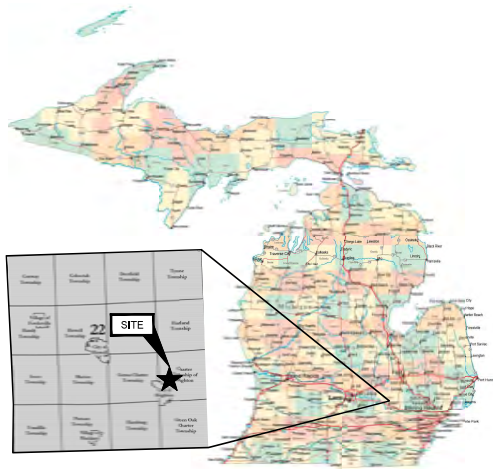
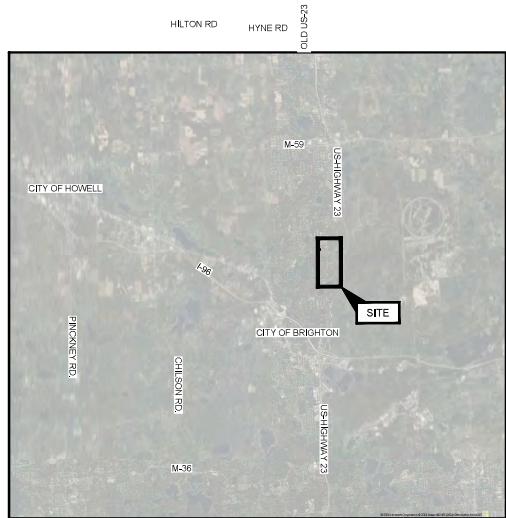


**BRIAN JONCKHEERE**  
**LIVINGSTON COUNTY DRAIN COMMISSIONER**  
**BRIGHTON NO. 4 DRAIN IMPROVEMENTS**  
 PART OF SECTIONS 8, 9, 16, & 17, BRIGHTON TWP, T2N, R6E  
 LIVINGSTON COUNTY, MICHIGAN



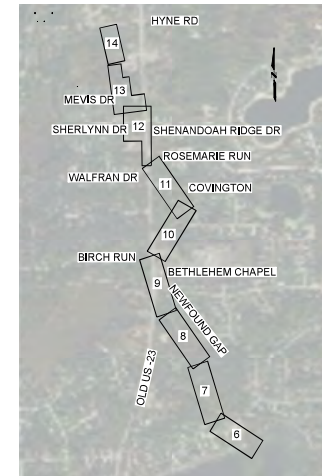
SOURCE:  
 STATE MAP: WWW.MICHIGANMAP.ORG  
 COUNTY MAP: WWW.MILVLCOUNTY.GOV/GIS/IMAP-GALLERY/

**STATE AND LIVINGSTON COUNTY MAP**  
 (NOT TO SCALE)



SOURCE:  
 BING MAPS

**SITE LOCATION MAP**  
 (NOT TO SCALE)



**PLAN INDEX**

PREPARED FOR: **LIVINGSTON COUNTY DRAIN COMMISSIONER**  
 2300 E. GRAND RIVER AVE., STE 105  
 HOWELL, MI 48843  
 (517)-546-0040

PREPARED BY: **GEI CONSULTANTS OF MICHIGAN, P.C.**  
 401 S WASHINGTON SQUARE  
 SUITE 103  
 LANSING, MI 48933  
 (517)803-4600



**SHEET INDEX**

SHEET NO.	DRAWING NO.	TITLE
1	01-G-01	COVER
2	01-G-02	GENERAL NOTES
3	01-G-03	SESC OVERVIEW
4	01-G-04	SESC DETAILS
5	01-G-05	TRAFFIC CONTROL
6	02-C-01	PLAN & PROFILE STA 0+00 - 10+00
7	02-C-02	PLAN & PROFILE STA 10+00 - 20+00
8	02-C-03	PLAN & PROFILE STA 20+00 - 30+00
9	02-C-04	PLAN & PROFILE STA 30+00 - 40+00
10	02-C-05	PLAN & PROFILE STA 40+00 - 50+00
11	02-C-06	PLAN & PROFILE STA 50+00 - 60+00
12	02-C-07	PLAN & PROFILE STA 60+00 - 70+00
13	02-C-08	PLAN & PROFILE STA 70+00 - 80+00
14	02-C-09	PLAN & PROFILE STA 80+00 - 90+00
15	99-D-01	DETAILS
16	99-D-02	DETAILS

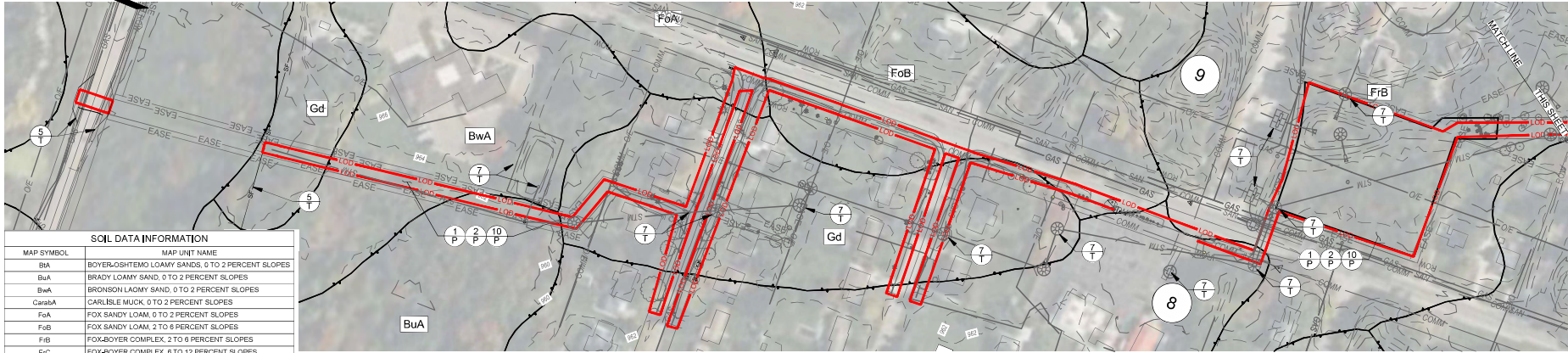
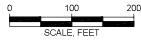
**PRELIMINARY**

		<b>DRAFT</b>		DWG. NO. <b>01-G-01</b>
				SHEET NO. <b>1 OF 15</b>
NO.	DATE	ISSUE/REVISION	APP	
0				

GEI PROJECT NO. 2000946

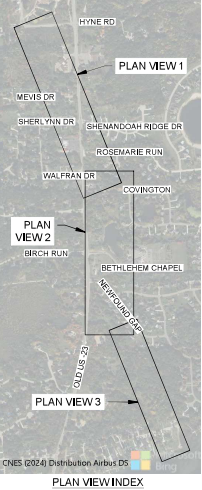
THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED  
 HEREIN, IS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE  
 PROPERTY OF GEI CONSULTANTS AND IS NOT TO BE USED, IN WHOLE  
 OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN  
 AUTHORIZATION OF GEI CONSULTANTS.





SOIL DATA INFORMATION	
MAP SYMBOL	MAP UNIT NAME
BwA	BOYER-SHTEMO LOAMY SANDS, 0 TO 2 PERCENT SLOPES
BuA	BRADY LOAMY SAND, 0 TO 2 PERCENT SLOPES
BwA	BRONSON LOAMY SAND, 0 TO 2 PERCENT SLOPES
CarabA	CARLISLE MUCK, 0 TO 2 PERCENT SLOPES
FoA	FOX SANDY LOAM, 0 TO 2 PERCENT SLOPES
FoB	FOX SANDY LOAM, 2 TO 6 PERCENT SLOPES
FrB	FOX-BOYER COMPLEX, 2 TO 6 PERCENT SLOPES
FoC	FOX-BOYER COMPLEX, 6 TO 12 PERCENT SLOPES
FiD	FOX-BOYER COMPLEX, 12 TO 18 PERCENT SLOPES
FoE	FOX-BOYER COMPLEX, 18 TO 25 PERCENT SLOPES
FiF	FOX-BOYER COMPLEX, 25 TO 40 PERCENT SLOPES
Gd	GILFORD SANDY LOAM, 0 TO 2 PERCENT SLOPES, GRAVELLY SUBSOIL
Gr	GRAVEL PITS
HgfaA	HOLMSTON MUCK, 0 TO 1 PERCENT SLOPES
MoA	WAWASEE LOAM, 0 TO 2 PERCENT SLOPES
MoB	WAWASEE LOAM, 2 TO 6 PERCENT SLOPES
W	WATER

ENTIRE PROJECT LIMITS OF DISTURBANCE = 5.3 ACRES



KEY	SESC MEASURE	SYMBOL	WHERE USED
1	Seeding		When bare soil is exposed temporarily or permanently, to stabilize losses from wind and/or water on flat areas. Will allow grasses, sedges, or clovers, overseed ditches and dikes, terraces and slope areas, and soil dikes.
2	Mulch		On flat areas, dikes, grassed waterways and spillways, diversion ditches and dikes, terraces and slope areas, and soil dikes when areas are subject to erosion. Also divert small volumes of sheet flow to protected facilities.
5	Perimeter Sediment Control Measures (SR, Fences, Straw Matting, etc.)		As a temporary measure used to capture sediment from sheet flow. May also divert small volumes of sheet flow to protected facilities.
7	Storm Drain Inlet Protection		Around the entrance to a catch basin or an inlet that will capture runoff from an earth change activity.
10	Soil Binding Polymers		Over all exposed soil surfaces or prepared seed beds that need protection from precipitation impact, sheet flow, till flow or wind prior to erosion from rain events.
15	Riprap		Along drain banks, channels, or where concentrated flows occur. Slows velocity, reduces erosion and sediment load.
26	Dust Control		As a temporary measure on exposed and unstable areas that must be protected from wind or water erosion.
39	Dewatering/Bypass Pumping		When construction or maintenance activities are limited by the presence of water and a dry work area is required.

LEGEND	
	EASEMENT
	ROAD RIGHT OF WAY
	CONTOUR INTERVAL (2 FOOT)
	INDEX INTERVAL (10 FOOT)
	SOIL TYPE
	PROPOSED STORM SEWER
	PROPOSED RIPRAP
	LIMITS OF DISTURBANCE
	SF

Preliminary



LIVINGSTON COUNTY DRAIN COMMISSIONER  
 BRIGHTON NO. 4 DRAIN  
 A PART OF SECTIONS 8, 9, 16, AND 17 BRIGHTON TWP,  
 T2N, R6E, LIVINGSTON COUNTY MICHIGAN

P.E. No.:	63347
Approved:	BBP_NAMED
Checked:	BHC_BY
Drawn:	DERWILBY
Designed:	DSM_BY
GEI Project	2000946
Attention:	1"

SHEET NAME			
SESC OVERVIEW			
DWG NO. <b>01-G-03</b>			
SHEET NO. <b>3 OF 15</b>			





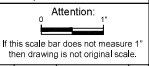
**SIGN LEGEND**

 ROAD WORK AHEAD W20-1 36" x 36" TYPE II B (1)	 RIGHT SHOULDER CLOSED W21-5bR 36" x 36" (2)	 END ROAD WORK G20-2 (3)	 SPEED LIMIT 45 R2-1 30" x 36" TYPE II B (4)
 WORK ZONE BEGINS RS-18C 48" x 48" (5)	 X MPH (6)	 INJURE/ KILL A WORKER \$7500+ 15 YEARS RS-18b (7)	



**LIVINGSTON COUNTY DRAIN COMMISSIONER**  
 BRIGHTON NO. 4 DRAIN  
 A PART OF SECTIONS 8, 9, 16, AND 17 BRIGHTON TWP,  
 T2N, R6E, LIVINGSTON COUNTY MICHIGAN

P.E. No.:	53847
Approved:	BJC
Checked:	BJC
Drawn:	MJ/W/LCM
Designed:	LCM
GEI Project:	2000946



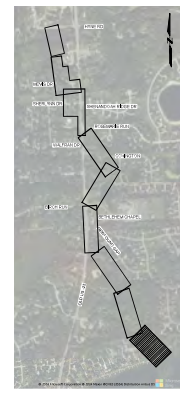
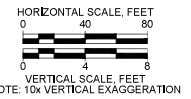
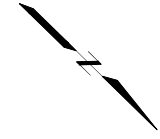
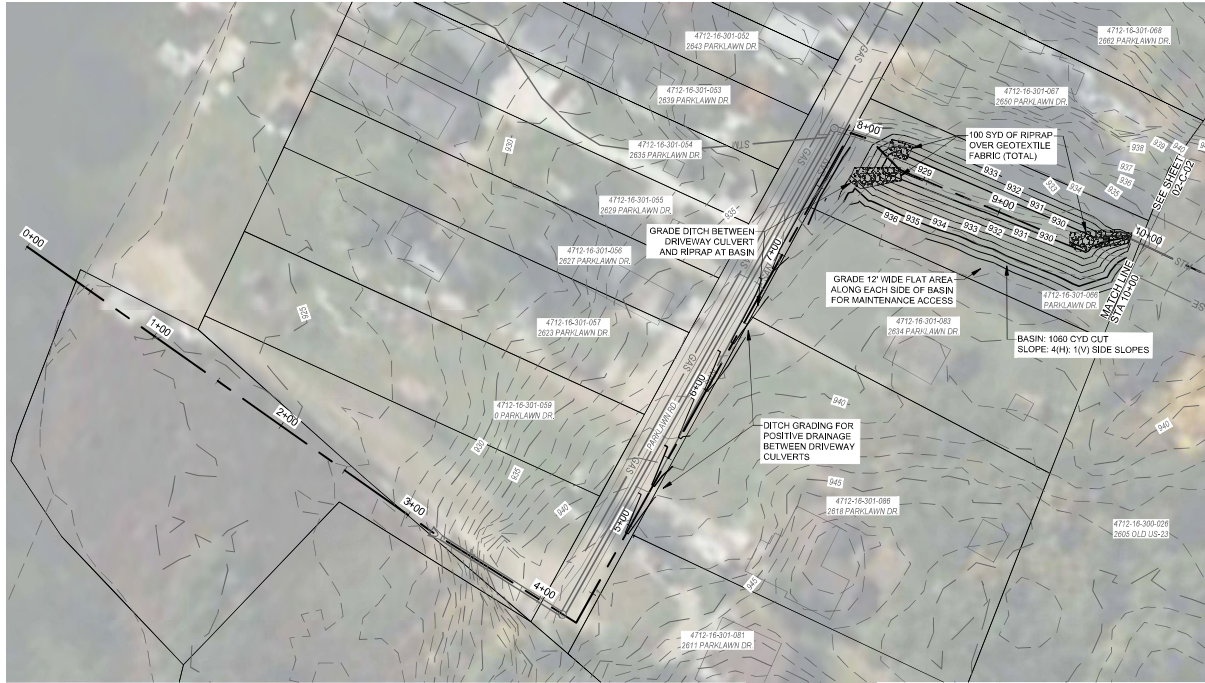
NO.	DATE	ISSUE/REVISION	APP.

SHEET NAME  
  
**TRAFFIC CONTROL**

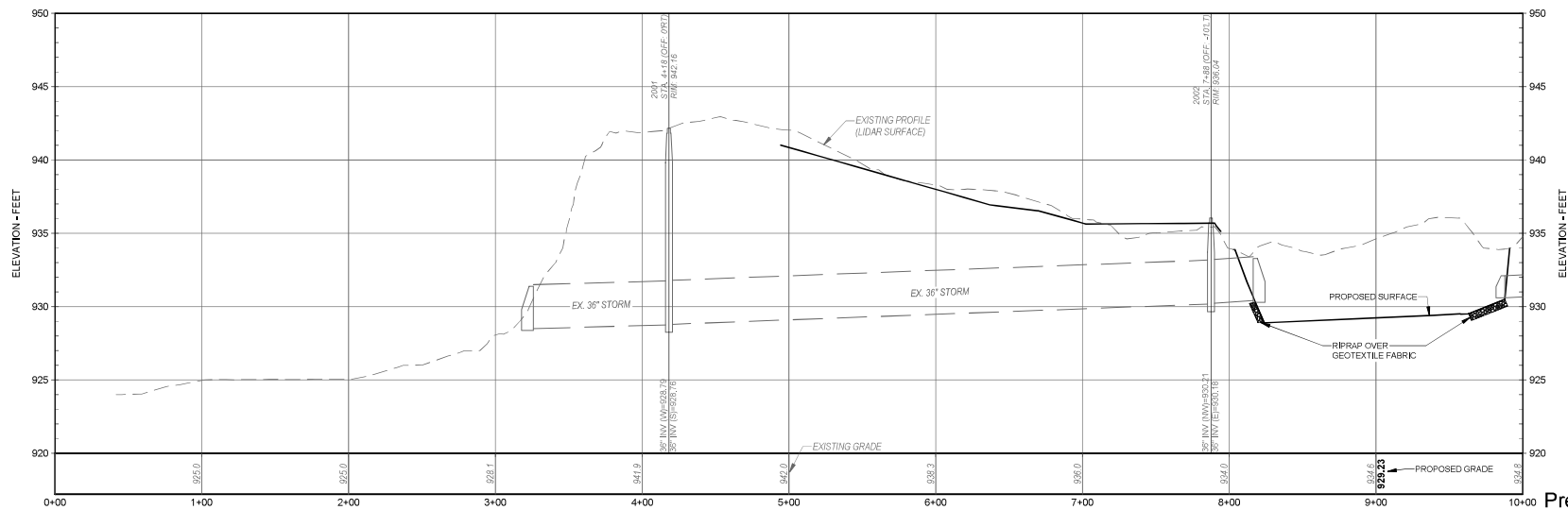
DWG NO.  
**01-G-05**

SHEET NO.  
**5 OF 15**

Preliminary



PLAN INDEX



Preliminary

**GEI** Consultants  
 282 CONSULTANTS OF MICHIGAN, P.C.  
 401 S. WASHINGTON SQUARE  
 SUITE 103  
 LANSING, MI 48203  
 (313) 465-6600

**LIVINGSTON COUNTY DRAIN COMMISSIONER**  
 BRIGHTON NO. 4 DRAIN  
 A PART OF SECTIONS 8, 9, 16, AND 17 BRIGHTON TWP,  
 T2N, R6E, LIVINGSTON COUNTY MICHIGAN

P.E. No.:	53847
Approved:	BJC
Checked:	BJC
Drawn:	MJWL/CM
Designed:	LCM
GEI Project:	2000946

NO.	DATE	ISSUE/REVISION	APP.

DWG NO.  
**02-C-01**  
 SHEET NO.  
**6 OF 15**



**LIVINGSTON COUNTY DRAIN COMMISSIONER**  
 BRIGHTON NO. 4 DRAIN  
 A PART OF SECTIONS 8, 9, 16, AND 17 BRIGHTON TWP,  
 T2N, R6E, LIVINGSTON COUNTY MICHIGAN

P.E. No.: 53847  
 Approved: BJC  
 Checked: BJC  
 Drawn: MJW/LCM  
 Designed: LCM  
 GEI Project: 2000946

Attention: 1"  
 If this scale bar does not measure 1" then drawing is not original scale.


NO.	DATE	ISSUE/REVISION	APP.

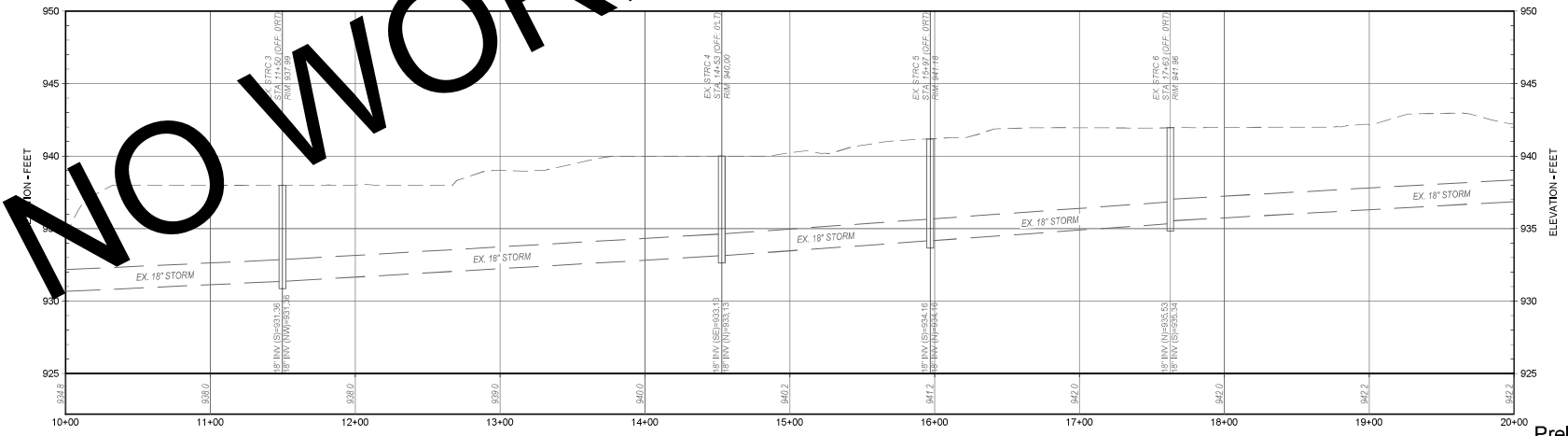
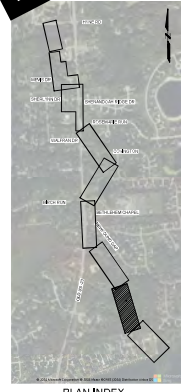
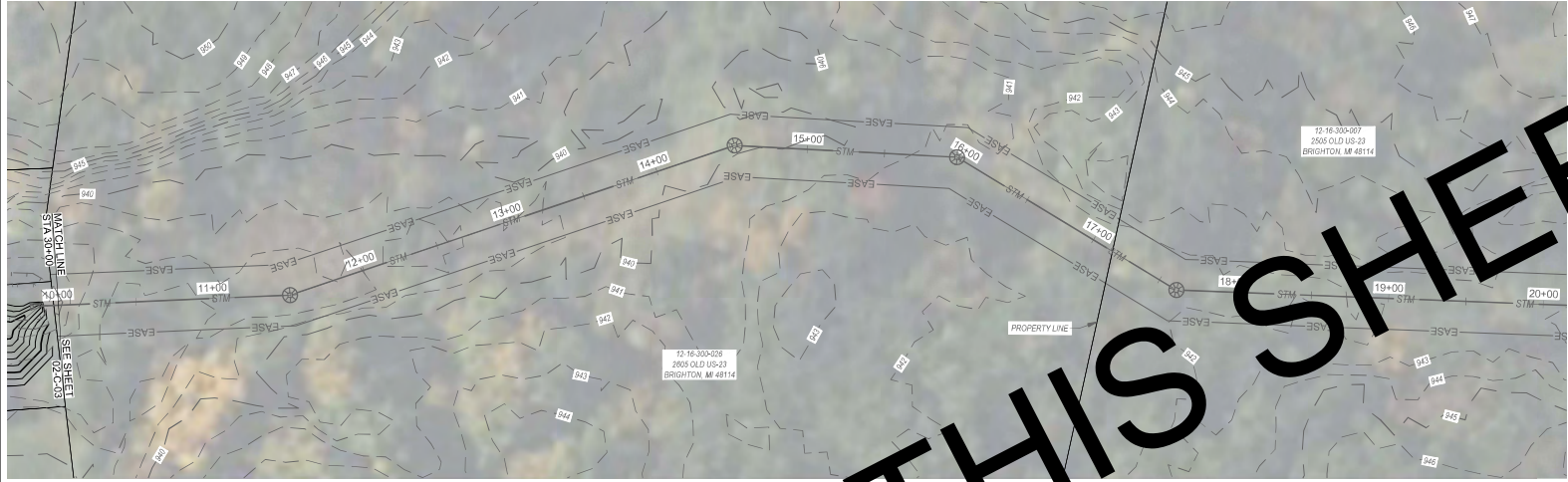
SHEET NAME

PLAN & PROFILE  
 STA 10+00 - 20+00

DWG NO.  
**02-C-02**

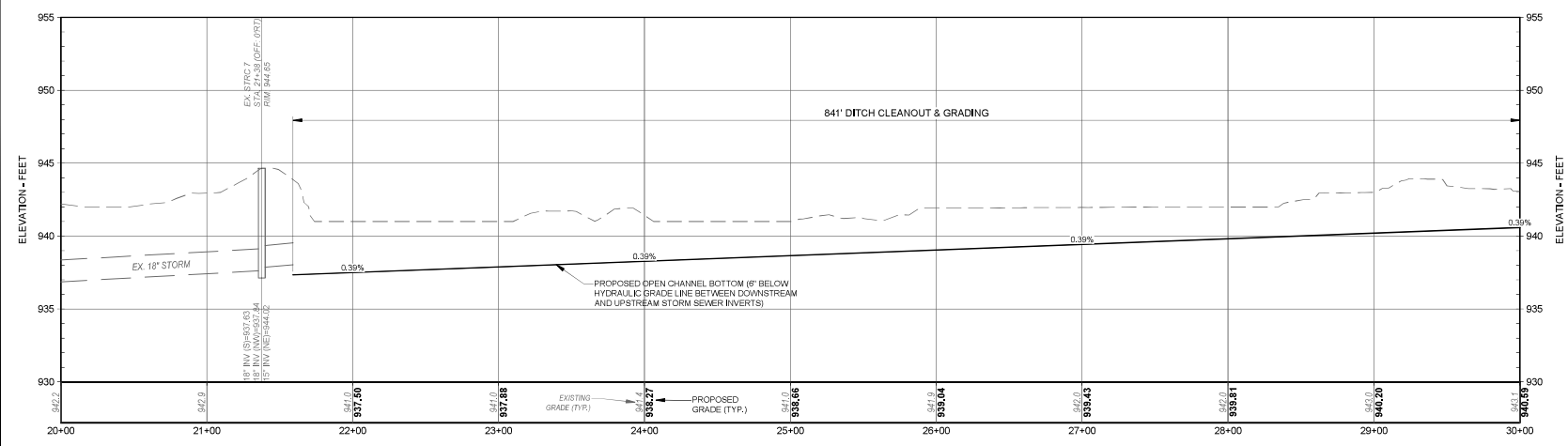
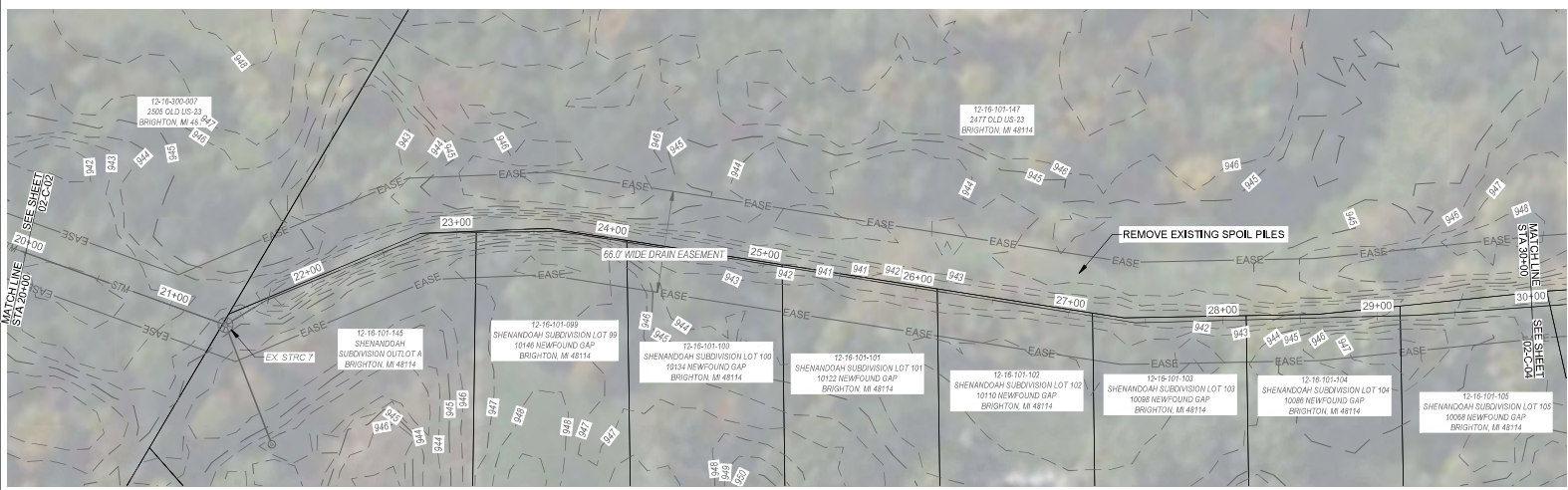
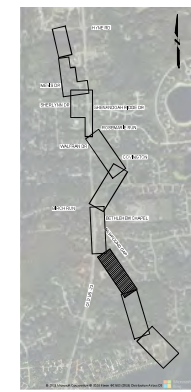
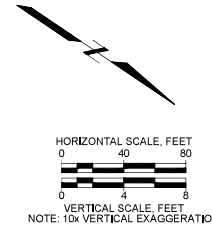
SHEET NO.  
**7 OF 15**

HORIZONTAL SCALE, FEET  
 0 40 80  
 VERTICAL SCALE, FEET  
 0 4 8  
 NOTE: 10x VERTICAL EXAGGERATION



**NO WORK THIS SHEET**

Preliminary



P.E. No.:	53847
Approved:	BJC
Checked:	BJC
Drawn:	MJWL/CM
Designed:	LCM
GEI Project:	2000946

Attention: 1"  
 If this scale bar does not measure 1" then drawing is not original scale.

NO.	DATE	ISSUE/REVISION	APP.

SHEET NAME  
 PLAN & PROFILE  
 STA 20+00 - 30+00

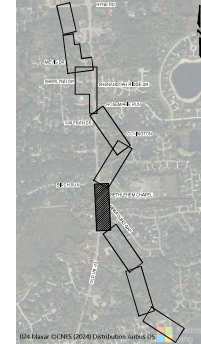
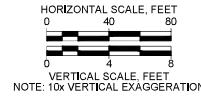
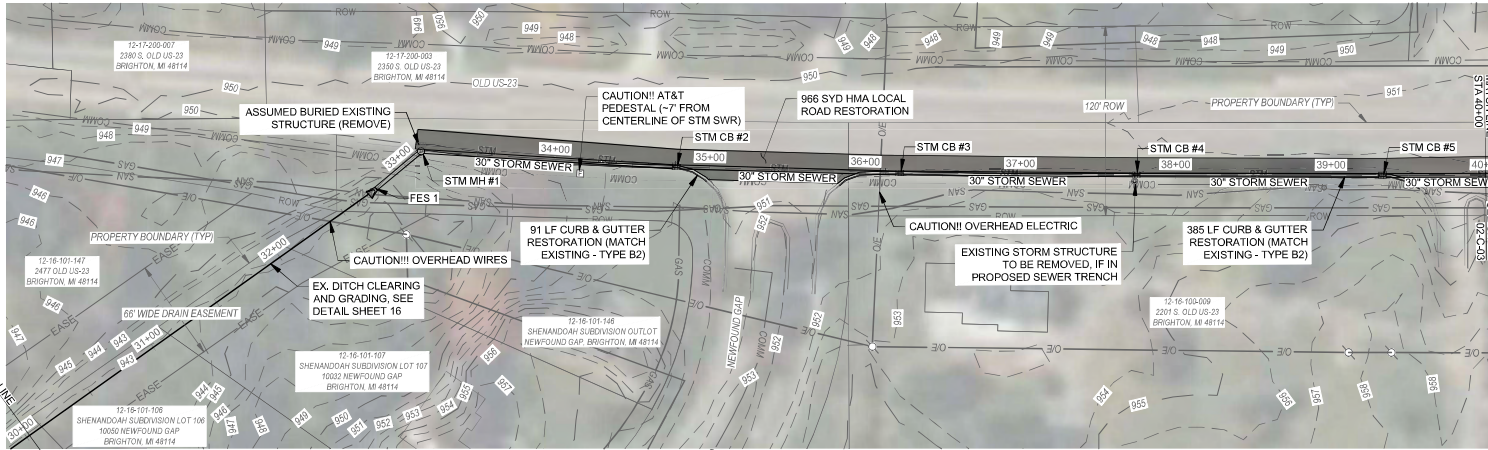
DWG NO.  
**02-C-03**

SHEET NO.  
**8 OF 15**

Preliminary



NEED UNDERDRAIN STILL FIELD VERIFY TELEPHONE POLE AT STA. 33+00

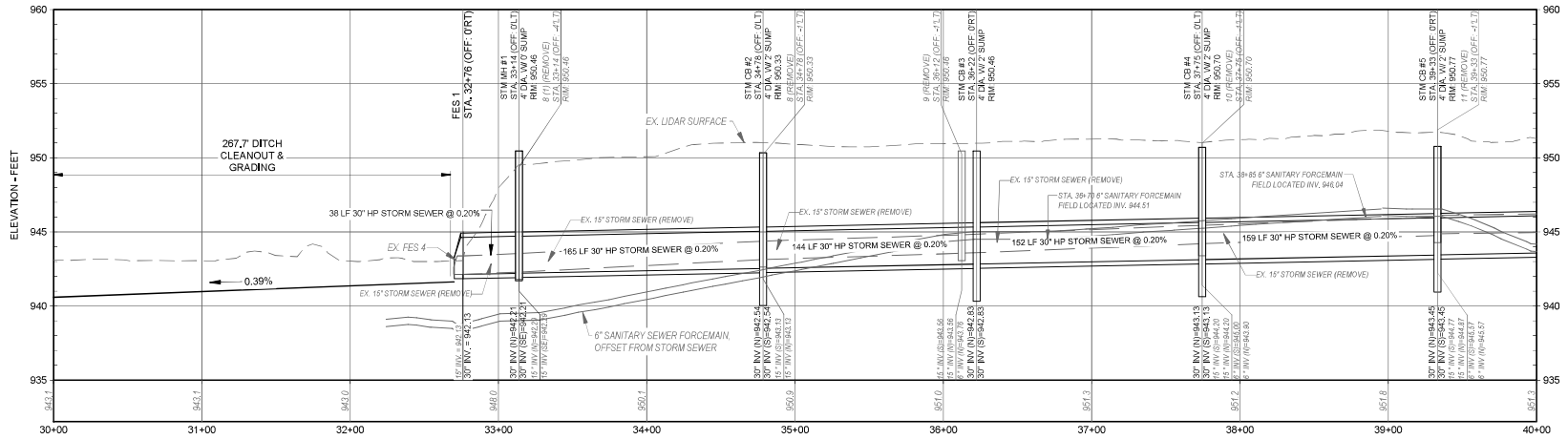


CONSTRUCTION NOTES:

1. NO STORAGE OF SPOILS OR MATERIALS WITHIN RIGHT OF WAY OF ANY ROAD WITHIN LIMITS OF PROJECT
2. MAINTAIN ACCESS FOR ALL HOMEOWNERS AT ALL TIMES
3. RESTORE ALL SIGNS & MAILBOXES TO LOCATIONS AS NEAR POSSIBLE TO EXISTING LOCATION AFTER COMPLETION OF WORK, CONSIDERED INCIDENTAL TO CONSTRUCTION
4. ROAD SHALL BE PASSABLE AND HAVE ONE LANE OPEN AT ALL TIMES AT THE END OF EACH WORK DAY. CONTRACTOR SHALL PROVIDE TEMPORARY PIPE OR OTHER CONNECTION APPROVED BY ENGINEER, TO PROVIDE STORM SEWER FLOW AT ALL TIMES. ALL STORM INLETS SHALL BE SECURED SO NO SEDIMENT MAY ENTER STORM SEWER SYSTEM.

APPROXIMATE STORM SEWER REMOVAL  
THIS SHEET (CONTRACTOR TO VERIFY)  
STRUCTURES: 6  
15" RCP: 730 LF

NOTE: EXPOSE EX. UTILITIES PRIOR TO INSTALLATION OF STORM SEWER THIS SHEET. NOTIFY ENGINEER IF ANY CONFLICTS EXIST.



**LIVINGSTON COUNTY DRAIN COMMISSIONER**  
BRIGHTON NO. 4 DRAIN  
A PART OF SECTIONS 8, 9, 16, AND 17 BRIGHTON TWP,  
T2N, R6E, LIVINGSTON COUNTY MICHIGAN

P.E. No.:	53847
Approved:	BJC
Checked:	BJC
Drawn:	MJW/LCM
Designed:	LCM
GEI Project:	2000946

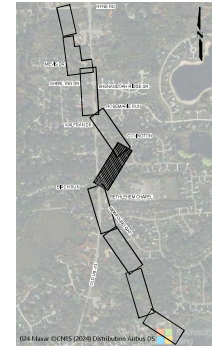
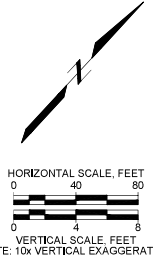
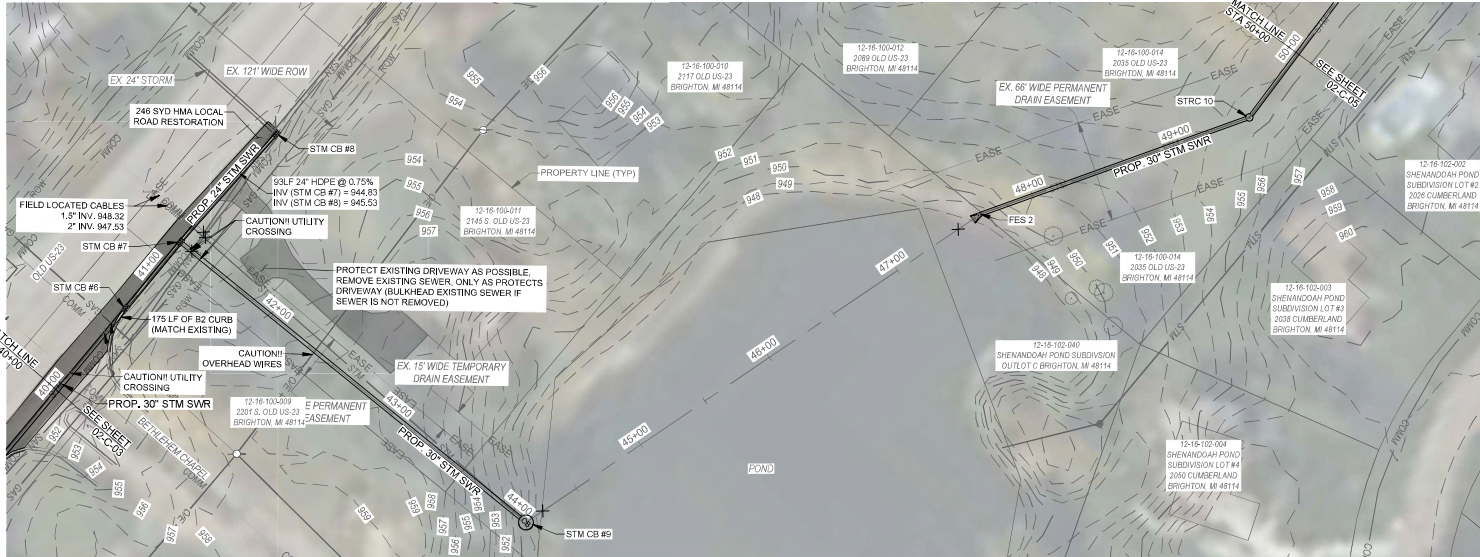
NO.	DATE	ISSUE/REVISION	APP.

SHEET NAME  
**PLAN & PROFILE STA 30+00 - 40+00**

DWG NO.  
**02-C-04**

SHEET NO.  
**9 OF 15**

Preliminary

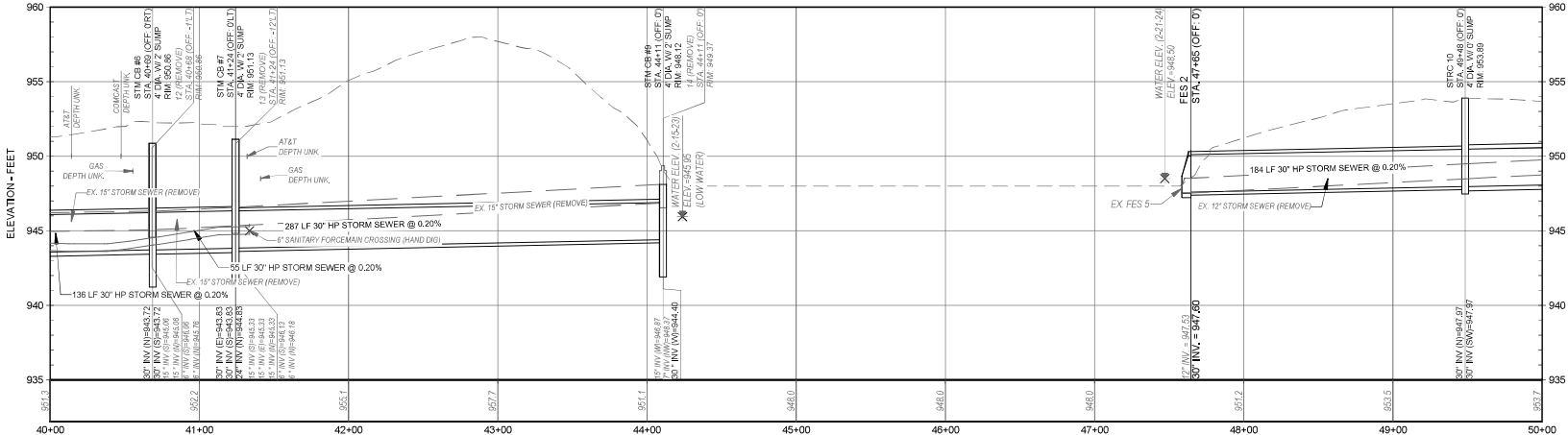


VERIFY WITH LIVINGSTON ABOUT REPLACING FROM 7-8

- CONSTRUCTION NOTES:**
- NO STORAGE OF SPOILS OR MATERIALS WITHIN RIGHT OF WAY OF ANY ROAD WITHIN LIMITS OF PROJECT
  - MAINTAIN ACCESS FOR ALL HOMEOWNERS AT ALL TIMES
  - RESTORE ALL SIGNS & MAILBOXES TO LOCATIONS AS NEAR POSSIBLE TO EXISTING LOCATION AFTER COMPLETION OF WORK, CONSIDERED INCIDENTAL TO CONSTRUCTION
  - ROAD SHALL BE PASSABLE AND HAVE ONE LANE OPEN AT ALL TIMES
  - AT THE END OF EACH WORK DAY, CONTRACTOR SHALL PROVIDE TEMPORARY PIPE OR OTHER CONNECTION APPROVED BY ENGINEER, TO PROVIDE STORM SEWER FLOW AT ALL TIMES, ALL STORM INLETS SHALL BE SECURED SO NO SEDIMENT MAY ENTER STORM SEWER SYSTEM,

APPROXIMATE STORM SEWER REMOVAL THIS SHEET (CONTRACTOR TO VERIFY)

NOTE: EXPOSE EX. UTILITIES PRIOR TO INSTALLATION OF STORM SEWER THIS SHEET. NOTIFY ENGINEER IF ANY CONFLICTS EXIST.



LIVINGSTON COUNTY DRAIN COMMISSIONER  
BRIGHTON NO. 4 DRAIN  
A PART OF SECTIONS 8, 9, 16, AND 17 BRIGHTON TWP,  
T2N, R6E, LIVINGSTON COUNTY MICHIGAN

P.E. No.:	53847
Approved:	BJC
Checked:	BJC
Drawn:	MJV/LCM
Designed:	LCM
GEI Project	20090946

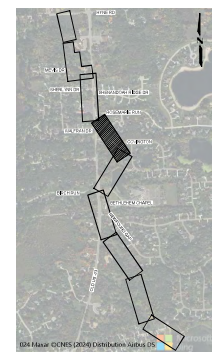
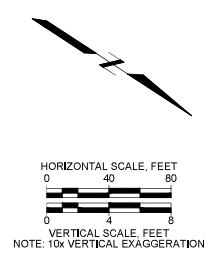
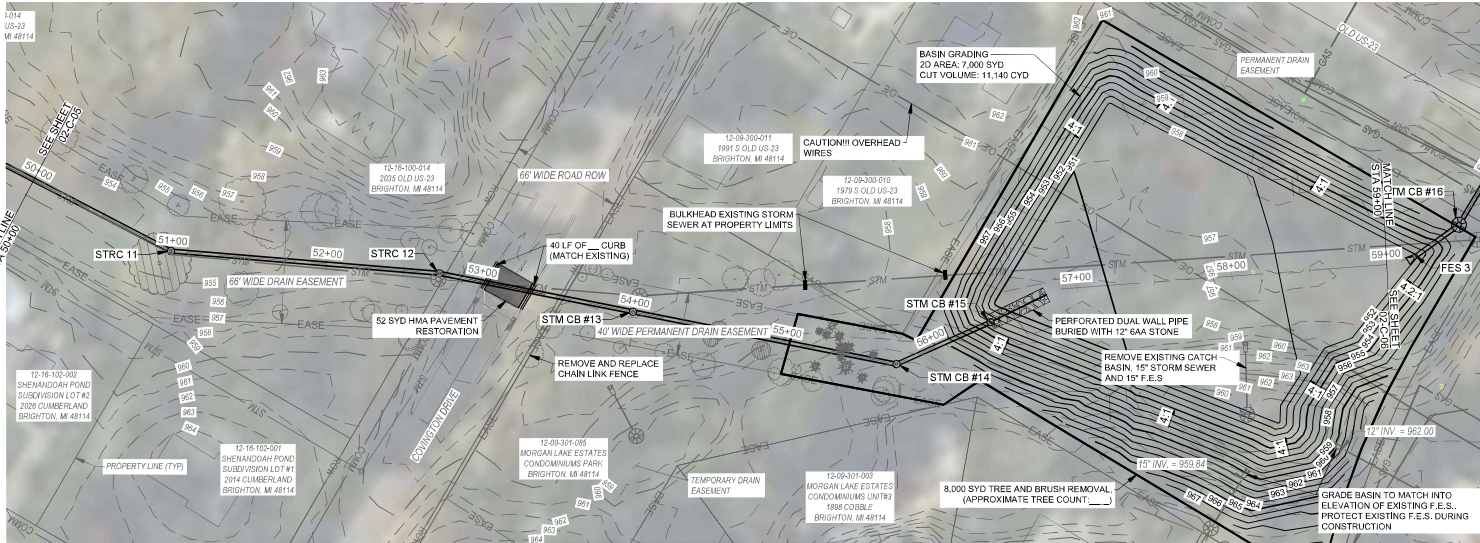
NO.	DATE	ISSUE/REVISION	APP
0			

SHEET NAME  
PLAN & PROFILE  
STA 40+00 - 50+00

DWG NO.  
**02-C-05**

SHEET NO.  
**10 OF 15**

Preliminary

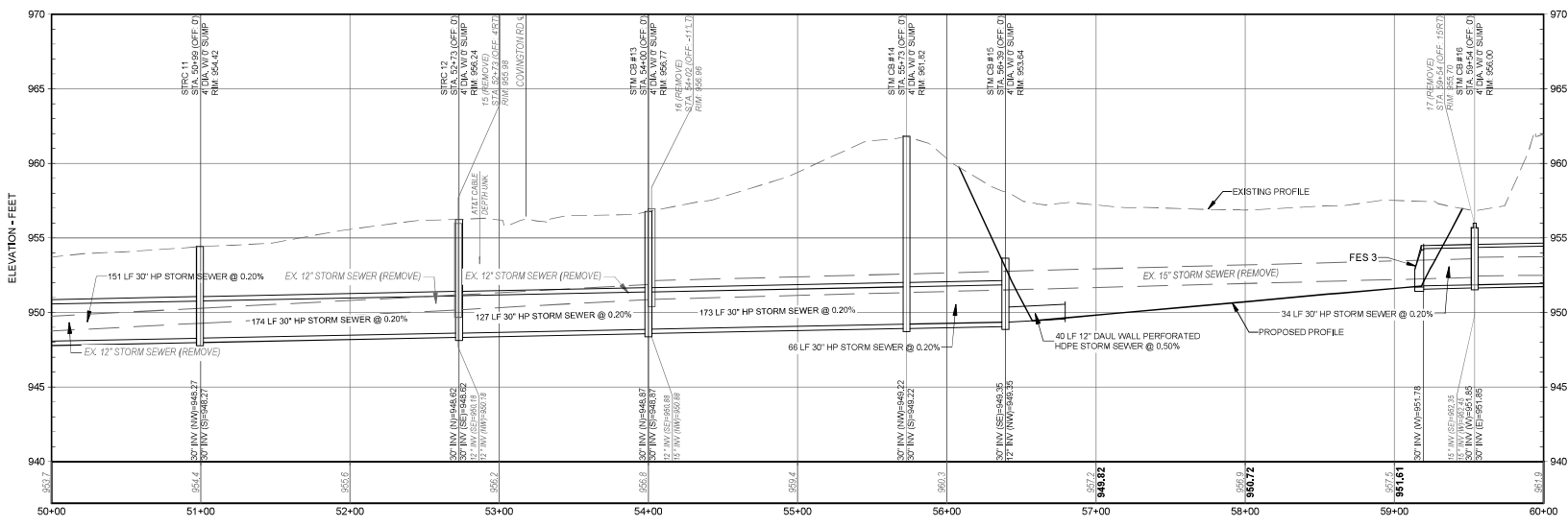


- CONSTRUCTION NOTES:**
1. NO STORAGE OF SPOILS OR MATERIALS WITHIN RIGHT OF WAY OF ANY ROAD WITHIN LIMITS OF PROJECT
  2. MAINTAIN ACCESS FOR ALL HOMEOWNERS AT ALL TIMES
  3. RESTORE ALL SIGNS & MAILBOXES TO LOCATIONS AS NEAR POSSIBLE TO EXISTING LOCATION AFTER COMPLETION OF WORK. CONSIDERED INCIDENTAL TO CONSTRUCTION
  4. ROAD SHALL BE PASSABLE AND HAVE ONE LANE OPEN AT ALL TIMES
  5. AT THE END OF EACH WORK DAY, CONTRACTOR SHALL PROVIDE TEMPORARY PIPE OR OTHER CONNECTION APPROVED BY ENGINEER, TO PROVIDE STORM SEWER FLOW AT ALL TIMES. ALL STORM INLETS SHALL BE SECURED SO NO SEDIMENT MAY ENTER STORM SEWER SYSTEM.

NOTE: EXPOSE EX. UTILITIES PRIOR TO INSTALLATION OF STORM SEWER THIS SHEET. NOTIFY ENGINEER IF ANY CONFLICTS EXIST.

**TREE BRUSH REMOVAL:**  
 8,000 SYD VEGETATION REMOVAL IN BASIN AREA  
 TREE REMOVAL THIS SHEET OUTSIDE OF VEGETATION REMOVAL LIMITS  
 6" - 12": 3  
 13" - 24": 3  
 25" OR GREATER: 1

**APPROXIMATE STORM SEWER REMOVAL**  
 THIS SHEET (CONTRACTOR TO VERIFY)  
 STRUCTURES: 3  
 15" RCP: 924 LF (VERIFY PIPE SIZE)  
 FES: 1



**LIVINGSTON COUNTY DRAIN COMMISSIONER**  
 BRIGHTON NO. 4 DRAIN  
 A PART OF SECTIONS 8, 9, 16, AND 17 BRIGHTON TWP,  
 T2N, R6E, LIVINGSTON COUNTY MICHIGAN

P.E. No.:	53847
Approved:	BJC
Checked:	BJC
Drawn:	MJWL/CM
Designed:	LCM
GEI Project:	20090946

NO.	DATE	ISSUE/REVISION	APP.

SHEET NAME  
**PLAN & PROFILE**  
 STA 50+00 - 60+00

DWG. NO.  
**02-C-06**

SHEET NO.  
**11 OF 15**

Preliminary



**LIVINGSTON COUNTY DRAIN COMMISSIONER**  
 BRIGHTON NO. 4 DRAIN  
 A PART OF SECTIONS 8, 9, 16, AND 17 BRIGHTON TWP.,  
 T2N, R6E, LIVINGSTON COUNTY MICHIGAN

P.E. No.: 53847  
 Approved: BJC  
 Checked: BJC  
 Drawn: MJWL/CM  
 Designed: LCM  
 GEI Project: 2000948

Attention: 1" = 40' Horizontal  
 1" = 4' Vertical  
 If this scale bar does not measure 1" then drawing is not original scale.

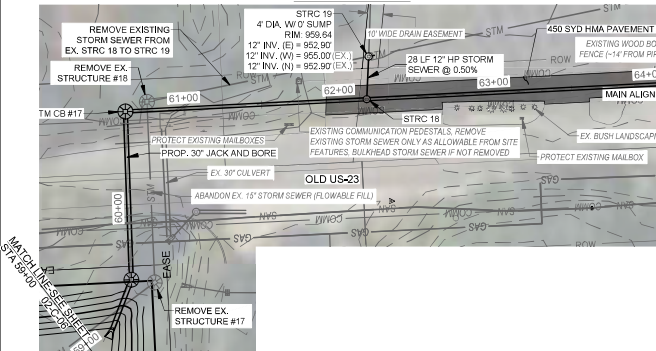
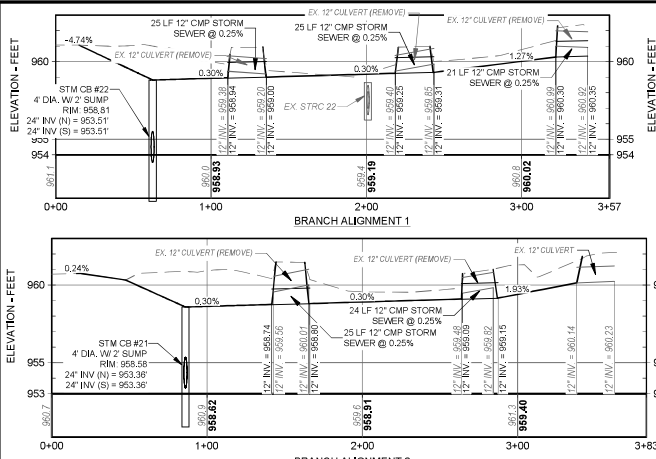
NO.	DATE	ISSUE/REVISION	APP.

SHEET NAME

PLAN & PROFILE  
 STA 60+00 - 70+00

DWG NO.  
**02-C-07**

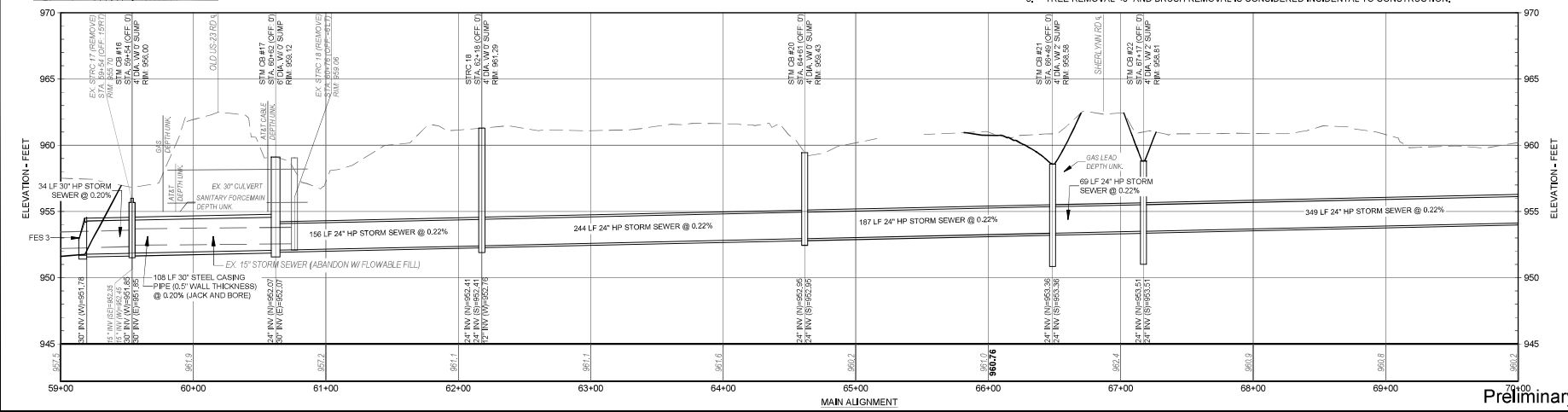
SHEET NO.  
**12 OF 15**



APPROXIMATE STORM SEWER REMOVAL THIS SHEET (CONTRACTOR TO VERIFY) STRUCTURES: 2 15" RCP, 205 LF (VERIFY PIPE SIZE)

NOTE: EXPOSE EX. UTILITIES PRIOR TO INSTALLATION OF STORM SEWER THIS SHEET, NOTIFY ENGINEER IF ANY CONFLICTS EXIST.

- CONSTRUCTION NOTES:
- NO STORAGE OF SPOILS OR MATERIALS WITHIN RIGHT OF WAY OF ANY ROAD WITHIN LIMITS OF PROJECT
  - MAINTAIN ACCESS FOR ALL HOMEOWNERS AT ALL TIMES
  - RESTORE ALL SIGNS & MAILBOXES TO LOCATIONS AS NEAR POSSIBLE TO EXISTING LOCATION AFTER COMPLETION OF WORK, CONSIDERED INCIDENTAL TO CONSTRUCTION
  - AT THE END OF EACH WORK DAY, CONTRACTOR SHALL PROVIDE TEMPORARY PIPE OR OTHER CONNECTION APPROVED BY ENGINEER, TO PROVIDE STORM SEWER FLOW AT ALL TIMES, ALL STORM INLETS SHALL BE SECURED SO NO SEDIMENT MAY ENTER STORM SEWER SYSTEM,
  - TREE REMOVAL <math>6^{\circ}</math> AND BRUSH REMOVAL IS CONSIDERED INCIDENTAL TO CONSTRUCTION.





**LIVINGSTON COUNTY DRAIN COMMISSIONER**  
 BRIGHTON NO. 4 DRAIN  
 A PART OF SECTIONS 8, 9, 16, AND 17 BRIGHTON TWP.,  
 T2N, R6E, LIVINGSTON COUNTY MICHIGAN

P.E. No.: 53847  
 Approved: BJC  
 Checked: BJC  
 Drawn: MJWL/MCM  
 Designed: LCM  
 GEI Project: 2009046

Attention: 1"  
 If this scale bar does not measure 1" then drawing is not original scale.

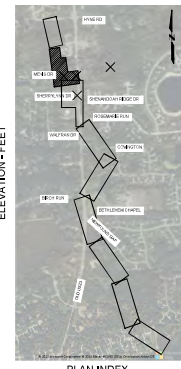
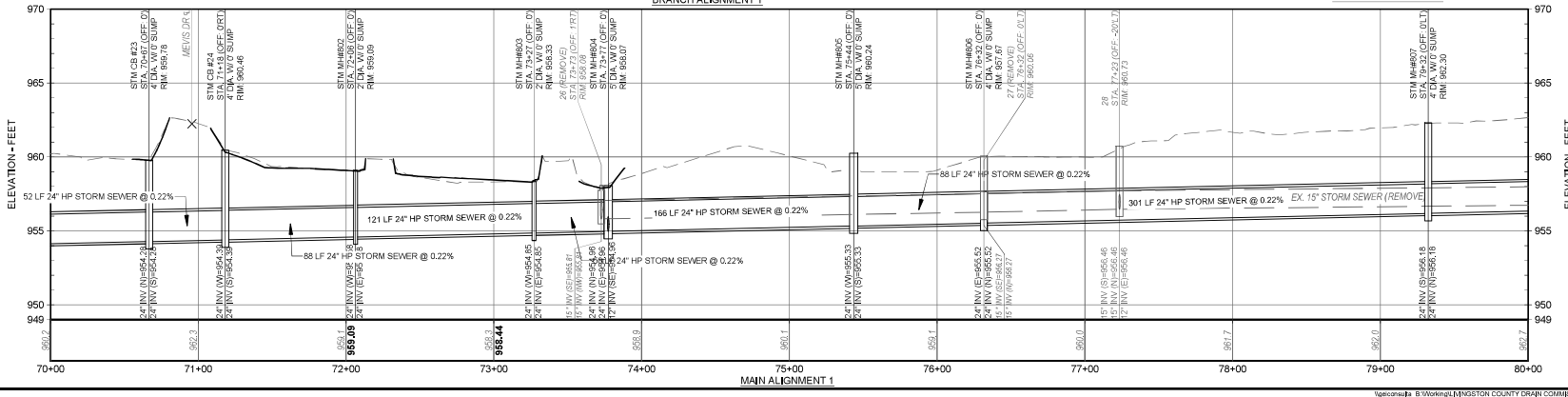
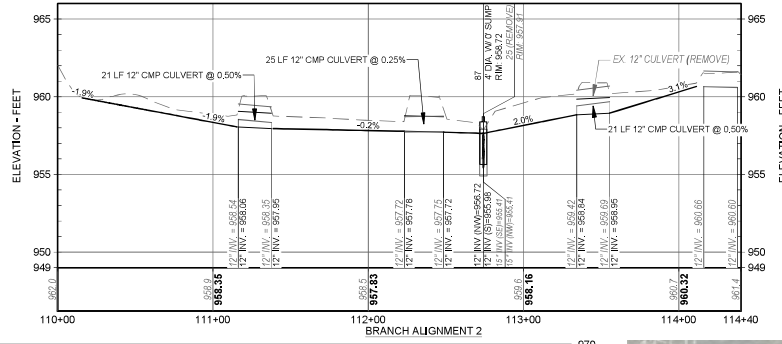
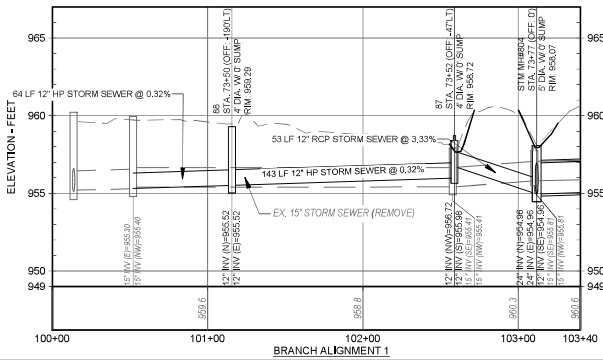
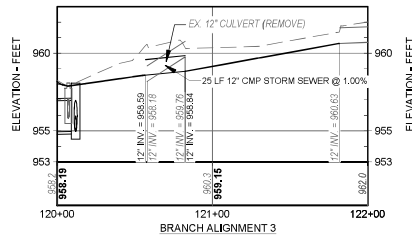
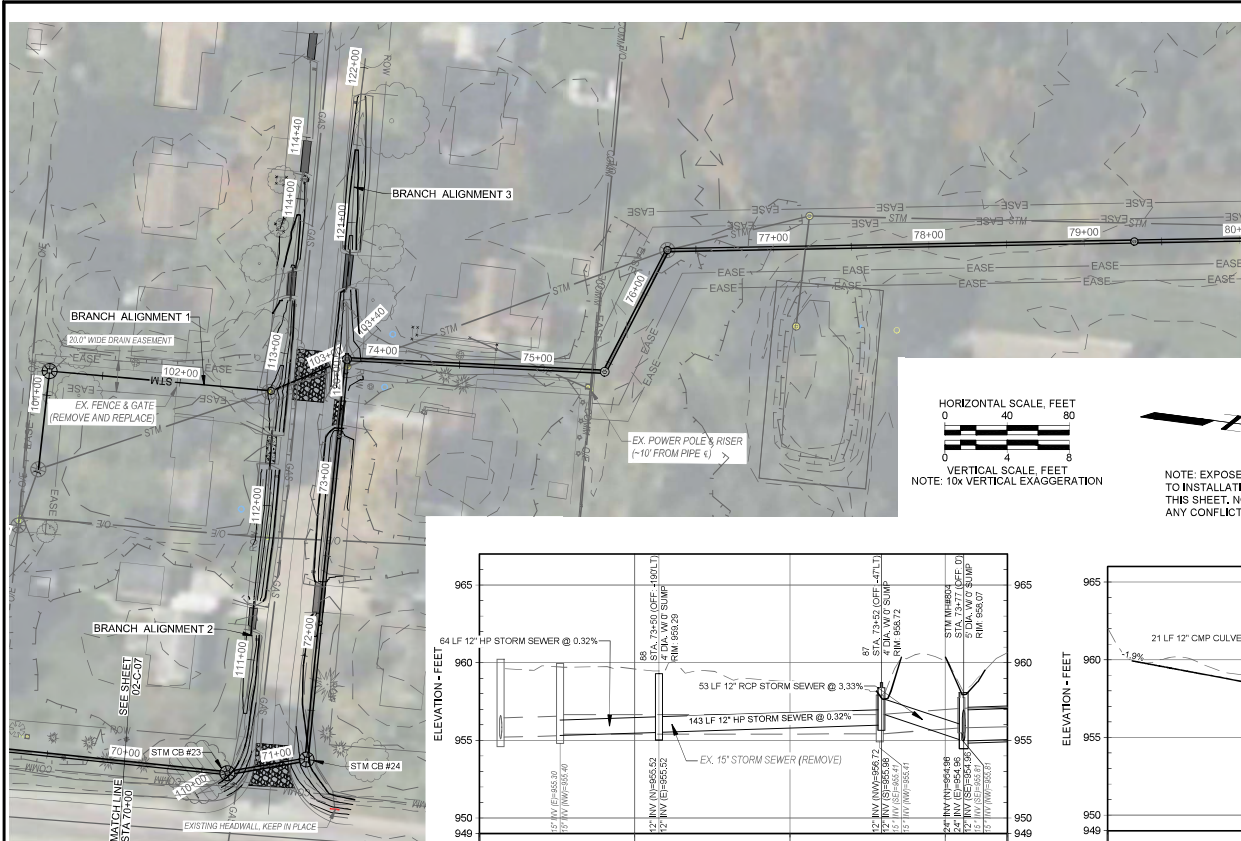
NO.	DATE	ISSUE/REVISION	APP.

SHEET NAME

PLAN & PROFILE  
 STA 70+00 - 80+00

DWG. NO.  
**02-C-08**

SHEET NO.  
**13 OF 15**





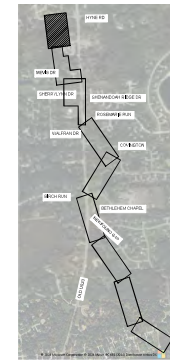
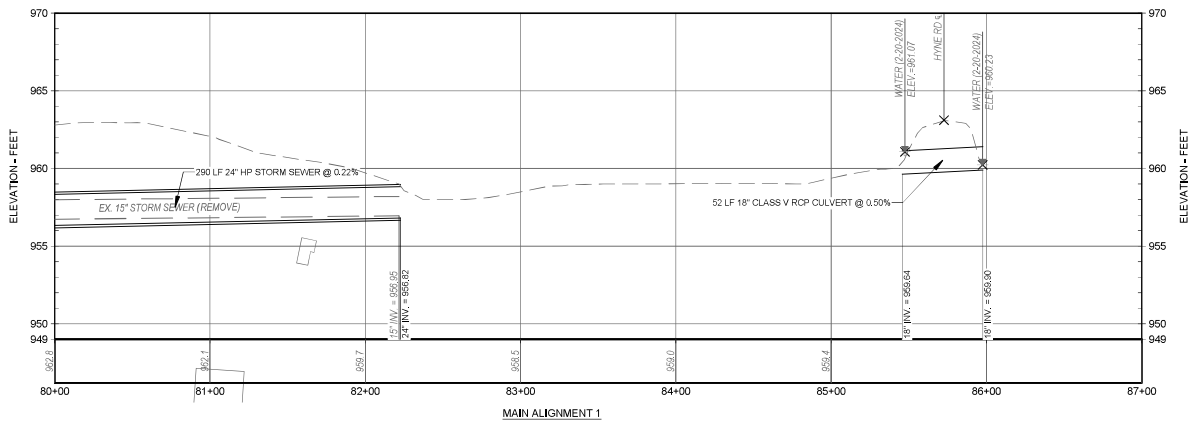
NOTE: EXPOSE EX. UTILITIES PRIOR TO INSTALLATION OF STORM SEWER THIS SHEET, NOTIFY ENGINEER IF ANY CONFLICTS EXIST.



VERTICAL SCALE, FEET  
NOTE: 10x VERTICAL EXAGGERATION

CONSTRUCTION NOTES:

1. NO STORAGE OF SPOILS OR MATERIALS WITHIN RIGHT OF WAY OF ANY ROAD WITHIN LIMITS OF PROJECT
2. MAINTAIN ACCESS FOR ALL HOMEOWNERS AT ALL TIMES
3. RESTORE ALL SIGNS & MAILBOXES TO LOCATIONS AS NEAR POSSIBLE TO EXISTING LOCATION AFTER COMPLETION OF WORK, CONSIDERED INCIDENTAL TO CONSTRUCTION
4. ROAD SHALL BE PASSABLE AND HAVE ONE LANE OPEN AT ALL TIMES
5. AT THE END OF EACH WORK DAY, CONTRACTOR SHALL PROVIDE TEMPORARY PIPE OR OTHER CONNECTION APPROVED BY ENGINEER, TO PROVIDE STORM SEWER FLOW AT ALL TIMES. ALL STORM INLETS SHALL BE SECURED SO NO SEDIMENT MAY ENTER STORM SEWER SYSTEM.



**LIVINGSTON COUNTY DRAIN COMMISSIONER**  
BRIGHTON NO. 4 DRAIN  
A PART OF SECTIONS 8, 9, 16, AND 17 BRIGHTON TWP,  
T2N, R6E, LIVINGSTON COUNTY MICHIGAN

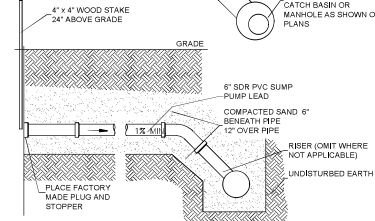
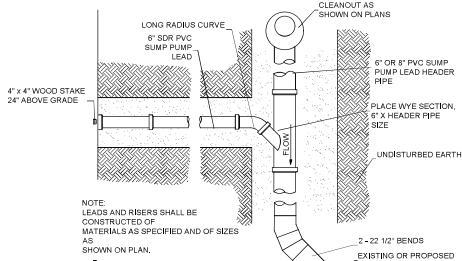
P.E. No.:	53847
Approved:	BJC
Checked:	BJC
Drawn:	MJWL/CM
Designed:	LCM
GEI Project:	2000946

NO.	DATE	ISSUE/REVISION	APP.

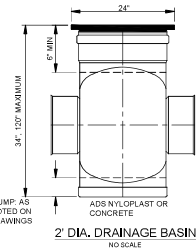
SHEET NAME  
**PLAN & PROFILE**  
STA 80+00 - 90+00

DWG. NO.  
**02-C-09**  
SHEET NO.  
**14 OF 15**

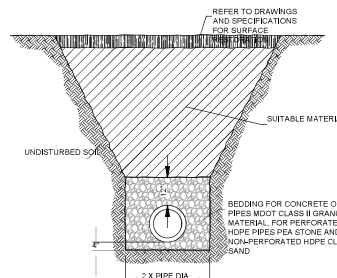
Preliminary



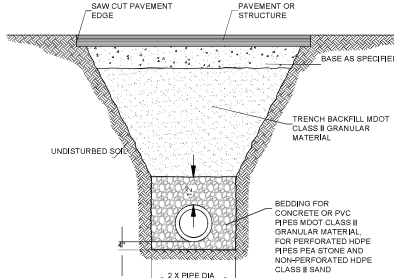
NEW STORM LEAD CONNECTION DETAIL  
NO SCALE



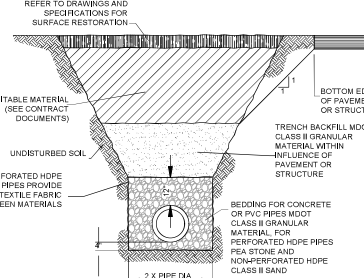
ALL HOPE OR PVC STRUCTURES TO BE DELIVERED & INSTALLED 1" HIGHER AND 2" RCP STRUCTURES TO BE DELIVERED & INSTALLED 1" LOWER THAN FIN GRADE AND CUT DOWN FOR PLASTIC STRC.Y RAISED UP WITH ADDITIONAL ADJUSTMENT RINGS (FOR CONC. STRC.) AFTER FINAL ADJACENT GRADES COMPLETED



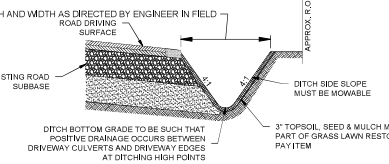
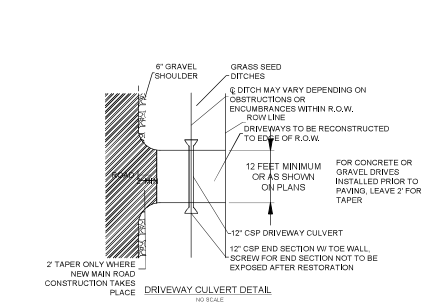
TRENCH NOT ADJACENT TO PAVEMENT OR STRUCTURE  
SCALE: 1"=2'



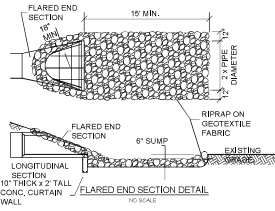
TRENCH BELOW PAVEMENT OR STRUCTURE  
SCALE: 1"=2'



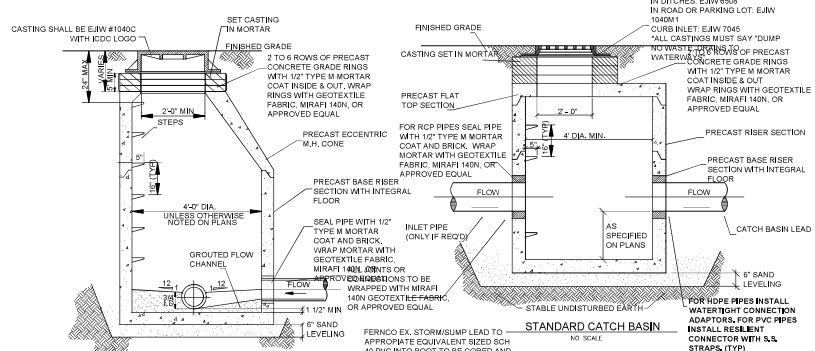
TRENCH ADJACENT TO PAVEMENT OR STRUCTURE  
SCALE: 1"=2'



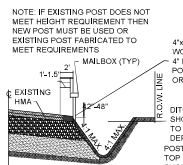
TYPICAL ROAD DITCH DETAIL  
NO SCALE



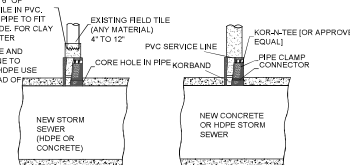
FLARED END SECTION DETAIL  
NO SCALE



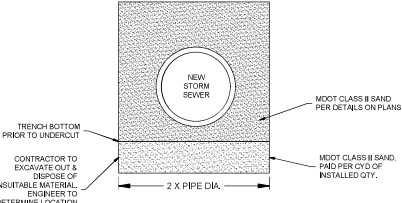
STANDARD STORM MANHOLE  
NO SCALE



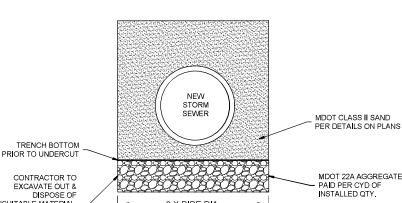
MAILBOX LOCATION DETAIL  
NO SCALE



EXISTING SUMP OR STORM LEAD CONNECTION DETAIL  
NO SCALE



SUBGRADE UNDERCUT, TYPE 1  
NO SCALE



SUBGRADE UNDERCUT, TYPE 2  
NO SCALE

**GEI** Consultants  
382 CONSULTANTS OF MICHIGAN, P.C.  
401 S. WASHINGTON SQUARE, SUITE 103  
LANSING, MI 48223  
(313) 565-6600

**LIVINGSTON COUNTY**  
DRAIN COMMISSIONER

**LIVINGSTON COUNTY DRAIN COMMISSIONER**  
BRIGHTON NO. 4 DRAIN  
A PART OF SECTIONS 8, 9, 16, AND 17 BRIGHTON TWP.,  
T2N. R6E, LIVINGSTON COUNTY MICHIGAN

P.E. No.: 68347  
Approved: BBE\_NAMED  
Checked: BHC\_BY  
Drawn: DERWIN\_BY  
Designed: DSM\_BY  
GEI Project: 2009046

If this scale bar does not measure 1" then drawing is not original scale.

0	1
2	3
4	5
6	7
8	9
10	11
12	13
14	15
16	17
18	19
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98	99
100	101

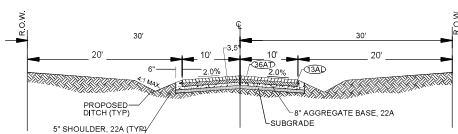
SHEET NAME

DETAILS

DWG. NO.  
**99-D-01**

SHEET NO.  
**15 OF 15**

Preliminary



**HMA, LOCAL ROAD RESTORATION**

SCALE: 1"=10'  
NOTE: FULL SCALE SHALL BE USED AT CORNERS

**HMA APPLICATION CHART - ALL ROAD RESTORATION**

IDENT NO.	ITEM	RATE OF APPL. LBS/SY	PERFORMANCE GRADE	COMMENTS
36AT	HMA MIXTURE 36A, 2"	220	PG 55-28	TOP COURSE
13AL	HMA MIXTURE 36A, 3"	330	PG 56-25	LEVELING COURSE (1 LIFT)
36A	HMA APPROACH	330	PG 56-25	DRIVEWAY APPROACHES, HMA MIXTURE 36A

**NOTES**

1. CONCRETE CURB AND/OR GUTTER SHALL BE CONSTRUCTED IN ACCORDANCE WITH MDOT STANDARD PLAN R-39-G.

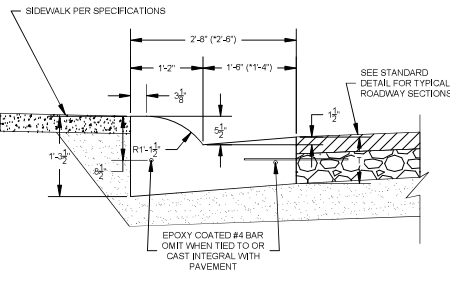
**NOTES**

1. CONCRETE CURB AND/OR GUTTER SHALL BE CONSTRUCTED IN ACCORDANCE WITH MDOT STANDARD PLAN R-39-G.

(\*GUTTER PAN WIDTH MAY BE REDUCED WHEN APPROVED BY THE ENGINEER)

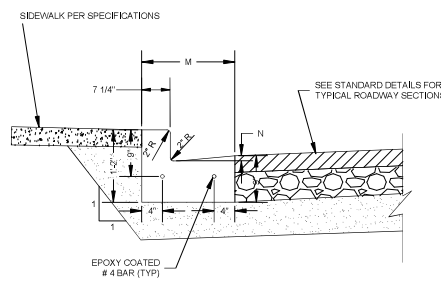
DETAIL	DIMENSION	LANE TIES	CONCRETE CYD / LFT	CONCRETE CYD / LFT
B1	9"	AS SHOWN	0.0900	(*0.0855)
B2	9"	OMITTED	0.0900	(*0.0855)
B3	10"	AS SHOWN	0.0941	(*0.0895)

DETAIL	DIMENSION	LANE TIES	CONCRETE CYD / LFT
F2	1'-6"	7/8"	0.0484
F4	2'-0"	7/8"	0.0610



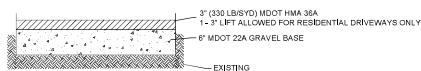
**TYPE B CONCRETE CURB AND GUTTER DETAIL**

NO SCALE



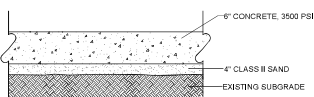
**TYPE F CONCRETE CURB AND GUTTER DETAIL**

NO SCALE



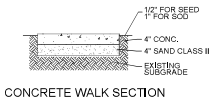
**HMA, DRIVEWAY RESTORATION**

NO SCALE



**CONCRETE DRIVE SECTION**

NO SCALE

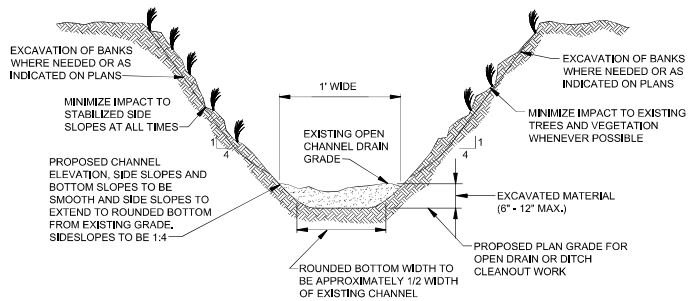


**CONCRETE WALK SECTION**

NO SCALE

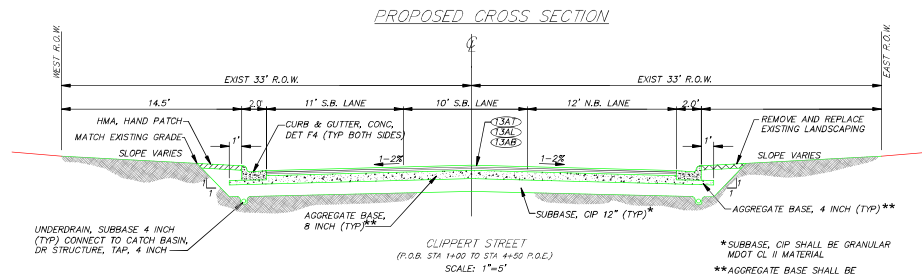
**NOTE**

1. BOND COAT SHALL BE SS-1H APPLIED AT A RATE OF 0.1 GAL/SYD.
2. PAVEMENT THICKNESS SHALL BE AS SPECIFIED OR MATCH EXISTING BITUMINOUS THICKNESS, WHICHEVER IS GREATER.



**PARKLAWN ROADSIDE DITCH GRADING/CLEANOUT DETAIL**

NO SCALE



**PROPOSED CROSS SECTION**

CLIPPERT STREET  
(P.O.B. STA 1452 TO STA 4452 P.O.E.)  
SCALE: 1"=5'

\*SUBBASE, CIP SHALL BE GRANULAR MDOT CL. II MATERIAL  
\*\*AGGREGATE BASE SHALL BE MDOT 21AA MATERIAL

**GEI** Consultants  
382 CONSULTANTS OF MICHIGAN P.C.  
401 S. WASHINGTON SQUARE  
SUITE 103  
LANSING, MI 48223  
(313)465-6600

**LIVINGSTON COUNTY DRAIN COMMISSIONER**

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BRIGHTON NO. 4 DRAIN  
A PART OF SECTIONS 8, 9, 16, AND 17 BRIGHTON TWP,  
T2N, R6E, LIVINGSTON COUNTY MICHIGAN

P.E. No: **65847**

Approved: **BBB** NAMEO

Checked: **BBB** BY

Drawn: **DERWIN** BY

Designed: **DSM** BY

GEI Project: **2000946**

Attention: 1"

If this scale bar does not measure 1" then drawing is not original scale.

NO.	DATE	ISSUE/REVISION	APP.

SHEET NAME

DETAILS

DWG. NO.  
**99-D-01**

SHEET NO.  
**15 OF 15**

Preliminary