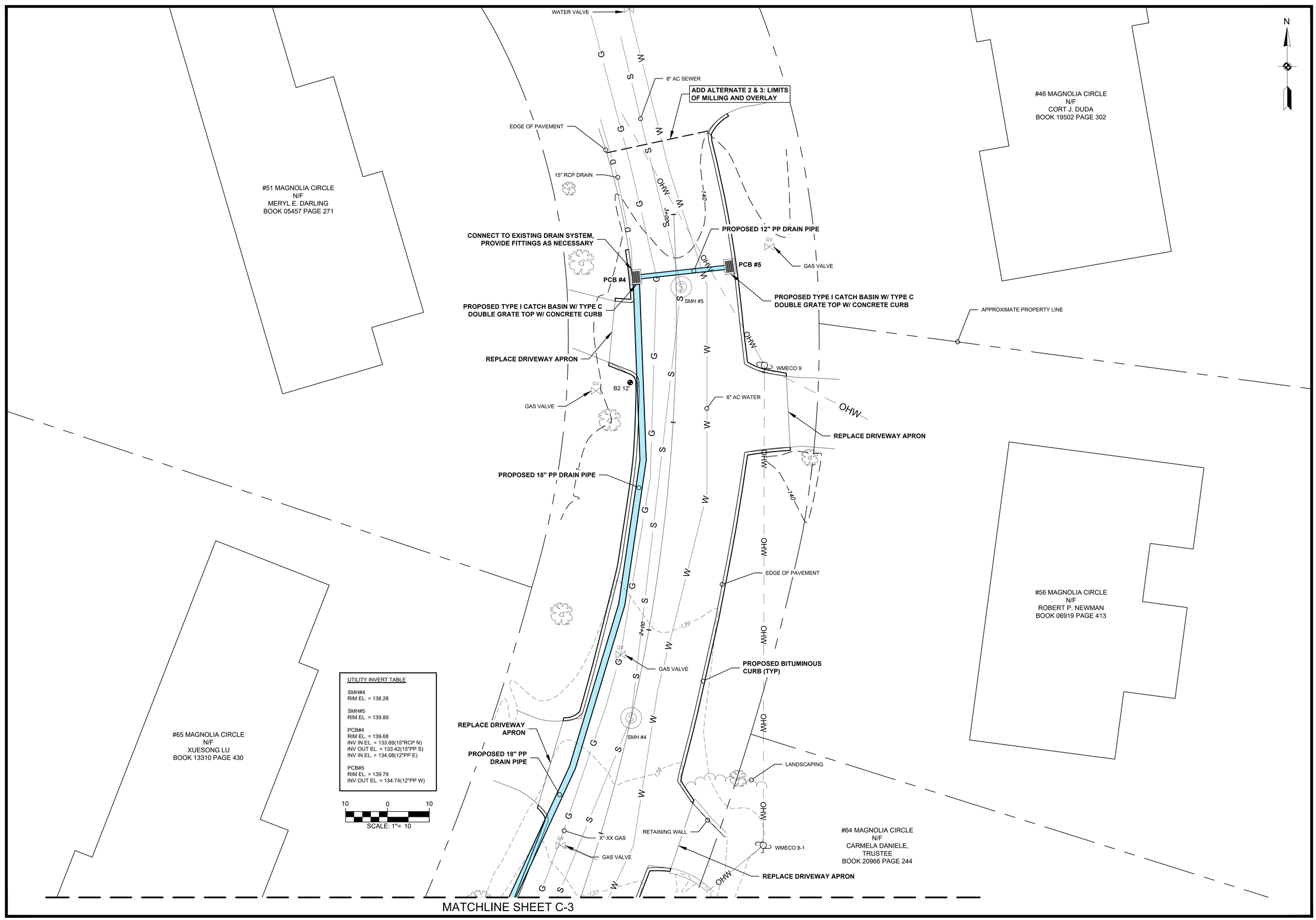

DPC ENGINEERING, LLC
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DPCENGINEERING.COM

COMMONWEALTH OF MASSACHUSETTS
DAVID R. PROVETT
CIVIL
NO. 49373
REGISTERED PROFESSIONAL ENGINEER
August 25, 2020

REV:	DESCRIPTION:	DATE:
1	ISSUED FOR NOI	8/5/2020
2	ISSUED FOR BIDDING	8/25/2020

DRAWN BY: JMR
DESIGNED BY: JMR
CHECKED BY: DRP
APPROVED BY: DRP
ISSUED FOR: BIDDING

PROPOSED SITE PLAN (2 OF 2)

FILE:

MAGNOLIA CIRCLE DRAINAGE IMPROVEMENTS PROJECT

DEPARTMENT OF PUBLIC WORKS

LONGMEADOW, MASSACHUSETTS

SCALE:	AS NOTED
SCALE SHEET SIZE:	22X34
JOB NO.:	
DATE:	AUGUST 2020
SHEET:	6 OF: 10

C-4

Geosearch Inc.

Client: DPC Engineering LLC — Date: 7/2/20 — Page # 1 of 1

Location: Side of 64 Magnolia Circle, Longmeadow, MA

Boring No. B-1 — Ground Elev — Date Start 7/1/20 — Date Complete 7/1/20 — Drilling Foreman: Shawn Preston — Eng/Hydrol. Geologist:

DEPTH	Sample NO.	Sample Depth(ft.)	Blows 6" Penetration	Rec. Inches	Casing Blows Per Ft.	Strata Change Depth	Visual Identification of Soil and/or Rock Strata
	1	0-2	3-5-5-6	13			Dry, brown, loose, Sand and gravel, trace asphalt.
	2	2-4	5-5-3-2	20			Dry, brown, loose, fine to medium Sand.
	3	4-6	WOH	18		Water	Wet, brown, very loose, fine to medium Sand.
	4	6-8	5-6-5-6	12			Wet, brown/grey, loose, fine Sand some silt.
	5	8-10	3-3-3-3	18			Wet, grey, very loose, fine Sand some silt.
	6	10-12	3-3-3-4	12			Wet, grey, very loose, fine Sand some silt.
	7	12-14	3-3-3-3	10			Wet, grey, very loose, fine Sand some silt.
	8	14-16	5-4-5-6	14			Wet, grey, loose, fine Sand some silt.
	9	16-18	4-4-4-5	16			Wet, grey, loose, fine Sand some silt.
	10	18-20	4-4-6-6	22			Wet, grey, loose, fine Sand some silt.
							End of boring at 20'. Water table at 5'.

Type Of Boring: Casing Size — Hollow Stem Auger Size 4 1/4" — Standard Penetration Test (ST) = 140lb hammer falling 30"

Proportion Percentages	Granular Soils (blows per ft.)		Cohesive Soils (blows per ft.)	
Trace 0 to 10%	0 to 4 Very Loose	30 to 50 Dense	0 to 2 Very Soft	8 to 15 Stiff
Some 10 to 40%	4 to 10 Loose	Over 50 Very Dense	2 to 4 Soft	15 to 30 Very Stiff
And 40 to 50%	10 to 30 Medium Dense		4 to 8 Medium Stiff	Over 30 Hard

Blows are per 6" taken with an 24" long X 2" OD X 1 3/8" I.D.

Geosearch Inc.

Client: DPC Engineering LLC — Date: 7/2/20 — Page # 1 of 1

Location: Front of 51 Magnolia Circle, Longmeadow, MA

Boring No. B- 2 — Ground Elev — Date Start 6/29/20 — Date Complete 6/29/20 — Drilling Foreman: Shawn Preston — Eng/Hydrol. Geologist:

DEPTH	Sample NO.	Sample Depth(ft.)	Blows 6" Penetration	Rec. Inches	Casing Blows Per Ft.	Strata Change Depth	Visual Identification of Soil and/or Rock Strata
	1	0-2	1-2-1-1	22			Dry, brown, very loose, fine Sand.
	2	2-4	1-1-1-1	10			Dry, brown, very loose, fine Sand.
	3	4-6	1-1-1-1	16			Dry, brown, very loose, fine Sand and gravel.
	4	6-8	1-1-1-1	14		Water	Wet, brown, very loose, fine Sand some silt.
	5	8-10	1-1-2-5	20			Wet, brown, very loose, fine Sand some silt, trace gravel.
	6	10-12	4-4-7-9	22			Wet, brown, loose, fine Sand some silt.
							End of boring at 12'. Water at 7'.

Type Of Boring: Casing Size — Hollow Stem Auger Size 4 1/4" — Standard Penetration Test (ST) = 140lb hammer falling 30"

Proportion Percentages	Granular Soils (blows per ft.)		Cohesive Soils (blows per ft.)	
Trace 0 to 10%	0 to 4 Very Loose	30 to 50 Dense	0 to 2 Very Soft	8 to 15 Stiff
Some 10 to 40%	4 to 10 Loose	Over 50 Very Dense	2 to 4 Soft	15 to 30 Very Stiff
And 40 to 50%	10 to 30 Medium Dense		4 to 8 Medium Stiff	Over 30 Hard

Blows are per 6" taken with an 24" long X 2" OD X 1 3/8" I.D.

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DPC

COMMONWEALTH OF MASSACHUSETTS — DAVID R. PINSETT — CIVIL — NO. 49371 — REGISTERED PROFESSIONAL ENGINEER

August 25, 2020

REV:	DESCRIPTION:	DATE:
JMR		
JMR	1 ISSUED FOR NOI	8/5/2020
DRP	2 ISSUED FOR BIDDING	8/25/2020
DRP		
DRP		

DRAWN BY: JMR
DESIGNED BY: JMR
CHECKED BY: DRP
APPROVED BY: DRP
ISSUED FOR: BIDDING

SUBSURFACE EXPLORATION
BORING LOGS

FILE:

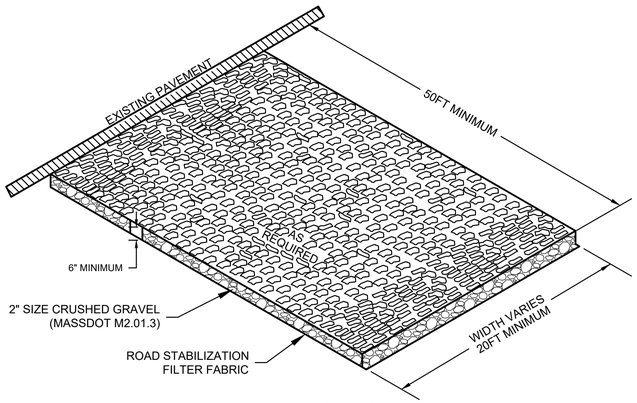
MAGNOLIA CIRCLE
DRAINAGE IMPROVEMENTS
PROJECT

DEPARTMENT OF PUBLIC WORKS

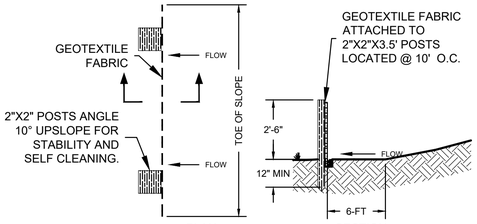
LONGMEADOW, MASSACHUSETTS

SCALE: AS NOTED
SCALE SHEET SIZE: 22X34
JOB NO.:
DATE: AUGUST 2020
SHEET: 7 OF: 10

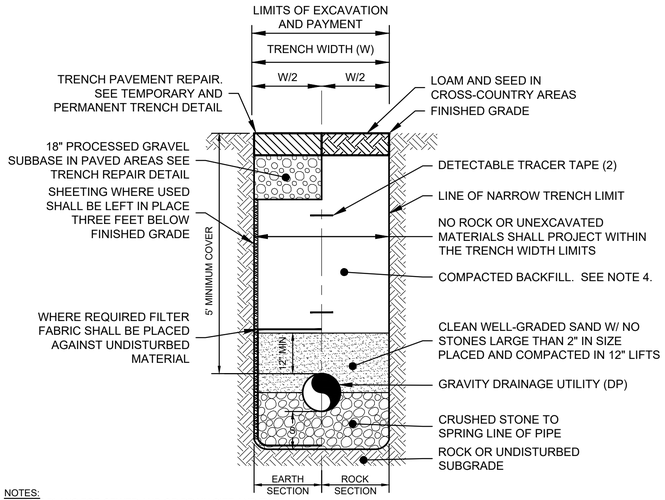
C-5



ANTI-TRACKING PAD
N.T.S.

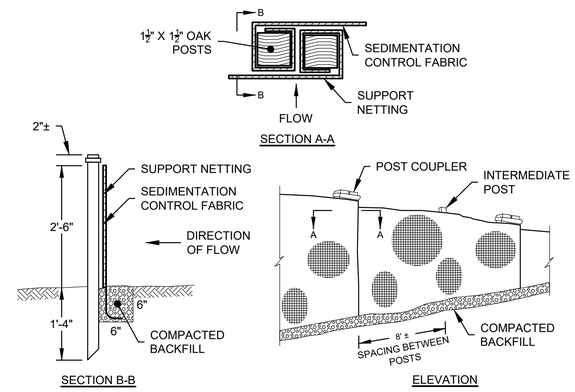


TOE OF SLOPE LOCATION
N.T.S.

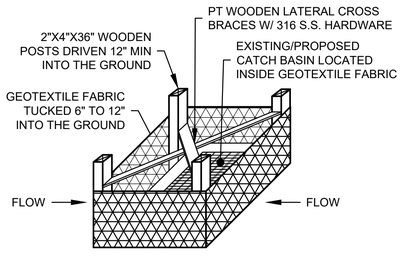


NOTES:
1. SEE PLANS FOR SEWER AND OR DRAIN SIZE AND TYPE.
2. SEE PLANS AND SPECIFICATION FOR RESTORATION LOCATIONS AND DETAILS.
3. DRAIN TRENCHES MAY BE EXCAVATED WIDER THAN THE 'LIMIT OF EXCAVATION AND PAYMENT' ABOVE THE 'LINE OF NARROW TRENCH LIMIT.' ANY SUCH ADDITIONAL EXCAVATION SHALL BE AT THE CONTRACTOR'S EXPENSE AND SHALL NOT BE MEASURED FOR PAYMENT.
4. BACKFILL W/ SUITABLE EXCAVATED MATERIAL OR SUBSTITUTE SUITABLE HAULED BACKFILL. REMOVE ALL STONES GREATER THAN 6" IN SIZE. USE PLATE COMPACTOR FOR COMPACTION IN LIFTS NO GREATER THAN 24". COMPACTED BACKFILL SHALL BE COMPACTED TO A MINIMUM 95% MAX DENSITY.
5. SEE TABLE A FOR W, DP AND S DIMENSIONS.

GRAVITY DRAIN TRENCH DETAIL
N.T.S.



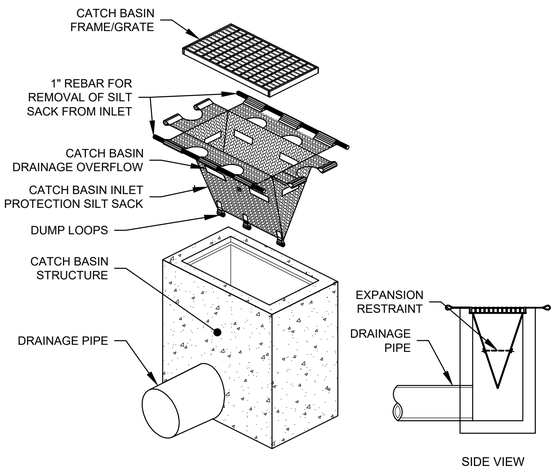
SILT FENCE DETAIL
N.T.S.



GEOTEXTILE FABRIC INSTALLATION AT CATCH BASINS AND EXFILTRATION TRENCHES
N.T.S.

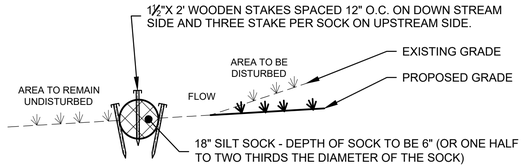
DEPTH TO PIPE INVERT	DIAMETER OF PIPE (DP)	MAXIMUM TRENCH WIDTH BELOW LINE OF NARROW TRENCH LIMIT (SHEETED OR UNSHEETED) (W)	MINIMUM CLEARANCE (S)
0-12'	TO 18"	5'	6"
0-12'	21"-24"	5'	12"
OVER 12'	TO 18"	7'	12"
OVER 12'	21"-24"	7'	18"

TYPICAL UTILITY TRENCH INFORMATION TABLE A

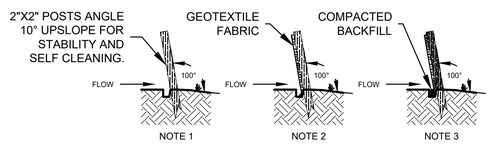


NOTES:
1. PROVIDE HI-FLOW SILT SACK TYPE A FOR TYPE "C-L" CATCH BASIN TOPS AND TYPE B WITH CURB DEFLECTOR FOR TYPE "C" CATCH BASIN TOPS OR OTHER STRUCTURES WITH CURB INLET.

CATCH BASIN INLET PROTECTION
N.T.S.



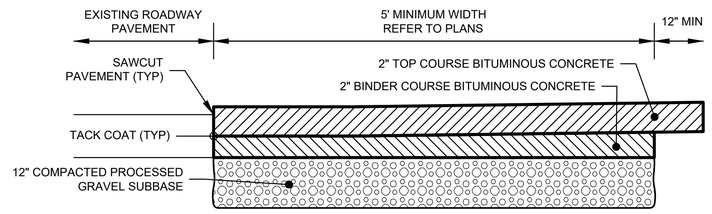
SILT SOCK EROSION CONTROL DETAIL
N.T.S.



GEOTEXTILE BARRIER FENCE

NOTES:
1. SET POSTS AND EXCAVATE A 6"X6" TRENCH. SET POSTS DOWNSLOPE.
2. ATTACH GEOTEXTILE TO THE POSTS AND EXTEND IT TO THE TRENCH. MINIMUM LENGTH OF GEOTEXTILE IS 15'. MINIMUM SPACING OF POSTS IS 10'. JOINTS ONLY SUPPORT POSTS WITH A MINIMUM 6" OVERLAP.
3. BACKFILL THE TRENCH AND COMPACT THE EXCAVATED SOIL.

SEDIMENTATION CONTROL SYSTEM INSTALLATION
N.T.S.



NOTES:
1. CUT 12" MINIMUM KEYWAY AT EXISTING DRIVEWAY.
2. MATCH WIDTH AND GRADE AT EXISTING DRIVEWAY.
3. APPLY TACK COAT AND JOINT SEALANT AT ALL LOCATIONS BETWEEN EXISTING AND PROPOSED PAVEMENT.

DRIVEWAY APRON PAVEMENT DETAIL
N.T.S.

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DPC

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DAVID R. PINSKETT
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REGISTERED PROFESSIONAL ENGINEER
August 25, 2020

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DETAILS

FILE:

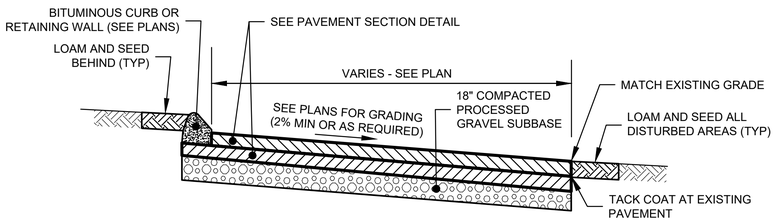
MAGNOLIA CIRCLE
DRAINAGE IMPROVEMENTS
PROJECT

DEPARTMENT OF PUBLIC WORKS

LONGMEADOW, MASSACHUSETTS

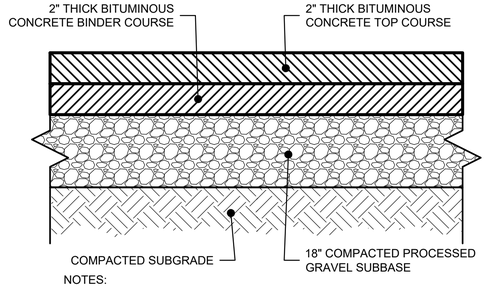
SCALE: AS NOTED
SCALE SHEET SIZE: 22X34
JOB NO.:
DATE: AUGUST 2020
SHEET: 8 OF: 10

C-6



TYPICAL PAVEMENT DETAIL

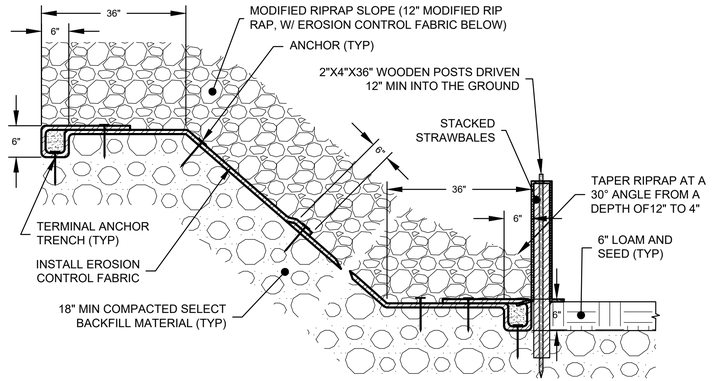
N.T.S.



NOTES:
1. SEE PLANS FOR GRADING INFORMATION. IF NO GRADING INFORMATION IS SHOWN MATCH EXISTING GRADES.
2. PROVIDE GRAVEL BASE IN ALL AREAS OF NEW PAVEMENT.
3. PULVERIZE/RECLAIM EXISTING PAVEMENT AND BASE.
4. REMOVE EXISTING MATERIAL/IMPORT MATERIAL AS REQUIRED.
5. SEE PLANS FOR PAVING LIMITS.

BITUMINOUS PAVEMENT SECTION

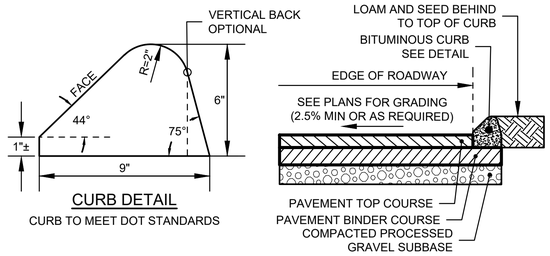
N.T.S.



NOTES:
1. INSTALL AND ANCHOR EROSION CONTROL FABRIC PER MANUFACTURERS RECOMMENDATIONS.
2. STABILIZE RIPRAP SLOPE W/ MECHANICALLY PLACED MODIFIED RIPRAP. DUMPING RIPRAP ALONG THE SLOPE VIA DUMP TRUCK SHALL NOT BE ACCEPTABLE. MODIFIED RIPRAP TO BE MECHANICALLY PLACED VIA A CRANE, SKIP, DRAGLINE OR SOME FORM OF A BUCKET.
2. SEED W/ SPECIALITY LOW MAINTENANCE "NO MOW" SEED MIX.

RIPRAP SLOPE STABILIZATION DETAIL

N.T.S.

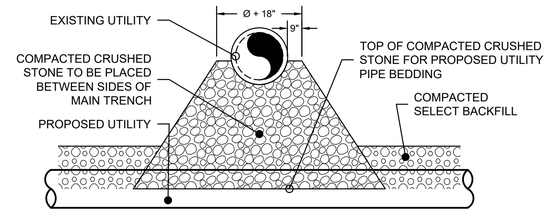


CURB DETAIL

CURB TO MEET DOT STANDARDS

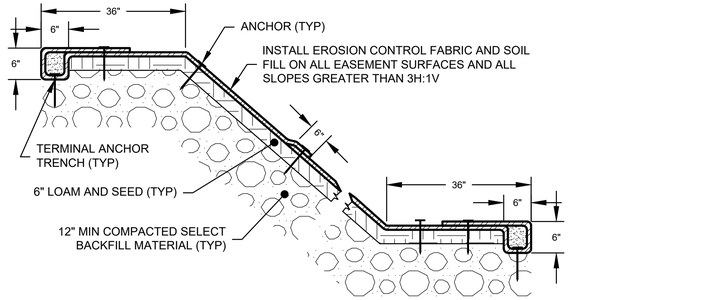
BITUMINOUS CONCRETE CURB DETAIL

N.T.S.



UTILITY CROSSING DETAIL

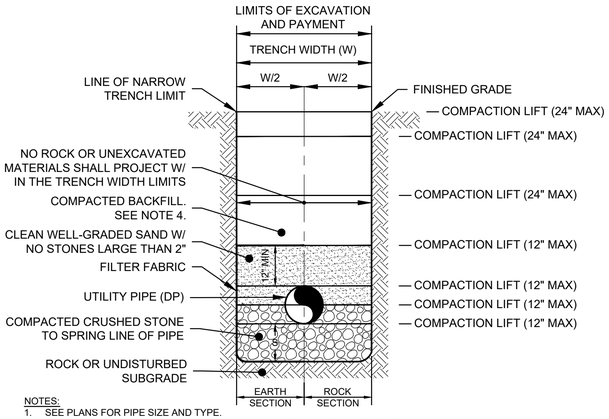
N.T.S.



NOTES:
1. INSTALL AND ANCHOR EROSION CONTROL FABRIC PER MANUFACTURERS RECOMMENDATIONS.
2. STABILIZE VEGETATIVE SLOPE W/ SPECIALITY LOW MAINTENANCE "NO MOW" SEED MIX.

VEGETATIVE SLOPE STABILIZATION DETAIL

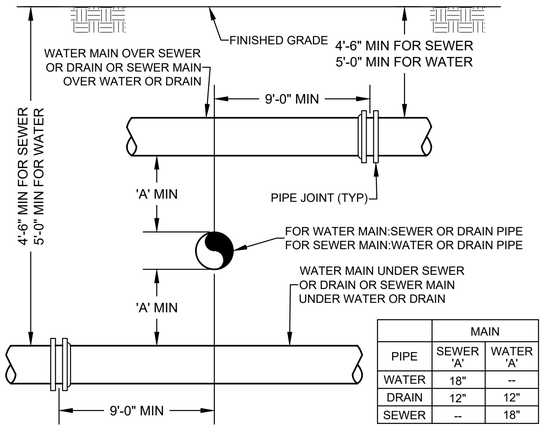
N.T.S.



NOTES:
1. SEE PLANS FOR PIPE SIZE AND TYPE.
2. SEE PLANS, SPECIFICATION AND DETAILS FOR ADDITIONAL REQUIREMENTS.
3. SEE TABLE A FOR W, DP AND S DIMENSIONS.
4. BACKFILL W/ SUITABLE EXCAVATED MATERIAL OR SUBSTITUTE SUITABLE HAULED BACKFILL (AT NO ADDITIONAL COST). REMOVE ALL STONES GREATER THAN 6" IN SIZE. USE PLATE COMPACTOR FOR COMPACTION IN LIFTS NO GREATER THAN 24". COMPACTED BACKFILL SHALL BE COMPACTED TO A MINIMUM 95% MAX DENSITY.

TRENCH COMPACTION DETAIL

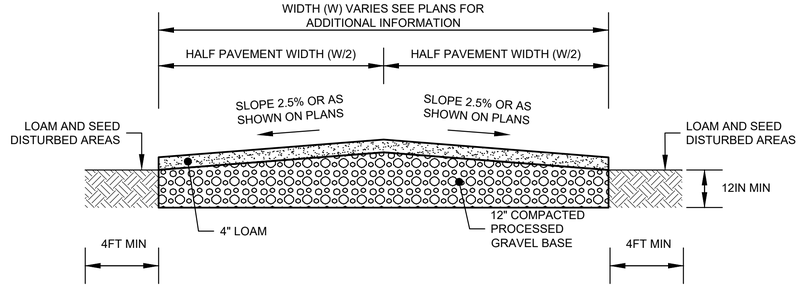
N.T.S.



	MAIN	
PIPE	SEWER 'A'	WATER 'A'
WATER	18"	--
DRAIN	12"	12"
SEWER	--	18"

WATER, SEWER OR DRAIN CROSSING DETAIL

N.T.S.



TYPICAL GRAVEL BASE ROAD DETAIL

N.T.S.

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DETAILS

FILE:

MAGNOLIA CIRCLE DRAINAGE IMPROVEMENTS PROJECT

DEPARTMENT OF PUBLIC WORKS

LONGMEADOW, MASSACHUSETTS

SCALE: AS NOTED
SCALE SHEET SIZE: 22X34
JOB NO.:
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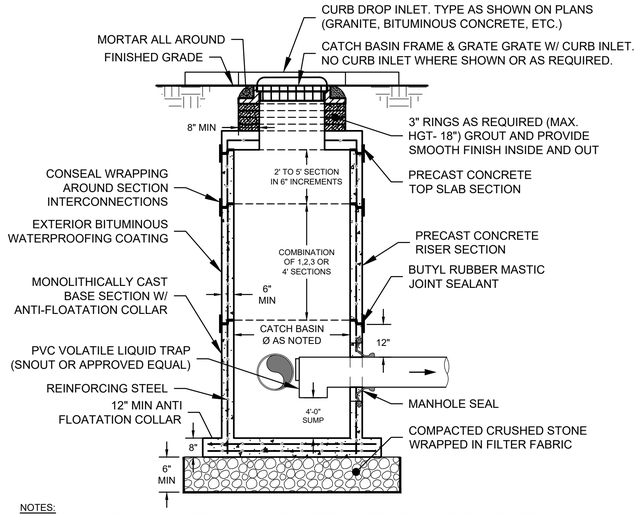
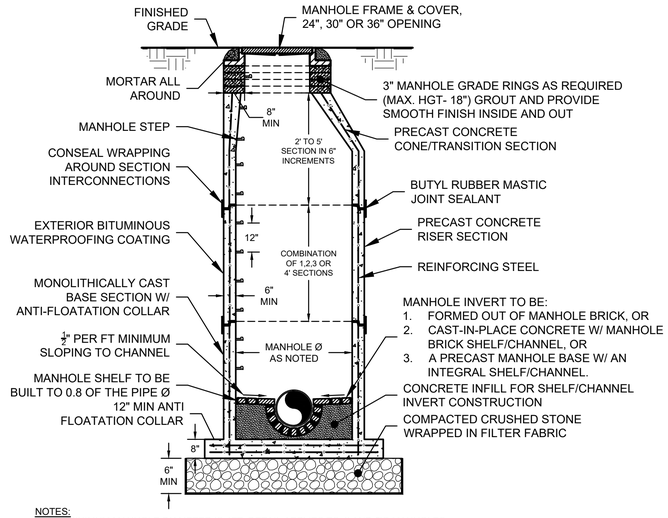
SHEET: 9 OF: 10

C-7



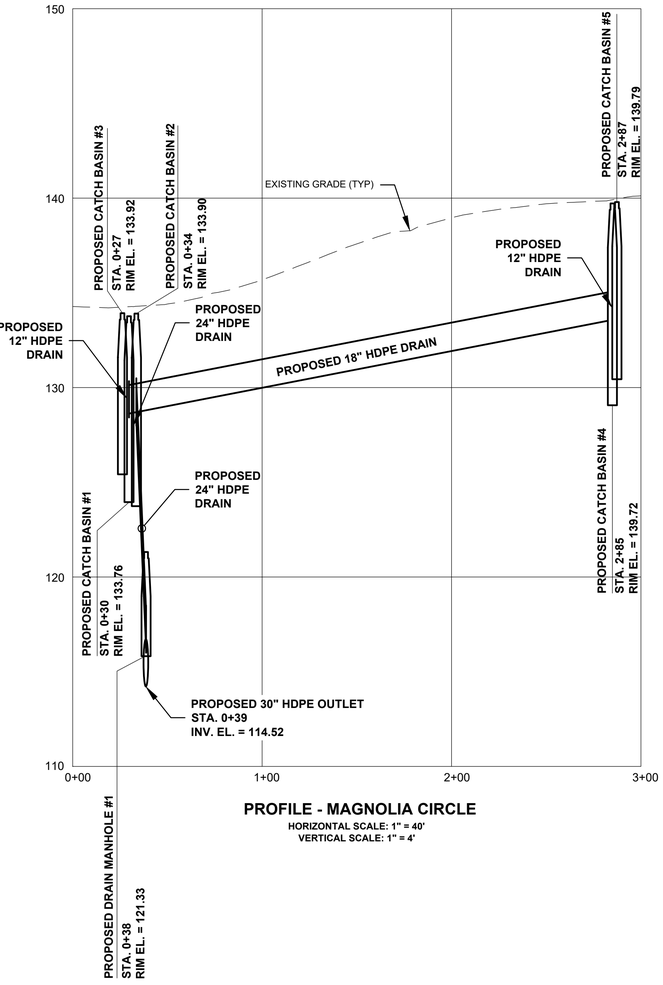
NOTES:
1. MINIMUM CATCH BASIN DIAMETER IS 4FT. ADJUST DIAMETER AS NOTED OR REQUIRED FOR PIPE SIZES.
2. CATCH BASIN SHALL CONFORM TO LATEST ASTM DESIGNATION C478. CONCRETE COMPRESSIVE STRENGTH-5,000 PSI MINIMUM AT 28 DAYS.
3. ALL PIPE CONNECTIONS TO WALLS SHALL BE CAST-IN FLEXIBLE WATERTIGHT CONNECTORS MANUFACTURED BY PRESS-SEAL GASKET CORPORATION OR APPROVED EQUAL.
4. BRICK (ASTM C32) SHALL BE GRADE MS OR MM.
5. ADJUST CATCH BASIN FRAME AND GRATE TO REQUIRED GRADE WITH A MIN OF ONE COURSE AND A MAX OF FIVE COURSES OF REINFORCED CONC. GRADING RINGS.
6. REINFORCING STEEL WELDED WIRE FABRIC CONFORMS TO LATEST ASTM SPECIFICATION A185.
7. REINFORCING STEEL DEFORMED BARS CONFORM TO LATEST ASTM SPECIFICATION A615.
8. PROVIDE AND INSTALL CATCH BASIN W/ CURBED INLET IN AREAS W/ CURBING.

PRECAST CATCH BASIN DETAIL
PAVED/CURBED GRASSED AREAS
N.T.S.

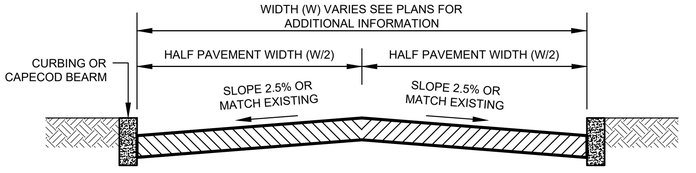


NOTES:
1. MINIMUM MANHOLE DIAMETER IS 4FT. DETAIL APPLIES TO 4' AND 5'Ø MANHOLES.
2. MANHOLE SHALL CONFORM TO LATEST ASTM DESIGNATION C478. CONCRETE COMPRESSIVE STRENGTH-5,000 PSI MINIMUM AT 28 DAYS.
3. ALL PIPE CONNECTIONS TO MH WALLS SHALL BE CAST-IN FLEXIBLE WATERTIGHT CONNECTORS MANUFACTURED BY PRESS-SEAL GASKET CORPORATION OR APPROVED EQUAL.
4. MANHOLE STEPS SHALL MEET LATEST OSHA REGULATION 29 CFR 1910.27, SECTION 16 OF ASTM SPECIFICATION C478 AND SECTION 10 ASTM SPECIFICATION C497.
5. MH BRICK (ASTM C32) SHALL BE GRADE MS OR MM.
6. ADJUST MANHOLE FRAME AND COVER TO REQUIRED GRADE WITH A MIN OF ONE COURSE AND A MAX OF FIVE COURSES OF REINFORCED CONC. GRADING RINGS.
7. REINFORCING STEEL WELDED WIRE FABRIC CONFORMS TO LATEST ASTM SPECIFICATION A185.
8. REINFORCING STEEL DEFORMED BARS CONFORM TO LATEST ASTM SPECIFICATION A615.
9. DISTANCE FROM TOP OF MANHOLE COVER TO FIRST STEP SHALL BE BETWEEN 12 AND 16".

PRECAST DRAIN MANHOLE DETAIL
N.T.S.

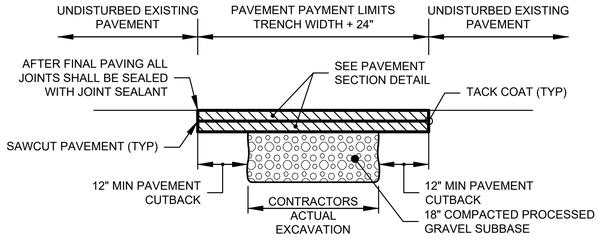


PROFILE - MAGNOLIA CIRCLE
HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'



NOTES:
UPON COMPLETION OF PERMANENT TRENCH PAVING WORK, MILL EXISTING PAVEMENT AS SHOWN TO A 2" TYP (4" MAX.) DEPTH AND OVERLAY WITH 2" MIN COMPACTED THICKNESS OF CLASS II BITUMINOUS CONCRETE.

TYPICAL MILLING AND OVERLAY DETAIL
N.T.S.



PERMANENT TRENCH PAVEMENT REPLACEMENT DETAIL
N.T.S.

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CIVIL
NO. 49371
REGISTERED PROFESSIONAL ENGINEER
August 25, 2020

REV:	DESCRIPTION:	DATE:
JMR	ISSUED FOR NOI	8/5/2020
JMR	ISSUED FOR BIDDING	8/25/2020
DRP	2	
DNP		

DRAWN BY: JMR
DESIGNED BY: JMR
CHECKED BY: DRP
APPROVED BY: DNP
ISSUED FOR: BIDDING

DETAILS

FILE:

MAGNOLIA CIRCLE DRAINAGE IMPROVEMENTS PROJECT

DEPARTMENT OF PUBLIC WORKS

LONGMEADOW, MASSACHUSETTS

SCALE:	AS NOTED
SCALE SHEET SIZE:	22X34
JOB NO.:	
DATE:	AUGUST 2020
SHEET:	10 OF: 10

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