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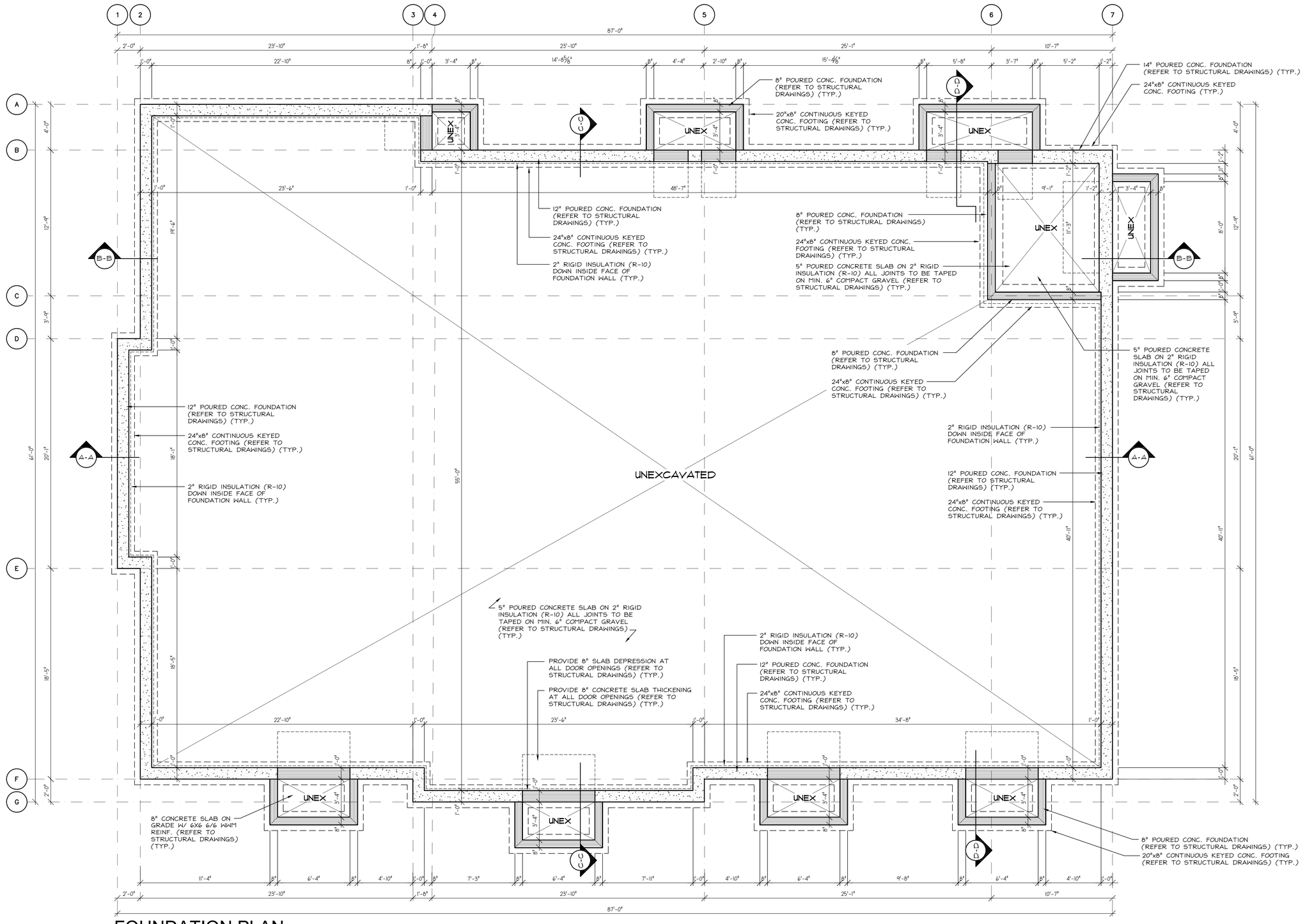

FOUNDATION PLAN

NO.	DATE	REVISION	BY.
1.	05/09/19	REVISED AS PER PRE-CON COMMENTS	D.R.
2.	19/09/19	REVISED AS PER PRE-CON COMMENTS	D.R.
3.	20/02/20	MATERIAL COLOURS ADDED	D.R.
4.	07/06/20	HYDRO METER LOCATION ADDED	D.R.
5.	01/09/21	ISSUED FOR FINAL	D.R.

The undersigned has reviewed and takes responsibility for this design, and has the qualifications and meets the requirements set out in the Ontario Building Code to be a designer.

QUALIFICATION INFORMATION
Required unless design is exempt under 3.2.4. of Divisions C, of the building code

NAME	SIGNATURE	BCIN
R. ABBOTT		24738

REGISTRATION INFORMATION
Required unless design is exempt under 3.2.4. of Divisions C, of the building code

FIRM NAME	BCIN
RAY ABBOTT LTD.	29540

abbott
drafting & design
DIVISION OF RAY ABBOTT LTD.
OSHAWA TEL: (905)725-6001 FAX: (905)725-1086

DRAWING: FOUNDATION PLAN
DRAWN: D.B.R.
SCALE: 1/4"=1'-0"
DRAWING NO. A-1
PLOTTED: 01/09/21
PROJECT NO. 16-001

PROPOSED RETAIL COMMERCAIL BUILDING FOR:
DR. MICHAEL PELLEGRINO
121 KENDALWOOD ROAD
WHITBY, ONTARIO

NOTE:
DO NOT SCALE DRAWINGS
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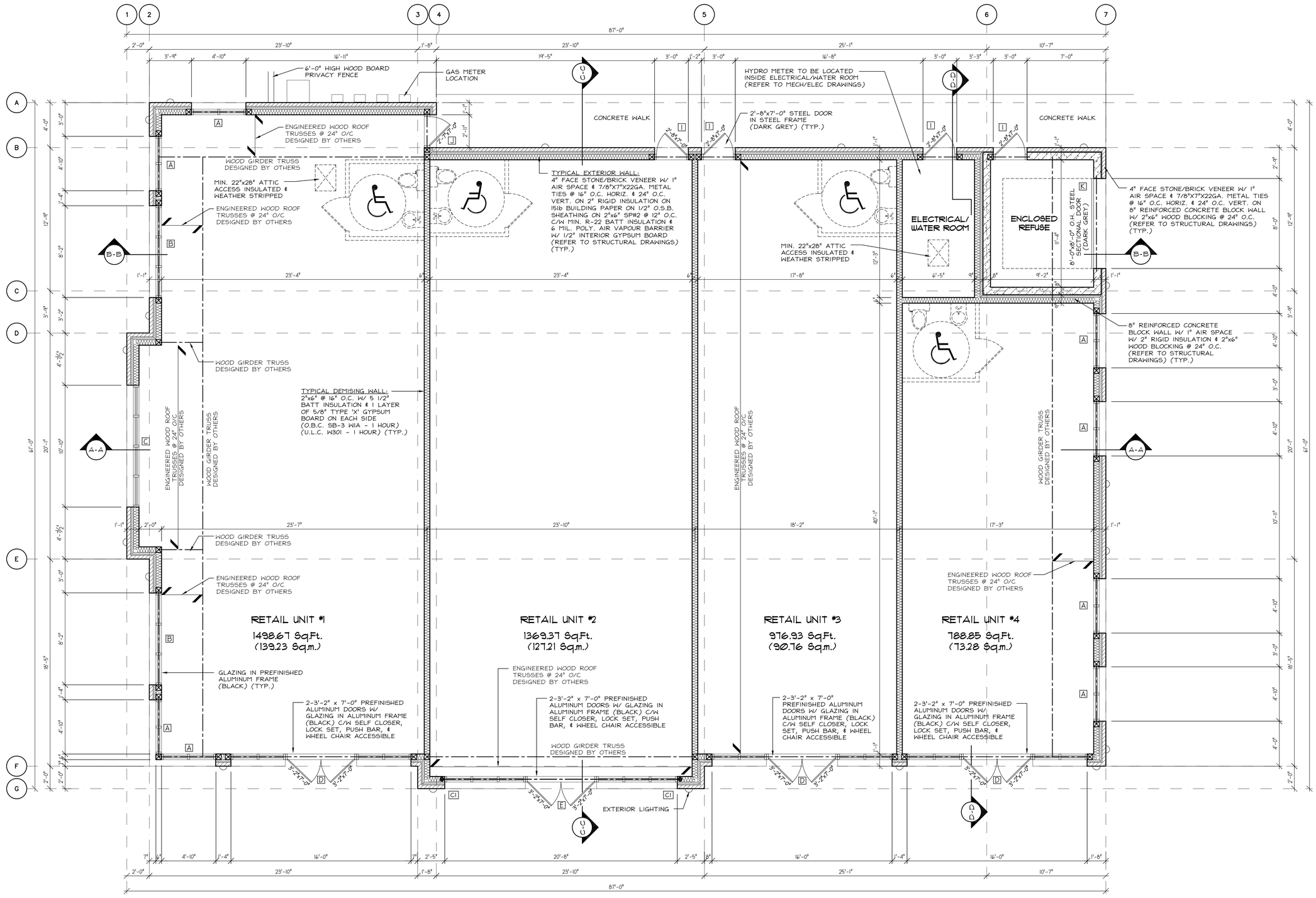

MAIN FLOOR PLAN

NO.	DATE	REVISION	BY.
1.	05/09/19	REVISED AS PER PRE-CON COMMENTS	D.R.
2.	19/09/19	REVISED AS PER PRE-CON COMMENTS	D.R.
3.	20/02/20	MATERIAL COLOURS ADDED	D.R.
4.	07/06/20	HYDRO METER LOCATION ADDED	D.R.
5.	01/09/21	ISSUED FOR FINAL	D.R.

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QUALIFICATION INFORMATION
Required unless design is exempt under 3.2.4. of Divisions C, of the building code
R. ABBOTT — NAME — SIGNATURE — 24738 BCIN

REGISTRATION INFORMATION
Required unless design is exempt under 3.2.4. of Divisions C, of the building code
RAY ABBOTT LTD. — FIRM NAME — 29540 BCIN

abbott drafting & design
DIVISION OF RAY ABBOTT LTD.
OSHAWA TEL: (905)725-6001 FAX: (905)725-1086

DRAWING: MAIN FLOOR PLAN
DRAWN: D.B.R.
SCALE: 1/4"=1'-0"
DRAWING NO. A-2
PLOTTED: 01/09/21
PROJECT NO. 16-001

PROPOSED RETAIL COMMERCAIL BUILDING FOR:
DR. MICHAEL PELLEGRINO
121 KENDALWOOD ROAD
WHITBY, ONTARIO

NOTE:
DO NOT SCALE DRAWINGS
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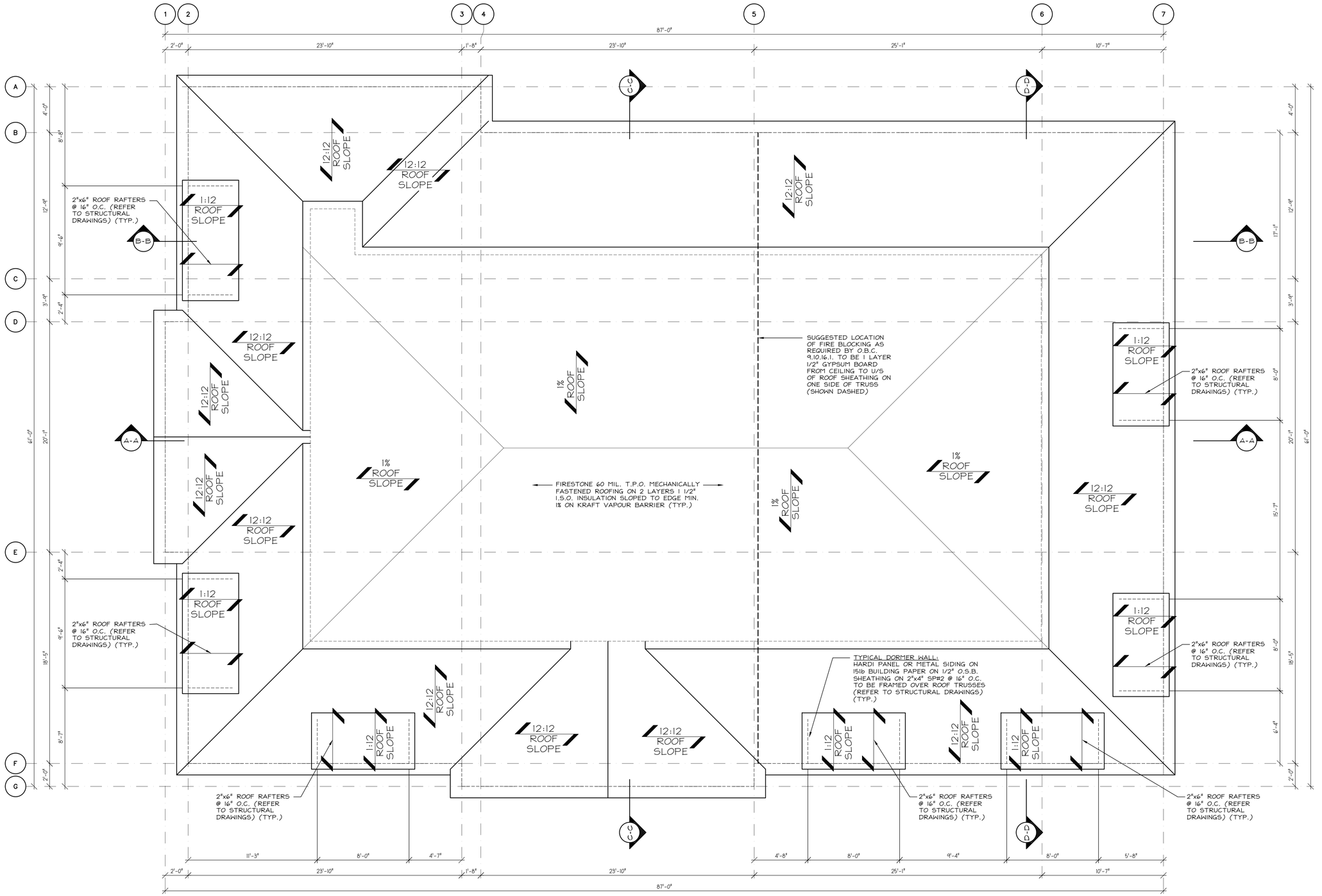

DORMER FRAMING PLAN

NO.	DATE	REVISION	BY.
1.	05/09/19	REVISED AS PER PRE-CON COMMENTS	D.R.
2.	19/09/19	REVISED AS PER PRE-CON COMMENTS	D.R.
3.	20/02/20	MATERIAL COLOURS ADDED	D.R.
4.	07/06/20	HYDRO METER LOCATION ADDED	D.R.
5.	01/09/21	ISSUED FOR FINAL	D.R.

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QUALIFICATION INFORMATION
Required unless design is exempt under 3.2.4. of Division C, of the building code

NAME	SIGNATURE	BCIN
R. ABBOTT		24738

REGISTRATION INFORMATION
Required unless design is exempt under 3.2.4. of Division C, of the building code

FIRM NAME	BCIN
RAY ABBOTT LTD.	29540

abbott drafting & design
DIVISION OF RAY ABBOTT LTD.
OSHAWA TEL: (905)725-6001 FAX: (905)725-1086

DRAWING: ROOF FRAMING PLAN
DRAWN: D.B.R.
SCALE: 1/4"=1'-0"
DRAWING NO. A-3
PLOTTED: 01/09/21
PROJECT NO. 16-001

PROPOSED RETAIL COMMERCAIL BUILDING FOR:
DR. MICHAEL PELLEGRINO
121 KENDALWOOD ROAD
WHITBY, ONTARIO

NOTE:
DO NOT SCALE DRAWINGS
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NOTE:
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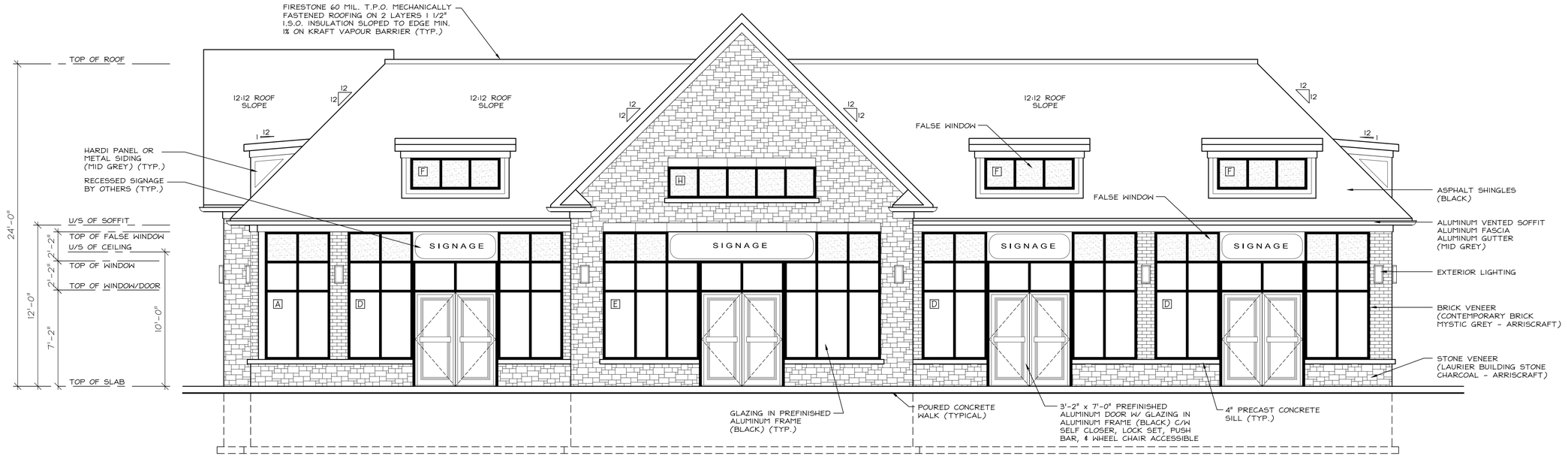
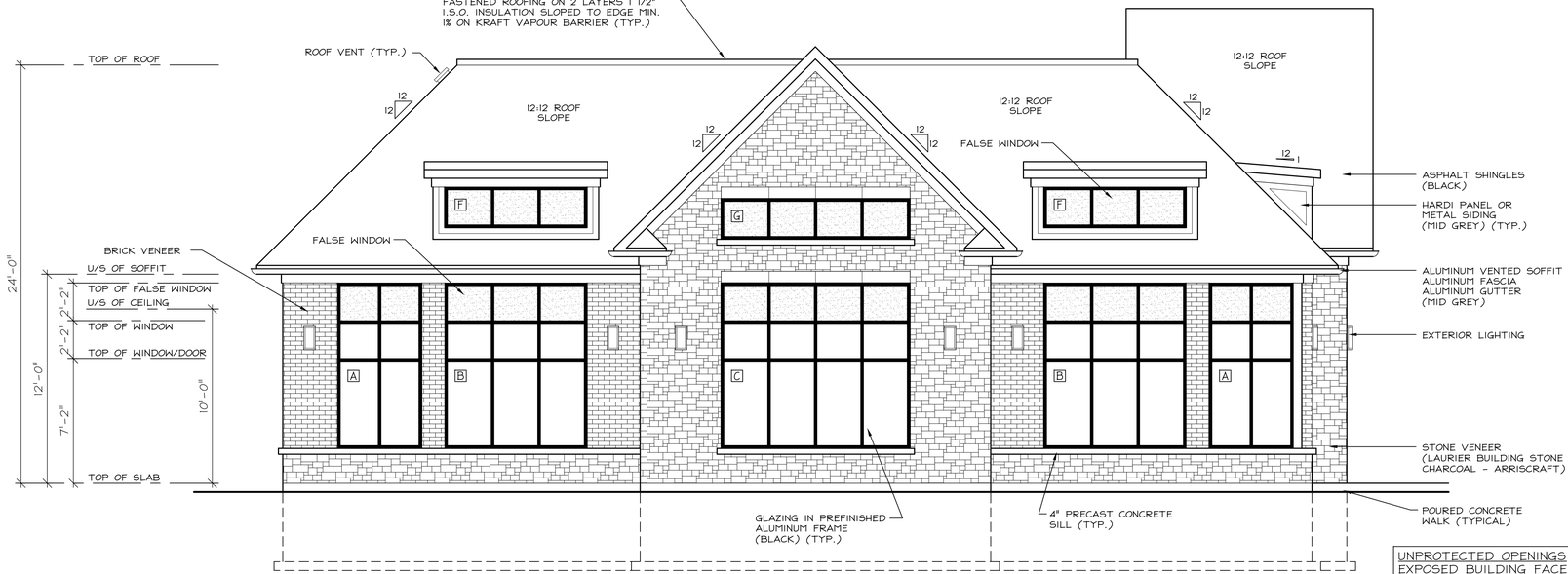


SOUTH ELEVATION

UNPROTECTED OPENINGS	
EXPOSED BUILDING FACE	= 1240.66 Sq,.Ft.
LIMITING DISTANCE	= 44'-8" @ 100%
BUILDING RATIO	= 3:1 TO 10:1
ALLOWABLE OPENINGS	= 1240.66 Sq,Ft.
PROVIDED OPENINGS	= 589.66 Sq,Ft. (47.53%)



WEST ELEVATION

UNPROTECTED OPENINGS	
EXPOSED BUILDING FACE	= 884.57 Sq,.Ft.
LIMITING DISTANCE	= 63'-6" @ 100%
BUILDING RATIO	= LESS THAN 3:1
ALLOWABLE OPENINGS	= 884.57 Sq,Ft.
PROVIDED OPENINGS	= 269.52 Sq,Ft. (30.47%)

NO.	DATE	REVISION	BY.
1.	05/09/19	REVISED AS PER PRE-CON COMMENTS	D.R.
2.	19/09/19	REVISED AS PER PRE-CON COMMENTS	D.R.
3.	20/02/20	MATERIAL COLOURS ADDED	D.R.
4.	01/09/21	ISSUED FOR FINAL	D.R.

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QUALIFICATION INFORMATION
Required unless design is exempt under 3.2.4. of Divisions C, of the building code

R. ABBOTT — 24738
NAME — SIGNATURE — BCIN

REGISTRATION INFORMATION
Required unless design is exempt under 3.2.4. of Divisions C, of the building code

RAY ABBOTT LTD. — 29540
FIRM NAME — BCIN

abbott drafting & design
DIVISION OF RAY ABBOTT LTD.
OSHAWA TEL: (905)725-6001 FAX: (905)725-1086

DRAWING: SOUTH & WEST ELEVATIONS
DRAWN: D.B.R.
SCALE: 1/4"=1'-0"
DRAWING NO. A-4
PLOTTED: 01/09/21
PROJECT NO. 16-001

PROPOSED RETAIL COMMERCAIL BUILDING FOR:
DR. MICHAEL PELLEGRINO
121 KENDALWOOD ROAD
WHITBY, ONTARIO

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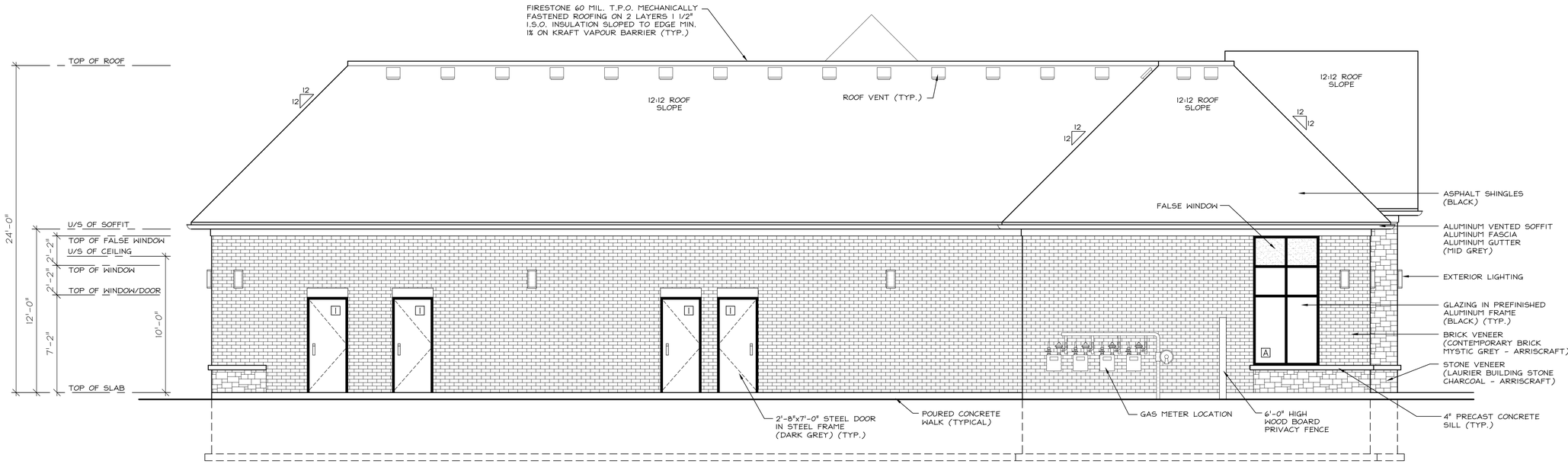
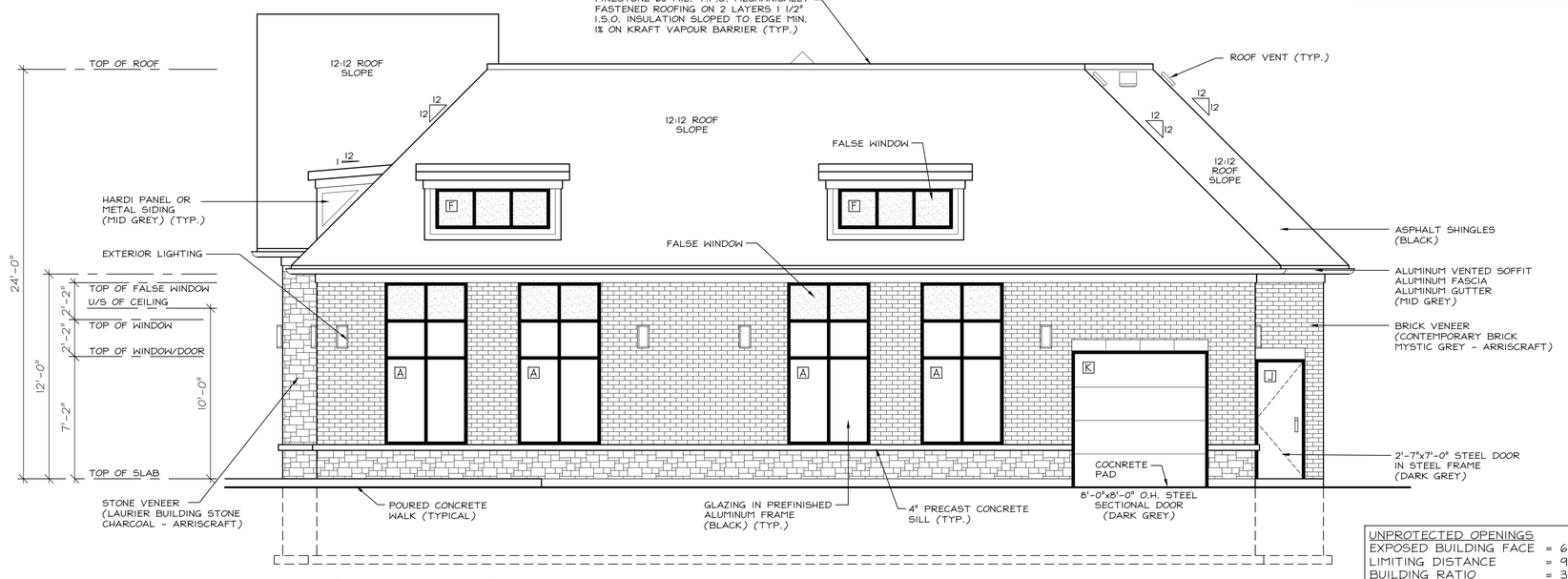


NORTH ELEVATION

UNPROTECTED OPENINGS	
EXPOSED BUILDING FACE	= 1032.71 Sq.Ft.
LIMITING DISTANCE	= 4'-0" @ 7%
BUILDING RATIO	= 3:1 TO 10:1
ALLOWABLE OPENINGS	= 72.23 Sq.Ft.
PROVIDED OPENINGS	= 35.30 Sq.Ft. (3.42%)



EAST ELEVATION

UNPROTECTED OPENINGS	
EXPOSED BUILDING FACE	= 680.92 Sq.Ft.
LIMITING DISTANCE	= 91'-4" @ 100%
BUILDING RATIO	= 3:1 TO 10:1
ALLOWABLE OPENINGS	= 680.92 Sq.Ft.
PROVIDED OPENINGS	= 141.20 Sq.Ft. (20.74%)

NO.	DATE	REVISION	BY.
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2.	19/09/19	REVISED AS PER PRE-CON COMMENTS	D.R.
3.	20/02/20	MATERIAL COLOURS ADDED	D.R.
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R. ABBOTT — 24738
NAME — SIGNATURE — BCIN

REGISTRATION INFORMATION
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RAY ABBOTT LTD. — 29540
FIRM NAME — BCIN

abbott
drafting & design
DIVISION OF RAY ABBOTT LTD.
OSHAWA TEL: (905)725-6001 FAX: (905)725-1086

DRAWING: NORTH & EAST ELEVATIONS
DRAWN: D.B.R.
SCALE: 1/4"=1'-0"
DRAWING NO. A-5
PLOTTED: 01/09/21
PROJECT NO. 16-001

PROPOSED RETAIL COMMERCAIL BUILDING FOR:
DR. MICHAEL PELLEGRINO
121 KENDALWOOD ROAD
WHITBY, ONTARIO

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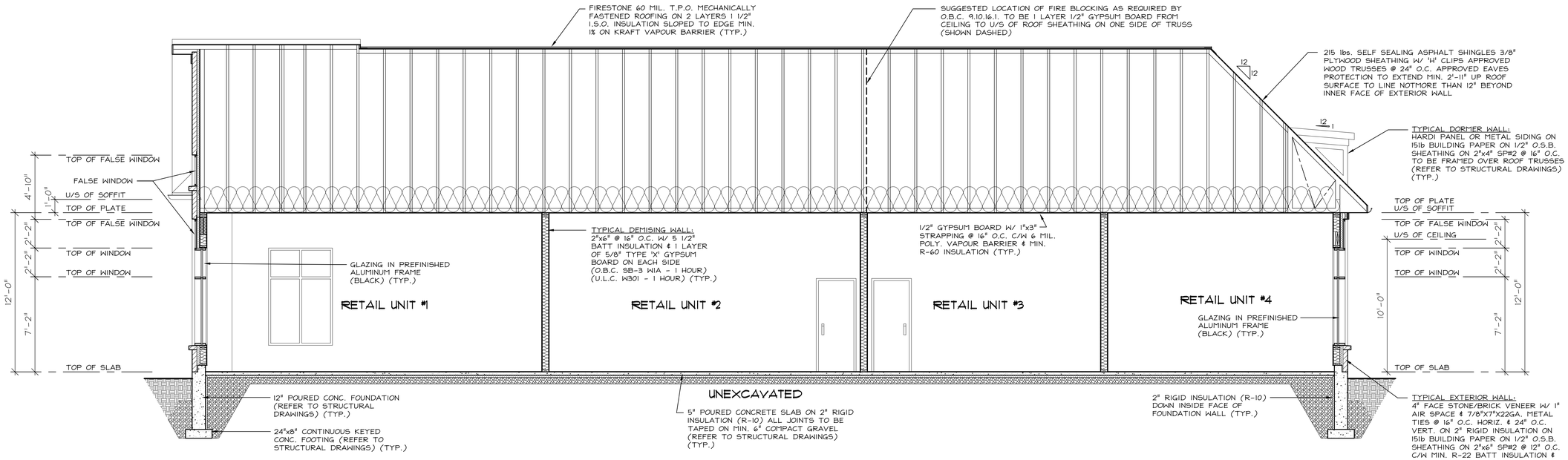
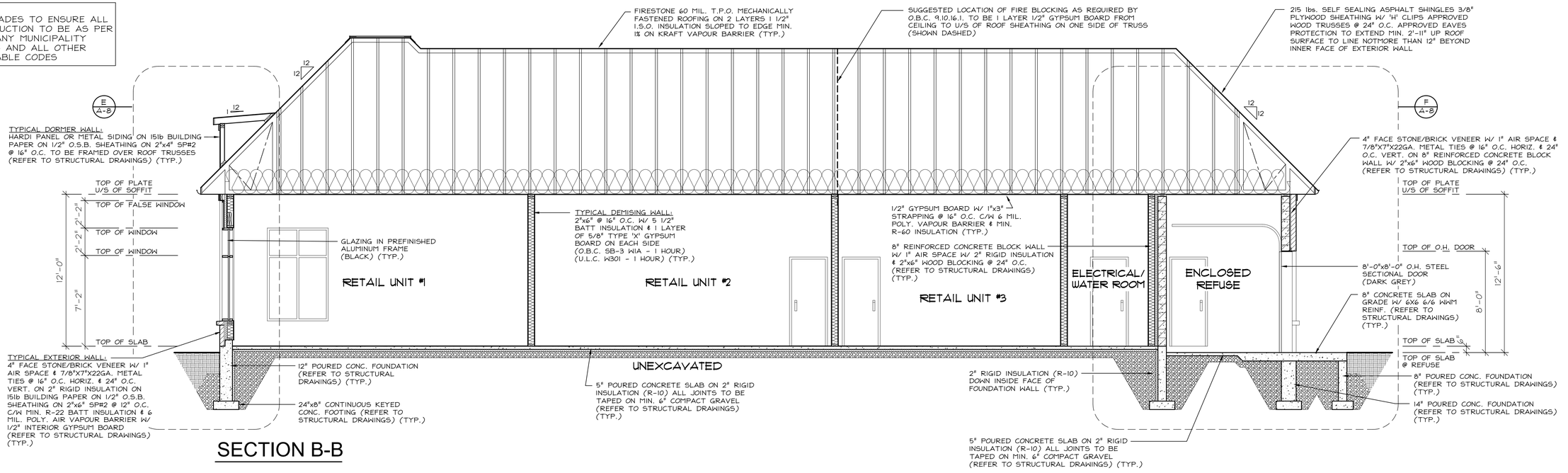


SECTION A-A



SECTION B-B

NO.	DATE	REVISION	BY.
1.	01/09/21	ISSUED FOR FINAL	D.R.

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QUALIFICATION INFORMATION
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R. ABBOTT — 24738
NAME — SIGNATURE — BCIN

REGISTRATION INFORMATION
Required unless design is exempt under 3.2.4. of Divisions C, of the building code

RAY ABBOTT LTD. — 29540
FIRM NAME — BCIN

abbott drafting & design
DIVISION OF RAY ABBOTT LTD.
OSHAWA TEL: (905)725-6001 FAX: (905)725-1086

DRAWING: BUILDING SECTIONS A-A & B-B
DRAWN: D.B.R.
SCALE: 1/4"=1'-0"
DRAWING NO. A-6
PLOTTED: 01/09/21
PROJECT NO. 16-001

PROPOSED RETAIL COMMERCAIL BUILDING FOR:
DR. MICHAEL PELLEGRINO
121 KENDALWOOD ROAD
WHITBY, ONTARIO

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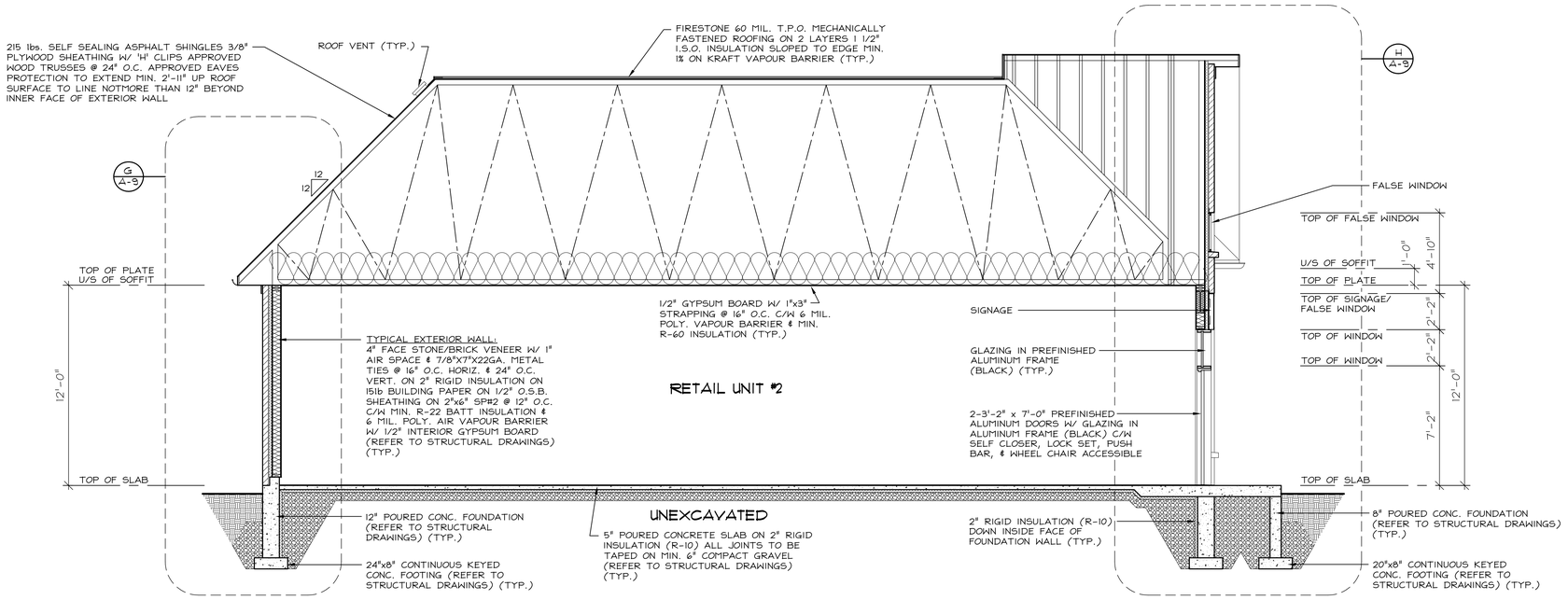
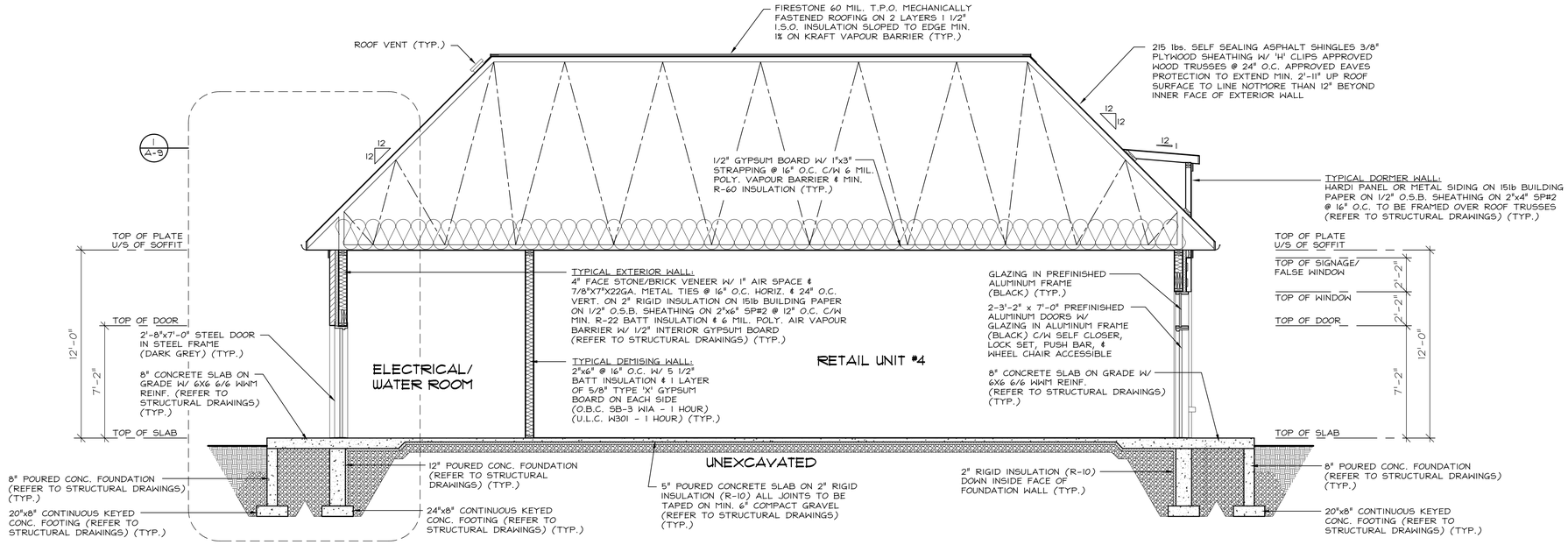


SECTION C-C



SECTION D-D

NO.	DATE	REVISION	BY.
1.	01/09/21	ISSUED FOR FINAL	D.R.

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QUALIFICATION INFORMATION
Required unless design is exempt under 3.2.4. of Divisions C, of the building code

R. ABBOTT — 24738
NAME — SIGNATURE — BCIN

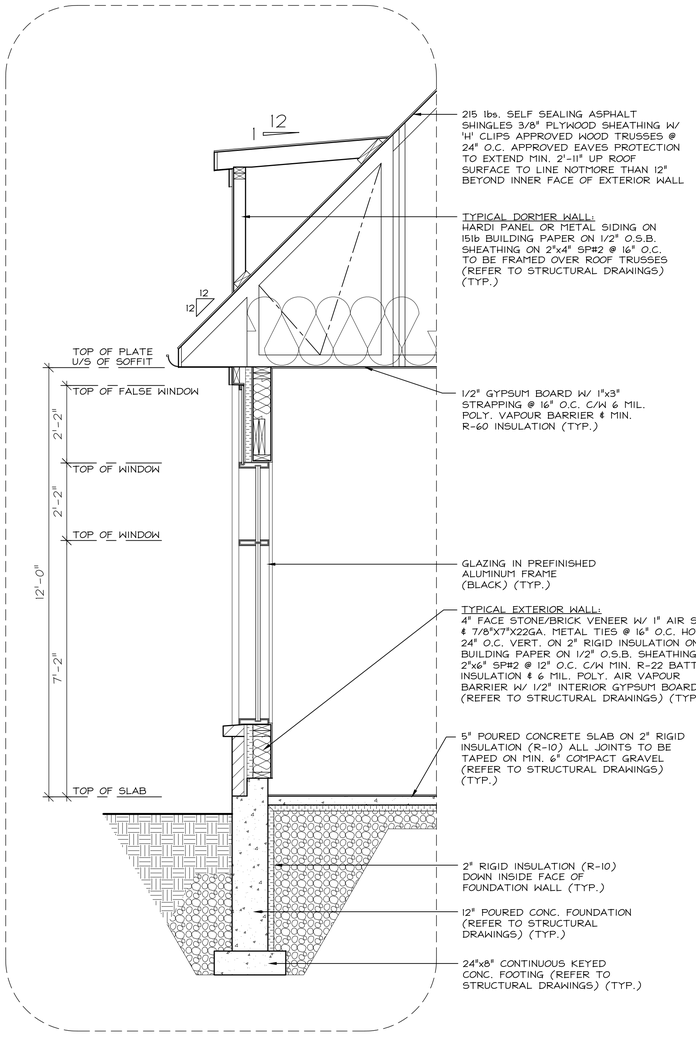
REGISTRATION INFORMATION
Required unless design is exempt under 3.2.4. of Divisions C, of the building code

RAY ABBOTT LTD. — 29540
FIRM NAME — BCIN

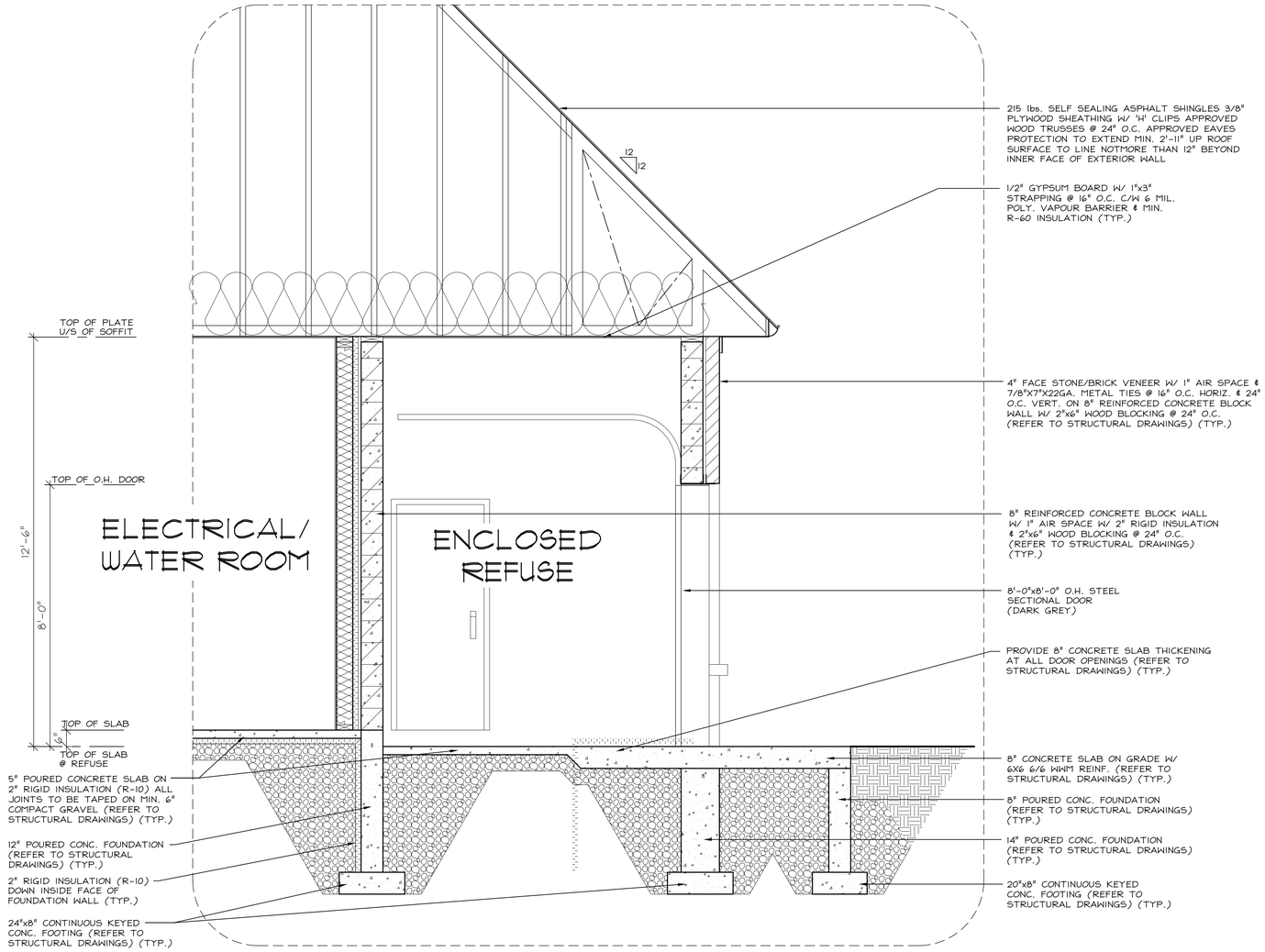
abbott
drafting & design
DIVISION OF RAY ABBOTT LTD.
OSHAWA TEL: (905)725-6001 FAX: (905)725-1086

DRAWING: BUILDING SECTIONS C-C & D-D
DRAWN: D.B.R.
SCALE: 1/4"=1'-0"
DRAWING NO. A-7
PLOTTED: 01/09/21
PROJECT NO. 16-001

PROPOSED RETAIL COMMERCAIL BUILDING FOR:
DR. MICHAEL PELLEGRINO
121 KENDALWOOD ROAD
WHITBY, ONTARIO



WALL SECTION E



WALL SECTION F

NO.	DATE	REVISION	BY.
1.	01/09/21	ISSUED FOR FINAL	D.R.

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R. ABBOTT — 24738
NAME — SIGNATURE — BCIN

REGISTRATION INFORMATION
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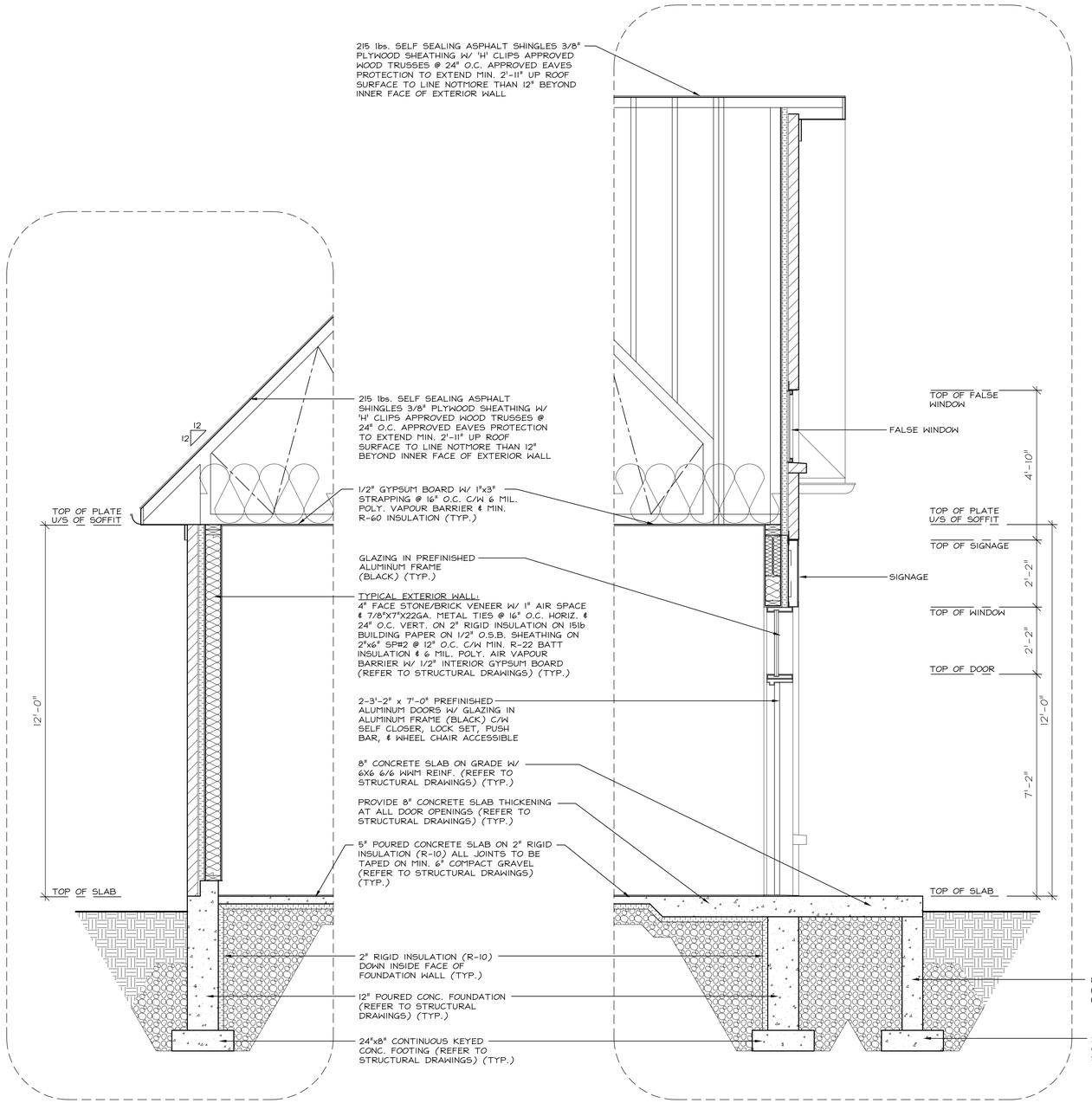
RAY ABBOTT LTD. — 29540
FIRM NAME — BCIN

abbott drafting & design
DIVISION OF RAY ABBOTT LTD.
OSHAWA TEL: (905)725-6001 FAX: (905)725-1086

DRAWING: WALL SECTIONS E & F
DRAWN: D.B.R.
SCALE: 1/4"=1'-0"
DRAWING NO. A-8
PLOTTED: 01/09/21
PROJECT NO. 16-001

PROPOSED RETAIL COMMERCAIL BUILDING FOR:
DR. MICHAEL PELLEGRINO
121 KENDALWOOD ROAD
WHITBY, ONTARIO



WALL SECTION G

WALL SECTION H

WALL SECTION I

NO.	DATE	REVISION	BY.
1.	01/09/21	ISSUED FOR FINAL	D.R.

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QUALIFICATION INFORMATION
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R. ABBOTT — 24738
NAME — SIGNATURE — BCIN

REGISTRATION INFORMATION
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RAY ABBOTT LTD. — 29540
FIRM NAME — BCIN

abbott drafting & design
DIVISION OF RAY ABBOTT LTD.
OSHAWA TEL: (905)725-6001 FAX: (905)725-1086

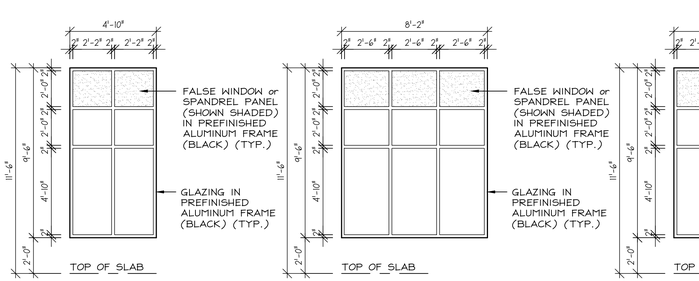
DRAWING: WALL SECTIONS G, H & I

DRAWN: D.B.R.
SCALE: 1/4"=1'-0"
DRAWING NO. A-9
PLOTTED: 01/09/21
PROJECT NO. 16-001

PROPOSED RETAIL COMMERCAIL BUILDING FOR:

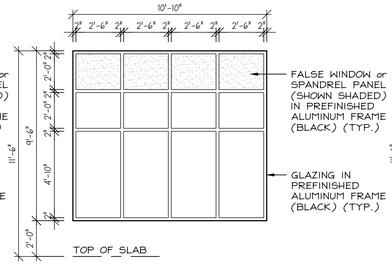
DR. MICHAEL PELLEGRINO

121 KENDALWOOD ROAD
WHITBY, ONTARIO



TYPE A

TYPE B



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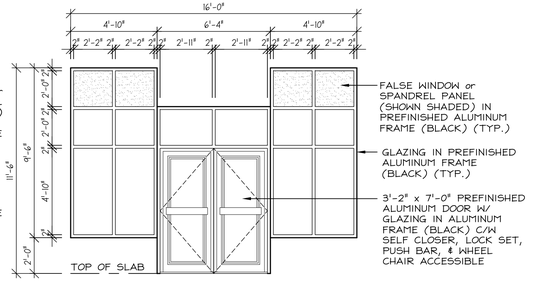

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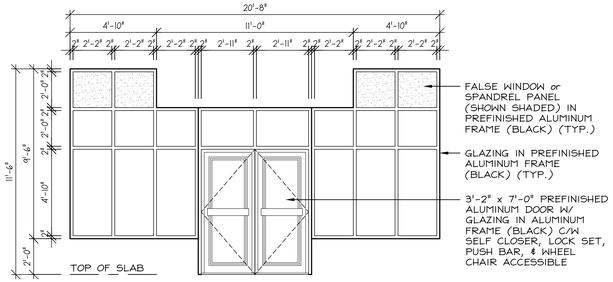

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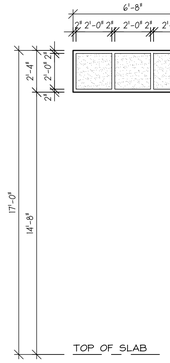

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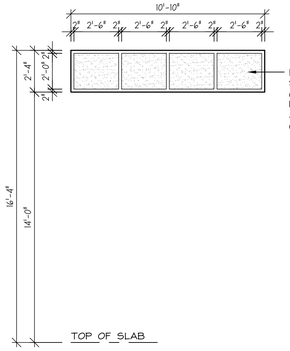

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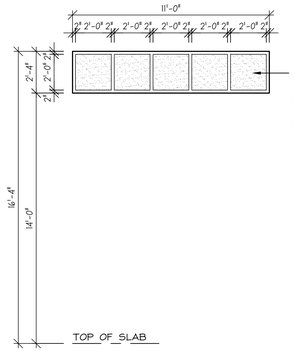

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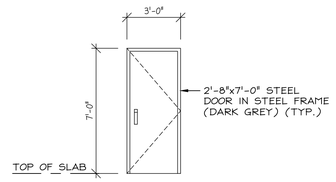

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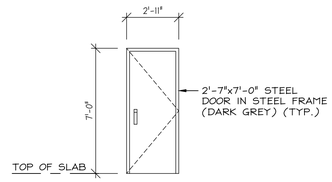

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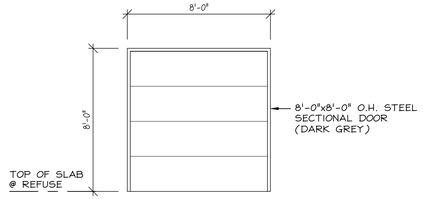
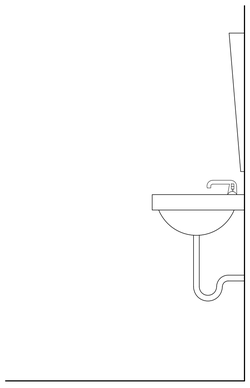
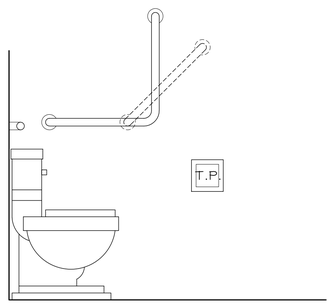


TYPE K

WINDOW & DOOR ELEVATIONS



CLEARANCES BENEATH A LAVATORY



WATER CLOSET & GRAB BARS

DOORS

A MINIMUM 900mm DOOR IS REQUIRED W/ A MINIMUM UNOBSTRUCTED CLEAR WIDTH OF 850mm. THE DOOR MUST SWING OUT, UNLESS ENOUGH AREA IS PROVIDED WITHOUT INTERFERING W/ THE WHEELCHAIR. DOORS MAY BE LOCKABLE, BUT CAPABLE OF EMERGENCY RELEASE FROM THE OUTSIDE. DOOR OPENING DEVICES SHALL BE LEVER TYPE DESIGN THAT DOES NOT REQUIRE TIGHT GRASPING OR TWISTING OF THE WRIST. A DOOR CLOSER & A POWER OPERATOR IS REQUIRED WHERE THE DOOR OPENS OUTWARD.

WATER CLOSET

A SEAT HEIGHT OF 400mm TO 460mm IS REQUIRED. FLUSHING CONTROLS MUST BE EASILY ACCESSIBLE TO A WHEELCHAIR USER OR BE AUTOMATICALLY OPERABLE. A BACK SUPPORT IS REQUIRED WHERE THER IS NO SEAT LID OR TANK. SEATS MUST NOT BE SPRING-ACTIVATED

ACCESSORIES

A COAT HOOK MUST BE PROVIDED. ALL ACCESSORIES SUCH AS SOAP AND TOWEL DISPENSERS, MUST BE MOUNTED NOT MORE THAN 41200mm FROM THE FLOOR. TOILET PAPER DISPENSERS SHALL BE LOCATED (BELOW THE GRAB BAR) WITHIN 300mm IN FRONT OF THE TOILET SEAT AND MORE THAN 600mm ABOVE THE FLOOR

LAVATORIES

MUST BE NOT MORE THAN 840mm FROM THE TOP OF A BASIN OR VANITY TO THE FLOOR. A 760mm WIDE AREA REQUIRES THE FOLLOWING CLEARANCES BENEATH THE LAVATORY: 735mm UNDER THE FRONT EDGE; 685mm AT A POINT 205mm BACK FROM THE FRONT EDGE; 230mm OVER THE DISTANCE FROM A POINT 280mm TO A POINT 430mm BACK FROM THE FRONT EDGE. INSULATED PLUMBING OR WATER SUPPLY TEMPERATURE LIMITED TO 43° TO PREVENT BURNS. FAUCET HANDLES OF THE LEVER-TYPE OR AUTOMATICALLY OPERABLE ARE REQUIRED, AND MUST NOT BE SPRING-LOADED NOR LOCATED NO FURTHER THAN 485mm FROM THE CENTRE LINE TO THE FRONT EDGE OF THE BASIN OR VANITY.

GRAB BARS

TWO ARE REQUIRED, ONE BEHIND THE WATER CLOSET, THE OTHER TO BE MOUNTED BESIDE THE WATER CLOSET. SEE THE DRAWINGS ABOVE FOR DIMENSIONING. GRAB BARS MUST BE SLIP RESISTANT, 30mm TO 40mm DIAMETER, AND MUST SUPPORT A LOAD UP TO 1.3kN APPLIED VERTICALLY & HORIZONTALLY. GRAB BARS MUST BE ATTACHED WITH SREWS WHICH PENETRATE AT LEAST 32mm INTO THE SOLID BLOCKING.

BARRIER FREE WASHROOM DETAILS

NO.	DATE	REVISION	BY.
1.	01/09/21	ISSUED FOR FINAL	D.R.

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NAME — SIGNATURE — BCIN

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RAY ABBOTT LTD. — 29540
FIRM NAME — BCIN

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drafting & design
DIVISION OF RAY ABBOTT LTD.
OSHAWA TEL: (905)725-6001 FAX: (905)725-1086

DRAWING: DETAILS
DRAWN: D.B.R.
SCALE: 1/4"=1'-0"
DRAWING NO. A-10
PLOTTED: 01/09/21
PROJECT NO. 16-001

PROPOSED RETAIL COMMERCAIL BUILDING FOR:
DR. MICHAEL PELLEGRINO
121 KENDALWOOD ROAD
WHITBY, ONTARIO

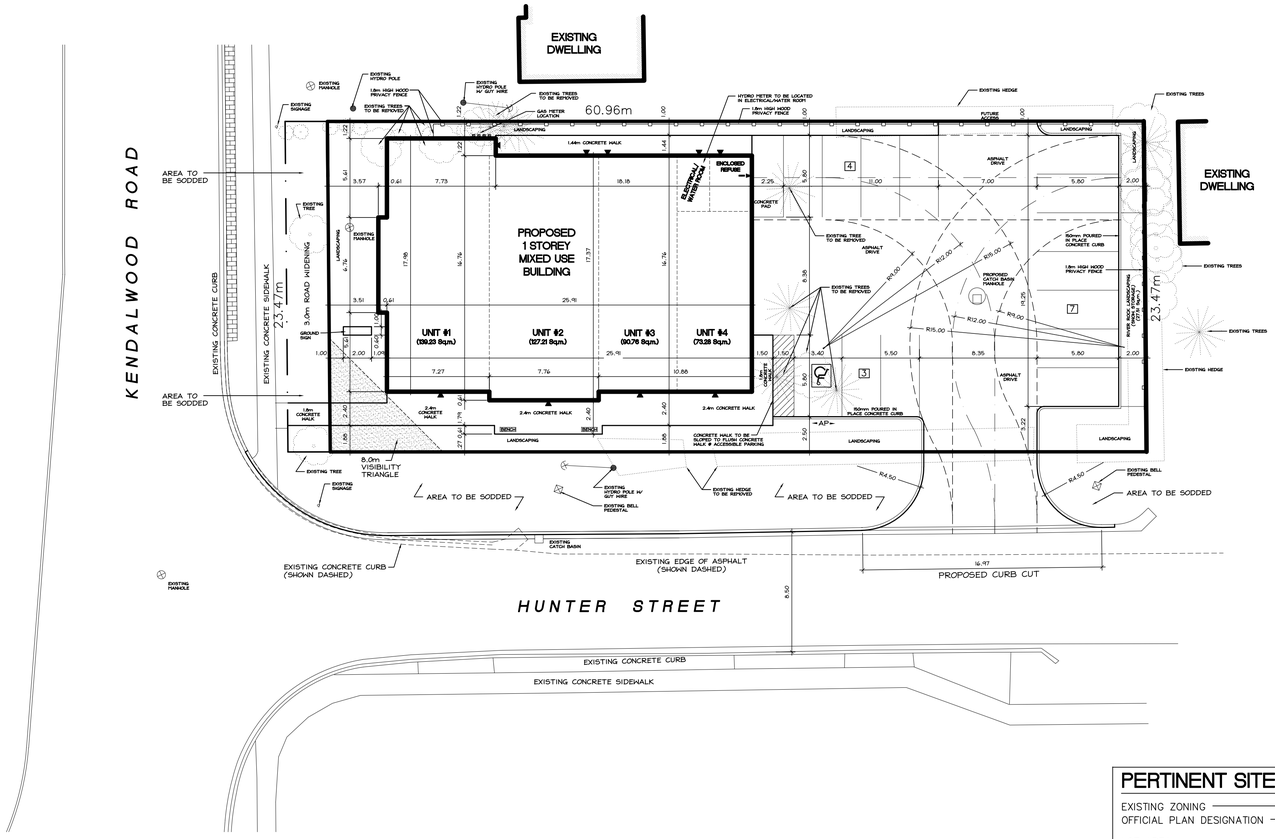
SURVEY INFORMATION

INFORMATION TAKEN FROM

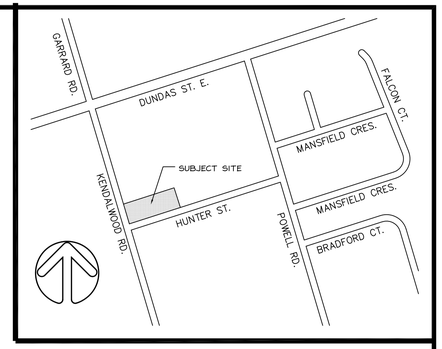
PLAN OF SURVEY
SHOWING BUILDING LOCATIONS ON

LOT 10
REGISTERED PLAN 534

TOWN OF WHITBY
REGIONAL MUNICIPALITY OF DURHAM

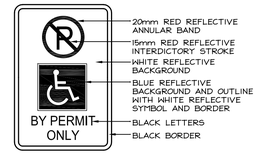


PROPOSED SITE DEVELOPMENT PLAN



KEY PLAN

NOT TO SCALE

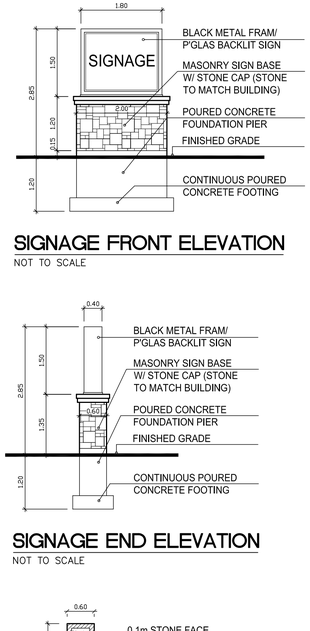


ACCESSIBLE PARKING SIGN

NOT TO SCALE

NOTES

1. ACCESSIBLE PARKING SPACE TO BE SIGNED & MARKED IN ACCORDANCE WITH HIGHWAY TRAFFIC ACT & TOWN OF WHITBY
2. "ACCESSIBLE PARKING" SIGN → AP ← TO BE INSTALLED ALONG ACCESSIBLE PARKING

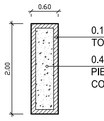


SIGNAGE FRONT ELEVATION

NOT TO SCALE

SIGNAGE END ELEVATION

NOT TO SCALE



SIGNAGE FOUNDATION

NOT TO SCALE

PERTINENT SITE INFORMATION

EXISTING ZONING	R-2
OFFICIAL PLAN DESIGNATION	MIXED USE
LOT AREA	1360.62 sq./m.
LANDSCAPED AREA	373.15 sq./m. (27.42%)
PARKING & DRIVE AREA	534.86 sq./m. (39.31%)
TOTAL BUILDING COVERAGE	452.61 sq./m. (33.27%)
GROSS FLOOR AREA	431.58 sq./m.
PARKING REQUIRED	
1/30 GROSS FLOOR AREA	14.39 CARS (14 CARS)
PARKING PROVIDED	14 CARS

NO.	DATE	REVISION	BY.
1.	18/07/19	REVISED AS PER PRE CONSULT MEETING	D.R.
2.	19/07/19	REVISED FOOTPRINT TO MATCH FLOOR PLAN	D.R.
3.	05/09/19	RETURNED WOOD BOARD PRIVACY FENCE TO NORTH FACE OF BUILDING	D.R.
4.	27/11/19	REVISED & COORDINATED W/ ENGINEERING	D.R.
5.	06/07/20	REVISED AS PER PLANNING	D.R.
6.	24/08/20	SIGNAGE DETAILS ADDED	D.R.
7.	21/09/20	REVISED AS PER PLANNING	D.R.
8.	23/03/21	REVISED NOTE ("HEDGE TO BE REMOVED" TO "EXISTING HEDGE")	D.R.

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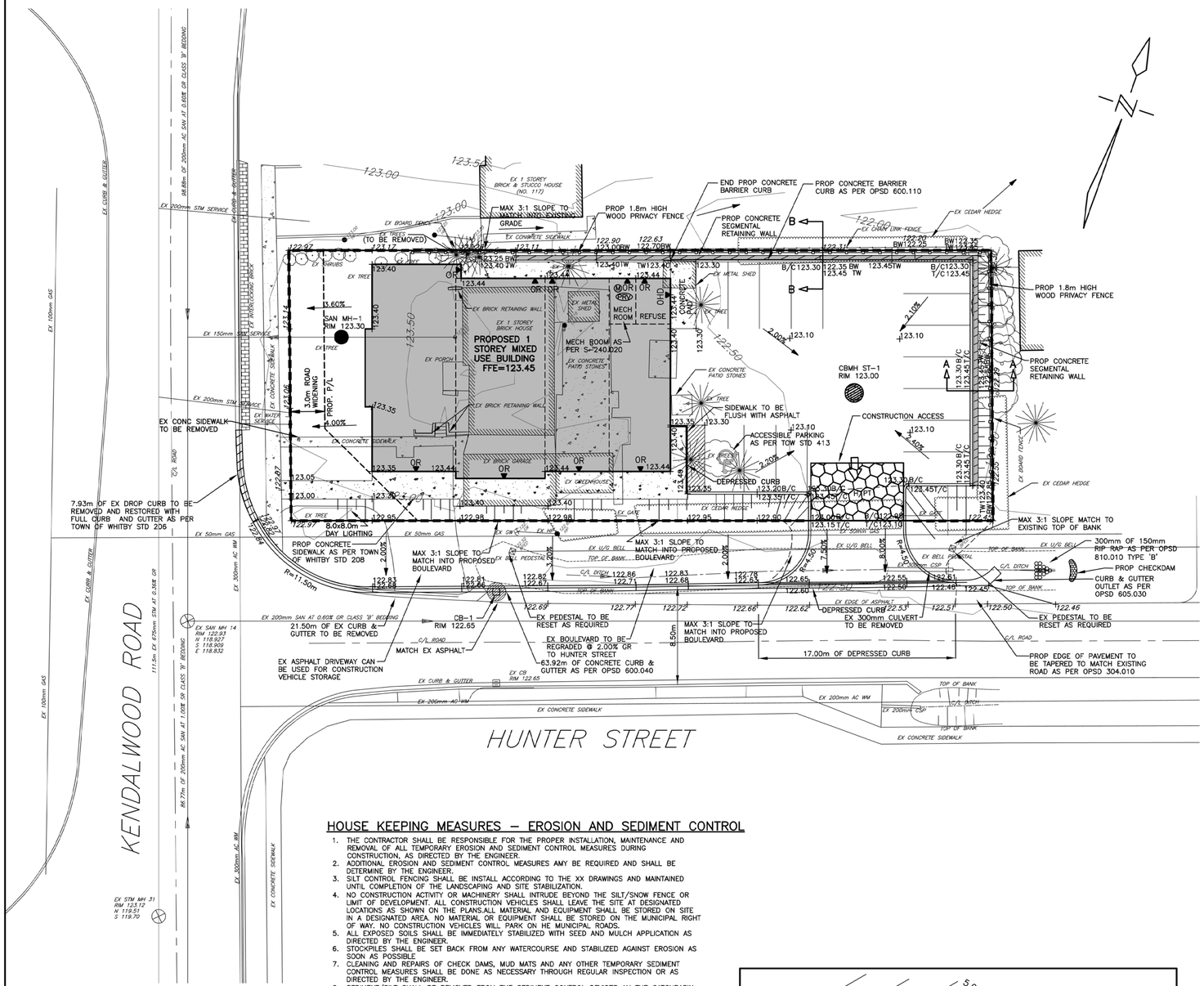
DIVISION OF RAY ABBOTT LTD.
OSHAWA TEL: (905)725-6001 FAX: (905)725-1086

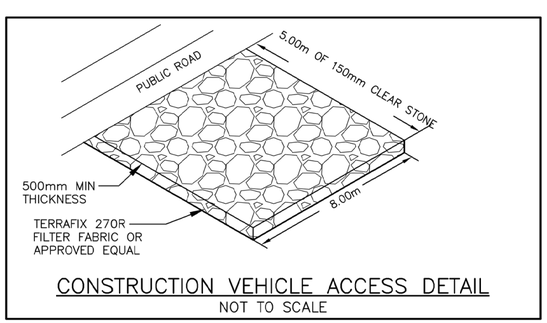
DRAWING: SITE PLAN
DRAWN: D.B.R.
SCALE: 1:200
DRAWING NO. SP-1
PLOTTED: 23/03/21
PROJECT NO. 16-001

PROPOSED RETAIL COMMERCAIL BUILDING FOR:
DR. MICHAEL PELLEGRINO
121 KENDALWOOD ROAD
WHITBY, ONTARIO

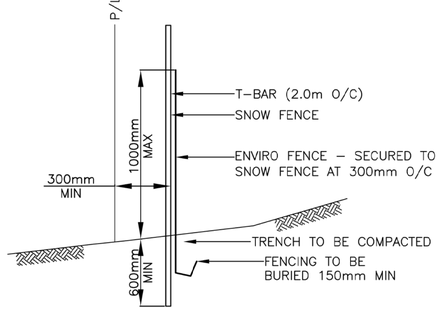


HOUSE KEEPING MEASURES – EROSION AND SEDIMENT CONTROL

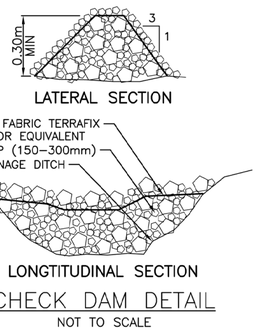
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION, AS DIRECTED BY THE ENGINEER.
2. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AMY BE REQUIRED AND SHALL BE DETERMINE BY THE ENGINEER.
3. SILT CONTROL FENCING SHALL BE INSTALL ACCORDING TO THE XX DRAWINGS AND MAINTAINED UNTIL COMPLETION OF THE LANDSCAPING AND SITE STABILIZATION.
4. NO CONSTRUCTION ACTIVITY OR MACHINERY SHALL INTRUDE BEYOND THE SILT/SNOW FENCE OR LIMIT OF DEVELOPMENT. ALL CONSTRUCTION VEHICLES SHALL LEAVE THE SITE AT DESIGNATED LOCATIONS AS SHOWN ON THE PLANS.ALL MATERIAL AND EQUIPMENT SHALL BE STORED ON SITE IN A DESIGNATED AREA. NO MATERIAL OR EQUIPMENT SHALL BE STORED ON THE MUNICIPAL RIGHT OF WAY. NO CONSTRUCTION VEHICLES WILL PARK ON HE MUNICIPAL ROADS.
5. ALL EXPOSED SOILS SHALL BE IMMEDIATELY STABILIZED WITH SEED AND MULCH APPLICATION AS DIRECTED BY THE ENGINEER.
6. STOCKPILES SHALL BE SET BACK FROM ANY WATERCOURSE AND STABILIZED AGAINST EROSION AS SOON AS POSSIBLE.
7. CLEANING AND REPAIRS OF CHECK DAMS, MUD MATS AND ANY OTHER TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE DONE AS NECESSARY THROUGH REGULAR INSPECTION OR AS DIRECTED BY THE ENGINEER.
8. SEDIMENT/SILT SHALL BE REMOVED FROM THE SEDIMENT CONTROL DEVICES AN THE CATCHBASIN BUFFERS AFTER STORM EVENTS AND DISPOSED OF IN AREAS AS PROVIDED BY THE ENGINEER.
9. ALL REGRADED AREAS WITHIN THE SITE WHICH ARE NOT OCCUPIED BY BUILDINGS, ROADWAYS, SIDEWALKS OR DRIVEWAYS SHALL BE TOPSOILED AND SODDED/SEEDED IMMEDIATELY AFTER COMPLETION OF FINAL GRADING OPERATIONS OR AS DIRECTED BY THE ENGINEER.
10. INSPECTION OF THE PROPOSED EROSION AND SEDIMENT CONTROL MEASURES WILL OCCUR ON A WEEKLY BASIS, AFTER SIGNIFICANT RAINFALL OR SNOW MELT EVENTS AND DAILY DURING EXTENDED RAIN OR SNOW MELT PERIOD.
11. MATERIALS TO REPAIR DAMAGED ESC MEASURES MUST BE KEEP ON SITE AT ALL TIMES.
12. THE ESC STRATEGIES ON THESE PLANS ARE NOT STATIC AND MAY NEED TO BE UPGRADED/AMENDED AS SITE CONDITIONS CHANGE TO PREVENT SEDIMENT RELEASE TO THE NATURAL ENVIRONMENT. FAILED ESC MEASURES MUST BE REPAIRED IMMEDIATELY.
13. SERVICING OF CONSTRUCTION EQUIPMENT ON SITE IS PROHIBITED.
14. CLEANING OF EXISTING ROAD(S) AT SITE ACCESS POINTS SHALL BE DONE DAILY DURING CONSTRUCTION OR AS NECESSARY THOUGH REGULAR INSPECTION OR DIRECTED BY THE ENGINEER.
15. DUST CONTROL TO BE REVIEWED DAILY. WATER TRUCK TO BE PROVIDED ON-SITE AND ALL HAUL ROAD/WORKING AREAS TO BE SPRAYED WITH WATER AS REQUIRED TO ENSURE DUST IS CONTROLLED ON-SITE.
16. ROCK CHECK DAMS ARE TO BE CLEANED OF ALL ACCUMULATED SEDIMENT AS SOON AS SEDIMENT HAS ACCUMULATED TO A DEPTH GREATER THAN 50% OF THE UPSTREAM CHECK DAM.
17. ALL LITTER AND DEBRIS SHALL BE MONITORED AND DISPOSED OF DAILY OR AS NECESSARY THROUGH REGULAR INSPECTION.
18. THE SITE FENCE MUST BE INSPECTED WEEKLY AND IMMEDIATELY AFTER RAINFALL OR SIGNIFICANT SNOW MELT EVENTS FOR RIPS OR TEARS, BROKEN STAKES, BLOW OUTS (STRUCTURAL FAILURE) AND ACCUMULATION OF SEDIMENT. THE SILT FENCE MUST BE FIXED AND/OR REPLACED IMMEDIATELY WHEN DAMAGED. ACCUMULATED SEDIMENT MUST BE REMOVED FROM THE SILT FENCE WHEN ACCUMULATION REACHES 50% OF HEIGHT OF THE FENCE.
19. SILT SACKS (OR APPROVED EQUIVALENT) ARE TO BE INSTALLED AT ALL CATCHBASINS AND CATCHBASIN MANHOLES LOCATIONS UPON COMPLETION OF SERVICING.
20. SITE CONTACT FOR EROSION AND SEDIMENT MEASURES – D.G. BIDDLE & ASSOCIATES LIMITED
BRETT LEWANDOWSKY
(905)576-8500, EXT. 115



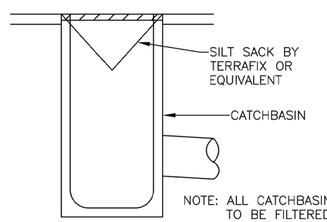
CONSTRUCTION VEHICLE ACCESS DETAIL
NOT TO SCALE



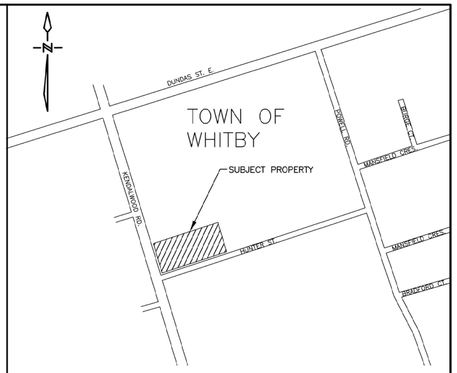
PERIMETER ENVIRO FENCE DETAIL
NOT TO SCALE



CHECK DAM DETAIL
NOT TO SCALE



CATCHBASIN FILTRATION DETAIL
NOT TO SCALE



KEY PLAN
NOT TO SCALE

BENCH MARK

WHITBY – CONCRETE CULVERT UNDER DURHAM HWY 2 / DUNDAS STREET EAST, 1.6 KM EAST OF C.P.RY. BRIDGE, 46 M EAST OF SPRINGWOOD ST, TABLET IN TOP OF CULVERT, 30 CM FROM SOUTH END, 23 CM FROM WEST EDGE, 2 M BELOW ROAD LEVEL. ELEV. 108.530

DUST CONTROL MEASURES:

A. PRE-GRADING PLANNING

1. THE SITE SERVICING FOR THE SITE SHALL BE SCHEDULED SUCH THAT THE OVERALL TIME THE AREAS ARE LEFT OPEN TO WIND THAT CREATE BLOWING DUST FROM THE EARTHWORK OPERATIONS IS MINIMIZED.
2. THE TOPSOIL STOCKPILE (IF APPLICABLE) SHALL BE STABILIZED WITHIN 30 DAYS OF STOCKPILING MATERIALS IN ACCORDANCE WITH CITY'S CRITERIA. ALL DISTURBED LANDS OUTSIDE THE PHASE OF WORK SHALL BE STABILIZED/VEGETATED.
3. THE CONTRACTOR SHALL APPLY WATER TO HAUL ROADS AND STOCKPILES (IF APPLICABLE) BY WAY OF WATER TRUCK.

B. WATERING (POST GRADING)

4. WITHIN AREAS WHERE EARTHWORKS AND OR UNDERGROUND MUNICIPAL SERVICING IS ON-GOING, WATER IS TO BE UTILIZED AT SUFFICIENT QUANTITY TO PREVENT VISIBLE EMISSIONS FROM EXTENDING MORE THAN 30m FROM THE POINT OF ORIGIN.

C. REDUCE VEHICLE SPEED

5. THE ON-SITE SPEED LIMIT FOR CONSTRUCTION VEHICLES SHALL BE MINIMIZED AND TO BE USED IN CONJUNCTION WITH WATERING TO PREVENT VISIBLE DUST EMISSIONS.

D. RESTRICT ACTIVITIES DURING HIGH WIND PERIODS

6. THE HIGH VISIBILITY OF CERTAIN WORKS AND THE CLOSE PROXIMITY AND POPULATION IMPACT SHOULD BE TAKEN INTO CONSIDERATION WHEN SCHEDULING DUST-PRODUCING WORK. APPROPRIATE DUST CONTROL MEASURES SHALL BE IN PLACE IN SUCH SITUATIONS.

E. ROAD CLEANING

7. SPILLAGE, EROSION OR MATERIALS "TRACKED OUT" ON A ROAD TO BE CLEANED USING MECHANICAL STREET SWEEPERS OR FLUSHER TRUCK AT LEAST BY THE END OF THE WORK DAY. HOWEVER, IF SPILLAGE EXTENDS MORE THAN 15m ALONG A PAVED PUBLIC ROADWAY, IT MUST BE CLEANED UP IMMEDIATELY.
8. IMPORTING AND EXPORTING OF MATERIALS ON AND OFF-SITE WILL BE SHUT DOWN DURING AND FOLLOWING INCLEMENT WEATHER UNTIL THE ROAD SURFACES HAVE BEEN CLEANED.

SEDIMENT CONTROL CONSTRUCTION SCHEDULE

1. INSTALL PERIMETER ENVIRO FENCE AND CONSTRUCTION VEHICLE ACCESS.
2. EXCAVATE PERIMETER SWALES AND SEDIMENT PONDS AS REQUIRED.
3. STRIP SITE OF TOPSOIL AND REMOVE OFF SITE OR STOCK PILE AND PROVIDE ENVIRO FENCE AROUND BOTTOM OF PILE.
4. INSTALL MINOR STORM SEWER SYSTEM ALONG WITH OTHER SERVICES.
5. INSTALL CATCHBASIN FILTRATION ON ALL CATCHBASINS AND CATCHBASIN.
6. SEDIMENT CONTROL MEASURES ARE TO BE MAINTAINED UNTIL ALL AREAS OF THE SITE HAVE BEEN STABILIZED WITH SOD OR ASPHALT.

LEGEND

PERIMETER ENVIRO FENCE
DIRECTION OF OVERLAND FLOW
CATCHBASIN FILTRATION
RIP RAP CHECKDAM

NO.	DATE	REVISION	BY
2	JULY 15/202	REVISED AS PER TOWN OF WHITBY COMMENTS	BC
1	JUL 29/2020	REVISED AS PER TOWN OF WHITBY COMMENTS	BB

REVISIONS

121 KENDALWOOD ROAD, WHITBY

EROSION AND SEDIMENT CONTROL PLAN

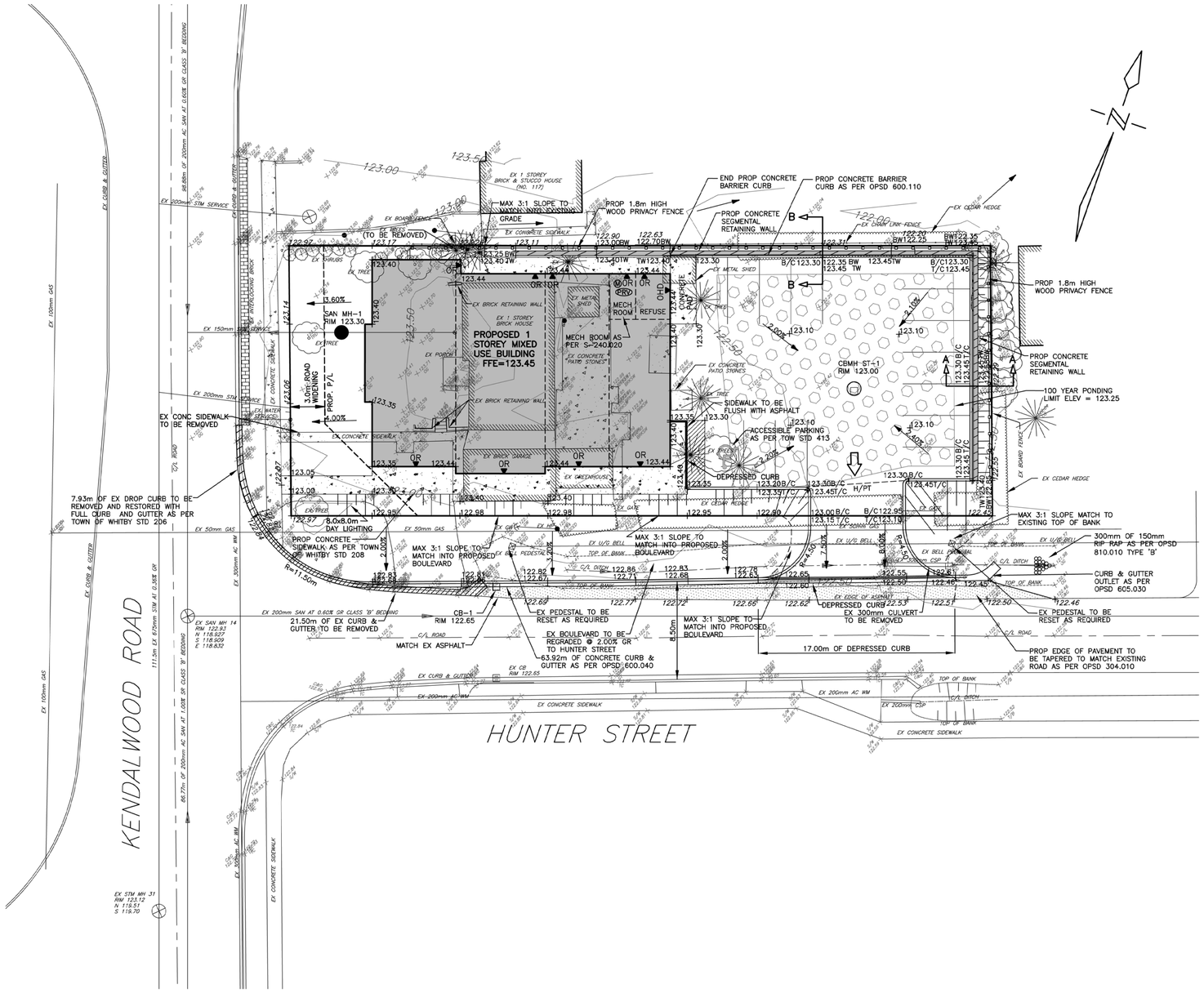
D.G. Biddle & Associates Limited
consulting engineers and planners
96 KING STREET EAST • OSHAWA,ON L1H 1B6
PHONE (905)576-8500 • FAX (905)576-9730
info@dgbiddle.com

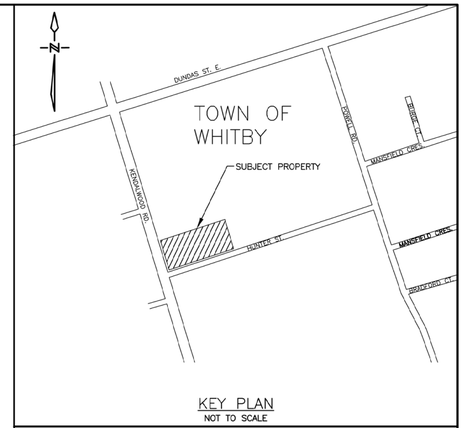
LICENSED PROFESSIONAL ENGINEER
P. D. M. CAINE
100500422
July 16, 2021
PROVINCE OF ONTARIO

SCALE:	1:200
DRAWN BY:	B.M.
DESIGN BY:	B.M.
CHECKED BY:	P.D.C.
DATE:	NOV 2019

PROJECT NO. 119095
DRAWING NO. ES-1

Y:\JOB FILES\119095\119095 PLOTTING\KENDALWOOD RD\119095 DRAWINGS\119095 DRAWINGS CIVIL\119095 ENGINEERING DRAWINGS\119095-SITE PLAN-20200608.DWG





KEY PLAN
NOT TO SCALE

BENCH MARK

WHITBY – CONCRETE CULVERT UNDER DURHAM HWY 2 / DUNDAS STREET EAST, 1.6 KM EAST OF C.P.RY. BRIDGE, 46 M EAST OF SPRINGWOOD ST, TABLET IN TOP OF CULVERT, 30 CM FROM SOUTH END, 23 CM FROM WEST EDGE, 2 M BELOW ROAD LEVEL. ELEV. 108.530

SITE GRADING NOTES

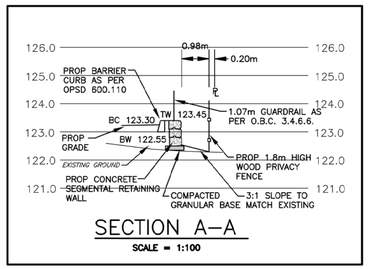
1. A ROAD OCCUPANCY PERMIT WILL BE REQUIRED FOR ANY WORKS WITHIN THE MUNICIPAL RIGHT OF WAY.
2. ALL WORKS OR RESTORATION WITHIN THE MUNICIPAL RIGHT OF WAY SHALL BE COMPLETED AS PER TOWN OF WHITBY FIELD STAFF DIRECTION.
3. THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES AND SERVICES TO BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION. CONCERNED UTILITIES TO BE GIVEN ADVANCED NOTICE FOR STAKE OUT. THE CONSULTANT ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE UTILITIES SHOWN ON THE DRAWINGS.
4. QUANTITIES, DIMENSIONS AND ELEVATIONS TO BE VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR COMMENCING CONSTRUCTION.
5. ALL SLOPES SHALL BE CONSTRUCTED AT 3:1 (MAXIMUM) UNLESS OTHERWISE NOTED ON THE DRAWINGS.
6. ALL SWALES SHALL BE CONSTRUCTED WITH 2% MINIMUM GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
7. ALL SLOPES, SWALES AND OPEN SPACE AREAS SHALL BE SODDED ON A MINIMUM OF 150mm OF TOPSOIL.
8. ALL DISTURBED AREAS WITHIN ABUTTING MUNICIPAL RIGHT OF WAYS SHALL BE SODDED ON A MINIMUM OF 150mm OF TOPSOIL.

PROPOSED RETAINING WALL NOTE

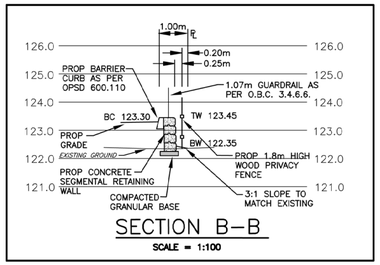
1. WHERE THE RETAINING WALL EXCEEDS 0.6m IN HEIGHT, AN ENGINEERING DESIGN OR PRE-ENGINEERED DESIGN SHALL BE STAMPED AND SIGNED BY AN ENGINEER EXPERIENCE IN THE DESIGN AND CONSTRUCTION OF RETAINING WALLS. A GEOTECHNICAL REVIEW SHALL BE COMPLETED, AND PRESENT FULL CALCULATIONS FOR BOTH LOCAL AND GLOBAL STABILITY ANALYSIS. THE DESIGN PACKAGE SUBMITTED TO THE DEPARTMENT FOR REVIEW AND APPROVAL SHALL BE STAMPED AND SIGNED BY THE MANUFACTURE OR STRUCTURAL ENGINEER, AND SHALL, AT A MINIMUM, CONTAIN:
   A. CROSS SECTION DETAILS
   B. FACE OF WALL DETAILS: AND,
   C. DETAILS FOR ANY APPLICABLE REQUIREMENTS FOR FENCING/RAILING, DRAINAGE,TIEBACKS AND END TREATMENTS

LEGEND

ORIGINAL SURVEY ELEVATION	103.15
ORIGINAL ELEVATION TO REMAIN	+101.35
PROPOSED ELEVATIONS	+103.15
PROPOSED SWALE	
DIRECTION OF DRAINAGE	
DIRECTION OF OVERLAND FLOW	
LIMIT OF PONDING	



SECTION A–A
SCALE = 1:100



SECTION B–B
SCALE = 1:100

NO.	DATE	REVISION	BY
2	JUL 15/2021	REVISED AS PER TOWN OF WHITBY COMMENTS	BC
1	JUL 29/2020	REVISED AS PER TOWN OF WHITBY COMMENTS	BB

REVISIONS

121 KENDALWOOD ROAD, WHITBY

SITE GRADING PLAN

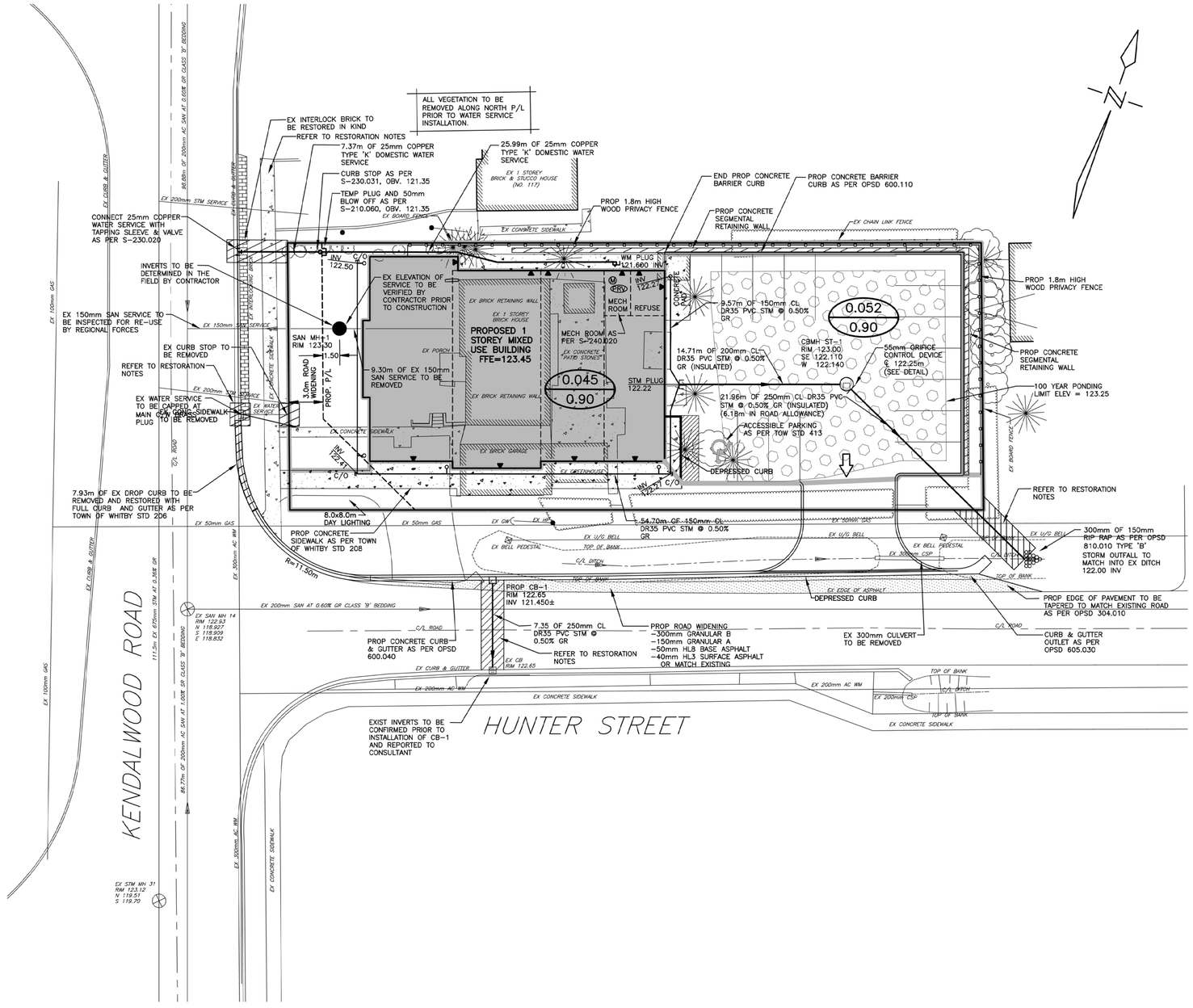
D.G. Biddle & Associates Limited
consulting engineers and planners
96 KING STREET EAST • OSHAWA,ON L1H 1B6
PHONE (905)576-8500 • FAX (905)576-9730
info@dgbiddle.com

LICENSED PROFESSIONAL ENGINEER
P. D. M. CANE
100500422
July 16, 2021
PROVINCE OF ONTARIO

SCALE:	1:200
DRAWN BY:	B.M.
DESIGN BY:	B.M.
CHECKED BY:	P.D.C.
DATE:	NOV 2019

PROJECT NO. 119095
DRAWING NO. SG–1

N:\JOB FILES\119000\119095 FELLDENG KENDALWOOD RD\119095 DRAWINGS\119095 DWG\119095 ENGINEERING DRAWINGS\119095 - SITE PLAN-20200603.DWG
16/07/2021



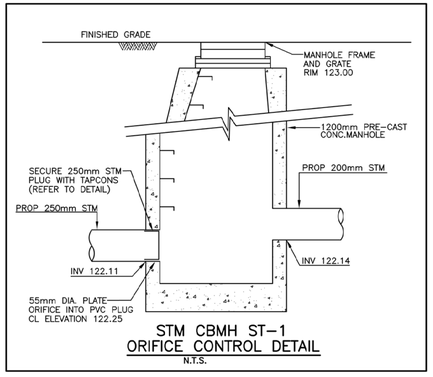
LEGEND

- DRAINAGE BOUNDARY
- 0.25 / 0.90 — DRAINAGE AREA (ha) / RUN-OFF COEFFICIENT
- OVERLAND FLOW DIRECTION
- (M) WATER METER LOCATION
- (PRV) PRESSURE REDUCING VALVE
- LIMIT OF PONDING

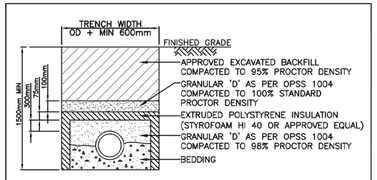
RESTORATION NOTES:

KENDALWOOD ROAD AND HUNTER STREET TO BE RESTORED AS FOLLOWS:
- 300mm GRANULAR 'B'
- 150mm GRANULAR 'A'
- 50mm HL8 BASE ASPHALT
- 40mm HL3 SURFACE ASPHALT OR MATCH EXISTING

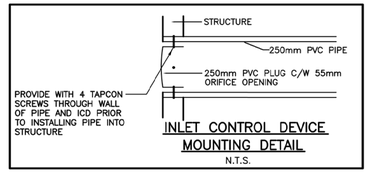
- CONCRETE CURB AND GUTTER SHALL BE RESTORED AS PER TOWN OF WHITBY STD 206
- CONCRETE SIDEWALK SHALL BE RESTORED AS PER TOWN OF WHITBY STD 208
- BOULEVARDS SHALL BE RESTORED WITH 150mm OF TOPSOIL AND SOD
- INTERLOCKING BRICK TO BE RESTORED AS PER EXISTING CONDITION
- PROPOSED ASPHALT RESTORATION AREA AS PER TOWN OF WHITBY STD 404.50



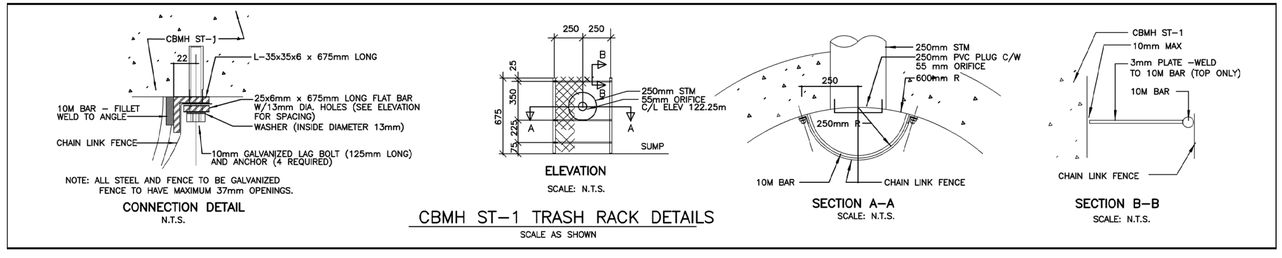
STM CBMH ST-1
ORIFICE CONTROL DETAIL
N.T.S.



SEWER INSULATION DETAIL
NOT TO SCALE



INLET CONTROL DEVICE MOUNTING DETAIL
N.T.S.



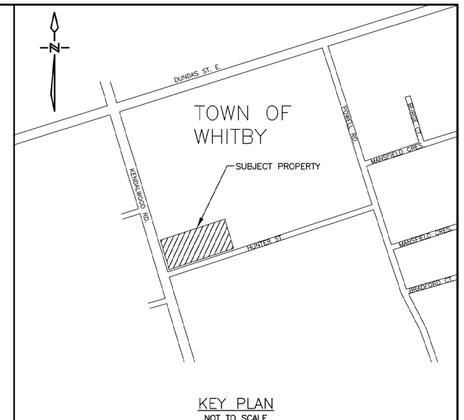
CONNECTION DETAIL
N.T.S.

ELEVATION
SCALE: N.T.S.

SECTION A-A
SCALE: N.T.S.

SECTION B-B
SCALE: N.T.S.

CBMH ST-1 TRASH RACK DETAILS
SCALE AS SHOWN



KEY PLAN
NOT TO SCALE

BENCH MARK

WHITBY – CONCRETE CULVERT UNDER DURHAM HWY 2 / DUNDAS STREET EAST, 1.6 KM EAST OF C.P.RY. BRIDGE, 46 M EAST OF SPRINGWOOD ST, TABLET IN TOP OF CULVERT, 30 CM FROM SOUTH END, 23 CM FROM WEST EDGE, 2 M BELOW ROAD LEVEL. ELEV. 108.530

SITE SERVICING NOTES

1. A ROAD OCCUPANCY PERMIT WILL BE REQUIRED FOR ANY WORKS WITHIN THE MUNICIPAL RIGHT OF WAY.
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4. QUANTITIES, DIMENSIONS AND ELEVATIONS TO BE VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR COMMENCING CONSTRUCTION.
5. ALL SANITARY SEWER AND APPURTENANCES SHALL COMPLY WITH THE REGION OF DURHAM STANDARDS AND THE ONTARIO PLUMBING CODE.
   - SANITARY SEWER SERVICE PIPES, 150mm TO BE CL DR35 PVC PIPE, CL P BEDDING.
   - SANITARY MANHOLES AS PER OPSD 701.010 C/W GRATE AS PER OPSD 401.010
   - ALL TRENCHES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH REGION OF DURHAM STANDARDS.
6. ALL WATER MAINS AND APPURTENANCES SHALL COMPLY WITH THE REGION OF DURHAM STANDARDS AND THE ONTARIO PLUMBING CODE.
   - ALL WATER MAINS SHALL BE CONSTRUCTED A MINIMUM OF 1.80m BELOW FINISHED GRADE
   - ALL TRENCHES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH REGION OF DURHAM STANDARDS
   - WATER SERVICE PIPES, 50mm TO BE TYPE 'K' COPPER, CL P BEDDING AS PER S-230.021.
7. ALL STORM SEWERS AND APPURTENANCES SHALL COMPLY WITH THE TOWN OF WHITBY STANDARDS AND THE ONTARIO PLUMBING CODE.
   - STORM SEWER PIPE 450mm AND SMALLER SHALL BE DR35 PVC PIPE, CL P BEDDING
   - STORM SEWER PIPES LARGER THAN 450mm SHALL BE CL 65D CONCRETE PIPES, CL B BEDDING
   - STORM SEWER MANHOLES AND CATCH BASIN MANHOLES SHALL BE AS PER OPSD 701.010
   - CATCH BASINS SHALL BE AS PER OPSD 705.010
   - MANHOLE GRATES SHALL BE AS PER OPSD 401.010
   - CATCH BASIN GRATES SHALL BE AS PER OPSD 400.020
   - ALL TRENCHES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH OPSD STANDARDS
8. GENERALLY, A MINIMUM OF 0.20m SHALL BE PROVIDED BETWEEN THE OUTSIDE OF PIPE BARRELS AT THE POINT OF CROSSING FOR STORM AND SANITARY SEWERS. A MINIMUM OF 0.50m SHALL BE PROVIDED BETWEEN THE OUTSIDE OF PIPE BARRELS AT THE POINT OF CROSSING FOR ALL SEWERS CROSSING WATER MAINS.

NO.	DATE	REVISION	BY
2	JUL 15/2021	REVISED AS PER TOWN OF WHITBY COMMENTS	BC
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REVISIONS

121 KENDALWOOD ROAD, WHITBY

SITE SERVICING PLAN

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LICENSED PROFESSIONAL ENGINEER
P.D.M. CANE
100500422
July 16, 2021
PROVINCE OF ONTARIO

SCALE:	1:200
DRAWN BY:	B.M.
DESIGN BY:	B.M.
CHECKED BY:	P.D.C.
DATE:	NOV 2019

PROJECT NO. 119095
DRAWING NO. SS-1

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DESIGN LOADS:

All loads are unfactored.

Roof Loads: Live Loads = 1.36 kPa (Ss =1.2 kPa, Sr =0.4 kPa)
Dead Loads = 1.0 kPa

GENERAL:

1. All materials and workmanship shall be in conformance with the Ontario Building Code.
2. Where standards published by various organizations are referred, conform to latest edition of standards as amended and revised to date of contract.
3. All dimensions, elevations, openings for pipes, sleeves, equipment locations and the like shall be checked with the architectural and the appropriate structural, mechanical or electrical drawings. Report any discrepancies before proceeding with the work.
4. Do not scale the drawings.
5. The Contractor shall examine the site and satisfy himself of the actual conditions and requirements of the work.
6. Check underground utilities and assume responsibility for same during construction.
7. Set all anchors, inserts, etc. as required by other trades.
8. The Contractor shall caulk and seal all joints, spaces, etc. to provide a weather–tight building.
9. The Contractor shall make any necessary allowances for any variations and/or any revisions made on account of sub–trades and product selection for the completion of the project.
10. Features of construction not fully shown shall be of the same character as shown for similar conditions.
11. Confirm all measurements that govern the scope of work built into existing building.

EXCAVATION, GRADING & BACKFILLING:

1. Refer to soil test report, if there is any, for the borehole data and site conditions.
2. The accuracy of the soil test report is not guaranteed. Soil data applies for actual test pit location and conditions may differ at other parts of the site.
3. All spread footings shall be placed on undisturbed native material. Have base inspected by Engineer before placing footing.
4. Design bearing pressure to be 100 kPa unless otherwise stated.
5. Excavate and remove all fills, surface features and topsoil from building area before starting the work.
6. Protect foundations, slabs on grade, footings, and adjacent soil against freezing and frost action at all times during construction.
7. Backfill footings using approved free draining materials.
8. Place backfill simultaneously on both sides of walls below grade.
9. Slab on grade shall be placed on soil capable of safely sustaining 30 KPa without settlement related to building footings.
10. Slab on grade shall be, unless otherwise stated, 100mm thick poured concrete reinforced with 152x152 MW18.7/MW18.7 WWF, on 150mm deep crushed stones compacted to at least 95% standard proctor maximum dry density.
11. Restore exterior surfaces to condition equal to that existing prior to excavation unless otherwise noted.

CONCRETE & REINFORCING STEEL:

1. Concrete construction shall conform to CAN/C.S.A. A23.1–14.
2. Concrete compressive strength to be 25MPa at 28 days, maximum aggregate size to be 20mm, slump to be 75mm maximum,unless otherwise stated.
3. Concrete cover for reinforcements shall be in accordance with Ontario Building Code and C.S.A. A23.1–14.
4. Exposed concrete shall have air entrainment of 6–7%.
5. Form all vertical surfaces of concrete work, where neat excavation in native soil are possible. Concrete for footings need not be formed.
6. All floor surfaces shall be level to a tolerance of 10mm and not out of plane by more than 3mm on 3000mm template. Steel trowel finish all floors.
7. Reinforcing steel shall be in accordance with C.S.A. G30.18–M92, Grade 400.
8. Welded wire fabric shall be in accordance with C.S.A. G30.15–M83.
9. The Contractor shall prepare and submit six (6) copies of shop drawings indicating material, size, spacing, and location of reinforcing steel, anchors, and details.
10. Reinforcing bars shall be continuous across construction joints and elevation variations unless noted. Continuous bars shall be fully developed by lapping where spliced.

STEEL – INSPECTION AND TESTING:

1. The undetaking to inspect welding shall be qualified in accordance with the reqirements of CSA W178.1, "Certification of Welding Inspection Organizations", and certified by the Canadian Welding Bereau.
2. The inspection shall cover all moment connections to review for compliance with the CSA S16.
3. The inspection agency shall submit reports to the consultant covering the Work inspected and provide details of nonconformities or deficiencies observed.

STRUCTURAL STEEL:

1. Rolled shapes and plates shall conform to CAN/C.S.A. G40.20–13/G40.21–14 (R.2018), Grade 350W.
2. Hollow structural sections shall conform to CAN/C.S.A. G40.20–13/G40.21–14 (R.2018), Grade 350W.
3. Pipe column sections shall conform to ASTM A53, 240 MPa.
4. Bolts to be A325 high strength steel bolts for friction type connections, and A307 for anchor bolts.
5. Steel deck finish to be zinc coated to A.S.T.M. A123M–17
6. Fabrication, erection and workmanship shall be performed by a welder qualified under C.S.A. W47.
7. Design open web steel joist to C.S.A. S16–14. Provide joist bridging and joist camber as per C.S.A. S16M.
8. Surfaces to be welded shall be thoroughly cleaned of all foreign matter including paint film.
9. All welded joints shall use E49XX electrodes. Connections that are friction type shall use 20mm diameter ASTM A325–14 high strength bolts unless otherwise noted.
10. All steel deck shall be in conformance with C.S.A. S–136–17 and shall be designed to safely support all the loads indicated on the drawings.
11. Steel decks to be designed to act as diaphragms. Decks to have wipe coat galvanized finish unless noted otherwise on drawings.
12. Steel decks and joists shall have a maximum deflection under live load of 1/240 of span.
13. Shop prime all structural steel with primer. Do not paint contact surfaces of joints or surfaces to receive field welds.
14. The Contractor shall prepare and submit to the Consultant for review six (6) copies of erection diagrams and shop drawings indicating material, size, spacing and location of structural steel members, connection, bridging, reinforcing, bearing shoes, anchors, elevations and details.
15. The Contractor shall prepare and submit to the Consultant six (6) catalogues or tables of joists and steel deck checked and approved by a Professional Engineer of Ontario.
16. All loads specified are unfactored in accordance with C.S.A. S16.

WOODWORK:

1. Timber work and connections shall conform to the minimum requirements of the Ontario Building Code and CAN/C.S.A. 086–14
2. All lumber to be species S–P–F, #1 grade or better.
3. Provide approved vapour barrier between timber elements resting on concrete or masonry.
4. Anchor sills to masonry using 12mm anchor bolts at 1200mm o.c., in no case less than 2 per wall.
5. Conform with good practice for erection of partitions. Coordinate work with plumbers and electricians.
6. Sheathing for roofs shall be exterior grade spruce plywood. Provide 50mm nominal subfascia for attachment of sheathing.
7. Provide #2 pine finished fascias and soffit boards, 50mm nominal framing for support of all finished work. Trim all openings.
8. Prime paint and finish all exposed wood surfaces to Owner's requirement.
9. Engineered wood i–joists shall be designed in accordance with CSA 086–14.
10. Laminated veneer lumber beams shall be designed to CSA 086–14. Douglas Fir veneer glued on a continuous process with all grain parallel with the length of the member.
11. Laminated veneer lumber shall be of single, one piece length, free of finger joint, scarf joint or mechanical connections in full length members.
12. Adhesives used to laminate the veneer shall be waterproof, meeting the requirement of ASTM D–2559–12a (2018).
13. Laminated veneer lumber beams shall be designed to meet the dimensions and loads indicated on the drawings.
14. The design of laminated veneer lumber beams shall be under the supervision of a Registered Professional Engineer in the Province of Ontario.
15. Roof trusses are to be pre–engineered timber roof trusses designed to accommodate the loads indicated. Truss shop drawings shall bear the stamp of a Professional Engineer registered in the Province of Ontario.

MASONRY:

1. Masonry work shall be in accordance with C.S.A. standards A371–14 and the Ontario Building Code.
2. Modular concrete block masonry units conform to C.S.A. A165.1–14, A165.2–14 and A165.3–14. Solid block and semi–solid block shall be used in locations shown on drawings.
3. Masonry mortar for load bearing walls shall be type S conforming to C.S.A. A179–14.
4. Install continuous bond beam where open web steel joist bear on masonry walls unless otherwise notes.
5. Over openings or recesses in masonry walls including those for mechanical or electrical services and equipments, provide lintels as per lintel schedule. Where no lintel schedule is provided supply masonry lintels reinforced with 1–10m reinforcing bars at bottom. Provide minimum 100mm bearing at each end.
6. Provide cavity wall reinforcement in all masonry walls. For block and brick walls – Tri–Loc BL11 (Blok–Lok). For plain masonry – heavy duty ladder type masonry reinforcement to suit block size.
7. Concrete fill for masonry units to have a minimum compressive strength of 25 MPa at 28 days unless otherwise noted.
8. Where bricks are indicated, supply metric modular bricks of type shown unless otherwise noted. Compressive strength of bricks to exceed 40 MPa. Provide solid masonry units below all beams and lintel bearings.
9. Where anchors are cast into masonry, fill voids with concrete to two (2) courses below bearing and a minimum of 200mm each side of bearing.
10. Provide solid reinforcing core with 1 – 15M continuous adjacent to all wall and door openings and building corners.

LEGEND:

F = FOOTING
SF = STRIP FOOTING
P = PIER
FW = FOUNDATION WALL
BPL = BASE PLATE
C = COLUMN
SW = STRUCTURAL WALL
LWD = WOOD LINTEL
LCF = COLD FORM STEEL LINTEL
LST = STEEL LINTEL
LCO = CONCRETE LINTEL
LBB = BOND BEAM LINTEL
F = FLOOR
R = ROOF
BOT = BOTTOM
EXT = EXTERIOR
INT = INTERIOR
E/W = EACH WAY
E/F = EACH FACE
O/C = ON CENTER
U/S = UNDER SIDE
T/S = TOP OF STEEL
TYP = TYPICAL
WWF = WELDED WIRE MESH
MW = METAL WIRE
FFE = FINISHED FLOOR ELEVATION
W/ = WITH
TJ = TIE JOIST
PL = POINT LOAD
(HIGH) = BEAM AT UPPER LEVEL
(LOW) = BEAM AT LOWER LEVEL
CANT. = CANTILEVERED

FOUNDATION WALL SCHEDULE

WALL	SIZE	REINFORCING
FW1	13" POURED CONCRETE WALL	W/24"x8" CONCRETE STRIP FOOTING W/2–15M CONT. REINF. W/15M HOOKED DOWELS @16" O/C ALTERNATING LEGS 24 L 16
FW2	8" POURED CONCRETE WALL	W/20"x8" CONCRETE STRIP FOOTING W/2–15M CONT. REINF. W/15M HOOKED DOWELS @16" O/C ALTERNATING LEGS 24 L 16
FW3	8" POURED CONCRETE WALL	W/24"x8" CONCRETE STRIP FOOTING W/2–15M CONT. REINF. W/15M HOOKED DOWELS @16" O/C ALTERNATING LEGS 24 L 16

BASE PLATE SCHEDULE

BASE PLATE	MEMBER	ANCHORS
BPL1	12"x6"x5/8" STEEL BASE PLATE	W/ 2–15M HOOKED ANCHORS 12 L 2

COLUMN SCHEDULE

COLUMN	SIZE	REMARKS
C1	HSS102x102x6.4 STEEL COLUMN	W/ 12"x6"x5/8" STEEL BASE PLATE W/2–15M HOOKED ANCHORS 12 L 2
C2	3–2x6	
C3	4–2x6	
C4	5–2x6	
C5	6–2x6	

STRUCTURAL WALL SCHEDULE

WALL	SIZE	REMARKS
SW1	2x6 WOOD STUD @12" O/C	W/ 1/2" OSB SHEATHING
SW2	190 CMU BLOCK W/15M VERT. REINF. @1200 O/C	FILL CORES SOLID AT ALL VERT. REINF. LOCATIONS
SW3	190 CMU BLOCK W/15M VERT. REINF. @600 O/C	FILL CORES SOLID AT ALL VERT. REINF. LOCATIONS
SW4	2x4 WOOD STUD @16" O/C	W/ 1/2" OSB SHEATHING

LINTEL SCHEDULE

LINTEL	SIZE	REMARKS
LST1	L89x89x6.4 STEEL ANGLE	LOOSE LINTEL FOR MASONRY VENEER
LST2	L89x89x6.4 DOUBLE STEEL ANGLES	2–10M HOOKED ANCHORS 6 L 2
LST3	L102x89x6.4 LLV DOUBLE STEEL ANGLES	2–10M HOOKED ANCHORS 6 L 2
LST4	L102x89x6.4 STEEL ANGLE	LOOSE LINTEL FOR MASONRY VENEER
LST5	L152x89x13 LLV STEEL ANGLE	LOOSE LINTEL FOR MASONRY VENEER

STRUCTURAL ROOF SCHEDULE

R1	ENGINEERED WOOD ROOF TRUSSES @24" O/C DESIGNED BY OTHERS W/ 5/8" PLYWOOD SHEATHING	R2	2x6 ROOF JOISTS @16" O/C W/ 5/8" PLYWOOD SHEATHING

NO.	REVISION	DATE	BY	APPROVED
1	ISSUED FOR PERMIT	21/09/15	M.S.	T.L.R.

REVISIONS

121 KENDALWOOD RD. WHITBY, ON.
LANDSCAPE ARCHITECTURE SERVICES

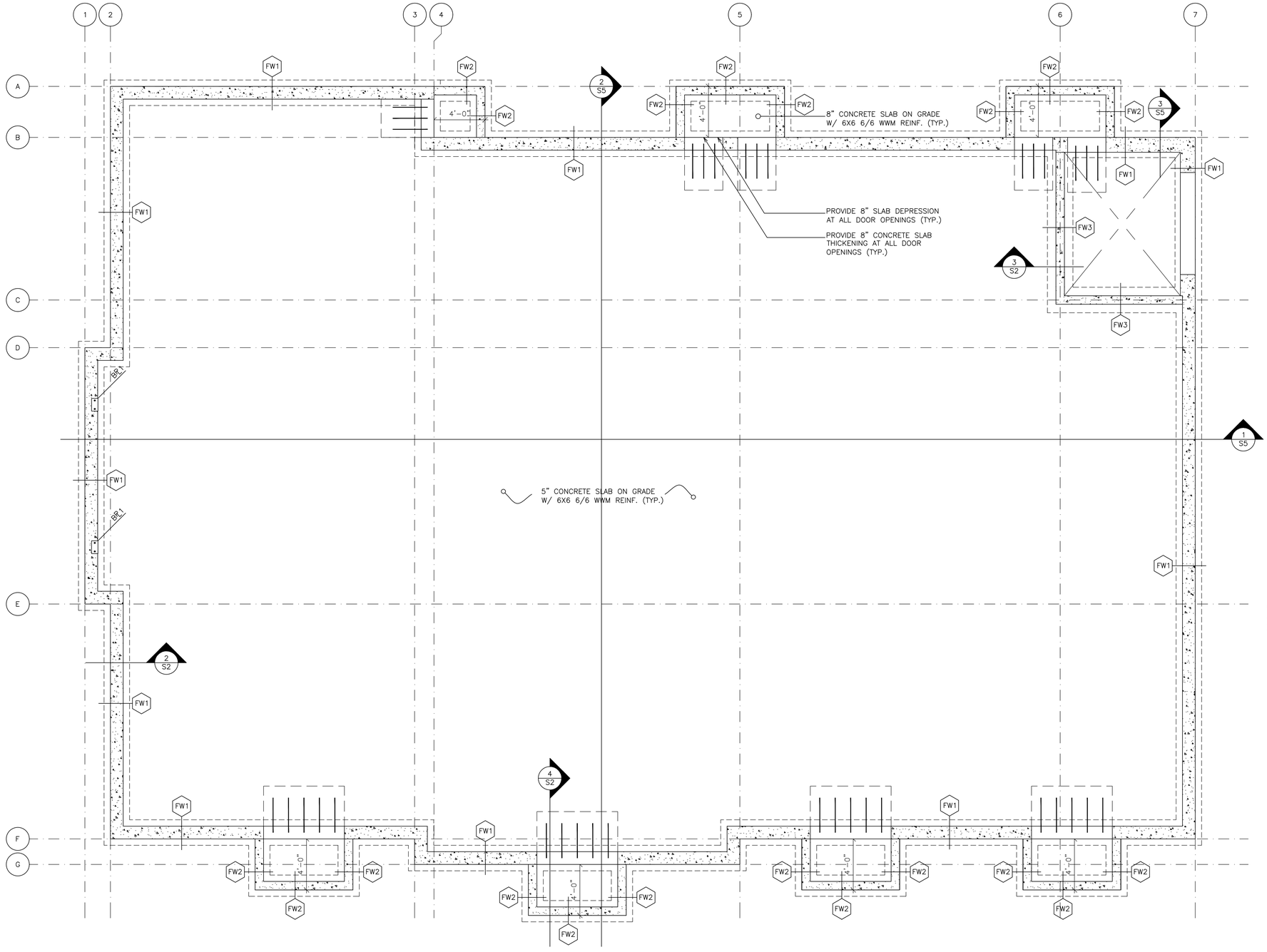
NOTES & SCHEDULES

D.G. Biddle & Associates Limited
consulting engineers and planners
96 KING STREET EAST · OSHAWA,ON L1H 1B6
PHONE (905)576–8500 · FAX (905)576–9730
info@dgbiddle.com

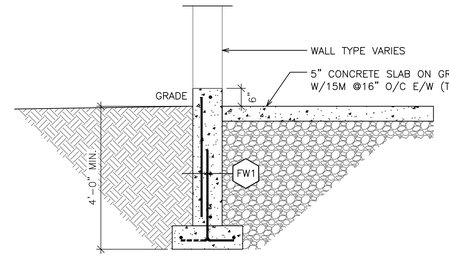
LICENSED PROFESSIONAL ENGINEER
T. L. RUPERT
100500340
September 15/2021
PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DRAWN BY:	T.L.R.
DESIGN BY:	T.L.R.
CHECKED BY:	T.L.R.
DATE:	JUNE 2021

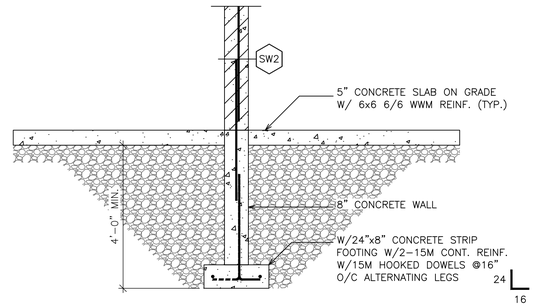
PROJECT NO. 119095
DRAWING NO. S1
CAD FILE: –
PLOT DATE: 2021/09/15
SUBMISSION: PERMIT



1 S2 FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

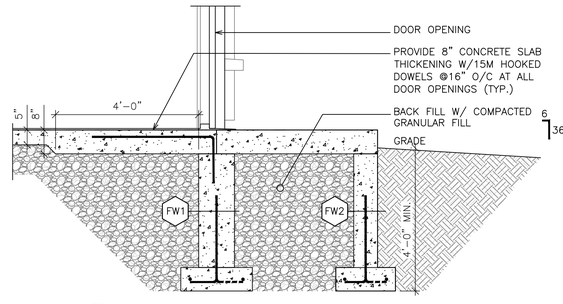


2 S2 TYPICAL FOUNDATION DETAIL
SCALE: 1/2" = 1'-0"



24
16

3 S2 STRUCTURAL FOUNDATION DETAIL FOR MASONRY CMU WALL
SCALE: 1/2" = 1'-0"



6
36

4 S2 STRUCTURAL DEPRESSION DETAIL AT DOOR OPENING
SCALE: 1/2" = 1'-0"

NOTE: SAW CUTS TO BE AT 3000x3000 MAX FOR CRACK CONTROL OF SLAB & AT COLUMN LOCATION

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1	ISSUED FOR PERMIT	21/09/15	M.S.	T.L.R.

REVISIONS

121 KENDALWOOD RD. WHITBY, ON.
LANDSCAPE ARCHITECTURE SERVICES

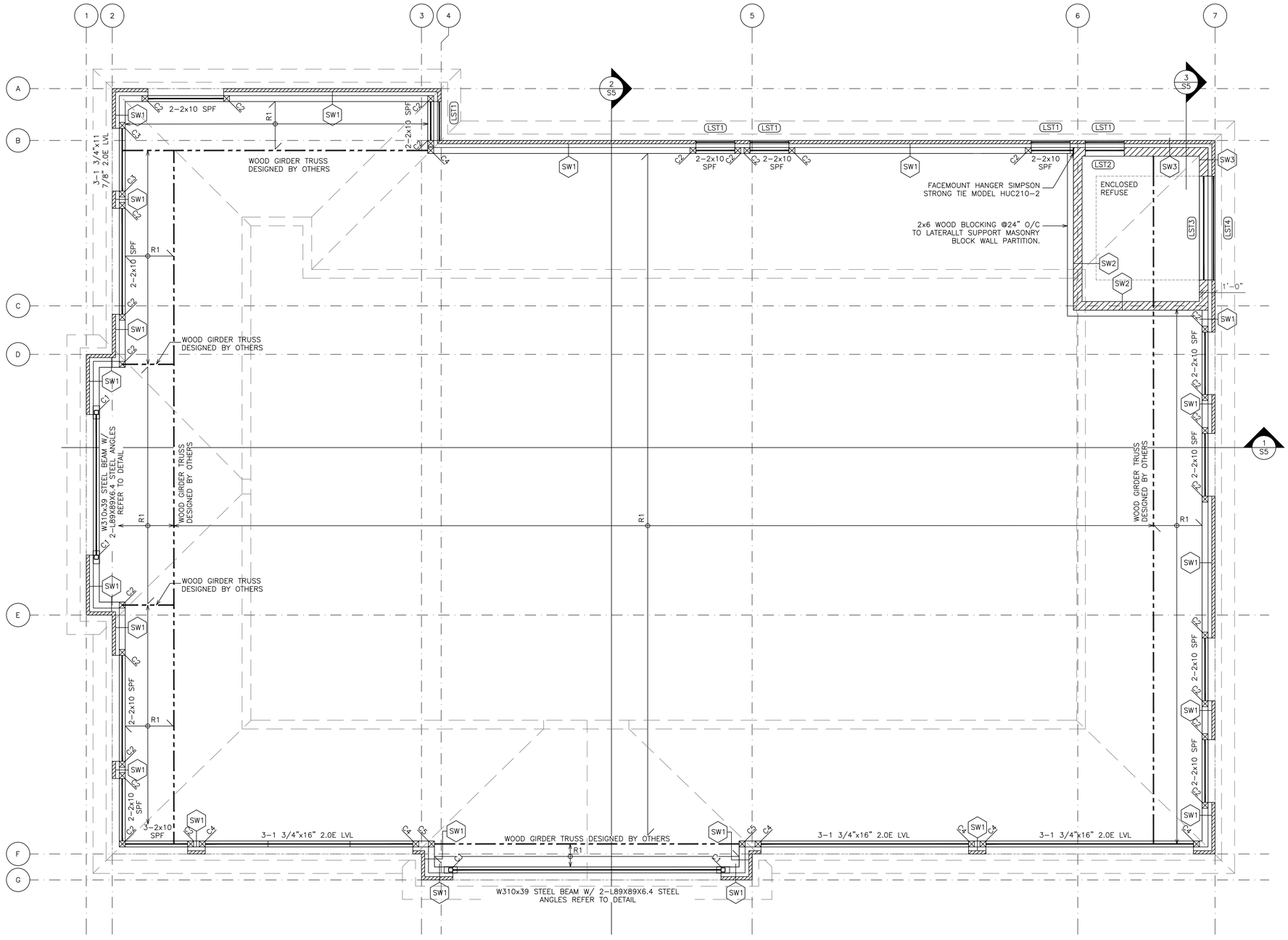
FOUNDATION PLAN & STRUCTURAL DETAILS

D.G. Biddle & Associates Limited
consulting engineers and planners
96 KING STREET EAST · OSHAWA,ON L1H 1B6
PHONE (905)576-8500 · FAX (905)576-9730
info@dgbiddle.com

LICENSED PROFESSIONAL ENGINEER
T. L. RUPERT
100500340
PROVINCE OF ONTARIO
September 15/2021

SCALE:	AS SHOWN
DRAWN BY:	T.L.R.
DESIGN BY:	T.L.R.
CHECKED BY:	T.L.R.
DATE:	JUNE 2021

PROJECT NO. 119095
DRAWING NO. S2
CAD FILE: –
PLOT DATE: 2021/09/15
SUBMISSION: PERMIT



1 S3 STRUCTURAL ROOF PLAN
SCALE: 1/4" = 1'–0"

NO.	REVISION	DATE	BY	APPROVED
1	ISSUED FOR PERMIT	21/09/15	M.S.	T.L.R.

REVISIONS

121 KENDALWOOD RD. WHITBY, ON.
LANDSCAPE ARCHITECTURE SERVICES

STRUCTURAL ROOF PLAN

D.G. Biddle & Associates Limited
consulting engineers and planners
96 KING STREET EAST • OSHAWA,ON L1H 1B6
PHONE (905)576–8500 • FAX (905)576–9730
info@dgbiddle.com

LICENSED PROFESSIONAL ENGINEER
T. L. RUPERT
100500340
September 15/2021
PROVINCE OF ONTARIO

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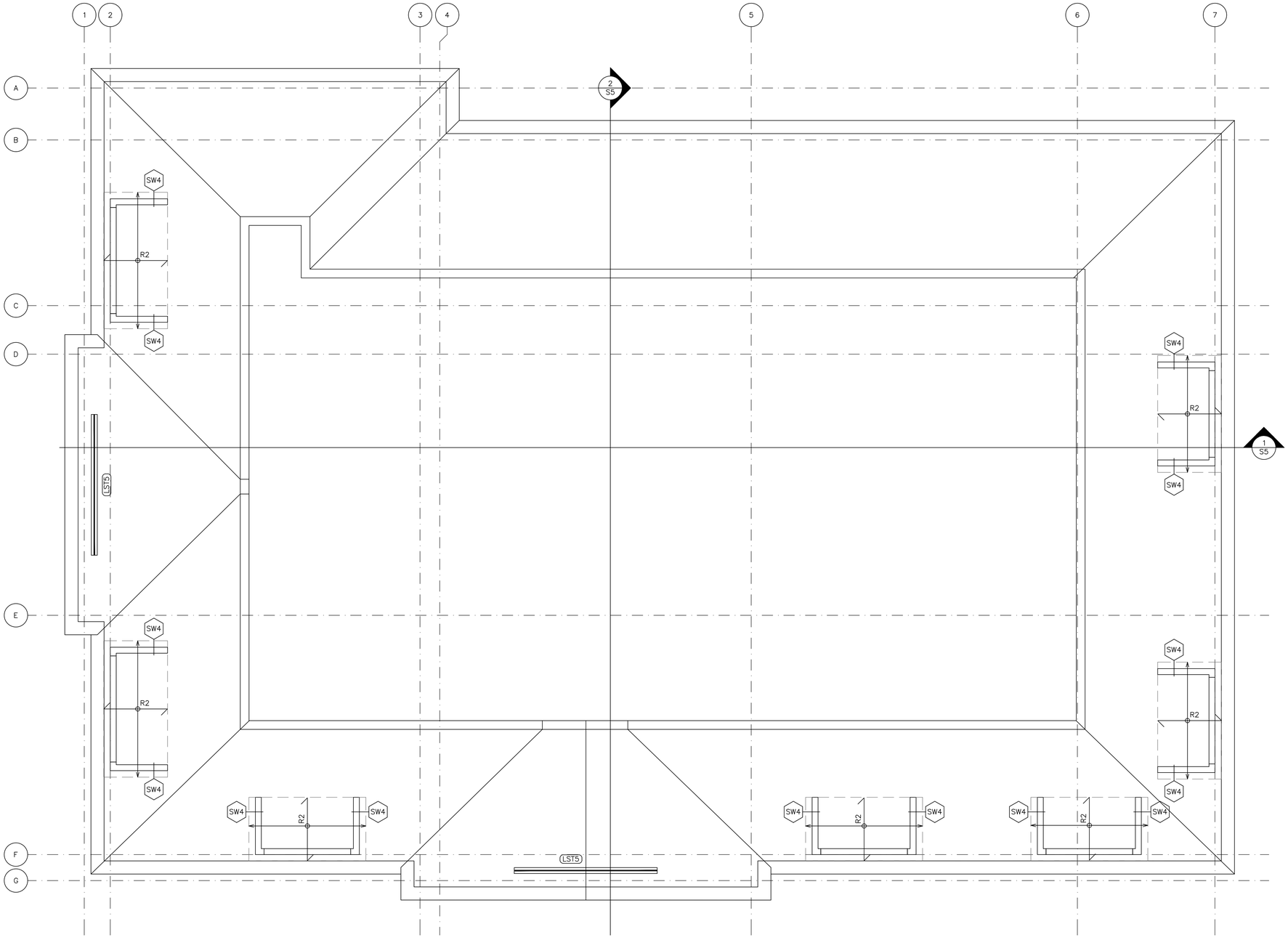
DRAWN BY:	T.L.R.
DESIGN BY:	T.L.R.
CHECKED BY:	T.L.R.
DATE:	JUNE 2021

PROJECT NO. 119095
DRAWING NO. S3
CAD FILE: –
PLOT DATE: 2021/09/15
SUBMISSION: PERMIT



1 / S4 STRUCTURAL DORMER PLAN
SCALE: 1/4" = 1'-0"

NO.	REVISION	DATE	BY	APPROVED
1	ISSUED FOR PERMIT	21/09/15	M.S.	T.L.R.

REVISIONS

121 KENDALWOOD RD. WHITBY, ON.
LANDSCAPE ARCHITECTURE SERVICES

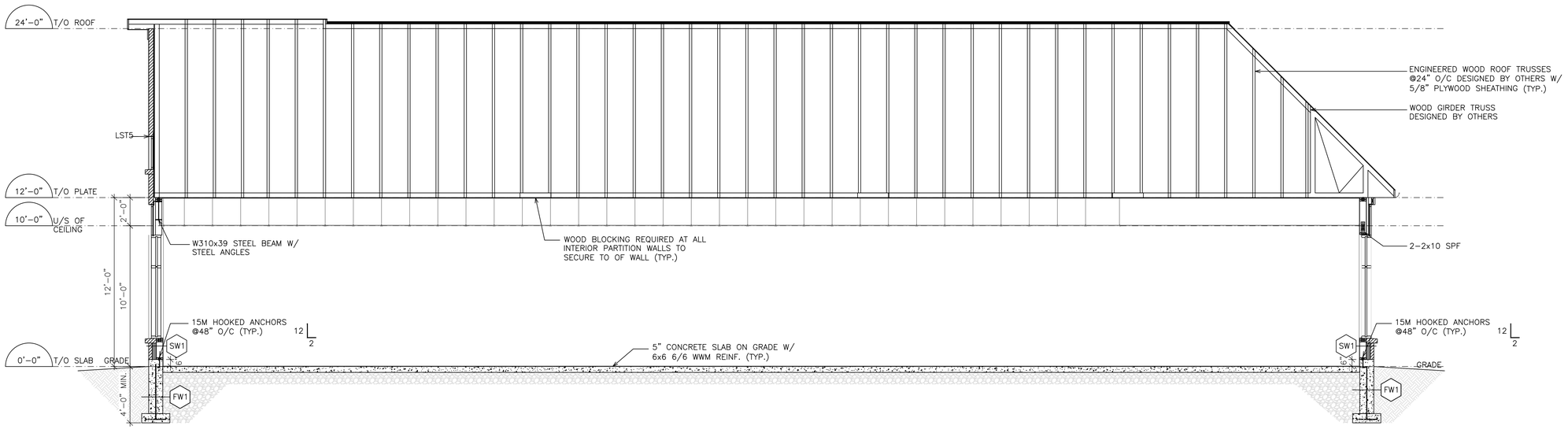
STRUCTURAL DORMER PLAN

D.G. Biddle & Associates Limited
consulting engineers and planners
96 KING STREET EAST • OSHAWA,ON L1H 1B6
PHONE (905)576-8500 • FAX (905)576-9730
info@dgbiddle.com

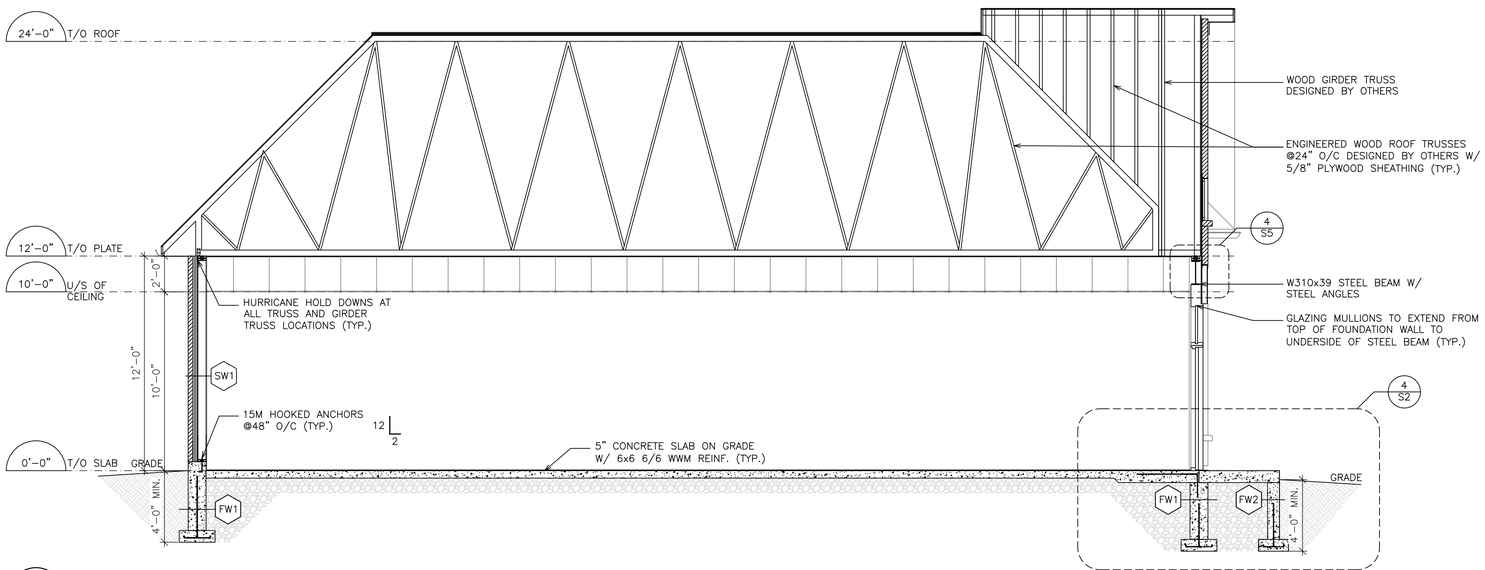
LICENSED PROFESSIONAL ENGINEER
T. L. RUPERT
100500340
September 15/2021
PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DRAWN BY:	T.L.R.
DESIGN BY:	T.L.R.
CHECKED BY:	T.L.R.
DATE:	JUNE 2021

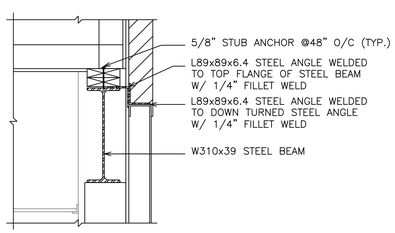
PROJECT NO. 119095
DRAWING NO. S4
CAD FILE: –
PLOT DATE: 2021/09/15
SUBMISSION: PERMIT



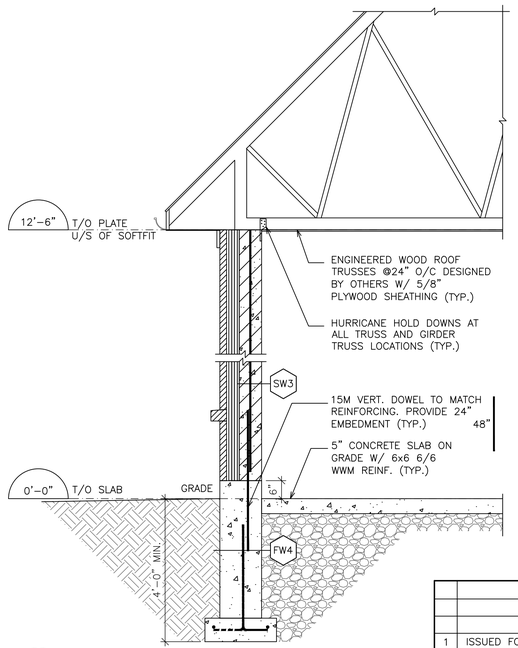
1 / S5 LONGITUDINAL STRUCTURAL SECTION
SCALE: 1/4" = 1'-0"



2 / S5 CROSS STRUCTURAL SECTION
SCALE: 1/4" = 1'-0"



4 / S5 STEEL ANGLES BRICK SUPPORT DETAIL
SCALE: 1" = 1'-0"



3 / S5 MASONRY BLOCK WALL DETAIL SECTION
SCALE: 1/2" = 1'-0"

NO.	REVISION	DATE	BY	APPROVED
1	ISSUED FOR PERMIT	21/09/15	M.S.	T.L.R.

REVISIONS

121 KENDALWOOD RD. WHITBY, ON.
LANDSCAPE ARCHITECTURE SERVICES

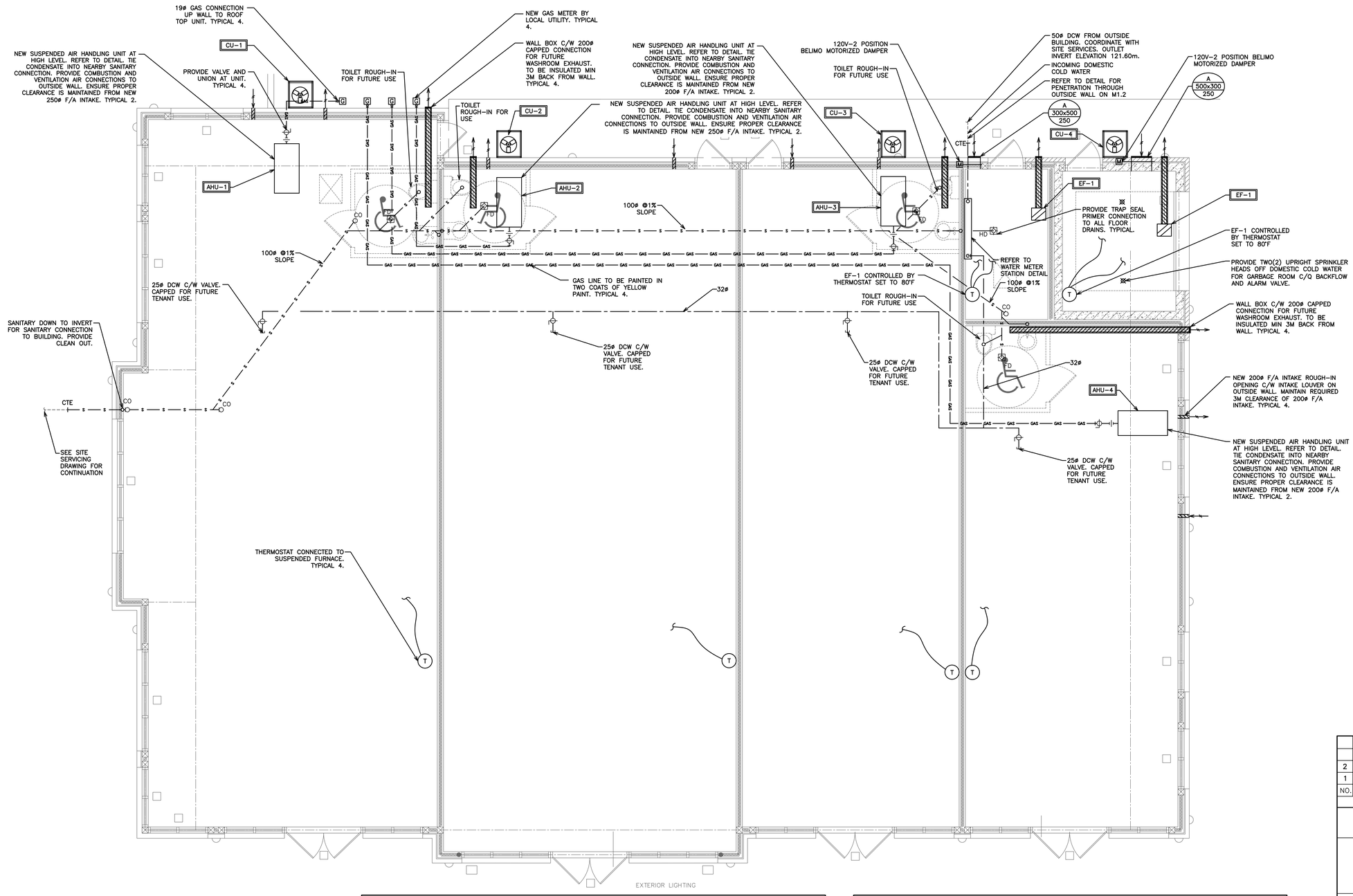
STRUCTURAL SECTIONS

D.G. Biddle & Associates Limited
consulting engineers and planners
96 KING STREET EAST · OSHAWA,ON L1H 1B6
PHONE (905)576-8500 · FAX (905)576-9730
info@dgbiddle.com

LICENSED PROFESSIONAL ENGINEER
T. L. RUPERT
100500340
September 15/2021
PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DRAWN BY:	T.L.R.
DESIGN BY:	T.L.R.
CHECKED BY:	T.L.R.
DATE:	JUNE 2021

PROJECT NO. 119095
DRAWING NO. S5
CAD FILE: –
PLOT DATE: 2021/09/15
SUBMISSION: PERMIT



PLUMBING LEGEND	
DCW	DOMESTIC COLD WATER (DCW)
DHW	DOMESTIC HOT WATER (DHW)
US	UNBURIED SANITARY DRAINAGE (US)
S	BURIED SANITARY DRAINAGE (S)
UST	UNBURIED STORM DRAINAGE (UST)
ST	BURIED STORM DRAINAGE (ST)
HD	PIPE UP, BRANCH DROPPING FROM TEE, PIPE DOWN
	PIPE BREAK/CONTINUATION
XD	FLOOR (F), ROOF (R), HUB (H), FUNNEL (FF), AREA (A) DRAIN
CO	CLEAN OUT - EXPOSED
CO	CLEAN OUT - IN FLOOR
	SANITARY TRAP
WC-1	EQUIPMENT/FIXTURE TAG
	SPRINKLER HEAD

HVAC LEGEND	
	SUPPLY, RETURN AIR DUCT UP (RECT)
	SUPPLY, RETURN AIR DUCT DOWN (RECT)
	SUPPLY, RETURN AIR DUCT UP (ROUND)
	SUPPLY, RETURN AIR DUCT DOWN (ROUND)
	EXISTING HVAC TO REMAIN
	EXISTING HVAC TO BE REMOVED
	SUPPLY, RETURN, EXHAUST AIR GRILLE
	SIDE WALL GRILLE
QTY@ A B C	A- GRILLE/DIFFUSER TYPE B- DIFFUSER NECK SIZE/GRILLE SIZE C- AIR QUANTITY (CFM)
	SENSOR AND ASSOCIATED CONTROL WIRING
HRV-1	EQUIPMENT/FIXTURE TAG
	BALANCE DAMPER
	DIRECTION OF AIR FLOW
	DOOR GRILLE
	TURNING VANES
T	THERMOSTAT EQUAL TO HONEYWELL TB8220U: 7-DAY PROGRAMMABLE C/W AUTO CHANGEOVER
TC	TIME CLOCK
FD	FIRE DAMPER
GAS	GAS LINE
GM	GAS METER
	PIPE UP, PIPE DOWN
	SHUTOFF VALVE
	UNION
	PIPE BREAK/CONTINUATION

AIR HANDLING UNIT SCHEDULE

TAG	MANUFACTURER	MODEL	AIR FLOW	HEATING	VOLTAGE	CONTROLS
AHU-1	KEEPRITE	G96VTN	2000 CFM	80 MBH	120 V	7 DAY PROGRAMMABLE THERMOSTAT
AHU-2	KEEPRITE	G96VTN	2000 CFM	80 MBH	120 V	7 DAY PROGRAMMABLE THERMOSTAT
AHU-3	KEEPRITE	G96VTN	1600 CFM	80 MBH	120 V	7 DAY PROGRAMMABLE THERMOSTAT
AHU-4	KEEPRITE	G96VTN	1600 CFM	80 MBH	120 V	7 DAY PROGRAMMABLE THERMOSTAT

CONDENSING UNIT SCHEDULE

TAG	MANUFACTURER	MODEL	COOLING	ELECTRICAL	NOTES
CU-1	KEEPRITE	R410A 13 SEER	5 TONS	208V/3P	VARIABLE CAPACITY SCROLL COMPRESSOR
CU-2	KEEPRITE	R410A 13 SEER	5 TONS	208V/3P	VARIABLE CAPACITY SCROLL COMPRESSOR
CU-3	KEEPRITE	R410A 13 SEER	4 TONS	208V/3P	VARIABLE CAPACITY SCROLL COMPRESSOR
CU-4	KEEPRITE	R410A 13 SEER	4 TONS	208V/3P	VARIABLE CAPACITY SCROLL COMPRESSOR

NO.	REVISION	DATE	BY	APPROVED
2	ISSUED FOR PERMIT	8/31	C.J	G.V.W.O
1	ISSUED FOR COORD	7/28	C.J	G.V.W.O

REVISIONS

121 KENDLWOOD ROAD, WHITBY, ON
DR. MICHAEL PELLEGRINO

MECHANICAL MAIN PLAN

D.G. Biddle & Associates Limited
consulting engineers and planners
96 KING STREET EAST · OSHAWA,ON L1H 1B6
PHONE (905)576-8500 · FAX (905)576-9730
INFO@DGBIDDLE.COM

LICENSED PROFESSIONAL ENGINEER
G.V.W. OSBORNE
100136545
Aug 30/21
PROVINCE OF ONTARIO

SCALE:	1/4" = 1'
DRAWN BY:	C.J
DESIGN BY:	C.J/G.V.W.O.
CHECKED BY:	G.V.W.O.
DATE:	AUG 2021

PROJECT NO. 119095
DRAWING NO. ME.1
CAD FILE: 119095 ME
PLOT DATE: 08/31/2021
SUBMISSION: PERMIT

NOTE:
THE CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE AND EXISTING BUILDING AND SERVICES AFFECTING THE PROPER EXECUTION OF THE WORK, AND OBTAIN A CLEAR AND COMPREHENSIVE KNOWLEDGE OF THE EXISTING CONDITIONS. NO CLAIM FOR EXTRA PAYMENT WILL BE ALLOWED FOR WORK OR DIFFICULTIES ENCOUNTERED DUE TO CONDITIONS OF THE SITE WHICH WERE VISIBLE OR RESONABLY INFEERABLE, PRIOR TO THE DATE OF SUBMISSION OF BID. BIDDERS SHALL ACCEPT SOLE RESPONSIBILITY FOR ANY ERROR OR NEGLECT ON THEIR PART IN THIS RESPECT.

NOTE:
TENDERING OF THESE DOCUMENTS IS DONE UNDER THE MUTUAL UNDERSTANDING THAT ALL CONTRACTORS ARE EXPERIENCED AND LICENSED IN THE WORKS BEING PROVIDED AND THAT ALL COMPONENTS OF A FULLY FUNCTIONING SYSTEM WILL BE INCLUDED WHETHER SHOWN OR NOT SHOWN BUT IMPLIED FOR A COMPLETE SYSTEM.

NOTE:
ALL DETAILS SHOWN ARE SCHEMATIC BY NATURE AND ARE TO BE USED FOR SCOPE OF WORK PURPOSES ONLY. COORDINATE WITH ALL TRADES AND MANUFACTURERS BEST PRACTICES AND DIRECTIONS.

TYPICAL PIPE SIZES (INCHES)

	DCW	DHW	SANITARY	VENT
WATER CLOSET (TANK)	1/2"	–	3"	1–1/2"
SINK	1/2"	1/2"	1–1/2"	1–1/4"
2" FD	–	–	2"	–

NOTE:
DRAIN INVERTS INDICATED ARE THE LOWEST ACCEPTABLE INVERTS AT THESE LOCATIONS

NOTE:
REFER TO DETAIL FOR SUGGESTED FIRE STOPPING OF PIPING THROUGH FIRE SEPARATIONS

NOTE:
ALL PIPING INCLUDING PEX PIPING BOTH EXPOSED AND CONCEALED IS TO BE INSULATED. NO EXCEPTIONS.

NOTE:
ALL INVERTS SHALL BE COORDINATED WITH OUTSIDE SERVICE CONTRACTORS PRIOR TO INSTALLATION. RECORD ACTUAL INVERTS ON AS–BUILT DRAWINGS. INVERTS SHOWN TO BE MINIMUM ALLOWANCE FOR CONNECTION TO MAIN SANITARY LINE.

NOTE:
THE CONSULTANT RESERVES THE RIGHT TO MAKE REASONABLE CHANGES REQUIRED TO ACCOMMODATE CONDITIONS ARISING DURING THE PROGRESS OF THE WORK, AT NO EXTRA COST TO THE OWNER.

NOTE:
PROVIDE CLEAN OUT AT THE BOTTOM OF EACH SANITARY/STORM STACK PRIOR TO UNDERGROUND

NOTE:
PIPING SHOWN FOR SCHEMATIC AND SCOPE OF WORK PURPOSES IN GENERAL LOCATION OF USE, COORDINATE EXACT ROUTING ON SITE AND WITH BEST PRACTICES.

NOTE:
TENDERING OF THESE DOCUMENTS IS DONE UNDER THE MUTUAL UNDERSTANDING THAT ALL CONTRACTORS ARE EXPERIENCED AND LICENSED IN THE WORKS BEING PROVIDED AND THAT ALL COMPONENTS OF A FULLY FUNCTIONING SYSTEM WILL BE INCLUDED WHETHER SHOWN OR NOT SHOWN BUT IMPLIED FOR A COMPLETE SYSTEM.

CALCULATION OF FRESH AIR (BY ASHRAE 62.1)

OCCUPANT TYPE = RETAIL SALES (UNIT #1)

$V_{BZ} = R_P P + R_A A_Z$

$V_{BZ} = (7.5\ CFM \times 15\ PERS) + (0.12\ CFM \times 1367\ FT^2)$

$V_{BZ} = 317\ CFM$

V_{BZ}/E_Z

187 CFM / 1.0 = 317 CFM

CALCULATION OF FRESH AIR (BY ASHRAE 62.1)

OCCUPANT TYPE = RETAIL SALES (UNIT #2)

$V_{BZ} = R_P P + R_A A_Z$

$V_{BZ} = (7.5\ CFM \times 15\ PERS) + (0.12\ CFM \times 1290\ FT^2)$

$V_{BZ} = 300\ CFM$

V_{BZ}/E_Z

152 CFM / 1.0 = 300 CFM

CALCULATION OF FRESH AIR (BY ASHRAE 62.1)

OCCUPANT TYPE = RETAIL SALES (UNIT #3)

$V_{BZ} = R_P P + R_A A_Z$

$V_{BZ} = (7.5\ CFM \times 15\ PERS) + (0.12\ CFM \times 920\ FT^2)$

$V_{BZ} = 214\ CFM$

V_{BZ}/E_Z

225 CFM / 1.0 = 214 CFM

CALCULATION OF FRESH AIR (BY ASHRAE 62.1)

OCCUPANT TYPE = RETAIL SALES (UNIT #4)

$V_{BZ} = R_P P + R_A A_Z$

$V_{BZ} = (7.5\ CFM \times 15\ PERS) + (0.12\ CFM \times 700\ FT^2)$

$V_{BZ} = 163\ CFM$

V_{BZ}/E_Z

225 CFM / 1.0 = 163 CFM

PLUMBING NOTES

1. GENERAL
 1.1. FOR CONTINUATION OF SITE SERVICES REFER TO SITE SERVICE DRAWING BY OTHERS. CO–ORDINATE EXACT LOCATION AND INVERTS OF SERVICES.
 1.2. PROVIDE CLEANOUTS AND TRAP PRIMING FOR SANITARY AS REQUIRED BY O.B.C. AND LOCAL AUTHORITIES. CLEANOUT SIZE TO BE SAME AS SANITARY LINES.
 1.3. PROVIDE COMPLETE PLUMBING VENT SYSTEM AS REQUIRED BY O.B.C. AND LOCAL AUTHORITIES, INCLUDING MIN. 3"ø VENT AT UPSTREAM END(S) OF SANITARY BUILDING DRAIN.
 1.4. ISOLATION VALVES TO BE PROVIDED AT ALL FIXTURES AND HOT WATER TANK.
 1.5. PIPE INSULATION TO BE 25mm FOR ALL NEW AND/OR EFFECTED DOMESTIC PIPING. IN EXPOSED AREAS PROVIDE CANVAS WRAP OVER INSULATION.

2. MATERIALS
 2.1. ALL PVC OR ABS TYPE PIPING TO BE USED ABOVE GROUND SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS AND SHALL BE CONFIRMED TO BE ACCEPTABLE BY THE AUTHORITY HAVING JURISDICTION. IF ACCEPTABLE AND USED, IT SHALL BE PROVIDED WITH U.L.C. LISTED AND APPROVED FIRE STOP DEVICE AT ALL PENETRATIONS OF ANY FIRE SEPARATION.
 2.2. ALL ABOVE GROUND DOMESTIC PIPING SHALL BE TYPE 'L' COPPER.
 2.3. ALL BURIED DOMESTIC PIPING SHALL BE TYPE 'K' COPPER.
 2.4. ALL ABOVE GROUND DRAINAGE PIPING SHALL BE CAST IRON 'MJ' PIPE.
 2.5. ALL BURIED DRAINAGE PIPING SHALL BE DR26 PVC WITH CLASS P BEDDING.

EXHAUST FAN SCHEDULE

TAG	MANUFACTURER	MODEL	AIR FLOW	MOUNTING	VOLTAGE	CONTROLS	ACCESSORIES
EF–1	GREENHECK	SP–A250	250 CFM	CEILING	120V	THERMOSTAT	BACKDRAFT DAMPER

NOTES: ADDITIONAL COSTS INCURRED AS A RESULT OF ANY ALTERNATIVE MODELS ARE AT THE EXPENSE OF THE CONTRACTOR

REGISTER, DIFFUSER AND GRILLE SCHEDULE

TAG	MANUFACTURER	MODEL	DESCRIPTION	FINISH/COLOUR	NOTES
A	VENTEX	2425	STORMPROOF INTAKE LOUVER	TO BE DETERMINED BY ARCHITECT	SHOWN ON DRAWINGS

HVAC NOTES

1. GENERAL
 1.1. COORDINATE EXACT LOCATION OF GRILLES AND DIFFUSERS WITH REFLECTED CEILING PLAN OR LIGHTING PLAN IF AVAILABLE. LIGHTING LOCATIONS TAKE PRIORITY.
 1.2. CONFIRM EXACT LOCATION OF THERMOSTATS/SENSORS WITH OWNER. MOUNT THERMOSTATS/SENSORS AT 4' ABOVE FINISHED FLOOR. ENSURE THERMOSTAT/SENSOR LOCATIONS WILL NOT BE AFFECTED BY DIRECT SUNLIGHT, COLD WALLS OR MILLWORK.
 1.3. PROVIDE 4" FLEXIBLE CONNECTIONS AT ALL DUCT CONNECTIONS TO AIR HANDLING UNITS.
 1.4. PROVIDE ACOUSTIC INSULATION IN FIRST 5' OF SUPPLY AND RETURN AIR DUCTS OFF AIR HANDLING UNITS AND AS INDICATED ON DRAWINGS.
 1.5. PROVIDE EXTERNAL INSULATION ON ALL SUPPLY AIR DUCTS AND ON ALL EXHAUST DUCTS WITHIN 10' OF OUTSIDE WALLS AND ROOF.
 1.6. BRANCH DUCTWORK TO DIFFUSERS TO BE SAME SIZE AS DIFFUSER NECK.
 1.7. PROVIDE TURNING VANES IN ALL SQUARE ELBOWS FOR SUPPLY AIR DUCTS.
 1.8. FLEXIBLE DUCT SHALL BE MAXIMUM 10' IN LENGTH AND SHALL BE SECURELY FASTENED TO DUCTS AND DIFFUSERS. PROVIDE HANGERS AND FLEXIBLE DUCTWORK WITHOUT SHARP 90'S, SAGGING, OR CRUSHING OF DUCT.
 1.9. PROVIDE TRAP AT OUTLET OF DRAIN FOR ROOFTOP HVAC EQUIPMENT
 1.10. PROVIDE FIRE STOPPING AROUND OPENINGS THROUGH FIRE SEPARATIONS.

2. FIRE DAMPERS
 2.0. PROVIDE FIRE DAMPERS AT ALL FIRE SEPARATIONS. FIRE DAMPERS SHALL BE C/W LINKAGE OUT OF THE AIR STREAM. FIRE DAMPER RATING TO MATCH THE RATING OF THE SEPARATION CROSSED. INSTALLATION MUST CONFORM TO LATEST NFPA/CUA 90A SPECIFICATIONS. ONLY USE ULC APPROVED EQUIPMENT. PROVIDE DUCT ACCESS DOORS AND BREAK AWAY FLANGES FOR ALL FIRE DAMPERS IN CONFORMANCE WITH CODE AND INSTALLATION INSTRUCTIONS.

3. TESTS AND BALANCING
 3.1. BALANCING DAMPERS SHALL BE INSTALLED AT ALL TAKE–OFFS FROM BRANCH DUCTS, AND ALL BRANCH DUCT CONNECTIONS TO MAIN DUCTS. BALANCING DAMPERS SHALL BE MANUALLY OPERATED OPPOSED BLADE TYPE, SPLITTER TYPE OR BUTTERFLY TYPE, COMPLETE WITH LOCKING QUADRANT OPERATOR.
 3.2. AIR TEST AND BALANCE SHALL BE PERFORMED BY AN INDEPENDENT AIR BALANCING COMPANY. THE AIR BALANCING COMPANY SHALL BE APPROVED BY THE ENGINEER.
 3.3. SCOPE OF BALANCING WORK:
  3.3.1. ALL LISTED AIR HANDLING SYSTEMS SHALL BE BALANCED TO WITHIN 5% OF THE NOTED DESIGN AIR VOLUMES AS PER PLANS AND SPECIFICATIONS.
  3.3.2. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING THE HVAC SYSTEM FULLY OPERATIONAL TWO WEEKS BEFORE TURNOVER TO THE OWNER. THIS WILL INCLUDE THE REQUIREMENT TO INSTALL CLEAN FILTERS IN ALL RELATED HVAC EQUIPMENT BEFORE TIME OF AIR TESTING AND TO MAKE ALL AIR SYSTEMS FULLY OPERATIONAL.

4. MATERIALS
 4.1. DUCTWORK
  4.1.1. IN CONFORMANCE WITH SMACNA, ASHRAE, OBC, NFPA 90A
  4.1.2. SHEET METAL SHALL BE BEST QUALITY LOCK FORMING GALVANIZED SHEET METAL, GALVANIZING SHALL BE TO ASTM A525 (G90), HAVING A THICKNESS OF 0.054mm AND WEIGHING NOT LESS THAN 0.316g/m² ON EACH SURFACE.
  4.1.3. PROVIDE INSTRUMENTATION TEST PORTS IN DUCTS FOR PILOT TUBE INSERTION WITH CAM–ACTION HANDLE, MOULDED NEOPRENE GASKET AND EXPANSION PLUG, ZING COATED STEEL CONSTRUCTION.
 4.2. FLEXIBLE CONNECTIONS
  4.2.1. PROVIDE FLEXIBLE CONNECTIONS AT AIR HANDLING UNITS WITH UL APPROVED FABRIC OF 5" MINIMUM WIDTH AND WEIGHING NOT LESS THAN 0.8136kg/m².
 4.3. INSULATION
  4.3.1. PROVIDE 1" INTERNAL ACOUSTIC INSULATION ON:
   4.3.1.1. THE FIRST 5' OFF SUPPLY AND RETURN DUCTS OFF ALL AIR HANDLING UNITS.
  4.3.2. PROVIDE 1" EXTERNAL INSULATION ON:
   4.3.2.1. ALL INDOOR & OUTDOOR REFRIGERATION PIPING
   4.3.2.2. ALL SUPPLY AIR DUCTS WHICH ARE NOT LOCATED IN A RETURN AIR PLENUM.
   4.3.2.3. EXHAUST DUCTS THROUGH ATTICS AND 10' BACK FROM WALL
  4.3.3. PROVIDE 2" EXTERNAL INSULATION ON:
   4.3.3.1. ALL SUPPLY AND RETURN AIR DUCTS THROUGH ATTICS OR UN–INSULATED AREAS

5. CONTROL WIRING
 5.1. ALL CONTROL WIRING SHALL BE RUN PARALLEL TO BUILDING LINES AND TIGHT TO ROOF DECK OR WALLS.
 5.2. ALL CONCEALED INDOOR CONTROL WIRING SHALL BE RUN IN LVT.
 5.3. ALL EXPOSED INDOOR CONTROL WIRING IN UNFINISHED AREAS, T–BAR CEILING SPACES, ATTICS AND CRAWL SPACES SHALL BE RUN IN EMT CONDUIT WITH FINAL CONNECTION IN BX TO EQUIPMENT/COMPONENTS.
 5.4. ALL OUTDOOR CONTROL WIRING SHALL BE RUN IN LIQUIDTIGHT.
 5.5. FLEXIBLE CABLE MUST BE STRAPPED TO SUPPORT WITHIN 12" OF TERMINATION BOX OR EQUIPMENT.

PLUMBING FIXTURE SCHEDULE

* ALL SPECIFICATIONS TO BE CONFIRMED WITH ARCHITECT AND ENGINEER PRIOR TO ORDERING

HD – FLOOR DRAIN – FINISHED AREA
Watts #FD–100–C–EG–50–7–6 Floor Drain – epoxy coated, cast iron body, reversible flashing clamp with primary and secondary weepholes, 5" (127 mm) diameter nickel bronze, adjustable round strainer, 4" x 9" (102 mm x 229 mm) oval cast iron funnel, vandal proof,trap primer connection with plug, no hub outlet.

FD – FLOOR DRAIN – FINISHED AREA
Watts #FD–100–C–7–6–A5–1 Floor Drain – epoxy coated, cast iron body, reversible flashing clamp with primary and secondary weepholes, trap primer connection with plug,vandal proof, no hub outlet. Watts –A5–1 5" (127 mm) diameter, nickel bronze, adjustable round strainer.

ACCESS DOOR – UNIVERSAL FLUSH
Acudor UF–5000 6 x 6 SCPC Universal Flush, flush to frame door with rounded safety corners, carbon steel with prime coat baked enamel finish, 16 GA. (1.5 mm) up to 16" x 16"; 14 GA. (1.9 mm) over 16" x 16", 6" x 6" (152 mm x 152 mm), one piece frame outer flange welded to mounting frame, 18 GA. (1.2 mm) up to 16" x 16"; 16 GA. (1.5 mm) over 16" x 16", continuous, concealed hinge, stainless steel screwdriver operated cam latch.

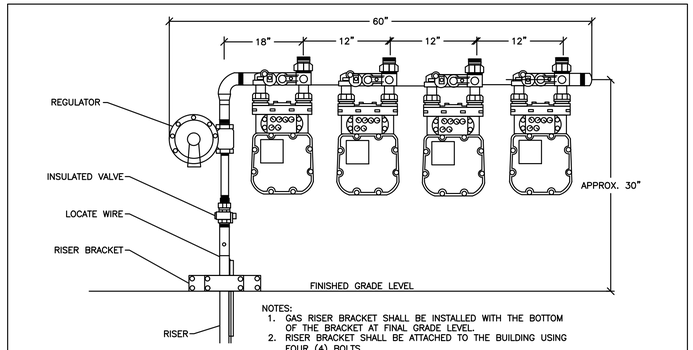
ACCESS DOOR – FIRE–RATED INSULATED
Acudor FW–5050 8 x 8 WCPC fire–rated insulated, self–closing door filled with 2" (51 mm) thick fire rated insulation. ULC–2 hour "B" label. Carbon steel with prime coat baked enamel finish, 20 GA. (1.0 mm) door, 8" x 8" (203 mm x 203 mm), 16 GA. (1.5 mm) frame, concealed hinge, knurled knob and flush key, When master keying is required, doors can be prepared for mortise cylinder locks. For ceilings: Warnock Hersey International – 3 hours max size 24 x 36. For walls: UL–1–1/2 hour "B" label.

COMMERCIAL TRAP SEAL PRIMER
P.P.P. #PT–4 Trap Seal Primer serving four drains, activated by a 3/4" (19 mm) normally closed solenoid valve, designed to interface with low voltage energy management systems control, 3/4" (19 mm) diameter connection anti–siphon atmospheric vacuum breaker.

TRAP SEAL PRIMER
P.P.P. #PR01–500 Trap Seal Primer – lead–free brass body flow sensing activation with minimum flow rate of 0.5 GPM at 20 psig, 1/2" (13 mm) diameter connection equipped with vacuum breaker ports and internal backflow protection.

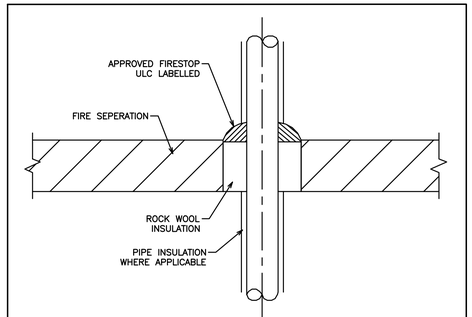
CLEANOUT – STACK CLEANOUT WITH BRASS PLUG WITH STAINLESS STEEL COVER
Watts #CO–460–RD Cleanout, cast iron body, removable, gasketed, brass plug, round cover, access cover, stainless steel cover, no hub outlet.

CLEANOUT – FLOOR CLEANOUT
Watts #CO–200–R–1–6–34G Cleanout – epoxy coated, cast iron body, ABS plug with neoprene gasket, vandal proof, no hub outlet.

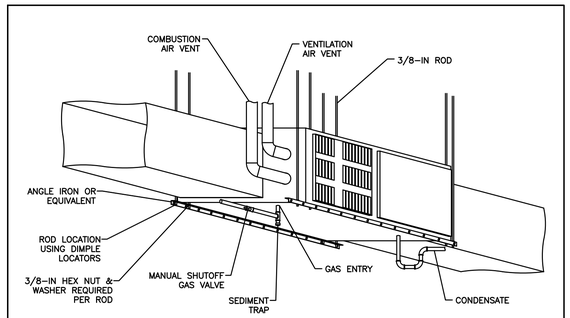


NOTES:
1. GAS RISER BRACKET SHALL BE INSTALLED WITH THE BOTTOM OF THE BRACKET AT FINAL GRADE LEVEL.
2. RISER BRACKET SHALL BE ATTACHED TO THE BUILDING USING FOUR (4) BOLTS.
3. ANCHORS OR SUITABLE MASONRY FASTENERS SHALL BE USED TO PREVENT PULL–OUT OF THE BRACKET.

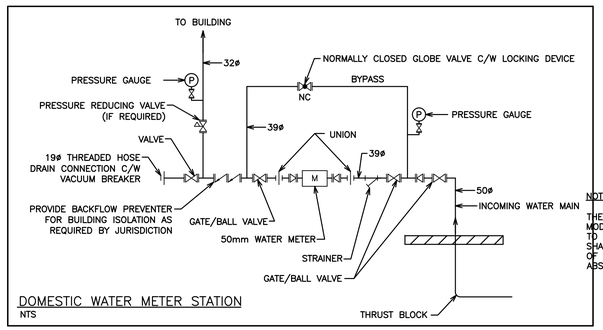
TYPICAL 4–METER MANIFOLD
NTS



DETAIL OF SUGGESTED FIRE STOPPING
NTS

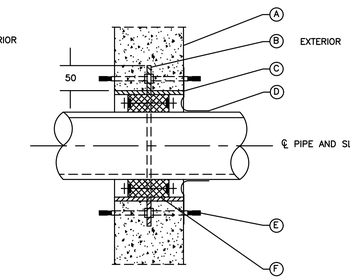


SUSPENDED AIR HANDLING UNIT DETAIL.
NTS



DOMESTIC WATER METER STATION
NTS

ITEM	DESCRIPTION
A.	EXTERIOR WALL
B.	WATER STOP AND ANCHOR COLLAR
C.	LINK–SEAL TYPE WALL SLEEVE MODEL WS OR CORE BIT DRILL WALL OPENING. DIA. AS REQ'D TO ACCEPT LINK SEAL ASSEMBLY
D.	EXTERIOR SURFACE OF SLEEVE, SEAL AND PIPE SHOULD BE COATED WITH COAL TAR OR OTHER WATERPROOFING MATERIAL
E.	25 DIA. GALVANIZED THREADED RODS FOR STRAPPING WATER MAINS. COORDINATE SPACING WITH FLANGERS AND SOCKET CLAMPS USED FOR TIE RODS
F.	LINK–SEAL TYPE WALL PENETRATION SEAL MODEL –LS– MODULAR MECHANICAL SYNTHETIC RUBBER SEAL



NOTE:
THE PIPE TO WALL PENETRATION CLOSURE SHALL BE "LINK–SEAL". SEALS SHALL BE MODULAR MECHANICAL TYPE, CONSISTING OF INTERLOCKING SYNTHETIC RUBBER LINK SHAPED TO CONTINUOUSLY FILL THE ANNULAR SPACE BETWEEN PIPE AND WALL OPENING. EACH LINK SHALL BE PROVIDED WITH PRESSURE PLATE UNDER EACH BOLT HEAD AND NUT. TIGHTENING OF BOLTS SHALL CAUSE THE RUBBER SEALING ELEMENTS TO EXPAND AND PROVIDE AN ABSOLUTELY WATERTIGHT SEAL BETWEEN PIPE AND WALL OPENING.

PIPE PENETRATION THROUGH EXTERIOR WALL
NTS

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1	ISSUED FOR COORD	7/28	C.J	G.V.W.O

REVISIONS

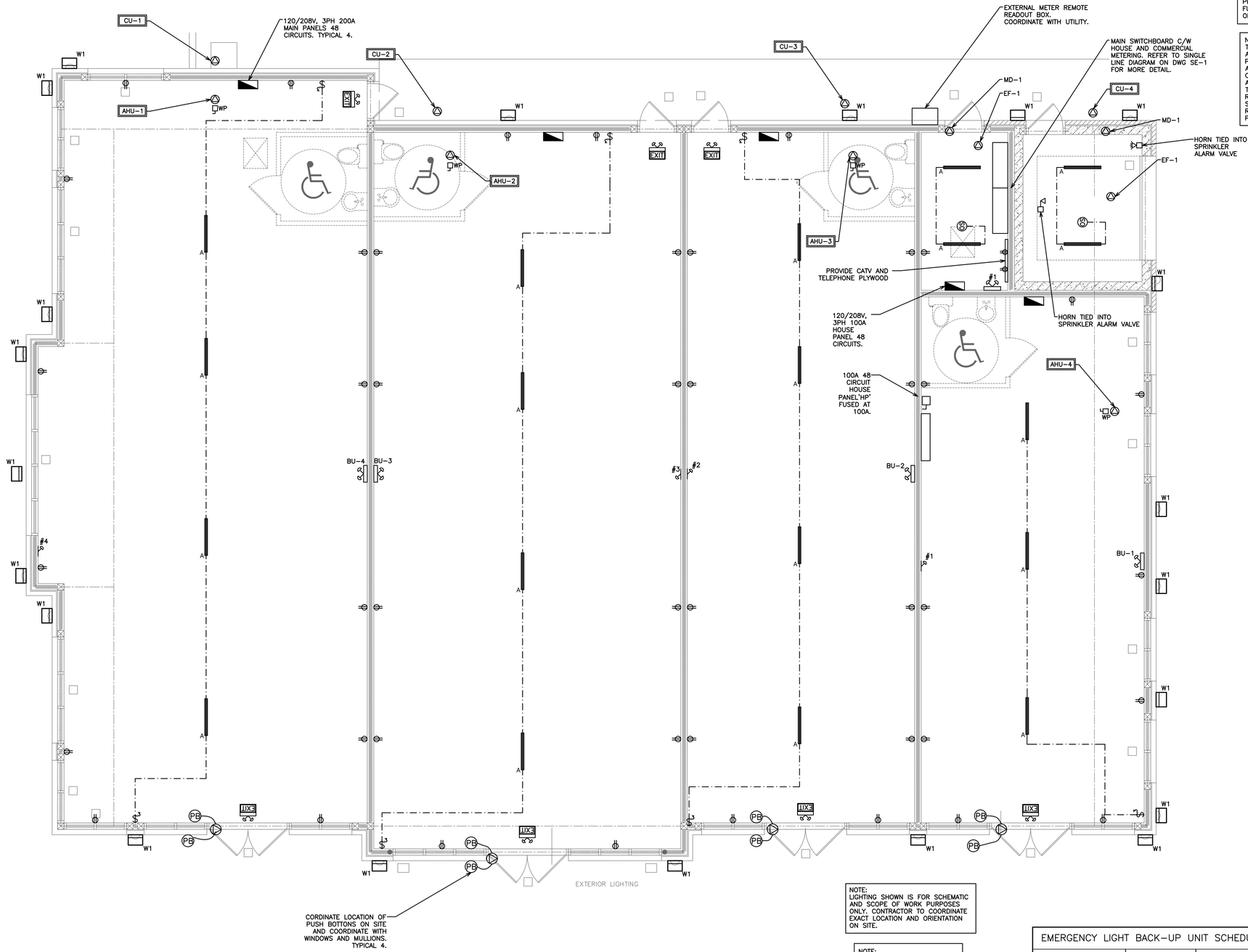
121 KENDLWOOD ROAD, WHITBY, ON
DR. MICHAEL PELLEGRINO

MECHANICAL NOTES, SCHEDULES AND DETAILS

D.G. Biddle & Associates Limited
consulting engineers and planners
96 KING STREET EAST · OSHAWA,ON L1H 1B6
PHONE (905)576–8500 · FAX (905)576–9730
INFO@DGBIDDLE.COM

SCALE:	1/4" = 1'
DRAWN BY:	C.J
DESIGN BY:	C.J/G.V.W.O.
CHECKED BY:	G.V.W.O.
DATE:	AUG 2021

PROJECT NO. 119095
DRAWING NO. ME.2
CAD FILE: 119095 ME
PLOT DATE: 08/31/2021
SUBMISSION: PERMIT



NOTE:
TENDERING OF THESE DOCUMENTS IS DONE UNDER THE MUTUAL UNDERSTANDING THAT ALL CONTRACTORS ARE EXPERIENCED AND LICENSED IN THE WORKS BEING PROVIDED AND THAT ALL COMPONENTS OF A FULLY FUNCTIONING SYSTEM WILL BE INCLUDED WHETHER SHOWN OR NOT SHOWN BUT IMPLIED FOR A COMPLETE SYSTEM.

NOTE:
THE CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE AND EXISTING BUILDING AND SERVICES AFFECTING THE PROPER EXECUTION OF THE WORK, AND OBTAIN A CLEAR AND COMPREHENSIVE KNOWLEDGE OF THE EXISTING CONDITIONS. NO CLAIM FOR EXTRA PAYMENT WILL BE ALLOWED FOR WORK OR DIFFICULTIES ENCOUNTERED DUE TO CONDITIONS OF THE SITE WHICH WERE VISIBLE OR REASONABLY INFEERABLE, PRIOR TO THE DATE OF SUBMISSION OF BID. BIDDERS SHALL ACCEPT SOLE RESPONSIBILITY FOR ANY ERROR OR NEGLECT ON THEIR PART IN THIS RESPECT.

NOTE:
ALL SWITCHES AND CONTROLS WITHIN BARRIER-FREE AREAS TO BE MOUNTED AS PER O.B.C. 3.8.1.5.(1)(C)

NOTE:
EMERGENCY LIGHTING SHALL BE INCLUDED IN CONFORMANCE WITH O.B.C. 2012 DIVISION B 3.2.7.3.

NOTE:
THE REQUIRED EMERGENCY LIGHTING SHALL HAVE AN AVERAGE LEVEL NOT LESS THAN 10lx (0.9 ft-candles) AT FLOOR OR TREAD LEVEL. REFER TO O.B.C. 2012 3.2.7.3 FOR AREAS.

NOTE:
ELECTRICAL CONDUCTORS ASSOCIATED WITH EMERGENCY EQUIPMENT SHALL CONFORM TO OBC 3.2.7.10

LIGHTING LEGEND	
$ ^{3}	SINGLE POLE, SINGLE THROW TOGGLE SWITCH, ONE, TWO, OR THREE GANGED ('3' DENOTES 3-WAY)
D	CEILING RECESSED POT LIGHT
A	FREE HANGING 4' FLUORESCENT STRIP LIGHT, WRAP AROUND CAGE, CHAIN SET, SINGLE ELECTRONIC BALLAST, 2-T8 TUBES, 120V/1PH
OS	OCCUPANCY SENSOR
	SWITCHWIRING
	WALL MOUNTED LIGHT. REFER TO SL-1 DRAWING FOR MORE DETAIL.
EXIT EXIT	EXIT SIGN, EXIT SIGN WITH EMERGENCY LIGHTING EQUAL TO LUMACELL LMCE WITH BACK-UP BATTERY PACK
##	DOUBLE HEAD EMERGENCY LIGHT EQUAL TO LUMACELL MQ212V12W
##	SINGLE HEAD EMERGENCY LIGHT EQUAL TO LUMACELL MQ112V12W
BU-#	BACK-UP BATTERY UNIT (REFER TO SCHEDULE)
BU-#	EMERGENCY LIGHTING WITH BACK-UP BATTERY UNIT (REFER TO SCHEDULE)

POWER LEGEND	
	RECEPTACLE
	240V 1PH GROUNDED RECEPTACLE
	VOICE, DATA COMBO
	120V POWER SUPPY
	ELECTRICAL DISCONNECT
	575V 3PH GROUNDED DIRECT EQUIPMENT CONNECTION
	WALL MOUNTED TELEVISION (CABLE) OUTLET
	VOICE ONLY OUTLET BOX - WALL BOX, OUTLET & 3/4" CONDUIT C/W PULL STRING UP WALL TO CEILING SPACE
	COMBINATION HORN/STROBE
	SMOKE ALARM
	HEAT DETECTOR
GFI	GFI RATED RECEPTACLE
WP	WEATHERPROOF
FF-1	EQUIPMENT/FIXTURE TAG

NOTE:
LIGHTING SHOWN IS FOR SCHEMATIC AND SCOPE OF WORK PURPOSES ONLY. CONTRACTOR TO COORDINATE EXACT LOCATION AND ORIENTATION ON SITE.

NOTE:
ALL DETAILS SHOWN ARE SCHEMATIC BY NATURE AND ARE TO BE USED FOR SCOPE OF WORK PURPOSES ONLY. COORDINATE WITH ALL TRADES AND MANUFACTURERS BEST PRACTICES AND DIRECTIONS.

EMERGENCY LIGHT BACK-UP UNIT SCHEDULE		
TAG	MANUFACTURER	MODEL
BU-1	LUMACELL	RG12S-36-2-LD10
BU-2	LUMACELL	RG12S-36-2-LD10
BU-3	LUMACELL	RG12S-36-2-LD10
BU-4	LUMACELL	RG12S-36-2-LD10

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REVISIONS

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ELECTRICAL MAIN PLAN

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96 KING STREET EAST · OSHAWA,ON L1H 1B6
PHONE (905)576-8500 · FAX (905)576-9730
INFO@DGBIDDLE.COM

LICENSED PROFESSIONAL ENGINEER
G.V.W. OSBORNE
100136545
Aug 30/21
PROVINCE OF ONTARIO

SCALE:	1/4" = 1'	PROJECT NO.	119095
DRAWN BY:	C.J	DRAWING NO.	E1.1
DESIGN BY:	C.J/G.V.W.O.		
CHECKED BY:	G.V.W.O.	CAD FILE:	119095 E1
DATE:	AUG 2021	PLOT DATE:	08/31/2021
		SUBMISSION:	PERMIT

GENERAL REQUIREMENTS FOR MECHANICAL & ELECTRICAL WORK

1. SCOPE OF WORK
 1.1. CONFORM TO ALL DRAWINGS RELATED TO THIS PROJECT.
 1.2. COMPLY WITH THE REQUIREMENTS OF THE CURRENT EDITION OF THE O.B.C., ALL OTHER APPLICABLE CODES, REGULATIONS, BY-LAWS AND OFFICIAL STANDARDS ACCORDING TO THE REQUIREMENTS AND INTERPRETATIONS OF THE AUTHORITIES HAVING JURISDICTION. THESE CODES AND STANDARDS CONSTITUTE AN INTEGRAL PART OF THESE SPECIFICATIONS. IN CASE OF CONFLICT, THE CODES TAKE PRECEDENCE OVER THE CONTRACT DOCUMENTS.

2. EXAMINATION OF SITE AND INFORMATION
 2.1. EACH SUBCONTRACTOR, BEFORE TENDERING, SHALL EXAMINE THE SITE, THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND THEY SHALL FAMILIARIZE THEMSELVES WITH THE BUILDING CONSTRUCTION AND FINISH IN ORDER THAT THEIR TENDER MAY INCLUDE EVERYTHING NECESSARY FOR THE PROPER COMPLETION OF THE WORK.
 2.2. IT SHALL BE THIS SUBCONTRACTOR'S RESPONSIBILITY THAT MATERIAL AND EQUIPMENT BE BROUGHT INTO THE BUILDING IN SUCH ASSEMBLIES AND SIZES AS TO ENTER INTO THE SPACE WHERE THEY ARE TO BE LOCATED AND TO BE SMALL ENOUGH TO BE HOISTED INTO THE BUILDING WITHOUT DIFFICULTY. ANY CUTTING, PATCHING, ETC., INVOLVED IN GETTING LARGE ASSEMBLIES INTO PLACE, SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR.

3. RELATIONSHIP TO OTHER TRADES
 3.1. THIS SUBCONTRACTOR SHALL CONFER WITH ALL OTHER CONTRACTORS INSTALLING EQUIPMENT, PIPING, OTHER WORK, FOUNDATIONS, ETC., WHICH MAY AFFECT THEIR INSTALLATION, AND THEY SHALL ARRANGE THEIR EQUIPMENT, PIPING, ETC., IN PROPER RELATION WITH OTHER APPARATUS, AND WITH THE BUILDING CONSTRUCTION. THIS SUBCONTRACTOR SHALL ALSO CONFIRM THE ELECTRICAL CHARACTERISTICS OF THE PROJECT AND ORDER EQUIPMENT ACCORDINGLY.
 3.2. SPECIAL CARE SHALL BE TAKEN IN THE INSTALLATION OF ALL WORK, TO SEE THAT THEY ALL COME WITHIN THE LIMITS ESTABLISHED BY THE FINISH LINES OF ALL WALLS, FLOORS, CEILINGS, ETC.
 3.3. THIS SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR AND OTHER SUBCONTRACTORS WHO ARE CONCERNED, OF ALL OPENINGS, FOUNDATION WORK, HANGERS, INSERTS, ANCHORS, OR OTHER PROVISIONS NECESSARY IN THEIR WORK FOR THE INSTALLATION OF THE SUBCONTRACTORS WORK, AND THEY SHALL FURNISH ALL INFORMATION AND NECESSARY MATERIALS IN AMPLE TIME SO THAT PROPER PROVISIONS CAN BE MADE FOR SAME, AND SHALL SUPPLY AND CORRECTLY AND ACCURATELY PLACE ALL INSERTS, SLEEVES, ANCHORS, ETC.
 3.4. FAILURE TO COMPLY WITH THESE REQUIREMENTS ON THE PART OF THIS SUBCONTRACTOR WILL RENDER THEM RESPONSIBLE FOR THE COST OF CUTTING OPENINGS, INSTALLING HANGERS AND OTHER PROVISIONS AT A LATER DATE, AND THE SUBSEQUENT PATCHING, ETC., THEREBY REQUIRED.
 3.5. NO CUTTING SHALL BE DONE WITHOUT PERMISSION. ALL SUCH WORK SHALL BE DONE BY TRADES-PERSONS SKILLED IN AND CERTIFIED FOR THIS PARTICULAR TRADE.
 3.6. EACH SUBCONTRACTOR IS TO BE AN EXPERT IN THEIR TRADE.

4. SHOP DRAWINGS
 4.1. EACH SUBCONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ARCHITECT FOR REVIEW OF MATERIAL, EQUIPMENT, AND APPARATUS BEING PROVIDED BY THEM. THESE SHALL SHOW IN DETAIL THE DESIGN AND CONSTRUCTION AND PERFORMANCE OF ALL APPARATUS, ETC.
 4.2. THE ENGINEER'S REVIEW OF SHOP DRAWINGS AND MANUFACTURER'S SPECIFICATIONS OF ANY EQUIPMENT IS GENERAL AND IS NOT INTENDED TO SERVE AS A FINAL CHECK AND IT SHALL NOT RELIEVE THE SUBCONTRACTOR OF THE RESPONSIBILITY FOR ERRORS OR OF THE NECESSITY OF CHECKING THE DRAWINGS THEMSELVES, OR OF FURNISHING ANY OF THE MATERIALS AND PERFORMING THE WORK REQUIRED BY THE DRAWINGS AND SPECIFICATIONS TO THE FULL INTENT OF THIS SPECIFICATION.
 4.3. BEFORE SUBMISSION, THIS SUBCONTRACTOR SHALL CHECK ALL SHOP DRAWINGS FOR ACCURACY OF DETAILS, DIMENSIONS, ETC. AND SHALL BE SATISFIED THAT THE DRAWINGS ARE CORRECT AND THAT THE EQUIPMENT WILL FIT PROPERLY IN THE ALLOTTED SPACE. THE SHOP DRAWINGS SHALL BE STAMPED BY THIS SUBCONTRACTOR WITH THE WORD 'REVIEWED', THE DATE OF APPROVAL, AND THE FIRM'S NAME PRIOR TO SUBMISSION.

5. REQUIREMENTS OF INSPECTION DEPARTMENTS
 5.1. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL LAWS AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION IN EACH CASE, PARTICULARLY ALL AFFECTED DEPARTMENTS OF THE MUNICIPALITY AND PROVINCE. ELECTRICAL EQUIPMENT SUPPLIED MUST CONFORM TO THE REGULATIONS OF CSA AND THE LOCAL UTILITY. ANYTHING NECESSARY TO MAKE THE WORK COMPLY WITH THESE REQUIREMENTS SHALL BE PROVIDED BY THIS SUBCONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNERS IF IT REASONABLY COULD HAVE BEEN FORESEEN WHEN TENDERING.
 5.2. EACH SUBCONTRACTOR SHALL PREPARE DRAWINGS IN ADDITION TO ENGINEER'S DRAWINGS AS MAY BE REQUIRED BY VARIOUS INSPECTION DEPARTMENTS HAVING JURISDICTION, AND OBTAIN THEIR APPROVAL BEFORE PROCEEDING WITH THE WORK.
 5.3. IN THE EVENT THAT THE INSPECTION DEPARTMENT'S REQUEST DEVIATES FROM THE ENGINEER'S LAYOUT, THE SUBCONTRACTOR SHALL CONSULT ENGINEER BEFORE PROCEEDING WITH THE SAME. IT SHALL BE NOTED THAT ENGINEER'S DRAWINGS ARE GENERALLY ACCEPTABLE TO INSPECTION DEPARTMENTS AND MINOR SUPPLEMENTS NEED ONLY BE MADE BY SUBCONTRACTORS.

6. CERTIFICATES, PERMITS, FEES
 6.1. SUBCONTRACTORS SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL REQUIRED PERMITS AND PAY ALL FEES INCLUDING PAYMENT FOR STREET CONNECTIONS TO STORM, SANITARY, WATER AND GAS IN ORDER THAT THE WORK HEREIN SPECIFIED MAY BE CARRIED OUT AND THEY SHALL FURNISH ANY CERTIFICATES NEEDED AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH THE LAWS AND REGULATIONS OF THE MUNICIPALITY AND PROVINCE.

7. GUARANTEE
 7.1. THIS SUBCONTRACTOR SHALL GUARANTEE ALL MATERIAL AND WORKMANSHIP USED IN THE WORK TO BE IN STRICT ACCORDANCE WITH THE SPECIFICATIONS, OF BEST QUALITY AND TYPE OBTAINABLE TO GIVE FIRST-CLASS CONSTRUCTION AND PROPER EFFICIENT OPERATION, AND FREE FROM ANY DEFECTS. ANY SUCH DEFECTS WHICH MAY APPEAR IN ANY OF THE WORK WITHIN ONE YEAR AFTER WRITTEN ACCEPTANCE OF THEIR WORK, SHALL BE REPAIRED AND REPLACED BY THIS SUBCONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE OWNER. WHERE SUCH DEFECTS OCCUR, THIS SUBCONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL COSTS INCURRED IN MAKING THE DEFECTIVE WORK GOOD. THIS SHALL NOT OBSOLETE ANY LONGER WARRANTIES ON SPECIFIC ITEMS OF EQUIPMENT.
 7.2. ALL INJURIES TO ADJACENT WORK, PARTICULARLY PLASTER, WOOD FINISHES OR OTHER MATERIALS, OR DAMAGE TO OTHER EQUIPMENT, CAUSED BY SUCH DEFECTS OF THIS SUBCONTRACTOR'S WORK OR BY SUBSEQUENT REPLACEMENT AND REPAIR, SHALL BE MADE GOOD AT THE EXPENSE OF THIS SUBCONTRACTOR. ALL REPAIR WORK SHALL BE DONE BY TRADES RESPONSIBLE FOR THE ORIGINAL WORK.

8. DRAWINGS
 8.1. THE DRAWINGS SHOW THE APPROXIMATE LOCATION FOR SPECIAL APPARATUS AND THE MATERIALS THROUGHOUT THE BUILDING. THE ARRANGEMENT SHOWN ON THE DRAWING IS MORE OR LESS DIAGRAMMATIC AND AS SUCH APPROXIMATE ONLY, AND MAY BE ALTERED, AS APPROVED BY THE ENGINEER, TO MEET REQUIREMENTS OF THE APPARATUS, ETC., AND OF THE BUILDING. EACH SUBCONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL MEASUREMENTS FOR THEIR WORK THROUGHOUT, AND THEY SHALL ARRANGE THEIR PIPING, WIRING AND APPARATUS TO CONFORM TO THE ARCHITECTURAL AND STRUCTURAL DETAILS IN A SATISFACTORY MANNER AND SHALL CO-OPERATE WITH OTHER CONTRACTORS TO ENSURE THAT WORK SHALL MEET ALL REQUIREMENTS OF DIVERSE CONTRACTS.
 8.2. THE SUBCONTRACTOR IS PARTICULARLY CAUTIONED THAT SMALL SCALE ENGINEER'S PLANS MUST BE SUPPLEMENTED BY THEIR OWN DETAIL DRAWINGS WHERE NECESSARY FOR PROPER CO-ORDINATION OF THE WORK.
 8.3. ITEMS SHOWN ON THE DRAWINGS BUT NOT SPECIFIED OR SPECIFIED BUT NOT SHOWN SHALL BE INCLUDED.
 8.4. ITEMS OBVIOUSLY REQUIRED TO PROVIDE A COMPLETE WORKING SYSTEM BUT NOT SPECIFIED NOR SHOWN SHALL BE INCLUDED.

9. RESPONSIBILITY AND LIABILITY
 9.1. EACH SUBCONTRACTOR SHALL SUPERVISE THE LAYING OUT OF THEIR WORK AND SHALL ARRANGE IT IN CO-OPERATION WITH OTHER WHO MAY BE WORKING ON THE PREMISES WHILE THE WORK OF THIS CONTRACT IS IN PROGRESS. THEY SHALL PROTECT FINISHED AND UNFINISHED WORK OF THIS CONTRACT AND/OR WORK OF OTHERS ON THE PREMISES UNTIL THE COMPLETED WORK HAS BEEN ACCEPTED.
 9.2. THE SUBCONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES FOUND IN THE DRAWINGS OR SPECIFICATIONS BEFORE SUBMITTING THEIR TENDER. THEY SHALL ABIDE BY DECISIONS GIVEN TO THEM IN WRITING WITH REGARD TO SAME. EACH SUBCONTRACTOR IS CAUTIONED THAT THE WORK AS SHOWN IS INTENDED TO BE COMPLETE IN ALL RESPECTS AND THAT FAILURE ON THEIR PART TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES WILL NOT RELIEVE THEM OF THE RESPONSIBILITY OF COMPLETING THE WORK AS INTENDED AT THE CONTRACT PRICE.

10. CLEAN-UP
 10.1. DURING THE COURSE OF CONSTRUCTION, EACH SUBCONTRACTOR SHALL KEEP THEIR WORK TIDY AND NOT ALLOW AN ACCUMULATION OF DEBRIS RESULTING FROM THEIR WORK.
 10.2. UPON COMPLETION OF THEIR WORK THEY SHALL LEAVE THE PREMISES IN A BROOM-CLEAN CONDITION.

11. PROTECTION
 11.1. SUBCONTRACTORS ARE TO PROTECT THEIR WORK FROM CONSTRUCTION DIRT OR DAMAGE FROM ANY CAUSE. SECURELY PLUG AND CAP ALL OPENINGS IN PIPE, EQUIPMENT AND FIXTURES TO PREVENT OBSTRUCTIONS.

12. ELECTRICAL WIRING AND CONTROLS
 12.1. ALL POWER WIRING FOR MECHANICAL EQUIPMENT SHALL BE DONE BY THE ELECTRICAL DIVISION. THE MECHANICAL TRADE INVOLVED SHALL PROVIDE STARTERS, THERMOSTATS, VALVES, CONTROL TRANSFORMERS, RELAYS, ETC. ALL CONTROL WIRING SHALL BE DONE BY THE MECHANICAL CONTRACTOR, UNLESS OTHERWISE NOTED ELSEWHERE IN THIS SPECIFICATION.

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1	ISSUED FOR COORD	7/28	C.J	G.V.W.O

REVISIONS

121 KENDLWOOD ROAD, WHITBY, ON
DR. MICHAEL PELLEGRINO

ELECTRICAL POWER NOTES

D.G. Biddle & Associates Limited
consulting engineers and planners
96 KING STREET EAST · OSHAWA,ON L1H 1B6
PHONE (905)576-8500 · FAX (905)576-9730
INFO@DGBIDDLE.COM

LICENSED PROFESSIONAL ENGINEER
G.V.W. OSBORNE
100138545
Aug 30/21
PROVINCE OF ONTARIO

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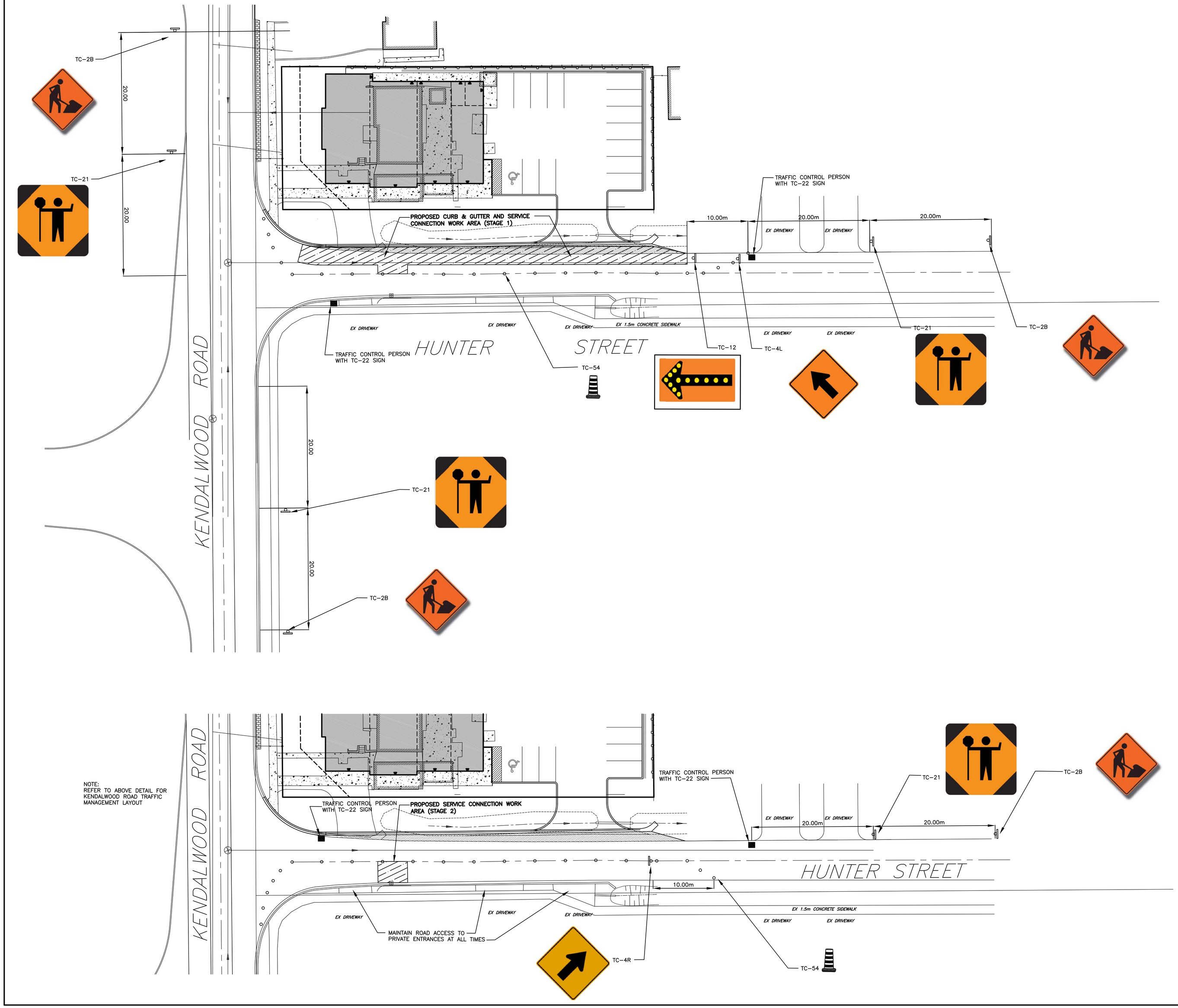
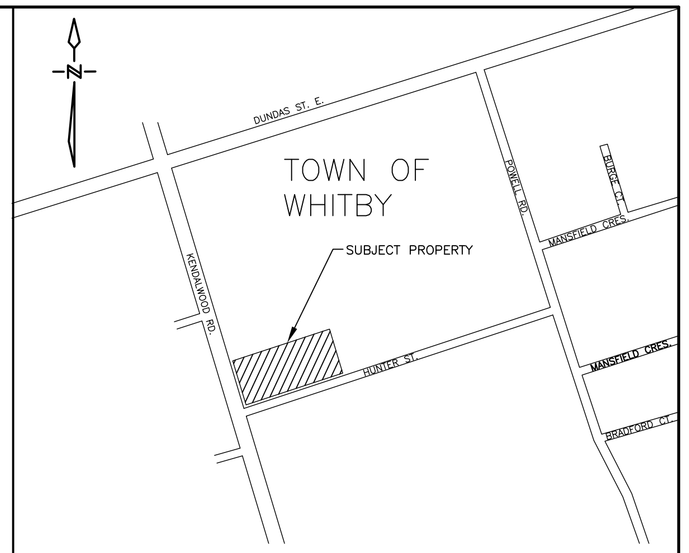




KEY PLAN
NOT TO SCALE

BENCH MARK

WHITBY – CONCRETE CULVERT UNDER DURHAM HWY 2 / DUNDAS STREET EAST, 1.6 KM EAST OF C.P.RY. BRIDGE, 46 M EAST OF SPRINGWOOD ST, TABLET IN TOP OF CULVERT, 30 CM FROM SOUTH END, 23 CM FROM WEST EDGE, 2 M BELOW ROAD LEVEL. ELEV. 108.530

NOTE:

1. TEMPORARY WORK ZONES AND TRAFFIC CONTROL TEMPORARY CONDITIONS SHALL BE IN ACCORDANCE WITH OTM BOOK 7.
2. WORK AREA MUST BE PLATED DURING DAYTIME TO PERMIT FULL TRAFFIC MOVEMENTS WITH NO DISRUPTIONS. PLATES TO BE COUNTERSUNK AND ASPHALTED.
3. STORAGE OF CONSTRUCTION MATERIALS AND EQUIPMENT FOR CONSTRUCTION OF THE DEVELOPMENT SHALL BE ON-SITE WITH NO IMPACTS TO THE ADJACENT ROAD RIGHT OF WAY.
4. TRAFFIC SIGNS AND BARRELS TO BE REMOVED DAILY TO ALLOW FULL TRAFFIC AND PEDESTRIAN MOVEMENT.
5. ACCESS TO ALL ADJACENT DRIVEWAYS IS TO BE MAINTAINED AT ALL TIMES.
6. THE ANTICIPATED TIMING OF EACH CONSTRUCTION STAGE IS 2-3 DAYS.

NO.	DATE	REVISION	BY
2	JUL 15/2021	REVISED AS PER TOWN OF WHITBY COMMENTS	BC
1	JUNE 8/2020	REVISED AS PER TOWN OF WHITBY COMMENTS	BB

REVISIONS

121 KENDALWOOD ROAD, WHITBY

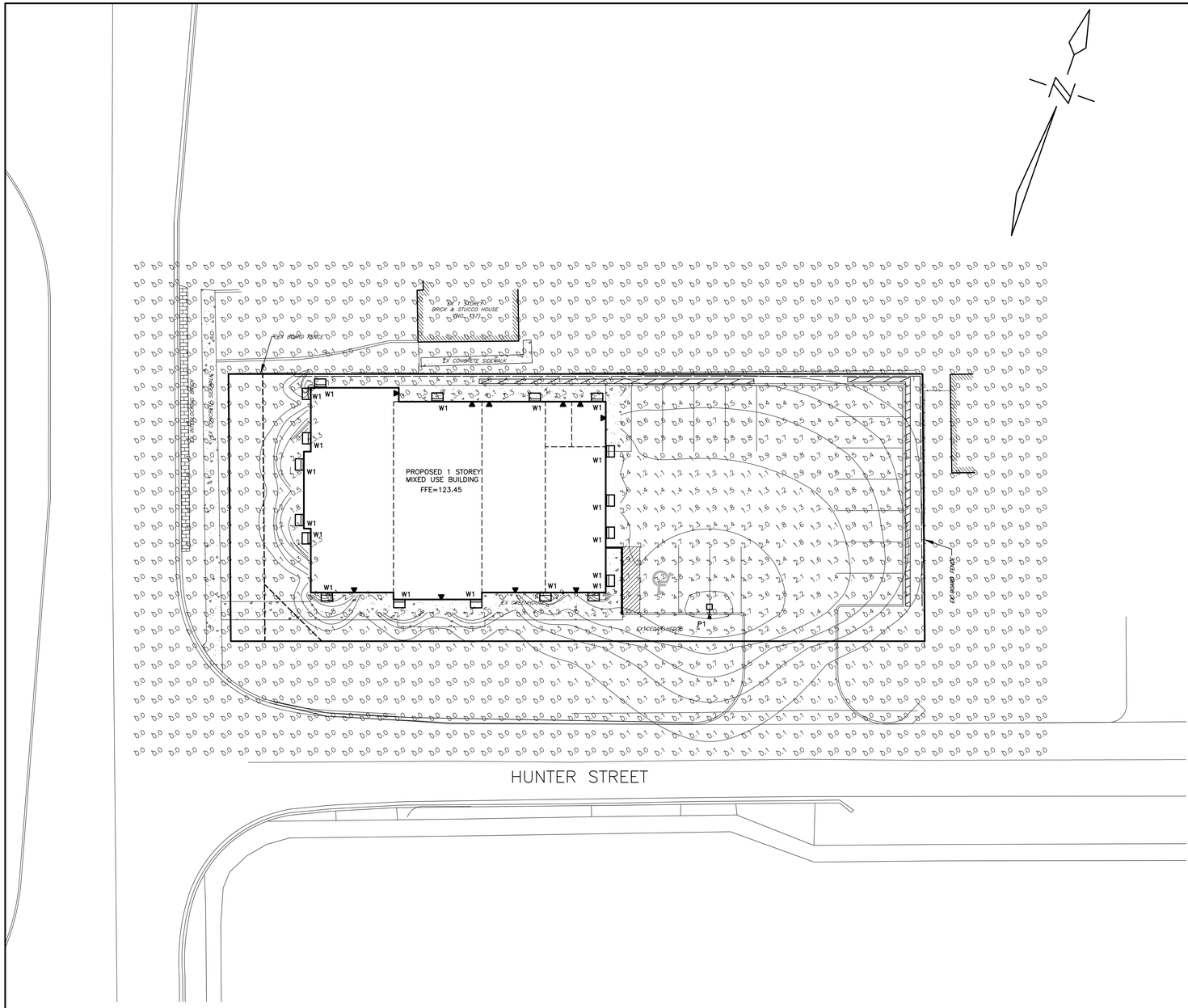
TRAFFIC MANAGEMENT PLAN

D.G. Biddle & Associates Limited
consulting engineers and planners
96 KING STREET EAST • OSHAWA,ON L1H 1B6
PHONE (905)576-8500 • FAX (905)576-9730
info@dgbiddle.com

LICENSED PROFESSIONAL ENGINEER
P. D. M. CANE
100500422
PROVINCE OF ONTARIO
July 16, 2021

SCALE:	1:400	PROJECT NO.	119095
DRAWN BY:	B.M.	DRAWING NO.	TM-1
DESIGN BY:	B.M.		
CHECKED BY:	P.D.C.		
DATE:	NOV 2019		

V:\DWG\STAFF\JOB FILES\119000\119095 PELLEGRINO KENDALWOOD RD\119095 DRAWINGS\119095 DRAWINGS CIVIL\119095 ENGINEERING DRAWINGS\119095-SITE PLAN-20200608.DWG
16/07/2021



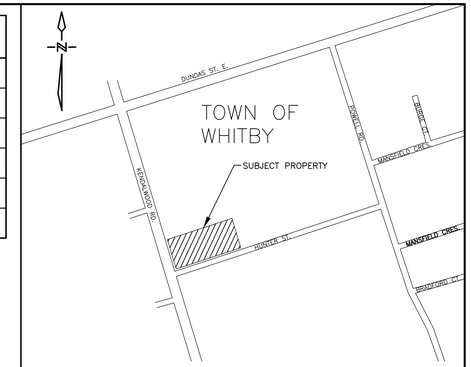
LEGEND

	CANOPY LIGHTS
	POLE LIGHTS
	BOLLARD LIGHTS
	WALL LIGHTS
	PHOTOMETRIC VALUES (SHOWN IN FOOTCANDLES)
	ISOMETRIC LIGHT CURVES

PRELIMINARY
NOT FOR CONSTRUCTION

LITHONIA – OLLWD

PHILIPS – ECOFORM



KEY PLAN
NOT TO SCALE

STANDARD ABREVIATIONS

AFG	ABOVE FINISHED GRADE
CTE	CONNECT TO EXISTING
C/W	COMPLETE WITH

SITE LIGHTING NOTES:

1. ALL NEW OUTSIDE LIGHTS TO BE CONTROLLED BY BUILDING PHOTOCELL AT HIGH LEVEL AND TIME SWITCH. COORDINATE CONTROLS AND POWER REQUIREMENTS WITH BUILDING DISTRIBUTION DRAWINGS.
2. COORDINATE AND CONFIRM ALL LIGHTING LOCATIONS WITH ARCHITECT AND ENGINEER PRIOR TO COMMENCEMENT OF WORK.
3. ALL PHOTOMETRIC VALUES ARE SHOWN IN FOOTCANDLES.

NUMERIC SUMMARY

	AVERAGE	MINIMUM	MAXIMUM	AVG/MIN	MAX/MIN
WALKWAY	3.16	0.10	23.30	31.60	233.00
ACCESSIBLE PARKING	3.59	2.80	4.40	1.28	1.57
MAIN PARKING	1.44	0.10	6.00	14.44	60.00

THIS DRAWING INDICATES ALL PROPOSED OUTDOOR LIGHTING FIXTURES FOR THIS PROPOSED DEVELOPMENT. THE LIGHTING DESIGN IS IN ACCORDANCE WITH THE APPLICABLE LIGHTING ZONE AS ESTABLISHED BY THE PLANNING DEPARTMENT, AND DESIGNED WITH AN AVERAGE TO MINIMUM RATIO IN ACCORDANCE WITH THE ILLUMINATING ENGINEERING SOCIETY GUIDELINES. THIS LIGHTING DESIGN WILL NOT CREATE ANY OBJECTIONABLE GLARE FOR ADJACENT PROPERTIES.

CONTRACTOR TO BE RESPONSIBLE FOR LOCATION OF ALL EXISTING UNDERGROUND & OVERHEAD UTILITIES. VARIOUS UTILITIES CONCERNED TO BE GIVEN REQUIRED ADVANCE NOTICE PRIOR TO ANY DIGGING, FOR STAKE OUT. THE CONSULTANT ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING UTILITIES AS INDICATED ON THIS DRAWING.

NOTE:
CONTRACTOR TO REVIEW LIGHT FIXTURE SHOP DRAWINGS WITH CLIENT AND ENGINEER PRIOR TO COMMENCEMENT OF WORK FOR FINAL APPROVAL.

NOTE:
FINAL LOCATIONS OF WALL MOUNTED LIGHTING TO BE APPROVED BY ARCHITECT AND OWNER PRIOR TO COMMENCEMENT OF WORK. TYPICAL.

NOTE:
PHOTOMETRIC VALUES ARE SHOWN IN FOOTCANDLES WITH ISOMETRIC LIGHT CURVES

NOTE:
ALL LIGHT FIXTURES TO BE FULL CUT-OFF, DOWNLIGHTING ONLY, DARK SKY COMPLIANT.

POLE SCHEDULE

TAG	MANUFACTURER	DESCRIPTION	HEIGHT	QTY	MODEL	NOTES
A	DYNAPOLE	4" STRAIGHT, SQUARE, STEEL POLE, BLACK	4.5 m	1	SSS4-12	REFER TO LIGHT POLE BASE DETAIL

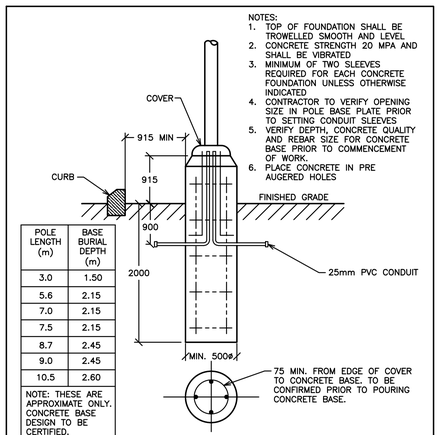
SITE LIGHTING SCHEDULE

WALL LIGHTS

TAG	SYMBOL	DESCRIPTION	WATTAGE	QTY	MODEL	MOUNTING HEIGHT
W1	W1	LITHONIA LED WALL CYLINDER OLLWD, FULL CUT-OFF, 4000K	14 W	18	OLLWD LED P1 40K MVOLT DDB	2.7m

POLE LIGHTS

TAG	SYMBOL	DESCRIPTION	POLE	WATTAGE	QTY	MODEL	MOUNTING HEIGHT
P1	P1	GARDO ECOFORM LED SITE AND AREA, FULL CUT-OFF, 4000K	A	122 W	1	ECF-S-32L-700-NW-G2-4	5.5m AFG



NOTES:
1. TOP OF FOUNDATION SHALL BE TROWELLED SMOOTH AND LEVEL
2. CONCRETE STRENGTH 20 MPA AND SHALL BE VIBRATED.
3. MINIMUM OF TWO SLEEVES REQUIRED FOR EACH CONCRETE FOUNDATION UNLESS OTHERWISE INDICATED
4. CONTRACTOR TO VERIFY OPENING SIZE IN POLE BASE PLATE PRIOR TO SETTING CONDUIT SLEEVES
5. VERIFY DEPTH, CONCRETE QUALITY AND REBAR SIZE FOR CONCRETE BASE PRIOR TO COMMENCEMENT OF WORK.
6. PLACE CONCRETE IN PRE AUGERED HOLES

POLE LENGTH (m)	BASE BURIAL DEPTH (m)
3.0	1.50
5.6	2.15
7.0	2.15
7.5	2.15
8.7	2.45
9.0	2.45
10.5	2.60

NOTE: THESE ARE APPROXIMATE ONLY. CONCRETE BASE DESIGN TO BE CERTIFIED.

LIGHT POLE BASE DETAIL
NOT TO SCALE

NO.	DATE	REVISION	BY
3.	MAY 17	REVISED PER TOWN COMMENTS	S.D.
2.	MAY 11	ISSUED FOR COORDINATION	S.D.
1.	MARCH 23	UPDATED FIXTURES AS PER COMMENTS	S.D.

REVISIONS

121 KENDALWOOD ROAD, WHITBY

SITE LIGHTING PHOTOMETRIC PLAN

D.G. Biddle & Associates Limited
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96 KING STREET EAST • OSHAWA,ON L1H 1B6
PHONE (905)576-8500 • FAX (905)576-9730
info@dgbiddle.com

LICENSED PROFESSIONAL ENGINEER
G.V.W. OSBORNE
100136545
MAY 17/21
PROVINCE OF ONTARIO

SCALE:	1:200
DRAWN BY:	A.P
DESIGN BY:	K.J.K
CHECKED BY:	G.V.W.O.
DATE:	MAY 2021

PROJECT NO. 119095
DRAWING NO. SL-1

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