

Former factory buildings at the Molecular Products Site, MP United Drug Company, Dunmow Road, Thaxted, Essex. CM6 2LT.

Recording and analysis of the Listed buildings. Surveyed 02 05 2017.



2017 Google earth. Location of the site at Mill End, Thaxted.



2017 Google earth. Detail of the site.

UTT/16/0171/FUL.

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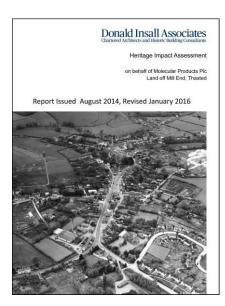


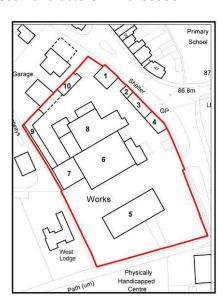


The buildings under study.

Location

There are three conjoined buildings forming a range directly to the west of the road. Centred on TL 61384 30756. These have few internal divisions having been joined together to form a factory and storage unit for the Molecular Products Company who produced oxygen generation equipment. Separate to the north is a Quakers Friends Meeting House that was also used as an office for a former sweet manufacturer. TL 6135930777.





An extensive Heritage Statement has been prepared by Donald Insall Associates that deals with the entire site. To maintain co-ordination this report numbers the buildings in the same way.



ESSEX HISTORIC ENVIRONMENT RECORD ESSEX ARCHAEOLOGY AND HISTORY SUMMARY SHEET

Site name/Address: MP United Drug Company, Dunmow Road, Thaxted, Essex. CM6 2LT.

Parish: Thaxted District: Uttlesford

NGR. TL 61384 30756. Site Code: TBA

Type of Work: Historic Building Recording Site Director/Team: Barry Hillman-Crouch

Date of Work: 02 05 2017. Size of Area Investigated: 20x100m

Location of Finds/Curating Museum: N/A Funding source: Owner

Further Seasons Anticipated?: No Related EHER Nos:

Final Report: Former factory buildings at the Molecular Products Site, MP United Drug Company, Dunmow Road, Thaxted, Essex. CM6 2LT.

Recording and analysis of the Listed buildings. Surveyed 02 05 2017.

Barry J Hillman-Crouch MStPA DipFA BSc HND.

Periods Represented: C16th - C20th

SUMMARY OF FIELDWORK RESULTS:

The Friends Meeting House is very much a product of its time and it is in relatively unchanged condition. The fabric of the brickwork and the roof indicates it was built about 1830-40, a time when the Quaker movement was strong and they were replacing or building many new meeting houses. It is recorded in the 1844 Tithe Award.

The southern end of the main factory building comprises the remnants of a MC16th brick house with diaper work and a queen post roof. It retains a firestack and original fireplace on the first floor.

The central part of the building is a MC19th maltings with brick and flint walls and a screeded maltings floor that floats on its transverse joists. It has a MC20th roof.

The northern part of the factory is a separate c.1800 timber framed granary with nailed interrupted studwork, underbuilt in brick in the EC19th. This building is not Listed but has been confused with a building mentioned in a 1916 RCHME report on the site which describes 'Building 30'. This building, mentioned in the 1844 Tithe Award Map as occupied by Elizabeth Portway was demolished in 1952.

The Maltings was operated by Robert Fitch, maltster etc corn dealer who is in the 1844 Tithe Award and the 1848 and 1863 editions of White's Directory of Essex.

The sweet factory run by George Lee was most likely opened in 1875 and the Molecular Products factory opened in 1927.

	Previous Summaries/Reports:
l	

Author of Summary: Barry J Hillman-Crouch MStPA Date of Summary: 07 07 2017. DipFA BSc HND.

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Listing

The conjoined buildings are Listed under two entries. The Friends Meeting House is Listed separately.

The Listings are very poor and confused in their content. The Friends Meeting House 5/46 is not conjoined to the main range of buildings. It is a standalone building. Next to it is a modern bus stop erected in June 1953.

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The order of the buildings expressed in the Listing is out of sequence. The brick house 5/48 was formerly Listed as *Building at SE end of part of the premises of Lee and Co Ltd, sweet manufacturers* which correctly describes its position.

The central building 5/47 which is obviously a maltings with a malting floor is described as a long walled jetty house for which there is no evidence at all.

For some reason the fully framed timber building under a hipped roof was not Listed.



© Mr Peter L. Herring

IOE Number: 122328. Location: MP UNITED DRUG COMPANY, MILL END (south side)

THAXTED, UTTLESFORD, ESSEX. Photographer: Mr Peter L. Herring Date Photographed: 19 January 2005. Date listed: 28 June 1983

Date of last amendment: 28 June 1983. Grade II

1. 5/46

THAXTED MILL END (South Side) MP United Drug Co

TL 63SW: 5/46 GV II

2.

Early C19 building in red brick with grey slate pyramid roof. 2 storeys. Full height recessed arches, with band at springing. Dentilled eaves course. 2 window range double hung vertical sliding sashes with glazing bars. 2 modern casements on north east side. Modern entrance. Listing NGR: TL6136030778.





© Mr Neville Broadbent

IOE Number: 122330. Location: MP UNITED DRUG COMPANY (BUILDING ADJOINING TO

SOUTH EAST OF PREVIOUS ITEM AND FRONTING ROAD), MILL END (south side)

THAXTED, UTTLESFORD, ESSEX. Photographer: Mr Neville Broadbent Date Photographed: 29 September 2007. Date listed: 20 February 1967

Date of last amendment: 28 June 1983. Grade II

1.5/47

THAXTED MILL END (South Side) IMP United Drug Co (Building adjoining to SE of previous item and fronting road) (Previously listed as Building at SE end of part of the premises of Lee and Co Ltd, sweet manufacturers)

TL 63SW: 5/47 20.2.67 GV II

2.

Early C16 house, said to have been the Friends Meeting House, at one time. Red brick with red plain tile roof, half hipped to north. 2 storeys. 5 window range casements. 2 blocked doorways to ground floor are now windows, with outline of former label above one of them. Brick band. Diaperwork in flared headers. Original side purlin roof remains internally. (RCHM 31). Listing NGR: TL6138830753

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© Mr Paul Perry

IoE Number: 122329. Location: MP UNITED DRUG COMPANY (BUILDING IMMEDIATELY TO

SOUTH EAST OF PREVIOUS ITEM AND FRONTING ROAD), MILL END (south side)

THAXTED, UTTLESFORD, ESSEX. Photographer: Mr Paul Perry Date Photographed: 16 April 2003. Date listed: 28 June 1983

Date of last amendment: 28 June 1983. Grade II

1.5/48

THAXTED MILL END (South Side) MP United Drug Co (Building immediately to SE of previous item and fronting road)

TL 63SW: 5/48 GV II

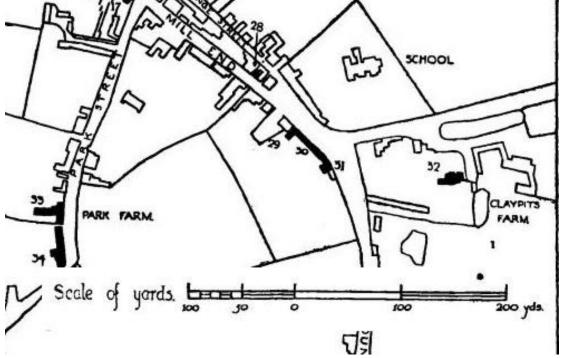
2.

Late C16 or early C16 building timber framed and plastered with red, plain tile and corrugated iron roof. Original long wall jetty now underbuilt. 2 storeys.

4, 2 window range casements, including 3 iron casements with Gothick glazing bars.

Listing NGR: TL6137430767





1916. Key plan showing buildings 29, 30 and 31. RCHME 31.

^a (29). *House,* now stores, ¼ m. S.E. of the church, was built in the second half of the 15th century, and was probably the kitchen wing of a larger building which extended towards the W. The S.W. end of the house is probably an extension of later date. On the N.E. front the gabled upper storey projects and has an original moulded bressumer and four curved brackets. Some of the timber-framing is exposed. The S.E. side has a small gabled staircase wing in the middle, and at the S.W. end a wing which probably extended further; it has a half-hipped gable. The chimney-stack at the S.W. end is probably of the 16th century. Inside the building the floor has been removed in the four back bays. Near the N.E. end of the N.W. wall are two lintels shaped to a double ogee form on the soffit; they probably indicate original doorways. On the first floor is a brick fireplace with a three-centred head, probably of the 16th century. The roof of the main block is divided into three bays by original kingpost trusses with a braced central purlin.

Condition—Poor.

This building may be that described as occupied by Elizabeth Portway in the 1844 Tithe Award. It was demolished between 1955 and 1960 by map evidence.

- ¶^a (30). *House*, now part of factory, adjoining (29) on the S.E., is of two storeys with attics. On the N.W. front the timber-framing is exposed, and at the level of the attic floor is a projecting gabled lucomb. At the back the lower storey is of brick.
- ^a (31). *House*, now part of factory, and in the same block as (30), has walls of brick and was built probably *c*. 1520. The N.W. front has remains of original diapering in blue bricks and a chamfered plinth. There were apparently two doorways, now altered into windows, and over one of them is the outline of a former label. At the back the upper storey has original diapering and an ornamental brick corbel-table of trefoiled arches.



Inside the building on the first floor is a disused fireplace with a moulded oak lintel and next to it is a small arched recess. The roof is apparently original and has queen-post trusses with wind-braced purlins. It is now ceiled in.

'Thaxted', in An Inventory of the Historical Monuments in Essex, Volume 1, North West (London, 1916), pp. 302-318. British History Online http://www.british-history.ac.uk/rchme/essex/vol1/pp302-318 [accessed 13 June 2017

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Scope of this Report

This report describes and analyses the fabric of the buildings to provide an archaeological record before conversion in to dwellings. The report adheres to Historic England Level 3 as outlined in Historic England. Understanding Historic Buildings – A guide to good recording practice. 2016. Page 22.

Planning Background

A full planning application was validated by Uttlesford District Council in September 2016 (UTT/16/0171/FUL). Briefly all buildings except the Listed buildings are to be demolished to make way for 22 new houses. Given the impact of these works on the historic integrity of the buildings and the archaeological interest of the site, it was recommended that an archaeological condition should be attached to any future planning permission.

Archaeological and Historical Background

The three conjoined buildings contain substantial elements of historic fabric including a C16th style firestack and fireplace, a clasped side purlin roof and MC19th flint and brick dressed walls. The buildings were formerly converted for use as a maltings and the screed MC19th malting floor remains. The internal divisions have been removed to form the maltings and then the Lee Sweet Manufacturing Company took the building. Molecular Products built a new works factory in the 1930's.

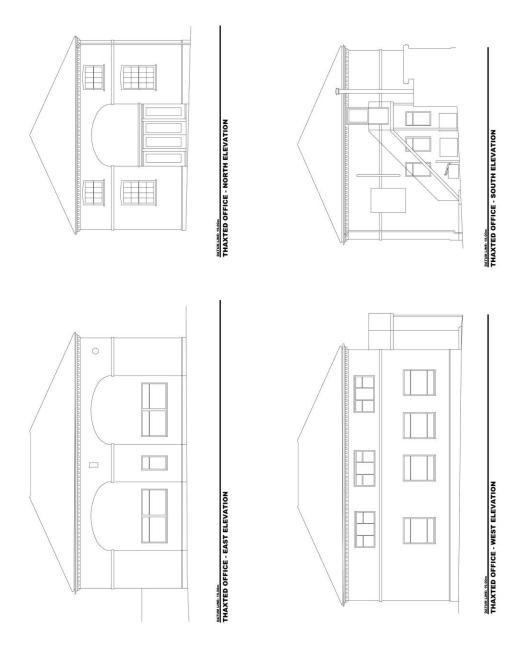
To the north is a Friends Meeting House which retains its original exterior appearance. Internally it has been gutted to form modern offices but the upper deck with joists for tiered seating remains.

Description – External



The Listed buildings in context with the factory being demolished. Looking N.

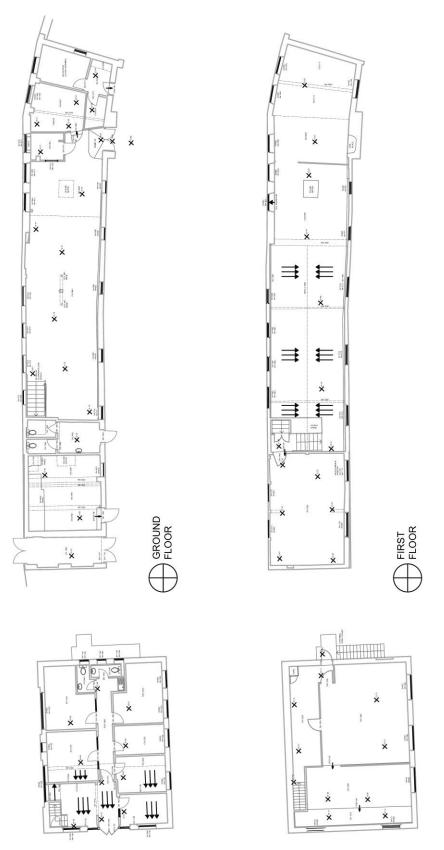




2017. The Friends Meeting House. Elevations. Anglia Land Surveys Ltd.

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2017. Plans as Existing . Anglia Land Surveys Ltd.



1. Friends Meeting House - Description - Exterior



Northern elevation of the Friends Meeting House.

Northern Elevation

The Friends Meeting House is noted as such on the 1876 Ordnance Survey. In 1896 it was labelled as a Sunday School. The northern elevation is the front of the building and is symmetrically designed with a recessed relieving arch in the red brickwork over LC20th glazed entrance doors. Shadows in the brickwork suggest there was previously a porch with a low pitched roof in place of the C20th flat hood.

Either side of the doorway are matched original sash windows. The upper 4/4 sashes being half the size of the lower 8/8 sashes. The elevation is decorated with brick modillion cornice and a plain plat band that denotes the position of the balcony with tiered seating inside.

The original brickwork is of red 65x110x225mm wire cut bricks with smooth faces and sharp arrises bedded in a hard lime mortar. The exterior has been repointed in a variety of cementitious mortars. At the base of the wall is a coped plinth of up to six courses that has been rendered with grey cement in places. The original openings and quoins are finished with queen closers and the lower windows are under flat gauged brick lintels. The upper windows have rowlock course lintels.

On the wall is a brass plate engraved with Registered Office – Molecular Products Ltd – Molecular Products PLC.





The eastern elevation.

Eastern Elevation

The eastern elevation fronting the road has two large relieving arches in the brickwork with segmental gauged lintels. There are two large LC20th double casements with obscured glass inserted in the recessed panels and a smaller casement inserted in the central pillar. There is no indication this side had any original windows most likely to prevent passers-by gawping at the interior.



Coin bored hemispheres in the bricks.



Copious C20th graffiti.

The eastern wall has copious amounts of C20th graffiti most likely put on after the bus stop was built. There are also many hemispheres dug into the brickwork with coins at child and adult height. The wall has been repointed with grey cement to its detriment.





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The western elevation. The original brickwork is sooted to a darker red.



The western and southern elevations.

Western and Southern Elevations

The western elevation has a plain facade pierced by modern windows under rowlock lintels. However there are flat gauged arches indicating two large original openings as well as a centrally placed smaller window over a doorway that has been bricked up. The southern elevation has two blank windows which appear original and modern inserted casements.



1. Friends Meeting House – Description – Interior



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The Ground Floor looking S.



The Ground Floor looking NE.

Ground Floor

The Ground Floor was used as office space and the LC20th partitions have been removed. Originally the building was open to the upper ceiling and a tiered balcony remains at the northern end. The rest of the first floor is LC20th constructed of machine sawn softwood joists which are very fresh and clean. One original staircase remains in the NE corner (its pair was removed long ago) which is the only original fabric left on the Ground Floor.





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Original support beam for the balcony. Looking W.



Panelled staircase up to the balcony in the NE corner.

The cranked staircase rises in the NE corner and is closed in by well made pine panelling stained brown on the outside and painted white on the other. The treads and risers are of rough pine boards lodged in slots routed in the stringers and are probably not original. Metal tread plates have been removed leaving lots of screw holes. The stringers form parts of a staircase that had stick balusters and a turned from square newel post which has been sawn off.





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The stump of the newel post and the sockets for the stick balusters.



Looking W across the tiered seating.

Originally the building was open to the ceiling and there was a balcony of tiered seating of five rows. All the seating has been long ago removed. There were two staircases and that to the western end has been removed and the void blanked over in the E-MC20th. The wall has been clad with good quality fielded panelling matching that in the stairwell.





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Detail of the original joinery. Looking NE.



Detail of the blanked off stairwell.

The joinery of the tiered platform is quite precise with straight square cut pine timbers. Many of the joists have been replaced in the C20th and are easily identified by their bright appearance and bandsawn finish. A number of wrappers and labels relating to Lee's sweet manufacturing business were found in the void over the blanked stairwell.





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Looking N at the tiered seating from the LC20th inserted flooring.



Detail of the panelling on the front of the tiered platform.

The rest of the volume has been occupied by a LC20th boarded floor. The original panelling for the balcony can be seen stained brown. Where damaged it can be seen it is made from softwood.





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One of the two king post trusses. Looling W.



Looking up at the roof structure.

The pyramidal roof has two large king strut trusses made of machined softwood and connected with wrought iron bolts and collets. All the timbers are deep section. The rafters are nailed onto a ridgepiece and the side rafters are nailed to the jack rafters. This form of construction is M-LC19th.





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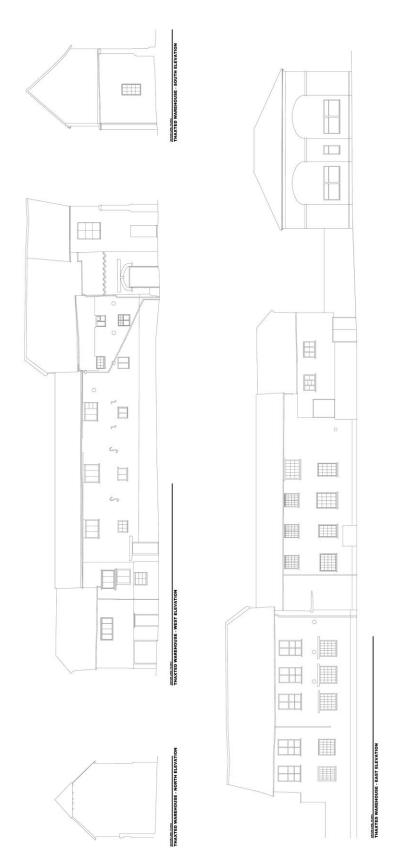
Detail of the king strut.



Detail of the ceiling structure looking SW. Note the keyed tenon.

The bridging joists are secured with keyed tenons – a M-LC19th feature. The ceilings are lath and plaster. The roof has an asphalt membrane indicating it was retiled between 1965 and the 1980's – when breathable membranes were introduced.





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2017 .Buildings 2, 3 and 4. The former Factory. Elevations. Anglia Land Surveys Ltd.



Buildings 2, 3 and 4. The former Maltings and Factory.



The range of buildings seen from the main road looking NW.



The timber- framed building at the northern end of the range. Eastern elevation.

The factory is divided into four distinct builds on the outside (Building 4 had two phases). The following description isolates each build.



Building 2 – Former Granary



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Northern elevation of Building 2.



Western elevation of Building 2.

Building 2 is a timber-framed structure with a half hipped roof that has been underbuilt with a 7ft tall red brick wall of 60-65x110x225mm handmade unfrogged bricks laid in English bond.. The northern and eastern (roadside) elevations have been rendered in C19th lath and plaster. The western elevation has been clad with MC20th weatherboards which carry across to the taller adjacent Building 3. The roof is of corrugated asbestos sheets. The casement windows are MC20th of 1930's style.





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Looking S on the ground floor of Building 2.



Looking E on the ground floor of Building 2.

The ground floor reveals little more than the brickwork of the exterior walls. The structure above has very large (14in square) oak beams used to reinforce the floor. A remnant of the C20th tongue and grooved ceiling boards remain.





Looking N on the first floor of Building 2.



Looking S on the first floor of Building 2.

The timber frame has four 7ft wide bays with heavy duty 4x5in section nailed interrupted studwork and 8x7.5in principal posts and midrails. Although some of the timbers are pitsawn most are planed. The ceiling has heavy 8in square main joists and varying section common joists of which some are quarter poles. The main joist is supported on hanging knees. The ceiling is boarded for storage use and has two trap doors.





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Detail of the E20th access doors. Looking SE.



Detail of the western frame.

Originally the building was designed to be a granary. This can be determined by the weight and strength of the frame but more simply because the frame has been flaunched with cement to ensure the grain does not lodge in the frame. Holes in the ceiling and floor indicate where the grain was sent down in chutes to progress through the maltings.





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Trap door in the floor.



Trap door or stair trimmer in the ceiling.

The much repaired trap door in the floor had several labels and wrappers from Lee's sweet manufacturing for Lee's Princess Fruits at 9d a dozen.





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C19th and C20th repairs to the roof of Building 2.



Plank collars for the repaired side purlin roof.

Building 2 has a side purlin roof that has been heavily remodelled in the LC20th as witnessed by the asphalt membranes which were commonly inserted between 1965 and the 1980's. There are also some tanalised timbers from the last years of the C20th or EC21st. MC19th alterations also remain where the original collars have been sawn off and supported with hangers.



Building 3 – Former Maltings



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Eastern elevation of Building 3.



Detail of the windows on Building 3.

Building 3 was purpose built as a maltings. It has red brick and flint rendered walls and retains the malting floor complete with its screeding. Therefore it follows that none of the windows can be original to the design. Maltings floors have to be kept in low light and well ventilated by louvres in order for the barley to germinate correctly under controlled conditions. The ground floor windows appear to be basculating windows of the LC19th installed to convert the building into Lee's Sweet factory. These carry across to Buildings 4 and 5. The upper windows have one similar but the other three have lancet headed panes and are casement windows with opening lights with rat-tail catches.





The western elevation of Building 3.



The western elevation showing the flintwork panels extending across Buildings 3 and 4.

The western elevation is built of red 60-65x110x225mm handmade bricks with large decorative panels of flints. The panels run across to Building 4 and it is evident that it was subsumed into the maltings and contains part of the maltings floor. S shaped and disc pattress plates are fitted at regular intervals to strengthen the brick and flintwork.





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The flint panelling is not consistent. Note the brick patch where the lucam was.



The northern end of the building has been extended to meet Building 2.

The brick and flintwork panelling is not consistent and it is likely that this reflects the changing activities within the building. The northern end has been extended to meet Building 2 with a section of MC19th timber framing that contains the internal staircase. On the western side the window openings are correctly finished with queen closers and are of regular sizes. On the ground floor a series of windows has been bricked up. The roof is clad with corrugated iron. A lucam has been removed near the middle of the western elevation.





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Looking S in Building 3 on the Ground Floor.



Looking N in Building 3 from Building 4 on the Ground Floor.

The Ground Floor has a concrete raft floor that extends into Buildings 2 and 4. At the northern end is a wide staircase made of reused timbers and machined softwood. The northern wall has been removed on the Ground Floor while the timber framed wall of Building 2 remains upstairs.





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Detail of the staircase. Looking SE.



The soffit of the machined treads of the staircase. Looking upwards and E.

The staircase is a collection of various reused timbers from older buildings combined with newer machined timbers. The stringer is a reused joist and there is a top plate in the platform. The structure dates to the MC19th and has been relentlessly repaired.





Detail of the malting floor.



Modern hatch at the northern end of Building 3. The floor was reboarded in the LC19th.

The maltings floor retains its narrow battens screeded with limecrete which has been boarded over in the LC19th. The timber floor has heavy transverse main joists and plain heavy section set on edge common joists. The floor structure floats on the main joists and the common joists are morticed into smaller section axial joists. This would compensate for the swelling and contraction caused by the moist grain as it passes down the building.





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Looking S on the malting floor in Building 3.



The junction with Building 2 at the northern end of the malting floor.

The junction with Building 2 indicates that the malting floor was built up against the timber-framed building and incorporated it into its processes. MC20th boarding has been applied above the tie-beam as part of the repairs to the roof of Building 2.





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The roof above the maltings floor in Building 3.



The suspended ceiling that ran right through the building. Looking N.

The roof over building 3 is made of machine sawn softwood with plank ties and collars nailed and bolted in place. There are two purlins on either side and large gussets on the principal rafters. There are no common rafters instead the roof is clad with tongue and grooved boards to which the corrugated iron is fixed. There is a suspended ceiling of edge moulded tongue and roved boards which must have been put in for the sweet factory. The construction is LC19th in style and fabric.



Building 4 - Former House



Eastern elevation of Building 4.



Detail of one of the blocked doorways.

Building 4 has been described as a brick house but it is in fact two building phases each with a separate roof structure. It can be noted that the brickwork to the north (LHS) incorporating a three window range has diaper work (large interconnected X's) in purple headers in the red brickwork while the southern two window range section does not. The windows are all inserted under flat gauged segmental arches with timber lintels. The lower windows match those in Building 3 while the upper windows are a set of MC19th heavy mullioned large pane windows. There were two door openings that have been bricked up with two sizes of brick. The northernmost one hasa scar in the brickwork above for a cupola shaped porch.





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The southern elevation has been replaced in the MC20th.



The western elevation.

The southern elevation and a large section of the western elevation have been rebuilt in the LC20th. This is more apparent inside where the new floors are suspended on steel joists and the interior brickwork is of blockwork and Flettons laid in grey cement.





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Tudor style brickwork with a Georgian segmental archway.



Detail of the archway.

The diaper worked chimney breast is made of 50-60x110x220-240mm red 'Tudor' style bricks and retains a carved brick trefoil decorative band. The chimney breast has been broken through and a wide doorway inserted under a Georgian style segmental brick arch with brick keystones. Traces of limewash indicate the brickwork was rendered over. The brickwork from Building 3 has been extended into Building 4 all except for a small section of rendered timber framing near the roof.





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Looking N into Building 4 on the Ground Floor.



Looking S into Building 4 on the Ground Floor.

On the ground floor the concrete floor has been removed to reveal an engineered brick pavement with curbs and mounting points for machinery. This must relate to the sweet manufacturing phase of the building from the LC19th to the EC20th.





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Detail of the blocked doorway and reduced window opening in the eastern wall.



LC20th flooring supported on RSJ's. Looking N.

The southern end of the building has been largely rebuilt in the M-LC20th. Historic mapping shows that between 1921 and 1951 the southern end of the building was reduced in length. The boundary wall has blocked openings from an earlier building that has been taken down.





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The fireplace in the western wall.



Detail of the fireplace.

Built into the firestack on the western wall is a C16th style fireplace with a 6ft aperture and a roll moulded timber bressummer. The opening has been reduced to 4ft with brick rubble and the back rounded to accept a hob grate or range. To the LHS is a recess that has been filled with daub. To the RHS is a short section of visible timber frame which continues on behind the modern panelling. It seems likely it was left in place to support the roof while the brick and flint panelling was put in.





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Queen post truss over Building 4. Looking SW.



Queen post truss looking NW.

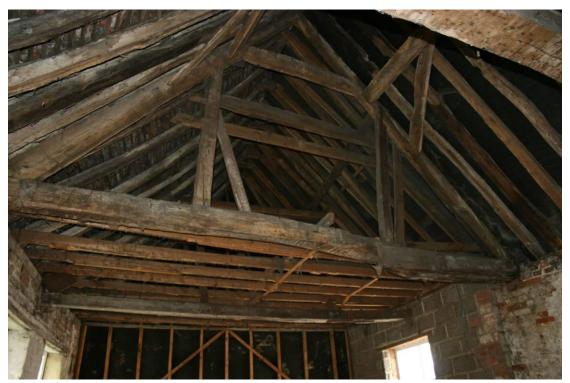
Three fifths of building 4 has an oak framed queen post roof of which three trusses remain. The purlins butt jointed to the principal rafters under the collars and also supported on long curved windbraces. The tie-beams are cambered and morticed for axial ceiling beams. The flat tapered rafters are paired at the apex and show evidence of reuse from a collar purlin roof. A few are heavily sooted.





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The roof over the southernmost bay. Looking W.



The roof over the southernmost bay beyond the queen post truss. Looking S.

The roof over the southernmost section of Building 4 has been heavily rebuilt in the LC20th but still retains sets of paired flat rafters supported on side purlins.

End of descriptions.



Historic Notes.

The Connery Town Vol I No. X1 November 1911

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it. The worms will only eat wood that is in the right condition for them. In an ancient piece they may have bored the unsound parts, spun their coccons and fled a hundred years ago, so that no contamination can come from it, though the grub-holes are perhaps obtrusively in evidence, while an unsuspected one may be ripening (under the influence of damp and close air,) portions quite out of sight into a suitable matrix for the eggs of the next beetle that comes that way. The dust that is so much feared comes from the operations of the worm who has to become the beetle before he can "spread to other furniture."

HOW THAXTED LIVES. II. THE NORTH ESSEX SWEET FACTORY.

As we are particularly anxious that these articles should be accurate even to the smallest details, we welcome correspondence in our colums on this or any other subject dealt with in the "Country Town." The facts in this series however, are drawn not from one or two persons, out from so large a number, in various parts of the parish, and in various occupations, that serious inaccuracy is most unlikely. I am not so much anxious that readers should draw from these facts a particular conclusion either entirely favourable or entirely unfavourable to the employments mentioned in these articles, as that we should do for Thaxted what Mr. Seebohm Rowntree has done for York and Sir Charles Booth for London, and many others have done for small towns and villages; for the basis for all reform and re-construction is familiarity with the facts themselves.

In estimating the value of wages, readers must take into account the cost of rent in the country which is comparatively low, and the cost of food which is comparatively high. The Sweet Factory has been built up from very small beginnings by the untiring energy of Mr. George Lee, in conjunction with his workers and the foremen and managers. The number of those employed varies greatly, but might be put down very roughly at about 200, including a large percentage of women and many boys and girls from fourteen years of age. Occasionally, a child of thirteen obtains work at the factory, but apparently no one under eighteen is allowed to work overtime. As to hours, the employees work a five-and-a half-day week and a ten hours day, not counting overtime. Work begins at 7 a.m. There is a break of ten minutes at about 9.30, the dinner hour is from 12 to 1, work is then continuous from 1 p.m. to 6 p.m. The children generally begin in the packing department at a weekly wage of about 3/6, but most of the packing is by piece work, as is also the box making, chocolate dipping, and to a less extent sweet weighing. The boiling departments are supplied by men working for a wage of from 16/to 18/- a week. The lowest wage for men in the factory is about 14/-.

1911. Article by Conrad Noel for The County Town.

This article give the impression of how extensive the factory was.



Excerpts from Billy's Halo by Ruth McKernan, daughter of the founder of Molecular Products. She offers some unsubstantiated dates for the ages of the buildings.

loyal employees. To my father, MP United represented the early stage of a real business; solid bricks and mortar. He wasn't bothered by the squalor. To me, it was a dreary place I would not dream of showing off to my teenage friends.

Not for long, though. The business rapidly expanded and MP United's ugly period was satisfyingly short. Within three years the business needed more room and more staff. New premises were the company's metamorphosis and when MP United became Molecular Products Group PLC it moved to the southern edge of Thaxted, in Essex, a historic market

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town with fine medieval church, cobbled lanes and Guildhall.

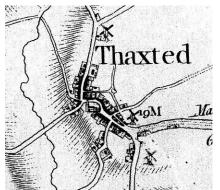
It is still there. Some of the buildings date from 1520. The canteen was once a Tudor maltings. The block of offices was originally built in 1813 as a Baptist chapel. Throughout its existence, the main factory – the heart, lungs and guts of the place – has always employed the local townsfolk. Originally, they made old-fashioned mints, boiled sweets and barley sugar.

The business was founded in 1924 which would indicate it relocated to Thaxted in 1927-28.

National Research Council. 2006. *Billy's Halo: Love, Science and My Father's Death*. Washington, DC: The National Academies Press. https://doi.org/10.17226/11555



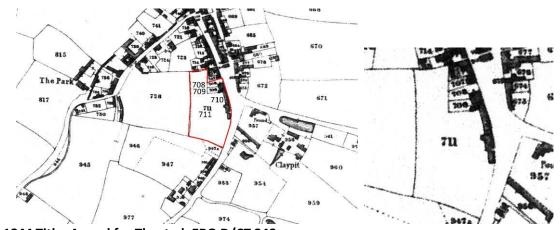
Topographical Survey from Maps





1777 Chapman and Andre's Map of Essex.

Chapman and Andre's Map of Essex indicates two large separate buildings on the site. It is also clear why the road is called Mill End.

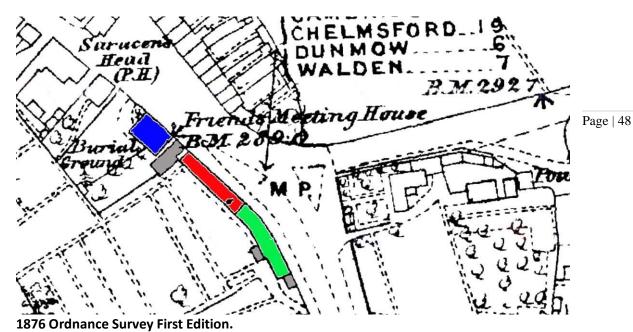


1844 Tithe Award for Thaxted. ERO D/CT 348.

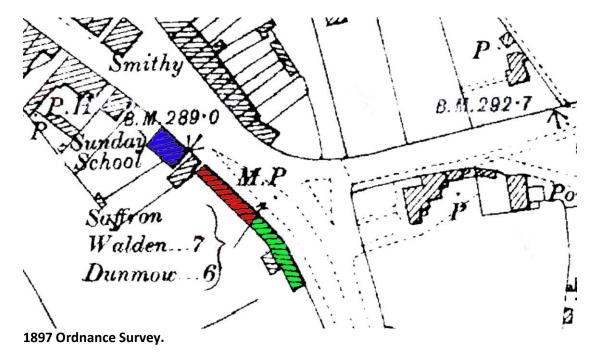
In 1844 the Friends Meeting House is Listed as Plot 708, Meeting House, yard and is owned and occupied by the Society of Friends. Plot 709 is a cottage owned by the Society and occupied by Elizabeth Portway. Plot 710 (not marked on the map) is a Malting Office owned by William Barnard and occupied by Robert Fitch. Plot 711 is listed as Garden, which in this case would probably be a hop garden.

Robert Fitch, maltster etc corn dealer is in the 1848 and 1863 editions of White's Directory of Essex. William Barnard is in the 1863 edition as a farmer and there are many other Barnard's shown as farmers.



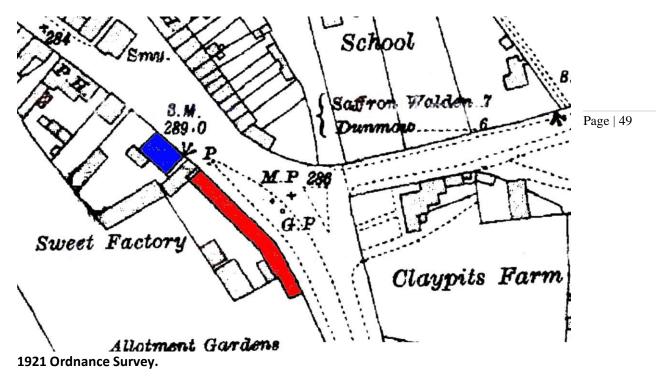


The 1876 OS map shows the long range divided into two buildings and the Friends Meeting. House is clearly labelled. Elizabeth Portway's cottage is still in position. The garden is shown divided up by paths reinforcing the idea it was hop field. Of interest is an entry in the 1874 Post Office Directory for George Lee Confectioner who set up his factory at Mill End in 1870 (according to the Essex Chronicle 2008).

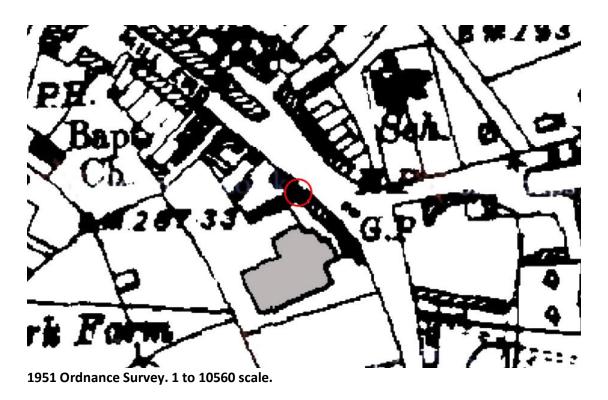


There is little change by 1897. Of interest is the small unit added to the western side of the malting at approximately the position of the present day firestack. Maltings required ovens to warm and roast the barley and this may represent one.



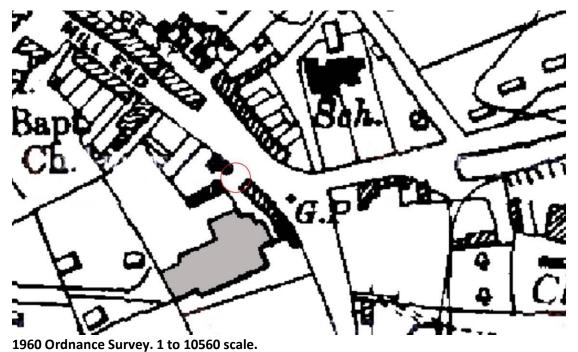


By 1921 the site is shown as a Sweet Factory and four ancillary buildings have been built. The gardens are now shown as allotments.



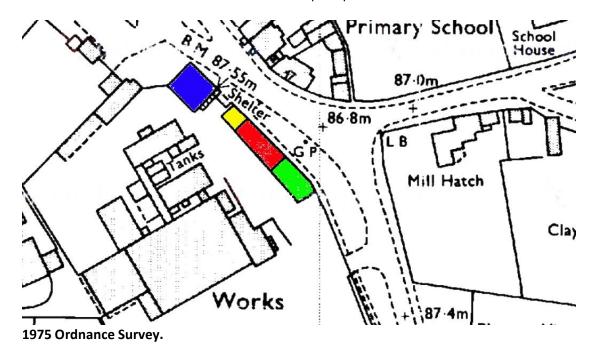
By 1951 the major factory had been built. It is noted that Elizabeth Portway's cottage was still in place. The main range appears shortened to the south and the small unit removed.





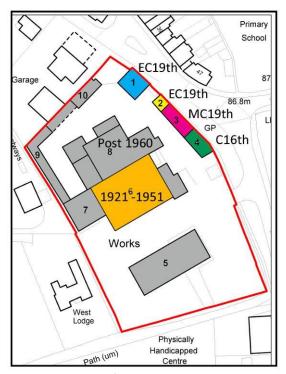
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By 1960 Elizabeth Portway's cottage has been removed and the entrance to the works moved to beside the new bus shelter which was put up in June 1953.



By 1975 the main range is shown as three separate entities and must have been deduced from the external appearance.

Phasing and Discussion



General phases of original development.

Phase 1. C16th House.

Building 4 retains the queen post roof and diaper work brickwork and firestack with fireplace from a MC16th house. A small section of timber-frame remains but this appears EC19th in character. Most of the fabric has been lost or superseded when the building was converted, first to a maltings and then to a factory.

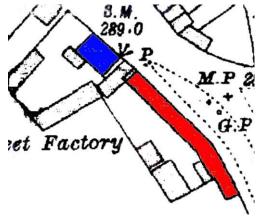
The form of the house is difficult to estimate. The walls have been largely rebuilt and it is likely that only the diaper work above the plat band is original. The only features left are the firestack and the queen post roof. These would have been centred in the rooms on both floors and a front door with cross-passage would have been offset (most likely to the south side but not necessarily).

The 1916 RCHME report notes the presence of a Tudor label and this is repeated verbatim in the Listing but it could not be seen during the survey. However the northernmost doorway does a have a cupola shaped scar in the brickwork for a porch above.

The southern part of the house has different brickwork without diaper work and does not have a queen post roof, although it retains some old flat rafters. It is likely it was completely rebuilt in the MC19th when the maltings was built.







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1848 Tithe Award Map.

1921 Ordnance Survey Map

Phase 2 – C.1800 Granary.

Building 2 contains the substantial frame of a purpose built granary of c.1800. Constructed of heavy section oak and elm timbers with primary bracing and nailed interrupted studwork it is typical of the period. Historic mapping shows that it was connected to a house in Plot 709 in 1848. Plot 709 was a cottage owned by the Society of Friends and occupied by Elizabeth Portway. The house remained in position until it was replaced in 1953 by the concrete bus shelter.

After the French Revolution of 1789 there was a long period of instability culminating in the Napoleonic Wars of 1799 to 1815. Britain and France declared outright war in 1803. England also went to war with the USA who in 1807 declared the Embargo Act preventing European vessels from trading with America. War was declared in 1812 and ceased in 1815.

The granary is a typical building of the Napoleonic War Era which ignited the rush for farms to convert to grain production to capitalise on the grain embargo imposed during the hostilities from AD1799 to AD1815.

Its position close to the hop gardens would have been ideal for a Maltings business.

Phase 3. E-MC19th - Friends Meeting House

The Society of Friends Meeting House is a typical building of their order. The well crafted brick walls have sweeping arched panels that are attractive but not ostentatious. The square building has a central entrance and two staircases led up to the viewing gallery for the more affluent folk. Open to the flat, unadorned plastered ceiling it was an impressive if Spartan auditorium.

The pyramid roof is also an impressive structure with two king strut trusses supported on very deep section pine joists. The design of the timbers and the joints would indicate it was put up in the MC19th rather than in the EC19th. A date of 1813 has been offered for its inception but 1830-40 would be more likely given the quality, form and fabric of the building. Historically, the Quakers replaced many of their Essex meeting houses in the 1820's – 1840's through local fundraising.



Phase 4 - MC19th. C.1840. Brick Maltings.

The brick and flint panelled maltings was put up during the period known as Victorian High Farming when agricultural buildings were routinely rebuilt using decorative flint panels.

By the 1840's the concept of Victorian High Farming emerged. According to G.E Mingay in Victorian Countryside (2000) High Farming 'was the achievement of high production by the widespread application of new knowledge and equipment. Land was drained to grow more grain and other food for more and fatter stock, yielding in turn more manure and heavier crops.'

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The malting floor is a clever piece of Victorian engineering designed to float on the main transverse joists so that the continual contraction and expansion would not affect the walls of the building. Each joist is held with a pattress plate into the brickwork.

There is a series of S shaped plates and then a series of disc plates which would suggest a two phase development extending the malting floor into the Brick House. This would also account for the irregular patterns in the flintwork near the Brick House. It is also very likely that the Georgian style brick segmental arch was put in during this time.

The malting is noted in the 1844 Tithe Award and Robert Fitch, maltster etc corn dealer is in the 1848 and 1863 editions of White's Directory of Essex.

Phase 5 – LC19th. Conversion to Lee's Sweet Factory

The large sets of windows on the roadside all date to the period of conversion to a factory in the LC19th. The Friends Meeting House was converted to offices and storage on the upper deck witnessed by several sweet labels hidden in the floor void where the second staircase has been removed and plastered over.

The factory was set up by its founder George Lee and had up to 200 employees. A search of the SEAX database shows that George Lee was buying property in Thaxted related to confectionary sales and production from 1865 onwards. He bought Plots 701 and 702 on the Parish Map to build a sweet shop and other buildings. ERO D/DU 786/35. In 1874 he sold the same plot and it may be deduced he then opened the factory which is described in his will of 1912.

Copies of will of George Lee of Brooklyn, Thaxted, manufacturing confectioner, beqeathing kinter al. 2 cottages and garden in Orange Street; factory (formerly Friends' Meeting House) and 2 workshops erected on land appurtaining thereto; factory (formerly malting) and garden with 2 workshops erected therein; stables and sheds known as Bridge foot and Paddock; (all being the factory and premises of confectionary manufacturing trade of testator). ERO D/DU 786/49.

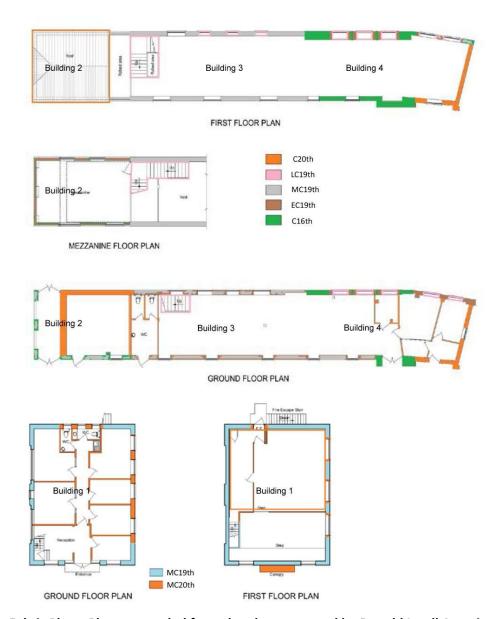


Phase 6 – E-MC20th. Conversion to Molecular Products Factory.

The Maltings roof is made of machined softwood with deep section principal rafters and no common rafters. Instead it is strengthened with vertical tongue and grooved boarding. It is most likely that this is a MC20th replacement of the original roof, replacing the tiles with corrugated iron. The side nailed plank collars and tie-beams are not C19th features.

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Excerpts from Billy's Halo by Ruth McKernan, daughter of the founder of Molecular Products indicate the factory opened in 1927 or 1928. She also notes that the maltings contained the canteen and that the Friends Meeting House contained the offices.



Fabric Phase Plan – amended from the plan presented by Donald Insall Associates.

This plan includes LC20th additions that had been removed by the time of the survey.



Significance

The Friends Meeting House is very much a product of it time and it is in relatively unchanged condition. The fabric of the brickwork and the roof indicates it was built about 1830, a time when the Quaker movement was strong and they were replacing or building many new meeting houses. It is recorded in the 1844 Tithe Award. This building is Listed as 5/46. IoE Number: 122328.

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The southern end of the main factory building comprises the remnants of a MC16th brick house with diaper work and a queen post roof. It retains a firestack and original fireplace on the first floor. This building is Listed as 5/47. IoE Number: 122330.

The central part of the building is a MC19th maltings with brick and flint walls and a screeded maltings floor that floats on its transverse joists. It has a MC20th roof. It is Listed as 5/48. IoE Number: 122329. However it should be noted that the description is completely wrong except in the description of the fenestration. It is not timber-framed, not C16th and not formerly a long walled jetty house.

The northern part of the factory is a separate c.1800 timber framed granary with nailed interrupted studwork, underbuilt in brick in the EC19th. This building is not Listed but has been confused with a building mentioned in a 1916 RCHME report on the site which describes 'Building 30'. This building, mentioned in the 1844 Tithe Award Map as occupied by Elizabeth Portway was demolished in 1952.

The Maltings was operated by Robert Fitch, maltster etc corn dealer who is in the 1844 Tithe Award and the 1848 and 1863 editions of White's Directory of Essex.

The sweet factory run by George Lee was most likely opened in 1875 and the Molecular Products factory opened in 1927.

Acknowledgements

I am indebted to the owner for engaging me to record the buildings at Mill End. Thanks are due to Matthew Jack of Wighton Architects Ltd for recommending me. The architect's plans were provided by Anglia land Surveys. The project was monitored by Richard Havis of Essex Place Services.

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