

Earthwork Inspection 5 Chain Record

Earthwork Type	Soil Cutting - SCHI
Route	
Operational Route	LNE
Strategic Route	G - East Coast and North East
SRS	G.03 - Hertford Loop
Territory (Pre-Nov 2011)	LNER
Earthwork Management Area	3
Classification	London and SE Commuter

Line					
ELR	HDB				
Route Description	Hertford Nth Loop				
Reverse Mileage	False				
Start Mileage (Miles.Yards)	7.1430	End Mileage	7.1540	Side	Down
Start Easting	531,545	Northing	194,597		
End Easting	531,571	Northing	194,694		
Length (Mile.Yards)	0.0109				
Track Name	NT - Not 6ft or 10ft Earthwork	Track ID	0		
Reverse Mileage	False				
Disused Line	Open				

Inspection Information

Earthwork Type	Soil Cutting - SCHI
Earthwork Name	-
Inspection Season	Winter 2015/2016
Inspection Type	Cyclical Examination
Weather Conditions	Sunny; Overcast
Competence Certificate No.	1087994
EE Recommendations	None
EE Inspection By	[REDACTED], Network Rail (LNE and Midlands)
EE Inspection Date	03 March 2016
EE Inspection Time	11:38
Last Modified By	[REDACTED], Network Rail (LNE and Midlands)
Last Modified Date	03 March 2016
Last Modified Time	11:38

Earthwork Inspection 5 Chain Record

CP4

Condition Category	 Poor
Maximum SSHI Score	10.4
Maximum RSHI Score	0.0
Reason Unfinished	N/A

EHC

Current Inspection Date	03 March 2016
Completed in Current Season	False
Max EHC	 C
Inspection Risk Category	 Average Risk
Inspection Status	Finished
Reason Unfinished	N/A

Inspection Non-compliance Comment

Inspection Non-Compliance Comment	
Inspection Non-Compliance Comment By	
Inspection Non-Compliance Comment By Date	

Earthwork Inspection 5 Chain Record

CIV028 Failure Incident Information

No Incident Information

Hazard Information

No Hazards recorded

Earthwork Inspection 5 Chain Record

Sketch Information

No Sketch Information

Documents

No Information Available

Additional Documents

EnteredTitle	DocumentType	EnteredDate
Drainage Map GeoPDF (June 2013)	GeoPDF	05/02/2015 14:49:59

Earthwork Inspection 5 Chain Record

Photograph Information

ELR	Start Mileage	Up/Down Side	Photo Date	Photo Time
HDB	7.1432	Down	20 November 2015	09:43
HDB	7.1534	Down	20 November 2015	10:45


ELR	Start Mileage	Up/Down Side	Photo Date	Photo Time
HDB	7.1429	D	19 March 2013	14:05
HDB	7.1429	D	19 March 2013	14:06
HDB	7.1538	D	19 March 2013	14:08
HDB	7.1538	D	19 March 2013	14:08
HDB	7.1428	D	19 March 2013	15:42
HDB	7.1429	D	19 March 2013	15:43
HDB	7.1536	D	20 March 2013	11:38
HDB	7.1535	D	20 March 2013	11:37
HDB	7.1441	D	20 November 2015	09:49
HDB	7.1536	D	20 November 2015	10:43

Earthwork Inspection 5 Chain Record

Embankment Information

No Embankment Information

Cutting Information






ELR	Start Mileage	End Mileage	Side	EHC	EACB	Asset Type	Entered Date
HDB	7.1430	7.1540	Down	 C	3	Soil Cutting	20 November 2015

Rock Slope Information

No Rock Slope Information

Risk To Track

Soil Risk to Track

Rotational	 Low Risk
Translational	 Low Risk
Earthflow	 Low Risk
Washout	 Low Risk
Burrowing	 Low Risk


Rock Risk to Track

Toppling	 Not Applicable
Planar	 Not Applicable
Wedge	 Not Applicable
Ravelling	 Not Applicable
Overburden	 Not Applicable

General Risk to Track

Detrimental Vegetation	 Average Risk
Scour	 Low Risk
Drainage Issues	 Low Risk

Overall Risk to Track

Risk Category	 Average Risk
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Earthwork Inspection 5 Chain Record

Comments

Safety Management Information System (SMIS)

Current Season Comments

-

Historic Comments

2016:

EE: [REDACTED], Amey (LNE and Midlands): 20/11/15:

2013:

EE: possible slip at the crest which does not seem detrimental to slope stability, U6 for now, then review. fly tipping of green waste at the crest. counterfort drain noted but very overgrown, AA4 added. uprooted mature trees at 7.1512, 7.1498, probably been there for some time. review of vegetation would be useful as much of it is leaning trackward with evidence of past failure, hazard to OLE. [REDACTED], Amey (LNE and Midlands): 20/03/13:

CIV28

Major Desk Study

Condition:

Notes and Photo References:

Physical Defects:

Remarks:

Railtrack Report Item Number: NA

Soil Mechanics Report Reference Number:

Remedial Works Recommendations:

Embankment Construction material: NA

Special Notes:

Geology: Alluvium over 'brickearth' over LONDON CLAY / -

Monitoring

Remedial Works

Earthwork Inspection 5 Chain Record

EEE Web Approval

Approval Status

Approved By

Approved Date

Approval Standard Comment

Approval Extended Comment

EEE GISmo Approval

Approval Status

Not Inspected

Earthwork Inspection 5 Chain Record

Reason for Evaluation

Current Evaluation

Web

Evaluated Date

Evaluation Status

Override	Overall

Inspection Frequency (Years)

Evaluated By

Evaluation Type

Evaluation Frequency? (Years)

NR Further Action(s)

Evaluation Comments (incl. Reason for Exam Rejection)

Further Evaluation Required?

Site

Evaluation Status

Not Inspected

Evaluation History

Next Evaluation Due 01 January 1900

Last Cyclical Evaluation

By

Date

Frequency

Status

Further
Reqd./Type

Web

	01 January 1900	10	Not Inspected	
	01 January 1900	10	.	.

GISmo

NR Further Action(s)

No Further Action

Evaluation Comments (incl. Reason for Exam Rejection)

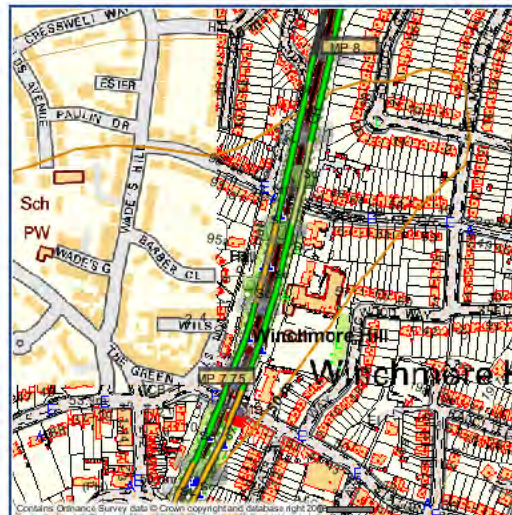
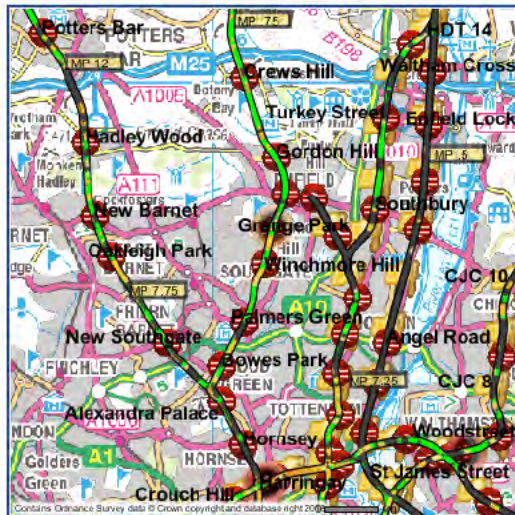
Earthwork Inspection 5 Chain Record

EHC

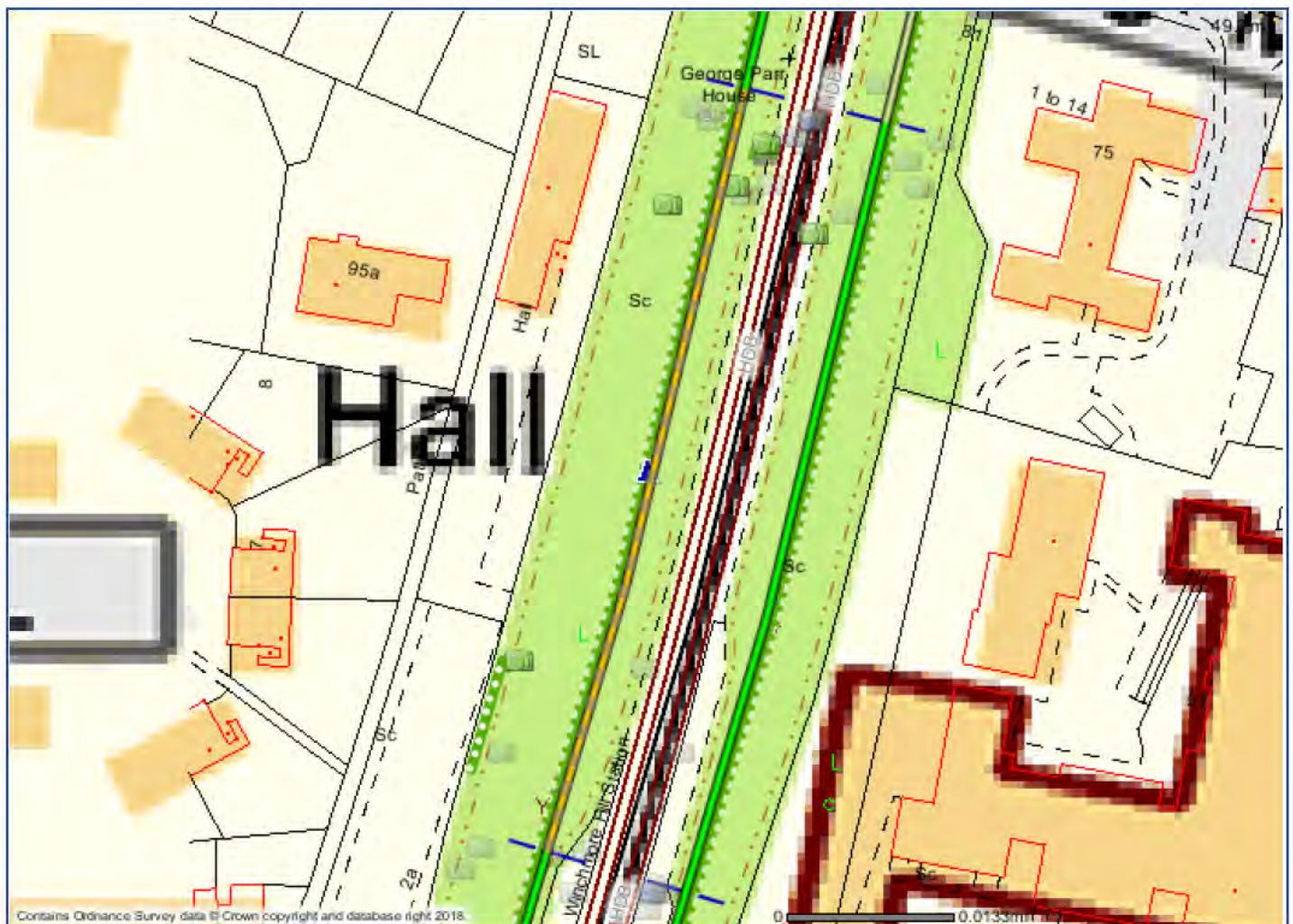
Current Inspection Date	20 November 2015
Completed in Current Season	False
Maximum EHC	 C
Risk Category	 Average Risk
Inspection Status	Finished
Reason Unfinished	N/A

Earthwork Inspection 5 Chain Record

Overview Maps



Location Map




Reference

HDB_7.1432_D_531550_194597_20_11_2015_09_43_33

Location Information

Linked 5 Chain Reference	HDB_7.1430_D_531545_194597_11_12_2007_22_00_42		
ELR	HDB		
Start Mileage (Miles.Yards)	7.1432	Side	Down
Start Easting	531,550	Northing	194,597

Photograph Information

Subject	Cess Level from start, increasing mileage
Taken Date	20 November 2015
Taken Time	09:43
Filename	FO:LNE:jpg:1441084270
Orientation	Down line
Description	-

Inspector Information

Inspected By	 , Amey (LNE and Midlands)
Inspected Date	20 November 2015
Inspected Time	09:43


Reference

HDB_7.1534_D_531579_194687_20_11_2015_10_45_05

Location Information

Linked 5 Chain Reference	HDB_7.1430_D_531545_194597_11_12_2007_22_00_42		
ELR	HDB		
Start Mileage (Miles.Yards)	7.1534	Side	Down
Start Easting	531,579	Northing	194,687

Photograph Information

Subject	Cess Level from end, decreasing mileage
Taken Date	20 November 2015
Taken Time	10:45
Filename	FO:LNE:jpg:1440999633
Orientation	Up line
Description	-

Inspector Information

Inspected By	 , Amey (LNE and Midlands)
Inspected Date	20 November 2015
Inspected Time	10:45


Reference

HDB_7.1429_D_531559_194592_19_03_2013_14_05_11

Location Information

Linked 5 Chain Reference	HDB_7.1430_D_531545_194597_11_12_2007_22_00_42		
ELR	HDB		
Start Mileage (Miles.Yards)	7.1429	Side	D
Start Easting	531,559	Northing	194,592

Photograph Information

Subject	Cess Level from start, increasing mileage
Taken Date	19 March 2013
Taken Time	14:05
Filename	-
Orientation	Away from line
Description	-

Inspector Information

Inspected By	██████████, Amey (LNE and Midlands)
Inspected Date	19 March 2013
Inspected Time	14:05


Reference

HDB_7.1429_D_531559_194592_19_03_2013_14_05_44

Location Information

Linked 5 Chain Reference	HDB_7.1430_D_531545_194597_11_12_2007_22_00_42		
ELR	HDB		
Start Mileage (Miles.Yards)	7.1429	Side	D
Start Easting	531,559	Northing	194,592

Photograph Information

Subject	Cess Level from start, increasing mileage
Taken Date	19 March 2013
Taken Time	14:06
Filename	-
Orientation	Down line
Description	-

Inspector Information

Inspected By	[REDACTED], Amey (LNE and Midlands)
Inspected Date	19 March 2013
Inspected Time	14:06


Reference

HDB_7.1538_D_531579_194689_19_03_2013_14_08_10

Location Information

Linked 5 Chain Reference	HDB_7.1430_D_531545_194597_11_12_2007_22_00_42		
ELR	HDB		
Start Mileage (Miles.Yards)	7.1538	Side	D
Start Easting	531,579	Northing	194,689

Photograph Information

Subject	Cess Level from end, decreasing mileage
Taken Date	19 March 2013
Taken Time	14:08
Filename	-
Orientation	Away from line
Description	-

Inspector Information

Inspected By	[REDACTED], Amey (LNE and Midlands)
Inspected Date	19 March 2013
Inspected Time	14:08


Reference

HDB_7.1538_D_531579_194690_19_03_2013_14_08_31

Location Information

Linked 5 Chain Reference	HDB_7.1430_D_531545_194597_11_12_2007_22_00_42		
ELR	HDB		
Start Mileage (Miles.Yards)	7.1538	Side	D
Start Easting	531,579	Northing	194,690

Photograph Information

Subject	Cess Level from end, decreasing mileage
Taken Date	19 March 2013
Taken Time	14:08
Filename	-
Orientation	Up line
Description	-

Inspector Information

Inspected By	[REDACTED], Amey (LNE and Midlands)
Inspected Date	19 March 2013
Inspected Time	14:08


Reference

HDB_7.1428_D_531537_194597_19_03_2013_15_42_28

Location Information

Linked 5 Chain Reference	HDB_7.1430_D_531545_194597_11_12_2007_22_00_42		
ELR	HDB		
Start Mileage (Miles.Yards)	7.1428	Side	D
Start Easting	531,537	Northing	194,597

Photograph Information

Subject	Boundary Level from start, increasing mileage
Taken Date	19 March 2013
Taken Time	15:42
Filename	-
Orientation	Down line
Description	-

Inspector Information

Inspected By	██████████, Amey (LNE and Midlands)
Inspected Date	19 March 2013
Inspected Time	15:42


Reference

HDB_7.1429_D_531546_194596_19_03_2013_15_43_26

Location Information

Linked 5 Chain Reference	HDB_7.1430_D_531545_194597_11_12_2007_22_00_42		
ELR	HDB		
Start Mileage (Miles.Yards)	7.1429	Side	D
Start Easting	531,546	Northing	194,596

Photograph Information

Subject	Cess Level from start, increasing mileage
Taken Date	19 March 2013
Taken Time	15:43
Filename	-
Orientation	Down line
Description	-

Inspector Information

Inspected By	██████████, Amey (LNE and Midlands)
Inspected Date	19 March 2013
Inspected Time	15:43


Reference

HDB_7.1536_D_531565_194692_20_03_2013_11_38_01

Location Information

Linked 5 Chain Reference	HDB_7.1430_D_531545_194597_11_12_2007_22_00_42		
ELR	HDB		
Start Mileage (Miles.Yards)	7.1536	Side	D
Start Easting	531,565	Northing	194,692

Photograph Information

Subject	Boundary Level from end, decreasing mileage
Taken Date	20 March 2013
Taken Time	11:38
Filename	-
Orientation	Up line
Description	-

Inspector Information

Inspected By	 , Amey (LNE and Midlands)
Inspected Date	20 March 2013
Inspected Time	11:38


Reference

HDB_7.1535_D_531578_194688_20_03_2013_11_37_06

Location Information

Linked 5 Chain Reference	HDB_7.1430_D_531545_194597_11_12_2007_22_00_42		
ELR	HDB		
Start Mileage (Miles.Yards)	7.1535	Side	D
Start Easting	531,578	Northing	194,688

Photograph Information

Subject	Cess Level from end, decreasing mileage
Taken Date	20 March 2013
Taken Time	11:37
Filename	FO:LNE:jpg:1333315829
Orientation	Up line
Description	-

Inspector Information

Inspected By	██████████, Amey (LNE and Midlands)
Inspected Date	20 March 2013
Inspected Time	11:37


Reference

HDB_7.1441_D_531540_194609_20_11_2015_09_49_03

Location Information

Linked 5 Chain Reference	HDB_7.1430_D_531545_194597_11_12_2007_22_00_42		
ELR	HDB		
Start Mileage (Miles.Yards)	7.1441	Side	D
Start Easting	531,540	Northing	194,609

Photograph Information

Subject	Boundary Level from start, increasing mileage
Taken Date	20 November 2015
Taken Time	09:49
Filename	HDB_7.1441_D_531540_194609_20_11_2015_09_49_03.jpg
Orientation	Down line
Description	-

Inspector Information

Inspected By	 Amey (LNE and Midlands)
Inspected Date	20 November 2015
Inspected Time	09:49


Reference

HDB_7.1536_D_531566_194691_20_11_2015_10_43_27

Location Information

Linked 5 Chain Reference	HDB_7.1430_D_531545_194597_11_12_2007_22_00_42		
ELR	HDB		
Start Mileage (Miles.Yards)	7.1536	Side	D
Start Easting	531,566	Northing	194,691

Photograph Information

Subject	Boundary Level from end, decreasing mileage
Taken Date	20 November 2015
Taken Time	10:43
Filename	HDB_7.1536_D_531566_194691_20_11_2015_10_43_27.jpg
Orientation	Up line
Description	-

Inspector Information

Inspected By	 Amey (LNE and Midlands)
Inspected Date	20 November 2015
Inspected Time	10:43

SCHI Soil Cutting

Reference HDB_7.1430_D_531545_194597_01_04_2004_11_22_01
 EHC  C

Location Information

Inspection 5 Chain Reference	HDB_7.1430_D_531545_194597_11_12_2007_22_00_42				
ELR	HDB				
Start Mileage (Miles.Yards)	7.1430	End Mileage	7.1540	Side	Down
Start Easting	531,545	Northing	194,597		
End Easting	531,570	End Northing	194,694		
Length (Mile.Yards)	0.0109				
Start Connection	HDB_7.1350_D_531521_194527_01_04_2004_11_22_01				
End Connection	HDB_7.1540_D_531570_194694_01_04_2004_11_22_01				
Approach	False				
Structure Name	-				

Height Ranges

Start Height (m)	4.0	End Height (m)	5.0
Min. Height (m)	4.0	Max. Height (m)	5.0

Actual Geometry Information

	Slope Angle (deg)	Slope Hyp (m)	Slope Height (m)
Lower Slope	30.0	10.0	5.0
Middle Slope	0.0	0.0	0.0
Upper Slope	0.0	0.0	0.0
Actual Slope to Track Separation (m)	1.0		
Actual Crest Width (m)	1.0		

LIDAR Derived Geometry

LIDAR Adjacent Natural Slope Angle (deg.)	0
LIDAR Adjacent Natural Slope Direction	Not Inspected
LIDAR Maximum Height (m)	0.00
LIDAR Maximum Angle (deg.)	0

SCHI Soil Cutting

Scored Geometry (A-I) Information

(A) Slope Angle and Height	25 to <35 degrees, 3m to <10m High (A7)
(B) Slope Angle Adjacent to Earthwork	(+)ve falls towards e/work <5 degrees (B2)
(D) Construction Activity	Addition of fill <1m high (D3)
(E) Min. Slope to Track Separation	Cutting cess width 1-3m (E3)
(F) Historic Geology	Alluvium / Estuarine Deposits (F3)
(FF) Bedrock Geology	Overconsolidated Clay (FF13)
(FF) Drift Geology	No Drift (FF1)
BGS Superficial Geology	-
BGS Bedrock Geology	-
(G) Cutting Slope Crest Width	Crest to boundary <1.5m (G1)
(H) Slope Composition at Crest	Mixed granular/cohesive (H4)
(I) Slope Composition at Toe	Cohesive - high - very high plasticity (I6)
(GG) Boulders Present?	None Present (GG1)
(HH) Rock Outcrops \ Faces Present?	None Present (HH1)

Retaining Walls (C) Information

ELR	Start Mileage	End Mileage	Side	Retaining Wall Material	Retaining Wall >= 1m
HDB	7.1430	7.1540	Down	Masonry	Cracking / evidence of lateral displacements (C5)

Drainage (J-T) Information

(J) Slope Face Drainage Condition	Face dry (J1)
(K) Drainage of Adjacent Land	None (K1)
(L) Adjacent Catchment Depth	100m to 1km (L3)
(M) Adjacent Catchment Gradient	< 5degs. (M3)
(N) Catchment Surface	Residential (N6)
(P) Catchment Geology	Impermeable (P2)
(Q) Cutting Crest Drainage	None Visible (Q1)
(R) Cutting Crest Concentration Features	None (R5)
(S) Cutting Slope Erosion	None (S5)
(T) Cutting Cess Drainage	Present clear running (T2)
(II) Washout and Earthflow Risk (WERM2)	Not WERM2 site (II1)

SCHI Soil Cutting

Movement Indicators (U-EE) Information

(U) Slope Form of Earthwork	Present
(V) Geomorphology of Adjacent Land	No Significant Features (V3)
(W) Track Movements	No Significant Features (W2)
(X) Leaning Trees / Structures	Random (X2)
(Y) Cracking	None (Y1)
(Z) Mass Movement	None (Z1)
(AA) History of Instability	Present
(BB) Mining / Removal of Support	No Significant Features (BB2)
(CC) Animal Activity	Occasional Rabbit - <10 burrow holes /20sq.m (CC2)
(DD) Tree Cover	Occasional mature trees - <10 trees /20sq.m on slope angles of >25degrees (DD4)
(EE) Ground Cover	Sparse grass / bramble cover (EE3) Dense grass / bramble cover (EE4) Dense shrubs / bushes (EE5)

ELR	Start Mileage	End Mileage	Side	MI Type(s)	Entered Date
HDB	7.1438	7.1454	Down	Stepped Crest (U6)	20 November 2015

ELR	Start Mileage	Side	MI Type(s)	Entered Date
HDB	7.1531	Down	Counterfort Drains (AA4)	20 November 2015

Intervention Works

Pre-Intervention SCHI 40

No Linear Intervention Works Present

No Point Intervention Works Present


SCHI Soil Cutting

Photograph Information



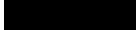
ELR	Start Mileage	Up/Down Side	Photo Date	Photo Time
HDB	7.1525	Down	20 November 2015	10:34

SCHI Soil Cutting



Examiner

Completed in Current Season False
 Examined By  Amey (LNE and Midlands)
 Examined Date 20 November 2015 11:00

Comments

Current Season Comments -
 Historic Comments
 2017:
 EE: , Amey (LNE and Midlands): 20/11/15: 0-5ch 4-5m 20-40° cut above 0.5-1m ret wall which is failing 2-3ch.
 2016:
 EE: , Amey (LNE and Midlands): 20/11/15: 0-5ch 4-5m 20-40° cut above 0.5-1m ret wall which is failing 2-3ch.
 2013:
 EE: possible slip at the crest which does not seem detrimental to slope stability, U6 for now, then review. fly tipping of green waste at the crest. counterfort drain noted but very overgrown, AA4 added. uprooted mature trees at 7.1512, 7.1498, probably been there for some time. review of vegetation would be useful as much of it is leaning trackward with evidence of past failure, hazard to OLE. , Amey (LNE and Midlands): 20/03/13:

CP4 SSHI

	Rot.	Trans.	Earth.	Wash.	Burrow.
Actual Score	75	75	25	0	20
Potential Score	50	49	50	54	40
SSHI	10.4	10.4	3.9	3.9	3.9
Earthworks Factor	1.3				
Overall SSHI Score	10.4				
SSHI Category	 Poor				
CP5 Category	 Poor				

EHC

SCHI 40
 EHC  C
 Asset Examination Status Full

EACB

CCT Value 0.00539
 EACB 3

Asset Examination Frequency (Years)

Scored Asset Examination Frequency 3
 Reviewed Asset Examination Frequency 0
 Overall Asset Examination Frequency 3

