TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

UTILITIES

ELECTRIC
PUBLIC SERVICE ELECTRIC AND GAS CO.
472 WESTON CANAL ROAD
SOMERSET, NJ 08873
ATTN : BURK LAMBERTSON
(732) 764–3160

CABLE
COMCAST CABLE
800 RAHWAY AVENUE
UNION, NJ 07083
ATTN: ROBERT KNOEPFEL
(732) 602–7444 EXT. 6202293

WATER
MIDDLESEX WATER COMPANY
ENGINEERING DEPARTMENT
1500 RONSON ROAD, P.O. BOX 1500
ISELIN, NJ 08830–0452
ATTN: LADISLAO MONTERROSA
(732) 634–1500

TELEPHONE/COMMUNICATIONS
VERIZON–NEW JERSEY, INC.
175 WEST MAIN STREET
SOUTH PLAINFIELD, NJ 07080
ATTN: THOMAS GRABOWSKI
(908) 412–6169

SANITARY SEWER
TOWNSHIP OF WOODBRIDGE
DIVISION OF ENGINEERING
1 MAIN STREET
WOODBRIDGE, NJ 07095
ATTN: MICHAEL GELIN
(732) 602–6047

GAS
BUCKEYE PARTNERS, LP
9999 HAMILTON BOULEVARD
BREINGSVILLE, PA 18031
ATTN: TIMOTHY JAFFE
(610) 904–4401

ELIZABETHTOWN GAS CO.
520 GREEN LANE
UNION, NJ 07083
ATTN: JOHN EGGOLT
(908) 662–8319

MIDDLESEX COUNTY UTILITIES AUTHORITY
2571 MAIN STREET P.O. BOX 1500
SAYREVILLE, NJ 08872
ATTN: KEVIN T. AIELLO
(732) 721–3800

WILLIAM GAS PIPELINE– TRANSCO
99 FARBER ROAD
PRINCETON, NJ 08540
(609) 936–2423

TEXAS EASTERN GAS PIPELINE
501 COOLIDGE STREET
SOUTH PLAINFIELD, NJ 07080
ATTN: PETER SEYDEWITZ
(908) 821–1817

JOHN E. McCORMAC - MAYOR

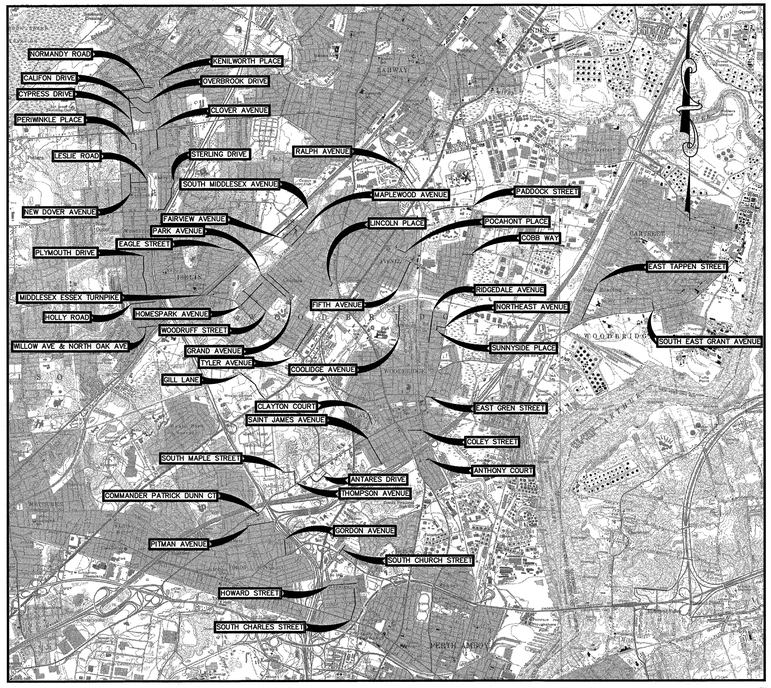
TOWNSHIP COUNCIL

CORY SPILLAR	COUNCIL PRESIDENT
LIZBETH DEJESUS	COUNCIL VICE PRESIDENT
KYLE ANDERSON	COUNCILMAN
HOWIE BAUER	COUNCILMAN
DEBBIE MEEHAN	COUNCILWOMAN
NANCY DRUMM	COUNCILWOMAN
GREGG M. FICARRA	COUNCILMAN
VIRBHADRA N. PATEL	COUNCILMAN
BRIAN SMALL	COUNCILMAN

JOHN BENNETT	BUSINESS ADMINISTRATOR
JOHN M. MITCH	MUNICIPAL CLERK
JAMES P. NOLAN, JR., ESQ.	DIRECTOR OF LAW
DENNIS HENRY	DIRECTOR OF PUBLIC WORKS
MICHAEL GELIN, P.E.	MUNICIPAL ENGINEER

CONTRACT NO. 2019-001

MARCH 2019



LOCATION MAP

SCALE: N.T.S.

NEW JERSEY DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF 2007 AND ALL AMENDMENTS IN CME ASSOCIATES FORMAT THERETO SHALL GOVERN.

THE HEADING OF THE ARTICLES CONTAINED HEREIN CONFORM TO THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, DATED 2007 AND ALL ADDENDA THERETO, WHICH IS TO BE USED IN THE EXECUTION OF THIS CONTACT.

THE NEW JERSEY DEPARTMENT OF TRANSPORTATION "STANDARD ROADWAY CONSTRUCTION/TRAFFIC CONTROL/BRIDGE CONSTRUCTION DETAILS" BOOKLET DATED 2007 AND "ELECTRICAL BUREAU STANDARD DETAILS" (2007) TO GOVERN, EXCEPT FOR THOSE DETAILS CONTAINED HEREIN.

TOTAL LENGTH OF PROJECT = 11.89 MILES

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6	CONSTRUCTION PLAN - COLEY STREET
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PREPARED BY:

MICHAEL J. McCLELLAND, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LICENSE No. 32468

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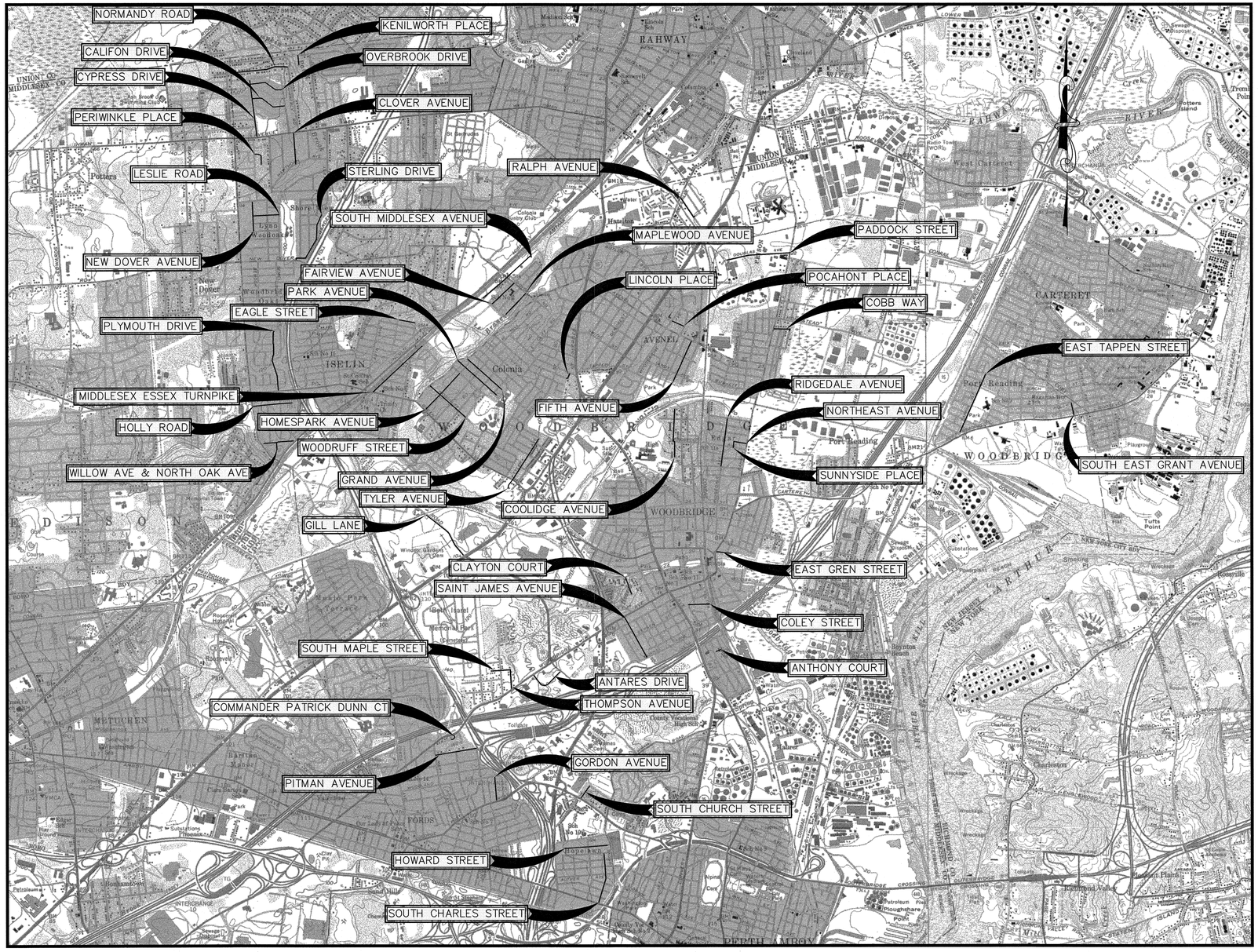


LOCATION PLAN

GRAPHIC SCALE

2000 0 1000 2000 4000 8000

(IN FEET)

1 inch = 2000ft.

GENERAL CONSTRUCTION NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY FOR CONSTRUCTION IN ACCORDANCE WITH EXISTING LOCAL, COUNTY, OR STATE REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION IN THESE MATTERS.
2. THE CONTRACTOR IS RESPONSIBLE FOR AND SHALL VERIFY ALL DIMENSIONS AND DETAILS BEFORE PROCEEDING WITH WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.
3. ALL REGRADED AREAS AT THE SITE WHICH ARE NOT DESIGNATED AS PAVED OR GRAVEL AREAS SHALL BE TOPSOILED AND SEEDED AND SHALL BE STABILIZED IN ACCORDANCE WITH STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND THE CONTRACT SPECIFICATIONS.
4. ALL GRADING OPERATIONS SHALL PROVIDE FOR POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS AND STRUCTURES AND SHALL ELIMINATE PONDING AREAS.
5. THE CONTRACTOR SHALL MAKE ALL NECESSARY INVESTIGATIONS TO SATISFY HIMSELF AS TO THE EXISTING CONDITIONS PRIOR TO BIDDING WORK, WORK INCLUDING THE LOCATION OF EXISTING RESIDENTIAL SPRINKLER SYSTEMS.
6. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE THE LOCATION OF THE UTILITIES WITH THE UTILITY COMPANIES PRIOR TO CONSTRUCTION.
7. THE COORDINATION OF THE LOCATION OR RELOCATION WHERE REQUIRED OF TELEPHONE, CABLE, ELECTRIC, GAS, AND WATER FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR AND SAME SHALL BE COORDINATED TO INSURE COMPLETION WITHIN THE TIME PERMITTED.
8. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN MEANS OF INGRESS AND EGRESS TO RESIDENTS THROUGHOUT THE COURSE OF THE WORK AND TO PROVIDE ADEQUATE MAINTENANCE AND PROTECTION OF TRAFFIC.
9. THE CONTRACTOR'S LICENSED SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT.
10. THE CONTRACTOR WILL NOT BE PERMITTED TO STOCKPILE EXCAVATED MATERIALS OVER EXISTING UTILITY LINES. THE STOCKPILED MATERIALS SHOULD BE PLACED SUFFICIENTLY AWAY FROM THE EDGE OF ANY EXCAVATION TO PREVENT CAVING OF THE TRENCH WALL AND TO PERMIT ACCESS ALONG THE TRENCH. WITH SHEETED TRENCHES, A MINIMUM OF FIVE (5) FEET FROM THE EDGE OF SHEETING TO TOE OF SPOIL BANK MUST BE MAINTAINED.
11. THE CONTRACTOR SHALL TAKE EVERY PRECAUTION NECESSARY TO PRECLUDE DAMAGE TO EXISTING STRUCTURES, FACILITIES, AND UTILITIES DUE TO LOSS OF LATERAL SUPPORT AND/OR CONSTRUCTION LOADINGS. SPECIFIC DETAILS NECESSARY TO ACCOMPLISH SAME SHALL BE SUBMITTED BY THE CONTRACTOR FOR REVIEW AND APPROVAL PRIOR TO COMMENCING CONSTRUCTION.
12. ALL WORK BY THE CONTRACTOR SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE NEW JERSEY STATUTE KNOWN AS CHAPTER 249 OF THE LAWS OF 1948, BEING SECTIONS 34:6-47.1 TO 47.9, INCLUSIVE OF THE REVISED STATUTES OF NEW JERSEY, 1937, AND IN ACCORDANCE WITH THE RULES AND REGULATIONS CONCERNING PRECAUTIONS TO BE TAKEN IN THE PROXIMITY OF HIGH-VOLTAGE LINES FOR THE PREVENTION OF ACCIDENTS PROMULGATED BY THE COMMISSIONER OF THE DEPARTMENT OF LABOR AND INDUSTRY OF THE STATE OF NEW JERSEY, EFFECTIVE DECEMBER 28, 1948. ALL AS AMENDED AND SUPPLEMENTED, AND IN ACCORDANCE WITH THE PROVISIONS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND OF SUBPART N, PARAGRAPH 1926.550 OF THE RULES AND REGULATIONS ISSUED UNDER SAID ACT.
13. THE CONTRACTOR IS HEREIN ADVISED THAT ALL WORK TO BE PERFORMED SHALL BE GOVERNED BY THE LOCAL MUNICIPAL ORDINANCES. THIS SHALL INCLUDE THE PROVISIONS IN THEIR CODES WHICH SET FORTH PERMITTED HOURS OF CONSTRUCTION WITHIN THE MUNICIPALITY.
14. THE CONTRACTOR IS ADVISED THAT THEY ARE RESPONSIBLE TO PAY FOR, ACQUIRE AND COMPLY WITH ANY ROAD OPENING PERMITS IF REQUIRED IN CONJUNCTION WITH THE PROPOSED IMPROVEMENTS.
15. THE CONTRACTOR SHALL COMPLY WITH THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES BY THE U.S.D.O.T.
16. THE CONTRACTOR IS ADVISED THAT HE MUST MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES AND MUST COMPLETELY BACKFILL ALL TRENCHES PRIOR TO NON-DAYLIGHT HOURS.
17. IN ORDER TO MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION, THE CONTRACTOR MAY FIND IT NECESSARY TO UTILIZE STEEL PLATES OVER TRENCHES AT NO ADDITIONAL COST TO THE OWNER.
18. WHEN DISTURBING, REMOVING AND/OR DISPOSING OF ASBESTOS CEMENT PIPE, THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS INCLUDING BUT NOT LIMITED TO: CURRENT USEPA REGULATIONS (NESHAP, 40 CFR 61 SUBPART M);OSHA REGULATIONS (29 CFR 192656);THE CURRENT NEW JERSEY ASBESTOS HAZARD ABATEMENT SUBCODE (N.J.A.C. 5:23-8); THE CURRENT NJDEPE REGULATIONS (N.J.A.C. 7:26-1 ET. SEQ.); AND NOTIFICATION REGULATIONS (N.J.A.C. 5:23-8.6, 40 CFR 61 SUBPART M, AND N.J.A.C. 7:26-2:12).
19. THE FREEHOLD SOIL CONSERVATION DISTRICT GOVERNS SOIL EROSION AND SEDIMENT CONTROL MEASURES WITHIN THE PROJECT AREA. ACCORDINGLY ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED AS PER THE REQUIREMENTS OF THE FREEHOLD SOIL CONSERVATION DISTRICT AND AS DIRECTED BY THE ENGINEER.
20. AT CERTAIN TIMES THE SITE MAY BE OCCUPIED BY SEVERAL CONTRACTORS AND IT IS THEREFORE REQUIRED FOR ANY AND ALL CONTRACTORS OCCUPYING THE SITE TO COOPERATE WITH ONE ANOTHER. NO DELAYS RESULTING FROM MULTIPLE CONTRACTORS WORKING ON THE SITE WILL BE CONSIDERED.
21. THE CONTRACTOR SHALL CONTINUOUSLY DEWATER ALL EXCAVATIONS UNTIL BACKFILLING OPERATIONS HAVE BEEN COMPLETED. PRIOR TO DISCHARGE TO STREAMS, SILT SHALL BE SETTLED OUT IN AN APPROVED SETTLING BASIN.
22. THE CONTRACTOR SHALL MAINTAIN THE FLOW OF ALL STREAMS, DRAINAGE DITCHES, STORM SEWERS, AND SANITARY SEWERS AT ALL TIMES BY A MEANS ACCEPTABLE TO THE ENGINEER AND ALL THE RESPONSIBLE AGENCIES.
23. THE CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICE FLOWS AND PRESSURES UNLESS WRITTEN APPROVAL BY THE RESPONSIBLE UTILITY COMPANY PERMITS HIM TO DO OTHERWISE.
24. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STATE OF NEW JERSEY WORKER HEALTH AND SAFETY ACT (N.J.A.C. 12:110 ET SEQ) AS AMENDED AND THE UNITED STATES OCCUPATIONAL SAFETY & HEALTH ACT (OSHA) (29 CFR 1910.), AS AMENDED WITH REGARD TO WORKER AND JOBSITE SAFETY.
25. ALL MAILBOXES REQUIRING RELOCATION SHALL BE DONE SO IN ACCORDANCE WITH LOCAL POSTAL AUTHORITY REGULATIONS.
26. TREES SHALL BE PLANTED IF AND WHERE DIRECTED BY THE ENGINEER.
27. PRIOR TO WORKING IN THE AREA OF THE ROADWAY ON WHICH THE PROPOSED EASEMENT OR RIGHT OF ENTRY IS REQUIRED, THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER THAT THE SAME HAS BEEN OBTAINED.
28. RESETTING OF EXISTING SIGNS SHALL BE WITH BREAKAWAY STEEL U-POST IN ACCORDANCE WITH NJDOT STANDARD DETAILS.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

LOCATION PLAN AND CONSTRUCTION NOTES

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1963 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 23838 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

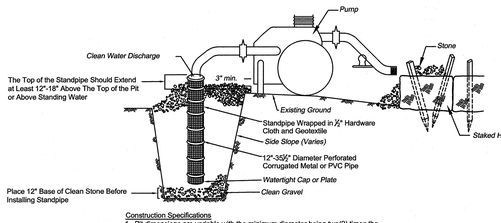
3.25.19

SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	GP
SHEET	2 of 106

REGISTERED CG

DRAWING NO. 2 - 1

FILE NO. PWB0A607.01

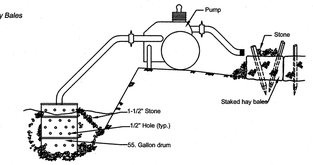


Construction Specifications

1. Pit dimensions are variable with the minimum diameter being two(2) times the standpipe diameter.
2. The standpipe should be constructed by perforating a 12"-24" diameter corrugated or PVC pipe. Then wrapping with the ½" hardware slits or 1" diameter holes.
3. A base filter material consisting of clean gravel or ASTM C 33 stone should be placed in the pit to a depth of 12". After installing the standpipe, the pit surrounding the standpipe should then be backfilled with the same filter material.
4. The standpipe should extend 12"-18" above the lip of the pit or the riser crest elevation (basin dewatering only) and the filter material should extend 3" minimum above the anticipated standing water elevation.

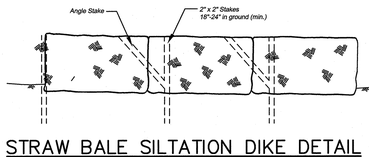
DEWATERING DETAIL

N.T.S.



DEWATERING DETAIL

N.T.S.



STRAW BALE SILTATION DIKE DETAIL

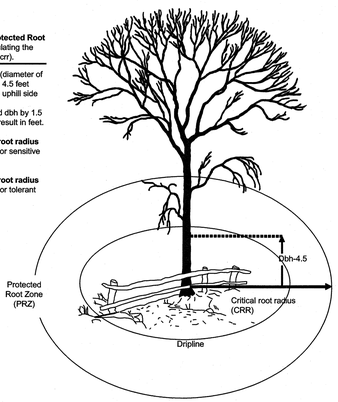
N.T.S.

Estimate a tree's **Protected Root Zone (PRZ)** by calculating the Critical Root Radius(crr).

1. Measure the dbh (diameter of tree at breast height, 4.5 feet above ground on the uphill side of tree) in inches.
2. Multiply measured dbh by 1.5 or 1.0. Express the result in feet.

Dbh x 1.5: **Critical root radius** for older, unhealthy, or sensitive species.

Dbh x 1.0: **Critical root radius** for younger, healthy or tolerant species.



ROOT PROTECTION

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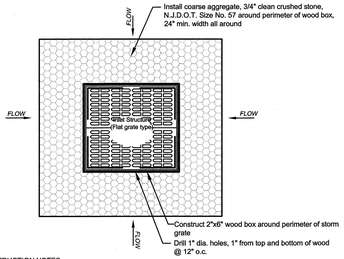
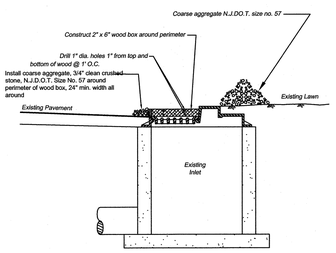


CONSTRUCTION NOTES:
Inlet siltation protection to remain until completion of final grading and establishment of cover.
Also, periodic checks must be made after each rainfall to excavate and remove excess sediment from around inlets.

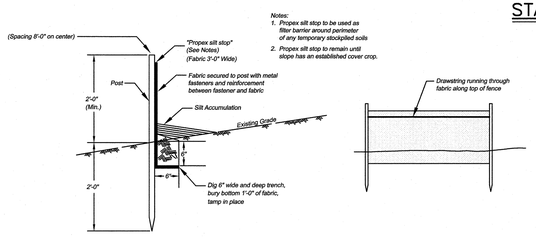
PLAN



INLET SILTATION PROTECTION DETAIL

INLET FILTER

N.T.S.



Notes:
1. Propex silt stop to be used as filter barrier around perimeter of any temporary stockpiled soils
2. Propex silt stop to remain until slope has an established cover crop.

SILT STOP SEDIMENT BARRIER DETAIL

N.T.S.

ACID SOILS MITIGATION METHODS AND MATERIALS

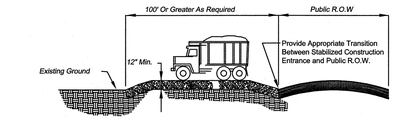
1. LIMIT THE EXCAVATION AREA AND EXPOSURE TIME WHEN HIGH ACID–PRODUCING SOILS ARE ENCOUNTERED.
2. TOPSOIL STRIPPED FROM THE SITE SHALL BE STORED SEPARATELY FROM TEMPORARILY STOCKPILED HIGH ACID–PRODUCING SOILS.
3. STOCKPILES OF HIGH ACID–PRODUCING SOIL SHOULD BE LOCATED ON LEVEL LAND TO MINIMIZE ITS MOVEMENT, ESPECIALLY WHEN THIS MATERIAL HAS A HIGH CLAY CONTENT.
4. TEMPORARILY STOCKPILED HIGH ACID–PRODUCING SOIL MATERIAL TO BE STORED MORE THAN 48 HOURS SHOULD BE COVERED WITH PROPERLY ANCHORED, HEAVY GRADE SHEETS OF POLYETHYLENE WHERE POSSIBLE. IF NOT POSSIBLE, STOCKPILES SHALL BE COVERED WITH A MINIMUM OF 3 TO 6 INCHES OF WOOD CHIPS TO MINIMIZE EROSION OF THE STOCKPILE. SILT FENCE SHALL BE INSTALLED AT THE TOE OF THE SLOPE TO CONTAIN MOVEMENT OF THE STOCKPILED MATERIAL. TOPSOIL SHALL NOT BE APPLIED TO THE STOCKPILES TO PREVENT TOPSOIL CONTAMINATION WITH HIGH ACID–PRODUCING SOIL.
5. HIGH ACID–PRODUCING SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE (INCLUDING BORROW FROM CUTS OR DREDGED SEDIMENT) SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS PER ACRE (OR 450 POUNDS PER 1,000 SQUARE FEET OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12 INCHES OF SETTLED SOIL WITH A PH OF 5.0 OR MORE EXCEPT AS FOLLOWS:
   a. AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF 24 INCHES OF SOIL WITH A PH OF 5 OR MORE.
   b. DISPOSAL AREAS SHALL NOT BE LOCATED WITHIN 24 INCHES OF ANY SURFACE OF A SLOPE OR BANK, SUCH AS BERMS, STREAM BANKS, DITCHES, AND OTHERS, TO PREVENT POTENTIAL LATERAL LEACHING DAMAGES.
6. EQUIPMENT USED FOR MOVEMENT OF HIGH ACID–PRODUCING SOILS SHOULD BE CLEANED AT THE END OF EACH DAY TO PREVENT SPREADING OF HIGH ACID–PRODUCING SOIL MATERIALS TO OTHER PARTS OF THE SITE, INTO STREAMS OR STORMWATER CONVEYANCES, AND TO PROTECT MACHINERY FROM ACCELERATED RUSTING.
7. NON–VEGETATIVE EROSION CONTROL PRACTICES (STONE TRACKING PADS, STRATEGICALLY PLACED LIMESTONE CHECK DAM, SEDIMENT BARRIER, WOOD CHIPS) SHOULD BE INSTALLED TO LIMIT THE MOVEMENT OF HIGH ACID–PRODUCING SOILS FROM, AROUND, OR OFF THE SITE.
8. FOLLOWING BURIAL OR REMOVAL OF HIGH ACID–PRODUCING SOIL, TOPSOILING AND SEEDING OF THE SITE (SEE TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, AND TOPSOILING), MONITORING MUST CONTINUE FOR A MINIMUM OF 6 MONTHS TO ENSURE THERE IS ADEQUATE STABILIZATION AND THAT NO HIGH ACID–PRODUCING SOIL PROBLEMS EMERGE. IF PROBLEMS STILL EXIST, THE AFFECTED AREA MUST BE TREATED AS INDICATED ABOVE TO CORRECT THE PROBLEM.

TEMPORARY SEEDBED PREPARATIONS

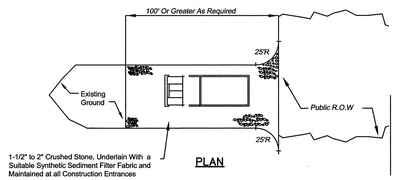
A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS THOSE BY RUTGERS COOPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10–20–10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. APPLY LIMESTONE AT THE RATE OF 2 TONS/ACRE UNLESS SOIL TESTING INDICATES OTHERWISE. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.
B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING–TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.
D. SOILS HIGH IN SULFIDES OR HAVING A pH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, PG 1–1.

SITE PREPARATION

A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE–STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.



PROFILE



PLAN

STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

SOIL EROSION AND SEDIMENT CONTROL NOTES:

1. THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY–EIGHT (48) HOURS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY.
2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
3. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE–CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.
4. N.J.S.A. 4:24–39 ET SEQ. REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN FULL COMPLIANCE WITH THE CERTIFIED PLAN AND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND A REPORT OF COMPLIANCE HAS BEEN ISSUED. UPON WRITTEN REQUEST FROM THE APPLICANT, THE DISTRICT MAY ISSUE A REPORT OF COMPLIANCE WITH CONDITIONS ON A LOT–BY–LOT OR SECTION–BY–SECTION BASIS, PROVIDED THAT THE PROJECT OR PORTION THEREOF IS IN SATISFACTORY COMPLIANCE WITH THE SEQUENCE OF DEVELOPMENT AND TEMPORARY MEASURES FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN IMPLEMENTED, INCLUDING PROVISIONS FOR STABILIZATION AND SITE WORK.
5. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SIXTY (60) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW OR EQUIVALENT MATERIAL, AT A RATE OF 2 TO 2 1/2 TONS PER ACRE, ACCORDING TO STATE STANDARDS FOR STABILIZATION WITH MULCH ONLY.
6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (i.e. STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AND A MULCH ANCHOR, IN ACCORDANCE WITH STATE STANDARDS.
7. A SUB–BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB–BASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OF THE PRELIMINARY GRADING.
8. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A PAD OF CLEAN CRUSHED STONE AT POINTS WHERE TRAFFIC WILL BE ACCESSING THE CONSTRUCTION SITE. AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ENTRANCE CONSISTING OF ONE INCH TO TWO INCH (1"–2") STONE FOR A MINIMUM LENGTH OF TEN FEET (10') EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL BE BLOCKED OFF.
9. ALL SOIL WASHED, DROPPED, SPILLED OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT–OF–WAYS WILL BE REMOVED IMMEDIATELY.
10. PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING.
11. AT THE TIME THAT THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON–VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
12. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A pH OF 4.0 OR LESS OR CONTAINING IRON SULFIDES SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS/ACRE, (OR 450 LBS/1,000 SQ FT OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12" OF SETTLED SOIL WITH A pH OF 5 OR MORE, OR 24" WHERE TREES OR SHRUBS ARE TO BE PLANTED.
13. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
14. UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH STANDARDS FOR DEWATERING.
15. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET. TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED AS REQUIRED BY THE STANDARD FOR DUST CONTROL.
16. STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES IF AN AREA GREATER THAN 5,000 SQUARE FEET IS DISTURBED.
17. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #6.
18. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORM WATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
19. MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES TO BE 3:1.
20. HAY BALES OR SEDIMENT CONTROL FABRIC TO BE PLACED IF EROSION BECOMES EVIDENT DURING CONSTRUCTION.
21. TO PREVENT LARGE BILLOWS DOWNHILL DURING CONSTRUCTION, TEMPORARY MOUNTABLE STONE BERMS MAY BE INSTALLED, SHOULD FIELD CONDITIONS WARRANT WHICH WILL NOT IMPEDE ACCESS FOR THE RESIDENTS AND EMERGENCY VEHICLES.
22. THE CONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING ANY AND ALL SOIL EROSION AND SEDIMENT CONTROL PROCEDURES DEEMED NECESSARY BY THE FREEHOLD SOIL CONSERVATION DISTRICT OFFICE AGENTS DURING THE COURSE OF CONSTRUCTION.

TEMPORARY SEEDING SPECIFICATIONS

– APPLY 10–20–10 FERTILIZER AT A RATE OF 500 LBS. PER ACRE OR 11 LBS. PER 1,000 SQ. FEET.
– APPLY LIMESTONE AT A RATE OF 2 TONS PER ACRE OR 90 LBS. PER 1,000 SQ. FT. FOR SANDY LOAM.

COOL SEASON GRASSES

– APPLY PERENNIAL RYE GRASS AT A RATE OF 100 LBS. PER ACRE OR 1 LB. PER 1,000 SQ. FT.
– APPLY SPRING OATS AT A RATE OF 86 LBS. PER ACRE OR 2 LBS. PER 1,000 SQ. FT.
– APPLY ANNUAL RYEGRASS AT A RATE OF 100 LBS. PER ACRE OR 1 LBS. PER 1,000 SQ. FT.
– APPLY WINTER BARLEY AT A RATE OF 96 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ. FT.
– APPLY WINTER CEREAL RYE AT A RATE OF 112 LBS. PER ACRE OR 2.8 LBS. PER 1,000 SQ. FT.

WARM SEASON GRASSES

– APPLY PEARL MILLET AT A RATE OF 20 LBS. PER ACRE OR 0.5 LBS. PER 1,000 SQ. FT.
– APPLY MILLET (GERMAN OR HUNGARIAN) AT A RATE OF 30 LBS. PER ACRE OR 0.7 LBS. PER SQ. FT.

NOTE:

There are to be no stockpiling areas under this project. All surplus excavated material and or fill shall be removed or brought to the site on a daily basis.

PERMANENT SEEDBED PREPARATIONS

A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO–OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJAES.RUTGERS.EDU/COUNTY/). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10–10–10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE–HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE–HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
B. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING–TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
C. HIGH ACID PRODUCING SOIL. SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED PREPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID–PRODUCING SOILS FOR SPECIFIC REQUIREMENTS.

PERMANENT SEEDING SPECIFICATIONS:

– APPLY FERTILIZER AND LIME IN THE SAME RATES AS DENOTED IN THE TEMPORARY SEEDING SPECIFICATIONS ABOVE.
– APPLY THE FOLLOWING SEED MIXTURE ONLY DURING SPECIFIED PLANTING DATES AT THE SPECIFIED RATES.

FINE FESCUE (BLEND)	– 45 LBS. PER ACRE
HARD FESCUE	– 20 LBS. PER ACRE
CHEWING FESCUE OR STRONG CREEPING RED FESCUE OR KENTUCKY BLUEGRASS OR PERENNIAL RYEGRASS	– 5 LBS. PER ACRE

– APPLY MULCH AND MULCH ANCHORING AS SPECIFIED BELOW.

MULCHING

MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.

A. STRAW OR HAY. UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1–1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH–BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER–BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.

APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 95% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND–SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.

ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.

1. PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRIS–CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
2. MULCH NETTINGS. STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
3. CRIMPER (MULCH ANCHORING TOOL). A TRACTOR–DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
4. LIQUID MULCH–BINDERS. – MAY BE USED TO ANCHOR HAY OR STRAW MULCH.
   a. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE.
   b. USE ONE OF THE FOLLOWING:
      (1) ORGANIC AND VEGETABLE BASED BINDERS – NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS. MANY NEW PRODUCTS ARE AVAILABLE, SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE.
      (2) SYNTHETIC BINDERS – HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.

      NOTE: ALL NAMES GIVE ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A COMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.

B. WOOD–FIBER OR PAPER–FIBER MULCH. SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 PONDS PER ACRE (OR AS RECOMMENDED BY THE PROJECT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.
C. PELLETIZED MULCH. COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO–POLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60–75 LBS./1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEED–SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE.

APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

SEQUENCE OF CONSTRUCTION:

THIS PROJECT SHALL CONSIST ESSENTIALLY OF THE RESURFACING OF EXISTING ROADWAYS INCLUDING THE INSTALLATION OF HOT MIX ASPHALT PAVEMENT, CONCRETE CURB, CONCRETE SIDEWALK AND DRIVEWAY AND LANDSCAPING RESTORATION. THE CONSTRUCTION SHOULD PROCEED IN THE FOLLOWING MANNER:

1. INSTALLATION OF ALL SEDIMENT AND EROSION CONTROL DEVICES THAT CAN BE PLACED PRIOR TO ANY MAJOR SOIL DISTURBANCES.
2. CLEAR AND REMOVE ALL EXISTING VEGETATION IN THOSE AREAS WHERE NECESSARY. ALL REMAINING VEGETATION TO BE PROPERLY PROTECTED AND TO REMAIN IN ITS NATURAL STATE.
3. IMMEDIATE INSTALLATION OF ALL REMAINING SEDIMENT AND EROSION CONTROL DEVICES.
4. RECONSTRUCTION OF EXISTING CURBS, SIDEWALKS, AND DRIVEWAY APRONS.
5. FINE–GRADE PAVEMENT RESTORATION AREAS.
6. BASE COURSE PAVEMENTS TO BE APPLIED IMMEDIATELY FOLLOWING INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE PAVEMENT AREAS.
7. FINE–GRADE REMAINDER OF SITE AND STABILIZE WITH PERMANENT VEGETATIVE COVER AND LANDSCAPING.
8. CONSTRUCTION OF HOT MIX ASPHALT SURFACE COURSE PAVEMENT.
9. REMOVAL OF APPROPRIATE TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES.

Soil Erosion and Sediment Control measures shall be installed as deemed necessary by the engineer and the Freehold Soil Conservation District.

* FREEHOLD SOIL CONSERVATION DISTRICT
4000 KOZLOSKI RD.
FREEHOLD, NJ 07728
(732) 683-8500 PHONE
(732) 683-9140 FAX

SEDIMENT BARRIER:

SHOULD FIELD CONDITIONS WARRANT THE INSTALLATION OF A SEDIMENT BARRIER, IT WILL BE INSTALLED.

This plan to be used for Soil Erosion and Sediment Control purposes only

NON GROWING SEASON SOIL STABILIZATION:

DURING NON GROWING SEASONS EXPOSED SOILS SHOULD BE STABILIZED USING NON-VEGETATIVE MATERIALS SUCH AS UNROTTED SMALL-GRAIN STRAW, OR SALT HAY AT A RATE OF 2.0 TO 2.5 TONS PER ACRE SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, ORGANIC MULCH BINDERS, NETTING TIE DOWNS OR OTHER SUITABLE MATERIALS AS APPROVED BY THE FREEHOLD SOIL CONSERVATION DISTRICT.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

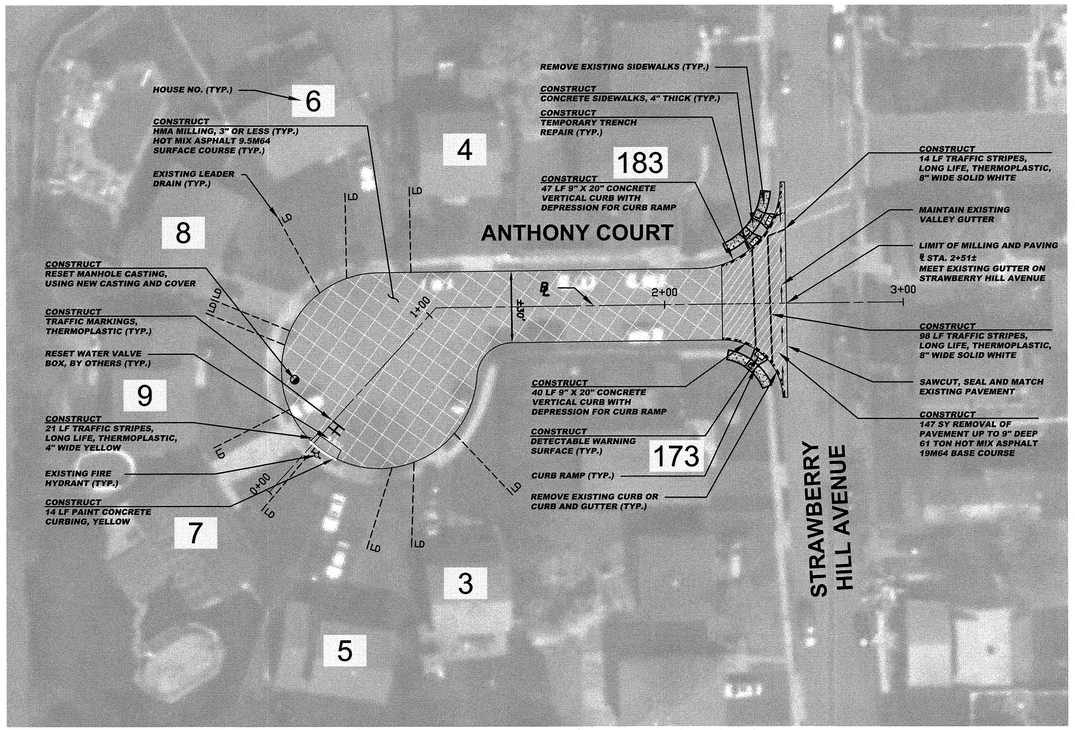
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

SOIL EROSION AND SEDIMENT CONTROL PLAN

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUT



SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

CONSTRUCT (ANTHONY COURT)

147	SY	Removal of pavement, up to 9" deep
977	SY	HMA milling, 3" or less
924	LF	Polymerized joint adhesive
95	LF	Prepare and seal existing joints and cracks in asphalt pavement
152	TON	Hot mix asphalt 9.5M64 surface and leveler course
61	TON	Hot mix asphalt 19M64 base course
1	UN	Reset manhole casting, using new casting and cover
32	SY	Concrete sidewalks, 4" thick
3	SY	Detectable warning surface
87	LF	9"x20" Concrete vertical curb
14	LF	Paint concrete curbing
21	LF	Traffic stripes, long life, "thermoplastic", 4" wide
112	LF	Traffic stripes, long life, "thermoplastic", 8" wide
6	SF	Traffic markings, thermoplastic
20	SY	Temporary trench repair
1	UN	Reset water valve box
50	SY	Topsoiling, 4" thick
50	SY	Fertilizing
50	SY	Sodding

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

ANTHONY COURT — WARD 1

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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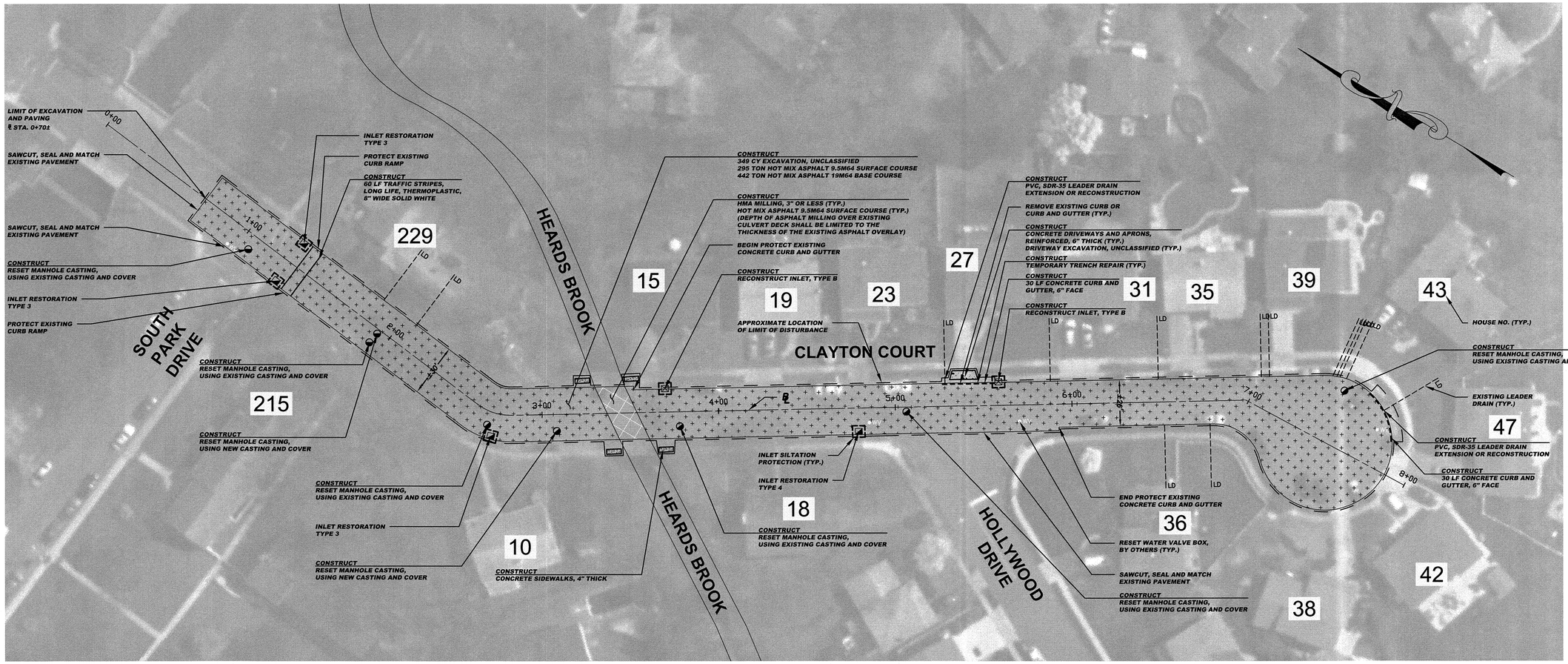
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	GO
SHEET	4 of 106

REGISTERED CG

DRAWING NO. 4 - U

FILE NO. PWB0A607.01



NOTE:

EXCEPT WHERE NOTED, EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

SPECIAL PROVISIONS

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CONSTRUCT (CLAYTON COURT)

3	CY	Driveway excavation, unclassified
349	CY	Excavation, unclassified
57	SY	HMA milling, 3" or less
4003	LF	Polymerized joint adhesive
190	LF	Prepare and seal existing joints and cracks in asphalt pavement
302	TON	Hot mix asphalt 9.5M64 surface and leveler course
442	TON	Hot mix asphalt 19M64 base course
2	UN	PVC, SDR-35 Leader drain extension or reconstruction
6	UN	Reset manhole casting, using existing and cover
2	UN	Reset manhole casting, using new casting and cover
4	UN	Reset existing casting
3	UN	Curb piece, type "N-ECO"
3	UN	Bicycle safe grate
2	UN	Reconstruct inlet, type B
15	SY	Concrete sidewalks, 4" thick
9	SY	Concrete driveways and aprons, reinforced, 6" thick
60	LF	Concrete curb and gutter, 6" face
60	LF	Traffic stripes, long life, "thermoplastic", 8" wide
14	SY	Temporary trench repair
4	UN	Reset water valve box
35	SY	Topsoiling, 4" thick
35	SY	Fertilizing
35	SY	Sodding

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
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- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
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TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

CLAYTON COURT — WARD 1

CME ASSOCIATES
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MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER — LIC. 32468

SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
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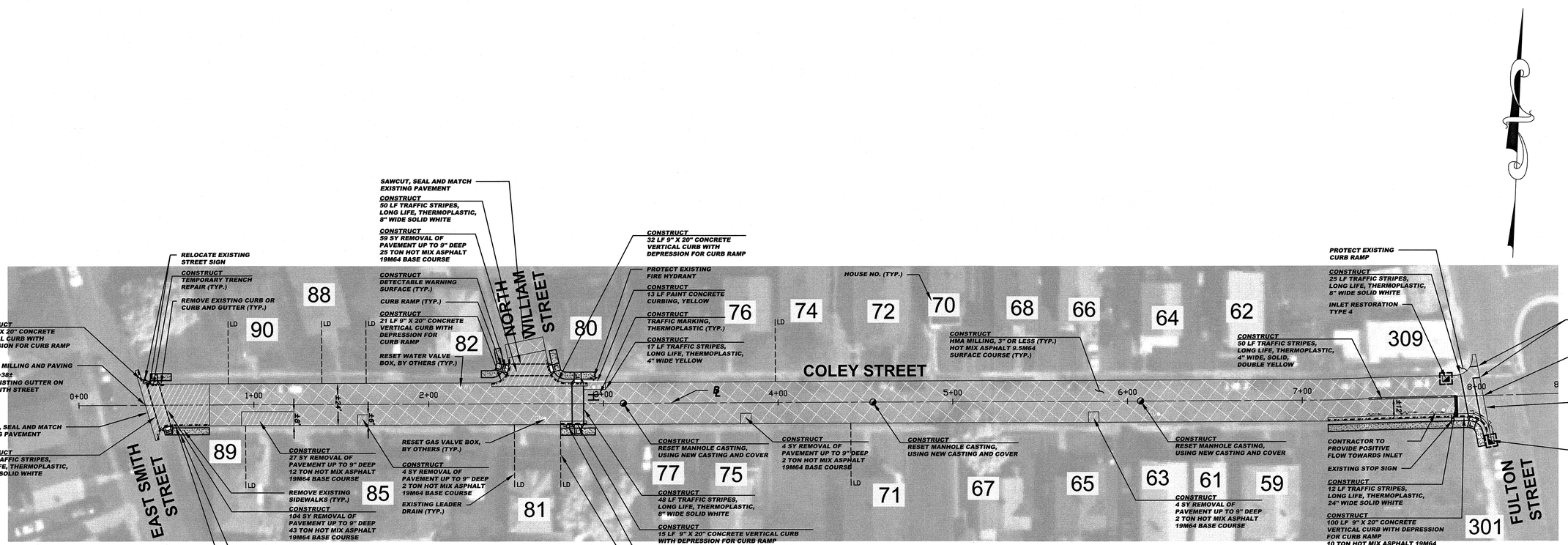
SHEET	5 of 106

PROJECTNO. CG

DRAWING NO. 5 - 0

FILE NO. PWB0A607.01



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CONSTRUCT (COLEY STREET)

202	SY	Removal of pavement, up to 9" deep
1924	SY	HMA milling, 3" or less
3122	LF	Polymerized joint adhesive
90	LF	Prepare and seal existing joints and cracks in asphalt pavement
330	TON	Hot mix asphalt 9.5M64 surface and leveler course
98	TON	Hot mix asphalt 19M64 base course
1	UN	PVC, SDR-35 Leader drain extension or reconstruction
3	UN	Reset manhole casting, using new casting and cover
2	UN	Reset existing casting
104	SY	Concrete sidewalks, 4" thick
7	SY	Detectable warning surface
224	LF	9"x20" Concrete vertical curb
13	LF	Paint concrete curbing
117	LF	Traffic stripes, long life, "thermoplastic", 4" wide
212	LF	Traffic stripes, long life, "thermoplastic", 8" wide
12	LF	Traffic stripes, long life, "thermoplastic", 24" wide
6	SF	Traffic markings, thermoplastic
25	SY	Temporary trench repair
3	UN	Reset water valve box
2	UN	Reset gas valve box
125	SY	Topsoilling, 4" thick
125	SY	Fertilizing
125	SY	Sodding

BASELINES

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INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
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TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

COLEY STREET — WARD 1

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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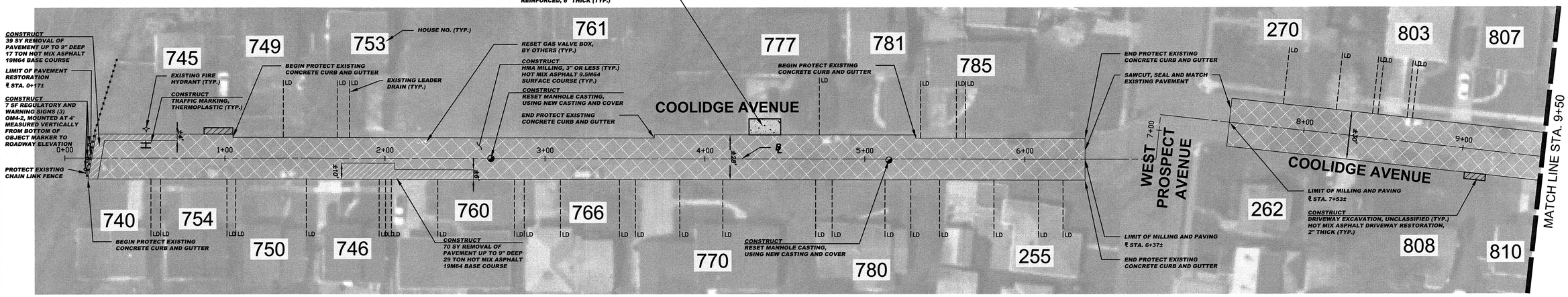
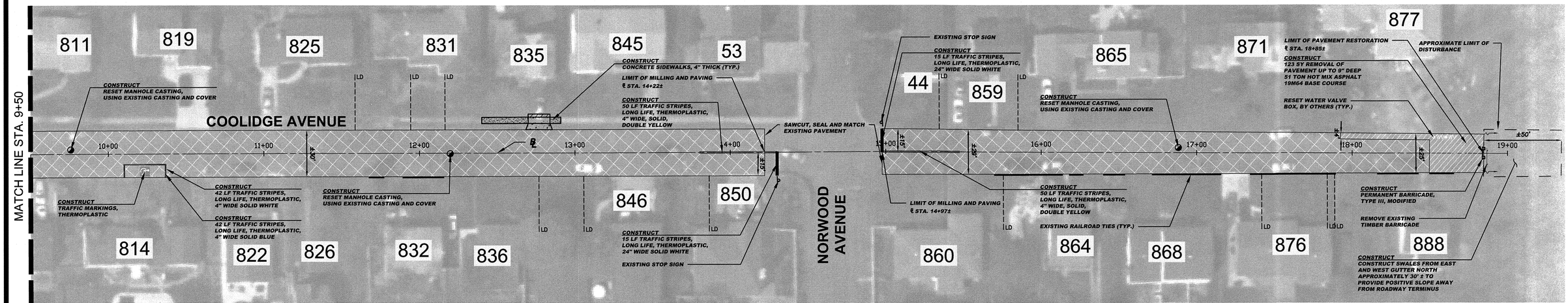
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE: As Shown | DATE: March 2019
DRAWN BY: PB | DESIGNED BY: PB
CHECKED BY: 60 | SHEET: 6 of 106

REGISTERED: CG
DRAWING NO.: 6-U
FILE NO.: PWB0A607.01





OM4–2
18"x18"

SIGN LEGEND

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CONSTRUCT (COOLIDGE AVENUE)

232	SY	Removal of pavement, up to 9" deep
15	CY	Driveway excavation, unclassified
5014	SY	HMA milling, 3" or less
6359	LF	Polymerized joint adhesive
134	LF	Prepare and seal existing joints and cracks in asphalt pavement
797	TON	Hot mix asphalt 9.5M64 surface and leveler course
97	TON	Hot mix asphalt 19M64 base course
3	UN	Reset manhole casting, using existing casting and cover
2	UN	Reset manhole casting, using new casting and cover
17	SY	Concrete sidewalks, 4" thick
36	SY	Concrete driveways and aprons, reinforced, 6" thick
17	SY	Hot mix asphalt driveway restoration, 2" thick
284	LF	Traffic stripes, long life, "thermoplastic", 4" wide
30	LF	Traffic stripes, long life, "thermoplastic", 24" wide
19	SF	Traffic markings, thermoplastic
7	SF	Regulatory and warning signs
1	UN	Permanent barricade, type III, modified
2	UN	Reset water valve box
1	UN	Reset gas valve box
200	SY	Topsoiling, 4" thick
200	SY	Fertilizing
200	SY	Sodding
LS	LS	Construct swale to provide positive slope including grading, restoration, and all associated work

NOTE:

EXCEPT WHERE NOTED, EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

BASELINES

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INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
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TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

COOLIDGE AVENUE — WARD 1

CVE ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
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NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE	As Shown
DATE	March 2019
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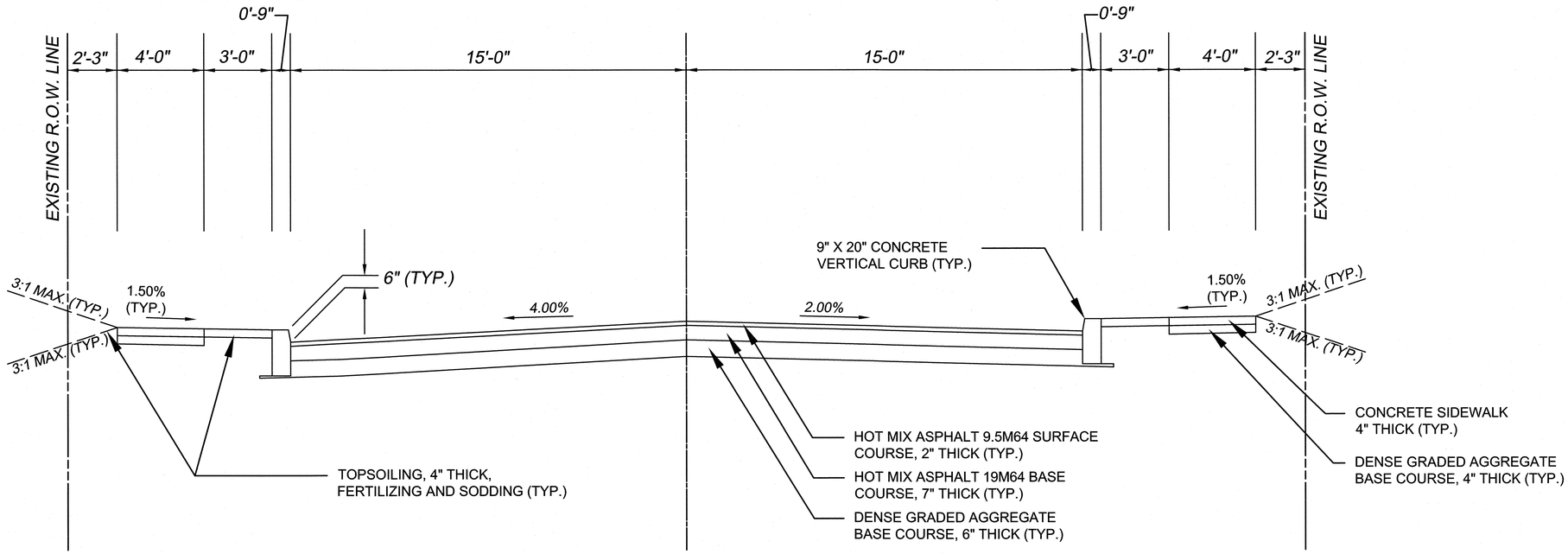
SHEET	7 of 106

RECOMMENDED CG

DRAWING NO. T-3

FILE NO. PWB0A607.01



EAST GREEN STREET
STA. 6+78 - STA. 10+09
STA. 10+62 - STA. 11+52
PERPENDICULAR TO B.L.
(N.T.S.)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
1	REVISED FOR BID	03.25.19	PB	CG	

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY
2019 MILLING AND RESURFACING PROGRAM
CONTRACT NO. 2019-001

TYPICAL SECTION

CME ASSOCIATES
(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400
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MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
DATE 11.12.18

SCALE	As Shown
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DESIGNED BY	PB
CHECKED BY	CG
SHEET	8 of 106

REGISTERED CG
DRAWING NO. 8 - D
FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX

CONSTRUCT
34 LF 9"X16" CONCRETE VERTICAL CURB

CONSTRUCT
DETECTABLE WARNING SURFACE
(CAST IN PLACE) (TYP.)

PROTECT EXISTING TRAFFIC SIGNAL EQUIPMENT (TYP.)

CONSTRUCT
1 UN JUNCTION BOX RELOCATION
STA. 6+67.29 - 19.21' LT
RIM 8.50±
(SEE IMAGE DETECTION DETAIL)

PT STA. 6+68.54-15' LT.
TC 8.49 G 8.16

STA. 6+78.00-15.00' LT.
TC 8.61 G 8.11
END 9"X16" CONCRETE VERTICAL CURB
BEGIN 9"X20" CONCRETE VERTICAL CURB

BENCH MARK T-MAG #101	
LOCATION	ELEVATION
STA. 6+67.16 18.50' LT.	8.65
N 628,083.2755	E 554,336.3959

MATCH EXISTING CURB
PC STA. 6+56.06-31.65' LT.
TC 8.63 G 8.29

R=13' L=24.12'

MATCH EXISTING PAVEMENT
STA. 6+42.68 ±, EL. 8.83 ±

SAWCUT AND SEAL (TYP.)

CONSTRUCT
IMAGE DETECTOR
(SEE IMAGE DETECTION DETAIL)

PROTECT EXISTING
UTILITY POLE (TYP.)

R=14' L=21.66'

PC STA. 6+45.94-28.67' RT.
TC 8.88 G 8.55

MATCH EXISTING CURB
STA. 6+45.89-30.44' RT.
TC 9.07± G 8.57±

MATCH EXISTING SIDEWALK (TYP.)

CONSTRUCT
CONCRETE SIDEWALK, REINFORCED,
4" THICK (TYP.)

RAHWAY AVENUE
(CR 514)
(R.O.W. WIDTH VARIES)

Block 563.45

APPROXIMATE LOCATION OF EXISTING
TRAFFIC SIGNAL CONDUITS, LOOP DETECTOR
LEADS, AND LOOP DETECTORS TO BE
REMOVED AND DISPOSED OF

CONSTRUCT
9"X20" CONCRETE VERTICAL CURB (TYP.)

SAWCUT AND SEAL (TYP.)

CONSTRUCT
CONCRETE SIDEWALK, 4" THICK (TYP.)

CONSTRUCT
PVC, SDR-35 LEADER DRAIN EXTENSION
OR RECONSTRUCTION (TYP.)

CONSTRUCT
DRIVEWAY EXCAVATION,
UNCLASSIFIED (TYP.)
DRIVEWAY RESTORATION,
PAVERS (TYP.)

EAST GREEN STREET
(60' WIDE R.O.W.)

MATCH EXISTING CURB
STA. 10+27.87-62.61' LT.
TC 7.75± G 7.36±

PT STA. 10+20.67-23.98' LT.
TC 8.13 G 7.63

R=11' L=15.25'

PC STA. 10+09.86-15' LT.
TC 8.21 G 7.71

BENCH MARK T-MAG #102	
LOCATION	ELEVATION
STA. 10+05.15 18.39' LT.	8.43
N 628,022.0857	E 554,648.4573

CONSTRUCT
RESET GRANITE
BLOCK CURB (TYP.)

MELBOURNE
COURT
(50' WIDE R.O.W.)

MATCH EXISTING PAVEMENT
STA. 10+43.36 - 61.60' LT.
G 7.92±

STA. 10+34.18 - 15.00' LT
G 8.19

MATCH EXISTING CURB
STA. 10+58.02-60.64' LT.
TC 7.78± G 7.36±

HIGH POINT
PC STA. 10+51.73-28.09' LT.
TC 8.03 G 7.53

R=11' L=19.38'

PT STA. 10+62.53-15' LT.
TC 7.90 G 7.40

Block 563.44

INLET SILTATION PROTECTION (TYP.)

BEGIN FLUSH CONCRETE VERTICAL CURB
PI STA. 11+56.00-15' LT.
TDC 6.71 G 6.71

REMOVE EXISTING CONCRETE ROADWAY
AND CURB AND RESTORE AREA WITH
TOPSOIL, FERTILIZER, AND SOD

CONSTRUCT
30 LF FLUSH 9"X20" CONCRETE
VERTICAL CURB (0" REVEAL)

STA. 11+56.00.
TDC 7.24 G 7.24

Block 563.36

END FLUSH CONCRETE VERTICAL CURB
PI STA. 11+56.00-15' RT.
TDC 6.94 G 6.94

CONSTRUCT
DRIVEWAY EXCAVATION, UNCLASSIFIED (TYP.)
CONCRETE DRIVEWAY , REINFORCED, 6" THICK (TYP.)

CONSTRUCT
DRIVEWAY EXCAVATION, UNCLASSIFIED (TYP.)
HOT MIX ASPHALT DRIVEWAY, 2" THICK (TYP.)

CONSTRUCT
EXCAVATION, UNCLASSIFIED
(EXISTING CONCRETE ROADWAY)
TEMPORARY TRENCH REPAIR
DENSE GRADED AGGREGATE BASE COURSE
HOT MIX ASPHALT 19M64 BASE COURSE
HOT MIX ASPHALT 9.5M64 SURFACE COURSE

Block 563.46

STA. 6+78.00-15' RT.
TC 8.91 G 8.41
END 9"X16" CONCRETE VERTICAL CURB
BEGIN 9"X20" CONCRETE VERTICAL CURB

CONSTRUCT
DRIVEWAY EXCAVATION, UNCLASSIFIED
HOT MIX ASPHALT DRIVEWAY, 6" THICK,
COMMERCIAL

CONSTRUCT
42 LF 9"X16" CONCRETE VERTICAL CURB

CONSTRUCT
1 UN JUNCTION BOX RELOCATION
STA. 6+61.99 - 19.40' RT
RIM 8.91±
(SEE IMAGE DETECTION DETAIL)

HIGH POINT
PT STA. 6+59.93-15' RT.
TDC 8.66 G 8.59

CONSTRUCT DEPRESSED CURB AND CURB
RAMP WITH DETECTABLE WARNING SURFACE
IN ACCORDANCE WITH THE DETAIL (TYP.)

PROTECT EXISTING
FENCE (TYP.)

CONSTRUCT
DRIVEWAY EXCAVATION,
UNCLASSIFIED
HOT MIX ASPHALT DRIVEWAY,
6" THICK, COMMERCIAL

CONSTRUCT
DRIVEWAY EXCAVATION,
UNCLASSIFIED
CONCRETE DRIVEWAY, REINFORCED,
10" THICK, COMMERCIAL

APPROXIMATE LIMIT OF
DISTURBANCE (TYP.)

CONSTRUCT
TOPSOILING, 4" THICK (TYP.)
FERTILIZING (TYP.)
SODDING (TYP.)

HIGH POINT STA. 8+00
EL. 9.40

REMOVE EXISTING TREE (TYP.)

EXISTING CONCRETE ROAD (TYP.)

PROTECT EXISTING
FIRE HYDRANT (TYP.)

CONSTRUCT
RESET WATER VALVE BOX
(BY OTHERS) (TYP.)

RESET EXISTING
SIGN (TYP.)

HOUSE
NO. (TYP.)

LOT NO.
(TYP.)

SAN. MH
RIM 7.46
INV. 0.21
INV. 0.42
36"IRON

SAN. MH
RIM 7.34

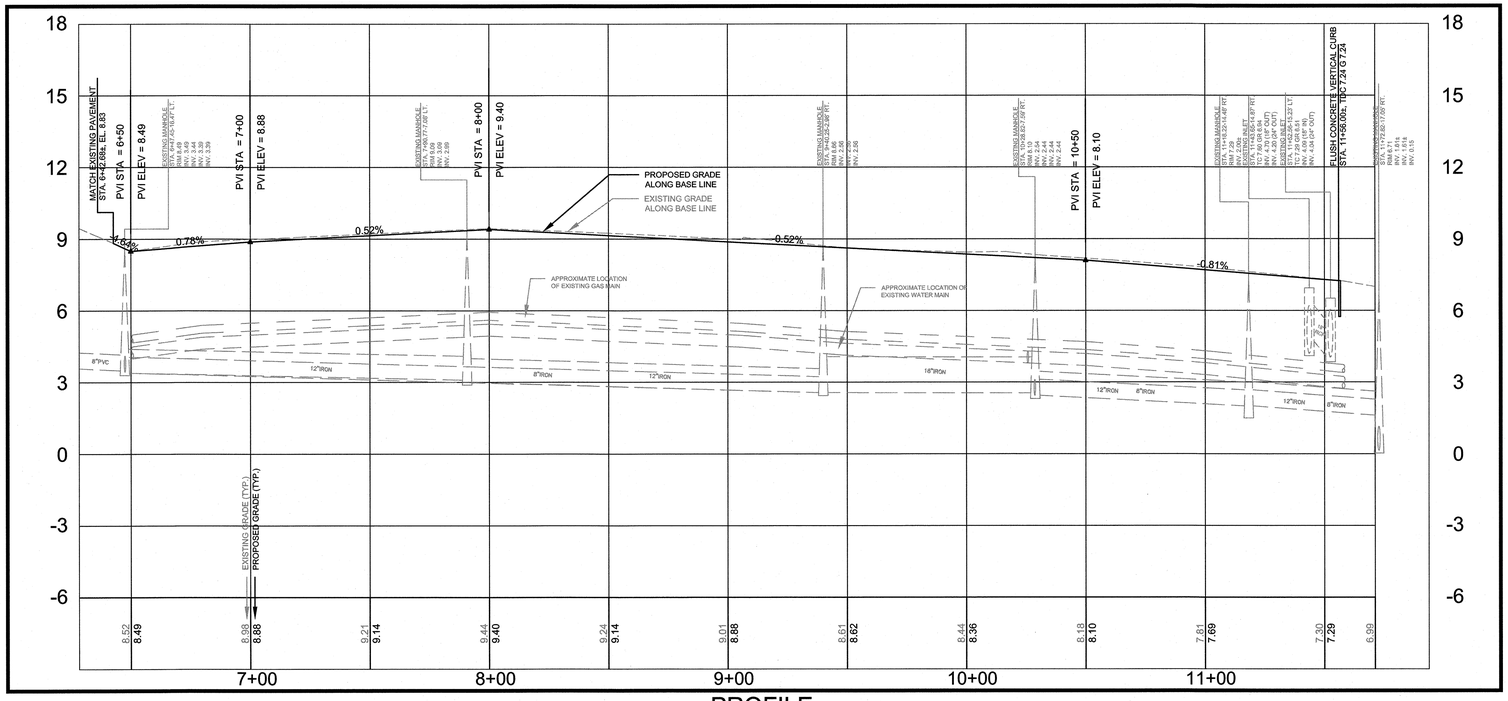
PLAN

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

STA.	6+50	7+00	7+50	8+00	8+50	9+00	9+50	10+00	10+50	11+00	11+50	STA.
TC LT.	-	8.78	9.04	TDC 8.93	TDC 8.67	8.78	8.52	8.28	G 7.75	7.59	7.19	TC LT.
	8.49	8.88	9.14	9.40	9.14	8.88	8.62	8.36	8.10	7.69	7.29	
TC RT.	-	9.08	9.34	9.60	9.34	9.08	8.82	8.56	8.30	7.89	7.49	TC RT.



PROFILE

SCALE: 1"=30' (HORZ.)
1"=3' (VERT.)

CONSTRUCT

(EAST GREEN STREET - STA. 6+42 TO STA. 11+56)

1334	CY	EXCAVATION, UNCLASSIFIED
123	CY	DRIVEWAY EXCAVATION, UNCLASSIFIED
747	CY	DENSE GRADED AGGREGATE BASE COURSE
1650	LF	POLYMERIZED JOINT ADHESIVE
226	TON	HOT MIX ASPHALT 9.5M64 SURFACE COURSE
790	TON	HOT MIX ASPHALT 19M64 BASE COURSE
321	LF	PREPARE AND SEAL EXISTING JOINTS AND CRACKS IN ASPHALT PAVEMENT
12	UN	PVC, SDR-35 LEADER DRAIN EXTENSION OR RECONSTRUCTION
373	SY	CONCRETE SIDEWALK, 4" THICK
42	SY	CONCRETE SIDEWALK, REINFORCED, 4" THICK
227	SY	CONCRETE DRIVEWAY, REINFORCED, 6" THICK
21	SY	CONCRETE DRIVEWAY, REINFORCED, 10" THICK, COMMERCIAL
54	SY	HOT MIX ASPHALT DRIVEWAY, 2" THICK
136	SY	HOT MIX ASPHALT DRIVEWAY, 6" THICK, COMMERCIAL
51	SF	DRIVEWAY RESTORATION, PAVERS
4	SY	DETECTABLE WARNING SURFACE (CAST IN PLACE)
76	LF	9"x16" CONCRETE VERTICAL CURB
1041	LF	9"x20" CONCRETE VERTICAL CURB
12	LF	RESET GRANITE BLOCK CURB
1919	SY	TEMPORARY TRENCH REPAIR
2	UN	RESET WATER VALVE BOX
2	UN	JUNCTION BOX RELOCATION
LUMP SUM		FURNISH AND INSTALL IMAGE DETECTION SYSTEM AT EAST GREEN STREET AND RAHWAY AVENUE
630	SY	TOPSOILING, 4 " THICK
630	SY	FERTILIZING
630	SY	SODDING
6	UN	REPLACEMENT TREES

NOTE:
SEE SHEET NO.*11* FOR LIGHTING PLAN AND DETAILS OF *EAST GREEN STREET.*

NOTE:
SEE SHEET NO.*15* FOR CURB RAMP DETAILS OF *EAST GREEN STREET.*

NOTE:
SEE SHEET NUMBER 3, FOR SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.

SPECIAL PROVISIONS:
THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

NOTE:
THE CONTRACTOR IS REQUIRED TO VERIFY BENCHMARK INFORMATION PRIOR TO CONSTRUCTION.

NOTE:
ALL STATIONING AND OFFSETS ARE TAKEN FROM THE SURVEY BASELINE TO THE BACK OF ROLLED CURB; FACE OF VERTICAL CURB; FACE OF GRANITE BLOCK CURB; OR FACE OF CONCRETE CURB AND GUTTER, UNLESS OTHERWISE NOTED.

NOTE:
NOT ALL EXISTING UTILITIES ARE SHOWN ON THIS PLAN. THE CONTRACTOR IS RESPONSIBLE FOR REQUESTING MARKOUTS FOR ALL EXISTING UTILITIES.

EXISTING GAS AND WATER MAINS
THE CONTRACTOR IS ADVISED THAT THE EXISTING GAS AND WATER MAIN LOCATIONS INDICATED ON THE PLANS ARE APPROXIMATE. THE EXACT LOCATIONS AND DEPTHS WERE NOT AVAILABLE FROM THE UTILITY COMPANIES AT THE TIME THE PLANS WERE PREPARED. ACCORDINGLY, THE CONTRACTOR SHALL REQUEST A UTILITY MARKOUT FROM THE RESPECTIVE GAS AND WATER COMPANIES PRIOR TO COMMENCEMENT OF THE WORK.

NOTE:
SEE SHEET NO. *14* FOR CROSS SECTIONS OF *EAST GREEN STREET.*

TREE NOTE:
THE CONTRACTOR IS DIRECTED TO VERIFY ALL NECESSARY TREE REMOVALS WITH THE ENGINEER PRIOR TO BEGINNING TREE REMOVAL WORK.

NOTE:
LIMITS OF DRIVEWAY RESTORATION TO BE VERIFIED WITH THE ENGINEER PRIOR TO CONSTRUCTION.

NOTE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRANSFERRING BENCHMARKS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAINTAINING BENCHMARKS.

EXISTING LEGEND:

- DENOTES EXISTING MANHOLE
- DENOTES EXISTING INLET
- DENOTES EXISTING HYDRANT
- DENOTES EXISTING SANITARY SEWER
- DENOTES EXISTING STORM SEWER
- DENOTES EXISTING MAILBOX
- DENOTES EXISTING WATER VALVE
- DENOTES EXISTING GAS VALVE
- DENOTES EXISTING WATER MAIN
- DENOTES EXISTING GAS MAIN
- DENOTES EXISTING UNDERGROUND VERIZON
- DENOTES EXISTING UNDERGROUND CABLEVISION
- DENOTES EXISTING TREE
- DENOTES EXISTING FENCE
- DENOTES EXISTING UTILITY POLE
- DENOTES EXISTING GRADE
- DENOTES EXISTING SIGN
- DENOTES EXISTING TRAFFIC SIGNAL MAST ARM AND TRAFFIC SIGNAL HEAD
- DENOTES EXISTING RIGHT OF WAY
- DENOTES EXISTING EASEMENT

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RECONSTRUCT MANHOLE
- DENOTES RESET MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RECONSTRUCT INLET
- DENOTES RESET INLET
- DENOTES INLET SILTATION PROTECTION
- DENOTES DIRECTION OF FLOW
- DENOTES PROPOSED VALLEY GUTTER
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SANITARY SEWER
- DENOTES PROPOSED HANDHOLE
- DENOTES CONCRETE DRIVEWAY RESTORATION AND 4" DGA BASE
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION, AND 4" DGA BASE
- DENOTES LOCATION OF PROPOSED TEST PIT
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED CONCRETE SIDEWALK, REINFORCED, 4" THICK
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HMA SURFACE COURSE 9.5M64, 7" HMA BASE COURSE 19M64 AND 6" DGA BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA SURFACE AND LEVELER COURSE, 9.5M64
- DENOTES PROPOSED ROADWAY TRENCH REPAIR
- DENOTES PROPOSED GRADE
- DENOTES EXISTING TREE TO BE REMOVED
- DENOTES PROPOSED CURB
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES AGGREGATE DRIVEWAY RESTORATION
- DENOTES PAVER DRIVEWAY OR WALKWAY RESTORATION

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
1	REVISED FOR BID	03.25.19	PB	60	

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

CONSTRUCTION PLAN AND PROFILE
EAST GREEN STREET

STA. 6+42 TO 11+56

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 29838 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2069
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32662 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3779
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34455 NJ PP LIC NO. 4301

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
DATE 11.12.18

SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	60
SHEET	9 of 106

REGISTERED CG
DRAWING NO. 9-u
FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX

CONSTRUCT
49 LF 12" DIA. SDR 35 GRAVITY SANITARY SEWER @ 0.45%

CONSTRUCT
5 LF 8" PVC GRAVITY SANITARY SEWER @ EXISTING SLOPE
CONNECT TO EXISTING PIPE WITH COUPLING ENCASED IN CONCRETE

CONSTRUCT
4' PRECAST CONCRETE SANITARY SEWER MANHOLE, 0' to 6' DEEP
STA. 6+47.45-16.47' LT
RIM 8.49
INV. 3.44 (8" IN)
INV. 3.49 (8" IN)
INV. 3.11 (12" OUT)

CONSTRUCT
5 LF 8" PVC GRAVITY SANITARY SEWER @ EXISTING SLOPE
CONNECT TO EXISTING PIPE WITH COUPLING ENCASED IN CONCRETE

CONSTRUCT
INLET TYPE A
STA. 6+46.22-15' RT.
GR 8.41
INV. 6.46 (10" IN)
INV. 6.46 (10" IN)
INV. 6.46 (15" OUT)

INLET SILTATION PROTECTION (TYP.)

CONSTRUCT
9 LF 15" DIA. RCP, CLASS V STORM SEWER @ 0.50%

CONSTRUCT
RECONSTRUCT INLET, TYPE A
STA. 6+45.17-23.04' RT.
GR 8.46
INV. 6.41 (15" IN)
INV. 6.41 (EX. 12" OUT)

CONSTRUCT
EXCAVATION, UNCLASSIFIED, TEST PIT

CONSTRUCT
INLET TYPE B, 6" HEAD
STA. 6+78.00-15.00' LT.
TC 8.61 GR 8.11
INV. 6.77 (10" OUT)
INV. 6.77 (10" OUT)

BENCH MARK T-MAG #101	
LOCATION	ELEVATION
STA. 6+67.16 18.50' LT.	8.65
N 628,083.2755	E 554,336.3959

RAHWAY AVENUE (CR 514) (R.O.W. WIDTH VARIES)

Block 563.45

CONSTRUCT
ABANDON EXISTING SANITARY SEWER PIPE AND FILL WITH GROUT (TYP.)

CONSTRUCT
REMOVE AND DISPOSE OF EXISTING SANITARY SEWER MANHOLE (TYP.)

EAST GREEN STREET
(50' WIDE R.O.W.)

CONSTRUCT
5 LF 8" PVC GRAVITY SANITARY SEWER @ EXISTING SLOPE
CONNECT TO EXISTING PIPE WITH COUPLING ENCASED IN CONCRETE

EXISTING WATER MAIN TO BE RELOCATED BY MIDDLESEX WATER COMPANY

BENCH MARK T-MAG #102	
LOCATION	ELEVATION
STA. 10+05.15 18.39' LT.	8.43
N 628,022.0857	E 554,646.4573

MELBOURNE COURT
(50' WIDE R.O.W.)

Block 563.44

Block 563.36

Block 563.46

CONSTRUCT
4' PRECAST CONCRETE SANITARY SEWER MANHOLE, 6' TO 8' DEEP
STA. 6+93.67 - 2' LT
RIM 8.75
INV. 2.89 (12" IN)
INV. 2.79 (12" OUT)

CONSTRUCT
(2) 30 LF 10" DIA. DIP, CLASS 52 STORM SEWER @ 0.50%

CONSTRUCT
INLET TYPE B, 6" HEAD
STA. 6+78.00-15' RT.
TC 8.91 GR 8.41
INV. 6.62 (10" IN/OUT)
INV. 6.62 (10" IN/OUT)

CONSTRUCT
EXCAVATION, UNCLASSIFIED, TEST PIT

CONSTRUCT
(2) 32 LF 10" DIA. DIP, CLASS 52 STORM SEWER @ 0.50%

CONSTRUCT
207 LF 12" DIA. SDR 35 GRAVITY SANITARY SEWER @ 0.44%

EXISTING CONCRETE ROAD (TYP.)

APPROXIMATE LOCATION OF EXISTING INACTIVE GAS MAIN

CONSTRUCT
131 LF 12" DIA. SDR 35 GRAVITY SANITARY SEWER @ 0.44%

APPROXIMATE LOCATION OF EXISTING 2" PLASTIC GAS MAIN

CONSTRUCT
4' PRECAST CONCRETE SANITARY SEWER MANHOLE, 6' TO 8' DEEP
STA. 9+00.00 - 2' LT
RIM 8.80
INV. 1.88 (12" IN)
INV. 1.78 (12" OUT)

CONSTRUCT
4' PRECAST CONCRETE SANITARY SEWER MANHOLE, 6' TO 8' DEEP
STA. 10+30.65 - 2' LT
RIM 8.12
INV. 2.47 (8" IN)
INV. 1.21 (12" IN)
INV. 1.11 (12" OUT)

CONSTRUCT
101 LF 12" DIA. SDR 35 GRAVITY SANITARY SEWER @ 0.44% SLOPE
DGA FOR PIPE TRENCH (TYP.)
TEMPORARY TRENCH REPAIR (TYP.)

CONSTRUCT
4' PRECAST CONCRETE SANITARY SEWER MANHOLE, 6' TO 8' DEEP
STA. 11+31.54 - 2' LT
RIM 7.36
INV. 0.66 (12" IN)
INV. 0.56 (12" OUT)

CONSTRUCT
RECONSTRUCT INLET, TYPE B, 6" HEAD
STA. 11+52.56-15' LT.
TC 7.17 GR 6.67
INV. 4.09 (18" IN)
INV. 4.04 (EX. 24" OUT)

CONSTRUCT
32 LF 18" DIA. RCP, CLASS V @ 1.90% SLOPE
DGA FOR PIPE TRENCH (TYP.)
TEMPORARY TRENCH REPAIR (TYP.)

CONSTRUCT
44 LF 12" DIA. SDR 35 GRAVITY SANITARY SEWER @ 0.43%

EXISTING WATER MAIN TO BE RELOCATED BY MIDDLESEX WATER COMPANY

CONSTRUCT
4' PRECAST CONCRETE SANITARY SEWER MANHOLE, 6' TO 8' DEEP
STA. 11+74.41-9.88' RT.
RIM 6.71
INV. 0.37 (12" IN)
INV. 0.27 (12" OUT)

CONSTRUCT
8 LF 12" PVC GRAVITY SANITARY SEWER @ 0.25% (CONNECT TO RECONSTRUCTED MANHOLE)

CONSTRUCT
RECONSTRUCT EXISTING SANITARY SEWER MANHOLE INCLUDING MODIFICATION TO EXISTING BRICK BENCH AND CHANNEL IN ORDER TO PROVIDE TEMPORARY CONNECTION OF PROPOSED 12" SDR-35 GRAVITY SEWER AND MAINTAIN EXISTING WASTEWATER FLOWS. REMOVE AND DISPOSE MANHOLE UPON COMPLETION OF ABANDONMENT OF EXISTING SANITARY SEWER MAIN.
STA. 11+72.82-17.05' RT.
RIM 6.71
INV. 1.61± (12" & 8" IN)
INV. 0.25 (12" IN)
INV. 0.15 (12" OUT)

CONSTRUCT
14 LF 12" PVC GRAVITY SANITARY SEWER @ 1.50% (FINAL CONDITION)
CONNECT TO EXISTING PIPE WITH COUPLING ENCASED IN CONCRETE

CONSTRUCT
EXCAVATION, UNCLASSIFIED, TEST PIT

CONSTRUCT
RECONSTRUCT INLET, TYPE B, 6" HEAD
STA. 11+43.67-15' RT.
TC 7.54 GR 7.04
INV. 4.70 (18" OUT)
INV. 4.20 (EX. 24" OUT)

HOUSE NO. (TYP.)

LOT NO. (TYP.)

NORTH

PLAN

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

CONSTRUCT
(EAST GREEN STREET - STA. 6+42 TO STA. 11+56)

4	UN	REMOVE AND DISPOSE OF EXISTING SANITARY SEWER MANHOLES
55	CY	EXCAVATION, UNCLASSIFIED, TEST PIT
124	LF	10" DIA. DIP CLASS 52 STORM SEWER
9	LF	15" DIA. RCP CLASS V STORM SEWER
32	LF	18" DIA. RCP CLASS V STORM SEWER
1133	CY	DENSE GRADED AGGREGATE FOR PIPE TRENCH
1	UN	INLET TYPE A
2	UN	INLET TYPE B
1	UN	RECONSTRUCT INLET, TYPE A
2	UN	RECONSTRUCT INLET TYPE B
532	SY	TEMPORARY TRENCH REPAIR
967	LF	ABANDON EXISTING SANITARY SEWER PIPE AND FILL WITH GROUT
15	LF	8" PVC SDR-35 GRAVITY SANITARY SEWER, 0' TO 6' DEEP
49	LF	12" PVC SDR-35 GRAVITY SANITARY SEWER, 0' TO 6' DEEP
505	LF	12" PVC SDR-35 GRAVITY SANITARY SEWER, 6' TO 8' DEEP
1	UN	4' PRECAST CONCRETE SANITARY SEWER MANHOLE, 0' TO 6' DEEP
5	UN	4' PRECAST CONCRETE SANITARY SEWER MANHOLE, 6' TO 8' DEEP
LUMP SUM		RECONSTRUCT EXISTING SANITARY SEWER MANHOLE
19	UN	12" X 6" PVC SDR-35 WYE
19	UN	6" DIA. PVC SDR-35 CLEANOUTS
19	UN	6" DIA. PVC SRD-35 CHECK VALVES
475	LF	6" PVC SDR-35 SANITARY SEWER LATERAL
95	LF	6" PVC SDR-35 SLOPED SANITARY SEWER RISER CONNECTION
4	UN	CONNECT TO EXISTING SANITARY SEWER MAIN

NOTE:
SEE SHEET NUMBER 3, FOR SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.

SPECIAL PROVISIONS:
THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

NOTE:
THE CONTRACTOR IS REQUIRED TO VERIFY BENCHMARK INFORMATION PRIOR TO CONSTRUCTION.

NOTE:
ALL STATIONING AND OFFSETS ARE TAKEN FROM THE SURVEY BASELINE TO THE BACK OF ROLLED CURB; FACE OF VERTICAL CURB; FACE OF GRANITE BLOCK CURB; OR FACE OF CONCRETE CURB AND GUTTER, UNLESS OTHERWISE NOTED.

NOTE:
NOT ALL EXISTING UTILITIES ARE SHOWN ON THIS PLAN. THE CONTRACTOR IS RESPONSIBLE FOR REQUESTING MARKOUTS FOR ALL EXISTING UTILITIES.

EXISTING GAS AND WATER MAINS
THE CONTRACTOR IS ADVISED THAT THE EXISTING GAS AND WATER MAIN LOCATIONS INDICATED ON THE PLANS ARE APPROXIMATE. THE EXACT LOCATIONS AND DEPTHS WERE NOT AVAILABLE FROM THE UTILITY COMPANIES AT THE TIME THE PLANS WERE PREPARED. ACCORDINGLY, THE CONTRACTOR SHALL REQUEST A UTILITY MARKOUT FROM THE RESPECTIVE GAS AND WATER COMPANIES PRIOR TO COMMENCEMENT OF THE WORK.

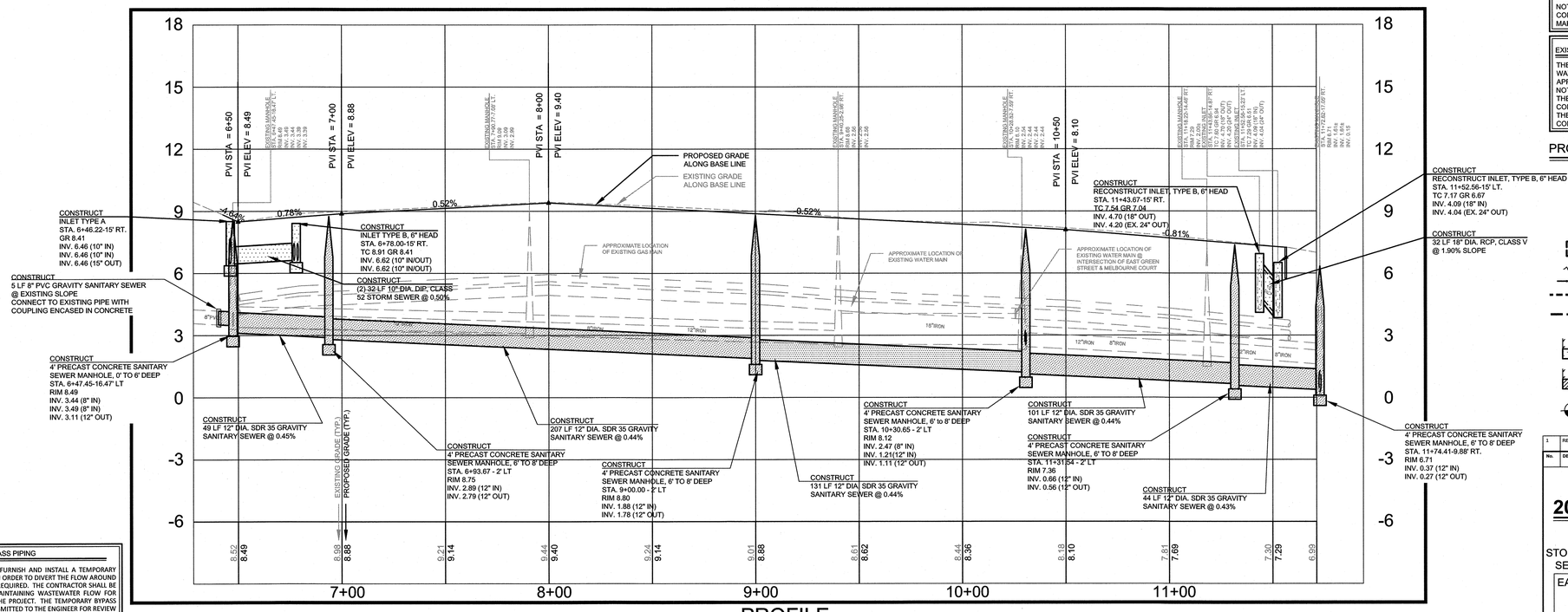
TREE NOTE:
THE CONTRACTOR IS DIRECTED TO VERIFY ALL NECESSARY TREE REMOVALS WITH THE ENGINEER PRIOR TO BEGINNING TREE REMOVAL WORK.

NOTE:
LIMITS OF DRIVEWAY RESTORATION TO BE VERIFIED WITH THE ENGINEER PRIOR TO CONSTRUCTION.

NOTE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRANSFERRING BENCHMARKS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAINTAINING BENCHMARKS.

EXISTING LEGEND:

- DENOTES EXISTING MANHOLE
- DENOTES EXISTING INLET
- DENOTES EXISTING HYDRANT
- DENOTES EXISTING SANITARY SEWER
- DENOTES EXISTING STORM SEWER
- DENOTES EXISTING MAILBOX
- DENOTES EXISTING WATER VALVE
- DENOTES EXISTING GAS VALVE
- DENOTES EXISTING WATER MAIN
- DENOTES EXISTING GAS MAIN
- DENOTES EXISTING UNDERGROUND VERIZON
- DENOTES EXISTING UNDERGROUND CABLEVISION
- DENOTES EXISTING TREE
- DENOTES EXISTING FENCE
- DENOTES EXISTING UTILITY POLE
- DENOTES EXISTING GRADE
- DENOTES EXISTING SIGN
- DENOTES EXISTING TRAFFIC SIGNAL MAST ARM AND TRAFFIC SIGNAL HEAD
- DENOTES EXISTING RIGHT OF WAY
- DENOTES EXISTING EASEMENT



PROFILE

SCALE: 1"=30' (HORZ.)
1"=3' (VERT.)

CONSTRUCT
INLET TYPE A
STA. 6+46.22-15' RT.
GR 8.41
INV. 6.46 (10" IN)
INV. 6.46 (10" IN)
INV. 6.46 (15" OUT)

CONSTRUCT
5 LF 8" PVC GRAVITY SANITARY SEWER @ EXISTING SLOPE
CONNECT TO EXISTING PIPE WITH COUPLING ENCASED IN CONCRETE

CONSTRUCT
4' PRECAST CONCRETE SANITARY SEWER MANHOLE, 0' TO 6' DEEP
STA. 6+47.45-16.47' LT
RIM 8.49
INV. 3.44 (8" IN)
INV. 3.49 (8" IN)
INV. 3.11 (12" OUT)

CONSTRUCT
49 LF 12" DIA. SDR 35 GRAVITY SANITARY SEWER @ 0.45%

CONSTRUCT
INLET TYPE B, 6" HEAD
STA. 6+78.00-15' RT.
TC 8.91 GR 8.41
INV. 6.62 (10" IN/OUT)
INV. 6.62 (10" IN/OUT)

CONSTRUCT
(2) 32 LF 10" DIA. DIP, CLASS 52 STORM SEWER @ 0.50%

CONSTRUCT
4' PRECAST CONCRETE SANITARY SEWER MANHOLE, 0' TO 6' DEEP
STA. 6+93.67 - 2' LT
RIM 8.75
INV. 2.89 (12" IN)
INV. 2.79 (12" OUT)

CONSTRUCT
207 LF 12" DIA. SDR 35 GRAVITY SANITARY SEWER @ 0.44%

CONSTRUCT
4' PRECAST CONCRETE SANITARY SEWER MANHOLE, 6' TO 8' DEEP
STA. 9+00.00 - 2' LT
RIM 8.80
INV. 1.88 (12" IN)
INV. 1.78 (12" OUT)

CONSTRUCT
131 LF 12" DIA. SDR 35 GRAVITY SANITARY SEWER @ 0.44%

CONSTRUCT
4' PRECAST CONCRETE SANITARY SEWER MANHOLE, 6' TO 8' DEEP
STA. 10+30.65 - 2' LT
RIM 8.12
INV. 2.47 (8" IN)
INV. 1.21(12" IN)
INV. 1.11 (12" OUT)

CONSTRUCT
101 LF 12" DIA. SDR 35 GRAVITY SANITARY SEWER @ 0.44%

CONSTRUCT
4' PRECAST CONCRETE SANITARY SEWER MANHOLE, 6' TO 8' DEEP
STA. 11+31.54 - 2' LT
RIM 7.36
INV. 0.66 (12" IN)
INV. 0.56 (12" OUT)

CONSTRUCT
44 LF 12" DIA. SDR 35 GRAVITY SANITARY SEWER @ 0.43%

CONSTRUCT
RECONSTRUCT INLET, TYPE B, 6" HEAD
STA. 11+52.56-15' LT.
TC 7.17 GR 6.67
INV. 4.09 (18" IN)
INV. 4.04 (EX. 24" OUT)

CONSTRUCT
32 LF 18" DIA. RCP, CLASS V @ 1.90% SLOPE

CONSTRUCT
4' PRECAST CONCRETE SANITARY SEWER MANHOLE, 6' TO 8' DEEP
STA. 11+74.41-9.88' RT.
RIM 6.71
INV. 0.37 (12" IN)
INV. 0.27 (12" OUT)

TEMPORARY BYPASS PIPING
CONTRACTOR SHALL FURNISH AND INSTALL A TEMPORARY BYPASSING SYSTEM IN ORDER TO DIVERT THE FLOW AROUND THE WORK AREA AS REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING WASTEWATER FLOW FOR THE DURATION OF THE PROJECT. THE TEMPORARY BYPASS SYSTEM SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND SHALL INCLUDE LOCATIONS OF TEMPORARY PIPING, MANHOLE CONNECTIONS, ADDITIONAL STRUCTURES AND BYPASS PUMPS. REFER TO THE SPECIFICATIONS FOR ADDITIONAL DETAILS.

WATER MAIN CLEARANCES
WHERE NEITHER A 10' HORIZONTAL SEPARATION FROM WATER MAIN TO SANITARY SEWER NOR A VERTICAL SEPARATION OF 18" BETWEEN BOTTOM OF WATER MAIN AND TOP OF SANITARY SEWER CAN BE MAINTAINED, CONTRACTOR SHALL ENCASE PROPOSED PVC-SDR-35 GRAVITY SANITARY SEWER IN CONCRETE.

SANITARY SEWER SYSTEM CONSTRUCTION
THE CONTRACTOR IS SPECIFICALLY DIRECTED TO ALL APPLICABLE SECTIONS OF THE SPECIFICATIONS FOR PROCEDURES AND REQUIREMENTS RELATING TO THE REMOVAL AND REPLACEMENT OF THE EXISTING SANITARY SEWER SYSTEM, AND THE LOCATING AND CONNECTING OF EXISTING HOUSE SERVICE LATERAL CONNECTIONS.

SANITARY SEWER LATERALS
THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND REPLACING ALL SANITARY SEWER LATERALS WITH CHECK VALVES AND CONNECTIONS TO THE PROPOSED SEWER MAIN IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RECONSTRUCT MANHOLE
- DENOTES RESET MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RECONSTRUCT INLET
- DENOTES RESET INLET
- DENOTES INLET SILTATION PROTECTION
- DENOTES DIRECTION OF FLOW
- DENOTES PROPOSED VALLEY GUTTER
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SANITARY SEWER
- DENOTES PROPOSED HANDHOLE
- DENOTES CONCRETE DRIVEWAY RESTORATION AND 4" DGA BASE
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION, AND 4" DGA BASE
- DENOTES LOCATION OF PROPOSED TEST PIT
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED CONCRETE SIDEWALK, REINFORCED, 4" THICK
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HMA SURFACE COURSE 9.5M64, 7" HMA BASE COURSE 19M64 AND 6" DGA BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA SURFACE AND LEVELER COURSE, 9.5M64
- DENOTES PROPOSED ROADWAY TRENCH REPAIR
- DENOTES PROPOSED GRADE
- DENOTES EXISTING TREE TO BE REMOVED
- DENOTES PROPOSED CURB
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES AGGREGATE DRIVEWAY RESTORATION
- DENOTES PAVER DRIVEWAY OR WALKWAY RESTORATION

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
1	REVISED PER RED	03.25.19	PB	CG	

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

STORM SEWER AND SANITARY SEWER PLAN AND PROFILE

EAST GREEN STREET

STA. 6+42 TO 11+56

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 9000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 29938 NJ PP LIC NO. 3455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 33562 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 33458 NJ PP LIC NO. 3778
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

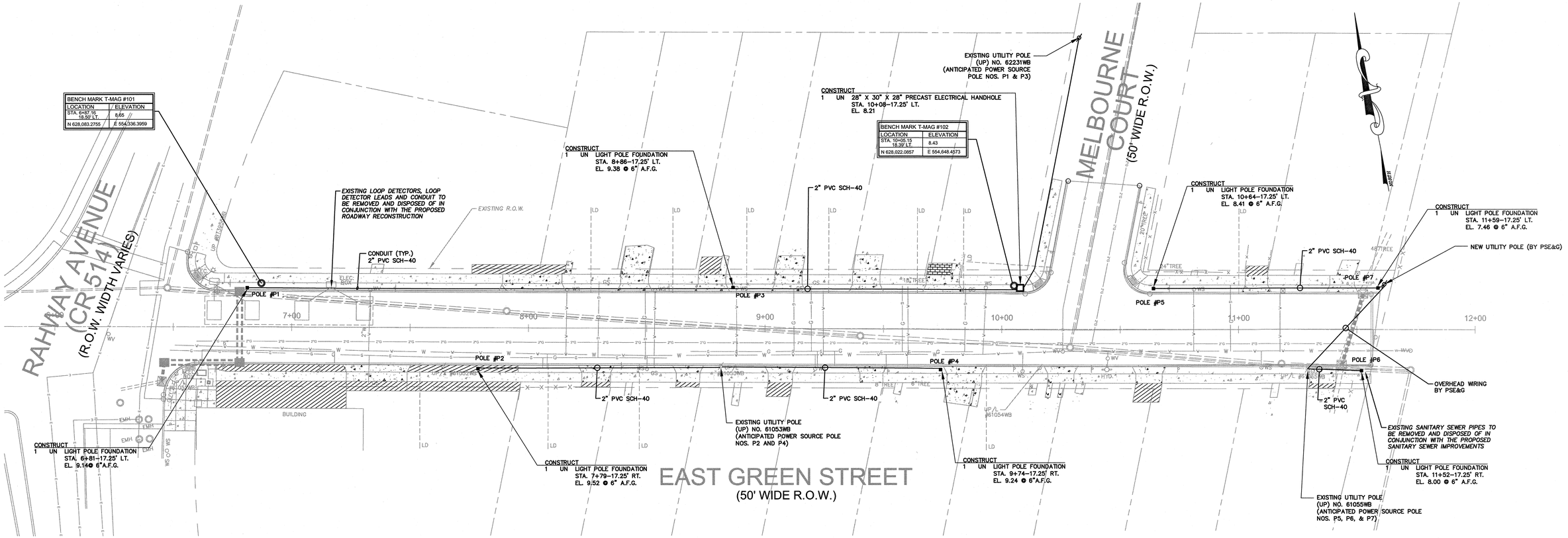
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
DATE 11.12.18

SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	CG
SHEET	10 of 106

REGISTERED CG

DRAWING NO. 10-v

FILE NO. PWB0A607.01



LIGHTING PLAN

GRAPHIC SCALE

20 0 10 20 40 160

(IN FEET)
1 inch = 20 ft.

NOTES:

1. CONDUIT TO BE PVC SCHEDULE 40 BELOW GRADE, RGS SWEEPS AND ABOVE GRADE. CONDUIT TO BE SCHEDULE 80 BELOW ROADS. SWEEPS MUST BE 24" LARGE RADIUS.
2. CONTRACTOR SHALL DETERMINE EXACT ROUTING UPON INSPECTION OF ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES / PIPING AND COORDINATION WITH THE OWNER AND THE ENGINEER.
3. METALLIC FOIL "DANGER HIGH VOLTAGE TAPE" SHALL BE PROVIDED 1'-0" BELOW GRADE ABOVE ALL ELECTRICAL CONDUITS.
4. RESTORATION OF AREAS DISTURBED SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND AS DIRECTED BY THE ENGINEER.
5. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN AND PROTECT VEHICULAR AND PEDESTRIAN TRAFFIC DURING CONSTRUCTION.
6. THE CONTRACTOR SHALL FURNISH AND INSTALL LIGHTING IMPROVEMENTS INCLUDING CONCRETE FOUNDATIONS AND CONDUIT, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND AS PER PSE&G REQUIREMENTS.
7. CONTRACTOR WILL PROVIDE THE LIGHT POLE FOUNDATION COMPLETE WITH CONDUITS FOR POWER/GROUNDING AND ANCHOR BOLTS. ONE GROUNDING CONDUCTOR IS REQUIRED FOR EACH.
8. THE CONTRACTOR WILL NOT BE PERMITTED TO INSTALL ANY BASE PAVEMENT OR SIDEWALK ON THE PROJECT UNTIL IT HAS BEEN CONFIRMED THAT THE UNDERGROUND CONDUITS HAVE BEEN INSTALLED IN ACCORDANCE WITH LIGHTING PLAN. THE CONTRACTOR WILL NOT BE PERMITTED TO INSTALL THE TOP COURSE OF PAVEMENT OR ANY TOPSOIL UNTIL SUCH A TIME AS ALL ELECTRICAL CONDUIT REQUIRED FOR THE PROJECT HAS BEEN COMPLETED.
9. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF LIGHT POLES/CONDUIT RUNS PRIOR TO CONSTRUCTION.
10. CONDUIT GOING UP THE RISER POLE MUST BE SCH. 80 PVC AND RUN 8 – 11 FEET UP THE POLE – FASTENED EVERY 2 FEET WITH GALVANIZED STRAPS.
11. RISER MUST BE ON REAR QUARTER SIDE OF POLE AWAY FROM TRAFFIC.
12. GROUND ROD MUST PROJECT 6" ABOVE LEVEL OF BASE.
13. CUT DUCTS 2" ABOVE LEVEL OF BASE.
14. ROD AND ROPE DUCTS (USE MIN. OF 1/4" NYLON ROPE).
15. CAP OR TAPE-OFF DUCTS TO PREVENT DEBRIS FROM GETTING INTO PIPES.
16. BOLT CIRCLE DIAMETER MUST MATCH THE BOLT PATTERN PROVIDED BY PSE&G, OTHERWISE IT WILL BE THE CONTRACTORS RESPONSIBILITY TO MAKE ANY CHANGES.
17. BOLTS, WASHERS & NUTS MUST BE GALVANIZED OR RUST PROOF. BOLTS MUST BE AT PROPER HEIGHT.
18. LEAVE WASHERS AND NUTS ON BOLTS, TIGHTEN DOWN LIGHTLY SO THEY CAN NOT BE REMOVED WITHOUT A TOOL.
19. NOTIFY PSE&G WHEN FOUNDATIONS AND BOLTS ARE READY TO BE INSPECTED.
20. NOTIFY PSE&G WHEN READY FOR POLE INSTALLATIONS.
21. NOTIFY PSE&G WHEN TRENCH IS OPEN AND READY TO BE INSPECTED – PSE&G WILL INSTALL ITS OWN WIRE.
22. TRENCH MUST BE MIN. OF 6" WIDE AND 30" DEEP.
23. 6" OF CLEAN SAND BELOW AND ABOVE CONDUIT.

LUMINAIRE SCHEDULE

SYMBOL	QTY	LABEL	ARRANGEMENT	LUM. LUMENS	LUM. WATTS	LLF	DESCRIPTION	FILE NAME
■	7	SIGNATURE LED TYPE 3 – RL32–3	SINGLE	8194	85	0.85	SIGNATURE LED TYPE 3 – GX2.5, 12FT POLE	SIGNATURE LED TYPE 3 – RL32–3V4K

CALCULATION SUMMARY

LABEL	CALC TYPE	UNITS	AVG	MAX	AVG / MIN	AVG / MAX	DESCRIPTION
EAST GREEN STREET	ILLUMINANCE	FC	1.00	2.00	3.33	6.67	10FT GRID

TO BE CONSTRUCTED

ITEM DESCRIPTION	UNIT	CONTRACT QUANTITY
2" PVC SCH. 40 CONDUIT	LF	950
LIGHT POLE FOUNDATION	UN	7
28"X30"X28" PRECAST ELECTRICAL HANDHOLE	UN	1

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

LIGHTING PLAN AND NOTES
EAST GREEN STREET — STA. 6+42 TO 11+56

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 — (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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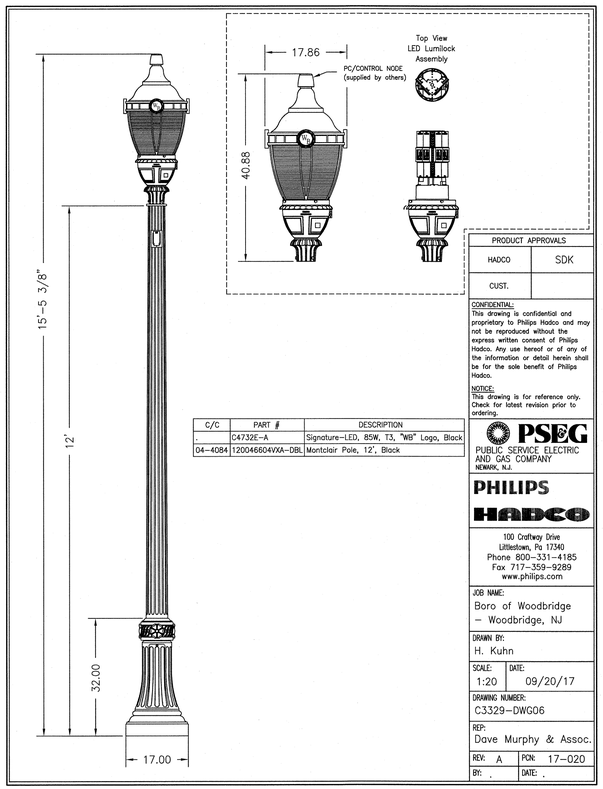
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3779
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

FARID GHAEMI P.E.
NEW JERSEY PROFESSIONAL ENGINEER
LIC. No. 24GE04044600
DATE: 3.25.19

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
3.25.19

SCALE	DATE
As Shown	March 2019
DRAWN BY: SS	DESIGNED BY: SS
CHECKED BY: FG	SHEET: 11 of 106

REGISTERED: CG
DRAWING NO.: 11 - U
FILE NO.: PWB0A607.01



C/C	PART #	DESCRIPTION
.	C4732E-A	Signature-LED, 85W, T3, "WB" Logo, Black
04-4084	120046604VXA-DBL	Montclair Pole, 12', Black

PRODUCT APPROVALS	
HADCO	SDK
CUST.	

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NOTICE:
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PSEG
PUBLIC SERVICE ELECTRIC AND GAS COMPANY
NEWARK, N.J.

PHILIPS
HADCO

100 Craftway Drive
Littlestown, Pa 17340
Phone 800-331-4185
Fax 717-359-9289
www.philips.com

JOB NAME:
Boro of Woodbridge
- Woodbridge, NJ

DRAWN BY:
H. Kuhn

SCALE: 1:20 | DATE: 09/20/17

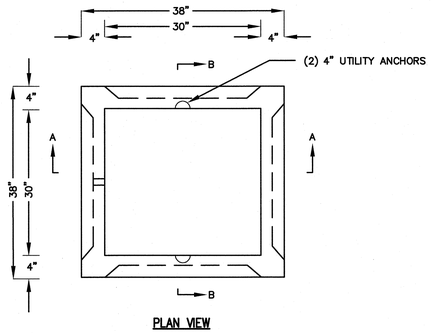
DRAWING NUMBER:
C3329-DWG06

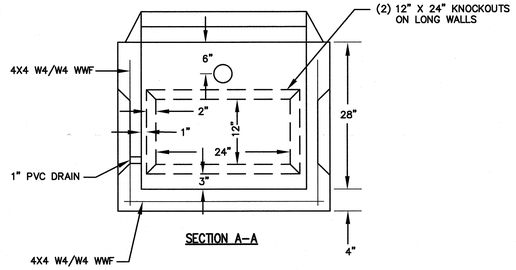
REP:
Dave Murphy & Assoc.

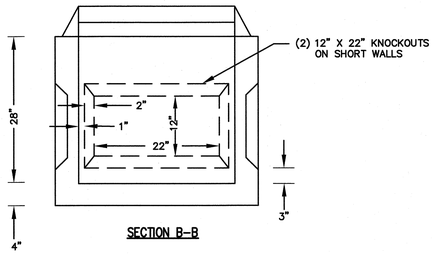
REV: A | PO#: 17-020

BY: . | DATE: .

LIGHT POLE DETAIL
N.T.S.







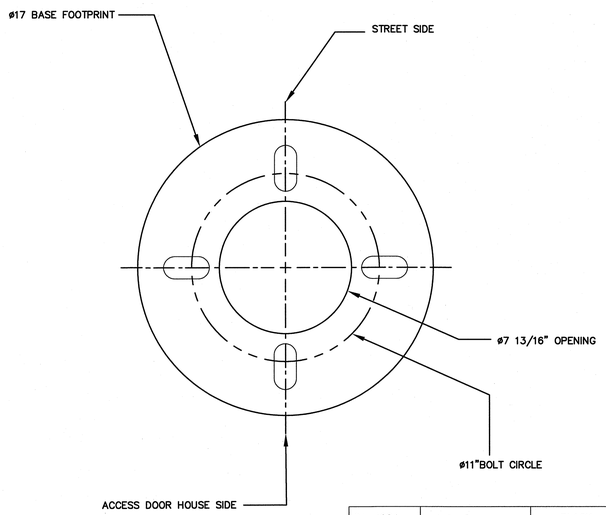
NOTES:

1. 4,000 PSI CONCRETE AT 28 DAYS.
2. REINFORCEMENT BARS PER ASTM A-615, GRADE 60 WELDED WIRE FABRIC PER ASTM A-185, GRADE 70.
3. CAMPBELL CASTING FRAME 08-2308 AND COVER 08-1209, PATTERN NUMBER 3390.
4. ANY ALTERATION TO THIS DRAWING MUST BE SUBMITTED TO GSP IN WRITING PRIOR TO PRODUCTION.
5. STRUCTURAL DESIGN IN ACCORDANCE WITH ASTM C-857-07 AND ACI-318.
6. MANUFACTURED IN ACCORDANCE WITH ASTM C-858-09.

PRECAST ELECTRICAL HANDHOLE DETAIL
N.T.S.

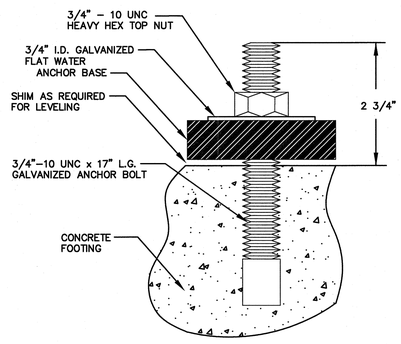
ABBREVIATIONS

A	AMPERE
A.F.G.	ABOVE FINISHED GRADE
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CKT(S)	CIRCUIT(S)
DIA	DIAMETER
DWG	DRAWING
ELEC	ELECTRIC
EXIST	EXISTING
JB	JUNCTION BOX
KAIC	KILO AMPERE INTERRUPTING CAPACITY
LTG	LIGHTING
MILS	MILLIMETERS
N	NEUTRAL
NEMA	NATIONAL ELECTRICAL MANUFACTURER ASSOCIATION
N.T.S.	NOT TO SCALE
P	POLE
PH	PHASE
R	RATING
RNMC	RIGID NON METALLIC CONDUIT
SCH	SCHEDULE
STD	STANDARD
THHN	THERMOPLASTIC HIGH WATER RESISTANT NYLON COATED
THWN	THERMOPLASTIC HIGH HEAT RESISTANT NYLON COATED
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
UP	UTILITY POLE
V	VOLT
VAC	VOLTAGE ALTERNATING CURRENT
W	WATT, WIRE



04-4084	12'-0" FLUTED	BLACK

POLE - BOLT PATTERN
N.T.S.



BOLT PROJECTION DETAIL
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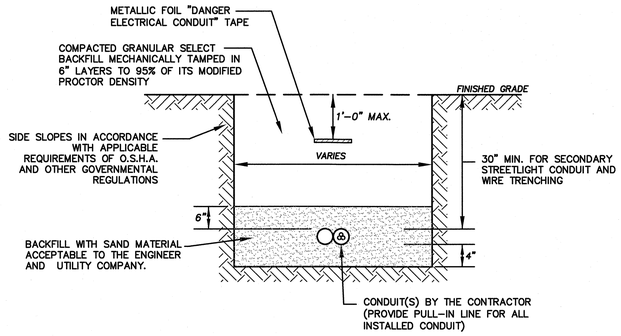
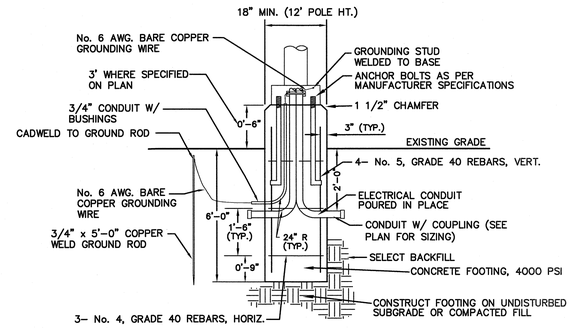


TYPICAL TRENCHING DETAIL
N.T.S.



TYPICAL LIGHT POLE FOUNDATION DETAIL
N.T.S.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

ELECTRICAL DETAILS

EAST GREEN STREET

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32982 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3776
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34408 NJ PP LIC NO. 4361

FARID GHAEMI P.E.
NEW JERSEY PROFESSIONAL ENGINEER
LIC. No. 24GE04424200
DATE: 3.25.19

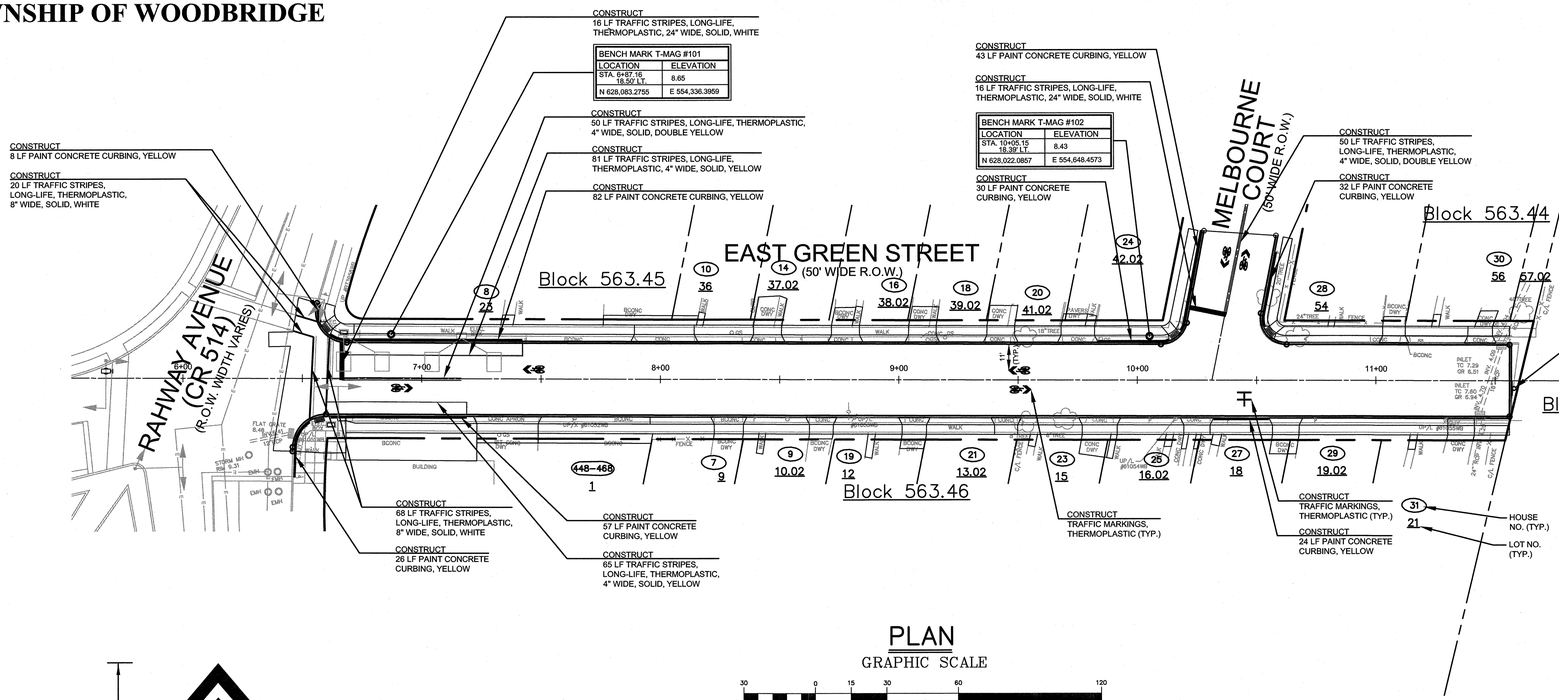
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
3.25.19

SCALE	DATE
As Shown	March 2019
DRAWN BY: SS	DESIGNED BY: SS
CHECKED BY: FG	SHEET: 12 of 106

REGISTERED: C-6
DRAWING NO.: 12 - 0
FILE NO.: PWB0A607.01

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX



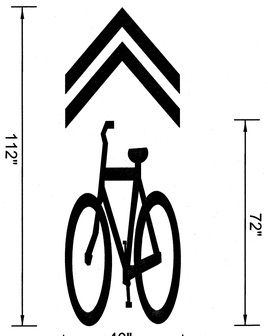
PLAN

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

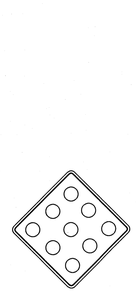


SHARED LANE MARKING DETAIL

CONSTRUCT

(EAST GREEN STREET - STA. 6+42 TO STA. 11+56)

302	LF	PAINT CONCRETE CURBING, YELLOW
346	LF	TRAFFIC STRIPES, LONG-LIFE, "THERMOPLASTIC", 4" WIDE WITH GLASS BEADS
88	LF	TRAFFIC STRIPES, LONG-LIFE, "THERMOPLASTIC", 8" WIDE WITH GLASS BEADS
32	LF	TRAFFIC STRIPES, LONG-LIFE, "THERMOPLASTIC", 24" WIDE WITH GLASS BEADS
198	SF	TRAFFIC MARKINGS, THERMOPLASTIC
3	SF	REGULATORY AND WARNING SIGNS



OM4–2
18"x18"

SIGN LEGEND

NOTE:
SEE SHEET NUMBER 3, FOR SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.

SPECIAL PROVISIONS:
THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

NOTE:
THE CONTRACTOR IS REQUIRED TO VERIFY BENCHMARK INFORMATION PRIOR TO CONSTRUCTION.

NOTE:
ALL STATIONING AND OFFSETS ARE TAKEN FROM THE SURVEY BASELINE TO THE BACK OF ROLLED CURB; FACE OF VERTICAL CURB; FACE OF GRANITE BLOCK CURB; OR FACE OF CONCRETE CURB AND GUTTER, UNLESS OTHERWISE NOTED.

NOTE:
NOT ALL EXISTING UTILITIES ARE SHOWN ON THIS PLAN. THE CONTRACTOR IS RESPONSIBLE FOR REQUESTING MARKOUTS FOR ALL EXISTING UTILITIES.

EXISTING GAS AND WATER MAINS
THE CONTRACTOR IS ADVISED THAT THE EXISTING GAS AND WATER MAIN LOCATIONS INDICATED ON THE PLANS ARE APPROXIMATE. THE EXACT LOCATIONS AND DEPTHS WERE NOT AVAILABLE FROM THE UTILITY COMPANIES AT THE TIME THE PLANS WERE PREPARED. ACCORDINGLY, THE CONTRACTOR SHALL REQUEST A UTILITY MARKOUT FROM THE RESPECTIVE GAS AND WATER COMPANIES PRIOR TO COMMENCEMENT OF THE WORK.

TREE NOTE:
THE CONTRACTOR IS DIRECTED TO VERIFY ALL NECESSARY TREE REMOVALS WITH THE ENGINEER PRIOR TO BEGINNING TREE REMOVAL WORK.

NOTE:
LIMITS OF DRIVEWAY RESTORATION TO BE VERIFIED WITH THE ENGINEER PRIOR TO CONSTRUCTION.

NOTE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRANSFERRING BENCHMARKS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAINTAINING BENCHMARKS.

EXISTING LEGEND:

- DENOTES EXISTING MANHOLE
- DENOTES EXISTING INLET
- DENOTES EXISTING HYDRANT
- DENOTES EXISTING SANITARY SEWER
- DENOTES EXISTING STORM SEWER
- DENOTES EXISTING MAILBOX
- DENOTES EXISTING WATER VALVE
- DENOTES EXISTING GAS VALVE
- DENOTES EXISTING WATER MAIN
- DENOTES EXISTING GAS MAIN
- DENOTES EXISTING UNDERGROUND VERIZON
- DENOTES EXISTING UNDERGROUND CABLEVISION
- DENOTES EXISTING TREE
- DENOTES EXISTING FENCE
- DENOTES EXISTING UTILITY POLE
- DENOTES EXISTING GRADE
- DENOTES EXISTING SIGN
- DENOTES EXISTING TRAFFIC SIGNAL MAST ARM AND TRAFFIC SIGNAL HEAD
- DENOTES EXISTING RIGHT OF WAY
- DENOTES EXISTING EASEMENT

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RECONSTRUCT MANHOLE
- DENOTES RESET MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RECONSTRUCT INLET
- DENOTES RESET INLET
- DENOTES INLET SILTATION PROTECTION
- DENOTES DIRECTION OF FLOW
- DENOTES PROPOSED VALLEY GUTTER
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SANITARY SEWER
- DENOTES PROPOSED HANDHOLE
- DENOTES CONCRETE DRIVEWAY RESTORATION AND 4" DGA BASE
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION, AND 4" DGA BASE
- DENOTES LOCATION OF PROPOSED TEST PIT
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED CONCRETE SIDEWALK, REINFORCED, 4" THICK
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HMA SURFACE COURSE 9.5M64, 7" HMA BASE COURSE 19M64 AND 6" DGA BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA SURFACE AND LEVELER COURSE, 9.5M64
- DENOTES PROPOSED ROADWAY TRENCH REPAIR
- DENOTES PROPOSED GRADE
- DENOTES EXISTING TREE TO BE REMOVED
- DENOTES PROPOSED CURB
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES AGGREGATE DRIVEWAY RESTORATION
- DENOTES PAVER DRIVEWAY OR WALKWAY RESTORATION

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
1	REVISED FOR BID	03.25.19	PB	CG	

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

SIGNING AND STRIPING PLAN
EAST GREEN STREET
STA. 6+42 TO 11+56

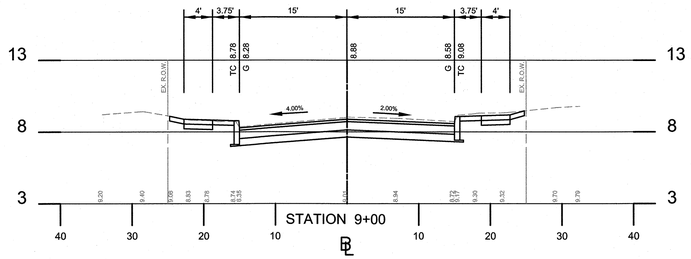
CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8900 — (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

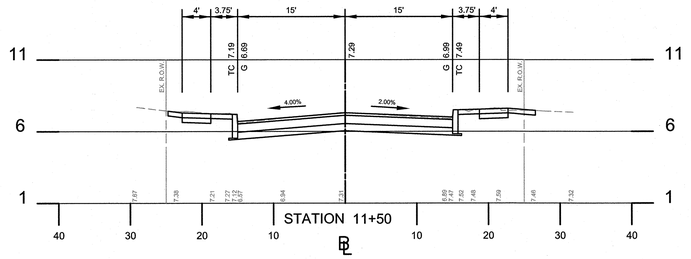
JOHN H. ALLGAIR P.E. & P.P. (1983 - 2007)
DAVID J. SAMUEL P.E. & P.P. NJ PE & LS LIC NO. 24371 / NJ PP LIC NO. 3455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE LIC NO. 24028 / NJ PP LIC NO. 2069
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 / NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 / NJ PP LIC NO. 3779
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 24458 / NJ PP LIC NO. 4361

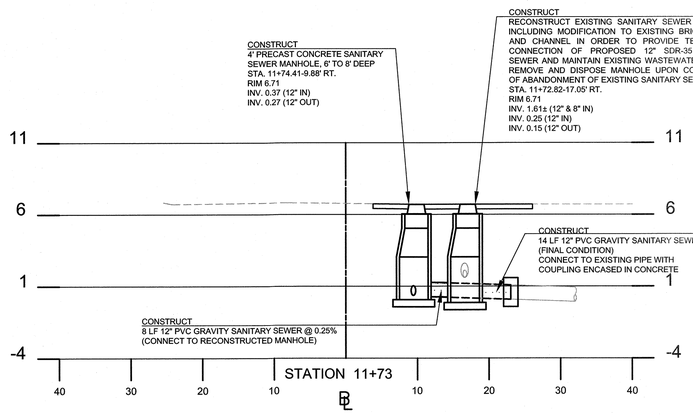
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER
LIC. 32468
DATE 11.12.18

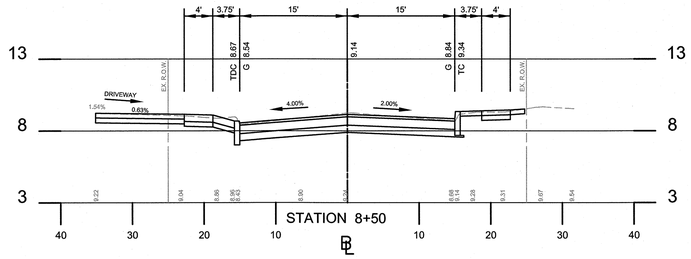
SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	CG
SHEET	13 of 106

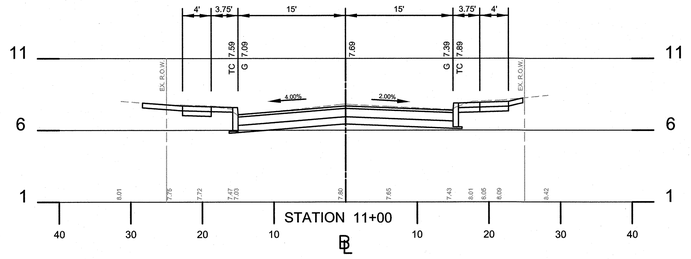
REGISTERED
DRAWING NO. 13 - U
FILE NO. PWB0A607.01

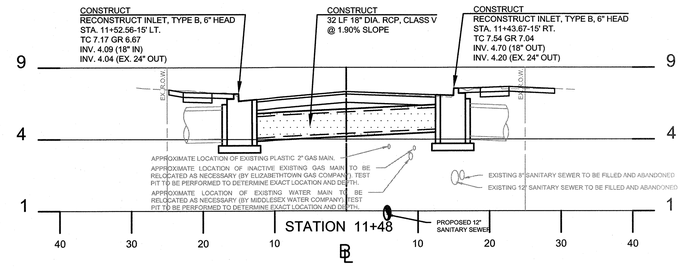


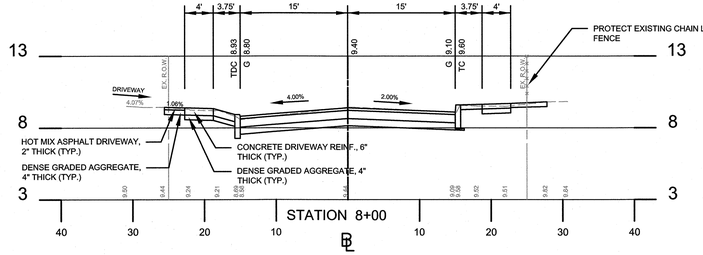


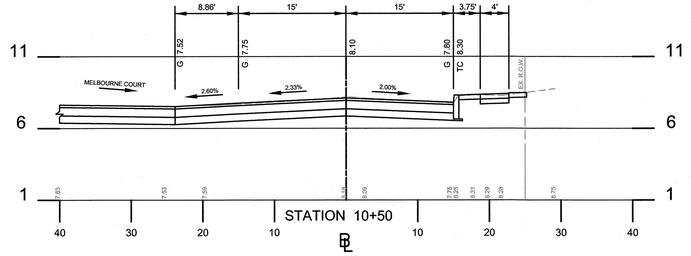


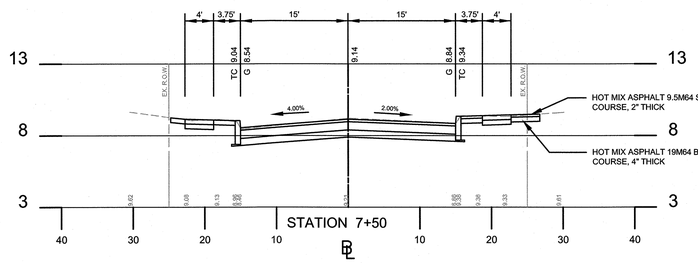


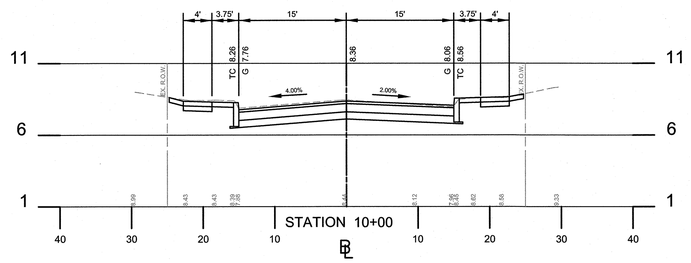


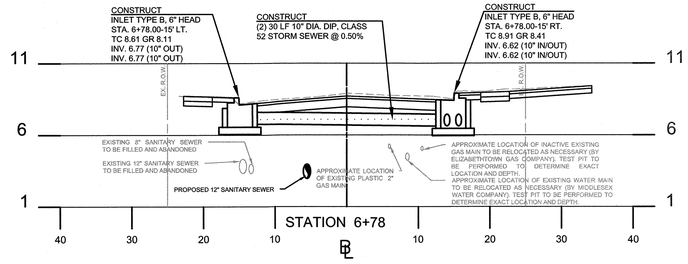


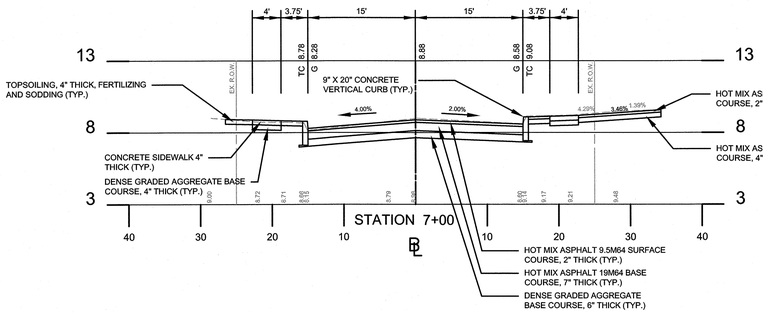


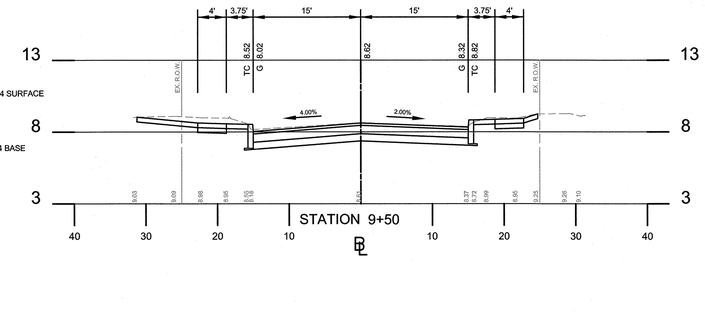












SCALE: 1"=10' (HORZ.)
1"=5' (VERT.)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
1	REVISED FOR BID	03.25.19	PB	GD	

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

CROSS SECTIONS AND STORM SEWER CROSSINGS
EAST GREEN STREET
(Sta. 7+00 to Sta. 11+50)

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

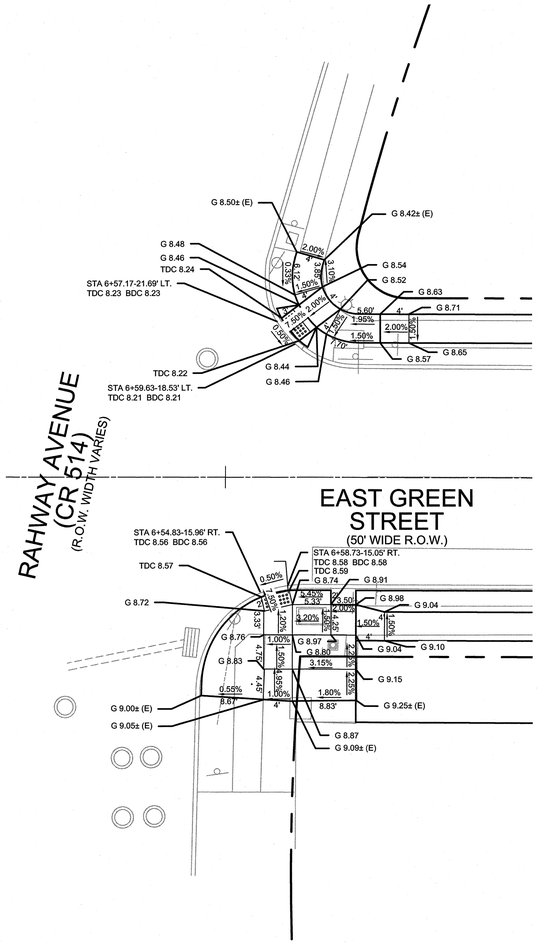
JOHN H. ALLGAIR P.E. & P.P. (1965 - 2001) NJ PE LIC NO. 20858
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 24035 NJ PP LIC NO. 24035
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 20859
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3779
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
DATE 11.12.18

SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	GD
SHEET	14 of 106

REGISTERED CG
DRAWING NO. 14-U
FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE | **COUNTY OF MIDDLESEX**



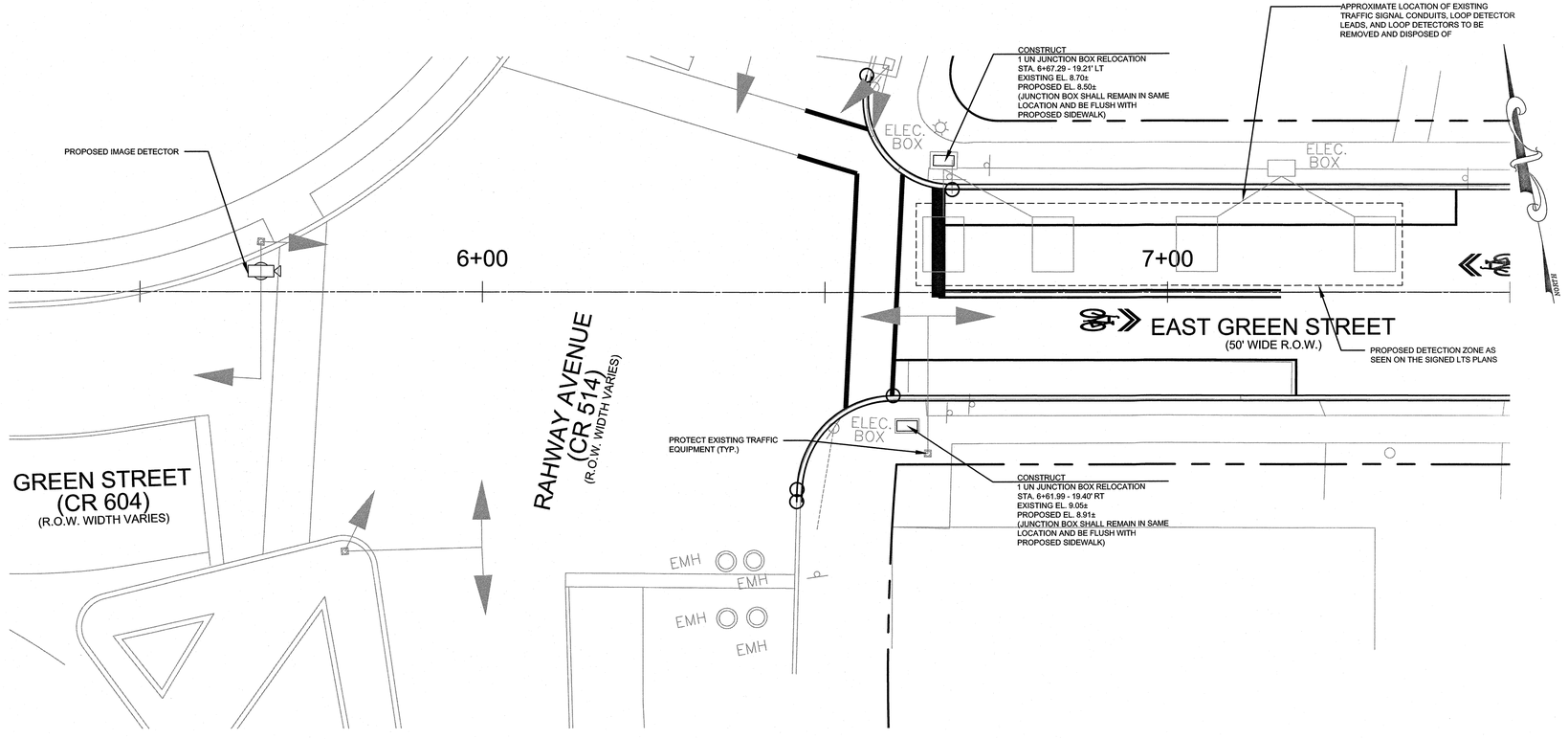
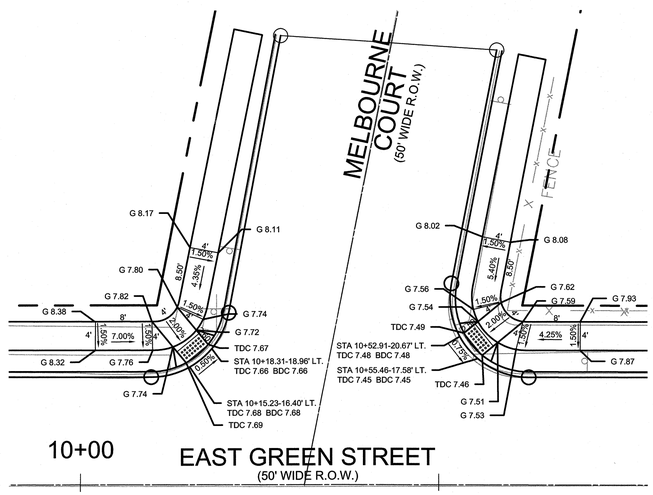


IMAGE DETECTION DETAIL
SCALE 1" = 10'

NOTES:

1. **FOR DETECTION ZONE TYPICAL DIMENSIONS REFER TO THE SIGNED LTS PLANS FOUND IN THE APPENDIX IN THE SPECIFICATIONS.**
2. **ONLY THE IMAGE DETECTOR IS PROPOSED ON THIS SHEET. ALL OTHER TRAFFIC SIGNAL EQUIPMENT ON THIS PLAN SHEET IS EXISTING.**
3. **REFER TO THE APPROVED TRAFFIC SIGNAL PLAN, ELECTRICAL PLAN, AND SIGNING PLAN ATTACHED AS AN APPENDIX TO THE SPECIFICATIONS.**
4. **PAYMENT FOR IMAGE DETECTOR INCLUDES ALL WORK AND MATERIALS REQUIRED TO SATISFACTORILY FURNISH AND INSTALL A COMPLETE IMAGE DETECTION SYSTEM TO REPLACE THE EXISTING LOOP DETECTORS ON THE WESTBOUND EAST GREEN STREET APPROACH TO RAHWAY AVENUE ALL OF WHICH SHALL BE INCLUDED IN THE PRICE BID AS LISTED IN THE BID FORM.**

EAST GREEN STREET & RAHWAY AVENUE
SCALE 1" = 10'



EAST GREEN STREET & MELBOURNE COURT
SCALE 1" = 10'

PROPOSED LEGEND:

- DENOTES PROPOSED CURB
- DENOTES DETECTABLE WARNING SURFACE
- DENOTES PROPOSED CURB RAMP
- 1.5% — DENOTES PROPOSED SLOPE ALONG SIDEWALK
- G 14.70 — DENOTES PROPOSED GRADE ALONG SIDEWALK

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
1	REVISED FOR BID	03.25.19	PB	GD	

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY
2019 MILLING AND RESURFACING PROGRAM
CONTRACT NO. 2019-001

CURB RAMP DETAILS AND
IMAGE DETECTION DETAILS
EAST GREEN STREET

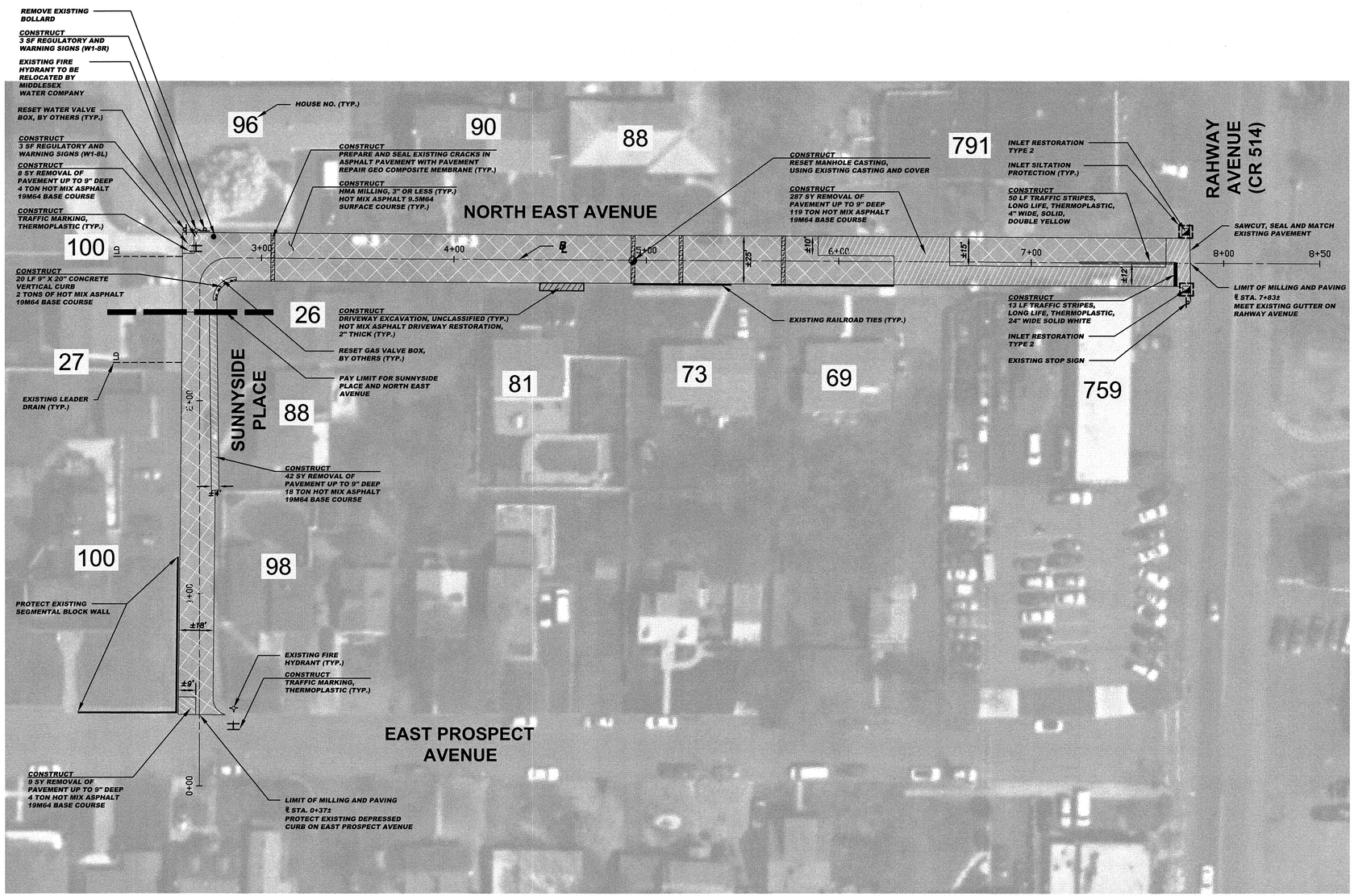
CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

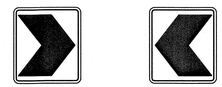
JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 23838 NJ PP LIC NO. 3455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2699
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3674
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3779
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
DATE 11.12.18

SCALE	DATE
As Shown	March 2019
DRAWN BY: PB	DESIGNED BY: PB
CHECKED BY: GD	SHEET: 15 of 106

REGISTERED CG | DRAWING NO. 15-U | FILE NO. PWB0A607.01





SIGN LEGEND

CONSTRUCT (NORTH EAST AVENUE)

295	SY	Removal of pavement, up to 9" deep
3	CY	Driveway excavation, unclassified
1199	SY	HMA milling, 3" or less
2382	LF	Polymerized joint adhesive
64	LF	Prepare and seal existing joints and cracks in asphalt pavement
100	LF	Prepare and seal existing cracks in asphalt pavement with pavement repair geo composite membrane
236	TON	Hot mix asphalt 9.5M64 surface and leveler course
125	TON	Hot mix asphalt 19M64 base course
1	UN	Reset manhole casting, using existing casting and cover
2	UN	Reset existing casting
2	UN	Bicycle safe grate
20	LF	9"x20" Concrete vertical curb
11	SY	Hot mix asphalt driveway restoration, 2" thick
100	LF	Traffic stripes, long life, "thermoplastic", 4" wide
13	LF	Traffic stripes, long life, "thermoplastic", 24" wide
6	SF	Traffic markings, thermoplastic
6	SF	Regulatory and warning signs
1	UN	Reset water valve box
1	UN	Reset gas valve box
105	SY	Topsoiling, 4" thick
105	SY	Fertilizing
105	SY	Sodding

CONSTRUCT (SUNNYSIDE PLACE)

51	SY	Removal of pavement, up to 9" deep
380	SY	HMA milling, 3" or less
958	LF	Polymerized joint adhesive
25	LF	Prepare and seal existing joints and cracks in asphalt pavement
71	TON	Hot mix asphalt 9.5M64 surface and leveler course
22	TON	Hot mix asphalt 19M64 base course
6	SF	Traffic markings, thermoplastic
20	SY	Topsoiling, 4" thick
20	SY	Fertilizing
20	SY	Sodding

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

NORTH EAST AVENUE AND SUNNYSIDE PLACE

WARD 1

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 23838 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24273 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PP LIC NO. 32962 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	
SHEET	16 of 106

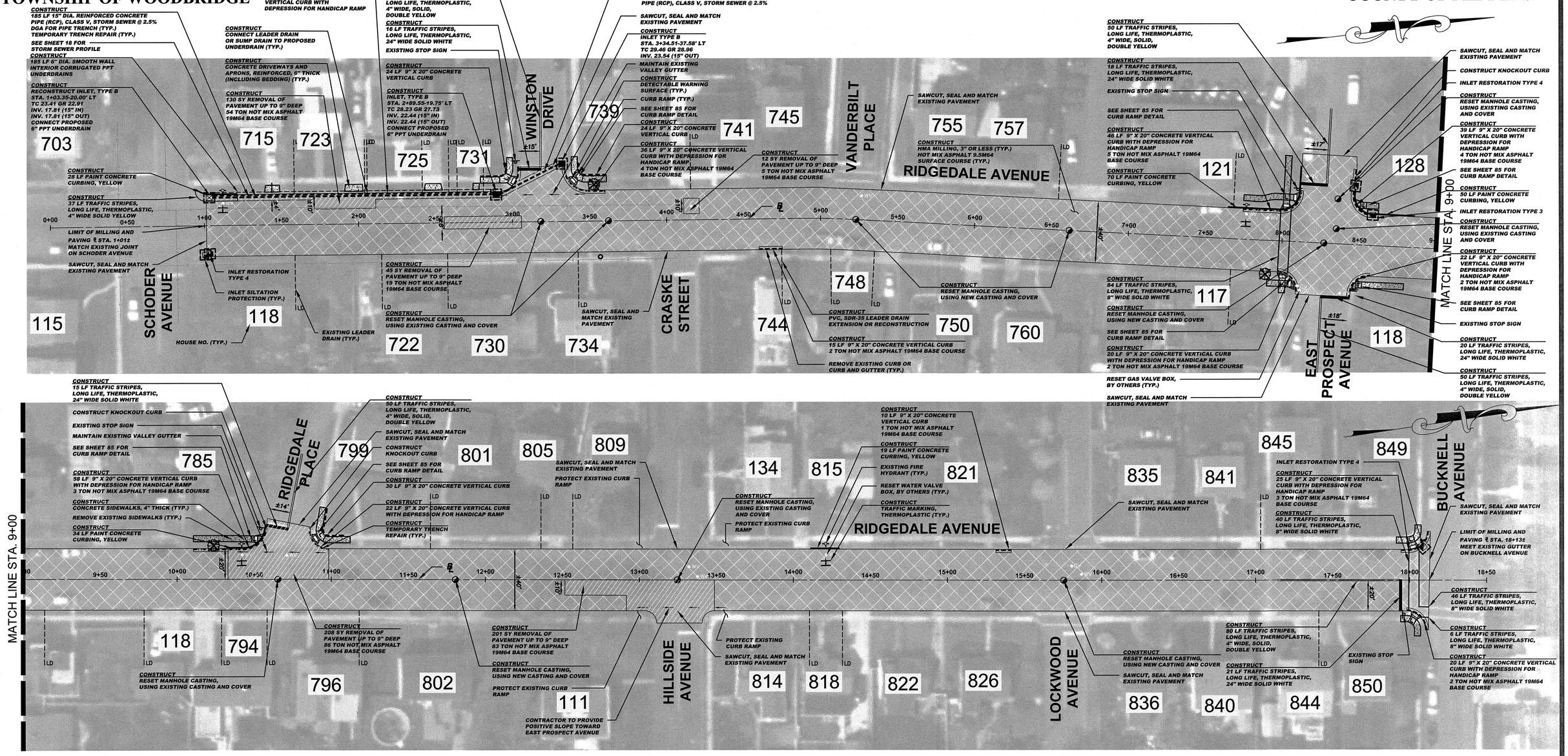
REGISTERED CG

DRAWING NO. 16-3

FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX



CONSTRUCT (RIDGEDALE AVENUE)

596	SY	Removal of pavement, up to 9" deep
4	CY	Driveway excavation, unclassified
7342	SY	HMA milling, 3" or less
7020	LF	Polymerized joint adhesive
573	LF	Prepare and seal existing joints and cracks in asphalt pavement
1119	TON	Hot mix asphalt 9.5M64 surface and leveler course
275	TON	Hot mix asphalt 19M64 base course
185	LF	6" dia. Smooth wall interior corrugated PPT underdrains
229	LF	15" dia. Reinforced concrete pipe (RCP), Class V, storm sewer
12	UN	Connect leader or sump drain to proposed 6" underdrain
1	UN	PVC, SDR-35 Leader drain extension or reconstruction
102	CY	Dense graded aggregate for pipe trench
6	UN	Reset manhole casting, using existing casting and cover
5	UN	Reset manhole casting, using new casting and cover
4	UN	Reset existing casting
1	UN	Curb piece, type "N-ECO"
1	UN	Bicycle safe grate
2	UN	Inlet, type B
1	UN	Reconstruct inlet, type B
161	SY	Concrete sidewalks, 4" thick
12	SY	Detectable warning surface
12	SY	Concrete driveways and aprons, reinforced, 6" thick (including bedding)
601	LF	9"x20" Concrete vertical curb
201	LF	Paint concrete curbing
597	LF	Traffic stripes, long life, "thermoplastic", 4" wide
176	LF	Traffic stripes, long life, "thermoplastic", 8" wide
90	LF	Traffic stripes, long life, "thermoplastic", 24" wide
24	SF	Traffic markings, thermoplastic
115	SY	Temporary trench repair
13	UN	Reset water valve box
5	UN	Reset gas valve box
209	SY	Topsoiling, 4" thick
209	SY	Fertilizing
209	SY	Sodding
3	UN	Replacement trees

NOTE:

EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

RIDGEDALE AVENUE — WARD 1

CVE ASSOCIATES

CONSULTING AND MUNICIPAL ENGINEERS

3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 (732) 727 8000 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194 (732) 462 7400

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)

DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25838 NJ PP LIC NO. 2455

JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24273 NJ PP LIC NO. 2089

JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32952 NJ PP LIC NO. 3874

MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770

GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 39458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.

NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

DATE 3.25.19

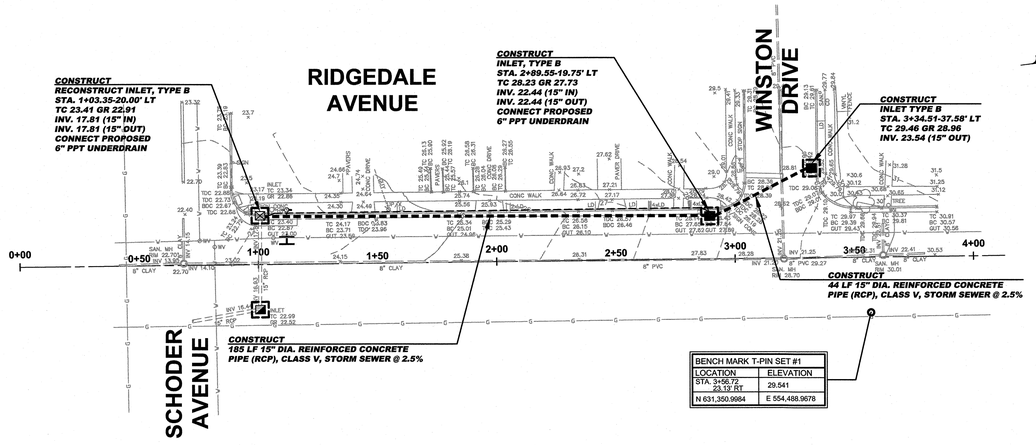
SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	CG
SHEET	17 of 106

REGISTERED CG

DRAWING NO. 17 - 0

FILE NO. PWB0A607.01

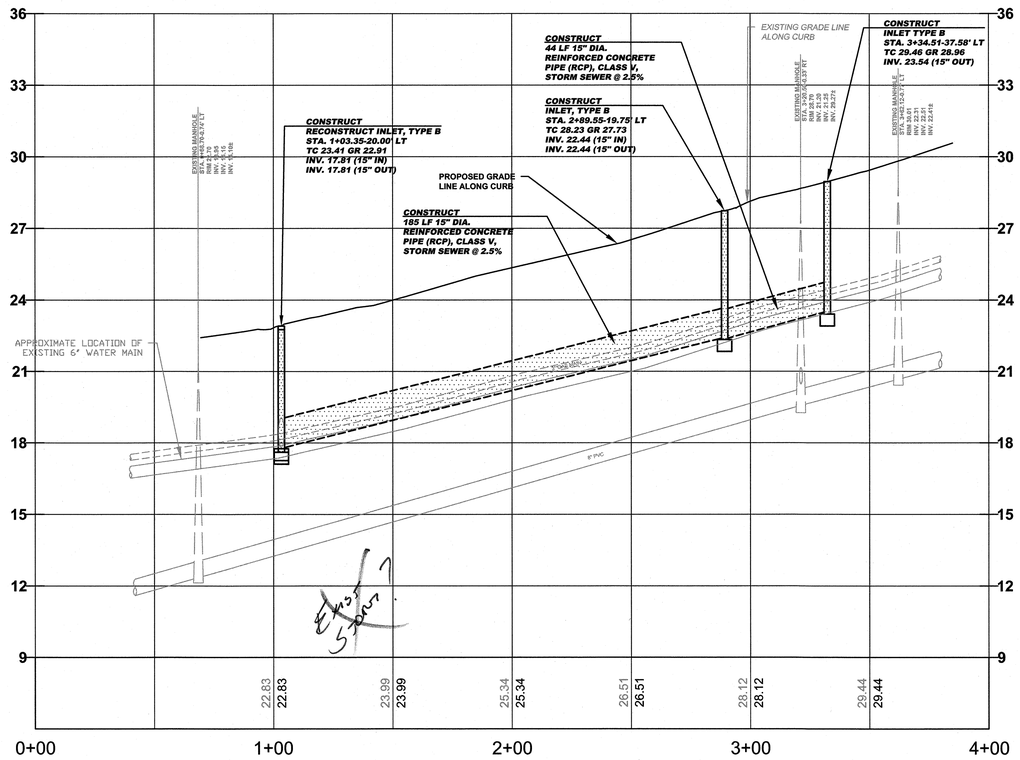
TOWNSHIP OF WOODBRIDGE | **COUNTY OF MIDDLESEX**



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.



PROFILE

SCALE: 1"=30' (HORZ.)
1"=3' (VERT.)

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TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
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TYPE 4	-	RESET EXISTING CASTING

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
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No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

RIDGEDALE AVENUE — WARD 1

STORM SEWER PROFILE

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1963 - 2001)
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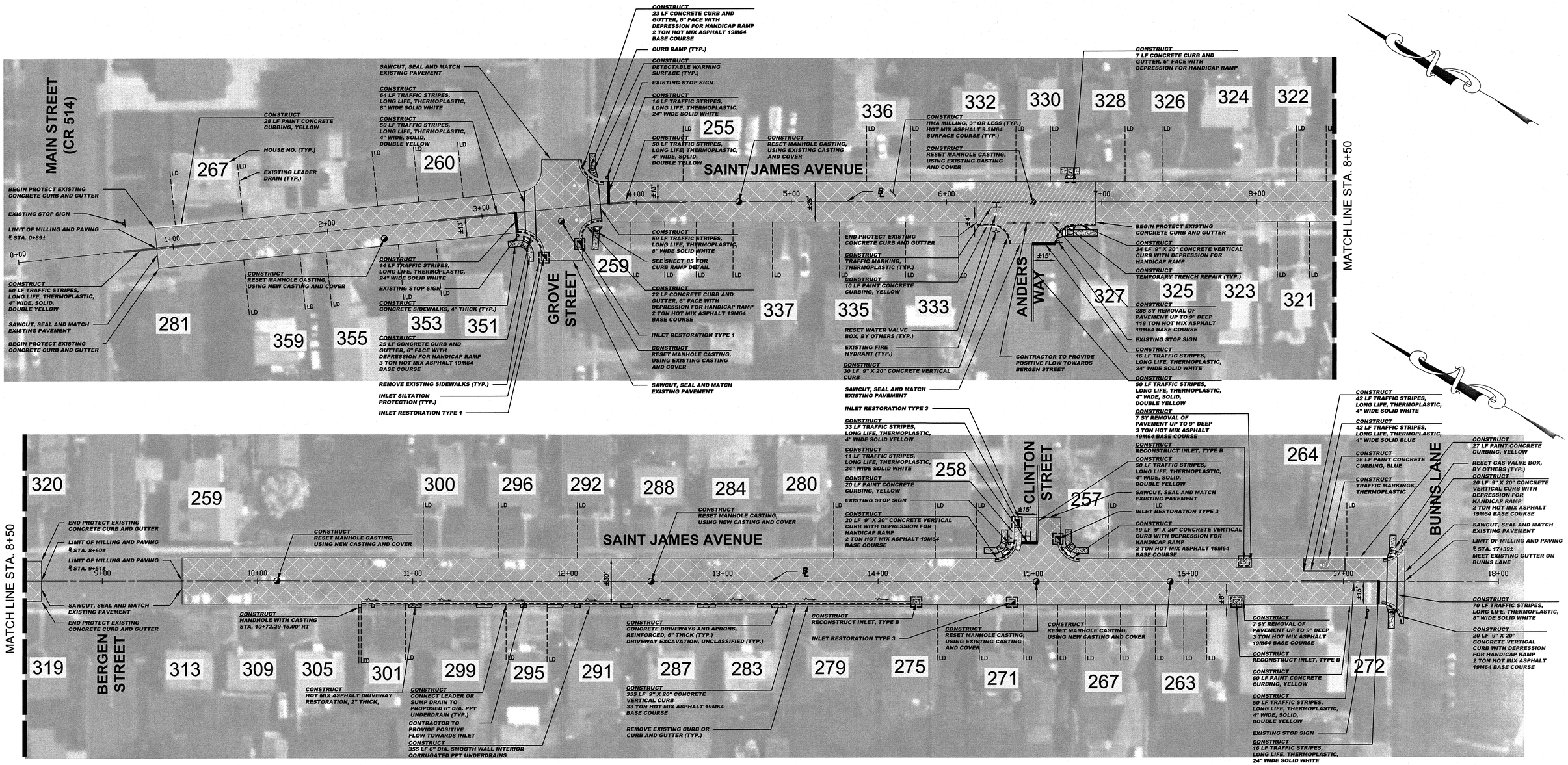
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
DATE 3.25.19

SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	CG
SHEET	18 of 106
REGISTERED	CG
DRAWING NO.	18 - 0
FILE NO.	PWB0A607.01

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX



CONSTRUCT (SAINT JAMES AVENUE)

313	SY	Removal of pavement, up to 9" deep
4	CY	Driveway excavation, unclassified
4747	SY	HMA milling, 3" or less
5665	LF	Polymerized joint adhesive
252	LF	Prepare and seal existing joints and cracks in asphalt pavement
766	TON	Hot mix asphalt 9.5M64 surface and leveler course
172	TON	Hot mix asphalt 19M64 base course
355	LF	6" dia. smooth wall interior corrugated PPT underdrain
5	UN	Connect leader or sump drain to proposed 6" dia. PPT underdrain
1	UN	Handhole with casting
4	UN	Reset manhole casting, using existing casting and cover
4	UN	Reset manhole casting, using new casting and cover
5	UN	Reset existing casting
5	UN	Curb piece, type "N-ECO"
3	UN	Bicycle safe grate
3	UN	Reconstruct inlet, type B
88	SY	Concrete sidewalks, 4" thick
12	SY	Concrete driveways and aprons, reinforced, 6" thick
2	SY	Hot mix asphalt driveway, 2" thick
10	SY	Detectable warning surface
498	LF	9"x20" Concrete vertical curb
77	LF	Concrete curb and gutter, 6" face
171	LF	Paint concrete curbing
717	LF	Traffic stripes, long life, "thermoplastic", 4" wide
193	LF	Traffic stripes, long life, "thermoplastic", 8" wide
71	LF	Traffic stripes, long life, "thermoplastic", 24" wide
25	SF	Traffic markings, thermoplastic
16	SY	Temporary trench repair
8	UN	Reset water valve box
3	UN	Reset gas valve box
250	SY	Topsoiling, 4" thick
250	SY	Fertilizing
250	SY	Sodding

SPECIAL PROVISIONS

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NOTE:

EXCEPT WHERE NOTED, CONTRACTOR IS TO PROTECT EXISTING CONCRETE GUTTER THAT HAS NOT BEEN PREVIOUSLY OVERLAID WITH ASPHALT DURING MILLING AND PAVING OPERATIONS. CONCRETE GUTTER THAT HAS PREVIOUSLY BEEN OVERLAID WITH ASPHALT, IS TO BE MILLED AND OVERLAID.

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
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No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

SAINT JAMES AVENUE — WARD 1

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 — (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)

DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 24535 NJ PP LIC NO. 24555

JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24273 NJ PP LIC NO. 2089

JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874

MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770

GREGORY R. VALESI P.E. & P.P. NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	
SHEET	19 of 106

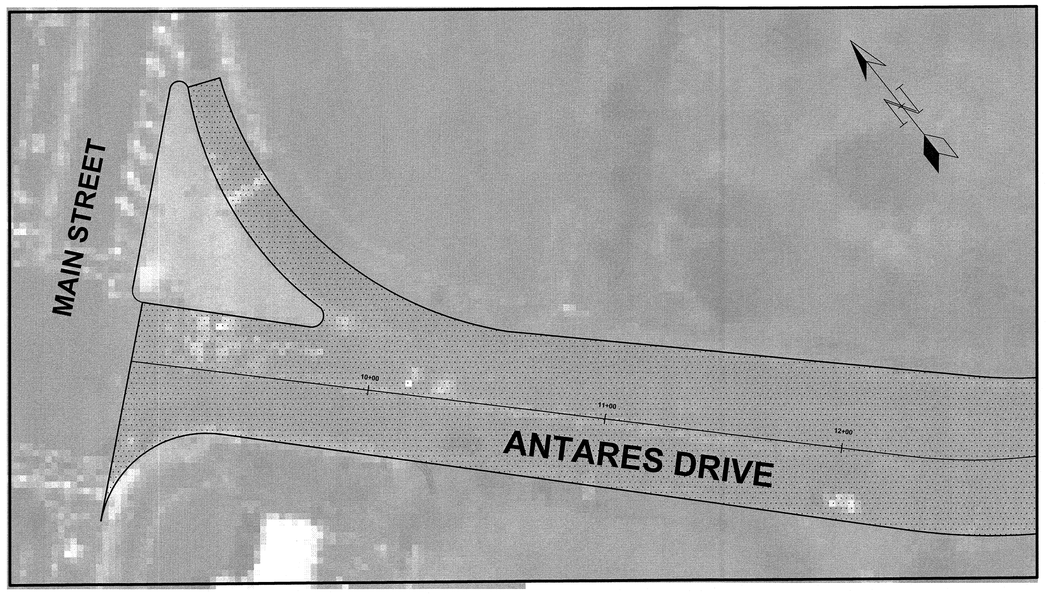
REGISTERED CG

DRAWING NO. 19-U

FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY



MATCH LINE STA 12+82

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FEET

TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

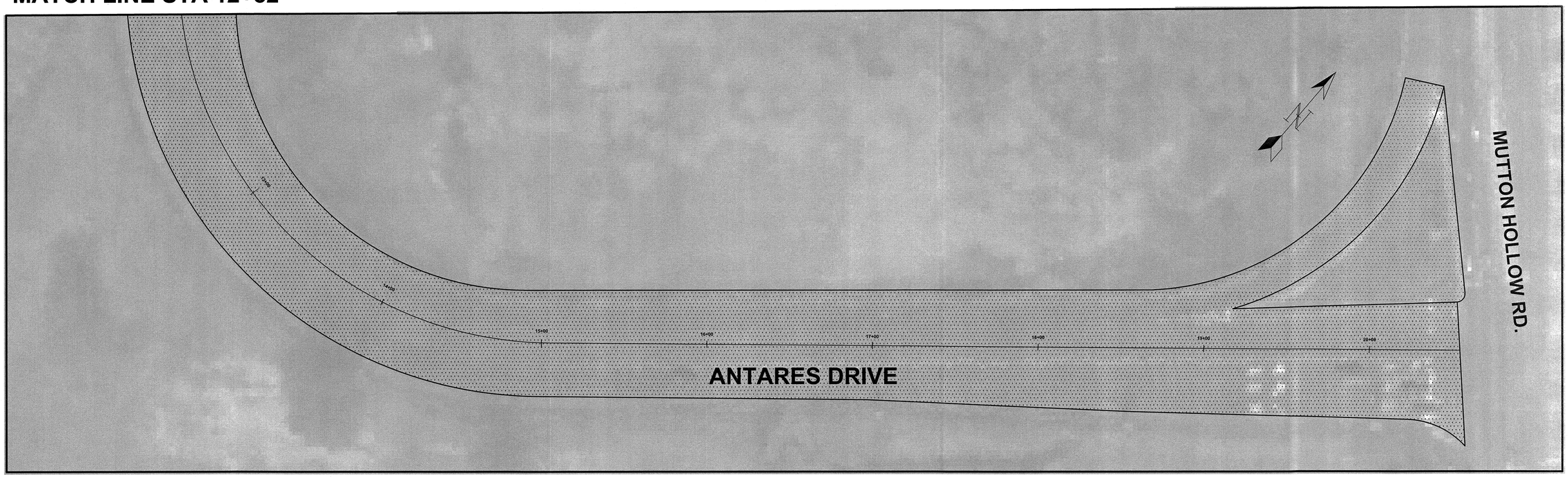
ANTARES DRIVE
STA 10+00 TO STA 12+82
PAVING LIMITS

MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/7/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 20 OF 106

P-WB-0A6PT-01 20-0 CG

MATCH LINE STA 12+82



GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FEET

TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

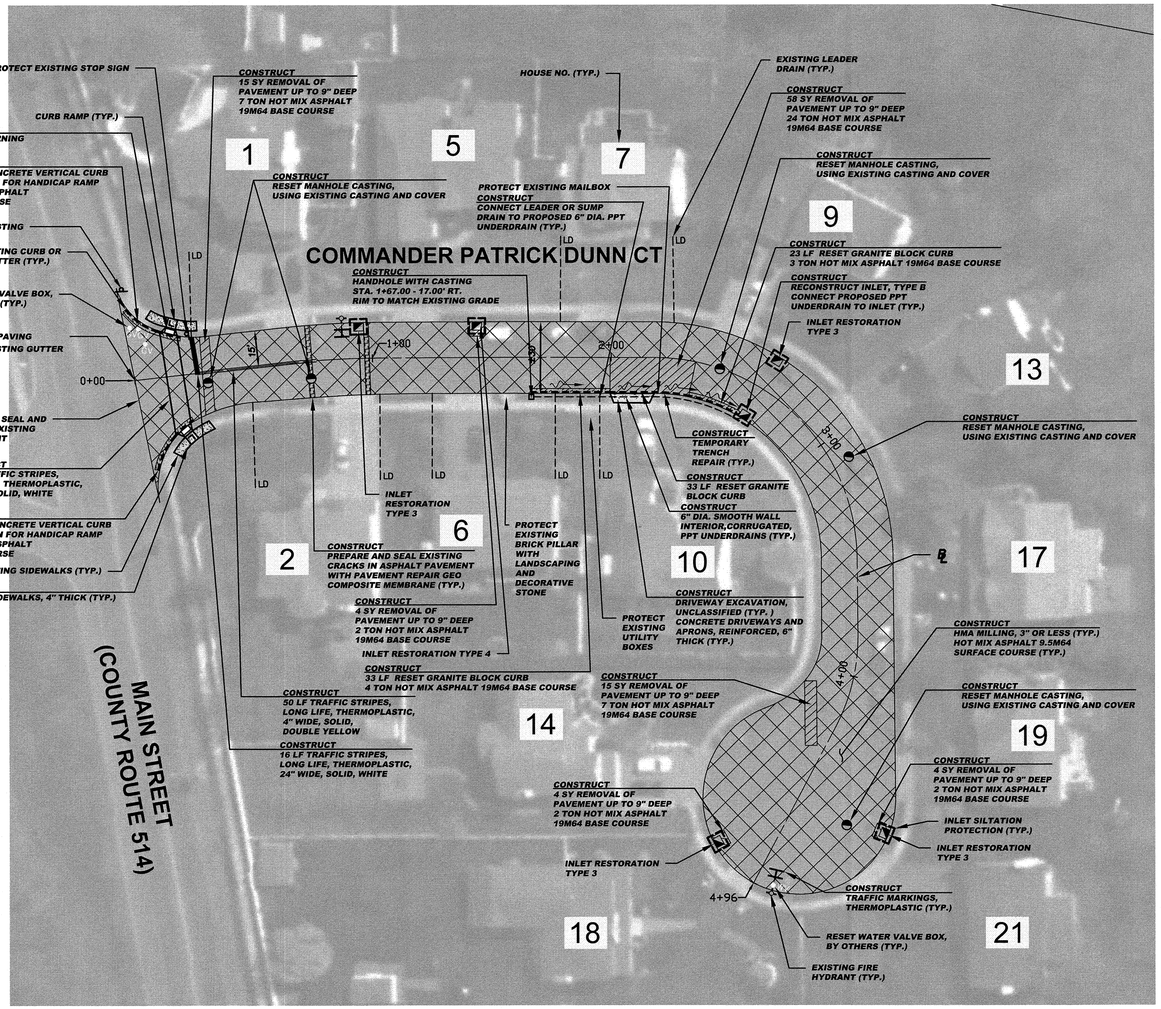
ANTARES DRIVE
STA 12+82 TO END
PAVING LIMITS

MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

TOWN CONTRACT #: 2019 - 001
FILE #: 2019ROADPROGRAM

SCALE:	DATE:
1" = 30'	3/7/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 21 OF 106

P-WB-0607-01 C9 21 of



CONSTRUCT (COMMANDER PATRICK DUNN COURT)

100	SY	Removal of pavement, up to 9" deep
3	CY	Driveway excavation, unclassified
1951	SY	HMA Milling, 3" or less
1720	LF	Polymerized joint adhesive
111	LF	Prepare and seal existing joints and cracks in asphalt pavement
56	LF	Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
291	TON	Hot mix asphalt 9.5M64 surface and leveler course
57	TON	Hot mix asphalt 19M64 base course
89	LF	6" dia. smooth wall interior corrugated PPT underdrains
2	UN	Connect leader or sump drain to proposed underdrain
1	UN	Handhole with casting
20	CY	Dense graded aggregate for pipe trench
5	UN	Reset manhole casting, using existing casting and cover
5	UN	Reset existing casting
4	UN	Curb piece type "N-ECO"
4	UN	Bicycle safe grate
1	UN	Reconstruct inlet, type B
22	SY	Concrete sidewalks, 4" thick
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2	SY	Detectable warning surface
54	LF	9"x20" Concrete vertical curb
89	LF	Reset granite block curb
100	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
83	LF	Traffic stripes, long life, "thermoplastic, 8" wide, with glass beads
16	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
12	SF	Traffic markings, thermoplastic, with glass beads
14	SY	Temporary trench repair
1	UN	Reset water valve box
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80	SY	Topsoiling, 4" thick, including fine grading
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BASELINES

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INLET RESTORATION:

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- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

COMMANDER PATRICK DUNN COURT

WARD 2

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1951 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 29838 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
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GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
DATE 8/23/19

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	22 of 106

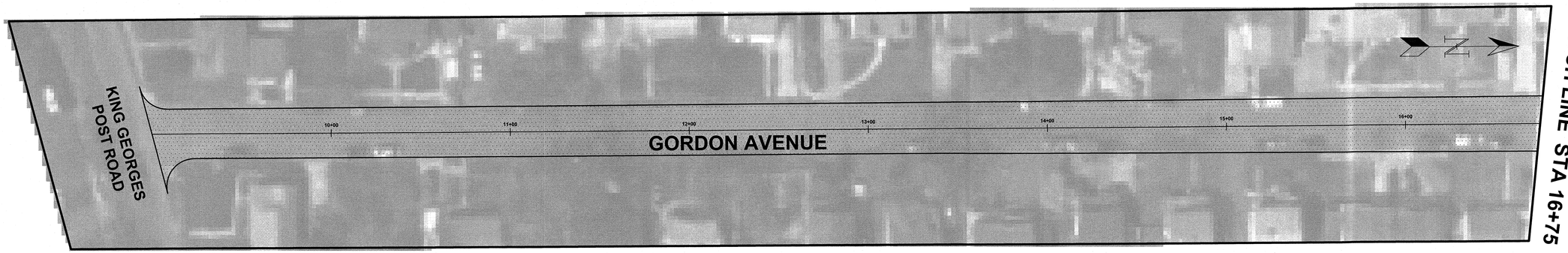
RECEIVED CG

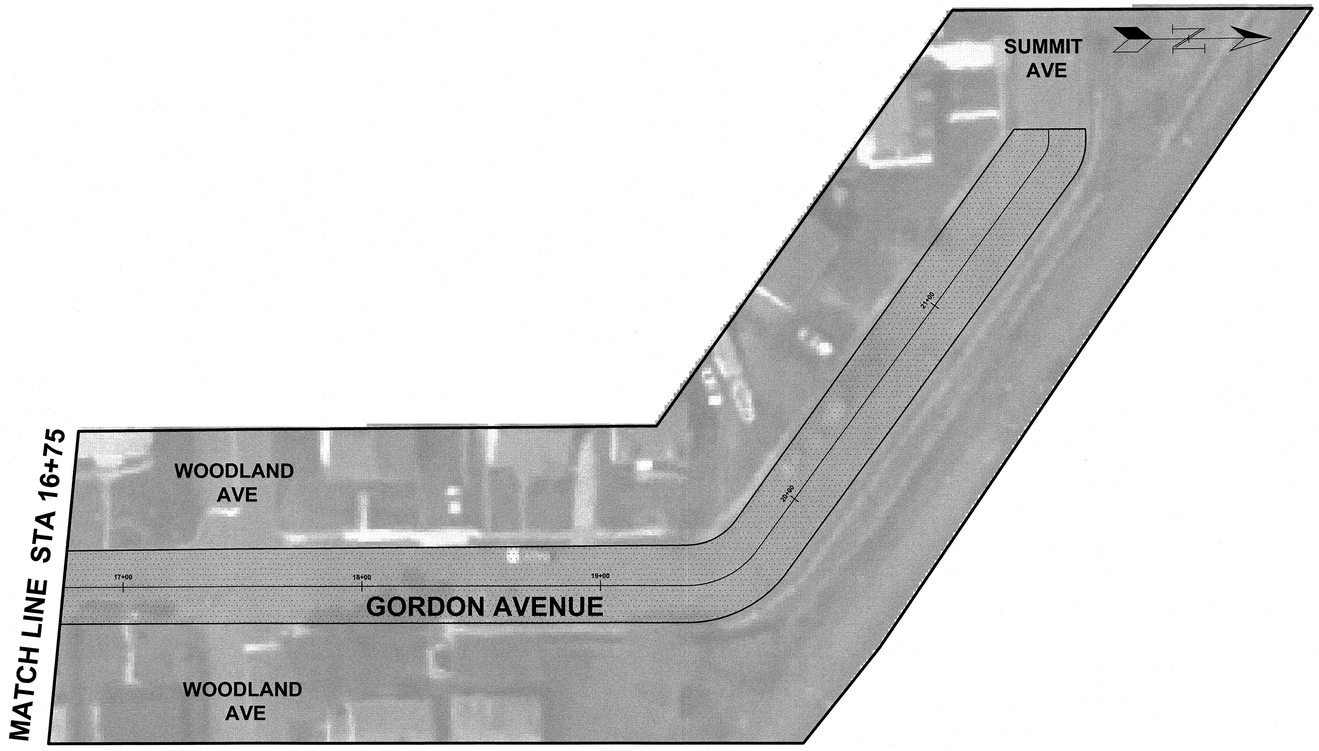
DRAWING NO. 22-0

RELEASED PWBOA607.01

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY





GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FEET

TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

GORDON AVENUE
PAVING LIMITS

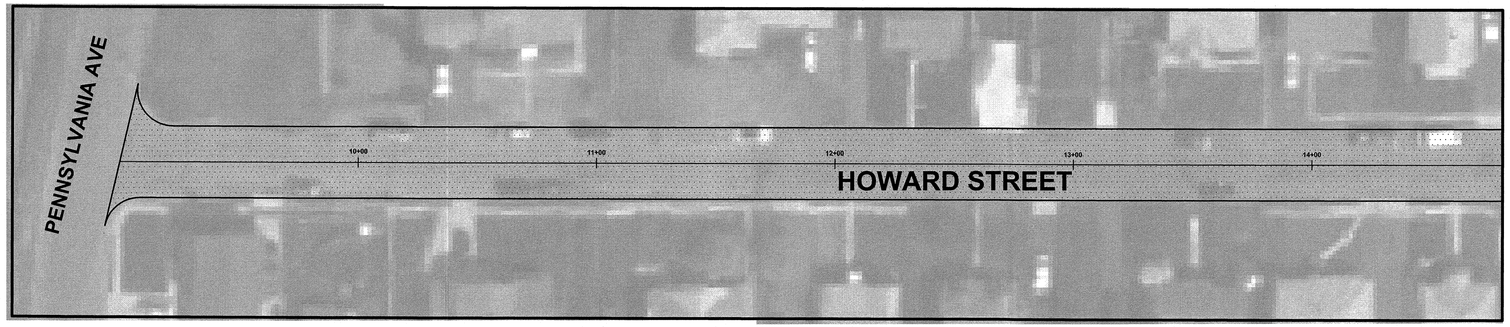
MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

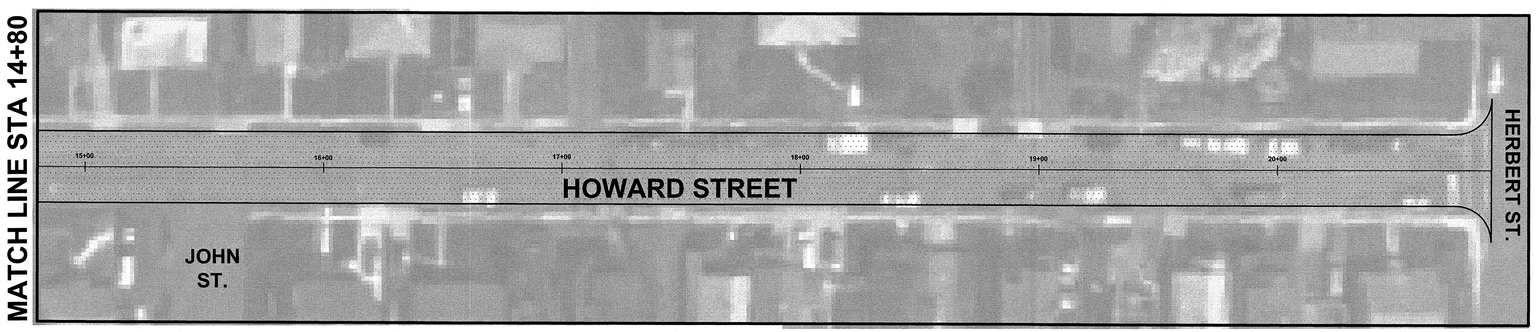
TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/5/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 23 OF 106

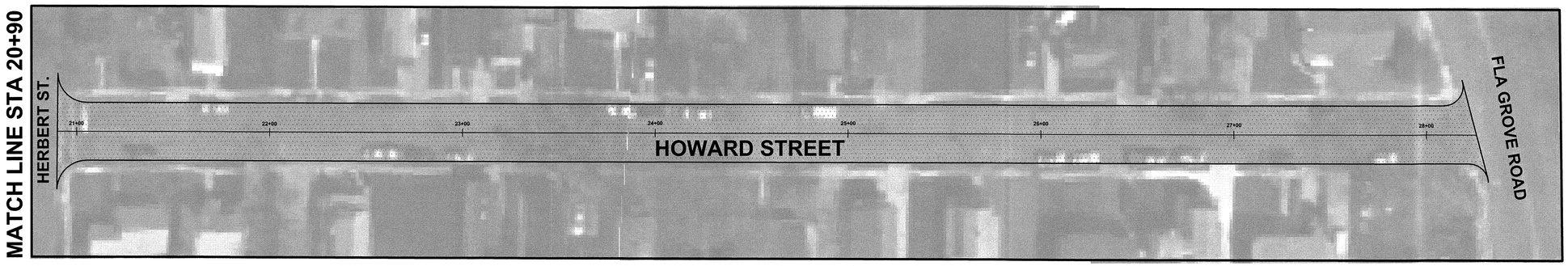
P:\WB-04601-01 23-U CG

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY







GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FEET

TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

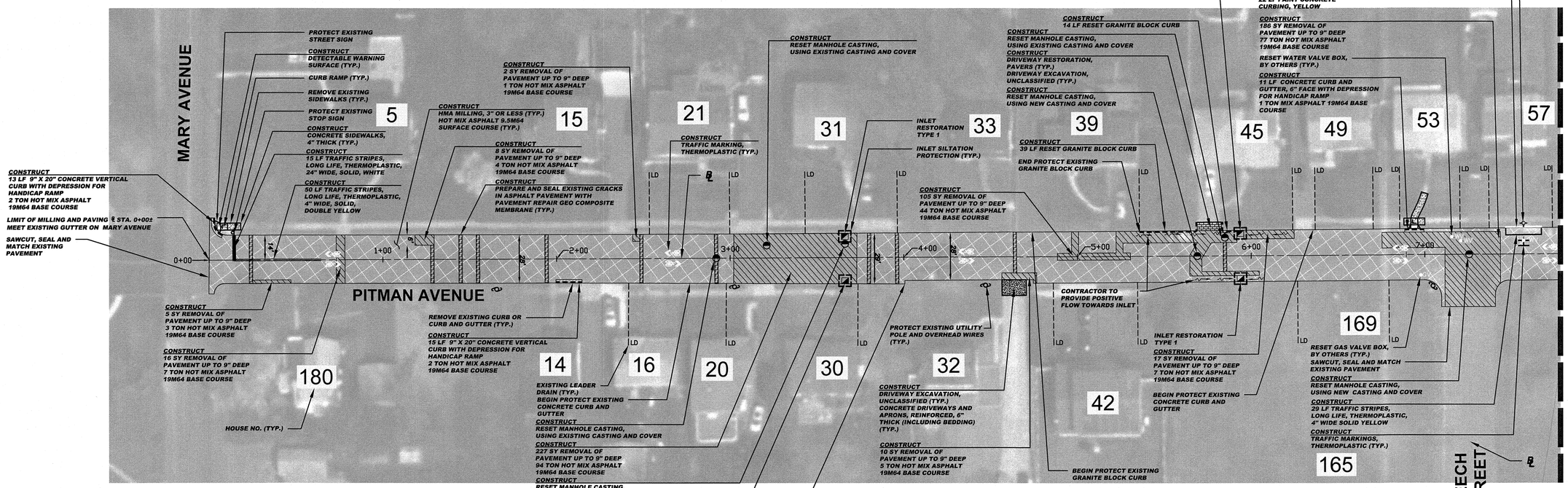
ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

HOWARD STREET
PAVING LIMITS

MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/5/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 24 OF 106

P-WB-0607-01 24-U CG



CONSTRUCT (PITMAN AVENUE (1 OF 2)

576	SY	Removal of pavement, up to 9" deep
7	CY	Driveway excavation, unclassified
1974	SY	HMA Milling, 3" or less
1887	LF	Polymerized joint adhesive
75	LF	Prepare and seal existing joints and cracks in asphalt pavement
293	LF	Prepare and seal existing transverse cracks in pavement with pavement repair geo composite membrane
378	TON	Hot mix asphalt 9.5M64 surface and leveler course
247	TON	Hot mix asphalt 19M64 base course
3	UN	Reset manhole casting, using existing casting and cover
3	UN	Reset manhole casting, using new casting and cover
4	UN	Reset existing casting
4	UN	Curb piece type "N-ECO"
21	SY	Concrete sidewalks, 4" thick
14	SY	Concrete driveways and aprons, reinforced, 6" thick (including bedding)
70	SF	Driveway restoration, pavers
2	SY	Detectable warning surface
28	LF	9"x20" Concrete vertical curb
11	LF	Concrete curb and gutter, 6" face with 6" DGABC bedding
53	LF	Reset granite block curb
22	LF	Paint concrete curbing
129	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
15	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
126	SF	Traffic markings, thermoplastic, with glass beads
3	UN	Reset water valve box
1	UN	Reset gas valve box
65	SY	Topsoiling, 4" thick, including fine grading
65	SY	Fertilizing
65	SY	Sodding

SPECIAL PROVISIONS

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PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

BASELINES

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NOTE:

EXCEPT WHERE NOTED, CONTRACTOR IS TO PROTECT EXISTING CONCRETE GUTTER THAT HAS NOT BEEN PREVIOUSLY OVERLAID WITH ASPHALT DURING MILLING AND PAVING OPERATIONS. CONCRETE GUTTER THAT HAS PREVIOUSLY BEEN OVERLAID WITH ASPHALT, IS TO BE MILLED AND OVERLAID.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
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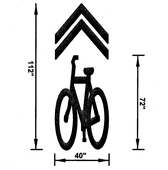


SHARED LANE MARKING DETAIL

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

PITMAN AVENUE (1 OF 2) WARD 2

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25836 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 44458 NJ PP LIC NO. 4361

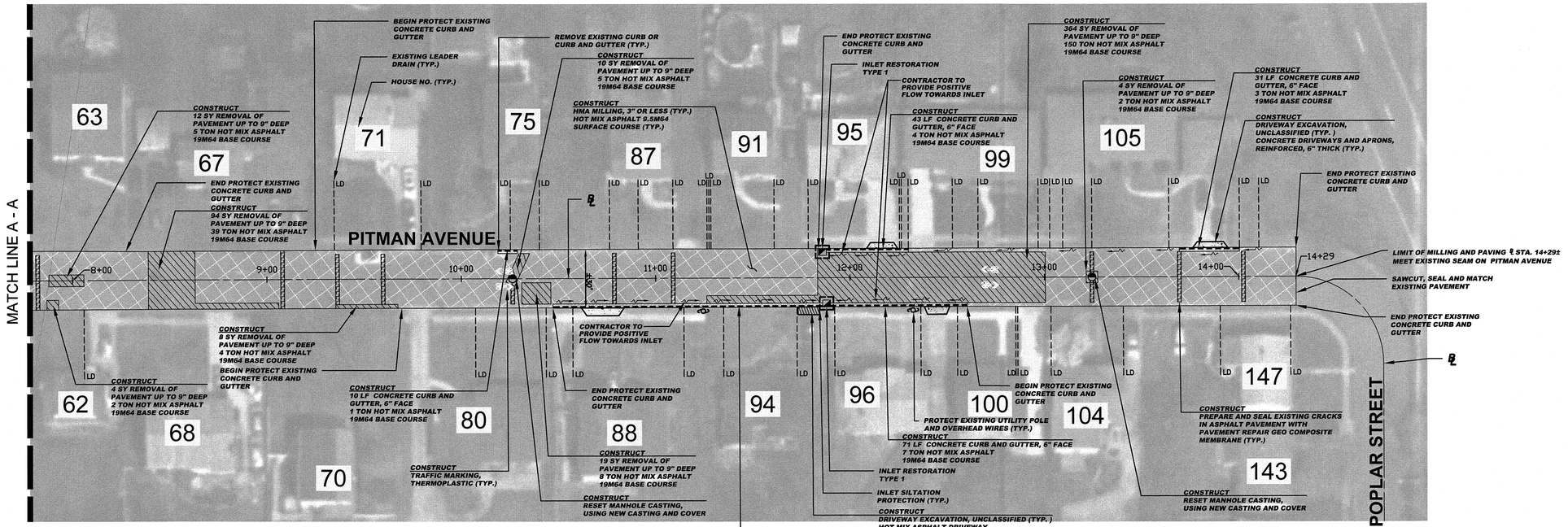
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	25 of 106

REGISTERED CG

DRAWING NO. 25 - 0

FILE NO. PWB0A607.01



CONSTRUCT (PITMAN AVENUE (2 OF 2)

515	SY	Removal of pavement, up to 9" deep
9	CY	Driveway excavation, unclassified
1657	SY	HMA Milling, 3" or less
1802	LF	Polymerized joint adhesive
41	LF	Prepare and seal existing joints and cracks in asphalt pavement
247	LF	Prepare and seal existing transverse cracks in pavement with pavement repair geo composite membrane
321	TON	Hot mix asphalt 9.5M64 surface and leveler course
243	TON	Hot mix asphalt 19M64 base course
2	UN	Reset manhole casting, using new casting and cover
2	UN	Reset existing casting
2	UN	Curb piece type "N-ECO"
24	SY	Concrete driveways and apron, reinforced , 6" thick (including bedding)
5	SY	Hot mix asphalt driveway restoration, 2" thick
294	LF	Concrete curb and gutter, 6" face with 6" DGABC bedding
24	SF	Traffic markings, thermoplastic, with glass beads
164	SY	Topsoiling, 4" thick, including fine grading
164	SY	Fertilizing
164	SY	Sodding

SPECIAL PROVISIONS

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PROPOSED CURB AND/OR ROADWAY REPLACEMENT

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INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
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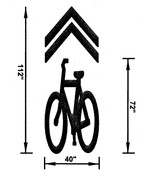

SHARED LANE MARKING DETAIL

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

PITMAN AVENUE (2 OF 2) WARD 2

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
8.25.19

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	26 of 106

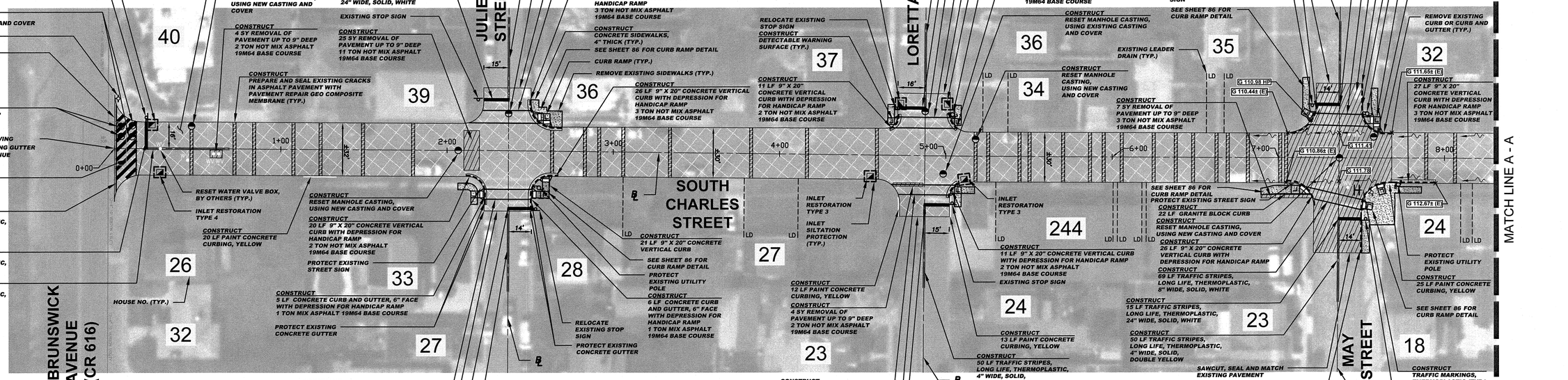
REGISTERED CG

DRAWING NO. 26 - 0

W.O. #'s PWB0A607.01

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX



CONSTRUCT (SOUTH CHARLES STREET (1 OF 3)

501	SY	Removal of pavement, up to 9" deep
2914	SY	HMA Milling, 3" or less
2763	LF	Polymerized joint adhesive
242	LF	Prepare and seal existing joints and cracks in asphalt pavement
995	LF	Prepare and seal existing transverse cracks in pavement with pavement repair geo composite membrane
484	TON	Hot mix asphalt 9.5M64 surface and leveler course
228	TON	Hot mix asphalt 19M64 base course
5	UN	Reset manhole casting, using existing casting and cover
7	UN	Reset manhole casting, using new casting and cover
6	UN	Reset existing casting
4	UN	Curb piece type "N-ECO"
2	UN	Bicycle safe grate
171	SY	Concrete sidewalks, 4" thick
14	SY	Detectable warning surface
304	LF	9"x20" Concrete vertical curb
11	LF	Concrete curb and gutter, 6" face with 6" DGABC bedding
22	LF	Granite block curb
70	LF	Paint concrete curbing
700	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
501	LF	Traffic stripes, long life, "thermoplastic", 8" wide, with glass beads
223	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
6	SF	Traffic markings, thermoplastic, with glass beads
33	SY	Temporary trench repair
7	UN	Reset water valve box
175	SY	Topsoiling, 4" thick, including fine grading
175	SY	Fertilizing
175	SY	Sodding

SPECIAL PROVISIONS

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INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
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- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
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No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

SOUTH CHARLES STREET (1 OF 3) — WARD 2

CME ASSOCIATES

CONSULTING AND MUNICIPAL ENGINEERS

(732) 727 8000 — (732) 462 7400

3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1993 - 2001)	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 20839 — NJ PP LIC NO. 2455	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 — NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 — NJ PP LIC NO. 3874	MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 — NJ PP LIC NO. 3770	GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 — NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.

NEW JERSEY PROFESSIONAL ENGINEER — LIC. 32468

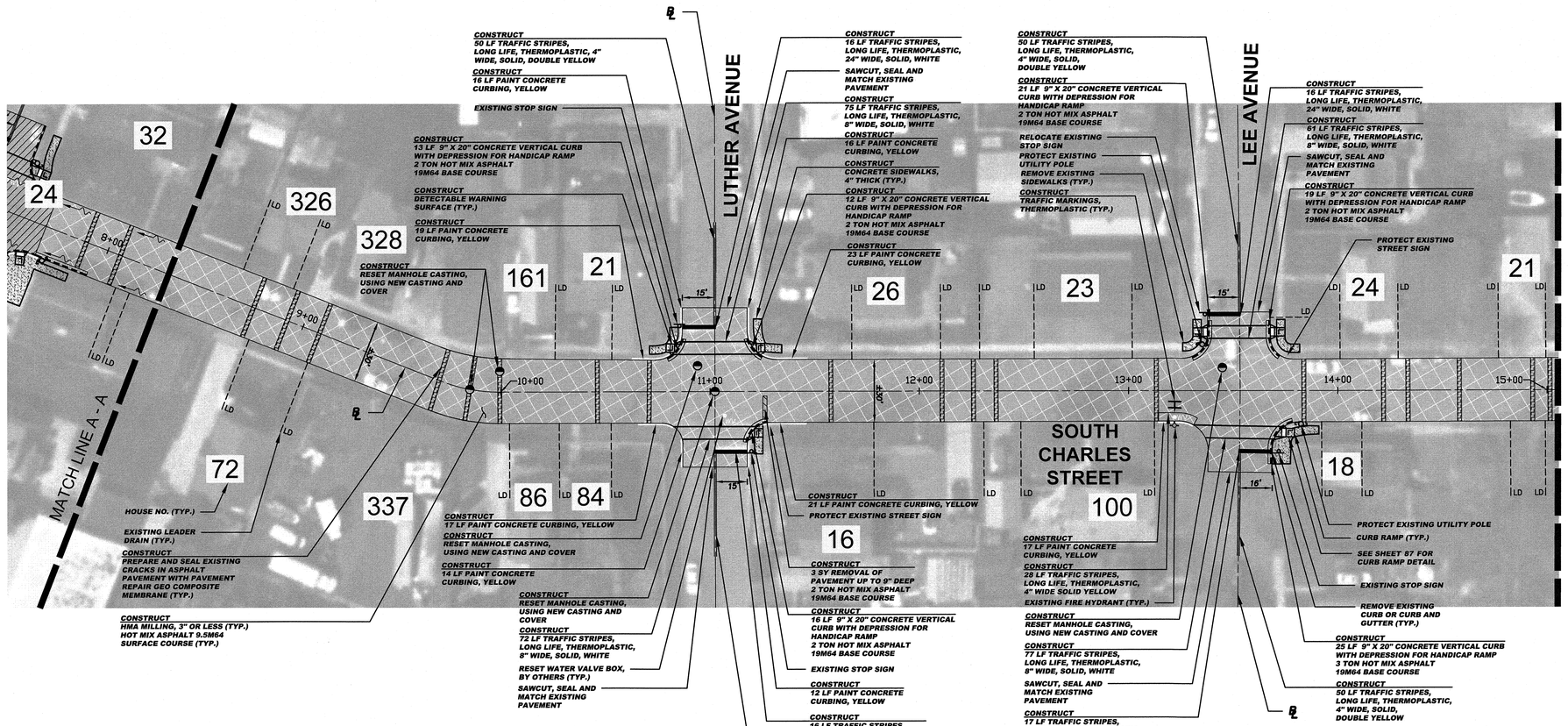
3.25.19

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	27 of 106

REGISTERED CG

DRAWING NO. 27-3

FILE NO. PWB0A607.01



CONSTRUCT (SOUTH CHARLES STREET (2 OF 3)

3	SY	Removal of pavement, up to 9" deep
2602	SY	HMA Milling, 3" or less
2109	LF	Polymerized joint adhesive
123	LF	Prepare and seal existing joints and cracks in asphalt pavement
576	LF	Prepare and seal existing transverse cracks in pavement with pavement repair geo composite membrane
374	TON	Hot mix asphalt 9.5M64 surface and leveler course
15	TON	Hot mix asphalt 19M64 base course
5	UN	Reset manhole casting, using new casting and cover
72	SY	Concrete sidewalks, 4" thick
6	SY	Detectable warning surface
106	LF	9"x20" Concrete vertical curb
155	LF	Paint concrete curbing
428	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
285	LF	Traffic stripes, long life, "thermoplastic", 8" wide, with glass beads
65	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
6	SF	Traffic markings, thermoplastic, with glass beads
2	UN	Reset water valve box
59	SY	Topsoiling, 4" thick, including fine grading
59	SY	Fertilizing
59	SY	Sodding

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

SOUTH CHARLES STREET (2 OF 3)

WARD 2

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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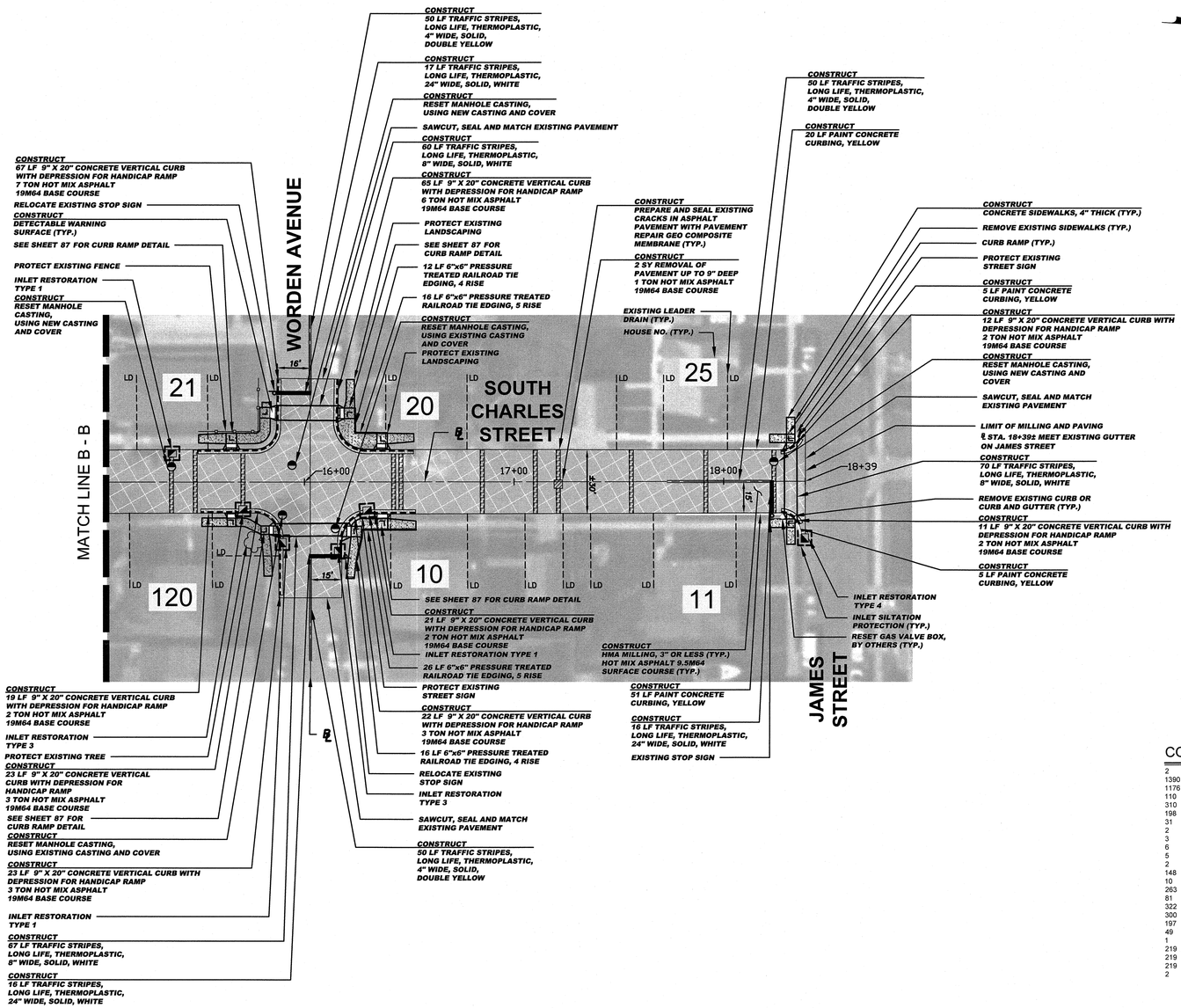
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	28 of 106

PROJECT NO.	PWB0A607.01
DRAWING NO.	28-U
PROJECTION	CG



CONSTRUCT (SOUTH CHARLES STREET (3 OF 3)

2	SY	Removal of pavement, up to 9" deep
1390	SY	HMA Milling, 3" or less
1176	LF	Polymerized joint adhesive
110	LF	Prepare and seal existing joints and cracks in asphalt pavement
310	LF	Prepare and seal existing transverse cracks in pavement with pavement repair geo composite membrane
198	TON	Hot mix asphalt 9.5M64 surface and leveler course
31	TON	Hot mix asphalt 19M64 base course
2	UN	Reset manhole casting, using existing casting and cover
3	UN	Reset manhole casting, using new casting and cover
6	UN	Reset existing casting
5	UN	Curb piece type "N-ECO"
2	UN	Bicycle safe grate
148	SY	Concrete sidewalks, 4" thick
10	SY	Detectable warning surface
263	LF	9"x20" Concrete vertical curb
81	LF	Paint concrete curbing
322	LF	6"x6" Pressure treated railroad tie edging
300	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
197	LF	Traffic stripes, long life, "thermoplastic", 8" wide, with glass beads
49	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
1	UN	Reset gas valve box
219	SY	Topsoiling, 4" thick, including fine grading
219	SY	Fertilizing
219	SY	Sodding
2	UN	Replacement shrubs

BASELINES

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INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

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GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
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- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
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- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
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No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

SOUTH CHARLES STREET (3 OF 3)

WARD 2

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
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MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
DATE 5.25.19

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	29 of 106

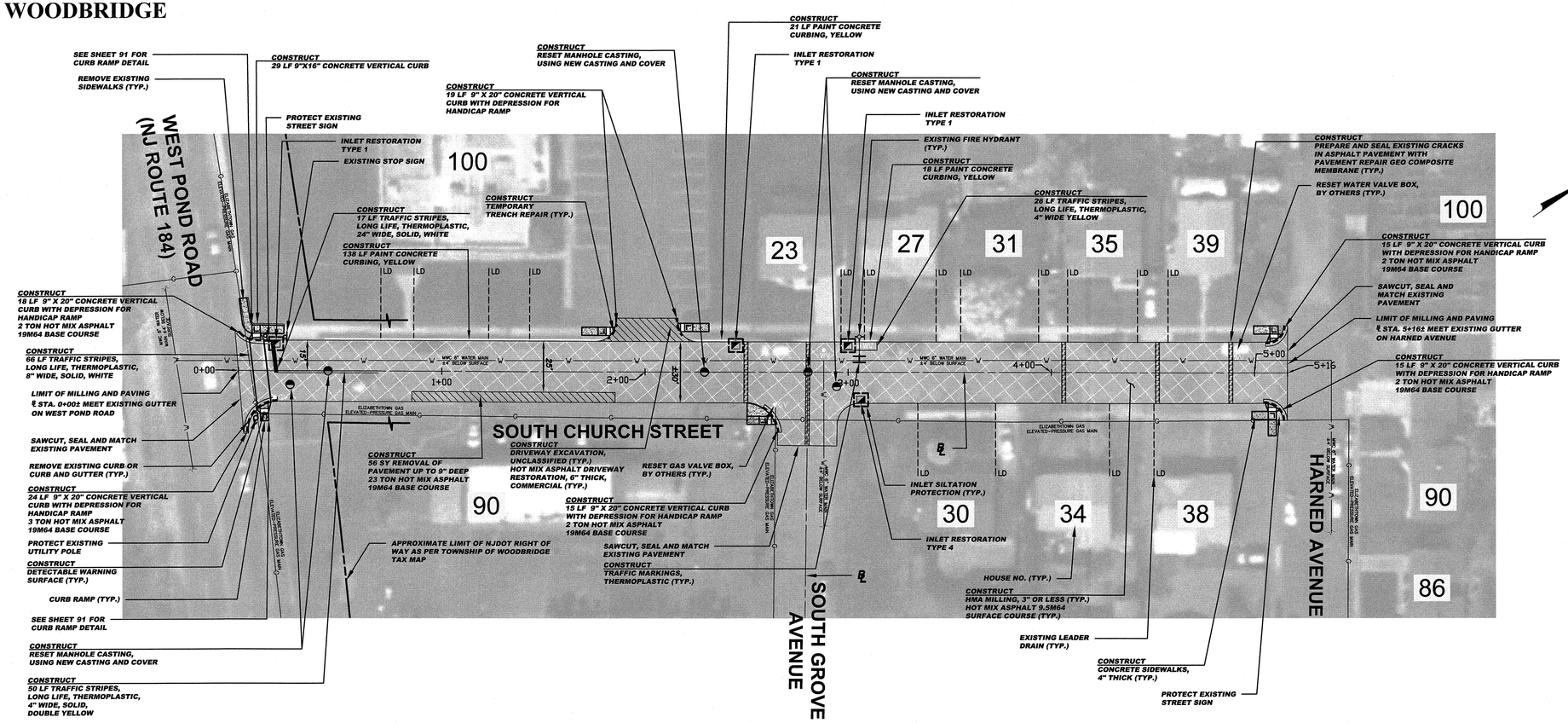
REGISTERED CG

DRAWING NO. 29 - U

FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX



CONSTRUCT (SOUTH CHURCH STREET)

56	SY	Removal of pavement, up to 9" deep
13	CY	Driveway excavation, unclassified
1764	SY	HMA Milling, 3" or less
1455	LF	Polymerized joint adhesive
254	LF	Prepare and seal existing joints and cracks in asphalt pavement
171	LF	Prepare and seal existing transverse cracks in pavement with pavement repair geo composite membrane
266	TON	Hot mix asphalt 9.5M64 surface and leveler course
34	TON	Hot mix asphalt 19M64 base course
5	UN	Reset manhole casting, using new casting and cover
4	UN	Reset existing casting
3	UN	Curb piece type "N-ECO"
64	SY	Concrete sidewalks, 4" thick
44	SY	Hot mix asphalt driveway restoration, 6" thick, commercial
7	SY	Detectable warning surface
29	LF	9"x16" Concrete vertical curb
106	LF	9"x20" Concrete vertical curb
177	LF	Paint concrete curbing
126	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
66	LF	Traffic stripes, long life, "thermoplastic" 8" wide, with glass beads
17	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
6	SF	Traffic markings, thermoplastic, with glass beads
5	SY	Temporary trench repair
3	UN	Reset water valve box
2	UN	Reset gas valve box
75	SY	Topsoiling, 4" thick, including fine grading
75	SY	Fertilizing
75	SY	Sodding

NOTE:

THE CONTRACTOR SHALL COMPLY WITH THE TRAFFIC CONTROL REQUIREMENTS OF THE NJDOT MT-120A HIGHWAY OCCUPANCY PERMIT FOR THE PROPOSED WORK AT THE INTERSECTION OF SOUTH CHURCH STREET AND WEST POND ROAD NJ ROUTE 184 .

NOTE:

NOT ALL EXISTING UTILITIES ARE SHOWN ON THIS PLAN. THE CONTRACTOR IS RESPONSIBLE FOR REQUESTING MARKOUTS FOR ALL EXISTING UTILITIES.

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

EXISTING GAS AND WATER MAINS

THE CONTRACTOR IS ADVISED THAT THE EXISTING GAS AND WATER MAIN LOCATIONS INDICATED ON THE PLANS ARE APPROXIMATE. THE EXACT LOCATIONS AND DEPTHS WERE NOT AVAILABLE FROM THE UTILITY COMPANIES AT THE TIME THE PLANS WERE PREPARED. ACCORDINGLY, THE CONTRACTOR SHALL REQUEST A UTILITY MARKOUT FROM THE RESPECTIVE GAS AND WATER COMPANIES PRIOR TO COMMENCEMENT OF THE WORK.

BASELINES

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INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
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No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
2	REVISED FOR BID	03.25.19	ZYC		
1	REVISED FOR NJDOT	01.02.19	ZYC		

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

SOUTH CHURCH STREET — WARD 2

CME ASSOCIATES

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DATE 1.2.19

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	30 of 106

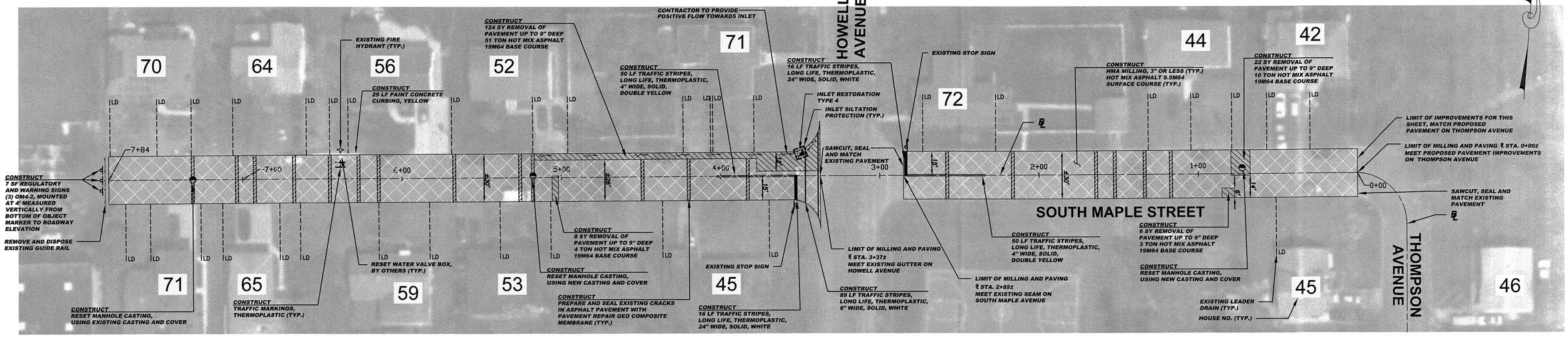
REGISTERED CG

DRAWING NO. 30-U

FILE NO. PWB0A607.01

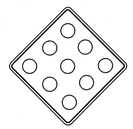
TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX



CONSTRUCT (SOUTH MAPLE STREET)

160	SY	Removal of pavement, up to 9" deep
2301	SY	HMA Milling, 3" or less
2189	LF	Polymerized joint adhesive
90	LF	Prepare and seal existing joints and cracks in asphalt pavement
550	LF	Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
363	TON	Hot mix asphalt 9.5M64 surface and leveler course
68	TON	Hot mix asphalt 19M64 base course
1	UN	Reset manhole casting, using existing casting and cover
2	UN	Reset manhole casting, using new casting and cover
1	UN	Reset existing casting
29	LF	Paint concrete curbing
200	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
89	LF	Traffic stripes, long life, "thermoplastic", 8" wide, with glass beads
32	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
6	SF	Traffic markings, thermoplastic, with glass beads
7	SF	Regulatory and warning signs
2	UN	Reset water valve box



OM4–2
18"x18"

SIGN LEGEND

BASELINES

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INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

SOUTH MAPLE STREET — WARD 2

CVE ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25838 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

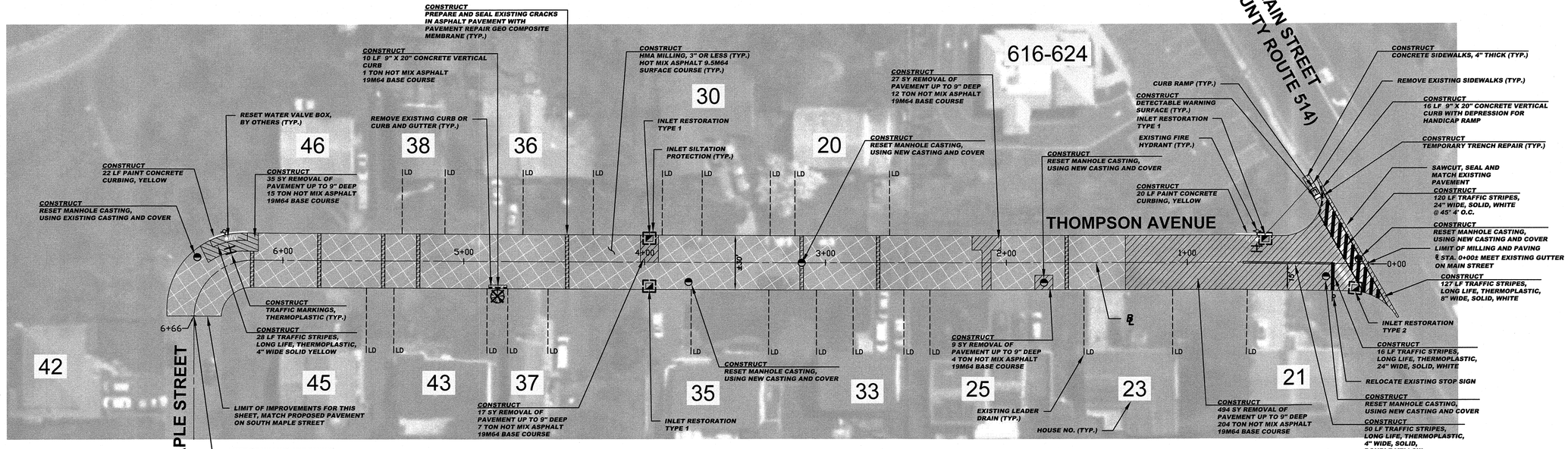
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	31 of 106

REGISTERED CG

DRAWING NO. 31- 0

FILE NO. PWB0A607.01



CONSTRUCT (THOMPSON AVENUE)

582	SY	Removal of pavement, up to 9" deep
1698	SY	HMA Milling, 3" or less
2120	LF	Polymerized joint adhesive
119	LF	Prepare and seal existing joints and cracks in asphalt pavement
226	LF	Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
335	TON	Hot mix asphalt 9.5M64 surface and leveler course
243	TON	Hot mix asphalt 19M64 base course
1	UN	Reset manhole casting, using existing casting and cover
5	UN	Reset manhole casting, using new casting and cover
4	UN	Reset existing casting
3	UN	Curb piece type "N-ECO"
1	UN	Bicycle safe grate
8	SY	Concrete sidewalks, 4" thick
1	SY	Detectable warning surface
26	LF	9"x20" Concrete vertical curb
42	LF	Paint concrete curbing
128	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
127	LF	Traffic stripes, long life, "thermoplastic, 8" wide, with glass beads
136	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
12	SF	Traffic markings, thermoplastic, with glass beads
4	SY	Temporary trench repair
2	UN	Reset water valve box
15	SY	Topsoiling, 4" thick, including fine grading
15	SY	Fertilizing
15	SY	Sodding
1	UN	Replacement trees

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
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- DENOTES CONCRETE DRIVEWAY RESTORATION
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- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

THOMPSON AVENUE — WARD 2

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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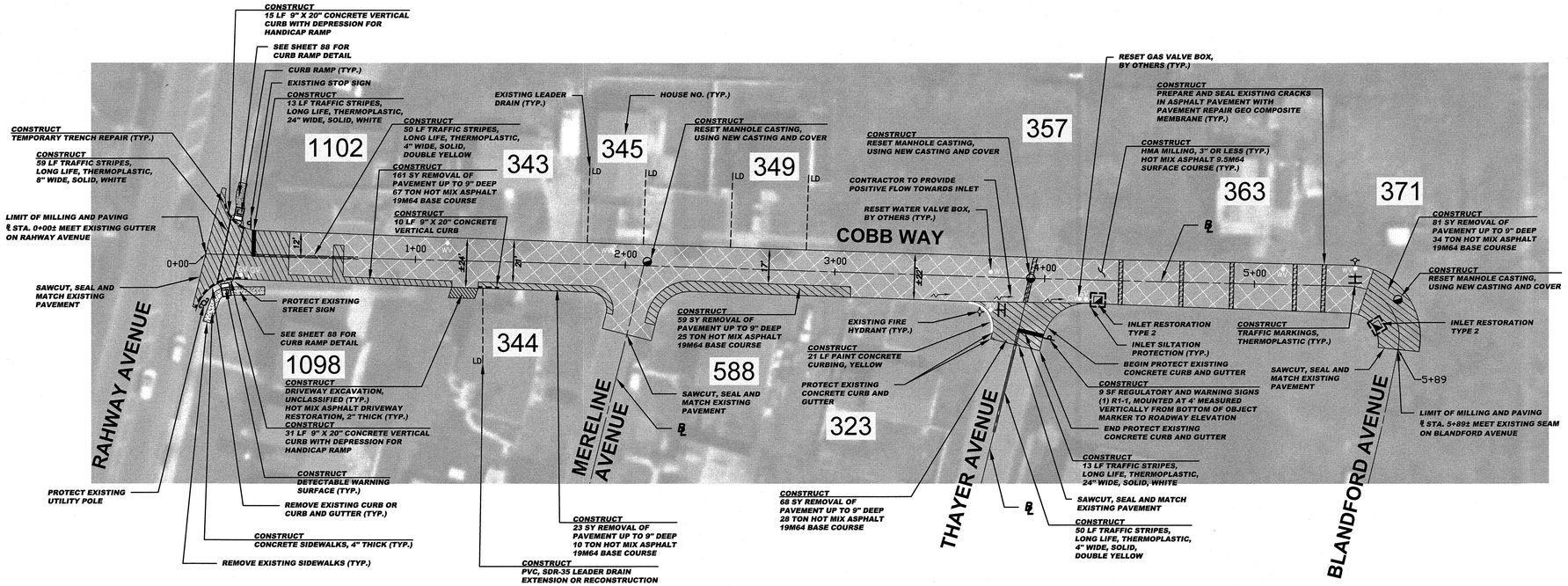
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	32 of 106

REGISTERED CG

DRAWING NO. 32 - U

FILE NO. PWB0A607.01



CONSTRUCT (COBB WAY)

392	SY	Removal of pavement, up to 9" deep
2	CY	Driveway excavation, unclassified
1221	SY	HMA Milling, 3" or less
1244	LF	Polymerized joint adhesive
127	LF	Prepare and seal existing joints and cracks in asphalt pavement
136	LF	Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
249	TON	Hot mix asphalt 9.5M64 surface and leveler course
164	TON	Hot mix asphalt 19M64 base course
1	UN	PVC, SDR-35 Leader drain extension or reconstruction
3	UN	Reset manhole casting, using new casting and cover
2	UN	Reset existing casting
2	UN	Bicycle safe grate
28	SY	Concrete sidewalks, 4" thick
7	SY	Hot mix asphalt driveway restoration, 2" thick
2	SY	Detectable warning surface
56	LF	9"x20" Concrete vertical curb
21	LF	Paint concrete curbing
200	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
59	LF	Traffic stripes, long life, "thermoplastic, 8" wide, with glass beads
26	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
12	SF	Traffic markings, thermoplastic, with glass beads
9	SF	Regulatory and warning signs
11	SY	Temporary trench repair
6	UN	Reset water valve box
4	UN	Reset gas valve box
82	SY	Topsoiling, 4" thick, including fine grading
82	SY	Fertilizing
82	SY	Sodding

R1–1
36"x36"

SIGN LEGEND

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

SPECIAL PROVISIONS

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GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
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No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

COBB WAY — WARD 3

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

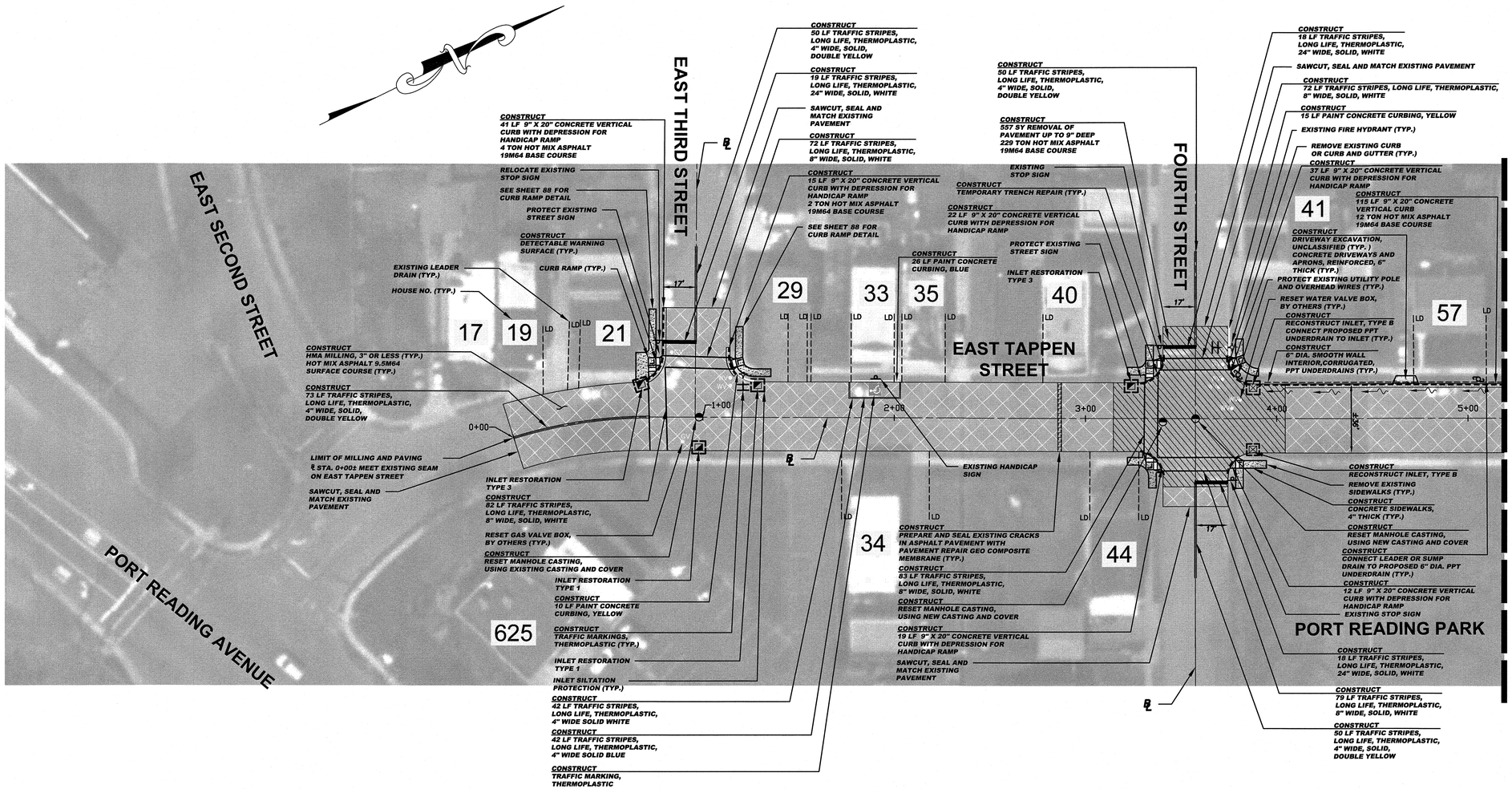
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
8.23.19

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	33 of 106

REGISTERED CG

DRAWING NO. 33 - 0

FILE NO. PWB0A607.01



CONSTRUCT (EAST TAPPEN STREET (1 OF 3)

557	SY	Removal of pavement, up to 9" deep
2	CY	Driveway excavation, unclassified
1911	SY	HMA Milling, 3" or less
1689	LF	Polymerized joint adhesive
140	LF	Prepare and seal existing joints and cracks in asphalt pavement
36	LF	Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
342	TON	Hot mix asphalt 9.5M64 surface and leveler course
247	TON	Hot mix asphalt 19M64 base course
131	LF	6" dia. smooth wall interior corrugated PPT underdrains
2	UN	Connect leader or sump drain to proposed underdrain
21	CY	Dense graded aggregate for pipe trench
1	UN	Reset manhole casting, using existing casting and cover
2	UN	Reset manhole casting, using new casting and cover
4	UN	Reset existing casting
4	UN	Curb piece type "N-ECO"
2	UN	Bicycle safe grate
2	UN	Reconstruct inlet, type B
103	SY	Concrete sidewalks, 4" thick
6	SY	Concrete driveways and aprons, reinforced, 6" thick (including bedding)
9	SY	Detectable warning surface
261	LF	9"x20" Concrete vertical curb
51		Paint concrete curbing
530	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
388	LF	Traffic stripes, long life, "thermoplastic", 8" wide, with glass beads
55	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
25	SF	Traffic markings, thermoplastic, with glass beads
22	SY	Temporary trench repair
7	UN	Reset water valve box
3	UN	Reset gas valve box
145	SY	Topsoiling, 4" thick, including fine grading
145	SY	Fertilizing
145	SY	Sodding

SPECIAL PROVISIONS

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BASELINES

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INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
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- DENOTES CONCRETE DRIVEWAY RESTORATION
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No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

EAST TAPPEN STREET (1 OF 3)

WARD 3

CVE ASSOCIATES
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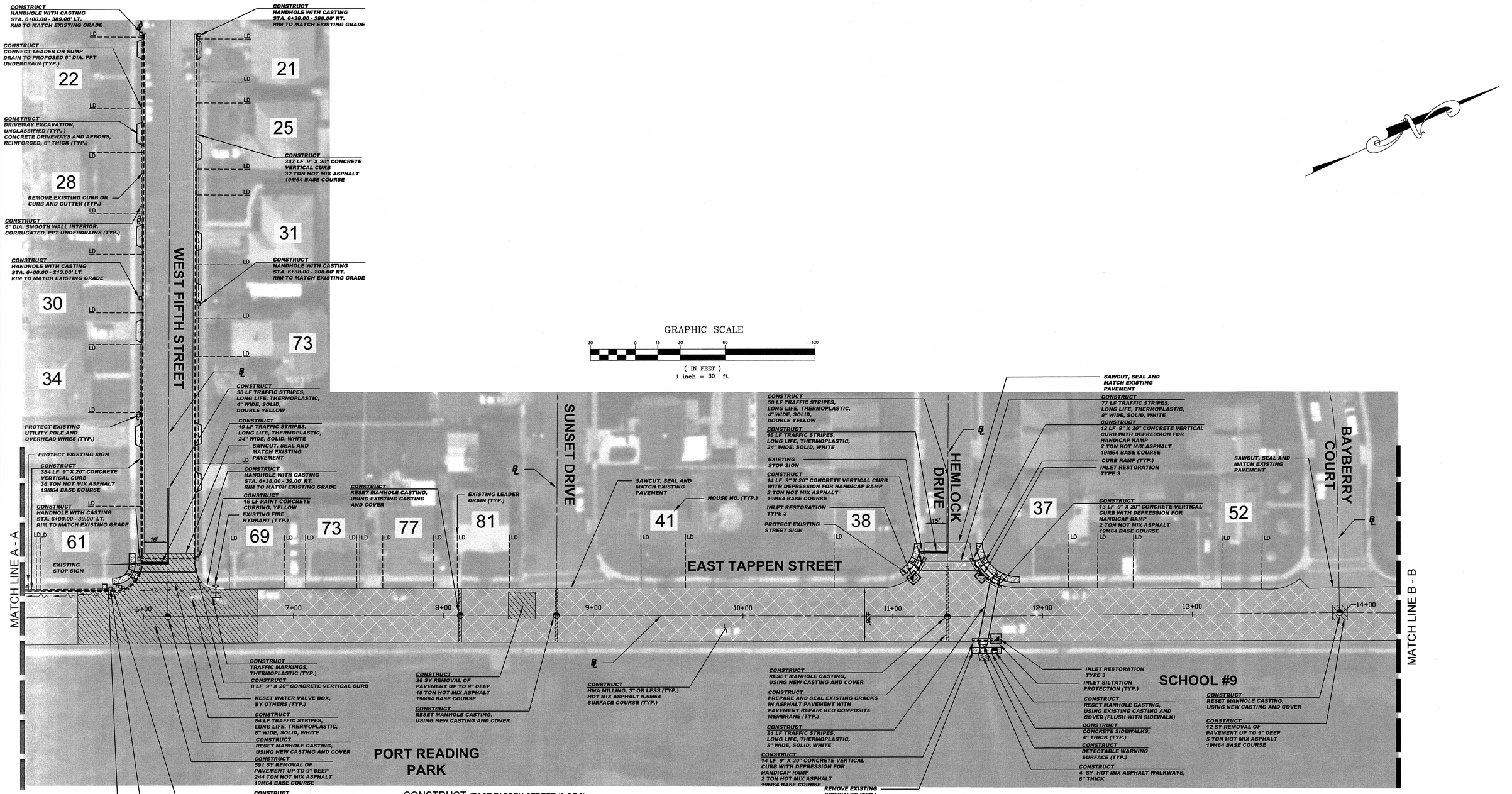
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

325.8

REGISTERED	CG
DRAWING NO.	34-U
SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	34 of 106
FILE NO.	PWB0A607.01

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

CONSTRUCT (EAST TAPPEN STREET (2 OF 3)

639	SY	Removal of pavement, up to 9" deep
22	CY	Driveway excavation, unclassified
3268	SY	HMA Milling, 3" or less
3125	LF	Polymerized joint adhesive
212	LF	Prepare and seal existing joints and cracks in asphalt pavement
122	LF	Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
561	TON	Hot mix asphalt 9.5M64 surface and leveler course
340	TON	Hot mix asphalt 19M64 base course
824	LF	6" dia. smooth wall interior corrugated PPT underdrains
20	UN	Connect leader or sump drain to proposed underdrain
7	UN	Handhole with casting
152	CY	Dense graded aggregate for pipe trench
2	UN	Reset manhole casting, using existing casting and cover
4	UN	Reset manhole casting, using new casting and cover
3	UN	Reset existing casting
3	UN	Curb piece type "N-ECO"
3	UN	Bicycle safe grate
63	SY	Concrete sidewalks, 4" thick
62	SY	Concrete driveways and aprons, reinforced, 6" thick (including bedding)
4	SY	Hot mix asphalt walkways, 6" thick
5	SY	Detectable warning surface
853	LF	9"x20" Concrete vertical curb
16	LF	Paint concrete curbing
200	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
242	LF	Traffic stripes, long life, "thermoplastic", 8" wide, with glass beads
35	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
6	SF	Traffic markings, thermoplastic, with glass beads
16	SY	Temporary trench repair
3	UN	Reset water valve box
474	SY	Topsoiling, 4" thick, including fine grading
474	SY	Fertilizing
474	SY	Sodding

INLET RESTORATION:

TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO

TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE

TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE

TYPE 4 - RESET EXISTING CASTING

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

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No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

EAST TAPPEN STREET (2 OF 3)

WARD 3

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)
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MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER
LIC. 32468

SCALE: As Shown | DATE: March 2019

DRAWN BY | DESIGNED BY: ZYC / JD

CHECKED BY | SHEET: 35 of 106

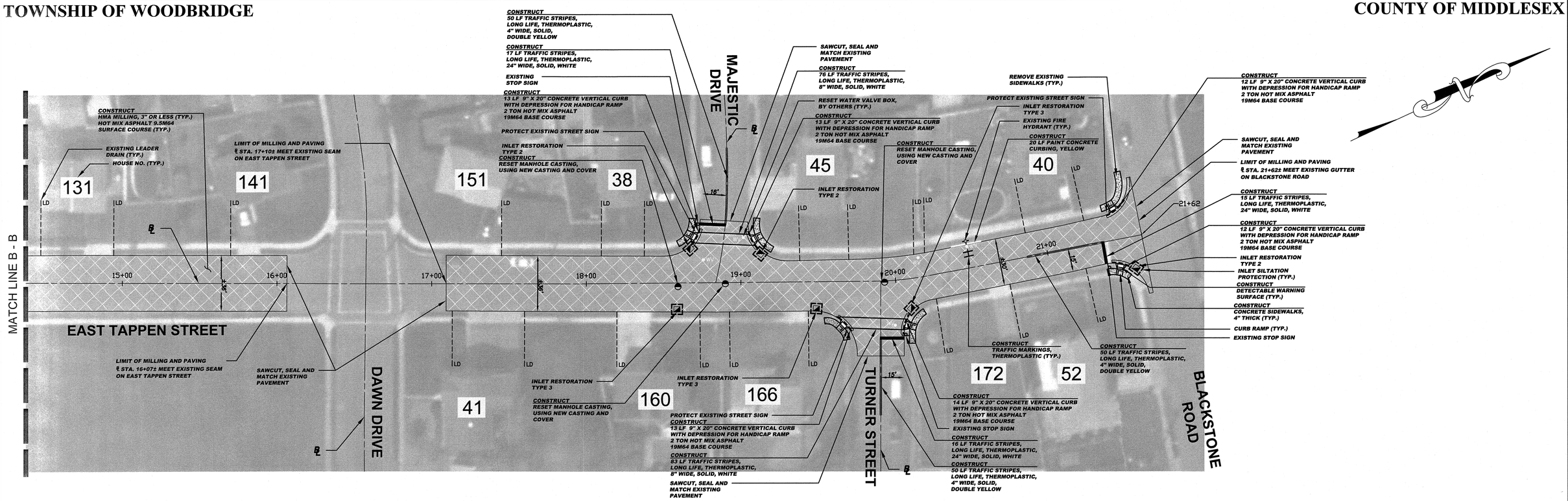
REGISTERED: CG

DRAWING NO.: 3S - U

FILE NO.: PWB0A607.01

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX



CONSTRUCT (EAST TAPPEN STREET (3 OF 3)

2629	SY	HMA Milling, 3" or less
1978	LF	Polymerized joint adhesive
211	LF	Prepare and seal existing joints and cracks in asphalt pavement
372	TON	Hot mix asphalt 9.5M64 surface and leveler course
12	TON	Hot mix asphalt 19M64 base course
3	UN	Reset manhole casting, using new casting and cover
6	UN	Reset existing casting
3	UN	Curb piece type "N-ECO"
6	UN	Bicycle safe grate
71	SY	Concrete sidewalks, 4" thick
6	SY	Detectable warning surface
77	LF	9"x20" Concrete vertical curb
20	LF	Paint concrete curbing
300	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
159	LF	Traffic stripes, long life, "thermoplastic", 8" wide, with glass beads
48	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
6	SF	Traffic markings, thermoplastic, with glass beads
5	UN	Reset water valve box
43	SY	Topsoiling, 4" thick, including fine grading
43	SY	Fertilizing
43	SY	Sodding

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BASELINES

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INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
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- DENOTES PAINT CONCRETE CURBING, YELLOW
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TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

EAST TAPPEN STREET (3 OF 3)

WARD 3

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
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MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE: As Shown | DATE: March 2019

DRAWN BY: ZYC / JD | DESIGNED BY: ZYC / JD

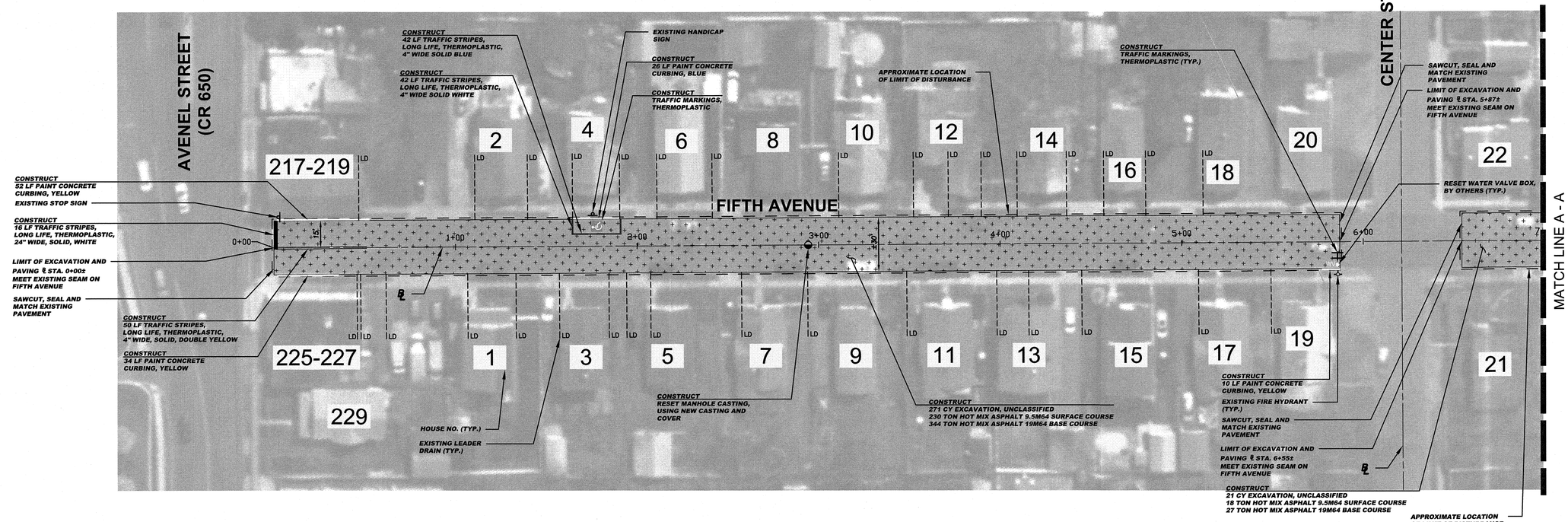
CHECKED BY: | SHEET: 36 of 106

REGISTERED: CG

DRAWING NO.: 36-3

FILE NO.: PWBOA607.01

TOWNSHIP OF WOODBRIDGE — **COUNTY OF MIDDLESEX**



CONSTRUCT (FIFTH AVENUE (1 OF 2)

292	CY	Excavation, unclassified
1909	LF	Polymerized joint adhesive
90	LF	Prepare and seal existing joints and cracks in asphalt pavement
248	TON	Hot mix asphalt 9.5M64 surface course
371	TON	Hot mix asphalt 19M64 base course
1	UN	Reset manhole casting, using new casting and cover
122	LF	Paint concrete curbing
184	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
16	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
19	SF	Traffic markings, thermoplastic, with glass beads
1	UN	Reset water valve box

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

SPECIAL PROVISIONS

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GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
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TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

FIFTH AVENUE (1 OF 2) — WARD 3

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 — (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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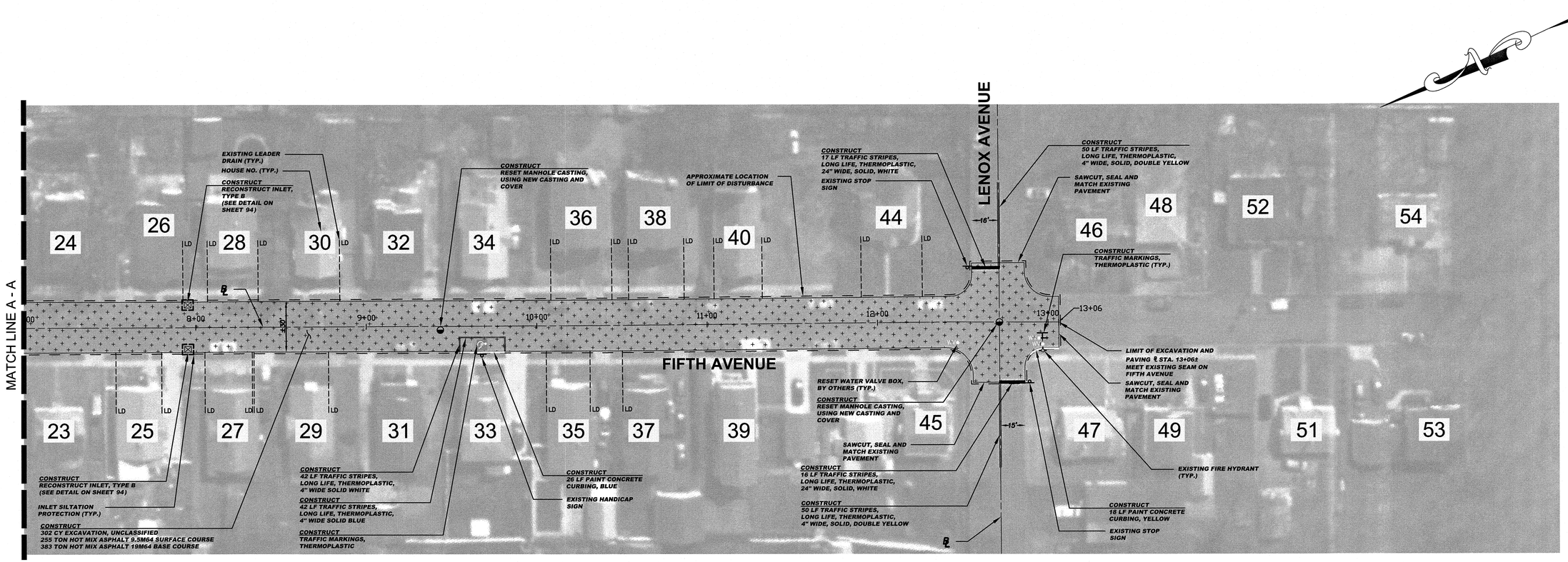
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

8.25.19

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	37 of 106

REGISTERED CG
DRAWING NO. 37 - 0
FILE NO. PWB0A607.01



CONSTRUCT (FIFTH AVENUE (2 OF 2)

302	CY	Excavation, unclassified
1854	LF	Polymerized joint adhesive
92	LF	Prepare and seal existing joints and cracks in asphalt pavement
255	TON	Hot mix asphalt 9.5M64 surface course
383	TON	Hot mix asphalt 19M64 base course
2	UN	Reset manhole casting, using new casting and cover
2	UN	Reconstruct Inlet, type B
44	LF	Paint concrete curbing
284	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
33	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
19	SF	Traffic markings, thermoplastic, with glass beads
3	UN	Reset water valve box
4	SY	Topsoil, 4" thick, including fine grading
4	SY	Fertilizing
4	SY	Sodding

BASELINES

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INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

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GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

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TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

FIFTH AVENUE (2 OF 2) WARD 3

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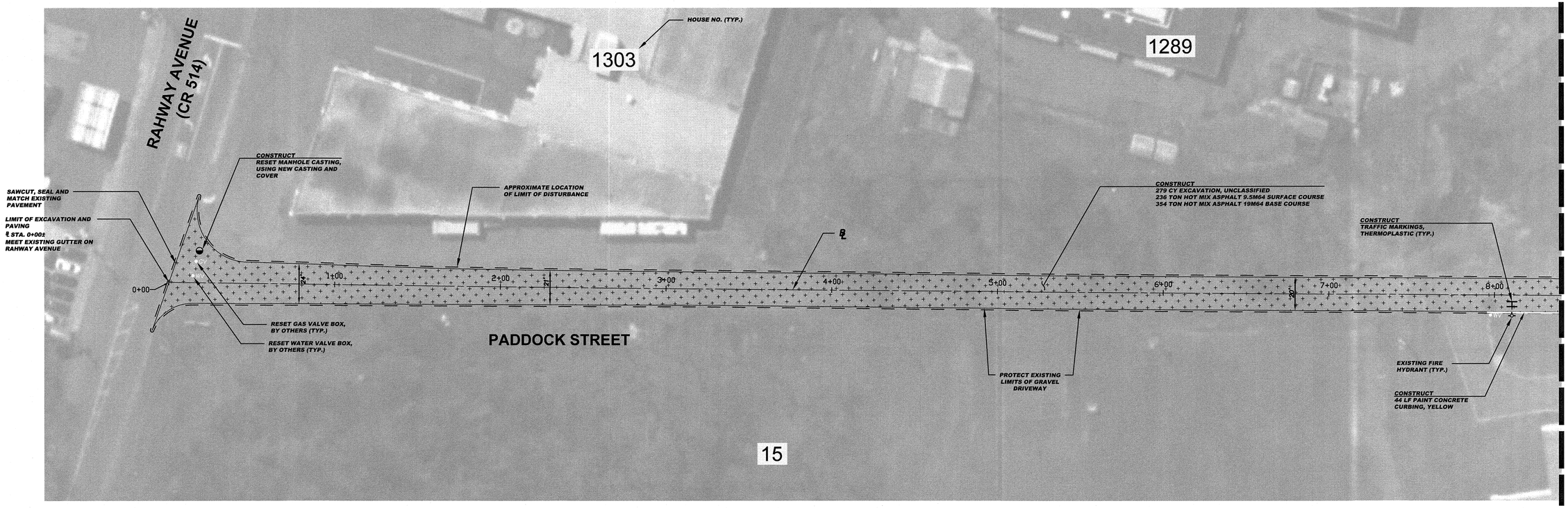

CONSTRUCT (PADDOCK STREET (1 OF 2)

279	CY	Excavation, unclassified
983	LF	Polymerized joint adhesive
86	LF	Prepare and seal existing joints and cracks in asphalt pavement
236	TON	Hot mix asphalt 9.5M64 surface course
354	TON	Hot mix asphalt 19M64 base course
1	UN	Reset manhole casting, using new casting and cover
44	LF	Paint concrete curbing
6	SF	Traffic markings, thermoplastic, with glass beads
1	UN	Reset water valve box
1	UN	Reset gas valve box
290	SY	Topsoiling, 4" thick, including fine grading
290	SY	Fertilizing
290	SY	Sodding

SPECIAL PROVISIONS

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INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

PROPOSED LEGEND:

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- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

PADDOCK STREET (1 OF 2) WARD 3

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25838 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
8.25.19

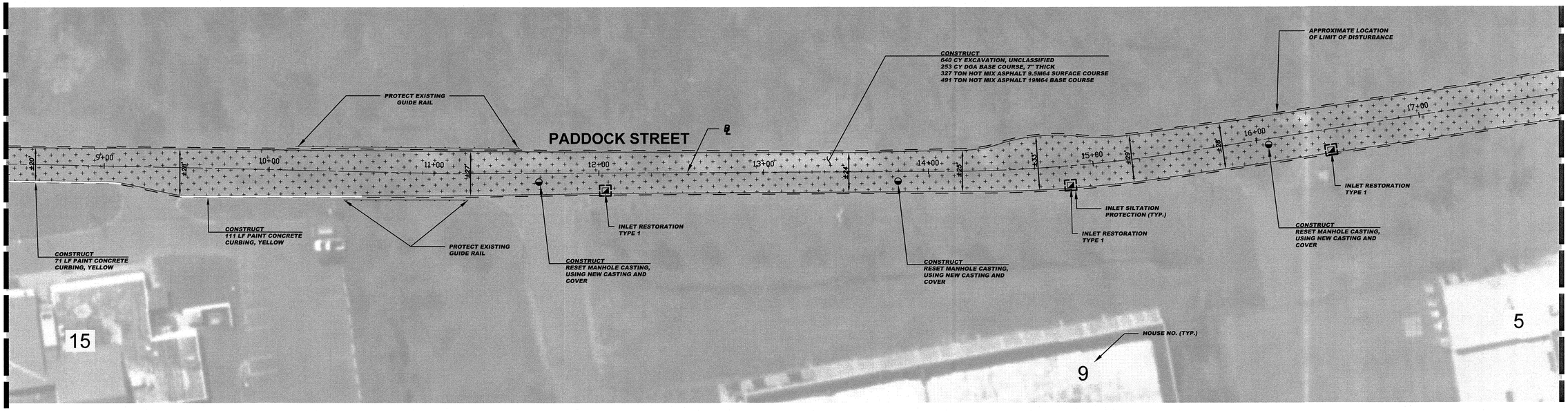
SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	39 of 106

REGISTERED CG

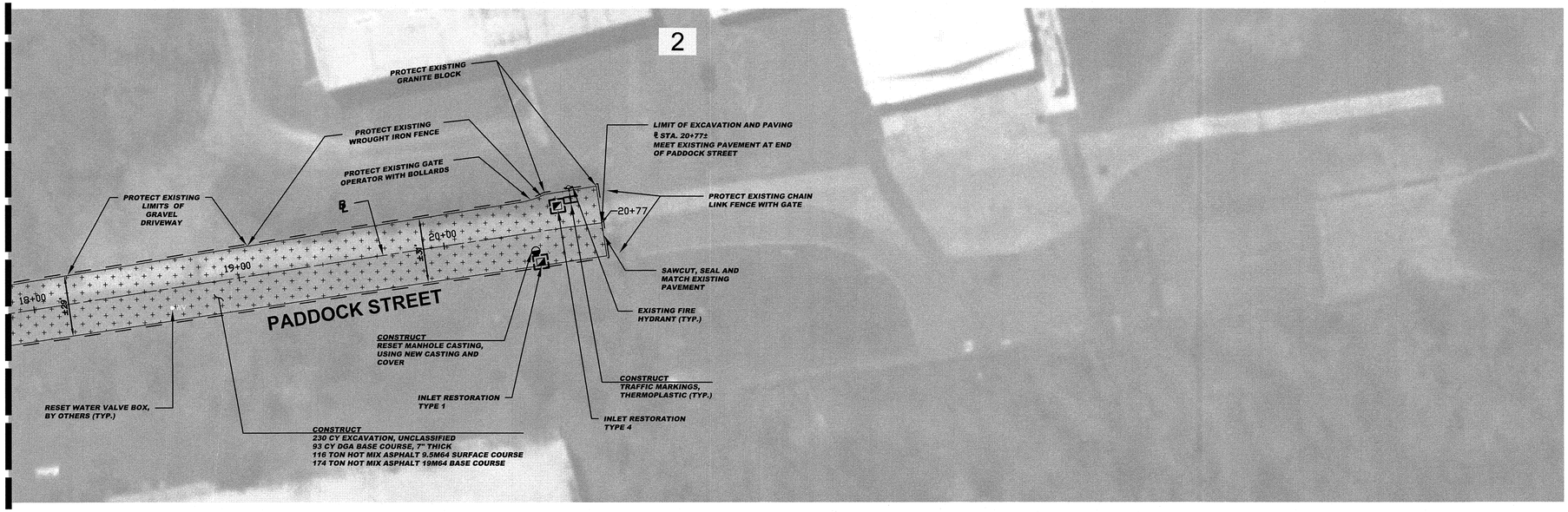
DRAWING NO. 39 - 0

FILE NO. PWB0A607.01

MATCH LINE A - A



MATCH LINE B - B



CONSTRUCT (PADDOCK STREET (2 OF 2)

870	CY	Excavation, unclassified
346	CY	Dense graded aggregate base course, 7" thick
2681	LF	Polymerized joint adhesive
34	LF	Prepare and seal existing joints and cracks in asphalt pavement
443	TON	Hot mix asphalt 9.5M64 surface course
665	TON	Hot mix asphalt 19M64 base course
4	UN	Reset manhole casting, using new casting and cover
5	UN	Reset existing casting
4	UN	Curb piece, type "N-ECO"
182	LF	Paint concrete curbing
6	SF	Traffic markings, thermoplastic, with glass beads
1	UN	Reset water valve box
193	SY	Topsoiling, 4" thick, including fine grading
193	SY	Fertilizing
193	SY	Sodding

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
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No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

PADDOCK STREET (2 OF 2) WARD 3

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
325.19

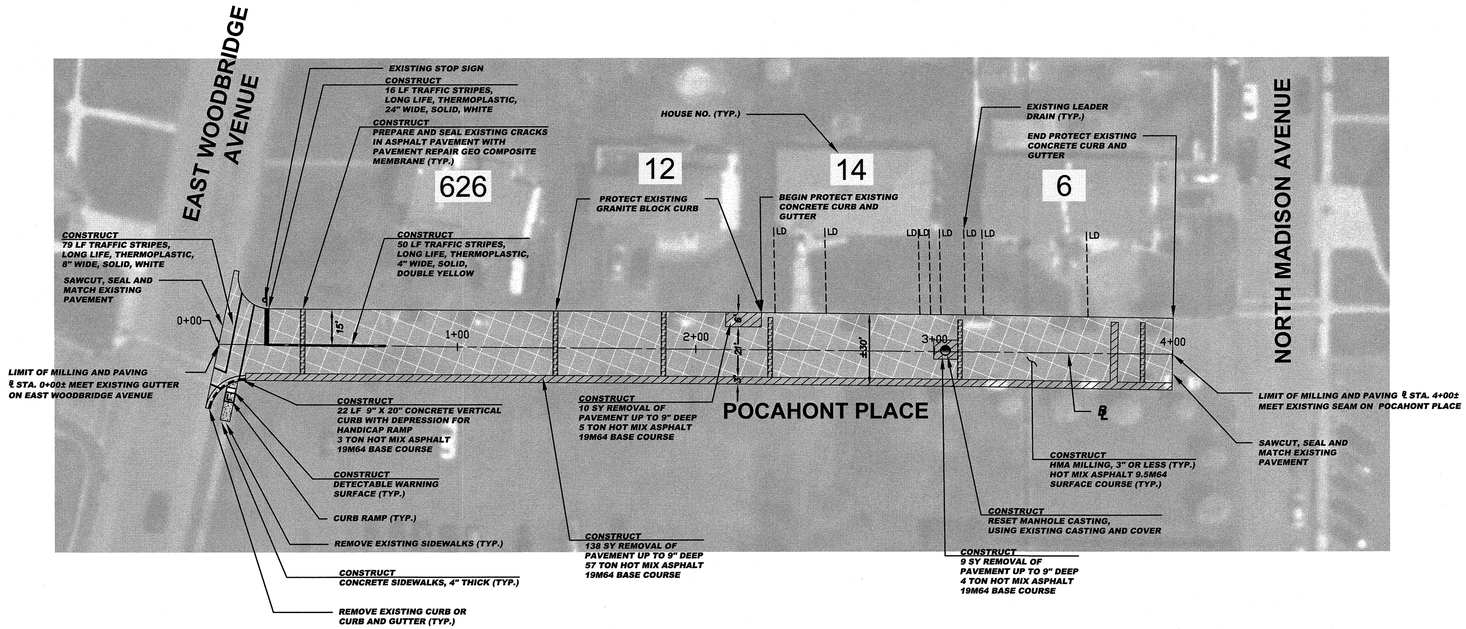
SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	40 of 106

REGISTERED CG

DRAWING NO. 40 - 5

FILE NO. PWB0A607.01

MATCH LINE B - B



CONSTRUCT (POCAHONT PLACE)

157	SY	Removal of pavement, up to 9" deep
1192	SY	HMA Milling, 3" or less
945	LF	Polymerized joint adhesive
89	LF	Prepare and seal existing joints and cracks in asphalt pavement
156	LF	Prepare and seal existing transverse cracks in pavement with pavement repair geo composite membrane
199	TON	Hot mix asphalt 9.5M64 surface and leveler course
69	TON	Hot mix asphalt 19M64 base course
1	UN	Reset manhole casting, using existing casting and cover
8	SY	Concrete sidewalks, 4" thick
1	SY	Detectable warning surface
22	LF	9"x20" Concrete vertical curb
100	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
79	LF	Traffic stripes, long life, "thermoplastic", 8" wide, with glass beads
16	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
90	SY	Topsoiling, 4" thick, including fine grading
90	SY	Fertilizing
90	SY	Sodding

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

NOTE:

EXCEPT WHERE NOTED, CONTRACTOR IS TO PROTECT EXISTING CONCRETE GUTTER THAT HAS NOT BEEN PREVIOUSLY OVERLAID WITH ASPHALT DURING MILLING AND PAVING OPERATIONS. CONCRETE GUTTER THAT HAS PREVIOUSLY BEEN OVERLAID WITH ASPHALT, IS TO BE MILLED AND OVERLAID.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

SPECIAL PROVISIONS

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GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
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No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

POCAHONT PLACE — WARD 3

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1993 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25838 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24371 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	3.25.19
SHEET	41 of 106

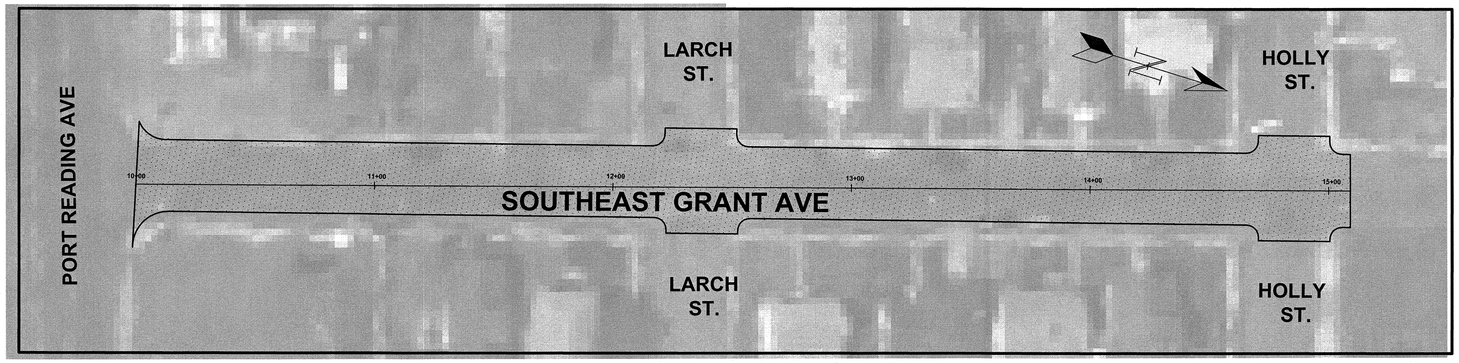
REGISTERED cg

DRAWING NO. 41-0

FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY



GRAPHIC SCALE

0 15 30 60

(IN FEET)
1 INCH = 30 FEET

TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

SOUTHEAST GRANT AVE
PAVING LIMITS

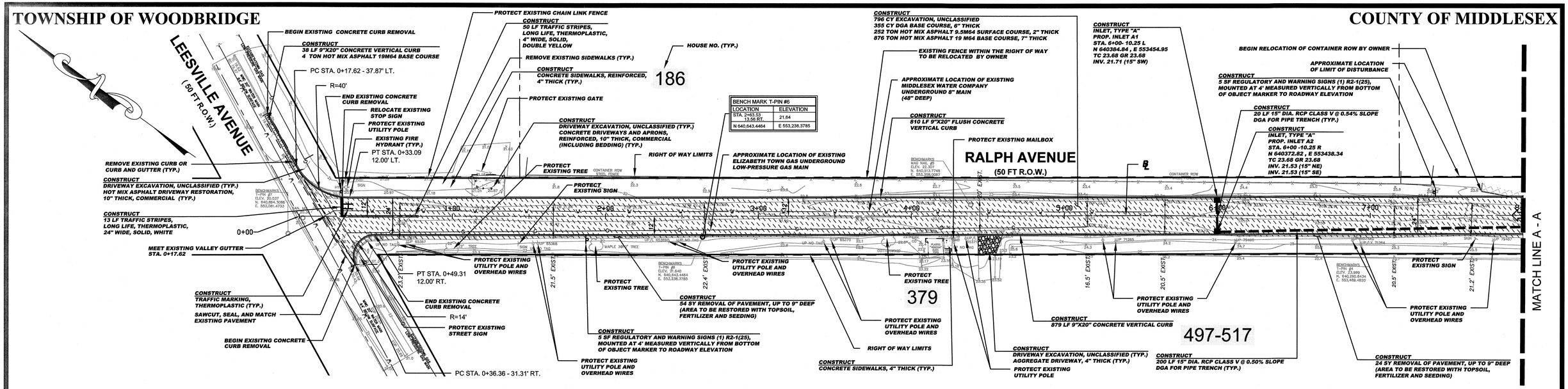
MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

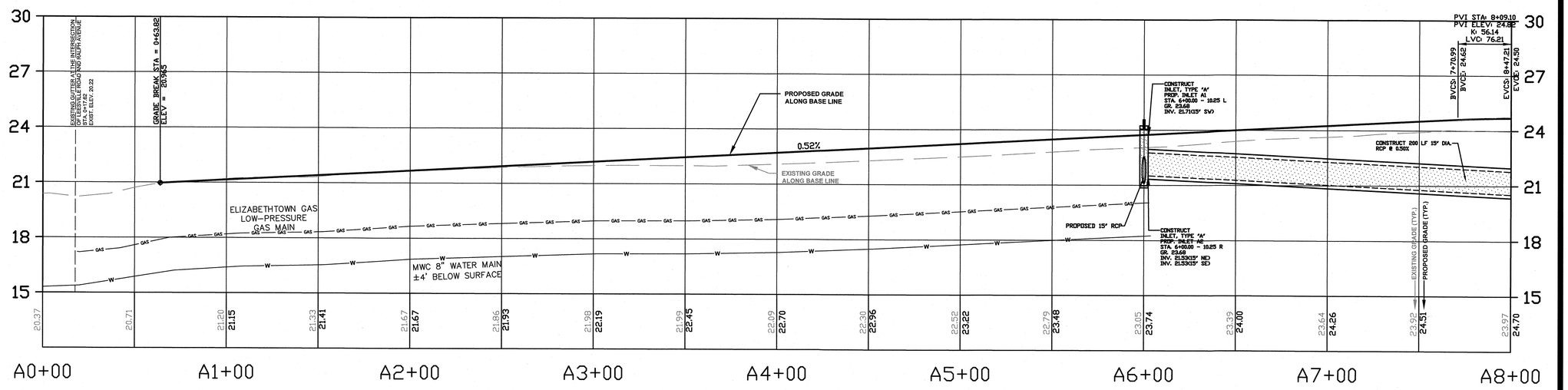
TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/5/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 42 OF 106

P-WBOR001-01 42-0 CG

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX





NOTE:
NOT ALL EXISTING UTILITIES ARE SHOWN ON THIS PLAN. THE CONTRACTOR IS RESPONSIBLE FOR REQUESTING MARKOUTS FOR ALL EXISTING UTILITIES.

SOIL EROSION AND SEDIMENT CONTROL
SEE SHEET 3 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.

EXISTING GAS AND WATER MAINS
THE CONTRACTOR IS ADVISED THAT THE EXISTING GAS AND WATER MAIN LOCATIONS INDICATED ON THE PLANS ARE APPROXIMATE. THE EXACT LOCATIONS AND DEPTHS WERE NOT AVAILABLE FROM THE UTILITY COMPANIES AT THE TIME THE PLANS WERE PREPARED. ACCORDINGLY, THE CONTRACTOR SHALL REQUEST A UTILITY MARKOUT FROM THE RESPECTIVE GAS AND WATER COMPANIES PRIOR TO COMMENCEMENT OF THE WORK.

EXISTING LEADER AND SUMP DRAIN NOTE
THE CONTRACTOR SHALL CONNECT ALL EXISTING LEADER DRAINS AND SUMP DISCHARGES TO PROPOSED UNDERDRAINS. IF NO UNDERDRAINS ARE INSTALLED, THE EXISTING LEADER DRAIN OR SUMP DRAIN SHALL BE CONNECTED TO THE STORM PIPE. IF NO STORM PIPE EXISTS OR IS INSTALLED, LEADER DRAINS SHALL BE CONNECTED THROUGH THE CURB FACE WITH A 4" DIAMETER PVC PIPE. SUMP DRAIN DISCHARGES SHALL NOT BE CONSTRUCTED THROUGH THE CURB FACE. ALL LEADER DRAIN CONNECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE CONSTRUCTION DETAILS.

RIGHT-OF-WAY
RIGHT-OF-WAY LINES SHOWN HEREON ARE BASED ON TAX MAP DATA ONLY. A COMPREHENSIVE RIGHT-OF-WAY SURVEY AND ANALYSIS WAS NOT PERFORMED AS PART OF THIS WORK.

SPECIAL PROVISIONS
THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT
THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

CONSTRUCT (RALPH AVENUE(1 OF 2)

78	SY	Removal of pavement, up to 9" deep
27	CY	Driveway excavation, unclassified
796	CY	Excavation, unclassified
355	CY	Dense graded aggregate base course, 6" thick
2423	LF	Polymerized joint adhesive
75	LF	Prepare and seal existing joints and cracks in asphalt pavement
252	TON	Hot mix asphalt 9.5M64 surface and leveler course
880	TON	Hot mix asphalt 19M64 base course
220	LF	15" dia. Reinforced concrete pipe (RCP), class V storm sewer with flexible watertight gaskets, including excavation and backfill, type 57 stone bedding, type 57 stone bedding, type 57 stone backfill to the spring line of the pipe, filter fabric and all associated work
95	CY	Dense graded aggregate for pipe trench
2	UN	Inlet, type A
5	SY	Concrete sidewalks, 4" thick
121	SY	Concrete sidewalks, reinforced, 4" thick
33	SY	Concrete driveways and aprons, reinforced, 10" thick, commercial (including bedding)
50	SY	Hot mix asphalt driveway restoration, 6" thick, commercial
19	SY	Aggregate driveway, 4" thick
1727	LF	9"x20" Concrete vertical curb
100	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
13	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
6	SF	Traffic markings, thermoplastic, with glass beads
10	SF	Regulatory and warning signs
1915	SY	Topsoiling, 4" thick, including fine grading
1915	SY	Fertilizing and seeding, type A-3

PROFILE
SCALE: 1"=30' (HORZ.)
1"=3' (VERT.)

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

TRAFFIC CONTROL & STAGING
TRAVEL IN EACH DIRECTION IS TO BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE TOWNSHIP AND MUNICIPAL POLICE DEPARTMENT. THE CONTRACTOR SHALL PROVIDE THEIR PROPOSED CONSTRUCTION STAGING PLANS TO THE TOWNSHIP FOR APPROVAL PRIOR TO COMMENCING CONSTRUCTION ON RALPH AVENUE/CLARENCE AVENUE. THE STAGING PLANS SHALL CONSIDER TEMPORARY PAVEMENT TRANSITIONS IN AREAS OF FILL. THE CONTRACTOR SHALL COORDINATE WITH THE TOWNSHIP, MUNICIPAL POLICE DEPARTMENT, AND BUSINESSES IN ORDER TO MAINTAIN ACCESS AND TRUCKING OPERATIONS AT ALL COMMERCIAL PROPERTIES WITHIN THE PROJECT LIMITS. SEE SHEET 106 FOR ADDITIONAL INFORMATION AND DETAILS ON TRAFFIC CONTROL & STAGING. ALL WORK SHALL BE IN CONFORMANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
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- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

SEE SHEET 45 FOR RALPH AVENUE UTILITY PLAN

SEE SHEETS 46 & 47 FOR RALPH AVENUE CROSS SECTIONS

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY
2019 MILLING AND RESURFACING PROGRAM
CONTRACT NO. 2019-001
RALPH AVENUE(1 OF 2) WARD 3
CONSTRUCTION PLAN

CVE ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25838 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

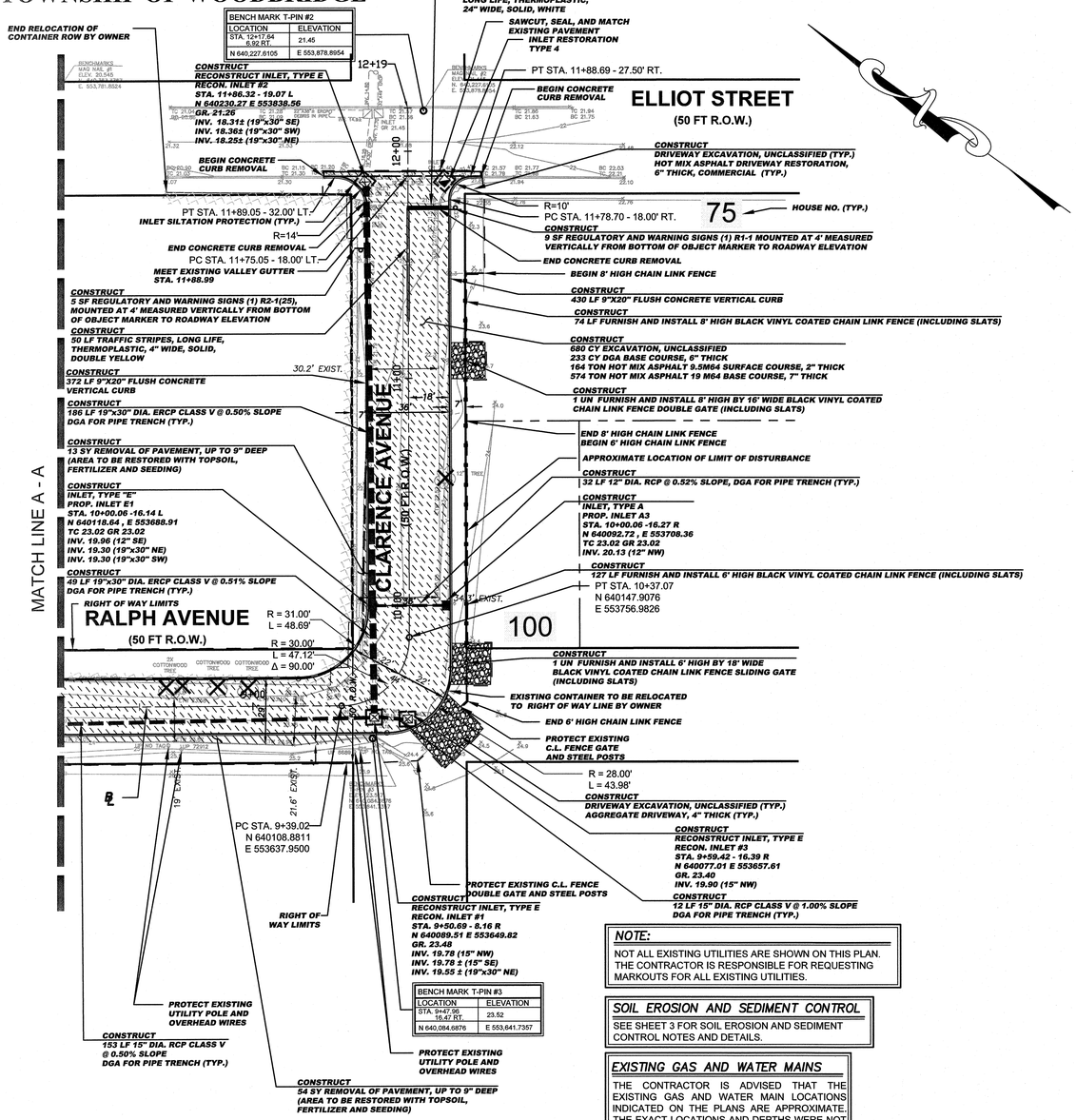
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

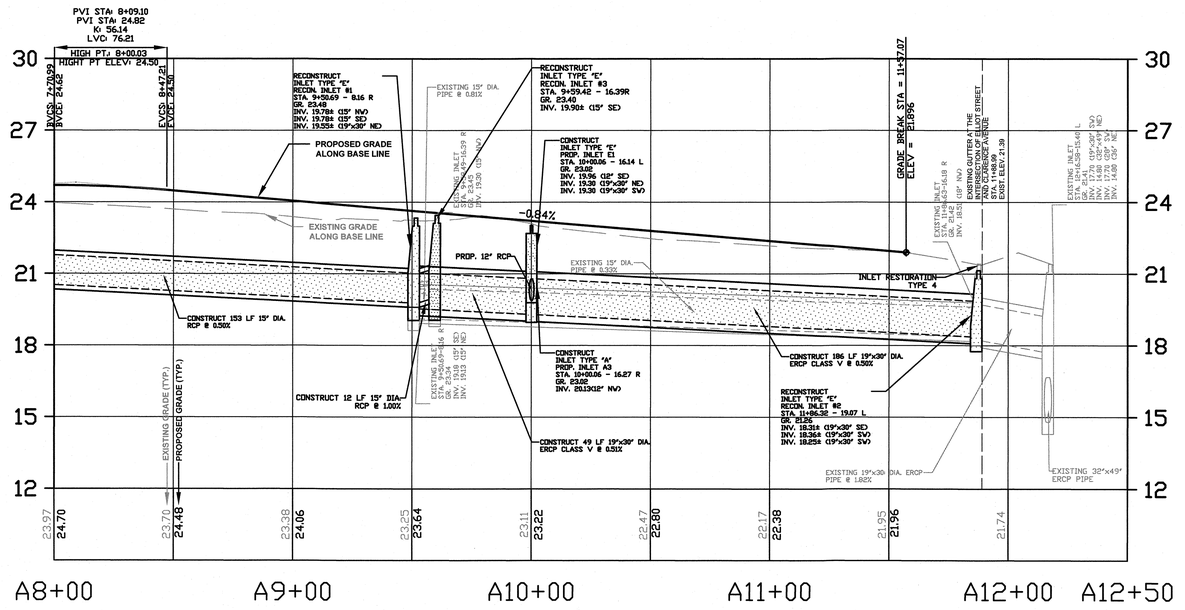
SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC
DESIGNED BY	ZYC
CHECKED BY	
SHEET	43 of 106

REGISTERED NJ PE LIC. NO. 32468 — DRAWING NO. 43-u — FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX





CONSTRUCT (RALPH AVENUE (2 OF 2)

67	SY	Removal of pavement, up to 9" deep
59	CY	Driveway excavation, unclassified
680	CY	Excavation, unclassified
233	CY	Dense graded aggregate base course, 6" thick
1322	LF	Polymerized joint adhesive
70	LF	Prepare and seal existing joints and cracks in asphalt pavement
164	TON	Hot mix asphalt 9.5M64 surface and leveler course
574	TON	Hot mix asphalt 19M64 base course
32	LF	12" dia. Reinforced concrete pipe (RCP), class V storm sewer with flexible watertight gaskets, including excavation and backfill, type 57 stone bedding, type 57 stone backfill to the spring line of the pipe, filter fabric and all associated work
165	LF	15" dia. Reinforced concrete pipe (RCP), class V storm sewer with flexible watertight gaskets, including excavation and backfill, type 57 stone bedding, type 57 stone backfill to the spring line of the pipe, filter fabric and all associated work
235	LF	19"x30" dia. Elliptical reinforced concrete pipe (ERCP), class V storm sewer with flexible watertight gaskets, including excavation and backfill, type 57 stone bedding, type 57 stone backfill to the spring line of the pipe, filter fabric and all associated work
213	CY	Dense graded aggregate for pipe trench
1	UN	Inlet, type A
1	UN	Inlet, type E
1	UN	Reset existing casting
3	UN	Reconstruct inlet, type E
127	LF	Furnish and install 6' high black vinyl coated chain link fence (including slats)
74	LF	Furnish and install 8' high black vinyl coated chain link fence (including slats)
1	UN	Furnish and install 6' high by 18' wide black vinyl coated chain link fence sliding gate (including slats)
1	UN	Furnish and install 8' high by 16' wide black vinyl coated chain link fence double gate (including slats)
89	SY	Hot mix asphalt driveway restoration, 6" thick, commercial
136	SY	Aggregate driveway, 4" thick
802	LF	9"x20" Concrete vertical curb
100	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
19	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
14	SF	Regulatory and warning signs
567	SY	Topsoiling, 4" thick, including fine grading
567	SY	Fertilizing and seeding, Type A-3

NOTE:
CONTRACTOR TO REMOVE AND DISPOSE OF EXISTING CHAIN LINK FENCE, GATES AND POSTS WITHIN RIGHT-OF-WAY AND IN CONFLICT WITH PROPOSED IMPROVEMENTS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

RIGHT-OF-WAY
RIGHT-OF-WAY LINES SHOWN HEREON ARE BASED ON TAX MAP DATA ONLY. A COMPREHENSIVE RIGHT-OF-WAY SURVEY AND ANALYSIS WAS NOT PERFORMED AS PART OF THIS WORK.

SPECIAL PROVISIONS
THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT
THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

NOTE:
NOT ALL EXISTING UTILITIES ARE SHOWN ON THIS PLAN. THE CONTRACTOR IS RESPONSIBLE FOR REQUESTING MARKOUTS FOR ALL EXISTING UTILITIES.

SOIL EROSION AND SEDIMENT CONTROL
SEE SHEET 3 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.

EXISTING GAS AND WATER MAINS
THE CONTRACTOR IS ADVISED THAT THE EXISTING GAS AND WATER MAIN LOCATIONS INDICATED ON THE PLANS ARE APPROXIMATE. THE EXACT LOCATIONS AND DEPTHS WERE NOT AVAILABLE FROM THE UTILITY COMPANIES AT THE TIME THE PLANS WERE PREPARED. ACCORDINGLY, THE CONTRACTOR SHALL REQUEST A UTILITY MARKOUT FROM THE RESPECTIVE GAS AND WATER COMPANIES PRIOR TO COMMENCEMENT OF THE WORK.

EXISTING LEADER AND SUMP DRAIN NOTE
THE CONTRACTOR SHALL CONNECT ALL EXISTING LEADER DRAINS AND SUMP DISCHARGES TO PROPOSED UNDERDRAINS. IF NO UNDERDRAINS ARE INSTALLED, THE EXISTING LEADER DRAIN OR SUMP DRAIN SHALL BE CONNECTED TO THE STORM PIPE. IF NO STORM PIPE EXISTS OR IS INSTALLED, LEADER DRAINS SHALL BE CONNECTED THROUGH THE CURB FACE WITH A 4" DIAMETER PVC PIPE, SUMP DRAIN DISCHARGES SHALL NOT BE CONSTRUCTED THROUGH THE CURB FACE. ALL LEADER DRAIN CONNECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE CONSTRUCTION DETAILS.

TRAFFIC CONTROL & STAGING
TRAVEL IN EACH DIRECTION IS TO BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE TOWNSHIP AND MUNICIPAL POLICE DEPARTMENT. THE CONTRACTOR SHALL PROVIDE THEIR PROPOSED CONSTRUCTION STAGING PLANS TO THE TOWNSHIP FOR APPROVAL PRIOR TO COMMENCING CONSTRUCTION ON RALPH AVENUE/CLARENCE AVENUE. THE STAGING PLANS SHALL CONSIDER TEMPORARY PAVEMENT TRANSITIONS IN AREAS OF FILL. THE CONTRACTOR SHALL COORDINATE WITH THE TOWNSHIP, MUNICIPAL POLICE DEPARTMENT, AND BUSINESSES IN ORDER TO MAINTAIN ACCESS AND TRUCKING OPERATIONS AT ALL COMMERCIAL PROPERTIES WITHIN THE PROJECT LIMITS. SEE SHEET 106 FOR ADDITIONAL INFORMATION AND DETAILS ON TRAFFIC CONTROL & STAGING. ALL WORK SHALL BE IN CONFORMANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

INLET RESTORATION:
TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4 - RESET EXISTING CASTING

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE 7" HOT MIX ASPHALT 19M64 BASE COURSE , AND 6" DENSE GRADED AGGREGATE BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

SEE SHEET 45 FOR RALPH AVENUE UTILITY PLAN

SEE SHEETS 46 & 47 FOR RALPH AVENUE CROSS SECTIONS

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

RALPH AVENUE (2 OF 2) WARD 3

CONSTRUCTION PLAN

CVE ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
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GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34408 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE	DATE
As Shown	March 2019
DRAWN BY	DESIGNED BY
ZYC	ZYC
CHECKED BY	SHEET
	44 of 106

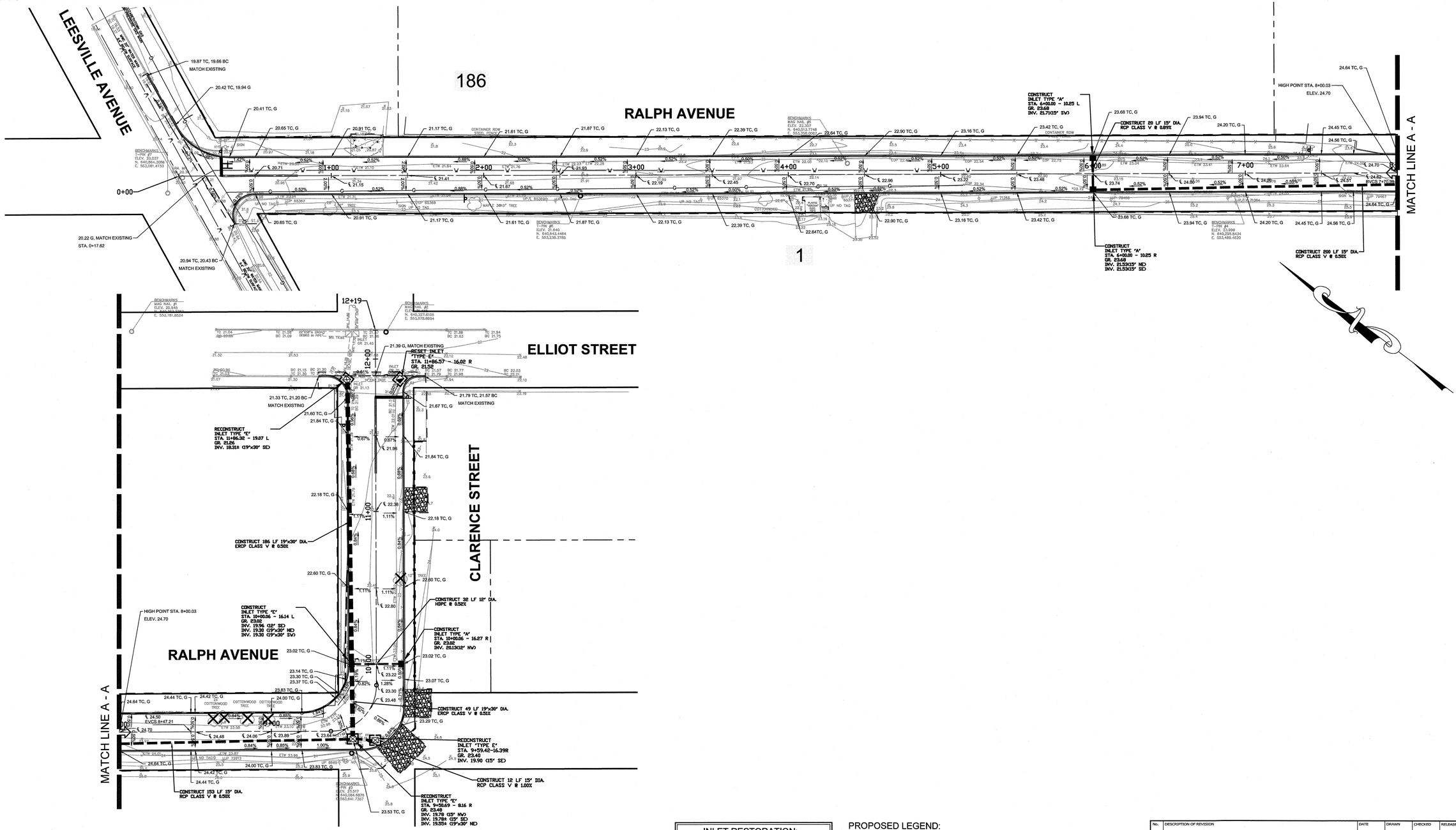
REGISTERED CG

DRAWING NO. 44-U

FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX



INLET RESTORATION:		
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TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

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PROPOSED LEGEND:

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TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

RALPH AVENUE — WARD 3

GRADING AND UTILITY PLAN

CME ASSOCIATES

(732) 727 8000 — CONSULTING AND MUNICIPAL ENGINEERS — (732) 462 7400

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MICHAEL J. McCLELLAND P.E.

NEW JERSEY PROFESSIONAL ENGINEER — LIC. 32468

3/25/19

SCALE	DATE
As Shown	March 2019
DRAWN BY	DESIGNED BY
ZYC	ZYC
CHECKED BY	SHEET
	45 of 106

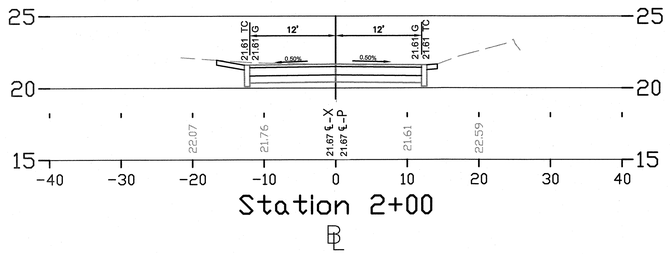
REGISTERED CG

DRAWING NO. 45-U

FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX



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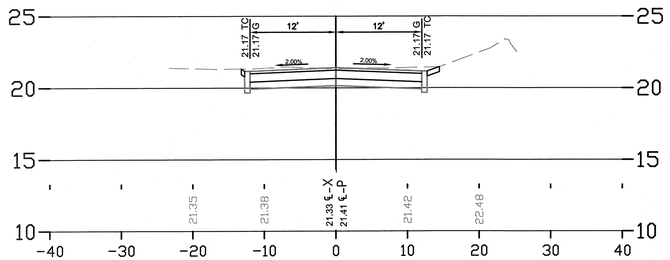

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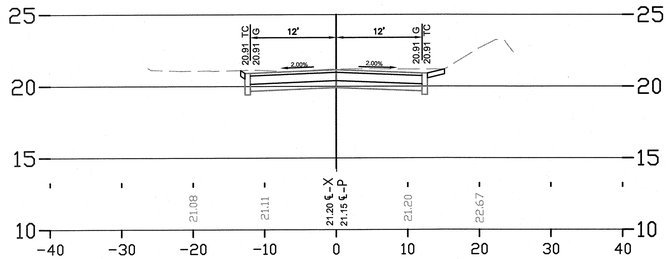

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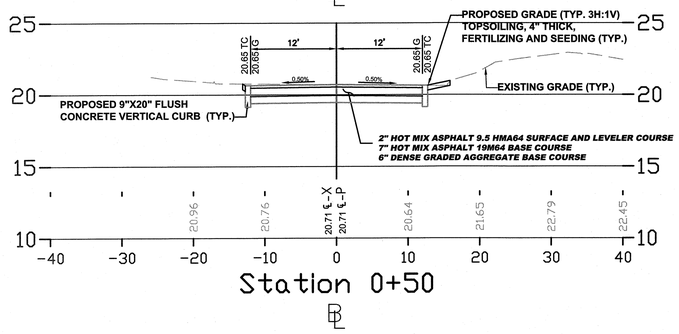

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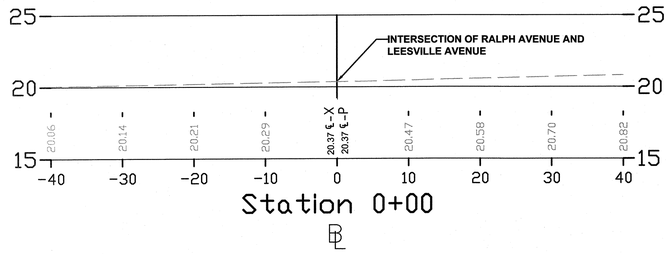

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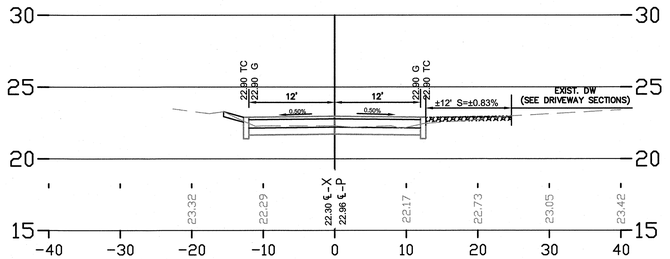

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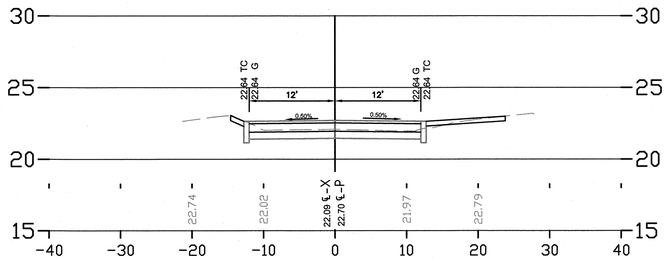

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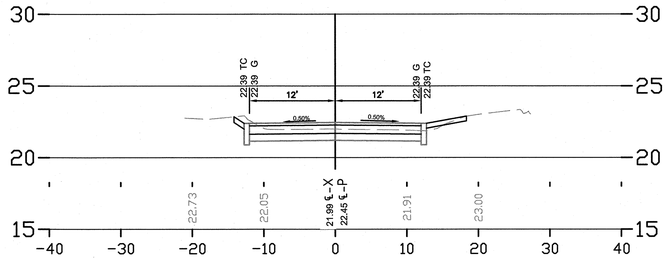

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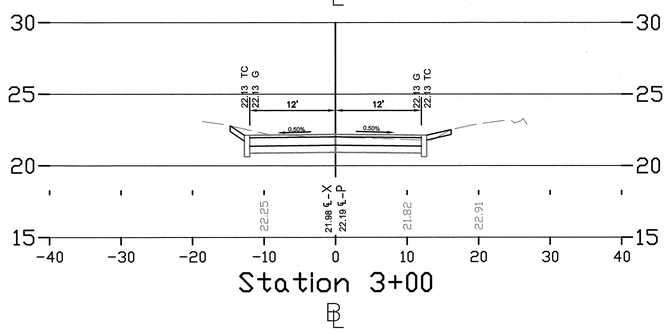

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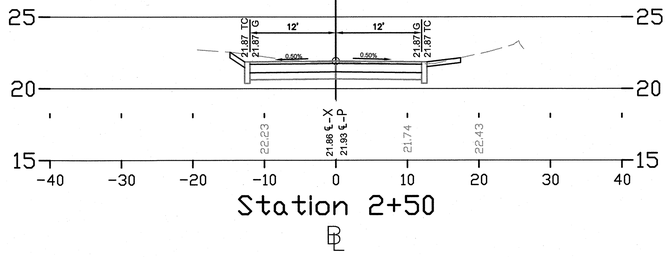

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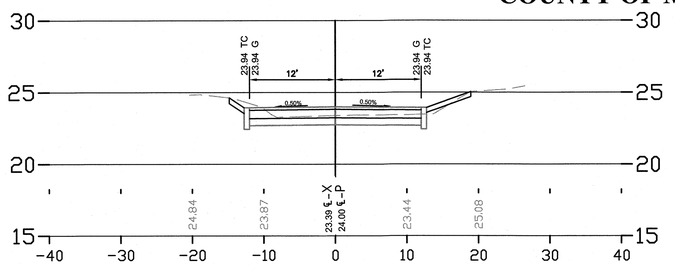
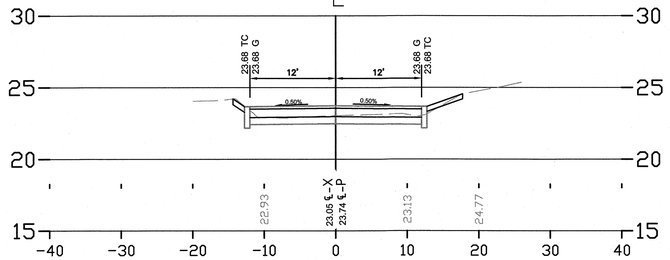


Station 6+50



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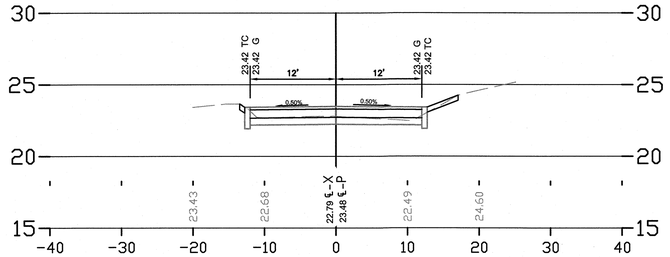
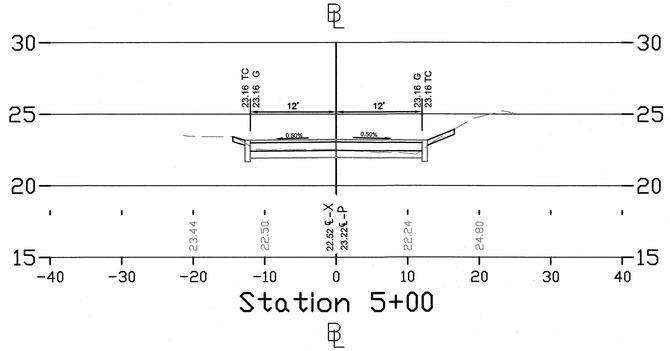


Station 5+50



Station 5+00

SCALE: 1"=10' (HORZ.)
1"=5' (VERT.)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

RALPH AVENUE (1 OF 2) STA. 0+00 to STA. 6+50

CROSS SECTIONS

CME ASSOCIATES
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MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

8.25.19

SCALE	As Shown
DATE	March 2019
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SHEET	46 of 106

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DRAWING NO. 46-0

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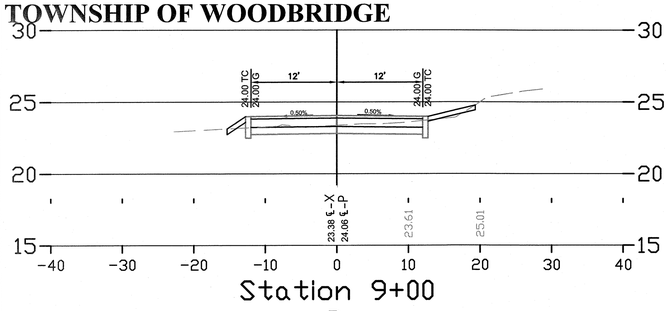
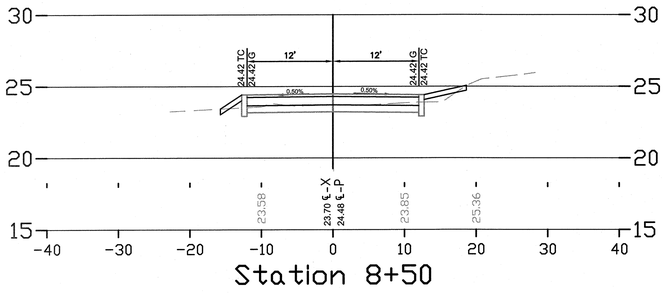
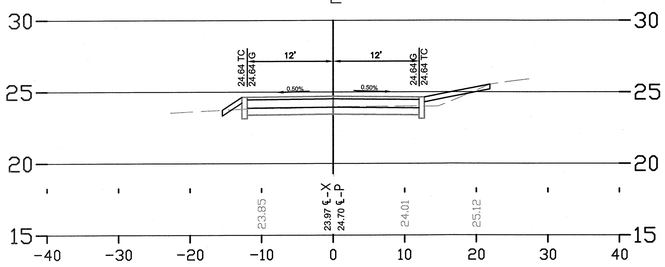
TOWNSHIP OF WOODBRIDGE | **COUNTY OF MIDDLESEX**



Station 9+00



Station 8+50



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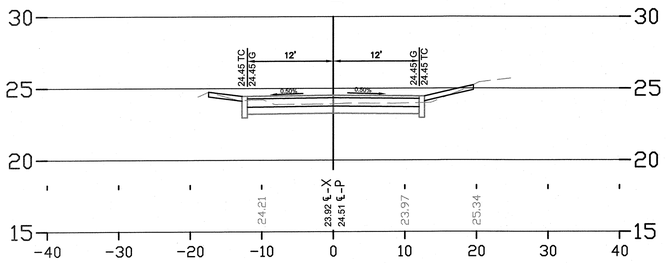

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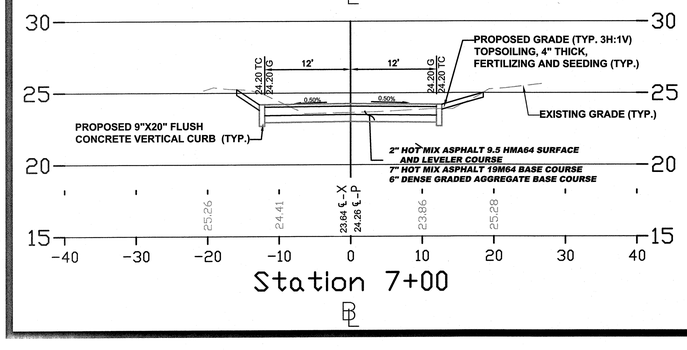
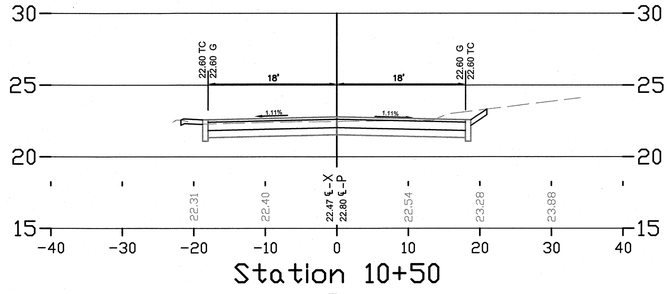
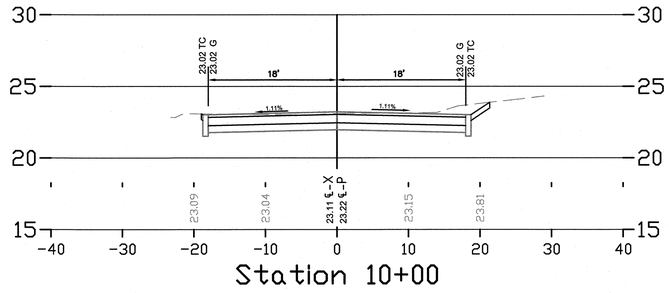


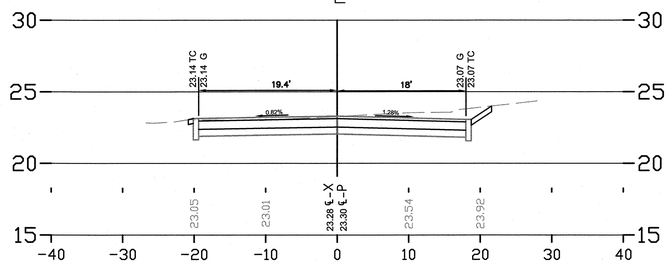
Station 7+00



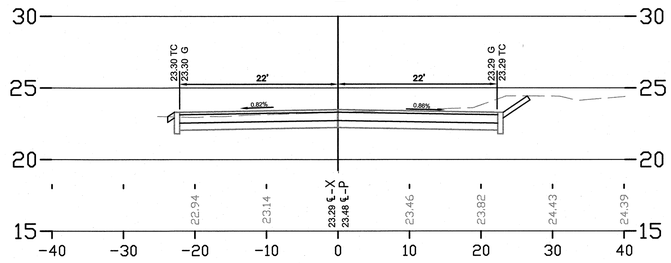
Station 10+50



Station 10+00



Station 9+90



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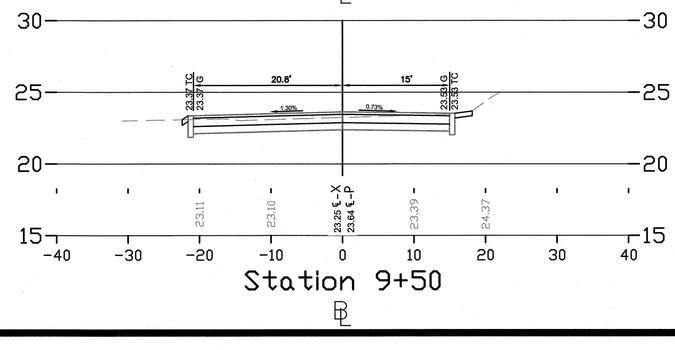
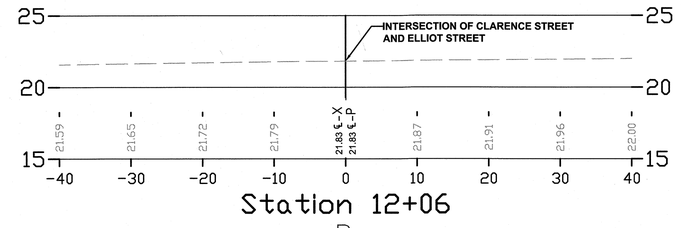
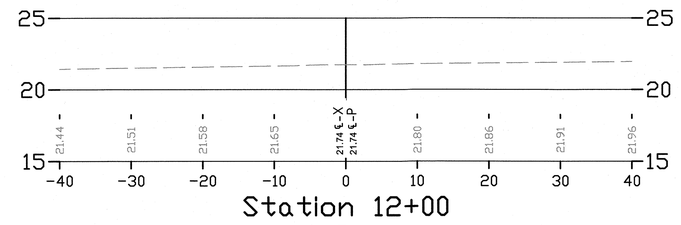


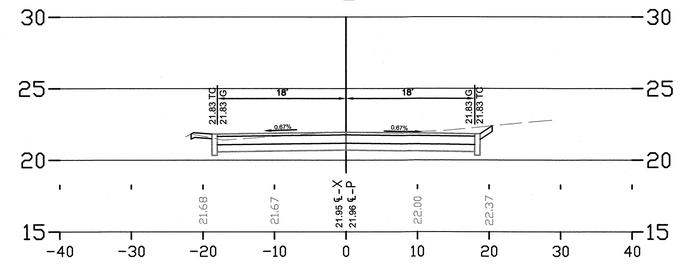
Station 9+50



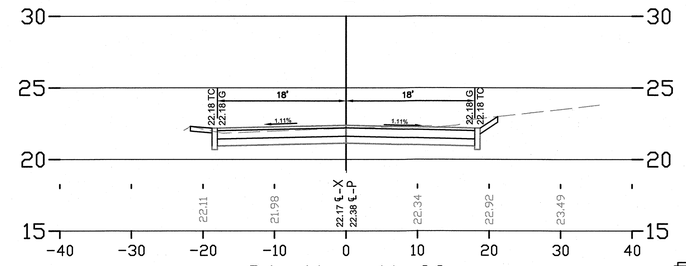
Station 12+06



Station 12+00



Station 11+50



Station 11+00

SCALE: 1"=10' (HORZ.)
1"=5' (VERT.)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

RALPH AVENUE (2 OF 2) — STA. 7+00 to STA. 12+06

CROSS SECTIONS

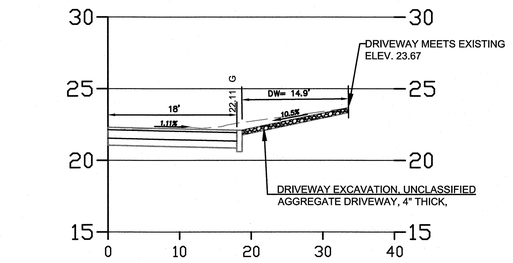
CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1993 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25830 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32562 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

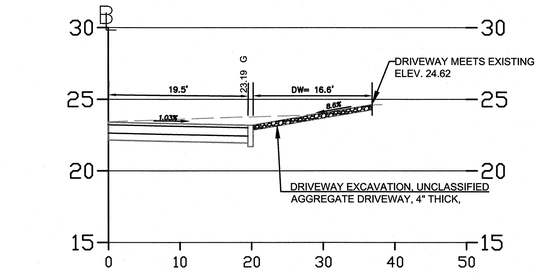
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE: As Shown | DATE: March 2019
DRAWN BY: JD/ZYC | DESIGNED BY: ZYC
CHECKED BY: | SHEET: 47 of 106

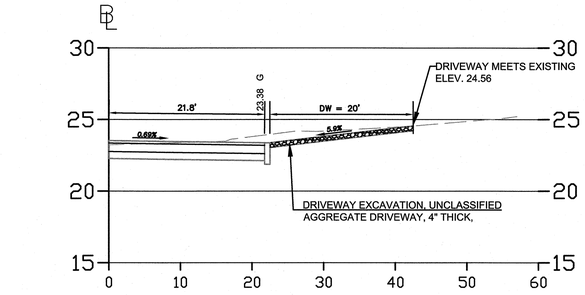
REGISTERED: C-G
DRAWING NO.: 47-U
FILE NO.: PWB0A607.01



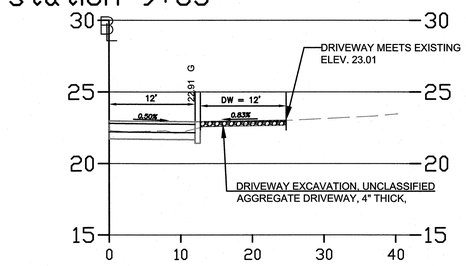
Station 11+08



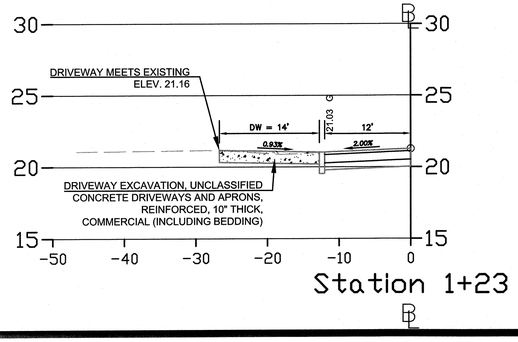
Station 9+79



Station 9+63



Station 4+52



Station 1+23

SCALE: 1"=10' (HORZ.)
1"=5' (VERT.)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

RALPH AVENUE — DRIVEWAY SECTIONS

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1993 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PP LIC NO. 29838 — NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 — NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 — NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 — NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 — NJ PP LIC NO. 4361

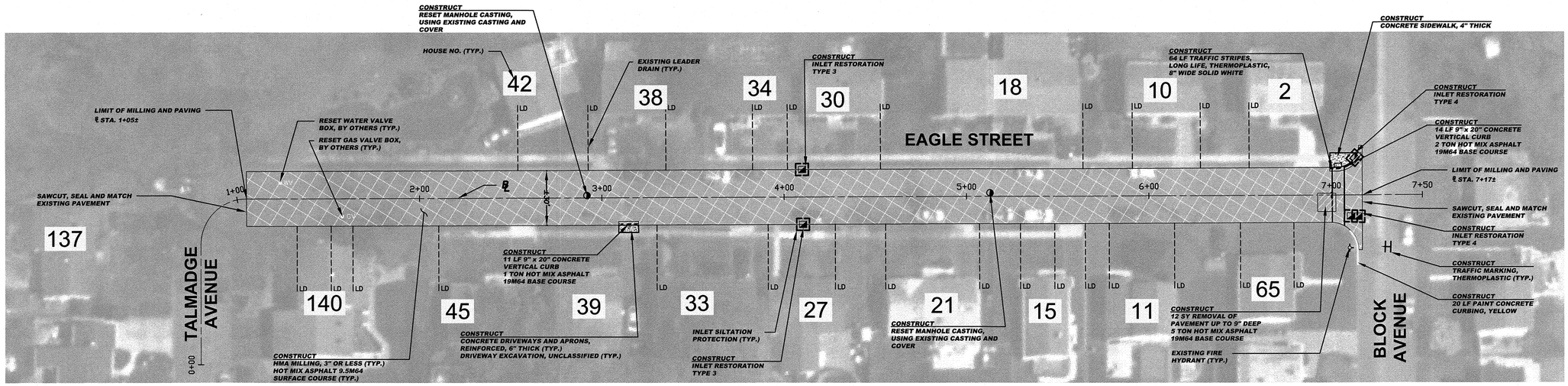
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
2.25.19

SCALE	DATE
As Shown	March 2019
DRAWN BY: JD/ZYC	DESIGNED BY: ZYC
CHECKED BY	SHEET: 48 of 106

REGISTERED CG

DRAWING NO. 48-U

FILE NO. PWB0A607.01



CONSTRUCT (EAGLE STREET)

12	SY	Removal of Pavement up to 9" deep
2	CY	Driveway Excavation, Unclassified
2044	SY	HMA milling, 3" or less
2190	LF	Polymerized joint adhesive
91	LF	Prepare and seal existing joints and cracks in asphalt pavement
304	TON	Hot mix asphalt 9.5M64 surface and leveler course
8	TON	Hot mix asphalt 19M64 base course
2	UN	Reset manhole casting, using existing casting and cover
5	UN	Reset existing casting
2	UN	Curb piece, type "N-ECO"
2	UN	Bicycle safe grate
10	SY	Concrete sidewalks, 4" thick
5	SY	Concrete driveways and aprons, reinforced, 6" thick (including bedding)
1	SY	Detectable warning surface
25	LF	9" x 20" Concrete vertical curb
20	LF	Paint concrete curbing
64	LF	Traffic stripes, long life, "thermoplastic", 8" wide
6	SF	Traffic markings, thermoplastic
1	UN	Reset water valve box
1	UN	Reset gas valve box
5	SY	Topsoiling, 4" thick, including fine grading
5	SY	Fertilizing
5	SY	Sodding

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

EAGLE STREET — WARD 4

CVE ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1993 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25838 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE	As Shown
DATE	March 2019
DRAWN BY	MP
DESIGNED BY	MP
CHECKED BY	CG
SHEET	49 of 106

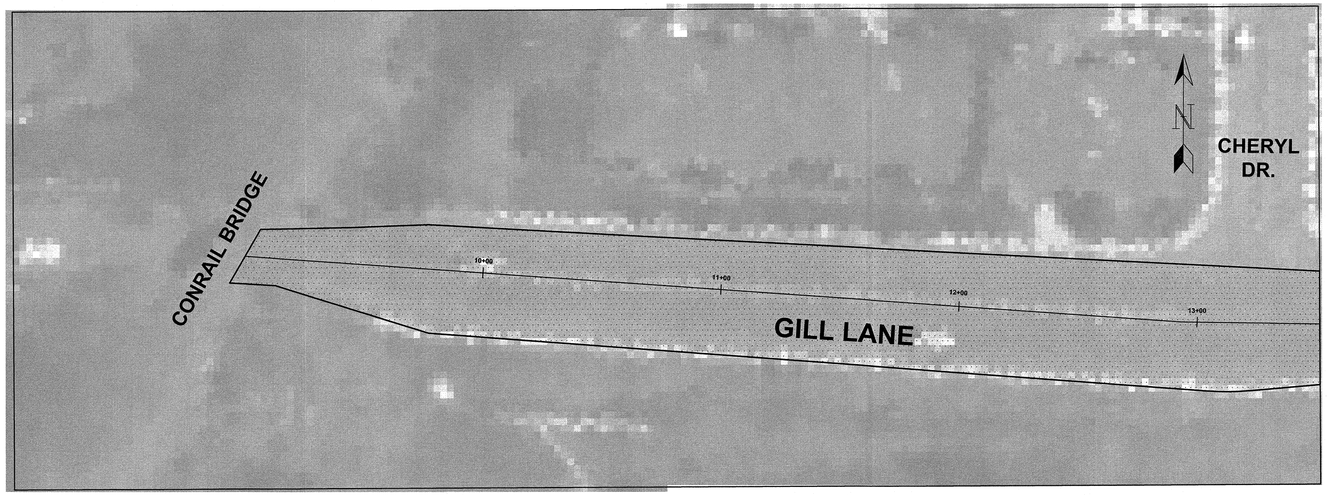
REGISTERED CG

DRAWING NO. 49 - 0

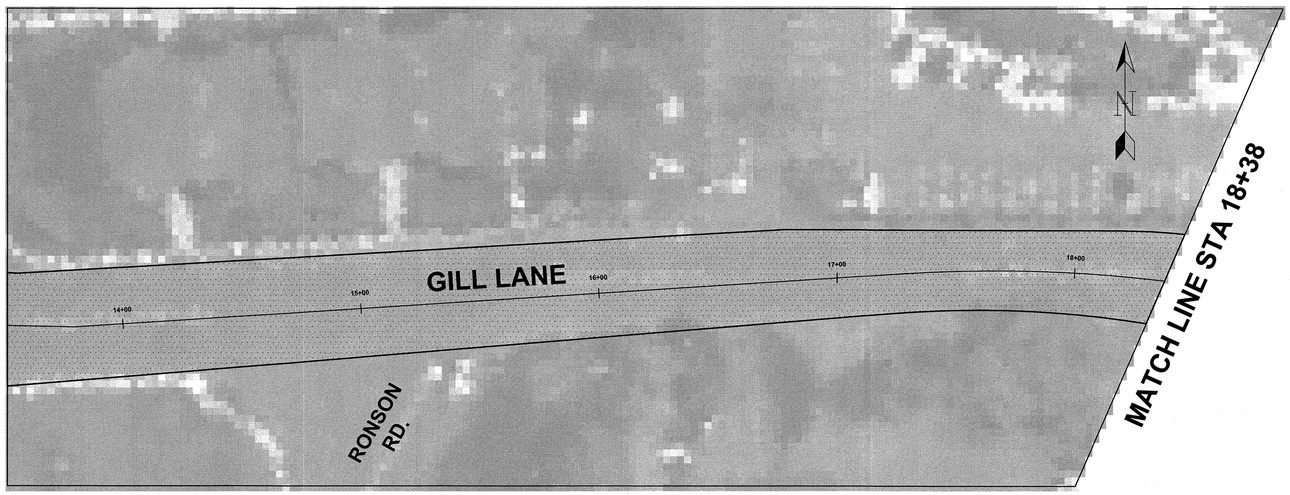
PWB0A607.01

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY



MATCH LINE STA 13+52



MATCH LINE STA 18+38

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FEET

TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE MUNICIPAL ENGINEER
JOHN E. McCORMAC MAYOR

GILL LANE
STA 10+00 TO 18+38
PAVING LIMITS

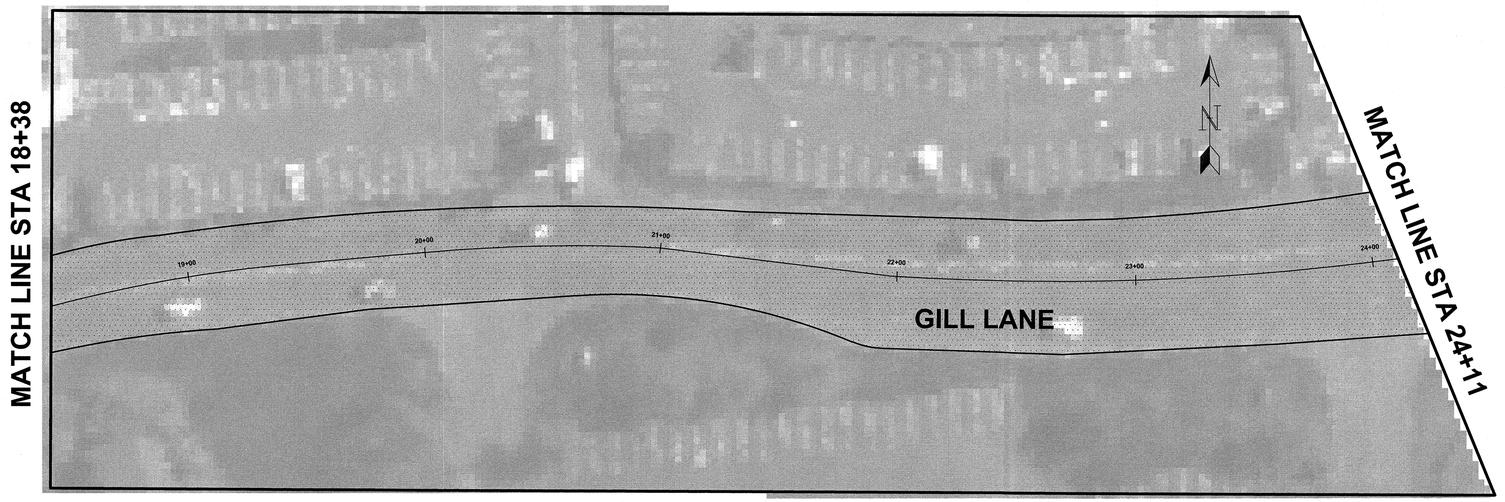
MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/5/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 50 OF 106

P-WB-0960T-01 50-0 CG

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY



GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FEET

TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

GILL LANE
STA 18+38 TO END
PAVING LIMITS

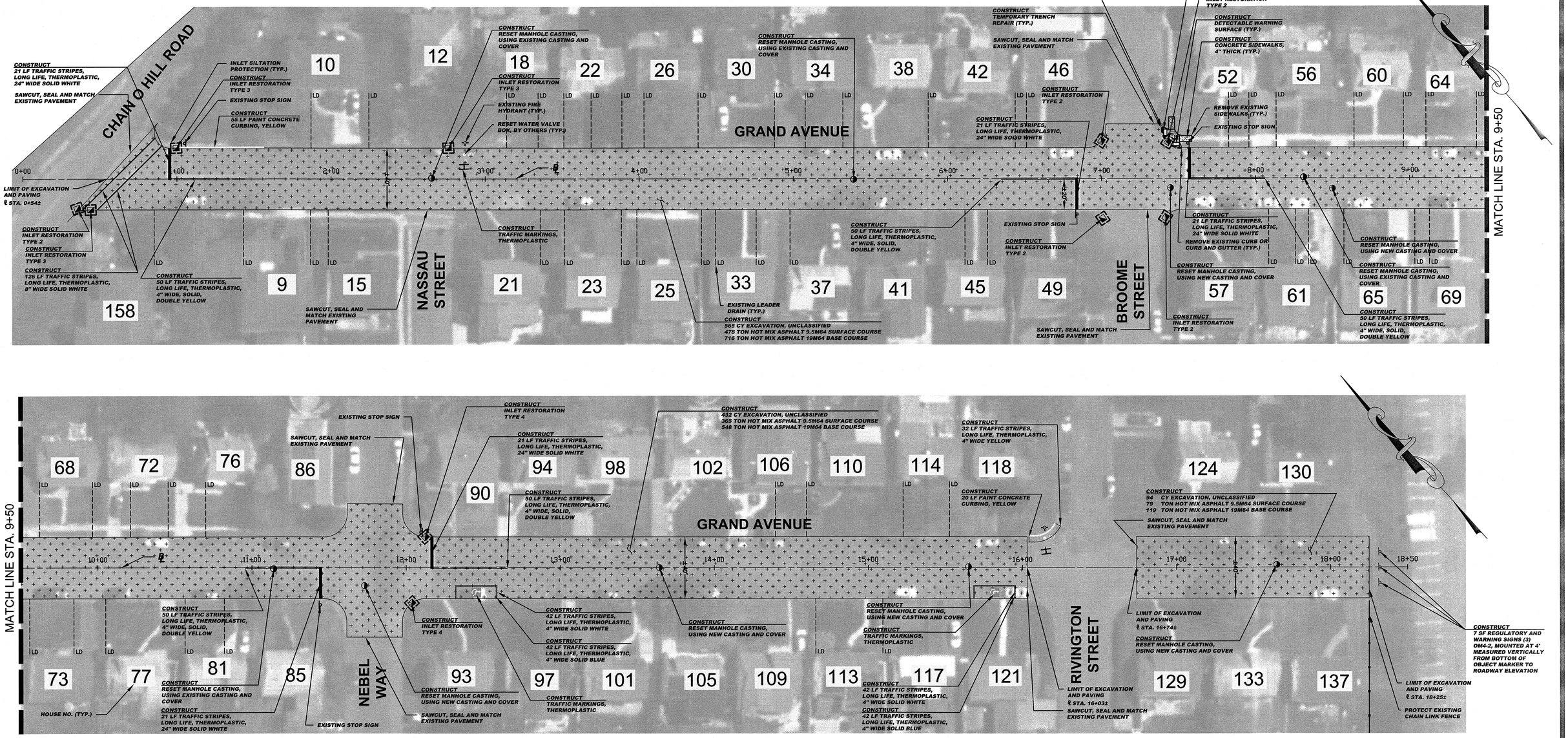
MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04692800

TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/5/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 51 OF 106

P-WB-0A602-01 51-U CG

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX



OM4–2
18"x18"

SIGN LEGEND

CONSTRUCT (GRAND AVENUE)

1091	CY	Excavation, unclassified
7790	LF	Polymerized joint adhesive
375	LF	Prepare and seal existing joints and cracks in asphalt pavement
922	TON	Hot mix asphalt 9.5M64 surface and leveler course
1384	TON	Hot mix asphalt 19M64 base course
4	UN	Reset manhole casting, using existing casting and cover
6	UN	Reset manhole casting, using new casting and cover
10	UN	Reset existing casting
3	UN	Curb piece, type "N-ECO"
8	UN	Bicycle safe grate
17	SY	Concrete sidewalks, 4" thick
2	SY	Detectable warning surface
22	LF	9"x20" Concrete vertical curb
75	LF	Paint concrete curbing
700	LF	Traffic stripes, long life, "thermoplastic", 4" wide
126	LF	Traffic stripes, long life, "thermoplastic", 8" wide
105	LF	Traffic stripes, long life, "thermoplastic", 24" wide
38	SF	Traffic markings, thermoplastic
7	SF	Regulatory and warning signs
5	SY	Temporary trench repair
1	UN	Reset water valve box
12	SY	Topsoiling, 4" thick
12	SY	Fertilizing
12	SY	Sodding

BASELINES

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INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

SPECIAL PROVISIONS

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GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 6" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

GRAND AVENUE — WARD 4

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 — (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1993 - 2001.)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25836 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
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GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
3.25.19

SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	CG
SHEET	52 of 106

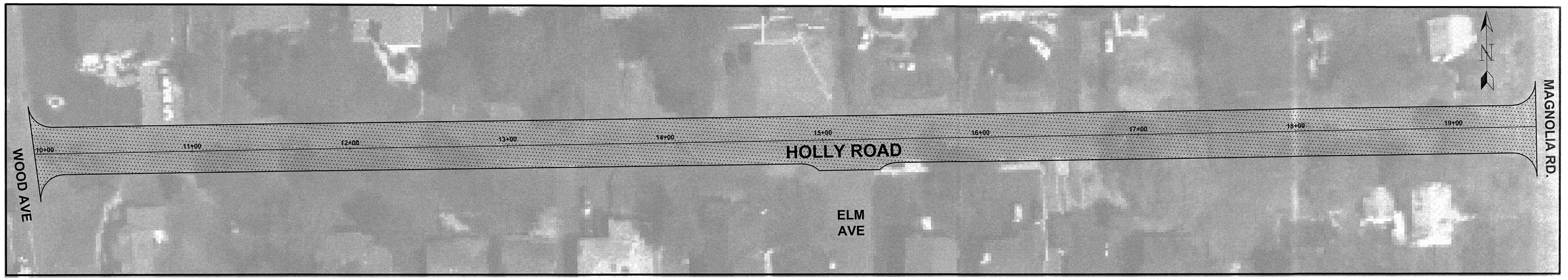
REGISTERED CG

DRAWING NO. 52-0

FILE NO. PWB0A607.01

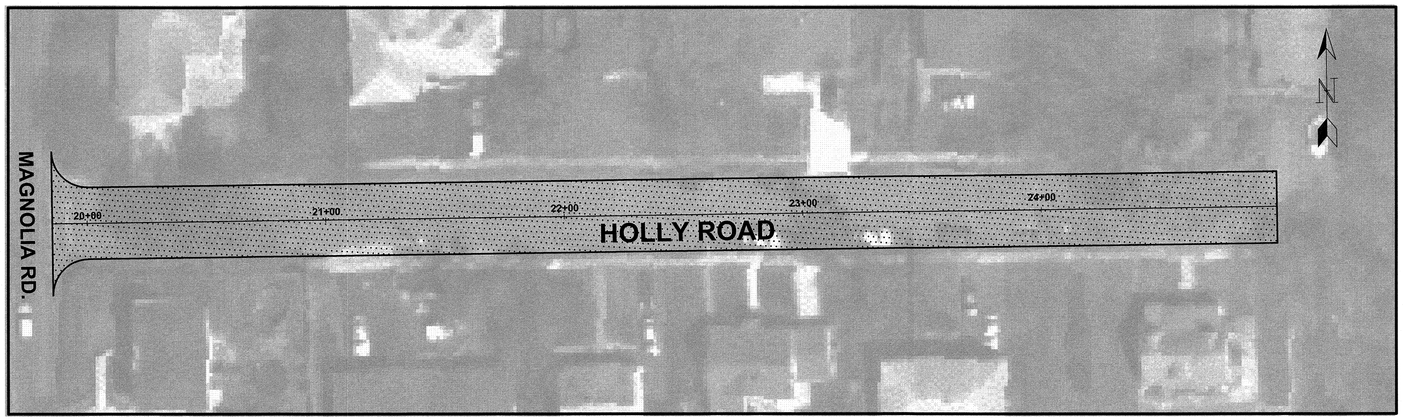
TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY



MATCH LINE STA 19+53

MATCH LINE STA 19+53



GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FEET

TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

HOLLY ROAD
PAVING LIMITS

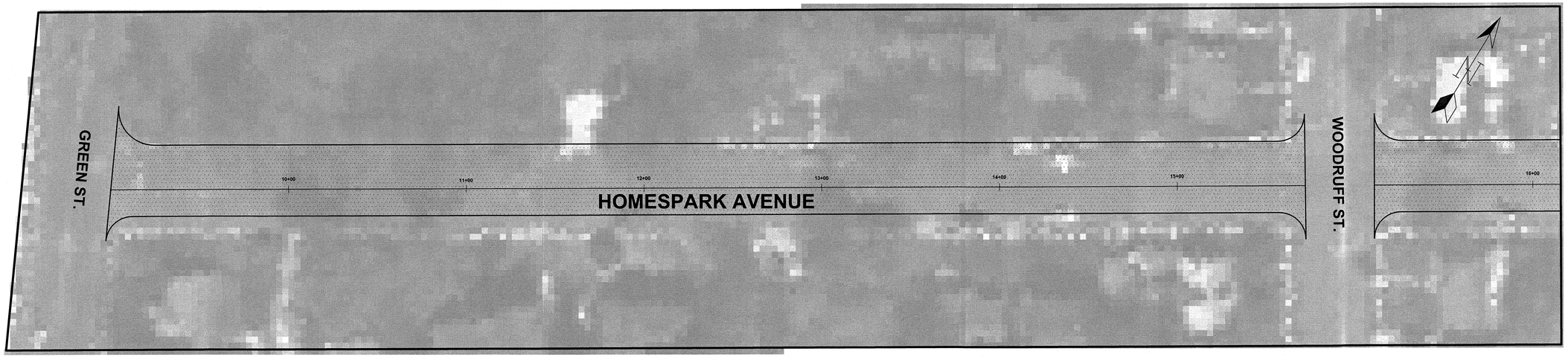
MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

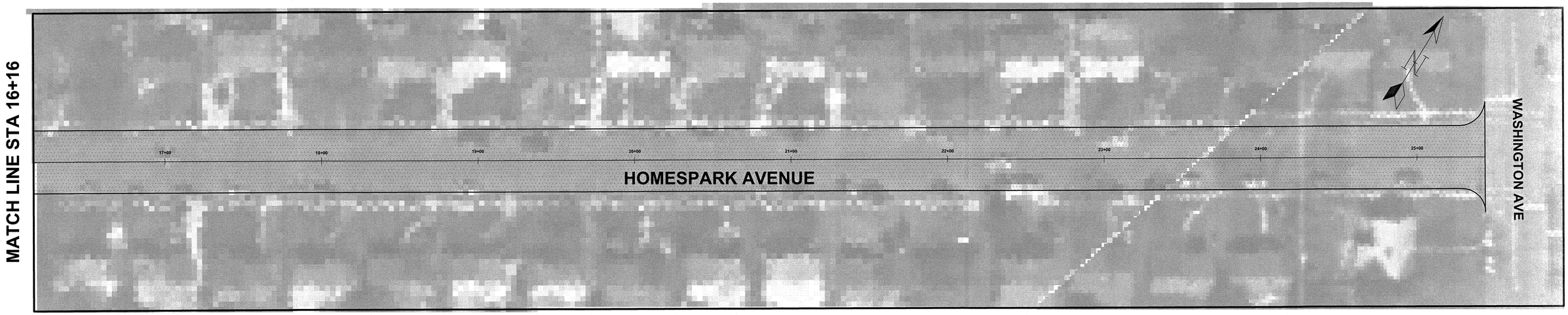
TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/5/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 53 OF 106

P-WB-0A60T-01 53-U CG

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY





GRAPHIC SCALE

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(IN FEET)
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TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

HOMESPARK AVENUE
PAVING LIMITS

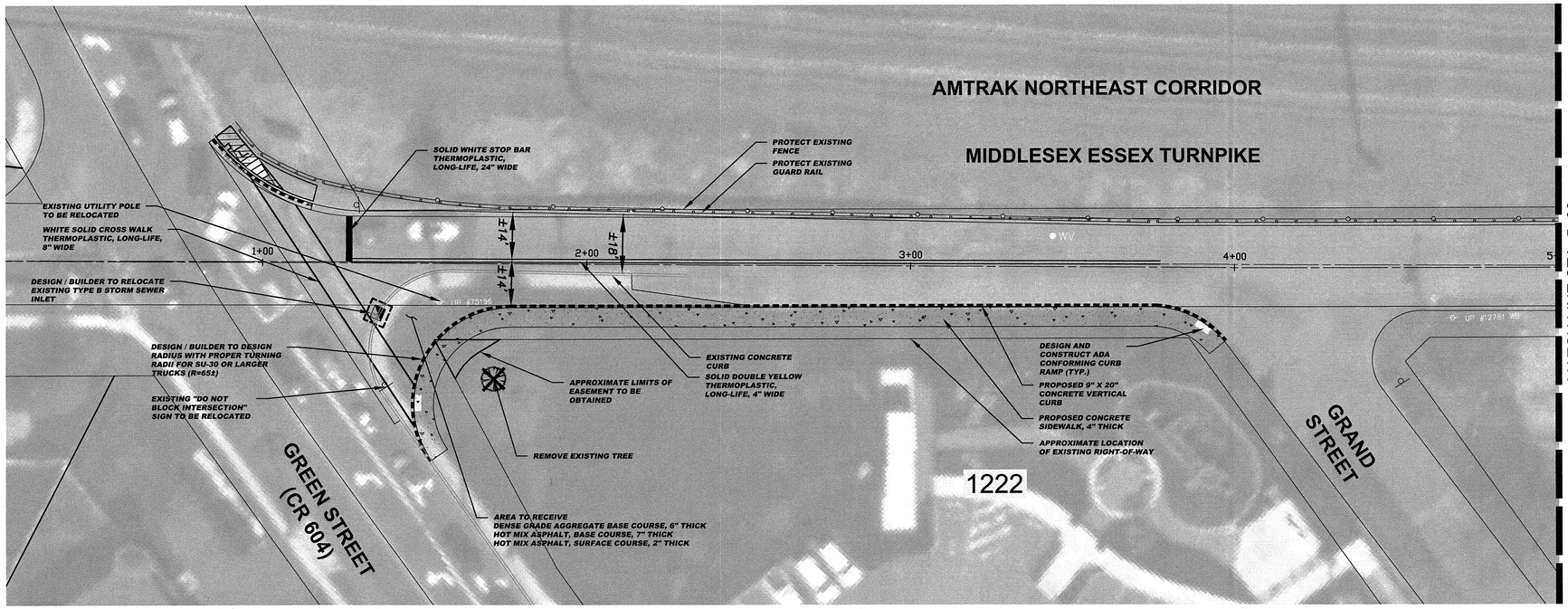
MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/5/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 54 OF 106

P-WB-0A601-01 54-0 CG

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX



CONSTRUCT (MIDDLESEX ESSEX TURNPIKE (1 OF 3))

LUMP SUM Design and Construct Middlesex Essex Turnpike from Station 0+84 to Station 5+00 including all work necessary and incidental thereto

DESIGN/BUILD NOTES:

SURVEYING NOTES:

1. DESIGN / BUILDER WILL BE REQUIRED TO RETAIN THE SERVICES OF A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF NEW JERSEY.
2. DESIGN / BUILDER'S SURVEYOR SHALL PROVIDE EXISTING TOPOGRAPHY, EXISTING UTILITIES, STORM SEWER AND SANITARY SEWER ASBUILTS, EXISTING RIGHT OF WAY, AND EXISTING PROPERTY LINES.
3. DESIGN / BUILDER'S SURVEYOR SHALL PROVIDE SURVEY BASELINE AND TOPOGRAPHIC BASE MAP TO FACILITATE THE DESIGN PROCESS.
4. DESIGN / BUILDER RESPONSIBLE TO OBTAIN NECESSARY PROPERTY ACQUISITIONS OR EASEMENTS AND ANY NECESSARY PERMITS REQUIRED FOR CONSTRUCTION.
5. DESIGN / BUILDER TO PROVIDE RECORD DRAWINGS UPON COMPLETION OF CONSTRUCTION.

ROADWAY DESIGN NOTES:

1. DESIGN / BUILDER WILL BE REQUIRED TO RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW JERSEY TO DESIGN THE ROADWAY IMPROVEMENTS ON MIDDLESEX ESSEX TURNPIKE FROM STATION 0+84 TO STATION 5+00. THE ROADWAY DESIGN SHALL CONFORM TO THE CRITERIA SET FORTH IN THE PROJECT DESIGN/BUILD SPECIFICATIONS.
2. THE DESIGN / BUILDER'S ENGINEER WILL BE REQUIRED TO SUBMIT CONSTRUCTION PLANS, CROSS SECTIONS, DRAINAGE PLAN, SOIL EROSION AND SEDIMENT CONTROL PLAN, ROADWAY PROFILE, GRADING PLAN, SURVEY BASELINE AND TIE SHEET, DESIGN CALCULATIONS, MAINTENANCE AND PROTECTION OF TRAFFIC PLAN, CURB RAMP DETAILS, SIGNING AND STRIPING PLANS, SHOP DRAWINGS, AND/OR CATALOG CUTS TO THE OWNER'S ENGINEER FOR REVIEW FOR THE SPECIFIED ROADWAY DESIGN.
3. ROADWAY DESIGN SHALL PROVIDE CURB-TO-CURB WIDTH OF 28' WITH TWO (2) 14' LANES.
4. DESIGN / BUILDER'S ENGINEER TO PROVIDE CUT/FILL ANALYSIS AND PLAN FOR DISPOSAL OF SOIL. DESIGN / BUILDER RESPONSIBLE FOR ANY NECESSARY SOIL TESTING AND PERMIT ACQUISITION REQUIRED FOR SOIL DISPOSAL.
5. DESIGN / BUILDER RESPONSIBLE TO CALL FOR A UTILITY MARKOUT.

DRAINAGE DESIGN NOTES:

1. DESIGN / BUILDER WILL BE REQUIRED TO RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW JERSEY TO DESIGN THE DRAINAGE SYSTEM.
2. DESIGN / BUILDER RESPONSIBLE TO COORDINATE WITH THE TOWNSHIP FOR PROPOSED STORM SEWER DESIGN.
3. DESIGN / BUILDER RESPONSIBLE TO COORDINATE WITH UTILITY COMPANIES.

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
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- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
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No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

MIDDLESEX ESSEX TURNPIKE (1 OF 3)

WARD 4

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
3.26.19

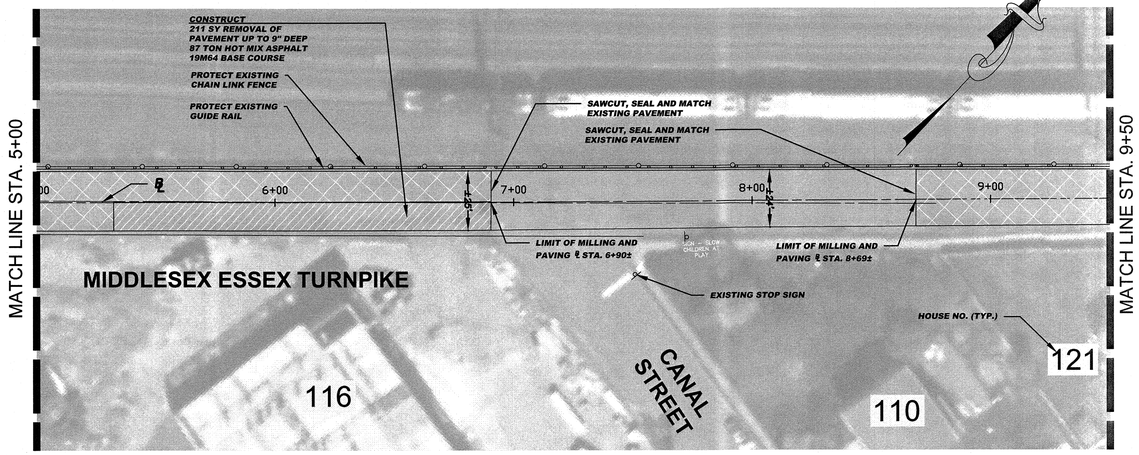
SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	60
SHEET	55 of 106

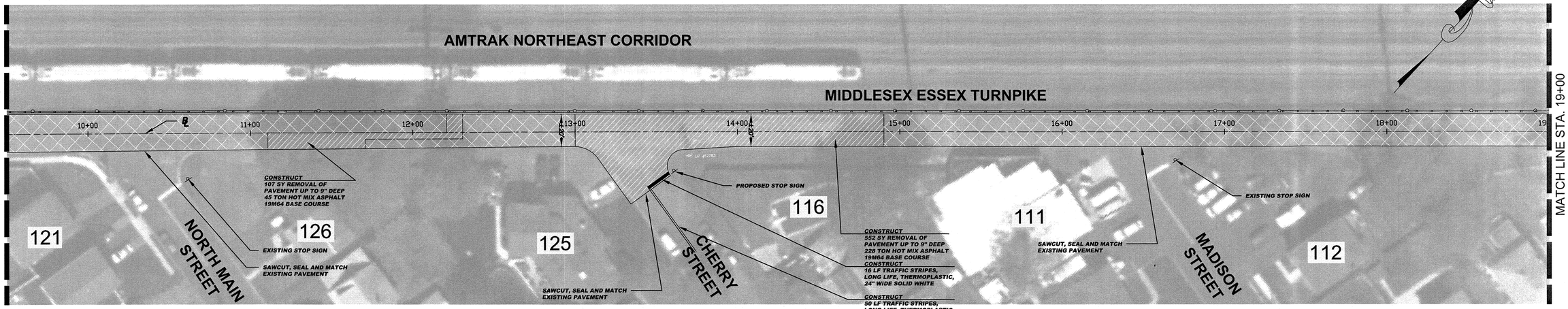
REGISTERED CG

DRAWING NO. 55-U

FILE NO. PWB0A007.01

TOWNSHIP OF WOODBRIDGE — **COUNTY OF MIDDLESEX**





CONSTRUCT (MIDDLESEX ESSEX TURNPIKE (2 OF 3))

870	SY	Removal of pavement up to 9" deep
2185	SY	HMA milling, 3" or less
3796	LF	Polymerized joint adhesive
508	LF	Prepare and seal existing joints and cracks in asphalt pavement
479	TON	Hot mix asphalt 9.5M64 surface and leveler course
360	TON	Hot mix asphalt 19M64 base course
50	LF	Traffic stripes, long life, "thermoplastic", 4" wide
16	LF	Traffic stripes, long life, "thermoplastic", 24" wide

BASELINES

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GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

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- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
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No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

MIDDLESEX ESSEX TURNPIKE (2 OF 3) — WARD 4

CVE ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 — (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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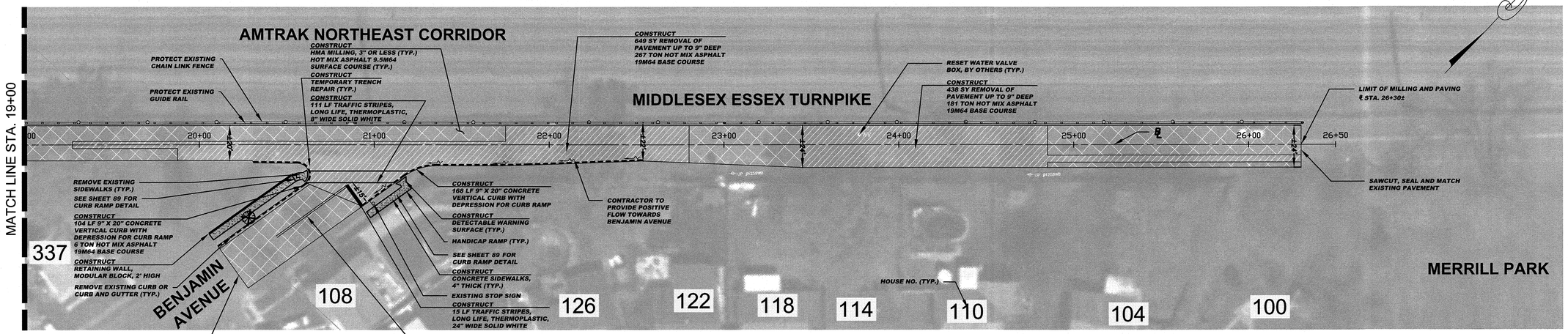
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER — LIC. 32468
3.26.19

SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	GO
SHEET	56 of 106

REGISTERED: CG

DRAWING NO.: 56-U

FILE NO.: PWB0A607.01



CONSTRUCT (MIDDLESEX ESSEX TURNPIKE (3 OF 3))

1087	SY	Removal of pavement up to 9" deep
1078	SY	HMA milling, 3" or less
3883	LF	Polymerized joint adhesive
54	LF	Prepare and seal existing joints and cracks in asphalt pavement
335	TON	Hot mix asphalt 9.5M64 surface and leveler course
454	TON	Hot mix asphalt 19M64 base course
175	SF	Retaining wall, modular block
45	SY	Concrete sidewalks, 4" thick
2	SY	Detectable warning surface
272	LF	9" x 20" Concrete vertical curb
100	LF	Traffic stripes, long life, "thermoplastic", 4" wide
111	LF	Traffic stripes, long life, "thermoplastic", 8" wide
15	LF	Traffic stripes, long life, "thermoplastic", 24" wide
47	SY	Temporary trench repair
1	UN	Reset water valve box
150	SY	Topsoiling, 4" thick
150	SY	Fertilizing
150	SY	Sodding
1	UN	Replacement trees

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No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

MIDDLESEX ESSEX TURNPIKE (3 OF 3)

WARD 4

CME ASSOCIATES
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MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
DATE 3.25.19

SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	MJ
SHEET	57 of 106

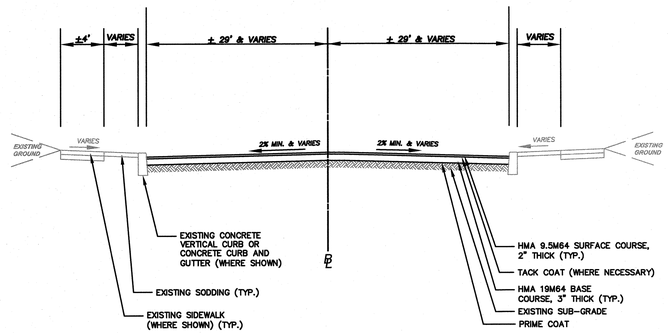
REGISTERED CG

DRAWING NO. ST-U

PW-1420 PWB0A607.01

ESTIMATE OF QUANTITIES - PARK AVENUE

							C-1		D-1	
			PARK AVENUE							
ITEM	DESCRIPTION	TOTAL ESTIMATED SPEC. QUANTITY	CONTRACT QUANTITY	PLAN SHEET TOTALS	IF AND WHERE DIRECTED	AS-BUILT QUANTITY	DISTRIBUTION: PLAN SHEET QUANTITY			
1	Mobilization	LUMP SUM	LUMP SUM	LUMP SUM	0					
2	Construction signs	519	519	471	48				D-1	471
3	Breakaway barricade, Type III	16	16	16	0				D-1	16
4	Drum	24	24	24	0				D-1	24
5	Traffic cone	50	50	50	0				D-1	50
6	Traffic Director, Municipal Police Allowance	ALLOWANCE	ALLOWANCE	ALLOWANCE	0					
7	Flashing Arrow Board, 4' x 8'	2	2	2	0				D-1	2
8	Portable variable message sign	2	2	2	0				D-1	2
9	Traffic Control Truck with Mounted Crash Cushion	2	2	2	0				D-1	2
10	Allowance for asphalt price adjustment	ALLOWANCE	ALLOWANCE	ALLOWANCE	0					
11	Allowance for fuel price adjustment	ALLOWANCE	ALLOWANCE	ALLOWANCE	0					
12	Clearing site	LUMP SUM	LUMP SUM	LUMP SUM	0					
16	Excavation, unclassified	1070	1070	972	98		C-1	972		
23	Polymerized joint adhesive	11332	11332	10301	1031		C-1	10301		
24	Prepare and seal existing joints and cracks in asphalt pavement	346	346	314	32		C-1	314		
26	Hot mix asphalt 9.5M64 surface and leveler course	905	905	822	83		C-1	822		
27	Hot mix asphalt 19M64 base course	1357	1357	1233	124		C-1	1233		
39	Reset manhole casting, using existing casting and cover	3	3	3	0		C-1	3		
40	Reset manhole casting, using new casting and cover	6	6	6	0		C-1	6		
44	Reset existing casting	2	2	2	0		C-1	2		
45	Reset existing casting with 3' bicycle safe grate and curb piece	4	4	4	0		C-1	4		
71	Paint concrete curbing	50	50	45	5		C-1	45		
73	Traffic stripes, long life "thermoplastic", 4" wide, with glass beads	860	860	781	79		C-1	781		
74	Traffic stripes, long life "thermoplastic", 8" wide, with glass beads	389	389	353	36		C-1	353		
75	Traffic stripes, long life "thermoplastic", 24" wide, with glass beads	134	134	121	13		C-1	121		
76	Traffic markings, "thermoplastic" with glass beads	14	14	12	2		C-1	12		
77	Regulatory and warning signs	72	72	65	7		C-1	65		
80	Reset water valve box	7	7	7	0		C-1	7		
94	Reset gas valve box	3	3	3	0		C-1	3		
101	Topsoiling, 4" thick, including fine grading	33	33	30	3		C-1	30		
102	Fertilizing	33	33	30	3		C-1	30		
104	Sodding	33	33	30	3		C-1	30		
109	Allowance for work not specified	ALLOWANCE	ALLOWANCE	ALLOWANCE	0					



TYPICAL SECTION – PARK AVENUE

N.T.S.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
1	REVISED FOR BID	03.25.19	PB	CG	

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

TYPICAL SECTION AND ESTIMATE AND DISTRIBUTION OF QUANTITIES

PARK AVENUE — WARD 4

NJDOT MA 18

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25838 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER
LIC. 32468
DATE 2.8.19

SCALE	DATE
As Shown	March 2019
DRAWN BY	DESIGNED BY
MP	MP
CHECKED BY	SHEET
CG	58 of 106

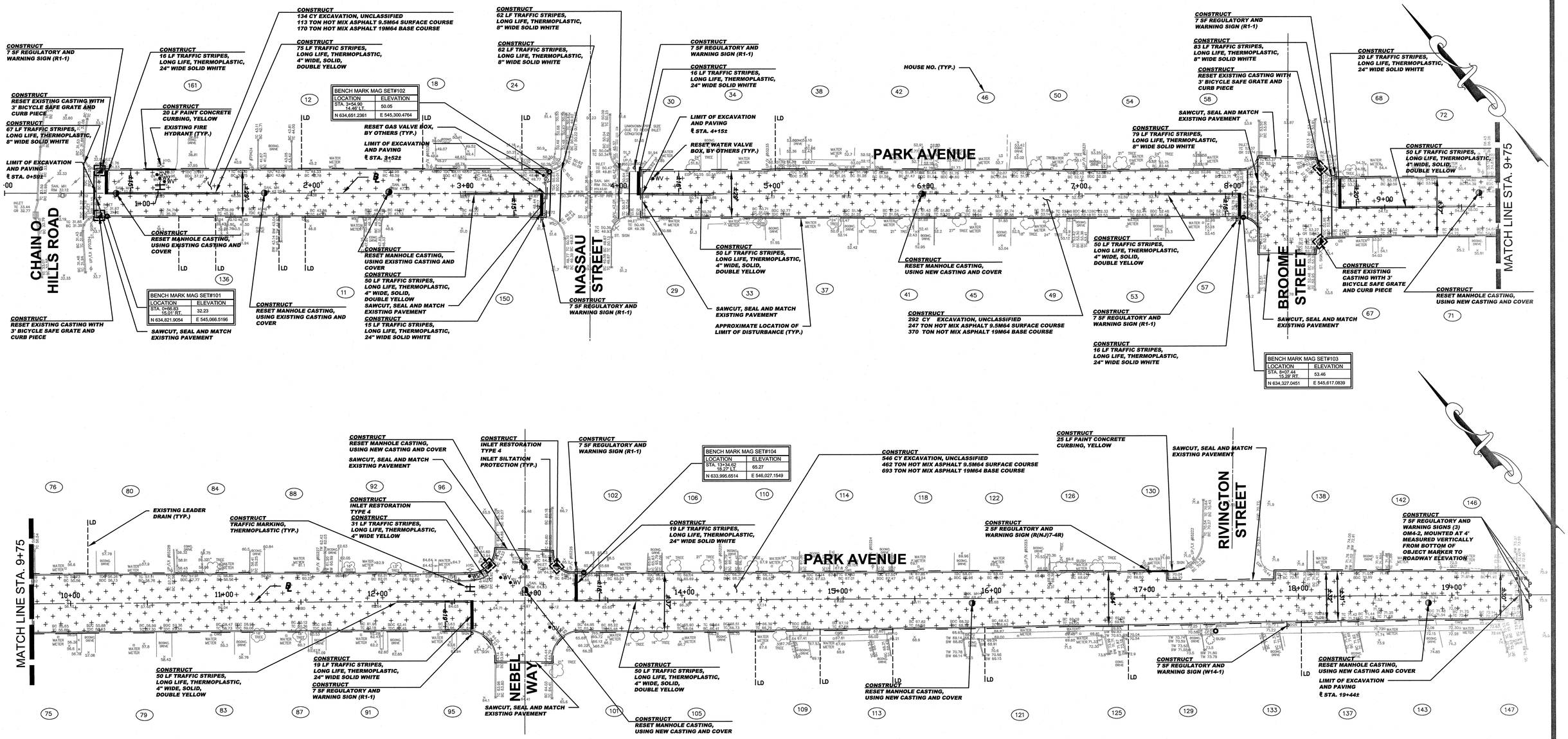
REGISTERED CG

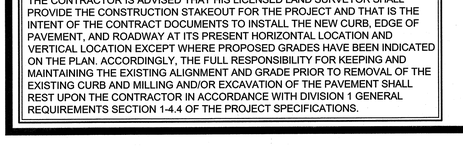
DRAWING NO. 58-0

FILE NO. PWD0A607.01

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX





SIGN LEGEND

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

CONSTRUCT (PARK AVENUE)

972	CY	Excavation, unclassified
10301	LF	Polymerized joint adhesive
314	LF	Prepare and seal existing joints and cracks in asphalt pavement
822	TON	Hot mix asphalt 9.5M64 surface and leveler course
1233	TON	Hot mix asphalt 19M64 base course
3	UN	Reset manhole casting, using existing casting and cover
6	UN	Reset manhole casting, using new casting and cover
2	UN	Reset existing casting
4	UN	Reset existing casting with 3' bicycle safe grate and curb piece
45	LF	Paint concrete curbing
781	LF	Traffic stripes, long life, "thermoplastic", 4" wide
353	LF	Traffic stripes, long life, "thermoplastic", 8" wide
121	LF	Traffic stripes, long life, "thermoplastic", 24" wide
12	SF	Traffic markings, thermoplastic
65	SF	Regulatory and warning sign
7	UN	Reset watter valve box
3	UN	Reset gas valve box
30	SY	Topsoiling, 4" thick
30	SY	Fertilizing
30	SY	Sodding

NOTE:

EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4 - RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
1	REVISED FOR BID	03.25.19	PB	GO	

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

CONSTRUCTION AND SOIL EROSION & SEDIMENT CONTROL PLAN

PARK AVENUE — WARD 4

NJDOT MA 18

CVE ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

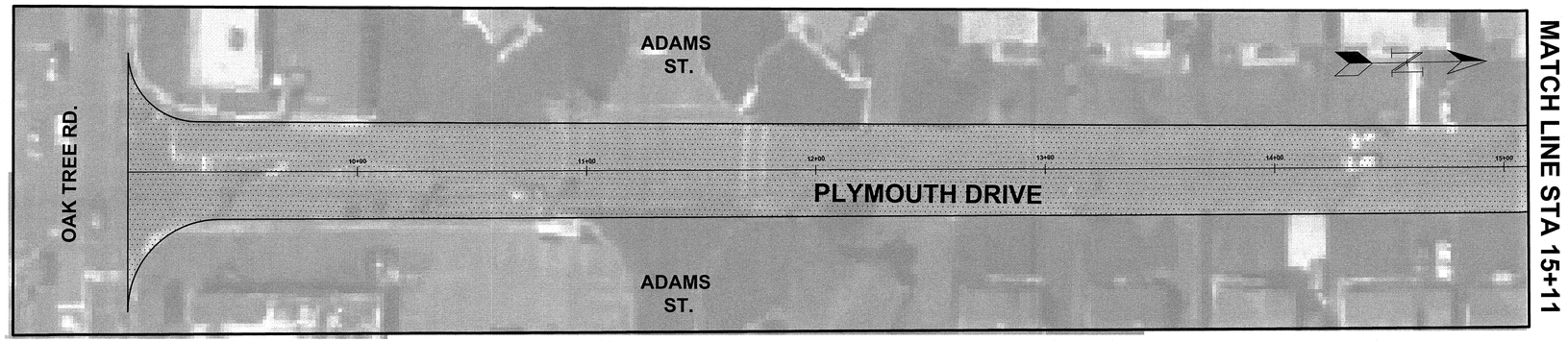
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
DATE 2.8.19

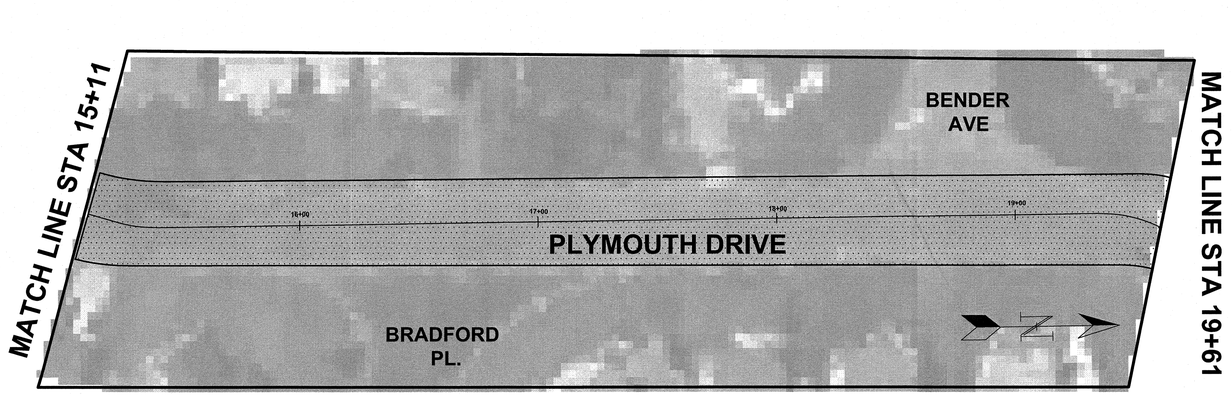
SCALE	As Shown
DATE	March 2019
DRAWN BY	MP
DESIGNED BY	MP
CHECKED BY	GO
SHEET	59 of 106

REGISTERED CG

DRAWING NO. 59-0

FILE NO. PWB0A607.01





GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FEET

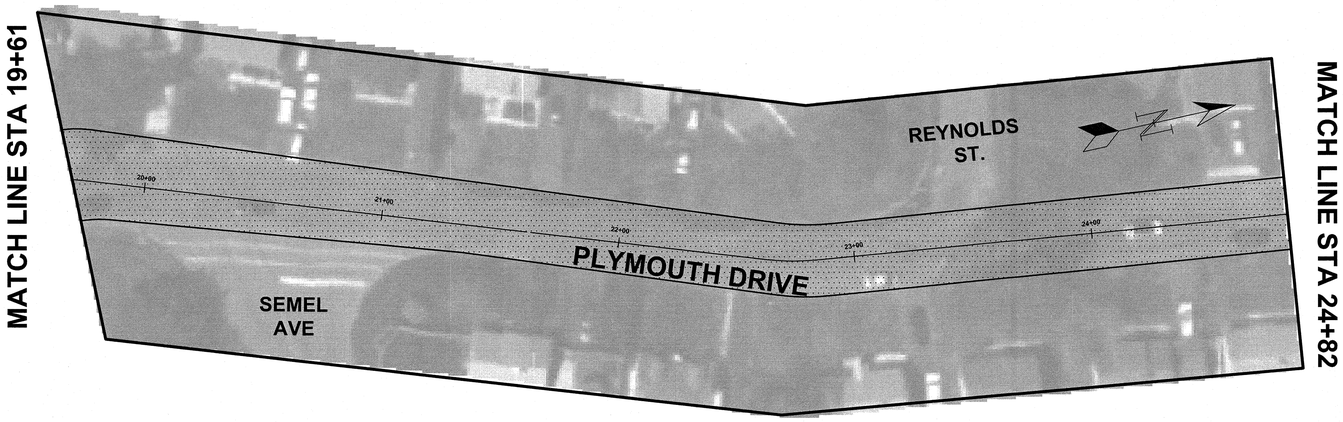
TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING
ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

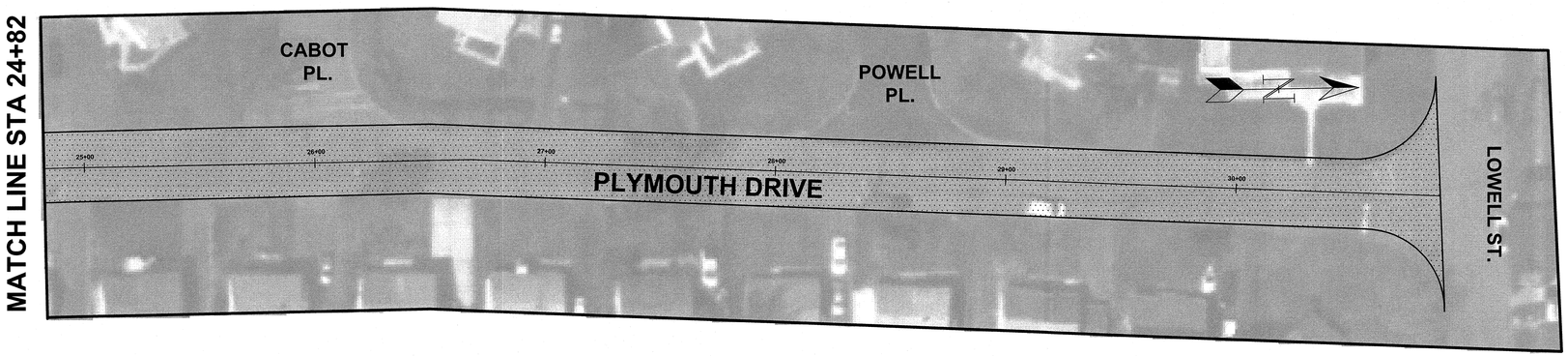
PLYMOUTH DRIVE
STA 10+00 TO 19+61
PAVING LIMITS

MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/5/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 60 OF 106

P-WB-0A607-01 60-0 CG





GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FEET

TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING
ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

PLYMOUTH DRIVE
STA 19+61 TO END
PAVING LIMITS

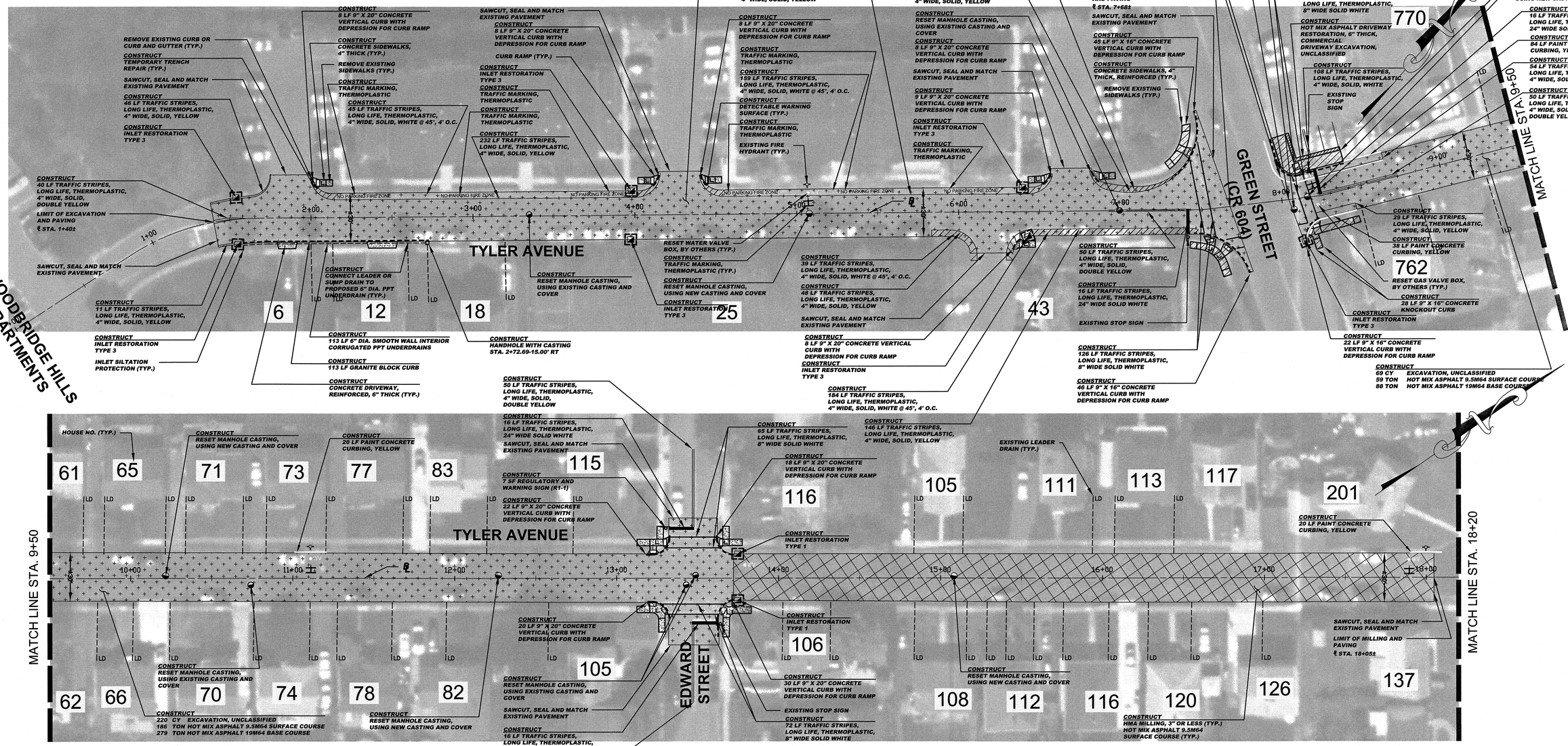
MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/5/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 61 OF 106

P-WB-0A607-01 61-0 CG

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX



STOP

R1–1

30"x30"

SIGN LEGEND

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

CONSTRUCT (TYLER AVENUE (1 OF 2))

7	CY	Driveway excavation, unclassified
614	CY	Excavation, unclassified
1425	SY	HMA milling, 3" or less
8787	LF	Polymerized joint adhesive
391	LF	Prepare and seal existing joints and cracks in asphalt pavement
748	TON	Hot mix asphalt 9.5M64 surface and leveler course
780	TON	Hot mix asphalt 19M64 base course
113	LF	6" dia. smooth wal interior corrugated PPT underdrains
4	UN	Connect leader or sump drain to proposed underdrain
1	UN	Handhole with casting
5	UN	Reset manhole casting, using existing casting and cover
6	UN	Reset manhole casting, using new casting and cover
9	UN	Reset existing casting
9	UN	Curb piece, type "N-ECO"
7	UN	Bicycle safe grate
90	SY	Concrete sidewalks, 4" thick
112	SY	Concrete sidewalks, reinforced, 4" thick
14	SY	Concrete driveway, reinforced, 6" thick
11	SY	Hot Mix Asphalt driveway restoration, 6" thick, commercial
20	SY	Detectable warning surface
251	LF	9"x16" Concrete vertical curb
139	LF	9"x20" Concrete vertical curb
113	LF	Granite block curb
162	LF	Paint concrete curbing
1913	LF	Traffic stripes, long life, "thermoplastic", 4" wide
343	LF	Traffic stripes, long life, "thermoplastic", 8" wide
64	LF	Traffic stripes, long life, "thermoplastic", 24" wide
360	SF	Traffic markings, thermoplastic
7	SF	Regulatory and warning sign
92	SY	Temporary trench repair
5	UN	Reset water valve box
5	UN	Reset gas valve box
200	SY	Topsoiling, 4" thick
200	SY	Fertilizing
200	SY	Sodding

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

NOTE:

EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

TYLER AVENUE (1 OF 2) WARD 4

CME ASSOCIATES

CONSULTING AND MUNICIPAL ENGINEERS

(732) 727 8000 (732) 462 7400

3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1981 - 2001)

DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25839 NJ PP LIC NO. 2455

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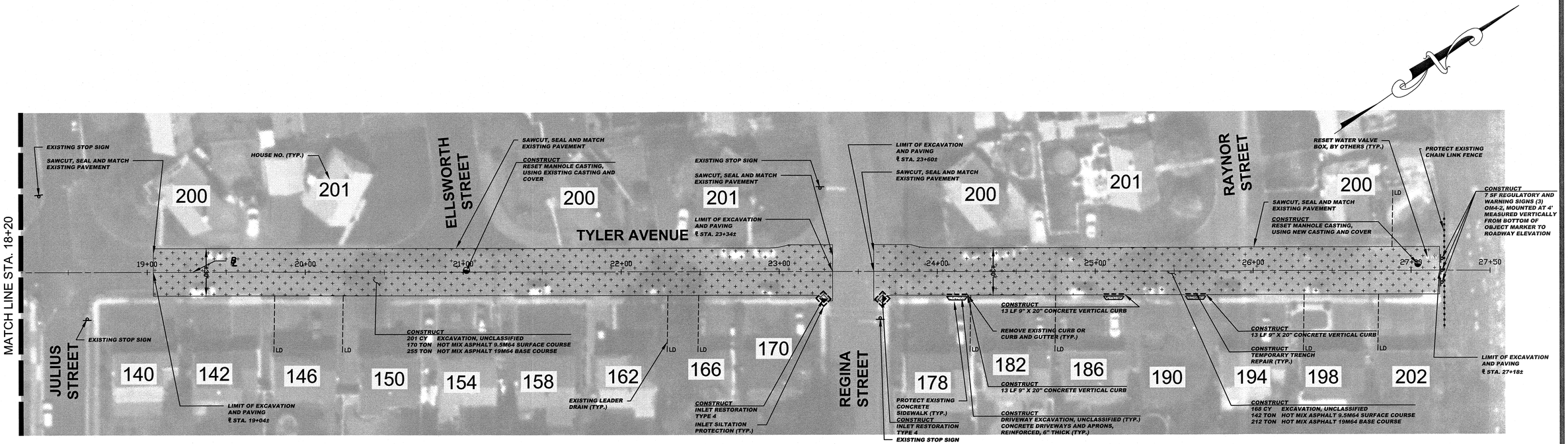
MICHAEL J. McCLELLAND P.E.

NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

3/25/19

SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	GO
SHEET	62 of 106
REGISTERED	CG
DRAWING NO.	62 – U
FILE NO.	PWBOA607.01



OM4–2
18"x18"
SIGN LEGEND

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

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CONSTRUCT (TYLER AVENUE (2 OF 2))

3	CY	Driveway excavation, unclassified
369	CY	Excavation, unclassified
4450	LF	Polymerized joint adhesive
260	LF	Prepare and seal existing joints and cracks in asphalt pavement
312	TON	Hot mix asphalt 9.5M64 surface and leveler course
467	TON	Hot mix asphalt 19M64 base course
1	UN	Reset manhole casting, using existing casting and cover
1	UN	Reset manhole casting, using new casting and cover
2	UN	Reset existing casting
9	SY	Concrete driveways and aprons, reinforced, 6" thick (including bedding)
39	LF	9"x20" Concrete vertical curb
7	SF	Regulatory and warning signs
9	SY	Temporary trench repair
1	UN	Reset water valve box
13	SY	Topsoiling, 4" thick
13	SY	Fertilizing
13	SY	Sodding

NOTE:

EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

TYLER AVENUE (2 OF 2) WARD 4

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. [1983 - 2001]
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25828 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER
LIC. 32468
3.25.19

SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	GP
SHEET	63 of 106

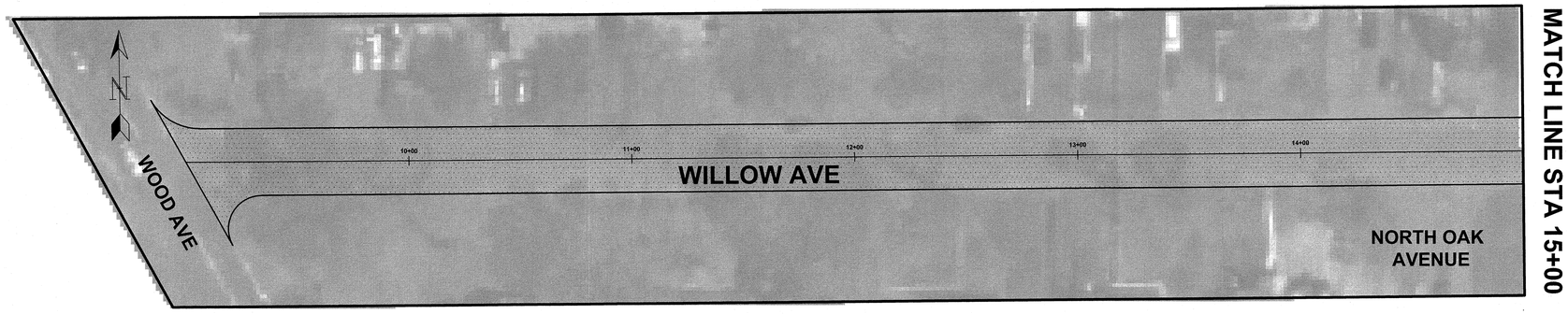
REGISTERED CG

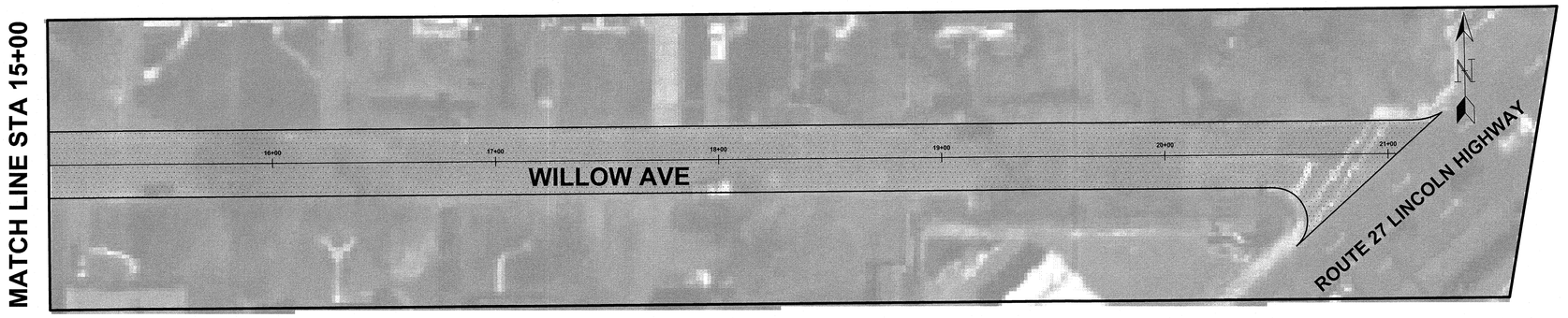
DRAWING NO. 63-U

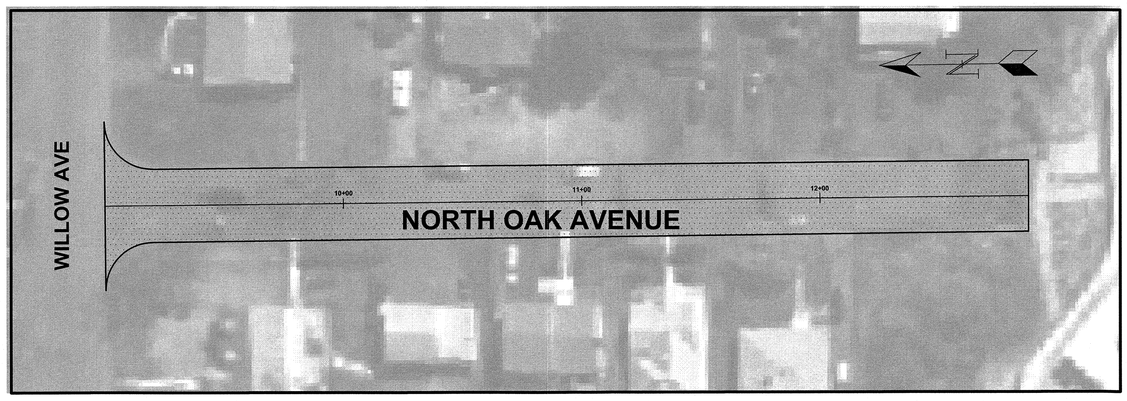
FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY







GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FEET

TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

WILLOW AVE & N. OAK AVE
PAVING LIMITS

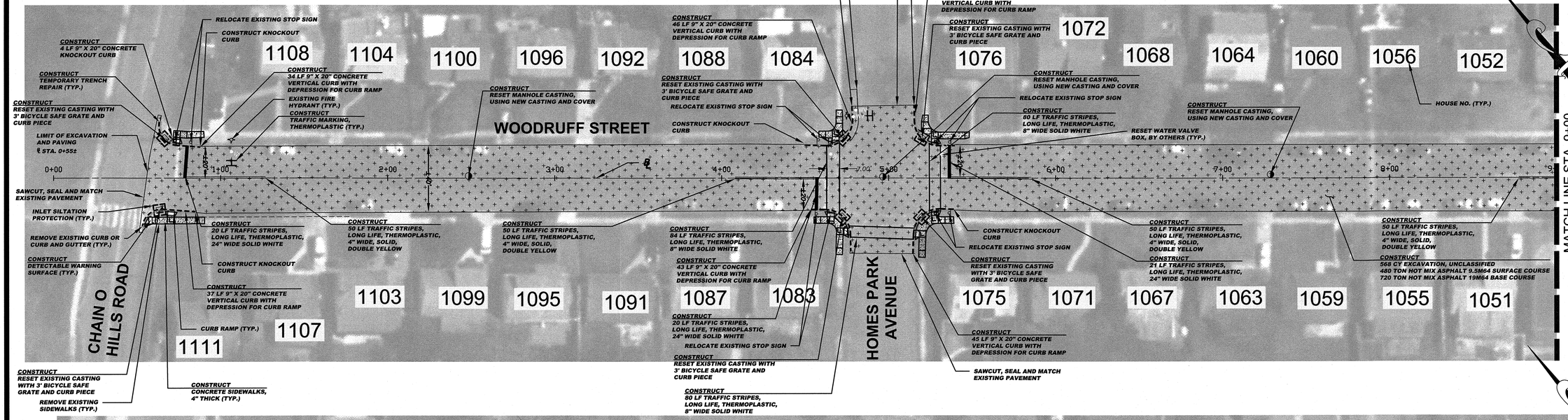
MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

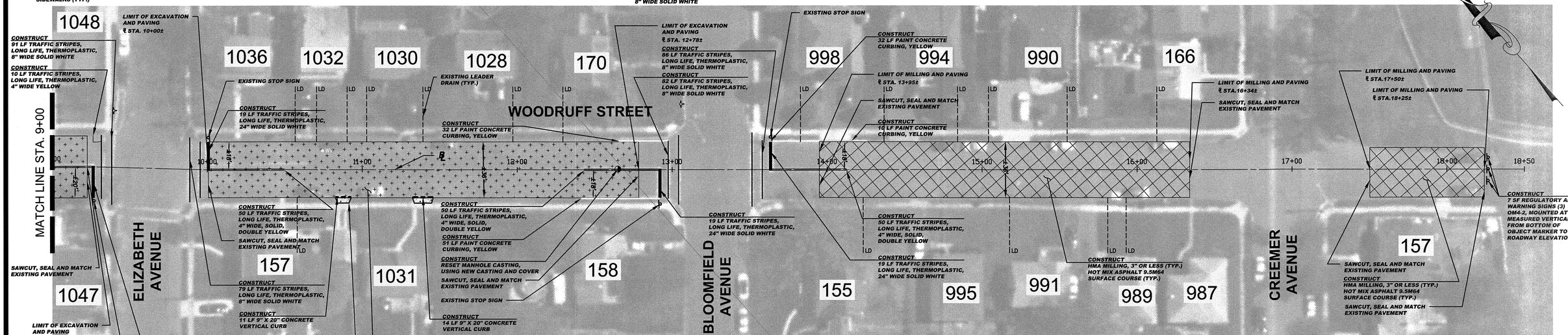
TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/5/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 64 OF 106

PWB-0A607-01 64-U CG

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX





OM4–2
18"x18"
SIGN LEGEND

NOTE:
EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

BASELINES
BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

CONSTRUCT (Woodruff Street)

3	CY	Driveway Excavation,unclassified	
723	CY	Excavation, unclassified	
1219	SY	HMA milling 3" or less	
7743	LF	Polymerized joint adhesive	
336	LF	Prepare and seal existing joints and cracks in asphalt pavement	
775	TON	Hot mix asphalt 9.5M64 surface and leveler course	
916	TON	Hot mix asphalt 19M64 base course	
4	UN	Reset manhole casting, using new casting and cover	
6	UN	Reset existing casting with 3' bicycle safe grate and curb piece	
95	SY	Concrete sidewalks, 4" thick	
9	SY	Concrete driveways and aprons, reinforced, 6" thick (including bedding)	
9	SY	Detectable warning surface	
277	LF	9"x20" Concrete vertical curb	
125	LF	Paint concrete curbing	
746	LF	Traffic stripes, long life, "thermoplastic", 4" wide	
585	LF	Traffic stripes, long life, "thermoplastic", 8" wide	
139	LF	Traffic stripes, long life, "thermoplastic", 24" wide	
12	SF	Traffic markings, thermoplastic	
7	SF	Regulatory and warning sign	
62	SY	Temporary trench repair	
6	UN	Reset water valve box	
145	SY	Topsoiling, 4" thick	
145	SY	Fertilizing	
145	SY	Sodding	

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

WOODRUFF STREET — WARD 4

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. [1993 - 2001]	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25838 NJ PP LIC NO. 2455	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874	MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770	GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

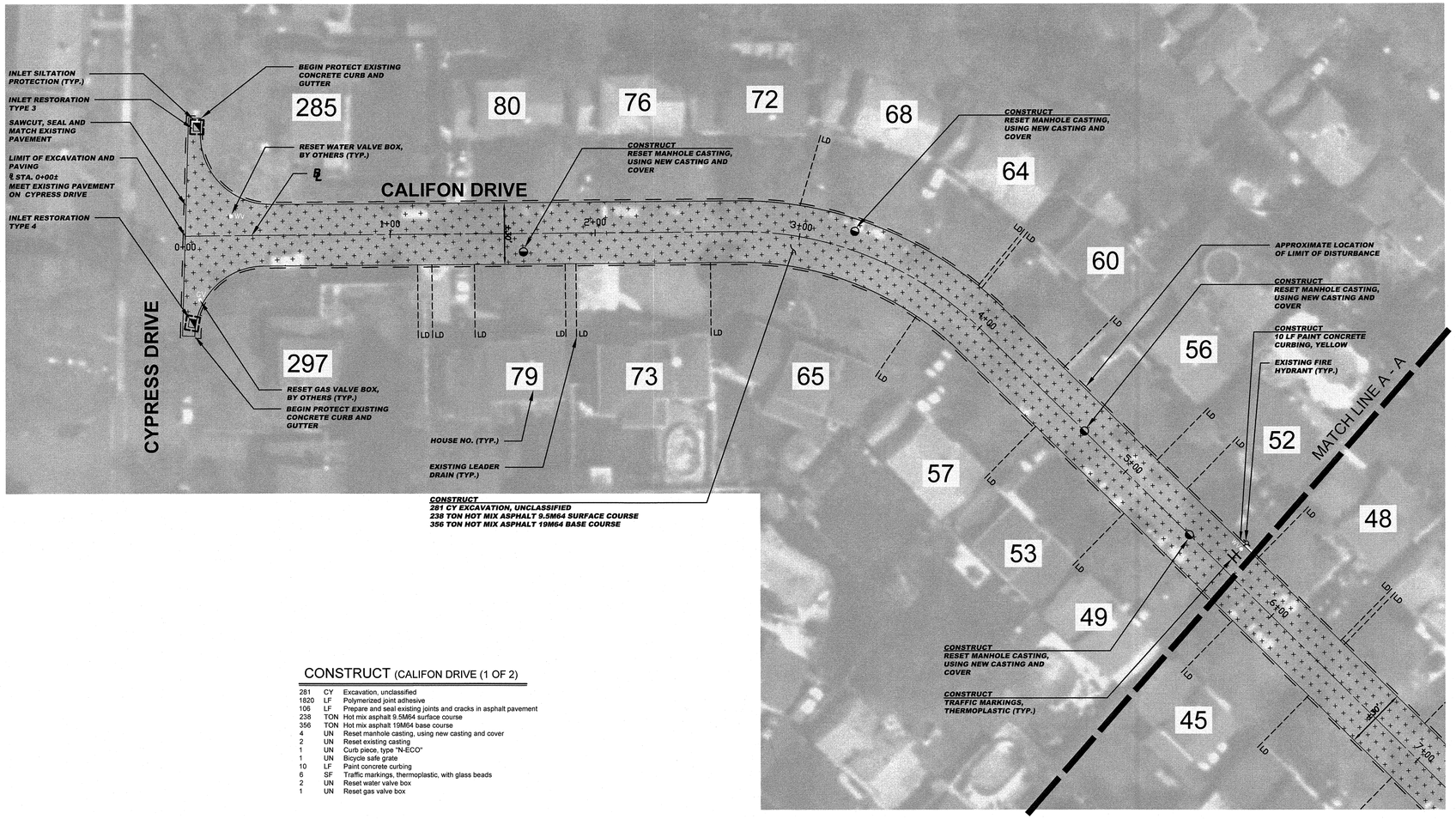
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE: As Shown	DATE: March 2019
DRAWN BY: PB	DESIGNED BY: PB
CHECKED BY: G	SHEET: 65 of 106

REGISTERED CG

DRAWING NO. 65-0

FILE NO. PWB0A607.01



CONSTRUCT (CALIFON DRIVE (1 OF 2)

281	CY	Excavation, unclassified
1820	LF	Polymerized joint adhesive
106	LF	Prepare and seal existing joints and cracks in asphalt pavement
238	TON	Hot mix asphalt 9.5M64 surface course
356	TON	Hot mix asphalt 19M64 base course
4	UN	Reset manhole casting, using new casting and cover
2	UN	Reset existing casting
1	UN	Curb piece, type "N-ECO"
1	UN	Bicycle safe grate
10	LF	Paint concrete curbing
6	SF	Traffic markings, thermoplastic, with glass beads
2	UN	Reset water valve box
1	UN	Reset gas valve box

BASELINES

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SPECIAL PROVISIONS

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INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING
		CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING
		BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING
		CURB PIECE, TYPE N-ECO
		BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
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- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

CALIFON DRIVE (1 OF 2) WARD 5

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	66 of 106

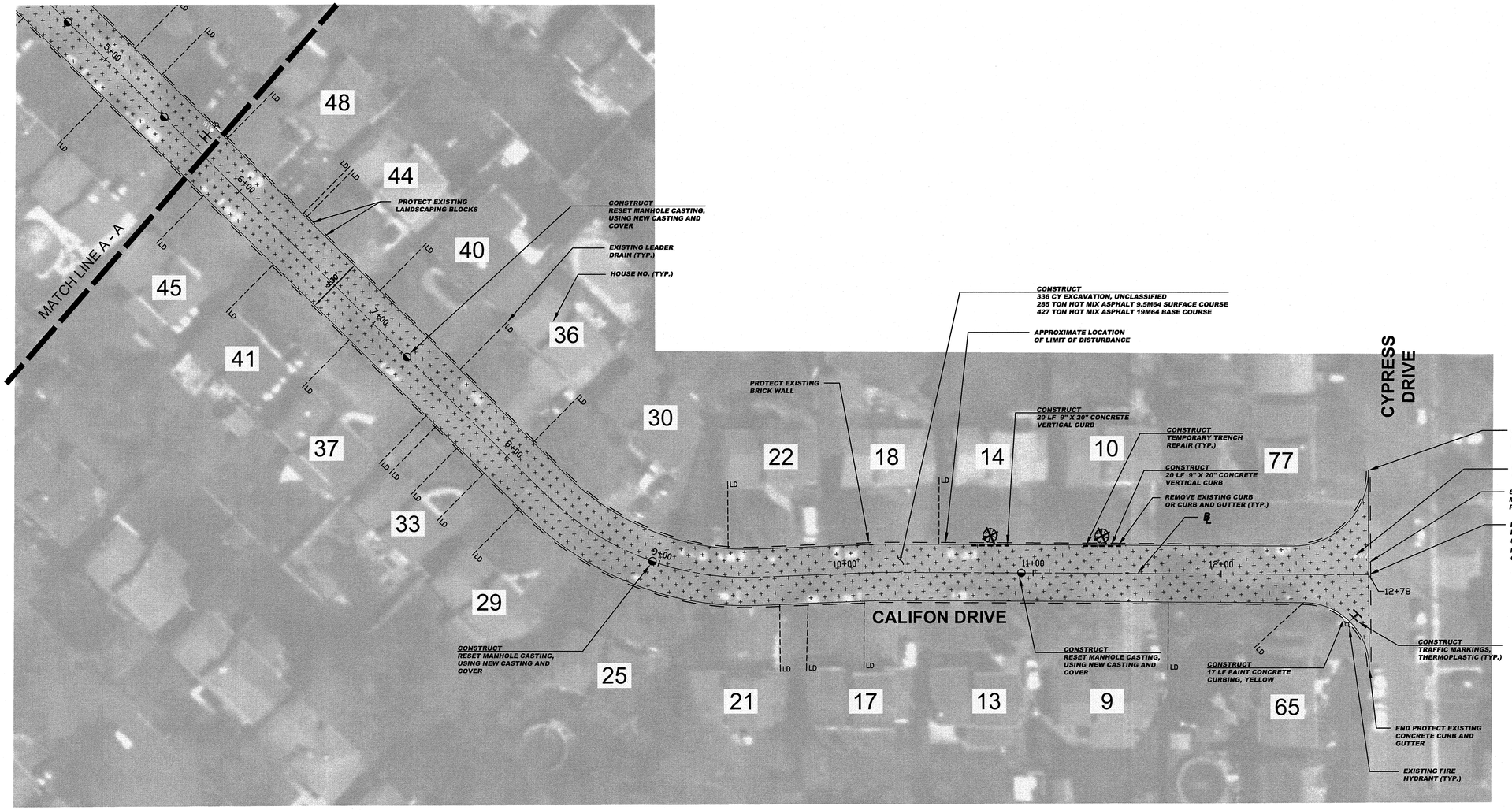
REGISTERED CG

DRAWING NO. 66 - V

FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX



CONSTRUCT (CALIFON DRIVE (2 OF 2)

336	CY	Excavation, unclassified
2195	LF	Polymerized joint adhesive
105	LF	Prepare and seal existing joints and cracks in asphalt pavement
285	TON	Hot mix asphalt 9.5M64 surface course
427	TON	Hot mix asphalt 19M64 base course
3	UN	Reset manhole casting, using new casting and cover
40	LF	9"x20" Concrete vertical curb
17	LF	Paint concrete curbing
6	SF	Traffic markings, thermoplastic, with glass beads
10	SY	Temporary trench repair
1	UN	Reset water valve box
23	SY	Topsoiling, 4" thick, including fine grading
23	SY	Fertilizing
23	SY	Sodding
2	UN	Replacement tree

SPECIAL PROVISIONS

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BASELINES

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INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
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- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
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- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 0" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

CALIFON DRIVE (2 OF 2) WARD 5

CME ASSOCIATES

CONSULTING AND MUNICIPAL ENGINEERS

(732) 727 8000 (732) 462 7400

3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)

DAVID J. SAMUEL P.E. & P.P. NJ PP LIC NO. 24455

JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 20891

JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 38741

MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 37701

GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 43611

MICHAEL J. McCLELLAND P.E.

NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

Date 2.25.19

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	67 of 106

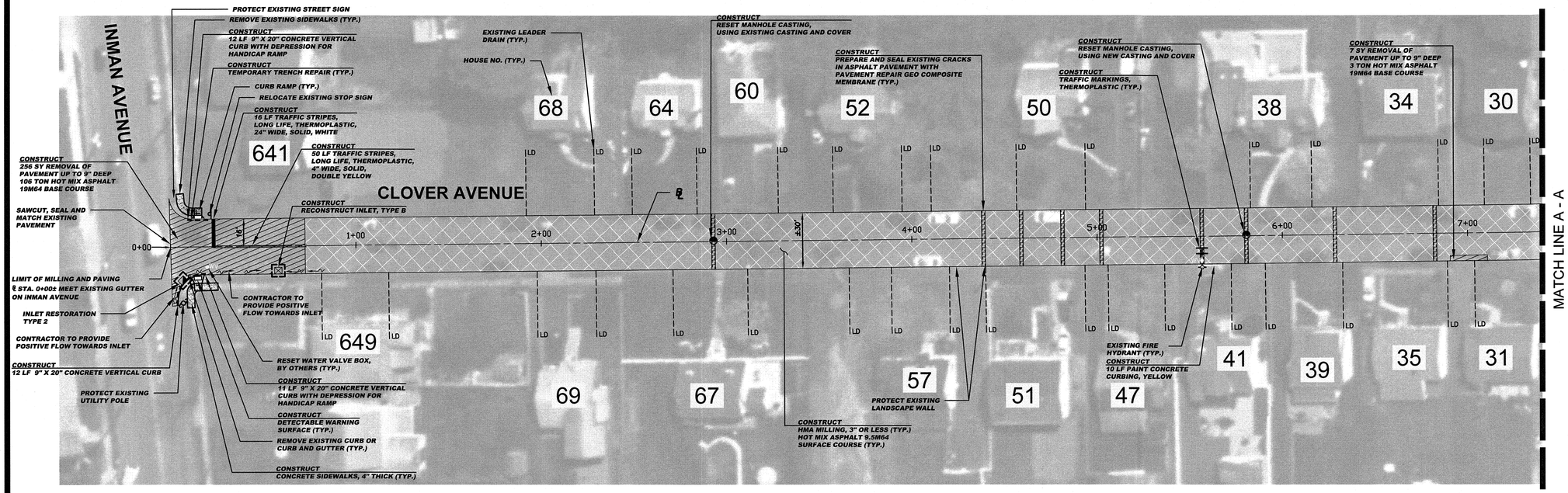
REGISTERED CG

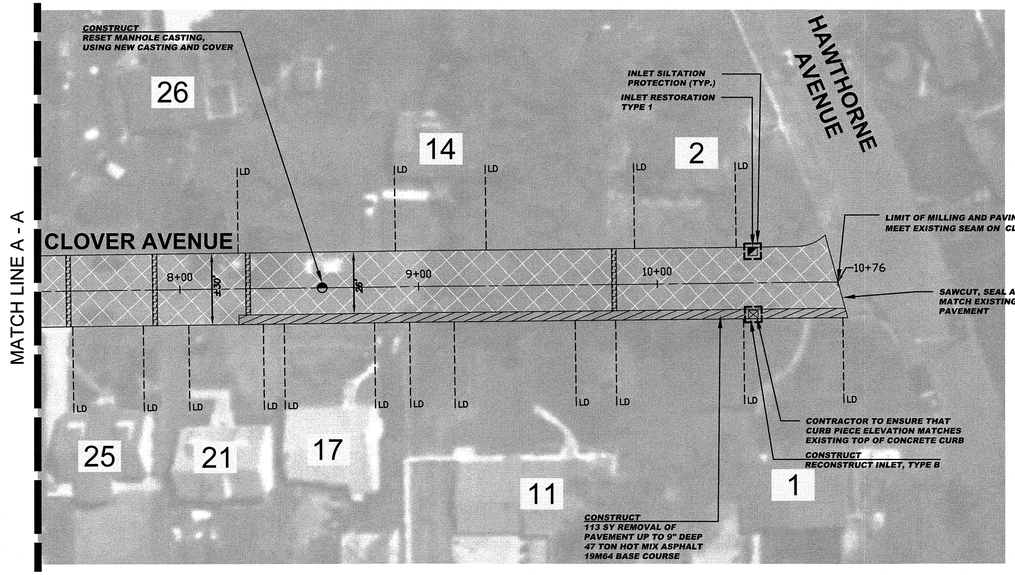
DRAWING NO. 67 - 3

FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX





CONSTRUCT (CLOVER AVENUE)

376	SY	Removal of pavement, up to 9" deep
3227	SY	HMA Milling, 3" or less
3306	LF	Polymerized joint adhesive
94	LF	Prepare and seal existing joints and cracks in asphalt pavement
382	LF	Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
532	TON	Hot mix asphalt 9.5M64 surface and leveler course
156	TON	Hot mix asphalt 19M64 base course
1	UN	Reset manhole casting, using existing casting and cover
2	UN	Reset manhole casting, using new casting and cover
2	UN	Reset existing casting
1	UN	Curb piece type "N-ECO"
1	UN	Bicycle safe grate
2	UN	Reconstruct inlet, type B
24	SY	Concrete sidewalks, 4" thick
2	SY	Detectable warning surface
35	LF	9"x20" Concrete vertical curb
10	LF	Paint concrete curbing
100	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
16	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
6	SF	Traffic markings, thermoplastic, with glass beads
9	SY	Temporary trench repair
2	UN	Reset water valve box
20	SY	Topsoiling, 4" thick, including fine grading
20	SY	Fertilizing
20	SY	Sodding

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

CLOVER AVENUE — WARD 5

CVE ASSOCIATES — CONSULTING AND MUNICIPAL ENGINEERS

(732) 727 8000 — (732) 462 7400

3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25839 / NJ PP LIC NO. 2455	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 / NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32062 / NJ PP LIC NO. 3874	MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 / NJ PP LIC NO. 3770	GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 / NJ PP LIC NO. 4361

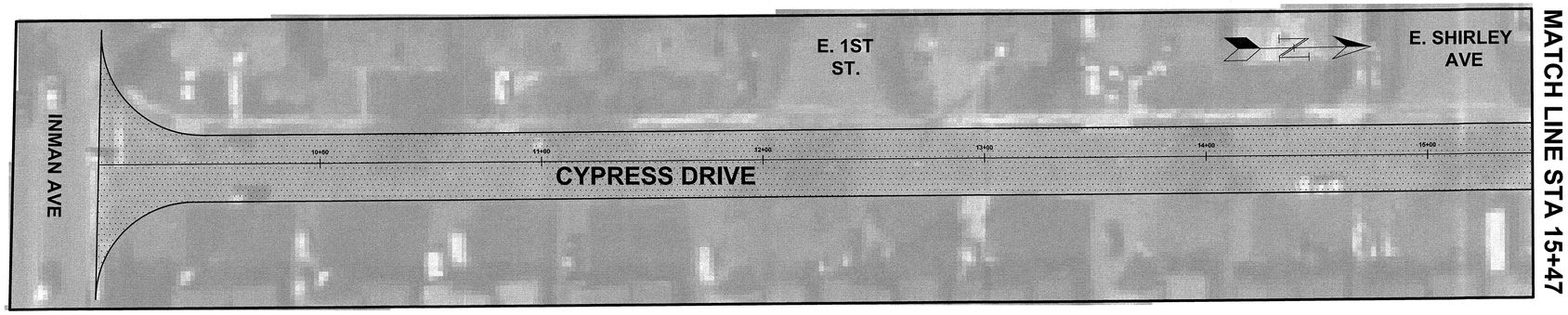
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER — LIC. 32468
DATE 3.5.19

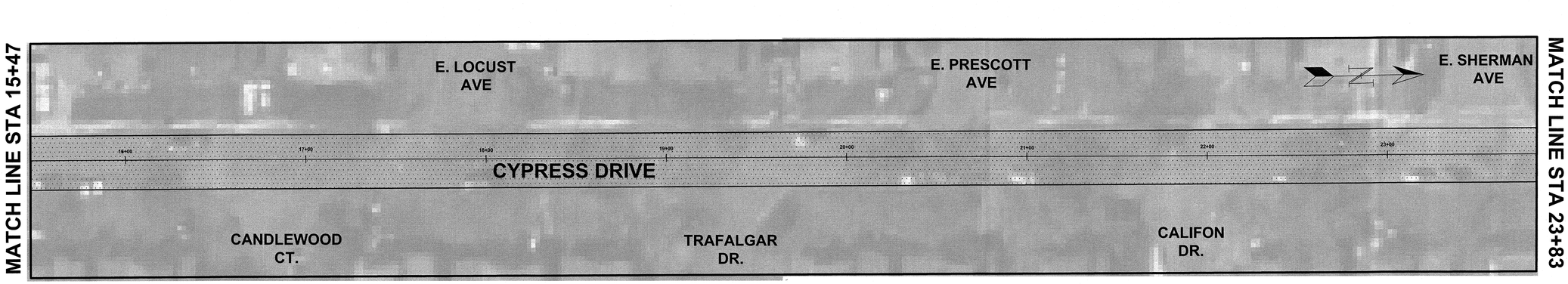
SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	68 of 106

REGISTERED CG

DRAWING NO. 68 - U

FILE NO. PWB0A607.01





GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FEET

TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE — MUNICIPAL ENGINEER
JOHN E. McCORMAC — MAYOR

CYPRESS DRIVE
STA 10+00 TO STA 23+83
PAVING LIMITS

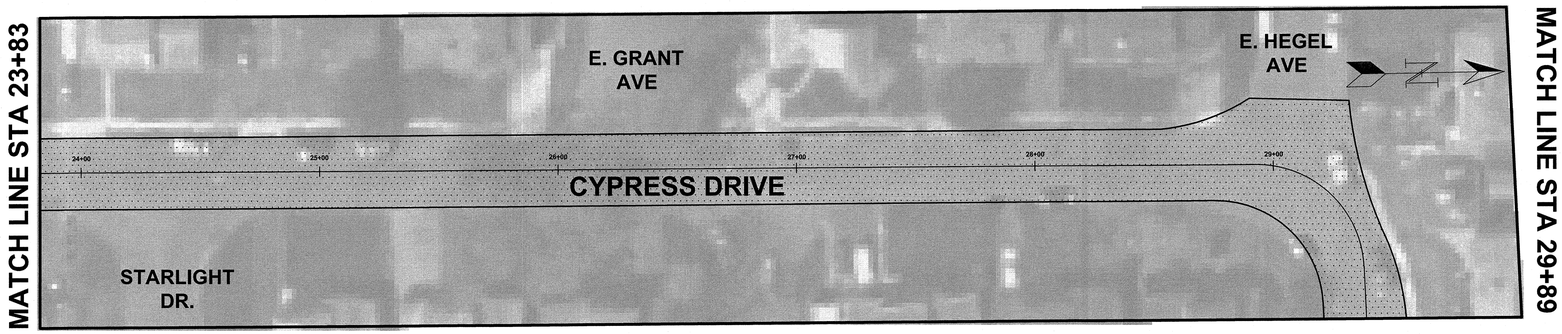
MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

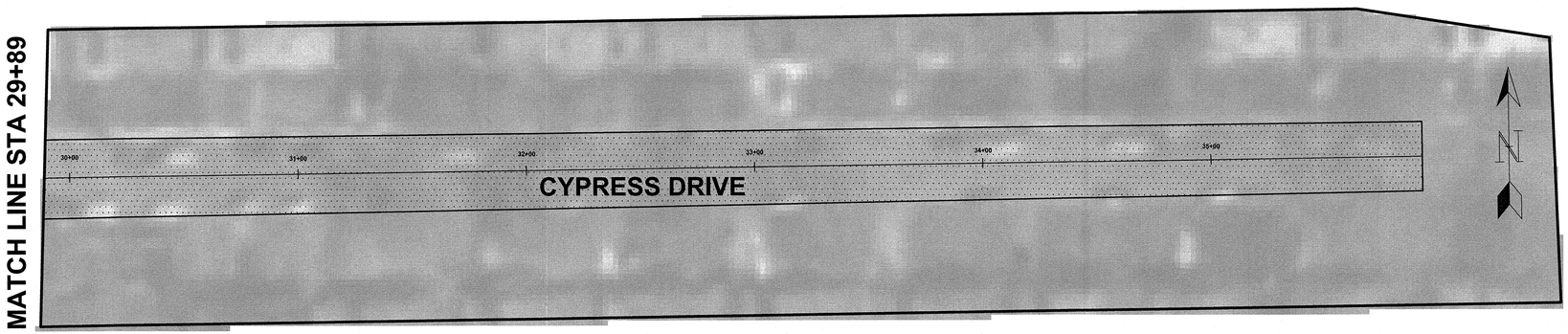
TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/5/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 69 OF 106

P-WB-0A607-01 69-0 CG

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY





GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FEET

TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

CYPRESS DRIVE
STA 23+83 TO END
PAVING LIMITS

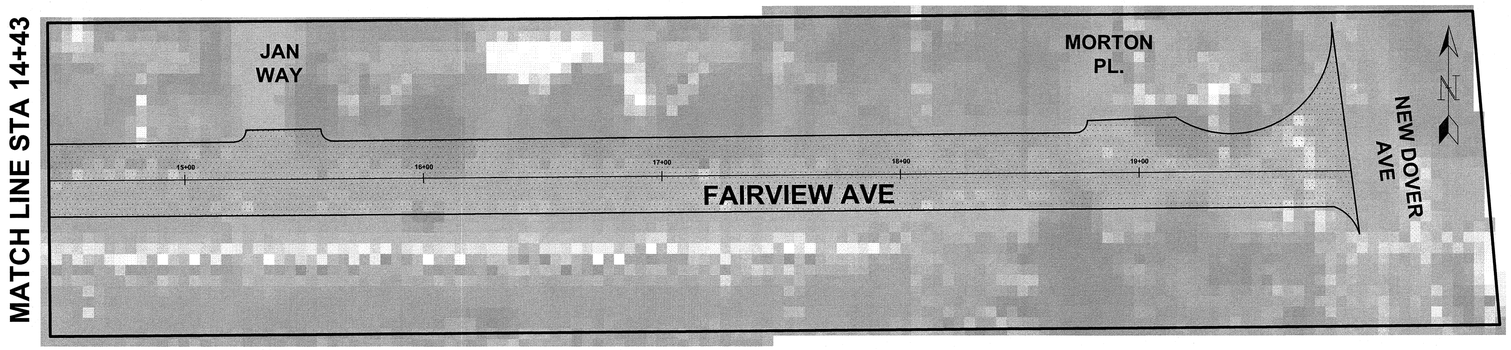
MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/5/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 70 OF 106

PUB-CAGO7-01 70-0 CG

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY



GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FEET

TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

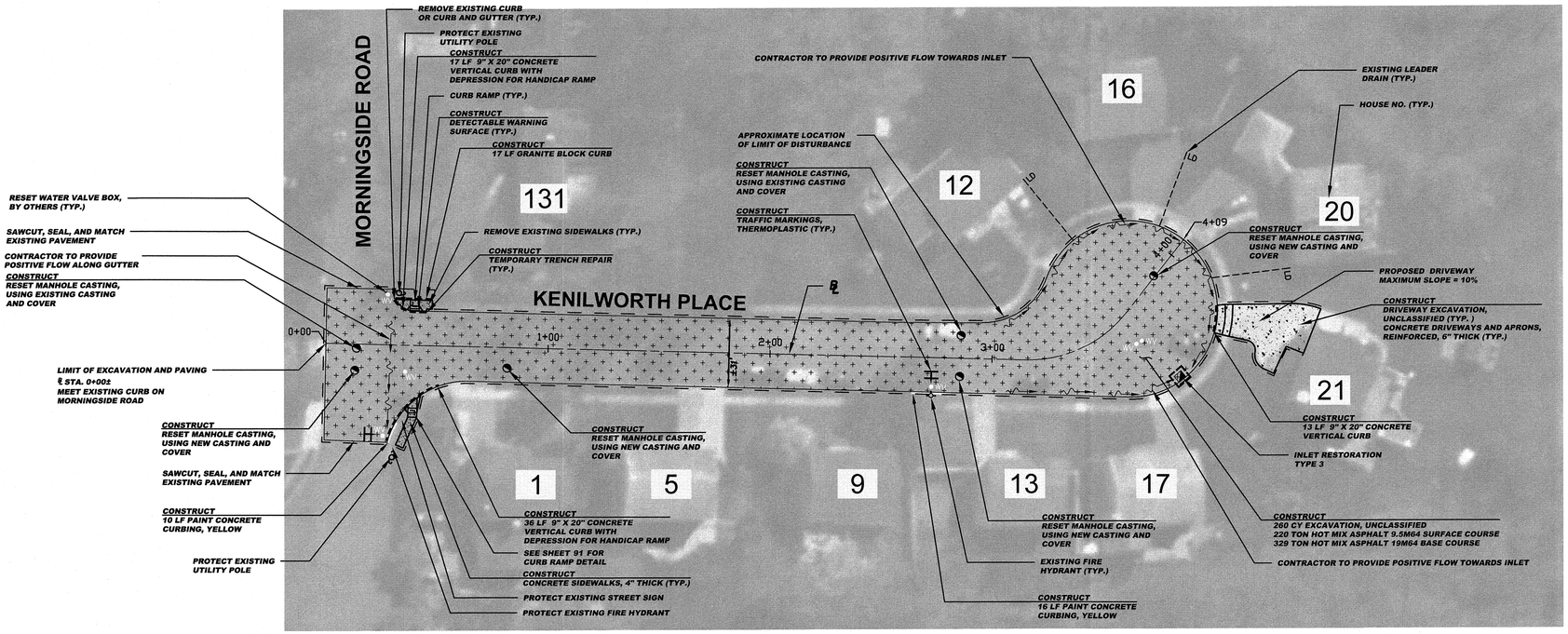
ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

FAIRVIEW AVE
PAVING LIMITS

MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE:
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 71 OF 106

P-WB-0A607-01 71-U CG



CONSTRUCT (KENILWORTH PLACE)

28	CY	Driveway excavation, unclassified
260	CY	Excavation, unclassified
1714	LF	Polymerized joint adhesive
59	LF	Prepare and seal existing joints and cracks in asphalt pavement
220	TON	Hot mix asphalt 9.5M64 surface course
329	TON	Hot mix asphalt 19M64 base course
2	UN	Reset manhole casting, using existing casting and cover
4	UN	Reset manhole casting, using new casting and cover
1	UN	Reset existing casting
1	UN	Curb piece, type "N-ECO"
1	UN	Bicycle safe grate
18	SY	Concrete sidewalks, 4" thick
100	SY	Concrete driveways and aprons, reinforced, 6" thick (including bedding)
2	SY	Detectable warning surface
66	LF	9"x20" Concrete vertical curb
17	LF	Granite block curb
28	LF	Paint concrete curbing
12	SF	Traffic markings, thermoplastic, with glass beads
15	SY	Temporary trench repair
6	UN	Reset water valve box
47	SY	Topsoiling, 4" thick, including fine grading
47	SY	Fertilizing
47	SY	Sodding

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

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GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
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- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

KENILWORTH PLACE — WARD 5

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25838 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32950 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
3.25.19

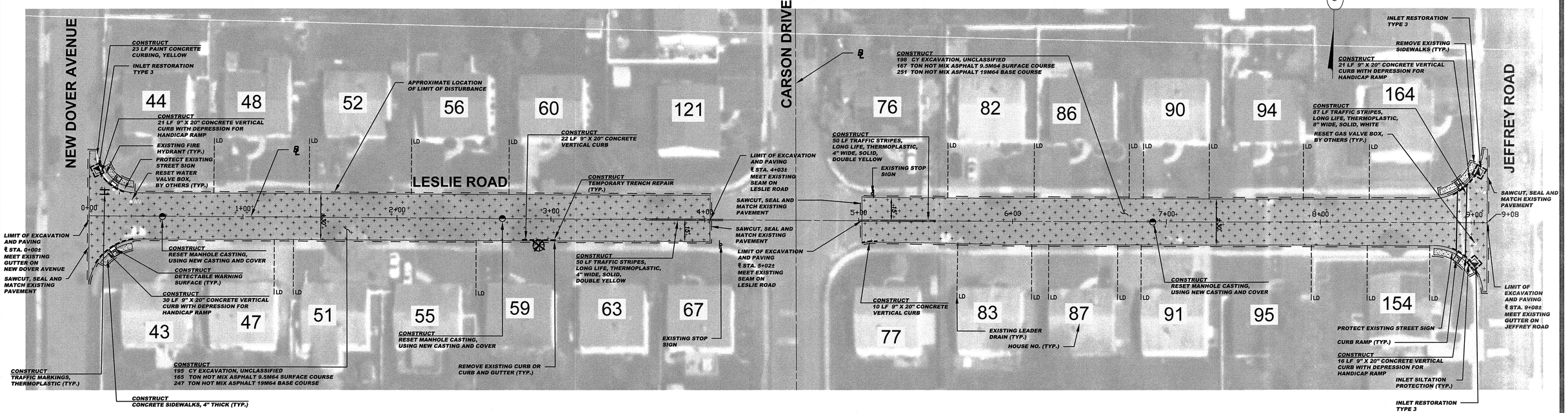
SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	JCW
SHEET	72 of 106

REGISTERED CG

DRAWING NO. 72 - 0

FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE — **COUNTY OF MIDDLESEX**



CONSTRUCT (LESLIE ROAD)

393	CY	Excavation, unclassified
2738	LF	Polymerized joint adhesive
240	LF	Prepare and seal existing joints and cracks in asphalt pavement
332	TON	Hot mix asphalt 9.5M64 surface course
498	TON	Hot mix asphalt 19M64 base course
3	UN	Reset manhole casting, using new casting and cover
3	UN	Reset existing casting
3	UN	Curb piece, type "N-ECO"
3	UN	Bicycle safe grate
53	SY	Concrete sidewalks, 4" thick
4	SY	Detectable warning surface
120	LF	9"x20" Concrete vertical curb
23	LF	Paint concrete curbing
200	LF	Traffic Stripes, long life, "thermoplastic", 4" wide, with glass beads
87	LF	Traffic Stripes, long life, "thermoplastic", 8" wide, with glass beads
6	SF	Traffic markings, thermoplastic, with glass beads
29	SY	Temporary trench repair
3	UN	Reset water valve box
1	UN	Reset gas valve box
67	SY	Topsoiling, 4" thick , including fine grading
67	SY	Fertilizing
67	SY	Sodding
1	UN	Replacement tree

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

NOTE:

EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE.

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
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- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
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- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

LESLIE ROAD — WARD 5

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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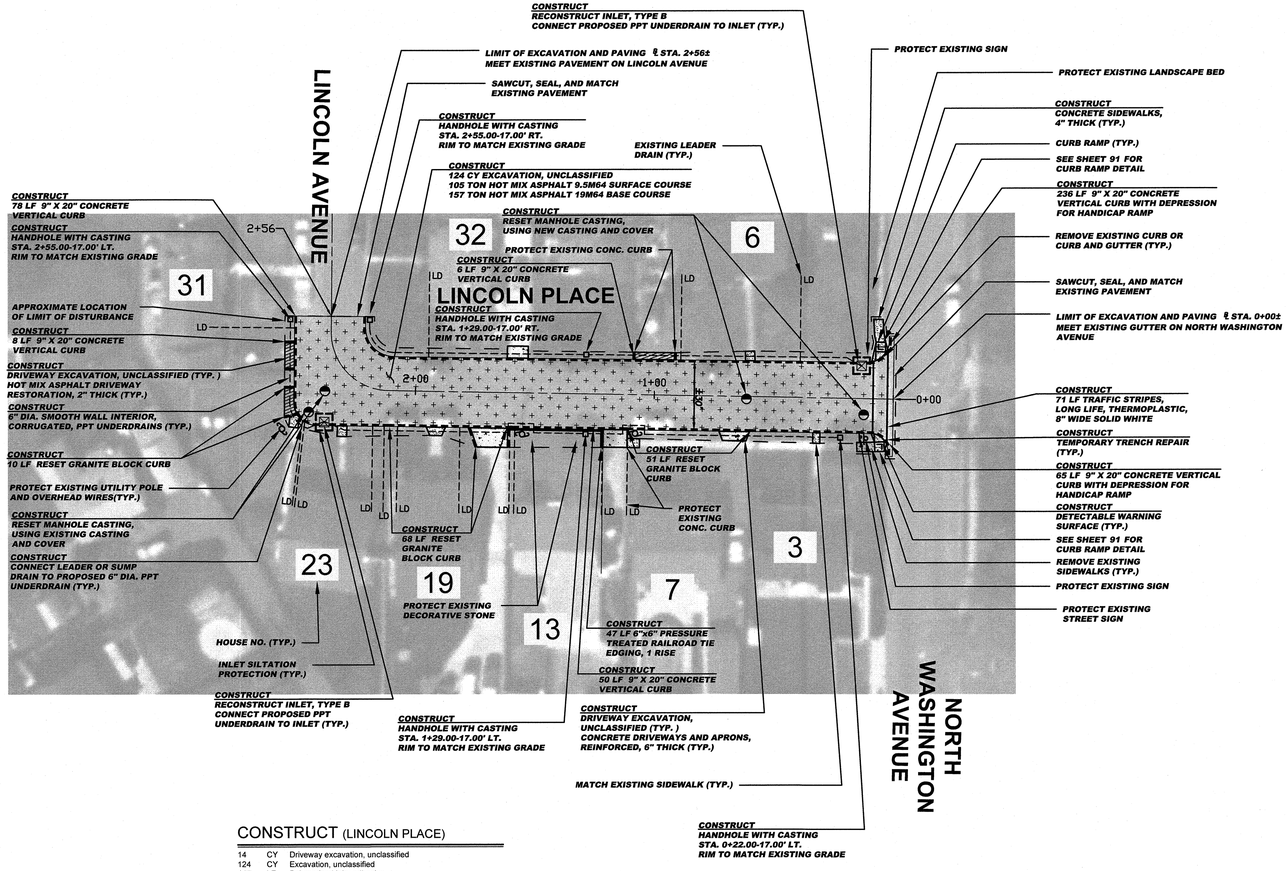
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	MJM
SHEET	73 of 106

REGISTERED CG — DRAWING NO. 73-0 — FILE NO. P:\WB0A607.01



CONSTRUCT (LINCOLN PLACE)

14	CY	Driveway excavation, unclassified
124	CY	Excavation, unclassified
857	LF	Polymerized joint adhesive
122	LF	Prepare and seal existing joints and cracks in asphalt pavement
105	TON	Hot mix asphalt 9.5M64 surface course
157	TON	Hot mix asphalt 19M64 base course
499	LF	6" dia. smooth wall interior corrugated PPT underdrains
14	UN	Connect leader or sump drain to proposed underdrain
5	UN	Handhole with casting
80	CY	Dense graded aggregate for pipe trench
2	UN	Reset manhole casting, using existing casting and cover
2	UN	Reset manhole casting, using new casting and cover
2	UN	Reconstruct inlet, type B
28	SY	Concrete sidewalks, 4" thick
31	SY	Concrete driveways and aprons, reinforced, 6" thick (including bedding)
18	SY	Hot mix asphalt driveway, restoration 2" thick
2	SY	Detectable warning surface
443	LF	9"x20" Concrete vertical curb
129	LF	Reset granite block curb
47	LF	6"x6" Pressure treated railroad tie edging
71	LF	Traffic stripes, long life, "thermoplastic", 8" wide, with glass beads
128	SY	Temporary trench repair
318	SY	Topsoiling, 4" thick, including fine grading
318	SY	Fertilizing
318	SY	Sodding

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

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GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

LINCOLN PLACE — WARD 5

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1961 - 2002)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25838 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
3.25.19

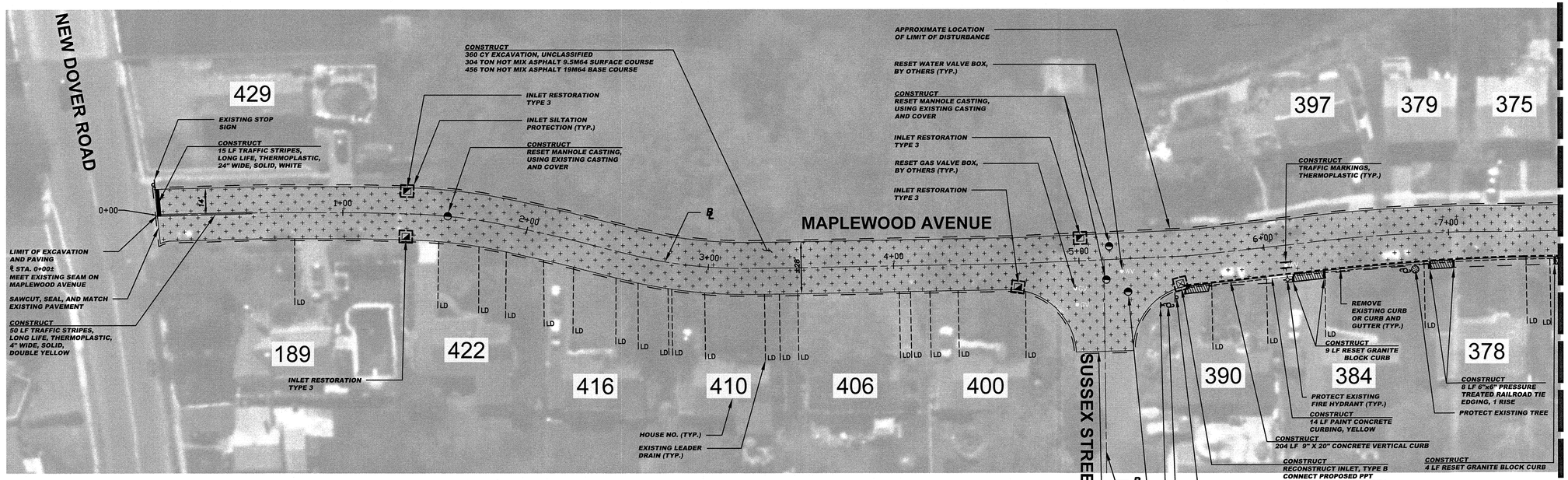
SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	74 of 106

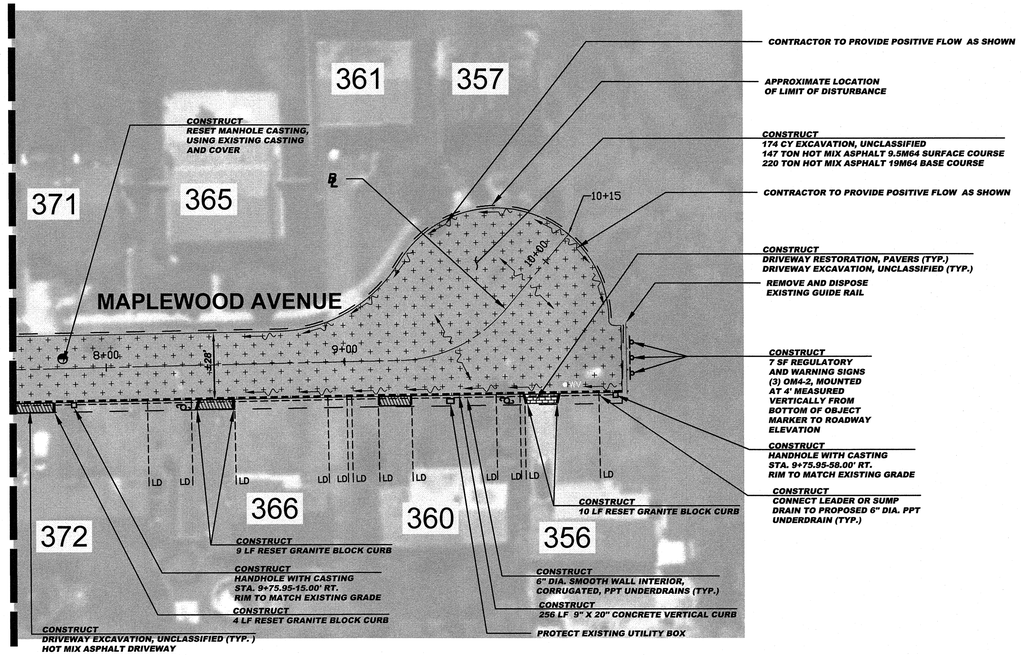
REGISTERED CG

DRAWING NO. 74-6

FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE — **COUNTY OF MIDDLESEX**





CONSTRUCT (MAPLEWOOD AVENUE)

13	CY	Driveway excavation, unclassified
534	CY	Excavation, unclassified
3551	LF	Polymerized joint adhesive
151	LF	Prepare and seal existing joints and cracks in asphalt pavement
451	TON	Hot mix asphalt 9.5M64 surface course
676	TON	Hot mix asphalt 19M64 base course
457	LF	6" dia. smooth wall interior corrugated PPT underdrains
18	UN	Connect leader or sump drain to proposed underdrains
2	UN	Handhole with casting
74	CY	Dense graded aggregate for pipe trench
5	UN	Reset manhole casting, using existing casting and cover
4	UN	Reset existing casting
4	UN	Curb piece, type "N-ECO"
4	UN	Bicycle safe grate
1	UN	Reconstruct inlet, type B
40	SY	Hot mix asphalt driveway, restoration 2" thick
52	SF	Driveway restoration, pavers
460	LF	9"x20" Concrete vertical curb
36	LF	Reset granite block curb
14	LF	Paint concrete curbing
8	LF	6"x6" Pressure treated railroad tie edging
100	LF	Traffic Stripes, long life, "thermoplastic", 4" wide, with glass beads
15	LF	Traffic Stripes, long life, "thermoplastic", 24" wide, with glass beads
6	SF	Traffic markings, thermoplastic, with glass beads
7	SF	Regulatory and warning signs
111	SY	Temporary trench repair
3	UN	Reset water valve box
2	UN	Reset gas valve box
276	SY	Topsoiling, 4" thick, including fine grading
276	SY	Fertilizing
276	SY	Sodding

OM4–2
18"x18"

SIGN LEGEND

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
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- DENOTES DIRECTION OF FLOW
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No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

MAPLEWOOD AVENUE — WARD 5

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)
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JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
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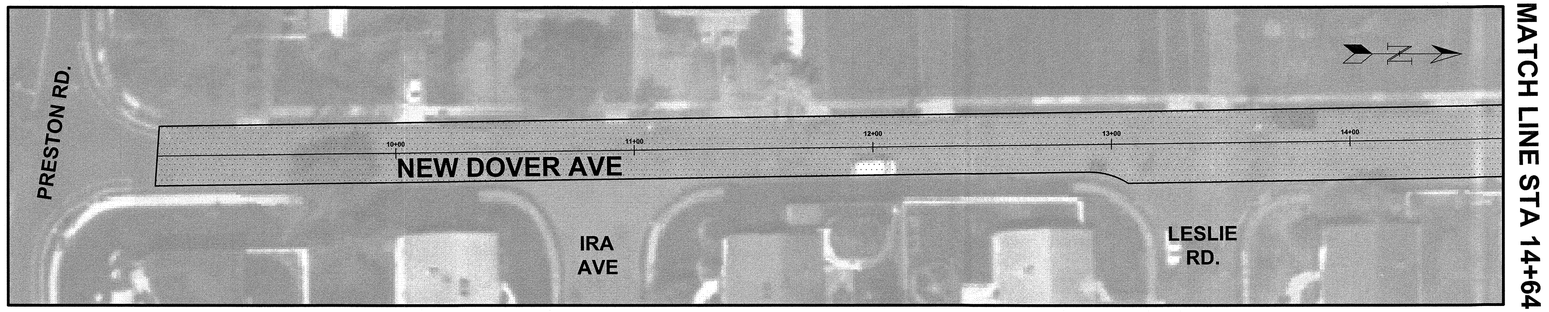
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
3.25.19

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	75 of 106

REGISTERED CG

DRAWING NO. 75 - 0

FILE NO. PWB0A607.01



GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FEET

TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

NEW DOVER AVE
PAVING LIMITS

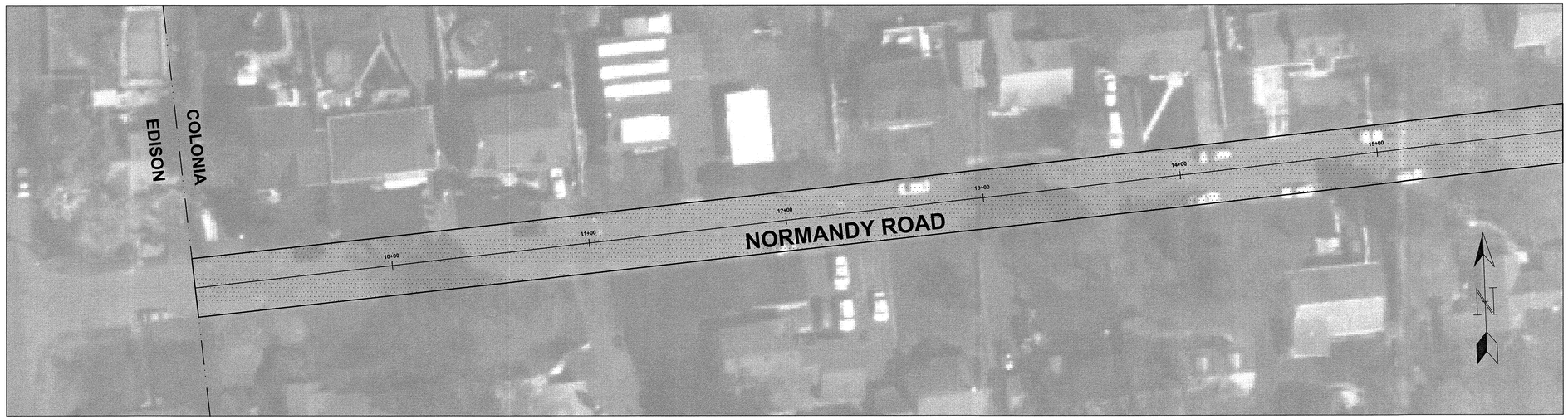
MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/5/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 76 OF 106

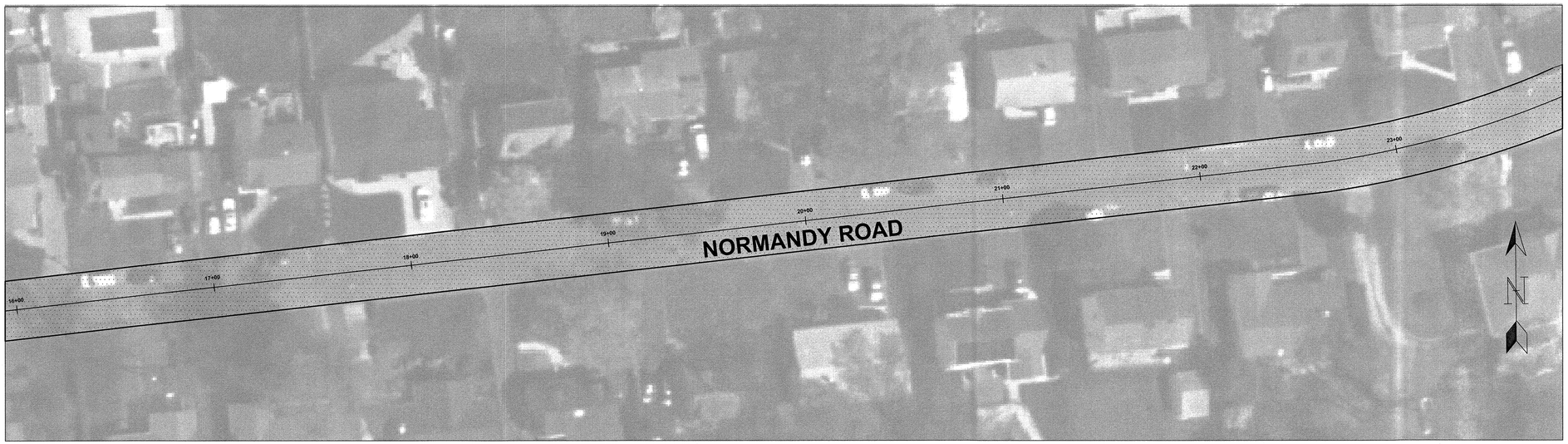
PUB-0609-01 76-0 CG

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY



MATCH LINE STA 15+94



MATCH LINE STA 15+94

MATCH LINE STA 23+89

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FEET

TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

NORMANDY ROAD
STA 10+00 TO STA 23+89
PAVING LIMITS

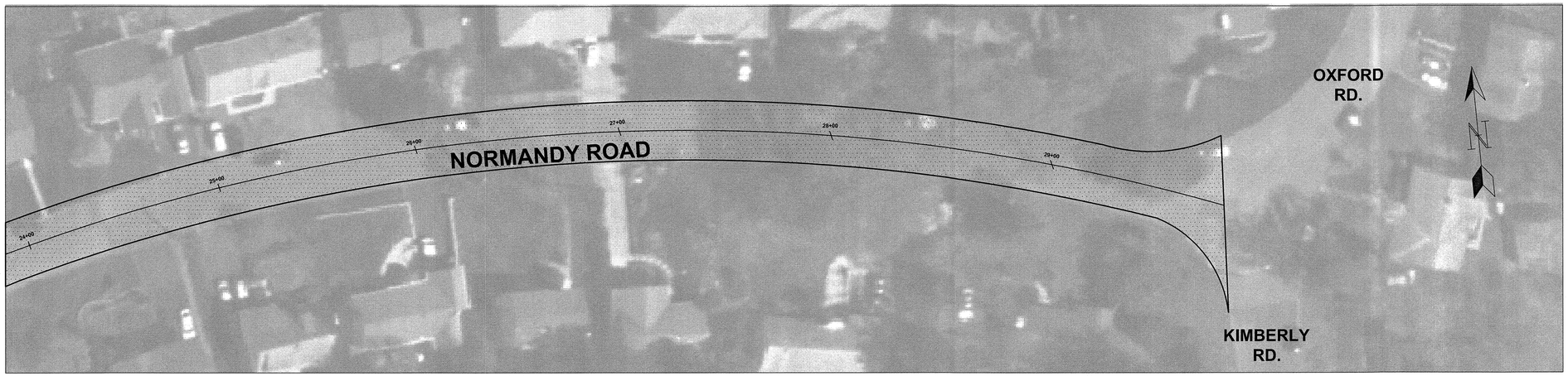
MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/7/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 77 OF 106

P:\18-0460\7-01 77-U CG

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY



TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

NORMANDY ROAD
STA 23+89 TO END
PAVING LIMITS

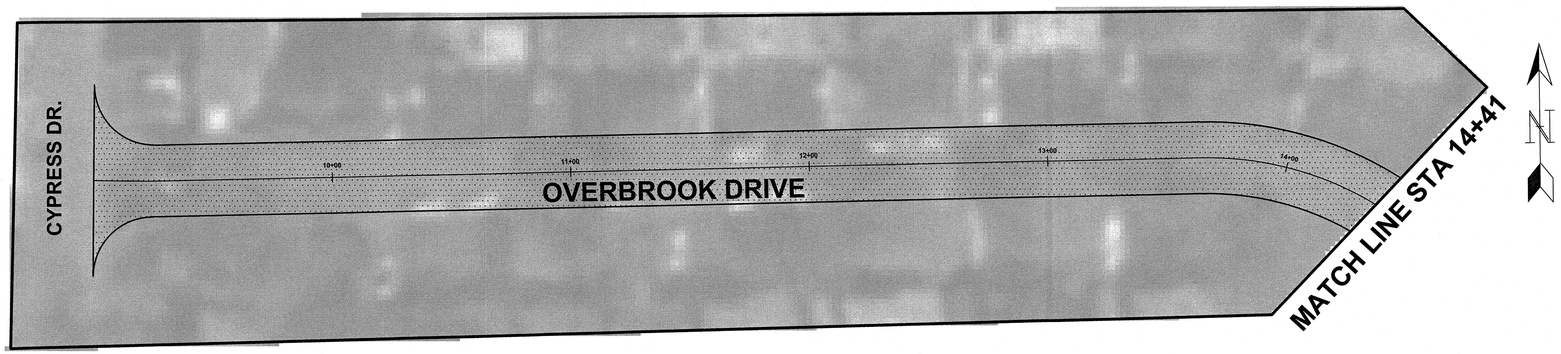
MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

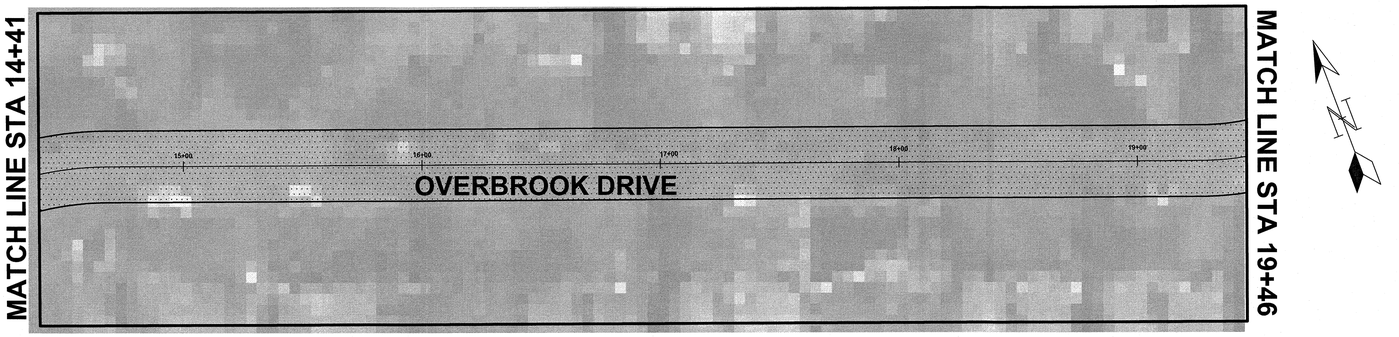
TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/7/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 78 OF 106

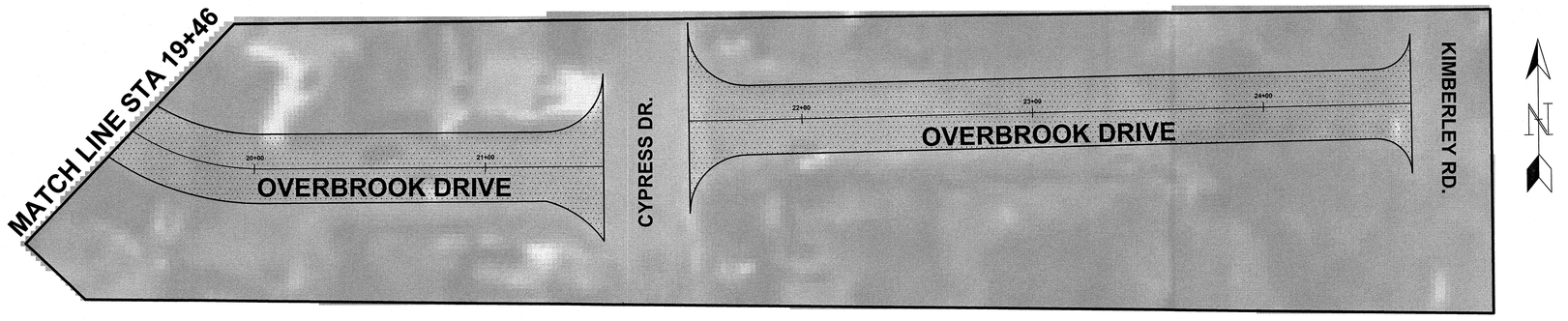
P-UB-0A607-01 78-0 CG

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY







GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FEET

TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

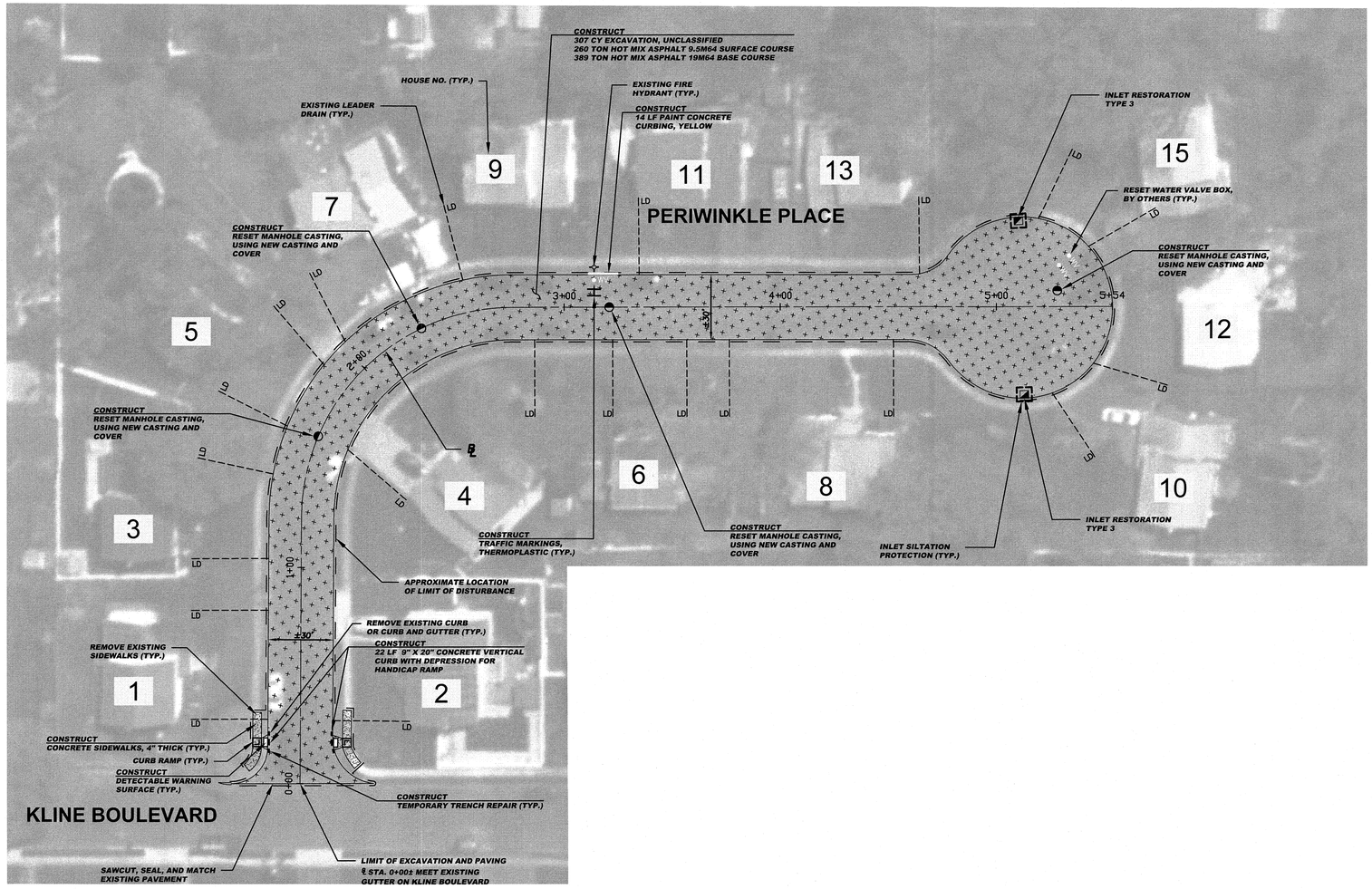
ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

OVERBROOK DRIVE
PAVING LIMITS

MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/5/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 79 OF 106

R-WB-0A607-01 79-0 CG



CONSTRUCT (PERIWINKLE PLACE)

307	CY	Excavation, unclassified
2117	LF	Polymerized joint adhesive
66	LF	Prepare and seal existing joints and cracks in asphalt pavement
260	TON	Hot mix asphalt 9.5M64 surface course
389	TON	Hot mix asphalt 19M64 base course
4	UN	Reset manhole casting, using new casting and cover
2	UN	Reset existing casting
2	UN	Curb piece type "N-ECO"
2	UN	Bicycle safe grate
29	SY	Concrete sidewalks, 4" thick
2	SY	Detectable warning surface
22	LF	9"x20" Concrete vertical curb
14	LF	Paint concrete curbing
6	SF	Traffic markings, thermoplastic, with glass beads
6	SY	Temporary trench repair
3	UN	Reset water valve box
13	SY	Topsoiling, 4" thick, including fine grading
13	SY	Fertilizing
13	SY	Sodding

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

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BASELINES

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INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
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- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

PERIWINKLE PLACE — WARD 5

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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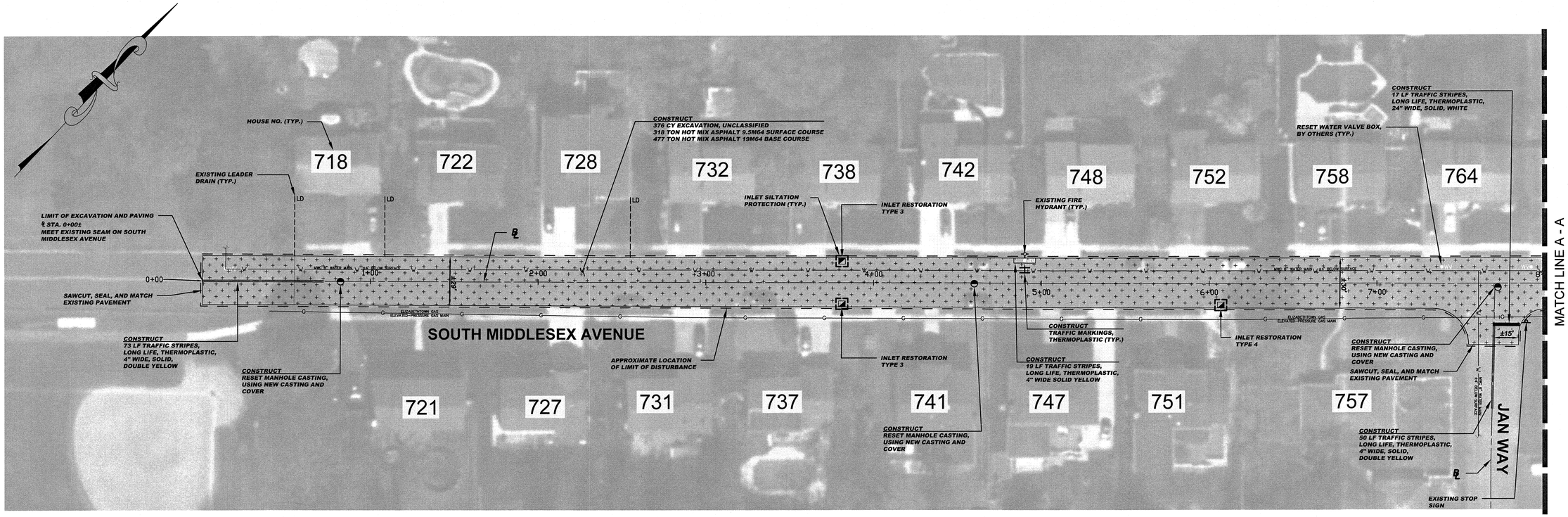
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
8.25.19

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	80 of 106

ASSISTED CG

DRAWING NO. 80-U

FILE NO. PWB0A607.01



CONSTRUCT (SOUTH MIDDLESEX AVENUE (1 OF 2)

376	CY	Excavation, unclassified
2454	LF	Polymerized joint adhesive
59	LF	Prepare and seal existing joints and cracks in asphalt pavement
318	TON	Hot mix asphalt 9.5M64 surface course
477	TON	Hot mix asphalt 19M64 base course
3	UN	Reset manhole casting, using new casting and cover
3	UN	Reset existing casting
2	UN	Curb piece type "N-ECO"
2	UN	Bicycle safe grate
265	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
17	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
6	SF	Traffic markings, thermoplastic, with glass beads
4	UN	Reset water valve box

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

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GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
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- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

SOUTH MIDDLESEX AVENUE (1 OF 2)

WARD 5

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1993 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25838 NJ PP LIC NO. 2455
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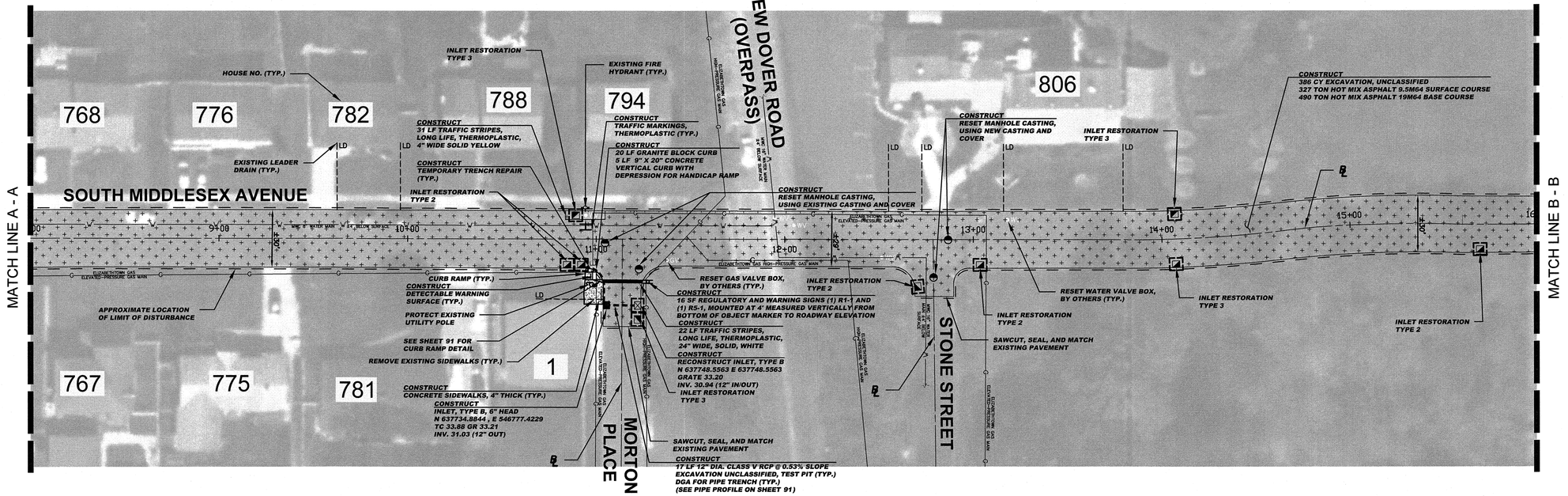
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32902 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

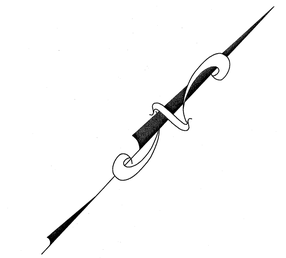
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
3.25.19

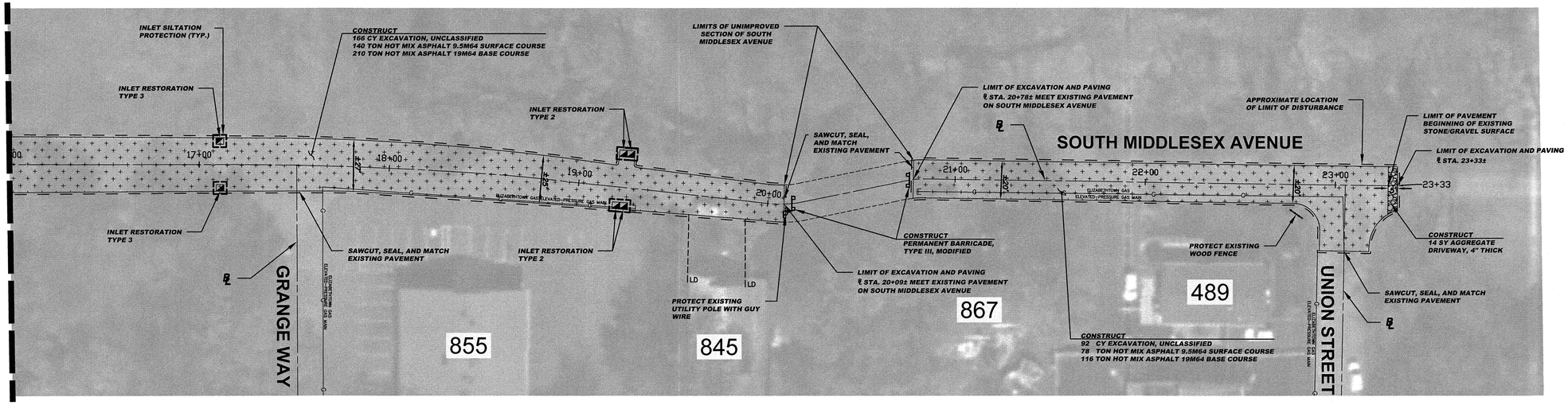
SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	81 of 106
FILE NO.	PWB0A607.01
DRAWING NO.	81 - U
REGISTERED	CG

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX







SIGN LEGEND

CONSTRUCT (SOUTH MIDDLESEX AVENUE (2 OF 2)

644	CY	Excavation, unclassified
5	CY	Excavation, unclassified, test pit
3876	LF	Polymerized joint adhesive
193	LF	Prepare and seal existing joints and cracks in asphalt pavement
545	TON	Hot mix asphalt 9.5M64 surface course
816	TON	Hot mix asphalt 19M64 base course
17	LF	12" dia. Reinforced concrete pipe (RCP), Class V, storm sewer with flexible watertight gaskets, including excavation and backfill, type 57 stone bedding, type 57 stone backfill to the spring line of the pipe, filter fabric and all associated work
5	CY	Dense graded aggregate for pipe trench
2	UN	Reset manhole casting, using existing casting and cover
2	UN	Reset manhole casting, using new casting and cover
1	UN	Inlet, type B
15	UN	Reset existing casting
6	UN	Curb piece, type "N-ECO"
15	UN	Bicycle safe grate
1	UN	Reconstruct inlet, type B
19	SY	Concrete sidewalks, 4" thick
14	SY	Aggregate driveway, 4" thick
1	SY	Detectable warning surface
5	LF	9"x20" Concrete vertical curb
20	LF	Granite block curb
31	LF	Traffic stripes, long life, "thermoplastic", 4" wide, with glass beads
22	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
6	SF	Traffic markings, thermoplastic, with glass beads
16	SF	Regulatory and warning signs
6	SY	Temporary trench repair
2	UN	Permanent barricade, type III, modified
5	UN	Reset water valve box
1	UN	Reset gas valve box
14	SY	Topsoiling, 4" thick, including fine grading
14	SY	Fertilizing
14	SY	Sodding

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

BASELINES

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
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- DENOTES RESET INLET CASTING
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TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

SOUTH MIDDLESEX AVENUE (2 OF 2)

WARD 5

CVE ASSOCIATES

(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400

3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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MICHAEL J. McCLELLAND P.E.

NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

3/25/19

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC / JD
DESIGNED BY	ZYC / JD
CHECKED BY	
SHEET	82 of 106

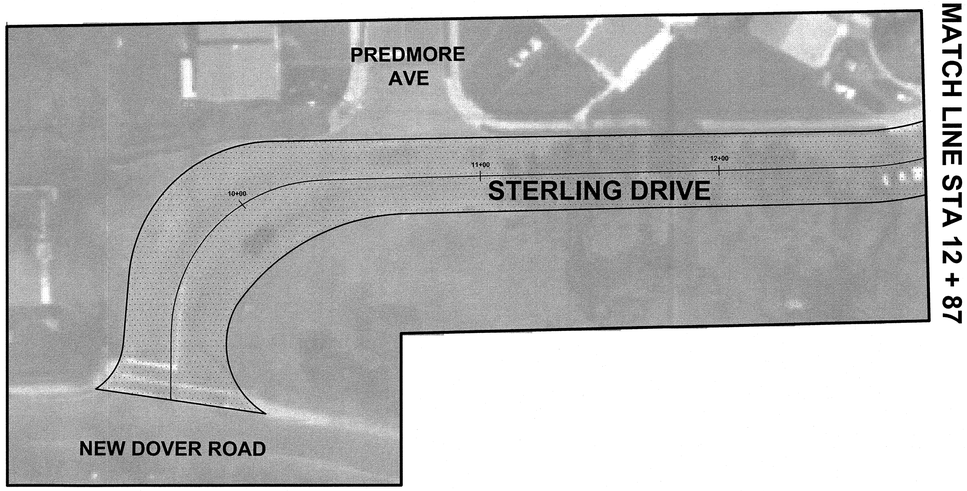
REGISTERED CG

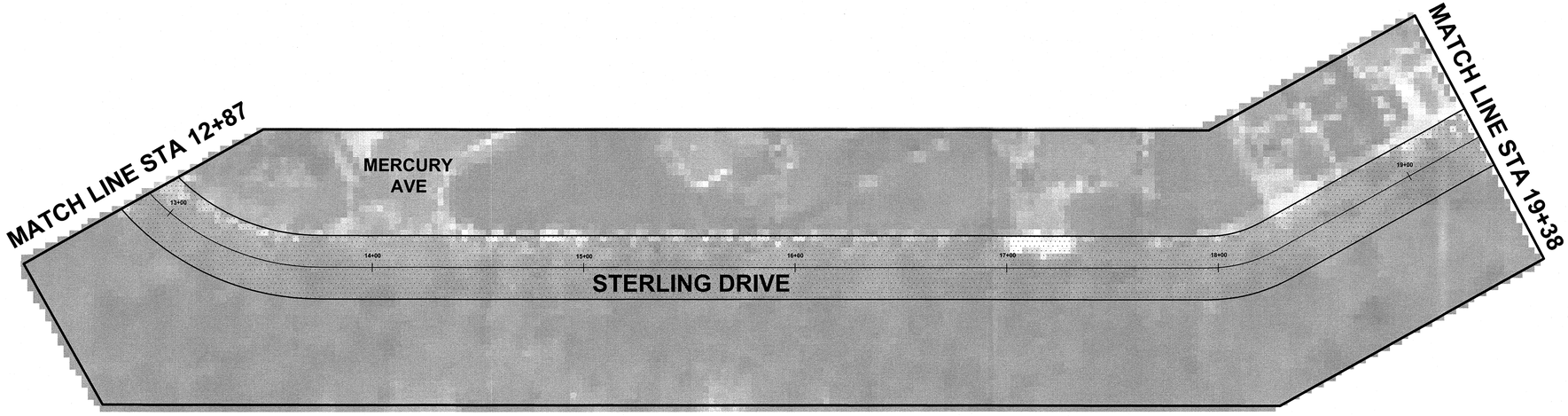
DRAWING NO. 82 - U

FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY





GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FEET

TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING

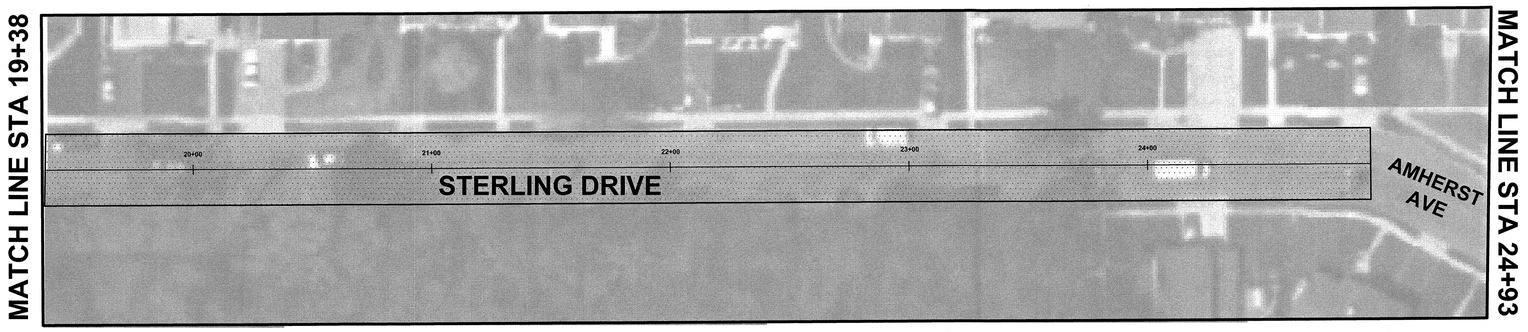
ONE MAIN STREET, WOODBRIDGE, NJ 07095 (732) 602-6047
MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

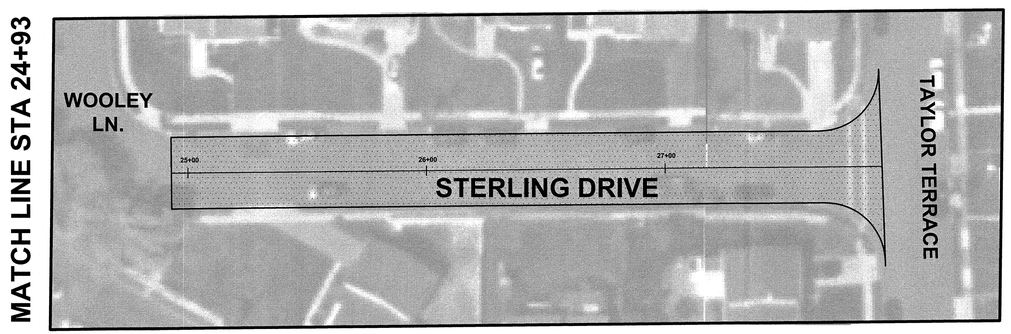
STERLING DRIVE
STA 10+00 TO 19+38
PAVING LIMITS

MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/5/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 83 OF 106

PUB-0807-01 83-U CG





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(IN FEET)
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TOWNSHIP of WOODBRIDGE
DIVISION of ENGINEERING
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MICHAEL GELIN, PE JOHN E. McCORMAC
MUNICIPAL ENGINEER MAYOR

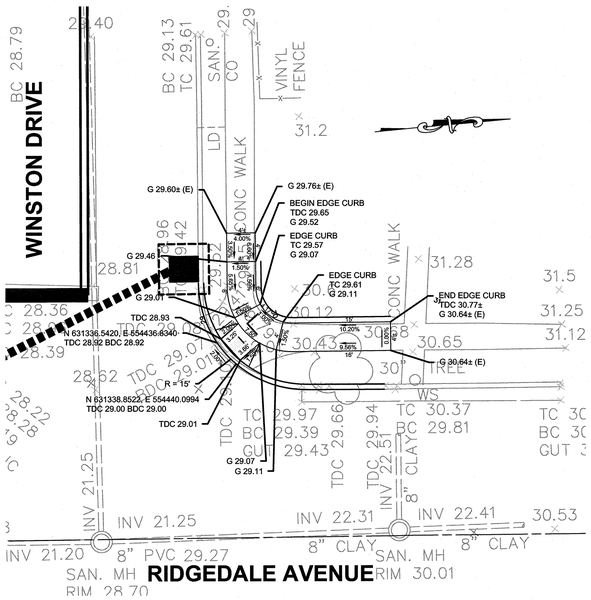
STERLING DRIVE
STA 19+38 TO END
PAVING LIMITS

MICHAEL GELIN, PE
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 04892800

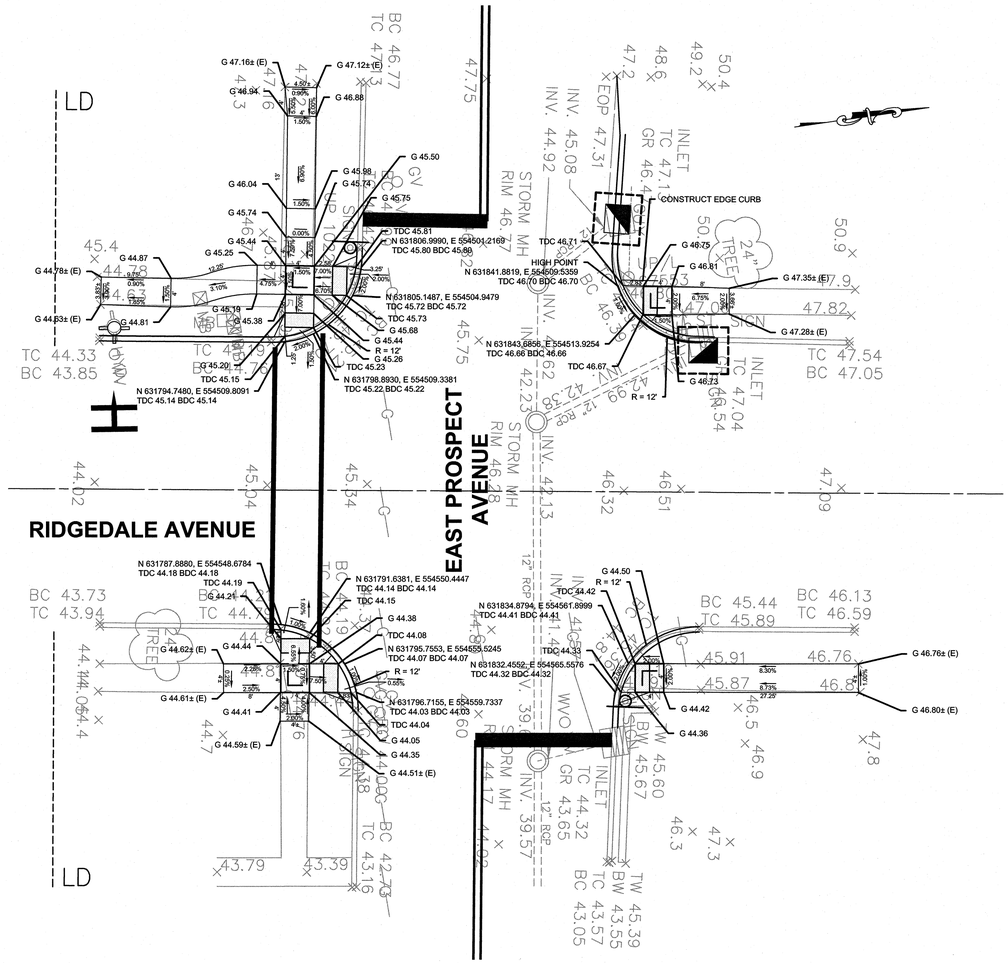
TOWN CONTRACT #: 2019 - 001	
FILE #: 2019ROADPROGRAM	
SCALE: 1" = 30'	DATE: 3/5/2019
DRAWN BY: NS	DESIGNED BY: NS
CHECKED BY: MG	SHEET #: 84 OF 106

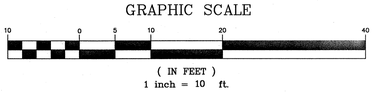
P-WB-0A607-01 84-0 CG

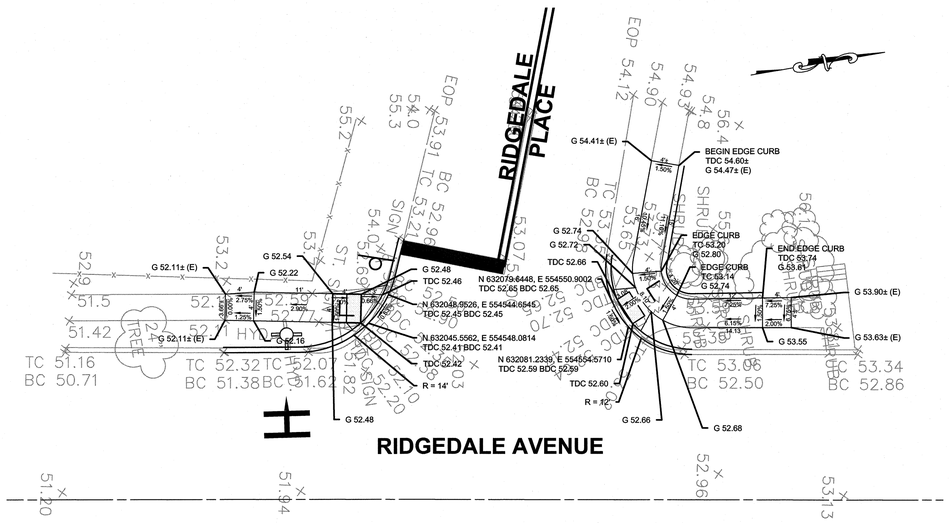
TOWNSHIP OF WOODBRIDGE | **COUNTY OF MIDDLESEX**



RIDGEDALE AVENUE & WINSTON DRIVE

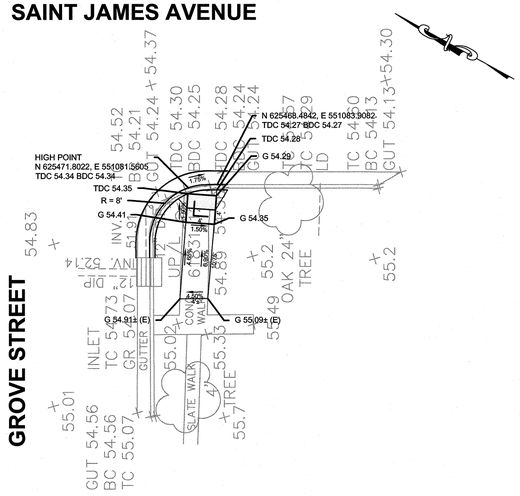






RIDGEDALE AVENUE & RIDGEDALE PLACE

SAINT JAMES AVENUE



SAINT JAMES AVENUE & GROVE STREET

PROPOSED LEGEND:

- DENOTES PROPOSED CURB
- DENOTES 4'X4' LANDING AREA @ 2.0% MAX SLOPE
- DENOTES DETECTABLE WARNING SURFACE
- DENOTES PROPOSED CURB RAMP
- 1.5% — DENOTES PROPOSED SLOPE ALONG SIDEWALK
- G 40.62 — DENOTES PROPOSED GRADE ALONG SIDEWALK

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

CURB RAMP DETAILS - WARD 1

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3779
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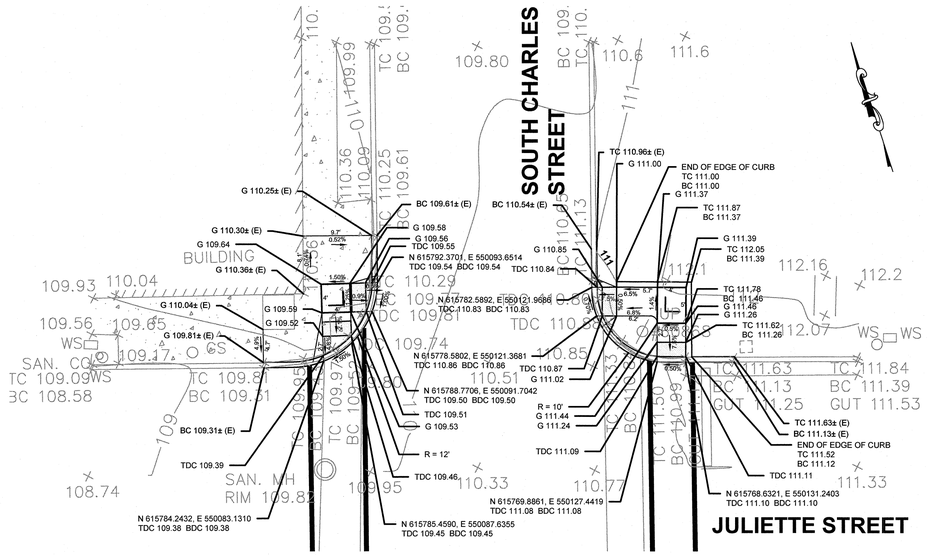
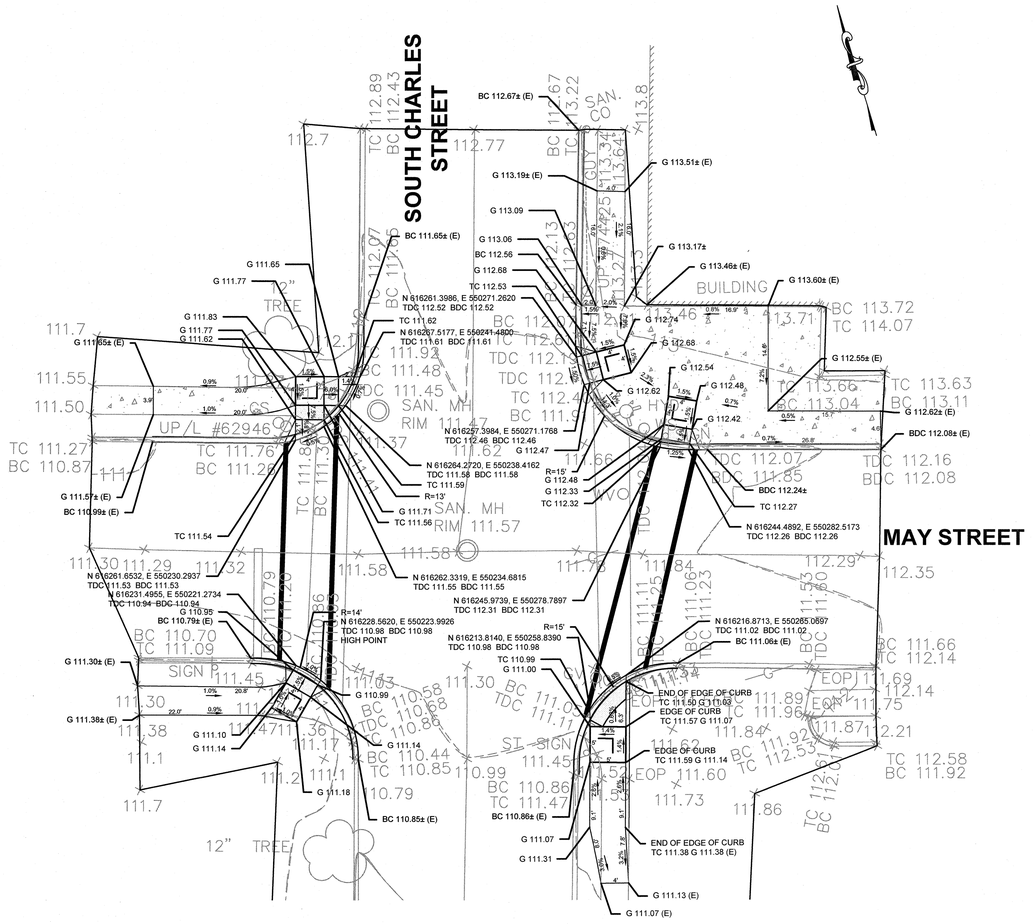
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

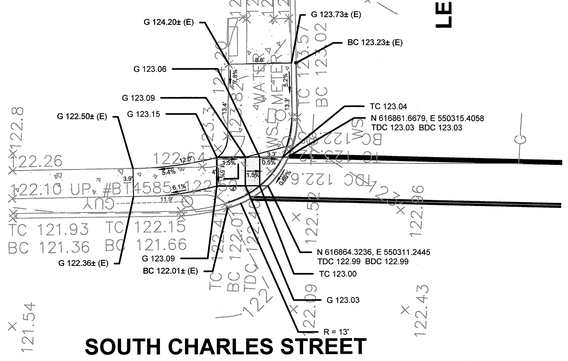
REGISTERED	CG
DRAWING NO.	85-U
SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	G
SHEET	85 of 106
FILE NO.	PWB0A607.01



SOUTH CHARLES STREET & JULIETTE STREET



SOUTH CHARLES STREET & MAY STREET



SOUTH CHARLES STREET & LEE AVENUE

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GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

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INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
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TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

CURB RAMP DETAILS - WARD 2 (1 OF 2)

CME ASSOCIATES
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(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE	As Shown
DATE	March 2019
DRAWN BY	ZYC
DESIGNED BY	ZYC
CHECKED BY	
SHEET	86 of 106

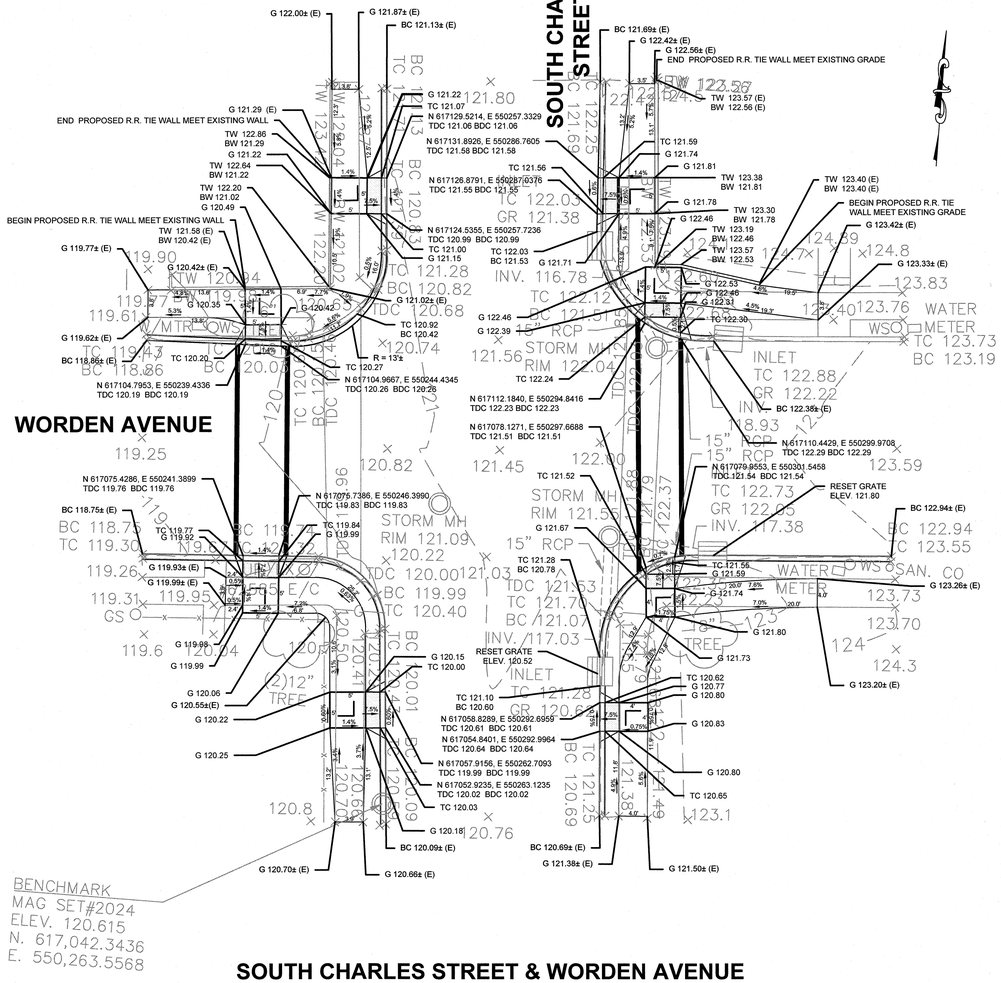
RELEASED CG

DRAWING NO. 86-U

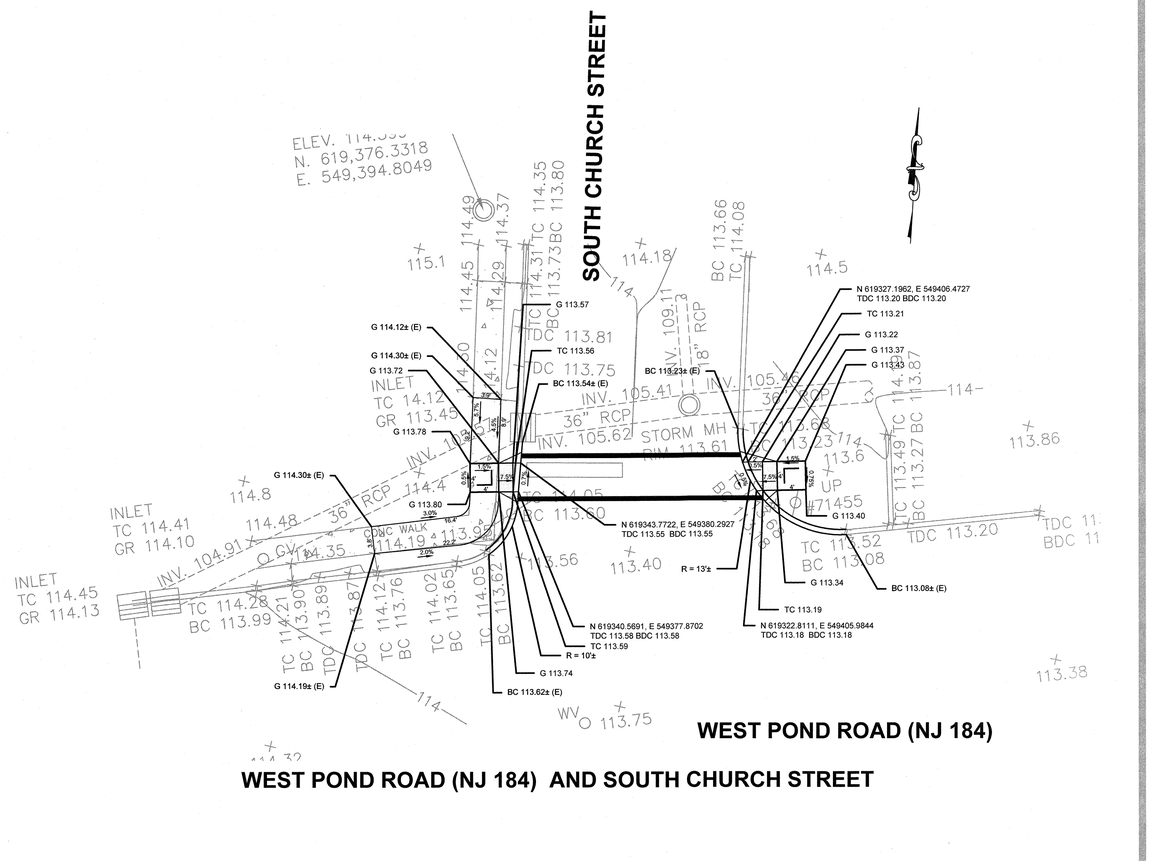
FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX



SOUTH CHARLES STREET & WORDEN AVENUE



WEST POND ROAD (NJ 184) AND SOUTH CHURCH STREET

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

1 inch = 10 ft.

PROPOSED LEGEND:

- DENOTES PROPOSED CURB
- DENOTES 4'X4' LANDING AREA @ 2.0% MAX SLOPE
- DENOTES DETECTABLE WARNING SURFACE
- DENOTES PROPOSED CURB RAMP
- 1.5% — DENOTES PROPOSED SLOPE ALONG SIDEWALK
- G 40.62 — DENOTES PROPOSED GRADE ALONG SIDEWALK

SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT

THE CONTRACTOR IS ADVISED THAT HIS LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/ PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 5" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

CURB RAMP DETAILS - WARD 2 (2 OF 2)

CME ASSOCIATES — CONSULTING AND MUNICIPAL ENGINEERS

(732) 727 8000 (732) 462 7400

3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25838 NJ PP LIC NO. 2455	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2060
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32862 NJ PP LIC NO. 3874	MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770	GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 1361

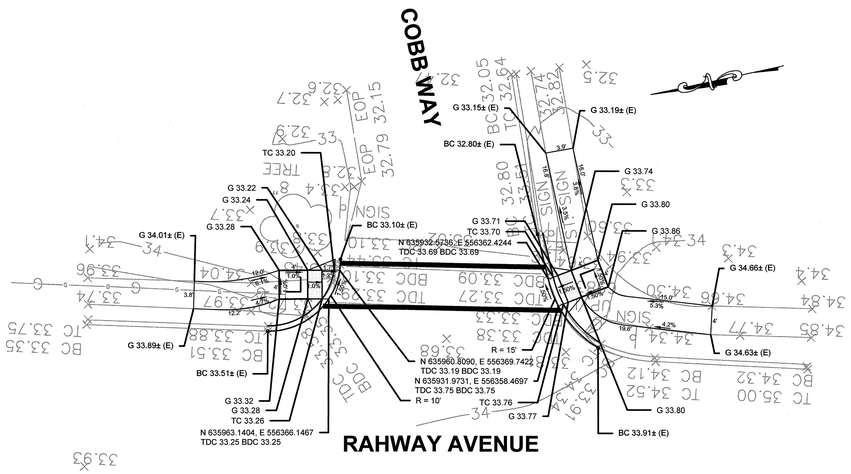
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468 3.25.19

SCALE: As Shown	DATE: March 2019
DRAWN BY: ZYC	DESIGNED BY: ZYC
CHECKED BY:	SHEET: 87 of 106

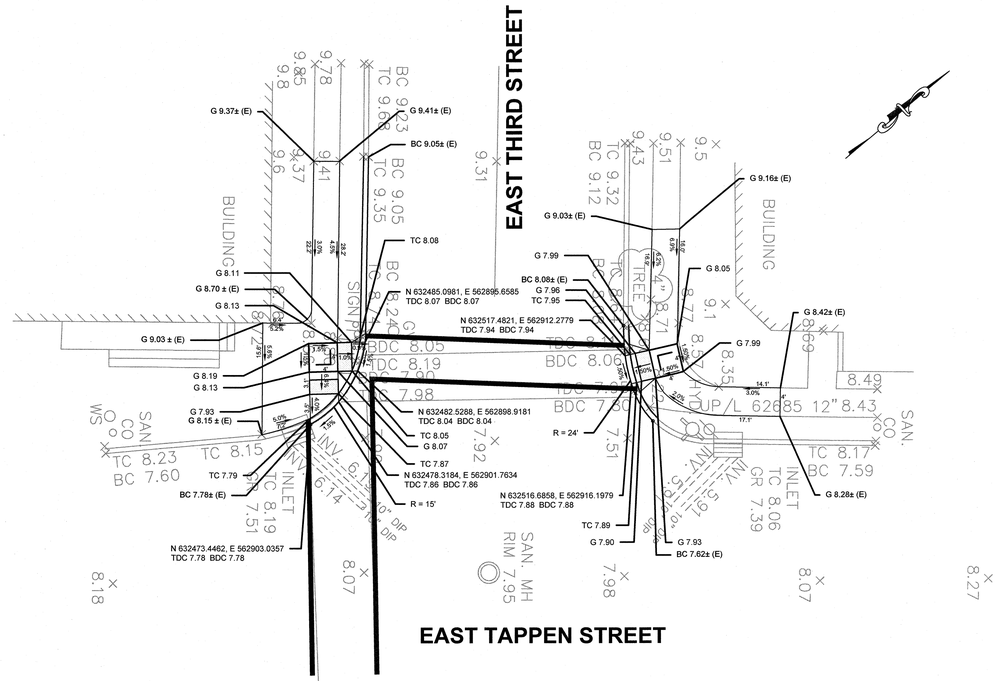
RECOMMENDED: CG

DRAWING NO.: 87-U

FILE NO.: PWB0A607.01



COBB WAY & RAHWAY AVENUE



EAST TAPPEN STREET & EAST THIRD STREET

PROPOSED LEGEND:

- DENOTES PROPOSED CURB
- DENOTES 4'X4' LANDING AREA @ 2.0% MAX SLOPE
- DENOTES DETECTABLE WARNING SURFACE
- DENOTES PROPOSED CURB RAMP
- 1.5% — DENOTES PROPOSED SLOPE ALONG SIDEWALK
- G 40.62 — DENOTES PROPOSED GRADE ALONG SIDEWALK

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

CURB RAMP DETAILS - WARD 3

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25838 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32952 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
3.25.19

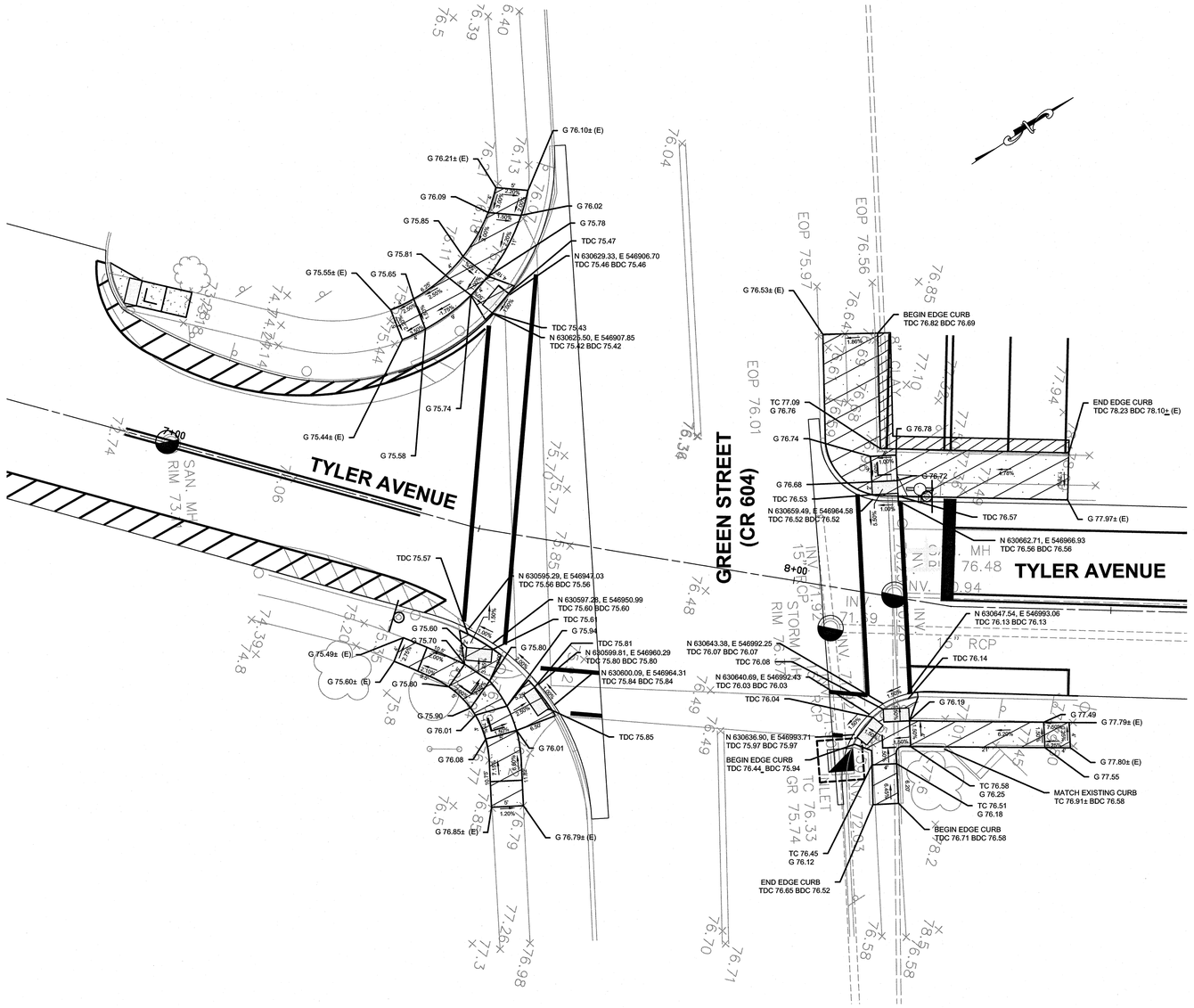
SCALE	DATE
As Shown	March 2019
DRAWN BY	DESIGNED BY
ZYC	ZYC
CHECKED BY	SHEET
	88 of 106

REGISTERED CG

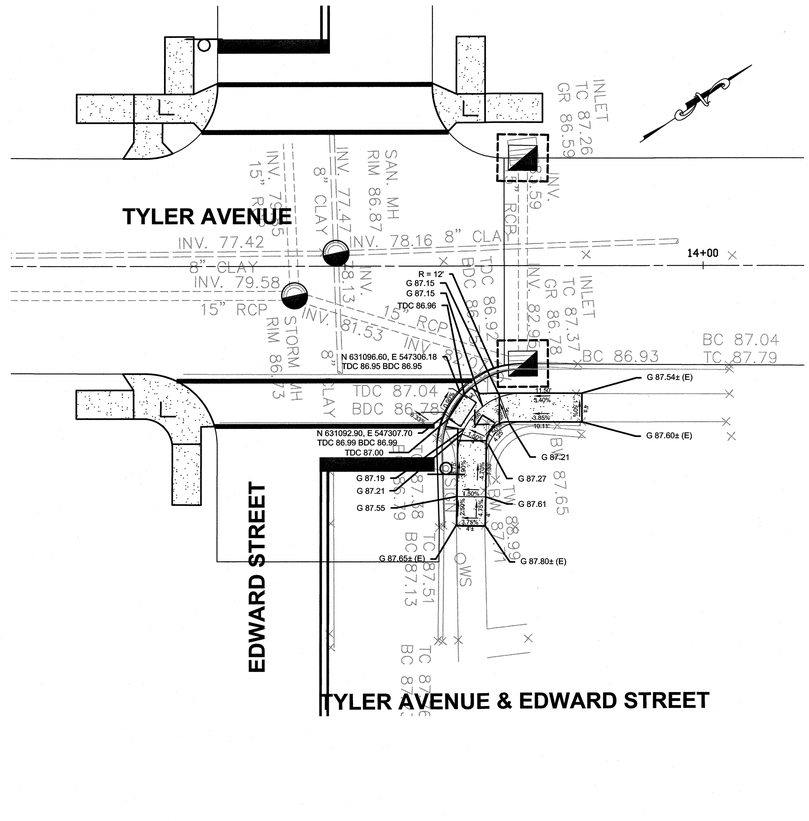
DRAWING NO. 88-u

FILE NO. PWB0A607.01

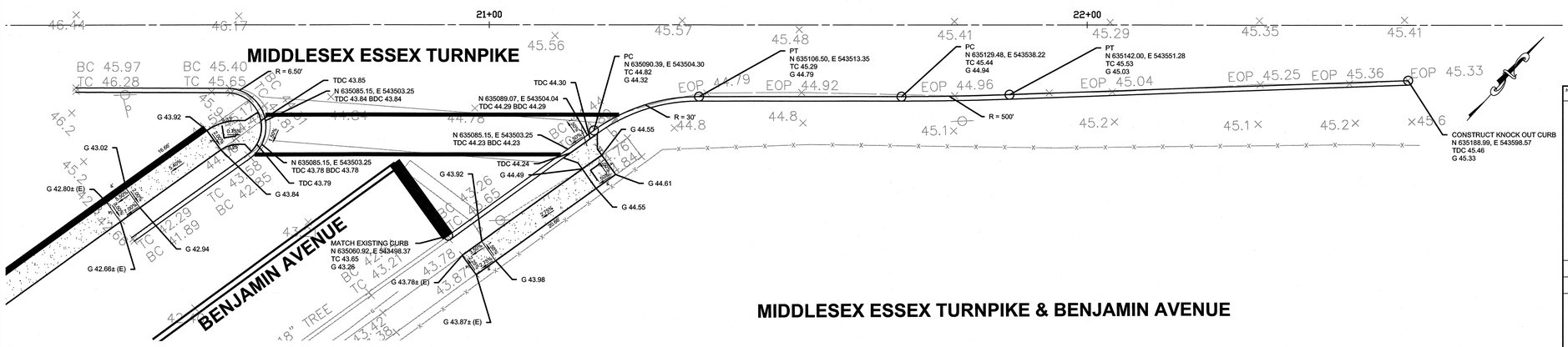
TOWNSHIP OF WOODBRIDGE — **COUNTY OF MIDDLESEX**



TYLER AVENUE & GREEN STREET (CR 604)



TYLER AVENUE & EDWARD STREET



MIDDLESEX ESSEX TURNPIKE & BENJAMIN AVENUE

PROPOSED LEGEND:

- DENOTES PROPOSED CURB
- DENOTES 4'X4' LANDING AREA @ 2.0% MAX SLOPE
- DENOTES DETECTABLE WARNING SURFACE
- DENOTES PROPOSED CURB RAMP
- 1.5% — DENOTES PROPOSED SLOPE ALONG SIDEWALK
- G 40.62 — DENOTES PROPOSED GRADE ALONG SIDEWALK

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

CURB RAMP DETAILS - WARD 4 (1 OF 2)

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1961 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 23838 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E., L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
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GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

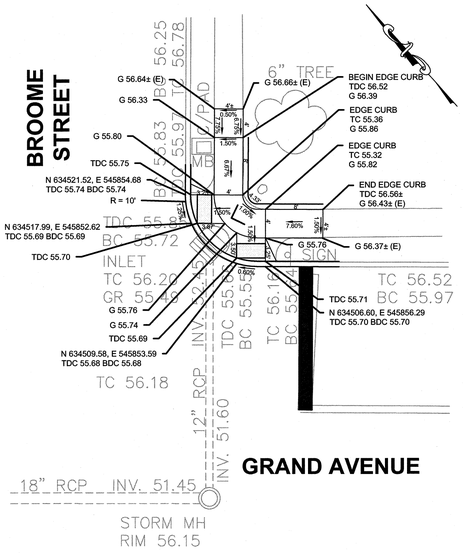
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	GP
SHEET	89 of 106

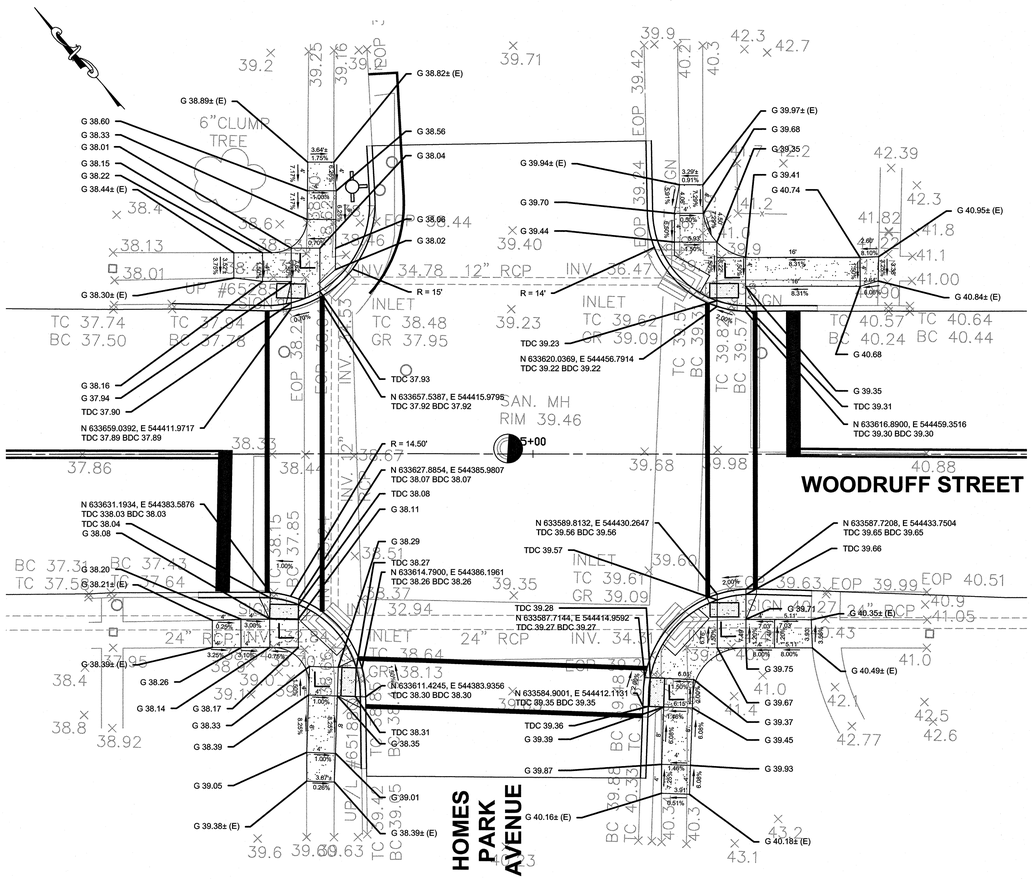
3/25/19

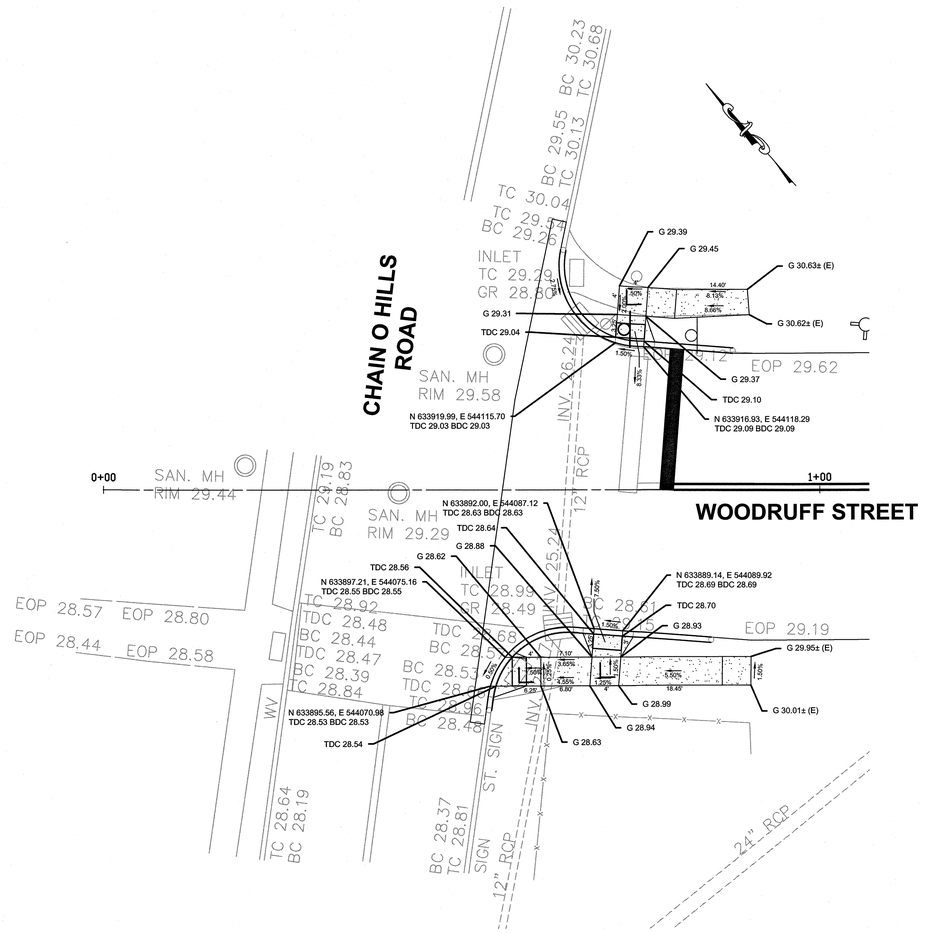
REGISTERED CG
DRAWING NO. 89-0
FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE | **COUNTY OF MIDDLESEX**



GRAND AVENUE & BROOME STREET





WOODRUFF STREET & CHAIN O HILLS ROAD

PROPOSED LEGEND:

- — DENOTES PROPOSED CURB
- — DENOTES 4'X4' LANDING AREA @ 2.0% MAX SLOPE
- — DENOTES DETECTABLE WARNING SURFACE
- — DENOTES PROPOSED CURB RAMP
- 1.5% — DENOTES PROPOSED SLOPE ALONG SIDEWALK
- G 40.62 — DENOTES PROPOSED GRADE ALONG SIDEWALK

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

CURB RAMP DETAILS -
WARD 4 (2 OF 2)

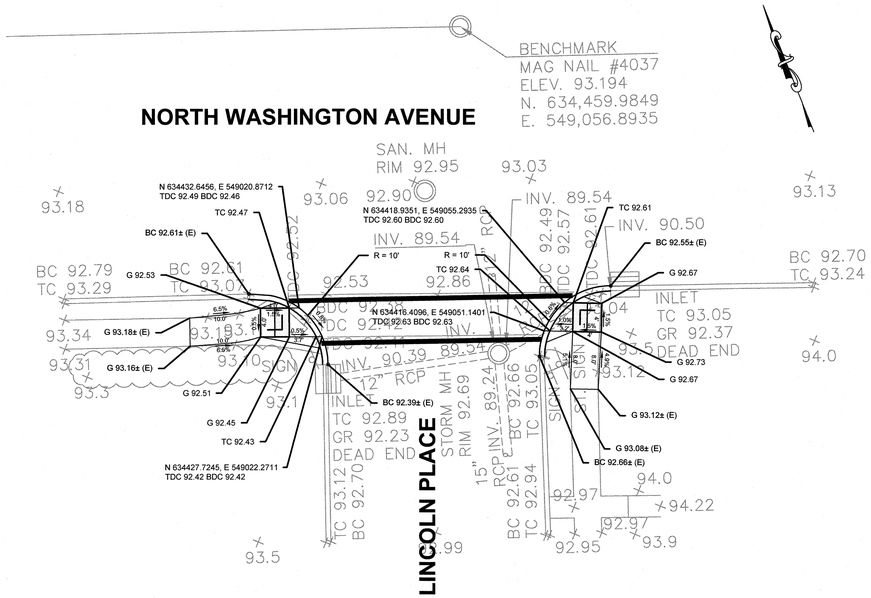
CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1993 - 2011)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 20838 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

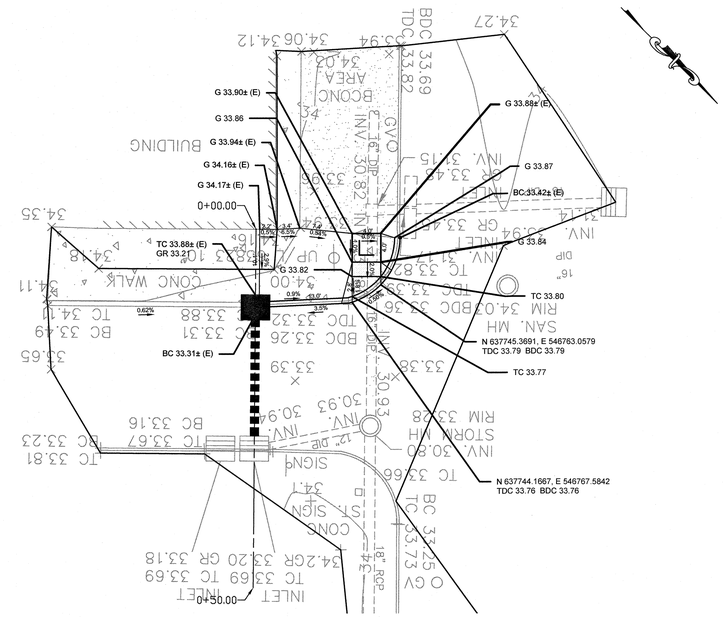
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

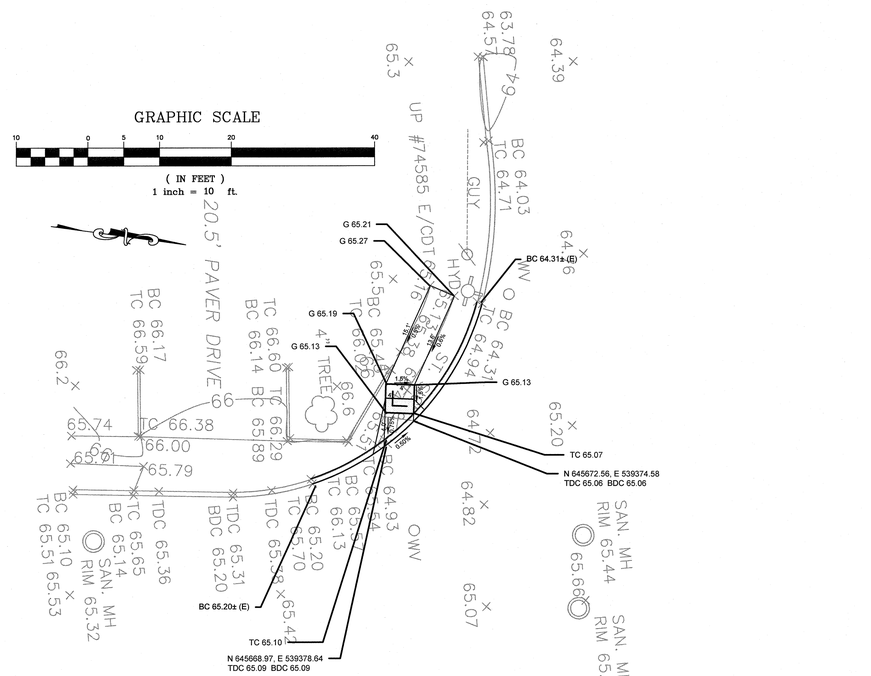
SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	MJM
SHEET	90 of 106

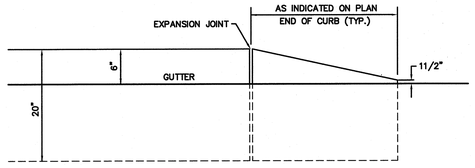
REGISTERED CG
DRAWING NO. 90-u
FILE NO. PWBOA607.01



LINCOLN PLACE AND NORTH WASHINGTON AVENUE

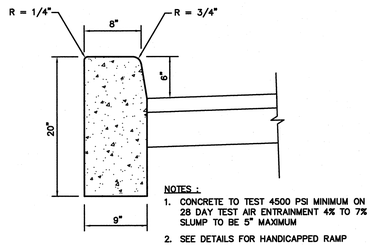






9"x 20" KNOCKOUT CURB

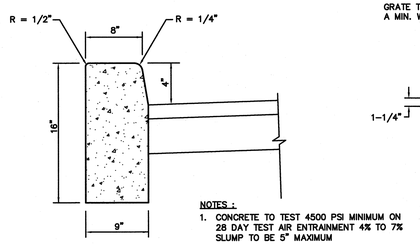
N.T.S.



NOTES :
1. CONCRETE TO TEST 4500 PSI MINIMUM ON 28 DAY TEST AIR ENTRAINMENT 4% TO 7% SLUMP TO BE 5" MAXIMUM
2. SEE DETAILS FOR HANDICAPPED RAMP

TYPICAL 9"x 20" CURB DETAIL

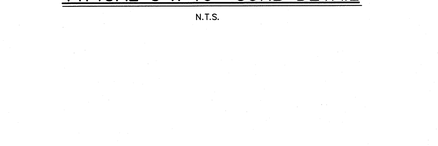
N.T.S.



NOTES :
1. CONCRETE TO TEST 4500 PSI MINIMUM ON 28 DAY TEST AIR ENTRAINMENT 4% TO 7% SLUMP TO BE 5" MAXIMUM
2. SEE DETAILS FOR HANDICAPPED RAMP

TYPICAL 9"x 16" CURB DETAIL

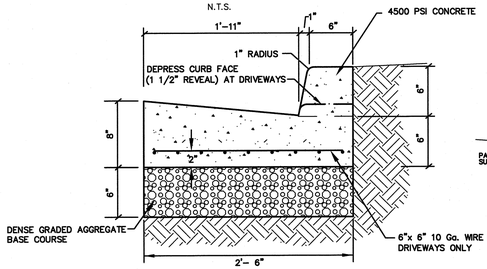
N.T.S.



NOTE :
THE CROWN OF ALL PAVEMENT SHALL MATCH EXISTING

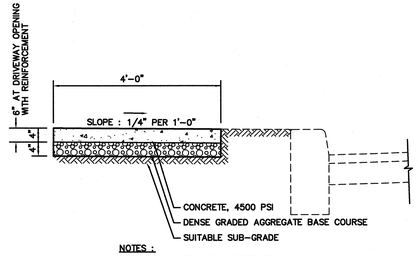
TYPICAL PAVEMENT DETAIL

N.T.S.



CONCRETE CURB & GUTTER

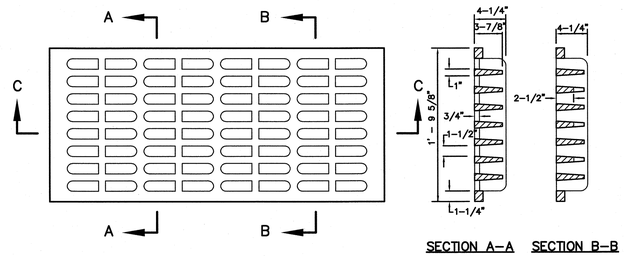
N.T.S.



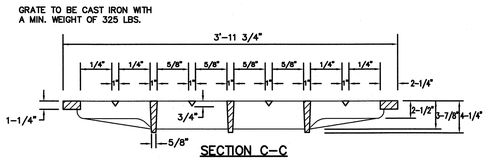
NOTES :
SEE DETAILS FOR HANDICAPPED RAMP

TYPICAL SIDEWALK DETAIL

N.T.S.



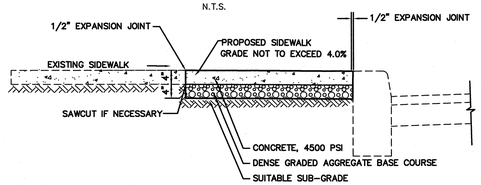
SECTION A–A SECTION B–B



SECTION C–C

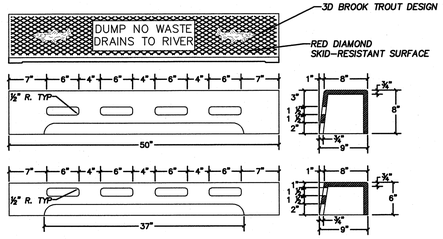
BICYCLE SAFE GRATE

N.T.S.



TYPICAL SERVICE WALK REPLACEMENT DETAIL

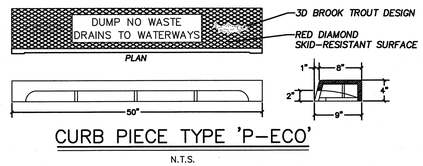
N.T.S.



NOTE:
CAMPBELL CASTING PATTERN NO. 2618, TYPE N-ECO, BICYCLE SAFE GRATE OR APPROVED EQUAL.

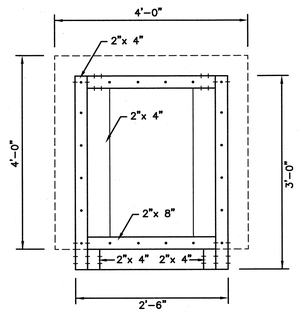
CURB PIECE TYPE 'N-ECO'

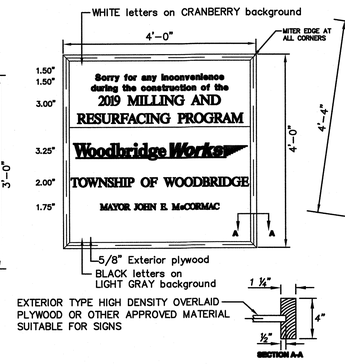
N.T.S.

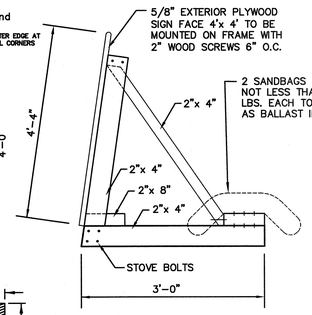


CURB PIECE TYPE 'P-ECO'

N.T.S.

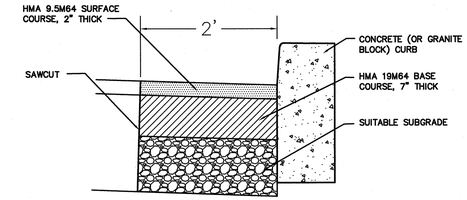






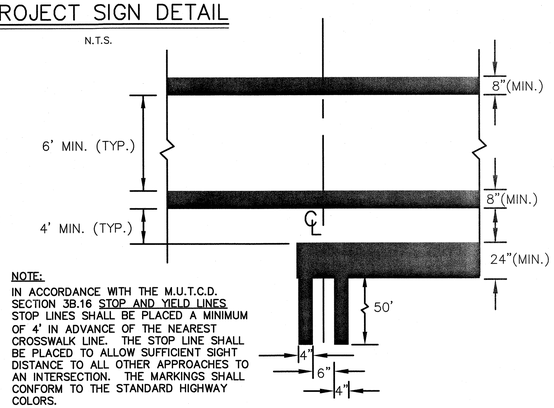
PROJECT SIGN DETAIL

N.T.S.



TEMPORARY TRENCH REPAIR DETAIL FOR CURB REPLACEMENT

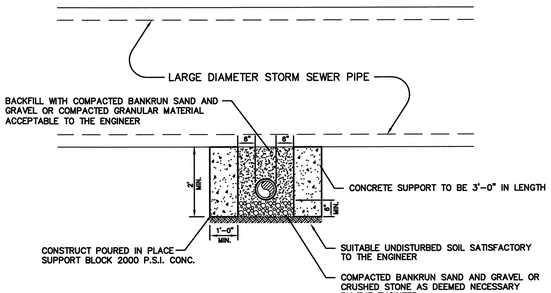
N.T.S.



NOTE:
IN ACCORDANCE WITH THE M.U.T.C.D. SECTION 3B.16 STOP AND YIELD LINES STOP LINES SHALL BE PLACED A MINIMUM OF 4' IN ADVANCE OF THE NEAREST CROSSWALK LINE. THE STOP LINE SHALL BE PLACED TO ALLOW SUFFICIENT SIGHT DISTANCE TO ALL OTHER APPROACHES TO AN INTERSECTION. THE MARKINGS SHALL CONFORM TO THE STANDARD HIGHWAY COLORS.

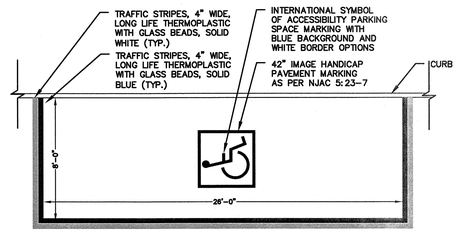
CROSSWALK STRIPING & STOP BAR DETAIL

N.T.S.



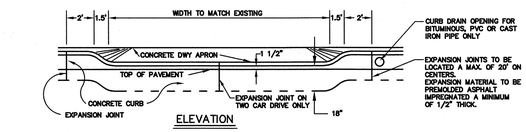
CONCRETE SUPPORT BLOCK DETAIL

N.T.S.

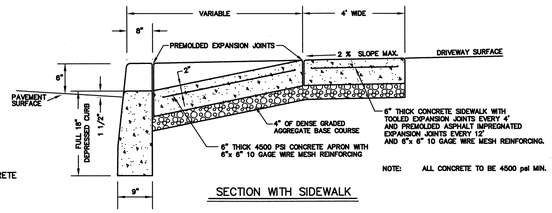


HANDICAPPED PARKING STALL DETAILS

N.T.S.

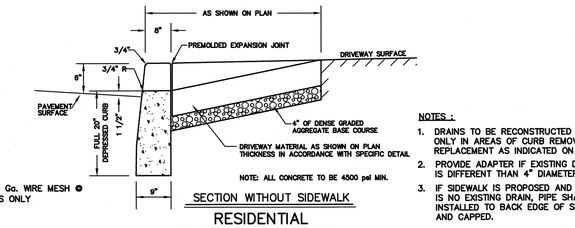


ELEVATION



NOTE: ALL CONCRETE TO BE 4500 psi MIN.

SECTION WITH SIDEWALK



NOTE: ALL CONCRETE TO BE 4500 psi MIN.

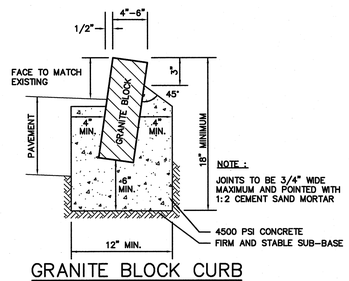
SECTION WITHOUT SIDEWALK

NOTES :
1. DRAINS TO BE RECONSTRUCTED ONLY IN AREAS OF CURB REMOVAL AND REPLACEMENT AS INDICATED ON PLANS
2. PROVIDE ADAPTER IF EXISTING DRAIN IS DIFFERENT THAN 4" DIAMETER.
3. IF SIDEWALK IS PROPOSED AND THERE IS NO EXISTING DRAIN, PIPE SHALL BE INSTALLED TO BACK EDGE OF SIDEWALK AND CAPPED.

RESIDENTIAL DRIVEWAY ENTRANCE

DEPRESSED CURB, DRIVEWAY APRON & SIDEWALK

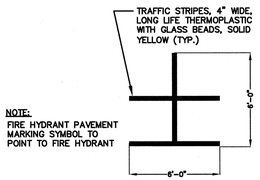
N.T.S.



NOTE :
JOINTS TO BE 3/4" WIDE MAXIMUM AND POINTED WITH 1:2 CEMENT SAND MORTAR

GRANITE BLOCK CURB

N.T.S.



FIRE HYDRANT PAVEMENT MARKING DETAIL

N.T.S.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

CONSTRUCTION DETAILS

(1 OF 5)

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1993 - 2013)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 24371 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24371 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
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GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

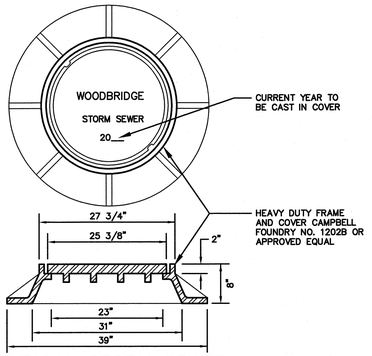
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE	As Shown
DATE	March 2019
DRAWN BY	PB
DESIGNED BY	PB
CHECKED BY	CG
SHEET	92 of 106

RECOMMENDED CG

DRAWING NO. 92-U

FILE NO. PWBOA607.01



TYPICAL STORM SEWER MANHOLE FRAME & COVER

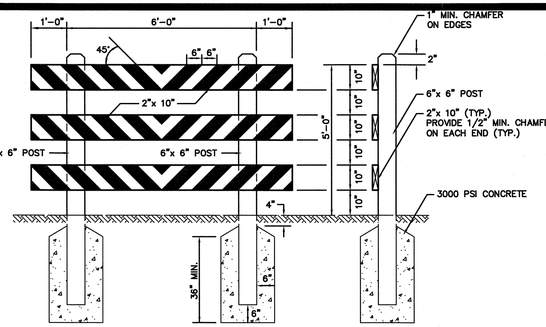
N.T.S.

IF WATERTIGHT MANHOLE FRAMES & COVERS ARE REQUIRED THEY SHALL BE AS MFG. BY CAMPBELL FOUNDRY CO. PATTERN NO. 1503 OR APPROVED EQUAL.

NOTE :

THE MANHOLE COVER AND FRAME SHALL BE OF THE HEAVY HIGHWAY TYPE, WITH THE CIRCULAR FLARED TYPE FRAME AND ROUND FLANGE.

CAMPBELL FOUNDRY CO. PATTERN NO. 1202B OR ITS EQUIVALENT.

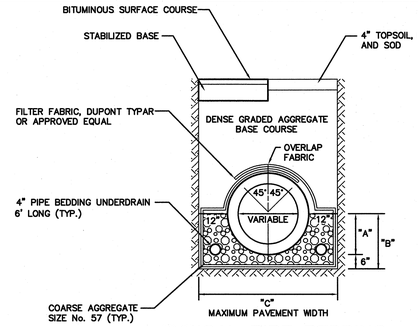


NOTES :

1. ALL MEMBERS TO BE SOUTHERN YELLOW PINE PRESSURE TREATED WITH "ACQ" OR "COPPER AZOLE" OR APPROVED EQUAL ARSENIC FREE MATERIALS AND PROCEDURES APPROVED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). ALL RAILS TO BE MOUNTED AS DIRECTED BY THE ENGINEER. CONNECTIONS TO BE MADE WITH 3/4" LAG BOLTS IN COUNTERSUNK HOLES.
2. FACE OF RAILS SHALL BE COVERED WITH REFLECTORIZED SHEETING, TYPE II, MEETING REQUIREMENTS OF THE NJDOT AND MUTCD. OTHER PARTS SHALL BE PAINTED WHITE, 3 COATS. MARKINGS FOR RAILS SHALL BE ALTERNATE WHITE AND RED STRIPES SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION WHICH TRAFFIC MUST TURN.
3. THE RED AND WHITE STRIPES SHALL BE REFLECTORIZED SO AS TO BE VISIBLE UNDER NORMAL ATMOSPHERIC CONDITIONS FROM A MINIMUM DISTANCE OF 1000 FT. WHEN ILLUMINATED BY THE LOW BEAMS OF STANDARD AUTOMOBILE HEADLIGHTS.

PERMANENT BARRICADE TYPE III MODIFIED FOR DEAD END ROADS

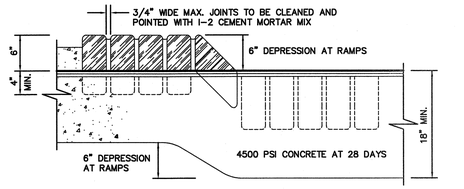
N.T.S.



PIPE DIAMETER	DIMENSIONS "A"	"B"	"C"
14"x23"	9-3/4"	15-3/4"	52-1/2"
15"	9-3/4"	15-3/4"	43-1/2"
16"x27"	11"	17"	57"
18"	11-1/2"	17-1/2"	47"
21"	13-1/4"	19-1/4"	50-1/2"
24"	15"	21"	54"
30"	18-1/2"	24-1/2"	61"
36"	22"	28"	68"
42"	25-1/2"	31-1/2"	75"
48"	29"	35"	82"
29"x45"	29"	35"	82"
34"x53"			

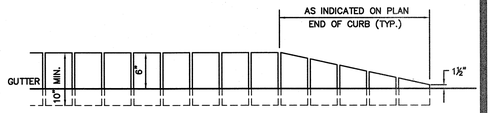
TYPICAL PIPE BEDDING STORM SEWER

N.T.S.



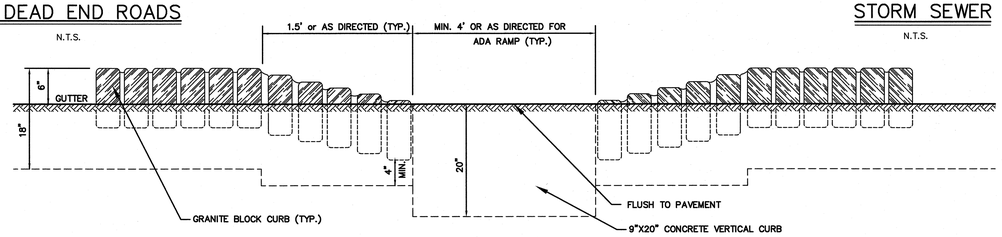
GRANITE BLOCK CURB

N.T.S.



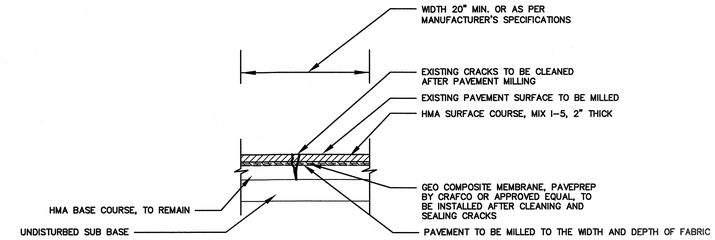
GRANITE BLOCK KNOCKOUT CURB

N.T.S.



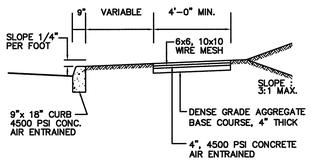
GRANITE BLOCK AND CONCRETE CURB AT RAMP

N.T.S.



ROADWAY CRACK REPAIR

N.T.S.

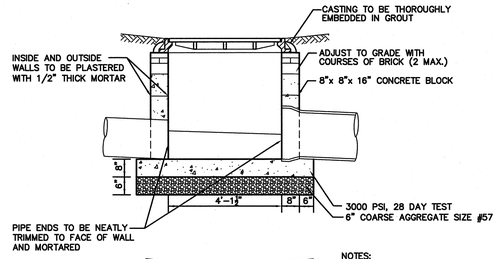


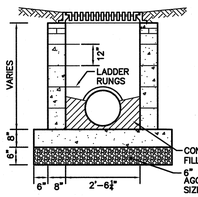
NOTE:

1. HANDICAP RAMPS SHALL BE REINFORCED WITH WIRE MESH. REFER TO DETAILS FOR HANDICAP RAMP CONSTRUCTION.
2. TRANSVERSE EXPANSION JOINTS 1/2" WIDE SHALL BE PROVIDED AT INTERVALS OF NOT MORE THAN 20' AND FILLED WITH PREFORMED BITUMINOUS CELLULAR TYPE JOINT FILLER. LONGITUDINAL JOINTS, 1/2" WIDE, SHALL BE PROVIDED BETWEEN CURBS AND ABUTTING SIDEWALKS, AND SHALL BE FILLED WITH PREFORMED BITUMINOUS TYPE JOINT FILLER. THE TOP OF ALL JOINT FILLER SHALL BE 1/2" BELOW THE TOP OF THE SIDEWALK AND FILLED WITH JOINT SEALER (SIKAFLEX 1A, OR APPROVED EQUAL). NO SEPARATE PAYMENT WILL BE MADE FOR JOINT CAP, REMOVABLE JOINT STRIP, JOINT SEALER AND WELDED STEEL WIRE FABRIC PROVIDED IN CONCRETE SIDEWALKS. NO SEPARATE PAYMENT WILL BE MADE FOR DENSE GRADED AGGREGATE BASE COURSE.

SIDEWALK DETAIL REINFORCED COUNTY CONCRETE

N.T.S.



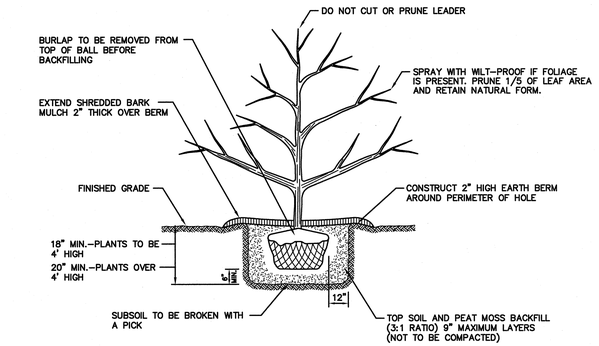


NOTES:

1. CAMPBELL CASTING PATTERN NO. 3433 FOR "STREAM FLOW GRATING" AND NO. 3408 FOR "BICYCLE SAFE GRATING" OR APPROVED EQUAL.
2. LADDER RUNGS SHALL BE POLYPROPYLENE AS PER DETAIL.
3. SPECIAL DESIGNS SHALL BE PROVIDED FOR INLETS WITH PIPE SIZES GREATER THAN 21" DIAMETER.
4. WHERE INLET ARE GREATER THAN 8' DEEP, DOUBLE BLOCK WALLS ARE REQUIRED.

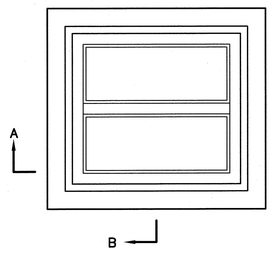
INLET TYPE "A"

N.T.S.



TYPICAL SHRUB PLANTING DETAIL

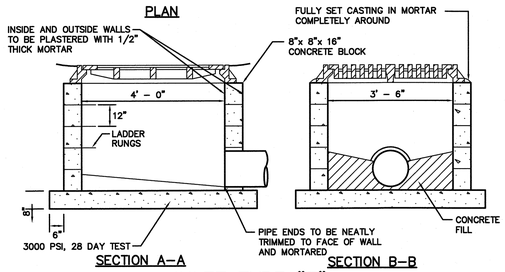
N.T.S.



NOTES:

1. CASTING SHALL BE CAMPBELL FOUNDRY CO. PATTERN NO. 3425 "BICYCLE SAFE GRATE" OR EQUAL.
2. LADDER RUNGS SHALL BE POLYPROPYLENE.
3. WHERE INLETS ARE GREATER THAN 8' DEEP, DOUBLE BLOCK WALLS ARE REQUIRED.

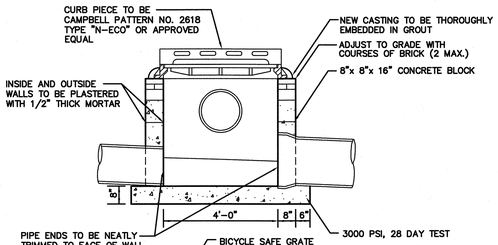
PLAN

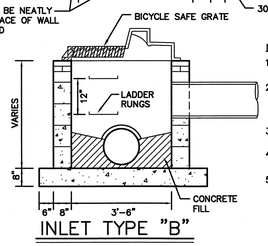


SECTION A-A SECTION B-B

INLET TYPE "E"

N.T.S.



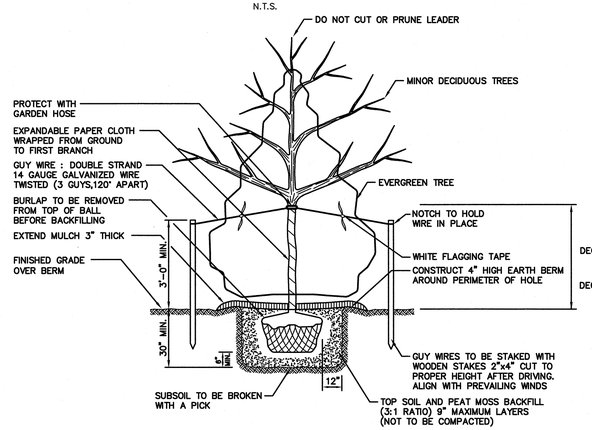


NOTES:

1. CURB FACE TO BE 8" UNLESS OTHERWISE INDICATED.
2. CAMPBELL CASTING PATTERN NO. 2618 , TYPE "N-ECO" "BICYCLE SAFE GRATE" OR APPROVED EQUAL.
3. CURB MARKING ON CASTING AS DIRECTED BY ENGINEER.
4. LADDER RUNGS SHALL BE POLYPROPYLENE AS PER DETAIL.
5. WHERE INLETS ARE GREATER THAN 8' DEEP, DOUBLE BLOCK WALLS ARE REQUIRED.

INLET TYPE "B"

N.T.S.



TYPICAL TREE PLANTING DETAIL

N.T.S.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

CONSTRUCTION DETAILS (2 OF 5)

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25838 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24371 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962 NJ PP LIC NO. 3874
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GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4301

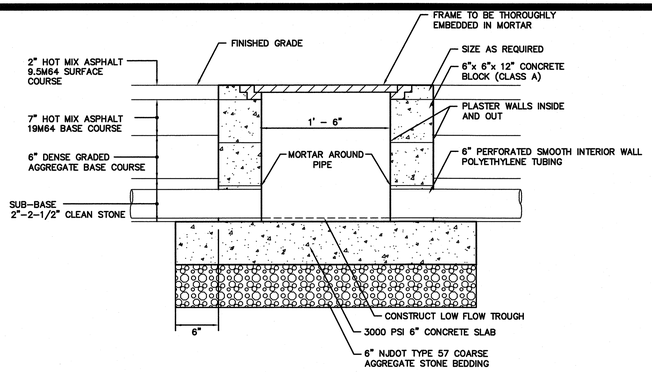
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
3.25.19

SCALE	DATE
As Shown	March 2019
DRAWN BY	DESIGNED BY
PB	PB
CHECKED BY	SHEET
GO	93 of 106

REGISTERED CG

DRAWING NO. 93-U

FILE NO. PWB0A607.01

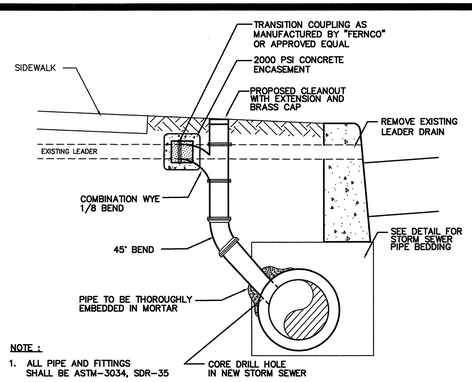


NOTE :

1. FRAME AND COVER TO BE CAMPBELL FOUNDRY CO. PATTERN NUMBER 2801 OR EQUAL.
2. A PRECAST UNIT MAY BE INSTALLED AT THE OPTION OF THE CONTRACTOR, WALLS SHALL BE 6" THICK, PRICE PER UNIT SHALL REMAIN THE SAME.

UNDERDRAIN HANDHOLE DETAIL

N.T.S.

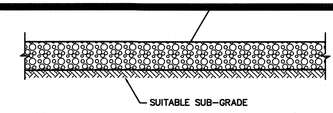


NOTE :

1. ALL PIPE AND FITTINGS SHALL BE ASTM-3034, SDR-35

CONNECTION OF LEADER OR SUMP DRAINS TO R.C.P. STORM SEWER PIPE

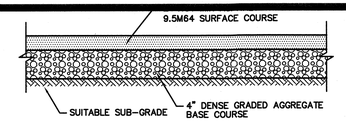
N.T.S.



= AGGREGATE DRIVEWAY =

DRIVEWAY REPLACEMENT DETAIL

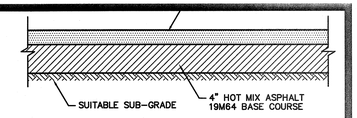
N.T.S.



= HMA DRIVEWAY =
(SINGLE & 2-FAMILY DRIVEWAYS)

DRIVEWAY REPLACEMENT DETAIL

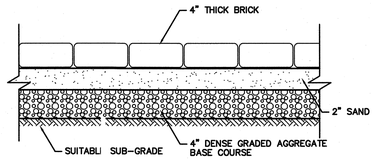
N.T.S.



= HMA DRIVEWAY =
(COMMERCIAL DRIVEWAY & PARKING LOT)

DRIVEWAY REPLACEMENT DETAIL

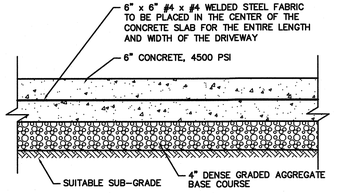
N.T.S.



= BRICK PAVER DRIVEWAY=

DRIVEWAY REPLACEMENT DETAIL

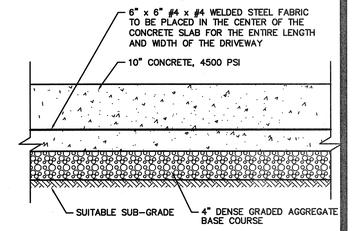
N.T.S.



= CONCRETE DRIVEWAY =

DRIVEWAY REPLACEMENT DETAIL

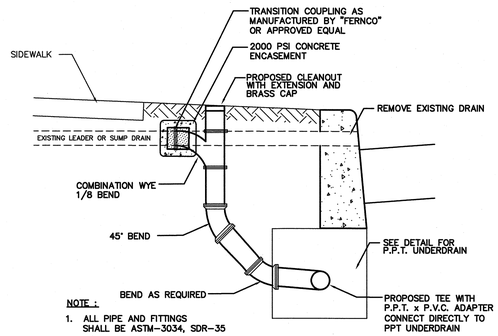
N.T.S.



= CONCRETE DRIVEWAY =
(COMMERCIAL DRIVEWAY & PARKING LOT)

DRIVEWAY REPLACEMENT DETAIL

N.T.S.

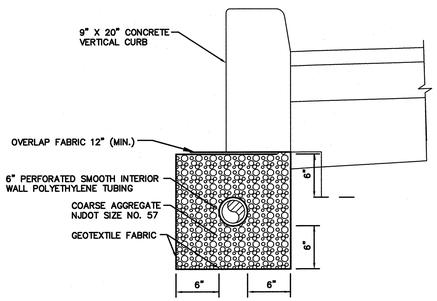


NOTE :

1. ALL PIPE AND FITTINGS SHALL BE ASTM-3034, SDR-35

CONNECTION OF SUMP OR LEADER DRAINS TO PROPOSED P.P.T. UNDERDRAIN

N.T.S.



PERFORATED POLYETHYLENE TUBING UNDERDRAIN

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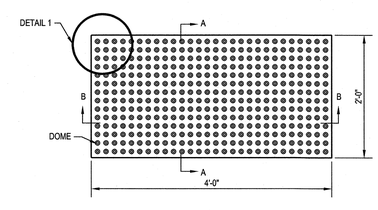
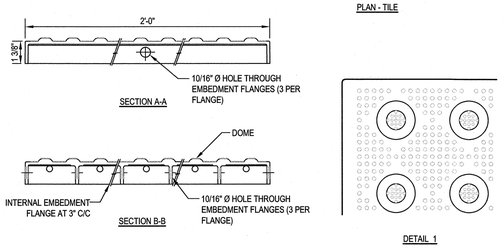
PHONE: (716) 626-3626
FAX: (800) 769-4463
www.armor-tile.com

- [x] SELECT DESIRED COLOR
- [ ] LIGHT GREY
- [ ] DARK GREY
- [ ] ONYX BLACK
- [ ] PEARL WHITE
- [ ] FEDERAL YELLOW
- [ ] BRICK RED
- [ ] CUSTOM (CONTACT MANUFACTURER)



PLAN - TILE



NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. FOR CUSTOM SIZING CONTACT MANUFACTURER.
4. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info REFERENCE NUMBER 681-001D.

CAST IN PLACE SYSTEMS
24" x 48" (ADA-C-2448)

681-001D REVISION DATE 05/25/2012

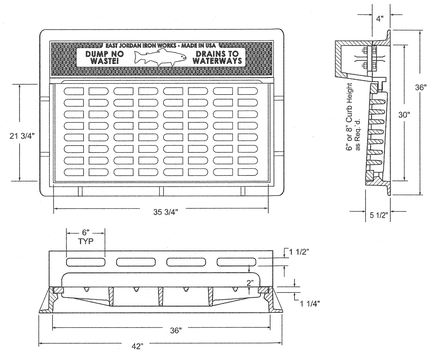
PROTECTED BY COPYRIGHT - 11/06/06 www.CADdetails.com

DETECTABLE WARNING SURFACE

N.T.S.

2633

Heavy Duty Curb Inlet with Bicycle Grate



NOTES:

1. MATERIAL: Gray Cast Iron ASTM A48-83, Class 35B;
2. AASHTO HS25 Highway Loading;
3. Supplied without surface coating;
4. Made in USA.

CAMPBELL FOUNDRY COMPANY
Harrison, N.J. 07029
Phone: 973-483-5480 FAX: 973-483-1843

SCALE:		DRAWN BY: AJA
DATE: 06/04/03		REV:

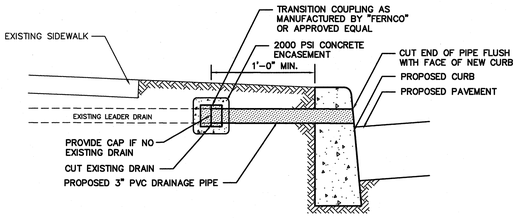
Heavy Duty Curb Inlet with Bicycle Grate

Pattern Number: 2633

3' BICYCLE SAFE GRATE AND CURB PIECE

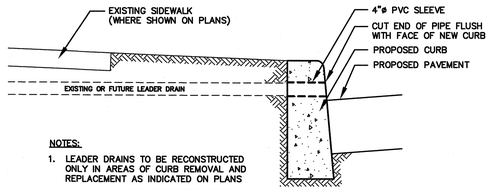
N.T.S.

CAMPBELL PATTERN NUMBER 2633 OR APPROVED EQAL



LEADER OR SUMP DRAIN RECONSTRUCTION DETAIL

N.T.S.



NOTES:

1. LEADER DRAINS TO BE RECONSTRUCTED ONLY IN AREAS OF CURB REMOVAL AND REPLACEMENT AS INDICATED ON PLANS
2. PROVIDE ADAPTER IF EXISTING DRAIN IS LESS THAN 4" DIAMETER.

LEADER DRAIN SLEEVE DETAIL FOR AREAS WITH NO EXISTING OR PROPOSED STORM SEWER SYSTEM

N.T.S.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

CONSTRUCTION DETAILS
(3 OF 5)

CME ASSOCIATES
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(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1993 - 2001)	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25839 NJ PP LIC NO. 3455	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
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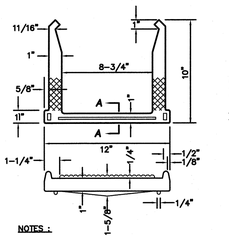
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

3.25.19

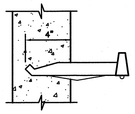
SCALE	DATE
As Shown	March 2019
DRAWN BY	DESIGNED BY
PB	PB
CHECKED BY	SHEET
CG	94 of 106

REGISTERED CG
DRAWING NO. 94-U
FILE NO. PWB0A607.01



NOTES :

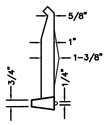
1. LADDER RUNG TO BE AS MANUFACTURED BY M.A. INDUSTRIES OR APPROVED EQUAL.
2. IN PRECAST MANHOLES, STEPS SHALL BE DRIVEN INTO WET CONCRETE WALL DURING MANUFACTURE.

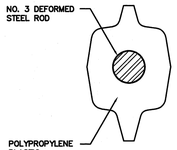


INSTALLATION

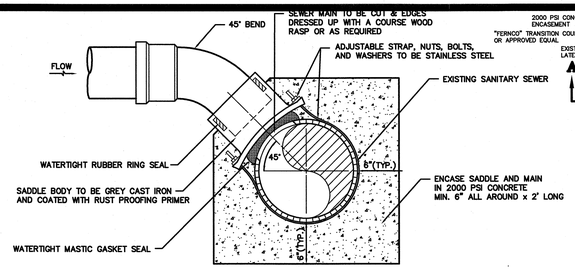
POLYPROPYLENE LADDER RUNG DETAIL

N.T.S.





SECTION A – A

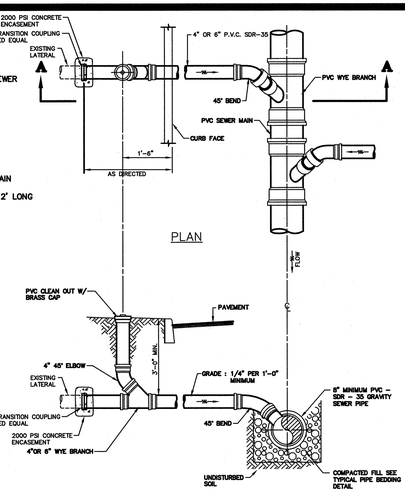


NOTES :

1. STRAP–ON SADDLE TO BE AS MANUFACTURED BY "PIONEER" OR APPROVED EQUAL.
2. STRAP–ON SADDLE TO BE USED ON EXISTING MAINS ONLY WHERE A WYE BRANCH LATERAL CONNECTION IS NOT AVAILABLE.

STRAP–ON SADDLE DETAIL

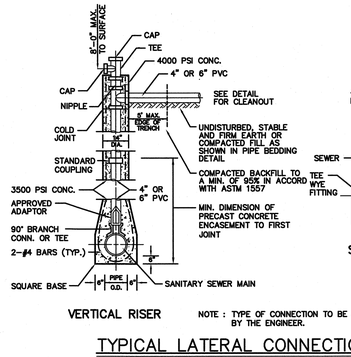
N.T.S.



SECTION A–A

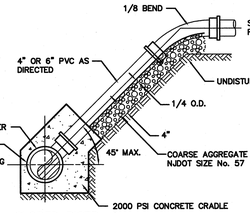
PVC SANITARY SEWER LATERAL AND CLEANOUT

N.T.S.



VERTICAL RISER

NOTE : TYPE OF CONNECTION TO BE AS DIRECTED BY THE ENGINEER.

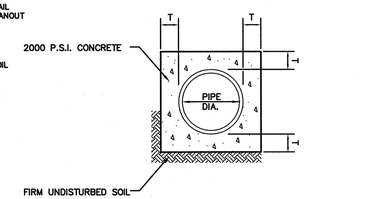


SLOPED RISER

TYPICAL LATERAL CONNECTION WITH RISER

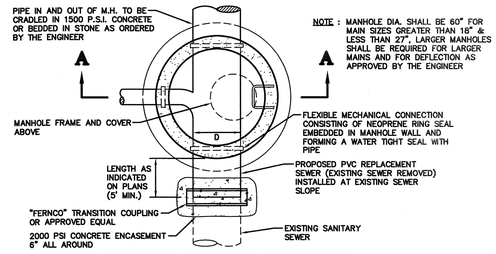
N.T.S.

DIMENSIONS												
DIA.	6"	8"	10"	12"	15"	18"	21"	24"	27"	30"	36"	42"	42"	42"
T	5"	5.5"	5.5"	6"	6"	6"	6"	6"	6"	7"	8"	9"	10"	12"



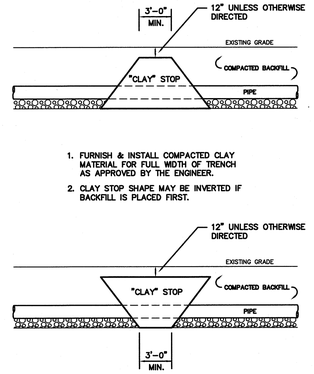
CONCRETE ENCASEMENT & CRADLE

N.T.S.



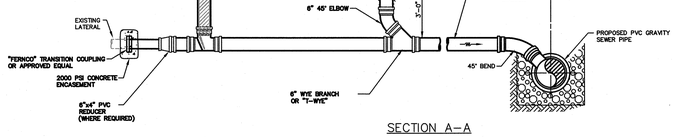
NOTE : MANHOLE DIA. SHALL BE 60" FOR MAIN SIZES GREATER THAN 18" & LESS THAN 27", LARGER MANHOLES SHALL BE REQUIRED FOR LARGER MAINS AND FOR DEFLECTION AS APPROVED BY THE ENGINEER

SECTIONAL PLAN AND CONNECTION TO EXISTING SANITARY SEWER



"IMPERVIOUS" TRENCH STOP

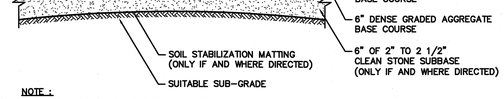
N.T.S.



SECTION A–A

PVC SANITARY SEWER LATERAL AND CLEANOUT WITH CHECK VALVE

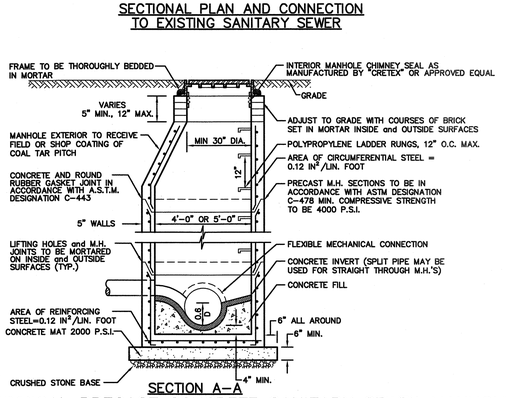
N.T.S.



NOTE :
THE CROWN OF ALL PAVEMENT SHALL BE AS INDICATED ON THE CROSS SECTIONS

TYPICAL PAVEMENT DETAIL (EAST GREEN STREET)

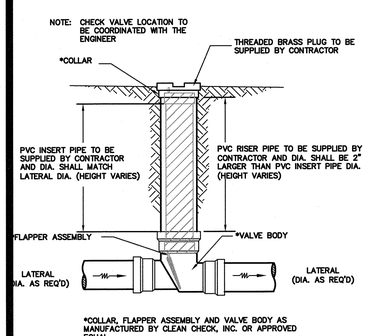
N.T.S.



SECTION A–A

TYPICAL PRECAST CONCRETE SANITARY SEWER MANHOLE

N.T.S.

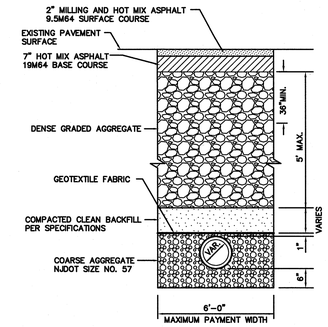


CONSTRUCTION NOTES

1. LATERAL "INTO" AND "OUT OF" THE BACKWATER CHECK VALVE SHALL MEET ALL SPECIFICATIONS AND DIMENSIONS REQUIRED BY THE TOWNSHIP.
2. CHECK VALVE TO BE INSTALLED AT A LOCATION UPSTREAM OF THE TOWNSHIP'S CURB CLEANOUT.

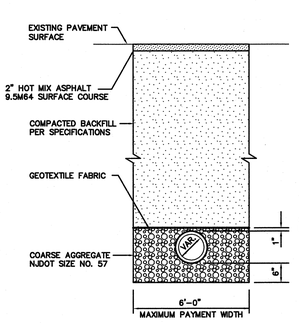
LATERAL CHECK VALVE

N.T.S.



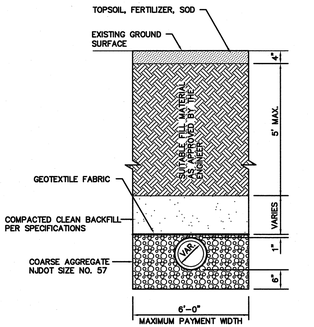
ROADWAY TRENCH REPAIR

N.T.S.



TEMPORARY TRENCH REPAIR

N.T.S.

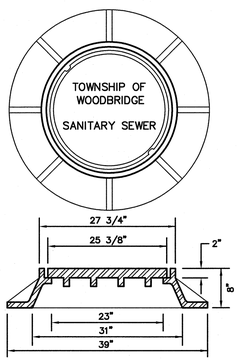


UNPAVED TRENCH REPAIR

N.T.S.

TYPICAL BEDDING AND TRENCH DETAILS FOR SANITARY SEWER MAINS AND LATERALS

N.T.S.



TYPICAL SANITARY SEWER MANHOLE FRAME & COVER

N.T.S.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

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(4 OF 5)

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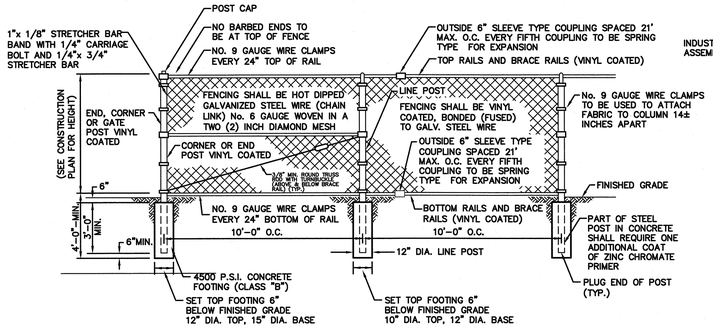
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
3.25.19

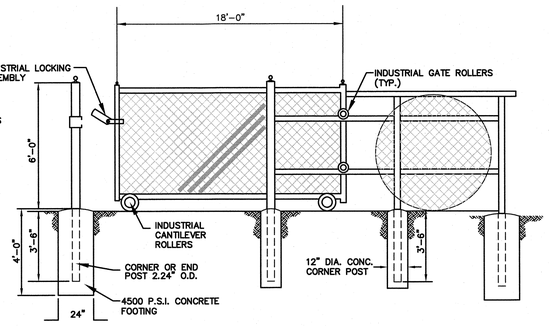
SCALE	DATE
As Shown	March 2019
DRAWN BY	DESIGNED BY
PB	PB
CHECKED BY	SHEET
G	95 of 106

REGISTERED CG

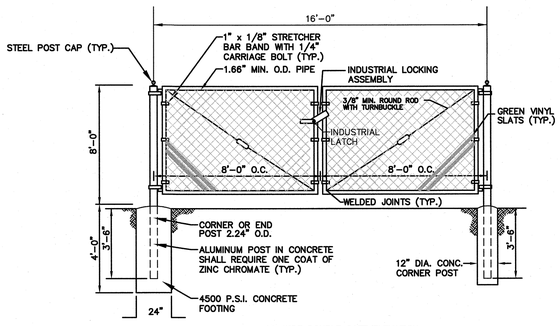
DRAWING NO. 95-U

FILE NO. PWB0A607.01





18' WIDE SLIDING GATE ELEVATION



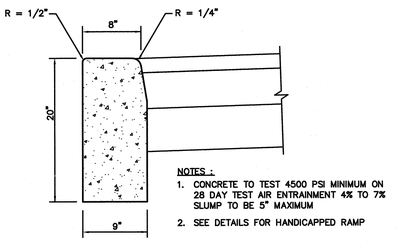
16' WIDE DOUBLE GATE ELEVATION

NOTES:

FINAL INSTALLATION TO PROVIDE A FULL 12' WIDE CLEARANCE FOR VEHICLE USE

CHAIN LINK FENCE & GATE DETAILS

N.T.S.

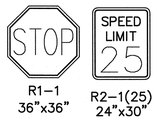


NOTES :

1. CONCRETE TO TEST 4500 PSI MINIMUM ON 28 DAY TEST AIR ENTRAINMENT 4% TO 7% SLUMP TO BE 5" MAXIMUM
2. SEE DETAILS FOR HANDICAPPED RAMP

FLUSH 9"x 20" CURB DETAIL

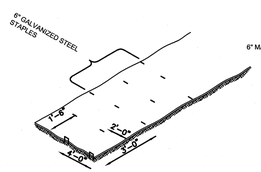
N.T.S.



SIGN LEGEND

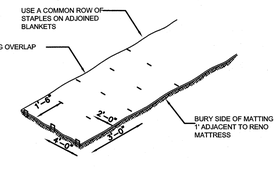
NOT TO SCALE

SLOPE STABILIZATION MATTING SHALL BE REQUIRED FOR ALL DISTURBED AREAS WHERE THE GRADIENT IS 3 TO 1 OR GREATER, OR WHERE SAME IS DEEMED NECESSARY BY THE ENGINEER DURING THE COURSE OF CONSTRUCTION. THE MATTING SHALL BE CURLEX II EROSION CONTROL BLANKETS OR APPROVED EQUAL. INSTALLATION AND SECURING OF STABILIZATION MATTING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.



USE 3 STAPLES ACROSS AT THE START OF EACH ROLL AND CONTINUE TO STAPLE THROUGHOUT THE LENGTH OF THE ROLL AT 3'-0" INTERVALS.

CHANNEL LINER



USE 4 STAPLES ACROSS AT THE START OF EACH ROLL AND CONTINUE TO STAPLE THROUGHOUT THE LENGTH OF THE ROLL AT 6'-0" INTERVALS.

SLOPE INSTALLATION

EXCELSIOR CURLEX II MATTING OR APPROVED EQUAL FOR SLOPE AND BERMS STABILIZATION STAPLE LOCATION

N.T.S.

MODULAR BLOCK RETAINING WALL DETAIL

N.T.S.

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MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

3.25.19

SCALE	DATE
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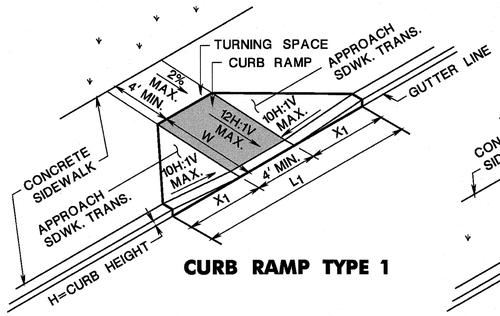
DRAWN BY	DESIGNED BY
ZYC/JD	ZYC
CHECKED BY	SHEET
	96 of 106

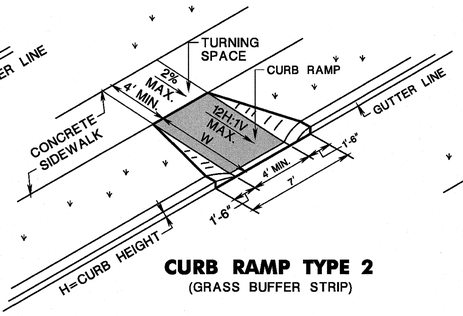
REGISTERED CG

DRAWING NO. 96-U

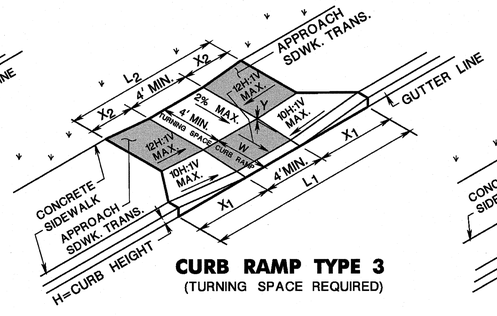
FILE NO. PWB0A607.01



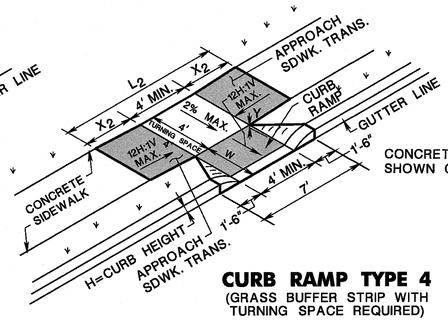
CURB RAMP TYPE 1



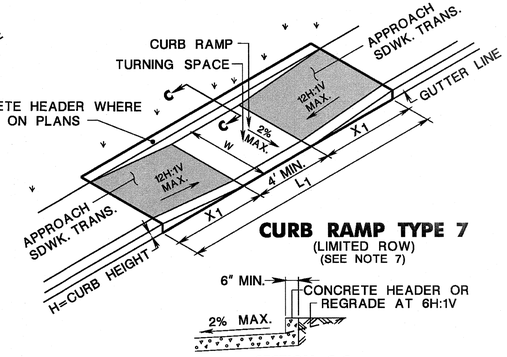
CURB RAMP TYPE 2
(GRASS BUFFER STRIP)



CURB RAMP TYPE 3
(TURNING SPACE REQUIRED)

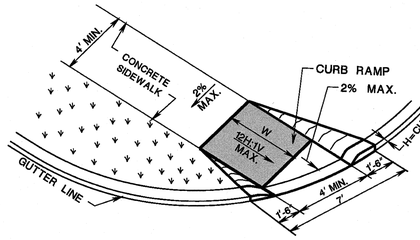


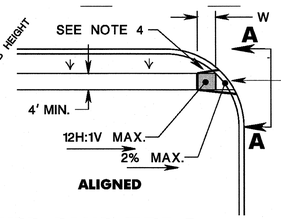
CURB RAMP TYPE 4
(GRASS BUFFER STRIP WITH TURNING SPACE REQUIRED)



CURB RAMP TYPE 7
(LIMITED ROW)
(SEE NOTE 7)

SECTION C–C





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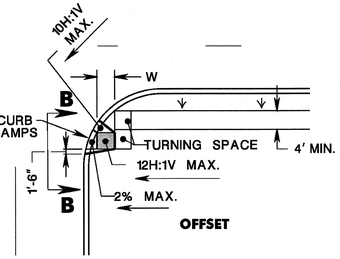
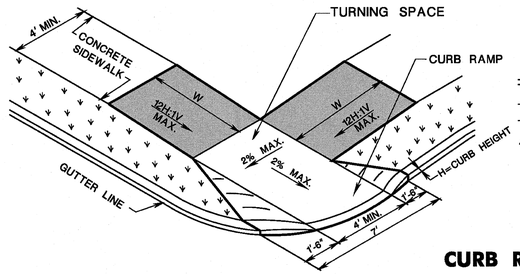
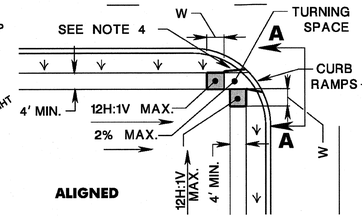


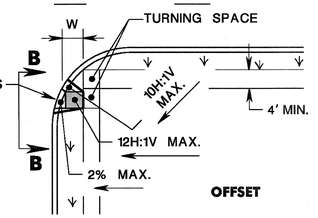
OFFSET

CURB RAMP TYPE 5



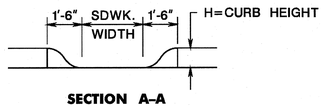


ALIGNED



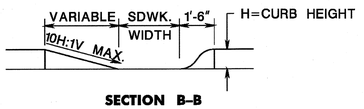
OFFSET

CURB RAMP TYPE 6

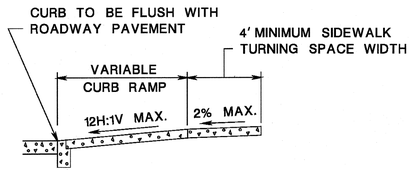


SECTION A–A

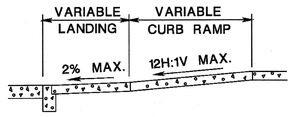
NOTE:
CURB RAMP OPENING TO BE FLUSH WITH ROADWAY PAVEMENT (CURB RAMP TYPES 5 & 6).



SECTION B–B

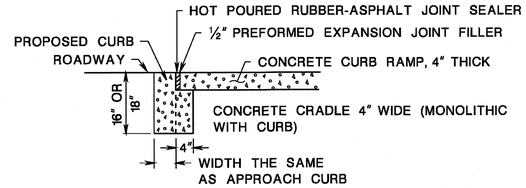


SECTION THROUGH CURB RAMPS 1 THROUGH 4



SECTION THROUGH CURB RAMPS 5 AND 6

NOTES:
1. KEEP TURNING SPACE, APPROACH SIDEWALK TRANSITIONS, AND CURB RAMP CLEAR OF OBSTRUCTIONS THAT PROTRUDE ABOVE THE SIDEWALK.
2. FOR DIMENSIONS SEE CD-606-1B AND CD-606-1C.
3. CURB (DROPPED CURB) GUTTERLINE TO BE FLUSH WITH ROADWAY PAVEMENT A MINIMUM OF 4 FEET AT ALL CURB RAMPS.
4. FOR CURB RAMP TYPES 5 AND 6, IF A GRASS BUFFER DOES NOT EXIST, SLOPE CURB TO EQUAL SLOPE OF ADJACENT CURB RAMP.
5. SIDEWALK AND CURB RAMP WITHIN AREA ENCLOSED BY HEAVY LINES INDICATES THE PAY LIMIT FOR CONCRETE SIDEWALK OF THE APPROPRIATE ADJACENT THICKNESS.
6. CURB AND HEADER WITHIN AREA ENCLOSED BY HEAVY LINES INDICATES THE PAY LIMIT FOR VERTICAL CURB OR SLOPING CURB OF THE APPROPRIATE ADJACENT SIZE AND KIND.
7. WHERE THE DISTANCE FROM THE GUTTER LINE TO THE OUTSIDE EDGE OF SIDEWALK IS 6 FEET OR LESS, USE CURB RAMP TYPE 7, INSTEAD OF CURB RAMP TYPE 1 THROUGH 4.
8. CROSSWALKS AND STOP LINES MAY BE MARKED OR UNMARKED. SEE PLANS.
9. DIMENSIONS SHOWN IN TABLES ARE FOR 3 INCH TO 9 INCH CURB HEIGHTS. WHERE THE CURB HEIGHTS ARE OTHER THAN WHAT IS PROVIDED IN THE TABLES, THE DIMENSIONS OF THE RAMPS WILL HAVE TO BE CALCULATED BASED ON CROSS SLOPES SHOWN.
10. THE 12H:1V MAX SLOPE IS THE RUNNING SLOPE FOR CURB RAMPS, BUT ONLY THE 12H:1V SLOPE MEASURED AS X_2 IS THE RUNNING SLOPE FOR TYPE 3 AND TYPE 4 CURB RAMPS. ENSURE THE RUNNING SLOPE OF CURB RAMPS DOES NOT REQUIRE ITS LENGTH TO EXCEED 15 FEET. THE RUNNING SLOPE MAY EXCEED THE 12H:1V MAX SLOPE SO AS NOT TO EXCEED THE 15 FEET MAXIMUM LENGTH.



CONCRETE SIDEWALK
(PUBLIC SIDEWALK CURB RAMP)
N.T.S.

CD-606-1

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

CURB RAMPS

CD-606-1.1

97
106

BDC21D-05-MODIFICATION TO CURB RAMP DETAIL
BDC07D-01-ORIGINAL SHEET

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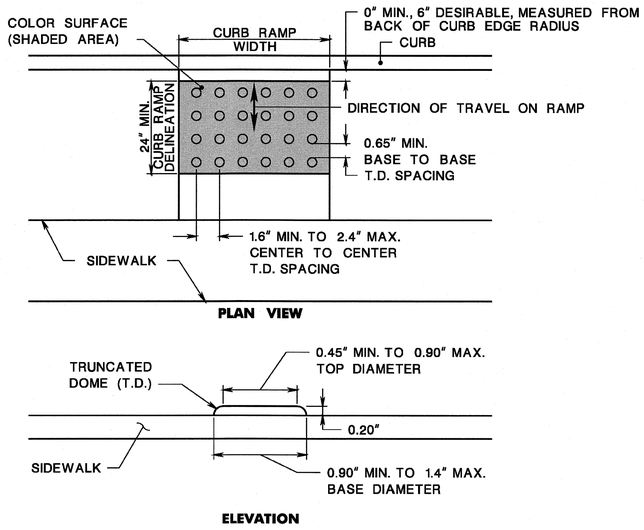
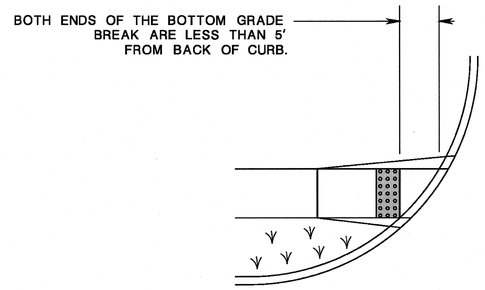
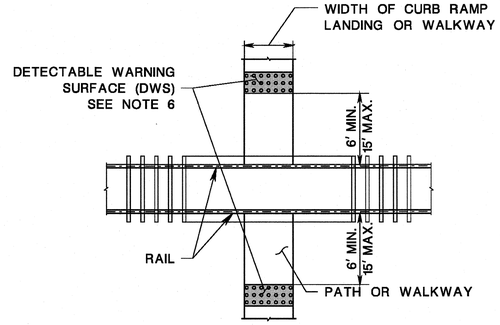
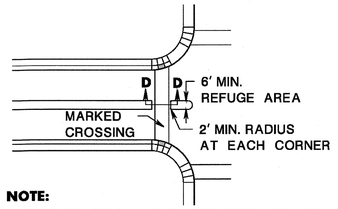


DETECTABLE WARNING SURFACE

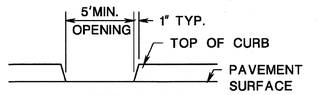




PEDESTRIAN RAILROAD CROSSING



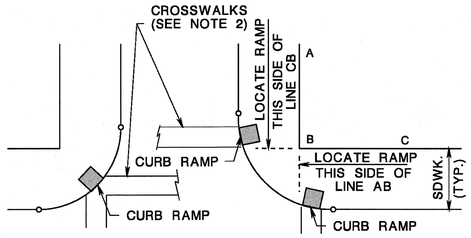
NOTE:
WHERE PRACTICAL, END LEFT TURN ISLAND OR DIVISIONAL ISLAND BEFORE CROSSWALK TO ELIMINATE CUT-THROUGH



SECTION D–D

NOTE:
5'MIN. WIDE OPENING TO BE FLUSH WITH ROADWAY PAVEMENT

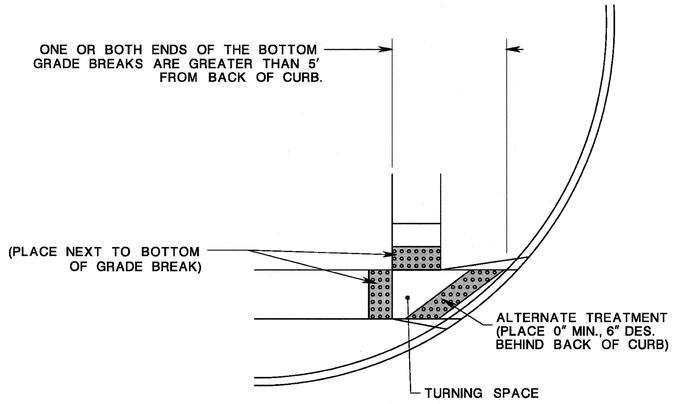
PEDESTRIAN REFUGE ISLAND WALKWAY OPENING AT INTERSECTIONS



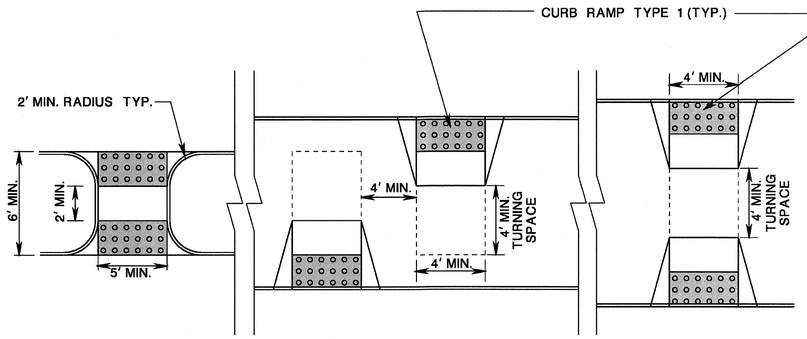
ALTERNATE TREATMENT (SEE NOTE 5)

PREFERRED TREATMENT (SEE NOTE 5)

LOCATION OF CURB RAMP TYPES 1, 2, 3, 4 & 7 FOR CROSSING PARALLEL AND PERPENDICULAR TO HIGHWAY



PLACEMENT OF DETECTABLE WARNING SURFACE FOR CURB RAMP TYPE 5 AND 6



NARROW ISLAND WIDTH (SEE NOTE 3)

MEDIUM ISLAND WIDTH (SEE NOTE 4)

LARGE ISLAND WIDTH (SEE NOTE 4)

PEDESTRIAN REFUGE ISLAND

NOTES:
1. KEEP TURNING SPACE, APPROACH SIDEWALK TRANSITIONS, AND CURB RAMP CLEAR OF OBSTRUCTIONS THAT PROTRUDE ABOVE THE SIDEWALK.
2. CROSSWALKS AND STOP LINES MAY BE MARKED OR UNMARKED, SEE PLANS.
3. FOR NARROW ISLAND WIDTH, SEE PEDESTRIAN REFUGE ISLAND WALKWAY OPENING AT INTERSECTIONS DETAIL.
4. FOR MEDIUM AND LARGE ISLAND WIDTH, SEE CURB RAMP TYPE 1 ON CD-606-1.
5. CONSTRUCT CURB RAMP TYPES 1, 2, 3, 4 & 7 PERPENDICULAR TO CURBLINE, AS SHOWN.
6. IF A CURB RAMP IS REQUIRED, THE LOCATION OF THE DETECTABLE WARNING SURFACE MUST BE AT THE BOTTOM OF THE RAMP AND WITHIN THE REQUIRED DISTANCE FROM THE RAIL.

DETECTABLE WARNING SURFACE

N.T.S.

CD-606-1A

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

CD-606-1.1A

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CURB RAMP TYPE 1

0.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET
3	3	2.50	2.50	9.00
4	4	3.33	3.33	10.67
5	5	4.17	4.17	12.33
6	6	5.00	5.00	14.00
7	7	5.83	5.83	15.67
8	8	6.67	6.67	17.33
9	9	7.50	7.50	19.00

1.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET
3	3	2.78	2.27	9.05
4	4	3.70	3.03	10.73
5	5	4.63	3.79	12.42
6	6	5.56	4.55	14.10
7	7	6.48	5.30	15.78
8	8	7.41	6.06	17.47
9	9	8.33	6.82	19.15

2.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET
3	3	3.13	2.08	9.21
4	4	4.17	2.78	10.94
5	5	5.21	3.47	12.68
6	6	6.25	4.17	14.42
7	7	7.29	4.86	16.15
8	8	8.33	5.56	17.89
9	9	9.38	6.25	19.63

3.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET
3	3	3.57	1.92	9.49
4	4	4.76	2.56	11.33
5	5	5.95	3.21	13.16
6	6	7.14	3.85	14.99
7	7	8.33	4.49	16.82
8	8	9.52	5.13	18.65
9	9	10.71	5.77	20.48

4.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET
3	3	4.17	1.79	9.95
4	4	5.56	2.38	11.94
5	5	6.94	2.98	13.92
6	6	8.33	3.57	15.90
7	7	9.72	4.17	17.89
8	8	11.11	4.76	19.87
9	9	12.50	5.36	21.86

5.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET
3	3	5.00	1.67	10.67
4	4	6.67	2.22	12.89
5	5	8.33	2.78	15.11
6	6	10.00	3.33	17.33
7	7	11.67	3.89	19.56
8	8	13.33	4.44	21.78
9	9	15.00	5.00	24.00

6.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET
3	3	6.25	1.56	11.81
4	4	8.33	2.08	14.42
5	5	10.42	2.60	17.02
6	6	12.50	3.13	19.63
7	7	14.58	3.65	22.23
8	8	15.00	4.17	23.17
9	9	15.00	4.69	23.69

7.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET
3	3	8.33	1.47	13.80
4	4	11.11	1.96	17.07
5	5	13.89	2.45	20.34
6	6	15.00	2.94	21.94
7	7	15.00	3.43	22.43
8	8	15.00	3.92	22.92
9	9	15.00	4.41	23.41

CURB RAMP TYPE 3

0.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET	Y INCHES	X_{2U} FEET	X_{2L} FEET	L_2 FEET
3	2.5	2.50	2.50	9.00	2.5	1.10	1.10	6.20
4		3.33	3.33	10.67		2.10	2.10	8.20
5		4.17	4.17	12.33		3.10	3.10	10.20
6		5.00	5.00	14.00		4.10	4.10	12.21
7		5.83	5.83	15.67		5.10	5.10	14.21
8		6.67	6.67	17.33		6.10	6.10	16.21
9		7.50	7.50	19.00		7.10	7.10	18.21
3	3.0	*	*	*	3.0	*	*	*
4		3.33	3.33	10.67		1.72	1.72	7.44
5		4.17	4.17	12.33		2.72	2.72	9.44
6		5.00	5.00	14.00		3.72	3.72	11.45
7		5.83	5.83	15.67		4.72	4.72	13.45
8		6.67	6.67	17.33		5.72	5.72	15.45
9		7.50	7.50	19.00		6.72	6.72	17.45
3	3.5	*	*	*	3.5	*	*	*
4		3.33	3.33	10.67		1.34	1.34	6.68
5		4.17	4.17	12.33		2.34	2.34	8.68
6		5.00	5.00	14.00		3.34	3.34	10.69
7		5.83	5.83	15.67		4.34	4.34	12.69
8		6.67	6.67	17.33		5.34	5.34	14.69
9		7.50	7.50	19.00		6.34	6.34	16.69
3	4.0	*	*	*	4.0	*	*	*
4		*	*	*		*	*	*
5		4.17	4.17	12.33		1.96	1.96	7.92
6		5.00	5.00	14.00		2.96	2.96	9.93
7		5.83	5.83	15.67		3.96	3.96	11.93
8		6.67	6.67	17.33		4.96	4.96	13.93
9		7.50	7.50	19.00		5.96	5.96	15.93

1.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET	Y INCHES	X_{2U} FEET	X_{2L} FEET	L_2 FEET
3	2.5	2.78	2.27	9.05	2.5	1.25	0.98	6.24
4		3.70	3.03	10.73		2.39	1.88	8.27
5		4.63	3.79	12.42		3.53	2.77	10.30
6		5.56	4.55	14.10		4.66	3.66	12.33
7		6.48	5.30	15.78		5.80	4.56	14.36
8		7.41	6.06	17.47		6.94	5.45	16.39
9		8.33	6.82	19.15		8.07	6.34	18.42
3	3.0	2.78	2.27	9.05	3.0	0.82	0.64	5.46
4		3.70	3.03	10.73		1.96	1.54	7.49
5		4.63	3.79	12.42		3.09	2.43	9.52
6		5.56	4.55	14.10		4.23	3.32	11.55
7		6.48	5.30	15.78		5.37	4.22	13.58
8		7.41	6.06	17.47		6.50	5.11	15.61
9		8.33	6.82	19.15		7.64	6.00	17.64
3	3.5	2.78	2.27	9.05	3.5	0.39	0.30	4.69
4		3.70	3.03	10.73		1.53	1.20	6.72
5		4.63	3.79	12.42		2.66	2.09	8.75
6		5.56	4.55	14.10		3.80	2.98	10.78
7		6.48	5.30	15.78		4.94	3.88	12.81
8		7.41	6.06	17.47		6.07	4.77	14.84
9		8.33	6.82	19.15		7.21	5.66	16.87
3	4.0	*	*	*	4.0	*	*	*
4		3.70	3.03	10.73		1.09	0.86	5.95
5		4.63	3.79	12.42		2.23	1.75	7.98
6		5.56	4.55	14.10		3.37	2.65	10.01
7		6.48	5.30	15.78		4.50	3.54	12.04
8		7.41	6.06	17.47		5.64	4.43	14.07
9		8.33	6.82	19.15		6.78	5.32	16.10

2.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET	Y INCHES	X_{2U} FEET	X_{2L} FEET	L_2 FEET
3	2.5	3.13	2.08	9.21	2.5	1.45	0.89	6.34
4		4.17	2.78	10.94		2.77	1.69	8.46
5		5.21	3.47	12.68		4.08	2.50	10.58
6		6.25	4.17	14.42		5.40	3.31	12.71
7		7.29	4.86	16.15		6.72	4.12	14.83
8		8.33	5.56	17.89		8.03	4.92	16.95
9		9.38	6.25	19.63		9.35	5.73	19.08
3	3.0	3.13	2.08	9.21	3.0	0.95	0.58	5.53
4		4.17	2.78	10.94		2.27	1.39	7.65
5		5.21	3.47	12.68		3.58	2.20	9.78
6		6.25	4.17	14.42		4.90	3.00	11.90
7		7.29	4.86	16.15		6.22	3.81	14.02
8		8.33	5.56	17.89		7.53	4.62	16.15
9		9.38	6.25	19.63		8.85	5.42	18.27
3	3.5	3.13	2.08	9.21	3.5	0.45	0.28	4.72
4		4.17	2.78	10.94		1.77	1.08	6.85
5		5.21	3.47	12.68		3.08	1.89	8.97
6		6.25	4.17	14.42		4.40	2.70	11.09
7		7.29	4.86	16.15		5.72	3.50	13.22
8		8.33	5.56	17.89		7.03	4.31	15.34
9		9.38	6.25	19.63		8.35	5.12	17.46
3	4.0	*	*	*	4.0	*	*	*
4		4.17	2.78	10.94		1.27	0.78	6.04
5		5.21	3.47	12.68		2.58	1.58	8.16
6		6.25	4.17	14.42		3.90	2.39	10.29
7		7.29	4.86	16.15		5.22	3.20	12.41
8		8.33	5.56	17.89		6.53	4.00	14.53
9		9.38	6.25	19.63		7.85	4.81	16.66

3.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET	Y INCHES	X_{2U} FEET	X_{2L} FEET	L_2 FEET
3	2.5	3.57	1.92	9.49	2.5	1.72	0.81	6.53
4		4.76	2.56	11.33		3.28	1.55	8.83
5		5.95	3.21	13.16		4.85	2.28	11.13
6		7.14	3.85	14.99		6.41	3.02	13.43
7		8.33	4.49	16.82		7.98	3.75	15.73
8		9.52	5.13	18.65		9.54	4.49	18.03
9		10.71	5.77	20.48		11.10	5.22	20.33
3	3.0	3.57	1.92	9.49	3.0	1.13	0.53	5.66
4		4.76	2.56	11.33		2.69	1.27	7.96
5		5.95	3.21	13.16		4.25	2.00	10.26
6		7.14	3.85	14.99		5.82	2.74	12.55
7		8.33	4.49	16.82		7.38	3.47	14.85
8		9.52	5.13	18.65		8.94	4.21	17.15
9		10.71	5.77	20.48		10.51	4.94	19.45
3	3.5	3.57	1.92	9.49	3.5	0.53	0.25	4.78
4		4.76	2.56	11.33		2.10	0.99	7.08
5		5.95	3.21	13.16		3.66	1.72	9.38
6		7.14	3.85	14.99		5.22	2.46	11.68
7		8.33	4.49	16.82		6.79	3.19	13.98
8		9.52	5.13	18.65		8.35	3.93	16.28
9		10.71	5.77	20.48		9.91	4.66	18.58
3	4.0	*	*	*	4.0	*	*	*
4		4.76	2.56	11.33		1.50	0.71	6.21
5		5.95	3.21	13.16		3.07	1.44	8.51
6		7.14	3.85	14.99		4.63	2.18	10.81
7		8.33	4.49	16.82		6.19	2.91	13.11
8		9.52	5.13	18.65		7.76	3.65	15.41
9		10.71	5.77	20.48		9.32	4.38	17.71

4.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET	Y INCHES	X_{2U} FEET	X_{2L} FEET	L_2 FEET
3	2.5	4.17	1.79	9.95	2.5	2.12	0.74	6.86
4		5.56	2.38	11.94		4.04	1.42	9.46
5		6.94	2.98	13.92		5.97	2.10	12.06
6		8.33	3.57	15.90		7.89	2.77	14.66
7		9.72	4.17	17.89		9.82	3.45	17.26
8		11.11	4.76	19.87		11.74	4.12	19.87
9		12.50	5.36	21.86		13.67	4.80	22.47
3	3.0	4.17	1.79	9.95	3.0	1.39	0.49	5.88
4		5.56	2.38	11.94		3.31	1.16	8.48
5		6.94	2.98	13.92		5.24	1.84	11.08
6		8.33	3.57	15.90		7.16	2.52	13.68
7		9.72	4.17	17.89		9.09	3.19	16.28
8		11.11	4.76	19.87		11.01	3.87	18.88
9		12.50	5.36	21.86		12.94	4.54	21.48
3	3.5	4.17	1.79	9.95	3.5	0.66	0.23	4.89
4		5.56	2.38	11.94		2.58	0.91	7.49
5		6.94	2.98	13.92		4.51	1.58	10.09
6		8.33	3.57	15.90		6.43	2.26	12.69
7		9.72	4.17	17.89		8.36	2.93	15.29
8		11.11	4.76	19.87		10.28	3.61	17.89
9		12.50	5.36	21.86		12.20	4.29	20.49
3	4.0	*	*	*	4.0	*	*	*
4		5.56	2.38	11.94		1.85	0.65	6.50
5		6.94	2.98	13.92		3.78	1.33	9.10
6		8.33	3.57	15.90		5.70	2.00	11.70
7		9.72	4.17	17.89		7.62	2.68	14.30
8		11.11	4.76	19.87		9.55	3.35	16.90
9		12.50	5.36	21.86		11.47	4.03	19.50

5.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET	Y INCHES	X_{2U} FEET	X_{2L} FEET	L_2 FEET
3	2.5	5.00	1.67	10.67	2.5	2.76	0.69	7.44
4		6.67	2.22	12.89		5.26	1.31	10.57
5		8.33	2.78	15.11		7.76	1.94	13.70
6		10.00	3.33	17.33		10.26	2.56	16.83
7		11.67	3.89	19.56		12.77	3.19	19.95
8		13.33	4.44	21.78		15.00	3.81	22.81
9		15.00	5.00	24.00		15.00	4.44	23.44
3	3.0	5.00	1.67	10.67	3.0	1.80	0.45	6.26
4		6.67	2.22	12.89		4.31	1.08	9.38
5		8.33	2.78	15.11		6.81	1.70	12.51
6		10.00	3.33	17.33		9.31	2.33	15.64
7		11.67	3.89	19.56		11.81	2.95	18.77
8		13.33	4.44	21.78		14.32	3.58	21.89
9		15.00	5.00	24.00		15.00	4.20	23.20
3	3.5	5.00	1.67	10.67	3.5	0.85	0.21	5.07
4		6.67	2.22	12.89		3.36	0.84	8.20
5		8.33	2.78	15.11		5.86	1.46	11.32
6		10.00	3.33	17.33		8.36	2.09	14.45
7		11.67	3.89	19.56		10.86	2.71	17.58
8		13.33	4.44	21.78		13.37	3.34	20.71
9		15.00	5.00	24.00		15.00	3.96	22.96
3	4.0	*	*	*	4.0	*	*	*
4		6.67	2.22	12.89		2.41	0.60	7.01
5		8.33	2.78	15.11		4.91	1.23	10.14
6		10.00	3.33	17.33		7.41	1.85	13.26
7		11.67	3.89	19.56		9.91	2.48	16.39
8		13.33	4.44	21.78		12.42	3.10	19.52
9		15.00	5.00	24.00		14.92	3.73	22.65

6.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET	Y INCHES	X_{2U} FEET	X_{2L} FEET	L_2 FEET
3	2.5	6.25	1.56	11.81	2.5	3.94	0.64	8.58
4		8.33	2.08	14.42		7.51	1.22	12.74
5		10.42	2.60	17.02		11.09	1.80	16.89
6		12.50	3.13	19.63		14.67	2.38	21.05
7		14.58	3.65	22.23		15.00	2.97	21.97
8		15.00	4.17	23.17		15.00	3.55	22.55
9		15.00	4.69	23.69		15.00	4.13	23.13
3	3.0	6.25	1.56	11.81	3.0	2.58	0.42	7.00
4		8.33	2.08	14.42		6.16	1.00	11.16
5		10.42	2.60	17.02		9.73	1.58	15.31
6		12.50	3.13	19.63		13.31	2.16	19.47
7		14.58	3.65	22.23		15.00	2.75	21.75
8		15.00	4.17	23.17		15.00	3.33	22.33
9		15.00	4.69	23.69		15.00	3.91	22.91
3	3.5	6.25	1.56	11.81	3.5	1.22	0.20	5.42
4		8.33	2.08	14.42		4.80	0.78	9.58
5		10.42	2.60	17.02		8.37	1.36	13.74
6		12.50	3.13	19.63		11.95	1.94	17.89
7		14.58	3.65	22.23		15.00	2.52	21.52
8		15.00	4.17	23.17		15.00	3.11	22.11
9		15.00	4.69	23.69		15.00	3.69	22.69
3	4.0	*	*	*	4.0	*	*	*
4		8.33	2.08	14.42		3.44	0.56	8.00
5		10.42	2.60	17.02		7.02	1.14	12.16
6		12.50	3.13	19.63		10.59	1.72	16.31
7		14.58	3.65	22.23		14.17	2.30	20.47
8		15.00	4.17	23.17		15.00	2.89	21.89
9		15.00	4.69	23.69		15.00	3.47	22.47

7.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET	Y INCHES	X_{2U} FEET	X_{2L} FEET	L_2 FEET
3	2.5	8.33	1.47	13.80	2.5	6.90	0.60	11.50
4		11.11	1.96	17.07		13.16	1.14	18.31
5		13.89	2.45	20.34		15.00	1.69	20.69
6		15.00	2.94	21.94		15.00	2.23	21.23
7		15.00	3.43	22.43		15.00	2.77	21.77
8		15.00	3.92	22.92		15.00	3.32	22.32
9		15.00	4.41	23.41		15.00	3.86	22.86
3	3.0	8.33	1.47	13.80	3.0	4.52	0.39	8.91
4		11.11	1.96	17.07		10.78	0.94	15.72
5		13.89	2.45	20.34		15.00	1.48	20.48
6		15.00	2.94	21.94		15.00	2.02	21.02
7		15.00	3.43	22.43		15.00	2.57	21.57
8		15.00	3.92	22.92		15.00	3.11	22.11
9		15.00	4.41	23.41		15.00	3.65	22.65
3	3.5	8.33	1.47	13.80	3.5	2.14	0.19	6.32
4		11.11	1.96	17.07		8.40	0.73	13.13
5		13.89	2.45	20.34		14.67	1.27	19.94
6		15.00	2.94	21.94		15.00	1.82	20.82
7		15.00	3.43	22.43		15.00	2.36	21.36
8		15.00	3.92	22.92		15.00	2.90	21.90
9		15.00	4.41	23.41		15.00	3.45	22.45
3	4.0	*	*	*	4.0	*	*	*
4		11.11	1.96	17.07		6.03	0.52	10.55
5		13.89	2.45	20.34		12.29	1.07	17.36
6		15.00	2.94	21.94		15.00	1.61	20.61
7		15.00	3.43	22.43		15.00	2.15	21.15
8		15.00	3.92	22.92		15.00	2.70	21.70
9		15.00	4.41	23.41		15.00	3.24	22.24

CURB RAMP TYPE 2

0-8 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET
3	3	1.50	1.50	7.00
4	4	1.50	1.50	7.00
5	5	1.50	1.50	7.00
6	6	1.50	1.50	7.00
7	7	1.50	1.50	7.00
8	8	1.50	1.50	7.00
9	9	1.50	1.50	7.00

NOTES:

1. FOR CURB RAMP TYPES, SEE CD-606-1.
2. THE ABOVE TABLES ARE BASED ON THE SPECIFIC GUTTER PROFILE REFERENCED. THEY DO NOT TAKE INTO ACCOUNT VARIATIONS IN THE GUTTER PROFILE. THE ABOVE TABLES TO BE USED BY THE DESIGNERS AND CONTRACTORS TO GET APPROXIMATE DIMENSIONS OF THE CURB RAMP AT EACH LOCATION. FINAL DIMENSIONS WILL BE DETERMINED BY ACTUAL MEASUREMENTS IN THE FIELD DURING CONSTRUCTION.
3. THE 12H:1V MAX SLOPE IS THE RUNNING SLOPE FOR CURB RAMPS, BUT ONLY THE 12H:1V SLOPE MEASURED AS X IS THE RUNNING SLOPE FOR TYPE 3 AND TYPE 4 CURB RAMPS. ENSURE THE RUNNING SLOPE OF CURB RAMPS DOES NOT REQUIRE ITS LENGTH TO EXCEED 15 FEET. THE RUNNING SLOPE MAY EXCEED THE 12H:1V MAX SLOPE SO AS NOT TO EXCEED THE 15 FEET MAXIMUM LENGTH. THE TABLES ALREADY APPLY THE 15 FEET RULE FOR THOSE CALCULATED LENGTHS WHICH EXCEED 15 FEET.

LEGEND

U = UPPER SIDE OF GUTTER LINE PROFILE

L = LOWER SIDE OF GUTTER LINE PROFILE

FOR THE OTHER ABBREVIATIONS - REFER TO CD-606-1

* TYPE 3 RAMP IS NOT APPLICABLE, USE TYPE 1

** TYPE 4 RAMP IS NOT APPLICABLE, USE TYPE 2

CD-606-1.1B

CONCRETE SIDEWALK

(PUBLIC SIDEWALK CURB RAMP TABLES)

N.T.S.

CD-606-1B

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

99
106

P-WB-04601-01 99 0 CG

BDC12D-05-ORIGINAL SHEET

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CURB RAMP TYPE 4

0.0 % GUTTER LINE PROFILE

H INCHES	W FEET	Y INCHES	X_{2U} FEET	X_{2L} FEET	L_2 FEET
3	2.5	2.5	1.10	1.10	6.20
4			2.10	2.10	8.20
5			3.10	3.10	10.20
6			4.10	4.10	12.20
7			5.10	5.10	14.21
8			6.10	6.10	16.21
9			7.10	7.10	18.21
3	3.0	3.0	**	**	**
4			1.72	1.72	7.44
5			2.72	2.72	9.44
6			3.72	3.72	11.45
7			4.72	4.72	13.45
8			5.72	5.72	15.45
9			6.72	6.72	17.45
3	3.5	3.5	**	**	**
4			1.34	1.34	6.68
5			2.34	2.34	8.68
6			3.34	3.34	10.69
7			4.34	4.34	12.69
8			5.34	5.34	14.69
9			6.34	6.34	16.69
3	4.0	4.0	**	**	**
4			**	**	**
5			1.96	1.96	7.92
6			2.96	2.96	9.93
7			3.96	3.96	11.93
8			4.96	4.96	13.93
9			5.96	5.96	15.93

1.0 % GUTTER LINE PROFILE

H INCHES	W FEET	Y INCHES	X_{2U} FEET	X_{2L} FEET	L_2 FEET
3	2.5	2.5	1.25	0.98	6.24
4			2.39	1.88	8.27
5			3.53	2.77	10.30
6			4.66	3.66	12.33
7			5.80	4.56	14.36
8			6.94	5.45	16.39
9			8.07	6.34	18.42
3	3.0	3.0	0.82	0.64	5.46
4			1.96	1.54	7.49
5			3.09	2.43	9.52
6			4.23	3.32	11.55
7			5.37	4.22	13.58
8			6.50	5.11	15.61
9			7.64	6.00	17.64
3	3.5	3.5	0.39	0.30	4.69
4			1.53	1.20	6.72
5			2.66	2.09	8.75
6			3.80	2.98	10.78
7			4.94	3.88	12.81
8			6.07	4.77	14.84
9			7.21	5.66	16.87
3	4.0	4.0	**	**	**
4			1.09	0.86	5.95
5			2.23	1.75	7.98
6			3.37	2.65	10.01
7			4.50	3.54	12.04
8			5.64	4.43	14.07
9			6.78	5.32	16.10

2.0 % GUTTER LINE PROFILE

H INCHES	W FEET	Y INCHES	X_{2U} FEET	X_{2L} FEET	L_2 FEET
3	2.5	2.5	1.45	0.89	6.34
4			2.77	1.69	8.46
5			4.08	2.50	10.58
6			5.40	3.31	12.71
7			6.72	4.12	14.83
8			8.03	4.92	16.95
9			9.35	5.73	19.08
3	3.0	3.0	0.95	0.58	5.53
4			2.27	1.39	7.65
5			3.58	2.20	9.78
6			4.90	3.00	11.90
7			6.22	3.81	14.02
8			7.53	4.62	16.15
9			8.85	5.42	18.27
3	3.5	3.5	0.45	0.28	4.72
4			1.77	1.08	6.85
5			3.08	1.89	8.97
6			4.40	2.70	11.09
7			5.72	3.50	13.22
8			7.03	4.31	15.34
9			8.35	5.12	17.46
3	4.0	4.0	**	**	**
4			1.27	0.78	6.04
5			2.58	1.58	8.16
6			3.90	2.39	10.29
7			5.22	3.20	12.41
8			6.53	4.00	14.53
9			7.85	4.81	16.66

3.0 % GUTTER LINE PROFILE

H INCHES	W FEET	Y INCHES	X_{2U} FEET	X_{2L} FEET	L_2 FEET
3	2.5	2.5	1.72	0.81	6.53
4			3.28	1.55	8.83
5			4.85	2.28	11.13
6			6.41	3.02	13.43
7			7.98	3.75	15.73
8			9.54	4.49	18.03
9			11.10	5.22	20.33
3	3.0	3.0	1.13	0.53	5.66
4			2.69	1.27	7.96
5			4.25	2.00	10.26
6			5.82	2.74	12.55
7			7.38	3.47	14.85
8			8.94	4.21	17.15
9			10.51	4.94	19.45
3	3.5	3.5	0.53	0.25	4.78
4			2.10	0.99	7.08
5			3.66	1.72	9.38
6			5.22	2.46	11.68
7			6.79	3.19	13.98
8			8.35	3.93	16.28
9			9.91	4.66	18.58
3	4.0	4.0	**	**	**
4			1.50	0.71	6.21
5			3.07	1.44	8.51
6			4.63	2.18	10.81
7			6.19	2.91	13.11
8			7.76	3.65	15.41
9			9.32	4.38	17.71

4.0 % GUTTER LINE PROFILE

H INCHES	W FEET	Y INCHES	X_{2U} FEET	X_{2L} FEET	L_2 FEET
3	2.5	2.5	2.12	0.74	6.86
4			4.04	1.42	9.46
5			5.97	2.10	12.06
6			7.89	2.77	14.66
7			9.82	3.45	17.26
8			11.74	4.12	19.87
9			13.67	4.80	22.47
3	3.0	3.0	1.39	0.49	5.88
4			3.31	1.16	8.48
5			5.24	1.84	11.08
6			7.16	2.52	13.68
7			9.09	3.19	16.28
8			11.01	3.87	18.88
9			12.94	4.54	21.48
3	3.5	3.5	0.66	0.23	4.89
4			2.58	0.91	7.49
5			4.51	1.58	10.09
6			6.43	2.26	12.69
7			8.36	2.93	15.29
8			10.28	3.61	17.89
9			12.20	4.29	20.49
3	4.0	4.0	**	**	**
4			1.85	0.65	6.50
5			3.78	1.33	9.10
6			5.70	2.00	11.70
7			7.62	2.68	14.30
8			9.55	3.35	16.90
9			11.47	4.03	19.50

5.0 % GUTTER LINE PROFILE

H INCHES	W FEET	Y INCHES	X_{2U} FEET	X_{2L} FEET	L_2 FEET
3	2.5	2.5	2.76	0.69	7.44
4			5.26	1.31	10.57
5			7.76	1.94	13.70
6			10.26	2.56	16.83
7			12.77	3.19	19.95
8			15.00	3.81	22.81
9			15.00	4.44	23.44
3	3.0	3.0	1.80	0.45	6.26
4			4.31	1.08	9.38
5			6.81	1.70	12.51
6			9.31	2.33	15.64
7			11.81	2.95	18.77
8			14.32	3.58	21.89
9			15.00	4.20	23.20
3	3.5	3.5	0.85	0.21	5.07
4			3.36	0.84	8.20
5			5.86	1.46	11.32
6			8.36	2.09	14.45
7			10.86	2.71	17.58
8			13.37	3.34	20.71
9			15.00	3.96	22.96
3	4.0	4.0	**	**	**
4			2.41	0.60	7.01
5			4.91	1.23	10.14
6			7.41	1.85	13.26
7			9.91	2.48	16.39
8			12.42	3.10	19.52
9			14.92	3.73	22.65

6.0 % GUTTER LINE PROFILE

H INCHES	W FEET	Y INCHES	X_{2U} FEET	X_{2L} FEET	L_2 FEET
3	2.5	2.5	3.94	0.64	8.58
4			7.51	1.22	12.74
5			11.09	1.80	16.89
6			14.67	2.38	21.05
7			15.00	2.97	21.97
8			15.00	3.55	22.55
9			15.00	4.13	23.13
3	3.0	3.0	2.58	0.42	7.00
4			6.16	1.00	11.16
5			9.73	1.58	15.31
6			13.31	2.16	19.47
7			15.00	2.75	21.75
8			15.00	3.33	22.33
9			15.00	3.91	22.91
3	3.5	3.5	1.22	0.20	5.42
4			4.80	0.78	9.58
5			8.37	1.36	13.74
6			11.95	1.94	17.89
7			15.00	2.52	21.52
8			15.00	3.11	22.11
9			15.00	3.69	22.69
3	4.0	4.0	**	**	**
4			3.44	0.56	8.00
5			7.02	1.14	12.16
6			10.59	1.72	16.31
7			14.17	2.30	20.47
8			15.00	2.89	21.89
9			15.00	3.47	22.47

7.0 % GUTTER LINE PROFILE

H INCHES	W FEET	Y INCHES	X_{2U} FEET	X_{2L} FEET	L_2 FEET
3	2.5	2.5	6.90	0.60	11.50
4			13.16	1.14	18.31
5			15.00	1.69	20.69
6			15.00	2.23	21.23
7			15.00	2.77	21.77
8			15.00	3.32	22.32
9			15.00	3.86	22.86
3	3.0	3.0	4.52	0.39	8.91
4			10.78	0.94	15.72
5			15.00	1.48	20.48
6			15.00	2.02	21.02
7			15.00	2.57	21.57
8			15.00	3.11	22.11
9			15.00	3.65	22.65
3	3.5	3.5	2.14	0.19	6.32
4			8.40	0.73	13.13
5			14.67	1.27	19.94
6			15.00	1.82	20.82
7			15.00	2.36	21.36
8			15.00	2.90	21.90
9			15.00	3.45	22.45
3	4.0	4.0	**	**	**
4			6.03	0.52	10.55
5			12.29	1.07	17.36
6			15.00	1.61	20.61
7			15.00	2.15	21.15
8			15.00	2.70	21.70
9			15.00	3.24	22.24

CURB RAMP TYPE 7

0.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET
3	3	3.00	3.00	10.00
4	4	4.00	4.00	12.00
5	5	5.00	5.00	14.00
6	6	6.00	6.00	16.00
7	7	7.00	7.00	18.01
8	8	8.00	8.00	20.01
9	9	9.00	9.00	22.01

1.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET
3	3	3.41	2.68	10.09
4	4	4.55	3.57	12.12
5	5	5.68	4.47	14.15
6	6	6.82	5.36	16.18
7	7	7.96	6.25	18.21
8	8	9.10	7.15	20.24
9	9	10.23	8.04	22.27

2.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET
3	3	3.95	2.42	10.37
4	4	5.27	3.23	12.49
5	5	6.58	4.03	14.62
6	6	7.90	4.84	16.74
7	7	9.22	5.65	18.86
8	8	10.53	6.45	20.99
9	9	11.85	7.26	23.11

3.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET
3	3	4.69	2.21	10.90
4	4	6.25	2.94	13.20
5	5	7.82	3.68	15.49
6	6	9.38	4.41	17.79
7	7	10.94	5.15	20.09
8	8	12.51	5.88	22.39
9	9	14.07	6.62	24.69

4.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L1 FEET
3	3	5.77	2.03	11.80
4	4	7.70	2.70	14.40
5	5	9.62	3.38	17.00
6	6	11.55	4.06	19.60
7	7	13.47	4.73	22.20
8	8	15.40	5.41	24.80
9	9	17.32	6.08	27.40

5.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L1 FEET
3	3	7.51	1.88	13.38
4	4	10.01	2.50	16.51
5	5	12.51	3.13	19.64
6	6	15.00	3.75	22.75
7	7	15.00	4.38	23.38
8	8	15.00	5.00	24.00
9	9	15.00	5.63	24.63

6.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L1 FEET
3	3	10.73	1.74	16.47
4	4	14.31	2.33	20.63
5	5	15.00	2.91	21.91
6	6	15.00	3.49	22.49
7	7	15.00	4.07	23.07
8	8	15.00	4.65	23.65
9	9	15.00	5.23	24.23

7.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L1 FEET
3	3	15.00	1.63	20.63
4	4	15.00	2.17	21.17
5	5	15.00	2.72	21.72
6	6	15.00	3.26	22.26
7	7	15.00	3.81	22.81
8	8	15.00	4.35	23.35
9	9	15.00	4.89	23.89

NOTES:

1. FOR CURB RAMP TYPES, SEE CD-606-1.
2. THE ABOVE TABLES ARE BASED ON THE SPECIFIC GUTTER PROFILE REFERENCED. THEY DO NOT TAKE INTO ACCOUNT VARIATIONS IN THE GUTTER PROFILE. THE ABOVE TABLES TO BE USED BY THE DESIGNERS AND CONTRACTORS TO GET APPROXIMATE DIMENSIONS OF THE CURB RAMP AT EACH LOCATION. FINAL DIMENSIONS WILL BE DETERMINED BY ACTUAL MEASUREMENTS IN THE FIELD DURING CONSTRUCTION.
3. THE 12H:1V MAX SLOPE IS THE RUNNING SLOPE FOR CURB RAMPS, BUT ONLY THE 12H:1V SLOPE MEASURED AS X IS THE RUNNING SLOPE FOR TYPE 3 AND TYPE 4 CURB RAMPS. ENSURE THE RUNNING SLOPE OF CURB RAMPS DOES NOT REQUIRE ITS LENGTH TO EXCEED 15 FEET. THE RUNNING SLOPE MAY EXCEED THE 12H:1V MAX SLOPE SO AS NOT TO EXCEED THE 15 FEET MAXIMUM LENGTH. THE TABLES ALREADY APPLY THE 15 FEET RULE FOR THOSE CALCULATED LENGTHS WHICH EXCEED 15 FEET.

LEGEND

U = UPPER SIDE OF GUTTER LINE PROFILE

L = LOWER SIDE OF GUTTER LINE PROFILE

FOR THE OTHER ABBREVIATIONS - REFER TO CD-606-1

* TYPE 3 RAMP IS NOT APPLICABLE, USE TYPE 1

** TYPE 4 RAMP IS NOT APPLICABLE, USE TYPE 2

CONCRETE SIDEWALK

(PUBLIC SIDEWALK CURB RAMP TABLES)

N.T.S.

CD-606-1C

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

CD-606-1.1C

100
106

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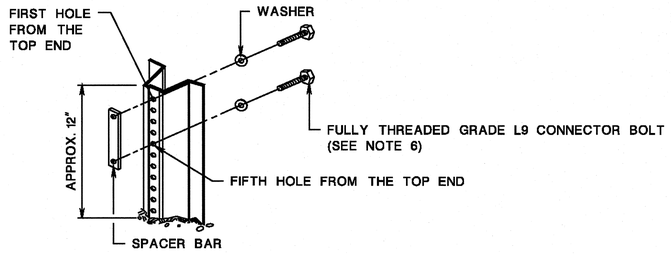
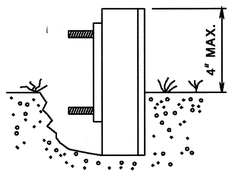
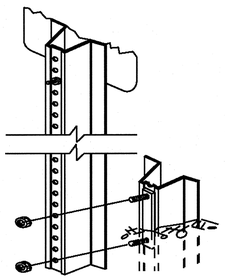


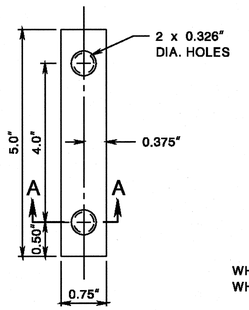


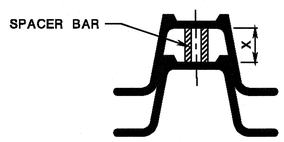


NOTES:

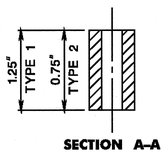
1. DRIVE ANCHOR POST ASSEMBLY TO WITHIN APPROXIMATELY 12 INCHES ABOVE GROUND LEVEL. PLACE BOLT AND WASHER IN FIRST AND FIFTH HOLES FROM THE TOP END, AND SECURE BOLTS ONTO SPACER.
2. DRIVE ANCHOR POST ASSEMBLY TO WITHIN A MAXIMUM OF 4 INCHES ABOVE GROUND LEVEL.
3. DIG OUT AROUND BACK OF ANCHOR POST ASSEMBLY TO ALLOW ROOM FOR TOP POST TO BE ATTACHED.
4. NEST TOP POST ASSEMBLY ONTO PROTRUDING ANCHOR POST ASSEMBLY BOLTS, THROUGH THE FIRST AND FIFTH HOLES FROM THE BOTTOM OF THE TOP POST.
5. PLACE AND TIGHTEN A SELF-LOCKING FLANGE NUT ON EACH BOLT. WHEN INSTALLATION IS COMPLETE, TOP OF GROUND POST NOT TO EXCEED 4 INCHES ABOVE GROUND LEVEL.
6. SIZE OF CONNECTOR BOLT FOR TYPE 1, 5/16" x 1½"
   SIZE OF CONNECTOR BOLT FOR TYPE 2, 5/16" x 2"
7. THE CONNECTOR BOLTS ARE TO BE FULLY THREADED. EACH CONNECTOR BOLT AND NUT TO BE CLEARLY STAMPED WITH MANUFACTURER'S IDENTIFYING MARK.

ANCHOR POST ASSEMBLY SIGN SUPPORTS





WHEN X IS GREATER THAN 0.75", USE TYPE 1 SPACER BAR
WHEN X IS 0.75" OR LESS, USE TYPE 2 SPACER BAR



SECTION A–A

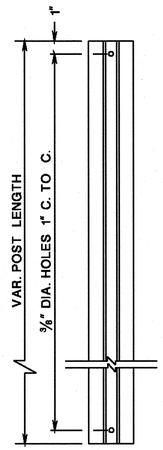
SPACER BAR

CD-612-5.1

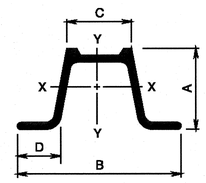
WEIGHT * LBS./FT.	DIMENSIONS (IN)				AREA IN.²	X–X AXIS **		Y–Y AXIS	
	"A"	"B"	"C"	"D"		I(IN.⁴)	S(IN.³)	I(IN.⁴)	S(IN.³)
2.50	1.516	3.062	1.278	0.669	0.760	0.228	0.313	0.539	0.352
4.00	1.968	3.500	1.336	0.834	1.187	0.611	0.707	1.161	0.664

* ± 5%
** GOVERNING SECTION

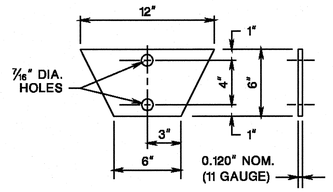
TYPE 1 STEEL U–POST PROPERTIES



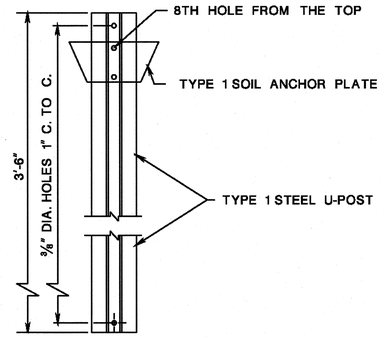
TOP POST U–POST



TYPE 1 STEEL U–POST



TYPE 1 SOIL ANCHOR PLATE



TYPE 1 ANCHOR POST ASSEMBLY

NOTES:

1. ANCHOR POST AND TOP POST TO BE OF EQUAL WEIGHT / FEET.
2. SOIL ANCHOR PLATE TO BE ATTACHED TO ALL ANCHOR POSTS.
3. THE MATERIAL FOR THE SOIL ANCHOR PLATES TO BE CARBON SHEET STEEL.
4. THE STEEL "U" POST TO BE GRADE 60.

CD-612-5.2

STEEL U–POST SIGN SUPPORTS

N.T.S.

CD-612-5

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

101/106

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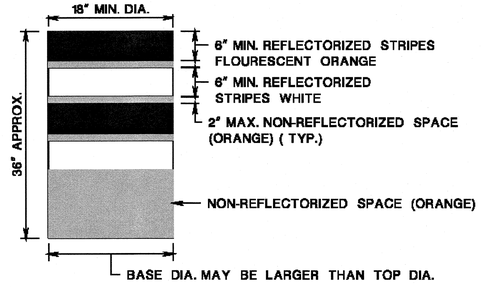
P-WB-04607-01 101-U CG

ENSURE DRUMS ARE MADE OF ORANGE PLASTIC WITH A MINIMUM OF FOUR ALTERNATE FLUORESCENT ORANGE AND WHITE RETROREFLECTIVE STRIPES. IF THERE ARE NON-REFLECTORIZED SPACES BETWEEN THE STRIPES, THEY ARE TO BE NO MORE THAN 2" WIDE. ENSURE RETROREFLECTIVE SHEETING FOR STRIPES CONFORMS WITH ASTM D4956 TYPE VII OR VIII WITH S2 REQUIREMENTS.

ENSURE THE TOP OF THE DRUM IS NOT OPEN. CONSTRUCT DRUMS TO INHIBIT ROLLING IF KNOCKED OVER.

ENSURE THE REFLECTORIZED AREA OF DRUMS IS ROUND EXCEPT OTHER SHAPES, WHICH PROVIDE THE SAME VISIBILITY AS AN 18 INCH DIAMETER ROUND DRUM REGARDLESS OF ORIENTATION, MAY BE USED.



WHEN BALLAST IS REQUIRED BY THE RE, USE SAND. THE MAXIMUM WEIGHT OF THE BALLAST IS 50 LBS. AND IS TO BE LOCATED APPROXIMATELY AT GROUND LEVEL. ALTERNATE TYPES OF BALLAST MUST BE APPROVED BY THE RE.

DRUMS

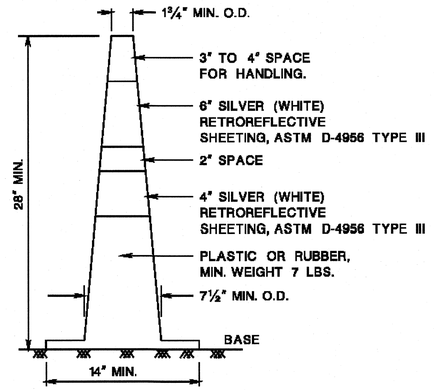
CD-159-1.1

NOTES:

TRAFFIC CONES MUST BE PREDOMINATELY ORANGE IN COLOR.

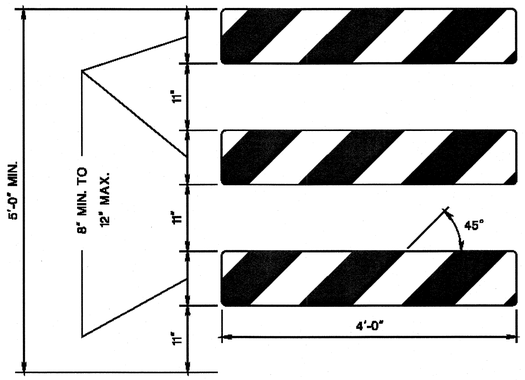
BASES MAY BE OF BREAKAWAY BALLASTED TYPE.

MINOR MANUFACTURER'S VARIATIONS MAY BE ACCEPTABLE UPON APPROVAL OF THE RE.



TRAFFIC CONES

CD-159-1.2



TYPE III BARRICADE – FRONT VIEW

NOTES:

1. ENSURE THE 8" MIN. x 48", TO 12" MAX. x 48" BARRICADE RAILS TO BE ATTACHED ACCORDING TO THE MANUFACTURER'S RECOMMENDATION.
2. ENSURE ORANGE AND SILVER (WHITE) STRIPES TO BE RETROREFLECTIVE SHEETING, ASTM D4956 TYPE III. ALTERNATE ORANGE AND SILVER (WHITE) STRIPES 6" WIDE SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TRAFFIC IS TO PASS.
3. THE FRAMING, RAILS, AND BALLAST FOR BREAKAWAY BARRICADE TO BE NCHRP-350 CRASHED TESTED AND FHWA APPROVED.
4. IF NECESSARY, FABRICATE THE BALLAST AND PLACE ACCORDING TO THE MANUFACTURER'S RECOMMENDATION.

BREAKAWAY BARRICADES

CD-159-1.3

TRAFFIC CONTROL DEVICES

N.T.S.

CD-159-1

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

102
106

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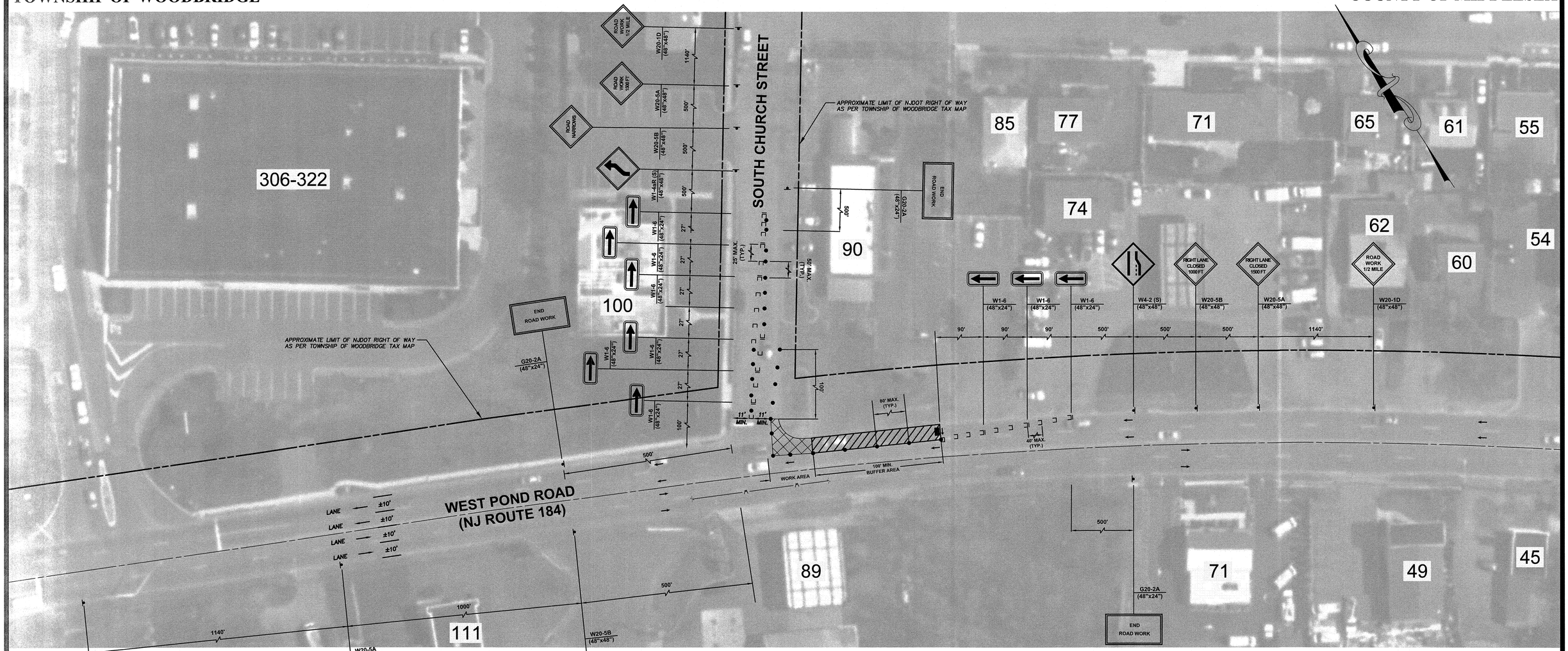
TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX



PLAN

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

CONSTRUCT

264	SF	Construction signs
17	UN	Breakaway barricades
9	UN	Breakaway barricades with sign
26	UN	Drums
1	UN	Traffic control truck with mounted crash cushion
1	UN	Flashing Arrow Board, 4'x8'

LEGEND

- BREAKAWAY BARRICADES
- BREAKAWAY BARRICADES WITH SIGN
- CONSTRUCTION SIGNS
- DRUMS
- CONE
- DIRECTION OF TRAFFIC FLOW
- FLAGGER
- TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION AND ARROW BOARD (LEFT)
- BUFFER ZONE
- WORK AREA

THE CONTRACTOR MUST MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES DURING THE CONSTRUCTION.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

APPLICATION FOR LANE OR SHOULDER CLOSING ON STATE HIGHWAY

TRAFFIC CONTROL PLAN

WORK AT THE INTERSECTION OF NJSH RT. 184 AND SOUTH CHURCH STREET (1 OF 2)

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)
DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25838 NJ PP LIC NO. 2455
JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 33962 NJ PP LIC NO. 3874
MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3770
GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
3.25.19

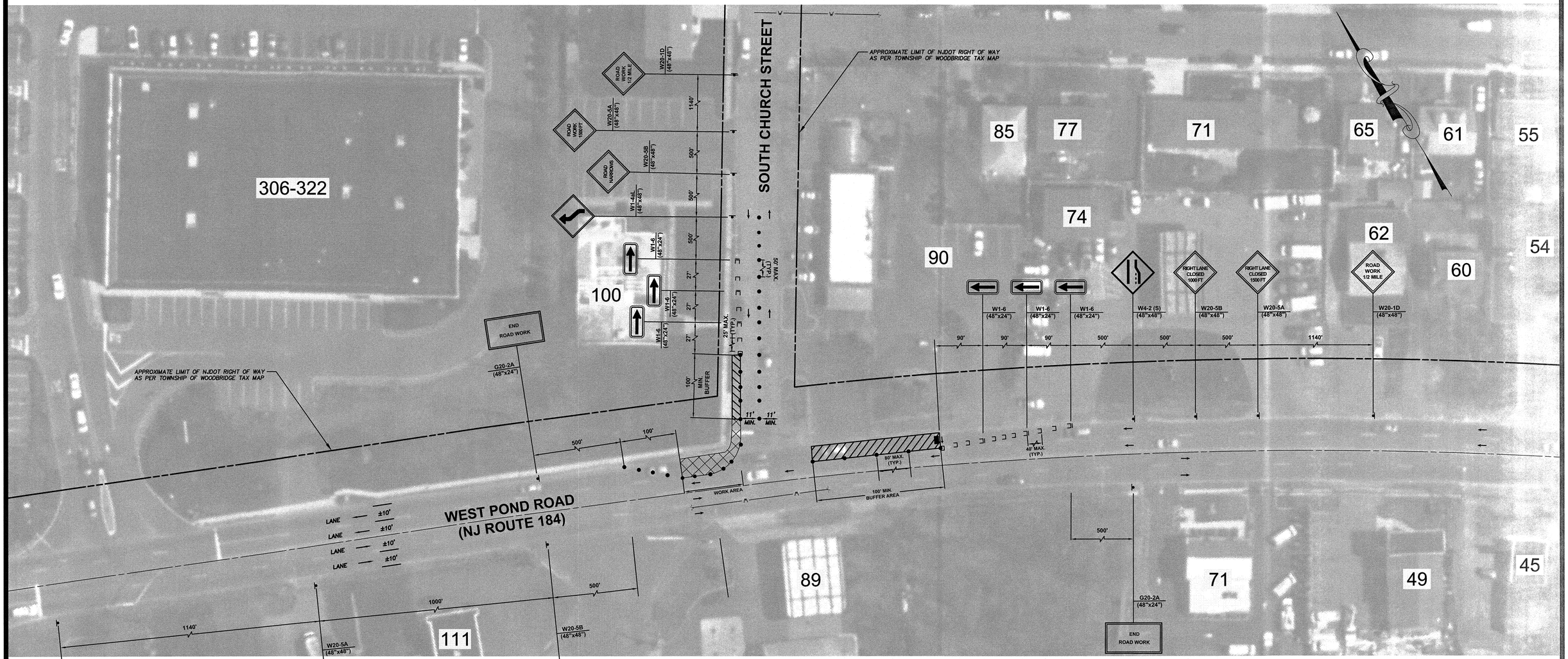
SCALE	As Shown
DATE	March 2019
DRAWN BY	KEC / JD
DESIGNED BY	KEC / JD
CHECKED BY	
SHEET	103 of 106

REGISTERED CG

DRAWING NO. 103-U

FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE | **COUNTY OF MIDDLESEX**



PLAN

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

CONSTRUCT

240	SF	Construction signs
12	UN	Breakaway barricades
6	UN	Breakaway barricades with sign
32	UN	Drums
1	UN	Traffic control truck with mounted crash cushion
1	UN	Flashing Arrow Board, 4'x8'

LEGEND

- BREAKAWAY BARRICADES
- BREAKAWAY BARRICADES WITH SIGN
- CONSTRUCTION SIGNS
- DRUMS
- CONE
- DIRECTION OF TRAFFIC FLOW
- FLAGGER
- TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION AND ARROW BOARD (LEFT)
- BUFFER ZONE
- WORK AREA

THE CONTRACTOR MUST MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES DURING THE CONSTRUCTION.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

APPLICATION FOR LANE OR SHOULDER CLOSING ON STATE HIGHWAY

TRAFFIC CONTROL PLAN

WORK AT THE INTERSECTION OF NJSH RT. 184 AND SOUTH CHURCH STREET (2 OF 2)

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 —— 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)
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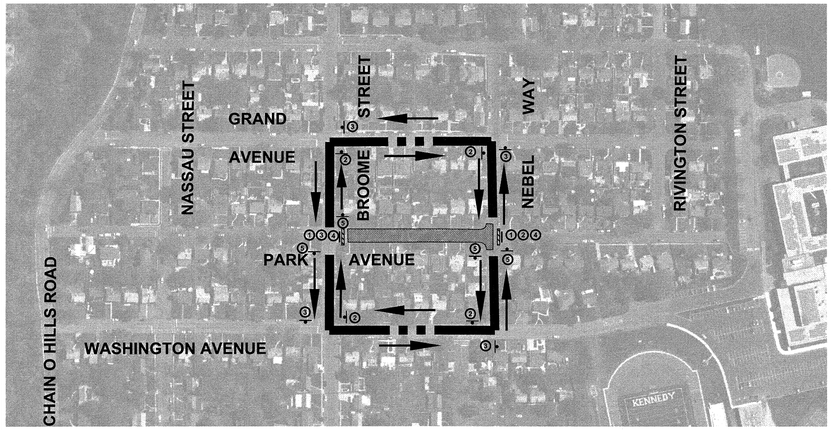
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

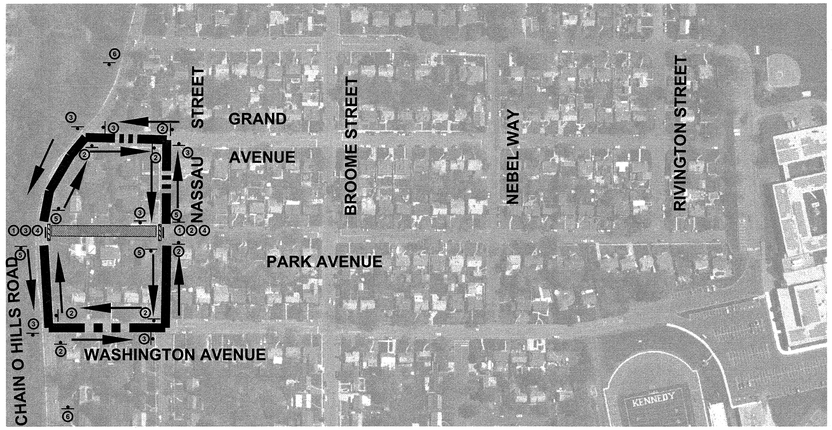
SCALE	As Shown
DATE	March 2019
DRAWN BY	KEC / JD
DESIGNED BY	KEC / JD
CHECKED BY	
SHEET	104of 106

REGISTERED CG
DRAWING NO. 104-U
FILE NO. PWB0A607.01

TOWNSHIP OF WOODBRIDGE



STAGE 3



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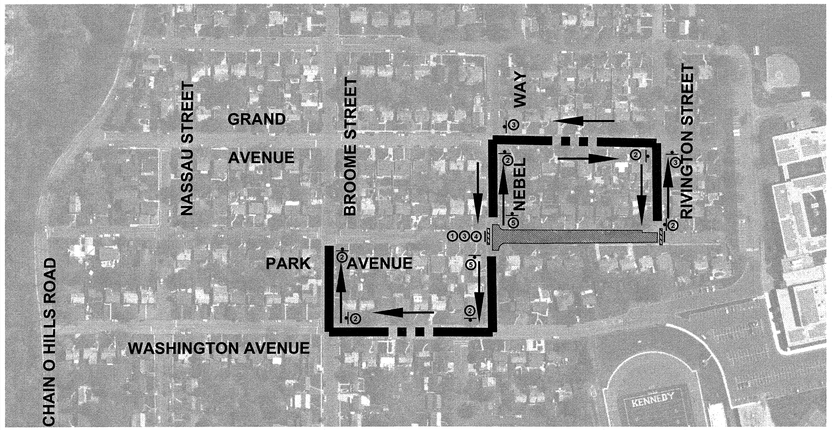
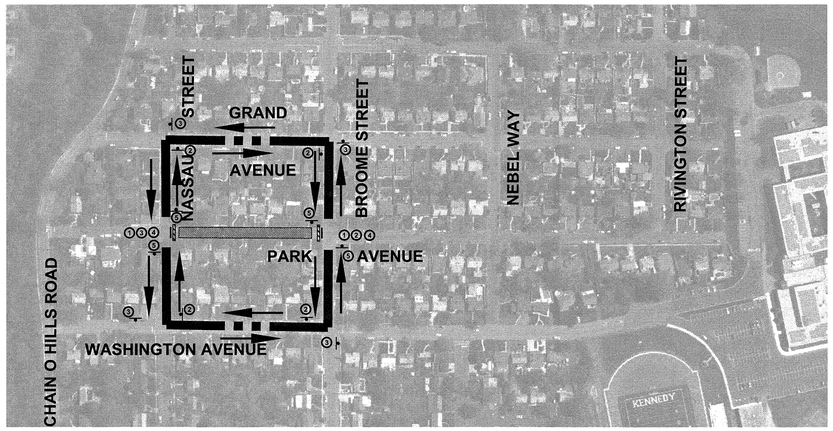
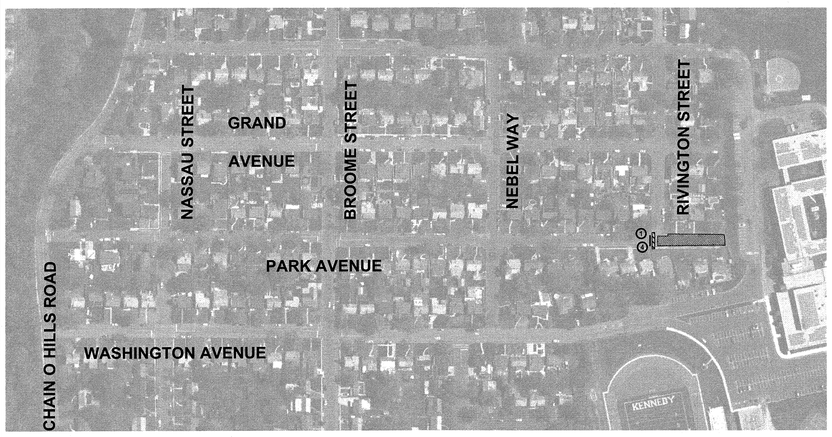


STAGE 2



STAGE 4



STAGE 1

GRAPHIC SCALE

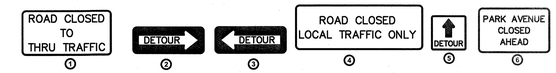
200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

COUNTY OF MIDDLESEX

CONSTRUCT (PARK AVENUE)

16	UN	Breakaway barricade, Type III
471	SF	Construction signs
24	UN	Drum
50	UN	Traffic cone
2	UN	Flashing arrow board
2	UN	Traffic control tuck with mounted crash cushion
2	UN	Portable variable message sign



TYPICAL SIGNAGE FOR PARK AVENUE DETOURS
N.T.S.

LEGEND

- WORK AREA
- DETOUR ROUTE
- SIGNS
- TYPE III BARRICADE

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
1	REVISED FOR BID	03.25.19	PB		

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001
TRAFFIC CONTROL - DETOUR PLAN

DETOUR PLAN - PARK AVENUE — PARK AVENUE

NJDOT MA 18

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
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MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER
LIC. 32468
DATE 2.8.19

SCALE	As Shown
DATE	March 2019
DRAWN BY	MP
DESIGNED BY	MP
CHECKED BY	
SHEET	105of 106

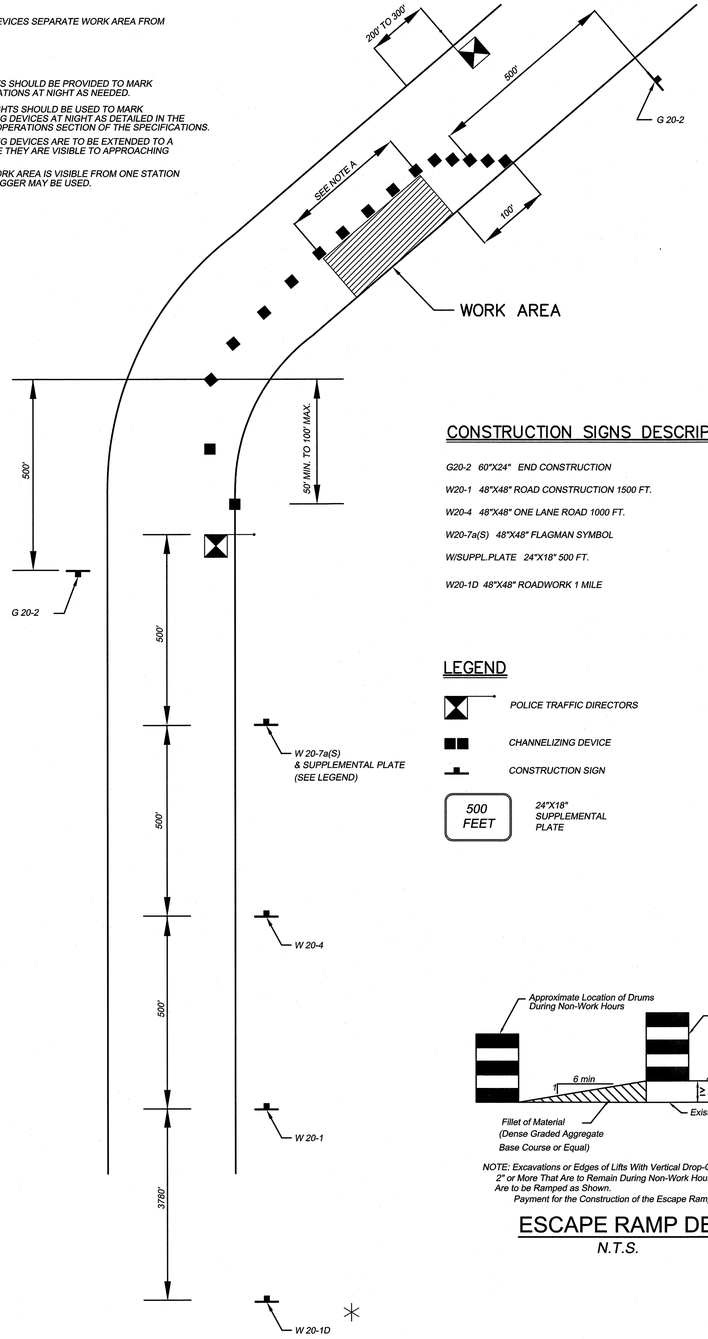
PROJECT NO. PWB0A607.01
DRAWING NO. 105-0
REGISTERED CG

NOTE A:

CHANNELIZING DEVICES SEPARATE WORK AREA FROM TRAVELED WAY

NOTE:

1. *FLOOD LIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.*
2. *WARNING LIGHTS SHOULD BE USED TO MARK CHANNELIZING DEVICES AT NIGHT AS DETAILED IN THE NIGHT TIME OPERATIONS SECTION OF THE SPECIFICATIONS.*
3. *CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.*
4. *IF ENTIRE WORK AREA IS VISIBLE FROM ONE STATION A SINGLE FLAGGER MAY BE USED.*



MINIMUM REQUIREMENTS FOR TEMPORARY LANE CLOSURE

WARNING SIGN SEQUENCE IN OPPOSITE DIRECTION SAME AS BELOW

CONSTRUCTION SIGNS DESCRIPTION:

G20-2 60"X24" END CONSTRUCTION

W20-1 48"X48" ROAD CONSTRUCTION 1500 FT.

W20-4 48"X48" ONE LANE ROAD 1000 FT.

W20-7a(S) 48"X48" FLAGMAN SYMBOL

W/SUPPL.PLATE 24"X18" 500 FT.

W20-1D 48"X48" ROADWORK 1 MILE

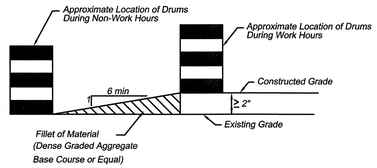
LEGEND

POLICE TRAFFIC DIRECTORS

CHANNELIZING DEVICE

CONSTRUCTION SIGN

500 FEET — *24"X18" SUPPLEMENTAL PLATE*



NOTE: Excavations or Edges of Lifts With Vertical Drop-Offs of 2" or More That Are to Remain During Non-Work Hours Are to be Ramped as Shown. Payment for the Construction of the Escape Ramp.

ESCAPE RAMP DETAIL

N.T.S.

W20 - 1D

✳ THIS SIGN SHOULD BE INSTALLED FOR ROADS WITH A SPEED LIMIT OF 45 M.P.H. OR GREATER.

TRAFFIC CONTROL COORDINATION:

1. PRIOR TO THE START OF CONSTRUCTION, THE ENGINEER SHALL BE NOTIFIED OF THE SINGLE SUPERVISORY LEVEL INDIVIDUAL, TRAINED IN THE PRINCIPLES OF SAFE TRAFFIC CONTROL, WHO, ALONG WITH THE DIRECTION OF THE POLICE DEPARTMENT'S TRAFFIC SAFETY DIVISION, WILL BE ASSIGNED THE RESPONSIBILITY AND AUTHORITY FOR THE IMPLEMENTATION AND MAINTENANCE OF THE TRAFFIC CONTROL.
2. THE PERSON ASSIGNED SHALL MAKE A CHECK OF ALL TRAFFIC CONTROL DEVICES IN USE ON THE ENTIRE PROJECT AT LEAST TWCE A DAY ON WORKING DAYS AND ONCE A DAY ON NON-WORKING DAYS. CONTRACTOR SHALL FILE THE NAME AND TELEPHONE NUMBER OF THE PERSON ASSIGNED TO PROVIDE SERVICES.

TRAFFIC CONTROL DEVICES:

1. TRAFFIC CONTROL DEVICES SHALL BE KEPT CLEAN AND MAINTAINED IN GOOD CONDITION INCLUDING REPLACEMENT IF LOST, STOLEN, OR DAMAGED UNTIL NO LONGER REQUIRED FOR THE PROJECT. ALL TRAFFIC CONTROL DEVICES SHALL COMPLY WITH THE DETAILS SHOWN ON THE PLANS, SUPPLEMENTARY SPECIFICATIONS, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND STANDARD DETAILS FOR TRAFFIC CONTROL DEVICES AS DEVELOPED BY THE NEW JERSEY DEPARTMENT OF TRANSPORTATION.
2. TRAFFIC CONTROL DEVICES SHALL ALSO BE PLACED AS DIRECTED BY THE ENGINEER TO PROVIDE TRAFFIC CONTROL FOR PERSONNEL DOING INSPECTIONS, SAMPLING, TESTING, OR TAKING MEASUREMENTS REQUIRED FOR THE PROJECT.

CONSTRUCTION SIGNS:

1. CONSTRUCTION SIGNS SHALL BE INSTALLED BY THE CONTRACTOR AS REQUIRED BY THE M.U.T.C.D. AND THE POLICE DEPARTMENT AS THE FIRST ORDER OF WORK FOR CONSTRUCTION SIGNS FOR PROJECTS AND SHALL BE MAINTAINED SO AS TO PROVIDE MAXIMUM VISIBILITY AND LEGIBILITY AT ALL TIME.
2. WHEN CONSTRUCTION SIGNS CONFLICT WITH EXISTING SIGNS, THE EXISTING SIGN SHALL BE COVERED. WHEN CONSTRUCTION SIGNS ARE NO LONGER REQUIRED, THEY SHALL BE REMOVED. IF THEY ARE TEMPORARILY NOT REQUIRED, SUCH AS OVERNIGHT, THEY SHALL EITHER BE TEMPORARILY
3. REMOVED OR COVERED.

   EACH ADVANCE WARNING SIGN (W20-1) SHALL BE LIGHTED 24 HOURS A DAY WITH DUAL ALTERNATE FLASH HIGH INTENSITY WARNING LIGHTS OF EITHER THE STROBE OR INCANDESCENT TYPE AS SELECTED BY THE CONTRACTOR.

CONSTRUCTION STAGING PLAN:

1. THE CONSTRUCTION STAGING PLAN IS BASED ON THE MINIMUM REQUIREMENTS PROVIDED IN THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THE CONTRACTOR SHALL WORK IN ACCORDANCE WITH THE PROVISIONS OF THE PLAN AND THE MUTCD AND SHALL ONLY DEVIATE FROM THE PLAN AFTER APPROVAL.
2. APPROVAL OF THE ENGINEER AND CONSENT OF THE LOCAL AUTHORITIES HAVING JURISDICTION SHALL FIRST BE OBTAINED FOR REROUTING TRAFFIC OVER DETOURS THAT ARE NOT SHOWN ON THE PLANS. ALL NECESSARY ARRANGEMENTS SHALL BE MADE WITH SUCH AUTHORITIES REGARDING THE ESTABLISHMENT, MAINTENANCE AND REPAIR OF SUCH DETOURS, THE REGULATION AND DIRECTION OF TRAFFIC THEREON, AND SIGNING. ADEQUATE DIRECTIONAL AND DETOUR SIGNS, ACCEPTABLE TO THE LOCAL AUTHORITIES, SHALL BE FURNISHED AND ERECTED AT THE LOCATIONS WHERE SUCH
3. AUTHORITIES MAY DIRECT.

   CONSTRUCTION STAGING PLANS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS – SECTION 159. IF A CONFLICT ARISES BETWEEN THE PLANS AND SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN UNLESS OTHERWISE
4. DIRECTED BY THE ENGINEER.

   ITEMS AND QUANTITIES SHOWN ARE INTENDED ONLY AS A GUIDE TO THE CONTRACTOR AND ARE SUGGESTED MINIMUMS FOR THE CLOSURE OF ONE LANE AND TWO LANES OF TRAFFIC.

SUGGESTED GENERAL SEQUENCE OF CONSTRUCTION

1. PROVIDE MINIMUM 24 HOUR ADVANCE NOTIFICATION TO THE LOCAL POLICE DEPARTMENT AND THE ENGINEER PRIOR TO MODIFICATION OF EXISTING TRAFFIC PATTERNS.
2. INSTALL "ADVANCE WARNING" SIGNS.
3. ESTABLISH DETOUR ROUTES, IF AND WHERE APPROVED BY THE ENGINEER AND/OR THE TRAFFIC SAFETY DIRECTOR, WHERE APPLICABLE.
4. INSTALL TEMPORARY TRAFFIC CONTROL DEVICES AS APPLICABLE.
5. COMPLETE INSTALLATION OF IMPROVEMENTS.
6. REMOVE TEMPORARY TRAFFIC CONTROL DEVICES, DETOUR SIGNS AND "ADVANCE WARNING SIGNS".

GENERAL NOTES:

1. VEHICULAR AND PEDESTRIAN TRAFFIC IS TO BE MAINTAINED OVER THE EXISTING ROADWAYS AND INTO EXISTING DRIVEWAYS WITHIN THE SCOPE OF THE PROJECT AT ALL TIMES.
   TRAFFIC CONTROL IS TO BE COORDINATED WITH LOCAL AUTHORITIES.
2. FINAL RESPONSIBILITY FOR THE INSTALLATION OF ADEQUATE PRECAUTIONS AND FOR THE PROTECTION OF THE TRAVELING PUBLIC AND HIS OWN PERSONNEL, SHALL REST WITH THE CONTRACTOR.
3. ALTERNATE ONE-WAY TRAFFIC CONTROL MAY BE REQUIRED DURING CONSTRUCTION OPERATIONS. PERMISSION FOR COMPLETE STOPPAGE OF ONE DIRECTION OF TRAFFIC MUST BE OBTAINED FROM THE LOCAL POLICE AND THE ENGINEER AT LEAST THREE (3) DAYS PRIOR TO STOPPAGE. ALTERNATE ONE WAY TRAFFIC CONTROL WILL BE AFFECTED BY TWO UNIFORM TRAFFIC DIRECTORS, ONE AT EACH END OF THE WORK AREA. ALL TEMPORARY TRAFFIC LANES SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 11 FEET.
4. SITE FOR THE STORAGE OF EQUIPMENT AND MATERIALS DURING THE PROGRESS OF THE WORK SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.
5. COMPLIANCE WITH ALL PRESCRIBED SAFETY PRECAUTIONS CONTAINED HEREIN SHALL NOT RELIEVE THE CONTRACTOR OF HIS PRIMARY RESPONSIBILITY TO TAKE ALL NECESSARY MEASURES TO PROTECT AND SAFEGUARD THE PUBLIC NOR RELIEVE HIM OF ANY RESPONSIBILITIES DESCRIBED IN THE CONTRACT AGREEMENTS.
6. IF THE LOCAL POLICE DEPARTMENT NOTIFIES THE CONTRACTOR OR HIS SUPERINTENDENT OR THE ENGINEER OF ANY HAZARDOUS CONDITION OR VIOLATION OF TRAFFIC CONTROL IN THE WORK AREA REGULATIONS, ALL OPERATIONS SHALL BE IMMEDIATELY DISCONTINUED AND IMMEDIATE REMEDIAL ACTION SHALL BE TAKEN TO THE SATISFACTION OF THE LOCAL POLICE BEFORE WORK IS RESUMED. ALL COSTS INCURRED AS A RESULT OF SUCH ACTION SHALL BE BORNE BY THE CONTRACTOR WITHOUT RECOURSE AGAINST
7. THE OWNER.

   REDUCTION OF THE NUMBER OF LANES AVAILABLE FOR TRAFFIC OR REDUCTION OF EXISTING WIDTHS OF TRAVELED WAY WILL NOT BE PERMITTED UNTIL AFTER 9:00 A.M. AND SHALL BE REMOVED PRIOR TO 4:00 P.M. UNLESS
8. OTHERWISE DIRECTED BY THE ENGINEER.

   WORK WHICH WILL INTERFERE WITH TRAFFIC OR RESTRICT THE WIDTH OF TRAVELED WAY AVAILABLE FOR TRAFFIC SHALL NOT BE PERFORMED ON
9. SATURDAYS, SUNDAYS, OR LEGAL HOLIDAYS UNLESS OTHERWISE DIRECTED BY THE ENGINEER

   PRIOR TO BEGINNING A SEASONAL SHUTDOWN OR ANY OTHER PROLONGED WORK STOPPAGE, OR WHEN WORK IS SUSPENDED BY THE ENGINEER, ALL EXCAVATED AREAS WITHIN THE TRAVELED WAY OR ADJACENT THERETO SHALL
10. BE BROUGHT TO A GRADE COMPATIBLE WITH THE EXISTING TRAVELED WAY OR TO FINISHED GRADE, AS APPROVED.

    THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE WITHIN THE PROJECT LIMITS UNTIL ACCEPTANCE. THIS MAINTENANCE SHALL CONSIST OF
11. CONTINUOUS AND EFFECTIVE WORK PROSECUTED DAY BY DAY, WITH ADEQUATE EQUIPMENT AND FORCES TO THE END THAT THE ROADWAY IS KEPT IN SATISFACTORY CONDITION AT ALL TIMES.
12. IN THE CASE OF A CONTRACT REQUIRING THE PLACING OF A COURSE UPON A COURSE OF SUBGRADE PREVIOUSLY CONSTRUCTED, THE CONTRACTOR SHALL MAINTAIN THE PREVIOUS COURSE OF SUBGRADE DURING ALL CONSTRUCTION OPERATIONS.
13. THE CONTRACTOR SHALL BACKFILL ALL EXCAVATED AREAS WITHIN THE ROADWAY TO A GRADE COMPATIBLE WITH THE EXISTING TRAVELED WAY AT SUCH TIMES HE IS NOT ACTIVELY WORKING. THIS SHALL INCLUDE NIGHTS, WEEKENDS AND PERIODS OF SHUTDOWNS.

    COMPETENT, TRAINED AND UNIFORMED TRAFFIC DIRECTORS SHALL BE
14. EMPLOYED AT EVERY POINT WHERE CONTRACTOR'S EQUIPMENT IS WORKING IMMEDIATELY ADJACENT TO, OR IS ENTERING, LEAVING OR CROSSING ACTIVE TRAFFIC LANES. TRAFFIC DIRECTORS SHALL BE EMPLOYED CONTINUOUSLY FOR THE FULL TIME SUCH CONDITIONS EXIST AS DETERMINED BY THE ENGINEER.

    THE USE OF UNIFORMED POLICE OFFICERS AS TRAFFIC DIRECTORS IS NOT A SPECIFIC REQUIREMENT OF THIS PROJECT. HOWEVER, SHOULD THEY BE DEEMED NECESSARY DUE TO IMPROPER ACTIONS OF THE CONTRACTOR'S TRAFFIC DIRECTORS OR SHOULD THE CONTRACTOR DESIRE THE ASSISTANCE OF UNIFORMED POLICE OFFICERS AS TRAFFIC DIRECTORS, THE POLICE TRAFFIC DIRECTORS SHALL BE OFF-DUTY POLICE OFFICERS FROM WITHIN THE MUNICIPALITY WHERE THE WORK IS BEING PERFORMED. POLICE TRAFFIC
15. DIRECTORS SHALL BE LOCATED WHERE SHOWN ON THE PLANS OR AT SPECIFIC LOCATIONS DESIGNATED BY THE POLICE DEPARTMENT OR ENGINEER DURING CONSTRUCTION HOURS. THE MUNICIPALITY SHALL BE CONTACTED IN ORDER TO OBTAIN THE SERVICES OF POLICE TRAFFIC DIRECTORS AND THE NAME, ADDRESS AND TELEPHONE NUMBER OF THEIR LOCAL REPRESENTATIVE.

    THE OWNERS OF ADJOINING PROPERTIES SHALL BE GIVEN A WRITTEN NOTICE AT LEAST 3 DAYS PRIOR TO THE BEGINNING OF ANY WORK WHICH INTERFERES WITH THE OWNERS NORMAL PASSAGE.

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TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY, NEW JERSEY

2019 MILLING AND RESURFACING PROGRAM

CONTRACT NO. 2019-001

CONSTRUCTION STAGING PLAN

CME ASSOCIATES

CONSULTING AND MUNICIPAL ENGINEERS

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MICHAEL J. McCLELLAND P.E.

NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

3.25.19

SCALE: As Shown	DATE: March 2019
DRAWN BY: PB	DESIGNED BY: PB
CHECKED BY	SHEET: 106 of 106

REGISTERED: CG

DRAWING NO.: 106-3

FILE NO.: PWB0A607.01