

# CITY OF MONTCLAIR STANDARDS AND SPECIFICATIONS

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STD DETAIL A	MICRO TRENCHING

# CITY OF MONTCLAIR

# **ABBREVIATIONS**

R	= RADIUS
<u>ፍ</u>	= CENTERLINE
Р	= PLATE
MAX	= MAXIMUM
MIN	= MINIMUM
EJ	= EXPANSION JOINT
WPJ	= WEAKEND PLANE POINT
AC	= ASPHALT CONCRETE
BCR	= BEGIN CURVE RADIUS
ECR	= END CURVE RADIUS
CF	= CUBIC FOOT
TYP	= TYPICAL
OC	= OFFSET CENTER
PCC	= PORTLAND CEMENT CONCRETE
R/W	= RIGHT OF WAY
SQFT	= SQUARE FOOTING
FT	= FEET
STD	= STANDARD
тс	= TOP OF CURB
FL	= FLOW LINE
NO	= NUMBER
CONST	= CONSTRUCTION
GALV	= GALVANIZED
DIAM	= DIAMETER
VCP	= VITRIFIED CLAY PIPE
OD	= OUTSIDE DIAMETER
PWC	= POINT WORKING CENTER
BLDG	= BUILDING
PKWY	= PARKWAY
TI	= TRAFFIC INDEX
MH	= MANHOLE
GA	= GAUGE
CONC	= CONCRETE
SC	= SAW CUT
PT	= POINT OF TANGENCY
DI	

PL = PROPERTY LINE















SECTION

# MINIMUM A.C. PAVEMENT THICKNESS REQUIREMENTS

MAJOR STEET	6"
SECONDARY STREET	5"
COLLECTOR STREET	4"
NDUSTRIAL STREET	5"
LOCAL STREET	4"

- 1. CROSS SECTIONS AND CURB LOCATIONS ARE TO BE DETERMINED BY THE CITY ENGINEER FOR ALL OTHER THAN 60' R/W.
- 2. SIDEWALK SHALL BE ADJACENT TO CURB UNLESS IT IS NECESSARY TO PROVIDE A PARKWAY TO MATCH EXISTING CONDITIONS, AS DETERMINED BY THE CITY ENGINEER.
- 3. THICKNESS OF PAVEMENT AND BASE SHALL BE DETERMINED FROM TI & R VALUE FROM SOILS TEST AND SO INDICATED ON THE PLANS.

APPROVED BY:	CITY OF MONTCLAIR					
NOEL CASTILLO	STREET CROSS SECTION					
* CIVIL 09-20-19 TF OF CALIFORNIA NOEL A. CASTILLO CITY ENGINEER 09-20-19 DATE	NO SCALE	STD. PLAN NO. 106	SHEET 1 of 1			



CURVE #1								CU	RVE #2							
	В	С	C D		Λ		CURE	3		Æ		Λ	С	URB		PL
					R	L	Т	R	L	Т	Δ	R	L	R	L	
50	18	7	97.99	20°40'48"	100	36.09	18.25	93	33.57	16.97	221°21'35"	45	173.86	52	200.90	
60	18	12	97.99	20°40'48"	100	36.09	18.25	88	31.76	16.06	221°21'35"	45	173.86	57	220.22	
60	20	10	95.53	19°29'44"	100	34.03	17.18	90	30.62	15.46	218°59'28"	45	172.00	55	210.22	

ſ		-	CURB	SIDEWALI	PAVEMENT		
	А	В	LENGTH FT.	ADJACENT TO CURB	ADJACENT TO P2	SQ. FT. 1.5' GUTTER	
	50	18	346.04	1777.33	1793.04	8770.15	
Γ	60	18	346.04	1777.33	1871.58	8770.15	
Γ	60	20	340.05	1747.36	1810.19	8841.78	

- 1. SIDEWALK LOCATION SHALL BE ADJACENT TO THE CURB UNLESS DETERMINED OTHERWISE BY THE CITY ENGINEER.
- 2. ALL STREET WIDTHS SHALL BE 60' UNLESS OTHERWISE APPROVED.

APPROVED BY:	CITY OF MONTCLAIR					
NOEL CASTILLO	STANDARD CUL-DE-SAC					
CIVIL OP-20-19   NOEL A. CASTILLO DATE   CITY ENGINEER CITY ENGINEER	NO SCALE STD. PLAN NO. 107 SHEE	:T 1				



CURVE #1								CU	RVE #2										
	В	Б						Λ		CURE	3		Æ		Λ	С	URB		PL .
				Δ	R	L	Т	R	L	Т	Δ	R	L	R	L				
50	18	7	132.83	29°48'59"	100	52.04	26.62	93	48.40	24.76	209°48'59"	45	164.79	52	190.42				
60	18	12	132.83	29°48'59"	100	52.04	26.62	88	45.79	23.43	209°48'59"	45	164.79	57	208.73				
60	20	10	130.00	28°04'21"	100	49.00	25.00	90	44.10	22.50	208°04'21"	45	163.42	55	199.74				

	_	CURB	CURB SIDEWALK - SQ. FT.				
	В	EENGTH FT.	ADJACENT TO CURB	ADJACENT TO P2	5Q. FT. 1.5' GUTTER		
50	18	419.66	2145.42	2161.13	10783.89		
60	18	419.66	2145.42	2239.67	10783.89		
60	20	412.42	2109.20	2172.03	10916.31		

- 1. SIDEWALK LOCATION SHALL BE ADJACENT TO THE CURB UNLESS DETERMINED OTHERWISE BY THE CITY ENGINEER.
- 2. ALL STREET WIDTHS SHALL BE 60' UNLESS OTHERWISE APPROVED.

RED CIVIL F.	APPROVED BY:	CITY OF MONTCLAIR					
NOEL CASTILLO		OFFSET CUL-DE-SAC					
THE OF CALLFORN	NOEL A. CASTILLO DATE   CITY ENGINEER OP-20-19	NO SCALE	STD. PLAN NO. 108	SHEET 1 of 1			







- 1. THE DISTANCE "S" REPRESENTS THE INTERSECTION SIGHT DISTANCE MEASURED ALONG THE CENTERLINE OF THE ROAD. THE INTERSECTION SIGHT DISTANCE IS THE DISTANCE REQUIRED TO ALLOW STOPPING DISTANCE FOR THE DRIVER ON THE CROSS ROAD (OR LEFT TURN POCKET) TO SAFETY CROSS THE MAIN ROADWAY OR TURN LEFT WHILE THE APPROACH VEHICLE TRAVELS AT THE ASSUMED DESIGN SPEED OF THE MAIN ROADWAY.
- 2. THE DISTANCE S SHOULD BE INCREASED BY 20% FROM THE AMOUNT SHOWN ON THE STOPPING DISTANCE TABLE ON SUSTAINED DOWNGRADES STEEPER THAN 3% AND LONGER THAN ONE MILE. INTERSECTIONS SHALL BE ILLUMINATED.
- 3. POINT "A" IS THE LOCATION OF A DRIVER'S LINE OF SIGHT (3.5 FOOT EYE HEIGHT) TO ONCOMING VEHICLES (4.25 FOOT OBJECT HEIGHT) LOCATED AT POINT "C" WHILE IN A VEHICLE AT AN INTERSECTION 5 FEET BACK FROM THE PROJECTION OF THE FIRST CROSSWALK LINE LEADING INTO THE INTERSECTION. IN NO CASE SHALL POINT A BE LESS THAN FIFTEEN FEET FROM THE EDGE OF THE TRAVELED WAY. POINT "C" IS LOCATED AT THE CENTER OF LANE.
- 4. THE LIMITED USE AREA IS DETERMINED BY THE GRAPHICAL METHOD USING THE APPROPRIATE SIGHT DISTANCES. IT SHALL BE USED FOR THE PURPOSE OF PROHIBITING OR CLEARING OBSTRUCTIONS IN ORDER TO MAINTAIN ADEQUATE SIGHT DISTANCE AT INTERSECTIONS.
- 5. THE LINE OF SIGHT LINE SHALL BE SHOWN AT INTERSECTIONS ON ALL LANDSCAPING PLANS, GRADING PLANS, AND TENTATIVE TRACT. IN CASES, WHERE AN INTERSECTION IS LOCATED ON A VERTICAL. CURVE, A PROFILE OF THE LINE OF SIGHT MAY BE REQUIRED. THE LANDSCAPE PLAN SUBMITTED SHALL SHOW THE NAME, LOCATION AND MATURE DIMENSIONS, PLOTTED TO SCALE OF ALL THE PROPOSED TREES WITHIN THE LIMITED USE AREA.
- 6. OBSTRUCTIONS SUCH AS BUS SHELTERS, WALLS, COMMERCIAL SIGNAGE OR LANDSCAPING WITHIN THE LIMITED USE AREA WHICH COULD RESTRICT THE LINE OF SIGHT SHALL NO BE PERMITTED. DRIVEWAYS ARE NOT PERMITTED WITHIN INTERSECTION AREA DUE TO SIGHT DISTANCE RESTRICTION BY ENTERING VEHICLES.
  - a. PLANS AND SHRUBS WITHIN THE LIMITED USE ARE SHALL BE OF THE TYPE THAT WILL GROW NO HIGHER THAN 30 INCHES ABOVE THE TOP OF CURB AND SHALL BE MAINTAINED AT A HEIGHT WHICH WILL ASSURE THAT THE 30 INCH MAXIMUM HEIGHT IS NOT EXCEEDED BETWEEN MAINTENANCE INTERVALS. MAINTENANCE AT A LOWER HEIGHT MAY BE REQUIRED ON CREST VERTICAL CURVES PER NOTE 5 ABOVE.
  - b. A PROFILE DETAIL OF THE LINE OF SIGHT MAY BE REQUIRED TO VERIFY 12" MINIMUM VERTICAL CLEARANCE ABOVE VARIABLE HEIGHT OBSTRUCTIONS SUCH AS SLOPE LANDSCAPING, PLANTS, SHRUBS AND PERIMETER WALLS.
  - c. THE TOE OF SLOPE MAY NOT ENCROACH INTO THE LIMITED USE AREA UNLESS THE REQUIREMENTS OF (b) ABOVE ARE SATISFIED.
  - d. IN LIEU OF PROVIDING A PROFILE OF THE LINE OF SIGHT PER NOTE 6.b. ABOVE, THE TOE OF SLOPE SHALL NOT ENCROACH INTO THE LIMITED USE AREA, AND THE LIMITED USE AREA SHALL SLOPE 2% MAXIMUM BETWEEN THE LINE OF SIGHT AND THE BACK OF SIDEWALK.
- 7. NO PARKING OF ANY KIND IS TO BE ALLOWED WITHIN THE LIMITED USE AREA.
- 8. TREES ARE GENERALLY NOT PERMITTED WITHIN ANY PORTION OF THE LIMITED USE AREA. EXCEPTIONS ARE ALLOWED WHEN THE SPECIES HAS A MATURE DIAMETER OF LESS THAN 6 INCHES.
- 9. MEDIAN AREAS LESS THAN FIVE (5) FEET IN WIDTH SHALL NOT BE LANDSCAPED.
- 10. INTERSECTION SIGHT DISTANCE AT RIGHT ANGLE INTERSECTIONS IS MEASURED FROM THE IDENTIFIED MEASUREMENT POINT "A", IN ACCORDANCE WITH THE DIAGRAMS ON SHEET 2.

APPROVED BY:	CITY OF MONTCLAIR					
NOEL CASTILLO	INTERSECTION SIGHT DISTANCE					
* OF CIVIL 09-20-19   NOEL A. CASTILLO DATE   CITY ENGINEER	NO SCALE STD. PLAN NO. 110 SHEET 3 of 3					



**ELEVATION** 

# TABLE OF PANELS FOR VARIOUS ROADWAY WIDTHS

8' SECTIONS SHALL BE ADDED OR DELETED TO GIVE THE FOLLOWING WIDTHS:								
WIDTH OF ROADWAY	NO. OF 8' SECTIONS	TOTAL LENGTH OF PANELS						
20' ALLEY	2	18'						
36'	3	26'						
40'	4	34'						
44'	4	34'						
64'	7	58'						

- 1. W21R-2 REFLECTOR IS TO BE A 1.5' X 1.5' SIGN, AND IS TO BE BOLTED ON THE CENTER OF THE BARRICADE AS SHOWN.
- 2. SIGNS TO BE W31 & W21R-2 OR APPROVED EQUAL.
- 3. ALL WOOD ASSEMBLY IS TO BE PAINTED WITH ONE COAT OF PRIMER AND TWO COATS OF WHITE EXTERIOR PAINT.

RED CIVIL EL	APPROVED BY:	CIT	CITY OF MONTCLAIR		
NOEL CASTILLO			BARRICADE		
* CIVIL TFE OF CALIFORNIT	NOEL A. CASTILLO DATE   CITY ENGINEER DATE	NO SCALE	STD. PLAN NO. 111	SHEET 1 of 1	











<sup>1</sup>/<sub>2</sub> ACTUAL SIZE

- 1. REFERENCE POINTS SHALL BE L & TS IN SIDEWALKS OR IN TANGENT PORTION OF THE CURB AND A MINIMUM OF 3 REFERENCE POINTS FOR EACH INTERSECTION.
- 2. CENTER LINE MONUMENTS SHALL BE:
  - a. CEMENT CONCRETE LEAD & TACK.
  - b. MACADAM OR PLANT MIX 6" RR SPIKE.
  - c. OIL & ROCK, GRAVELLED & OTHER 1" IP 12" DOWN. d. WHERE MANHOLES EXIST - 4 PUNCH MARKS ON MH RING.
- 3. TANGENT TIES AND POINTS ON C PRODS ARE PREFERRED.
- 4. ONLY ONE STREET INTERSECTION SHALL BE SHOWN ON EACH SHEET.
- 5. SHEETS SHALL BE LIETZ No. 987-10 TOP FLIGHT OR OF EQUAL QUALITY TRACING PAPER.

RED CIVIL	APPROVED BY:	CITY OF MONTCLAIR		
NOEL CASTILLO NO. C 78044 * No. C 78044 * PTF OF CALIFORNIA		CENTER LINE TIE NOTES		
	NOEL A. CASTILLO DATE   CITY ENGINEER DATE	NO SCALE	STD. PLAN NO. 115	SHEET 1 of 1













1. A CONSTRUCTION PERMIT MUST BE OBTAINED FOR ANY WORK DONE IN THE CITY RIGHT OF WAY. PERMITS ARE ISSUED THROUGH THE ENGINEERING DEPARTMENT. CALL (909) 625-9440 FOR ADDITIONAL INFORMATION.

2. REMOVE SIDEWALK PANEL FROM JOINT TO JOINT OR SCORE LINES BEFORE CORING CURB. CONCRETE SHALL BE CLASS 520-C-3250.

APPROVED BY:	CITY OF MONTCLAIR		
NOEL CASTILLO	WQMP GRAVEL FILTER DETAIL		
* OF CIVIL 09-20-19   PIF OF CALIFORM   NOEL A. CASTILLO DATE   CITY ENGINEER	NO SCALE	STD. PLAN NO. 203	SHEET 1 of 1



STANDARD
STANDARD
PAVING AND TRENCH REPAIR

	09-20-1
NOEL A. CASTILLO	DAT
CITY ENGINEER	

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NOEL CASTILLO

No.<u>C 7804</u>4

OF CALIFORN

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REG/

STD. PLAN NO. 301 NO SCALE

SHEET 1 of 2

# GENERAL NOTES: Continued

- 7. PRIOR TO PLACEMENT OF PERMANENT PAVING, EXISTING PAVEMENT SHALL BE CUT TO A NEAT STRAIGHT LINE. ALL PAVEMENT JOINTS OR CRACKS WITHIN 2 FEET OF TRENCH IN ALL DIRECTIONS, OR AS DIRECTED BY THE CITY ENGINEER OR DESIGNEE, SHALL BE REMOVED AND REPLACED.
- 8. ALL EDGES OF EXISTING PAVEMENT BEING JOINED AND SURFACE BEING OVERLAID SHALL RECEIVE A TACK COAT OF ASPHALT EMULSION.
- 9. ANY STREET PAVED OR RESURFACED IN THE PREVIOUS 36 MONTHS SHALL BE SUBJECT TO SPECIAL PAVING REQUIREMENTS.
- 10. ANY TRENCH EXTENDING FROM THE CURB INTO PARKING LANE, SHALL REQUIRE A COMPLETE GRIND AND OVERLAY OF THE PARKING LANE. ALL TRENCHES EXTENDING LONGITUDINALLY IN THE DRIVING LANE SHALL REQUIRE THAT THE ENTIRE LANE BE COLD MILLED AND OVERLAID. ALL TRENCHES EXTENDING INTO THE TRAVELED LANE TRANSVERSELY WILL REQUIRE THE ENTIRE LENGTH OF THE TRENCH UP TO THE NEAREST LANE LINE BE COLD MILLED AND OVERLAID 10 FEET IN BOTH DIRECTIONS FROM THE CENTERLINE OF THE TRENCH.
- 11. IF TRENCH FAILURE SHOULD OCCUR, THE PERMITTEE/DEVELOPER WILL BE NOTIFIED OF SUCH DEFICIENCIES AND DIRECTED TO REMOVE, REPLACE, REMEDY THIS WORK. UPON FAILURE OF THE CONTRACTOR TO PROMPTLY COMPLY AND UNDER ORDER OF THE CITY ENGINEER, TRENCH SHALL BE REMEDIED, REMOVED, REPLACED AT PERMITTEE/ DEVELOPERS SOLE EXPENSE.
- 12. BEDDING MATERIAL SHALL BE SAND, GRAVEL, CRUSHED MISCELLANEOUS BASE OR NATIVE FREE-DRAINING GRANULAR MATERIAL. HAVING A SAND EQUIVALENT OF NOT LESS THAN 30, AND SHALL HAVE A PERCENTAGE COMPOSITION BY WEIGHT WHICH CONFORMS TO THE FOLLOWING GRADING:

SIEVE SIZ	ZES	<u>%</u> PAS	SING SIEVES
<u>SIEVE SI2</u> 1 - ½" 1" ¾" ½" ¾"	<u></u>	<u> </u>	- - 100 90 - 100 20 - 60
No. 4 No. 8			0 - 15 0 - 5

- 13. THE CONTRACTOR/PERMITEE SHALL BE REQUIRED TO FOLLOW THE WORK AREA TRAFFIC CONTROL HANDBOOK ("WATCH" MANUAL) OR AS DIRECTED BY THE CITY TRAFFIC ENGINEER OR DESIGNEE.
- 14. FULL STREET CLOSURES REQUIRE CITY TRAFFIC ENGINEER APPROVAL AND REQUEST FOR SUCH CLOSURES SHALL BE SUBMITTED 20 DAYS IN ADVANCE OF CLOSURE.
- 15. THE WORKING HOURS ON ARTERIAL AND MAJOR STREETS, SCHOOLS, HOSPITALS, AND FREEWAY RAMPS SHALL BE SUBJECT TO APPROVAL BY CITY TRAFFIC ENGINEER'S OFFICE.
- 16. ALL STRIPING AND MARKINGS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED IN KIND AS DIRECTED BY THE CITY ENGINEER OR DESIGNEE.
- 17. ALL POTHOLES/SERVICE CUTS/ETC. SHALL BE BACK FILLED WITH A 2-SACK SLURRY OR AS SPECIFIED BY THE CITY ENGINEER OR DESIGNEE.
- 18. SOIL-STERILANT IS REQUIRED PRIOR TO PLACEMENT OF PERMANENT PAVING.
- 19. CONTRACTOR/PERMITTER SHALL CLEAN UP TRACKING BY ANY MEANS NECESSARY.

APPROVED BY:	CITY OF MONTCLAIR		
NOEL CASTILLO	STANDARD PAVING AND TRENCH REPAIR		
* OF C/VIL 09-20-19   NOEL A. CASTILLO DATE   CITY ENGINEER	NO SCALE STD. PLAN NO. 301	SHEET 2 of 2	

# PLATE BRIDGING

# WIDTH OF TRENCH

# MINIMUM PLATE THICKNESS

1.0 FOOT TO 3 FOOT \_\_\_\_\_ 1 INCH 4.0 FEET \_\_\_\_\_ 1 - ½ INCH

SPANS GREATER THAN 4 FEET, A STRUCTURAL DESIGN SHALL BE PREPARED BY A REGISTERED CIVIL ENGINEER AND APPROVED BY CITY ENGINEER.







2/5/2021 NOEL A. CASTILLO DATE **CITY ENGINEER** 

NO SCALE

STD. PLAN NO. 402

SHEET 1 of 1













- 1. CONCRETE BASE: DURING CONSTRUCTION, ALL PIPES SHALL BE RIGIDLY SUPPORTED BY BRICK PIERS ONE FOOT DEEP, LOCATED JUST OUTSIDE THE STRUCTURE. CONSTRUCT TOP OF CONCRETE BASE TWO INCHES BELOW INVERT OF LOWEST PIPE. FILL SPACE BENEATH PIPE WITH MORTAR AND SHAVE FROM BOTH SIDES WITH BASE COURSE BRICK TO FORM A WATER TIGHT JOINT.
- 2. BASE OR FAN COURSE: LAY BRICK FLAT ON RADIAL LINES WITH TOPS TO SAME LEVEL.
- ARCHES: LAY SPELLED BRICK ON EDGE TO FORM A TRUE RADIAL ARCH WITH FULL MORTAR JOINT AROUND ALL PIPE OPENINGS. TURN ARCH OF TWO SUCH COURSES OVER PIPES 15" OR MORE IN DIAMETER.
- 4. SOLDIER COURSES: LAY INSIDE BRICK ON RADIAL LINES WITH FIRST FOUR COURSES VERTICAL, LAY SUCCEEDING COURSES WITH A UNIFORM BATTER TO OBTAIN AN INSIDE DIAMETER OF "B" AT TOP OF LAST OR FRACTIONAL SOLDIER COURSE, USE SPLIT BRICK TO CLOSE SOLDIER COURSES.
- STRETCHER COURSES: LAY OUTSIDE BRICK FLAT IN A DEEP BED OF MORTAR. SHAVE BRICK HARD TOGETHER AGAINST ADJACENT SOLDIER COURSE.
- ROWLOCK COURSE: LAY LAST COURSE OF BRICK ON EDGE ACROSS SOLDIER 6. AND STRETCHER COURSES, ON RADIAL LINES, WITH TOPS PARALLEL AND "A" INCHES BELOW FINISHED GRADE. SEE SCHEDULE.
- STEPS: SET LOWER STEP ON TOP OF THIRD SOLDIER COURSE AND NOTCH 7. BRICK ABOVE. PLACE UPPER STEP IMMEDIATELY BELOW ROW LOCK COURSE AND PROJECT THREE INCHES. IF UPPER INVERT OF DROP MANHOLE IS MORE THAN FOUR FEET ABOVE SHELF. SET ONE STEP ON EACH SIDE OF STRUCTURE AT RIGHT ANGLES TO END NO MORE THAN FOUR FEET BELOW THE ABOVE INLET.
- JOINTS: INSIDE JOINTS SHALL BE NEATLY STRUCK AND POINTED AND SHALL 8. NOT EXCEED 3/8 INCH IN THICKNESS.
- 9. CHANNEL BASE: THE DEPTH OF CHANNEL IN CHANNEL BASE SHALL BE  $\frac{3}{3}$ OF PIPE DIAMETER FOR PIPES 15" OR LESS, AND SHALL EQUAL THE PIPE DIAMETER FOR PIPES 18" OR LARGER. FOR SPECIAL CHANNELS IN TRAP OR GAUGING MANHOLES SEE SPECIAL PLANS.
- 10. PRECAST CONC. MANHOLES: USE CLASS 560-C-3250 PCC ENCASEMENT AROUND DROP INLET PIPE INSTEAD OF BRICKWORK FOR ALL PRECAST CONC DROP MANHOLES.

APPROVED BY:

11. PIPE MATERIAL TO BE VCP BELL & SPIGOT.

WAGINEER +

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CIVIL

NOEL CASTILLO

No.<u>C 7804</u>4 CIVIL OF CIVIL OF CALIFORN

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REG/



STD. PLAN NO. 408

NO SCALE

SHEET

1 of 1

SECTIONAL ELEVATION A-A

2/5/2021 NOEL A. CASTILLO DATE **CITY ENGINEER** 





- 1. BARREL DIAMETER OF SAMPLING WYE TO BE A MINIMUM OF 2" LARGER THAN BLDG. DISCHARGE LINE.
- 2. DIAMETER OF RISER PIPE TO BE 4".
- 3. MUST BE ACCESSIBLE AT ALL TIMES TO CITY PERSONNEL.
- 4. NOT FOR USE IN TRAVELED WAYS.
- 5. IF NECESSARY TO PLACE CAP IN SIDEWALK, USE FLUSH CAP.

APPROVED BY:	CITY OF MONTCLAIR		
NOEL CASTILLO	SAMPLING STATION		
* OF CALIFORM 09-20-19   NOEL A. CASTILLO DATE   CITY ENGINEER OF CALIFORM	NO SCALE	STD. PLAN NO. 410	SHEET 1 of 1





24" CAST IRON FRAME & COVER WITH GADKET (GASTIGHT) VARIABLE

AS REQUIRED



- 1. THIS INSTALLATION SHALL BE ACCESSIBLE FOR MAINTENANCE AND INSPECTION AT ALL TIMES.
- 2. WHERE SUBJECT TO VEHICLE LOADING, DESIGN ADEQUACY SHALL BE VERIFIED.
- 3. THE PERIMETER SHALL SLOPE AWAY FROM THE INTERCEPTOR. FLOW SHALL NOT INCLUDE SANITARY SEWAGE OR SURFACE DRAINAGE.
- 4. EACH INSTALLATION SHALL BE SUBJECT TO REVIEW FOR ADEQUATE CAPACITY PRIOR TO CONSTRUCTION. MINIMUM CAPACITY SHALL BE 750 GALLONS.
- 5. A SAMPLING BOX IS REQUIRED IN ADDITION TO INTERCEPTOR.
- 6. A TWO COMPARTMENT INTERCEPTOR IS THE MINIMUM STANDARD.
- 7. EACH COMPARTMENT SHALL HAVE A SEPARATE RING AND COVER.

APPROVED BY:	CITY OF MONTCLAIR		
NOEL CASTILLO	S	SAND INTERCEPTOR	
* OF CALIFORT OF CALIFORT OF CALIFORT OF CALIFORT OF CALIFORT	NO SCALE	STD. PLAN NO. 411	SHEET 1 of 1





24" CAST IRON FRAME & COVER WITH GADKET



- 1. THIS INSTALLATION SHALL BE ACCESSIBLE FOR MAINTENANCE AND INSPECTION AT ALL TIMES.
- 2. WHERE SUBJECT TO VEHICLE LOADING, DESIGN ADEQUACY SHALL BE VERIFIED.
- 3. THE PERIMETER SHALL SLOPE AWAY FROM THE INTERCEPTOR. FLOW SHALL NOT INCLUDE SANITARY SEWAGE OR SURFACE DRAINAGE.
- 4. EACH INSTALLATION SHALL BE SIZED BY THE CITY FOR ADEQUATE CAPACITY PRIOR TO CONSTRUCTION. MINIMUM CAPACITY SHALL BE 750 GALLONS.
- 5. A SAMPLING BOX IS REQUIRED IN ADDITION TO INTERCEPTOR.
- 6. A TWO COMPARTMENT INTERCEPTOR IS THE MINIMUM STANDARD.
- 7. EACH COMPARTMENT SHALL HAVE A SEPARATE RING AND COVER.

APPROVED BY:		CIT	CITY OF MONTCLAIR		
NOEL CASTILLO		GI	GREASE INTERCEPTOR		
* OF CALLFORM	ASTILLO DATE NEER	NO SCALE	STD. PLAN NO. 412	SHEET 1 of 1	



CONSTRUCTION (SSPWC) "GREENBOOK" ADOPTED BY THE CITY OF MONTCLAIR.

# GENERAL:

- 1. MICRO-TRENCHING SHALL ONLY BE USED TO INSTALL TELECOMMUNICATION CONDUITS.
- 2. MICRO-TRENCHING SHALL NOT BE ALLOWED IN CONCRETE PAVED STREETS, NOR SIDEWALKS, PARKWAYS, CURBS AND GUTTERS.
- 3. THE CONTRACTOR SHALL IDENTIFY ALL EXISTING UTILITIES, INCLUDING SERVICE CONNECTIONS IN THE FIELD. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (U.S.A.) AT LEAST 48 HOURS PRIOR TO START OF WORK AT 8-1-1, OR TOLL-FREE AT 1-800-422-4133. THE CONTRACTOR SHALL FURTHER SUPPLEMENT THE FINDINGS OF U.S.A. TO DETERMINE THE EXACT LOCATIONS AND DEPTHS OF ALL UTILITIES BY USING A MOBILE GROUND PENETRATING RADAR SYSTEM. THE CONTRACTOR SHALL POTHOLE ALL CROSSING UTILITIES AND PARALLEL UTILITIES WITHIN 18-INCHES OF THE PROPOSED ALIGNMENT TO A DEPTH OF 6-INCHES BELOW THE BOTTOM OF THE MICRO-TRENCH, TO DETERMINE THE EXISTING UTILITY ALIGNMENT AND ELEVATION. POTHOLES SHALL BE IMMEDIATELY BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS OR RESTORED AS DIRECTED BY THE ENGINEER.
- 4. IF EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE INSPECTOR, ENGINEER AND UTILITY OWNER TO PERFORM THE REPAIRS PROMPTLY ACCORDING TO THEIR REQUIREMENTS AND PER ASSOCIATED CITY PERMITS.
- 5. THE FOLLOWING ITEMS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER FOR APPROVAL:
  - A. PROVIDE A DETAILED SITE PLAN INCLUDING EXISTING CONDITIONS AND PROPOSED SCOPE OF WORK IN DETAIL.
    - B. A STREET CROSS-SECTION THAT INCLUDES THE FOLLOWING INFORMATION:
      - (1) THE CURB AND GUTTER, ASPHALT CONCRETE (AC) ROADWAY APPROXIMATE THICKNESS, BASE, DEPTH AND WIDTH OF MICRO-TRENCH, DEPTH OF TOPMOST CONDUIT, DISTANCES OF MICRO-TRENCH TO FACE OF GUTTER, CURB, CONCRETE PAVEMENT OR STRUCTURE AS APPLICABLE, AND BACKFILL MATERIAL.
      - (2) AC REINSTATEMENT INCLUDING WIDTH AND DEPTH OF GRIND AND CAP, STARTING FROM GUTTER FACE, CURB, SLAB OR STRUCTURE AS APPLICABLE.
    - C. DETAIL SHOWING CONDUIT FROM MAIN MICRO-TRENCH ALIGNMENT TO LATERAL SURFACE CONNECTIONS INCLUDING TO ANY JUNCTION/PULL BOX. INCLUDE SPECIFIC INFORMATION OF DEPTH, SIZE, AND METHOD OF EXCAVATION BELOW EXISTING CURB AND GUTTER.
    - D. CUT SHEETS OF THE PROPOSED EQUIPMENT PARTICULARLY SUITABLE FOR MICRO-TRENCHING, INCLUDING:
      - (1) MICRO-TRENCHER CAPABLE OF MEETING TARGET DEPTH AND WIDTH IN A SINGLE PASS WITH AN INTEGRAL HOOD AND ASSOCIATED VACUUM SYSTEM. SELECTION OF CUTTING WHEEL SHALL BE SUCH THAT IT MINIMIZES DAMAGE TO THE ADJACENT AC SURFACE.
      - (2) MOBILE CONCRETE/SLURRY PLACEMENT WITH AN ON-BOARD VIBRATOR AND NARROW TROUGH TO MATCH MICRO-TRENCH WIDTH.
      - (3) MOBILE GROUND PENETRATING RADAR SYSTEM THAT IS CAPABLE OF LOCATING BOTH METALLIC AND NON-METALLIC PIPES AND CABLES TO A DEPTH OF 24-INCHES.
    - E. OTHER SITE SPECIFIC ITEMS AS REQUIRED BY THE ENGINEER.

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NO. C 78044		MICROTRENCHING DETAIL			
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LIMITS OF REMOVALS, TRENCH WIDTH, AND LOCATION

- 6. THE MICRO-TRENCH SHALL BE CONSTRUCTED WITH CONTINUOUS UNIFORM STRAIGHT AND NEAT EDGES.
- 7. MICRO-TRENCH ALIGNMENTS SHALL CONSIST OF RUNS PARALLEL TO THE CENTERLINE OF THE STREET. STREET CROSSING MAY BE DONE PROVIDED THE ALIGNMENT IS PERPENDICULAR TO THE STREET CENTERLINE TO THE EXTENT POSSIBLE.
- 8. THE EDGE OF THE MICRO-TRENCH SHALL BE A MINIMUM OF 24-INCHES FROM THE EXISTING FACE OF THE GUTTER, EXISTING CONCRETE STRUCTURE, OR CURB IF GUTTER IS NOT PRESENT.
- 9. THE MICRO-TRENCH WIDTH SHALL BE A MINIMUM OF 1-INCH AND A MAXIMUM OF 2-INCHES.
- 10. MICRO-TRENCHING MAY BE PERMITTED UPON THE ENGINEER'S DISCRETION ON SPECIAL PAVEMENTS SUCH AS DECORATIVE ASPHALT PAVING, AND THROUGH EXISTING IMPROVEMENTS SUCH AS PERPENDICULAR TO SPEED BUMPS. SPECIAL PAVEMENTS AND EXISTING IMPROVEMENTS SHALL BE RESTORED IN KIND AS APPROVED BY THE ENGINEER. HOWEVER, MICRO-TRENCHING THROUGH EXISTING CURB, GUTTER, CROSS GUTTER, BUS PAD, SIDEWALK, FLOATING CURB EXTENSION, BUS BULB, TRUCK PILLOW, RAISED CROSSWALK, ISLAND, MINI-ROUNDABOUT, OR SIMILAR ELEMENTS IS NOT PERMITTED.
- 11. UP TO TWO (2) VERTICALLY STACKED CONDUITS CAN BE PLACED WITHIN A MICRO-TRENCH.
- 12. THE CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 24 INCHES BELOW THE EXISTING AC PAVEMENT SURFACE, AND THE BOTTOM OF THE MICRO-TRENCH SHALL BE AT A MINIMUM DEPTH OF 24 INCHES BELOW THE EXISTING AC PAVEMENT SURFACE.
- 13. ANCHORS/SPACERS SHALL BE PLACED AT A MAXIMUM OF 10-FEET APART ALONG THE ALIGNMENT TO ENSURE THE CONDUIT DOES NOT RISE FROM THE BOTTOM OF THE MICRO-TRENCH AND DOES NOT TOUCH THE WALLS OF THE MICRO-TRENCH DURING INSTALLATION.

### BACKFILL

14. ALL MICRO-TRENCHES SHALL BE COMPLETELY BACKFILLED WITH A CEMENT SAND SLURRY 2500 PSI TO FINISH GRADE BY THE END OF THE WORK DAY.

### GRIND AND RESURFACE SECTION

- 15. COMMENCEMENT OF SURFACE PREPARATION SUCH AS GRINDING/CHIPPING FOR ASPHALT CONCRETE PAVING REPLACEMENT WILL OCCUR NO SOONER THAN 48 HOURS AFTER SLURRY BACKFILL OF TRENCH. FIELD CONDITIONS OR MATERIAL USED MAY NECESSITATE A LONGER WAIT AS DETERMINED BY THE INSPECTOR.
- 16. AS SOON AS BACKFILL HAS CURED, NOT TO EXCEED 30 CALENDAR DAYS, ASPHALT CONCRETE SHALL BE GROUND AND CAPPED AS FOLLOWS:
  - A. EXISTING AC AND SLURRY BACKFILL SHALL BE GROUND DOWN FULL DEPTH OF EXISTING ASPHALT FOR A WIDTH OF 18-INCHES FROM BOTH EDGES OF THE MICRO-TRENCH AND RESURFACED WITH CLASS B ASPHALT AND BINDER GRADE PER GREENBOOK.
  - B. TACK COAT ALL EDGES WITH EITHER SS-1H EMULSIFIED ASPHALT OR PG 64-10 PAVING ASPHALT IMMEDIATELY BEFORE THE ADJOINING ASPHALT CONCRETE IS PLACED. "NO TRAK TAC".
  - C. CAP COURSE SHALL BE GROUND 4" DEEP AT MIN 24" WIDE.
  - D. WHERE ANGULAR CROSSING OR ANY LENGTH-WISE CUTS OF A BIKE LANE OCCUR BY MICROTRENCHING, THE CAPPING LIMITS SHALL EXTEND THE FULL WIDTH OF THE BIKE LANE. PERPENDICULAR CROSSINGS MAY RECEIVE TYPICAL CAPPING WIDTH PER NOTE 16.A. ABOVE. PAVEMENT MARKINGS SHALL BE RESTORED IN KIND. WHERE NO BIKE LANE MARKINGS EXIST, CONTRACTOR SHALL CONSULT WITH THE ENGINEER TO DETERMINE LOCATION OF ANY PLANNED BIKE LANES SO THAT IMPACT OF PAVEMENT SURFACE MAY BE AVOIDED.
  - E. PAVEMENT SHALL BE LEVEL WITH ADJACENT ROADWAY ELEVATIONS AND SHALL PROVIDE A SMOOTH SURFACE PER GREENBOOK SECTION 302-5 AND SUBJECT TO ACCEPTANCE BY THE INSPECTOR.

### VAULTS AND SERVICE CONNECTIONS

- 17. CONNECTION TO SERVICE LATERALS, JUNCTION BOXES, ETC., SHALL BE DONE SUCH THAT CURB AND GUTTER IS NOT DISTURBED, SETTLED OR DAMAGED. REMOVAL LIMITS OF SIDEWALK SHALL FOLLOW APPLICABLE STANDARDS AND REQUIREMENTS AS APPROVED BY THE ENGINEER.
- 18. THE USE OF HYDRO-JETTING IS NOT PERMITTED. TRENCHLESS METHODS SHALL NOT CREATE A VOID TWO TIMES GREATER THAN CONDUIT. VOID SHALL BE COMPACTED AND BACKFILLED WITH APPROVED CONTROLLED LOW-STRENGTH MATERIAL (CLSM).

### **IDENTIFICATION**

19. SHALL INCLUDE TRACKER WIRE FROM VAULT TO VAULT.

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