
Village of Cassopolis

CWSRF Interceptor Force Main Replacement

ADDENDUM 1

June 12, 2026

Planholders of the Village of Cassopolis, CWSRF Interceptor Force Main Replacement project are hereby notified of the following amendments to the Contract Documents. This Addendum is hereby made a part of the Contract Documents.

REFERENCE NOTES

Sealed Bids for CWSRF Interceptor Force Main Replacement, will be received by the Village of Cassopolis, at 121 N. Disbrow Street, Cassopolis, Michigan 49031, until 10:00 AM, local time, on June 22, 2026, at which time they will be publicly opened and read.

CLARIFICATIONS

Horizontal Directionally Drilled (HDD) pipe shall be installed with a minimum bend radius of 400 feet. This note has been added to all plan sheets depicting HDD installations. Revised plan sheets will not be reissued solely for the inclusion of this note. Bidders and all relevant parties shall acknowledge and incorporate this requirement into their work and construction planning.

Soil boring locations shown on the drawings are preliminary and pending a completed soil boring observation and report. These locations will be finalized in the next addendum.

QUESTIONS

The following questions were submitted to the Engineer. The answers provided below are for the clarification of Bidders' questions. Questions have been paraphrased for brevity.

Question #1 – What is the estimated bypass volume?

The Peavine Lift Station has a flow of 1200 gpm. See sheet FM-0.2.

DRAWINGS

Sheet G-0.3 – Overall Plan and Notes

A fourth note has been added to this sheet as well as a change in the referenced note for SA MH-7170, SA MH-7160, SA MH-7150, and SA MH-7140. Replace the sheet with the provided Sheet G-0.3 included with Addendum 1.

Sheet SA-0.1 – Sanitary Details

The detail for a manhole with an inside drop was added to this sheet. Replace the sheet with the provided Sheet SA-0.1 included with Addendum 1.

Sheet SA-1.1 – Sanitary Manhole Replacement Plans

SA MH-7170, SA MH-7160, SA MH-7150, and SA MH-7140 were removed, and an additional note was added to this sheet. Replace the sheet with the provided Sheet SA-1.1 included with Addendum 1.

Sheet SA-1.2 – Sanitary Manhole Replacement Plans

Village of Cassopolis, MI
CWSRF Interceptor Force Main Replacement
Addendum 1

Page 2

An additional note was added to this sheet. Replace the sheet with the provided Sheet SA-1.2 included with Addendum 1.

Sheet FM-8.1 – N Mill Street Force Main Plan and Profile Sta 0+00 to 5+00

A portion of the alignment was modified and changed from open cut to horizontally-directionally drilled pipe. The north arrow was also added to this sheet. Replace the sheet with the provided Sheet FM-8.1 included with Addendum 1.

Sheet FM-8.2 – N Mill Street Force Main Plan and Profile Sta 5+00 to 10+00

A portion of the alignment was modified and changed from open cut to horizontally-directionally drilled pipe. The north arrow was also added to this sheet. Replace the sheet with the provided Sheet FM-8.2 included with Addendum 1.

Sheet FM-8.3 – N Mill Street Force Main Plan and Profile Sta 10+00 to 11+00

A portion of the alignment was modified and the north arrow was added to this sheet. Replace the sheet with the provided Sheet FM-8.3 included with Addendum 1.

Sheet FM-9.1 – E Railroad Street Force Main Plan and Profile Sta 0+00 to 5+00

A portion of the alignment was modified and the north arrow was added to this sheet. The 15-inch gravity sewer pipe was replaced with 16-inch diameter pipe. Replace the sheet with the provided Sheet FM-9.1 included with Addendum 1.

Sheet SR-0.1 – SESC and Surface Restoration Details and Notes

The MDOT Curb and Gutter detail was added to this sheet and the sheet name changed from 75 to SR-0.1. Replace the sheet with the provided Sheet SR-0.1 included with Addendum 1.

Sheet SR-6.3-4 – Peavine Street Surface Restoration Plans Sta. 15+00 to 25+00

The ARV symbol was modified on this sheet. Replace the sheet with the provided Sheet SR-6.3-4 included with Addendum 1.

Sheet SR-6.7-8 – Peavine Street Surface Restoration Plans Sta. 35+00 to 45+00

The ARV symbol was modified on this sheet. Replace the sheet with the provided Sheet SR-6.7-8 included with Addendum 1.

Sheet SR-6.11-12 – Peavine Street Surface Restoration Plans Sta. 55+00 to 65+00

The ARV symbol was modified on this sheet. Replace the sheet with the provided Sheet SR-6.11-12 included with Addendum 1.

Sheet SR-7.1-2 – E. Division Street Surface Restoration Plans Sta. 0+00 to 10+00

There is layer clean up, tree added, and match lines added to this sheet. Replace the sheet with the provided Sheet SR-7.1-2 included with Addendum 1.

Sheet SR-7.3-4 – E. Division Street Surface Restoration Plans Sta. 10+00 to 20+00

There is layer clean up and curb replacement added to this sheet. Replace the sheet with the provided Sheet SR-7.3-4 included with Addendum 1.

Sheet SR-7.5-6 – E. Division Street Surface Restoration Plans Sta. 20+00 to 30+00

There is layer clean up, minor restoration limit changes, and symbology updated on this sheet. Replace the sheet with the provided Sheet SR-7.5-6 included with Addendum 1.

Sheet SR-7.7-8 – E. Division Street Surface Restoration Plans Sta. 30+00 to 40+00

There are minor restoration limit changes on this sheet. Replace the sheet with the provided Sheet SR-7.7-8 included with Addendum 1.

Sheet SR-8.1-2 – N. Mill Street Surface Restoration Plans Sta. 0+00 to 10+00

There is layer clean up, restoration limit changes, and match lines as well as north arrows added on this sheet. Replace the sheet with the provided Sheet SR-8.1-2 included with Addendum 1.

Sheet SR-8.3 – N. Mill Street Surface Restoration Plans Sta. 0+00 to 10+00

A match line as well as a north arrow were added on this sheet. Replace the sheet with the provided Sheet SR-8.3 included with Addendum 1.

Sheet SR-9.1 – E. Railroad Street Surface Restoration Plans Sta. 0+00 to 5+00

There is layer clean up, restoration limit changes, and match lines modified as well as a north arrow added on this sheet. Replace the sheet with the provided Sheet SR-9.1 included with Addendum 1.

Sheets SR-0.1 to SR-9.1 – Surface Restoration Plans

Restoration limits have been revised, details have been added, and most restoration items along Mill Street force main installation have been removed due to construction method change from open cut to directional drilling.

SPECIFICATIONS

Specification Section C-410

Pay Item 16 – Aggregate Base, 6 inch has been removed, all subsequent pay items have been renumbered accordingly, and quantities have been updated.

Pay Item 17 – HMA Approach has been added, all subsequent pay items have been renumbered accordingly, and quantities have been updated.

Pay Item 22 & 23 – HMA MDOT 5-mixes have been removed, all subsequent pay items have been renumbered accordingly, and quantities have been updated.

Pay Item 31 – Sewer, HDPE 4710, 16 inch, Tr Det B was changed from 15 inch to 16 inch.

Quantities have been updated on several pay items to better reflect the plans.

Specification C-410 shall be replaced in its entirety with the revised specification attached to and included as part of Addendum 1.

Specification Section C-520

Pay Item 16 – Aggregate Base, 6 inch has been removed, all subsequent pay items have been renumbered accordingly, and quantities have been updated.

Pay Item 17 – HMA Approach has been added, all subsequent pay items have been renumbered accordingly, and quantities have been updated.

Village of Cassopolis, MI
CWSRF Interceptor Force Main Replacement
Addendum 1

Page 4

Pay Item 22 & 23 – HMA MDOT 5-mixes have been removed, all subsequent pay items have been renumbered accordingly, and quantities have been updated.

Pay Item 31 – Sewer, HDPE 4710, 16 inch, Tr Det B was changed from 15 inch to 16 inch.

Quantities have been updated on several pay items to better reflect the plans.

Specification C-520 shall be replaced in its entirety with the revised specification attached to and included as part of Addendum 1.

Specification Section 01010

Pay Item 13 – Curb and Gutter, Conc. was changed from Concrete and Gutter, Conc.

Pay Item 16 – Aggregate Base, 6 inch has been removed, all subsequent pay items have been renumbered accordingly, and quantities have been updated.

Pay Item 17 – HMA Approach has been added and all subsequent pay items have been renumbered accordingly.

Pay Item 22 & 23 – HMA MDOT 5-mixes have been removed, all subsequent pay items have been renumbered accordingly, and quantities have been updated.

Pay Item 31 – Sewer, HDPE 4710, 16 inch, Tr Det B was changed from 15 inch to 16 inch.

Quantities have been updated on several pay items to better reflect the plans.

Specification 01010 shall be replaced in its entirety with the revised specification attached to and included as part of Addendum 1.

Specification Section 02550, 4.01, B.

The pipe diameter for the gravity sewer was changed from 15-inch to 16-inch.

Specifications Table of Contents

The table of contents has been highlighted to demonstrate which specifications have had changes in Addendum 01.

The table of contents shall be replaced in its entirety with the revised specification attached to and included as part of Addendum 1.

Attachments: Sheet G-0.3
Sheet SA-0.1
Sheet SA-1.1
Sheet SA-1.2
Sheet FM-8.1
Sheet FM-8.2
Sheet FM-8.3
Sheet FM-9.1
Sheet SR-0.1 to SR-9.1
Specification Section C-111

**Village of Cassopolis, MI
CWSRF Interceptor Force Main Replacement
Addendum 1**

Page 5

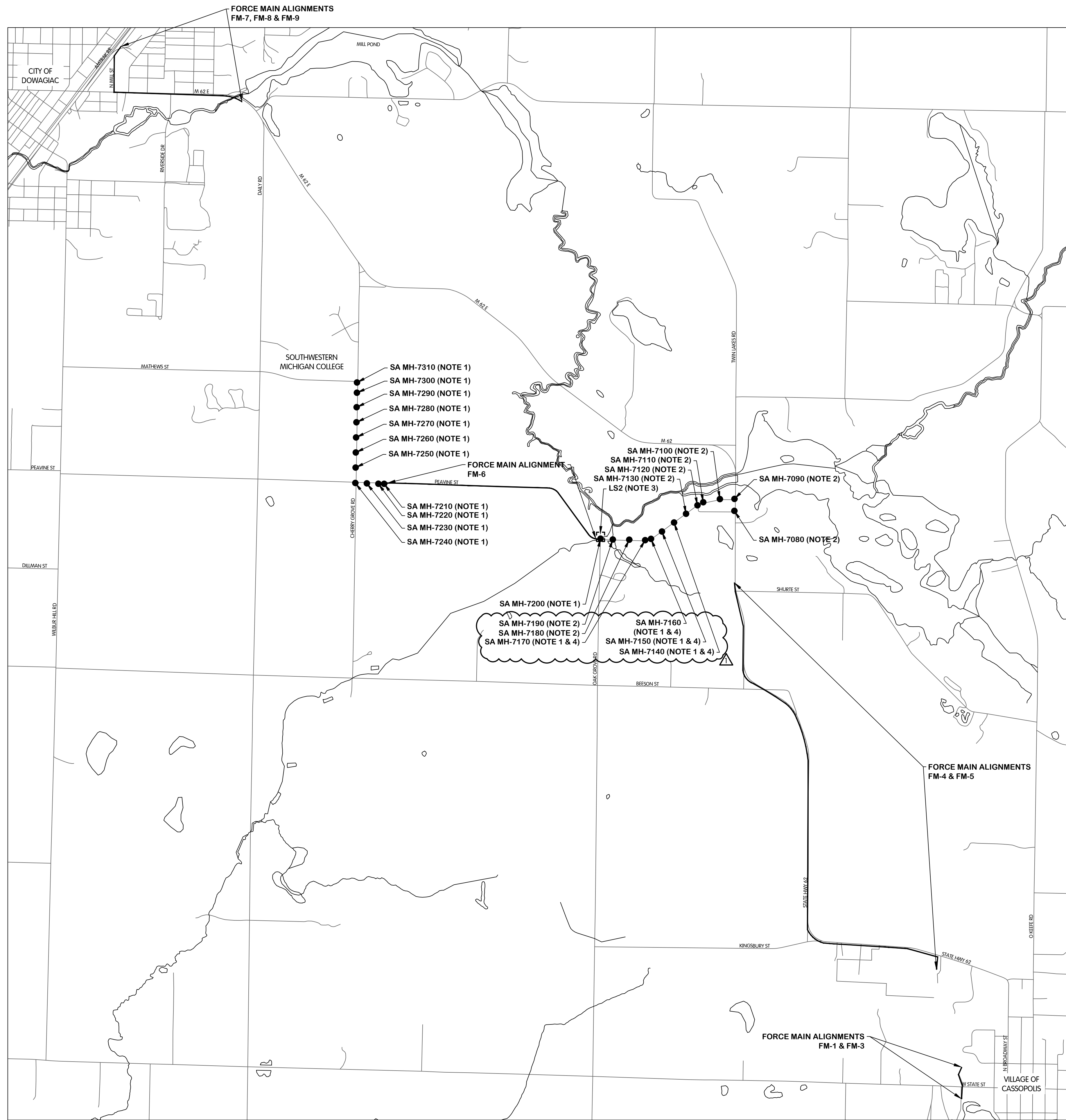
Specification Section C-410

Specification Section C-520



Specification Section 01010

Specification Section 02550

RECEIPT OF THIS ADDENDUM MUST BE ACKNOWLEDGED ON PAGE C-410-1 OF THE BID.



- NOTES:
1. EXISTING MANHOLE STRUCTURES TO BE LINED.
 2. EXISTING MANHOLE STRUCTURES TO BE REMOVED, REPLACED AND LINED.
 3. SEE SHEET FM-0.2 FOR LIFT STATION 2 IMPROVEMENTS
 4. AFTER SURFACE PREPARATION HAS BEEN COMPLETED, ENGINEER SHALL INSPECT AND PROVIDE WRITTEN APPROVAL TO PROCEED WITH LINING FOR SA MH-7140, SA MH-7150, SA MH-7160, AND SA MH-7170.


**OVERALL
 PLAN AND NOTES**

VILLAGE OF CASSOPOLIS, MICHIGAN

CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT

ABONMARCHÉ

Jones & Henry
 Engineers, Ltd.



Fluid thinking®
 www.JHeng.com

DESIGNED: AMB
 DRAWN: CAL
 CHECKED: MED

STATUS: ISSUE FOR BID
 DATE: MAY 2026

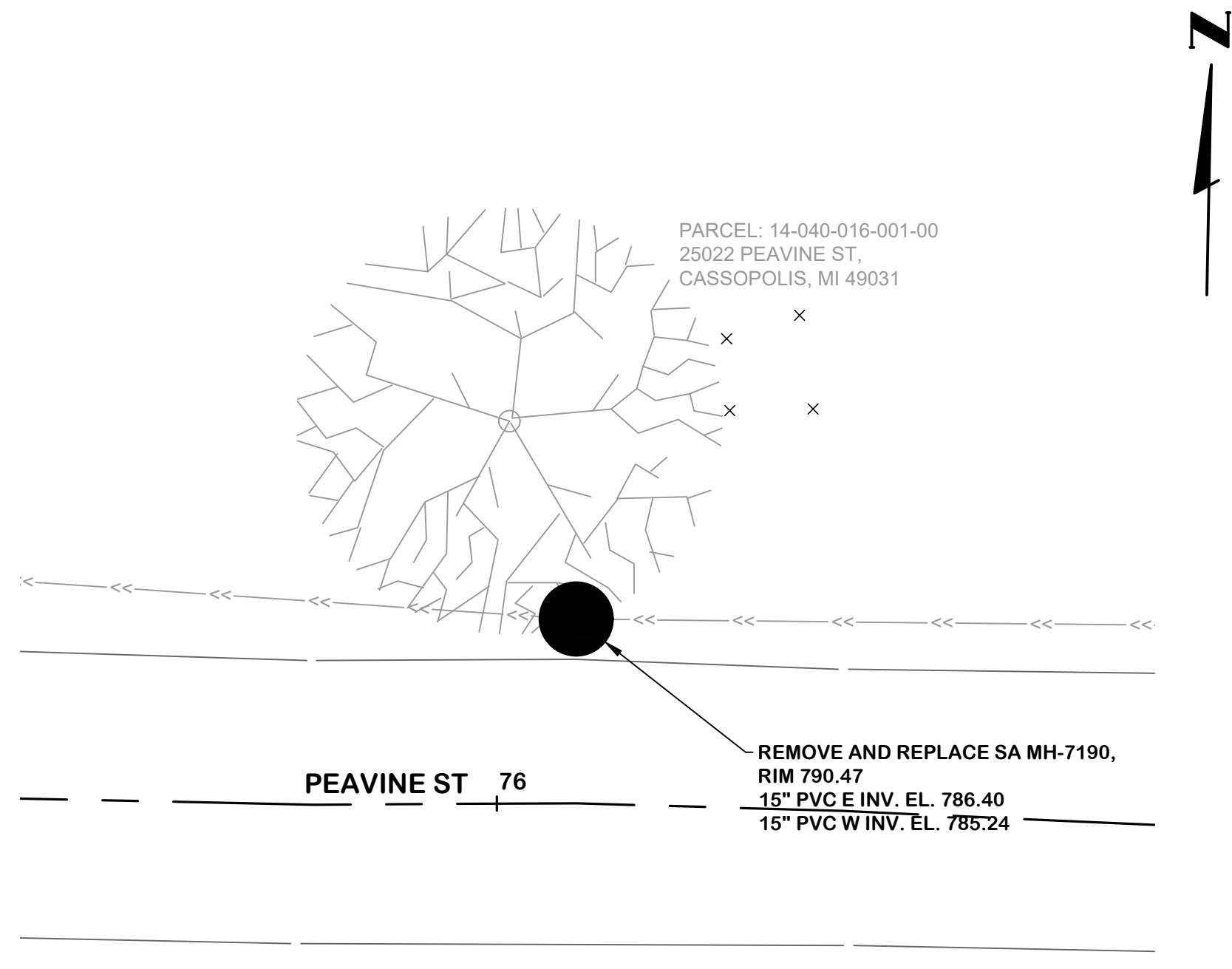
SHEET NO:
G-0.3
 3 OF 107

JOB NO. 541-8562.400

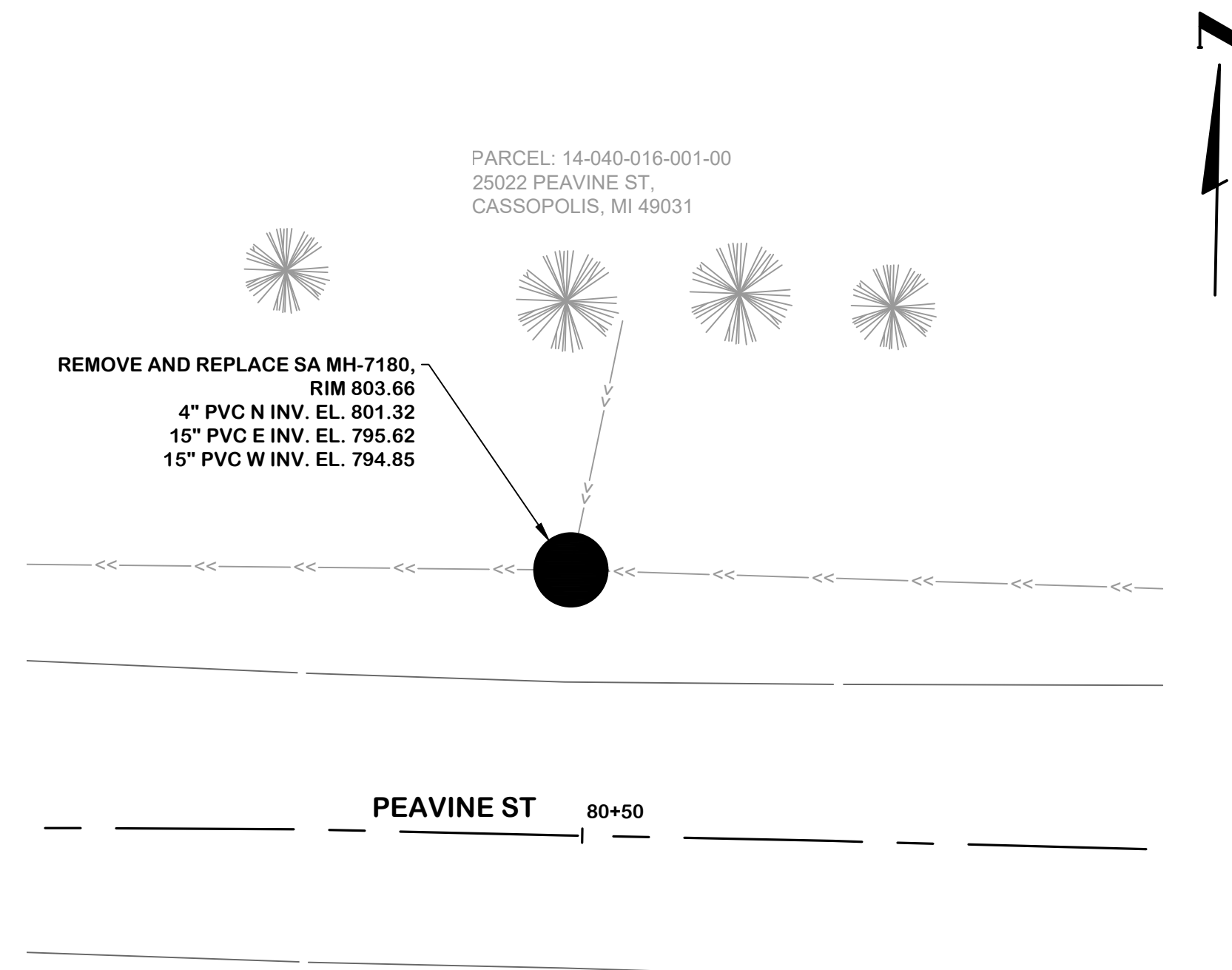
SCALE 1"=1500'

THIS LINE SCALES 1" WHEN PLOTTED TO NOTES SCALE

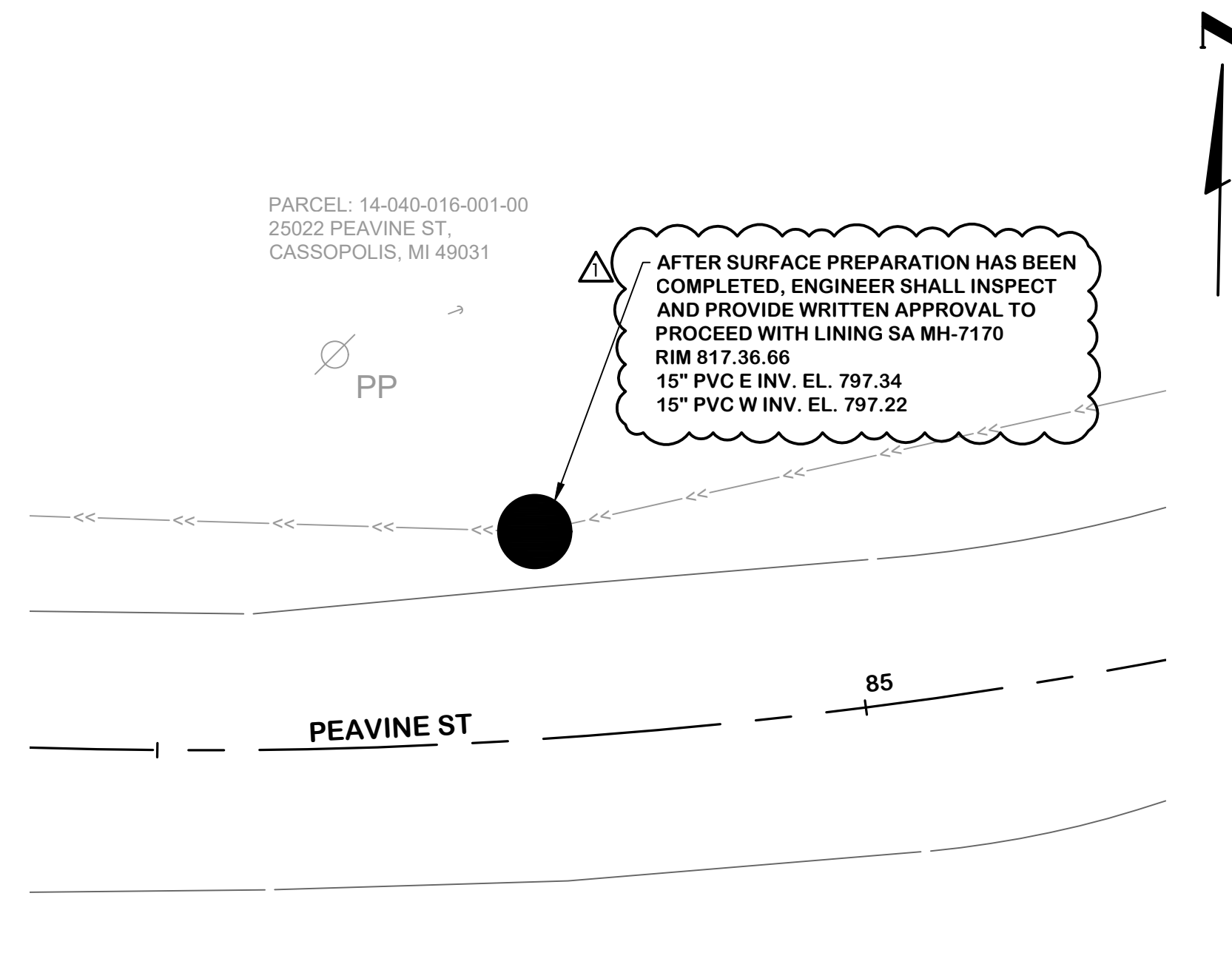
NO. 1
 DATE 6/9/2026
 APPENDIX 1
 REVISIONS AFTER ISSUED FOR BID



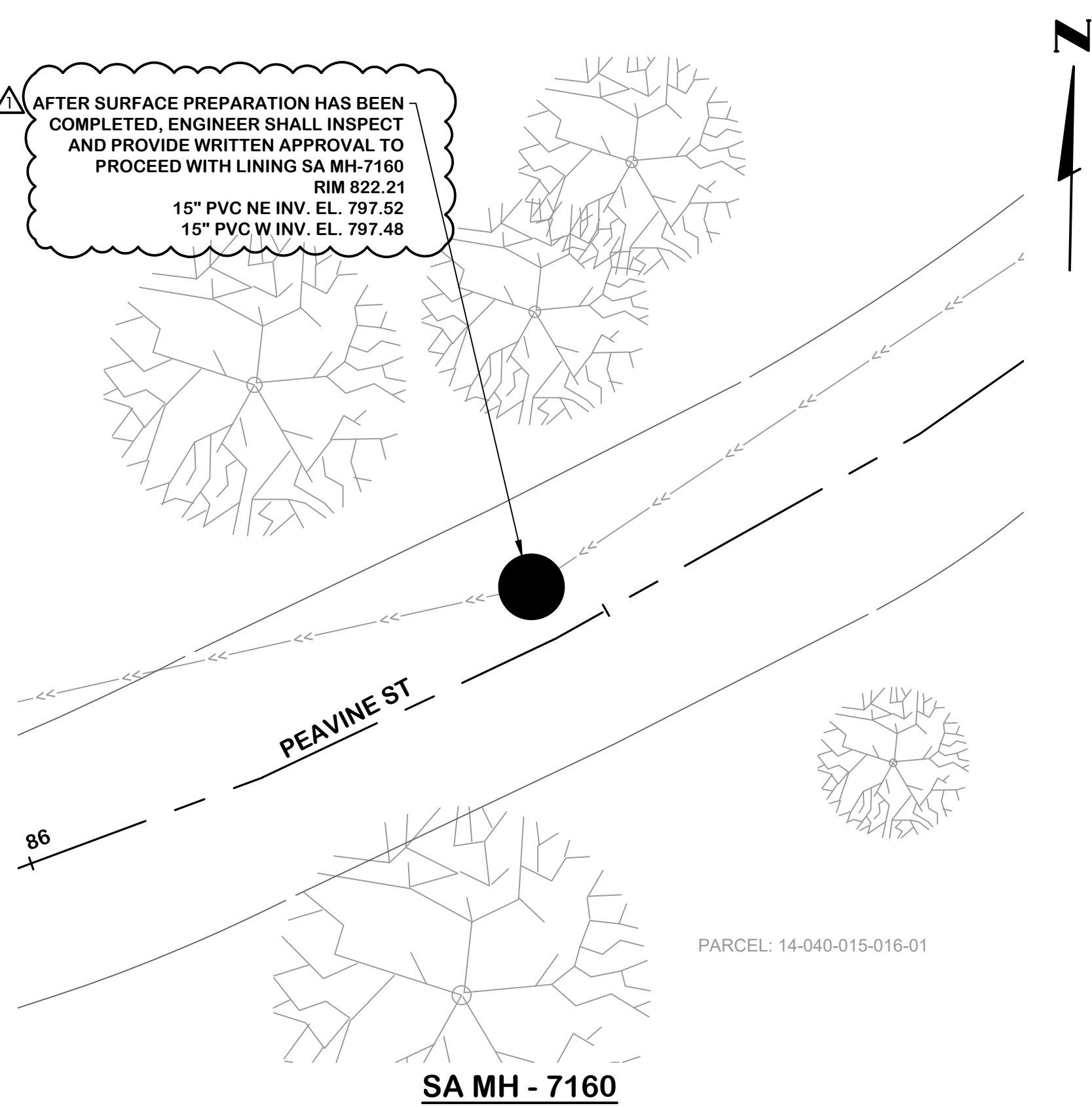
SA MH - 7190



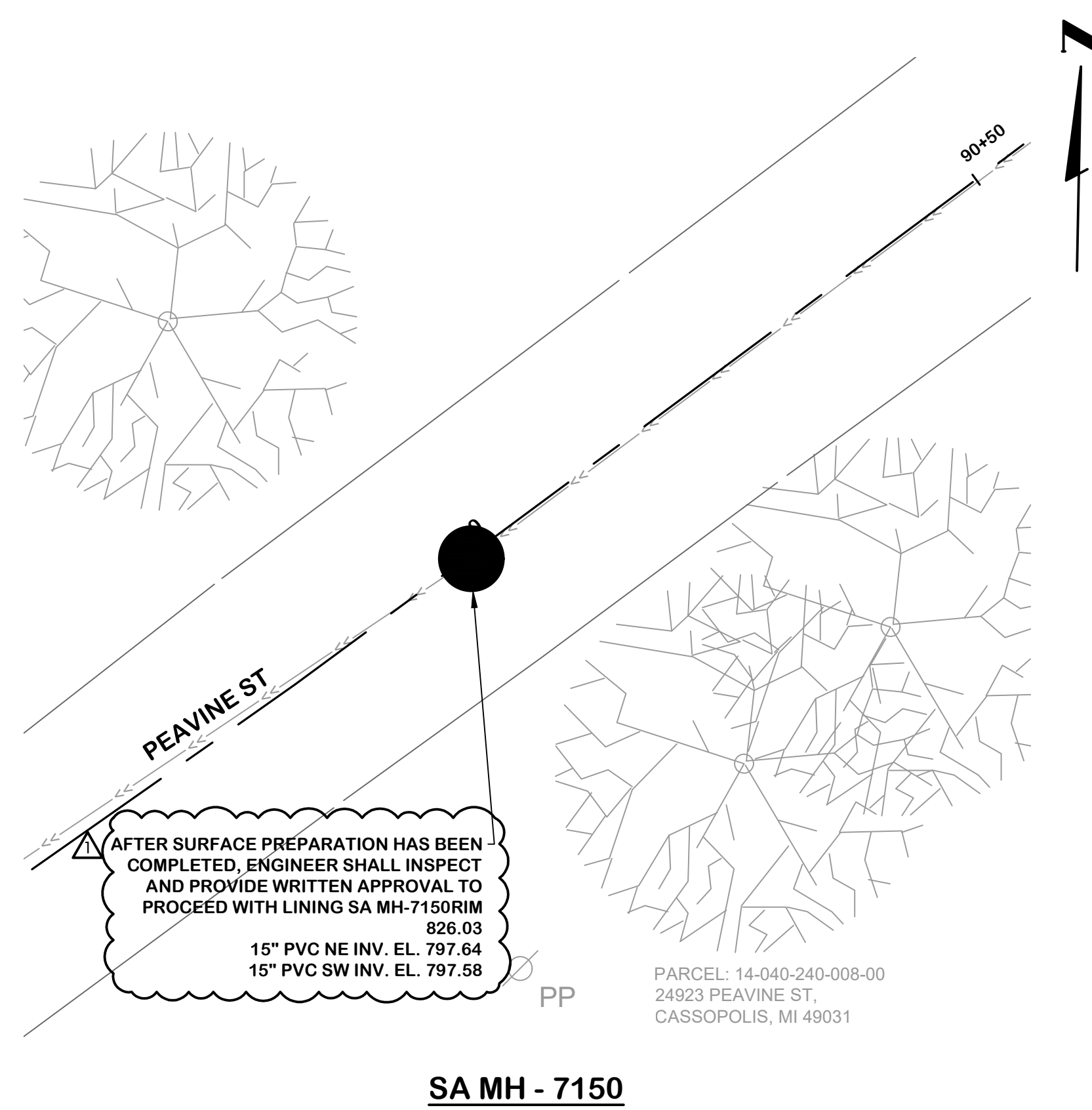
SA MH - 7180



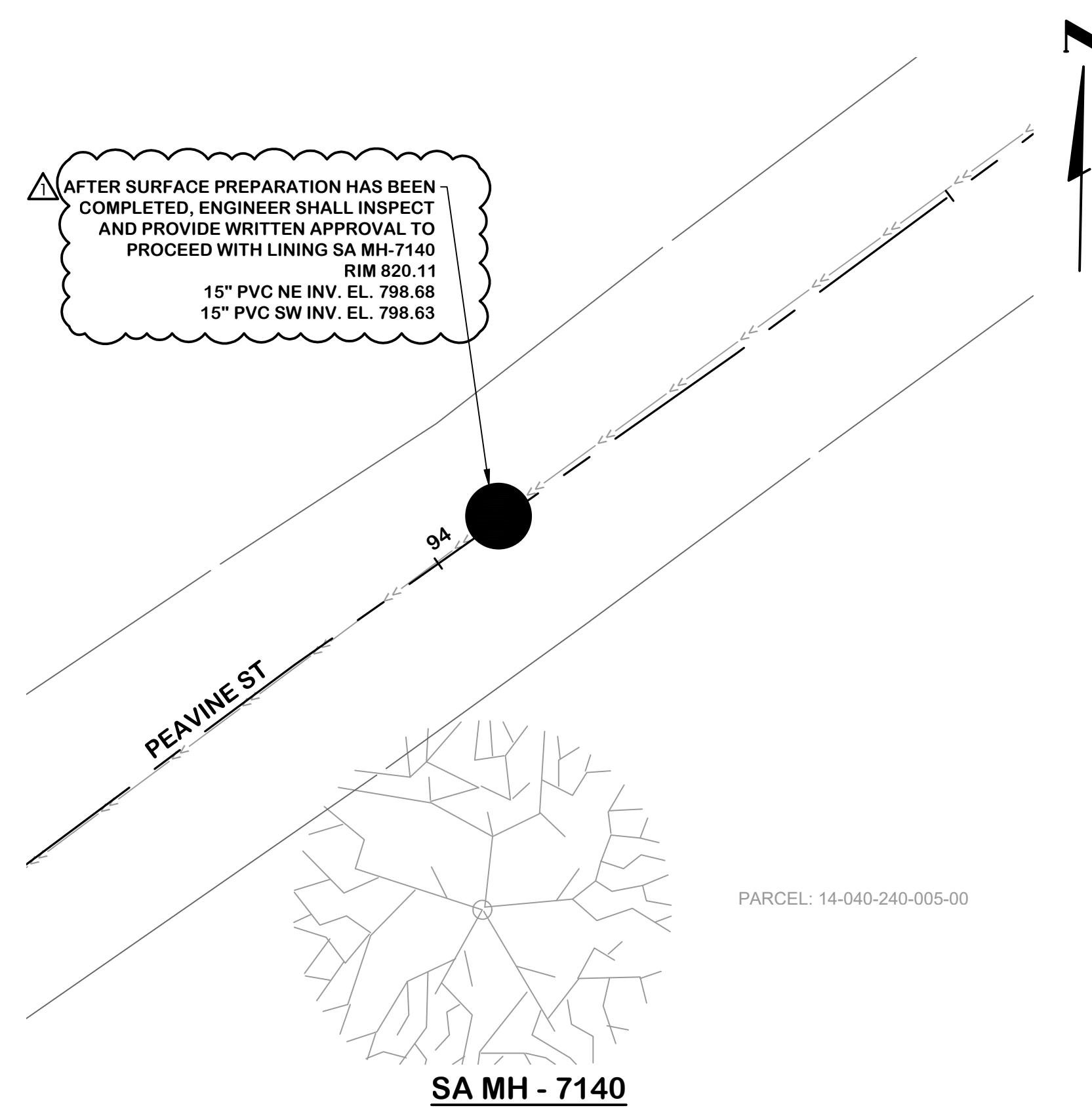
SA MH - 7170



SA MH - 7160

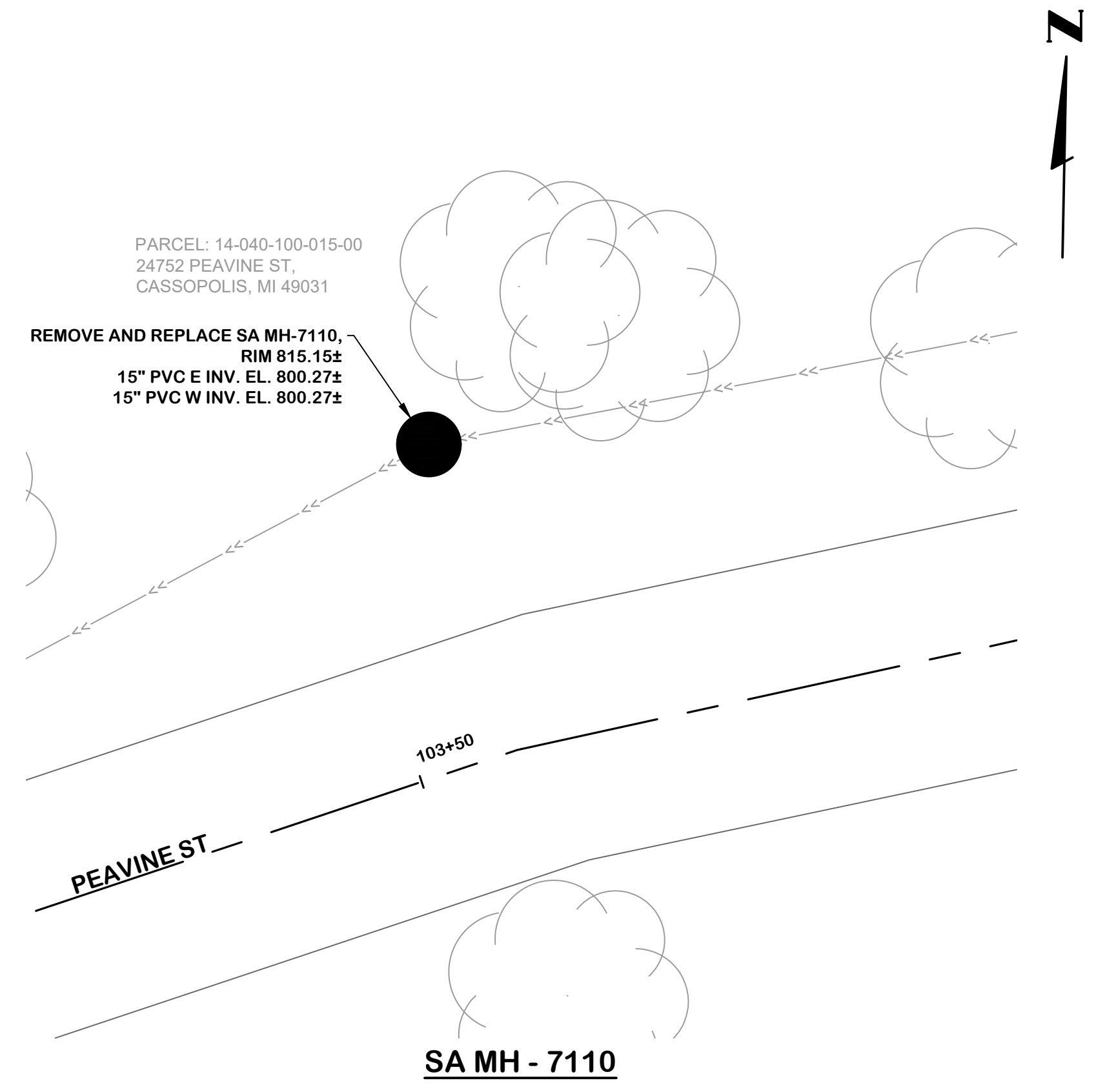


SA MH - 7150

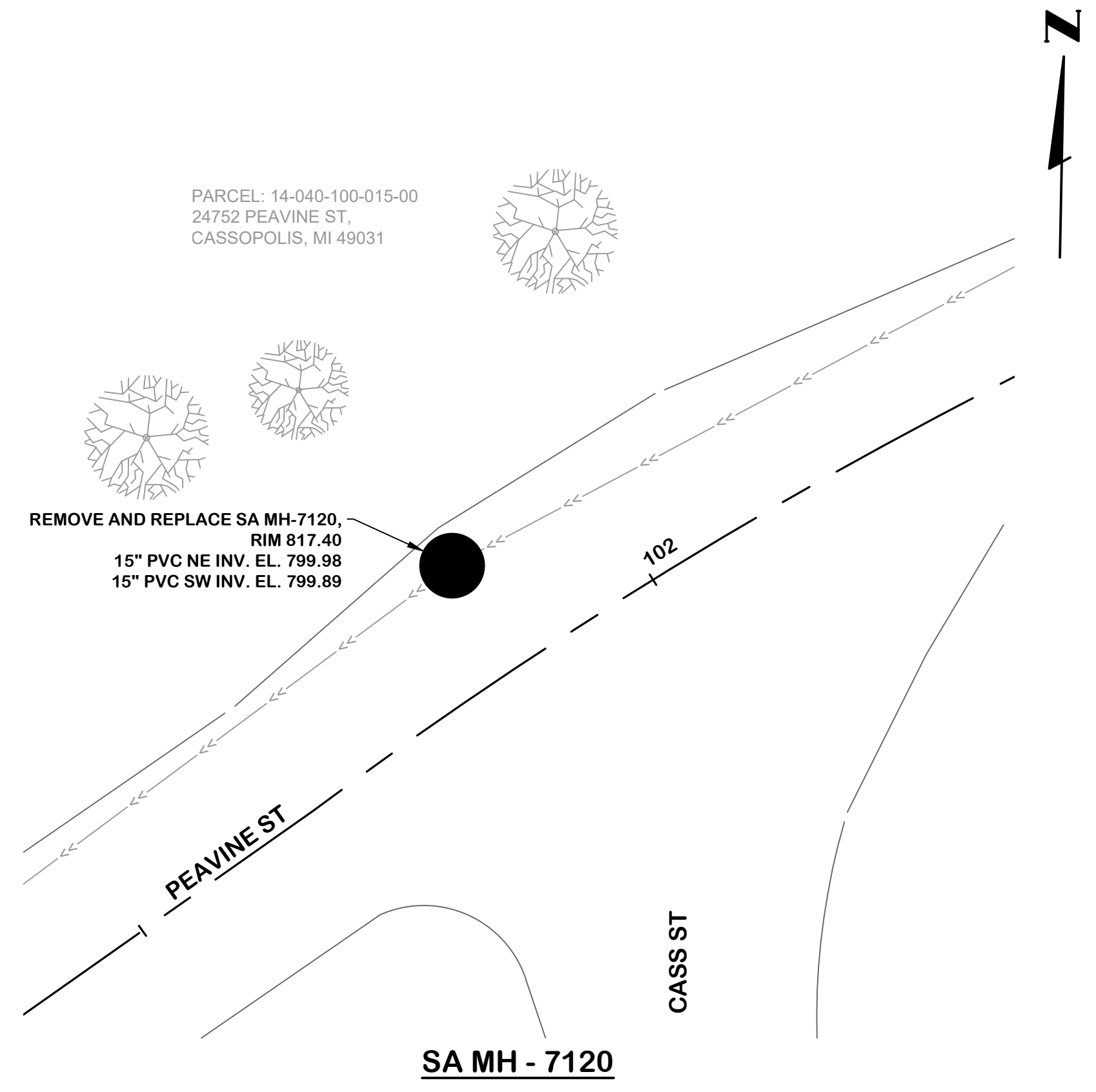


SA MH - 7140

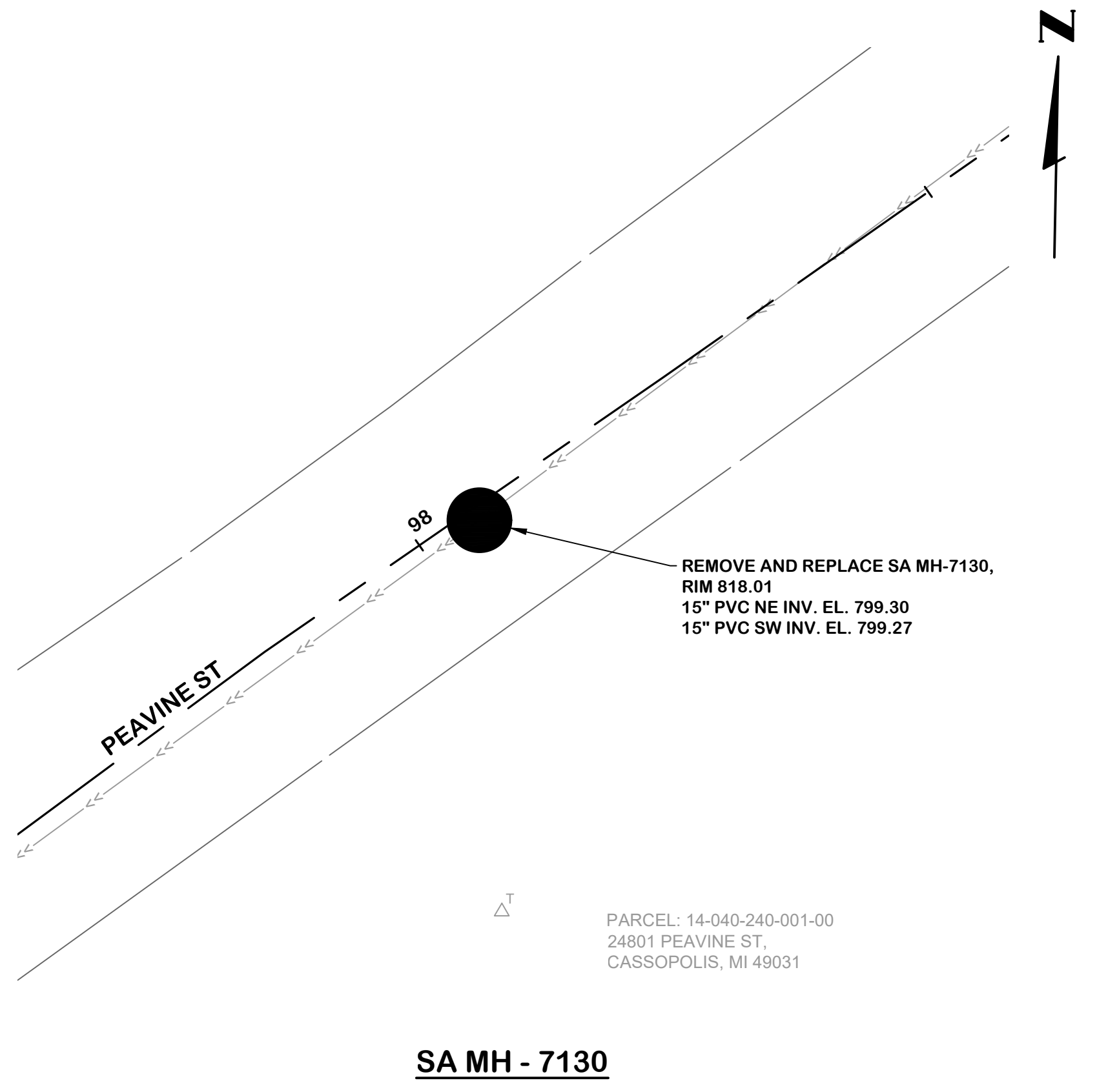
NOTE:
 1. REMOVED AND REPLACED MANHOLES SHALL RECEIVE PROTECTIVE COATING PER SPECIFICATION 02552.
 2. SEE SHEET SR-0.1 FOR TYPICAL DETAILS FOR SURFACE RESTORATION



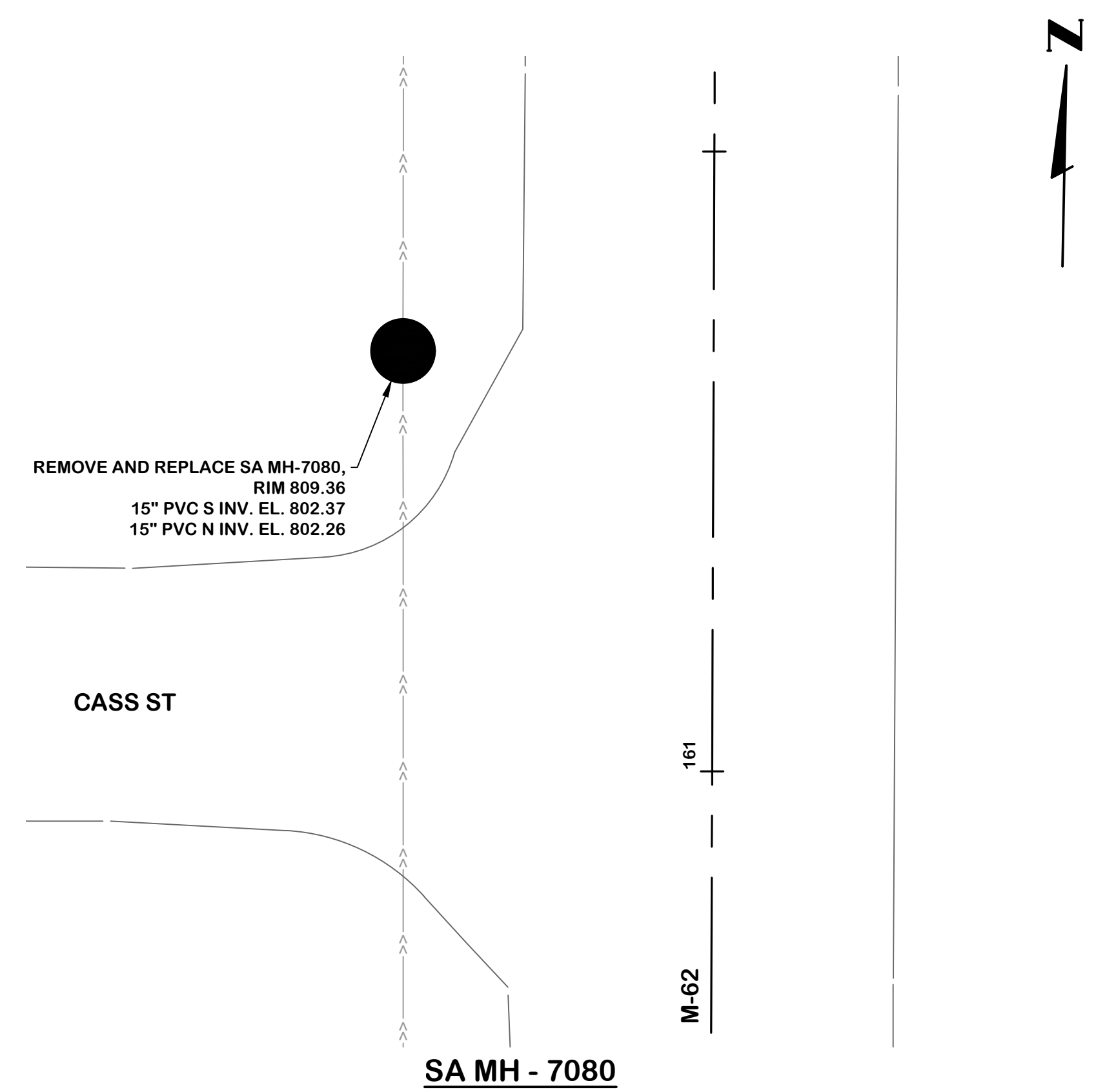
SA MH - 7110



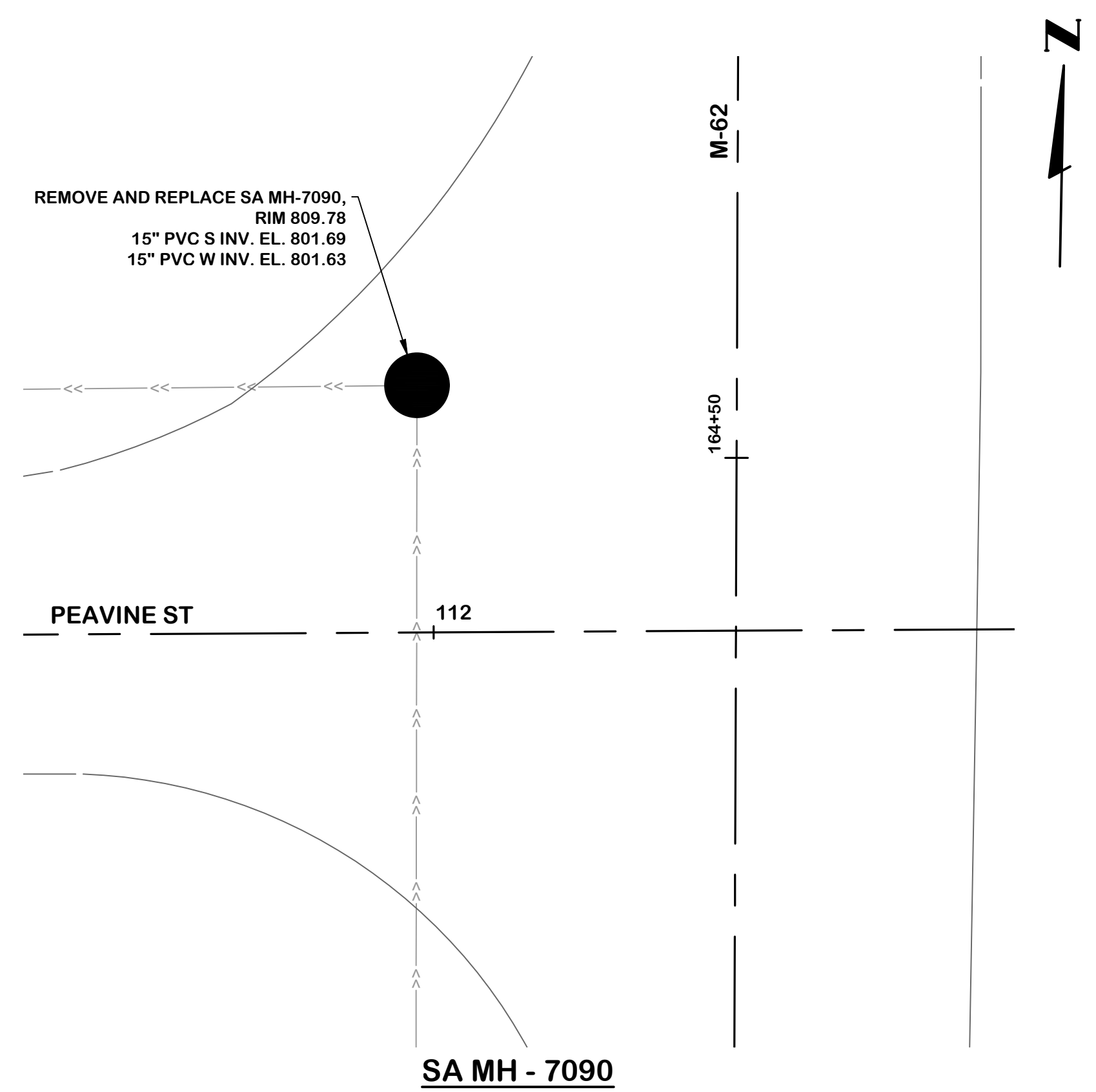
SA MH - 7120



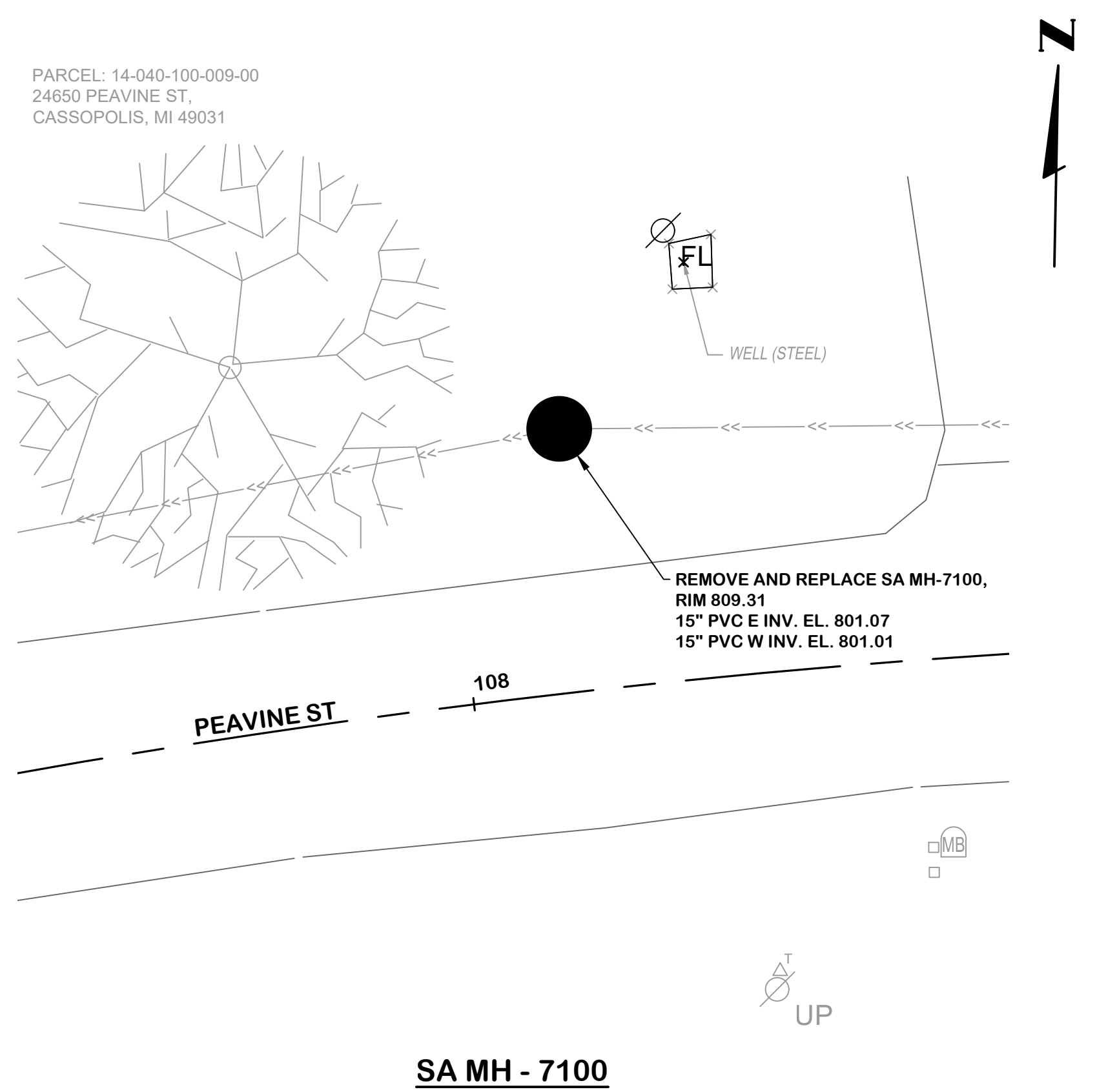
SA MH - 7130



SA MH - 7080



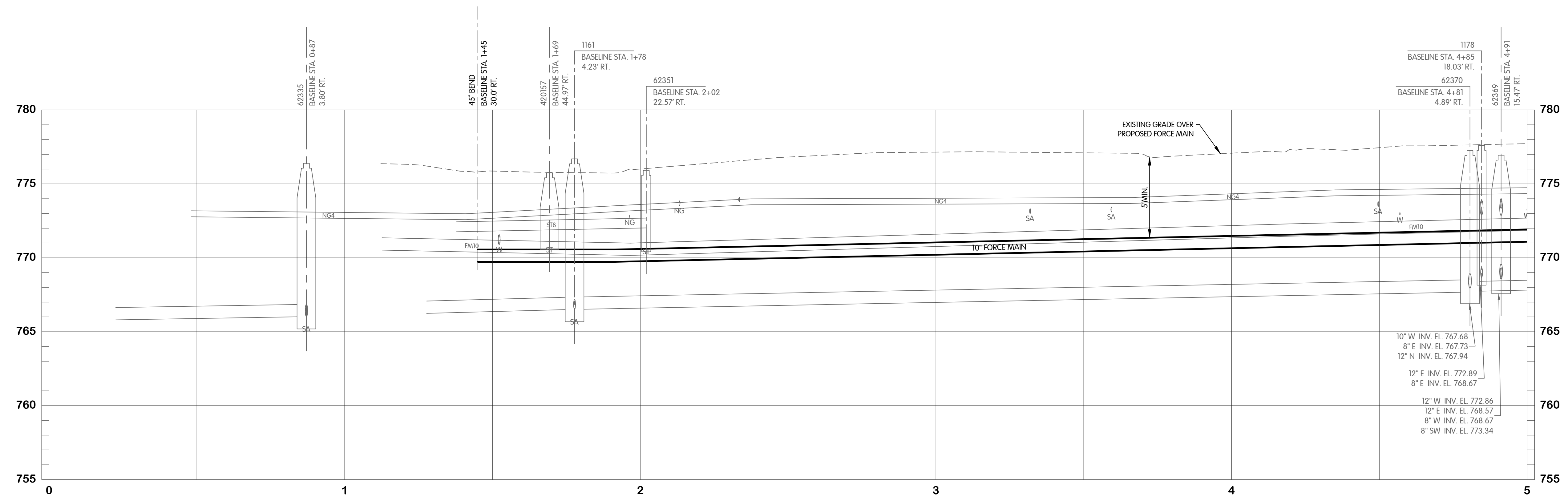
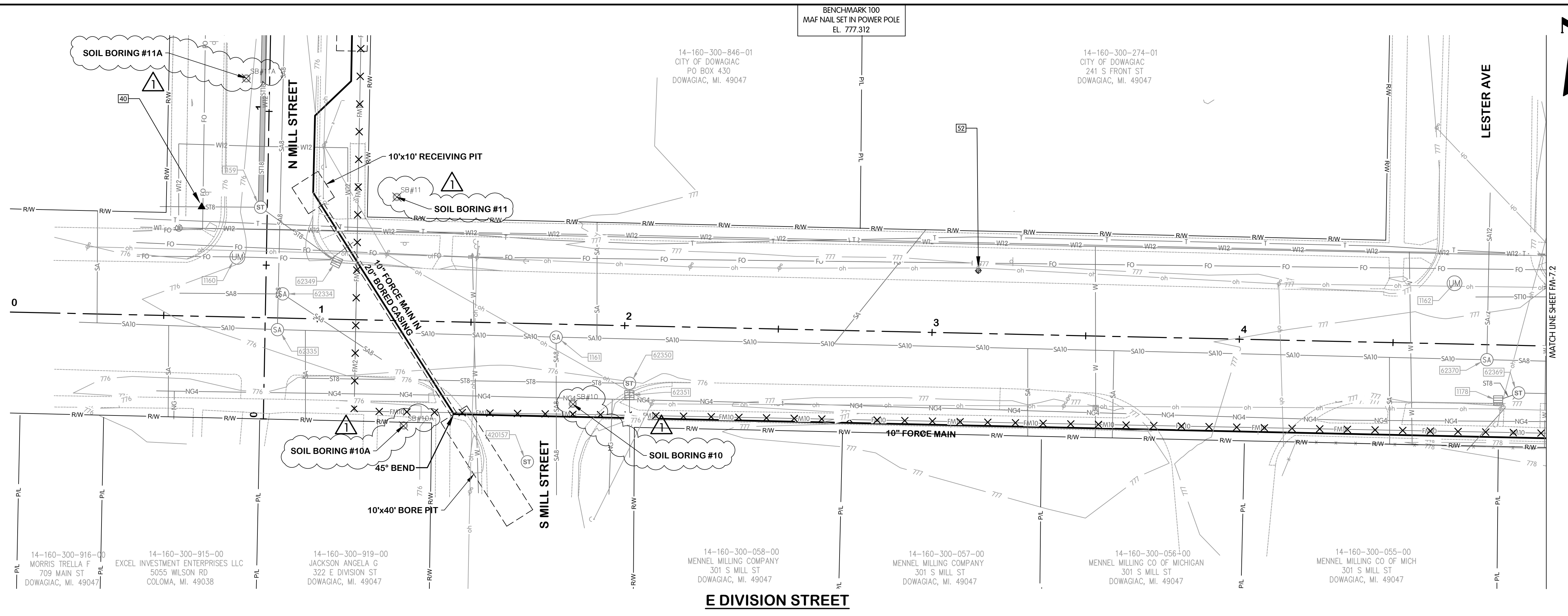
SA MH - 7090



SA MH - 7100

NOTE:
1. REMOVED AND REPLACED MANHOLES SHALL RECEIVE PROTECTIVE COATING PER SPECIFICATION 02552.
2. SEE SHEET SR-0.1 FOR TYPICAL DETAILS FOR SURFACE RESTORATION.

EXISTING STRUCTURE DATA		
NAME	TYPE	DATA
1159	STORM MANHOLE	CASTING EL. 776.17 8" SE INV. EL. 770.30 8" W INV. EL. 771.33 18" N INV. EL. 767.98
1160	ELECTRIC MANHOLE	CASTING EL. 776.90 2" E INV. EL. 773.88
1161	SANITARY MANHOLE	CASTING EL. 776.69 10" E INV. EL. 766.51 8" S INV. EL. 766.51 10" W INV. EL. 766.51
1162	ELECTRIC MANHOLE	CASTING EL. 776.79
1178	CATCH BASIN	CASTING EL. 777.60 8" E INV. EL. 768.67 12" E INV. EL. 772.89
62334	SANITARY MANHOLE	CASTING EL. 776.50 8" W INV. EL. 769.55 8" SE INV. EL. 769.55
62335	SANITARY MANHOLE	CASTING EL. 776.39 10" E INV. EL. 766.02 10" W INV. EL. 766.02 8" N INV. EL. 766.02
62349	CATCH BASIN	CASTING EL. 776.08 8" NW INV. EL. 771.45
62350	STORM MANHOLE	CASTING EL. 776.99 12" S INV. EL. 773.13 8" W INV. EL. 772.02
62351	CATCH BASIN	CASTING EL. 775.91
62369	STORM MANHOLE	CASTING EL. 776.94 12" W INV. EL. 772.86 12" E INV. EL. 768.57 8" W INV. EL. 768.67 8" SW INV. EL. 773.34
62370	SANITARY MANHOLE	CASTING EL. 777.26 10" W INV. EL. 767.68 8" E INV. EL. 767.73 12" N INV. EL. 767.94
420157	STORM MANHOLE	CASTING EL. 775.75



TOL-836640/FM7-FM-7.1 DIVISION STA. 0+00 TO 5+00
6/9/2026 9:45 AM - ABLAISING
6/10/2026 9:34 AM

Village of Cassopolis
Cassopolis, Michigan

Jones & Henry
ENGINEERS, LTD.

**E DIVISION STREET
FORCE MAIN
PLAN AND PROFILE
STA. 0+00 TO 5+00**

VILLAGE OF CASSOPOLIS, MICHIGAN
CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT

ABONMARCHÉ

DESIGNED: AMB
DRAWN: AJB
CHECKED: MED

STATUS: PERMIT
DATE: MAY 2026

SHEET NO.: FM-7.1
64 OF 105

NO. DATE REVISIONS AFTER ISSUED FOR BID

1 06-09-2026 ADDENDUM 1

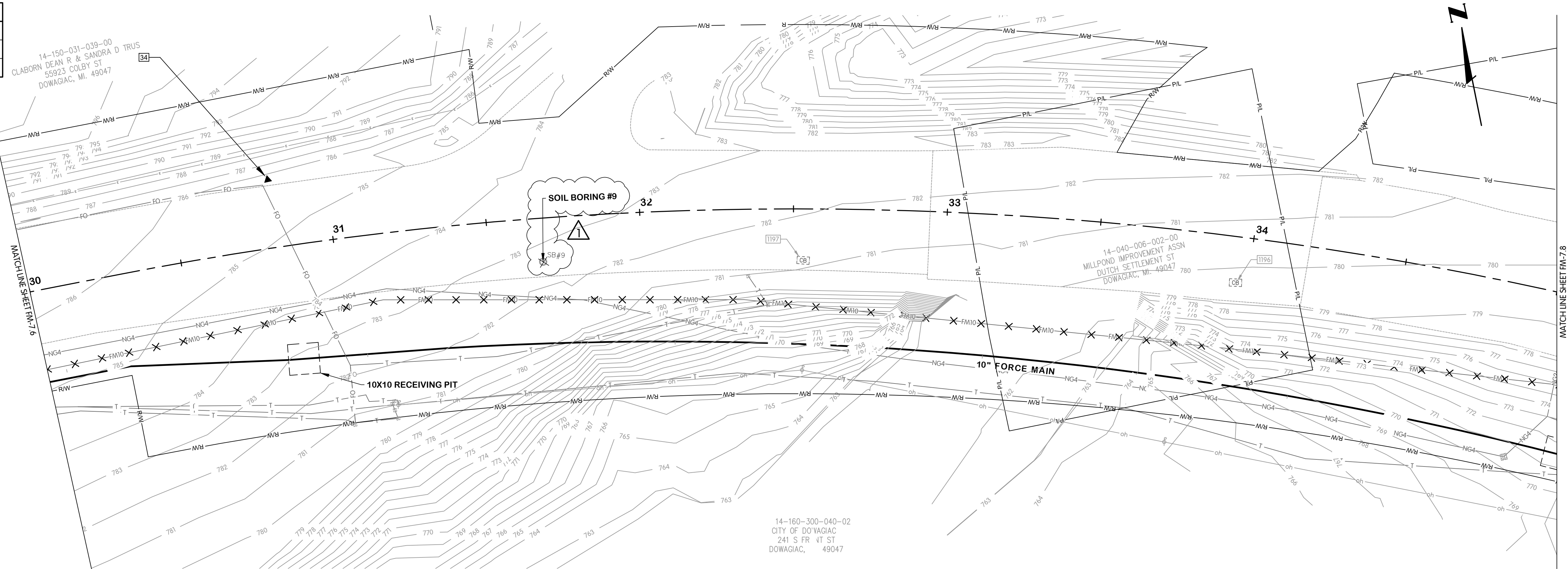
2 06-09-2026 ADDENDUM 1

3 06-09-2026 ADDENDUM 1

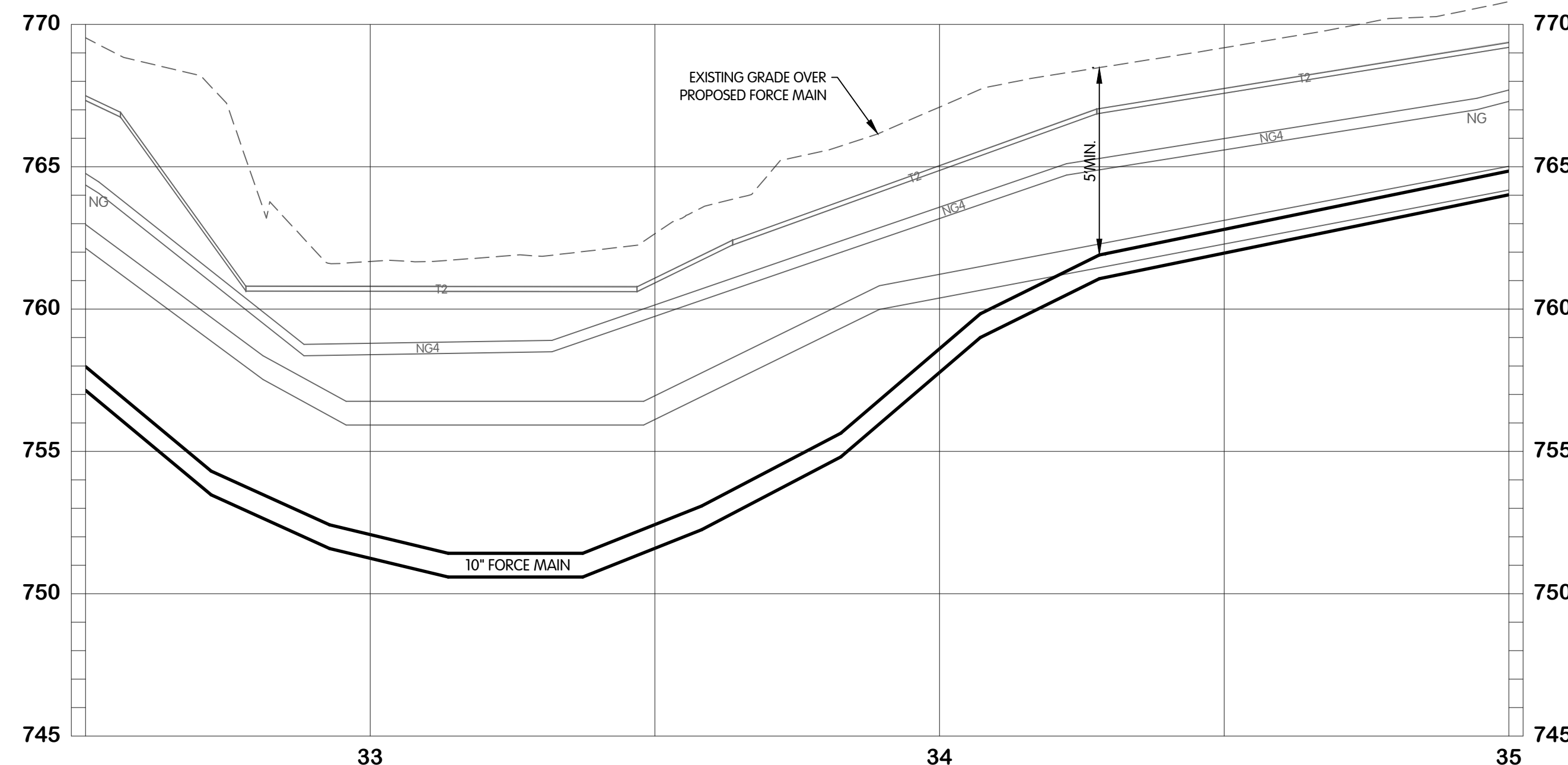
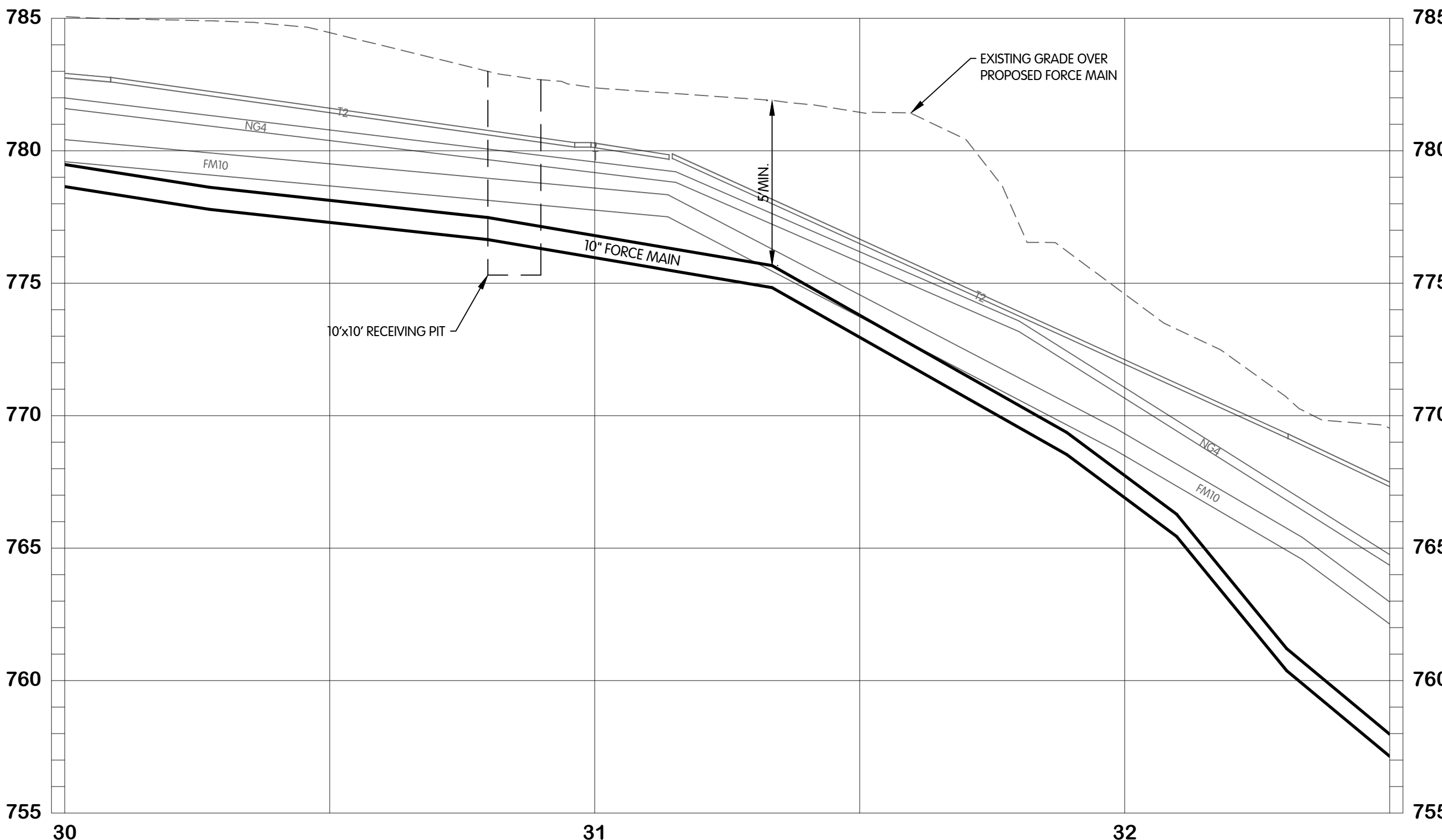
4 06-09-2026 ADDENDUM 1

5 06-09-2026 ADDENDUM 1

EXISTING STRUCTURE DATA		
NAME	TYPE	DATA
1196	CATCH BASIN	CASTING EL. 779.60
1197	CATCH BASIN	CASTING EL. 780.98



E DIVISION STREET



TOL-836240/FM7-FM-7.7 DIVISION STA. 30+00 TO 35+00
6/9/2026 9:45 AM - ABLAISING
6/10/2026 9:36 AM



**E DIVISION STREET
FORCE MAIN
PLAN AND PROFILE
STA. 30+00 TO 35+00**

VILLAGE OF CASSOPOLIS, MICHIGAN
CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT

ABONMARCHÉ

Jones & Henry
Engineers, Ltd.

Fluid thinking®
www.JHeng.com

JOB NO. 541-8362.400

SCALE 1"=20' HOR.
1"=4' VERT.

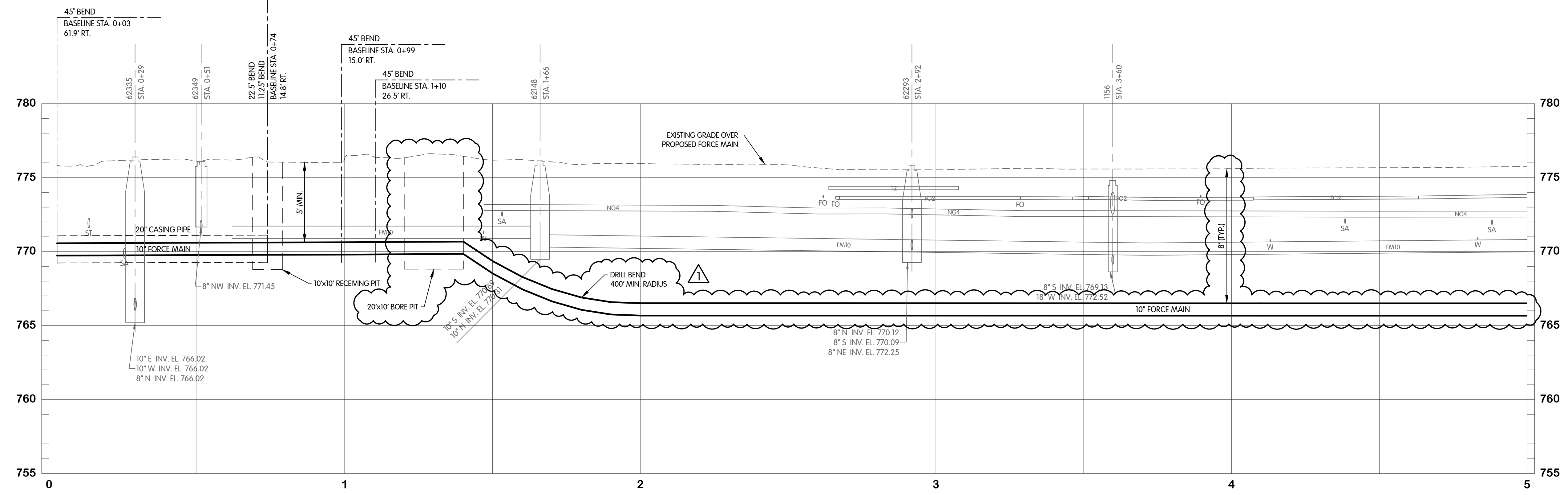
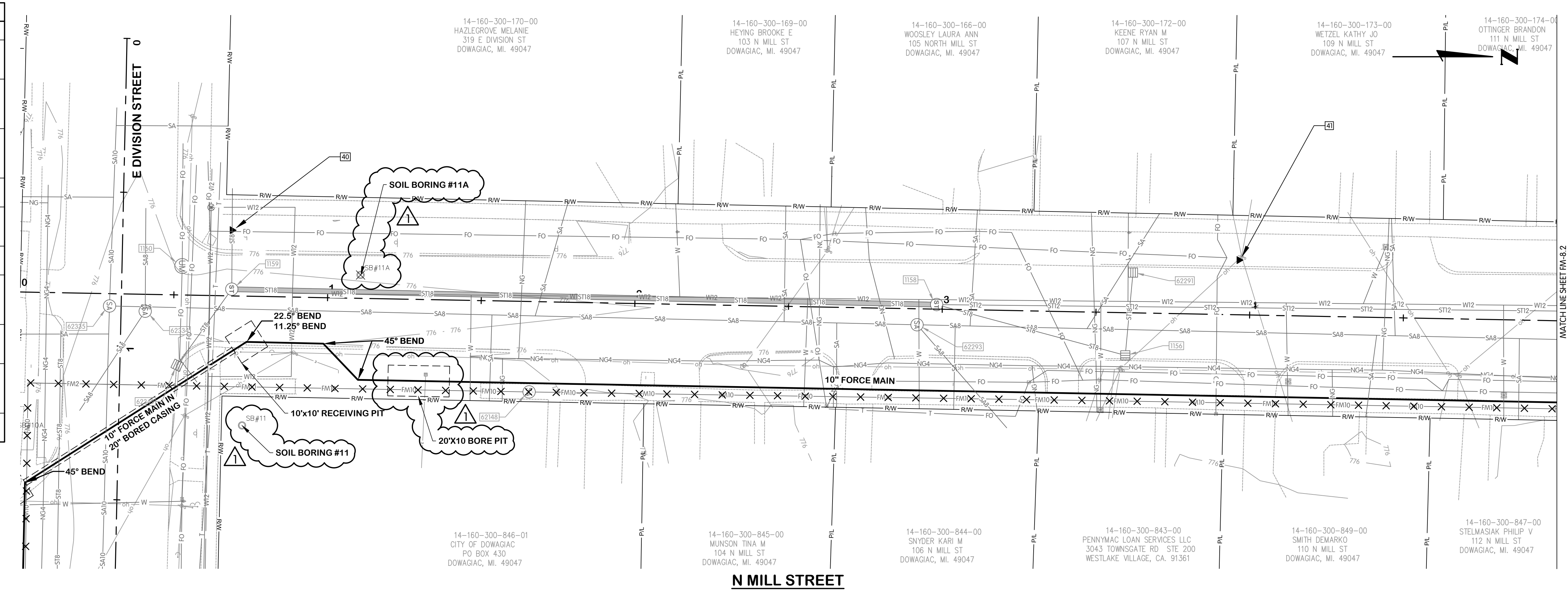
DESIGNED AMB DRAWN AJB CHECKED MED

STATUS PERMIT

DATE MAY 2026

SHEET NO.
FM-7.7
70 OF 105

EXISTING STRUCTURE DATA		
NAME	TYPE	DATA
1156	CATCH BASIN	CASTING EL. 774.80 8" S INV. EL. 769.13 18" W INV. EL. 772.52
1158	STORM MANHOLE	CASTING EL. 775.81 18" S INV. EL. 769.38 12" N INV. EL. 769.46 8" N INV. EL. 769.38
1159	STORM MANHOLE	CASTING EL. 776.17 8" SE INV. EL. 770.30 8" W INV. EL. 771.33 18" N INV. EL. 767.98
1160	ELECTRIC MANHOLE	CASTING EL. 776.90 2" E INV. EL. 773.88
62148	SANITARY MANHOLE	CASTING EL. 776.13 10" S INV. EL. 770.89 10" N INV. EL. 770.31
62291	CATCH BASIN	CASTING EL. 774.76 18" E INV. EL. 772.88
62293	SANITARY MANHOLE	CASTING EL. 775.80 8" S INV. EL. 770.09 8" N INV. EL. 770.12 8" NE INV. EL. 772.25
62334	SANITARY MANHOLE	CASTING EL. 776.50 8" W INV. EL. 769.55 8" SE INV. EL. 769.55
62335	SANITARY MANHOLE	CASTING EL. 776.39 10" E INV. EL. 766.02 10" W INV. EL. 766.02 8" N INV. EL. 766.02
62349	CATCH BASIN	CASTING EL. 776.08 8" NW INV. EL. 771.45

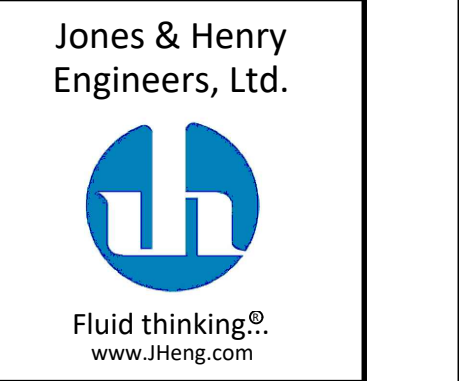


TOL-836240(FM-FM-8.1) MILL STA. 0+00 TO 5+00
 6/9/2026 9:51 AM - ABLAISING
 6/10/2026 9:37 AM



N MILL STREET
FORCE MAIN
PLAN AND PROFILE
STA 0+00 TO 5+00
 VILLAGE OF CASSOPOLIS, MICHIGAN
 CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT
ABONMARCHÉ

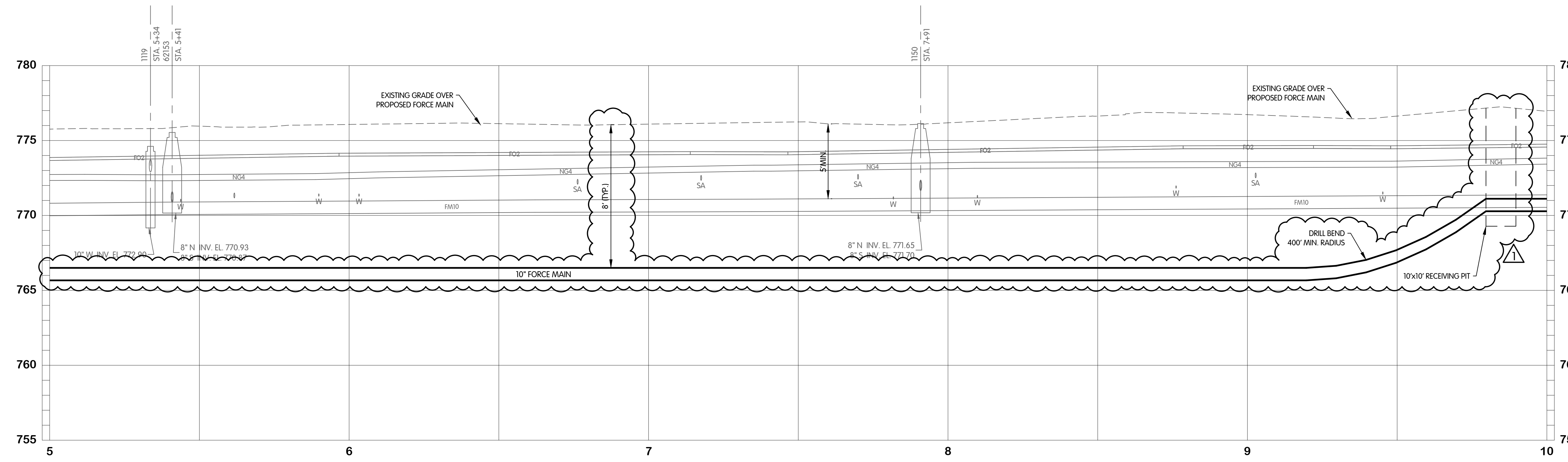
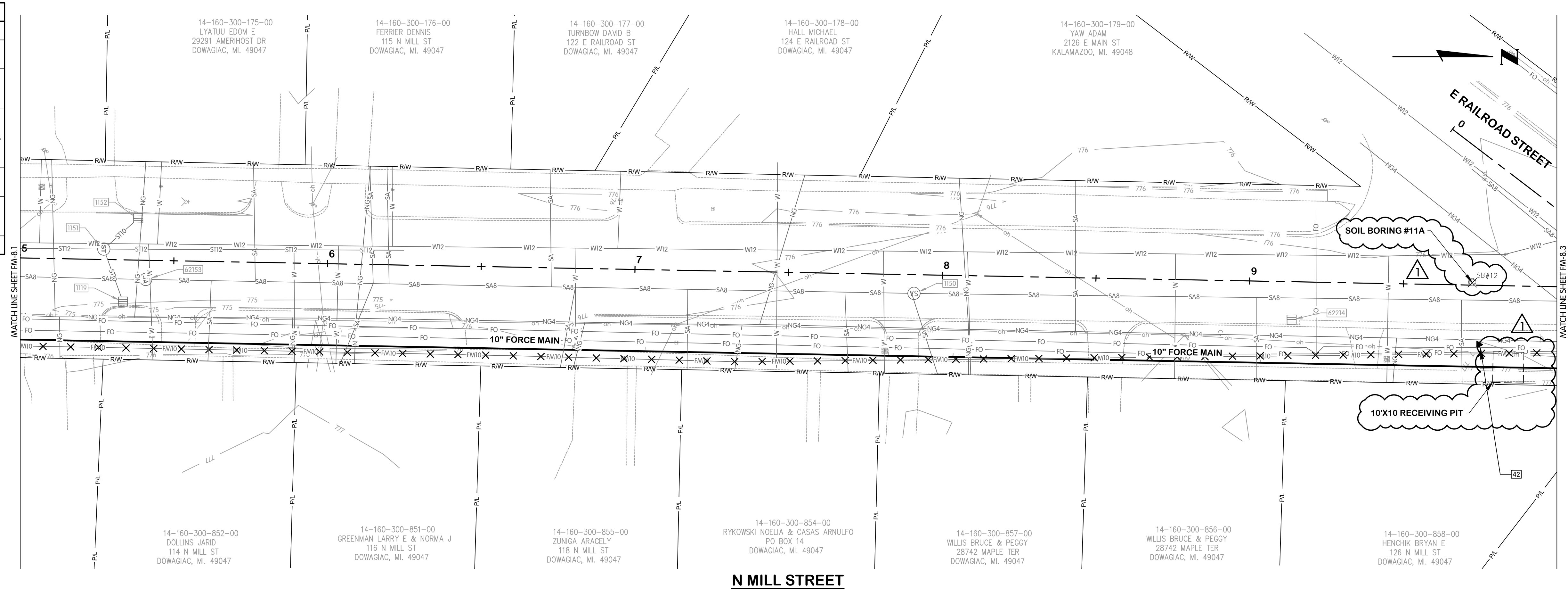
NO. DATE
 1 06-09-2026 ADDENDUM 1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31
 32
 33
 34
 35
 36
 37
 38
 39
 40
 41
 42
 43
 44
 45
 46
 47
 48
 49
 50
 51
 52
 53
 54
 55
 56
 57
 58
 59
 60
 61
 62
 63
 64
 65
 66
 67
 68
 69
 70
 71
 72
 73
 74
 75
 76
 77
 78
 79
 80
 81
 82
 83
 84
 85
 86
 87
 88
 89
 90
 91
 92
 93
 94
 95
 96
 97
 98
 99
 100
 101
 102
 103
 104
 105
 106
 107
 108
 109
 110
 111
 112
 113
 114
 115
 116
 117
 118
 119
 120
 121
 122
 123
 124
 125
 126
 127
 128
 129
 130
 131
 132
 133
 134
 135
 136
 137
 138
 139
 140
 141
 142
 143
 144
 145
 146
 147
 148
 149
 150
 151
 152
 153
 154
 155
 156
 157
 158
 159
 160
 161
 162
 163
 164
 165
 166
 167
 168
 169
 170
 171
 172
 173
 174
 175
 176
 177
 178
 179
 180
 181
 182
 183
 184
 185
 186
 187
 188
 189
 190
 191
 192
 193
 194
 195
 196
 197
 198
 199
 200
 201
 202
 203
 204
 205
 206
 207
 208
 209
 210
 211
 212
 213
 214
 215
 216
 217
 218
 219
 220
 221
 222
 223
 224
 225
 226
 227
 228
 229
 230
 231
 232
 233
 234
 235
 236
 237
 238
 239
 240
 241
 242
 243
 244
 245
 246
 247
 248
 249
 250
 251
 252
 253
 254
 255
 256
 257
 258
 259
 260
 261
 262
 263
 264
 265
 266
 267
 268
 269
 270
 271
 272
 273
 274
 275
 276
 277
 278
 279
 280
 281
 282
 283
 284
 285
 286
 287
 288
 289
 290
 291
 292
 293
 294
 295
 296
 297
 298
 299
 300
 301
 302
 303
 304
 305
 306
 307
 308
 309
 310
 311
 312
 313
 314
 315
 316
 317
 318
 319
 320
 321
 322
 323
 324
 325
 326
 327
 328
 329
 330
 331
 332
 333
 334
 335
 336
 337
 338
 339
 340
 341
 342
 343
 344
 345
 346
 347
 348
 349
 350
 351
 352
 353
 354
 355
 356
 357
 358
 359
 360
 361
 362
 363
 364
 365
 366
 367
 368
 369
 370
 371
 372
 373
 374
 375
 376
 377
 378
 379
 380
 381
 382
 383
 384
 385
 386
 387
 388
 389
 390
 391
 392
 393
 394
 395
 396
 397
 398
 399
 400
 401
 402
 403
 404
 405
 406
 407
 408
 409
 410
 411
 412
 413
 414
 415
 416
 417
 418
 419
 420
 421
 422
 423
 424
 425
 426
 427
 428
 429
 430
 431
 432
 433
 434
 435
 436
 437
 438
 439
 440
 441
 442
 443
 444
 445
 446
 447
 448
 449
 450
 451
 452
 453
 454
 455
 456
 457
 458
 459
 460
 461
 462
 463
 464
 465
 466
 467
 468
 469
 470
 471
 472
 473
 474
 475
 476
 477
 478
 479
 480
 481
 482
 483
 484
 485
 486
 487
 488
 489
 490
 491
 492
 493
 494
 495
 496
 497
 498
 499
 500
 501
 502
 503
 504
 505
 506
 507
 508
 509
 510
 511
 512
 513
 514
 515
 516
 517
 518
 519
 520
 521
 522
 523
 524
 525
 526
 527
 528
 529
 530
 531
 532
 533
 534
 535
 536
 537
 538
 539
 540
 541
 542
 543
 544
 545
 546
 547
 548
 549
 550
 551
 552
 553
 554
 555
 556
 557
 558
 559
 560
 561
 562
 563
 564
 565
 566
 567
 568
 569
 570
 571
 572
 573
 574
 575
 576
 577
 578
 579
 580
 581
 582
 583
 584
 585
 586
 587
 588
 589
 590
 591
 592
 593
 594
 595
 596
 597
 598
 599
 600
 601
 602
 603
 604
 605
 606
 607
 608
 609
 610
 611
 612
 613
 614
 615
 616
 617
 618
 619
 620
 621
 622
 623
 624
 625
 626
 627
 628
 629
 630
 631
 632
 633
 634
 635
 636
 637
 638
 639
 640
 641
 642
 643
 644
 645
 646
 647
 648
 649
 650
 651
 652
 653
 654
 655
 656
 657
 658
 659
 660
 661
 662
 663
 664
 665
 666
 667
 668
 669
 670
 671
 672
 673
 674
 675
 676
 677
 678
 679
 680
 681
 682
 683
 684
 685
 686
 687
 688
 689
 690
 691
 692
 693
 694
 695
 696
 697
 698
 699
 700
 701
 702
 703
 704
 705
 706
 707
 708
 709
 710
 711
 712
 713
 714
 715
 716
 717
 718
 719
 720
 721
 722
 723
 724
 725
 726
 727
 728
 729
 730
 731
 732
 733
 734
 735
 736
 737
 738
 739
 740
 741
 742
 743
 744
 745
 746
 747
 748
 749
 750
 751
 752
 753
 754
 755
 756
 757
 758
 759
 760
 761
 762
 763
 764
 765
 766
 767
 768
 769
 770
 771
 772
 773
 774
 775
 776
 777
 778
 779
 780
 781
 782
 783
 784
 785
 786
 787
 788
 789
 790
 791
 792
 793
 794
 795
 796
 797
 798
 799
 800
 801
 802
 803
 804
 805
 806
 807
 808
 809
 810
 811
 812
 813
 814
 815
 816
 817
 818
 819
 820
 821
 822
 823
 824
 825
 826
 827
 828
 829
 830
 831
 832
 833
 834
 835
 836
 837
 838
 839
 840
 841
 842
 843
 844
 845
 846
 847
 848
 849
 850
 851
 852
 853
 854
 855
 856
 857
 858
 859
 860
 861
 862
 863
 864
 865
 866
 867
 868
 869
 870
 871
 872
 873
 874
 875
 876
 877
 878
 879
 880
 881
 882
 883
 884
 885
 886
 887
 888
 889
 890
 891
 892
 893
 894
 895
 896
 897
 898
 899
 900
 901
 902
 903
 904
 905
 906
 907
 908
 909
 910
 911
 912
 913
 914
 915
 916
 917
 918
 919
 920
 921
 922
 923
 924
 925
 926
 927
 928
 929
 930
 931
 932
 933
 934
 935
 936
 937
 938
 939
 940
 941
 942
 943
 944
 945
 946
 947
 948
 949
 950
 951
 952
 953
 954
 955
 956
 957
 958
 959
 960
 961
 962
 963
 964
 965
 966
 967
 968
 969
 970
 971
 972
 973
 974
 975
 976
 977
 978
 979
 980
 981
 982
 983
 984
 985
 986
 987
 988
 989
 990
 991
 992
 993
 994
 995
 996
 997
 998
 999
 1000



JOB NO.	541-8362.400	
SCALE	1"=20' HOR. 1"=4' VERT.	
THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE		
DESIGNED	DRAWN	CHECKED
AMB	AJB	MED
STATUS: PERMIT		
DATE: MAY 2026		
SHEET NO.		

FM-8.1
 72 OF 105

EXISTING STRUCTURE DATA		
NAME	TYPE	DATA
1119	CATCH BASIN	CASTING EL. 774.61 10" W INV. EL. 772.90
1150	SANITARY MANHOLE	CASTING EL. 776.13 8" N INV. EL. 771.65 8" S INV. EL. 771.70
1151	STORM MANHOLE	CASTING EL. 775.66 12" S INV. EL. 769.72 10" NW INV. EL. 771.68 10" E INV. EL. 771.97 12" N INV. EL. 769.78
1152	CATCH BASIN	CASTING EL. 774.69 10" SE INV. EL. 772.15
62153	SANITARY MANHOLE	CASTING EL. 775.54 8" S INV. EL. 770.87 8" N INV. EL. 770.93
62214	CATCH BASIN	CASTING EL. 776.06



TOL-836240/FM-FM-8.2 MILL STA. 5+00 TO 10+00
6/9/2026 9:51 AM - ABLAISING
6/10/2026 9:38 AM



**N MILL STREET
FORCE MAIN
PLAN AND PROFILE
STA 5+00 TO 10+00**
 VILLAGE OF CASSOPOLIS, MICHIGAN
 CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT
ABONMARCHÉ

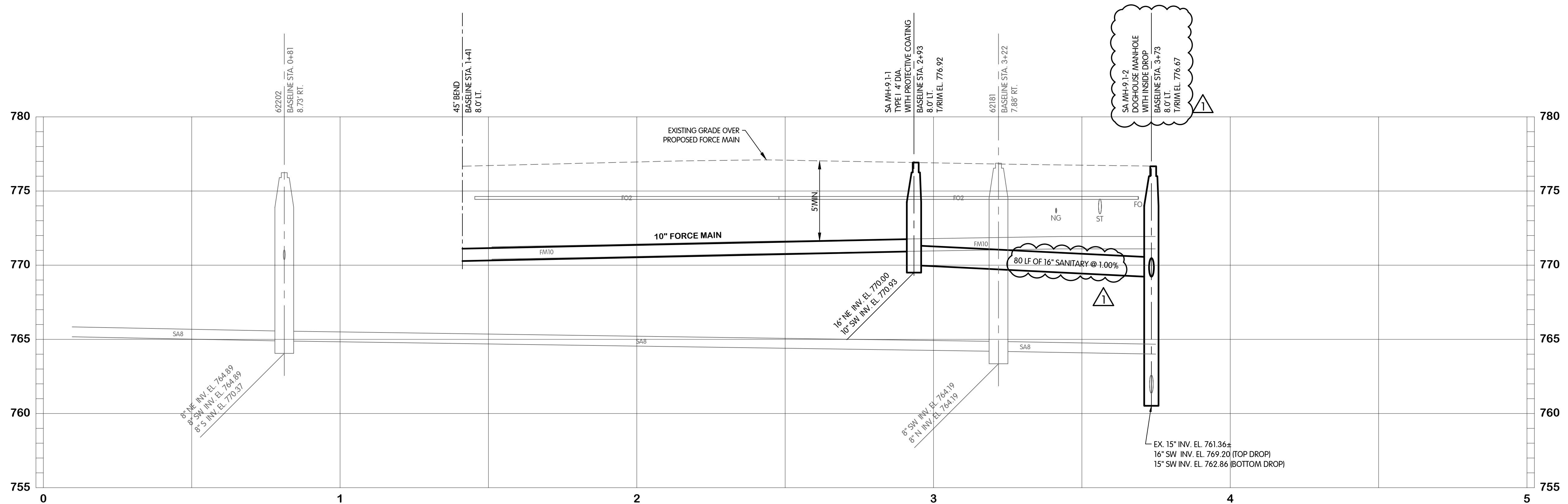
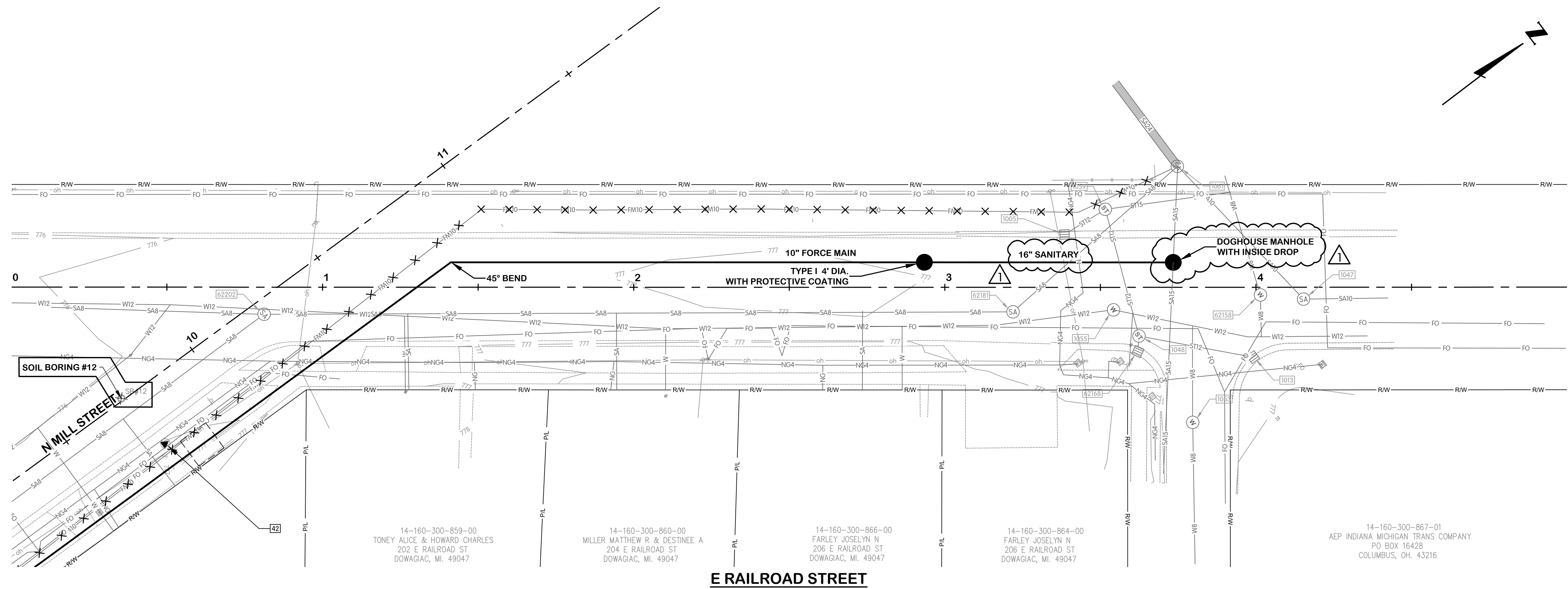
NO. DATE
 1 06-09-2026
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31
 32
 33
 34
 35
 36
 37
 38
 39
 40
 41
 42
 43
 44
 45
 46
 47
 48
 49
 50
 51
 52
 53
 54
 55
 56
 57
 58
 59
 60
 61
 62
 63
 64
 65
 66
 67
 68
 69
 70
 71
 72
 73
 74
 75
 76
 77
 78
 79
 80
 81
 82
 83
 84
 85
 86
 87
 88
 89
 90
 91
 92
 93
 94
 95
 96
 97
 98
 99
 100
 101
 102
 103
 104
 105
 106
 107
 108
 109
 110
 111
 112
 113
 114
 115
 116
 117
 118
 119
 120
 121
 122
 123
 124
 125
 126
 127
 128
 129
 130
 131
 132
 133
 134
 135
 136
 137
 138
 139
 140
 141
 142
 143
 144
 145
 146
 147
 148
 149
 150
 151
 152
 153
 154
 155
 156
 157
 158
 159
 160
 161
 162
 163
 164
 165
 166
 167
 168
 169
 170
 171
 172
 173
 174
 175
 176
 177
 178
 179
 180
 181
 182
 183
 184
 185
 186
 187
 188
 189
 190
 191
 192
 193
 194
 195
 196
 197
 198
 199
 200
 201
 202
 203
 204
 205
 206
 207
 208
 209
 210
 211
 212
 213
 214
 215
 216
 217
 218
 219
 220
 221
 222
 223
 224
 225
 226
 227
 228
 229
 230
 231
 232
 233
 234
 235
 236
 237
 238
 239
 240
 241
 242
 243
 244
 245
 246
 247
 248
 249
 250
 251
 252
 253
 254
 255
 256
 257
 258
 259
 260
 261
 262
 263
 264
 265
 266
 267
 268
 269
 270
 271
 272
 273
 274
 275
 276
 277
 278
 279
 280
 281
 282
 283
 284
 285
 286
 287
 288
 289
 290
 291
 292
 293
 294
 295
 296
 297
 298
 299
 300
 301
 302
 303
 304
 305
 306
 307
 308
 309
 310
 311
 312
 313
 314
 315
 316
 317
 318
 319
 320
 321
 322
 323
 324
 325
 326
 327
 328
 329
 330
 331
 332
 333
 334
 335
 336
 337
 338
 339
 340
 341
 342
 343
 344
 345
 346
 347
 348
 349
 350
 351
 352
 353
 354
 355
 356
 357
 358
 359
 360
 361
 362
 363
 364
 365
 366
 367
 368
 369
 370
 371
 372
 373
 374
 375
 376
 377
 378
 379
 380
 381
 382
 383
 384
 385
 386
 387
 388
 389
 390
 391
 392
 393
 394
 395
 396
 397
 398
 399
 400
 401
 402
 403
 404
 405
 406
 407
 408
 409
 410
 411
 412
 413
 414
 415
 416
 417
 418
 419
 420
 421
 422
 423
 424
 425
 426
 427
 428
 429
 430
 431
 432
 433
 434
 435
 436
 437
 438
 439
 440
 441
 442
 443
 444
 445
 446
 447
 448
 449
 450
 451
 452
 453
 454
 455
 456
 457
 458
 459
 460
 461
 462
 463
 464
 465
 466
 467
 468
 469
 470
 471
 472
 473
 474
 475
 476
 477
 478
 479
 480
 481
 482
 483
 484
 485
 486
 487
 488
 489
 490
 491
 492
 493
 494
 495
 496
 497
 498
 499
 500
 501
 502
 503
 504
 505
 506
 507
 508
 509
 510
 511
 512
 513
 514
 515
 516
 517
 518
 519
 520
 521
 522
 523
 524
 525
 526
 527
 528
 529
 530
 531
 532
 533
 534
 535
 536
 537
 538
 539
 540
 541
 542
 543
 544
 545
 546
 547
 548
 549
 550
 551
 552
 553
 554
 555
 556
 557
 558
 559
 560
 561
 562
 563
 564
 565
 566
 567
 568
 569
 570
 571
 572
 573
 574
 575
 576
 577
 578
 579
 580
 581
 582
 583
 584
 585
 586
 587
 588
 589
 590
 591
 592
 593
 594
 595
 596
 597
 598
 599
 600
 601
 602
 603
 604
 605
 606
 607
 608
 609
 610
 611
 612
 613
 614
 615
 616
 617
 618
 619
 620
 621
 622
 623
 624
 625
 626
 627
 628
 629
 630
 631
 632
 633
 634
 635
 636
 637
 638
 639
 640
 641
 642
 643
 644
 645
 646
 647
 648
 649
 650
 651
 652
 653
 654
 655
 656
 657
 658
 659
 660
 661
 662
 663
 664
 665
 666
 667
 668
 669
 670
 671
 672
 673
 674
 675
 676
 677
 678
 679
 680
 681
 682
 683
 684
 685
 686
 687
 688
 689
 690
 691
 692
 693
 694
 695
 696
 697
 698
 699
 700
 701
 702
 703
 704
 705
 706
 707
 708
 709
 710
 711
 712
 713
 714
 715
 716
 717
 718
 719
 720
 721
 722
 723
 724
 725
 726
 727
 728
 729
 730
 731
 732
 733
 734
 735
 736
 737
 738
 739
 740
 741
 742
 743
 744
 745
 746
 747
 748
 749
 750
 751
 752
 753
 754
 755
 756
 757
 758
 759
 760
 761
 762
 763
 764
 765
 766
 767
 768
 769
 770
 771
 772
 773
 774
 775
 776
 777
 778
 779
 780
 781
 782
 783
 784
 785
 786
 787
 788
 789
 790
 791
 792
 793
 794
 795
 796
 797
 798
 799
 800
 801
 802
 803
 804
 805
 806
 807
 808
 809
 810
 811
 812
 813
 814
 815
 816
 817
 818
 819
 820
 821
 822
 823
 824
 825
 826
 827
 828
 829
 830
 831
 832
 833
 834
 835
 836
 837
 838
 839
 840
 841
 842
 843
 844
 845
 846
 847
 848
 849
 850
 851
 852
 853
 854
 855
 856
 857
 858
 859
 860
 861
 862
 863
 864
 865
 866
 867
 868
 869
 870
 871
 872
 873
 874
 875
 876
 877
 878
 879
 880
 881
 882
 883
 884
 885
 886
 887
 888
 889
 890
 891
 892
 893
 894
 895
 896
 897
 898
 899
 900
 901
 902
 903
 904
 905
 906
 907
 908
 909
 910
 911
 912
 913
 914
 915
 916
 917
 918
 919
 920
 921
 922
 923
 924
 925
 926
 927
 928
 929
 930
 931
 932
 933
 934
 935
 936
 937
 938
 939
 940
 941
 942
 943
 944
 945
 946
 947
 948
 949
 950
 951
 952
 953
 954
 955
 956
 957
 958
 959
 960
 961
 962
 963
 964
 965
 966
 967
 968
 969
 970
 971
 972
 973
 974
 975
 976
 977
 978
 979
 980
 981
 982
 983
 984
 985
 986
 987
 988
 989
 990
 991
 992
 993
 994
 995
 996
 997
 998
 999
 1000

Jones & Henry
Engineers, Ltd.

Fluid thinking®
www.JHeng.com

JOB NO.	541-8362.400	
SCALE	1"=20' HOR. 1"=4' VERT.	
THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE		
DESIGNED	DRAWN	CHECKED
AMB	AJB	MED
STATUS	PERMIT	
DATE	MAY 2026	
SHEET NO.	FM-8.2	
	73 OF 105	

EXISTING STRUCTURE DATA		
NAME	TYPE	DATA
1005	CATCH BASIN	CASTING EL. 776.76 12" N INV. EL. 774.50
1013	CATCH BASIN	CASTING EL. 776.52 12" SW INV. EL. 771.53
1047	SANITARY MANHOLE	CASTING EL. 776.67 10" W INV. EL. 769.32 10" NE INV. EL. 769.21
1048	STORM MANHOLE	CASTING EL. 777.52 12" W INV. EL. 773.46 12" SE INV. EL. 773.66 12" NE INV. EL. 773.26
1053	WATER MANHOLE	CASTING EL. 776.67 8" SE INV. EL. 456.91 8" NW INV. EL. 456.91
1055	WATER MANHOLE	CASTING EL. 776.67 12" SW INV. EL. 771.07
1059	STORM MANHOLE	CASTING EL. 777.32 12" S INV. EL. 773.46 12" E INV. EL. 773.46 15" NE INV. EL. 771.64
1061	SANITARY MANHOLE	CASTING EL. 776.84 10" S INV. EL. 771.10
62158	WATER MANHOLE	CASTING EL. 776.60 8" SE INV. EL. 771.13 8" W INV. EL. 771.13
62168	CATCH BASIN	CASTING EL. 776.08 12" NW INV. EL. 773.50
62181	SANITARY MANHOLE	CASTING EL. 776.87 8" SW INV. EL. 764.19 8" N INV. EL. 764.19
62202	SANITARY MANHOLE	CASTING EL. 776.23 8" NE INV. EL. 764.89 8" SW INV. EL. 764.89 8" S INV. EL. 770.37



TOL-836240(FM-9.1) RAILROAD STA. 0+00 TO 5+00
6/9/2024 10:33 AM - ABLAISING
6/10/2024 9:40 AM



**E RAILROAD STREET
FORCE MAIN
PLAN AND PROFILE
STA. 0+00 TO 5+00**

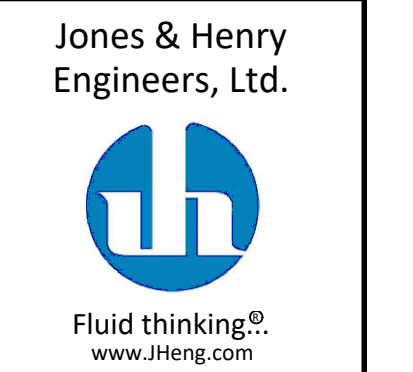
VILLAGE OF CASSOPOLIS, MICHIGAN
CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT

ABONMARCHÉ

DESIGNED BY: AMB
DRAWN BY: AJB
CHECKED BY: MED

STATUS: PERMIT
DATE: MAY 2024

SHEET NO.: FM-9.1
75 OF 105



Jones & Henry
Engineers, Ltd.

Fluid thinking®
www.JHeng.com

JOB NO. 541-8362.400
SCALE: 1"=20' HOR.
1"=4' VERT.

THIS LINE SCALES IF WHEN
PLOTTED TO NOTED SCALE

NO. DATE
1 06-09-2024 ADDENDUM 1
2
3
4
5

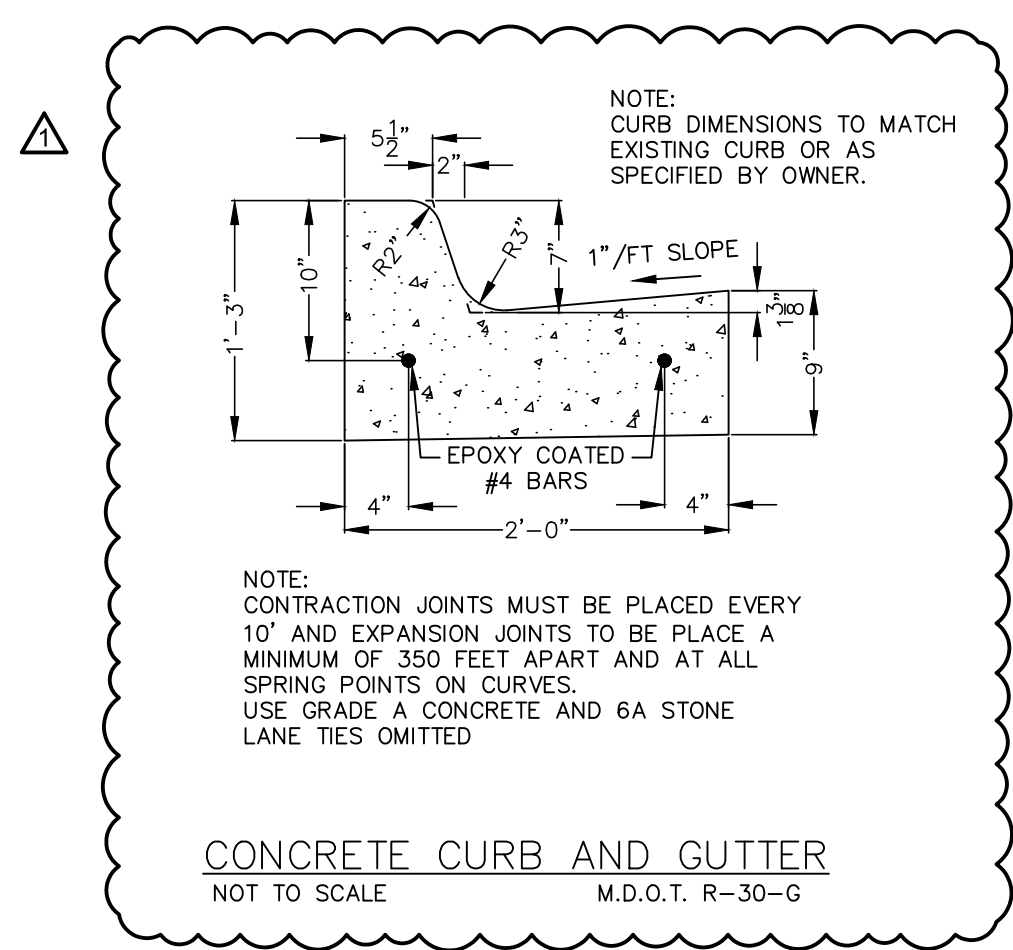
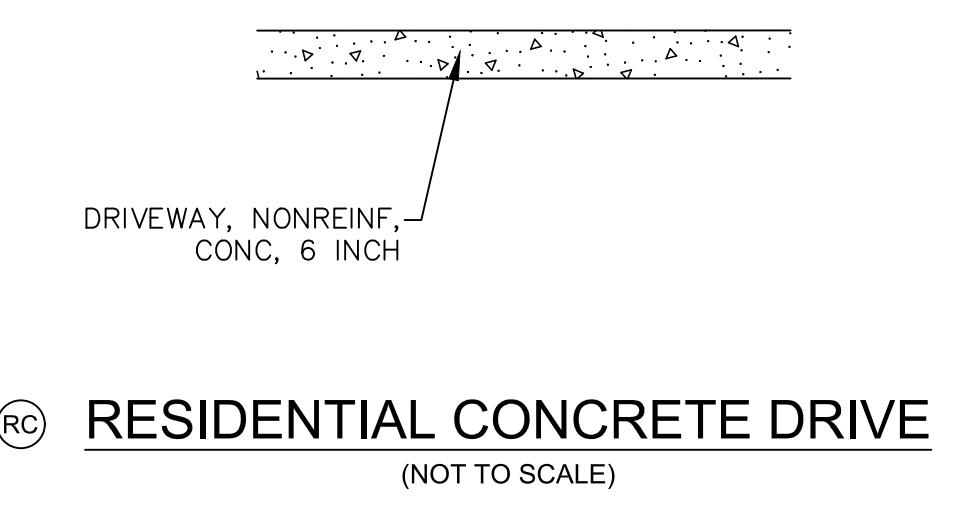
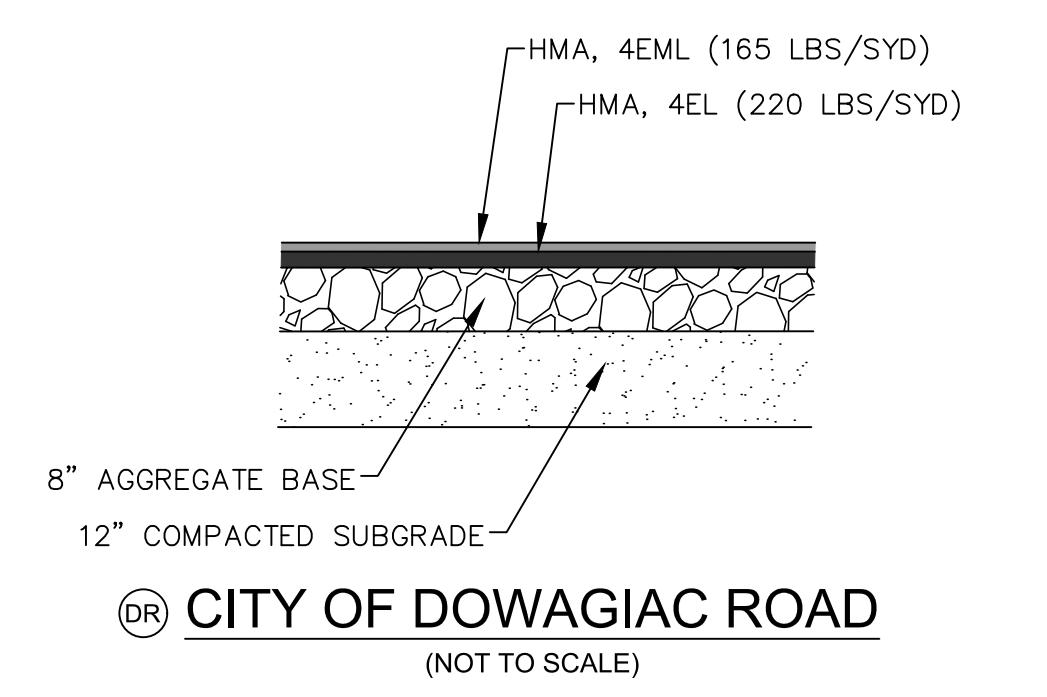
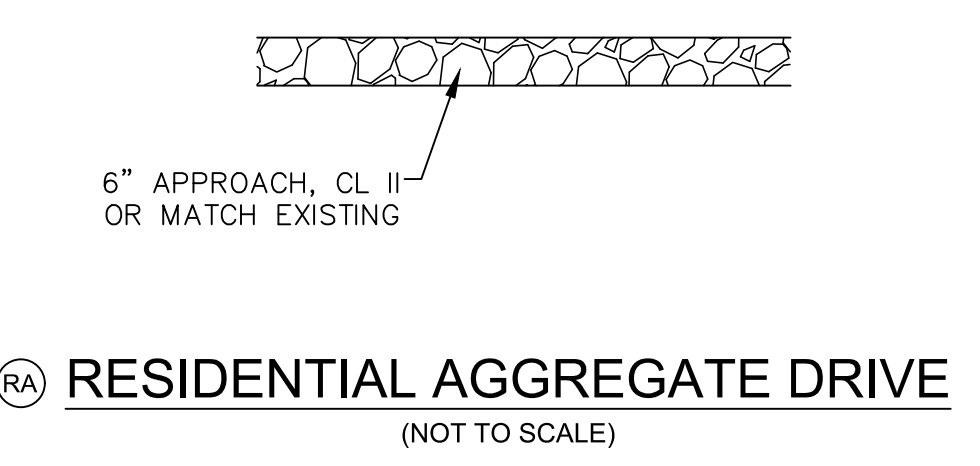
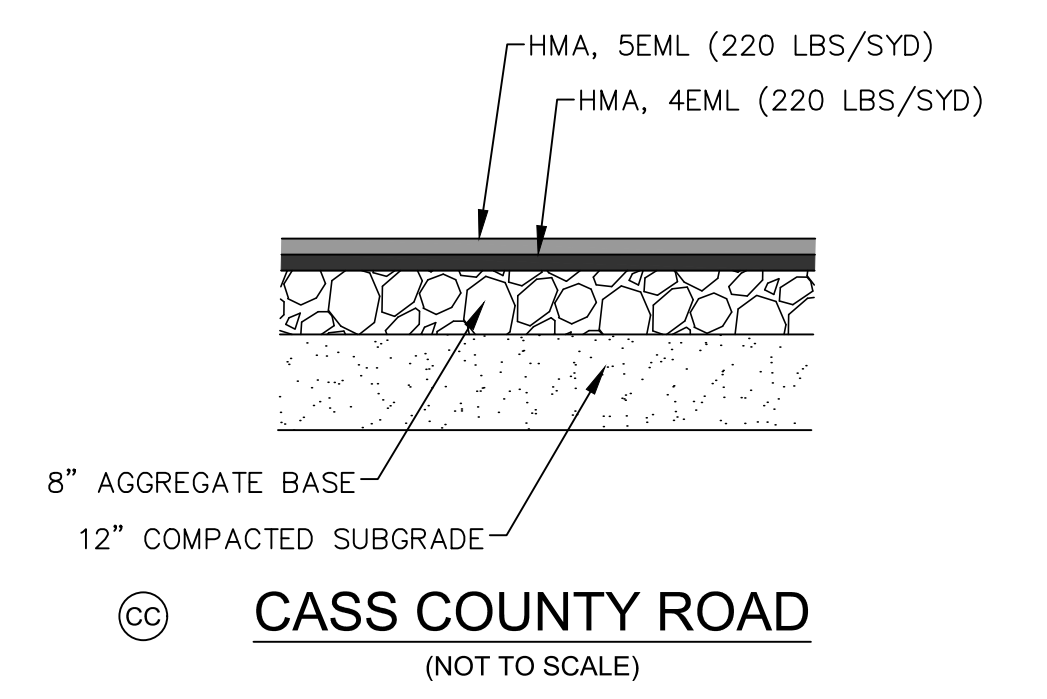
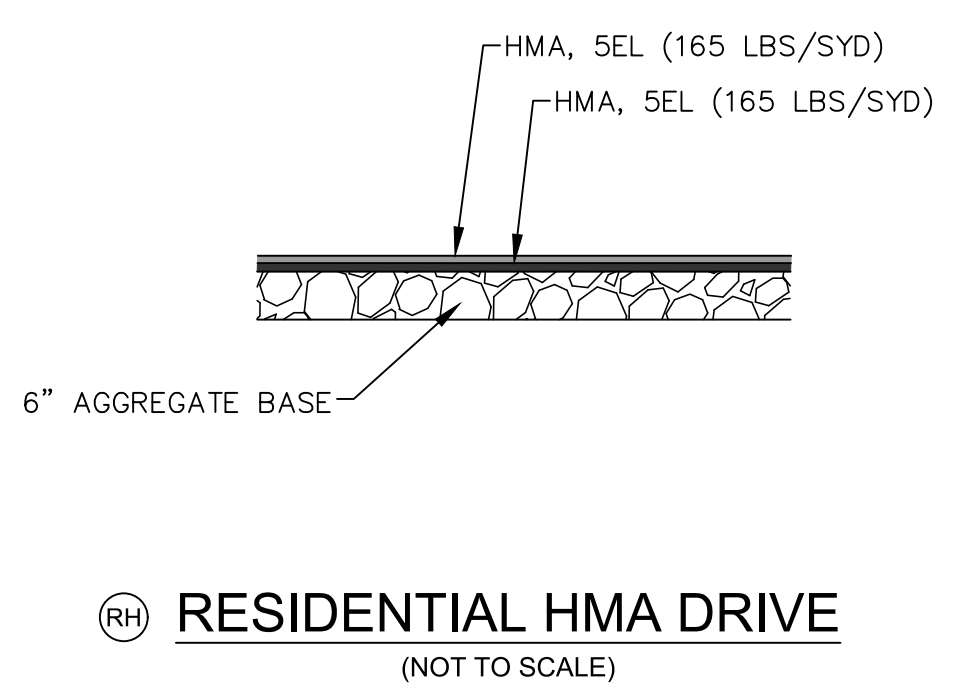
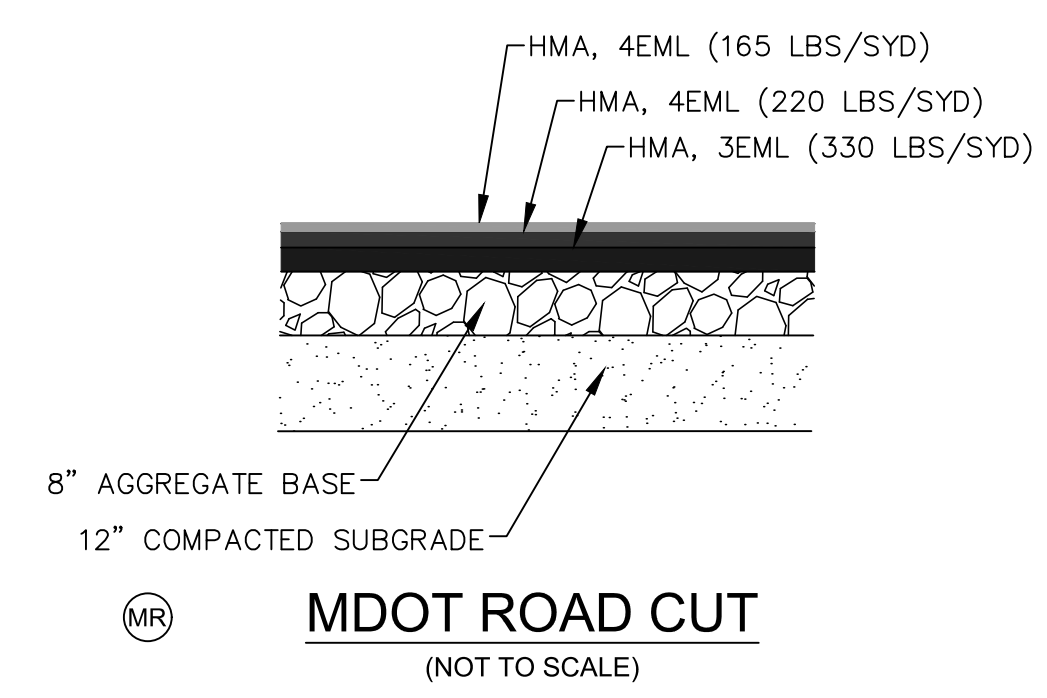
HMA APPLICATION TABLE

MIXTURE	PERFORMANCE GRADE	TYPE
HMA, 5EL	58 - 28	TOP COURSE (AWI=260)
HMA, 4EML	64 - 28	LEVELING/TOP COURSE
HMA, 4EL	58 - 28	LEVELING/TOP COURSE
HMA, 3EML	64 - 28	BASE COURSE

*HMA BOND COAT 0.05 TO 0.15 GAL/SYD REQUIRED BETWEEN ASPHALT LIFTS. (NOT A PAY ITEM)

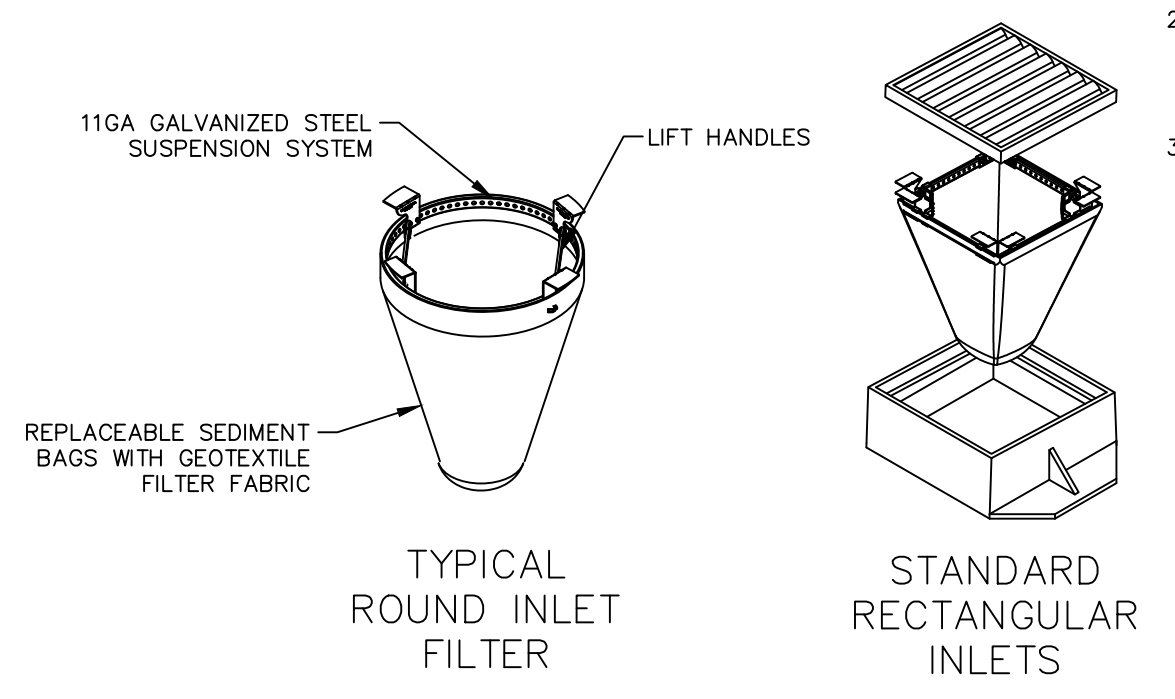
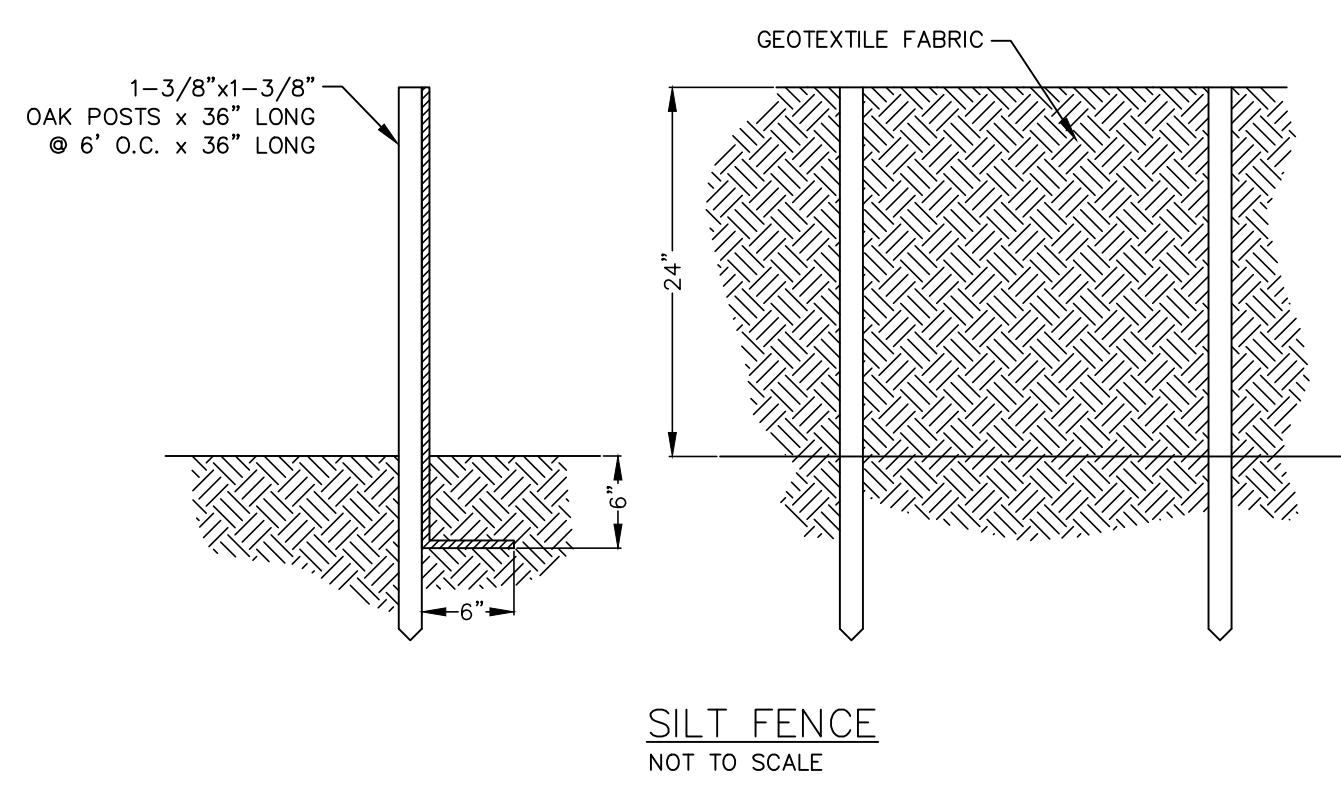
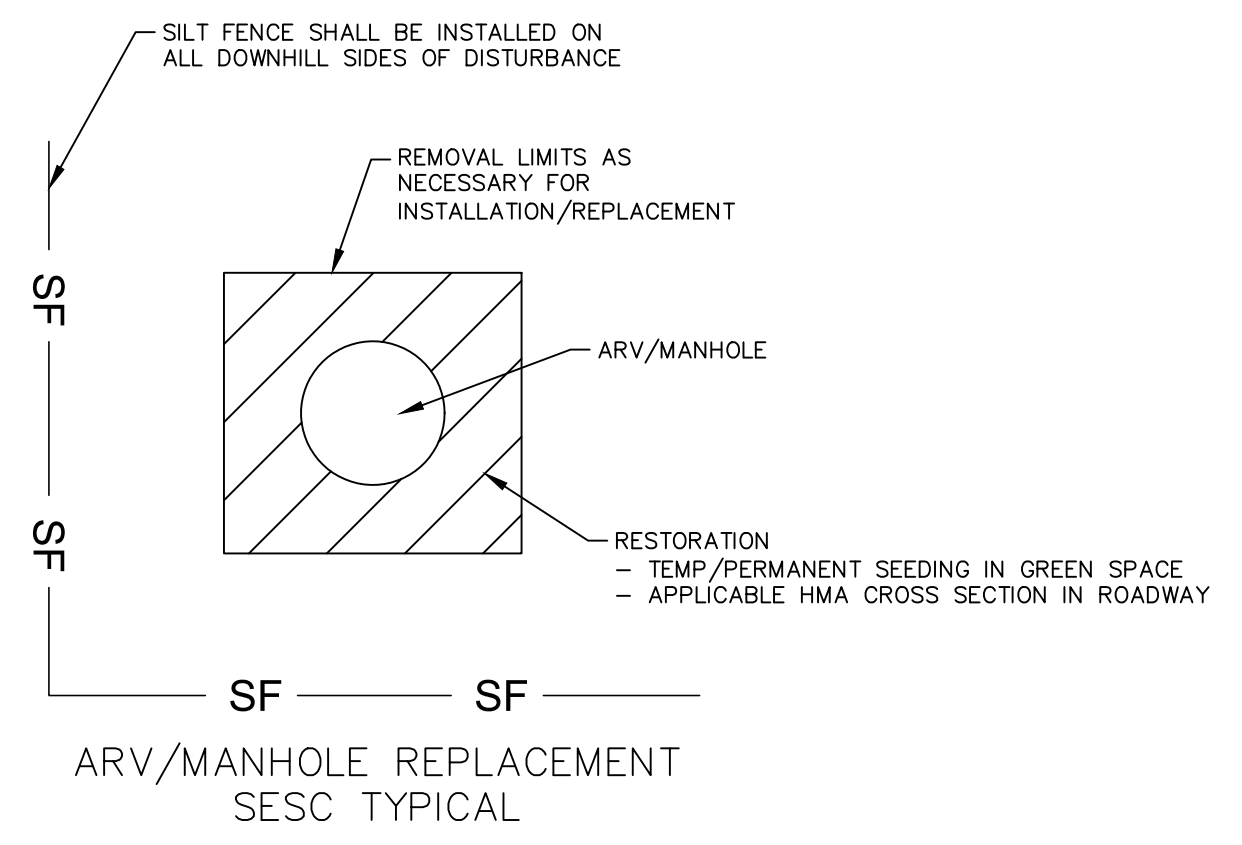
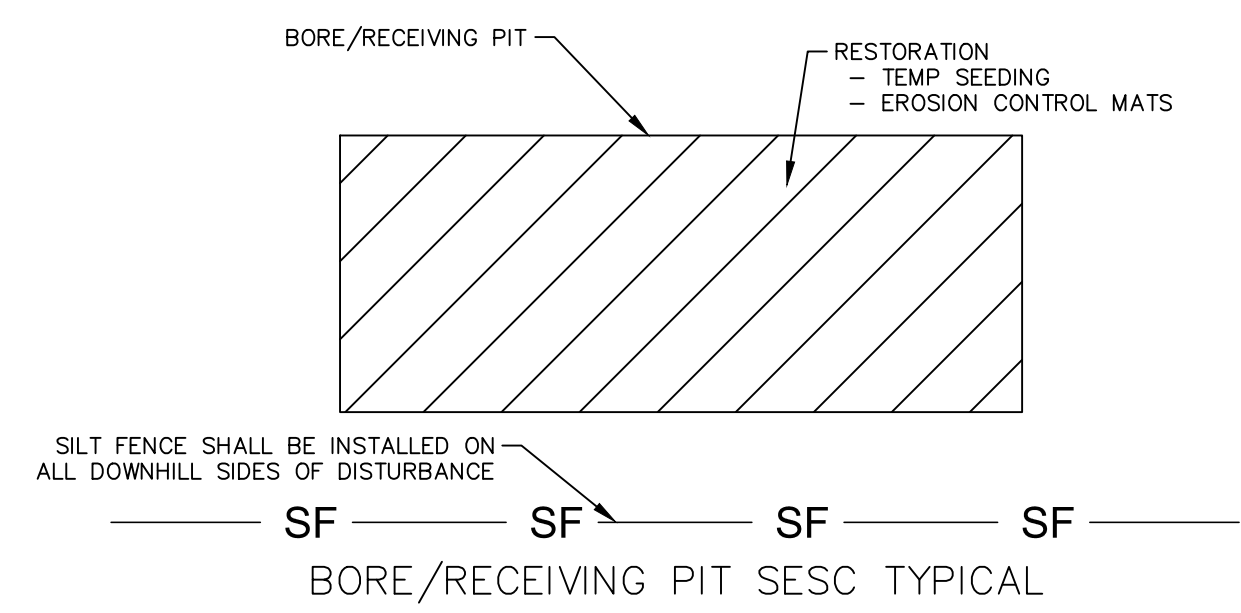
NOTES - SESC AND SURFACE RESTORATION

- THE CONTRACTOR SHALL RESTORE ALL DISTURBED SURFACES TO EQUAL OR BETTER CONDITION THAN EXISTING, IN ACCORDANCE WITH 2020 MDOT STANDARD SPECIFICATIONS AND APPLICABLE LOCAL AGENCY REQUIREMENTS.
- ALL HMA AND CONCRETE REMOVAL SHALL BE SAW CUT TO NEAT, STRAIGHT LINES PRIOR TO REMOVAL.
- REPLACEMENT MATERIALS SHALL MATCH EXISTING IN TYPE, THICKNESS, AND CROSS SECTION UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL COMPLY WITH RESTORATION REQUIREMENTS OF THE CONTROLLING JURISDICTION (MDOT, CASS COUNTY, VILLAGE OF CASSOPOLIS, CITY OF DOWAGIAC).
- ALL DRIVEWAY CROSSINGS SHALL HAVE PROPOSED LIMITS OF DISTURBANCE MARKED IN THE FIELD AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
- RESIDENTIAL HMA DRIVE SHALL BE MEASURED AND PAID FOR AS HMA APPROACH.
- THE CONTRACTOR IS RESPONSIBLE FOR GRADING ALL CURB RAMPS AND SIDEWALK ACCORDING TO CURRENT ADA STANDARDS. FINISHED WORK IS TO BE REVIEWED BY THE ENGINEER, UNACCEPTED WORK SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR PRIOR TO FINAL COMPLETION OF THE PROJECT.
- WHERE CONCRETE SIDEWALK CROSSES ANY DRIVEWAY, THE THICKNESS SHALL BE 6" AND PAID FOR AS DRIVEWAY, NONREINF. CONCRETE, 6 INCH.
- FULL DRIVEWAY REPLACEMENT MAY BE REQUIRED WHERE PARTIAL REPLACEMENT IS NOT ACCEPTABLE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS, INSPECTIONS, AND APPROVALS ASSOCIATED WITH RESTORATION WORK.
- TEMPORARY SESC MEASURES SHALL BE MAINTAINED IN GOOD CONDITION UNTIL PERMANENT RESTORATION IS COMPLETED.
- FINAL RESTORATION SHALL BE COMPLETED PROMPTLY FOLLOWING CONSTRUCTION ACTIVITY.
- THE APPLICATION RATE MINIMUM OF 220 LBS/YD² FOR MIX NUMBER 4 PER TABLE 501-4 OF THE MDOT 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION DOES NOT APPLY TO THE 4EML COURSE



SESC AND SURFACE RESTORATION HATCH LEGEND

KEY	DESCRIPTION
	DISTURBED AREA



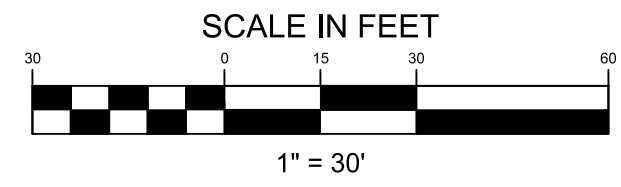
INSTALLATION:

- REMOVE GRATE
- DROP INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
- REPLACE GRATE

GENERAL CONSTRUCTION ACTIVITY SCHEDULE

Construction Activity	2026-2027			
	OCT-NOV	DEC-MAR	APRIL-AUG	SEPT-NOV
2 Silt Fence Installed	█			
3 Clearing and Stripping Activities	█			
4 Rough Grading & Stockpile / Contain Topsoil	█			
5 Sanitary Sewer Construction		█	█	
7 Inlet / Swale Protection + Temporary Seeding		█		
8 Pavement Construction			█	█
9 Final Grading / Feature Construction			█	
11 Erosion / Sediment Maintenance			█	█

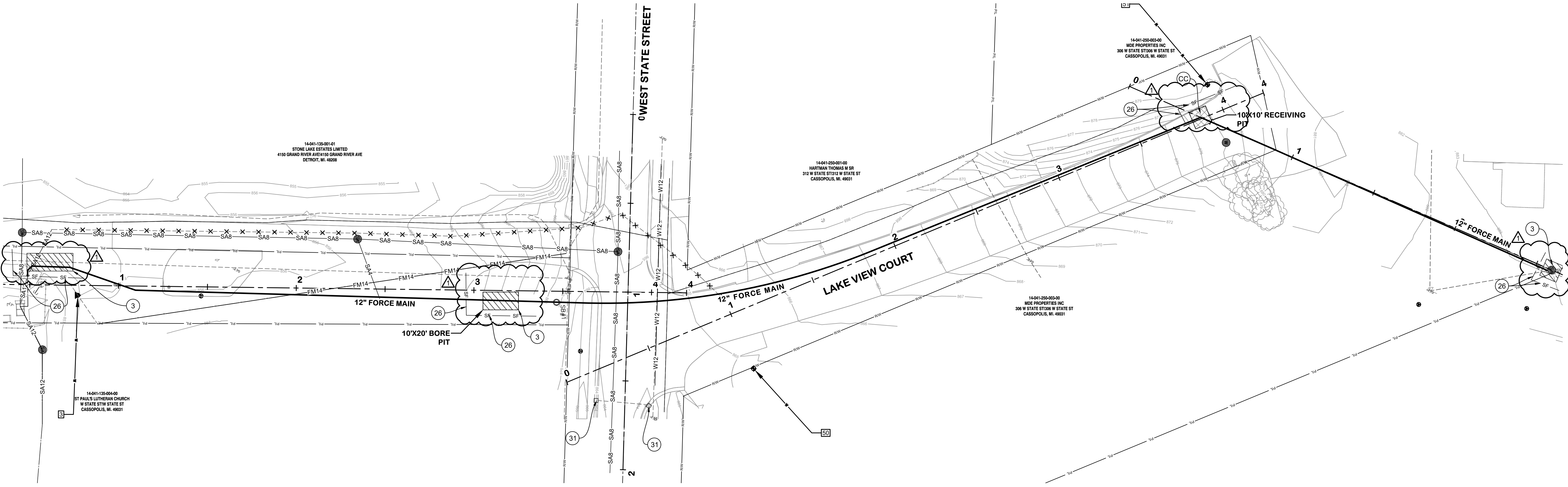
NOTE:
1. THE MDOT CURB AND GUTTER DETAIL WAS ADDED TO THIS SHEET AND THE SHEET NAME CHANGED FROM 75 TO SR-0.1. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-0.1 INCLUDED WITH ADDENDUM 1.



**CHURCH/VILLAGE EASEMENT AND LAKEVIEW COURT
SURFACE RESTORATION
PLANS**

STA. 0+00 TO 5+00

VILLAGE OF CASSOPOLIS, MICHIGAN
CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT



**SESC AND SURFACE RESTORATION
KEYNOTE LEGEND**

KEY	DESCRIPTION
(3)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(31)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(RH)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SW)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

**SESC AND SURFACE RESTORATION
HATCH LEGEND**

HATCH	DESCRIPTION
	PERMANENT/ TEMPORARY SEEDING
	CONCRETE
	HMA

NOTE:
1. LAYER CLEANUP, SILT FENCE AND SURFACE RESTORATION HATCH LEGEND WERE ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-1.1 INCLUDED WITH ADDENDUM 1.

KAL-8362400SR-1.1 CHURCH STA. 0+00 TO 5+00
6/10/2025 9:45 AM - TVEELE
6/10/2025 9:48 AM

REVISIONS AFTER ISSUED FOR BID
NO. DATE

Jones & Henry
Engineers, Ltd.



Fluid thinking[®]
www.JHeng.com

JOB NO. 541-8362.400

SCALE 1"=30'

THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE

DESIGNED	DRAWN	CHECKED
JR	TV/CS	NLD

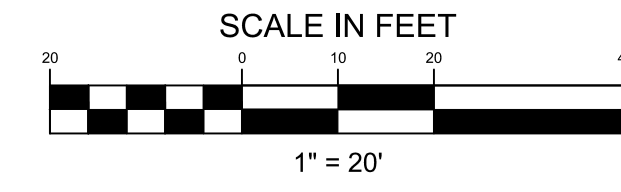
STATUS: ISSUE FOR BID

DATE: MAY 2026

SHEET NO.

SR-1.1

78 OF 107



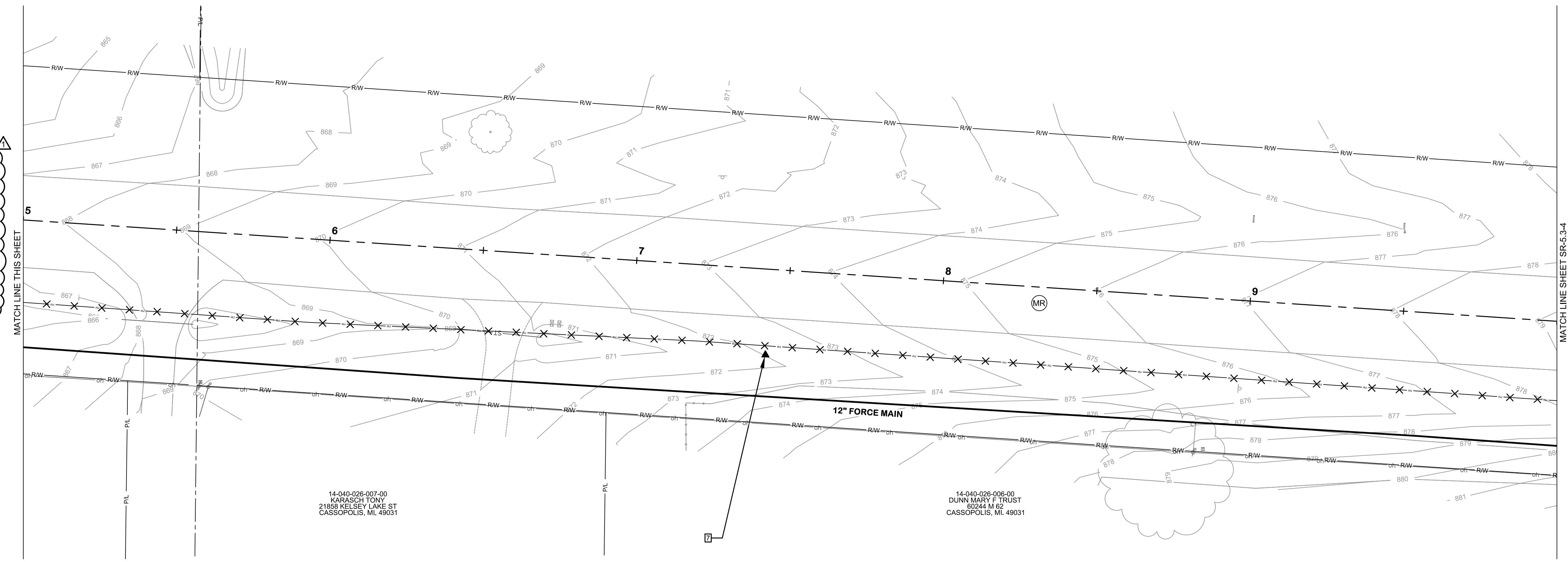
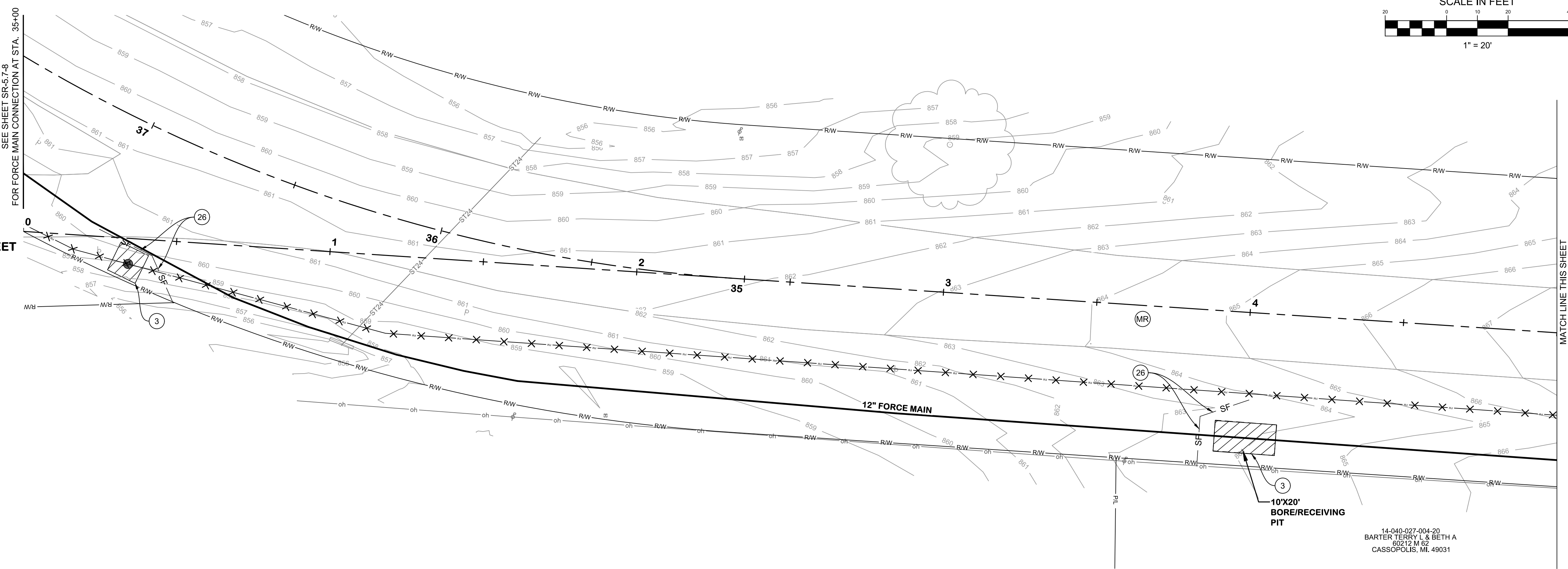
M62
SURFACE RESTORATION PLANS
STA. 0+00 TO 10+00
VILLAGE OF CASSOPOLIS, MICHIGAN
CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT
ABONMARCHÉ

REVISIONS AFTER ISSUED FOR BID
 NO. DATE
 1 6/10/2026 JROPP/CH1

Jones & Henry Engineers, Ltd.

 Fluid thinking.
 www.JHeng.com

JOB NO.	541-8362.400
SCALE	1"=20' AS INDICATED
THIS LINE SCALES 1" WHEN PLOTTED TO NOTES SCALE	
DESIGNED	JR
DRAWN	TV/CS
CHECKED	##
STATUS	ISSUE FOR BID
DATE	MAY 2026
SHEET NO.	SR-5.1-2
	79 OF 107



SESC AND SURFACE RESTORATION KEYNOTE LEGEND

KEY	DESCRIPTION
(3)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(1)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(RH)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SW)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

SESC AND SURFACE RESTORATION HATCH LEGEND

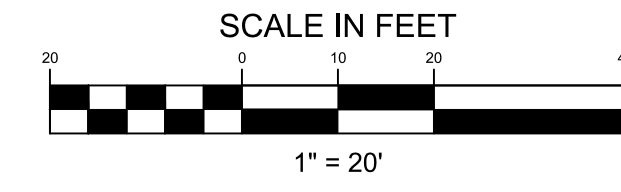
HATCH	DESCRIPTION
(Diagonal lines)	PERMANENT/ TEMPORARY SEEDING
(Solid black)	CONCRETE
(Cross-hatch)	HMA

NOTE:
 1. LAYER CLEANUP, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND WERE ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-5.1-2 INCLUDED WITH ADDENDUM 1.

KAL-8362400SR5-SR-5.1-2 M62 STA. 0+00 TO 10+00
 6/10/2026 12:11 PM - JROPP
 6/10/2026 12:27 PM

14-040-026-007-00
 KARASCH TONY
 21858 KELSEY LAKE ST
 CASSOPOLIS, MI. 49031

14-040-026-006-00
 DUNN MARY F TRUST
 60244 M 62
 CASSOPOLIS, MI. 49031



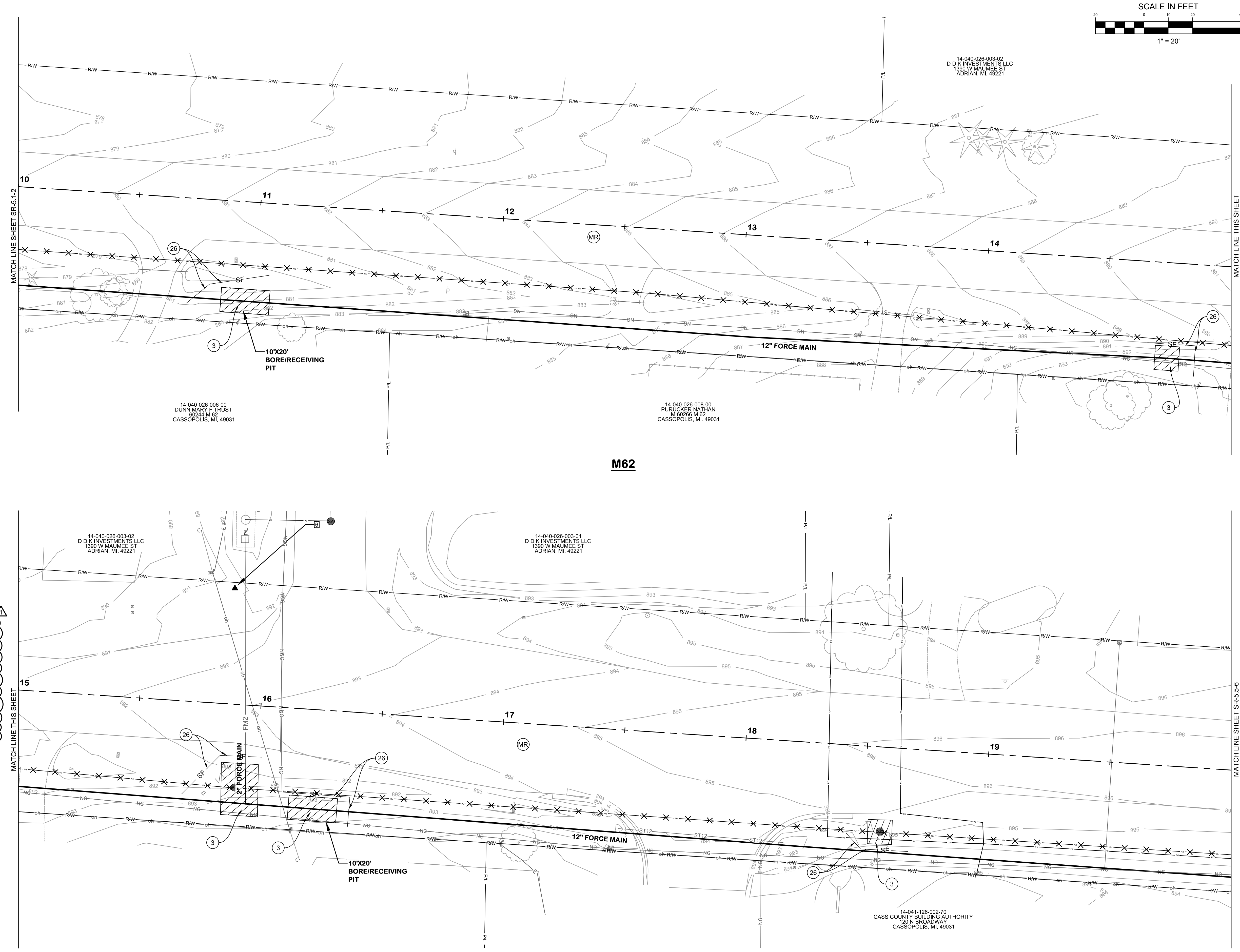
M62
SURFACE RESTORATION PLANS
STA. 10+00 TO 20+00
VILLAGE OF CASSOPOLIS, MICHIGAN
CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT
ABONMARCHÉ

SESC AND SURFACE RESTORATION KEYNOTE LEGEND

KEY	DESCRIPTION
(3)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(11)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(R)	RESIDENTIAL HMA DRIVE
(C)	CASS COUNTY ROAD
(D)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SW)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

SESC AND SURFACE RESTORATION HATCH LEGEND

HATCH	DESCRIPTION
	PERMANENT/ TEMPORARY SEEDING
	CONCRETE
	HMA



KAL-8362400SR5-SR-5.3-4, M62 STA. 10+00 TO 20+00
 6/10/2026 12:11 PM - JROPP
 6/10/2026 12:27 PM

NOTE:
 1. LAYER CLEANUP, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND WERE ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-5.3-4 INCLUDED WITH ADDENDUM 1.

Jones & Henry Engineers, Ltd.



Fluid thinking.
www.jheng.com

JOB NO. 541-8362.400

SCALE 1"=20' AS INDICATED

THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE

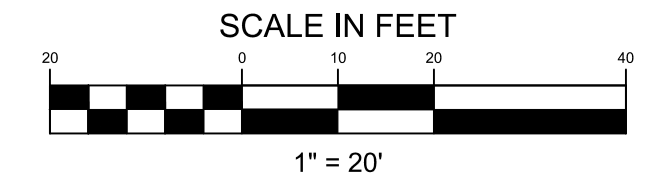
DESIGNED	DRAWN	CHECKED
JR	TV/CS	##

STATUS: ISSUE FOR BID

DATE: MAY 2026

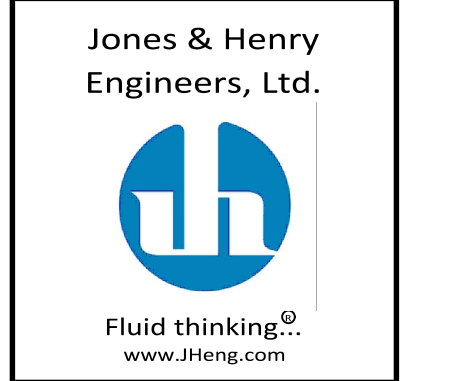
SHEET NO. SR-5.3-4

80 OF 107

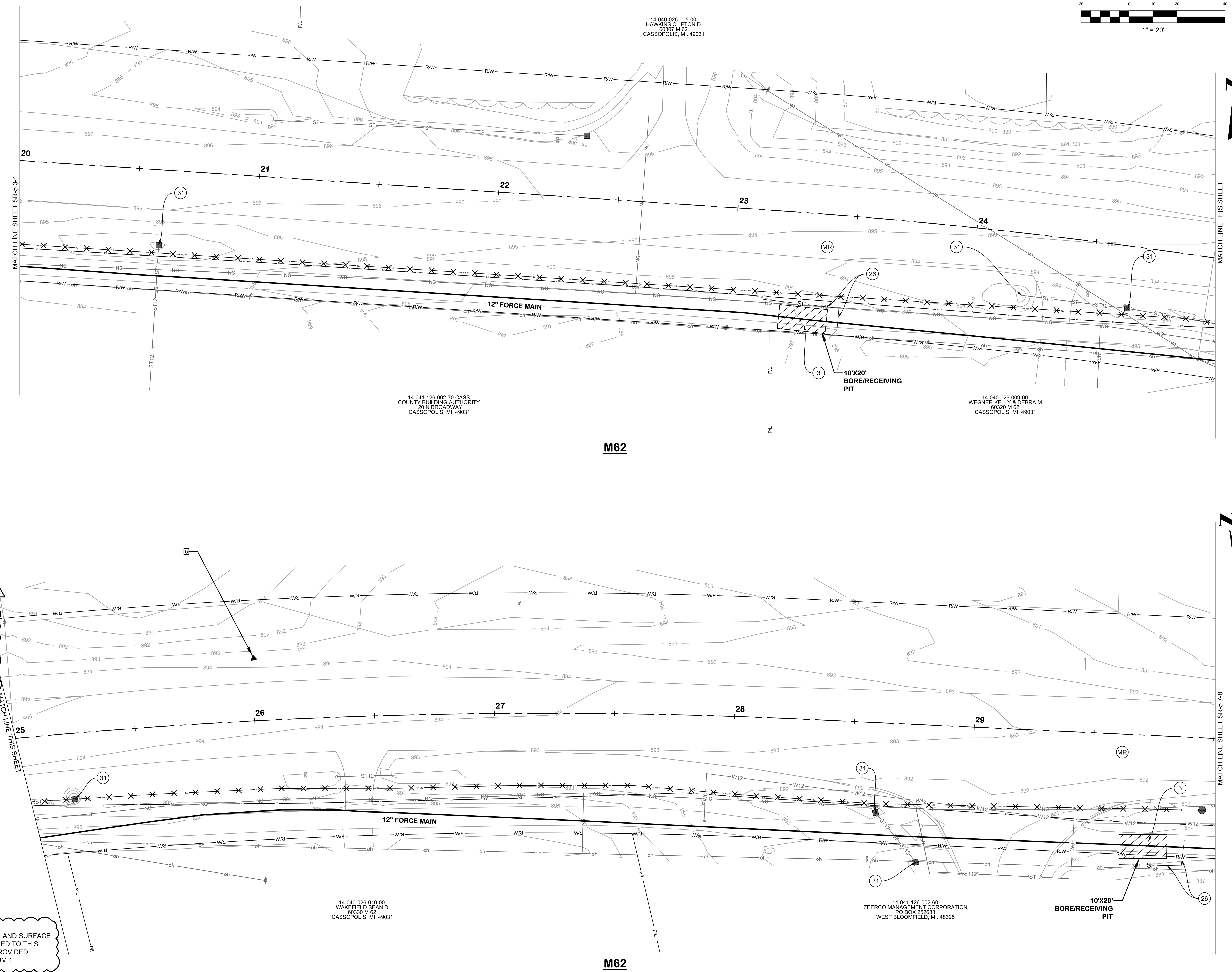


M62
SURFACE RESTORATION
PLANS
 STA. 20+00 TO 30+00
 VILLAGE OF CASSOPOLIS, MICHIGAN
 CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT
ABONMARCHÉ

NO.	DATE	BY
1	6/9/2026	ADDENDUM 1



JOB NO.	541-8362.400
SCALE	1"=20' AS INDICATED
THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE	
DESIGNED	JR
DRAWN	TV/CS
CHECKED	##
STATUS	ISSUE FOR BID
DATE	MAY 2026
SHEET NO.	SR-5.5-6
	81 OF 107



KEY	DESCRIPTION
(3)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(31)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(RH)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SW)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

HATCH	DESCRIPTION
(Diagonal lines)	PERMANENT/ TEMPORARY SEEDING
(Solid black)	CONCRETE
(Cross-hatch)	HMA

NOTE:
 1. LAYER CLEANUP, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND WERE ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-5.5-6 INCLUDED WITH ADDENDUM 1.

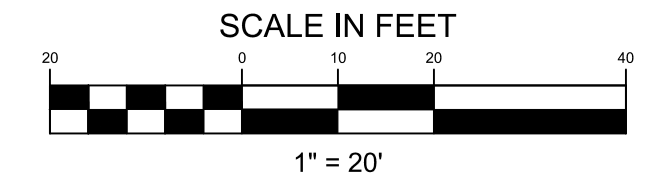
KAL-8362400SR5-SR-5.5-6 M62 STA. 20+00 TO 30+00
 6/10/2026 12:11 PM - JROPP
 6/10/2026 12:27 PM

14-041-126-002-70 CASS COUNTY BUILDING AUTHORITY
 120 N BROADWAY
 CASSOPOLIS, MI. 49031

14-040-026-008-00 WEGNER KELLY & DEBRA M
 60320 M 62
 CASSOPOLIS, MI. 49031

14-040-026-010-00 WAKEFIELD SEAN D
 60330 M 62
 CASSOPOLIS, MI. 49031

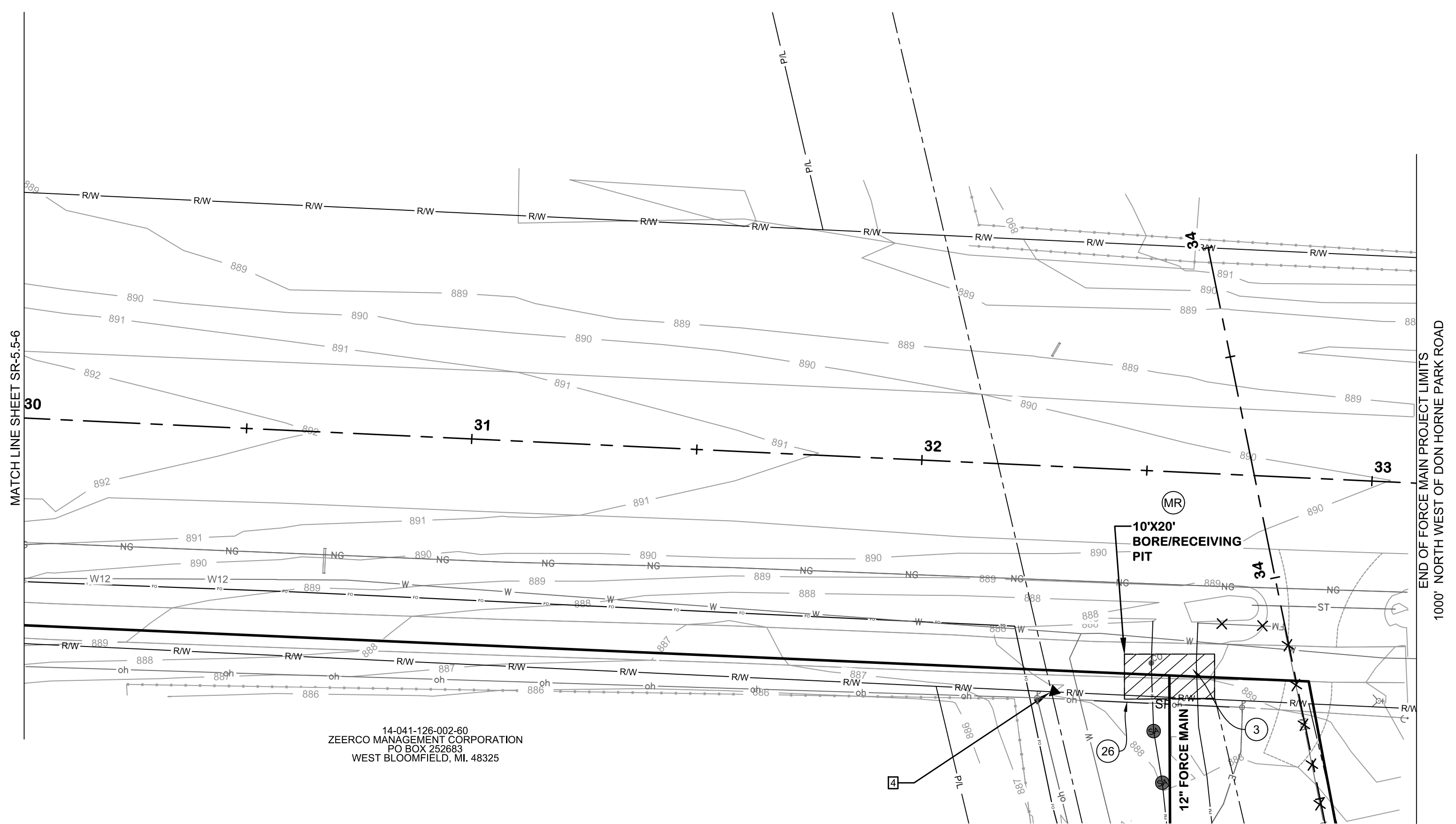
14-041-126-002-80 ZEERCO MANAGEMENT CORPORATION
 PO BOX 222683
 WEST BLOOMFIELD, MI. 48325



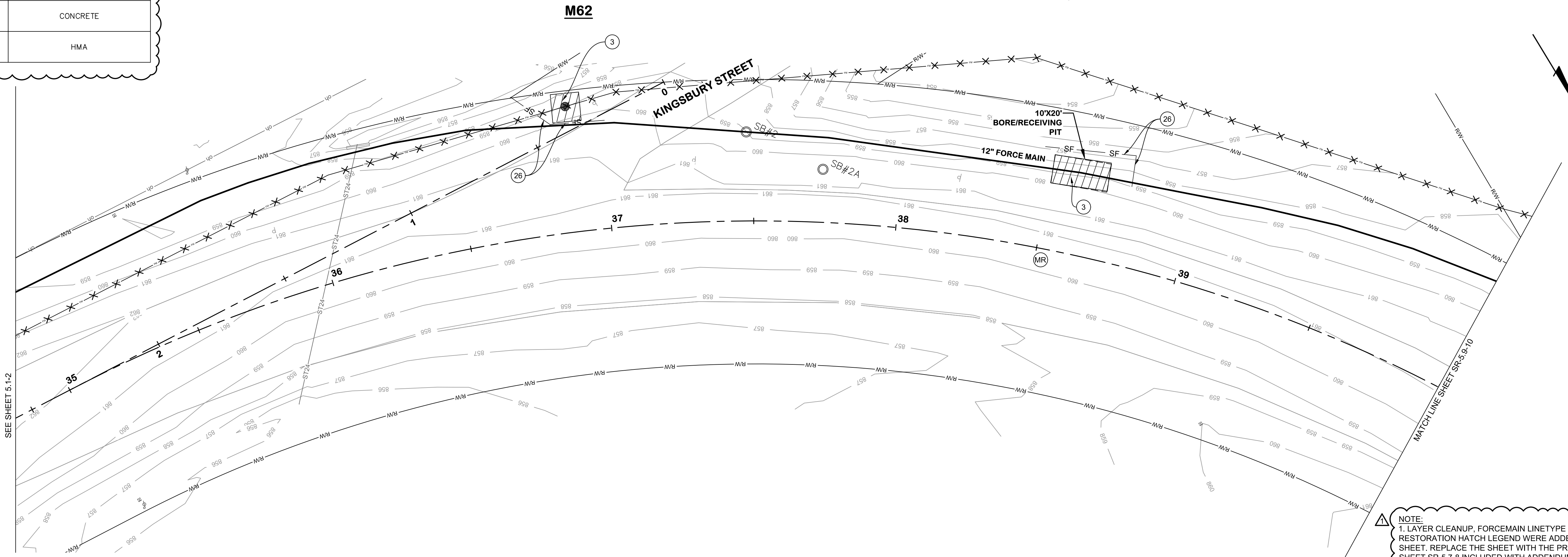
M62
SURFACE RESTORATION PLANS
STA. 30+00 TO 40+00
VILLAGE OF CASSOPOLIS, MICHIGAN
CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT
ABONMARCHÉ

KEY	DESCRIPTION
(3)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(31)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(RW)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(D)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SR)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

HATCH	DESCRIPTION
	PERMANENT/ TEMPORARY SEEDING
	CONCRETE
	HMA



14-041-126-002-60
 ZEERCO MANAGEMENT CORPORATION
 PO BOX 252683
 WEST BLOOMFIELD, MI. 48325



NOTE:
 1. LAYER CLEANUP, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND WERE ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-5.7-8 INCLUDED WITH ADDENDUM 1.

KAL-8362400SR5-SR-5.7-8 M62 STA. 30+00 TO 40+00
 6/10/2026 12:11 PM - JROPP
 6/10/2026 12:28 PM

NO. DATE
 1 6/9/2026
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31
 32
 33
 34
 35
 36
 37
 38
 39
 40
 41
 42
 43
 44
 45
 46
 47
 48
 49
 50
 51
 52
 53
 54
 55
 56
 57
 58
 59
 60
 61
 62
 63
 64
 65
 66
 67
 68
 69
 70
 71
 72
 73
 74
 75
 76
 77
 78
 79
 80
 81
 82
 83
 84
 85
 86
 87
 88
 89
 90
 91
 92
 93
 94
 95
 96
 97
 98
 99
 100
 101
 102
 103
 104
 105
 106
 107
 108
 109
 110
 111
 112
 113
 114
 115
 116
 117
 118
 119
 120
 121
 122
 123
 124
 125
 126
 127
 128
 129
 130
 131
 132
 133
 134
 135
 136
 137
 138
 139
 140
 141
 142
 143
 144
 145
 146
 147
 148
 149
 150
 151
 152
 153
 154
 155
 156
 157
 158
 159
 160
 161
 162
 163
 164
 165
 166
 167
 168
 169
 170
 171
 172
 173
 174
 175
 176
 177
 178
 179
 180
 181
 182
 183
 184
 185
 186
 187
 188
 189
 190
 191
 192
 193
 194
 195
 196
 197
 198
 199
 200
 201
 202
 203
 204
 205
 206
 207
 208
 209
 210
 211
 212
 213
 214
 215
 216
 217
 218
 219
 220
 221
 222
 223
 224
 225
 226
 227
 228
 229
 230
 231
 232
 233
 234
 235
 236
 237
 238
 239
 240
 241
 242
 243
 244
 245
 246
 247
 248
 249
 250
 251
 252
 253
 254
 255
 256
 257
 258
 259
 260
 261
 262
 263
 264
 265
 266
 267
 268
 269
 270
 271
 272
 273
 274
 275
 276
 277
 278
 279
 280
 281
 282
 283
 284
 285
 286
 287
 288
 289
 290
 291
 292
 293
 294
 295
 296
 297
 298
 299
 300
 301
 302
 303
 304
 305
 306
 307
 308
 309
 310
 311
 312
 313
 314
 315
 316
 317
 318
 319
 320
 321
 322
 323
 324
 325
 326
 327
 328
 329
 330
 331
 332
 333
 334
 335
 336
 337
 338
 339
 340
 341
 342
 343
 344
 345
 346
 347
 348
 349
 350
 351
 352
 353
 354
 355
 356
 357
 358
 359
 360
 361
 362
 363
 364
 365
 366
 367
 368
 369
 370
 371
 372
 373
 374
 375
 376
 377
 378
 379
 380
 381
 382
 383
 384
 385
 386
 387
 388
 389
 390
 391
 392
 393
 394
 395
 396
 397
 398
 399
 400
 401
 402
 403
 404
 405
 406
 407
 408
 409
 410
 411
 412
 413
 414
 415
 416
 417
 418
 419
 420
 421
 422
 423
 424
 425
 426
 427
 428
 429
 430
 431
 432
 433
 434
 435
 436
 437
 438
 439
 440
 441
 442
 443
 444
 445
 446
 447
 448
 449
 450
 451
 452
 453
 454
 455
 456
 457
 458
 459
 460
 461
 462
 463
 464
 465
 466
 467
 468
 469
 470
 471
 472
 473
 474
 475
 476
 477
 478
 479
 480
 481
 482
 483
 484
 485
 486
 487
 488
 489
 490
 491
 492
 493
 494
 495
 496
 497
 498
 499
 500
 501
 502
 503
 504
 505
 506
 507
 508
 509
 510
 511
 512
 513
 514
 515
 516
 517
 518
 519
 520
 521
 522
 523
 524
 525
 526
 527
 528
 529
 530
 531
 532
 533
 534
 535
 536
 537
 538
 539
 540
 541
 542
 543
 544
 545
 546
 547
 548
 549
 550
 551
 552
 553
 554
 555
 556
 557
 558
 559
 560
 561
 562
 563
 564
 565
 566
 567
 568
 569
 570
 571
 572
 573
 574
 575
 576
 577
 578
 579
 580
 581
 582
 583
 584
 585
 586
 587
 588
 589
 590
 591
 592
 593
 594
 595
 596
 597
 598
 599
 600
 601
 602
 603
 604
 605
 606
 607
 608
 609
 610
 611
 612
 613
 614
 615
 616
 617
 618
 619
 620
 621
 622
 623
 624
 625
 626
 627
 628
 629
 630
 631
 632
 633
 634
 635
 636
 637
 638
 639
 640
 641
 642
 643
 644
 645
 646
 647
 648
 649
 650
 651
 652
 653
 654
 655
 656
 657
 658
 659
 660
 661
 662
 663
 664
 665
 666
 667
 668
 669
 670
 671
 672
 673
 674
 675
 676
 677
 678
 679
 680
 681
 682
 683
 684
 685
 686
 687
 688
 689
 690
 691
 692
 693
 694
 695
 696
 697
 698
 699
 700
 701
 702
 703
 704
 705
 706
 707
 708
 709
 710
 711
 712
 713
 714
 715
 716
 717
 718
 719
 720
 721
 722
 723
 724
 725
 726
 727
 728
 729
 730
 731
 732
 733
 734
 735
 736
 737
 738
 739
 740
 741
 742
 743
 744
 745
 746
 747
 748
 749
 750
 751
 752
 753
 754
 755
 756
 757
 758
 759
 760
 761
 762
 763
 764
 765
 766
 767
 768
 769
 770
 771
 772
 773
 774
 775
 776
 777
 778
 779
 780
 781
 782
 783
 784
 785
 786
 787
 788
 789
 790
 791
 792
 793
 794
 795
 796
 797
 798
 799
 800
 801
 802
 803
 804
 805
 806
 807
 808
 809
 810
 811
 812
 813
 814
 815
 816
 817
 818
 819
 820
 821
 822
 823
 824
 825
 826
 827
 828
 829
 830
 831
 832
 833
 834
 835
 836
 837
 838
 839
 840
 841
 842
 843
 844
 845
 846
 847
 848
 849
 850
 851
 852
 853
 854
 855
 856
 857
 858
 859
 860
 861
 862
 863
 864
 865
 866
 867
 868
 869
 870
 871
 872
 873
 874
 875
 876
 877
 878
 879
 880
 881
 882
 883
 884
 885
 886
 887
 888
 889
 890
 891
 892
 893
 894
 895
 896
 897
 898
 899
 900
 901
 902
 903
 904
 905
 906
 907
 908
 909
 910
 911
 912
 913
 914
 915
 916
 917
 918
 919
 920
 921
 922
 923
 924
 925
 926
 927
 928
 929
 930
 931
 932
 933
 934
 935
 936
 937
 938
 939
 940
 941
 942
 943
 944
 945
 946
 947
 948
 949
 950
 951
 952
 953
 954
 955
 956
 957
 958
 959
 960
 961
 962
 963
 964
 965
 966
 967
 968
 969
 970
 971
 972
 973
 974
 975
 976
 977
 978
 979
 980
 981
 982
 983
 984
 985
 986
 987
 988
 989
 990
 991
 992
 993
 994
 995
 996
 997
 998
 999
 1000

Jones & Henry Engineers, Ltd.

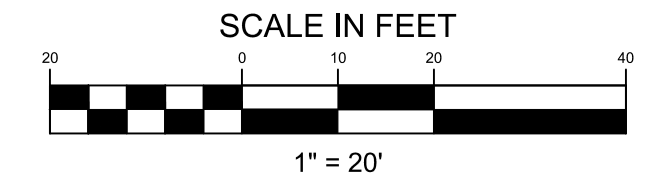
Fluid thinking.
www.JHeng.com

JOB NO. 541-8362.400
 SCALE 1"=20' AS INDICATED
 THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE

DESIGNED	DRAWN	CHECKED
JR	TV/CS	##

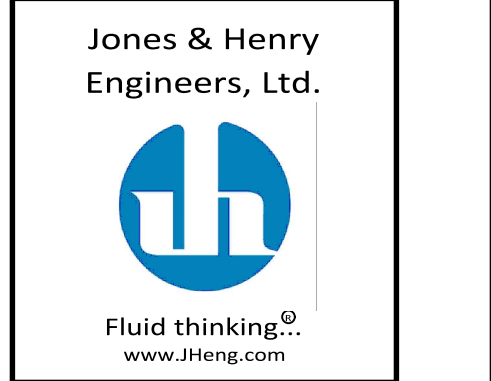
STATUS: ISSUE FOR BID
 DATE: MAY 2026

SHEET NO. SR-5.7-8
 82 OF 107

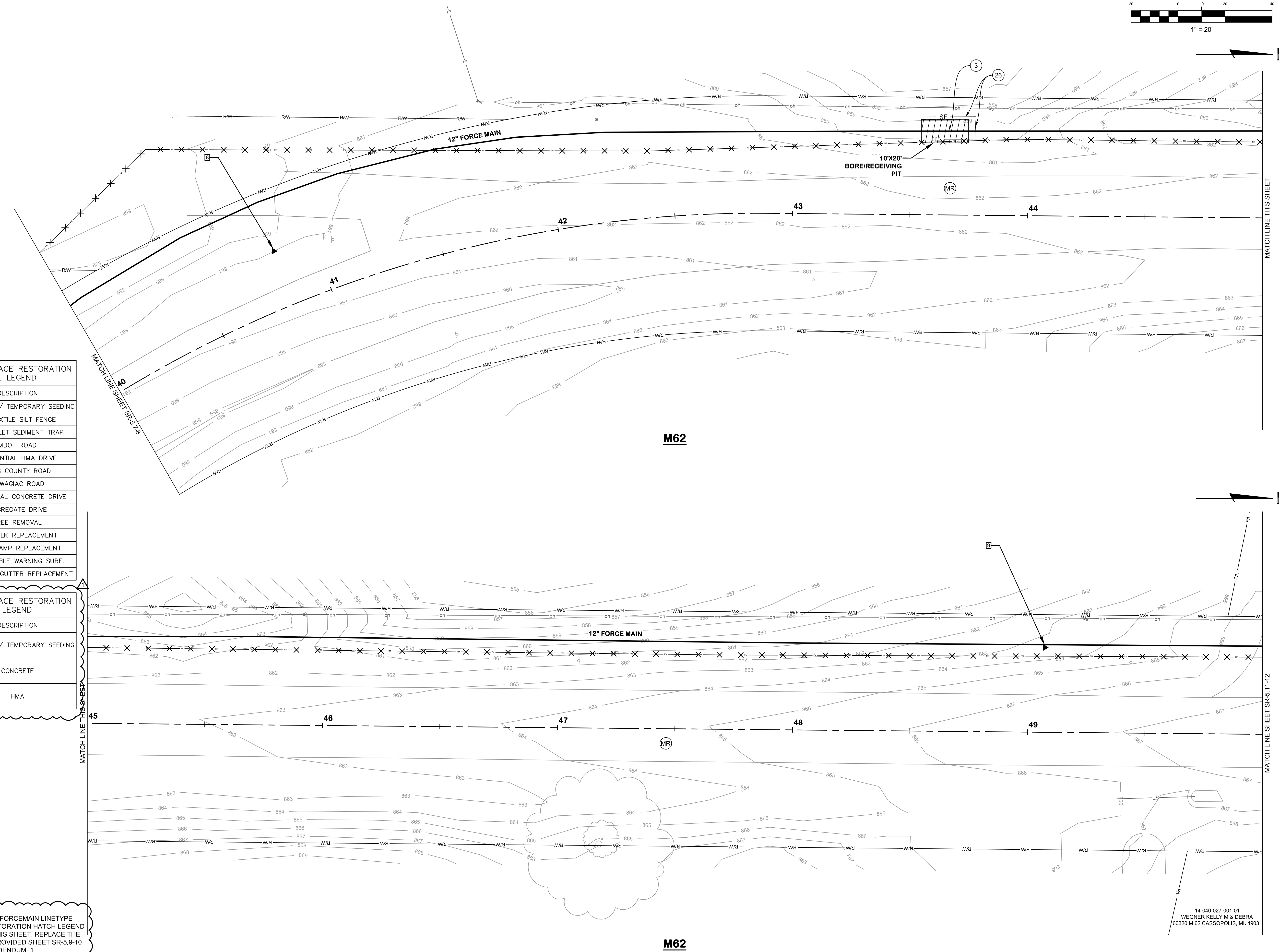


M62
SURFACE RESTORATION PLANS
STA. 40+00 TO 50+00
 VILLAGE OF CASSOPOLIS, MICHIGAN
ABONMARCHÉ
 CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT

NO. DATE
 1 6/9/2026 ADDENDUM 1
 REVISIONS AFTER ISSUED FOR BID



JOB NO. **541-8362.400**
 SCALE **1"=20' AS INDICATED**
THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE
 DESIGNED **JR** DRAWN **TV/CS** CHECKED **##**
 STATUS **ISSUE FOR BID**
 DATE **MAY 2026**
 SHEET NO.
SR-5.9-10
 83 OF 107



SESC AND SURFACE RESTORATION KEYNOTE LEGEND

KEY	DESCRIPTION
(S)	PERMANENT/ TEMPORARY SEEDING
(G)	GEOTEXTILE SILT FENCE
(ST)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(RH)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AG)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SR)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

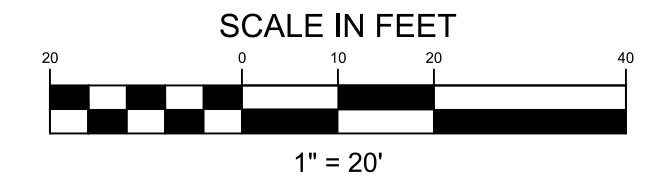
SESC AND SURFACE RESTORATION HATCH LEGEND

HATCH	DESCRIPTION
(Diagonal lines)	PERMANENT/ TEMPORARY SEEDING
(Solid black)	CONCRETE
(Cross-hatch)	HMA

NOTE:
 1. LAYER CLEANUP, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND WERE ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-5.9-10 INCLUDED WITH ADDENDUM 1.

KAL-8362400SR5-SR-5.9-10 M62 STA. 40+00 TO 50+00
 6/10/2026 12:11 PM - JROPP
 6/10/2026 12:28 PM

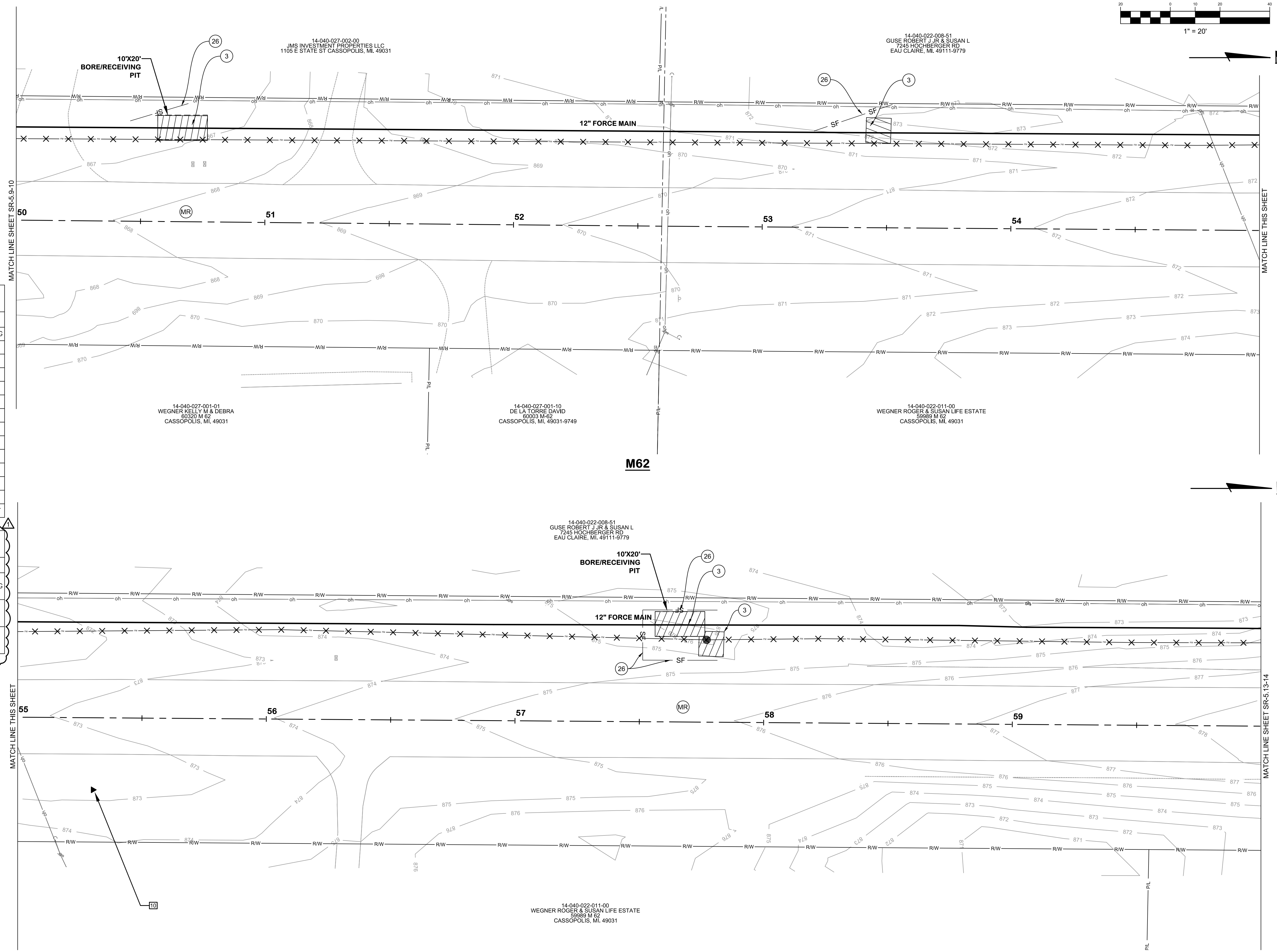
14-040-027-001-01
 WEGNER KELLY M & DEBRA
 60320 M 62 CASSOPOLIS, MI 49031



M62
SURFACE RESTORATION
PLANS
STA. 50+00 TO 60+00
 VILLAGE OF CASSOPOLIS, MICHIGAN
 CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT
ABONMARCHÉ

SESC AND SURFACE RESTORATION KEYNOTE LEGEND	
KEY	DESCRIPTION
(3)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(31)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(RH)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SR)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

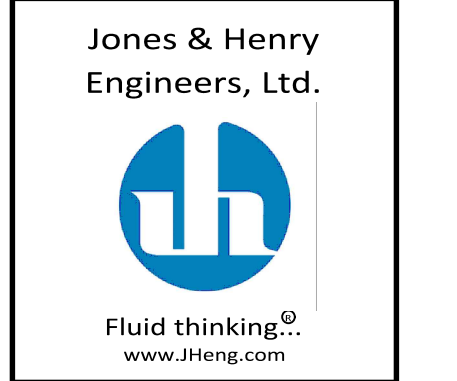
SESC AND SURFACE RESTORATION HATCH LEGEND	
HATCH	DESCRIPTION
	PERMANENT/ TEMPORARY SEEDING
	CONCRETE
	HMA



KAL-8362400SR5-SR-5.11-12 M62 STA. 50+00 TO 60+00
 6/10/2026 12:11 PM - JROPP
 6/10/2026 12:28 PM

NOTE:
 1. LAYER CLEANUP, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND WERE ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-5.11-12 INCLUDED WITH ADDENDUM 1.

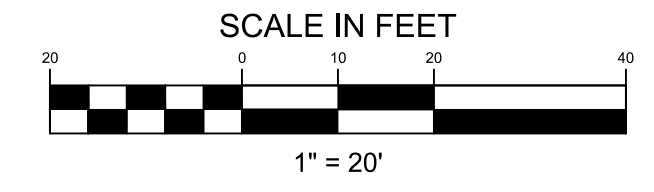
NO.	DATE	BY
1	6/9/2026	JROPP



JOB NO.	541-8362.400	
SCALE	1"=20' AS INDICATED	
THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE		
DESIGNED	DRAWN	CHECKED
JR	TV/CS	##
STATUS:	ISSUE FOR BID	
DATE:	MAY 2026	
SHEET NO.	SR-5.11-12	
	84 OF 107	

KAL-8362400SR5-SR-5.13-14 M62 STA. 60+00 TO 70+00
 6/10/2026 12:11 PM - JROPP
 6/10/2026 12:28 PM

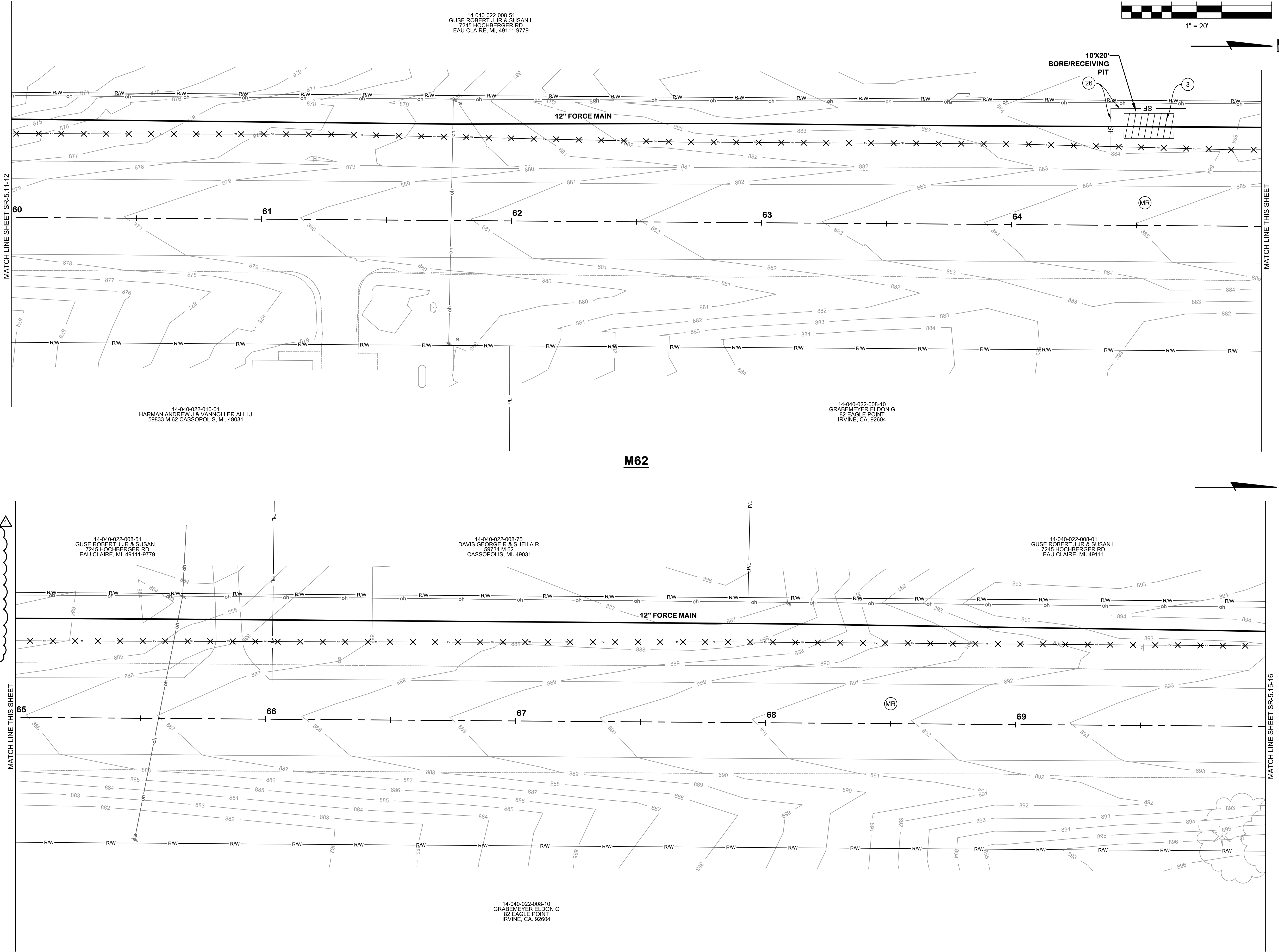
14-040-022-008-51
 GUSE ROBERT J JR & SUSAN L
 7245 HOCHBERGER RD
 EAU CLAIRE, MI. 49711-9779



M62
SURFACE RESTORATION
PLANS
STA. 60+00 TO 70+00
 VILLAGE OF CASSOPOLIS, MICHIGAN
ABONMARCHÉ
 CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT

SESC AND SURFACE RESTORATION KEYNOTE LEGEND	
KEY	DESCRIPTION
(S)	PERMANENT/ TEMPORARY SEEDING
(24)	GEOTEXTILE SILT FENCE
(31)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(RH)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(A)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SR)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

SESC AND SURFACE RESTORATION HATCH LEGEND	
HATCH	DESCRIPTION
	PERMANENT/ TEMPORARY SEEDING
	CONCRETE
	HMA



14-040-022-010-01
 HARMAN ANDREW J & VANVOLLER ALLIJ
 59833 M 62 CASSOPOLIS, MI. 49031

14-040-022-008-10
 GRABEMEYER ELDON G
 82 EAGLE POINT
 IRVINE, CA. 92604

14-040-022-008-51
 GUSE ROBERT J JR & SUSAN L
 7245 HOCHBERGER RD
 EAU CLAIRE, MI. 49711-9779

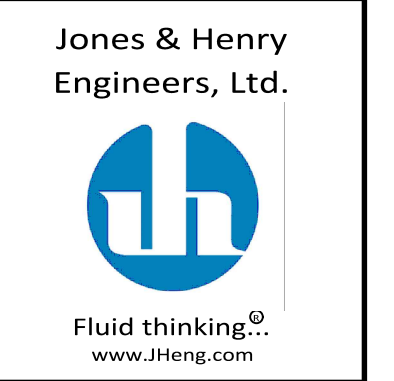
14-040-022-008-75
 DAVIS GEORGE R & SHEILA R
 58734 M 62
 CASSOPOLIS, MI. 49031

14-040-022-008-01
 GUSE ROBERT J JR & SUSAN L
 7245 HOCHBERGER RD
 EAU CLAIRE, MI. 49711

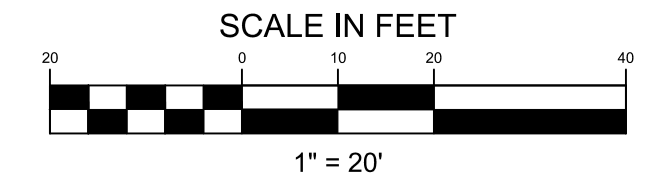
14-040-022-008-10
 GRABEMEYER ELDON G
 82 EAGLE POINT
 IRVINE, CA. 92604

NOTE:
 1. LAYER CLEANUP, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND WERE ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-5.13-14 INCLUDED WITH ADDENDUM 1.

DESIGNED	DRAWN	CHECKED
JR	TV/CS	##
STATUS: ISSUE FOR BID		
DATE: MAY 2026		
SHEET NO.:		

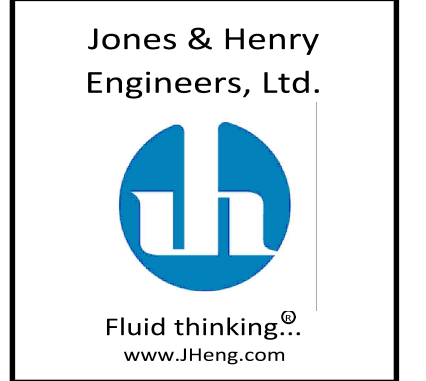


JOB NO. **541-8362.400**
 SCALE **1"=20' AS INDICATED**
 THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE
 REVISIONS AFTER ISSUED FOR BID



M62
SURFACE RESTORATION PLANS
70+00 TO 80+00
 VILLAGE OF CASSOPOLIS, MICHIGAN
CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT
ABONMARCHÉ

DESIGNED BY: JR
 DRAWN BY: TV/CS
 CHECKED BY: ##
 STATUS: ISSUE FOR BID
 DATE: MAY 2026
 SHEET NO.: SR-5.15-16
 86 OF 107



JOB NO. 541-8362.400
 SCALE 1"=20' AS INDICATED
 THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE
 DESIGNED: JR
 DRAWN: TV/CS
 CHECKED: ##
 STATUS: ISSUE FOR BID
 DATE: MAY 2026
 SHEET NO.: SR-5.15-16
 86 OF 107

14-040-022-008-01
 GUSE ROBERT J JR & SUSAN L
 7245 HOCHBERGER RD
 EAU CLAIRE, MI. 49111

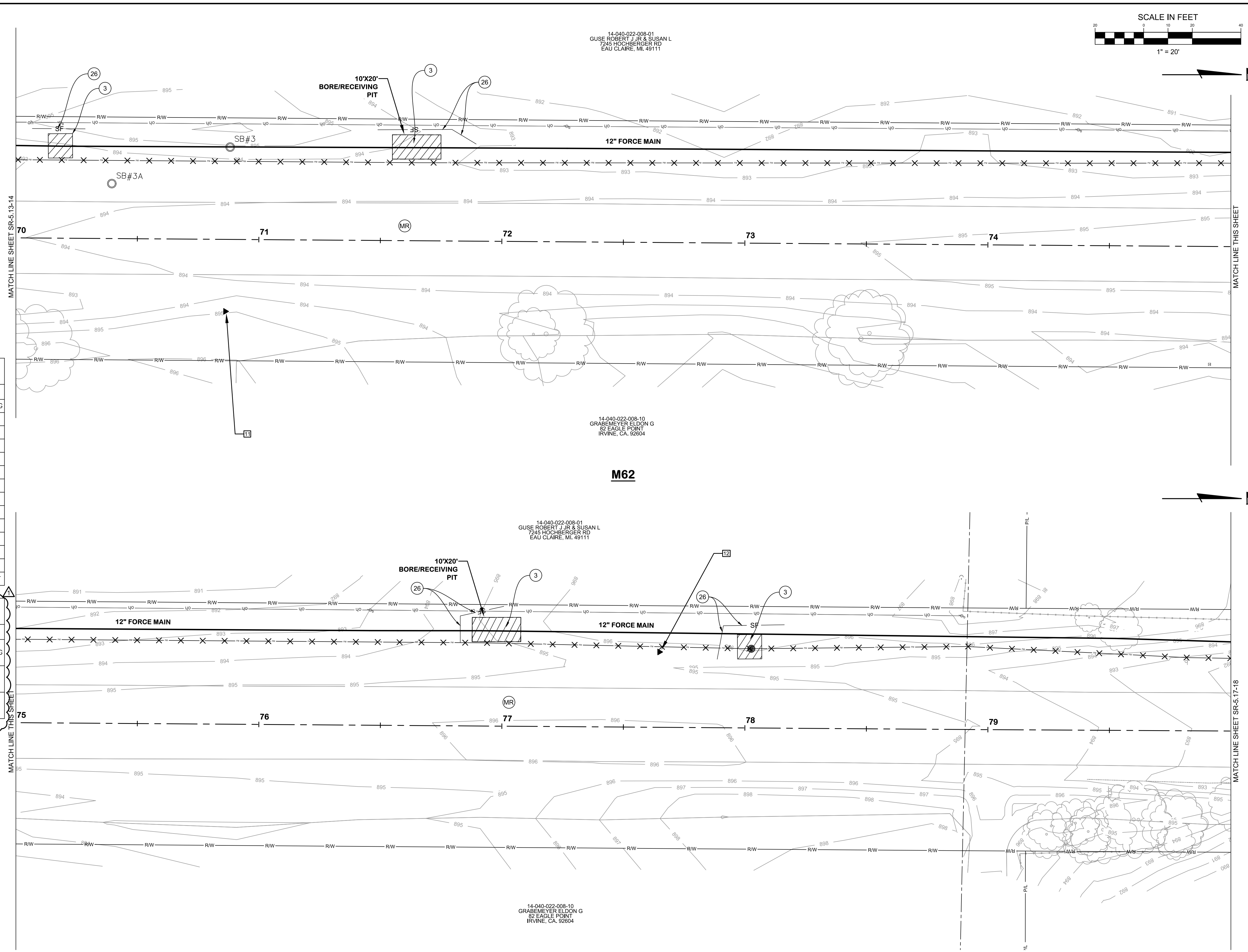
14-040-022-008-10
 GRABEMEYER ELDON G
 82 EAGLE POINT
 IRVINE, CA. 92604

14-040-022-008-01
 GUSE ROBERT J JR & SUSAN L
 7245 HOCHBERGER RD
 EAU CLAIRE, MI. 49111

14-040-022-008-10
 GRABEMEYER ELDON G
 82 EAGLE POINT
 IRVINE, CA. 92604

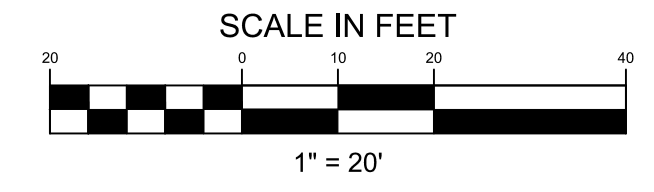
SESC AND SURFACE RESTORATION KEYNOTE LEGEND	
KEY	DESCRIPTION
(3)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(31)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(RH)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AG)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SR)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

SESC AND SURFACE RESTORATION HATCH LEGEND	
HATCH	DESCRIPTION
	PERMANENT/ TEMPORARY SEEDING
	CONCRETE
	HMA

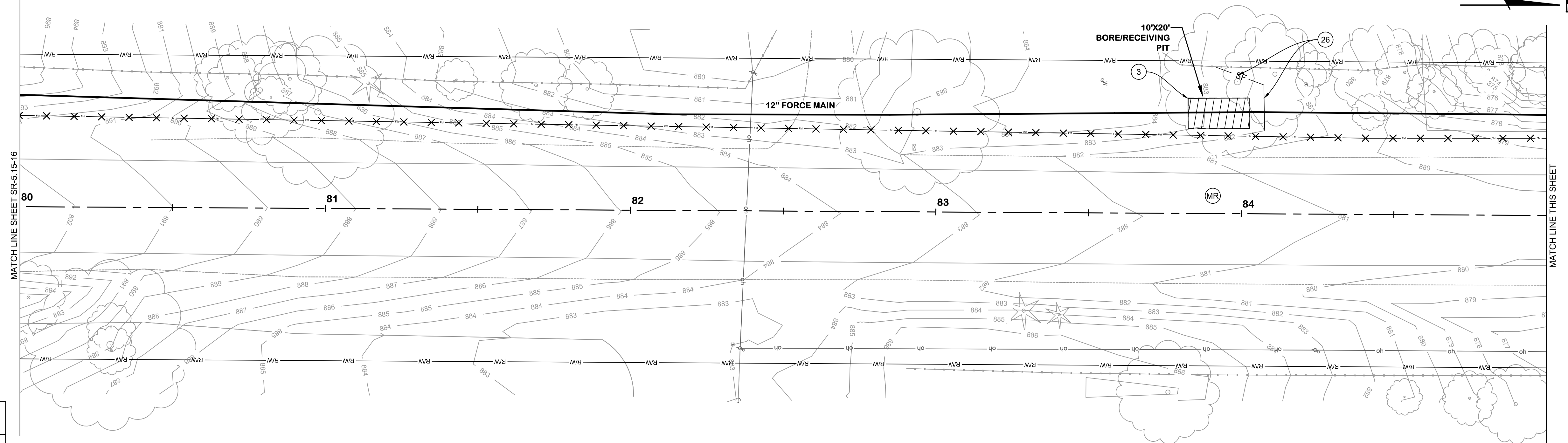


NOTE:
 1. LAYER CLEANUP, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND WERE ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-5.15-16 INCLUDED WITH ADDENDUM 1.

KAL-8362400SR5-SR-5.15-16 M62 STA. 70+00 TO 80+00
 6/10/2026 12:11 PM - JROPP
 6/10/2026 12:29 PM



M62
SURFACE RESTORATION
PLANS
 STA. 80+00 TO 90+00
 VILLAGE OF CASSOPOLIS, MICHIGAN
 CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT
ABONMARCHÉ

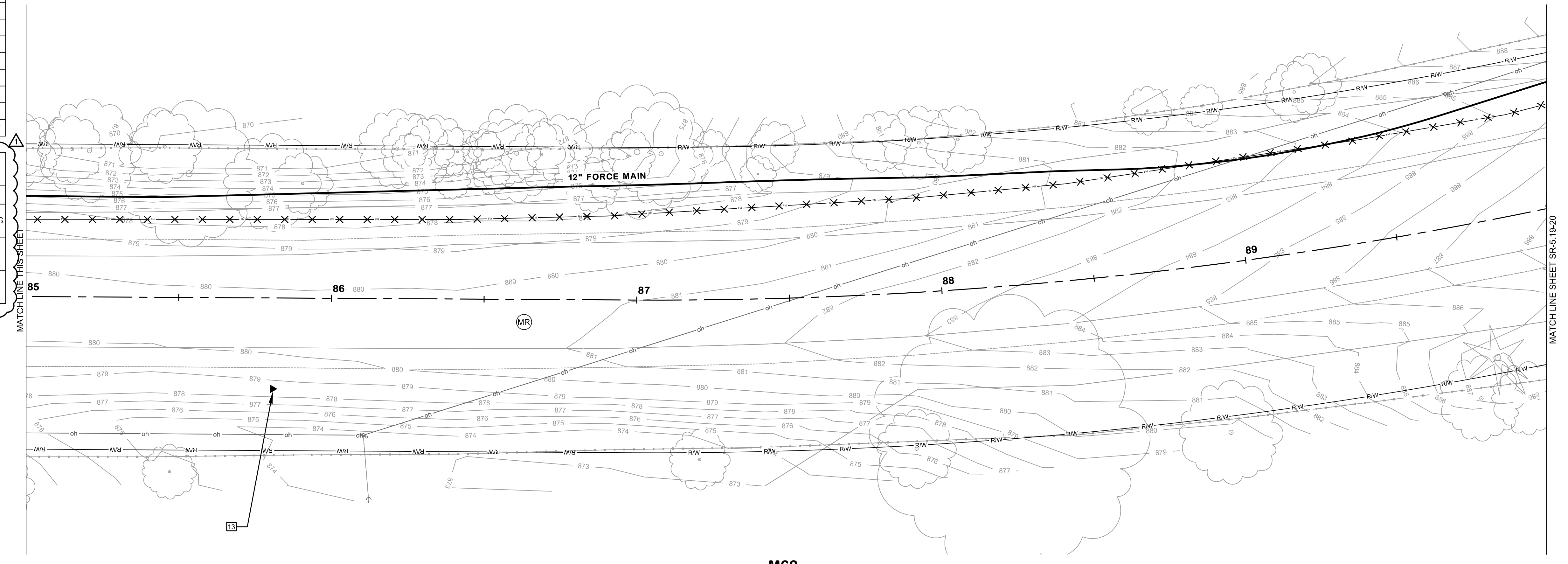


SESC AND SURFACE RESTORATION KEYNOTE LEGEND

KEY	DESCRIPTION
(3)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(31)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(R)	RESIDENTIAL HMA DRIVE
(C)	CASS COUNTY ROAD
(D)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(A)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SR)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

SESC AND SURFACE RESTORATION HATCH LEGEND

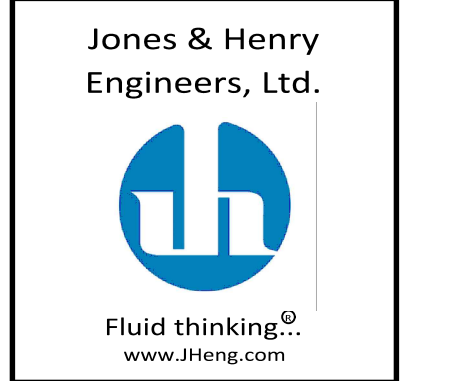
HATCH	DESCRIPTION
(Diagonal lines)	PERMANENT/ TEMPORARY SEEDING
(Solid black)	CONCRETE
(Cross-hatch)	HMA



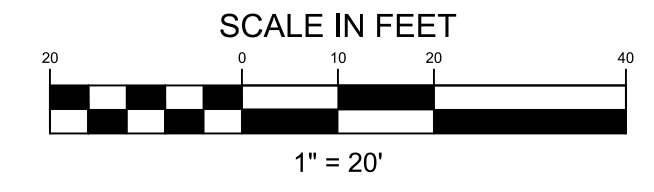
NOTE:
 1. LAYER CLEANUP, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND WERE ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-5.17-18 INCLUDED WITH ADDENDUM 1.

KAL-8362400SR5-SR-5.17-18 M62 STA. 80+00 TO 90+00
 6/10/2024 12:11 PM - JROPP
 6/10/2024 12:29 PM

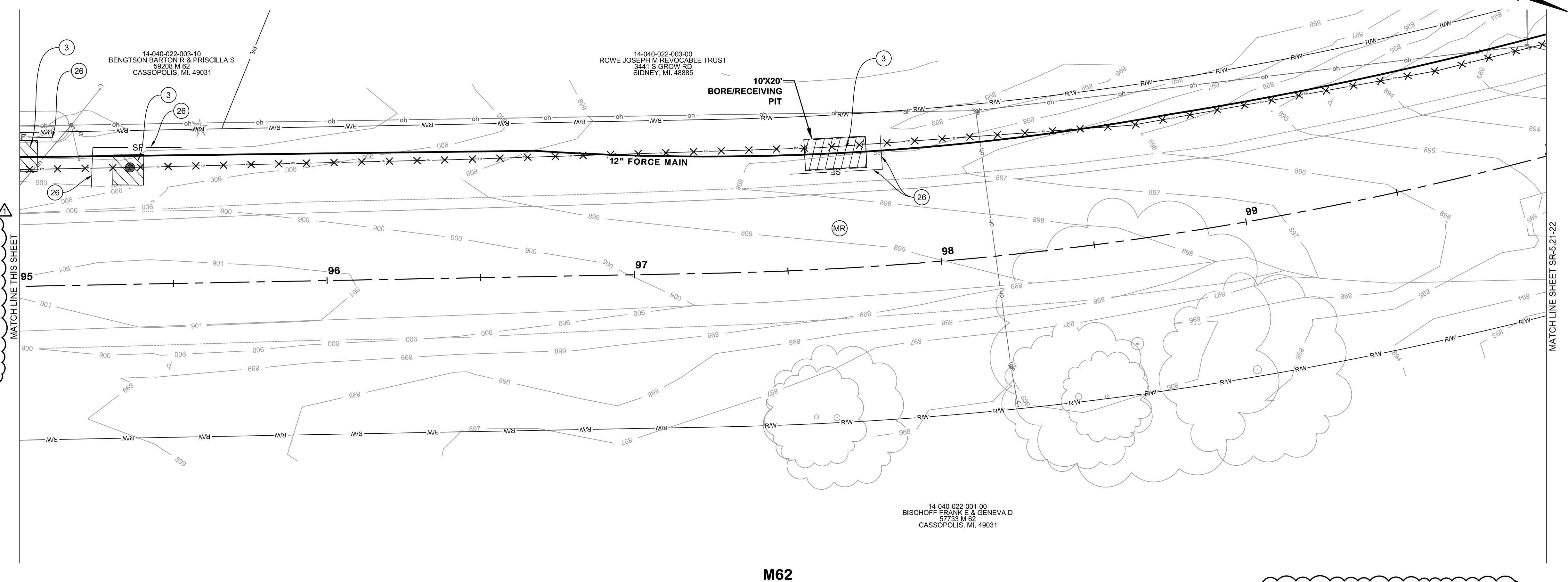
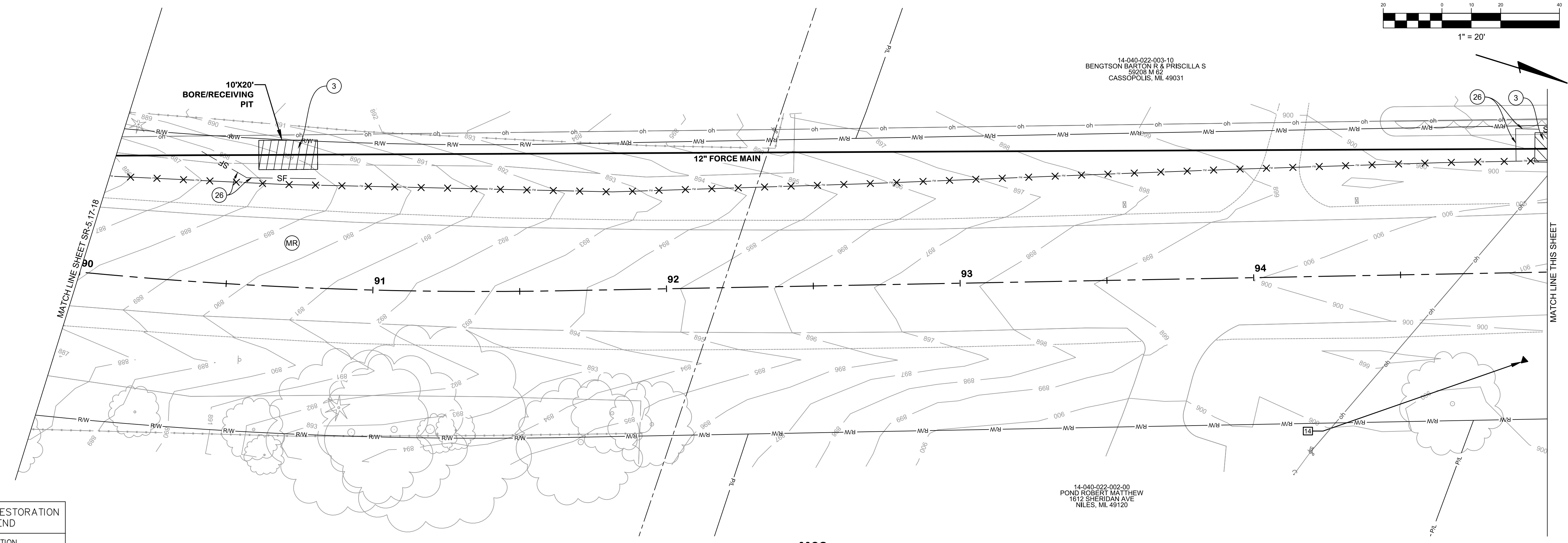
NO. DATE
 1 6/19/2024 JROPP/CH1
 REVISIONS AFTER ISSUED FOR BID



JOB NO. **541-8362.400**
 SCALE **1"=20' AS INDICATED**
THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE
 DESIGNED **JR** DRAWN **TV/CS** CHECKED **##**
 STATUS **ISSUE FOR BID**
 DATE **MAY 2024**
 SHEET NO.
SR-5.17-18
 87 OF 107



M62
SURFACE RESTORATION
PLANS
STA. 90+00 TO 100+00
 VILLAGE OF CASSOPOLIS, MICHIGAN
 CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT
ABONMARCHÉ



SESC AND SURFACE RESTORATION KEYNOTE LEGEND	
KEY	DESCRIPTION
(3)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(31)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(RH)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AS)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SW)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

SESC AND SURFACE RESTORATION HATCH LEGEND	
HATCH	DESCRIPTION
	PERMANENT/ TEMPORARY SEEDING
	CONCRETE
	HMA

NOTE:
 1. LAYER CLEANUP, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND WERE ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-5.19-20 INCLUDED WITH ADDENDUM 1.

KAL-8362400SR5-SR-5.19-20 M62 STA. 90+00 TO 100+00
 6/10/2024 12:11 PM - JROFF
 6/10/2024 12:29 PM

DESIGNED	DRAWN	CHECKED
JR	TV/CS	##
STATUS: ISSUE FOR BID		
DATE: MAY 2024		
SHEET NO.:		

Jones & Henry
 Engineers, Ltd.

 Fluid thinking.
 www.jheng.com

JOB NO. 541-8362.400
 SCALE 1"=20' AS INDICATED
 THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE
 SR-5.19-20
 88 OF 107

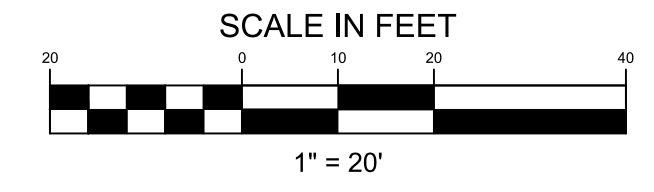
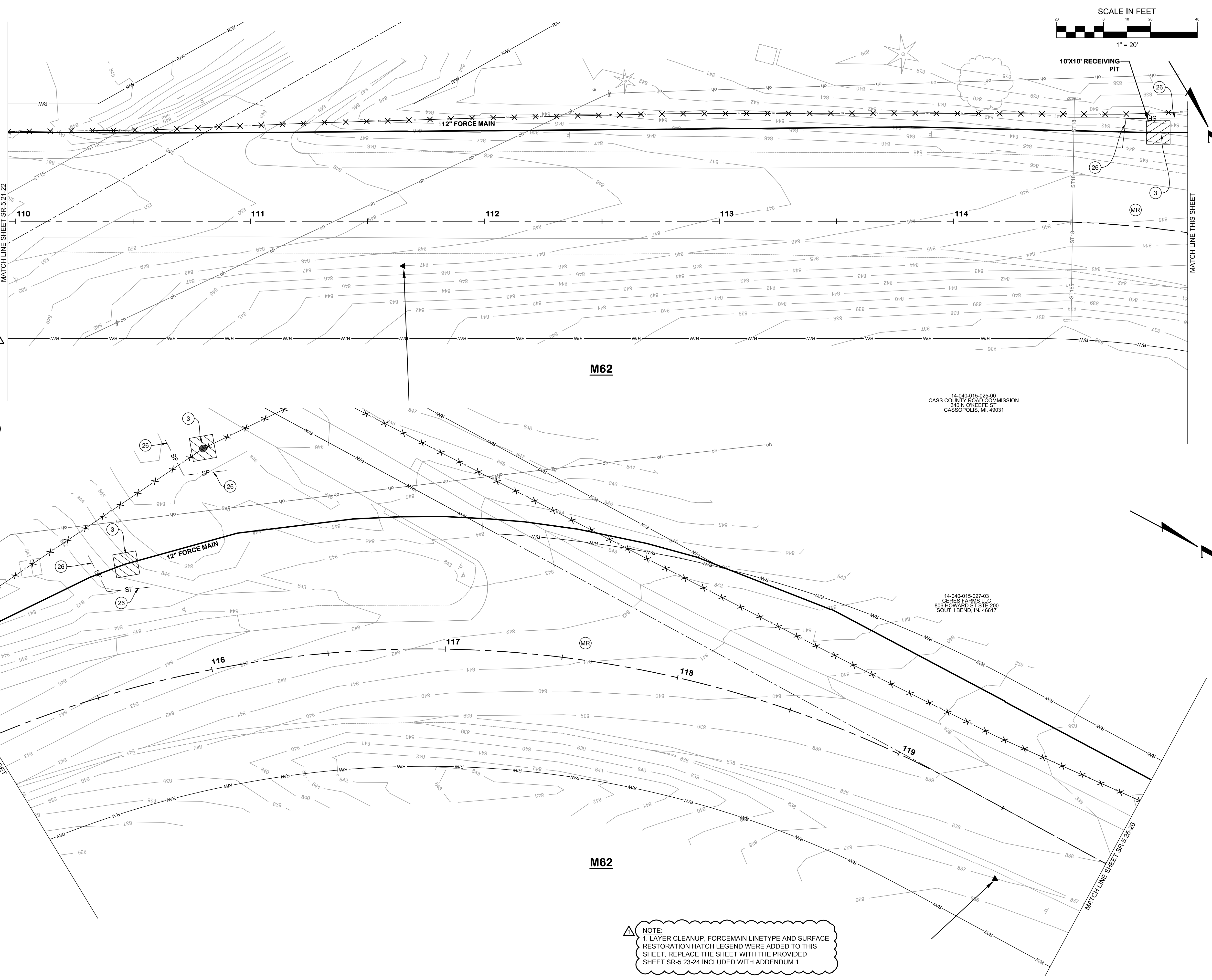
KAL-8362400SR5-SR-5.23-24, M62 STA. 110+00 TO 120+00
 6/10/2026 12:11 PM - JROPP
 6/10/2026 12:30 PM

SESC AND SURFACE RESTORATION KEYNOTE LEGEND

KEY	DESCRIPTION
(3)	PERMANENT/ TEMPORARY SEEDING
(SF)	GEOTEXTILE SILT FENCE
(DT)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(RH)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SW)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

SESC AND SURFACE RESTORATION HATCH LEGEND

HATCH	DESCRIPTION
(Diagonal lines)	PERMANENT/ TEMPORARY SEEDING
(Solid black)	CONCRETE
(Cross-hatch)	HMA



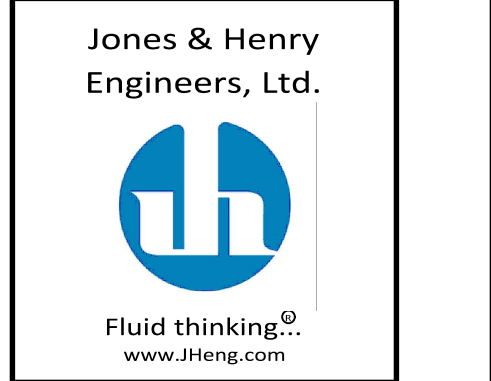
M62
SURFACE RESTORATION PLANS
 STA. 110+00 TO 120+00
 VILLAGE OF CASSOPOLIS, MICHIGAN
 CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT
ABONMARCHÉ

14-040-015-025-00
 CASS COUNTY ROAD COMMISSION
 340 N O'KEEFE ST.
 CASSOPOLIS, MI. 49031

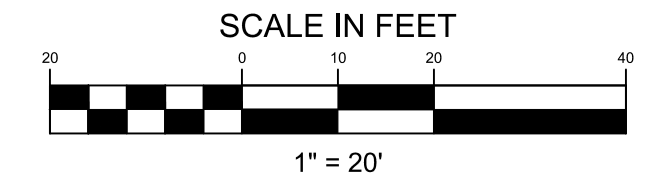
14-040-015-027-03
 CERES FARMS LLC
 806 HOWARD ST STE 200
 SOUTH BEND, IN. 46617

NOTE:
 1. LAYER CLEANUP, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND WERE ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-5.23-24 INCLUDED WITH ADDENDUM 1.

NO. DATE
 1 6/9/2026
 2 6/10/2026
 3 6/10/2026
 4 6/10/2026
 5 6/10/2026
 6 6/10/2026
 7 6/10/2026
 8 6/10/2026
 9 6/10/2026
 10 6/10/2026
 11 6/10/2026
 12 6/10/2026
 13 6/10/2026
 14 6/10/2026
 15 6/10/2026
 16 6/10/2026
 17 6/10/2026
 18 6/10/2026
 19 6/10/2026
 20 6/10/2026
 21 6/10/2026
 22 6/10/2026
 23 6/10/2026
 24 6/10/2026
 25 6/10/2026
 26 6/10/2026
 27 6/10/2026
 28 6/10/2026
 29 6/10/2026
 30 6/10/2026
 31 6/10/2026
 32 6/10/2026
 33 6/10/2026
 34 6/10/2026
 35 6/10/2026
 36 6/10/2026
 37 6/10/2026
 38 6/10/2026
 39 6/10/2026
 40 6/10/2026
 41 6/10/2026
 42 6/10/2026
 43 6/10/2026
 44 6/10/2026
 45 6/10/2026
 46 6/10/2026
 47 6/10/2026
 48 6/10/2026
 49 6/10/2026
 50 6/10/2026
 51 6/10/2026
 52 6/10/2026
 53 6/10/2026
 54 6/10/2026
 55 6/10/2026
 56 6/10/2026
 57 6/10/2026
 58 6/10/2026
 59 6/10/2026
 60 6/10/2026
 61 6/10/2026
 62 6/10/2026
 63 6/10/2026
 64 6/10/2026
 65 6/10/2026
 66 6/10/2026
 67 6/10/2026
 68 6/10/2026
 69 6/10/2026
 70 6/10/2026
 71 6/10/2026
 72 6/10/2026
 73 6/10/2026
 74 6/10/2026
 75 6/10/2026
 76 6/10/2026
 77 6/10/2026
 78 6/10/2026
 79 6/10/2026
 80 6/10/2026
 81 6/10/2026
 82 6/10/2026
 83 6/10/2026
 84 6/10/2026
 85 6/10/2026
 86 6/10/2026
 87 6/10/2026
 88 6/10/2026
 89 6/10/2026
 90 6/10/2026
 91 6/10/2026
 92 6/10/2026
 93 6/10/2026
 94 6/10/2026
 95 6/10/2026
 96 6/10/2026
 97 6/10/2026
 98 6/10/2026
 99 6/10/2026
 100 6/10/2026



JOB NO. 541-8362.400
 SCALE 1"=20' AS INDICATED
 THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE
 DESIGNED JR TV/CS CHECKED ##
 STATUS: ISSUE FOR BID
 DATE: MAY 2026
 SHEET NO.
SR-5.23-24
 90 OF 107



M62
SURFACE RESTORATION
PLANS
STA. 120+00 TO 130+00
 VILLAGE OF CASSOPOLIS, MICHIGAN
CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT
ABONMARCHÉ

14-040-015-027-03
 CERES FARMS LLC
 806 HOWARD ST STE 200
 SOUTH BEND, IN. 46817

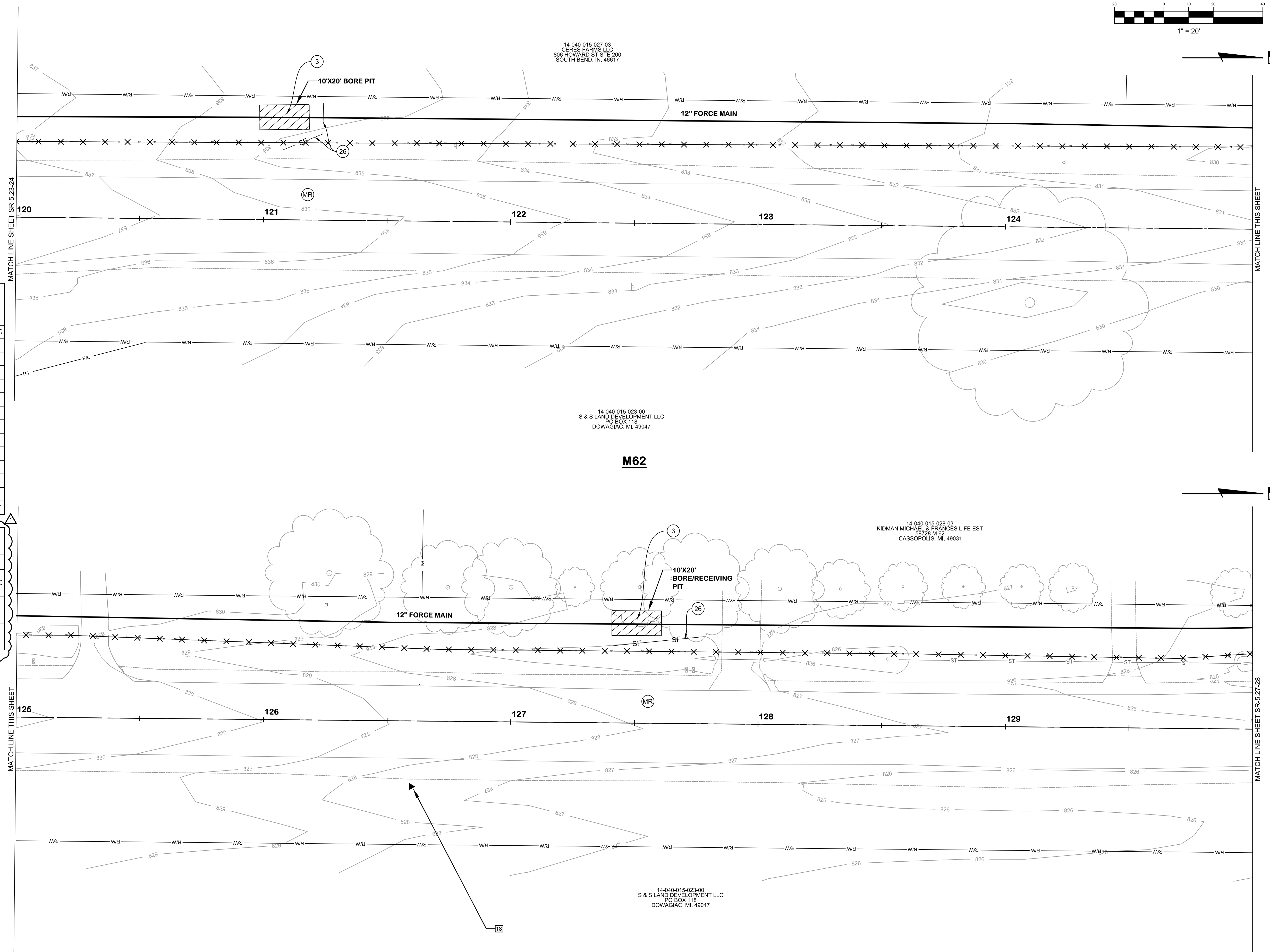
14-040-015-023-00
 S & S LAND DEVELOPMENT LLC
 PO BOX 118
 DOWAGIAC, MI. 49047

14-040-015-028-03
 KIDMAN MICHAEL & FRANCES LIFE EST
 58748 M 62
 CASSOPOLIS, MI. 49031

14-040-015-023-00
 S & S LAND DEVELOPMENT LLC
 PO BOX 118
 DOWAGIAC, MI. 49047

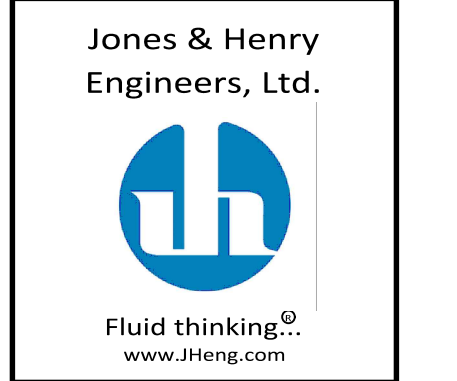
SESC AND SURFACE RESTORATION KEYNOTE LEGEND	
KEY	DESCRIPTION
(3)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(31)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(RH)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SR)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

SESC AND SURFACE RESTORATION HATCH LEGEND	
HATCH	DESCRIPTION
	PERMANENT/ TEMPORARY SEEDING
	CONCRETE
	HMA



NOTE:
 1. LAYER CLEANUP, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND WERE ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-5.25-26 INCLUDED WITH ADDENDUM 1.

KAL-8362400SR5-SR-5.25-26 M62 STA. 120+00 TO 130+00
 6/10/2026 12:11 PM - JROPP
 6/10/2026 12:30 PM

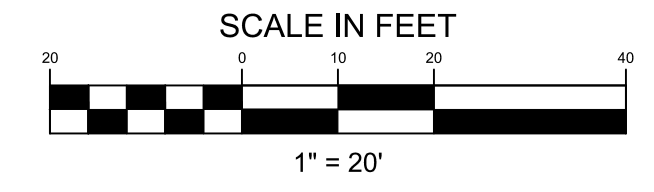
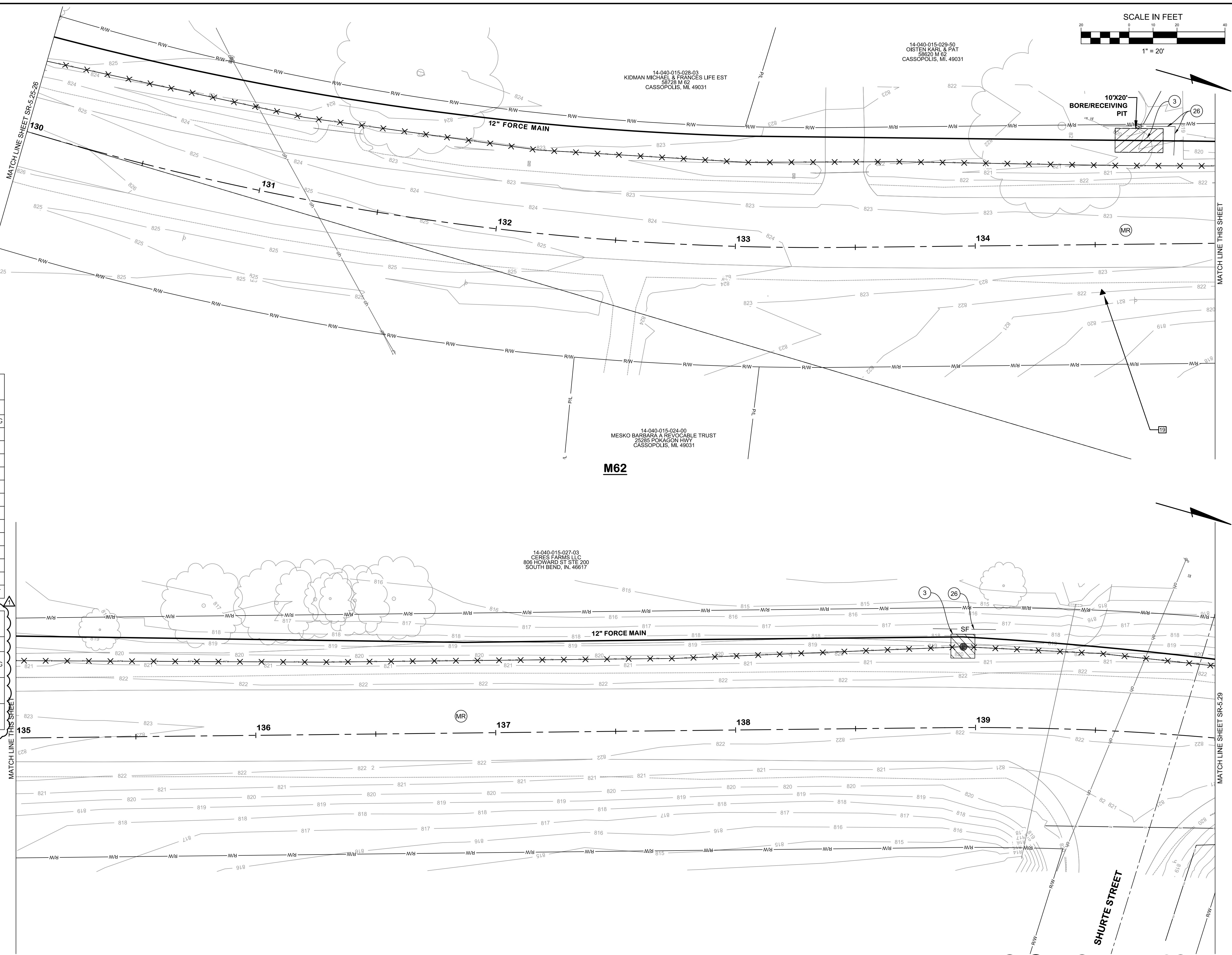



JOB NO.	541-8362.400	
SCALE	1"=20' AS INDICATED	
THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE		
DESIGNED	DRAWN	CHECKED
JR	TV/CS	##
STATUS:	ISSUE FOR BID	
DATE:	MAY 2026	
SHEET NO.		
SR-5.25-26		
91 OF 107		

KAL-8362400SR5-SR-5.27-28 M62 STA. 130+00 TO 140+00
 6/10/2026 12:11 PM - JROPP
 6/10/2026 12:30 PM


SESC AND SURFACE RESTORATION KEYNOTE LEGEND	
KEY	DESCRIPTION
(3)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(31)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(MR)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SR)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

SESC AND SURFACE RESTORATION HATCH LEGEND	
HATCH	DESCRIPTION
	PERMANENT/ TEMPORARY SEEDING
	CONCRETE
	HMA






Village of Cassopolis
A friendly, vibrant community



ABONMARCHÉ

M62
SURFACE RESTORATION
PLANS
STA. 130+00 TO 140+00
 VILLAGE OF CASSOPOLIS, MICHIGAN
 CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT

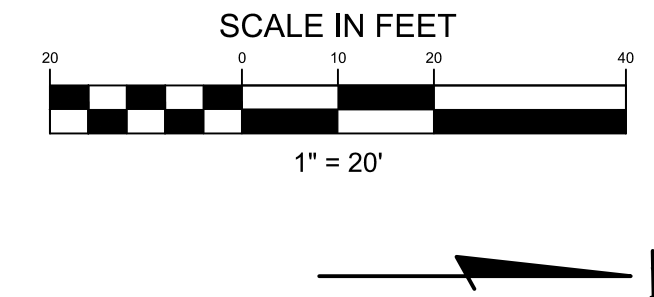


Jones & Henry
Engineers, Ltd.

Fluid thinking®
www.JHeng.com

JOB NO.	541-8362.400	
SCALE	1"=20' AS INDICATED	
THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE		
DESIGNED	DRAWN	CHECKED
JR	TV/CS	##
STATUS: ISSUE FOR BID		
DATE: MAY 2026		
SHEET NO.		
SR-5.27-28		
92 OF 107		

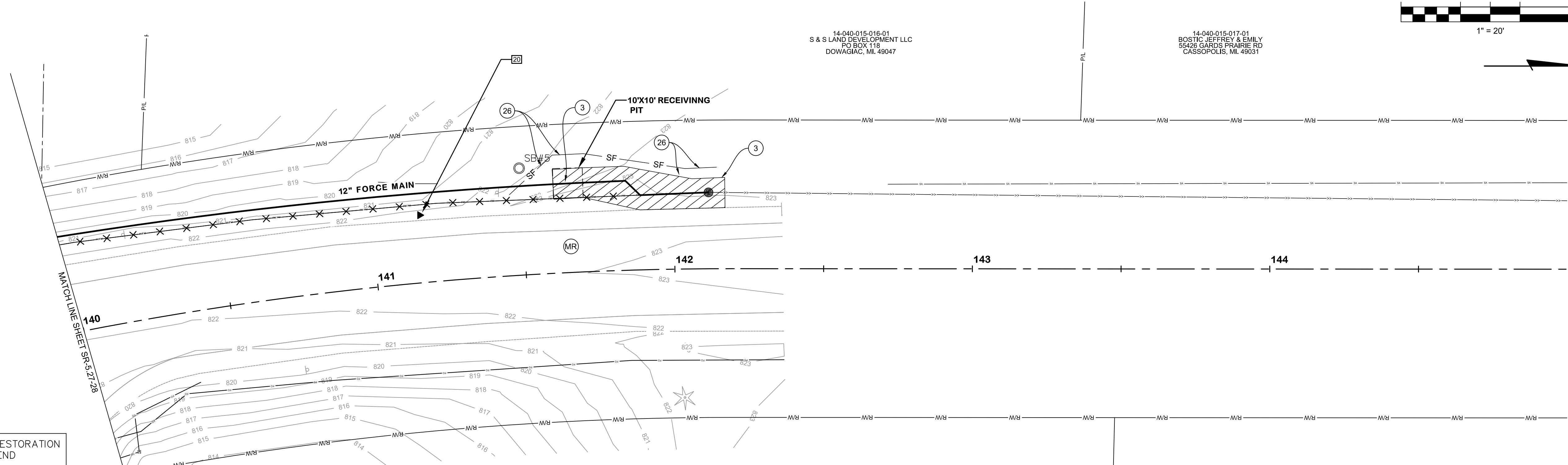
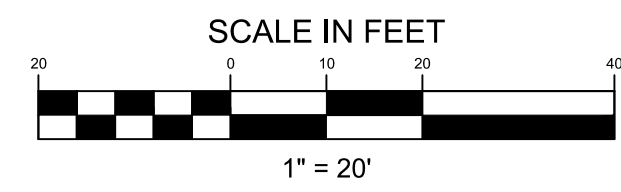
NOTE:
 1. LAYER CLEANUP, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND WERE ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-5.27-28 INCLUDED WITH ADDENDUM 1.



M62
SURFACE RESTORATION PLANS
STA. 140+00 TO 145+00
VILLAGE OF CASSOPOLIS, MICHIGAN
CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT
ABONMARCHÉ

KEY	DESCRIPTION
(S)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(ST)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(RH)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SM)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

HATCH	DESCRIPTION
	PERMANENT/ TEMPORARY SEEDING
	CONCRETE
	HMA



14-040-015-016-01
S & S LAND DEVELOPMENT LLC
PO BOX 118
DOWAGIAC, MI. 49047

14-040-015-017-01
BOSTIC, JEFFREY & EMILY
59425 GARDEN PRAIRIE RD
CASSOPOLIS, MI. 49031

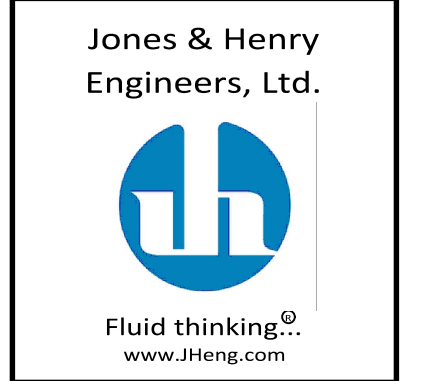
14-040-015-014-01
WOODARD SUSAN S
58463 M 62
CASSOPOLIS, MI. 49031

14-040-015-015-00
KECK ERIC ALLEN
20350 BULHAND ST
CASSOPOLIS, MI. 49031

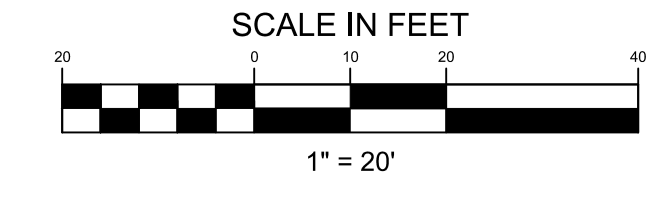
M62

NOTE:
1. LAYER CLEANUP, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND WERE ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-5.29 INCLUDED WITH ADDENDUM 1.

KAL-8362400SR5-SR-5.29 M62 STA. 140+00 TO 145+00
 6/10/2026 12:11 PM - JROPP
 6/10/2026 12:30 PM



JOB NO.	541-8362.400
SCALE	1"=20' AS INDICATED
THIS LINE SCALES IF WHEN PLOTTED TO NOTED SCALE	
DESIGNED	DRAWN
JR	TV/CS
CHECKED	##
STATUS	ISSUE FOR BID
DATE	MAY 2026
SHEET NO.	SR-5.29
	93 OF 107



**PEAVINE STREET
SURFACE RESTORATION
PLANS**

STA. 5+00 TO 15+00

VILLAGE OF CASSOPOLIS, MICHIGAN
CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT



Jones & Henry
Engineers, Ltd.



Fluid thinking®
www.JHeng.com

JOB NO. 541-8362.400

SCALE 1"=20'

THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE

DESIGNED	DRAWN	CHECKED
JR	TV/CS	NLD

STATUS: ISSUE FOR BID

DATE: MAY 2026

SHEET NO.
SR-6.1-2

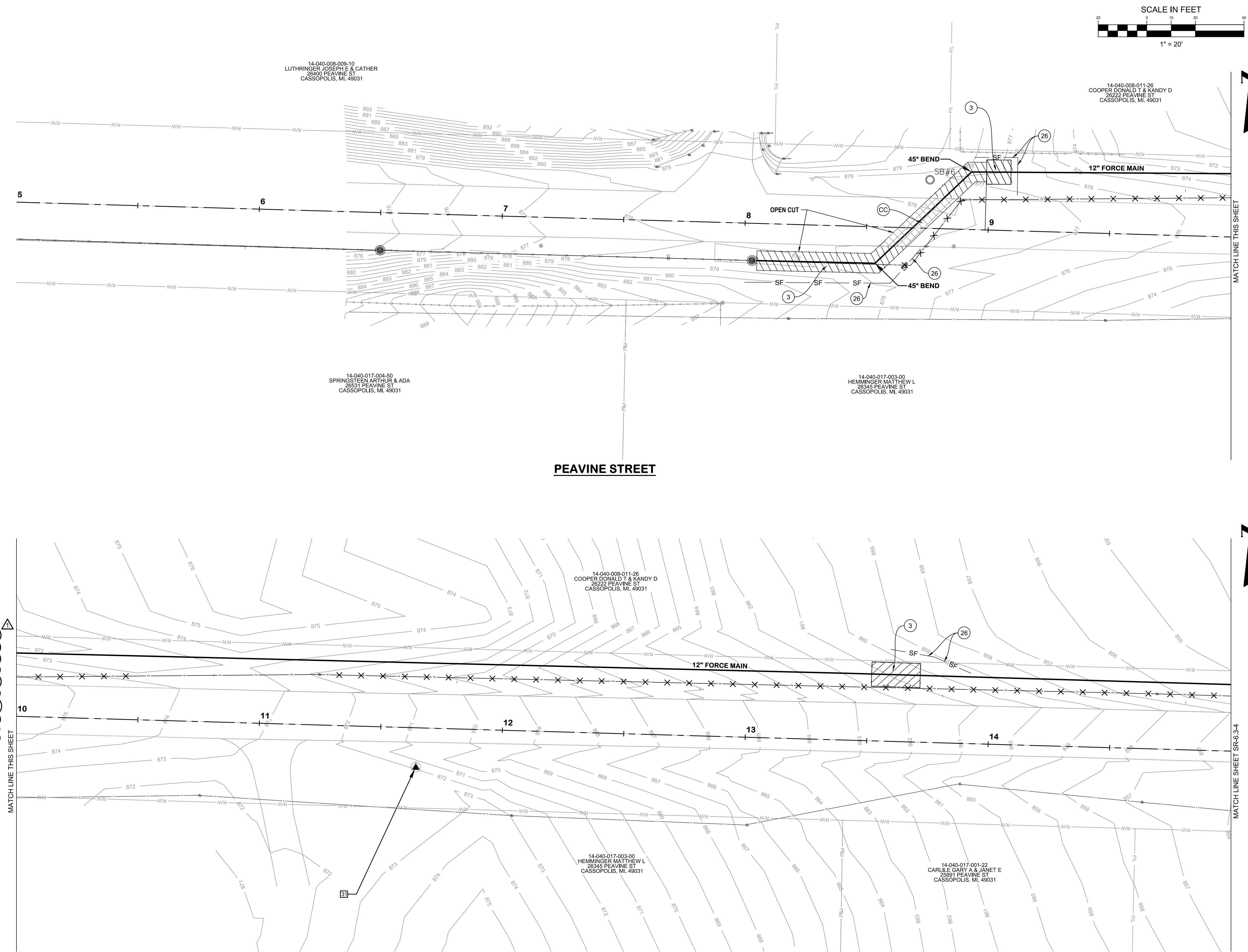
94 OF 107

**SESC AND SURFACE RESTORATION
KEYNOTE LEGEND**

KEY	DESCRIPTION
(J)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(ST)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(R)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SW)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

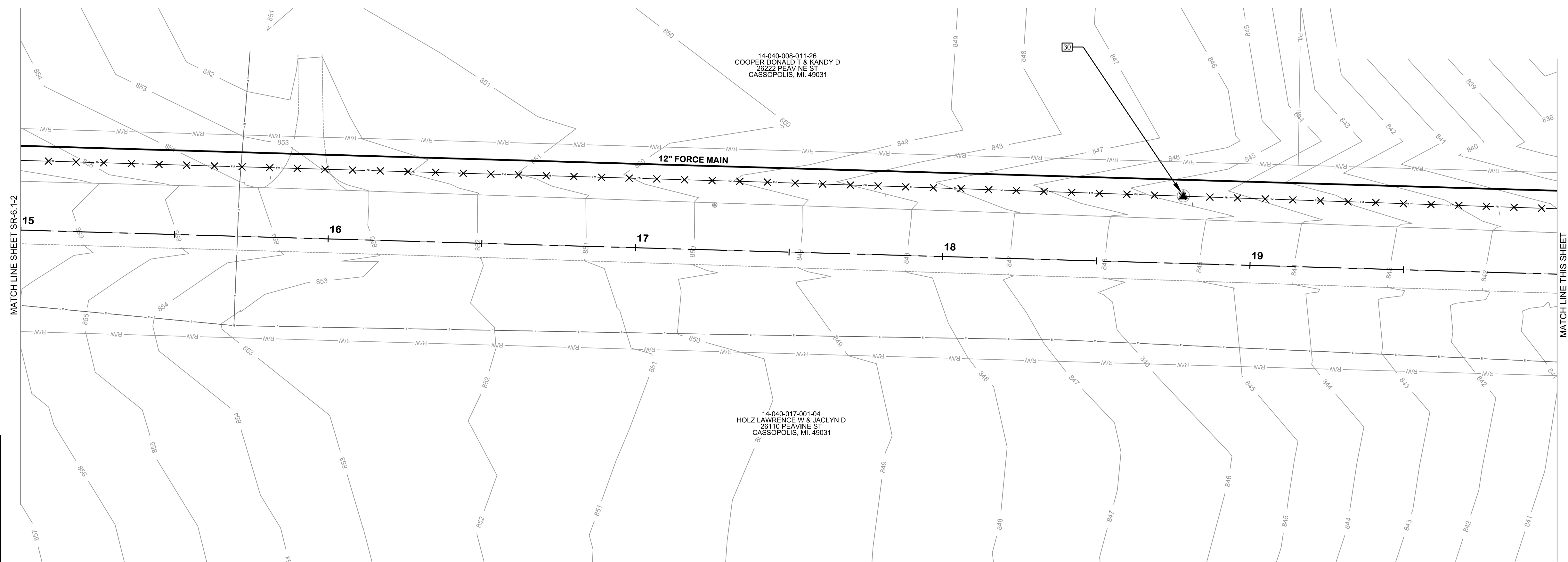
**SESC AND SURFACE RESTORATION
HATCH LEGEND**

HATCH	DESCRIPTION
(Diagonal lines)	PERMANENT/ TEMPORARY SEEDING
(Solid black)	CONCRETE
(Cross-hatch)	HMA

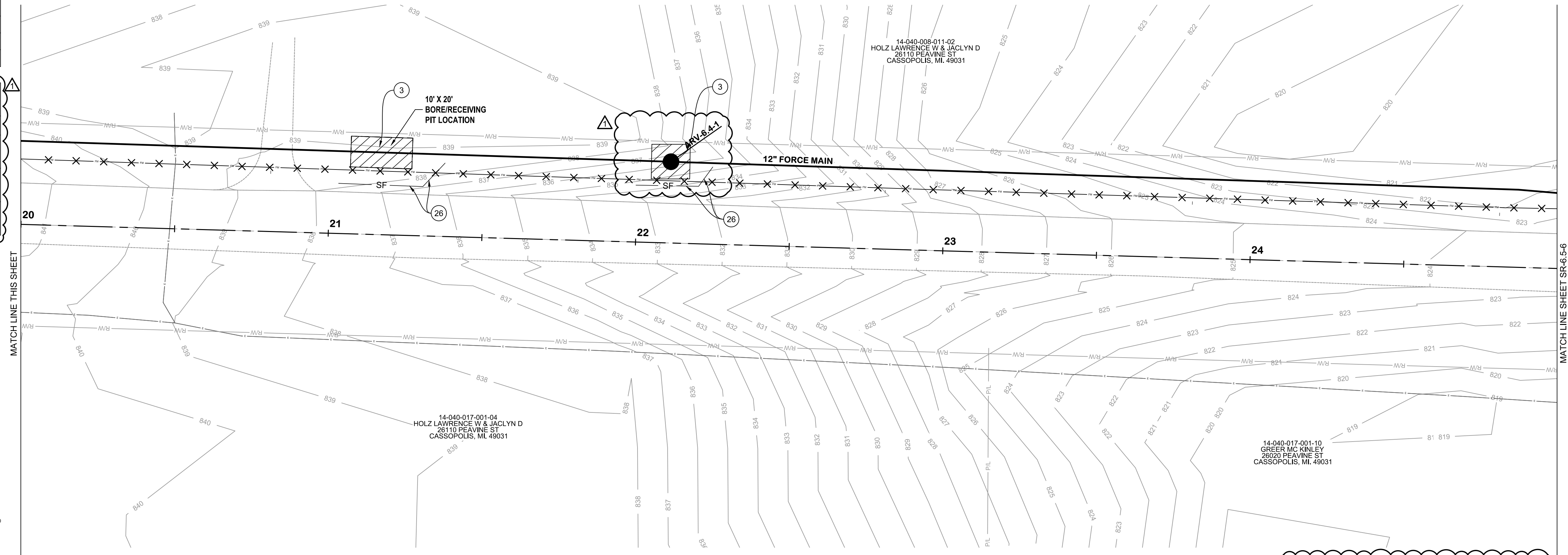


NOTE:
1. LAYER CLEANUP, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND WERE ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-6.1-2 INCLUDED WITH ADDENDUM 1.

KAL-836240SR6-SR-6.1-2 PEAVINE STA. 5+00 TO 15+00
6/10/2025 10:53 AM - TVEELE
6/10/2025 10:54 AM



PEAVINE STREET

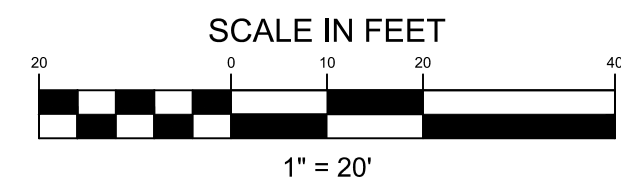


PEAVINE STREET

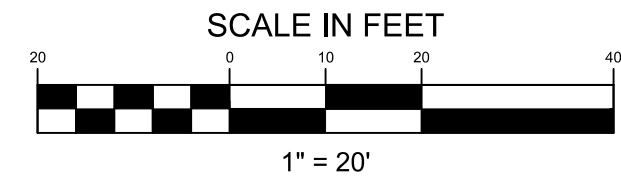
NOTE:
1. THE ARV SYMBOL WAS MODIFIED ON THIS SHEET, ALSO, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND. REPLACE THE SHEET WITH THE PROVIDED SR-6.3.4 INCLUDED WITH ADDENDUM 1.

KEY	DESCRIPTION
(S)	PERMANENT/ TEMPORARY SEEDING
(SF)	GEOTEXTILE SILT FENCE
(ST)	DROP INLET SEDIMENT TRAP
(MD)	MDOT ROAD
(RH)	RESIDENTIAL HMA DRIVE
(CR)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SR)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

HATCH	DESCRIPTION
(Diagonal lines)	PERMANENT/ TEMPORARY SEEDING
(Solid black)	CONCRETE
(Cross-hatch)	HMA



KAL-836240SR6-SR-6.3-4 PEAVINE STA. 15+00 TO 25+00
6/10/2026 10:56 AM - TVEELE
6/10/2026 10:57 AM



**PEAVINE STREET
SURFACE RESTORATION
PLANS**

STA. 25+00 TO 35+00
VILLAGE OF CASSOPOLIS, MICHIGAN
CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT



Jones & Henry
Engineers, Ltd.



Fluid thinking.
www.JHeng.com

JOB NO. **541-8362.400**

SCALE **1"=20'**

THIS LINE SCALES IF WHEN
PLOTTED TO NOTES SCALE

DESIGNED	DRAWN	CHECKED
JR	TV/CS	NLD

STATUS: **ISSUE FOR BID**

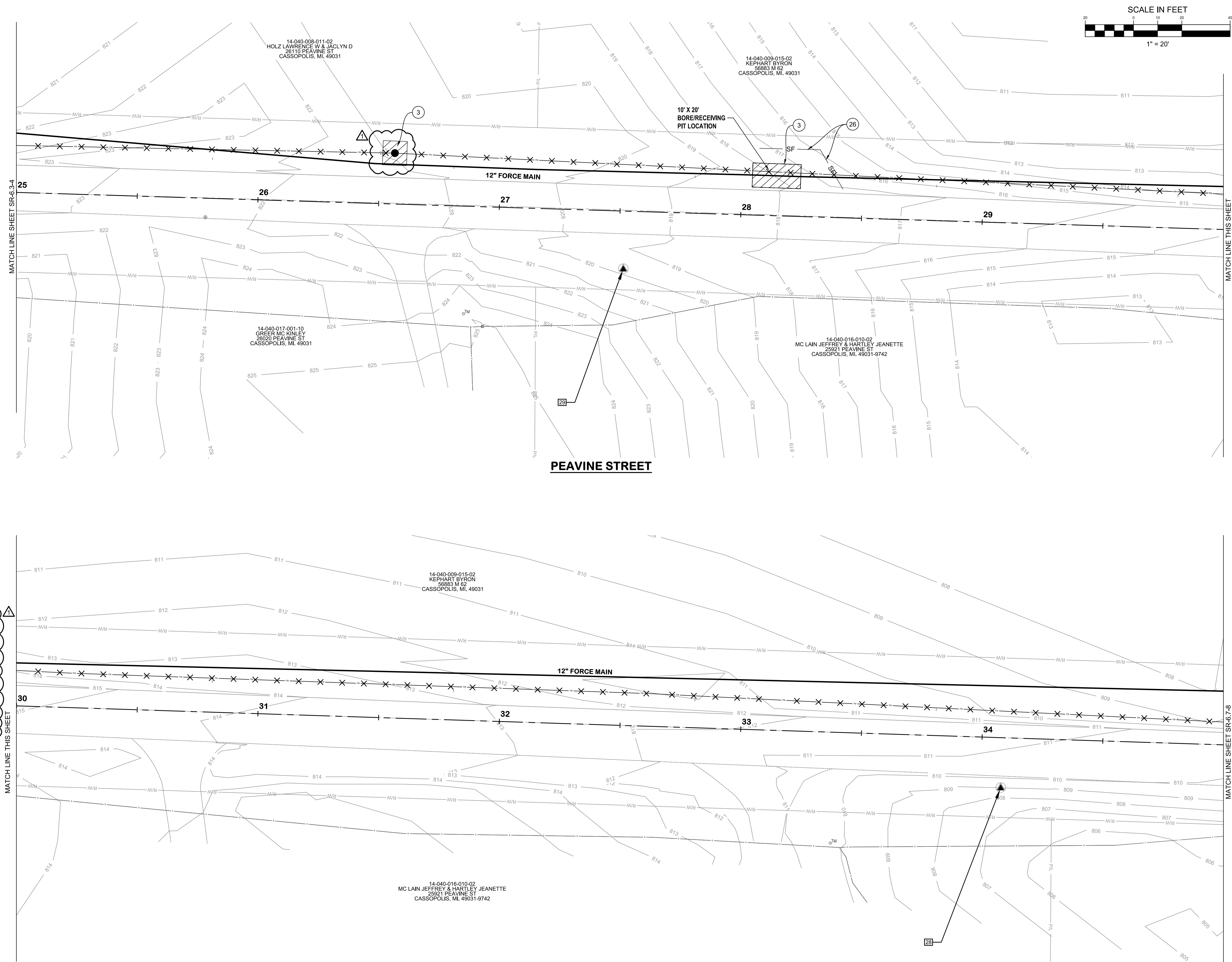
DATE: **MAY 2026**

SHEET NO.
SR-6.5-6

96 OF 107

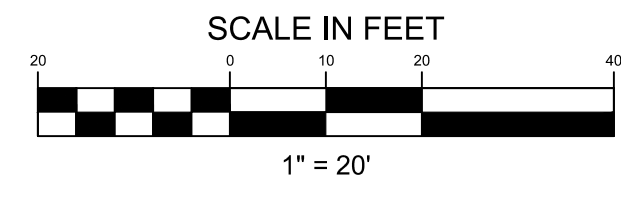
SESC AND SURFACE RESTORATION KEYNOTE LEGEND	
KEY	DESCRIPTION
(1)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(27)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(R)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SM)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(PW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

SESC AND SURFACE RESTORATION HATCH LEGEND	
HATCH	DESCRIPTION
	PERMANENT/ TEMPORARY SEEDING
	CONCRETE
	HMA



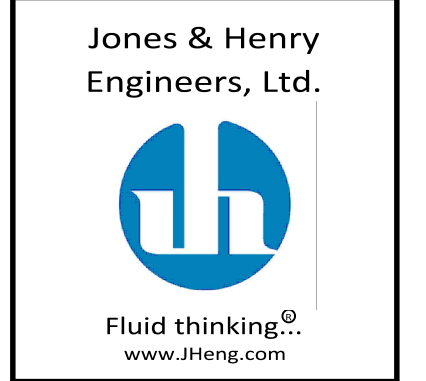
NOTE:
1. ADDITIONAL RESTORATION AREA ON THIS SHEET, ALSO, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND. REPLACE THE SHEET WITH THE PROVIDED SR-6.5-6 INCLUDED WITH ADDENDUM 1.

KAL-836240SR6-SR-6.5-6 PEAVINE STA. 25+00 TO 35+00
6/10/2026 11:04 AM - TVEELE
6/10/2026 11:05 AM

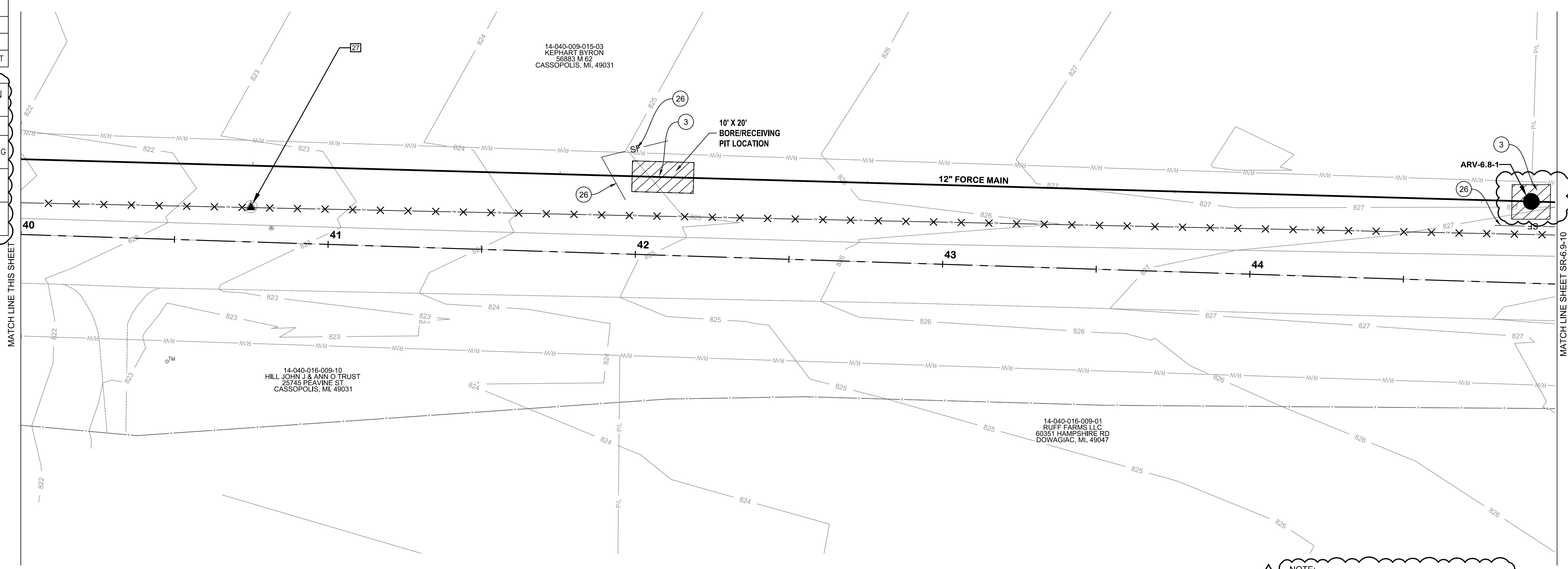
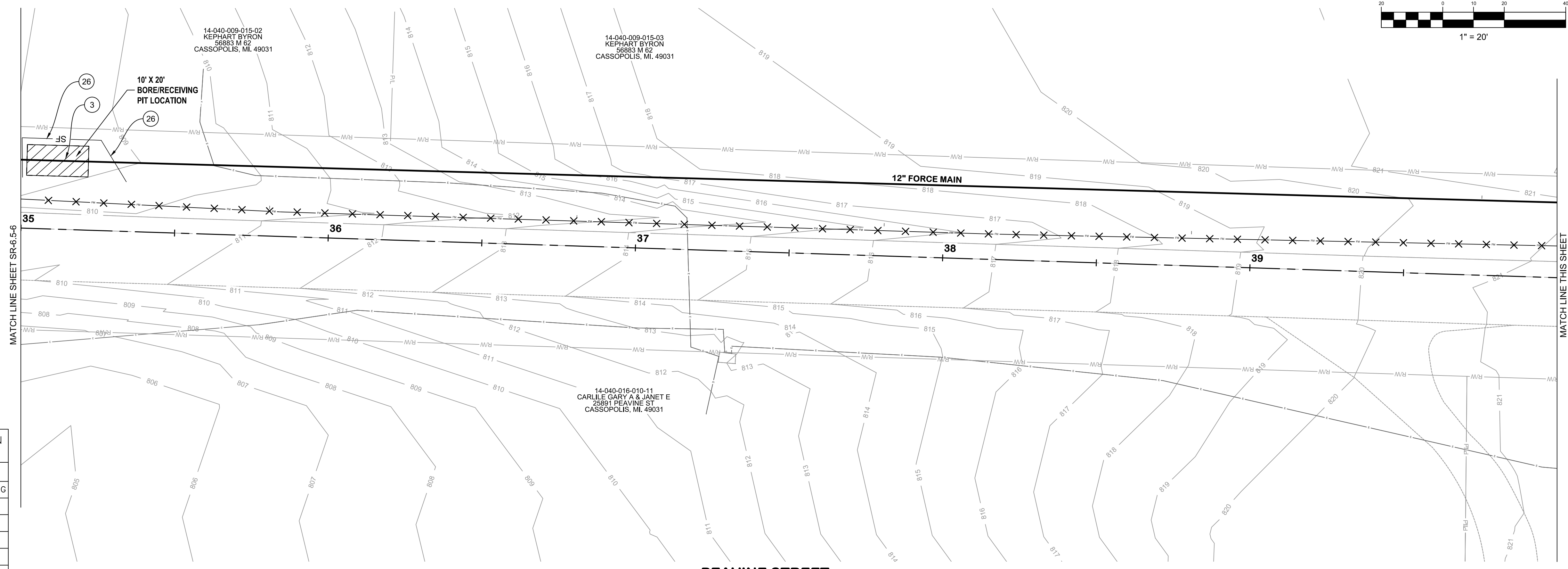


**PEAVINE STREET
SURFACE RESTORATION
PLANS**
STA. 35+00 TO 45+00
VILLAGE OF CASSOPOLIS, MICHIGAN
CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT

NO. DATE
BY



JOB NO. 541-8362.400
SCALE 1"=20'
THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE
DESIGNED JR DRAWN TV/CS CHECKED NLD
STATUS: ISSUE FOR BID
DATE: MAY 2026
SHEET NO.
SR-6.7-8
97 OF 107



SESC AND SURFACE RESTORATION KEYNOTE LEGEND

KEY	DESCRIPTION
(S)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(31)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(R)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(CR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(A)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SW)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(BW)	DETECTABLE WARNING SURF.
(C)	CURB AND GUTTER REPLACEMENT

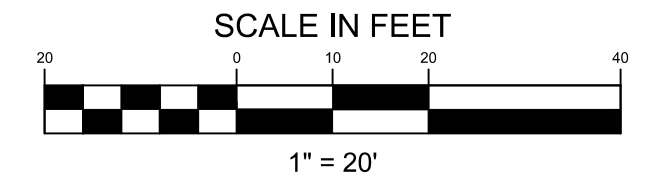
SESC AND SURFACE RESTORATION HATCH LEGEND

HATCH	DESCRIPTION
(Diagonal lines)	PERMANENT/ TEMPORARY SEEDING
(Solid black)	CONCRETE
(Cross-hatch)	HMA

NOTE:
1. THE ARV SYMBOL WAS MODIFIED ON THIS SHEET. ALSO SURFACE RESTORATION HATCH LEGEND. REPLACE THE SHEET WITH THE PROVIDED SR-6.7-8 INCLUDED WITH ADDENDUM 1.

KAL-8362400SR6-SR-6.7-8 PEAVINE STA. 35+00 TO 45+00
6/10/2026 11:07 AM - TVEELE
6/10/2026 11:08 AM

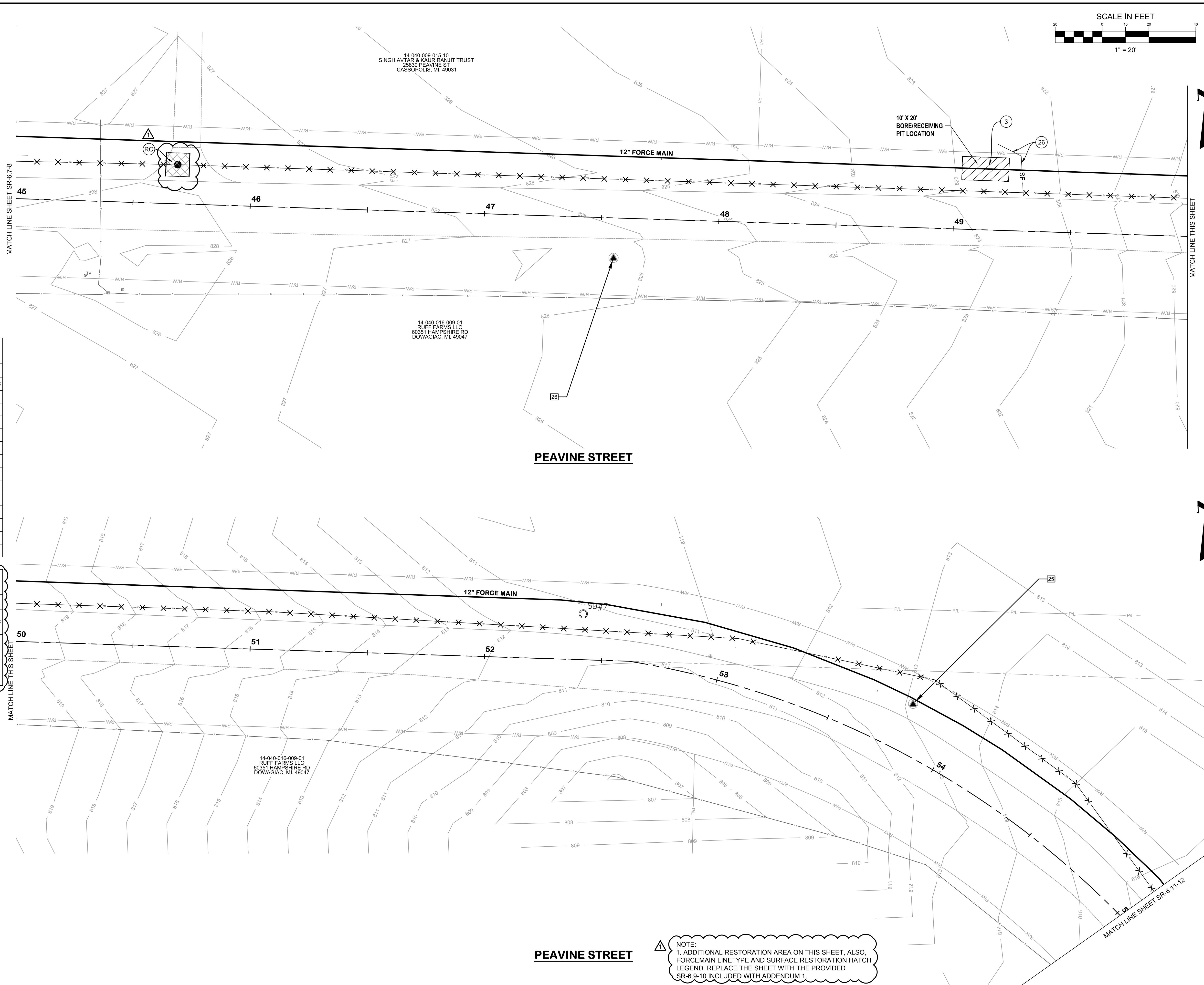
KAL-836240SR6-SR-6.9-10 PEAVINE STA. 45+00 TO 55+00
 6/10/2026 11:14 AM - TVEELE
 6/10/2026 11:14 AM



**PEAVINE STREET
 SURFACE RESTORATION
 PLANS**
 STA. 45+00 TO 55+00
 VILLAGE OF CASSOPOLIS, MICHIGAN
 CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT
ABONMARCHÉ

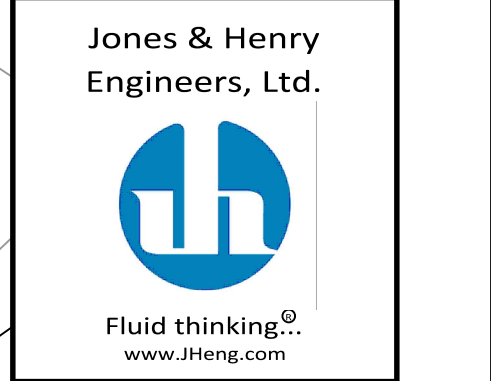
KEY	DESCRIPTION
(S)	PERMANENT/ TEMPORARY SEEDING
(SF)	GEOTEXTILE SILT FENCE
(SI)	DROP INLET SEDIMENT TRAP
(MD)	MDOT ROAD
(RH)	RESIDENTIAL HMA DRIVE
(CR)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SR)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

HATCH	DESCRIPTION
(Diagonal lines)	PERMANENT/ TEMPORARY SEEDING
(Solid black)	CONCRETE
(Cross-hatch)	HMA

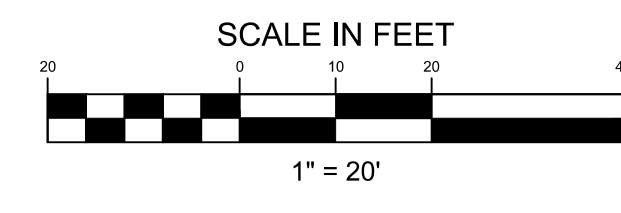


NOTE:
 1. ADDITIONAL RESTORATION AREA ON THIS SHEET, ALSO, FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND. REPLACE THE SHEET WITH THE PROVIDED SR-6.9-10 INCLUDED WITH ADDENDUM 1.

DESIGNED	JR	DRAWN	TV/CS	CHECKED	NLD
STATUS:	ISSUE FOR BID				
DATE:	MAY 2026				
SHEET NO.:	SR-6.9-10				
	98 OF 107				



Jones & Henry
 Engineers, Ltd.
 Fluid thinking.
 www.JHeng.com
 JOB NO. 541-8362.400
 SCALE 1"=20'
 THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE
 REVISIONS AFTER ISSUED FOR BID



**PEAVINE STREET
SURFACE RESTORATION
PLANS**

STA. 55+00 TO 65+00

VILLAGE OF CASSOPOLIS, MICHIGAN
CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT



Jones & Henry
Engineers, Ltd.



Fluid thinking®
www.JHeng.com

JOB NO. 541-8362.400

SCALE 1"=20'

THIS LINE SCALES IF WHEN
PLOTTED TO NOTES SCALE

DESIGNED	DRAWN	CHECKED
JR	TV/CS	NLD

STATUS: ISSUE FOR BID

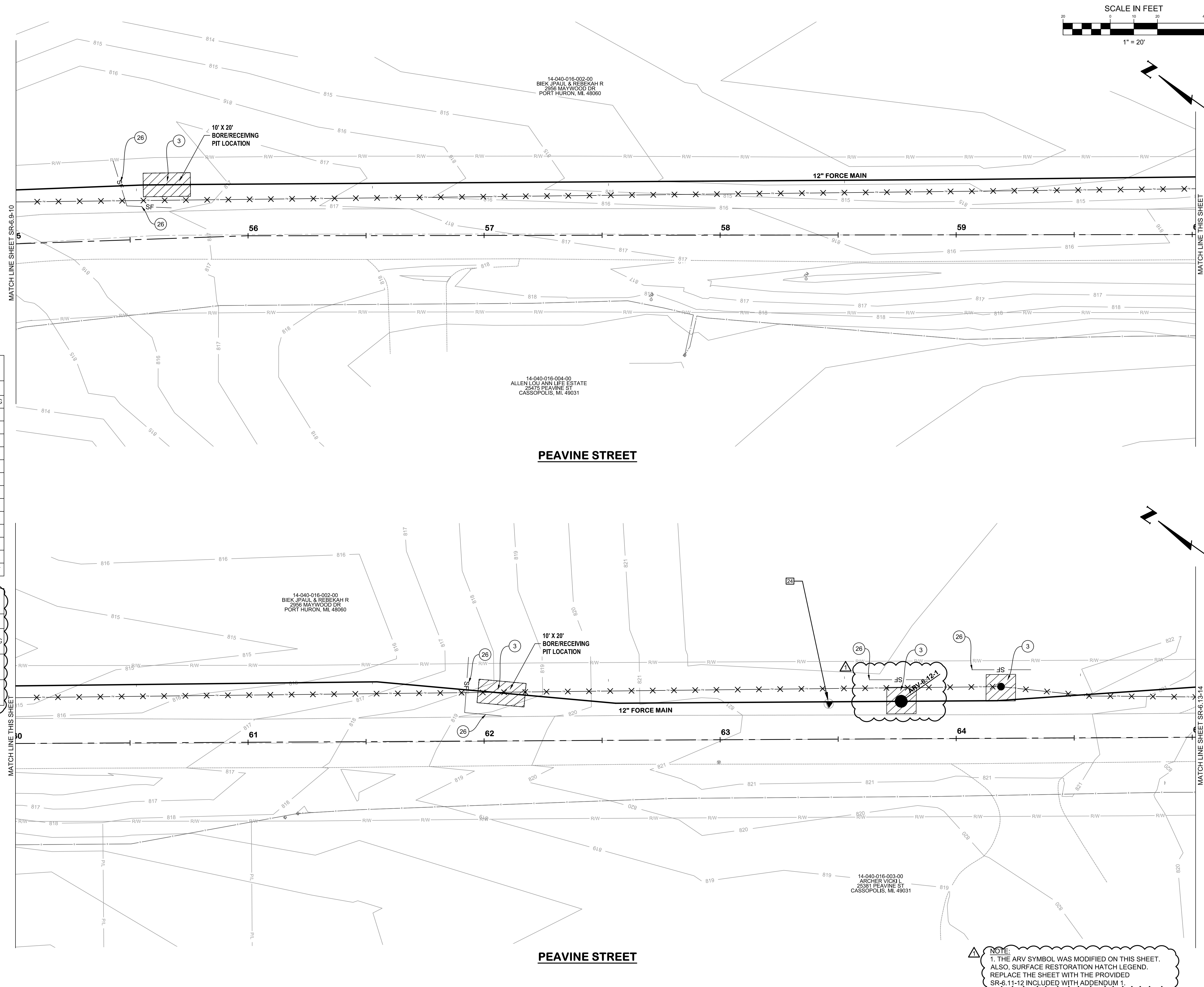
DATE: MAY 2026

SHEET NO.
SR-6.11-12

99 OF 107

SESC AND SURFACE RESTORATION KEYNOTE LEGEND	
KEY	DESCRIPTION
(3)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(21)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(RH)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SW)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CS)	CURB AND GUTTER REPLACEMENT

SESC AND SURFACE RESTORATION HATCH LEGEND	
HATCH	DESCRIPTION
	PERMANENT/ TEMPORARY SEEDING
	CONCRETE
	HMA



NOTE:
1. THE ARV SYMBOL WAS MODIFIED ON THIS SHEET.
ALSO, SURFACE RESTORATION HATCH LEGEND.
REPLACE THE SHEET WITH THE PROVIDED
SR-6.11-12 INCLUDED WITH ADDENDUM 1.

KAL-8362400SR6-SR-6.11-12 PEAVINE STA. 55+00 TO 65+00
6/10/2026 11:16 AM - TVEELE
6/10/2026 11:17 AM

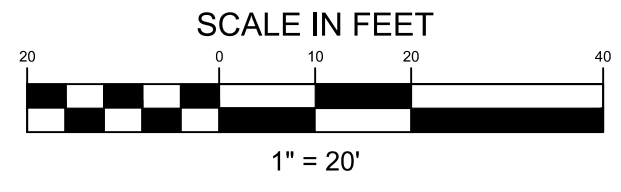
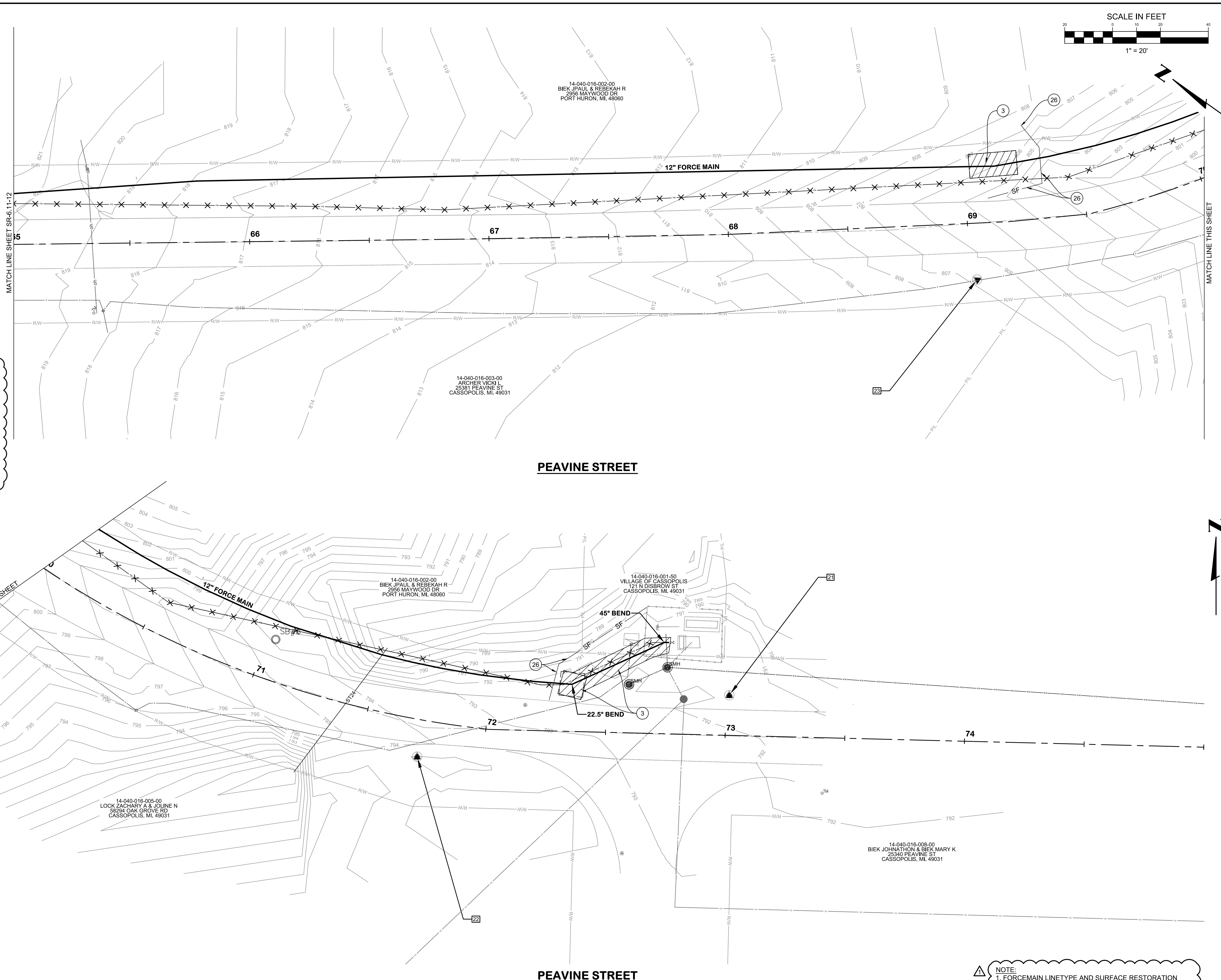
KAL-836240SR6-SR-6.13-14 PEAVINE STA. 65+00 TO 75+00
 6/10/2026 11:25 AM - TVEELE
 6/10/2026 11:26 AM

SESC AND SURFACE RESTORATION KEYNOTE LEGEND

KEY	DESCRIPTION
(S)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(31)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(RH)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SW)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

SESC AND SURFACE RESTORATION HATCH LEGEND

HATCH	DESCRIPTION
	PERMANENT/ TEMPORARY SEEDING
	CONCRETE
	HMA



**PEAVINE STREET
 SURFACE RESTORATION
 PLANS**
 STA. 65+00 TO 75+00
 VILLAGE OF CASSOPOLIS, MICHIGAN
ABONMARCHÉ
 CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT

NO.	DATE	BY
1	4/9/2026	ADDENDUM 1
2		
3		
4		

Jones & Henry
 Engineers, Ltd.

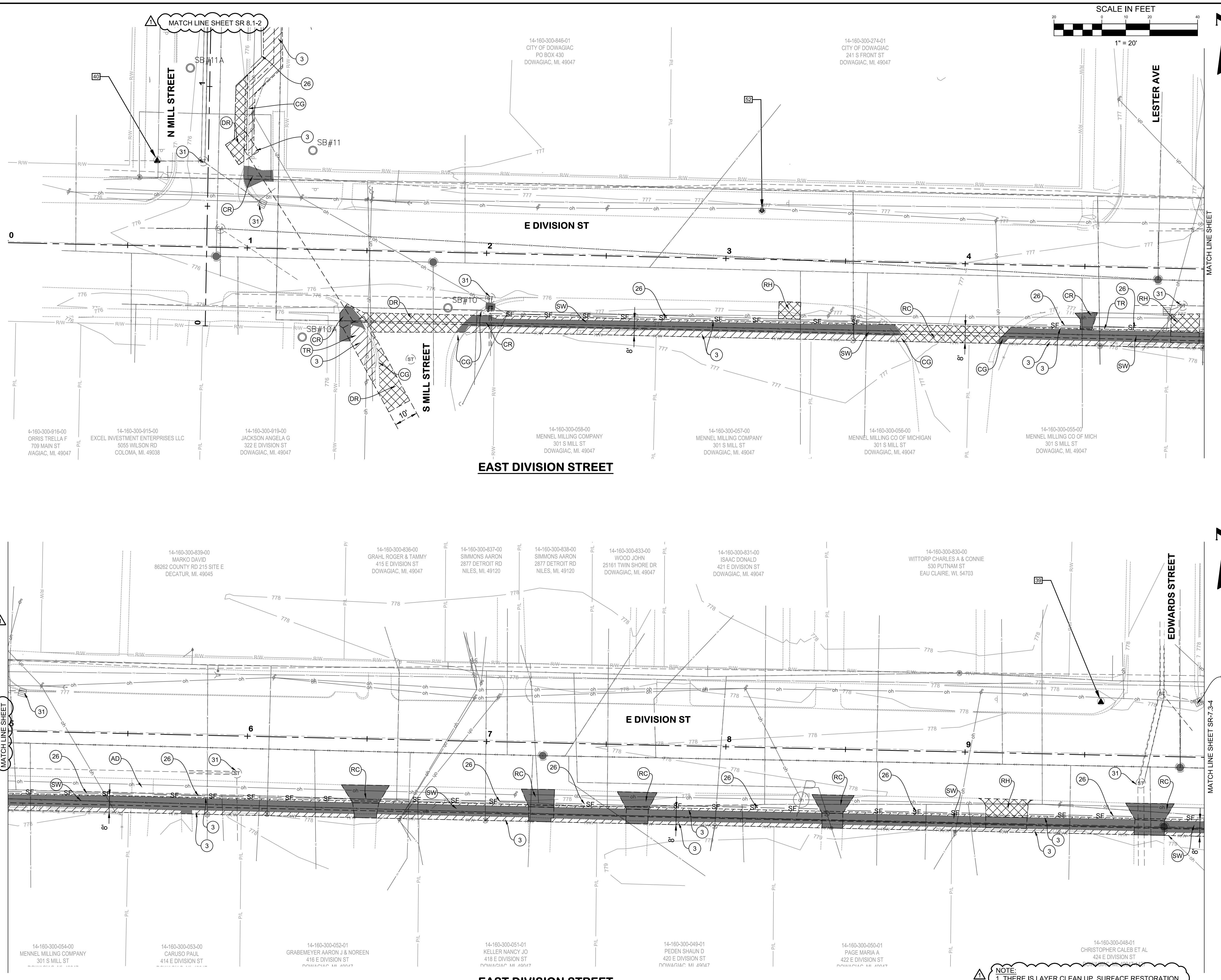
 Fluid thinking.
 www.JHeng.com

JOB NO.	541-8362.400	
SCALE	1"=20'	
THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE		
DESIGNED	DRAWN	CHECKED
JR	TV/CS	NLD
STATUS: ISSUE FOR BID		
DATE: MAY 2026		
SHEET NO.		

SR-6.13-14
 100 OF 107

NOTE:
 1. FORCEMAIN LINETYPE AND SURFACE RESTORATION HATCH LEGEND. REPLACE THE SHEET WITH THE PROVIDED SR-6.13-14 INCLUDED WITH ADDENDUM 1.

KAL-8362400SR7-SR-7.1-2 E DIVISION STA. 0+00 TO 10+00
 6/10/2025 10:36 AM - TVEELE
 6/10/2025 10:37 AM




SESC AND SURFACE RESTORATION KEYNOTE LEGEND

KEY	DESCRIPTION
(J)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(31)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(R)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SW)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT


SESC AND SURFACE RESTORATION HATCH LEGEND

HATCH	DESCRIPTION
(Hatched pattern)	PERMANENT/ TEMPORARY SEEDING
(Solid black)	CONCRETE
(Cross-hatched)	HMA

NOTE:
 1. THERE IS LAYER CLEAN UP, SURFACE RESTORATION HATCH LEGEND, TREE ADDED, AND MATCH LINES ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-7.1-2 WITH ADDENDUM 1




Village of Cassopolis
 A friendly, vibrant community



ABONMARCHÉ

**E. DIVISION ST
 SURFACE RESTORATION
 PLANS
 STA. 0+00 TO 10+00**

VILLAGE OF CASSOPOLIS, MICHIGAN
 CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT

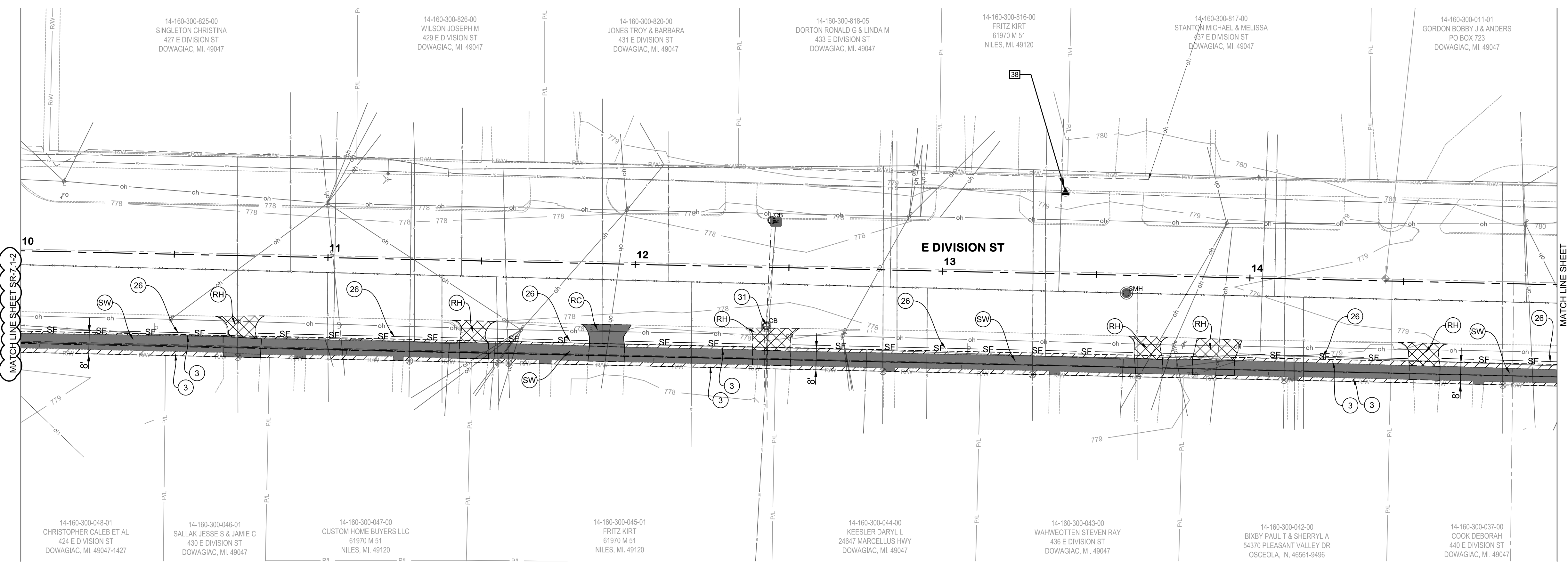


ABONMARCHÉ

DESIGNED BY: JR
 DRAWN BY: TV/CS
 CHECKED BY: NLD

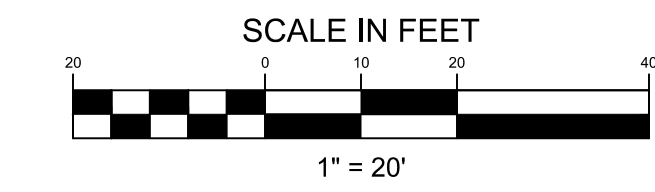
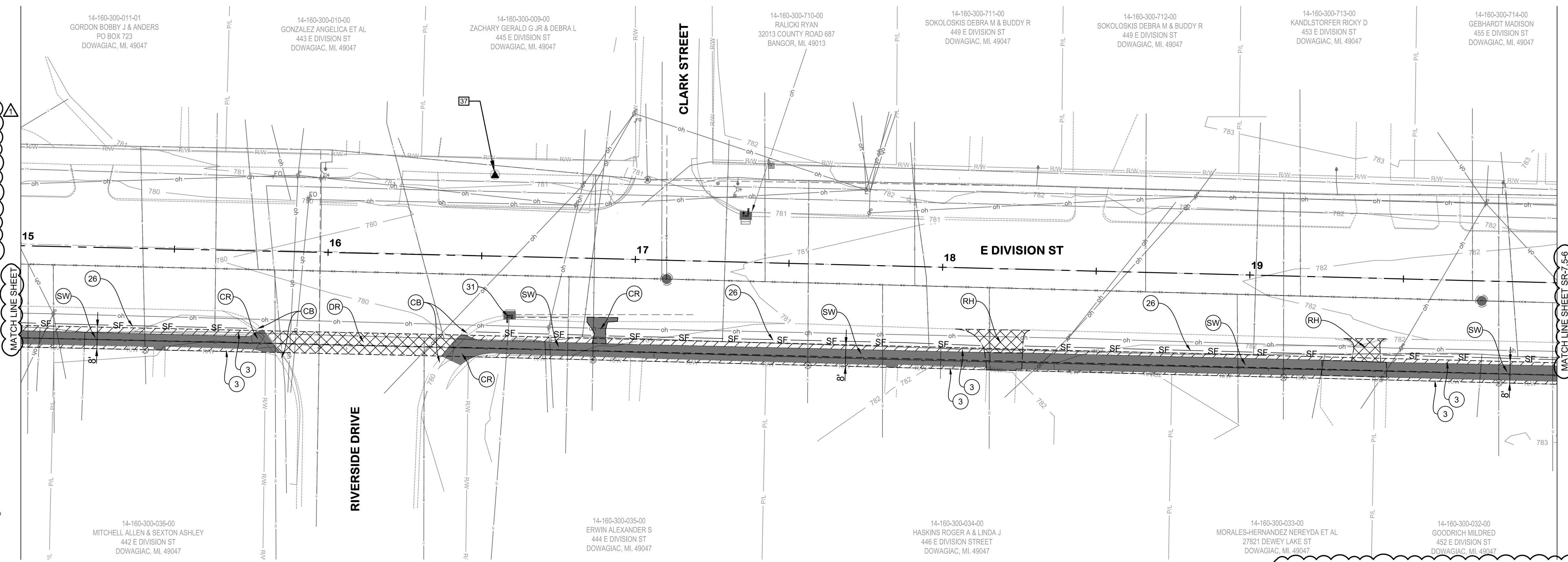
STATUS: ISSUE FOR BID
 DATE: MAY 2026

SHEET NO.
SR-7.1-2
 101 OF 107



SESC AND SURFACE RESTORATION KEYNOTE LEGEND	
KEY	DESCRIPTION
(J)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(3)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(RH)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(RC)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SW)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

SESC AND SURFACE RESTORATION HATCH LEGEND	
HATCH	DESCRIPTION
	PERMANENT/ TEMPORARY SEEDING
	CONCRETE
	HMA



NOTE:
1. THERE IS LAYER CLEAN UP, SURFACE RESTORATION HATCH LEGEND, MATCHLINES AND CURB REPLACEMENT ADDED TO THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-7.3-4 WITH ADDENDUM 1.

KAL-8362400SR7-SR-7.3-4 E. DIVISION STA. 10+00 TO 20+00
6/10/2026 10:44 AM - TVEELE
6/10/2026 10:44 AM

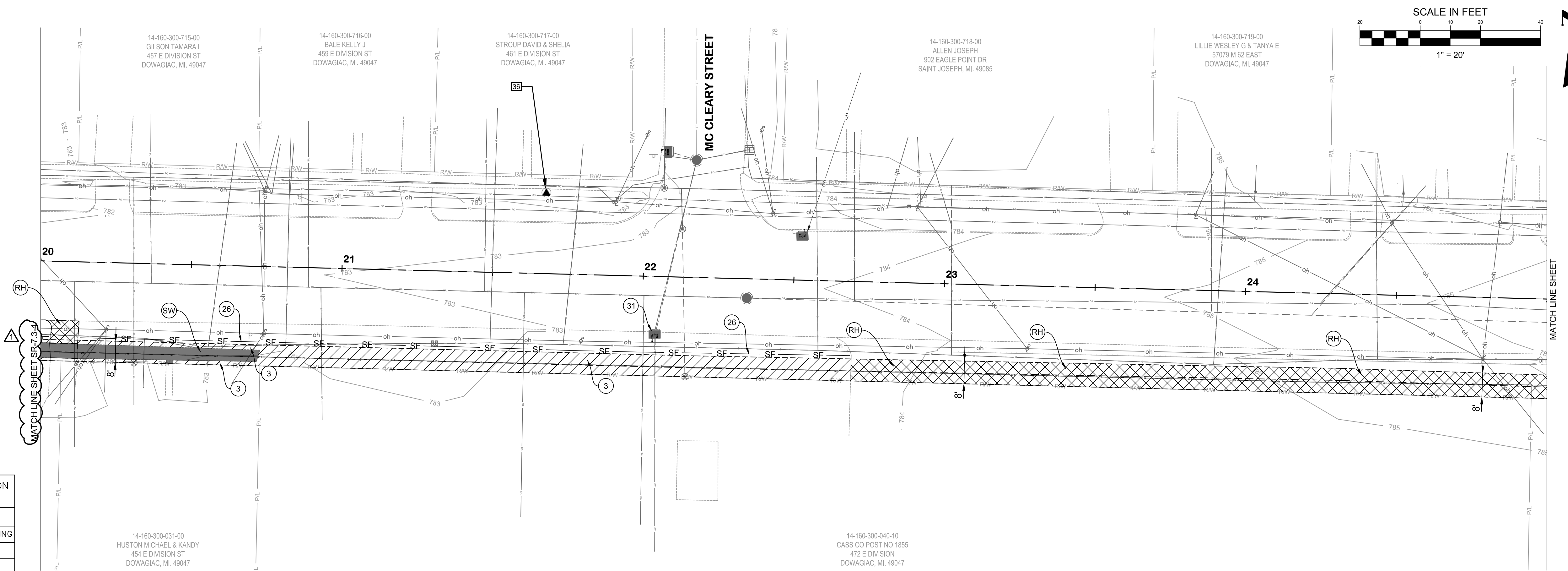
DESIGNED BY: JR
DRAWN BY: TV/CS
CHECKED BY: NLD
STATUS: ISSUE FOR BID
DATE: MAY 2026
SHEET NO.: SR-7.3-4
102 OF 107

Jones & Henry
Engineers, Ltd.

Fluid thinking®
www.JHeng.com

JOB NO. 541-8362.400
SCALE AS INDICATED
THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE
DESIGNED BY: JR
DRAWN BY: TV/CS
CHECKED BY: NLD
STATUS: ISSUE FOR BID
DATE: MAY 2026
SHEET NO.: SR-7.3-4
102 OF 107

KAL-8362400SR7-SR-7.5-6 E. DIVISION STA. 20+00 TO 30+00
 6/10/2025 10:47 AM - TVEELE
 6/10/2025 10:47 AM



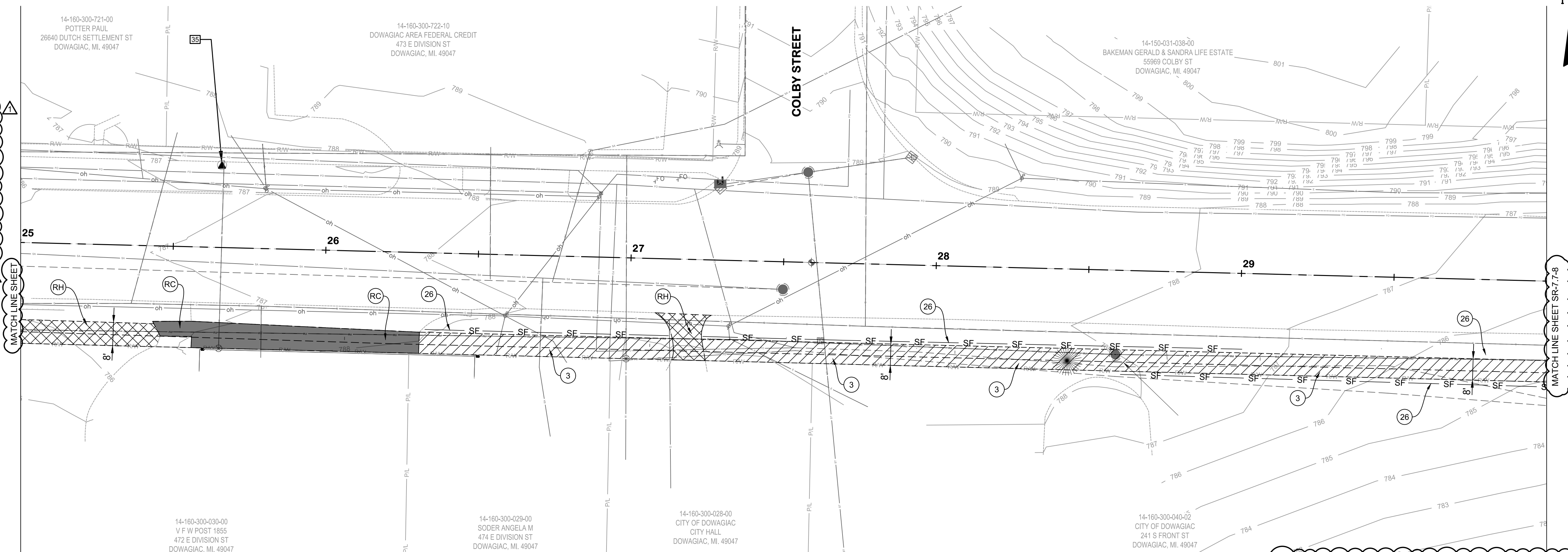
EAST DIVISION STREET

SESC AND SURFACE RESTORATION KEYNOTE LEGEND

KEY	DESCRIPTION
(J)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(31)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(RC)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SW)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

SESC AND SURFACE RESTORATION HATCH LEGEND

HATCH	DESCRIPTION
[Diagonal lines]	PERMANENT/ TEMPORARY SEEDING
[Solid black]	CONCRETE
[Cross-hatch]	HMA



EAST DIVISION STREET

NOTE:
 1. THERE IS LAYER CLEAN UP, MINOR RESTORATION LIMIT CHANGES, MATCHLINES, SURFACE RESTORATION HATCH LEGEND AND SYMBOLOLOGY UPDATED ON THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SR-7.5-6 INCLUDED WITH ADDENDUM 1.

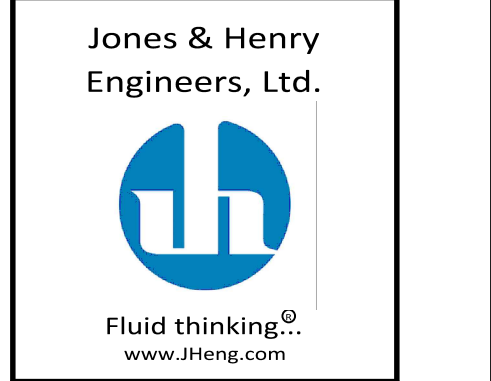


**E. DIVISION ST
 SURFACE RESTORATION
 PLANS
 STA. 20+00 TO 30+00**

VILLAGE OF CASSOPOLIS, MICHIGAN
 CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT

ABONMARCHÉ

DESIGNED	DRAWN	CHECKED
JR	TV/CS	NLD
STATUS: ISSUE FOR BID		
DATE: MAY 2026		
SHEET NO. SR-7.5-6		
103 OF 107		



Jones & Henry
 Engineers, Ltd.


JOB NO. 541-8362.400

SCALE AS INDICATED

THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE

NO.	DATE	REVISIONS
1	4/9/2026	ADDENDUM 1

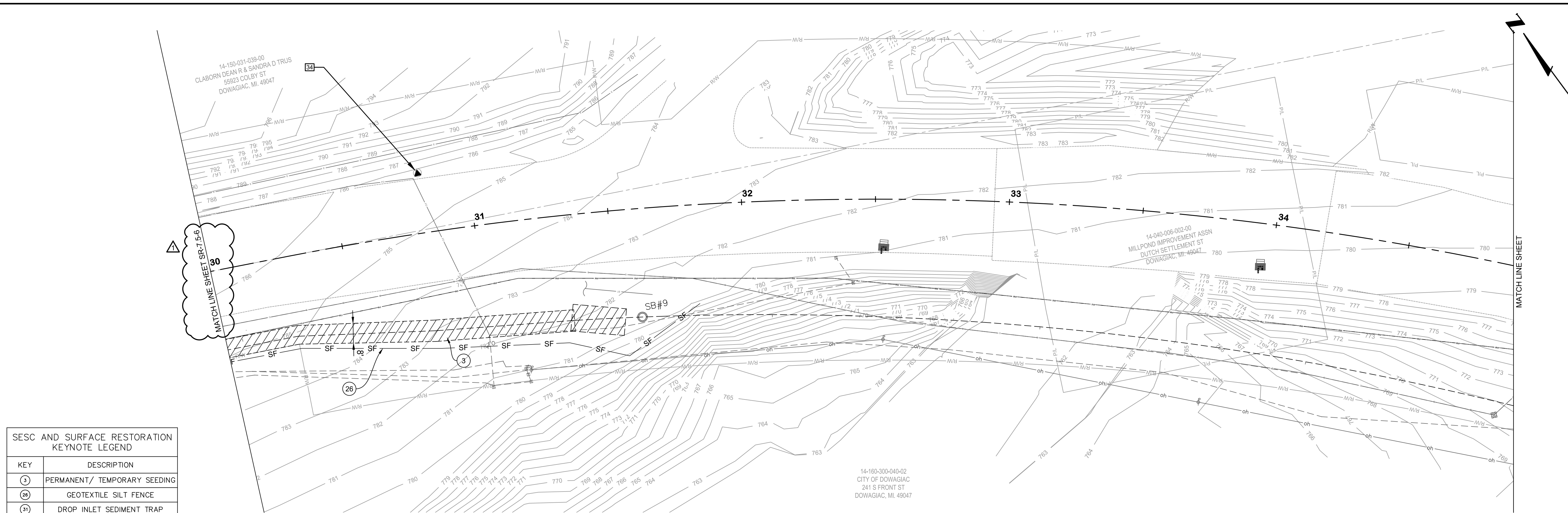
Jones & Henry
Engineers, Ltd.



Fluid thinking®
www.jheng.com

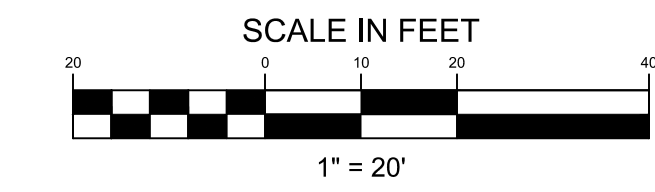
JOB NO.	541-8362.400
SCALE	AS INDICATED
DESIGNED	JR
DRAWN	TV/CS
CHECKED	NLD
STATUS	ISSUE FOR BID
DATE	MAY 2026

SHEET NO.
SR-7.7-8
104 OF 107



KEY	DESCRIPTION
(3)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(31)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(R)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SR)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

HATCH	DESCRIPTION
(Diagonal lines)	PERMANENT/ TEMPORARY SEEDING
(Solid black)	CONCRETE
(Cross-hatch)	HMA



KAL-8362400SR7-SR-7.7-8 E. DIVISION STA. 30+00 TO 40+00
6/10/2025 10:45 AM - TVEELE
6/10/2025 10:50 AM

EAST DIVISION STREET

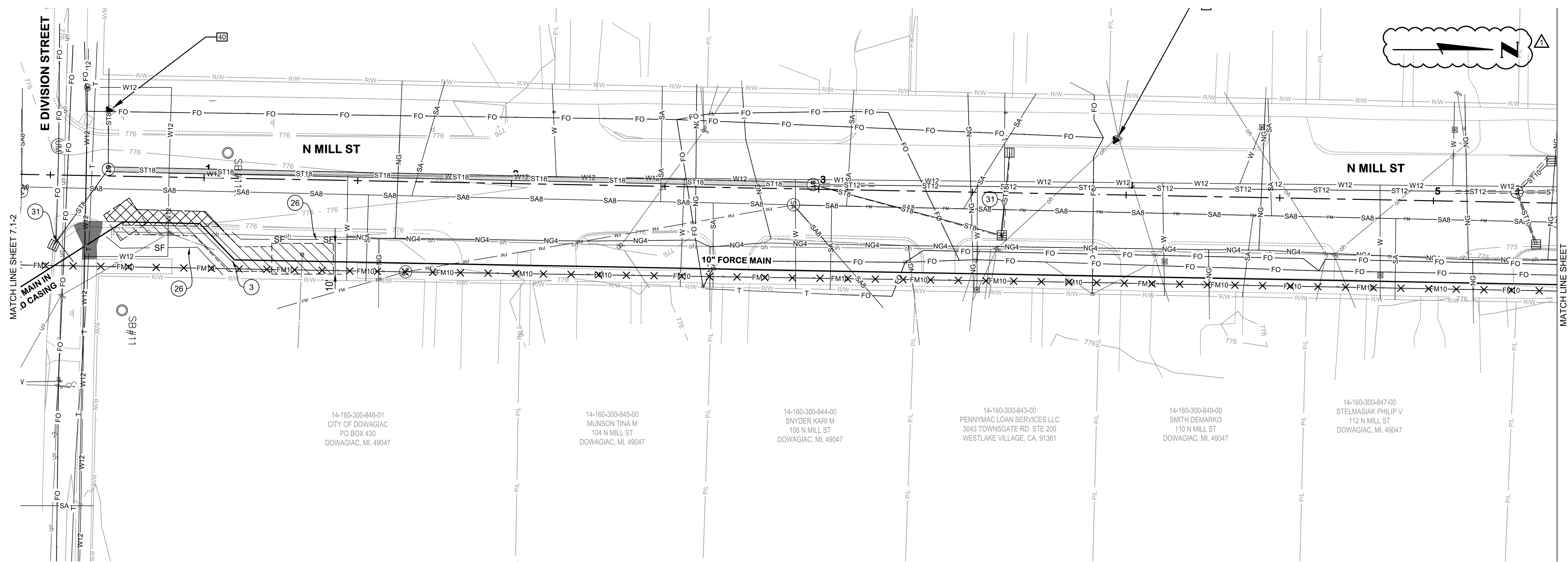
EAST DIVISION STREET

NOTE:
1. THERE ARE MINOR RESTORATION LIMIT CHANGES ON THIS SHEET ALSO MATCHLINES AND SURFACE RESTORATION HATCH LEGEND. REPLACE THE SHEET WITH THE PROVIDED SR-7.7-8 INCLUDED WITH ADDENDUM 1.

**N. MILL ST
SURFACE RESTORATION
PLANS
STA. 0+00 TO 10+00**

VILLAGE OF CASSOPOLIS, MICHIGAN
CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT

ABONMARCHÉ

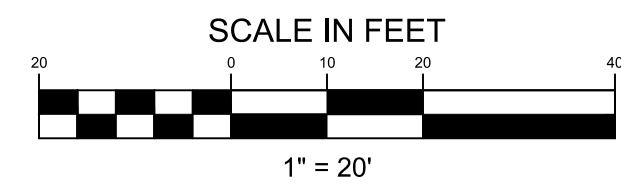
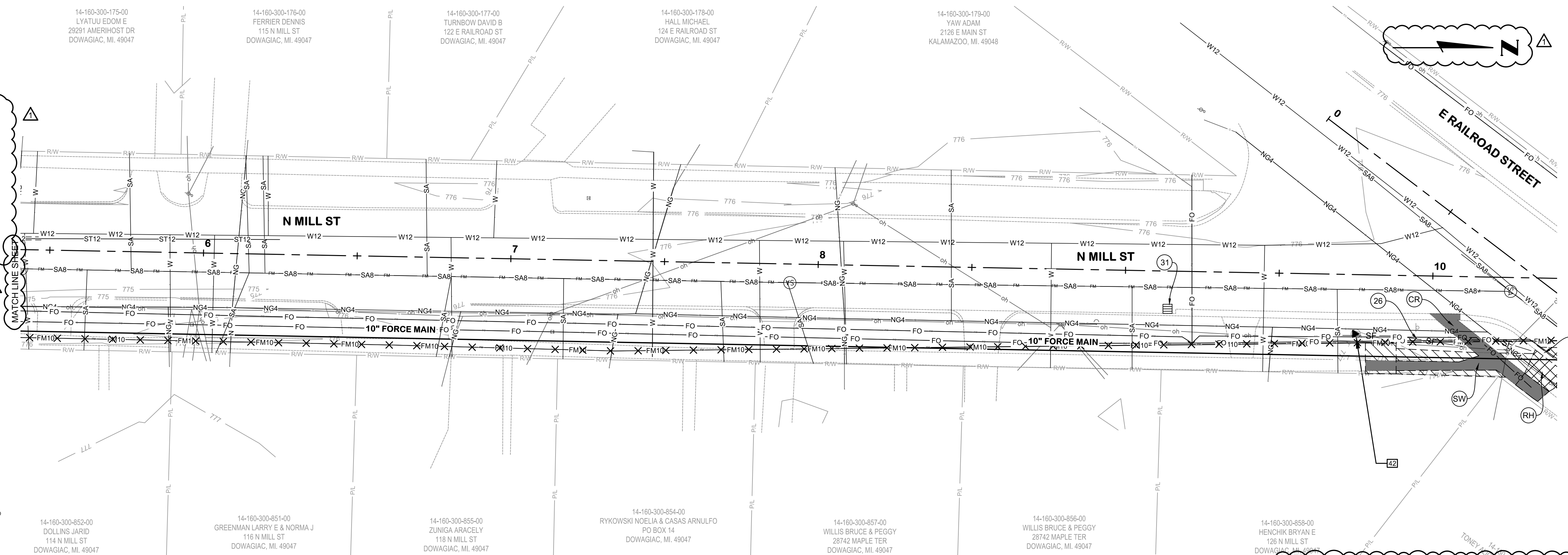


SESC AND SURFACE RESTORATION KEYNOTE LEGEND

KEY	DESCRIPTION
(J)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(31)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(R)	RESIDENTIAL HMA DRIVE
(C)	CASS COUNTY ROAD
(D)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(T)	TREE REMOVAL
(SW)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

SESC AND SURFACE RESTORATION HATCH LEGEND

HATCH	DESCRIPTION
(Diagonal lines)	PERMANENT/ TEMPORARY SEEDING
(Solid black)	CONCRETE
(Cross-hatch)	HMA



NOTE:
1. THERE IS LAYER CLEAN UP, RESTORATION LIMIT CHANGES, SURFACE RESTORATION HATCH LEGEND, MATCH LINES AS WELL AS NORTH ARROWS ADDED ON THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SB-8.12 INCLUDED WITH ADDENDUM 1.

KAL-8362400SR8-SR-8.1-2 N. MILL STA. 0+00 TO 10+00
6/10/2025 10:15 AM - TVEELE
6/10/2025 10:15 AM

DESIGNED BY: JR
DRAWN BY: TV/CS
CHECKED BY: NLD
STATUS: ISSUE FOR BID
DATE: MAY 2026

Jones & Henry
Engineers, Ltd.

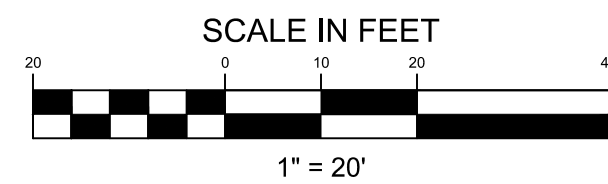
Fluid thinking®
www.JHeng.com

JOB NO. 541-8362.400
SCALE AS INDICATED
THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE
SHEET NO. SR-8.1-2
105 OF 107

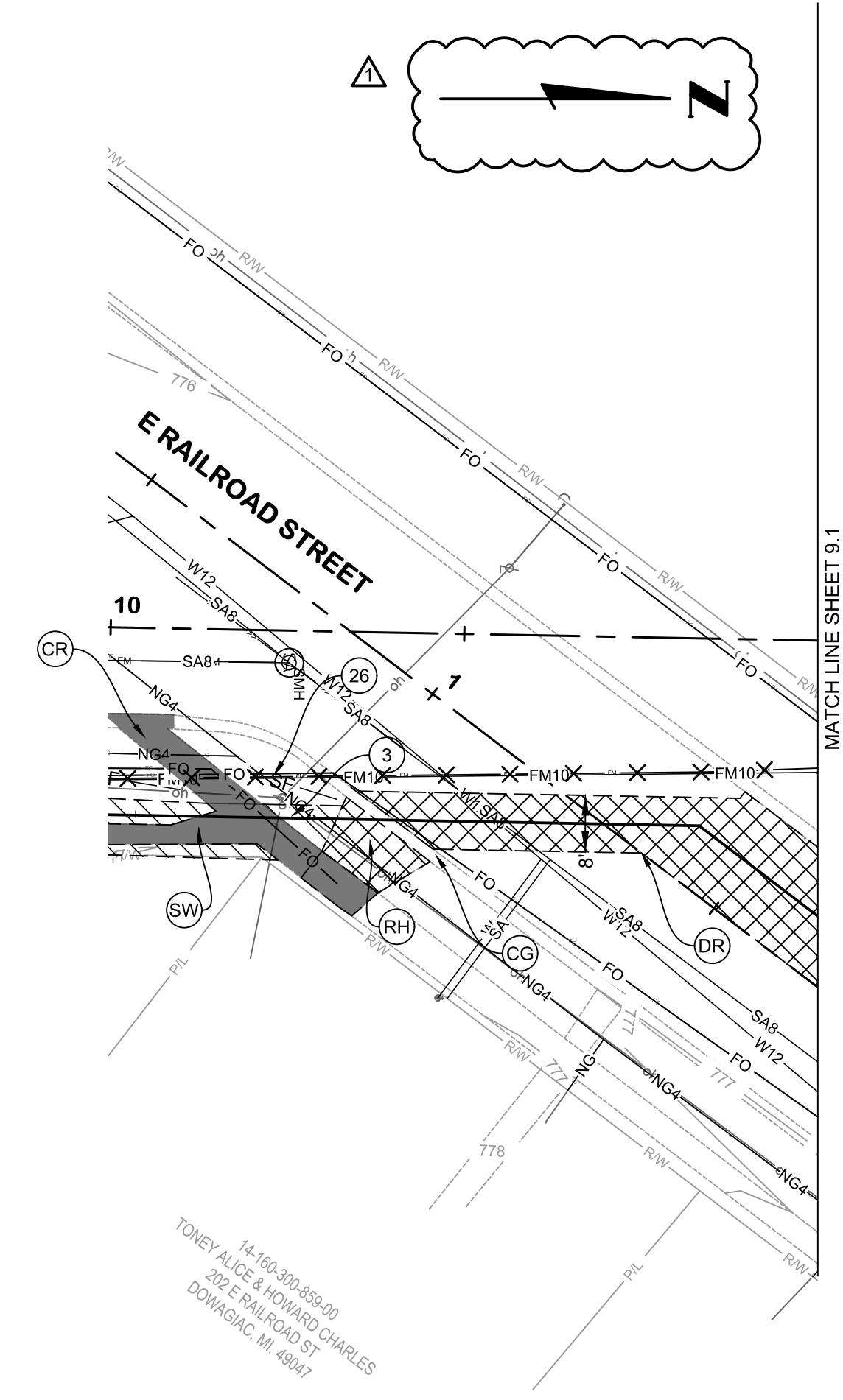
KAL-8362400SR8-SR-8.3 N. MILL STA. 10+00 TO 15+00
 6/10/2026 10:16 AM - TVEELE
 6/10/2026 10:16 AM

SESC AND SURFACE RESTORATION KEYNOTE LEGEND	
KEY	DESCRIPTION
(J)	PERMANENT/ TEMPORARY SEEDING
(26)	GEOTEXTILE SILT FENCE
(3)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(R)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SW)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

SESC AND SURFACE RESTORATION HATCH LEGEND	
HATCH	DESCRIPTION
	PERMANENT/ TEMPORARY SEEDING
	CONCRETE
	HMA



N. MILL STREET



NOTE:
 1. A MATCH LINE, SURFACE RESTORATION HATCH LEGEND AND A NORTH ARROW WERE ADDED ON THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SHEET SR-8.3 INCLUDED WITH ADDENDUM 1.



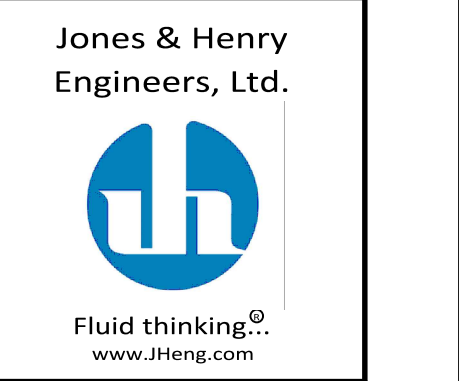
**N. MILL ST
 SURFACE RESTORATION
 PLANS
 STA. 10+00 TO 15+00**

VILLAGE OF CASSOPOLIS, MICHIGAN
 CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT

ABONMARCHÉ

REVISIONS AFTER ISSUED FOR BID

NO.	DATE	BY



JOB NO. **541-8362.400**

SCALE **AS INDICATED**

THIS LINE SCALES IF WHEN PLOTTED TO NOTES SCALE

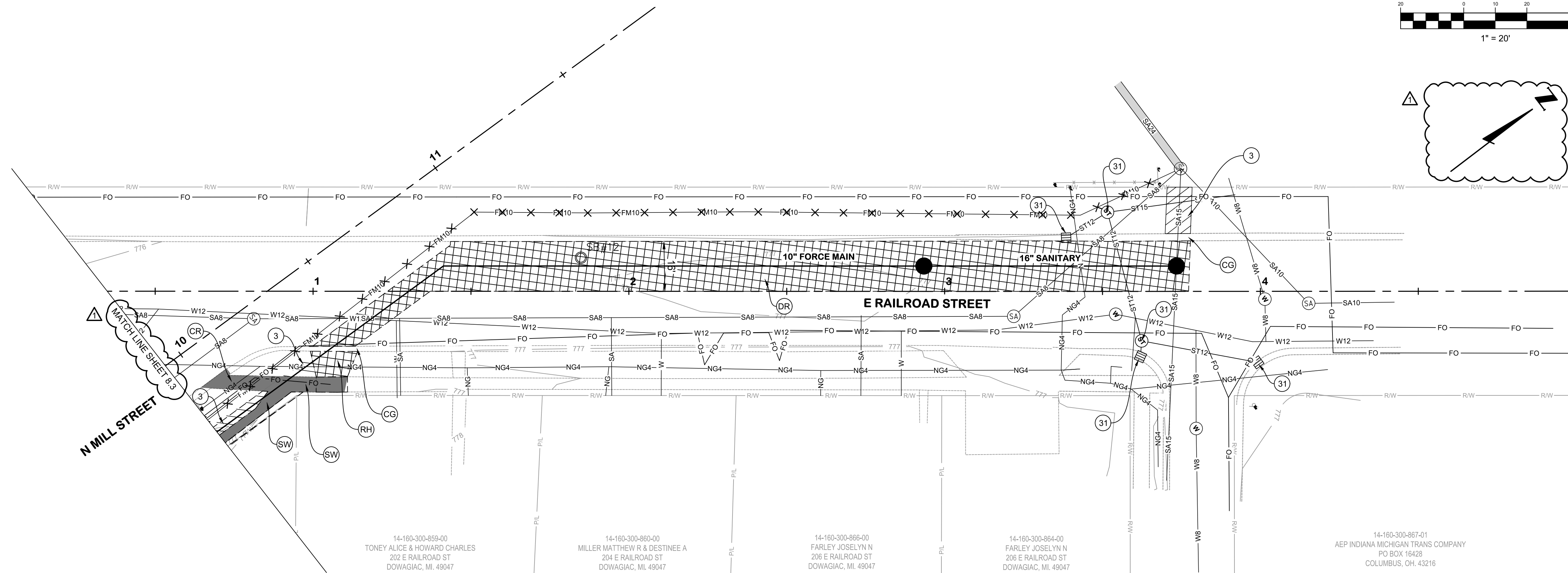
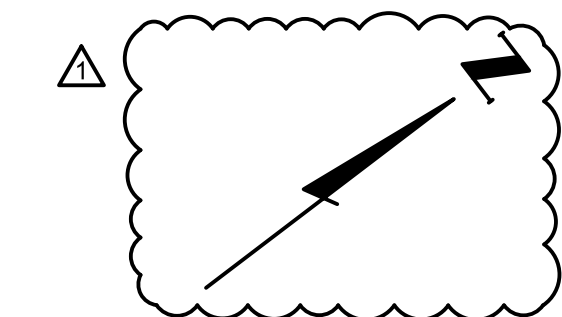
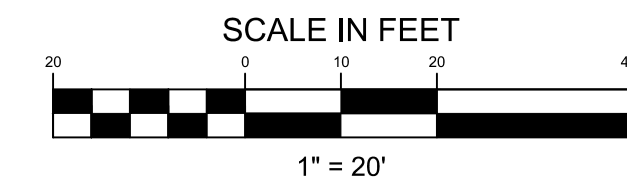
DESIGNED	DRAWN	CHECKED
JR	TV/CS	NLD

STATUS: **ISSUE FOR BID**

DATE: **MAY 2026**

SHEET NO.

SR-8.3
 106 OF 107



SESC AND SURFACE RESTORATION KEYNOTE LEGEND

KEY	DESCRIPTION
(3)	PERMANENT/ TEMPORARY SEEDING
(28)	GEOTEXTILE SILT FENCE
(31)	DROP INLET SEDIMENT TRAP
(MR)	MDOT ROAD
(RH)	RESIDENTIAL HMA DRIVE
(CC)	CASS COUNTY ROAD
(DR)	DOWAGIAC ROAD
(RC)	RESIDENTIAL CONCRETE DRIVE
(AD)	AGGREGATE DRIVE
(TR)	TREE REMOVAL
(SW)	SIDEWALK REPLACEMENT
(CR)	CURB RAMP REPLACEMENT
(DW)	DETECTABLE WARNING SURF.
(CG)	CURB AND GUTTER REPLACEMENT

SESC AND SURFACE RESTORATION HATCH LEGEND

HATCH	DESCRIPTION
	PERMANENT/ TEMPORARY SEEDING
	CONCRETE
	HMA

14-160-300-859-00
TONEY ALICE & HOWARD CHARLES
202 E RAILROAD ST
DOWAGIAC, MI 49047

14-160-300-860-00
MILLER MATTHEW R & DESTINEE A
204 E RAILROAD ST
DOWAGIAC, MI 49047

14-160-300-866-00
FARLEY JOSELYN N
206 E RAILROAD ST
DOWAGIAC, MI 49047

14-160-300-864-00
FARLEY JOSELYN N
206 E RAILROAD ST
DOWAGIAC, MI 49047

14-160-300-867-01
AEP INDIANA MICHIGAN TRANS COMPANY
PO BOX 16428
COLUMBUS, OH 43216

E. RAILROAD STREET



**E. RAILROAD STREET
SURFACE RESTORATION
PLANS
STA. 0+00 TO 5+00**

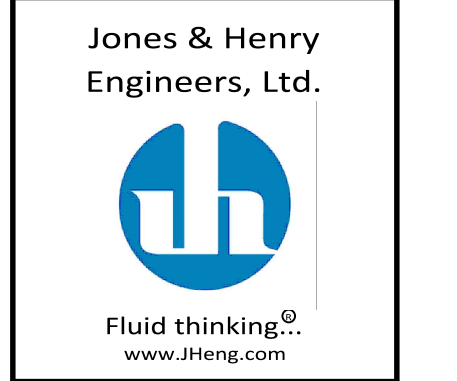
VILLAGE OF CASSOPOLIS, MICHIGAN
CWSRF INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT

ABONMARCHÉ

DESIGNED BY: JR
DRAWN BY: TV/CS
CHECKED BY: NLD

STATUS: ISSUE FOR BID
DATE: MAY 2026

SHEET NO.: SR-9.1
107 OF 107



Jones & Henry
Engineers, Ltd.

JOB NO. 541-8362.400

SCALE AS INDICATED

DESIGNED BY: JR
DRAWN BY: TV/CS
CHECKED BY: NLD

STATUS: ISSUE FOR BID
DATE: MAY 2026

SHEET NO.: SR-9.1
107 OF 107

NOTE:
1. THERE IS LAYER CLEAN UP, RESTORATION LIMIT CHANGES, SURFACE RESTORATION HATCH LEGEND AND MATCH LINES MODIFIED AS WELL AS A NORTH ARROW ADDED ON THIS SHEET. REPLACE THE SHEET WITH THE PROVIDED SR-9.1 INCLUDED WITH ADDENDUM 1.

KAL-8362400SR9-SR-9.1 E. RAILROAD STA. 0+00 TO 5+00
6/10/2026 10:12 AM - TVEELE
6/10/2026 10:12 AM

TABLE OF CONTENTS

	Page
C-111 Advertisement for Bids	1 - 2
C-200 Instruction to Bidders	1 - 12
C-410 Bid Form for Construction Projects	1 - 12
C-430 Bid Bond	1 - 2
C-510 Notice of Award	1 - 2
C-520 Agreement Between Owner and Contract for Construction Contract	1 - 10
C-550 Notice to Proceed	1 - 2
C-610 Performance Bond	1 - 2
C-612 Labor and Material Bond	1 - 4
C-614 Maintenance and Guarantee Bond	1 - 4
C-620 Contractor’s Application for Payment	1 - 4
C-625 Certificate of Substantial Completion	1 - 2
C-700 General Conditions	1 - 74
Article 1 - Definitions and Terminology	
Article 2 - Preliminary Matters	
Article 3 - Documents: Intent, Requirements, Reuse	
Article 4 - Commencement and Progress of the Work	
Article 5 - Availability of Lands; Subsurface and Physical Conditions; Reference Points	
Article 6 - Bonds and Insurance	
Article 7 - Contractor’s Responsibilities	
Article 8 - Other Work at the Site	
Article 9 - Owner’s Responsibilities	
Article 10 - Engineer’s Status During Construction	
Article 11 - Amending the Contract Documents; Changes in the Work	
Article 12 - Claims	
Article 13 - Cost of the Work; Allowances; Unit Price Work	
Article 14 - Tests and Inspections; Correction, Removal or Acceptance of Defective Work	
Article 15 - Payments to Contractor; Set Offs; Completion; Correction Period	
Article 16 - Suspension of Work and Termination	
Article 17 - Final Resolution of Disputes	
Article 18 - Miscellaneous	
C-800 Supplementary Conditions	1 - 22
Exhibit 1 - Wage Rates	
Exhibit 2 - Funding Requirements	
C-941 Change Order	1 - 2
C-942 Field Order	1 - 2

Foreword to Technical Specifications

DIVISION 1 - GENERAL REQUIREMENTS

01010	Definition of Contract Items - (Multiple)	1 – 28
01043	Coordination and Control of the Work	1 – 8
01090	Reference Standards	1 – 2
01300	Submittals	1 – 6
01310	Progress Schedules and Documentation	1 – 4
01320	Electronic Project Management System (EPMS)	1 – 4
01350	Common Product Requirements	1 – 4
01410	Laboratory Services	1 – 4
01500	Maintaining Traffic	1 – 6
01565	Temporary Restoration and Maintenance of Pavements, Curbs, and Walkways	1 – 4
01568	Pollution Control	1 – 6
01800	Construction Survey Work	1 – 6
01810	Audio-Video Recording (Sewer & Water)	1 – 4
01820	Audio-Video Recording of Underground Infrastructure	1 – 4

DIVISION 2 - UNDERGROUND, PAVEMENT, AND SITE WORK

02100	Clearing and Grubbing	1 – 4
02110	Removal of Structures and Obstructions	1 - 6
02200	Excavation and Backfill	1 – 12
02201	Rock Excavation	1 – 4
02550	Storm and Sanitary Sewers - (Sewers)	1 – 16
02552	Precast Concrete Manholes	1 – 12
02555	Pressure Pipe (Sewer & Water)	1 – 12
02600	Pavements, Curbing, and Walks	1 – 8
02790	Horizontal Directional Boring	1 – 10
02800	Sodding, Seeding, and Mulching	1 – 4
02955	Carrier Pipe in Bored Casings	1 – 4

DIVISION 5 – METALS

05540	Iron Castings	1 – 4
-------	---------------	-------

DIVISION 15 - MECHANICAL

15210	Piping	1 – 16
15250	Valves	1 - 10

IF ANY OF THE PAGES LISTED ABOVE ARE NOT INCLUDED IN THESE CONTRACT DOCUMENTS, PLEASE ADVISE.

END OF SECTION

(Addendum 001, Issued: 06-16-2026)

**VILLAGE OF CASSOPOLIS
CASSOPOLIS, MICHIGAN
INTERCEPTOR FORCE MAIN REPLACEMENT PROJECT**

ADVERTISEMENT FOR BIDS

Sealed Bids for CWSRF Interceptor Force Main Replacement, will be received by the Village of Cassopolis at the 121 N. Disbrow Street, Cassopolis, Michigan 49031, 10:00 AM local time, on June 22nd, 2026, at which time they will be publicly opened and read.

The Interceptor Force Main Replacement Bid Work shall generally consist of the following:

In general, the work consists of the replacement of approximately 25,000 feet of force main from along the Village of Cassopolis' existing force main interceptor route that runs from State Highway 62 to Peavine St, Peavine St to Cherry Grove Rd, and E Division St to N Mill St. In addition, the work will include the replacement and lining of sanitary sewer manholes along this same route. The force main and manhole work shall also include new manholes, air release valves and structures, backflow structure, and surface restoration of disturbed areas.

The issuing office is Jones & Henry Engineers, Ltd., 4791 Campus Drive, Kalamazoo, MI 49008, 269-353-9650.

Technical questions regarding the project should be e-mailed to the Project Manager Mary Deneau, PE, mdeneau@jheng.com at Jones & Henry Engineers, Ltd.

Copies of Bidding Documents and Contract Documents may be obtained electronically from www.jhplanroom.com. There is no charge to download from the digital print-room, however, registration is required. If hard copies of the bidding documents are needed, they can be ordered from the print-room for a fee. If you have any problems using the digital print-room, you are encouraged to contact either the Engineer's Project Manager, or Eastern Engineering at 419-661-9841.

Neither Owner nor Engineer has any responsibility for the accuracy, completeness or sufficiency of any bid documents obtained from any source other than the source indicated in these documents. Obtaining these documents from any other source(s) may result in obtaining incomplete and inaccurate information. Obtaining these documents from any source other than directly from the source listed herein may also result in failure to receive any addenda, corrections, or other revisions to these documents that may be issued.

Bids must be submitted on the forms bound herein, must contain the names of every person or company interested therein, and shall be accompanied by a Bid Bond in the amount of 5% of the amount bid with satisfactory corporate surety, subject to conditions provided in the Instructions to Bidders. The successful bidder will be required to furnish satisfactory Performance Bond and Maintenance and Guarantee Bond in the amount of 100% of the Bid, and Labor and Material Bond in the amount of 50% of the Bid.

Any Bid may be withdrawn prior to the scheduled closing time for receipt of Bids, but no bidder shall withdraw his Bid within 90 days after the actual opening thereof.

**Issued for Bid
Cassopolis, MI
CWSRF Interceptor Force Main Replacement Project**

**0541.8362.300_400
05/2026**

The Owner reserves the right to reject any or all Bids, waive irregularities in any Bid, and to accept any Bid which is deemed most favorable to the Owner.

Emilie LaGrow, Village Manager

Dated: May 22, 2026

BID FORM

VILLAGE OF CASSOPOLIS, MICHIGAN

INTERCEPTOR FORCE MAIN REPLACEMENT

ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

Village of Cassopolis

Cassopolis, MI

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

<u>Addendum No.</u>	<u>Addendum, Date</u>
_____	_____
_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface

or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. “corrupt practice” means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
2. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

Bidder acknowledges that (1) that each Bid Unit Price as noted below, includes an amount for Materials, and (2) each Bid Unit Price, as noted below, includes an amount considered by Bidder to be adequate to cover Contractor’s costs, not included in Materials, such as equipment, overhead and profit for each separately identified item, and (3) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

Item No.	Description	Estimated Quantity	Unit	Unit Price	Amount
1	Mobilization and Demobilization	1	LS		
2	Minor Traf Devices	1	LS		
3	Traf Regulator Control	1	LS		
4	Video Recording	1	LS		
5	CCTV of Sewers	101	LF		
6	Clearing	1	LS		
7	Tree, Rem, 6 inch to 18 inch	5	EA		
8	Tree, Rem, 19 inch to 36 inch	5	EA		
9	Curb and Gutter, Rem	150	LF		
10	Sidewalk, Rem	890	SY		
11	Pavt, Rem, Modified	1400	SY		
12	Machine Grading	254	Sta		
13	Curb and Gutter, Conc	150	LF		
14	Subbase, CIP	790	SY		
15	Approach, CL II, 6 inch	25	SY		
16	Aggregate Base, 8 inch	790	SY		
17	HMA Approach	400	SY		

0541.8362.500
06/2026

Addendum 01
Cassopolis, MI
CWSRF Interceptor Force Main Replacement Project

18	HMA MDOT 3EML	10	TON		
19	HMA MDOT 4EL	80	TON		
20	HMA MDOT 4EML	70	TON		
21	Sidewalk, Conc, 4 inch	890	SY		
22	Driveway, Nonreinf Conc, 6 inch	275	SY		
23	Curb Ramp, Conc, 6 inch	635	SF		
24	Detectable Warning Surface	65	LF		
25	Sanitary Structure, 48 inch dia	230	VLF		
26	Sanitary Structure, 48 inch dia, Doghouse	20	VLF		
27	Manhole Protective Coating	335	VLF		
28	Air Release Valve and Structure	13	EA		
29	Backflow Prevention Valving and Structure	1	EA		
30	Lift Station Improvements	1	LS		
31	Sewer, HDPE 4710, 16 inch, Tr Det B	85	LF		
32	Sewer, HDPE 4710, 12 inch, Tr Det B	1865	LF		
33	Sewer, HDPE 4710, 12 inch, HDD	19900	LF		
34	Sewer, HDPE 4710, 10 inch, Tr Det B	3360	LF		
35	Sewer, HDPE 4710, 10 inch, HDD	1250	LF		
36	Sewer, HDPE 4710, 10 inch, Jack and Bored	81	LF		
37	Bypass Pumping	8	WEEK		
38	Restoration	1	LS		
39	Soil Erosion and Sedimentation Control	1	LS		
Total Project Cost:					

(Addendum 001, Issued: 06-10-2026)

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security;
 - B. Evidence of authority to do business in the state of the Project; and
 - C. [List other documents and edit above as pertinent]

ARTICLE 8 – DEFINED TERMS

- 8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

0541.8362.300_400
05/2026

Issued for Bid
Cassopolis, MI
CWSRF Interceptor Force Main Replacement Project

This page was intentionally left blank

AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)

THIS AGREEMENT is by and between The Village of Cassopolis (“Owner”) and
_____ (“Contractor”).

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

ARTICLE 2 – THE PROJECT

The Project, of which the Work under the Contract Documents is a part, is generally described as follows: *the work consists of the replacement of approximately 25,000 feet of force main from along the Village of Cassopolis’ existing force main interceptor route that runs from State Highway 62 to Peavine St, Peavine St to Cherry Grove Rd, and E Division St to N Mill St. In addition, the work will include the replacement and lining of sanitary sewer manholes along this same route. The force main and manhole work shall also include new manholes, air release valves and structures, backflow structure, and surface restoration of disturbed areas.*

2.01

ARTICLE 3 – ENGINEER

3.01 The part of the Project that pertains to the Work has been designed by Jones & Henry Engineers, Ltd.

3.02 The Owner has retained Jones & Henry Engineers, Ltd. (“Engineer”) to act as Owner’s representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Days*

- A. The Work will be substantially completed **within 365 days** from Notice to Proceed, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions **within 420 days** from Notice to Proceed.

4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):
1. Substantial Completion: Contractor shall pay Owner \$1000.00 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
 2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$500.00 for each day that expires after such time until the Work is completed and ready for final payment.
 3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

4.04 *Special Damages*

- A. In addition to the amount provided for liquidated damages, Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.
- B. After Contractor achieves Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, Contractor shall reimburse Owner for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment.

ARTICLE 5 – CONTRACT PRICE

- 5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

- A. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item):

Item No.	Description	Estimated Quantity	Unit	Unit Price	Amount
1	Mobilization and Demobilization	1	LS		
2	Minor Traf Devices	1	LS		
3	Traf Regulator Control	1	LS		
4	Video Recording	1	LS		
5	CCTV of Sewers	101	LF		
6	Clearing	1	LS		
7	Tree, Rem, 6 inch to 18 inch	5	EA		
8	Tree, Rem, 19 inch to 36 inch	5	EA		
9	Curb and Gutter, Rem	150	LF		
10	Sidewalk, Rem	890	SY		
11	Pavt, Rem, Modified	1400	SY		
12	Machine Grading	254	Sta		
13	Curb and Gutter, Conc	150	LF		
14	Subbase, CIP	790	SY		
15	Approach, CL II, 6 inch	25	SY		
16	Aggregate Base, 8 inch	790	SY		
17	HMA Approach	400	SY		
18	HMA MDOT 3EML	10	TON		
19	HMA MDOT 4EL	80	TON		
20	HMA MDOT 4EML	70	TON		
21	Sidewalk, Conc, 4 inch	890	SY		
22	Driveway, Nonreinf Conc, 6 inch	275	SY		
23	Curb Ramp, Conc, 6 inch	635	SF		
24	Detectable Warning Surface	65	LF		
25	Sanitary Structure, 48 inch dia	230	VLF		
26	Sanitary Structure, 48 inch dia, Doghouse	20	VLF		
27	Manhole Protective Coating	335	VLF		
28	Air Release Valve and Structure	13	EA		
29	Backflow Prevention Valving and Structure	1	EA		
30	Lift Station Improvements	1	LS		
31	Sewer, HDPE 4710, 16 inch, Tr Det B	85	LF		
32	Sewer, HDPE 4710, 12 inch, Tr Det B	1865	LF		
33	Sewer, HDPE 4710, 12 inch, HDD	19900	LF		
34	Sewer, HDPE 4710, 10 inch, Tr Det B	3360	LF		
35	Sewer, HDPE 4710, 10 inch, HDD	1250	LF		

36	Sewer, HDPE 4710, 10 inch, Jack and Bored	81	LF		
37	Bypass Pumping	8	WEEK		
38	Restoration	1	LS		
39	Soil Erosion and Sedimentation Control	1	LS		
Total Project Cost:					

(Addendum 001, Issued: 06-10-2026)

The amounts for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor’s Applications for Payment on or about the last day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.
 - 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract
 - a. **90 percent** of Work completed (with the balance being retainage). If the Work has been **50 percent** completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and
 - b. 100 percent of cost of materials and equipment not incorporated in the Work.
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to **97.5** percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less **100** percent of Engineer’s estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST

- 7.01 All amounts not paid when due shall bear interest at the prime rate per annum.

ARTICLE 8 – CONTRACTOR’S REPRESENTATIONS

- 8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:
- A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor’s safety precautions and programs.
 - E. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
 - F. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
 - G. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
 - H. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
 - I. Contractor’s entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

- A. The Contract Documents consist of the following:
 - 1. This Agreement (C-520, Pages 1 to 10, inclusive).
 - 2. Bid Guarantee & Contract Bond (C-430, Pages 1 to 2, inclusive).
 - 3. Performance Bond (C-610, Pages 1 to 2, inclusive).
 - 4. Labor and Maintenance Bond (C-612, Pages 1 to 4, inclusive).
 - 5. Maintenance and Guarantee Bond (C-614, Pages 1 to 4, inclusive).
 - 6. General Conditions (C-700, Pages 1 to 73, inclusive).
 - 7. Supplementary Conditions (C-800, Pages 1 to 16, inclusive).
 - 8. Specifications as listed in the table of contents of the Project Manual.
 - 9. Drawings (not attached but incorporated by reference) consisting of 108 sheets with each sheet bearing the following general title: Interceptor Force Main Replacement Project CWSRF No. 5781-01.
 - 10. Addenda (Numbers 1 to ____, inclusive).
 - 11. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (C-410, Pages 1 to 6, inclusive).
 - 12. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 *Other Provisions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC® C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee®, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications

0541.8362.500
06/2026

Addendum 01
Cassopolis, MI
CWSRF Interceptor Force Main Replacement Project

to the standard wording of such published document to the Contractor, through a process such as highlighting or “track changes” (redline/strikeout), or in the Supplementary Conditions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____ (which is the Effective Date of the Contract).

OWNER:

CONTRACTOR:

By: _____

By: _____

Title: _____

Title: _____

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

License No.: _____
(where applicable)

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

NOTE TO USER: Use in those states or other jurisdictions where applicable or required.

CERTIFICATION OF FISCAL OFFICER

The undersigned, as _____ of _____ hereby certifies that funds sufficient to meet the requirement of this Contract have been lawfully appropriated for such purpose and are in the treasury, or in the process of collection.

By: _____

0541.8362.500
06/2026

Addendum 01
Cassopolis, MI
CWSRF Interceptor Force Main Replacement Project

Title: _____

APPROVAL BY OWNER'S LEGAL OFFICER

By: _____

Title: _____

Date: _____

SECTION 01010
DEFINITION OF CONTRACT ITEMS

PART 1 GENERAL

1.01 FOREWORD

- A. This Section describes the various Contract Items listed in the Bid.

1.02 WORK INCLUDED

- A. Under each Item the Contractor shall furnish all labor, materials, tools, plant equipment, supplies, maintenance of equipment, heating, lighting and power, insurance and bonds, coordination, and all Work and in accordance with the Specifications Parts A, B, and Divisions 1 through 16 of Part C and necessary to complete the Work in accordance with the obvious or expressed intent of the Contract Documents.
- B. The removal and proper disposal of debris generated by work under each Item shall be included in that corresponding Item.

1.03 WORKMANSHIP AND MATERIALS

- A. The quality of workmanship and materials entering into any and all of the Items and the Work included shall conform to pertinent sections, paragraphs, sentences, and clauses, both directly and indirectly applicable thereto, contained in the Contract Documents, whether or not direct reference to such occurs under each Item in this Section.

1.04 PAYMENT

- A. The lump sum and unit prices stated in the Bid shall be payment in full for the completion of all Work specified and described or required to be included in the Contract, complete, and ready for use.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

PART 4 SPECIAL PROVISIONS

4.01 CONTRACT ITEMS

- A. The contract items are defined on the following pages.

ITEM 1
MOBILIZATION AND DEMOBILIZATION

1.01 DESCRIPTION

- A. This Item is intended to pay non-recurring cost to the Contractor not recovered under other pay Items of the Contract.
- B. This Item shall include, but not be limited to, the cost for moving equipment in and out, performance and payment bonds, insurance, permits, utility connection cost, and other expenses associated with preparation for construction in accordance with the requirements of the Contract Documents.
- C. This item is intended to be in accordance with the Supplemental Conditions SC 2.6.

1.02 WORK NOT INCLUDED

- A. Any Work specifically included under other Bid Items.

1.03 DEFINITION OF ITEM

- A. Item 1 - Mobilization and Demobilization.

1.04 MEASUREMENT & PAYMENT

- A. The lump sum stated in the Bid shall be full compensation for all Work required under Item 1.
- B. The maximum allowable amount for Item 1 shall be five percent of the aggregate of all bid items excluding Item 1.
- C. Mobilization shall be included in the progress payments, in accordance with the schedule of values and unit prices. When the work, excluding mobilization and inventory, has progressed to an amount equal to five percent or more of the contract price, then an amount of not more than 50 percent of the mobilization cost will be considered for inclusion in the progress payment. Prior to the established five percent, Owner may consider payment on invoices for bonds and insurances and permits; this amount shall be subtracted for the total amount from mobilization.
- D. Up to an additional 40 percent of the mobilization cost will be considered for inclusion in the progress payments once the work, excluding mobilization and inventory, has progressed to an amount equal to 50 percent of the Contract Price. The remaining mobilization payment will be paid as part of the final payment.

ITEMS 2 AND 3
MAINTENANCE OF TRAFFIC

2.01 DESCRIPTION

- A. This Item shall include the furnishing and maintaining of measures required to maintain traffic through or around the proposed Work.
- B. This Item shall include detour routes as specified in the Contract Documents.

2.02 WORK NOT INCLUDED

- A. Any work specifically included in other Bid Items.

2.03 DEFINITION OF ITEM

- A. Item 2 - Minor Traf Devices.
- B. Item 3 - Traf Regulator Control.

2.04 MEASUREMENT & PAYMENT

- A. The quantities to be paid for under Item 2 and 3 shall be lump sum for all maintenance of traffic measures and traffic regulator controls in accordance with the Specifications and Drawings.
- B. Payment shall be made in the amount of lump sum Bid Price for Items 2 and 3 consistent with the percentage of work completed.

ITEM 4
VIDEO RECORDING

4.01 DESCRIPTION

- A. Under this Item, the Contractor shall produce and deliver to the Owner, color video recordings of existing topography within the zone of influence along all sewer routes and video recordings of designated buildings and dwellings as specified and directed.

4.02 WORK NOT INCLUDED

- A. Any work specifically included under other Bid Items.

4.03 DEFINITION OF ITEM

- A. Item 4 - Video Recording of the Zone of Influence.

4.04 MEASUREMENT & PAYMENT

- A. The quantity to be paid for under Item 4 shall be a lump sum for video recording of the defined zone of influence along specified routes provided in accordance with the Specifications and Drawings.

**ITEM 5
POST-CCTV INSPECTION OF SEWERS**

5.01 DESCRIPTION

- A. Under this Item, the Contractor shall perform closed circuit television inspection of new sewers 8-inches and larger, installed as part of the Work, as specified.
- B. Cleaning of the sewers prior to the CCTV inspection shall be included under this Item.
- C. The preparation and submittal of video records and submission to the Owner and Engineer shall be included under this Item.

5.02 WORK NOT INCLUDED

- A. Any work specifically included under other Bid Items.

5.03 DEFINITION OF ITEM

- A. Item 5 - CCTV of Sewers.

5.04 MEASUREMENT

- A. The quantities to be paid for under Item shall be the horizontal length of sewer inspected as measured, parallel to the axis of the sewer line along the surface of the ground from the center of manholes. No deduction shall be made for manholes along the length of the sewer inspected.

5.05 PAYMENT

- A. The unit price stated in the Bid for Item 5 shall be full compensation for each linear foot inspected, as specified, so measured.

**ITEMS 6-8
TREE REMOVAL, CLEARING AND GRUBBING**

6.01 DESCRIPTION

- A. These Items shall include all clearing and grubbing of lands required to complete the Work as specified, shown in the Contract Documents and as directed by the Engineer.

- B. This Work shall include, but not limited to, the complete removal of all vegetation including plants, shrubs, sod, agricultural crop residue, trimming and cutting of trees, removal of tree cuttings and stumps, scalping and the removal and disposal of all debris generated by the clearing and grubbing operation as specified and shown on the Drawings.

6.02 WORK NOT INCLUDED

- A. Any Work specifically included under other Bid Items.

6.03 DEFINITION OF ITEM

- A. Item 6 - Clearing.
- B. Item 7 - Tree, Rem, 6 inch to 18 inch.
- C. Item 8 - Tree, Rem, 19 inch to 36 inch.

6.04 MEASUREMENT & PAYMENT

- A. The lump sum stated in the Bid shall be full compensation for all Work required under Item 6.
- B. The quantities to be paid under Items 7 through 8 shall be full compensation for each removed and measured in accordance with the Specifications and Drawings.

ITEM 9
REMOVAL OF CONCRETE CURBS

9.01 DESCRIPTION

- A. Under this Item, the Contractor shall remove concrete curbs and gutters to replace those damaged by construction and additional areas as shown on the Drawings and specified.

9.02 WORK NOT INCLUDED

- A. Curb and gutters, damaged or destroyed beyond the specified limits shall be replaced at the Contractor's expense.
- B. All pavement, driveways and sidewalks made of rigid or non-rigid pavement or aggregate shall be included under other Items.

9.03 DEFINITION OF ITEM

- A. Item 9 - Curb and Gutter, Rem.

9.04 MEASUREMENT

- A. The quantity to be paid under Item 9 shall be the length measured along the back of the curb or curb and gutter removed as ordered.

9.05 PAYMENT

- A. The unit price stated in the Bid for Item 9 shall be full compensation for each linear foot of curb and gutter or curb, so measured, as specified and required.

**ITEM 10
SIDEWALK REMOVAL**

10.01 DESCRIPTION

- A. Under this Item, the Contractor shall remove sidewalk, including the aggregate base as scheduled, shown on the Drawings, and specified herein.

10.02 WORK NOT INCLUDED

- A. Sidewalk removal required beyond specified construction limits and items included for payment under other items.
- B. Sidewalk and curb and gutters damaged or destroyed beyond specified pay limits shall be replaced at the Contractor's expense.
- C. Any work specifically included under other Bid Items.

10.03 DEFINITION OF ITEMS

- A. Item 10 - Sidewalk, Rem includes complete sidewalk removal including any aggregate base or subbase.

10.04 MEASUREMENT

- A. The quantity to be paid for under this Item shall be the actual square yardage quantity removed, measured in place within the limits as scheduled on the Drawings, unless otherwise authorized by the Engineer, in which case measurement will be made to the authorized limits.

10.05 PAYMENT

- A. The unit price stated in the Bid for Item 10 shall be full compensation for each square yard of sidewalk removed within the prescribed limits as specified, so measured.

ITEM 11
PAVEMENT REMOVAL

11.01 DESCRIPTION

- A. Under this Item, the Contractor shall remove pavement, including the aggregate base as scheduled, shown on the Drawings, and specified herein.

11.02 WORK NOT INCLUDED

- A. Pavement removal required beyond specified construction limits and items included for payment under other items.
- B. Pavement and curb and gutters damaged or destroyed beyond specified pay limits shall be replaced at the Contractor's expense.
- C. Any work specifically included under other Bid Items.

11.03 DEFINITION OF ITEMS

- A. Item 11 - Pavt, Rem, Mod includes complete pavement removal including the aggregate base.

11.04 MEASUREMENT

- A. The quantity to be paid for under this item shall be the actual square yard quantity removed, measured in place within the limits as scheduled on the Drawings, unless otherwise authorized by the Engineer, in which case measurement will be made to the authorized limits.

11.05 PAYMENT

- A. The unit price stated in the Bid for Item 11 shall be full compensation for each square yard of pavement removed within the prescribed limits as specified, so measured.

ITEM 12
MACHINE GRADING

12.01 DESCRIPTION

- A. Under this Item the Contractor shall use machine grading, including scarifying, plowing, disking, moving, compacting, and shaping the earth, to develop the cross section as shown on the Drawings.

12.02 WORK NOT INCLUDED

- A. Machine Grading required beyond specified construction limits and items included for payment under other items.

- B. Earth material damaged or destroyed beyond specified pay limits shall be replaced at the Contractor's expense.
- C. Any work specifically included under other Bid Items.

12.03 DEFINITION OF ITEMS

- A. Item 12 - Machine Grading, includes grading of any material to conform to the cross section as shown on the Drawings.

12.04 MEASUREMENT

- A. Quantities to be paid for under Item 12 shall be the actual linear quantity shaped between the construction limits, measured along the centerline of the roadway in stations, or 100 feet increments, within the limits as scheduled on the Drawings, unless otherwise authorized by the Engineer, in which case measurement will be made to the authorized limits.

12.05 PAYMENT

- A. The unit price stated in the Bid for Item 12 shall be full compensation for each station along the construction limits in which machine grading is performed, within the prescribed limits as specified, so measured.

**ITEM 13
REPLACEMENT OF CONCRETE CURBS**

13.01 DESCRIPTION

- A. Under this Item, the Contractor shall replace concrete curbs and gutters to replace those damaged by construction and additional areas as shown on the Drawings and specified.

13.02 WORK NOT INCLUDED

- A. Curb and gutters, damaged or destroyed beyond the specified limits shall be replaced at the Contractor's expense.
- B. All pavement, driveways and sidewalks made of rigid or non-rigid pavement or aggregate shall be included under other Items.

13.03 DEFINITION OF ITEM

- A. Item 13 - Curb and Gutter, Conc.

13.04 MEASUREMENT

- A. The quantities to be paid under Item 13 shall be the length measured along the back of the curb or curb and gutter replaced as ordered.

13.05 PAYMENT

- A. The unit prices stated in the Bid for Item 13 shall be full compensation for each linear foot of curb and gutter or curb, so measured, as specified and required.

ITEM 14
SUBBASE, CIP 24" MDOT CLASS III

14.01 DESCRIPTION

- A. Under this Item, the Contractor shall construct a granular subbase on a surface approved by the Engineer and according to RCKC standards. This Item includes providing, hauling, placing, compacting, and shaping the material.

14.02 WORK NOT INCLUDED

- A. Subbase required beyond specified construction limits and items included for payment under other Items.

14.03 DEFINITION OF ITEMS

- A. Item 14 - Subbase, CIP.

14.04 MEASUREMENT

- A. The quantity to be paid for under this Item shall be the actual quantity constructed, measured in place within the limits as defined below, and/or scheduled on the Drawings, unless otherwise authorized by the Engineer, in which case measurement will be made to the authorized limits. When uniform courses are specified, the volume to be paid for shall not exceed the quantity calculated from plan lines and dimensions.
- B. Pay Limits:
 - 1. Depth - As specified, scheduled, or ordered.
 - 2. Length - The actual length ordered.
 - 3. Width - The actual width ordered.

14.05 PAYMENT

- A. The unit price stated in the Bid for Item 14 shall be full compensation for each square yard of Subbase, CIP placed within the prescribed limits as specified, so measured.

**ITEMS 15 & 16
AGGREGATE PAVEMENT AND BASE**

15.01 DESCRIPTION

- A. Under these Items, the Contractor shall construct aggregate pavement and driveways as scheduled, shown on the Drawings and specified herein.
- B. Under these Items, the Contractor shall construct aggregate base for new pavement and driveways as scheduled, shown on the Drawings and specified herein.
- C. No additional payment will be made for the following:
 - 1. Aggregate used for adjusting roadway shoulders and driveways to match new roadway surfaces.
 - 2. Machine grading
 - a. Machine grading shall be incidental to this item.

15.02 WORK NOT INCLUDED

- A. Aggregate required beyond specified construction limits and items included for payment under other Items.

15.03 DEFINITION OF ITEMS

- A. Item 15 - Approach, CL II, 6-inch.
- B. Item 16 - Aggregate Base, 8 inch.

15.04 MEASUREMENT

- A. The quantity to be paid for under this Item shall be the actual quantity constructed, measured in place within the limits as defined below, and/or scheduled on the Drawings, unless otherwise authorized by the Engineer; in which case, measurement will be made to the authorized limits. When uniform courses are specified, the volume to be paid for shall not exceed the quantity calculated from plan lines and dimensions.
- B. Pay Limits:
 - 1. Depth - As specified, scheduled, or ordered.
 - 2. Length - The actual length ordered.
 - 3. Width - The actual width ordered.

15.05 PAYMENT

- A. The unit prices stated in the Bid for Items 15 and 16 shall be full compensation for each square yard of aggregate base placed within the prescribed limits as specified, so measured.

ITEMS 17-21
HMA APPLICATIONS

17.01 DESCRIPTION

- A. Under these Items, the Contractor shall construct pavement courses as scheduled, shown on the Drawings and specified herein.
- B. Under these Items, the Contractor shall adjust existing structure castings as required to set flush with new grades and casting adjustments shall be incidental to this Item.
- C. The repair of pavement marking damaged by the Work is included in these Items.

17.02 WORK NOT INCLUDED

- A. Pavement replacement required beyond specified construction limits and items included for payment under other Items.
- B. Pavement damaged or destroyed beyond specified pay limits shall be replaced at the Contractor's expense.
- C. No additional payment will be made for the following:
 - 1. Asphalt surface course used for adjusting driveways to match new roadway surfaces.

17.03 DEFINITION OF ITEMS

- A. Item 17 - HMA Approach.
- B. Item 18 - HMA MDOT 3EML.
- C. Item 19 - HMA MDOT 4EL.
- D. Item 20 - HMA MDOT 4EML.

17.04 MEASUREMENT

- A. Quantities to be paid for under Items 18 through 21 shall be the actual quantity constructed, measured in place within the limits as defined below, and/or scheduled on the Drawings, unless otherwise authorized by the Engineer; in which case, measurement will be made to the authorized limits. When uniform courses are specified, the volume to be paid for shall not exceed the quantity calculated from plan lines and dimensions.
- B. Pay Limits:
 - 1. Depth - As specified, scheduled, or ordered.
 - 2. Length - The actual length ordered.
 - 3. Width - The actual width ordered.

17.05 PAYMENT

- A. The unit price stated in the Bid for Item 17 shall be full compensation for each square yard of asphalt placed within the prescribed limits as specified, so measured.
- B. The unit prices stated in the Bid for Items 18 through 21 shall be full compensation for each ton of pavement placed within the prescribed limits as specified, so measured.

**ITEM 21
SIDEWALK REPLACEMENT**

21.01 DESCRIPTION

- A. Under this Item, the Contractor shall place concrete sidewalk to replace existing sidewalk as required, as scheduled, shown on the Drawings and specified herein.

21.02 WORK NOT INCLUDED

- A. Pavement replacement required beyond specified construction limits and items included for payment under other Items.
- B. Pavement damaged or destroyed beyond specified pay limits shall be replaced at the Contractor's expense.
- C. Any Work specifically included under other Bid Items.

21.03 DEFINITION OF ITEMS

- A. Item 21 - Sidewalk, Conc, 4 inch.

21.04 MEASUREMENT

- A. Quantities to be paid for under this Item shall be the actual quantity constructed, measured in place within the limits as scheduled and shown on the Drawings, unless otherwise authorized by the Engineer; in which case, measurement will be made to the authorized limits.

21.05 PAYMENT

- B. The unit price stated in the Bid for Item 21 shall be full compensation for each square yard of concrete placed within the prescribed limits as specified, so measured.

ITEM 22
CONCRETE DRIVEWAY REPLACEMENT

22.01 DESCRIPTION

- A. Under this Item, the Contractor shall place 6-inch thick concrete pavement and 4-inch aggregate base to replace existing driveways as required, as scheduled, shown on the Drawings and specified herein.

22.02 WORK NOT INCLUDED

- A. Pavement replacement required beyond specified construction limits and items included for payment under other Items.
- B. Pavement damaged or destroyed beyond specified pay limits shall be replaced at the Contractor's expense.

22.03 DEFINITION OF ITEMS

- A. Item 22 - Driveway, Nonreinf Conc, 6 inch.

22.04 MEASUREMENT

- A. Quantities to be paid for under this Item shall be the actual quantity constructed, measured in place within the limits as scheduled and shown on the Drawings, unless otherwise authorized by the Engineer; in which case, measurement will be made to the authorized limits.

22.05 PAYMENT

- A. The unit price stated in the Bid for Item 22 shall be full compensation for each square yard of concrete placed within the prescribed limits as specified, so measured.

ITEM 23 AND 24
CURB RAMP REPLACEMENT

23.01 DESCRIPTION

- A. Under these Items, the Contractor shall construct aggregate base and rigid pavement base and surface courses to replace pavement removed for pipeline construction as schedules, shown on the Drawings and specified herein.

23.02 WORK NOT INCLUDED

- A. Pavement replacement required beyond specified pay limits.
- B. The replacement of non-rigid pavement base, intermediate and surface courses is included in other Items.

23.03 DEFINITION OF ITEMS

- A. Item 23 - Curb Ramp, Conc, 6 inch.
- B. Item 24 - Detectable Warning Surface.

23.04 MEASUREMENT

- A. The quantities to be paid for under these Items shall be the actual quantity constructed, measured in place within the limits as defined below, and/or scheduled on the Drawings, unless otherwise authorized by the Engineer; in which case, measurement will be made to the authorized limits. When uniform courses are specified, the volume to be paid for shall not exceed the quantity calculated from plan lines and dimensions.

23.05 PAYMENT

- A. The unit price to be paid under Item 23 shall be full compensation for each square foot of rigid pavement placed within the prescribed limits in accordance with the Specifications and Drawings.
- B. The unit price to be paid under Item 24 shall be full compensation for each linear foot of rigid pavement placed within the prescribed limits in accordance with the Specifications and Drawings.

**ITEMS 25 AND 26
MANHOLES**

25.01 DESCRIPTION

- A. Under these Items, the Contractor shall construct manholes and drops in locations and of types shown and scheduled on the Drawings and in accordance with the Contract Documents.
- B. These Items shall include all Work to install the manholes by open-cut methods, including but not limited to the following: excavation; hauling excess spoil material from the Site, bedding; manhole materials; backfill; compaction; maintenance of trenches and related Work such as performing material testing.
- C. Work beyond the specified pay limits for the pipe trench, but necessary for the placement of the manholes, shall be included under these Items. Such Work shall include excavation of any material encountered, special backfill material, and pavement replacement.
- D. These Items shall include all work to remove the existing manholes at locations shown on the plans. The removal shall include all necessary excavation, removal of existing manhole and foundations, backfill of excavated areas as shown on the Drawings and specified in conformance with relevant Sections of the Specifications.

- E. All castings, accessories and appurtenances required for manhole structures shown on the Drawings are included in these Items.
- F. Connections of new sewers to existing manholes shall be included under these Items.
- G. All required sheeting, shoring and trench and excavation protection is included in these Items.
- H. All Work required to dewater manhole excavations is included under these Items.
- I. The furnishing and placing of special backfill in required areas excavated for this work included under these Items is included in these Items.
- J. Temporary support for existing utilities, locating of existing utilities, exploratory excavation and backfill required by the utility owner for existing utilities encountered during sewer construction is included under these Items.

25.02 WORK NOT INCLUDED

- A. Pavement replacement and construction within the Contract limits is included under other Items.
- B. The excavation and backfill of unsuitable subgrade materials encountered as part of the work is included under other Items.
- C. Restoration of landscape surface improvements including seeding, mulching, and fertilizing all disturbed lawn areas shall be included under other Items.

25.03 DEFINITION OF ITEMS

- A. Item 25 - Sanitary Structure, 48 inch dia.
- B. Item 26 - Sanitary Structure, 48 inch dia, Doghouse.

25.04 MEASUREMENT & PAYMENT

- A. The quantities to be paid under Items 25 and 26 shall be full compensation for each vertical foot of complete manhole provided in accordance with the Specifications and Drawings.
- B. Measured height of manholes or drop connections, as built, measured from the invert of the deepest pipe to the top of the manhole casting at the ordered placement, to which will be added 1-foot allowance for the base.

**ITEM 27
MANHOLE REHABILITATION**

27.01 DESCRIPTION

- A. Under this Item, the Contractor shall provide all labor, equipment, materials required to rehabilitate the manholes as shown and scheduled on the Drawings and in accordance with the Contract Documents.
- B. Under these Items, the Contractor shall provide the specified manhole protective coating including all specified manufacturer recommended preparation work including repairs, grouting or patching of the manhole.

27.02 WORK NOT INCLUDED

- A. Manholes damaged as a result of Contractor's operations shall be replaced at the Contractor's expense.
- B. Maintaining traffic around Contractor's equipment is included under other Items.
- C. The repair of pavement areas disturbed for the purpose of manhole rehabilitation shall be included under other Items.
- D. Restoration of landscape surface improvements including seeding, mulching, and fertilizing all disturbed lawn areas shall be included under other Items.
- E. Restoration of paved areas disturbed shall be included under other Items.

27.03 DEFINITION OF ITEM

- A. Item 27 - Manhole Protective Coating.

27.04 MEASUREMENT & PAYMENT

- A. The unit price stated in the Bid for Item 27 shall be full compensation for each vertical linear foot of manhole lined and installed as specified, so measured. This unit price shall include the any necessary preparation work including repairs, grouting or patching of the manholes.

**ITEMS 28 AND 29
FORCE MAIN VALVING STRUCTURES AND VALVES**

28.01 DESCRIPTION

- A. Under these Items, the Contractor shall construct valving manholes structures in locations and of types shown and scheduled on the Drawings and in accordance with the Contract Documents.

- B. These Items shall include all Work to install the valving manholes by open-cut methods, including but not limited to the following: excavation; hauling excess spoil material from the Site, bedding; manhole materials; backfill; compaction; maintenance of trenches and related Work such as performing material testing.
- C. Work beyond the specified pay limits for the pipe trench, but necessary for the placement of the valving manholes, shall be included under these Items. Such Work shall include excavation of any material encountered, special backfill material, and pavement replacement.
- D. These Items shall include all work to remove the existing valving manholes at locations shown on the plans. The removal shall include all necessary excavation, removal of existing manhole and foundations, backfill of excavated areas as shown on the Drawings and specified in conformance with relevant Sections of the Specifications.
- E. All castings, accessories, appurtenances, and piping and valving assemblies required for valving manhole structures shown on the Drawings are included in these Items.
- F. All required sheeting, shoring and trench and excavation protection is included in these Items.
- G. All Work required to dewater valving manhole excavations is included under these Items.
- H. The furnishing and placing of special backfill in required areas excavated for this work included under these Items is included in these Items.
- I. Temporary support for existing utilities, locating of existing utilities, exploratory excavation and backfill required by the utility owner for existing utilities encountered during sewer construction is included under these Items.

28.02 WORK NOT INCLUDED

- A. Replacement of existing manholes or catch basins removed or damaged for Contractor convenience of construction and which were not planned to be removed, shall be done at the Contractor's expense.
- B. Restoration of landscape surface improvements including seeding, mulching, and fertilizing all disturbed lawn areas shall be included under other Items.

28.03 DEFINITION OF ITEMS

- A. Item 28 - Air Release Valve and Structure.
- B. Item 29 - Backflow Prevention Valving and Structure.

28.04 MEASUREMENT

- A. The quantities to be paid under Item 28 shall be full compensation for each air release valve and structure assembly furnished and installed in accordance with the Specifications and Drawings.

- B. The quantities to be paid under Item 29 shall be full compensation for each backflow prevention structure furnished and installed in accordance with the Specifications and Drawings.

28.05 PAYMENT

- A. The unit price stated in the Bid for Item 28 shall be full compensation for each air release valve and structure assembly, so measured, as specified and required.
- B. The unit price stated in the Bid for Item 29 shall be full compensation for each backflow prevention structure, so measured, as specified and required.

**ITEM 30
LIFT STATION IMPROVEMENTS**

30.01 DESCRIPTION

- A. This Item includes all work shown on the Drawings and in accordance with the Specifications, Divisions 1 through 16 unless identified in other Items. The summary of items listed below is not intended to be an exhaustive list, instead the list is provided to highlight major work components.
- B. Under this Item, the Contractor shall include materials, equipment, electrical and controls, pumps and accessories, piping and valves, labor, supervision, coordination, overhead, and profit as specified, shown on the Drawings, or otherwise required to complete and place in operation the new pump stages in the lift station, including all specified accessories, and appurtenances with the expectation of a fully functional project at completion.
- C. The provision of new electrical equipment and electrical work as required on the customer side of the electric meter is included in these Items.
- D. The provision of control equipment and signal wires at the Owner's SCADA panel is included in this item.
- E. The specified startup and testing and quality assurance work specified is included in this Item.

30.02 WORK NOT INCLUDED

Not used.

30.03 DEFINITION OF ITEM

- A. Item 30 - Lift Station Improvements.

30.04 MEASUREMENT & PAYMENT

- A. The quantity to be paid for under Item 30 shall be lump sum for identified scope of work in accordance with the Specifications and Drawings.

ITEM 31
SEWER PIPE

31.01 DESCRIPTION

- A. Under this Item, the Contractor shall furnish and perform all Work necessary for the installation of the sewer pipe as scheduled, shown on the Drawings and specified, in conformance with relevant sections of the Specifications.
- B. This Item shall include all Work to install gravity sewers by open-cut methods, including but not limited to the following: excavation; hauling excess spoil material from the Site; bedding; pipe materials; fittings; backfill; compaction; maintenance of trenches and related Work such as performing material testing; deflection and infiltration tests.
- C. This Item shall include all Work to install the sewers by trenchless methods, including but not limited to the following: bore and receiving pits; excavation; backfill; bore-hole reaming; casing pipe installation; casing accessories; pipe connection materials; and related Work such as performing material testing; deflection and infiltration tests as shown on the Drawings and specified in conformance with relevant Sections of the Specifications.
- D. Connections of new sewers to existing sewers shall be included under this Item.
- E. The removal and replacement of sewer pipe necessary to construct and connect to new manhole structures are included in this Item. The provided Items for removal of sewer pipes shall include the disposal of pipe and bedding materials removed.
- F. The abandonment of sewers to be taken out of service shall be included in this Item. The abandonment of sewers shall include the placement of fill material inside the sewer pipes along with all required accessories such as plugs, accessories, grout tubes, vent holes and inspection ports. The removal of accessories constructed for the purpose of abandoning sewers shall be included in this Item.
- G. Maintaining existing sewers in operation and temporary flow stoppage, diversions and sewer flow bypass connections shall be included under this Item.
- H. All required sheeting, shoring and trench and excavation protection is included under this Item.
- I. All Work required to dewater sewer pipe trenches and excavations are included under this Item.
- J. Temporary support for existing utilities, locating of existing utilities, exploratory excavation and backfill required by the utility owner for existing utilities encountered during sewer construction is included under this Item.

- K. All repairs of existing utilities damaged, as a result of construction, are included under this Item.
- L. The furnishing and placing of special backfill in required areas excavated for this work included under this Item is included in this Item. Special backfill for the purpose of delineation is as carried to the bottom of aggregate pavement base.

31.02 WORK NOT INCLUDED

- A. Pavement replacement within the Contract limits is included under other Items.
- B. Damage to existing utilities shall be the responsibility of the Contractor.
- C. Closed circuit television inspection of new sewers 8-inches in diameter and larger installed as part of the Work are included in other Items.
- D. Restoration of landscape surface improvements including seeding, mulching, and fertilizing all disturbed lawn areas shall be included under other Items.

31.03 DEFINITION OF ITEMS

- A. Item 31 - Sewer, HDPE 4710, 16 inch, Tr Det B.

31.04 MEASUREMENT & PAYMENT

- A. The quantity to be paid under Item 31 shall be the horizontal length of pipe measured parallel to the axis of the line along the surface of the ground, with no deduction for laying length of fittings for the specified sizes and trench detail. The depth of the pipe shall be the average depth below the original ground surface of the pipe along a section between manholes.
- B. Measurement will be to the center of existing and new manholes and the inside face of poured chambers. No deduction will be made for precast manholes on lines of the same size. Where branches or lines of different diameters enter such manholes, each will be measured to the center thereof.

**ITEMS 32 THROUGH 36
FORCE MAIN**

32.01 DESCRIPTION

- A. Under these Items, the Contractor shall provide all materials, equipment, labor, supervision and coordination as necessary for the installation of the force main pipe by open-cut or trenchless methods as scheduled, as shown on the Drawings.
- B. These Items shall include all work to install the new force main by trenchless methods, including, but not limited to, the following additional items, bore and receiving pit excavation (all materials encountered, including rock) and backfill, bore-hole reaming,

pipe pullback, force main pipe, casing accessories, pipe connection materials, fittings, maintenance of trenches, and connections to existing force mains and manholes.

- C. These Items shall include all Work to install the force mains by open-cut methods, including but not limited to the following: excavation; hauling excess spoil material from the Site, bedding; pipe materials; fittings; backfill; compaction; maintenance of trenches and related Work such as testing.
- D. These Items shall include all related Work and materials such as blowoffs testing, flushing, performing pressure tests as shown on the Drawings and specified in conformance with relevant Sections of the Specifications.
- E. The removal of force main pipes shall include the removal of existing pipe, fittings, valves, backfill, bedding, structures, concrete encasements, and other associated appurtenances incidental to the force main construction shall be included in these Items. The provided Items for removal of force main pipes shall include the disposal of pipe and bedding materials removed.
- F. The abandonment of existing force mains including caps, existing pipe, fittings and other associated appurtenances using a grout fill material shall be included under these Items.
- G. Force mains to be abandoned using grout fill shall be included under these Items. Contractor shall determine and modify, as necessary, the mix of flowable fill material to satisfactorily fill the entire abandoned force main pipe. The grout fill shall have sufficient flowable characteristics to ensure complete filling of the pipe. The Contractor may need to fill holes and vent pipes to assure through filling. Quantities of flowable fill material used to fill pipes shall be monitored continuously during placement. Sites disturbed by grout filled abandonment work shall be restored as part of this work.
- H. These Items include providing all force main fittings, accessories, and appurtenances not included in other pay items. Fittings include those not shown on the plans required to avoid existing utilities shall be included under these Items incidental to the force main construction.
- I. Replacement or repair of existing sewers or field drainage tiles removed or damaged as a result of construction, not included in other Items, are included in these Items.
- J. All required sheeting, shoring and trench and excavation protection is included in this item.
- K. All Work required to dewater sewer pipe trenches and excavation is included under these Items.
- L. The furnishing and placing of special backfill in required areas excavated for this work included under these Items is included in these Items. Special backfill for the purpose of delineation is as carried to the bottom of aggregate pavement base.
- M. Temporary support for existing utilities, locating of existing utilities, exploratory excavation and backfill required by the utility owner for existing utilities encountered during sewer construction is included under these Items.

- N. The connection of new force mains to pipe stubs from structures shall be included in these Items.

32.02 WORK NOT INCLUDED

- A. Work specifically included for payment under other Items.
- B. Damage to property outside the easements shall be restored or repair at Contractors expense.
- C. Restoration of landscape surface improvements including seeding, mulching, and fertilizing all disturbed lawn areas shall be included under other Items.

32.03 DEFINITION OF ITEMS

- A. Item 32 - Sewer, HDPE 4710, 12 inch, Tr Det B.
- B. Item 33 - Sewer, HDPE 4710, 12 inch, HDD.
- C. Item 34 - Sewer, HDPE 4710, 10 inch, Tr Det B.
- D. Item 35 - Sewer, HDPE 4710, 10 inch, HDD.
- E. Item 36 - Sewer, HDPE 4710, 10 inch, Jack and Bored.

32.04 MEASUREMENT & PAYMENT

- A. The quantities to be paid under Items 32 through 36 shall be the horizontal length of pipe measured parallel to the axis of the line along the surface of the ground. Items 32 through 36 shall be measured to within the outside faces of the lift stations, and to the inside face of the air release manholes, backflow manhole, or sanitary manhole in accordance with the Specifications and Drawings.

ITEM 37
BYPASS PUMPING

37.01 DESCRIPTION

- A. Under this Item, the Contractor shall include materials, equipment and labor required to maintain sanitary sewer service during periods when the existing sanitary sewers or new sanitary sewers are not in service as needed to complete the scope of work identified for the Contractor in the Contract Documents including all pumping equipment, piping, accessories, maintenance, and controls.
- B. Maintaining existing sewers in operation and temporary flow stoppage, diversions and sewer flow by-pass connections shall be included under this Item.
- C. This item shall include the cost of mobilizing and demobilizing bypass pumping equipment to the site.

37.02 WORK NOT INCLUDED

- A. Any work specifically included under other Bid Items.

37.03 DEFINITION OF ITEM

- A. Item 37 - Bypass Pumping.

37.04 MEASUREMENT & PAYMENT

- A. The quantity to be paid for under Item 37 shall be measured per week that the bypass pumping equipment is on site and functioning. No payment will be paid for periods when the equipment is on site, but not functional. A week shall be defined as 7 working days.
- B. Payment for periods less than 7-days shall be measured as a percentage of a week.

ITEM 38
RESTORATION

38.01 DESCRIPTION

- A. Under this item, the Contractor shall restore landscape appurtenances affected by the work including fencing, mailboxes, and signage within the defined construction limits, as shown on the Drawings and specified.
- B. Under this Item, the Contractor shall restore landscape surface improvements including topsoil, seeding, mulching, and fertilizing all disturbed lawn areas within the defined construction limits as shown on the Drawings and specified.

38.02 WORK NOT INCLUDED

- A. All other landscape surface improvements disturbed or damaged by the Contractor without prior approval from the Engineer shall be repaired or replaced at the Contractor's expense.

38.03 DEFINITION OF ITEMS

- A. Item 38 - Restoration.

38.04 MEASUREMENT & PAYMENT

- A. The lump sum price stated in the Bid for Item 39 shall be full compensation for all Work required under restoration as specified and required.

ITEM 39
SOIL EROSION AND SEDIMENTATION CONTROL

39.01 DESCRIPTION

- A. This Item shall include all Work specified in the SESC including preparation of a Soil Erosion and Sedimentation Control Plan, installation, maintenance, and removal of all Soil Erosion and Sedimentation Control measures.
1. The weekly inspection and reporting of all Soil Erosion and Sedimentation Control measures shall be included under this item.
 2. Obtaining permits and co-permittee coverage specified shall be included under this item.

39.02 WORK NOT INCLUDED

Not used.

39.03 DEFINITION OF ITEM

- A. Item 39 - Soil Erosion and Sedimentation Control.

39.04 MEASUREMENT

- A. The quantities to be paid for under Item 39 shall be lump sum for all Soil Erosion and Sedimentation Control measures.

39.05 PAYMENT

- A. The lump sum stated in the Bid shall be full compensation for all Work required under Item 39.
1. Payment shall be made in the amount of 20% of the lump sum Bid price for Item 39 for the first monthly estimate and 5% for each monthly estimate thereafter until the lump sum Bid amount for Item 40 has been paid.
 2. The Engineer may reduce the amount to be paid under Item 39 if the percentage requested is not represented by the actual amount performed.

END OF SECTION

**SECTION 02550
SANITARY SEWERS AND STORM SEWERS**

PART 1 GENERAL

1.01 SCOPE

- A. This Section includes furnishing and installing sanitary sewers and storm sewers.
- B. Reconstruction of existing sewers, house connections, and catch basin leads shall be in conformance with requirements of this Section.
- C. This Section shall include furnishing and installing all required pipe, bends or beveled pipe, tees, wyes, tee manhole base pipes, bulkheads and stoppers, jointing material, granular material for pipe bedding, concrete used for encasement or bedding, making watertight connections to existing and new sewers and existing manholes, catch basins and inlets, cleaning and testing sewers, removing temporary bulkheads, and other work incidental to the sewer installation unless specifically included under other Items.
- D. Additional product requirements are specified in Section 01350.

1.02 SUBMITTALS

- A. Submittals shall be in accordance with the requirements of Section 01300 and shall include:
 - 1. Shop Drawings for Review:
 - a. Manufacturer's Shop Drawings indicating pipe and joint materials, physical dimensions, and joint details for each size, type, and class of pipe, fittings and specials furnished for the project compliance with specified standards.
 - b. Manufacturer's concrete design strength and reinforcing steel for RCP.
 - 2. Information for the Record:
 - a. Manufacturer's certification indicating that the pipe and joints meet specifications for each production run for each size, type, and class of pipe furnished. The Engineer may request test results to verify certification. Certification documents shall be according to the Source Quality Control of this Section.
 - b. Manufacturer's design calculations to verify basis of design.
 - c. Manufacturer's installation instructions.
 - d. The laboratory shall submit test certifications of pipe ordered tested under "Field Quality Control," of this Section.

PART 2 PRODUCTS

2.01 SOLID WALLED PIPES

- A. Polyvinyl Chloride Pipe (PVC):
1. For pipe 15-inch diameter and smaller: Pipe, fittings, and jointing systems shall conform to ASTM D3034, except that the standard dimension ratio of the outside diameter of the pipe to wall thickness shall not exceed 35.
 2. For pipe 18 inch thru 24-inch diameter: Pipe, fittings, and jointing systems shall conform to ASTM F679 with a SDR 26 or PS 115 wall thickness.
 3. Joint systems shall be elastomeric seal (gasket) type. Seals shall conform to ASTM F-477 requirements. Joint materials and testing shall conform to ASTM D3212 requirements.
 4. All service connections shall be made using a wye and a bend. Tees shall be used only as directed by the Engineer. Tees and wyes shall be die cast or factory fabricated. All service pipe shall be SDR 35.
- B. Reinforced Concrete Pipe (RCP):
1. Reinforced concrete pipe and specials for sewers other than sanitary or combined shall conform to ASTM C-76 Wall B (minimum) of classes designated on the Drawings.
 2. Reinforced concrete pipe joints shall conform to ASTM C-443 with gasket materials meeting the requirements of ASTM C-361.
 3. Reinforced concrete pipe for sanitary sewer shall be produced using a Type II (MS) cement in accordance with ASTM C-150.
 4. Reinforced concrete pipe shall be produced using Xypex C-1000 Admixture or approved equal.
- C. Ductile Iron Pipe (DIP):
1. Ductile Iron Pressure Pipe shall conform to ANSI A21.51 or AWWA C151 and shall be pressure class 350 psi for sizes 12-inch and below, and pressure class 300 psi for larger sizes unless otherwise specified herein.
 2. Pipe buried underground, unless otherwise specified, shall be jointed with rubber gasket (push-on) type joints and shall meet the requirements of AWWA C111 for push-on joints. The gasket shall be a single molded rubber ring fitted into a specially shaped recess in the bell forming a pressure tight seal. The spigot end of each pipe shall be marked to indicate when the pipe is "home."
 3. Interior Coating – Ductile Iron Pipe used for sanitary sewers shall be lined on the interior of the pipe with Protecto 401 ceramic epoxy coating or approved equal.

- a. Pipes lined with ceramic epoxy coatings shall be labeled “for sewer only.”
 - b. Epoxy ceramic coatings are not recommended for sewers where chemical injection is planned.
 - c. Lined pipes shall be handled from the exterior of the pipe only. Minor damage to the epoxy coating may be repaired in the field in accordance with the liner manufacturer.
 - d. Major damage to the liner that cannot be repaired in the field shall result in the pipe segment being rejected and returned to the factory for recoating.
 - e. Lined pipe using Field Lok or internal joint restraints shall not be homed to the bell shoulder to avoid damage to the liner.
4. Exterior Coating - All buried ductile iron pipe shall be coated on the outside with a standard petroleum asphaltic coating, 1 mil thick, meeting AWWA C110, unless otherwise specified. The finished coating shall be continuous, smooth, neither brittle when cold nor sticky when exposed to the sun, and shall be strongly adherent to the pipe. The coating materials, after drying 48 hours, shall impart no objectionable color, odor, or taste to water standing in contact with the coating for a minimum of 48 hours.
 5. Bronze wedges shall be used at all push-on joints (two per joint). The wedge shall be driven into the push-on joint to provide electrical conductivity between pipes.

2.02 COMPOSITE AND PROFILE WALLED PIPES

- A. High Density Polyethylene Drainage Tile (HDPE):
 1. High density polyethylene pipe, fittings, and jointing systems shall meet the requirements of ASTM F667 and shall have a smooth interior.
 2. Joints shall be watertight and gasketed.
 3. This pipe is only permitted for storm drainage installations.
- B. Polyvinyl Chloride (PVC) Profile Sewer Pipe:
 1. Pipe shall have a smooth interior with a solid concentric exterior rib. Pipe, fittings, and jointing systems shall conform to ASTM F794. Pipe stiffness shall be 46 psi minimum, when measured in accordance with ASTM D2412.
 2. Joint systems shall be elastomeric seal (gasket) type. Seals shall conform to ASTM F477 requirements. Joint materials and testing shall conform to ASTM D3212 requirements.
 3. Fittings shall include couplings, tees, wyes, elbows, plugs, and adapters. Tees and wyes shall be die cast or factory-fabricated.

4. Manhole adapters shall have a smooth exterior surface to ensure a watertight joint with "Flexible Joints" as specified in Section 02552.
 5. All service connections shall be made using a wye and a bend. Tees shall be used only as directed by the Engineer. All service pipes shall be SDR 35 pipe.
- C. High-Density Polyethylene (PE) Profile Wall Sanitary Sewer Pipe:
1. Pipe shall have a smooth interior with a profile wall. Pipe, fittings, and jointing systems shall conform to ASTM F894. Pipe and fittings shall be made of high density, high molecular weight polyethylene material meeting the requirements of Type III, Class C, Category 5, Grade P34, as defined in ASTM D1248.
 2. Joint systems shall be elastomeric seal (gasket) type. Seals shall conform to ASTM F477 requirements. Joint materials and testing shall conform to ASTM D3212 requirements. Joints shall be able to pass an ASTM D3212 test at 10.8 psi for 10 minutes with no leakage.
 3. Fittings shall include couplings, tees, wyes, elbows, plugs, and adapters. Tees and wyes shall be die cast or factory-fabricated.
 4. Manhole adapters shall have a smooth exterior surface to ensure a watertight joint with "Flexible Joints" as specified in Section 02552.
 5. All service connections shall be made using a wye and a bend. Tees shall be used only as directed by the Engineer. All service pipes shall be SDR 35 pipe.
- D. High-Density Polyethylene (HDPE) Profile Wall Drainage Pipe:
1. Drainage Pipe shall have a smooth interior with a profile wall conforming to ASTM F949. Pipe shall be manufactured to 46 psi stiffness when tested in accordance with ASTM D2412.
 2. The pipe shall be made of a PVC compound having a minimum cell classification of 12454 as defined by ASTM D1784.
 3. All fittings shall be manufactured with a smooth interior conforming to ASTM F949, Section 5.2.3 or F794, Section 7.2.4. Fittings shall be provided by the same manufacturer as the pipe.
 4. All joints shall be made with integrally formed bell and spigot gasketed connections. Joints shall be watertight in accordance with ASTM D3212. Gaskets shall meet the requirements of ASTM F477.

2.03 UNDERDRAIN PIPE AND JOINTS

- A. Drainpipe shall be of the type specified or shown on the Drawings and of quality conforming to the following requirements.
- B. All underdrain pipe shall be bedded in AASHTO No. 67 aggregate in lieu of the standard bedding material to a depth shown on the Drawings.

- C. Perforated Polyvinyl Chloride Pipe (PPVC):
 - 1. Perforated polyvinyl chloride pipe shall be manufactured from polyvinyl chloride compounds conforming to ASTM D1784, Class 1254-B. Pipe and fittings shall conform to the requirements of ASTM F949, shall have a smooth interior and a corrugated profile. Pipe shall be manufactured to 46 psi stiffness when tested in accordance with ASTM D2412.
 - 2. Joints shall be bell and spigot gasketed connections. Gaskets shall meet the requirements of ASTM F477.
 - 3. Perforation dimensions shall conform to ASTM F949 Table 5.
 - 4. Pipe shall be Contech A2000 or equal.
- D. Corrugated Polyethylene Tubing (CPT):
 - 1. Corrugated Polyethylene tubing shall conform to ASTM F405 Heavy-Duty Tubing Requirements for sizes 4-inch thru 8-inch and ASTM F667 for tubing sizes 10-inch, 12-inch, and 15-inch.
 - 2. Tubing shall be a minimum 6-inch in size.
 - 3. Tubing shall be perforated with two rows of holes nominally 1/4-inch to 3/4-inch in diameter at a maximum 5-inch centers.

2.04 ACCESSORIES

- A. Non-shrinking Mortar Material:
 - 1. Material for non-shrinking mortar used in pointing joints shall be Sauereisen F-100 Grout as manufactured by Sauereisen Cements Co., Pittsburgh, Pennsylvania; Five-Star Grout as manufactured by US Grout Corp., Old Greenwich, Connecticut; or equal.
- B. Flexible Pipe Repair Couplings:
 - 1. Flexible repair couplings shall be made of elastomeric polyvinyl chloride boot with series 300 stainless steel shield and clamps. Couplings shall be Strong Back RC series as manufactured by Fernco Joint Sealer Co., Ferndale, Michigan; Logan Clay Pipe Co., Logan, Ohio; Mission Clay Products Corp., or equal.
- C. Flexible Watertight Joints:
 - 1. Flexible watertight joints used in connecting to existing sewers shall be a "boot" type sealed to the pipe wall with an internal expanding band and around the connecting pipe with an external adjustable band. Other types of applicable flexible joints may be submitted for approval.
- D. Granular Pipe Bedding Material:
 - 1. Granular pipe bedding material shall be as specified in Section 02200.

2.05 REPLACEMENT DRAINS, SEWERS AND APPURTENANCES

- A. Vitrified clay pipe sanitary sewers removed or damaged in completed the Work shall be replaced using pipe and joints as specified in this Section. Connections to existing sewers shall be as specified in this Section.
- B. Reinforced concrete pipe sanitary sewers removed or damaged in completing the Work shall be replaced using pipe meeting ASTM C76, Class IV, unless otherwise indicated and joints meeting ASTM C361. Reinforced concrete pipe storm sewers shall also be replaced with ASTM C76 Class IV RCP with joints equal to those of the pipe removed.
- C. Nonreinforced concrete pipe removed or damaged in completing the Work shall be replaced using pipe meeting ASTM C76 Class IV.
- D. Manholes, catch basins, and inlets removed or damaged under these Items shall be replaced in conformance with applicable Drawings and Specifications.
- E. Driveway culverts removed or damaged in completing the Work shall be replaced with existing pipe, if undamaged, or new pipe and joints matching the existing, unless specified otherwise.

2.06 SOURCE QUALITY CONTROL

- A. Pipe Manufacturer's Certification:
 - 1. The pipe manufacturer's certificate shall state that the materials have been sampled and tested in accordance with the provision for and meet the requirements of the designated specification and shall be signed by an authorized agent of the seller or the manufacturer.
 - 2. A test results report shall accompany that manufacturer's certificate. The report shall compare test results to Specification requirements. Test specimens shall be selected in conformance with the designated specification, except that no less than two tests shall be made for each production run of each size, type, and class of pipe furnished, and further, that in case tests are unsatisfactory, additional tests shall be made to the maximum number in the referenced ASTM Specification.
- B. Profile Wall Basis of Design:
 - 1. In addition to the above certifications, and if required by the Engineer, for pipe 18 inch and larger, the manufacturers of plastic profile wall pipes shall provide a certification that shows the basis of design for each pipe class furnished and that they are satisfactory for use as shown on the Drawings. Basis of design limits provided shall include but are not limited to; crushing resistance of pipe wall, pipe deflection, and constrained buckling resistance.
 - 2. The following constraints shall be used as minimum conditions for the basis of design:
 - Safety Factor = 2

Bedding Class = ASTM D2321 Class 1A
Loads = Soil weight (120 lb/cft) + H₂O
Depth of burial as shown on Drawings
Depth of submergence as indicated on soil borings or 4-feet minimum.

3. If more than one pipe class is proposed for any diameter of pipe a depth range shall be provided for each class in addition to the above. A sample for the pipe markings shall be provided for each class of pipe.

PART 3 EXECUTION

3.01 PREPARATION OF TRENCH

- A. Trench excavation shall conform to requirements of Section 02200.
- B. For rigid pipes, the width of trench at the top of pipe shall be as shown in the Trench Detail on the Drawings.
- C. Unless otherwise indicated, minimum trench widths for flexible pipes shall meet the requirements of ASTM D2321 and the Trench Detail shown on the Drawings.
- D. Unless otherwise indicated, all sewer trenches shall be excavated below the proposed pipe invert as required to accommodate pipe bells and the depths of bedding material as shown on the Drawings and specified herein.

3.02 RIGID PIPE INSTALLATION

- A. Pipe trenches shall be excavated to the depth indicated on details to provide adequate depth of bedding and the pipe shall be placed and supported on bedding material the full length of the barrel. Bedding material shall then be placed 4-inch maximum depth along both sides of the pipe and tamped firmly under the pipe haunches. Additional bedding material shall be placed and compacted in 6-inch layers to the height shown on the Drawings or as directed. Hand tampers shall be used for installing bedding material around pipes smaller than 36-inch diameter and mechanical hand tampers shall be used around pipes 36-inch diameter and larger unless otherwise directed by the Engineer. The remainder of the trench shall be backfilled as specified and called for on the Drawings.
- B. Concrete bedding and encasement in lieu of bedding material shall be installed as shown on the Drawings or specified.
- C. The laying of pipe in finished trenches shall be commenced at the lowest point, with the bell end or groove end laid upgrade. Pipe shall be laid with ends abutting and true to line and grade. They shall be carefully centered to form a sewer with a uniform invert of line and grade shown on the Drawings.
- D. Pipe shall be laid to lines and grades by use of a laser beam and checked in conformance with Section 01800. Pipes installed more than 0.04 feet above or below specified elevation shall be removed and reinstalled to grade.

- E. Where holes are cast in concrete pipe for handling, they shall be filled with non-shrinking mortar after the pipe is placed. A metal disc of proper size may be inserted near the bottom of the hole to retain the mortar until hardened. Wood plugs or rocks intended to plug the hole for retention of the mortar will not be permitted.

3.03 FLEXIBLE PIPE INSTALLATION

- A. Flexible pipe shall be installed in accordance with ASTM D2321. Bedding, backfill, and compaction shall meet the requirements of this Section and Section 02200.
- B. Concrete bedding and encasement in lieu of bedding material shall be installed as shown on the Drawings or specified.
- C. The laying of pipe in finished trenches shall be commenced at the lowest point, with the bell end or groove end laid upgrade. Pipe shall be laid with ends abutting and true to line and grade. They shall be carefully centered to form a sewer with a uniform invert of line and grade shown on the Drawings.
- D. Pipe shall be laid to lines and grades and checked in conformance with Section 01800. Pipes installed more than 0.04-feet above or below specified elevation shall be removed and reinstalled to grade.
- E. Temporary internal supports shall be used as recommended by the pipe manufacturer. Pipes with 48 inches or larger diameter shall have, as a minimum, struts temporarily inserted at the ends of the pipes. Struts shall be in the vertical position when the pipe is installed in the trench. Struts shall remain in place until after the trench has been completely backfilled.

3.04 UNDERDRAIN INSTALLATION

- A. Underdrain pipe shall be laid in a manner conforming to the laying of sewer pipe.
- B. In addition, underdrain pipe shall be laid with perforations on the underside.
- C. The ends of all pipelines shall be closed with stoppers to prevent entry of soil or other foreign materials.

3.05 PIPE JOINTS

- A. O-Ring and Chemically Welded Joints - Pipe jointing surfaces shall be clean and dry when preparing surfaces for joining. Lubricants, primers, adhesives, etc., shall be used as recommended by the pipe or joint manufacturer's specifications. The jointing materials or factory fabricated joints shall then be placed, fitted, joined, and adjusted in such a manner as to obtain a watertight joint. Trenches shall be kept water-free and as dry as possible during bedding, laying, and jointing. As soon as possible after the joint is made, sufficient backfill material shall be placed along each side of the pipe to prevent movement of the pipe from any cause.

- B. Flexible Plastic Gasket Joints - Materials used for gaskets shall be as specified in this Section. Cross section size of gaskets and method of installation shall conform to the manufacturer's recommendations.
- C. Non-shrinking Mortar Joints - Where specified or shown on the Drawings, joints of concrete pipe sewers shall be thoroughly pointed full inside circumference with a non-shrinking mortar in conformance with the material manufacturer's instructions. The mortar shall be tightly packed and the interior face of the joint shall be left smooth and continuous with the interior face of the pipe. Pointing shall not be done until the backfill over the pipe is placed and compacted.

3.06 CONNECTIONS TO EXISTING SEWERS

- A. Unless indicated otherwise new pipe connections through the side of existing sewers shall be made as follows:
 - 1. Vitrified clay pipe, plain concrete pipe, and asbestos cement pipe, 15-inch diameter and smaller, and larger diameter at the option of the Contractor, shall be connected by removing a section of the existing sewer and inserting connecting fittings using specified flexible repair couplings.
 - 2. Reinforced concrete pipe and larger sizes of asbestos cement pipe and plain concrete pipe, unless otherwise shown on the Drawings, shall be connected by coring the existing sewer pipe wall and inserting a flexible watertight joint to receive the new pipe.
 - 3. Polyvinyl chloride pipe, ABS pipe, and ABS truss pipe shall be connected in conformance with the manufacturer's recommendations as approved by the Engineer.
 - 4. Connections shall be made in conformance with the jointing materials manufacturer's recommendations and as directed by the Resident Project Representative.

3.07 FIELD QUALITY CONTROL

- A. The Resident Project Representative may select one sample of pipe at the factory on the for each production run of each size and type of pipe to be tested by the Contractor's laboratory. The Contractor shall furnish the first test piece or pipe core and any additional samples required because of failures. The Contractor shall pay for tests on the first sample. Should the sample fail to meet specifications, retests shall be conducted by the Contractor's laboratory in conformance with the specifications and shall be at no additional expense to Owner.
- B. The pipe manufacturer may supply the most current test record for each pipe size to be used on project. The test record shall be no more than 1-year from the date of production of the pipe for this project. If the current test record is older than one year, a new test shall be run at the discretion of the Engineer.

- C. Deflection Testing of Flexible Pipe Sewers:
1. Vertical Ring Deflection - Before final acceptance of sewer lines, all sections of sewer pipe 8 inches and larger specified diameter shall be measured for vertical ring deflection by the Contractor and witnessed by the Resident Project Representative. Maximum deflection under full load shall not exceed 5% of the ASTM designated average inside diameter as determined by the required testing mandrel or laser profiling.
 2. Failures - Should a pipe exceed the allowable deflection; the Contractor shall replace those pipes and retest the section.
 3. Equipment used in testing shall be go-no-go pull through gauges (9-point mandral) of a type approved by the Engineer. A metal or plastic gauging ring of diameter equal to 95% of the specified average inside pipe diameter shall be furnished with each gauge.
 4. The Contractor shall furnish testing equipment and personnel and perform the required tests. Tests must be witnessed by the Resident Project Representative.
 5. Use of mechanical pulling devices is not permitted.
 6. Deflection testing shall not be performed until the completed and accepted trench backfill has been in place for at least 30 days.
- D. Field Inspection:
1. Individual sections of pipe may be rejected at any time because of defective joints, dimension variations, fractures, cracks, chips, or blisters exceeding the permissible tolerances.
 2. Rejected pipe shall be so marked with a lumber crayon or paint and shall be removed from the job site before the end of the following workday.

3.08 TESTS FOR INFILTRATION AND EXFILTRATION

- A. Preparation:
1. Before sections of sewers may be tested for infiltration or exfiltration, all house leads from it shall be constructed to limits called for and plugged or capped and all trenches backfilled and compacted to required minimum density.
 2. Sewers to be tested shall be clean and free from construction debris. Sand, dirt, concrete, or other materials shall be completely removed in a manner that will not damage the sewer pipe.
 3. Pipe joints shall be watertight. The Contractor shall repair manholes and pipe joints as required to stop leaks.
 4. Where sewers are above the groundwater table, the Contractor may flood the trench or air test the sewer to find and repair leaks prior to exfiltration tests.

5. The materials and methods for repairing leaks shall be submitted to Engineer: for approval before beginning Work. Chemical grouting of pipes is not acceptable.
- B. Inspection:
1. After a sewer has been cleaned and all repairs made as specified, the sewer shall be inspected and approved by the Resident Project Representative before conducting infiltration or exfiltration tests. Sewers shall be approved before any connections are made to or final surface restoration can begin.
 2. Sewers shall be inspected using audio-video recording in accordance with the requirements of Section 01820.
 3. The Contractor shall furnish all lights, cameras, carts, television, and other equipment and labor required to audio-video record the new sewers or any repaired sewer.
 4. The Resident Project Representative may require the Contractor to conduct a television inspection of smaller sewers that appear defective or do not pass infiltration tests.
- C. Test Sections:
1. The maximum length of a sewer test for infiltration or exfiltration section shall be 900 lineal feet. Every manhole shall be included in one (minimum) test section.
 2. The Contractor shall furnish and install bulkheads, sewer plugs, weirs, water level tubes, lighting, and other equipment required to conduct the tests in locations and as indicated by the Resident Project Representative.
 3. Infiltration in accordance with ASTM C969:
 - a. Where the groundwater level is above the top of the pipe, the sewer shall be tested for infiltration.
 - b. The Contractor shall plug or bulkhead the sewer to isolate the test section and install a weir in the pipe at the outlet manhole. The weir shall be direct reading of an approved design calibrated to read gallons per day.
 - c. Where the groundwater level is below the top of the sewer pipe and the trench can be flooded and the level maintained above the pipe (minimum 2 feet of head at the highest point in the pipe being tested) for test period, the Contractor may test the pipe for infiltration.
 4. Infiltration in accordance with ASTM C1103 (Precast Concrete Pipe)
 - a. Pipes 36-inches in diameter and small shall be vacuum tested at the factory. The Engineer may request to witness vacuum testing at the

- factory and should be notified 14 days in advance of the scheduled date for testing.
- b. For precast concrete pipe with a diameter larger than 36-inches, the joint acceptance test per ASTM C1103 may be utilized. The proper joint gaps for the installed pipe shall be achieved by the installed pipe. Any joint gaps wider than the manufacturer's recommendations shall be pointed in the field with a nonshrink grout.
 - c. ASTM C1103 is only acceptable for use if the groundwater level (pressure) is equal to or less than the test pressure.
 - 1) If the groundwater level (pressure) is above the test pressure and the joint is not leaking, then the joint is acceptable in accordance with ASTM C969.
 - d. If groundwater level is below the test pressure test the joints in accordance with ASTM C 1103. Air or water are acceptable in accordance with industry practices and the ASTM C1103.
 - 1) The air pressure required for the test shall not exceed 5.0 psig.
5. Allowable Leakage:
- a. The test in each section shall be continued for at least 24 hours and, if its measured leakage during that period exceeds 100 gallons per inch of diameter per mile of pipe, the Contractor shall locate the points of leakage and make necessary repairs, continuing the Work until leakage is reduced to the permissible maximum as specified.
 - b. The amount of infiltration allowed for storm sewers shall be limited to reasonable seepage, except that, if specified, the total in any section shall not exceed the amounts allowed for sanitary sewers as hereinafter specified.
 - c. All visible leaks shall be repaired whether they are less than the allowable leakage. Moisture or visible beads of water on a joint will not be considered a visible leak.
6. Repairs
- a. If a joint fails to achieve the required test pressure, acceptable methods may be chemical grout injection or the installation of a sectional liner.
 - b. The repaired joint may be retested if the repair method manufacturer warrants that the repair will not be damaged by the testing.

3.09 LOW-PRESSURE AIR ACCEPTANCE TESTS FOR PVC SEWER PIPES

- A. The Contractor may perform low-pressure air acceptance tests for PVC Sewer Pipes 24 inches in diameter or smaller. Test shall be made in accordance with ASTM F1417-Plastic Gravity Sewer Lines; ASTM C924-Concrete (Circular) Sewer Pipe with Gasket.
 - 1. If the air pressure required for the test is greater than 5.0 psig, the low-pressure air acceptance test shall not be used.
- B. The Contractor shall furnish all equipment, materials, and labor, and conduct the tests under observation of the Resident Project Representative.
- C. Safety:
 - 1. The air test may be dangerous if the line is improperly prepared. All plugs shall be installed and braced in such a manner to prevent blowouts. No one shall be allowed in manholes during testing.
 - 2. Pressurizing equipment shall include a regulator set at the maximum pressure.
- D. Line Preparation:
 - 1. Sewers to be air tested shall be prepared and inspected as specified herein for infiltration and exfiltration tests.
 - 2. Where porous pipe materials are used, the pipe walls may be wetted to temporarily reduce the porosity of the material.
 - 3. All pipe outlets shall be plugged, braced, and the joints restrained adequately to prevent blowouts.
 - 4. Testing shall be performed prior to the connection of any lateral taps to the sewer segment.
- E. Test Procedure:
 - 1. Low pressure air shall be slowly introduced into the sealed line until the internal air pressure reaches 4.0 psig greater than the average back pressure of any groundwater above the invert of the pipe.
 - 2. When a constant pressure of 4.0 psig greater than the average pressure of any groundwater above the pipe is reached, the air supply shall be throttled to maintain that internal pressure for at least 2 minutes to permit temperature equalization.
 - 3. When temperatures have been equalized and the pressure stabilized at 4.0 psig greater than the average back pressure of any groundwater above the pipe, the air supply shall be shut off or disconnected.
 - 4. Decrease the pressure in the sealed line until the continuous monitoring pressure gauge reads 3.5 psig greater than the average back pressure of any groundwater above the pipe. When this pressure is reached, timing shall commence with a stop watch.

5. Determine the time, as shown on the stop watch, required for the pressure in the sealed line to drop 1.0 psig.
6. The time required for the pressure in the test section to drop 1.0 psig shall be measured using a stop watch. If the time is less than the time determined from ASTM F1417, the section fails. The table below has been reprinted from ASTM F1417 for Contractor’s information.

Pipe Diameter, Inches	Minimum Time, Min.: Sec.	Length for Minimum Time, Feet	Time for Longer Length, Sec. (L=Ft)
6	5:40	398	0.854 L
8	7:34	298	1.520 L
10	9:26	239	2.374 L
12	11:20	199	3.418 L
15	14:10	159	5.342 L
18	17:00	133	7.692 L
21	19:50	114	10.470L
24	22:40	99	13.674L

Note: Minimum time applied to all lengths less than or equal to the length shown. For more information, see ASTM F-1417, Table 1.

- F. Air Pressure Adjustment for Groundwater:
 1. In areas where groundwater is known to exist, the Contractor shall install a one-half inch diameter capped pipe nipple, approximately, 10 inches long, through the manhole wall on top of one of the sewer lines entering the manhole. This shall be done at the time the sewer line is installed. Immediately prior to the performance of the line acceptance test, the groundwater level shall be determined by removing the pipe cap, blowing air through the pipe nipple into the ground to clear it, and then connecting a clear plastic tube to the pipe nipple. The hose shall be held vertically and a measurement of the height in feet of water shall be taken after the water stops rising in this plastic tube.
 2. The air pressure correction, for the groundwater pressure above the pipe, shall be calculated as follows: Subtract the average invert elevation from the measured groundwater elevation. Multiply the elevation difference by 0.433 psi/feet to compute the pressure difference. Add the pressure difference to the test pressures stated in the test procedure.

3.10 ADDITIONAL TESTING EXCEPTIONS, REQUIREMENT AND LIMITATIONS

- A. Low-pressure air tests are only required for new sanitary sewers installed between two manholes.
- B. Deflection and low-pressure air testing is not required for repair sections of sanitary or storm sewers.

- C. All new or repaired sections of sewers will be televised for acceptance in accordance with the requirements of Section 01820.
- D. The Contractor shall provide a means for directly measuring the groundwater elevation at the time of testing.

3.11 CLOSED CIRCUIT TELEVISION INSPECTION

- A. All new or repaired sewer sections shall be televised for acceptance in accordance with Specification Section 01810.

PART 4 SPECIAL PROVISIONS

4.01 PIPE SCHEDULE

- A. The following letter designations are used in the Piping Schedule:

Material Designation:

- DIP - Ductile Iron Pipe
- HDPE - High Density Polyethylene
- PVC - Polyvinyl Chloride
- PPVC - Perforated Polyvinyl Chloride Pipe
- RCP - Reinforced Concrete Pipe

- B. Sanitary Sewer Schedule

Size	Thickness Class	Material	Spec Section	Remarks
16"	DR11	HDPE	See 02555, 2.01 D	Gravity Sewer

(Addendum 001, Issued: 06-10-2026)

- C. Storm Sewer Schedule
- D. Schedules are not guaranteed to be complete. All piping shown on the Drawings or specified shall be furnished and installed by the Contractor whether or not listed in the above schedule.

END OF SECTION

This page has been intentionally left blank.