QUEENSBERRY DESIGN
DESIGNING & ARCHITECTURAL CONSULTANTS
NORTH EAST OFFICE
DUNEDIN HOUSE, NEWINGTON PARK, STANNINGTON
NORTHUMBERLAND, NE20 0QT T: 01670 789654
NORTH WEST & YORKSHIRE OFFICE
2A 38 BRIDGE LANE, PEEL TOT BLN T: 01204 530663
www.queensberrydesign.co.uk

Drawing No.	Revision	Checked By
QD1081-04-04	E	-

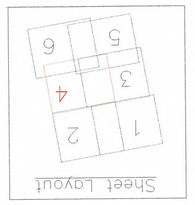
Scale	Date
1:200@A0	July 2015
Drawn By	Issued
KJH	ken.hunt@queensberrydesign.co.uk

Barratt Homes &
Taylor Wimpey
Luke's Lane, Monkton Phase 2
External Works Sheet 4 of 6

PRELIMINARY

Drawing Status

Rev E: Drawing amended to reflect new planning layout. KJH 22 09 15
Rev D: Drawing amended to reflect new planning layout. KJH 09 09 15
Rev C: Design 105, 113 & 133 floor levels and earthbds amended. KJH 18 08 15
Rev B: Drawing amended to suit earthbds layout changes. Street lighting design added. KJH 17 08 15
Rev A: Gully positions amended. KJH 30 07 15



LEGEND

Adoptable Drainage
- Proposed adoptable foul manhole (FT)
- Proposed adoptable storm manhole (ST)
- Existing adopted foul manhole (ex.mh)
- Existing adopted storm manhole (ex.mh)
- Existing adopted combined manhole (ex.mh)

Adoptable Highways
- Proposed highway to be controlled (CP)
- Proposed highway to have crossfall
- Proposed highway gully
- Proposed tactile pedestrian crossing (refer to construction drawing for detail) (T.C.)
- Private Drainage
- Private storm rodding eye
- 300mm dia. private inspection chamber, 225mm dia. pipe to serve no more than 3 dwellings or 600m² to be
- 225mm dia. private inspection chamber, 150mm dia. pipe to serve no more than 2 dwellings or 300m² to be used where depth to invert is 1.0m or greater
- Rodding eye to be used where depth to invert is greater than 1.0m

Notes:
All private drainage to be 150mm dia pipe at 1:40 fall unless otherwise shown
Where 5 or more properties connect to the same private storm run the first 15 metres of pipework to be 225mm dia pipe at 1:40 fall
All private drainage to be laid a minimum 900 of 1.0
Bedding and haunching to be 150mm min. thickness of pea gravel or 20N/mm² concrete
Single sized aggregate, Rigid pipes to consist size 150mm and 100mm flexible pipes should have granular bedding to BS 882 - Part 2 of 10mm nominal
All private drainage to be laid a minimum 900 of 1.0
Backfilling material to be single sized aggregate or 10mm graded aggregate

Backfilling material as base
Backfilling with imported type 2(NHC) single aggregate (maximum nominal size 40mm no fines)
Bitumen
Bitumen to be sewn below CPC
Paving flag 450m - 300mm dia. 150mm thick
Street Furniture - Bollards to be installed as specified by Highways Authority
Proposed finished ground level
Proposed finished ground level adjacent to adjacent highways
Chromadize bollard
CPC Levels must NOT be altered without consulting the designer
Please refer to Architects layout for details of proposed fencing and walls

Ward Bdy

General Notes:
A. DO NOT USE THIS DRAWING IN DETAILING. 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 work.
B. Third Party Information is based on previous topographical survey information, ordnance survey maps, utilities records, and recorded plans. The information is provided for information purposes only. Queensberry Design Ltd are not responsible for any third party information or errors.
C. Please note existing drawings are to be used in conjunction with the full setting out drawing.
D. Drawing details will remain preliminary until full technical approval is received from local authority and statutory undertakers. Where commented prior to technical approval are done so at risk and may be subject to change.
E. The contractor is expected to prepare appropriate construction method statements for all aspects of proposed work. This should include any temporary protection / works.
F. Land drainage is permitted to discharge into the public sewer network. Any need for land drainage should be assessed by the ground water and groundwater during design are required. Any ground found to be unsuitable for soakaway construction will be determined by gardens on an individual plot basis. If and drainage may evolve construction of the road a flood relief swale / pond may be required.
G. The contractor is expected to cross any drainage crates to the corresponding work, this may involve construction of the road a flood relief swale / pond may be required.

Highways
1. All highway works to be carried out in accordance with the current local authority design guide and specification.
2. All earthworks below formation to be carried out 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 drainage works to be in accordance with the water authorities publication - Sewers For Adoption 6th Edition' amended with the approved changes.
2. Precast concrete manhole rings to comply with the relevant requirements of BS4211: Part 2003.
3. All earthworks to be carried out in accordance with the relevant provisions of BS 6031. Concrete bricks should be used if new excavations to be used as temporary backs. Please seek approval from relevant water authority before using.
4. Manhole covers and frames shall comply with the relevant provisions of BS EN 124 and be of non-rocking, non-wedging design.
5. Ladders shall be required in Type A manholes as to comply with 'Sewers For Adoption 6th Edition'.
6. Concrete bed for adoptable (225 diameter) pipework shall be laid on a minimum 150mm to width of pipe in thickness. This may be reduced to 100mm where depth exceeds 3.0m.
7. Concrete surround to manhole cover shall be laid to the same level as the finished surface of the road or footway.
8. The location of existing drainage that is to be made available for connection to the proposed works, which is not to be omitted, should be checked by the contractor and reported to the supervising engineer immediately.
9. Any discrepancies found to exist on the engineering layout and that no longer exist should be reported to the engineer immediately.
10. Any damage to the existing drainage systems during the construction of the works, any damage to the existing drainage systems should be reported on site and repaired to the satisfaction of the engineer.

The connection of foul and surface water drainage to the existing public sewer system shall be subject to approval by the local authorities. The contractor is expected to apply to relevant permits prior to commencing the work.

Existing Services
Any existing services which may be affected by the proposed works should be located by the contractor in liaison with the statutory service authorities. The contractor is to be responsible accordingly to provide the following as constructed drawings to the developer upon the completion of the works owned by the contract –

As Constructed Information
1. Plan showing all new and diverted drainage runs.
2. Invert and cover levels of all adoptable manholes.
3. Ties dimensions to all bends on foul and surface water, gas, electric, BT, cable and street lighting.
4. Position and depth of service ducts on verges.
5. Location of all new and diverted gullies.
6. Position of all new and diverted gullies.
7. Any other relevant information.

Existing Sewers
Any existing sewers which may be affected by the proposed works should be located by the contractor in liaison with the statutory service authorities. The contractor is to be responsible accordingly to provide the following as constructed drawings to the developer upon the completion of the works owned by the contract –

As Constructed Information
1. Plan showing all new and diverted drainage runs.
2. Invert and cover levels of all adoptable manholes.
3. Ties dimensions to all bends on foul and surface water, gas, electric, BT, cable and street lighting.
4. Position and depth of service ducts on verges.
5. Location of all new and diverted gullies.
6. Position of all new and diverted gullies.
7. Any other relevant information.

Road 9
Road 10
Road 6
Road 14A
Road 14
Road 7
Road 8
Road 12
Road 13
Road 15
Road 16
Road 17
Road 18
Road 19
Road 20
Road 21
Road 22
Road 23
Road 24
Road 25
Road 26
Road 27
Road 28
Road 29
Road 30
Road 31
Road 32
Road 33
Road 34
Road 35
Road 36
Road 37
Road 38
Road 39
Road 40
Road 41
Road 42
Road 43
Road 44
Road 45
Road 46
Road 47
Road 48
Road 49
Road 50
Road 51
Road 52
Road 53
Road 54
Road 55
Road 56
Road 57
Road 58
Road 59
Road 60
Road 61
Road 62
Road 63
Road 64
Road 65
Road 66
Road 67
Road 68
Road 69
Road 70
Road 71
Road 72
Road 73
Road 74
Road 75
Road 76
Road 77
Road 78
Road 79
Road 80
Road 81
Road 82
Road 83
Road 84
Road 85
Road 86
Road 87
Road 88
Road 89
Road 90
Road 91
Road 92
Road 93
Road 94
Road 95
Road 96
Road 97
Road 98
Road 99
Road 100
Road 101
Road 102
Road 103
Road 104
Road 105
Road 106
Road 107
Road 108
Road 109
Road 110
Road 111
Road 112
Road 113
Road 114
Road 115
Road 116
Road 117
Road 118
Road 119
Road 120
Road 121
Road 122
Road 123
Road 124
Road 125
Road 126
Road 127
Road 128
Road 129
Road 130
Road 131
Road 132
Road 133
Road 134
Road 135
Road 136
Road 137
Road 138
Road 139
Road 140
Road 141
Road 142
Road 143
Road 144
Road 145
Road 146
Road 147
Road 148
Road 149
Road 150
Road 151
Road 152
Road 153
Road 154
Road 155
Road 156
Road 157
Road 158
Road 159
Road 160
Road 161
Road 162
Road 163
Road 164
Road 165
Road 166
Road 167
Road 168
Road 169
Road 170
Road 171
Road 172
Road 173
Road 174
Road 175
Road 176
Road 177
Road 178
Road 179
Road 180
Road 181
Road 182
Road 183
Road 184
Road 185
Road 186
Road 187
Road 188
Road 189
Road 190
Road 191
Road 192
Road 193
Road 194
Road 195
Road 196
Road 197
Road 198
Road 199
Road 200
Road 201
Road 202
Road 203
Road 204
Road 205
Road 206
Road 207
Road 208
Road 209
Road 210
Road 211
Road 212
Road 213
Road 214
Road 215
Road 216
Road 217
Road 218
Road 219
Road 220
Road 221
Road 222
Road 223
Road 224
Road 225
Road 226
Road 227
Road 228
Road 229
Road 230
Road 231
Road 232
Road 233
Road 234
Road 235
Road 236
Road 237
Road 238
Road 239
Road 240
Road 241
Road 242
Road 243
Road 244
Road 245
Road 246
Road 247
Road 248
Road 249
Road 250
Road 251
Road 252
Road 253
Road 254
Road 255
Road 256
Road 257
Road 258
Road 259
Road 260
Road 261
Road 262
Road 263
Road 264
Road 265
Road 266
Road 267
Road 268
Road 269
Road 270
Road 271
Road 272
Road 273
Road 274
Road 275
Road 276
Road 277
Road 278
Road 279
Road 280
Road 281
Road 282
Road 283
Road 284
Road 285
Road 286
Road 287
Road 288
Road 289
Road 290
Road 291
Road 292
Road 293
Road 294
Road 295
Road 296
Road 297
Road 298
Road 299
Road 300
Road 301
Road 302
Road 303
Road 304
Road 305
Road 306
Road 307
Road 308
Road 309
Road 310
Road 311
Road 312
Road 313
Road 314
Road 315
Road 316
Road 317
Road 318
Road 319
Road 320
Road 321
Road 322
Road 323
Road 324
Road 325
Road 326
Road 327
Road 328
Road 329
Road 330
Road 331
Road 332
Road 333
Road 334
Road 335
Road 336
Road 337
Road 338
Road 339
Road 340
Road 341
Road 342
Road 343
Road 344
Road 345
Road 346
Road 347
Road 348
Road 349
Road 350
Road 351
Road 352
Road 353
Road 354
Road 355
Road 356
Road 357
Road 358
Road 359
Road 360
Road 361
Road 362
Road 363
Road 364
Road 365
Road 366
Road 367
Road 368
Road 369
Road 370
Road 371
Road 372
Road 373
Road 374
Road 375
Road 376
Road 377
Road 378
Road 379
Road 380
Road 381
Road 382
Road 383
Road 384
Road 385
Road 386
Road 387
Road 388
Road 389
Road 390
Road 391
Road 392
Road 393
Road 394
Road 395
Road 396
Road 397
Road 398
Road 399
Road 400
Road 401
Road 402
Road 403
Road 404
Road 405
Road 406
Road 407
Road 408
Road 409
Road 410
Road 411
Road 412
Road 413
Road 414
Road 415
Road 416
Road 417
Road 418
Road 419
Road 420
Road 421
Road 422
Road 423
Road 424
Road 425
Road 426
Road 427
Road 428
Road 429
Road 430
Road 431
Road 432
Road 433
Road 434
Road 435
Road 436
Road 437
Road 438
Road 439
Road 440
Road 441
Road 442
Road 443
Road 444
Road 445
Road 446
Road 447
Road 448
Road 449
Road 450
Road 451
Road 452
Road 453
Road 454
Road 455
Road 456
Road 457
Road 458
Road 459
Road 460
Road 461
Road 462
Road 463
Road 464
Road 465
Road 466
Road 467
Road 468
Road 469
Road 470
Road 471
Road 472
Road 473
Road 474
Road 475
Road 476
Road 477
Road 478
Road 479
Road 480
Road 481
Road 482
Road 483
Road 484
Road 485
Road 486
Road 487
Road 488
Road 489
Road 490
Road 491
Road 492
Road 493
Road 494
Road 495
Road 496
Road 497
Road 498
Road 499
Road 500
Road 501
Road 502
Road 503
Road 504
Road 505
Road 506
Road 507
Road 508
Road 509
Road 510
Road 511
Road 512
Road 513
Road 514
Road 515
Road 516
Road 517
Road 518
Road 519
Road 520
Road 521
Road 522
Road 523
Road 524
Road 525
Road 526
Road 527
Road 528
Road 529
Road 530
Road 531
Road 532
Road 533
Road 534
Road 535
Road 536
Road 537
Road 538
Road 539
Road 540
Road 541
Road 542
Road 543
Road 544
Road 545
Road 546
Road 547
Road 548
Road 549
Road 550
Road 551
Road 552
Road 553
Road 554
Road 555
Road 556
Road 557
Road 558
Road 559
Road 560
Road 561
Road 562
Road 563
Road 564
Road 565
Road 566
Road 567
Road 568
Road 569
Road 570
Road 571
Road 572
Road 573
Road 574
Road 575
Road 576
Road 577
Road 578
Road 579
Road 580
Road 581
Road 582
Road 583
Road 584
Road 585
Road 586
Road 587
Road 588
Road 589
Road 590
Road 591
Road 592
Road 593
Road 594
Road 595
Road 596
Road 597
Road 598
Road 599
Road 600
Road 601
Road 602
Road 603
Road 604
Road 605
Road 606
Road 607
Road 608
Road 609
Road 610
Road 611
Road 612
Road 613
Road 614
Road 615
Road 616
Road 617
Road 618
Road 619
Road 620
Road 621
Road 622
Road 623
Road 624
Road 625
Road 626
Road 627
Road 628
Road 629
Road 630
Road 631
Road 632
Road 633
Road 634
Road 635
Road 636
Road 637
Road 638
Road 639
Road 640
Road 641
Road 642
Road 643
Road 644
Road 645
Road 646
Road 647
Road 648
Road 649
Road 650
Road 651
Road 652
Road 653
Road 654
Road 655
Road 656
Road 657
Road 658
Road 659
Road 660
Road 661
Road 662
Road 663
Road 664
Road 665
Road 666
Road 667
Road 668
Road 669
Road 670
Road 671
Road 672
Road 673
Road 674
Road 675
Road 676
Road 677
Road 678
Road 679
Road 680
Road 681
Road 682
Road 683
Road 684
Road 685
Road 686
Road 687
Road 688
Road 689
Road 690
Road 691
Road 692
Road 693
Road 694
Road 695
Road 696
Road 697
Road 698
Road 699
Road 700
Road 701
Road 702
Road 703
Road 704
Road 705
Road 706
Road 707
Road 708
Road 709
Road 710
Road 711
Road 712
Road 713
Road 714
Road 715
Road 716
Road 717
Road 718
Road 719
Road 720
Road 721
Road 722
Road 723
Road 724
Road 725
Road 726
Road 727
Road 728
Road 729
Road 730
Road 731
Road 732
Road 733
Road 734
Road 735
Road 736
Road 737
Road 738
Road 739
Road 740
Road 741
Road 742
Road 743
Road 744
Road 745
Road 746
Road 747
Road 748
Road 749
Road 750
Road 751
Road 752
Road 753
Road 754
Road 755
Road 756
Road 757
Road 758
Road 759
Road 760
Road 761
Road 762
Road 763
Road 764
Road 765
Road 766
Road 767
Road 768
Road 769
Road 770
Road 771
Road 772
Road 773
Road 774
Road 775
Road 776
Road 777
Road 778
Road 779
Road 780
Road 781
Road 782
Road 783
Road 784
Road 785
Road 786
Road 787
Road 788
Road 789
Road 790
Road 791
Road 792
Road 793
Road 794
Road 795
Road 796
Road 797
Road 798
Road 799
Road 800
Road 801
Road 802
Road 803
Road 804
Road 805
Road 806
Road 807
Road 808
Road 809
Road 810
Road 811
Road 812
Road 813
Road 814
Road 815
Road 816
Road 817
Road 818
Road 819
Road 820
Road 821
Road 822
Road 823
Road 824
Road 825
Road 826
Road 827
Road 828
Road 829
Road 830
Road 831
Road 832
Road 833
Road 834
Road 835
Road 836
Road 837
Road 838
Road 839
Road 840
Road 841
Road 842
Road 843
Road 844
Road 845
Road 846
Road 847
Road 848
Road 849
Road 850
Road 851
Road 852
Road 853
Road 854
Road 855
Road 856
Road 857
Road 858
Road 859
Road 860
Road 861
Road 862
Road 863
Road 864
Road 865
Road 866
Road 867
Road 868
Road 869
Road 870
Road 871
Road 872
Road 873
Road 874
Road 875
Road 876
Road 877
Road 878
Road 879
Road 880
Road 881
Road 882
Road 883
Road 884
Road 885
Road 886
Road 887
Road 888
Road 889
Road 890
Road 891
Road 892
Road 893
Road 894
Road 895
Road 896
Road 897
Road 898
Road 899
Road 900
Road 901
Road 902
Road 903
Road 904
Road 905
Road 906
Road 907
Road 908
Road 909
Road 910
Road 911
Road 912
Road 913
Road 914
Road 915
Road 916
Road 917
Road 918
Road 919
Road 920
Road 921
Road 922
Road 923
Road 924
Road 925
Road 926
Road 927
Road 928
Road 929
Road 930
Road 931
Road 932
Road 933
Road 934
Road 935
Road 936
Road 937
Road 938
Road 939
Road 940
Road 941
Road 942
Road 943
Road 944
Road 945
Road 946
Road 947
Road 948
Road 949
Road 950
Road 951
Road 952
Road 953
Road 954
Road 955
Road 956
Road 957
Road 958
Road 959
Road 960
Road 961
Road 962
Road 963
Road 964
Road 965
Road 966
Road 967
Road 968
Road 969
Road 970
Road 971
Road 972
Road 973
Road 974
Road 975
Road 976
Road 977
Road 978
Road 979
Road 980
Road 981
Road 982
Road 983
Road 984
Road 985
Road 986
Road 987
Road 988
Road 989
Road 990
Road 991
Road 992
Road 993
Road 994
Road 995
Road 996
Road 997
Road 998
Road 999
Road 1000