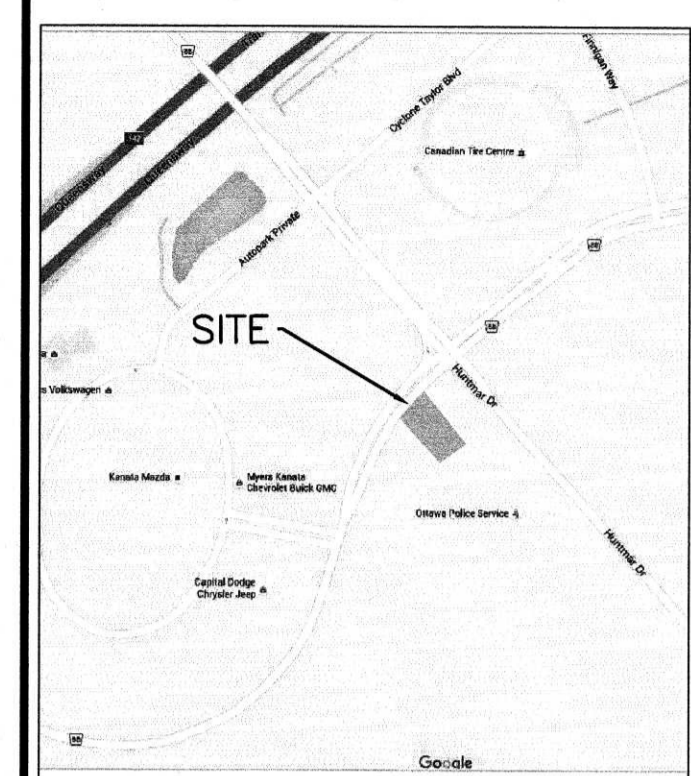
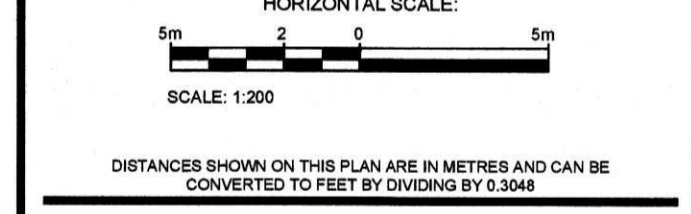


**GENERAL NOTES:**  
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 CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.



APPROVED  REFUSED   
 THIS \_\_\_ DAY OF \_\_\_\_\_, 20\_\_  
 DERRICK MOODIE, MANAGER  
 DEVELOPMENT REVIEW WEST  
 PLANNING, INFRASTRUCTURE AND ECONOMIC  
 DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

No.	REVISIONS	BY	DATE
05	ISSUED AS PER CITY COMMENTS	I.J.	APRIL 20, 2017
04	ISSUED AS PER CITY COMMENTS	I.J.	MARCH 10, 2017
03	ISSUED AS PER CITY COMMENTS	I.J.	JAN 18, 2017
02	ISSUED AS PER CITY COMMENTS	I.J.	SEPT 30, 2016
01	ISSUED FOR SPA	I.J.	APRIL 22, 2016



DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

NOT VALID UNLESS SIGNED AND DATED

**MMM GROUP**  
 1145 Hunt Club Dr. Ottawa, ON Canada K1V 0Y3  
 t: 613.736.7200 f: 613.736.8710 www.mmm.ca

CLIENT  
**ENTERPRISE HOLDINGS**  
 2300 STEVENAGE DR.  
 OTTAWA, ON K1G 3W3  
 T: (613) 274-6945

DESIGNED BY: I.J. DRAWN BY: D.G. APPROVED BY: I.J.

PROJECT  
**ENTERPRISE**  
 225 HUNTMAR DRIVE  
 OTTAWA, ON K2S 1B9

DRAWING TITLE  
**EROSION & SEDIMENT CONTROL AND GRADING & DRAINAGE PLAN**

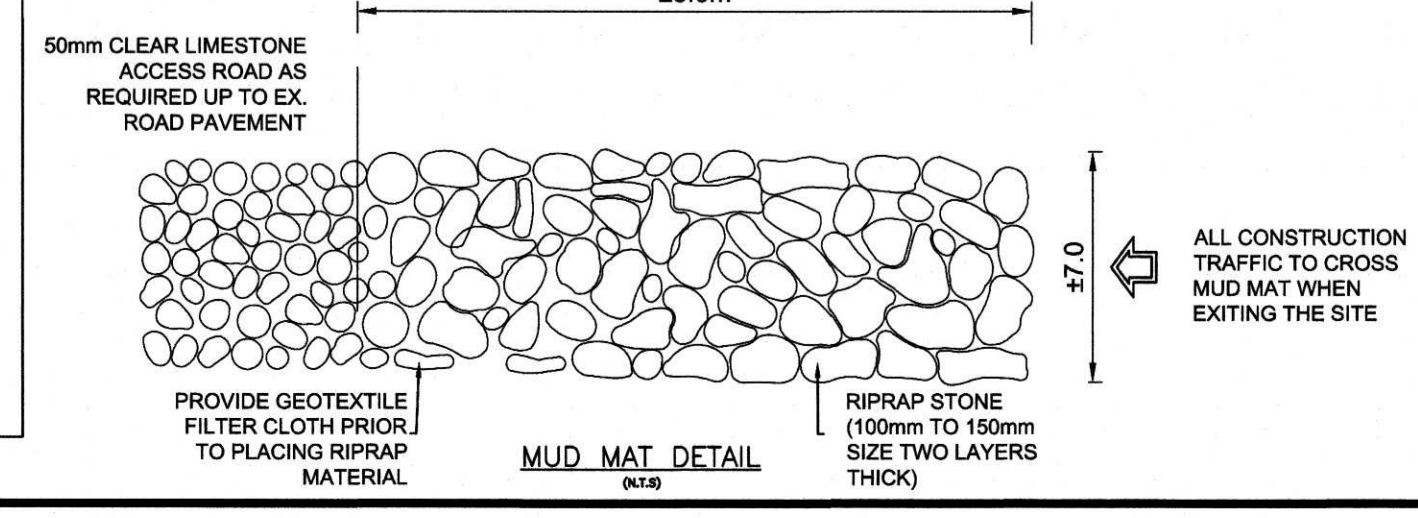
PROJECT NO. 1015105 DWG. NO. **C.02**

**PROPOSED 100 YEAR PONDING AREAS - Enterprise Rent a Car**

STRUCTURE	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PA9
ELEVATION (m)	101.65	101.65	101.65	101.65	101.65	101.65	101.65	101.65
DEPTH (m)	0.30	0.25	0.15	0.30	0.30	0.15	0.25	0.10
AREA (m <sup>2</sup> )	164.0	274.0	122.2	311.0	385.0	53.1	225.6	10.5
VOLUME (m <sup>3</sup> )	16.4	22.8	6.1	31.1	38.5	2.7	18.8	0.4

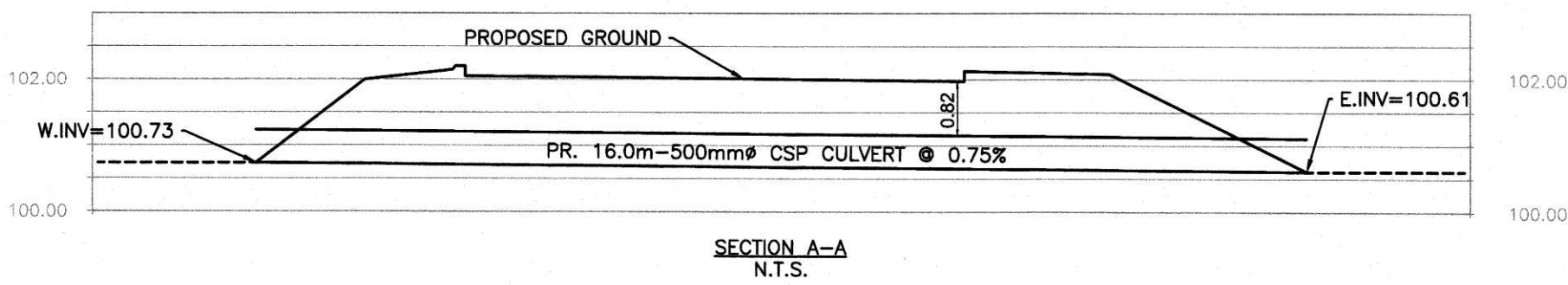
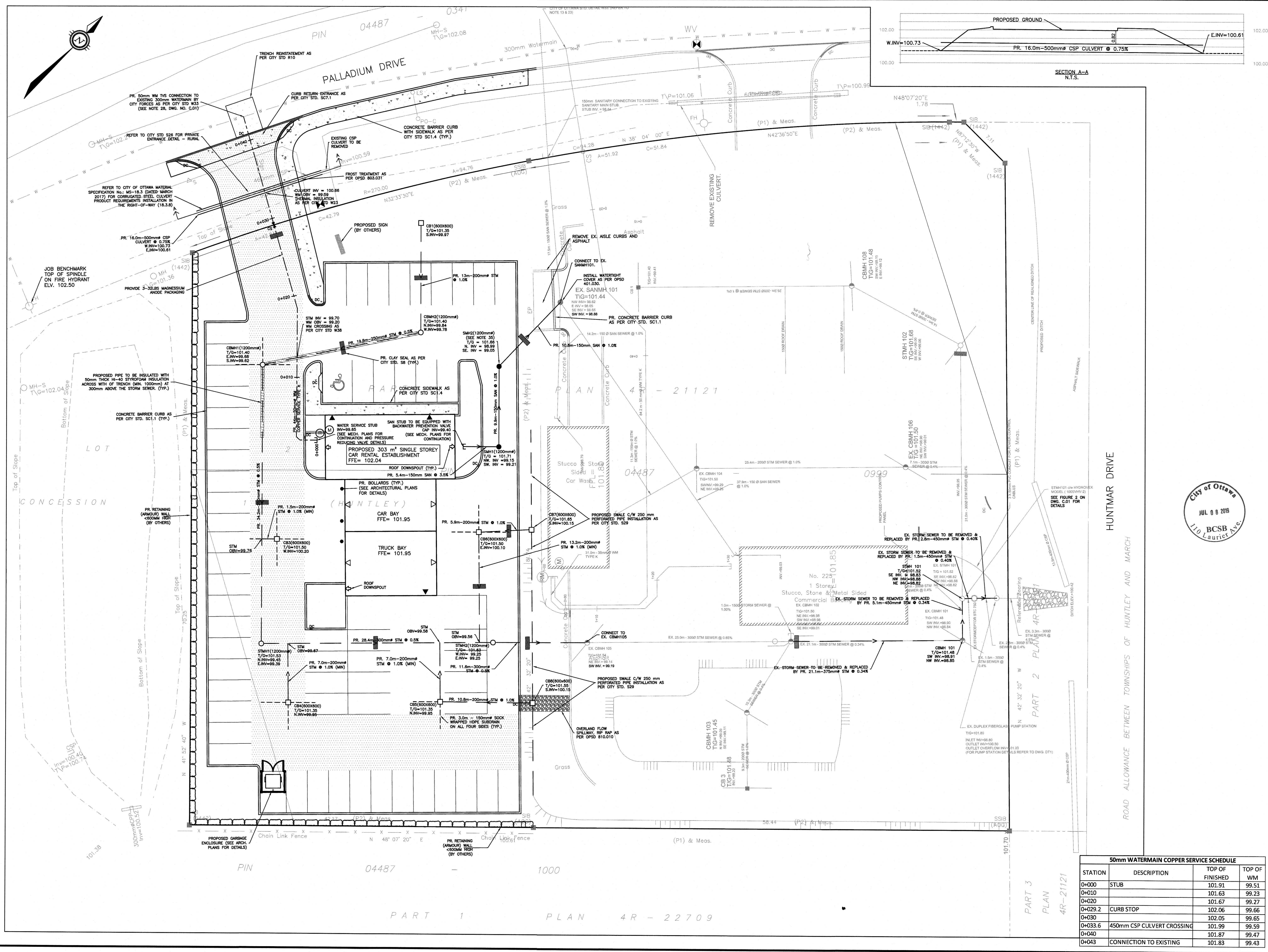
**EXISTING 100 YEAR PONDING AREAS - Ultramar Gas Station**

STRUCTURE	A1	A2	A3	A4	A5	A6	A7	A8	A9
ELEVATION (m)	101.65	101.65	101.65	101.65	101.65	101.65	101.65	101.65	101.65
DEPTH (m)	0.17	0.15	0.17	0.25	0.15	0.15	0.20	0.17	0.11
AREA (m <sup>2</sup> )	249.6	135.8	191.3	321.4	298.7	88.6	271.6	175.9	145.3
VOLUME (m <sup>3</sup> )	14.1	6.8	10.8	26.8	14.9	4.4	18.1	10.0	5.3

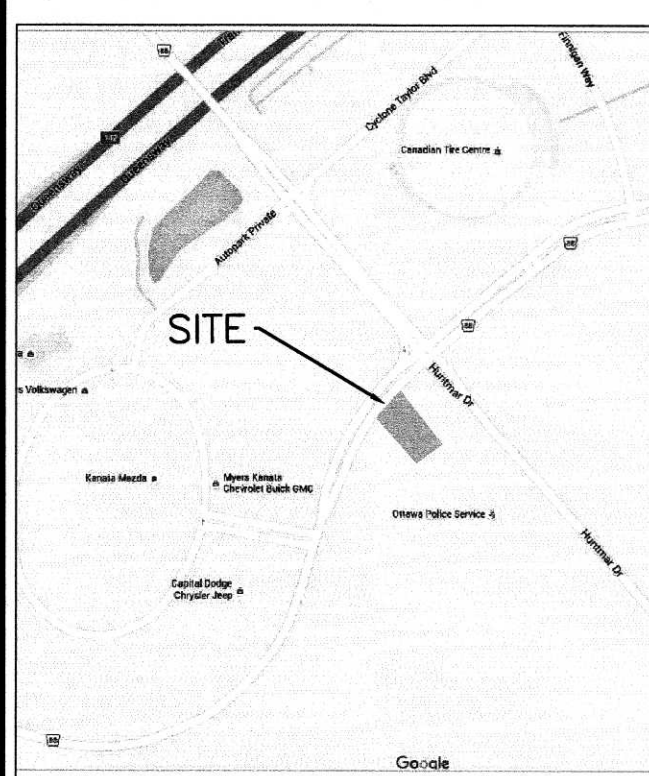


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 USER: IJ

D07-12-16-0066



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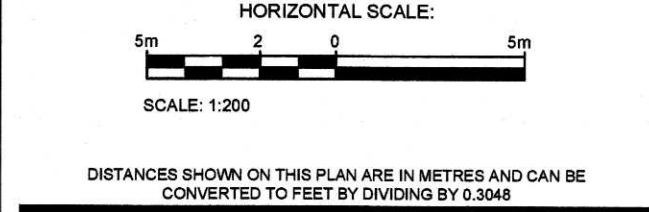
**KEY PLAN**  
(N.T.S.)

APPROVED  REFUSED

THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_

DERRICK MOODIE, MANAGER  
 DEVELOPMENT REVIEW WEST  
 PLANNING, INFRASTRUCTURE AND ECONOMIC  
 DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

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02	ISSUED AS PER CITY COMMENTS	I.J.	SEPT 30, 2016
01	ISSUED FOR SPA	I.J.	APRIL 22, 2016



City of Ottawa  
 JUL 8 2018  
 BCSB  
 110 Laurier Ave. E.

REGISTERED PROFESSIONAL ENGINEER  
 I.M. JAFFERIE  
 10016153  
 APRIL 20, 2017  
 PROVINCE OF ONTARIO

NOT VALID UNLESS SIGNED AND DATED

**MMM GROUP**  
 1145 Hunt Club Dr. Ottawa, ON Canada K1V 0Y3  
 t: 613.736.7200 f: 613.736.8710 www.mmm.ca

CLIENT  
**ENTERPRISE HOLDINGS**  
 2300 STEVENAGE DR.  
 OTTAWA, ON K1G 3W3  
 T: (613) 274-6945

DESIGNED BY: I.J. DRAWN BY: D.G. APPROVED BY: I.J.

PROJECT  
**ENTERPRISE**  
 225 HUNTMAR DRIVE  
 OTTAWA, ON K2S 1B9

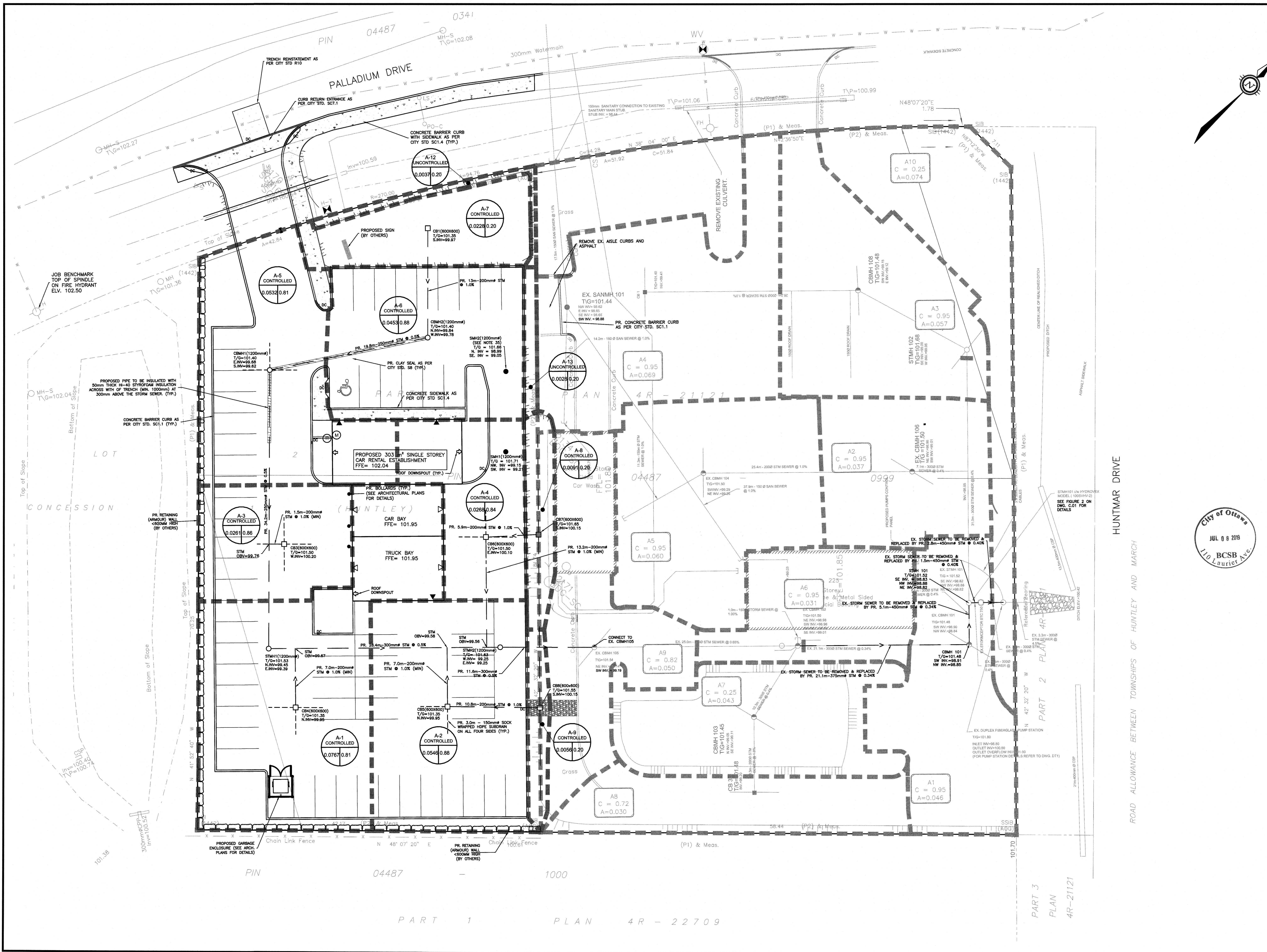
DRAWING TITLE  
**SITE SERVICING PLAN**

PROJECT NO. 1015105 DWG. NO. C.03

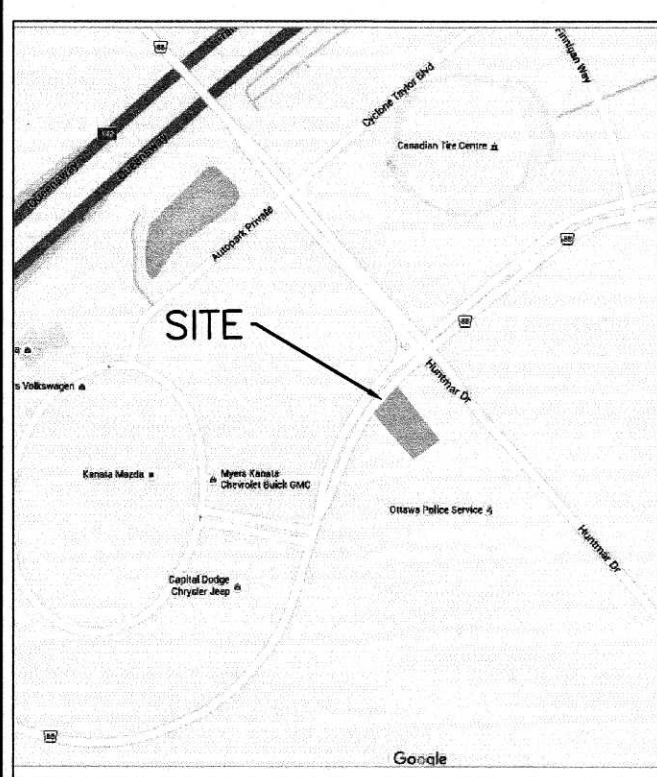
**50mm WATERMAIN COPPER SERVICE SCHEDULE**

STATION	DESCRIPTION	TOP OF FINISHED	TOP OF WM
0+000	STUB	101.91	99.51
0+010		101.63	99.23
0+020		101.67	99.27
0+029.2	CURB STOP	102.06	99.66
0+030		102.05	99.65
0+033.6	450mm CSP CULVERT CROSSING	101.99	99.59
0+040		101.87	99.47
0+043	CONNECTION TO EXISTING	101.83	99.43

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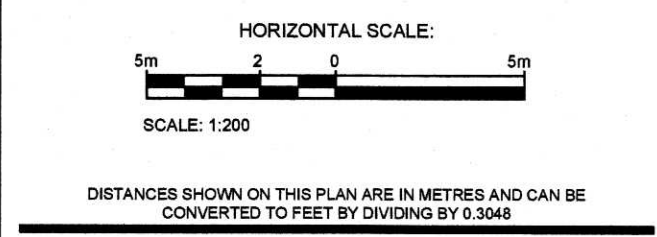


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**APPROVED**  **REFUSED**   
 THIS DAY OF \_\_\_\_\_, 20\_\_\_\_  
 DERRICK MOODIE, MANAGER  
 DEVELOPMENT REVIEW WEST  
 PLANNING, INFRASTRUCTURE AND ECONOMIC  
 DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

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**MMM GROUP**  
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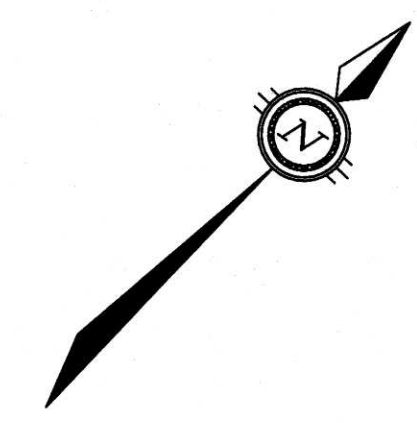
CLIENT  
**ENTERPRISE HOLDINGS**  
 2300 STEVENAGE DR.  
 OTTAWA, ON K1G 3V3  
 T: (613) 274-6945

DESIGNED BY: I.J. DRAWN BY: D.G. APPROVED BY: I.J.

PROJECT  
**ENTERPRISE**  
 225 HUNTMAR DRIVE  
 OTTAWA, ON K2S 1B9

DRAWING TITLE  
**STORM DRAINAGE AREA PLAN**

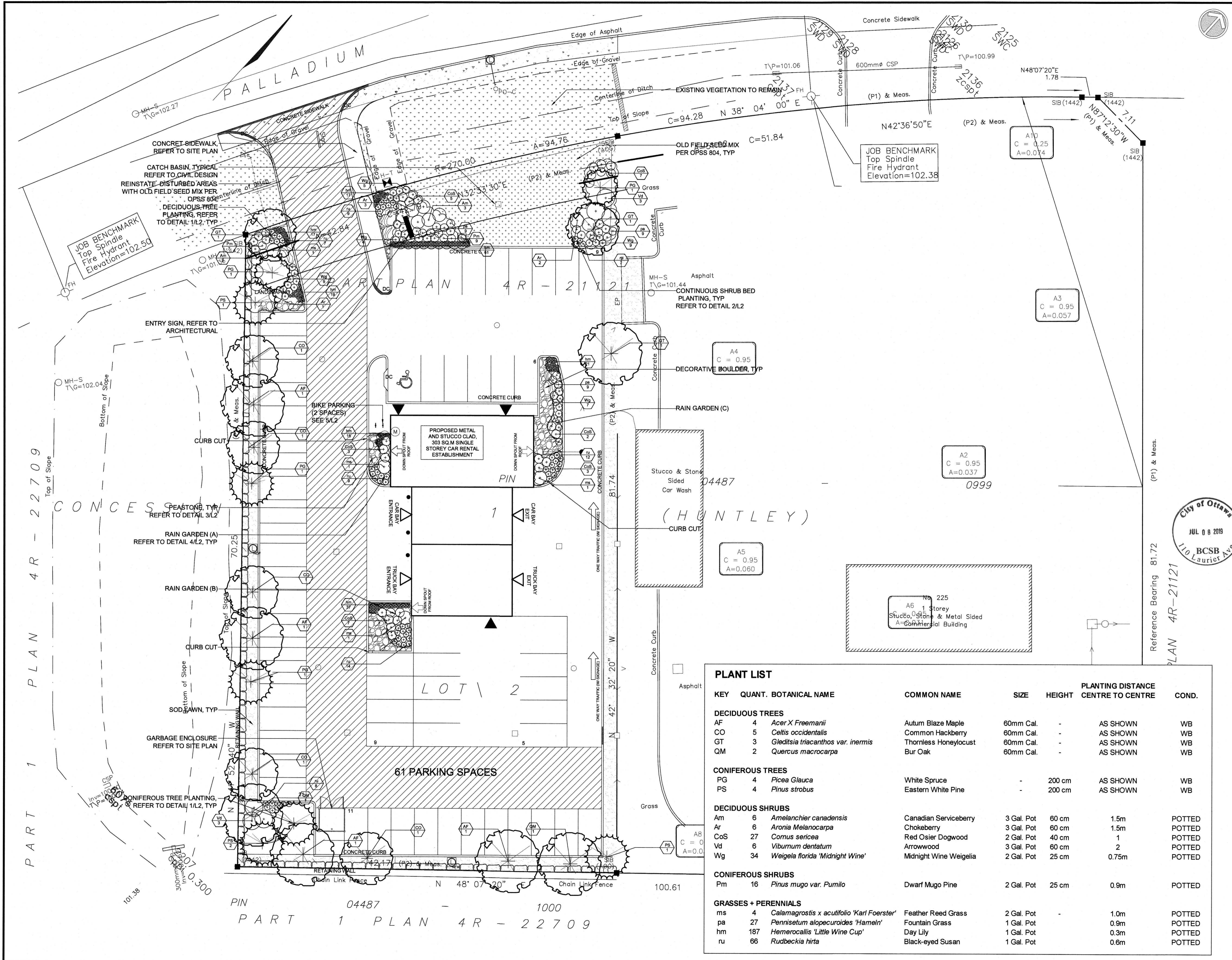
PROJECT NO. 1015105 DWG. NO. **C.04**



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D07-12-16-0066

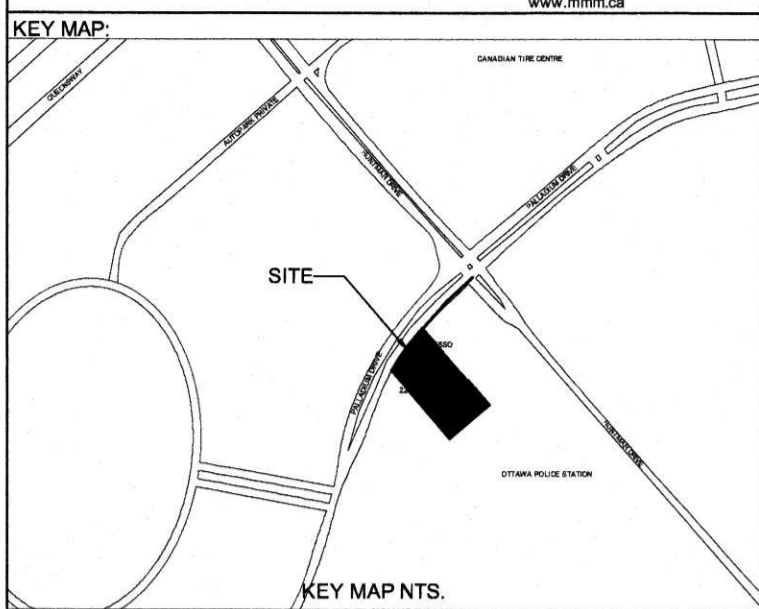
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CLIENT:

**MMM GROUP**

Landscaping Architecture  
1145 Hunt Club Road, Suite 300  
Ottawa, ON K1V0P3  
416-736-2020 / 416-736-8710  
www.mmm.ca



- PROPOSED DECIDUOUS TREE PLANTING
- PROPOSED CONIFEROUS TREE PLANTING
- PROPOSED SHRUB PLANTING
- PROPOSED AREA OF WILDFLOWERS SEED MIX
- PROPOSED AREA OF GRASS / SOD LAWN
- PROPERTY LINE
- PROPOSED LIGHT STANDARD
- PROPOSED PEDESTRIAN BUILDING ENTRY/EXIT
- PROPOSED OVERHEAD GARAGE DOOR
- PROPOSED HEAVY DUTY ASPHALT PAVING
- EXISTING VEGETATION TO BE RETAINED

APPROVED  REFUSED

THIS DAY OF \_\_\_\_\_, 20\_\_

DERRICK MOODIE, ACTING MANAGER  
DEVELOPMENT REVIEW, SUBURBAN SERVICES

- NOTES:
- NO EXISTING TREES PROPOSED TO REMAIN. REFER TO TREE CONSERVATION REPORT PREPARED BY MMM GROUP LIMITED, DATED AUGUST 16, 2016.
  - ALL DRAWING UNITS IN METERS UNLESS OTHERWISE NOTED.

NO.	DATE	DESCRIPTION	BY
5	03-10-2017	RE-ISSUED FOR SITE PLAN APPLICATION IN RESPONSE TO CITY COMMENTS	AG
4	01-17-2017	ISSUED FOR SITE PLAN APPLICATION	AG
3	09-28-2016	RE-ISSUED FOR SITE PLAN APPLICATION IN RESPONSE TO CITY COMMENTS	AG
2	05-05-2016	ISSUED FOR SITE PLAN APPLICATION	AG
1	29-01-2016	ISSUED FOR REVIEW	AG

REVISIONS

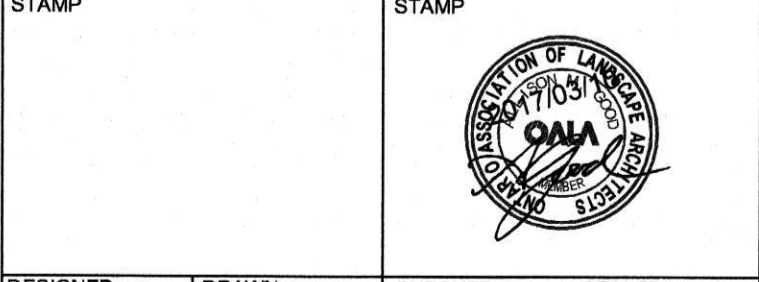
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		1:400	HALF SIZE

PROJECT TITLE

**ENTERPRISE RENT-A-CAR**  
225 Huntmar Road, Ottawa, ON

DRAWING TITLE

**LANDSCAPE PLAN**



DESIGNED	DRAWN	CHECKED	SEALED
A.G.	A.G.	J.L.	A.G.

PROJECT NUMBER: 10-15105-000

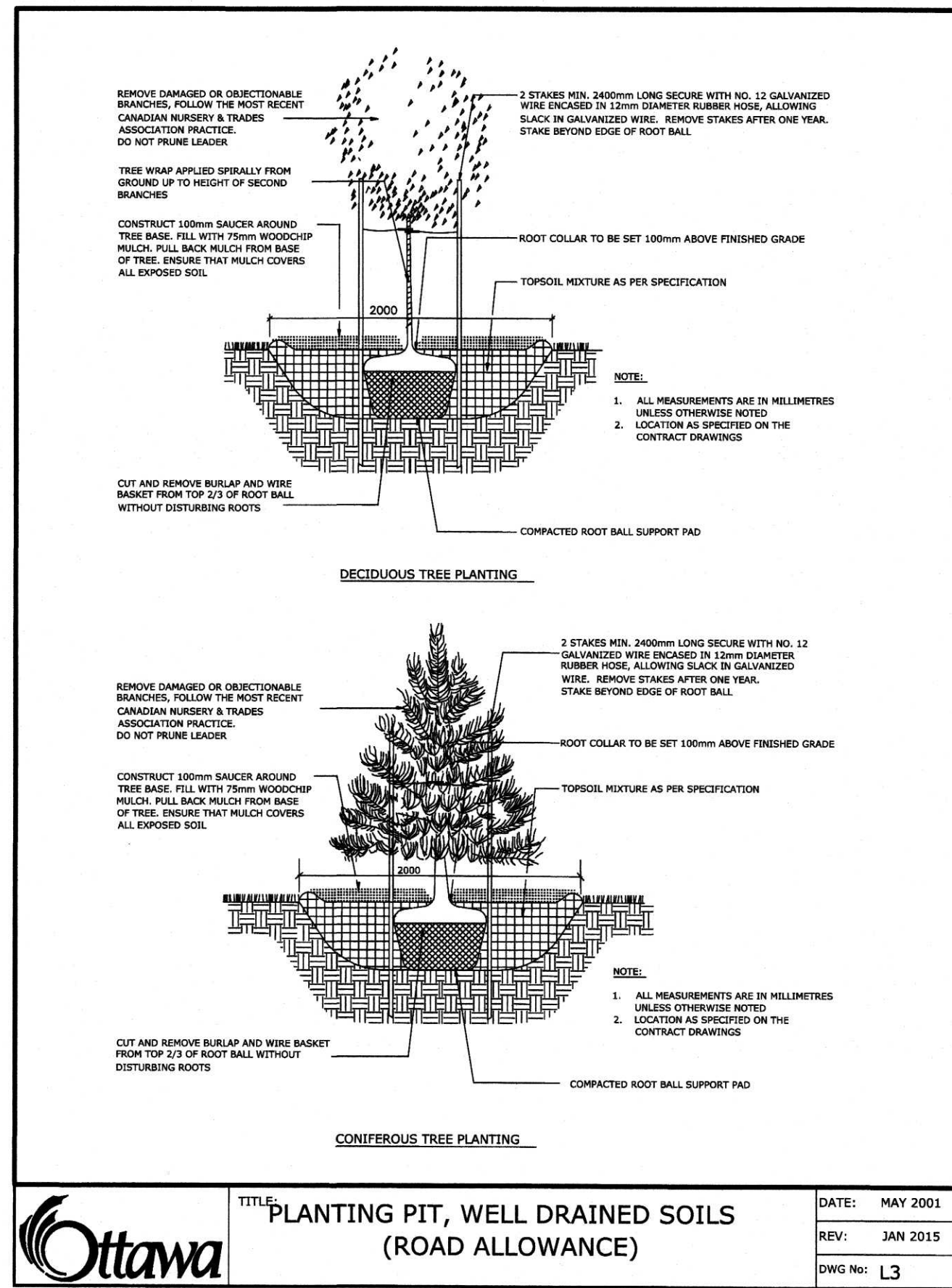
DWG. NUMBER: L01

**PLANT LIST**

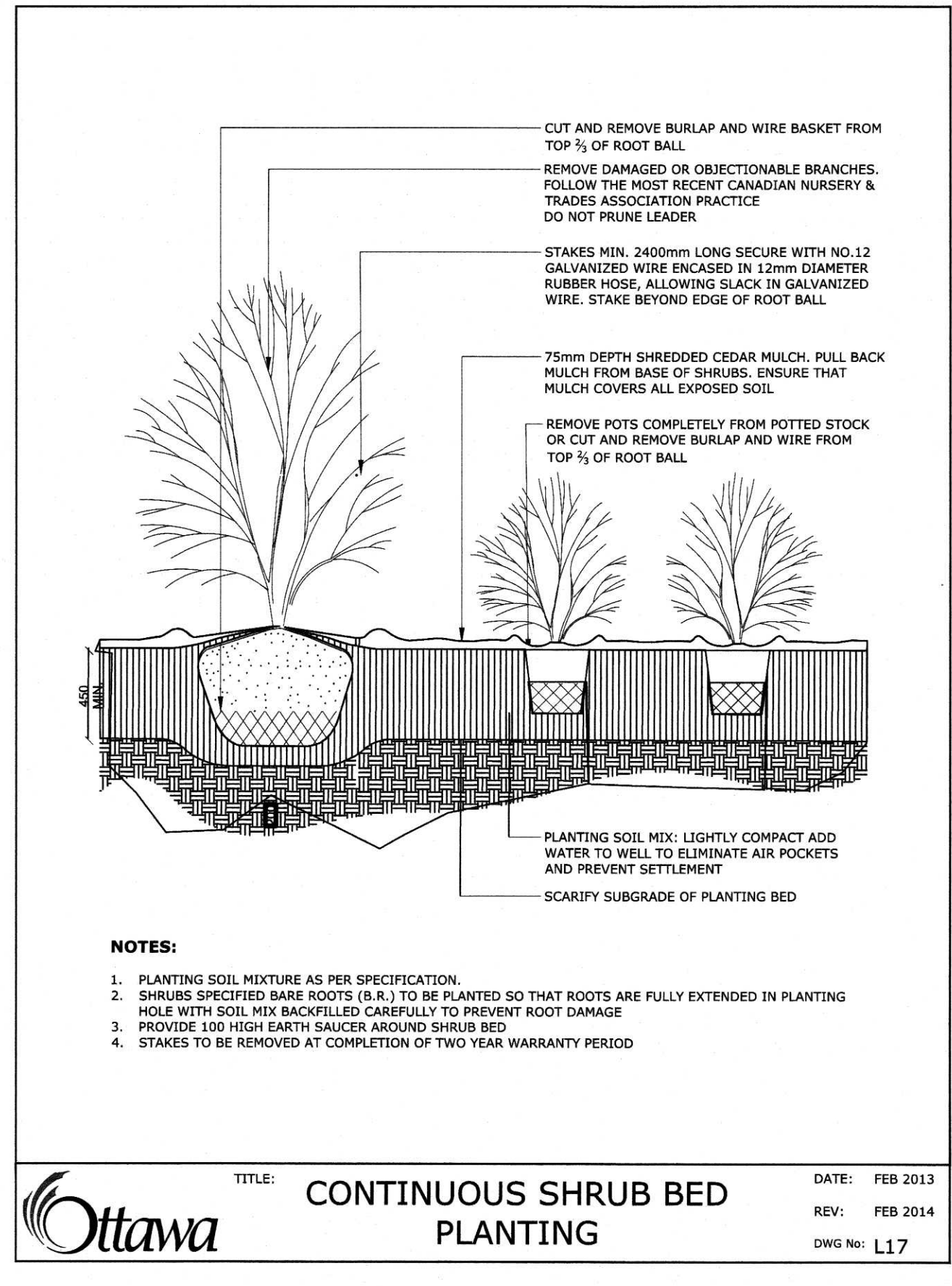
KEY	QUANT.	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	PLANTING DISTANCE CENTRE TO CENTRE	COND.
<b>DECIDUOUS TREES</b>							
AF	4	<i>Acer X Freemanii</i>	Autum Blaze Maple	60mm Cal.	-	AS SHOWN	WB
CO	5	<i>Celtis occidentalis</i>	Common Hackberry	60mm Cal.	-	AS SHOWN	WB
GT	3	<i>Gleditsia triacanthos var. inermis</i>	Thornless Honeylocust	60mm Cal.	-	AS SHOWN	WB
QM	2	<i>Quercus macrocarpa</i>	Bur Oak	60mm Cal.	-	AS SHOWN	WB
<b>CONIFEROUS TREES</b>							
PG	4	<i>Picea Glauca</i>	White Spruce	-	200 cm	AS SHOWN	WB
PS	4	<i>Pinus strobus</i>	Eastern White Pine	-	200 cm	AS SHOWN	WB
<b>DECIDUOUS SHRUBS</b>							
Am	6	<i>Amelanchier canadensis</i>	Canadian Serviceberry	3 Gal. Pot	60 cm	1.5m	POTTED
Ar	6	<i>Aronia Melanocarpa</i>	Chokeberry	3 Gal. Pot	60 cm	1.5m	POTTED
CoS	27	<i>Cornus sericea</i>	Red Osier Dogwood	2 Gal. Pot	40 cm	1	POTTED
Vd	6	<i>Viburnum dentatum</i>	Arrowwood	3 Gal. Pot	60 cm	2	POTTED
Wg	34	<i>Weigela florida 'Midnight Wine'</i>	Midnight Wine Weigelia	2 Gal. Pot	25 cm	0.75m	POTTED
<b>CONIFEROUS SHRUBS</b>							
Pm	16	<i>Pinus mugo var. Pumilo</i>	Dwarf Mugo Pine	2 Gal. Pot	25 cm	0.9m	POTTED
<b>GRASSES + PERENNIALS</b>							
ms	4	<i>Calamagrostis x acutifolios 'Karl Foerster'</i>	Feather Reed Grass	2 Gal. Pot	-	1.0m	POTTED
pa	27	<i>Pennisetum alopecuroides 'Hamelin'</i>	Fountain Grass	1 Gal. Pot	-	0.9m	POTTED
hm	187	<i>Hemerocallis 'Little Wine Cup'</i>	Day Lily	1 Gal. Pot	-	0.3m	POTTED
ru	66	<i>Rudbeckia hirta</i>	Black-eyed Susan	1 Gal. Pot	-	0.6m	POTTED

D07-12-16-066

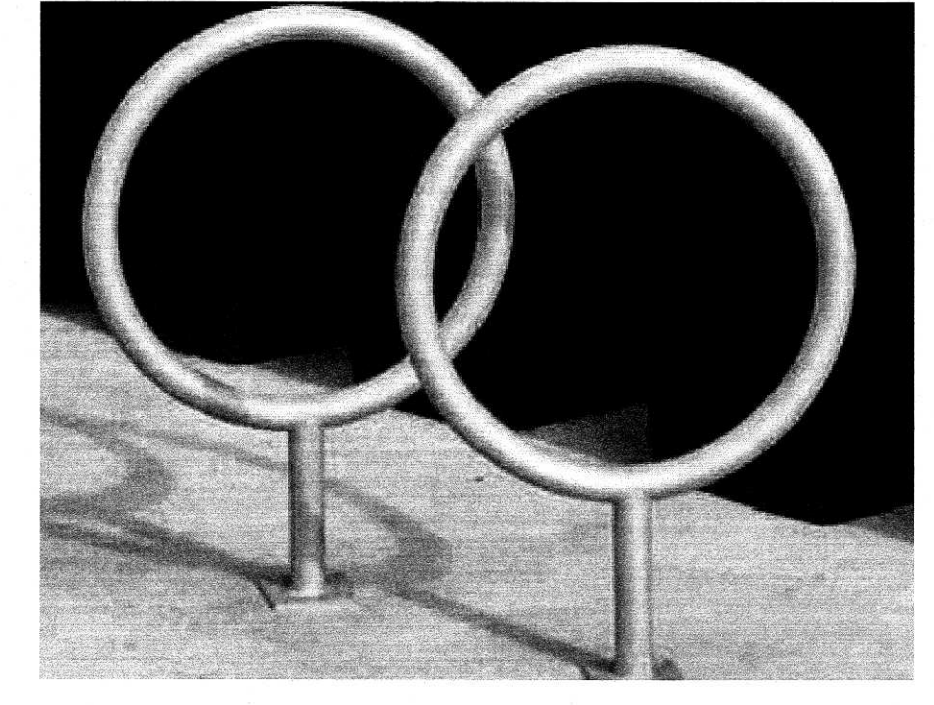
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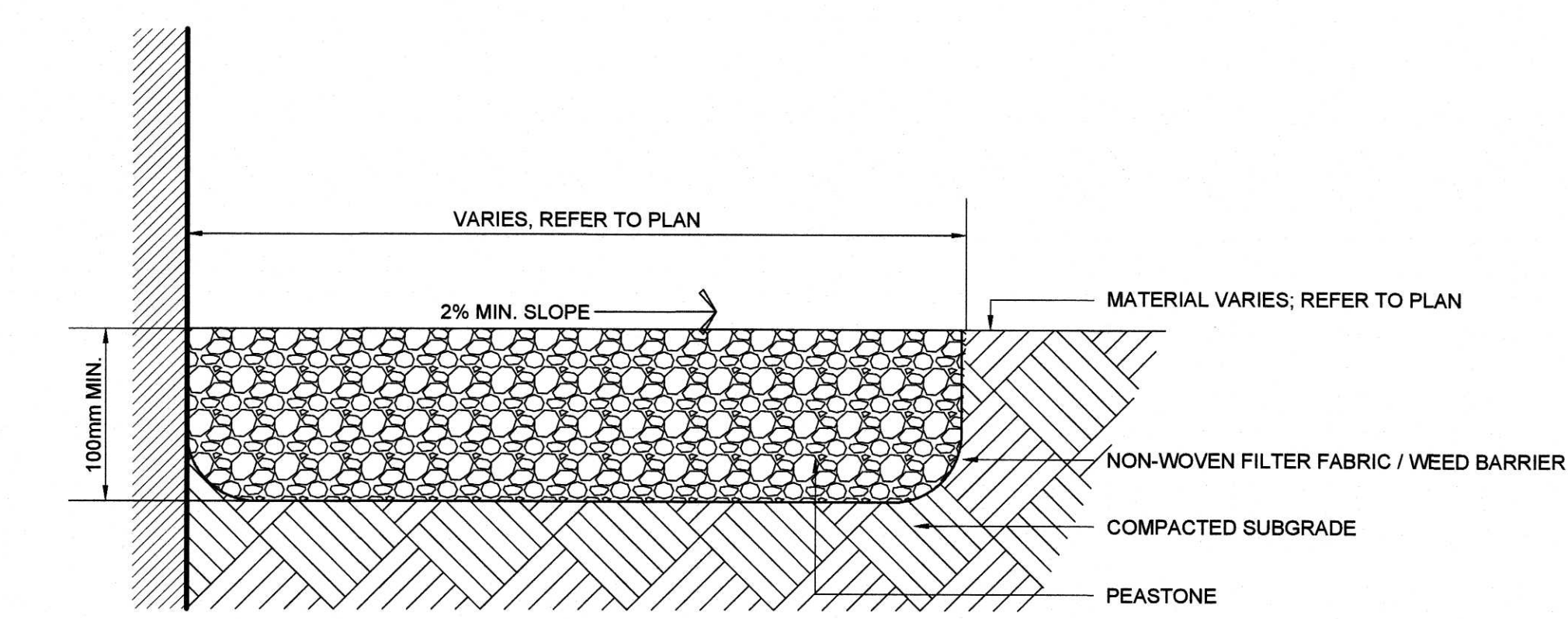
**1 TREE PLANTING**  
L02 SCALE NTS



**2 CONTINUOUS SHRUB PLANTING**  
L02 SCALE NTS

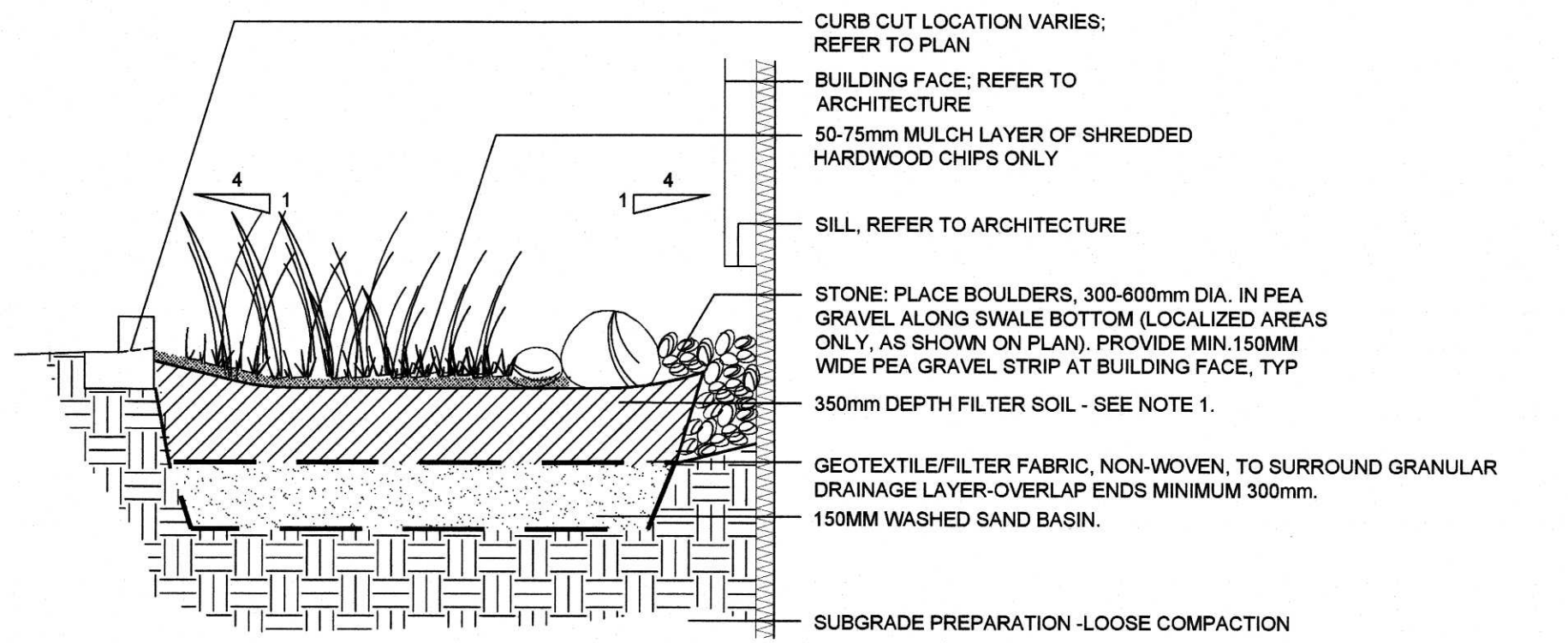


**5 BIKE RACK - MAGLIN MBR 150**  
L02 SCALE NTS



**3 PEASTONE**  
L02 SCALE NTS

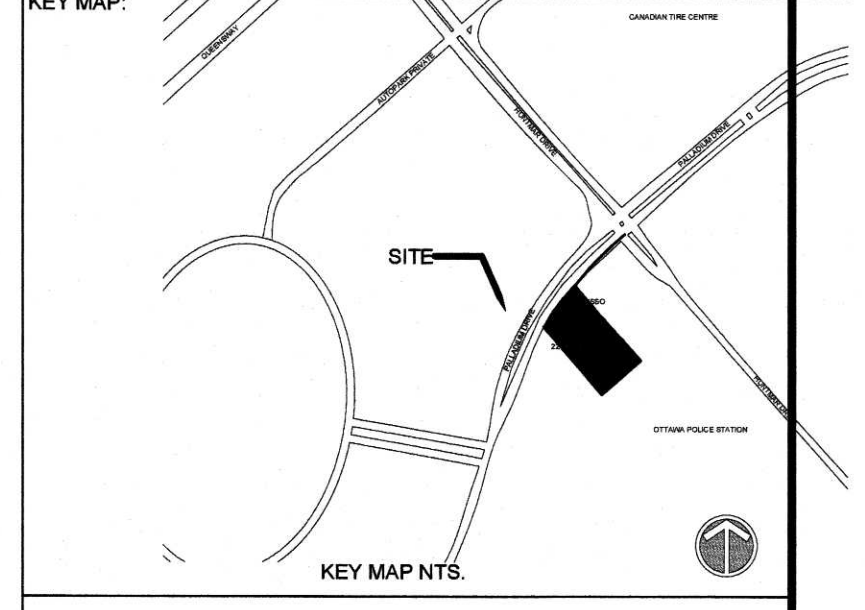
NOTES:  
1. PEASTONE SHALL BE COLOURED RIVERWASH STONE, 3/8" TO 5/8", AVAILABLE FROM GREELY SAND & GRAVEL, OR APPROVED EQUAL.



**4 RAIN GARDEN**  
L02 SCALE NTS

NOTES:  
1. FILTER SOIL MIXTURES TO CONTAIN  
- 85-88% SAND  
- 8-12% SOIL FINES  
- 3-5% ORGANIC MATTER IN FORM OF LEAF COMPOST.  
- THE MEDIA SHOULD HAVE AN INFILTRATION RATE OF 25-50mm/hr.  
2. RAIN GARDEN TO BE INSTALLED ABOVE GROUNDWATER. ELEVATION PER GEOTECHNICAL REPORT. AT RAIN GARDEN LOCATIONS, GROUNDWATER ELEVATION BELOW FINISHED GRADE:  
A - 0.6M  
B - 0.7M  
C - 1.4M

CLIENT:  
**MMM GROUP**  
Landscape Architecture  
1145 Hunt Club Road, Suite 300  
Ottawa, ON K1V0Y3  
613-736-2201 / 613-736-8710  
www.mmm.ca



APPROVED  REFUSED   
THIS \_\_\_ DAY OF \_\_\_\_\_, 20\_\_  
DERRICK MOODIE, ACTING MANAGER  
DEVELOPMENT REVIEW, SUBURBAN SERVICES

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1	29-01-2016	ISSUED FOR REVIEW	AG

REVISIONS  
SCALE: HORIZONTAL 1:200 FULL SIZE  
VERTICAL 1:400 HALF SIZE

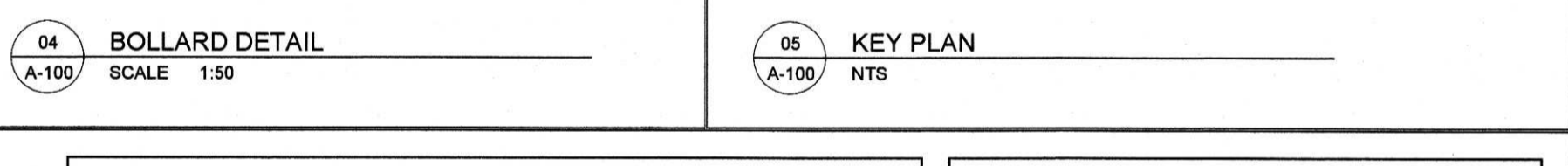
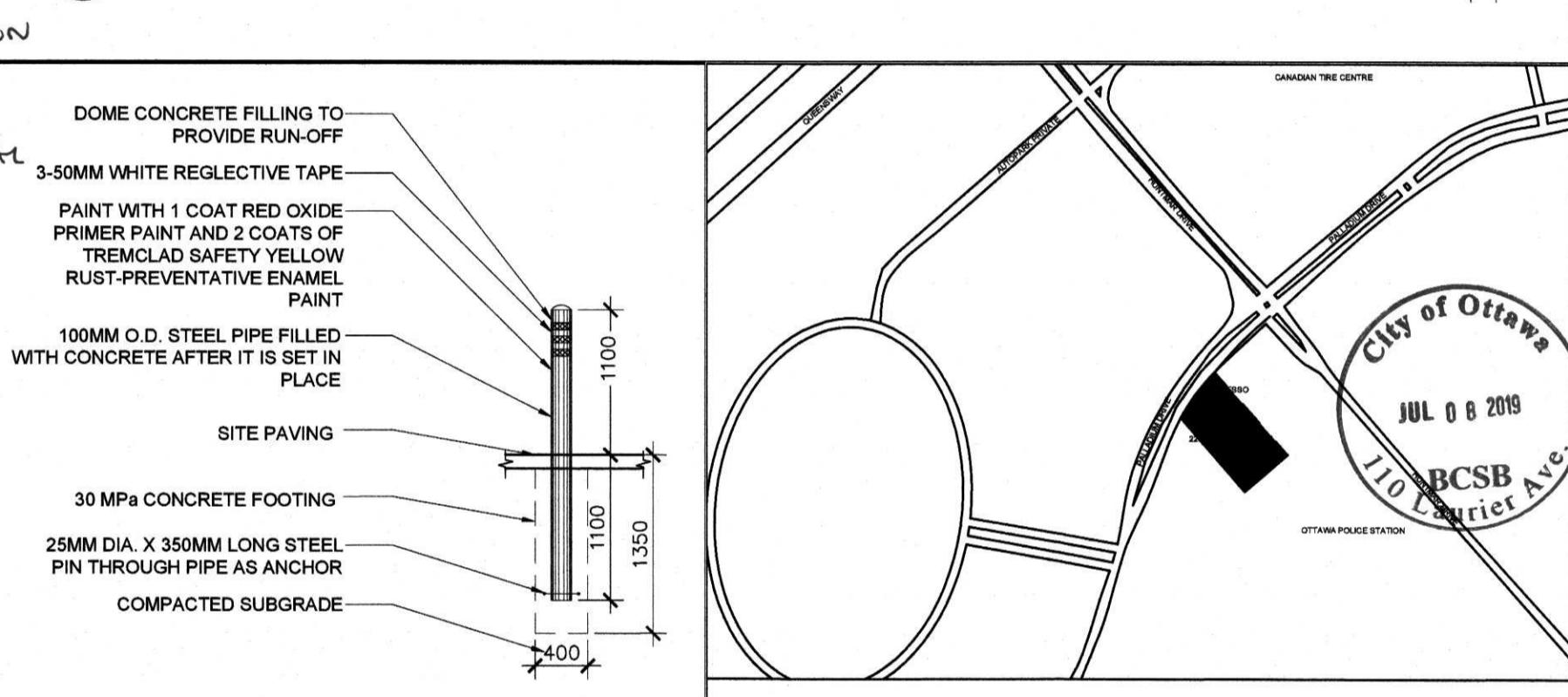
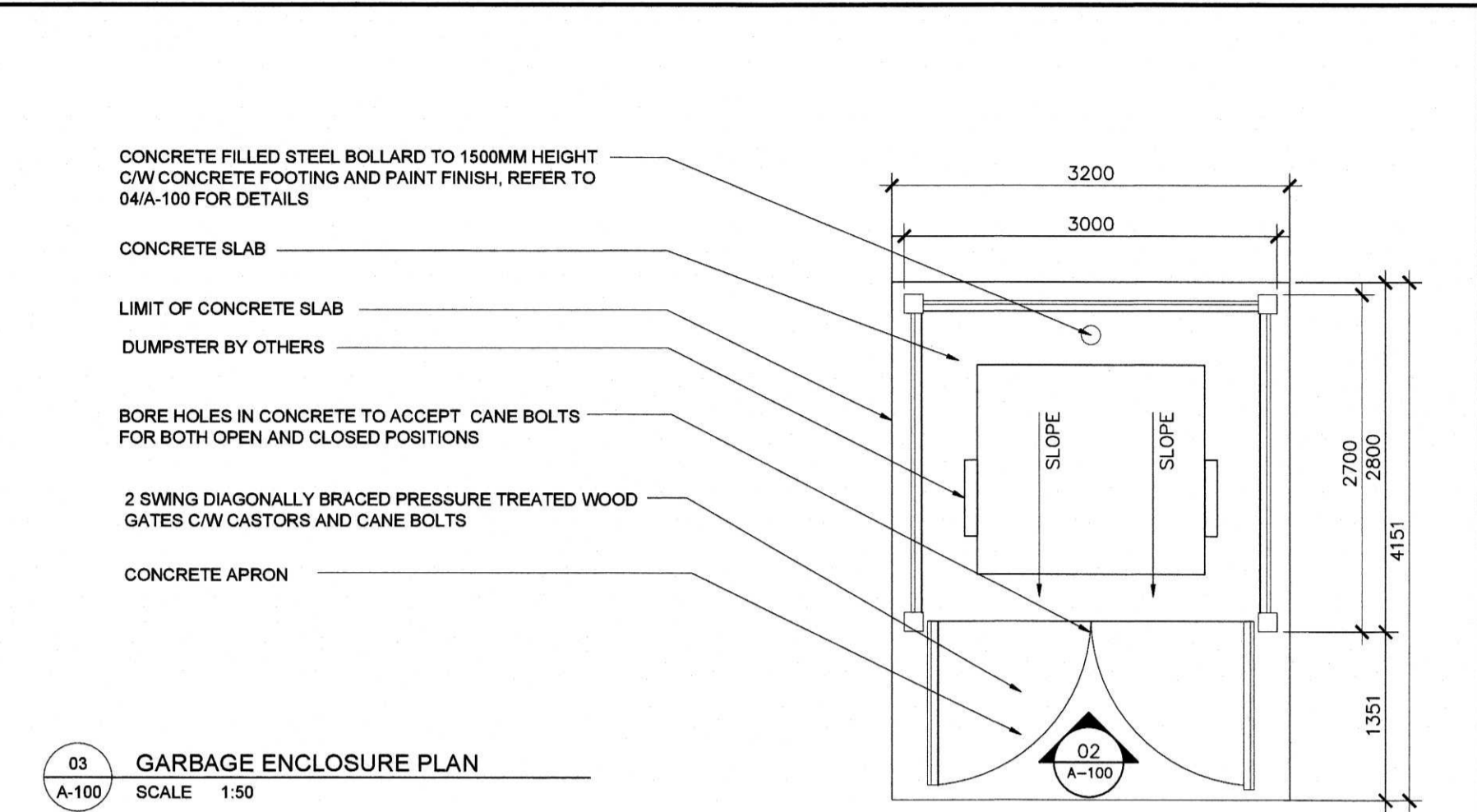
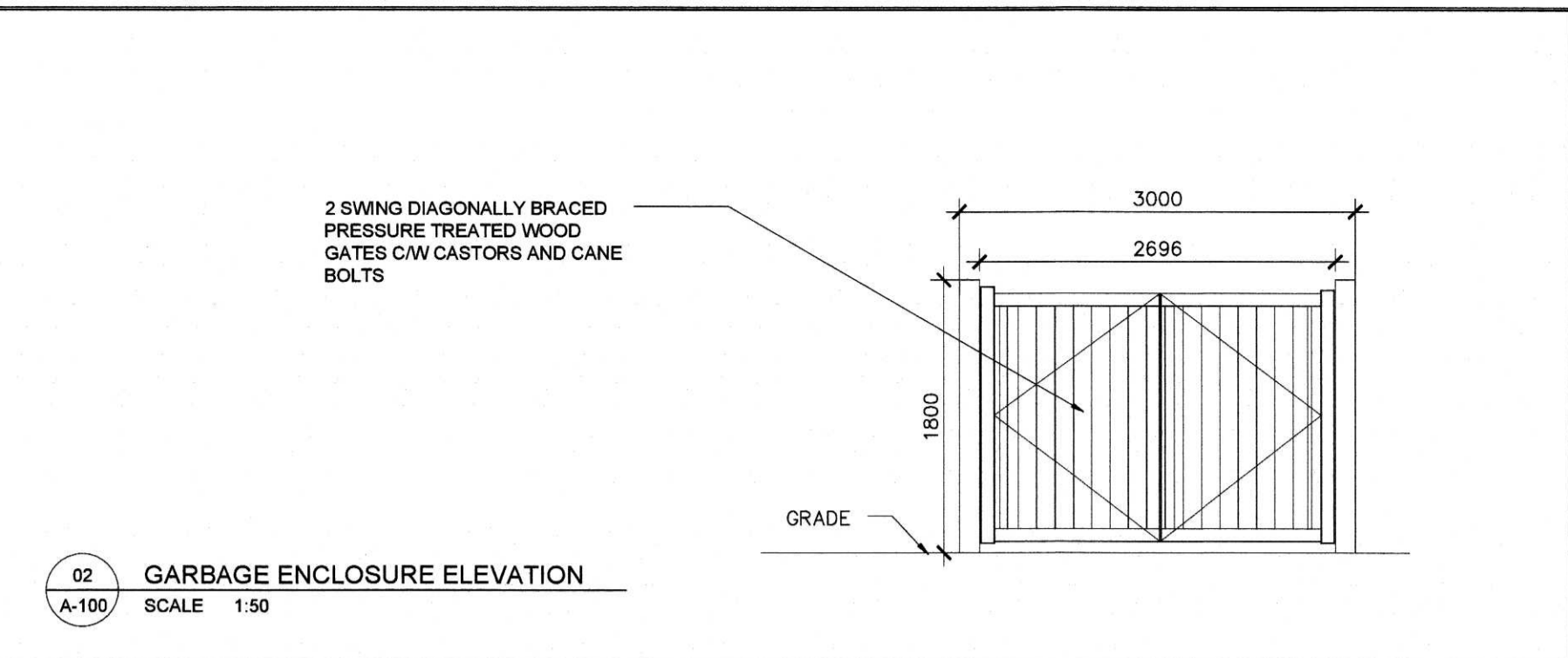
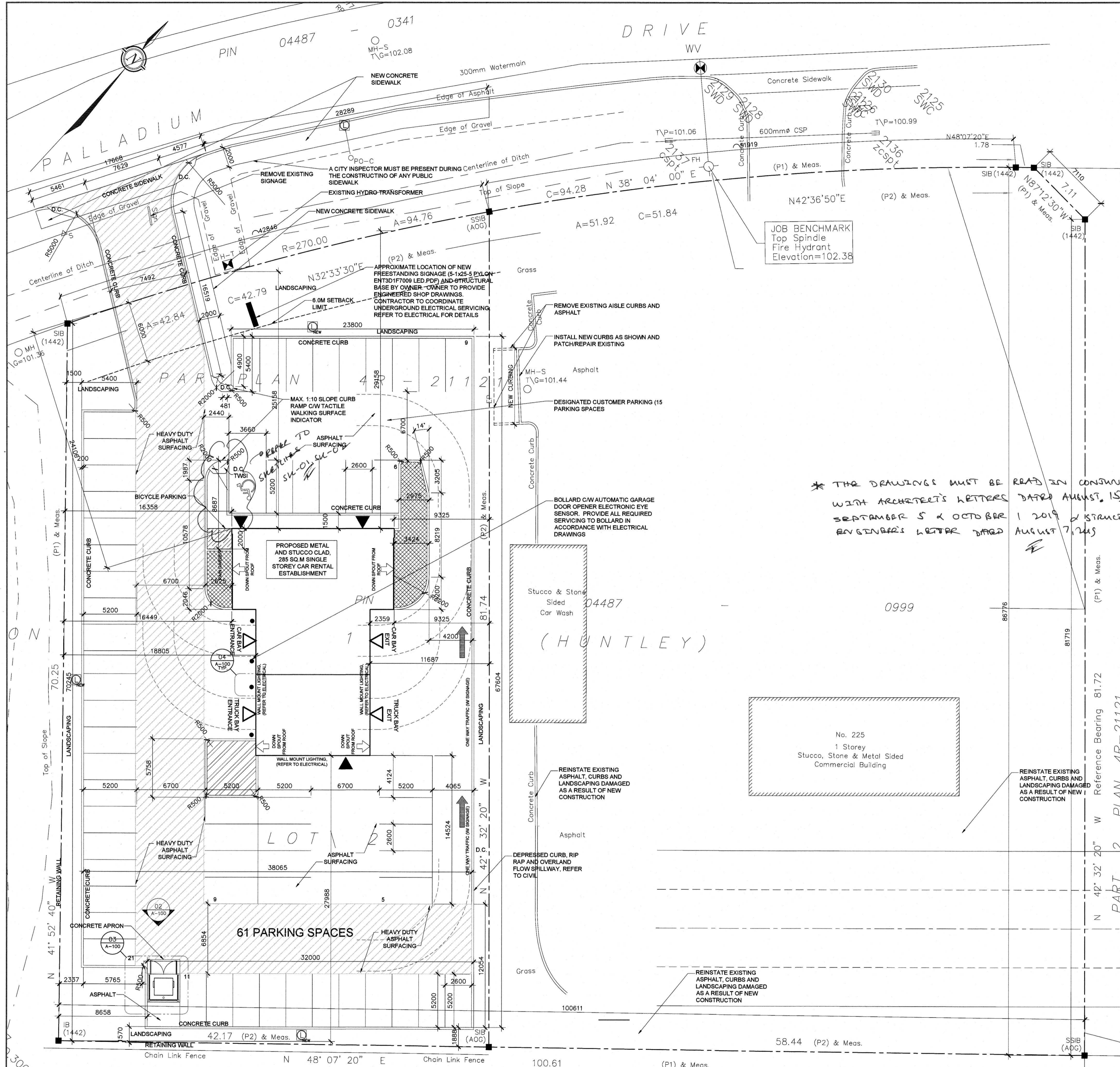
PROJECT TITLE  
**ENTERPRISE RENT-A-CAR**  
225 Huntmar Road, Ottawa, ON

DRAWING TITLE  
**LANDSCAPE DETAILS**

STAMP  
DESIGNED: A.G. DRAWN: A.G. CHECKED: J.L. SEALED: A.G.  
PROJECT NUMBER: 10-15105-000  
DWG. NUMBER: L02

V:\2015\10-15105-000\10-15105-000-01.dwg  
V:\2015\10-15105-000\10-15105-000-01.dwg  
V:\2015\10-15105-000\10-15105-000-01.dwg

D07-12-16-066



\* THE DRAWINGS MUST BE READ IN CONSTRUCTION WITH ARCHITECT'S LETTERS DATED AUGUST 15, SEPTEMBER 5 & OCTOBER 1, 2019 & STRUCTURAL ENGINEER'S LETTER DATED AUGUST 7, 2019

**NOTES AND LEGEND**

- ELEVATIONS ARE REFERRED TO GEODETIC DATUM.
- PROPERTY LINES
  - LIGHT STANDARD
  - HYDRO POLE
  - FIRE HYDRANT
  - UTILITY POLE CONCRETE
  - MAINTENANCE HOLE, SANITARY
  - PEDESTRIAN BUILDING ENTRY/EXIT
  - OVERHEAD GARAGE DOOR
  - DEPRESSED CURB W TACTILE INDICATOR
  - HEAVY DUTY ASPHALT SURFACING
  - FULLY LANDSCAPED CURBSIDE RAIN GARDEN C/W DEPRESSED CURB FOR OVERFLOW TO ASPHALT SURFACING
  - BICYCLE PARKING SPACE (2 (TWO))

**SITE STATISTICS**

SITE AREA = 61645M<sup>2</sup>

NORTH PROPERTY LINE: ARC LENGTH: 42.84M, CHORD LENGTH: 42.79M

SOUTH PROPERTY LINE: LENGTH: 61.72M

EAST PROPERTY LINE: LENGTH: 70.25M

WEST PROPERTY LINE: LENGTH: 70.25M

**BUILDING STATISTICS**

BUILDING AREA = 285 SQ.M

MINIMUM PARKING SPACE RATES (SEC. 101 (ab))

PARKING REQUIRED BY CITY BYLAW = 8 SPACES

PARKING PROVIDED (INVENTORY STORAGE PARKING SPACES) = 15 SPACES

(INVENTORY STORAGE PARKING SPACES) = 46 SPACES

BICYCLE PARKING PROVIDED = 1 SPACE REQ

REQUIRED BARRIER FREE PARKING PROVIDED = 2 PROVIDED

**SURVEY INFORMATION PROVIDED BY:**

ANNIS O'SULLIVAN VOLLEBEK LTD

**LEGAL DESCRIPTION**

PART OF LOT 2, CONCESSION 1 PLAN 4R - 2121 GEOGRAPHIC TOWNSHIP OF HUNTLEY CITY OF OTTAWA

**MUNICIPAL ADDRESS**

225 HUNTMAR DRIVE OTTAWA, ONTARIO K2S 1B9

NOTE:

- OWNER TO PROVIDE SNOW REMOVAL CONTRACT TO THE CITY OF OTTAWA
- PROVIDE LOCATES FOR UNDERGROUND FEEDS AND PROVIDE VISIBLE WARNING SIGNAGE

TABLE 188E - GM22 SUBZONE PROVISIONS

ZONING MECHANISMS	REQUIREMENTS	PROVIDED
(b) Minimum lot width	30 m	East (front): 86.776m
(c) Minimum front yard and corner side setbacks	9 m, except in the case of a parking space, which may be located no closer than 6.0 m to any public street (By-law 2012-33)	North (corner side) property line: 25.156m East (front): 67.751m
(d) Minimum interior side yard setbacks	2 m	South (side) property line: 27.988m
(e) Minimum rear yard setback	7.5 m	West (rear) property line: 16.377m
(h) Minimum width of landscaped area	3.0m abutting a street and 1.5m in all other cases	North (corner side): 6.0m South (side): 1.5m West (rear): 1.5m
(i) Minimum width of landscaped area around a parking lot	see Section 110 - Landscaping Provisions for Parking Lots	see Section 110 - Landscaping Provisions for Parking Lots

**GENERAL NOTES**

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**ISSUE RECORD**

No	DATE	REVISION
08	JUN 28-19	PERMIT APPLICATION
07	APR 12-19	FOR PRE-PERMIT REVIEW
06	MAR 13-17	FOR REVISED SITE PLAN
05	JAN 11-17	FOR REVISED SITE PLAN
04	SEP 29-16	FOR REVISED SITE PLAN
03	AUG 15-16	FOR SITE PLAN APPLICATION
02	MAY-13-16	FOR SITE PLAN APPLICATION
02	DEC 11-15	FOR NRB PRICING
01	DEC 02-15	FOR SUBCONSULTANTS
00	NOV 25-15	FOR CLIENT REVIEW

ACTUAL NORTH PROJECT NORTH

**ONTARIO ASSOCIATION OF ARCHITECTS**

MAJOR C. FLYNN  
LICENSE 6151

JUL 08 2019  
City of Ottawa  
BCSB  
110 Laurier Ave

**CLIENT:**

ENTERPRISE RENT-A-CAR  
RYAN FIRLOTTE  
T: 613-274-6934  
F: 1-800-495-2412

**CONSULTANTS:**

HOLZMAN CONSULTANTS INC.  
(LAND DEVELOPMENT CONSULTANTS)  
1076 CASTLE HILL CRES  
OTTAWA, ONTARIO K2C 2A8  
T: 613-226-1386

MMM GROUP LTD  
(CIVIL ENGINEERING)  
1145 HUNT CLUB ROAD, SUITE 300  
OTTAWA, ONTARIO K1V 0Y3  
T: 613-736-7200  
F: 613-736-8710

VRIEND ENGINEER  
(STRUCTURAL ENGINEERING)  
2086 STAGECOACH ROAD  
OTTAWA, ONTARIO K4P 1M1  
T: 613-521-9002  
002

ANTARES ENGINEERING  
(M&E ENGINEERING)  
1-159 COLONNADE ROAD  
NEPEAN, ONTARIO K2E 7J4  
T: 613-723-6034

**PROJECT TITLE:**

225 HUNTMAR DRIVE  
HUNTMAR/PALLADIUM DR. ENTERPRISE

**DRAWING TITLE:**

PROPOSED SITE PLAN

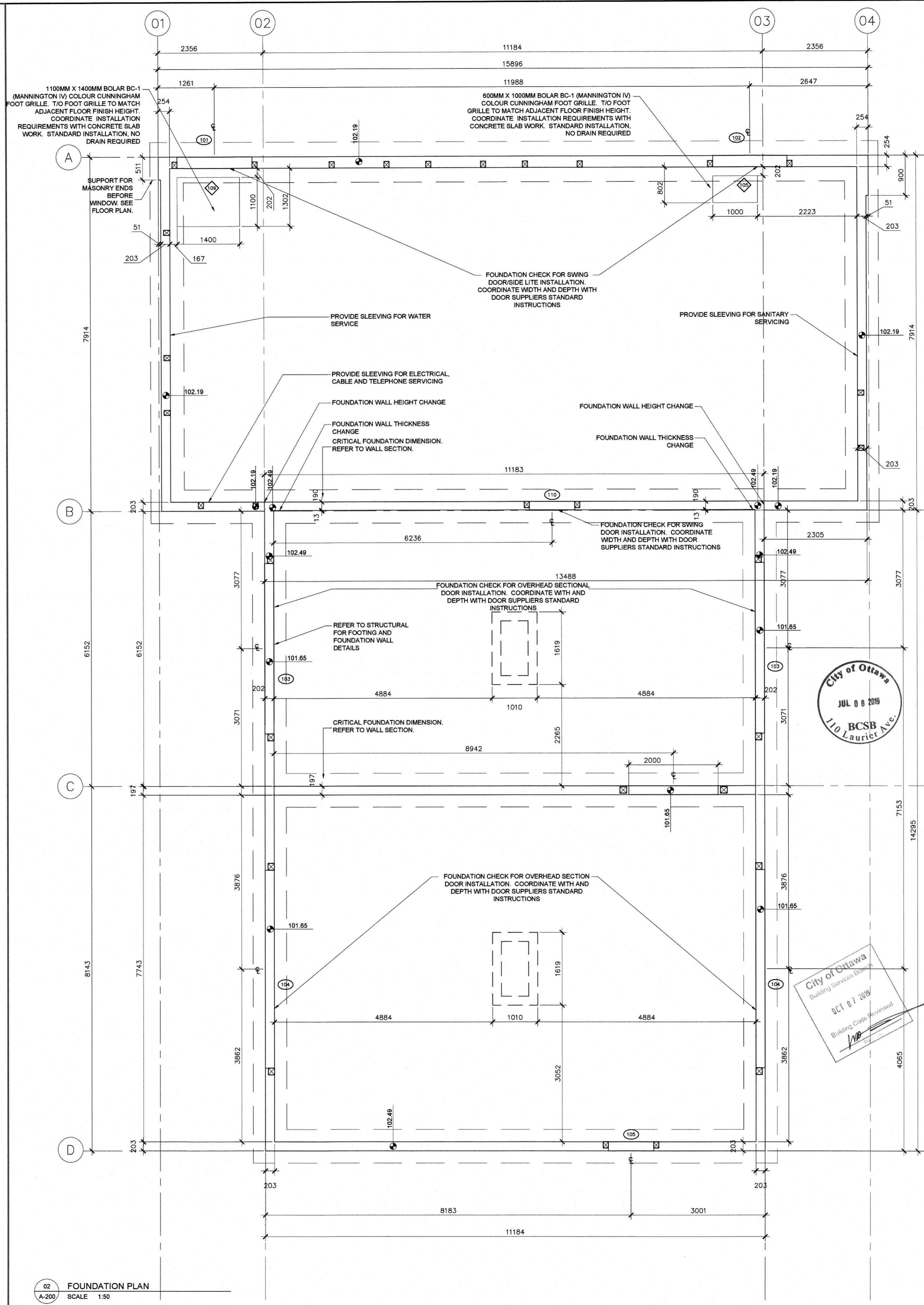
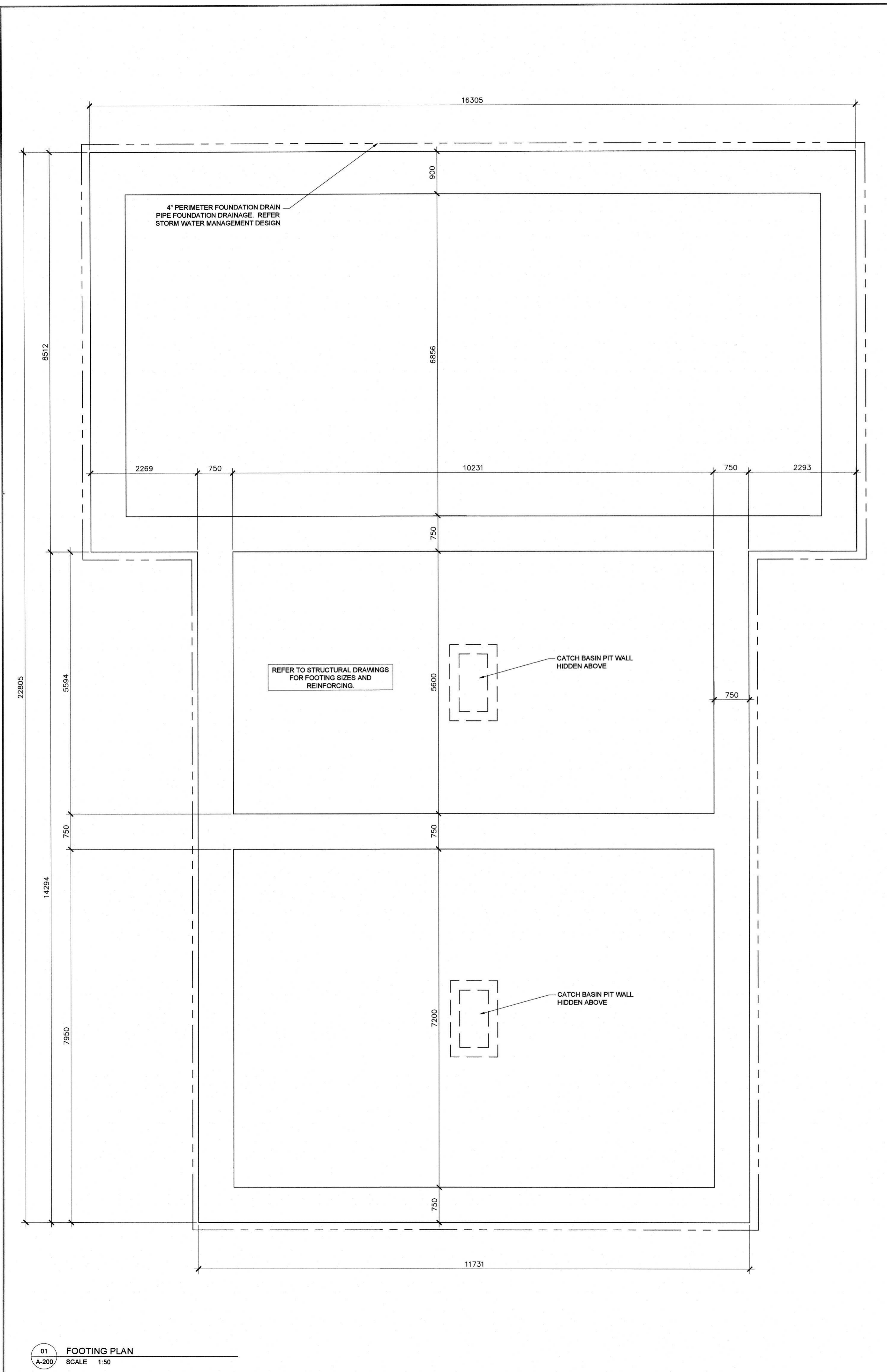
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PIN 04487 - 1000

PART 1 PLAN 4R - 22709

01 PROPOSED SITE PLAN SCALE 1:200

01 PROPOSED SITE PLAN SCALE 1:200



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ISSUE RECORD

No	DATE	REVISION
02	JUN 28-19	PERMIT APPLICATION
01	APR 12-19	FOR PRE-PERMIT REVIEW
00	DEC 11-15	FOR NRB PRICING

ACTUAL NORTH PROJECT NORTH

ONTARIO ASSOCIATION OF ARCHITECTS  
JASON C. FLYNN  
LICENCE 8131

CLIENT:

ENTERPRISE RENT-A-CAR  
RYAN FIRLOTTE  
T: 613-274-6934  
F: 1-800-495-2412

CONSULTANTS:

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1076 CASTEL HILL CRES  
OTTAWA, ONTARIO  
K2C 2A8  
T: 613-226-1386

MMM GROUP LTD  
(CIVIL ENGINEERING)  
1145 HUNT CLUB ROAD, SUITE 300  
OTTAWA, ONTARIO  
K1V 0Y3  
T: 613-736-7200  
F: 613-736-8710

VRIEND ENGINEER  
(STRUCTURAL ENGINEERING)  
2086 STAGECOACH ROAD  
OTTAWA, ONTARIO  
K4P 1M1  
T: 613-521-9002  
002

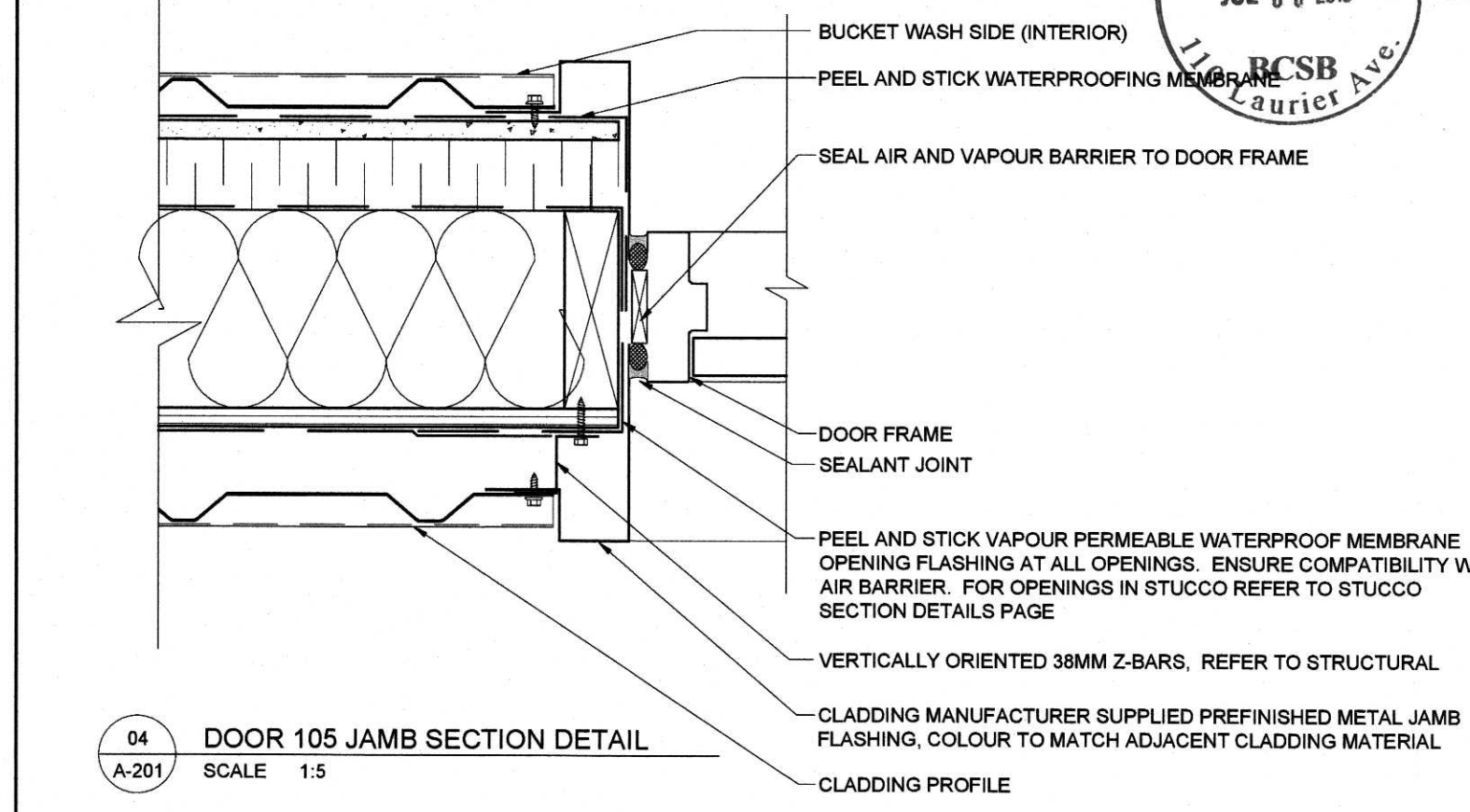
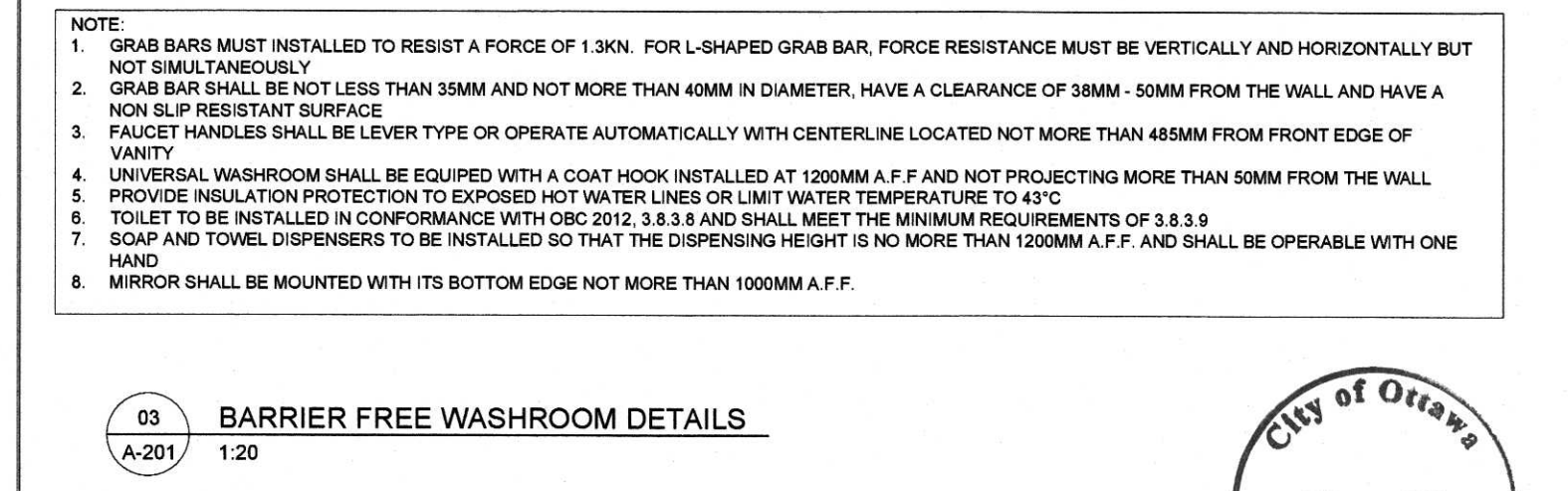
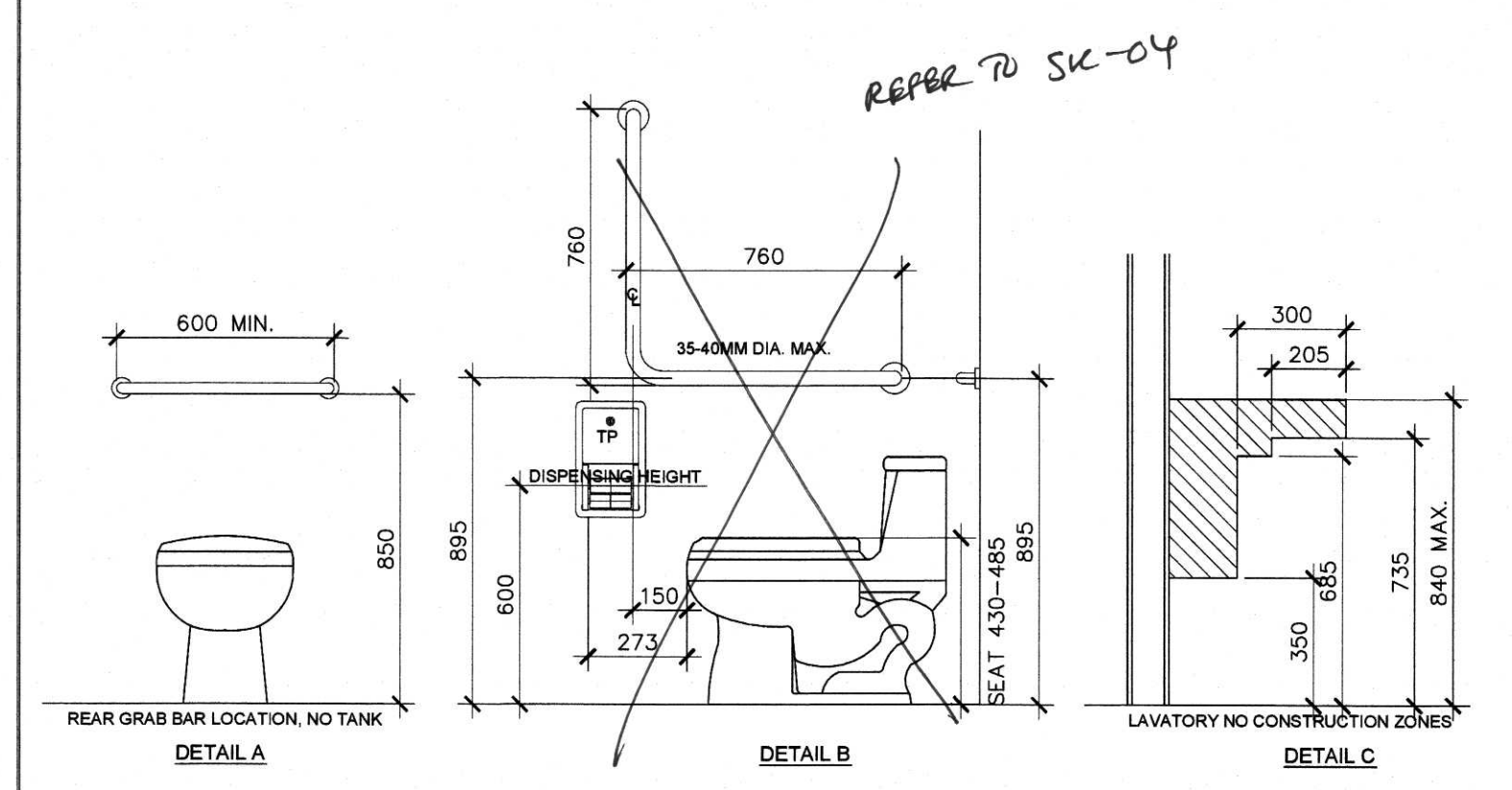
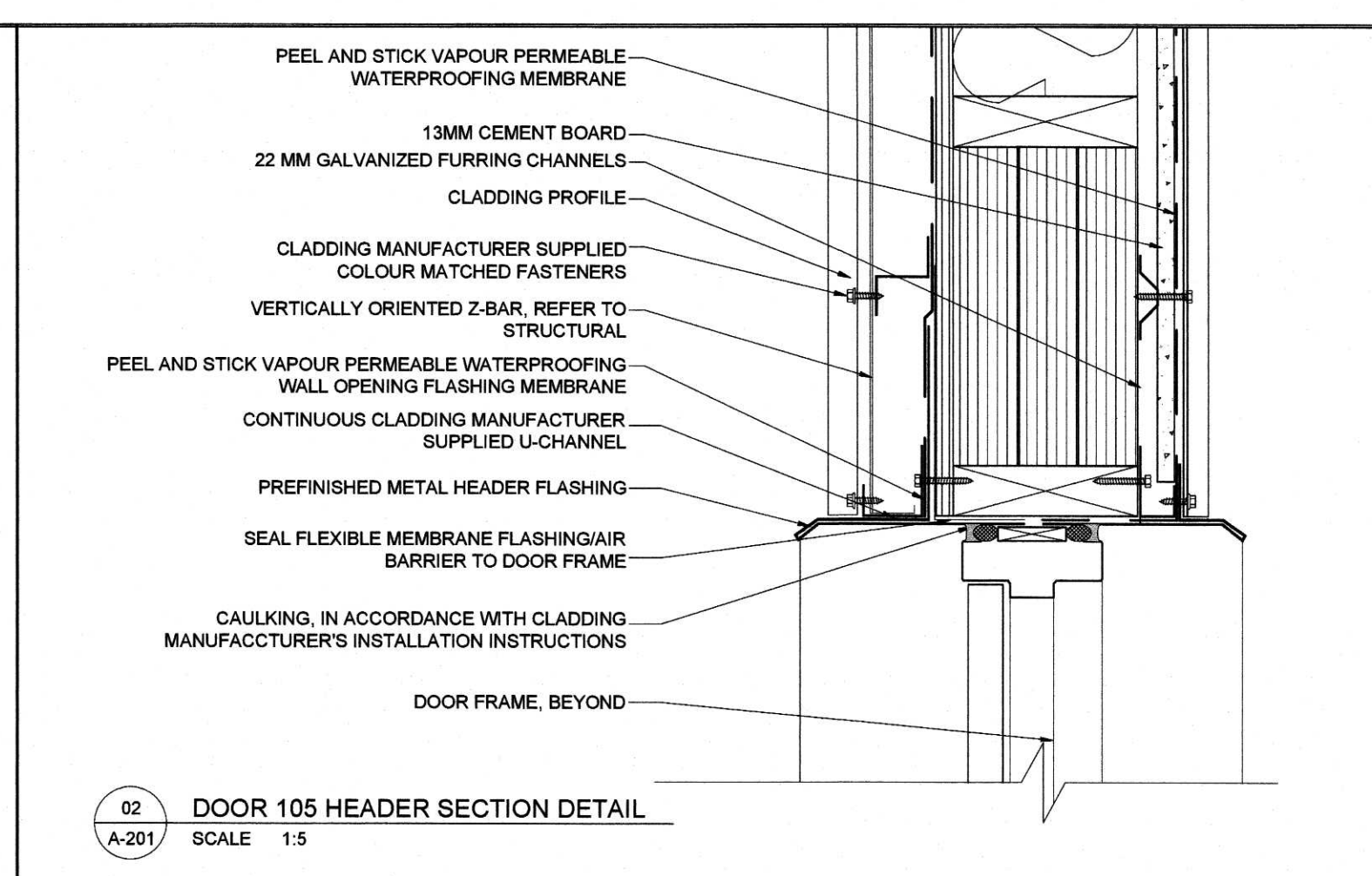
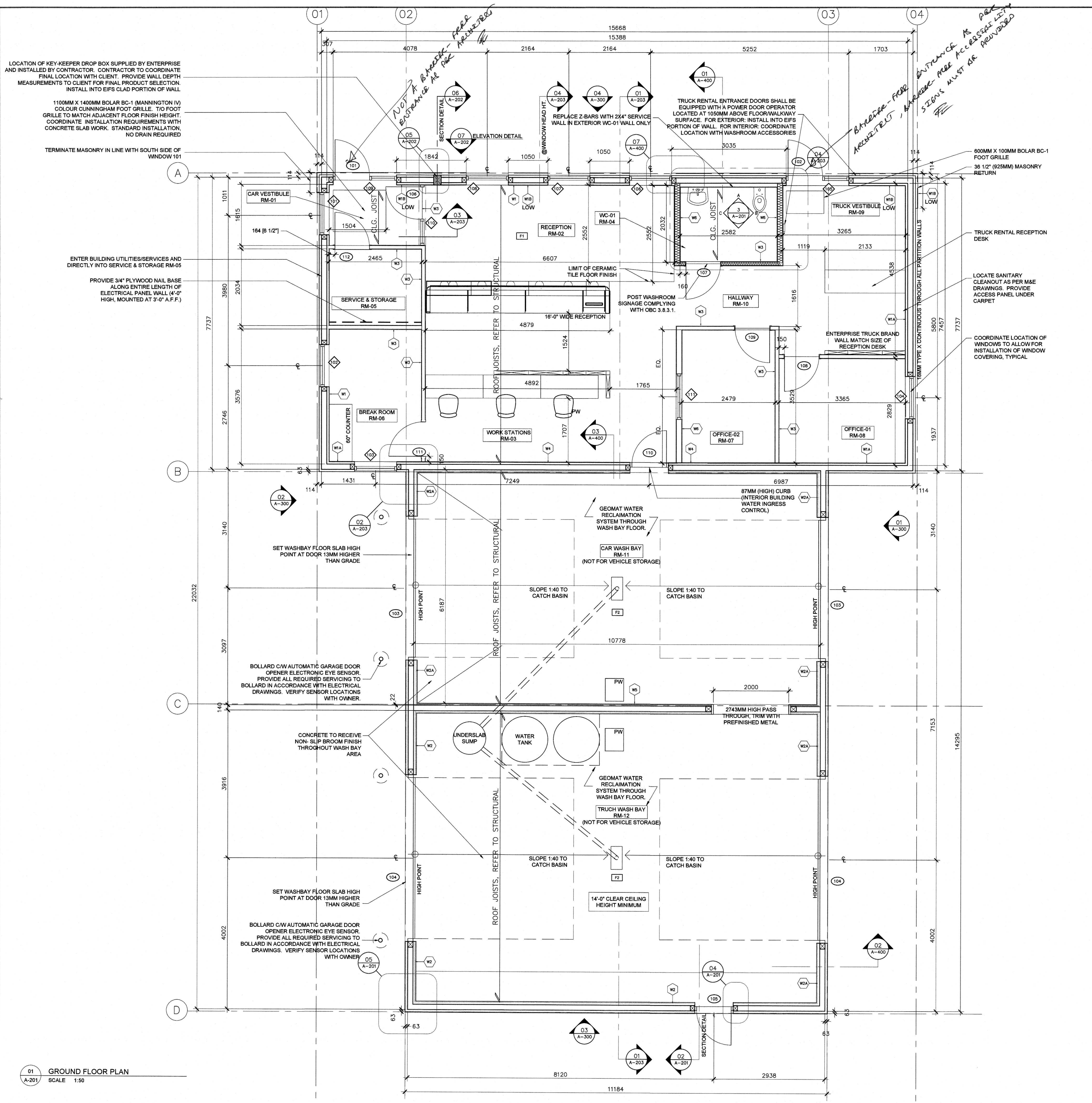
ANTARES ENGINEERING  
(M&E ENGINEERING)  
1-159 COLONNADE ROAD  
NEPEAN, ONTARIO  
K2E 7J4  
T: 613-723-6034

PROJECT TITLE:  
PALLADIUM DRIVE, OTTAWA, ONTARIO  
ENTERPRISE RENT-A-CAR

DRAWING TITLE:  
FOOTING PLAN  
FOUNDATION PLAN

SCALE	CHECKED BY	JOB No.	DRAWING No.
AS NOTED	JcF	15-010	A-200

ARCHITECTURAL



**FLYNN**  
162 PRESTON STREET OTTAWA, ONTARIO  
T: 613-299-8505

**GENERAL NOTES**

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**ISSUE RECORD**

No	DATE	REVISION
05	JUN 28-19	PERMIT APPLICATION
04	JUN 12-19	WATER SYSTEM
03	APR 12-19	FOR PRE-PERMIT REVIEW
02	DEC 11-15	FOR NRB PRICING
01	DEC 02-15	FOR SUBCONSULTANTS
00	SEP 28-15	FOR REVIEW

**ACTUAL NORTH** PROJECT NORTH

**CLIENT:**  
ENTERPRISE RENT-A-CAR  
RYAN FIRLOTTE  
T: 613-274-6934  
F: 1-800-495-2412

**CONSULTANTS:**  
HOLZMAN CONSULTANTS INC.  
(LAND DEVELOPMENT CONSULTANTS)  
1076 CASTEL HILL CRES  
OTTAWA, ONTARIO  
K2C 2A8  
T: 613-226-1386

MMM GROUP LTD  
(CIVIL ENGINEERING)  
1145 HUNT CLUB ROAD, SUITE 300  
OTTAWA, ONTARIO  
K1V 0Y3  
T: 613-736-7200  
F: 613-736-8710

VRIEND ENGINEER  
(STRUCTURAL ENGINEERING)  
2086 STAGECOACH ROAD  
OTTAWA, ONTARIO  
K4P 1M1  
T: 613-521-9002

ANTARES ENGINEERING  
(M&E ENGINEERING)  
1-159 COLONNADE ROAD  
NEPEAN, ONTARIO  
K2E 7J4  
T: 613-723-6034

**PROJECT TITLE:**  
PALLADIUM DRIVE, OTTAWA, ONTARIO  
ENTERPRISE RENT-A-CAR

**DRAWING TITLE:**  
GROUND FLOOR PLAN  
DETAILS

SCALE	DRAWN BY	JOB No.	DRAWING No.
AS NOTED	JGF	15-010	A-201

**ARCHITECTURAL**



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00	DEC 11-15	FOR NRB PRICING



**CLIENT:**  
ENTERPRISE RENT-A-CAR  
RYAN FIRLOTTE  
T: 613-274-6934  
F: 1-800-495-2412

**CONSULTANTS:**  
HOLZMAN CONSULTANTS INC.  
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1076 CASTLE HILL CRES  
OTTAWA, ONTARIO  
K2C 2A8  
T: 613-226-1386

MMM GROUP LTD  
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1145 HUNT CLUB ROAD, SUITE 300  
OTTAWA, ONTARIO  
K1V 0Y3  
T: 613-736-7200  
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VRIEND ENGINEER  
(STRUCTURAL ENGINEERING)  
2086 STAGECOACH ROAD  
OTTAWA, ONTARIO  
K4P 1M1  
T: 613-521-9002

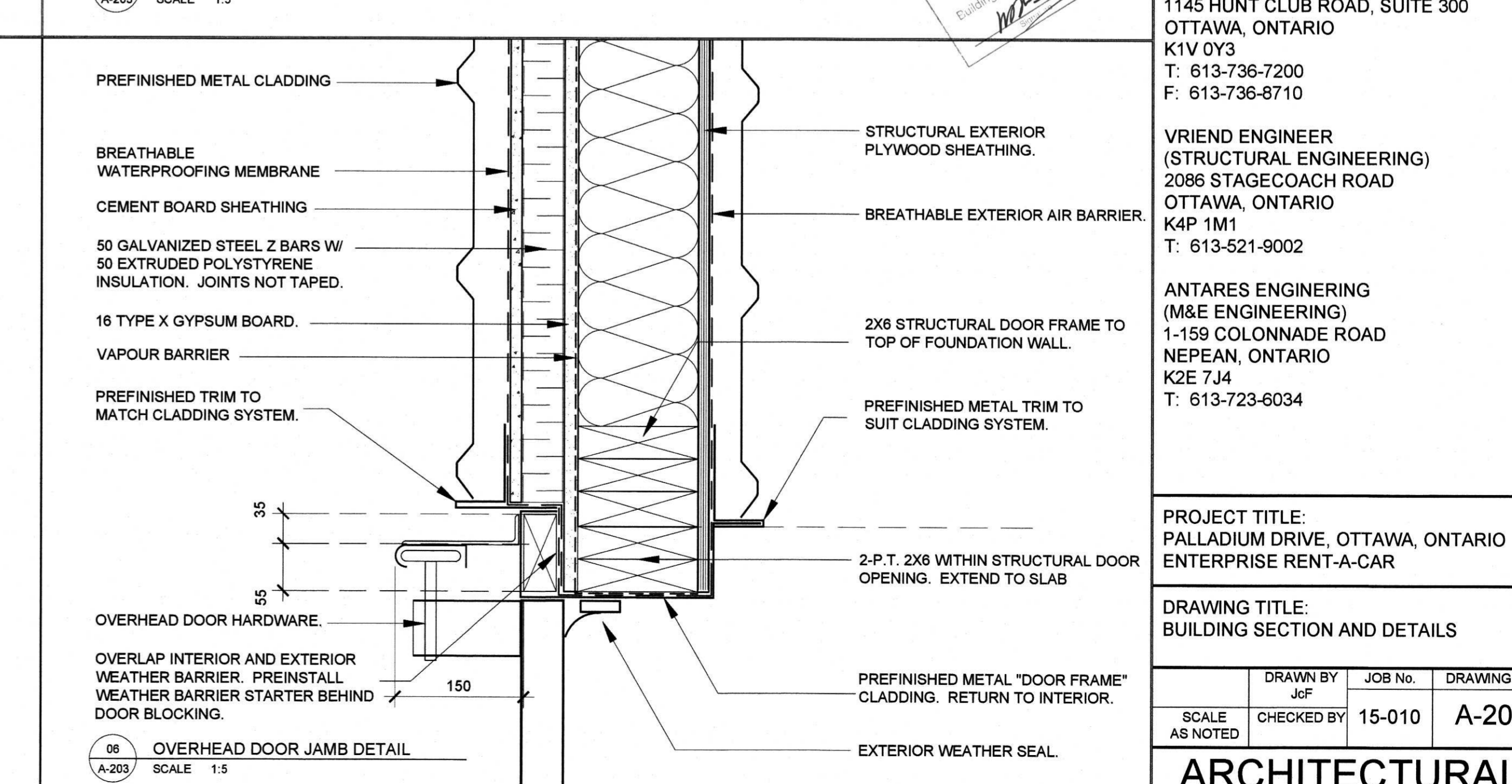
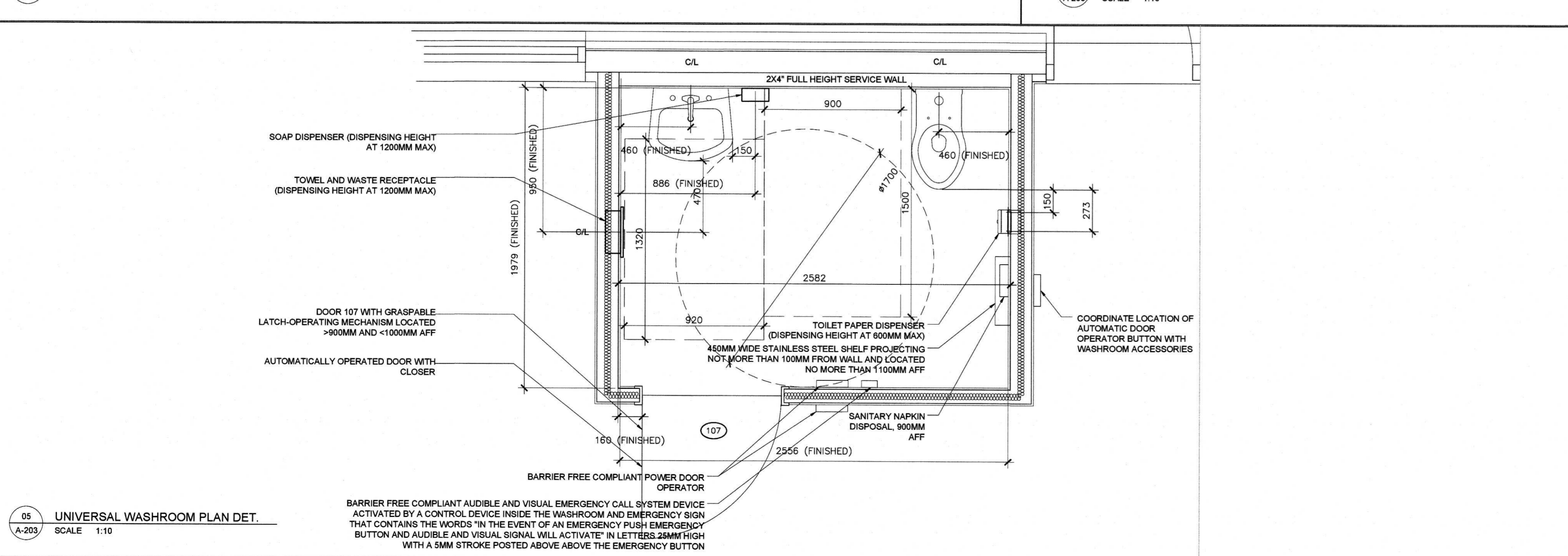
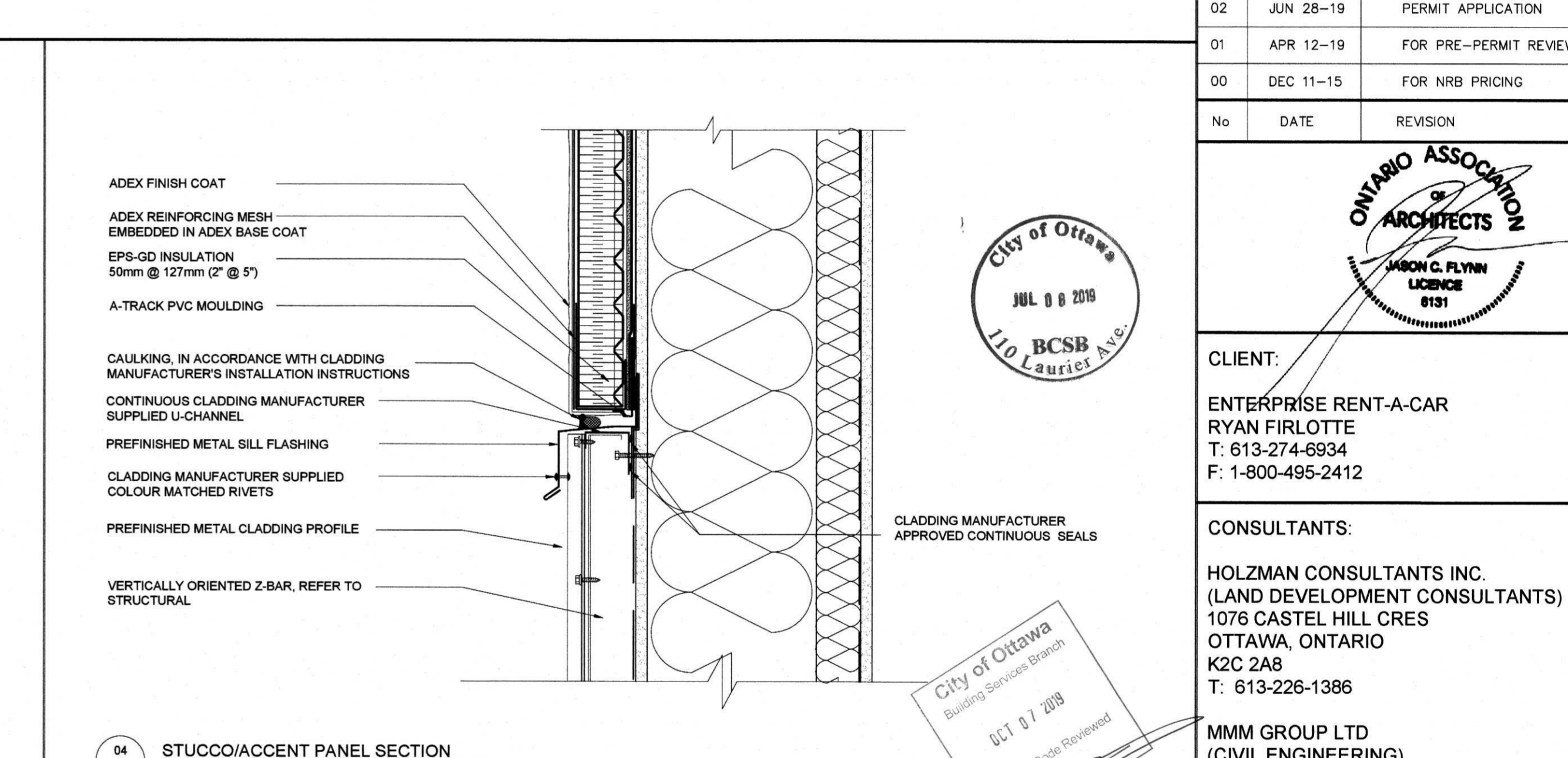
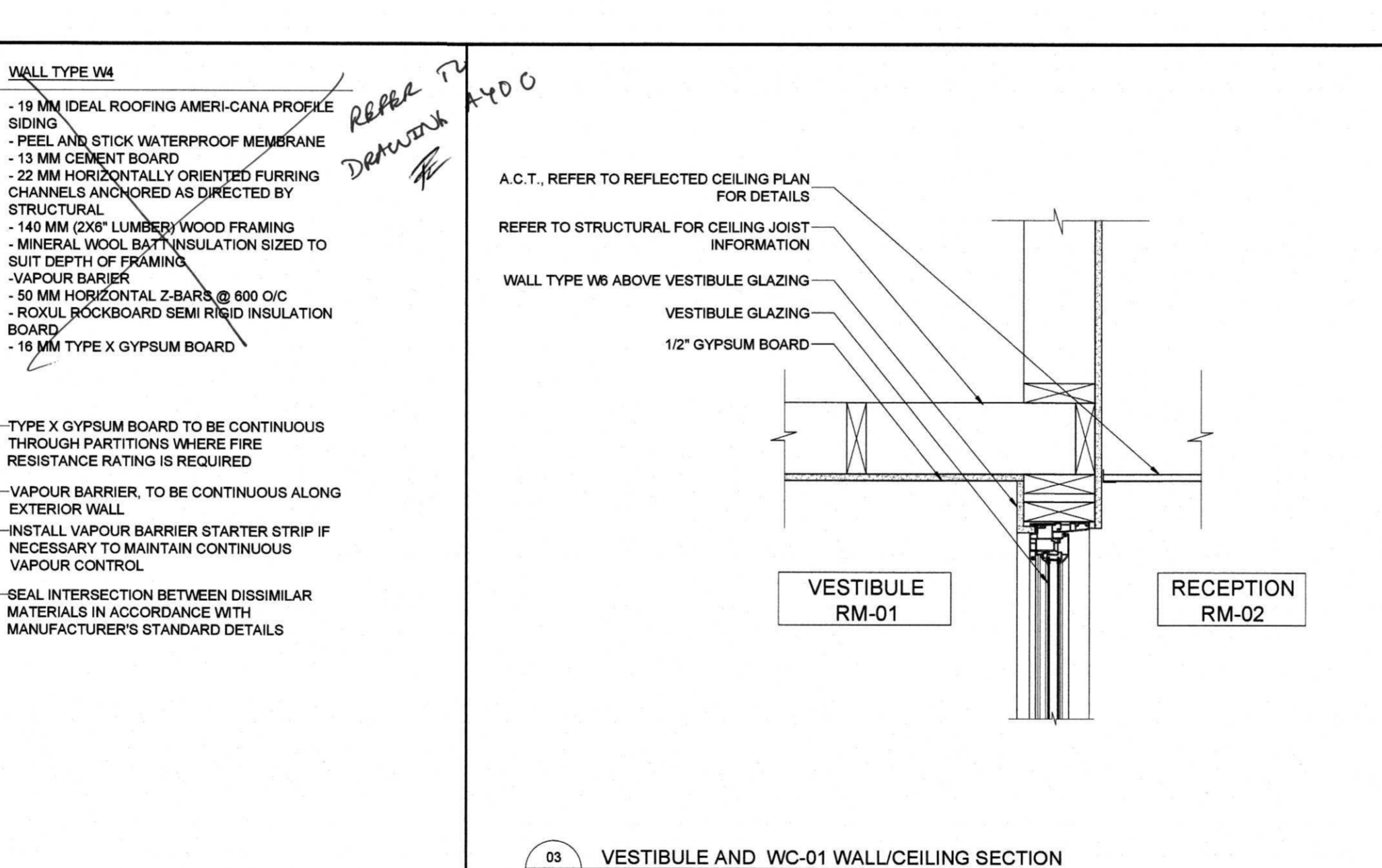
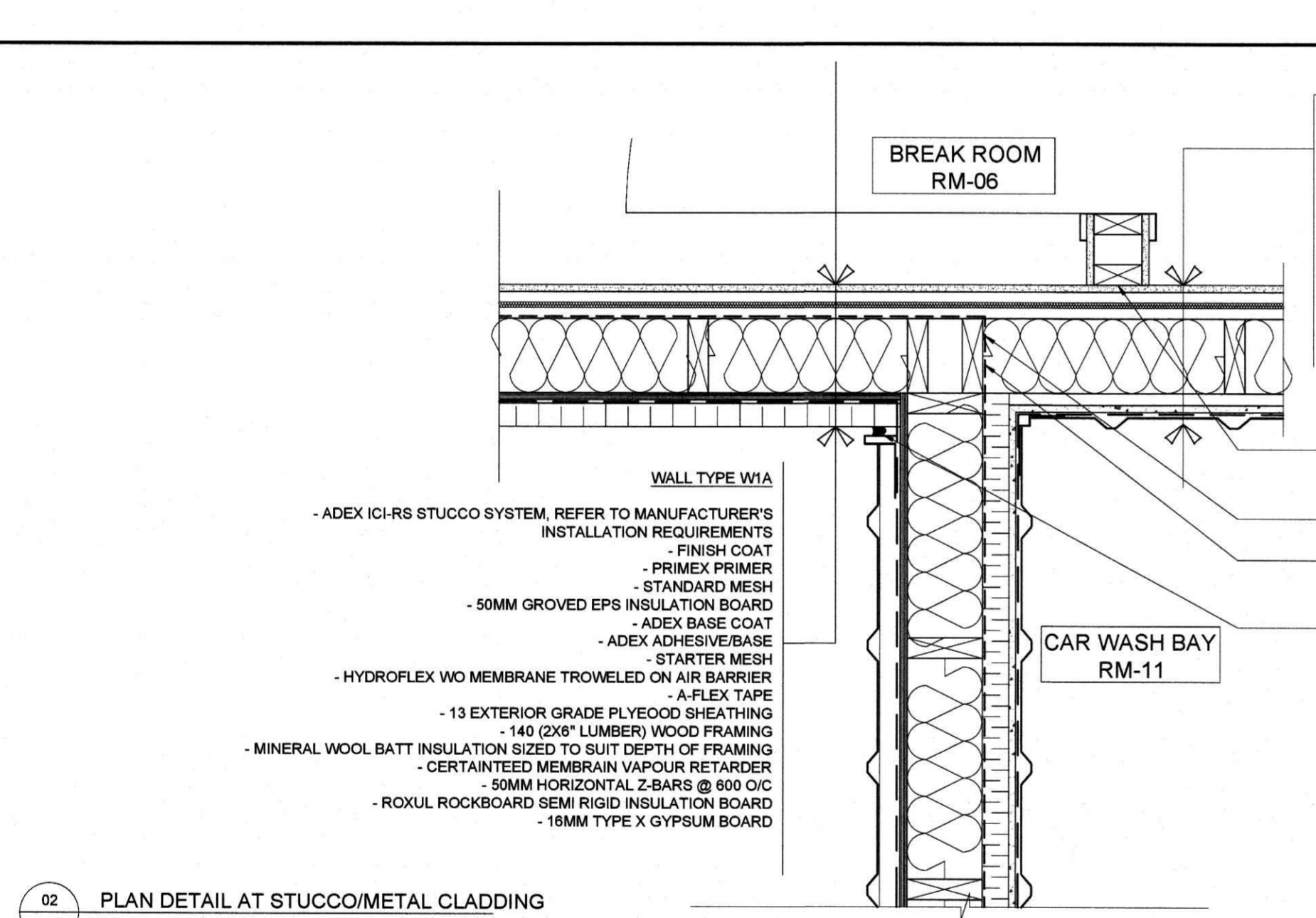
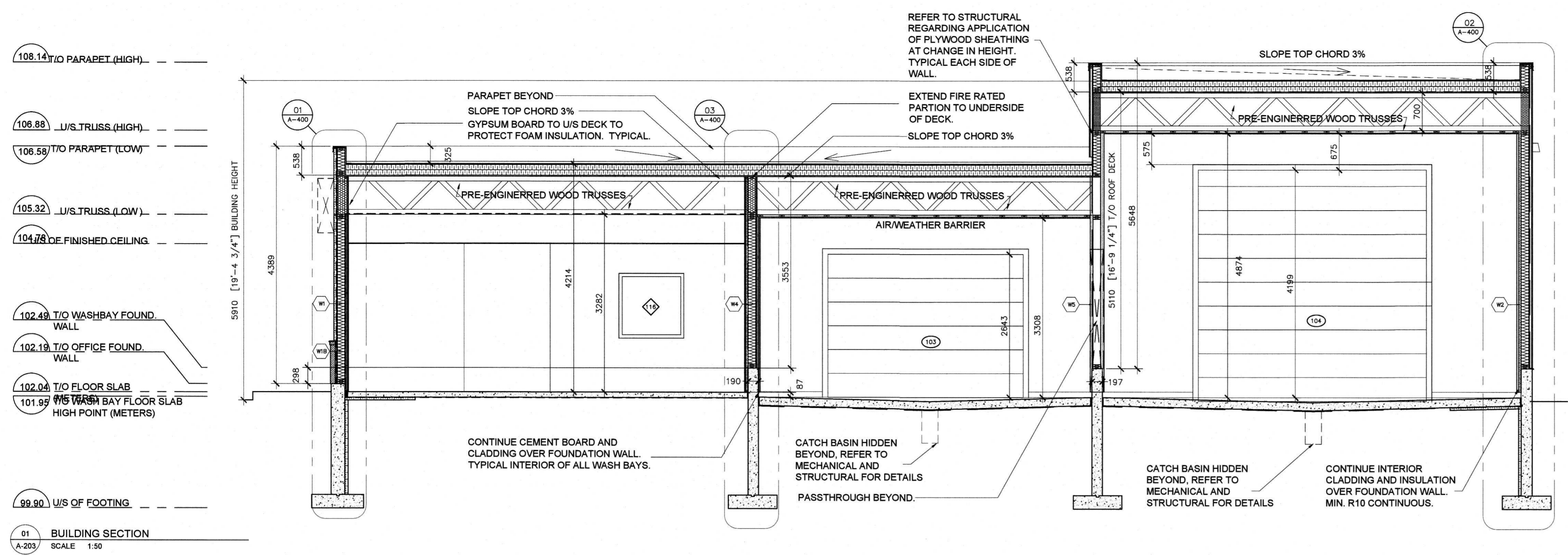
ANTARES ENGINEERING  
(M&E ENGINEERING)  
1-159 COLONNADE ROAD  
NEPEAN, ONTARIO  
K2E 7J4  
T: 613-723-6034

**PROJECT TITLE:**  
PALLADIUM DRIVE, OTTAWA, ONTARIO  
ENTERPRISE RENT-A-CAR

**DRAWING TITLE:**  
BUILDING SECTION AND DETAILS

SCALE	CHECKED BY	JOB No.	DRAWING No.
AS NOTED	JOF	15-010	A-203

**ARCHITECTURAL**

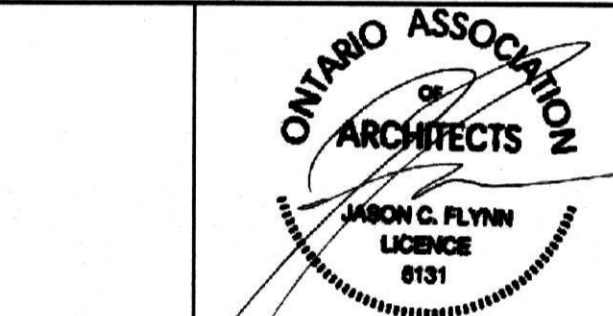


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04	MAR 13-17	FOR REVISED SITE PLAN
04	JAN 11-17	FOR REVISED SITE PLAN
03	SEP 29-16	FOR REVISED SITE PLAN
02	MAY 13-16	FOR SITE PLAN APPLICATION
02	DEC 14-15	FOR SUBCONSULTANTS
01	DEC 11-15	FOR NRB PRICING



CLIENT:  
ENTERPRISE RENT-A-CAR  
RYAN FIRLOTTE  
T: 613-274-6934  
F: 1-800-495-2412

CONSULTANTS:  
HOLZMAN CONSULTANTS INC.  
(LAND DEVELOPMENT CONSULTANTS)  
1076 CASTEL HILL CRES  
OTTAWA, ONTARIO  
K2C 2A8  
T: 613-226-1386

MMM GROUP LTD  
(CIVIL ENGINEERING)  
1145 HUNT CLUB ROAD, SUITE 300  
OTTAWA, ONTARIO  
K1V 0Y3  
T: 613-736-7200  
F: 613-736-8710

VRIEND ENGINEER  
(STRUCTURAL ENGINEERING)  
2086 STAGECOACH ROAD  
OTTAWA, ONTARIO  
K4P 1M1  
T: 613-521-9002

ANTARES ENGINEERING  
(M&E ENGINEERING)  
1-159 COLONNADE ROAD  
NEPEAN, ONTARIO  
K2E 7J4  
T: 613-723-6034

PROJECT TITLE:  
PALLADIUM DRIVE, OTTAWA, ONTARIO  
ENTERPRISE RENT-A-CAR

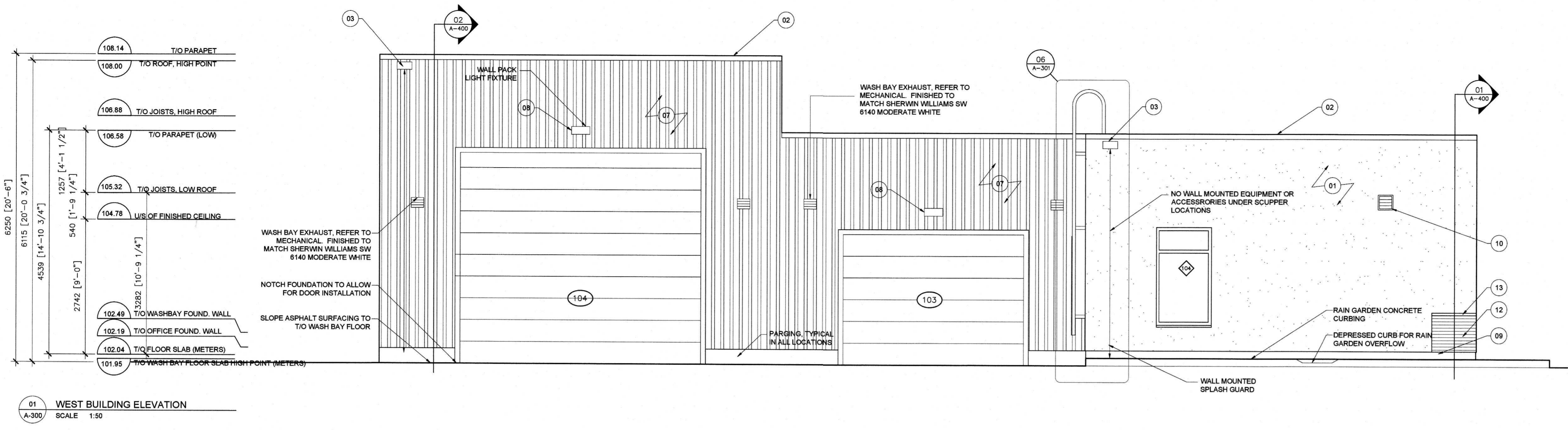
DRAWING TITLE:  
BUILDING ELEVATIONS

SCALE	CHECKED BY	JOB No.	DRAWING No.
AS NOTED	JF	15-010	A-300

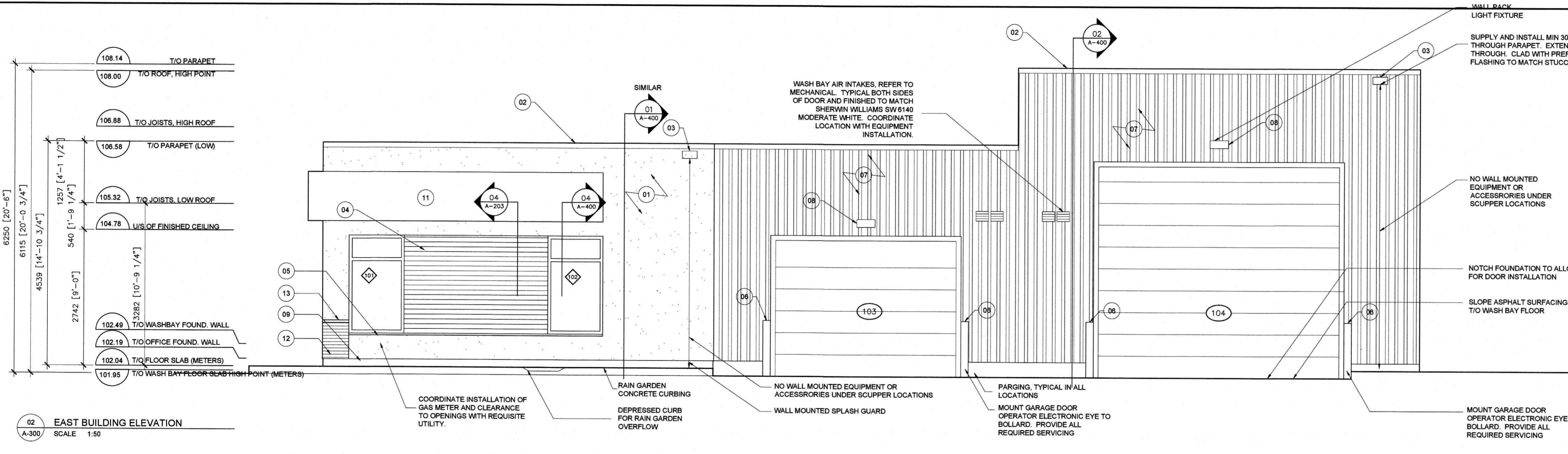
ARCHITECTURAL

ELEVATION LEGEND

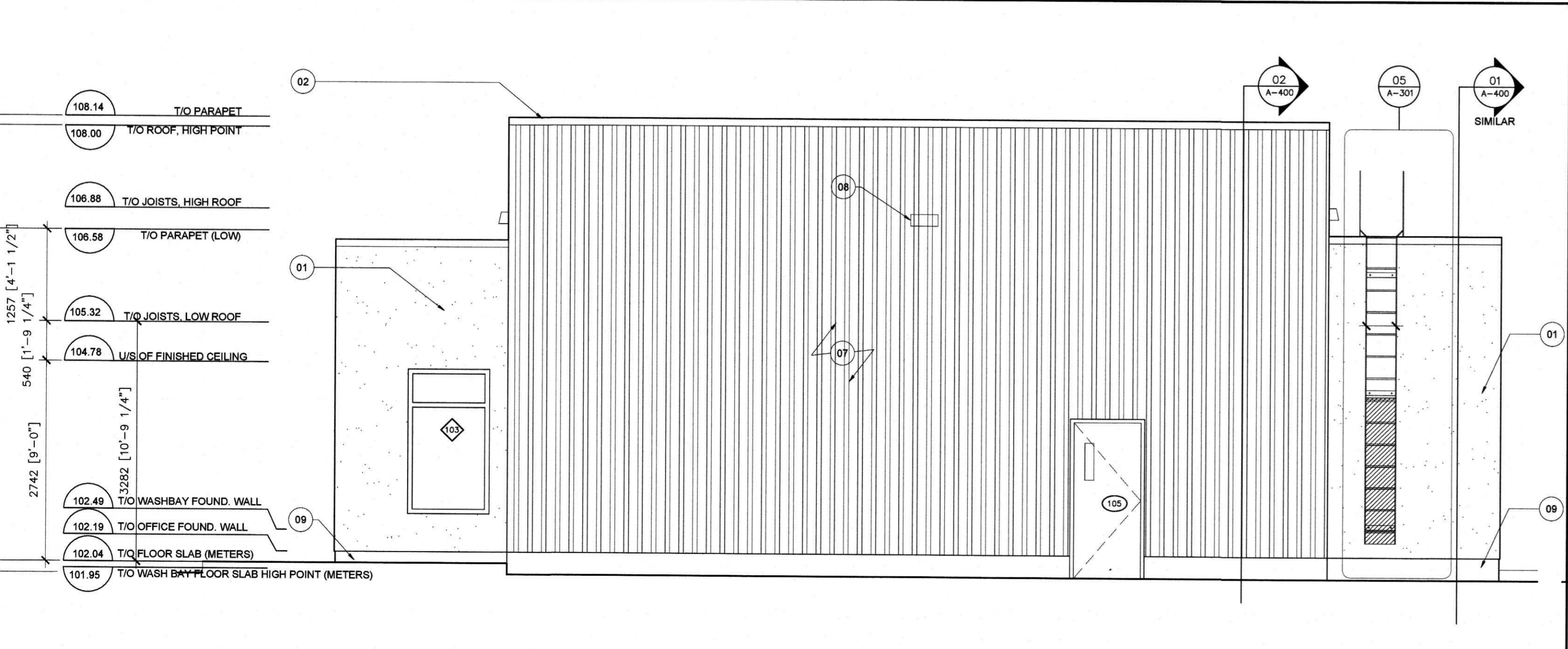
- 01 EXTERIOR INSULATION FINISH SYSTEM STUCCO CLADDING COLOUR TO MATCH SHERWIN WILLIAMS MODERATE WHITE SW 6140
- 02 PREFINISHED METAL CAP FLASHING COLOUR TO MATCH SHERWIN WILLIAMS 6258 TRICORN BLACK
- 03 PREFINISHED METAL SCUPPER BOX AND DOWNSPOUT LOCATION. COLOUR TO MATCH ADJACENT CLADDING
- 04 PREFINISHED IDEAL ROOFING CORRUGATED PROFILE COLOUR SHERWIN WILLIAMS SW 7038 TONY TAUIE
- 05 PREFINISHED METAL FLASHING COLOUR TO MATCH ADJACENT CLADDING COLOUR
- 06 CONCRETE FILLED STEEL BOLLARD C/W SAFETY YELLOW PAINT FINISH
- 07 VERTICALLY ORIENTED, IDEAL ROOFING 28 GAUGE AMERICAN PRE-PAINTED GALVANIZED STEEL 8000 SERIES CLADDING, COLOUR TO MATCH ADJACENT STUCCO FINISH
- 08 EXTERIOR LIGHTING, REFER TO ELECTRICAL, BLACK FINISH
- 09 CONCRETE FOUNDATION PARGING
- 10 300MM X 300MM VENTEX 4" DEEP STORMPROOF 2425 LOUVER WITH INSECT MESH AND FINISHED TO MATCH ADJACENT STUCCO
- 11 BUILDING ATTACHED SIGNAGE
- 12 MASONRY CLADDING
- 13 PRE-CAST MASONRY SILL



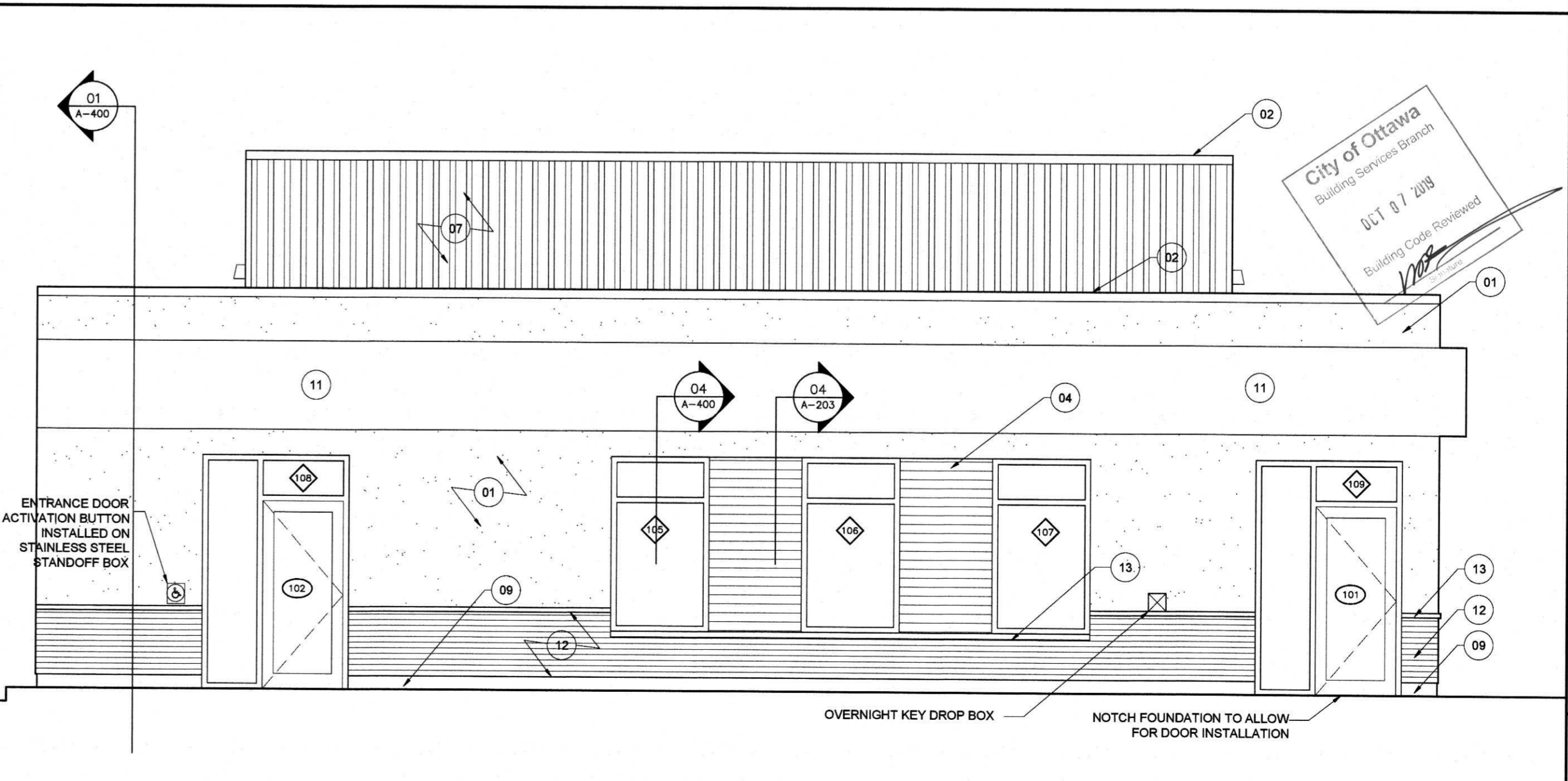
01 WEST BUILDING ELEVATION  
SCALE 1:50



02 EAST BUILDING ELEVATION  
SCALE 1:50



03 NORTH BUILDING ELEVATION  
SCALE 1:50



04 SOUTH BUILDING ELEVATION  
SCALE 1:50

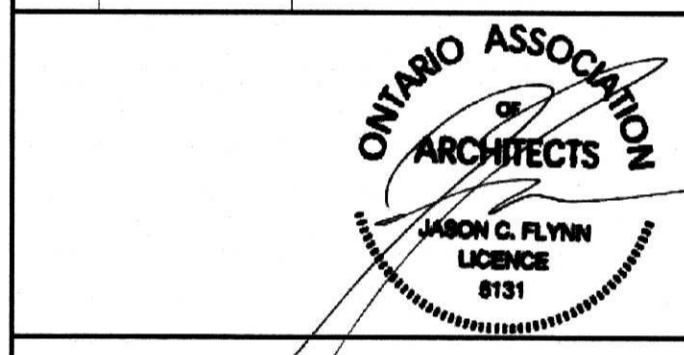


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02	APR 12-19	FOR PRE-PERMIT REVIEW
01	DEC 11-15	FOR NRB PRICING



**CLIENT:**  
ENTERPRISE RENT-A-CAR  
RYAN FIRLOTTE  
T: 613-274-6934  
F: 1-800-495-2412

**CONSULTANTS:**  
HOLZMAN CONSULTANTS INC.  
(LAND DEVELOPMENT CONSULTANTS)  
1076 CASTEL HILL CRES  
OTTAWA, ONTARIO  
K2C 2A8  
T: 613-226-1386

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OTTAWA, ONTARIO  
K1V 0Y3  
T: 613-736-7200  
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2086 STAGECOACH ROAD  
OTTAWA, ONTARIO  
K4P 1M1  
T: 613-521-9002

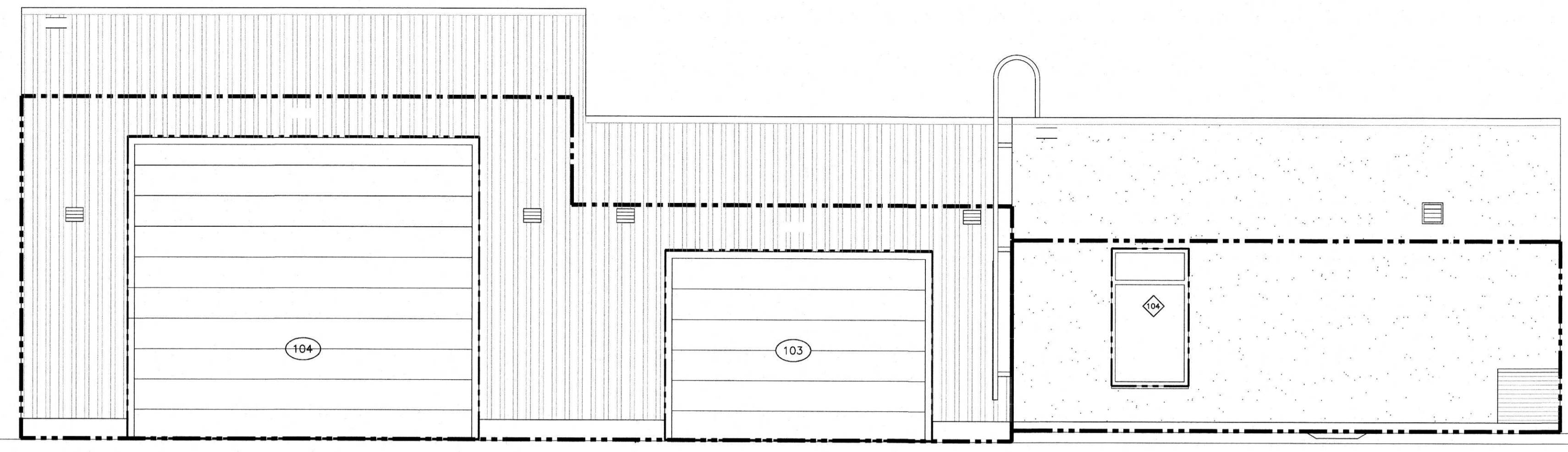
ANTARES ENGINEERING  
(M&E ENGINEERING)  
1-159 COLONNADE ROAD  
NEPEAN, ONTARIO  
K2E 7J4  
T: 613-723-6034

**PROJECT TITLE:**  
PALLADIUM DRIVE, OTTAWA, ONTARIO  
ENTERPRISE RENT-A-CAR

**DRAWING TITLE:**  
EXPOSED BUILDING FACE UNPROTECTED  
OPENING CALCULATIONS

SCALE	DRAWN BY	JOB No.	DRAWING No.
AS NOTED	JcF	15-010	A-301

**ARCHITECTURAL**



**FIRE COMPARTMENT 2**  
AEBF: 60.9 SQ M  
U/O: 33 SQ M

55% UNPROTECTED OPENINGS

LD = 11.7M

TABLE 9.10.14.4  
100 @ 11M 56% PERMITTED

RATING = .75H  
CLADDING = ANY

**FIRE COMPARTMENT 1**  
AEBF: 21.7 SQ M  
U/O: 2.25 SQ M

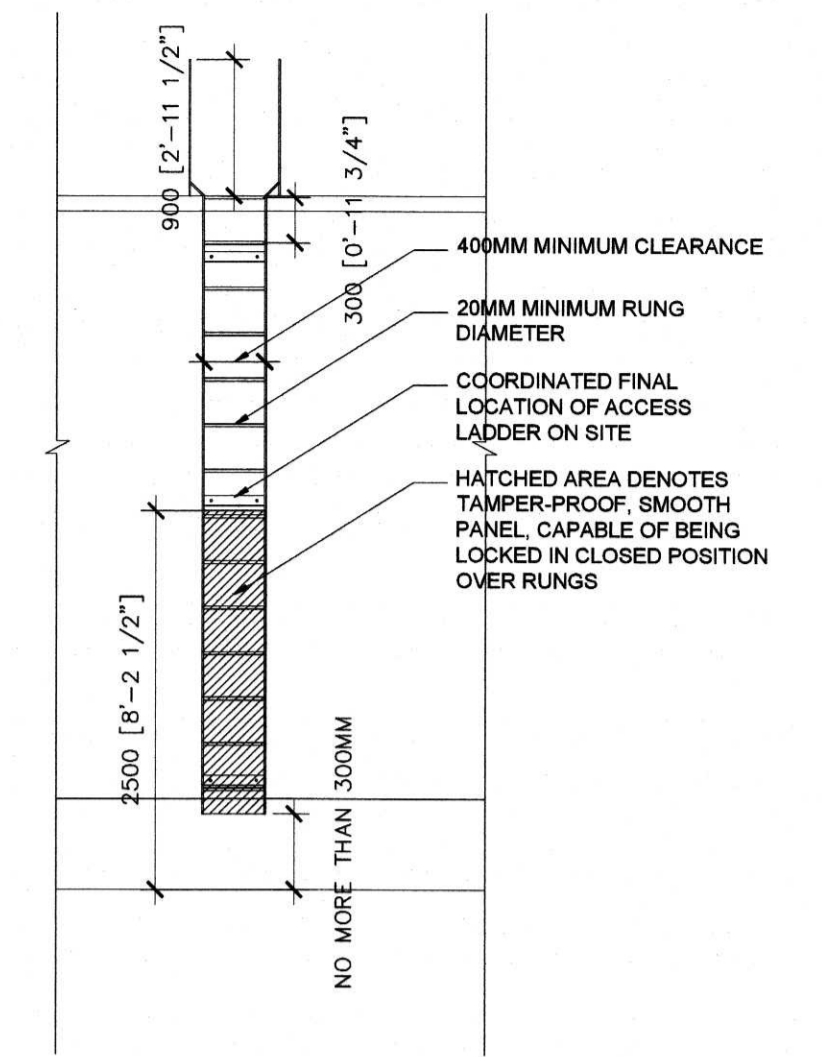
10% UNPROTECTED OPENINGS

LD = 9.3M

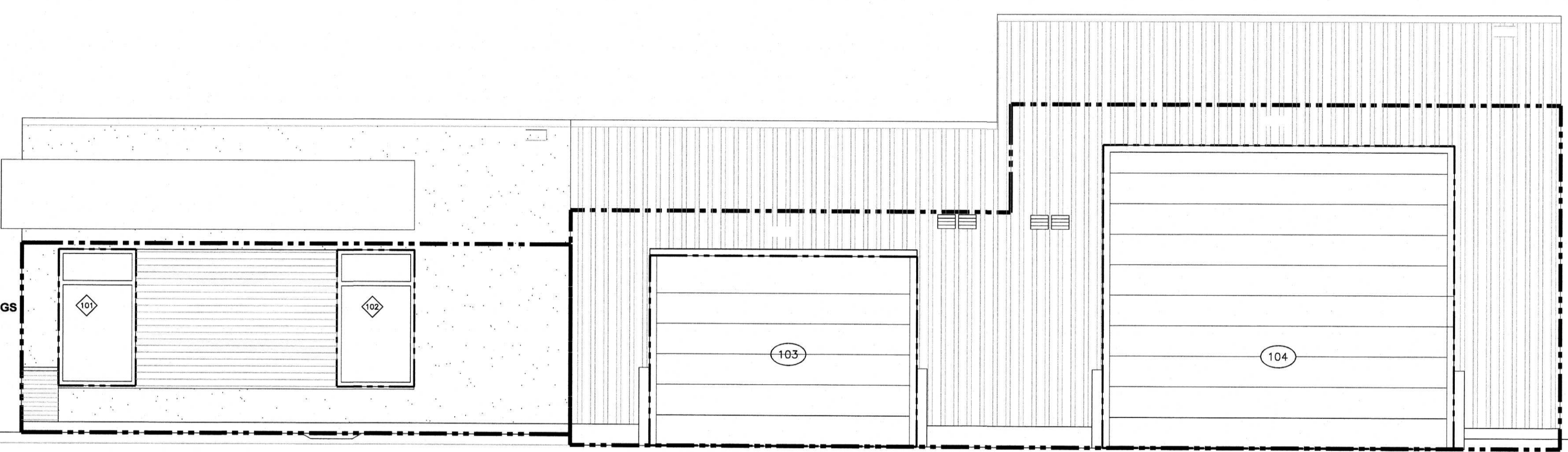
TABLE 9.10.14.4  
25 @ 9M 45% PERMITTED

RATING = .75H  
CLADDING = ANY

01 EAST BUILDING EBF CALCULATION  
SCALE 1:50



05 ROOFTOP ACCESS LADDER ELEVATION-01  
SCALE 1:50



**FIRE COMPARTMENT 1**  
AEBF: 21.7 SQ M  
U/O: 4.4 SQ M

20% UNPROTECTED OPENINGS

LD = 16.3M

TABLE 9.10.14.4  
25 UNLIMITED AFTER 11M

RATING: N/A  
CLADDING: ANY

**FIRE COMPARTMENT 2**  
AEBF: 60.9 SQ M  
U/O: 33 SQ M

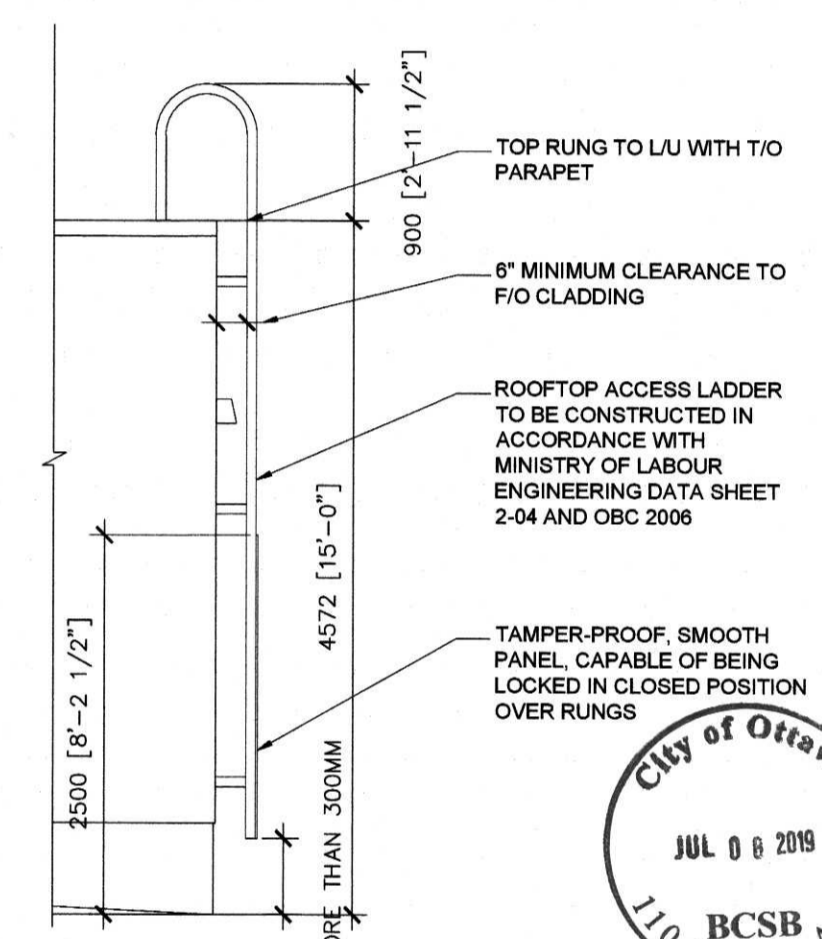
55% UNPROTECTED OPENINGS

LD = 18.8M

TABLE 9.10.14.4  
100 UNLIMITED AFTER 14M

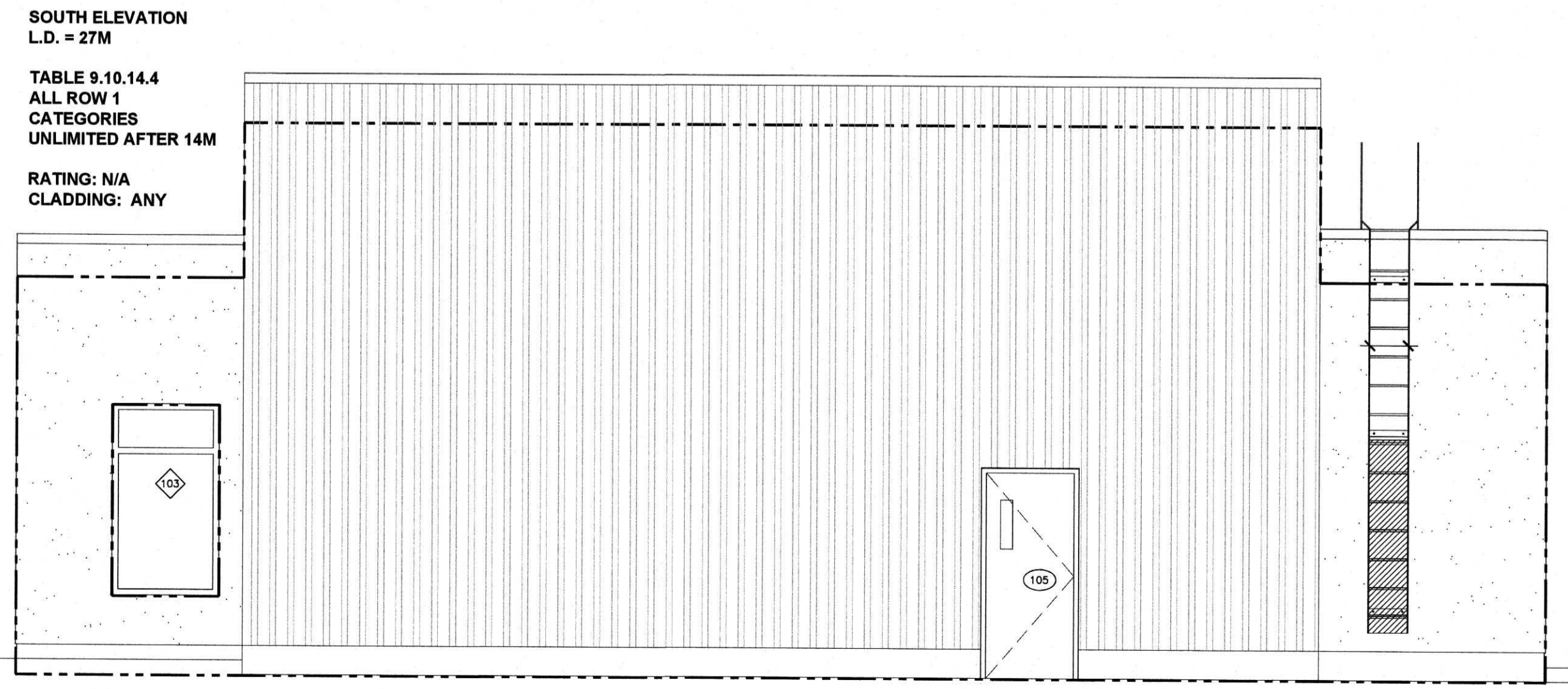
RATING = N/A  
CLADDING = ANY

02 WEST BUILDING EBF CALCULATION  
SCALE 1:50



06 ROOFTOP ACCESS LADDER ELEVATION-02  
SCALE 1:50

**NOTE:**  
PROVIDE EXTERIOR ACCESS LADDER SHOP DRAWINGS STAMPED BY A STRUCTURAL ENGINEER CERTIFIED IN THE PROVINCE OF ONTARIO TO THE ARCHITECT FOR REVIEW. COORDINATE BLOCKING IN WALL WITH ENGINEER'S SHOP DRAWINGS.

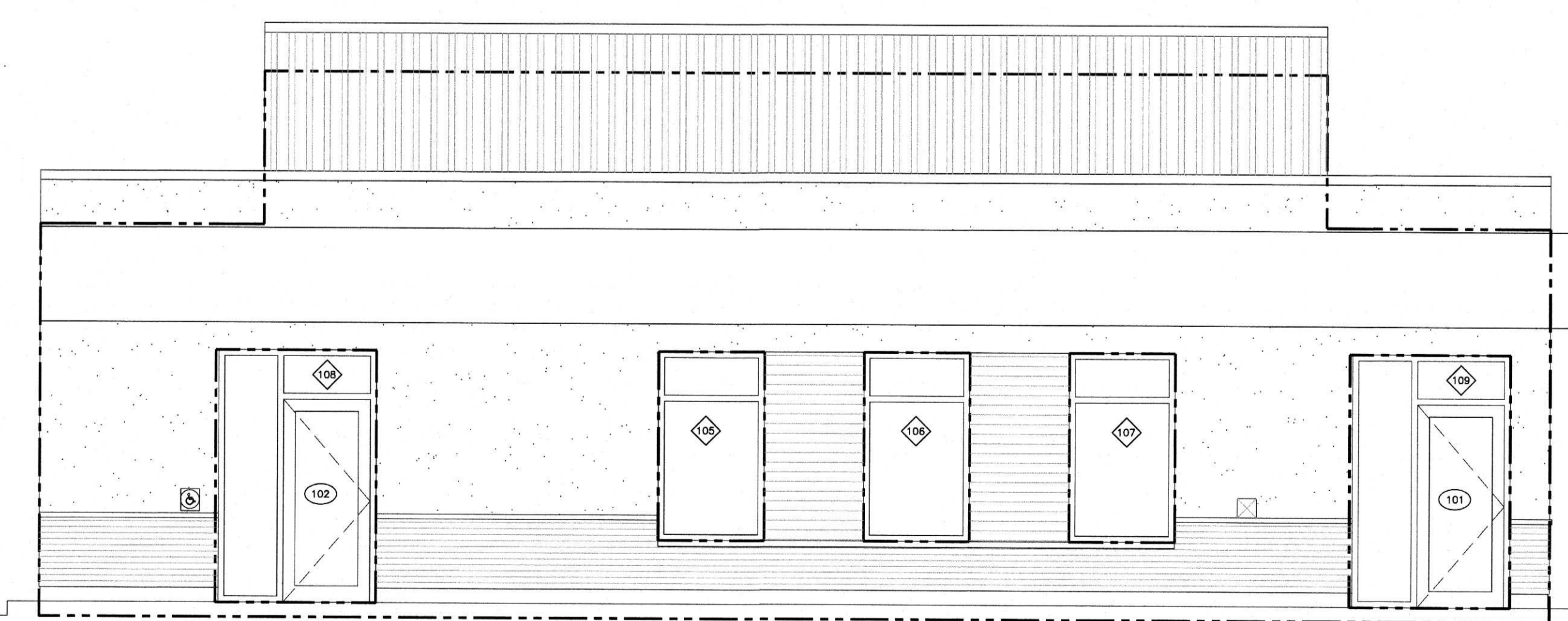


**SOUTH ELEVATION**  
L.D. = 27M

TABLE 9.10.14.4  
ALL ROW 1 CATEGORIES UNLIMITED AFTER 14M

RATING: N/A  
CLADDING: ANY

03 SOUTH BUILDING EBF CALCULATION  
SCALE 1:50



**NORTH ELEVATION**  
L.D. = >25M

TABLE 9.10.14.4  
ALL ROW 1 CATEGORIES UNLIMITED AFTER 14M

RATING: N/A  
CLADDING: ANY

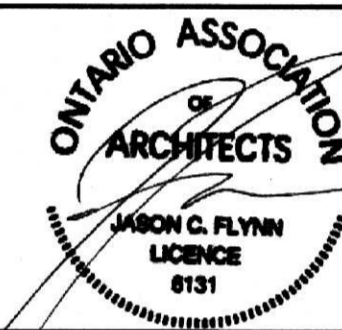
04 NORTH BUILDING EBF CALCULATION  
SCALE 1:50



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00	DEC 11-15	FOR NRB PRICING



CLIENT:  
 ENTERPRISE RENT-A-CAR  
 RYAN FIRLOTTE  
 T: 613-274-6934  
 F: 1-800-495-2412

CONSULTANTS:  
 HOLZMAN CONSULTANTS INC.  
 (LAND DEVELOPMENT CONSULTANTS)  
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 OTTAWA, ONTARIO  
 K2C 2A8  
 T: 613-226-1386

MMM GROUP LTD  
 (CIVIL ENGINEERING)  
 1145 HUNT CLUB ROAD, SUITE 300  
 OTTAWA, ONTARIO  
 K1V 0Y3  
 T: 613-736-7200  
 F: 613-736-8710

VRIEND ENGINEER  
 (STRUCTURAL ENGINEERING)  
 2086 STAGECOACH ROAD  
 OTTAWA, ONTARIO  
 K4P 1M1  
 T: 613-521-9002

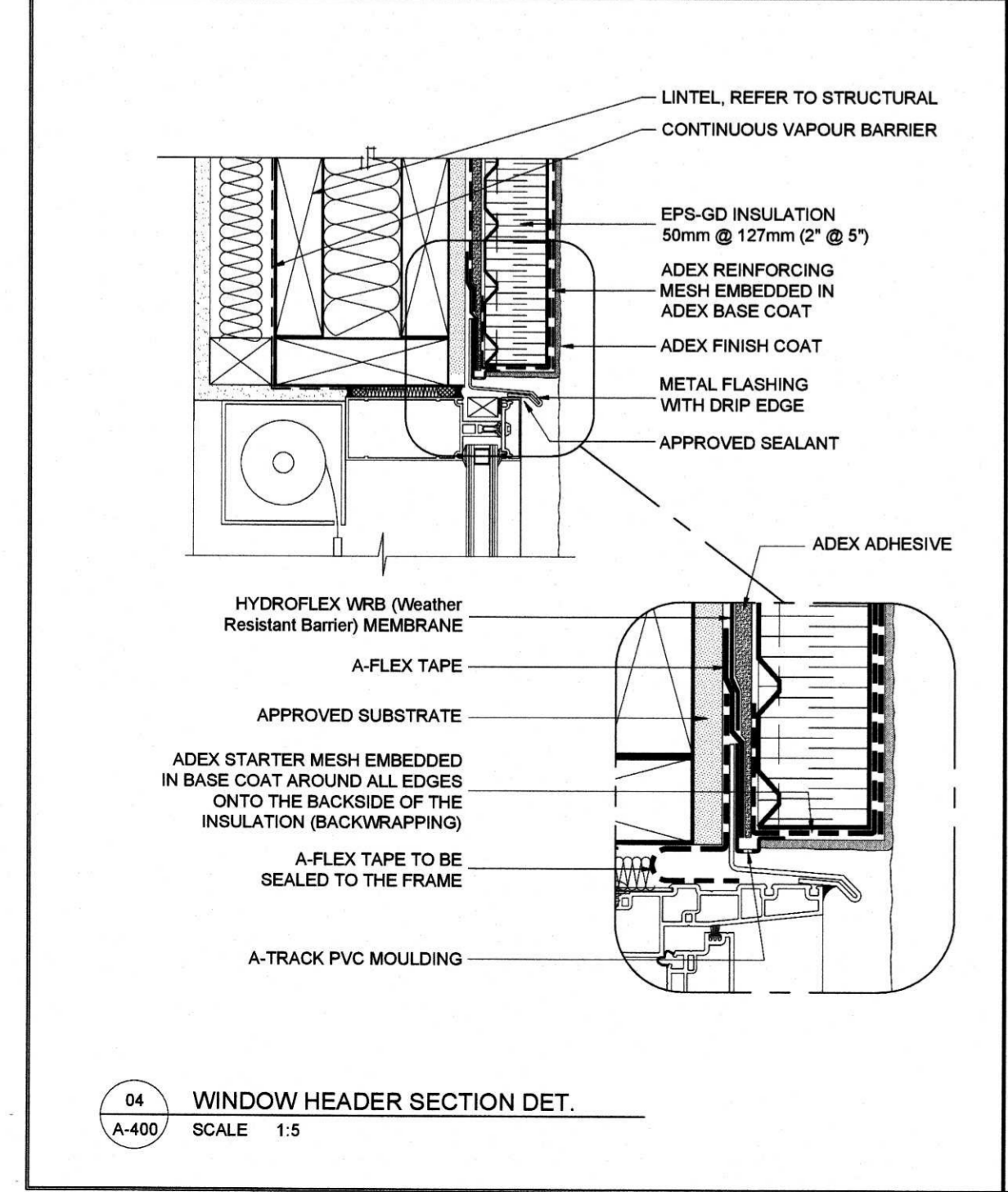
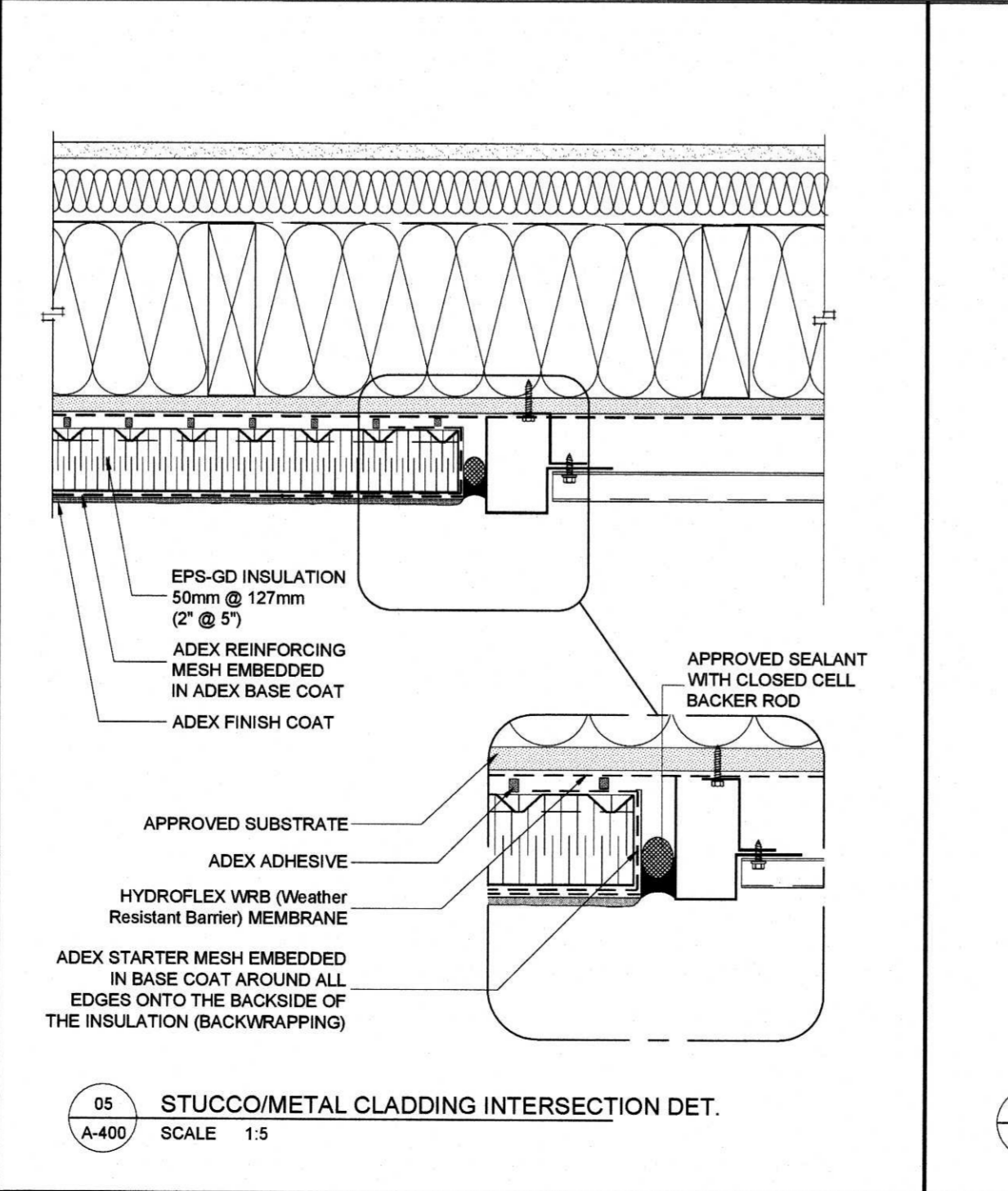
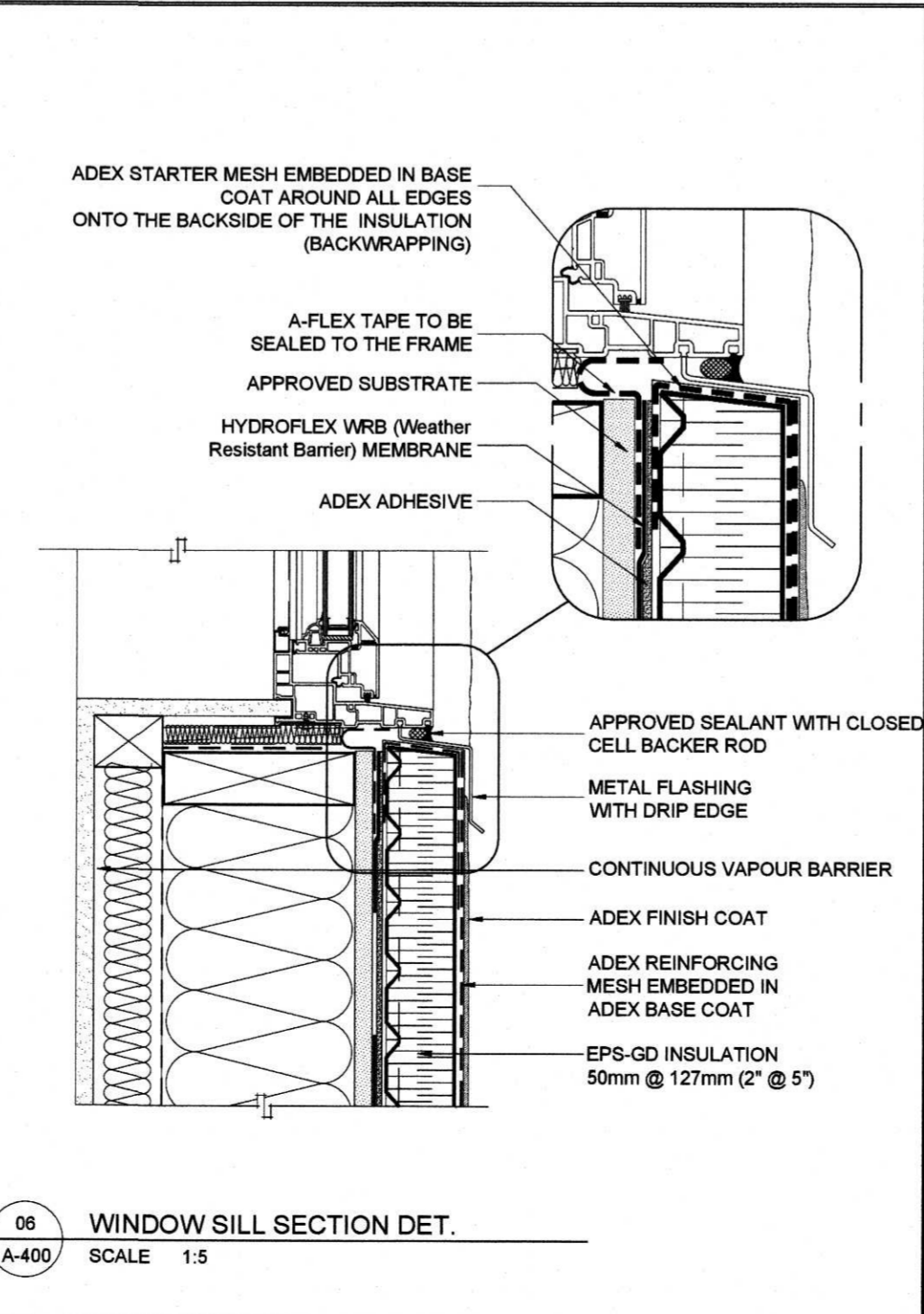
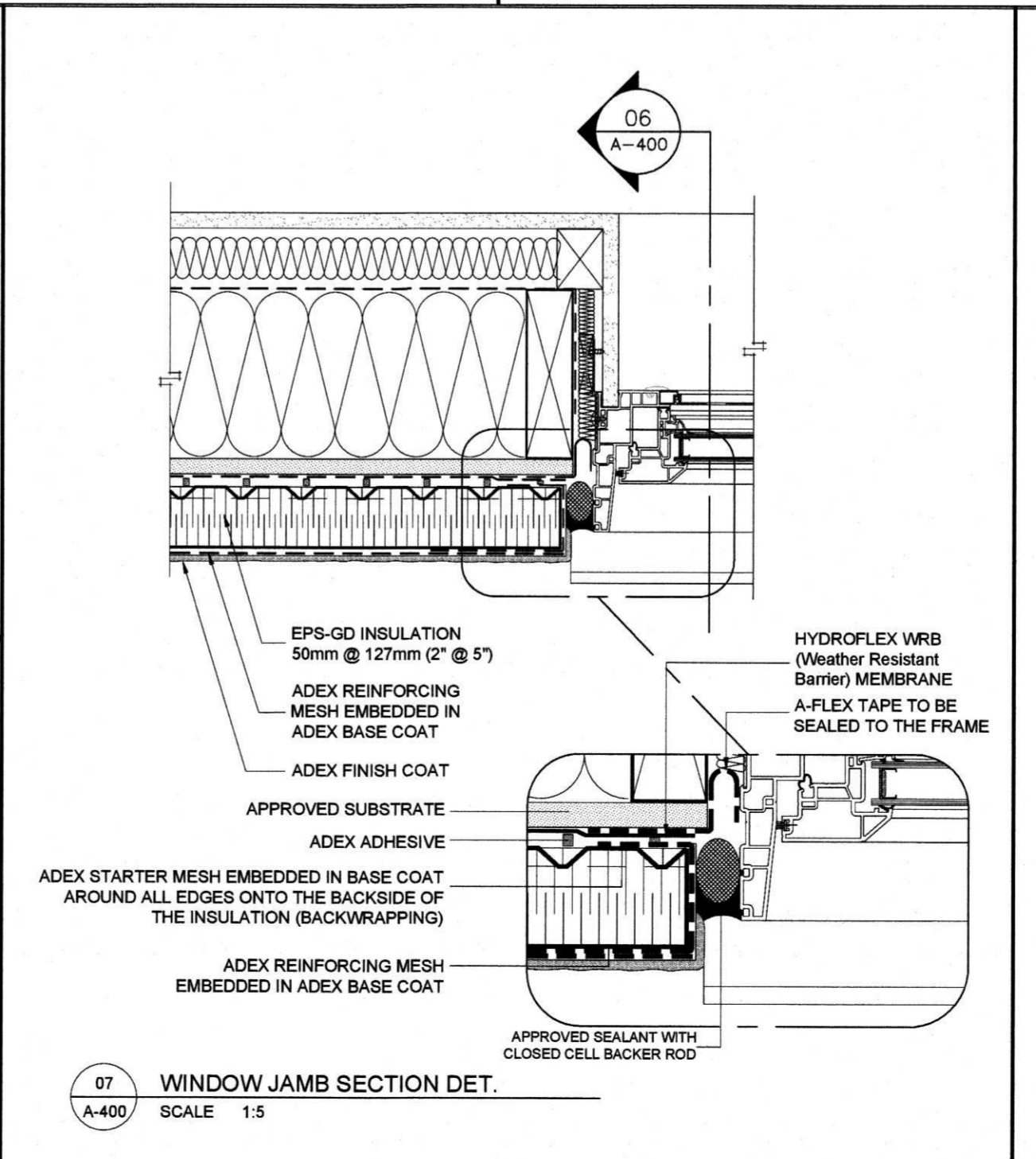
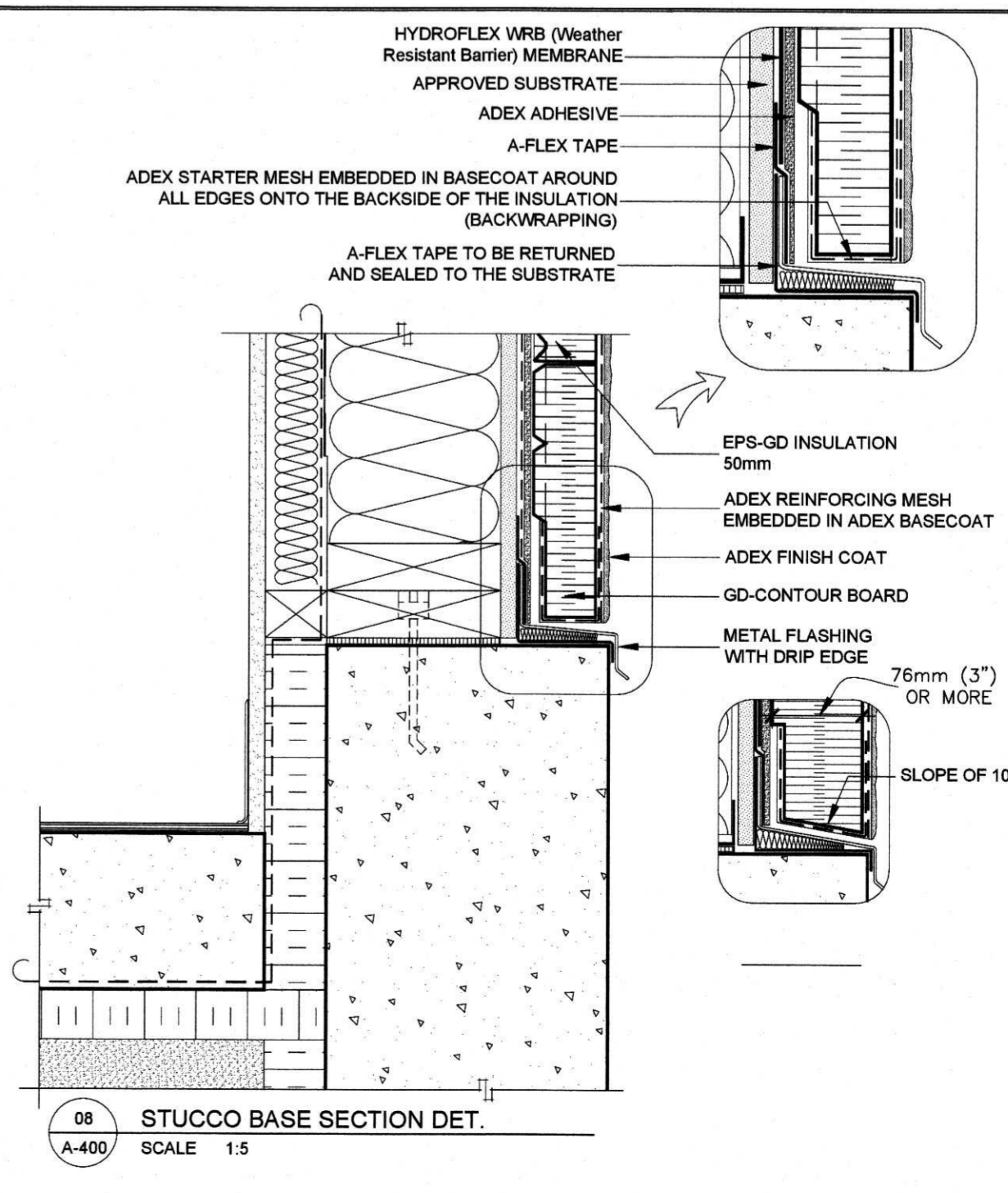
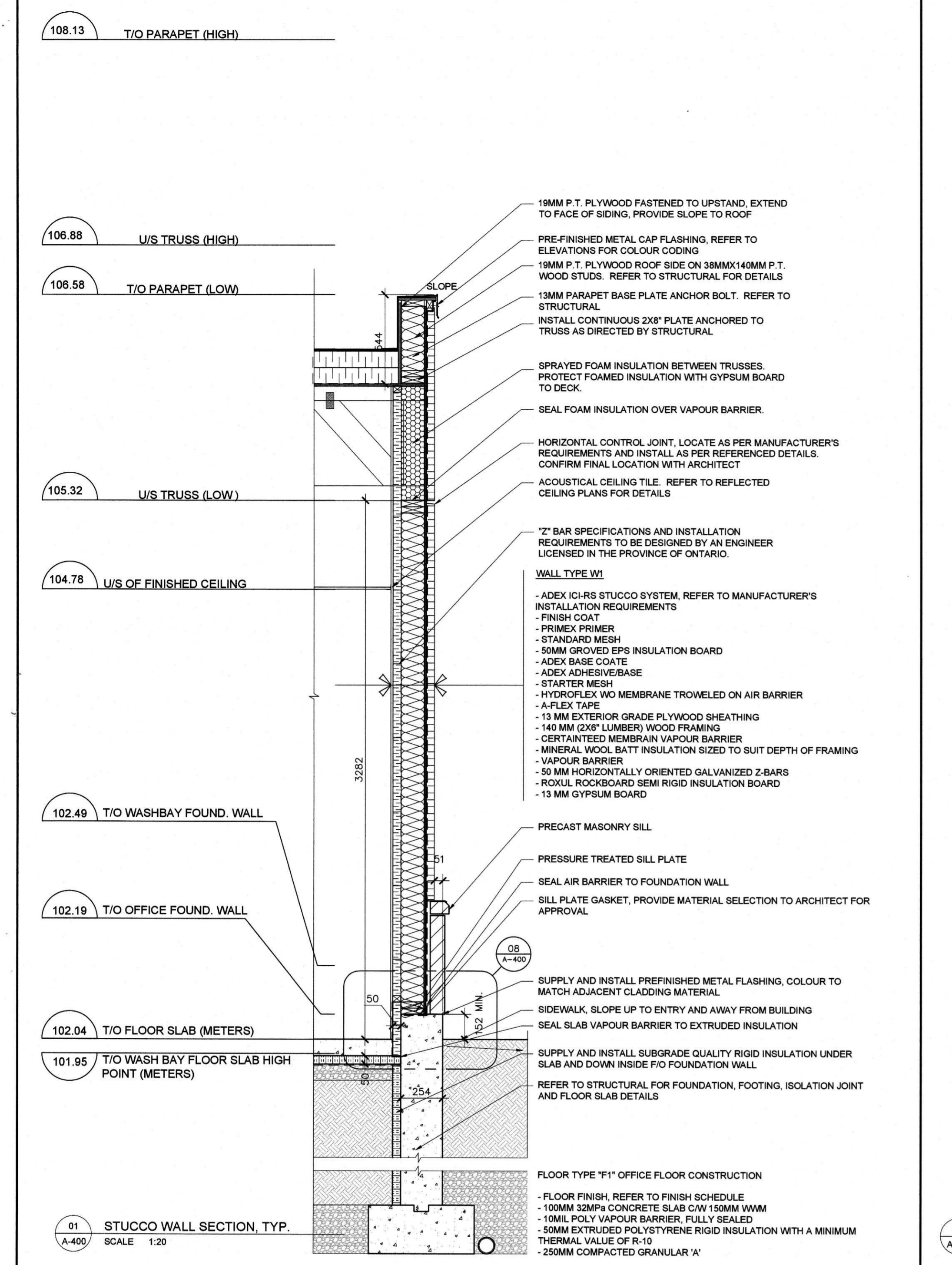
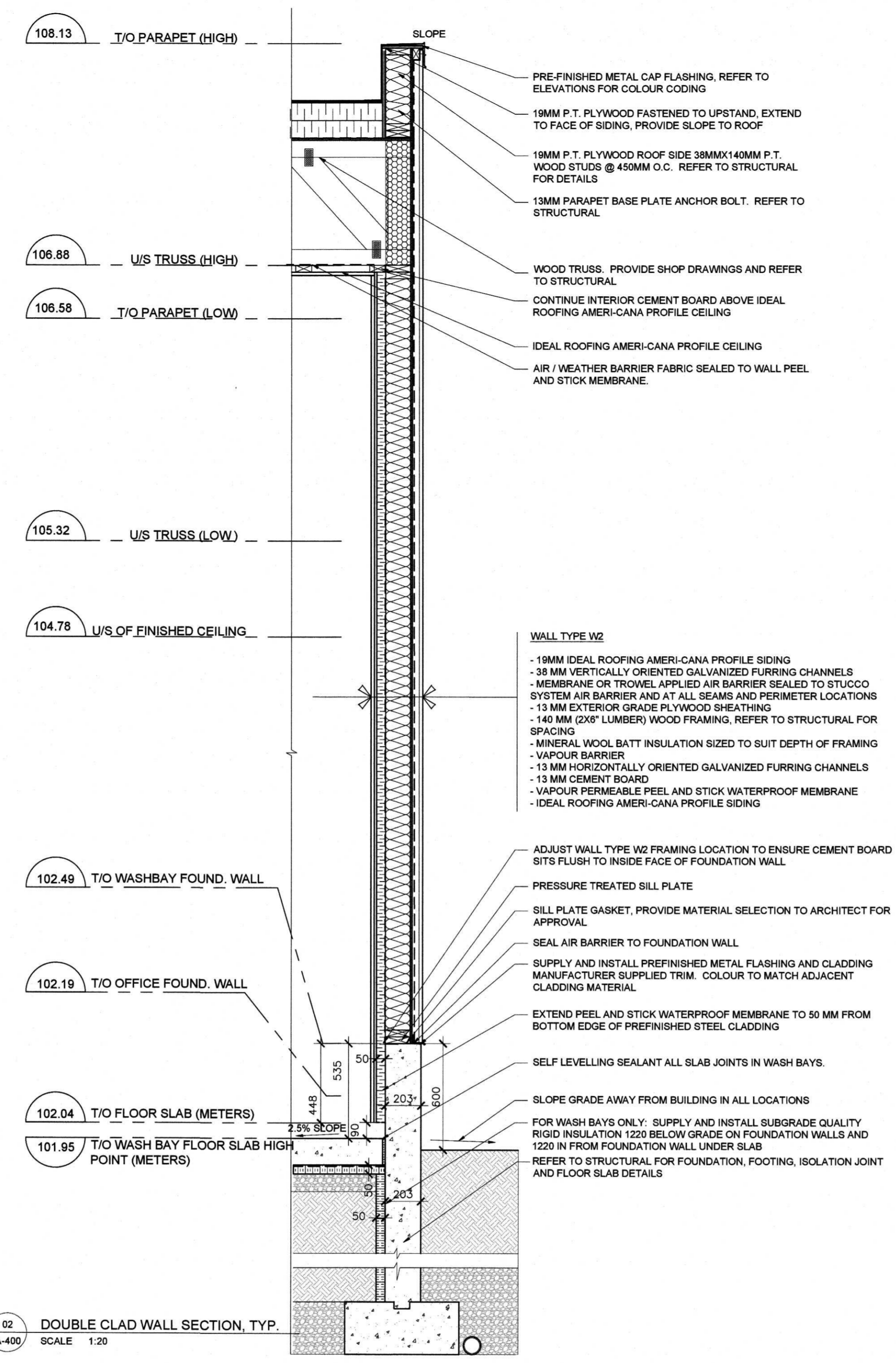
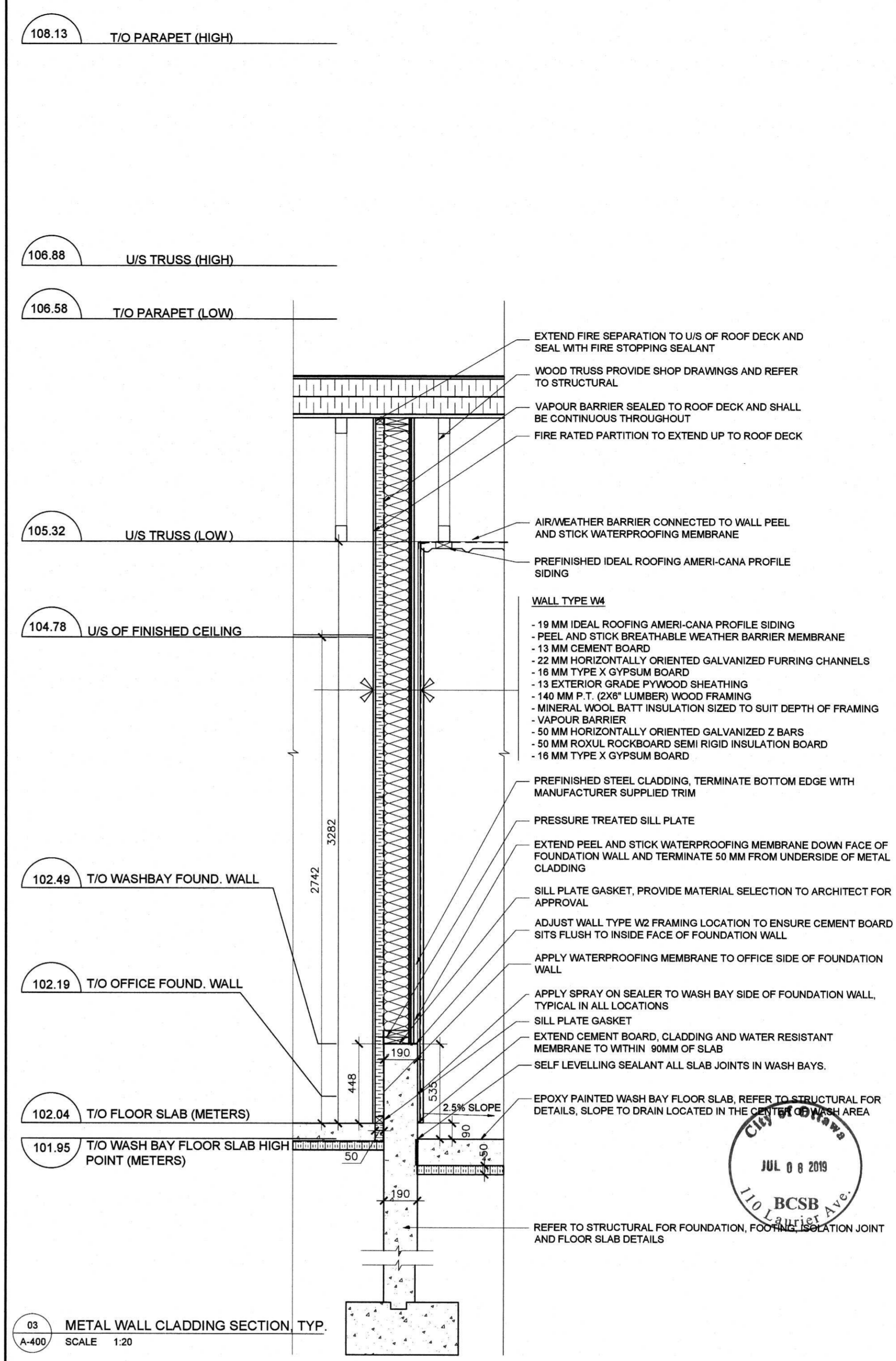
ANTARES ENGINEERING  
 (M&E ENGINEERING)  
 1-159 COLONNADE ROAD  
 NEPEAN, ONTARIO  
 K2E 7J4  
 T: 613-723-6034

PROJECT TITLE:  
 PALLADIUM DRIVE, OTTAWA, ONTARIO  
 ENTERPRISE RENT-A-CAR

DRAWING TITLE:  
 WALL SECTIONS AND DETAILS

SCALE	CHECKED BY	JOB No.	DRAWING No.
AS NOTED	JF	15-010	A-400


ARCHITECTURAL





IT IS THE RESPONSIBILITY OF THE APPROPRIATE CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON SITE AND TO REPORT ALL ERRORS AND/OR OMISSIONS TO THE ENGINEER.  
 ALL CONTRACTORS MUST COMPLY WITH ALL PERTINENT CODES AND BY-LAWS.  
 DO NOT SCALE DRAWINGS.  
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4	JAN 03/18	RE-ISSUED FOR REVIEW
3	NOV 11/18	ISSUED FOR COORDINATION
2	OCT 29/18	RE-ISSUED FOR REVIEW
1	SEPT 11/18	ISSUED FOR REVIEW

PROFESSIONAL SEAL: NORTH ARROW:  


CLIENT:



PROJECT TITLE:  
**ENTERPRISE RENT-A-CAR**

PALLADIUM DRIVE,  
 OTTAWA, ONTARIO

SHEET TITLE:  
**GENERAL NOTES & DETAILS**



DRAWN: A.V.	CHECKED: J.V.
SCALE: AS SHOWN	SHEET No. <b>S0</b>
PROJECT No. S221-18	

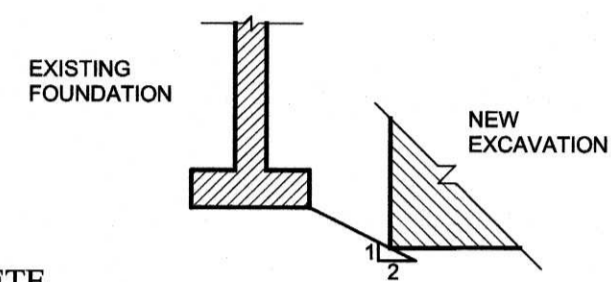
**1) GENERAL INFORMATION**

- THE INFORMATION PRESENTED ON THESE DRAWINGS HAS BEEN DESIGNED AND ANALYZED IN ACCORDANCE WITH THE 2012 ONTARIO BUILDING CODE. CONSTRUCTION IS TO BE PERFORMED IN ACCORDANCE WITH THIS AND ALL OTHER APPLICABLE CODES.
- CONCRETE STRUCTURE DESIGNED IN ACCORDANCE WITH CSA A23.3-04
- CONTRACTOR IS TO VERIFY/COORDINATE ALL DIMENSIONS PRIOR TO CONSTRUCTION.
- PROVIDE ADEQUATE PROTECTION OF SURROUNDING AREAS DURING REMOVALS AND DEMOLITION.
- REMOVE AND DISPOSE OFF SITE ALL DEMOLISHED & EXCAVATED MATERIALS.
- ALL FOOTINGS TO BEAR ON UNDISTURBED NATIVE MATERIAL WITH MINIMUM ALLOWABLE BEARING OF 100 KPa.
- CONTRACTOR TO CONFIRM NATIVE MATERIAL SOIL BEARING CAPACITY OF 100 KPa PRIOR TO PLACEMENT OF GRANULAR AND CONCRETE.
- NO CONCRETE PAD/CONCRETE ELEMENTS ARE TO BE CONSTRUCTED UNTIL WRITTEN APPROVAL OF THE BEARING SURFACES AND PRESSURES IS PROVIDED BY A GEOTECHNICAL ENGINEER THROUGH ON-SITE INVESTIGATION. FAILURE TO COMPLETE THIS WORK COULD RESULT IN THE REMOVAL/REINSTATEMENT.
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
- CONTRACTOR TO PROVIDE ENGINEERED SHOP DRAWINGS FOR SEISMIC DESIGN OF CEILINGS, BULKHEADS, TRANSFORMERS, LIGHT FIXTURES, MECHANICAL, ELECTRICAL, ETC.

**2) EXCAVATION**

**2.1 PROTECT LATERAL STABILITY OF BEARING STRATA UNLESS NOTED:**

DO NOT EXCAVATE BELOW A LINE EXTENDING DOWNWARD FROM ANY BEARING STRATA AT A SLOPE OF 1 VERTICAL TO 2 HORIZONTAL. (SEE DIAGRAM.)



**3) CONCRETE**

**3.1 CONCRETE COVER (CLEAR TO REINFORCING):**

U/S SLAB ON GRADE (AGAINST SOIL)	75mm (3")
SLAB ON GRADE (SIDES & TOP)	50mm (2")

**3.2 REINFORCING STEEL**

**TYPICAL REBAR REQUIREMENTS:**

LAPS:  
 ≥ 36 BAR DIA.  
 ≥ 600mm(24")

**3.3 CONCRETE MIXES**

PROPORTION NORMAL DENSITY CONCRETE IN ACCORDANCE WITH CAN/CSA-A23.1, TO GIVE THE FOLLOWING QUALITY FOR ALL CONCRETE AS INDICATED.

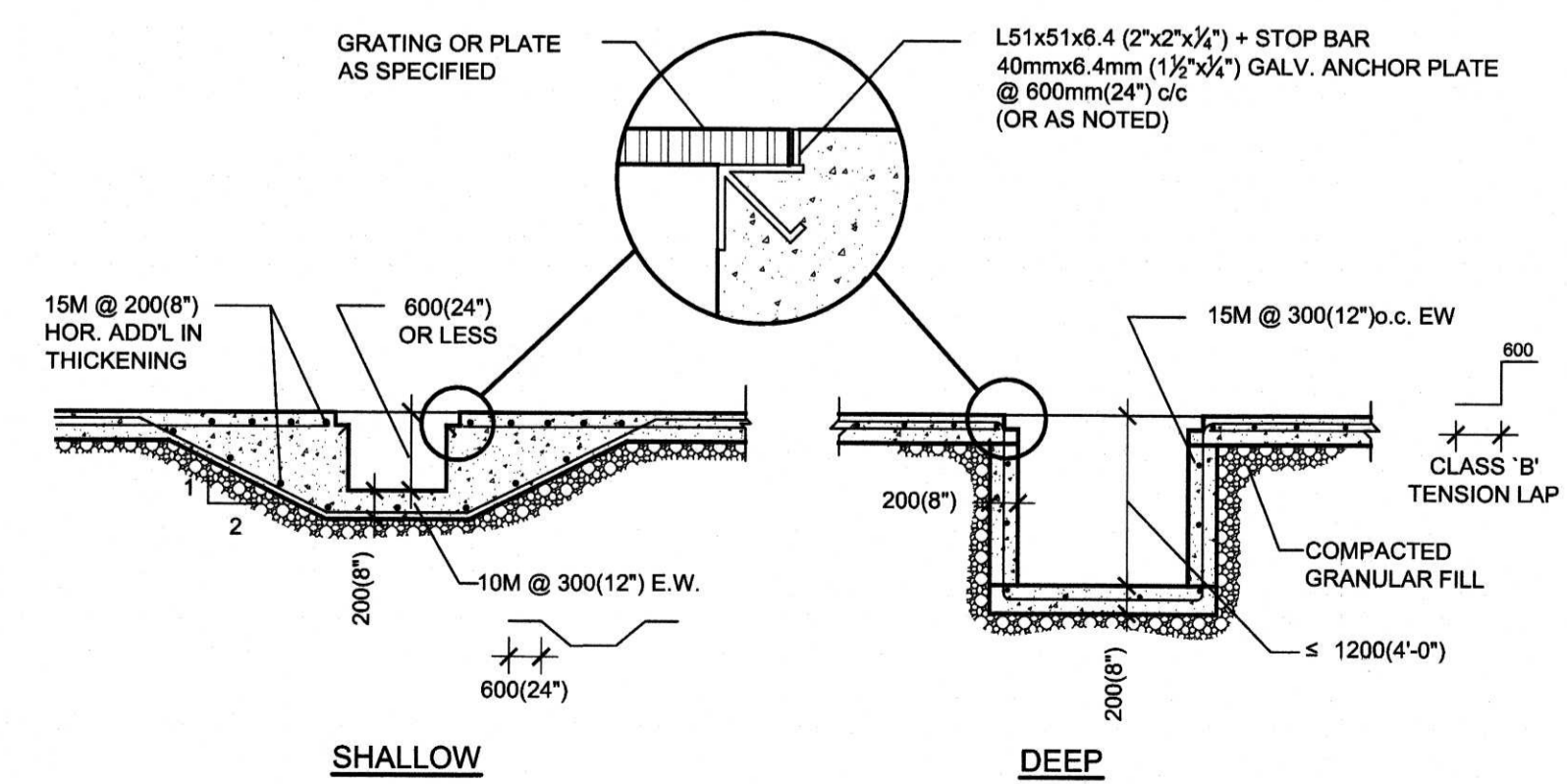
28 DAY LOCATION	STRENGTH	SLUMP	CLASS OF EXPOSURE
SLAB ON GRADE	35 MPa	75mm(3")	C-1
INTERIOR SLAB ON GRADE	25 MPa	75mm(3")	N
FOOTINGS	25 MPa	75mm(3")	N
FOUNDATION WALLS	35 MPa	75mm(3")	C-1
GARAGE ENCLOSURE SLAB	35 MPa	75mm(3")	C-1

\*OBTAIN THESE SLUMPS WITH AID OF SPECIFIED WATER REDUCING AGENT.  
 \*NOTE: ALL CONCRETE EXPOSED TO EXTERIOR CONDITIONS TO HAVE MINIMUM 6% AIR ENTRAINMENT.

READY-MIXED CONCRETE AND CONCRETE PROPORTIONS SHALL BE IN ACCORDANCE WITH CSA A23.1, CLAUSE 12 AND AS FOLLOWS:

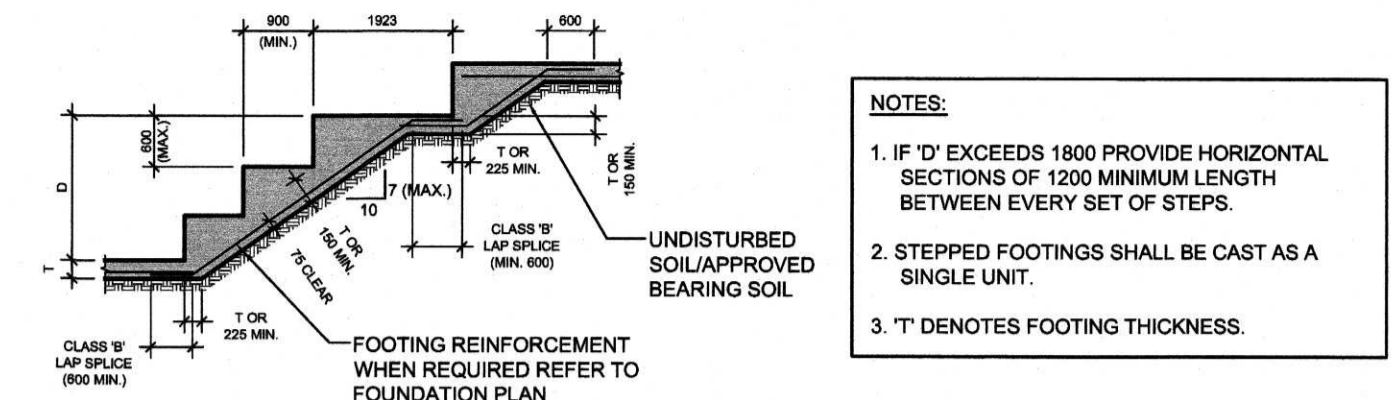
- IF BLENDED NORMAL PORTLAND CEMENT/CEMENTITIOUS HYDRAULIC SLAG IS USED EXCEPT FOR FLOOR MIXES, SLAG CONTENT SHALL NOT BE MORE THAN 25% OF TOTAL MASS OF CEMENT. TOTAL VOLUME OF CEMENT IN CONCRETE FLOOR MIXES SHALL BE 100% NORMAL PORTLAND CEMENT.
- PROVIDE CERTIFICATION THAT MIX PROPORTIONS SELECTED WILL PRODUCE CONCRETE OF SPECIFIED QUALITY AND YIELD AND THAT STRENGTH WILL COMPLY WITH CAN/CSA-A23.1-M06.
- USE OF CALCIUM CHLORIDE NOT PERMITTED.
- DO NOT CHANGE CONCRETE MIX WITHOUT PRIOR APPROVAL OF CONSULTANT. SHOULD CHANGE IN MATERIAL SOURCE BE PROPOSED, NEW MIX DESIGN TO BE APPROVED BY CONSULTANT.

**3-4 PITS/TRENCHES, PADS AND CURBS U/N:**



**3-5 FOOTINGS STEPS:**

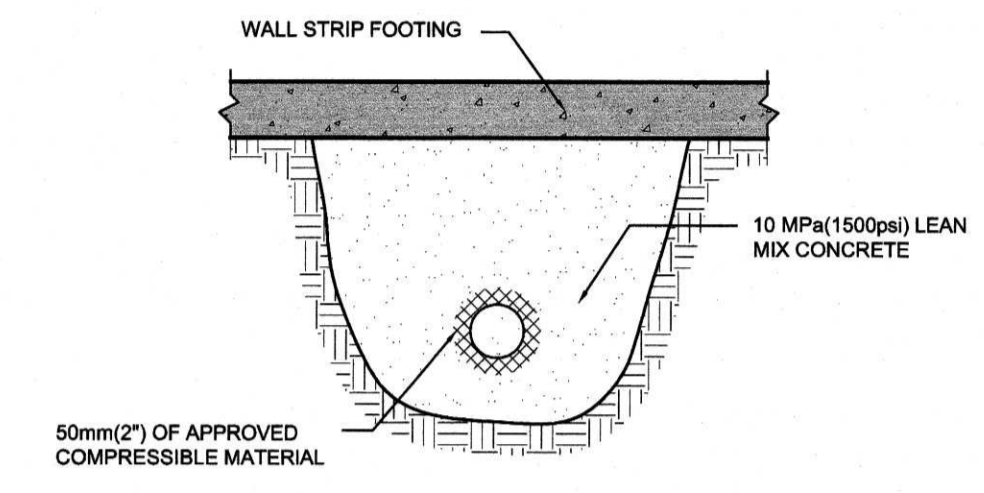
LOCATIONS OF FOOTING STEPS TO BE APPROVED BY ENGINEER IN WRITING PRIOR TO CONSTRUCTION.



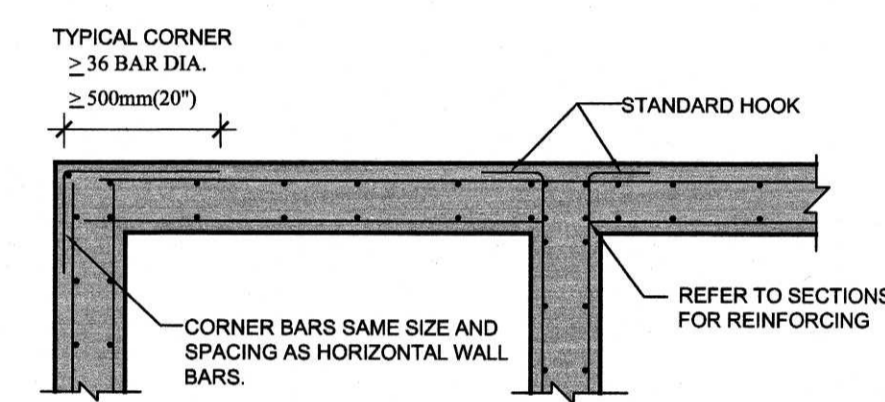
- NOTES:**
- IF 'T' EXCEEDS 1800 PROVIDE HORIZONTAL SECTIONS OF 1200 MINIMUM LENGTH BETWEEN EVERY SET OF STEPS.
  - STEPPED FOOTINGS SHALL BE CAST AS A SINGLE UNIT.
  - 'T' DENOTES FOOTING THICKNESS.

**3-6 PIPE CROSSING BELOW STRIP FOOTING:**

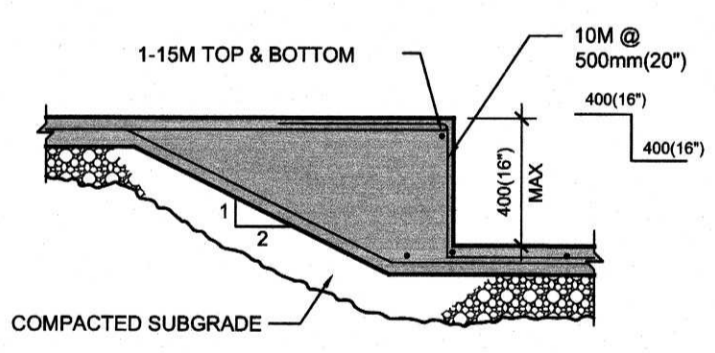
(NOTE: LOCATIONS WHERE PIPES CROSS BELOW FOOTINGS ARE TO BE APPROVED BY ENGINEER IN WRITING PRIOR TO CONSTRUCTION. ENGINEER RESERVES THE RIGHT TO RELOCATE PIPES AS REQUIRED OR LOWER FOOTINGS TO SUIT.)



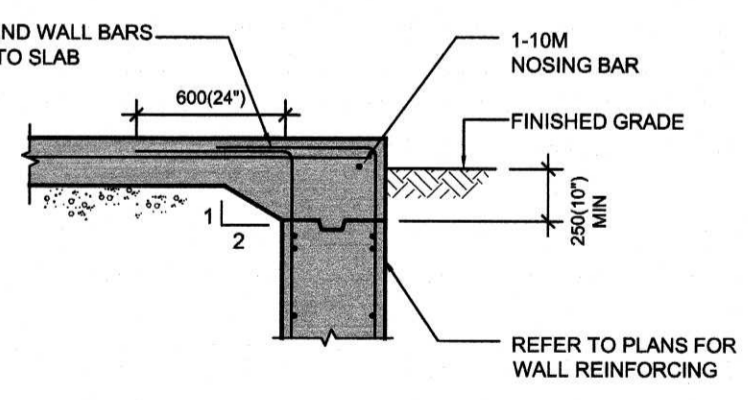
**3-7 HORIZONTAL WALL STEEL DETAIL AT CORNERS U/N:**



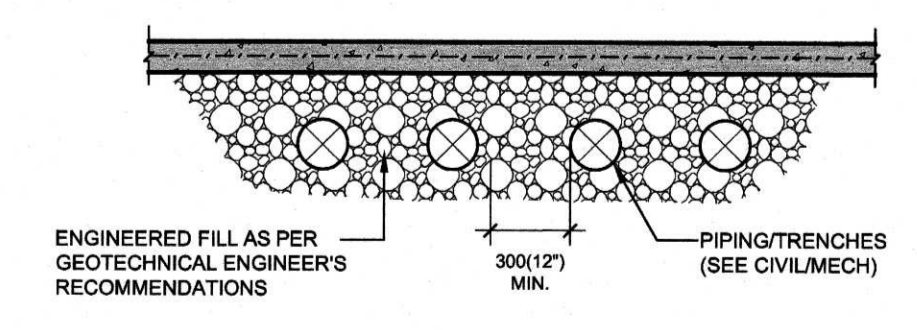
**3-8 SLAB ON GRADE ELEVATION CHANGE U/N:**



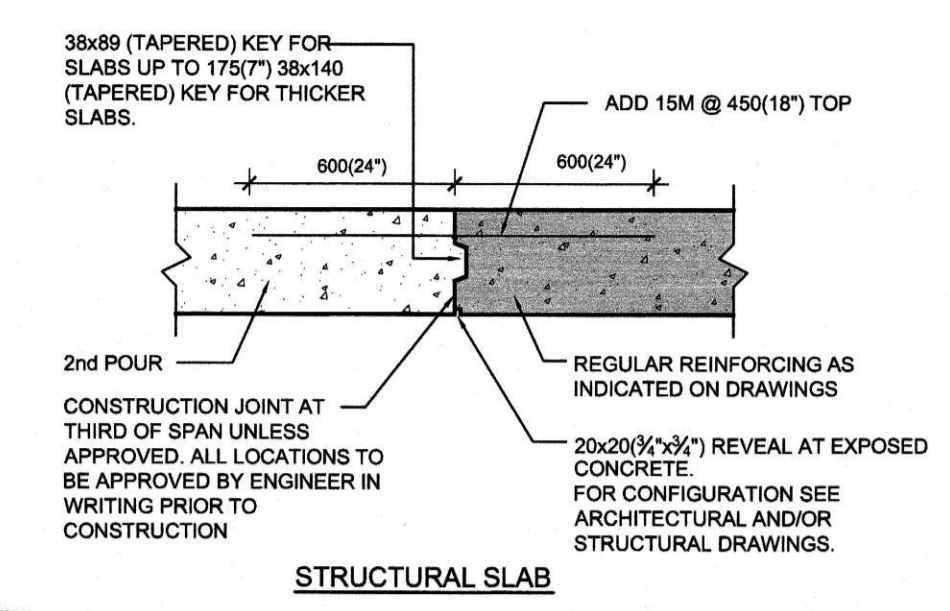
**3-9 SLAB ON GRADE AT DOORS:**



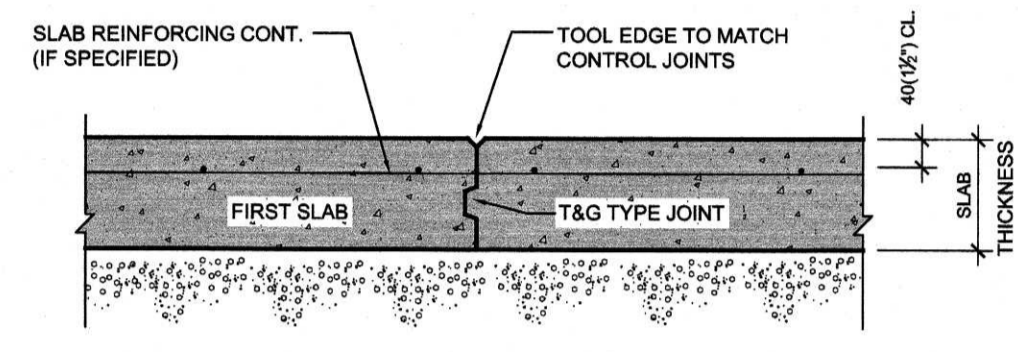
**3-10 UNDERSLAB/UNDERGROUND PIPING TRENCHES**



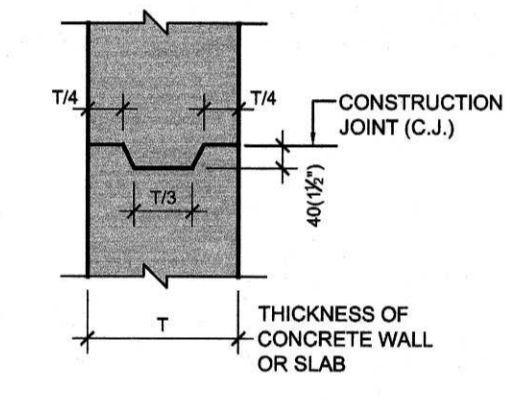
**3-11 CONSTRUCTION JOINTS**



- NOTES:**
- WHERE BARS ARE EPOXY COATED INCREASE BAR LENGTHS BY 20%.
  - FOR TRANSFER BEAMS OR BEAMS GREATER THAN 900 DEEP, LOCATION AND DETAIL OF CONSTRUCTION JOINT TO BE APPROVED BY ENGINEER. IT SHALL BE ASSUMED JOINTS ARE NOT PERMITTED FOR TENDERING PURPOSES.
  - CONCRETE SLABS SHALL BE CONCRETED IN SECTIONS NOT EXCEEDING 560m² (6000 ft²) IN AREA. EACH POUR SHALL BE BOUNDED BY A VERTICAL BULKHEAD OR ABUTTING CONSTRUCTION. PROVIDE ADDITIONAL REINFORCING AS PER DETAILS ON TYPICAL DETAILS DRAWING.

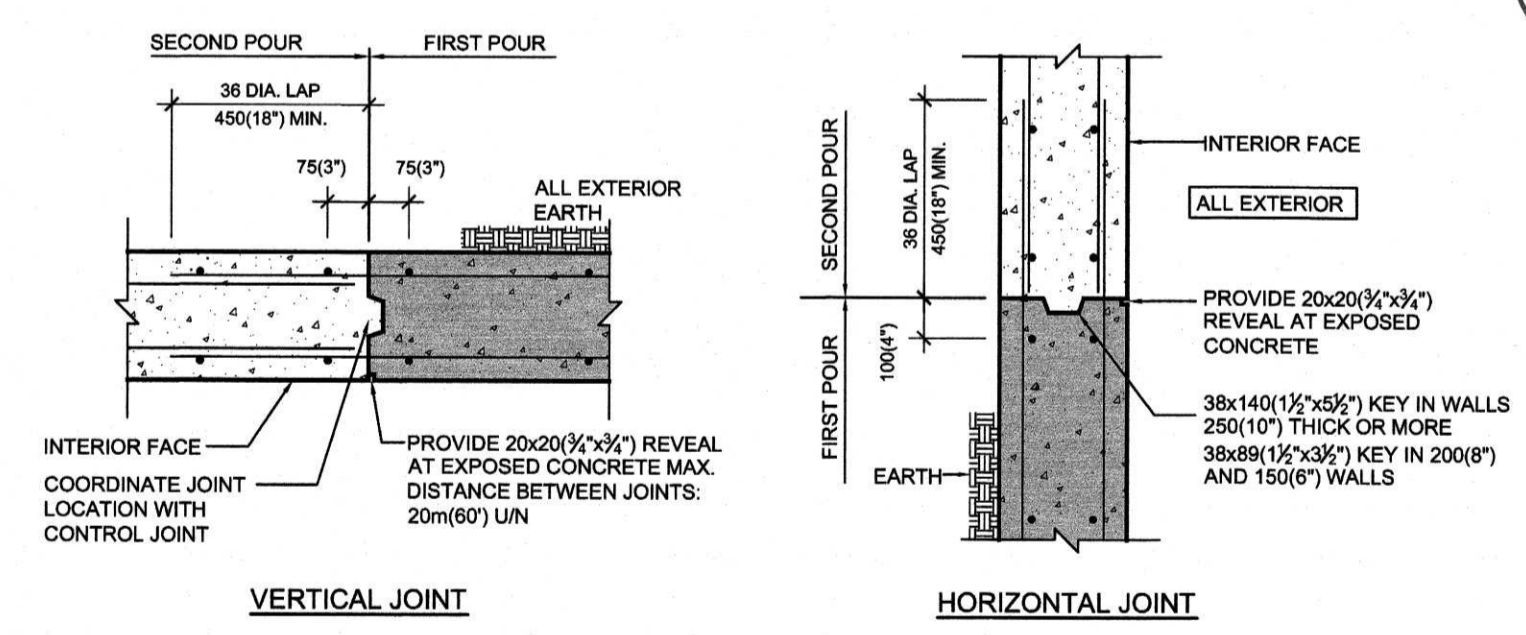


**CONSTRUCTION JOINT IN SLAB ON GRADE**

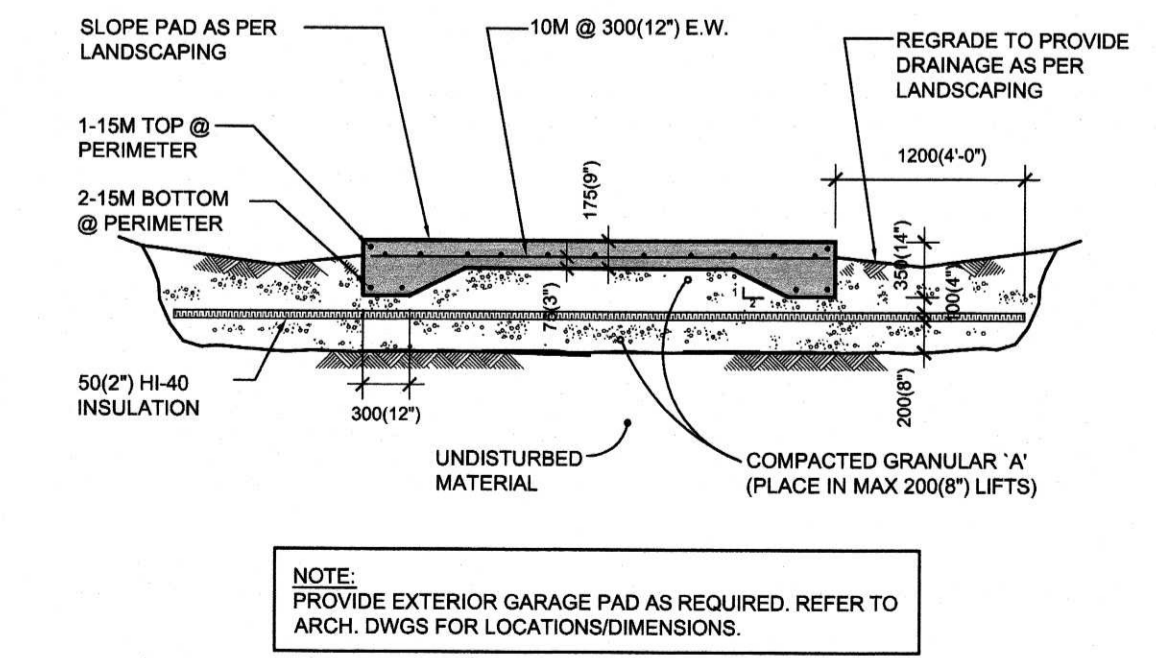


**CONSTRUCTION JOINT KEY DETAIL**

**CONSTRUCTION JOINTS IN WALLS**



**3-12 EXTERIOR GARBAGE PAD**



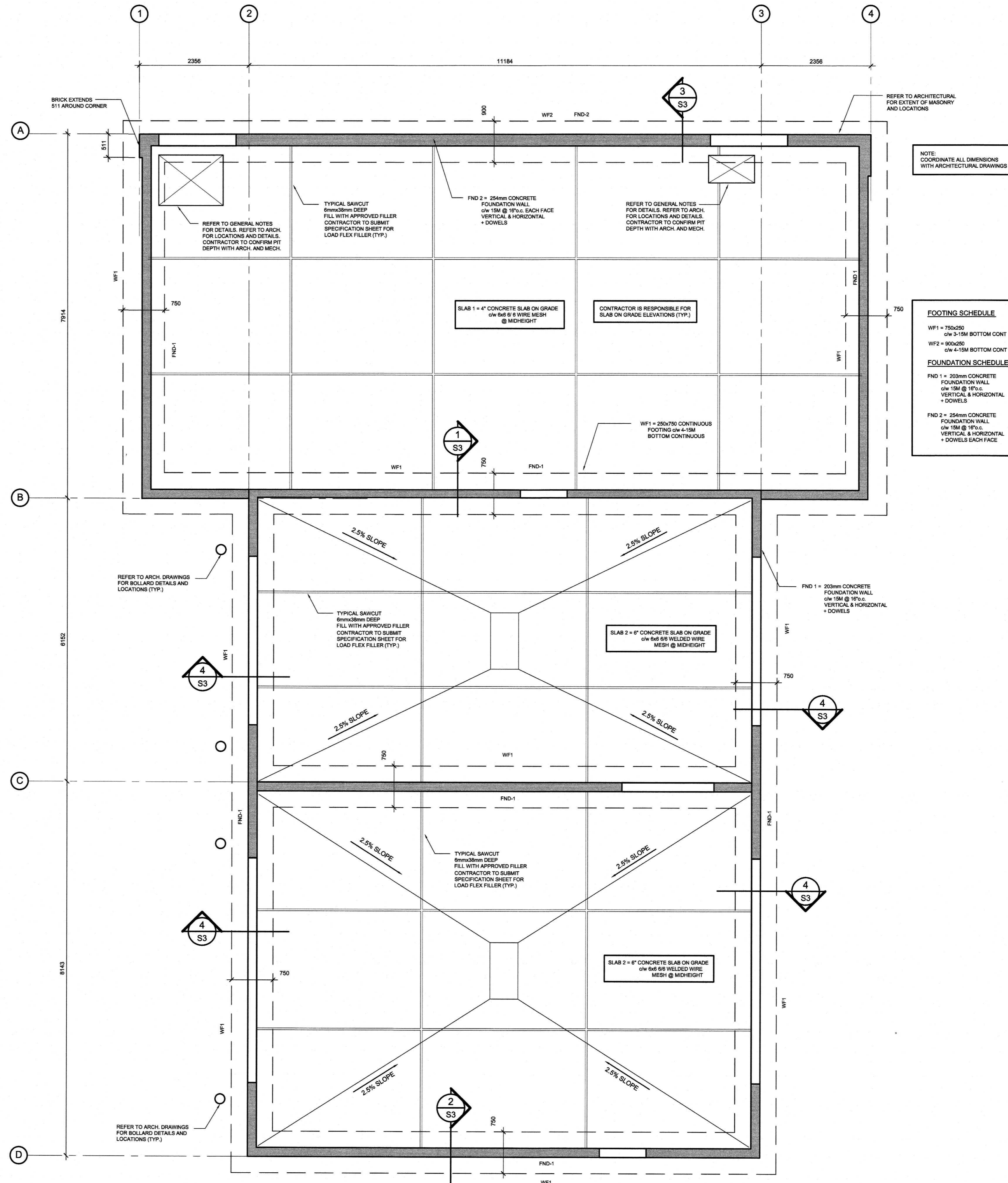
NOTE: PROVIDE EXTERIOR GARAGE PAD AS REQUIRED. REFER TO ARCH. DWGS FOR LOCATIONS/DIMENSIONS.

**STRUCTURAL LUMBER**

1. ALL TIMBER CONSTRUCTION TO BE IN ACCORDANCE WITH THE 2012 ONTARIO BUILDING CODE, LATEST REVISIONS.
2. ALL STRUCTURAL LUMBER TO BE SPF #2 OR BETTER UNLESS OTHERWISE NOTED ON DRAWINGS. 'STUD' GRADE IS NOT ACCEPTABLE FOR BEARING WALLS, LINTELS AND POSTS.
3. PLYWOOD ROOF SHEATHING TO BE CONSTRUCTION GRADE, EXTERIOR GRADE, GOOD-ONE-SIDE SOFTWOOD PLYWOOD SOFTWOOD PLYWOOD TO CAN/CSA O151-M1978 OR DOUGLAS FIR PLYWOOD TO CAN/CSA 0121-M1978.
4. DESIGN-RATED OSB, TYPES 1, 2 AND 3 CERTIFIED FOR ENGINEERING USES TO CAN/CSA 0437.0-93 AND CAN/CSA 0452.0-94.
5. PROPRIETARY (ENGINEERED PRODUCTS AS SPECIFIED ON THE PLANS. SUBSTITUTIONS FROM THE SPECIFIED PRODUCTS BY WRITTEN APPROVAL OF THE ENGINEER ONLY.
6. ALL BEARING WALLS ARE TO HAVE HORIZONTAL BLOCKING AT SHEATHING JOINTS.
7. ALL BEAMS REQUIRE RESTRAINT AGAINST LATERAL DISPLACEMENT AND ROTATION AT THE POINTS OF BEARING.
8. FOR BUILT-UP BEAMS, IT IS ASSUMED THAT EACH PLY IS A SINGLE CONTINUOUS MEMBER, FASTENED TOGETHER SECURELY AT INTERVALS NOT EXCEEDING 4 TIMES THE DEPTH AND THAT EACH PLY IS EQUALLY LOADED.
9. BUILT-UP RECTANGULAR COMPRESSION MEMBERS SHALL CONSIST OF INDIVIDUAL MEMBERS OF EQUAL LENGTH FASTENED TOGETHER USING NAILS, LAG SCREWS OR BOLTS.
10. WHEN USED, NAILS SHALL PENETRATE THROUGH AT LEAST OF 3/4" OF THE THICKNESS OF THE LAST INDIVIDUAL PIECE, THE NAILS SHALL BE DRIVEN FROM EITHER FACE OF THE BUILT-UP MEMBER ALONG THE LENGTH.
11. WHEN INDIVIDUAL PIECES OF THE BUILT-UP MEMBER ARE WIDER THAN 3 TIMES THEIR THICKNESS, THERE SHALL BE AT LEAST 2 ROWS OF FASTENERS ACROSS THE MEMBER WIDTH.

**FORMWORK**

1. VERIFY LINES, LEVELS AND WALL CENTRES BEFORE PROCEEDING WITH FORMWORK AND ENSURE DIMENSIONS AGREE WITH DRAWINGS.
2. CONSTRUCT FORMS TO PRODUCE FINISHED CONCRETE CONFORMING TO SHAPE, DIMENSIONS, LOCATIONS AND LEVELS INDICATED WITHIN TOLERANCES REQUIRED BY CSA A23.1-04/A23.2-04 ALIGN FORM JOINTS AND MAKE WATERTIGHT. KEEP FORM JOINTS TO MINIMUM. LOCATE HORIZONTAL FORM JOINTS FOR EXPOSED WALLS TO APPROVAL OF ARCHITECT. CLEAN FORMWORK IN ACCORDANCE WITH CSA A23.1-04/A23.2-04, BEFORE PLACING CONCRETE.
3. FORM CHASES, SLOTS, OPENINGS, DRIPS, RECESSES EXPANSION AND CONTROL JOINTS AS INDICATED.
4. LEAVE FORMWORK IN PLACE FOR 48 HOURS MINIMUM PERIOD OF TIME AFTER PLACING CONCRETE. AFTER FORM REMOVAL COVER AND PROTECT CONCRETE FOR REMAINDER OF THE INITIAL CURING PERIOD. USE INSULATED TARPS FOR COLD WEATHER OPERATION.
5. OBTAIN ENGINEER'S PERMISSION BEFORE FRAMING OPENINGS NOT INDICATED IN CONCRETE SLABS, WALLS, PIERS AND FOOTINGS.



NOTE: COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS

**FOOTING SCHEDULE**

WF1 = 750x250  
c/w 3-15M BOTTOM CONT

WF2 = 900x250  
c/w 4-15M BOTTOM CONT

**FOUNDATION SCHEDULE**

FND 1 = 203mm CONCRETE FOUNDATION WALL  
c/w 15M @ 150c  
VERTICAL & HORIZONTAL  
+ DOWELS

FND 2 = 254mm CONCRETE FOUNDATION WALL  
c/w 15M @ 150c  
VERTICAL & HORIZONTAL  
+ DOWELS EACH FACE

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1	SEPT 11/18	ISSUED FOR REVIEW

PROFESSIONAL SEAL: NORTH ARROW:



PROJECT TITLE:

**ENTERPRISE RENT-A-CAR**

PALLADIUM DRIVE,  
OTTAWA, ONTARIO

SHEET TITLE:

**FOUNDATION PLAN**

DRAWN: A.V.	CHECKED: J.V.
SCALE: AS SHOWN	SHEET No. <b>S1</b>
PROJECT No. S221-18	

**1 PLAN: FOUNDATION**  
SCALE: 1:50

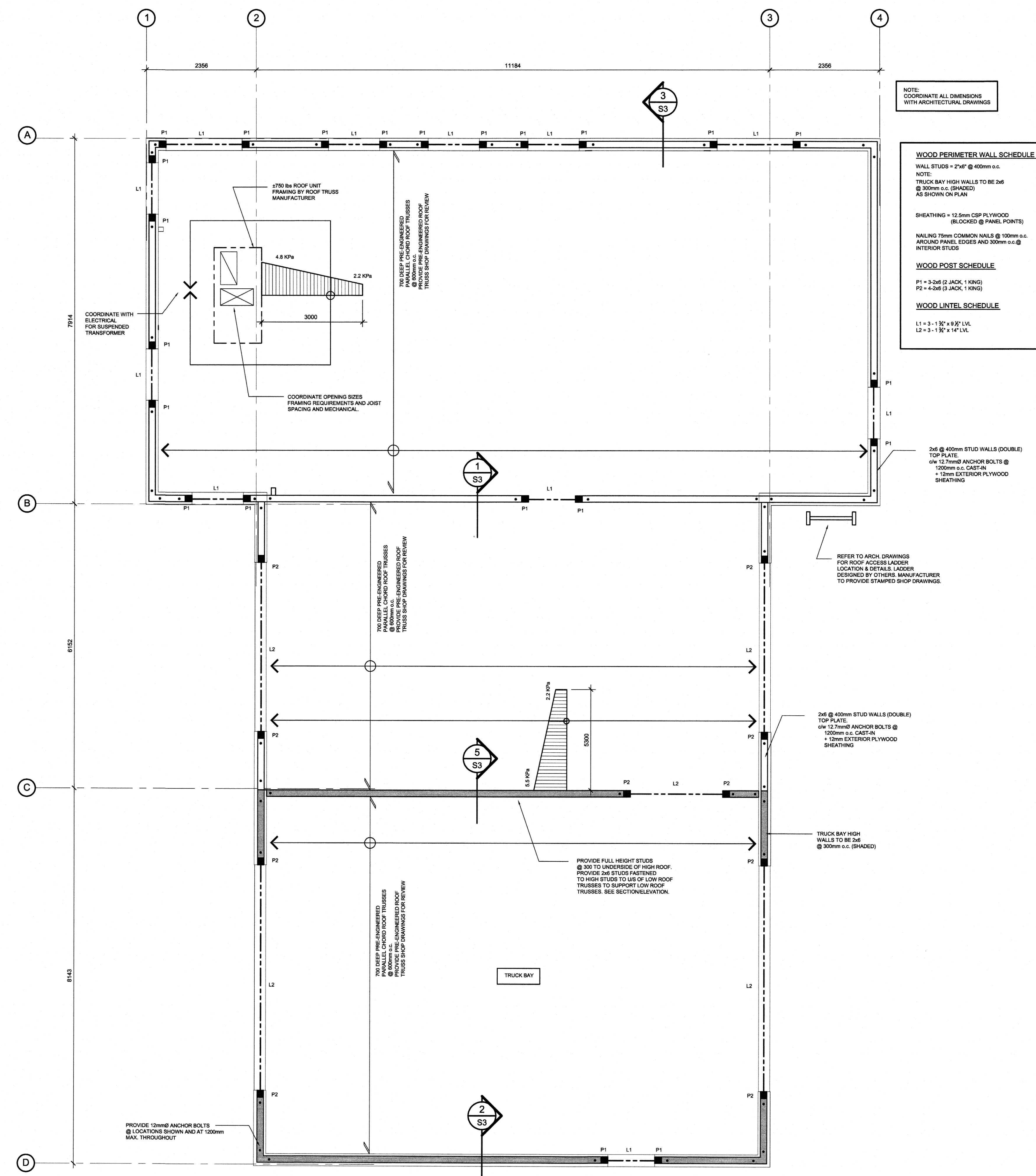
City of Ottawa  
Building Services Branch  
OCT 07 2019  
Building Code Reviewed

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**DESIGN LOADS (ROOF)**  
 ROOFING = 0.5 kPa  
 ROOF JOIST + BEAM = 0.7 kPa  
 MISC = 0.25 kPa  
 DEAD LOAD = 1.45 kPa  
 SNOW LOAD = 2.2 kPa  
 + SNOW DRIFTING  
**ROOF DIAPHRAGM**  
 12.5mm CSP PLYWOOD SHEATHING BLOCKED AT PANEL JOINTS, 6mm NAILS @ 150mm AROUND PANEL PERIMETER AND 300mm AT INTERIOR JOINTS.  
 PLYWOOD SHEATHING HAS BEEN DESIGNED FOR DIAPHRAGM ACTION TO TRANSMIT HORIZONTAL LOADS (WIND AND/OR SEISMIC) TO THE WOOD PERIMETER WALLS IN ACCORDANCE WITH THE 2012 CBC.

NOTE: COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS

**WOOD PERIMETER WALL SCHEDULE**  
 WALL STUDS = 2x4 @ 400mm o.c.  
 NOTE:  
 TRUCK BAY HIGH WALLS TO BE 2x6 @ 300mm o.c. (SHADED) AS SHOWN ON PLAN  
 SHEATHING = 12.5mm CSP PLYWOOD (BLOCKED @ PANEL POINTS)  
 NAILING 75mm COMMON WALLS @ 100mm o.c. AROUND PANEL EDGES AND 300mm o.c. @ INTERIOR STUDS  
**WOOD POST SCHEDULE**  
 P1 = 3x2x8 (2 JACK, 1 KING)  
 P2 = 4x2x8 (2 JACK, 1 KING)  
**WOOD LINTEL SCHEDULE**  
 L1 = 3 - 1 3/4" x 6 3/4" LVL  
 L2 = 3 - 1 3/4" x 14" LVL



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1	SEPT 11/18	ISSUED FOR REVIEW

PROFESSIONAL SEAL: NORTH ARROW:

CLIENT:



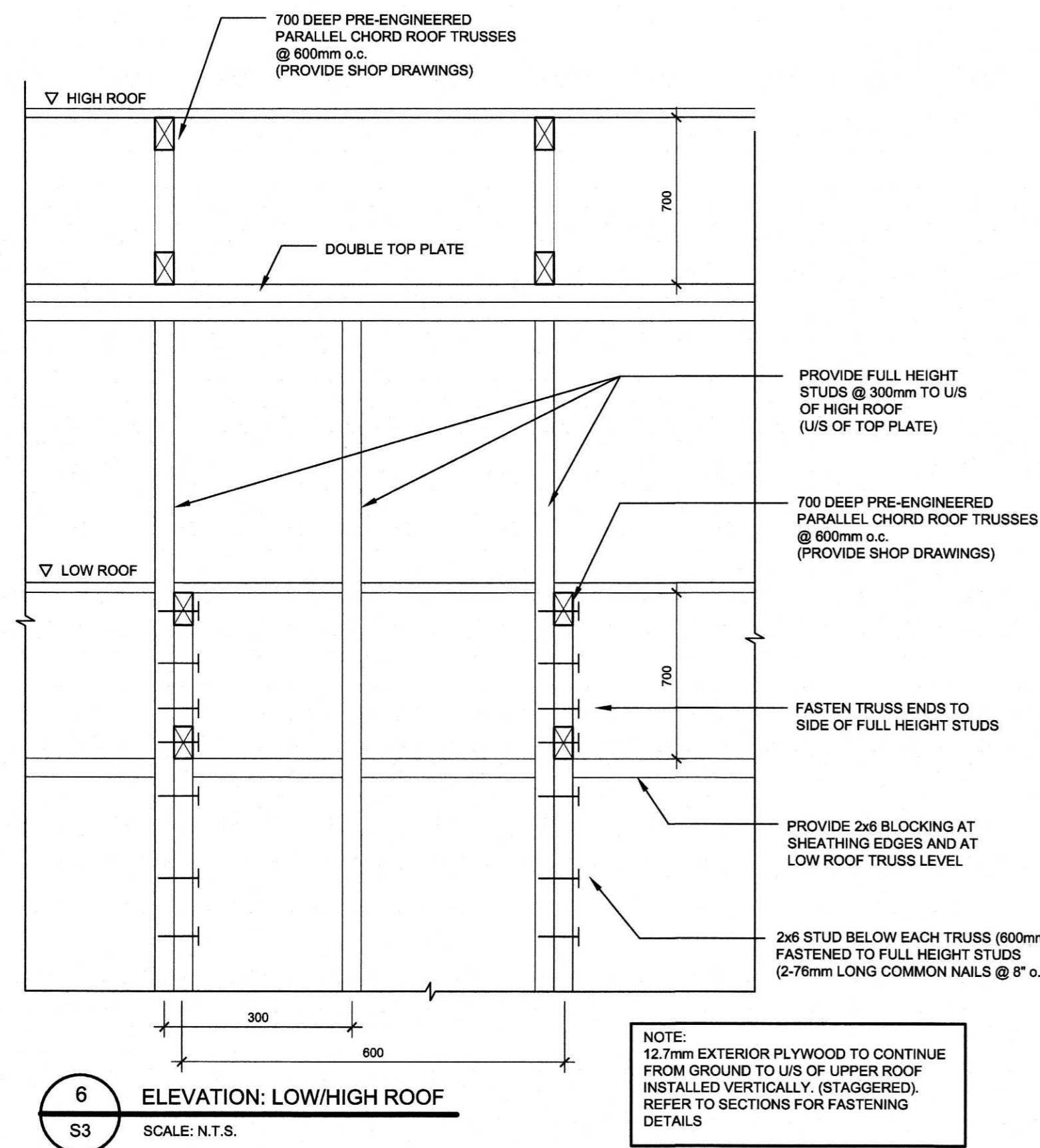
PROJECT TITLE:  
**ENTERPRISE RENT-A-CAR**  
 PALLADIUM DRIVE,  
 OTTAWA, ONTARIO

SHEET TITLE:  
**GROUND FLOOR/ROOF PLAN**

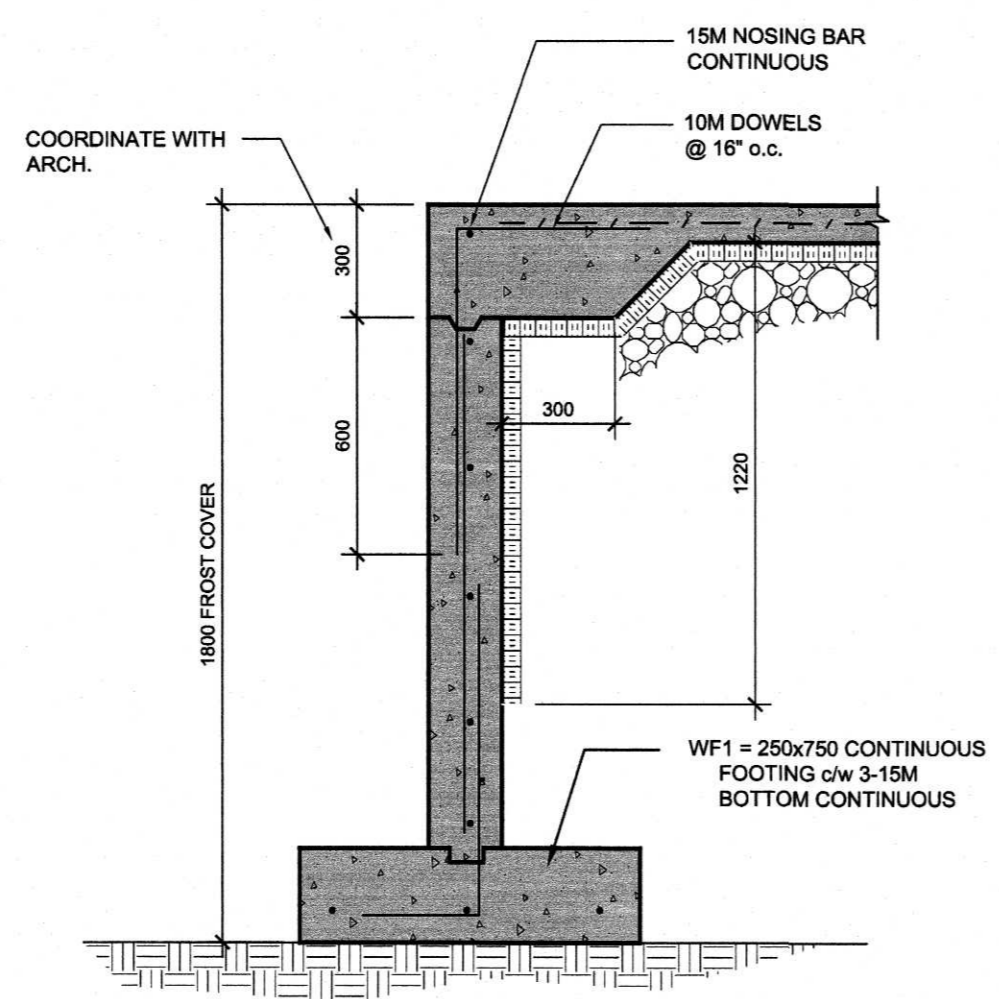
DRAWN: A.V.	CHECKED: J.V.
SCALE: AS SHOWN	SHEET No. <b>S2</b>
PROJECT No. S221-18	

**1 PLAN: GROUND FLOOR/ROOF**  
 SCALE: 1:50

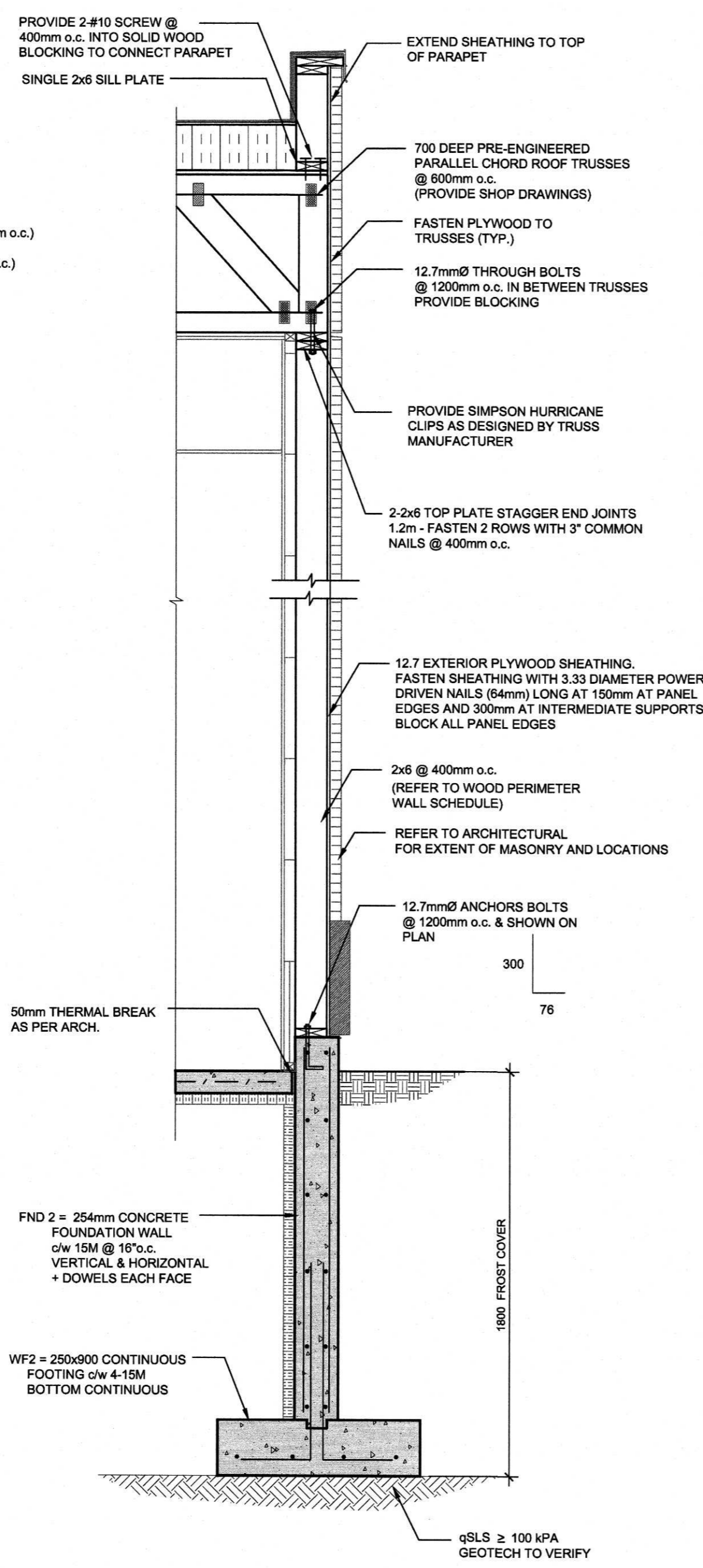




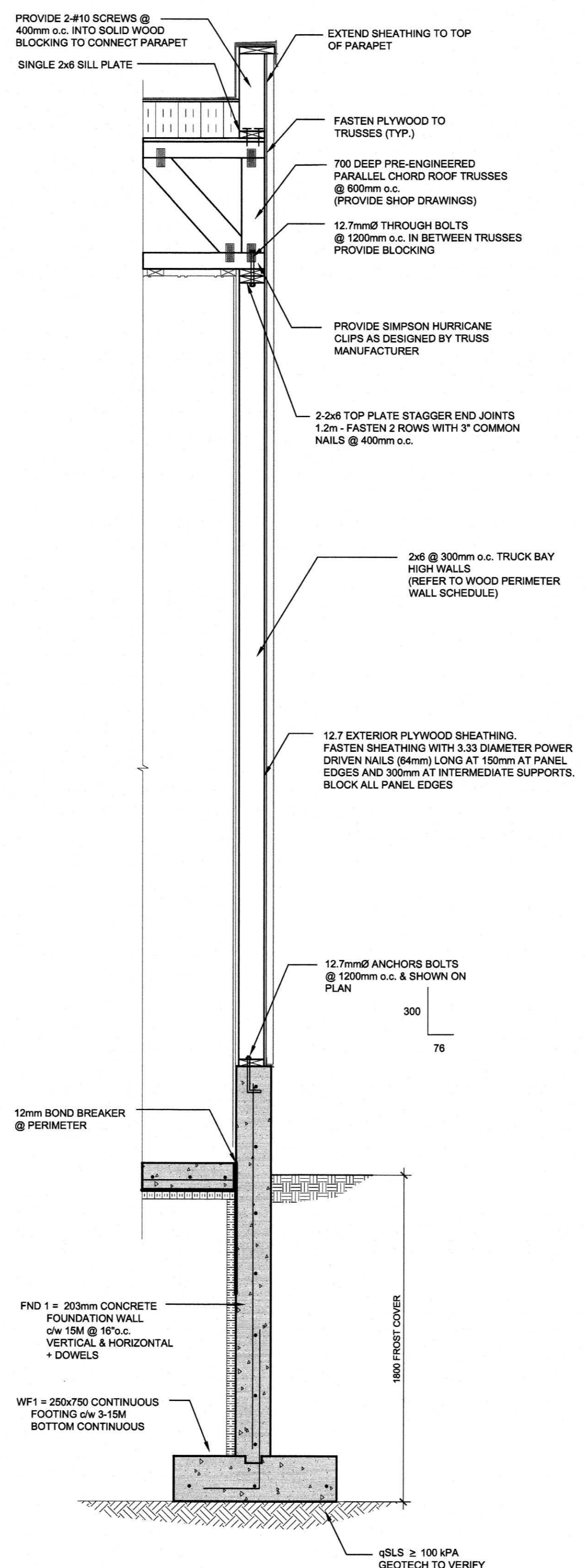
6 ELEVATION: LOW/HIGH ROOF  
SCALE: N.T.S.



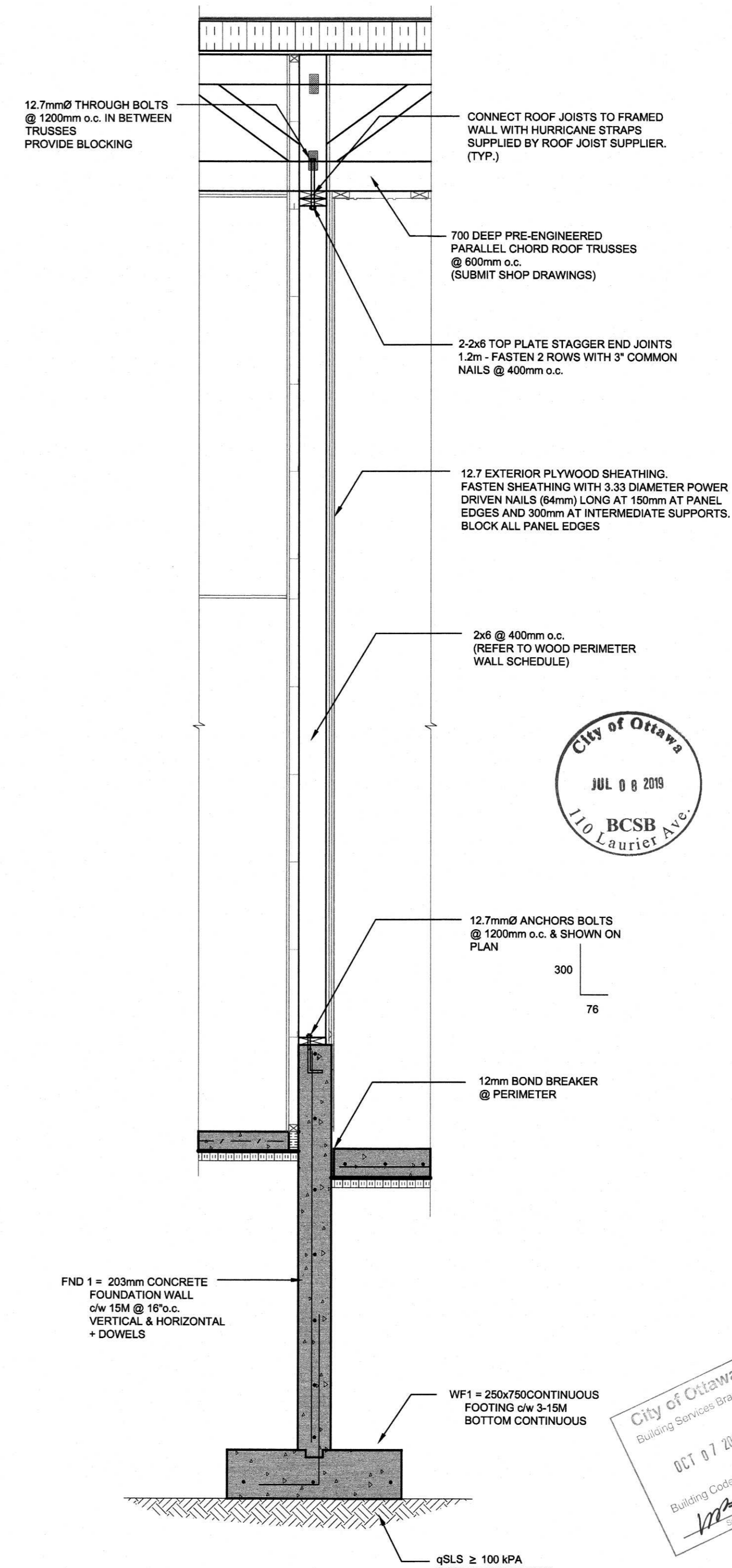
4 SECTION: @ GARAGE DOOR  
SCALE: 1:20



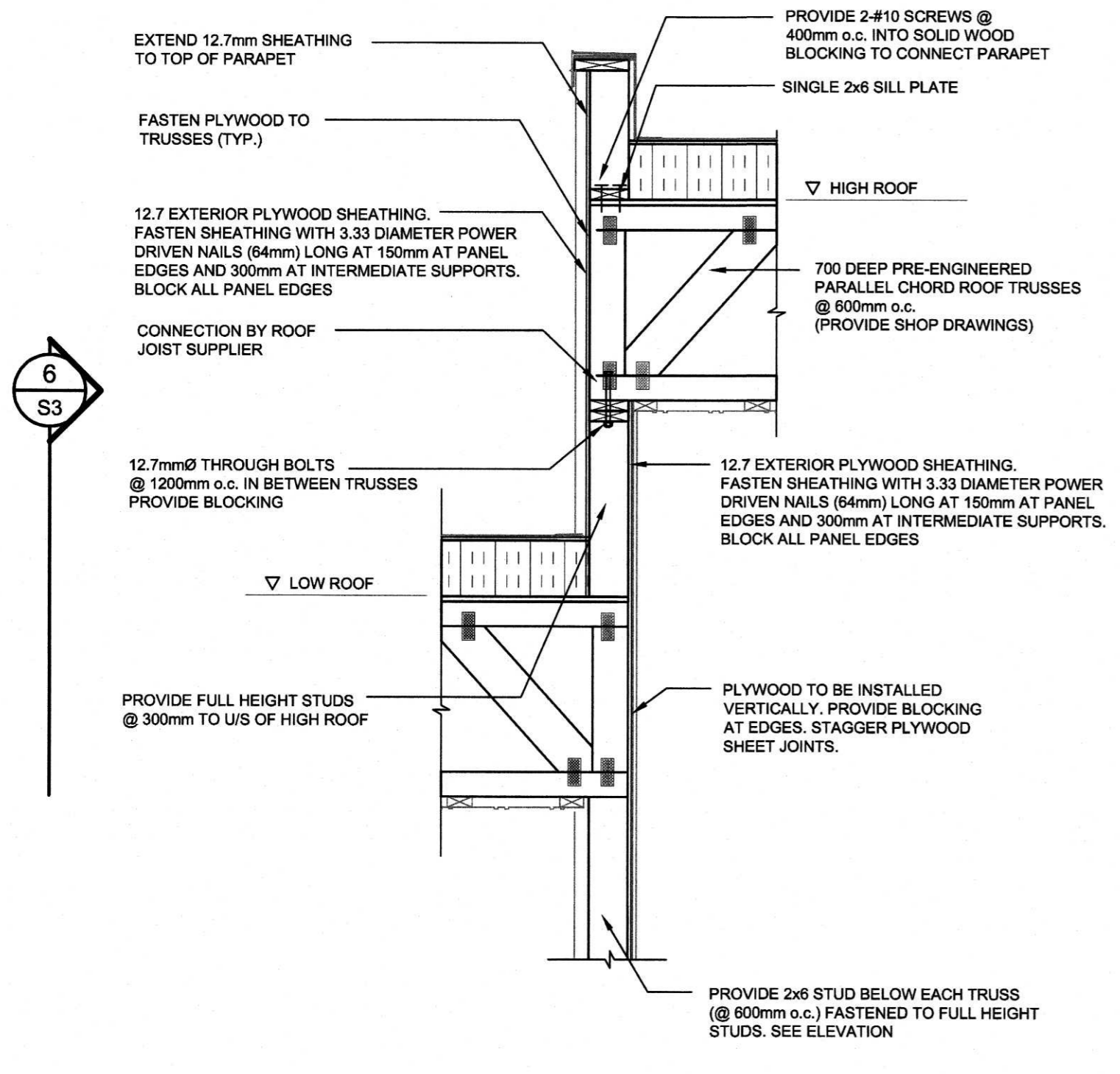
3 SECTION: FRONT WALL  
SCALE: 1:20



2 SECTION: DOUBLE CLAD WALL  
SCALE: 1:20



1 SECTION: METAL WALL CLADDING  
SCALE: 1:20



5 SECTION: DETAIL @ TALL ROOF  
SCALE: 1:20

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PROFESSIONAL SEAL: NORTH ARROW:

CLIENT:

**VRIEND ENGINEERING**

PROJECT TITLE:  
**ENTERPRISE RENT-A-CAR**

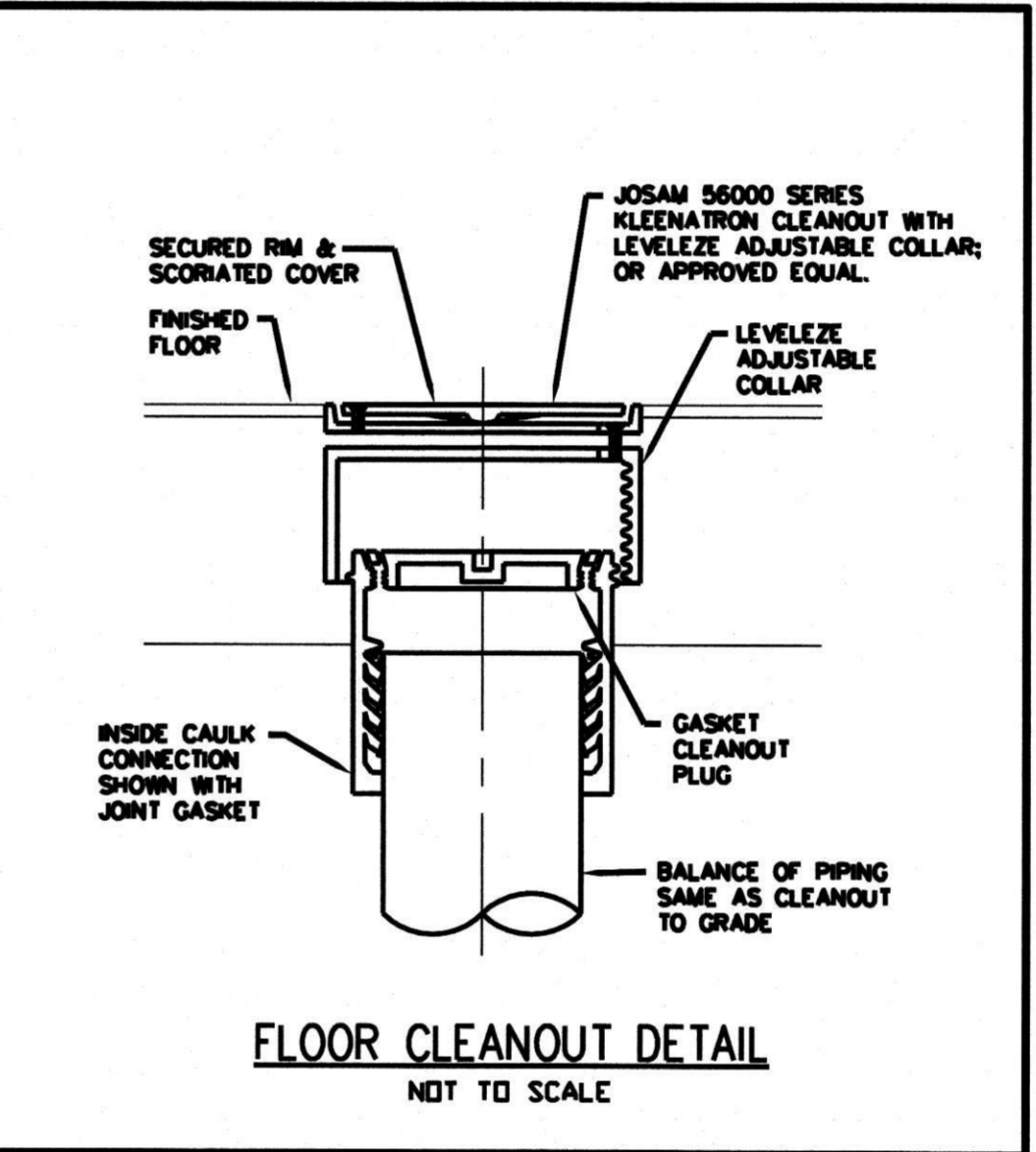
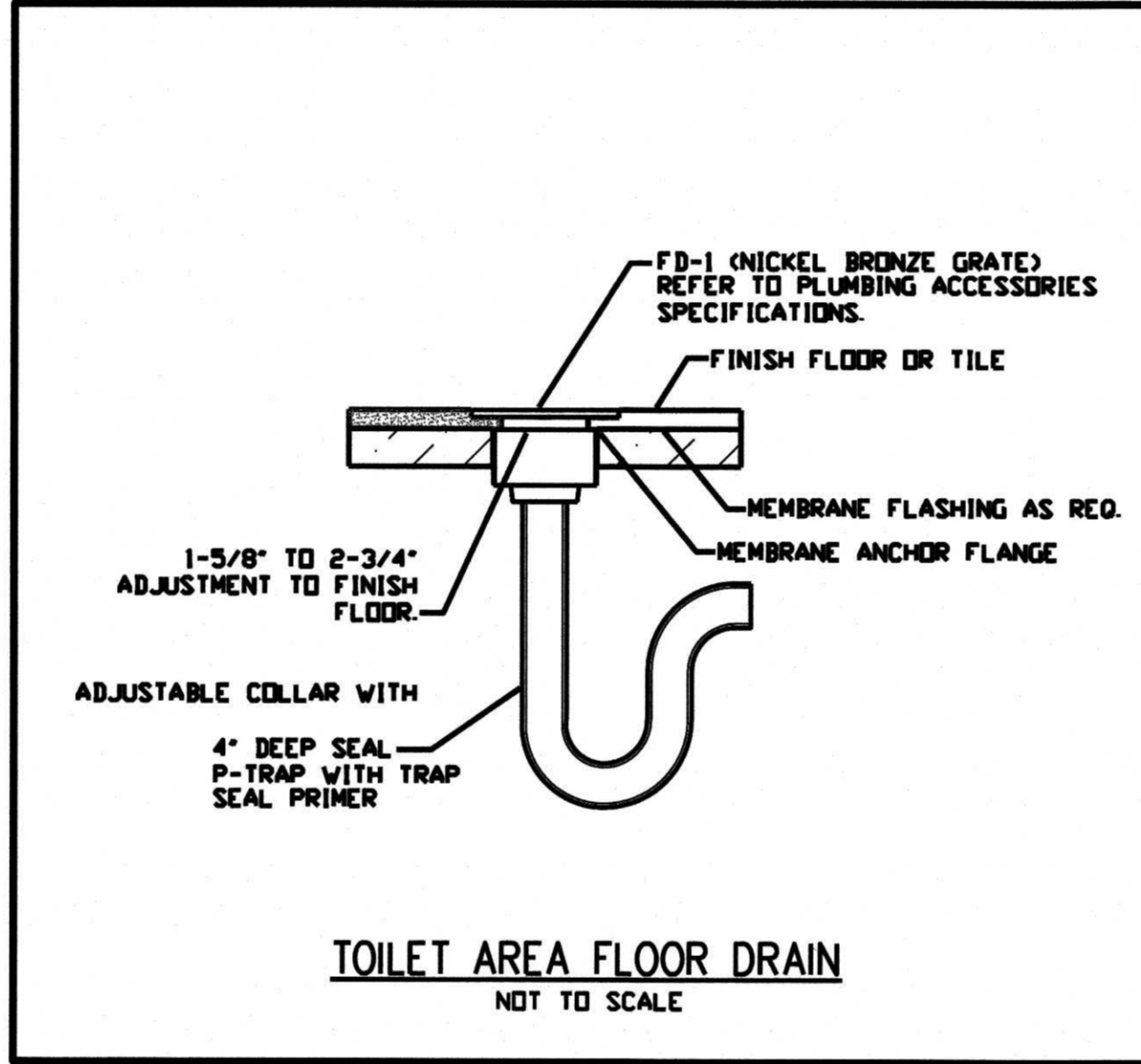
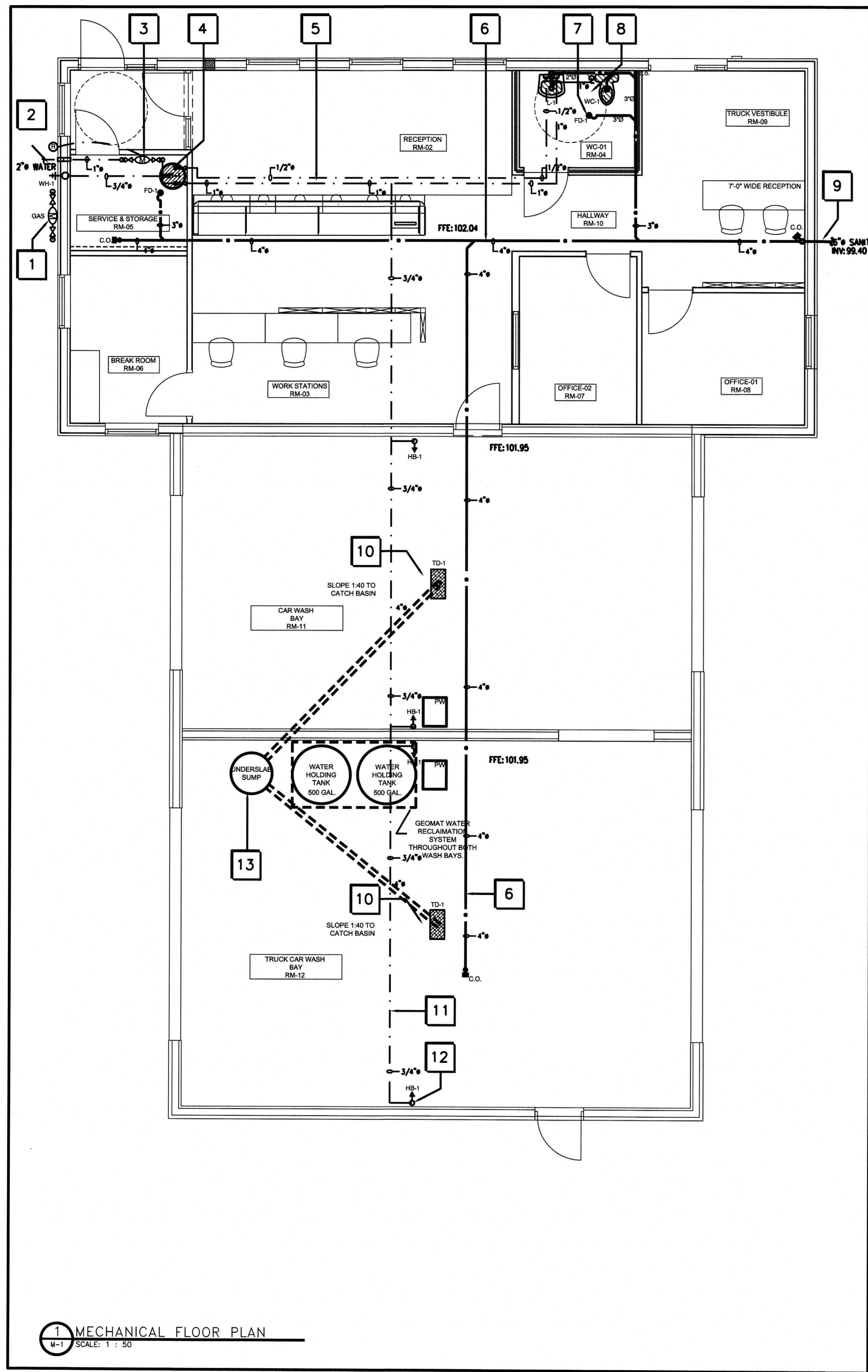
PALLADIUM DRIVE,  
OTTAWA, ONTARIO

SHEET TITLE:  
**SECTIONS & DETAILS**

DRAWN: A.V. CHECKED: J.V.

SCALE: AS SHOWN SHEET No. **S3**

PROJECT No. S221-18



### PIPING MATERIAL AND INSULATION SCHEDULE

Service	Service Abbr.	Material	Connection Type	Oper. Temp	Max Temp (F)	Max Press (psig)	Test Press (psig)	Location	Insulation	Jacket	Insulation Thickness
Natural Gas	G	Carbon Steel	Thread/Buttweld	75	80	0 - 1	3	Indoor, Outdoor	NONE	N/A	-
Sanitary Waste	-	Copper/Cast Iron	Solder/M.I.	40 - 110	140	0	10 FT. HD.	Indoor	NONE	N/A	-
Sanitary Vent	-	Copper/Cast Iron	Solder/M.I.	40 - 110	140	0	10 FT. HD.	Indoor	NONE	N/A	-
Domestic Water	-	Copper	Solder	40	70	80	120	Indoor	Fiberglass	YES	1"
Domestic Hot Water	-	Copper	Solder	110	140	80	120	Indoor	Fiberglass	YES	1"
Sanitary Waste (buried)	-	Plastic	Plastic Weld	40 - 110	140	0	10 FT. HD.	Indoor	NONE	N/A	-

### PLUMBING FIXTURE CONNECTIONS AND SPECIFICATIONS

FIX. REF.	FIXTURE	HOT WATER	COLD WATER	DIR. DRAIN	VENT	REMARKS
WC-1	WATER CLOSET (F.T.)	-	1/2"	3"	1-1/2"	FLOOR MOUNTED WATER CLOSET, BARRIER FREE, ELONGATED BOWL, DUAL 4.1LPG & 6LPG FLUSH VALVE, ZURN Model 2600AV-WS1.
L-1	LAVATORY	1/2"	1/2"	1-1/4"	1-1/4"	WALL MOUNTED VITREOUS CHINA LAVATORY BARRIER FREE TYPE, WALL CARRIER SUPPORT SINGLE LEVER FAUCET, ZURN Model 25110. INSULATE HOT WATER AND DRAIN OFF-SET.
WH-1	WALL HYDRANT	-	3/4"	-	-	NON FREEZE WALL HYDRANT WITH NICKEL BRONZE BOX AND DOOR CHROME PLATED FACE, INTEGRAL VACUUM BREAKER. WATTS Model HY-725.
HB-1	INDOOR HOSE BIBB	-	3/4"	-	-	INDOOR WALL HYDRANT WITH NICKEL BRONZE BOX AND DOOR CHROME PLATED FACE, INTEGRAL VACUUM BREAKER. WATTS Model HY-430.
FD-1	FLOOR DRAIN	-	1/2"	3"	2"	FINISH FLOOR, FLOOR DRAIN, PROVIDE PRAP SEAL PRIMER, BRONZE GRATE ADJUSTABLE NECK, CAST IRON EPOXY BODY WATTS MODEL # FD-102-C-A6-1
TD-1	TRENCH AREA DRAIN	-	1/2"	4"	2"	OIL/SEDIMENT INTERCEPTOR HEAVY DUTY CAST IRON GRATE "ZURN" 4" DIA. OUTLET MODEL # Z-1189-60, OVERALL SIZE 30"x24", DEPT TO BE COORDINATED WITH CAR WASH SYSTEM
HWT-1	HOT WATER TANK	1/2"	1/2"	1"	-	ELECTRIC HOT WATER TANK, 6 IMPER. GALLONS CAPACITY 1500W ELEMENT, 120V, 1φ, TANK TO BE C/W TEMP. RELIEF VALVE PIPED TO PLUMBING CODE. JOHN WOOD M/J JN072E

### DRAWING NOTES:

- NEW BUILDING GAS METER BY ENBRIGE GAS. TOTAL CAPACITY 300MBH. MECHANICAL CONTRACTOR TO COORDINATE ALL NATURAL GAS WORK WITH ENBRIGE PRIOR TO GAS PIPING AND RELATED EQUIPMENT FINAL LAYOUT.
- PROVIDE NEW 2" MAIN WATER BUILDING PIPING. PROVIDE PIPE SLEEVE THRU FOUNDATION WALL. CONTRACTOR TO COORDINATE THIS WORK WITH CIVIL CONTRACTOR FOR EXACT WATER PIPE LOCATION.
- PROVIDE NEW 1" WATER METER AS PER CITY REQUIREMENTS. PROVIDE WALL MOUNTED REMOTE WATER METER READ OUT AS SHOWN.
- PROVIDE NEW ELECTRIC HOT WATER TANK "HWT-1". FOR CAPACITY AND DETAILS REFER TO SPECIFICATION BELOW. ALL WORK TO COMPLY WITH PLUMBING CODE.
- PROVIDE COLD AND HOT DOMESTIC WATER PIPING LAYOUT AS SHOWN. PROVIDE ALL PIPING HANGERS AND SUPPORTS AS PER CODE. ALL COLD AND HOT WATER PIPES TO BE INSULATED WITH 1" THICK THERMAL INSULATION C/W PVC COVER JACKET (TYPICAL FOR ALL).
- PROVIDE ALL SANITARY DRAINAGE BURIED PIPING SIZES AS SHOWN. PROVIDE PIPING SLOPE AS PER PLUMBING CODE. REFER TO EXISTING INVERTS AS PER SITE PLAN.
- PROVIDE NEW FLOOR DRAIN "FD-1" AS SPECIFIED BELOW. PROVIDE TRAP SEAL PRIMER AS PER CODE (TYPICAL FOR ALL).
- PROVIDE NEW WASHROOM PLUMBING FIXTURES AS SPECIFIED BELOW. ALL PIPING CONNECTIONS AS SHOWN ON PLUMBING CONNECTION SCHEDULE BELOW (TYPICAL FOR ALL).
- SANITARY SEWER SERVICE FOR PIPE CONNECTIONS AND EXACT LOCATION REFER TO SITE PLAN DRAWINGS.
- PROVIDE CAR WASH OIL/SEDIMENT INTERCEPTOR WITH HEAVY DUTY GRATE AS PER SPECIFICATIONS BELOW. COORDINATE THIS WORK WITH GENERAL TRADES PRIOR TO FINAL LOCATIONS. (TYPICAL OF 2).
- PROVIDE COLD DOMESTIC WATER PIPING LAYOUT AS SHOWN RUN IN JOINTS SPACE. PROVIDE ALL PIPING HANGERS AND SUPPORTS AS PER CODE. ALL COLD WATER PIPING TO BE INSULATED WITH 1" THICK THERMAL INSULATION C/W PVC COVER JACKET (TYPICAL FOR ALL).
- PROVIDE NEW WALL MOUNTED COLD WATER HOSE BIB REFER TO SPECIFICATIONS BELOW. (TYPICAL OF 4).
- PROVIDE NEW "GEOMAT" CLOSED LOOP WASTE WATER RECOVERY SYSTEM. ALL COMPLETE EQUIPMENT TO BE SUPPLY BY "GEOMAT". INSTALLATION BY APPROVED CONTRACTOR AS PER MANUFACTURER INSTALLATION INSTRUCTIONS. ALL INSTALLATION SHALL COMPLY WITH OBC 2012.

### HVAC LEGEND:

- SUPPLY AIR DIFFUSER
- SUPPLY AIR 'UP'
- SUPPLY AIR 'DOWN'
- RETURN AIR 'UP'
- RETURN AIR 'DOWN'
- DUCT WITH INSULATION
- RETURN AIR GRILLE
- FLEXIBLE DUCT CONNECTION
- BALANCING DAMPER

### PLUMBING LEGEND:

- HOT WATER SUPPLY ABOVE SLAB
- COLD WATER SUPPLY ABOVE SLAB
- SANITARY DRAIN ABOVE SLAB
- SANITARY DRAIN UNDER SLAB
- ..... VENT PIPING
- ~~~ SANITARY P-TRAP
- ⊘ SHUT-OFF VALVE

162 PRESTON STREET OTTAWA, ONTARIO, K1R 7P7  
T: 613-299-8505 F: 888-587-2021

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Antares Engineering Group Inc.  
Professional Mechanical, Electrical, Testing and Research Engineers  
159 Colonnade Road, Unit 1, Ottawa, Ontario, K2E 7J4  
Phone (613) 723-6034 Fax (613) 723-5249

NO	DATE	REVISION
3	27-06-2019	ISSUED FOR BUILDING PERMIT
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1	13-05-2016	ISSUED FOR CLIENT REVIEW

ACTUAL NORTH

PROJECT NORTH

J.C. JARRETT  
PROFESSIONAL ENGINEER  
ONTARIO  
JUN 2019

CLIENT:

ENTERPRISE RENT-A-CAR  
RYAN FIRLOTTE  
T: 613-274-6934  
F: 1-800-495-2412

CONSULTANTS:

HOLZMAN CONSULTANTS INC.  
(LAND DEVELOPMENT CONSULTANTS)  
1076 CASTEL HILL CRES  
OTTAWA, ONTARIO  
K2C 2A8  
T: 613-226-1386

MMM GROUP LTD  
(CIVIL ENGINEERING)  
1145 HUNT CLUB ROAD, SUITE 300  
OTTAWA, ONTARIO  
K1V 0Y3  
T: 613-736-7200  
F: 613-736-8710

VALLEY ENGINEERING  
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521 DICKINSON AVENUE  
OTTAWA, ONTARIO  
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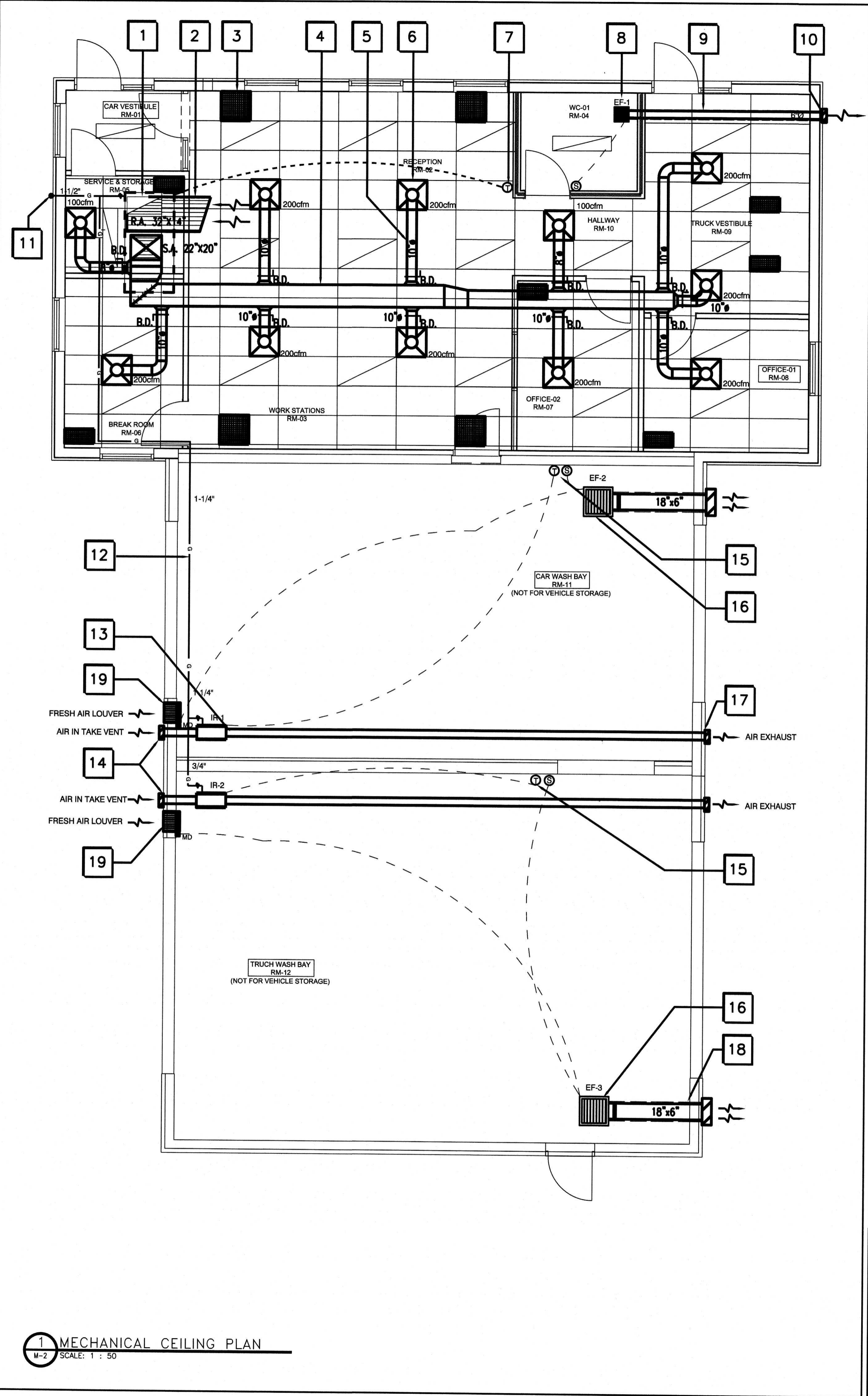
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(M&E ENGINEERING) Building Services Branch  
1-159 COLONNADE ROAD  
NEPEAN, ONTARIO  
K2E 7J4  
T: 613-723-6034

PROJECT TITLE:  
225 HUNTMAR DRIVE  
HUNTMAR/PALLADIUM DR. ENTERPRISE

DRAWING TITLE:  
MECHANICAL  
PLUMBING DISTRIBUTION

SCALE AS NOTED	DRAWN BY S.J.S.	CHECKED BY J.C.J.	JOB No. 15-610	DRAWING No. M-1
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MECHANICAL



**HVAC DRAWING NOTES:**

1. PROVIDE NEW ROOF TOP GAS FIRED HVAC UNIT FOR DETAILS AND SPECIFICATIONS REFER TO SCHEDULE BELOW.
2. PROVIDE RETURN AIR CEILING MOUNTED DUCTWORK SIZE 28"x14" C/W ACOUSTICALLY LINED DUCT.
3. PROVIDE CEILING MOUNTED T-BAR CEILING, EGG CRATE ALUMINUM RETURN AIR DIFFUSERS. TWO SIZES: 24"x24" AND 24"x12" (TYPICAL AS SHOWN).
4. PROVIDE MAIN SUPPLY AIR DUCTWORK MOUNTED IN THE CEILING SPACE. PROVIDE ALL RELATED DUCT HANGERS AND SUPPORTS AS PER "SMACNA" REQUIREMENTS. ALL SUPPLY DUCTS TO BE ACOUSTICALLY INSULATED.
5. PROVIDE ALL BRANCH ROUND RIGID SPIRAL DUCTS C/W BALANCING DAMPERS. SIZES AS SHOWN. (TYPICAL FOR ALL).
6. PROVIDE 24"x24" CEILING MOUNTED SUPPLY AIR DIFFUSERS, 4-WAY, ALUMINUM CONSTRUCTION, AIR FLOW AND NECK SIZE AS SHOWN (TYPICAL FOR ALL).
7. PROVIDE WALL MOUNTED 7-DAY PROGRAMMABLE HEAT/COOL THERMOSTAT.
8. PROVIDE WASHROOM CEILING MOUNTED "EF-1" EXHAUST FAN. FOR DETAILS AND SPECIFICATIONS REFER TO SCHEDULE BELOW. PROVIDE ON-OFF WALL SWITCH FOR CONTROLS.
9. PROVIDE ROUND RIGID SPIRAL DUCTWORK 6" C/W 1" THICK THERMAL INSULATION AND CANVAS.
10. PROVIDE EXHAUST AIR DUCT WALL CAP C/W GRAVITY DAMPER AND BIRD SCREEN.
11. PROVIDE NEW 1.5" GAS PIPING "UP" TO ROOF SERVING NEW ROOF TOP HVAC UNIT. PROVIDE ALL PIPING HANGERS AND SUPPORTS AS PER NATURAL GAS CODE.
12. PROVIDE NEW 1.25" GAS SERVING NEW INFRARED HEATERS. PIPE RUN AT CEILING JOINT SPACE. PROVIDE ALL PIPING HANGERS AND SUPPORTS AS PER NATURAL GAS CODE.
13. PROVIDE GAS FIRED INFRARED DUAL STAGE LOW INTENSITY HEATERS. EQUAL TO "SCHWANK" SERIES STW-JZ80, CAPACITY 80MBH, MOUNTED AT 11 FEET A.F.F., PROVIDE WALL THERMOSTAT. (TYPICAL OF 2). PROVIDE ALL HANGERS AND SUPPORTS AS PER MANUFACTURER DIRECTIONS.
14. PROVIDE 4" INFRARED TUBING C/W AIR INTAKE AND BIRD SCREEN. INSTALLED AT HIGH CEILING HEIGHT.
15. PROVIDE WALL MOUNTED WATERPROOF THERMOSTAT OPERATING INFRARED HEATERS AND ON-OFF WALL SWITCH FOR EXHAUST FAN (TYPICAL OF 2).
16. PROVIDE NEW CABINET EXHAUST FANS "EF-2" AND "EF-3" MOUNTED AT CEILING JOINT SPACE. FOR DETAILS AND SPECIFICATIONS REFER TO SCHEDULE BELOW (TYPICAL OF 2). CONTROL BY CO2 SENSOR. FAN TO BE INTERLOCKED WITH FRESH AIR IN TAKE MOTORIZED DAMPER.
17. PROVIDE 4" INFRARED TUBING C/W FLUE BY-VENT TERMINATION (TYPICAL OF 2) AT HIGH CEILING HEIGHT. ALL WORK SHALL BE PERFORMED AS PER MANUFACTURER INSTRUCTIONS.
18. PROVIDE 18"x6" DUCTWORK C/W 1" THICK THERMAL INSULATION AND CANVAS. PROVIDE EXHAUST AIR DUCT WALL CAP C/W GRAVITY DAMPER AND BIRD SCREEN (TYPICAL OF 2).
19. PROVIDE EXTERIOR WEATHER PROOF AIR INTAKE LOUVER SIZE 20"x16" EXTRUDED ALUMINUM EQUAL TO "CARNES" MODEL FKAA FLANGE FRAME C/W 120V, 1Ø, MOTORIZED DAMPER (TYPICAL OF 2).



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ACTUAL NORTH: [Arrow pointing up-right]  
 PROJECT NORTH: [Arrow pointing up]

CLIENT: ENTERPRISE RENT-A-CAR  
 RYAN FIRLOTTE  
 T: 613-274-6934  
 F: 1-800-495-2412

CONSULTANTS:  
 HOLZMAN CONSULTANTS INC. (LAND DEVELOPMENT CONSULTANTS)  
 1076 CASTEL HILL CRES  
 OTTAWA, ONTARIO  
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JUL 08 2019  
 BCSB  
 110 Laurier Ave.

City of Ottawa  
 Building Services Branch  
 613 977 6000  
 Building Code Review

**ROOF TOP UNIT SCHEDULE**

UNIT REF.	NO. OF TONS	AREA SERVED	MANUF.	MODEL NO.	COOLING		GAS HEATING		SUPPLY FAN			MIN. FRESH AIR	V-B-Hz	REMARKS
					TOTAL MBH	SENS. MBH	INPUT MBH	OUTPUT MBH	CFM	EXT. SP. R. W.C.	HP			
AC-1	4	OFFICES/WASH.	LENNOX	042H48H3J	48	45.2	125	92	2000	1.5"	1/2	200	600-3-60	HIGH EFFICIENCY, GAS HEATING/ELECTRIC COOLING. ECONOMIZER. SEISMIC DESIGN ROOF CURB DOWN SUPPLY/RETURN UNIT CONFIGURATION. UNIT SIZE: 87"x46" WGT: 750 LBS.

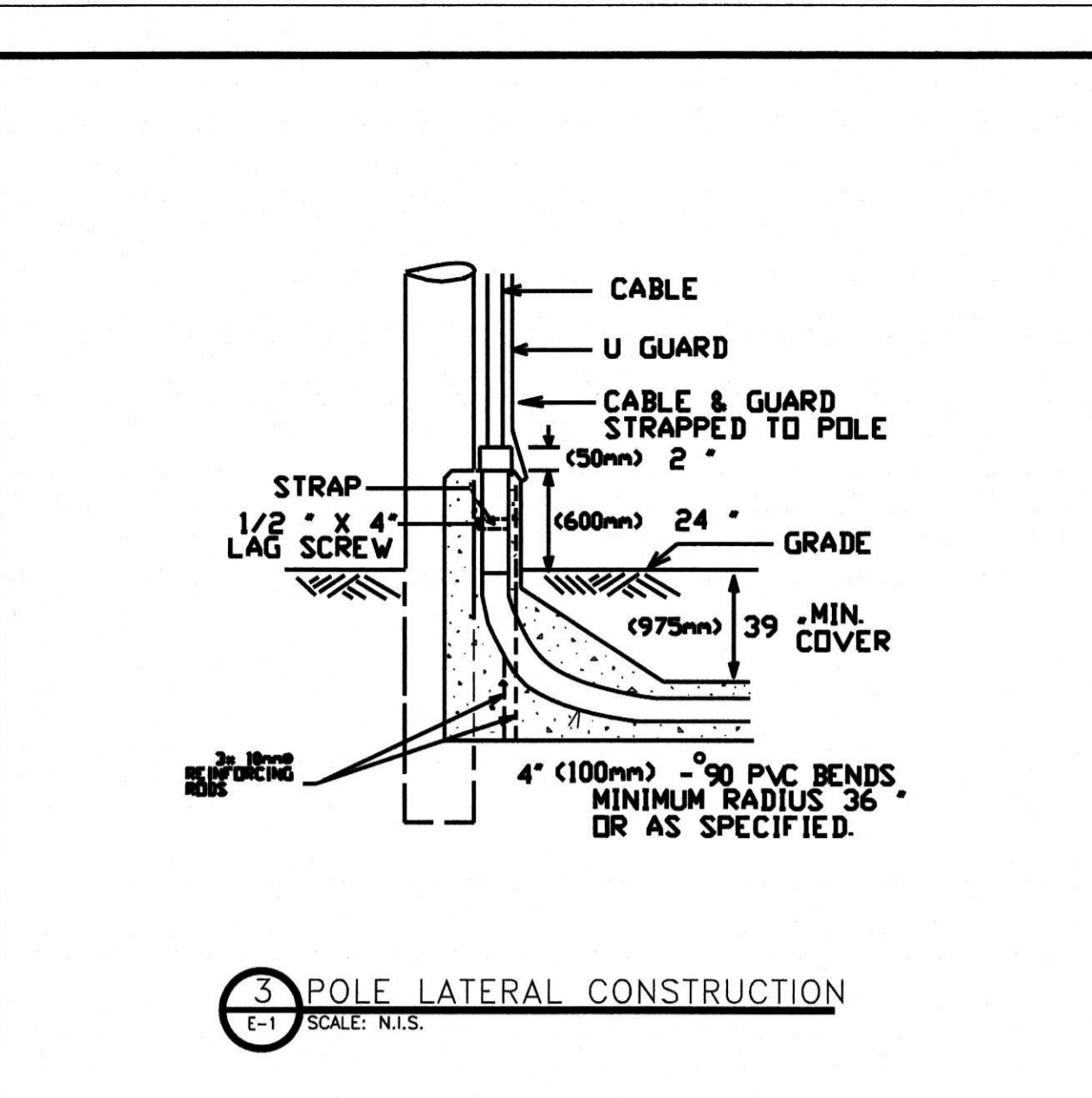
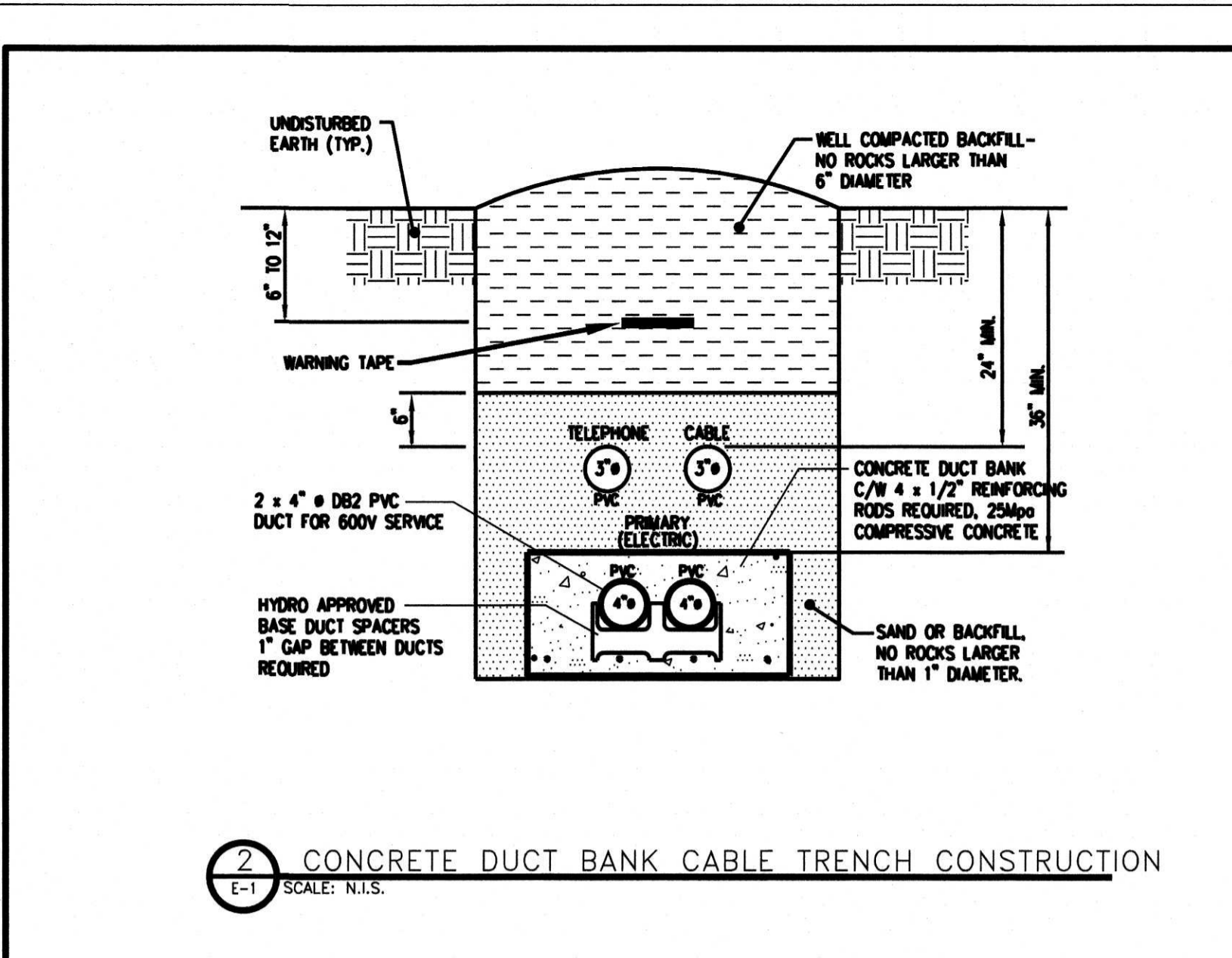
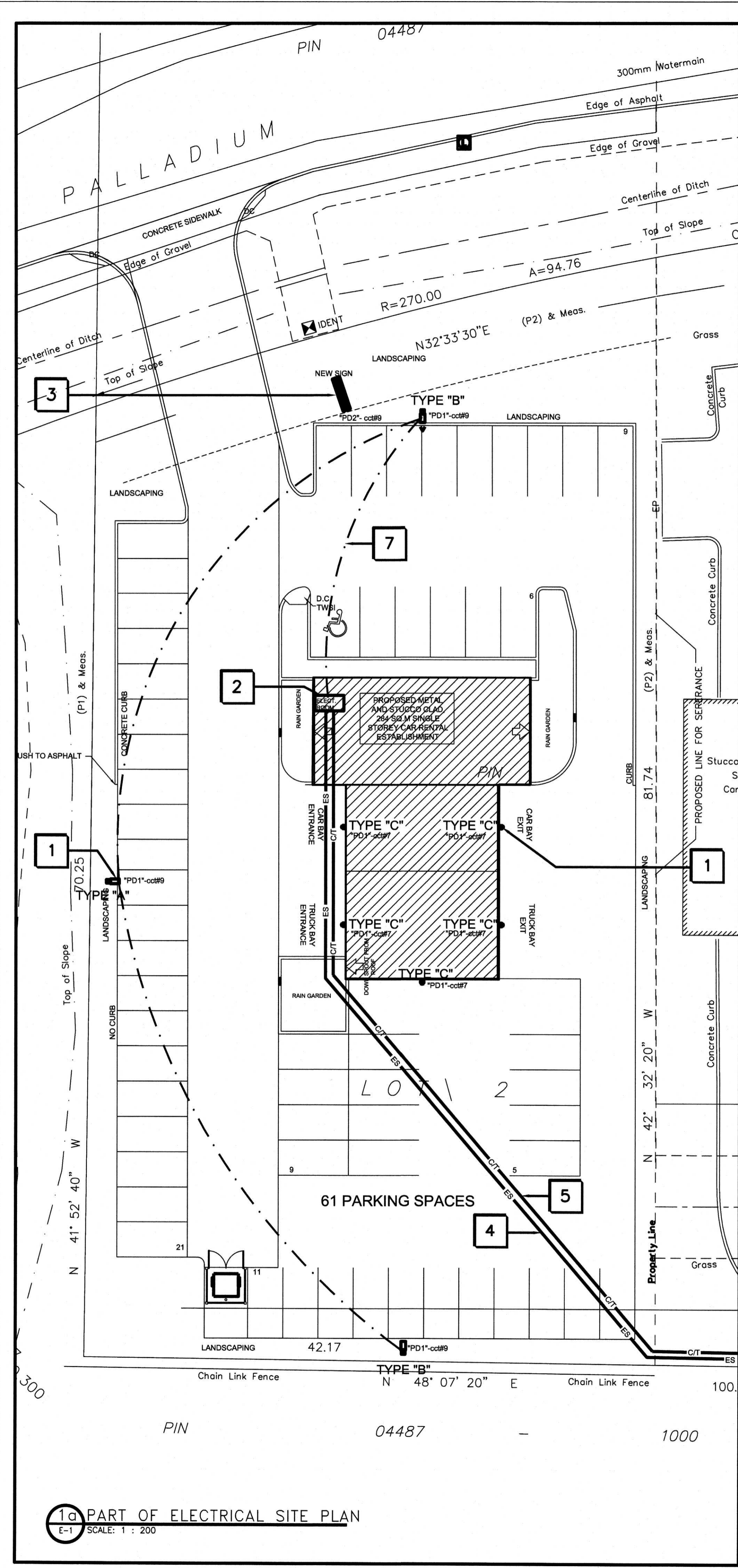
- NOTES:**
1. MOTORS TO BE PREMIUM EFFICIENCY TYPE.
  2. COMPLETE WITH VIBRATION ISOLATIONS.
  3. CO-ORDINATE WITH ELECTRICAL TRADE.
  4. 7 DAY PROGRAMMABLE HEAT/COOL THERMOSTAT.
  5. UNIT C/W WEATHER PROOF DISCONNECT SWITCH.

**EXHAUST FAN SCHEDULE**

TAG NO.	MANUFACTURER & MODEL	AIRFLOW	ELECTRICAL		SONES	OPTIONS
			POWER	V/PH/Hz		
EF-1	CARNES VCDB-08	75 CFM @ 63 Pa	146W	115/1/60	1.9	CEILING FAN, METAL GRILLE, WALL SWITCH
EF-2	CARNES VCDB-95	880 CFM @ 63 Pa	250W	115/1/60	2.5	CABINET FAN, METAL GRILLE, VAR. SPEED SWITCH
EF-3	CARNES VCDB-95	880 CFM @ 63 Pa	250W	115/1/60	2.5	CABINET FAN, METAL GRILLE, VAR. SPEED SWITCH

**1 MECHANICAL CEILING PLAN**  
SCALE: 1 : 50





**ELECTRICAL GENERAL NOTES:**

**1. PRODUCTS**

1.1 CONDUIT: RIGID PVC TYPE DB11 WITH BELL AND SPIGOT JOINTS. BELOW 50 MM PVC SCHEDULE 40 PIPE MAY BE USED.

1.2 CABLE MARKERS: LABELLED NON DEGRADABLE TAPE.

1.3 CONDUITS & CABLE PROTECTION: 38 X 140 MM PRESSURE TREATED LUMBER IF REQUIRED OR 50 MM THICK POURED CONCRETE NOT LESS THAN 50 MM BEYOND CONDUCTOR OR CONDUIT.

**2. INSTALLATION**

2.1 GENERAL: INSTALL TO COMPLY WITH ELECTRICAL SAFETY CODE AND HYDRO ONE UTILITY STANDARDS.

2.2 CONDUITS:

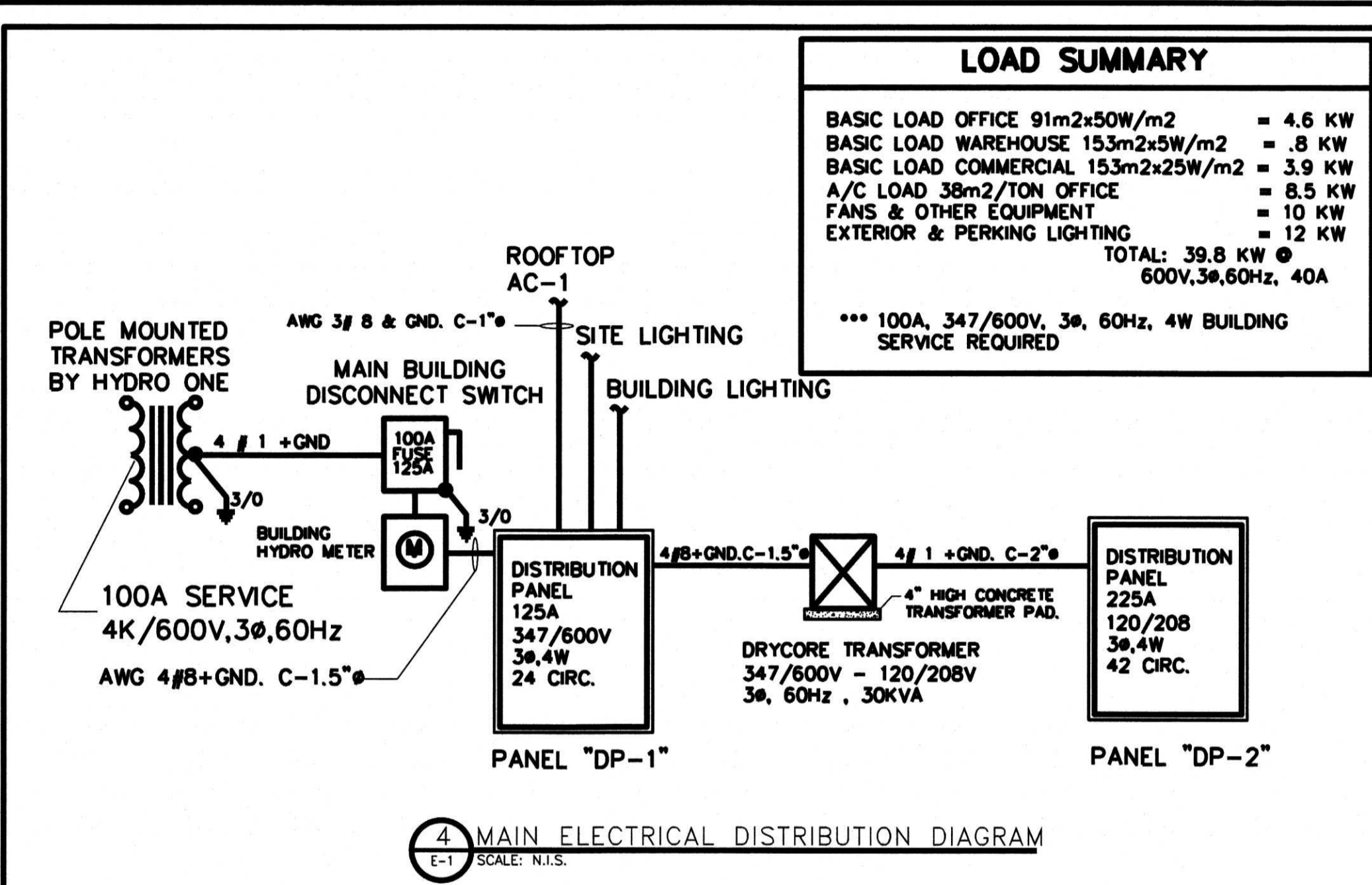
1. INSTALL AT MINIMUM SLOPE OF 1:400 TO DRAINS OR DRY SUMPS.

2. INSTALL IN BEDDING AND BACKFILL IN ACCORDANCE WITH UTILITY STANDARDS.

3. PROVIDE CABLE MARKERS 200 MM BELOW GRADE OVER ALL BURIED SERVICES.

4. PROVIDE PULL ROPE IN EACH DUCT.

5. CLEAN CONDUITS BEFORE PULLING CABLES.



**ELECTRICAL DRAWING NOTES:**

- NEW EXTERIOR LIGHT FIXTURES TYPE "A" "B" & TYPE "C". FOR DETAILS REFER TO LIGHTING SCHEDULE DRAWING "LP-1". NEW EXTERIOR PARKING LIGHTING TO BE CONTROLLED BY NEW PROGRAMMABLE DIGITAL 7-DAY TIMER LOCATED IN ELECTRICAL ROOM.
- LOCATION OF NEW ELECTRICAL ROOM. FOR EQUIPMENT LOCATIONS AND DISTRIBUTIONS REFER TO THIS AND E-2 DRAWING FOR DETAILS.
- NEW EXTERIOR BUILDING SIGN. PROVIDE DEDICATED CIRCUIT FOR LIGHTING 120V, 1ø, 60Hz, 15A CAPACITY. PROVIDE MINIMUM AWG#8 COPPER WIRING IN 1" PVC RIGID CONDUIT.
- MAIN BUILDING SECONDARY POWER BURIED CONDUITS C/W CABLES REFER TO DISTRIBUTION DIAGRAM AND TRENCHING DETAIL BELOW FROM EXISTING HYDRO POLE TO NEW MAIN BUILDING ELECTRICAL ROOM (TYPICAL).
- MAIN BUILDING COMMUNICATION BURIED PVC CONDUITS FOR FUTURE TV AND BELL WIRING FOR TRENCHING DETAIL SEE BELOW FROM EXISTING SERVICE POLE TO NEW MAIN BUILDING ELECTRICAL ROOM (TYPICAL).
- APPROXIMATE LOCATION OF EXISTING HYDRO AND SERVICE POLE LOCATED ON HUNTMAR ROAD.
- NEW EXTERIOR BUILDING AND PARKING SITE LIGHTING. PROVIDE DEDICATED CIRCUIT FROM PANEL "DP-1" 347V, 1ø, 60Hz, 15A CAPACITY. PROVIDE MINIMUM AWG#8 COPPER WIRING IN 1" PVC RIGID CONDUIT.

**LOAD SUMMARY**

BASIC LOAD OFFICE 91m2x50W/m2	= 4.6 KW
BASIC LOAD WAREHOUSE 153m2x5W/m2	= .8 KW
BASIC LOAD COMMERCIAL 153m2x25W/m2	= 3.9 KW
A/C LOAD 38m2/TON OFFICE	= 8.5 KW
FANS & OTHER EQUIPMENT	= 10 KW
EXTERIOR & PERKING LIGHTING	= 12 KW
<b>TOTAL:</b>	<b>39.8 KW @ 600V, 3ø, 60Hz, 40A</b>

\*\*\* 100A, 347/600V, 3ø, 60Hz, 4W BUILDING SERVICE REQUIRED

**City of Ottawa**  
JUL 08 2019  
110 Laurier Ave  
BCSB

**FLYNN ARCHITECTURE**

162 PRESTON STREET OTTAWA, ONTARIO, K1R 7P7  
T: 613-299-8505 F: 866-587-2021

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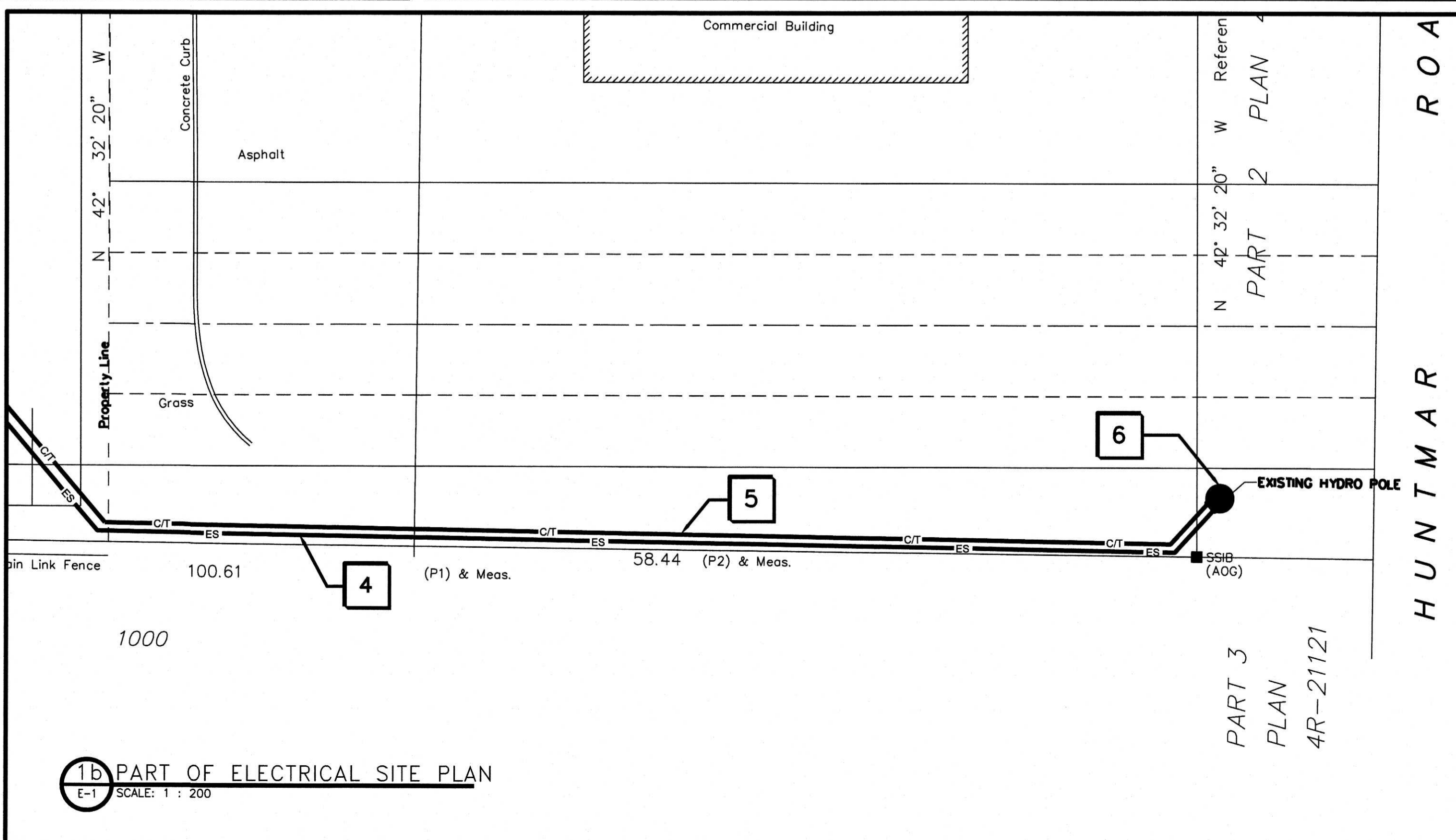
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T: 613-521-9002

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1-159 COLONNADE ROAD  
NEPEAN, ONTARIO  
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T: 613-723-6034

**PROJECT TITLE:**  
225 HUNTMAR DRIVE  
HUNTMAR/PALLADIUM DR. ENTERPRISE

**DRAWING TITLE:**  
ELECTRICAL SITE PLAN  
MAIN POWER SERVICE

**City of Ottawa**  
Building Services Branch  
DEC 07 2019  
Building Code Reviewed



**SITE PLAN ELECTRICAL LEGEND:**

SYMBOL	DESCRIPTION
NEW	
ES	SECONDARY MAIN ELECTRICAL SERVICE (B) = BURIED
HV	HIGH VOLTAGE ELECTRICAL SERVICE 3 x 100mm PVC CONDUIT (B) = BURIED, (OH) = OVERHEAD
E	ELECT. MAIN FEEDER OR BRANCH CIRCUIT (B) = BURIED, (OH) = OVERHEAD
T	TELEPHONE 100mm PVC CONDUIT (B) = BURIED, (OH) = OVERHEAD
C	CABLE 100mm PVC CONDUIT (B) = BURIED, (OH) = OVERHEAD
E	ELECTRIC METER
C	CABLE PEDESTAL
T	BELL PEDESTAL
M	MAN HOLE
LS	POST TOP LIGHT FIXTURE, REFER TO SPECIFICATIONS
U.P.	UTILITY POLE
L	WALL MOUNT LIGHT FIXTURE
DT	PADMOUNT TRANSFORMER

**City of Ottawa**  
Building Services Branch  
DEC 07 2019  
Building Code Reviewed

**PROJECT TITLE:**  
225 HUNTMAR DRIVE  
HUNTMAR/PALLADIUM DR. ENTERPRISE

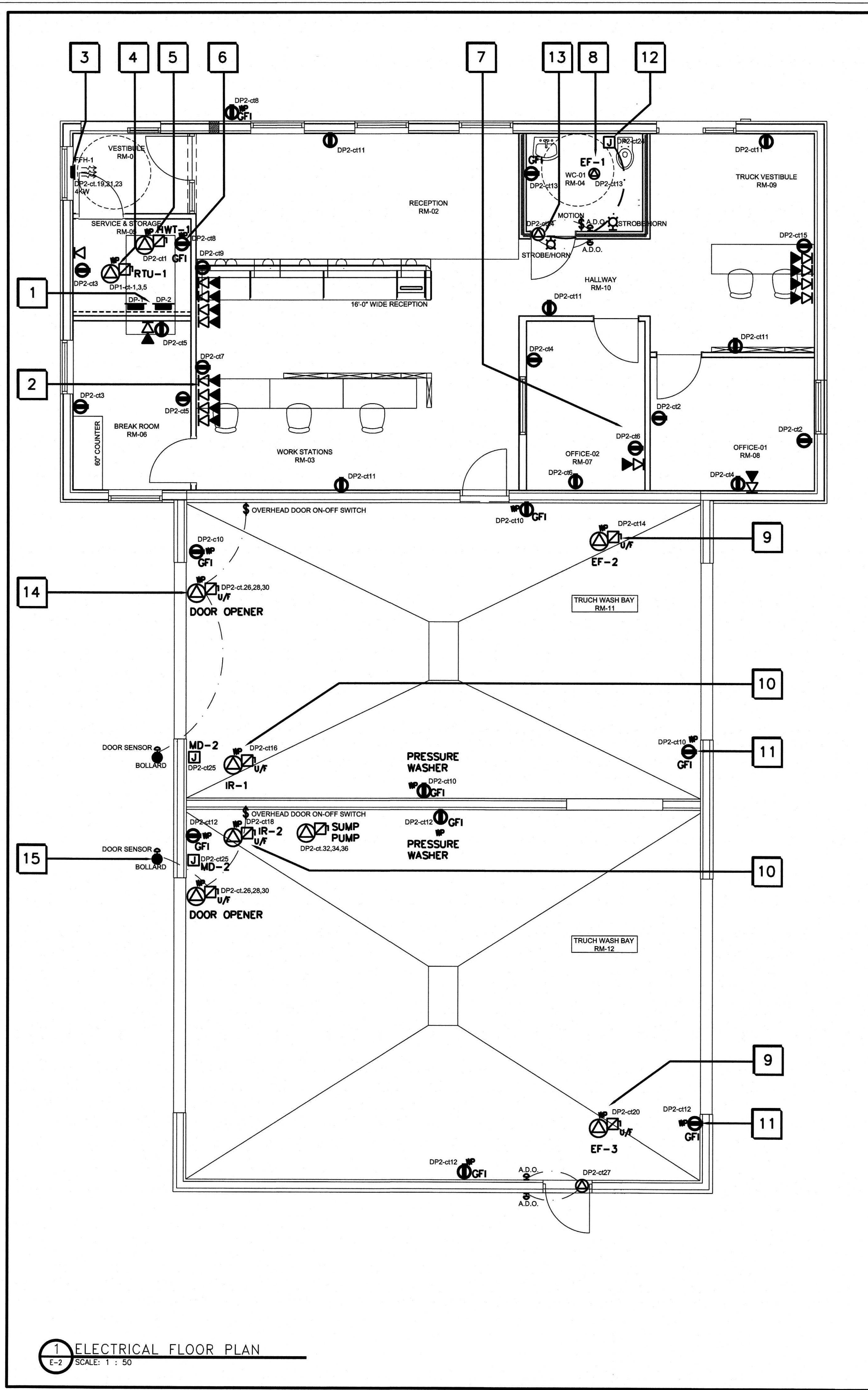
**DRAWING TITLE:**  
ELECTRICAL SITE PLAN  
MAIN POWER SERVICE

DRAWN BY	JOB No.	DRAWING No.
S.J.S.	15-610	E-1

**SCALE:** AS NOTED

**CHECKED BY:** J.C.J.

**ELECTRICAL**



### PANEL BOARD SCHEDULE / DP1

NO. OF CIRCUITS: 24  
TYPE: BREAKER IS, FUSE C  
SURFACE BLU/SHD

RTU-1	20A	20A
EXTERIOR LIGHTING	15-0-1	15-0-1
INTERIOR LIGHTING	15-0-2	15-0-2
	15-0-3	15-0-3
	15-0-4	15-0-4
	15-0-5	15-0-5
	15-0-6	15-0-6
	15-0-7	15-0-7
	15-0-8	15-0-8
	15-0-9	15-0-9
	15-0-10	15-0-10
	15-0-11	15-0-11
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	15-0-14	15-0-14
	15-0-15	15-0-15

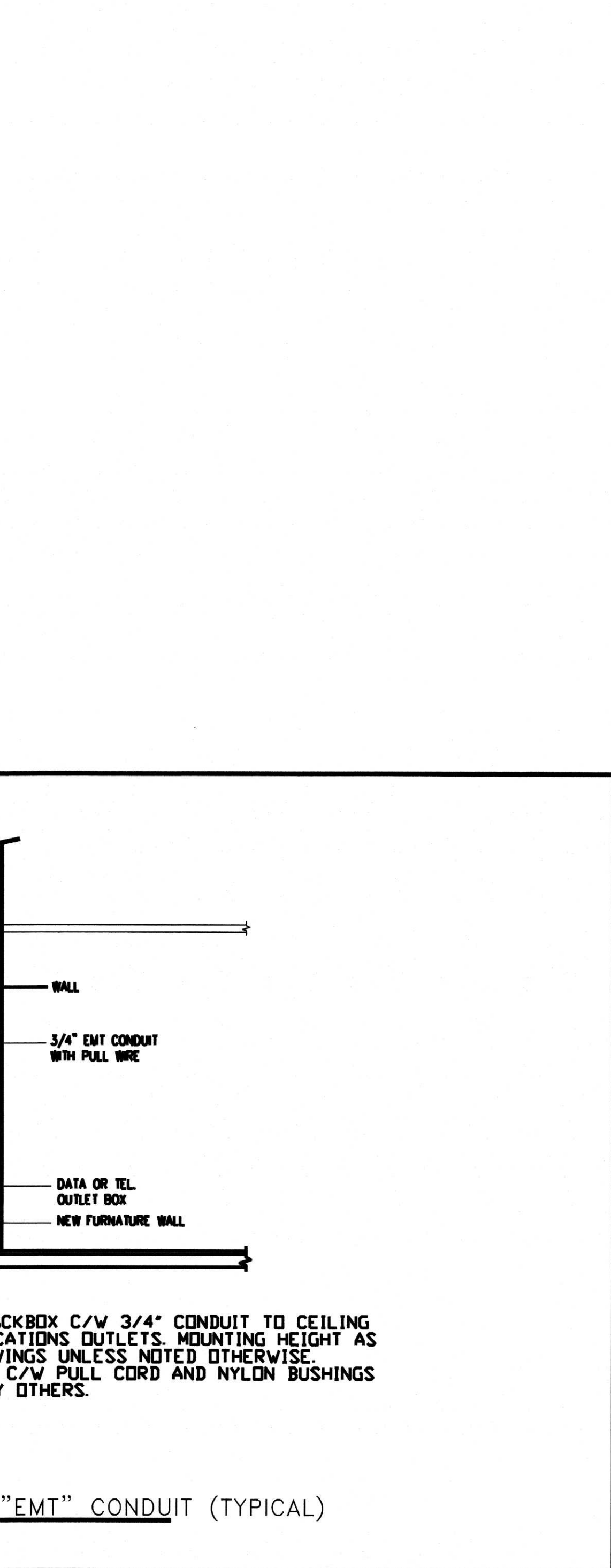
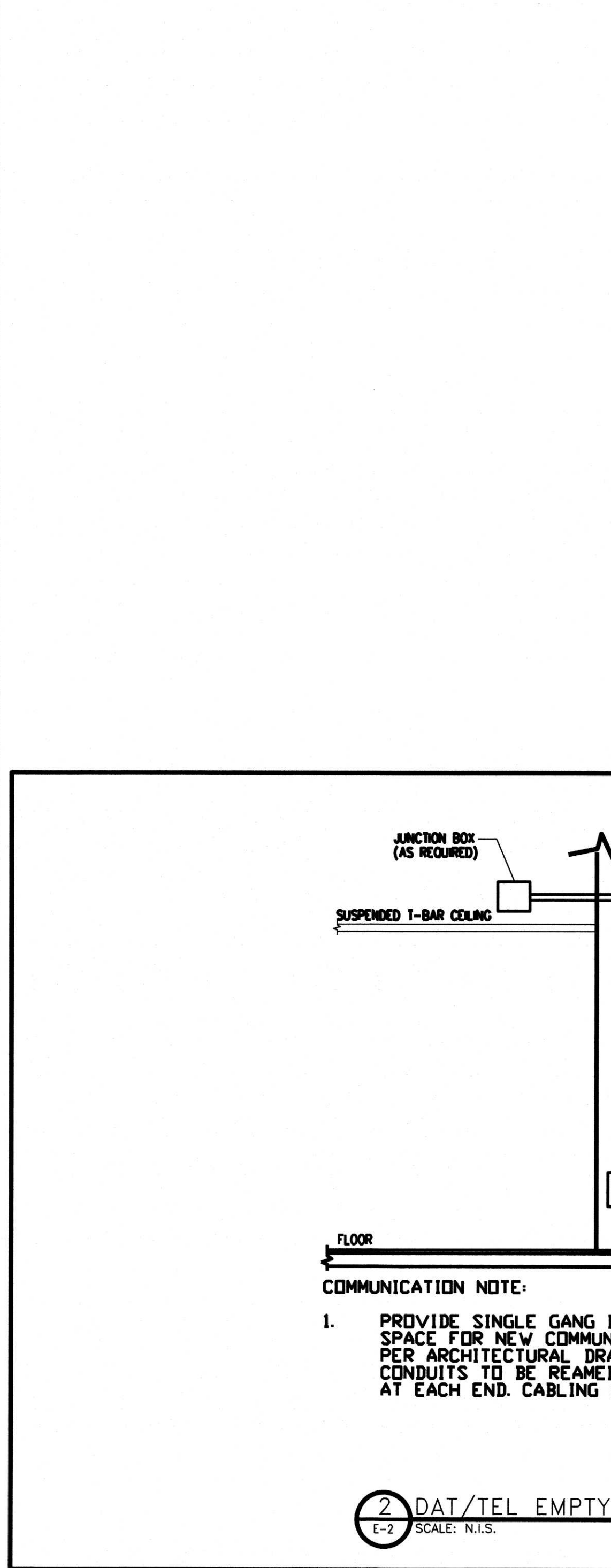
NOTES:  
\* LOCK-ON BREAKER  
\*\* PROVIDE MAIN PANEL 100 AMP CAPACITY INCOMING POWER CIRCUIT BREAKER

### PANEL BOARD SCHEDULE / DP2

NO. OF CIRCUITS: 42  
TYPE: BREAKER IS, FUSE C  
SURFACE BLU/SHD

IR-1	20A	20A
RECEPTACLE	15-0-1	15-0-1
RECEPTACLE	15-0-2	15-0-2
RECEPTACLE	15-0-3	15-0-3
RECEPTACLE	15-0-4	15-0-4
RECEPTACLE	15-0-5	15-0-5
RECEPTACLE	15-0-6	15-0-6
RECEPTACLE	15-0-7	15-0-7
RECEPTACLE	15-0-8	15-0-8
RECEPTACLE	15-0-9	15-0-9
RECEPTACLE	15-0-10	15-0-10
RECEPTACLE	15-0-11	15-0-11
RECEPTACLE	15-0-12	15-0-12
RECEPTACLE	15-0-13	15-0-13
RECEPTACLE	15-0-14	15-0-14
RECEPTACLE	15-0-15	15-0-15
RECEPTACLE	15-0-16	15-0-16
RECEPTACLE	15-0-17	15-0-17
RECEPTACLE	15-0-18	15-0-18
RECEPTACLE	15-0-19	15-0-19
RECEPTACLE	15-0-20	15-0-20
RECEPTACLE	15-0-21	15-0-21
RECEPTACLE	15-0-22	15-0-22
RECEPTACLE	15-0-23	15-0-23
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RECEPTACLE	15-0-25	15-0-25
RECEPTACLE	15-0-26	15-0-26
RECEPTACLE	15-0-27	15-0-27
RECEPTACLE	15-0-28	15-0-28
RECEPTACLE	15-0-29	15-0-29
RECEPTACLE	15-0-30	15-0-30
RECEPTACLE	15-0-31	15-0-31
RECEPTACLE	15-0-32	15-0-32
RECEPTACLE	15-0-33	15-0-33
RECEPTACLE	15-0-34	15-0-34
RECEPTACLE	15-0-35	15-0-35
RECEPTACLE	15-0-36	15-0-36
RECEPTACLE	15-0-37	15-0-37
RECEPTACLE	15-0-38	15-0-38
RECEPTACLE	15-0-39	15-0-39
RECEPTACLE	15-0-40	15-0-40
RECEPTACLE	15-0-41	15-0-41
RECEPTACLE	15-0-42	15-0-42

NOTES:  
\* LOCK-ON BREAKER  
\*\* PROVIDE MAIN PANEL 125 AMP CAPACITY INCOMING POWER CIRCUIT BREAKER



### ELECTRICAL DRAWING NOTES:

- PROVIDE NEW POWER DISTRIBUTION SYSTEM C/W TRANSFORMER AND DISTRIBUTION PANELS. FOR DETAIL REFER TO SPECIFICATIONS AND DRAWINGS E-1 TO E-4.
- PROVIDE WALL MOUNTED POWER RECEPTACLE AND DATA/TEL OUTLETS TYPICAL AS SHOWN. EXACT LOCATIONS TO BE COORDINATED WITH FURNITURE INSTALLER PRIOR TO FINAL OUTLETS LOCATIONS.
- PROVIDE FLUSH WALL MOUNTED ELECTRICAL FORCE FLOW HEATER "FFH-1" 4KW HEATING CAPACITY, 208V, 1Ø C/W BUILT IN THERMOSTAT.
- PROVIDE POWER FOR NEW ROOF TOP UNIT "RTU-1" 600V, 3Ø, 60HZ, 20A SERVICE.
- PROVIDE POWER FOR NEW ELECTRIC HOT WATER TANK "HWT-1" 120V, 1Ø, 60HZ, 15A SERVICE.
- PROVIDE EXTERIOR WEATHER PROOF RECEPTACLE DEDICATED CIRCUIT 120V, 1Ø, 15A MOUNTED ON SIDE OF ROOF TOP UNIT.
- TYPICAL OFFICE POWER AND DATA LAYOUT. COORDINATE FINAL OUTLET LAYOUT WITH GENERAL TRADES PRIOR TO FINAL LOCATIONS (TYPICAL).
- PROVIDE POWER FOR CEILING MOUNTED WASHROOM EXHAUST FAN, DEDICATED CIRCUIT 120V, 1Ø, 15A CONTROLLED BY LIGHT SWITCH.
- PROVIDE POWER FOR HIGH BAY MOUNTED WASH BAY EXHAUST FANS "EF-2" AND "EF-3". DEDICATED CIRCUIT 120V, 1Ø, 15A CONTROLLED BY WALL LIGHT SWITCH. ALL ELECTRICAL WORK IN THE BOTH WASH BAYS SHALL BE PROVIDED WITH WEATHER TIGHT "EMT" CONDUITS C/W WEATHER TIGHT CONNECTIONS AND FITTINGS (TYPICAL).
- PROVIDE POWER FOR HIGH BAY MOUNTED WASH BAY INFRARED GAS HEATERS "IR-1" AND "IR-2", DEDICATED CIRCUIT 120V, 1Ø, 15A CONTROLLED BY WALL MOUNTED THERMOSTAT. ALL ELECTRICAL WORK IN THE BOTH WASH BAYS SHALL BE PROVIDED WITH WEATHER TIGHT "EMT" CONDUITS C/W WEATHER TIGHT CONNECTIONS AND FITTINGS (TYPICAL).
- PROVIDE POWER FOR WASH BAY WALL MOUNTED RECEPTACLES 120V, 1Ø, 15A. ALL ELECTRICAL WORK IN THE BOTH WASH BAYS SHALL BE PROVIDED WITH WEATHER TIGHT "EMT" CONDUITS C/W WEATHER TIGHT CONNECTIONS AND FITTINGS (TYPICAL).
- PROVIDE BARRIER-FREE UNIVERSAL WASHROOM DEDICATED POWER CIRCUIT 120V, 1Ø, 15A FOR EMERGENCY ASSISTANCE KIT EQUAL TO "EDWARDS" 6538-5G-24 C/W 6536-5G HORN/STROBE, 592 TRANSFORMER, 6537 PULL CORD SWITCH. ALL WORK SHALL BE IN THE COMPLIANCE WITH O.B.C. 3.8.3.1 ACCESSIBILITY SIGNS.
- PROVIDE POWER FOR BARRIER-FREE UNIVERSAL WASHROOM AUTOMATIC DOOR OPENER REFER TO ARCHITECTURAL SPECIFICATIONS. FOR EXACT LOCATION OF POWER CIRCUIT TERMINATION AND RELATED CONTROLS TO BE COORDINATED WITH DOOR INSTALLER.
- PROVIDE POWER FOR GARAGE OVERHEAD AUTOMATIC DOOR OPENER REFER TO ARCHITECTURAL SPECIFICATIONS. FOR EXACT LOCATION OF POWER CIRCUIT TERMINATION AND RELATED CONTROLS TO BE COORDINATED WITH GARAGE OVERHEAD COMMERCIAL DOOR INSTALLER. TYPICAL OF FOUR.
- VERIFY SENSOR LOCATION WITH OWNER PRIOR TO INSTALLATION.

### GENERAL NOTES

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- ALL WORK DESCRIBED UNDER THIS CONTRACT TO COMPLY WITH THE MOST CURRENT EDITION OF THE ONTARIO BUILDING CODE, AND/OR NATIONAL BUILDING CODE, AND OTHER CODES AND BY-LAWS IN EFFECT.

CLIENT:  
ENTERPRISE RENT-A-CAR  
RYAN FIRLOTTE  
T: 613-274-8934  
F: 1-800-495-2412

CONSULTANTS:  
HOLZMAN CONSULTANTS INC.  
(LAND DEVELOPMENT CONSULTANTS)  
1076 CASTEL HILL CRES  
OTTAWA, ONTARIO  
K2C 2A8  
T: 613-226-1386  
MMM GROUP LTD  
(CIVIL ENGINEERING)  
1145 HUNT CLUB ROAD, SUITE 300  
OTTAWA, ONTARIO  
K1V 0Y3  
T: 613-736-7200  
F: 613-736-8710  
VALLEY ENGINEERING  
(STRUCTURAL ENGINEERING)  
521 DICKINSON AVENUE  
OTTAWA, ONTARIO  
K1V 7J4  
T: 613-521-9002  
ANTARES ENGINEERING  
(M&E ENGINEERING)  
1-159 COLONNADE ROAD  
NEPEAN, ONTARIO  
K2E 7J4  
T: 613-723-6034

PROJECT TITLE:  
225 HUNTMAR DRIVE  
HUNTMAR/PALLADIUM DR. ENTERPRISE

DRAWING TITLE:  
ELECTRICAL  
POWER DISTRIBUTION

SCALE AS NOTED	CHECKED BY J.C.J.	JOB NO. 15-610	DRAWING NO. E-2
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FLYNN ARCHITECT  
162 PRESTON STREET OTTAWA, K1R 7P7  
T: 613-299-8505 F: 866-587-2021

Antares Engineering Group Inc.  
Professional Mechanical, Electrical, Testing and Research Engineers  
159 Colonnade Road, Unit 1, Ottawa, Ontario, K2E 7J4  
Phone: (613) 723-6034 Fax: (613) 723-8709

REG. PROF. ENGINEER  
J. C. JARRETT  
JUN. 2019  
PROVINCE OF ONTARIO

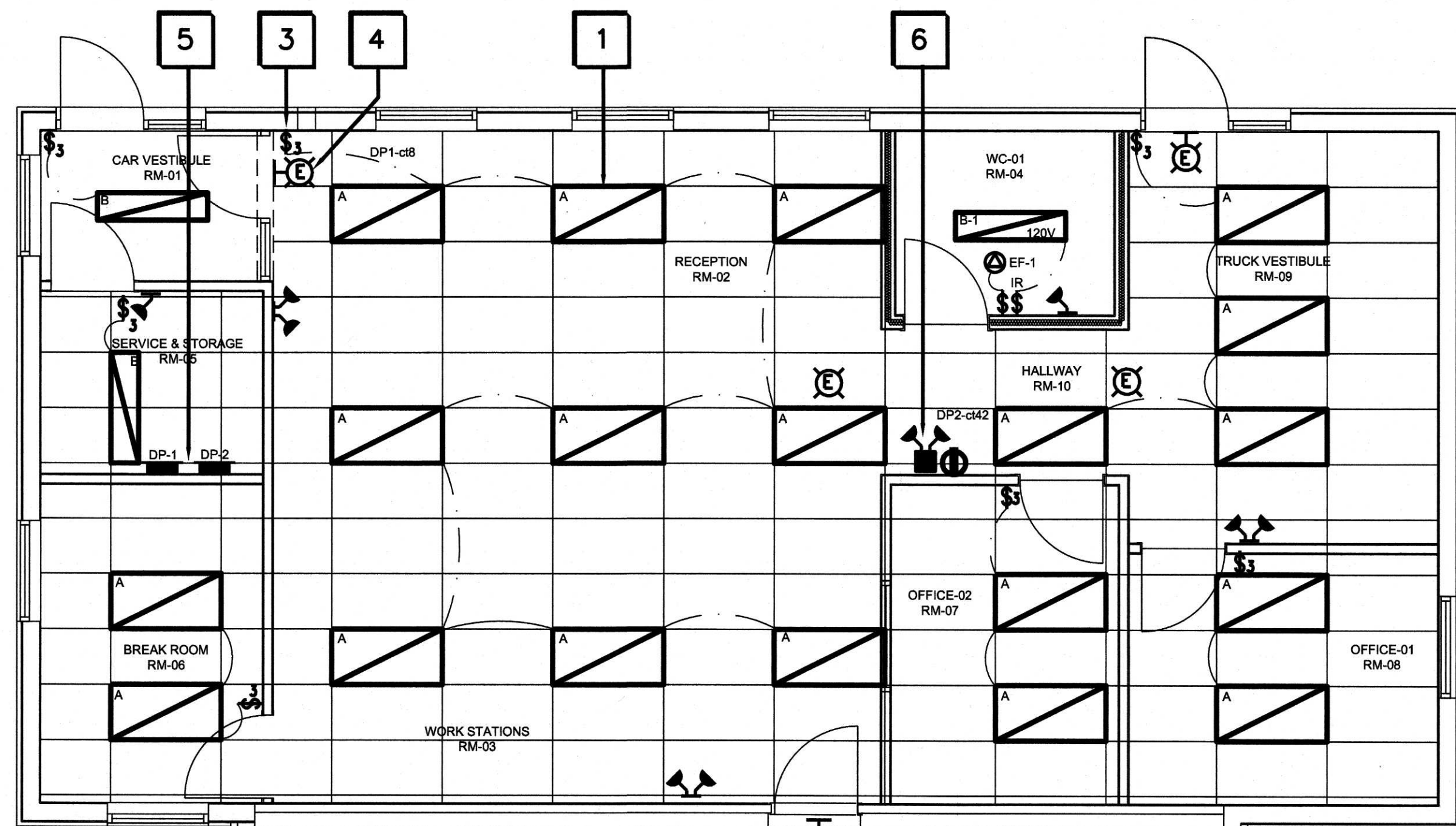
ACTUAL NORTH PROJECT NORTH

JUL 8 2019  
110 Laurier Ave.  
BCSB

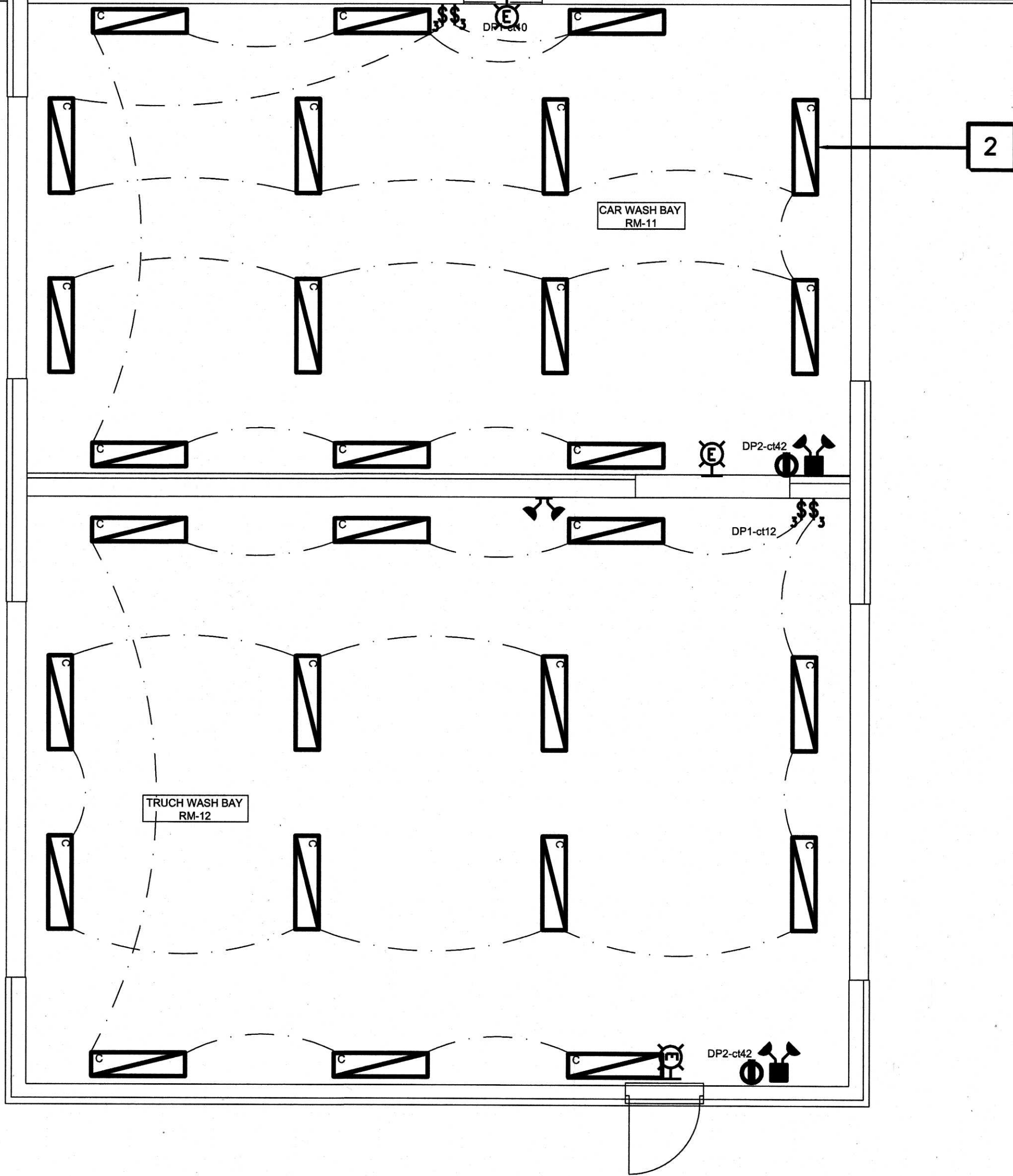
Building Code Reviewed  
06/07/2018

1 ELECTRICAL FLOOR PLAN  
SCALE: 1 : 50

2 DAT/TEL EMPTY "EMT" CONDUIT (TYPICAL)  
SCALE: N.I.S.

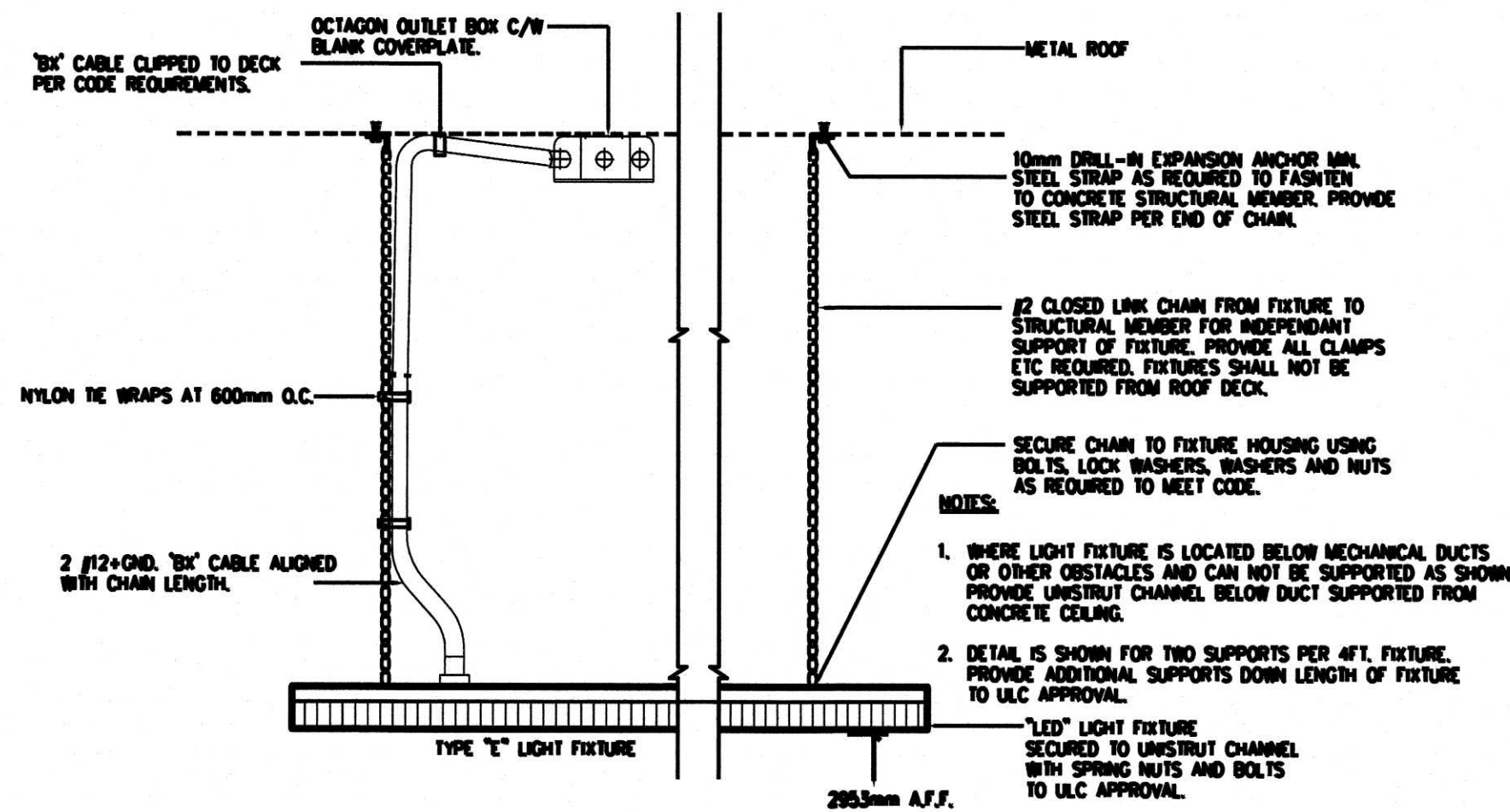


1 ELECTRICAL CEILING PLAN  
E-3 SCALE: 1 : 50

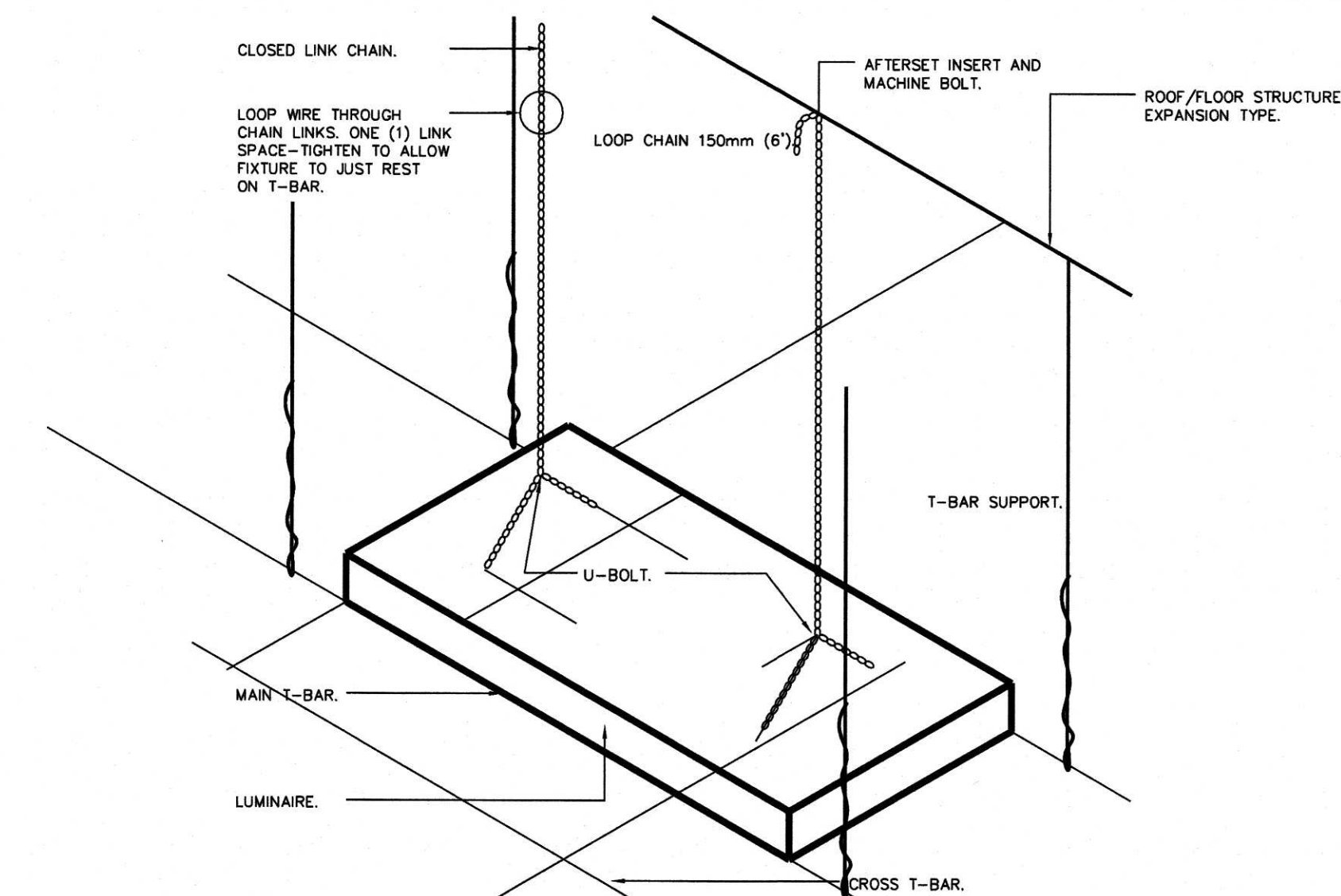


3 SUSPENDED LIGHT FIXTURES DETAIL TYPE "C"  
E2 SCALE: N.I.S.

LIGHTING FIXTURE SCHEDULE									
LABEL	MANUFACTURER	CATALOGUE MODEL NUMBER	DESCRIPTION	VOLTAGE	NO	BALLAST	WATTS	TYPE	REMARKS
"A"	ACUTY	WHSPR 2X4 4000LM 35K 80 CRI MINI 347	T-BAR CEILING FIXTURE	347 V	-	LED	33.8	3500K	2x4 TYPE - OFFICE
"B"	ACUTY	CLX L48 3000LM SEF FDL 347 CLX L48 3000LM SEF FDL 120	GYPSUM BOARD CEILING FIXTURE	347 V 120 V	-	LED	20.32	3500K	1x4 TYPE - OFFICE
"C"	AMLITE	VPE4 LA3 8/40K 347	SUSPENDED FIXTURE	347 V	-	LED	40-60	3500K	1x4 TYPE - VAPOURPROOF
IR-HEAD	AMLITE	RMWB-1-12-20WO-WHT	WALL FIXTURE	12 VDC	1	-	20	-	SURFACE MOUNTED
2R-HEAD	AMLITE	RMWB-2-12-20WO-WHT	WALL FIXTURE	12 VDC	2	-	20	-	SURFACE MOUNTED
E-BATT.	AMLITE	EBST-12-200-2MB-20WO-WHT-ATD	EMERGENCY BATTERY	12 VDC	2	-	20	-	SURFACE MOUNTED
EXIT	AMLITE	EXST-U-M-WHT-BAT	WALL FIXTURE	12 VDC	1	-	1	-	LED UNI. MOUNTING



2 T-BAR LIGHTING INSTALLATION DETAIL  
E2 SCALE: N.I.S.



ELECTRICAL DRAWING NOTES:

- PROVIDE T-BAR CEILING MOUNTED LIGHT FIXTURES TYPE "A" & "B" TYPE . 347V, 1ø, C/W CONTACTOR AND WALL MOUNTED SWITCH. FOR DETAILS REFER TO LIGHTING SCHEDULE DRAWING BESIDE.
- PROVIDE SURFACE MOUNTED LIGHT FIXTURES TYPE "C" TYPE . 347V, 1ø, C/W CONTACTOR AND WALL MOUNTED SWITCH. FOR DETAILS REFER TO LIGHTING SCHEDULE DRAWING BESIDE. COORDINATE MOUNTING HEIGHT WITH GENERAL TRADES PRIOR TO FINAL INSTALLATION (TYPICAL AS SHOWN).
- PROVIDE LIGHTING CONTROL WALL SWITCH C/W CONTACTOR 347V, 1ø. (TYPICAL AS SHOWN).
- PROVIDE WALL AND CEILING MOUNTED EXIT SIGNS 12VDC, FOR DETAILS AND SPECIFICATIONS REFER TO FIXTURE SCHEDULE BESIDE (TYPICAL FOR ALL).
- PROVIDE NEW WALL MOUNTED POWER DISTRIBUTION PANELS "DP-1" 600V, 3ø, 60Hz, 100A, 24 CIRCUITS, AND "DP-2" 208V, 3ø, 60Hz, 125A, 42 CIRCUITS.
- PROVIDE WALL MOUNTED BATTERY OPERATED EMERGENCY LIGHT FIXTURES C/W REMOTE HEADS 12VDC - 120V, 1ø DEDICATED CIRCUIT. FOR DETAILS AND SPECIFICATIONS REFER TO FIXTURE SCHEDULE BESIDE (TYPICAL FOR ALL).

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
[Symbol]	2"x4" LIGHT FIXTURE
[Symbol]	1"x4" LIGHT FIXTURE
[Symbol]	WALL AND CEILING MOUNTED EXIT SIGN
[Symbol]	EXTERIOR WALL MOUNTED LIGHT FIXTURE
[Symbol]	24"x2" SIDE-MOUNT SURFACE STRIP LIGHT FIXTURE
[Symbol]	EMERGENCY BATTERY OPERATED LIGHTING EMERGENCY REMOTE HEADS LIGHTING
[Symbol]	SINGLE RECEPTACLE 240V, 1ø
[Symbol]	DUPLEX RECEPTACLE 120V, 15A
[Symbol]	GROUND FAULT INTERRUPTED CIRCUIT DUPLEX RECEPTACLE 120V, 20A
[Symbol]	SPLIT SEPARATE CIRCUIT DUPLEX RECEPTACLE 120V, 20A
[Symbol]	DATA OUTLET
[Symbol]	TELEPHONE OUTLET
[Symbol]	POWER DISTRIBUTION SPLITTER
[Symbol]	MOTION LIGHT SWITCH 120V TYPE WALL MOUNTED LIGHT SWITCH 120V TYPE WALL MOUNTED LIGHT 347 V TYPE
[Symbol]	ELECTRICAL DISTRIBUTION JUNCTION BOX
[Symbol]	DIRECT ELECTRICAL CONNECTION
[Symbol]	ELECTRICAL DISTRIBUTION PANEL
[Symbol]	ELECTRICAL DISCONNECT SWITCH WP- WEATHER PROOF U/F- FUSED

**FLYNN ARCHITECT**  
162 PRESTON STREET OTTAWA, ONTARIO, K1R 7P7  
T: 613-298-8505 F: 866-587-2021

**GENERAL NOTES**

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**Antares Engineering Group Inc.**  
Professional Mechanical, Electrical, Testing and Research Engineers  
159 Colonnade Road, Unit 1, Ottawa, Ontario, K2E 7J4  
Phone (613) 723-6034 Fax (613) 723-5749

**REVISION RECORD**

No	DATE	REVISION
3	27-06-2019	ISSUED FOR BUILDING PERMIT
2	28-09-2018	ISSUED FOR REVIEW
1	13-05-2018	ISSUED FOR CLIENT REVIEW

ACTUAL NORTH PROJECT NORTH

**CLIENT:**  
ENTERPRISE RENT-A-CAR  
RYAN FIRLOTTE  
T: 613-274-6934  
F: 1-800-495-2412

**CONSULTANTS:**  
HOLZMAN CONSULTANTS INC.  
(LAND DEVELOPMENT CONSULTANTS)  
1076 CASTEL HILL CRES  
OTTAWA, ONTARIO  
K2C 2A8  
T: 613-226-1386

MMM GROUP LTD  
(CIVIL ENGINEERING)  
1145 HUNT CLUB ROAD, SUITE 300  
OTTAWA, ONTARIO  
K1V 0Y3  
T: 613-736-7200  
F: 613-736-8710

VALLEY ENGINEERING  
(STRUCTURAL ENGINEERING)  
521 DICKINSON AVENUE  
OTTAWA, ONTARIO  
K1V 7J4  
T: 613-521-9002

ANTARES ENGINEERING  
(M&E ENGINEERING)  
1-159 COLONNADE ROAD  
NEPEAN, ONTARIO  
K2E 7J4  
T: 613-723-6034

**PROJECT TITLE:**  
225 HUNTMAR DRIVE  
HUNTMAR/PALLADIUM DR. ENTERPRISE

**DRAWING TITLE:**  
ELECTRICAL LIGHTING DISTRIBUTION

SCALE	CHECKED BY	JOB No.	DRAWING No.
AS NOTED	J.C.J.	15-610	E-3

**ELECTRICAL**

**ELECTRICAL SPECIFICATIONS**

- COMPLY WITH THE REQUIREMENTS OF THE INSTRUCTION TO BIDDERS, THE GENERAL CONDITIONS OF THE CONTRACT AND THE SUPPLEMENTARY GENERAL CONDITIONS INCLUDED IN THE TENDER DOCUMENTS.
- ALL INSTALLATIONS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND BY-LAWS AND BE INSTALLED BY WORKMEN SKILLED IN THAT PARTICULAR PORTION OF THE CONTRACT.
- ANY CONFLICT OR QUESTIONS THAT ARISE IN RELATION TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DESIGN DURING TENDER PERIOD SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. IF THIS PROCEDURE IS NOT FOLLOWED, REROUTING AND MODIFICATION AS REQUIRED TO COMPLETE THE WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- GIVE ALL NOTICES, OBTAIN ALL NECESSARY PERMITS AND PAY ALL APPLICABLE FEES AND INSPECTION COSTS AND DELIVER TO ENGINEER ALL NECESSARY FINAL CERTIFICATES OF INSPECTION AND APPROVAL WHICH MAY BE REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER WORK, AS EVIDENCE THAT WORK INSTALLED CONFORMS WITH LAWS AND REGULATIONS OF ALL GOVERNING AUTHORITIES, BEFORE FINAL CERTIFICATE OF PAYMENT MAY BE CONSIDERED DUE. FURNISH COPIES OF ALL DRAWINGS AS MAY BE REQUIRED TO COMPLY WITH ABOVE. NOTIFY INSPECTION AUTHORITIES IN SUFFICIENT TIME FOR THEM TO INSPECT WORK.
- EXAMINE SITE AND LOCAL CONDITIONS AFFECTING WORK UNDER THIS DIVISION TO ENSURE THAT WORK UNDER THIS DIVISION CAN BE SATISFACTORILY CARRIED OUT WITHOUT CHANGES TO DRAWINGS. NO ALLOWANCE WILL BE MADE LATER FOR ANY EXPENSE INCURRED THROUGH FAILURE TO MAKE THIS EXAMINATION. START OF WORK WILL BE DEEMED EVIDENCE OF ACCEPTANCE OF, AND SATISFACTION WITH, EXISTING CONDITIONS.
- GUARANTEE ALL WORK FOR 12 MONTHS FROM DATE OF ACCEPTANCE.
- PROTECTION: ENSURE THAT ALL PRECAUTIONS ARE TAKEN TO PROTECT ALL PERSONNEL FROM HAZARDS DURING THE WORK. PROTECT ALL EQUIPMENT FROM DAMAGE FROM ANY CAUSE INCLUDING WEATHER.
- MATERIALS: USE ONLY NEW MATERIALS, FULLY CSA APPROVED FOR USE AS INSTALLED, AND TO MEET THIS SPECIFICATION IN ALL RESPECTS.
- CUTTING AND DRILLING: HOLES SHALL NOT BE CUT IN STRUCTURAL MEMBERS WITHOUT THE APPROVAL OF THE ENGINEER. CUTTING TORCHES SHALL NOT BE USED FOR MAKING HOLES. PATCH ALL HOLES THROUGH SLABS AND FIRE SEPARATIONS WITH FIRE STOP CAULKING.
- GROUNDING: GROUND ALL EQUIPMENT WITH APPROVED FITTINGS AND GROUND CONDUCTORS OF AMPLE CAPACITY AS REQUIRED BY THE CSA ELECTRICAL CODE. ALL GROUND CONDUCTORS SHALL HAVE GREEN INSULATION, OR BE CODED WITH PERMANENTLY ATTACHED GREEN TAPE 3/4" WIDE AT EACH END. ALL GROUND WIRING SHALL BE INSULATED, IN CONDUITS, PROVIDE GROUND CONDUCTOR IN ALL CONDUITS.
- CLEAN UP: DURING THE COURSE OF CONSTRUCTION AND UPON COMPLETION, REMOVE ALL RUBBISH AND WASTE RESULTING FROM THIS WORK, TO THE SATISFACTION OF THE ENGINEER. CHECK, CLEAN AND REPAINT WHERE NECESSARY, ALL ELECTRICAL EQUIPMENT AND LEAVE IN A FIRST CLASS CONDITION.
- THE WORK AS COVERED BY THESE SPECIFICATIONS AND PLANS IS INTENDED TO COMPLY EXACTLY WITH THE LATEST RULES AND REGULATIONS OF THE INSPECTION AUTHORITIES, AND THESE RULES ARE TO BE CONSIDERED AN INTEGRAL PART OF THESE SPECIFICATIONS. IN CASE OF CONFLICT, ANY RULING BY THE INSPECTION AUTHORITY SHALL BE FINAL. ALL CHANGES AND ALTERATIONS TO THE CONTRACTOR'S WORK REQUIRED BY AN AUTHORIZED INSPECTOR OR ANY AUTHORITY HAVING JURISDICTION SHALL BE CARRIED OUT AND NOT AT THE EXPENSE OF THE OWNER.
- MANUFACTURER'S INSTRUCTIONS REGARDING THE HANDLING, INSTALLING AND TESTING OF EQUIPMENT SPECIFIED HEREIN SHALL BE CONSIDERED PART OF THIS SPECIFICATION.
- CUTTING AND PATCHING: IT SHALL BE THE RESPONSIBILITY OF THIS DIVISION TO CARRY OUT ALL REQUIRED CUTTING AND PATCHING FOR COMPLETION OF THIS PORTION OF THE CONTRACT. PATCHED SURFACES ARE TO BE PRIME FINISHED READY FOR FINAL COVERING BY OTHERS.
- WIRING AND RACEWAYS:
  - ALL WIRING SHALL BE COPPER RW90 #12 CONDUCTOR MINIMUM.
  - ALL NEW RACEWAYS SHALL BE EMT CONDUIT, MIN. 3/4", CONCEALED UNLESS OTHERWISE INDICATED.
- DEVICES: SWITCHES AND RECEPTACLES TO BE COMMERCIAL GRADE WITH COVER PLATES TO CONFORM WITH ARCHITECTURAL DRAWINGS UNLESS SPECIFIED OTHERWISE.
- LIGHTING FIXTURES: PROVIDE NEW LIGHTING FIXTURES, COMPLETE WITH LAMPS AS INDICATED IN LIGHT FIXTURE LIST, WHERE INDICATED.
- FIXTURE INSTALLATION: DO NOT MOUNT FIXTURES ABOVE PIPES, DUCTS OR EQUIPMENT. CHECK LAYOUTS OF WORK BY OTHER TRADES.

**ELECTRICAL SPECIFICATIONS CONT.**

- SHOP DRAWINGS: PROVIDE SIX (6) COPIES OF SHOP DRAWINGS FOR THE FOLLOWING EQUIPMENT:
  - LIGHT FIXTURES
  - PANELBOARDS
  - TRANSFORMERS
  - SAFETY/DISCONNECT SWITCHES
  - HEATERS
  - TELEPHONE ACCESS PANEL AND DEVICES
- RECORD DRAWINGS: PROVIDE A SET OF MARK-UP "AS-BUILT" PRINTS FOR RECORD PURPOSES, INDICATING WIRING DIAGRAMS, WIRING ROUTES, CIRCUITS ETC.
- PROVIDE BROTHER P-TOUCH LABELS, INDICATING CIRCUIT AND PANEL AT ALL EQUIPMENT AND JUNCTION BOXES.
- REMOVE ALL REDUNDANT MATERIALS, CONDUITS AND WIRING TO SOURCE OF SUPPLY OF MATERIALS UNLESS OTHERWISE INDICATED.
- CONFIRM FAULT LEVEL AT FACILITY BEFORE ORDERING EQUIPMENT AND ADJUST SHORT CIRCUIT RATING AS REQUIRED.
- ALL SURFACE ELECTRICAL PANELS, SPLITTERS ETC. TO BE INSTALLED ON PLYWOOD BACKBOARDS//WITH DRYWALL COVER.
- CONFIRM LOADS OF ALL EQUIPMENT SUPPLIED BY OTHERS BY REVIEWING APPROVED SHOP DRAWINGS OR OTHERWISE BEFORE PROCEEDING.

**EQUIPMENT SPECIFICATIONS CONT.**

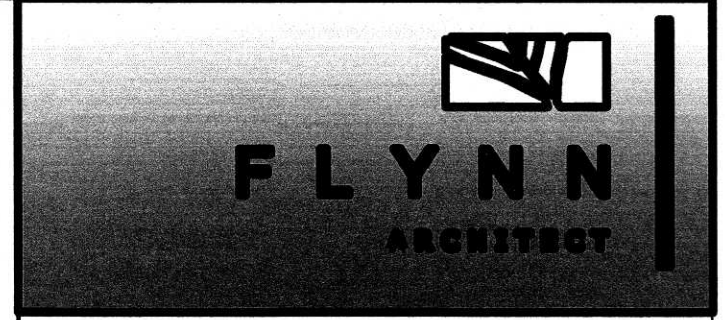
- SAFETY SWITCHES:**
- GENERAL PURPOSE
  - PROVIDE WHERE INDICATED AND AS REQUIRED BY CODE FOR ALL EQUIPMENT SUPPLIED BY OTHERS NOT PROVIDED WITH A DISCONNECTING MEANS
  - FUSED OR NON-FUSED TO SUIT APPLICATION; FUSE SELECTED FOR LOAD AND TO ENSURE SYSTEM DISCRIMINATION.
- SWITCHBOARD:**
- SWITCHBOARD: VOLTAGES & AMPERAGES AS INDICATED ON DRAWINGS 60HZ MINIMUM SHORT CIRCUIT CAPACITY 45KA (RMS SYMMETRICAL) METAL ENCLOSED FREE STANDING, FLOOR MOUNTED, DEAD FRONT, INDOOR, CSA ENCLOSURE 1 CUBICLE, UNIT ACCESS FROM FRONT.
    - MAIN INCOMING SECTION TO CONTAIN:
      - MOULDED CASE CIRCUIT BREAKER SIZED AS INDICATED.
      - PROVISION FOR ELECTRICAL POWER SUPPLY AUTHORITY METERING.
    - DISTRIBUTION SECTIONS TO CONTAIN:
      - MOULDED CASE CIRCUIT BREAKER SIZED AS INDICATED.
      - COPPER BUS, FROM MAIN SECTION TO DISTRIBUTION SECTIONS INCLUDING VERTICAL BISSING.
      - BLANKED OFF SPACE FOR FUTURE UNITS.
    - BUSBARS
      - THREE PHASE AND FULL CAPACITY NEUTRAL BUSBARS, CONTINUOUS CURRENT RATINGS AS INDICATED, EXTENDING FULL WIDTH OF CUBICLE, SUITABLY SUPPORTED ON INSULATORS, MAIN CONNECTIONS BETWEEN BUS AND MAJOR SWITCHING COMPONENTS TO HAVE CONTINUOUS CURRENT RATING TO MATCH MAJOR SWITCHING COMPONENTS, BUSBARS AND MAIN CONNECTIONS: 99.30% CONDUCTIVITY COPPER, PROVISION FOR EXTENSION OF BUS ON BOTH SIDES OF UNIT WITHOUT NEED FOR FURTHER DRILLING OR PREPARATION IN FIELD.
      - GROUNDING
        - COPPER GROUND BUS NOT SMALLER THAN 50 X 6 MM EXTENDING FULL WIDTH OF CUBICLE AND SITUATED AT BOTTOM.
- PANELBOARDS:**
- INSTALL CIRCUIT BREAKERS IN PANELBOARDS BEFORE SHIPMENT.
  - IN ADDITION TO CSA REQUIREMENTS MANUFACTURER'S NAMEPLATE MUST SHOW FAULT CURRENT THAT PANEL INCLUDING BREAKERS HAS BEEN BUILT TO WITHSTAND.
  - 250V PANELBOARDS: BUS AND BREAKERS RATED FOR 22KA (SYMMETRICAL) INTERRUPTING CAPACITY MINIMUM OR AS INDICATED IN COORDINATION STUDY.
  - SEQUENCE PHASE BUSSING WITH ODD NUMBERED BREAKERS ON LEFT AND EVEN ON RIGHT, WITH EACH BREAKER IDENTIFIED BY PERMANENT NUMBER IDENTIFICATION AS TO CIRCUIT NUMBER AND PHASE.
  - PANELBOARDS: MAINS, NUMBER OF CIRCUITS, NUMBER AND SIZE OF BRANCH CIRCUIT BREAKERS AS INDICATED.
  - TWO KEYS FOR EACH PANELBOARD AND KEY PANELBOARDS ALIKE.
  - MAINS: SUITABLE FOR BOLT-ON BREAKERS, COPPER BUS UNLESS SPECIFIED OTHERWISE.
  - TRIM WITH CONCEALED FRONT BOLTS AND HINGES, 14 GAUGE UP TO 24 CIRCUIT, 12 GAUGE FOR LARGER PANELS.
  - DISTRIBUTION PANELS SHALL BE MINIMUM 12 GAUGE CONSTRUCTION.
  - PROVIDE CONDUITS FOR ALL PANELBOARD FEEDERS AND CONDUIT FOR BRANCH CIRCUIT WIRING FROM PANELBOARD UP TO CEILING LEVEL UNLESS SPECIFIED OTHERWISE. TERMINATE CONDUITS LOCATED IN CEILING LEVEL IN JUNCTION BOX.
- MOULDED CASE CIRCUIT BREAKERS:**
- BOLT-ON MOULDED CASE CIRCUIT BREAKER: QUICK-MAKE, QUICK-BREAK TYPE, FOR MANUAL AND AUTOMATIC OPERATION WITH TEMPERATURE COMPENSATION FOR 40°C AMBIENT.
  - COMMON-TRIP BREAKERS: WITH SINGLE HANDLE FOR MULTI-POLE APPLICATIONS.

**EQUIPMENT SPECIFICATIONS CONT.**

- BRANCH CIRCUIT WIRING & DEVICES**
- GENERAL:
- ALL CONDUCTORS TO BE COPPER, MINIMUM #12
  - ALL WIRING CONCEALED EXCEPT AS OTHERWISE NOTED.
- BRANCH CIRCUIT WIRING**
- BRANCH CIRCUIT WIRING TO BE
    - INDIVIDUAL RW90 INSULATED CONDUCTORS IN EMT
    - EXCEPTIONS TO GENERAL WIRING METHOD:
      - BX CABLE SHALL BE USED FOR FINAL CONNECTION TO LIGHT FIXTURES AND LIKE EQUIPMENT IN DROPPED CEILING SPACES, MAXIMUM LENGTH 2000 MM.
      - FLEXIBLE CONDUIT TO BE USED FOR EQUIPMENT CONNECTION WHERE EQUIPMENT SUBJECT TO VIBRATION
- ROUGHING-IN:**
- MOUNTING HEIGHTS OF SWITCHES TO BE 1100MM, RECEPTACLES: 450 MM, 150 MM OVER COUNTER TOPS
  - CONFIRM DOOR SWINGS, EQUIPMENT LOCATIONS AND CODE REQUIRED SPACING PRIOR TO ROUGHING -IN
  - PROVIDE MOULDED VAPOUR BARRIER ENCLOSURES FOR OUTLET BASES IN EXTERIOR WALLS AND CEILINGS
  - MAXIMUM NUMBER OF GENERAL PURPOSE RECEPTACLES ON A CIRCUIT IS 6 WHERE NOT OTHERWISE SHOWN ON THE DRAWINGS.
- DEVICES:**
- DEVICES TO BE SPECIFICATION GRADE EQUIVALENT TO PASS & SEYMOUR SPECIFICATION GRADE, STAINLESS STEEL PLATE IN SHOP & OFFICE.
  - ALL EXTERIOR RECEPTACLES TO BE INDIVIDUAL GROUND FAULT PROTECTED TYPE; WATERPROOF COVERS WHEN INSTALLED OUTSIDE.
  - WIRE ALL DEVICES USING SCREW TERMINALS (NOT PUSH-INS)
  - GROUND FAULT 5 MA .025 SECOND TRIP, RESET/TEST PUSH BUTTON//
  - MOTION SWITCHES, 15A 120V, SINGLE POLE & 3 WAY, INFRARED, 1/2 ADJUSTABLE TIME, OVERRIDE SWITCH
- EMERGENCY LIGHTING**
- WIRE BATTERY PACK (S) ON LOCAL LIGHTING CIRCUIT SO INDIVIDUAL BRANCH CIRCUIT FAILURE OPERATES EMERGENCY LIGHTING
  - PROVIDE 15A, 120V TWIST LOCK RECEPTACLE FOR EACH BATTERY UNIT
  - BATTERY PACK TO BE 12V 360WH SEALED HEAD (10 YEAR LIFE) EQUAL TO AMLITE SERIES
  - LIGHTING HEADS TO BE 12V, 12W, 100HR MR16 HALOGEN EQUAL TO AMLITE SERIES
- FORCE FLOW HEATERS**
- INTEGRAL THERMOSTAT FOR WALL MOUNT, REMOTE FOR CEILING MOUNT
  - WESTCAN FA SERIES OR EQUAL
  - PROVIDE ADAPTER KIT WHERE RECESSED SHOWN BUT WALL TOO SHALLOW TO ALLOW FULL RECESS
- COMMUNICATIONS**
- PROVIDE OUTLET BOXES AND OUTLET PLATES FOR ALL TELEPHONE, DATA SHOWN ON DRAWINGS. BOXES TO BE 100 X 100 X 38 MM DEEP WITH SINGLE GANG PLASTER RING.
  - PROVIDE EMT WITH PULL STRING FROM EACH OUTLET TO THE CEILING PLENUM.
  - ALL WIRING AND TERMINATIONS, TO BE COMPLETED BY CLIENT.
  - PROVIDE DEDICATED GROUND TERMINAL(S) WIRED BACK TO THE MAIN SERVICE.
- MISCELLANEOUS SYSTEMS AND EQUIPMENT:**
- CONTACTOR**
- MECHANICALLY HELD, CONTROL COIL TO MATCH EXISTING SYSTEMS, VOLTAGE AS INDICATED, CSA 1 ENCLOSURE, SIZE AS INDICATED
- TESTING AND COMMISSIONING**
- CONFIRM INSULATION RESISTANCE AND CONTINUITY OF ALL WIRING
  - PROGRAM TIME CLOCK TO ENGINEERS REQUIREMENTS
- RECEPTACLE COLOUR CODE:**
- |                   |               |                             |
|-------------------|---------------|-----------------------------|
| NORMAL RECEPTACLE | DEVICE: WHITE | COVERPLATE: STAINLESS STEEL |
|-------------------|---------------|-----------------------------|
- WALL LIGHT SWITCH CODE:**
- |  |               |                             |
|--|---------------|-----------------------------|
|  | DEVICE: WHITE | COVERPLATE: STAINLESS STEEL |
|--|---------------|-----------------------------|
- COLOUR CODING**
- COLOUR CODE CONDUITS AND BOXES.
- CODE WITH PLASTIC TAPE OR PAINT AT POINTS WHERE CONDUITS ENTER WALLS, CEILING, OR FLOOR, AND AT 15m INTERVALS.
- COLOURS=1" WIDE PRIME COLOUR AND 3/4" WIDE AUXILIARY COLOUR.
- |                                  |                     |
|----------------------------------|---------------------|
| SERVICE UP TO 250V COMMUNICATION | PRIME COLOUR YELLOW |
|                                  | GREEN               |
- SEISMIC CONTROLS FOR ELECTRICAL SYSTEMS**
- SEISMIC RESTRAINTS ARE TO BE PROVIDED FOR ALL NEW ELECTRICAL COMPONENTS AFFECTED UNDER THIS CONTRACT.
  - PROVIDE SEISMIC RESTRAINTS IN ACCORDANCE WITH CURRENT NATIONAL BUILDING CODE AND ONTARIO BUILDING CODE.
  - THIS CONTRACTOR SHALL UTILIZE THE SUPPLIER FAMILIAR WITH THE DESIGN OF SEISMIC SYSTEMS TO PROVIDE A COMPREHENSIVE PACKAGE OF ISOLATION AND SEISMIC RESTRAINT FOR THE PROJECT.
  - PROVIDE DETAILED SHOP DRAWINGS SHOWING THE PROPOSED RESTRAINT SYSTEM FOR ALL REQUIRED COMPONENTS ON THE PROJECT. THE SHOP DRAWINGS SHALL INCLUDE CALCULATIONS CERTIFIED BY THE SEISMIC ENGINEER.

**LIGHTING NOTES**

- LIGHTING ON NORMAL POWER**
- CONNECT LUMINAIRES TO SUIT INDICATED LAYOUT, EXTEND WIRING AS NECESSARY AND CONNECT LUMINAIRES TO EXISTING LIGHTING CIRCUITS. TURN OVER SURPLUS TO OWNER.
  - INDEPENDENTLY SUPPORT NEW LUMINAIRES FROM CEILING SLAB TO COMPLY WITH CODE REQUIREMENTS.
  - SUPPORT AND SECURE TO SLAB ALL WIRING.
  - FOR EXACT LOCATION OF DEVICES COORDINATE WITH ARCHITECTURAL DRAWINGS AND/OR DETERMINE ON SITE.
  - CONNECT NEW LIGHT FIXTURES AS SHOWN.
  - TRACE AND RECORD EMERGENCY BRANCH CIRCUIT NUMBERS FOR EXIT SIGNS.
- POWER NOTES**
- PROVIDE NEW TYPED, DATED PANEL DIRECTORIES FOR ALL PANELS AND ANNOTATE CIRCUIT NUMBERS ON AS BUILT DRAWINGS, SUBMIT A COPY OF PANEL DIRECTORIES TO ENGINEER.
  - AT COMPLETION OF WORK, WITH ALL LOADS IN OPERATION, INCLUDING LOADS ON SUB-PANELS, MEASURE CURRENT VALUES IN AMPERES PER PHASE AND NEUTRAL IN FEEDER TO EACH OF THE PANELS. ENSURE LOADS ARE PROPERLY BALANCED & SUBMIT REPORT IN LETTER FORM TO ENGINEER.
  - PROVIDE DEDICATED NEUTRALS FOR ALL RECEPTACLE CIRCUITS.
  - FOR EXACT LOCATION OF DEVICES, COORDINATE WITH ARCHITECTURAL DRAWINGS AND/OR DETERMINE ON SITE
  - CONTRACTOR SHALL PROVIDE TEMPORARY LIGHTING AND POWER DURING CONSTRUCTION PERIOD FOR EACH FLOOR
- CUTTING & CORE DRILLING:**
- PROVIDE CUTTING, PATCHING & CORING OF ALL WALLS, CEILINGS AND OTHER SURFACES REQUIRED TO FIT THE ELECTRICAL EQUIPMENT. CHECK WITH BUILDING MANAGEMENT PRIOR TO CORE DRILLING & CUTTING OF FLOOR SLAB, REGARDING BUILDING REQUIREMENTS & POLICIES. PRIOR TO SLAB CUTTING OR CORING FIRST RADIO SCAN THE SLAB & COORDINATE DRILLING TO MINIMIZE CUTTING OF THE REINFORCING STEEL; FIRE STOP ALL NEW FIRE RATED PENETRATIONS. THE CONTRACTOR IS TO INCLUDE IN TENDER PRICE ALL WORK ASSOCIATED WITH CORE DRILLING AFTER NORMAL WORKING HOURS. OBTAIN WRITTEN VERIFICATION OF THE LOCATIONS FROM THE ARCHITECT PRIOR TO DRILLING.
- GENERAL NOTES:**
- ELECTRICAL CONTRACTOR TO ENSURE ALL EXISTING CEILING MOUNTED JUNCTION BOXES TO BE CLOSED. PROVIDE COVERPLATES AS REQUIRED.
  - REFER TO ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR MOUNTING HEIGHTS AND LOCATION OF OUTLETS.
  - ANNOTATE CIRCUIT NUMBERS ON AS BUILT DRAWINGS, MEASURE AND REPORT CIRCUIT LOAD TO THE ENGINEER. BALANCE LOADS.
  - COORDINATE WITH MECHANICAL DUCTWORK TO AVOID INTERFERENCE
  - ELECTRICAL WORK TO BE DONE IN ACCORDANCE WITH NEW INTERIOR DESIGNER'S LAYOUT.
  - COORDINATE WITH INTERIOR DESIGNER'S INSTRUCTIONS FOR ALL THE ABOVE WORK.
  - PRIOR TO CLOSING THE CEILING, ELECTRICAL CONTRACTOR SHALL NOTIFY THE ENGINEER THAT AN INSPECTION IS REQUIRED BEFORE CONTINUING.
  - FOR ALL CEILING MOUNTED JUNCTION BOXES: ELECTRICAL CONTRACTOR SHALL PAINT THE COVER WITH A MATTE FINISH PAINT AND PROVIDE BROTHER P-TOUCH LABELS INDICATING PANEL NAME AND CIRCUIT NUMBERS. LETTERING TO BE BLACK ON WHITE BACKGROUND, MINIMUM 1" (25mm) HIGH.



162 PRESTON STREET OTTAWA, ONTARIO, K1R 7P7  
T: 613-299-8505 F: 866-587-2021

- GENERAL NOTES**
- DO NOT SCALE DRAWINGS. FIGURED DIMENSIONS ONLY TO BE USED.
  - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT.
  - ALL WORK DESCRIBED UNDER THIS CONTRACT TO COMPLY WITH THE MOST CURRENT EDITION OF THE ONTARIO BUILDING CODE, AND/OR NATIONAL BUILDING CODE, AND OTHER CODES AND BY-LAWS IN EFFECT.



No	DATE	REVISION
3	27-06-2019	ISSUED FOR BUILDING PERMIT
2	28-09-2018	ISSUED FOR REVIEW
1	13-05-2016	ISSUED FOR CLIENT REVIEW



CLIENT:  
ENTERPRISE RENT-A-CAR  
RYAN FIRLOTTE  
T: 613-274-6934  
F: 1-800-495-2412

CONSULTANTS:  
HOLZMAN CONSULTANTS INC.  
(LAND DEVELOPMENT CONSULTANTS)  
1076 CASTEL HILL CRES  
OTTAWA, ONTARIO  
K2C 2A8  
T: 613-226-1386

MMM GROUP LTD  
(CIVIL ENGINEERING)  
1145 HUNT CLUB ROAD, SUITE 300  
OTTAWA, ONTARIO  
K1V 0Y3  
T: 613-736-7200  
F: 613-736-8710

VALLEY ENGINEERING  
(STRUCTURAL ENGINEERING)  
521 DICKINSON AVENUE  
OTTAWA, ONTARIO  
K1V 7J4  
T: 613-521-9002

ANTARES ENGINEERING  
(M&E ENGINEERING)  
1-159 COLONNADE ROAD  
NEPEAN, ONTARIO  
K2E 7J4  
T: 613-723-6034

PROJECT TITLE:  
225 HUNTMAR DRIVE  
HUNTMAR/PALLADIUM DR. ENTERPRISE

DRAWING TITLE:  
ELECTRICAL SPECIFICATIONS

SCALE AS NOTED	CHECKED BY J.C.J.	JOB No. 15-610	DRAWING No. E-4
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**ELECTRICAL**

