New and altered steel stanchions and roof rafters and cross bracing sizes are indicative and require Portal Frame Design by Specialist Consultant.

Trimming Out Steelworks through First Floor Structure to suit Clients Disabled Platform Lift equipment, 1250mm wide x 1560mm deep including motor gear at rear end of the lift

Line out the Disabled WC cubicle with a 100mm thk metal or timber stud framed and insulated partition wall

1200mm wide steel fabricated staircase with handrails at 900mm high above stair pitch line and achieving min 1000mm wide between handrails on each side of the staircase.
16 no. risers at 170mm each x 250mm long goings.
Total Stair Rise = 2720mm

PROPOSED EXTENSIONS AND ALTERATIONS TO BRONINGTON VILLAGE SHOP PREMISES AT SCHOOL LANE, BRONINGTON, NR. WHITCHURCH, WREXHAM, SY13 3HN FOR MESSRS R. MILLERCHIP AND P. HUXLEY.

DRAWING NO. 325 / 001 AUGUST 2024
SCALE OF DRAWING :- 1 : 50 at A3

GROUND FLOOR GENERAL BUILDING, STEELWORKS ARRANGEMENTS AND NEW FOUNDATION LAYOUT PLAN

ORCHARD STRUCTURAL DESIGN LTD
EMAIL :- orchard.structures@gmail.com
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Kingspan QuadcoreKS1000 RW composite wall panels with 73mm core (104mm thk overall) to achieve a U value of 0.25 W/m2k OR Equivalent. to comply with Welsh Govt Building Regulations - Approved Document L2.

Albion 14620 x 4.62 kg/m OR Equivalent Single Span Butt side rail system to walls, fixed between columns complete with inset cleats as per BS EN 1993-1-3 : 2006.

Existing dual pitched steel beam rafters to Gridlines A and G to be removed and the stanchions increased in height to suit 4700mm eaves height above existing floor slab level with new sections welded in.

Existing 152 x 89 steel stanchions and dual pitched rafters at Gridlines C and D to be cut out + removed. Use the existing steel sections to form the cut-down version, forming a steel frame structure for the Entrance Porch Extension to the premises

A B C D G

New 1200 x 1200 x 300mm thk Grade C30 concrete pad found'n

New 178 x 102 x 19 UB steel tie beam at First Floor Structure level over

Gridline 1 External Wall Construction in close proximity to neighbouring boundary to be constructed to provide 60 minutes Fire Resistance, full height, as per Appendix Table A2 of the Welsh Govt Building Regulations Approved Document B, Vol 2

4590 4590 4450

13719 OVERALL LENGTH OVER STEELWORK

1950 1140 1500

Existing 152 x 89 steel corner stanchion remains and extended in height up to 4700mm eaves height above existing floor slab

New 900 x 900 x 300mm deep Grade C30 concrete pad found'n

152 x 152 x 23 UC

New 178 x 102 x 19 UB steel tie beam at First Floor Structure level over

External Wall Face of New Panels

Existing 152 x 89 steel corner stanchion remains and extended in height up to 4700mm eaves height above existing floor slab

1 2 3 4 5 6 7 8

1324 476 1800 1800 1324 1400 1800 1800 1400

New Window 675 wide x 1050 high

Steel Bay Cross Bracing

New 254 x 146 x 37 UB Stanchion to replace existing 152 x 89 column

New 1500 x 150mm x 300mm deep Grade C30 concrete pad foundation

New 178 x 102 x 19 UB steel tie beam at First Floor Structure level over

ACCESSIBLE WC 2700

LIFT

1550 1820

Existing internal blockwork walls to be removed

152 x 89 x 16 UB Stanchion

New 900 x 900 x 300mm deep Grade C30 concrete pad found'n

100mm thk metal or timber stud framed and insulated separating partition wall to be constructed to provide 60 minutes Fire Resistance as per Welsh Govt Building Regulations Approved Document B, Volume 2

178 x 102 x 19 UB's over

1500

Install Shopfront Window 1650mm wide x 2100 high

New 178 x 102 x 19 UB steel tie beam at First Floor Structure level over

First Floor Construction over to be constructed to provide 60 minutes Fire Resistance, as per Appendix Table A2 of the Welsh Govt Building Regulations Approved Document B, Volume 2

RETAIL SHOP AREA

152 x 89 x 16 UB Stanchion

New 900 x 900 x 300mm deep Grade C30 concrete pad found'n

LOBBY

406 x 178 x 74 UB steel beam over to support Albion C-section single span floor beams with inset cleat fixings over at 400mm centres, C20618 x 5.02 kg/m OR Equivalent. (5 kN/sq m Live load).

FD60s Fire Door with Vision Panel 838mm wide

152 x 89 x 16 UB Stanchion

178 x 102 x 19 UB steel beams over

16 no. risers staircase UP 170mm risers x 250mm goings

305 x 165 x 46 UB steel beam over

Direction of Span of new First Floor Joists over shown thus

Direction of Span of new First Floor Joists over shown thus

Install Shopfront Window 1650mm wide x 2100 high

New 900 x 900 x 300mm deep Grade C30 concrete pad found'n

152 x 89 x 16 UB Stanchion

6400 OVERALL LENGTH OF STEELWORK

New Fire Exit Doorset 1100 wide x 2100 high

New 1500 x 150mm x 300mm deep Grade C30 concrete pad foundation

New 254 x 146 x 37 UB Stanchion to replace existing 152 x 89 column

Existing 152 x 89 steel corner stanchion remains and extended in height up to 4700mm eaves height above existing floor slab

New Window 675 high x 1050 high

400

Steel Bay Cross Bracing

E F

Additional Foundation

New 178 x 102 x 19 UB steel tie beam at First Floor Structure level over

Existing TP

152 x 152 x 23 UC

178 x 102 x 19 UB over

New 178 x 102 x 19 UB steel tie beam at First Floor Structure level over

Ramp Access

Ridge over

New Entrance Doorset 1100 wide x 2100 high

New Entrance Doorset 1100 wide x 2100 high

Stepped Access

1700 1800

ENTRANCE EXTENSION

Install shopfront window 2400 wide x 2100 high

New 1200 x 1200 x 300mm thk Grade C30 concrete pad found'n

New 1500mm wide concrete paved ramp access into the Shop Main Entrance at 1 in 15 gradient with 1200mm deep landing immediately adjacent to shop entrance door opening.

1500

Existing 152 x 89 steel corner stanchion remains and extended in height up to 4700mm eaves height above existing floor slab

SCALE 1:50

0m 1m 2m 3m 4m 5m

Construct 215mm brickwork edging wall plinth on new concrete strip foundation as per planning consent including barrier rails with handrails at 900mm above the pitch line, each side of ramp.

4300

New 1000 x 1000 x 300mm thk

New 1000 x 1000 x 300mm thk Grade C30 concrete pad found'n