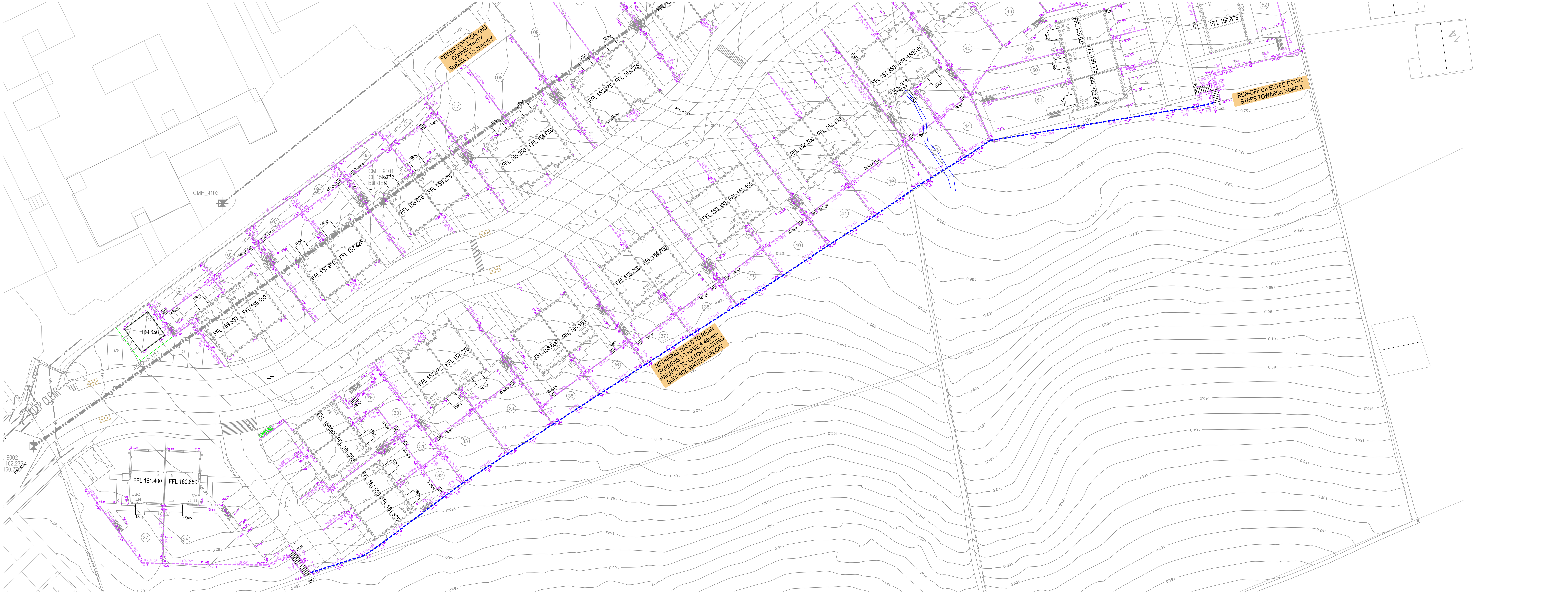
YW REF: S104-2025-051



Vertical Exaggeration: 5
Datum: 150.000M AOD

EXISTING CHAINAGE (m)	0.000	10.000	20.000	30.000	40.000	50.000	60.000	70.000	80.000	90.000	100.000	110.000	120.000	130.000	140.000	150.000	160.000	166.958
EXISTING LEVELS (m)	163.302	163.005	162.444	161.579	160.873	159.874	158.437	158.154	158.017	157.126	156.385	155.293	153.788	152.936	152.862	153.354	153.129	152.850

Chainage	LEVELS ON BOUNDARY WALL (m)
0.0	163.302
2.3	163.194
11.8	162.935
16.8	162.676
21.3	162.425
30.3	161.546
39.7	160.893
49.1	159.979
58.5	158.500
67.8	158.092
77.2	158.227
86.4	157.447
95.7	156.744
105.2	155.832
114.6	154.456
116.5	154.247
121.4	153.712
123.3	153.509
128.3	152.980
143.0	152.959
158.7	153.193
164.9	152.876
167.0	152.850

Only PDF/ DWF Issues of this drawing are controlled. All other formats (eg. DWG AutoCAD FILES) are UN-controlled and are used at your own risk.

GENERAL NOTES:-

1. DO NOT USE THIS DRAWING IN ISOLATION. THIS DRAWING HAS BEEN PREPARED AS PART OF A SET, AND MUST THEREFORE BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS. ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEER PRIOR TO COMMENCING WORKS.
2. THIRD PARTY INFORMATION IS USED TO PREPARE THE ENGINEERING DESIGN (INCLUDING, ARCHITECTURAL LAYOUT, GROUND INVESTIGATION, EXISTING UTILITIES RECORDS, AND SPECIALIST DESIGN ITEMS). THE ENGINEERING DESIGN MUST THEREFORE BE READ IN CONJUNCTION WITH ALL THIRD PARTY INFORMATION PRIOR TO COMMENCING WORK. QUEENSBERRY DESIGN LTD ARE NOT RESPONSIBLE FOR ANY THIRD PARTY INFORMATION OR DETAILS.
3. DRAWING STATUS WILL REMAIN PRELIMINARY UNTIL FULL TECHNICAL APPROVAL IS RECEIVED FROM LOCAL AUTHORITY AND SEWERAGE UNDERTAKER. WORKS COMMENCED PRIOR TO TECHNICAL APPROVAL ARE DONE SO AT RISK AND MAY BE SUBJECT TO CHANGE.
4. THE CONTRACTOR IS EXPECTED TO PREPARE APPROPRIATE CONSTRUCTION METHOD STATEMENTS FOR ALL ASPECTS OF APPOINTED WORK. THIS SHOULD INCLUDE ANY TEMPORARY PROTECTION / WORKS.
5. LAND DRAINAGE IS NOT PERMITTED TO DISCHARGE INTO THE PUBLIC SEWER NETWORK. ANY NEED FOR LAND DRAINAGE SHOULD BE ASSESSED BY THE GROUND WORKER AND LANDSCAPER DURING CONSTRUCTION AND PLACEMENT OF GARDENS ON AN INDIVIDUAL PLOT BASIS. IF LAND DRAINAGE DESIGNS ARE REQUIRED, THEY SHOULD BE APPOINTED PRIOR TO PLOT COMPLETION.
6. THE CONTRACTOR IS EXPECTED TO CROSS CHECK ALL DRAINAGE INVERTS PRIOR TO COMMENCING WORK, THIS MAY INVOLVE COMPLETION OF TRIAL HOLES IF INVERT LEVELS HAVE BEEN INTERPOLATED. THE POSITION, LINE AND DIAMETER OF ALL EXISTING DRAINAGE APPARATUS SHOULD BE CONFIRMED ON SITE PRIOR TO THE COMMENCEMENT OF THE WORKS. ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEER IMMEDIATELY.
7. THE CONTRACTOR MUST MONITOR THE "AS BUILT" PROGRESS OF EACH CONSTRUCTION STAGE (ROADS/SEWERS/PLOT WORKS ETC), TO ENABLE THE NEXT STAGES OF CONSTRUCTION TO BE CHECKED BEFORE INSTALLATION.

HIGHWAYS

1. ALL HIGHWAY WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT LOCAL AUTHORITY DESIGN GUIDE AND SPECIFICATION
2. ALL EXCAVATIONS BELOW PROPOSED AND EXISTING HIGHWAYS TO BE BACK FILLED WITH GRANULAR TYPE 1 SUB BASE AND WELL COMPACTED IN LAYERS NOT EXCEEDING 150MM, UNLESS OTHERWISE AGREED.
3. HIGHWAY AUTHORITY TO BE NOTIFIED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORKS.

ADOPTABLE DRAINAGE

1. ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "CODE FOR ADOPTION". THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED
2. MANHOLE COVERS SHALL/MUST HAVE A CLEAR OPENING OF 600MM AND SHALL BE CLASS D400 TO BS EN 124 WITH 150MM DEEP FRAMES IN HIGHWAYS
3. FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT
4. YORKSHIRE WATER IS NOT OBLIGED TO ACCEPT FILTER DRAIN/LAND DRAINAGE RUN-OFF INTO THE PUBLIC SEWER NETWORK OR ADOPTABLE DRAINAGE SYSTEM (DIRECTLY OR IN-DIRECTLY). AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUN-OFF WILL THEREFORE BE REQUIRED AND YOU WILL HAVE TO LIAISE WITH THE LOCAL AUTHORITY, LAND DRAINAGE SECTION REGARDING THE DISPOSAL OF THE FILTER DRAIN/LAND DRAINAGE RUN-OFF
5. THE ADOPTABLE SEWERS SHOULD BE A MINIMUM OF 1M AND MANHOLES 0.5M FROM KERB FACES AND SERVICE MARGINS
6. SEWERS MUST HAVE 5 METRES CLEARANCE FROM TREES AND HEDGES OR THE WIDTH OF THE CANOPY AT MATURE HEIGHT.
7. SEWERS TO BE LAID IN CLASS "S" BEDDING (150MM GRANULAR BED AND SURROUND). WHERE DEPTH OF COVER TO TOP OF THE SEWER IS LESS THAN 1.2M IN HIGHWAYS AND VERGES (OR LESS THAN 900MM IN NONVEHICULAR ACCESS AREAS) THEN A CONCRETE SLAB SHOULD BE PROVIDED ABOVE GRANULAR BED AND SURROUND
8. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2).
9. YORKSHIRE WATER POLICY IS THAT TYPE "C" BRICK MANHOLES AND 1050MM DIAMETER MANHOLE RINGS ARE NOT PREFERRED. INSTEAD, IT IS PREFERRED THAT YOU USE A TYPE "B" MANHOLE WITH 1200MM DIAMETER OR 1500MM DIAMETER RINGS, WITH THE OPENING SITED OVER THE CHANNEL WHERE DEPTH OF COVER TO PIPE SOFFIT IS 1 - 1.5M
10. ADOPTABLE PLASTIC SEWER PIPES TO BE BSI KITEMARKED (CERTIFIED TO WIS 4-35-01 AND BS/EN13476). ADOPTABLE PLASTIC SEWER PIPES TO BE LAID IN MAXIMUM 3 METRE LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS. PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND YORKSHIRE WATER WOULD REQUIRE CLAY WARE CHANNEL IN MANHOLES
11. THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS: 100MM DIA. 40KN/M, 150MM DIA. 40KN/M, 225MM DIA. 45KN/M AND 300MM DIA. 72KN/M. THE MINIMUM CRUSHING STRENGTH FOR CONCRETE PIPES SHOULD BE - (CLASS120 TO EN 1916/BS5911-1 2002). PLASTIC PIPES SHOULD CONFORM TO WIS 4-35-01 AND BS EN13476
12. WHERE A B125 COVER AND FRAME HAS BEEN APPROVED, THIS MUST NOT BE COATED IN PLASTIC AND MUST HAVE LIFTING EYES SUITABLY SIZED TO ACCOMMODATE STANDARD LIFTING KEYS. SCREW DOWN COVERS ARE NOT ACCEPTABLE
13. THERE MUST BE ENOUGH CLEARANCE AT CROSSOVERS TO ACCOMMODATE BEDDING TO BOTH PIPES, APPROX. 300MM : IF CROSSOVER IS NEAR THE ROCKER THEN THE CLEARANCE NEEDED MAY NEED TO BE INCREASED".

DRAINAGE WITHIN HIGHWAY REQUIREMENTS

14. ALL ADOPTABLE SEWER WORKS AND MATERIALS TO BE IN ACCORDANCE WITH CODE FOR ADOPTION AND NATIONAL SPECIFICATION DESIGN MANUAL FOR ROADS AND BRIDGES
15. ALL PCC UNITS IN OVERSIZE MANHOLES MUST HAVE A DESIGN WORKING LIFE OF 100 YEARS (MIN) IN ACCORDANCE WITH BS 8500-1:2015+A2:2019-TABLE A5.
16. PRECAST CONCRETE MANHOLE UNITS INCLUDING THEIR PCC COVER SLABS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 1917 AND BS 5911-3 AND SHALL BE MANUFACTURED FROM CONCRETE WITH A DESIGN CHEMICAL CLASS DC-4 UNLESS SATISFACTORY EVIDENCE THROUGH SOIL ANALYSIS CAN BE PROVIDED THAT A LOWER CLASS WILL RESIST ATTACK FROM SOILS AND GROUND WATER.
17. PRECAST CONCRETE CORBEL SLABS SHALL COMPLY WITH BS 5911-3 TABLE 3 AND FIGURE 8.
18. COVER SLABS SHALL BE INSTALLED WITH A MINIMUM OF 300mm COVER TO FINISHED GROUND LEVEL.
19. SUBMISSION OF A CONSTRUCTION COMPLIANCE CERTIFICATE SHALL BE PROVIDED UPON COMPLETION OF DRAINAGE WORKS

EXISTING SERVICES

PRIOR TO THE COMMENCEMENT OF ANY WORKS UNDER GROUND MAPPING SURVEYS AND CONSTRAINTS PLAN IS TO BE REFERRED TO ANY DISCREPANCIES ARE TO BE REPORTED TO ENGINEER.

ANY EXISTING SERVICES WHICH MAY BE AFFECTED BY THE PROPOSED WORKS SHOULD BE LOCATED BY MEANS OF A HAND DIG IN CLOSE LIAISON WITH THE STATUTORY SERVICE AUTHORITIES. THE CONTRACTOR SHALL INFORM THE DEVELOPER OF ANY SERVICES THAT MAY AFFECT THE PROPOSED DESIGN. CONTRACTOR TO NOTIFY STATUTORY SERVICE AUTHORITIES PRIOR TO COMMENCEMENT OF WORK. AS CONSTRUCTED INFORMATION IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE THE FOLLOWING AS CONSTRUCTED DRAWINGS TO THE DEVELOPER UPON THE COMPLETION OF THE WORKS COVERED BY THE CONTRACT :-

14. POSITION/CO-ORDINATES OF ALL ADOPTABLE MANHOLES.
15. INVERT AND COVER LEVELS OF ALL ADOPTABLE MANHOLES.
16. NEW GULLY POSITIONS AND CONNECTIONS.
17. POSITION AND DEPTH OF SERVICE DUCTS FOR WATER, GAS, ELECTRIC, BT, CABLE AND STREET LIGHTING, STATING SIZE AND NUMBER OF DUCTS.

HEALTH & SAFETY RISKS

IN ADDITION TO THE STANDARD HAZARDS AND RISKS NORMALLY ASSOCIATED WITH THE TYPE OF WORK DETAILED ON THIS DRAWING. PLEASE NOTE THE FOLLOWING RESIDUAL HEALTH AND SAFETY RISKS THESE RISKS ARE APPLICABLE TO THE SET OF DRAWINGS FORMING THE DESIGN

CONSTRUCTION RISKS

C1	BURIED SERVICES - OBTAIN ACCURATE LOCATIONS OF UNDERGROUND SERVICES PRIOR TO EXCAVATION.
C2	CONFINED SPACE WORKS - ENSURE STAFF ARE SUITABLY TRAINED.
C3	CONSTRUCTION ADJACENT LIVE TRAFFIC - ENSURE SAFE METHOD OF WORKING
C4	DEEP EXCAVATIONS - RISK OF LAND SLIPS AND LARGE FALLS CONNECTION TO EXISTING LIVE SEWERS - RISK OF DROWNING
C5	CONSTRUCTION ADJACENT LIVE TRAFFIC - ENSURE SAFE METHOD OF WORKING
C6	CONTAMINATED GROUND - SITE ASSESSMENT MUST BE CARRIED OUT TO DETERMINE RISK IF CONTAMINATED GROUND IS UNCOVERED.
C7	UNFORESEEN GROUND CONDITIONS - CONTRACTOR SHOULD CARRY OUT APPROPRIATE SURVEYS TO MINIMISE RISK OF ENCOUNTERING UNKNOWN STRUCTURES
C8	STEEP SIDED STRUCTURES/RETAINING WALLS - COULD RESULT IN FALLS FROM HEIGHT ENSURE FALL PROTECTION PRIOR TO PERMANENT FENCING BEING ERECTED.
C9	SHALLOW GROUND WATER WILL BE ENCOUNTERED <1m BGL

OPERATION & MAINTENANCE RISKS

OM 1	UNTREATED/POLLUTED WATER CAN CAUSE ILL HEALTH FOR OPERATIVES
OM 2	WORKING ON OR NEAR SEWERS STEEP SIDED STRUCTURES/RETAINING WALLS COULD RESULT IN FALLS FROM HEIGHT.
OM 3	ENSURE BARRIERS ARE PLACED AROUND TOPS OF RETAINING WALLS AND EXCAVATIONS PRIOR TO PERMANENT FENCING BEING ERECTED. CONFINED SPACE WORKS - ENSURE STAFF ARE SUITABLY TRAINED.

ALL WORKS MUST BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING IN ACCORDANCE WITH THE REQUIREMENTS DEFINED IN THE CDM REGULATIONS AND BS 8000
THE RISK LISTED ARE NOT EXHAUSTIVE REFER TO DESIGNERS RISK ASSESSMENT FOR FULL DETAILS

KEY

- PROPOSED GROUND (TOP OF WALL)
- EXISTING GROUND
- EXISTING GROUND AREA TO REMOVED/FILLED TO ALLOW SURFACE WATER RUN OFF TO FLOW TOWARDS STEPS
- EXTENT OF PARAPET
- EXISTING DITCH

Rev.	Date	Revision Details	Drawn	Checked
P01	02.04.26	FIRST ISSUE	JR	ND

© This drawing is the property of Queensberry Design Limited and the information can only be reproduced with their prior permission.

QUEENSBERRY DESIGN
CIVIL, STRUCTURAL, ARCHITECTURAL & GEOTECHNICAL CONSULTANTS
QUEENSBERRY DESIGN YORKSHIRE LTD
SUITE 12A, BROOKFIELD COURT, SELBY ROAD, LEEDS, LS25 1NB
T: 0191 460 9090
www.queensberrydesign.co.uk

Client: STRATA/ THIRTEEN

Project: MAIN AVENUE COWERSLEY

Title: PROPOSED LONGSECTION BOUNDARY PARAPET WALL

Drawn	Checked	Date
JR	ND	02.04.2026

Drawing Number: 2153-QD-XX-HD-DR-C-05-06

Drawing Status	Scale	Rev.
TENDER	1:500/250 - A0	P01