TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

MAGNOLIA ROAD IMPROVEMENTS

UTILITIES

ELECTRIC
PUBLIC SERVICE ELECTRIC AND GAS CO.
472 WESTON CANAL ROAD
SOMERSET, NJ 08873
ATTN : JASON HESS
(732) 764–3158

CABLE
COMCAST CABLE
800 RAHWAY AVENUE
UNION, NJ 07083
ATTN: PHILIP GIBSON
(908) 624–6779

WATER
MIDDLESEX WATER COMPANY
ENGINEERING DEPARTMENT
1500 RONSON ROAD, P.O. BOX 1500
ISELIN, NJ 08830–0452
ATTN: ISIDRO BUEN
(732) 638–7533

TELEPHONE/COMMUNICATIONS
VERIZON–NEW JERSEY, INC.
999 WEST MAIN STREET
FREEHOLD, NJ 07728
ATTN: IAN CHAN
(224) 713–2566

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: DAVE A. JONES
(610) 283–1701

ELIZABETHTOWN GAS CO.
520 GREEN LANE
UNION, NJ 07083
ATTN: KEVIN ESCOBAR
(908) 662–8370

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
ATTN: KEVIN YUILL
(732) 921–5623

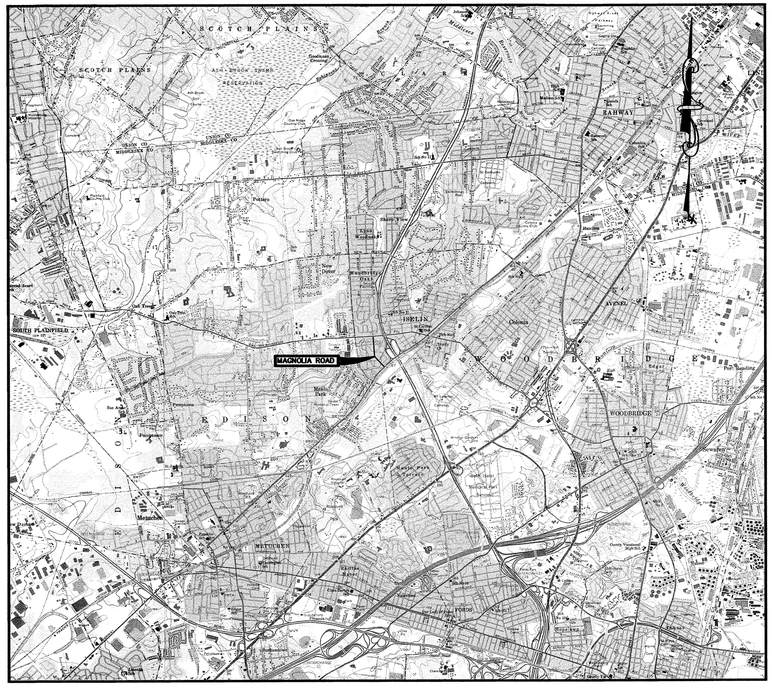
TEXAS EASTERN GAS PIPELINE
501 COOLIDGE STREET
SOUTH PLAINFIELD, NJ 07080
ATTN: RICHARD THORNTON
(908) 821–1809

JOHN E. McCORMAC - MAYOR

TOWNSHIP COUNCIL

GREGG M. FICARRA	COUNCIL PRESIDENT
KYLE ANDERSON	COUNCIL VICE PRESIDENT
HOWIE BAUER	COUNCILMAN
LIZBETH DEJESUS	COUNCILWOMAN
SHARON MCAULIFFE	COUNCILWOMAN
DEBBIE MEEHAN	COUNCILWOMAN
VIRBHADRA N. PATEL	COUNCILMAN
BRIAN SMALL	COUNCILMAN
CORY SPILLAR	COUNCILMAN
VITO CIMILLUCA	BUSINESS ADMINISTRATOR
JOHN M. MITCH	MUNICIPAL CLERK
JAMES P. NOLAN, JR., ESQ.	DIRECTOR OF LAW
GEORGE T. BREW	DIRECTOR OF PUBLIC WORKS
MICHAEL GELIN, P.E.	MUNICIPAL ENGINEER

NJDOT LOCAL AID SUBMISSION



LOCATION MAP
SCALE: N.T.S.

NEW JERSEY DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF 2019 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 2019 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 2016 AND "ELECTRICAL BUREAU STANDARD DETAILS" (2007) TO GOVERN, EXCEPT FOR THOSE DETAILS CONTAINED HEREIN.

TOTAL LENGTH OF PROJECT = 1,905 LF

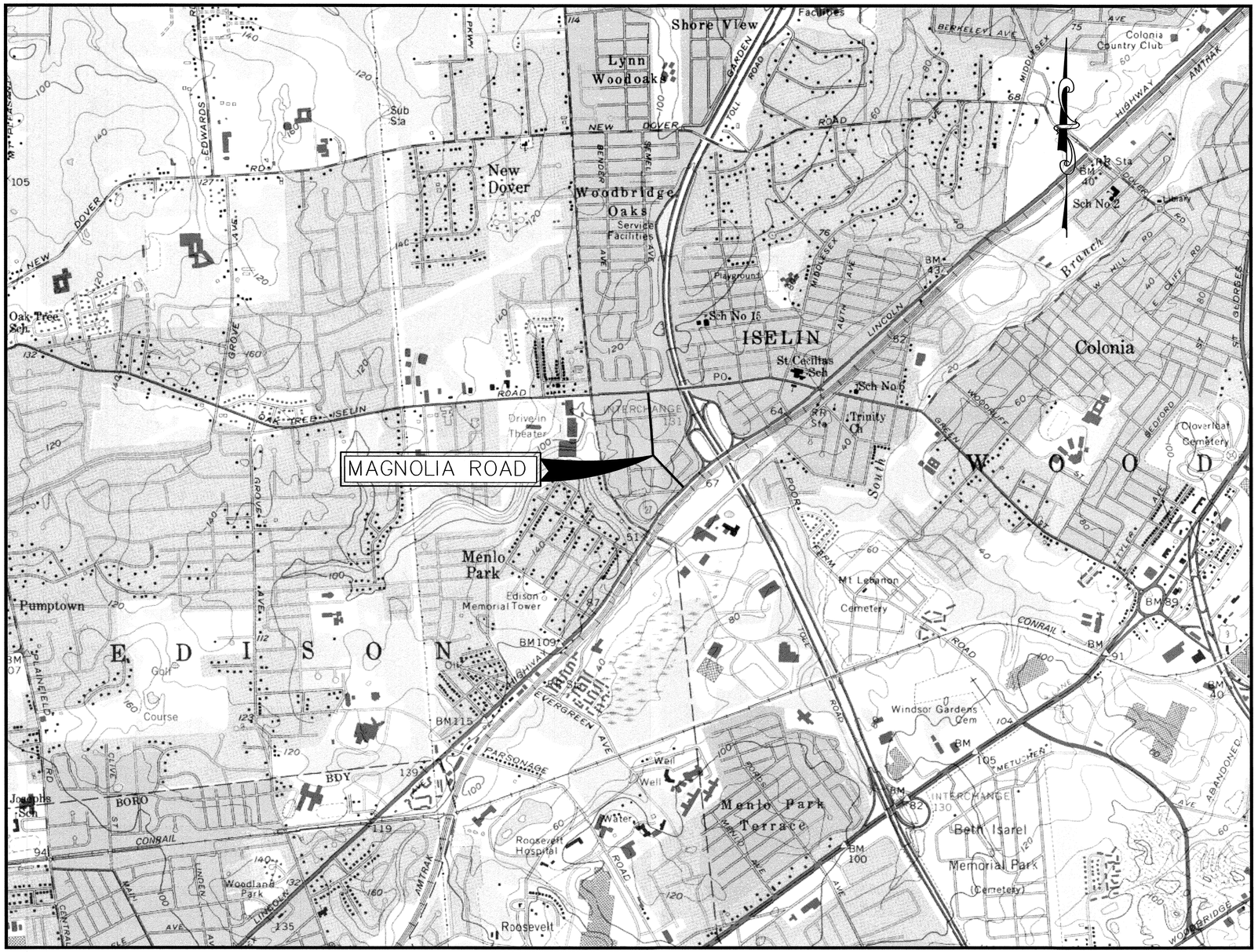
INDEX OF DRAWINGS

PREPARED BY:

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

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731

PWB0A608.01



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 192658);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

MAGNOLIA ROAD IMPROVEMENTS

LOCATION PLAN AND CONSTRUCTION NOTES

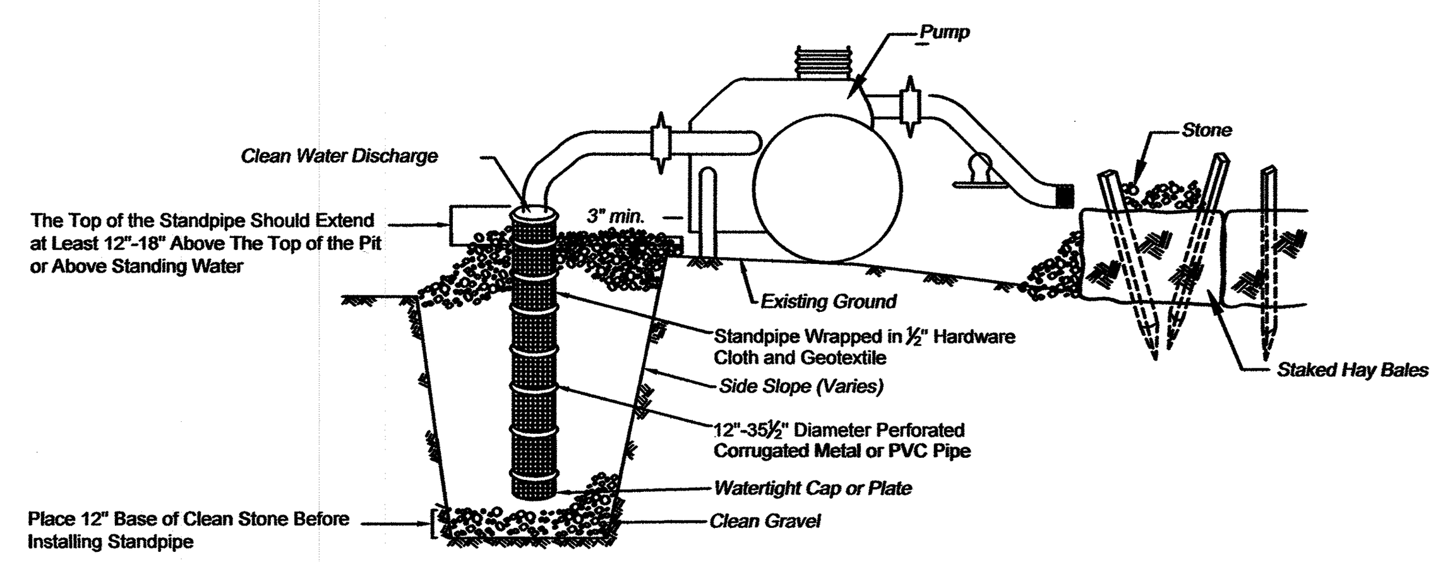
CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28059000
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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

SCALE	As Shown
DATE	July 2023
DRAWN BY	PD
DESIGNED BY	PD
CHECKED BY	MJ
SHEET	2 of 23
DRAWING NUMBER	LP-1

RESETTER NO. PWB0A608.01

LP-1

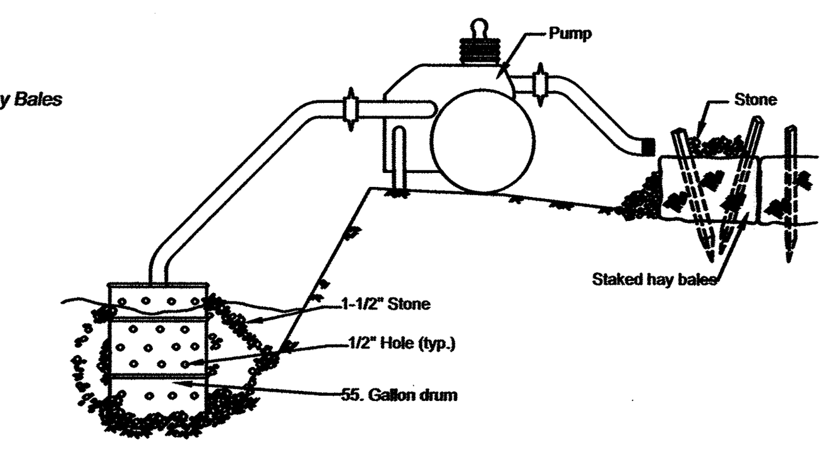


Construction Specifications

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.

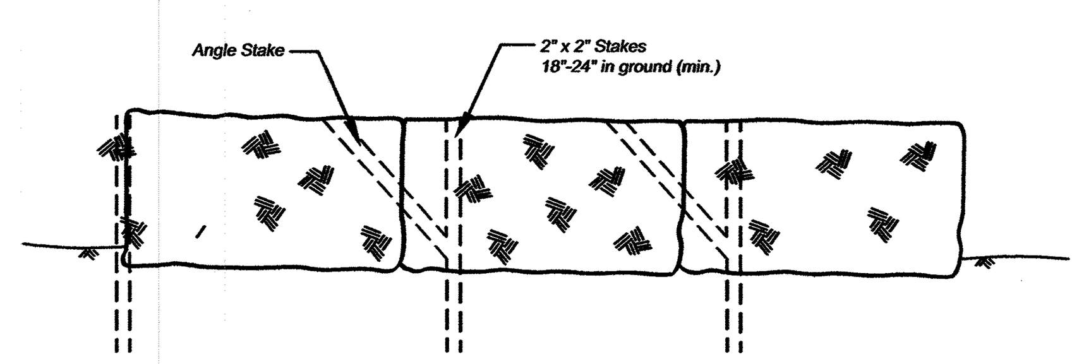
DEWATERING DETAIL

N.T.S.



DEWATERING DETAIL

N.T.S.



STRAW BALE SILTATION DIKE DETAIL

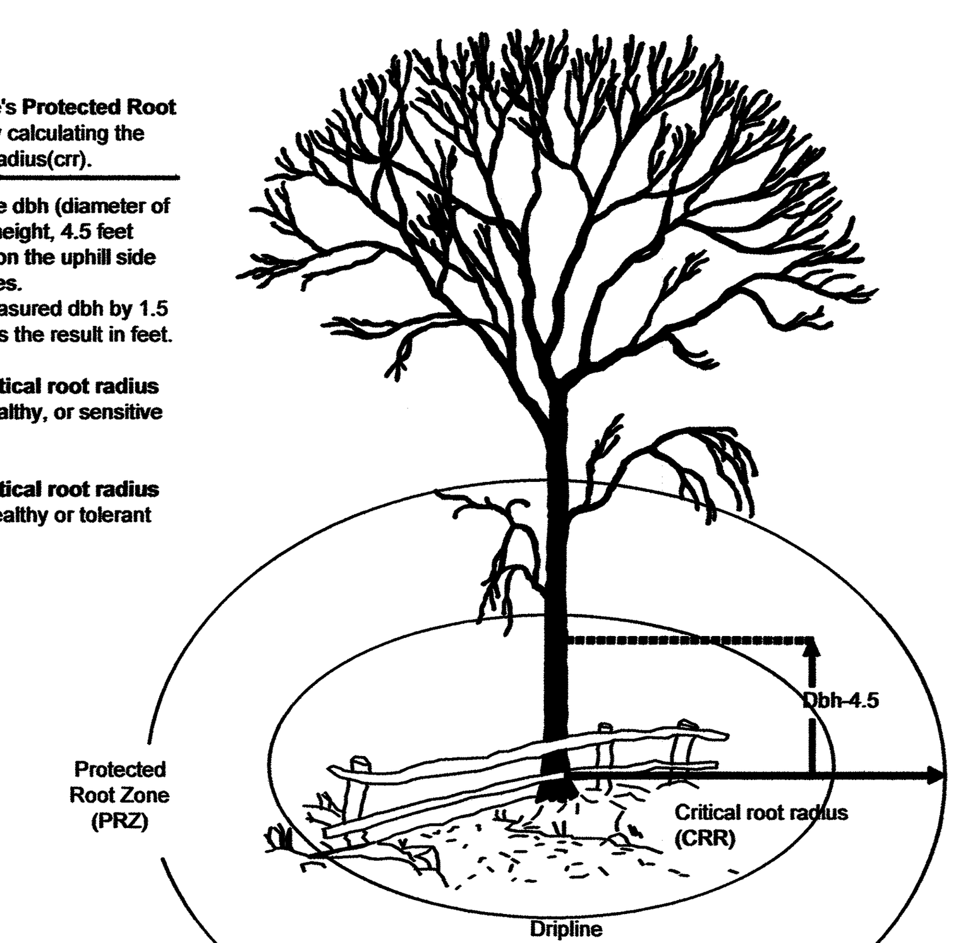
N.T.S.

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.

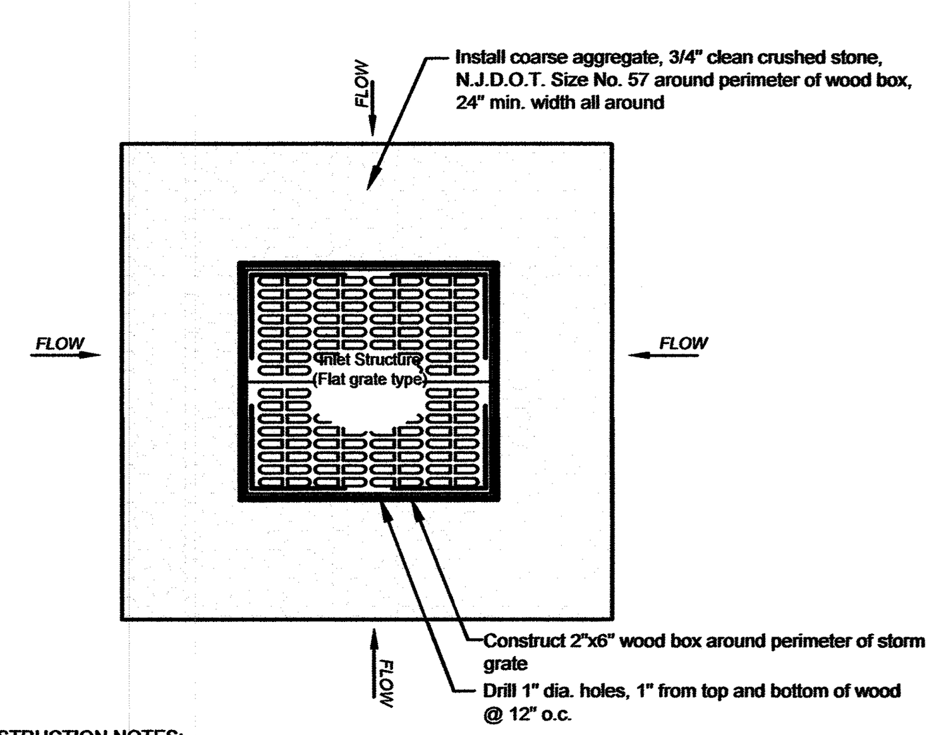
Dbh x 1.5: Critical root radius for older, unhealthy, or sensitive species.

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



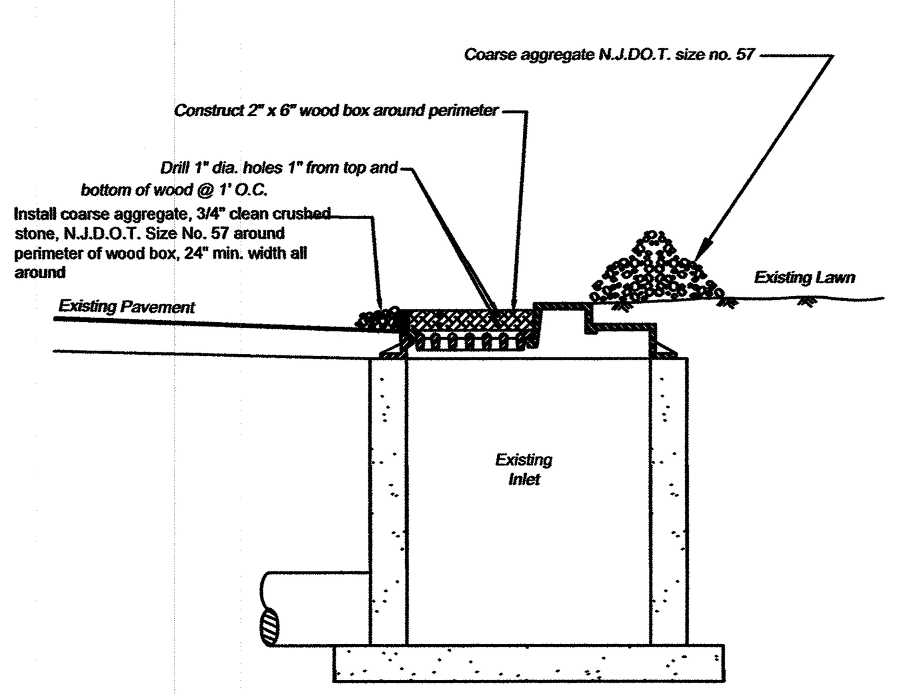
ROOT PROTECTION

N.T.S.



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.

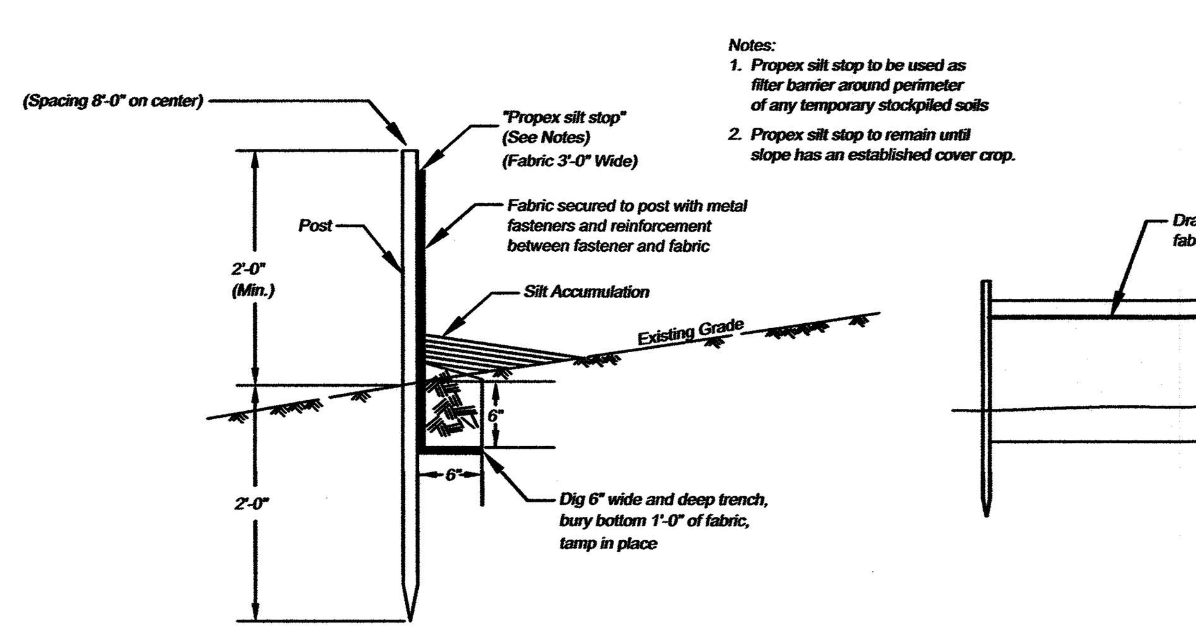
PLAN



INLET SILTATION PROTECTION DETAIL

INLET FILTER

N.T.S.



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 OFFERED BY RUTGERS CO-OPERATIVE 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. 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.

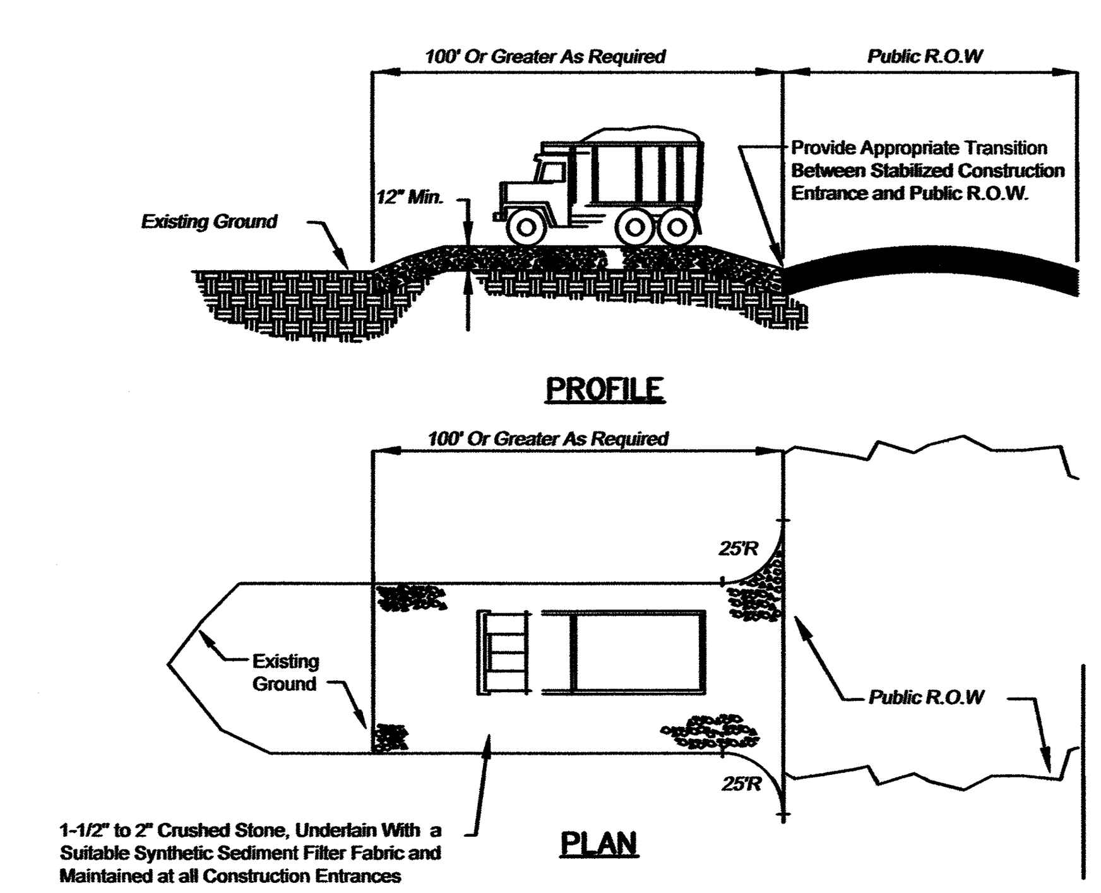
SITE PREPARATION

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.



STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

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.

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 ACCORDING TO THE RATE RECOMMENDED BY SOIL TESTING..

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. There are to be no staging areas outside the limit of disturbance indicated on the plans.

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

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)	- 130 LBS. PER ACRE
HARD FESCUE	- 45 LBS. PER ACRE
CHEWING FESCUE	- 20 LBS. PER ACRE
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.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

MAGNOLIA ROAD IMPROVEMENTS

SOIL EROSION AND SEDIMENT CONTROL PLAN

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

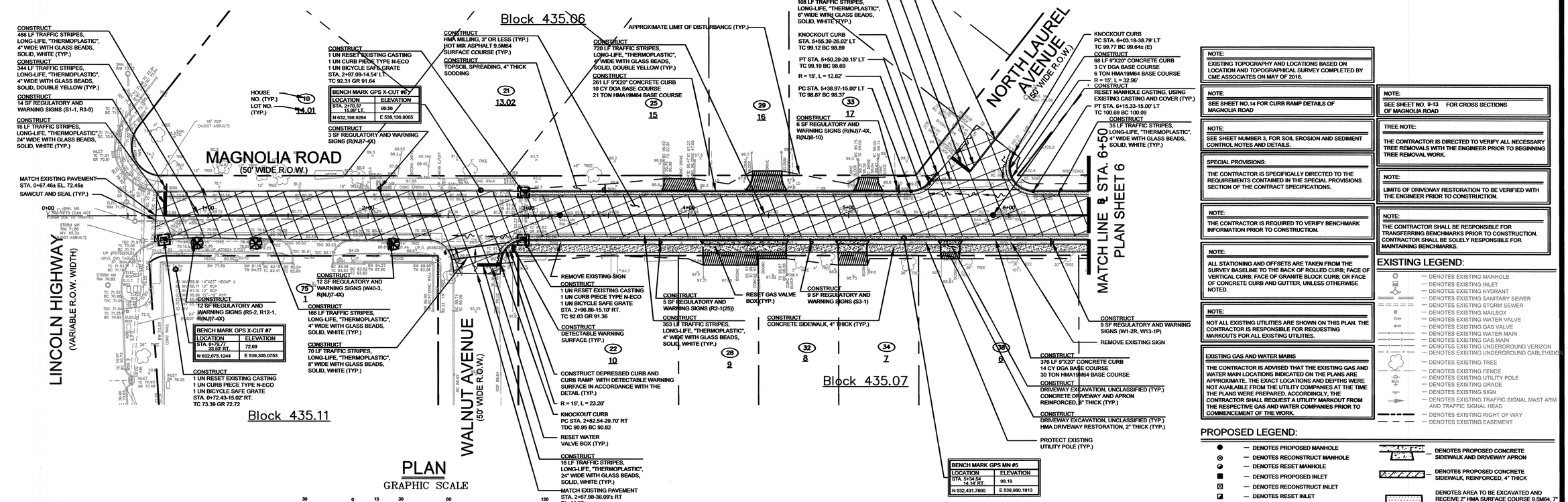
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
7.24.23

REGISTER NO.
FILE NO. PWB0A608.01

SCALE	DATE	DRAWING NUMBER
As Shown	July 2023	SESC-1
DRAWN BY PD	DESIGNED BY PD	
CHECKED BY CO	SHEET 3 of 23	SESC-1

TOWNSHIP OF WOODBRIDGE

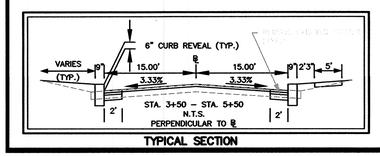
COUNTY OF MIDDLESEX



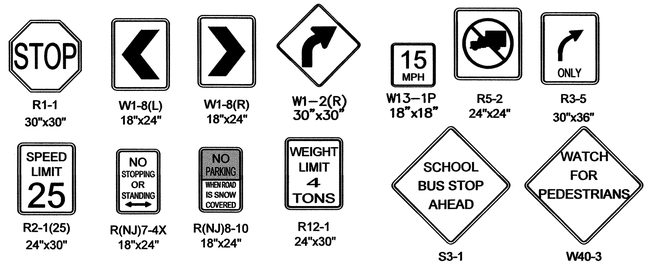
CONSTRUCT
MAGNOLIA AVENUE STA. 0+67 TO 6+50

119	LF	REMOVE EXISTING CURB OR CURB AND GUTTER
52	CY	DRIVEWAY EXCAVATION, UNCLASSIFIED
2248	SY	HMA MILLING, 3" OR LESS
28	CY	DENSE GRADED AGGREGATE BASE COURSE
2086	LF	POLYMERIZED JOINT ADHESIVE
60	LF	PREPARE AND SEAL EXISTING JOINTS AND CRACKS IN ASPHALT PAVEMENT
323	TON	HOT MIX ASPHALT 9.5M64 SURFACE AND LEVELER COURSE
59	TON	HOT MIX ASPHALT 19M64 BASE COURSE
2	UN	RESET MANHOLE CASTING, USING EXISTING CASTING AND COVER
3	UN	RESET EXISTING CASTING
3	UN	CURB PIECE, TYPE "N-ECO"
3	UN	BICYCLE SAFE GRATE
138	SY	CONCRETE SIDEWALK, 4" THICK
68	SF	CONCRETE DRIVEWAY, REINFORCED, 6" THICK
117	SY	HOT MIX ASPHALT DRIVEWAY, 2" THICK
3	SY	DETECTABLE WARNING SURFACE (CAST IN PLACE)
705	LF	9"x20" CONCRETE VERTICAL CURB
2184	LF	TRAFFIC STRIPES, LONG LIFE, "THERMOPLASTIC", 4" WIDE
178	LF	TRAFFIC STRIPES, LONG LIFE, "THERMOPLASTIC", 8" WIDE
43	LF	TRAFFIC STRIPES, LONG LIFE, "THERMOPLASTIC", 24" WIDE
70	SF	REGULATORY AND WARNING SIGNS
5	UN	RESET WATER VALVE BOX
6	UN	RESET GAS VALVE BOX
409	SY	TOPSOILING, 4 " THICK
409	SY	FERTILIZING
409	SY	TOPSOIL STABILIZATION, TYPE 2 MAT
3	UN	REPLACEMENT TREES

STA.	0+00	0+50	1+00	1+50	2+00	2+50	3+00	3+50	4+00	4+50	5+00	5+50	6+00	6+50	STA.
TC LT.	EX.	EX.	EX.	EX.	EX.	EX.	92.06	94.36	TDC 95.48	TDC 96.57	98.03	98.95	-	101.76	TC LT.
℄	EX.	EX.	75.54	80.136	85.02	88.95	92.06	94.36	95.85	96.94	98.03	99.11	100.26	101.76	℄
TC RT.	EX.	EX.	EX.	EX.	EX.	EX.	92.06	94.36	95.85	TDC 96.57	TDC 97.66	99.11	100.26	101.76	TC RT.



TYPICAL SECTION



SIGN LEGEND
N.T.S.

NOTE:
EXISTING TOPOGRAPHY AND LOCATIONS BASED ON LOCATION AND TOPOGRAPHICAL SURVEY COMPLETED BY CME ASSOCIATES ON MAY OF 2018.

NOTE:
SEE SHEET NO.14 FOR CURB RAMP DETAILS OF MAGNOLIA ROAD

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. 9-13 FOR CROSS SECTIONS OF MAGNOLIA ROAD

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
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA SURFACE AND LEVELER COURSE, 9.5M64
- DENOTES PROPOSED ROADWAY TRENCH REPAIR
- 36.12 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

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TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

MAGNOLIA ROAD IMPROVEMENTS
CONSTRUCTION PLAN (1 OF 3)

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

REGISTER NO. PWB0A608.01

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
DATE 12.4.23

SCALE	DATE	DRAWING NUMBER
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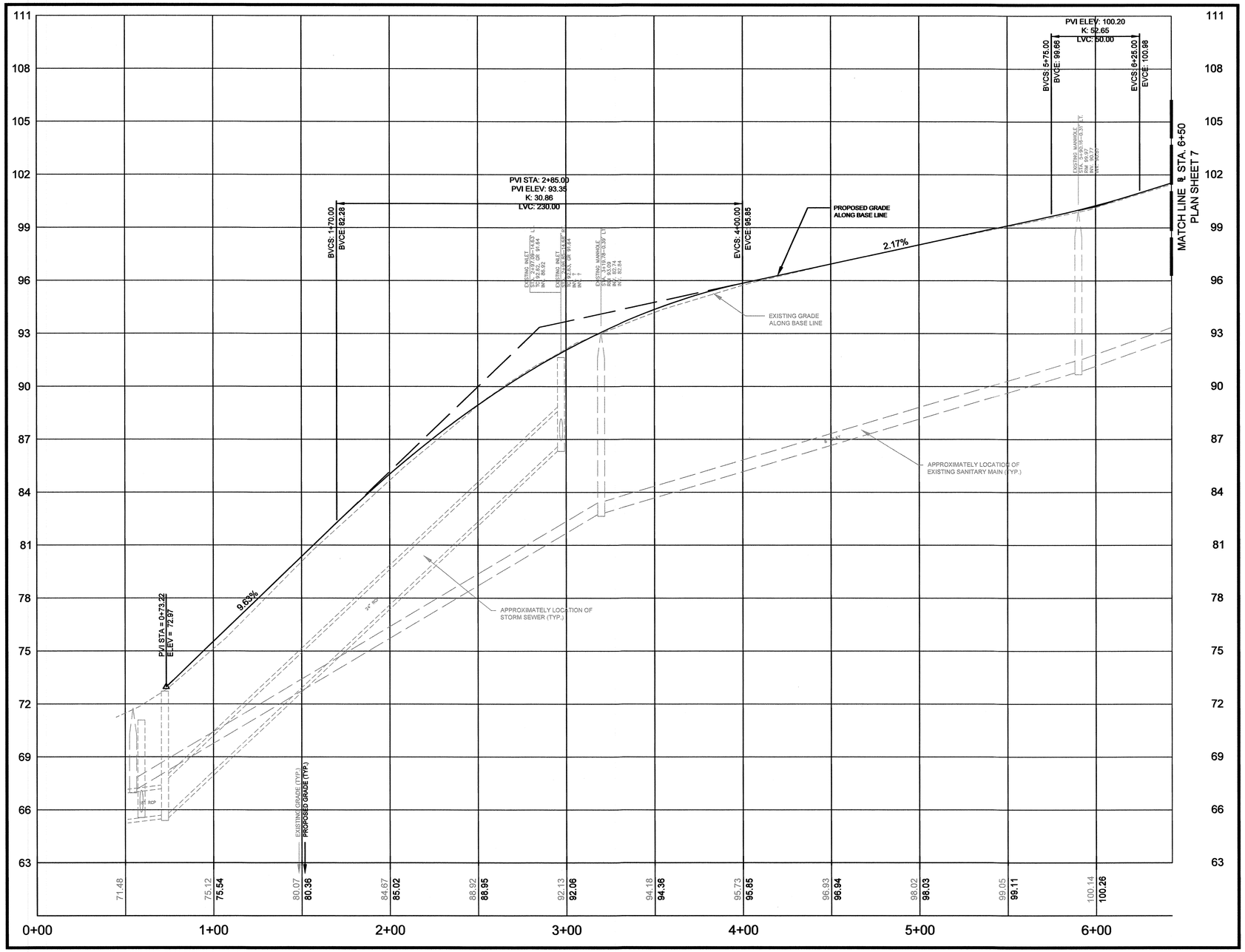
DRAWN BY PD	DESIGNED BY PD	C-3
CHECKED BY	SHEET 4 of 23	



MAGNOLIA ROAD PROFILE

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

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

MAGNOLIA ROAD IMPROVEMENTS

PROFILE (1 OF 3)

RESERVED NO.

FILE NO. PWB0A608.01

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

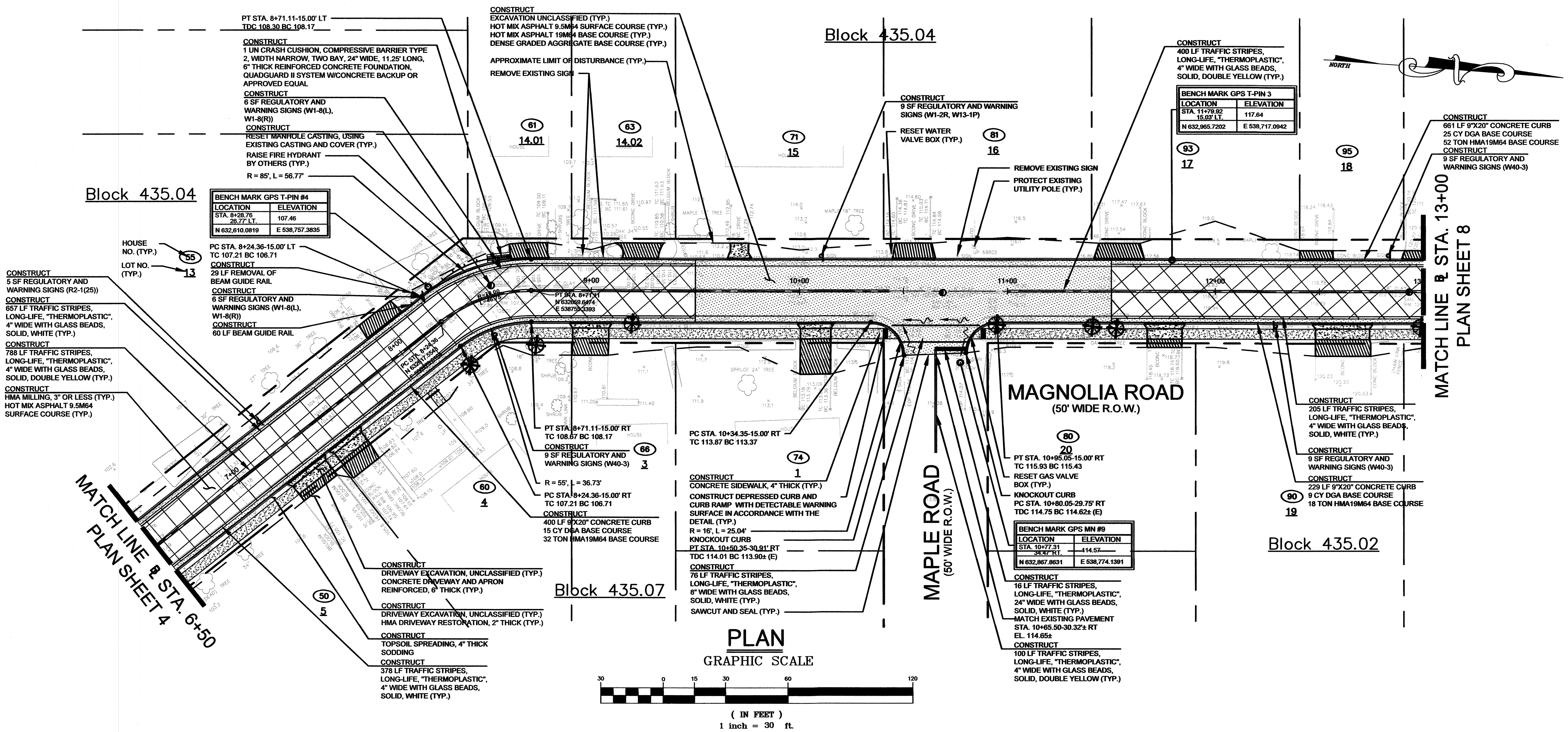
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER
LIC. 32468

SCALE	DATE
As Shown	July 2023
DRAWN BY: PD	DESIGNED BY: PD
CHECKED BY: MJ	SHEET: 5 of 23

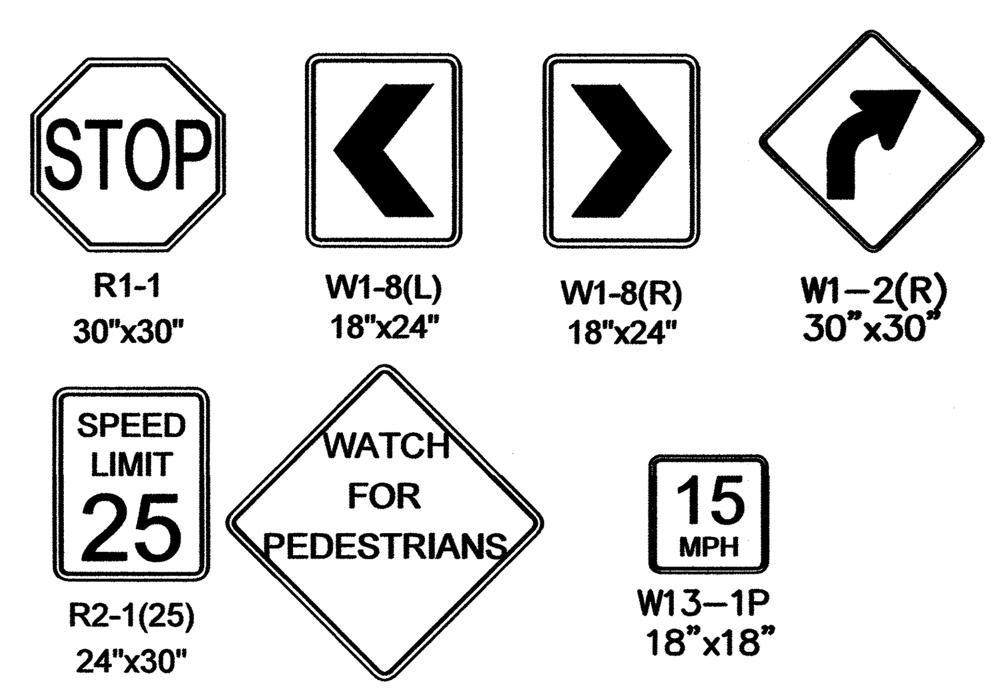
DRAWING NUMBER: P-1 / P-2

CONSTRUCT
MAGNOLIA AVENUE STA. 6+50 TO 13+00

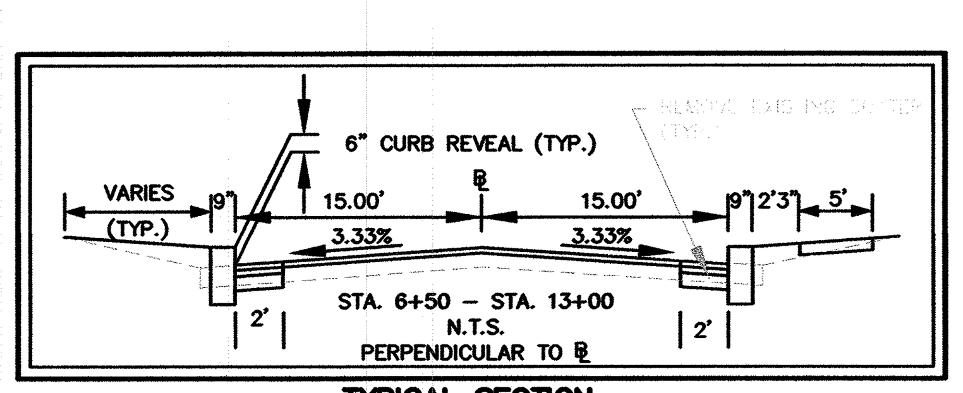
151	LF	REMOVE EXISTING CURB OR CURB AND GUTTER
103	SF	REMOVE EXISTING WALKS
86	CY	DRIVEWAY EXCAVATION, UNCLASSIFIED
284	CY	EXCAVATION, UNCLASSIFIED
1500	SY	HMA MILLING, 3" OR LESS
155	CY	DENSE GRADED AGGREGATE BASE COURSE
2701	LF	POLYMERIZED JOINT ADHESIVE
30	LF	PREPARE AND SEAL EXISTING JOINTS AND CRACKS IN ASPHALT PAVEMENT
327	TON	HOT MIX ASPHALT 9.5M64 SURFACE AND LEVELER COURSE
328	TON	HOT MIX ASPHALT 19M64 BASE COURSE
3	UN	RESET MANHOLE CASTING, USING EXISTING CASTING AND COVER
282	SY	CONCRETE SIDEWALK, 4" THICK
100	SF	CONCRETE DRIVEWAY, REINFORCED, 6" THICK
209	SY	HOT MIX ASPHALT DRIVEWAY, 2" THICK
2	SY	DETECTABLE WARNING SURFACE (CAST IN PLACE)
1290	LF	9"x20" CONCRETE VERTICAL CURB
2903	LF	TRAFFIC STRIPES, LONG LIFE, "THERMOPLASTIC", 4" WIDE
76	LF	TRAFFIC STRIPES, LONG LIFE, "THERMOPLASTIC", 8" WIDE
16	LF	TRAFFIC STRIPES, LONG LIFE, "THERMOPLASTIC", 24" WIDE
53	SF	REGULATORY AND WARNING SIGNS
60	LF	BEAM GUIDE RAIL
1	UN	BEAM GUIDE RAIL ACHNORAGE
1	UN	CRASH CUSHION, COMPRESSIVE BARRIER TYPE 2
29	LF	REMOVAL OF BEAM GUIDE RAIL
3	UN	RESET WATER VALVE BOX
2	UN	RESET GAS VALVE BOX
717	SY	TOPSOILING, 4 " THICK
717	SY	FERTILIZING
717	SY	TOPSOIL STABILIZATION, TYPE 2 MAT
7	UN	REPLACEMENT TREES



STA.	6+50	7+00	7+50	8+00	8+50	9+00	9+50	10+00	10+50	11+00	11+50	12+00	12+50	13+00	STA.
TC LT.	101.76	103.32	104.88	TDC 106.08	108.01	109.57	111.13	112.69	TDC 114.02	116.09	TDC 117.34	118.85	TDC 119.53	TDC 120.59	TC LT.
℄	101.76	103.32	104.88	106.44	108.01	109.57	111.13	112.69	114.39	116.09	117.71	118.85	119.90	120.96	℄
TC RT.	101.76	103.32	TDC 104.51	106.44	108.01	TDC 109.20	111.13	TDC 112.32	114.97	116.09	117.71	118.85	TDC 119.53	120.96	TC RT.



SIGN LEGEND
N.T.S.



TYPICAL SECTION

NOTE:
EXISTING TOPOGRAPHY AND LOCATIONS BASED ON LOCATION AND TOPOGRAPHICAL SURVEY COMPLETED BY CME ASSOCIATES ON MAY OF 2018.

NOTE:
SEE SHEET NO.14 FOR CURB RAMP DETAILS OF MAGNOLIA ROAD

NOTE:
SEE SHEET NO. 9-13 FOR CROSS SECTIONS OF MAGNOLIA ROAD

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

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

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

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

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

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

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.

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
- 36.12 — 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

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

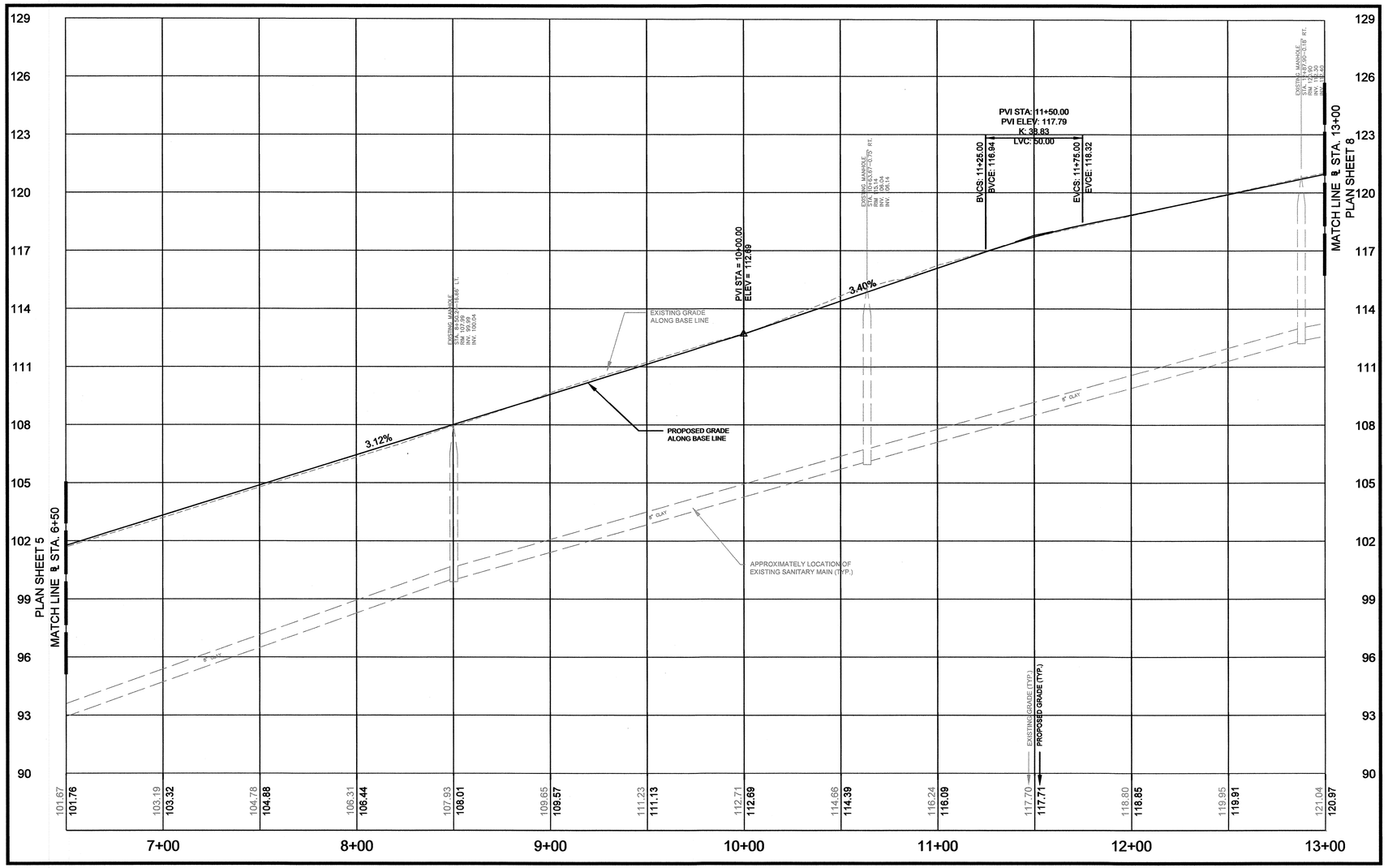
MAGNOLIA ROAD IMPROVEMENTS
CONSTRUCTION PLAN (2 OF 3)

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
DATE 7.24.23

REGISTER NO.
FILE NO. PWB0A608.01

SCALE	DATE	DRAWING NUMBER
As Shown	July 2023	C-2
DRAWN BY: PD	DESIGNED BY: PD	
CHECKED BY: GO	SHEET: 6 of 23	C-3



MAGNOLIA ROAD PROFILE

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

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

MAGNOLIA ROAD IMPROVEMENTS

PROFILE (2 OF 3)

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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

SCALE	As Shown
DATE	July 2023
DRAWN BY	PD
DESIGNED BY	PD
CHECKED BY	MJ
SHEET	7 of 23
DRAWING NUMBER	P-2

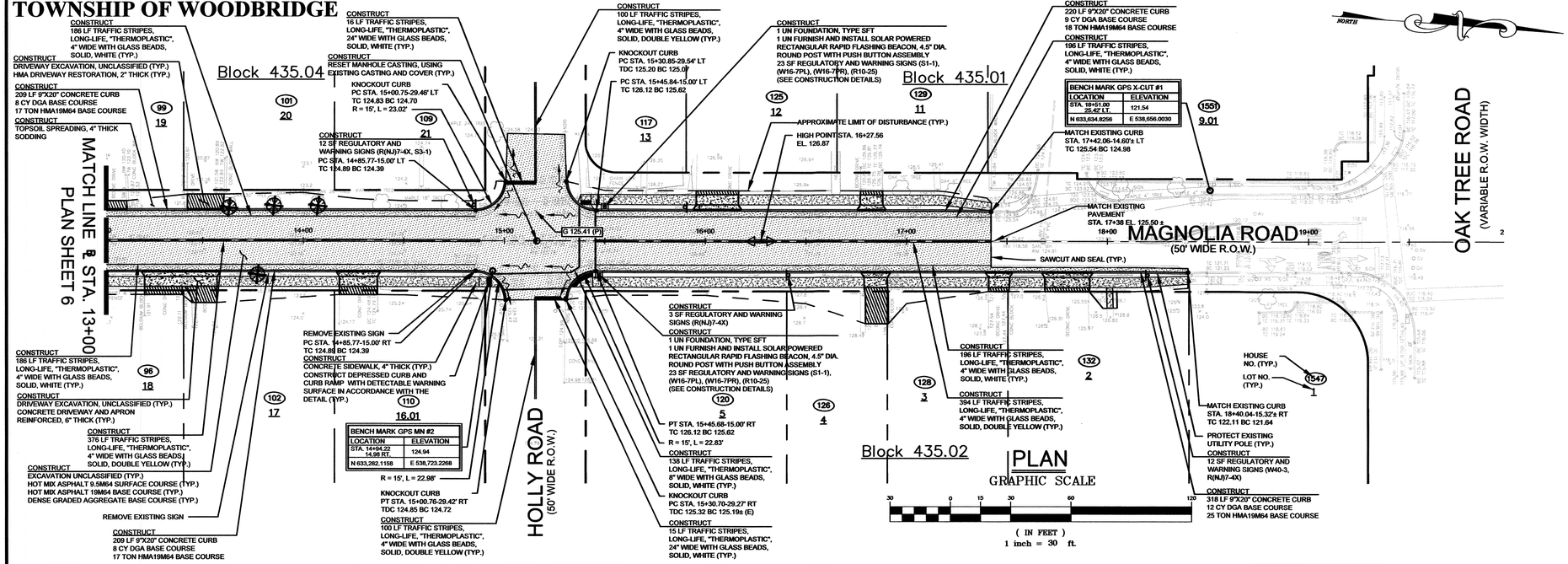
DATE 7.26.23

REGISTER NO. PWB0A608.01

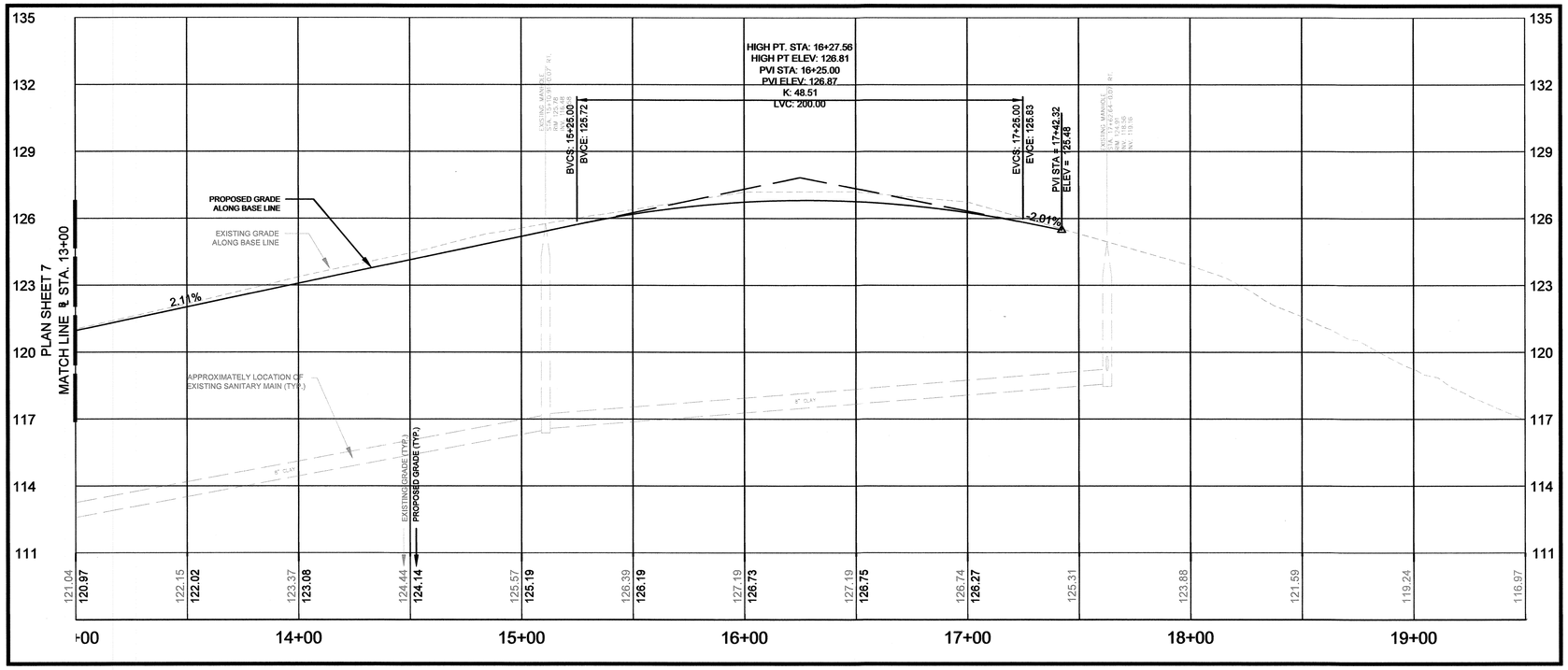
P-2

TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX

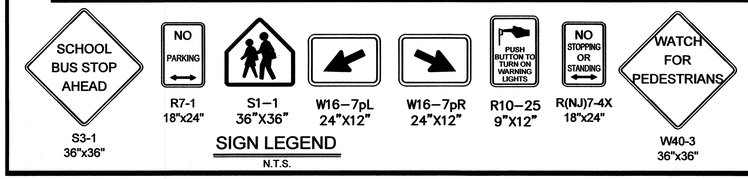


STA.	13+00	13+50	14+00	14+50	15+00	15+50	16+00	16+27.56	16+50	17+00	17+50	18+00	18+50	19+00	19+50	STA.
TC LT.	TDC 120.59	TDC 121.65	123.07	124.13	124.81	126.18	TDC 126.36	126.81	126.75	126.27	EX.	EX.	EX.	EX.	EX.	TC LT.
℄	120.96	122.02	123.07	124.13	125.19	126.18	126.73	126.81	126.75	126.27	EX.	EX.	EX.	EX.	EX.	℄
TC RT.	120.96	TDC 121.55	123.07	124.13	124.85	126.18	126.73	126.81	126.75	126.27	EX.	EX.	EX.	EX.	EX.	TC RT.



MAGNOLIA ROAD PROFILE

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



SIGN LEGEND
N.T.S.

CONSTRUCT
MAGNOLIA AVENUE STA.13+00 TO 17+38

165	LF	REMOVE EXISTING CURB OR CURB AND GUTTER
362	SF	REMOVE EXISTING WALKS
66	CY	DRIVEWAY EXCAVATION, UNCLASSIFIED
657	CY	EXCAVATION, UNCLASSIFIED
282	CY	DENSE GRADED AGGREGATE BASE COURSE
3312	LF	POLYMERIZED JOINT ADHESIVE
90	LF	PREPARE AND SEAL EXISTING JOINTS AND CRACKS IN ASPHALT PAVEMENT
243	TON	HOT MIX ASPHALT 9.5M64 SURFACE AND LEVELER COURSE
596	TON	HOT MIX ASPHALT 19M64 BASE COURSE
1	UN	RESET MANHOLE CASTING, USING EXISTING CASTING AND COVER
322	SY	CONCRETE SIDEWALK, 4" THICK
109	SF	CONCRETE DRIVEWAY, REINFORCED, 6" THICK
127	SY	HOT MIX ASPHALT DRIVEWAY, 2" THICK
5	SY	DETECTABLE WARNING SURFACE (CAST IN PLACE)
956	LF	9"x20" CONCRETE VERTICAL CURB
2148	LF	TRAFFIC STRIPES, LONG LIFE, "THERMOPLASTIC", 4" WIDE
142	LF	TRAFFIC STRIPES, LONG LIFE, "THERMOPLASTIC", 8" WIDE
32	LF	TRAFFIC STRIPES, LONG LIFE, "THERMOPLASTIC", 24" WIDE
73	SF	REGULATORY AND WARNING SIGNS
4	UN	RESET WATER VALVE BOX
2	UN	RESET WATER METER
1	UN	RESET GAS VALVE BOX
2	UN	FOUNDATION, TYPE SFT
2	UN	FURNISH AND INSTALL SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON, 4.5" DIA. ROUND POST WITH PUSH BUTTON ASSEMBLY
532	SY	TOPSOILING, 4 " THICK
532	SY	FERTILIZING
532	SY	TOPSOIL STABILIZATION, TYPE 2 MAT
4	UN	REPLACEMENT TREES

NOTE:
EXISTING TOPOGRAPHY AND LOCATIONS BASED ON LOCATION AND TOPOGRAPHICAL SURVEY COMPLETED BY CME ASSOCIATES ON MAY OF 2018.

NOTE:
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NOTE:
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PROPOSED LEGEND:

- DENOTES PROPOSED MANHOLE
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- DENOTES PAVER DRIVEWAY OR WALKWAY RESTORATION

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

MAGNOLIA ROAD IMPROVEMENTS

CONSTRUCTION PLAN AND PROFILE (3 OF 3)

REGISTER NO.

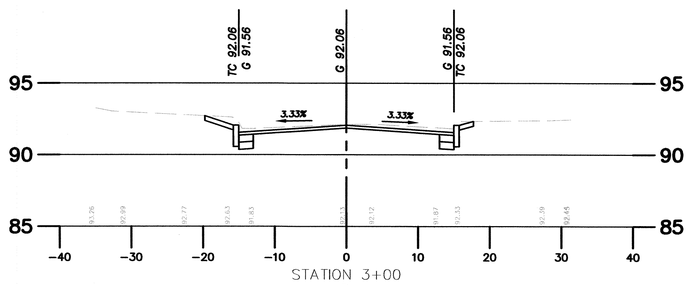
FILE NO. PWB0A608.01

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 (732) 727 8000
1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194 (732) 462 7400

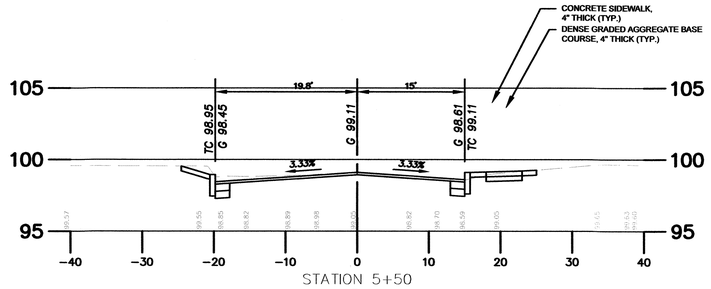
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
2.24.23

SCALE	DATE	DRAWING NUMBER
As Shown	July 2023	C-3
DRAWN BY: PD	DESIGNED BY: PD	C-3
CHECKED BY: MP	SHEET: 8 of 23	

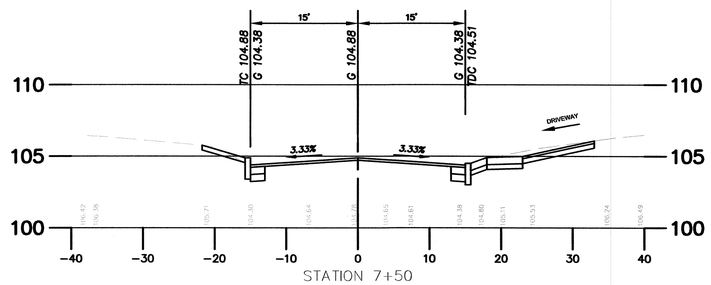
TOWNSHIP OF WOODBRIDGE | **COUNTY OF MIDDLESEX**



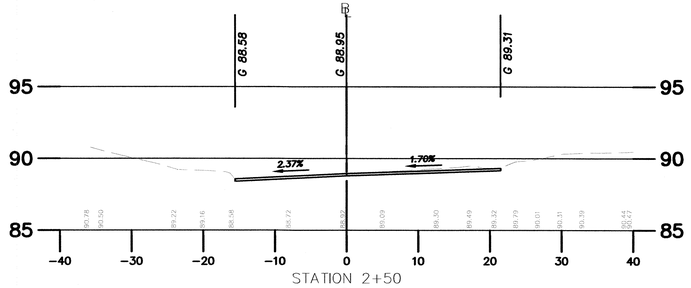
STATION 3+00



STATION 5+50



STATION 7+50



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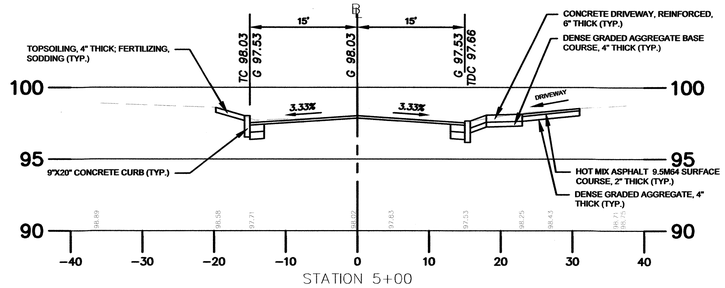
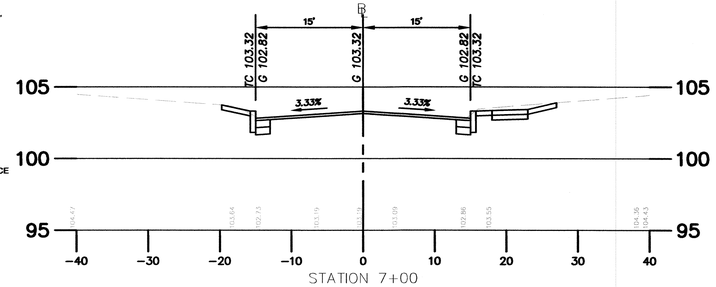
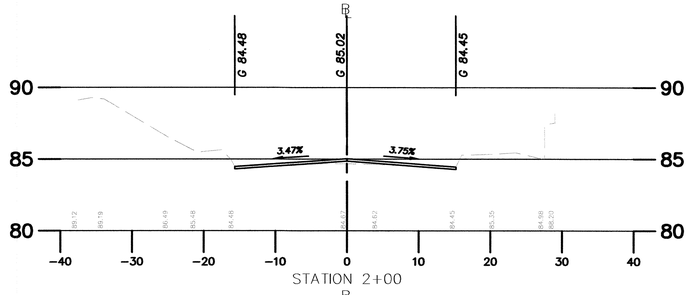


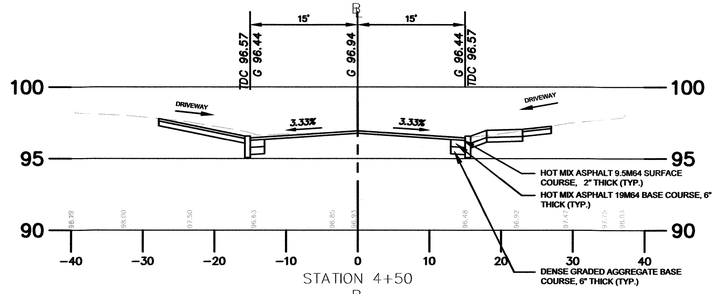
STATION 5+00



STATION 7+00



STATION 2+00



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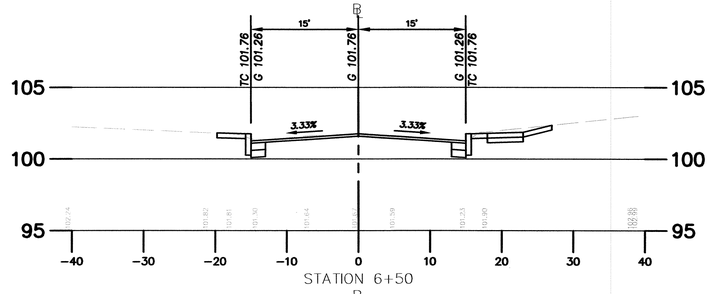
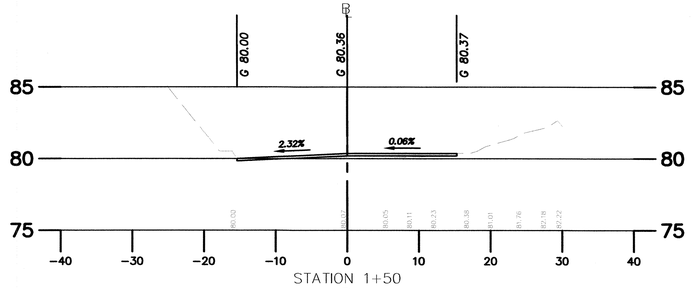
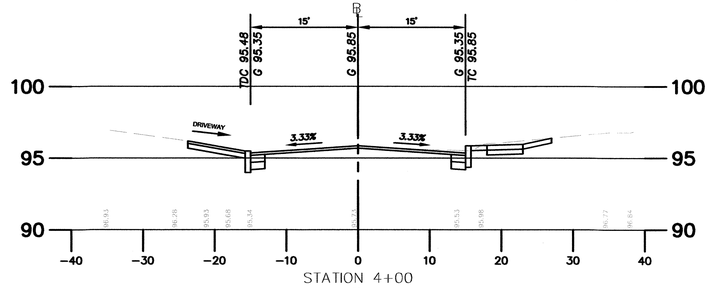


STATION 6+50



STATION 1+50



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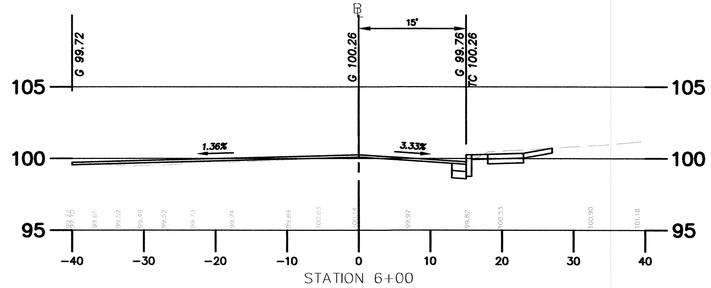

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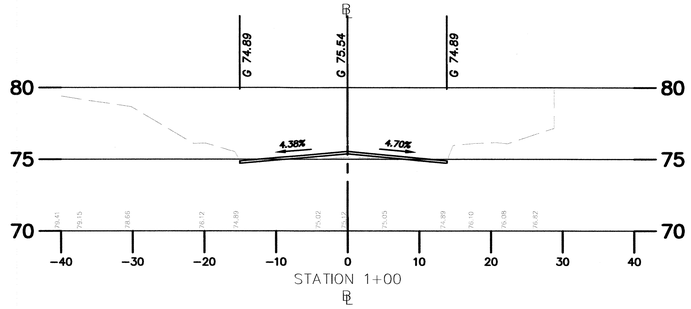
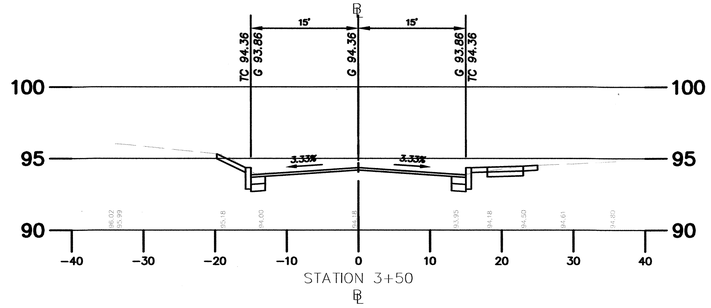


STATION 1+00



STATION 3+50

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

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

MAGNOLIA ROAD IMPROVEMENTS

CROSS SECTIONS (1 OF 3)

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 (732) 727 8000
1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194 (732) 462 7400

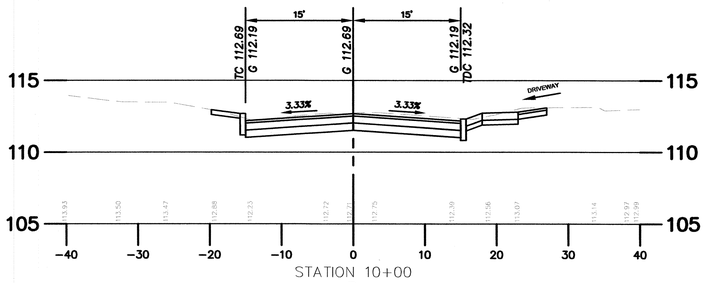
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER
LIC. 32468

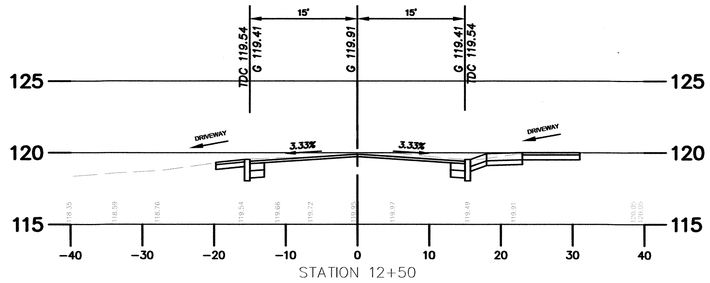
SCALE	DATE
As Shown	July 2023
DRAWN BY: PD	DESIGNED BY: PD
CHECKED BY: CP	SHEET: 9 of 23

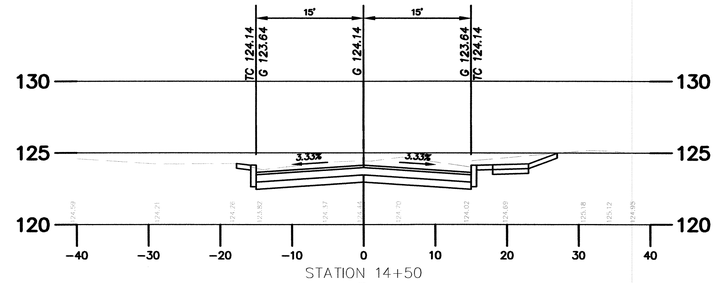
DRAWING NUMBER: CS-1 / CS-3

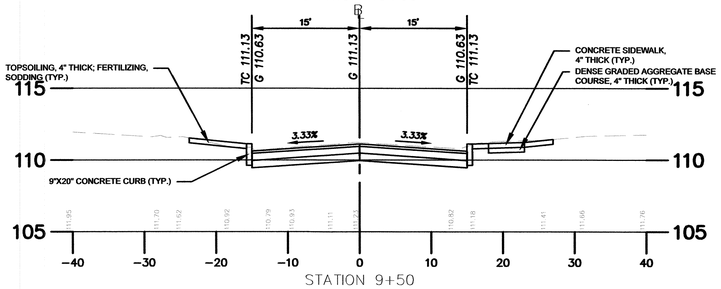
RESSETEN NO.

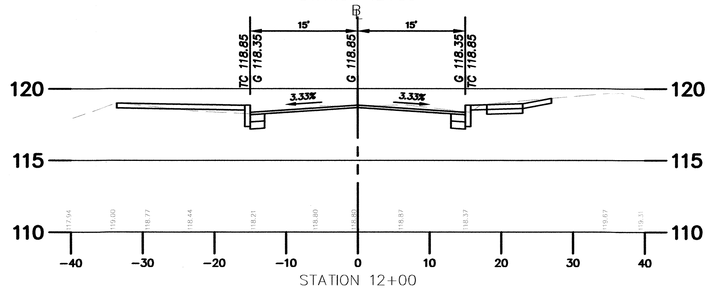
JOB NO. PWB0A608.01

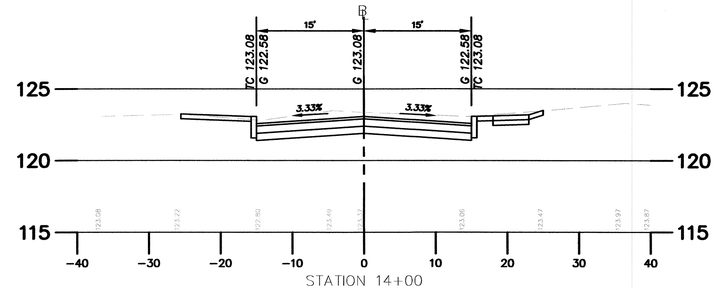


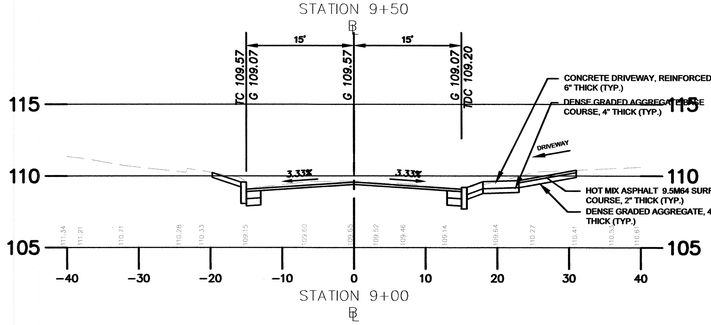


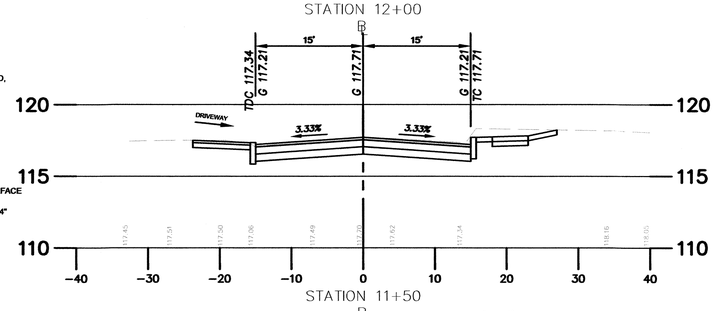


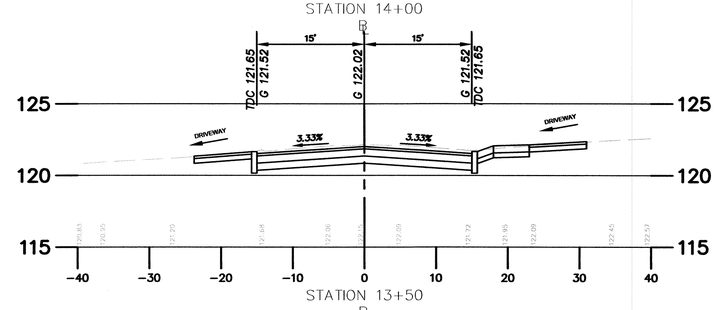


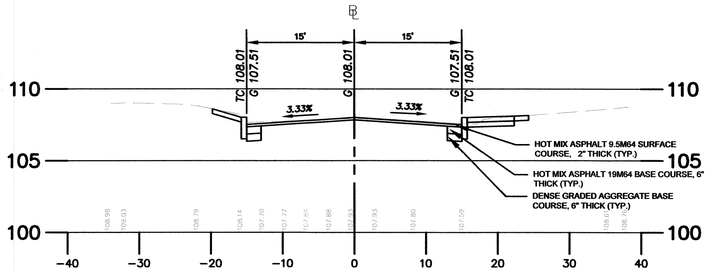


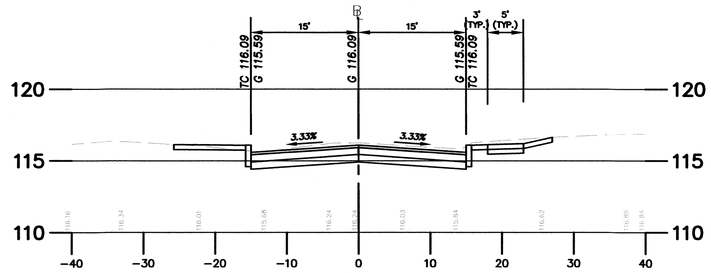


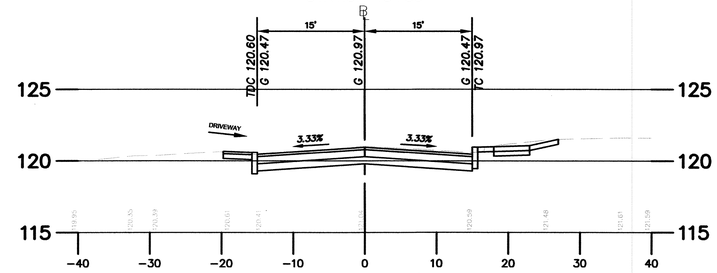


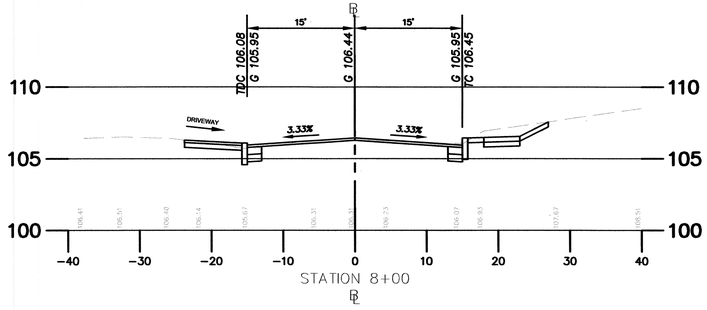


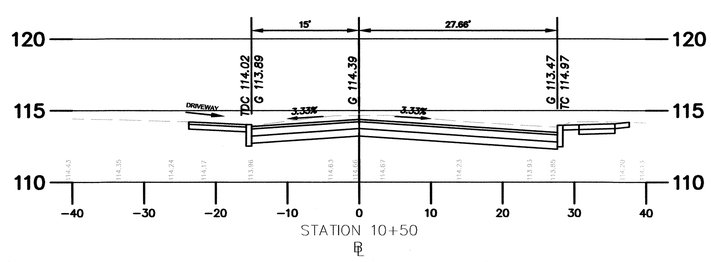












SCALE: 1"=10' (HORZ.)
1"=5' (VERT.)

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

MAGNOLIA ROAD IMPROVEMENTS

CROSS SECTIONS (2 OF 3)

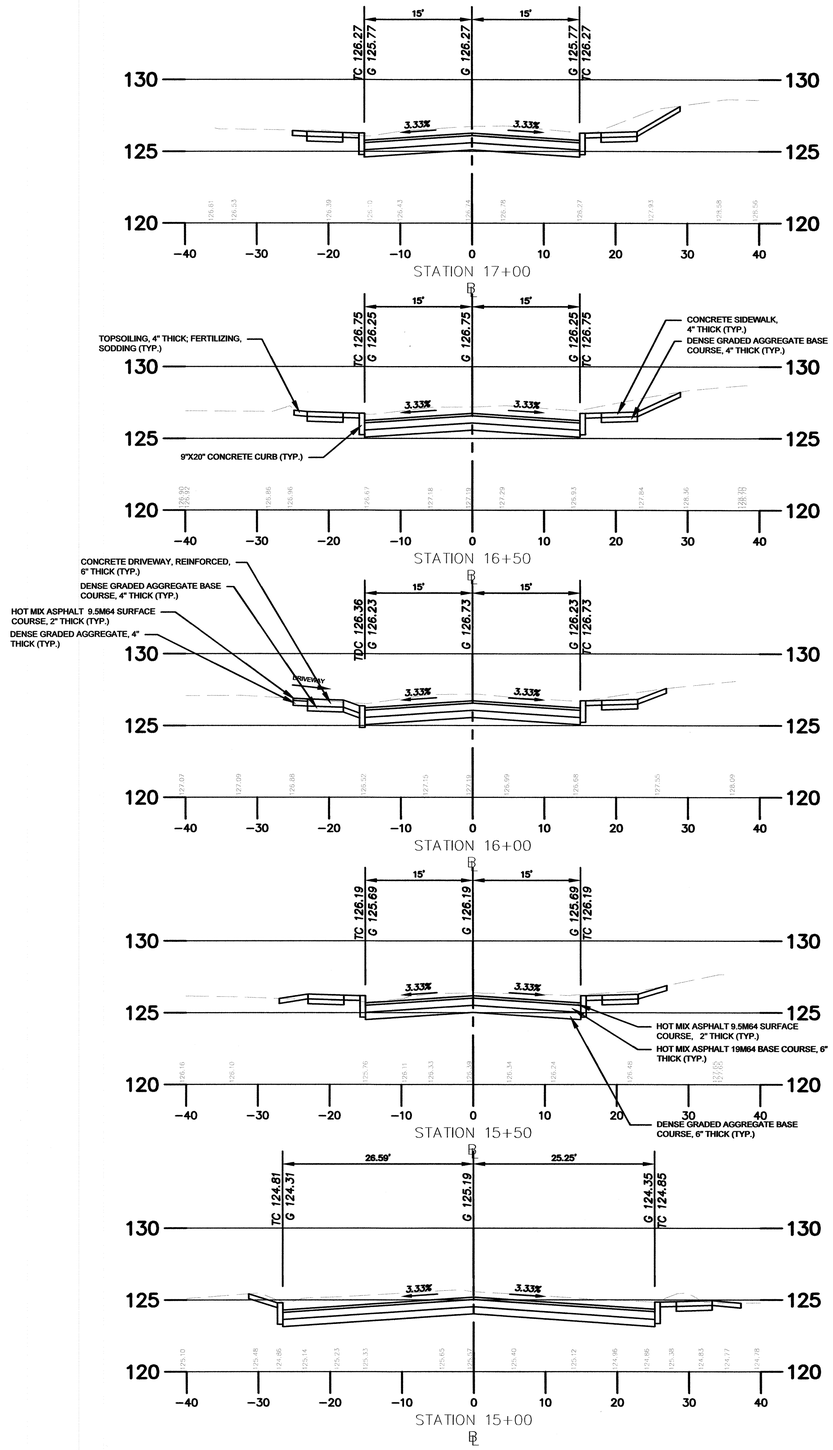
CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28339000
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 (732) 727 8000
1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194 (732) 462 7400

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER
LIC. 32468
7-24-23

SCALE	DATE	DRAWING NUMBER
As Shown	July 2023	CS-2
DRAWN BY: PD	DESIGNED BY: PD	CS-3
CHECKED BY: GD	SHEET: 10 of 23	

REGISTER NO.

FILE NO. PWB0A608.01



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

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

MAGNOLIA ROAD IMPROVEMENTS

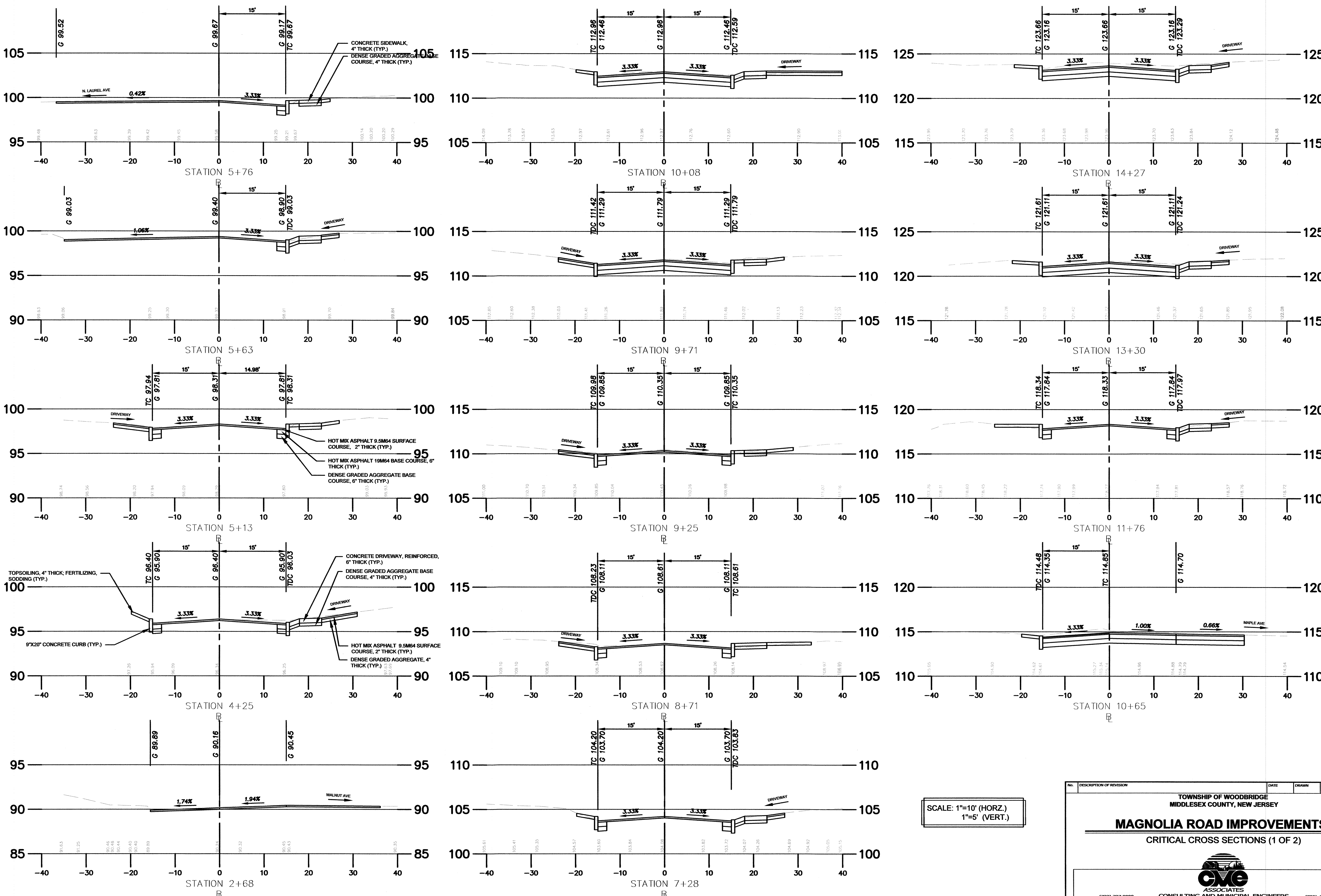
CROSS SECTIONS (3 OF 3)

CME ASSOCIATES
(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

REGISTER NO. PWB0A608.01
FILE NO.

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
7/31/23

SCALE	DATE	DRAWING NUMBER
As Shown	July 2023	CS-3
DRAWN BY: PD	DESIGNED BY: PD	
CHECKED BY:	SHEET: 11 of 23	CS-3



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

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

MAGNOLIA ROAD IMPROVEMENTS

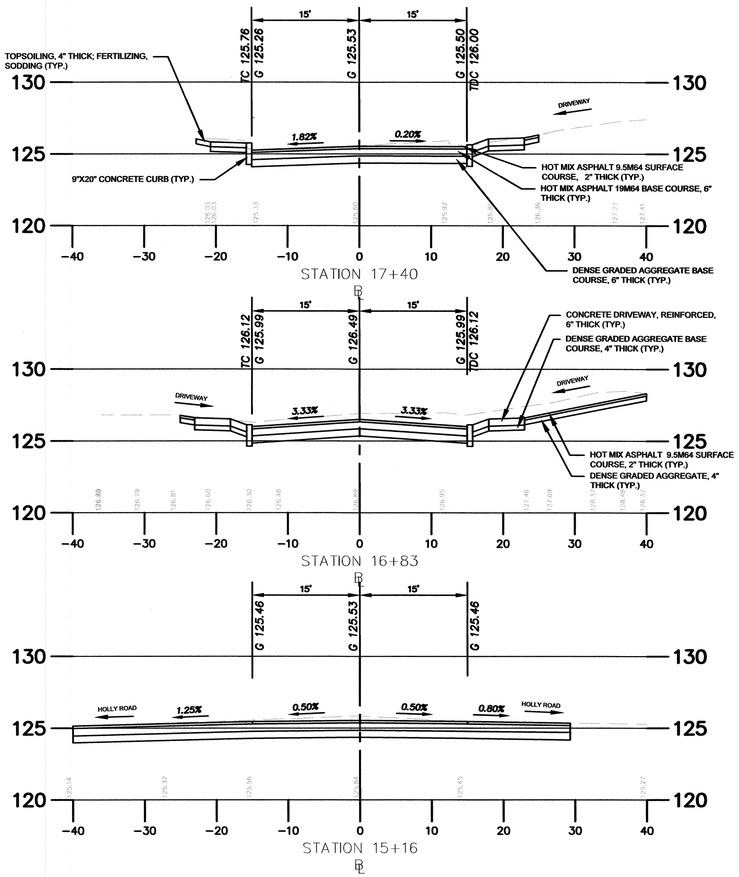
CRITICAL CROSS SECTIONS (1 OF 2)

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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

SCALE	DATE	DRAWING NUMBER
As Shown	July 2023	CCS-1
DRAWN BY PD	DESIGNED BY PD	
CHECKED BY	SHEET 12 of 23	CCS-2

FILE NO. PWB0A608.01



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

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

MAGNOLIA ROAD IMPROVEMENTS

CRITICAL CROSS SECTIONS (2 OF 2)

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

MICHAEL J. McCLELLAND P.E.
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LIC. 32468

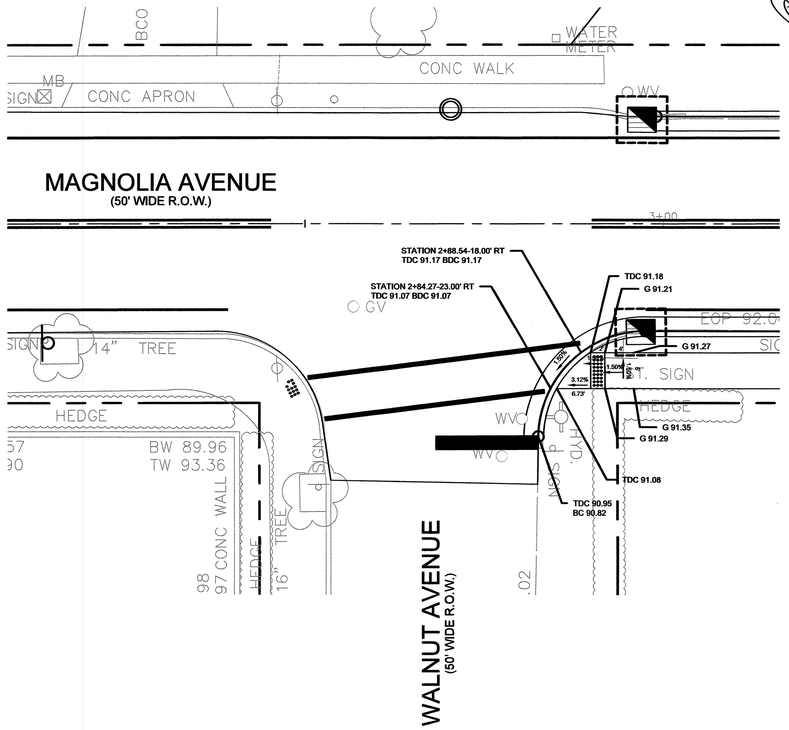
SCALE	DATE
As Shown	July 2023
DRAWN BY: PD	DESIGNED BY: PD
CHECKED BY: [illegible]	SHEET: 13 of 23

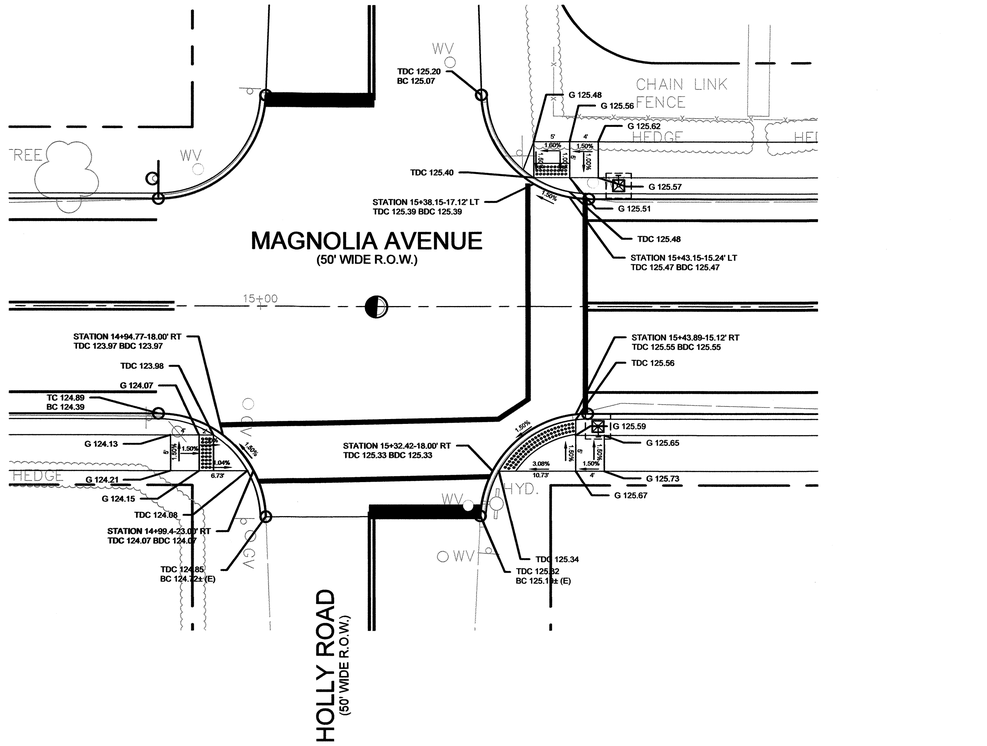
REGISTER NO. FILE NO. PWB0A608.01

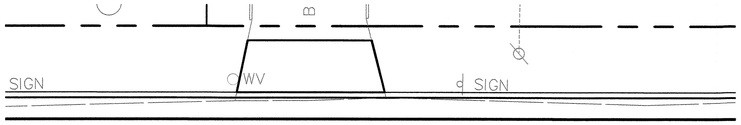
DRAWING NUMBER CCS-2

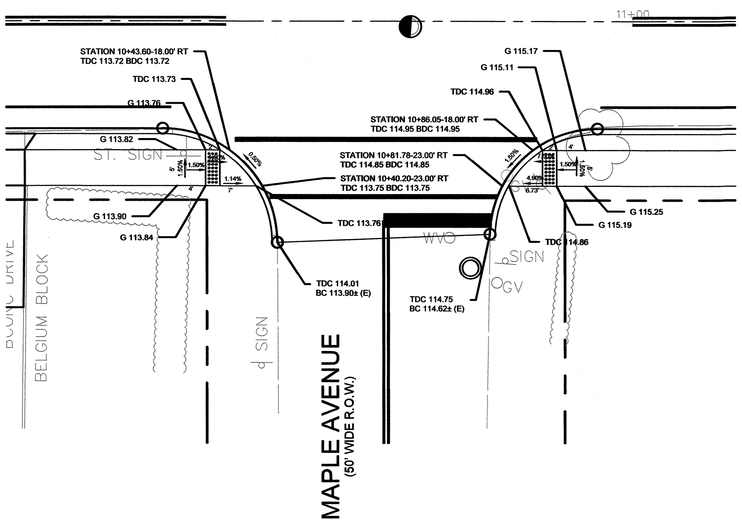
CCS-2

TOWNSHIP OF WOODBRIDGE **COUNTY OF MIDDLESEX**









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

PLAN

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

MAGNOLIA ROAD IMPROVEMENTS

CURB RAMP DETAILS

CVE ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468
DATE 7.24.23

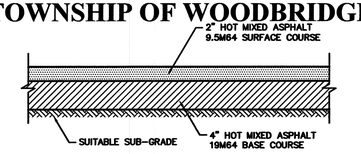
SCALE	DATE	DRAWING NUMBER
As Shown	July 2023	CRD-1
DRAWN BY: PD	DESIGNED BY: PD	
CHECKED BY:	SHEET: 14 of 23	

REGISTER NO. PWB0A608.01

CRD-1

TOWNSHIP OF WOODBRIDGE

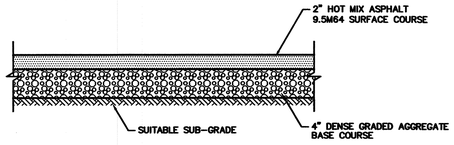
COUNTY OF MIDDLESEX



= HOT MIX ASPHALT =
(COMMERCIAL DRIVEWAY & PARKING LOT)

DRIVEWAY REPLACEMENT DETAIL

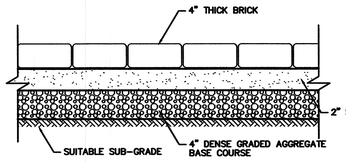
N.T.S.



= HOT MIX ASPHALT =
(SINGLE & 2-FAMILY DRIVEWAYS)

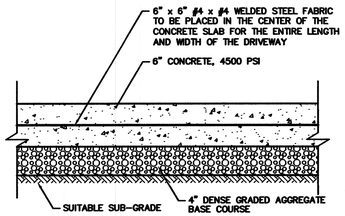
DRIVEWAY REPLACEMENT DETAIL

N.T.S.



= BRICK PAVER DRIVEWAY=

DRIVEWAY REPLACEMENT DETAIL



= CONCRETE DRIVEWAY =

DRIVEWAY REPLACEMENT DETAIL

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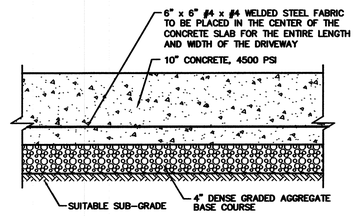
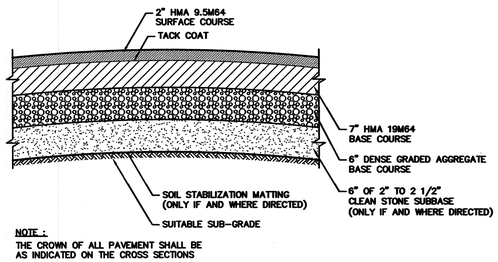


= CONCRETE DRIVEWAY =
(COMMERCIAL DRIVEWAY & PARKING LOT)

DRIVEWAY REPLACEMENT DETAIL

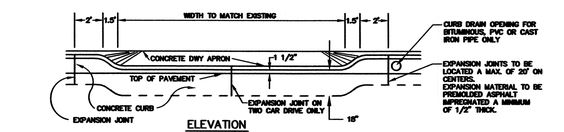
N.T.S.



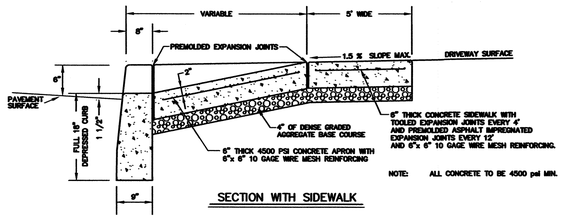
NOTE :
THE CROWN OF ALL PAVEMENT SHALL BE AS INDICATED ON THE CROSS SECTIONS

TYPICAL PAVEMENT DETAIL

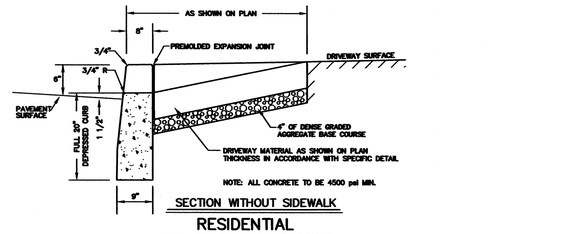
N.T.S.



ELEVATION



SECTION WITH SIDEWALK

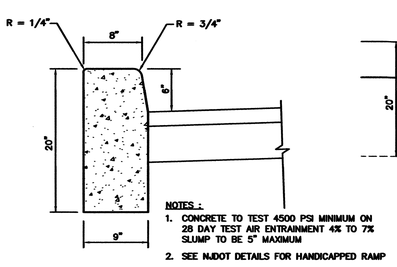


SECTION WITHOUT SIDEWALK

RESIDENTIAL DRIVEWAY ENTRANCE

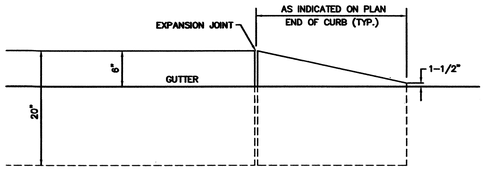
DEPRESSED CURB, DRIVEWAY APRON & SIDEWALK

N.T.S.



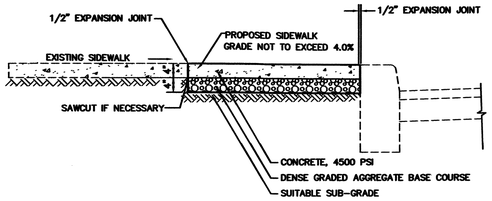
TYPICAL 9"x 20" CURB DETAIL

N.T.S.



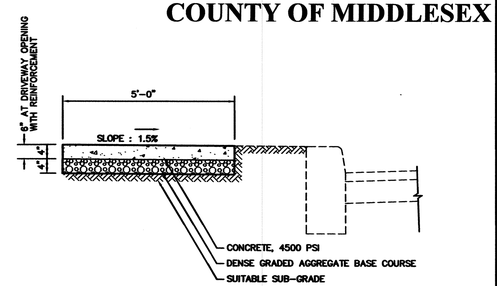
9"x 20" KNOCKOUT CURB

N.T.S.



TYPICAL SERVICE WALK REPLACEMENT DETAIL

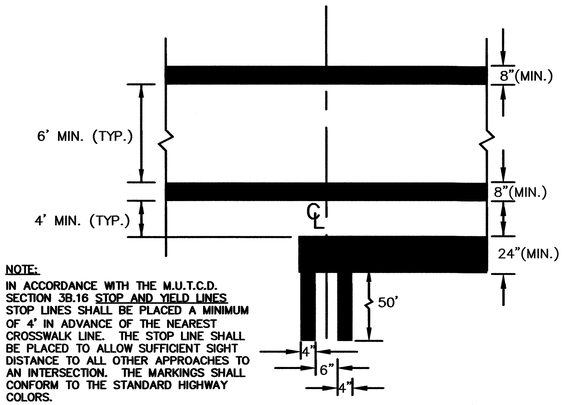
N.T.S.



NOTES :
SEE DETAILS FOR HANDICAPPED RAMP

TYPICAL SIDEWALK DETAIL

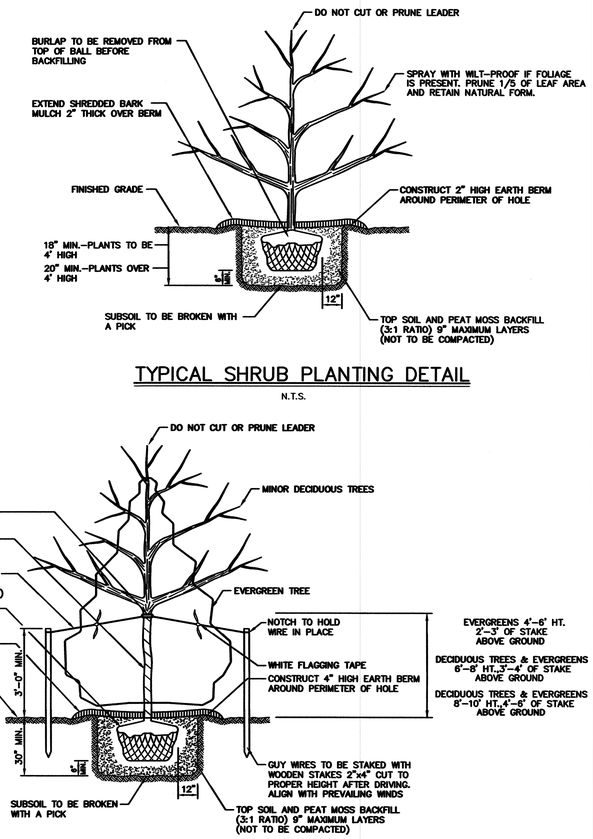
N.T.S.



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.

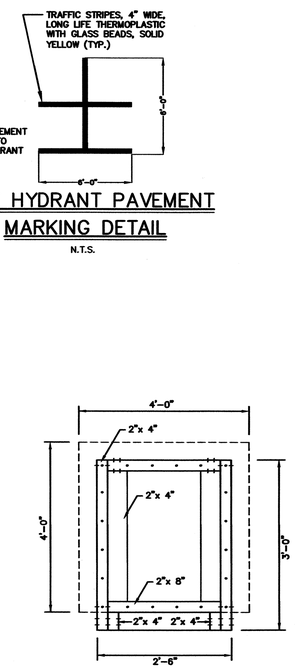


TYPICAL SHRUB PLANTING DETAIL

N.T.S.

TYPICAL TREE PLANTING DETAIL

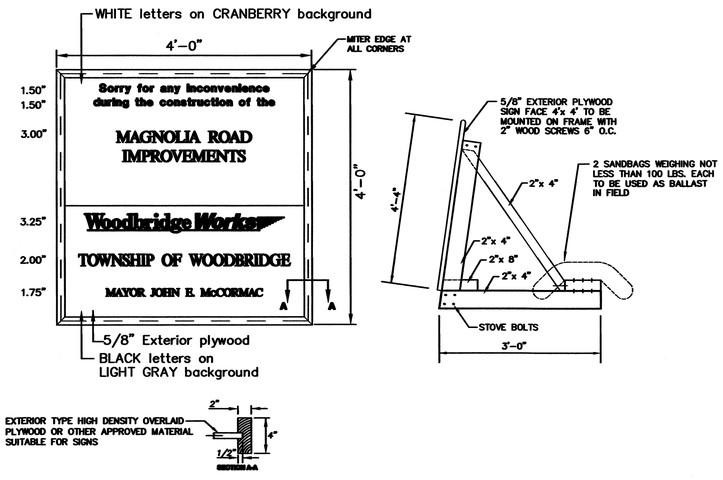
N.T.S.



NOTE:
FIRE HYDRANT PAVEMENT MARKING SYMBOL TO POINT TO FIRE HYDRANT

FIRE HYDRANT PAVEMENT MARKING DETAIL

N.T.S.



PROJECT SIGN DETAIL

N.T.S.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

MAGNOLIA ROAD IMPROVEMENTS

CONSTRUCTION DETAILS (1 OF 3)

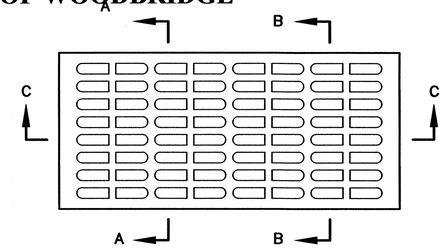
REGISTER NO. PWB0A608.01

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000
(732) 727 8000 (732) 462 7400
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

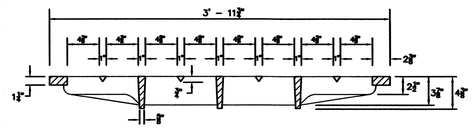
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE	DATE	DRAWING NUMBER
As Shown	July 2023	CD-1
DRAWN BY: PD	DESIGNED BY: PD	CD-3
CHECKED BY:	SHEET: 15 of 23	

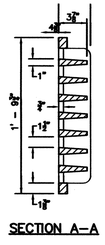
FILE NO.



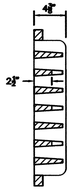
GRATE TO BE CAST IRON WITH A MIN. WEIGHT OF 325 LBS.



SECTION C–C



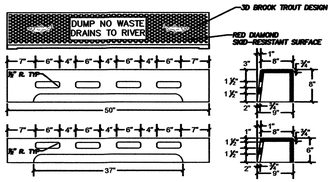
SECTION A–A



SECTION B–B

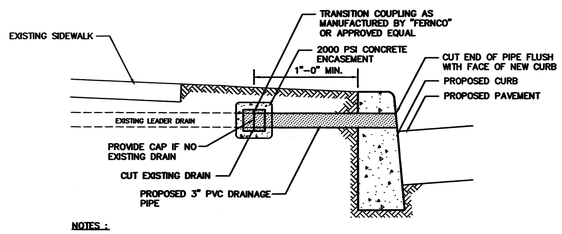
BICYCLE SAFE GRATE

N.T.S.



CURB PIECE TYPE 'N–ECO'

N.T.S.

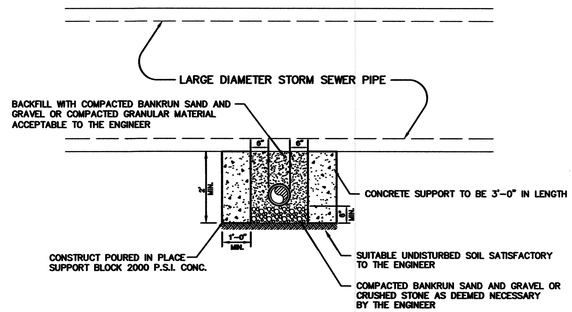


NOTES :

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.

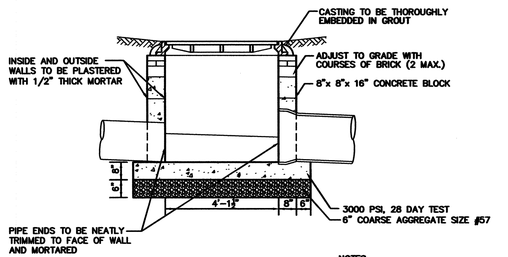
LEADER OR SUMP DRAIN RECONSTRUCTION DETAIL

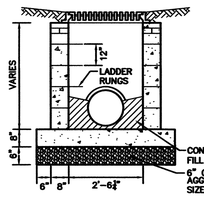
N.T.S.



CONCRETE SUPPORT BLOCK DETAIL

N.T.S.





NOTES:

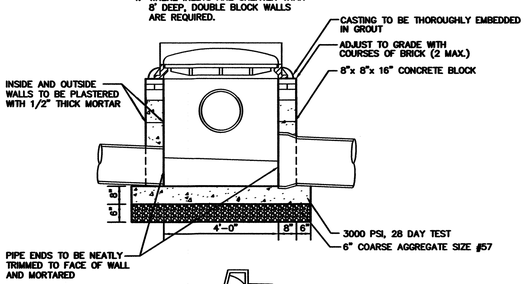
1. CAMPBELL CASTING PATTERN NO. 3433 FOR "STREAM FLOW GRATING" AND NO. 3408 FOR "BICYCLE SAFE GRATING" OR APPROVED EQUAL.
2. LADDER RUNGS SHALL BE POLYPROPYLENE AS PER DETAIL.
3. SPECIAL DESIGNS SHALL BE PROVIDED FOR INLETS WITH PIPE SIZES GREATER THAN 21" DIAMETER.
4. WHERE INLET ARE GREATER THAN 8' DEEP, DOUBLE BLOCK WALLS ARE REQUIRED.

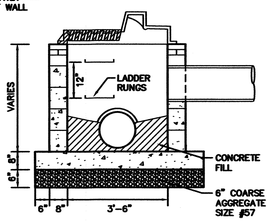
INLET TYPE "A"

N.T.S.

NOTES:

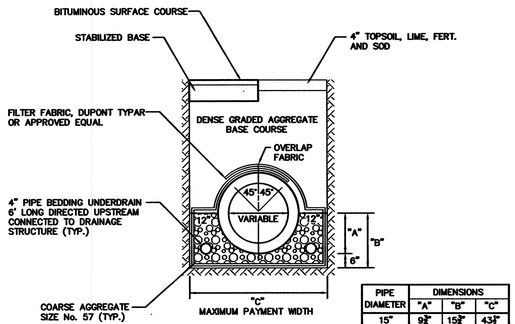
1. CURB FACE TO BE 8" UNLESS OTHERWISE INDICATED.
2. CAMPBELL CASTING PATTERN NO. 2618, "BICYCLE SAFE GRATE" AND TYPE N "ECO CURB PIECE" OR EQUIVALENT
3. LADDER RUNGS SHALL BE POLYPROPYLENE AS PER DETAIL.
4. WHERE INLETS ARE GREATER THAN 8' DEEP, DOUBLE BLOCK WALLS ARE REQUIRED.





INLET TYPE "B"

N.T.S.



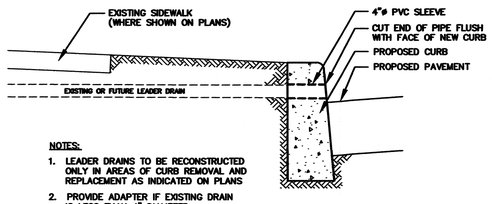
PIPE DIAMETER	DIMENSIONS "A"	"B"	"C"
15"	9¾"	15¾"	43¾"
18"	11¾"	17¾"	47"
24"	15"	21"	54"
30"	18¾"	24¾"	61"
36"	22"	28"	68"
42"	25¾"	31¾"	75"
48"	29"	35"	82"

NOTE :

UNDERDRAIN SHALL BE CONNECTED TO EACH DOWN STREAM DRAINAGE STRUCTURE AND SHALL BE CAPPED AT THE UPSTREAM END.

TYPICAL PIPE BEDDING STORM SEWER

N.T.S.

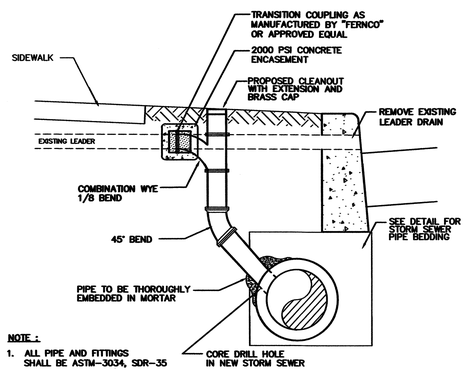


NOTES:

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.



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.

Armor-Tile™

Tactile Systems

ENGINEERED PLASTICS, INC.
300 INTERNATIONAL DR., SUITE 100
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TOLL FREE: 1-800-682-2525
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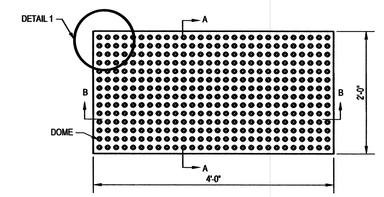
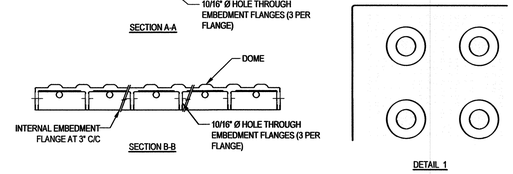
☐ PEARL WHITE
☐ FEDERAL YELLOW
☐ BRICK RED
☐ CUSTOM (CONTACT MANUFACTURER)



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

www.CADdetails.com

DETECTABLE WARNING SURFACE

N.T.S.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

MAGNOLIA ROAD IMPROVEMENTS

CONSTRUCTION DETAILS (2 OF 3)

REGISTER NO.

FILE NO. PWB0A608.01

CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 (732) 727 8000
1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194 (732) 462 7400

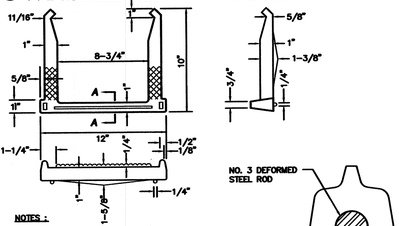
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER
LIC. 32468

SCALE	DATE	DRAWING NUMBER
As Shown	July 2023	CD-2
DRAWN BY PD	DESIGNED BY PD	CD-3
CHECKED BY	SHEET 16 of 23	

24483

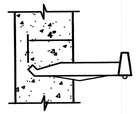
TOWNSHIP OF WOODBRIDGE

COUNTY OF MIDDLESEX



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.

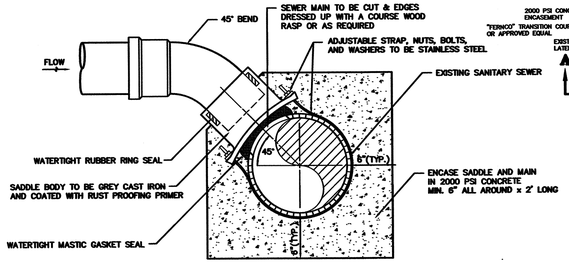


INSTALLATION

POLYPROPYLENE LADDER RUNG DETAIL

N.T.S.

SECTION A – A

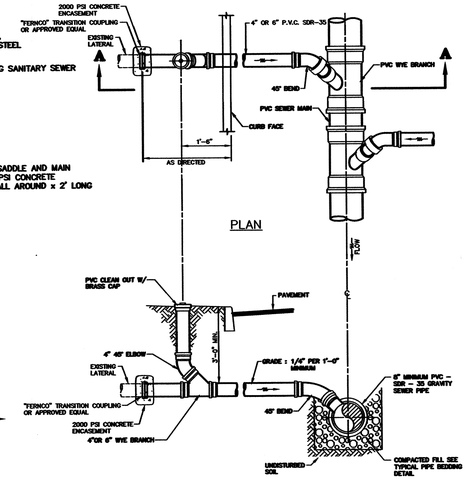


NOTES :

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.

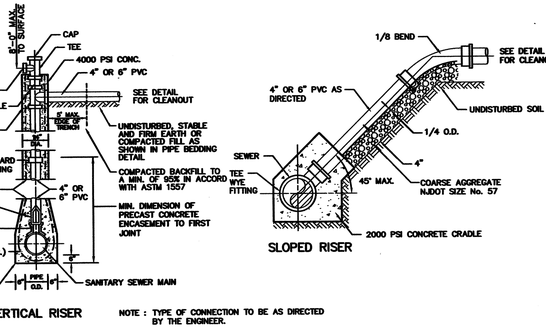
STRAP–ON SADDLE DETAIL

N.T.S.



PVC SANITARY SEWER LATERAL AND CLEANOUT

N.T.S.



VERTICAL RISER

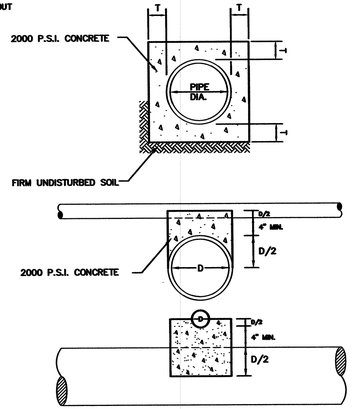
NOTE : TYPE OF CONNECTION TO BE AS DIRECTED BY THE ENGINEER.

TYPICAL LATERAL CONNECTION WITH RISER

N.T.S.

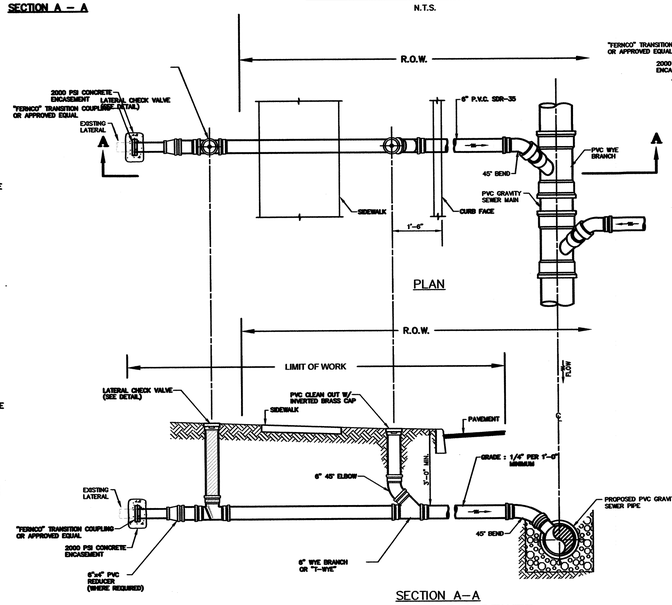
SLOPED RISER

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"



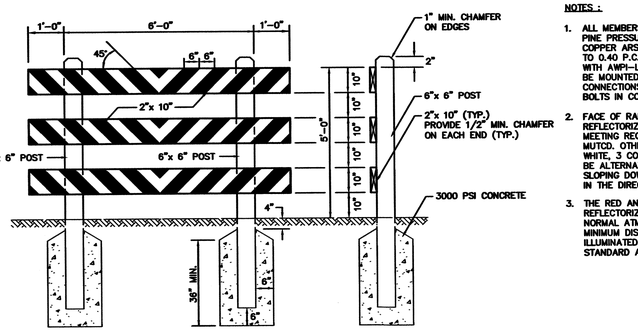
CONCRETE ENCASEMENT & CRADLE

N.T.S.



SECTION A–A

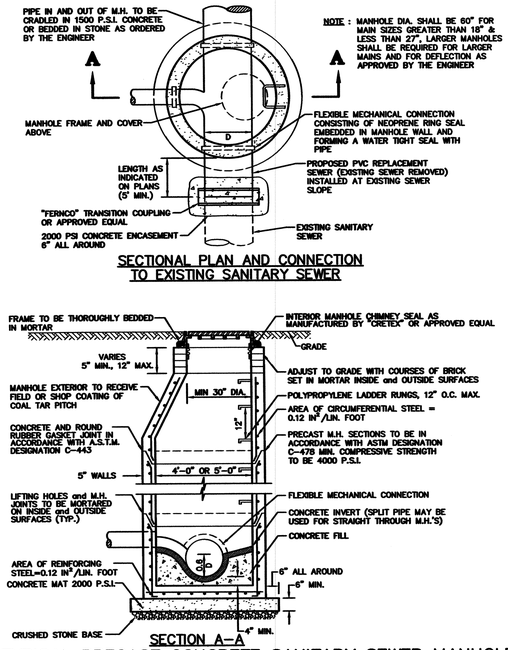
PVC SANITARY SEWER LATERAL AND CLEANOUT WITH CHECK VALVE



PERMANENT BARRICADE TYPE III MODIFIED FOR DEAD END ROADS

NOTES :

1. ALL MEMBERS TO BE SOUTHERN YELLOW PINE PRESSURE TREATED CHROMATED COPPER ARSENATE (CCA) PRESERVATIVE TO 0.40 P.C.F. RETENTION IN ACCORDANCE WITH AWPI–LP–22 PROCESS. 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.



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

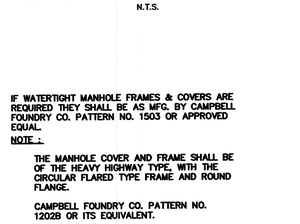
SECTIONAL PLAN AND CONNECTION TO EXISTING SANITARY SEWER

SECTION A–A

TYPICAL PRECAST CONCRETE SANITARY SEWER MANHOLE

N.T.S.

1. FURNISH & INSTALL COMPACTED CLAY MATERIAL FOR FULL WIDTH OF TRENCH AS APPROVED BY THE ENGINEER.
2. CLAY STOP SHAPE MAY BE INVERTED IF BACKFILL IS PLACED FIRST.



"IMPERVIOUS" TRENCH STOP

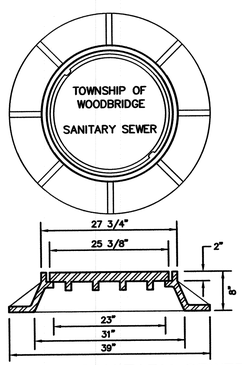
N.T.S.

IF WATERTIGHT MANHOLE FRAMES & COVERS ARE REQUIRED THEY SHALL BE AS MFG. BY CAMPBELL FOUNDRY CO. PATTERN NO. 1503 OR APPROVED EQUAL.

NOTE :

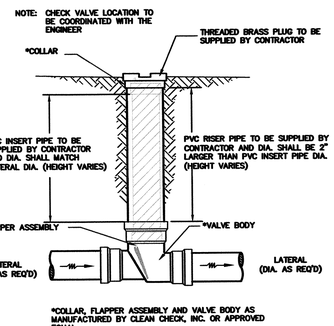
THE MANHOLE COVER AND FRAME SHALL BE OF THE HEAVY HIGHWAY TYPE, WITH THE CIRCULAR FLARED TYPE FRAME AND ROUND FLANGE.

CAMPBELL FOUNDRY CO. PATTERN NO. 1202B OR ITS EQUIVALENT.



TYPICAL SANITARY SEWER MANHOLE FRAME & COVER

N.T.S.



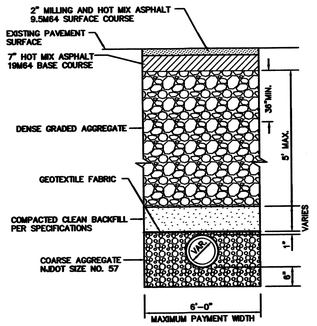
*COLLAR, FLAPPER ASSEMBLY AND VALVE BODY AS MANUFACTURED BY CLEAN CHECK, INC. OR APPROVED EQUAL.

CONSTRUCTION NOTES:

1. LATERAL "INTO" AND "OUT OF" THE BACKWATER CHECK VALVE SHALL MEET ALL SPECIFICATIONS AND DIMENSIONS REQUIRED BY THE TOWNSHIP.
3. CHECK VALVE TO BE INSTALLED AT A LOCATION UPSTREAM OF THE TOWNSHIP'S CURB CLEANOUT.

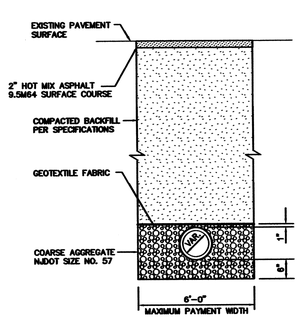
LATERAL CHECK VALVE

N.T.S.



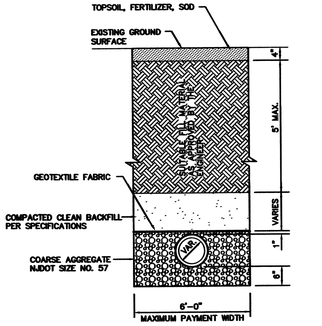
ROADWAY TRENCH REPAIR

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.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

MAGNOLIA ROAD IMPROVEMENTS

CONSTRUCTION DETAILS (3 OF 3)

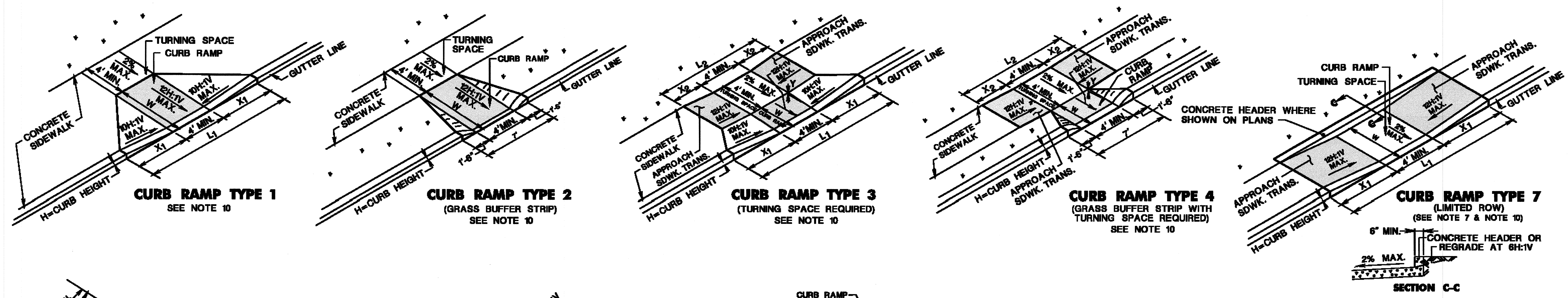
CVE ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
(732) 727 8000 (732) 462 7400
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

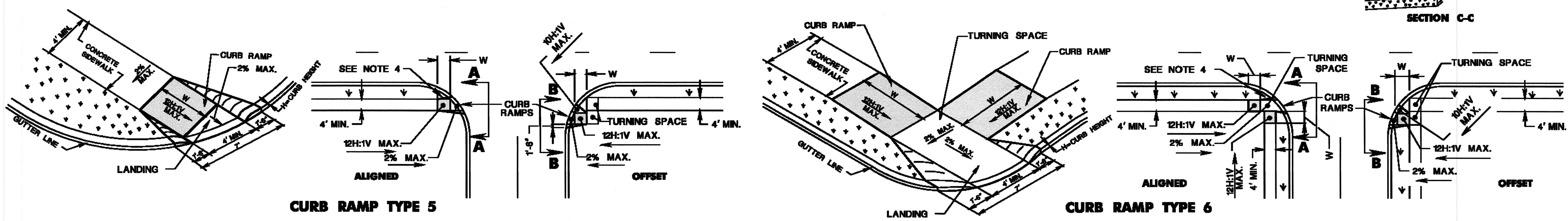
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

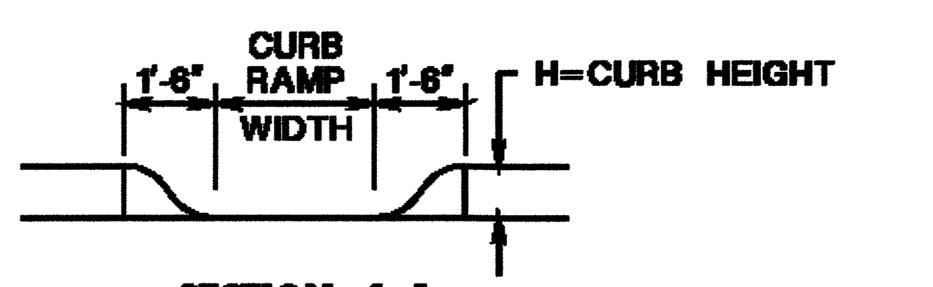
7.24.23

SCALE	DATE	DRAWING NUMBER
As Shown	July 2023	CD-3
DRAWN BY: PD	DESIGNED BY: PD	
CHECKED BY:	SHEET: 17 of 23	CD-3

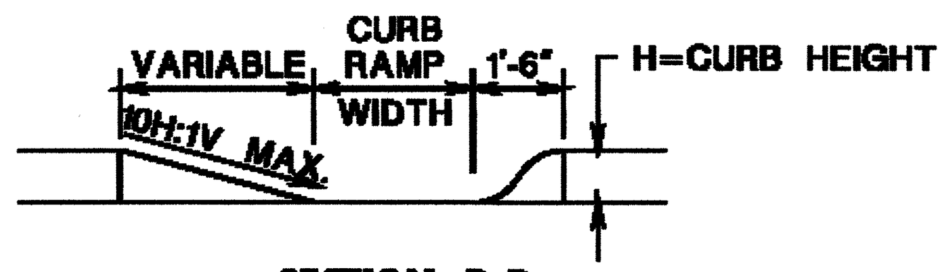
REGISTER NO. PWBOA608.01
FILE NO.





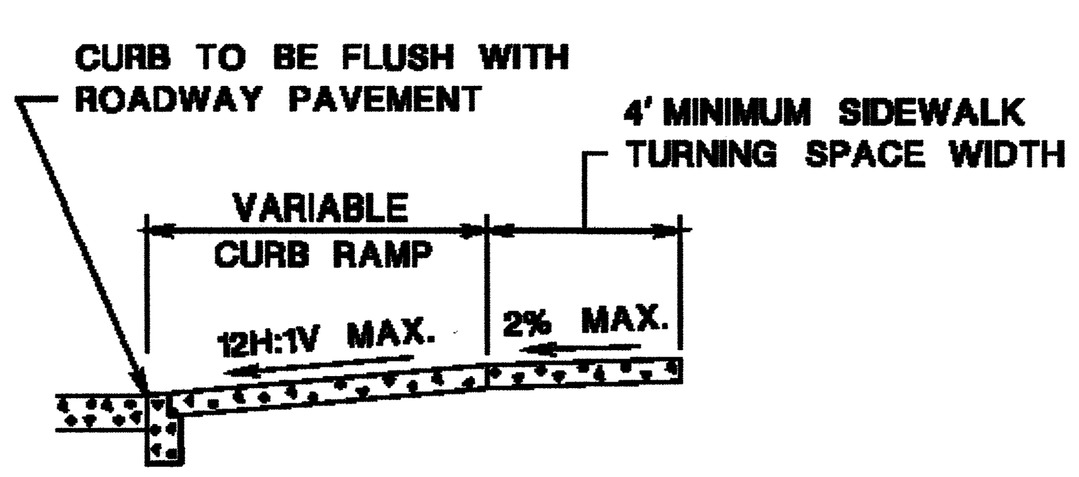


SECTION A-A

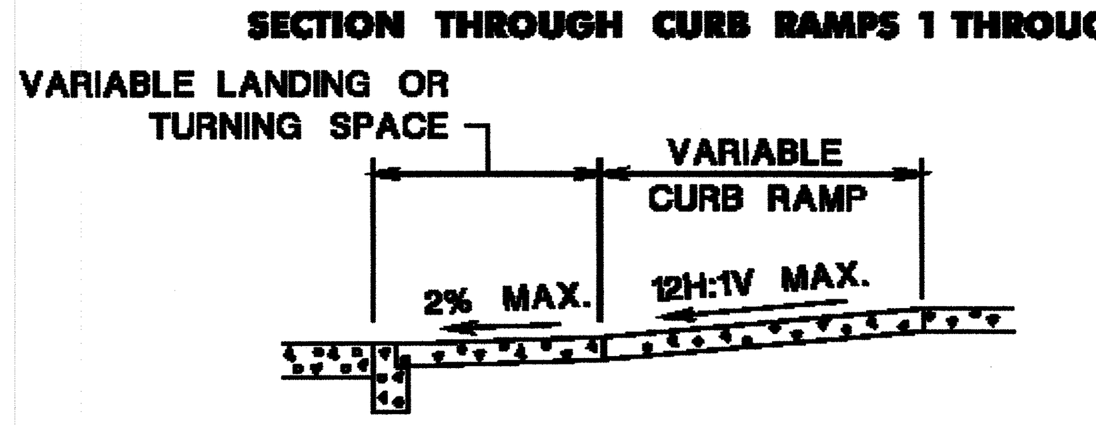


SECTION B-B

NOTE:
CURB RAMP OPENING TO BE FLUSH WITH ROADWAY PAVEMENT (CURB RAMP TYPES 5 & 6).



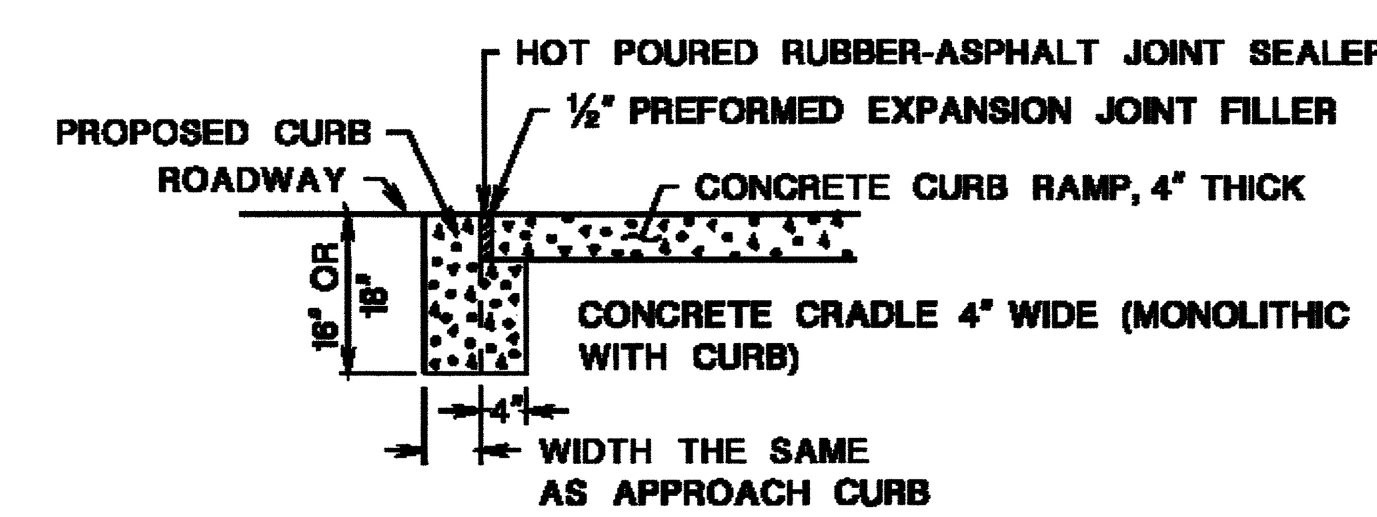
SECTION THROUGH CURB RAMPS 1 THROUGH 4



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 SURFACE.
2. FOR DIMENSIONS SEE CD-606-3 AND CD-606-4
3. CURB (DROPPED CURB) GUTTERLINE TO BE FLUSH WITH ROADWAY PAVEMENT THE ENTIRE WIDTH OF THE RAMP (4 FEET MIN.) 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. 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.
10. CURB RAMP TYPE 1 THROUGH 7 ARE NORMALLY PLACED ON THE RADIUS RETURN AT THE INTERSECTION AND ON A TANGENT SECTION AS DRAWN.



DROPPED CURB AND CRADLE

CONCRETE SIDEWALK
(PUBLIC SIDEWALK CURB RAMP)
N.T.S.

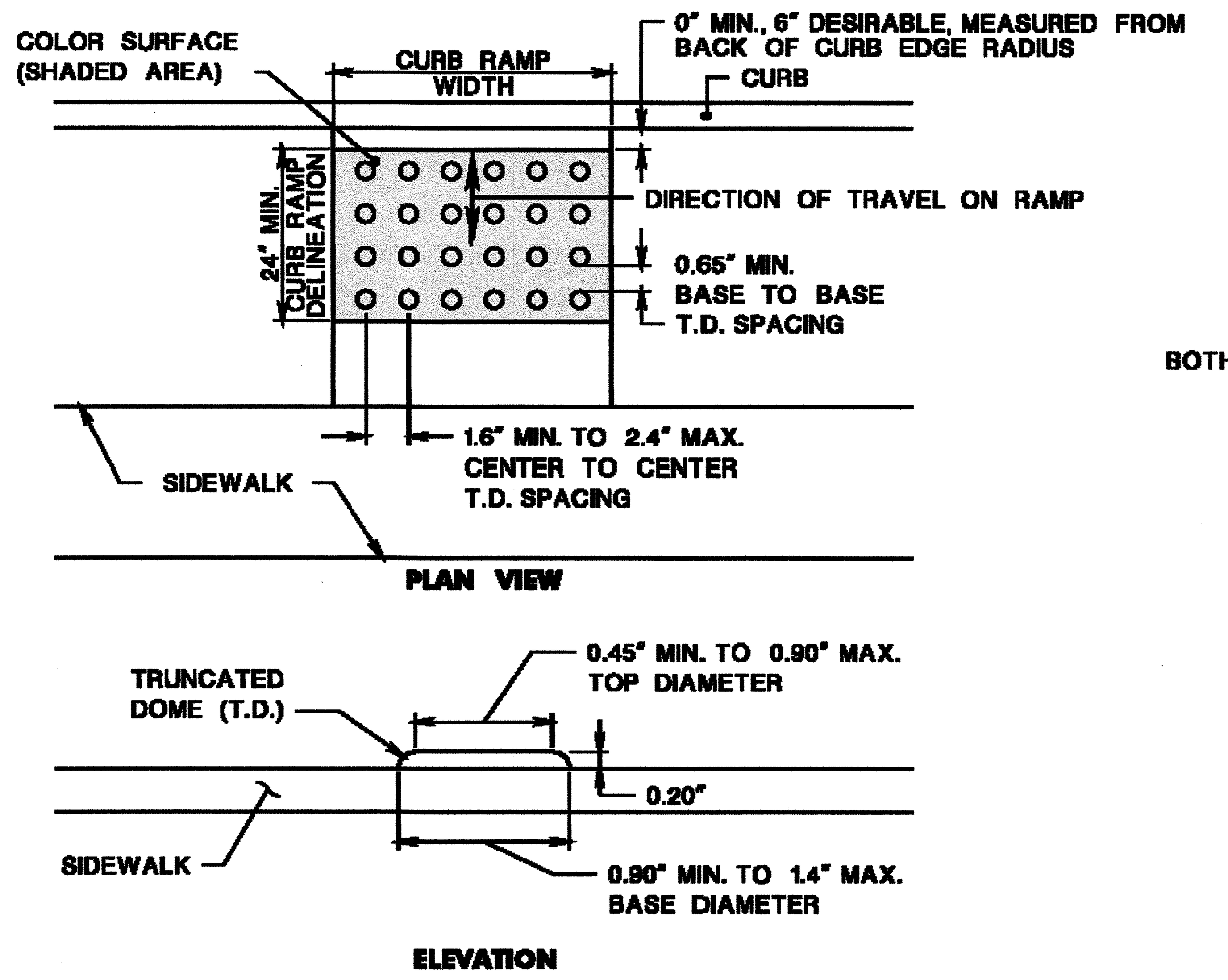
CD-606-1

NEW JERSEY DEPARTMENT OF TRANSPORTATION

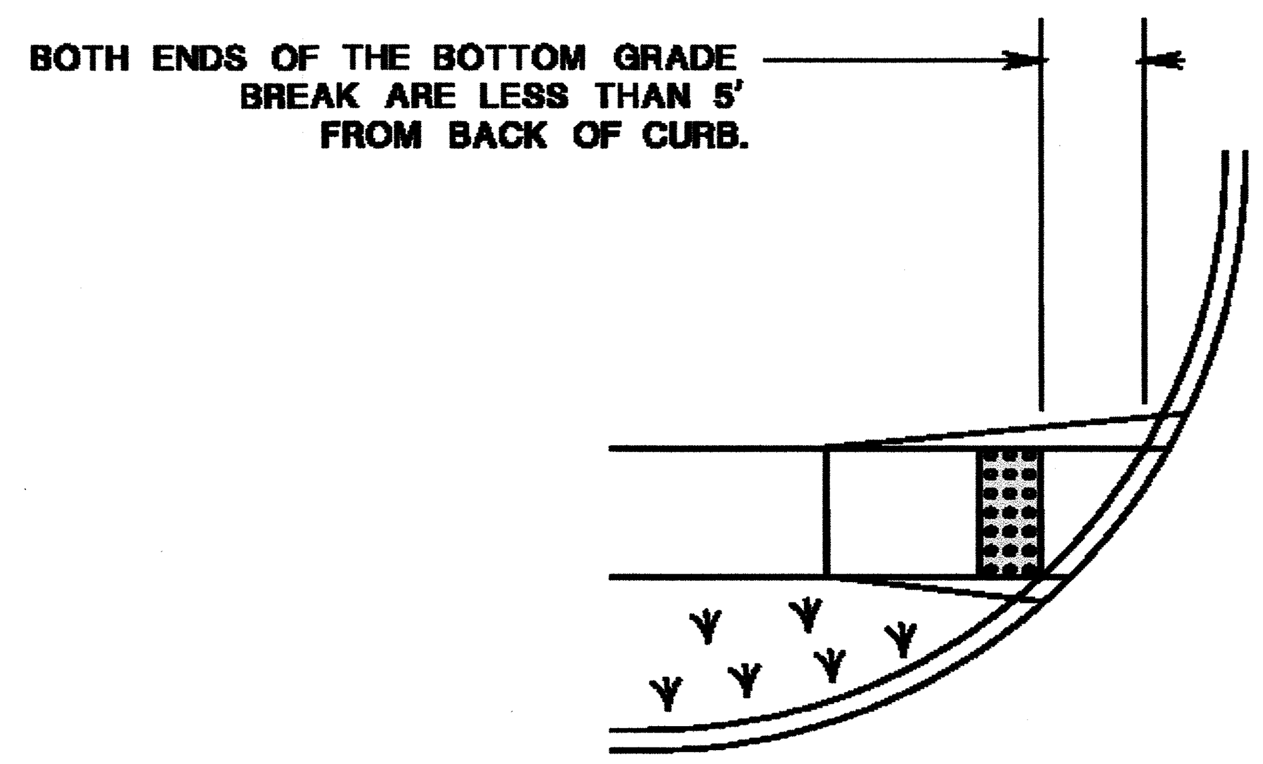
CONSTRUCTION DETAILS

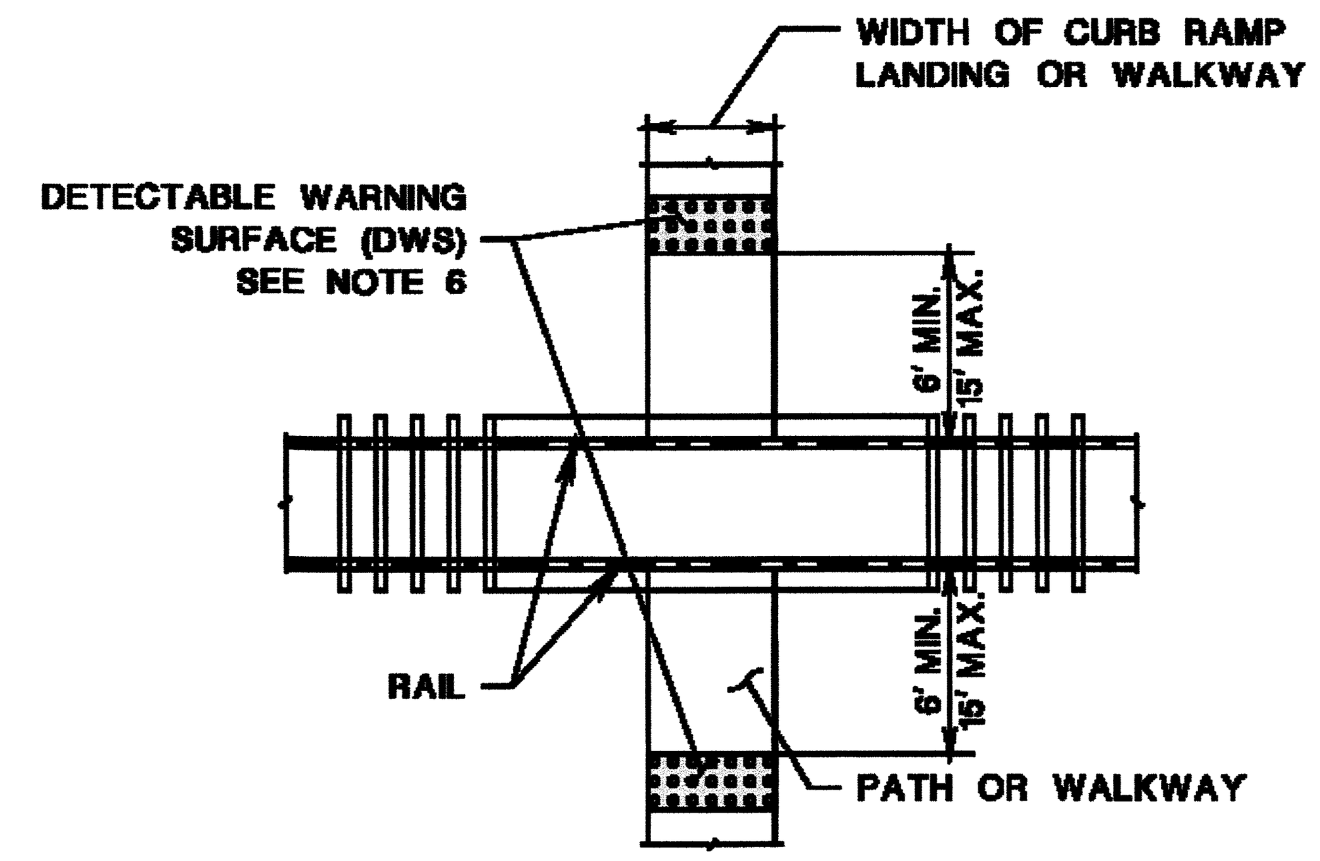
CURB RAMPS

CD-606-1.1

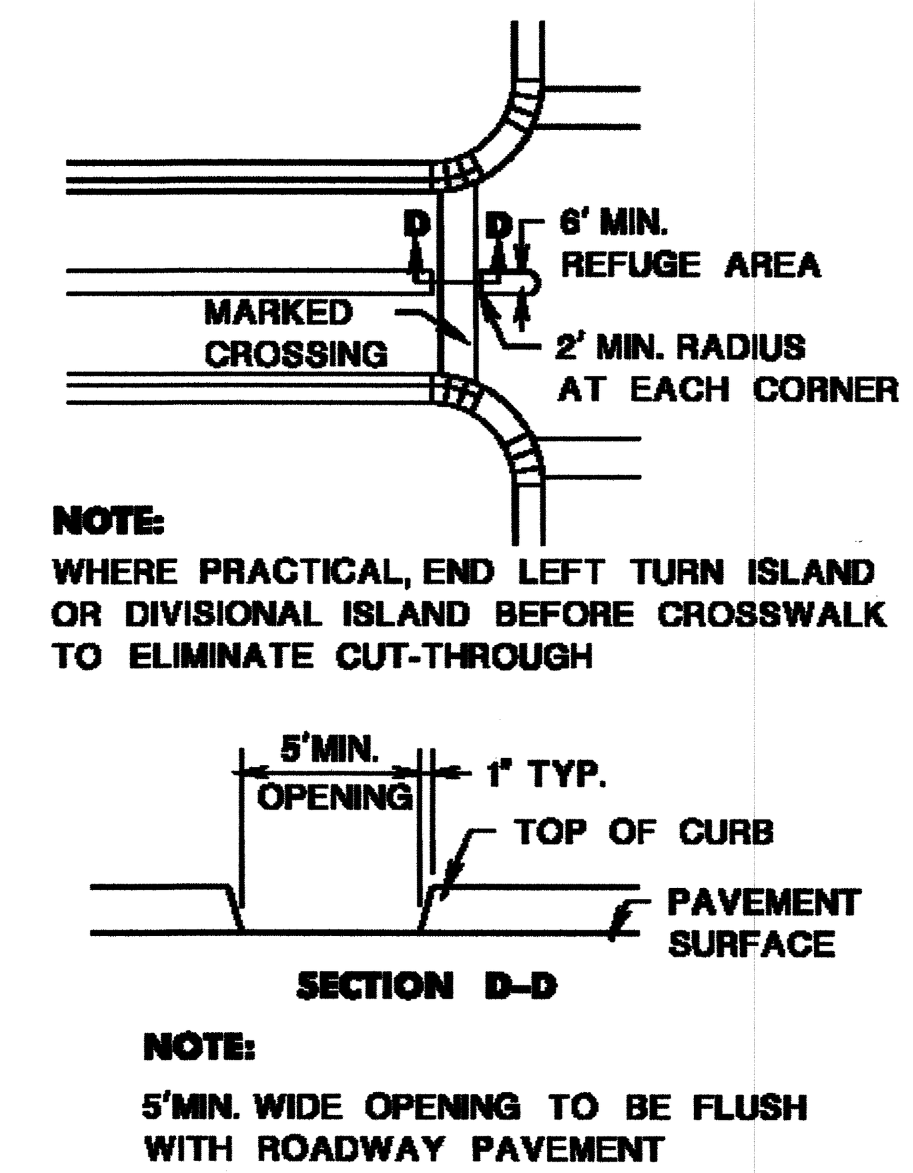


DETECTABLE WARNING SURFACE

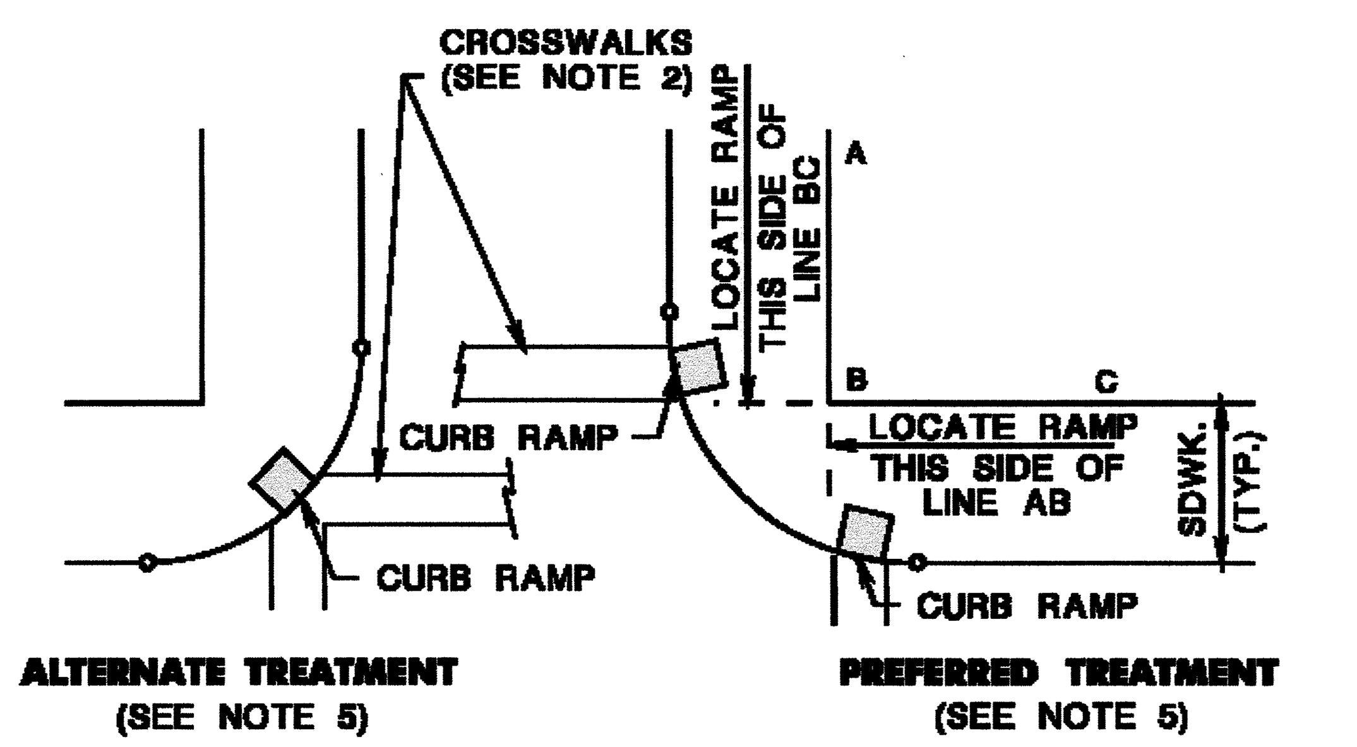




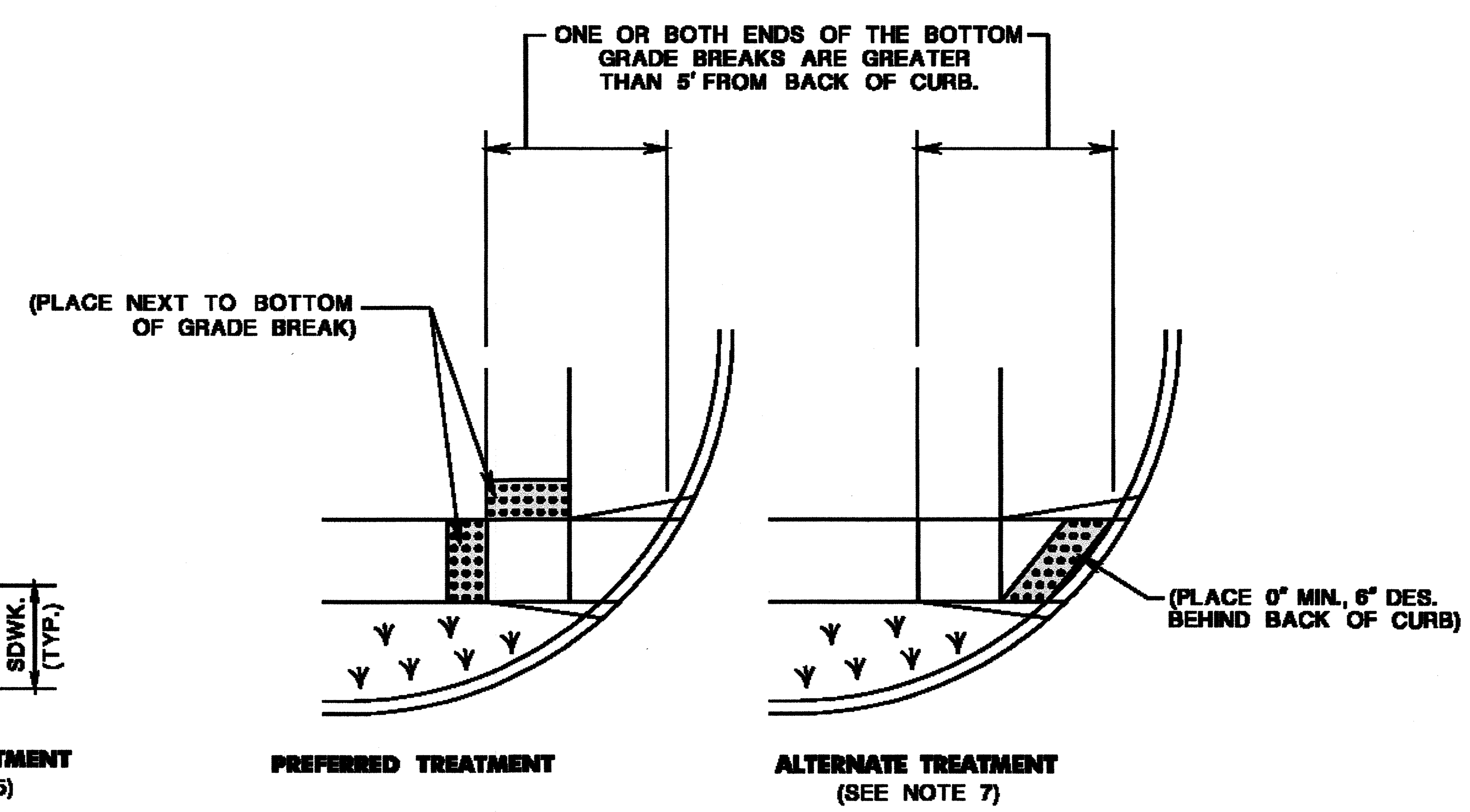
PEDESTRIAN RAILROAD CROSSING



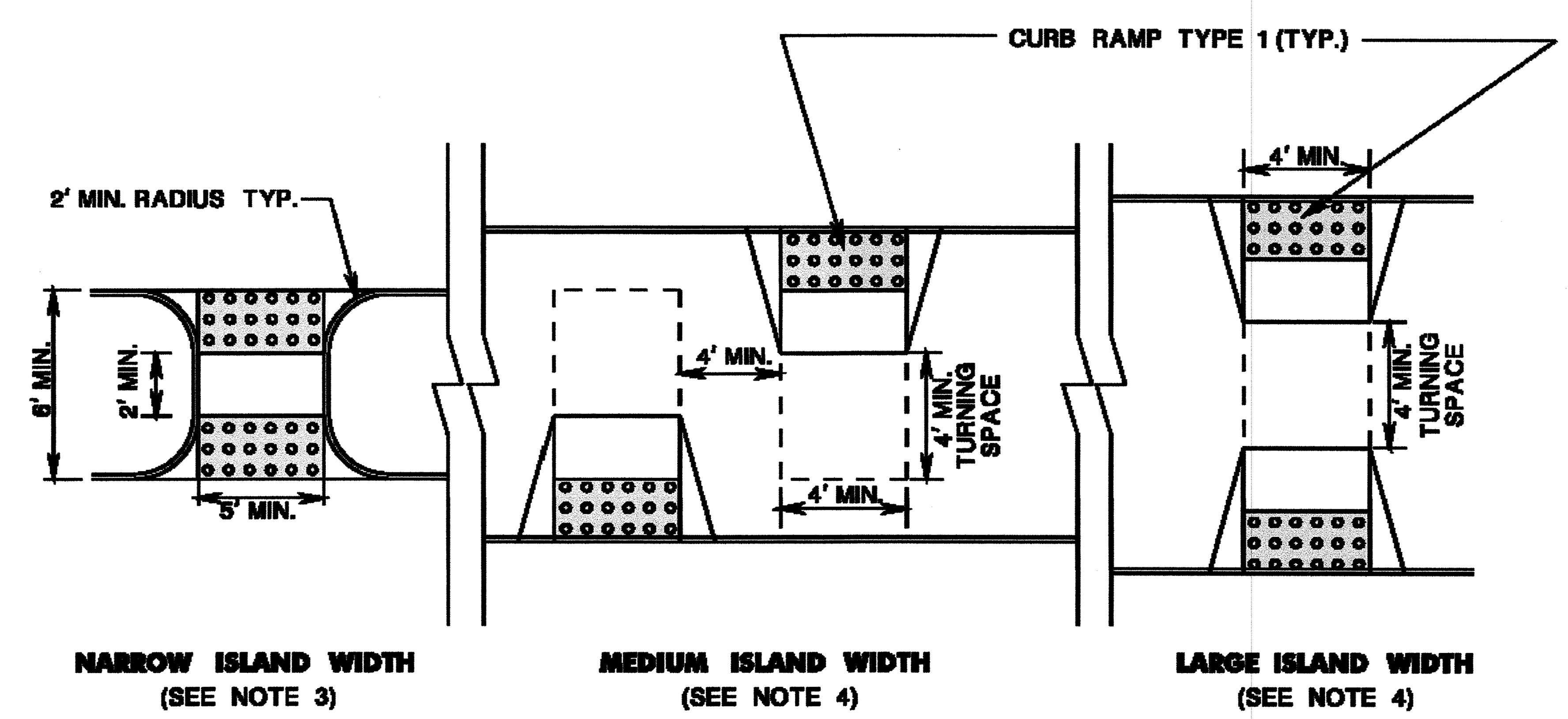
PEDESTRIAN REFUGE ISLAND WALKWAY OPENING AT INTERSECTIONS



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



PEDESTRIAN REFUGE ISLAND

NOTES:

1. KEEP TURNING SPACE, APPROACH SIDEWALK TRANSITIONS, AND CURB RAMP CLEAR OF OBSTRUCTIONS THAT PROTRUDE ABOVE THE SURFACE.
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.
7. A STANDARD DETECTABLE WARNING (DWS) SURFACE IS NOT AVAILABLE TO FIT THIS APPLICATION, AND THEREFORE ONE WILL NEED TO BE CUSTOMIZED. THE DWS SHOULD COVER THE ENTIRE WIDTH OF THE RAMP. THE ROWS OF DOMES ON THE DWS SHOULD FOLLOW THE DIRECTION OF TRAVEL OF THE RAMP, SO PEDESTRIANS WHO USE MOBILE DEVICES CAN TRACK BETWEEN THE DOMES.

DETECTABLE WARNING SURFACE

N.T.S.

CD-606-2

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

CD-606-2.1

BOOKD-OF-ORIGINAL SHEET

file=

CURB RAMP TYPE 1

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET
0.0 % GUTTER LINE PROFILE				
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				
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				
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				
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				
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				
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				
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				
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 2

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET
0-8 % GUTTER LINE PROFILE				
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

CURB RAMP TYPE 3

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET	Y INCHES	X_{2U} FEET	X_{2L} FEET	L_2 FEET
0.0 % GUTTER LINE PROFILE								
3		2.50	2.50	9.00		0.91	0.91	5.82
4		3.33	3.33	10.67		1.91	1.91	7.82
5		4.17	4.17	12.33		2.91	2.91	9.82
6	2.75	5.00	5.00	14.00	2.75	3.91	3.91	11.83
7		5.83	5.83	15.67		4.91	4.91	13.83
8		6.67	6.67	17.33		5.91	5.91	15.83
9		7.50	7.50	19.00		6.91	6.91	17.83
3		*	*	*		*	*	*
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	3.0	5.00	5.00	14.00	3.0	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		*	*	*		*	*	*
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	3.5	5.00	5.00	14.00	3.5	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		*	*	*		*	*	*
5		4.17	4.17	12.33		1.96	1.96	7.92
6	4.0	5.00	5.00	14.00	4.0	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								
3		2.78	2.27	9.05		1.04	0.81	5.85
4		3.70	3.03	10.73		2.17	1.71	7.88
5		4.63	3.79	12.42		3.31	2.60	9.91
6	2.75	5.56	4.55	14.10	2.75	4.45	3.49	11.94
7		6.48	5.30	15.78		5.58	4.39	13.97
8		7.41	6.06	17.47		6.72	5.28	16.00
9		8.33	6.82	19.15		7.86	6.17	18.03
3		2.78	2.27	9.05		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	3.0	5.56	4.55	14.10	3.0	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		2.78	2.27	9.05		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	3.5	5.56	4.55	14.10	3.5	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		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	4.0	5.56	4.55	14.10	4.0	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								
3		3.13	2.08	9.21		1.20	0.73	5.93
4		4.17	2.78	10.94		2.52	1.54	8.06
5		5.21	3.47	12.68		3.83	2.35	10.18
6	2.75	6.25	4.17	14.42	2.75	5.15	3.16	12.30
7		7.29	4.86	16.15		6.47	3.96	14.43
8		8.33	5.56	17.89		7.78	4.77	16.55
9		9.38	6.25	19.63		9.10	5.58	18.67
3		3.13	2.08	9.21		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	3.0	6.25	4.17	14.42	3.0	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		3.13	2.08	9.21		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	3.5	6.25	4.17	14.42	3.5	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		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	4.0	6.25	4.17	14.42	4.0	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								
3		3.57	1.92	9.49		1.42	0.67	6.09
4		4.76	2.56	11.33		2.99	1.41	8.39
5		5.95	3.21	13.16		4.55	2.14	10.69
6	2.75	7.14	3.85	14.99	2.75	6.11	2.88	12.99
7		8.33	4.49	16.82		7.68	3.61	15.29
8		9.52	5.13	18.65		9.24	4.35	17.59
9		10.71	5.77	20.48		10.81	5.08	19.89
3		3.57	1.92	9.49		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	3.0	7.14	3.85	14.99	3.0	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		3.57	1.92	9.49		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	3.5	7.14	3.85	14.99	3.5	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		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	4.0	7.14	3.85	14.99	4.0	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								
3		4.17	1.79	9.95		1.75	0.62	6.37
4		5.56	2.38	11.94		3.68	1.29	8.97
5		6.94	2.98	13.92		5.60	1.97	11.57
6	2.75	8.33	3.57	15.90	2.75	7.53	2.64	14.17
7		9.72	4.17	17.89		9.45	3.32	16.77
8		11.11	4.76	19.87		11.38	4.00	19.37
9		12.50	5.36	21.86		13.30	4.67	21.97
3		4.17	1.79	9.95		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	3.0	8.33	3.57	15.90	3.0	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		4.17	1.79	9.95		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	3.5	8.33	3.57	15.90	3.5	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		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	4.0	8.33	3.57	15.90	4.0	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								
3		5.00	1.67	10.67		2.28	0.57	6.85
4		6.67	2.22	12.89		4.78	1.19	9.98
5		8.33	2.78	15.11		7.29	1.82	13.10
6	2.75	10.00	3.33	17.33	2.75	9.79	2.45	16.23
7		11.67	3.89	19.56		12.29	3.07	19.36
8		13.33	4.44	21.78		14.79	3.70	22.49
9		15.00	5.00	24.00		15.00	4.32	23.32
3		5.00	1.67	10.67		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	3.0	10.00	3.33	17.33	3.0	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		5.00	1.67	10.67		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	3.5	10.00	3.33	17.33	3.5	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		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	4.0	10.00	3.33	17.33	4.0	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								
3		6.25	1.56	11.81		3.26	0.53	7.79
4		8.33	2.08	14.42		6.84	1.11	11.95
5		10.42	2.60	17.02		10.41	1.69	16.10
6	2.75	12.50	3.13	19.63	2.75	13.99	2.27	20.26
7		14.58	3.65	22.23		15.00	2.86	21.86
8		15.00	4.17	23.17		15.00	3.44	22.44
9		15.00	4.69	23.69		15.00	4.02	23.02
3		6.25	1.56	11.81		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	3.0	12.50	3.13	19.63	3.0	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		6.25	1.56	11.81		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	3.5	12.50	3.13	19.63	3.5	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		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	4.0	12.50	3.13	19.63	4.0	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								
3		8.33	1.47	13.80		5.71	0.50	10.20
4		11.11	1.96	17.07		11.97	1.04	17.01
5		13.89	2.45	20.34		15.00	1.58	20.58
6	2.75	15.00	2.94	21.94	2.75	15.00	2.13	21.13
7		15.00	3.43	22.43		15.00	2.67	21.67
8		15.00	3.92	22.92		15.00	3.21	22.21
9		15.00	4.41	23.41		15.00	3.76	22.76
3		8.33	1.47	13.80		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	3.0	15.00	2.94	21.94	3.0	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		8.33	1.47	13.80		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	3.5	15.00	2.94	21.94	3.5	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		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	4.0	15.00	2.94	21.94	4.0	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

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.
4. 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.

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-606-3

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

CD-606-3.1

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	2.75	2.75	0.91	0.91	5.82
4			1.91	1.91	7.82
5			2.91	2.91	9.82
6			3.91	3.91	11.82
7			4.91	4.91	13.83
8			5.91	5.91	15.83
9			6.91	6.91	17.83
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	2.75	2.75	1.04	0.81	5.85
4			2.17	1.71	7.88
5			3.31	2.60	9.91
6			4.45	3.49	11.94
7			5.58	4.39	13.97
8			6.72	5.28	16.00
9			7.86	6.17	18.03
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	2.75	2.75	1.20	0.73	5.93
4			2.52	1.54	8.06
5			3.83	2.35	10.18
6			5.15	3.16	12.30
7			6.47	3.96	14.43
8			7.78	4.77	16.55
9			9.10	5.58	18.67
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	2.75	2.75	1.42	0.67	6.09
4			2.99	1.41	8.39
5			4.55	2.14	10.69
6			6.11	2.88	12.99
7			7.68	3.61	15.29
8			9.24	4.35	17.59
9			10.81	5.08	19.89
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	2.75	2.75	1.75	0.62	6.37
4			3.68	1.29	8.97
5			5.60	1.97	11.57
6			7.53	2.64	14.17
7			9.45	3.32	16.77
8			11.38	4.00	19.37
9			13.30	4.67	21.97
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	2.75	2.75	2.28	0.57	6.85
4			4.78	1.19	9.98
5			7.29	1.82	13.10
6			9.79	2.45	16.23
7			12.29	3.07	19.36
8			14.79	3.70	22.49
9			15.00	4.32	23.32
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	2.75	2.75	3.26	0.53	7.79
4			6.84	1.11	11.95
5			10.41	1.69	16.10
6			13.99	2.27	20.26
7			15.00	2.86	21.86
8			15.00	3.44	22.44
9			15.00	4.02	23.02
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	2.75	2.75	5.71	0.50	10.20
4			11.97	1.04	17.01
5			15.00	1.58	20.58
6			15.00	2.13	21.13
7			15.00	2.67	21.67
8			15.00	3.21	22.21
9			15.00	3.76	22.76
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

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.
4. 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.

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-606-4.1

CURB RAMP TYPE 7

0.0 % GUTTER LINE PROFILE

H INCHES	W FEET	X_{1U} FEET	X_{1L} FEET	L_1 FEET
3	4' MIN. 7' MAX.	3.00	3.00	10.00
4		4.00	4.00	12.00
5		5.00	5.00	14.00
6		6.00	6.00	16.00
7		7.00	7.00	18.01
8		8.00	8.00	20.01
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	4' MIN. 7' MAX.	3.41	2.68	10.09
4		4.55	3.57	12.12
5		5.68	4.47	14.15
6		6.82	5.36	16.18
7		7.96	6.25	18.21
8		9.10	7.15	20.24
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	4' MIN. 7' MAX.	3.95	2.42	10.37
4		5.27	3.23	12.49
5		6.58	4.03	14.62
6		7.90	4.84	16.74
7		9.22	5.65	18.86
8		10.53	6.45	20.99
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	4' MIN. 7' MAX.	4.69	2.21	10.90
4		6.25	2.94	13.20
5		7.82	3.68	15.49
6		9.38	4.41	17.79
7		10.94	5.15	20.09
8		12.51	5.88	22.39
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	4' MIN. 7' MAX.	5.77	2.03	11.80
4		7.70	2.70	14.40
5		9.62	3.38	17.00
6		11.55	4.06	19.60
7		13.47	4.73	22.20
8		15.40	5.41	24.80
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	4' MIN. 7' MAX.	7.51	1.88	13.38
4		10.01	2.50	16.51
5		12.51	3.13	19.64
6		15.00	3.75	22.75
7		15.00	4.38	23.38
8		15.00	5.00	24.00
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	4' MIN. 7' MAX.	10.73	1.74	16.47
4		14.31	2.33	20.63
5		15.00	2.91	21.91
6		15.00	3.49	22.49
7		15.00	4.07	23.07
8		15.00	4.65	23.65
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	4' MIN. 7' MAX.	15.00	1.63	20.63
4		15.00	2.17	21.17
5		15.00	2.72	21.72
6		15.00	3.26	22.26
7		15.00	3.81	22.81
8		15.00	4.35	23.35
9		15.00	4.89	23.89

CONCRETE SIDEWALK

(PUBLIC SIDEWALK CURB RAMP TABLES)

N.T.S.

CD-606-4

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

CONSTRUCT

32 SF Construction signs

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

MAGNOLIA ROAD IMPROVEMENTS

TRAFFIC CONTROL PLAN

CVE ASSOCIATES
(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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

2.14.23

SCALE	As Shown
DATE	July 2023
DRAWN BY	PD
DESIGNED BY	PD
CHECKED BY	CP
SHEET	22 of 23

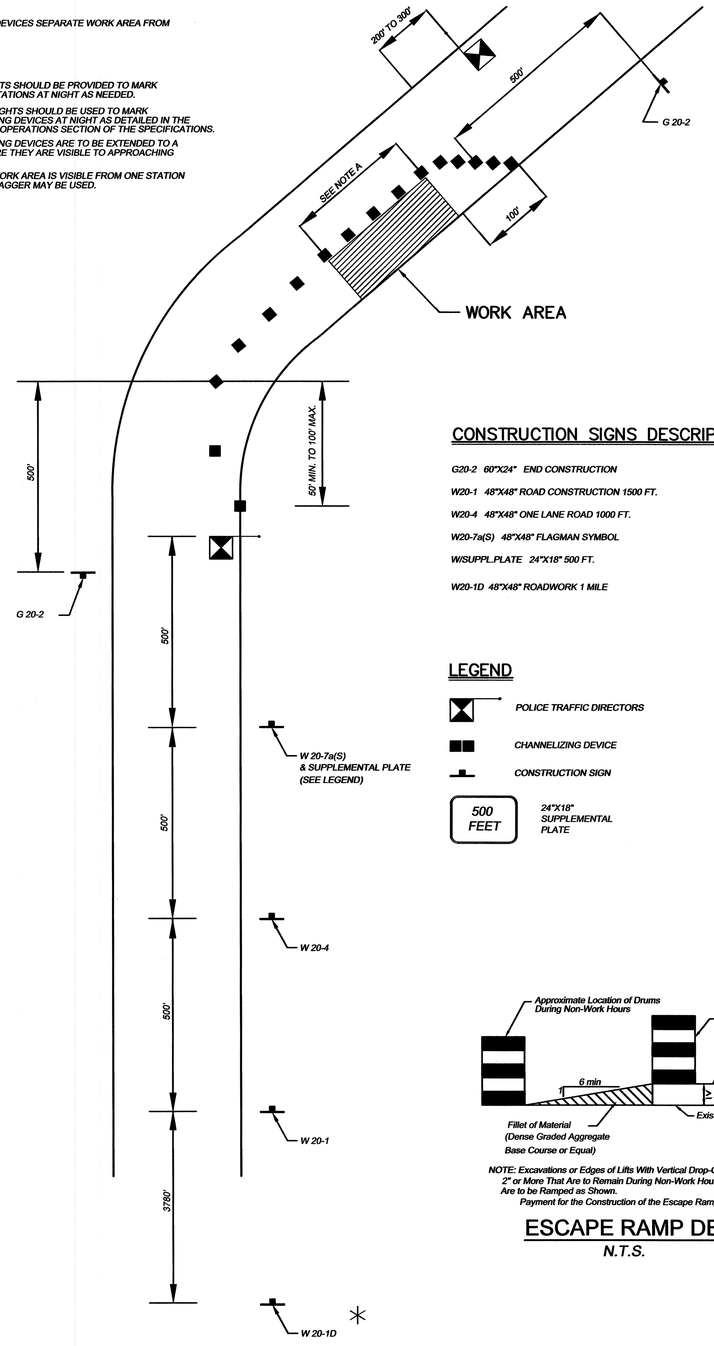
ASSISTER NO.
FILE NO. PWB0A608.01
DRAWING NUMBER TCP-1
TCP-1

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*

W20 - 1D

✳ THIS SIGN SHOULD BE INSTALLED FOR ROADS WITH A SPEED LIMIT OF 45 M.P.H. OR GREATER.

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.

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 TWICE 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.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

MAGNOLIA ROAD IMPROVEMENTS

STAGING PLAN

REGISTER NO.

FILE NO. PWB0A608.01

CVE ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000
(732) 727 8000 — 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162
(732) 462 7400 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

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

SCALE	DATE	DRAWING NUMBER
As Shown	July 2023	SP-1
DRAWN BY: PD	DESIGNED BY: PD	
CHECKED BY:	SHEET: 23 of 23	SP-1