

2021-08-13

**REQUEST FOR PROPOSAL
ENGINEERING SERVICES FOR THE
INSTALLATION OF FIRE SPRINKLER SYSTEMS AT THE
AFRICAN RAINFOREST AND INDO MALAYA PAVILIONS
RFP 24 (2021-07)**

ADDENDUM 3

This addendum shall be incorporated into, and form part of RFT No.: TZC T 42-2020-11 and take precedence over all requirements of the previously issued bid documents including plans. This addendum must be signed by the bidder (signing officer) in the appropriate space and must be attached to the form for submission by the bidder. This addendum consists of six **(6)** page(s) and the documents listed below.

1. CLOSING DATE:

Original Closing Date: Wednesday, 2021-08-18, 1200 hours (noon, local time)

Revised Closing Date: Friday, 2021-08-20, 1200 hours (noon, local time)

2. SCHEDULE OF EVENTS:

The following schedule of events replaces the original schedule of events from Section 8.0 of the RFP:

| | |
|--|---------------------------------|
| Pre-Award | |
| Release of RFP | 2021-07-23 |
| Proponents' Question Deadline | 2021-08-03 |
| Submissions Due | 2021-08-20 |
| Interviews, if necessary | Week of August 23 rd |
| Notification of Award by the Toronto Zoo | Week of August 23 rd |
| Post Award | |
| Preliminary Draft Design Due | 2021-10-08 |
| Final Design Due | 2021-11-24 |
| Release of Tender | 2021-12-03 |
| Construction Begins | 2022-03-21 |
| | |

3. QUESTION:

The Schedule of Events identifies the Construction Begins 2022-03-21, however it does not identify a proposed Substantial Performance date. The Scope of Services requires the Consultant to attend and take minutes at all design and construction meetings throughout the duration of the project. Can the Zoo provide an estimate for the number of meeting the Consultant is to participate in, or a proposed construction period based on providing by-weekly meeting?

RESPONSE:

Assume a construction completion date of 2022-12-31. Provide a price per site visit for any additional site visits that may be required.

4. QUESTION:

It is our understanding that AutoCAD drawings for the African Pavilion are available. However, only PDFs with limited AutoCAD drawings are available for the Indo Malayan Pavilion. Please confirm.

RESPONSE:

This is correct. All drawings can be made available to the successful proponent.

5. QUESTION:

Please confirm the following drawings are available:

- a. Mechanical drawings for African and Indo Malayan Pavilions
- b. Site plan drawings indicating incoming water mains for African and Indo Malayan Pavilions

RESPONSE:

See additional drawings below.

6. QUESTION:

Please confirm the following documentation is available:

- a. Fire hydrants flow tests for African and Indo Malayan Pavilions
- b. Structural roof load data for African and Indo Malayan Pavilions

RESPONSE:

See attached fire hydrant flow tests.

See attached structural notes from a glazing feasibility study previously completed for the African Rainforest Pavilion. The successful proponent shall be responsible for determining the ability for the pavilions to structurally support the new sprinkler system.

7. QUESTION:

The RFP requests that a Cost Consultant be retained to provide a Class D and Class A cost estimate. Is it acceptable that the Consultant use internal forces to generate the cost estimate, or does it need to be an independent vendor?

RESPONSE:

The successful proponent shall retain an external cost consultant to provide the cost estimates.

8. QUESTION:

It is our understanding the requirements to sprinkler the two buildings is being initiated by the Zoo's Insurance Provider. Please identify if the Insurance provider has any design requirements for this project or if the design only needs to comply with Ontario Building Code.

RESPONSE:

The insurance provider has no special design requirements. It is our understanding that the design needs to comply with the Ontario Building Code.

9. QUESTION:

Please identify if the Insurance provider has any commissioning requirements for this project or if commissioning only needs to comply with Ontario Building Code.

RESPONSE:

The insurance provider has no special design requirements. It is our understanding that the commissioning needs to comply with the Ontario Building Code.

10. QUESTION:

Per 2.2 and 2.3 of the RFP it is our understanding that a design of a new fire sprinkler system for the African Rainforest and Indo Malaya Pavilion is to be provided. Based on the site review and documentation provided it is unknown if the existing pressure and water (gpm) is sufficient for a new sprinkler system. As such, a new fire pump may be required (per building). Is it the intent of the RFP that if a fire pump is required that the engineering effort required to generate a new fire pump design be included in this bid? Please clarify.

RESPONSE:

It is the successful proponent's responsibility to determine the incoming water pressure and volume. If the incoming water supply is not sufficient to support a sprinkler system, it is the successful proponent's responsibility to design all supporting infrastructure required to provide a fully functioning sprinkler system including a fire pump.

11. QUESTION:

Will the consultant be responsible for issuing drawings for construction and completing hydraulic calculations or will the successful sprinkler contractor be responsible for detailed sprinkler design, hydraulic calculations and issuing the drawings for permit?

RESPONSE:

The successful proponent will be responsible for issuing tender-ready drawings & specifications, permit drawings & specifications, and issued-for-construction drawings & specifications. The successful proponent is responsible for detailed sprinkler design, hydraulic calculations, and is responsible for obtaining all required permits.

12. QUESTION:

Are drawing files of the building and reflected ceiling plan available in CAD format?

RESPONSE:

Drawings for the African Rainforest Pavilion are available in CAD format. They will be made available to the successful proponent. These drawings are for reference only and all measurements shall be verified on site.

13. QUESTION:

Are water servicing plans available for this site?

RESPONSE:

Yes. See attached drawing.

14. QUESTION:

It is not anticipated that the existing 4" incoming water service observed in the buildings will be sufficient to serve a new sprinkler system. Has a proposed connection location to the facilities water services been established?

RESPONSE:

No, this has not been established. It will be the successful proponent's responsibility to determine suitability of the incoming water service, and design any changes required to provide adequate water supply for the sprinkler system.

15. QUESTION:

Is there existing hydrant flow test data available for this site? If no data exists, we suggest that a cash allowance of \$7,500 be included in the contract for water supply testing.

RESPONSE:

See attached hydrant flow tests.

16. QUESTION:

Is the installation of a fire pump explicitly excluded from the design work being tendered as it is not known at this point in time if it will be required?

RESPONSE:

No, the design of a fire pump is included if a fire pump is required. This will be up to the successful proponent to determine.

17. QUESTION:

Is a full set of architectural drawings available for each building? The drawings shared with the RFP package appear incomplete.

RESPONSE:

The Toronto Zoo has the full set of architectural drawings from the original building construction. There are also some drawings available from renovations. All available drawings will be made available to the successful proponent. And additional drawings that are required and any site measurements will be the responsibility of the successful proponent.

18. QUESTION:

Are structural drawings available for each building? Alternatively, will these plans need to be generated by a structural engineer as part of the scope of work for this project to verify that the existing structure can support the new sprinkler system? If the structural engineering survey is required, we suggest a \$5,000 cash allowance for engaging a lift operator to assist with the survey of the structure.

RESPONSE:

The Toronto Zoo has the full set of structural drawings from the original building construction. These drawings can be made available to the successful proponent. Any structural analysis required to determine if the building can support the sprinkler system is the responsibility of the successful proponent. Access to most areas of the pavilion is not possible with a lift given the slope & width of the pathways.

19. QUESTION:

Will access to animal areas be possible during design for survey purposes?

RESPONSE:

Access to animal areas will be possible on a case-by-case basis. Access cannot be provided to all areas simultaneously. The successful proponent will be required to work with the Zoo to determine how and when various areas can be accessed as required.

20. QUESTION:

Will the proposed new sprinkler system devices be connected to the existing building fire alarm system?

RESPONSE:

The sprinkler system is to be designed to all applicable codes. If connection to the fire alarm system is not a code requirement, this will need to be discussed with the Toronto Zoo during the design process to determine whether or not it should be connected.

21. ADD DRAWINGS:

| SHEET NUMBER | SHEET NAME |
|--------------|---|
| M-1 | AFRICA & INDO-MALAYAN PAVILIONS SITE PLAN & LEGENDS |
| M-2 | AFRICAN PAVILION SOUTH HALF LOWER LEVEL PLUMBING |
| M-3 | AFRICAN PAVILION SOUTH HALF UPPER LEVEL PLUMBING |
| M-4 | AFRICAN PAVILION NORTH HALF LOWER LEVEL PLUMBING |
| M-5 | AFRICAN PAVILION NORTH HALF UPPER LEVEL PLUMBING |
| M-6 | INDO MALAYA PAVILION LOWER LEVELS PLUMBING |
| M-7 | INDO MALAYA PAVILION UPPER LEVEL PLUMBING |
| M-8 | AFRICAN PAVILION SOUTH HALF LOWER LEVEL HEAT & VENT |
| M-9 | AFRICAN PAVILION SOUTH HALF UPPER LEVEL HEAT & VENT |
| M-10 | AFRICAN PAVILION NORTH HALF LOWER LEVEL HEAT & VENT |
| M-11 | AFRICAN PAVILION NORTH HALF UPPER LEVEL HEAT & VENT |
| M-12 | INDO MALAYA PAVILION LOWER LEVEL HEAT & VENT |
| M-13 | INDO MALAYA PAVILION UPPER LEVEL HEAT & VENT |
| M-14 | AFRICA & INDO MALAYA PAVILION SCHEDULE SHEET |
| A-3.07 | SITE PLAN - WATER |

Receipt of the addendum shall be acknowledged as part of your submission.

The Board of Management of the Toronto Zoo reserves the right to reject any or all quotations or to accept any quotation, should it deem such action to be in its interests.

If you have any queries regarding this matter, please contact Mr. Peter Vasilopoulos, Supervisor, Purchasing & Supply, at 416-392-5916.

Yours truly,

Peter Vasilopoulos
Supervisor, Purchasing & Supply

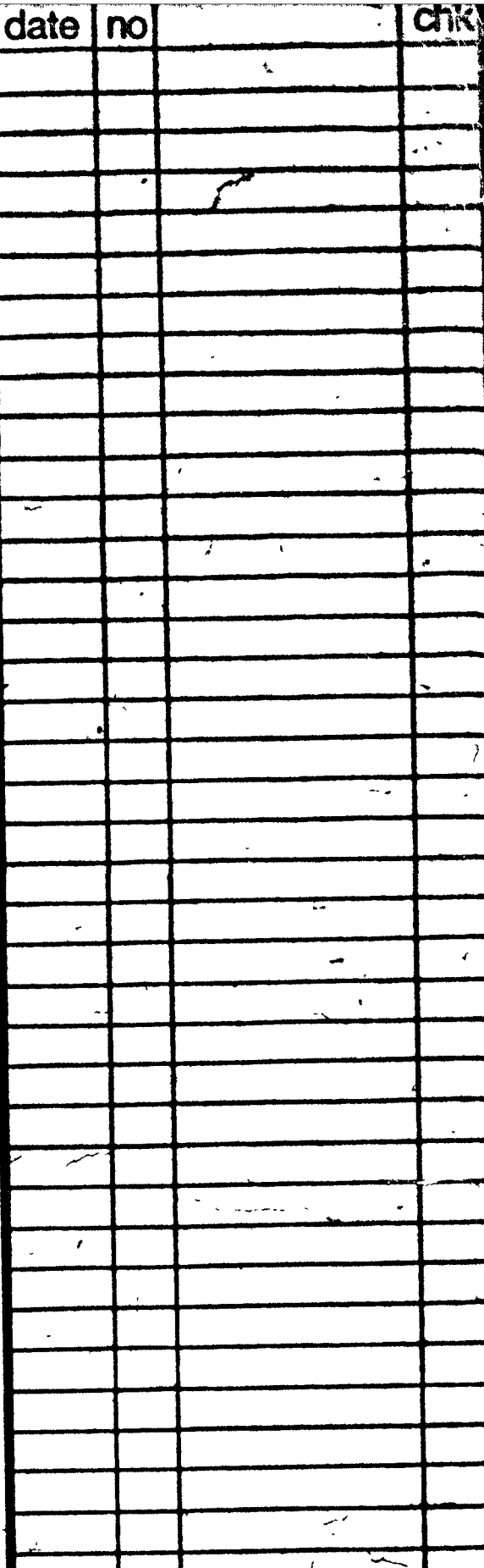
I/we hereby acknowledge receipt of this addendum and make allowance in my bid.

Signed (Must be Signing Officer of Firm)

Name of Firm

Date

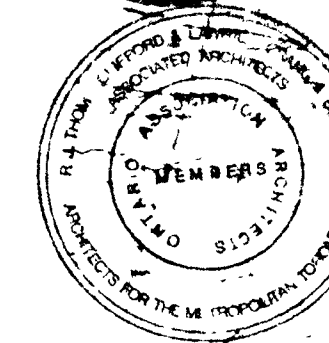
END OF ADDENDUM 3



M S Yolles Associates Ltd.
Structural Engineers

H H Angus & Assoc. Ltd.
Mech. & Elect. Engineers

**Johnson, Sustronk, Weinstein
and Associates Ltd.**
Landscape Architects



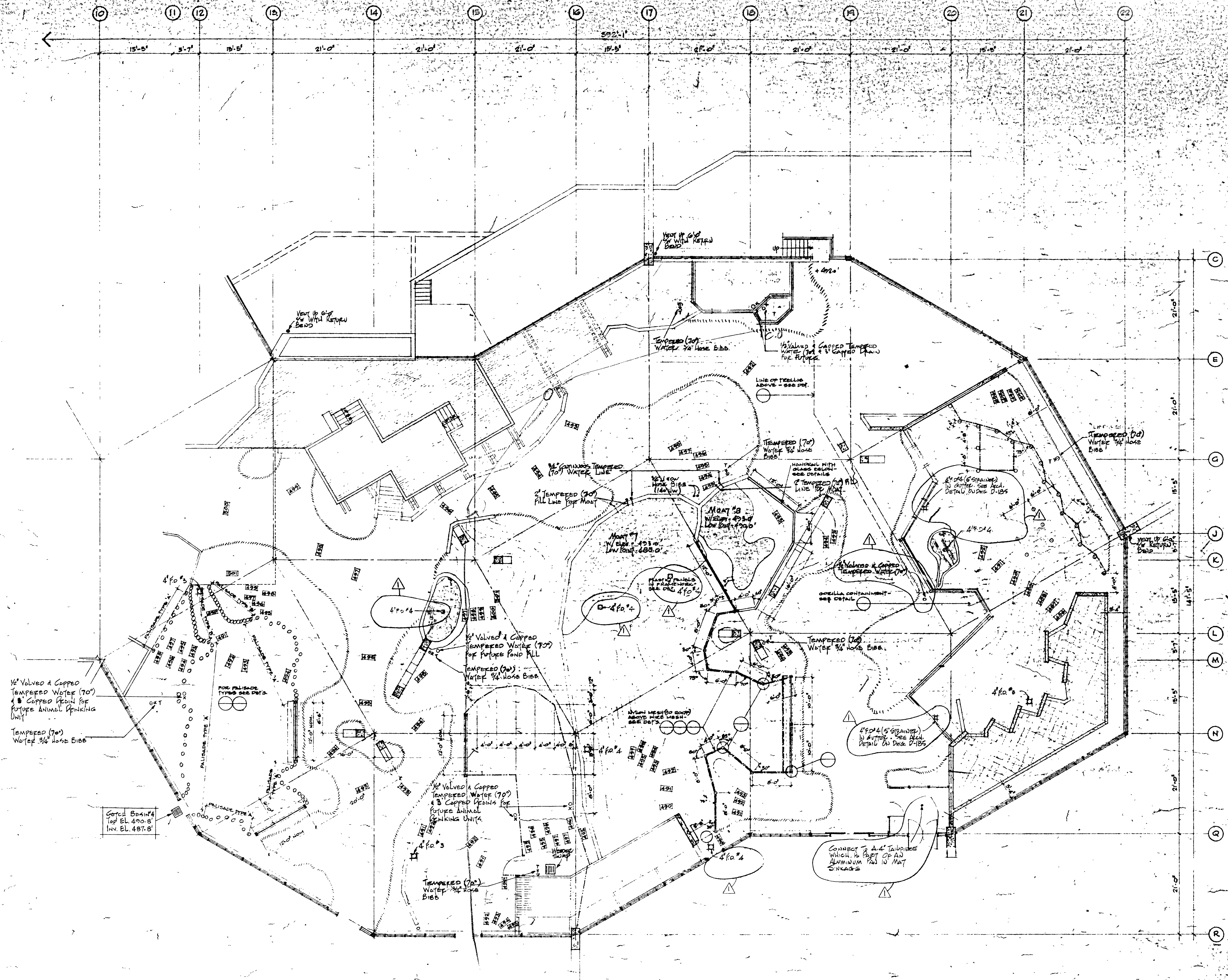
TRAC

12. TEMPERED WATER LINES (70°) SHALL BE SCHEDULE 40 POLYPROPYLENE PIPE AND FITTINGS TO CSA-B137 STANDARD.
13. ROOF DROPPER 1/1" SHALL BE ZIRN Z-100ERC.
14. CATCH BASIN SHALL MEET SEABOROUGH MUNICIPAL STANDARDS.
15. 3/4" HOT (140°) AND COLD WATER LINES TO HOME B.S.B.S. IN HOLDING AREA AND SQUARE AREA SHALL BE 1/2" DIA. 150 PSI RATED POLYETHYLENE GLASS FIBER SUTURE FOR 150°F @ 100 P.S.I. PIPING. 1" SIZE AND LARGER SHALL BE AS SPECIFIED.

1. INLET FITTING SHALL BE SWIMQUIP "EYEBALL" FITTING MODEL 8422 WITH BRASS BODY. LOCATE APPROXIMATELY 110" BELOW WATER LEVEL.
2. WHERE PIPE OR FITTINGS PASS THROUGH MOAT WALL USE "LINK-SEALS" FOR SEALING OPENINGS. (REPRESENTATIVE - CORROSION SERVICES CO. LTD., TORONTO, ONTARIO.
3. PROVIDE BRONZE MESH SCREENING ON OVERFLOW PIPE IN MOAT
4. FOR COMPLETE DETAILS OF MOATS SEE ARCHITECTURAL DRAWINGS

MM



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**Municipality of
Metropolitan Toronto
Parks Department.**

T.W. Thompson, Commissioner

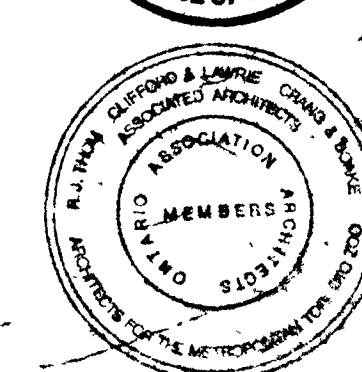
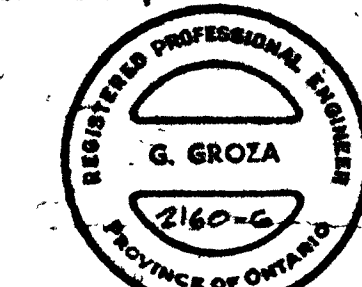
RJ Thom
Clifford & Lawrie
Crang & Boake

Architects for the Metropolitan Toronto Zoo

M S Yoffes Associates Ltd.
Structural Engineers

H H Angus & Assoc. Ltd.
Mech. & Elect. Engineers

**Johnson, Sustrunk, Weinstein
and Associates, Ltd.**
Landscape Architects



**METROPOLITAN
TORONTO
ZOO**

AFRICA PAVILION

proj office

zoo director

parks dept. () - [Signature]

**NORTH HALF
UPPER LEVEL**

PLUMBING

date 7 APRIL 1972

scale $1/8" = 1'-0"$

Pracowni K.V.

checked **G.G.**

contract no. Z-11-72

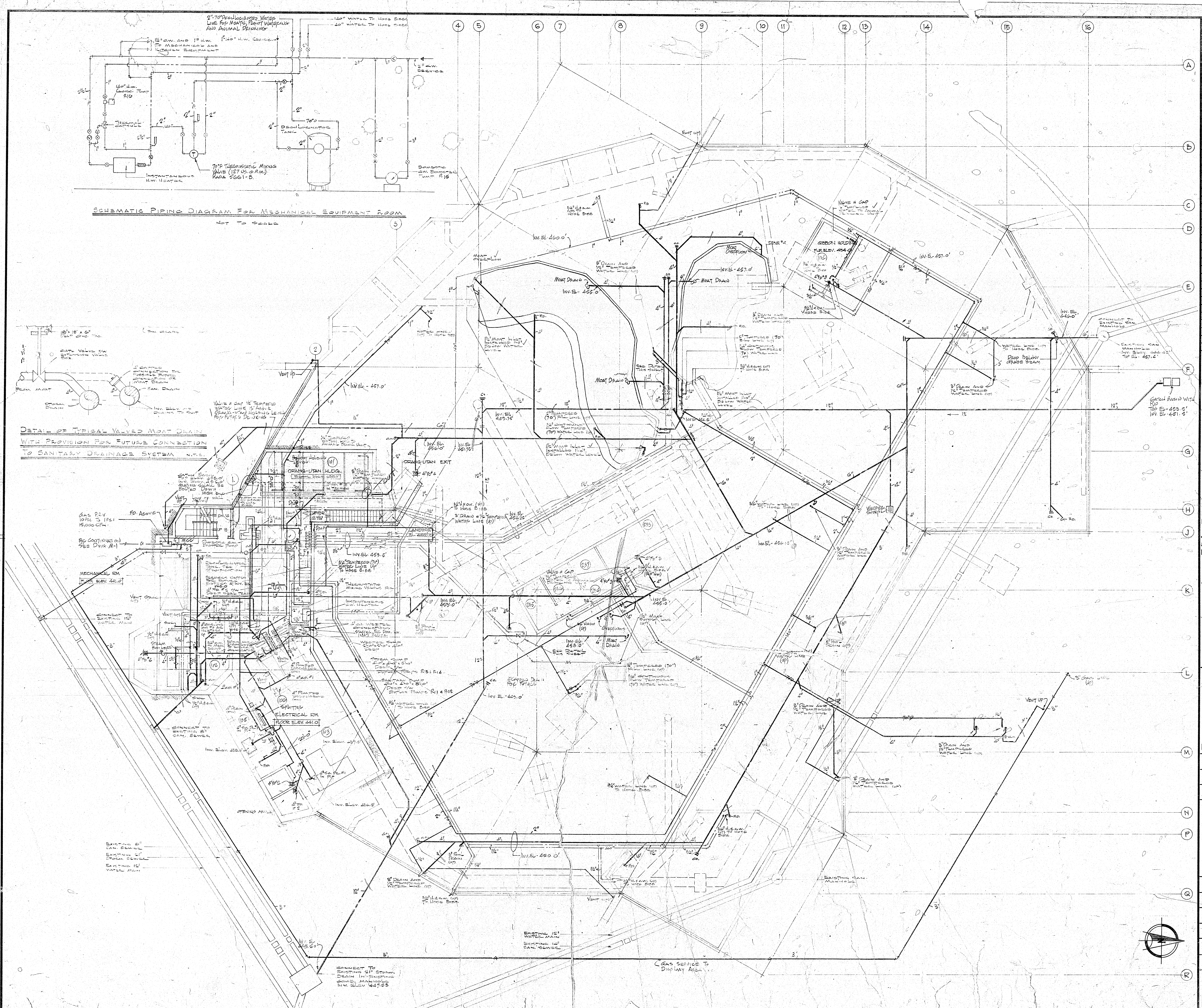
contract package no. 2

drawing no. 24

MAF



100



Revisions

| date | no | by | chk |
|----------|----|----------------|------|
| 12.12.71 | 1 | B.M.T. | J.R. |
| 1.1.72 | 2 | TOTAL REVISION | J.R. |
| 25.1.72 | 3 | TOTAL REVISION | J.R. |

Municipality of
Metropolitan Toronto
Parks Department

T.W. Thompson, Commissioner

R.J. Thom
Clifford & Lawrie
Crang & Boake

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H.H. Angus & Assoc. Ltd.
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Landscape Architects

METROPOLITAN
TORONTO
ZOO

INDO-MALAYA PAVILION

proj office

zoo director

parks dept. *T.W. Thompson*

FLOOR PLAN
LOWER LEVELS

PLUMBING

date 7 APRIL 1972

scale 1/8"=1'-0"

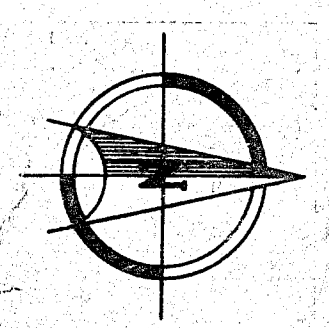
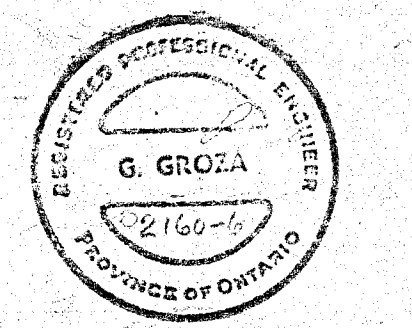
drawn J.W.

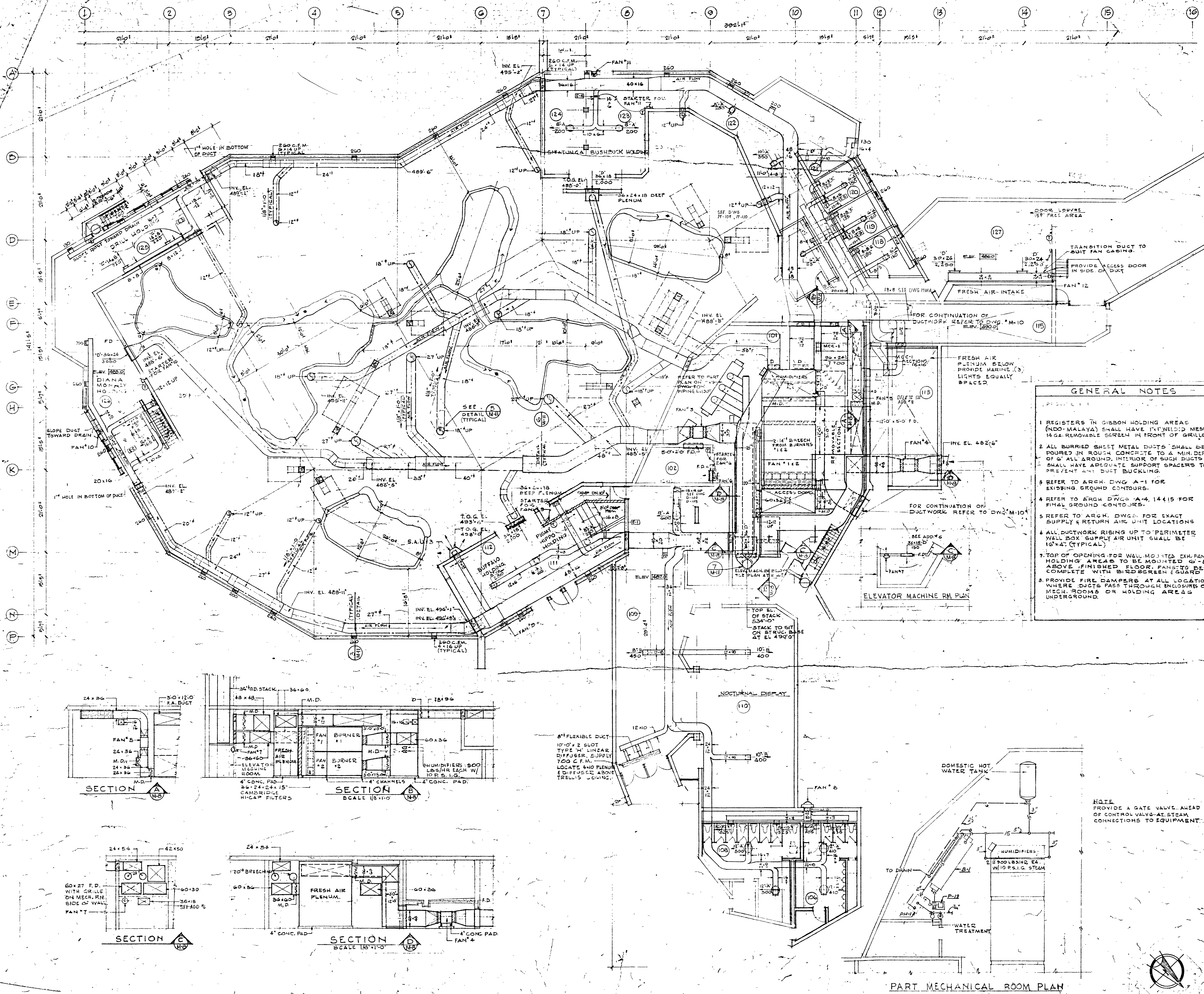
checked G.G.

contract no. Z-11-72

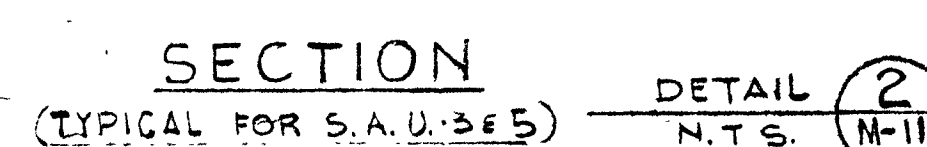
contract package no. 2

drawing no. **M-6**

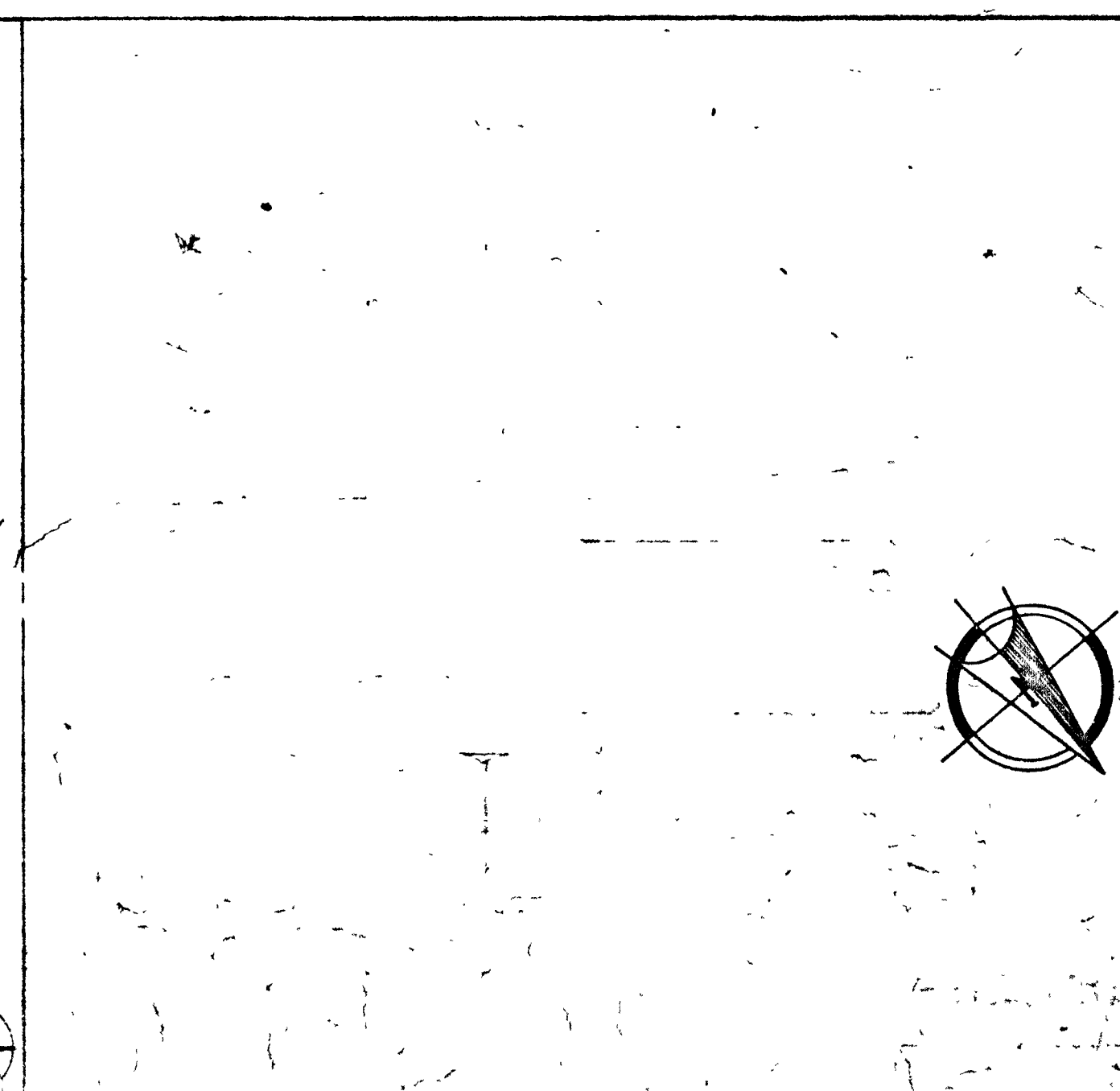
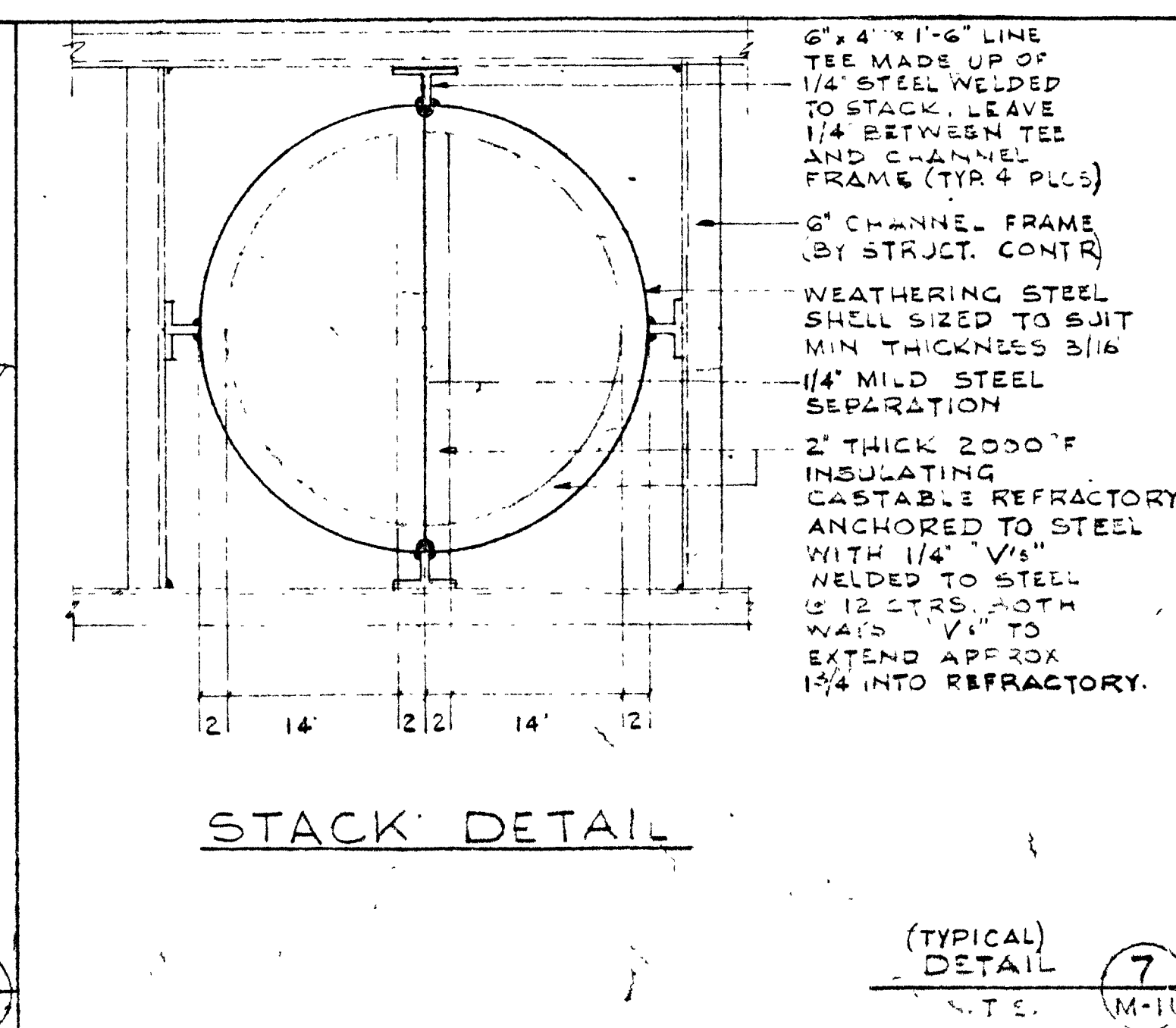
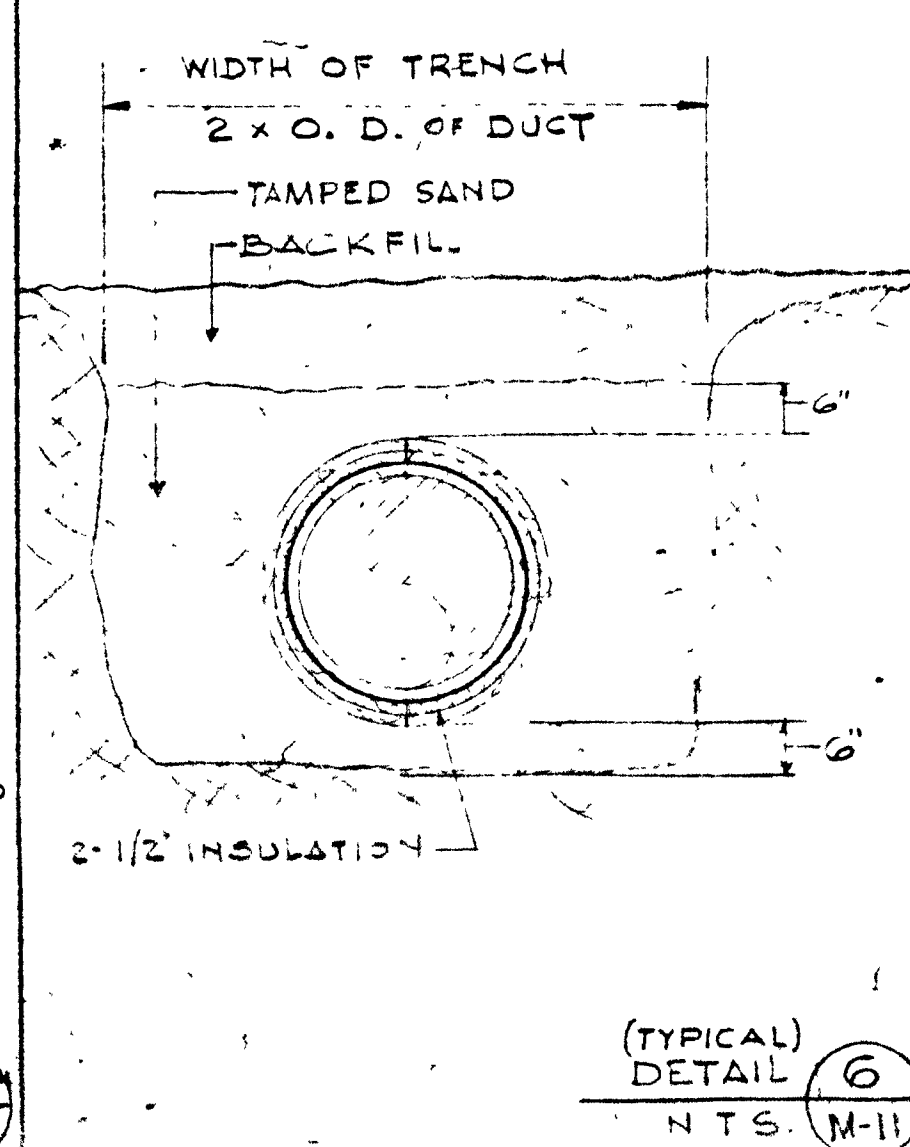
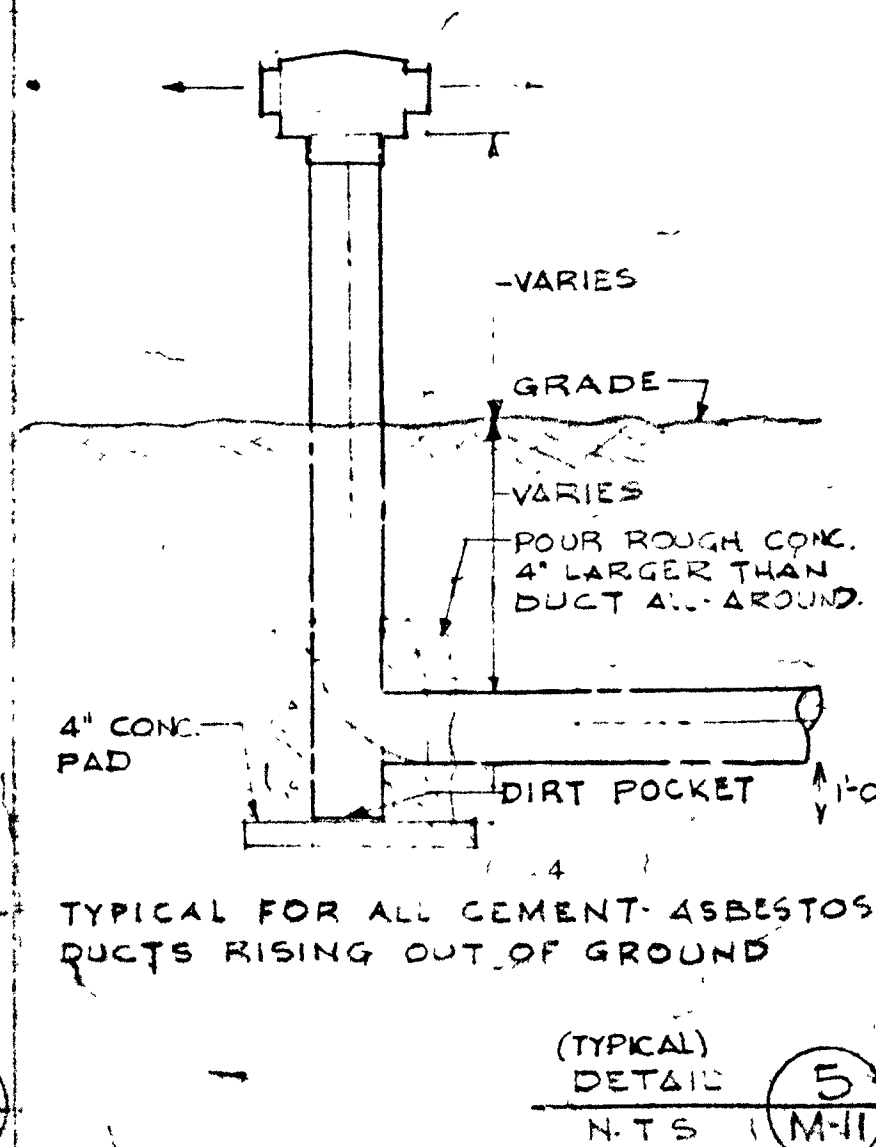
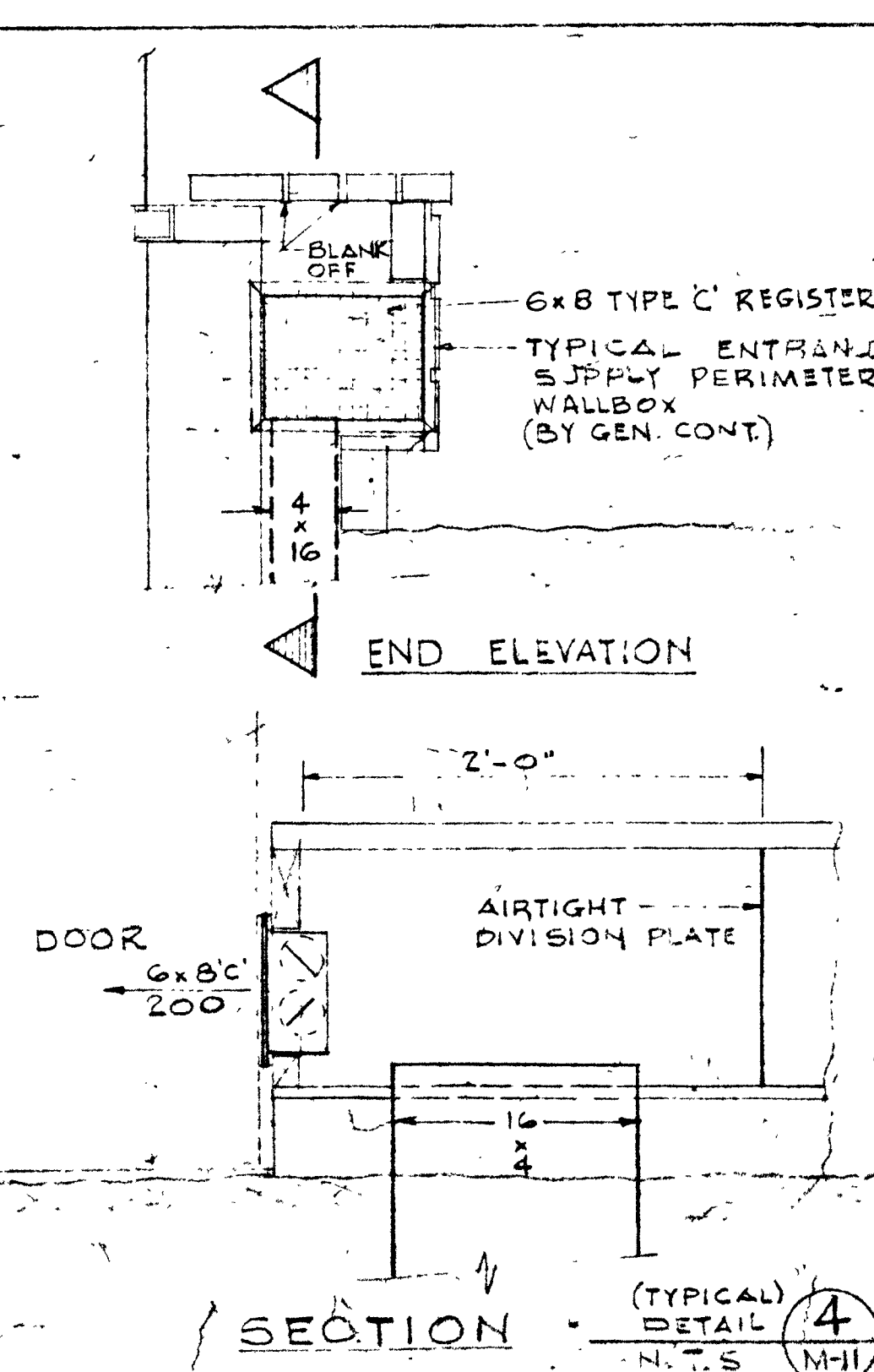




MIG



| SUPPLY & RETURN AIR UNIT SCHEDULE | | | | | |
|-----------------------------------|-----|----------|---------|-----------------|-------------------|
| TYPE | A-B | REGISTER | | TOTAL C.F.M. | REMARKS |
| | | NO. | SIZE | | |
| S.A.U.-1 | 15 | 3 | 10 x 8 | 1000 | TYPE 'C' REGISTER |
| S.A.U.-2 | 18 | 3 | 14 x 8 | 2000 | |
| S.A.U.-3 | 30 | 4 | 14 x 8 | 1000 | " |
| S.A.U.-4 | 18 | 5 | 14 x 8 | 2500 | " |
| S.A.U.-5 | 20 | 4 | 24 x 8 | 2000 | " |
| S.A.U.-1 | 21 | 6 | 22 x 10 | 6000 | TYPE 'D' REGISTER |



| Revisions | | | date | no | by | ch |
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| 1 | 1 | 1 | 11-12-71 | 1 | ESMT | TJR |
| 2 | 2 | 2 | 11-12-71 | 2 | TOTAL REDRAW | TJR |
| 3 | 3 | 3 | 11-12-71 | 3 | TOTAL REDRAW | TJR |

Municipality of
Metropolitan Toronto
Parks Department

T.W. Thompson, Commissioner

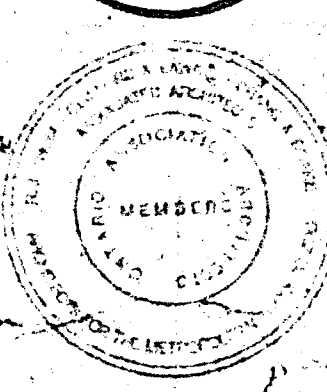
R.J. Thom
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METROPOLITAN
TORONTO
ZOO

INDO-MALAYA PAVILION

proj office

zoo director

parks dept

LOWER LEVEL
FLOOR PLAN

AS BUILT

HEAT & VENT

date 7-13-72 1870

scale 1/8" = 1'-0"

drawn P.S.

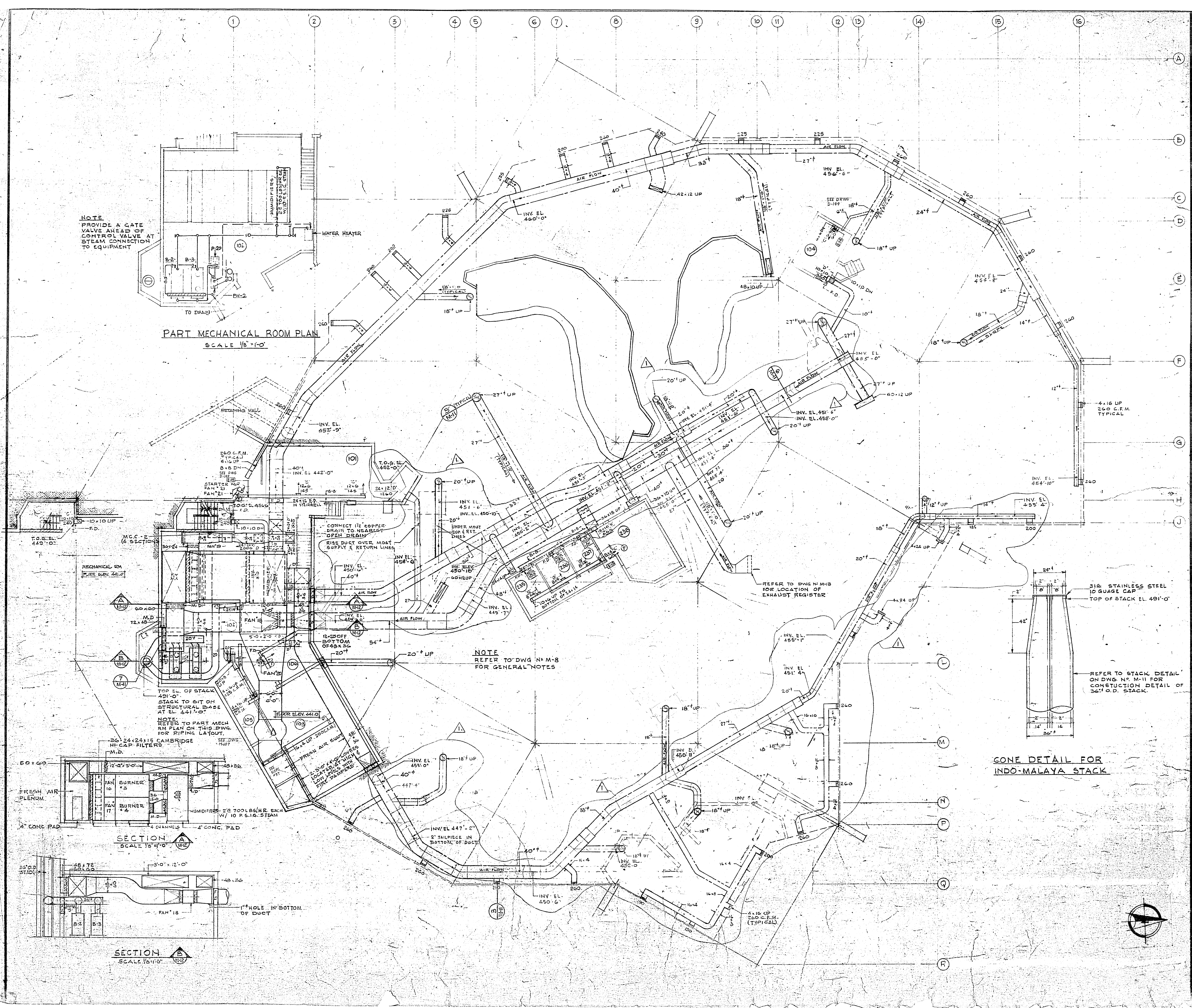
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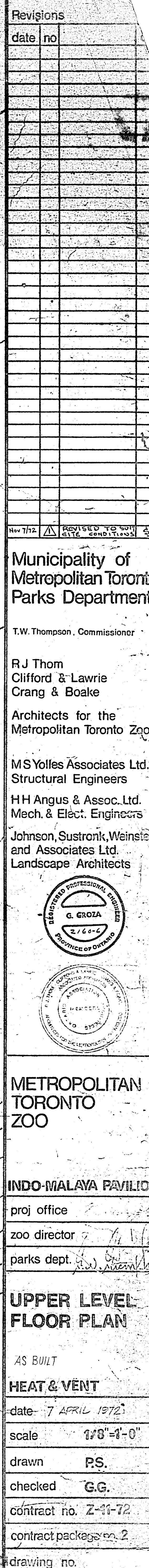
contract no. Z-11-72

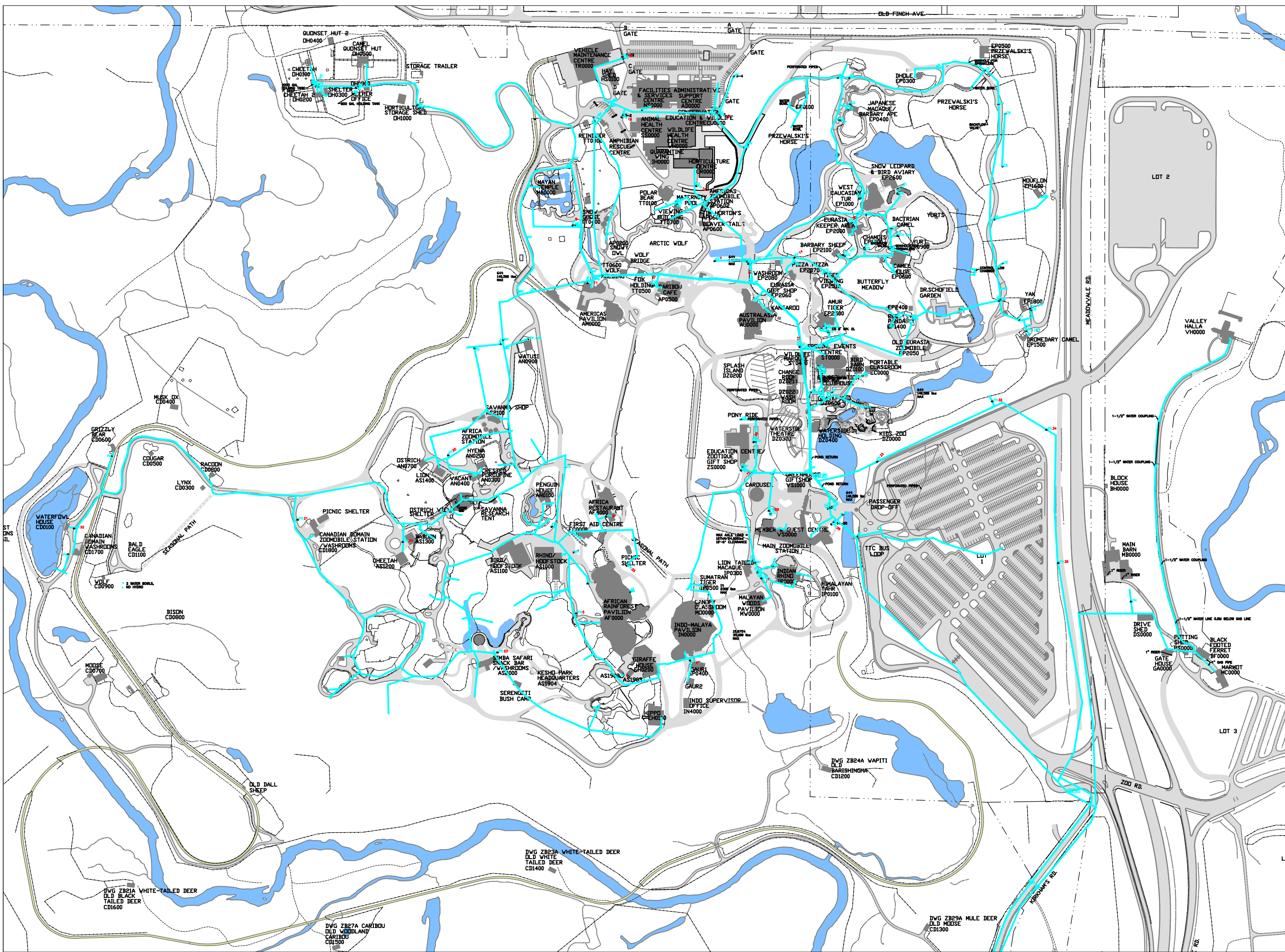
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M-12



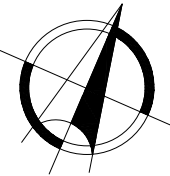
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361A OLD FINCH AVE.
TORONTO, ON
M1B 5K7

| NO. | DESCRIPTION | DATE |
|-----|------------------|------------|
| 1 | FOR REVIEW BY PM | 2015.11.24 |


| NO. | REVISIONS | DATE |
|-----|-----------|------|
|-----|-----------|------|



SITE PLAN

APPROVED BY
NAME:

DATE:

 WATER

PROJECT #: SITE SERVICES

DRAWN BY: D.G.

CHECKED BY: LEONA MITCHELL

DATE: 2015.12.14

SCALE: 1:5000

DRAWING #:

A3.07

| FIRE HYDRANT INSPECTION JUNE 2020 | | | |
|-----------------------------------|--|------------------|----------|
| HYDRANT # | LOCATION | REPAIRS REQUIRED | COMPLETE |
| 1 | INDIAN RHINO FLOWER BED | | ✓ |
| 2 | SOUTH OF INDO | | ✓ |
| 3 | GIRAFFE VIEWING | | ✓ |
| 4 | OUTSIDE GORILLA HOLDING | | ✓ |
| 5 | WEST SIDE AFRICA LOOKOUT | | ✓ |
| 6 | AFRICA RESTAURANT | | ✓ |
| 7 | PENGUINS | | ✓ |
| 8 | MAYAN TEMPLE PICNIC AREA | | ✓ |
| 9 | OUTDOOR HOLDING | | ✓ |
| 10 | AMERICAS RESTAURANT | | ✓ |
| 11 | AMERICAS PAVILION | | ✓ |
| 12 | NORTHEAST SPLASH ISLAND | | ✓ |
| 13 | AUSTRALASIA PAVILION | | ✓ |
| 14 | EURASIA SNACKBAR | | ✓ |
| 15 | GROUNDKEEPING | | ✓ |
| 16 | SOUTHEAST NORTH SERVICE | | ✓ |
| 17 | NORTHEAST NORTH SERVICE | | ✓ |
| 18 | NORTHWEST NORTH SERVICE | | ✓ |
| 19 | WEST NORTH SERVICE | | ✓ |
| 20 | NEW LION | | ✓ |
| 21 | MADAGASCAR RESTAURANT | | ✓ |
| 22 | WESTON STATION | | ✓ |
| 23 | SAVANNAH RESUARANT | | ✓ |
| 24 | NORTH CHEETAH | | ✓ |
| 25 | EAST AFRICA NEW GORILLA ENTRANCE | | ✓ |
| 26 | EAST EDUCATION | | ✓ |
| 27 | SOUTH EDUCATION | | ✓ |
| 28 | MEMBERSHIP | | ✓ |
| 29 | WEST PARROT FRONT ENTRANCE | SEIZED SHAFT | ✓ |
| 30 | SNOW LEAPORD HOLDING ENTRANCE | | ✓ |
| 31 | WATERWAY FILL | DO NOT INSPECT | N/A |
| 32 | 1ST HYDRANT DROP OFF LOOP NORTH | | ✓ |
| 33 | 2ND HYDRANT DROP OFF LOOP NORTH | | ✓ |
| 34 | 1ST HYDRANT DROP OFF LOOP SOUTH | | ✓ |
| 35 | PARKING LOT SECTION A ON BIKE PATH NEAR CHAMBER | | ✓ |
| 36 | PANDA PLAZA | | ✓ |

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905- 669-2950 F: 905-738-6818

DATE: _____

MAP #: _____ 51

CUSTOMER: TORONTO ZOOSTREET: MEADOWVALE ROADCITY: TORONTO

NOTE:

| |
|--|
| |
| |
| |
| |

VALVE OPENS 1 AND IS LOCATED _____ OF HYDRANT.HYDRANT TYPE _____ MODEL: M67LOCATION: #1SECONDARY VALVE FOUND: OPEN ☒ CLOSED _____ LEAKING _____ INOPERABLE _____SECONDARY VALVE BOX: OK ☒ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____SECONDARY VALVE BOX LOCATION: 3WCHECK BARREL FOR DRAINING YES ☒ NO _____ SLOW _____CHECK BARREL FOR LEAKS OK ☒ LEAKS @ _____OPERATE HYDRANT OK ☒ HARD TO OPERATE _____ INOPERABLE _____WATER IN BARREL YES _____ NO ☒ # OF INCHES _____CHECK CAP GASKETS OK ☒ REPLACE _____ NUMBER _____NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ☒LUBRICATE HYDRANT YES ☒ NO _____NOZZLE SEAL OK ☒ LEAKING _____BARREL COLOUR Y PAINT REQUIRED YES _____ NO ☒BONNET & HOSE NOZZLE CAP COLOUR Y PAINT REQUIRED YES ☒ NO _____PUMP HYDRANT IF PLUGGED YES _____ NO ☒PRESSURE TEST-STATIC PSI 57 BLACKBANDED YES _____ NO ☒FLOW CHECK 1-2 1/2" NOZZLE (NFP24) PITOT 34 EQUAL 1088 USGPMHYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 21 INCHES

PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS:

| |
|--|
| |
| |
| |

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
|----------|------|-----------------------|-------|
| | | | |
| | | | |

DATE SERVICED 18/06/20 BY: [Signature]

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905- 669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

_____VALVE OPENS L AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: AVK
LOCATION: #2

SECONDARY VALVE FOUND: OPEN ✓ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX; OK ✓ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____
CHECK BARREL FOR DRAINING YES ✓ NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK ✓ LEAKS @ _____
OPERATE HYDRANT OK ✓ HARD TO OPERATE _____ INOPERABLE _____
WATER IN BARREL YES _____ NO ✓ # OF INCHES _____
CHECK CAP GASKETS OK ✓ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ✓
LUBRICATE HYDRANT YES ✓ NO _____
NOZZLE SEAL OK ✓ LEAKING _____
BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ✓
BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ✓ NO _____
PUMP HYDRANT IF PLUGGED YES _____ NO ✓ BLACKBANDED YES _____ NO ✓
PRESSURE TEST-STATIC PSI 55
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 36 EQUAL 1119 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 32 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
|----------|------|-----------------------|-------|
| | | | |
| | | | |

DATE SERVICED 18/06/20 BY: [Signature]

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905- 669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOOSTREET: MEADOWVALE ROADCITY: TORONTONOTE: _____

VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.

HYDRANT TYPE _____ MODEL: CENTURYLOCATION: #3

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____

SECONDARY VALVE BOX; OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____

SECONDARY VALVE BOX LOCATION: _____ N/ACHECK BARREL FOR DRAINING YES ☒ NO _____ SLOW _____CHECK BARREL FOR LEAKS OK ☒ LEAKS @ _____OPERATE HYDRANT OK ☒ HARD TO OPERATE _____ INOPERABLE _____WATER IN BARREL YES _____ NO ☒ # OF INCHES _____CHECK CAP GASKETS OK ☒ REPLACE _____ NUMBER _____NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ☒LUBRICATE HYDRANT YES ☒ NO _____NOZZLE SEAL OK ☒ LEAKING _____BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ☒BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ☒ NO _____PUMP HYDRANT IF PLUGGED YES _____ NO ☒BLACKBANDED YES _____ NO ☒PRESSURE TEST-STATIC PSI _____ H2FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 24 EQUAL 914 USGPMHYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 24 INCHES

PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

QUANTITY CODE NON CONTRACTED PARTS: PRICE

DATE SERVICED 18/06/20 BY: _____

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905- 669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

_____VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: B50B
LOCATION: #4-REAR OF GORILLA

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX; OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____ NH _____
CHECK BARREL FOR DRAINING YES ☒ NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK ☒ LEAKS @ _____
HARD TO OPERATE _____
OPERATE HYDRANT OK ☒ INOPERABLE _____
WATER IN BARREL YES _____ NO ☒ # OF INCHES _____
CHECK CAP GASKETS OK ☒ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK ☒ REMOVE _____ REPLACE _____ N/A ☒
LUBRICATE HYDRANT YES ☒ NO _____
NOZZLE SEAL OK ☒ LEAKING _____
BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ☒
BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ☒ NO _____
PUMP HYDRANT IF PLUGGED YES _____ NO ☒ BLACKBANDED YES _____ NO ☒
PRESSURE TEST-STATIC PSI 44
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 82 EQUAL 87.5 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 16 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
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DATE SERVICED: 19/06/20 BY: _____

CUSTOMER SIGNATURE: _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905- 669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

_____VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: CENTURY
LOCATION: #5

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX; OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____
CHECK BARREL FOR DRAINING YES ✓ NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK ✓ LEAKS @ _____
OPERATE HYDRANT OK ✓ HARD TO OPERATE _____ INOPERABLE _____
WATER IN BARREL YES _____ NO ✓ # OF INCHES _____
CHECK CAP GASKETS OK ✓ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ✓
LUBRICATE HYDRANT YES ✓ NO _____
NOZZLE SEAL OK ✓ LEAKING _____
BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ✓
BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ✓ NO _____
PUMP HYDRANT IF PLUGGED YES _____ NO ✓ BLACKBANDED YES _____ NO ✓
PRESSURE TEST-STATIC PSI 42
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 20 EQUAL 834 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 26 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
|----------|------|-----------------------|-------|
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DATE SERVICED 19/06/20 BY: [Signature]

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

_____VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: M67
LOCATION: #6

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX; OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____
CHECK BARREL FOR DRAINING YES ✓ NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK ✓ LEAKS @ _____
OPERATE HYDRANT OK ✓ HARD TO OPERATE _____ INOPERABLE _____
WATER IN BARREL YES _____ NO ✓ # OF INCHES _____
CHECK CAP GASKETS OK ✓ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ✓
LUBRICATE HYDRANT YES ✓ NO _____
NOZZLE SEAL OK ✓ LEAKING _____
BARREL COLOUR _____ PAINT REQUIRED YES ✓ NO _____
BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ✓ NO _____
PUMP HYDRANT IF PLUGGED YES _____ NO ✓ BLACKBANDED YES _____ NO ✓
PRESSURE TEST-STATIC PSI 42
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 34 EQUAL 1088 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 19" INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
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DATE SERVICED: 19/06/20 BY: _____

CUSTOMER SIGNATURE: _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905- 669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

_____VALVE OPENS ✓ AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: AVK
LOCATION: #7

SECONDARY VALVE FOUND: OPEN ✓ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX: OK ✓ EXT REQ HIE SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____
CHECK BARREL FOR DRAINING YES ✓ NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK ✓ LEAKS @ _____
OPERATE HYDRANT OK ✓ HARD TO OPERATE _____ INOPERABLE _____
WATER IN BARREL YES _____ NO ✓ # OF INCHES _____
CHECK CAP GASKETS OK ✓ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ✓
LUBRICATE HYDRANT YES ✓ NO _____
NOZZLE SEAL OK ✓ LEAKING _____
BARREL COLOUR Y PAINT REQUIRED YES _____ NO ✓
BONNET & HOSE NOZZLE CAP COLOUR Y PAINT REQUIRED YES ✓ NO _____
PUMP HYDRANT IF PLUGGED YES _____ NO ✓ BLACKBANDED YES _____ NO ✓
PRESSURE TEST-STATIC PSI 40
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 20 EQUAL 834 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 18 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
|----------|------|-----------------------|-------|
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DATE SERVICED: 19/06/20 BY: [Signature]

CUSTOMER SIGNATURE: _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

_____VALVE OPENS L AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: M67
LOCATION: #8

SECONDARY VALVE FOUND: OPEN ☒ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX: OK ☒ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____
CHECK BARREL FOR DRAINING YES ☒ NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK ☒ LEAKS @ _____
OPERATE HYDRANT OK ☒ HARD TO OPERATE _____ INOPERABLE _____
WATER IN BARREL YES _____ NO ☒ # OF INCHES _____
CHECK CAP GASKETS OK ☒ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ☒
LUBRICATE HYDRANT YES ☒ NO _____
NOZZLE SEAL OK ☒ LEAKING _____
BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ☒
BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ☒ NO _____
PUMP HYDRANT IF PLUGGED YES _____ NO ☒ BLACKBANDED YES _____ NO ☒
PRESSURE TEST-STATIC PSI 50
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 24 EQUAL 914 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 20 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
|----------|------|-----------------------|-------|
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DATE SERVICED 12/06/20 BY: _____

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

_____VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: B50B
LOCATION: #9

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX: OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____ NL _____
CHECK BARREL FOR DRAINING YES _____ NO ✓ SLOW _____
CHECK BARREL FOR LEAKS OK ✓ LEAKS @ _____
HARD TO OPERATE _____
OPERATE HYDRANT OK ✓ INOPERABLE _____
WATER IN BARREL YES _____ NO ✓ # OF INCHES _____
CHECK CAP GASKETS OK ✓ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ✓
LUBRICATE HYDRANT YES ✓ NO _____
NOZZLE SEAL OK ✓ LEAKING _____
BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ✓
BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ✓ NO _____
PUMP HYDRANT IF PLUGGED YES ✓ NO _____
PRESSURE TEST-STATIC PSI 85 BLACKBANDED YES _____ NO ✓
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 71 EQUAL 494 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 22 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
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DATE SERVICED: 19/06/20 BY: _____

CUSTOMER SIGNATURE: _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.

HYDRANT TYPE _____ MODEL: M67LOCATION: #10

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____

SECONDARY VALVE BOX; OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____

SECONDARY VALVE BOX LOCATION: _____

CHECK BARREL FOR DRAINING YES ☒ NO ☐ SLOW _____CHECK BARREL FOR LEAKS OK ☒ HARD TO OPERATE _____ LEAKS @ _____OPERATE HYDRANT OK ☒ INOPERABLE _____WATER IN BARREL YES _____ NO ☒ # OF INCHES _____CHECK CAP GASKETS OK ☒ REPLACE _____ NUMBER _____NOZZLE CAP CHAINS OK ☐ REMOVE _____ REPLACE _____ N/A ☒LUBRICATE HYDRANT YES ☒ NO _____NOZZLE SEAL OK ☒ LEAKING _____BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ☒BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ☒ NO _____PUMP HYDRANT IF PLUGGED YES _____ NO ☒BLACKBANDED YES _____ NO ☒

PRESSURE TEST-STATIC PSI _____

FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 30 EQUAL 1022 USGPMHYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 17 INCHES

PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
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DATE SERVICED 19/06/20 BY: [Signature]

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

_____VALVE OPENS L AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: CENTURY
LOCATION: #11

SECONDARY VALVE FOUND: OPEN ☒ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX; OK ☒ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____ 3N _____
CHECK BARREL FOR DRAINING YES ☒ NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK ☒ LEAKS @ _____
HARD TO OPERATE _____
OPERATE HYDRANT OK ☒ INOPERABLE _____
WATER IN BARREL YES _____ NO ☒ # OF INCHES _____
CHECK CAP GASKETS OK ☒ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ☒
LUBRICATE HYDRANT YES ☒ NO _____
NOZZLE SEAL OK ☒ LEAKING _____
BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ☒
BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ☒ NO _____
PUMP HYDRANT IF PLUGGED YES _____ NO ☒ BLACKBANDED YES _____ NO ☒
PRESSURE TEST-STATIC PSI 50
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 22 EQUAL 875 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 22 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
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DATE SERVICED 18/06/20 BY: [Signature]

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905- 669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

_____VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: CENTURY
LOCATION: #12

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX; OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____
CHECK BARREL FOR DRAINING YES _____ NO ✓ SLOW _____
CHECK BARREL FOR LEAKS OK ✓ LEAKS @ _____
OPERATE HYDRANT OK ✓ HARD TO OPERATE _____ INOPERABLE _____
WATER IN BARREL YES _____ NO ✓ # OF INCHES _____
CHECK CAP GASKETS OK ✓ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ✓
LUBRICATE HYDRANT YES ✓ NO _____
NOZZLE SEAL OK ✓ LEAKING _____
BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ✓
BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ✓ NO _____
PUMP HYDRANT IF PLUGGED YES ✓ NO _____ BLACKBANDED YES _____ NO ✓
PRESSURE TEST-STATIC PSI 60
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 38 EQUAL 1150 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 20 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
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DATE SERVICED: 19/06/20 BY: [Signature]

CUSTOMER SIGNATURE: _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905- 669-2950 F: 905-738-6818

DATE: _____

MAP #: _____ 51

CUSTOMER: TORONTO ZOOSTREET: MEADOWVALE ROADCITY: TORONTONOTE:

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VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.

HYDRANT TYPE _____ MODEL: M67LOCATION: #13

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____

SECONDARY VALVE BOX; OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____

SECONDARY VALVE BOX LOCATION: _____

CHECK BARREL FOR DRAINING YES ✓ NO _____ SLOW _____

CHECK BARREL FOR LEAKS OK _____ LEAKS @ _____

OPERATE HYDRANT OK ✓ HARD TO OPERATE _____ INOPERABLE _____

WATER IN BARREL YES _____ NO ✓ # OF INCHES _____

CHECK CAP GASKETS OK ✓ REPLACE _____ NUMBER _____

NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ✓

LUBRICATE HYDRANT YES ✓ NO _____

NOZZLE SEAL OK ✓ LEAKING _____

BARREL COLOUR Y PAINT REQUIRED YES _____ NO ✓

BONNET & HOSE NOZZLE CAP COLOUR Y PAINT REQUIRED YES ✓ NO _____

PUMP HYDRANT IF PLUGGED YES _____ NO ✓ BLACKBANDED YES _____ NO ✓

PRESSURE TEST-STATIC PSI 68

FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 30 EQUAL 1055 USGPM

HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 18 INCHES

PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS:

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| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
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DATE SERVICED 19/06/20 BY: [Signature]

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____

MAP #: _____ 51

CUSTOMER: TORONTO ZOOSTREET: MEADOWVALE ROADCITY: TORONTONOTE:

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VALVE OPENS L AND IS LOCATED _____ OF HYDRANT.HYDRANT TYPE _____ MODEL: M67LOCATION: #14SECONDARY VALVE FOUND: OPEN ✓ CLOSED _____ LEAKING _____ INOPERABLE _____

SECONDARY VALVE BOX; OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____

SECONDARY VALVE BOX LOCATION: _____

CHECK BARREL FOR DRAINING YES ✓ NO _____ SLOW _____CHECK BARREL FOR LEAKS OK ✓ LEAKS @ _____OPERATE HYDRANT OK ✓ HARD TO OPERATE _____ INOPERABLE _____WATER IN BARREL YES _____ NO ✓ # OF INCHES _____CHECK CAP GASKETS OK ✓ REPLACE _____ NUMBER _____NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ✓LUBRICATE HYDRANT YES ✓ NO _____NOZZLE SEAL OK ✓ LEAKING _____BARREL COLOUR Y PAINT REQUIRED YES _____ NO ✓BONNET & HOSE NOZZLE CAP COLOUR Y PAINT REQUIRED YES ✓ NO _____PUMP HYDRANT IF PLUGGED YES _____ NO ✓BLACKBANDED YES _____ NO ✓PRESSURE TEST-STATIC PSI 58FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 28 EQUAL 987 USGPMHYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 30 INCHES

PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS:

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 DATE SERVICED 19/06/20 BY: [Signature]

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905- 669-2950 F: 905-738-6818

DATE: _____

MAP #: _____ 51

CUSTOMER: TORONTO ZOOSTREET: MEADOWVALE ROADCITY: TORONTONOTE:

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VALVE OPENS L AND IS LOCATED _____ OF HYDRANT.HYDRANT TYPE _____ MODEL: M67LOCATION: #15SECONDARY VALVE FOUND: OPEN ☒ CLOSED _____ LEAKING _____ INOPERABLE _____SECONDARY VALVE BOX; OK ☒ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____SECONDARY VALVE BOX LOCATION: 2 WCHECK BARREL FOR DRAINING YES _____ NO ☒ SLOW _____CHECK BARREL FOR LEAKS OK ☒ LEAKS @ _____OPERATE HYDRANT OK ☒ HARD TO OPERATE _____ INOPERABLE _____WATER IN BARREL YES ☒ NO _____ # OF INCHES 70 nozzelsCHECK CAP GASKETS OK ☒ REPLACE _____ NUMBER _____NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ☒LUBRICATE HYDRANT YES ☒ NO _____NOZZLE SEAL OK ☒ LEAKING _____BARREL COLOUR Y PAINT REQUIRED YES _____ NO ☒BONNET & HOSE NOZZLE CAP COLOUR Y PAINT REQUIRED YES ☒ NO _____PUMP HYDRANT IF PLUGGED YES ☒ NO _____PRESSURE TEST-STATIC PSI 55 BLACKBANDED YES _____ NO ☒FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 30 EQUAL 1022 USGPMHYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 22 INCHES

PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS:

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| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
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DATE SERVICED 19/06/20 BY: [Signature]

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

_____VALVE OPENS L AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: M67
LOCATION: #16

SECONDARY VALVE FOUND: OPEN ☒ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX; OK ☒ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: 3W
CHECK BARREL FOR DRAINING YES _____ NO ☒ SLOW _____
CHECK BARREL FOR LEAKS OK ☒ LEAKS @ _____
OPERATE HYDRANT OK ☒ HARD TO OPERATE _____ INOPERABLE _____
WATER IN BARREL YES _____ NO ☒ # OF INCHES _____
CHECK CAP GASKETS OK ☒ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ☒
LUBRICATE HYDRANT YES ☒ NO _____
NOZZLE SEAL OK ☒ LEAKING _____
BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ☒
BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ☒ NO _____
PUMP HYDRANT IF PLUGGED YES ☒ NO _____ BLACKBANDED YES _____ NO ☒
PRESSURE TEST-STATIC PSI 58
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 36 EQUAL 1119 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 22 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
|----------|------|-----------------------|-------|
| | | | |
| | | | |

DATE SERVICED 17/06/20 BY: _____

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

_____VALVE OPENS L AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: M67
LOCATION: #17

SECONDARY VALVE FOUND: OPEN V CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX; OK V EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: 314
CHECK BARREL FOR DRAINING YES V NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK V LEAKS @ _____
HARD TO OPERATE _____
OPERATE HYDRANT OK V INOPERABLE _____
WATER IN BARREL YES _____ NO V # OF INCHES _____
CHECK CAP GASKETS OK V REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A V
LUBRICATE HYDRANT YES V NO _____
NOZZLE SEAL OK V LEAKING _____
BARREL COLOUR Y PAINT REQUIRED YES V NO _____
BONNET & HOSE NOZZLE CAP COLOUR Y PAINT REQUIRED YES V NO _____
PUMP HYDRANT IF PLUGGED YES _____ NO V BLACKBANDED YES _____ NO V
PRESSURE TEST-STATIC PSI 58
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 32 EQUAL 10.55 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 26 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
|----------|------|-----------------------|-------|
| | | | |
| | | | |

DATE SERVICED 19/09/20 BY: _____

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.

HYDRANT TYPE _____ MODEL: CTLOCATION: #18

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX; OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____
CHECK BARREL FOR DRAINING YES _____ NO ☒ SLOW _____
CHECK BARREL FOR LEAKS OK ☒ LEAKS @ _____
HARD TO OPERATE _____
OPERATE HYDRANT OK ☒ INOPERABLE _____
WATER IN BARREL YES _____ NO ☒ # OF INCHES _____
CHECK CAP GASKETS OK ☒ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ☒
LUBRICATE HYDRANT YES ☒ NO _____
NOZZLE SEAL OK ☒ LEAKING _____
BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ☒
BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ☒ NO _____
PUMP HYDRANT IF PLUGGED YES ☒ NO _____ BLACKBANDED YES _____ NO ☒
PRESSURE TEST-STATIC PSI 48
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 12 EQUAL 649 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 37 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
|----------|------|-----------------------|-------|
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| | | | |

DATE SERVICED: 18/06/20 BY: _____

CUSTOMER SIGNATURE: _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____

MAP #: _____ 51

CUSTOMER: TORONTO ZOOSTREET: MEADOWVALE ROADCITY: TORONTONOTE:

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|--|
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| |
| |

VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.

HYDRANT TYPE _____ MODEL: CENTURYLOCATION: #19

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____

SECONDARY VALVE BOX; OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____

SECONDARY VALVE BOX LOCATION: _____

CHECK BARREL FOR DRAINING YES ☒ NO ☐ SLOW _____CHECK BARREL FOR LEAKS OK ☒ LEAKS @ _____OPERATE HYDRANT OK ☒ HARD TO OPERATE _____ INOPERABLE _____WATER IN BARREL YES _____ NO ☒ # OF INCHES _____CHECK CAP GASKETS OK ☒ REPLACE _____ NUMBER _____NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ☒LUBRICATE HYDRANT YES ☒ NO _____NOZZLE SEAL OK ☒ LEAKING _____BARREL COLOUR Y PAINT REQUIRED YES _____ NO ☒BONNET & HOSE NOZZLE CAP COLOUR Y PAINT REQUIRED YES ☒ NO _____PUMP HYDRANT IF PLUGGED YES _____ NO ☒BLACKBANDED YES _____ NO ☒PRESSURE TEST-STATIC PSI 46FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 28 EQUAL 987 USGPMHYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 21 INCHES

PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS:

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CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.

HYDRANT TYPE _____ MODEL: AVKLOCATION: #20

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX; OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____
CHECK BARREL FOR DRAINING YES ✓ NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK ✓ LEAKS @ _____
OPERATE HYDRANT OK ✓ HARD TO OPERATE _____ INOPERABLE _____
WATER IN BARREL YES _____ NO ✓ # OF INCHES _____
CHECK CAP GASKETS OK ✓ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ✓
LUBRICATE HYDRANT YES ✓ NO _____
NOZZLE SEAL OK ✓ LEAKING _____
BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ✓
BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ✓ NO _____
PUMP HYDRANT IF PLUGGED YES _____ NO ✓ BLACKBANDED YES _____ NO ✓
PRESSURE TEST-STATIC PSI 40
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 20 EQUAL 834 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 19 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
|----------|------|-----------------------|-------|
| | | | |
| | | | |

DATE SERVICED 18/06/20 BY: [Signature]

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.

HYDRANT TYPE _____ MODEL: M67LOCATION: #21

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____

SECONDARY VALVE BOX; OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____

SECONDARY VALVE BOX LOCATION: _____

CHECK BARREL FOR DRAINING YES ☒ NO _____ SLOW _____CHECK BARREL FOR LEAKS OK ☒ LEAKS @ _____OPERATE HYDRANT OK ☒ HARD TO OPERATE _____ INOPERABLE _____WATER IN BARREL YES _____ NO ☒ # OF INCHES _____CHECK CAP GASKETS OK ☒ REPLACE _____ NUMBER _____NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ☒LUBRICATE HYDRANT YES ☒ NO _____NOZZLE SEAL OK ☒ LEAKING _____BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ☒BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ☒ NO _____PUMP HYDRANT IF PLUGGED YES _____ NO ☒BLACKBANDED YES _____ NO ☒

PRESSURE TEST-STATIC PSI _____

FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 42 EQUAL 698 USGPMHYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 25 INCHES

PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

QUANTITY CODE NON CONTRACTED PARTS: PRICE

DATE SERVICED 18/06/20 BY: _____

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.

HYDRANT TYPE _____ MODEL: M67LOCATION: #22

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____

SECONDARY VALVE BOX: OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____

SECONDARY VALVE BOX LOCATION: _____ N/ACHECK BARREL FOR DRAINING YES ✓ NO _____ SLOW _____CHECK BARREL FOR LEAKS OK ✓ LEAKS @ _____OPERATE HYDRANT OK ✓ HARD TO OPERATE _____ INOPERABLE _____WATER IN BARREL YES _____ NO ✓ # OF INCHES _____CHECK CAP GASKETS OK ✓ REPLACE _____ NUMBER _____NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ✓LUBRICATE HYDRANT YES ✓ NO _____NOZZLE SEAL OK ✓ LEAKING _____BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ✓BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ✓ NO ✓PUMP HYDRANT IF PLUGGED YES _____ NO ✓BLACKBANDED YES _____ NO ✓PRESSURE TEST-STATIC PSI 85FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 10 EQUAL 590 USGPMHYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 16 INCHES

PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

QUANTITY CODE NON CONTRACTED PARTS: PRICE

DATE SERVICED 18/06/20 BY: [Signature]

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905- 669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.

HYDRANT TYPE _____ MODEL: AVKLOCATION: #23

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX: OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____
CHECK BARREL FOR DRAINING YES ☒ NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK ☒ LEAKS @ _____
HARD TO OPERATE _____
OPERATE HYDRANT OK ☒ INOPERABLE _____
WATER IN BARREL YES _____ NO ☒ # OF INCHES _____
CHECK CAP GASKETS OK ☒ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ☒
LUBRICATE HYDRANT YES ☒ NO _____
NOZZLE SEAL OK ☒ LEAKING _____
BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ☒
BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ☒ NO _____
PUMP HYDRANT IF PLUGGED YES _____ NO ☒ BLACKBANDED YES _____ NO ☒
PRESSURE TEST-STATIC PSI _____
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 42 EQUAL 722 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 10 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
|----------|------|-----------------------|-------|
| | | | |
| | | | |

DATE SERVICED 18/06/20 BY: _____

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.

HYDRANT TYPE _____ MODEL: AVKLOCATION: #24

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____

SECONDARY VALVE BOX: OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____

SECONDARY VALVE BOX LOCATION: _____

CHECK BARREL FOR DRAINING YES _____ NO _____ SLOW _____

CHECK BARREL FOR LEAKS OK _____ LEAKS @ _____

OPERATE HYDRANT OK _____ INOPERABLE _____

WATER IN BARREL YES _____ NO _____ # OF INCHES _____

CHECK CAP GASKETS OK _____ REPLACE _____ NUMBER _____

NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A

LUBRICATE HYDRANT YES _____ NO _____

NOZZLE SEAL OK _____ LEAKING _____

BARREL COLOUR _____ PAINT REQUIRED YES _____ NO _____

BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES _____ NO _____

PUMP HYDRANT IF PLUGGED YES _____ NO _____

BLACKBANDED YES _____ NO _____

PRESSURE TEST-STATIC PSI _____

FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT _____ EQUAL _____ USGPM _____

HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL _____ INCHES _____

PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

DATE SERVICED 18/06/20 BY: _____

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

_____VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: CENTURY
LOCATION: #25

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX; OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____
CHECK BARREL FOR DRAINING YES ✓ NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK ✓ LEAKS @ _____
OPERATE HYDRANT OK ✓ HARD TO OPERATE _____ INOPERABLE _____
WATER IN BARREL YES _____ NO ✓ # OF INCHES _____
CHECK CAP GASKETS OK ✓ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ✓
LUBRICATE HYDRANT YES ✓ NO _____
NOZZLE SEAL OK ✓ LEAKING _____
BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ✓
BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ✓ NO _____
PUMP HYDRANT IF PLUGGED YES _____ NO ✓
PRESSURE TEST-STATIC PSI 44 BLACKBANDED YES _____ NO ✓
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 21 EQUAL 9/4 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 12 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES ✓ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
|----------|------|-----------------------|-------|
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DATE SERVICED: 19/06/20 BY: _____

CUSTOMER SIGNATURE: _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE:

| |
|--|
| PLEASE GO TO OFFICE OFF FINCH AVE AND ASK FOR KYLE REKKER. PLEASE START AT 6AM. 416-392-5989 |
| MUST CALL 3 DAYS PRIOR TO SCH DATE OF INSPS. |
| |
| |

VALVE OPENS ✓ AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: M67
LOCATION: #26

| | | | | | | | | |
|---|-------|----------|---------|-----------|-------------|----------------|------------|--------------|
| SECONDARY VALVE FOUND: | OPEN | <u>✓</u> | CLOSED | _____ | LEAKING | _____ | INOPERABLE | _____ |
| SECONDARY VALVE BOX; | OK | <u>✓</u> | EXT REQ | _____ | SIZE | _____ | GRASS | _____ |
| SECONDARY VALVE BOX LOCATION: | | | | | | | ASPHALT | _____ |
| CHECK BARREL FOR DRAINING | | | YES | <u>✓</u> | NO | _____ | SLOW | _____ |
| CHECK BARREL FOR LEAKS | | | OK | <u>✓</u> | LEAKS @ | _____ | | |
| | | | HARD TO | <u>✓</u> | | | | |
| | | | OPERATE | _____ | | | INOPERABLE | _____ |
| OPERATE HYDRANT | OK | <u>✓</u> | | | | | | |
| WATER IN BARREL | YES | <u>✓</u> | NO | _____ | # OF INCHES | _____ | | |
| CHECK CAP GASKETS | OK | <u>✓</u> | REPLACE | <u>✓</u> | | NUMBER | _____ | |
| NOZZLE CAP CHAINS | OK | <u>✓</u> | REMOVE | _____ | | REPLACE | _____ | N/A <u>✓</u> |
| LUBRICATE HYDRANT | YES | <u>✓</u> | NO | _____ | | | | |
| NOZZLE SEAL | OK | <u>✓</u> | LEAKING | _____ | | | | |
| BARREL COLOUR | | | | <u>✓</u> | | PAINT REQUIRED | YES | NO <u>✓</u> |
| BONNET & HOSE NOZZLE CAP COLOUR | | | | <u>✓</u> | | PAINT REQUIRED | YES | NO <u>✓</u> |
| PUMP HYDRANT IF PLUGGED | YES | _____ | NO | <u>✓</u> | | BLACKBANDED | YES | NO <u>✓</u> |
| PRESSURE TEST-STATIC | PSI | | | <u>58</u> | | | | |
| FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) | PITOT | | | <u>38</u> | EQUAL | <u>1150</u> | | USGPM |
| HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL | | | | <u>20</u> | | INCHES | | |
| PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: | | | | | YES | | NO | _____ |

COMMENTS:

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
|----------|------|-----------------------|-------|
| | | | |
| | | | |

DATE SERVICED 18/06/20 BY: [Signature]

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905- 669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTO

NOTE: PLEASE GO TO OFFICE OFF FINCH AVE AND ASK FOR KYLE REKKER. PLEASE START AT 6AM. 416-392-5989
MUST CALL 3 DAYS PRIOR TO SCH DATE OF INSPS.

VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: M67
LOCATION: #27

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX; OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: NL
CHECK BARREL FOR DRAINING YES ✓ NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK ✓ LEAKS @ _____
OPERATE HYDRANT OK ✓ HARD TO OPERATE _____ INOPERABLE _____
WATER IN BARREL YES _____ NO ✓ # OF INCHES _____
CHECK CAP GASKETS OK ✓ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ✓
LUBRICATE HYDRANT YES ✓ NO _____
NOZZLE SEAL OK ✓ LEAKING _____
BARREL COLOUR Y PAINT REQUIRED YES _____ NO ✓
BONNET & HOSE NOZZLE CAP COLOUR Y PAINT REQUIRED YES ✓ NO _____
PUMP HYDRANT IF PLUGGED YES _____ NO ✓ BLACKBANDED YES _____ NO ✓
PRESSURE TEST-STATIC PSI 58
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 36 EQUAL 1119 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 21 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS:

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
|----------|------|-----------------------|-------|
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DATE SERVICED 12/06/20 BY: _____

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905- 669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.

HYDRANT TYPE _____ MODEL: M67LOCATION: #28 -MEMBERSHIP OFFICE

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX; OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____
CHECK BARREL FOR DRAINING YES ☒ NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK ☒ HARD TO OPERATE _____ LEAKS @ _____
OPERATE HYDRANT OK ☒ INOPERABLE _____
WATER IN BARREL YES _____ NO ☒ # OF INCHES _____
CHECK CAP GASKETS OK ☒ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ☒
LUBRICATE HYDRANT YES ☒ NO _____
NOZZLE SEAL OK ☒ LEAKING _____
BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ☒
BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ☒ NO _____
PUMP HYDRANT IF PLUGGED YES _____ NO ☒ BLACKBANDED YES _____ NO ☒
PRESSURE TEST-STATIC PSI _____
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT _____ EQUAL 1150 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 38 18 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
|----------|------|-----------------------|-------|
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| | | | |

DATE SERVICED 12/06/20 BY: _____

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

_____VALVE OPENS ✓ AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: M67
LOCATION: #29SECONDARY VALVE FOUND: OPEN ✓ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX: OK ✓ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____ 4 NIE _____
CHECK BARREL FOR DRAINING YES _____ NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK _____ LEAKS @ _____
OPERATE HYDRANT OK _____ HARD TO OPERATE _____ INOPERABLE INOPERABLE
WATER IN BARREL YES _____ NO _____ # OF INCHES _____
CHECK CAP GASKETS OK _____ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A _____
LUBRICATE HYDRANT YES _____ NO _____
NOZZLE SEAL OK _____ LEAKING _____
BARREL COLOUR _____ PAINT REQUIRED YES _____ NO _____
BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES _____ NO _____

PUMP HYDRANT IF PLUGGED YES _____ NO _____ BLACKBANDED YES _____ NO _____

PRESSURE TEST-STATIC PSI _____
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT _____ EQUAL _____ USGPM _____
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL _____ INCHES _____
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____COMMENTS: FH is seized
Bugged OOS

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
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| | | | |

DATE SERVICED 18/06/20 BY: [Signature]

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905- 669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

_____VALVE OPENS L AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: CENTURY
LOCATION: #32-MAIN ENTRANCE NORTHEAST

SECONDARY VALVE FOUND: OPEN ☒ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX: OK ☒ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____
CHECK BARREL FOR DRAINING YES ☒ NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK ☒ HARD TO OPERATE _____ LEAKS @ _____
OPERATE HYDRANT OK ☒ INOPERABLE _____
WATER IN BARREL YES _____ NO ☒ # OF INCHES _____
CHECK CAP GASKETS OK ☒ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK ☒ REMOVE _____ REPLACE _____ N/A ☒
LUBRICATE HYDRANT YES ☒ NO _____
NOZZLE SEAL OK ☒ LEAKING _____
BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ☒
BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ☒ NO _____
PUMP HYDRANT IF PLUGGED YES _____ NO ☒ BLACKBANDED YES _____ NO ☒
PRESSURE TEST-STATIC PSI _____ 54
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT _____ 38 EQUAL _____ 1119 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL _____ 20 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
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DATE SERVICED: 12/06/20 BY: _____

CUSTOMER SIGNATURE: _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905- 669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

_____VALVE OPENS L AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: CENTURY
LOCATION: #33-MAIN ENTRANCE LOOP NORTHWEST

SECONDARY VALVE FOUND: OPEN ☒ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX: OK ☒ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____
CHECK BARREL FOR DRAINING YES ☒ NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK ☒ LEAKS @ _____
OPERATE HYDRANT OK ☒ HARD TO OPERATE _____ INOPERABLE _____
WATER IN BARREL YES _____ NO ☒ # OF INCHES _____
CHECK CAP GASKETS OK ☒ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK ☒ REMOVE _____ REPLACE _____ N/A _____
LUBRICATE HYDRANT YES ☒ NO _____
NOZZLE SEAL OK ☒ LEAKING _____
BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ☒
BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ☒ NO _____
PUMP HYDRANT IF PLUGGED YES _____ NO ☒ BLACKBANDED YES _____ NO ☒
PRESSURE TEST-STATIC PSI 55
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 36 EQUAL 1119 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 21 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
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DATE SERVICED 18/06/20 BY: _____

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.

HYDRANT TYPE _____ MODEL: CENTURYLOCATION: #34-MAIN ENTRANCE LOOP SOUTHEAST SIDE

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX; OK _____ EXT REQ _____ SIZE NK GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____
CHECK BARREL FOR DRAINING YES ✓ NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK _____ LEAKS @ _____
OPERATE HYDRANT OK ✓ HARD TO OPERATE _____ INOPERABLE _____
WATER IN BARREL YES _____ NO ✓ # OF INCHES _____
CHECK CAP GASKETS OK ✓ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK ✓ REMOVE _____ REPLACE _____ N/A ✓
LUBRICATE HYDRANT YES ✓ NO _____
NOZZLE SEAL OK ✓ LEAKING _____
BARREL COLOUR Y PAINT REQUIRED YES _____ NO ✓
BONNET & HOSE NOZZLE CAP COLOUR Y PAINT REQUIRED YES ✓ NO _____
PUMP HYDRANT IF PLUGGED YES _____ NO ✓ BLACKBANDED YES _____ NO ✓
PRESSURE TEST-STATIC PSI 55
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 30 EQUAL 1022 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 20 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
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DATE SERVICED 18/06/20 BY: [Signature]

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905- 669-2950 F: 905-738-6818

DATE: _____

MAP #: _____ 51

CUSTOMER: TORONTO ZOOSTREET: MEADOWVALE ROADCITY: TORONTONOTE: _____

VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.

HYDRANT TYPE _____ MODEL: CENTURYLOCATION: #35- SOUTHEAST CORNER LOT A

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____

SECONDARY VALVE BOX: OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____

SECONDARY VALVE BOX LOCATION: _____ N/LCHECK BARREL FOR DRAINING YES ☒ NO _____ SLOW _____CHECK BARREL FOR LEAKS OK ☒ LEAKS @ _____OPERATE HYDRANT OK ☒ HARD TO OPERATE _____ INOPERABLE _____WATER IN BARREL YES _____ NO ☒ # OF INCHES _____CHECK CAP GASKETS OK ☒ REPLACE _____ NUMBER _____NOZZLE CAP CHAINS OK ☒ REMOVE _____ REPLACE _____ N/A _____LUBRICATE HYDRANT YES ☒ NO _____NOZZLE SEAL OK ☒ LEAKING _____BARREL COLOUR Y PAINT REQUIRED YES _____ NO ☒BONNET & HOSE NOZZLE CAP COLOUR Y PAINT REQUIRED YES ☒ NO _____PUMP HYDRANT IF PLUGGED YES _____ NO ☒BLACKBANDED YES _____ NO ☒PRESSURE TEST-STATIC PSI 57FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 38 EQUAL 1150 USGPMHYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 20 INCHES

PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
|----------|------|-----------------------|-------|
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DATE SERVICED 18/06/20 BY: [Signature]

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905- 669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER TORONTO ZOO

STREET: MEADOWVALE ROAD

CITY: TORONTO

NOTE: _____

_____VALVE OPENS L AND IS LOCATED _____ OF HYDRANT.

HYDRANT TYPE _____ MODEL: AVK

LOCATION: #36-PANDA

SECONDARY VALVE FOUND: OPEN ☒ CLOSED _____ LEAKING _____ INOPERABLE _____SECONDARY VALVE BOX: OK ☒ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____

SECONDARY VALVE BOX LOCATION: _____

CHECK BARREL FOR DRAINING YES ☒ NO _____ SLOW _____CHECK BARREL FOR LEAKS OK ☒ LEAKS @ _____OPERATE HYDRANT OK ☒ HARD TO OPERATE _____ INOPERABLE _____WATER IN BARREL YES _____ NO ☒ # OF INCHES _____CHECK CAP GASKETS OK ☒ REPLACE _____ NUMBER _____NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ☒LUBRICATE HYDRANT YES ☒ NO _____NOZZLE SEAL OK ☒ LEAKING _____BARREL COLOUR _____ PAINT REQUIRED YES _____ NO ☒BONNET & HOSE NOZZLE CAP COLOUR _____ PAINT REQUIRED YES ☒ NO ☒PUMP HYDRANT IF PLUGGED YES _____ NO ☒

PRESSURE TEST-STATIC PSI _____

FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 50 30 EQUAL 1022 USGPMHYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 27 INCHES

PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
|----------|------|-----------------------|-------|
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DATE SERVICED 19/06/20 BY: _____

CUSTOMER SIGNATURE _____

CANADA HYDRANT SERVICE INC.

ANNUAL PREVENTATIVE MAINTENANCE REPORT

171 MARYCROFT AVENUE UNIT 3A WOODBRIDGE, ON. L4L 5Y3 T: 905-669-2950 F: 905-738-6818

DATE: _____ MAP #: _____ 51

CUSTOMER: TORONTO ZOO
STREET: MEADOWVALE ROAD
CITY: TORONTONOTE: _____

_____VALVE OPENS _____ AND IS LOCATED _____ OF HYDRANT.
HYDRANT TYPE _____ MODEL: CENTURY
LOCATION: #37- SNOW LEOPARD

SECONDARY VALVE FOUND: OPEN _____ CLOSED _____ LEAKING _____ INOPERABLE _____
SECONDARY VALVE BOX; OK _____ EXT REQ _____ SIZE _____ GRASS _____ ASPHALT _____
SECONDARY VALVE BOX LOCATION: _____
CHECK BARREL FOR DRAINING YES ✓ NO _____ SLOW _____
CHECK BARREL FOR LEAKS OK _____ LEAKS @ _____
HARD TO OPERATE _____ INOPERABLE _____
OPERATE HYDRANT OK ✓
WATER IN BARREL YES _____ NO ✓ # OF INCHES _____
CHECK CAP GASKETS OK ✓ REPLACE _____ NUMBER _____
NOZZLE CAP CHAINS OK _____ REMOVE _____ REPLACE _____ N/A ✓
LUBRICATE HYDRANT YES ✓ NO _____
NOZZLE SEAL OK ✓ LEAKING _____
BARREL COLOUR Y 175 PAINT REQUIRED YES _____ NO ✓
BONNET & HOSE NOZZLE CAP COLOUR 28 Y PAINT REQUIRED YES ✓ NO _____
PUMP HYDRANT IF PLUGGED YES _____ NO ✓ BLACKBANDED YES _____ NO ✓
PRESSURE TEST-STATIC PSI 45
FLOW CHECK 1-2 1/2" NOZZLE (NFPA24) PITOT 28 EQUAL 987 USGPM
HYDRANT HEIGHT FROM CENTER HOSE NOZZLE CAP TO GRADE LEVEL 26 INCHES
PREVENTATIVE MAINTENANCE OVERHAUL (PMO) REQUIRED: YES _____ NO _____

COMMENTS: _____

| QUANTITY | CODE | NON CONTRACTED PARTS: | PRICE |
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DATE SERVICED 19/06/20 BY: _____

CUSTOMER SIGNATURE _____

purlins that support the glazing bars have been determined adequate for the increased loads and do not require changing.

The second step in the Code analysis is:

- determine if the changes that were made to the Ontario Building Code related to snow piling and drifting design loading considerations adversely affect design conditions by increasing the design load.
- Calculate any increased loads that new glazing would impose on the structure and determine if the existing structure is capable of taking these loads

To accomplish this, Blackwell Bowick Engineering analysed the capacity of the existing steel structures assuming increased dead loads of 4 psf, (single glazed systems based on new glazing bars and laminated glass) and of 7 psf, (double glazed insulated glass units or inflated plastic systems) and taking current OBC snow loading requirements into account.

5.2. Review of OBC loading and Structural Considerations Blackwell Bowick Engineers

5.2.1 Structural Considerations

The proposed replacement glazing systems are each heavier than the existing glazing. As a result, it was necessary to check the existing structure to ensure that it has the structural capacity to accept a heavier glazing system. The two upgraded glazing systems have been estimated to have a weight of 4 psf for the single glazed system and 7 psf for the double glazed system. The original glazing system weight is estimated to be 2.5 psf.

Our approach to this investigation involved 2 components:

1. A comparison of the current snow load with the original design snow load.
2. A check of selected members of the existing structure to determine whether they were able to support additional load.

The structures of the buildings being investigated comprise conventional steel structure as well as structures which incorporate hyperbolic paraboloid pipe grids. We have carried out our investigation on two representative buildings, the Australasia Pavilion (conventional) and the Africa Pavilion (hyperbolic paraboloid).

Since we have copies of the existing structural drawings, information about the existing structure was available to us for use in carrying out these investigations. The results follow.

Snow Load Discussion

Notes on the roof framing plans for both buildings indicate that the glazed areas have been designed for a horizontally projected snow load of 20psf. On both the Africa Pavilion and the Australasia Pavilion, snow build-up of 40 psf has been indicated in the valleys.

Using the current building code, the applicable roof snow load on a flat roof would be 28 psf. This snow load is then applied to the roof in the following manner:

1. For areas where the snow can slide completely off the roof, a slope factor can be applied which brings the snow load to 19.5 psf, which is marginally less than the original design load.
2. For areas where the sloped glazing surfaces meet in a valley, the code gives three scenarios which must be checked. The first scenario distributes the snow uniformly over the roof. The second scenario piles additional snow in the bottom half of the roof surfaces. The third scenario piles additional snow in the bottom quarter of the roof surfaces. In all three cases, the total snow applied to the roofs is less than the total snow for which the roofs were originally designed.

Based on the above discussion, we find that the current snow loads are generally about the same or less than the original design snow loads.

5.2.2 Selected Member Check Discussion

.1 Australasia Pavilion

Since the structure is conventional, it was possible to select a number of members to check. We selected 2 purlin members, one with snow build-up and one without, and 3 main beams, one at the heavy end of purlins with snow build-up, one at the light end and one supporting purlins without snow build-up.

Our calculations indicate that the original design of these structural members was based on stiffness, since they all have ample strength capacity. Generally, upgrading to a single glazing system increases the overall total load by about 3%. Upgrading to a double glazed system increases the overall total load by about 13%. While this increased load increases the deflections proportionately, our calculations indicate the total load deflection for the members checked was always within a deflection limit of $L/360$, our normal deflection criterion for a glazed surface. Further, the added dead load deflection will be built into the structure as the glazing is added. After installation, the only relative movement which may occur in the structure will be due to snow loading which, as discussed above, has not changed significantly since the original design.

As a result of the above, it is our opinion that the conventional structures are capable of supporting either of the upgraded glazing options.

.2 Africa Pavilion

While the glazed structure is conventionally framed, edge members also support the hyperbolic paraboloid pipe grids, so we elected to model this structure using a finite element analysis program ETABS. We selected a representative portion of the roof to model, in total representing about one quarter of the entire roof.

Again, our calculations indicate that the original design of these structures were based on stiffness, as they all have ample strength capacity. Also as before, it was found that the deflections for the two upgraded glazing options fell within an overall deflection limit of L/360.

Based on these results, and also referring to the discussion above for the Australasia Pavilion, it is our opinion that the structures which incorporate hyperbolic paraboloid are capable of supporting either of the upgraded glazing options.

5.2.3 STRUCTURAL SUMMARY

It is our opinion that our review of the original and current snow loads, as well as our sampling analysis of the existing structures has shown that both structure types are capable of supporting either of the upgraded glazing options.

5.2.4 CONCLUSION

Vision Engineering has determined that the glazing bars are inadequate, but the purlins are structurally capable of increased loads.

Simply put, this would mean replacement of the glass and glazing bars on the existing purlins and structure. The optimum solution will accomplish this at the lowest cost without adversely affecting the levels of natural light in the buildings.

Our analysis has reviewed replacing the existing glazing system with glazing bars on the same 2'-0" spacing with 24"x +/-60" laminated glass or film reinforced glass vs. eliminating every other glazing bar and glazing with 48"x +/- 60" glass sizes. The latter is both less expensive and has a better impact on the building natural light levels.