

# INTERSECTION IMPROVEMENTS AT: INMAN AVENUE (C.R. 602) & JORDAN ROAD / AMHERST AVENUE TOWNSHIP OF WOODBRIDGE, MIDDLESEX COUNTY, NEW JERSEY

MAY, 2023

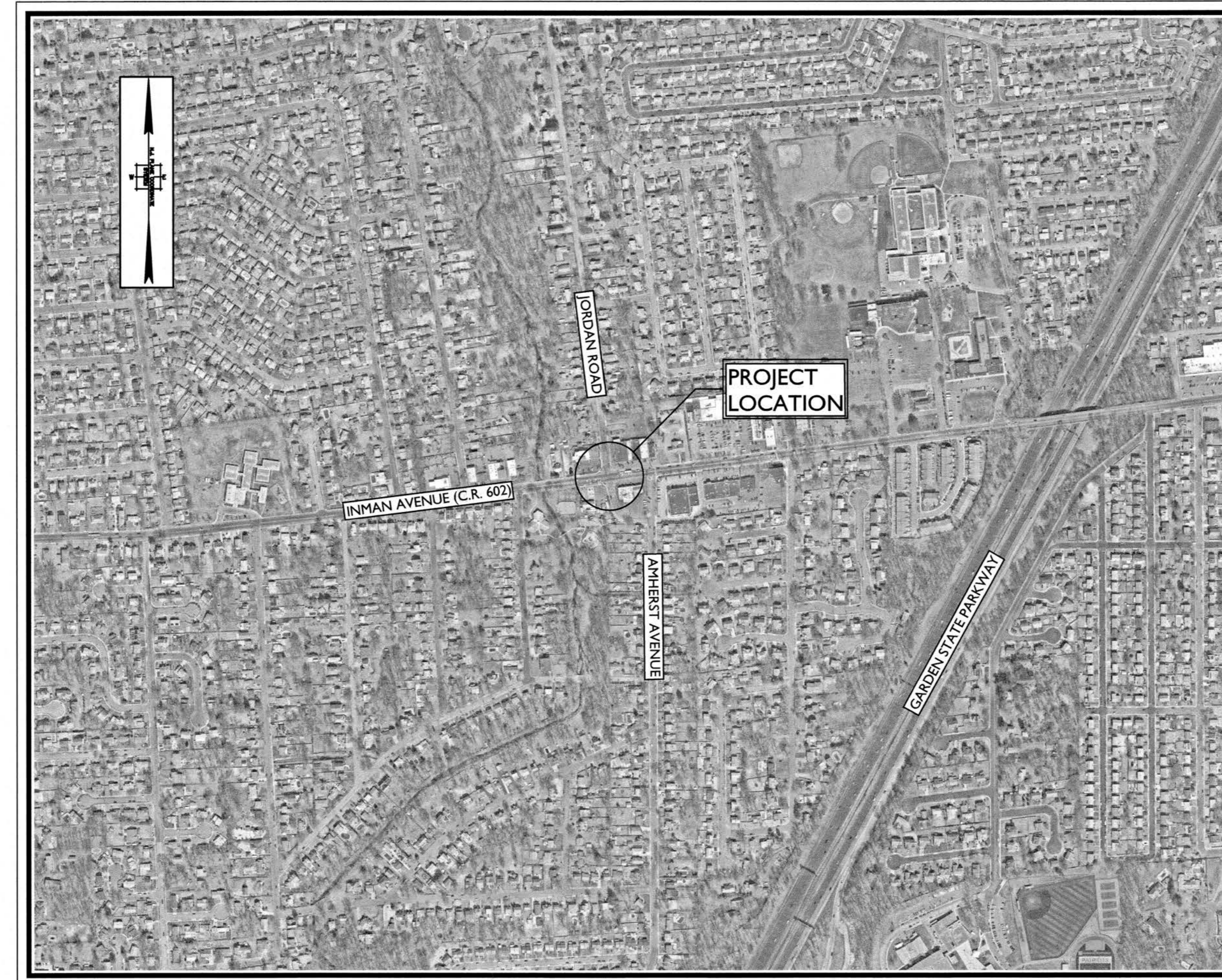
CONTRACT # 2023-012

PUBLIC UTILITIES			
UTILITIES	SERVICE	CONTACT	TELEPHONE
ELECTRIC	PSE&G	FRANK LUCCHESI	(609) 638-7608
TELEPHONE	VERIZON	GINA GONNELLA-BARTA	(908) 412-3984
CABLE	COMCAST	RICHARD GUTUALSKI	(732) 602-7444
GAS	ELIZABETHTOWN GAS COMPANY	BRUCE GARRETT	(908) 662-8311
WATER	MIDDLESEX WATER COMPANY	BRIAN CARR	(732) 634-1500
SEWER	TOWNSHIP OF WOODBRIDGE	MIKE GELIN	(732) 602-6047

**JOHN E. McCORMAC - MAYOR**

**TOWNSHIP COUNCIL**

GREGG M. FICARRA	COUNCIL PRESIDENT - COUNCILMAN-AT-LARGE
KYLE ANDERSON	COUNCIL VICE-PRESIDENT, COUNCILMAN-AT-LARGE
SHARON McAULIFFE	COUNCILWOMAN - FIRST WARD
HOWIE BAUER	COUNCILMAN - SECOND WARD
CORY SPILLAR	COUNCILMAN - THIRD WARD
VIRBHADRA N. PATEL	COUNCILMAN - FOURTH WARD
DEBBIE MEEHAN	COUNCILWOMAN - FIFTH WARD
LIZBETH DeJESUS	COUNCILWOMAN-AT-LARGE
BRIAN SMALL	COUNCILMAN-AT-LARGE
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, PE	MUNICIPAL ENGINEER



**KEY MAP**

SCALE: 1" = 500'

SOURCE: NEARMAPS

INDEX OF SHEETS	
SHEET NUMBERS	DESCRIPTION
1	KEY SHEET
2	ESTIMATE AND DISTRIBUTION OF QUANTITIES
3	GENERAL NOTES AND LEGEND
4	CONSTRUCTION PLAN
5	SOIL EROSION AND SEDIMENT CONTROL PLAN
6	SIGNING AND STRIPING PLAN
7-8	ELECTRICAL PLAN
9-10	CURB RAMP DETAILS
11-12	CONSTRUCTION DETAILS

UNDERGROUND LOCATION SERVICE CALL: 1-800-272-1000.

NOTE: LOCATION OF UTILITIES AS SHOWN ON THESE PLANS ARE PLOTTED FROM AVAILABLE DATA ON FILE WITH THE UTILITY COMPANIES AND IS NOT GUARANTEED AS TO EXACTNESS. THE CONTRACTOR IS TO CONTACT UTILITY COMPANIES 72 HOURS PRIOR TO CONSTRUCTION TO DETERMINE EXACT LOCATION AND DEPTH OF ALL UTILITIES. THE CONTRACTOR SHALL USE THE UTILITY LOCATIONS SHOWN AS AN AID IN DETERMINING EXACT LOCATIONS. CONTRACTOR SHALL NOT START CONSTRUCTION UNTIL SUPPLYING THE TOWNSHIP ENGINEER WITH THE ONE-CALL CONFIRMATION NUMBER.

THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF 2019 TO GOVERN, AS MODIFIED BY THE TECHNICAL SPECIFICATIONS.  
NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD ROADWAY CONSTRUCTION/TRAFFIC CONTROL/BRIDGE CONSTRUCTION DETAILS (2016) AND ELECTRICAL DETAILS (2007) ARE APPLICABLE TO THIS PROJECT EXCEPT FOR THOSE DETAILS CONTAINED HEREIN.

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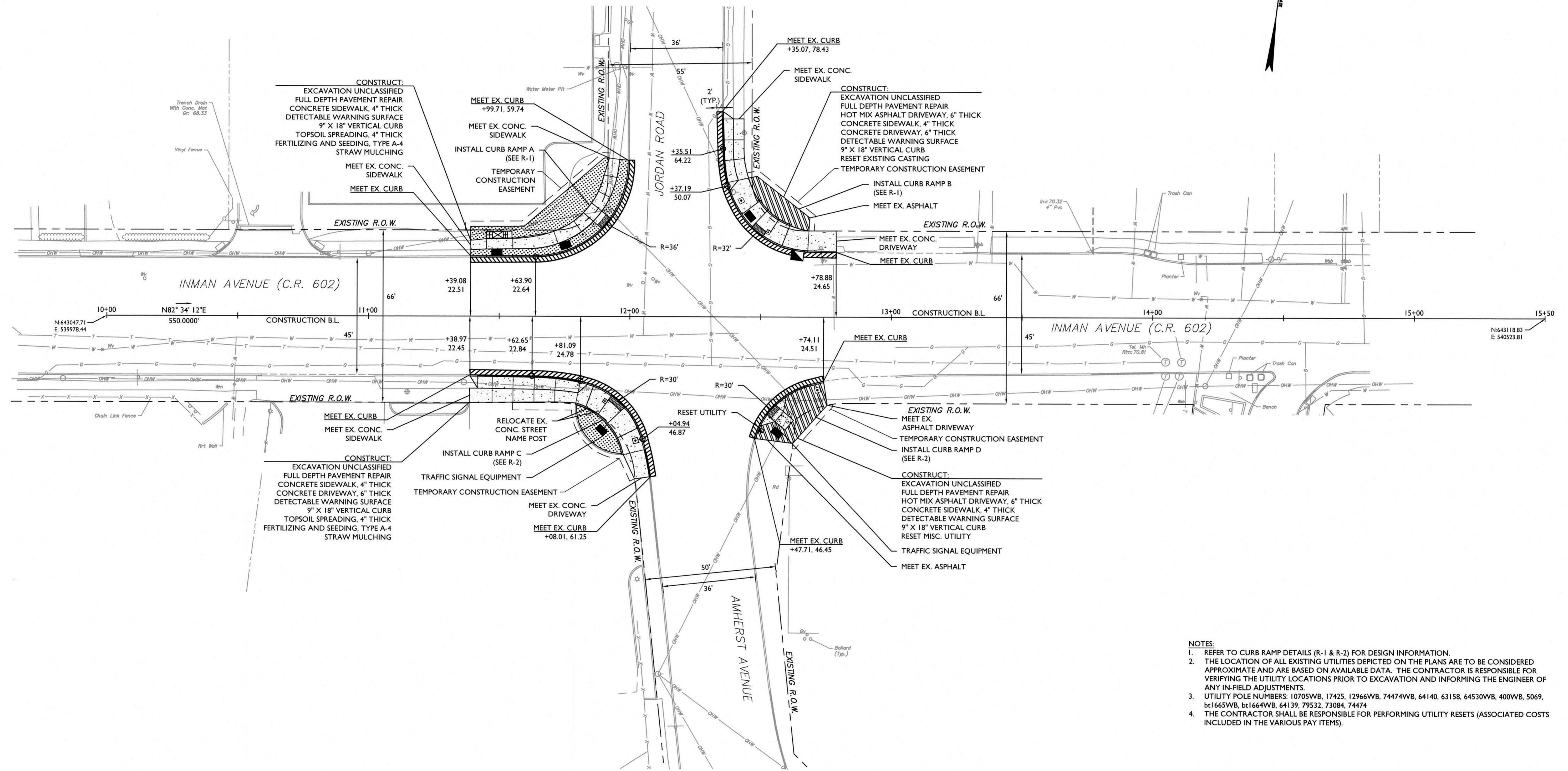
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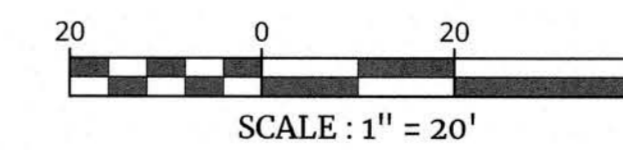
*Keith M. Hall*  
**Keith M. Hall**  
NEW JERSEY LICENSED PROFESSIONAL ENGINEER  
LICENSE NUMBER: GE52883  
COLLIERS ENGINEERING & DESIGN, INC.  
N.J. C.O.A. #: 24GA27986500







- NOTES:**
- REFER TO CURB RAMP DETAILS (R-1 & R-2) FOR DESIGN INFORMATION.
  - THE LOCATION OF ALL EXISTING UTILITIES DEPICTED ON THE PLANS ARE TO BE CONSIDERED APPROXIMATE AND ARE BASED ON AVAILABLE DATA. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE UTILITY LOCATIONS PRIOR TO EXCAVATION AND INFORMING THE ENGINEER OF ANY IN-FIELD ADJUSTMENTS.
  - UTILITY POLE NUMBERS: 10705WB, 17425, 12966VB, 74474WB, 64140, 63158, 64530WB, 400WB, 5069, 61665WB, 61664WB, 64139, 79532, 73084, 74474
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING UTILITY RESETS (ASSOCIATED COSTS INCLUDED IN THE VARIOUS PAY ITEMS).



ITEM NO.	TO BE CONSTRUCTED	UNIT	CONTRACT QUANTITY
13	EXCAVATION, UNCLASSIFIED	CY	33
14	FULL DEPTH PAVEMENT REPAIR	SY	66
17	RESET EXISTING CASTING	UNIT	1
18	CONCRETE SIDEWALK, 4" THICK	SY	156
19	CONCRETE DRIVEWAY, 6" THICK	SY	32
20	HOT MIX ASPHALT DRIVEWAY, 6" THICK	SY	54
21	DETECTABLE WARNING SURFACE	SY	5
22	9" X 18" CONCRETE VERTICAL CURB	LF	292
66	TOPSOIL SPREADING 4" THICK	SY	92
67	FERTILIZING AND SEEDING, TYPE A-4	SY	92
68	STRAW MULCHING	SY	92

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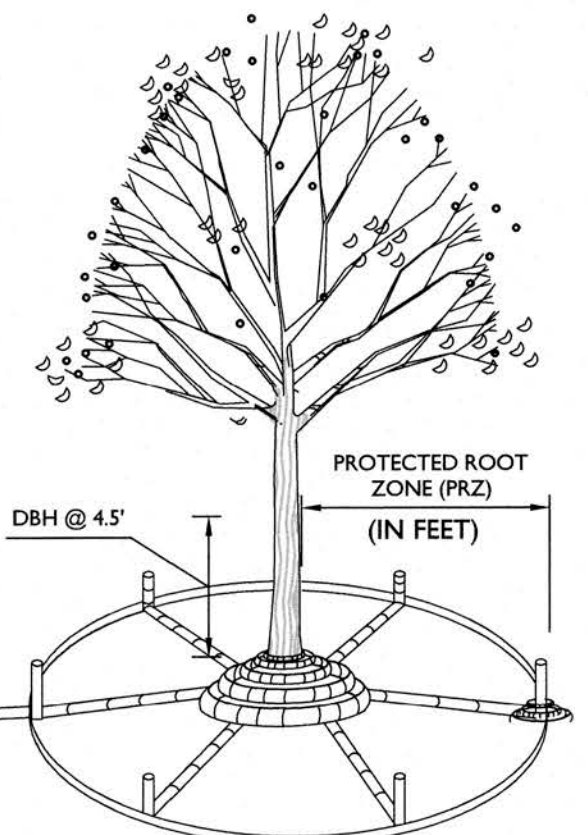
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WOODBRIDGE TOWNSHIP  
**CONSTRUCTION PLAN**  
 INTERSECTION IMPROVEMENTS AT  
 INMAN AVENUE (C.R. 602) AND  
 JORDAN ROAD / AMHERST AVENUE  
 WOODBRIDGE TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY

*Keith M. Hall*  
 Keith M. Hall  
 NEW JERSEY LICENSED PROFESSIONAL ENGINEER  
 LICENSE NUMBER: GES2883  
 COLLIER'S ENGINEERING & DESIGN, INC.  
 N.J. C.O.A. #: 24GA27986500

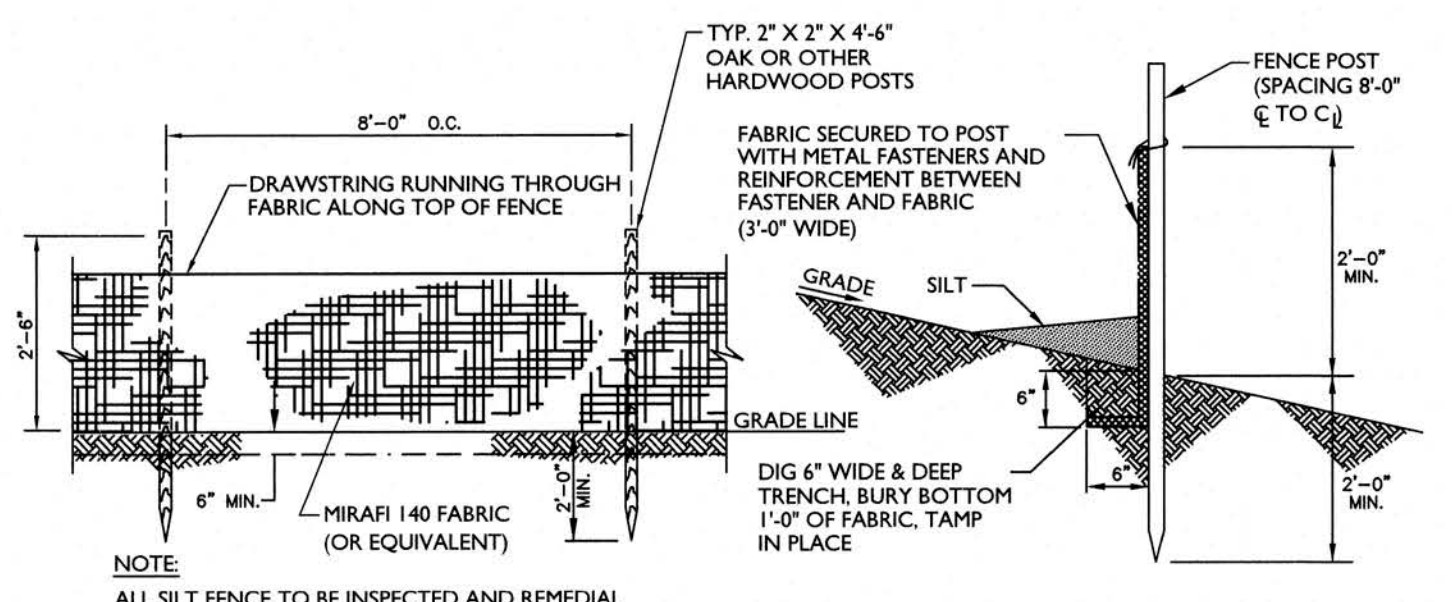
SCALE: 1" = 20' DATE: 05/24/2023 DRAWN BY: NJS CHECKED BY: KMH  
 PROJECT NUMBER: 20004877G DRAWING NAME: R-PL06-CNST  
 SHEET NUMBER: 4 OF 12

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

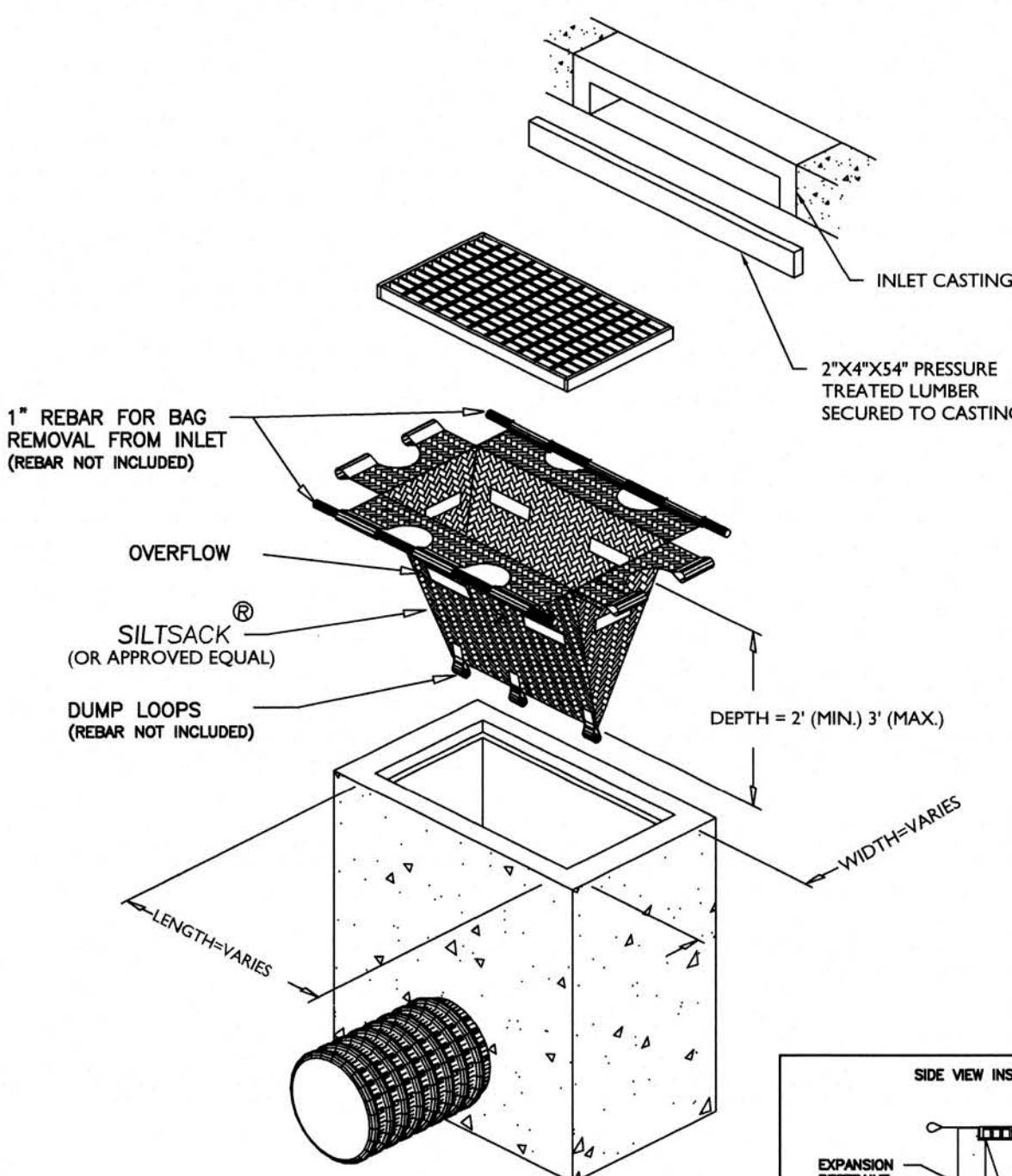


- NOTES:**
- MEASURE THE DBH (DIAMETER OF TREE AT BREAST HEIGHT, 4.5' ABOVE GROUND ON THE UPHILL SIDE) IN INCHES.
  - PROTECTED ROOT ZONE (PRZ) = CRITICAL ROOT ZONE IN FEET = DBH (INCHES) X 1.5 (FOR OLD/SENSITIVE TREES) OR DBH X 1.0 (FOR YOUNG/TOLERANT TREES)

**TREE PROTECTION IN CUT AREAS DETAIL**  
N.T.S.



**SILT FENCE DETAIL**  
N.T.S.



- NOTES:**
- SEDIMENT FILTER BAGS ARE FOR USE WITHIN ALL INLETS THAT ARE IN PAVED AREAS BUT ARE NOT ADJACENT TO CURBING.
  - SEDIMENT FILTER BAGS SHALL BE MANUFACTURED BY SILTSACK (REGULAR FLOW MODEL) OR APPROVED EQUAL.
  - LENGTH AND WIDTH OF FILTER BAG VARIES ACCORDING TO INLET SIZE.
  - OVERFLOW HOLES ARE REQUIRED A MINIMUM OF 1 FOOT ABOVE THE BOTTOM OF THE BAG.

**INLET PROTECTION - SEDIMENT FILTER BAG INSERT DETAIL**  
N.T.S.

**FREEHOLD SOIL EROSION AND SEDIMENT CONTROL NOTES**

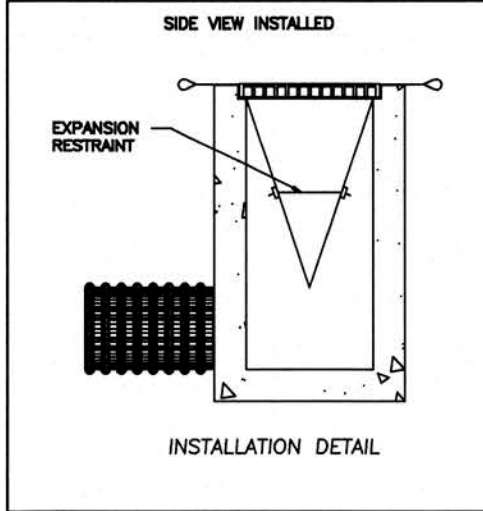
- THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY.
- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- 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.
- N.J.S.A. 42:27-11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. 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.
- 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 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 THE STANDARD FOR STABILIZATION WITH MULCH ONLY.
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. SOIL STOCKPILES, 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.
- 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.
- THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A PAD OF CLEAN, WASHED STONE AT POINTS WHERE TRAFFIC WILL BE ACCESSING THE CONSTRUCTION SITE. AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ACCESS 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 LOCATED AND SEEDING.
- ALL SOIL, WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAYS WILL BE REMOVED IMMEDIATELY.
- PERMANENT VEGETATION IS TO BE SEED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING.
- AT THE TIME THAT 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 BE IDENTIFIED AS 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.
- IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 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.
- CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
- UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING MACHINERY USED MUST BE IN ACCORDANCE WITH THE STANDARD FOR DEWATERING.
- 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.
- 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.
- ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #6.
- THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

**MITIGATION NOTES FOR ACIDIC SOIL**

- LIMIT THE EXCAVATION AREA AND EXPOSURE TIME WHEN HIGH ACID PRODUCING SOILS ARE ENCOUNTERED.
- TOPSOIL STRIPPED FROM THE SITE SHALL BE STORED SEPARATELY FROM TEMPORARILY STOCKPILED HIGH ACID PRODUCING SOILS.
- 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.
- TEMPORARILY STOCKPILED HIGH ACID PRODUCING SOIL MATERIAL TO BE EXPOSED MORE THAN 30 DAYS 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 4 INCHES OF WOOD CHIPS TO MINIMIZE EROSION OF THE STOCKPILE. SILT FENCE SHALL BE INSTALLED AT THE TOE OF 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.
- HIGH ACID PRODUCING SOILS WITH A PH OF 4 OR LESS, OR CONTAINING IRON SULFIDE, (INCLUDING BORROW FROM CUTS) SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT A RATE OF 6 TONS PER ACRE (OR 275 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 OR MORE EXCEPT AS FOLLOWS:
  - 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.
  - 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.
- EQUIPMENT USED FOR MOVEMENT OF HIGH ACID PRODUCING SOILS SHOULD BE CLEANED AT THE END OF EACH DAY TO PREVENT SPREADING OF HIGH ACID SOIL MATERIALS TO OTHER PARTS OF THE SITE, INTO STREAMS OR STORMWATER CONVEYANCES AND TO PROTECT MACHINERY FROM ACCELERATED RUSTING.
- NON VEGETATIVE EROSION CONTROL PRACTICES (STONE TRACKING PADS, STRATEGICALLY PLACED LIMESTONE CHECK DAM, SILT FENCE, WOOD CHIPS) SHOULD BE INSTALLED TO LIMIT THE MOVEMENT OF HIGH ACID PRODUCING SOILS FROM AROUND OR OFF THE SITE.
- FOLLOWING BURIAL OR REMOVAL OF HIGH ACID PRODUCING SOIL, TOPSOILING AND SEEDING OF THE SITE, MONITORING SHOULD CONTINUE FOR APPROXIMATELY 6 TO 12 MONTHS TO ASSURE THERE IS ADEQUATE STABILIZATION AND THAT NO HIGH ACID SOIL PROBLEMS EMERGE. IF PROBLEMS STILL EXIST THE AFFECTED AREA MUST BE TREATED AS INDICATED ABOVE TO CORRECT THE PROBLEM.
- MONITORING OF AREAS WHERE HIGH ACID PRODUCING SOIL HAS BEEN PLACED OR BURIED SHOULD BE PERFORMED FOR AT LEAST 2 YEARS OR LONGER IF PROBLEMS OCCUR, TO ASSURE THERE IS NO MIGRATION OF POTENTIAL ACID LEACHATE.

**TEMPORARY SEEDING SPECIFICATIONS**

- SELECT MIXTURE FROM THOSE LISTED BELOW OR AN APPROVED EQUAL AS SPECIFIED IN TABLE 7-2 OF THE STANDARD AND APPLY AS NOTED BELOW.
- SITE PREPARATION, SEEDBED PREPARATION, SEEDING AND MULCHING ARE TO BE AS SPECIFIED FOR PERMANENT SEEDING.



**PERMANENT SEEDING SPECIFICATIONS**

- SITE PREPARATION**
  - INSTALL EROSION CONTROL MEASURES AND FACILITIES SUCH AS SILT FENCE, DIVERSIONS, SEDIMENT BASINS, CHANNEL STABILIZATION, ETC. SEE STANDARDS 11 THROUGH 42.
  - GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, MULCH ANCHORING, AND MAINTENANCE. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
- SEEDBED PREPARATION**
  - APPLY A UNIFORM 5 INCHES (UNSETTLED) OF TOPSOIL IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING OVER ALL DISTURBED AREAS. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING PH OF 5.0 OR MORE IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL.
  - TOPSOIL SHOULD BE HANDLED ONLY WHEN DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE.
  - APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION SERVICE. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. APPLY LIMESTONE IN ACCORDANCE WITH THE TABLE BELOW AND THE RESULTS OF SOIL TESTING. 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. THE TABLE BELOW IS A GENERAL GUIDELINE FOR LIMESTONE APPLICATION RATES.
 

LIMESTONE APPLICATION RATE BY SOIL TEXTURE	TONS/ACRE	LBS/1,000 SQ. FT.
SOIL TEXTURE		
CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL	2	135
SANDY LOAM, LOAM, SILT LOAM	2	90
LOAMY SAND, SAND	1	45
  - IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SURFACE SHOULD BE SCARIFIED 4" TO 12" WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.)
  - WORK LINE AND FERTILIZER INTO THE SOIL TO A DEPTH OF APPROXIMATELY 4 INCHES. THE FINAL HARROWING OR DISC OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEEDBED IS PREPARED.
  - REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION AND OTHER DEBRIS SUCH AS WIRE, TREE ROOTS, PIECES OF CONCRETE, CLOUDS LUMPS OR OTHER UNSUITABLE MATERIAL.
- SEEDING**
  - SELECT AN APPROVED MIXTURE FROM THOSE LISTED BELOW OR AN APPROVED EQUAL AS SPECIFIED IN TABLE 4-3 OF THE STANDARD AND APPLY AS NOTED BELOW WITHIN THE DATES SPECIFIED IN THE STANDARD.

LOCATION	ACCEPTABLE SEED MIXES	TONS/ACRE	LBS/1,000 SQ. FT.
LAWN	MIX #15 - HARD FESCUE	120	LBS/ACRE
	PERENNIAL RYE GRASS	30	LBS/ACRE
	KENTUCKY BLUE GRASS (BLEND)	40	LBS/ACRE
	MIX #16 - TALL FESCUE	160	LBS/ACRE
	PERENNIAL RYE GRASS (BLEND)	20	LBS/ACRE
	KENTUCKY BLUE GRASS (BLEND)	20	LBS/ACRE
STORMWATER BASIN	MIX #10 - TALL FESCUE (TURF-TYPE)	20	LBS/ACRE
	STRONG CREEPING RED FESCUE	20	LBS/ACRE
	PERENNIAL RYE GRASS	20	LBS/ACRE
	DOWNY VETCH	25	LBS/ACRE
	FLATPEA	25	LBS/ACRE
MIX #13 - REED CANARY GRASS	KENTUCKY BLUE GRASS	25	LBS/ACRE
	TALL FESCUE (TURF-TYPE)	40	LBS/ACRE
	TALL FESCUE (TURF-TYPE)	40	LBS/ACRE
- MULCHING**
  - MULCHING IS REQUIRED ON ALL SEEDING.
  - STRAW OR HAY - UNKNOTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, OR SALT HAY TO BE APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (90 TO 150 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. STRAW OR HAY MULCH MUST BE ANCHORED IMMEDIATELY AFTER PLACEMENT USING PEG AND TWINE. MULCH NETTING, MECHANICAL CRIMPER OR LIQUID MULCH BINDERS IN ACCORDANCE WITH THE STANDARD.
  - 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 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

**STABILIZATION WITH MULCH ONLY**

- SITE PREPARATION**
  - INSTALL EROSION CONTROL MEASURES AND FACILITIES SUCH AS SILT FENCE, DIVERSIONS, SEDIMENT BASINS, CHANNEL STABILIZATION, ETC. SEE STANDARDS 11 THROUGH 42.
  - GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR MULCH APPLICATION, MULCH ANCHORING AND MAINTENANCE. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
- MULCHING**
  - MULCHING IS REQUIRED ON ALL SEEDING.
  - STRAW OR HAY - UNKNOTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, OR SALT HAY TO BE APPLIED AT THE RATE OF 2 TO 2 1/2 TONS PER ACRE (90 TO 150 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. STRAW OR HAY MULCH MUST BE ANCHORED IMMEDIATELY AFTER PLACEMENT USING PEG AND TWINE. MULCH NETTING, MECHANICAL CRIMPER OR LIQUID MULCH BINDERS IN ACCORDANCE WITH THE STANDARD.
  - 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 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

**SPPP REQUIRED INSPECTIONS AND REPORTS**

- ROUTINE INSPECTIONS**
  - THE PERMITTEE SHALL CONDUCT AND DOCUMENT ROUTINE INSPECTIONS OF THE FACILITY TO IDENTIFY AREAS CONTRIBUTING TO THE STORMWATER DISCHARGE AUTHORIZED BY THIS PERMIT AND EVALUATE WHETHER THE STORMWATER POLLUTION PREVENTION PLAN (SPPP) IDENTIFIED UNDER E.1. OF THE SGC CONSTRUCTION ACTIVITY STORMWATER (GP PART I) NARRATIVE REQUIREMENTS INCLUDING THIS SOIL EROSION AND SEDIMENT CONTROL PLAN IS BEING PROPERLY IMPLEMENTED AND MAINTAINED, OR WHETHER ADDITIONAL MEASURES ARE NEEDED TO IMPLEMENT THE SPPP. (ROUTINE INSPECTIONS MINIMUM WEEKLY).

ONCE INSTALLATION OF ANY REQUIRED OR OPTIONAL EROSION CONTROL DEVICE OR MEASURE HAS BEEN IMPLEMENTED, ROUTINE INSPECTIONS, MINIMUM WEEKLY, OF EACH MEASURE SHALL BE PERFORMED BY THE CONTRACTOR'S INSPECTION PERSONNEL AND THE RESULTS RECORDED TO INVENTORY AND REPORT THE CONDITION OF EACH MEASURE TO ASSIST IN MAINTAINING THE EROSION AND SEDIMENT CONTROL MEASURES IN GOOD WORKING ORDER.

THESE REPORT FORMS SHALL BECOME AN INTEGRAL PART OF THE SPPP AND SHALL BE MADE READILY ACCESSIBLE TO GOVERNMENTAL INSPECTION OFFICIALS, THE OPERATOR'S ENGINEER, AND THE OPERATOR FOR REVIEW UPON REQUEST DURING VISITS TO THE PROJECT SITE. IN ADDITION, COPIES OF THE REPORTS SHALL BE PROVIDED TO ANY OF THESE PERSONS, UPON REQUEST, VIA MAIL OR FACSIMILE TRANSMISSION.

**OTHER RECORD-KEEPING REQUIREMENTS**

THE CONTRACTOR SHALL KEEP THE FOLLOWING RECORDS RELATED TO CONSTRUCTION ACTIVITIES AT THE SITE:

  - DATES WHEN MAJOR GRADING ACTIVITIES OCCUR AND THE AREAS WHICH WERE GRADED
  - DATES AND DETAILS CONCERNING THE INSTALLATION OF STRUCTURAL CONTROLS
  - DATES WHEN CONSTRUCTION ACTIVITIES CEASE IN AN AREA
  - DATES WHEN AN AREA IS STABILIZED, EITHER TEMPORARILY OR PERMANENTLY
  - DATES OF RAINFALL AND THE AMOUNT OF RAINFALL
  - DATES AND DESCRIPTIONS OF THE CHARACTER AND AMOUNT OF ANY SPILLS OF HAZARDOUS MATERIALS
  - RECORDS OF REPORTS FILED WITH REGULATORY AGENCIES IF REPORTABLE QUANTITIES OF HAZARDOUS MATERIALS SPILLED
- ANNUAL REPORTS AND CERTIFICATIONS**
  - THE PERMITTEE SHALL PREPARE AN ANNUAL REPORT SUMMARIZING EACH INSPECTION PERFORMED UNDER I.A. ABOVE. THIS REPORT SHALL BE ACCOMPANIED BY AN ANNUAL CERTIFICATION, ON A FORM PROVIDED BY THE NJDEP THAT THE FACILITY IS IN COMPLIANCE WITH ITS SPPP AND THIS PERMIT, EXCEPT THAT IF THERE ARE ANY INCIDENTS OF NON-COMPLIANCE, THOSE INCIDENTS SHALL BE IDENTIFIED IN THE CERTIFICATION. IF THERE ARE INCIDENTS OF NON-COMPLIANCE, THE REPORT SHALL IDENTIFY THE STEPS BEING TAKEN TO REMEDY THE NON-COMPLIANCE AND TO PREVENT SUCH INCIDENTS FROM RECURRING. THE REPORT AND CERTIFICATION SHALL BE SIGNED AND DATED BY THE PERMITTEE IN ACCORDANCE WITH N.J.A.C. 7:14A-4.9, AND SHALL BE MAINTAINED FOR A PERIOD OF AT LEAST FIVE YEARS ALONG WITH COPIES OF ALL INSPECTION REPORTS AND RECORD KEEPING. THIS PERIOD MAY BE EXTENDED BY WRITTEN REQUEST FROM THE DEPARTMENT AT ANY TIME (SEE N.J.A.C. 7:14A-6.6).
- REPORTS OF NON-COMPLIANCE**
  - ALL INSTANCES OF NON-COMPLIANCE NOT REPORTED UNDER N.J.A.C. 7:14A-6.10 SHALL BE REPORTED TO THE DEPARTMENT ANNUALLY.

**CONSTRUCTION SITE WASTE CONTROL COMPONENT OF THE STORMWATER POLLUTION PREVENTION PLAN (SPPP)**

- THE CONSTRUCTION SITE WASTE CONTROL COMPONENT OF THE SPPP CONSISTS OF THE REQUIREMENTS IN 2., 3., AND 4. BELOW. THESE REQUIREMENTS BECAME OPERATIVE ON MARCH 3, 2004 AND APPLY TO CONSTRUCTION ACTIVITIES THAT COMMENCE ON OR AFTER MARCH 3, 2004. ANY NEW CONSTRUCTION ACTIVITY FOR WHICH A PERMIT IS SUBMITTED ON OR AFTER MARCH 3, 2004 OR WHICH RECEIVES AUTOMATIC RENEWAL OF AUTHORIZATION UNDER THIS PERMIT AFTER MARCH 3, 2004 ALSO SHALL COMPLY WITH THESE REQUIREMENTS.
- MATERIAL MANAGEMENT TO PREVENT OR REDUCE WASTE** - ANY PESTICIDES, FERTILIZERS, FUELS, LUBRICANTS, PETROLEUM PRODUCTS, ANTI-FREEZE, PAINTS AND PAINT THINNERS, CLEANING SOLVENTS AND ACIDS, DETERGENTS, CHEMICAL ADDITIVES, AND CONCRETE CURING COMPOUNDS SHALL BE STORED IN CONTAINERS IN A DRY COVERED AREA. MANUFACTURERS' RECOMMENDED APPLICATION RATES, USES AND METHODS SHALL BE STRICTLY FOLLOWED TO THE EXTENT NECESSARY TO PREVENT OR MINIMIZE THE PRESENCE OF WASTE FROM SUCH MATERIALS IN THE STORMWATER DISCHARGE AUTHORIZED BY THIS PERMIT. (THE PRECEDING SENTENCE DOES NOT APPLY TO ANY MANUFACTURERS' RECOMMENDATIONS ABOUT FERTILIZER OR OTHER MATERIAL THAT CONFLICT WITH THE EROSION AND SEDIMENT CONTROL COMPONENT OF THE FACILITY'S SPPP.)
- WASTE HANDLING** - THE FOLLOWING REQUIREMENTS APPLY ONLY TO CONSTRUCTION SITE WASTE THAT HAS THE POTENTIAL TO BE TRANSPORTED BY THE STORMWATER DISCHARGE AUTHORIZED BY THIS PERMIT. THE HANDLING AT THE CONSTRUCTION SITE OF WASTE BUILDING MATERIAL AND RUBBLE AND OTHER CONSTRUCTION SITE WASTES, INCLUDING LITTER AND HAZARDOUS AND SANITARY WASTES, SHALL CONFORM WITH THE STATE SOLID WASTE MANAGEMENT ACT, N.J.S.A. 15:15-1 ET SEQ. AND ITS IMPLEMENTING RULES AT N.J.A.C. 7:26, 7:26A, AND 7:26G; THE NEW JERSEY PESTICIDE CONTROL CODE AT N.J.A.C. 7:30; THE STATE LITTER STATUTE (N.J.S.A. 13:16-9.3); AND OSHA REQUIREMENTS FOR SANITATION AT 29 C.F.R. 1926 (EXCEPT WHERE SUCH CONFORMANCE IS NOT RELEVANT TO THE STORMWATER DISCHARGE AUTHORIZED BY THIS PERMIT). CONSTRUCTION SITES SHALL HAVE ONE OR MORE DESIGNATED WASTE COLLECTION AREAS ONSITE OR ADJACENT TO THE SITE, AND AN ADEQUATE NUMBER OF CONTAINERS (WITH LIDS OR COVERS) FOR WASTE. WASTE SHALL BE COLLECTED FROM SUCH CONTAINERS BEFORE THEY OVERFLOW, AND SPILLS AT SUCH CONTAINERS SHALL BE CLEANED UP IMMEDIATELY.
  - CONSTRUCTION SITE WASTES INCLUDE BUT ARE NOT LIMITED TO:
    - "CONSTRUCTION AND DEMOLITION WASTE" AS DEFINED IN N.J.A.C. 7:26-1.4 AS FOLLOWS: "WASTE BUILDING MATERIAL AND RUBBLE RESULTING FROM CONSTRUCTION, REMODELING, REPAIR, AND DEMOLITION OPERATIONS ON HOUSES, COMMERCIAL BUILDINGS, PAVEMENTS AND OTHER STRUCTURES. THE FOLLOWING MATERIALS MAY BE FOUND IN CONSTRUCTION AND DEMOLITION WASTE: TREATED AND UNTREATED WOOD SCRAP, TREE PARTS, TREE STUMPS AND BRUSH; CONCRETE, ASPHALT, BRICKS, BLOCKS AND OTHER MASONRY; PLASTER AND WALLBOARD; ROOFING MATERIALS; CORRUGATED AND MISCELLANEOUS PAPER, FIBROUS AND NON-FIBROUS METAL; NON-ASBESTOS BUILDING INSULATION, PLASTIC SCRAP, DIRT, CARPETS AND PADDING; GLASS (WINDOW AND DOOR); AND OTHER MISCELLANEOUS MATERIALS; BUT SHALL NOT INCLUDE ANY OTHER SOLID WASTE TYPES."
    - ANY WASTE BUILDING MATERIAL AND RUBBLE RESULTING FROM SUCH OPERATIONS THAT IS HAZARDOUS FOR PURPOSES OF N.J.A.C. 7:26G (THE HAZARDOUS WASTE RULES).
    - DISCARDED (INCLUDING SPILLED) PESTICIDES, FERTILIZERS, FUELS, LUBRICANTS, PETROLEUM PRODUCTS, ANTI-FREEZE, PAINTS AND PAINT THINNERS, PAINT CHIPS AND SANDBLASTING GRITS, CLEANING SOLVENTS, AGENTS FOR CLEANING MASONRY SURFACES, DETERGENTS, CHEMICAL ADDITIVES USED FOR SOIL STABILIZATION (E.G., CALCIUM CHLORIDE), AND CONCRETE CURING COMPOUNDS.
    - OTHER "LITTER" AS DEFINED AT N.J.S.A. 13:16-21.5 AS FOLLOWS: "ANY USED OR UNCONSUMED SUBSTANCE OR WASTE MATERIAL WHICH HAS BEEN DISCARDED WHETHER MADE OF ALUMINUM, GLASS, PLASTIC, RUBBER, PAPER, OR OTHER NATURAL OR SYNTHETIC MATERIAL, OR ANY COMBINATION THEREOF, INCLUDING, BUT NOT LIMITED TO, ANY BOTTLE, JAR OR CAN, OR ANY TOP, CAP OR DETACHABLE TAB OF ANY BOTTLE, JAR OR CAN, ANY UNLIGHTED CIGARETTE, CIGAR, MATCH OR ANY FLAMING OR GLOWING MATERIAL, TRASH, REFUSE, DEBRIS, RUBBISH, GRASS CLIPPINGS OR OTHER LAWN OR GARDEN WASTE, NEWSPAPERS, MAGAZINES, GLASS, METAL, PLASTIC OR PAPER CONTAINERS OR OTHER PACKAGING OR CONSTRUCTION MATERIAL, BUT DOES NOT INCLUDE THE WASTE OF THE PRIMARY PROCESSES OF MINING OR OTHER EXTRACTION PROCESSES, LOGGING, SAWMILLING, FARMING OR MANUFACTURING."
    - SANITARY SEWAGE AND SEPTAGE.
    - CONTAMINATED SOILS ENCOUNTERED OR DISCOVERED DURING EARTHMOVING ACTIVITIES OR DURING THE CLEANUP OF A LEAK OR DISCHARGE OF A HAZARDOUS SUBSTANCE.
    - CONCRETE TRUCK WASHOUT - CONCRETE TRUCK WASHOUT ONSITE IS PROHIBITED OUTSIDE DESIGNATED AREAS. DESIGNATED WASHOUT AREAS SHALL BE LINED AND BEMED TO PREVENT DISCHARGES TO SURFACE AND GROUND WATER. HARDENED CONCRETE FROM CONCRETE TRUCK WASHOUT SHALL BE REMOVED AND PROPERLY DISPOSED OF.
    - SANITARY SEWAGE/SEPTAGE DISPOSAL - DISCHARGES OF RAW SANITARY SEWAGE OR SEPTAGE ONSITE ARE STRICTLY PROHIBITED. ADEQUATE FACILITIES WITH PROPER DISPOSAL SHALL BE PROVIDED AND MAINTAINED ONSITE OR ADJACENT TO THE SITE FOR ALL WORKERS AND OTHER SANITARY NEEDS.
  - SPILLS, DISCHARGES OF HAZARDOUS SUBSTANCES: FEDERALLY REPORTABLE RELEASES.
    - SPILL KITS SHALL BE AVAILABLE ONSITE OR ADJACENT TO THE SITE FOR ANY MATERIALS THAT ARE LISTED IN 2. ABOVE AND USED OR APPLIED ONSITE. ALL SPILLS OF SUCH MATERIAL SHALL BE CONTAINED AND CLEANED UP IMMEDIATELY. CLEANED UP MATERIAL SHALL BE PROPERLY DISPOSED OF.
    - DISCHARGES OF HAZARDOUS SUBSTANCES (AS DEFINED IN N.J.A.C. 7:1E-1.6) IN CONSTRUCTION SITE WASTES ARE SUBJECT TO THE PROVISIONS OF THE SPILL PREVENTION AND CONTROL ACT, N.J.S.A. 58:10-23.1 ET SEQ., AND OF DEPARTMENT RULES FOR DISCHARGES OF PETROLEUM AND OTHER HAZARDOUS SUBSTANCES AT N.J.A.C. 7:1E. NO DISCHARGE OF HAZARDOUS SUBSTANCES RESULTING FROM AN ONSITE SPILL SHALL BE DEEMED TO BE "PURSUANT TO AND IN COMPLIANCE WITH [THIS] PERMIT" WITHIN THE MEANING OF THE SPILL COMPENSATION AND CONTROL ACT AT N.J.S.A. 58:10-23.11C.
    - RELEASES IN EXCESS OF REPORTABLE QUANTITIES (RQ) ESTABLISHED UNDER 40 C.F.R. 110.117, AND 302 THAT OCCUR WITHIN A 24-HR PERIOD MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER (800 424-8802).

**THIS PLAN IS FOR SOIL EROSION AND SEDIMENT CONTROL PURPOSES ONLY.**

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WOODBRIDGE TOWNSHIP

**SOIL EROSION AND SEDIMENT CONTROL PLAN**

INTERSECTION IMPROVEMENTS AT  
INMAN AVENUE (C.R. 602) AND  
JORDAN ROAD / AMHERST AVENUE  
WOODBRIDGE TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY

SCALE: N/A DATE: 05/24/2023 DRAWN BY: NJS CHECKED BY: KMH

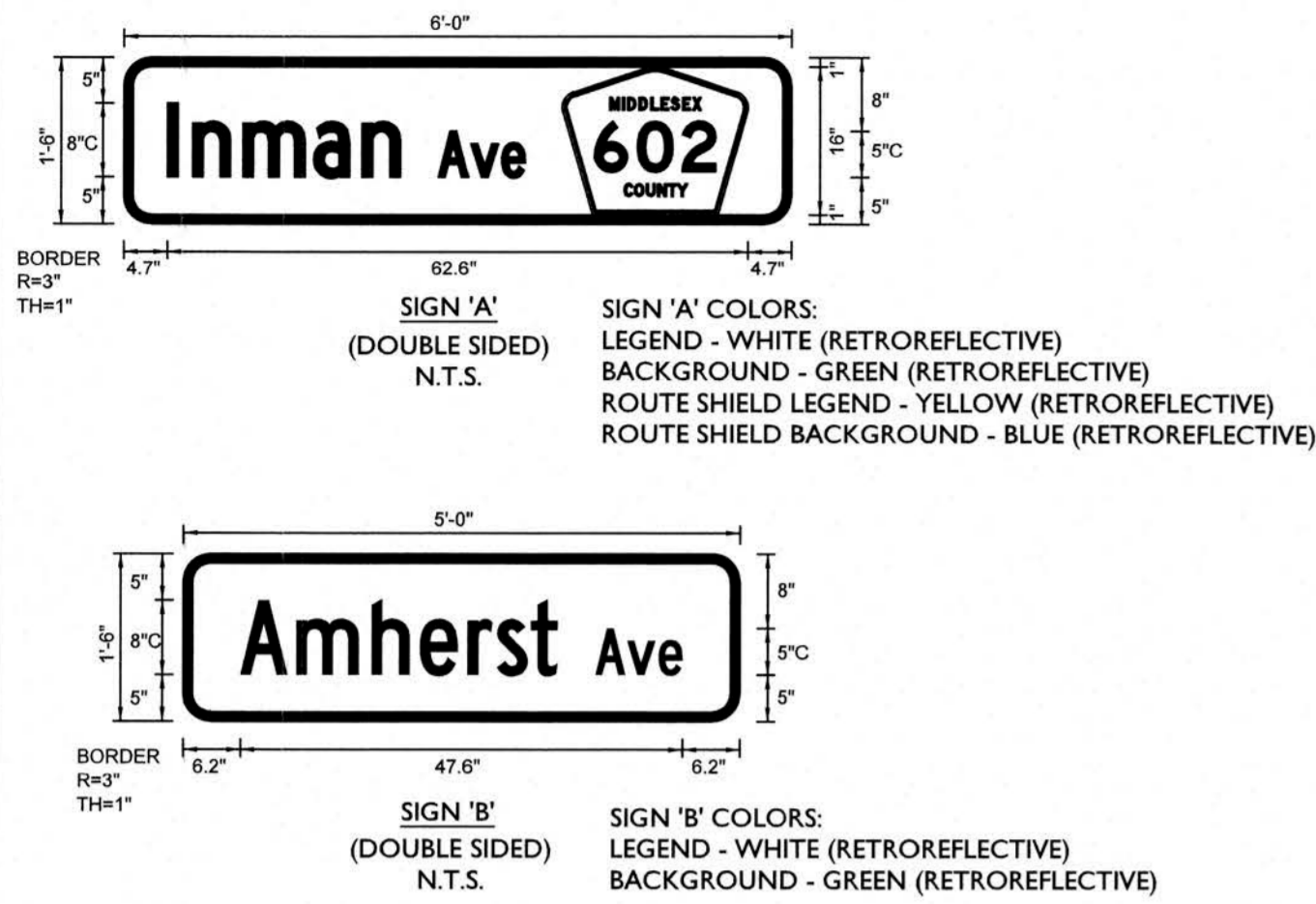
PROJECT NUMBER: 2004877G DRAWING NAME: R-PL07-EROS

SHEET NUMBER: 5 OF 12

Keith M. Hall  
NEW JERSEY LICENSED PROFESSIONAL ENGINEER  
LICENSE NUMBER: 6522883  
COLLIERS ENGINEERING & DESIGN, INC.  
NJ, C.O.A.#: 24GAZ798500

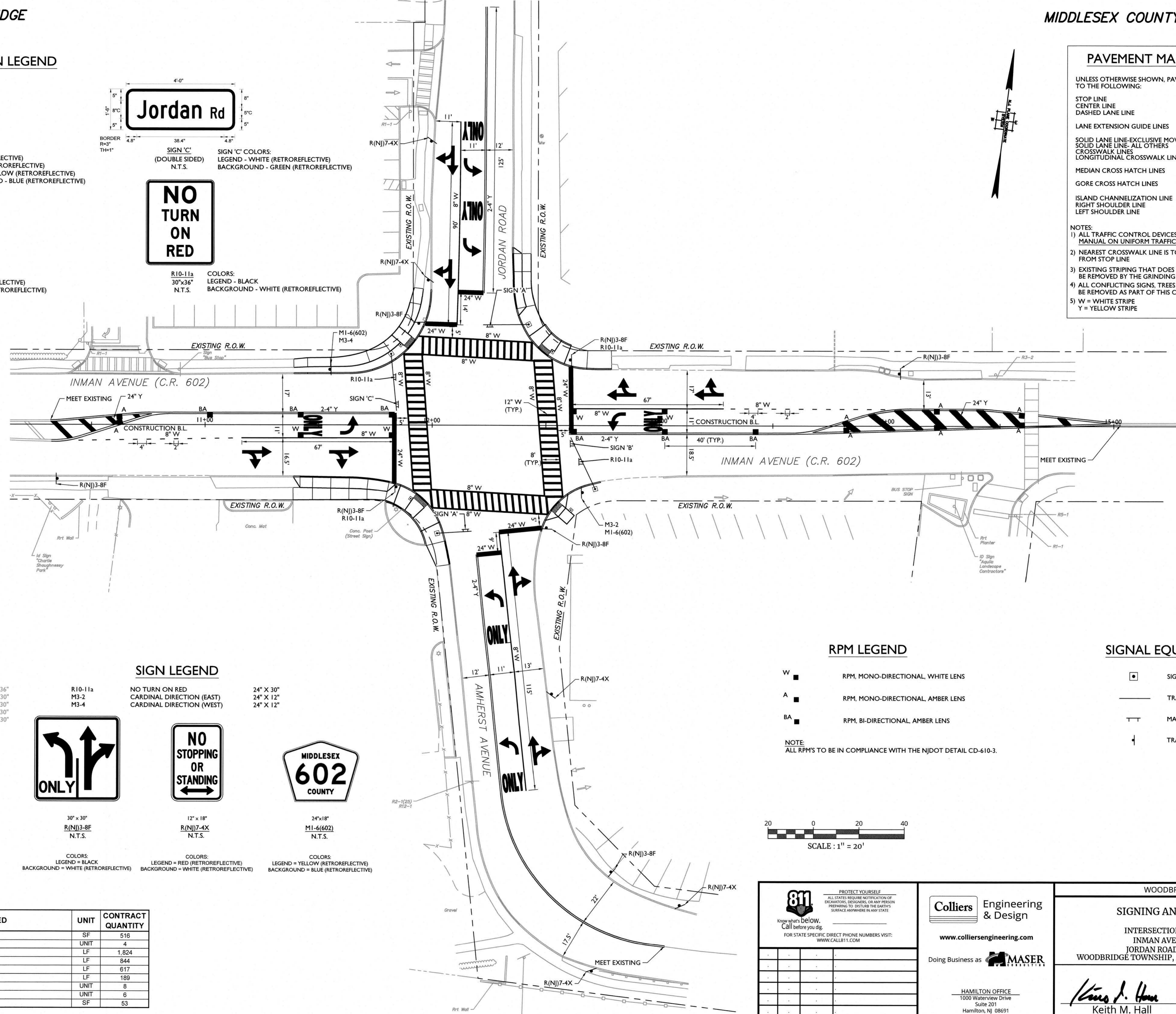
**NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION**

MAST ARM SIGN LEGEND



PAVEMENT MARKING LEGEND

- UNLESS OTHERWISE SHOWN, PAVEMENT MARKINGS SHALL CONFORM TO THE FOLLOWING:
- STOP LINE: 24" WIDE WHITE LINE
  - CENTER LINE: 2-4" WIDE WHITE LINES
  - DASHED LANE LINE: 4" WIDE WHITE LINE, 10' LONG AT 30' INTERVALS
  - LANE EXTENSION GUIDE LINES: 4" WIDE WHITE LINE, 2' LONG AT 4' INTERVALS
  - SOLID LANE LINE-EXCLUSIVE MOVEMENT: 8" WIDE WHITE LINE
  - SOLID LANE LINE-ALL OTHERS: 4" WIDE WHITE LINE
  - CROSSWALK LINES: 8" WIDE WHITE LINES
  - LONGITUDINAL CROSSWALK LINES: 12" WIDE WHITE LINES AT 90° SPACED 3' C-C.
  - MEDIAN CROSS HATCH LINES: 24" WIDE YELLOW LINES AT 45° SPACED 12' O.C.
  - GORE CROSS HATCH LINES: 24" WIDE WHITE LINES AT 45° SPACED 12' O.C.
  - ISLAND CHANNELIZATION LINE: 8" WIDE WHITE LINE
  - RIGHT SHOULDER LINE: 4" WIDE WHITE LINE
  - LEFT SHOULDER LINE: 4" WIDE YELLOW LINE
- NOTES:  
1) ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES  
2) NEAREST CROSSWALK LINE IS TO BE LOCATED A MINIMUM OF 4' FROM STOP LINE  
3) EXISTING STRIPING THAT DOES NOT CONFORM TO THIS PLAN SHALL BE REMOVED BY THE GRINDING METHOD.  
4) ALL CONFLICTING SIGNS, TREES AND OTHER OBSTRUCTIONS SHALL BE REMOVED AS PART OF THIS CONSTRUCTION.  
5) W = WHITE STRIPE  
Y = YELLOW STRIPE



EXISTING SIGN LEGEND

- R1-1 STOP (36" X 36")
- R2-1 (25) SPEED LIMIT (25MPH) (24" X 30")
- R3-2 NO LEFT TURNS (30" X 30")
- R5-1 DO NOT ENTER (30" X 30")
- R12-1 WEIGHT LIMIT (4 TONS) (24" X 30")

SIGN LEGEND

- R10-11a NO TURN ON RED (24" X 30")
- M3-2 CARDINAL DIRECTION (EAST) (24" X 12")
- M3-4 CARDINAL DIRECTION (WEST) (24" X 12")
- R(NJ)3-8F ONLY (30" X 30")
- R(NJ)7-4X NO STOPPING OR STANDING (12" X 18")
- M1-6(602) MIDDLESEX COUNTY (24" X 18")

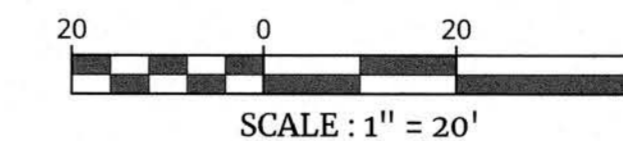
RPM LEGEND

- W RPM, MONO-DIRECTIONAL, WHITE LENS
- A RPM, MONO-DIRECTIONAL, AMBER LENS
- BA RPM, BI-DIRECTIONAL, AMBER LENS

NOTE: ALL RPM'S TO BE IN COMPLIANCE WITH THE NJDOT DETAIL CD-610-3.

SIGNAL EQUIPMENT LEGEND

- SIGNAL FOUNDATION
- TRAFFIC SIGNAL MAST ARM
- ⊥ MAST ARM MOUNTED SIGN
- ⊥ TRAFFIC SIGN



ITEM NO.	TO BE CONSTRUCTED	UNIT	CONTRACT QUANTITY
25	TRAFFIC MARKINGS, SYMBOLS	SF	516
26	RPM, MONO-DIRECTIONAL, WHITE LENS	UNIT	4
27	TRAFFIC MARKING LINES, 4"	LF	1,824
28	TRAFFIC MARKING LINES, 8"	LF	844
29	TRAFFIC MARKING LINES, 12"	LF	617
30	TRAFFIC MARKING LINES, 24"	LF	189
31	RPM, MONO-DIRECTIONAL, AMBER LENS	UNIT	8
32	RPM, BI-DIRECTIONAL, AMBER LENS	UNIT	6
35	REGULATORY AND WARNING SIGN	SF	53

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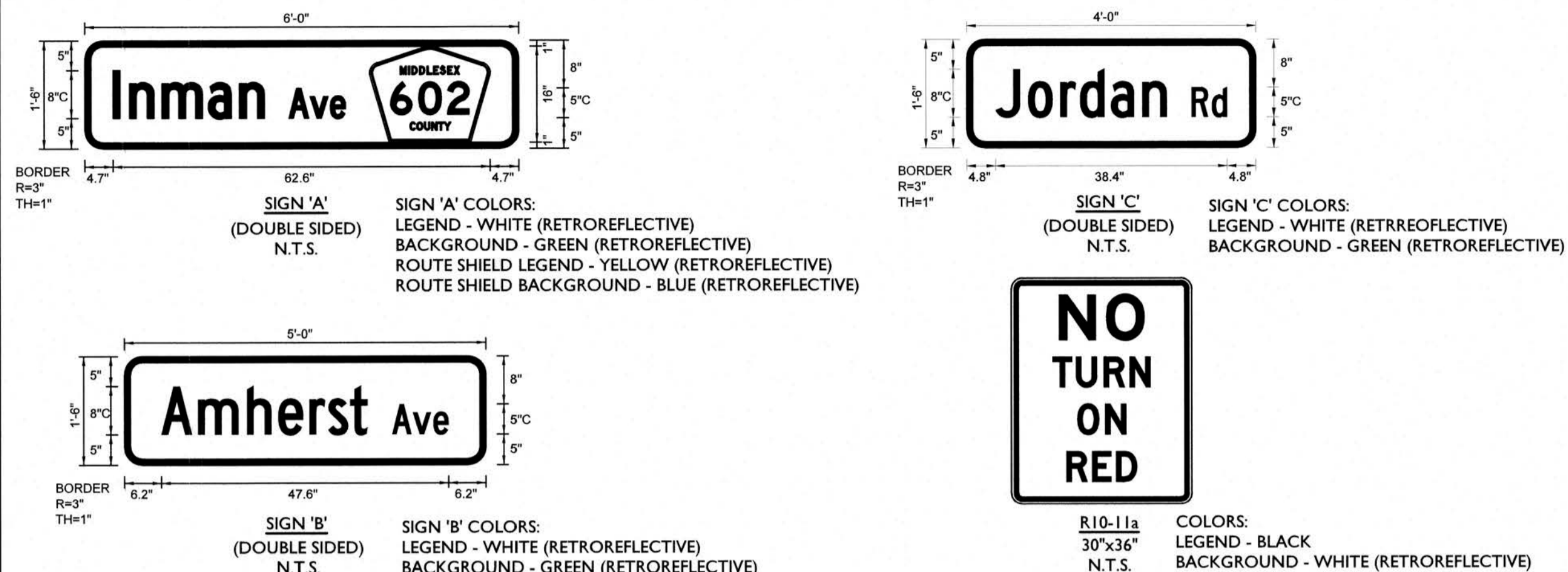
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WOODBRIDGE TOWNSHIP  
**SIGNING AND STRIPING PLAN**  
INTERSECTION IMPROVEMENTS AT  
INMAN AVENUE (C.R. 602) AND  
JORDAN ROAD / AMHERST AVENUE  
WOODBRIDGE TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY

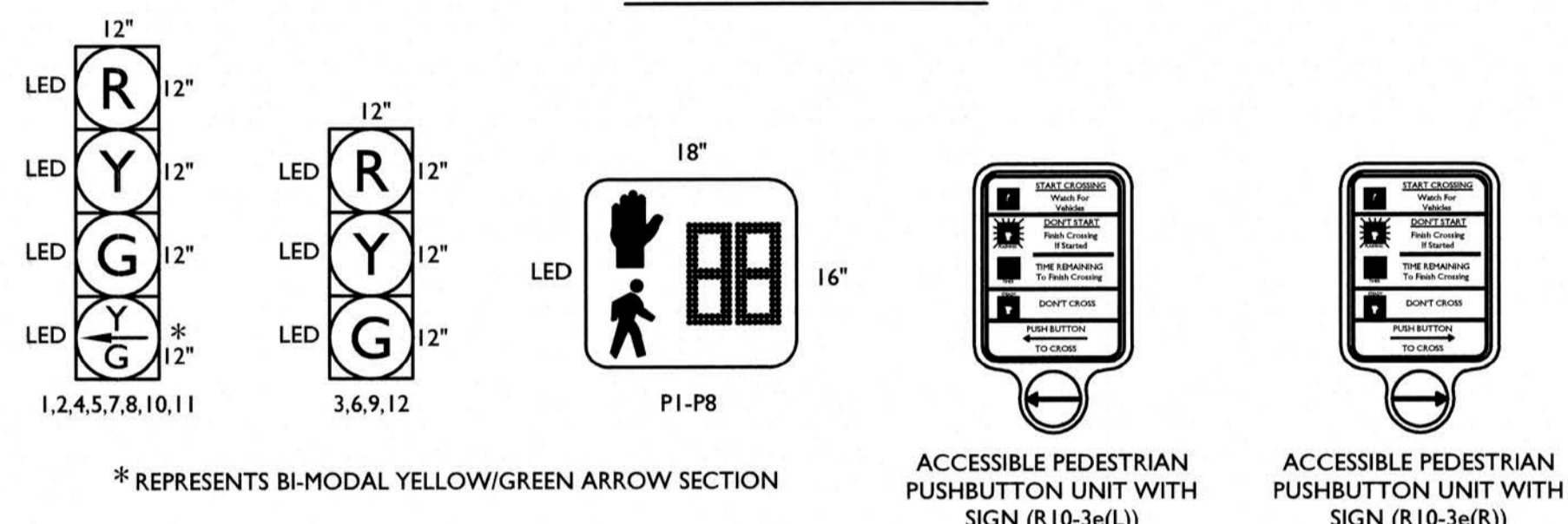
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PROJECT NUMBER: 20004877G DRAWING NAME: R-PL17-TSSP SHEET NUMBER:  
**Keith M. Hall**  
NEW JERSEY LICENSED PROFESSIONAL ENGINEER  
LICENSE NUMBER: GES2883  
COLLIERS ENGINEERING & DESIGN, INC.  
N.J. C.O.A. #: 24GA27986500

TSSP-1

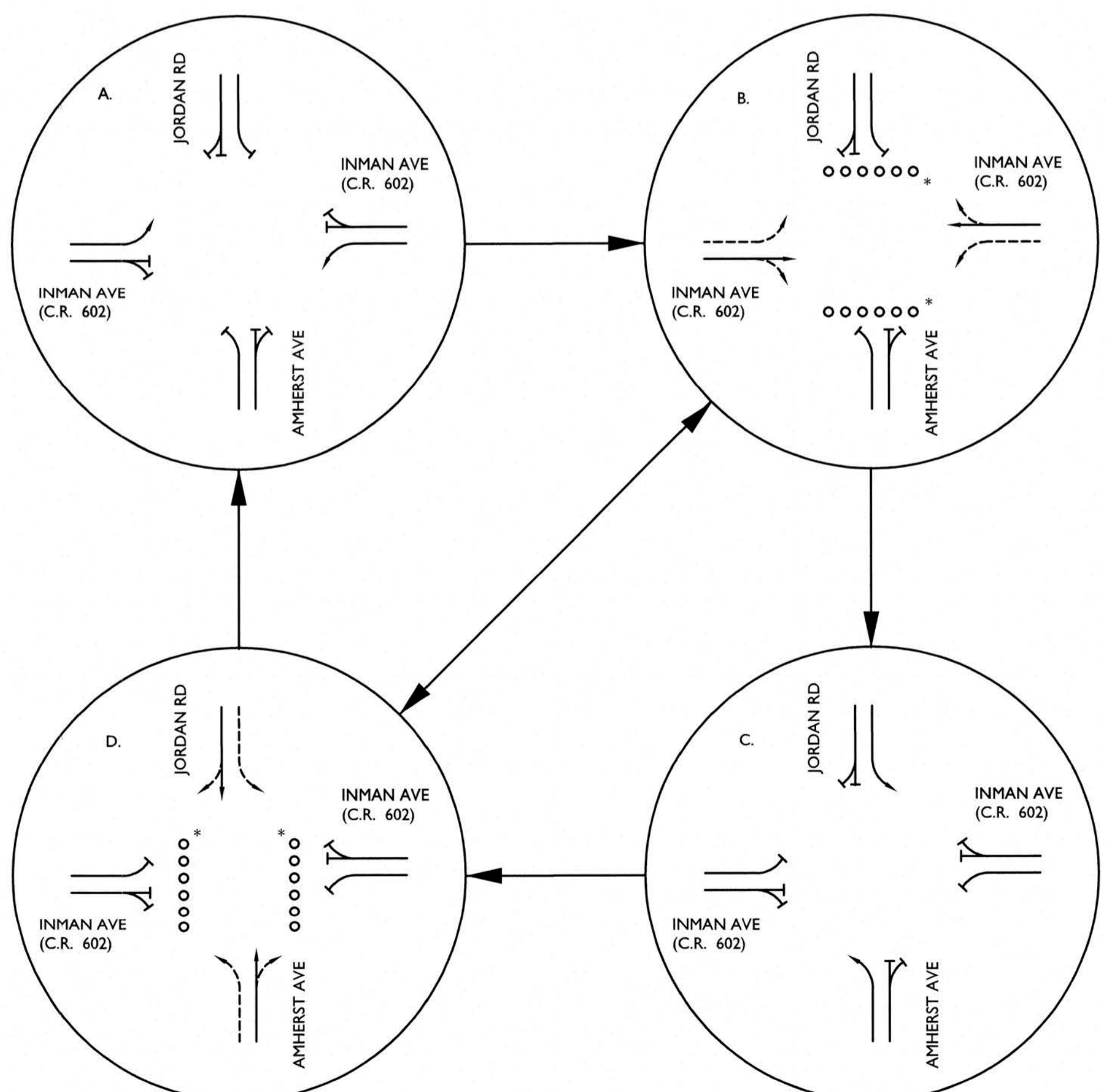
MAST ARM SIGN LEGEND



SIGNAL LEGEND

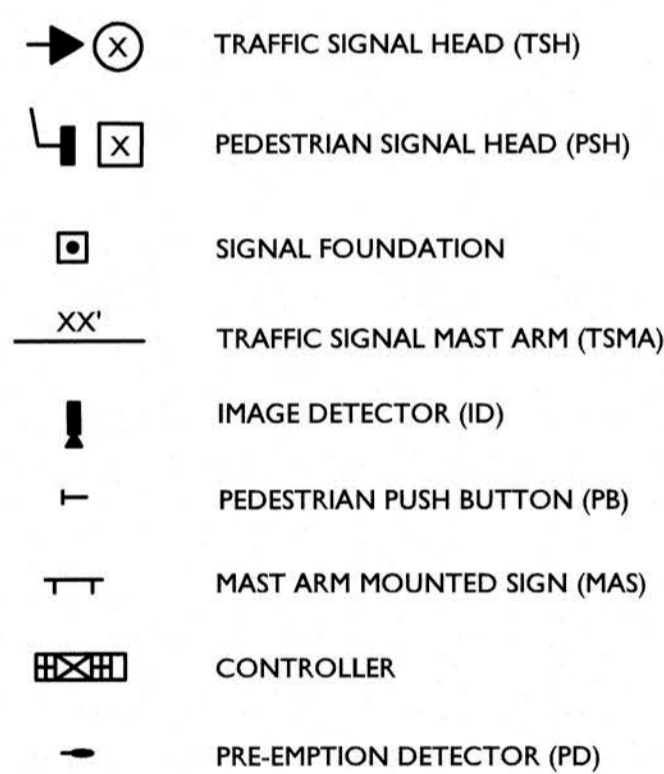


PHASING DIAGRAM



\* ONLY OCCURS UNDER PEDESTRIAN ACTUATION

SIGNAL EQUIPMENT LEGEND

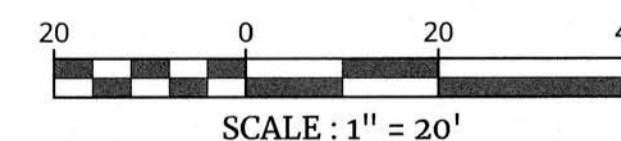
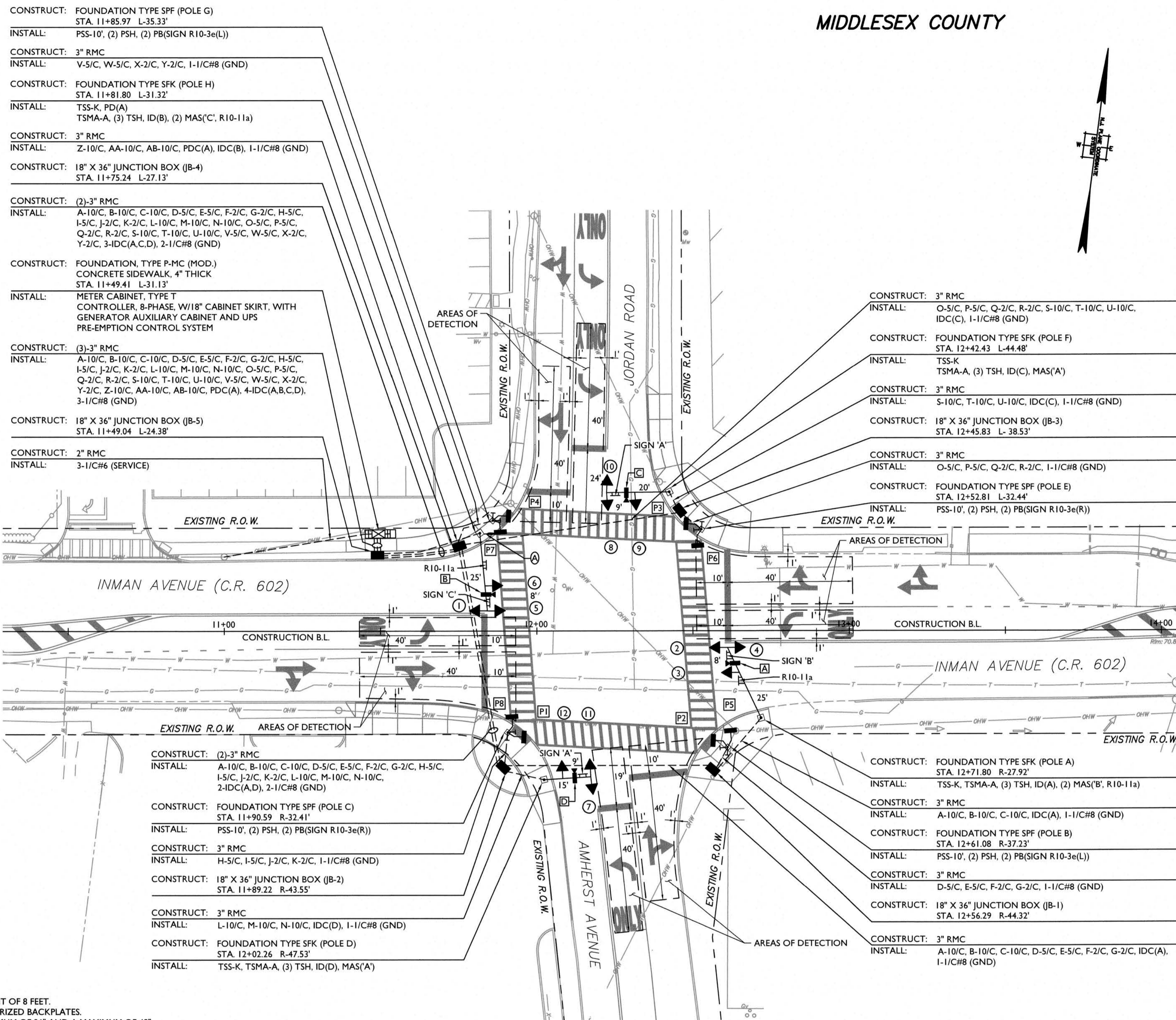


NOTES

- ALL PEDESTRIAN SIGNAL HEADS SHALL BE INSTALLED AT A HEIGHT OF 8 FEET.
- ALL TRAFFIC SIGNAL HEADS SHALL BE EQUIPPED WITH REFLECTORIZED BACKPLATES.
- ALL PEDESTRIAN PUSH BUTTONS SHALL BE MOUNTED AT A MINIMUM OF 36" AND A MAXIMUM OF 48" ABOVE THE SIDEWALK (SHOULD BE 42"). BE ADA COMPLIANT AND INCLUDE THE FOLLOWING FEATURES:
  - a. PUSH BUTTON LOCATOR
  - b. A TACTILE ARROW
  - c. A SPEECH WALK MESSAGE FOR THE WALKING PERSON INDICATION
  - d. A SPEECH PUSH BUTTON INFORMATION MESSAGE
  - e. TYPE R10-3e PUSH BUTTON SIGN, AS INDICATED ON THE PLAN, WITH FRAME AND BRAILLE FEATURES
  - f. EXTENSION BRACKET
- PEDESTRIAN PUSH BUTTON CONTROLS ARE TO BE LOCATED PER THE CURRENT ADA COMPLIANCE MANUAL AND BE WITHIN 10 INCHES LATERALLY FROM THE LANDING. IF NECESSARY, CONSTRUCT FOUNDATION AS PART OF THE SIDEWALK. THE RESULTING SIDEWALK CLEAR WIDTH SHALL CONFORM TO THE MINIMUM ADA REQUIREMENTS.
- IN THE CASE OF POWER FAILURE, THE TRAFFIC SIGNAL SHALL HAVE AN UNINTERRUPTIBLE POWER SUPPLY. OPERATE IN FULL OPERATION MODE FOR FOUR (4) HOURS AND THEREAFTER IN FLASH MODE IN CONJUNCTION WITH THE TRAFFIC SIGNAL WORK AT THIS LOCATION. MINIMUM CLEARANCE BETWEEN OVERHEAD POWER LINES AND TRAFFIC SIGNAL EQUIPMENT SHALL BE MAINTAINED BASED ON THE FOLLOWING:

POWER LINE VOLTAGES	MINIMUM CLEARANCES	LATERAL	VERTICAL
COMMUNICATION		3 FT.	2 FT.
SECONDARY		6 FT.	6 FT.
PRIMARY, 750V-50kV		10 FT.	10 FT.

- IF A CONFLICT ARISES BETWEEN THE WIRES AND THE PROPOSED EQUIPMENT, THE CONTRACTOR IS FULLY RESPONSIBLE FOR COORDINATING WITH THE UTILITY COMPANIES TO RELOCATE THE WIRES.
- THE LOCATION OF ALL EXISTING UTILITIES DEPICTED ON THE PLANS ARE TO BE APPROXIMATE AND ARE BASED ON AVAILABLE DATA. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE UTILITY LOCATIONS PRIOR TO EXCAVATION AND INFORMING THE ENGINEER OF ANY IN-FIELD ADJUSTMENTS.
- VIDEO DETECTION SHALL USE COLOR CAMERAS. NO COAXIAL CABLE ALLOWED.
- CONDUIT RUNS UNDER THE EXISTING ROADWAY (INMAN AVENUE AND JORDAN ROAD/AMHERST AVENUE) SHALL BE OPEN USING THE TRENCH CUT METHOD.
- THE INSTALLATION OF THE PRE-EMPTION GPS RECEIVER WITH THE MANUFACTURER APPROVED BRACKET, ASSOCIATED WIRES, AND COST TO INTEGRATE THE SYSTEM SHOULD ALL BE INCLUDED IN THE PRE-EMPTION CONTROL SYSTEM PAY ITEM.
- TRAFFIC SIGNAL STANDARDS, MAST ARMS, TRANSFORMER BASES, CONTROLLER CABINET, METER CABINET, AND MOUNTING HARDWARE SHALL BE POWDER COATED GLOSS BLACK.
- ALL HOUSINGS AND MOUNTING HARDWARE FOR TRAFFIC SIGNAL AND PEDESTRIAN INDICATIONS, PUSH BUTTONS, AND IMAGE DETECTION UNITS SHALL BE THE COLOR BLACK.



REV	DATE	DRAWN BY	DESCRIPTION

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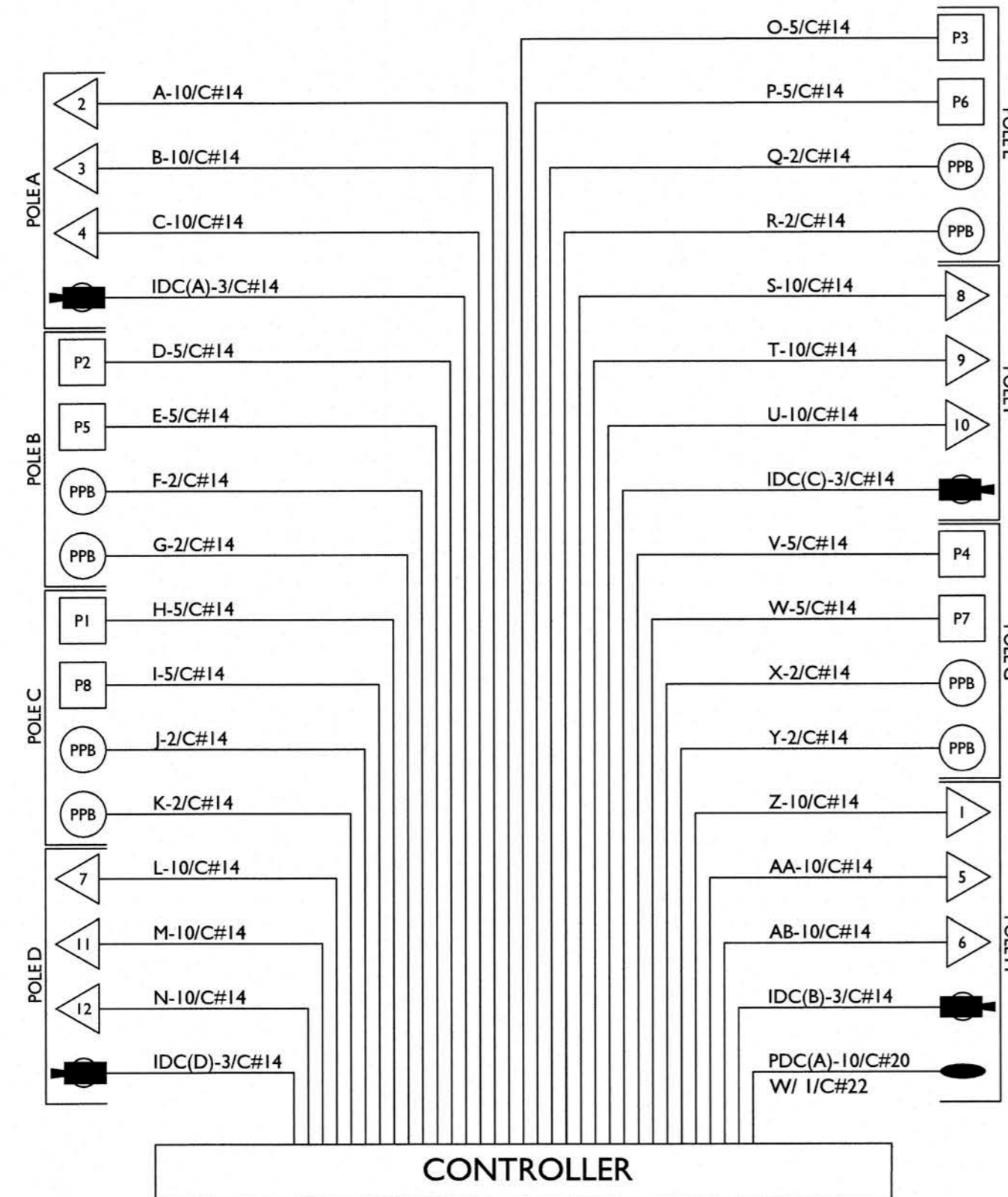
WOODBRIDGE TOWNSHIP  
**ELECTRICAL PLAN**  
 INTERSECTION IMPROVEMENTS AT  
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 JORDAN ROAD / AMHERST AVENUE  
 WOODBRIDGE TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY

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 SHEET NUMBER: 7 OF 12

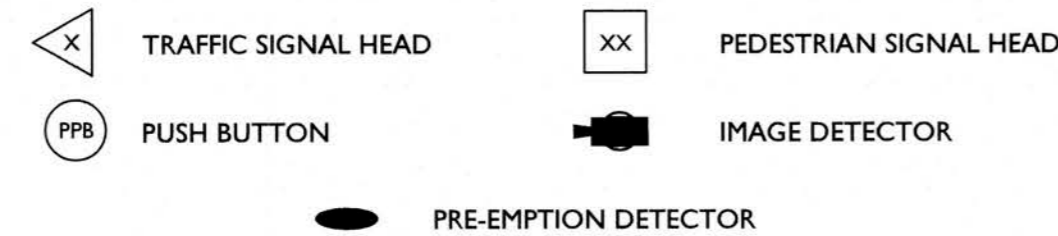
Keith M. Hall  
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 LICENSE NUMBER: GE52883  
 COLLIER'S ENGINEERING & DESIGN, INC.  
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BLOCK WIRING DIAGRAM



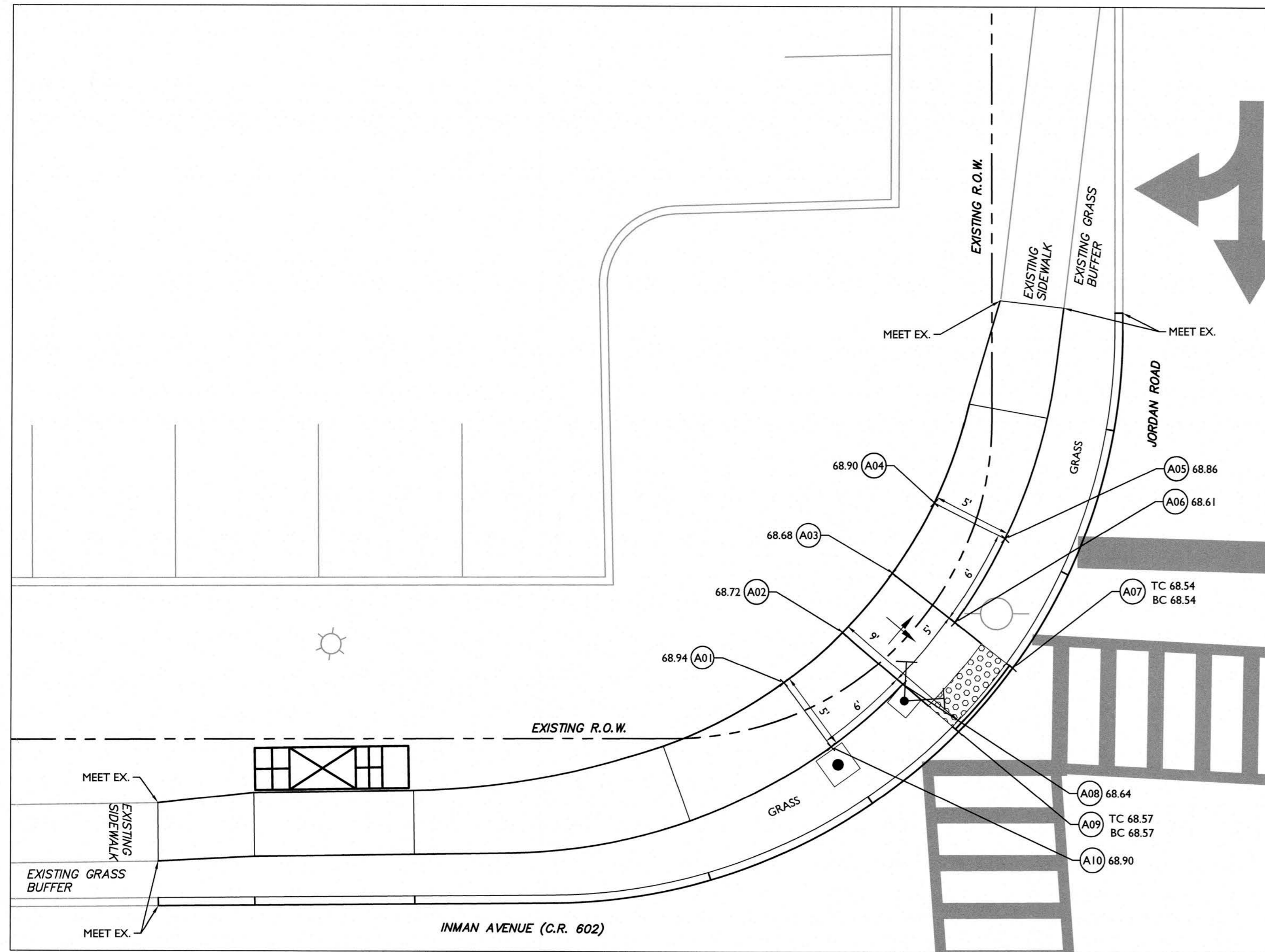
LEGEND



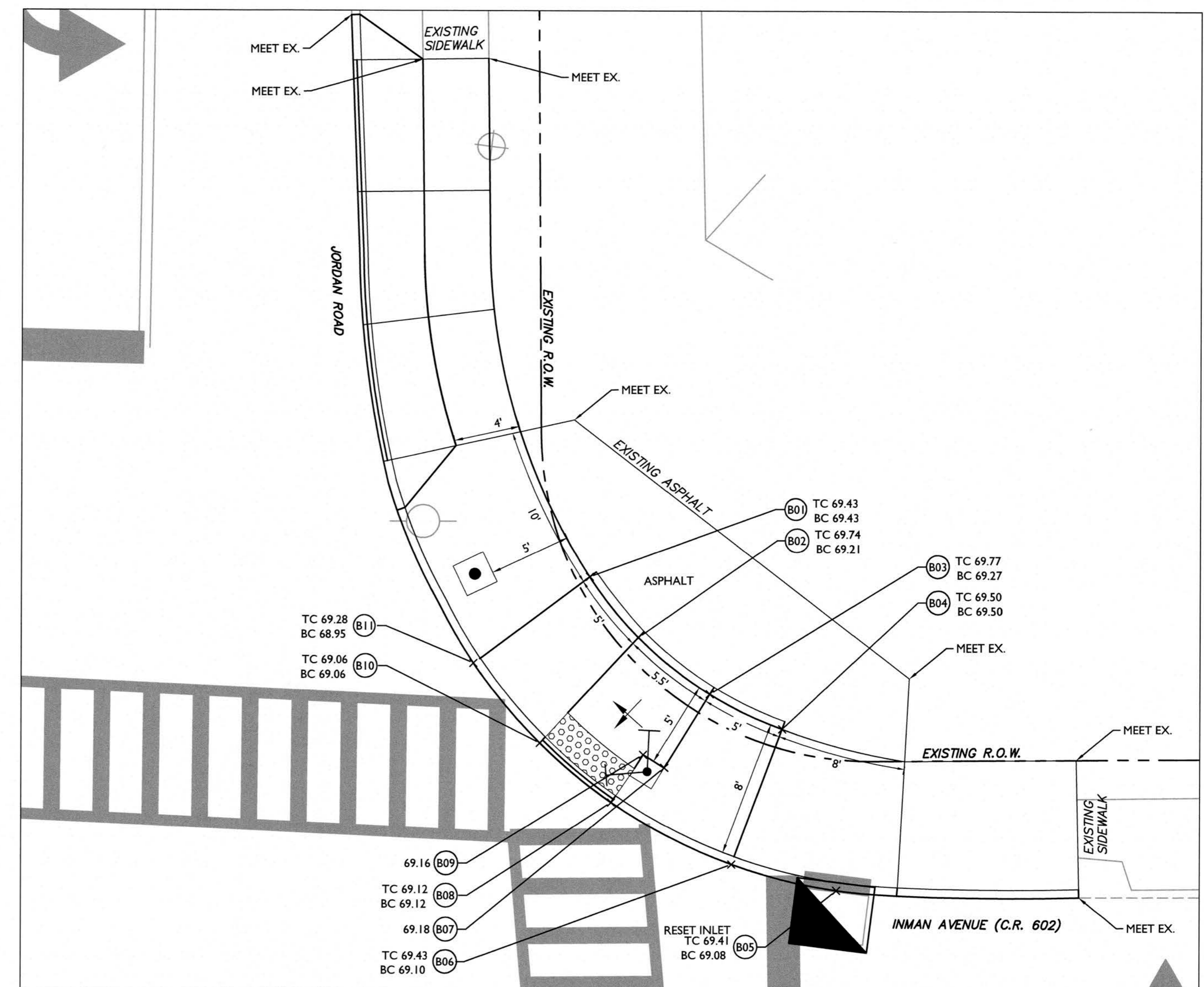
ITEM NO.	TO BE CONSTRUCTED	UNIT	CONTRACT QUANTITY
18	CONCRETE SIDEWALK, 4" THICK	SY	1
35	REGULATORY AND WARNING SIGN	SF	15
36	MAST ARM STREET NAME SIGNS, DOUBLE-SIDED	SF	32
39	2" RIGID METALLIC CONDUIT	LF	86
40	3" RIGID METALLIC CONDUIT	LF	444
41	18" X 36" JUNCTION BOX	UNIT	5
42	FOUNDATION, TYPE P-MC MODIFIED	UNIT	1
43	FOUNDATION, TYPE SPF	UNIT	4
44	FOUNDATION, TYPE SFK	UNIT	4
45	GROUND WIRE, NO. 8 AWG	LF	555
46	SERVICE WIRE, NO. 6 AWG	LF	258
47	METER CABINET, TYPE T, POWDER COATED	UNIT	1
50	TRAFFIC SIGNAL CABLE, 2 CONDUCTOR	LF	1,104
51	TRAFFIC SIGNAL CABLE, 5 CONDUCTOR	LF	1,104
52	TRAFFIC SIGNAL CABLE, 10 CONDUCTOR	LF	1,659
53	TRAFFIC SIGNAL HEAD	UNIT	12
54	PEDESTRIAN SIGNAL HEAD	UNIT	8
55	PUSH BUTTON	UNIT	8
56	IMAGE DETECTOR	UNIT	4
57	CONTROLLER TURN-ON	UNIT	1
59	TRAFFIC SIGNAL STANDARD, ALUMINUM, POWDER COATED	UNIT	4
60	PEDESTRIAN SIGNAL STANDARD, POWDER COATED	UNIT	4
61	TRAFFIC SIGNAL MAST ARM ALUMINUM, POWDER COATED	UNIT	4
62	CONTROLLER, 8 PHASE, WITH 18" CABINET SKIRT, WITH GENERATOR AUXILIARY CABINET AND UPS, POWDER COATED	UNIT	1
63	PRE-EMPTION CONTROL SYSTEM	LS	1

<p>PROTECT YOURSELF ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO EXCAVATE THE EARTH'S SURFACE ANYWHERE IN ANY STATE</p> <p>Know what's below. Call before you dig.</p> <p>FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM</p>	<p><b>Colliers Engineering &amp; Design</b></p> <p>www.colliersengineering.com</p> <p>Doing Business as <b>MASER</b></p> <p>HAMILTON OFFICE 1000 Waterview Drive Suite 201 Hamilton, NJ 08691 Phone: 609.587.8200 Fax: 609.587.8260</p>	<p>WOODBRIDGE TOWNSHIP</p> <p><b>ELECTRICAL PLAN</b></p> <p>INTERSECTION IMPROVEMENTS AT INMAN AVENUE (C.R. 602) AND JORDAN ROAD / AMHERST AVENUE WOODBRIDGE TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY</p>			
		<p>Scale: N/A Date: 05/24/2023 Drawn By: NS Checked By: KMH</p> <p>Project Number: 20004877G Drawing Name: R-PL16-ELEC</p> <p>SHEET NUMBER: 8 OF 12</p>	<p><i>Keith M. Hall</i> <b>Keith M. Hall</b> NEW JERSEY LICENSED PROFESSIONAL ENGINEER LICENSE NUMBER: GE52883 COLLIERS ENGINEERING &amp; DESIGN, INC. N.J. C.O.A. #: 24GAZ7986500</p>		

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



CURB RAMP A



CURB RAMP B

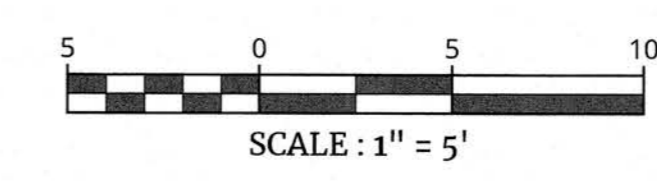
Point Table				
Point #	Station	Offset	BC/Sidewalk Elevation	TC Elevation
A01	11+78.39	36.49 (L)	68.94	--
A02	11+82.08	39.64 (L)	68.72	--
A03	11+85.22	43.37 (L)	68.68	--
A04	11+87.86	47.81 (L)	68.90	--
A05	11+92.30	45.52 (L)	68.86	--
A06	11+89.15	40.27 (L)	68.61	--
A07	11+92.78	37.40 (L)	68.54	68.54
A08	11+85.89	36.38 (L)	68.64	--
A09	11+89.38	33.40 (L)	68.57	68.57
A10	11+81.36	32.46 (L)	68.90	--

Point Table				
Point #	Station	Offset	BC/Sidewalk Elevation	TC Elevation
B01	12+49.39	44.27 (L)	69.43	69.43
B02	12+52.32	40.58 (L)	69.21	69.74
B03	12+56.62	37.11 (L)	69.27	69.77
B04	12+61.01	34.97 (L)	69.50	69.50
B05	12+64.25	25.16 (L)	69.08	69.41
B06	12+57.89	26.78 (L)	69.10	69.43
B07	12+53.84	32.67 (L)	69.18	--
B08	12+50.62	30.59 (L)	69.12	69.12
B09	12+52.57	33.47 (L)	69.16	--
B10	12+46.30	34.21 (L)	69.06	69.06
B11	12+42.31	39.09 (L)	68.95	69.28

- NOTES:
- CURB RAMPS MUST BE IN STRICT CONFORMANCE TO THE "2010 ADA STANDARDS FOR ACCESSIBLE DESIGN" AND "PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY." ALL MAXIMUM SLOPES CANNOT BE EXCEEDED. THE CONTRACTOR IS RESPONSIBLE FOR POST-CONSTRUCTION SETTLEMENT AND SHOULD PROVIDE LESS THAN MAXIMUM SLOPES AS NEEDED. WHERE ELEVATION OF THE CURB RAMP AND SIDEWALK VARY DRASTICALLY IN AREAS OF THE PROPOSED RAMPS, THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING THE RAMP SIZE SO THAT SLOPE REQUIREMENTS ARE NOT EXCEEDED.
  - THE RUNNING SLOPE OF A CURB RAMP SHALL BE AS FLAT AS POSSIBLE, NOT TO EXCEED 50H:1V (2%).
  - THE CROSS SLOPE OF THE CURB RAMP SHOULD BE AS FLAT AS POSSIBLE, NOT TO EXCEED 50H:1V (2%) MAXIMUM.
  - THE RUNNING AND CROSS SLOPES ON LANDINGS IS 50H:1V (2%) MAXIMUM.
  - SIDE FLARE RATES SHALL NOT EXCEED 10H:1V (10%).
  - THE VERTICAL ALIGNMENT OF A CURB RAMP SHALL BE PLANAR. GRADE BREAKS SHALL BE FLUSH AND PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN.
  - RAMP TRANSITIONS BETWEEN WALKS, LANDINGS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT VERTICAL CHANGES (1/4" MAX).
  - A PEDESTRIAN ACCESS ROUTE (PAR) SHALL BE MAINTAINED ON ALL CORNERS OF THE INTERSECTION, SUCH THAT A 4' MINIMUM CONTINUOUS AND UNOBSTRUCTED WALKWAY WITHIN THE PUBLIC RIGHT-OF-WAY PEDESTRIAN CIRCULATION PATH PROVIDES ACCESSIBILITY.
  - LANDINGS SHALL HAVE A MINIMUM CLEAR DIMENSION OF 4'-0" BY 4'-0" AND MAY BE SHARED BY ADJACENT RAMPS. THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF A CURB RAMP, LANDING, OR BLENDED TRANSITION SHALL BE 5% MAXIMUM.
  - CURB RAMPS SHALL NOT BE POURED MONOLITHICALLY BUT RATHER HAVE CLEARLY DEFINED GRADE BREAKS AS SHOWN IN THE DETAILS. DELINEATED AS NECESSARY WITH EXPANSION JOINT FILLER THAT COMPLIES WITH APPLICABLE SURFACE REQUIREMENTS.
  - THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL TRAFFIC CONTROL DEVICES, UTILITY LOCATIONS, SIGNS, STREET FURNITURE, AND DRAINAGE TO ENSURE A CONTINUOUS PEDESTRIAN ACCESS ROUTE AT ALL CURB RAMP LOCATIONS.
  - RAMPS MUST FALL WITHIN CROSSWALK LIMITS.
  - REFER TO C-1 FOR CONSTRUCTION PLAN AND E-1 FOR ELECTRICAL PLAN.
  - EXPOSURE OF THE SPF AND SPF FOUNDATION SHOULD BE NO MORE THAN 2" FROM GRADE OF SIDEWALK AND 1" FROM GRADE OF GROUND SURFACE.
  - REFER TO LATEST NJDOT ROADWAY CONSTRUCTION DETAIL CD-60602 FOR THE DETECTABLE WARNING SURFACE DETAIL.

**LEGEND**

	PROPOSED SIGNAL FOUNDATION		GRADE BREAK LINE
	ACCESSIBLE PUSH BUTTON STATION		CONCRETE CURB
	DEPRESSED CURB AND CRADLE		LANDING AREA (NOT TO EXCEED 2%)
	CURB RAMP (NOT TO EXCEED 8.33%)		RESET INLET



REV	DATE	DRAWN BY	DESCRIPTION

**Colliers Engineering & Design**

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Suite 201  
Hamilton, NJ 08691  
Phone: 609.587.8200 Fax: 609.587.8240

WOODBRIDGE TOWNSHIP

**CURB RAMP DETAILS**

INTERSECTION IMPROVEMENTS AT  
INMAN AVENUE (C.R. 602) AND  
JORDAN ROAD / AMHERST AVENUE  
WOODBRIDGE TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY

SCALE: 1" = 5'  
DATE: 05/24/2023  
PROJECT NUMBER: 20004877G  
DRAWING NAME: R-PL12-RAMP  
SHEET NUMBER: 9 OF 12

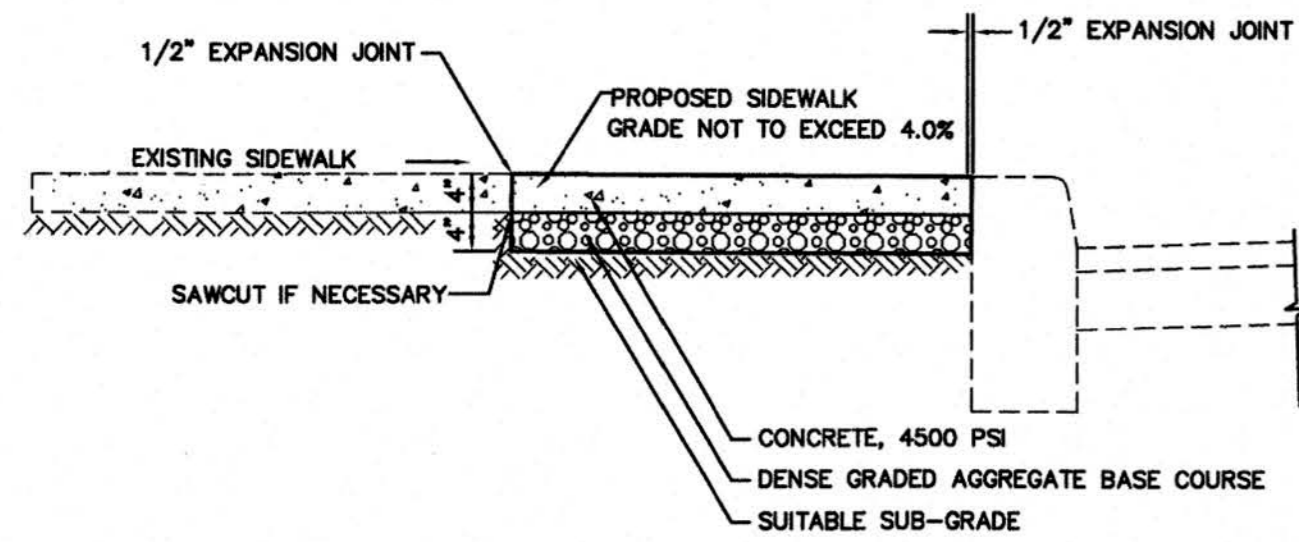
Keith M. Hall  
NEW JERSEY LICENSED PROFESSIONAL ENGINEER  
LICENSE NUMBER: G552863  
COLLIERS ENGINEERING & DESIGN, INC.  
N.J. C.O.A. #: 24GA27986500

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

2025/05/24 11:52 AM C:\Projects\2025\12-RAMP\12-RAMP.dwg (R-1) R-1



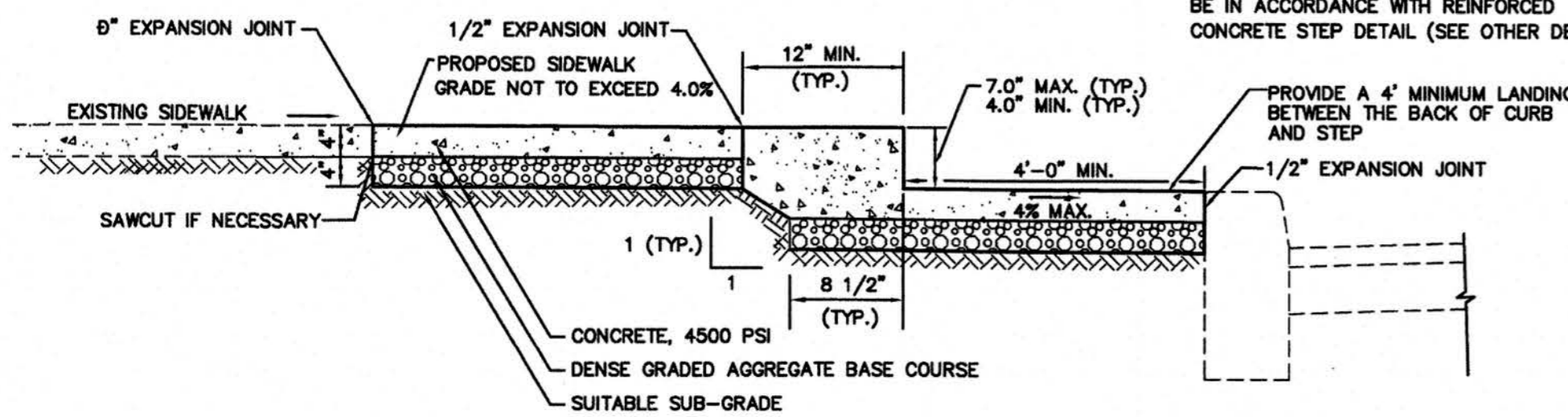




**TYPICAL SERVICE WALK REPLACEMENT DETAIL**

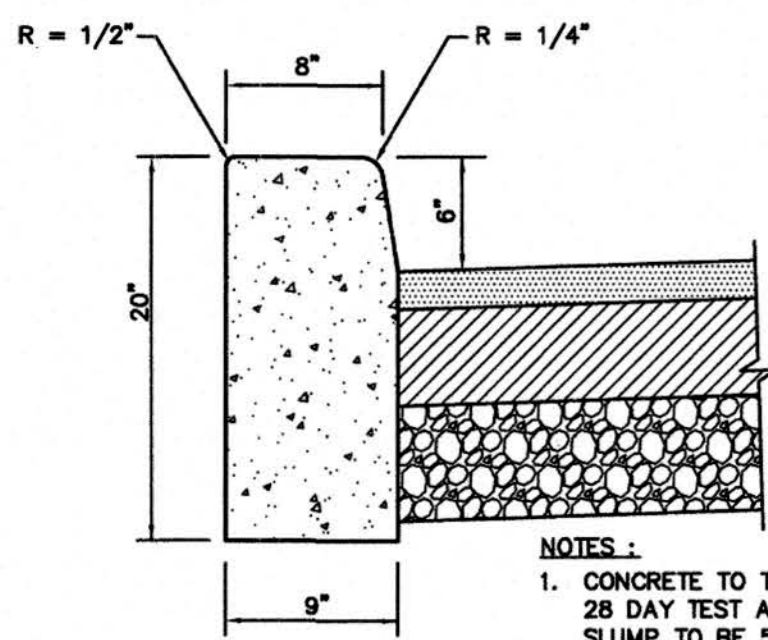
N.T.S.

- NOTE:**
- TWO (2) AND THREE (3) STEP INSTALLATION SHALL BE IN ACCORDANCE WITH CONCRETE STEP DETAIL (SEE OTHER DETAIL SHEET)
  - FOUR (4) STEPS OR GREATER SHALL BE IN ACCORDANCE WITH REINFORCED CONCRETE STEP DETAIL (SEE OTHER DETAIL SHEET)



**TYPICAL SERVICE WALK REPLACEMENT DETAIL WITH STEP**

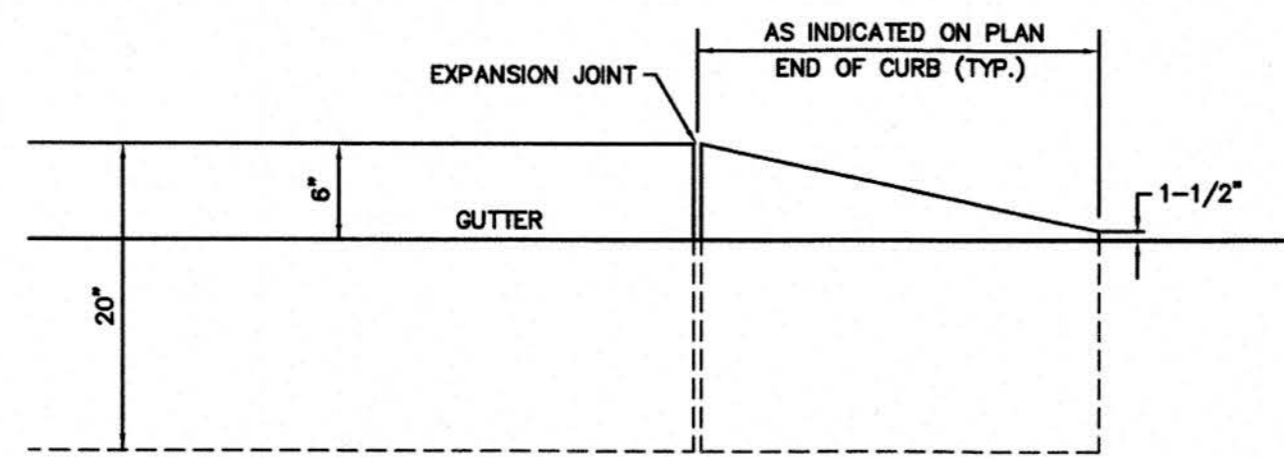
N.T.S.



- NOTES:**
- CONCRETE TO TEST 4500 PSI MINIMUM ON 28 DAY TEST AIR ENTRAINMENT 4% TO 7% SLUMP TO BE 5" MAXIMUM
  - SEE DETAILS FOR HANDICAPPED RAMP

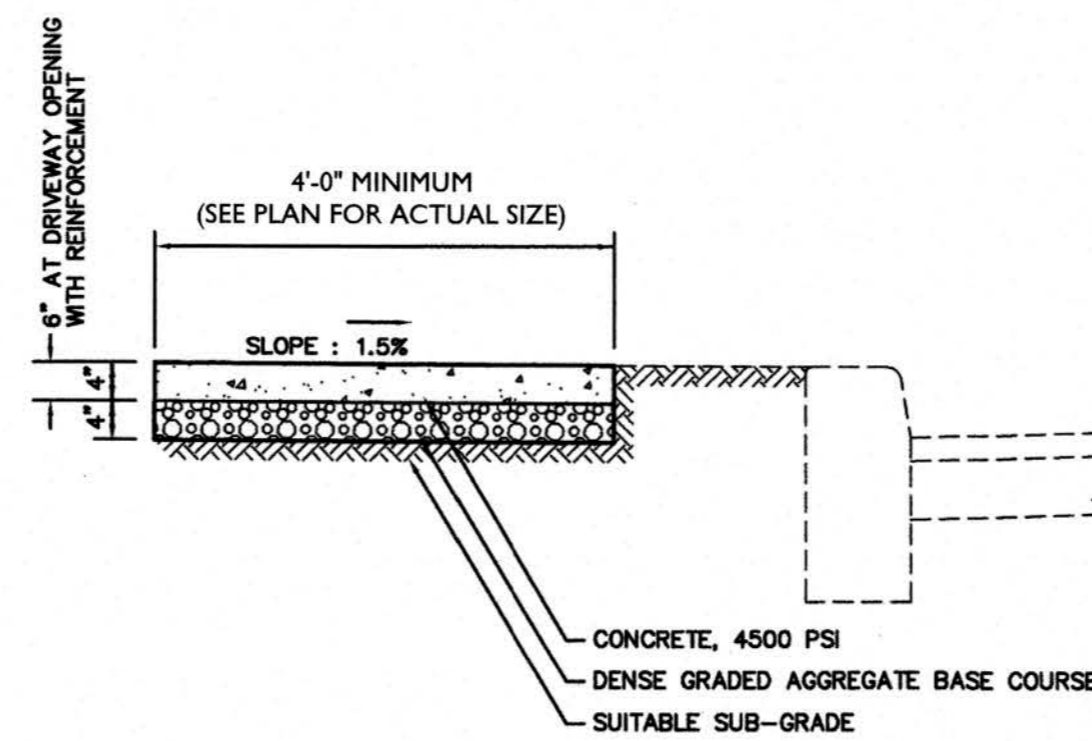
**TYPICAL 9" x 20" CURB DETAIL**

N.T.S.



**ELEVATION 9" x 20" KNOCKOUT CURB**

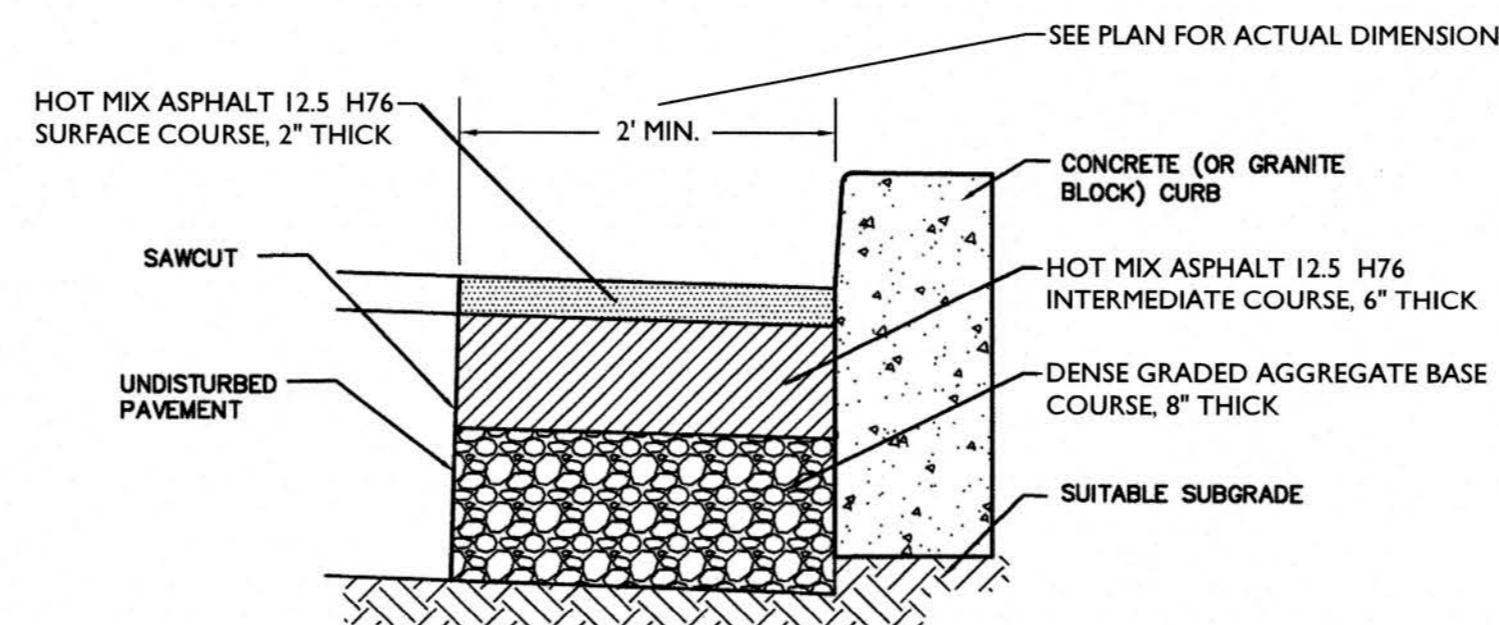
N.T.S.



- NOTES:**
- SEE DETAILS FOR HANDICAPPED RAMP

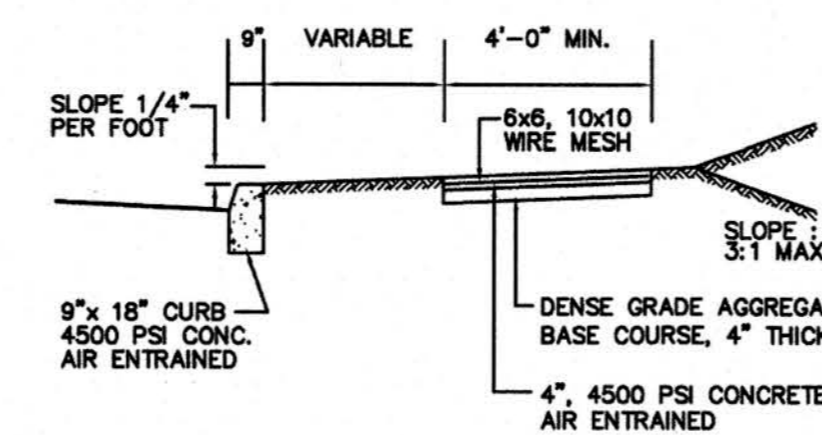
**TYPICAL SIDEWALK DETAIL**

N.T.S.



**PAVEMENT REPAIR DETAIL FOR CURB REPLACEMENT (NO ROAD RECONSTRUCTION)**

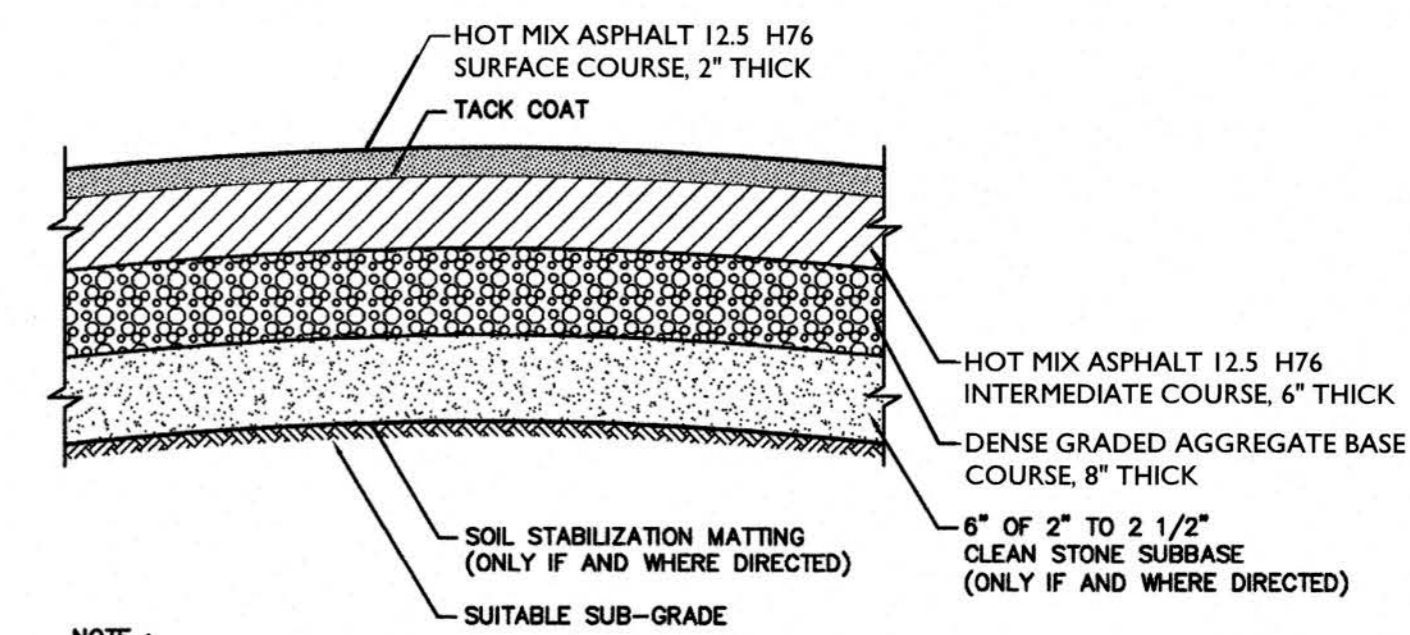
N.T.S.



**SIDEWALK DETAIL REINFORCED COUNTY CONCRETE**

N.T.S.

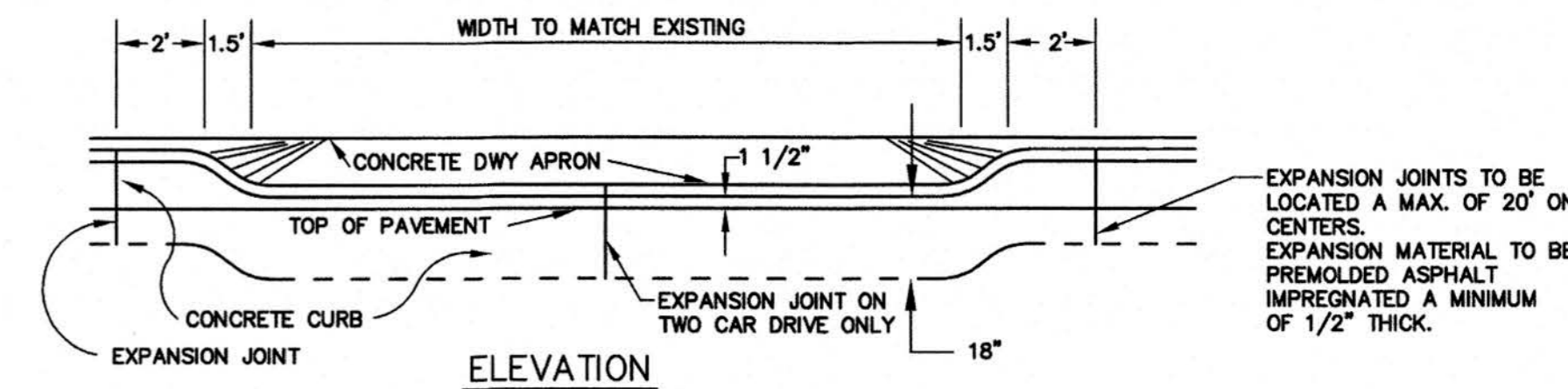
- NOTE:**
- HANDICAP RAMP SHALL BE REINFORCED WITH WIRE MESH. REFER TO DETAILS FOR HANDICAP RAMP CONSTRUCTION.
  - TRANSVERSE EXPANSION JOINTS 1/2" WIDE SHALL BE PROVIDED AT INTERVALS OF NOT MORE THAN 20' AND FILLED WITH PREFORMED BITUMINOUS CELLULAR TYPE JOINT FILLER. LONGITUDINAL JOINTS 1/2" WIDE SHALL BE PROVIDED BETWEEN CURBS AND ABUTTING SIDEWALKS, AND SHALL BE FILLED WITH PREFORMED BITUMINOUS TYPE JOINT FILLER. THE TOP OF ALL JOINT FILLER SHALL BE 1/2" BELOW THE TOP OF THE SIDEWALK AND FILLED WITH JOINT SEALER (SIKAFLEX 1A, OR APPROVED EQUAL). NO SEPARATE PAYMENT WILL BE MADE FOR JOINT CAP, REMOVABLE JOINT STRIP, JOINT SEALER AND WELDED STEEL WIRE FABRIC PROVIDED IN CONCRETE SIDEWALKS. NO SEPARATE PAYMENT WILL BE MADE FOR DENSE GRADED AGGREGATE BASE COURSE.



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

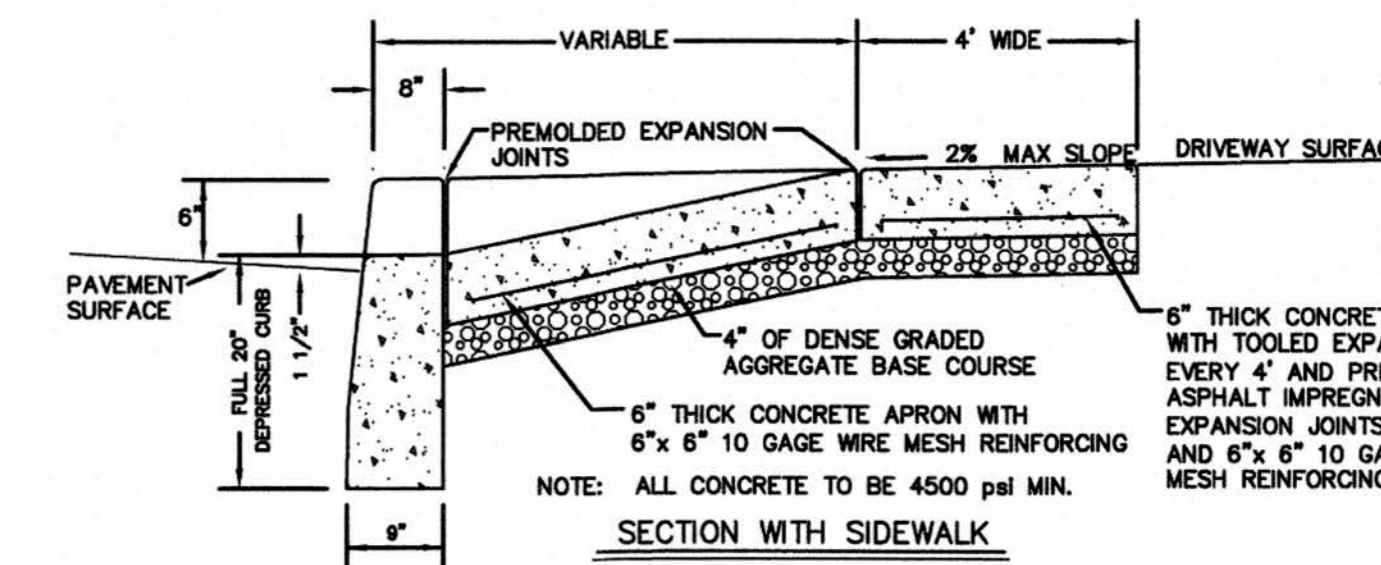
**TYPICAL PAVEMENT DETAIL**

N.T.S.



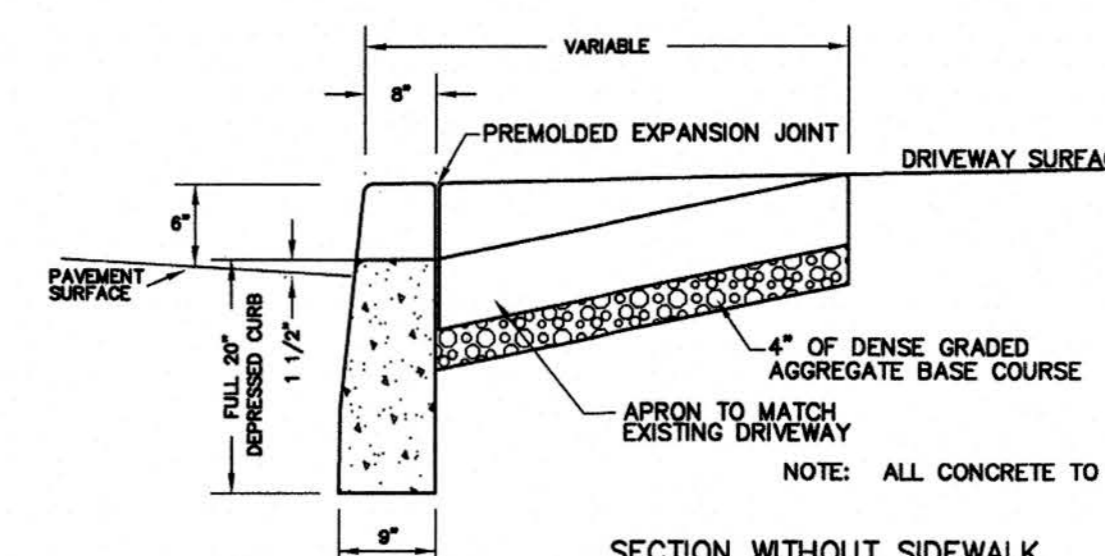
**ELEVATION**

- EXPANSION JOINTS TO BE LOCATED A MAX. OF 20' ON CENTERS. EXPANSION MATERIAL TO BE PREFORMED ASPHALT IMPREGNATED A MINIMUM OF 1/2" THICK.



**SECTION WITH SIDEWALK**

- NOTE:** ALL CONCRETE TO BE 4500 PSI MIN.

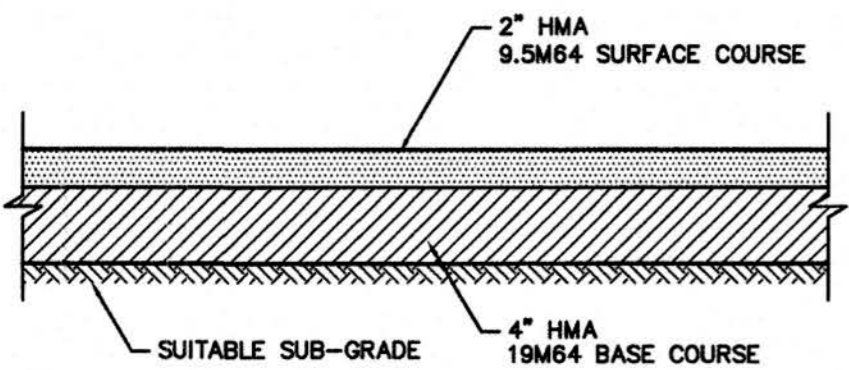


**SECTION WITHOUT SIDEWALK**

- NOTE:** ALL CONCRETE TO BE 4500 PSI MIN.

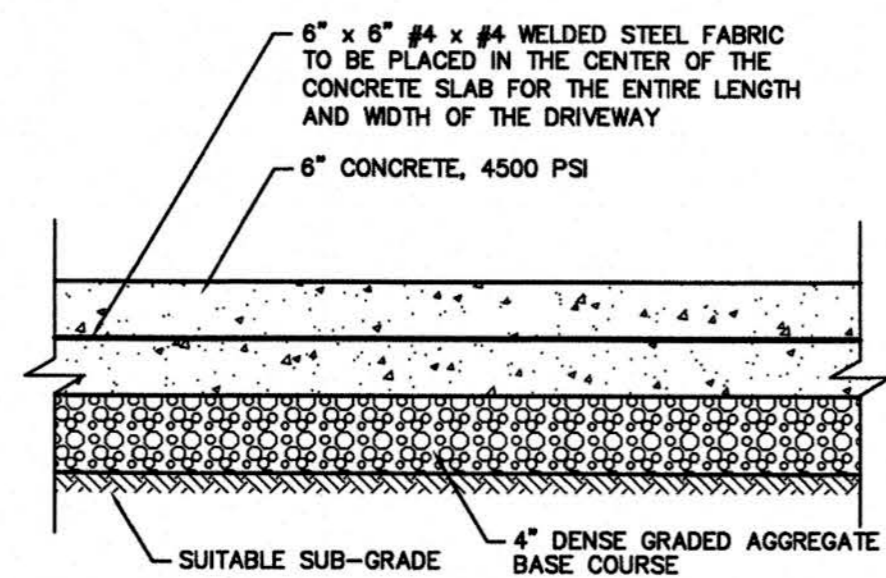
**DRIVEWAY ENTRANCE DEPRESSED CURB, DRIVEWAY APRON & SIDEWALK**

N.T.S.



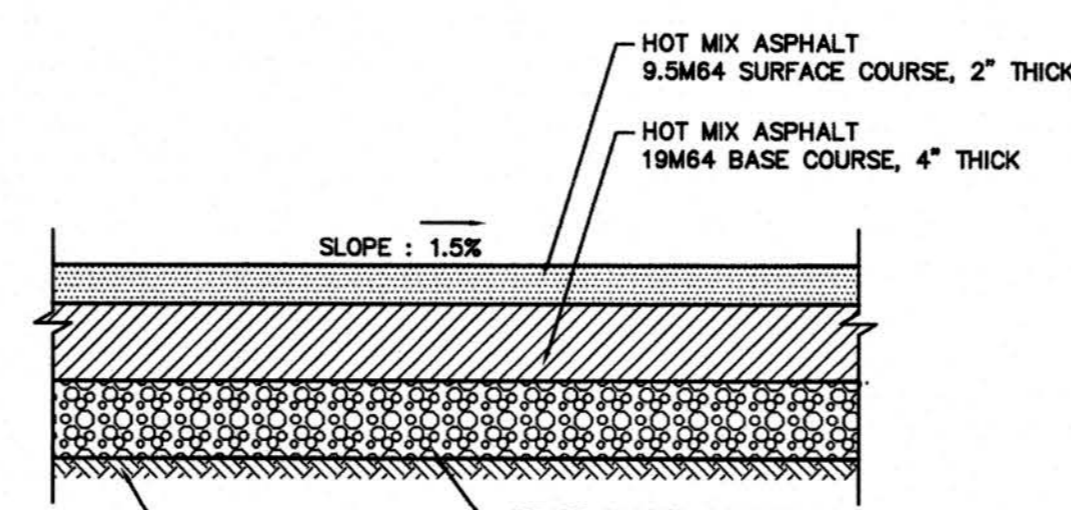
**HMA DRIVEWAY = COMMERCIAL DRIVEWAY & PARKING LOT DRIVEWAY REPLACEMENT DETAIL**

N.T.S.



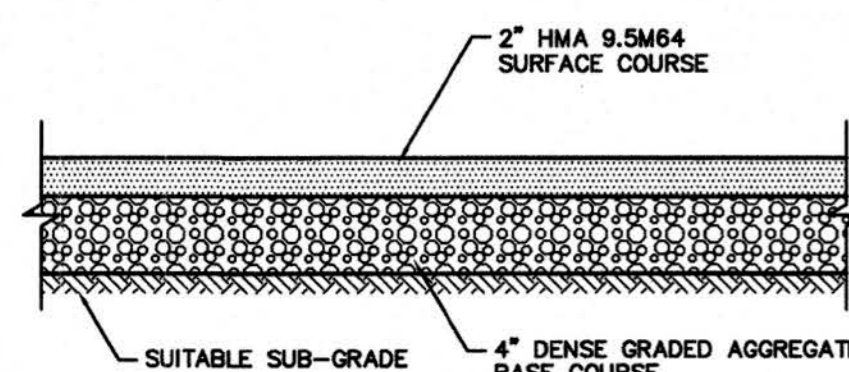
**CONCRETE DRIVEWAY = DRIVEWAY REPLACEMENT DETAIL**

N.T.S.



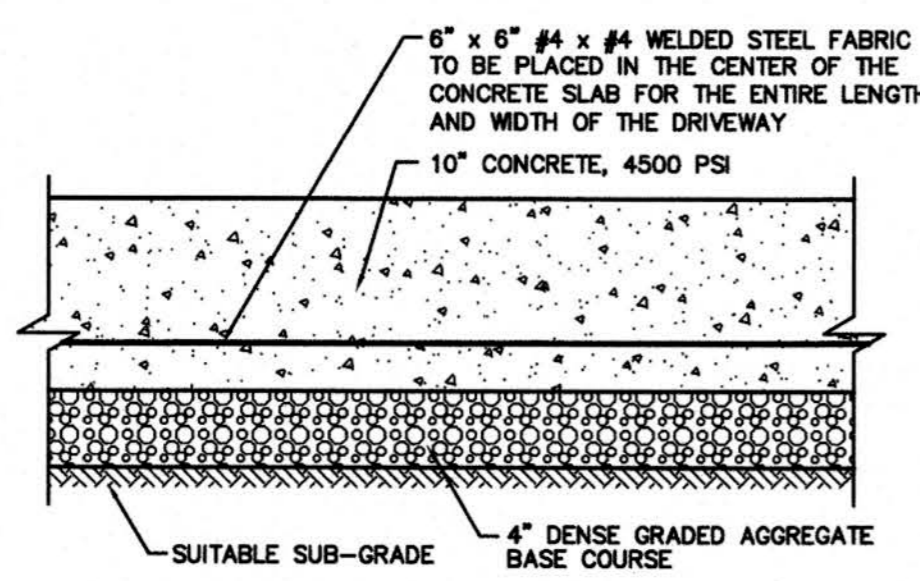
**HMA WALKWAY DETAIL**

N.T.S.



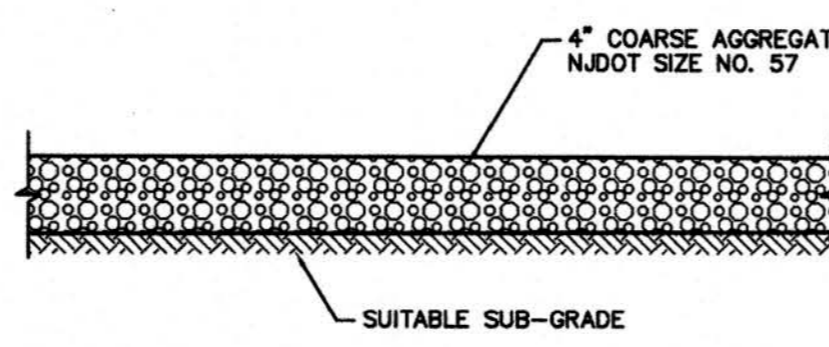
**HMA DRIVEWAY = (SINGLE & 2-FAMILY DRIVEWAYS) DRIVEWAY REPLACEMENT DETAIL**

N.T.S.



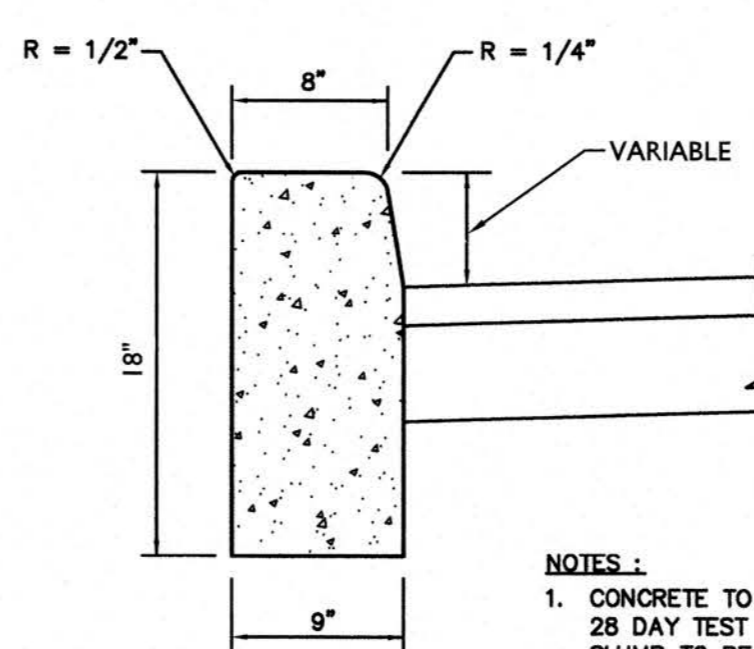
**CONCRETE DRIVEWAY = (COMMERCIAL DRIVEWAY & PARKING LOT) DRIVEWAY REPLACEMENT DETAIL**

N.T.S.



**AGGREGATE DRIVEWAY = DRIVEWAY REPLACEMENT DETAIL**

N.T.S.



**TYPICAL 9" x 18" CURB DETAIL**

- NOTES:**
- CONCRETE TO TEST 4500 PSI MINIMUM ON 28 DAY TEST AIR ENTRAINMENT 4% TO 7% SLUMP TO BE 5" MAXIMUM

REV	DATE	DRAWN BY	DESCRIPTION

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SCALE: N/A DATE: 05/24/2023 DRAWN BY: NJS CHECKED BY: KMH

PROJECT NUMBER: 20004877G DRAWING NAME: R-PL08-DTLS

SHEET NUMBER: 12 OF 12

Keith M. Hall  
NEW JERSEY LICENSED PROFESSIONAL ENGINEER  
LICENSE NUMBER: GE52982  
COLLIERS ENGINEERING & DESIGN, INC.  
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