GENERAL NOTES:

1. RETAINING WALLS OVER 4' TALL REQUIRE A SEPARATE PERMIT AND INSPECTION.
2. ALL STORM WATER CATCH BASINS, INLETS, MANHOLES, ETC. SHALL BE PERMANENTLY LABELED AS "NO DUMPING, DRAINS TO RIVER" AND INCLUDE A FISH SYMBOL.

1.1 SOIL FILL (GEOTECH REPORT SHALL TAKE PRECEDENCE OVER THIS SPECIFICATION.)

3. PLOW, SCARIFY, BENCH, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING MATERIAL.
4. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS AS FOLLOWS:
5. UNDER GRASS AND PLANTED AREAS, USE SATISFACTORY SOIL MATERIAL.
6. UNDER WALKS AND PAVEMENTS, USE SATISFACTORY SOIL MATERIAL.
7. UNDER STEPS AND RAMPS, USE ENGINEERED FILL.
8. UNDER BUILDING SLABS, USE ENGINEERED FILL.
9. UNDER FOOTINGS AND FOUNDATIONS, USE ENGINEERED FILL.
10. PLACE SOIL FILL ON SUBGRADES FREE OF MUD, FROST, SNOW, OR ICE.

1.2 SOIL MOISTURE CONTROL

REVISE PERCENTAGES IN THIS ARTICLE ACCORDING TO GEOTECHNICAL ENGINEER'S WRITTEN RECOMMENDATIONS.

11. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL SOIL LAYER BEFORE COMPACTION TO WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT.
12. DO NOT PLACE BACKFILL OR FILL SOIL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAIN FROST OR ICE.
13. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, OTHERWISE SATISFACTORY SOIL MATERIAL THAT EXCEEDS OPTIMUM MOISTURE CONTENT BY 2 PERCENT AND IS TOO WET TO COMPACT TO SPECIFIED DRY UNIT WEIGHT.

1.3 COMPACTION OF SOIL BACKFILLS AND FILLS

14. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES (200 MM) IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES (100 MM) IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
15. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS, AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE.
16. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698:
    - A.A. UNDER STRUCTURES, BUILDING SLABS, STEPS, AND PAVEMENTS, SCARIFY AND RECOMPACT TOP 12 INCHES (300 MM) OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 100 PERCENT.
    - A.B. UNDER WALKWAYS, SCARIFY AND RECOMPACT TOP 6 INCHES (150 MM) BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 95 PERCENT.
    - A.C. UNDER TURF OR UNPAVED AREAS, SCARIFY AND RECOMPACT TOP 6 INCHES (150 MM) BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 85 PERCENT.
    - A.D. FOR UTILITY TRENCHES, COMPACT EACH LAYER OF INITIAL AND FINAL BACKFILL SOIL MATERIAL AT 95 PERCENT.

1.4 GRADING

17. GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE, FREE OF IRREGULAR SURFACE CHANGES. COMPLY WITH COMPACTION REQUIREMENTS AND GRADE TO CROSS SECTIONS, LINES, AND ELEVATIONS INDICATED.
18. PROVIDE A SMOOTH TRANSITION BETWEEN ADJACENT EXISTING GRADES AND NEW GRADES.
19. CUT OUT SOFT SPOTS, FILL LOW SPOTS, AND TRIM HIGH SPOTS TO COMPLY WITH REQUIRED SURFACE TOLERANCES.
20. SITE ROUGH GRADING: SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING. FINISH SUBGRADES TO REQUIRED ELEVATIONS WITHIN THE FOLLOWING TOLERANCES:
21. TURF OR UNPAVED AREAS: PLUS OR MINUS 1 INCH (25 MM).
22. WALKS: PLUS OR MINUS 1 INCH (25 MM).
23. PAVEMENTS: PLUS OR MINUS 1/2 INCH (13 MM).
24. GRADING INSIDE BUILDING LINES: FINISH SUBGRADE TO A TOLERANCE OF 1/2 INCH (13 MM) WHEN TESTED WITH A 10-FOOT (3-M) STRAIGHTEDGE.

1.5 FIELD QUALITY CONTROL

25. TESTING AGENCY: OWNER WILL ENGAGE A QUALIFIED GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM TESTS AND INSPECTIONS.
26. ALLOW TESTING AGENCY TO INSPECT AND TEST SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTH MOVING ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS.
27. FOOTING SUBGRADE: AT FOOTING SUBGRADES, AT LEAST ONE TEST OF EACH SOIL STRATUM WILL BE PERFORMED TO VERIFY DESIGN BEARING CAPACITIES. SUBSEQUENT VERIFICATION AND APPROVAL OF OTHER FOOTING SUBGRADES MAY BE BASED ON A VISUAL COMPARISON OF SUBGRADE WITH TESTED SUBGRADE WHEN APPROVED BY ARCHITECT.
28. TESTING AGENCY WILL TEST COMPACTION OF SOILS IN PLACE ACCORDING TO ASTM D 1556, ASTM D 2167, ASTM D 2922, AND ASTM D 2937, AS APPLICABLE. TESTS WILL BE PERFORMED AT THE FOLLOWING LOCATIONS AND FREQUENCIES:
29. PAVED AND BUILDING SLAB AREAS: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 2000 SQ. FT. (186 SQ. M) OR LESS OF PAVED AREA OR BUILDING SLAB, BUT IN NO CASE FEWER THAN THREE TESTS.
30. FOUNDATION WALL BACKFILL: AT EACH COMPACTED BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 100 FEET (30 M) OR LESS OF WALL LENGTH, BUT NO FEWER THAN TWO TESTS.
31. TRENCH BACKFILL: AT EACH COMPACTED INITIAL AND FINAL BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 150 FEET (46 M) OR LESS OF TRENCH LENGTH, BUT NO FEWER THAN TWO TESTS.
32. WHEN TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL MATERIALS TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.

GEOTECHNICAL NOTES:

1. GEOTECHNICAL SPECIFICATION SHALL BE FOLLOWED IN THE GRADING OF THIS SITE. CONTRACTOR SHOULD REQUEST AND REFER TO A COPY OF THE GEOTECHICAL REPORT FOR CLARIFICATION.

Pipe Table

NAME	SIZE	LENGTH	SLOPE	LINE NUMBE
CB A13 TO CB A12	15"	86.36'	1.02%	5
CB A12 TO CB A11	15"	59.58'	1.14%	4
CB A11 TO CB A10	15"	56.17'	1.01%	3
CB A10 TO CB A2	15"	68.05'	2.00%	2
CB A2 TO FES A1	15"	22.67'	0.72%	1
CB A3 TO CB A2	15"	144.52'	0.50%	9
CB A4 TO CB A3	15"	30.04'	1.00%	10
CB A9 TO CB A8	15"	64.76'	1.00%	14
CB A8 TO CB A7	15"	152.70'	1.00%	13
CB A7 TO CB A5	15"	131.41'	1.00%	12
CB A5 TO CB A3	15"	14.59'	1.00%	11
CB A6 TO CB A5	15"	49.76'	1.50%	15
CB A16 TO CB A15	15"	16.31'	1.00%	8
CB A15 TO CB A14	15"	81.00'	1.00%	7
CB A14 TO CB A13	15"	50.28'	0.50%	6

Pipe Table

NAME	SIZE	LENGTH	SLOPE	LINE NUMBER
DI B4 TO DI B3	15"	271.43'	2.00%	20
DI B3 TO JB B2	15"	218.35'	2.00%	19
JB B2 TO MH B1	15"	26.09'	2.30%	22
BMP TO JB B2	15"	46.92'	1.00%	21

Pipe Table

NAME	SIZE	LENGTH	SLOPE	LINE NUMBER
DI C3 TO JB C2	15"	71.61'	2.00%	18
JB C2 TO JB C1	15"	203.20'	2.00%	17
JB C1 TO EX CB1	15"	19.42'	2.00%	16

Structure Table

Structure Name	Structure Details
CB A12	RIM = 689.434 SUMP = 683.449 CB A13 TO CB A12 INV IN = 683.540 CB A12 TO CB A11 INV OUT = 683.449
CB A11	RIM = 688.854 SUMP = 682.660 CB A12 TO CB A11 INV IN = 682.769 CB A11 TO CB A10 INV OUT = 682.660
CB A10	RIM = 688.746 SUMP = 681.991 CB A11 TO CB A10 INV IN = 682.090 CB A10 TO CB A2 INV OUT = 681.991
CB A2	RIM = 687.020 SUMP = 680.164 CB A10 TO CB A2 INV IN = 680.630 CB A3 TO CB A2 INV IN = 680.250 CB A2 TO FES A1 INV OUT = 680.164
FES A1	RIM = 681.521 SUMP = ??? CB A2 TO FES A1 INV IN = 680.000
CB A4	RIM = 683.800 SUMP = 681.300 CB A5 TO CB A3 INV IN = 681.300 CB A4 TO CB A3 INV OUT = 681.300
CB A9	RIM = 689.693 SUMP = 686.000 CB A9 TO CB A8 INV OUT = 686.000
CB A8	RIM = 688.288 SUMP = 685.250 CB A9 TO CB A8 INV IN = 685.352 CB A8 TO CB A7 INV OUT = 685.250
CB A7	RIM = 686.009 SUMP = 683.600 CB A8 TO CB A7 INV IN = 683.723 [illegible]
CB A5	RIM = 685.000 SUMP = 681.446 CB A7 TO CB A5 INV IN = 682.286 CB A6 TO CB A5 INV IN = 681.540 CB A5 TO CB A3 INV OUT = 681.446
CB A3	RIM = 683.148 SUMP = 680.973 CB A4 TO CB A3 INV IN = 681.000 CB A3 TO CB A2 INV OUT = 680.973
CB A6	RIM = 687.409 SUMP = 682.286 CB A6 TO CB A5 INV OUT = 682.286
CB A16	RIM = 689.645 SUMP = 686.000 CB A16 TO CB A15 INV OUT = 686.000
CB A15	RIM = 689.582 SUMP = 685.750 CB A16 TO CB A15 INV IN = 685.837 CB A15 TO CB A14 INV OUT = 685.750
CB A14	RIM = 689.582 SUMP = 684.748 CB A15 TO CB A14 INV IN = 684.940 CB A14 TO CB A13 INV OUT = 684.748
MH A13	RIM = 690.422 SUMP = 684.417 CB A14 TO CB A13 INV IN = 684.496 CB A13 TO CB A12 INV OUT = 684.417

Structure Table

Structure Name	Structure Details
DI C3	RIM = 686.880 SUMP = 685.442 DI C3 TO JB C2 INV OUT = 685.442
JB C2	RIM = 690.419 SUMP = 683.914 DI C3 TO JB C2 INV IN = 684.010 JB C2 TO JB C1 INV OUT = 683.914
JB C1	RIM = 685.421 SUMP = 679.736 JB C2 TO JB C1 INV IN = 679.850 JB C1 TO EX CB1 INV OUT = 679.736

Structure Table

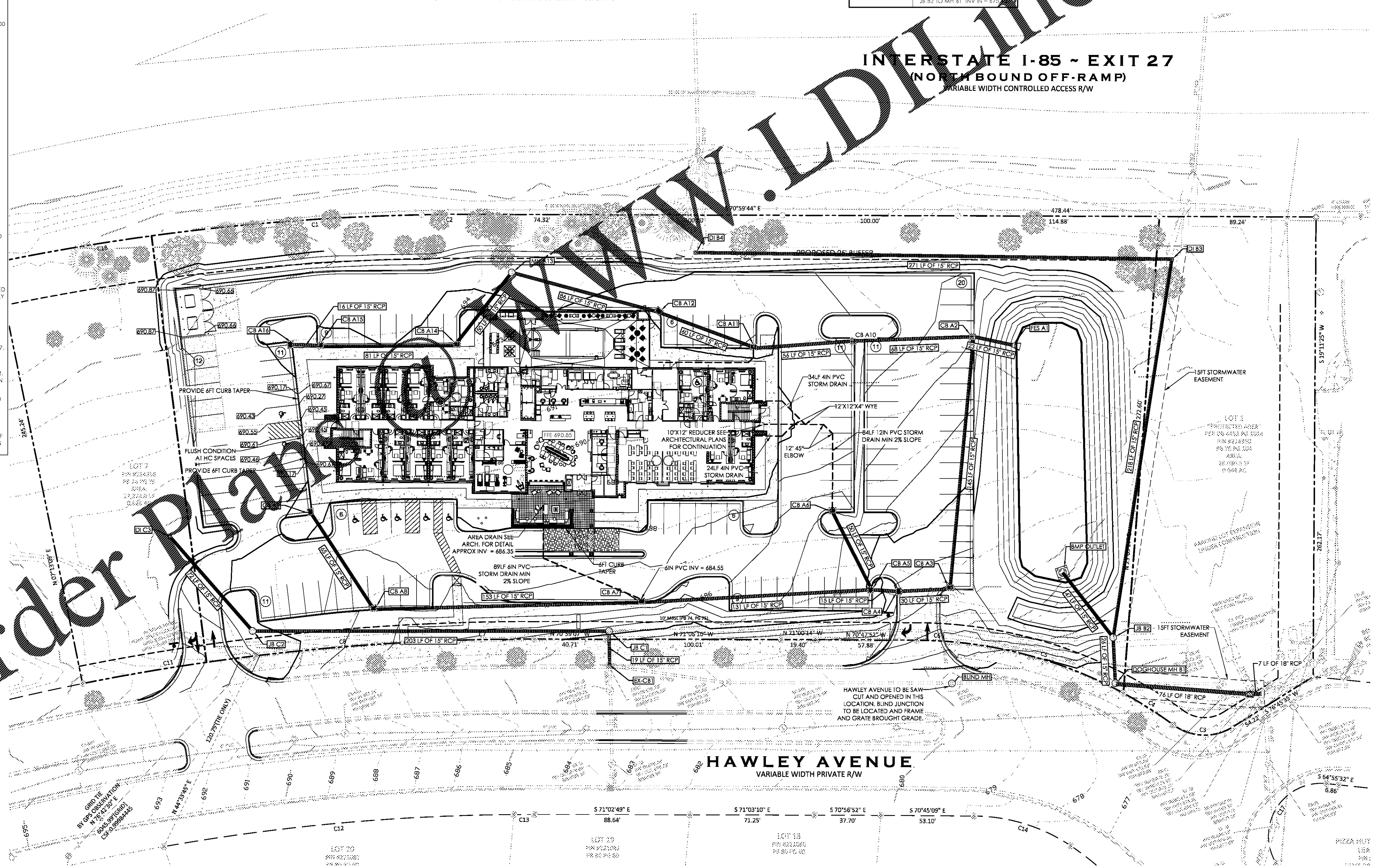
Structure Name	Structure Details
DI B4	RIM = 692.131 SUMP = 686.629 DI B4 TO DI B3 INV OUT = 686.629
DI B3	RIM = 690.640 SUMP = 681.017 DI B4 TO DI B3 INV IN = 681.200 DI B3 TO JB B2 INV OUT = 681.017
JB B2	RIM = 682.883 SUMP = 676.531 BMP TO JB B2 INV IN = 676.531 DI B3 TO JB B2 INV IN = 676.650 JB B2 TO MH B1 INV OUT = 676.550
DOGHOUSE MH B1	RIM = 679.991 SUMP = [illegible].950 JB B2 TO MH B1 INV IN = 675.[illegible]

CATCH BASIN (CB) RIM REFERNECE POINT
N.T.S.

GRATED YARD INLET (YI) RIM REFERNECE POINT
N.T.S.

RIM REFERENCE POINT

STRUCTURE LEGEND
CB CATCH BA[illegible]
FES [illegible]ARED END [illegible]CTION
YI [illegible]TED YAR[illegible]LET
JB JU[illegible]TION BOX



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AVOID UTILITY DAMAGE

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMMENDED.

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NORTH ARROW
GRAPHIC SCALE 1"=30 FT.

NORTH CAROLINA PROFESSIONAL SEAL 23557 ENGINEER TIMOTHY D. FOLEY 06/07/2019

HOME2 SUITES BELMONT

3595445139, 3595444233, 3595443246, 3595442340, 3595441343, 3595440335
HAWLEY AVE, BELMONT, NORTH CAROLINA 28012

GRADING PLAN

REVISIONS:
REV1 - ISSUE FOR BID 2019-06-07

C07 - GRADING.DWG
PROJECT NUMBER: 217090
DATE: 03/12/2019 DRAWN BY: JDC
SHEET C07 OF 15