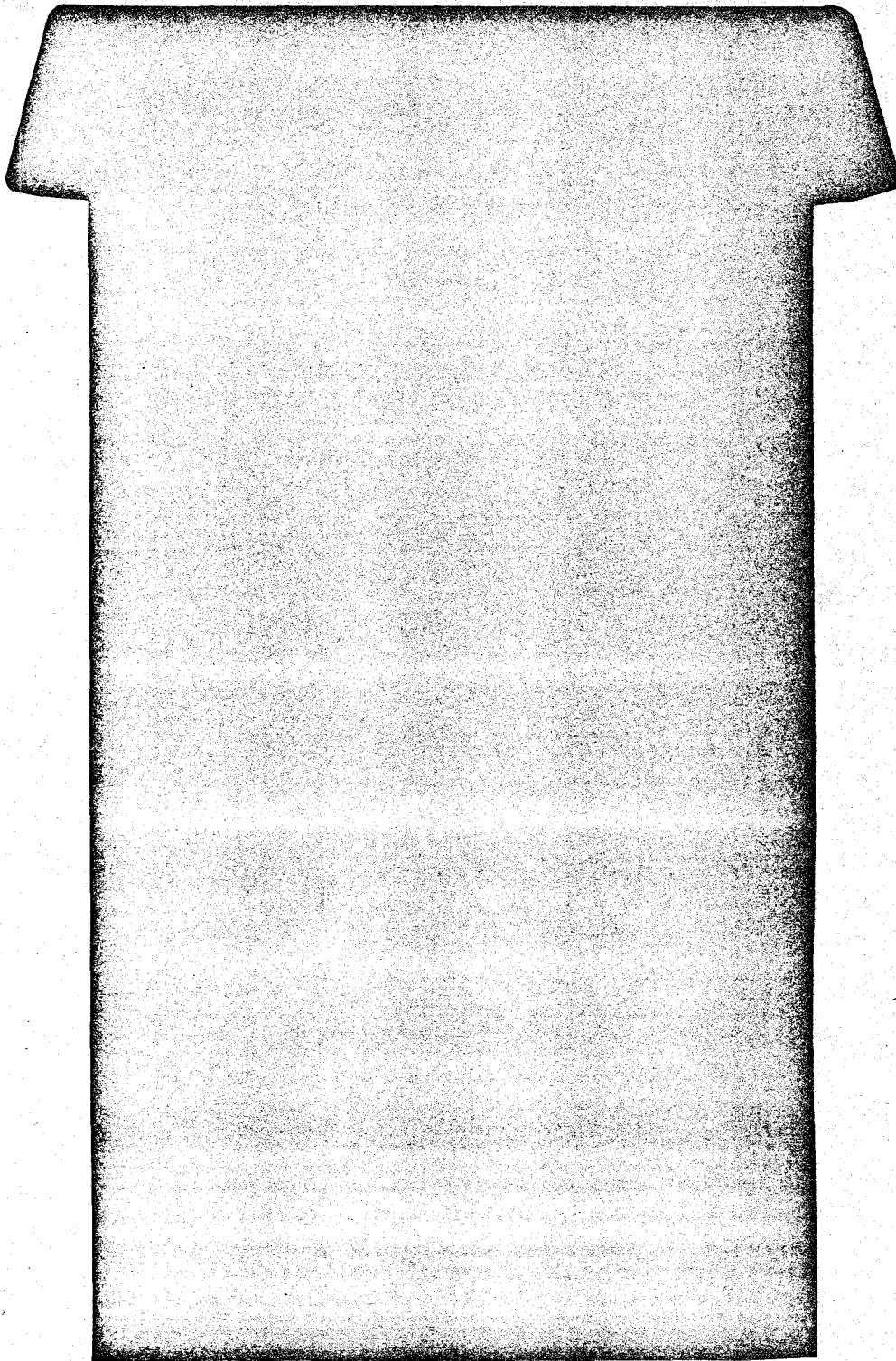


24.10.1973

PROPOSED  
STANDARD  
LITTER BIN

(25)

Report on  
Prototype



The Council  
of the City  
of Sydney

Clarke Pty  
Gazzard Ltd  
Architects

2nd Floor  
MLC Building  
Victoria Cross  
North Sydney  
NSW 2060

A division of the  
Urban Systems  
Corporation

Also at  
Melbourne  
Perth  
Brisbane &  
Southport

Telephone 929 0855  
Cables  
Urbsearch Sydney

24th October, 1973



The Town Clerk  
The Council of the City of Sydney  
Town Hall  
George Street  
SYDNEY N.S.W. 2000

Attention Mr. Leon Carter, Deputy Town Clerk

Dear Sir,

re:        Action Plan 27 - 1973  
          Street Furniture and Council Signs-Litter Bins

Further to our recommendations that three working prototype litter bins should be installed in a variety of city sites for evaluation before the final design is determined, we submit herewith a report on our investigations, our detail design drawings and the quotation from a manufacturer.

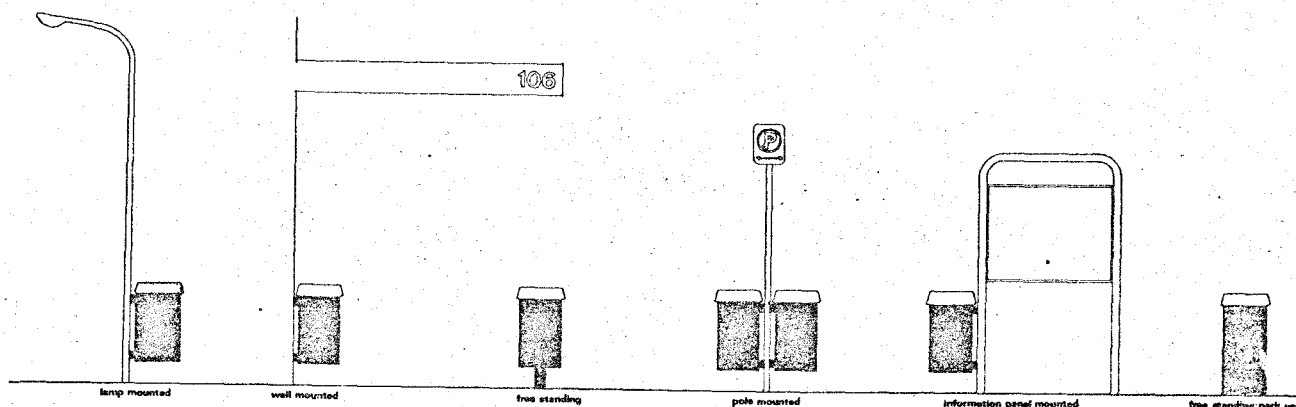
We now await your further instructions.

Yours faithfully  
CLARKE GAZZARD PTY LTD ARCHITECTS

Brian Griffin

BG/lb 7341

Copy to : Ald. A. Briger



Alternative Bin Mounting Systems

Since litter bins are one of the few elements over which Council has jurisdiction, it is important that performance and design standards be adopted immediately to upgrade this item of street furniture.

There are a variety of litter receptacles in the City, the most prevalent form of which is 18" square and 42" high with faceted top, painted pale green and often surfaced with advertising. This bin is provided at a nominal fee to the Council in return for advertising rights. This bin is quite unsightly and tends to downgrade the visual quality of any area where it is used. Its square shape is a hindrance to the movement of pedestrians along narrow footpaths. An immediate low-cost solution would be to phase out the advertising and repaint the existing bins according to a colour code.

It is recommended that Council adopt the following performance requirements and design standards, and commission the manufacture of prototypes based on the Consultants' recommended design for trial use in a designated area in the City.

#### Performance Standards

The litter bin should:

1. Be easy to use, providing a large easy target.
2. Be made of non-combustible material.
3. Protect its contents from winds and allow moisture to drain through to the ground surface.

4. Be built of rugged durable material and be vandal proof.
5. Not interfere with the movement of people around it.
6. Be obvious without being conspicuous.
7. Be flexibly designed to be able to be used in narrow streets, important civic places, or parks, with only minor modifications.
8. Be capable of use as a free standing or pole mounted object with minor modifications.
9. Be plain in appearance without advertising or other visual clutter on the outside surface. A City of Sydney insignia or symbol could be included as an integral part of the overall design.
10. Be capable of approach and use from any direction.

#### Recommended Design for Standard Litter Bin

Since the litter bin has to be used on increasingly crowded pavements it is recommended that a cylindrical bin similar in style to the Martin Place model be developed. The standard bin should be smaller than the Martin Place model and built of lighter weight materials.

The recommended design is illustrated here and a simple prototype has been constructed for testing purposes. The design enables the bin to be used as a free-standing object or as a pole mounted receptacle.

STREETSCAPE AND STREET FURNITURE IMPROVEMENTS

**LITTER BIN**  
Free Standing



## IMPROVEMENTS ACTION PLAN NO. 2 - 1972

The illustration and description on the facing page is part of the original 1972 Action Plan No. 2 IMPROVEMENTS.

This part relates to our recommendations regarding improvements to the city litter bins.

These recommendations were accepted by Council and the design recommendations have now been developed into the prototype design described in this report.

The original concept has been evaluated and the preliminary proposals have been taken to a further design stage in co-operation with the City Council Cleansing Department.



## REQUIREMENTS OF THE CITY CLEANSING DEPARTMENT

- . Litter bin to have  $2\frac{1}{2}$  - 3 cubic feet capacity.
- . Inner bin to have tapered sides to improve capacity and for easy removal of rubbish.
- . Maintenance free finish on outer bin.
- . Two mountings are required - on poles and free standing on own support column which is to be 'Loxin' fixed to concrete paving.
- . Free standing column support to have built-in fail point, to fail under extreme load which would otherwise distort column or bin.
- . Litter bin to be 9" - 10" clear of footpath to allow cleaning access.
- . Various types of bins needed for the following locations.
  - (i) Inner City
  - (ii) Outer City - larger than (i) because it would not be emptied so frequently
  - (iii) Parks
  - (iv) Plazas and special civic places.
- . 2000-2500 total needed for all types except (iii) (additional 1000 for (i) if advertising bins are replaced).
- . No crest on bin, as originally conceived.

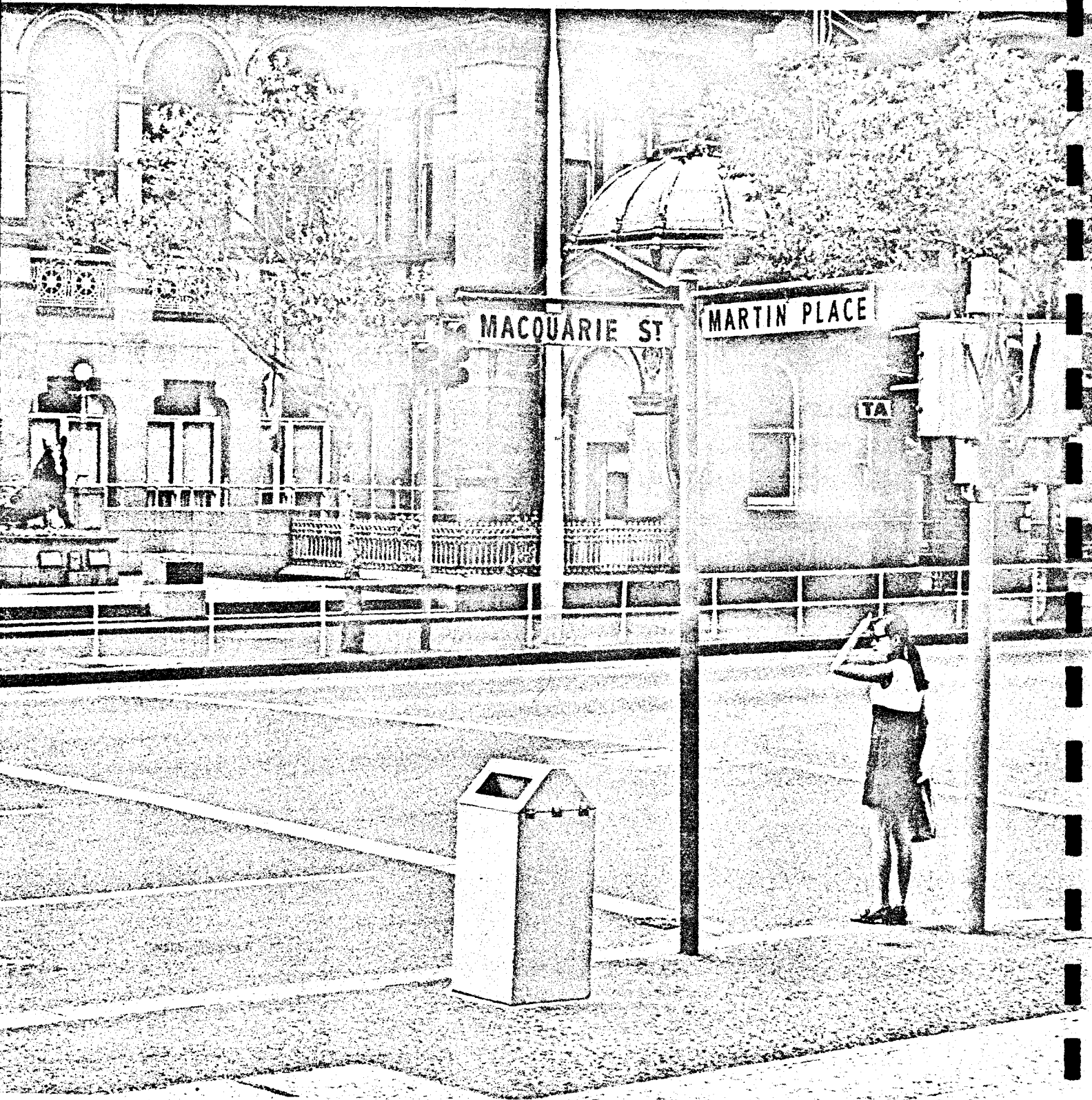


## INVESTIGATIONS INTO MANUFACTURING PROCESSES

The original design proposals have been discussed with casting foundaries and with specialist manufacturers.

As a result of these discussions and the advice given, and as a result of further discussions with Mr. Phillip Morris, City Cleansing Department, the original design concepts have been modified and developed into the final design illustrated.

The hinge mechanism in particular was designed in a number of alternative solutions which had been rejected for one reason or another, until the final solution for the prototype was selected. This hinge mechanism of course has yet to prove itself in practise. Various finishes for both the cast aluminium rim and the outer steel tube bin have been suggested and we therefore recommend that some selected finishes should be tested on the prototype bins for relative performance before making the final selection for the mass produced article.



MACQUARIE ST

MARTIN PLACE

TA



## APPROVAL FROM RELEVANT AUTHORITIES

The original proposal to support the litter bins on traffic light poles, street lighting poles, bus shelter poles and other kerbside poles has been discussed with the relevant authorities and the following approvals received.

### Department of Motor Transport

Mr. Kamkin, Chief Design Engineer, said that his Department would have no objection to the proposed litter bins being supported on the traffic light poles provided the position on the pole was not directly under the pedestrian push button was on the side opposite the pedestrian crossing and did not interfere with maintenance of the traffic lights.

### Public Transport Commission

Mr. Ron King, of the Bus Division, said that his Department would have no objection to the proposed litter bins being supported on their poles provided the position did not obstruct the passage of the public either entering or leaving the buses. He advised that permission to support litter bins on bus stop poles had already been granted to some other Councils.

### Sydney County Council

Mr. Bob McMillan advised that the S.C.C. had rejected similar proposals in the past and that a formal request from the City Council would almost certainly be rejected too.

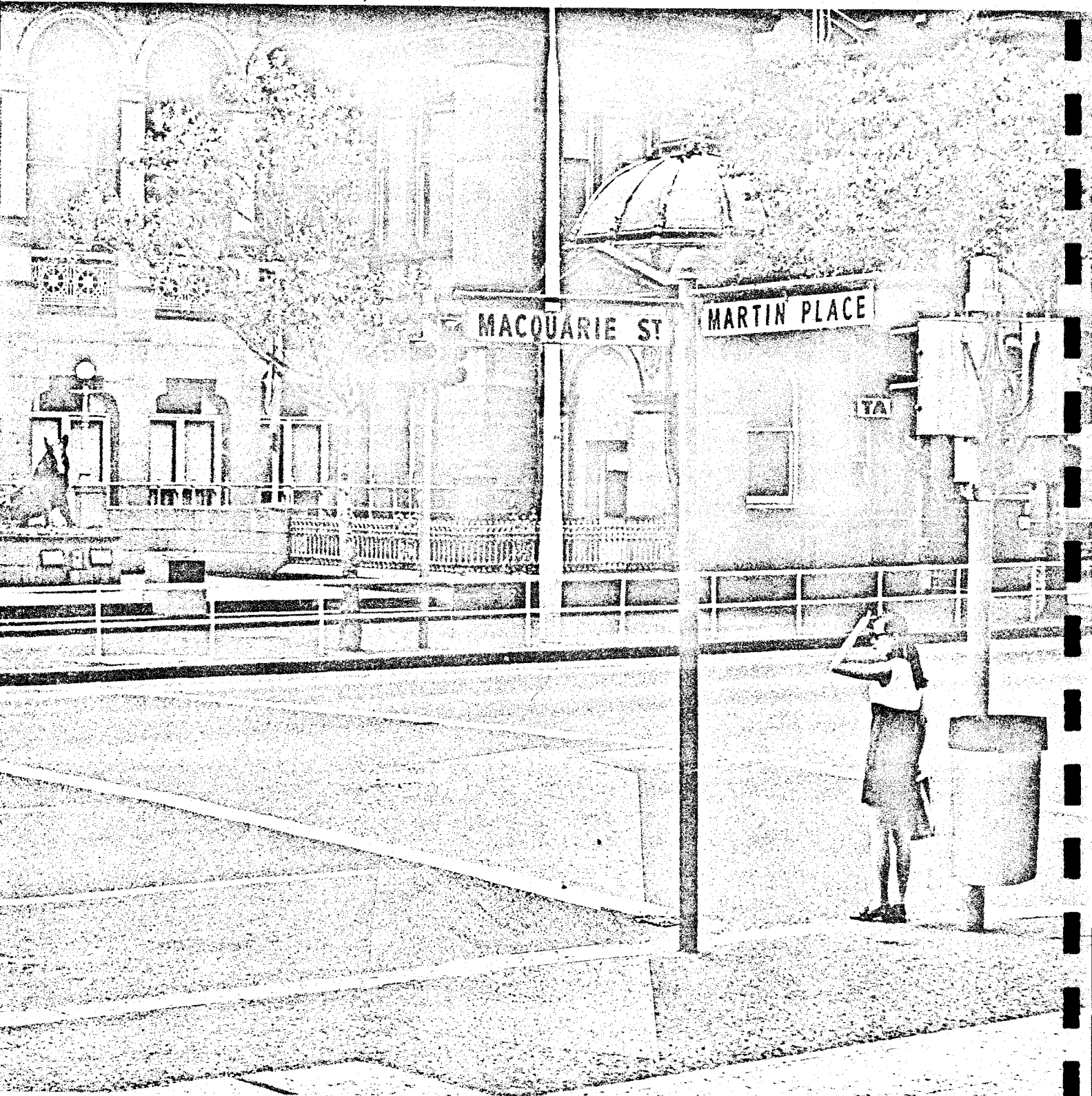
### Conclusion

It would appear therefore that the litter bins can be mounted on traffic light poles at street intersections, on bus stop or bus shelter poles and on poles erected by the City Council. These situations should suffice and the S.C.C. rejection should therefore not affect the proposal.



one type of existing litter bin







## PROTOTYPE DESIGN AND RECOMMENDATIONS

### APPROVAL BY CITY CLEANSING DEPARTMENT

The attached detail design drawings have been submitted to Mr. Phillip Morris, City Cleansing Department and after complying with his suggestions and being modified accordingly, have been approved by him.

### PROTOTYPE DESIGN

We stress the point that this design is for three prototypes and not for the final design. Our recommendations for the final design would follow our evaluation of the prototypes tested in the city streets.

### DESIGN DESCRIPTION

The litter bin design is essentially a light metal inner bin supported within a heavy steel outer tube with a hinged cast aluminium rim protecting the top edge and directing rubbish into the centre.

The inner bin has been designed as a relatively inexpensive light weight article easy to handle but perhaps more vulnerable than the more expensive heavy weight article which would not be as easy to handle.

The outer steel tube is made from relatively inexpensive standard seamless tubing, without the base plate as originally conceived. The open base is to encourage a draught through the contents of the bin to keep it dry, to drain rainwater rapidly and to avoid cleaning another surface.

The hinge mechanism, which is a development from the original design which had a loose rim, is a simple rugged pin hinge which will have to undergo practical tests before it can be recommended for the final application.

The City Crest decoration originally proposed for the litter bins has been discarded after the recommendation of the City Cleansing Department.

Pole supporting clamps will vary with pole diameter. The design drawing shows a standard DMT clamp for fixing to traffic light poles.



existing litter bin removed; new bin supported on traffic light pole.



## DESIGN DESCRIPTION (Cont)

Finishes to the cast aluminium rims in the three prototypes are to be natural cast finish, brush finish to casting and polyurethane paint.

Finishes to the outer metal bins of the prototypes are to be sand blasting, zinalate and two coats of polyurethane paint of selected colours. The prototype mounted on a traffic light pole is to be the standard DMT colour, British Standard Colour 27D Light Olive Green.

## RECOMMENDATIONS We recommend the following action:-

- . Acceptance by Council of the attached quotation received from Architectural Graphics for the manufacture of three prototype bins.
- . Selection by Council's representatives and Clarke Gazzard Pty Ltd., of sites for placing prototypes in the city.
- . Evaluation of the prototypes in use by Council's representatives and by Clarke Gazzard Pty Ltd.
- . Recommendations to Council by Clarke Gazzard Pty Ltd for final design of production model.
- . Council to call tenders for manufacture and installation of the required quantity of litter bins.

# Architectural Graphics Pty. Ltd.

Mr. Brian Griffin,  
Urban Systems Corporation Pty. Ltd.,  
2nd Floor, MLC Building,  
Victoria Cross,  
NORTH SYDNEY, 2060.

QUOTATION  
CITY OF SYDNEY COUNCIL LITTER BINS

Dear Mr. Griffin,

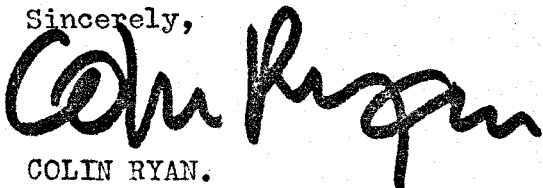
Our price to supply 3 only prototype litter bins, generally as shown  
on your drgs. nos. 7341/1/2, will be ... \$864.00  
not including sales tax.

Our price allows for the delivery of 3 bins finished as follows -

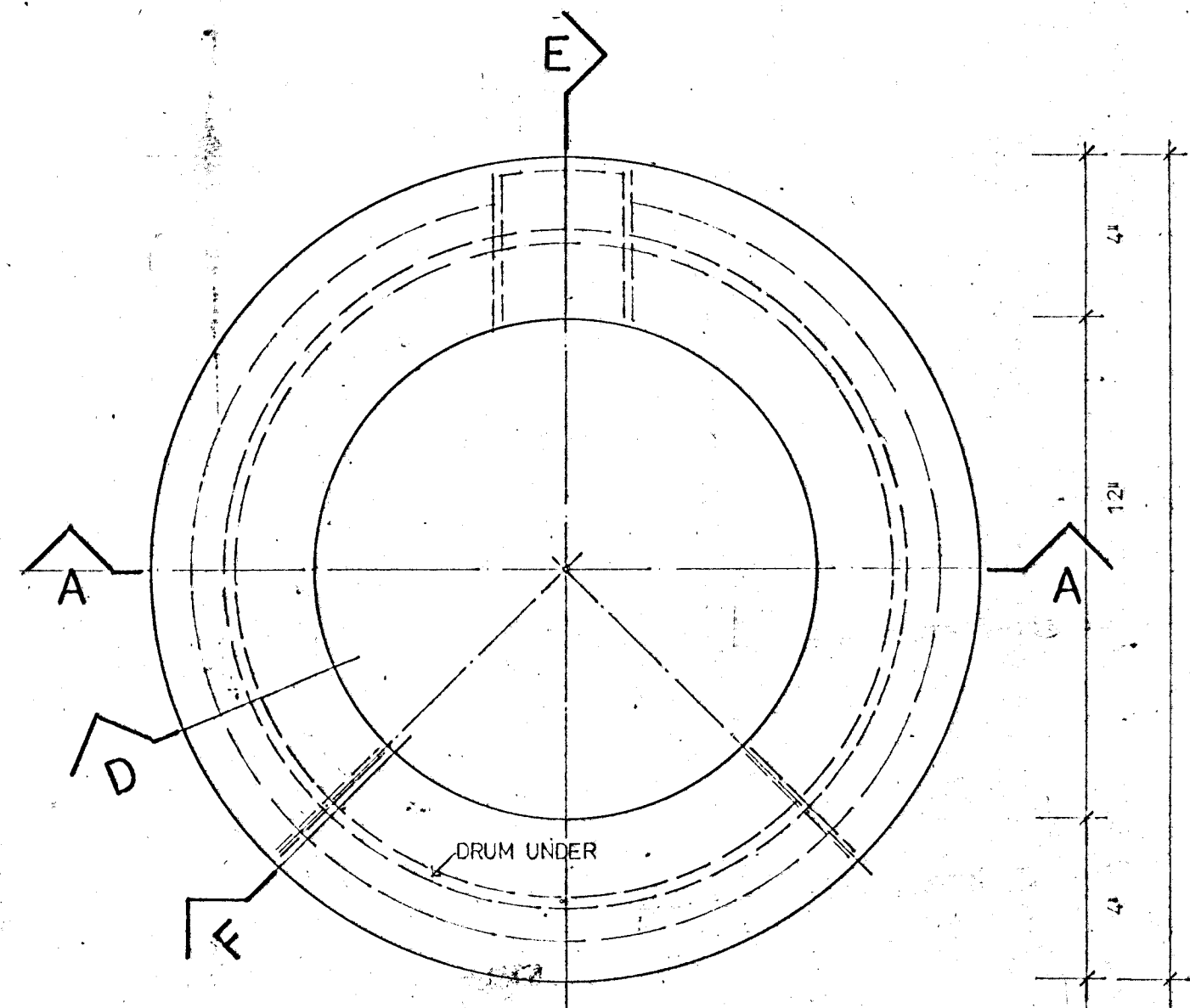
1. All bin bodies prepared by sand blasting, zincalate and then finished with two coats of polyurethane paint.
2. All bins to have sand cast aluminium tops generally as shown on your drgs., each finished as follows -  
  
No. 1 - Natural cast finish  
No. 2 - Brush finish to casting  
No. 3 - Polyurethane paint
3. All bins to be supported as follows -  
  
Bin nos. 1 & 2 to have brackets to side to allow for connecting to DMR poles. We have not allowed for DMR pole brackets in our price.  
Bin 3 to have cross bar and stub pipe base for free standing installation.
4. All bins to have galvanised inner bin, generally as shown in your detail.

We note that this price is higher than may have been expected, but it has been some time since we last estimated and during this time costs have risen, especially for the casting. Due to the short time available to quote we have not been able to get check prices from other foundaries. We are continuing to do so and should any suitable companies provide lower prices we should be pleased to pass this saving onto you.  
Time required to do this work will be 4 - 6 weeks.

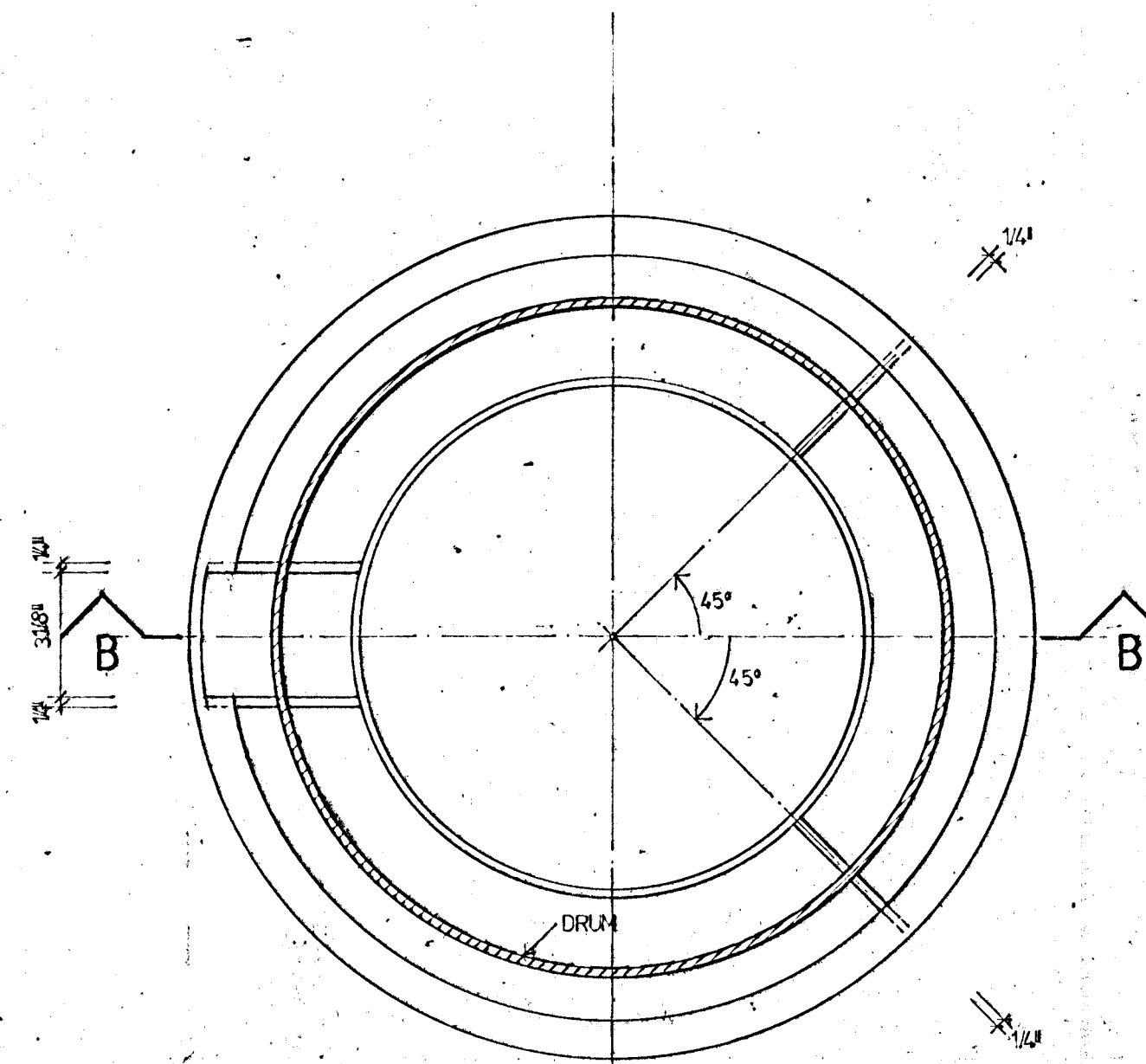
Sincerely,

  
COLIN RYAN.

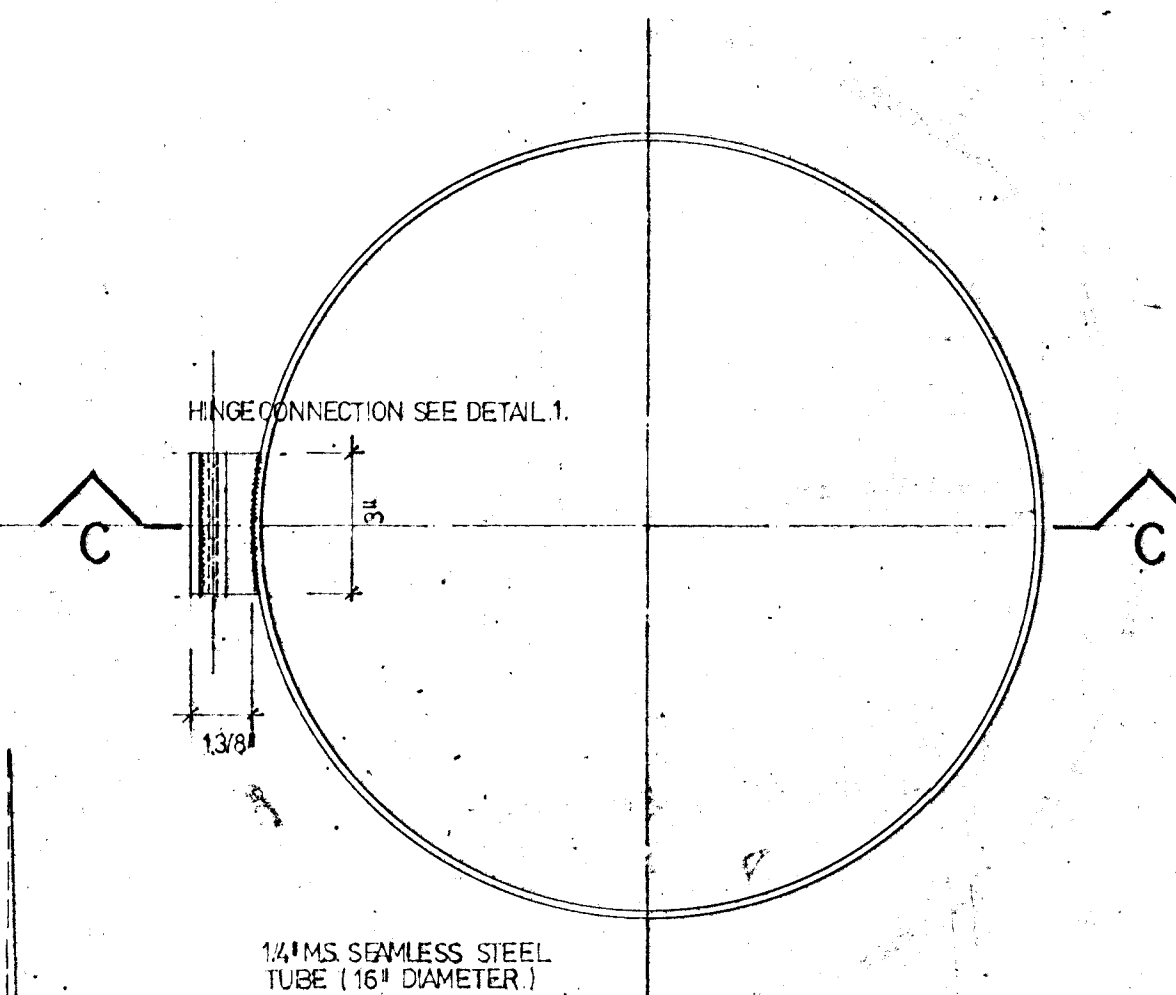
October 23, 1973.



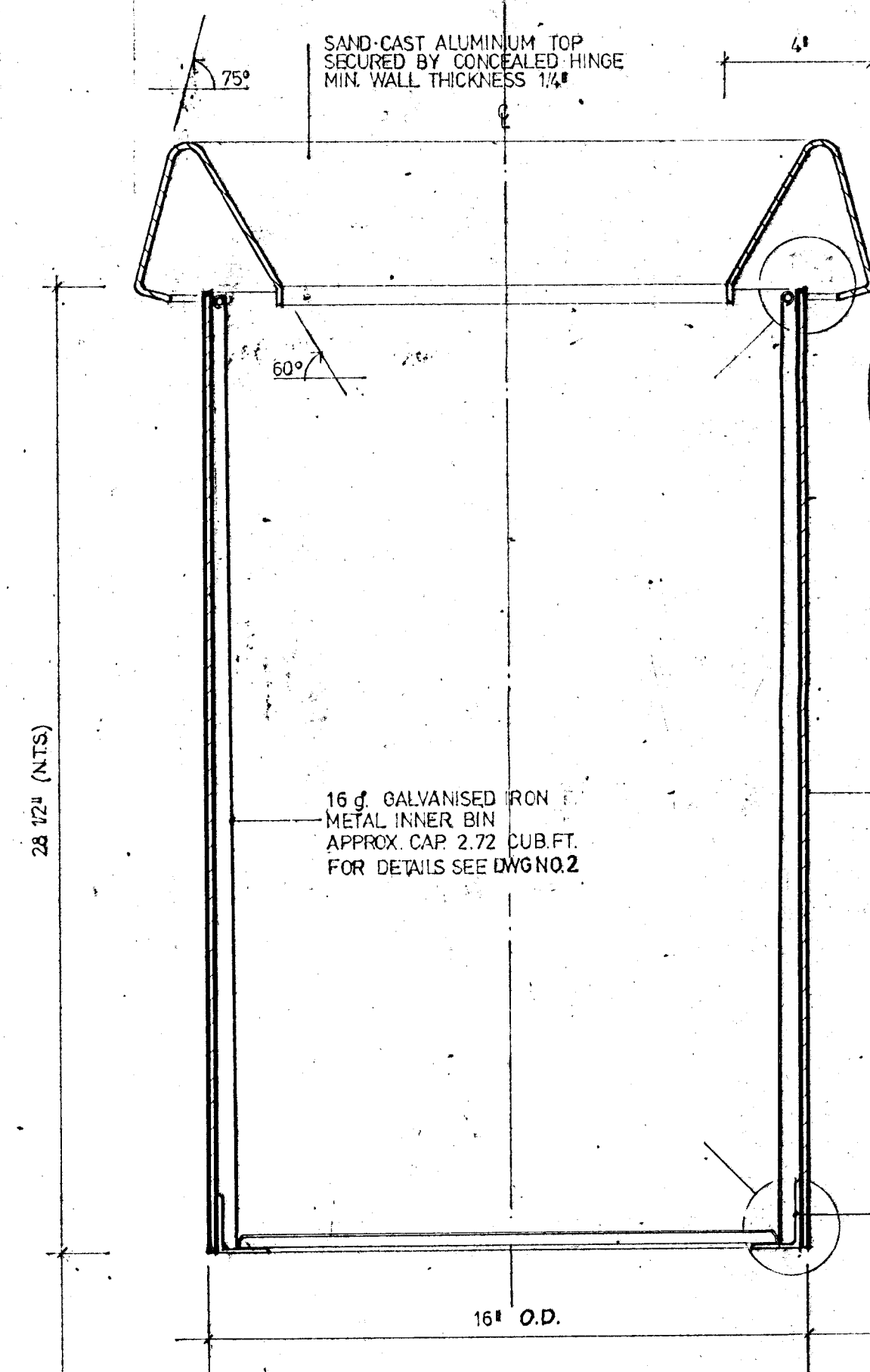
PLAN OF LID



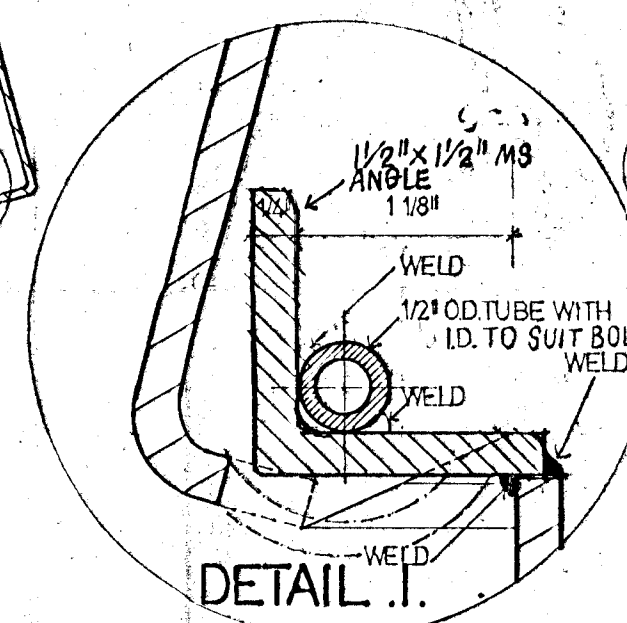
INVERTED  
PLAN OF LID



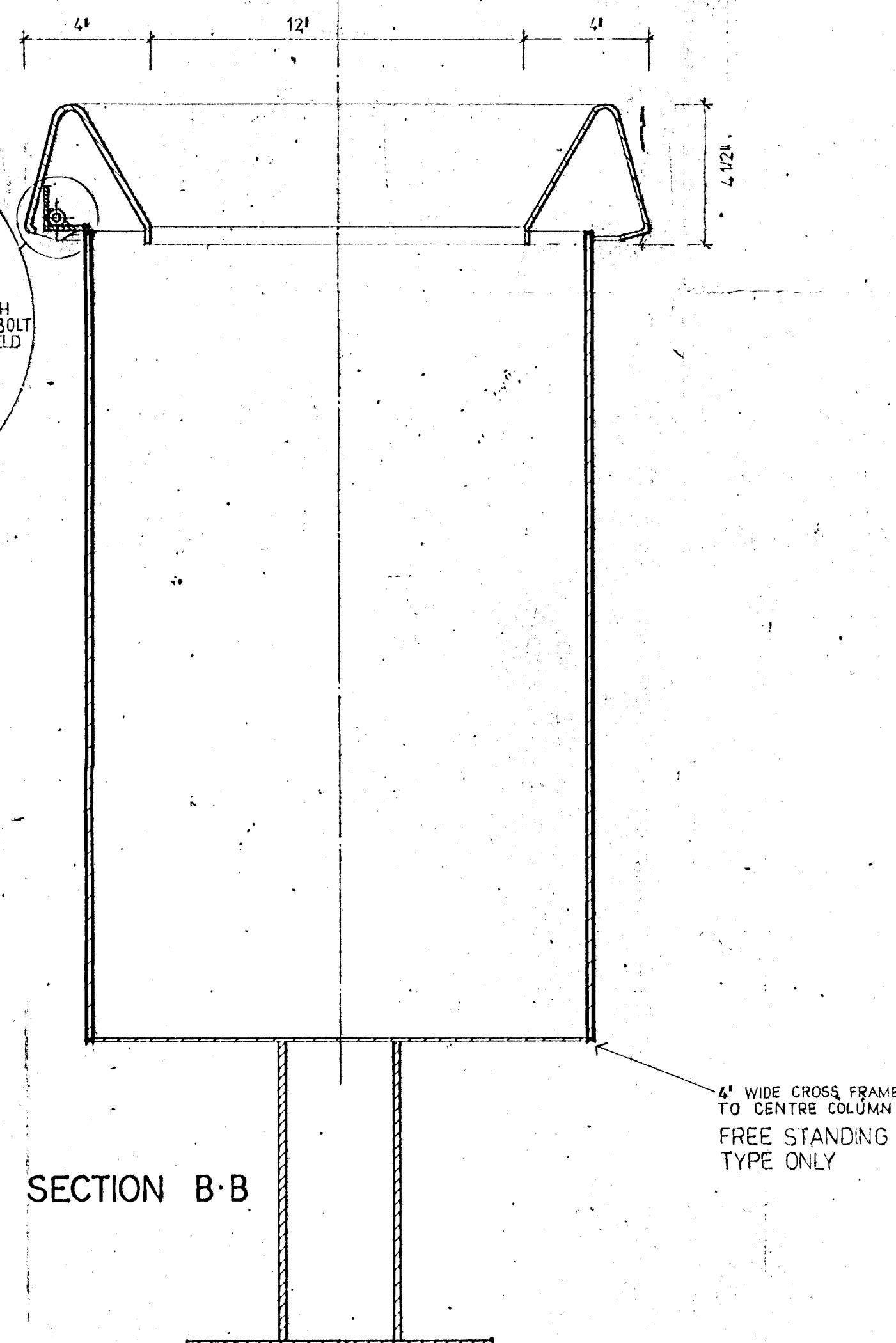
PLAN OF DRUM



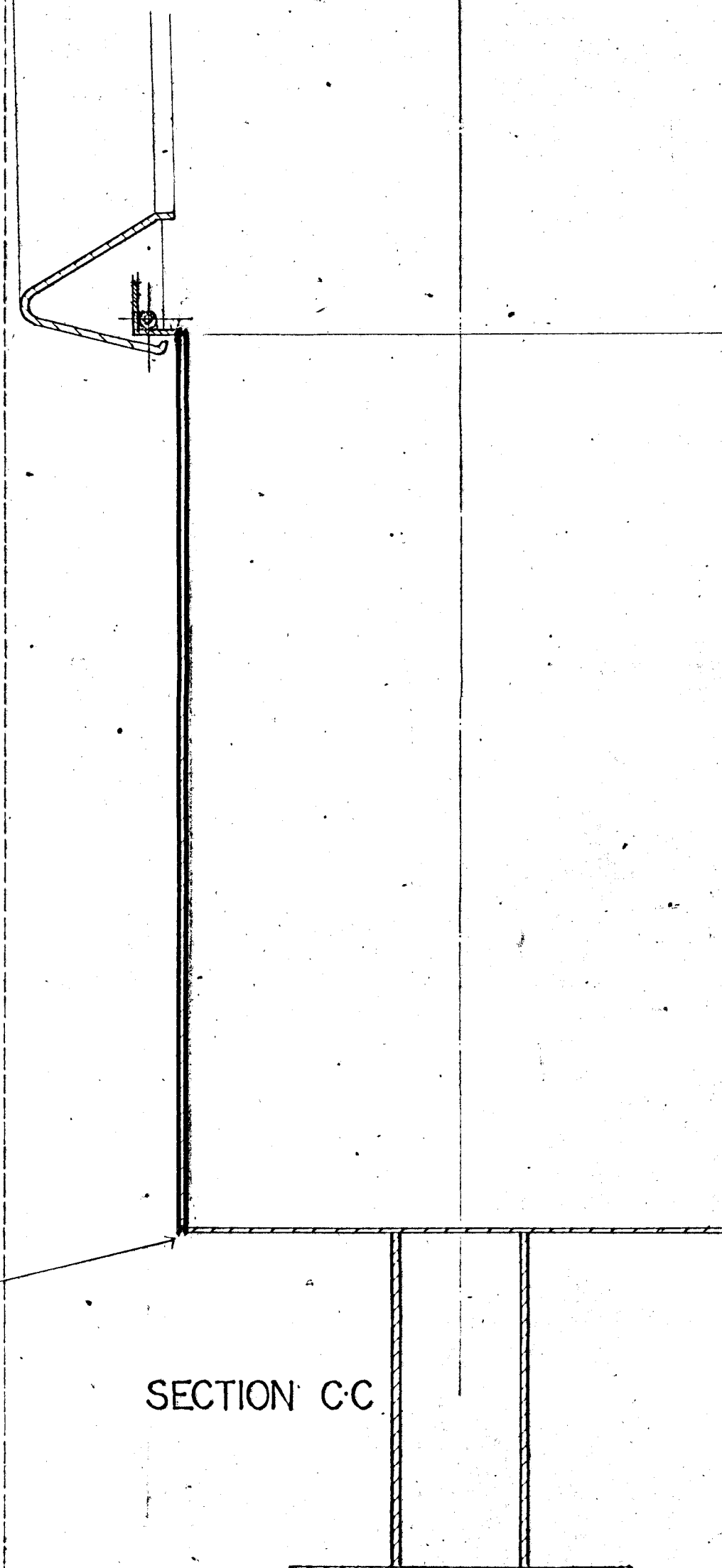
SECTION A-A



DETAIL 1.



SECTION B-B



SECTION C-C

| Date | Revisions | By | Ck | No. |
|------|-----------|----|----|-----|
|      |           |    |    |     |

Clarke Gazzard Pty Ltd  
Architects

MLO Building, Victoria Cross, North Sydney, NSW 2060. Tel. 929 0855

**ACTION STUDY 27**  
**STREET FURNITURE &**  
**COUNCIL SIGNS**  
**FOR COUNCIL**  
**CITY OF SYDNEY.**

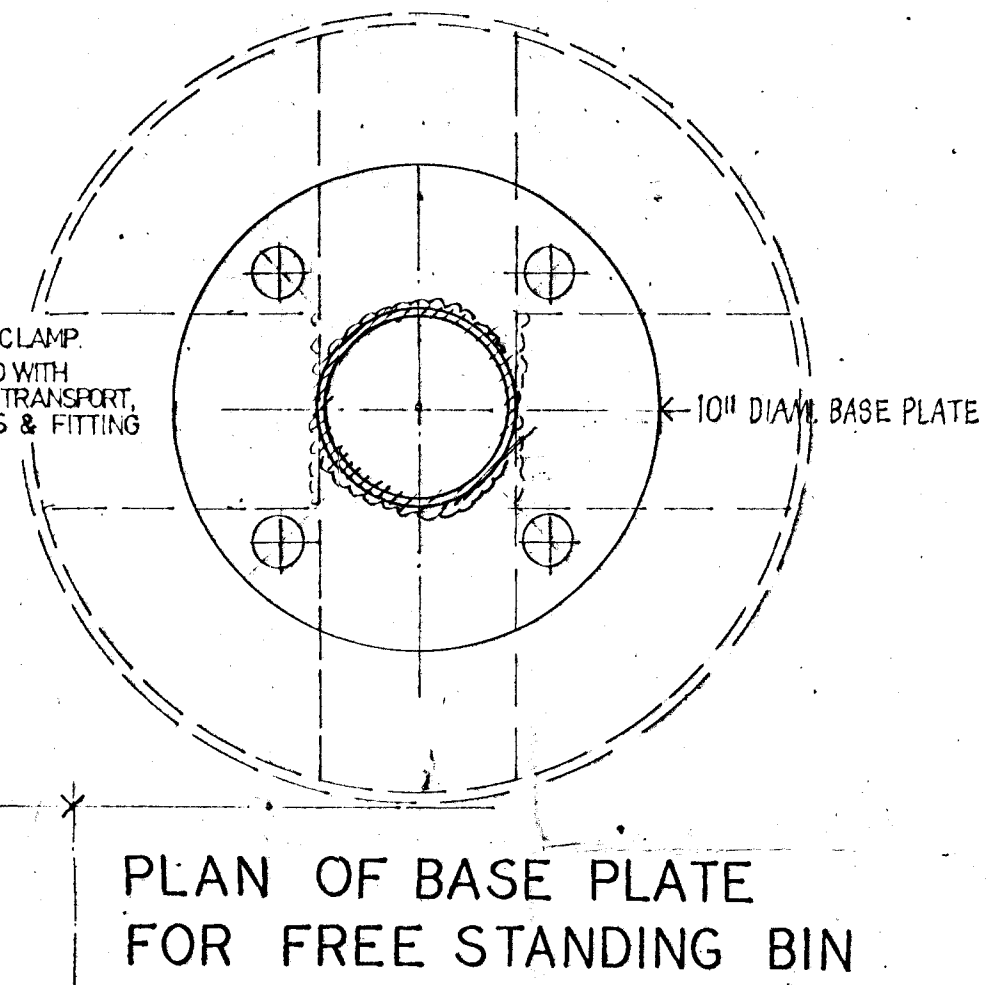
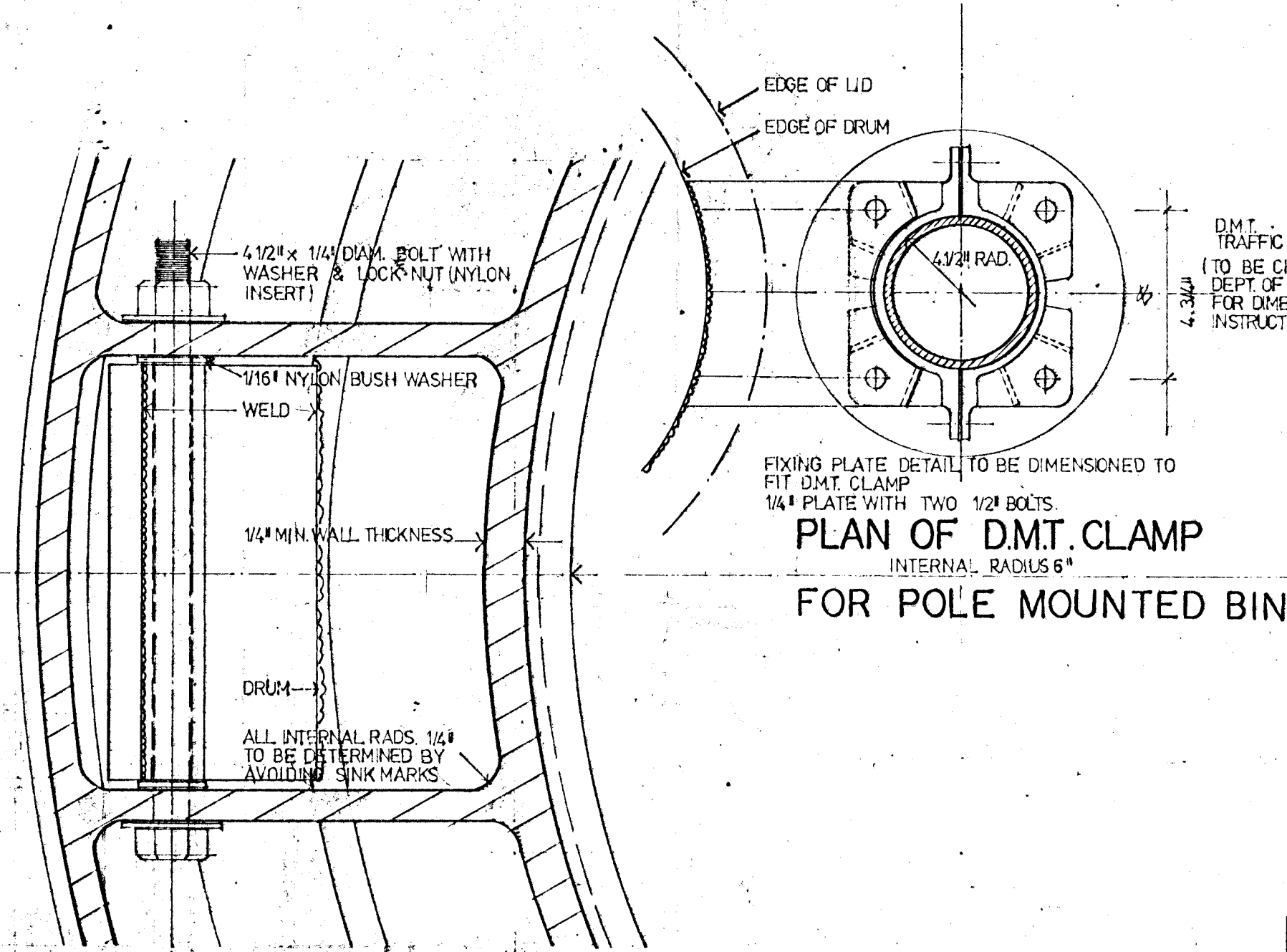
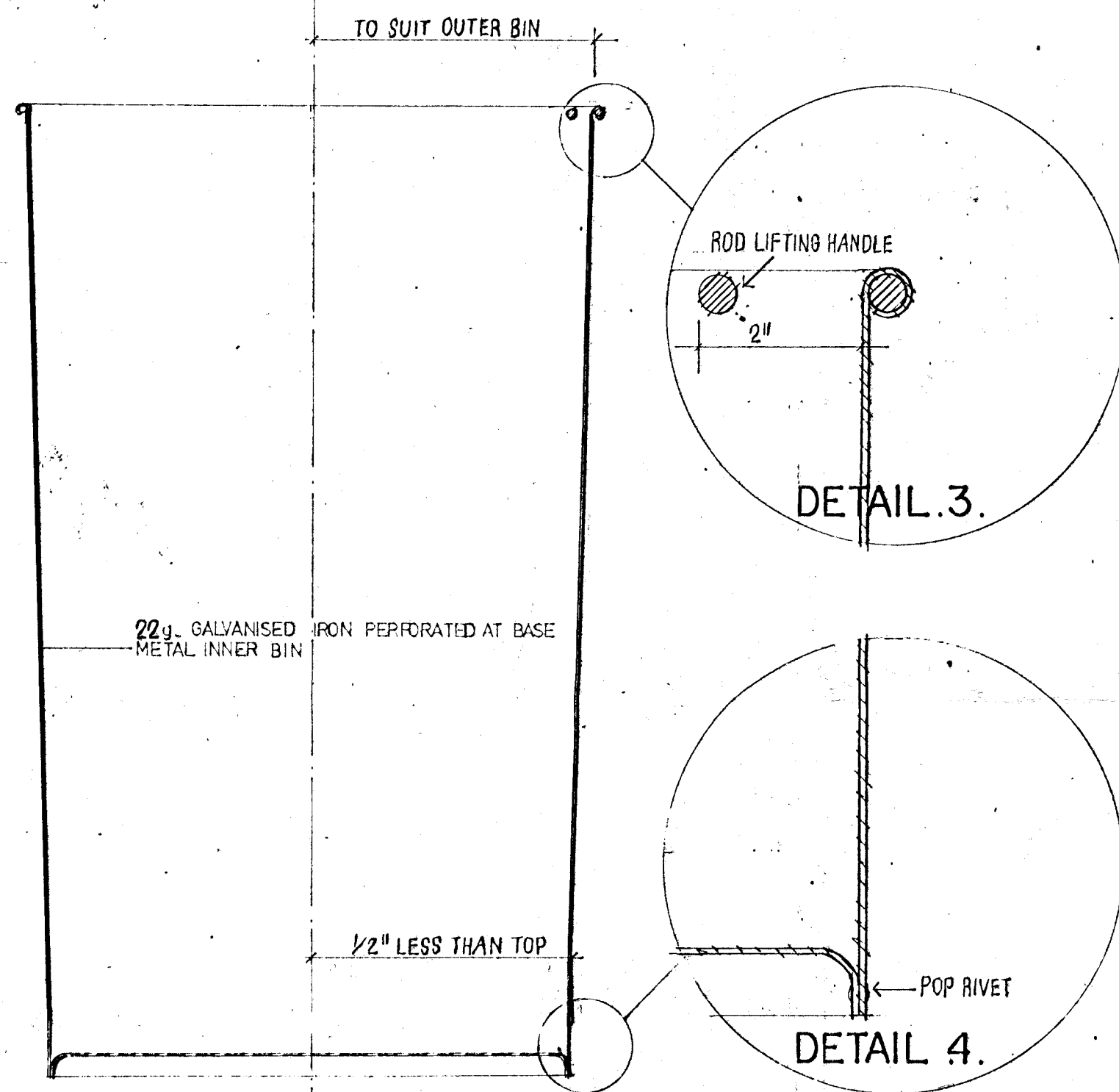
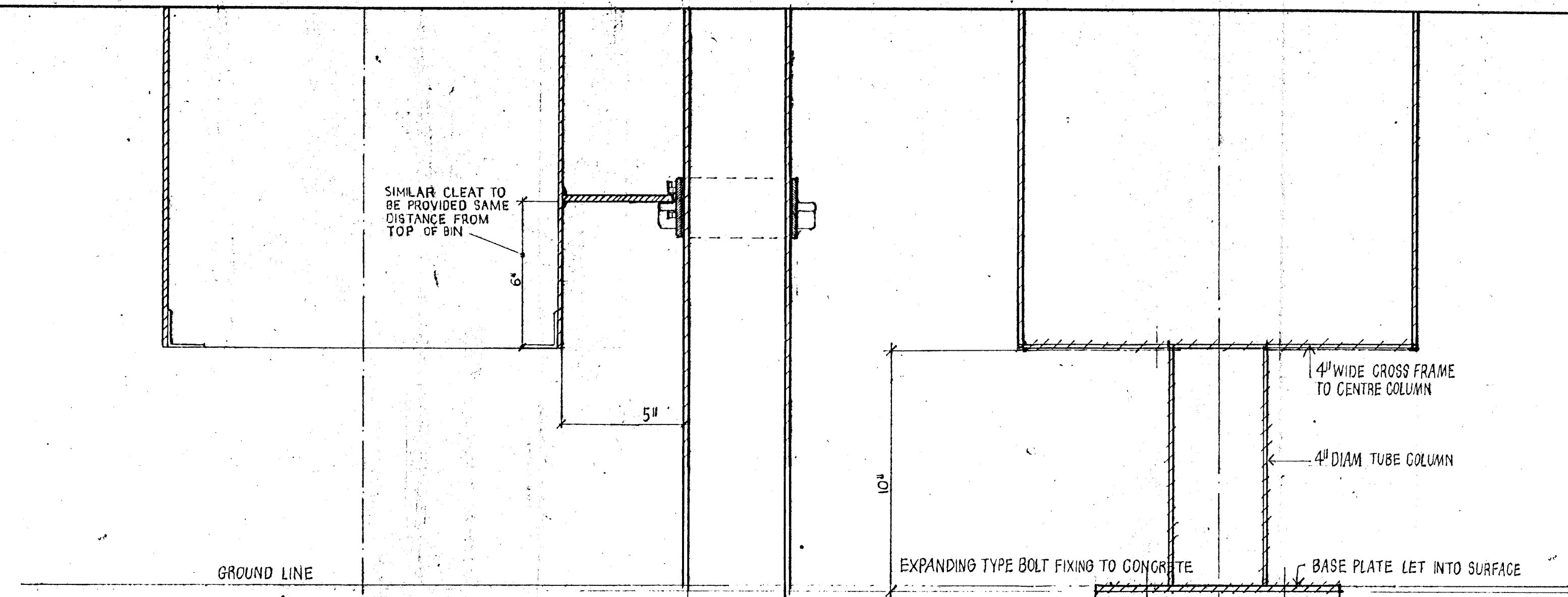
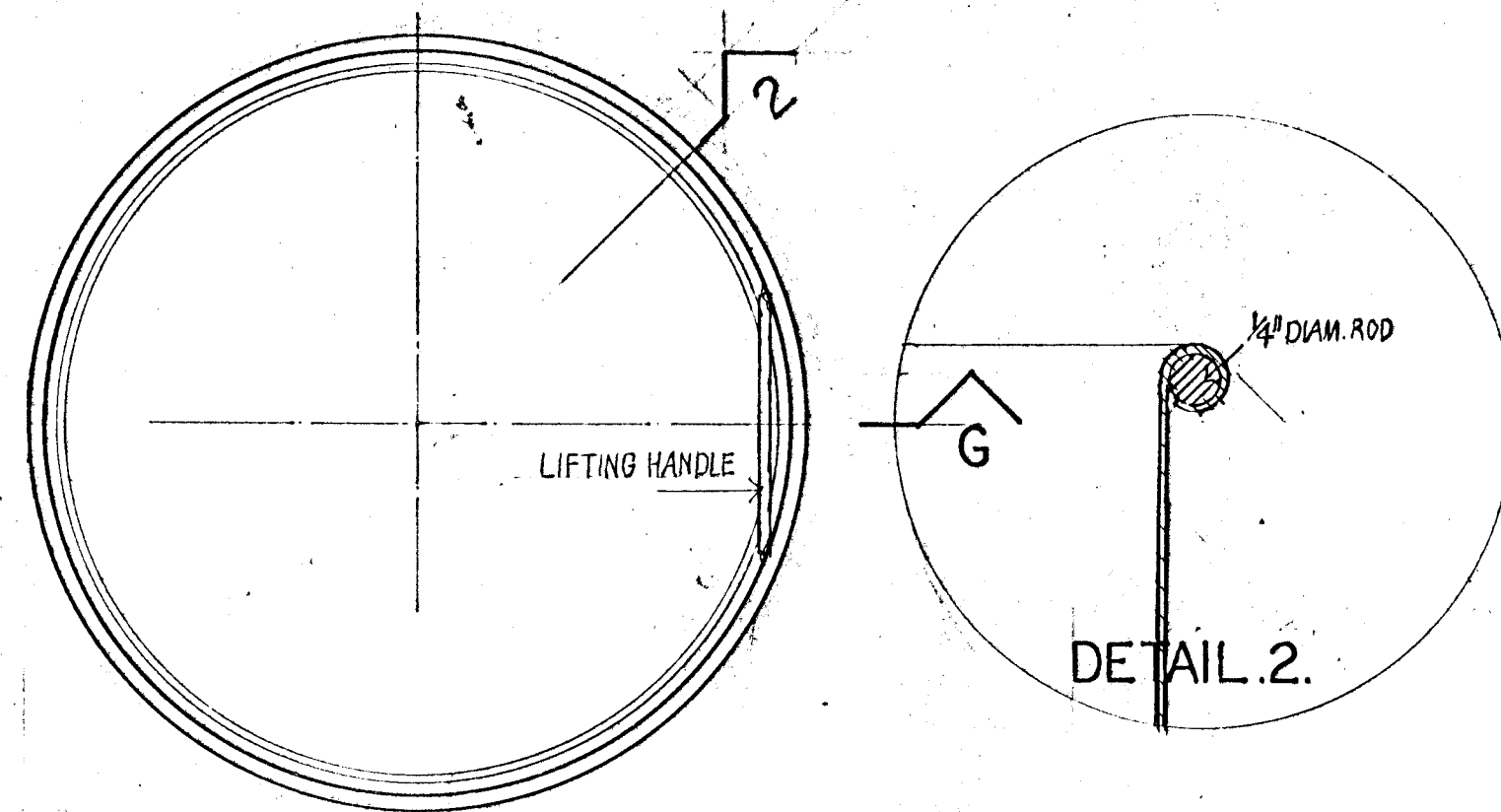
Title  
**LITTER BIN**  
**POLE MOUNTED TYPE &**  
**FREE STANDING TYPE**  
Scale  
**1/4 F.S.**

|                        |                         |                               |
|------------------------|-------------------------|-------------------------------|
| Date<br><b>AUG 73</b>  | Drawn<br><b>PF</b>      | Checked<br><b>[Signature]</b> |
| Job No.<br><b>7341</b> | Drawing No.<br><b>1</b> | Revision No.                  |

Check all dimensions on site before work commences. Figured dimensions only to be used. Report any discrepancies to the architect for discussion before proceeding with the work. If the contractor considers that execution of any work shown on the drawing involves a variation, he shall inform the architect in writing and obtain written approval to proceed before executing the work.

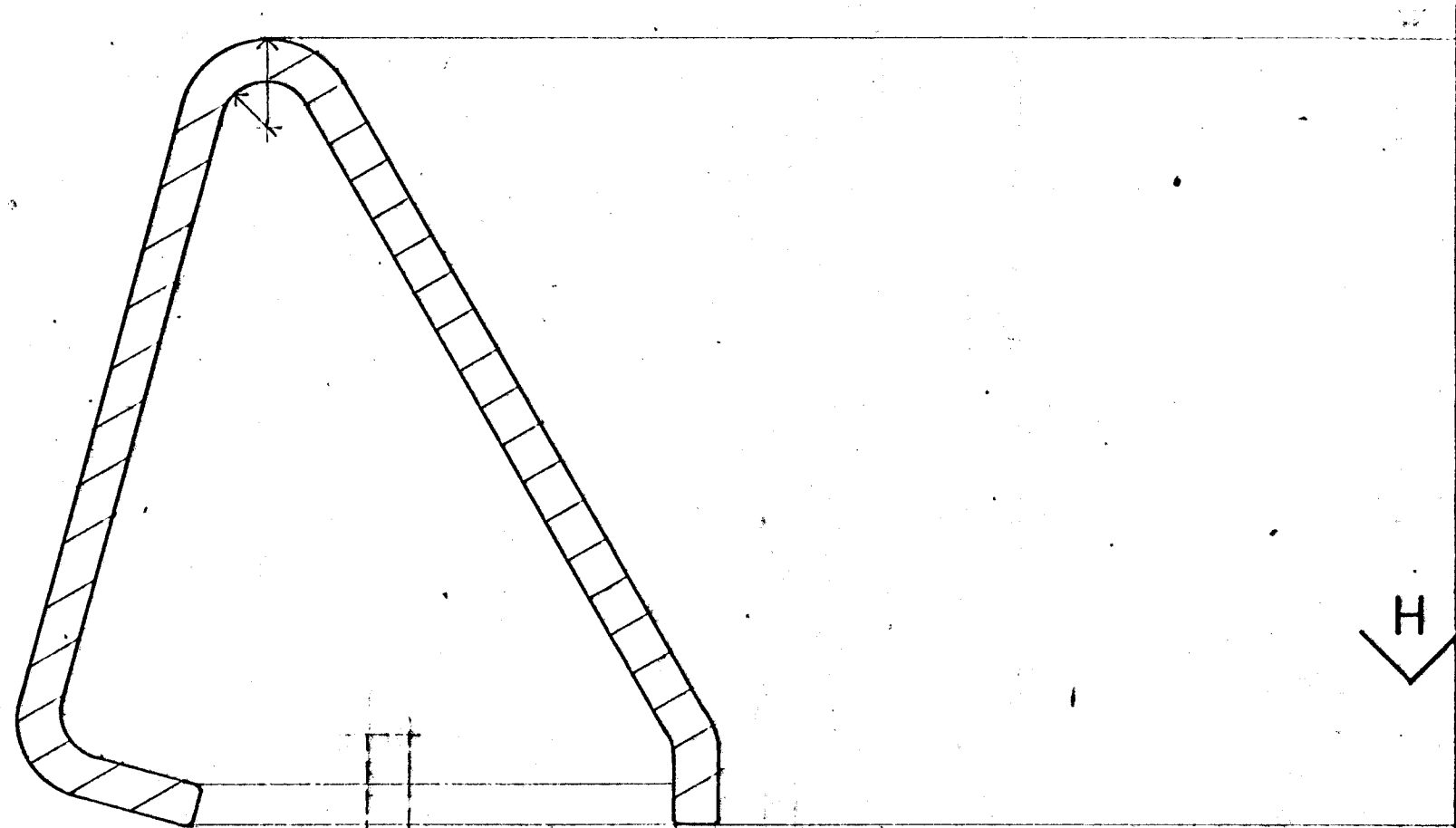


G

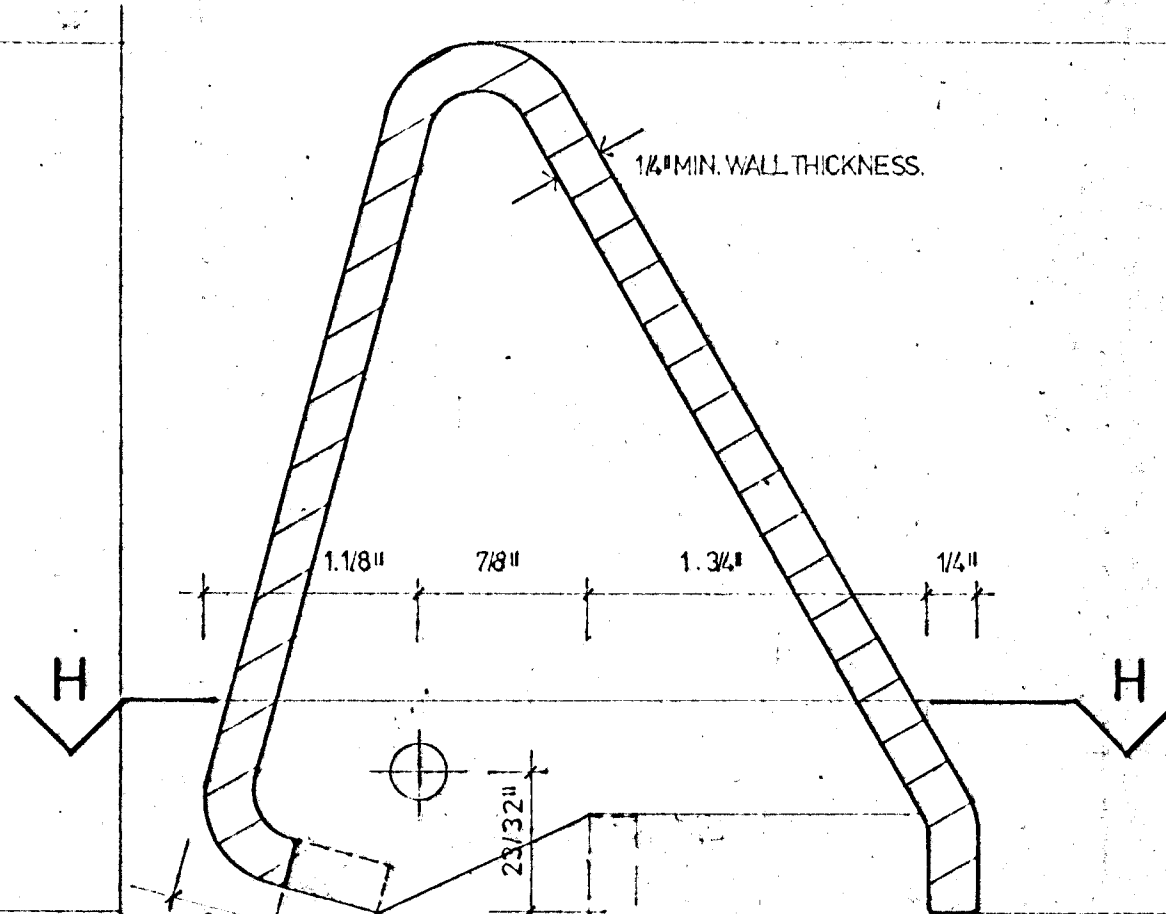


SECTION G-G

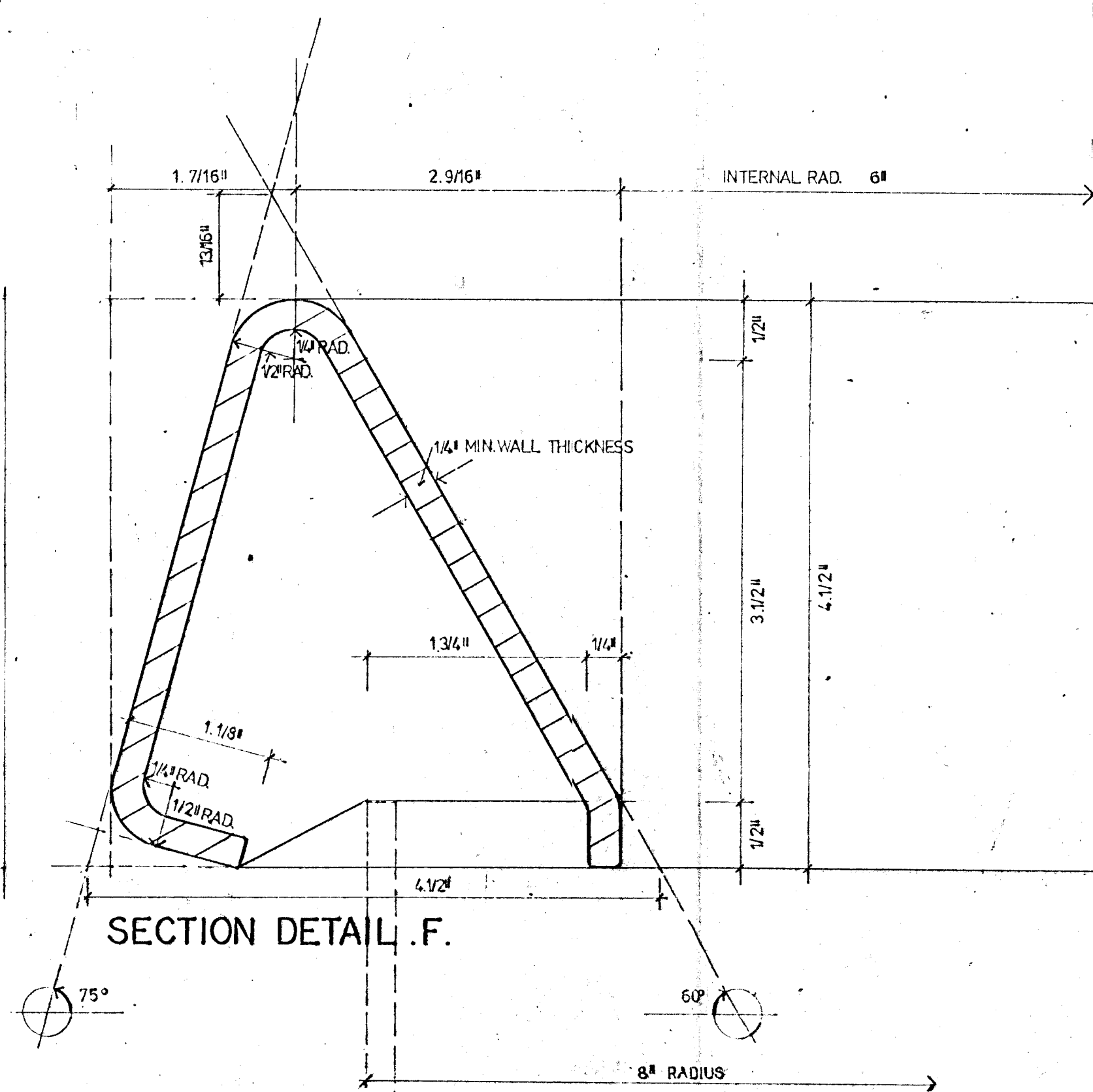
ASSEMBLY SECTION H-H



SECTION DETAIL D



SECTION DETAIL E



SECTION DETAIL F.

| Date | Revisions | By | Ck | No. |
|------|-----------|----|----|-----|
|------|-----------|----|----|-----|

Clarke Gazzard Pty Ltd Architects

MLG Building, Victoria Cross, North Sydney, NSW 2060. Tel. 923 0855

JOB  
ACTION STUDY 27  
STREET FURNITURE &  
COUNCIL SIGNS  
FOR COUNCIL  
CITY OF SYDNEY

TITLE  
LITTER BIN  
POLE MOUNTED TYPE &  
FREE STANDING TYPE

Scale  
FS. & 1/4 FS.

|                 |                  |                        |
|-----------------|------------------|------------------------|
| Date<br>AUG 73  | Drawn<br>PF      | Checked<br>[Signature] |
| Job No.<br>7341 | Drawing No.<br>2 | Revision No.           |

Check all dimensions on site before work commences. Flanged dimensions only to be used. Report any discrepancies to the architect for discussion before proceeding with the work. If the contractor considers that execution of any work shown on the drawing involves a variation, he shall inform the architect in writing and obtain written approval to proceed before executing the work.