

# DEVELOPMENT PLAN REVIEW

FOR

## 4087 TOWER HILL ROAD

### A.P. 42-2 LOT 26

IN

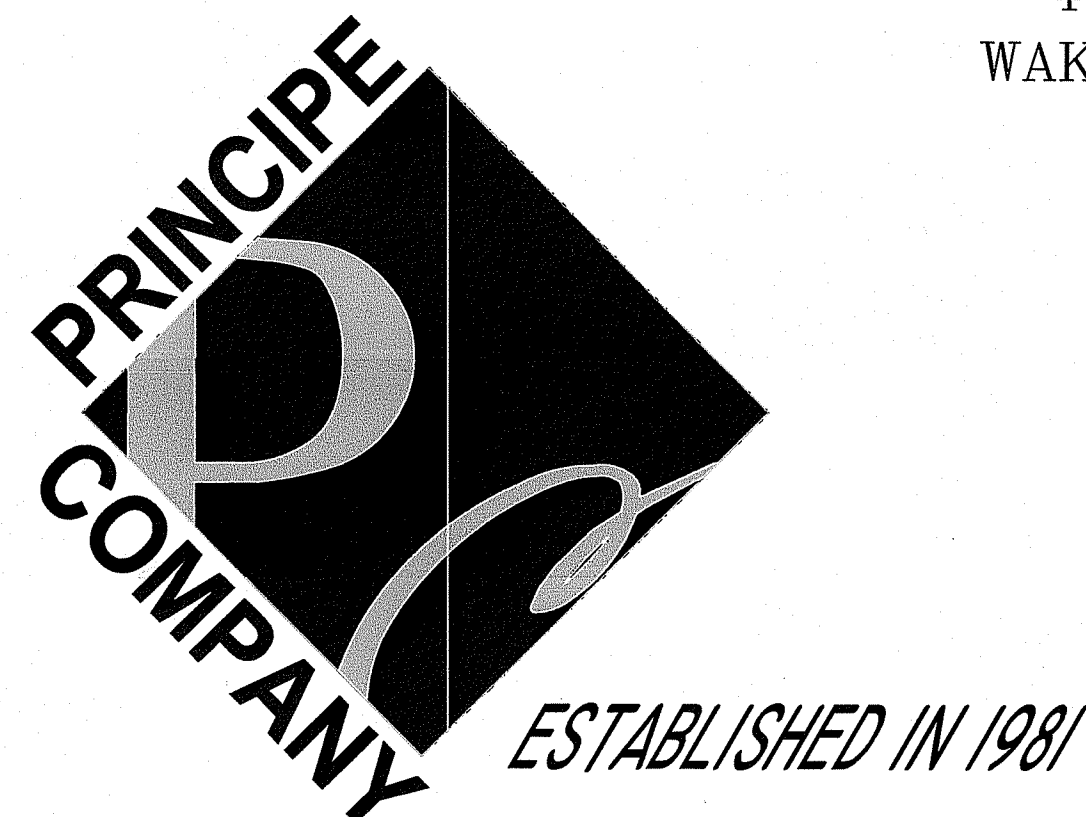
## SOUTH KINGSTOWN, RHODE ISLAND

**OWNER:**

M & S PROPERTY  
MANAGEMENT ASSOCIATES LLC  
491 MAIN STREET  
WAKEFIELD, RI 02879

**APPLICANT:**

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MANAGEMENT ASSOCIATES LLC  
491 MAIN STREET  
WAKEFIELD, RI 02879

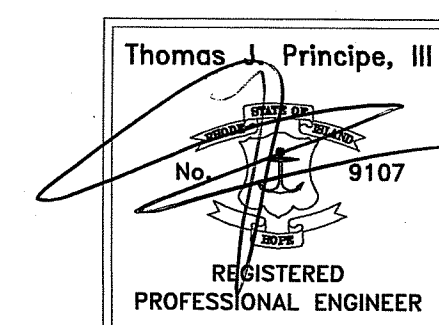


PREPARED BY:

**PRINCIPLE COMPANY, INC.**

ENGINEERING DIVISION  
PO BOX 298  
TIVERTON, RHODE ISLAND 02878  
401.816.5385

APRIL 14, 2021  
REVISED JUNE 1, 2021



**PROJECT DATA:**

**LOT COVERAGE NOTES:**  
TOTAL LOT AREA: 52,005 SF  
EXISTING CANOPY: 1,670 SF  
EXISTING PARKING SURFACE: 11,880 SF (LESS CANOPY COVER)  
TOTAL EXISTING IMPERVIOUS COVERAGE: 13,550 SF, 26.1%

**PROPERTY RE-DEVELOPMENT:**  
PROPOSED GARAGE 80'X40': 3,200 S.F.  
EXISTING CANOPY: 1,670 SF  
PROPOSED PARKING SURFACE: 8,496 SF (LESS CANOPY COVER)  
TOTAL PROPOSED IMPERVIOUS COVERAGE: 13,366 SF, 25.7%

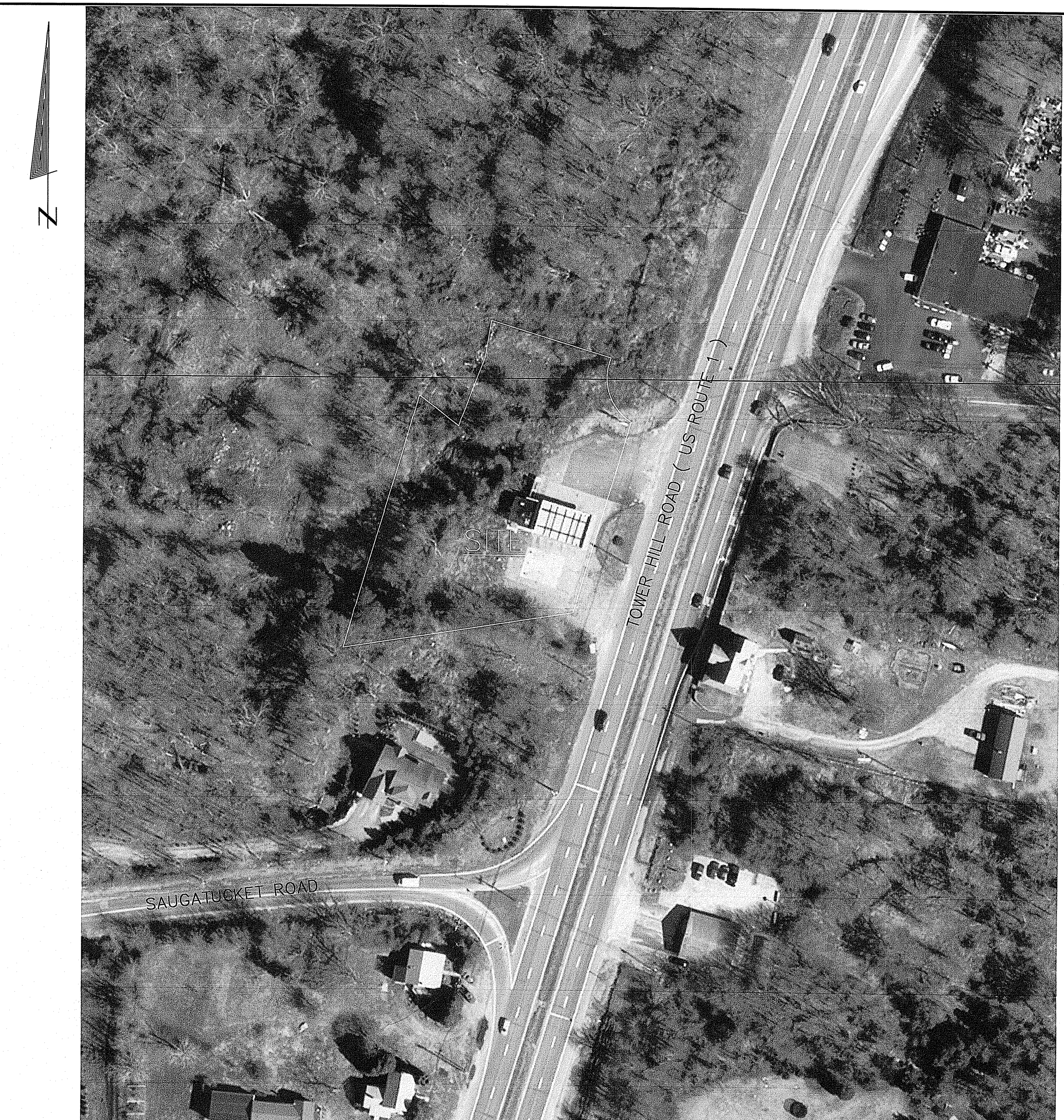
**RIDOT NOTES:**

- 1) THERE IS NO NET INCREASE OF RUNOFF TO THE STATE HIGHWAY AS A RESULT OF THE PROPOSED DEVELOPMENT.
- 2) ALL WORK TO BE DONE WITHIN THE STATE RIGHT OF WAY (ROW) SHALL CONFORM TO THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AMENDED MARCH 2018 WITH ALL REVISIONS AND ADDENDA. STANDARD DETAILS FOR THIS WORK ARE R.I. STANDARD DETAILS JUNE 2019 EDITION WITH ALL REVISIONS.
- 3) ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 2009, INCLUDING ALL REVISIONS.

**ZONING DESIGNATION:**

ZONING DISTRICT: R-80  
MINIMUM LOT AREA: 80,000 SQ. FT.  
MINIMUM LOT FRONTAGE: 200'  
FRONT YARD SETBACK: 50'  
MINIMUM SIDE YARD SETBACK: 40'  
MINIMUM REAR YARD SETBACK: 50'  
MAXIMUM BUILDING COVERAGE: 50%  
MAXIMUM BUILDING HEIGHT: 35'

EXISTING: PLAT: 42-2 LOT: 26  
LOT AREA : 52,005 SF, 1.19 ACRES



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JUN 14 2021 FILE # 21-0118  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

LOCUS MAP  
NOT TO SCALE

**LIST OF DRAWINGS**

- 1) TITLE SHEET
- 2) EXISTING CONDITIONS PLAN
- 3) PROPOSED CONDITIONS PLAN
- 4) SOIL EROSION, RUNOFF & SEDIMENTATION CONTROL PLAN
- 5) CONSTRUCTION DETAILS
- 6) WATERSHED MAP

**STREET INDEX**

TOWER HILL ROAD (PUBLIC- STATE HIGHWAY ROUTE 1)

VCC=VERTICAL CONCRETE CURB  
F.G.=FINISHED GRADE  
F.F.=FINISHED FLOOR  
T.O.C.=TOP OF CURB  
B.O.C.=BOTTOM OF CURB  
R&D=REMOVE & DISPOSE  
R&R=REMOVE & REPLACE  
R=X'=CURB/PAVEMENT RADIUS  
DS=DOWNSPOUT

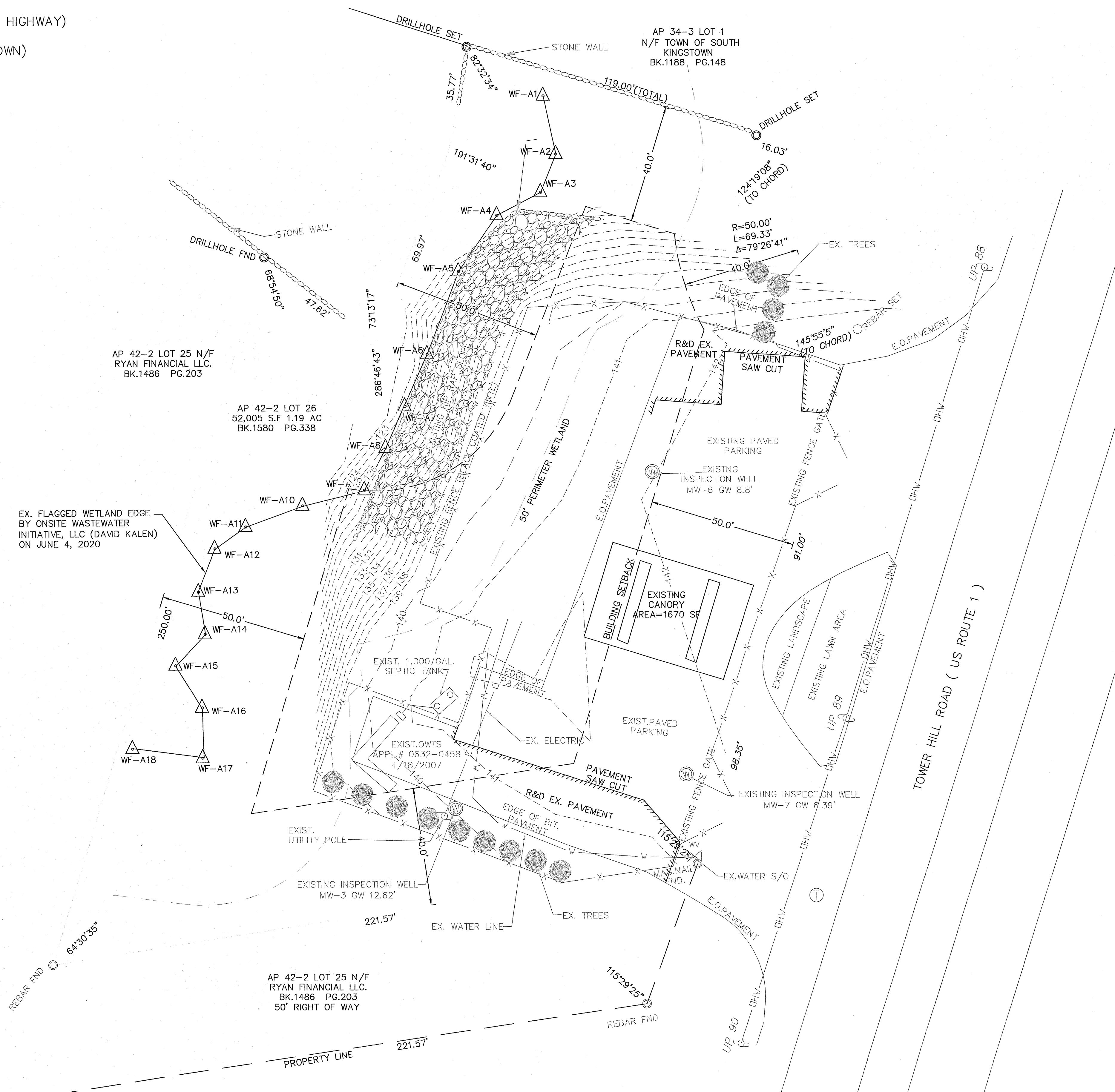
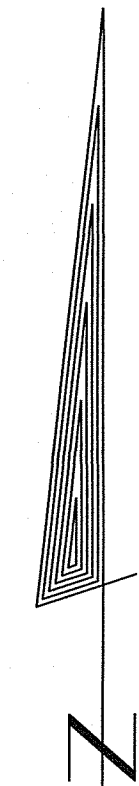
**PLAN SET LEGEND**

	EXISTING	PROPOSED
PERIMETER LINE	—————	—————
ABUTTER LINE	—————	—————
ROADWAY STATION	2+00	
FENCE (CHAINLINK)	-X-X-X-X-	
EASEMENT	-----	-----
CONTOUR	-122-	(123)
SURVEY BOUND	● □	
UTILITY POLE	⊕	
SIGN	⊥	
SAWCUT	//////	
LIGHT POLE	*	
OVERHEAD WIRE	-OHV-	-OHV-
CATCH BASIN	□	□
DRAIN MANHOLE	⊙	⊙
DRAINLINE	-D-D-	-D-D-
WATERLINE	-W-W-	-W-W-
WATER GATE VALVE	⊗	
SEWER MANHOLE	⊙	⊙
SEWERLINE	-S-S-	-S-S-
GAS LINE	-G-G-	-G-G-
GAS VALVE	⊗	
EROSION CONTROL	-----	-----

STREET INDEX

TOWER HILL ROAD (PUBLIC- STATE HIGHWAY)

SAUGATUCKET STREET (PUBLIC- TOWN)



- GENERAL NOTES:**
1. DEED REFERENCE: BK 1580, PAGE 0338.
  2. THIS PROPERTY FALLS WITHIN AN AREA OF MINIMAL FLOOD HAZARD - ZONE X AS MAPPED BY FIRM #44009C0204K DATED 4/3/2020.
  3. SOILS ON SITE ARE CLASSIFIED AS RAINBOW SILT LOAM (RoB) AND UDORTHENTS-URBAN LAND COMPLEX (UD) AS IDENTIFIED BY THE USDA RI SOIL SURVEY. THERE AREA CONTAINING RAINBOW SILT LOAM IS CONSIDERED PRIME FARMLAND SOIL.
  4. THERE ARE NO AREAS OF EXISTING, ACTIVE AGRICULTURAL USE ON THE SUBJECT PROPERTY.
  5. THERE ARE NO HISTORIC CEMETERIES PRESENT ON THE SUBJECT PROPERTY.
  6. THE SUBJECT PARCEL IS NOT LOCATED WITHIN A NATURAL HERITAGE AREA AS DEFINED BY RIDEM.
  7. THE SUBJECT PARCEL DOES NOT CONTAIN ANY UNIQUE NATURAL FEATURES.
  8. THE SUBJECT PARCEL IS NOT LOCATED WITHIN ANY SPECIAL AREA MANAGEMENT PLAN OF THE RI CRMC.
  9. THE SUBJECT PARCEL IS NOT LOCATED WITHIN THE TOWN OF SOUTH KINGSTOWN GROUNDWATER PROTECTION OVERLAY DISTRICT.
  10. THE SUBJECT PARCEL IS LOCATED WITHIN THE INDIAN BROOK TMDL.
  11. THE SUBJECT PARCEL IS NOT LOCATED WITHIN AN OWTS CRITICAL RESOURCE AREA AS DEFINED BY RIDEM.
  12. THE SUBJECT PARCEL IS NOT LOCATED WITHIN A DRINKING WATER SUPPLY WATERSHED AS DEFINED BY RIDEM.
  13. THE DEVELOPMENT PARCEL IS NOT LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES.
  14. THE SUBJECT PROPERTY IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, RESTRICTIONS, RESERVATIONS OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY A FULL EXAMINATION OF THE TITLE.
  15. THE SUBJECT PROPERTY IS CURRENTLY SERVICED BY A PRIVATE WELL AND OWTS. THE PROPERTY PLANS TO CONTINUE USE OF THESE FACILITIES.
  16. THE LOCATION AND DEPTH OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE LATEST AVAILABLE INFORMATION. THE UTILITY LOCATIONS ARE APPROXIMATE AND MAY NOT BE ALL INCLUSIVE. THE CONTRACTOR SHALL CHECK AND VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND "DIG-SAFE" MUST BE NOTIFIED PRIOR TO COMMENCING ANY CONSTRUCTION OPERATIONS. RESTORATION AND REPAIR OF DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH NO ADDITIONAL COST THE OWNER. NO EXCAVATION SHALL COMMENCE UNTIL ALL INVOLVED UTILITY COMPANIES AND/OR TOWN WHOSE FACILITIES MIGHT BE AFFECTED BY ANY WORK TO BE PERFORMED BY THE CONTRACTOR ARE NOTIFIED AT LEAST 72 HOURS IN ADVANCE.

**LOT COVERAGE NOTES:**

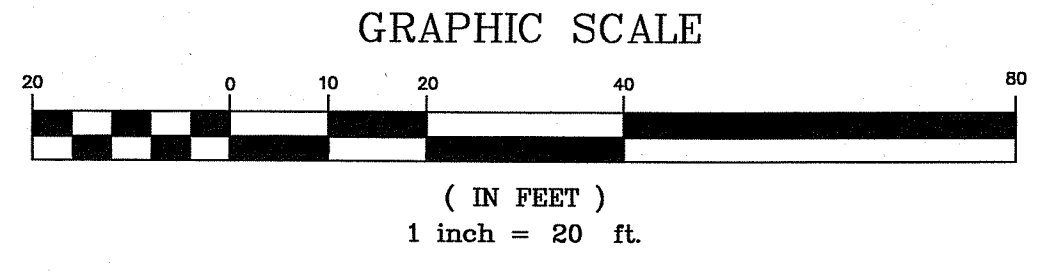
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 Nancy L. Freeman

**ZONING DESIGNATION:**

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 MAXIMUM BUILDING HEIGHT 35'

**OWNER/APPLICANT:**  
 M & S PROPERTY MANAGEMENT ASSOCIATES LLC  
 491 MAIN STREET  
 WAKEFIELD, RI 02879



**PLAN REFERENCE:**

"DEVELOPMENT PLAN FOR PROPOSED PARKING GARAGE" PREPARED FOR STEVEN SMITH, M&S PROPERTY MANAGEMENT ASSOC., LLC, LOCATION 4087 TOWER HILL ROAD A.P. 42-2 / LOT 26 SOUTH KINGSTOWN, RI BY ENVIRONMENTAL PLANNING AND SURVEYING, INC. DATED 5/25/18 WITH MOST CURRENT REVISION 7/13/18.

**EXISTING CONDITIONS PLAN & SITE PREPARATION**

Thomas J. Principe, III  
 REGISTERED PROFESSIONAL ENGINEER  
 No. 9107

**PRINCIPLE COMPANY, INC.**  
 ENGINEERING DIVISION  
 PO BOX 298  
 TIVERTON, RI 02878  
 401-265-1090  
 ESTABLISHED IN 1941

**REVISIONS**

No.	DATE	DRWN	CHKD
1	06/01/21	KAB	TJP

**DEVELOPMENT PLAN REVIEW**  
 for  
**4087 TOWER HILL ROAD**  
 AP 42-2, LOT 26  
 in  
 SOUTH KINGSTOWN, RHODE ISLAND

SCALE: 1"=20' SHEET NO: 2 OF 6  
 DRAWN BY: JAR DESIGN BY: JAR CHECKED BY: TJP  
 DATE: 4/14/21 PROJECT NO.: LD\_2020-8

**STREET INDEX**

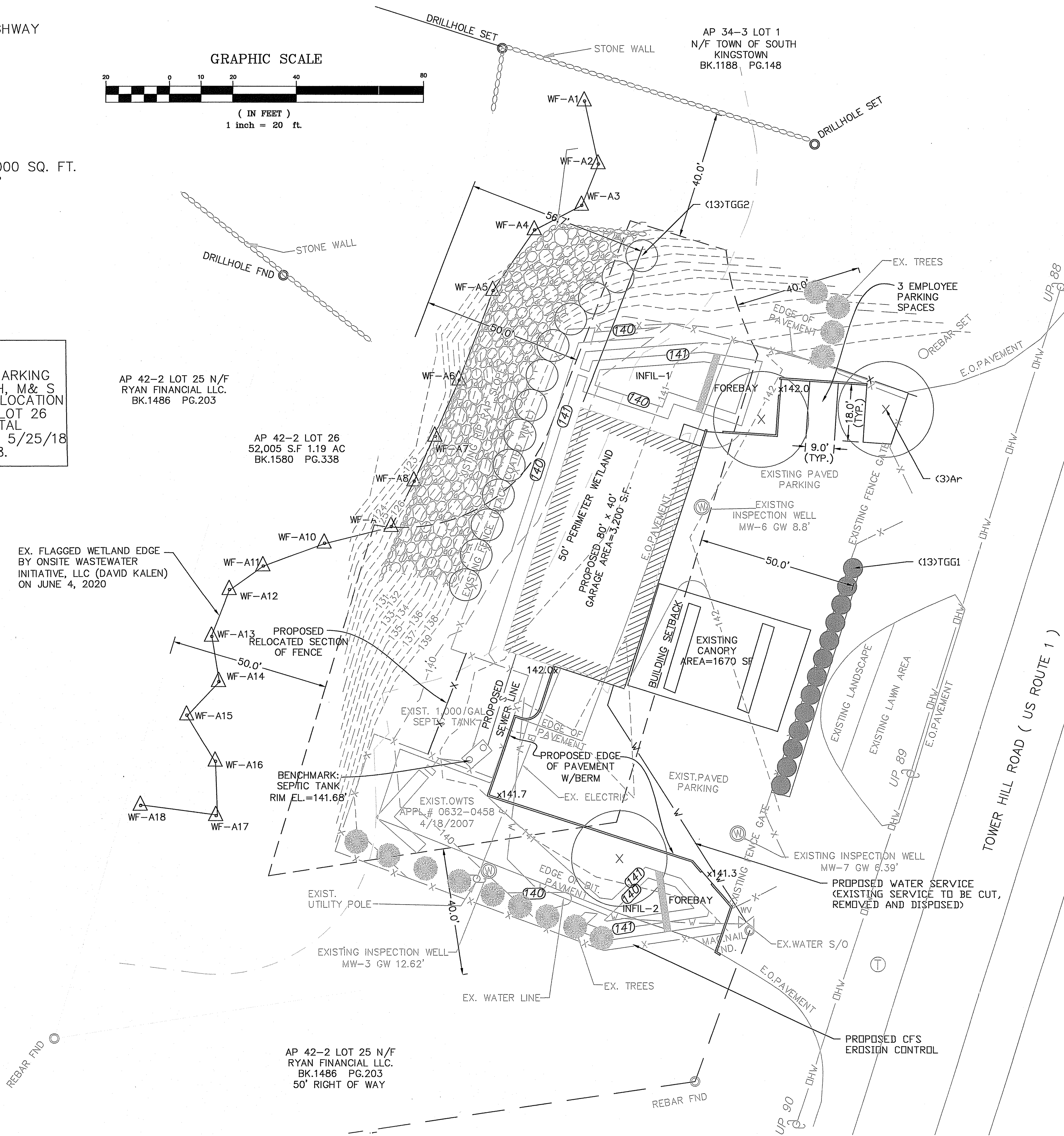
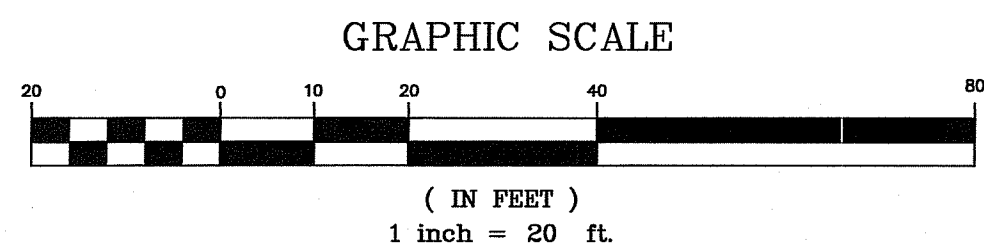
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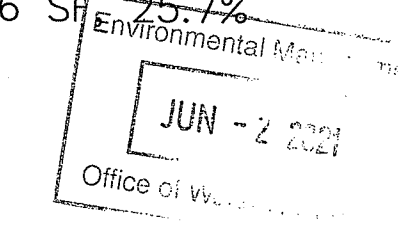
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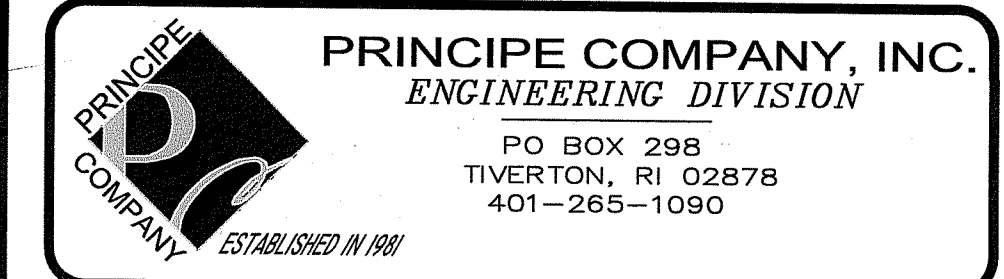
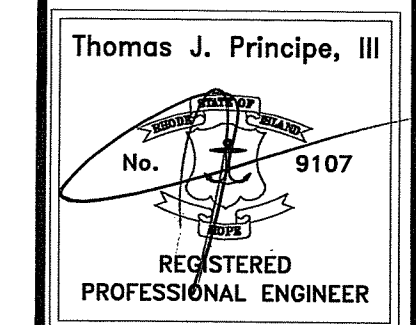


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**MASTER PLANT SCHEDULE**

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
Ar	3	Acer rubrum	Red maple	2.5-3" cal.	B&B	6' STD.
TGG1	13	Thuja plicata Green Giant	Green giant arbor-vitae	5-6'	B&B	6' o.c.
TGG2	13	Thuja plicata Green Giant	Green giant arbor-vitae	4-5'	B&B	10' o.c.



**REVISIONS**

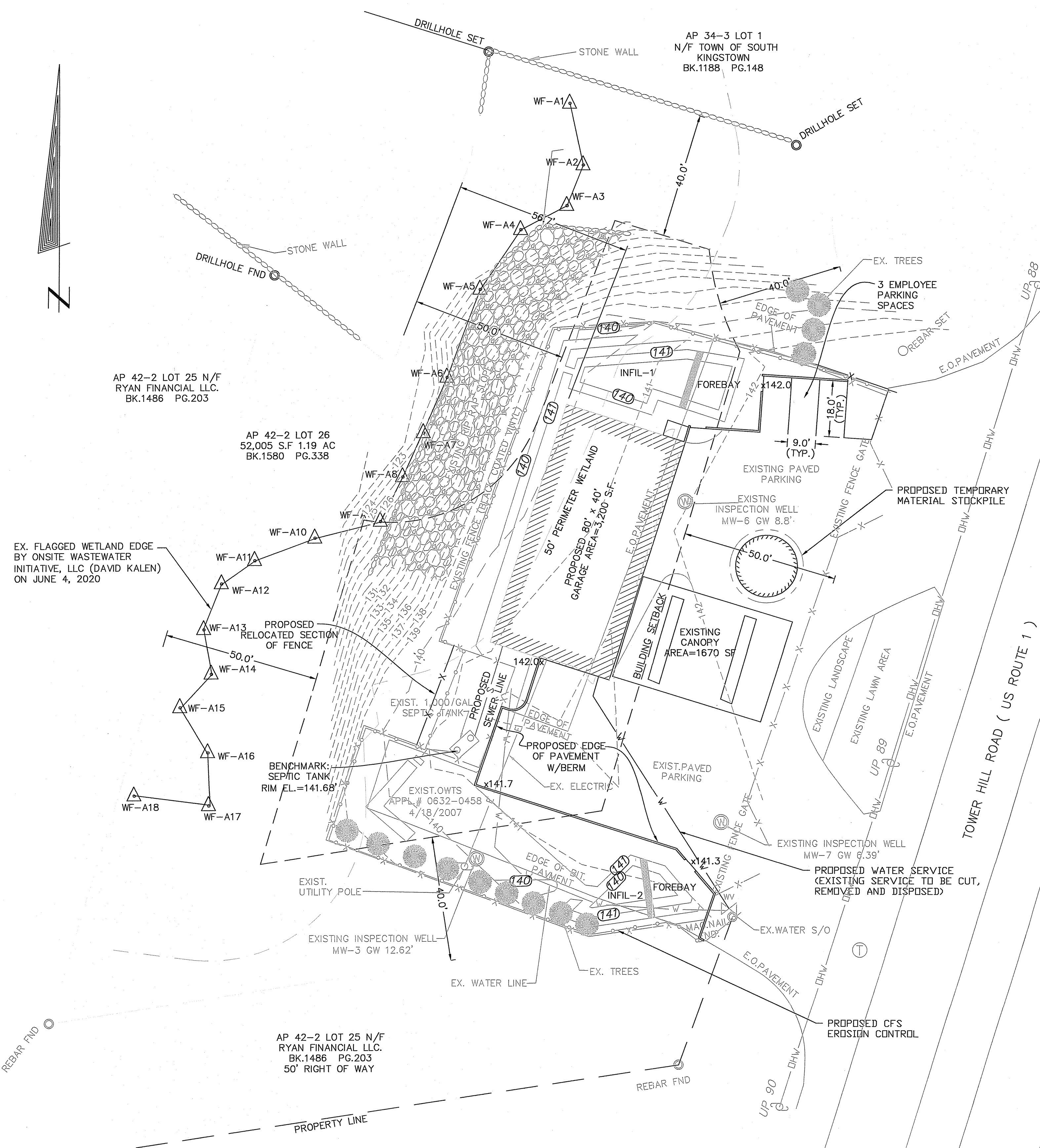
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SCALE: 1"=20' SHEET NO: 3 OF 6  
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TOWER HILL ROAD (PUBLIC- STATE HIGHWAY ROUTE 1)



- EROSION CONTROL AND SEDIMENT CONTROL PLAN:**
- PRIOR TO THE COMMENCEMENT OF ANY CLEARING, GRUBBING, DEMOLITION OR EARTHWORK ACTIVITY, TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE PLANS ARE TO BE INSTALLED BY THE CONTRACTOR.
  - CONSTRUCTION ACCESS STABILIZATION ENTRANCE PADS ARE TO BE INSTALLED PRIOR TO THE COMMENCEMENT OF SITE GRUBBING OR EARTHWORK ACTIVITY.
  - EXISTING CATCH BASINS ARE TO BE PROTECTED WITH HAY BALES AND/OR SILT SACS PRIOR TO THE START OF SITE GRUBBING, EARTHWORK OR UNDERGROUND UTILITY AND DRAINAGE INFRASTRUCTURE INSTALLATION TO SERVE THE DEVELOPMENT SITE.
  - THE PROJECT CONSTRUCTION SEQUENCE, TO THE EXTENT PRACTICAL, SHOULD REQUIRE THE INSTALLATION OF DOWN GRADE AND OFF SITE STORM DRAINAGE SYSTEM IMPROVEMENTS BEFORE THE START OF SITE GRUBBING AND EARTHWORK ACTIVITY.
  - TEMPORARY SITE SLOPE TREATMENTS FOR SOIL STABILIZATION SHALL CONSIST OF HAY, STRAW, FIBER MULCH, RIP RAP OR PROTECTIVE COVERS SUCH AS MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, AND EXCELSIOR OR EQUAL PRODUCTS). THESE AND OTHER ACCEPTABLE MEASURES SHALL BE INCORPORATED INTO THE SITE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.
  - CONSTRUCTION SITES ARE DYNAMIC, THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND REPLACEMENT OF EROSION CONTROLS, SOIL STABILIZATION AND SEDIMENT CONTROL DEVICES UNTIL AN ACCEPTABLE PERMANENT VEGETATIVE GROWTH IS ESTABLISHED. THE CONTRACTOR SHALL MAINTAIN A DETAIL LOG OF ALL EROSION CONTROL INSPECTIONS, COMPLAINTS RELATED TO EROSION OR SEDIMENT, AND CORRECTIVE REMEDIAL MEASURES TAKEN THROUGHOUT THE COURSE OF THE PROJECT CONSTRUCTION.
  - SOIL EROSION AND SEDIMENT CONTROL IS NOT LIMITED TO DAMAGES CAUSED BY WATER BUT ALSO INCLUDES EROSION AND SEDIMENT RESULTING FROM WINDS. MEASURES, SUCH AS TEMPORARY GROUND COVERS, WATER AND CALCIUM APPLICATIONS ARE TO BE UNDERTAKEN AS NEEDED TO MINIMIZE WIND RELATED SOIL AND DUST CONTROL.
  - STOCK PILES OF EARTH MATERIALS SHALL NOT BE LOCATED NEAR WATERWAYS OR WETLANDS. STOCK PILES SHALL HAVE SIDE SLOPES NO GREATER THAN THIRTY PERCENT (30%). STOCK PILES SHALL BE SURROUNDED ON THE DOWN GRADIENT OF THE EXISTING GROUND SURFACE BY HAY BALES OR SILT FENCE. THE STOCK PILES SHALL ALSO BE SEEDED OR STABILIZED IN SOME MANNER TO PREVENT SOIL EROSION.
  - THE SMALLEST POSSIBLE SITE AREAS SHALL BE DISTURBED OR EXPOSED AT ONE TIME AND DENUDED SLOPES OR WORK AREAS SHALL NOT BE LEFT EXPOSED FOR EXCESSIVE PERIODS OF TIME, SUCH AS INACTIVE PERIODS OR SITE WORK SHUT DOWNS.
  - TO THE EXTENT POSSIBLE, ALL DISTURBED AREAS MUST BE SEEDED OR STABILIZED WITHIN THE CONSTRUCTION SEASON. STABILIZATION OF ONE FORM OR ANOTHER SHALL BE ACHIEVED WITHIN FIFTEEN (15) DAYS OF FINAL GRADING.
  - EXPOSED STEEP OR LONG SLOPES SHOULD BE TREATED WITH "CRIMPING" OR "TRACKING" TO REDUCE EROSION AND SEDIMENT AND TO TACK DOWN SEEDING OR MULCH APPLICATIONS.
  - IF CONCRETE IS TO BE USED ON SITE, THE CONTRACTOR MUST ESTABLISH AND MAINTAIN SPECIFIC WASHOUT AREAS FOR THE CONCRETE TRUCKS WITH APPROPRIATE PROTECTION CONTROLS.
  - THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING COLLECTION AND STORAGE LOCATIONS ON-SITE FOR ALL CONSTRUCTION DEBRIS AND TRASH SO THAT THIS MATERIAL DOES NOT BECOME A NEIGHBORHOOD NUISANCE.
  - EXISTING TREES AND VEGETATION WILL BE RETAINED WHENEVER FEASIBLE.
  - SITE SOIL EROSION AND SOIL STABILIZATION AND SEDIMENT CONTROLS MUST CONFORM TO ALL REQUIREMENTS OF THE APPLICABLE LOCAL COMMUNITY ORDINANCES AND STATE REGULATIONS.

- ORDER OF PROCEDURE:**
- PRIOR TO ANY CLEARING AND GRUBBING OR ANY ROUGH GRADING, TEMPORARY HAYBALES AND SANDBAGS SHALL BE PLACED OUTSIDE THE LIMITS OF CONSTRUCTION AS PER THE PLANS (I.E. ALONG ROADWAYS, STREAM BANKS, CRITICAL AREAS, ETC.).
  - ALL EROSION AND SEDIMENTATION CONTROL STRUCTURES SHALL BE PERIODICALLY MAINTAINED AS PER THE RESPECTIVE PROGRAMS FOR TEMPORARY CONTROL.
  - IF WORK PROGRESS IS TO BE INTERRUPTED AT ANY TIME, REFERENCE EROSION AND SEDIMENTATION PROGRAMS FOR TEMPORARY CONTROL.
  - TEMPORARY HAYBALES AND SANDBAGS ALONG AND AT THE ENDS OF ROADWAYS MAY ALSO BE REMOVED AFTER FINAL SOIL STABILIZATION HAS BEEN ACHIEVED AND APPROVED.
  - HAYBALES LOCATED AT DRAINAGE OUTLETS MUST REMAIN UNTIL SUCH TIME THAT A DESIRABLE STAND OF GRASS OR COVER HAS BEEN ESTABLISHED AND THE PROJECT RECEIVES A FAVORABLE APPROVAL FOR FINAL ACCEPTANCE FROM THE ENGINEER.

- SOIL STABILIZATION PROGRAM**
- DENUDED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON.
  - ALL DISTURBED SLOPES, EITHER NEWLY CREATED OR EXPOSED PRIOR TO OCTOBER 15, SHALL BE SEEDED OR PROTECTED BY THAT DATE, FOR ANY WORK COMPLETED DURING EACH CONSTRUCTION YEAR.
  - THE TOPSOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS AND SHALL CONFORM WITH R.I. STD SPECIFICATION M 18.
  - THE SEED MIX SHALL BE INOCULATED WITHIN 24 HOURS, BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULUM FOR EACH VARIETY.
  - THE DESIGN MIX SHALL BE COMPRISED OF THE FOLLOWING PERMANENT SEEDING MIXTURES:

**A. MOVED AREA (ALL FLATS OR SLOPES LESS THAN 3:1)**

MIXTURE:	% BY WEIGHT:
RED FESCUE	75
KENTUCKY BLUEGRASS	15
COLONIAL BENTGRASS	5
PERENNIAL RYEGRASS	5
<b>TOTAL:</b>	<b>100 lbs/Ac.</b>

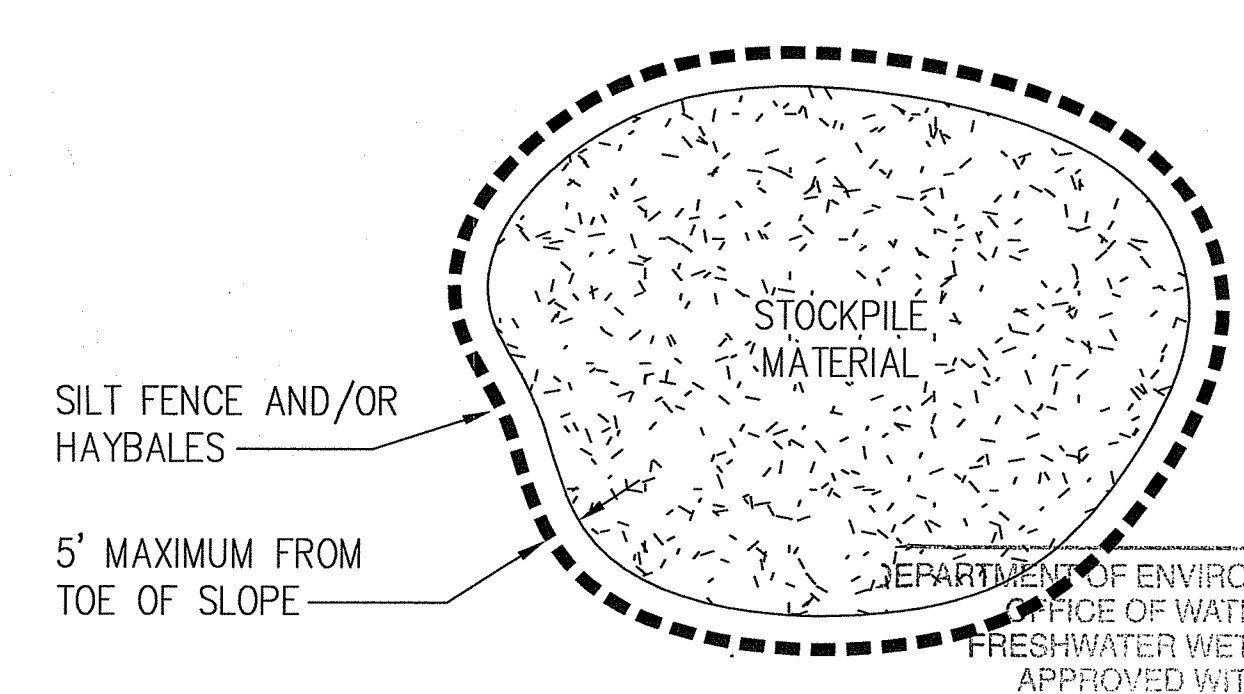
**B. UNMOWN AREA OR INFREQUENTLY MOWN (ALL SLOPES GREATER THAN 3:1)**

MIXTURE:	% BY WEIGHT:
RED FESCUE	75
COLONIAL BENTGRASS	5
PERENNIAL RYEGRASS	5
BIRDFOOT TREFLOIL	15
<b>TOTAL:</b>	<b>100 lbs/Ac.</b>

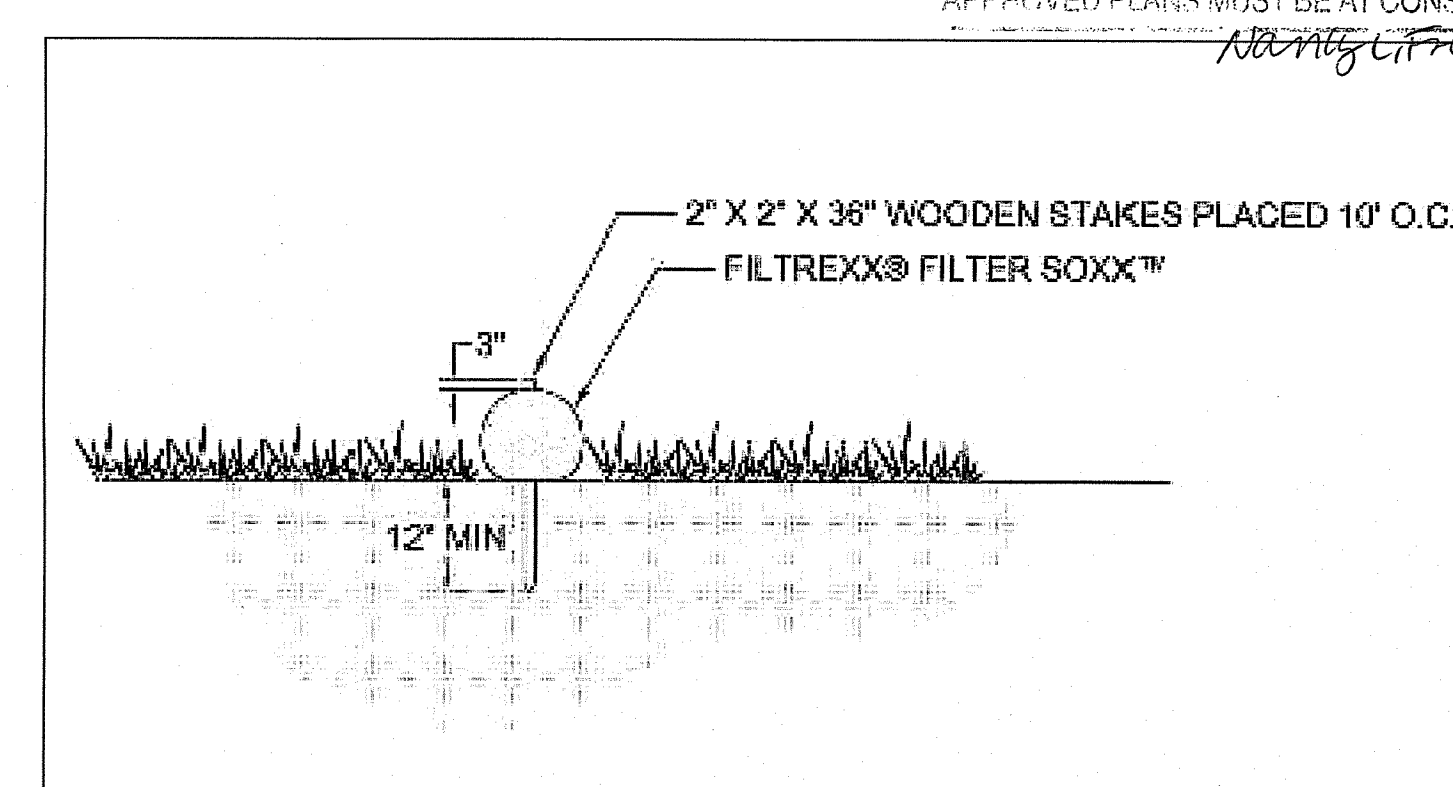
- TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW, OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS) THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.
- HAY OR STRAW APPLICATIONS SHOULD BE IN THE AMOUNT OF 3,000 - 4,000 lbs/ac.
- ALL HAYBALES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED. IF NEEDED, TEMPORARY SEEDING CAN HELP MINIMIZE THE EROSION. A TEMPORARY SEEDING GUIDE MUST BE INCLUDED AS A REFERENCE. THE FOLLOWING SPECIES ARE RECOMMENDED:

MIXTURE:	lbs./1,000 S.F.
ANNUAL RYEGRASS	1.0 - 1.5
PERENNIAL RYEGRASS	1.0 - 1.5
SUDAN GRASS	0.7 - 1.0
MILLET	0.7 - 1.0
WINTER RYE	3.0
OATS	0.5 - 5.0
WEEDING COVER GRASS	0.5 - 5.0

- THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE.
- ALL FILL SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH THE R.I.D.P.W. STD SPECIFICATIONS SECTION 202.
- STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN 15 DAYS OF FINAL GRADING.
- STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS, THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 30% AND STOCKPILES SHALL ALSO BE SEEDED AND/OR STABILIZED.
- ON BOTH STEEP AND LONG SLOPES CONSIDERATION SHALL BE GIVEN TO "CRIMPING" OR "TRACKING" TO TACK DOWN MULCH APPLICATIONS.
- REFERENCE THE SEDIMENTATION CONTROL PROGRAM AND ORDER OF PROCEDURE FOR PROPER COORDINATION
- THE DRAINAGE SYSTEM SHALL RECEIVE ONE FINAL CLEANING PRIOR TO ACCEPTANCE TO THE OVERALL PROJECT BY THE OWNER. SEDIMENTS SHALL BE DISPOSED OF IN A PROPER MANNER.



**STOCKPILE DETAIL**  
NOT TO SCALE



**OWNER/APPLICANT:**  
M & S PROPERTY MANAGEMENT  
ASSOCIATES LLC  
491 MAIN STREET  
WAKEFIELD, RI 02879

**PLAN REFERENCE:**  
"DEVELOPMENT PLAN FOR PROPOSED PARKING GARAGE" PREPARED FOR STEVEN SMITH, M & S PROPERTY MANAGEMENT ASSOC., LLC, LOCATION 4087 TOWER HILL ROAD A.P. 42-2 / LOT 26 SOUTH KINGSTOWN, RI BY ENVIRONMENTAL PLANNING AND SURVEYING, INC. DATED 5/25/18 WITH MOST CURRENT REVISION 7/13/18.

**SOIL EROSION, RUNOFF & SEDIMENTATION CONTROL PLAN**

Thomas J. Principe, III  
No. 9107  
REGISTERED PROFESSIONAL ENGINEER

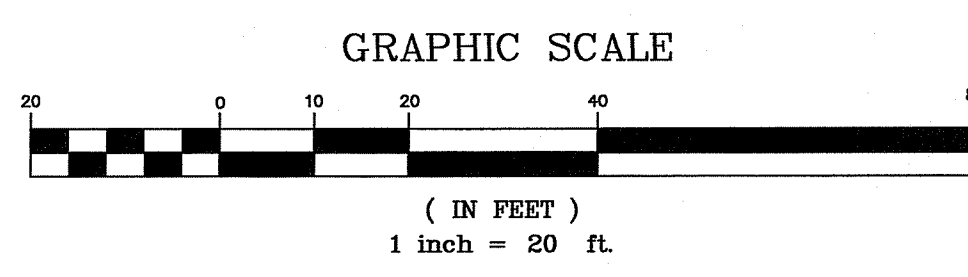
**PRINCIPLE COMPANY, INC.**  
ENGINEERING DIVISION  
PO BOX 298  
TIVERTON, RI 02878  
401-265-1080  
ESTABLISHED IN 1981

**REVISIONS**

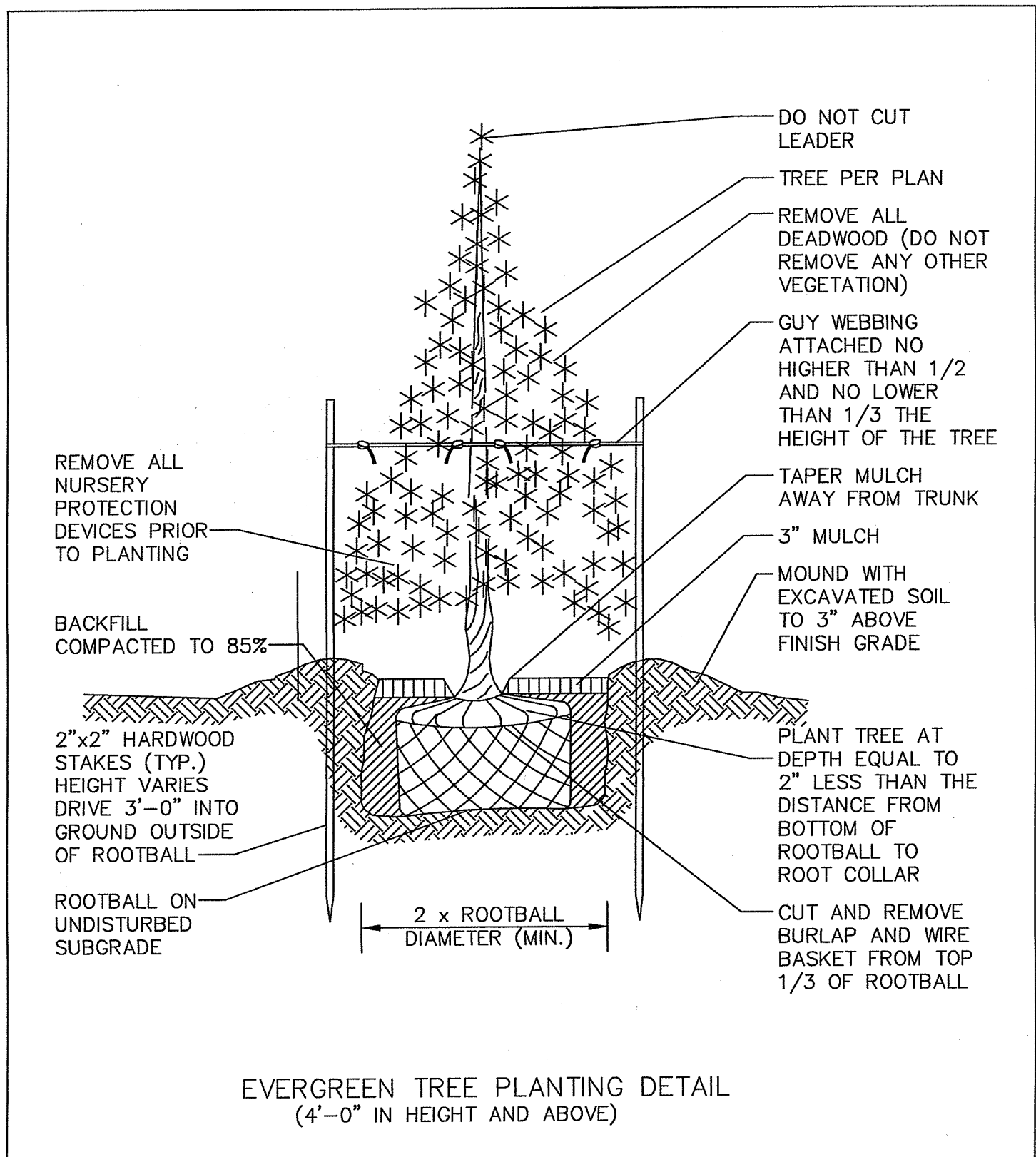
No.	DATE	DRWN	CHKD
1	06/01/21	KAB	TJP

**DEVELOPMENT PLAN REVIEW**  
for  
**4087 TOWER HILL ROAD**  
AP 42-2, LOT 26  
in  
SOUTH KINGSTOWN, RHODE ISLAND

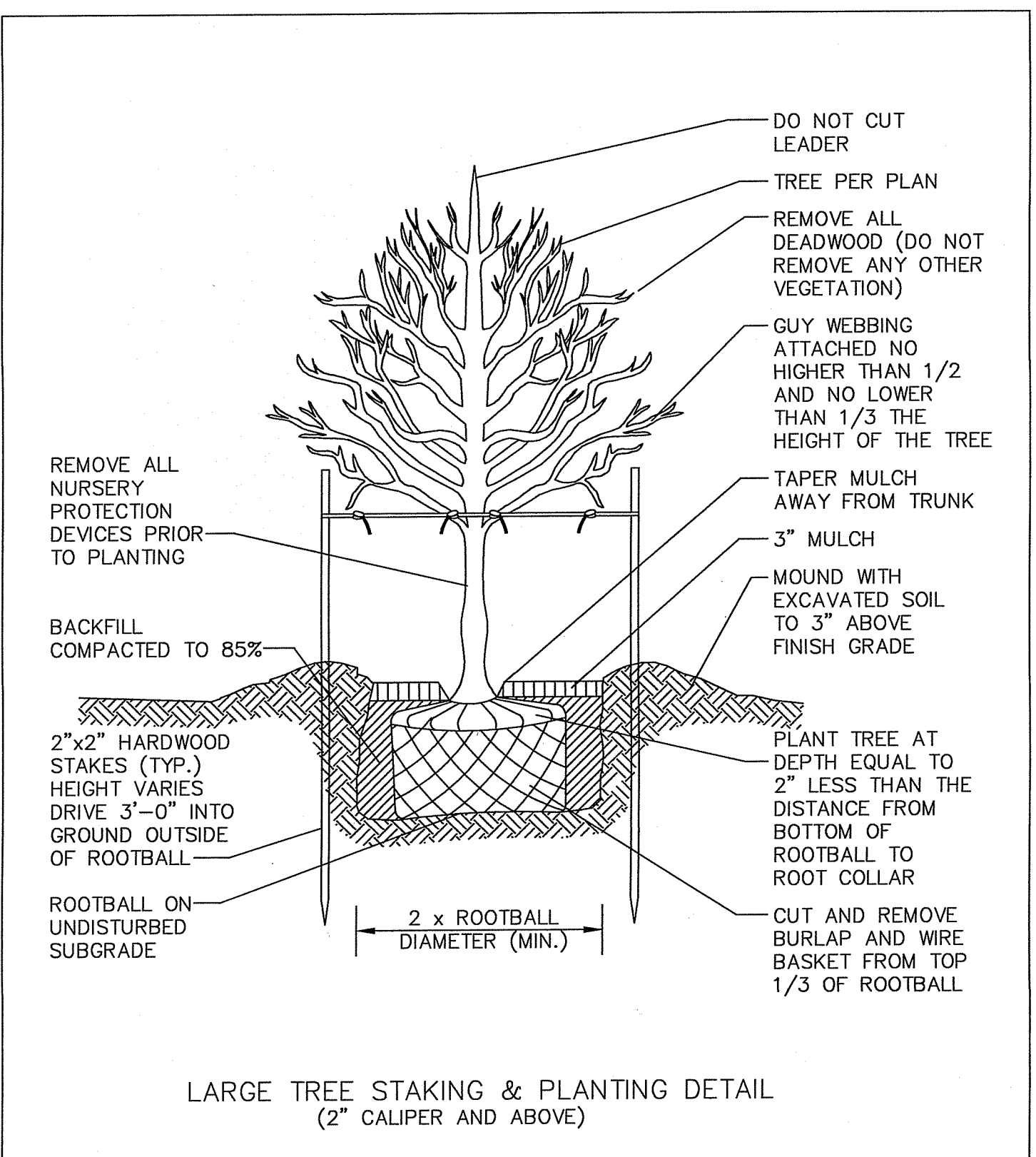
SCALE: 1"=20'	SHEET NO: 4 OF 6
DRAWN BY: JAR	DESIGN BY: JAR
DATE: 4/14/21	CHECKED BY: TJP
	PROJECT NO.: LD_2020-8



Environmental Management  
JUN - 2 2021  
Office of Water Resources



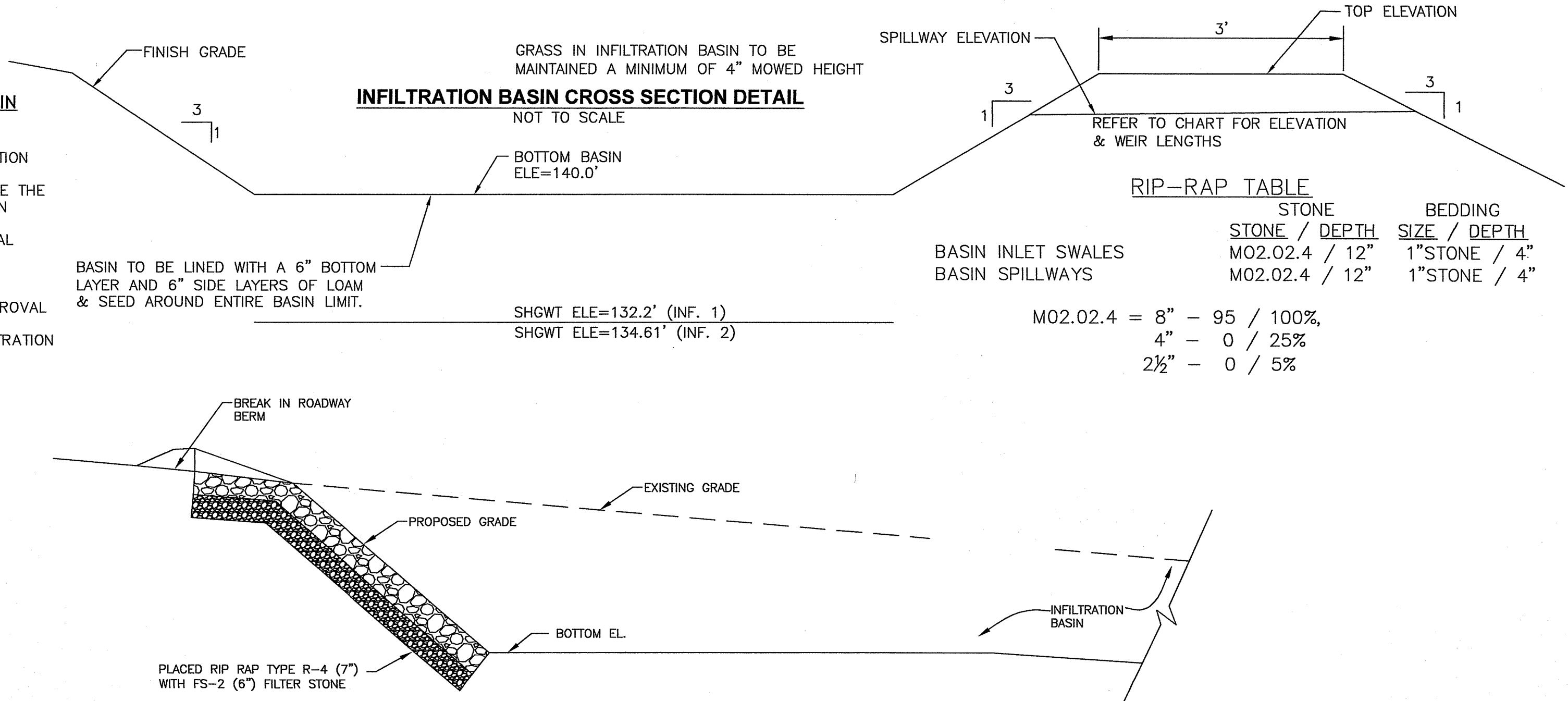
EVERGREEN TREE PLANTING DETAIL  
(4'-0" IN HEIGHT AND ABOVE)



LARGE TREE STAKING & PLANTING DETAIL  
(2" CALIPER AND ABOVE)

**INFILTRATION BASIN NOTES:**

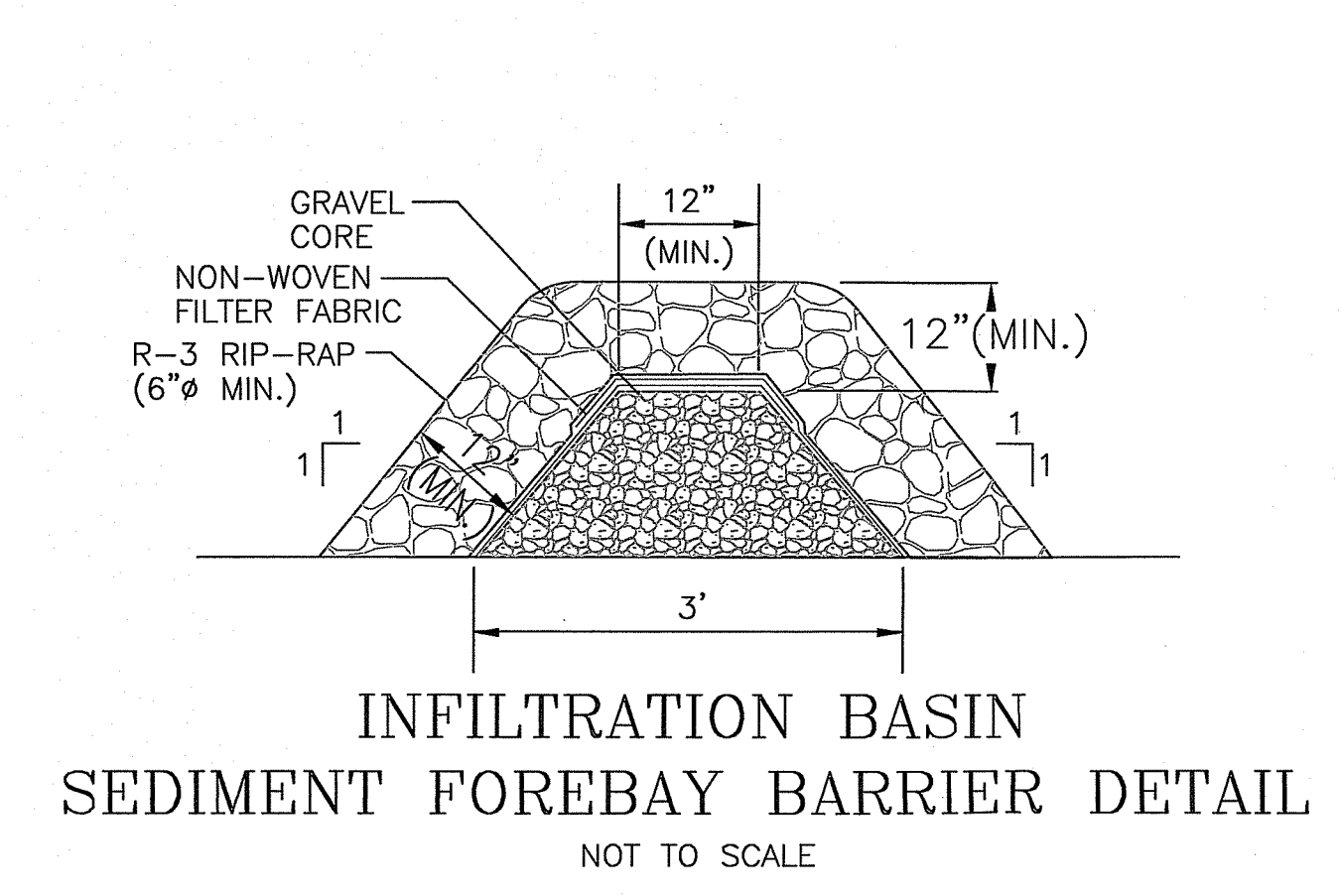
- 1) DURING CONSTRUCTION HEAVY EQUIPMENT SHALL NOT TRAVERSE THE INFILTRATION AREA IN ORDER TO PREVENT DETRIMENTAL COMPACTION.
- 2) SHOP DRAWING SUBMITTAL AND APPROVAL BY DESIGN ENGINEER REQUIRED FOR INFILTRATION BASIN PRIOR TO CONSTRUCTION.



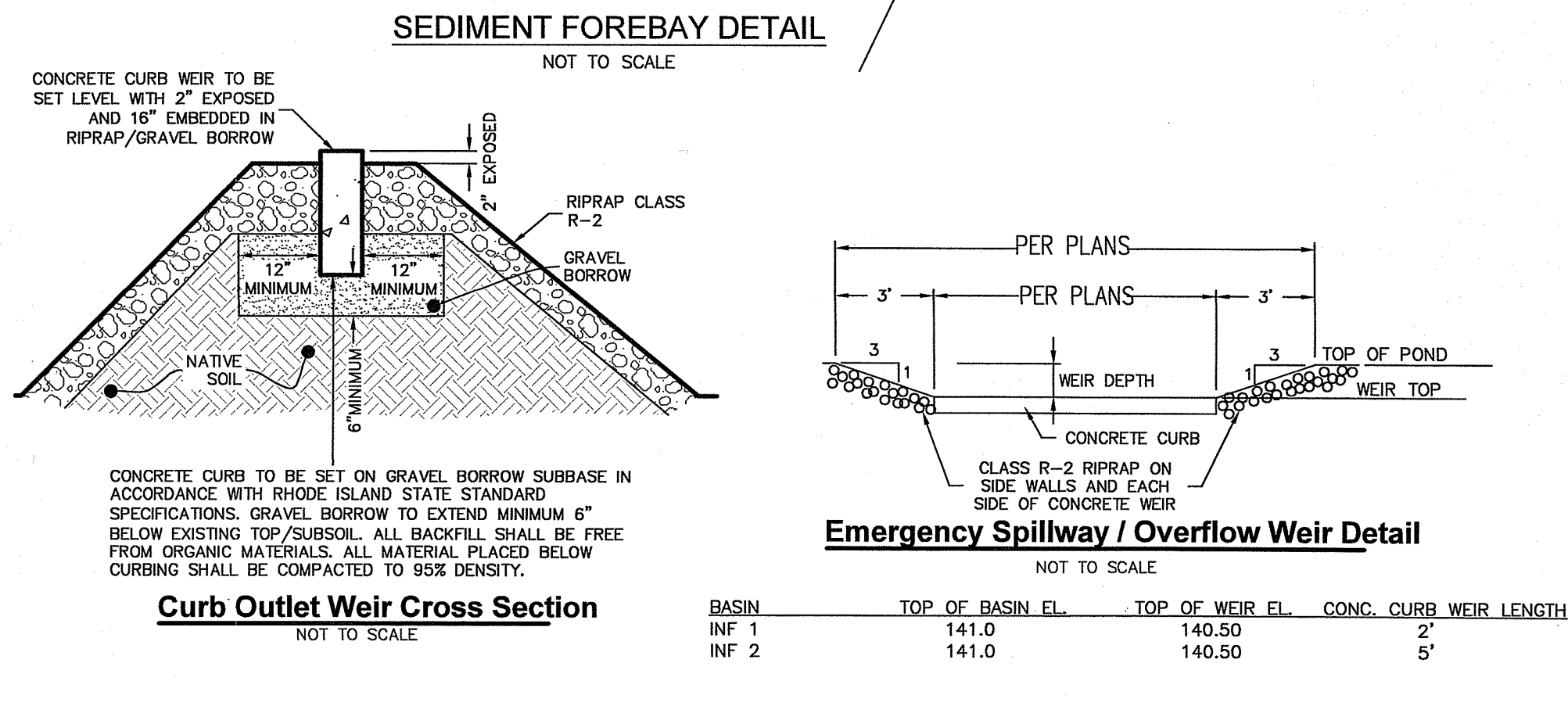
INFILTRATION BASIN CROSS SECTION DETAIL  
NOT TO SCALE

**RIP-RAP TABLE**

	STONE	BEDDING
	STONE / DEPTH	SIZE / DEPTH
BASIN INLET SWALES	MO2.02.4 / 12"	1"STONE / 4"
BASIN SPILLWAYS	MO2.02.4 / 12"	1"STONE / 4"
	MO2.02.4 = 8" - 95 / 100%,	
	4" - 0 / 25%	
	2 1/2" - 0 / 5%	



INFILTRATION BASIN SEDIMENT FOREBAY BARRIER DETAIL  
NOT TO SCALE



Curb Outlet Weir Cross Section  
NOT TO SCALE

BASIN	TOP OF BASIN EL.	TOP OF WEIR EL.	CONC. CURB WEIR LENGTH
INF 1	141.0	140.50	2'
INF 2	141.0	140.50	5'

**DRAINAGE AND UTILITY NOTES:**

1. UTILITY LOCATION VERIFICATION IS TO INCLUDE TEST HOLES AS NEEDED.
2. WATER MAINS AND APPURTENANCES, INCLUDING SERVICE CONNECTIONS SHALL BE INSTALLED IN CONFORMITY WITH THE SPECIFICATIONS OF THE BRISTOL COUNTY WATER AUTHORITY AND IN ACCORDANCE WITH THE TOWN'S MASTER OR STUDY WATER PLAN.
3. THE CONTRACTOR IS REQUIRED TO SCHEDULE AND COORDINATE WATER SERVICE INSTALLATIONS, SHUT DOWNS AND DISRUPTIONS WHICH AFFECT THE SITE AND SITE ADJACENT USERS WITH THE LOCAL WATER AUTHORITY AND THE LOCAL FIRE DEPARTMENT.
4. UNDERGROUND UTILITIES, ELECTRIC, TELEPHONE, FIRE ALARM CABLE, TELEVISION AND GAS SERVICES SHALL BE INSTALLED PER THE REQUIREMENTS OF THE APPLICABLE SITE UTILITY PROVIDER
5. METALLIC WARNING TAPE SHALL BE INSTALLED 12" ABOVE ALL STORM DRAIN AND OTHER UTILITIES.
6. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN THE INTEGRITY OF ALL EXISTING UTILITIES, STRUCTURES AND ABUTTING PROPERTIES. THE COST OF ANY REPAIR OR REPLACEMENT OF DAMAGED ITEMS SHALL BE BORNE BY THE CONTRACTOR.

**INFILTRATION BASIN MAINTENANCE SCHEDULE:**

1. Side-slopes, embankments, and the upper stage of the basin will be mowed at least once per growing season, to prevent unwanted woody growth. This storm water facility is to be managed for wildlife habitat, therefore, mowings will be conducted after mid August to prevent mortality to ground nesting birds and animals.
2. All trash and litter and other debris will be removed from the storm water facility including inlet and outlet structures. This will be accomplished at least twice per year, preferably spring and fall.
3. Sediments will be removed from the basin immediately following site stabilization and every year thereafter. Accumulated sediments may have to be removed more frequently if the sediment storage capacity of the forebays or sediment storage areas are within the last 10 percent of available capacity. Sediment removal within the basin will restore the original capacity and design depth.
4. Pools of stagnant water in infiltration basin indicates failure due to erosion and scouring of the basin bottom, particularly near an inlet device. This deficiency will be corrected immediately to prevent a nuisance habitat for insects, especially mosquitoes.
5. All outlet structures and outflow channels will be inspected annually. Inspections will be accomplished several times during the first six months of operation, especially after rainfall events to check for clogging or, conversely, too rapid of a release.
6. The grassed areas of the basin will be inspected at least twice per year to check for erosion problems. Problem areas must be reseeded immediately to stabilize exposed soils, thereby preventing erosion and potential clogging of outflow devices.
7. Repairs or replacement of inlet/outlet structures, rip-rap channels, fences, or other elements of the facility will be done within 30 days of deficiency reports. If an emergency situation is imminent then repair/replacement must be done immediately to avert failure or danger to nearby residents.
8. All sediment generated during construction and as a result of maintenance of the drainage system must be disposed of properly. Sediment shall not be disposed of in or near State or Federal regulated waters.
9. Records of the first two years of maintenance following construction shall be submitted to RIDEM Division of Water Resources. Maintenance records for subsequent years shall be kept on file and submitted to RIDEM, Division of Water Resources, upon request.
10. All drainage facilities will be maintained by a Homeowner's Association.

**LANDSCAPE NOTES:**

- 1) ALL PLANT MATERIAL TO CONFORM TO ANSI STANDARDS.
- 2) ALL PLANT MATERIAL TO RECEIVE THREE INCHES OF SHREDDED PINE BARK MULCH.
- 3) ALL PLANT MATERIAL TO BE GUARANTEED TO SURVIVE AT LEAST ONE FULL YEAR FROM DATE OF PLANTING.
- 4) ALL PLANT MATERIAL SUBJECT TO FIELD VERIFICATION OF LOCATION AND SPECIES.
- 5) THERE WILL BE NO PLANT MATERIAL SUBSTITUTIONS WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT.
- 6) DISTURBED SOILS WITHIN THE PROJECT LIMITS ARE TO BE LOAMED AND SEEDED WITH A MINIMUM OF 4" OF LOAM AND APPLICABLE SEEDING MIXTURE.

**STORM DRAINAGE SYSTEM MAINTENANCE PLAN:**

- THE FOLLOWING LIST OF MAINTENANCE TASKS AND FREQUENCIES MUST BE ADHERED TO IN ORDER TO INSURE A SUCCESSFUL LONG TERM OPERATION OF THE STORM DRAINAGE SYSTEM.
1. DURING CONSTRUCTION ACTIVITIES ALL EROSION CONTROLS ON THE SITE SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN TWENTY FOUR (24) HOURS AFTER AN EVENT WHICH GENERATES AT LEAST 0.25 INCHES OF RAIN IN A TWENTY FOUR (24) HOUR PERIOD.
  2. SEDIMENTS SHALL BE REMOVED FROM ALL BASINS IMMEDIATELY AFTER SITE STABILIZATION.
  3. ALL TRASH, LITTER AND OTHER DEBRIS SHALL BE REMOVED FROM ALL STORM WATER INLET AND OUTLET STRUCTURES A MINIMUM OF TWICE PER YEAR. THESE STRUCTURES SHALL ALSO BE INSPECTED TWICE PER YEAR. INSPECTIONS SHALL BE PERFORMED SEVERAL TIMES WITHIN THE FIRST SIX MONTHS OF OPERATION.
  4. REPAIRS OR REPLACEMENT OF INLET/OUTLET STRUCTURES OR ANY ELEMENT OF THE FACILITY SHALL BE DONE WITHIN THIRTY (30) DAYS OF DEFICIENCY REPORTS. IF AN EMERGENCY SITUATION IS IMMINENT THEN REPAIR/REPLACEMENT SHALL BE DONE IMMEDIATELY TO AVERT FAILURE OR DANGER TO NEARBY RESIDENTS.
  5. MAKE REPAIRS IMMEDIATELY USING APPROPRIATE STONE SIZES. DO NOT PLACE STONES ABOVE FINISHED GRADE.
  6. ALL REMOVED SEDIMENTS AND DEBRIS SHALL BE DISPOSED OF OFF SITE IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
  7. ALL OUTLET STRUCTURES AND OUTFLOW CHANNELS WILL BE INSPECTED ANNUALLY. INSPECTIONS WILL BE ACCOMPLISHED SEVERAL TIMES DURING THE FIRST SIX MONTHS OF OPERATION, ESPECIALLY AFTER RAINFALL EVENTS TO CHECK FOR CLOGGING OR, CONVERSELY, TOO RAPID OF A RELEASE.
  8. REPAIRS OR REPLACEMENT OF INLET/OUTLET STRUCTURES, RIP-RAP CHANNELS, FENCES, OR OTHER ELEMENTS OF THE FACILITY WILL BE DONE WITHIN 30 DAYS OF DEFICIENCY REPORTS. IF AN EMERGENCY SITUATION IS IMMINENT THEN REPAIR/REPLACEMENT MUST BE DONE IMMEDIATELY TO AVERT FAILURE OR DANGER TO NEARBY RESIDENTS.
  9. ALL SEDIMENT GENERATED DURING CONSTRUCTION AND AS A RESULT OF MAINTENANCE OF THE DRAINAGE SYSTEM MUST BE DISPOSED OF PROPERLY. SEDIMENT SHALL NOT BE DISPOSED OF IN OR NEAR STATE OR FEDERAL REGULATED WATERS.
  10. ADDITIONAL BMP INSPECTION/MAINTENANCE MEASURES OUTLINED WITHIN THE PROJECT STORMWATER POLLUTION PREVENTION PLAN SHALL BE ADHERED TO.

OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JUN 14 2021 FILE # 21-0118  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Thomas J. Principe, III  
No. 9107  
REGISTERED PROFESSIONAL ENGINEER

**CONSTRUCTION DETAILS**

**PRINCIPLE COMPANY, INC.**  
ENGINEERING DIVISION  
PO BOX 298  
TIVERTON, RI 02878  
401-265-1090

**REVISIONS**

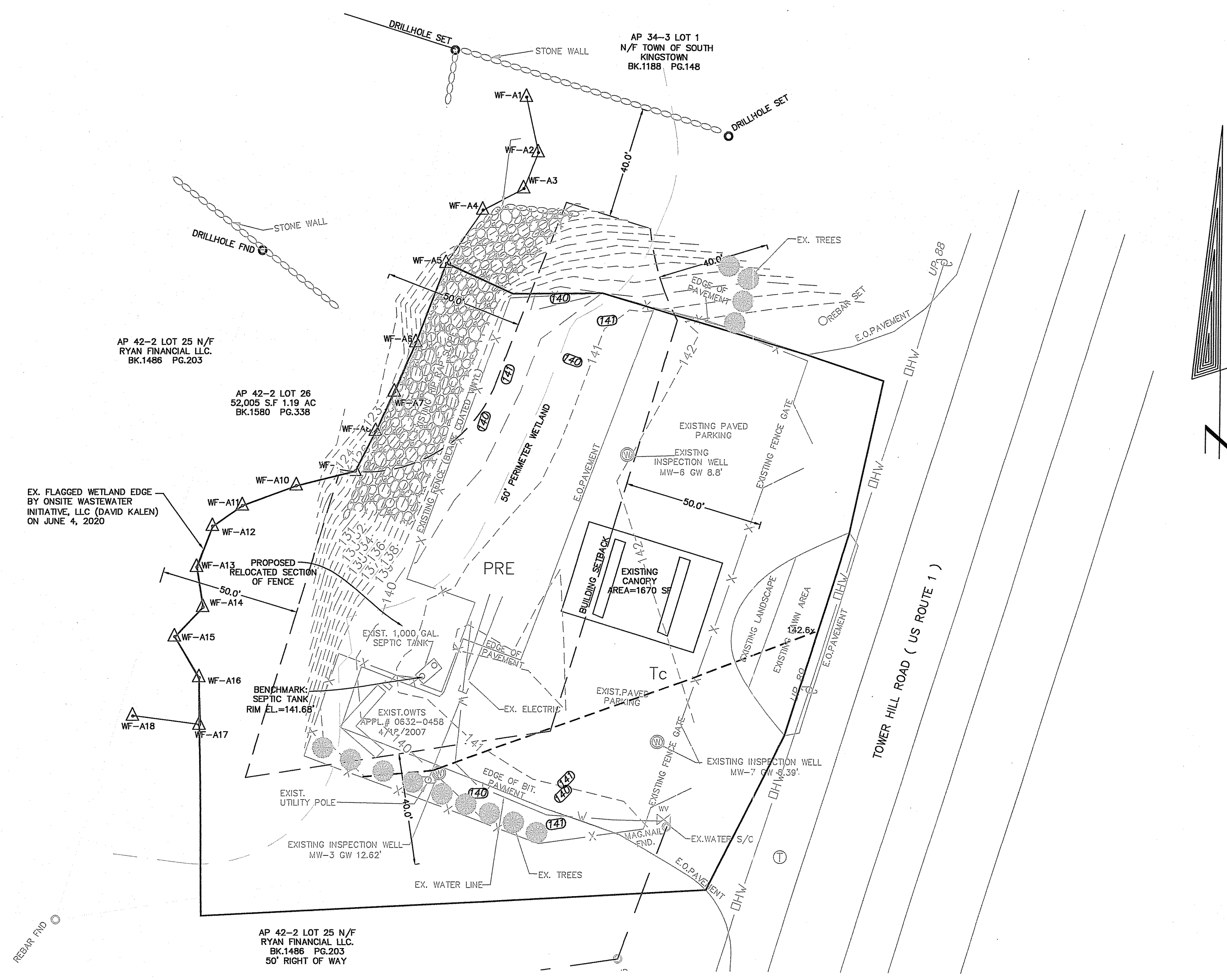
No.	DATE	DRWN	CHKD
1	06/01/21	KAB	TJP

**DEVELOPMENT PLAN REVIEW**  
for  
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AP 42-2, LOT 26  
in  
SOUTH KINGSTOWN, RHODE ISLAND

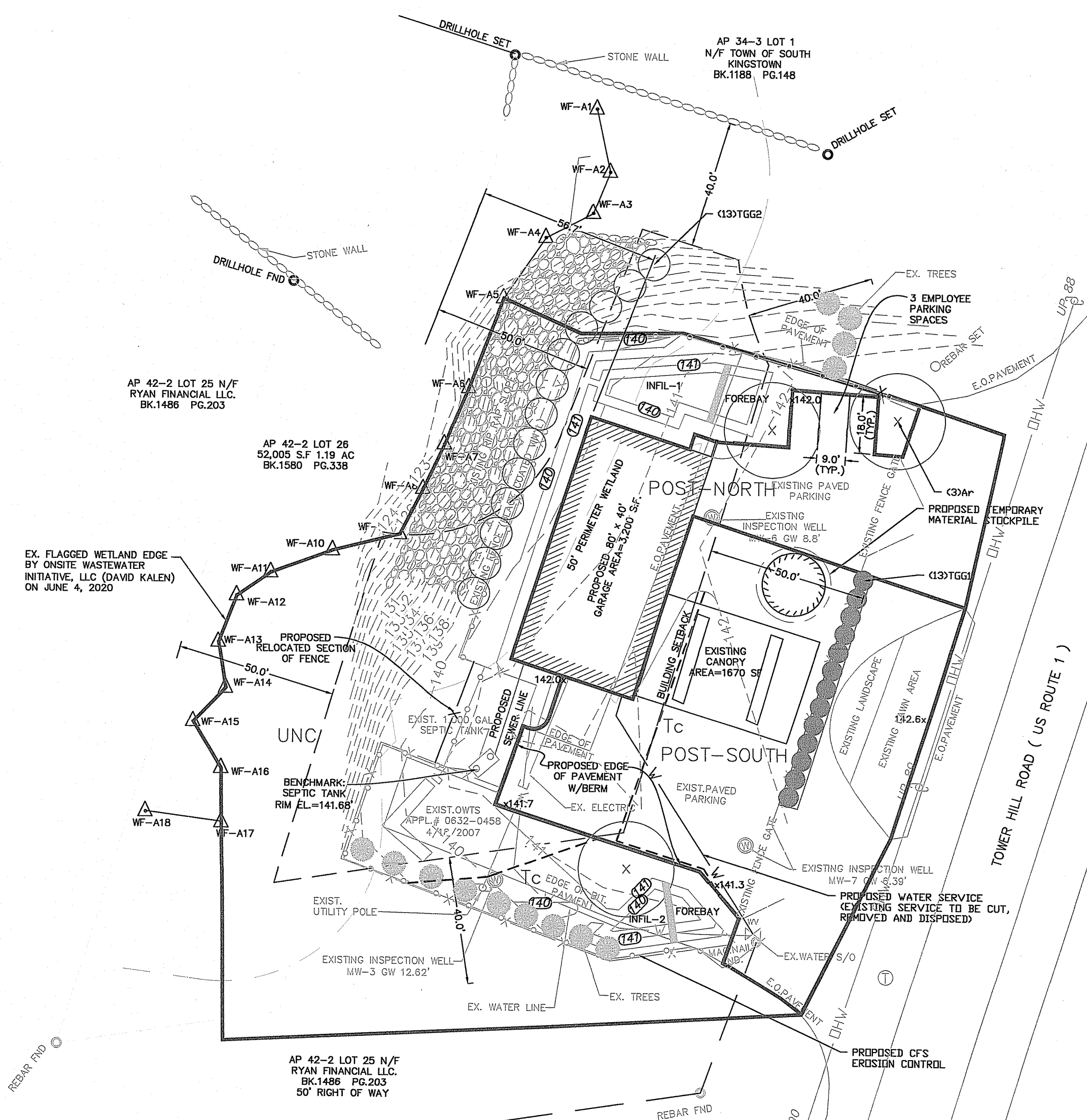
SCALE: AS NOTED	SHEET NO: 5 OF 6
DRAWN BY: JAR	DESIGN BY: JAR
DATE: 4/14/21	CHECKED BY: TJP
	PROJECT NO.: LD_2020-8

**OWNER/APPLICANT:**  
M & S PROPERTY MANAGEMENT  
ASSOCIATES LLC  
491 MAIN STREET  
WAKEFIELD, RI 02879

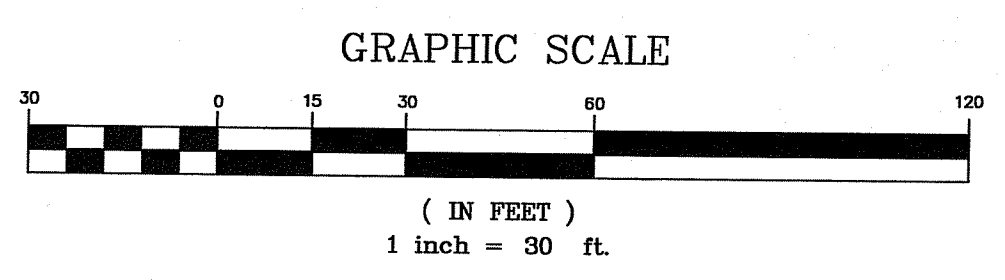
Office of Water Resources  
JUN 22 2021



PRE WATERSHED MAP



POST WATERSHED MAP



Environmental Management  
JUN - 2 2021  
Office of Water Resources

OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JUN 14 2021 FILE # 21-018  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

PRE & POST WATERSHED MAP

STREET INDEX

TOWER HILL ROAD (PUBLIC- STATE HIGHWAY)

ZONING DESIGNATION:

ZONING DISTRICT: R-80  
MINIMUM LOT AREA 80,000 SQ. FT.  
MINIMUM LOT FRONTAGE 200'  
FRONT YARD SETBACK 50'  
MINIMUM SIDE YARD SETBACK 40'  
MINIMUM REAR YARD SETBACK 50'  
MAXIMUM BUILDING COVERAGE 50%  
MAXIMUM BUILDING HEIGHT 35'

PLAN REFERENCE:

"DEVELOPMENT PLAN FOR PROPOSED PARKING GARAGE" PREPARED FOR STEVEN SMITH, M& S PROPERTY MANAGEMENT ASSOC., LLC, LOCATION 4087 TOWER HILL ROAD A.P. 42-2 / LOT 26 SOUTH KINGSTOWN, RI BY ENVIRONMENTAL PLANNING AND SURVEYING, INC. DATED 5/25/18 WITH MOST CURRENT REVISION 7/13/18.

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491 MAIN STREET  
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Thomas J. Principe, III  
9107  
REGISTERED PROFESSIONAL ENGINEER

PRINCIPE COMPANY, INC.  
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PO BOX 298  
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401-265-1090

REVISIONS

No.	DATE	DRWN	CHKD
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DEVELOPMENT PLAN REVIEW  
for  
4087 TOWER HILL ROAD  
AP 42-2, LOT 26  
in  
SOUTH KINGSTOWN, RHODE ISLAND

SCALE: 1"=30'	SHEET NO: 6 OF 6
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