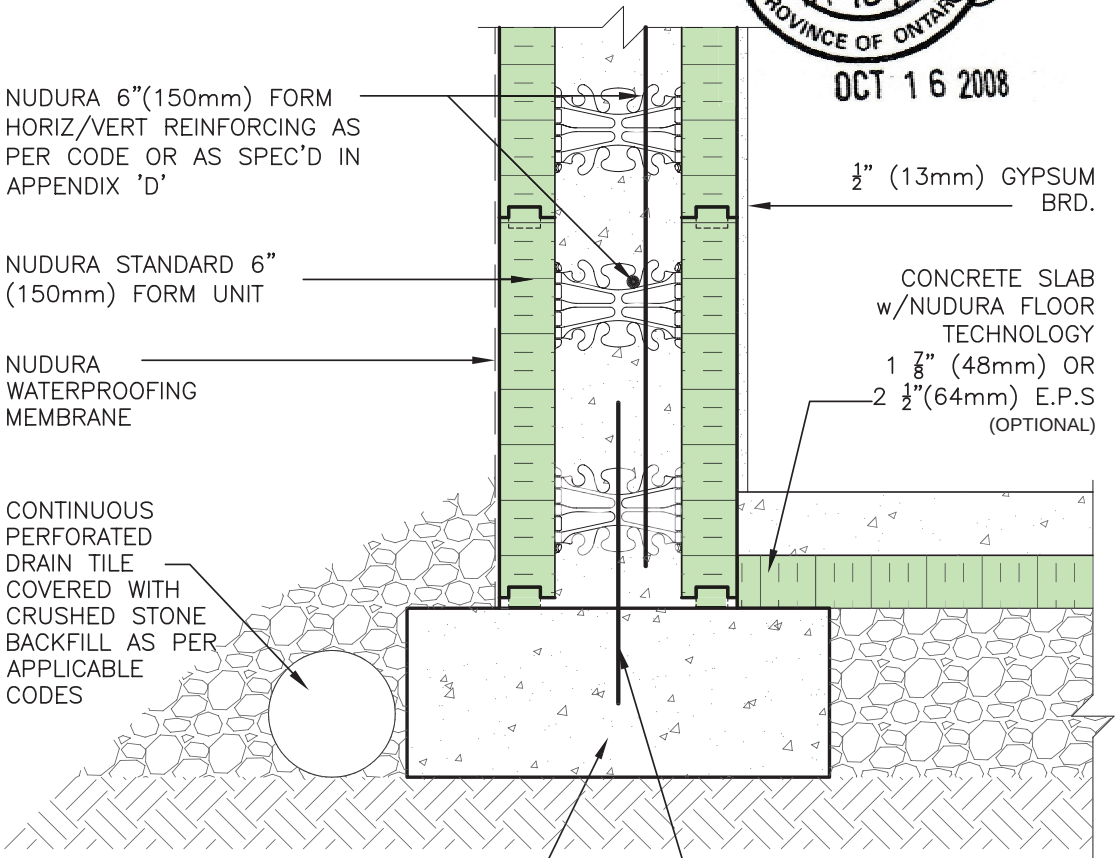
C TYPICAL DETAILS (C-1)



LICENSED PROFESSIONAL ENGINEER
S. J. ADEMA
A-1090-08
PROVINCE OF ONTARIO
OCT 16 2008

DISCLAIMER NOTICE:
SPECIFIC INFORMATION REQUIRED FOR COMPLIANCE WITH LOCAL CODES IS THE RESPONSIBILITY OF THE DESIGNER

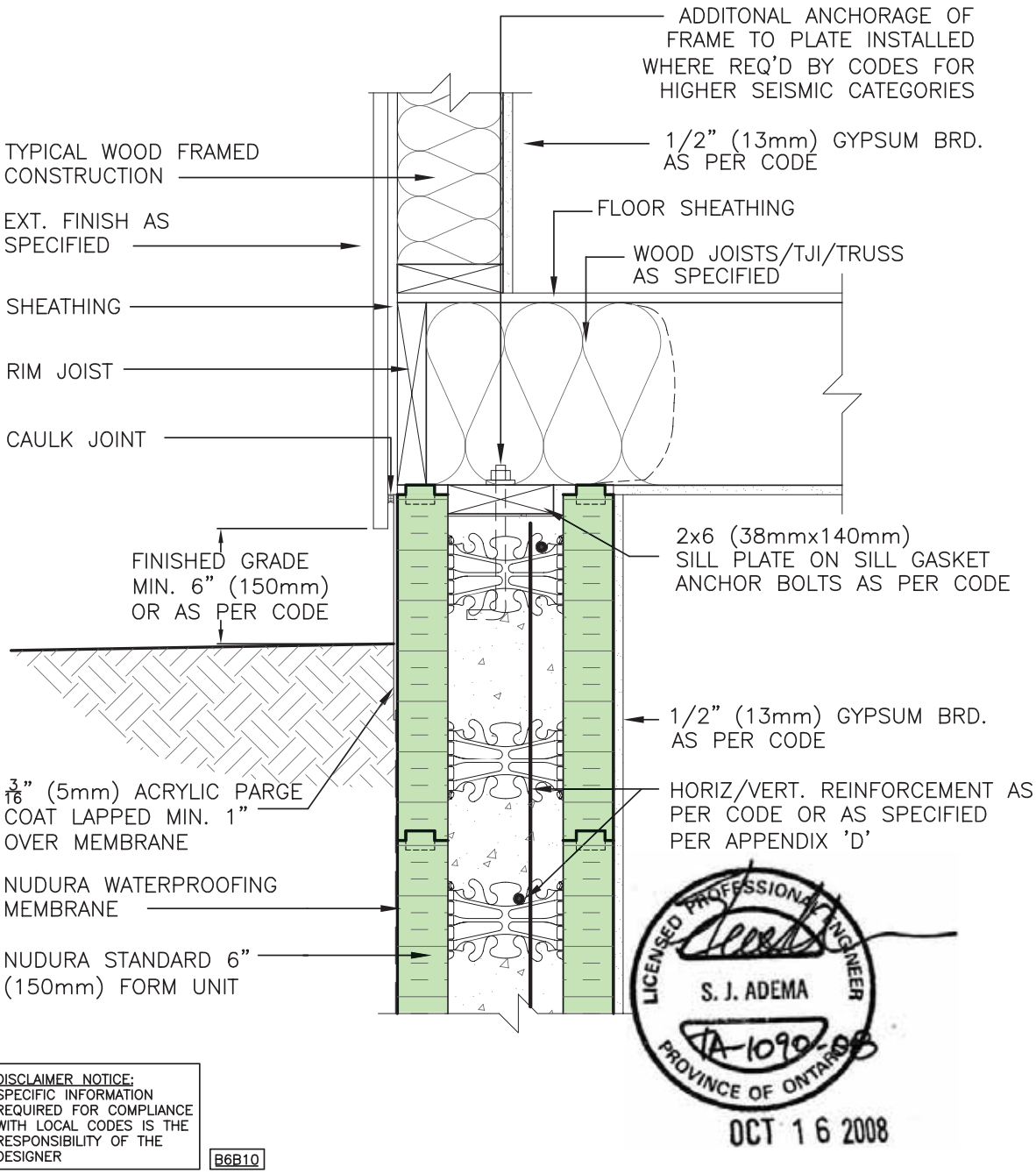
B6A02

NUDURA®
INTEGRATED BUILDING TECHNOLOGY
Building Value.

STANDARD 6" FORM UNIT
FOOTING DETAIL
NUDURA FLOOR TECHNOLOGY
(BEST OPTION)

REV. NO. 002 KS	DWG NO. C–1
DATE: MAY 2008	
DRAWN BY: J. NEILON	SCALE: 1 1/2"=1'–0"

C TYPICAL DETAILS (C-2)



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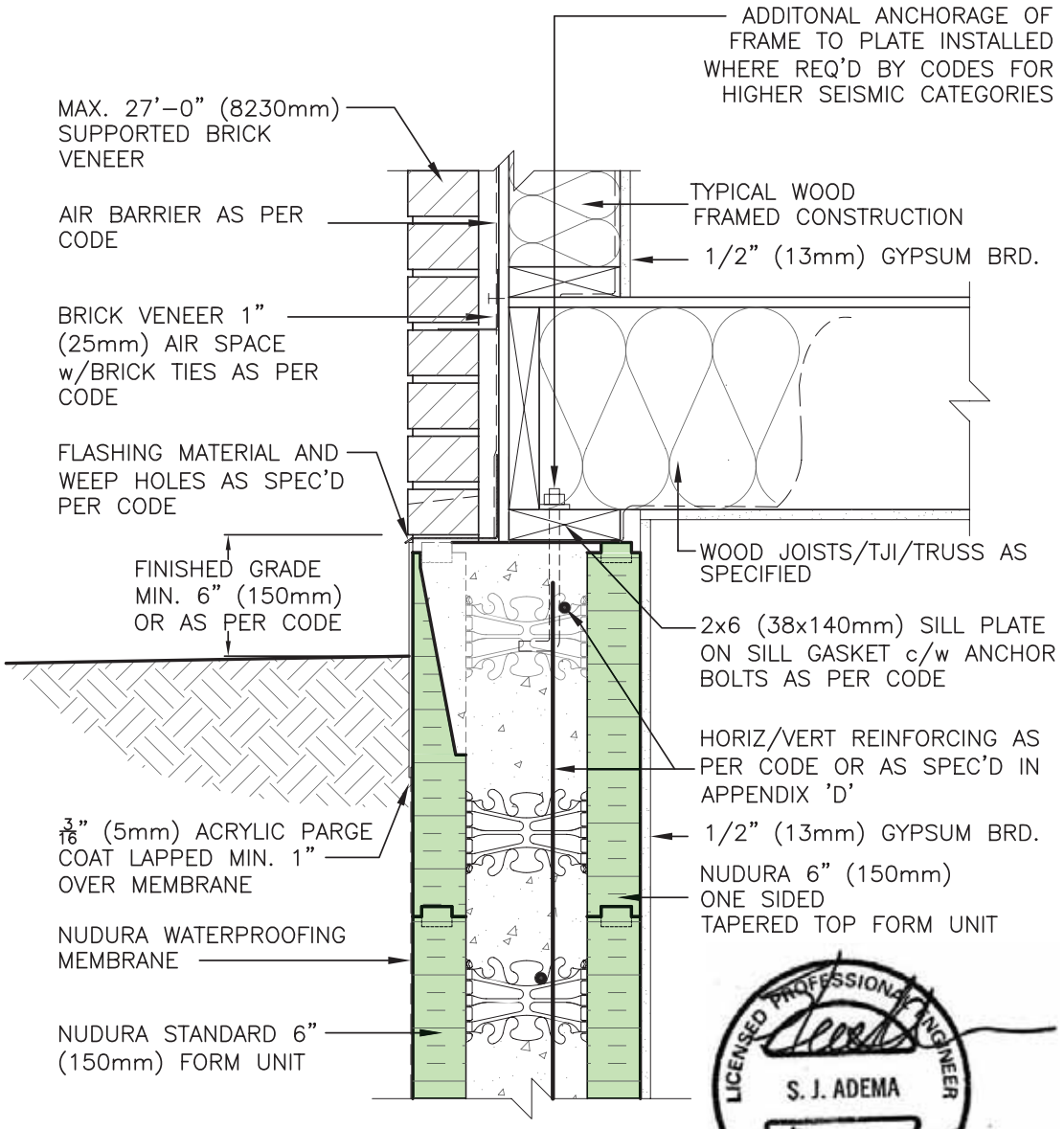
B6B10

NUDURA® INTEGRATED BUILDING TECHNOLOGY
Building Value.

STANDARD 6" FORM BELOW GRADE
CONVENTIONAL WOOD FRAME
ABOVE GRADE
NON–BRICK FINISH

REV. NO. 002 TV	DWG NO. C–2
DATE: JAN 2006	
DRAWN BY: J.N / N.L	SCALE: 1 1/2"=1'–0"

C TYPICAL DETAILS (C-3)



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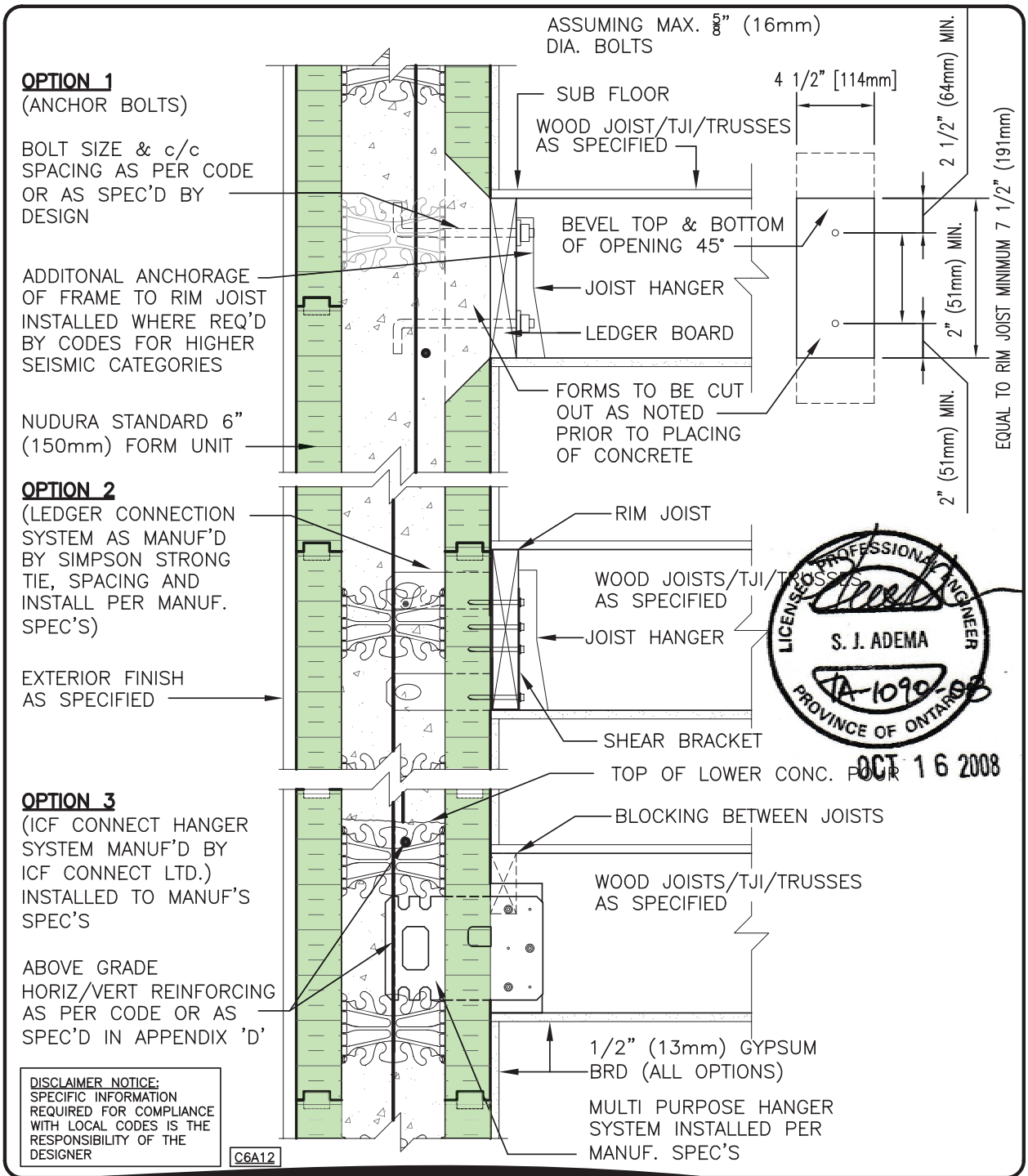
B6B06

NUDURA® INTEGRATED BUILDING TECHNOLOGY
Building Value.

6" ONE SIDED TAPERED TOP
STANDARD 6" FORM BELOW GRADE
CONVENTIONAL FRAMED ABOVE GRADE
BRICK VENEER FINISH

REV. NO. 002 TV	DWG NO. C–3
DATE: JAN 2006	
DRAWN BY: J.N / N.L	SCALE: 1 1/2"=1'–0"

C TYPICAL DETAILS (C-4)

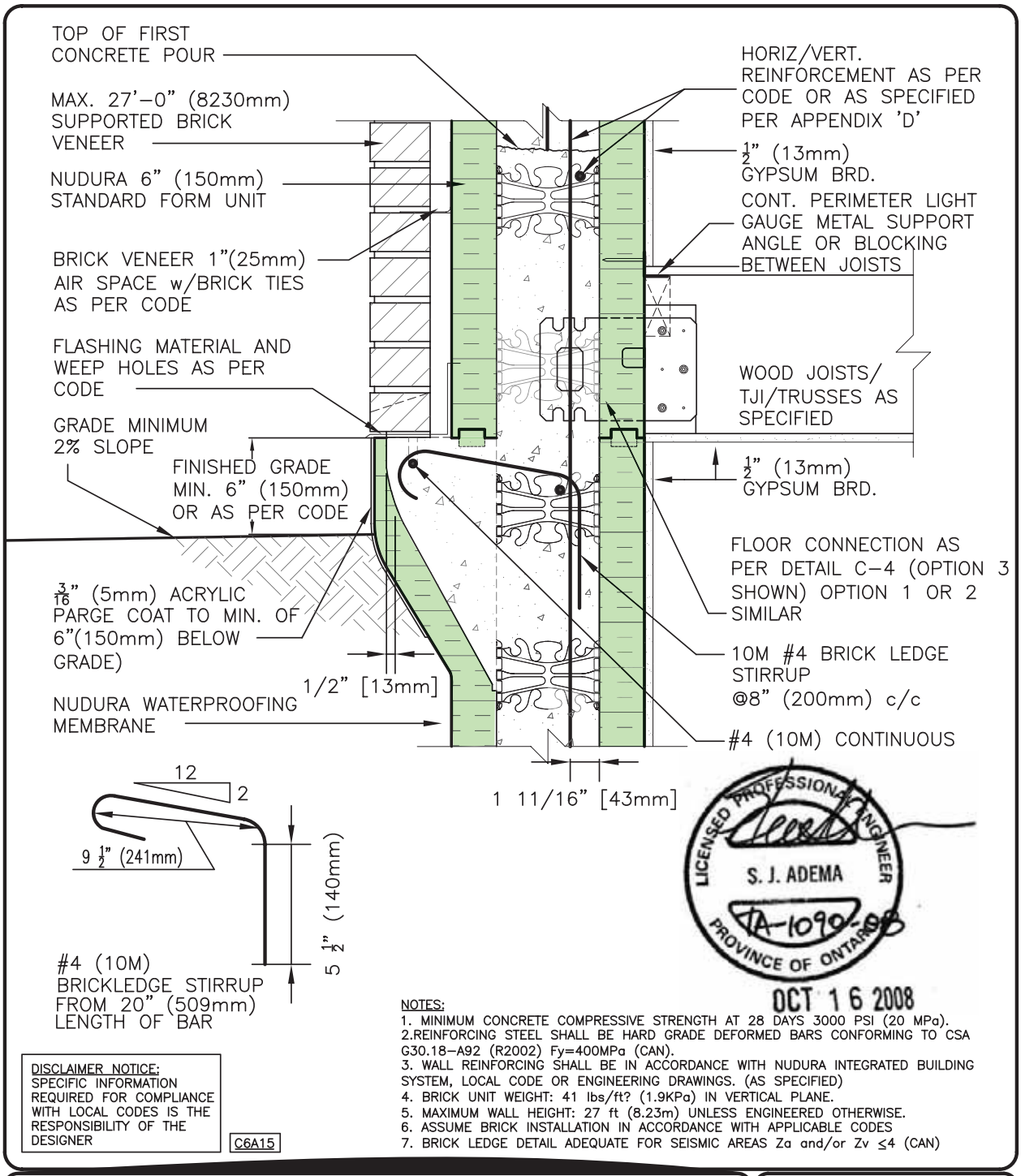


NUDURA® INTEGRATED BUILDING TECHNOLOGY
Building Value.

6" STANDARD FORM UNIT
FLOOR CONNECTION OPTIONS
FLOOR TYPES AND
EXTERIOR FINISH AS SPECIFIED

REV. NO.	DWG NO.
003 TV	C–4
DATE: JAN 2006	
DRAWN BY: J.N / N.L	SCALE: 1 1/2"=1'–0"

C TYPICAL DETAILS (C-5)



OCT 16 2008

NOTES:
1. MINIMUM CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS 3000 PSI (20 MPa).
2. REINFORCING STEEL SHALL BE HARD GRADE DEFORMED BARS CONFORMING TO CSA G30.18–A92 (R2002) Fy=400MPa (CAN).
3. WALL REINFORCING SHALL BE IN ACCORDANCE WITH NUDURA INTEGRATED BUILDING SYSTEM, LOCAL CODE OR ENGINEERING DRAWINGS. (AS SPECIFIED)
4. BRICK UNIT WEIGHT: 41 lbs/ft? (1.9KPa) IN VERTICAL PLANE.
5. MAXIMUM WALL HEIGHT: 27 ft (8.23m) UNLESS ENGINEERED OTHERWISE.
6. ASSUME BRICK INSTALLATION IN ACCORDANCE WITH APPLICABLE CODES
7. BRICK LEDGE DETAIL ADEQUATE FOR SEISMIC AREAS Za and/or Zv ≤4 (CAN)

DISCLAIMER NOTICE:
SPECIFIC INFORMATION REQUIRED FOR COMPLIANCE WITH LOCAL CODES IS THE RESPONSIBILITY OF THE DESIGNER

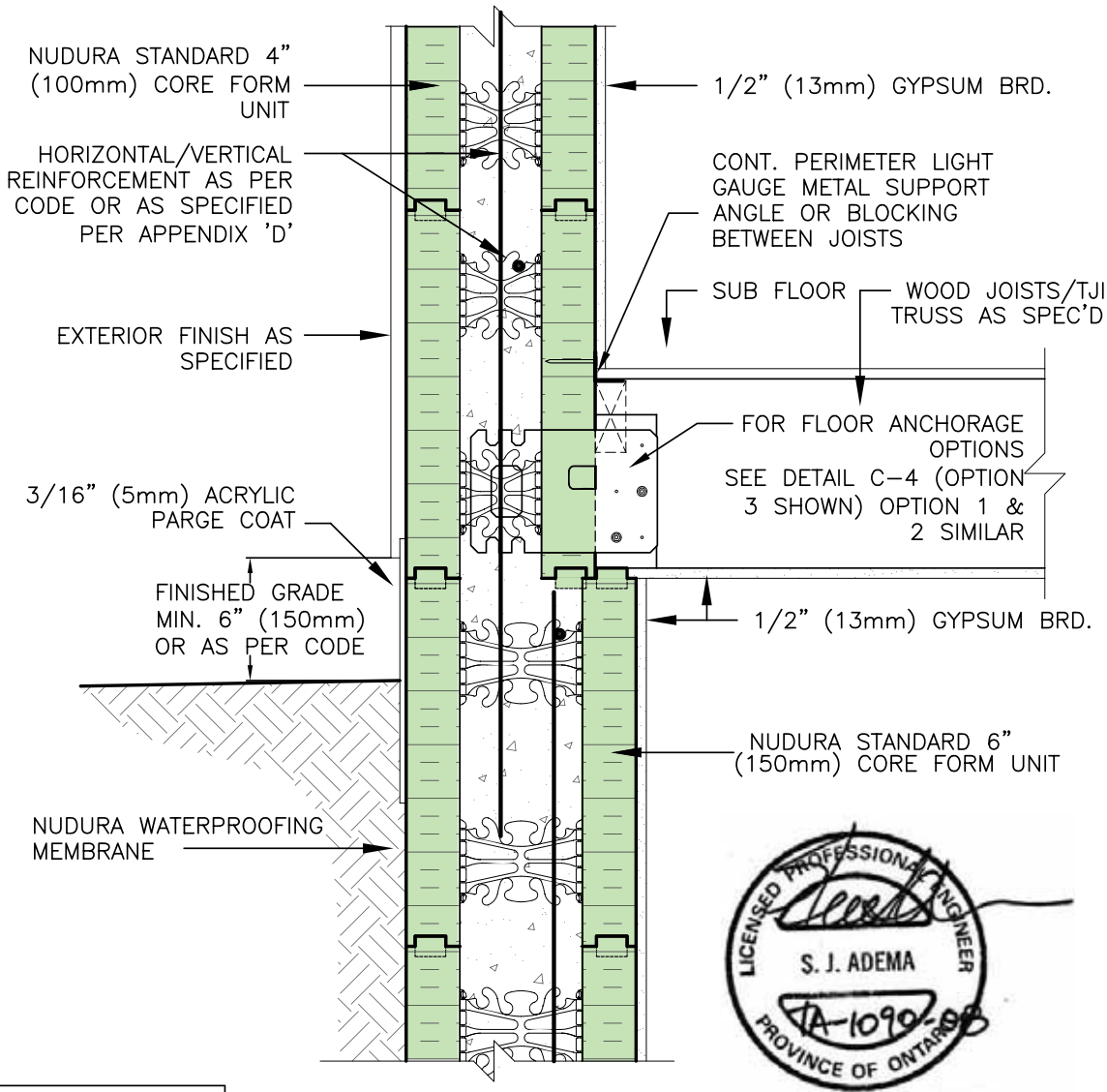
C6A15

NUDURA® INTEGRATED BUILDING TECHNOLOGY
Building Value.

6" MOLDED BRICK LEDGE DETAIL
6" FORM ABOVE GRADE
BRICK VENEER FINISH

REV. NO. 004 TV	DWG NO. C–5
REV. DATE: OCT 2006	
DRAWN BY: J.N / N.L	SCALE: 1 1/2"=1'–0"

C TYPICAL DETAILS (C-6)



DISCLAIMER NOTICE:
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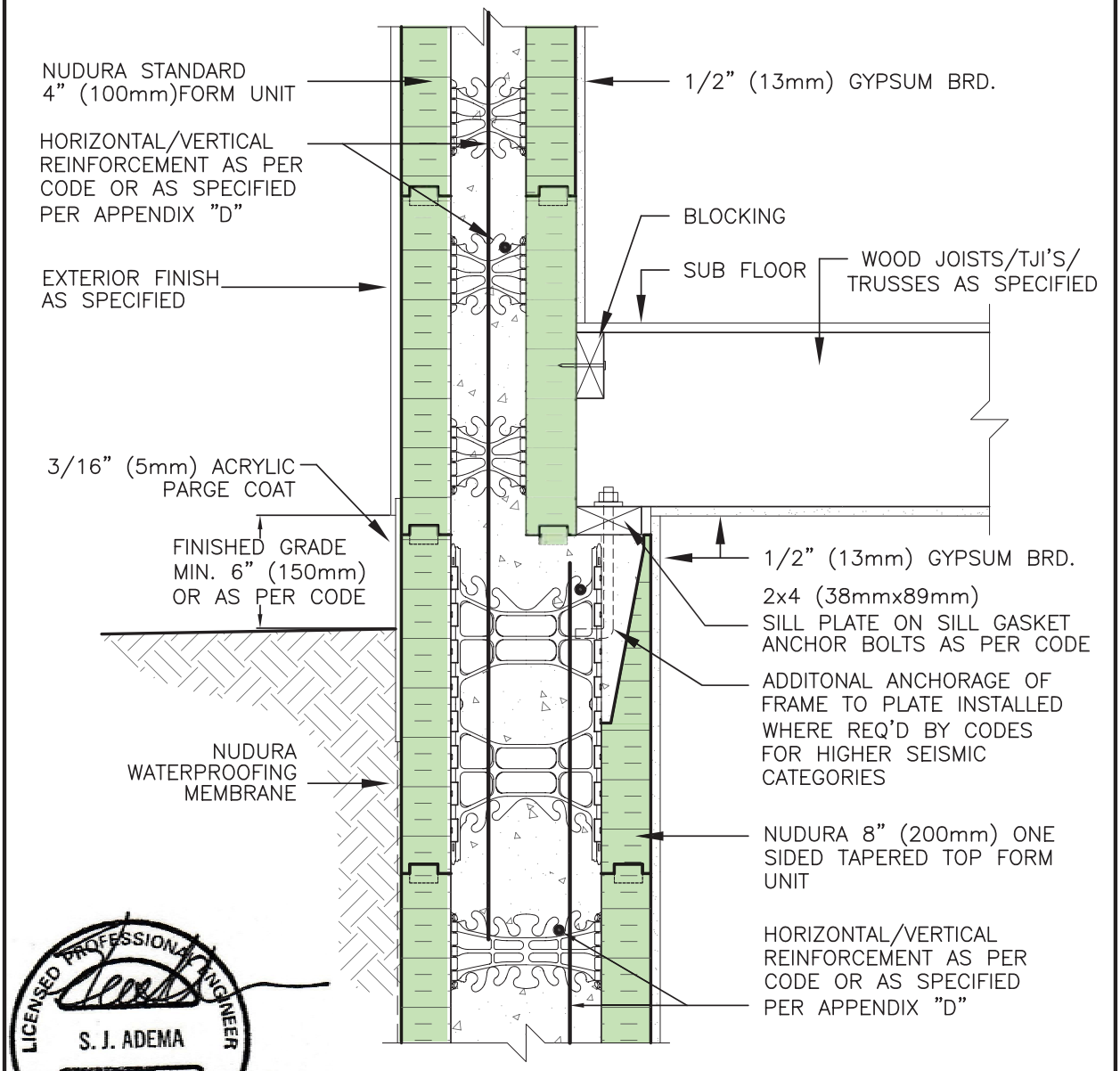
C6A18

NUDURA® INTEGRATED BUILDING TECHNOLOGY
Building Value.

FLOOR CONNECTION w/ MULTI-PURPOSE HANGER @ GRADE
STANDARD 6" FORM BELOW GRADE
4" FORM ABOVE GRADE
NON-BRICK FINISH

REV. NO.	DWG NO.
000	C-6
DATE: JAN 2006	
DRAWN BY: T. VAN CLIEAF	SCALE: 1 1/2"=1'-0"

C TYPICAL DETAILS (C-7)



LICENSED PROFESSIONAL ENGINEER
S. J. ADEMA
A-1090-08
PROVINCE OF ONTARIO
OCT 16 2008

DISCLAIMER NOTICE:
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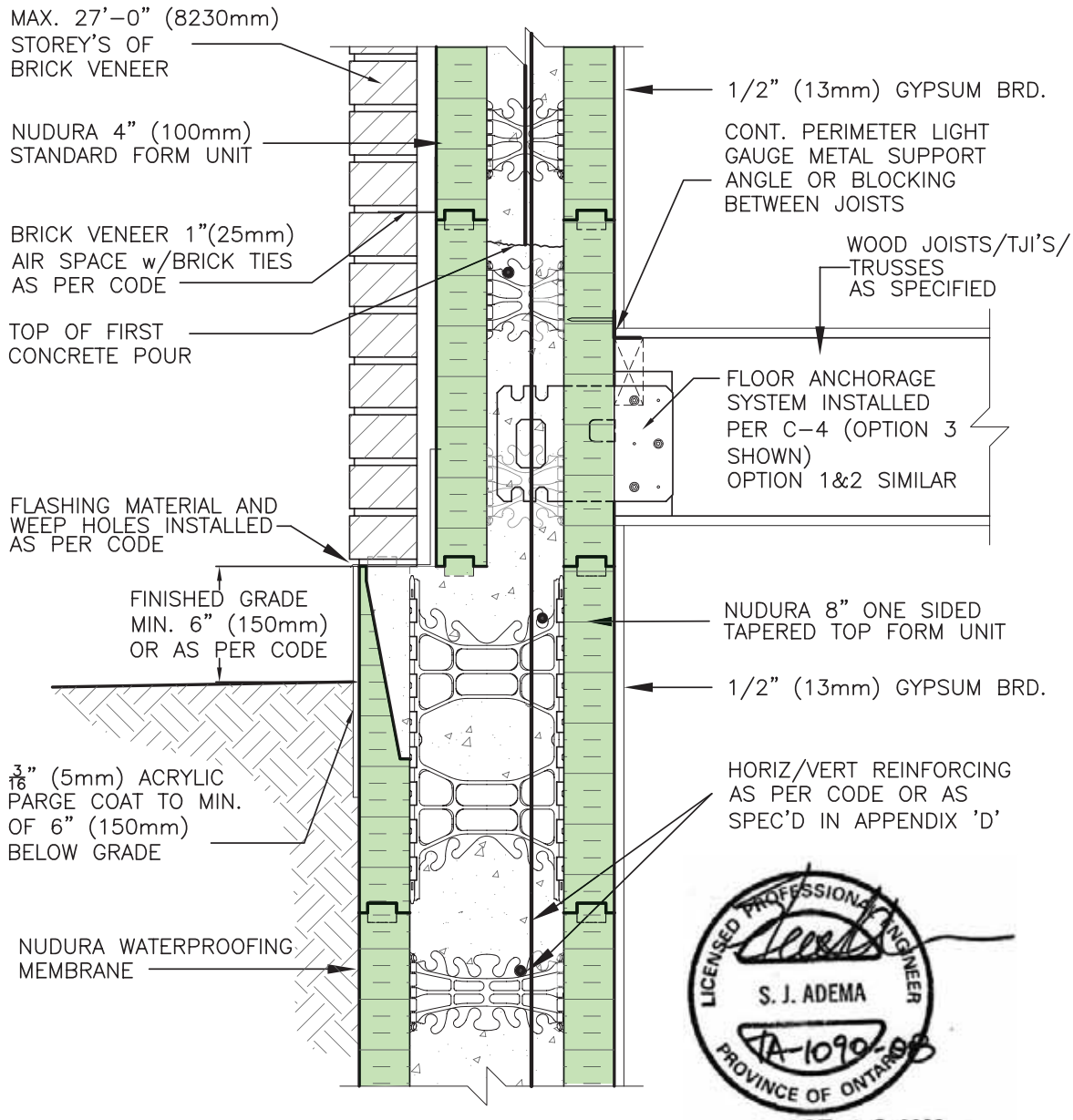
C8A01

NUDURA®
INTEGRATED BUILDING TECHNOLOGY
Building Value.

8" TO 4" FLOOR TRANSITION DETAIL
8" ONE SIDED TAPERED TOP
8" FORM UNIT BELOW GRADE
4" FORM UNIT ABOVE GRADE
NON-BRICK FINISH

REV. NO. 002 TV	DWG NO. C-7
DATE: JAN 2006	
DRAWN BY: J. N / N. L	SCALE: 1 1/2"=1'-0"

C TYPICAL DETAILS (C-8)



LICENSED PROFESSIONAL ENGINEER
S. J. ADEMA
PROVINCE OF ONTARIO
OCT 16 2008

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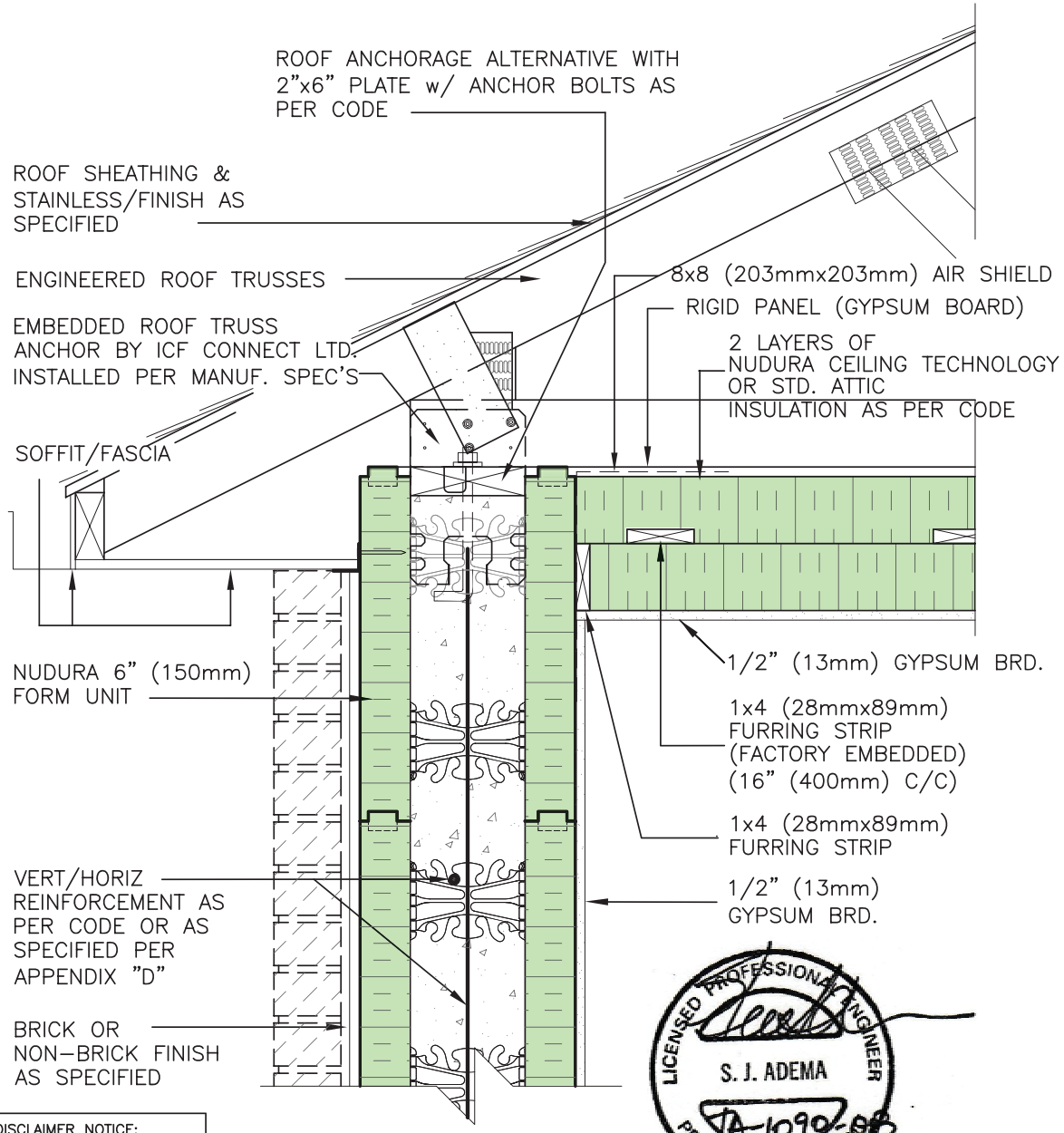
C8A04

NUDURA®
INTEGRATED BUILDING TECHNOLOGY
Building Value.

8" TO 4" FLOOR TRANSITION DETAIL
8" ONE SIDED TAPERED TOP
8" FORM UNIT BELOW GRADE
4" FORM UNIT ABOVE GRADE
BRICK VENEER FINISH

REV. NO. 002 TV	DWG NO. C–8
REV. DATE: JAN 2006	
DRAWN BY: J.N / N.L	SCALE: 1 1/2"=1'–0"

C TYPICAL DETAILS (C-9)



LICENSED PROFESSIONAL ENGINEER
S. J. ADEMA
100198
PROVINCE OF ONTARIO
OCT 16 2008

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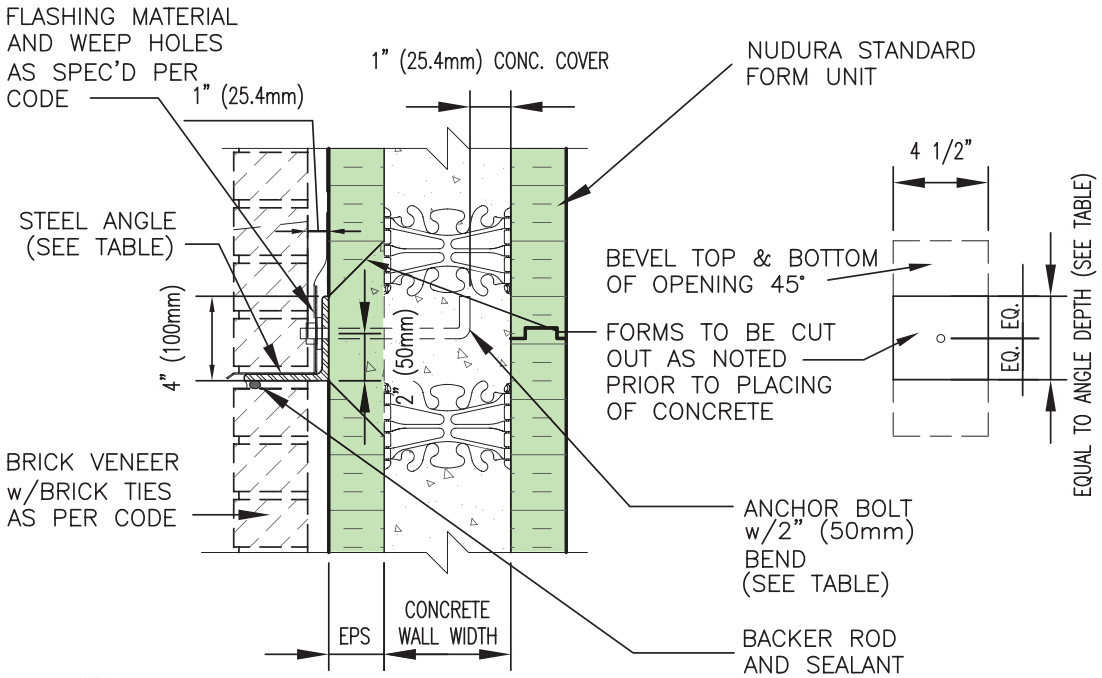
F6B10

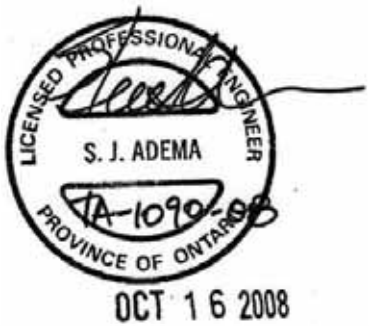
NUDURA®
INTEGRATED BUILDING TECHNOLOGY
Building Value.

STANDARD 6" FORM UNIT
ROOF CONNECTION DETAIL
WITH ROOF TRUSSES
BRICK OR NON-BRICK FINISH

REV. NO. 003 TV	DWG NO. C-9
REV. DATE: JAN 2006	
DRAWN BY J.N / N.L	SCALE: 1"=1'-0"

C TYPICAL DETAILS (C-10)





	HEIGHT OF SUPPORTED BRICK ABOVE ANGLE	
	10'–0" (3050mm)	20'–0" (6100mm)
ANGLE SIZE	L4" x 4"x 1/4" (L102 x 102 x 6.35)	L4" x 4"x 1/4" (L102 x 102 x 6.35)
ANCHOR SIZE	1/2" DIA. (12.5mm DIA.)	1/2" DIA. (12.5mm DIA.)
ANCHOR SPACING	24". (610mm)	16" (406mm)

NOTES:

1 ASSUMES BRICK INSTALLATION IN ACCORDANCE WITH APPLICABLE CODES.

2 MIN. STEEL Fy=43.5 ksi (300 MPa) YIELD STRENGTH FOR ANGLES

3 ANGLES AND BOLTS TO BE GALVANIZED OR STAINLESS STEEL TO MEET THE REQUIREMENT OF TABLE 5.1 OF A370–04 (CONNECTIONS FOR MASONRY, OR EQUIVALENT STANDARD)

A6B03

NUDURA® INTEGRATED BUILDING TECHNOLOGY
Building Value.

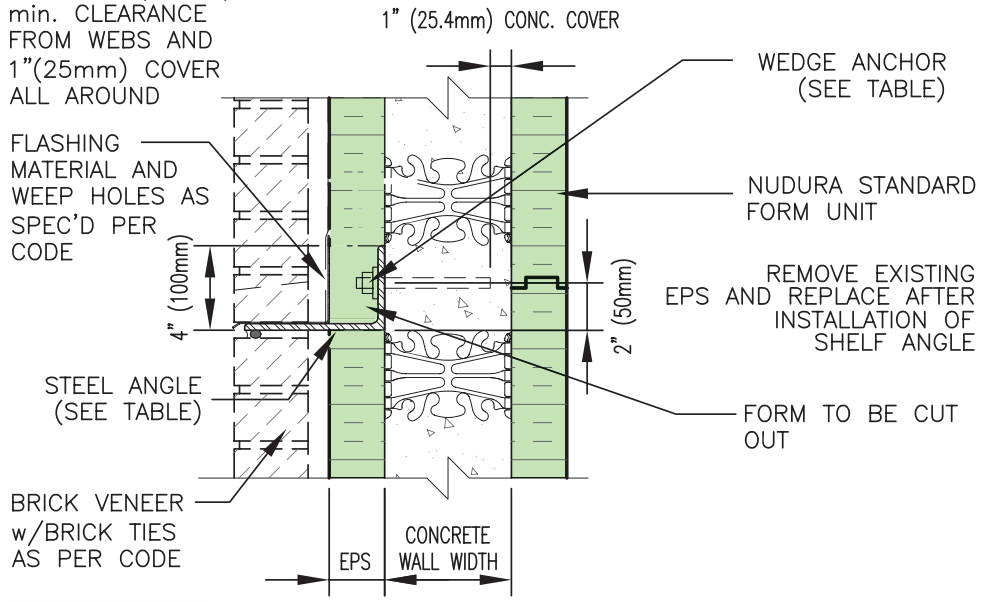
BRICK SHELF ANGLE
BACK OF ANGLE FLUSH WITH E.P.S. EXTERIOR
(MULTI–STORY APPLICATION)
PRE–INSTALLATION MOUNT

REV. NO.	DWG NO.
002 TV	C–10
REV. DATE: JAN 2006	
DRAWN BY J.N / N.L	SCALE: 1 1/2"=1'–0"

C TYPICAL DETAILS (C-11)

HILTI ANCHORS TO BE SIZED AS PER TABLE

NOTE: MAINTAIN u/s OF ANCHOR SHAFT 2" (50mm) min. CLEARANCE FROM WEBS AND 1"(25mm) COVER ALL AROUND



LICENSED PROFESSIONAL ENGINEER
S. J. ADEMA
100198
PROVINCE OF ONTARIO
OCT 16 2008

	HEIGHT OF SUPPORTED BRICK ABOVE ANGLE	
	10'–0" (3050mm)	20'–0" (6100mm)
ANGLE SIZE	L6" x 4" x 5/16" (L152 x 102 x 7.9)	L6" x 4" x 3/8" (L152 x 102 x 9.5)
ANCHOR SIZE */ EMBEDMENT	HSL M12/25 3.2" (80mm)	HSL M16/25 4.2" (105mm)
ANCHOR SPACING	16" (406mm)	16" (406mm)

* ANCHORS SPECIFIED ABOVE ARE HILTI HEAVY DUTY ANCHORS

NOTES:

1 CONTRACTOR TO INSTALL ANCHORS AS PER SUPPLIER'S SPECIFICATIONS.
2 ASSUMES BRICK INSTALLATION IN ACCORDANCE WITH APPLICABLE CODES.
3 MIN. STEEL Fy=43.5 ksi (300 MPa) YIELD STRENGTH FOR ANGLES
4 ANGLES AND BOLTS TO BE GALVANIZED OR STAINLESS STEEL TO MEET THE REQUIREMENT OF TABLE 5.1 OF A370–04 (CONNECTIONS FOR MASONRY, OR EQUIVALENT STANDARD)

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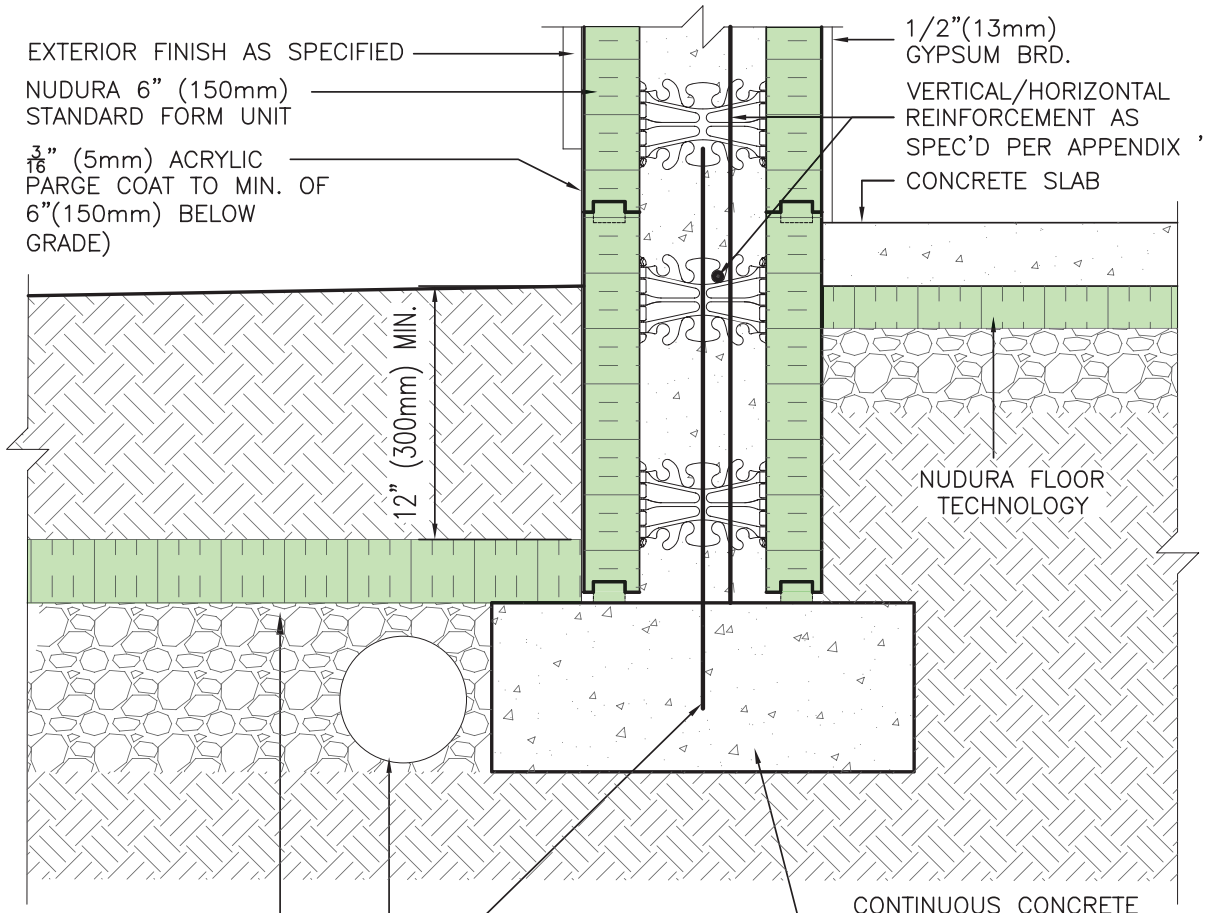
A6B04

NUDURA®
INTEGRATED BUILDING TECHNOLOGY
Building Value.

BRICK SHELF ANGLE
BACK OF ANGLE FLUSH WITH CONCRETE
(POST INSTALLATION MOUNT)

REV. NO. 002 TV	DWG NO. C–11
REV. DATE: JAN 2006	
DRAWN BY J.N / N.L	SCALE: 1 1/2"=1'–0"

C TYPICAL DETAILS (C-12)



LICENSED PROFESSIONAL ENGINEER
S. J. ADEMA
100198
PROVINCE OF ONTARIO
OCT 16 2008

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B6A03

NUDURA®
INTEGRATED BUILDING TECHNOLOGY
Building Value.

STANDARD 6" FORM UNIT
AT SHALLOW INSULATED FOOTING
EXTERIOR FINISH AS SPECIFIED

REV. NO.	DWG NO.
003 TV	C–12
REV. DATE: JAN 2006	
DRAWN BY J.N / N.L	SCALE: 1 1/2"=1'–0"

C TYPICAL DETAILS (C-13)

STRUCTURAL NOTES

(DETAILS C-14, C-15, C-16)

GENERAL NOTES:

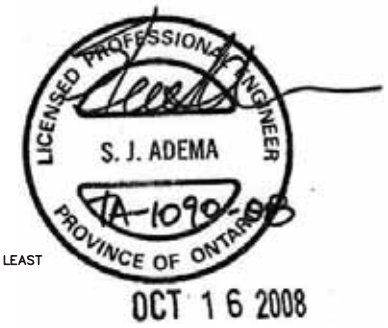
1. THE DESIGN AND CONSTRUCTION OF ALL WORK ON THIS PROJECT SHALL CONFORM TO THE LATEST EDITIONS OF PART 9 OF THE NATIONAL BUILDING CODE, THE ONTARIO BUILDING CODE, LOCAL REGULATIONS AND BYLAWS AND THE OCCUPATIONAL HEALTH AND SAFETY ACT. THIS DESIGN APPLIES TO RESIDENTIAL BUILDINGS ONLY.
2. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND MEASUREMENTS AT THE SITE AND REPORT TO THE ENGINEER ANY DISCREPANCIES OR UNSATISFACTORY CONDITIONS WHICH MAY ADVERSLY AFFECT THE PROPER COMPLETION OF THE PROJECT BEFORE PROCEEDING WITH THE WORK.
3. AN AUTHORIZED NUDURA TRAINED INSTALLER SHALL BE CONTACTED BY THE CONTRACTOR FOR INSPECTIONS OF THE FOUNDATION, REINFORCING STEEL PLACEMENT, ONLY IF REQUIRED BY THE BUILDING OFFICIAL.

DESIGN PARAMETERS:

1. DESIGN LOADS ARE UNFACTORED UNLESS NOTED OTHERWISE:
   - SOIL PRESSURE (LIVE) = 20.4 kN/m3.(130 pcf) DRAINED EARTH IN ACCORDANCE WTH OBC
   - AREA SURCHARGE (LIVE) = 2.4 kPa (50 psf)
2. FOUNDATIONS TO BEAR DIRECTLY ON MATERIAL SUITABLE FOR 75 kPa (1,566 psf) BEARING PRESSURE, UNLESS NOTED. REFER TO SOIL ENGINEERS REPORT FOR FOUNDATION DEPTHS, BEARING PREPARATION, ETC. AS MAY REQUIRED BY LOCAL BUILDING OFFICIAL.
3. SOIL BEARING CAPACITY SPECIFIED MAY NEED TO BE VERIFIED BY A GEOTECHNICAL ENGINEER PRIOR TO THE PLACING OF FOUNDATIONS AND SLABS, ANY NON-CONFORMANCE WITH THE SPECIFIED MINIMUM CATAGORIES MUST BE IMMEDIATELY REPORTED TO THE STRUCTURAL ENGINEER.

CONCRETE AND REINFORCING STEEL:

1. CONCRETE WORK SHALL CONFORM TO THE LATEST EDITIONS OF CSA. A23.1,2&3 FOR MATERIALS AND WORKMANSHIP.
2. USE MIN. GRADE 400(60 ksi)YIELD STRENGTH DEFORMED REBAR PLACED IN ACCORDANCE WITH MANUAL OF STANDARD PRACTICE.
3. THE MINIMUM 28 DAY COMPRESSIVE STRENGTH OF CONCRETE SHALL BE:
   - 20 MPA (2,900 psi) FOR FOOTINGS
   - 20 MPA (2,900 psi) FOR WALLS.
4. ALL CONCRETE SHALL BE TESTED BY A CSA CERTIFIED CONCRETE TESTING LABORATORY.
5. USE HIGH FREDUENCY VIBRATION TO PLACE ALL CONCRETE.
6. ALL CONCRETE SHALL BE KEPT MOIST DURING THE FIRST TWO DAYS OF CURING.
7. MINIMUM BAR LAP LENGTH SHALL BE:
   - 350 mm (14 inches) FOR 10M (No. 4) BARS
8. MAINTAIN THE FOLLOWNG CLEAR CONCRETE COVER TO REINFORCEMENT:
   - 75 mm (3 inches) FOR CONCRETE PLACED AGAINST THE EARTH (BOTTOM OF FOOTINGS).
9. TAKE ADEQUATE MEASURES TO PROTECT CONCRETE FROM EXPOSURE TO FREEZING TEMPERATURES AT LEAST 7 DAYS AFTER CONCRETE PLACEMENT.



FOUNDATIONS:

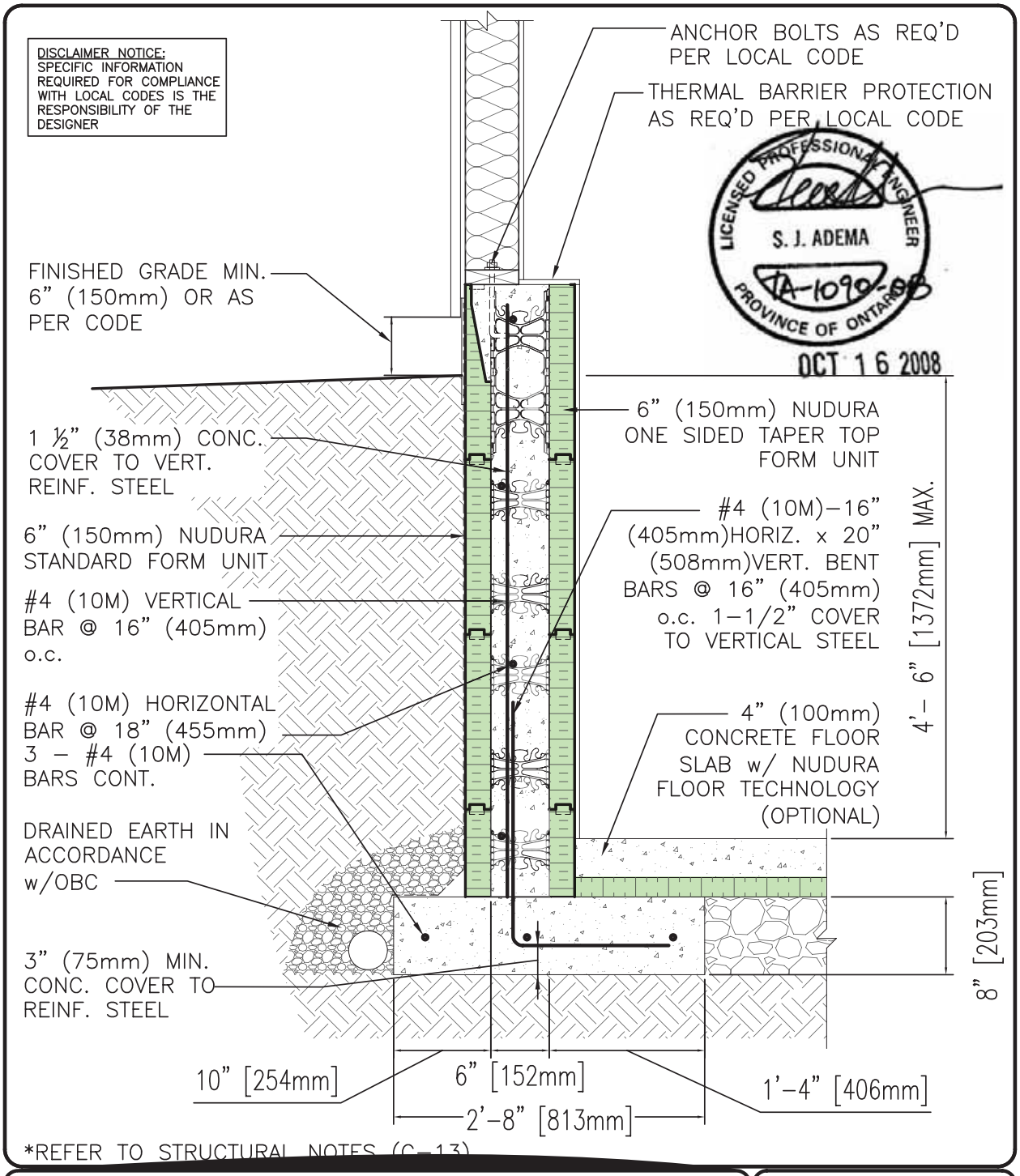
1. FOOTINGS TO BEAR DIRECTLY ON UNDISTURBED NATIVE SOILS OR APPROVED ENGINEERED FILL SUITABLE FOR MINIMUM DESIGN BEARING PRESSURES. (REFER TO SOIL ENGINEERS REPORT FOR RECOMMENDATIONS).
2. SOFT AREAS UNCOVERED DURING EXCAVATION SHALL BE SUB-EXCAVATED TO SOUND MATERIAL AND FILLED WITH CLEAN, FREE DRAINING GRANULAR SOIL COMPACTED TO 100% STANDARD PROCTOR DRY DENSITY (SPDD).
3. DO NOT EXCEED A RISE OF 7 IN A RUN OF 10 (35 DEGREES) IN THE LINE OF SLOPE BETWEEN ADJACENT FOOTING EXCAVATIONS OR ALONG STEPPED FOOTINGS. USE STEPS NOT EXCEEDING 600 mm (24 INCHES) IN HEIGHT AND NOT LESS THAN 600 mm (24 INCHES) IN LENGTH, IN ACCORDANCE WITH OBC 9.15.3.9.
4. MAINTAIN UNSUPPORTED SIDES OF EXCAVATION ONLY IF SAFE INCLINATION OF THE SIDES OF THE EXCAVATION IS PROVOED IN ACCORDANCE WTH THE SOILS ENGINEER'S RECOMMENDATIONS.
5. ERECT, MAINTAIN, AND IF REQUIRED, REMOVE A SUPPORTING SHORING SYSTEM ALONG THE SIDES OF THE EXCAVATION, DESIGNED BY A PROFESSIONAL ENGINEER, IN ACCORDANCE WITH THE SOILS REPORT AND WPHMS OR OHSA STANDARDS.
6. PROTECT SOIL FROM FREEZING ADJACENT TO AND BELOW ALL FOOTINGS.
7. BACKFILL AGAINST FOUNDATION WALL IN SUCH A MANNER THAT THE LEVEL OF BACKFILL MATERIAL ON ONE SIDE OF THE WALL IS NEVER MORE THAN 450 mm (18 INCHES) DIFFERENT FROM THE LEVEL ON THE LOWER SIDE OF THE WALL, EXCEPT WHERE TEMPORARY SUPPORT FOR THE WALL IS PROVIDED OR WALLS ARE DESIGNED FOR SUCH UNEVEN PRESSURES (AS IN ATTACHED DETAIL).
8. SHOULD UNDERGROUND WATER BE ENCOUNTERED, PROVDE DE-WATERING FACILITIES TO KEEP WATER LEVEL BELOW FOOTINGS AND POUR AN ADDITIONAL 75 mm (3") LAYER OF LEAN CONCRETE UNDER ALL FOOTINGS.
9. LOCATE ALL FOOTINGS AND PIERS CENTRALLY UNDER COLUMNS AND WALLS UNLESS NOTED OTHERWISE.

NUDURA®
INTEGRATED BUILDING TECHNOLOGY
Building Value.

LATERALLY UNSUPPORTED KNEE WALL DETAILS FOR BASEMENT 6" (150mm) FORM ONE STOREY WOOD FRAME BRICK AND NON-BRICK FINISH

REV. NO.	DWG NO.
001 KS	C-13
REV. DATE: SEPT 2008	
DRAWN BY T. VAN CLIEAF	SCALE:

C TYPICAL DETAILS (C-14)

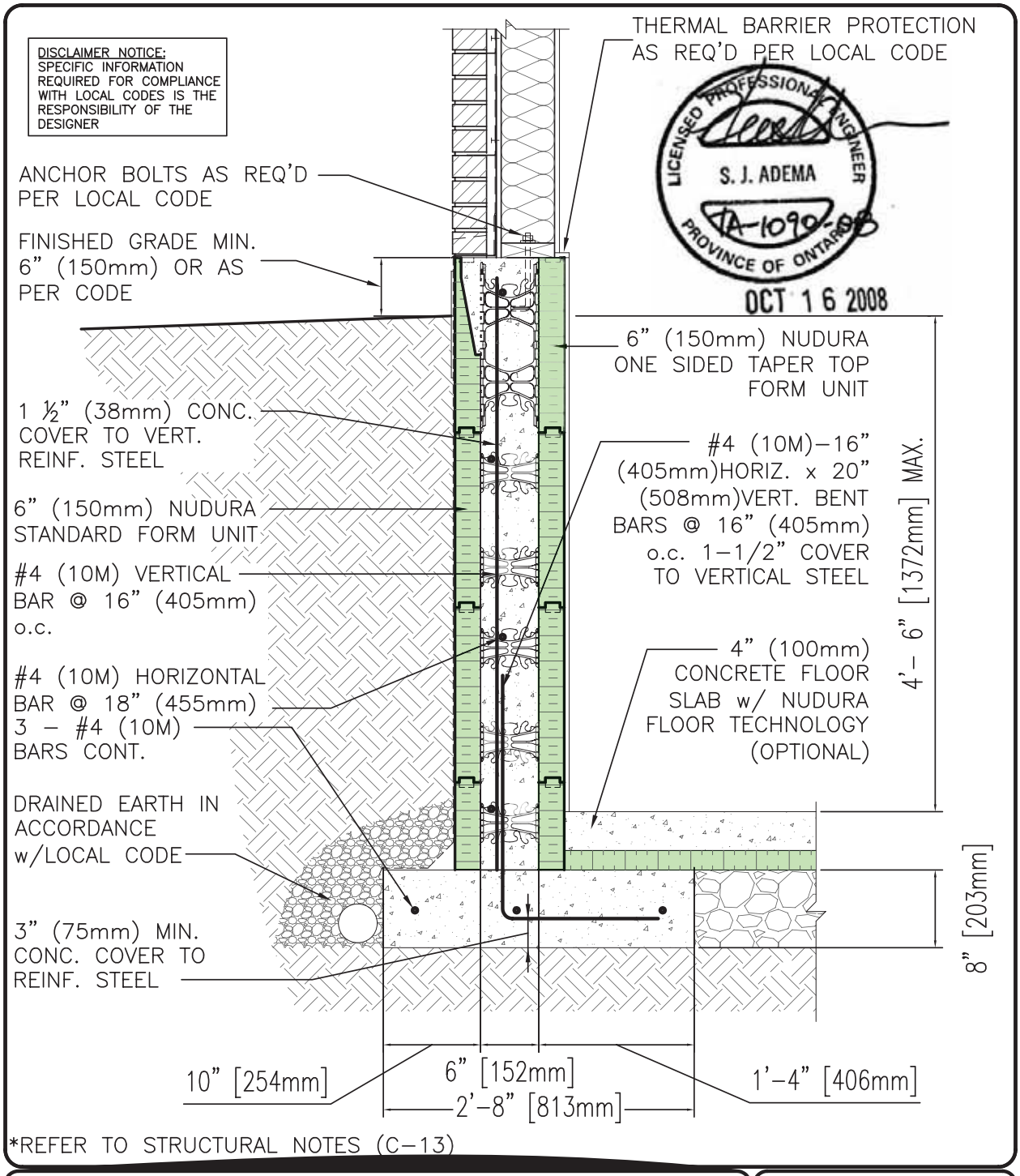


NUDURA®
INTEGRATED BUILDING TECHNOLOGY
Building Value.

KNEE WALL DETAIL
BASEMENT 6" (150mm) FORM
ONE STOREY WOOD FRAME
NON–BRICK FINISH

REV. NO. 001 KS	DWG NO. C–14
REV. DATE: SEPT 2008	
DRAWN BY T. VAN CLIEAF	SCALE: "Not to Scale"

C TYPICAL DETAILS (C-15)

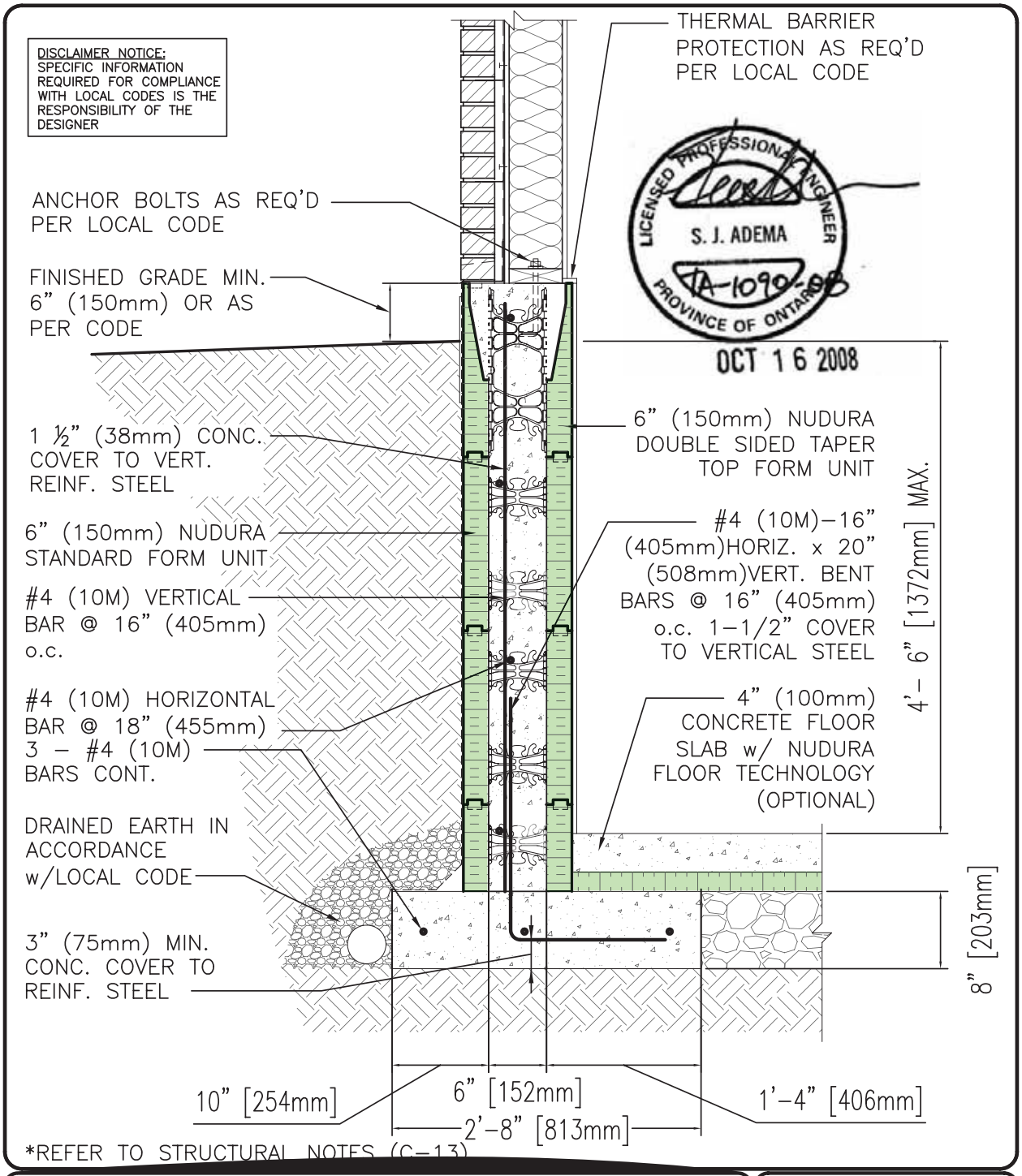


NUDURA®
INTEGRATED BUILDING TECHNOLOGY
Building Value.

KNEE WALL DETAIL
BASEMENT 6" (150mm) FORM
ONE STOREY WOOD FRAME
BRICK FINISH

REV. NO. 001 KS	DWG NO. C–15
REV. DATE: SEPT 2008	
DRAWN BY K. STILL	SCALE: "Not to Scale"

C TYPICAL DETAILS (C-16)



NUDURA® INTEGRATED BUILDING TECHNOLOGY
Building Value.

KNEE WALL DETAIL
BASEMENT 6" (150mm) FORM
ONE STOREY WOOD FRAME
BRICK FINISH

REV. NO. 001 KS	DWG NO. C–16
REV. DATE: SEPT 2008	
DRAWN BY K. STILL	SCALE: "Not to Scale"