

Appendix A

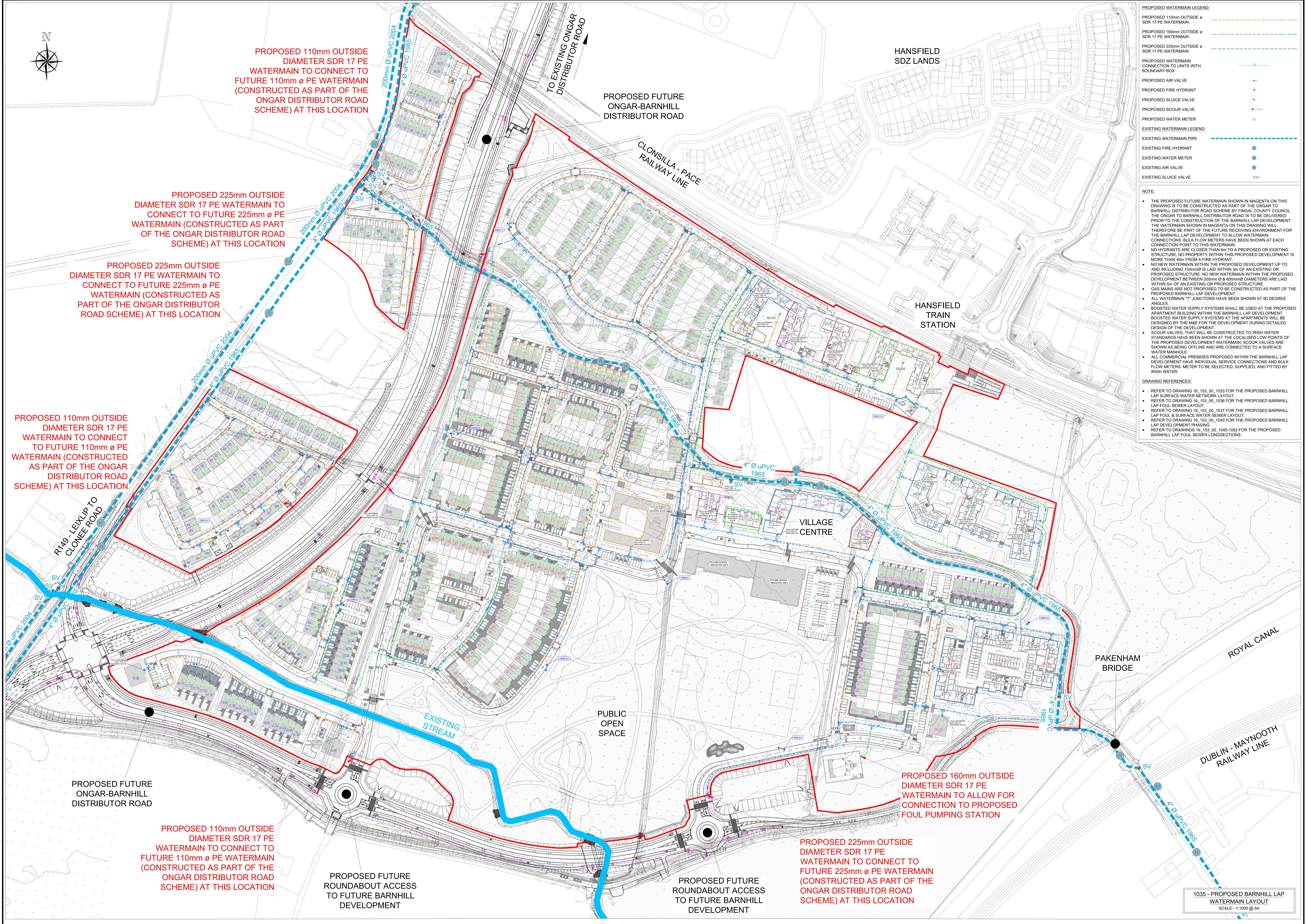
Document Title & Revision

- 16_053_00_1035 - Proposed Barnhill LAP Watermain Layout - June 2022
- 16_053_00_1037 - Proposed Barnhill LAP Combined Foul & Surface Water Sewer Layout - June 2022
- 16_053_00_1045 - Proposed Barnhill LAP Foul Longsections - Sheet 1 to 8

Standard Details/Code of Practice Exemption: N/A

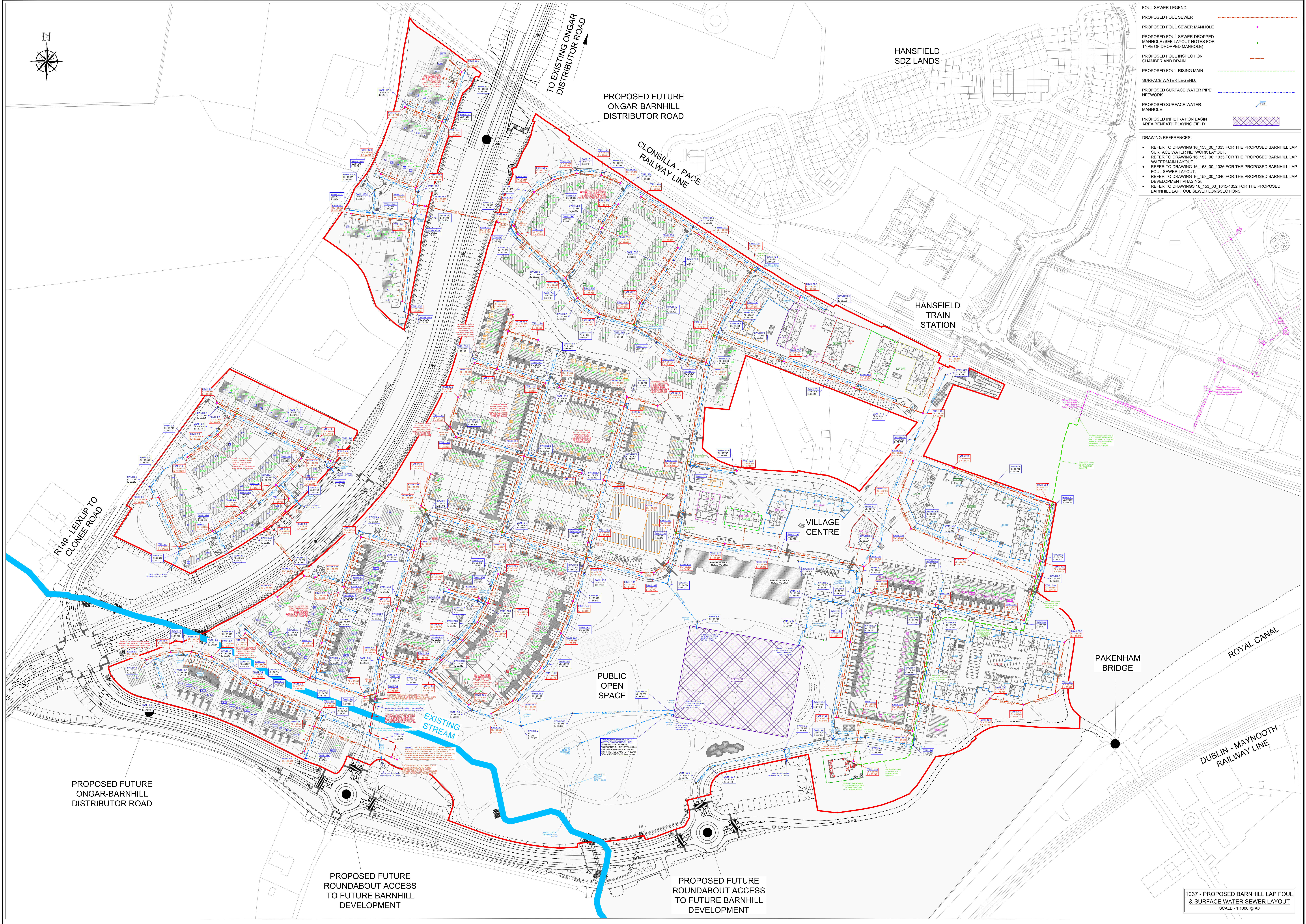
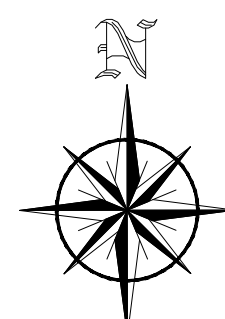
For further information, visit www.water.ie/connections

Notwithstanding any matters listed above, the Customer (including any appointed designers/contractors, etc.) is entirely responsible for the design and construction of the Self-Lay Works. Acceptance of the Design Submission by Irish Water will not, in any way, render Irish Water liable for any elements of the design and/or construction of the Self-Lay Works.



PROPOSED WATERMAIN LEGEND:	
PROPOSED 110mm OUTSIDE ø SDR 17 PE WATERMAIN	
PROPOSED 160mm OUTSIDE ø SDR 17 PE WATERMAIN	
PROPOSED 225mm OUTSIDE ø SDR 17 PE WATERMAIN	
PROPOSED WATERMAIN CONNECTION TO UNITS WITH BOUNDARY BOX	
PROPOSED AIR VALVE	
PROPOSED FIRE HYDRANT	
PROPOSED SLUICE VALVE	
PROPOSED SCOUR VALVE	
PROPOSED WATER METER	
EXISTING WATERMAIN LEGEND:	
EXISTING WATERMAIN PIPE	
EXISTING FIRE HYDRANT	
EXISTING WATER METER	
EXISTING AIR VALVE	
EXISTING SLUICE VALVE	

- NOTE:
- THE PROPOSED FUTURE WATERMAIN SHOWN IN MAGENTA ON THIS DRAWING IS TO BE CONSTRUCTED AS PART OF THE ONGAR TO BARNHILL DISTRIBUTOR ROAD SCHEME BY FINGAL COUNTY COUNCIL. THE ONGAR TO BARNHILL DISTRIBUTOR ROAD IS TO BE DELIVERED PRIOR TO THE CONSTRUCTION OF THE BARNHILL LAP DEVELOPMENT. THE WATERMAIN SHOWN IN MAGENTA ON THIS DRAWING WILL THEREFORE BE PART OF THE FUTURE RECEIVING ENVIRONMENT FOR THE BARNHILL LAP DEVELOPMENT TO ALLOW WATERMAIN CONNECTIONS. BULK FLOW METERS HAVE BEEN SHOWN AT EACH CONNECTION POINT TO THIS WATERMAIN.
 - NO HYDRANTS ARE CLOSER THAN 6m TO A PROPOSED OR EXISTING STRUCTURE. NO PROPERTY WITHIN THIS PROPOSED DEVELOPMENT IS MORE THAN 46m FROM A FIRE HYDRANT.
 - NO NEW WATERMAIN WITHIN THE PROPOSED DEVELOPMENT UP TO AND INCLUDING 150mmø IS LAID WITHIN 3m OF AN EXISTING OR PROPOSED STRUCTURE. NO NEW WATERMAIN WITHIN THE PROPOSED DEVELOPMENT BETWEEN 200mmø & 600mmø DIAMETERS ARE LAID WITHIN 5m OF AN EXISTING OR PROPOSED STRUCTURE.
 - GAS MAINS ARE NOT PROPOSED TO BE CONSTRUCTED AS PART OF THE PROPOSED BARNHILL LAP DEVELOPMENT.
 - ALL WATERMAIN "T" JUNCTIONS HAVE BEEN SHOWN AT 90 DEGREE ANGLES.
 - BOOSTED WATER SUPPLY SYSTEMS SHALL BE USED AT THE PROPOSED APARTMENT BUILDING WITHIN THE BARNHILL LAP DEVELOPMENT. BOOSTED WATER SUPPLY SYSTEMS AT THE APARTMENTS WILL BE DESIGNED BY THE MAE FOR THE DEVELOPMENT DURING DETAILED DESIGN OF THE DEVELOPMENT.
 - SCOUR VALVES, THAT WILL BE CONSTRUCTED TO IRISH WATER STANDARDS HAVE BEEN SHOWN AT THE LOCALISED LOW POINTS OF THE PROPOSED DEVELOPMENT WATERMAIN. SCOUR VALVES ARE SHOWN AS BEING OFFLINE AND ARE CONNECTED TO A SURFACE WATER MANHOLE.
 - ALL COMMERCIAL PREMISES PROPOSED WITHIN THE BARNHILL LAP DEVELOPMENT HAVE INDIVIDUAL SERVICE CONNECTIONS AND BULK FLOW METERS. METER TO BE SELECTED, SUPPLIED, AND FITTED BY IRISH WATER.
- DRAWING REFERENCES:
- REFER TO DRAWING 16_153_00_1033 FOR THE PROPOSED BARNHILL LAP SURFACE WATER NETWORK LAYOUT.
 - REFER TO DRAWING 16_153_00_1036 FOR THE PROPOSED BARNHILL LAP FOUL SEWER LAYOUT.
 - REFER TO DRAWING 16_153_00_1037 FOR THE PROPOSED BARNHILL LAP FOUL & SURFACE WATER SEWER LAYOUT.
 - REFER TO DRAWING 16_153_00_1040 FOR THE PROPOSED BARNHILL LAP DEVELOPMENT PHASING.
 - REFER TO DRAWINGS 16_153_00_1045-1052 FOR THE PROPOSED BARNHILL LAP FOUL SEWER LONGSECTIONS.



FOUL SEWER LEGEND:

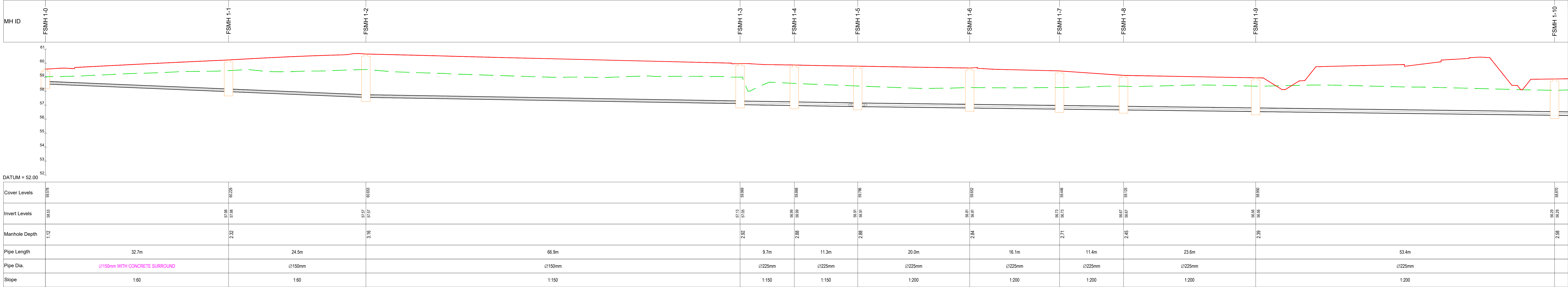
- PROPOSED FOUL SEWER
- PROPOSED FOUL SEWER MANHOLE
- PROPOSED FOUL SEWER DROPPED MANHOLE (SEE LAYOUT NOTES FOR TYPE OF DROPPED MANHOLE)
- PROPOSED FOUL INSPECTION CHAMBER AND DRAIN
- PROPOSED FOUL RISING MAIN

SURFACE WATER LEGEND:

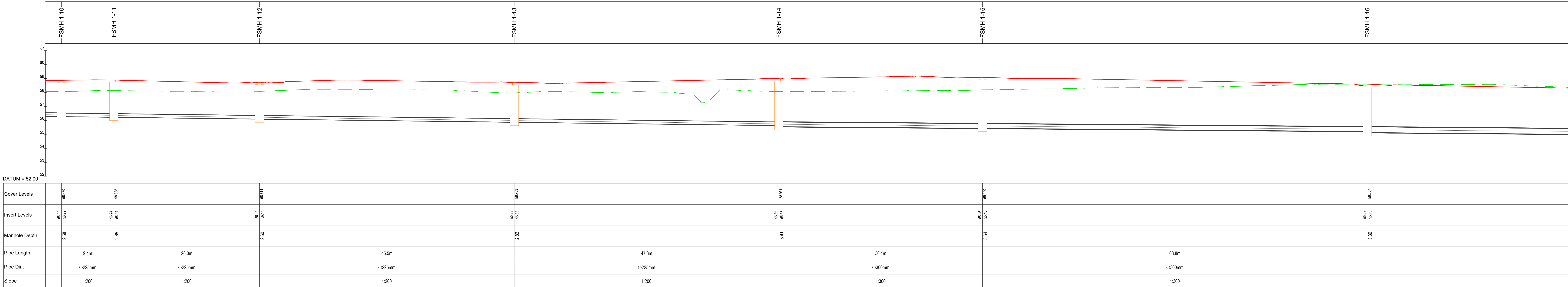
- PROPOSED SURFACE WATER PIPE NETWORK
- PROPOSED SURFACE WATER MANHOLE
- PROPOSED INFILTRATION BASIN AREA BENEATH PLAYING FIELD

DRAWING REFERENCES:

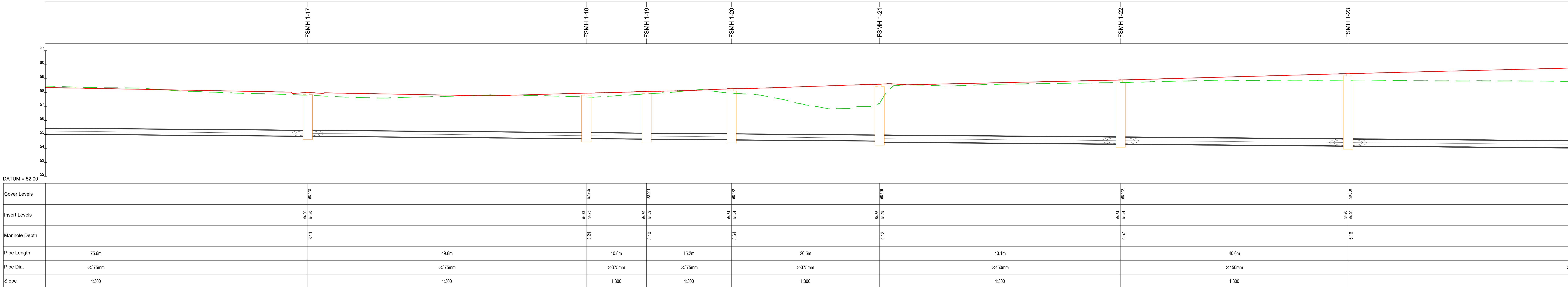
- REFER TO DRAWING 16_153_00_1033 FOR THE PROPOSED BARNHILL LAP SURFACE WATER NETWORK LAYOUT
- REFER TO DRAWING 16_153_00_1035 FOR THE PROPOSED BARNHILL LAP WATERMAIN LAYOUT
- REFER TO DRAWING 16_153_00_1036 FOR THE PROPOSED BARNHILL LAP FOUL SEWER LAYOUT
- REFER TO DRAWING 16_153_00_1040 FOR THE PROPOSED BARNHILL LAP DEVELOPMENT PHASING
- REFER TO DRAWINGS 16_153_00_1045-1052 FOR THE PROPOSED BARNHILL LAP FOUL SEWER LONGSECTIONS



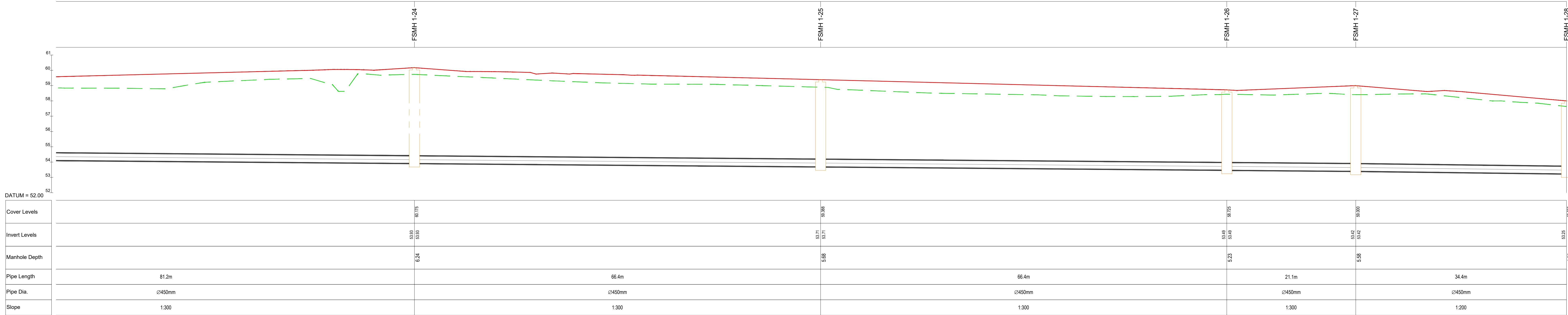
FSMH 1-0 TO FSMH 1-28 - PROFILE
SCALE: H 1:250,V 1:100



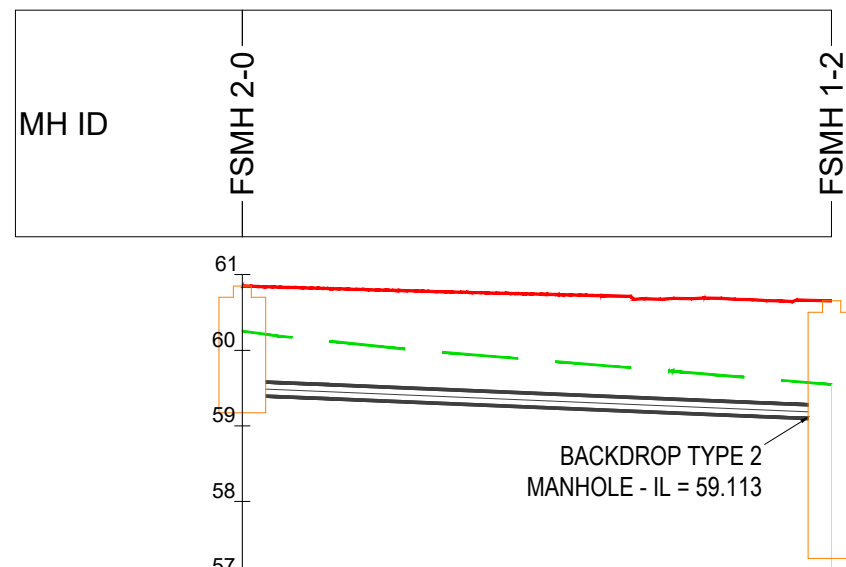
FSMH 1-0 TO FSMH 1-28 - PROFILE (CONTINUED)
SCALE: H 1:250,V 1:100



FSMH 1-0 TO FSMH 1-28 - PROFILE (CONTINUED)
SCALE: H 1:250,V 1:100

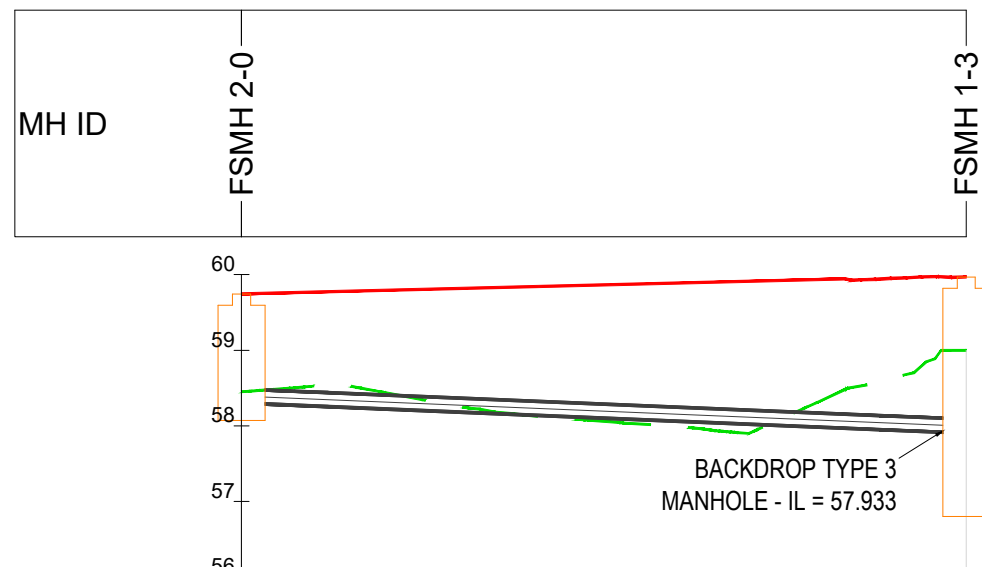


FSMH 1-0 TO FSMH 1-28 - PROFILE (CONTINUED)
SCALE: H 1:250,V 1:100



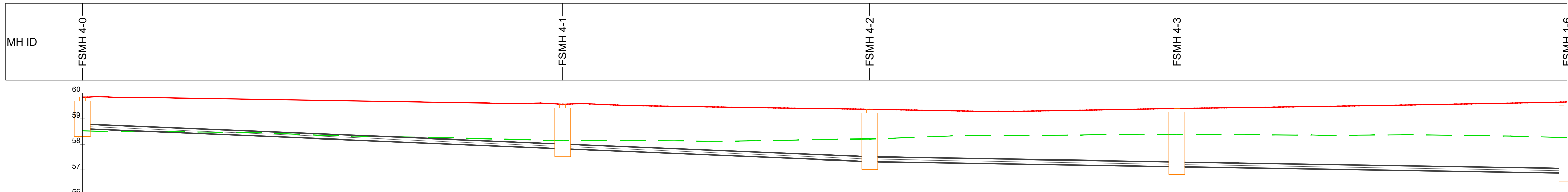
Cover Levels	58.80	58.83
Invert Levels	58.42	58.55
Manhole Depth	1.42	3.18
Pipe Length	19.5m	
Pipe Dia.	Ø150mm	
Slope	1:60	

FSMH 2-0 TO FSMH 1-2 - PROFILE
SCALE: H 1:250,V 1:100



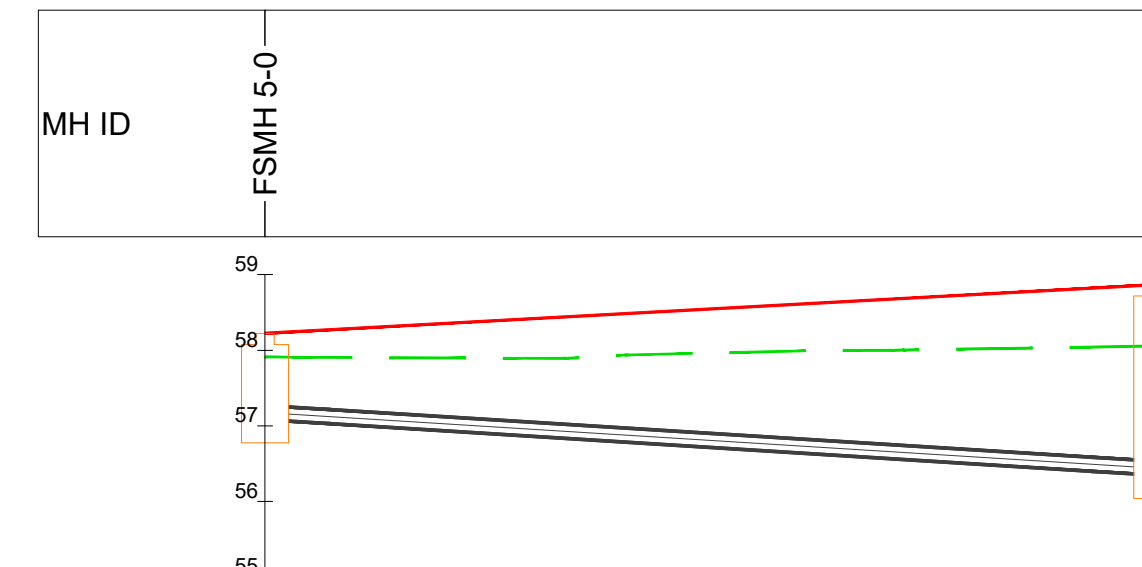
Cover Levels	58.95	58.88
Invert Levels	58.33	57.92
Manhole Depth	1.42	2.52
Pipe Length	24.0m	
Pipe Dia.	Ø150mm	
Slope	1:60	

FSMH 3-0 TO FSMH 1-3 - PROFILE
SCALE: H 1:250,V 1:100



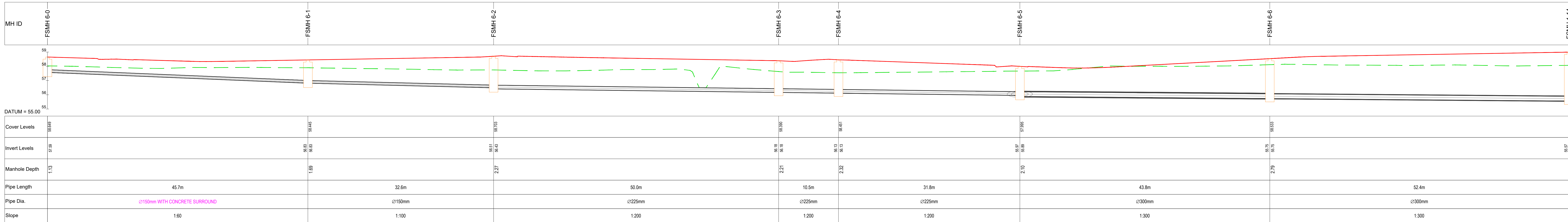
Cover Levels	58.89	58.84	58.85	58.87	58.82
Invert Levels	58.62	58.44	58.34	58.14	58.03
Manhole Depth	1.30	1.80	2.10	2.33	2.84
Pipe Length	46.8m		30.0m	30.0m	38.1m
Pipe Dia.	Ø150mm	Ø150mm	Ø150mm	Ø150mm	Ø150mm
Slope	1:60	1:60	1:150	1:150	1:150

FSMH 4-0 TO FSMH 1-6 - PROFILE
SCALE: H 1:250,V 1:100

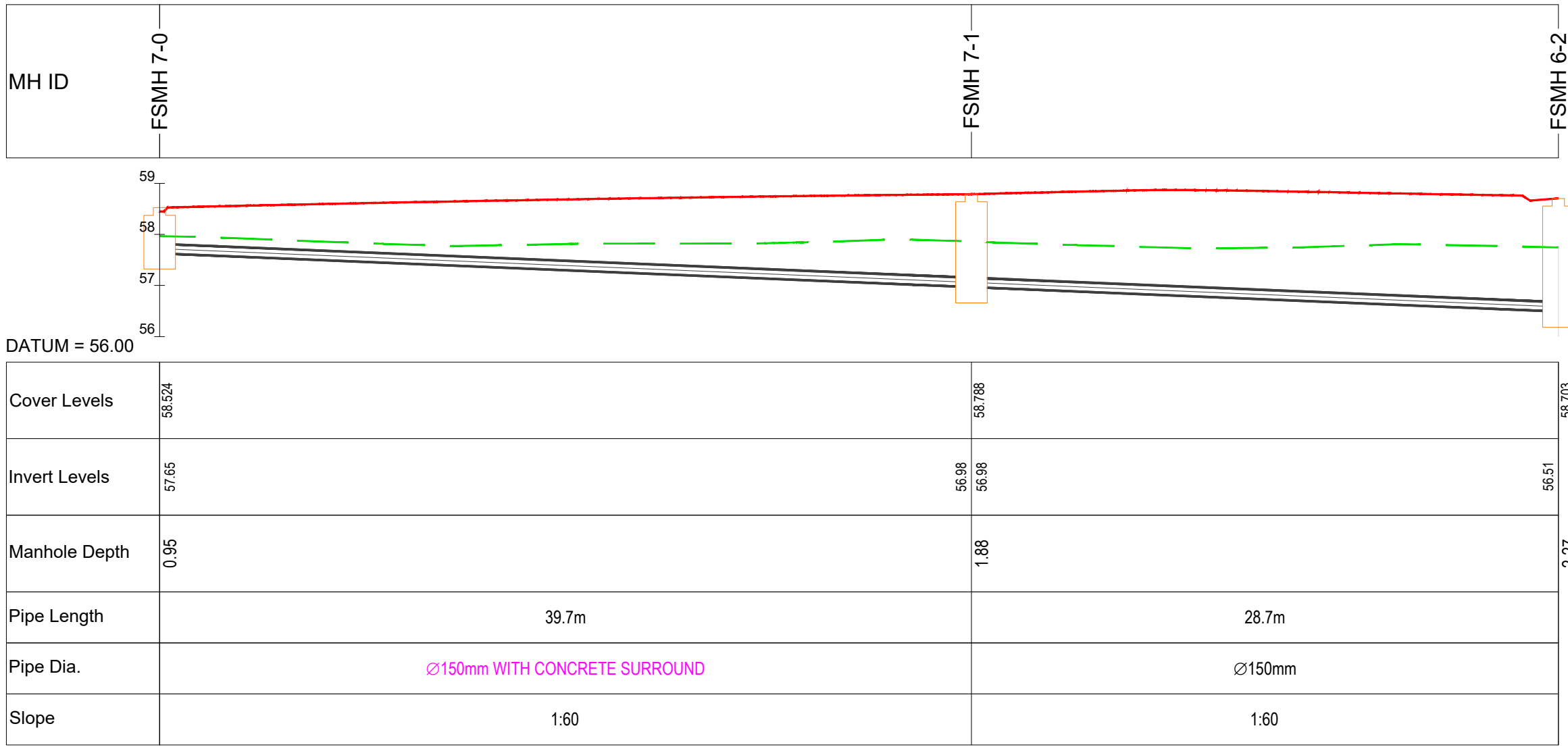


Cover Levels	58.25	58.00
Invert Levels	57.51	57.98
Manhole Depth	1.20	2.58
Pipe Length	29.5m	
Pipe Dia.	Ø150mm	
Slope	1:40	

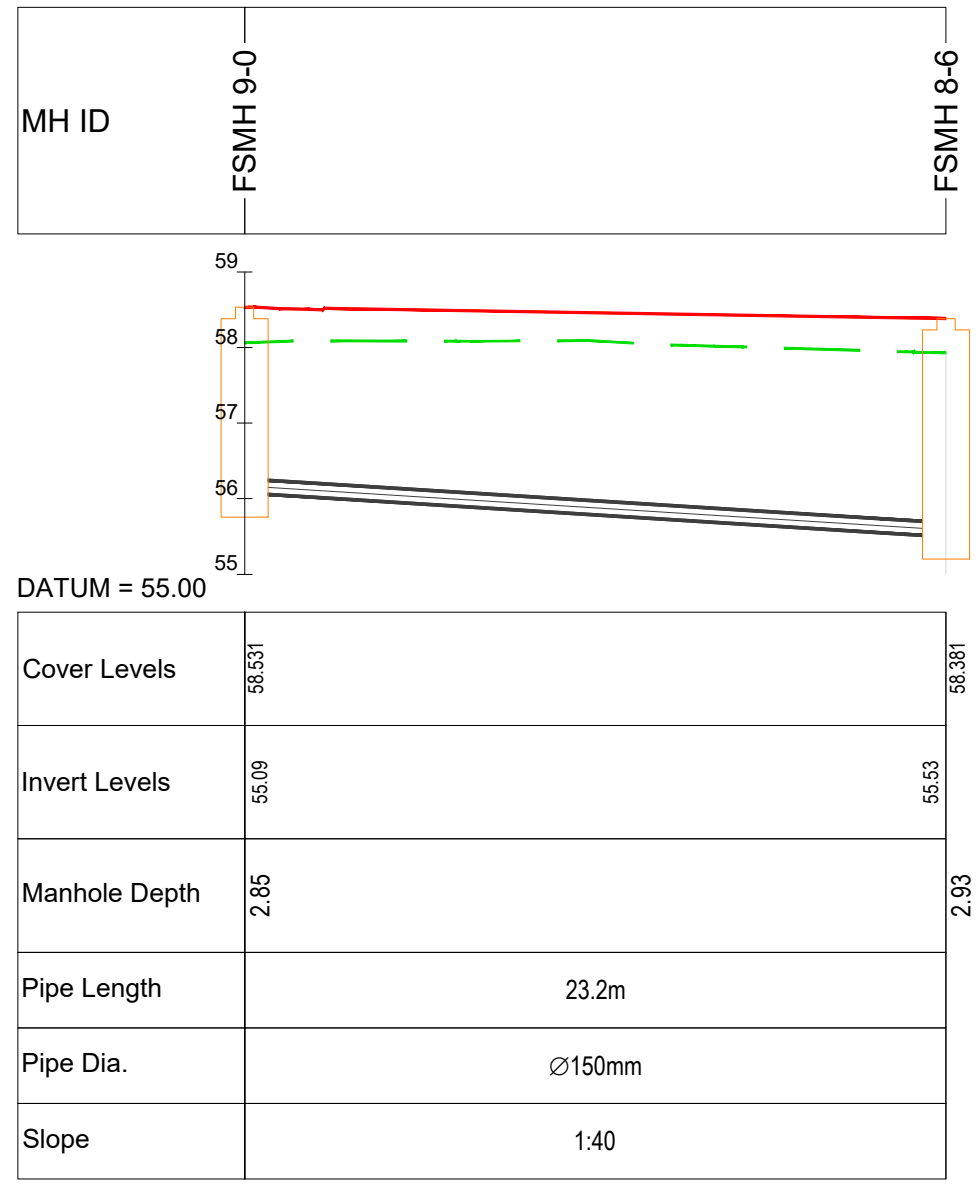
FSMH 5-0 TO FSMH 1-10 - PROFILE
SCALE: H 1:250,V 1:100



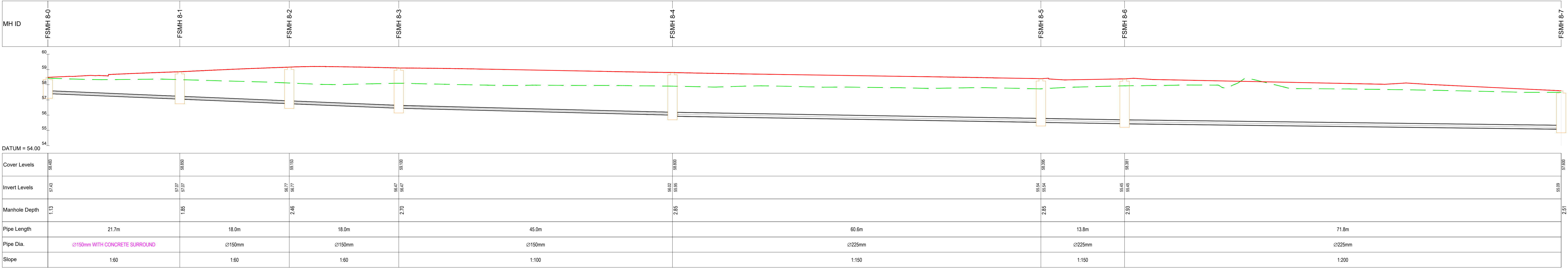
FSMH 6-0 TO FSMH 1-14 - PROFILE
SCALE: H 1:250,V 1:100



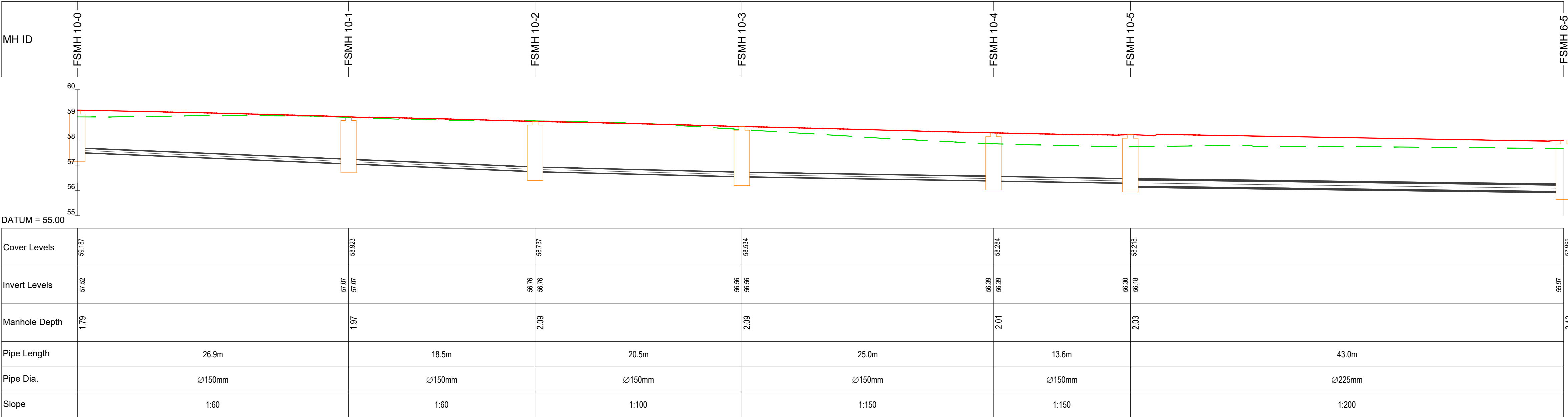
FSMH 7-0 TO FSMH 6-2 - PROFILE
SCALE: H 1:250,V 1:100



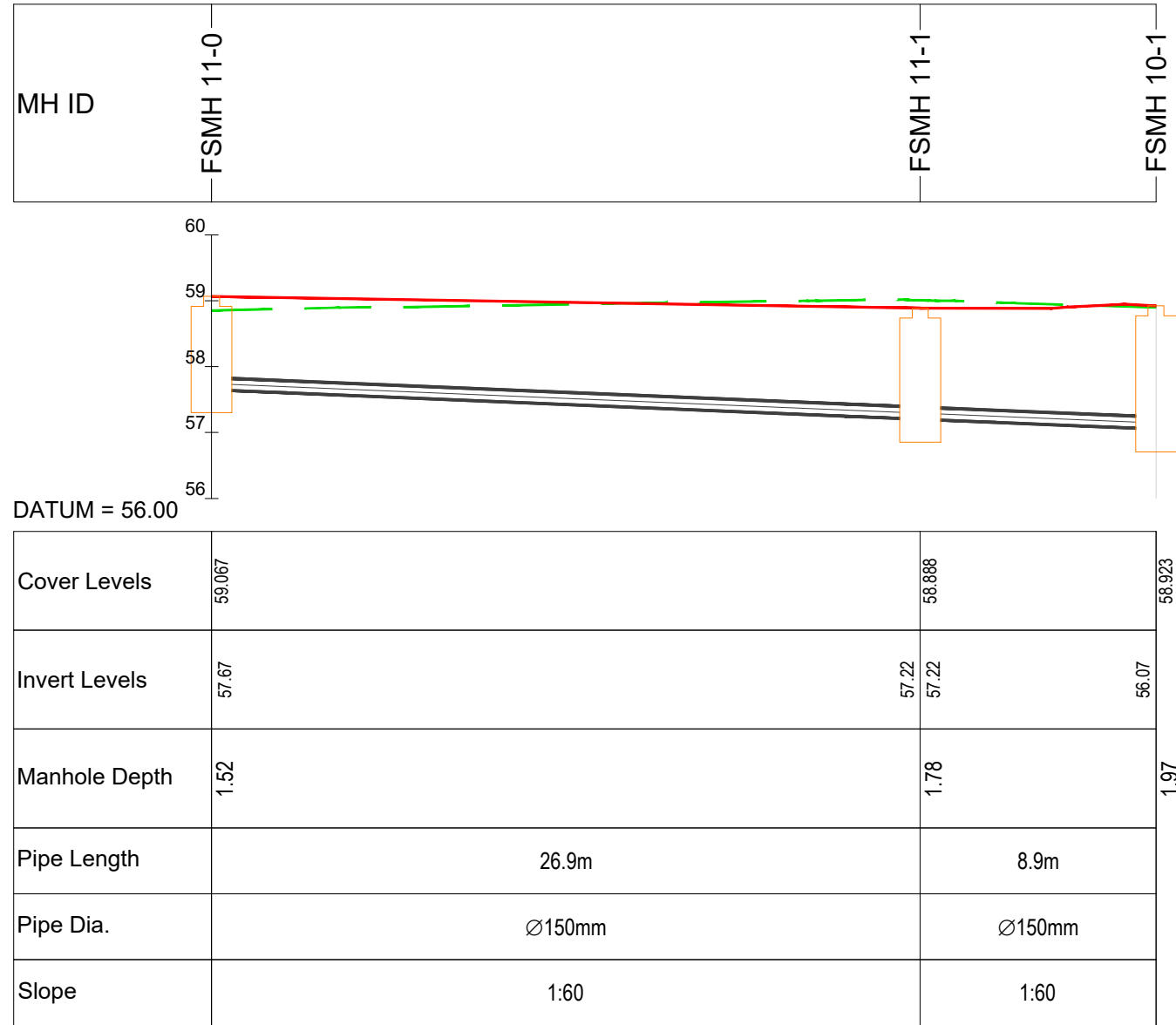
FSMH 9-0 TO FSMH 8-6 - PROFILE
SCALE: H 1:250,V 1:100



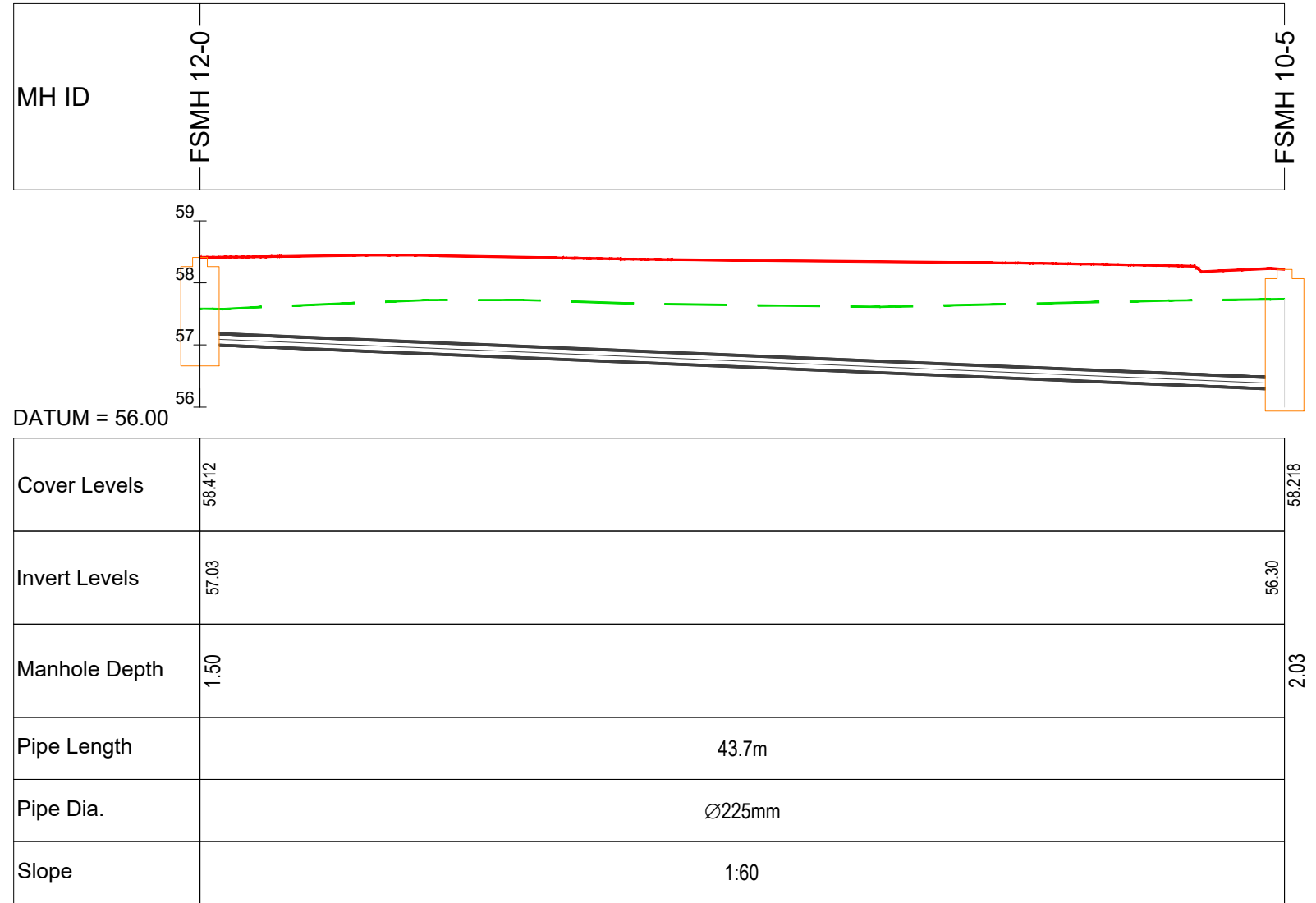
FSMH 8-0 TO FSMH 8-7 - PROFILE
SCALE: H 1:250,V 1:100



FSMH 10-0 TO FSMH 6-5 - PROFILE
SCALE: H 1:250,V 1:100



FSMH 11-0 TO FSMH 10-1 - PROFILE
SCALE: H 1:250,V 1:100



FSMH 12-0 TO FSMH 10-5 - PROFILE
SCALE: H 1:250,V 1:100

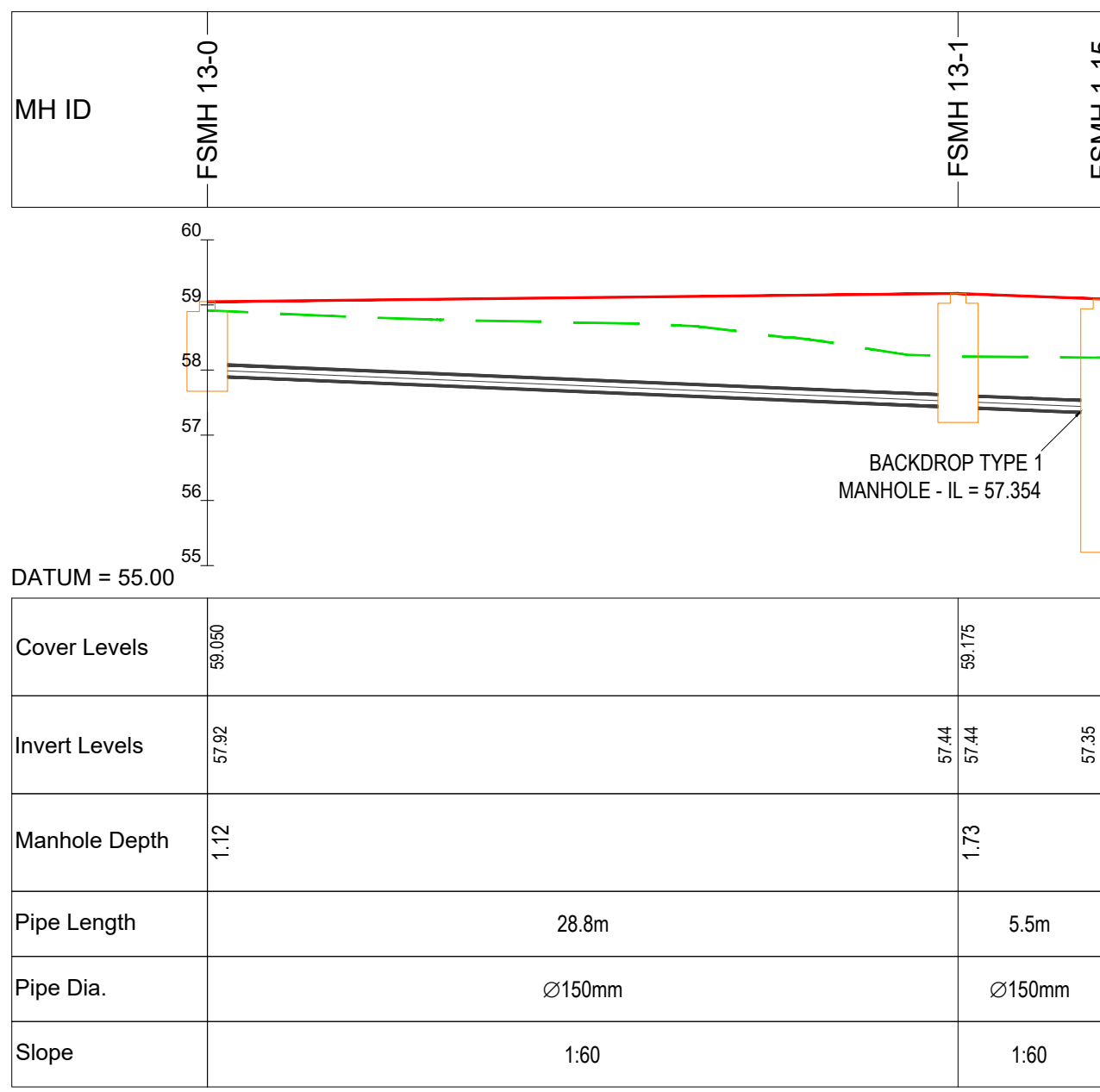
LEGEND:

EXISTING GROUND PROFILE
PROPOSED GROUND PROFILE

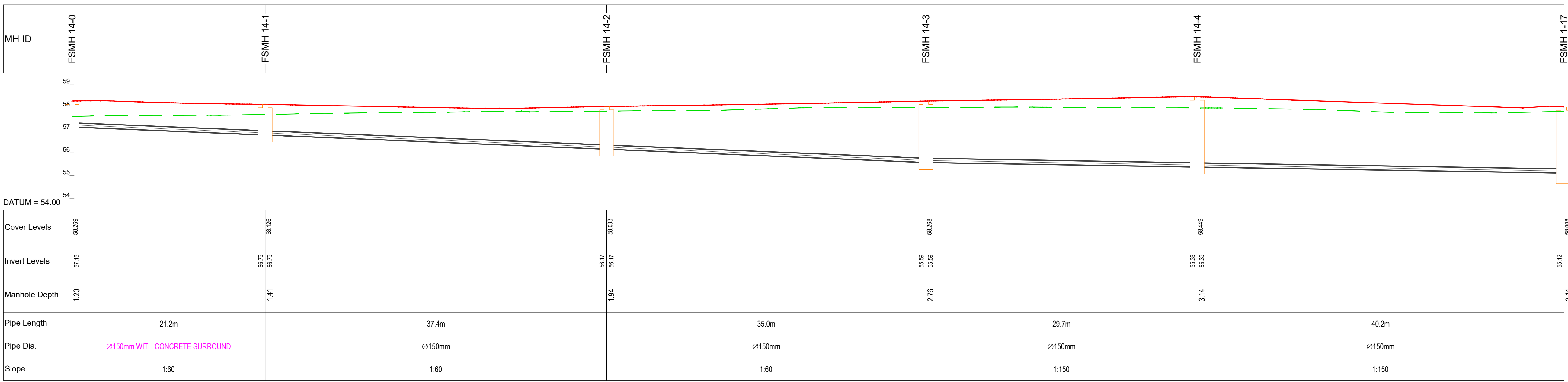
DRAWING REFERENCES:

- REFER TO DRAWING 16_153_00_1036 FOR THE PROPOSED BARNHILL LAP FOUL SEWER LAYOUT

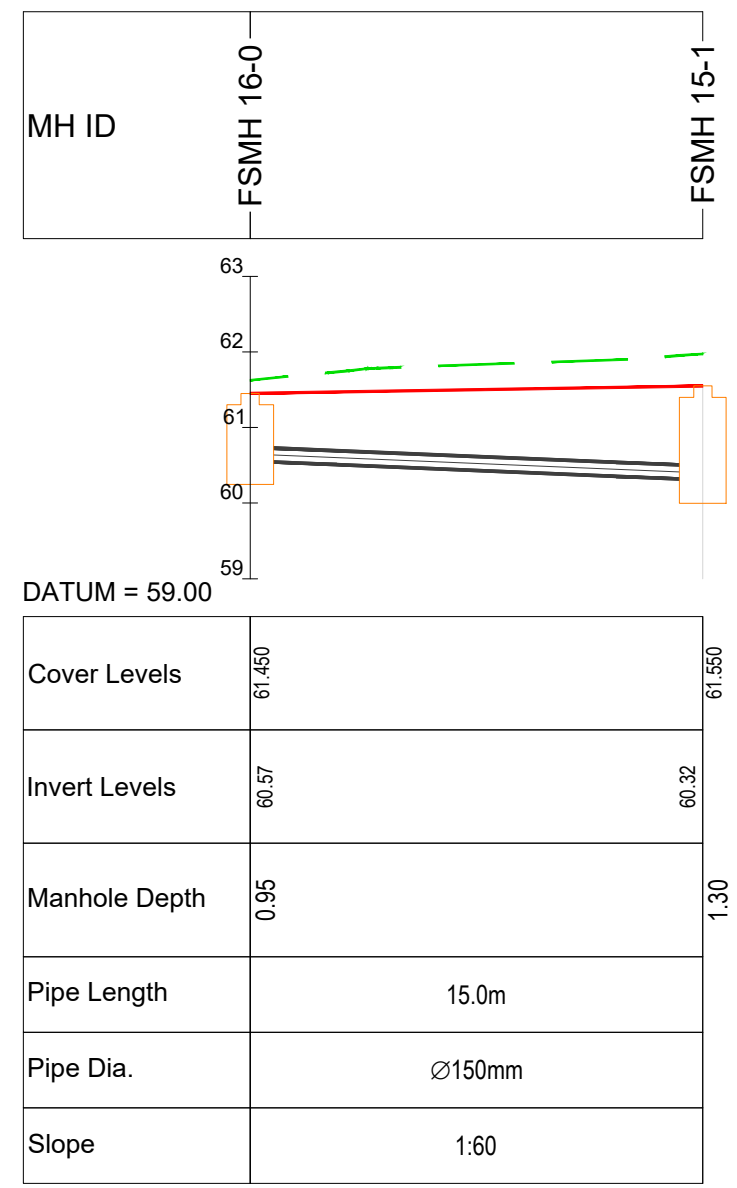
1047 - PROPOSED BARNHILL LAP FOUL
LONGSECTIONS SHEET 3 OF 8
SCALE - 1:1000 @ A0



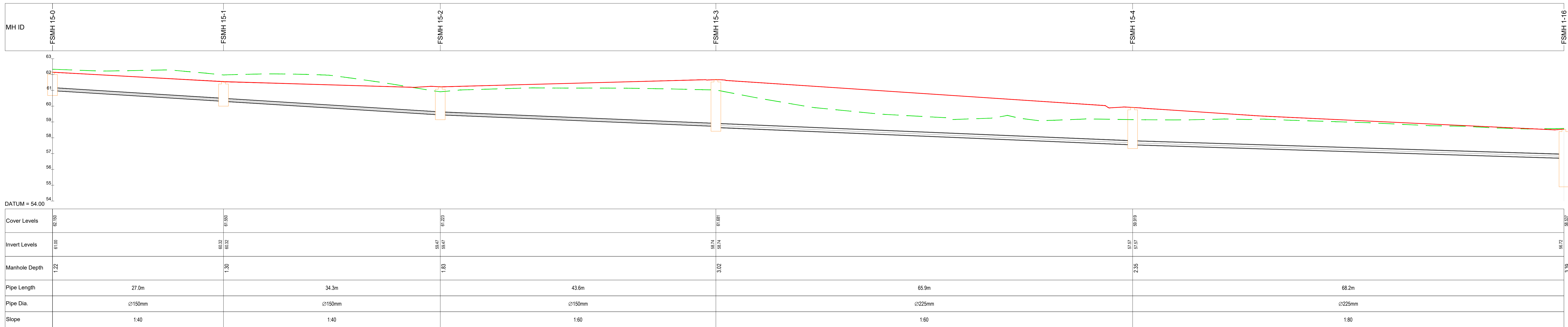
FSMH 13-0 TO FSMH 1-15 - PROFILE
SCALE: H 1:250,V 1:100



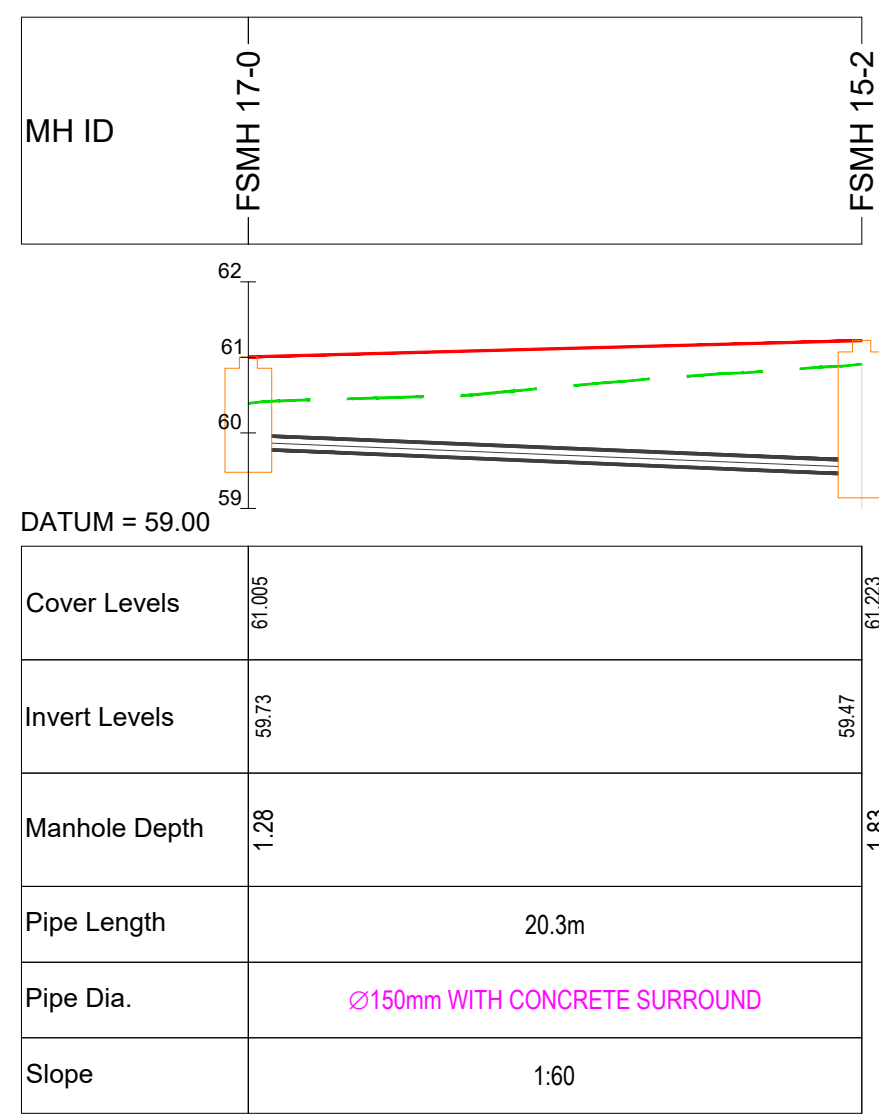
FSMH 14-0 TO FSMH 1-17 - PROFILE
SCALE: H 1:250,V 1:100



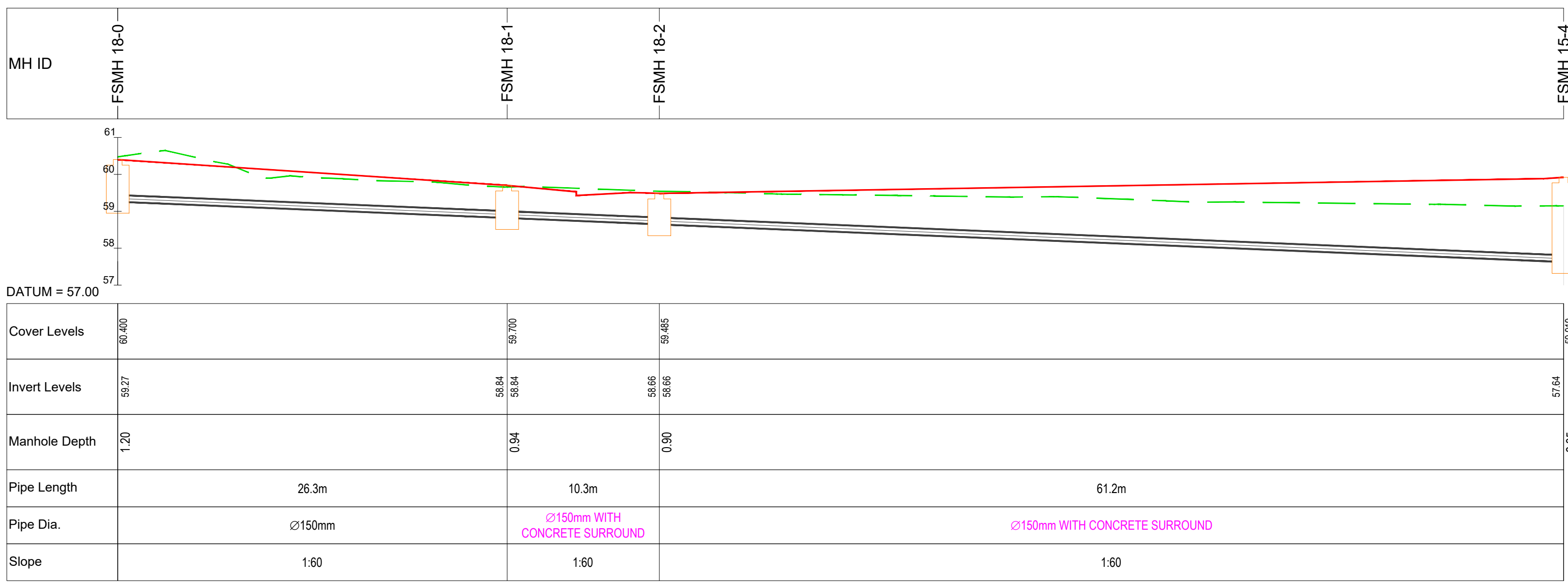
FSMH 16-0 TO FSMH 15-1 - PROFILE
SCALE: H 1:250,V 1:100



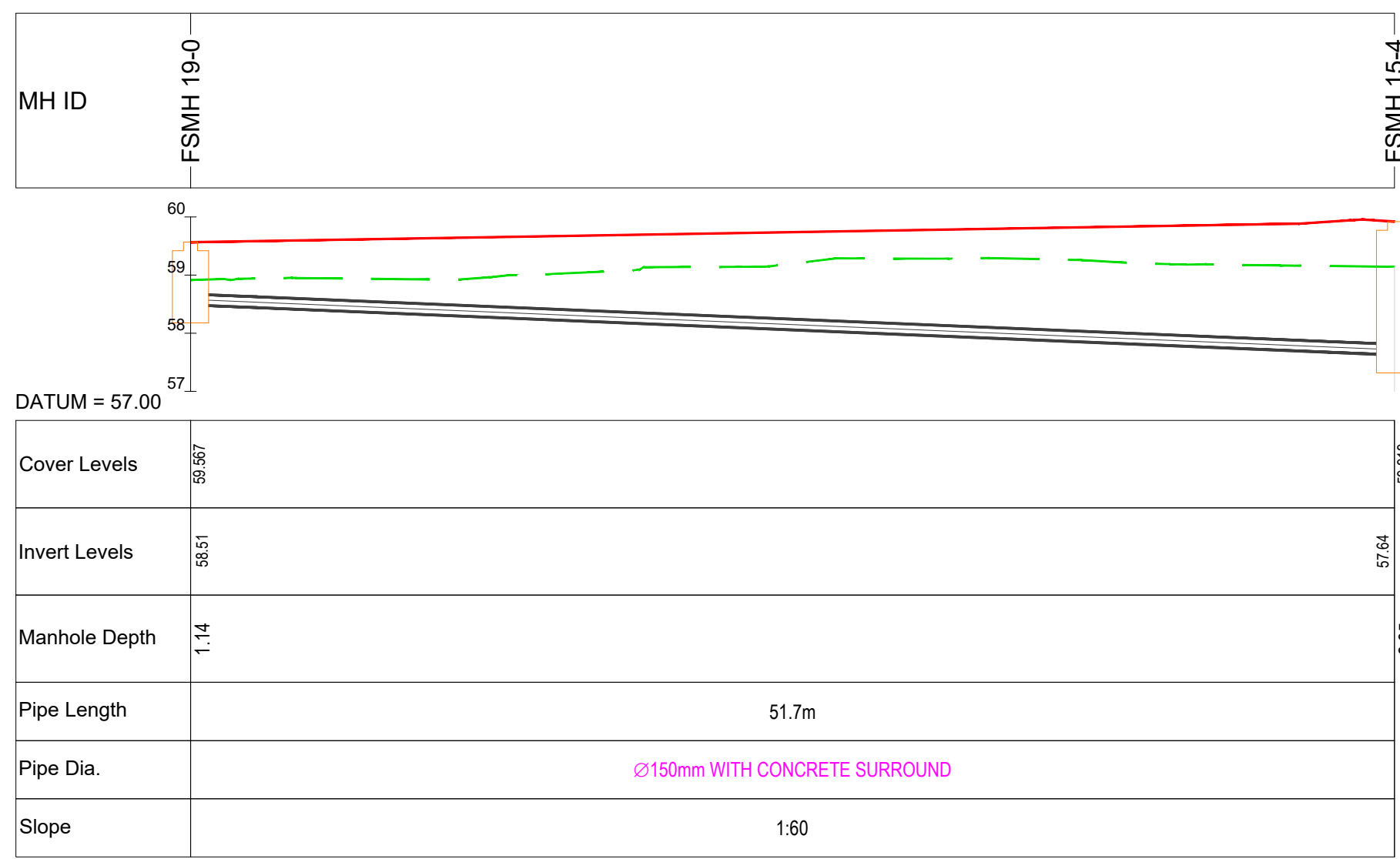
FSMH 15-0 TO FSMH 1-16 - PROFILE
SCALE: H 1:250,V 1:100



FSMH 17-0 TO FSMH 15-2 - PROFILE
SCALE: H 1:250,V 1:100



FSMH 18-0 TO FSMH 15-4 - PROFILE
SCALE: H 1:250,V 1:100



FSMH 19-0 TO FSMH 15-4 - PROFILE
SCALE: H 1:250,V 1:100

LEGEND:

EXISTING GROUND PROFILE
PROPOSED GROUND PROFILE

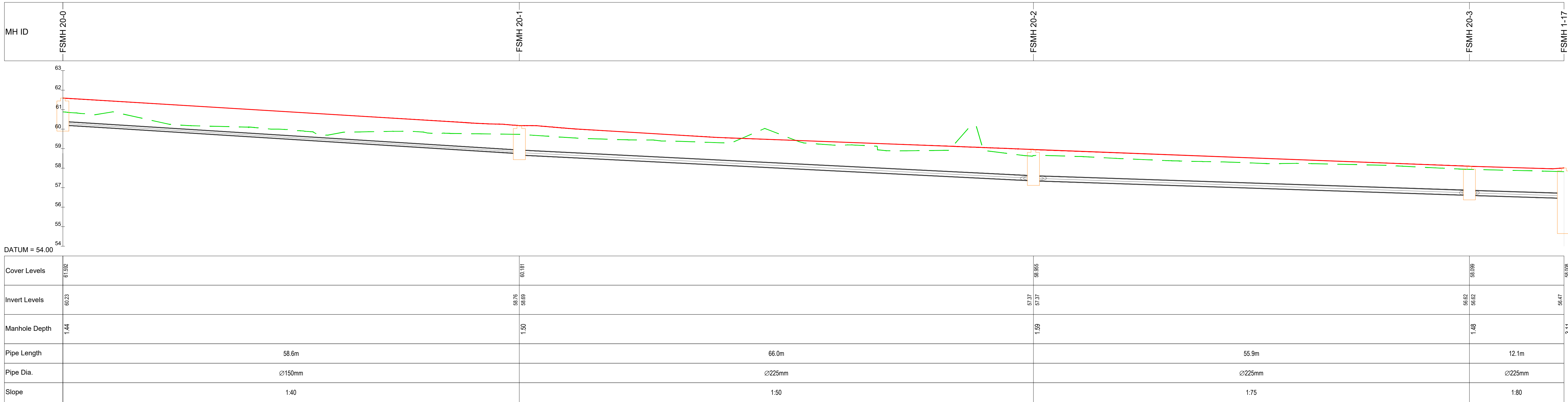
DRAWING REFERENCES:

- REFER TO DRAWING 16_153_00_1036 FOR THE PROPOSED BARNHILL LAP FOUL SEWER LAYOUT

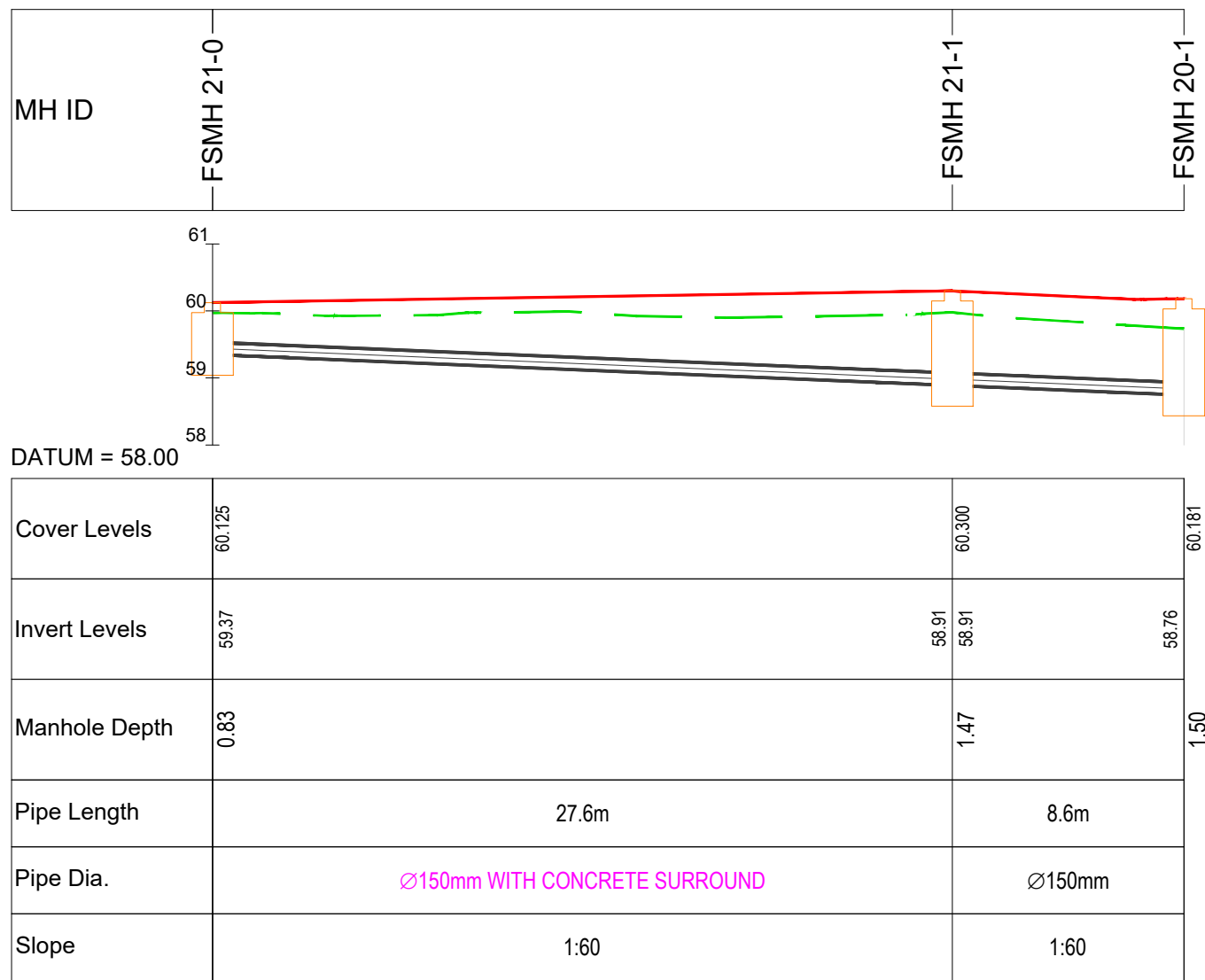
1048 - PROPOSED BARNHILL LAP FOUL
LONGSECTIONS SHEET 4 OF 8
SCALE - 1:1000 @ A0

- DRAWING REFERENCES:
- REFER TO DRAWING 16_153_00_1036 FOR THE PROPOSED BARNHILL LAP FOUL SEWER LAYOUT

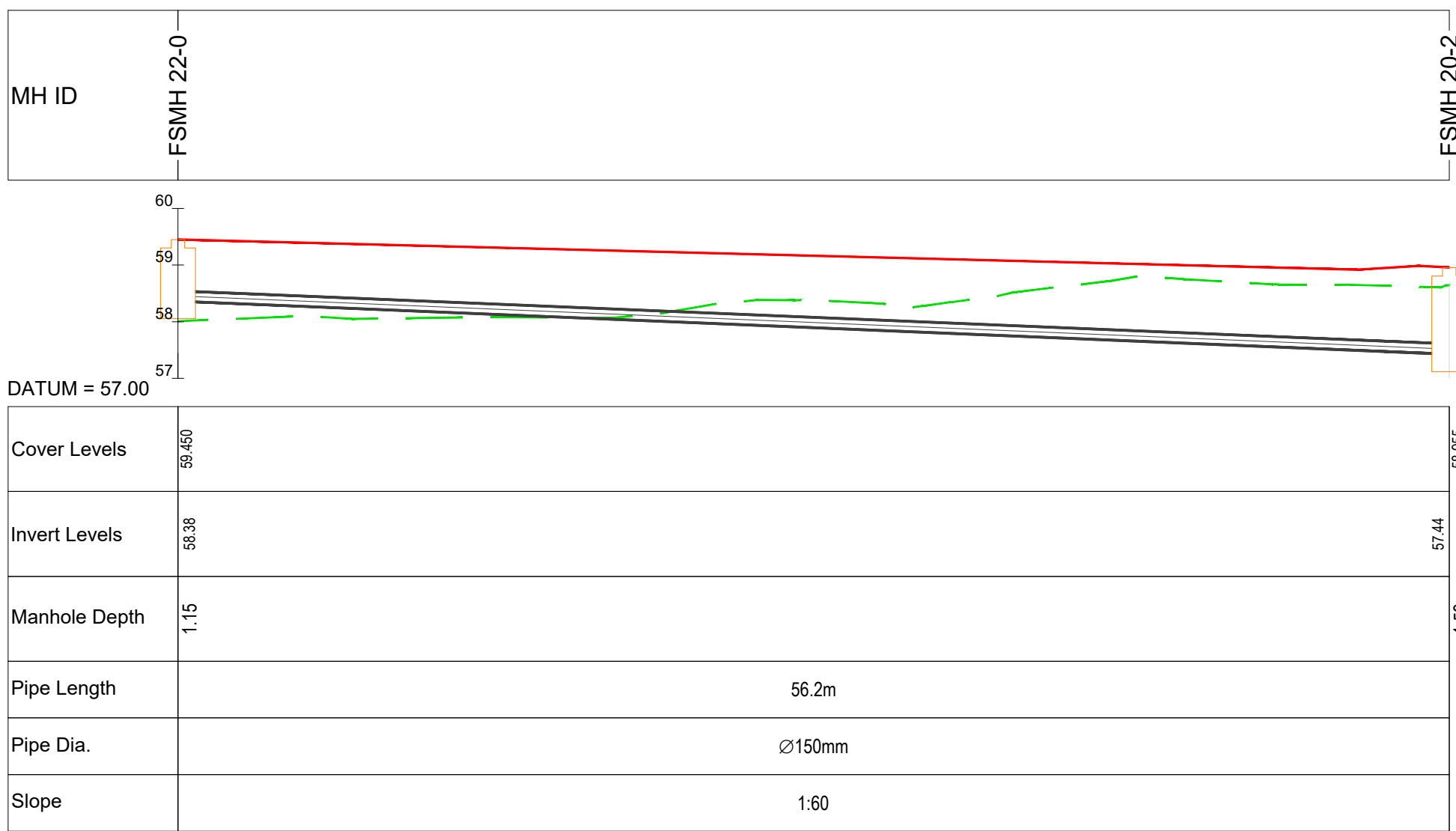
LEGEND:
EXISTING GROUND PROFILE
PROPOSED GROUND PROFILE



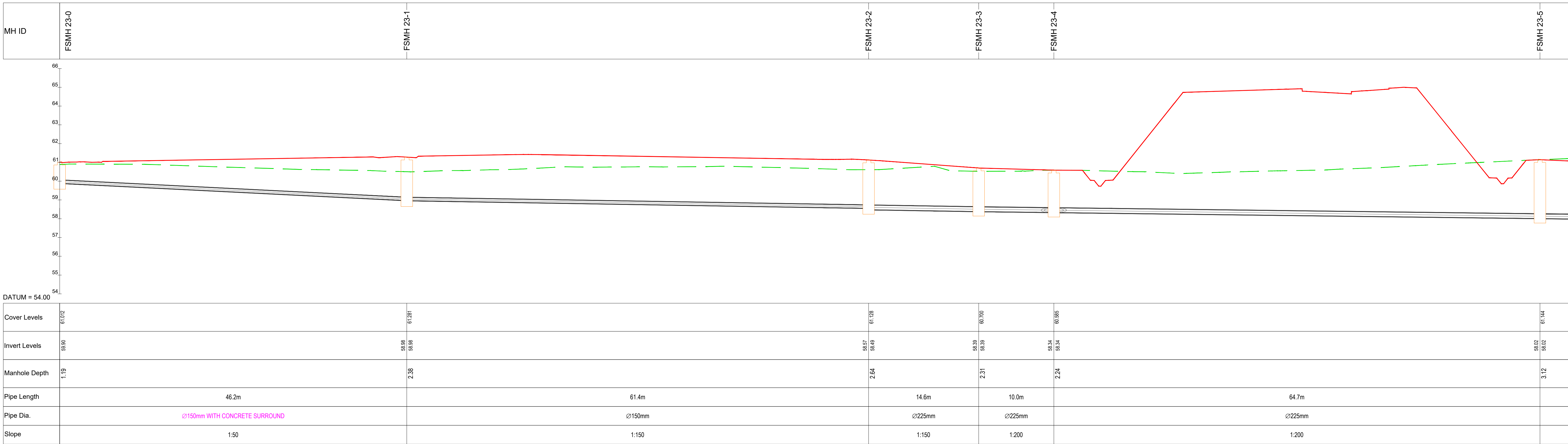
FSMH 20-0 TO FSMH 1-17 - PROFILE
SCALE: H 1:250,V 1:100



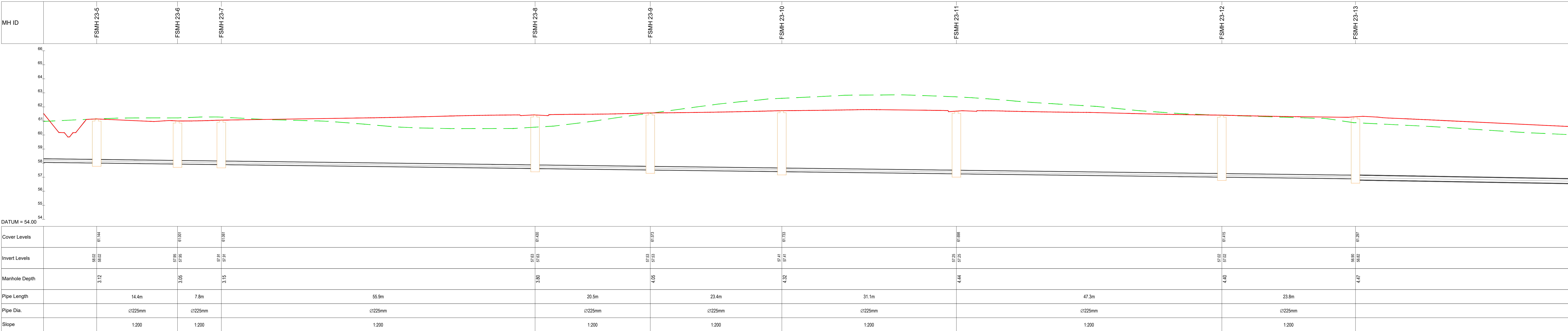
FSMH 21-0 TO FSMH 20-1 - PROFILE
SCALE: H 1:250,V 1:100



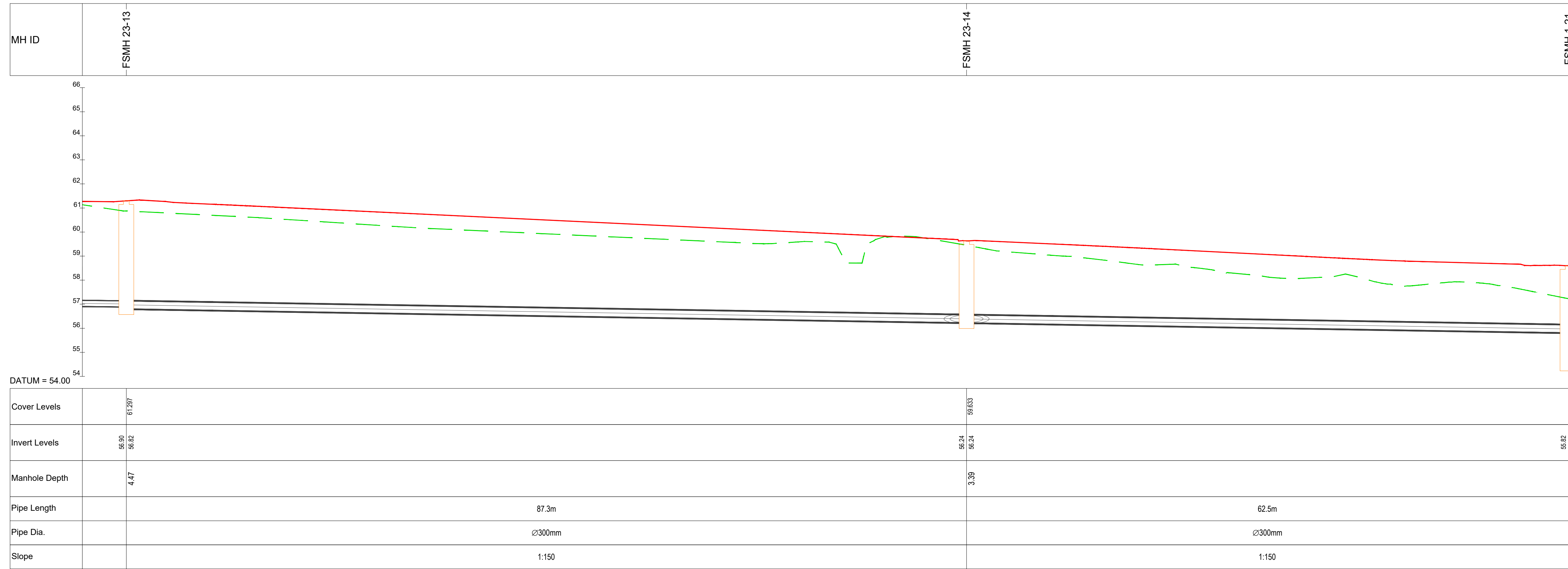
FSMH 22-0 TO FSMH 20-2 - PROFILE
SCALE: H 1:250,V 1:100



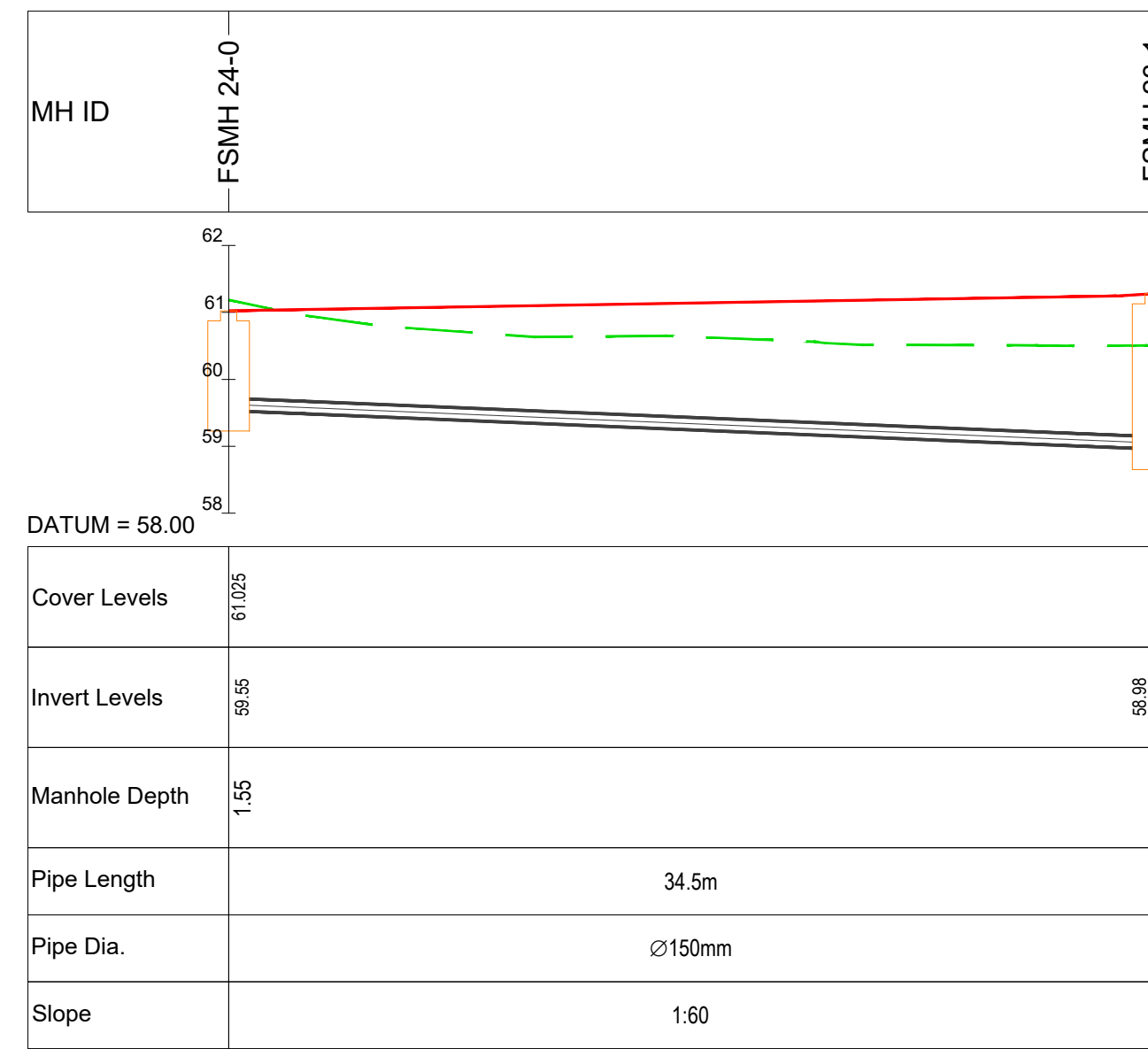
FSMH 23-0 TO FSMH 1-21 - PROFILE
SCALE: H 1:250,V 1:100



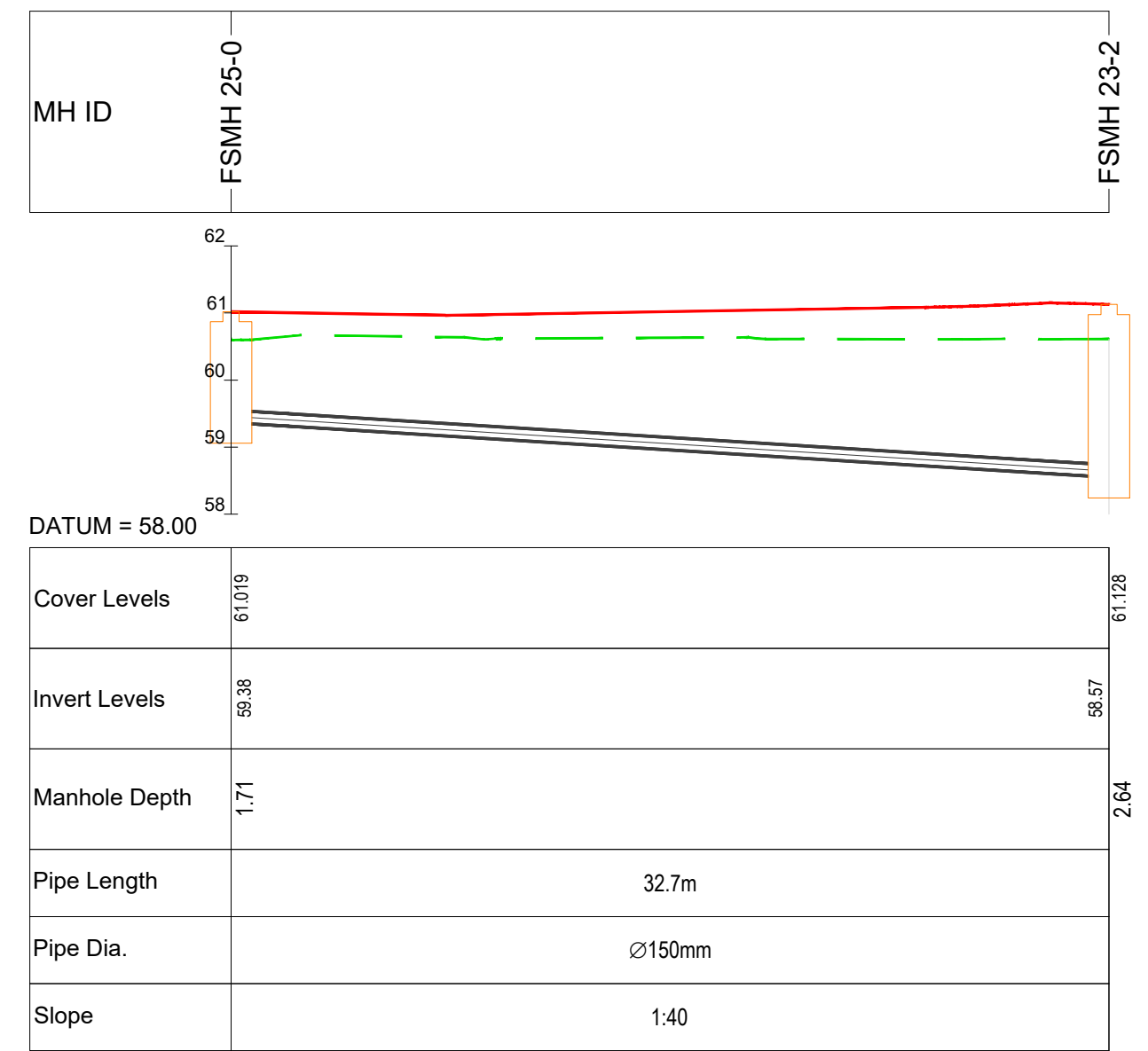
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SCALE: H 1:250,V 1:100



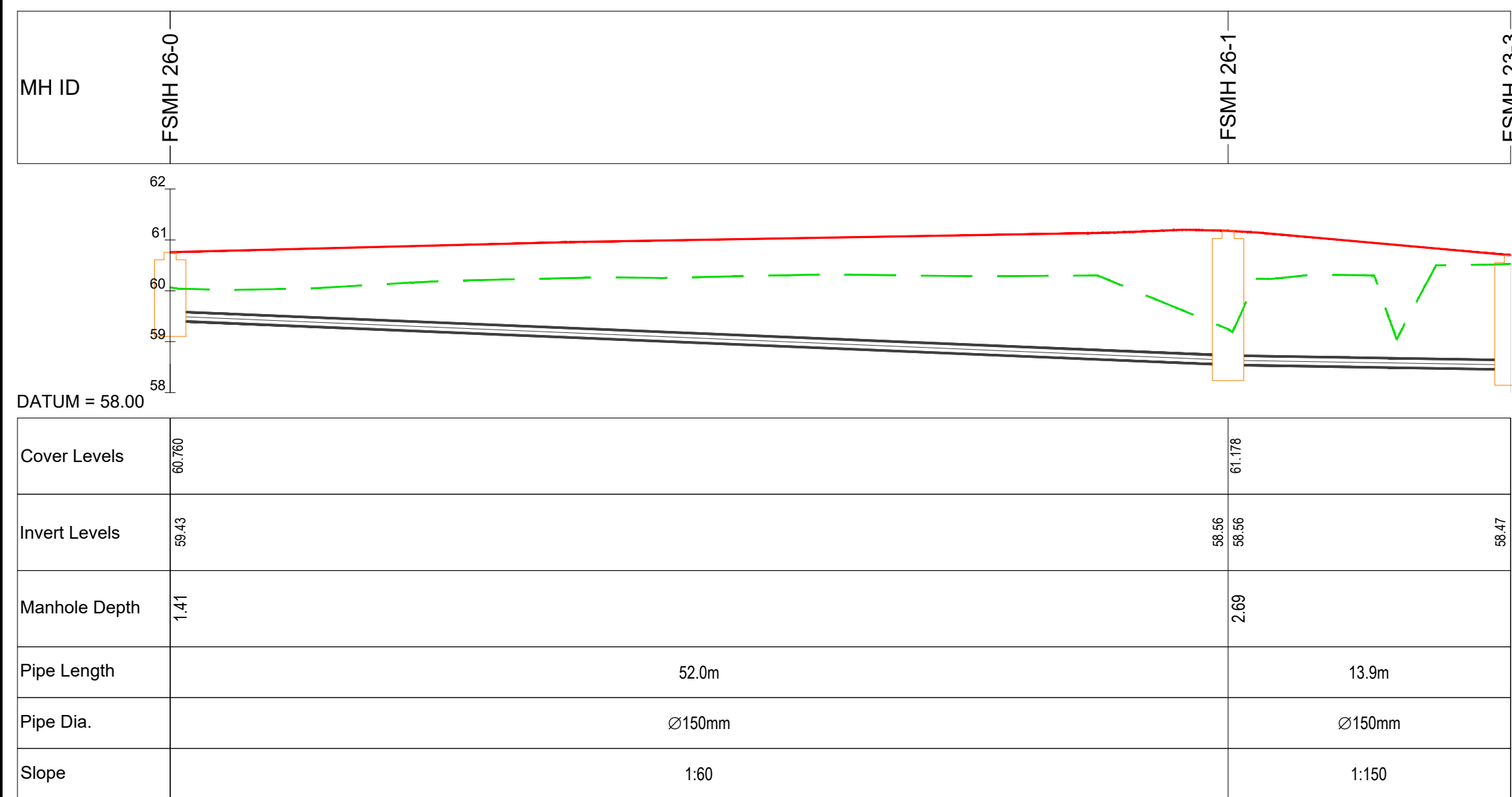
FSMH 23-0 TO FSMH 1-21 - PROFILE (CONTINUED)
SCALE: H 1:250,V 1:100



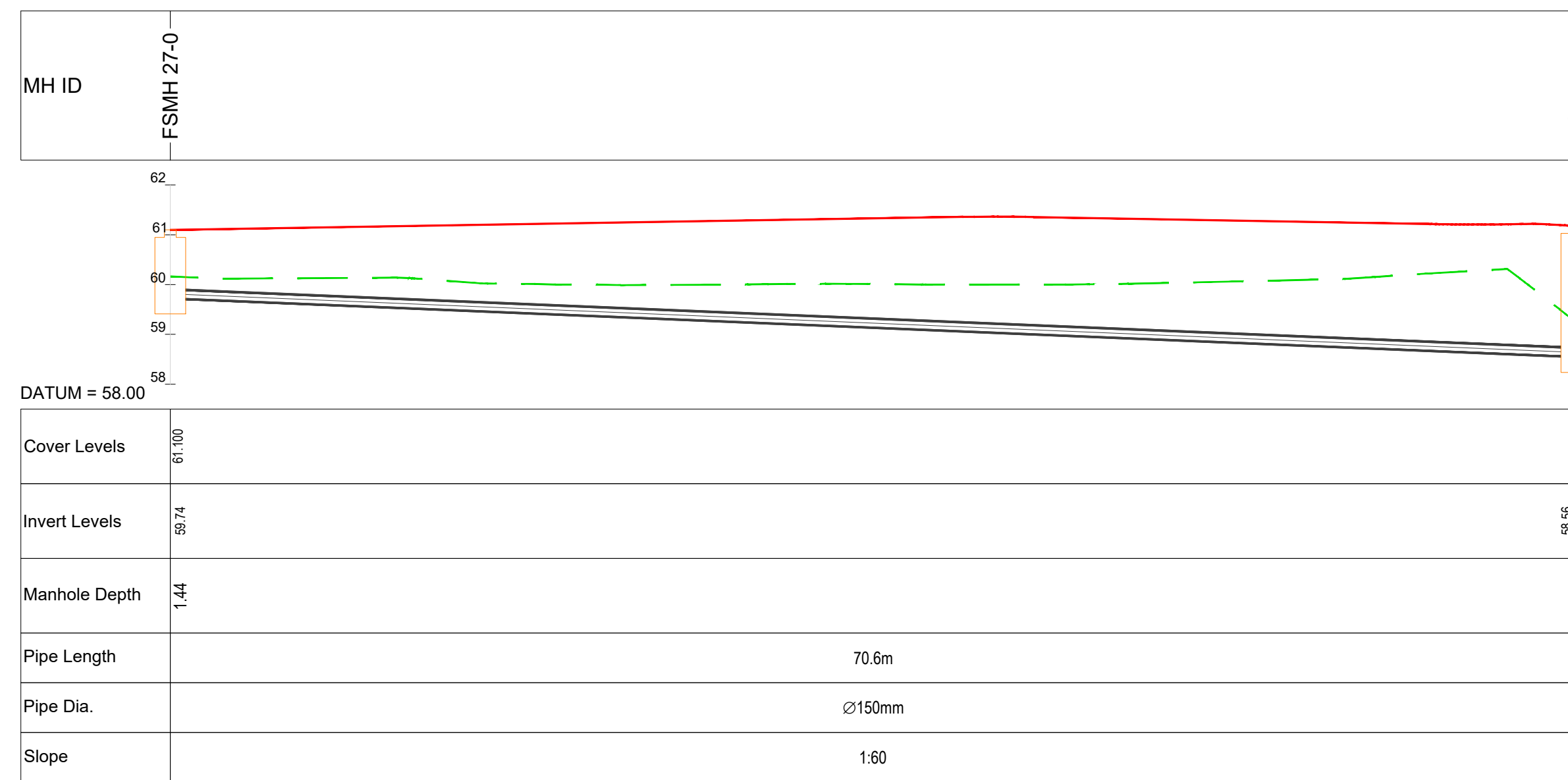
FSMH 24-0 TO FSMH 23-1 - PROFILE
SCALE: H 1:250,V 1:100



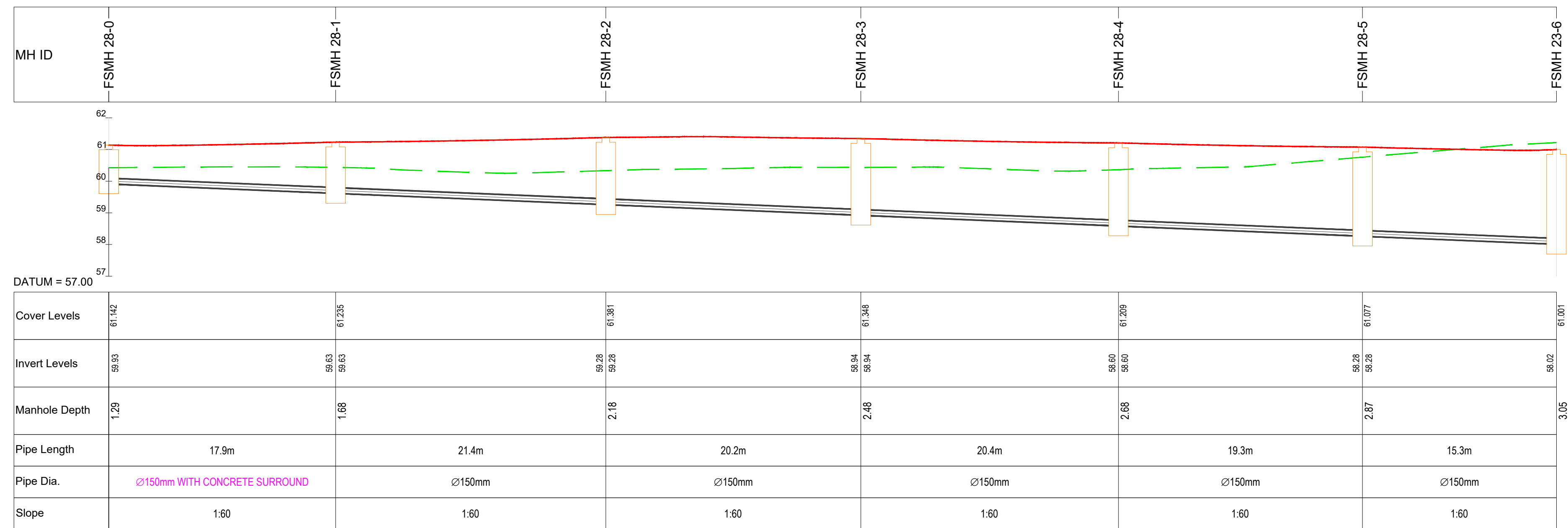
FSMH 25-0 TO FSMH 23-2 - PROFILE
SCALE: H 1:250,V 1:100



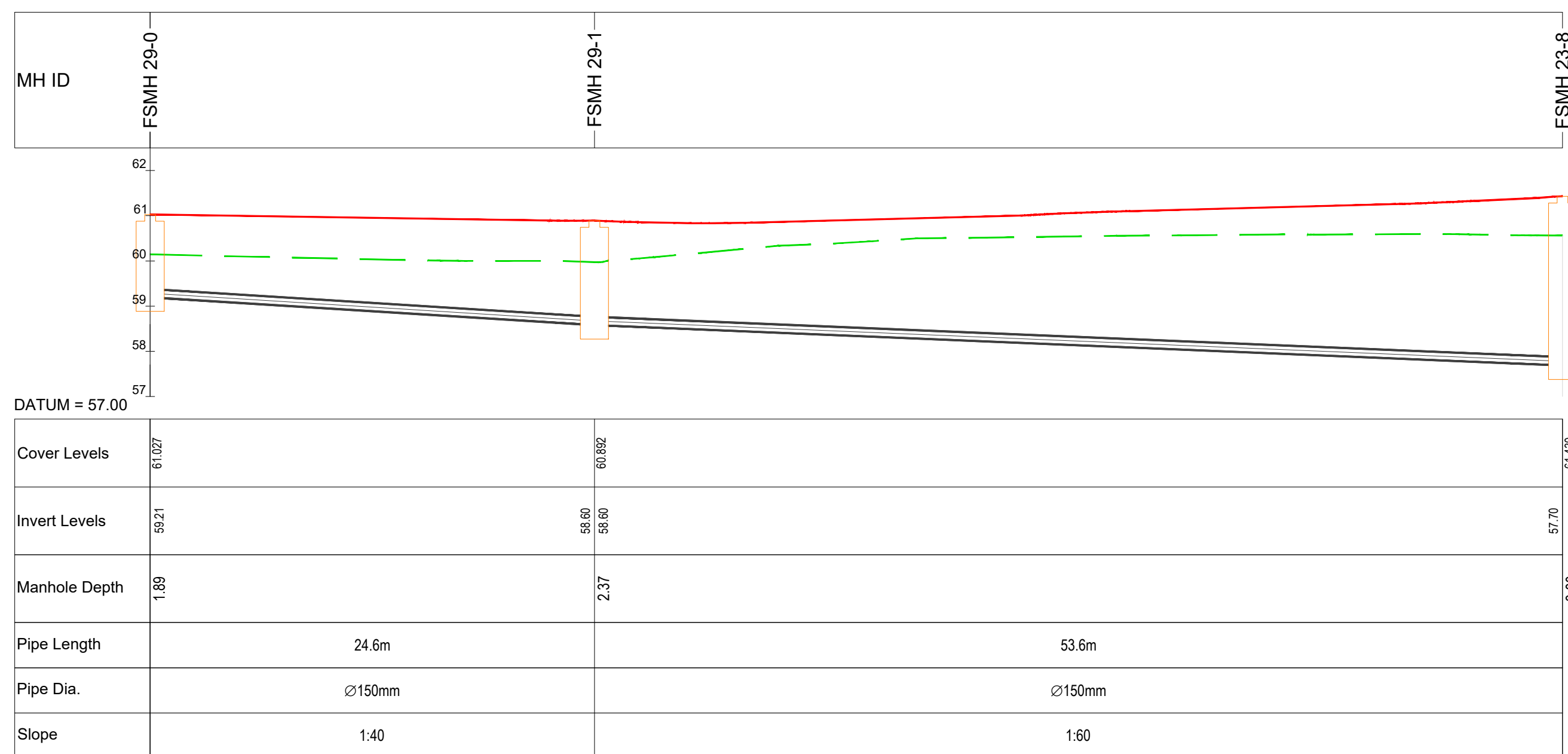
FSMH 26-0 TO FSMH 23-3 - PROFILE
SCALE: H 1:250,V 1:100



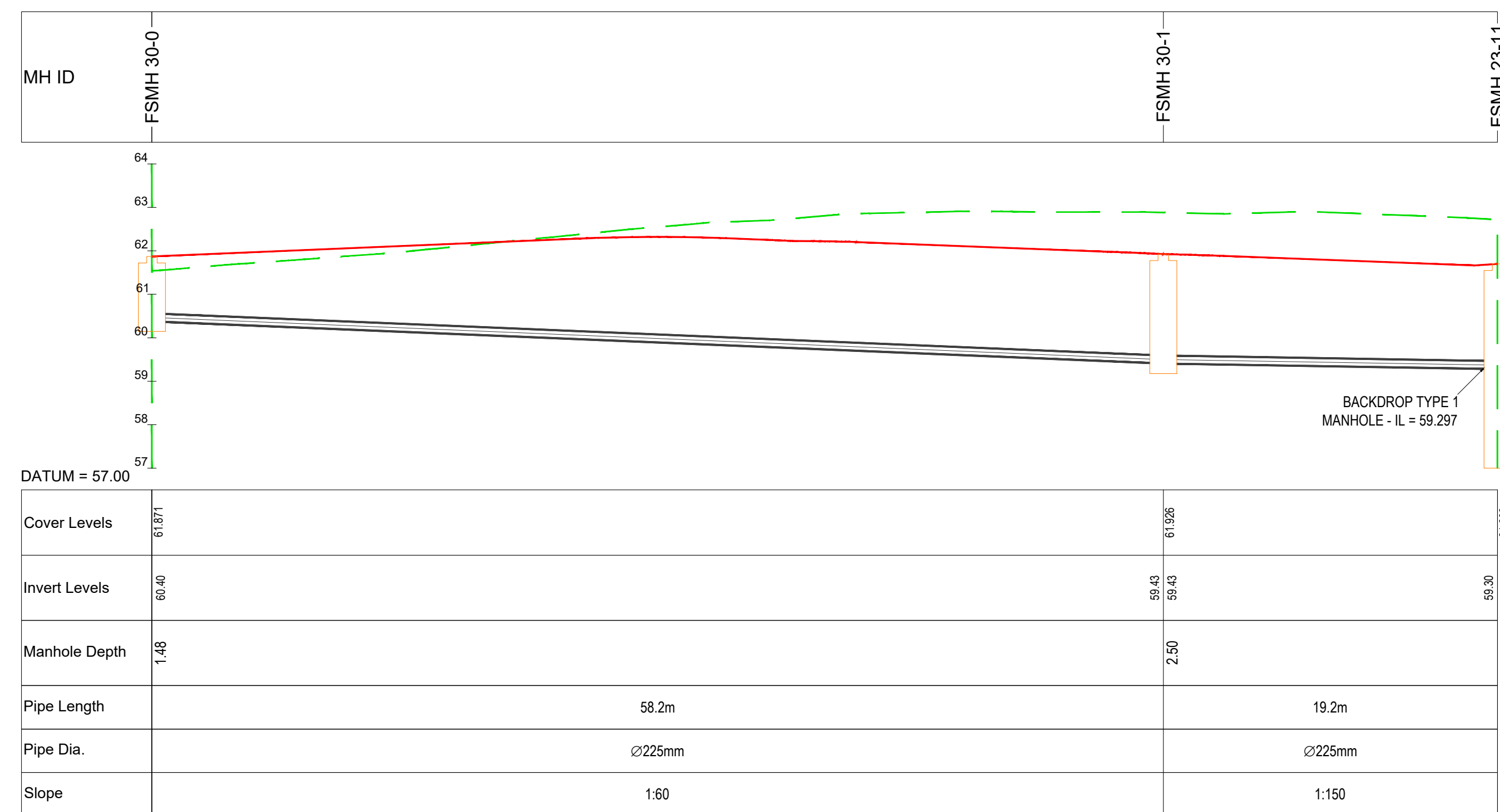
FSMH 27-0 TO FSMH 26-1 - PROFILE
SCALE: H 1:250,V 1:100



FSMH 28-0 TO FSMH 23-6 - PROFILE
SCALE: H 1:250,V 1:100



FSMH 29-0 TO FSMH 23-8 - PROFILE
SCALE: H 1:250,V 1:100



FSMH 30-0 TO FSMH 23-11 - PROFILE
SCALE: H 1:250,V 1:100

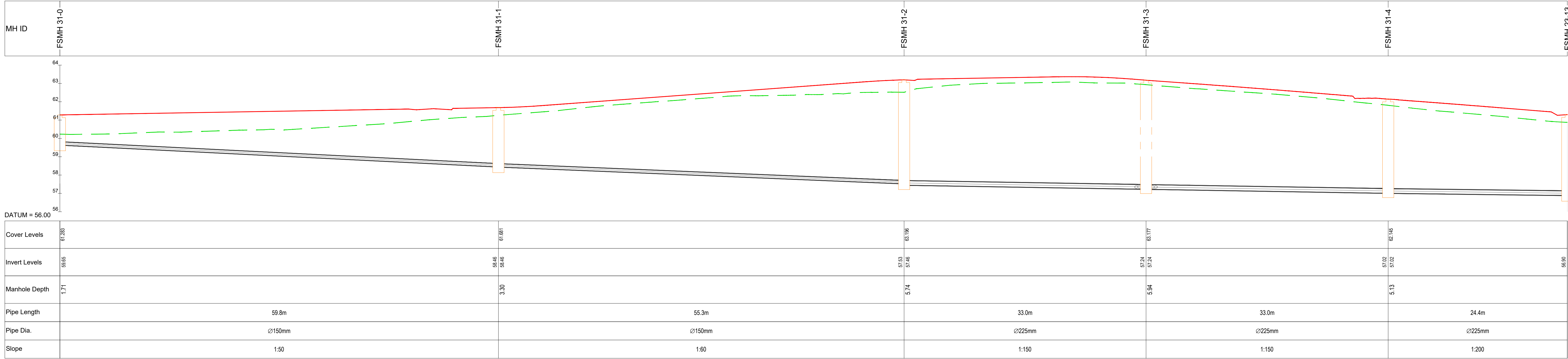
LEGEND:

EXISTING GROUND PROFILE
PROPOSED GROUND PROFILE

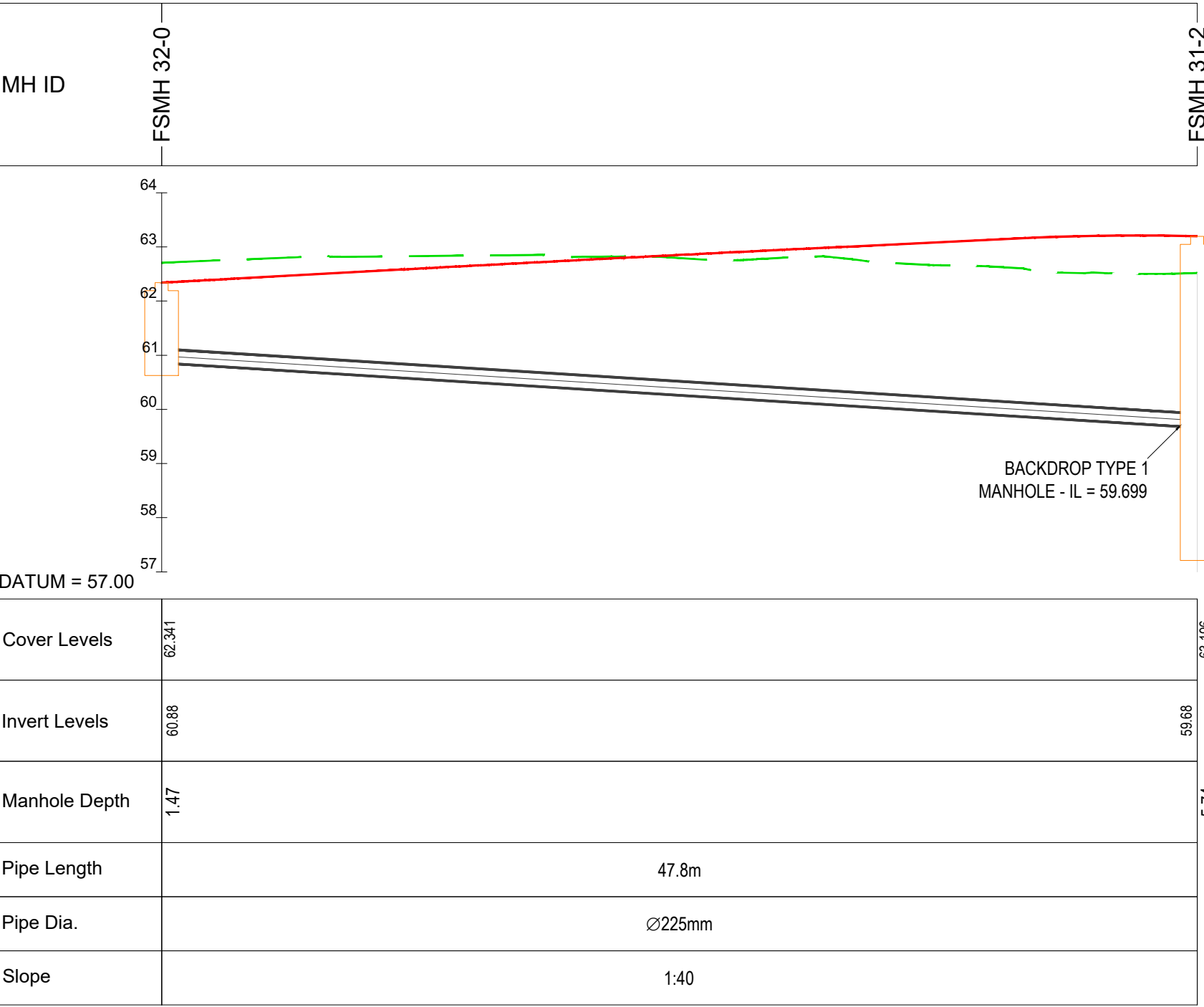
DRAWING REFERENCES:

- REFER TO DRAWING 16_153_00_1036 FOR THE PROPOSED BARNHILL LAP FOUL SEWER LAYOUT

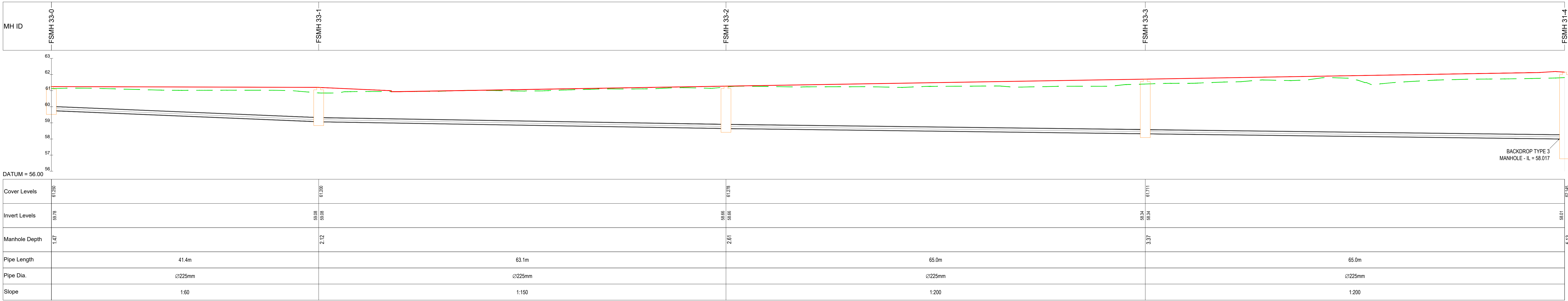
1050 - PROPOSED BARNHILL LAP FOUL
LONGSECTIONS SHEET 6 OF 8
SCALE - 1:1000 @ A0



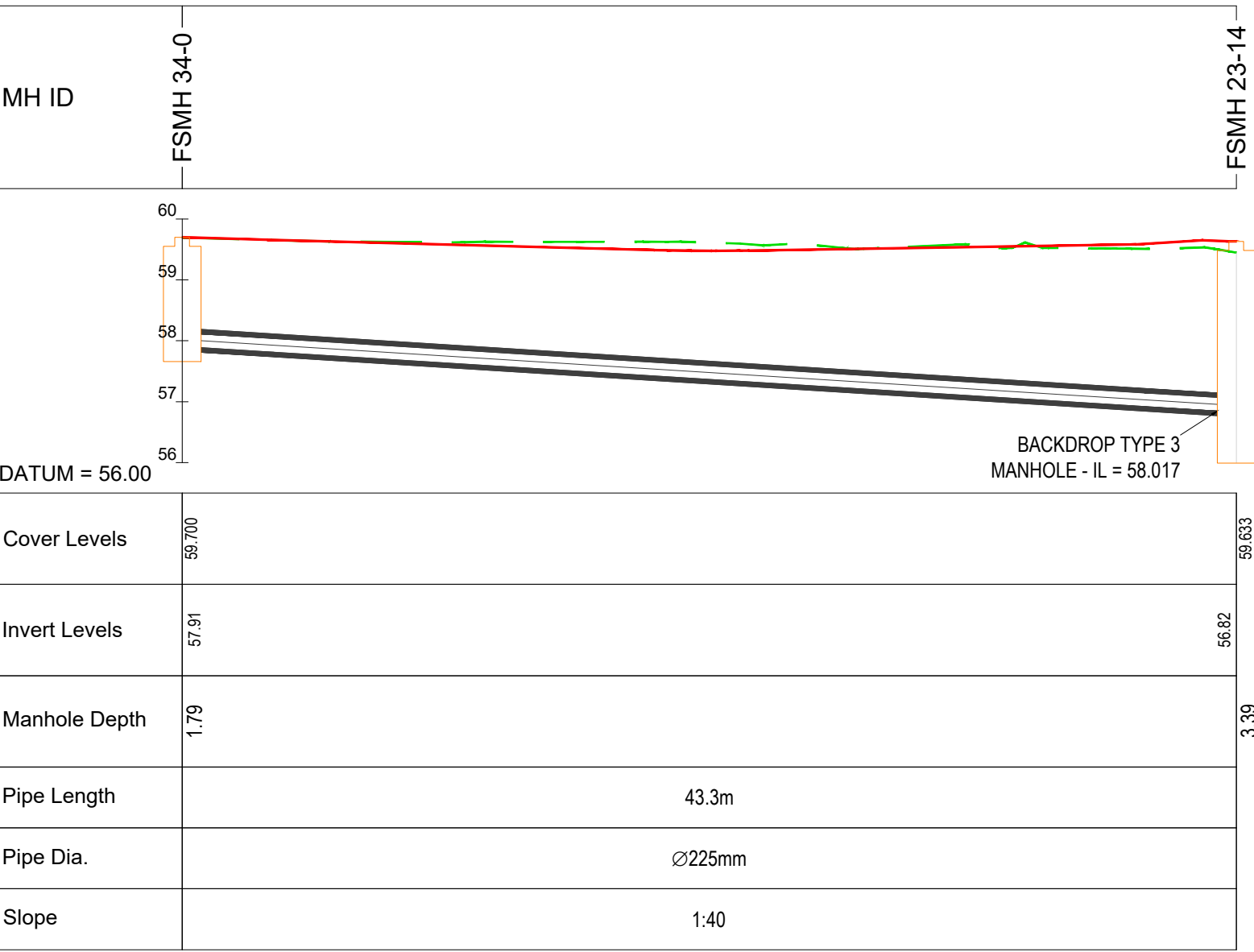
FSMH 31-0 TO FSMH 23-13 - PROFILE
SCALE: H 1:250,V 1:100



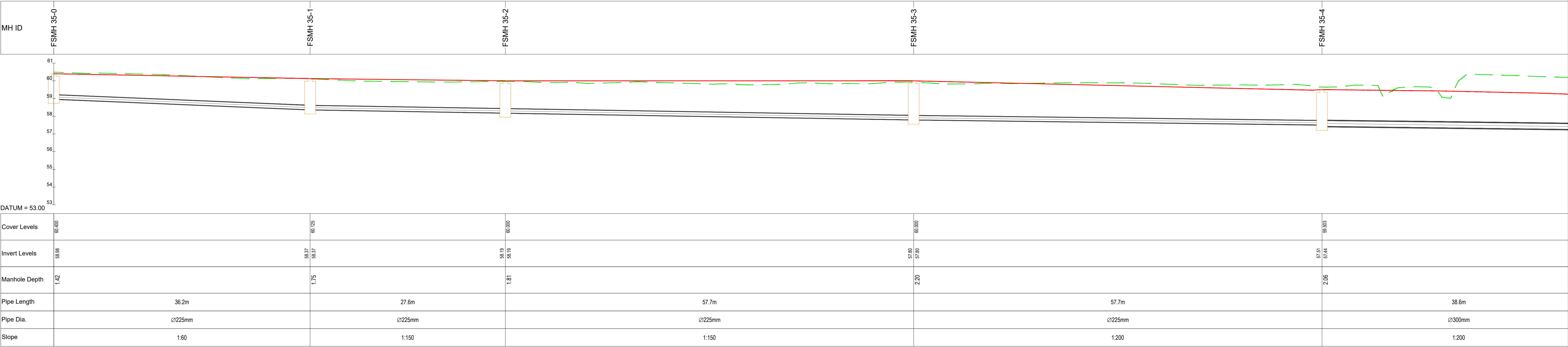
FSMH 32-0 TO FSMH 31-2 - PROFILE
SCALE: H 1:250,V 1:100



FSMH 33-0 TO FSMH 31-4 - PROFILE
SCALE: H 1:250,V 1:100



FSMH 34-0 TO FSMH 23-14 - PROFILE
SCALE: H 1:250,V 1:100



FSMH 35-0 TO FSMH 1-27 - PROFILE
SCALE: H 1:250,V 1:100

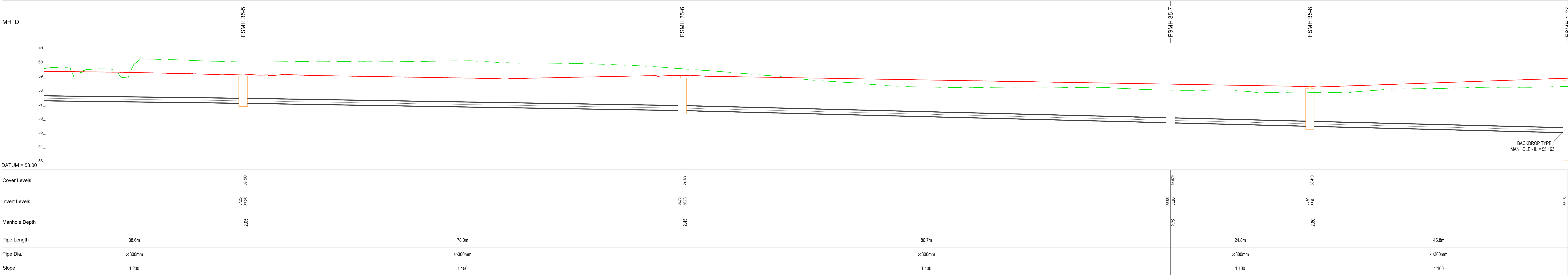
LEGEND:

EXISTING GROUND PROFILE
PROPOSED GROUND PROFILE

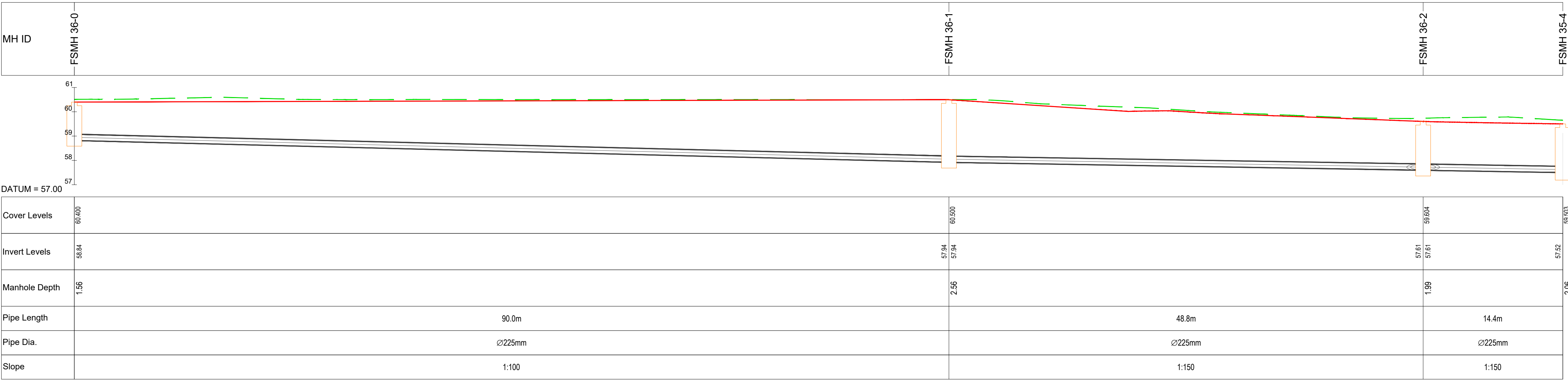
DRAWING REFERENCES:

- REFER TO DRAWING 16_153_00_1036 FOR THE PROPOSED BARNHILL LAP FOUL SEWER LAYOUT

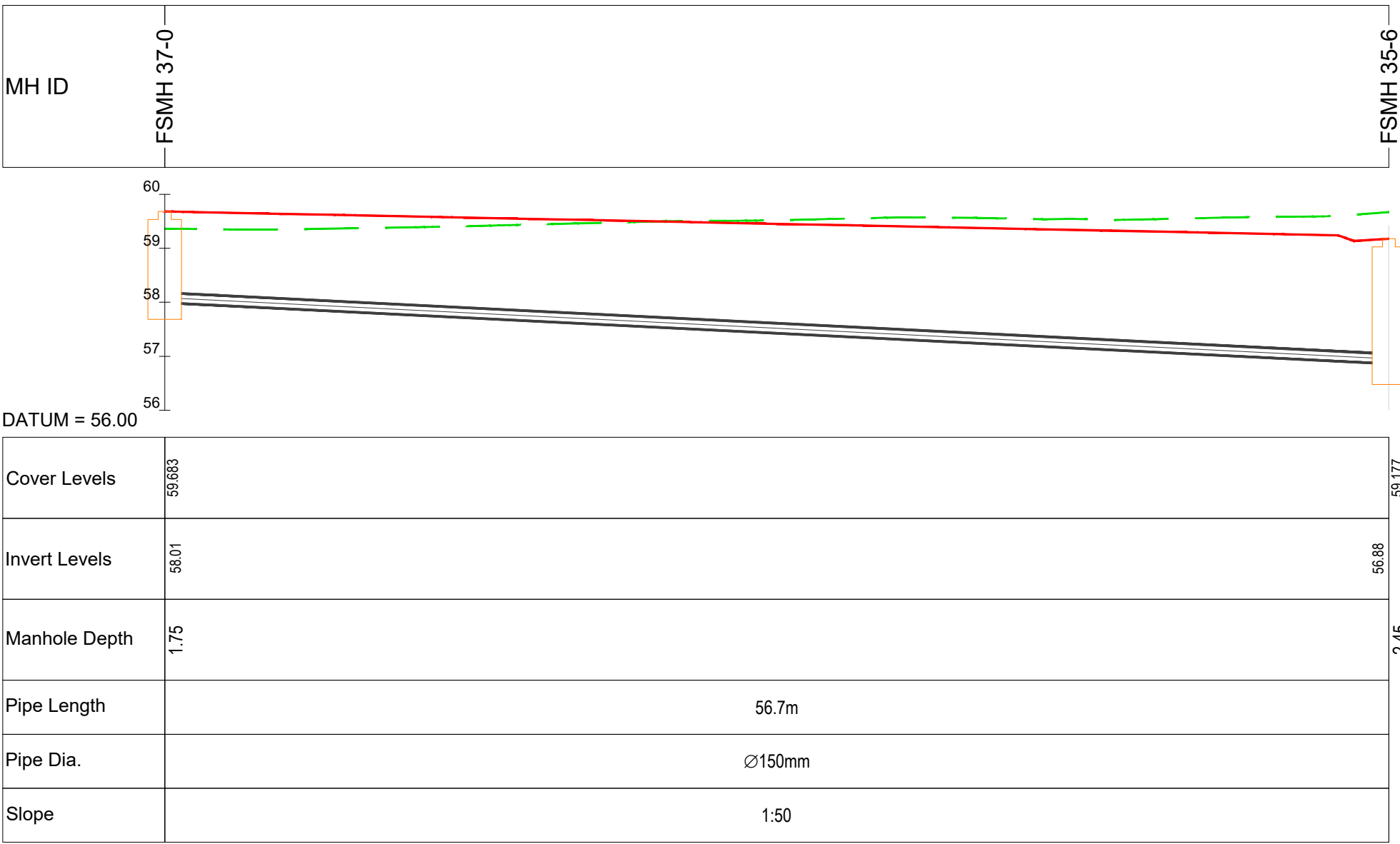
1051 - PROPOSED BARNHILL LAP FOUL
LONGSECTIONS SHEET 7 OF 8
SCALE - 1:1000 @ A0



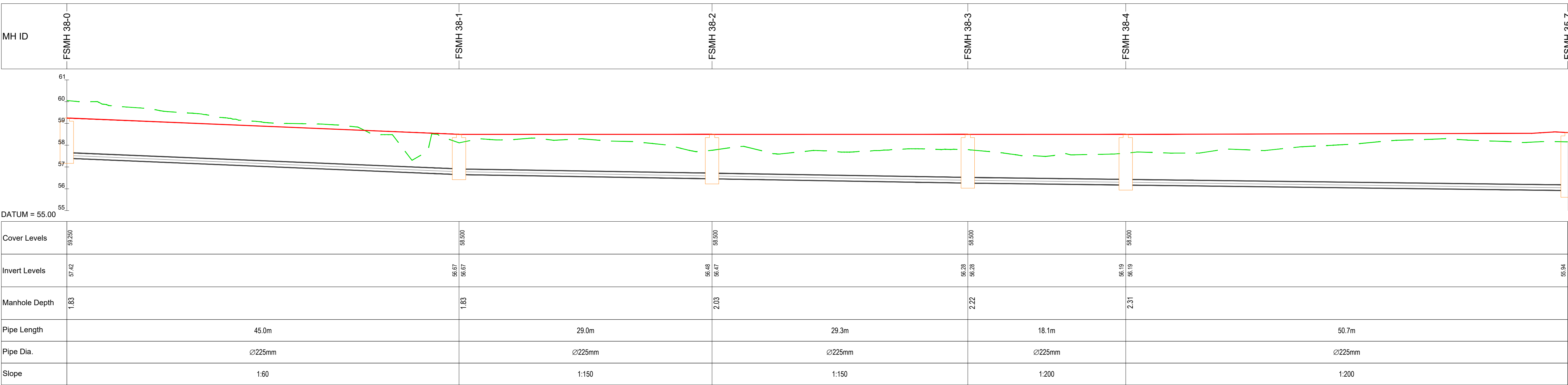
FSMH 35-0 TO FSMH 1-27 - PROFILE (CONTINUED)
SCALE: H 1:250,V 1:100



FSMH 36-0 TO FSMH 35-4 - PROFILE
SCALE: H 1:250,V 1:100



FSMH 37-0 TO FSMH 35-6 - PROFILE
SCALE: H 1:250,V 1:100



FSMH 38-0 TO FSMH 35-7 - PROFILE
SCALE: H 1:250,V 1:100

LEGEND:
EXISTING GROUND PROFILE
PROPOSED SEWER PROFILE

DRAWING REFERENCES:
• REFER TO DRAWING 16_153_00_1036 FOR THE PROPOSED BARNHILL LAP FOUL SEWER LAYOUT