



PHYSICAL RESOURCES

TENDER

**General Contracting Services
for**

**Building #046 Renovations
For
College of Social and Applied Human Sciences
Project No. 504034**

ADDENDUM 6

December 12, 2018

Addendum 6
Tender for General Contracting Services
Building #046 Renovations for College of Social and Applied Human Sciences
Project No. 504034

Part 1 - GENERAL

- A6.1** The following is provided to bidders as additional information and/or clarification and/or in response to questions.
- A6.2** *This Addendum shall form an integral part of the Contract Documents and amends the original Specifications and Drawings and shall be read in conjunction with the Tender as issued by the University of Guelph on November 15, 2018, dated November 2, 2018. This Addendum shall take precedence over all requirements to the aforementioned Tender with which it may prove to be at variance.*
- A6.3** Receipt of this Addendum shall be acknowledged on form Appendix C as a part of your submission. Failure to do so may subject the Proponent to disqualification.
- A6.4** Ensure that all affected parties are aware of the items noted and include any and all cost impacts in the Tender submission.
- A6.5** This Addendum contains:
- .1 Part 1 – GENERAL
 - .2 Part 2 – CLARIFICATIONS
 - Questions/Answers
 - Specifications
 - Drawings

Part 2 - CLARIFICATIONS

- A6.6** Alternates submitted for approval have been reviewed. Refer to specification changes for accepted alternates.
- A6.7** Questions received after December 11, 2018 have not been answered.

QUESTIONS / ANSWERS

- A6.8 Q1:** What are the Code Blue requirements? Code Blue stations appear on the drawings, but no details could be found in the specifications or drawings. Drawings T102 and T103.
- A1:** Please refer to the electrical drawings for power information as required.
- A6.9 Q2:** How are the annunciator panels supposed to function? Will a single Green LED light for interview room occupancy be illuminated at the annunciator (Green when Occupied off when Available) for each room and a single Red LED be illuminated at the annunciator for Duress Alarms (Red when in Alarm and off when clear)?
- A2:** Annunciator panel is to illuminate when duress alarms are activated. Light over each door is to indicate occupancy, and flash when duress alarm is activated.
- A6.10 Q3:** Will 1st floor Alarms annunciate at both 2nd floor annunciator panels as well as the 1st floor annunciator?
- A3:** No.

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- A6.11 Q4:** Will 2nd floor Alarms annunciate at 1st floor annunciator panel as well as both 2nd floor annunciators?
- A4:** No.
- A6.12 Q5:** Will the functioning of annunciator panels change the requirements for the proper annunciator panel and any expanders required to fulfill the requirements.
- A5:** Functionality of annunciator panels to be as described in the tender and addendum documents.
- A6.13 Q6:** What is the specification for ACT3 found in Wing C?
- A6:** Please refer to Addendum 5 Specification Revisions.
- A6.14 Q7:** Regarding sound barriers at window mullions, see 3/A40 and various other detail. Sound barrier mullion trim caps (STC 60) and snap caps are indicated. Nothing can be found in the aluminum window specification regarding these products. Please provide a specification for these.
- A7:** Refer to Specification Section 09 21 16 – Gypsum Board Assemblies paragraph 2.1.12.
- A6.15 Q8:** Separate Price #1 on the supplementary bid form. Can we get clarification on which portion of the work is to be priced by certain trades. Is the entire scope of work to be quoted by the abatement contractors or is this to be priced between a combination of the abatement and mechanical contractors? If so can you provide any guidance on the responsibilities per trade so as not to have any overlap in pricing?
- A8:** General Contractor to coordinate scope for separate Price #1. Removal of tanks may require multiple sub-trades.
- A6.16 Q9:** Section 20 07 01 Duct Insulation Application Schedule shows insulation thickness for exhaust air ducts but under the material column it says "none". Please clarify
- A9:** Refer to revisions to specification below.
- A6.17 Q10:** Please advise what type of acoustic ceiling tile is required for this project. This information is missing from the specifications and drawings.
- A10:** Please refer to Addendum 5 Specification Revisions.
- A6.18 Q12:** There are three types of ACT ceiling shown on drawings: ACT1, ACT2 and ACT3. Section 09 51 13 is showing ACT1 as 24" x 24" x 1" "Calla" by Armstrong but ACT2 and ACT3 is missing in the specification. Please provide.
- A12:** Please refer to Addendum 5 Specification Revisions.
- A6.19 Q11:** S4 interior screen is too wide for a manually operated acoustical shade. Motorized is an option. S5 interior screens are too wide for both manual and motorized options. Splits are needed. Please advise.
- A11:** Contractor to provide multiple manually operated shades as required to cover entire width of screen. Shades to align with locations of vertical mullions.

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A6.20 Q12: There is no mention of an insulation schedule for potable water. Please provide.

A12: Potable Water Insulation is identified as Domestic Cold, Domestic Hot, and Domestic Hot Water Recirculation. Refer to Specification Section 20 07 01 (Mechanical Thermal Insulation, Article 3.5 (Pipe Insulation Application Schedule)).

A6.21 Q13: Specification Section 00 21 07, paragraph 6.1.6 states that "only pre-qualified firms named below may submit a bid to pre-qualified general contracting firms (named above) access control/security work of this Contract".

The above states that Specification Section 28 -- 05/14/15/23 access control and video is to bid directly to the general contractor. 100% of tendered projects for University of Guelph for access control and video work is bid to the pre-qualified electrical contractors, not the general contractor, to allow for infrastructure and wiring coordination.

Could you review and confirm if the access control/security work is to be priced to the general contractor.

A13: Access control/security work is to be carried by the pre-qualified electrical contractors and performed by pre-qualified access/control contractors. Paragraph 6.1.6 should state "Only pre-qualified firms named below may submit a bid to pre-qualified electrical contractors (named above) for access control/security work of this Contract."

A6.22 Q14: It seems as though the door hardware for doors D303 and D304 are missing from the hardware sets. Please clarify.

A14: Refer to specification revisions.

SPECIFICATIONS

A6.23 SECTION 01 21 07 – INVITATION TO BIDDERS

.1 **REVISE:** Article 6.6 to read: "Only pre-qualified firms named below may submit a bid to pre-qualified electrical contractors (named above) for access control/security work of this Contract."

A6.24 SECTION 05 41 00 STRUCTURAL METAL STUD FRAMING

.1 **ADD:** The attached Specification Section to the Contract Documents.

A6.25 SECTION 08 71 00 – DOOR HARDWARE – APPENDIX A FINISH HARDWARE SCHEDULE

.1 **ADD:** Doors D303 and D304 to Set 58.0.

A6.26 SECTION 08 80 10 – FIRE RATED GLASS AND FRAMING

.1 **DELETE:** Paragraph 2.1.1 in entirety

DELETE: Paragraph 2.1.2 in entirety.

ADD: Paragraph 2.1.1 as follows:

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“Manufacturer of Framing System: GPX Architectural Series Framing as manufactured and distributed by SAFTI FIRSTM Fire Rated Glazing Solutions or equivalent by Aluflam architectural fire-rated solutions.”

ADD: Paragraph 2.1.2 as follows:

“Manufacturer of Glazing Material: (SuperLite TM II-XL) (SuperLite TM II-XL IGU) as manufactured and distributed by SAFTI FIRST TM Fire Rated Glazing Solutions or equivalent by Aluflam architectural fire-rated solutions.”

A6.27 SECTION 10 51 13 – METAL LOCKERS

.1 **DELETE:** Sub-paragraph 2.1.1.15.1 in entirety

ADD: Sub-paragraph 2.1.1.15.1 as follows:

“.1 ‘Emperor’ by Hadrian, or equivalent by GRB Storage Systems.”

A6.28 SECTION 20 07 01 – MECHANICAL THERMAL INSULATION

.1 **ADD:** The following insulation material to the exhaust air ducts row of the Duct Insulation Application Schedule under Article 3.7:

“Exhaust Air Duct - Exposed Insulation Material (TIAC Code) - Rigid Fibre board (CER/2)”

“Exhaust Air Duct - Concealed Insulation Material (TIAC Code) - Flexible Batt (CEF/2)”

DRAWINGS

A6.29 ALL DRAWINGS

.1 **REVISE:** Total number of drawings under each drawing number to 176 in lieu of 170.

A6.30 DRAWING A05 – ARCHITECTURAL CONSTRUCTION TYPES

.1 **ADD:** The following drawing note architectural drawing A05:

“All stud spacing shown is schematic in nature. Contractor to confirm and provide studs at required width.”

A6.31 DRAWING A90 – ARCHITECTURAL MILLWORK PLANS, ELEVATIONS AND DETAILS

.1 **REVISE:** Millwork MW – 107 details 1 and 2 on architectural drawing A90 as per attached architectural sketches SKA90-01, SKA90-02 and SKA90-03 dated December 10, 2018:

.2 **REVISE:** Millwork MW – 203A details 5 and 6 on architectural drawing A90 as per attached architectural sketches SKA90-01, SKA90-02 and SKA90-03 dated December 10, 2018

A6.32 DRAWING M51 – PENTHOUSE WING B

- .1 **REVISE:** Notes on detail 1/M51 (five (5) instances) as follows:
 - DELETE:** “Division by Division 10”
 - ADD:** “Refer to Specification Section 08 90 00 - Louvers and Vents”

A6.33 DRAWING E20 – ELECTRICAL POWER LAYOUT WING B LEVEL 1

- .1 **REVISE:** Note 21 as follows:
 - “Contractor to supply model Code Blue CB 4-s Signature Call Box with hardwire power connection.”

A6.34 DRAWING E22 – ELECTRICAL MECHANICAL EQUIPMENT WING B LEVEL 1

- .1 **REVISE:** Circuit label “B1-1-22” to “DP-1E-50”
- .2 **REVISE:** Circuit label “B1-1-24” to “DP-1E-52”

A6.35 DRAWING E23 – ELECTRICAL POWER LAYOUT WING B LEVEL 2

- .1 **REVISE:** Note 18 as follows:
 - “Contractor to supply model Code Blue CB 4-s Signature Call Box with hardwire power connection.”

A6.36 DRAWING E27 – ELECTRICAL POWER LAYOUT WING B LEVEL 2

- .1 **REVISE:** Note 10 as follows:
 - “Contractor to supply model Code Blue CB 4-s Signature Call Box with hardwire power connection.”

A6.37 DRAWING E33 – ELECTRICAL PANEL SCHEDULES – 1 OF 4

- .1 **REMOVE:** “HEAT EXCHANGER” from 15A, 1P circuits 22 and 24 on NEW PANEL 046 PP B1-1
- REVISE:** 15A, 1P circuits 22 and 24 to “SPARE” on NEW PANEL 046 PP B1-1”

A6.38 DRAWING E35 – ELECTRICAL PANEL SCHEDULES – 3 OF 4

- .1 **REMOVE:** “SPACE” from circuits 50 and 52 on NEW PANEL 046 DP-1E.
- ADD:** 15A, 1P breakers to circuits 50 and 52 on NEW PANEL 046 DP-1E
- REVISE:** Add “HEAT EXCHANGER” to 15A, 1P circuits 50 and 52 on NEW PANEL 046 DP-1E

END OF ADDENDUM NO. 6

PART 1 - GENERAL

1.1 SCOPE OF WORK

- .1 Frame the following elements with structural metal stud framing as required and / or where indicated:
 - .1 Interior load bearing walls
 - .2 Parapets
 - .3 Exterior free standing walls
 - .4 Other elements shown and not specifically covered in other Sections.
- .2 The above list is intended as a guide only and not to be considered as a complete list of all items to be provided. Examine drawings thoroughly to determine items and quantities required. The above list of items will not override items and quantities identified on Contract Drawings
- .3 The Contractor is to coordinate the correct installation of structural metal stud framing as required, including but not limited to Window supplier per Section 08 50 00 – Aluminum Windows.

1.2 REFERENCES

- .1 ASTM International:
 - .1 ASTM A 123/A 123M-17, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - .2 ASTM A 653/A 653M-17, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
 - .3 ASTM A 792/A 792M-10 (2015), Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
- .2 CSA International:
 - .1 CSA W47.1-09 (R2014), Certification of Companies for Fusion Welding of Steel Structures.
 - .2 CSA W55.3-08 (R2018), Certification of Companies for Resistance Welding of Steel and Aluminum.
 - .3 CSA W59-18, Welded Steel Construction (Metal Arc Welding)
 - .4 CAN/CSA S136-16 Package, North American Specification for the Design of Cold Formed Steel Structural Members and S136.1-16 - Commentary on North American specification for the design of cold-formed steel structural members.
- .3 Canadian Sheet Steel Building Institute (CSSBI):
 - .1 CSSBI 50M-06, Lightweight Steel Framing Manual.
 - .2 CSSBI SSF03-17 June 1994, Care and Maintenance of Prefinished Sheet Steel Building Products.
 - .3 CSSBI Technical Bulletin Vol. 7, No. 2 September, Changing Standard Thicknesses for Canadian Lightweight Steel Framing Applications.
 - .4 CSSBI S5-11, Guide Specification for Wind Bearing Steel Studs.
 - .5 CSSBI S6-latest edition: Guide Specification for Lightweight Steel Framing
- .4 Master Painters Institute (MPI):
 - .1 Architectural Painting Specification Manual - current edition.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 – Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for structural metal studs and include product characteristics, performance criteria, physical size, finish, and limitations.
- .3 Shop Drawings:
 - .1 Submit drawings stamped and signed by professional engineer registered or licensed in Province of Ontario, Canada.
 - .2 Indicate design loads, member sizes, materials, design thickness exclusive of coatings, coating specifications, connection and bracing details, screw sizes and spacing, and anchors.
 - .3 Indicate locations, dimensions, openings, and requirements of related work.
 - .4 Indicate welds by welding symbols as defined in CSA W59.
- .4 Certificates: prior to beginning Work, submit: certified copies of mill reports covering material properties.
- .5 Design Engineer Reports:
 - .1 Submit written report from design Engineer responsible for shop drawings, within three (3) days of review, verifying compliance of Work, as described in PART 3 - FIELD QUALITY CONTROL.

1.4 QUALITY ASSURANCE

- .1 Health and Safety:
 - .1 Do construction occupational health and safety in accordance with Section 01 35 29 – Health and Safety Requirements.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 – Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials off ground, indoors, in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect structural metal studs from nicks, scratches, and blemishes.
 - .3 Protect steel studs during transportation, site storage, and installation in accordance with CSSBI Sheet Steel Facts #3.
 - .4 Handle and protect galvanized materials from damage to zinc coating.
 - .5 Replace defective or damaged materials with new.
- .4 Develop Construction Waste Management Plan related to Work of this Section.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Steel: to CAN/CSA S136, fabricated from ASTM A 653/A 653M, Grade 230 steel.
- .2 Zinc coated steel sheet: quality to ASTM A 653/A 653M, with Z180 designation coating.
- .3 Welding materials: to CSA W59 and certified by Canadian Welding Bureau.
- .4 Screws: pan head, self-drilling, self-tapping sheet metal screws, corrosion protected with minimum zinc coating thickness of 0.008 mm.
- .5 Anchors: concrete expansion anchors or other suitable drilled type fasteners.
- .6 Bolts, nuts, washers: hot dipped galvanized to ASTM A 123/A 123M, 600 g/m² zinc coating.
- .7 Touch up primer: zinc rich, to CAN/CGSB-1.181 MPI #18.

2.2 STEEL STUD DESIGNATIONS

- .1 Colour Code: to CSSBI Technical Bulletin Vol.7, No. 2.

2.3 METAL FRAMING

- .1 Steel Studs: to CAN/CSA S136, fabricated from metallic coated steel, depth as indicated.
 - .1 Gauge thickness of steel stud to be determined by metal stud design engineer to suit the design requirements.
 - .2 Notwithstanding the above, the minimum acceptable steel thickness of metal stud framing shall be 1.09mm/18 gauge.
- .2 Stud Tracks: fabricated from same material and finish as steel studs, depth to suit.
 - .1 Bottom track: single piece.
 - .2 Top track: single piece.
- .3 Deflection Ceiling Track: purpose made with 64 mm leg x width to suit stud depth, pre-punched 38 mm long slots spaced at 25 mm o/c.
 - .1 Acceptable Product: 'Multi-slot MST 250' by Bailey Metal Products Limited, or approved alternate.
- .4 Bridging: fabricated from same material and finish as studs, 38 x 12 x 1.09 mm minimum thickness.
- .5 Angle Clips: fabricated from same material and finish as studs, 38 x 38 mm x depth of steel stud, 1.09 mm minimum thickness.
- .6 Tension Straps and Accessories: as recommended by manufacturer.
- .7 Acoustical Sealant: refer to Section 07 92 00 – Joint Sealing.
- .8 Insulating strip: rubberized, moisture resistant 3 mm thick cork closed cell neoprene strip, 12 mm wide, with self-sticking adhesive on one face, lengths as required.

2.4 SOURCE QUALITY CONTROL

- .1 Ensure mill reports covering material properties are reviewed by Consultant.

PART 3 - EXECUTION

3.1 EXAMINATION

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for structural metal stud installation in accordance with manufacturer's written instructions.
 - .1 Visually inspect substrate prior to commencing with Work of this section.
 - .2 Inform Consultant of unacceptable conditions immediately upon discovery.
 - .3 Proceed with installation only after unacceptable conditions have been remedied.

3.2 GENERAL

- .1 Weld in accordance with CSA W59.
- .2 Certification of companies: to CSA W47.1 for fusion welding and CSA W55.3 for resistance welding.
- .3 Do structural metal stud framing work to CSSBI S5.

3.3 ERECTION

- .1 Erect components to requirements of reviewed shop drawings.
- .2 Anchor tracks securely to structure at 800 mm on centre maximum, unless lesser spacing prescribed on shop drawings.
- .3 Erect studs plumb, aligned and securely attached with two (2) screws minimum, unless lesser spacing and / or methods are otherwise indicated in the Contract Documents or reviewed shop drawings. Should discrepancies exist, use most stringent method to attach studs unless otherwise approved in writing by Consultant.
- .4 Seat studs into bottom tracks and single piece top track.
- .5 Install studs at not more than 50 mm from abutting walls, openings, and each side of corners and terminations with dissimilar materials.
- .6 Brace steel studs with horizontal internal bridging at 1500 mm maximum.
 - .1 Fasten bridging to steel clips fastened to steel studs with screws or by welding.
- .7 Frame openings in stud walls to adequately carry loads by use of additional framing members and bracing as detailed on shop drawings.
- .8 For non-axial load bearing studs, maintain clearance under beams to avoid transmission of structural loads to studs. Use 64 mm leg purpose made deflection ceiling tracks or as specified.

- .9 Touch up welds with coat of zinc rich primer.
- .10 Install continuous insulating strips to isolate studs from uninsulated surfaces.

3.4 ERECTION TOLERANCES

- .1 Plumb: not to exceed 1/500th of member length.
- .2 Camber: not to exceed 1/1000th of member length.
- .3 Spacing: not more than +/- 3 mm from design spacing.
- .4 Gap between end of stud and track web: not more than 4 mm.

3.5 CUTOUTS

- .1 Maximum size of cutouts for services as follows:

Member Depth	Across Member Depth (mm)	Along Member Length	Centre-to-Centre Spacing
92	40 max.	105 max.	600 min.
102	40 max.	105 max.	600 min.
152	65 max.	115 max.	600 min.

- .2 Limit distance from centerline of last unreinforced cutout to end of member to less than 305 mm.

3.6 FIELD QUALITY CONTROL

- .1 Shop Drawing Design Engineer's Field Services:
 - .1 Obtain written report from design engineer responsible for shop drawings verifying compliance of Work, in handling, installing, applying, protecting, and cleaning of product and submit Manufacturer's Field Reports as described in PART 1 - ACTION AND INFORMATIONAL SUBMITTALS.
 - .2 Provide shop drawing design engineer's field services consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's instructions.
 - .3 Schedule site visits to review Work as follows.
 - .1 During progress of Work.
 - .2 Upon completion of Work, after cleaning is carried out.

3.7 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 – Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 – Cleaning.
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with

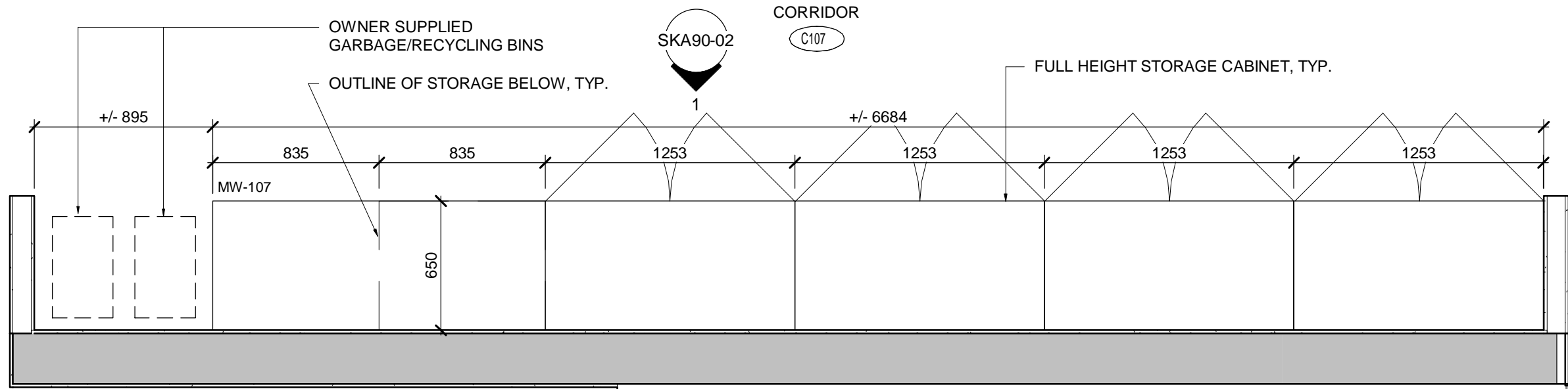
Section 01 74 21 – Waste Management and Disposal.

- .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.8 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by structural metal stud installation.

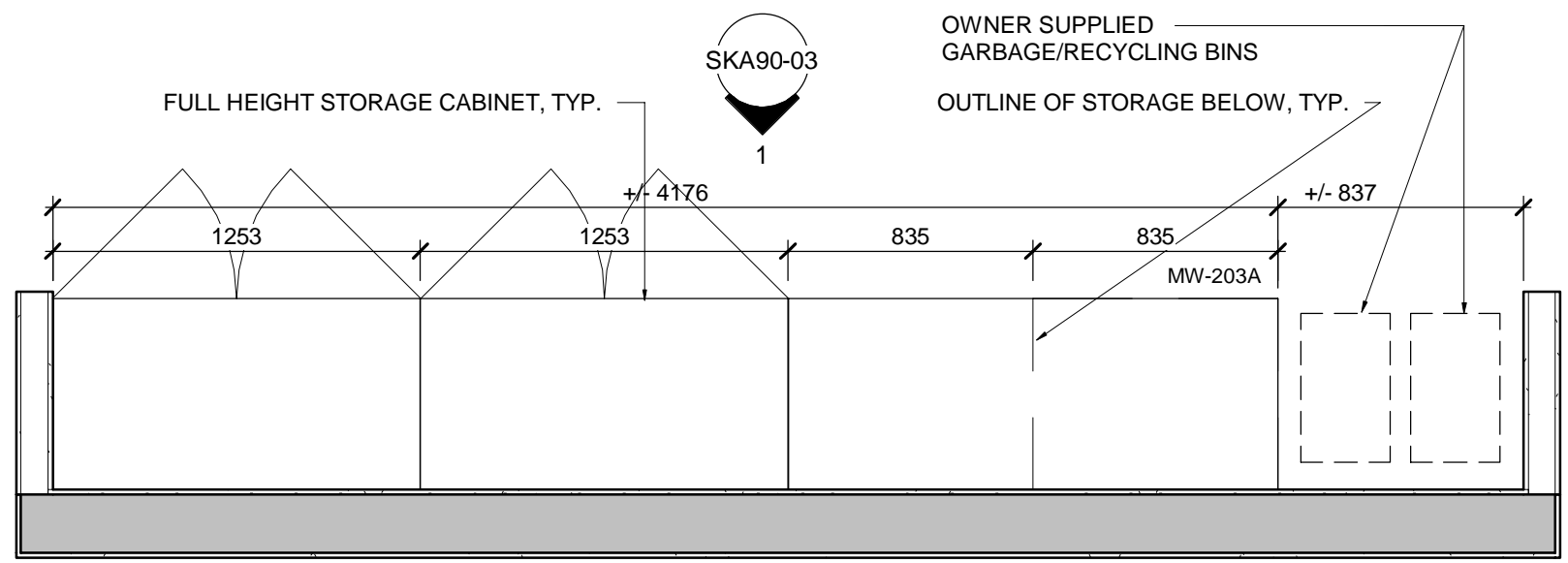
END OF SECTION



**REVISED MILLWORK PLAN
MW-107**

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SKA90-01

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**REVISED MILLWORK PLAN
MW-203A**

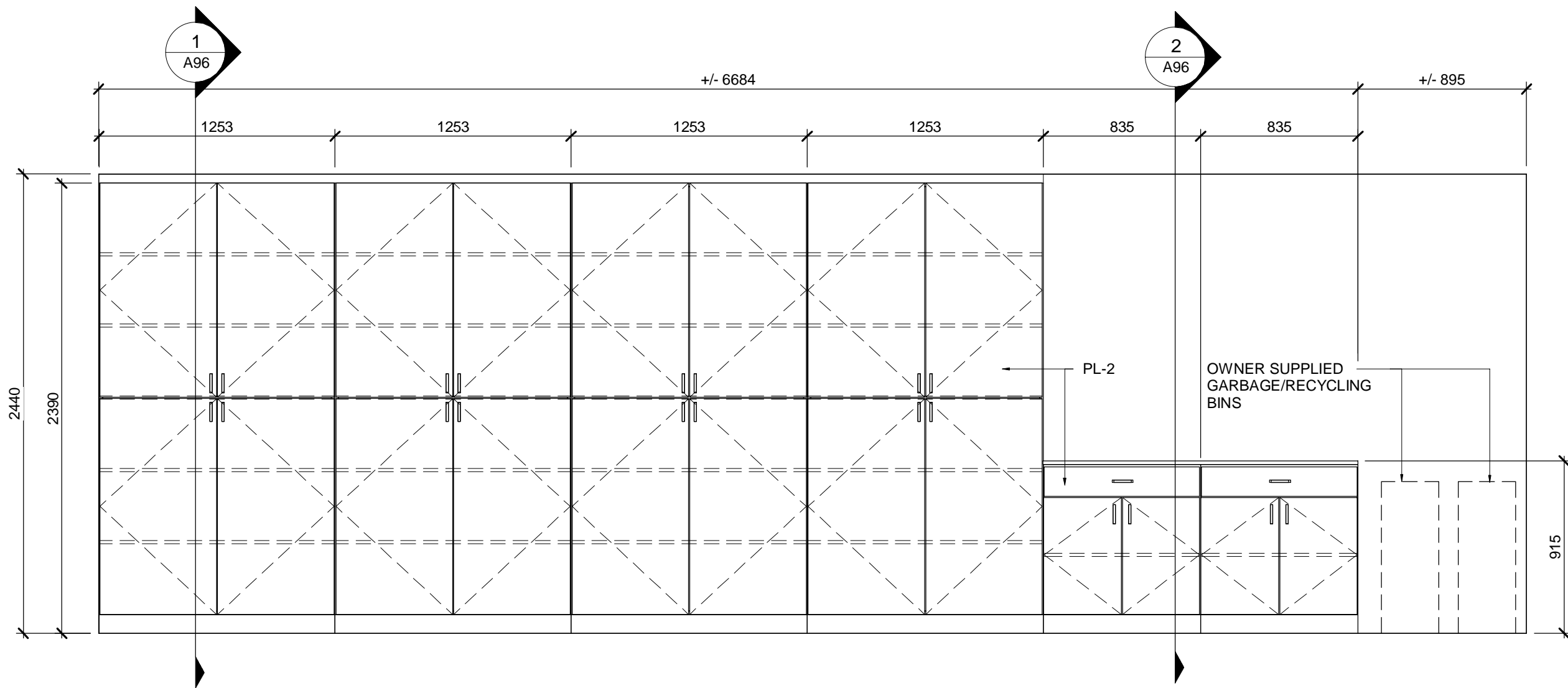
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PROJECT:		BUILDING #046 RENOVATIONS GUELPH, ONTARIO	
DRAWING:		REVISED MILLWORK PLANS	
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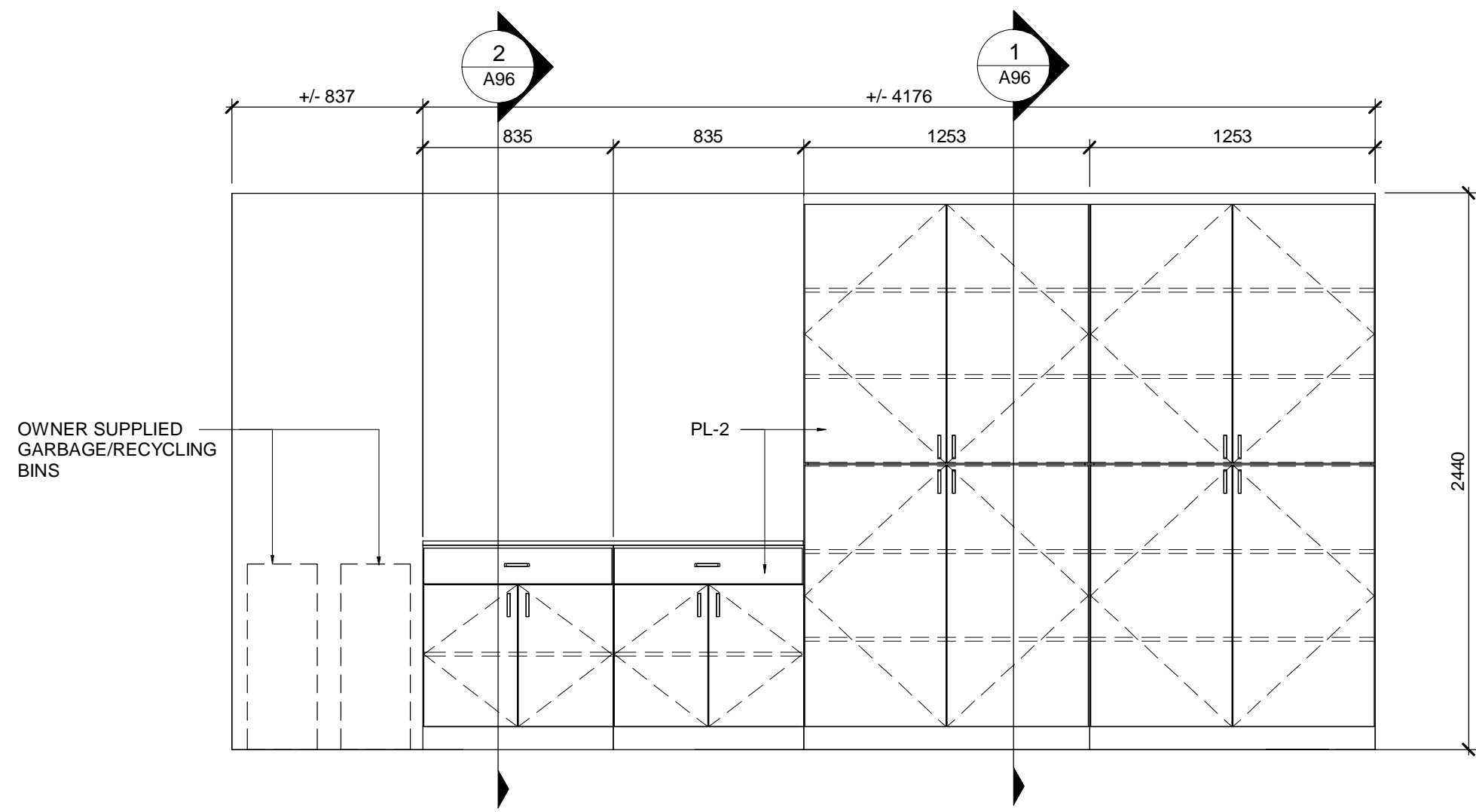


**REVISED MILLWORK
ELEVATION - MW-107**

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SKA90-02

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PROJECT:		BUILDING #046 RENOVATIONS	
		GUELPH, ONTARIO	
DRAWING:		REVISED MILLWORK ELEVATION	
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MILLWORK ELEVATION
MW-203A

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SKA90-03

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PROJECT:		BUILDING #046 RENOVATIONS GUELPH, ONTARIO	
DRAWING:		REVISED MILLWORK ELEVATION	
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