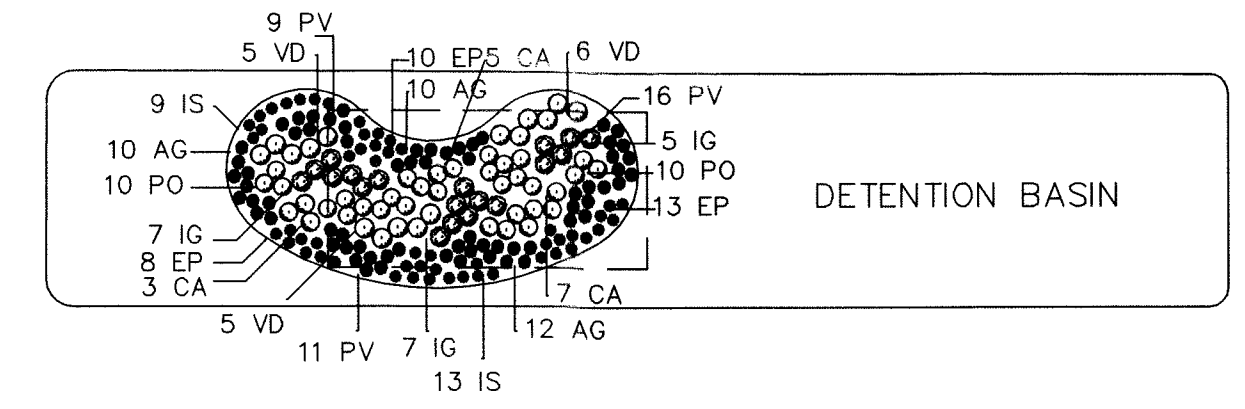
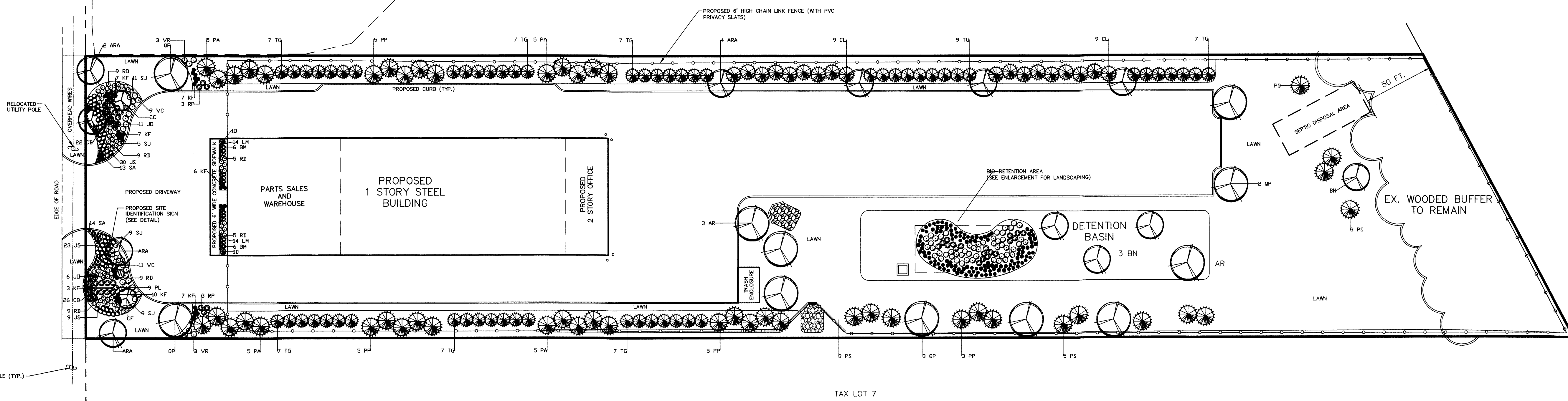


NEW JERSEY STATE HIGHWAY ROUTE 31  
(80' R.O.W.)



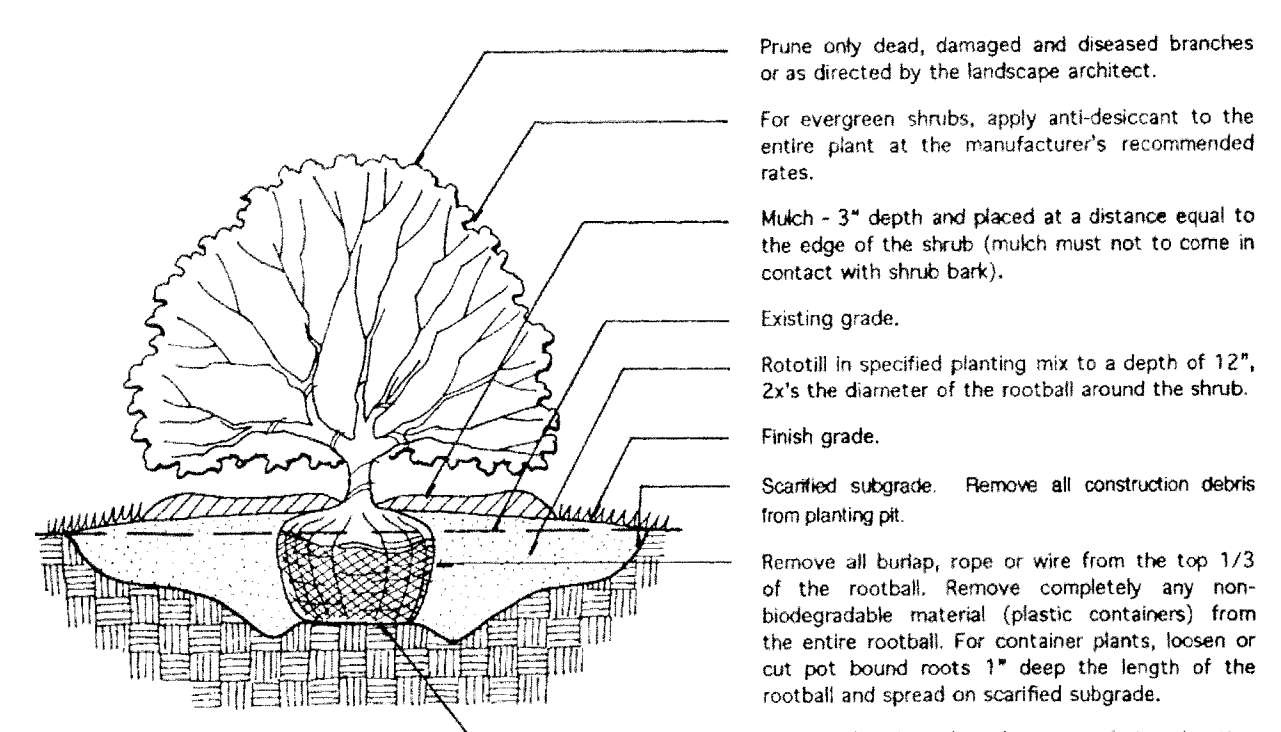
BIO-RETENTION  
LANDSCAPING PLAN



LANDSCAPING PLAN  
1 inch = 40 ft.



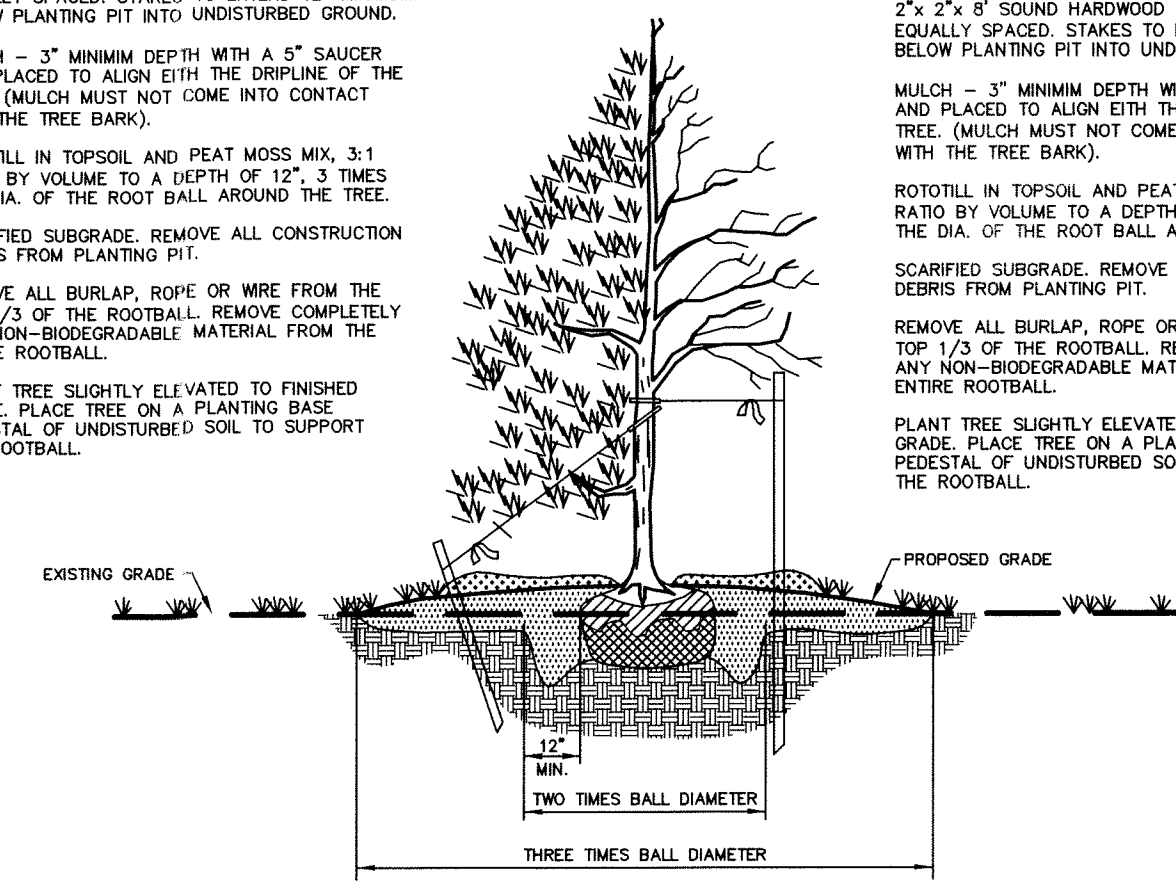
KEY	QUAN.	BOTANICAL NAME	COMMON NAME	SIZE/REMARKS
AR	4	ACER RUBRUM OCTOBER GLORY	OCTOBER GLORY RED MAPLE	2 1/2" - 3" CAL., B&B
ARA	8	ACER RUBRUM ARMSTRONG	ARMSTRONG RED MAPLE	2 1/2" - 3" CAL., B&B
BN	4	BETULA NIGRA HERITAGE	HERITAGE RIVER BIRCH	10'-12' HT., B&B
CC	1	CERCIS CANADENSIS	EASTERN REDBUD	9'-10' HT., B&B
CF	1	CORNUS RUTGAN STELLAR PINK	STELLAR PINK FLOWERING DOGWOOD	9'-10' HT., B&B
GP	7	QUERCUS PHELLODES	WILLOW OAK	2 1/2" - 3" CAL., B&B
ID	2	ILEX AQUIFOLIUM DRAGON LADY	DRAGON LADY HOLLY	5'-6' HT., B&B
CL	18	CUPRESSUS X LEYLANDII	LEYLAND CYPRESS	5'-8' HT., B&B
PA	20	PICEA ABIES	NORWAY SPRUCE	5'-8' HT., B&B
PP	18	PICEA PUGENS	COLORADO SPRUCE	5'-8' HT., B&B
PS	12	PINUS STROBUS	EASTERN WHITE PINE	5'-8' HT., B&B
TG	58	THUJA STANDISH X PLICATA	GREEN GIANT ARBORVITAE	5'-8' HT., B&B
BH	12	BUXUS MICROPHYLLA JAPONICA WINTER GEM	WINTER GEM BOXWOOD	18"-24" HT., #3 CAN
CA	15	CORNUS ALBA SIBIRICA	RED TWIG DOGWOOD	2"-3" HT., #5 CAN
IG	19	ILEX GLABRA COMPACTA	COMPACT INKBERY HOLLY	18"-24" HT., #3 CAN
JD	17	JUNIPERUS CHINENSIS OLD GOLD	OLD GOLD JUNIPER	24"-30", #5 CAN
JS	62	JUNIPERUS CHINENSIS SARGENTII	SARGENT JUNIPER	15"-18", #2 CAN
PO	20	PHYSOCARPUS OPULIFOLIUS SEWARD	SUMMER WINE NINEBARK	18"-24", #3 CAN
PL	9	PRUNUS LAURICERASUS SCHIPKAENSIS	SKIP LAUREL	24"-30", #5 CAN
RD	46	ROSA DRIFT	PINK DRIFT ROSE	15"-18", #2 CAN
RP	6	RHOODODENDRON PUM	PUM RHOODODENDRON	24"-30" HT., #5 CAN
SJ	34	SPIREA JAPONICA MAGIC CARPET	MAGIC CARPET SPIREA	18"-24", #3 CAN
VC	20	VIBURNUM CARLESII	KOREAN SPICE VIBURNUM	2"-3" HT., #5 CAN
VD	16	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	2"-3" HT., #5 CAN
VR	6	VIBURNUM RHYTIIDOPHYLLUM	LEATHER LEAF VIBURNUM	2"-3" HT., #5 CAN
AG	32	ACRURUS GRAMINEUS	GOLDEN SWEET FLAG	1 GAL., #1 CAN
CB	48	CDREOPSIS X BALUPTGONZ	JPTICK GOLD & BRONZE TICKSEED	1 GAL., #1 CAN
EP	31	EUPATORIUM PURPUREUM BABY JOE	BABY JOE PYE WEED	1 GAL., #1 CAN
IS	22	IRIS SIBIRICA DANCING NANDU	DANCING NANDU SIBERIAN IRIS	1 GAL., #1 CAN
KF	47	CALAMAGROSTIS X ACUTIFLORA 'KARL FDERSTER'	'KARL FDERSTER' FEATHER REED GRASS	2 GAL., #2 CAN
LM	28	LIRIODE MUSCART BIG BLUE	BIG BLUE LILYTURF	1 GAL., #1 CAN
PV	36	PANICUM VIRGATUM	SWITCHGRASS	1 GAL., #1 CAN
SA	27	SALVIA MAY NIGHT	MAY NIGHT SAGE	1 GAL., #1 CAN



SHRUB PLANTING DETAIL  
N.T.S.

**EVERGREEN TREE:**  
PRUNE ONLY DEAD, DAMAGED OR DISEASED BRANCHES. DO NOT CUT CENTRAL LEADER.  
RUBBER HOSE CHAFING GUARD - BLACK, 1/2" DIA. 2 PLY (LOOP IS DOUBLE THE TRUNK DIAMETER) DOUBLE STRAND OF 12 GA. STEEL WIRE GUY'S, TWISTED WITH WHITE FLAGGING TO INCREASE VISIBILITY. TURBUCKLES REQUIRED ON TREES 4" CAL. AND GREATER. GUY'S ARE NOT TAUT. REMOVE ALL GUYING MATERIAL AFTER 18 MONTHS.  
2"x 2"x 8" SOUND HARDWOOD STAKES, 3 PER TREE EQUALLY SPACED. STAKES TO EXTEND 12" MINIMUM BELOW PLANTING PIT INTO UNDISTURBED GROUND.  
MULCH - 3" MINIMUM DEPTH WITH A 5" SAUCER AND PLACED TO ALIGN WITH THE DRILLLINE OF THE TREE. (MULCH MUST NOT COME INTO CONTACT WITH THE TREE BARK).  
ROTTOLIN IN TOPSOIL AND PEAT MOSS MIX, 3:1 RATIO BY VOLUME TO A DEPTH OF 12". 3 TIMES THE DIA. OF THE ROOT BALL AROUND THE TREE.  
SCARIFIED SUBGRADE. REMOVE ALL CONSTRUCTION DEBRIS FROM PLANTING PIT.  
REMOVE ALL BURLAP, ROPE OR WIRE FROM THE TOP 1/3 OF THE ROOTBALL. REMOVE COMPLETELY ANY NON-BIODEGRADABLE MATERIAL FROM THE ENTIRE ROOTBALL.  
PLANT TREE SLIGHTLY ELEVATED TO FINISHED GRADE. PLACE TREE ON A PLANTING BASE PEDESTAL OF UNDISTURBED SOIL TO SUPPORT THE ROOTBALL.

**DECIDUOUS TREE:**  
PRUNE ONLY DEAD, DAMAGED OR DISEASED BRANCHES. DO NOT CUT CENTRAL LEADER.  
RUBBER HOSE CHAFING GUARD - BLACK, 1/2" DIA. 2 PLY (LOOP IS DOUBLE THE TRUNK DIAMETER) DOUBLE STRAND OF 12 GA. STEEL WIRE GUY'S, TWISTED WITH WHITE FLAGGING TO INCREASE VISIBILITY. TURBUCKLES REQUIRED ON TREES 4" CAL. AND GREATER. GUY'S ARE NOT TAUT. REMOVE ALL GUYING MATERIAL AFTER 18 MONTHS.  
TRANSIT GUARDS TO BE REMOVED AFTER PLANTING. DO NOT USE TREE WRAP ON ANY PLANT.  
2"x 2"x 8" SOUND HARDWOOD STAKES, 3 PER TREE EQUALLY SPACED. STAKES TO EXTEND 12" MINIMUM BELOW PLANTING PIT INTO UNDISTURBED GROUND.  
MULCH - 3" MINIMUM DEPTH WITH A 5" SAUCER AND PLACED TO ALIGN WITH THE DRILLLINE OF THE TREE. (MULCH MUST NOT COME INTO CONTACT WITH THE TREE BARK).  
ROTTOLIN IN TOPSOIL AND PEAT MOSS MIX, 3:1 RATIO BY VOLUME TO A DEPTH OF 12". 3 TIMES THE DIA. OF THE ROOT BALL AROUND THE TREE.  
SCARIFIED SUBGRADE. REMOVE ALL CONSTRUCTION DEBRIS FROM PLANTING PIT.  
REMOVE ALL BURLAP, ROPE OR WIRE FROM THE TOP 1/3 OF THE ROOTBALL. REMOVE COMPLETELY ANY NON-BIODEGRADABLE MATERIAL FROM THE ENTIRE ROOTBALL.  
PLANT TREE SLIGHTLY ELEVATED TO FINISHED GRADE. PLACE TREE ON A PLANTING BASE PEDESTAL OF UNDISTURBED SOIL TO SUPPORT THE ROOTBALL.



TREE PLANTING DETAIL  
NOT TO SCALE

- PLANTING NOTES:**
- ALL PLANT MATERIAL SHALL BE NURSERY GROWN STOCK FREE FROM OBJECTIONABLE DISFIGUREMENT AND DISEASE, CONFORMING WITH THE STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN, TRUE TO VARIETY AND PLANTED IN CONFORMANCE WITH SOUND NURSERY PRACTICE.
  - PRIOR TO THE INSTALLATION OF PLANT MATERIAL, THE RESULTS OF PHYSICAL AND CHEMICAL TESTING OF THE SUBSOIL AND TOPSOIL SHALL BE SUBMITTED TO THE DIRECTOR OF PLANNING AND ENGINEERING TO ASSESS SOIL COMPOSITION AND IF THE PH IS ACCEPTABLE FOR THE PROPOSED PLANTINGS.
  - TREES AND SHRUBS SHALL BE PLANTED ONLY WHEN THE SOIL IS FROST FREE AND FRIABLE.
  - ALL MATERIAL SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL IS NO HIGHER THAN THE FINISHED GRADE. PLANTING PITS ARE TO BE DUG AT LEAST 8 INCHES DEEPER AND 12 INCHES WIDER THAN THE ROOT BALL AND ARE TO BE BACK FILLED WITH PREPARED PLANTING SOIL CONSISTING OF EQUAL PARTS NATIVE SOIL AND HUMUS. THE USE AND PLANTING OF BARE ROOT MATERIAL IS PROHIBITED.
  - ALL TREES ARE TO BE STAKED WITH CEDAR STAKES GUYED WITH HOSE COVERED WIRES.
  - ALL PLANTINGS ARE TO BE MULCHED WITH A MIN. 3 INCH DEPTH OF SHREDDED ORGANIC MATERIAL NOT READILY SUBJECT TO MOVEMENT BY WIND OR WATER.
  - WATERING SAUCERS SHALL BE PROVIDED AROUND EACH TREE.
  - ALL PLANT MATERIALS ARE TO BE GUARANTEED BY THE APPLICANT FOR ONE GROWING SEASON AND SHALL BE IN HEALTHY AND VIGOROUS CONDITION. NECESSARY WATERING AND OTHER MAINTENANCE DURING THE GUARANTEE PERIOD IS THE RESPONSIBILITY OF THE APPLICANT.
  - UPON ESTABLISHMENT OF PLANT MATERIAL, APPROXIMATELY ONE GROWING SEASON, ALL STAKES, GUYING, TREE WRAPPING, AND SAUCERS SHALL BE REMOVED.
  - ANY PLANT CHANGES SHALL BE APPROVED BY THE BOARD PLANNER PRIOR TO INSTALLING THE PLANTS.

HENRY S. HINTERSTEIN  
Landscape Architect  
46 MOORE AVENUE, WESTFIELD  
NEW JERSEY 07090

NO.	DATE	REVISION
3	02/10/21	PER BOARD
2	01/15/21	PER BOARD
1	07/20/20	PER TOWNSHIP REVIEW

DANIEL E. PARKER  
NEW JERSEY LAND SURVEYOR LIC. NO. 35866



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E MAIL ADDRESS: PARKERES@AOL.COM

LANDSCAPE PLAN  
488 ROUTE 31 SOUTH  
TAX MAP LOT 7.06 BLOCK 79  
TOWNSHIP OF WASHINGTON  
WARREN COUNTY, NEW JERSEY

STEPHEN E. PARKER  
NEW JERSEY PROFESSIONAL ENGINEER LIC. NO. 36187

DRAWN BY	CHECKED BY	SCALE	DATE	FILE	SHEET
PJD	S.E.P.	1"=40'	04-15-19	13211	5 OF 9