be determined with time. In the final analysis, the cost of running an inadequately staffed wastewater treatment plant in terms of regulatory requirements, downstream water uses, and adjacent land uses may far

outweigh the cost savings.

## **NOISE LEVELS**

The equipment proposed for the upgraded facility will not create a noise problem. The distance from the building closest to the surrounding residences will be as much as 400 metres. Operating equipment will be housed in buildings appropriately designed and constructed to confine operating noise. The existing facility currently houses compressors that operate at noise levels higher than any equipment that is proposed for the upgrade. The operation of the compressors cannot be heard outside the doors of the building."

**RECOMMENDATION**: that the information be received.

ADOPTED."

Moved by Councillor Penner, Seconded by Councillor Mostoway,

THAT the report of the Committee of the Whole be adopted.

CARRIED.

#### INTRODUCTION AND CONSIDERATION OF BYLAWS

## **Bylaw No. 7383**

Moved by Councillor Penner, Seconded by Councillor Mostoway,

THAT permission be granted to introduce Bylaw No. 7383, being "A Bylaw of The City of Saskatoon to raise by way of loan on debentures the sum of \$136,664.64 to pay part of the cost of the construction of street paving on new base, and concrete sidewalks, curbs and gutters, being the local improvements set out in the schedules hereto, a portion of the cost of which shall be repayable by the property owners on the special frontage assessment system." and to give same its first reading.

#### CARRIED.

The bylaw was then read a first time.

Moved by Councillor Penner, Seconded by Councillor Thompson,

THAT Bylaw No. 7383 be now read a second time.

CARRIED.

The bylaw was then read a second time.

Moved by Councillor Penner, Seconded by Councillor Cherneskey,

THAT Council go into Committee of the Whole to consider Bylaw No. 7383.

#### CARRIED.

Council went into Committee of the Whole with Councillor Penner in the Chair.

Committee arose.

Councillor Penner, Chair of the Committee of the Whole, made the following report:

That while in Committee of the Whole, Bylaw No. 7383 was considered clause by clause and approved.

Moved by Councillor Penner, Seconded by Councillor Birkmaier,

THAT the report of the Committee of the Whole be adopted.

CARRIED.

Moved by Councillor Penner, Seconded by Councillor Waygood,

THAT permission be granted to have Bylaw No. 7383 read a third time at this meeting.

CARRIED UNANIMOUSLY.

Moved by Councillor Penner, Seconded by Councillor McCann,

THAT Bylaw No. 7383 be now read a third time, that the bylaw be passed and the Mayor and the City Clerk be authorized to sign same and attach the corporate seal thereto.

CARRIED.

The bylaw was then read a third time and passed.

## **Bylaw No. 7384**

Moved by Councillor Penner, Seconded by Councillor Mostoway,

THAT permission be granted to introduce Bylaw No. 7384, being "A Bylaw of The City of Saskatoon to amend Bylaw No. 5584 being, 'A bylaw to govern and regulate the proceedings of Council of The City of Saskatoon" and to give same its first reading.

CARRIED.

The bylaw was then read a first time.

Moved by Councillor Penner, Seconded by Councillor Thompson,

THAT Bylaw No. 7384 be now read a second time.

CARRIED

The bylaw was then read a second time.

Moved by Councillor Penner, Seconded by Councillor Cherneskey,

THAT Council go into Committee of the Whole to consider Bylaw No. 7384.

## CARRIED.

Council went into Committee of the Whole with Councillor Penner in the Chair.

Committee arose.

Councillor Penner, Chair of the Committee of the Whole, made the following report:

That while in Committee of the Whole, Bylaw No. 7384 was considered clause by clause and approved.

Moved by Councillor Penner, Seconded by Councillor Birkmaier,

THAT the report of the Committee of the Whole be adopted.

#### CARRIED.

Moved by Councillor Penner, Seconded by Councillor Waygood,

THAT permission be granted to have Bylaw No. 7384 read a third time at this meeting.

#### CARRIED UNANIMOUSLY.

Moved by Councillor Penner, Seconded by Councillor McCann,

THAT Bylaw No. 7384 be now read a third time, that the bylaw be passed and the Mayor and the City Clerk be authorized to sign same and attach the corporate seal thereto.

#### CARRIED

The bylaw was then read a third time and passed.

## **Bylaw No. 7390**

Moved by Councillor Penner, Seconded by Councillor Mostoway,

THAT permission be granted to introduce Bylaw No. 7390, being "A Bylaw of The City of Saskatoon to close a portion of Attridge Drive, in the City of Saskatoon" and to give same its first reading.

#### CARRIED.

The bylaw was then read a first time.

Moved by Councillor Penner, Seconded by Councillor Thompson,

THAT Bylaw No. 7390 be now read a second time.

#### CARRIED.

The bylaw was then read a second time.

Moved by Councillor Penner, Seconded by Councillor Cherneskey,

THAT Council go into Committee of the Whole to consider Bylaw No. 7390.

#### CARRIED.

Council went into Committee of the Whole with Councillor Penner in the Chair.

Committee arose.

Councillor Penner, Chair of the Committee of the Whole, made the following report:

That while in Committee of the Whole, Bylaw No. 7390 was considered clause by clause and approved.

Moved by Councillor Penner, Seconded by Councillor Birkmaier,

THAT the report of the Committee of the Whole be adopted.

CARRIED.

Moved by Councillor Penner, Seconded by Councillor Waygood,

THAT permission be granted to have Bylaw No. 7390 read a third time at this meeting.

CARRIED UNANIMOUSLY.

Moved by Councillor Penner, Seconded by Councillor McCann,

THAT Bylaw No. 7390 be now read a third time, that the bylaw be passed and the Mayor and the City Clerk be authorized to sign same and attach the corporate seal thereto.

CARRIED.

The bylaw was then read a third time and passed.

## **Bylaw No. 7391**

Moved by Councillor Penner, Seconded by Councillor Mostoway,

THAT permission be granted to introduce Bylaw No. 7391, being "A Bylaw of The City of Saskatoon to close a portion of 115th Street and part of the N-S Road Allowance adjacent to the NW 1/4 32-36-4 W3rd, in the City of Saskatoon," and to give same its first reading.

CARRIED.

The bylaw was then read a first time.

Moved by Councillor Penner, Seconded by Councillor Thompson,

THAT Bylaw No. 7391 be now read a second time.

#### CARRIED

The bylaw was then read a second time.

Moved by Councillor Penner, Seconded by Councillor Cherneskey,

THAT Council go into Committee of the Whole to consider Bylaw No. 7391.

#### CARRIED.

Council went into Committee of the Whole with Councillor Penner in the Chair.

Committee arose.

Councillor Penner, Chair of the Committee of the Whole, made the following report:

That while in Committee of the Whole, Bylaw No. 7391 was considered clause by clause and approved.

Moved by Councillor Penner, Seconded by Councillor Birkmaier,

THAT the report of the Committee of the Whole be adopted.

CARRIED.

Moved by Councillor Penner, Seconded by Councillor Waygood,

THAT permission be granted to have Bylaw No. 7391 read a third time at this meeting.

CARRIED UNANIMOUSLY.

Moved by Councillor Penner, Seconded by Councillor McCann,

THAT Bylaw No. 7391 be now read a third time, that the bylaw be passed and the Mayor and the City Clerk be authorized to sign same and attach the corporate seal thereto.

Mayor	City Clerk	
The meeting adjourned at 8:12 p.m.		
	C.Huuzb.	
	CARRIED.	
THAT the meeting stand adjourned.		
Moved by Councillor Penner, Seconded by	y Councillor Mann,	
The bylaw was then read a third time and	passed.	
The bylany was then need a third time and	manad	
	CARRIED.	
,	-	
and the City Clerk be authorized to sign sa	ame and attach the corporate sear thereto.	