

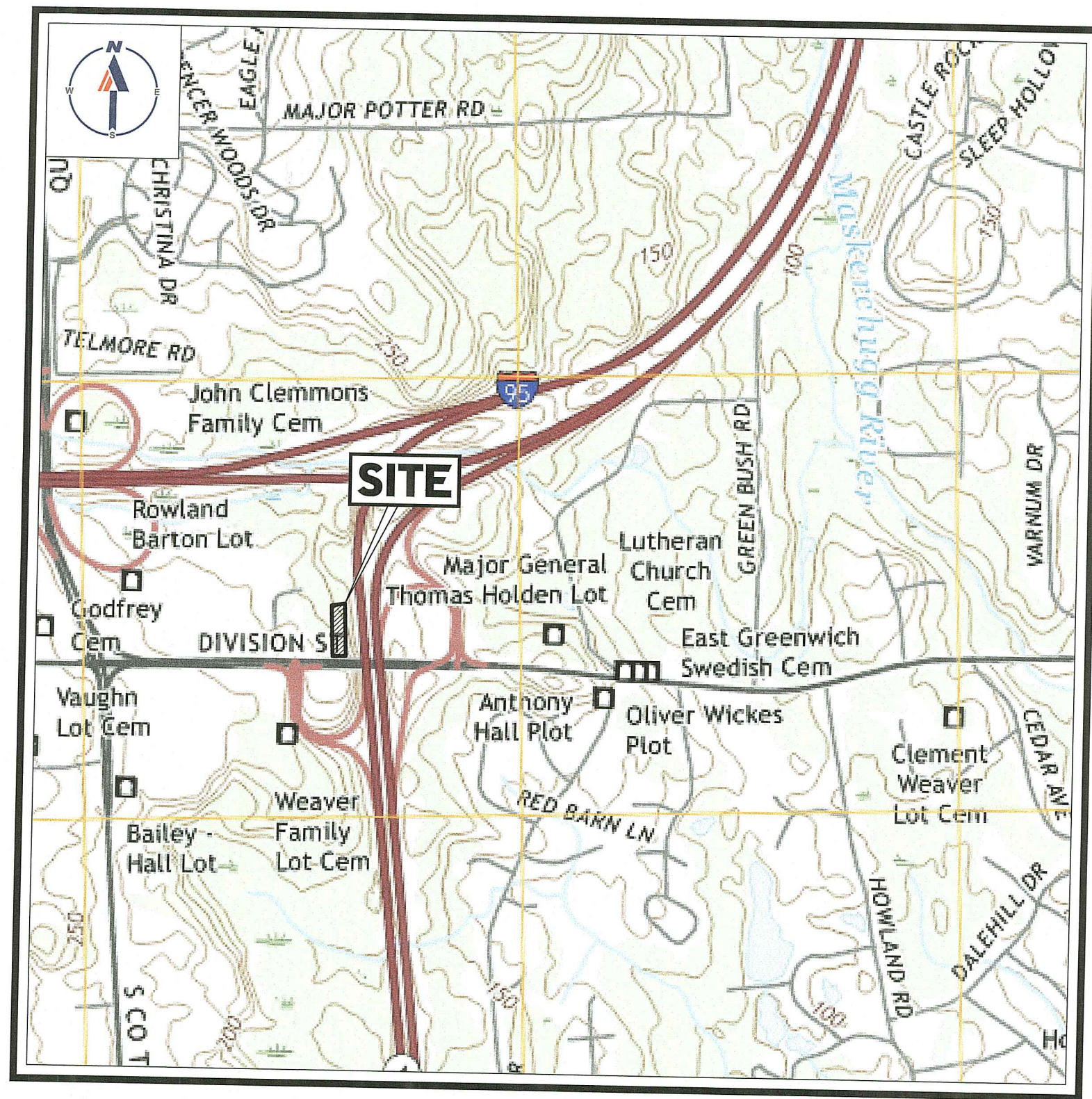
# PROPOSED SITE PLAN DOCUMENTS

FOR

1119 DIVISION SITE, LLC

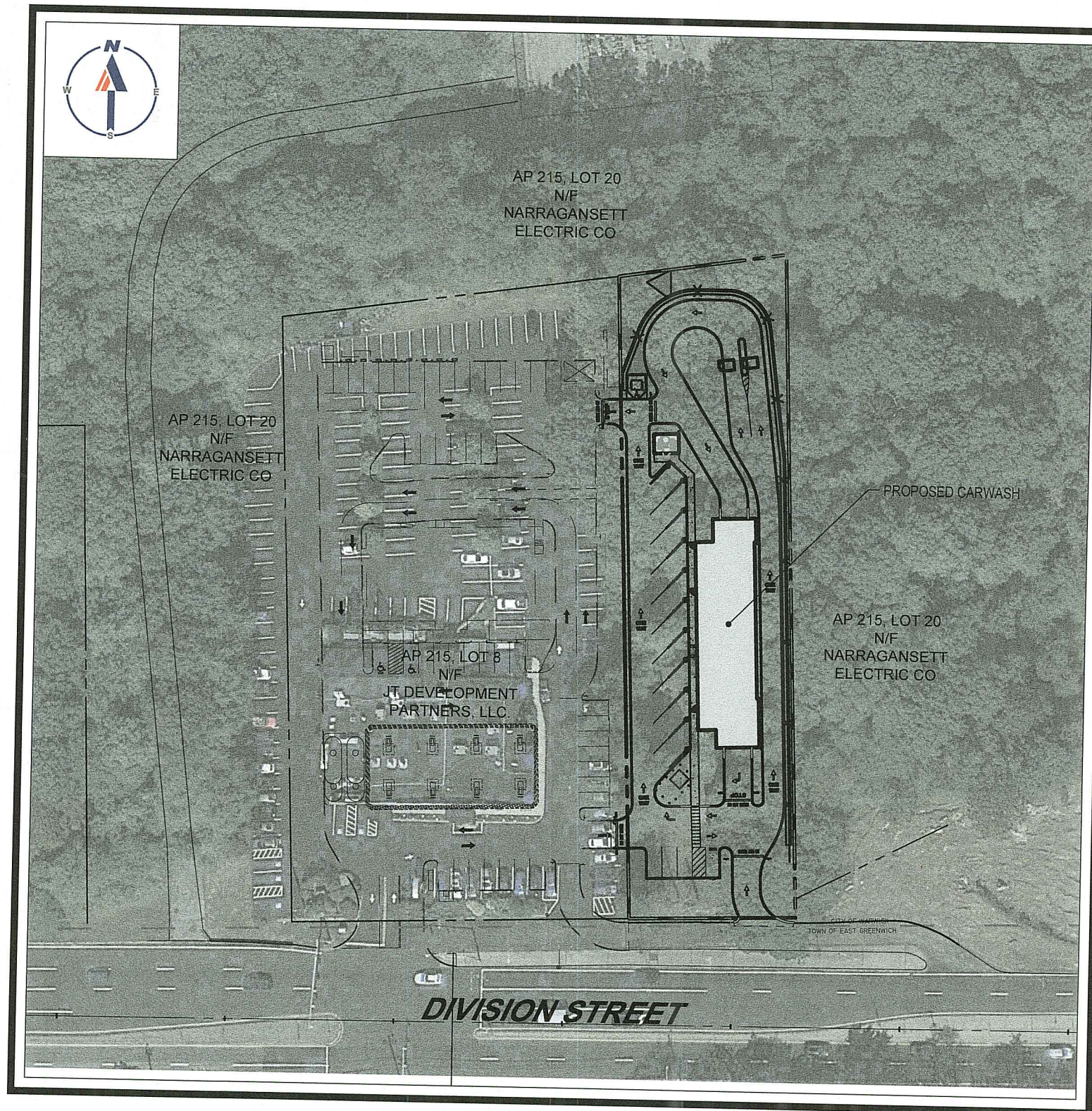
## PROPOSED DRIVE-THRU CARWASH

LOCATION OF SITE:  
1119 DIVISION STREET, CITY OF WARWICK,  
KENT COUNTY, RHODE ISLAND  
MAP 215, LOT 7



USGS MAP

SCALE: 1" = 1,000'  
SOURCE: EAST GREENWICH RHODE  
ISLAND USGS QUADRANGLE



SITE MAP

SCALE: 1" = 80'  
SOURCE: GOOGLE AERIAL IMAGERY

PREPARED BY

**BOHLER**

### DRAWING SHEET INDEX

SHEET TITLE	SHEET NUMBER
COVER SHEET	C-101
GENERAL NOTES SHEET	C-102
DEMOLITION PLAN	C-201
OVERALL SITE PLAN	C-301
SITE LAYOUT PLAN	C-302
GRADING PLAN	C-401
DRAINAGE PLAN	C-402
UTILITY PLAN	C-501
EROSION AND SEDIMENT CONTROL PLAN	C-601
EROSION AND SEDIMENT CONTROL NOTES AND DETAILS	C-602
LANDSCAPE PLAN	C-701
LANDSCAPE NOTES AND DETAILS	C-702
LIGHTING PLAN	C-703
DETAIL SHEET	C-901
DETAIL SHEET	C-902
DETAIL SHEET	C-903
DETAIL SHEET	C-904
DETAIL SHEET	C-905
ALTA/NSPS LAND TITLE SURVEY (BY OTHERS)	1

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION #: 22-0458

DATED: FEB 20 2023

SEE LETTER OF SAME DATE

*Nancy L. Freeman*

Environmental Management

FEB - 2 2023

Office of Water Resources

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LAND SURVEYING  
PROGRAM MANAGEMENT  
LANDSCAPE ARCHITECTURE  
SUSTAINABLE DESIGN  
PERMITTING SERVICES  
TRANSPORTATION SERVICES

### REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY
1	08/23/2022	REVISED FOR RIDOT SUBMISSION	CPB	JF
2	08/28/2022	REVISED FOR RIDEM SUBMISSION	JF	CPB
3	10/06/2022	REVISED FOR SEWER SUBMISSION	JF	CPB
4	10/18/2022	REVISED PER RIDOT COMMENTS	JF	CPB
5	01/04/2023	REVISED PER SEWER REVIEW COMMENTS	JF	CPB
6	01/27/2023	REVISED PER RIDEM COMMENTS	JF	CPB



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PROJECT No.: W211249  
DRAWN BY: CPB  
CHECKED BY: JF  
DATE: 02/24/2023  
CAD I.D.: W211249-CVL-6

PROJECT:

### PROPOSED SITE PLAN DOCUMENTS

FOR

1119 DIVISION  
SITE, LLC

PROPOSED  
DRIVE-THRU CARWASH

MAP: 215 LOT: 7  
1119 DIVISION STREET,  
CITY OF WARWICK,  
KENT COUNTY,  
RHODE ISLAND

**BOHLER**

352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
Phone: (508) 480-9900

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**J.G. SWERLING**

PROFESSIONAL ENGINEER

MASSACHUSETTS LICENSE No. 41697  
NEW HAMPSHIRE LICENSE No. 14696  
MAINE LICENSE No. 13816  
CONNECTICUT LICENSE No. 30785  
RHODE ISLAND LICENSE No. 11465

SHEET TITLE:

**COVER  
SHEET**

SHEET NUMBER:

**C-101**

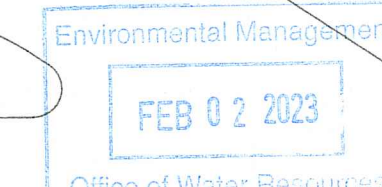
REVISION 6 - 01/27/2023

Sheet 1 of 19

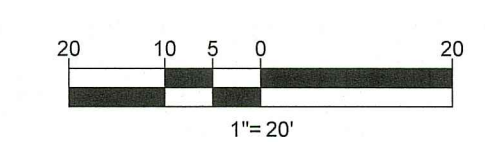






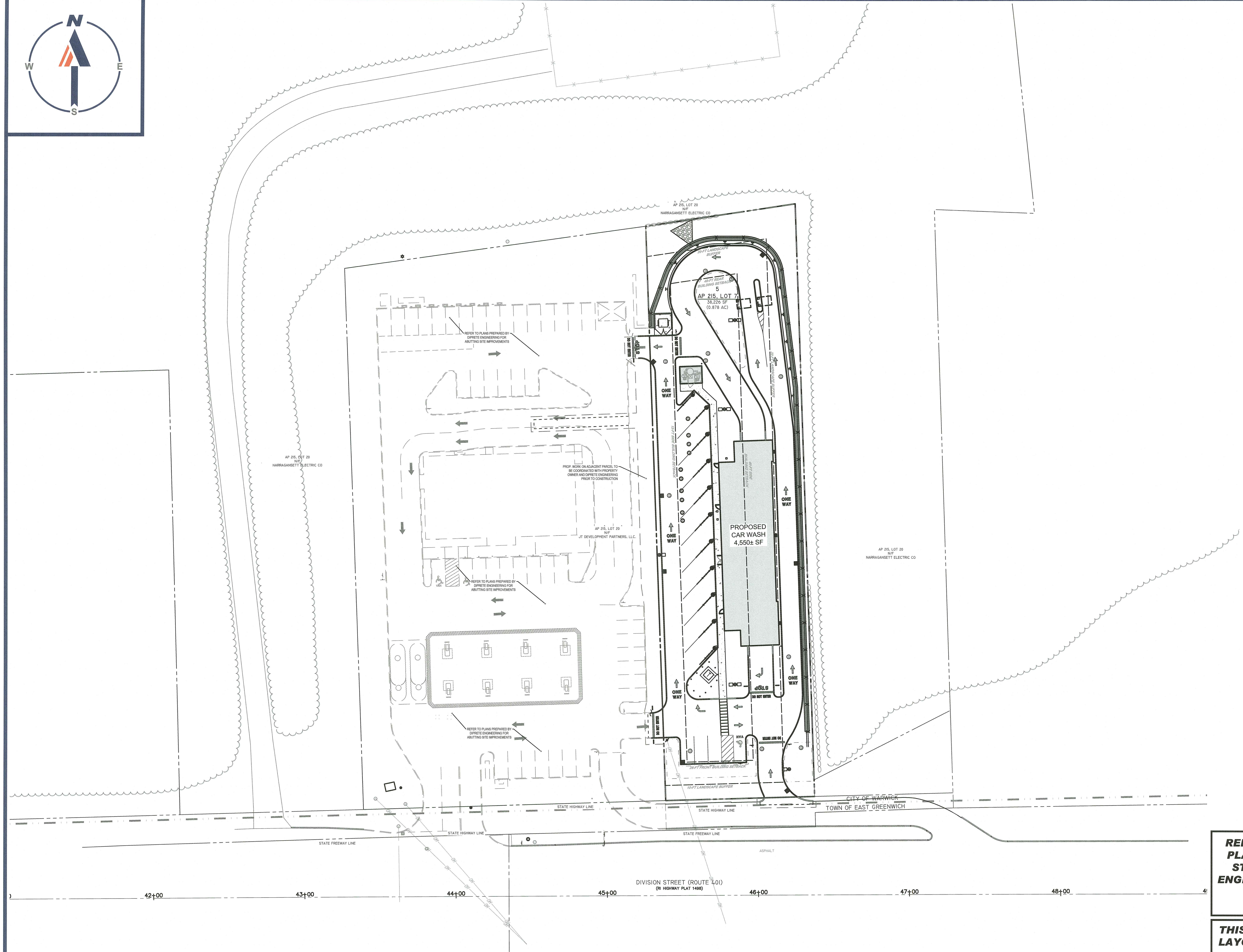


**THIS PLAN TO BE UTILIZED FOR  
DEMOLITION/ REMOVAL  
PURPOSES ONLY**



Sheet 3 of 19



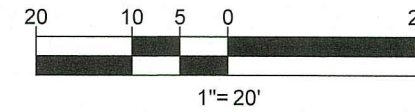


RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
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FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION #: 22-0458  
DATED: FEB 20 2023  
SEE LETTER OF SAME DATE  
*Nancy J. Freeman*

**REFER TO PLANS ENTITLED "FINAL  
PLAN SUBMISSION: 1149 DIVISION  
STREET" PREPARED BY DIPRETE  
ENGINEERING, DATED 09/28/2022 FOR  
ABUTTING PROPERTY SITE  
IMPROVEMENTS**

**THIS PLAN TO BE UTILIZED FOR SITE  
LAYOUT PURPOSES ONLY. REFER TO  
GENERAL NOTES  
SHEET FOR ADDITIONAL NOTES**

Environmental Management  
FEB 02 2023  
Office of Water Resources



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LAND SURVEYING  
PROGRAM MANAGEMENT  
PROSCAPE ARCHITECTURE  
LANDSCAPE ARCHITECTURE  
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PROJECT No.: V211249  
DRAWN BY: CPB  
CHECKED BY: JF  
DATE: 02/24/2022  
CAD I.D.: V211249-CVL-6

**PROPOSED SITE  
PLAN DOCUMENTS**

FOR

**1119 DIVISION  
SITE, LLC**

PROPOSED  
DRIVE-THRU CARWASH

MAP: 215 LOT: 7  
1119 DIVISION STREET,  
CITY OF WARWICK,  
KENT COUNTY,  
RHODE ISLAND

**BOHLER**

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**J.G. SWERLING**

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NEW HAMPSHIRE LICENSE No. 14696  
MAINE LICENSE No. 13816  
CONNECTICUT LICENSE No. 30785  
RHODE ISLAND LICENSE No. 11425

SHEET TITLE:  
**OVERALL  
SITE PLAN**

SHEET NUMBER:  
**C-301**

REVISION 6 - 01/27/2023





## SITE INFORMATION

- APPLICANT:  
1119 DIVISION STREET, LLC  
1140 RESERVOIR AVENUE  
CRANSTON, RI, 02920
- OWNER:  
1119 DIVISION STREET, LLC  
1140 RESERVOIR AVENUE  
CRANSTON, RI 02920
- PARCEL:  
MAP #215, LOT #7  
1119 DIVISION STREET  
CITY OF WARWICK  
KENT COUNTY, RHODE ISLAND

## ZONING ANALYSIS TABLE

ZONING DISTRICT		GENERAL BUSINESS (GB) DISTRICT		N/A - NOT APPLICABLE N/S - NOT SPECIFIED (V) - VARIANCE REQUESTED (W) - WAIVER REQUESTED (E) - EXIST. NON-COMFORMANCE	
OVERLAY DISTRICT		N/A			
REQUIRED PERMIT		CARWASH USE ALLOWED BY SPECIAL USE PERMIT FROM ZONING BOARD OF REVIEW			
ZONE CRITERIA		REQUIRED	EXISTING	PROPOSED	
MIN. LOT AREA		10,000 SF	38,226 SF	NO CHANGE	
MIN. LOT FRONTAGE		100 FT	98.7 FT (E)	NO CHANGE	
MIN. LOT WIDTH		100 FT	98.7 FT (E)	NO CHANGE	
MIN. FRONT SETBACK		25 FT	N/A	100.5 FT	
MIN. SIDE SETBACK		15 FT (1)	N/A	20 FT	
MIN. REAR SETBACK		20 FT (1)	N/A	149.3 FT	
MAX. BUILDING HEIGHT		40 FT	N/A	< 40 FT	
MIN. OPEN SPACE		10%	97.7%	33.8%	
PARKING SPACES		TBD (2)	N/A	14	
ACCESS. PARKING SPACES		1	N/A	1	
PARKING STALL CRITERIA STANDARD: 9 FT x 18 FT		USE/CATEGORY: TBD (2) REQUIRED PARKING: TBD (2) CALCULATION: TBD (2)			
ACCESSIBLE PARKING CRITERIA STANDARD: 8 FT x 18 FT STALL (MIN.) 5 FT x 18 FT AISLE (MIN.) VAN: 8 FT x 18 FT STALL (MIN.) 8 FT x 18 FT AISLE (MIN.)		1-25 SPACES = 1 MIN. ACCESSIBLE SPACE 26-50 SPACES = 2 MIN. ACCESSIBLE SPACES 51-75 SPACES = 3 MIN. ACCESSIBLE SPACES 76-100 SPACES = 4 MIN. ACCESSIBLE SPACES 101-150 SPACES = 5 MIN. ACCESSIBLE SPACES 151-200 SPACES = 6 MIN. ACCESSIBLE SPACES 201-300 SPACES = 7 MIN. ACCESSIBLE SPACES 301-400 SPACES = 8 MIN. ACCESSIBLE SPACES		401-500 SPACES = 9 MIN. ACCESSIBLE SPACES 501-1,000 SPACES = MIN. 2% OF TOTAL 1001+ SPACES = MIN. 2% + 1 FOR EACH 100 SPACES OVER 1,000 1 ACCESSIBLE VAN SPACE PER 6 STANDARD ACCESSIBLE SPACES (MIN.)	

- (1) A COMMERCIAL BUILDING OR USE SHALL BE SET BACK A MINIMUM OF 40 FEET FROM AN ABUTTING RESIDENCE DISTRICT.  
(2) PARKING REQUIREMENTS FOR USES NOT LISTED SHALL BE DETERMINED BY THE BUILDING OFFICIAL.

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## REVISIONS

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PROJECT No.: W211249  
DRAWN BY: CPB  
CHECKED BY: JF  
DATE: 02/24/2022  
CAD I.D.: W211249-CVL-6

PROJECT:

## PROPOSED SITE PLAN DOCUMENTS

FOR

1119 DIVISION  
SITE, LLC

PROPOSED  
DRIVE-THRU CARWASH

MAP: 215 LOT: 7  
1119 DIVISION STREET,  
CITY OF WARWICK,  
KENT COUNTY,  
RHODE ISLAND

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CONNECTICUT LICENSE No. 38785  
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SHEET TITLE:

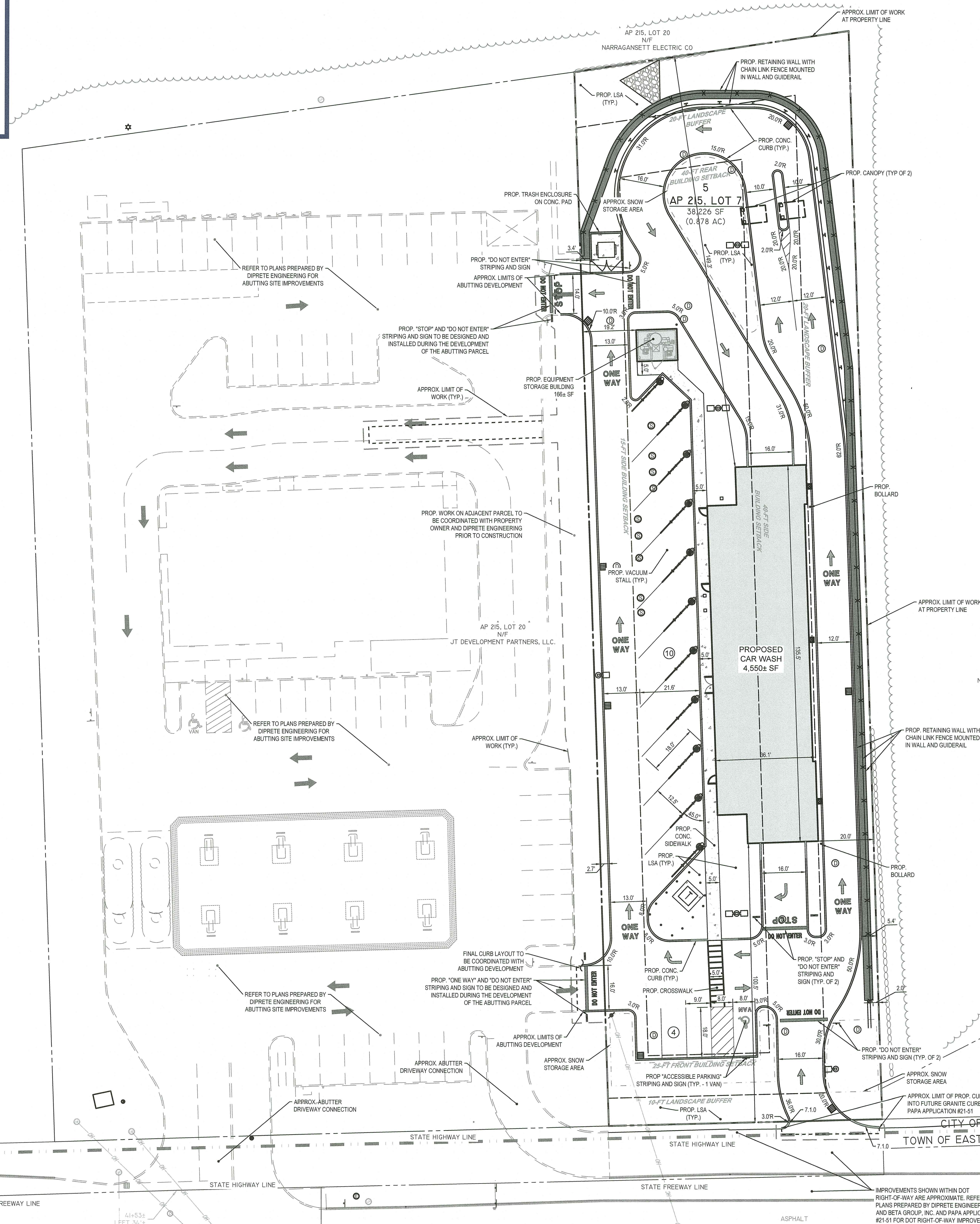
**SITE  
LAYOUT  
PLAN**

SHEET NUMBER:

**C-302**

REVISION 6 - 01/27/2023

Sheet 5 of 19



RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION #: 22-0458  
DATED: FEB 20 2023  
SEE LETTER OF SAME DATE  
Nancy L. Freeman

**RHODE ISLAND DEPARTMENT OF  
TRANSPORTATION LEGEND**

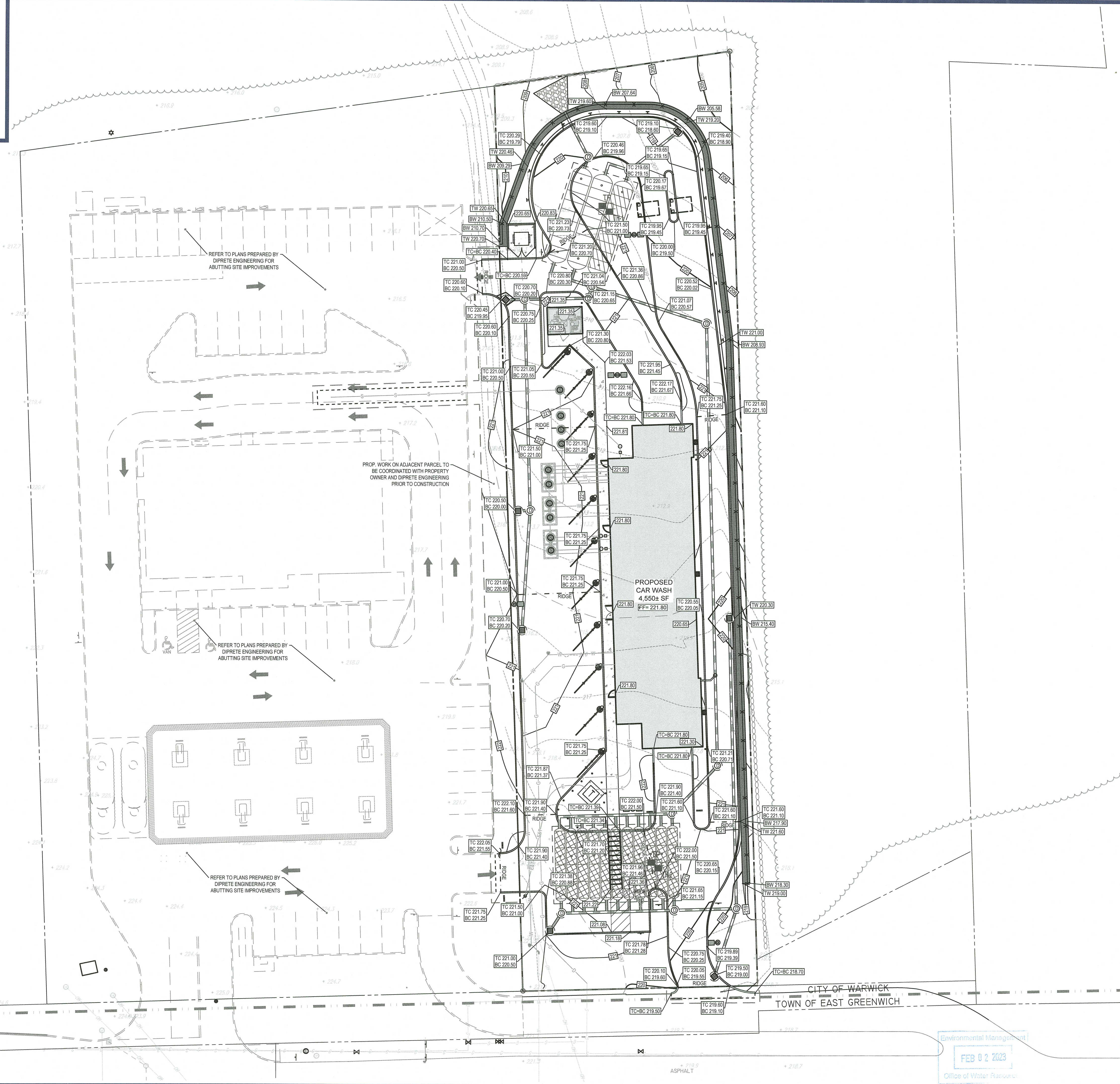
**REFER TO PLANS ENTITLED "FINAL  
PLAN SUBMISSION: 1149 DIVISION  
STREET" PREPARED BY DIPRETE  
ENGINEERING, DATED 09/28/2022 FOR  
ABUTTING PROPERTY SITE  
IMPROVEMENTS**

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SHEET FOR ADDITIONAL NOTES**

Environmental Management  
FEB 02 2023  
Office of Water Resources

20 10 5 0 20  
1"= 20'

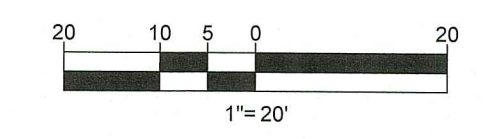




**REFER TO PLANS ENTITLED "FINAL PLAN SUBMISSION: 1149 DIVISION STREET" PREPARED BY DIPRETE ENGINEERING, DATED 09/28/2022 FOR ABUTTING PROPERTY SITE IMPROVEMENTS**

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RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
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DATED: FEB 20 2023  
SEE LETTER OF SAME DATE  
*Nancy L. Freeman*



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LAND SURVEYING  
CONSTRUCTION  
LANDSCAPE ARCHITECTURE  
SUSTAINABLE DESIGN  
PERMITTING SERVICES  
TRANSPORTATION SERVICES

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PROJECT No.: W211249  
DRAWN BY: CPB  
CHECKED BY: JF  
DATE: 02/24/2022  
CAD I.D.: W211249-CVL-6

PROJECT:

**PROPOSED SITE PLAN DOCUMENTS**

FOR

**1119 DIVISION SITE, LLC**

PROPOSED  
DRIVE-THRU CARWASH

MAP: 215 LOT: 7  
1119 DIVISION STREET,  
CITY OF WARWICK,  
KENT COUNTY,  
RHODE ISLAND

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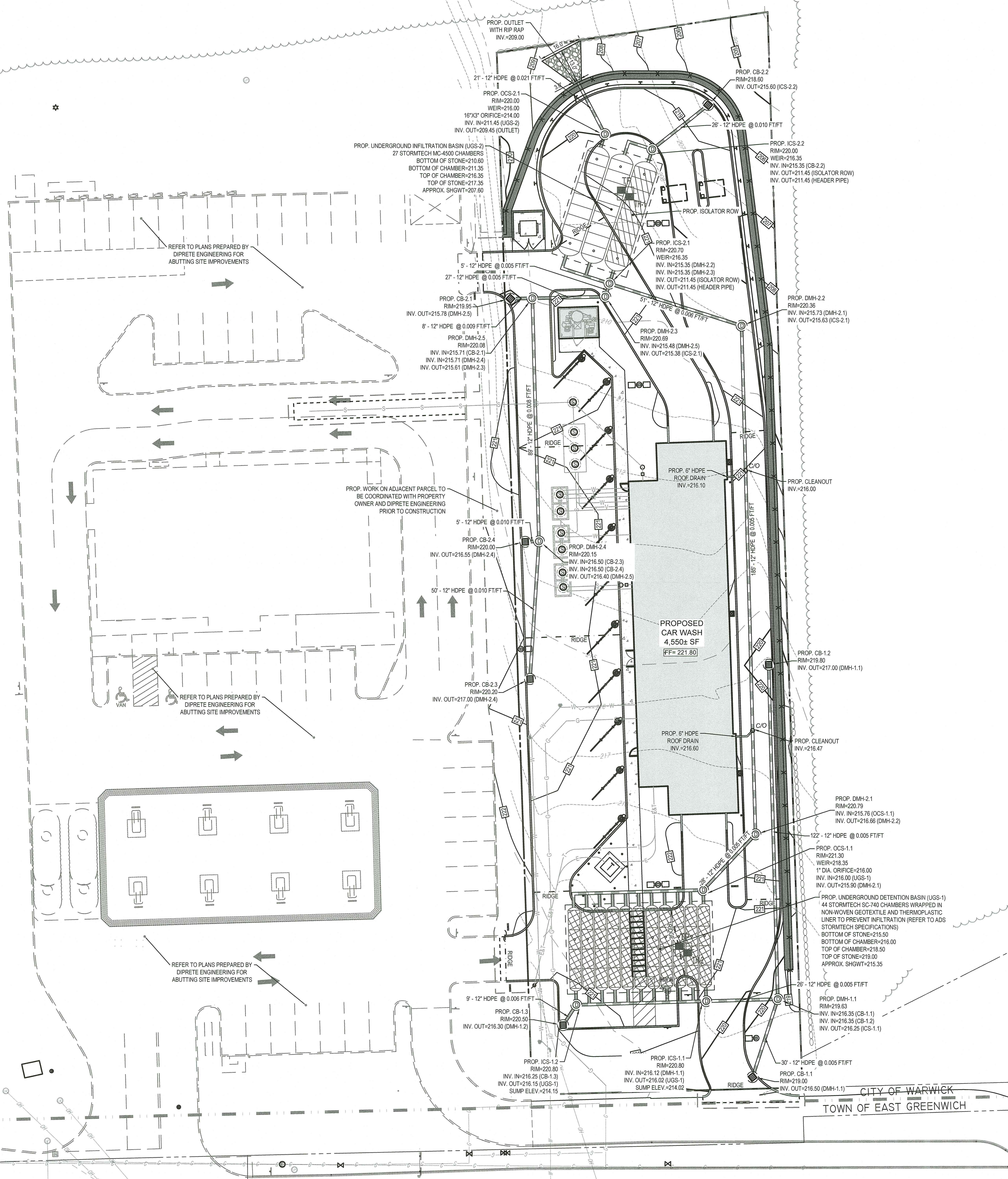
**GRADING PLAN**

SHEET NUMBER:

**C-401**

REVISION 6 - 01/27/2023





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SHEET TITLE:  
DRAINAGE  
PLAN

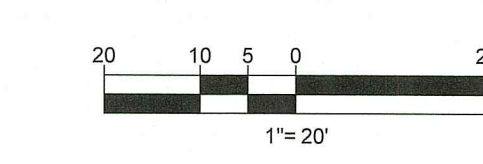
SHEET NUMBER:  
C-402

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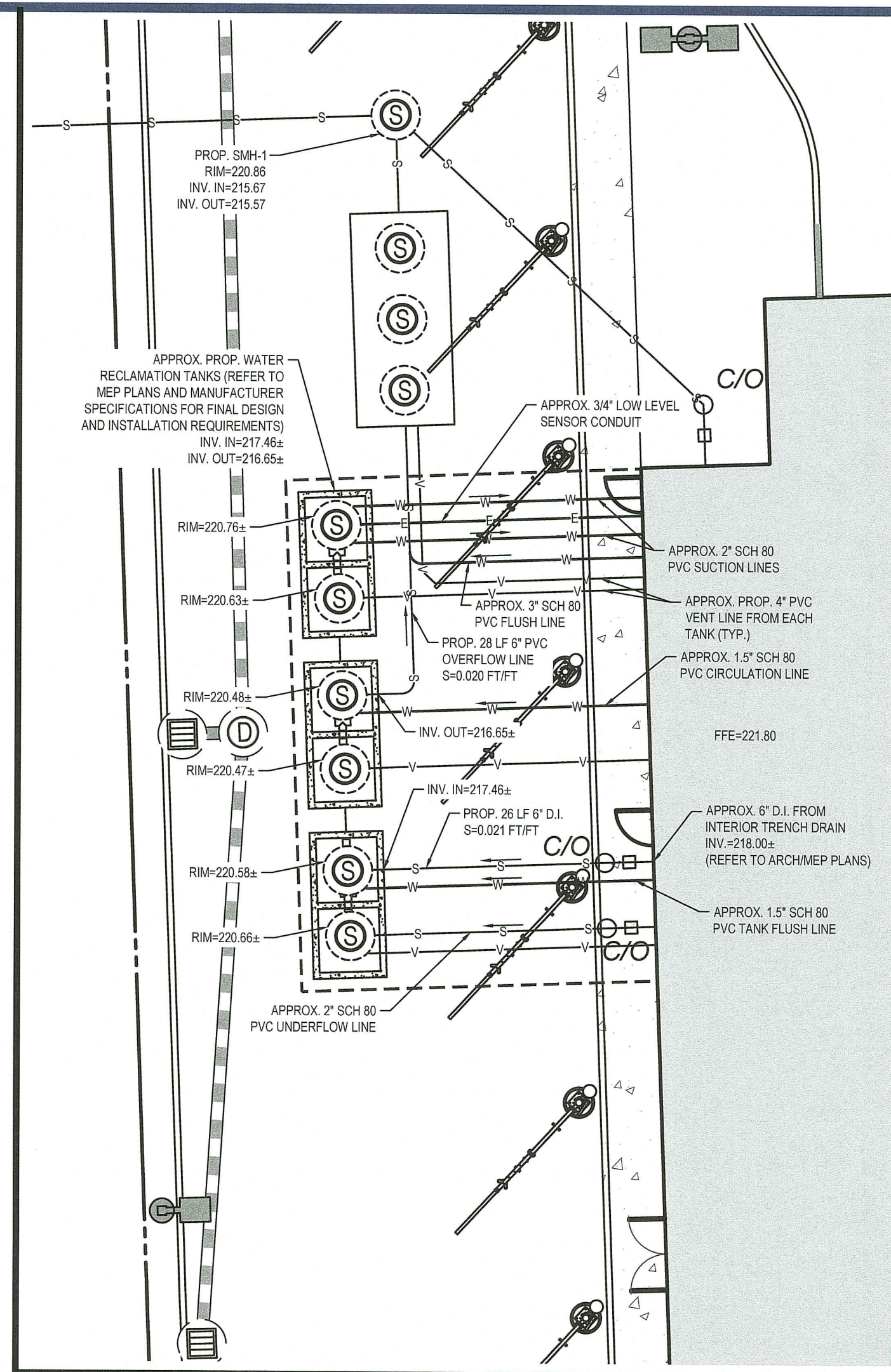
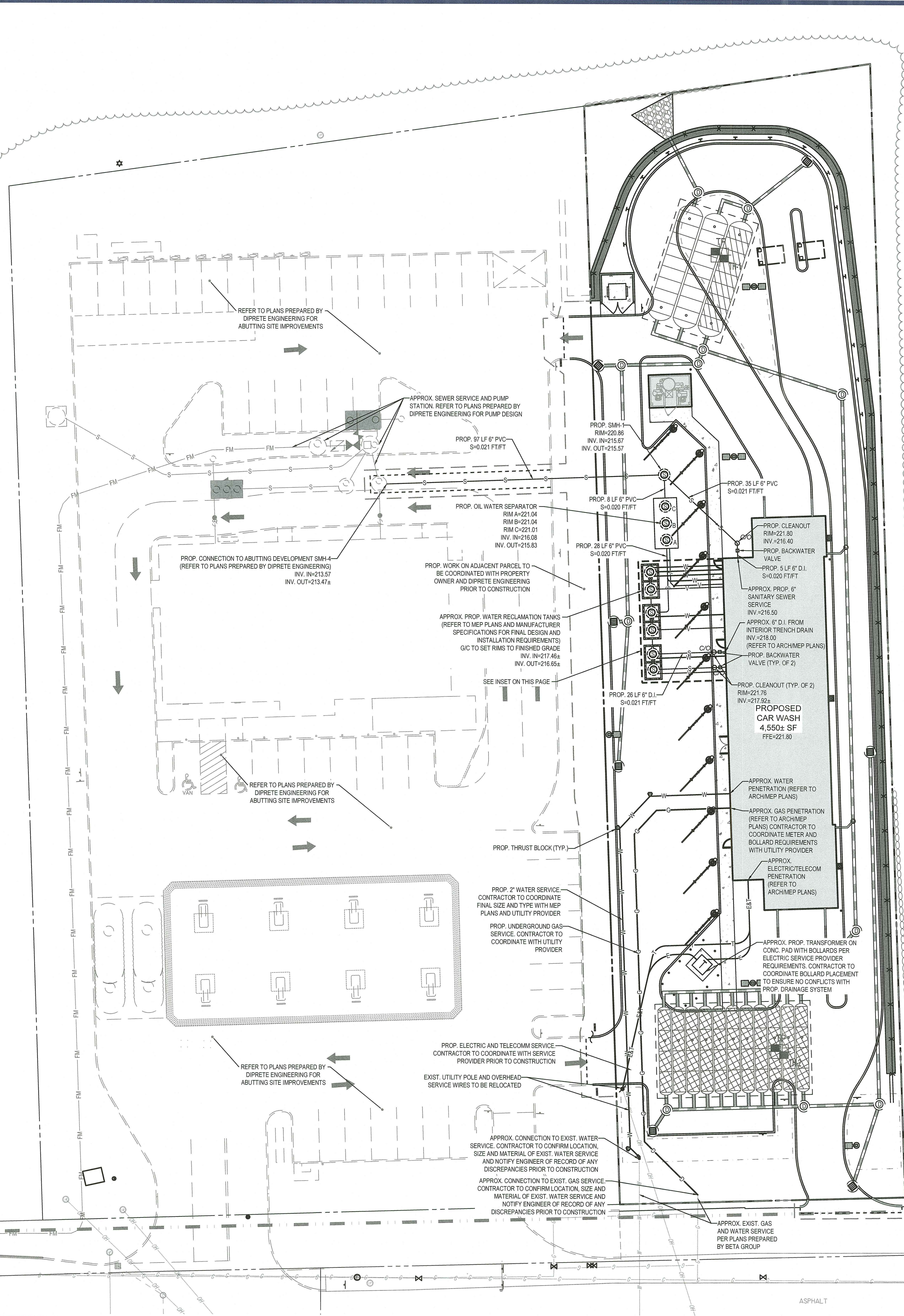
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FOR ADDITIONAL GRADING & UTILITY  
NOTES

Environmental Management  
FEB 02 2023  
Office of Water Resources







**SEWER INSET**  
SCALE: 1" = 10'

**NOTES:**  
(1) APPROXIMATE WATER RECLAMATION SYSTEM SHOWN PER PLANS PREPARED BY VELOCITY WATER WORKS, DATED 05/16/2022.  
(2) FRAME AND COVER ON TANKS TO BE 30" CLEAR OPENING, EAST JORDAN PRODUCT NUMBER 0220028C01 WITH GASKET PER WEST WARWICK SEWER COMMISSION REQUIREMENTS.

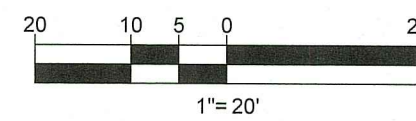
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CITY OF WARWICK  
TOWN OF EAST GREENWICH

Environmental Engineering  
FEB 02 2023  
Office of Water Resources



**BOHLER**  
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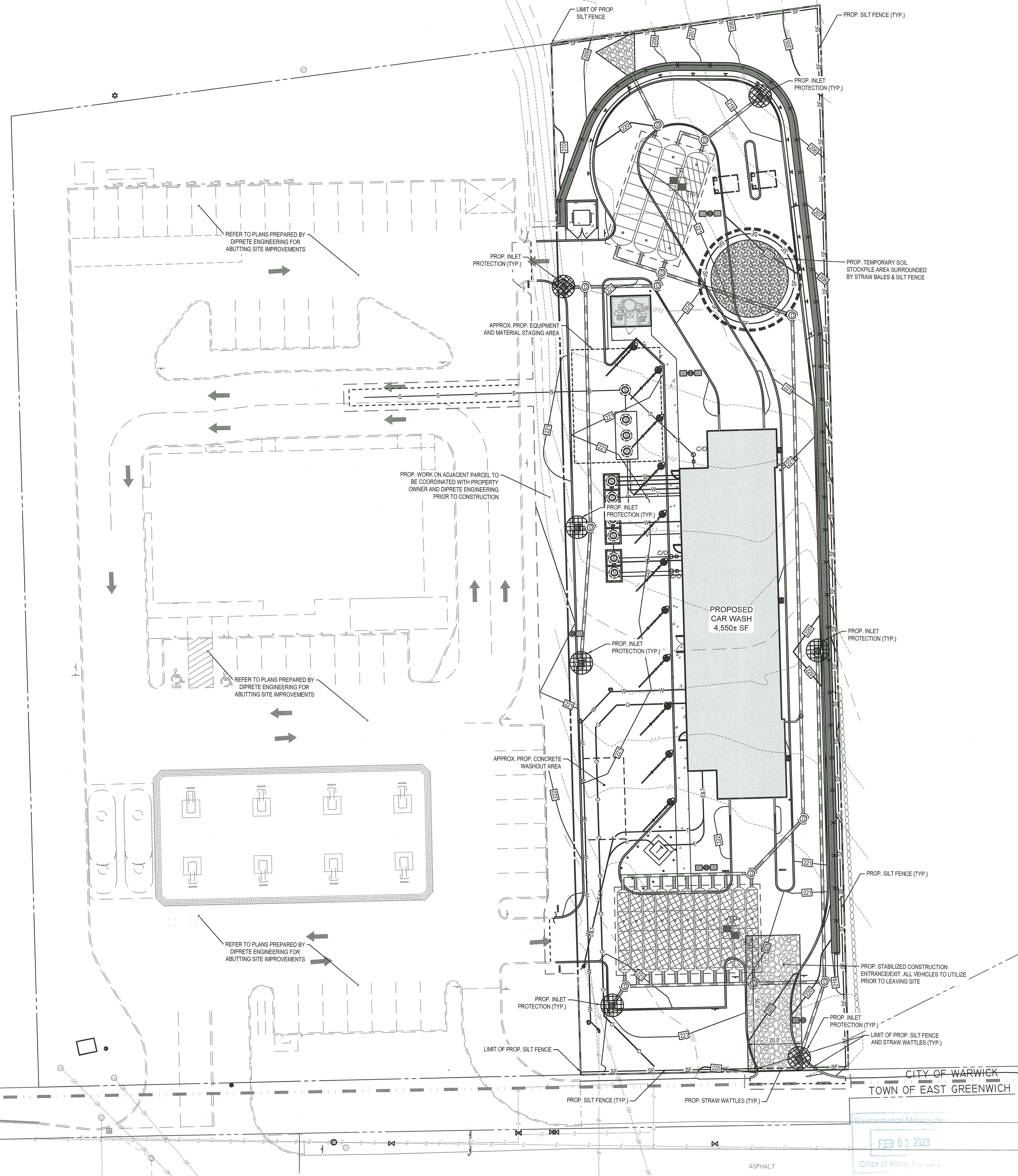
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PROFESSIONAL ENGINEER  
MASSACHUSETTS LICENSE No. 41097  
NEW HAMPSHIRE LICENSE No. 14695  
MAINE LICENSE No. 13816  
CONNECTICUT LICENSE No. 36795  
RHODE ISLAND LICENSE No. 11425

SHEET TITLE:  
**UTILITY PLAN**  
SHEET NUMBER:  
**C-501**  
REVISION 6 - 01/27/2023



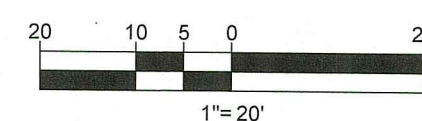


RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION #: 22-0458  
DATED: FEB 20 2023  
SEE LETTER OF SAME DATE  
*Nancy L. Freeman*

**REFER TO PLANS ENTITLED "FINAL  
PLAN SUBMISSION: 1149 DIVISION  
STREET" PREPARED BY DIPRETE  
ENGINEERING, DATED 09/28/2022 FOR  
ABUTTING PROPERTY SITE  
IMPROVEMENTS**

**THIS PLAN TO BE UTILIZED FOR SITE  
SOIL AND EROSION CONTROL  
PURPOSES ONLY**

**REFER TO SOIL EROSION CONTROL  
NOTES & DETAIL SHEET FOR EROSION  
NOTES AND DETAILS**



**BOHLER**

SITE CIVIL AND CONSULTING ENGINEERING  
LAND SURVEYING  
PROGRAM MANAGEMENT  
LANDSCAPE ARCHITECTURE  
SUSTAINABLE DESIGN  
PERMITTING SERVICES  
TRANSPORTATION SERVICES

**REVISIONS**

REV	DATE	COMMENT	DRAWN BY
1	08/23/2022	REVISED FOR RIDOT SUBMISSION	CPB
2	08/25/2022	REVISED FOR RIDOT SUBMISSION	JF
3	10/06/2022	REVISED FOR SEWER SUBMISSION	CPB
4	10/18/2022	REVISED PER RIDOT COMMENTS	JF
5	01/04/2023	REVISED PER SEWER REVIEW COMMENTS	CPB
6	01/27/2023	REVISED PER RIDOT COMMENTS	JF



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It's fast. It's free. It's the law.

**PERMIT SET**

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PROJECT No.: W211249  
DRAWN BY: CPB  
CHECKED BY: JF  
DATE: 02/24/2022  
CAD L.D.: W211249-CVL-6

PROJECT:

**PROPOSED SITE  
PLAN DOCUMENTS**

FOR

**1119 DIVISION  
SITE, LLC**

**PROPOSED  
DRIVE-THRU CARWASH**

MAP: 215 LOT: 7  
1119 DIVISION STREET,  
CITY OF WARWICK,  
KENT COUNTY,  
RHODE ISLAND

**BOHLER**

352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
Phone: (508) 480-9900

[www.BohlerEngineering.com](http://www.BohlerEngineering.com)

**J.G. SWERLING**

PROFESSIONAL ENGINEER  
MASSACHUSETTS LICENSE No. 41897  
NEW HAMPSHIRE LICENSE No. 14895  
MAINE LICENSE No. 13816  
CONNECTICUT LICENSE No. 30785  
RHODE ISLAND LICENSE No. 11425

SHEET TITLE:

**SOIL EROSION &  
SEDIMENT  
CONTROL PLAN**

SHEET NUMBER:

**C-601**

REVISION 6 - 01/27/2023

Sheet 9 of 19



EROSION AND SEDIMENT CONTROL NOTES

1. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE AS SET FORTH IN THE MOST CURRENT STATE SEDIMENT AND EROSION CONTROL MANUAL.
2. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 15 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 100 FEET OF A STREAM OR POND, THE AREA SHALL BE STABILIZED WITHIN 7 DAYS OR PRIOR TO ANY STORM EVENT (THIS WOULD INCLUDE WETLANDS).
3. SEDIMENT BARRIERS (SILT FENCE, STRAW BARRIERS, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15% AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%.
4. INSTALL SILTATION BARRIER AT TOE OF SLOPE TO FILTER SILT FROM RUNOFF. SEE SILTATION BARRIER DETAILS FOR PROPER INSTALLATION. SILTATION BARRIER WILL REMAIN IN PLACE PER NOTE #5.
5. ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSITION. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY TURF.
6. NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN TWO TO ONE (2:1).
7. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCH (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
8. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST TO PROTECT FROM SPRING RUNOFF PROBLEMS.
9. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS.
10. REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:
- 10.1. SIX INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
- 10.2. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 LB PER ACRE OR 18.4 LB PER 1,000 SF USING 10-20-20 OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER 1,000 SF).
- 10.3. FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUE-GRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS. SEEDING RATE IS 1.03 LBS PER 1,000 SF LAWN QUALITY SOD MAY BE SUBSTITUTED FOR SEED.
- 10.4. STRAW MULCH AT THE RATE OF 70-90 LBS PER 1,000 SF. A HYDRO-APPLICATION OF WOOD OR PAPER FIBER SHALL BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER SUCH AS CURASOL OR RMB PLUS WILL BE USED ON STRAW MULCH FOR WIND CONTROL.
11. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS STABILIZED.
12. WETLANDS WILL BE PROTECTED W/ STRAW, COMPOST, AND/OR SILT FENCE BARRIERS INSTALLED AT THE EDGE OF THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE.
13. ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL HAVE AN EXPOSURE WINDOW OF NOT MORE THAN 7 DAYS.
14. ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL FOLLOW APPROPRIATE EROSION CONTROL MEASURES PRIOR TO EACH STORM IF NOT BEING ACTIVELY WORKED.

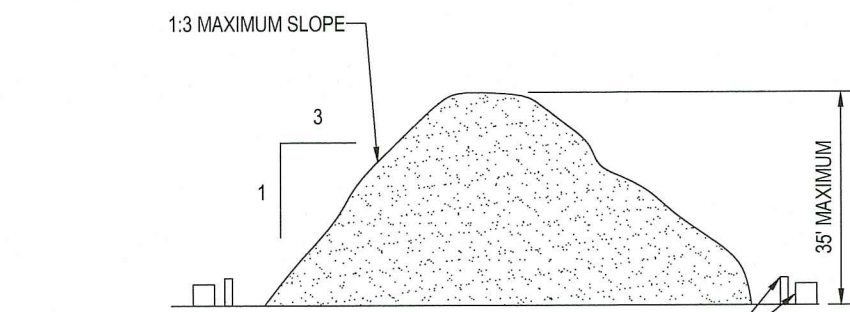
MULCH

LOCATION	MULCH	RATE (1000 SF)
PROTECT AREA	STRAW	100 POUNDS
WINDY AREA	SHREDDED OR CHOPPED CORNSTALKS STRAW (ANCHORED)	185-275 POUNDS 100 POUNDS
MODERATE TO HIGH VELOCITY AREAS OR STEEP SLOPES GREATER THAN 3:1	JUTE MESH OR EXCELSIOR MAT	AS REQUIRED
GREATER THAN 3:1	(REFER TO GEOTECHNICAL REPORT FOR FINAL DESIGN REQUIREMENT)	
* A HYDRO-APPLICATION OF WOOD, OR PAPER FIBER MAY BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER SUCH AS CURASOL OR RMB PLUS SHALL BE USED ON STRAW MULCH FOR WIND CONTROL.		

MULCH ANCHORING  
ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD/BLOCK); MULCH NETTING (AS PER MANUFACTURER); WOOD CELLULOSE FIBER (750 LBS/ACRE); CHEMICAL TACK (AS PER MANUFACTURER'S SPECIFICATIONS); USE OF A SERRATED STRAIGHT DISK. WETTING FOR SMALL AREAS AND ROAD DITCHES MAY BE PERMITTED.

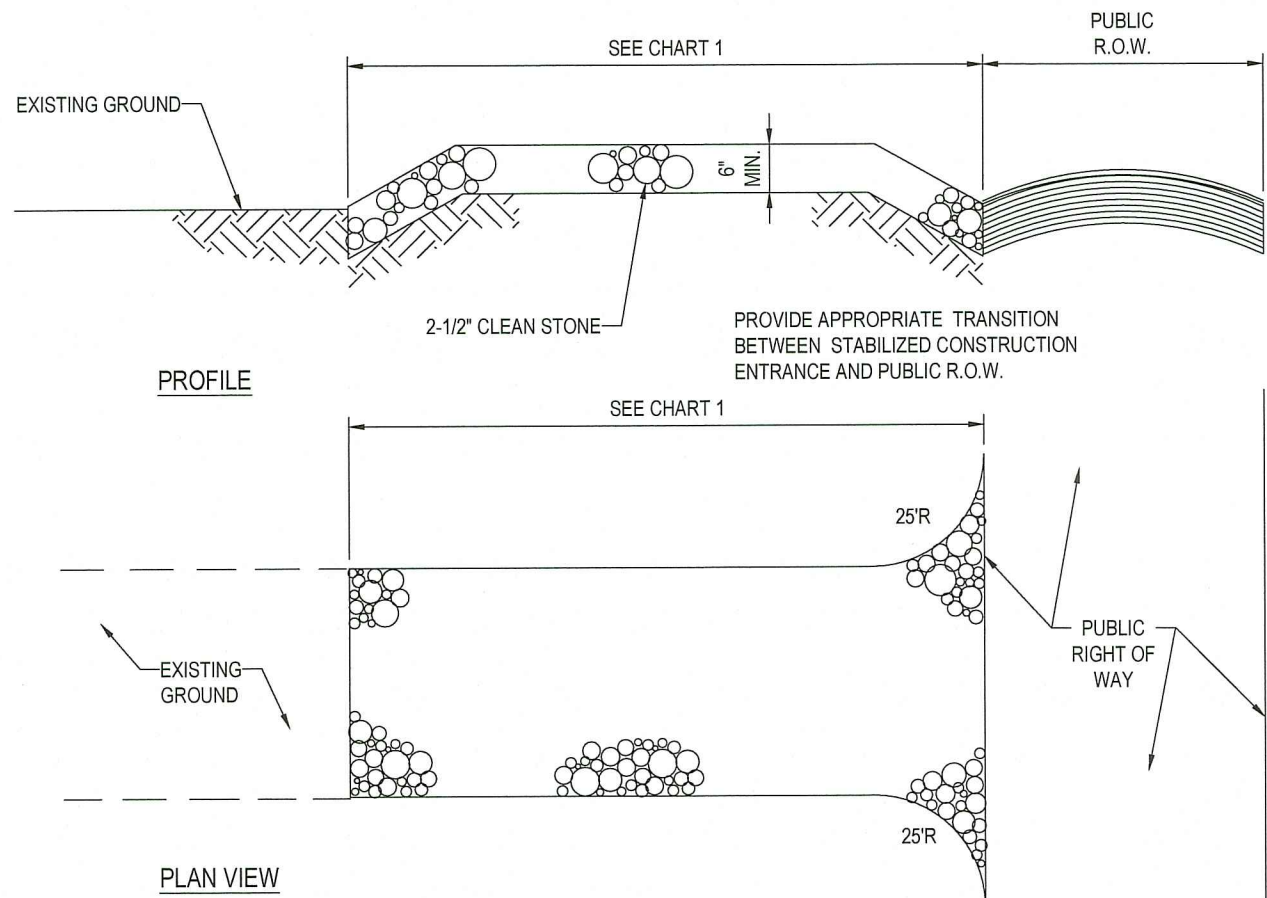
EROSION CONTROL NOTES DURING WINTER CONSTRUCTION

1. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.
2. WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
3. EXPOSED AREA SHOULD BE LIMITED TO THAT WHICH CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.
4. CONTINUATION OF EARTHWORK OPERATION ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.
5. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR STRAW AT A RATE OF 100 LB. PER 1,000 SQUARE FEET (WITH OR WITHOUT SEEDING) OR DORMANT SEEDING, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE.
6. BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDING AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED AND IS SMOOTH, THEN THE AREA MAY BE DORMANT SEEDING AT A RATE OF 200 - 300% HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. IF CONSTRUCTION CONTINUES DURING FREEZING WEATHER, ALL EXPOSED AREAS SHALL BE CONTINUOUSLY GRADED BEFORE FREEZING AND THE SURFACE TEMPORARILY PROTECTED FROM EROSION BY THE APPLICATION OF MULCH. SLOPES SHALL NOT BE LEFT UNEXPOSED OVER THE WINTER OR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF BALES OF STRAW OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS.
7. MULCHING REQUIREMENTS:
- 7.1. BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING OR WOOD CELLULOSE FIBER.
- 7.2. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPE EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%.
- 7.3. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15% AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%.
8. AFTER NOVEMBER 1ST THE CONTRACTOR SHALL APPLY DORMANT SEEDING OR MULCH AND ANCHORING ON ALL BARE EARTH AT THE END OF EACH WORKING DAY.
9. DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.
10. STOCKPILING OF MATERIALS (DIRT, WOOD, CONSTRUCTION MATERIALS, ETC.) MUST REMAIN COVERED AT ALL TIMES TO MINIMIZE ANY DUST PROBLEMS THAT MAY OCCUR WITH ADJACENT PROPERTIES AND TO PROVIDE MAXIMUM PROTECTION AGAINST EROSION RUNOFF.
11. EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED.



TEMPORARY STOCKPILE

N.T.S.



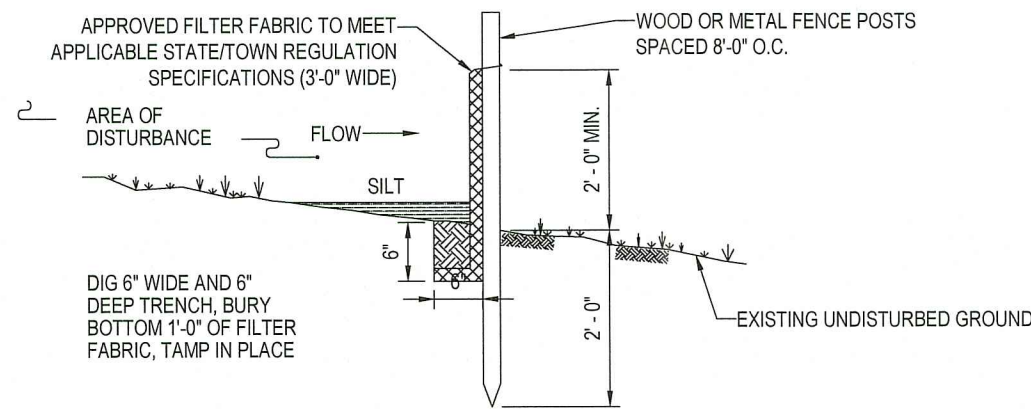
PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FT	100 FT
2% TO 5%	100 FT	200 FT
>5%	ENTIRE ENTRANCE STABILIZED WITH FABC BASE COURSE (1)	

(1) AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY.

CHART 1

STABILIZED CONSTRUCTION ENTRANCE

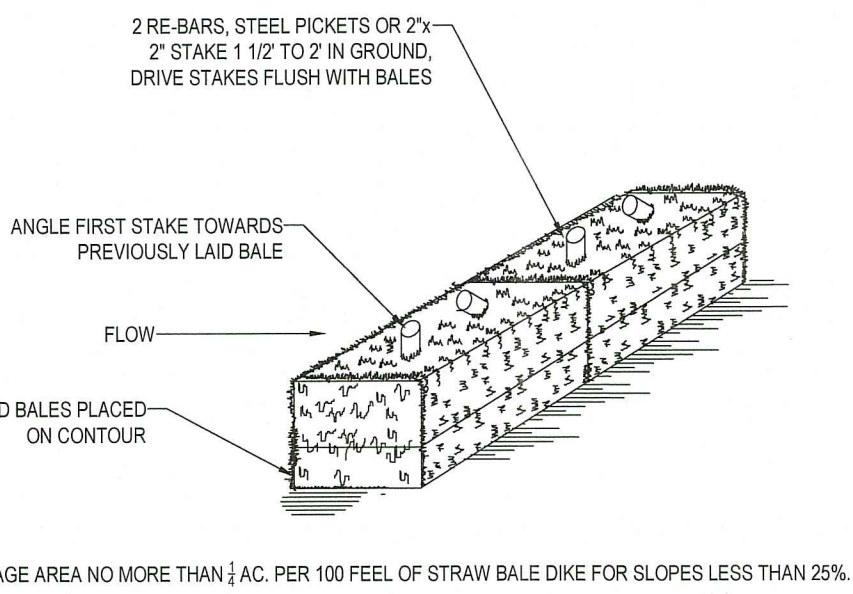
N.T.S.



- NOTES:
1. PLACE SILT FENCE LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
  2. THE SLOPE OF THE LAND FOR AT LEAST 30 FEET ADJACENT TO ANY SILT FENCE SHALL NOT EXCEED 5%.
  3. SILT FENCE SHALL BE INSTALLED SO WATER CANNOT BYPASS THE FENCE AROUND THE SIDES.
  4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE AS PROMPTLY AS POSSIBLE.
  5. SILT FENCE SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT UNLESS OTHERWISE INSTRUCTED BY THE TOWNSHIP ENGINEER.

SILT FENCE

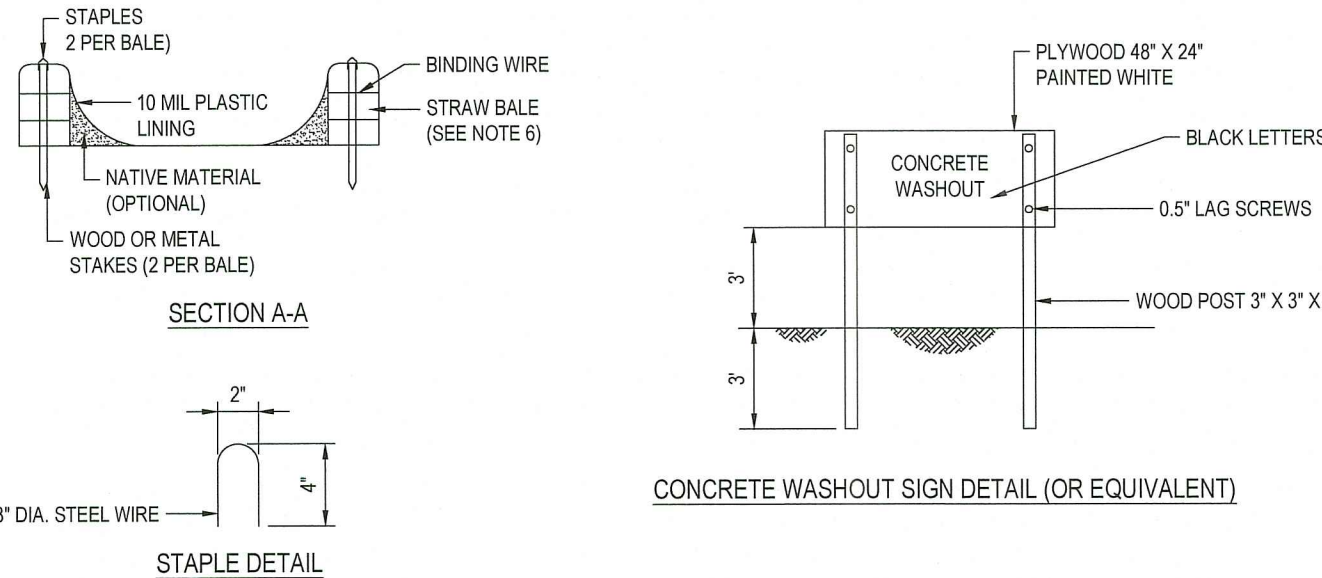
N.T.S.



- NOTES:
1. BALES SHALL BE PLACED AT THE TOP OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
  2. EACH BALE SHALL BE PLACED SO THE BINDINGS ARE HORIZONTAL.
  3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
  4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE PROMPTLY AS NEEDED.
  5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STRAW BALE

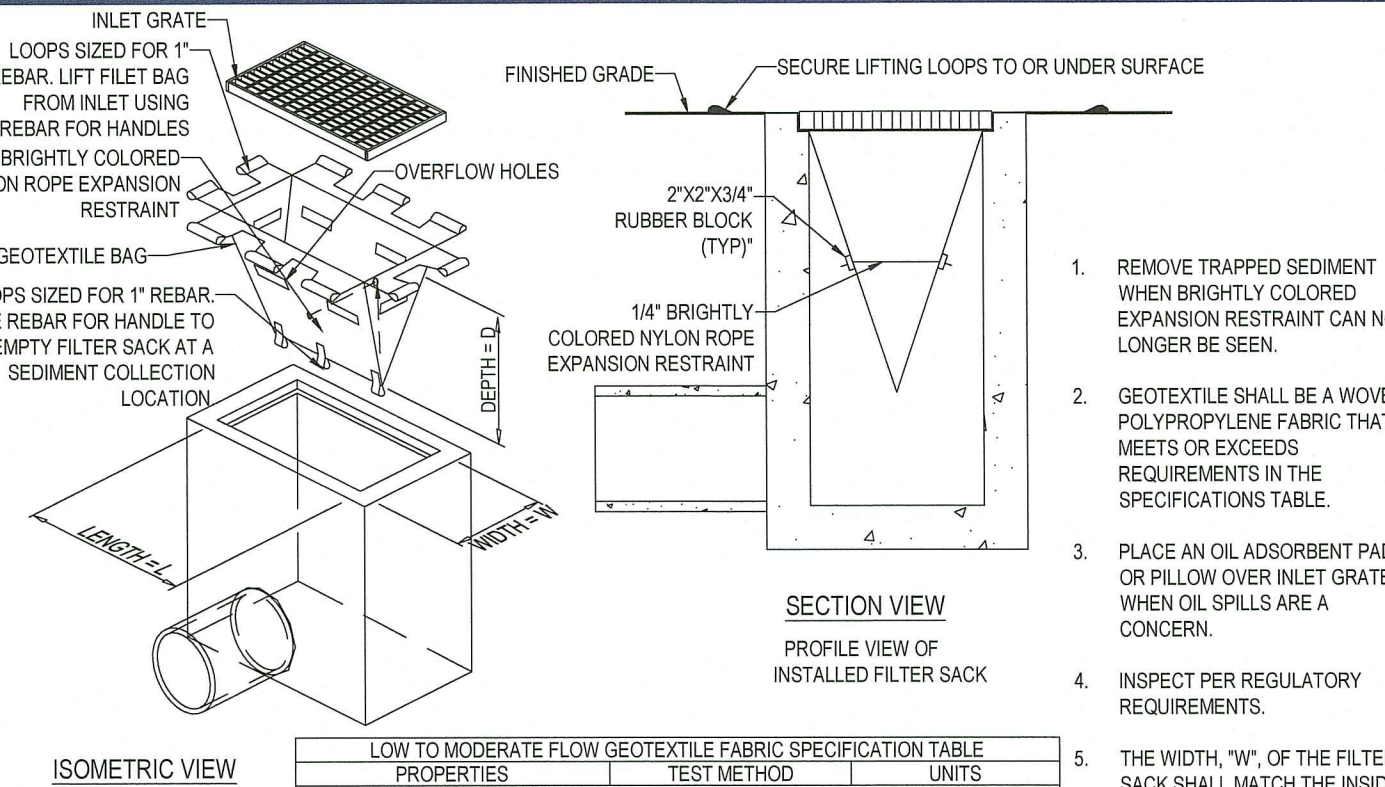
N.T.S.



- NOTES:
1. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE LOCATED A MINIMUM OF 50 FT. FROM STORM DRAIN INLETS.
  2. ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE SHOULD BE BROKEN UP, REMOVED, AND DISPOSED OF OFF-SITE. CONTRACTOR TO DISPOSE OF HARDENED CONCRETE ON A REGULAR BASIS.
  3. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
  4. PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
  5. WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75% FULL.
  6. STRAW BALES AND STAPLES MAY BE SUBSTITUTED WITH ALTERNATE SECURING MEASURES SUCH AS CONCRETE BLOCK.

CONCRETE WASTE MANAGEMENT DETAIL

N.T.S.

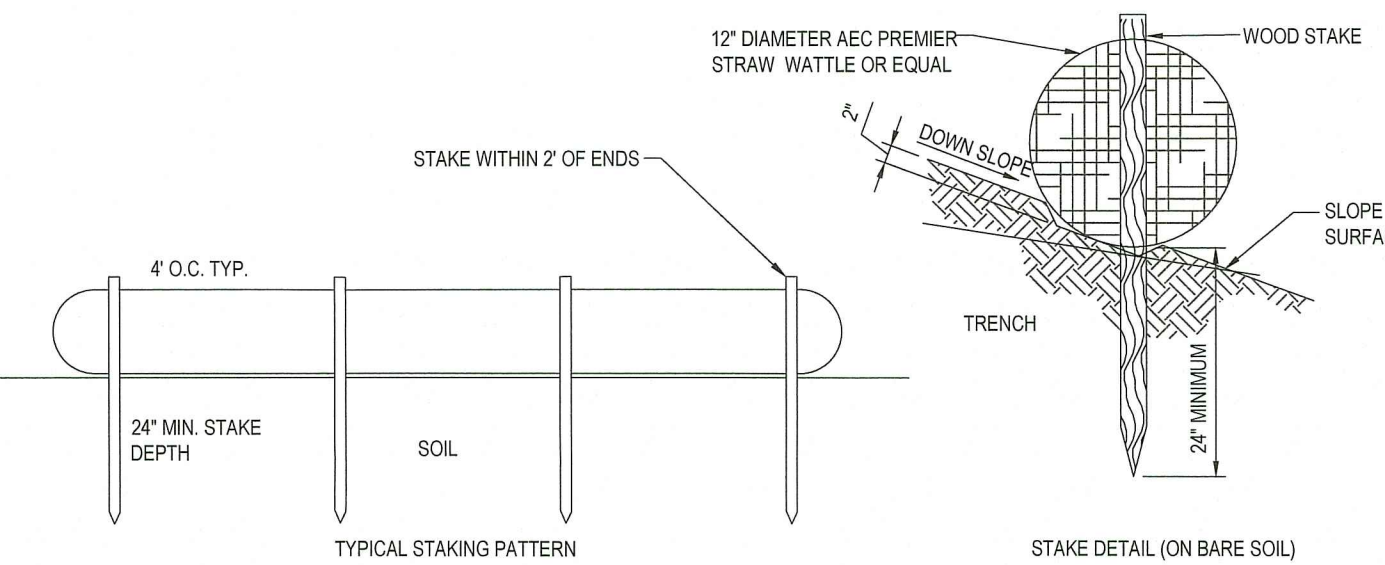


LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4832	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4832	20%
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4833	120 LBS
UV RESISTANCE	ASTM D-4355	80%
APPEARANT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4481	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4481	0.55 SEC <sup>-1</sup>
MODERATE TO HIGH FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4832	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4832	20%
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4833	45 LBS
UV RESISTANCE	ASTM D-4355	90%
APPEARANT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4481	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4481	1.5 SEC <sup>-1</sup>

NOTE:  
DO NOT USE IN PAVED AREAS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

FILTER SACS (GRADED INLETS)

N.T.S.



12" STRAW WATTLE DETAIL

N.T.S.

- THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:
- INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCE/EXIT (AS SHOWN)
  - INSTALLATION OF EROSION CONTROL BARRIER (STRAW BALES AND SILT FENCE) (AS SHOWN)
  - INSTALLATION OF INLET PROTECTION IN STREET (AS SHOWN)
  - DEMOLITION OF EXISTING SITE PAVEMENT AND AMENITIES (SEE DEMOLITION PLAN)
  - CLEARING AND GRUBBING
  - EARTHWORK AND EXCAVATION/FILLING AS NECESSARY
  - CONSTRUCTION OF UTILITIES
  - STABILIZE PERMANENT LAWN AREAS AND SLOPES WITH TEMPORARY SEEDING
  - INSTALLATION OF INLET PROTECTION OF ON-SITE UTILITIES (AS SHOWN)
  - CONSTRUCTION OF BUILDINGS
  - CONSTRUCTION OF ALL CURBING AND LANDSCAPE ISLANDS AS INDICATED ON THE PLANS
  - SPREAD TOPSOIL ON SLOPED AREAS AND SEED AND MULCH
  - FINAL GRADING OF ALL SLOPED AREAS
  - PLACE 6" TOPSOIL ON SLOPES AFTER FINAL GRADING COMPLETED. FERTILIZE, SEED, AND MULCH SEED MIXTURE TO BE INSTALLED AS REQUIRED.
  - PAVE PARKING LOT
  - LANDSCAPING PER LANDSCAPING PLAN
  - REMOVE EROSION CONTROLS AS DISTURBED AREAS BECOME STABILIZED TO 70% STABILIZATION OR GREATER.

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION #: 22-0458  
DATED: FEB 20 2023  
SEE LETTER OF SAME DATE

CONSTRUCTION SEQUENCE

N.T.S.

**BOHLER**  
SITE CIVIL AND CONSULTING ENGINEERING  
LAND SURVEYING  
PROGRAM MANAGEMENT  
LANDSCAPE ARCHITECTURE  
SUSTAINABLE DESIGN  
PERMITTING SERVICES  
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY
1	08/23/2022	REVISED FOR RIDOT SUBMISSION	CPB	CPB
2	08/25/2022	REVISED FOR RIDOT SUBMISSION	CPB	CPB
3	10/09/2022	REVISED FOR SEWER SUBMISSION	CPB	CPB
4	10/18/2022	REVISED PER RIDOT COMMENTS	CPB	CPB
5	01/04/2023	REVISED PER SEWER REVIEW COMMENTS	CPB	CPB
6	01/27/2023	REVISED PER RIDOT COMMENTS	CPB	CPB



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PROJECT NO.:	W211249
DRAWN BY:	CPB
CHECKED BY:	JF
DATE:	02/24/2022
CAD I.D.:	W211249-CVL-6

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

1119 DIVISION  
SITE, LLC

PROPOSED  
DRIVE-THRU CARWASH

MAP: 215 LOT: 7  
1119 DIVISION STREET,  
CITY OF WARWICK,  
KENT COUNTY  
RHODE ISLAND



352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
Phone: (508) 480-9900

www.BohlerEngineering.com

J.G. SWERLING

PROFESSIONAL ENGINEER

MASSACHUSETTS LICENSE NO. 41895  
NEW HAMPSHIRE LICENSE NO. 14695  
MAINE LICENSE NO. 13816  
CONNECTICUT LICENSE NO. 39789  
RHODE ISLAND LICENSE NO. 11425

SHEET TITLE:

EROSION AND  
SEDIMENT  
CONTROL NOTES  
AND DETAILS

SHEET NUMBER:

C-602

REVISION 6 - 01/27/2023

Sheet 10 of 19





LANDSCAPE SCHEDULE					
KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	CONT.
SHADE TREES: TREES TO LIMBED TO MIN. 7' ABOVE FINISHED GRADE					
ARA	2	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG COLUMNAR RED MAPLE	2 1/2-3" CAL.	8-H
LTL	7	LIRIODENDRON TULIPIFERA 'LITTLE VOLUNTEER'	DWARF TULIP POPLAR	2 1/2-3" CAL.	8-H
QP	1	QUERCUS PALUSTRIS	PN OAK	2 1/2-3" CAL.	8-H
SUBTOTAL: 10					
EVERGREEN TREES					
TOE	11	THUJA OCCIDENTALIS 'EMERALD'	EMERALD GREEN ARBORVITAE	5-6'	8-H
SUBTOTAL: 11					
DECIDUOUS SHRUBS					
AAB	12	ARONIA ARBUTIFOLIA 'BRILLIANTISSIMA'	RED CHOKEBERRY	3 GAL. MIN.	8-H
CSA	6	CORNUS STOLONIFERA 'ARCTIC FIRE'	COMPACT RED TWIG DOGWOOD	3 GAL. MIN.	8-H
HPB	3	HYDRANGEA PANICULATA 'BOBO'	BOBO HYDRANGEA	3 GAL. MIN.	CONTAINER
RK	5	ROSA 'RADAZZ' KNOCK OUT	KNOCK OUT ROSE	3 GAL. MIN.	CONTAINER
SUBTOTAL: 26					
EVERGREEN SHRUBS					
IGC	6	ILEX GLABRA 'COMPACTA'	DWARF INKERRY HOLLY	3 GAL. MIN.	8-H
IGS	8	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKERRY HOLLY	3 GAL. MIN.	8-H
TBR	7	TAXUS BACATA 'REPENDENS'	SPREADING ENGLISH YEW	3 GAL. MIN.	8-H
SUBTOTAL: 23					
ORNAMENTAL GRASSES					
PAH	4	PENNISETUM ALOPECUROIDES 'HAMELY'	DWARF FOUNTAIN GRASS	2 GAL.	CONTAINER
SUBTOTAL: 4					

REFER TO PLANS PREPARED BY DIPRETE ENGINEERING FOR ABUTTING SITE IMPROVEMENTS

REFER TO PLANS PREPARED BY DIPRETE ENGINEERING FOR ABUTTING SITE IMPROVEMENTS

REFER TO PLANS PREPARED BY DIPRETE ENGINEERING FOR ABUTTING SITE IMPROVEMENTS

PROP. STEEP SLOPE SEED MIX OVER 6" TOPSOIL (TYP.)

PROP. HYDROSEED LAWN OVER 6" TOPSOIL (TYP.)

PROP. WORK ON ADJACENT PARCEL TO BE COORDINATED WITH PROPERTY OWNER AND DIPRETE ENGINEERING PRIOR TO CONSTRUCTION

PROP. 3" LAYER OF DOUBLE-SHREDDED HARDWOOD BARK MULCH OVER WATER PERMEABLE WEED BARRIER FABRIC IN ALL PLANT BEDS (TYP.)

EXISTING TREE TO REMAIN AND TO BE PROTECTED DURING CONSTRUCTION (TYP.)

PROPOSED CAR WASH 4,550± SF

PROP. 4" DEPTH OF 1-1.5" CRUSHED STONE OVER FILTER FABRIC (TYP.)

PROP. LIMIT OF SOD (TYP.)

### OWNER MAINTENANCE RESPONSIBILITIES

UPON OWNER'S (OR OWNER CONTRACTOR'S) COMPLETION OF LANDSCAPING WORK, THE OWNER IS FULLY RESPONSIBLE FOR ALL FUTURE MAINTENANCE, CARE, WATERING, AND TRIMMING OF ALL INSTALLED VEGETATION PLANTS, TREES, BUSHES, SHRUBS, GRASSES, GRASS, ORNAMENTAL PLANTS AND FLOWERS, FLOWERS, GROUND COVER, AND LANDSCAPING, INCLUDING ALL LANDSCAPE ISLANDS AND AREAS ADJACENT OR PART OF THE LANDSCAPED AREAS. THIS RESPONSIBILITY INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

- TREES ADJACENT TO WALKWAYS AND AREAS OF PEDESTRIAN TRAFFIC MUST BE MAINTAINED TO ASSURE THAT ANY TO AVOID ANY INTERFERENCE WITH THE TYPICAL PATH OF TRAVEL.
- TREES WITHIN VEHICULAR SIGHT LINES, AS ILLUSTRATED ON THE LANDSCAPE PLAN, ARE TO BE TRIMMED TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PAVED, TRAVELED SURFACES), OR AS OTHERWISE INDICATED ON THE PLANS.
- VEGETATIVE GROUND COVER, SHRUBS AND ORNAMENTAL PLANTS AND GRASSES MUST BE TRIMMED TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PAVED, TRAVELED SURFACES), OR AS OTHERWISE INDICATED ON THE PLANS.
- FALLEN PLANT FLOWERS, FRUIT, SEEDS AND DEBRIS DROPPINGS ARE TO BE REMOVED IMMEDIATELY FROM VEHICULAR AND PEDESTRIAN TRAFFIC AREAS TO PREVENT TRIPPING, SLIPPING OR ANY OTHER HAZARDS.

THESE REQUIREMENTS DO NOT AFFECT THE PLANT LIFE GUARANTEES THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE.

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION # 22-0458  
DATED FEB 20 2023  
SEE LETTER OF SAME DATE  
*Nancy L. Freeman*

**THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY**

**REFER LANDSCAPE NOTES & DETAILS SHEET FOR LANDSCAPE NOTES AND DETAILS**

SEED MIX KEY	
	PROPOSED HYDROSEED
	PROPOSED STEEP SLOPE MIX
	PROPOSED CRUSHED STONE

Environmental Review  
FEB 02 2023  
Office of Water Resources

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### PERMIT SET

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IF NOT REVIEWED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W211249  
DRAWN BY: CPB  
CHECKED BY: JF  
DATE: 02/24/2022  
CAD ID.: W211249-LND-6

PROJECT:

### PROPOSED SITE PLAN DOCUMENTS

FOR

1119 DIVISION SITE, LLC

PROPOSED DRIVE-THRU CARWASH  
MAP: 215 LOT: 7  
1119 DIVISION STREET,  
CITY OF WARWICK,  
KENT COUNTY,  
RHODE ISLAND

## BOHLER

352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
Phone: (508) 480-9900

[www.BohlerEngineering.com](http://www.BohlerEngineering.com)

**M.J. MRVA**  
REGISTERED LANDSCAPE ARCHITECT  
MASSACHUSETTS No. 1217  
RHODE ISLAND No. 415  
NEW YORK No. 002399  
NEW HAMPSHIRE No. 133  
CONNECTICUT No. 1559  
MAINE No. 6289  
\*RWL 95-29248

SHEET TITLE:

### LANDSCAPE PLAN

SHEET NUMBER:  
**C-701**

REVISION 6 - 01/27/2023

Sheet 11 of 19



LANDSCAPE SPECIFICATIONS

1. SCOPE OF WORK:
- 1.1. THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.
2. MATERIALS
- 2.1. GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.
- 2.2. TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.
- 2.3. LAWN - ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM 2" THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED ON THE LANDSCAPE PLAN
- 2.3.1. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
- 2.3.2. SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/PEST FREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
- 2.4. MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN AND/OR LANDSCAPE PLAN NOTES /DETAILS.
- 2.5. FERTILIZER
- 2.5.1. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.
- 2.5.2. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.
- 2.6. PLANT MATERIAL
- 2.6.1. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION (FORMERLY THE AMERICAN ASSOCIATION OF NURSERMEN).
- 2.6.2. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
- 2.6.3. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
- 2.6.4. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1/4" WHICH HAVE NOT BEEN COMPLETELY CALLEDUS, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.
- 2.6.5. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH: WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.
- 2.6.6. CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
- 2.6.7. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
- 2.6.8. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.
3. GENERAL WORK PROCEDURES
- 3.1. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.
- 3.2. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.
4. SITE PREPARATIONS
- 4.1. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.
- 4.1. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE BRANCH COLLAR. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.
- 4.3. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.
5. TREE PROTECTION
- 5.1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.
- 5.2. A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY "VISI-FENCE", OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.
- 5.3. WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.
- 5.4. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.
6. SOIL MODIFICATIONS
- 6.1. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.
- 6.2. LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.
- 6.3. THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.
- 6.3.1. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.
- 6.3.2. TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.
- 6.3.3. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
7. FINISHED GRADING
- 7.1. UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.
- 7.2. LANDSCAPE CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1").
- 7.3. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.
- 7.4. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.
8. TOPSOILING
- 8.1. CONTRACTOR SHALL PROVIDE A 6" THICK MINIMUM LAYER OF TOPSOIL OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.
- 8.2. ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.
- 8.3. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.
- 8.4. ALL LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA - FOR BID PURPOSES ONLY [SEE SPECIFICATION 6 A.1]).
- 8.4.1. 20 POUNDS "GRO-POWER" OR APPROVED SOIL CONDITIONER/FERTILIZER
- 8.4.2. 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP OR APPROVED NITROGEN FERTILIZER
- 8.5. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.
9. PLANTING
- 9.1. INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.
- 9.2. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.

- 9.3. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.
- 9.4. ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO INSTALLATION.
- 9.5. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
- 9.6. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS:
- 9.6.1. PLANTS: MARCH 15 TO DECEMBER 15
- 9.6.2. LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1
- 9.6.3. PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.
- 9.7. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:
- ACER RUBRUM PLATANUS X ACERIFOLIA  
BETULA VARIETIES POPULUS VARIETIES  
CARPINUS VARIETIES PRUNUS VARIETIES  
CRATAEGUS VARIETIES PYRUS VARIETIES  
KOELREUTERIA QUERCUS VARIETIES  
LIQUIDAMBAR STRYACIFLUA TILIA TOMENTOSA  
LIRIODENDRON TULIPIFERA ZELKOVA VARIETIES
- 9.8. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
- 9.8.1. 1 PART PEAT MOSS
- 9.8.2. 1 PART COMPOSTED COW MANURE BY VOLUME
- 9.8.3. 3 PARTS TOPSOIL BY VOLUME
- 9.8.4. 21 GRAMS "AGRIFORM" PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
- 9.8.4.1. 2 TABLETS PER 1 GALLON PLANT
- 9.8.4.2. 3 TABLETS PER 5 GALLON PLANT
- 9.8.4.3. 4 TABLETS PER 15 GALLON PLANT
- 9.8.4.4. LARGER PLANTS: 2 TABLETS PER 1/2" CALIPER OF TRUNK
- 9.9. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY.
- 9.10. ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL.
- 9.11. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE.
- 9.12. GROUND COVER AREAS SHALL RECEIVE A 1/2" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.
- 9.13. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.
- 9.14. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.
- 9.15. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.
10. TRANSPLANTING (WHEN REQUIRED)
- 10.1. ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.
- 10.2. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.
- 10.3. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.
- 10.4. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.
- 10.5. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.
- 10.6. F TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.
11. WATERING
- 11.1. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.
- 11.2. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES.
- 11.3. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.
12. GUARANTEE
- 12.1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF 1 YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
- 12.2. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION.
- 12.3. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.
- 12.4. LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
13. CLEANUP
- 13.1. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.
- 13.2. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
14. MAINTENANCE (ALTERNATIVE BID):
- 14.1. A 90 DAY MAINTENANCE PERIOD SHALL COMMENCE AT THE END OF ALL LANDSCAPE INSTALLATION OPERATIONS. THE 90 DAY MAINTENANCE PERIOD ENSURES TO THE OWNER/OPERATOR THAT THE NEWLY INSTALLED LANDSCAPING HAS BEEN MAINTAINED AS SPECIFIED ON THE APPROVED LANDSCAPE PLAN. ONCE THE INITIAL 90 DAY MAINTENANCE PERIOD HAS EXPIRED, THE OWNER/OPERATOR MAY REQUEST THAT BIDDERS SUBMIT AN ALTERNATE MAINTENANCE BID FOR A MONTHLY MAINTENANCE CONTRACT. THE ALTERNATE MAINTENANCE CONTRACT WILL ENCOMPASS ANY WORK THAT IS CONSIDERED APPROPRIATE TO ENSURE THAT PLANT AND LAWN AREAS ARE HEALTHY AND MANICURED TO THE APPROVAL OF THE OWNER/OPERATOR.

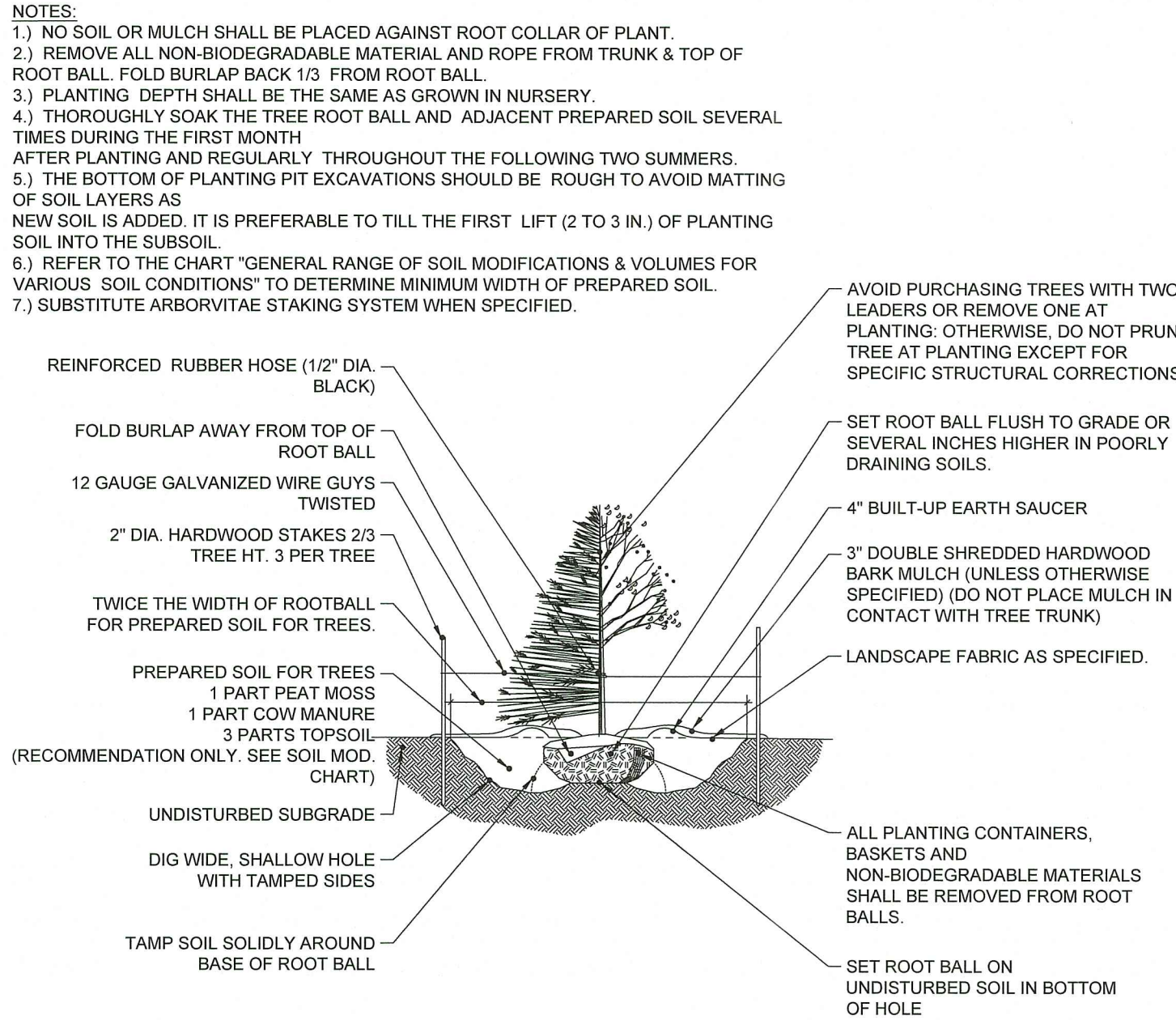
"QUICK EROSION CONTROL COVER MIX" AS PREPARED BY:

ERNST CONSERVATION SEEDS, INC.  
8884 MERCER PIKE, MEADVILLE, PA 16335  
PHONE: 800-873-3321 / 814-336-2404  
EMAIL: SALES@ERNSTSEED.COM  
WEBSITE: WWW.ERNSTSEED.COM

APPLICATION RATE: 50 LBS. / ACRE

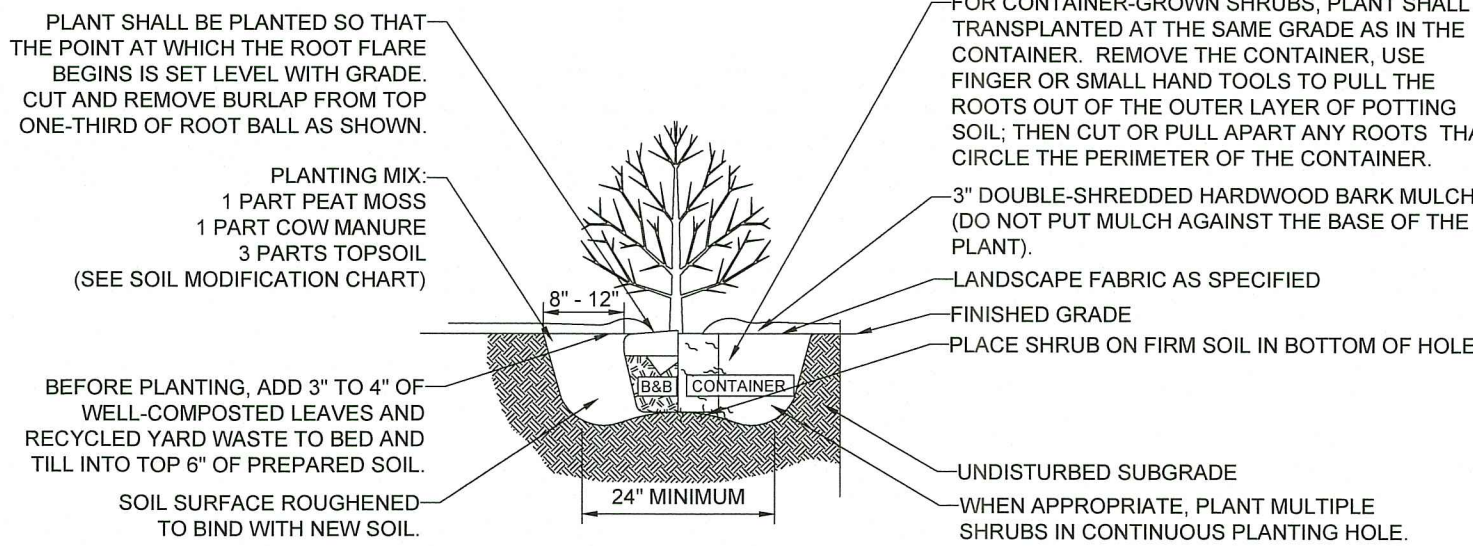
MIX COMPOSITION:  
50.0% Lolium multiflorum (Annual Ryegrass)  
50.0% Lolium perenne, "Blackclit II" (Perennial Ryegrass)

SLOPE SEED MIX SPECIFICATIONS



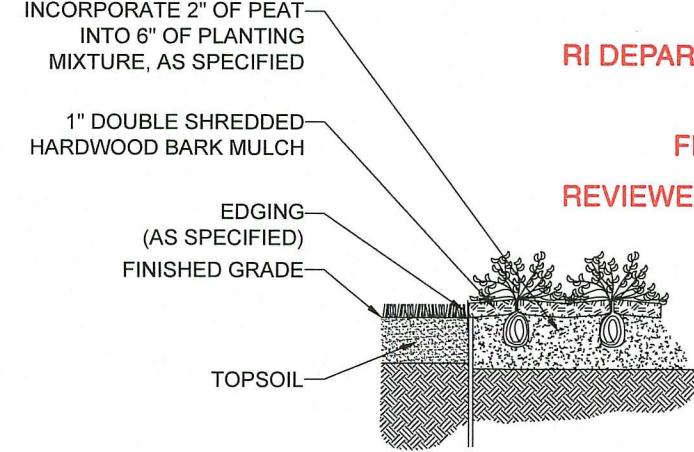
TREE PLANTING DETAIL

TREE PROTECTION DURING SITE CONSTRUCTION



SHRUB PLANTING DETAIL

BIOBARRIER ROOT BARRIER DETAIL



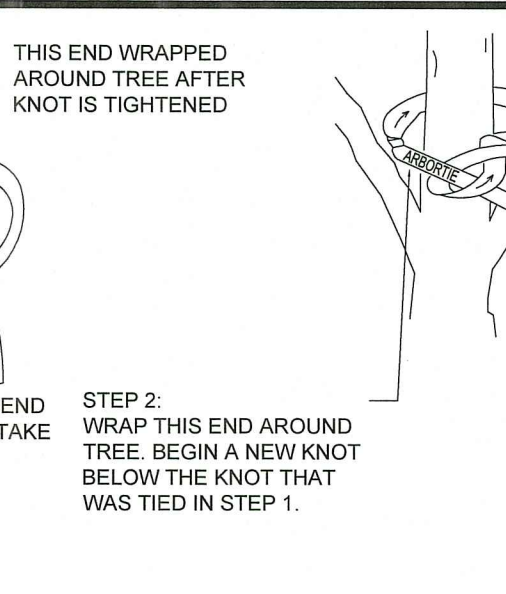
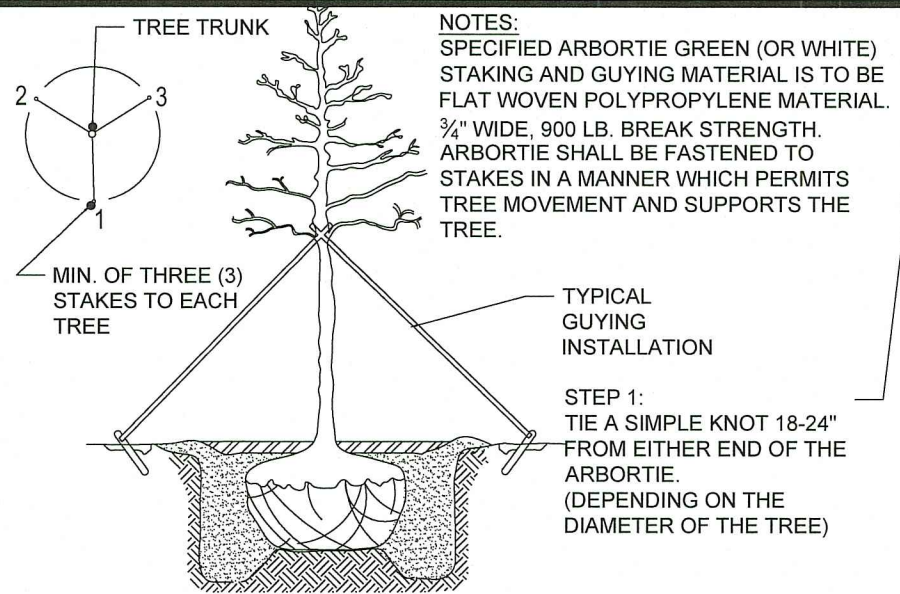
GROUNDCOVER PLANTING

TREE PLANTING DETAIL - ON SLOPE

1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.
2. PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
3. SEEDING RATES:
- |                       |                   |
|-----------------------|-------------------|
| PERENNIAL RYEGRASS    | 1/2 LB/1000 SQ FT |
| KENTUCKY BLUEGRASS    | 1 LB/1000 SQ FT   |
| RED FESCUE            | 1/2 LB/1000 SQ FT |
| SPREADING FESCUE      | 2 LB/1000 SQ FT   |
| FERTILIZER (16-32-16) | 1 GAL/800 GAL     |
| LIQUID LIME           | 35 LB/800 GAL     |
| TANK TACKIFIER        | 30 LB/1000 SQ FT  |
| TANK FIBER MULCH      |                   |
4. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDING AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.

HYDROSEED SPECIFICATIONS

BLACK ALUMINUM EDGING



ARBORTIE STAKING DETAIL

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING  
LAND SURVEYING  
PROGRAM MANAGEMENT  
LANDSCAPE ARCHITECTURE  
SUSTAINABLE DESIGN  
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	SHOWN BY
1	08/23/2022	REVISED FOR RIDOT SUBMISSION	CPB
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PROJECT No.: W211249  
DRAWN BY: CPB  
CHECKED BY: JF  
DATE: 02/24/2023  
CAD I.D.: W211249-LND-8

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

1119 DIVISION SITE, LLC

PROPOSED DRIVE-THRU CARWASH

MAP: 215 LOT: 7  
1119 DIVISION STREET,  
CITY OF WARWICK,  
KENT COUNTY,  
RHODE ISLAND

BOHLER

352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
Phone: (508) 480-9900

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M.J. MRVA  
REGISTERED LANDSCAPE ARCHITECT  
MASSACHUSETTS No. 1217  
RHODE ISLAND No. 418  
NEW YORK No. 022558  
NEW HAMPSHIRE No. 1059  
CONNECTICUT No. 1350  
VIRGINIA No. 229448

SHEET TITLE:

LANDSCAPE NOTES & DETAILS

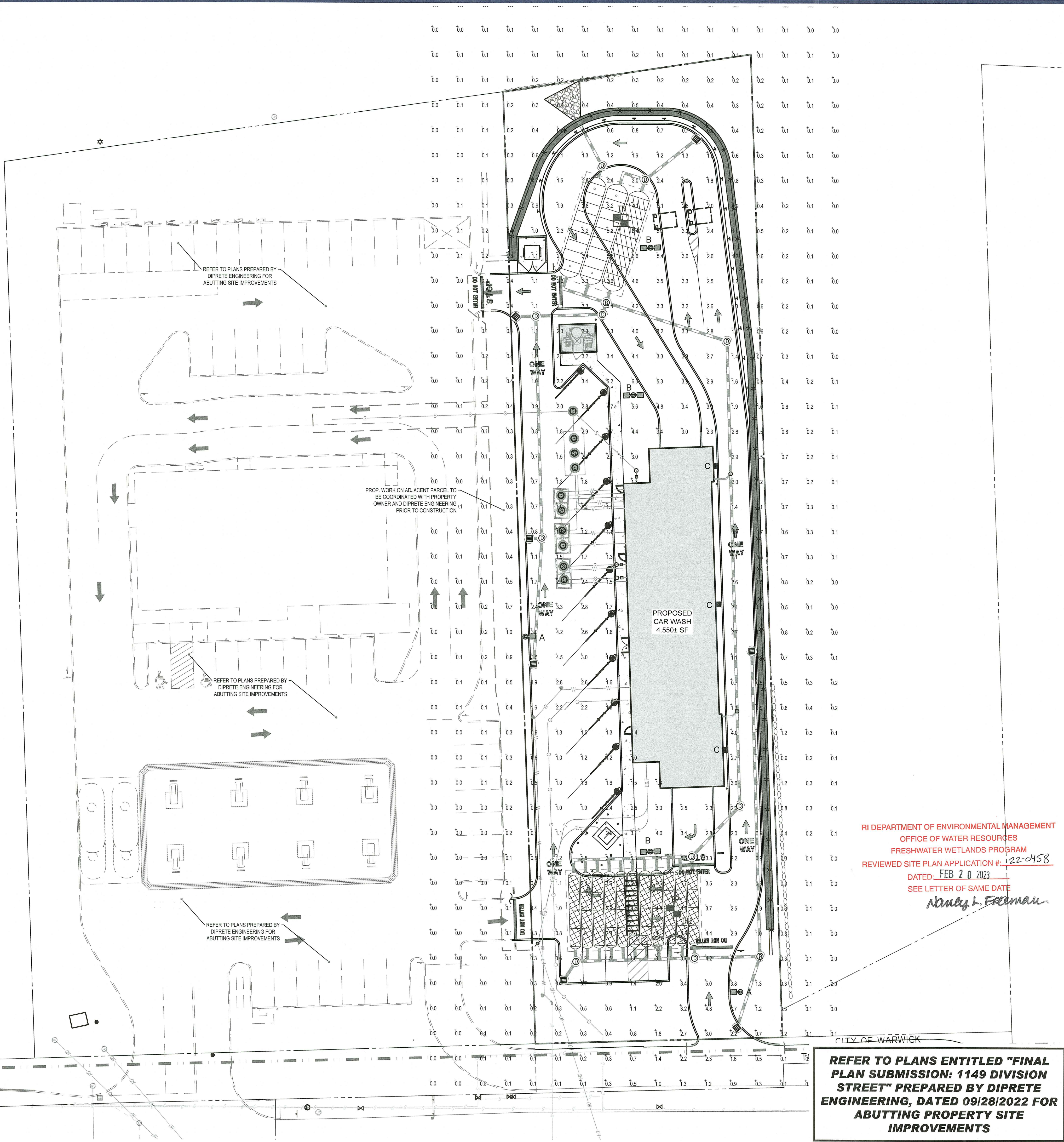
SHEET NUMBER:

C-702

REVISION 6 - 01/27/2023

N.T.S.





### LIGHTING NOTES

1. THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER(S). ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
2. THE LIGHT LOSS FACTORS USED IN THESE LIGHTING CALCULATIONS ARE 0.90 FOR ALL LED LUMINAIRES, 0.80 FOR ALL HIGH PRESSURE SODIUM LUMINAIRES OR 0.72 FOR ALL METAL HALIDE LUMINAIRES UNLESS OTHERWISE SPECIFIED. THESE FACTORS ARE INDICATIVE OF TYPICAL LIGHTING INDUSTRY MODELING STANDARDS.
3. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ALL ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT ELEVATION ZERO (GROUND LEVEL) UNLESS OTHERWISE NOTED. THE VALUES DEPICTED ON THIS PLAN ARE IN FOOT-CANDLES.
4. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT NOT BE LIMITED TO, FREQUENT VISUAL INSPECTIONS, CLEANING OF LENSES, AND RELAMPING (IF NECESSARY) AT LEAST ONCE EVERY SIX (6) MONTHS. FAILURE TO FOLLOW THE ABOVE STEPS COULD CAUSE THE LUMINAIRES, LAMPS AND LENSES TO FAIL PROPERLY TO FUNCTION.
5. WHERE APPLICABLE, THE EXISTING CONDITION LIGHT LEVELS ILLUSTRATED ARE REPRESENTATIVE OF AN APPROXIMATION UTILIZING LABORATORY DATA FOR SIMILAR FIXTURES, UNLESS ACTUAL FIELD MEASUREMENTS ARE TAKEN WITH A LIGHT METER AND ARE, CONSEQUENTLY, APPROXIMATIONS ONLY. DUE TO FACTORS SUCH AS FIXTURE MAINTENANCE, EQUIPMENT TOLERANCES, WEATHER CONDITIONS, ETC., ACTUAL LIGHT LEVELS MAY DIFFER. EXISTING LIGHT LEVELS DEPICTED ON THIS PLAN SHOULD BE CONSIDERED APPROXIMATE.
6. THIS LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES, ONLY. POWER SYSTEM, CONDUITS, WIRING, VOLTAGES AND OTHER ELECTRICAL COMPONENTS ARE THE RESPONSIBILITY OF THE ARCHITECT, MEP AND/OR LIGHTING CONTRACTOR, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. LIGHT POLE BASES ARE THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES AND ALL OTHER APPLICABLE RULES, REGULATIONS, LAWS AND STATUTES.
7. CONTRACTOR MUST BRING TO DESIGNER'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURES.
8. IT IS THE LIGHTING CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROJECT ARCHITECT OR OWNER REGARDING THE POWER SOURCE(S) FROM WITHIN THE BUILDING, AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT.
9. THE LIGHTING CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE SITE PLAN, INCLUDING BUT NOT LIMITED TO, GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL GOVERNMENTAL RULES, LAWS, ORDINANCES, REGULATIONS AND THE LIKE.
10. THE CONTRACTOR MUST VERIFY THAT INSTALLATION OF LIGHTING FIXTURES COMPLIES WITH THE REQUIREMENTS FOR SEPARATION FROM OVERHEAD ELECTRICAL WIRES PER STATE REGULATIONS.
11. UPON OWNER'S ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS, TO ENSURE ADEQUATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL TIMES.

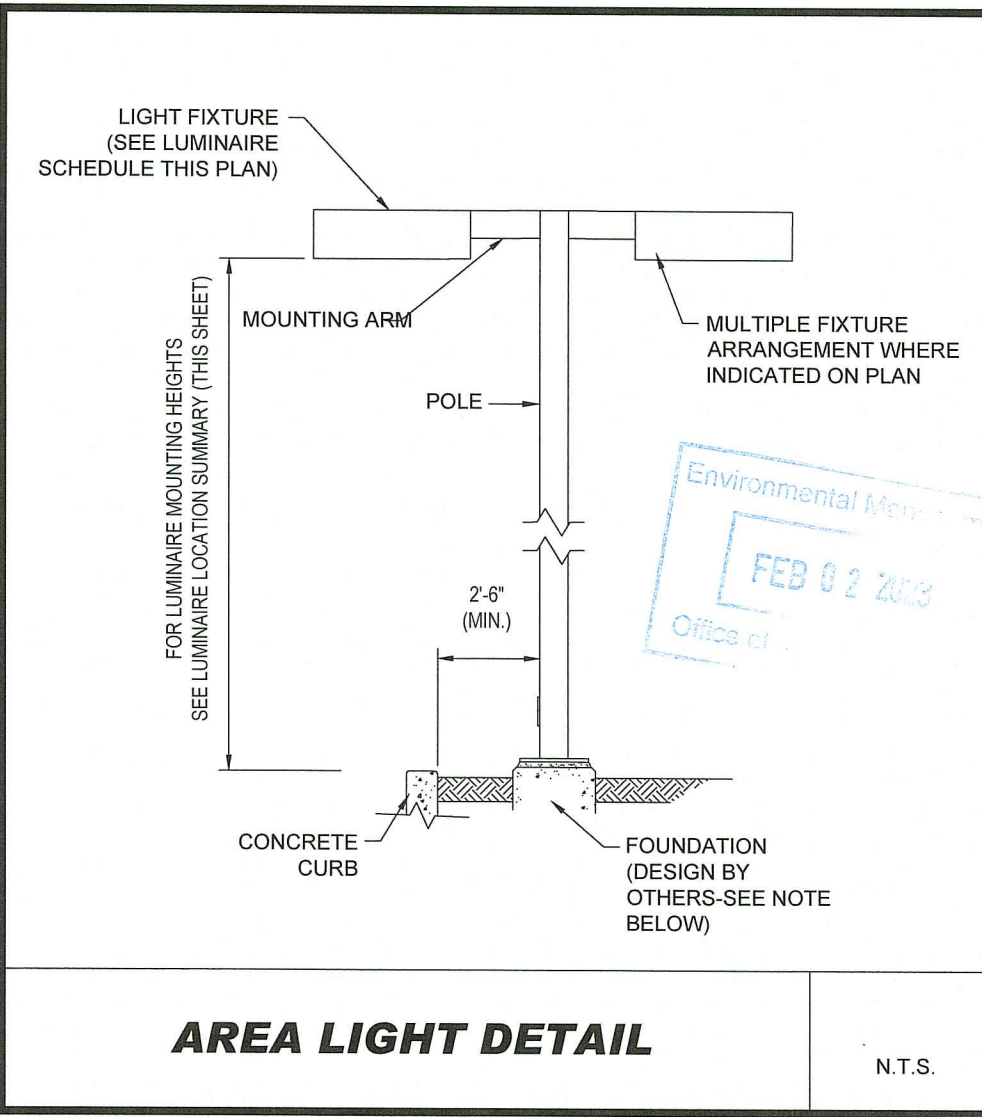
### NUMERIC SUMMARY

LABEL	CALC TYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
AREA SUMMARY	ILLUMINANCE	FC	2.60	6.6	0.4	6.50	16.50

### LUMINAIRE SCHEDULE

SYMBOL	QTY	ARRANGEMENT	LUMENS	LLF	DESCRIPTION
A	2	SINGLE	16394	0.90	LSI LIGHTING LED TYPE 3 AREA LIGHT WITH SHIELD MOUNTED @ 25' XGBM-3-LED-SS-WH-SS
B	3	DOUBLE @ 180	16394	0.90	LSI LIGHTING LED TYPE 3 AREA LIGHT MOUNTED @ 25' XGBM-3-LED-SS-NW
C	3	BUILDING	3377	0.90	LSI LIGHTING LED WALL SCONCE MOUNTED @ 14' XGBWM3-FT-LED-28-450-NW-UE

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION #: 122-0458  
DATED: FEB 20 2023  
SEE LETTER OF SAME DATE  
*Nancy L. Freeman*



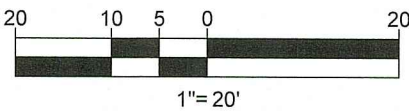
### AREA LIGHT DETAIL

N.T.S.

NOTE: THIS DETAIL IS FOR BID AND BUDGETARY PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING A FOUNDATION DESIGN PREPARED BY A QUALIFIED STRUCTURAL ENGINEER CONSIDERING LIGHTING MANUFACTURER REQUIREMENTS, LOCAL WIND LOADS AND SITE SPECIFIC SOIL PARAMETERS.

- SOME SITE CONDITIONS AND/OR LOCATIONS MAY REQUIRE VIBRATION DAMPENING MEASURES AS DETERMINED BY A STRUCTURAL ENGINEER.
- THE STRUCTURAL ENGINEER SHALL BE NOTIFIED OF THE INTENT TO MOUNT ANYTHING TO THE POLE, ASIDE FROM THE LIGHT FIXTURES, INCLUDING BUT NOT LIMITED TO CAMERAS, BANNERS, FLAGS, SIGNAGE, ETC. AS IT WILL IMPACT THE POLE AND FOUNDATION DESIGN.

THIS PLAN TO BE UTILIZED FOR  
LIGHTING PURPOSES ONLY



REFER TO PLANS ENTITLED "FINAL  
PLAN SUBMISSION: 1149 DIVISION  
STREET" PREPARED BY DIPRETE  
ENGINEERING, DATED 09/28/2022 FOR  
ABUTTING PROPERTY SITE  
IMPROVEMENTS

**BOHLER**  
SITE CIVIL AND CONSULTING ENGINEERING  
LAND SURVEYING  
PROGRAM MANAGEMENT  
LANDSCAPE ARCHITECTURE  
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PERMITTING SERVICES  
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CHECKED BY: JF  
DATE: 02/24/2023  
CAD I.D.: W211249-CVL-6

PROJECT:

### PROPOSED SITE PLAN DOCUMENTS

FOR

1119 DIVISION  
SITE, LLC

PROPOSED  
DRIVE-THRU CARWASH  
MAP: 215 LOT: 7  
1119 DIVISION STREET,  
CITY OF WARWICK,  
KENT COUNTY,  
RHODE ISLAND

### BOHLER

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Phone: (508) 480-9900

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### J.G. SWERLING

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MASSACHUSETTS LICENSE No. 41897  
NEW HAMPSHIRE LICENSE No. 14696  
MAINE LICENSE No. 13819  
CONNECTICUT LICENSE No. 30785  
RHODE ISLAND LICENSE No. 11425

SHEET TITLE:

### LIGHTING PLAN

SHEET NUMBER:

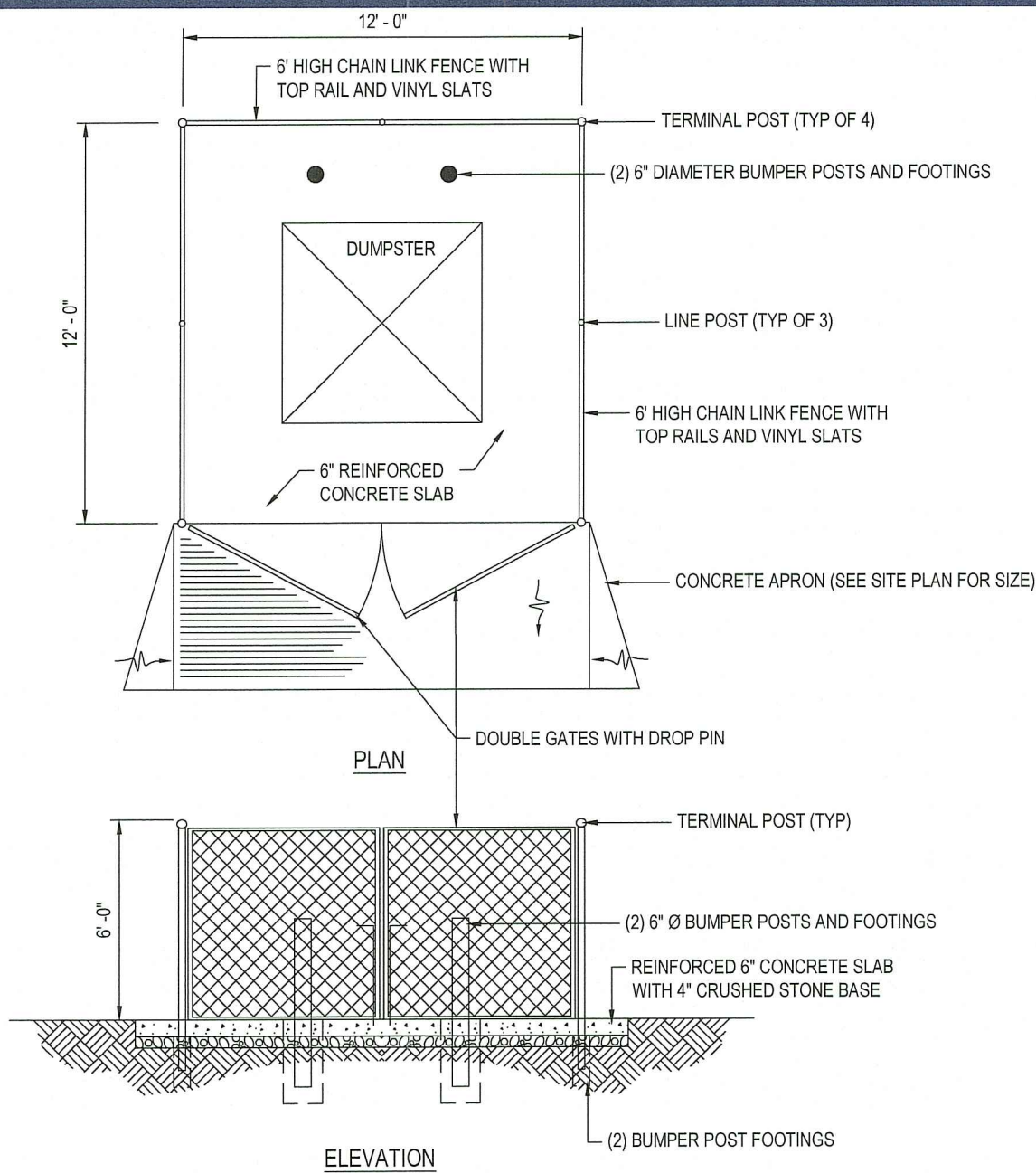
C-703

REVISION 6 - 01/27/2023



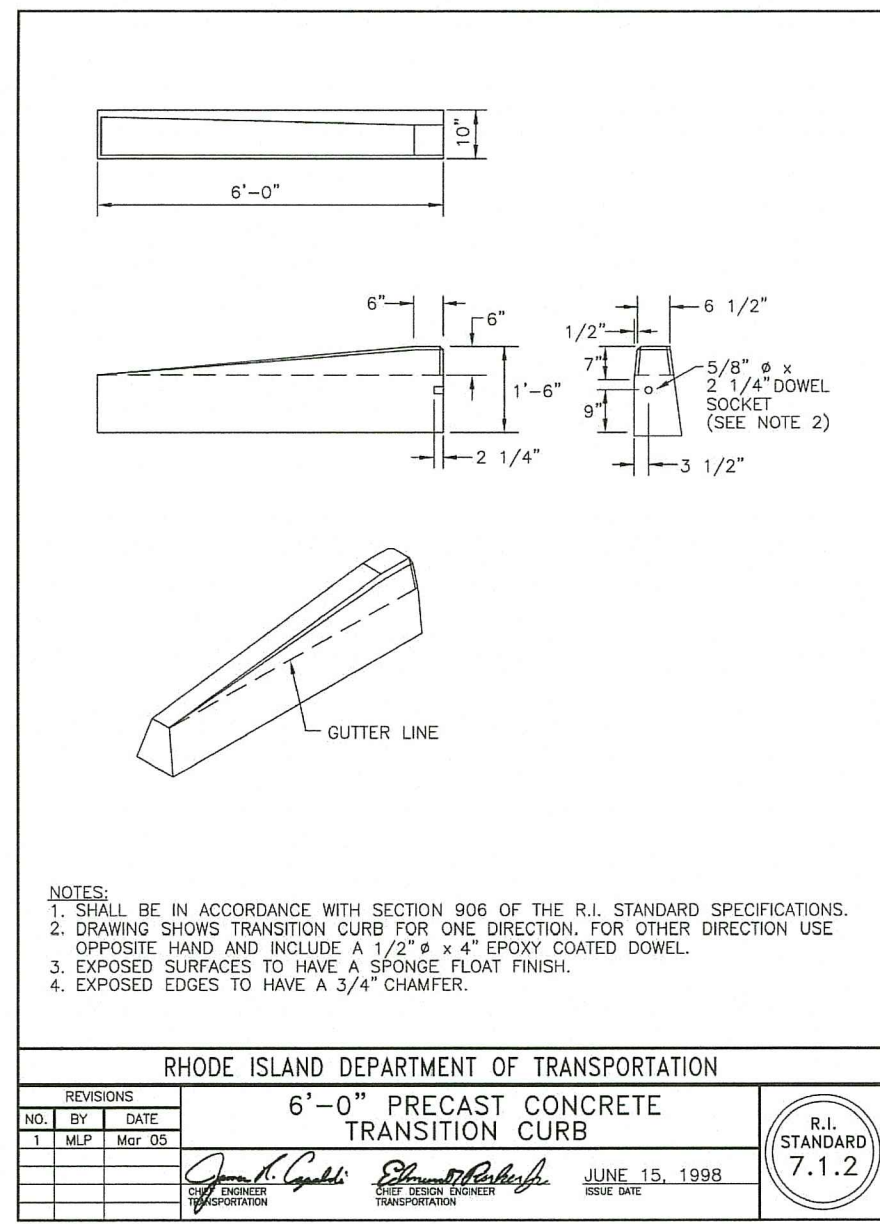






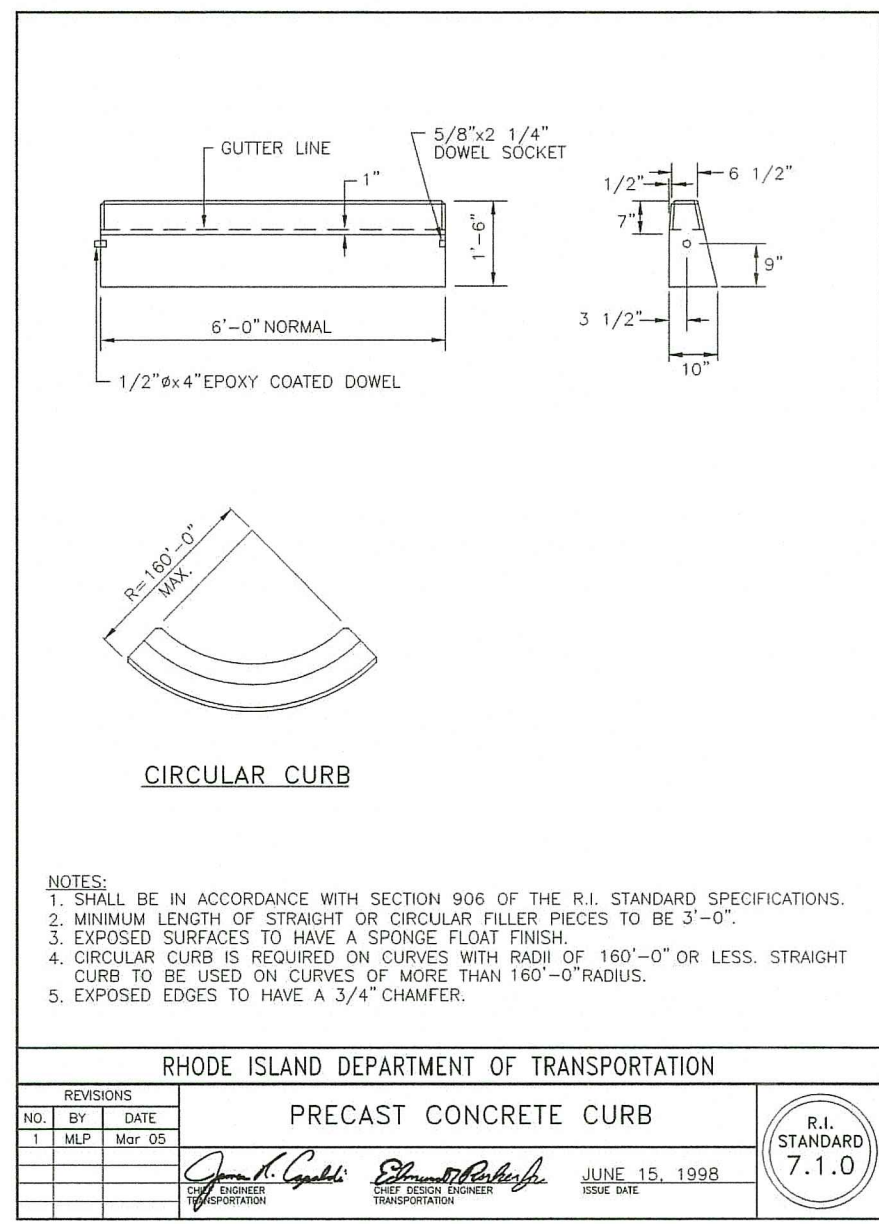
**TRASH ENCLOSURE CHAIN LINK FENCE WITH VINYL SLATS**

N.T.S.



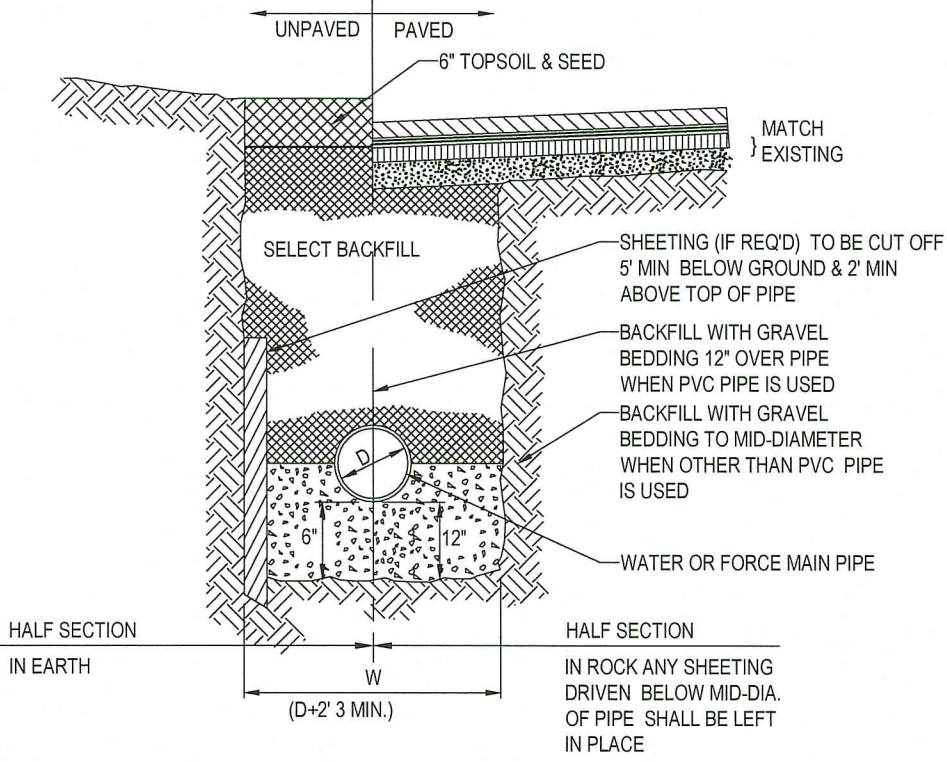
**RIDOT DETAIL 7.1.2 PRECAST CONCRETE TRANSITION CURB**

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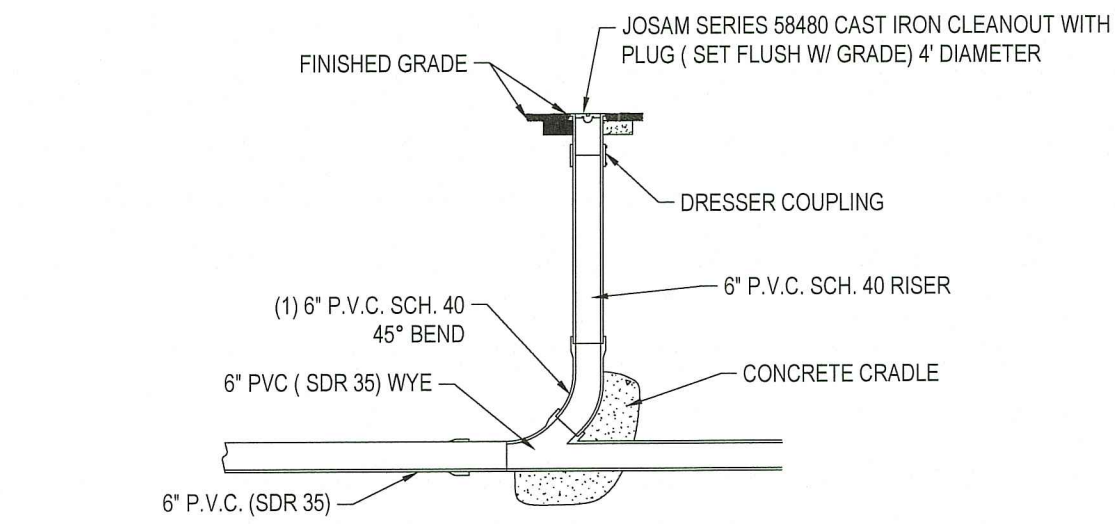
**RIDOT DETAIL 7.1.0 PRECAST CONCRETE CURB**

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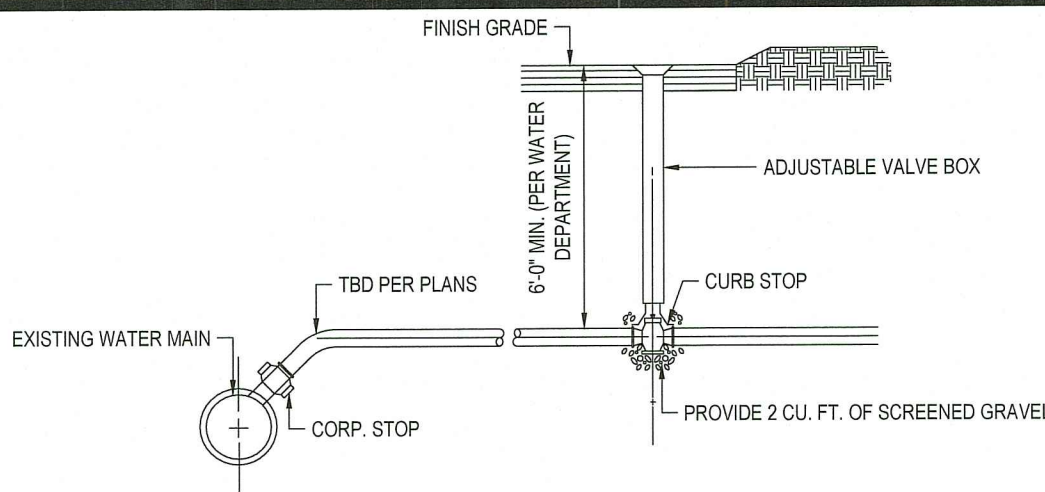
**TYPICAL UTILITY TRENCH**

N.T.S.



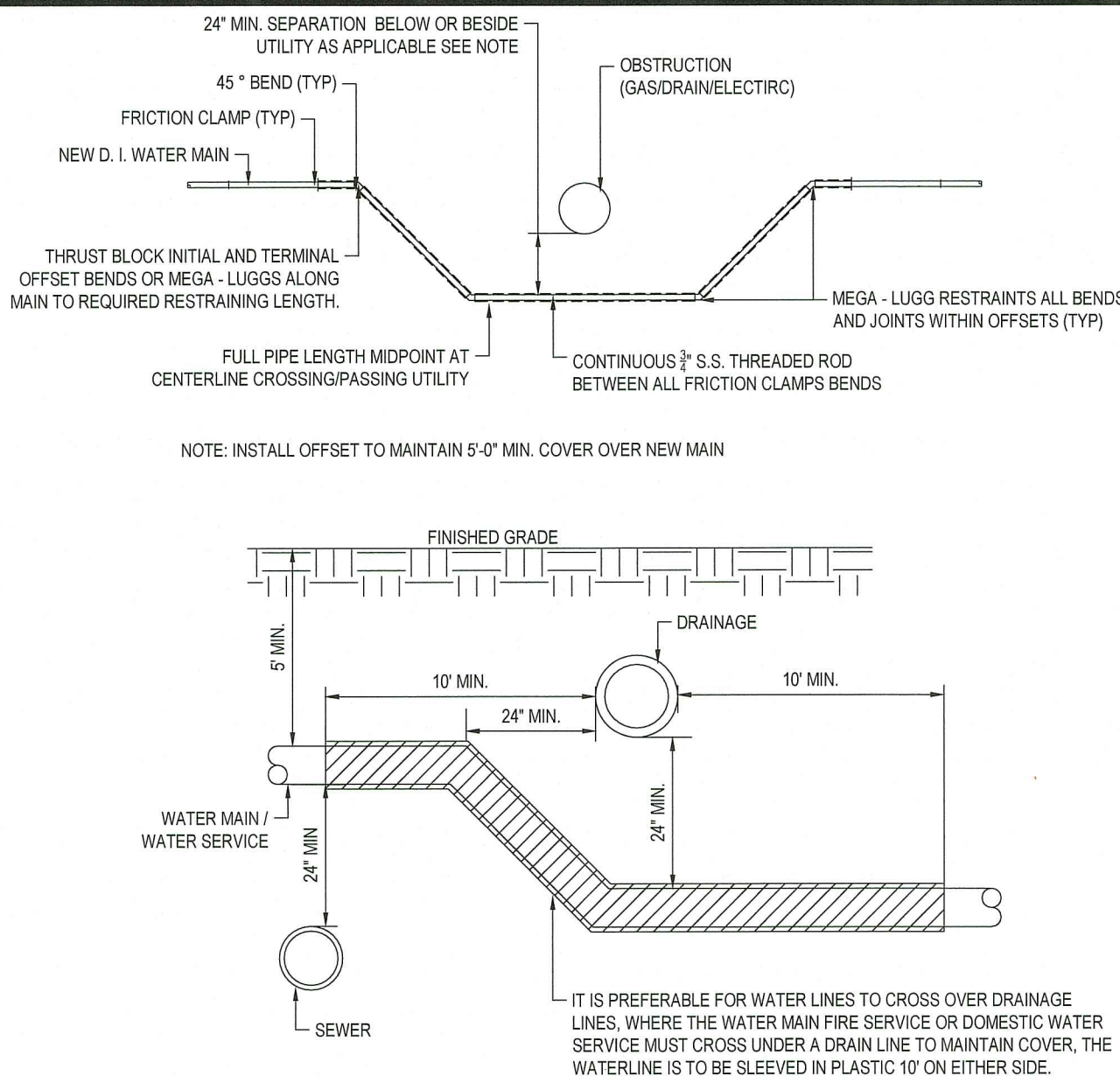
**CLEANOUT**

N.T.S.



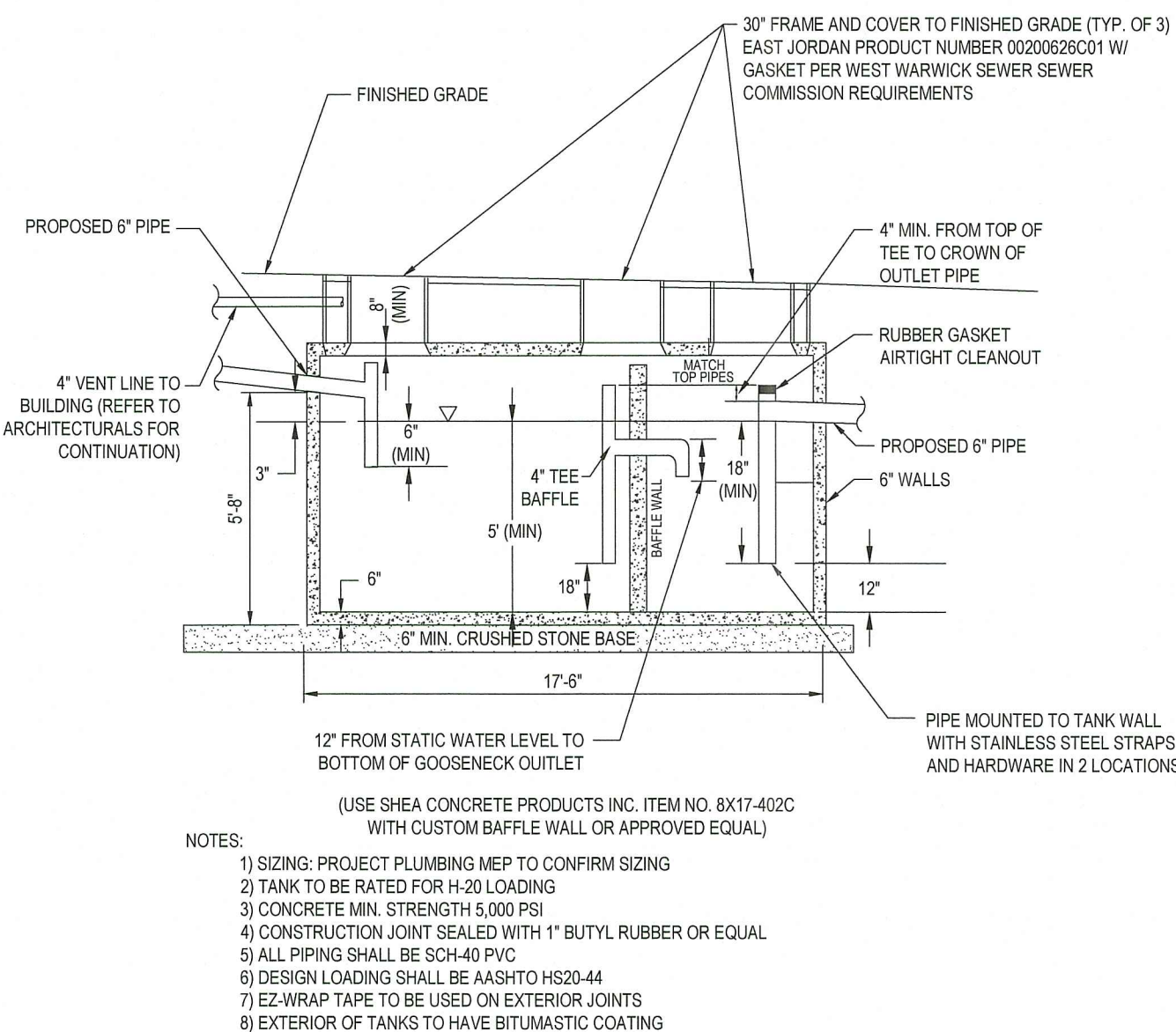
**WATER/SERVICE CONSTRUCTION**

N.T.S.



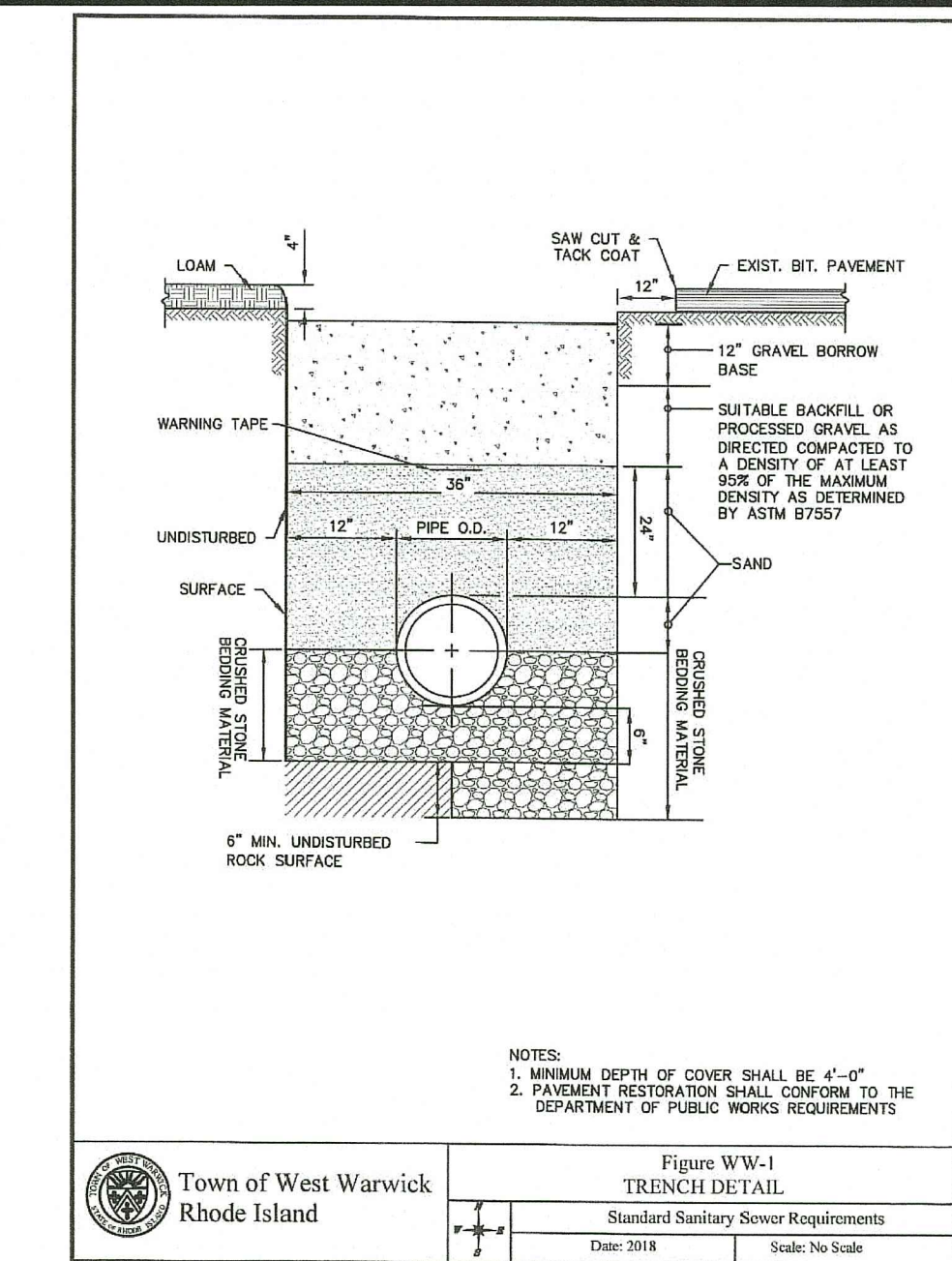
**WATER/SEWER CROSSING**

N.T.S.



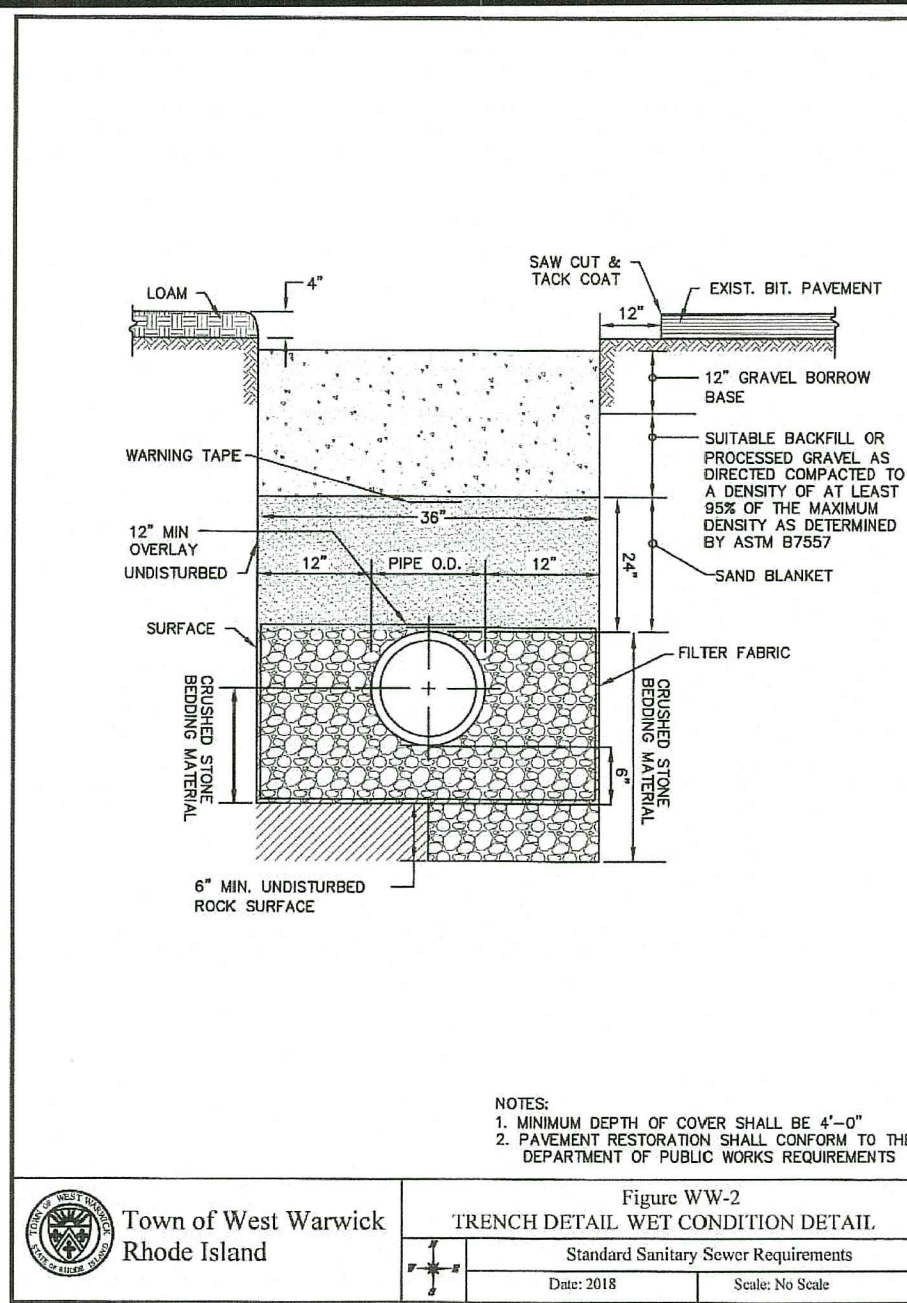
**4,000 GALLON 2-COMPARTMENT OIL/WATER SEPARATOR DETAIL**

N.T.S.



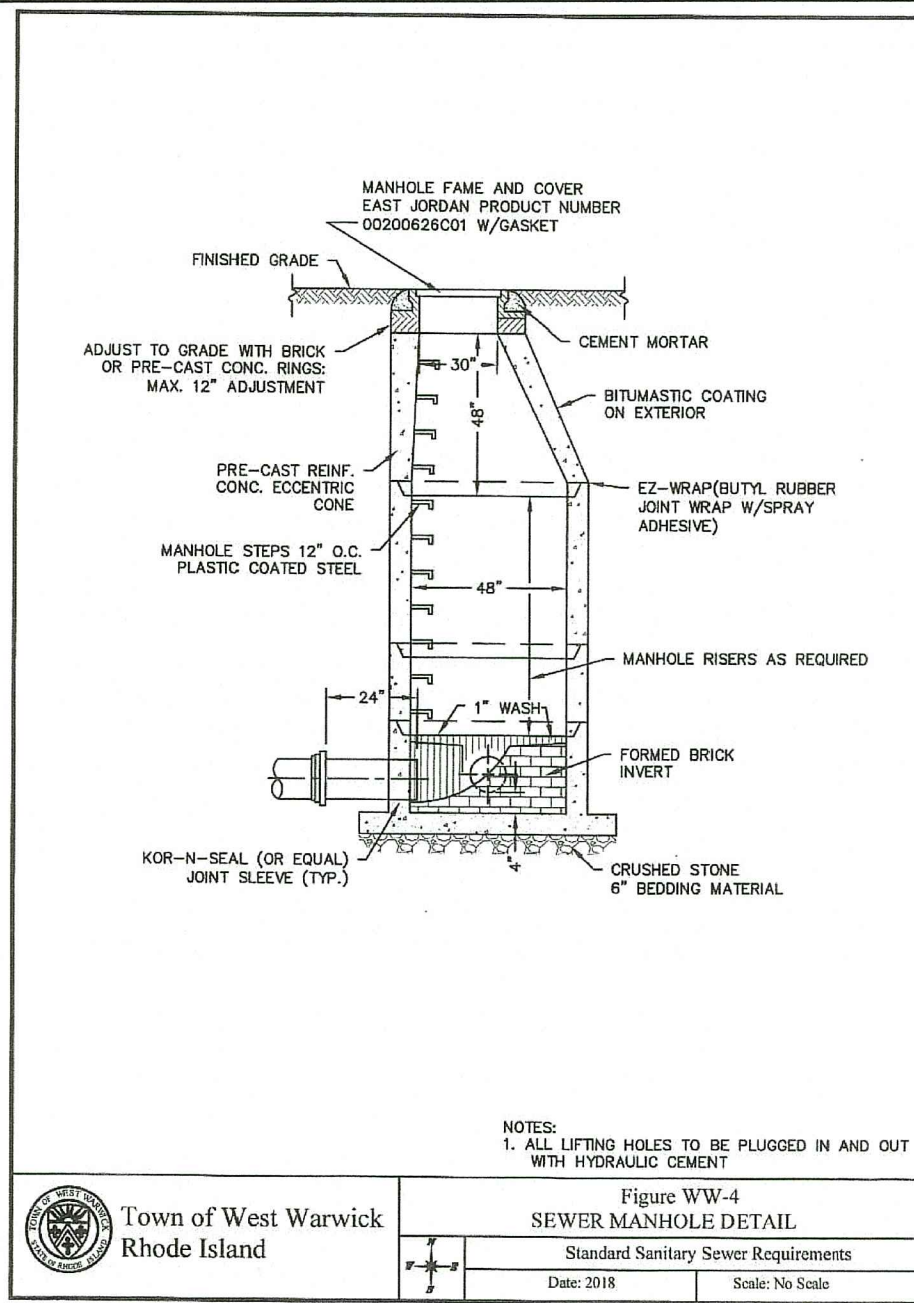
**WEST WARWICK FIGURE WW-1 TRENCH DETAIL**

N.T.S.



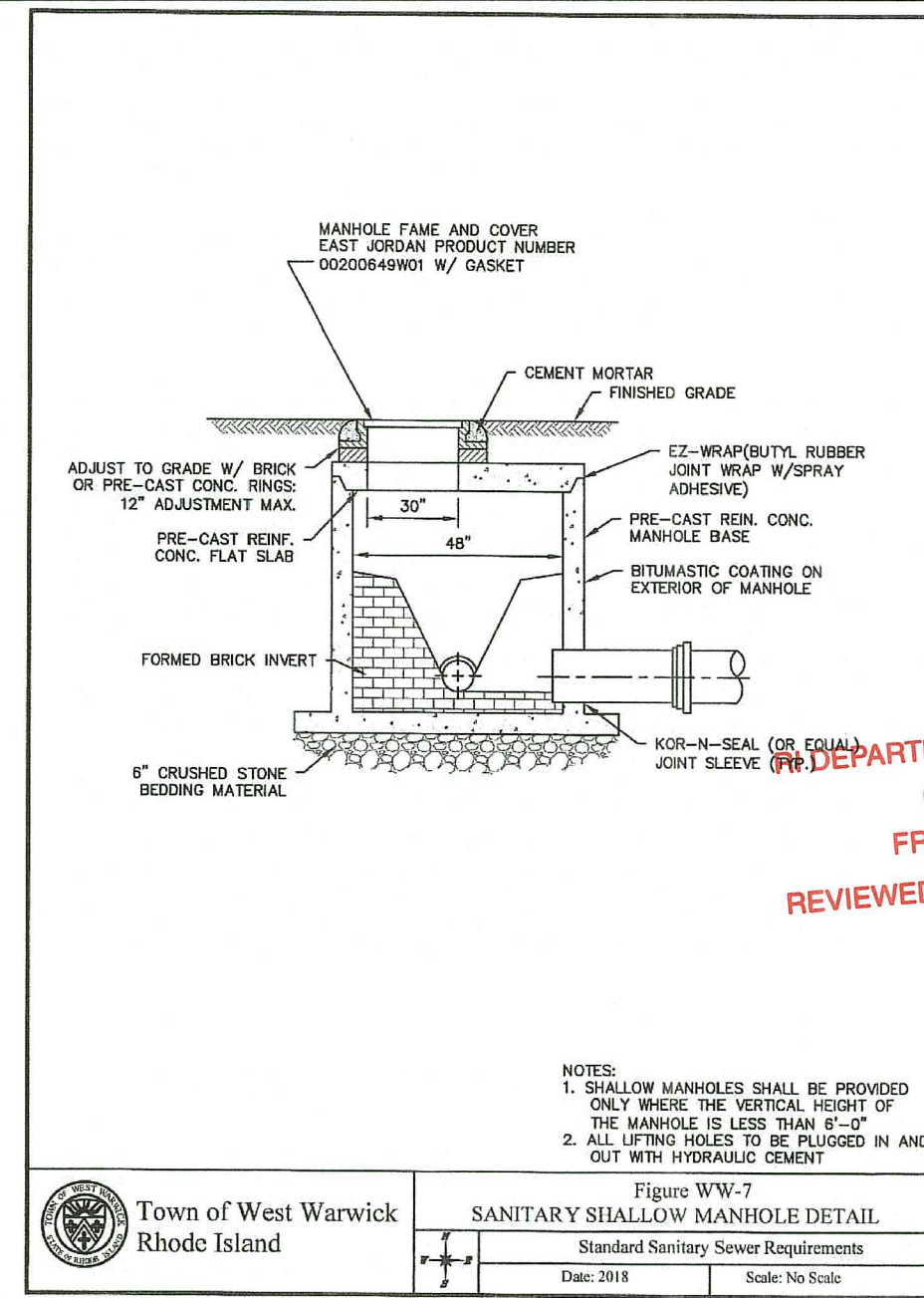
**WEST WARWICK FIGURE WW-2 TRENCH DETAIL WET CONDITION DETAIL**

N.T.S.



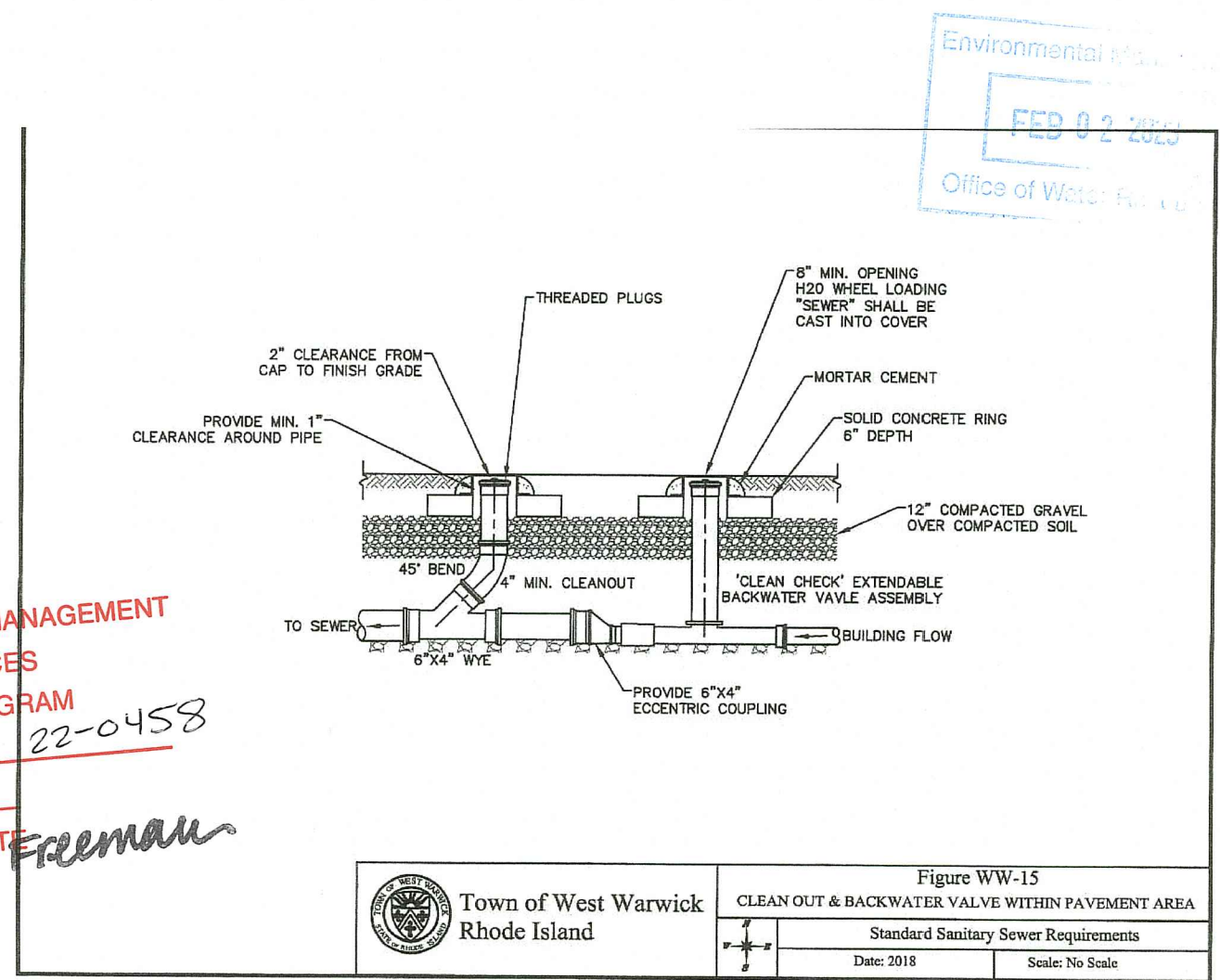
**WEST WARWICK FIGURE WW-4 SEWER MANHOLE DETAIL**

N.T.S.



**WEST WARWICK FIGURE WW-7 SANITARY SHALLOW MANHOLE DETAIL**

N.T.S.



**WEST WARWICK FIGURE WW-15 CLEAN OUT & BACKWATER VALVE WITHIN PAVEMENT AREA**

N.T.S.

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LAND SURVEYING  
PROGRAM MANAGEMENT  
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DRAWN BY: CPB  
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DATE: 02/24/2022  
CAD I.D.: W211249-CVL-6

**PROPOSED SITE PLAN DOCUMENTS**

FOR

**1119 DIVISION SITE, LLC**

PROPOSED DRIVE-THRU CARWASH

MAP: 215 LOT: 7  
1119 DIVISION STREET,  
CITY OF WARWICK,  
KENT COUNTY,  
RHODE ISLAND

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CONNECTICUT LICENSE NO. 38785  
RHODE ISLAND LICENSE NO. 11425

SHEET TITLE:

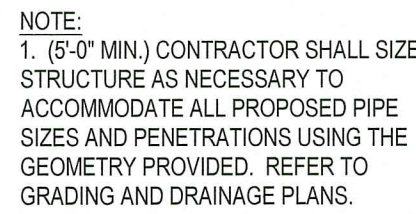
**DETAIL SHEET**

SHEET NUMBER:

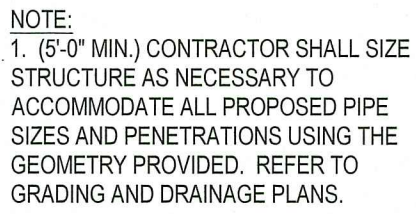
**C-902**

REVISION 6 - 01/27/2023

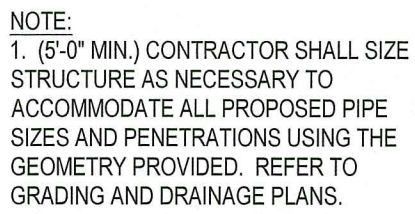




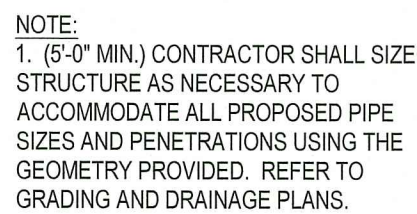
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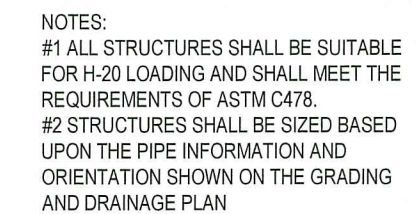
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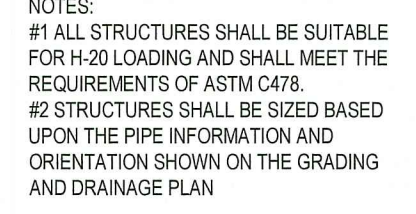
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NTS



N.T.S.



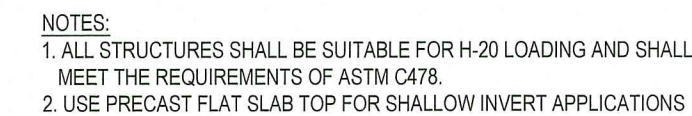
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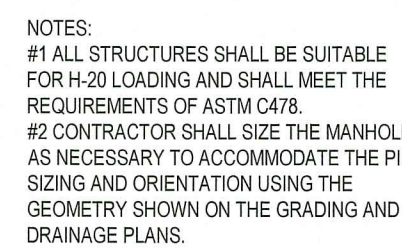
NTS



NTS



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PROJECT

FOR —

**PROPOSED  
DRIVE-THRU CARWASH**

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MAINE LICENSE No. 13816  
CONNECTICUT LICENSE No. 38785  
RHODE ISLAND LICENSE No. 11425

**SHEET TITLE:**

## SHEET NUMBER

# C-903

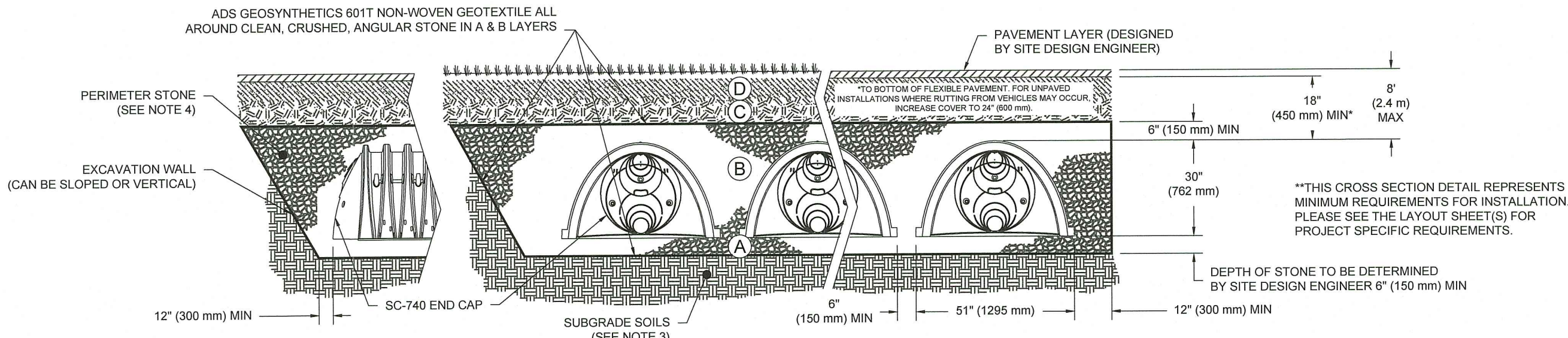
REVISION 6 - 01/27/2023



ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	<b>FINAL FILL:</b> FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	<b>INITIAL FILL:</b> FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <3% FINES OR PROCESSED AGGREGATE. OR AASHTO M43* 3, 357, 4, 467, 5, 56, 57, 6, 57, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 96% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	<b>EMBEDMENT STONE:</b> FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M43* 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	<b>FOUNDATION STONE:</b> FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43* 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. <sup>2,3</sup>

- PLEASE NOTE:
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
  - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
  - WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
  - ONCE LAYER 'C' IS PLACED, ANY SOLMATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

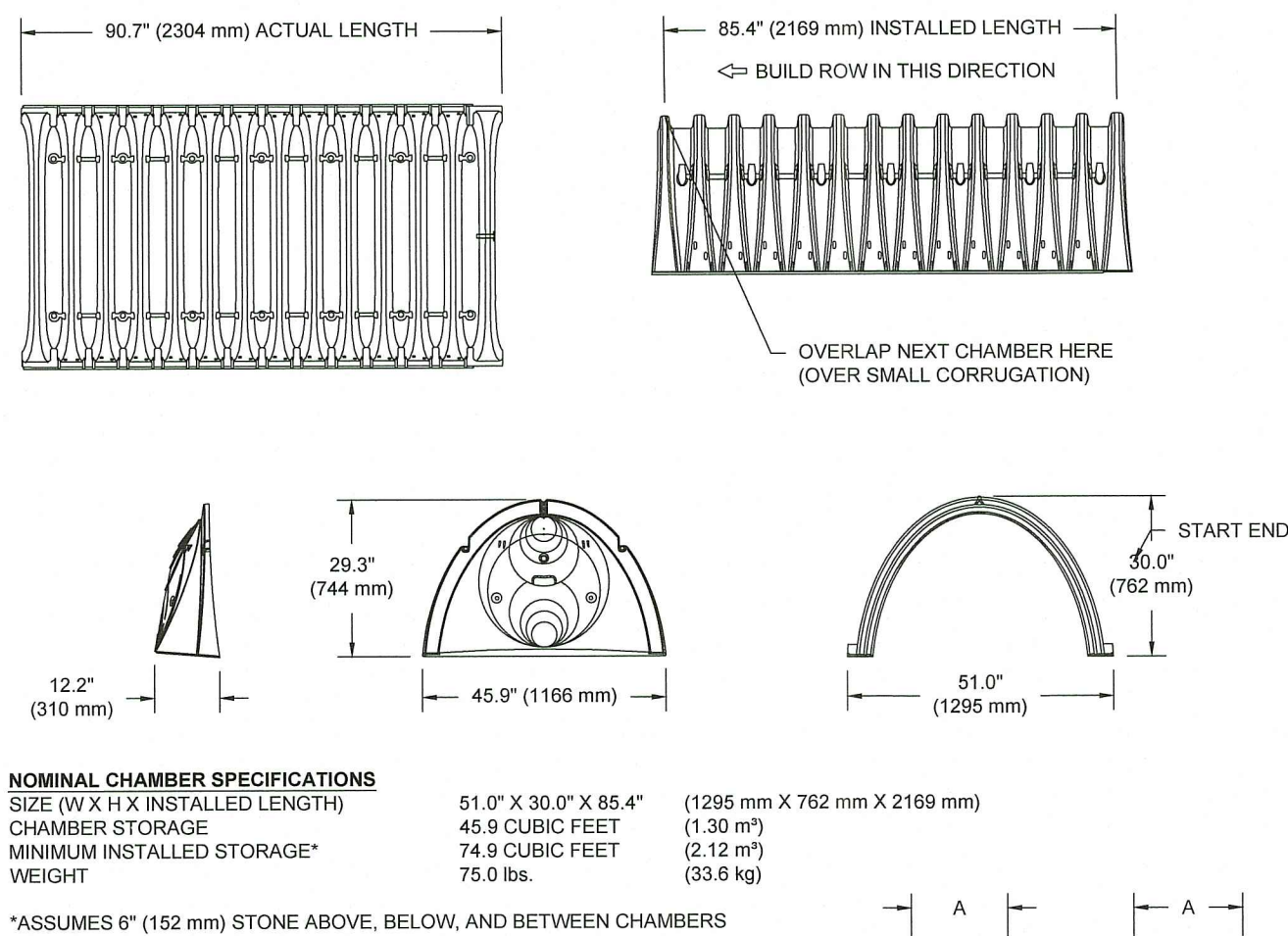


NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
  - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
  - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
  - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT<sup>2</sup>, AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

SC-740 CROSS SECTION DETAIL

N.T.S.



**NOMINAL CHAMBER SPECIFICATIONS**  
SIZE (W X H X INSTALLED LENGTH) 51.0" X 30.0" X 85.4" (130 mm)  
CHAMBER STORAGE 74.9 CUBIC FEET (2.12 m<sup>3</sup>)  
MINIMUM INSTALLED STORAGE\* 75.0 lbs. (33.6 kg)  
\*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS

PART #	STUB	A	B	C
SC740EPE067 / SC740EPE067PC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	0.5" (13 mm)
SC740EPE068 / SC740EPE068PC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	0.6" (15 mm)
SC740EPE087 / SC740EPE087PC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	0.7" (18 mm)
SC740EPE107 / SC740EPE107PC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	1.2" (30 mm)
SC740EPE127 / SC740EPE127PC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	1.3" (33 mm)
SC740EPE12B / SC740EPE12BPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	1.6" (41 mm)
SC740EPE167 / SC740EPE167PC	24" (600 mm)	18.5" (470 mm)	0.1" (3 mm)	0.1" (3 mm)
SC740EPE18B / SC740EPE18BPC	24" (600 mm)	18.5" (470 mm)	0.1" (3 mm)	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740EPE24B/SC740EPE24BR ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2894.

\*FOR THE SC740EPE24B/SC740EPE24BR THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL.

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
- A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
- A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
- A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
- A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
- A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROW PLUS ROWS
- B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS THROUGH OUTLET PIPE
- B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
- i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
- ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
- B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

MC-3500 TECHNICAL SPECIFICATIONS AND NOTES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY
1	08/23/2022	REVISED FOR RIDOT SUBMISSION	CPB	JF
2	08/25/2022	REVISED FOR RIDEM SUBMISSION	CPB	JF
3	10/06/2022	REVISED FOR SEWER SUBMISSION	CPB	JF
4	10/18/2022	REVISED PER RIDOT COMMENTS	CPB	JF
5	01/04/2023	REVISED PER SEWER REVIEW COMMENTS	CPB	JF
6	01/27/2023	REVISED PER RIDEM COMMENTS	CPB	JF



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PERMIT SET

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT NO.: W211249  
DRAWN BY: CPB  
CHECKED BY: JF  
DATE: 02/24/2023  
CAD I.D.: W211249-CVL-6

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

1119 DIVISION  
SITE, LLC

PROPOSED  
DRIVE-THRU CARWASH  
MAP: 215 LOT: 7  
1119 DIVISION STREET,  
CITY OF WARWICK,  
KENT COUNTY,  
RHODE ISLAND

**BOHLER**

352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
Phone: (508) 480-9900

www.BohlerEngineering.com

**J.G. SWERLING**

PROFESSIONAL ENGINEER

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NEW HAMPSHIRE LICENSE No. 14695  
MAINE LICENSE No. 13818  
CONNECTICUT LICENSE No. 38785  
RHODE ISLAND LICENSE No. 11425

SHEET TITLE:

**DETAIL  
SHEET**

SHEET NUMBER:

**C-904**

REVISION 6 - 01/27/2023

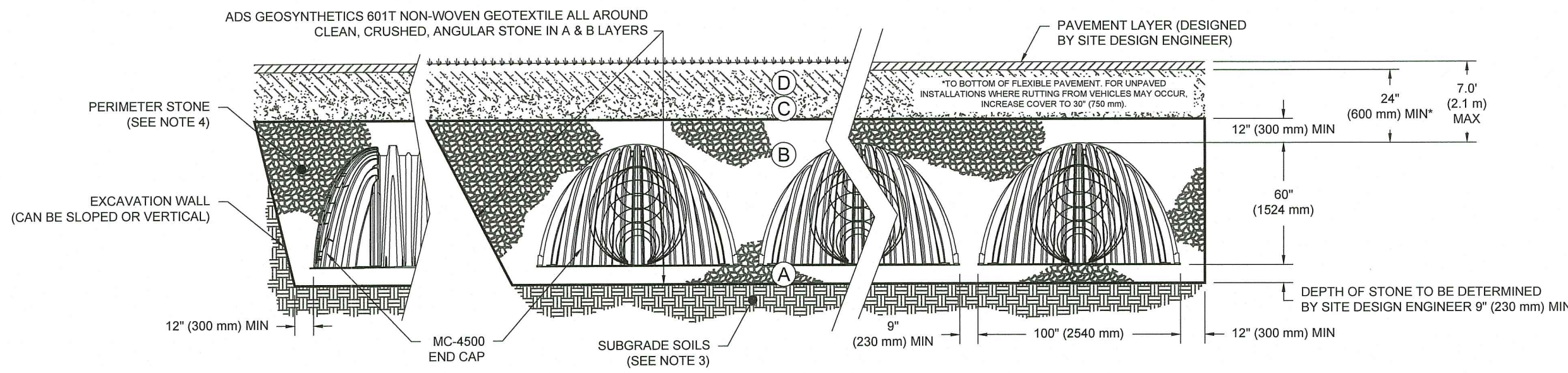
Sheet 17 of 19



ACCEPTABLE FILL MATERIALS: STORMTECH MC-4500 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	<b>FINAL FILL:</b> FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	<b>INITIAL FILL:</b> FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	AASHTO M145 <sup>1</sup> A-1, A-2-4, A-3 OR AASHTO M43 <sup>1</sup> 3, 357, 4, 487, 5, 56, 97, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	<b>EMBEDMENT STONE:</b> FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M43 <sup>1</sup> 3, 4	NO COMPACTION REQUIRED.
A	<b>FOUNDATION STONE:</b> FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43 <sup>1</sup> 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. <sup>2,3</sup>

PLEASE NOTE:  
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".  
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.  
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.  
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



\*FOR COVER DEPTHS GREATER THAN 7.0' (2.1 m) PLEASE CONTACT STORMTECH

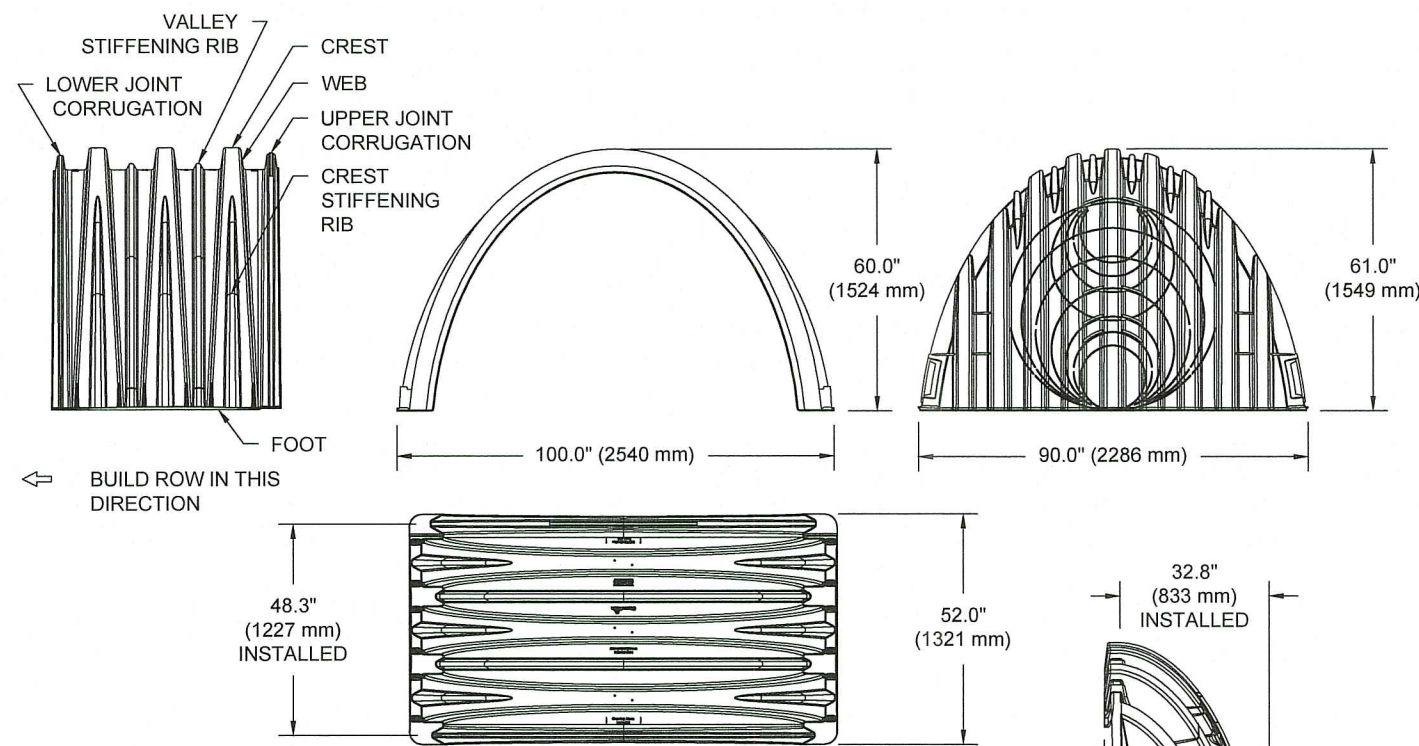
NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-18a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101
- MC-4500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
  - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
  - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
  - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN<sup>2</sup>. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

MC-4500 CROSS SECTION DETAIL

N.T.S.

MC-4500 TECHNICAL SPECIFICATION



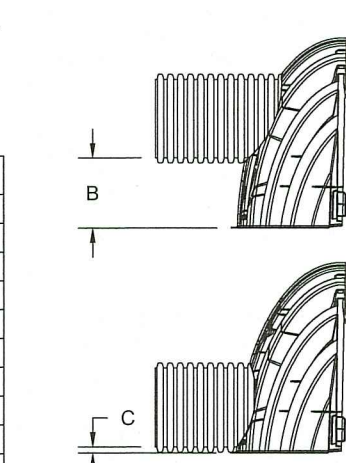
<b>NOMINAL CHAMBER SPECIFICATIONS</b> SIZE (W X H X INSTALLED LENGTH) CHAMBER STORAGE MINIMUM INSTALLED STORAGE* WEIGHT (NOMINAL)	100.0" X 60.0" X 48.3" 106.5 CUBIC FEET 162.6 CUBIC FEET 125.0 lbs.	(2540 mm X 1524 mm X 1227 mm) (3.01 m <sup>3</sup> ) (4.60 m <sup>3</sup> ) (56.7 kg)
<b>NOMINAL END CAP SPECIFICATIONS</b> SIZE (W X H X INSTALLED LENGTH) END CAP STORAGE MINIMUM INSTALLED STORAGE* WEIGHT (NOMINAL)	90.0" X 61.0" X 32.8" 39.5 CUBIC FEET 115.3 CUBIC FEET 90 lbs.	(2286 mm X 1549 mm X 833 mm) (1.12 m <sup>3</sup> ) (3.26 m <sup>3</sup> ) (40.8 kg)

\*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION AND BETWEEN CHAMBERS, 12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

PARTIAL CUT HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"  
PARTIAL CUT HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"  
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC4500IEPP01	6" (150 mm)	42.54" (1081 mm)	---
MC4500IEPP06B	---	---	0.86" (22 mm)
MC4500IEPP08T	8" (200 mm)	40.50" (1029 mm)	---
MC4500IEPP08B	---	---	1.01" (26 mm)
MC4500IEPP10T	10" (250 mm)	38.37" (975 mm)	---
MC4500IEPP10B	---	---	1.33" (34 mm)
MC4500IEPP12T	12" (300 mm)	35.69" (907 mm)	---
MC4500IEPP12B	---	---	1.55" (39 mm)
MC4500IEPP15T	15" (375 mm)	32.72" (831 mm)	---
MC4500IEPP15B	---	---	1.70" (43 mm)
MC4500IEPP16T	16" (400 mm)	29.36" (746 mm)	---
MC4500IEPP16TW	---	---	1.87" (50 mm)
MC4500IEPP18BW	---	---	---
MC4500IEPP24T	24" (600 mm)	23.05" (585 mm)	---
MC4500IEPP24TW	---	---	---
MC4500IEPP24B	---	---	2.26" (57 mm)
MC4500IEPP24BW	---	---	---
MC4500IEPP30BW	30" (750 mm)	---	2.95" (75 mm)
MC4500IEPP36BW	36" (900 mm)	---	3.25" (83 mm)
MC4500IEPP42BW	42" (1050 mm)	---	3.55" (90 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL



CUSTOM PREFABRICATED INVERTS ARE AVAILABLE UPON REQUEST  
INVERTED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) SIZE ON SIZE  
ECCENTRIC MANIFOLDS: CUSTOM INVERT LOCATIONS ON THE MC-4500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

MC-4500 TECHNICAL SPECIFICATIONS AND NOTES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY
1	08/23/2022	REVISED FOR RIDOT SUBMISSION	CPB	JF
2	08/25/2022	REVISED FOR RIDOT SUBMISSION	CPB	JF
3	10/06/2022	REVISED FOR SEWER SUBMISSION	CPB	JF
4	10/18/2022	REVISED PER RIDOT COMMENTS	CPB	JF
5	01/04/2023	REVISED PER SEWER REVIEW COMMENTS	JF	CPB
6	01/27/2023	REVISED PER RIDOT COMMENTS	CPB	JF



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PROJECT No.:	W211249
DRAWN BY:	CPB
CHECKED BY:	JF
DATE:	02/24/2022
CAD I.D.:	W211249-CVL-6

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

1119 DIVISION SITE, LLC

PROPOSED DRIVE-THRU CARWASH

MAP: 215 LOT: 7  
1119 DIVISION STREET,  
CITY OF WARWICK,  
KENT COUNTY,  
RHODE ISLAND

352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
Phone: (508) 480-8900

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**J.G. SWERLING**

PROFESSIONAL ENGINEER

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NEW HAMPSHIRE LICENSE No. 14696  
MAINE LICENSE No. 13816  
CONNECTICUT LICENSE No. 38785  
RHODE ISLAND LICENSE No. 11425

SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

C-905

REVISION 6 - 01/27/2023

MC-SERIES END CAP INSERTION DETAIL

N.T.S.

MC-4500 6" (150 mm) INSPECTION PORT DETAIL

N.T.S.

MC-4500 ISOLATOR ROW PLUS DETAIL

N.T.S.

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- INSPECTION PORTS (IF PRESENT)
  - REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
- REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
  - MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
  - FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (11 m) OR MORE IS PREFERRED
  - APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
  - VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



SCHEDULE A DESCRIPTION

A PARCEL OF LAND, TOGETHER WILL ALL BUILDINGS AND IMPROVEMENTS THEREON, SITUATED ON THE NORTHERLY SIDE OF DIVISION STREET IN THE CITY OF WARWICK, IN THE COUNTY OF KENT, STATE OF RHODE ISLAND, AND BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE NORTHERLY LINE OF DIVISION STREET, SAID POINT BEING NINETY-ONE (91) FEET, MORE OR LESS, WESTERLY FROM THE SOUTHWESTERLY CORNER OF LAND NOW OR FORMERLY OF RICHARD B. BARTON ET UX, AS MEASURED ALONG THE NORTHERLY LINE OF DIVISION STREET;

THENCE RUNNING NORTHERLY FOLLOWING THE LINE OF A STONE WALL FOUR HUNDRED TEN (410) FEET, MORE OR LESS, BOUNDED EASTERLY BY LAND NOW OR FORMERLY OF THE NARRAGANSETT ELECTRIC COMPANY;

THENCE TURNING AND RUNNING WESTERLY ALONG A STONE WALL ONE HUNDRED (100) FEET, MORE OR LESS, TO A CORNER, BOUNDED NORTHERLY BY SAID LAND NOW OR FORMERLY OF THE NARRAGANSETT ELECTRIC COMPANY;

THENCE TURNING AND RUNNING SOUTHERLY IN A LINE PARALLEL WITH THE EASTERLY LINE OF THE WITHIN DESCRIBED PARCEL OF LAND TO THE NORTHERLY LINE OF DIVISION STREET FOR A DISTANCE OF FOUR HUNDRED TEN (410) FEET, MORE OR LESS, BOUNDED WESTERLY IN PART BY SAID LAND NOW OR FORMERLY OF THE NARRAGANSETT ELECTRIC COMPANY AND IN PART BY LAND NOW OR FORMERLY OF JT DEVELOPMENT PARTNERS, LLC;

THENCE TURNING AND RUNNING EASTERLY, BOUNDED SOUTHERLY BY DIVISION STREET, FOR A DISTANCE OF ONE HUNDRED (100) FEET TO THE POINT OF BEGINNING.

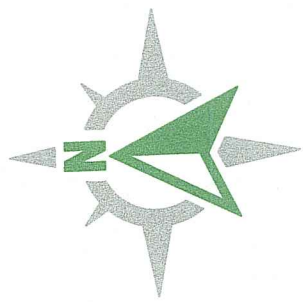
EXCEPTING THEREFROM THAT PORTION OF SAID PREMISES AS WAS TAKEN BY THE STATE OF RHODE ISLAND FOR HIGHWAY PURPOSES BY CONDEMNATION PLAT # 1498.

ALTA/NSPS LAND TITLE SURVEY NOTES

1. THE ADDRESS OF PARCEL IS 1119 DIVISION STREET, WARWICK, RHODE ISLAND.
2. THERE WERE NO PARKING SPACES OBSERVED AT THE TIME OF THE FIELD SURVEY.
3. THE PARCEL HAS DIRECT ACCESS TO DIVISION STREET, A PUBLIC RIGHT OF WAY.
4. THERE WAS EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION AT THE TIME OF THE FIELD SURVEY.
5. RIGHT OF WAY LINES ADJACENT TO SUBJECT PARCEL ARE AS SHOWN.
6. THERE WAS EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS OBSERVED AT THE TIME OF THE FIELD SURVEY.
7. SURVEY BASED ON TITLE COMMITMENT #95561716, EFFECTIVE DATE JUNE 1, 2021 AT 8:00AM BY FIDELITY NATIONAL TITLE INSURANCE COMPANY

SCHEDULE B EXCEPTIONS:

8. RIGHTS OF OTHERS TO USE THE SERVICE ROAD SHOWN ON HIGHWAY PLAT 1498, WHICH SERVICE ROAD PROVIDES THE LAND ACCESS TO DIVISION STREET.  
RESPONSE: SFFRCTS SUBJECT PARCEL, SHOWN ON SURVEY.



LEGEND	
	WATER LINE
	SEWER LINE
	SEWER FORCE MAIN
	GAS LINE
	ELECTRIC LINE
	OVERHEAD WIRES
	DRAINAGE LINE
	MINOR CONTOUR LINE
	MAJOR CONTOUR LINE
	PROPERTY LINE
	ASSESSORS LINE
	TREE LINE
	GUARDRAIL
	FENCE
	RETAINING WALL
	STONE WALL
	DEED BOOK/PAGE
	ASSESSOR'S PLAT
	HANDICAPPED
	NOW OR FORMERLY
	LANDSCAPING
	RECORD
	CHORD ANGLE
	NAIL/SPIKE
	DRILL HOLE
	IRON ROD/PIPE
	BOUND
	SIGN POST
	SEWER MANHOLE
	SEWER CLEANOUT
	HYDRANT
	IRRIGATION VALVE
	UNKNOWN MANHOLE
	BOLLARD
	SOIL EVALUATION
	CATCH BASIN
	DOUBLE CATCH BASIN
	WATER VALVE
	GAS VALVE
	WETLAND FLAG
	DRAINAGE MANHOLE
	FLARED END SECTION
	GUY POLE
	ELECTRIC MANHOLE
	UTILITY/POWER POLE
	LIGHTPOST
	WELL
	MONITORING WELL
	BENCH MARK
	TREE



LOCUS MAP Not To Scale

GENERAL NOTES

1. THE PARCEL IS FOUND ON ASSESSOR'S PLAT 215, LOT 7 IN THE CITY OF WARWICK, KENT COUNTY, RHODE ISLAND.
2. THE OWNER PER DEED BOOK 6516, PAGE 279 IS SMITHBORO PROPERTIES, LLC.
3. THIS SITE IS LOCATED IN FEMA FLOOD ZONE X. REFERENCE FEMA FLOOD INSURANCE RATE MAP 44003C0136G, MAP REVISED DECEMBER 3, 2010. THIS DESIGNATION MAY CHANGE BASED UPON REVIEW BY A FLOOD ZONE SPECIALIST OR BY THE RESULTS OF A COMPREHENSIVE FLOOD STUDY.
4. THE PARCEL IS ZONED GB BASED ON WARWICK'S GIS MAP. ANY OVERLAY DISTRICTS, SPECIAL PERMITS OR VARIANCES SPECIFIC TO THIS SITE ARE NOT TAKEN INTO CONSIDERATION. PLEASE CONTACT THE ZONING DEPARTMENT FOR ANY ADDITIONAL INFORMATION OR FOR A CERTIFICATE OF ZONING.
5. THERE WERE/WERE NO CEMETERIES, GRAVE SITES AND OR BURIAL GROUNDS OBSERVED WITHIN THE LIMITS OF THE SURVEY.
6. FIELD SURVEY PERFORMED BY DIPRETE ENGINEERING ON OCTOBER 23, 2020 AND UPDATED IN JULY 2021. THIS PLAN REFLECTS ON THE GROUND CONDITIONS AS OF THAT DATE.
7. ELEVATIONS SHOWN HEREON, IN U.S. SURVEY FEET, ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), AS DETERMINED BY DIPRETE ENGINEERING USING REAL TIME KINEMATIC G.P.S. OBSERVATIONS.

PLAN REFERENCES:

1. RHODE ISLAND HIGHWAY PLAT 1498
2. "PLAN OF SURVEY - LOT 8 ON AP 215, DIVISION STREET, WARWICK RI FOR THE FOOD SERVICE, THOMAS WRIGHT" BY: DAVID D. GARDNER & ASSOCIATES, INC. DATED MARCH 19, 2007. SCALE 1"=20'.

LIST OF POSSIBLE ENCROACHMENTS:

1. CLEARING AND CONSTRUCTION OVER PROPERTY LINE

SURVEYOR'S CERTIFICATE

TO: TPG COMPANIES, THE PROCACCIANT GROUP, LLC, ITS SUCCESSORS AND ASSIGNS, AS THEIR INTERESTS MAY APPEAR, FIDELITY NATIONAL TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 5, 6(A), 7(A), 7(B)(1), 7(C), 8, 9, 13, 14, 16, 17 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED BETWEEN OCTOBER 23, 2020 AND UPDATED IN JULY 2021, DATE OF PLAT OR MAP: JULY 14, 2021

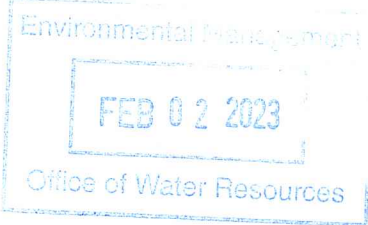
THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS:

- COMPREHENSIVE BOUNDARY SURVEY CLASS I
- DATA ACCUMULATION SURVEY CLASS III

THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PLAN IS AS FOLLOWS: ALTA SURVEY.

DRAFT

ROBERT G. BABCOCK, RIPLS #2504, COA #LS.000A160



SCALE: 1"=20'  
0 10' 20' 40'

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION #: 22-0458  
DATED: FEB 20 2023  
SEE LETTER OF SAME DATE  
Nancy L. Freeman

ALTA/NSPS LAND TITLE SURVEY

1119 DIVISION STREET

ASSESSOR'S PLAT 215, LOT 7

WARWICK, RHODE ISLAND

PREPARED FOR:

TPG COMPANIES

1140 RESERVOIR AVENUE

CRANSTON, RI 02920