Chartered Architectural Technologist
Professional and Occupational Performance Records

Unit B
(Knowledge)

Exempt due to CIAT Accredited BSc (Hons) Architectural Technology & Management
See attached certificate

University of Ulster

By virtue of the power vested in it by the Charter and Statutes
and by the authority of the Senate, the University
has this day conferred the degree of

BACHELOR OF SCIENCE

with first class honours

and the

DIPLOMA IN INDUSTRIAL STUDIES

with commendation

on

having completed a course of study in

ARCHITECTURAL TECHNOLOGY AND MANAGEMENT

In Witness Whereof the Council has authorised
the Common Seal of the University to be
impressed on this document.

Jerry McKenna

Vice-Chancellor

2 JULY 2001

Unit B
(Performance)

Unit B (Performance)

To date my six years postgraduate experience working for
Architects has provided me with many opportunities to use various surveying equipment and techniques.

Generally survey type and methods vary greatly depending of the circumstances of each specific project. For example certain projects may involve an extension to an existing building, refurbishment or alterations. Such projects are centered on working within an existing building therefore it will be necessary to obtain accurate dimensional drawings of the existing building. Initially as a practice we would ask the client to provide any available information, i.e. floor plans, elevations, sections etc. In some circumstances a client will have access to previous 'as constructed' drawings which can prove to be very usefully when carrying out a desktop appraisal. If a client's search for existing drawings proves to be inconclusive, we would make contact with the Local Authorities, pay an administration fee, and obtain access to archive drawings if available. (*Refer to Appendix 1.0 for an example of a Local Authority Land Registry Map).*

After such investigations are complete, we will arrange with the client / building owner to obtain access to the building to carry out a full detailed measurement survey of the building. At this stage we would generally select the most appropriate surveying equipment for that project. In the past mechanical equipment such as steel measuring tapes, together with digital measuring devices such as the 'Leica' Disto hand held laser meter and optical equipment such as a dumpy level have been used. Such equipment enables us to collate extremely accurate measurement data. (*Refer to Appendix 2.0 for an example of a measurement survey).* We would also take a large number of digital photographs which can be used as a reference during the 'drawing up' process of a survey (*Refer to Appendix 3.00 for an example of survey photographs)*. Digital photographs are also retained for future records.

Green field developments are somewhat different to working within existing buildings. Initially our investigation would take the form of an informal site visit followed with a detailed investigation into land ownership and boundary clarification. At this stage we would call upon local knowledge, Land Registry (*Refer to Appendix 4.0 Land Registry Map)* and Legal Deed Records to establish the exact extent of land ownership. Such investigations also aid in the identification of possible conflictions to development such as Right of Ways, existing services (*Refer to Appendix 5.00 & 5.01 for NI Water record drawings)*, nesting birds or significant archaeological history. (*Refer to Appendix 6.0 drawing produced to identify land outside client's ownership).*

Once the initial elements setout above have been resolved we would carrying out a full topographical survey of the land. For small localized sites it may be adequate to carry out a measurement survey using 30m long tapes together with a dumpy level and timber pegs to obtain the necessary information (*Refer to Appendix 7.0 level data collected during survey).* For larger and more complex sites we would generally engage the services of a qualified land surveyor, who with the use of extremely accurate equipment such as a Theodolite or Total Station. This equipment will collate detailed site information such as levels, contours, boundary lines, obstacles, trees, drainage runs & invert heights, all of which will be referenced back to a suitable bench mark that can later be reused to set out a proposed building.
Such surveys can be supplied in a digital format that is compatible with our Autocad drawing software within the office. (*Refer to Appendix 8.0 typical topographical survey).*

An example of B.3 - *'investigate and evaluate development factors, likely problems and potential solutions'*. Evidence for this section comes from an ongoing new build project for SPAR referred to as Viking Lodge. (*Refer to Appendix 9.0 Proposed Site Plan)* Our client purchased this site several years ago with the intention of redevelopment to construct a proposed SPAR store with

additional retail / hot food units and petrol forecourt. The existing site was elevated on two sides with steep embankments. The third boundary had been constructed with gabion retention to protect a housing development at the higher end of the site. As part of the design team we quickly established that the existing gabions were showing early signs of failure. Protection and a method of securing the existing gabions from further failure became one of the first development factors affecting the site. Appendix 7.0 shows our proposals solutions for the treatment of these gabions. The conditions of this site are quite complex and could perhaps be better explained at interview stage.

All equipment is regularly checked for accuracy using standard calibration techniques within the practice. Person protective equipment (PPE) such as hard hats, high visibility clothing and steel toe cap boots are used when appropriate.

Summary

Evidence for Units B.1, B.2 & B.3 has been provided within the following attached appendixes:

- 1.0 *example of a Local Authority Land Registry Map*
- 2.0 *example of a measurement survey*
- 3.0 *example of survey photographs*
- 4.0 *Land Registry Map*
- 5.00 & 5.01 *NI Water drawing records*
- 6.0 *drawing produced to identify land outside client's ownership*
- 7.0 *level data collected during survey*
- 8.0 *typical topographical survey*
- 9.0 *Proposed Site Plan*

Appendix 1.0

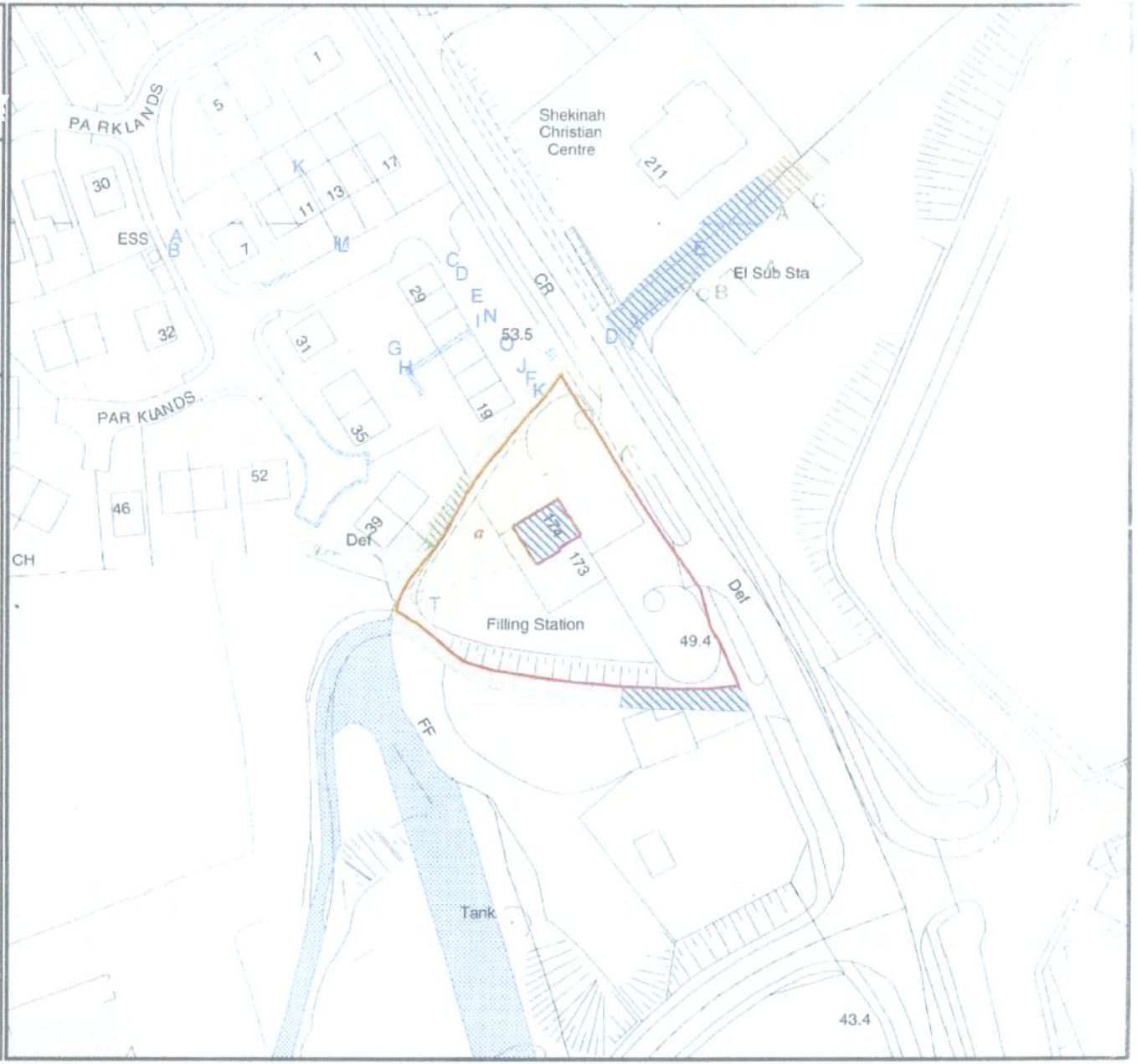
Land Registers of

Date: 15 Dec 2004
County:
Folio: AN17374
Scale: 1:1250
Our Ref: 2004/453087
Your Ref: No Reference
Map Ref(s): 07004SW4,07008NW2

Sheet 1 of 1

Key to folio labels:

a - AN17374

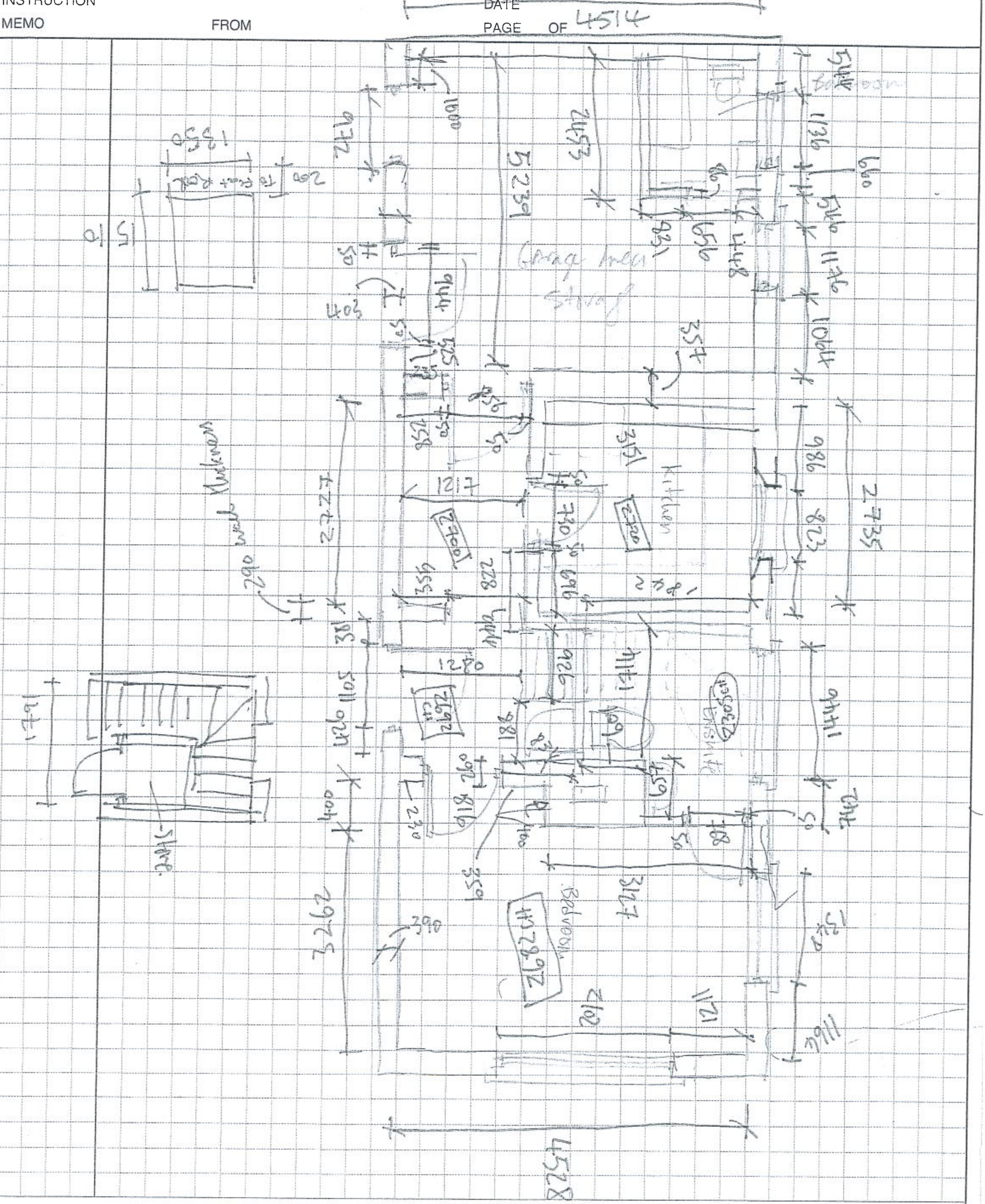


Appendix 2.0

Website: www

a r c h i t e c t s

☐ FAX	TO	PROJECT NAME Barn Conversion
☐ PHONE	COMPANY	PROJECT NO. 06014
☐ INSTRUCTION		DATE
☐ MEMO	FROM	PAGE OF



☐ FILE ☐ COPIES TO ☐ ACTIONED

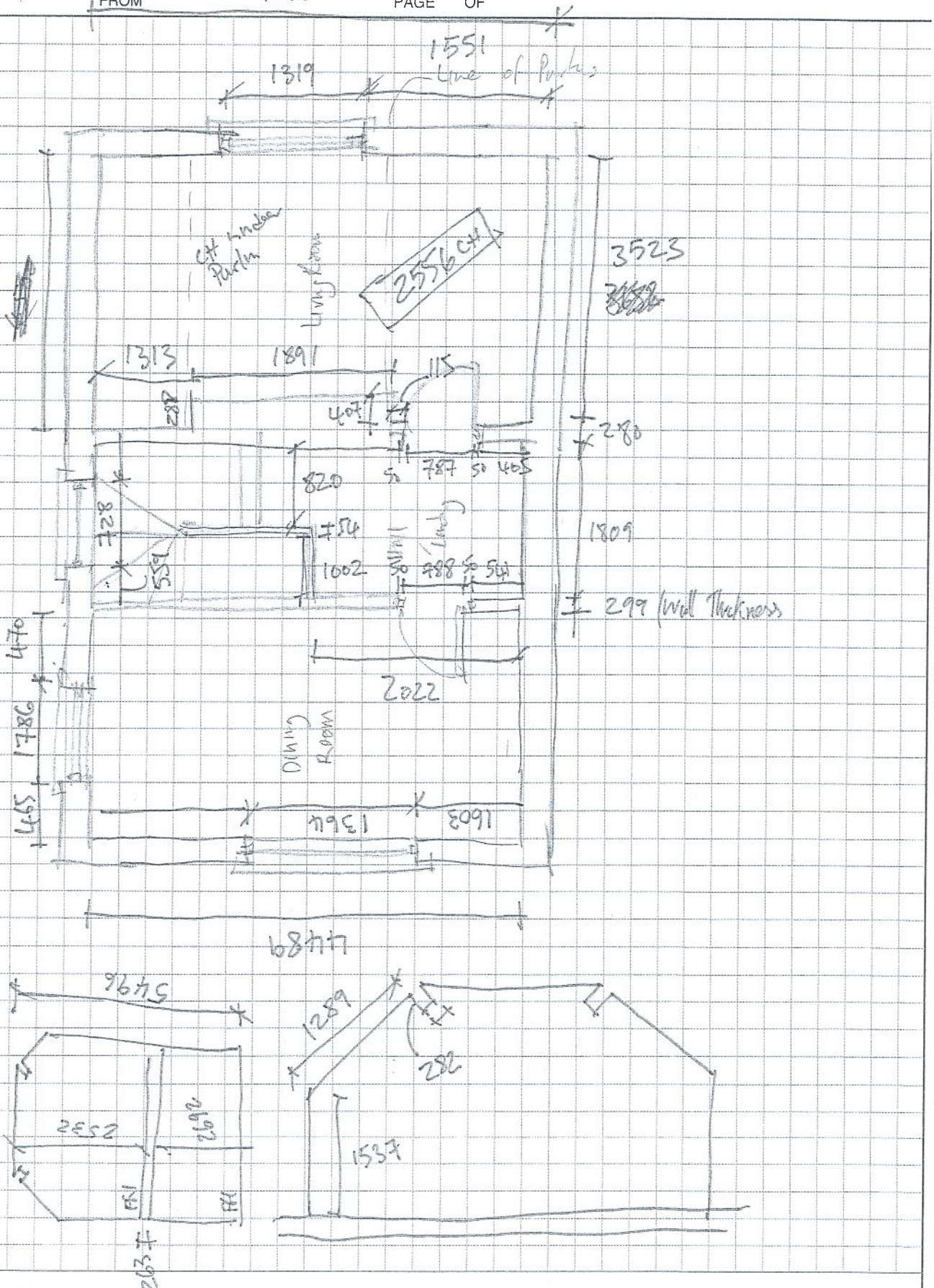
e-m
Website:

a r c h i t e c t s

☐ FAX
☐ PHONE
☐ INSTRUCTION
☐ MEMO

TO
COMPANY
FROM

PROJECT NAME BARN Conversion
PROJECT NO.
DATE
PAGE OF



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ISSUES 02/12/2002

Appendix 3.0


shell


BUILDING &
D.I.Y. SUPPLIES
DAILY DELIVERIES
TEL, 664543 · FAX, 666423


BUILDING &
D.I.Y. SUPPLIES
DAILY DELIVERIES
TEL, 664543 · FAX, 666423


BUILD-U-RYTE
BUILDING & D.I.Y SUPPLIES
DAILY DELIVERIES
OPENING HOURS:
MON-FRI 8-5 SAT: 8 - 1
BUILDING &
D.I.Y. SUPPLIES
DAILY DELIVERIES
BRICKS, BLOCKS,
FLAGS, CEMENT,
RAINWATER GOODS
TIMBER, DOORS,
SHEET MATERIAL,
FENCING AND
ELECTRICAL GOODS

Appendix 4.0

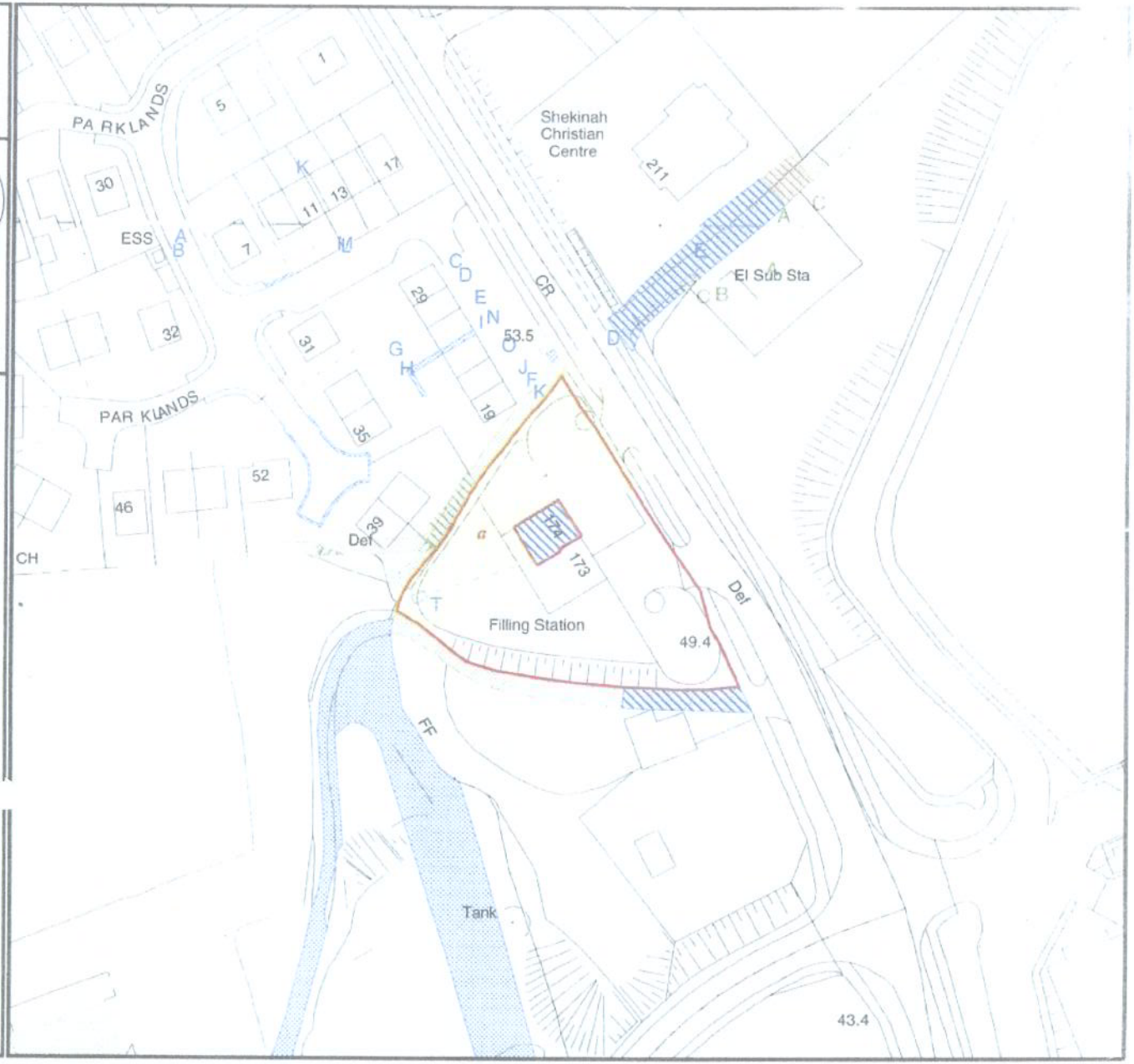
Land Registers of

Date: 15 Dec 2004
County:
Folio: AN17374
Scale: 1:1250
Our Ref: 2004/453087
Your Ref: No Reference
Map Ref(s): 07004SW4,07008NW2

Sheet 1 of 1

Key to folio labels:

a - AN17374



Appendix 5.00 & 5.01

Nc. e

e

Tel: (
Fax:
www. om

FAO:

Your ref:

Our ref:

Date: 17/5/7

Dear Madam

RE –

Further to your email dated 17/5/7 regarding the above scheme, I wish to confirm that I have enclosed a copy of our record drawing for the above scheme. We would advise you that you confirm the levels and position of the pipes before work begins.

Please contact the undersigned if you have any queries regarding any of the above.

Yours faithfully

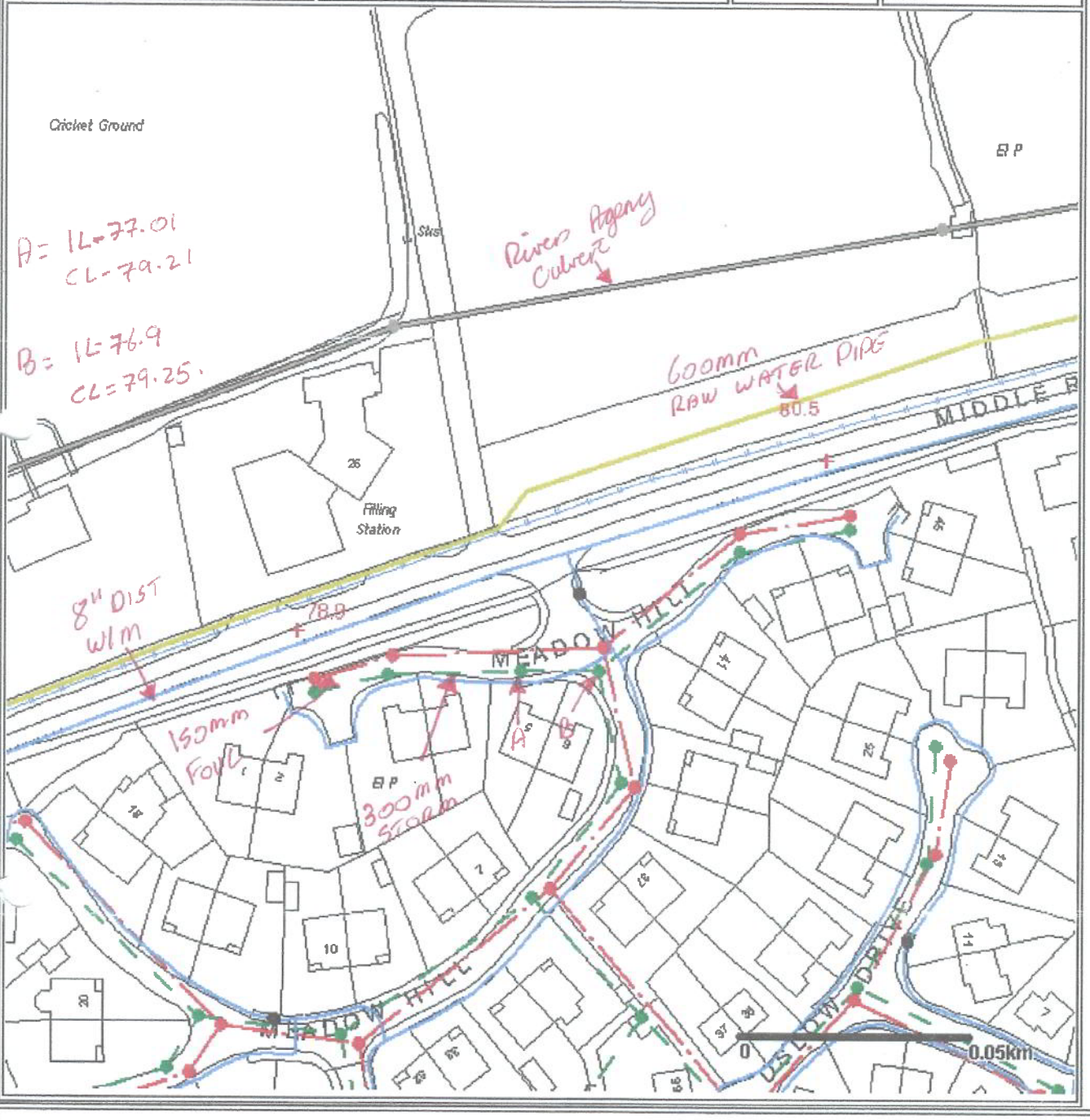
Infrastructure Management
ENC.

AL.
0702.

Service Inquiry Information A4P (CROWN COPYRIGHT RESERVED 2007)

Title:

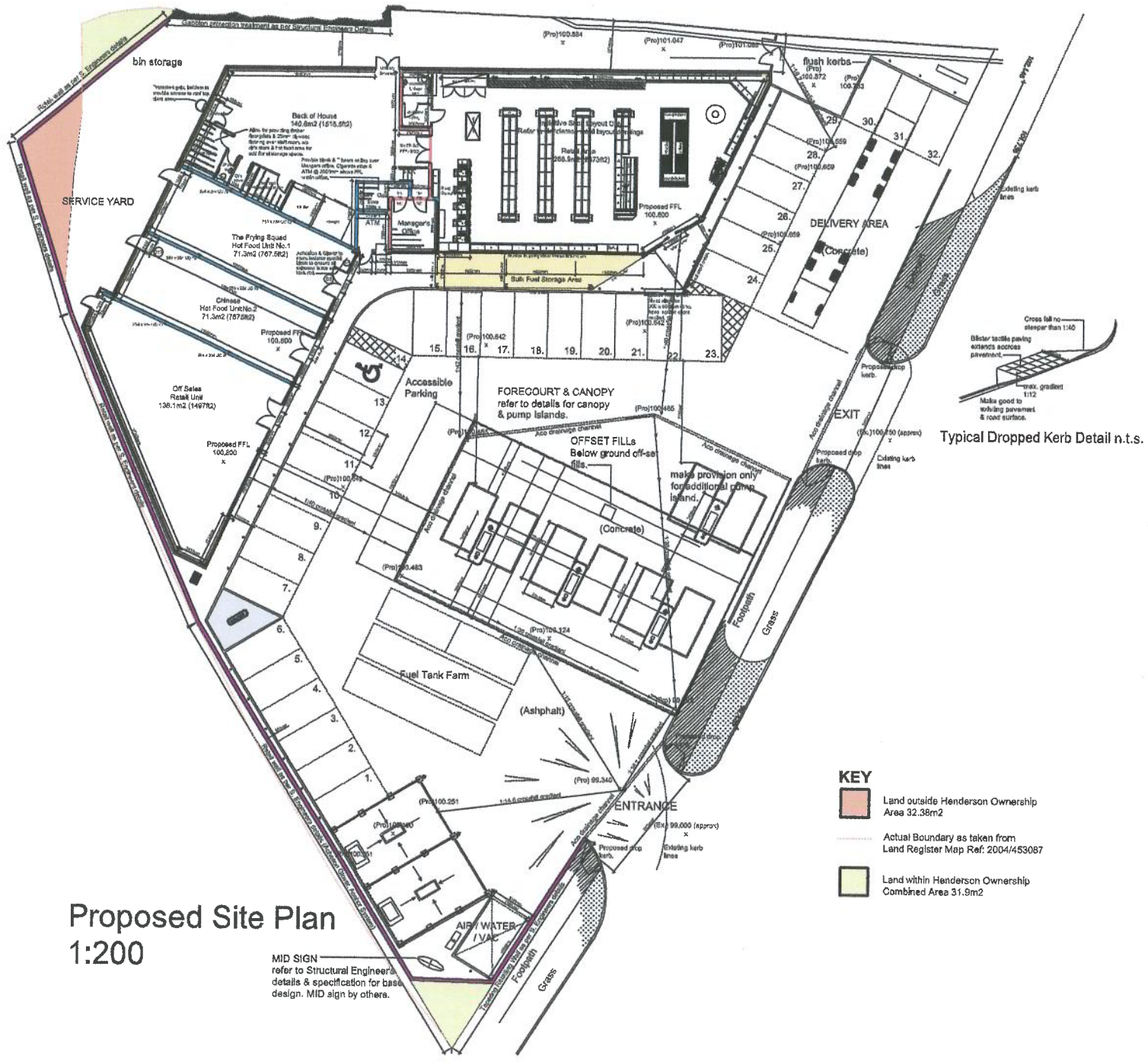
Center: 339984,389469	MapSheet:09812NW (NIC SE)	Scale 1: 1250	Date:05-17-2007



Foul Sewer with Manhole	Combined Sewer with Manhole	Watermain with Hydrant
Storm Sewer with Manhole	Unadopted Sewer with Manhole	Trunk Watermain with Valve

Northern Ireland Water (NIW) Disclaimer:
The position of NIW infrastructure shown on this map should be regarded as approximate and should not be relied upon. NIW does not accept any liability for loss or damage to any person or property caused as a result of any inaccuracy in the information. It is your responsibility to determine the exact location of NIW infrastructure, prior to any excavation work being undertaken and it is recommended that hand dug trial holes are used to determine the precise location.

Appendix 6.00



Proposed Site Plan
1:200

Typical Dropped Kerb Detail n.t.s.

KEY

- Land outside Henderson Ownership
  Area 32.38m2
- Actual Boundary as taken from
  Land Register Map Ref: 2004/453087
- Land within Henderson Ownership
  Combined Area 31.9m2

project

Proposed N
L

client

drg. title

Boundary Layout

scale	date	drawn	checked
N.T.S ~~1:200~~	03-07	AL	WW

drg. no.

Temp

Appendix 7.00

Date 14/05/07 Levels taken for OWENBEG Bowling CLUB

From To PATTERN B

BACK SIGHT	INTER-MEDIATE	FORE SIGHT	COLLIMATION OR H.P.C.	REDUCED LEVEL	DISTANCE	REMARKS
1·200			101·200	100·000	TBM	FFL AT ENTRANCE FACING Bowling Green
	1·440			99·760	1	Concrete Flag PATH OPPOSITE TBM
	1·660			99·540	2	GRAVEL EDGE TO BOWLING GREEN.
	1·355			99·845	3	Concrete Base in front of Shed
1·580		1·350	101·450	99 870	4	Rear Corner of shed (change Point)
	1·400			100·050	5	FFL AT Roller Shutter
	1·680			99·770	6	6m measurement at Return
	1·600			99·850	7	Inline with level 6 BUT 2m off wall
1.500		1.530	101·420	99·920	8	Infront of Level 5 on conc. BASE.
	1·430			99·990	9	Cover LEVEL of MH in Shed.
	3·110			98·310	10	Invert of MH in shed.
		1·370		100·050	11	check BACK AT FFL @ Roller Shutter.
		1·500		99·920	12	CHECK in front of level 11

Appendix 8.00

DISTANCE CHECK 20m

N

architects

project

Proposed

client

drg. title

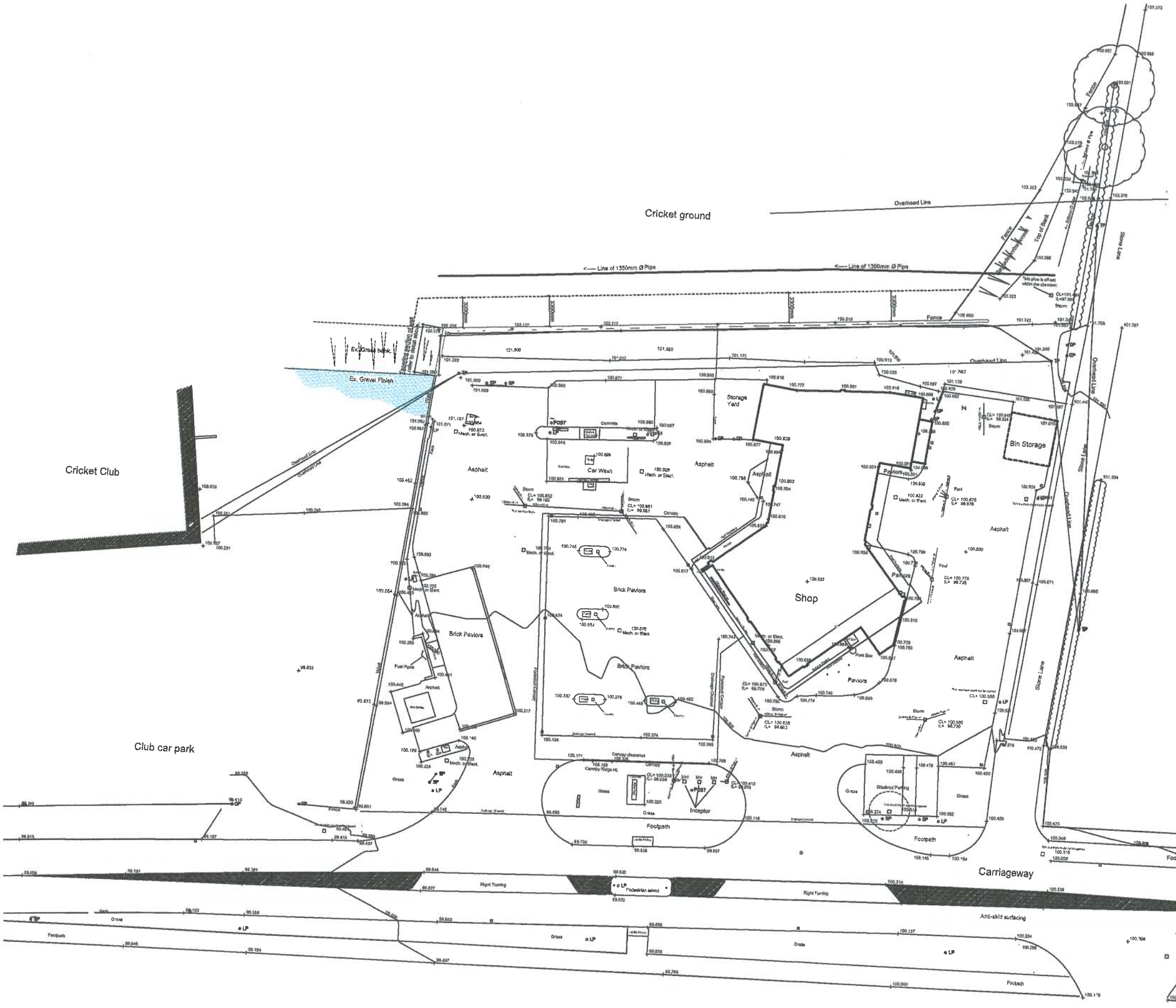
Existing Site Plan

scale	date	drawn	checked
N.T.S ~~1:200~~	07-07	AL	WW

drg. no.

0703-01

CAD.Drg.



KEY	
SYMBOL/ LINETYPE	DESCRIPTION
+55.945	SPOT HEIGHT
RS	ROADS SIGN
	SURVEY STATION
	MINI PILLAR
101 51.827	ROUND MANHOLE
51.564	SQUARE MANHOLE COVER
100.166	MANHOLE WITH ID NO. (SEE DETAILS)
	MANHOLE FOR FUEL LINES
	INSPECTION CHAMBER
	GULLY
	FIRE HYDRANT
EP	ELECTRICITY POLE
LP	LAMP POST
TP	TELEGRAPH POLE
SV	SLUICE VALVE
50.278	ORDNANCE SURVEY BENCH MARK
GP	GATE POST
	BOLLARD
101.404	FINISHED FLOOR LEVEL
41.661	INVERT LEVEL
42.226	WATER LEVEL
	BUSH / SHRUB
	SCALED TREE

KEY	
SYMBOL/ LINETYPE	DESCRIPTION
	BUILDING
	BOTTOM OF BANK
	ROAD CHANNEL
	FENCE
	FOOTPATH
	HEDGE
	KERB
	TOP OF BANK
	VERGE
	WALL
	DRAINAGE CHANNEL
	CENTRE LINE
	OVERHEAD LINE

architects

project

Proposed

client

drg. title

Existing Site Plan

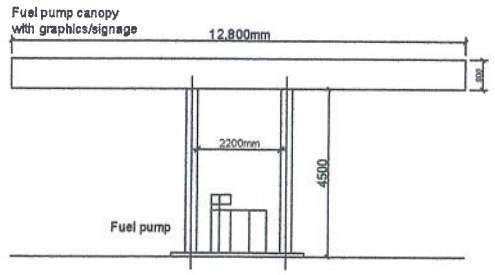
scale	date	drawn	checked
N.T.S ~~1:200~~	06-07	AL	WW

drg. no.

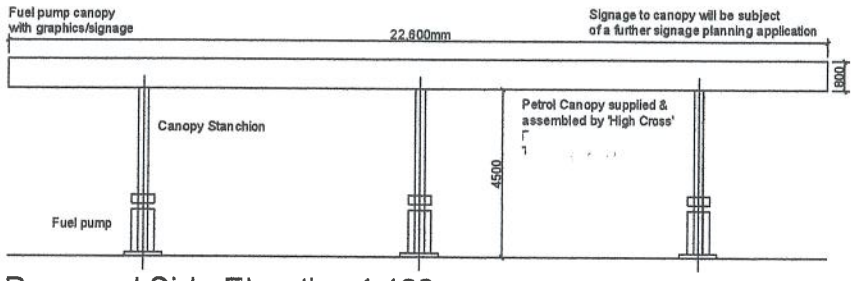
0702-01

C.A.D.Drg.

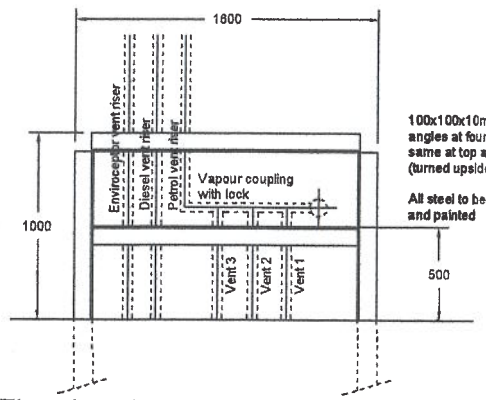
Appendix 9.00



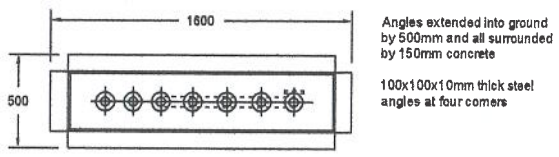
Proprosed Road Elevation 1:100



Proposed Side Elevation 1:100



Elevation of steel protection for
low level fuel tank manifold 1:20



Plan of steel protection for
low level fuel tank manifold 1:20

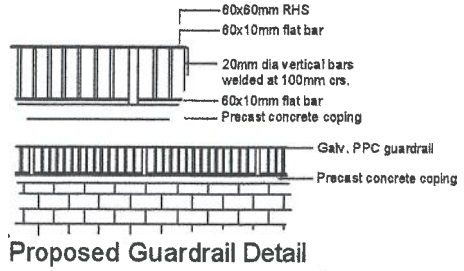
Typical Dropped Kerb Detail n.t.s.

Proposed Site Plan
1:200

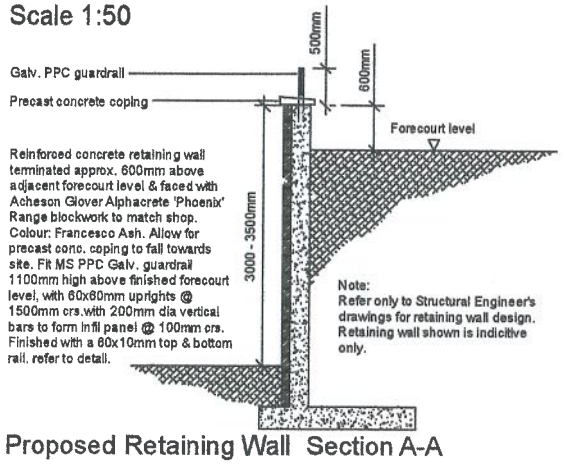
NOTE: Refer to Drawing 0703-02 for
all approved floor plan dimensions.
Do not scale of this drawing

KEY

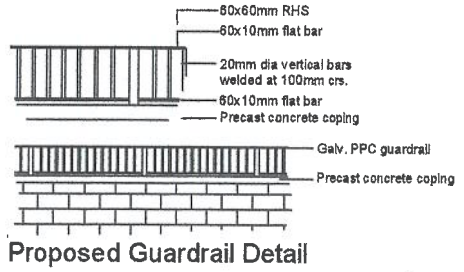
- Paving to front of shop with flush kerbs, refer to spec.
- Asphalt - forecourt & parking areas to Engineers details
- Brushed concrete areas to Engineer's details.
- Proposed Retaining Wall
- Proposed Ashphalt surface to make good to existing pavement
- Proposed grass surface



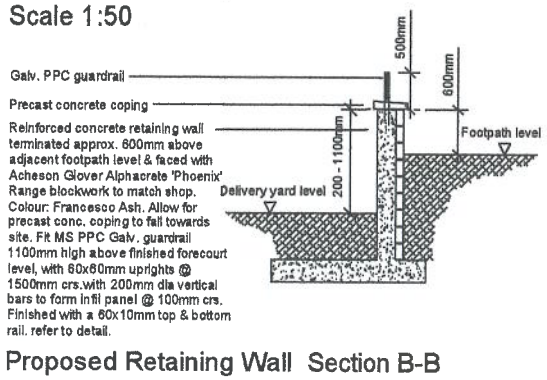
Proposed Guardrail Detail
Scale 1:50



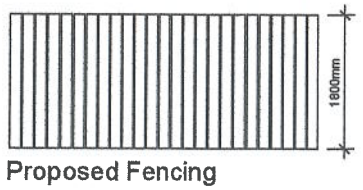
Proposed Retaining Wall Section A-A
Scale 1:50



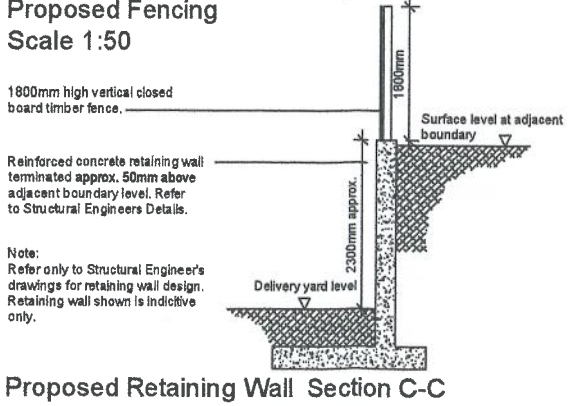
Proposed Guardrail Detail
Scale 1:50



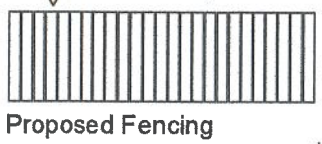
Proposed Retaining Wall Section B-B
Scale 1:50



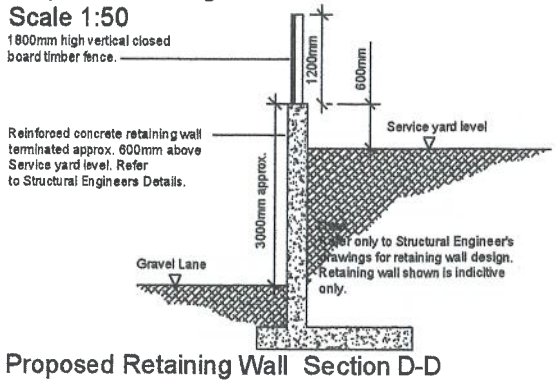
Proposed Fencing
Scale 1:50



Proposed Retaining Wall Section C-C
Scale 1:50



Proposed Fencing
Scale 1:50



Proposed Retaining Wall Section D-D
Scale 1:50

Revision A: Line of retaining wall changed to reflect line of Ownership
Nov 2007 AL

architects

project

client

drg. title

Boundary Layout

scale	date	drawn	checked
N.T.S ~~1:200~~	03-07	AL	WW

drg. no.

0703-06a

CAD Drg.