

LEGEND

- ① ITEM 403/402 - ASPHALT BASE (5" LOCAL, 6" SUB-COLLECTOR, 7" COLLECTOR).
- ② ITEM 403/402 - 2" ASPHALT SURFACE
- ③ ITEM 302 - 7" CRUSHED STONE BASE, COMPACTED TO 100% (ASTM D698).
- ④ ITEM 214 - MIRAFI® 600X OR EQUIVALENT WOVEN GEOTEXTILE, PLACED CONTINUOUSLY BETWEEN EDGES OF DRAIN TRENCHES ON BOTH SIDES. ALL OVERLAPS TO BE 18" INCHES MINIMUM.
- ⑤ ITEM 207 - SUBGRADE RESHAPING AND COMPACTION OF EXISTING CLAY SUBGRADE - TRIMMED AND ROLLED SMOOTH FOR DRAINAGE SO THAT THE GEOTEXTILE CAN BE SPREAD SMOOTH, TAUT AND EVEN BEFORE NO. 2 STONE IS PLACED.
- ⑥ ITEM SPL - MIRAFI® 140N OR EQUIVALENT NONWOVEN GEOTEXTILE, COVERING DRAINAGE BACKFILL, LAPPED 12" INCHES ONTO CLAY EACH SIDE, AND 4" INCHES ONTO BACK OF CURB WHERE APPLICABLE.
- ⑦ ITEM 302 - CLEAN NO. 57 CRUSHED STONE (LESS THAN 3% FINES), COMPACTED IN 6" TO 8" LIFTS TO 80% DENSITY (ASTM D4253, D4254) W/A VIBRATORY COMPACTOR.
- ⑧ ITEM 704 - 4" DIA. RIGID PERFORATED PVC PIPE.
- ⑨ ITEM 506 - CONCRETE CURB AND GUTTER.
- ⑩ PIPE BEDDING PER UTILITY COMPANY REQUIREMENTS
- ⑪ BACKFILL - LOW STRENGTH MORTAR BACKFILL
- ⑫ ITEM 403/403 - 2" MILL AND RESURFACE ASPHALT PAVEMENT

NOTE:

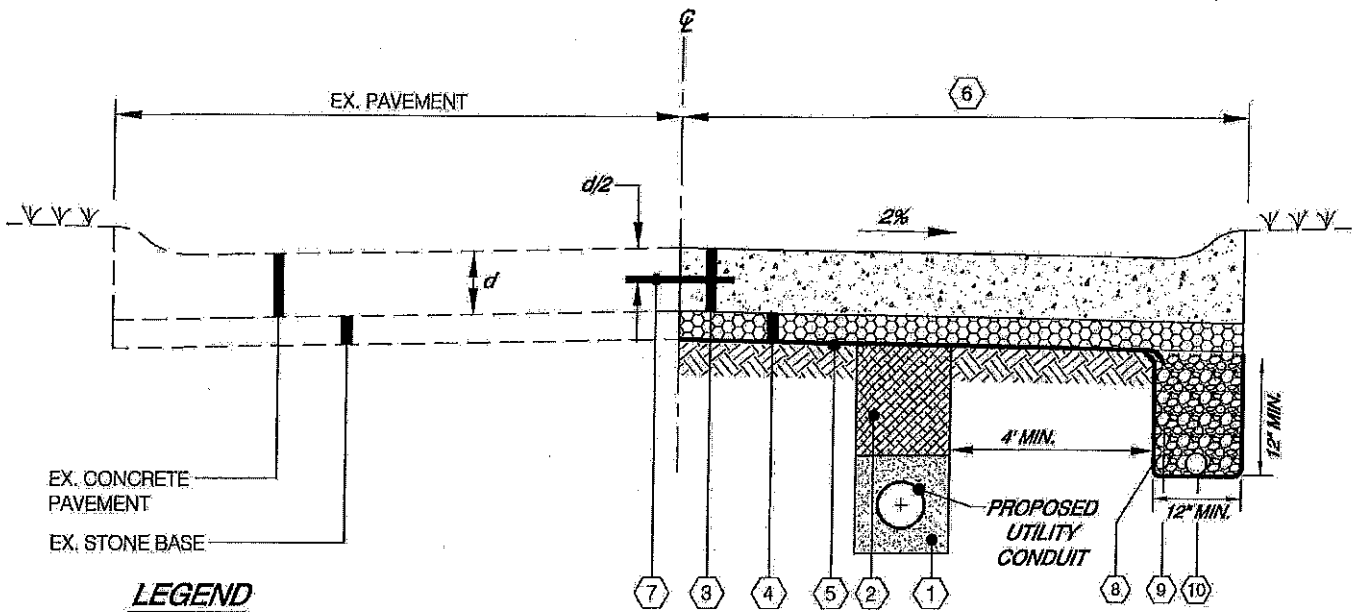
- 1.) LIMITS OF RESURFACING SHALL EXTEND 20' BEYOND LIMITS OF UTILITY TRENCH EXCAVATION.



**CITY OF SOUTHGATE
TYPICAL DETAIL NO. 1
TYP. PAVEMENT RECONSTRUCTION
FOR ASPHALT STREETS**

(CONSTRUCTED WITHIN THE PREVIOUS 15 YEARS)

SCALE AS NOTED	DATE 10-20-2016
DRAWN BY DGAR	CHECKED BY JSHU
PROJECT NO. 160284	FILE
SHEET 1 OF 1	



LEGEND

- ① PIPE BEDDING PER UTILITY COMPANY REQUIREMENTS.
- ② BACKFILL
 - A. UNDER ROADWAY PAVEMENT
 - 1. LOW STRENGTH MORTAR BACKFILL
- ③ CONCRETE PAVEMENT REPLACEMENT
 - A. LOCAL STREETS AND SUB-COLLECTOR STREETS
 - 1. KTC 501 - d = 7" CONCRETE PAVEMENT
 - B. SUB-COLLECTOR STREETS
 - 1. KTC 501 - d = 8" CONCRETE PAVEMENT
 - C. COLLECTOR STREETS
 - 1. KTC 501 - d = 9" CONCRETE PAVEMENT
- ④ DRAINAGE BLANKET
 - A. KTC 302 - 4" CRUSHED STONE BASE, COMPACTED TO 100% (ASTM D688)
- ⑤ WOVEN GEOTEXTILE
 - A. KTC 214 - MIRAFI 600 X OR EQUIVALENT WOVEN GEOTEXTILE. OVERLAP MINIMUM 18" WITH EXISTING GEOTEXTILE.
- ⑥ CONCRETE PAVEMENT
 - A. CONCRETE PAVEMENT PER CAMPBELL COUNTY SUBDIVISION REGULATIONS.
 - 1. CONCRETE PAVEMENT SHALL BE SAWCUT, REMOVED, AND REPLACED TO THE NEAREST JOINT. MINIMUM REPAIR = 1 BLOCK = 12' X 12'. IF UTILITY TRENCH IS LOCATED WITH IN 2' OF THE CENTER LINE OF THE PAVEMENT, THE ENTIRE PAVEMENT WIDTH SHALL BE REPLACED.
- ⑦ 1/2" REBAR, 18" LONG, 18" O.C. DRILLED INTO EXISTING CONCRETE PAVEMENT (ALL SIDES WHERE NEW CONCRETE ABUTS EX. CONCRETE)
- ⑧ ITEM SPL - MIRAFI 140N OR EQUIVALENT NONWOVEN GEOTEXTILE, COVERING DRAINAGE BACKFILL, LAPPED 12" INCHES ONTO CLAY EACH SIDE, AND 4" INCHES ONTO BACK OF CURB WHERE APPLICABLE.
- ⑨ ITEM 302 - CLEAN NO. 57 CRUSHED STONE (LESS THAN 3% FINES), COMPACTED IN 6" TO 8" LIFTS TO 80% DENSITY (ASTM D4253, D4254) W/A VIBRATORY COMPACTOR. (NOTE 2)
- ⑩ ITEM 704 - 4" DIA. RIGID PERFORATED PVC PIPE. (NOTE 2)

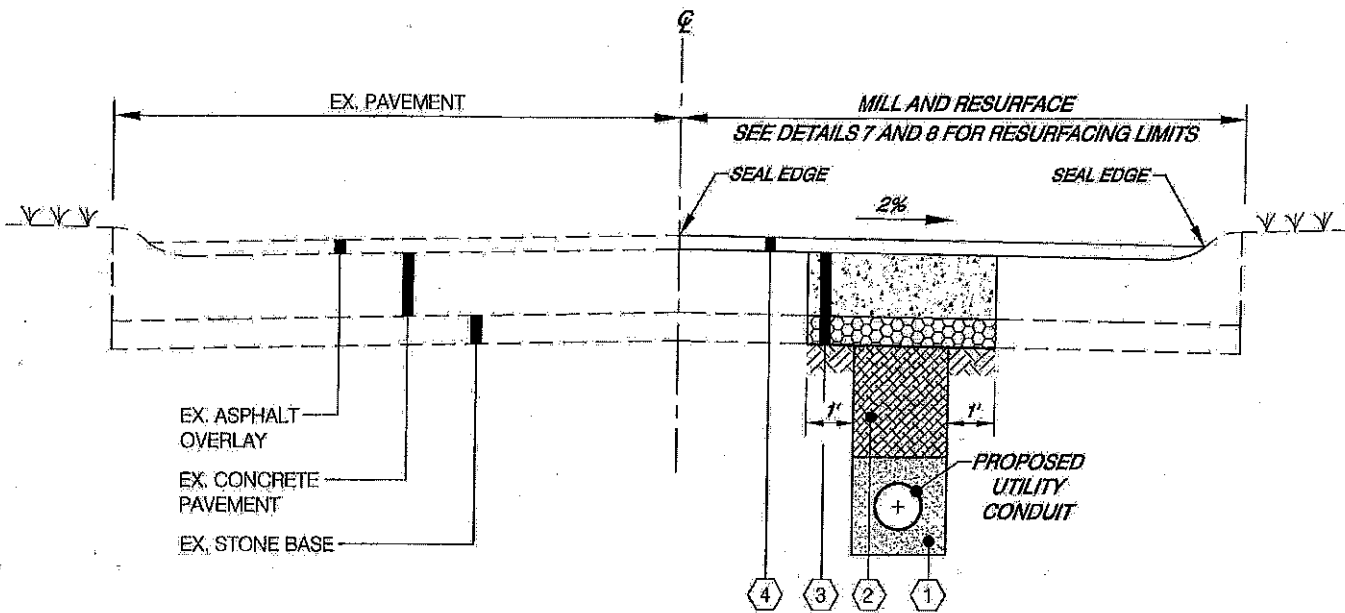
NOTE:

- 1.) LIMITS OF REPLACEMENT SHALL EXTEND TO THE NEAREST JOINT.
- 2.) GRANULAR BASE MAY BE OMITTED IF EXISTING STREET DOES NOT HAVE AN EXISTING GRAVEL BASE.



CITY OF SOUTHGATE
TYPICAL DETAIL NO. 2
TYP. PAVEMENT RECONSTRUCTION
OR RESTORATION
FOR CONCRETE STREETS
(CONSTRUCTED WITHIN THE PREVIOUS 15 YEARS)

SCALE AS NOTED	DATE 10-20-2016
DRAWN BY DGAR	CHECKED BY JSHU
PROJECT NO. 160284	FILE
SHEET <u>1</u> OF <u>1</u>	



LEGEND

- ① PIPE BEDDING PER UTILITY COMPANY REQUIREMENTS.
- ② BACKFILL
A. UNDER ROADWAY PAVEMENT
1. LOW STRENGTH MORTAR BACKFILL
- ③ PAVEMENT RESTORATION
PAVEMENT RESTORATION PER TYPICAL DETAIL NO. 1 OR NO. 2
- ④ MILL EXISTING ASPHALT PAVEMENT AND RESURFACE WITH NEW ASPHALT PAVEMENT.
(2" TYPICAL OR MATCH EXISTING)

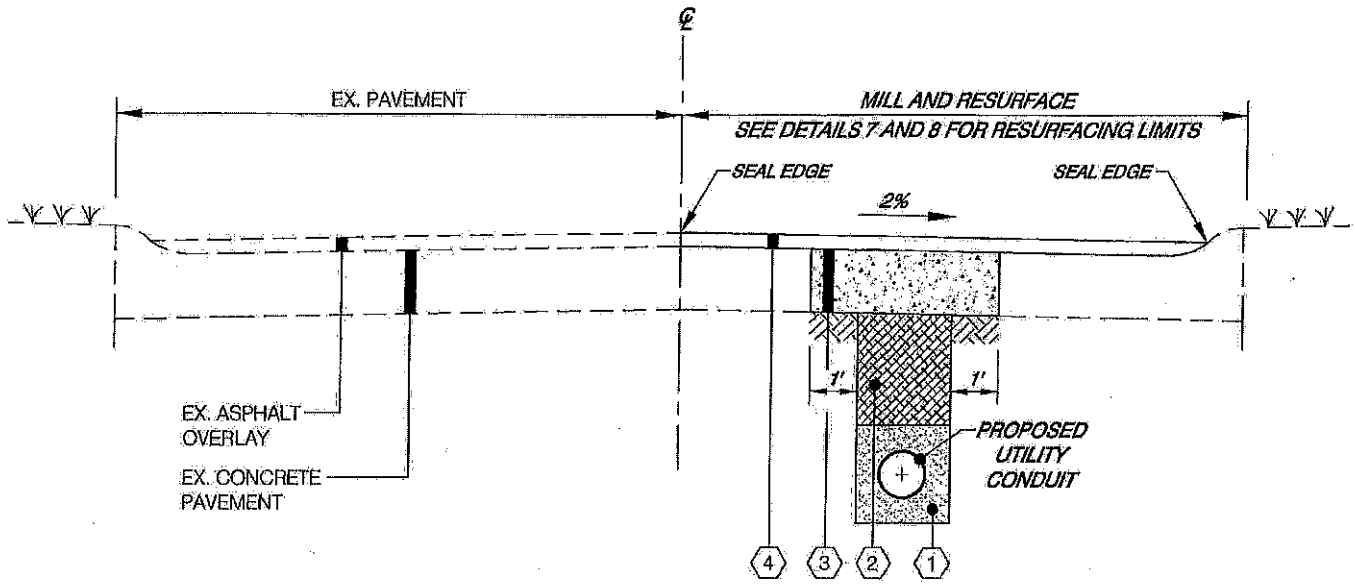
NOTE: ANY EXISTING UNDER DRAIN DISTURBED DURING TRENCHING CONSTRUCTION SHALL BE REPLACED WITH RIGID 4" DIA. PERFORATED PVC PIPE AND/OR CLEAN NO. 57 STONE AS INDICATED ON THE CITY OF SOUTHGATE STREET DETAIL 1.

CT your trusted advisor
consultants → engineers
architects
planners

2161 Chamber Center Drive, Fort Mitchell, KY 41017
Phone: 859.525.0544 - Fax: 859.525.0561 - www.ctcconsultants.com

**CITY OF SOUTHGATE
TYPICAL DETAIL NO. 3A
TYPICAL PAVEMENT RESTORATION
AND BACKFILL FOR CONCRETE
STREET WITH ASPHALT OVERLAY
(WITH GRANULAR BASE)**

SCALE	DATE
AS NOTED	10-20-2016
DRAWN BY	CHECKED BY
DGAR	JSHU
PROJECT NO.	FILE
160284	
SHEET	OF
1	1



LEGEND

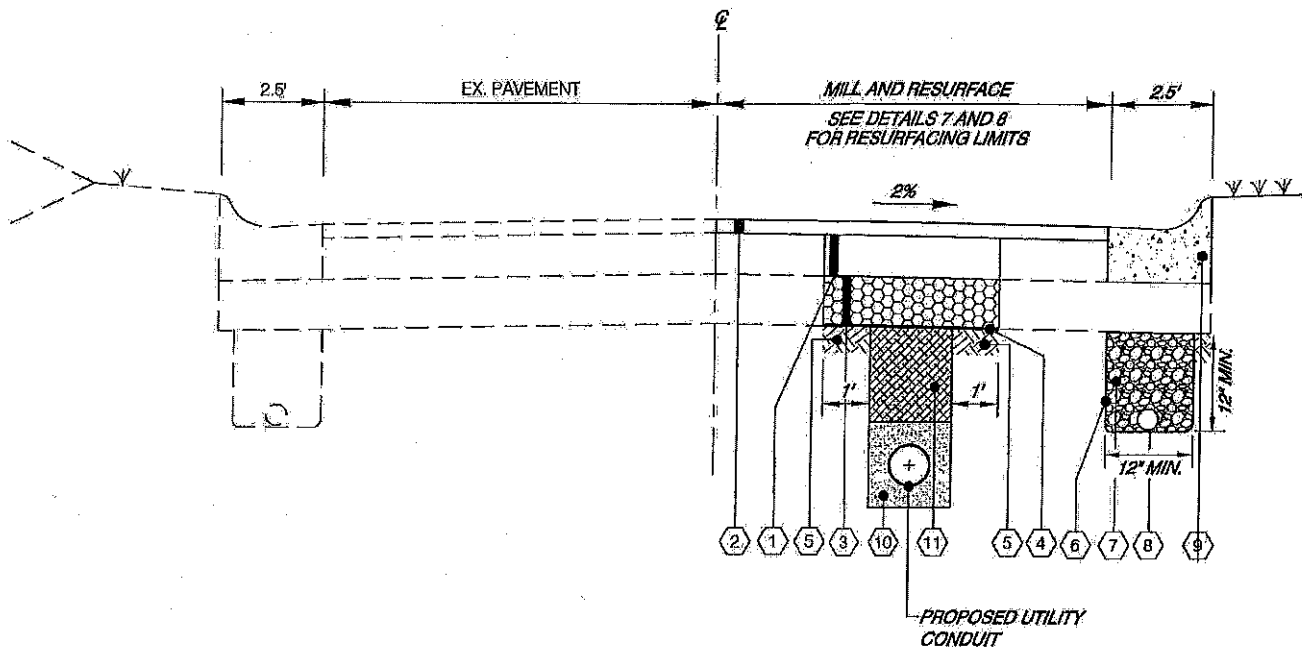
- ① PIPE BEDDING PER UTILITY COMPANY REQUIREMENTS.
- ② BACKFILL
 - A. UNDER ROADWAY PAVEMENT
 - 1. LOW STRENGTH MORTAR BACKFILL
- ③ PAVEMENT RESTORATION
 - 7" CONCRETE PAVEMENT OR 7" ASPHALT BASE PAVEMENT
- ④ MILL EXISTING ASPHALT PAVEMENT AND RESURFACE WITH NEW ASPHALT PAVEMENT. (2" TYPICAL OR MATCH EXISTING)

NOTE: ANY EXISTING UNDER DRAIN DISTURBED DURING TRENCHING CONSTRUCTION SHALL BE REPLACED WITH RIGID 4" DIA. PERFORATED PVC PIPE AND/OR CLEAN NO. 57 STONE AS INDICATED ON THE CITY OF SOUTHGATE STREET DETAIL 1.



**CITY OF SOUTHGATE
TYPICAL DETAIL NO. 3B
TYPICAL PAVEMENT RESTORATION
AND BACKFILL FOR CONCRETE
STREET WITH ASPHALT OVERLAY
(W/O GRANULAR BASE)**

SCALE: AS NOTED	DATE: 10-20-2016
DRAWN BY: DGAR	CHECKED BY: JSHU
PROJECT NO. 160284	FILE
SHEET 1 of 1	



LEGEND

- ① ITEM 403/402 - ASPHALT BASE (6" LOCAL, 6" SUB-COLLECTOR, 7" COLLECTOR).
- ② ITEM 403/407 - 2" MILL AND RESURFACE ASPHALT PAVEMENT
- ③ ITEM 302 - 7" CRUSHED STONE BASE, COMPACTED TO 100% (ASTM D698).
- ④ ITEM 214 - MIRAFI® 600X OR EQUIVALENT WOVEN GEOTEXTILE, PLACED CONTINUOUSLY BETWEEN EDGES OF DRAIN TRENCHES ON BOTH SIDES. ALL OVERLAPS TO BE 18" INCHES MINIMUM.
- ⑤ ITEM 207 - SUBGRADE RESHAPING AND COMPACTION OF EXISTING CLAY SUBGRADE - TRIMMED AND ROLLED SMOOTH FOR DRAINAGE SO THAT THE GEOTEXTILE CAN BE SPREAD SMOOTH, TAUT AND EVEN BEFORE NO. 2 STONE IS PLACED.
- ⑥ ITEM SPL - MIRAFI® 140N OR EQUIVALENT NONWOVEN GEOTEXTILE, COVERING DRAINAGE BACKFILL, LAPPED 12" INCHES ONTO CLAY EACH SIDE, AND 4" INCHES ONTO BACK OF CURB WHERE APPLICABLE.
- ⑦ ITEM 302 - CLEAN NO. 57 CRUSHED STONE (LESS THAN 3% FINES), COMPACTED IN 6" TO 8" LIFTS TO 80% DENSITY (ASTM D4253, D4254) W/A VIBRATORY COMPACTOR. (NOTE 2)
- ⑧ ITEM 704 - 6" DIA. RIGID PERFORATED PVC PIPE. (NOTE 2)
- ⑨ ITEM 506 - CONCRETE CURB AND GUTTER. (NOTE 2)
- ⑩ PIPE BEDDING PER UTILITY COMPANY REQUIREMENTS.
- ⑪ BACKFILL - LOW STRENGTH MORTAR BACKFILL.

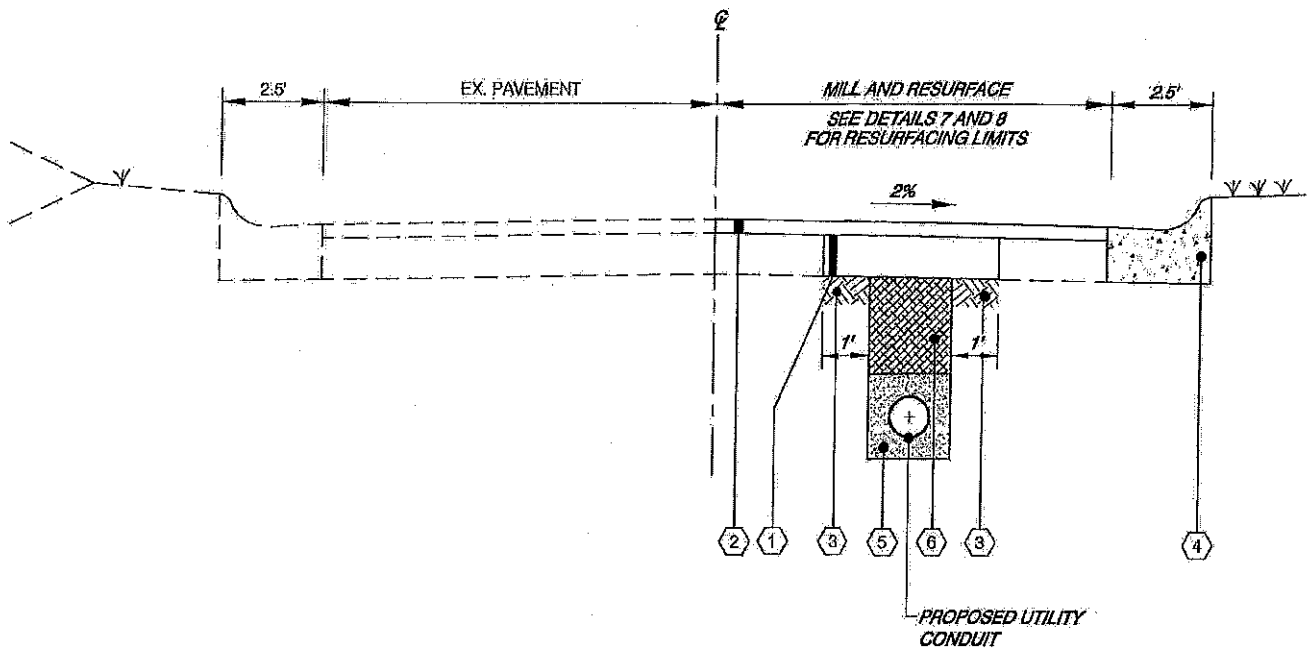
NOTE:

- 1.) LIMITS OF RESURFACING SHALL EXTEND 10' BEYOND LIMITS OF UTILITY TRENCH EXCAVATION.
- 2.) IF UTILITY TRENCH IS LESS THAN 4' FROM CURB AND GUTTER, REPLACE EDGE DRAIN AND CURB AND GUTTER.



CITY OF SOUTHGATE
TYPICAL DETAIL NO. 4A
TYPICAL PAVEMENT RESTORATION
AND BACKFILL FOR ASPHALT STREET
(WITH GRANULAR BASE)
(NOT CONSTRUCTED WITHIN THE PREVIOUS 15 YEARS)

SCALE:	DATE
AS NOTED	10-20-2016
DRAWN BY	CHECKED BY
DGAR	JSHU
PROJECT NO.:	FILE
160284	
SHEET	1 of 1



LEGEND

- ① ITEM 403/402 - ASPHALT BASE (7" LOCAL, 8" SUB-COLLECTOR, 9" COLLECTOR).
- ② ITEM 403/407 - 2" MILL AND RESURFACE ASPHALT PAVEMENT
- ③ ITEM 207 - SUBGRADE RESHAPING AND COMPACTION OF EXISTING CLAY SUBGRADE - TRIMMED AND ROLLED SMOOTH FOR DRAINAGE SO THAT THE GEOTEXTILE CAN BE SPREAD SMOOTH, TAUT AND EVEN BEFORE NO. 2 STONE IS PLACED.
- ④ ITEM 506 - CONCRETE CURB AND GUTTER. (NOTE 2)
- ⑤ PIPE BEDDING PER UTILITY COMPANY REQUIREMENTS.
- ⑥ BACKFILL - LOW STRENGTH MORTAR BACKFILL

NOTE:

- 1.) LIMITS OF RESURFACING SHALL EXTEND 10' BEYOND LIMITS OF UTILITY TRENCH EXCAVATION.
- 2.) IF UTILITY TRENCH IS LESS THAN 4' FROM CURB AND GUTTER, REPLACE CURB AND GUTTER.



**CITY OF SOUTHGATE
TYPICAL DETAIL NO. 4B
TYPICAL PAVEMENT RESTORATION
AND BACKFILL FOR ASPHALT STREET
(W/O GRANULAR BASE)**

(NOT CONSTRUCTED WITHIN THE PREVIOUS 15 YEARS)

SCALE AS NOTED	DATE 10-20-2016
DRAWN BY DIGAR	CHECKED BY JSHU
PROJECT NO. 160284	FILE
SHEET 1 of 1	