

# BROAD AVENUE (SECTION 11) IMPROVEMENTS

## CRESCENT AVENUE TO HILLSIDE AVENUE

# CONSTRUCTION PLANS

**BERGEN COUNTY, NEW JERSEY**  
**AUGUST 2022**

PREPARED FOR:  
**OWNER/DEVELOPER**  
**BOROUGH OF LEONIA**

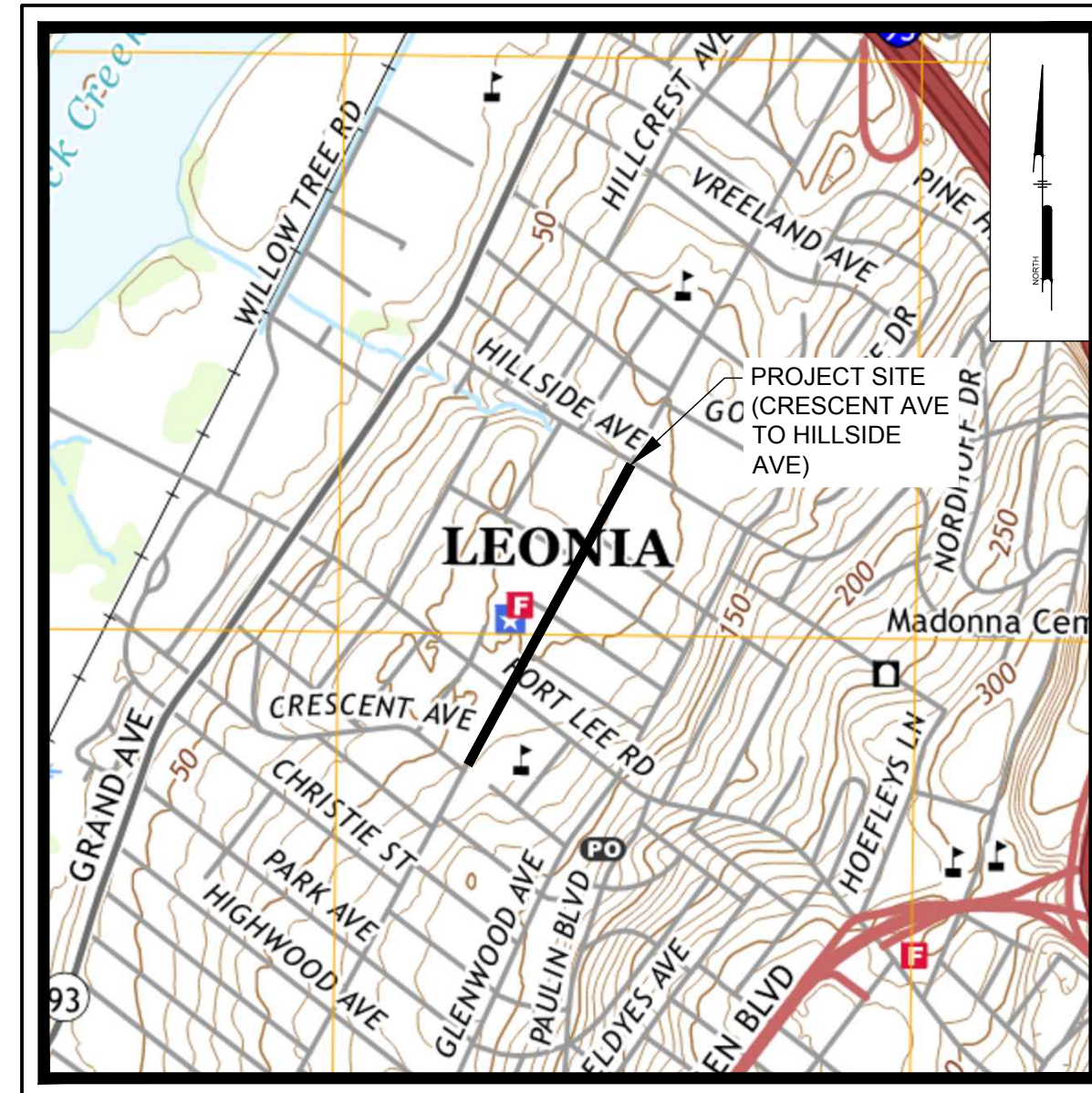
**312 BROAD AVENUE**  
**LEONIA, NEW JERSEY 07605**  
(201) 592-5780

- MAYOR**  
JUDAH ZEIGLER
- ADMINISTRATOR**  
ANDREA WARDROP
- BOROUGH CLERK**  
TRINA LINDSEY
- COUNCIL MEMBERS**  
PASQUALE FUSCO  
MAUREEN DAVIS  
BERNADETTE FLAIM  
LOUIS GRANDELIS  
JOANNE CHOI TERRELL  
BILL ZIEGLER
- BOROUGH ENGINEER**  
DREW M. DI SESSA
- DIRECTOR OF PUBLIC WORKS**  
JOHN VILLAREAL

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<b>BERGEN COUNTY UTILITIES AUTHORITY:</b> DOMINIC DISALVO PRINCIPAL ENGINEER FOOT OF MERHOF ROAD BOX 9 LITTLE FERRY, NEW JERSEY 07643 TEL: (201) 807-8664	<b>BOROUGH OF LEONIA - POLICE DEPARTMENT:</b> SCOTT TAMAGNY POLICE CHIEF 312 BROAD AVENUE LEONIA, NEW JERSEY 07605 TEL: (201) 592-5761
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**LOCATION MAP**  
Scale: 1" = 1000'



**USGS MAP**  
Scale: 1" = 1000'

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PREPARED BY:  
**PENNONI ASSOCIATES INC.**



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NJ CERTIFICATE OF AUTHORIZATION NO. GA28033300

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ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

**DREW M. DI SESSA, PE**  
PROFESSIONAL ENGINEER  
NEW JERSEY LICENSE NO. 24060388700

*Drew M. Di Sessa* DATE: 08-16-2022

**BROAD AVENUE (SECTION 11) IMPROVEMENTS**  
CRESCENT AVENUE TO HILLSIDE AVENUE  
LEONIA, NEW JERSEY

**COVER SHEET**

**BOROUGH OF LEONIA**  
312 BROAD AVENUE  
LEONIA, NEW JERSEY 07605

NO.	DATE	REVISIONS	BY

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATE. AND OWNER SHALL HOLD PENNONI ASSOCIATES HARMLESS FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

PROJECT	BRLEO22003
DATE	2022-09-16
DRAWING SCALE	AS NOTED
DRAWN BY	PD
APPROVED BY	DR

# CS0001

SHEET 1 OF 9

**NOT FOR CONSTRUCTION**

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 PLOTTED: 01/09/2022 2:48 PM BY: Marcus Scharf  
 PROJECT STATUS: ---

**NEW JERSEY**

**CALL BEFORE YOU DIG**  
1-800-272-1000

CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH THE REQUIREMENTS OF THE NEW JERSEY ONE-CALL DAMAGE PREVENTION SYSTEM AS STATED IN THE "UNDERGROUND FACILITY PROTECTION ACT". TICKET NUMBER(S):

**NOTES**

**GENERAL NOTES**

- THE 2019 U.S. CUSTOMARY ENGLISH STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, OF THE NEW JERSEY DEPARTMENT OF TRANSPORTATION AS AMENDED HEREIN, AND IN THE SUPPLEMENTAL SPECIFICATIONS SHALL GOVERN THE CONSTRUCTION OF THIS PROJECT.
- THE CONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES, RULES, ORDERS AND REGULATIONS RELATING TO THE PERFORMANCE OF THE WORK, THE PROTECTION OF ADJACENT PROPERTY AND THE MAINTENANCE OF PASSAGEWAYS.
- PRIOR TO THE START OF CONSTRUCTION AND AS OFTEN AS REQUIRED, THE CONTRACTOR SHALL HAVE ALL UNDERGROUND UTILITIES LOCATED AND PHYSICALLY MARKED OUT WITHIN THE LIMITS OF THE PROJECT. PENNONI ASSOCIATES ASSUMES NO RESPONSIBILITY FOR LOCATION OF BURIED UTILITIES NOR LACK THEREOF. THE CONTRACTOR SHALL CONTACT THE UTILITY MARKOUT SERVICE BY CALLING 1(800)-272-1000 72 HOURS IN ADVANCE OF PROJECT PRIOR TO START OF CONSTRUCTION.
- NO CONSTRUCTION, MAINTENANCE OR UTILITY WORK ON, UNDER OR ABOVE THE PROJECT LOCATION WHICH WILL OBSTRUCT, INTERFERE WITH AND/OR DETOUR TRAFFIC FROM THE ROAD, SHALL BE PERFORMED BEFORE 8:00 AM OR AFTER 4:00 PM MONDAY THRU FRIDAY.
- THE CONTRACTOR WILL BE FURNISHED WITH FIVE (5) SETS OF PLANS AND SPECIFICATIONS. ONE (1) COPY OF THE PLANS AND SPECIFICATIONS FURNISHED TO THE CONTRACTOR MUST BE KEPT ON THE PROJECT SITE AT ALL TIMES. ANYTHING SHOWN ON THE PLANS AND NOT MENTIONED IN THE SPECIFICATIONS, OR MENTIONED IN THE SPECIFICATIONS AND NOT SHOWN ON THE PLANS AND ALL WORK AND MATERIALS NECESSARY FOR THE COMPLETION OF THE WORK ACCORDING TO THE INTENT AND MEANING OF THE CONTRACT DOCUMENTS SHALL BE FURNISHED, PERFORMED AND DONE, AS IF THE SAME WERE BOTH MENTIONED IN THE SPECIFICATIONS AND SHOWN ON THE DRAWINGS. ANY CONFLICT OR INCONSISTENCY BETWEEN THE PLANS AND SPECIFICATIONS, OR ANY DISCREPANCY BETWEEN THE FIGURES AND SCALE OF DRAWINGS SHALL BE SUBMITTED, IN WRITING, BY THE CONTRACTOR TO THE ENGINEER, WHOSE DECISION THEREON SHALL BE CONCLUSIVE. THE DECISION OF THE ENGINEER AS TO WHICH SPECIFICATION WILL GOVERN WILL BE CONCLUSIVE AND FINAL.
- IN THE EVENT THE MEANING OF ANY PORTION OF THE SPECIFICATIONS OR DRAWINGS OR ANY SUPPLEMENTARY DRAWINGS OR INSTRUCTION OF THE ENGINEER IS DOUBTFUL, THE SAME SHALL BE UNDERSTOOD TO CALL FOR THE BEST TYPE OF CONSTRUCTION, BOTH AS TO MATERIALS AND WORKMANSHIP, WHICH REASONABLY CAN BE INTERPRETED.
- IN THE EVENT A SITUATION ARISES IN WHICH MATERIALS NOT SPECIFIED ON THE PLANS OR INDICATED AS NOT APPLICABLE IN THE SPECIFICATION GUIDE ARE TO BE USED FOR EXTRA WORK, THEN THE STANDARD SPECIFICATIONS OR THE SUPPLEMENTS WHICHEVER GOVERNS, WILL BE USED.
- THE PUBLIC WORKS DEPARTMENT AND POLICE DEPARTMENT MUST BE GIVEN (1) ONE WEEK NOTICE BEFORE THE START OF THE WORK. THIS IS NECESSARY TO ALLOW PUBLIC WORKS TO REMOVE ANY SIGNS TO BE SALVAGED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL EXCESS MATERIALS EXCAVATED OF WHATEVER NATURE TO AN APPROVED DISPOSAL FACILITY AT HIS OWN EXPENSE. THE TOWNSHIP IS NOT OBLIGATED TO SUPPLY A DISPOSAL SITE. THE CONTRACTOR MUST NOT DEPOSIT THE EXCESS MATERIALS IN THE TOWNSHIP LIMITS WITHOUT EXPRESS PERMISSION OF THE ENGINEER.
- EXISTING PRIVATELY INSTALLED ITEMS (i.e. FENCES, LANDSCAPING) WHICH NEED TO BE REMOVED TO PERFORM THE WORK SPECIFIED SHALL BE CAREFULLY REMOVED AND RE-INSTALLED AT A LOCATION ACCEPTABLE TO THE OWNER AND THE ENGINEER. ANY ITEMS DAMAGED IN THIS PROCESS SHALL BE REPLACED IN KIND TO THE SATISFACTION OF THE OWNER AT NO EXTRA COST.
- THE CONTRACTOR IS RESPONSIBLE TO OBEY ALL SAFETY AND HEALTH REGULATIONS. TOWNSHIP ASSUMES NO RESPONSIBILITY FOR THE SAFETY OF THE WORK PERFORMED.
- THIS CONTRACT INCLUDES PREVAILING WAGE RATES UNDER THE NEW JERSEY PREVAILING WAGE.
- THE CONTRACTOR SHALL PROVIDE PROPER AND SUFFICIENT CONSTRUCTION PROTECTION TO THE WORKERS AND ALL PERSONNEL ONSITE. OSHA AND OTHER LOCAL, STATE, AND FEDERAL CODES SHALL BE FOLLOWED. ALL WORK SHALL BE PERFORMED IN SAFE AND CAUTIOUS MANNER.
- THE CONTRACTOR SHALL MAKE PROVISIONS TO PROTECT STREETS, ROADS, AND ADJACENT PROPERTY.
- WORK AND MATERIAL SHALL MEET THE REQUIREMENTS OF THE LOCAL AND STATE CONSTRUCTION CODES, LATEST EDITION.
- IN INSTANCES WHERE THE CITY SPECIFICATIONS PROVIDE NO DETAILED SPECIFICATION, THE MATERIALS AND METHODS OF CONSTRUCTION SHALL MEET AND CONFORM TO THE REQUIREMENTS OF "THE STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTIONS" FOR THE NEW JERSEY DEPARTMENT OF TRANSPORTATION.
- UTILITY LOCATIONS ARE APPROXIMATE. ACTUAL LOCATIONS SHALL BE DETERMINED BY THE UTILITY COMPANIES.
- ENGINEER MUST BE PROVIDED A MINIMUM OF TWO (2) BUSINESS DAYS NOTICE PRIOR TO THE START OF CONSTRUCTION. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO CONSTRUCTION.
- ALL QUANTITIES SHOWN HEREIN ARE APPROXIMATE FOR GENERAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES.
- ALL RESTORED AREAS SHALL BE RESTORED AS SHOWN ON THE PLANS, OR INCIDENTAL, AT NO EXTRA COST TO THE OWNER.
- IMPLEMENT AND MAINTAIN ALL SOIL EROSION MEASURES FROM SOMERSET-UNION COUNTY THROUGHOUT CONSTRUCTION. ALL SOMERSET-UNION COUNTY SOIL EROSION AND SEDIMENT CONTROL REQUIREMENTS SHALL BE FOLLOWED.
- UPON COMPLETION OF THE WORK, REMOVE ALL DEBRIS, EQUIPMENT, AND UNUSED MATERIALS FROM THE PROJECT SITE.
- THE MAINTENANCE OF THE CONSTRUCTION SITE AND THE AREAS OF WORK WHILE PERFORMING THE JOB SHALL BE MAINTAINED DAILY. NO BURNING OF DEBRIS OR EXPLOSIVES SHALL BE PERMITTED WITHOUT APPROVAL OF THE APPROPRIATE JURISDICTIONAL AGENCY. NO BURNING OR USE OF EXPLOSIVES SHALL BEGIN WITHOUT ALL APPROVALS IN WRITING.
- CONTRACTOR TO PROVIDE ALL TESTING SERVICES NECESSARY TO MEET THE PROJECT SPECIFICATIONS AT NO ADDITIONAL COST TO THE OWNER.
- ILLUMINATE AND PROTECT EXCAVATED TRENCHES AND OPENINGS AS NECESSARY TO PROTECT AGAINST INJURY TO WORKERS, PEDESTRIANS, WILDLIFE, ETC.

- THE CONTRACTOR AGREES THAT HE IS SKILLED AND EXPERIENCED IN THE USE AND INTERPRETATION OF PLANS. HE CAREFULLY REVIEWED THE PLANS FOR THE PROJECT AND HAS FOUND THEM TO BE FREE OF AMBIGUITIES FOR CONSTRUCTION PURPOSES. FURTHER, HE HAS CAREFULLY EXAMINED THE SITE OF THE WORK AND FROM HIS OWN OBSERVATIONS IS SATISFIED TO THE NATURE OF THE WORK; THE CHARACTER, QUALITY, AND QUANTITY OF MATERIALS; THE DIFFICULTIES LIKELY TO BE ENCOUNTERED, AND OTHER ITEMS WHICH MAY AFFECT THE PERFORMANCE OF WORK.

- PLANS BASED ON SURVEY PREPARED BY PENNONI ASSOCIATES ON APRIL 7, 2022.

**SITE SPECIFIC NOTES:**

- CONTRACTOR SHALL COMPLETE WORK WITHIN 60 DAYS FROM THE DATE OF NOTICE TO PROCEED.
- ALL EXCAVATED ASPHALT AND CONCRETE SHALL BE DISPOSED OF OFF SITE.
- ACCESS TO ALL RESIDENCES AND BUSINESSES SHALL BE MAINTAINED DURING CONSTRUCTION.
- EXERCISE CARE TO PREVENT DAMAGE TO ANY MATERIALS OR STRUCTURES THAT ARE TO REMAIN IN PLACE. REPAIR ALL DAMAGE AT NO ADDITIONAL COST.
- EXTREME CAUTION SHALL BE USED DURING DISTURBANCE ACTIVITIES ADJACENT TO EXISTING ON-SITE UTILITY SERVICES. PROTECT UTILITIES DURING CONSTRUCTION TO AVOID DAMAGE. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED IN ACCORDANCE WITH THE RESPECTIVE UTILITY PURVEYORS REQUIREMENTS AT THE SOLE EXPENSE OF THE CONTRACTOR.
- EXCAVATED SOIL MAY BE USED FOR BACKFILLING AND FILL PROVIDED IT MEETS THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.

**CONSTRUCTION NOTES**

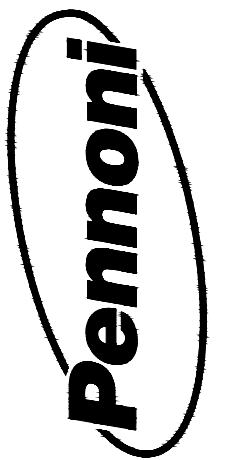
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE POLICE DEPARTMENTS FOR TRAFFIC OPERATIONS AND PARKING PROHIBITIONS DURING CONSTRUCTION.
- THE LOCATIONS OF UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AT LEAST TWO (2) WEEKS PRIOR TO CONSTRUCTION FOR PHYSICAL MARK-OUTS OF UTILITIES. PER NJAC, THE CONTRACTOR SHALL DIG TEST PITS BY HAND MIN. 4 SQUARE FEET, TO LOCATE UNDERGROUND UTILITIES IN CONFLICT WITH THE WORK PRIOR TO EXCAVATION WITH POWER EQUIPMENT.
- ALL INFORMATION SHOWN OR NOTED FOR EXISTING FACILITIES. GRADES, ROADWAYS AND MATERIALS IS APPROXIMATE AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL INFORMATION WHICH MAY AFFECT THIS WORK LOCATION AND DEPTH OF EXISTING UTILITIES ARE ONLY INDICATED TO BRING ATTENTION TO POSSIBLE CONFLICT.
- ANY DAMAGE TO UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND ALL COSTS FOR REPAIRS SHALL BE BORNE BY THE CONTRACTOR.
- THE LOCATION, ELEVATION, AND SIZE OF EXISTING UTILITIES SHOWN ON THE CONTRACT DRAWINGS ARE APPROXIMATE, THE FOLLOWING SHALL BE PERFORMED:
  - VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES WITHIN THE WORK AREA PRIOR TO CONSTRUCTIONS;
  - EXERCISE EXTREME CAUTION WHEN WORKING ADJACENT TO EXISTING POWER, COMMUNICATIONS, OR WATER LINES TO PREVENT DAMAGE;
  - IMMEDIATELY REPAIR ANY DAMAGE TO THE EXISTING UTILITIES RESULTING FROM CONSTRUCTION;
  - MAINTAIN UTILITIES IN ACTIVE OPERATION AT ALL TIMES UNLESS THEY ARE TO BE ABANDONED OR REMOVED;
  - THOROUGHLY REVIEW ALL ARCHITECTURAL/UTILITY-RELATED PLANS ASSOCIATED WITH THIS PROJECT FOR CONFLICTS OR DISCREPANCIES. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER.
- CONCRETE THRUST BLOCKS SHALL BE INSTALLED ON ALL WATER LINE BENDS, TEES, CROSSES, ELBOWS, VALVES, CAPS, ETC.
- THE ENCLOSED DESIGN PLANS DO NOT DEPICT THE LOCATION OF EVERY NECESSARY ELBOW, TEE, CROSS, THRUST BLOCK, BEND, VALVE, ETC. INCLUDED IN THE CONSTRUCTION SHALL BE ALL PIPING, TESTING, AND APPURTENANCES, REQUIRED FOR A FULLY FUNCTIONING INSTALLED SYSTEM.
- ALL DISTURBED SHRUBS, FENCING, SIGNS, MAIL BOXES, DRIVES, ETC., SHALL BE RESTORED TO THEIR ORIGINAL CONDITION, AND TO THE SATISFACTION OF THE OWNER, NO SEPARATE PAYMENT SHALL BE MADE FOR THIS RESTORATION UNLESS SPECIFIED ELSEWHERE.
- THE CONTRACTOR SHALL RESET ALL ROADWAY SIGNS WHICH ARE TO REMAIN WITHIN THE LIMITS OF WORK THAT HAVE BEEN DISTURBED DUE TO CONSTRUCTION. SEPARATE PAYMENT WILL NOT BE MADE FOR RESETTING SIGNS. THE COST FOR RESETTING SIGNS WILL BE INCLUDED IN THE VARIOUS ITEMS OF THE PROPOSAL.
- SEPARATE PAYMENT WILL NOT BE MADE FOR REMOVAL OF TREES OR STUMPS DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL REPLACE ALL DAMAGED TREES WITH A SIZE AND TYPE ACCEPTABLE TO THE TOWNSHIP AT NO EXTRA COST.
- THE CONTRACTOR SHALL OBTAIN ALL MUNICIPAL PERMITS AND SHALL BEAR THE COST OF ALL ACCOMPANYING FEES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION LAYOUT.

**ESTIMATE OF QUANTITIES**

ITEM NO	DESCRIPTION	BROAD AVENUE QUANTITY	UNIT
1	MOBILIZATION	1	LS
2	CLEARING SITE	1	LS
3	EXCAVATION, UNCLASSIFIED	460	CY
4	HMA MILLING, 3" OR LESS	13000	SY
5	DENSE GRADED AGGREGATE BASE COURSE, 6" THICK	1315	SY
6	HOT MIX ASPHALT 12.5M64 SURFACE COURSE; 2" THICK	1810	TON
7	HOT MIX ASPHALT 19M64 BASE COURSE; 4" THICK	380	TON
8	HOT MIX ASPHALT DRIVEWAY, 4" THICK	50	SY
9	TACK COAT	2060	GAL
10	RESET EXISTING MANHOLE CASTING	75	UNIT
11	RESET WATER VALVE BOX	40	UNIT
12	RESET GAS VALVE BOX	20	UNIT
13	BICYCLE SAFE GRATE	1	UNIT
14	CURB PIECE TYPE 'N-ECO'	1	UNIT
15	RESET EXISTING INLET CASTING	17	UNIT
16	CONCRETE DRIVEWAY, 6" THICK	50	SY
17	CONCRETE SIDEWALK, 4" THICK	400	SY
18	GRANITE CURB	50	LF
19	BRICK PAVERS	250	SY
20	9"x18" CONCRETE VERTICAL CURB	550	LF
21	DETECTABLE WARNING SURFACE	15	SY
22	TRAFFIC STRIPES, 4" YELLOW	3150	LF
23	TRAFFIC STRIPES, 4" WHITE	5230	LF
24	TRAFFIC STRIPES, 6" WHITE	3500	LF
25	TRAFFIC STRIPES, 12" WHITE	1900	LF
26	TRAFFIC STRIPES, 24" WHITE	130	LF
27	TREE REMOVAL	6	UNIT
28	SMALL DECIDUOUS TREE, 2 1/2"	12	UNIT
29	TOPSOILING SPREADING, 4" THICK	150	SY
30	FERTILIZING & SEEDING, TYPE A-3	150	SY
31	STRAW MULCHING	150	SY
32	BREAKAWAY BARRICADE	30	UNIT
33	DRUM	60	UNIT
34	TRAFFIC CONE	200	UNIT
35	CONSTRUCTION SIGNS	300	SF
36	TRAFFIC DIRECTOR/FLAGGER	160	HR
37	FUEL PRICE ADJUSTMENT	2000	DOLLAR
38	ASPHALT PRICE ADJUSTMENT	1600	DOLLAR
39	RELOCATE FIRE HYDRANT	1	UNIT
40	INLET, TYPE B	1	UNIT
41	15" HIGH DENSITY POLYETHYLENE PIPE	45	LF

**NOTES FOR ESTIMATION OF QUANTITIES AND SPECIFICATIONS FOR NON STANDARD NJDOT ITEMS:**

- SPECIFICATIONS FOR RESETTING EXISTING MANHOLE CASTINGS AND RESETTING INLET CASTINGS ARE INCLUDED IN SECTION 602.03.03 OF THE 2019 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- REFER TO CONSTRUCTION DETAIL 'ROOF DRAIN CONNECTION' FOR SPECIFICATIONS.
- SPECIFICATIONS FOR TRAFFIC STRIPES, LONG LIFE THERMOPLASTIC ITEMS ARE INCLUDED IN SECTION 610 - "TRAFFIC STRIPES, TRAFFIC MARKINGS, AND RUMBLE STRIPS" OF THE 2019 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- SPECIFICATIONS FOR TOPSOILING SPREADING, 4" THICK ARE INCLUDED UNDER SECTION 804 - "TOPSOIL SPREADING" OF THE 2019 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- THE CONTRACTOR SHALL REFER TO THE 2019 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION FOR ALL STANDARD NJDOT PAY ITEMS.
- HMA MILLING, 2" SHALL BE PAID UNDER PAY ITEM "HMA MILLING, 3" OR LESS".
- COMPENSATION FOR THE FOLLOWING SERVICES SHALL BE INCLUDED WITHIN THE VARIOUS PAY ITEMS FOR THE PROJECT.
  - MARKING OF UTILITIES AND TESTING SERVICES
  - REMOVAL OF DEBRIS, EQUIPMENT, AND UNUSED MATERIALS FROM THE PROJECT SITE
  - ILLUMINATION AND PROTECTION OF EXCAVATED TRENCHES AND OPENINGS
  - PERFORMING TEST PITS



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**DREW M. DISESSA, PE**  
 PROFESSIONAL ENGINEER  
 NEW JERSEY LICENSE NO. 24CE0388790

*Drew M. Diessa*  
 DATE: 08-16-2022

**BROAD AVENUE (SECTION 11) IMPROVEMENTS**  
 CRESCENT AVENUE TO HILLSIDE AVENUE  
 LEONIA, NEW JERSEY

**ESTIMATE OF QUANTITIES AND NOTES**

**BOROUGH OF LEONIA**  
 312 BROAD AVENUE  
 LEONIA, NEW JERSEY 07605

NO.	DATE	REVISIONS	BY

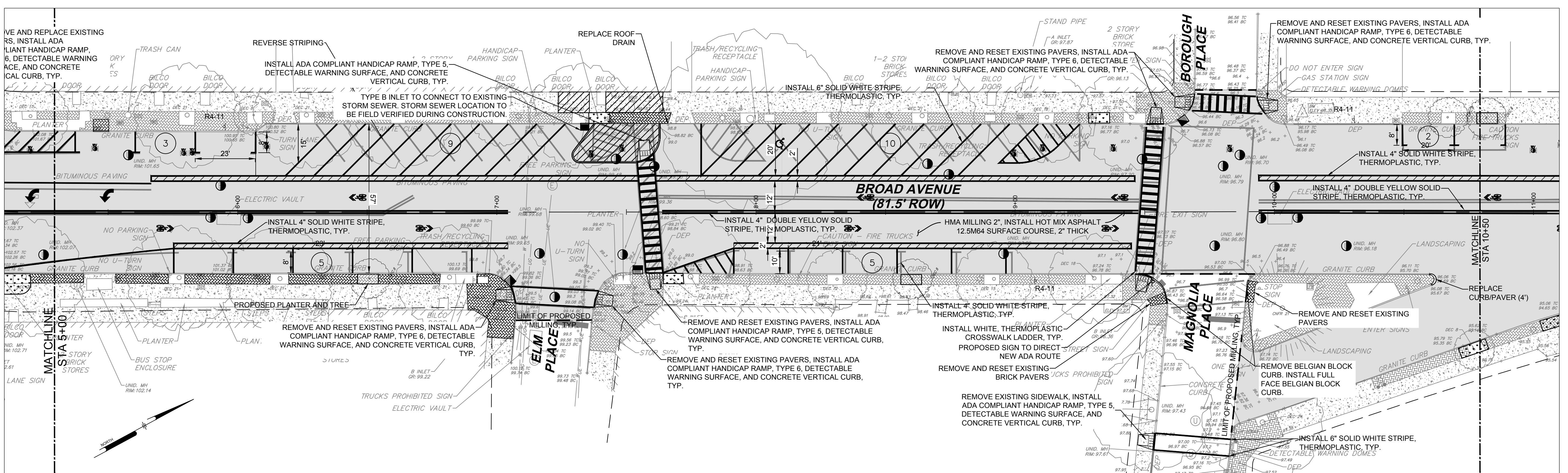
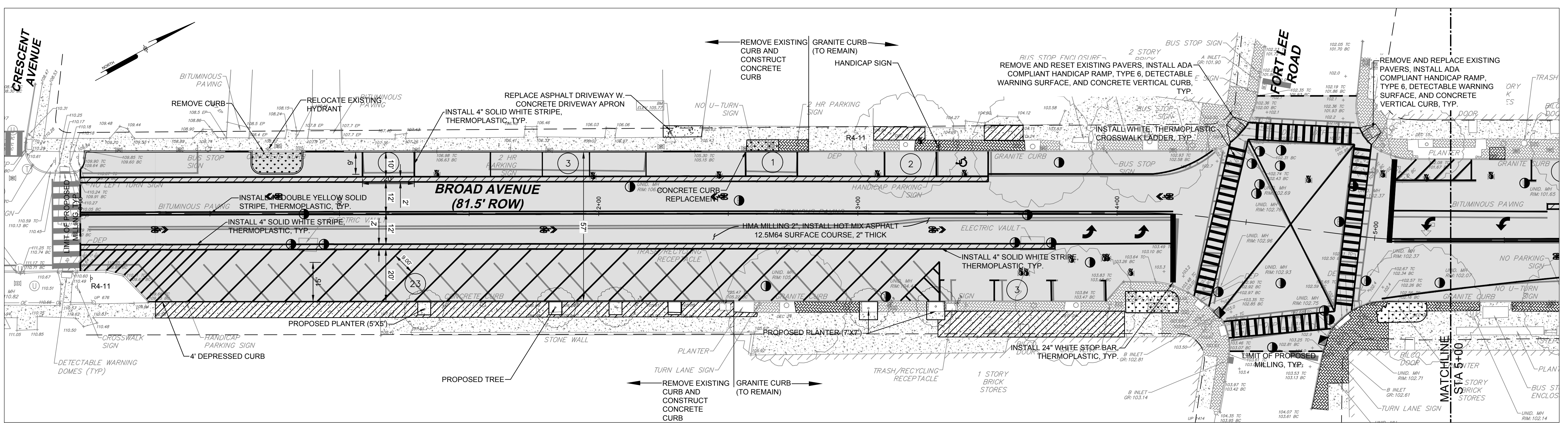
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PROJECT	BRLE022003
DATE	2022-09-16
DRAWING SCALE	AS NOTED
DRAWN BY	PD
APPROVED BY	DR

**NOT FOR CONSTRUCTION**

**CS0002**  
 SHEET 2 OF 9

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 PLOTTED: 09/16/2022 2:48 PM BY: Maura Salazar  
 PROJECT DETAILS  
 PLOTTED: PENNONI ASSOCIATES



**LEGEND**

EXISTING		PROPOSED	
	EXISTING CURB		REMOVE EXISTING CURB AND INSTALL CONCRETE CURB
	EXISTING DEPRESSED CURB		REMOVE EXISTING CURB AND CONSTRUCT CONCRETE DEPRESSED CURB
	ELECTRIC LINE		RESET INLET CASTING WITH TYPE N ECO-CURB PIECE AND BICYCLE SAFE GRATE
	GAS LINE		RESET EXISTING CASTING
	STORM DRAINAGE MANHOLE		RESET GAS VALVE BOX
	SANITARY SEWER MANHOLE		RESET WATER VALVE BOX/WATER METER
	TELEPHONE MANHOLE		INSTALL HANDICAP RAMP AND DETECTABLE WARNING SURFACE
	STORM DRAINAGE INLET		TOP OF CURB
	FIRE HYDRANT		BOTTOM OF CURB
	GAS VALVE		PROPOSED SPOT ELEVATION
	WATER VALVE		INSTALL TYPE B INLET
	SANITARY CLEANOUT		
	UTILITY POLE		
	HISTORIC DISTRICT BOUNDARY		
	TRAFFIC SIGN		
	STREET SIGN		
	SIGNAL LIGHT		
	MAILBOX		
	TREE		TREE TO BE REMOVED
	GRANITE (BELGIAN) BLOCK		MILL ASPHALT PAVEMENT, 3" DEPTH, INSTALL SUPERPAVE HOT MIX ASPHALT 5.5M64 SURFACE COURSE, 2" THICK
	DEPRESSED CURB		REMOVE EXISTING SIDEWALK, INSTALL CONCRETE SIDEWALK, 4" THICK
	ROOF DRAIN		REMOVE EXISTING MATERIAL AND INSTALL TOPSOIL, 4" THICK, HYDROSEEDING, & FIBER MULCHING
	RIGHT-OF-WAY		REMOVE EXISTING DRIVEWAY MATERIAL, INSTALL CONCRETE DRIVEWAY, 6" THICK
	PROPERTY/LOT LINE		RESET BRICK PAVERS
	T.M. BLOCK NUMBER		MEET EXISTING GRADE
	T.M. LOT NUMBER		
	ADDRESS NUMBER		

**CONSTRUCTION NOTES**

- EXISTING BLUESTONE CURBING SHALL BE SALVAGED AND PROVIDED TO THE CLIENT AS DIRECTED BY THE ENGINEER.
- LENGTH OF REPLACEMENT SIDEWALK TO BE DETERMINED IN FIELD BY CONTRACTOR AND APPROVED BY ENGINEER.
- ALL PARKING SPACES ARE MEASURED AT 22' UNLESS OTHERWISE NOTED ON THE PLAN.

0 20' 40'

**NOT FOR CONSTRUCTION**

**Pennoni**

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**DREW M. DISESSA, PE**  
PROFESSIONAL ENGINEER  
NEW JERSEY LICENSE NO. 2460338700

*Drew M. Diessa*  
DATE: 08-16-2022

**BROAD AVENUE (SECTION 11) IMPROVEMENTS**  
CRESCENT AVENUE TO HILLSIDE AVENUE  
LEONIA, NEW JERSEY

**BROAD AVENUE IMPROVEMENTS 1**

BOROUGH OF LEONIA  
312 BROAD AVENUE  
LEONIA, NEW JERSEY 07605

NO.	DATE	REVISIONS	BY

PROJECT: BRLE022003

DATE: 2022-09-16

DRAWING SCALE: 1"=20'

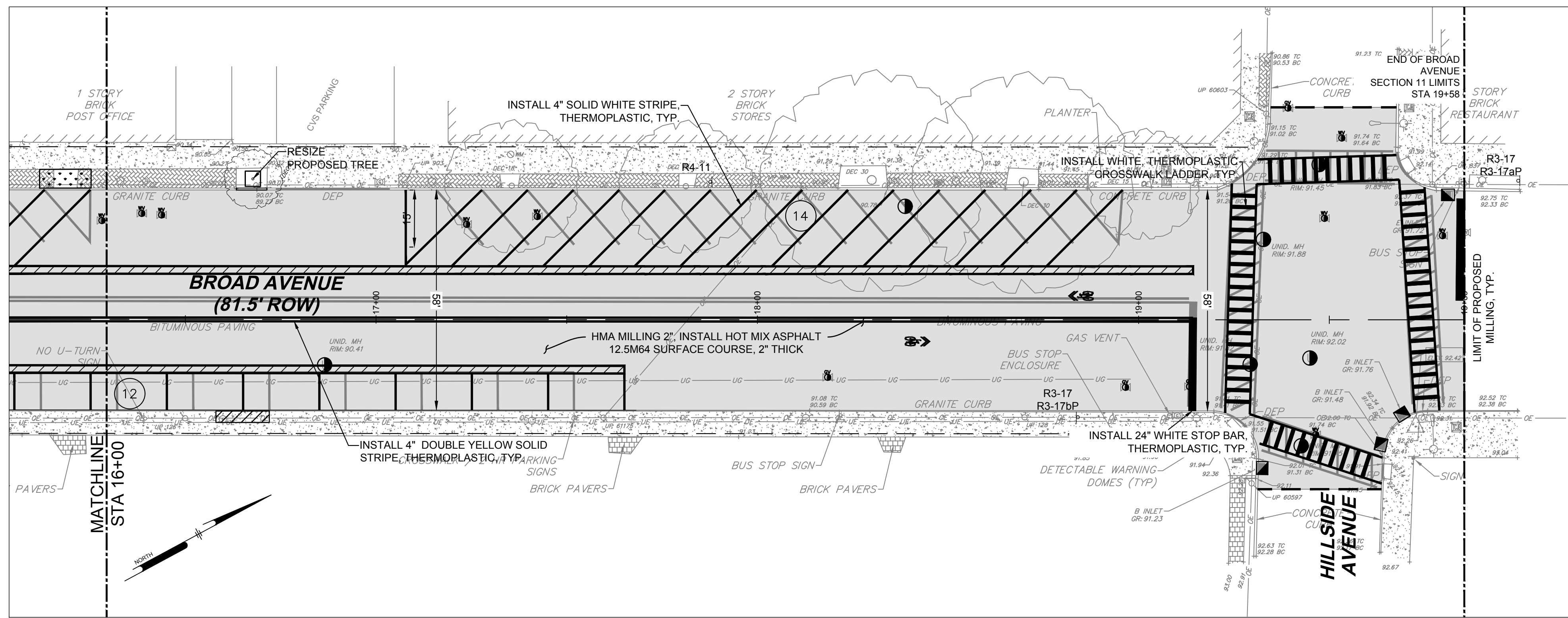
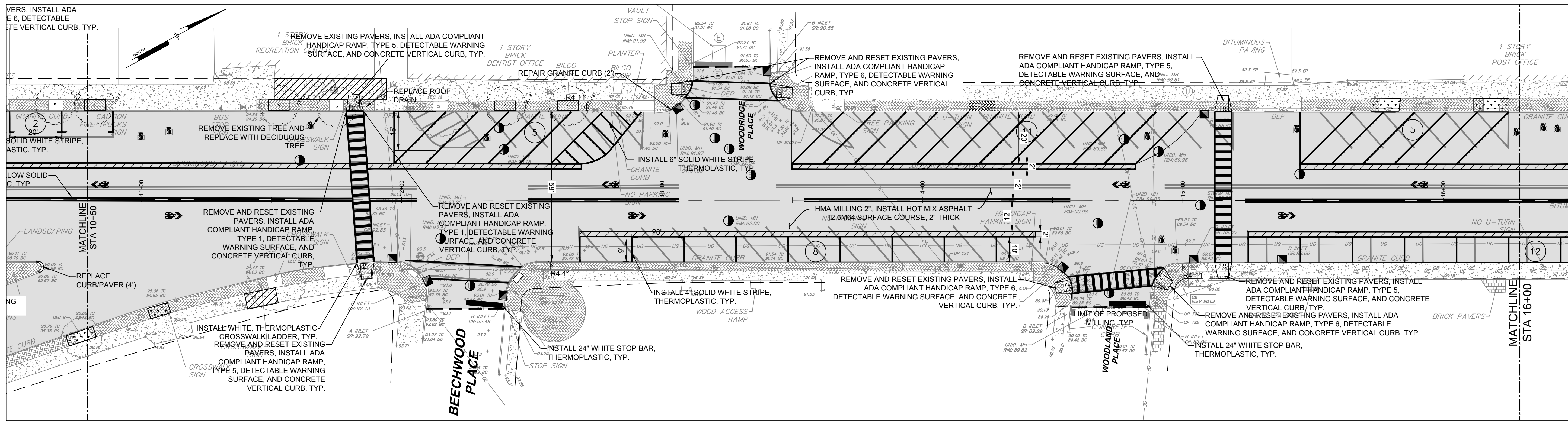
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APPROVED BY: DR

**CS1001**

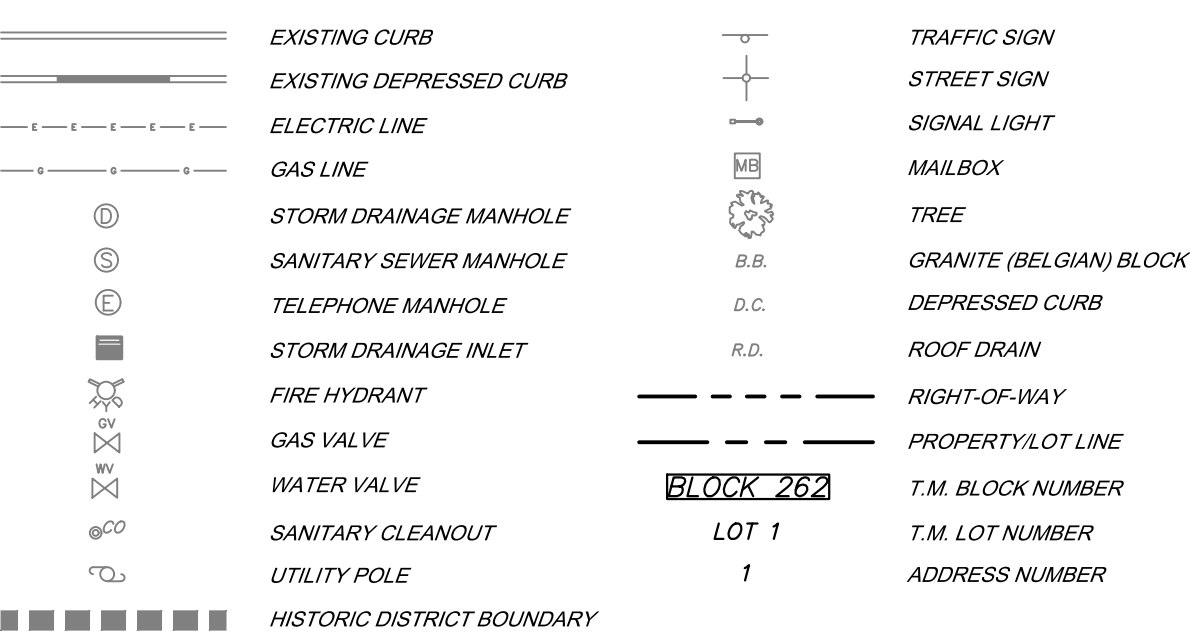
SHEET 3 OF 9

PLOTTED: 11/02/22 2:48 PM BY: Marcus Salazar PROJECT STATUS:   
 PLOTTED BY: Pennoni Associates

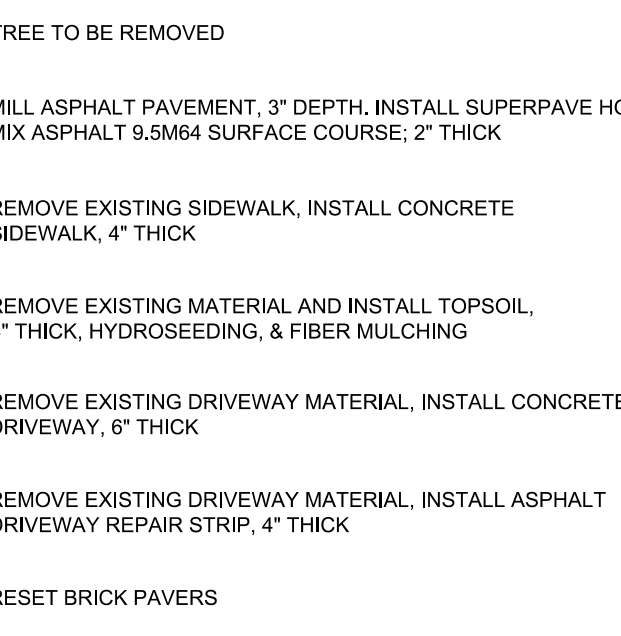
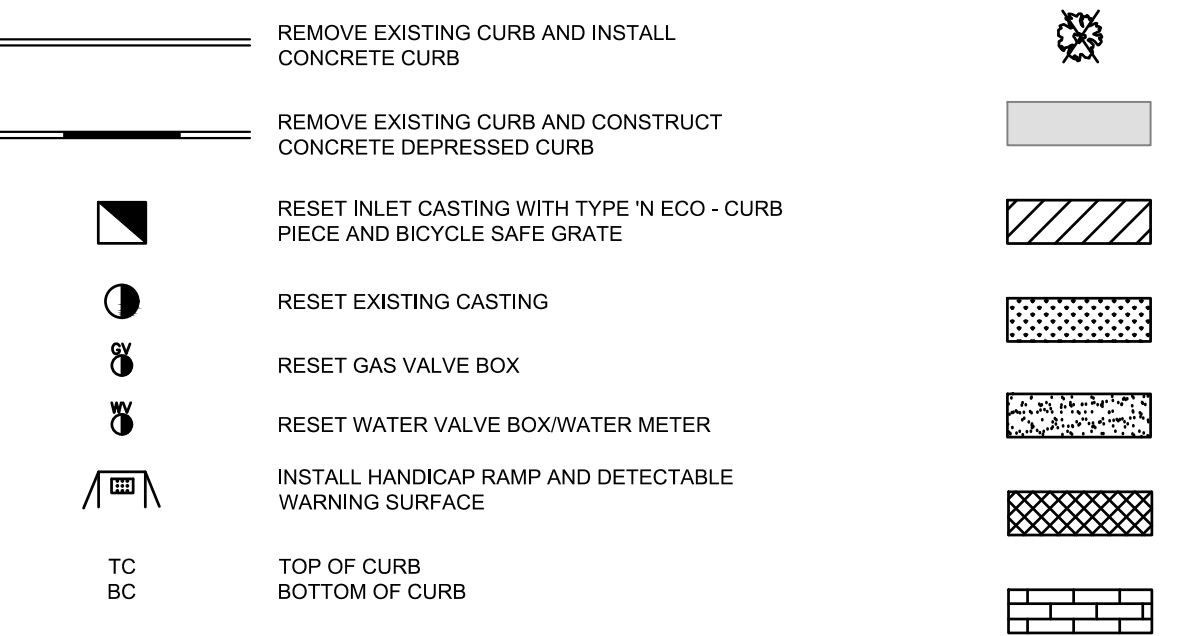


**LEGEND**

**EXISTING**

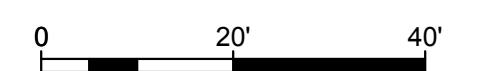


**PROPOSED**



**CONSTRUCTION NOTES**

- EXISTING BLUESTONE CURBING SHALL BE SALVAGED AND PROVIDED TO THE CLIENT AS DIRECTED BY THE ENGINEER.
- LENGTH OF REPLACEMENT SIDEWALK TO BE DETERMINED IN FIELD BY CONTRACTOR AND APPROVED BY ENGINEER.
- ALL PARKING SPACES ARE MEASURED AT 22' UNLESS OTHERWISE NOTED ON THE PLAN.



**NOT FOR CONSTRUCTION**

**PENNONI ASSOCIATES INC.**  
24 Commerce Street, Suite 300  
Newark, NJ 07102  
T 973.265.9775 F 973.265.9774  
NJ COA. NO. GA28033300

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

**DREW M. DISESSA, PE**  
PROFESSIONAL ENGINEER  
NEW JERSEY LICENSE NO. 24CE0383700

*Drew M. Diessa*  
DATE: 08-16-2022

**BROAD AVENUE (SECTION 11) IMPROVEMENTS**  
CRESCENT AVENUE TO HILLSIDE AVENUE  
LEONIA, NEW JERSEY

**BROAD AVENUE IMPROVEMENTS 2**

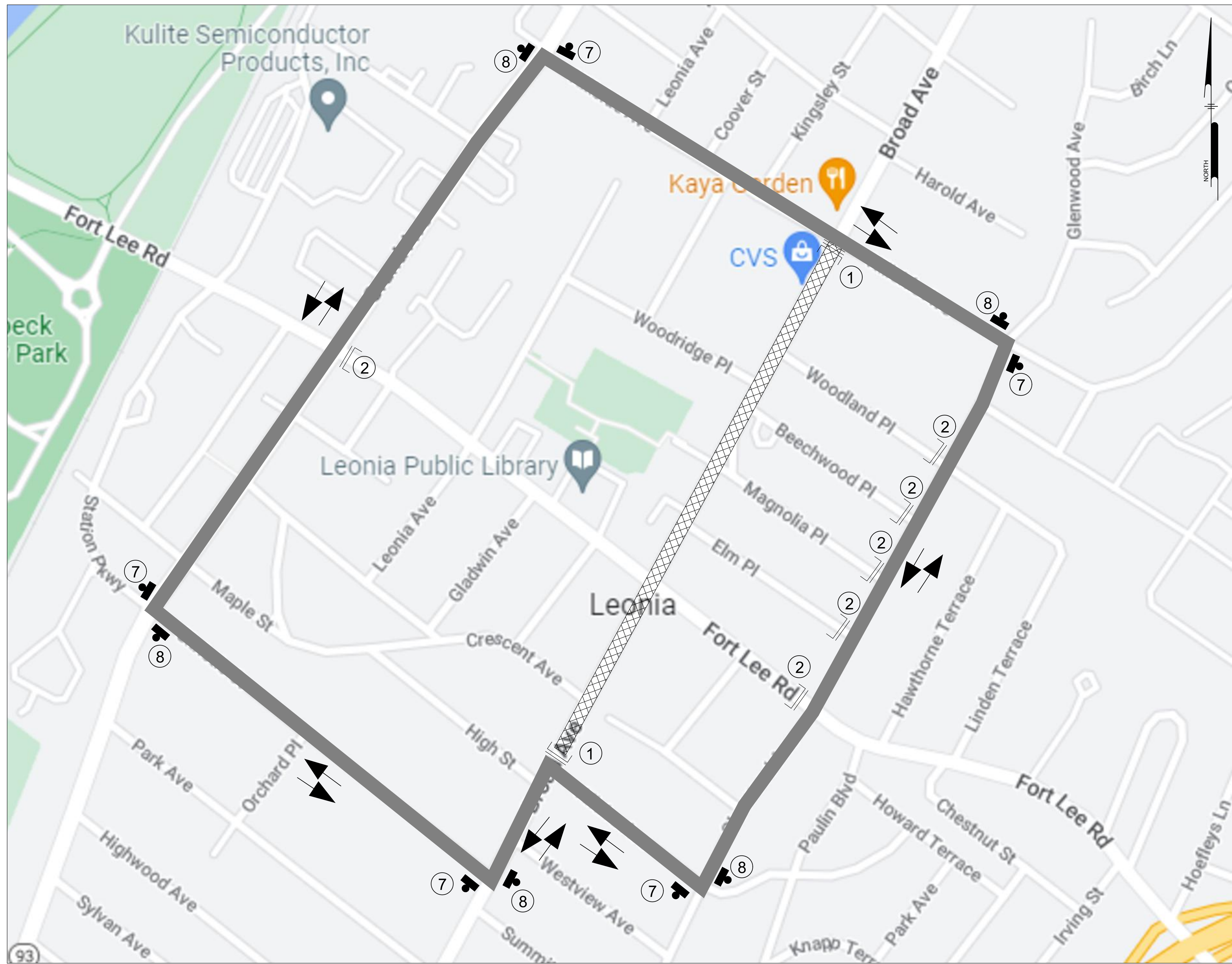
BOROUGH OF LEONIA  
312 BROAD AVENUE  
LEONIA, NEW JERSEY 07605

NO.	DATE	REVISIONS	BY

PROJECT: BRLE022003  
DATE: 2022-09-16  
DRAWING SCALE: 1"=20'  
DRAWN BY: PD  
APPROVED BY: DR

**CS1002**  
SHEET 4 OF 9

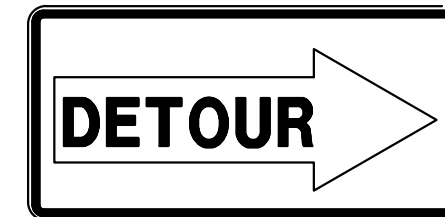
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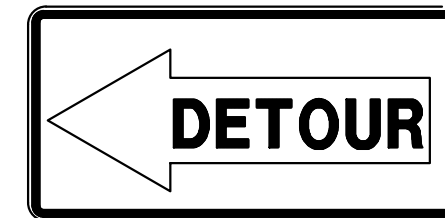
1  
R11-2 'ROAD CLOSED'  
48" X 30"  
BLACK LETTERS ON WHITE BACKGROUND



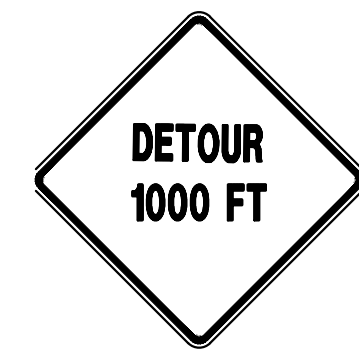
2  
R11-4 'ROAD CLOSED TO THRU TRAFFIC'  
60" X 30"  
BLACK LETTERS ON WHITE BACKGROUND



3  
M4-10R 'DETOUR' INSIDE ARROW (RIGHT)  
48" X 18"  
BLACK LETTERS ON ORANGE BACKGROUND



4  
M4-10L 'DETOUR' INSIDE ARROW (LEFT)  
48" X 18"  
BLACK LETTERS ON ORANGE BACKGROUND



5  
W20-2 'DETOUR 1000 FEET'  
48" X 48"  
BLACK LETTERS ON ORANGE BACKGROUND



6  
M4-8A 'END DETOUR'  
24" X 18"  
BLACK LETTERS ON ORANGE BACKGROUND



7  
M4-9R 'DETOUR' WITH ARROW (RIGHT)  
30" X 24"  
BLACK LETTERS ON ORANGE BACKGROUND



8  
M4-9L 'DETOUR' WITH ARROW (LEFT)  
30" X 24"  
BLACK LETTERS ON ORANGE BACKGROUND



9  
M4-9S 'DETOUR' WITH ARROW (STRAIGHT)  
30" X 24"  
BLACK LETTERS ON ORANGE BACKGROUND



10  
W20-1 'ROAD WORK AHEAD'  
48" X 48"  
BLACK LETTERS ON ORANGE BACKGROUND

NOTE:  
THE FOLLOWING SIGNS ARE TO BE USED  
DURING MILLING AND PAVING  
OPERATIONS AS DIRECTED BY THE  
TOWNSHIP.



W1-RMA 'RAISED MANHOLES AHEAD'  
30" X 30"  
BLACK LETTERS ON ORANGE BACKGROUND



IF AND WHERE DIRECTED BY ENGINEER  
W8-9A 'UNEVEN PAVEMENT'  
30" X 30"  
BLACK LETTERS ON ORANGE BACKGROUND



IF AND WHERE DIRECTED BY ENGINEER  
W8-14A 'GROOVED PAVEMENT'  
30" X 30"  
BLACK LETTERS ON ORANGE BACKGROUND

**LEGEND**

- BREAKAWAY BARRICADE
- BREAKAWAY BARRICADE WITH SIGN
- WORK AREA
- DETOUR ROUTE
- TEMPORARY FLOW OF TRAFFIC/DIRECTION OF DETOUR
- CONSTRUCTION SIGN
- SIGN DESIGNATION

NO.	DATE	REVISIONS	BY

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

PROJECT	BRLE022003
DATE	2022-09-16
DRAWING SCALE	1"=200'
DRAWN BY	PD
APPROVED BY	DR

**NOT FOR CONSTRUCTION**

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 PLOTTED: 09/16/2022 2:48 PM BY: Maura Schmitt PROJECT STATUS: —  
 PLOTTED: 09/16/2022 2:48 PM BY: Maura Schmitt

**MAINTENANCE AND PROTECTION OF TRAFFIC NOTES**

- MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, UNLESS OTHERWISE NOTED IN THE PLANS AND SPECIFICATIONS, AND SHALL BE APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL PLAN AND CARRY OUT HIS WORK TO PROVIDE FOR THE CONVENIENT AND SAFE PASSAGE OF ALL VEHICULAR AND PEDESTRIAN TRAFFIC. THE CONTRACTOR SHALL ALSO PROVIDE A MAINTENANCE PLAN FOR TEMPORARY PEDESTRIAN ACCESS THROUGHOUT CONSTRUCTION.
- THE CONTRACTOR SHALL FOLLOW THE TRAFFIC CONTROL PROCEDURE RECOMMENDED BY THE RESIDENT ENGINEER AND/OR POLICE DEPARTMENT. IF THE CONTRACTOR DESIRES TO CHANGE THE PROCEDURE, HE SHALL PRESENT HIS CHANGES IN WRITING TO THE ENGINEER FOR REVIEW AND APPROVAL. THERE MAY BE UTILITY RELOCATION, ADJUSTMENTS, AND IMPROVEMENTS WHICH ARE NECESSITATED BY THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH EACH OF THE UTILITY COMPANIES LOCATED WITHIN THE PROJECT LIMITS.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING MAINTENANCE AND PROTECTION OF TRAFFIC AND PEDESTRIAN ACCESSIBILITY THROUGHOUT THE DURATION OF CONSTRUCTION. THE COST FOR INDIVIDUAL DEVICES USED TO MAINTAIN AND PROTECT TRAFFIC AND PEDESTRIANS SHALL BE INCLUDED WITHIN THE APPROPRIATE CONTRACT ITEMS. NO SEPARATE PAYMENTS WILL BE MADE FOR RELOCATING THE DEVICES AS REQUIRED, OR OTHER SUCH DEVICES APPROVED BY THE ENGINEER.
- THE CONTRACTOR WILL ONLY BE PERMITTED TO CLOSE DOWN THE STREETS SHOWN ON THE PLAN BETWEEN 8:00 A.M. AND 4:00 P.M. THE CONTRACTOR SHALL PROVIDE MEANS OF ACCESS AT ALL TIMES FOR PEDESTRIAN AND VEHICULAR TRAFFIC AT ALL PRIVATE DRIVEWAYS AND OCCUPIED BUILDINGS AFFECTED BY THE WORK OF THIS CONTRACT. DURING CONSTRUCTION, IN THE VICINITY OF A DRIVEWAY, THE ACCESS WIDTH AT THE DRIVEWAY ENTRANCE SHALL BE PLAINLY MARKED BY LIGHTS, BARRICADES, OR OTHER SUCH DEVICES APPROVED BY THE ENGINEER.
- DURING CONSTRUCTION, ALL ROADS SHALL BE PROPERLY MAINTAINED TO ACCOMMODATE EMERGENCY VEHICLES AT ALL TIMES.
- ALL BARRICADES SHALL BE TYPE III BREAK AWAY BARRICADES.
- PRIOR TO ANY ROAD CONSTRUCTION, TRAFFIC CONTROL, SIGNS AND DEVICES SHALL BE IN PLACE.
- ALL EXISTING ROAD SIGN, PAVEMENT MARKINGS AND/OR PLOWABLE PAVEMENT REFLECTORS WHICH CONFLICT WITH THE PROPOSED TRAFFIC CONTROL PLAN SHALL BE COVERED, REMOVED OR RELOCATED AS DIRECTED BY THE ENGINEER.
- THE FINAL HOT MIX ASPHALT PAVEMENT SHALL NOT BE CONSTRUCTED UNTIL THE FINAL STAGE OF THE PROJECT. MANHOLES AND INLETS SHALL BE SET TO FINISHED GRADE AND TEMPORARY PAVEMENT RAMPS ARE TO BE CONSTRUCTED AROUND THEM WITH A MINIMUM 20H:1V SLOPE IN ALL DIRECTIONS USING HOT MIX ASPHALT PAVEMENT. THIS TEMPORARY MATERIAL WILL BE REMOVED IMMEDIATELY PRIOR PLACING THE SURFACE COURSE.
- TRAFFIC CONTROL DEVICES FOR LANE CLOSURE INCLUDING SIGNS, CONES, BARRICADES, ETC. SHALL BE PLACED AS REQUIRED IN THE LATEST EDITION OF THE MUTCD. SIGNS SHALL NOT BE PLACED WITHOUT ACTUAL LANE CLOSURE AND SHALL BE IMMEDIATELY REMOVED UPON REMOVAL OF THE CLOSURES.
- RAMPS AND/OR SIDE STREETS ENTERING THE ROADWAY AFTER THE FIRST ADVANCE WARNING SIGN SHALL BE PROVIDED WITH AT LEAST ONE W20-IF SIGN (ROAD WORK AHEAD) AS A MINIMUM.
- CONSTRUCTION SIGNS R11-3A (ROAD CLOSED LOCAL TRAFFIC ONLY) SHALL BE PLACED AT THE INTERSECTING STREETS WHICH ARE CLOSED TO TRAFFIC BECAUSE OF CONSTRUCTION.
- TRAFFIC SAFETY SERVICES SHALL BE USED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL, SECTION 610.
- CONES MAY BE SUBSTITUTED FOR DRUMS AND INSTALLED UPON THE APPROVAL OF THE ENGINEER.
- CONSTRUCTION SIGNS W8-9A (SYMBOL FOR UNEVEN PAVEMENT) AND W8-14A (GROOVED PAVEMENT) SHALL BE USED WHEN SUCH PAVEMENT CONDITIONS EXIST. THE PLACEMENT OF THESE SIGNS SHALL BE AS DIRECTED BY THE ENGINEER.

**GENERAL NOTES:**

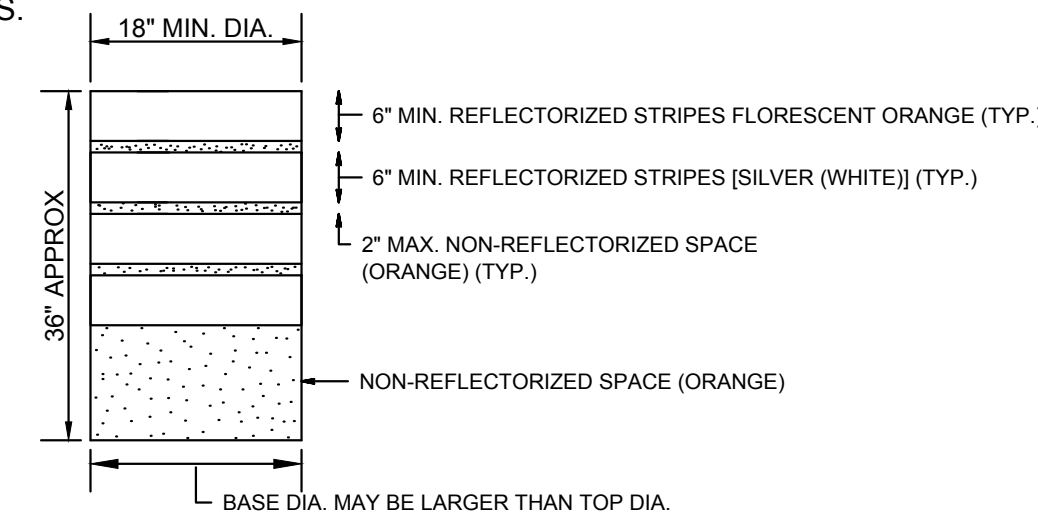
- NO WORK SHALL BE DONE WHICH WILL DECREASE ANY TRAVEL LANE WIDTH PRIOR TO 8:00 A.M. OR AFTER 4:00 P.M. MONDAY THROUGH FRIDAY, INCLUSIVE. WORK WHICH WILL INTERFERE WITH TRAFFIC OR RESTRICT THE WIDTH OF TRAVELED WAY FOR TRAFFIC SHALL NOT BE PERFORMED ON SATURDAYS, SUNDAYS, OR LEGAL HOLIDAYS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- ALL OPEN EXCAVATIONS MUST BE PROTECTED WITH BARRELS OR AS DIRECTED BY ENGINEER.
- THE CONTRACTOR SHALL OPEN UP THE ENTIRE ROAD AT 4:00 P.M.
- THE CONTRACTOR SHALL PROVIDE A RAMP AT BOTH ENDS OF HIS WORK ZONE AND INTERSECTION STREETS PRIOR TO OPENING UP THE ENTIRE ROAD AT 4:00 P.M.
- THE CONTRACTOR SHALL USE TRAINED FLAGGERS AS SPECIFIED IN SECTION 159 OF 2019 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION TO SAFELY CONTROL TRAFFIC OPERATIONS THROUGH OUT THE JOB SITE.
- THE CONTRACTOR SHALL COORDINATE ALL DETOURS AND STREET CLOSINGS WITH CITY ENGINEER AND POLICE TRAFFIC SAFETY OFFICER.

**DRUM NOTES:**

DRUMS SHALL BE MADE OF ORANGE PLASTIC WITH A MINIMUM OF FOUR ALTERNATE FLUORESCENT ORANGE AND SILVER (WHITE) RETROREFLECTIVE STRIPES. IF THERE ARE NON-REFLECTORIZED SPACES BETWEEN THE STRIPES, THEY SHALL BE NO MORE THAN 2" WIDE. RETROREFLECTIVE SHEETING FOR STRIPES SHALL CONFORM WITH ASTM D 4956 S2 REQUIREMENTS AND SHALL BE FROM THE APPROVED PRODUCTS LIST MAINTAINED BY THE BUREAU OF QUALITY MANAGEMENT SERVICES, NEW TECHNOLOGIES AND PRODUCTS SECTION.

THE TOP OF THE DRUM SHALL NOT BE OPEN. DRUMS SHALL BE CONSTRUCTED TO INHIBIT ROLLING IF KNOCKED OVER.

THE REFLECTORIZED AREA OF DRUMS SHALL BE ROUND EXCEPT THAT OTHER SHAPES, WHICH PROVIDE THE SAME VISIBILITY AS AN 18 INCH DIAMETER ROUND DRUM REGARDLESS OF ORIENTATION, MAY BE USED IF APPROVED BY THE BUREAU OF MATERIALS.



WHEN BALLAST IS REQUIRED BY THE ENGINEER, SAND SHALL BE USED. THE MAXIMUM WEIGHT OF THE BALLAST SHALL BE 50 LBS. AND BE LOCATED APPROXIMATELY AT GROUND LEVEL.

**DRUMS  
NTS**

**CONSTRUCTION SIGN NOTES:**

- DIMENSIONS, COLORS AND DETAILS OF VARIOUS SIZE SIGNS, AND ACCESSORY PANELS TO FOLLOW STANDARDS IN CURRENT "STANDARD HIGHWAY SIGN PUBLICATION" AND THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".
- LETTERS AND NUMERALS SHALL CONFORM TO THE CURRENT MANUAL, "STANDARD ALPHABETS FOR HIGHWAY SIGNS" U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.
- THE CONTRACTOR SHALL OBTAIN THE APPROVAL OF THE ENGINEER FOR THE DISTANCE TO BE USED ON THE ADVANCE WARNING SIGNS.

**BACKING MATERIAL**

- ALUMINUM SHALL BE FLAT SHEET OF ALLOY 5052-H38 OR 6061-T6 ALLOY, 0.10 GAUGE.

**TEMPORARY SIGN SUPPORTS**

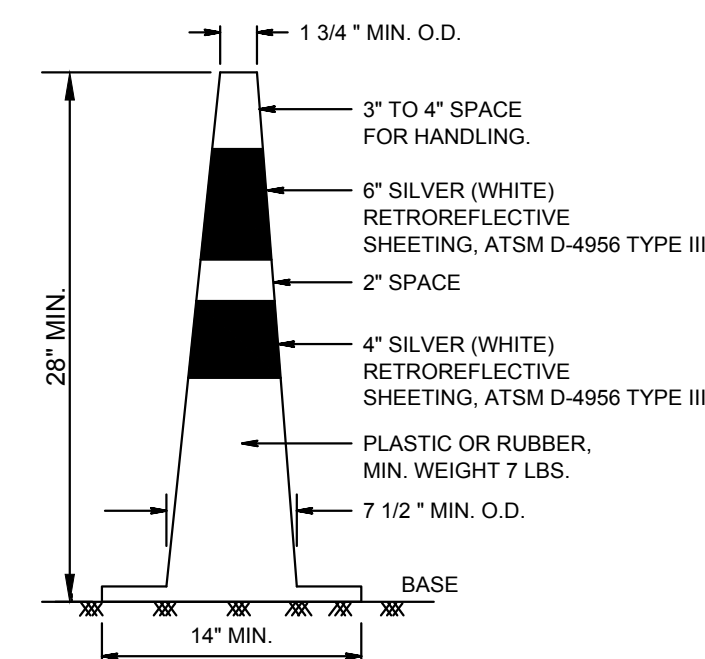
- SIGN SUPPORTS SHALL BE OF WELL SEASONED LUMBER, S4S, FREE OF SPLITS, KNOTS AND WARPS OR OF STEEL COMPONENTS.
- WOOD POSTS SHALL HAVE A UNIFORM CROSS-SECTION AND SHALL NOT EXCEED THE FOLLOWING DIMENSIONS FOR:  
 SINGLE POST = 4" x 6"  
 TWO POSTS = 3" x 6" OR 4" x 5"  
 THREE POSTS = 3" x 5" OR 4" x 4"  
 4" X 6" WOOD POSTS SHALL BE MODIFIED BY DRILLING 1 1/2 INCH DIAMETER HOLES 4 INCHES AND 18 INCHES ABOVE THE GROUND LINE AND PERPENDICULAR TO THE ROADWAY CENTERLINE.
- NO BRACING IS PERMITTED. VERTICAL CLEARANCES FOR SIGNS MOUNTED ON WOOD SUPPORTS SHALL BE 7 FOOT MINIMUM. EMBEDMENT DEPTH FOR THE WOOD POSTS SHALL NOT EXCEED 3.5 FEET.
- STEEL POSTS SHALL BE IN ACCORDANCE WITH THE NJDOT STANDARD DETAIL FOR U-POST SIGN SUPPORT.
- TEMPORARY SIGN SUPPORTS NOT MEETING THIS CRITERIA SHALL BE SHIELDED BE A LONGITUDINAL BARRIER OR CRASH CUSHION.

**SIGN FACES**

- SIGN FACES SHALL BE ASTM D 4956 TYPE VII OR VIII FLUORESCENT ORANGE SHEETING.

**FASTENING**

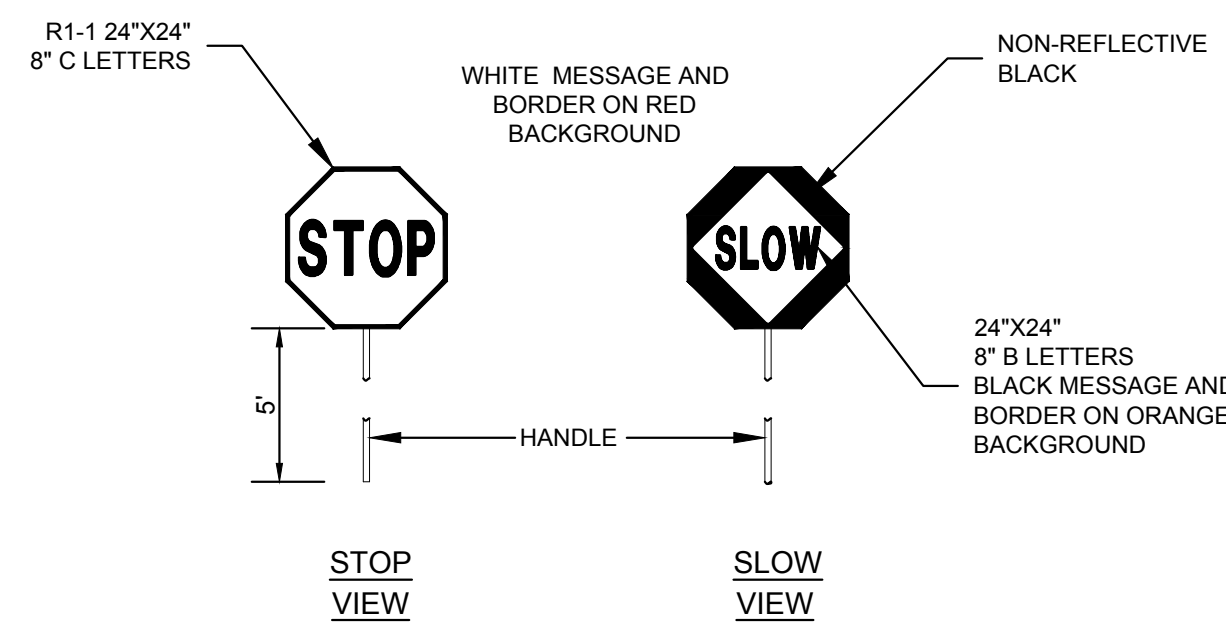
- ALL SIGNS SHALL BE SECURELY FASTENED TO THEIR SUPPORTS WITH BOLTS, NUTS, AND WASHERS IN ACCORDANCE TO THE SPECIFICATIONS.



**NOTES:**

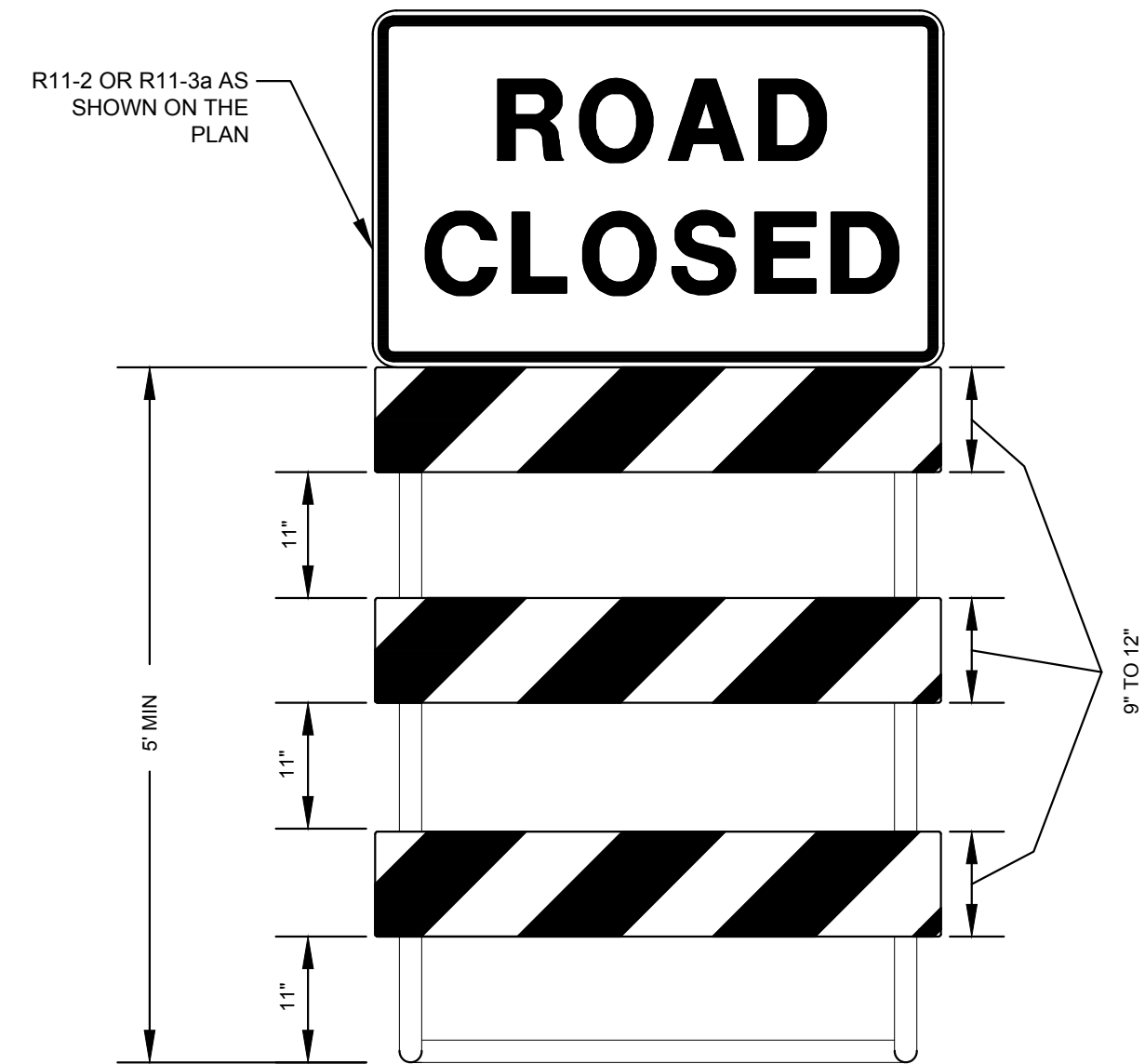
- TRAFFIC CONES SHALL BE ORANGE IN COLOR WITH REFLECTIVE SHEETING.
- BASES MAY BE OF BREAKAWAY BALLASTED TYPE.
- MINOR MANUFACTURER'S VARIATIONS MAY BE ACCEPTABLE UPON APPROVAL OF THE ENGINEER.

**TRAFFIC CONES**



NOTE:  
SIGN FACES SHALL BE RETRO-REFLECTIVE SHEETING, ASTM D 4956 TYPE III.

**STOP/SLOW PADDLE  
NTS**



**TYPE III BARRICADE - FRONT VIEW  
NTS**

**TYPE III BARRICADE NOTES:**

- THE 9" MIN. X 48" OR 12" MAX X 48" BARRICADE RAILS SHALL BE FABRICATED FROM 0.125" MAX. PLASTIC SHEETING AND SHALL BE ATTACHED, 4 PER RAIL, WITH 1 INCH NO. 14 PAN HEAD METAL SCREWS OR PLASTIC RIVETS. ALL CORNERS SHALL BE ROUNDED.
- ORANGE AND SILVER (WHITE) STRIPES SHALL BE RETROREFLECTIVE SHEETING, ASTM D-4956 TYPE III, AS SHOWN FOR CONSTRUCTION SIGNS. ALTERNATIVE ORANGE AND SILVER (WHITE) STRIPES 6" WIDE SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TRAFFIC IS TO PASS.
- IF NECESSARY, THE SANDBAGS SHALL BE FABRICATED AND PLACED ACCORDING TO THE MANUFACTURE'S RECOMMENDATION.
- THE FRAMING FOR BARRICADE PANELS SHALL BE NCHRP-350 CRASHED TESTED AND FHWA APPROVED, SEE SPECIFICATION SUBSECTION 617.03.
- AS SHOWN ON THE PLAN, AFFIX SIGN R11-2, R11-3a, M4-10R, OR M4-10L ON TYPE III BARRICADE.

PROJECT DETAILS: PENNONI ASSOCIATES INC. 24 COMMERCE STREET, SUITE 300, NEWARK, NJ 07102. T 973.265.9775 F 973.265.9774 NJ COA. NO. GA28033300

**Pennoni**  
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 Newark, NJ 07102  
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 NJ COA. NO. GA28033300

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

**DREW M. DISESSA, PE**  
 PROFESSIONAL ENGINEER  
 NEW JERSEY LICENSE NO. 24CE03839700

*Drew M. Diessa*  
 DATE: 08-16-2022

**BROAD AVENUE (SECTION 11) IMPROVEMENTS**  
 CRESCENT AVENUE TO HILLSIDE AVENUE  
 LEONIA, NEW JERSEY

**MAINTENANCE AND PROTECTION OF TRAFFIC  
DETAILS**

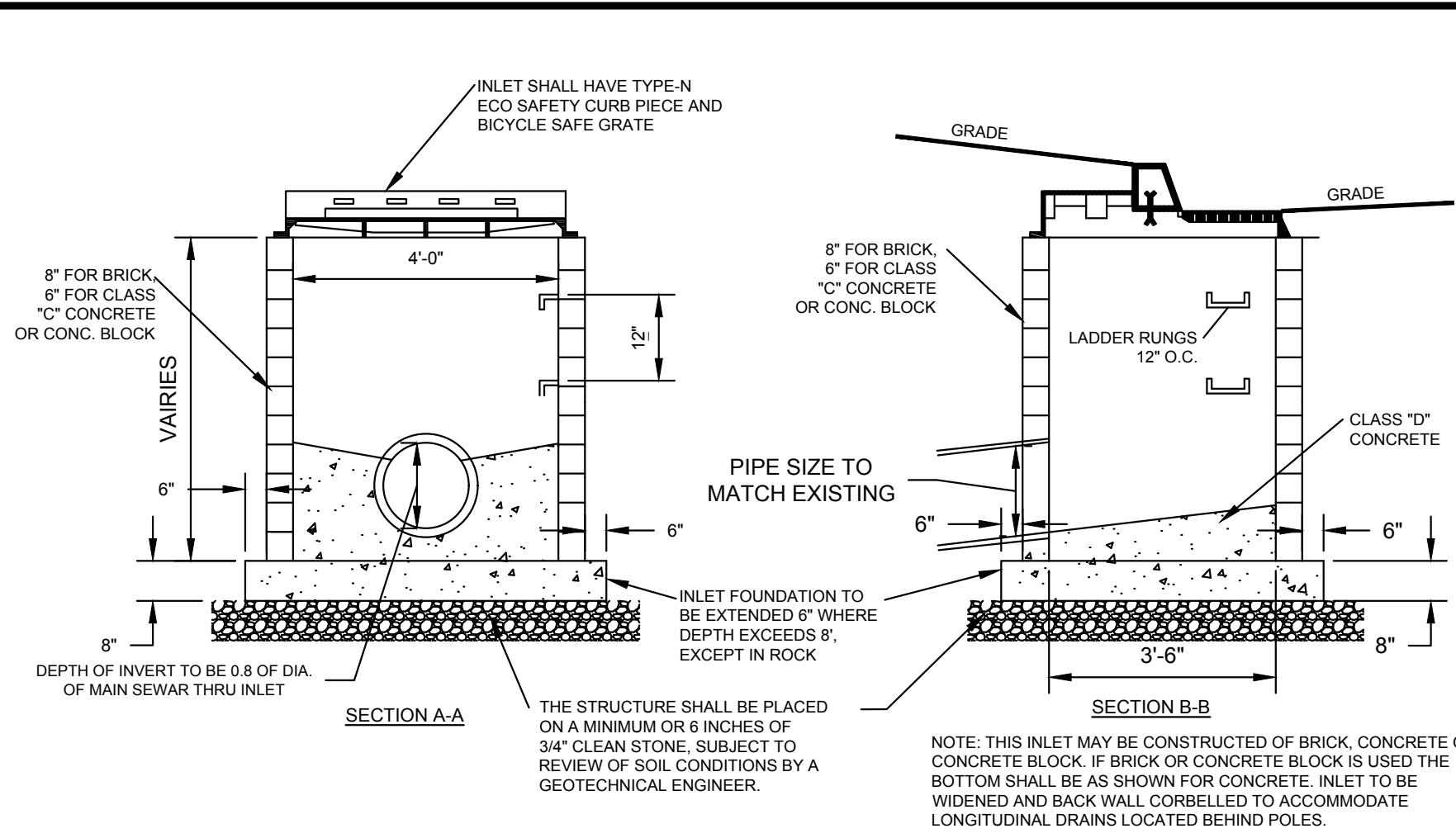
BOROUGH OF LEONIA  
 312 BROAD AVENUE  
 LEONIA, NEW JERSEY 07605

NO.	DATE	REVISIONS	BY

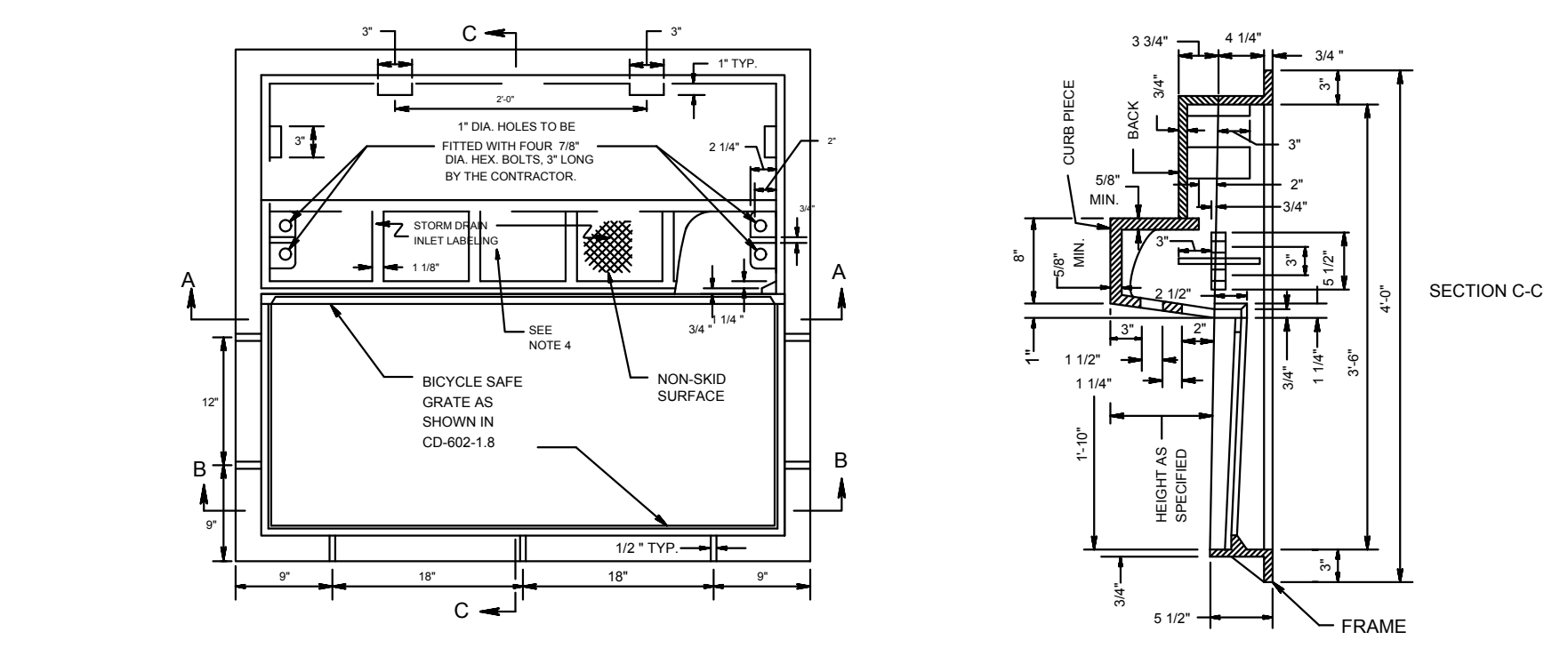
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PROJECT	BRLE022003
DATE	2022-09-16
DRAWING SCALE	AS NOTED
DRAWN BY	PD
APPROVED BY	DR

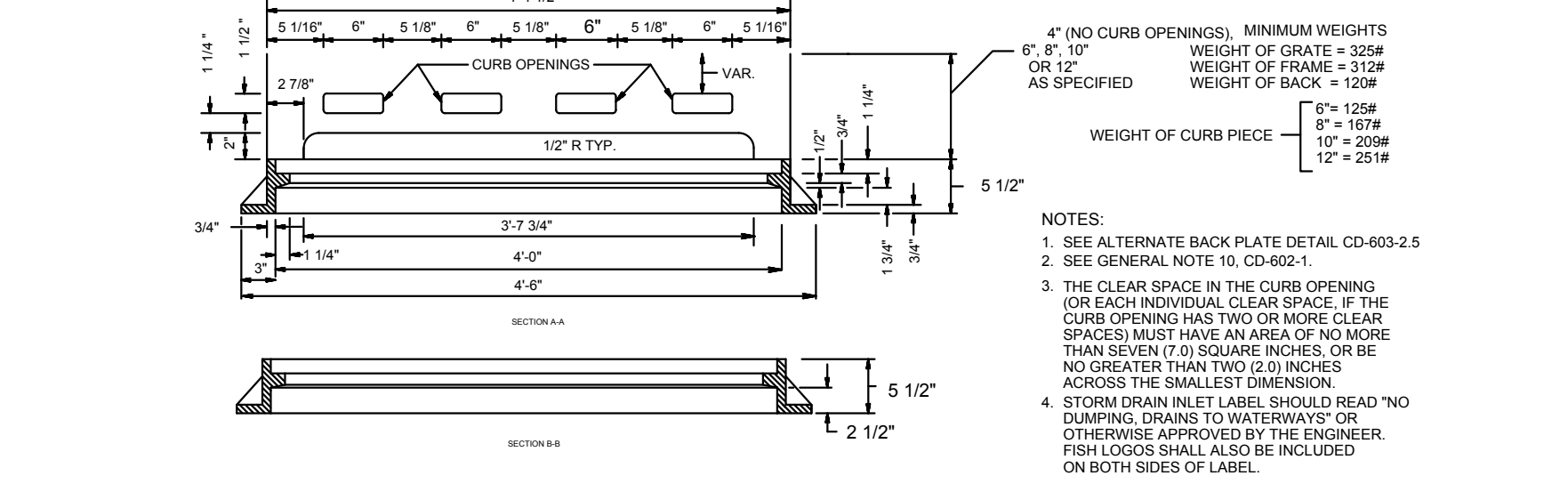
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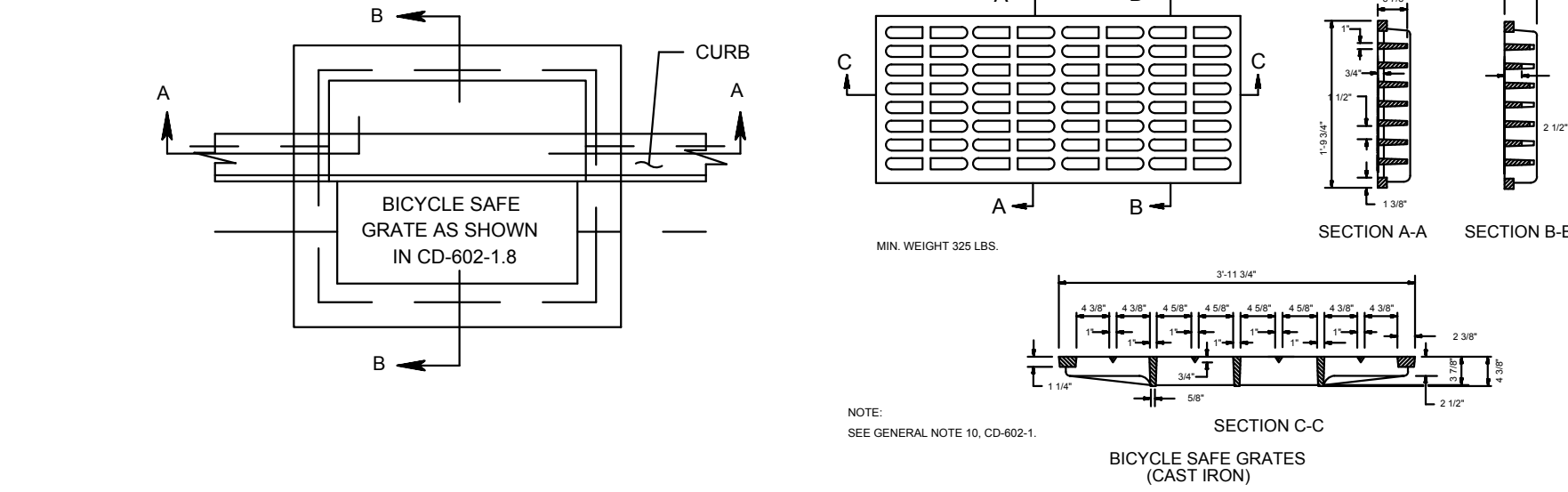
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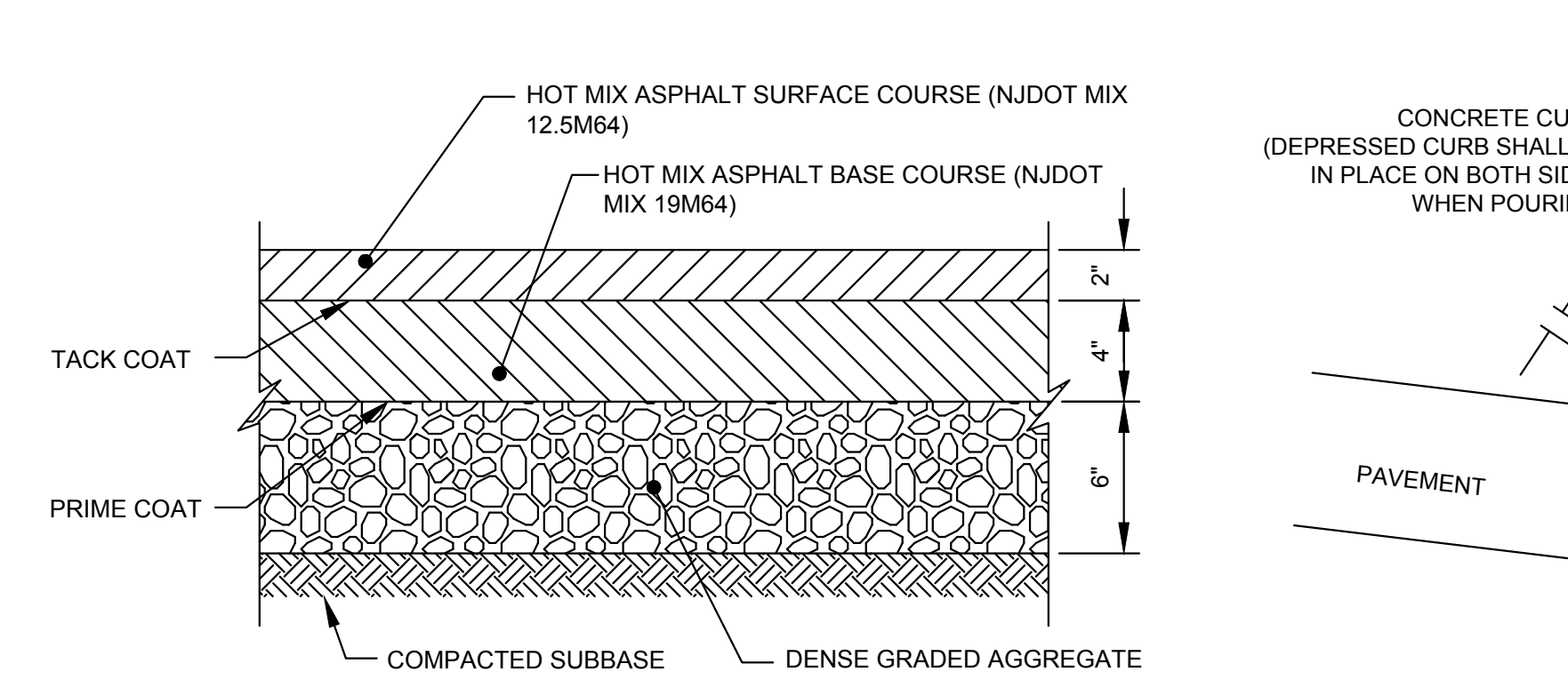
**NEW OR RESET GRANITE CURB**  
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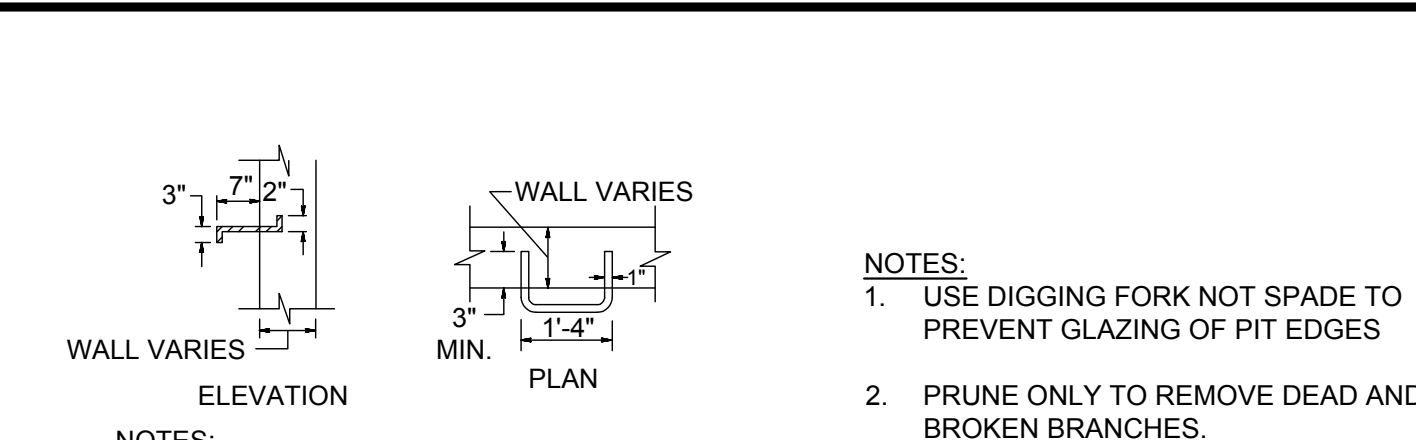
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CD-603-2.1  
N.T.S.



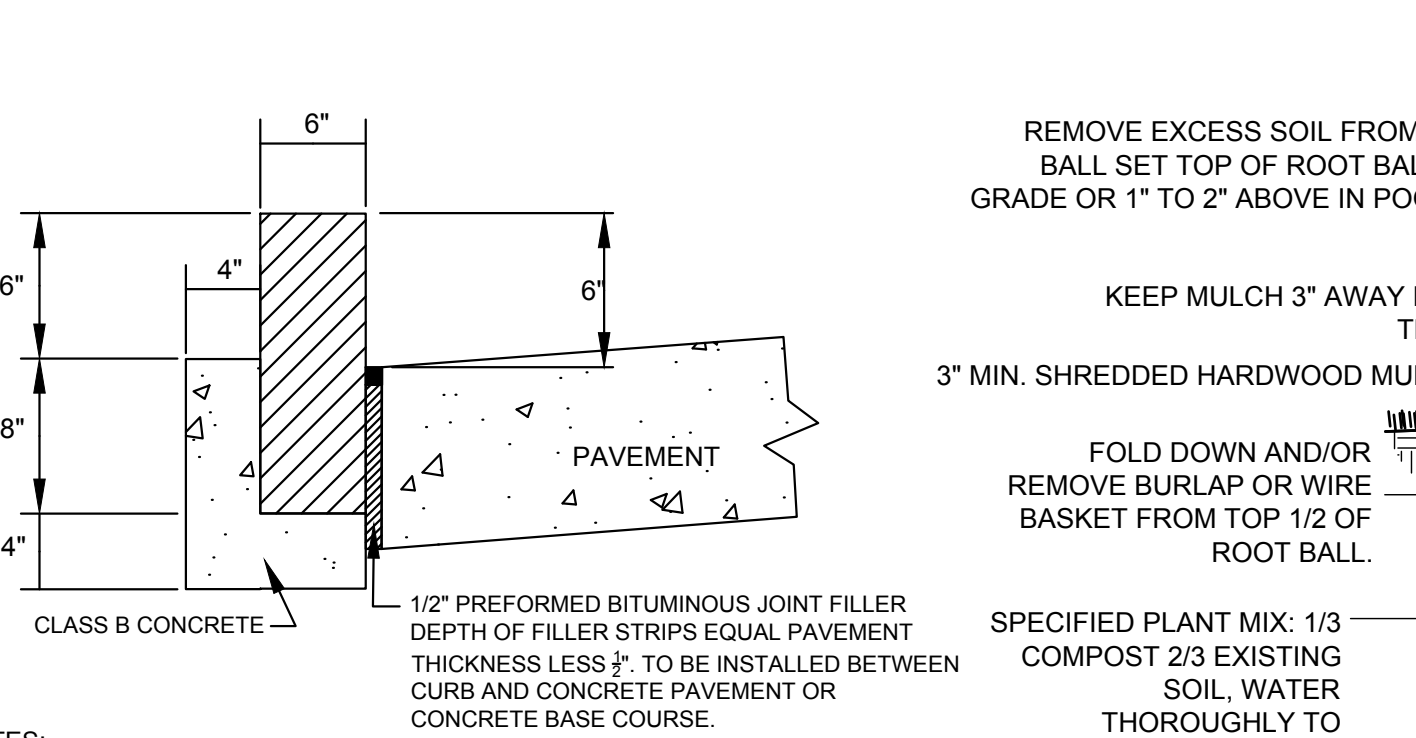
**BICYCLE SAFE GRATE**  
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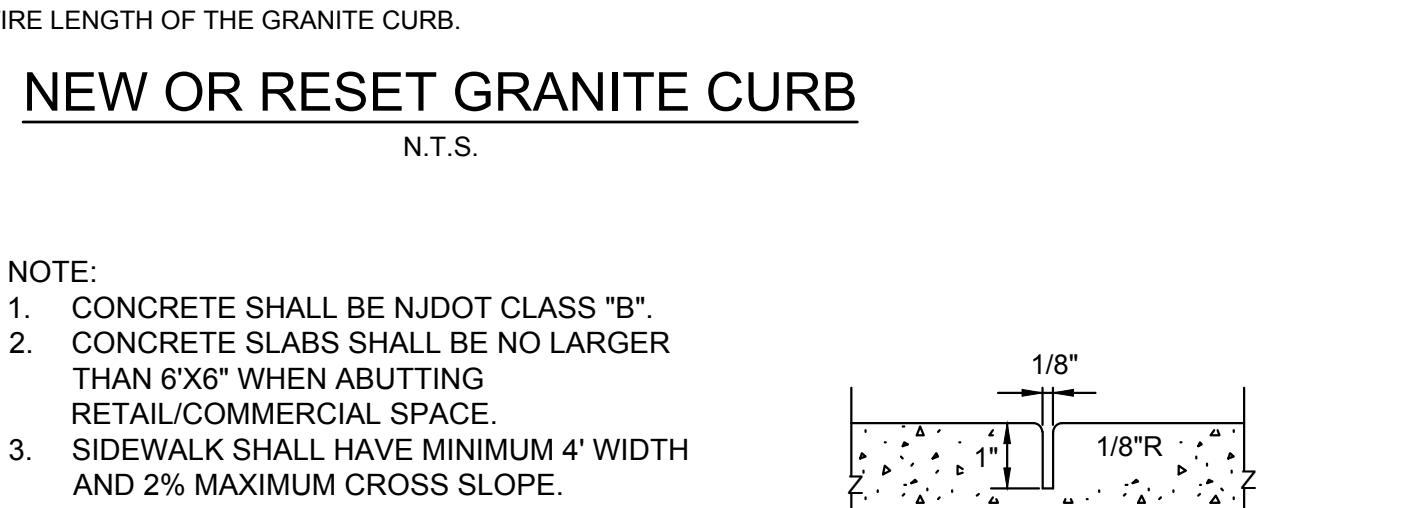
**FULL-DEPTH PAVEMENT RESTORATION**  
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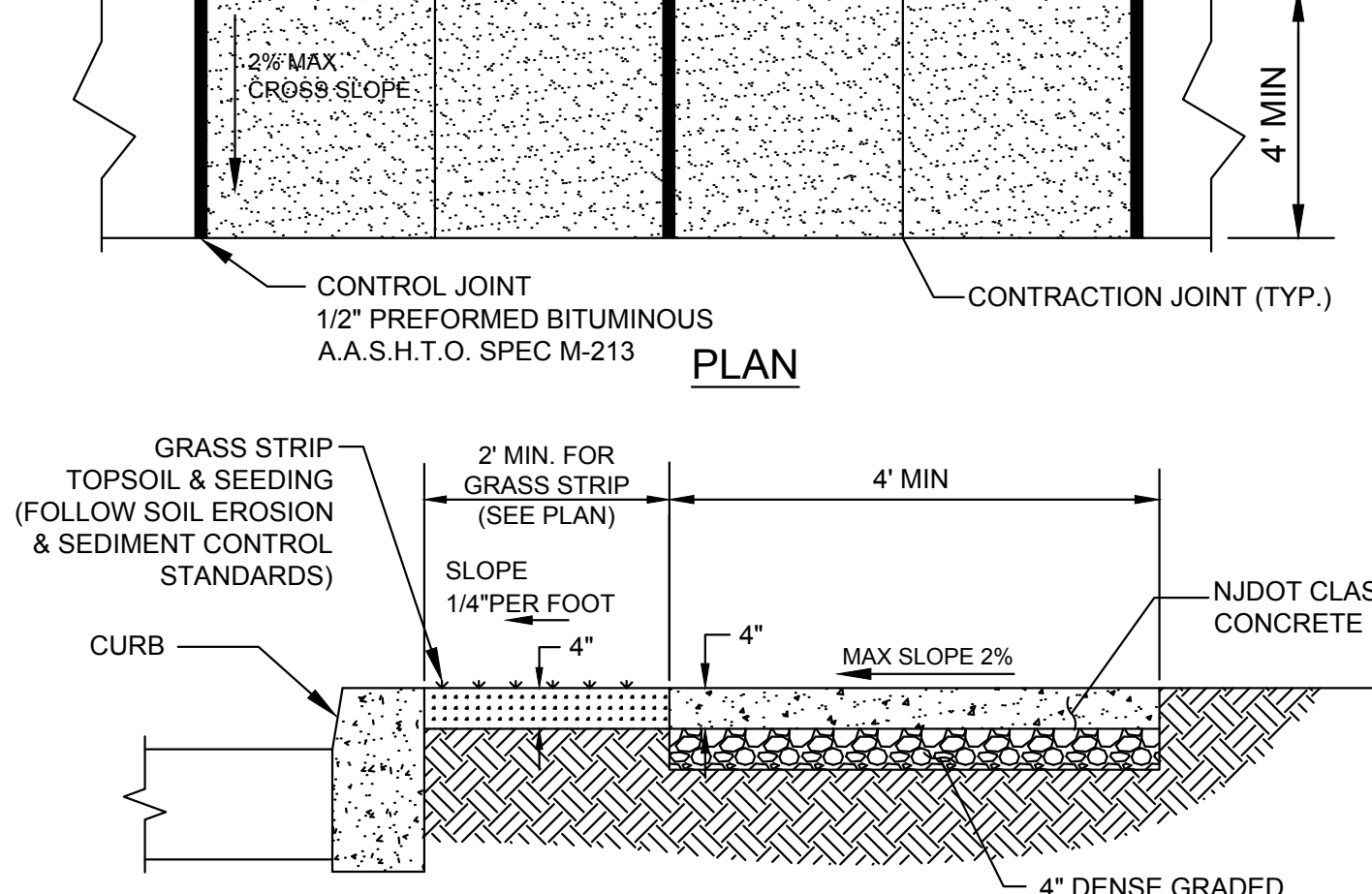
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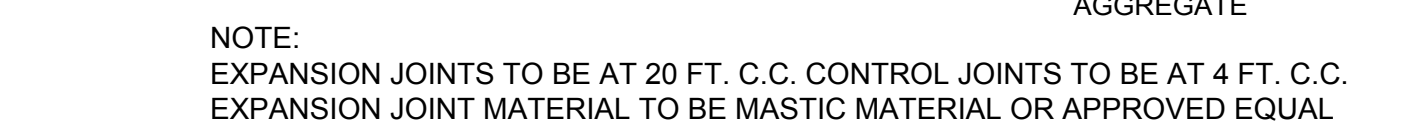
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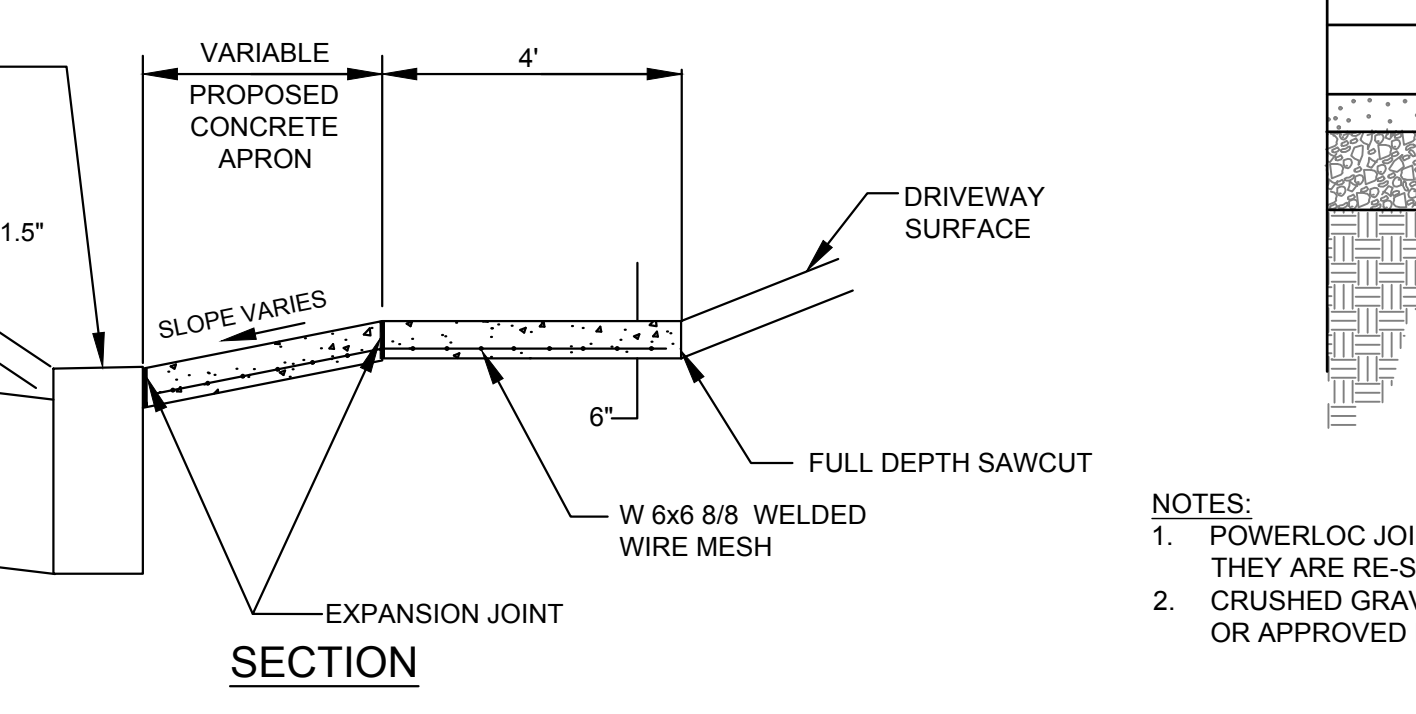
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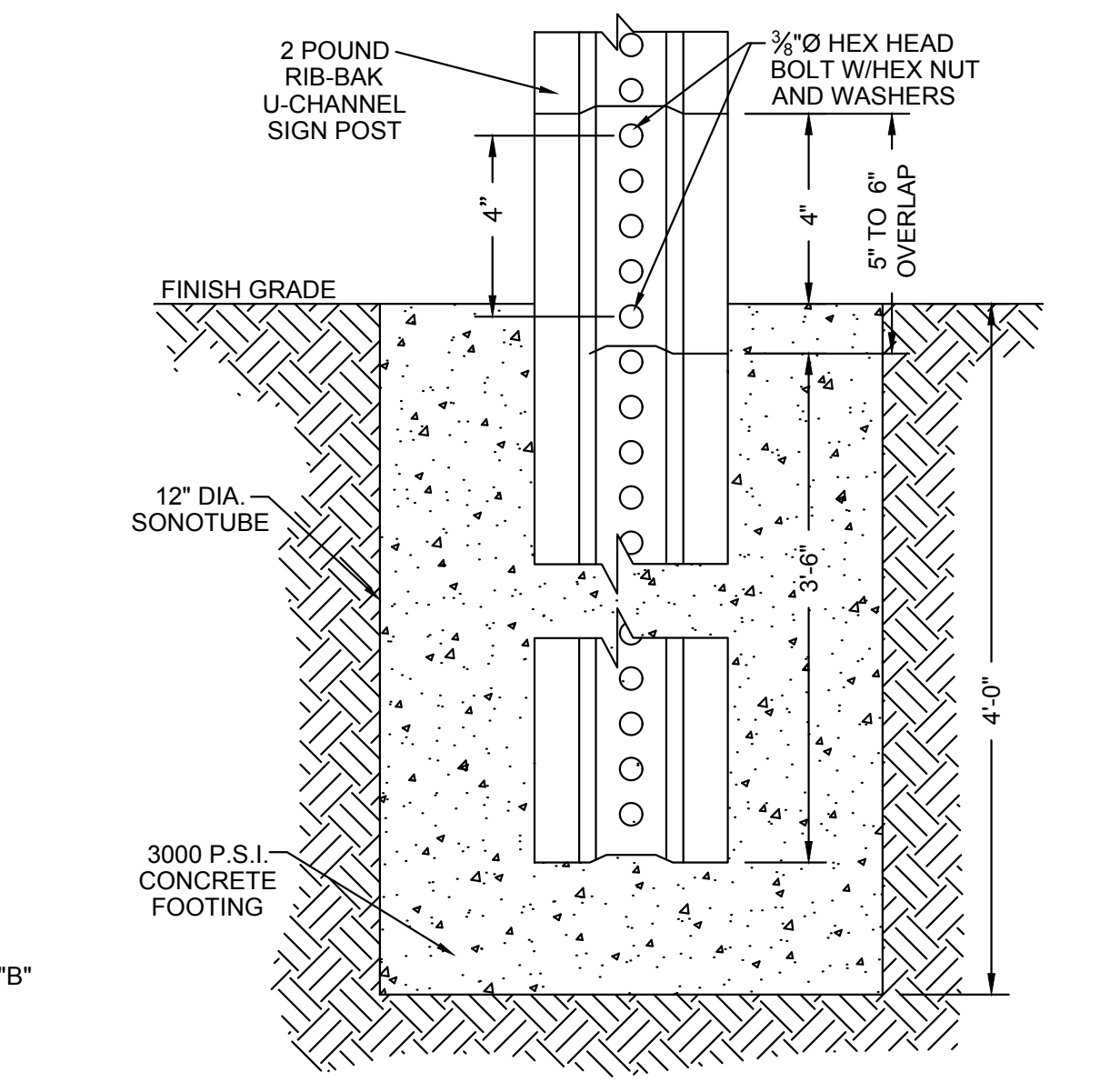
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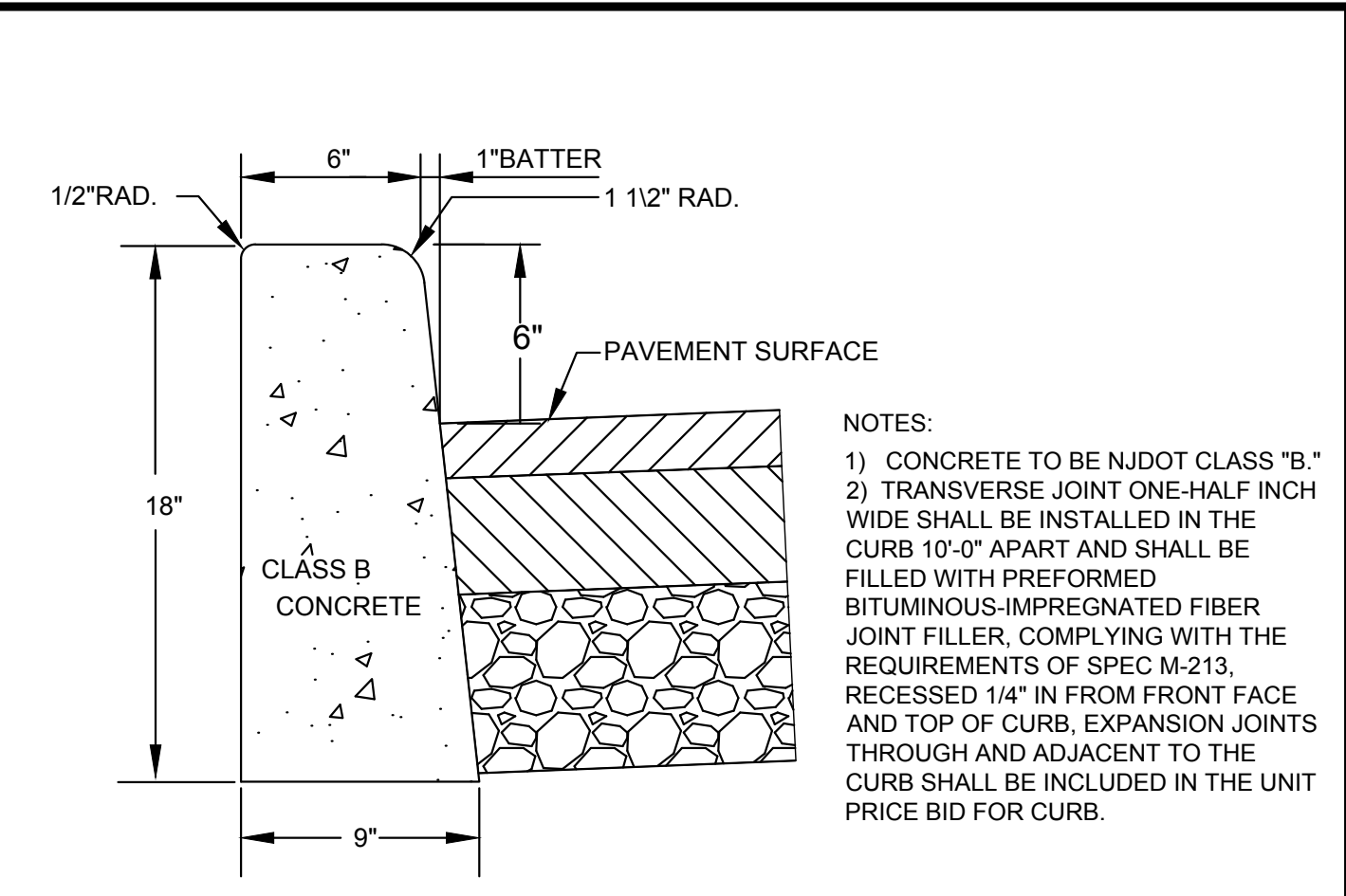
**CONCRETE SIDEWALK DETAILS**  
N.T.S.



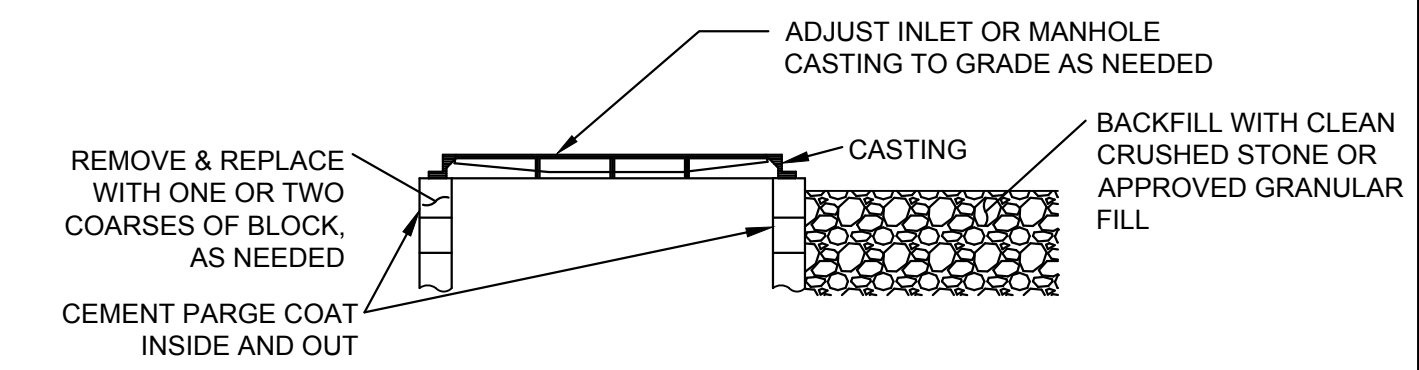
**CONSTRUCTION OF CONCRETE DRIVEWAY, 6\"/>**



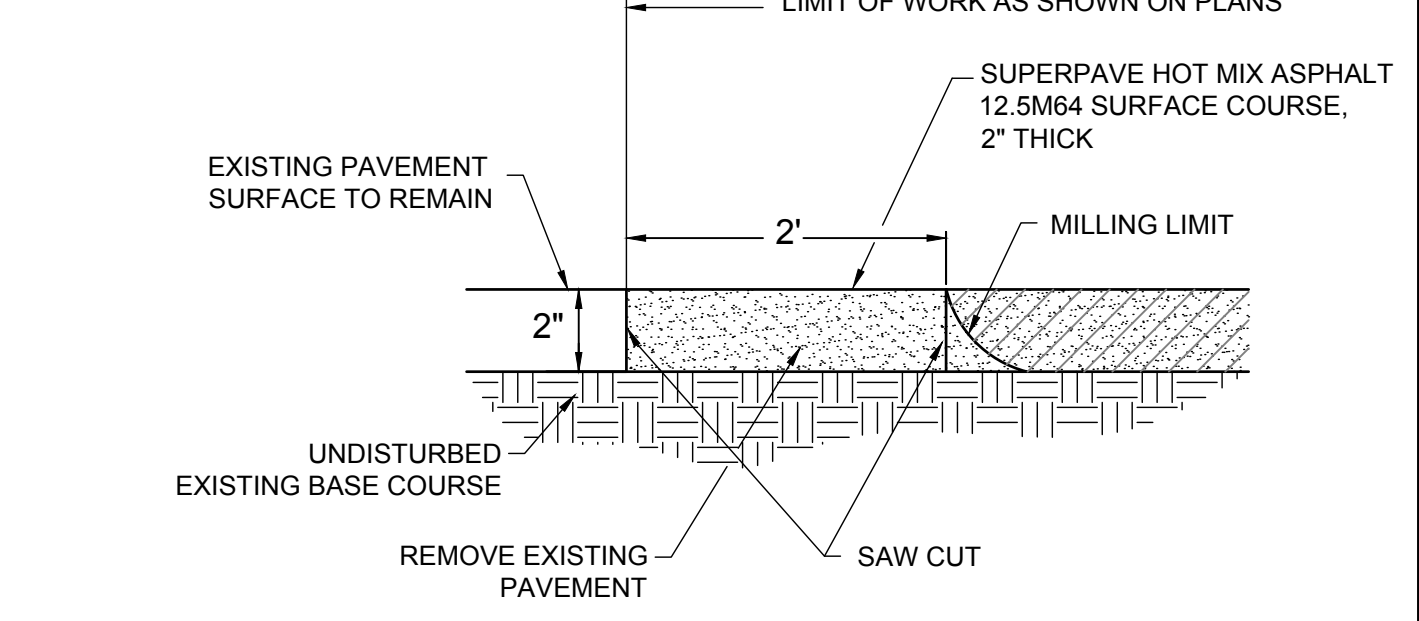
**TYPICAL PAVER DETAIL**  
N.T.S.



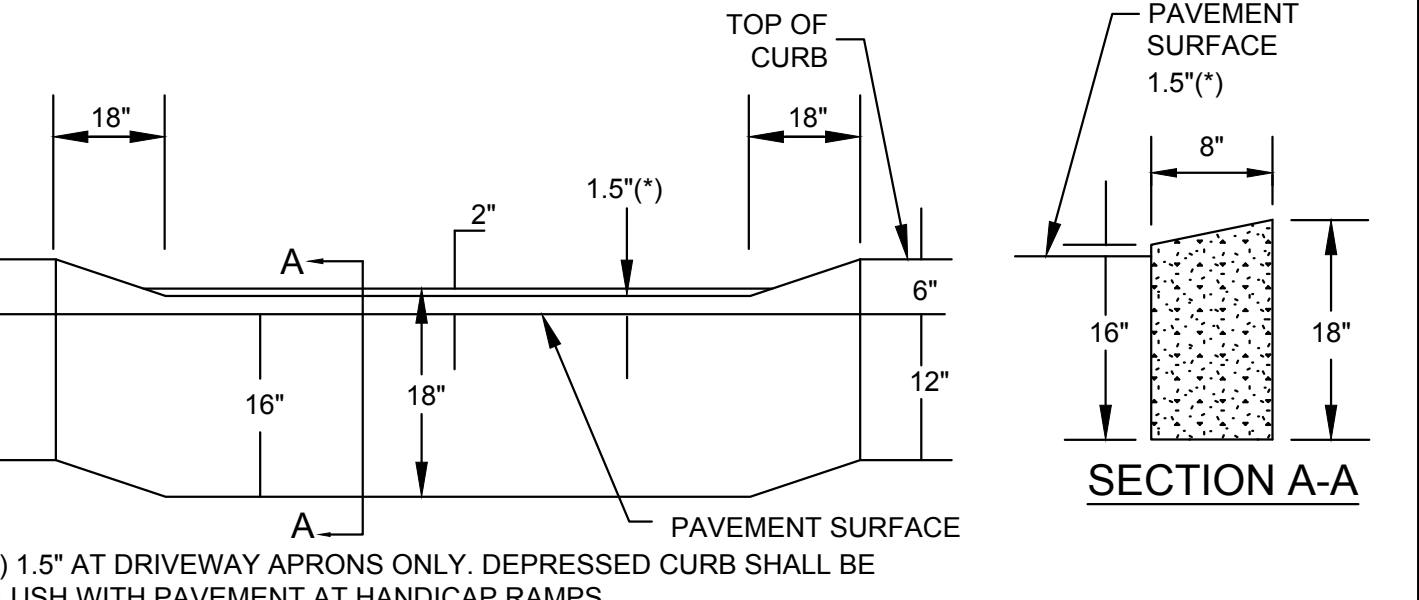
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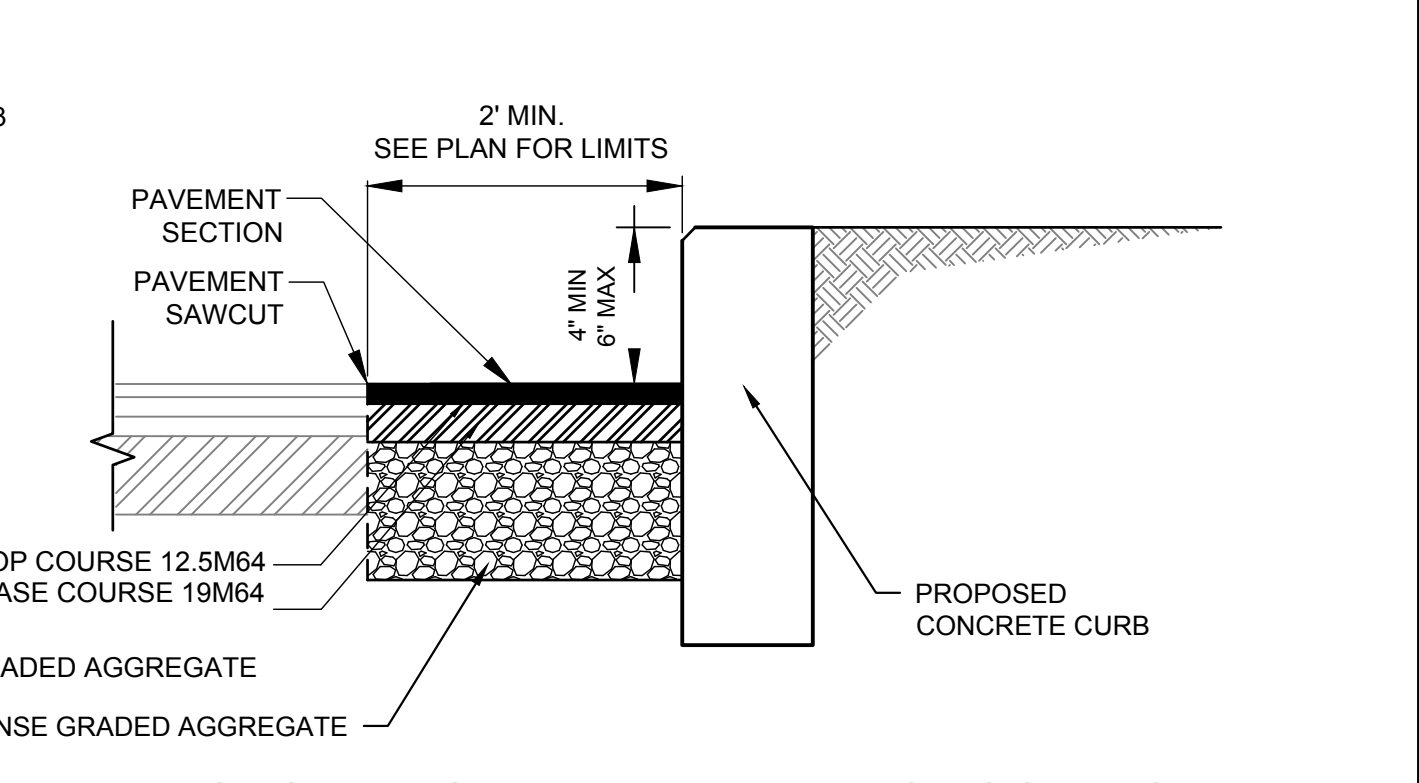
**RESET CASTING DETAIL**  
N.T.S.



**PAVEMENT KEYWAY DETAIL**  
N.T.S.



**DRIVEWAY DEPRESSED CURB DETAIL**  
N.T.S.



**PAVEMENT RESTORATION DETAIL AT PROPOSED CURB**  
N.T.S.

**NOT FOR CONSTRUCTION**

**Pennoni ASSOCIATES INC.**  
24 Commerce Street, Suite 300  
Newark, NJ 07102  
T 973.265.9775 F 973.265.9774  
NJ COA. NO. GA28033300

**DREW M. DIESA, PE**  
PROFESSIONAL ENGINEER  
NEW JERSEY LICENSE NO. 24CE0388700  
DATE: 08-16-2022

**BROAD AVENUE (SECTION 11) IMPROVEMENTS**  
CRESCENT AVENUE TO HILLSIDE AVENUE  
LEONIA, NEW JERSEY

**CONSTRUCTION DETAILS 1**

BOROUGH OF LEONIA  
312 BROAD AVENUE  
LEONIA, NEW JERSEY 07605

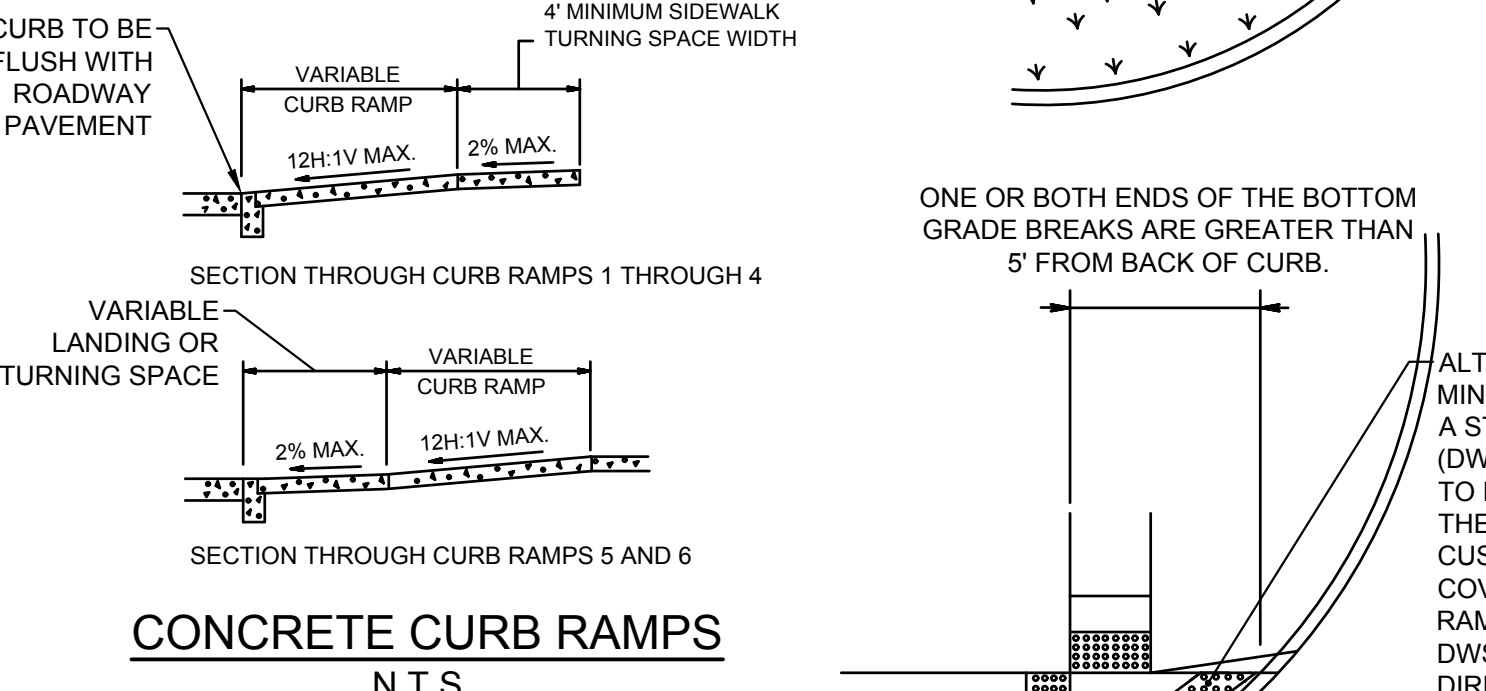
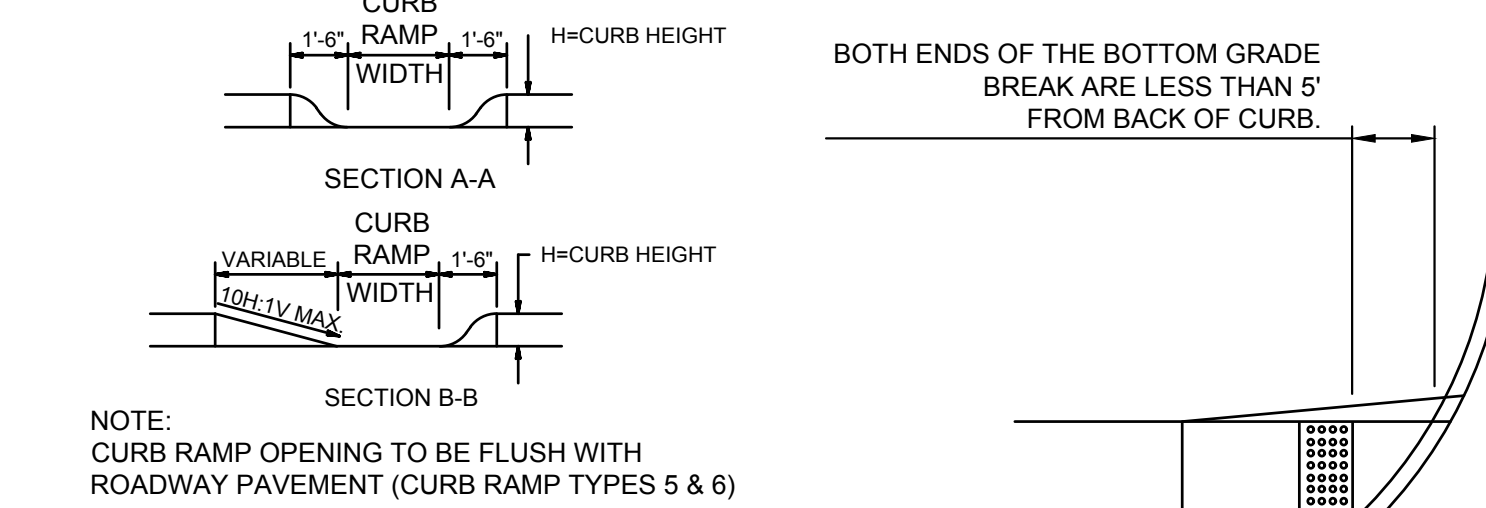
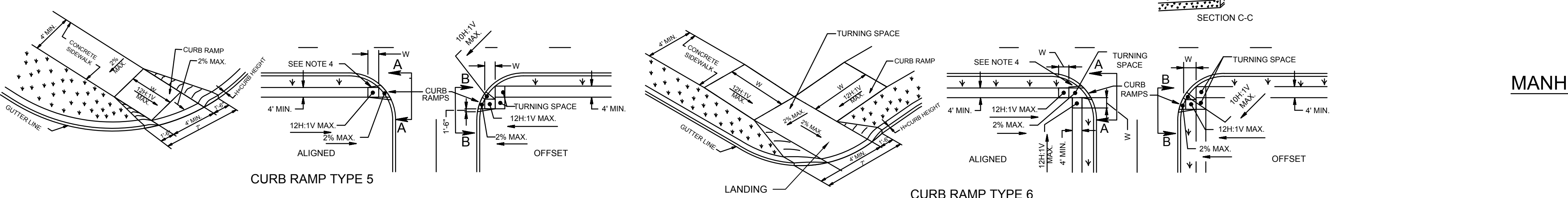
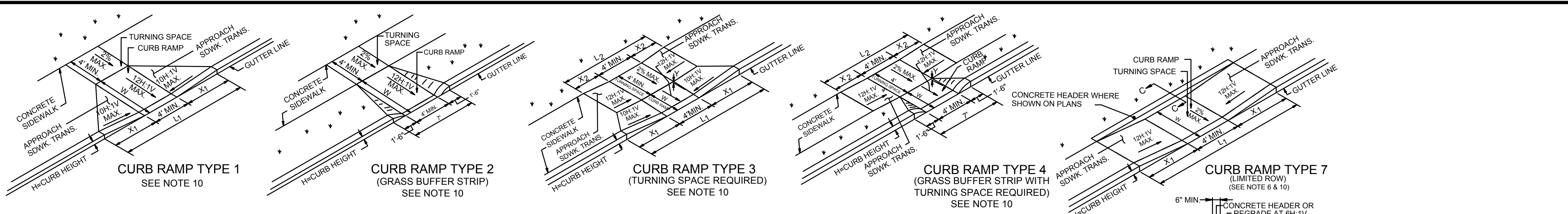
NO.	DATE	REVISIONS	BY

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PROJECT: **BRLE022003**  
DATE: 2022-09-16  
DRAWING SCALE: AS NOTED  
DRAWN BY: PD  
APPROVED BY: DR

**CS6001**  
SHEET 7 OF 9

PLOTTED: 01/02/2023 2:48 PM BY: Maura Salazar  
 PROJECT STATUS: —  
 PLOTTED: 01/02/2023 2:48 PM BY: Maura Salazar  
 PROJECT STATUS: —  
 PLOTTED: 01/02/2023 2:48 PM BY: Maura Salazar  
 PROJECT STATUS: —



**CONCRETE CURB RAMPS**  
N.T.S.

**CONCRETE SIDEWALK (PUBLIC SIDEWALK, CURB RAMP TABLES)**  
N.T.A.

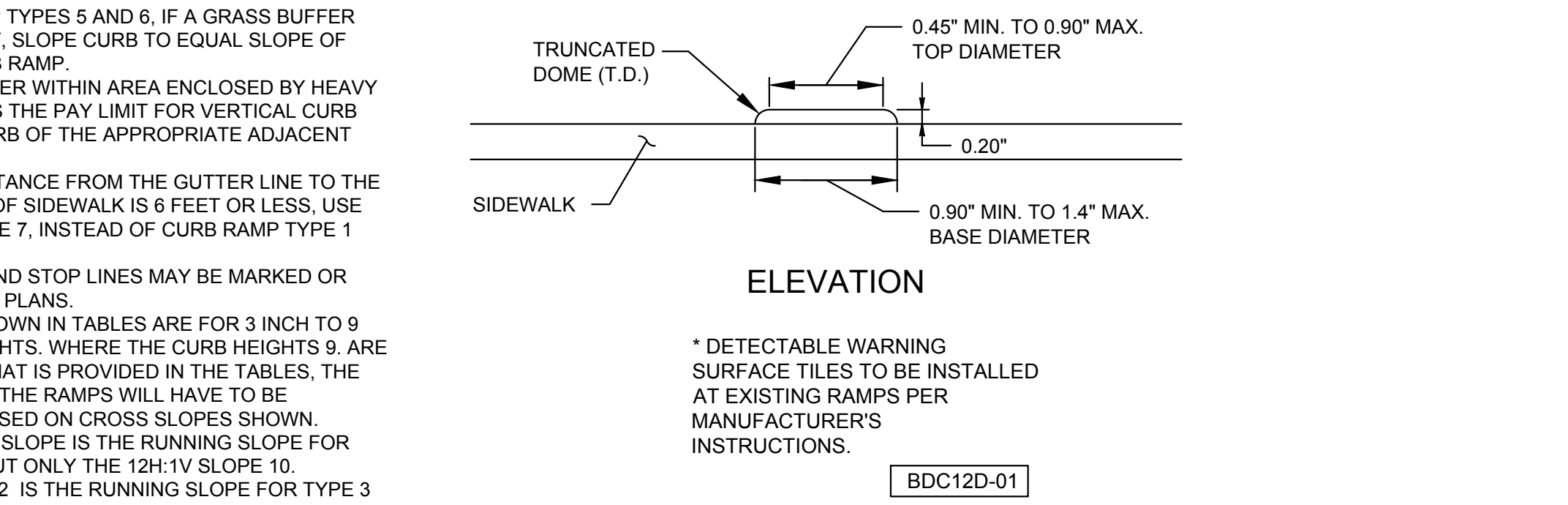
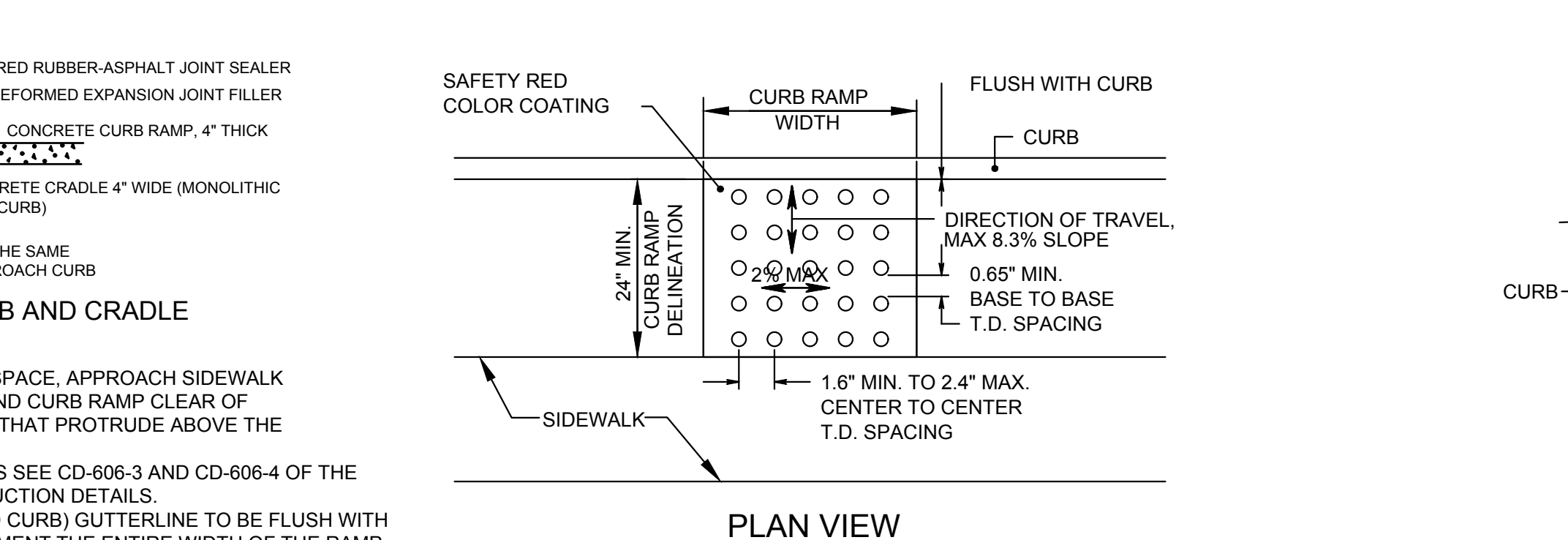
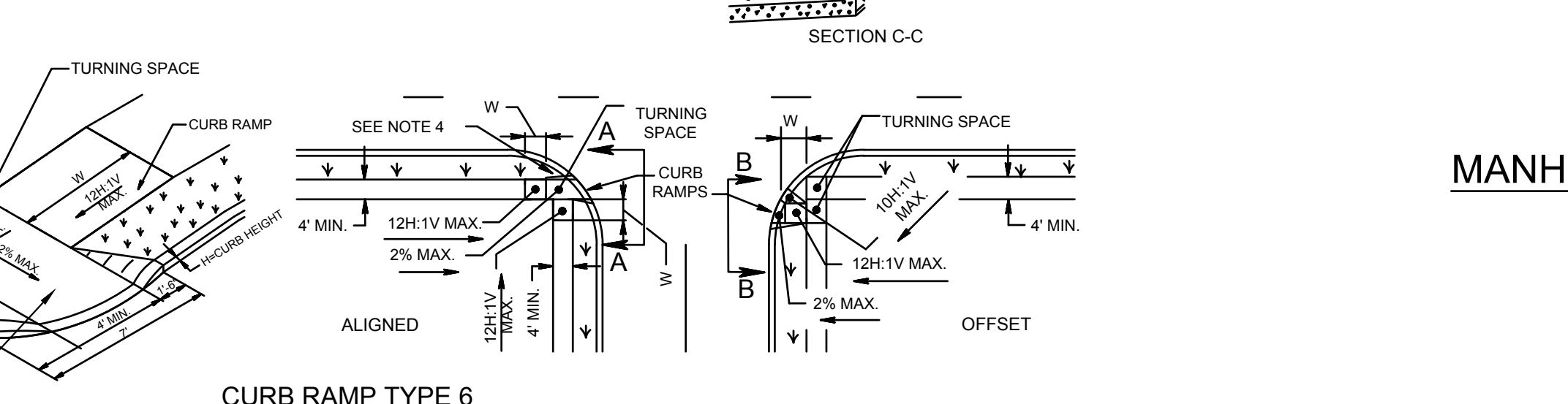
**CONSTRUCTION DETAILS**  
CD-606-11C

**CONCRETE SIDEWALK (PUBLIC SIDEWALK, CURB RAMP TABLES)**  
N.T.A.

**CONSTRUCTION DETAILS**  
CD-606-11C

**CONCRETE SIDEWALK (PUBLIC SIDEWALK, CURB RAMP TABLES)**  
N.T.A.

**CONSTRUCTION DETAILS**  
CD-606-11C

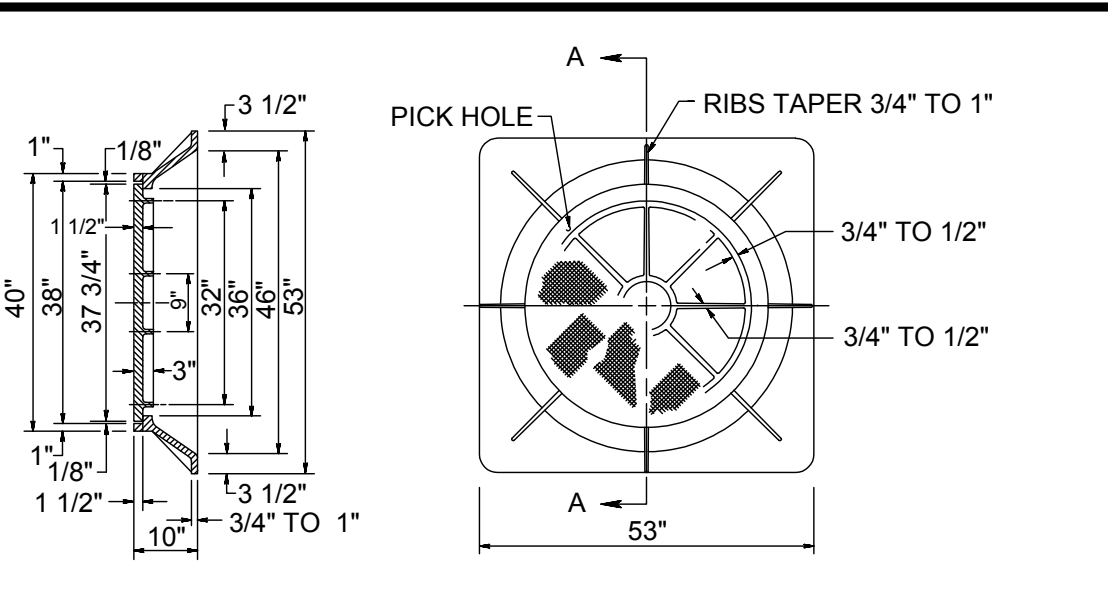


**CONCRETE SIDEWALK (PUBLIC SIDEWALK, CURB RAMP TABLES)**  
N.T.A.

**CONSTRUCTION DETAILS**  
CD-606-11C

**CONCRETE SIDEWALK (PUBLIC SIDEWALK, CURB RAMP TABLES)**  
N.T.A.

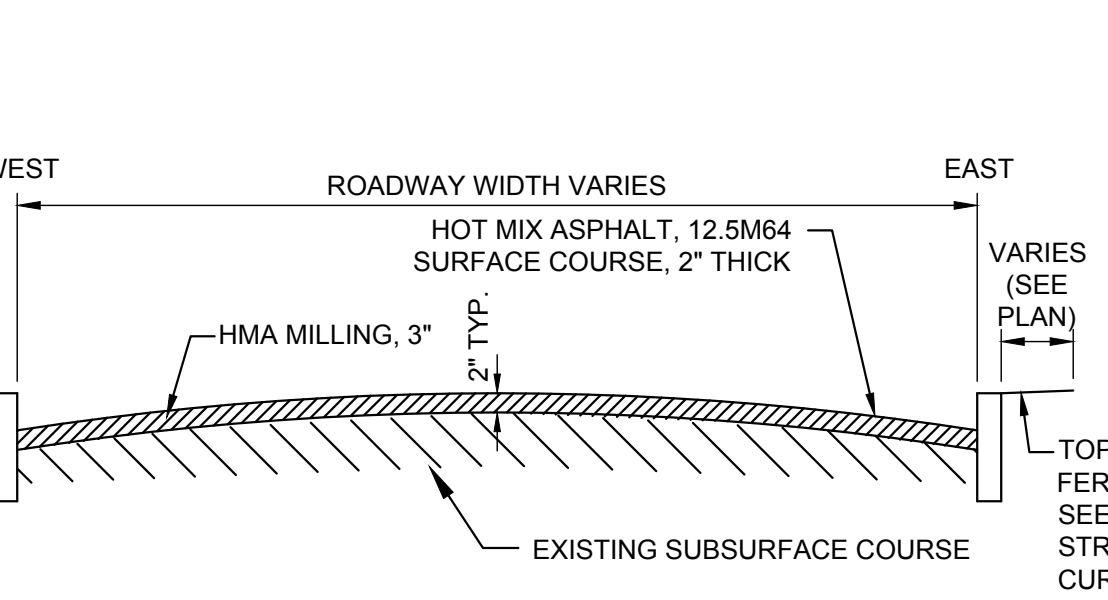
**CONSTRUCTION DETAILS**  
CD-606-11C



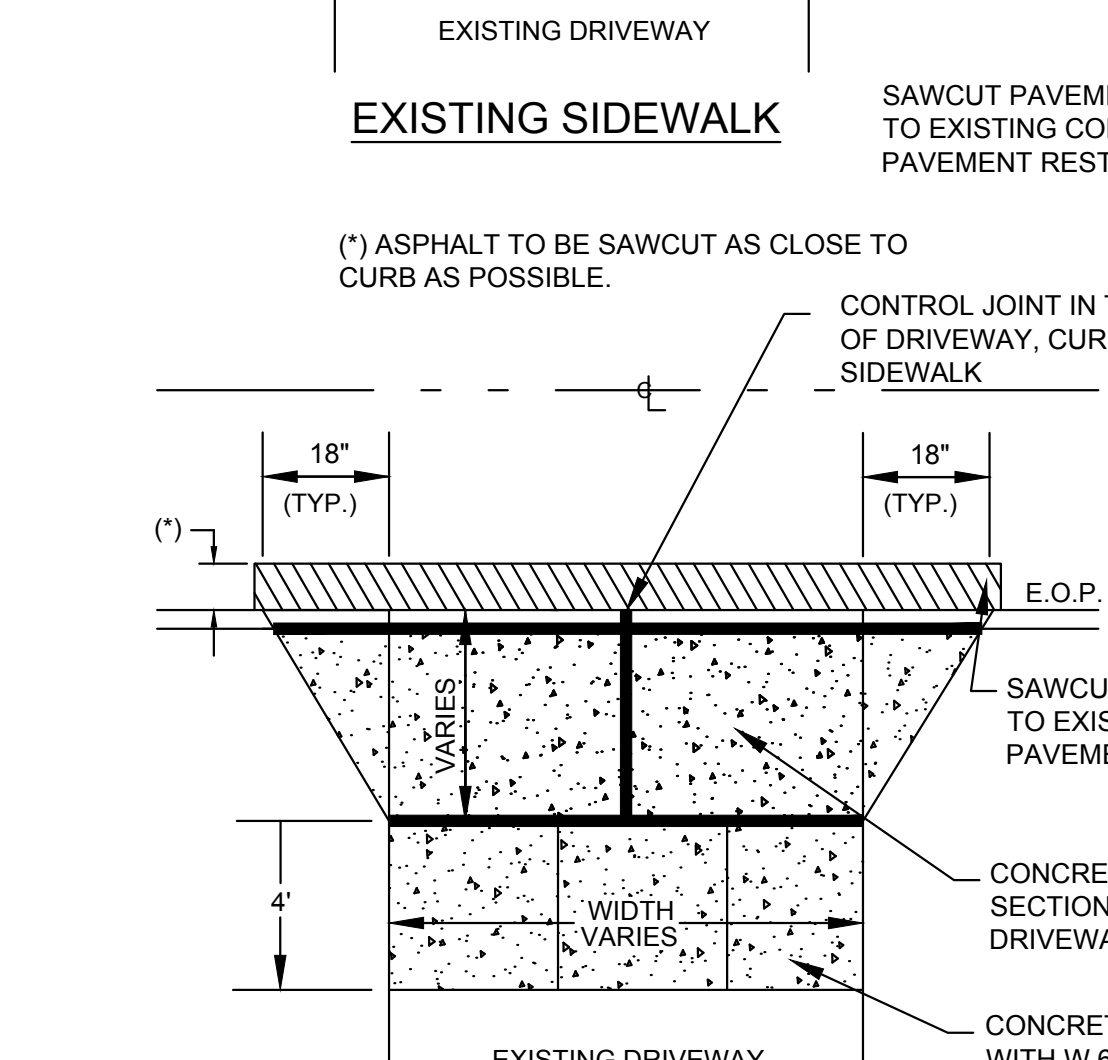
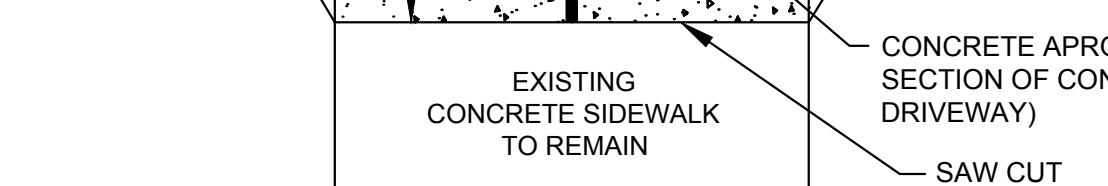
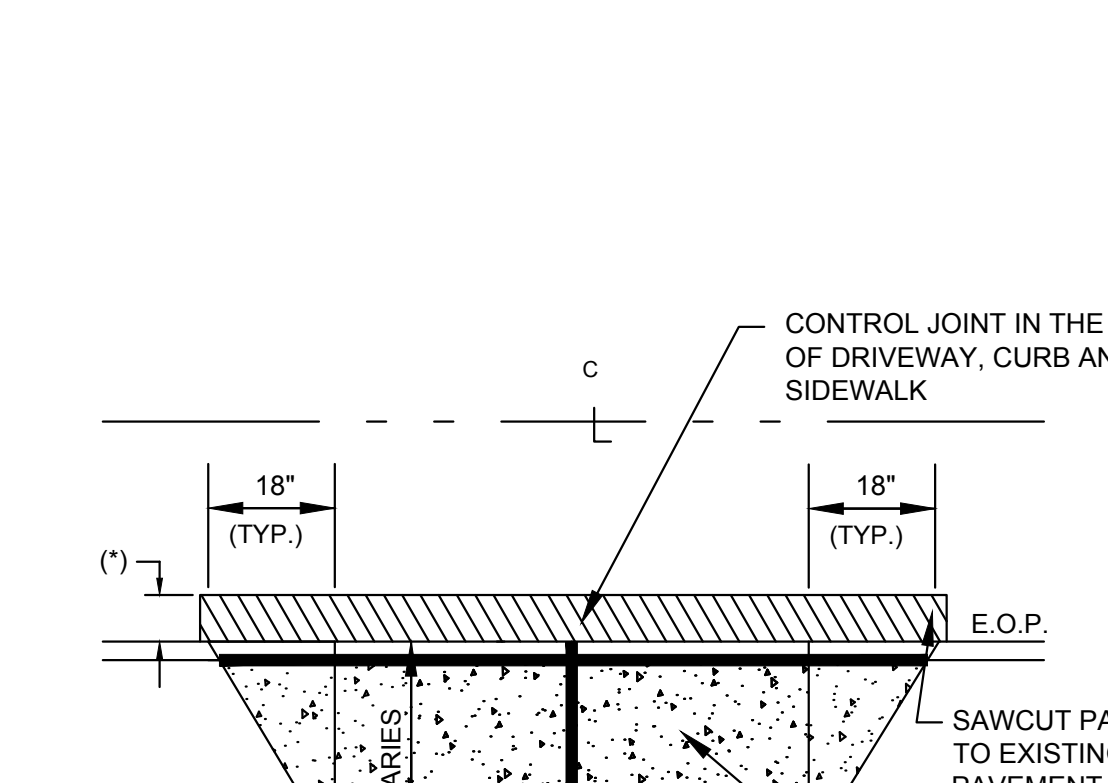
MINIMUM WEIGHTS  
WEIGHT OF FRAME = 630#  
WEIGHT OF COVER = 400#

NOTES:  
DIMENSIONS, WEIGHTS, AND OTHER CRITERIA SHOWN ON THESE DETAILS ARE FOR CLASS 35 B CAST IRON.

MANHOLE CASTING FOR INLET/MANHOLE CONVERSION  
N.T.S.



MILL AND OVERLAY CROSS-SECTION  
N.T.S.



**CONCRETE DRIVEWAY TREATMENTS**  
N.T.S.

**NOT FOR CONSTRUCTION**

**Pennoni**  
PENNONI ASSOCIATES INC.  
24 Commerce Street, Suite 300  
Newark, NJ 07102  
T 973.265.9775 F 973.265.9774  
NJ COA NO. G428033300

**DREW M. DIESA, PE**  
PROFESSIONAL ENGINEER  
NEW JERSEY LICENSE NO. 24CE0383790  
DATE 08-16-2022

**BROAD AVENUE (SECTION 11) IMPROVEMENTS**  
CRESCENT AVENUE TO HILLSIDE AVENUE  
LEONIA, NEW JERSEY

**CONSTRUCTION DETAILS 2**

BOROUGH OF LEONIA  
312 BROAD AVENUE  
LEONIA, NEW JERSEY 07605

**BRLE022003**

DATE 2022-09-16

DRAWING SCALE AS NOTED

DRAWN BY PD

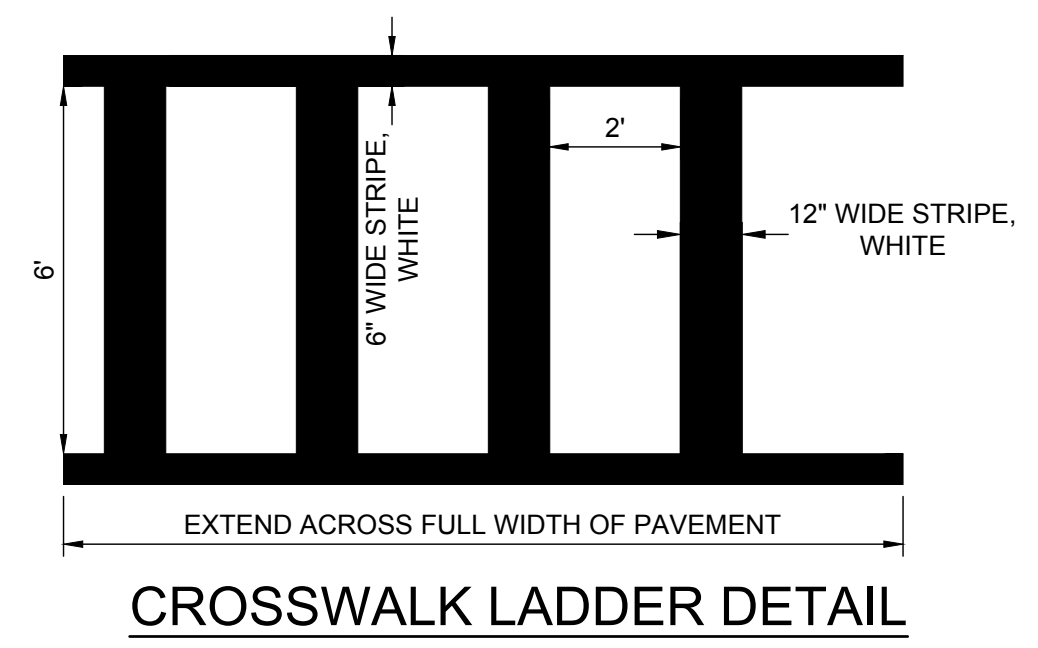
APPROVED BY DR

**CS6002**

SHEET 8 OF 9



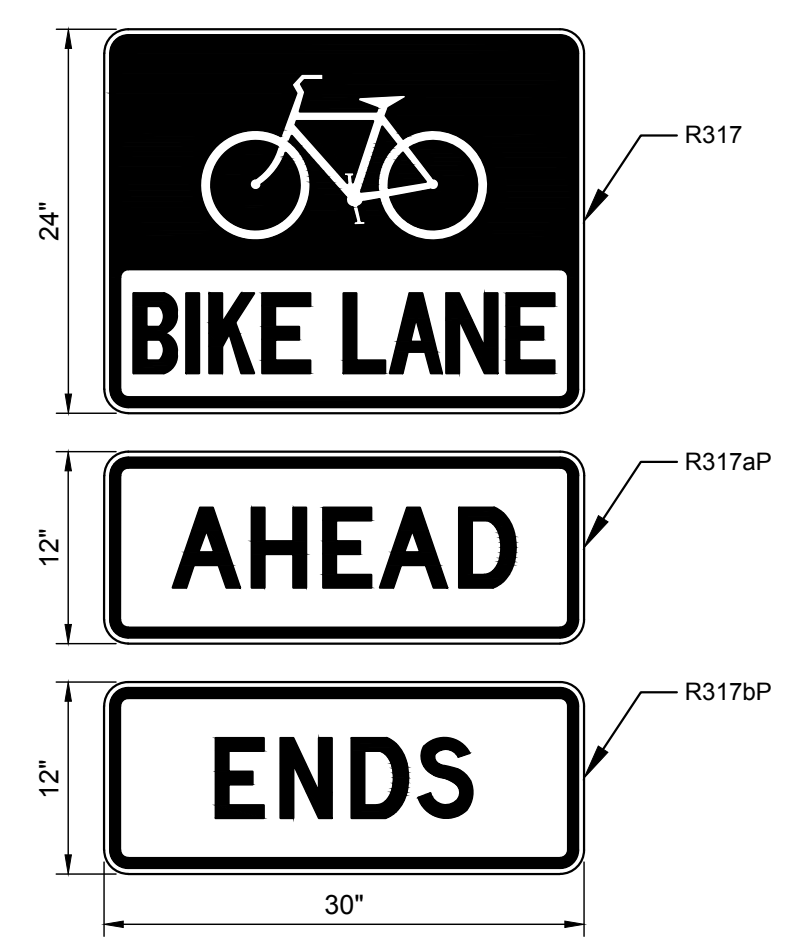
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CROSSWALK LADDER DETAIL  
N.T.S.



R4-11 BICYCLE MAY USE FULL LANE DETAIL  
N.T.S.



R3-17 BIKE LANE DETAIL  
N.T.S.

**NOT FOR CONSTRUCTION**

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

**DREW M. DIESA, PE**  
PROFESSIONAL ENGINEER  
NEW JERSEY LICENSE NO. 24CE0388700  
*Drew M. Diesa*  
DATE: 09-16-2022

**BROAD AVENUE (SECTION 11) IMPROVEMENTS**  
CRESCENT AVENUE TO HILLSIDE AVENUE  
LEONIA, NEW JERSEY

**CONSTRUCTION DETAILS 3**

BOROUGH OF LEONIA  
312 BROAD AVENUE  
LEONIA, NEW JERSEY 07605

NO.	DATE	REVISIONS	BY

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PROJECT	BRLE022003
DATE	2022-09-16
DRAWING SCALE	1"=
DRAWN BY	MXS
APPROVED BY	DR