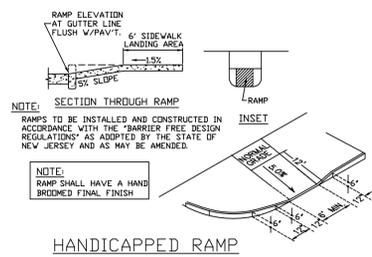
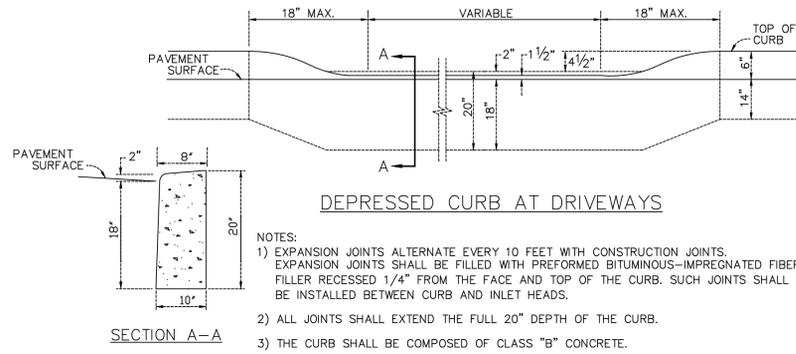


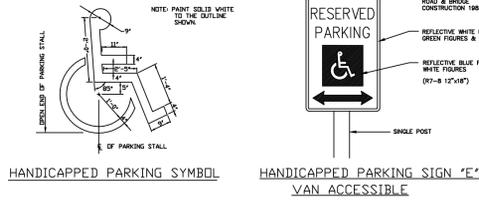
STANDARD PIPE BEDDING FOR P.V.C. & HDPE PIPE



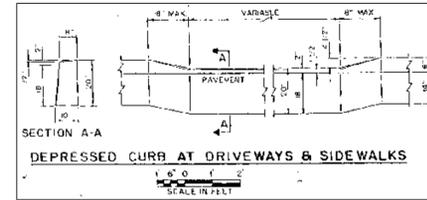
HANDICAPPED RAMP



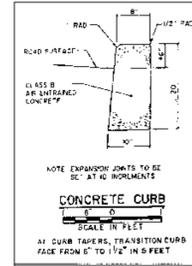
DEPRESSED CURB AT DRIVEWAYS



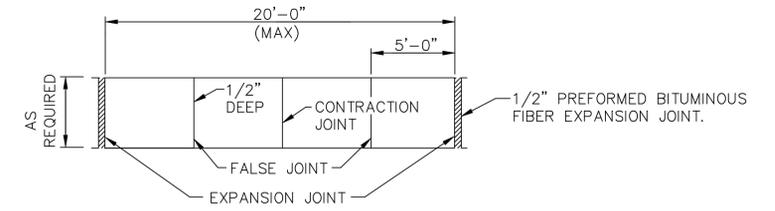
HANDICAPPED PARKING SYMBOL AND SIGN



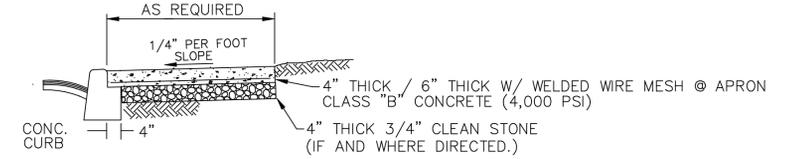
COUNTY DETAIL: L



COUNTY DETAIL: L



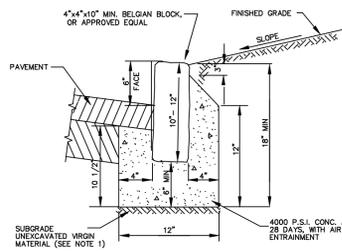
PLAN



SECTION

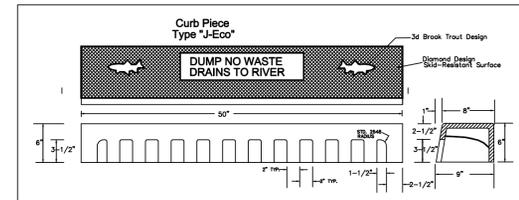
- NOTES:
- 6" THICK CONCRETE SHALL EXTEND MIN. OF 3" BEYOND EACH EDGE OF ALL DRIVEWAYS.
 - DIRECTION OF SLOPE AND GRADE TO BE AS SHOWN ON GRADING PLANS.

CONCRETE SIDEWALK / APRON DETAIL

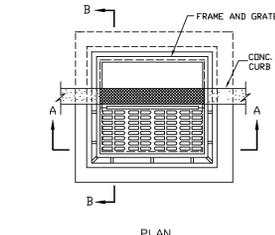


- NOTES:
- ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH 3/4" CLEAN CRUSHED STONE. ALL SUBBASES SHALL BE APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO POURING.
 - JOINTS SHALL BE NOT MORE THAN 1/4" WIDE FOR DRESSED BLOCK AND 3/8" WIDE FOR QUARRY SPLIT BLOCK. THE JOINTS SHALL BE POINTED WITH 1:1 CEMENT-SAND MORTAR.
 - CURB SHALL BE TEMPORARILY BACKFILLED TO FINISHED GRADE WITH SOIL, BENCH AND STONE ON THE ROADSIDE AS SOON AS IT HAS ATTAINED SUFFICIENT SUPPORTING STRENGTH OR WITHIN 24 HOURS OF POURING (WHICHEVER IS LESS).
 - WHEN NEW CURB IS INSTALLED ALONG AN EXISTING PAVED AREA, THE EXISTING PAVEMENT SHALL BE CUT 2 FEET IN FRONT OF THE NEW CURB FACE IN A STRAIGHT LINE AT A 45 DEGREE ANGLE WITH A CUTTING WHEEL OR PNEUMATIC HAMMER. THE NEW PAVEMENT SHALL BE TACKED AND BUTTED TO THE EXISTING PAVEMENT IN ACCORDANCE WITH PAVEMENT WIDENING DETAIL.
 - THE GENERAL CONTRACTOR OR OWNER IS RESPONSIBLE FOR MAINTAINING ALL CURB UNITS FORMALLY ACCEPTED BY THE TOWNSHIP. ALL CURB THAT IS BROKEN, GRADED, OR OUT OF ALIGNMENT SHALL BE REPLACED PRIOR TO FINAL PAVING AND/OR ACCEPTANCE.

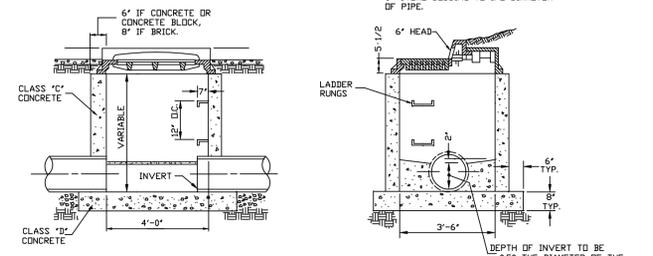
BELGIAN BLOCK CURB DETAIL



CURB PIECE TYPE 'U-ECO'

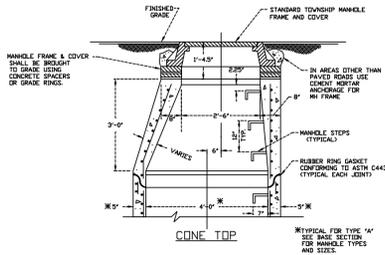


PLAN

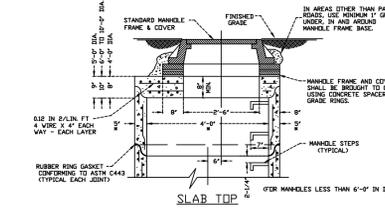


SECTION A-A TYPE 'B' INLET WITH TYPE 'J' CURB PIECE

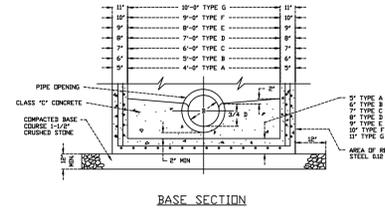
- GENERAL NOTES:
- FOOTER TO BE N.J.D.O.T. CLASS 'D' CONC.
 - INVERT TO BE CLASS 'C' CONCRETE.
 - IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
 - FRAME AND GRATE TO BE NO. 2618 AS MANUFACTURED BY CAMPBELL FOUNDRY CO., OR EQUAL. IF GRATE LIES WITHIN CARTRAY THE GRATE SHALL BE CAMPBELL FOUNDRY NO. 2618 BICYCLE GRATE OR APPROVED EQUAL. SIX INCH CURB PIECE SHALL BE TYPE 'J' ECU WITH 'DRAIN TO RIVER' NAME PLATE.
 - PROVIDE 7/8" DIA. ALUMINUM LADDER RUNGS, 12" O.C.
 - ALL PRECAST STRUCTURES TO RECEIVE BITUMASTIC TAR COAT OUTSIDE ONLY.
 - ALL STORM SEWER PIPE SHALL HAVE A 6" STONE BEDDING TO 1/2 DIAMETER OF PIPE.



CONE TOP



SLAB TOP

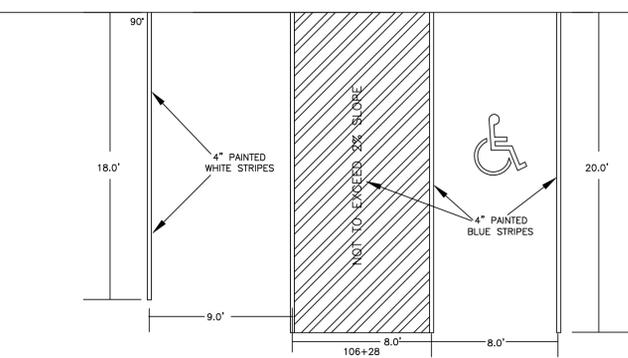


BASE SECTION

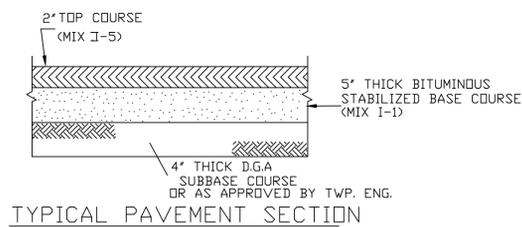
PRECAST CONCRETE MANHOLE

MANHOLE NOTES

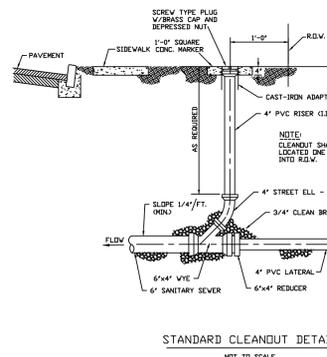
- PRECAST CONCRETE MANHOLE LADDER RUNGS
- WHERE TYPE 'B' AND 'C' MANHOLE ARE USED A TAPER SECTION CONNECTING BASE SECTION AND RISER SHALL BE USED AND SHALL HAVE A MINIMUM VERTICAL CLEARANCE WHERE POSSIBLE.
 - BASES TO BE TYPE 'A' FOR SEWERS UNDER 24" DIA., TYPE 'B' FOR SEWERS 24" TO 30" DIA., AND TYPE 'C' FOR SEWERS 30" TO 48" DIA.
- MANHOLE SIZES
- ALUMINUM MANHOLE STEPS SHALL BE ALCOA 2618, ALLOY 6061-T6 SHIP FRONT DESIGN, OR APPROVED EQUAL.
 - THE PORTION TO BE IMBEDDED IN THE MANHOLE SHALL BE COATED WITH AN EPDM BITUM BITUM OR OTHER APPROVED MATERIAL AND SHALL BE IN ACCORDANCE WITH THE LATEST CLASS 'A' STANDARDS.
- WORK AT EXISTING MANHOLES
- AT THE DIRECTION OF THE ENGINEER, THE CONTRACTOR SHALL CUT INTO THE MANHOLE AND COMPLETE A CONNECTION USING A SUITABLE ADAPTER AS REQUIRED.
 - THE CONTRACTOR SHALL NOT INTERFERE WITH EXISTING SEWERAGE SERVICE DURING THE PERIOD OF CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO KEEP 'DIRT' OUT OF MANHOLE.
- GENERAL MANHOLE NOTES
- SEWER PIPE AT MANHOLES SHALL BE IMBEDDED IN CLASS 'C' CONCRETE UP TO THE FIRST JOINT OR TO FIRM BEDDING.
 - SHIRTS SHALL BE USED AT MANHOLES (2" MIN).
 - EXTERIOR SURFACES SHALL BE PAINTED WITH TWO COATS OF KOPPERS NO. 50 BITUMINOUS WATERPROOFING MATERIAL, OR APPROVED EQUAL.
 - ALL CONSTRUCTION SHALL MEET STANDARD SPECIFICATIONS THE LATEST REVISIONS.
 - MINIMUM COMPRESSIVE STRENGTH OF CONCRETE FOR ALL SECTIONS OF MANHOLES SHALL BE 4000 PSI.
 - ALL MANHOLE JOINTS TO CONFORM TO ASTM SPECIFICATION C-443, AND GRUTES AND POINTS IN INSIDE AND OUTSIDE SURFACES.
 - MAXIMUM DISTANCE BETWEEN MANHOLES SHALL BE 500 FEET.
 - DEPTH TO SUITABLE SUB-GRADE SHALL BE DETERMINED BY THE FIELD ENGINEER.
 - MANHOLES SIX FEET DEEP OR LESS SHALL BE CONSTRUCTED WITH PRE-CAST SLAB TOP INSTEAD OF CONE TOP.
 - WATER-TIGHT CONNECTIONS SHALL BE PROVIDED AT ALL PIPE OPENINGS UTILIZING RUBBER BOOT, KEYS OR SOME OTHER METHOD AS APPROVED BY THE ENGINEER.
 - FLAT SLAB MANHOLE COVERS SHALL BE DESIGNED FOR A MINIMUM H-20 HIGHWAY LOADING AND BE DESIGNED IN ACCORDANCE WITH ASTM C-15. MINIMUM SLAB THICKNESS SHALL BE IN ACCORDANCE WITH ASTM DESIGN CRITERIA.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING ADEQUATE BALLAST TO OFFSET FLUTATION FORCES ACTING ON MANHOLES INSTALLED IN WET AREAS.



PARKING STRIPING & HANDICAP STALL DETAIL



TYPICAL PAVEMENT SECTION



STANDARD CLEANOUT DETAIL

PREPARED BY:	REVISIONS	CONSTRUCTION DETAIL PLAN OF
EDWARD S. DEC	1 JULY 28, 2019	440 NORTH AVENUE EAST TOWN OF WESTFIELD, UNION COUNTY, N.J. ALSO KNOWN AS LOT 7, BLOCK 3202 AS SHOWN ON THE TAX MAP OF THE TOWN OF WESTFIELD, UNION CO. N.J.
	2 NOV. 25, 2019	
	3 JAN. 15, 2020	
		GUARRIELLO & DEC ASSOC. LLC CIVIL ENGINEERS AND LAND SURVEYORS 131 NORTH MICHIGAN AVENUE P.O. BOX 208 KENILWORTH, N.J. 07033
N.J. PROFESSIONAL ENGINEER AND LAND SURVEYOR L.C. # 24GB03897400 CERT. OF AUTH # 24GA28048500		TEL-908-620-1139 SCALE AS SHOWN
		DATE MAY 28, 2019
		JOB # B32-141
		SHEET # 6 OF 6