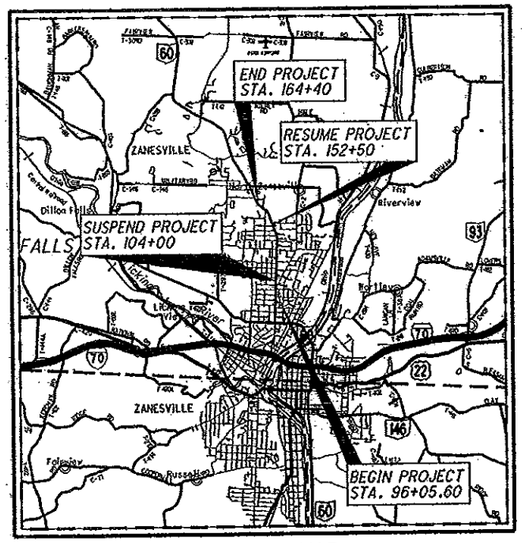
STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

MUS-60-18.35

CITY OF ZANESVILLE

MUSKINGUM COUNTY



LOCATION MAP

LATITUDE: 39°57'31" LONGITUDE: 82°00'36"

SCALE IN MILES 0 1 2 3 4

N

PORTION TO BE IMPROVED

INTERSTATE HIGHWAY

STATE & FEDERAL ROUTES

COUNTY & TOWNSHIP ROADS

OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2013)	27,000
DESIGN YEAR ADT (2025)	28,000
DESIGN HOURLY VOLUME (2025)	2,500
DIRECTIONAL DISTRIBUTION	53%
TRUCKS (24 HOUR B&C)	8%
DESIGN SPEED	35 MPH
LEGAL SPEED	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
RURAL MINOR ARTERIAL	
NHS PROJECT	NO

DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG
CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY
OIL & GAS PRODUCERS PROTECTIVE SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:

Ohio Department of Transportation
District 5

INDEX OF SHEETS:

PROJECT DESCRIPTION

SAFETY PROJECT INCLUDING THE REALIGNMENTS OF THE DRESDEN ROAD INTERSECTION AND THE BALLS LANE/ BETHESDA DRIVE INTERSECTION ALONG MAPLE AVENUE (S.R. 60) IN THE CITY OF ZANESVILLE.

PROJECT EARTH DISTRUBED AREA:	3.47 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.46 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	4.90 ACRES

2010 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THESE IMPROVEMENTS WILL NOT REQUIRE THE CLOSING OF THE HIGHWAY AND PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS INDICATED IN THE PROPOSAL.

APPROVED Michael C. Sims
DATE 2-11-13 PUBLIC SERVICE DIRECTOR
CITY OF ZANESVILLE

APPROVED
DATE 2/8/13 DISTRICT DEPUTY DIRECTOR

APPROVED Gary Wray
DATE 2-20-13 DIRECTOR, DEPARTMENT OF TRANSPORTATION

PROFESSIONAL ENGINEER
STATE OF OHIO
DOUGLAS N. MORGAN
E-63839
REGISTERED

SIGNED: Douglas N Morgan
DATE: 2-11-2013

STANDARD CONSTRUCTION DRAWINGS

BP-3.1	4-20-12	MH-1.1	7-20-12	TC-65.10	4-20-12	MT-95.31	7-20-12	800	1-18-13
BP-4.1	7-16-04	MH-1.2	7-20-12	TC-65.11	4-20-12	MT-95.32	7-20-12	802	1-20-12
BP-5.1	7-28-00			TC-71.10	10-19-12	MT-97.10	7-20-12	821	4-20-12
		HL-20.11	1-19-07	TC-73.10	4-20-12	MT-97.12	7-20-12	823	7-20-12
CB-1.1	7-20-12	HL-30.11	1-18-13	TC-81.10	1-18-13	MT-99.20	7-20-12	832	5-05-09
CB-2.1	7-20-12	HL-30.22	1-18-13	TC-82.10	1-18-13	MT-101.60	7-20-12	835	4-18-08
CB-2.2	7-20-12			TC-83.10	1-18-13	MT-101.70	4-15-11		
CB-2.3	7-20-12	TC-17.10	1-21-11	TC-83.20	4-20-12	MT-101.90	10-19-12		
		TC-21.20	1-18-13	TC-84.20	1-21-11	MT-105.10	7-20-12	SPECIAL PROVISIONS	
DM-1.1	7-20-12	TC-41.20	1-19-01	TC-85.10	10-16-09	MT-110.10	7-20-12		
DM-1.4	7-15-11	TC-41.30	1-19-07			MT-120.00	7-20-12		
DM-4.4	7-20-12	TC-41.40	7-16-04	WO-1.3	7-20-12				
		TC-41.41	1-21-11						
RM-1.1	7-15-11	TC-42.20	1-21-11						

FEDERAL PROJECT NO. E070 (987)
PID NO. 83002
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
MUS-60-18.35
1/157

1/29/13
83002_GTS_001.DGN

SCHEMATIC PLAN

MUS-60-18.35

HORIZONTAL SCALE IN FEET
0 25 50 100

BEGIN WORK
STA. 92+00.00
S.L.M. 18.27

BEGIN PROJECT
STA. 96+05.00
S.L.M. 18.35

FED. NO. E090 (987)

FAIRMONT AVE.

ALLEY

℄ SURVEY AND CONSTRUCTION
S.R. 60 (MAPLE AVE.)

92 MAPLE AVE. 93 94 95 96 97 98 99 100 101 102 103 104 105 106

N 2° 15′ 50″ E

N 87° 50′ 27″ W

ST. LOUIS AVE.

PI Sta. 96+99.07

END WORK
STA. 0+49.95

STA. 100+41.67 ℄ S.R. 60 =
STA. 0+00 ℄ BROWN ST. =
STA. 0+00 ℄ DRESDEN RD.

STA. 99+17.48, 42.0′ RT S.R. 60 =
STA. 0+00 ℄ ALLEY

PI Sta. 99+98.86

N 87° 51′ 46″ W

BROWN ST.

END WORK
STA. 1+00.00

LANDSCAPED
AREA (DND)

N 1° 42′ 33″ E

PI Sta. 102+98.86

END WORK
STA. 0+49.00

CALDWELL ST. N 87° 42′ 25″ W

SUSPEND WORK
STA. 104+00.00
S.L.M. 18.50

STA. 103+60.41 ℄ S.R. 60 =
STA. 0+00 ℄ CALDWELL ST.

90°

N 2° 13′ 50″ E

MAPLE AVE.

90° LANDSCAPED AREA
TO BE REMOVED

STA. 96+86.64 ℄ S.R. 60 =
STA. 0+00 ℄ ST. LOUIS ST.

STA. 97+72.53 ℄ S.R. 60 =
STA. 0+00 ℄ McCONNELL AVE.

END WORK
STA. 0+58.23

PI Sta. 0+62.95

S 87° 26′ 55″ E

PC Sta. 0+00.00

S 04° 37′ 39″ E

DRESDEN RD.

END WORK
STA. 1+55.47

PI Sta. 1+70.72

S 87° 09′ 24″ E

POT Sta. 2+06.82

PT Sta. 2+26.18

END WORK
STA. 3+25.00

N 30° 01′ 21″ E

VAN HORN AVE.

ALLEY

McCONNELL AVE.

POT Sta. 2+87.66

CLYDE CT.

PT Sta. 1+40.64

S 82° 33′ 01″ E

END WORK
STA. 0+90.00

POT Sta. 1+58.07

STA. 1+98.46 ℄ DRESDEN RD. =
STA. 0+00 ℄ CLYDE CT.

L1

L2

S 52° 21′ 47″ E

90°

DRESDEN RD.

PC Sta. 0+13.72

CLYDE CT.

PRC Sta. 0+46.49

CURVE DATA
℄ CONSTR. ALLEY
P.I. Sta. 0+35.79
Δ = 68° 03′ 22″ (RT)
Dc = 108° 06′ 19″
R = 53.00′
T = 35.79′
L = 62.95′
E = 10.95′
C = 59.32′
C.B. = N 61° 20′ 46″ E

CURVE DATA
℄ CONSTR. DRESDEN RD.
P.I. Sta. 1+25.64
Δ = 62° 06′ 48″ (LT)
Dc = 27° 27′ 43″
R = 208.64′
T = 125.64′
L = 226.18′
E = 34.91′
C = 215.27′
C.B. = N 61° 04′ 50″ E

CURVE DATA
℄ CONSTR. CLYDE CT.
P.I. Sta. 0+30.53
Δ = 31° 17′ 47″ (LT)
Dc = 95° 29′ 35″
R = 60.00′
T = 16.81′
L = 32.77′
E = 2.31′
C = 32.37′
C.B. = S 68° 00′ 41″ E

CURVE DATA
℄ CONSTR. CLYDE CT.
P.I. Sta. 0+94.10
Δ = 21° 06′ 33″ (RT)
Dc = 22° 25′ 21″
R = 255.53′
T = 47.61′
L = 94.14′
E = 4.40′
C = 93.61′
C.B. = S 73° 06′ 18″ E

83002_gsp_001.dgn 1/28/13

EX. CURVE DATA
℄ CONSTR. S.R. 60
P.I.= Sta. 153+35.41
D = 31° 30′ 00″ (LT)
Dc = 8° 24′ 00″
R = 682.09′
T = 192.37′
L = 375.00′
E = 26.61′
emax = 0.000
C = 370.29′
C.B. = N 36° 57′ 47″ W

EX. CURVE DATA
℄ CONSTR. BETHESDA
P.I. Sta. 1+77.68
Δ = 27° 38′ 30″ (RT)
Dc = 14° 19′ 26″
R = 400.00′
T = 98.40′
L = 192.98′
E = 11.93′
C = 191.11′
C.B. = S 51° 06′ 28″ W

PR. CURVE DATA
℄ CONSTR. BETHESDA
P.I. Sta. 2+11.99
Δ = 27° 38′ 30″ (RT)
Dc = 14° 19′ 26″
R = 400.00′
T = 98.40′
L = 192.98′
E = 11.93′
C = 191.11′
C.B. = S 51° 06′ 28″ W

STA. 3+06.56 ℄ PR. BETHESDA DR. =
STA. 3+10.98 ℄ EX. BETHESDA DR.

PT Sta. 3+06.56

PT Sta. 2+72.25

END WORK LT.
STA. 2+42.42

BETHESDA DR.

S 64° 55′ 43″ W

END WORK RT.
STA. 1+74.09

LANDSCAPED AREA
TO BE REMOVED

EXISTING DITCH

PC Sta. 1+13.58

PC Sta. 0+79.28

STA. 160+88.03 ℄ S.R. 60 =
STA. 0+00 ℄ PR. BETHESDA DR.
STA. 0+00 ℄ PR. BALLS LN.

END PROJECT
STA. 164+40.00
S.L.M. 19.64

FED. NO. E090 (987)

ALLEY

S 37° 17′ 13″ W

N 37° 17′ 13″ E

90°

90°

LANDSCAPED
AREA (DND)

PC Sta. 151+43.04

LANDSCAPED
AREA (DND)

RESUME WORK
STA. 152+50.00
S.L.M. 19.42

LANDSCAPED
AREA (DND)

N 21° 12′ 47″ W

S 71° 57′ 51″ W

BELL ST.

PT Sta. 155+18.04

LANDSCAPED
AREA (DND)

END WORK
STA. 0+74.55

STA. 157+62.144 ℄ S.R. 60 =
STA. 0+00 ℄ EX. BALLS LN.

STA. 160+70.07 ℄ S.R. 60 =
STA. 0+00 ℄ EX. BETHESDA DR.

POT Sta. 0+00.00

N 52° 42′ 47″ W

MAPLE AVE.

125°

118°

151 152 153 154 155 156 157 158 159 160 161 162 163 164 165

N 37° 17′ 13″ E

N 26° 00′ 47″ W

LANDSCAPED
AREA (DND)

PC Sta. 0+95.50

EX. BALLS LN.

WALMART PARKING LOT
RETENTION POND

PNC BANK
PARKING LOT

PT Sta. 1+03.27

EX. CURVE DATA
℄ CONSTR. S.R. 60
P.I. Sta. 162+76.35
Δ = 26° 42′ 00″ (RT)
Dc = 8° 00′ 00″
R = 716.20′
T = 169.96′
L = 333.75′
E = 19.89′
C = 330.74′
C.B. = N 39° 21′ 47″ W

PT Sta. 164+40.14

JAMES ST.

LANDSCAPED
AREA (DND)

STA. 155+36.63 ℄ S.R. 60 =
STA. 0+00 ℄ BELL ST.

LANDSCAPED
AREA (DND)

HEALTH PLEX DRIVE

WALMART DRIVE

RELOCATED BALLS LN.

STA. 3+80.54 ℄ PR. BALLS LN. =
STA. 3+29.84 ℄ EX. BALLS LN. =
STA. 3+80.54 ℄ PR. WALMART DR. =
STA. 0+00.00 ℄ PR. BANK DR.

END WORK
STA. 5+60.00

S 53° 39′ 09″ E

WALMART DRIVE

N 9° 29′ 42″ E

END WORK
STA. 5+50.00

POT Sta. 5+96.98

WALMART PARKING LOT

HEALTH PLEX PARKING LOT

PR. CURVE DATA
℄ CONSTR. BALLS LN.
P.I. Sta. 2+90.28
Δ = 89° 03′ 38″ (RT)
Dc = 28° 56′ 14″
R = 198.00′
T = 194.78′
L = 307.77′
E = 79.75′
C = 277.71′
C.B. = N 81° 49′ 02″ E

EX. BALLS LN.

0 25 50 100
HORIZONTAL
SCALE IN FEET

SCHEMATIC PLAN

MUS-60-18.35

3
157

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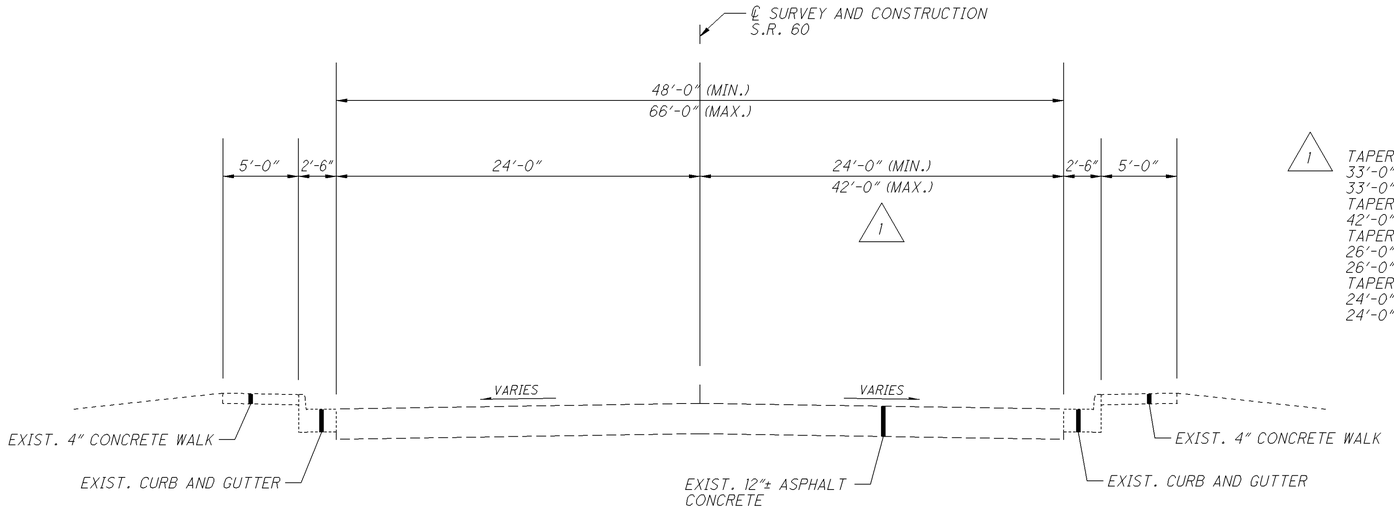
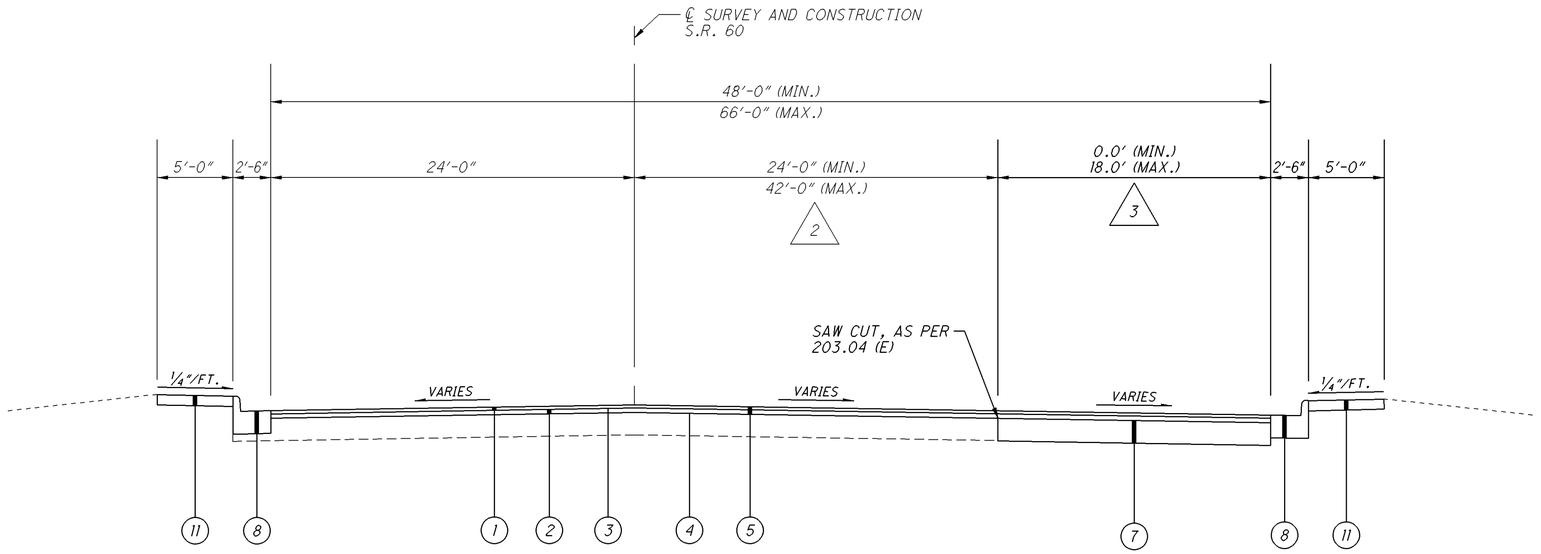


1 TAPERS FROM 24'-0" @ STA. 96+05.00 TO 33'-0" @ STA. 96+60.60.
33'-0" FROM STA. 96+60.60 TO STA. 97+35.48.
TAPERS FROM 33'-0" @ STA. 97+35.48 TO 42'-0" @ STA. 97+94.51.
TAPERS FROM 42'-0" @ STA. 97+94.51 TO 26'-0" @ STA. 99+97.75.
26'-0" FROM STA. 99+97.75 TO STA. 101+15.43.
TAPERS FROM 26'-0" @ STA. 101+15.43 TO 24'-0" @ STA. 102+99.10.
24'-0" FROM STA. 102+99.10 TO STA. 104+00.00.

S.R. 60 (EXISTING) SECTION APPLIES:

STA. 96+05.00 TO STA. 104+00.00 = 795.00 FT.
TOTAL 795.00 FT.



S.R. 60 (PROPOSED) SECTION APPLIES:

STA. 96+05.00 TO STA. 104+00.00 = 795.00 FT.
TOTAL 795.00 FT.

LEGEND

1. ITEM 448, 1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M
2. ITEM 448, 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
3. ITEM 407, TACK COAT, TRACKLESS TACK, SURFACE COURSE
4. ITEM 407, TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
5. ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (3")
6. ITEM 301, 6" ASPHALT CONCRETE BASE, PG64-22
7. ITEM 301, 9" ASPHALT CONCRETE BASE, PG64-22
8. ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2
9. ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
10. ITEM 609, CURB, TYPE 6
11. ITEM 608, 4" CONCRETE WALK

2 TAPERS FROM 24'-0" @ STA. 96+05.00 TO 33'-0" @ STA. 96+60.60.
33'-0" FROM STA. 96+60.60 TO STA. 97+35.48.
TAPERS FROM 33'-0" @ STA. 97+35.48 TO 42'-0" @ STA. 97+94.51.
24'-0" FROM STA. 97+94.51 TO STA. 101+15.43.
TAPERS FROM 26'-0" @ STA. 101+15.43 TO 24'-0" @ STA. 102+93.86.
24'-0" FROM STA. 102+93.86 TO STA. 104+00.00.

3 18.0' FROM STA. 97+94.51 TO STA. 99+33.61.
TAPERS FROM 18.0' @ STA. 99+33.61 TO 2.0' @ STA. 101+15.43.

CALCULATED JLS CHECKED DNM

TYPICAL SECTIONS (S.R. 60)

MUS-60-18.35

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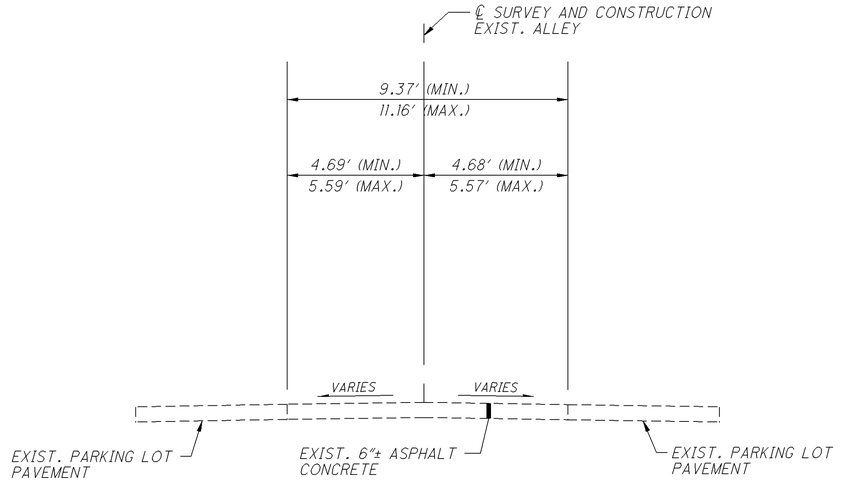
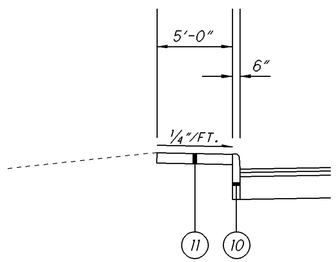


ALLEY
(EXISTING)

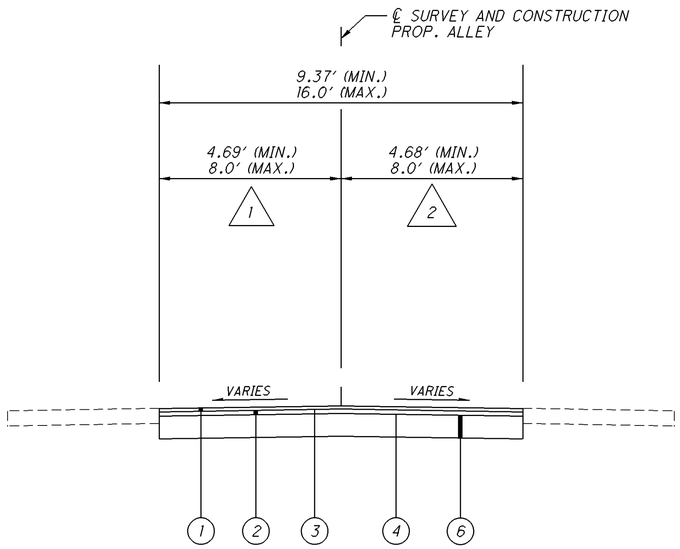
LEGEND

1. ITEM 448, 1¼″ ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M
2. ITEM 448, 1¾″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
3. ITEM 407, TACK COAT, TRACKLESS TACK, SURFACE COURSE
4. ITEM 407, TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
5. ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (3″)
6. ITEM 301, 6″ ASPHALT CONCRETE BASE, PG64-22
7. ITEM 301, 9″ ASPHALT CONCRETE BASE, PG64-22
8. ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2
9. ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
10. ITEM 609, CURB, TYPE 6
11. ITEM 608, 4″ CONCRETE WALK

△1 8.0′ FROM STA. 0+05.33 TO STA. 0+65.18.
TAPERS FROM 8.0′ @ STA. 0+65.18 TO 4.69′ @ STA. 1+55.47.



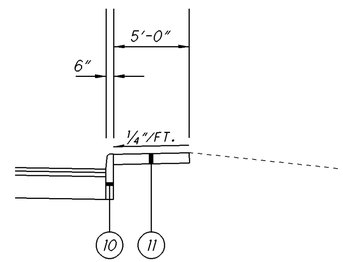
CURB DETAIL
STA. 0+05.33 TO STA. 0+65.18



PROPOSED ALLEY
SECTION APPLIES:

STA. 0+05.33 TO STA. 1+55.47 = 150.14 FT.
TOTAL 150.14 FT.

△2 8.0′ FROM STA. 0+05.33 TO STA. 0+61.07.
TAPERS FROM 8.0′ @ STA. 0+61.07 TO 4.68′ @ STA. 1+55.47.



CURB DETAIL
STA. 0+05.33 TO STA. 0+61.07

CALCULATED JLS
CHECKED DNM

TYPICAL SECTIONS (PROPOSED ALLEY)

MUS-60-18.35

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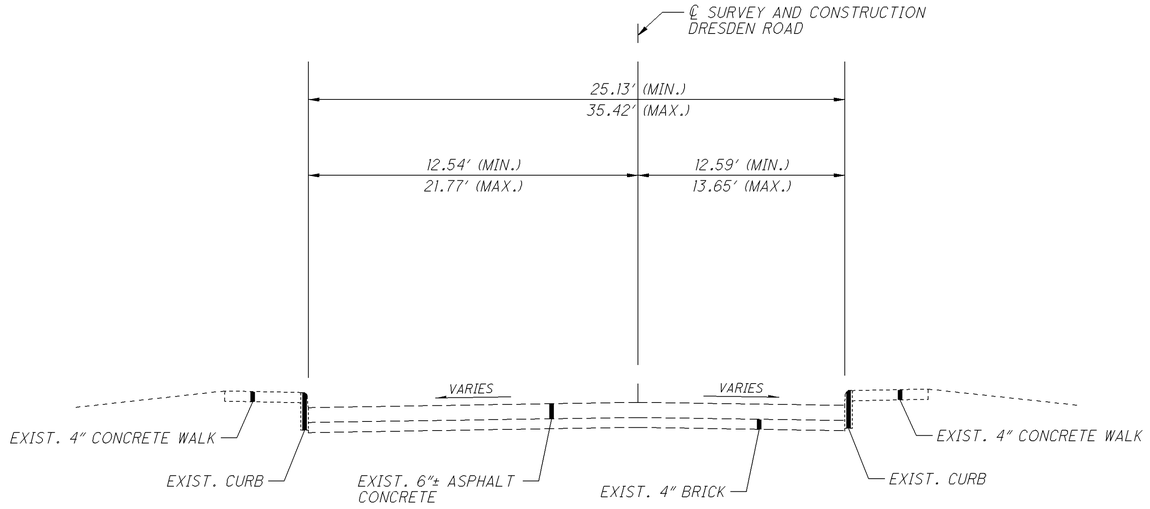
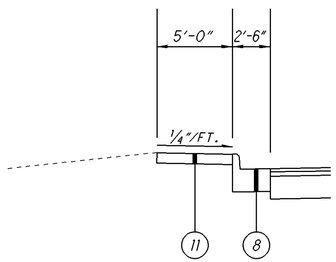


DRESDEN ROAD
(EXISTING)

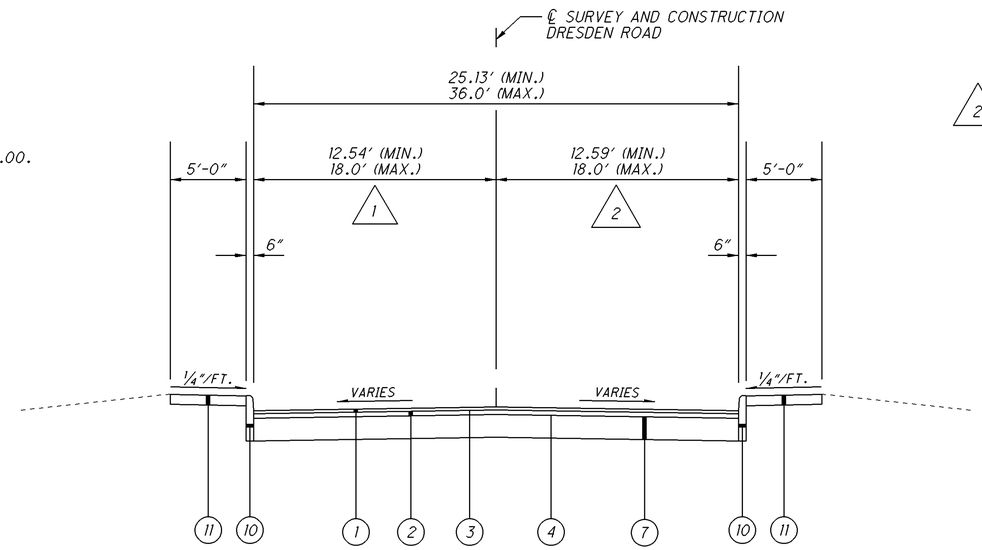
LEGEND

(1) ITEM 448, 1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M
(2) ITEM 448, 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
(3) ITEM 407, TACK COAT, TRACKLESS TACK, SURFACE COURSE
(4) ITEM 407, TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
(5) ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (3")
(6) ITEM 301, 6" ASPHALT CONCRETE BASE, PG64-22
(7) ITEM 301, 9" ASPHALT CONCRETE BASE, PG64-22
(8) ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2
(9) ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
(10) ITEM 609, CURB, TYPE 6
(11) ITEM 608, 4" CONCRETE WALK

△1 FROM STA. 0+24.04 TO STA. 0+96.81, SEE INTERSECTION DETAIL SHEET.
18.0' FROM STA. 0+96.81 TO STA. 2+26.18.
TAPERS FROM 18.0' @ STA. 2+26.18 TO 12.47' @ STA. 3+25.00.



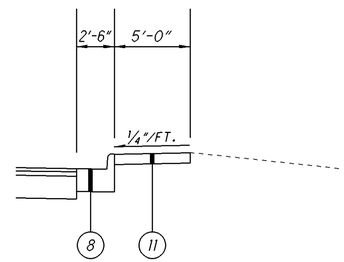
CURB AND GUTTER DETAIL
STA. 0+24.04 TO STA. 1+09.83



DRESDEN ROAD
SECTION APPLIES:

STA. 0+24.04 TO STA. 3+25.00 = 300.96 FT.
TOTAL 300.96 FT.

△2 FROM STA. 0+24.04 TO STA. 1+09.83, SEE INTERSECTION DETAIL SHEET.
18.0' FROM STA. 1+09.83 TO STA. 2+26.18.
TAPERS FROM 18.0' @ STA. 2+26.18 TO 12.65' @ STA. 3+25.00.



CURB AND GUTTER DETAIL
STA. 0+24.04 TO STA. 1+09.83

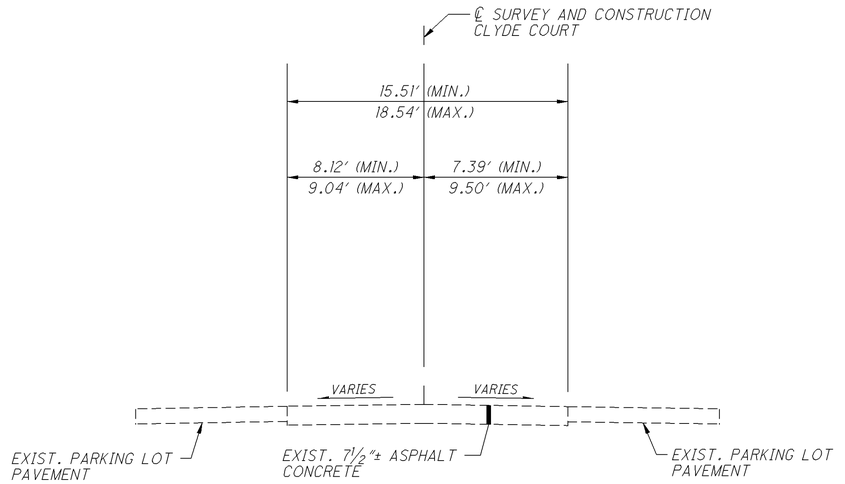
CALCULATED JLS CHECKED DNM

TYPICAL SECTIONS (DRESDEN ROAD)

MUS-60-18.35

6
157

83002_PTS_003.DGN 12/10/12



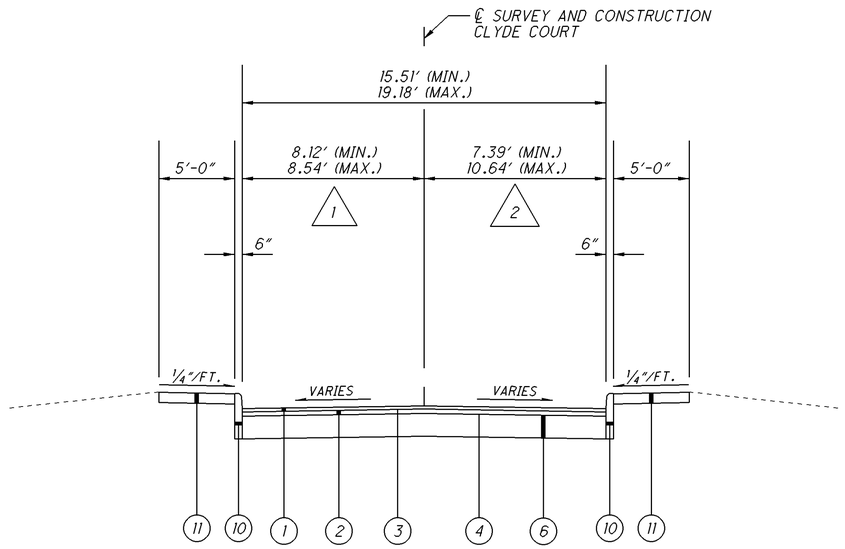
CLYDE COURT
(EXISTING)

LEGEND

(1) ITEM 448, 1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M
(2) ITEM 448, 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
(3) ITEM 407, TACK COAT, TRACKLESS TACK, SURFACE COURSE
(4) ITEM 407, TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
(5) ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (3")
(6) ITEM 301, 6" ASPHALT CONCRETE BASE, PG64-22
(7) ITEM 301, 9" ASPHALT CONCRETE BASE, PG64-22
(8) ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2
(9) ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
(10) ITEM 609, CURB, TYPE 6
(11) ITEM 608, 4" CONCRETE WALK

△1 FROM STA. 0+18.00 TO STA. 0+44.14, SEE INTERSECTION DETAIL SHEET.
TAPERS FROM 8.54' @ STA. 0+44.14 TO 8.12/ @ STA. 0+90.00.

△2 FROM STA. 0+18.00 TO STA. 0+32.80, SEE INTERSECTION DETAIL SHEET.
TAPERS FROM 10.64' @ STA. 0+32.30 TO 7.39' @ STA. 0+90.00.



CLYDE COURT
SECTION APPLIES:

STA. 0+18.00 TO STA. 0+90.00 = 72.00 FT.
TOTAL 72.00 FT.

CALCULATED JLS CHECKED DNM

TYPICAL SECTIONS (CLYDE COURT)

MUS-60-18.35

7
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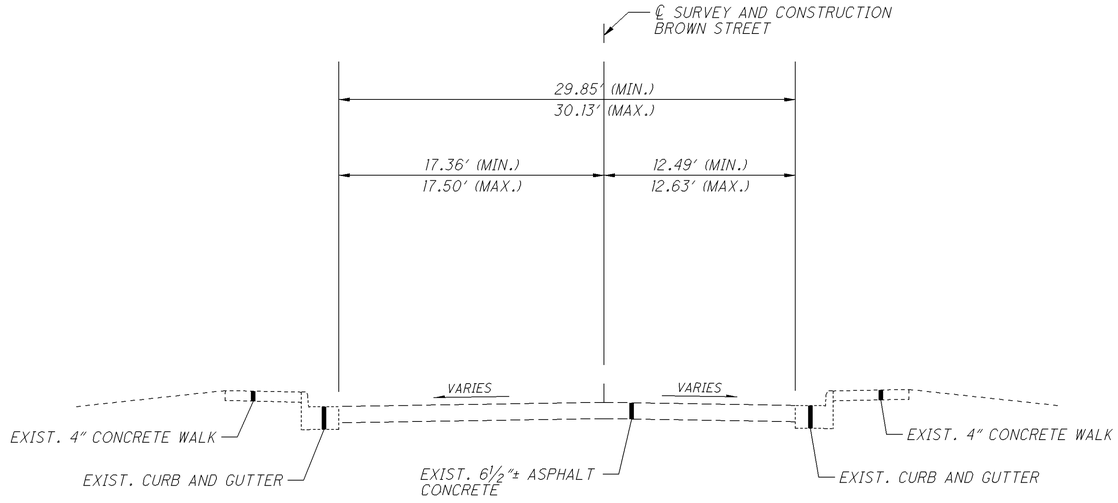
83002_PTS_005.DGN 12/10/12



BROWN STREET
(EXISTING)

LEGEND

(1) ITEM 448, 1¼″ ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M

(2) ITEM 448, 1¾″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22

(3) ITEM 407, TACK COAT, TRACKLESS TACK, SURFACE COURSE

(4) ITEM 407, TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE

(5) ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (3″)

(6) ITEM 301, 6″ ASPHALT CONCRETE BASE, PG64-22

(7) ITEM 301, 9″ ASPHALT CONCRETE BASE, PG64-22

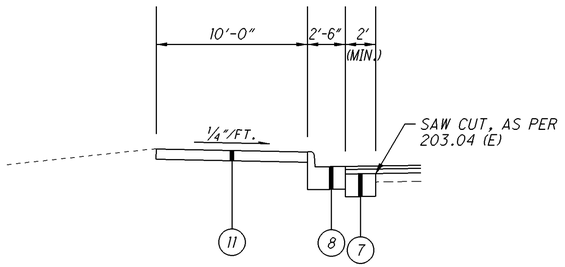
(8) ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2

(9) ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN

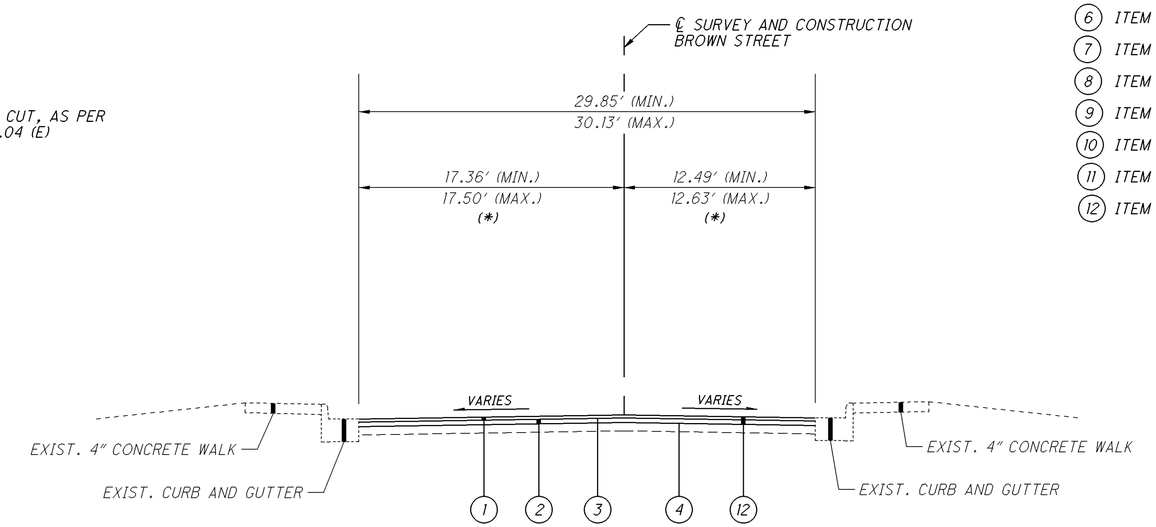
(10) ITEM 609, CURB, TYPE 6

(11) ITEM 608, 4″ CONCRETE WALK

(12) ITEM 202, WEARING COURSE REMOVED (VARIES)



RADIUS
STA. 0+21.00 TO STA. 0+47.98



BROWN STREET
SECTION APPLIES:

STA. 0+21.00 TO STA. 1+00.00 = 79.00 FT.
TOTAL 79.00 FT.

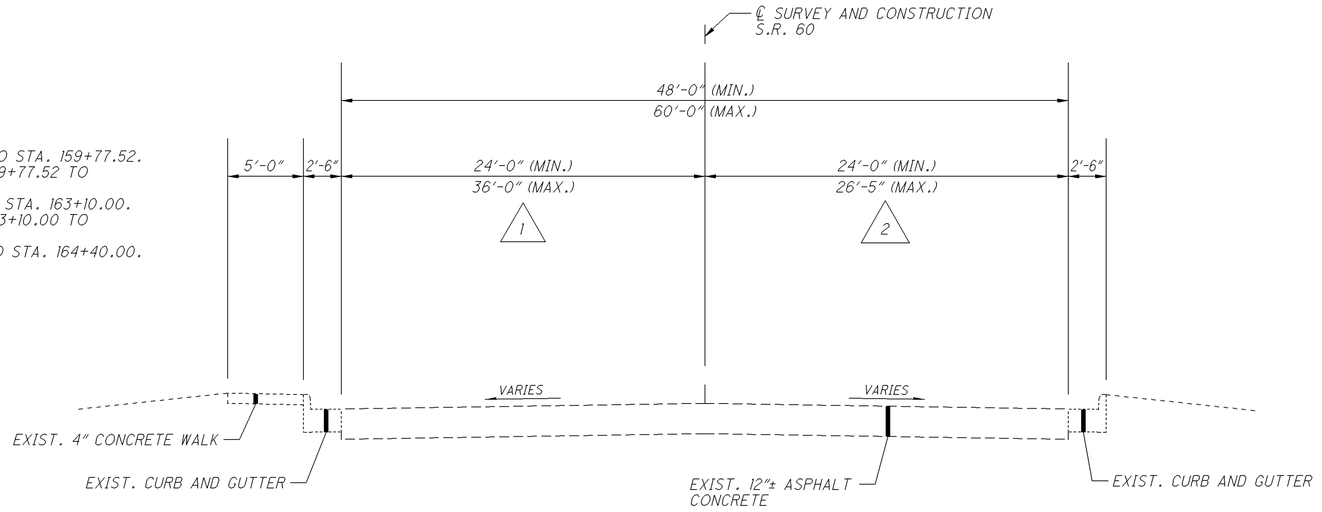
(*) FOR ELEVATIONS AND DEPTH OF WEARING COURSE REMOVED, SEE SHEET 92.

CALCULATED JLS CHECKED DNM

TYPICAL SECTIONS (BROWN STREET)

MUS-60-18.35

83002_PTS_004.DGN 2/11/13



1 24'-0" FROM STA. 152+50.00 TO STA. 159+77.52.
TAPERS FROM 24'-0" @ STA. 159+77.52 TO
36'-0" @ STA. 161+41.37.
36'-0" FROM STA. 161+41.37 TO STA. 163+10.00.
TAPERS FROM 36'-0" @ STA. 163+10.00 TO
24'-0" @ STA. 164+10.00.
24'-0" FROM STA. 164+10.00 TO STA. 164+40.00.

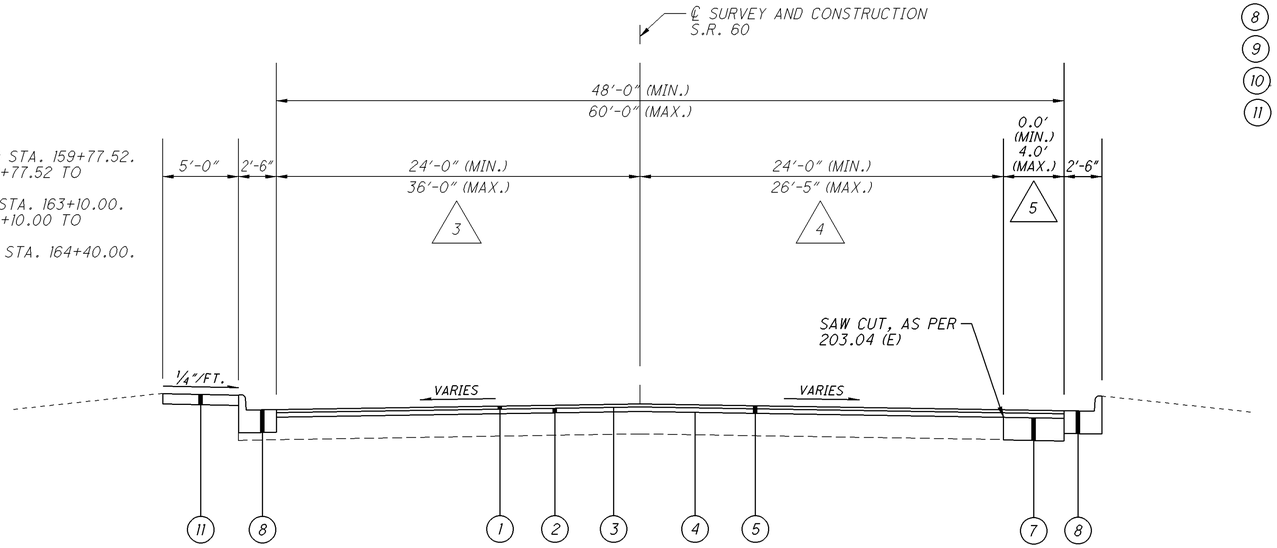
2 24'-0" FROM STA. 152+50.00 TO STA. 164+28.58.
TAPERS FROM 24'-0" @ STA. 164+28.58 TO
26'-5" @ STA. 164+40.00.

S.R. 60 (EXISTING) SECTION APPLIES:

STA. 152+50.00 TO STA. 164+40.00 = 1,190.00 FT.
TOTAL 1,190.00 FT.

LEGEND

(1) ITEM 448, 1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M
(2) ITEM 448, 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
(3) ITEM 407, TACK COAT, TRACKLESS TACK, SURFACE COURSE
(4) ITEM 407, TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
(5) ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (3")
(6) ITEM 301, 6" ASPHALT CONCRETE BASE, PG64-22
(7) ITEM 301, 9" ASPHALT CONCRETE BASE, PG64-22
(8) ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2
(9) ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
(10) ITEM 609, CURB, TYPE 6
(11) ITEM 608, 4" CONCRETE WALK



3 24'-0" FROM STA. 152+50.00 TO STA. 159+77.52.
TAPERS FROM 24'-0" @ STA. 159+77.52 TO
36'-0" @ STA. 161+41.37.
36'-0" FROM STA. 161+41.37 TO STA. 163+10.00.
TAPERS FROM 36'-0" @ STA. 163+10.00 TO
24'-0" @ STA. 164+10.00.
24'-0" FROM STA. 164+10.00 TO STA. 164+40.00.

4 24'-0" FROM STA. 152+50.00 TO STA. 164+28.58.
TAPERS FROM 24'-0" @ STA. 164+28.58 TO
26'-5" @ STA. 164+40.00.

5 TAPERS FROM 0.0' @ STA. 159+44.56 TO
4.0' @ STA. 160+04.56.
4.0' FROM STA. 160+04.56 TO STA. 161+83.71.
TAPERS FROM 4.0' @ STA. 161+83.71 TO
0.0' @ STA. 162+60.85.

S.R. 60 (PROPOSED) SECTION APPLIES:

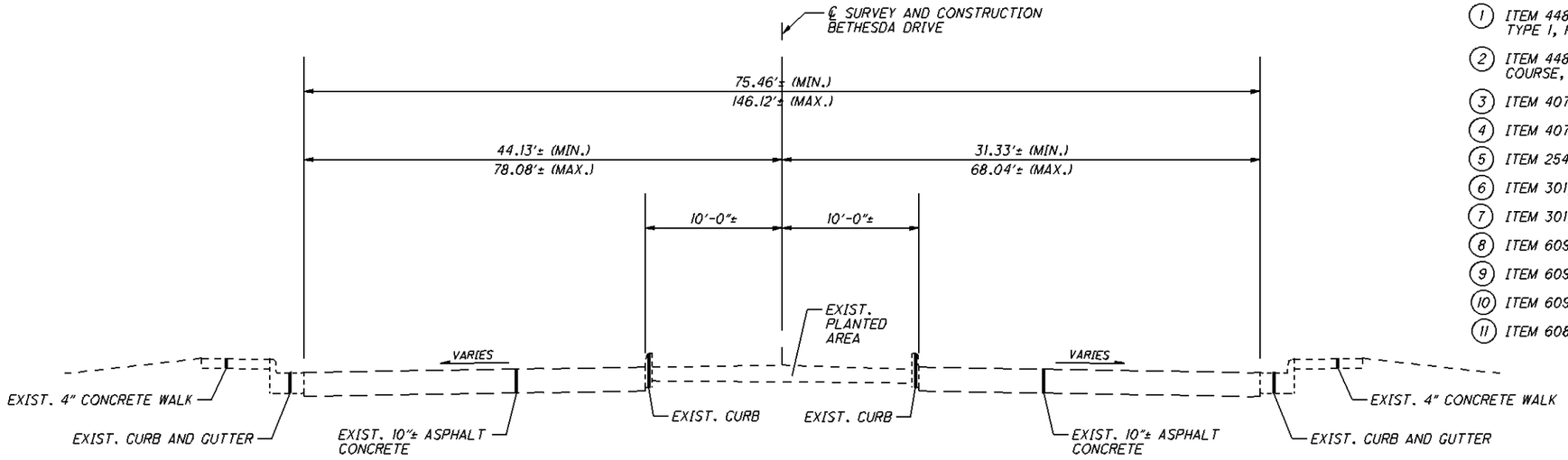
STA. 152+50.00 TO STA. 164+40.00 = 1,190.00 FT.
TOTAL 1,190.00 FT.

CALCULATED JLS
CHECKED DNM

TYPICAL SECTIONS (S.R. 60)

MUS-60-18.35

83002_PTS_002.DGN 12/10/12



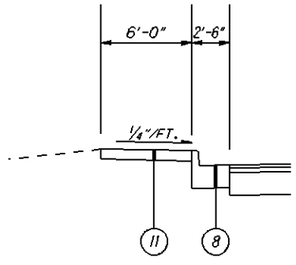
BETHESDA DRIVE
(EXISTING)

LEGEND

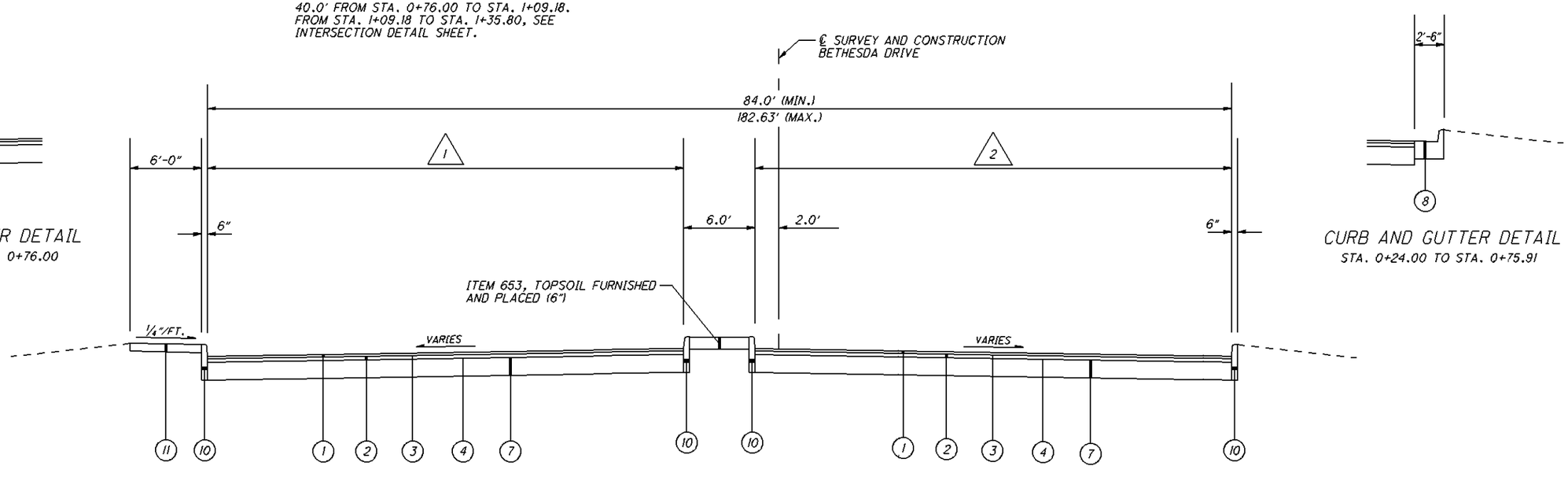
1. ITEM 448, 1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M
2. ITEM 448, 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
3. ITEM 407, TACK COAT, TRACKLESS TACK, SURFACE COURSE
4. ITEM 407, TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
5. ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (3")
6. ITEM 301, 6" ASPHALT CONCRETE BASE, PG64-22
7. ITEM 301, 9" ASPHALT CONCRETE BASE, PG64-22
8. ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2
9. ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
10. ITEM 609, CURB, TYPE 6
11. ITEM 608, 4" CONCRETE WALK

△1 FROM STA. 0+24.00 TO STA. 0+76.00, SEE INTERSECTION DETAIL SHEET.
40.0' FROM STA. 0+76.00 TO STA. 1+09.18.
FROM STA. 1+09.18 TO STA. 1+35.80, SEE INTERSECTION DETAIL SHEET.

△2 FROM STA. 0+24.00 TO STA. 0+75.91, SEE INTERSECTION DETAIL SHEET.
38.0' FROM STA. 0+75.91 TO STA. 1+06.17.
FROM STA. 1+06.17 TO STA. 1+35.80, SEE INTERSECTION DETAIL SHEET.



CURB AND GUTTER DETAIL
STA. 0+24.00 TO STA. 0+76.00



BETHESDA DRIVE
SECTION APPLIES:

STA. 0+24.00 TO STA. 1+35.80 = 111.80 FT.
TOTAL 111.80 FT.

CURB AND GUTTER DETAIL
STA. 0+24.00 TO STA. 0+75.91

CALCULATED JLS
CHECKED DNM

TYPICAL SECTIONS (BETHESDA DRIVE)

MUS-60-18.35

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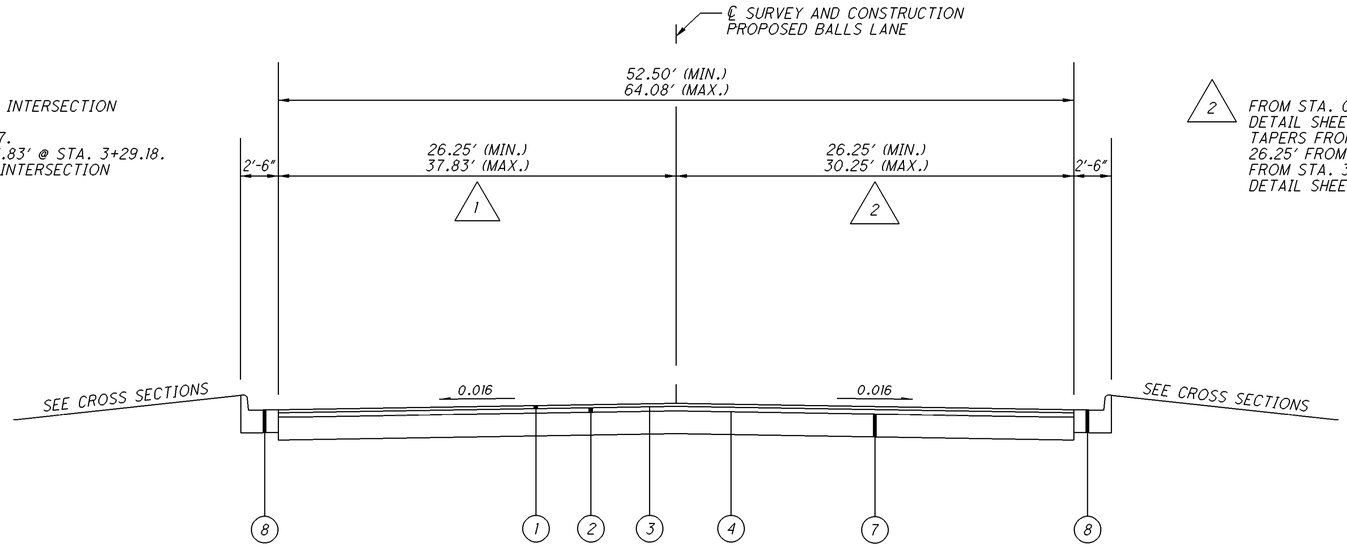
1 FROM STA. 0+24.00 TO STA. 0+76.62, SEE INTERSECTION DETAIL SHEET.
26.25′ FROM STA. 0+76.62 TO STA. 2+78.17.
TAPERS FROM 26.25′ @ STA. 2+78.17 TO 37.83′ @ STA. 3+29.18.
FROM STA. 3+29.18 TO STA. 3+80.54, SEE INTERSECTION DETAIL SHEET.



2 FROM STA. 0+24.00 TO STA. 0+81.22, SEE INTERSECTION DETAIL SHEET.
TAPERS FROM 30.25′ @ STA. 0+81.22 TO 26.25′ @ STA. 1+22.11.
26.25′ FROM STA. 1+22.11 TO STA. 3+17.52.
FROM STA. 3+17.52 TO STA. 3+80.54, SEE INTERSECTION DETAIL SHEET.

PROPOSED BALLS LANE
SECTION APPLIES:

STA. 0+24.00 TO STA. 3+80.54 = 356.54 FT.
TOTAL 356.54 FT.

LEGEND

1. ITEM 448, 1¼″ ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M
2. ITEM 448, 1¾″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
3. ITEM 407, TACK COAT, TRACKLESS TACK, SURFACE COURSE
4. ITEM 407, TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
5. ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (3″)
6. ITEM 301, 6″ ASPHALT CONCRETE BASE, PG64-22
7. ITEM 301, 9″ ASPHALT CONCRETE BASE, PG64-22
8. ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2
9. ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
10. ITEM 609, CURB, TYPE 6
11. ITEM 608, 4″ CONCRETE WALK

CALCULATED JLS
CHECKED DNM

TYPICAL SECTIONS (PROPOSED BALLS LANE)

MUS-60-18.35

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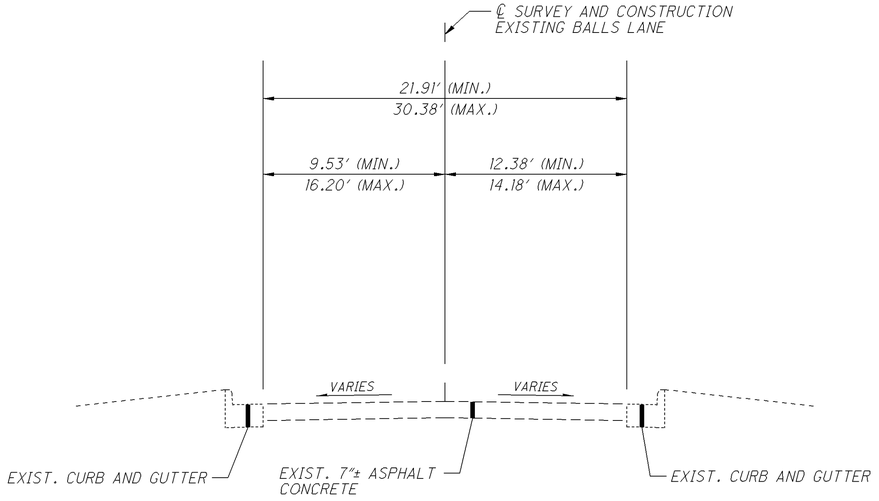


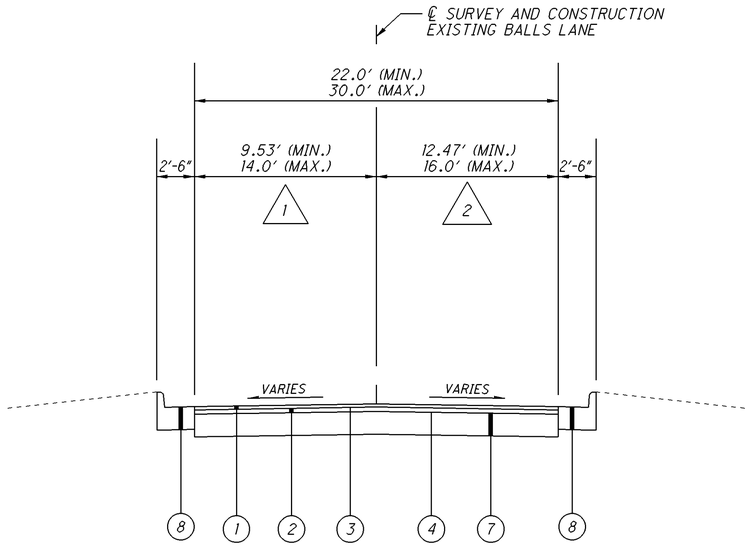
EXISTING BALLS LANE
(EXISTING)

LEGEND

1. ITEM 448, 1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M
2. ITEM 448, 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
3. ITEM 407, TACK COAT, TRACKLESS TACK, SURFACE COURSE
4. ITEM 407, TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
5. ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (3")
6. ITEM 301, 6" ASPHALT CONCRETE BASE, PG64-22
7. ITEM 301, 9" ASPHALT CONCRETE BASE, PG64-22
8. ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2
9. ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
10. ITEM 609, CURB, TYPE 6
11. ITEM 608, 4" CONCRETE WALK
12. ITEM 202, WEARING COURSE REMOVED (3")

△1 FROM STA. 3+54.32 TO STA. 4+17.34,
SEE INTERSECTION DETAIL SHEET.
TAPERS FROM 14.0' @ STA. 4+17.34
TO 10.0' @ STA. 4+77.34.
TAPERS FROM 10.0' @ STA. 4+77.34
TO 9.53' @ STA. 5+00.00.

△2 FROM STA. 3+54.32 TO STA. 4+11.22,
SEE INTERSECTION DETAIL SHEET.
TAPERS FROM 16.0' @ STA. 4+11.22
TO 13.0' @ STA. 4+56.22.
TAPERS FROM 13.0' @ STA. 4+56.22
TO 12.47' @ STA. 5+00.00.

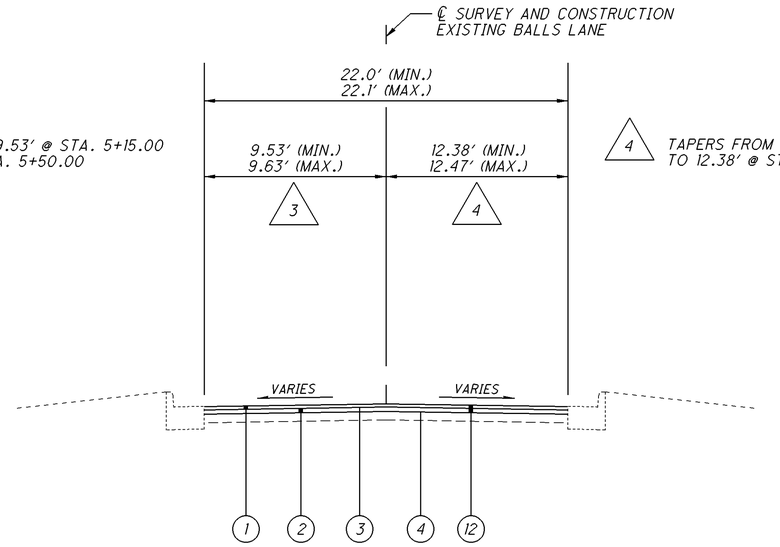


EXISTING BALLS LANE (FULL DEPTH)
SECTION APPLIES:

STA. 3+54.32 TO STA. 5+15.00 = 160.78 FT.
TOTAL 160.78 FT.

△3 TAPERS FROM 9.53' @ STA. 5+15.00
TO 9.63' @ STA. 5+50.00

△4 TAPERS FROM 12.47' @ STA. 5+15.00
TO 12.38' @ STA. 5+50.00.



EXISTING BALLS LANE (RESURFACING)
SECTION APPLIES:

STA. 5+15.00 TO STA. 5+50.00 = 35.00 FT.
TOTAL 35.00 FT.

CALCULATED JLS
CHECKED DNM

TYPICAL SECTIONS (EXISTING BALLS LANE)

MUS-60-18.35

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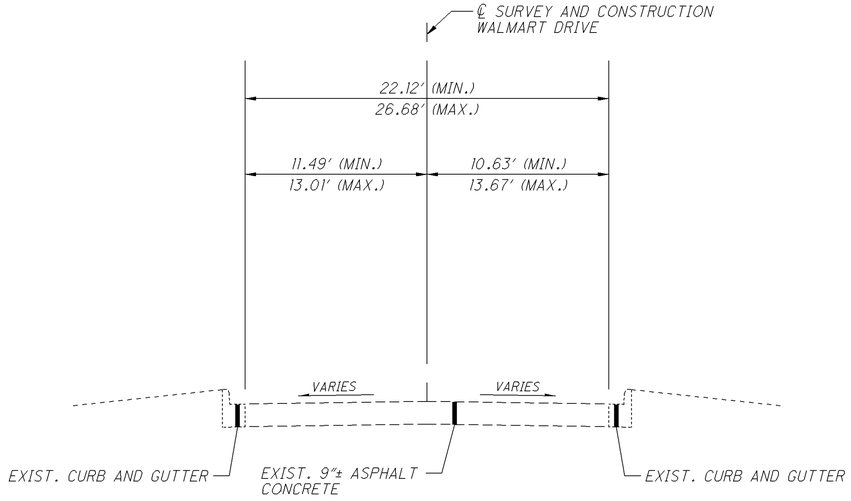
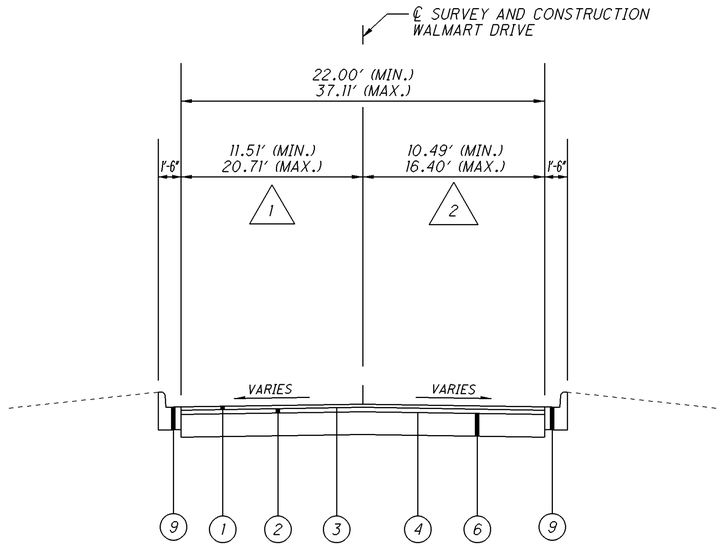


WALMART DRIVE
(EXISTING)

LEGEND

(1) ITEM 448, 1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M
(2) ITEM 448, 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
(3) ITEM 407, TACK COAT, TRACKLESS TACK, SURFACE COURSE
(4) ITEM 407, TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
(5) ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (3")
(6) ITEM 301, 6" ASPHALT CONCRETE BASE, PG64-22
(7) ITEM 301, 9" ASPHALT CONCRETE BASE, PG64-22
(8) ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2
(9) ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
(10) ITEM 609, CURB, TYPE 6
(11) ITEM 608, 4" CONCRETE WALK

△1 FROM STA. 3+80.54 TO STA. 4+47.04, SEE INTERSECTION DETAIL SHEET.
TAPERS FROM 20.71′ @ STA. 4+47.04 TO 14.72′ @ STA. 4+91.74.
TAPERS FROM 14.72 @ STA. 4+91.74 TO 12.31′ @ STA. 5+29.21.
TAPERS FROM 12.31′ @ STA. 5+29.21 TO 11.51′ @ STA. 5+60.00.



WALMART DRIVE
SECTION APPLIES:

STA. 3+80.54 TO STA. 5+60.00 = 179.46 FT.
TOTAL 179.46 FT.

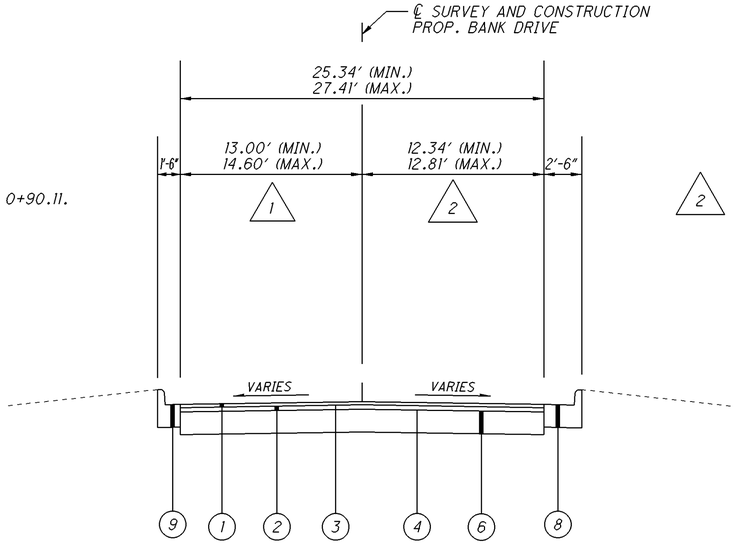
△2 FROM STA. 3+80.54 TO STA. 4+66.71, SEE INTERSECTION DETAIL SHEET.
TAPERS FROM 16.40′ @ STA. 4+66.71 TO 12.0′ @ STA. 5+32.00.
TAPERS FROM 12.0′ @ STA. 5+32.00 TO 10.49′ @ STA. 5+60.00.

CALCULATED JLS
CHECKED DNM

TYPICAL SECTIONS (WALMART DRIVE)

MUS-60-18.35

83002_PTS_009.DGN 12/10/12



1 TAPERS FROM 14.60′ @ STA. 0+23.11 TO 13.00′ @ STA. 0+90.11.

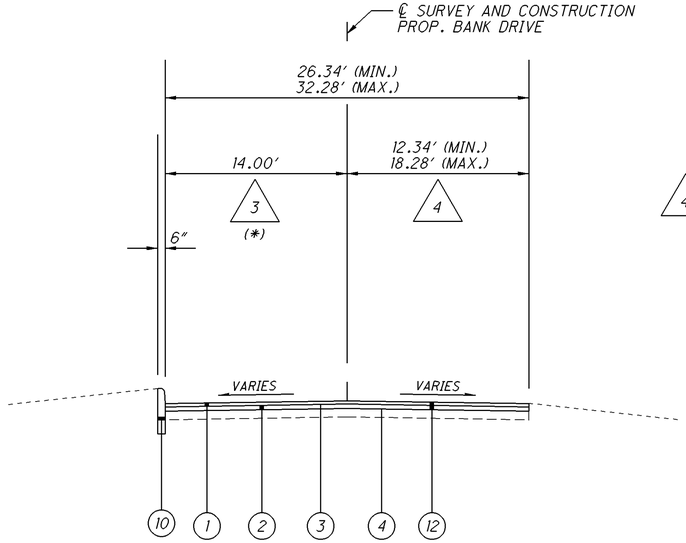
2 TAPERS FROM 12.81′ @ STA. 0+23.11 TO 12.34′ @ STA. 0+71.66.

PROP. BANK DRIVE (FULL DEPTH)
SECTION APPLIES:

(LT. SIDE)		(RT. SIDE)	
STA. 0+23.11 TO STA. 0+90.11 =	67.00 FT.	STA. 0+23.11 TO STA. 0+71.66 =	48.55 FT.
TOTAL	67.00 FT.	TOTAL	48.55 FT.

LEGEND

(1) ITEM 448, 1¼″ ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M
(2) ITEM 448, 1¾″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
(3) ITEM 407, TACK COAT, TRACKLESS TACK, SURFACE COURSE
(4) ITEM 407, TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
(5) ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (3″)
(6) ITEM 301, 6″ ASPHALT CONCRETE BASE, PG64-22
(7) ITEM 301, 9″ ASPHALT CONCRETE BASE, PG64-22
(8) ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2
(9) ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
(10) ITEM 609, CURB, TYPE 6
(11) ITEM 608, 4″ CONCRETE WALK
(12) ITEM 202, WEARING COURSE REMOVED (VARIES)



3 14.00′ FROM STA. 0+90.11 TO STA. 1+36.21.
FROM STA. 1+36.21 TO STA. 1+58.66, SEE PLAN SHEET.

(*) FOR ELEVATIONS AND DEPTH OF WEARING COURSE REMOVED, SEE SHEET 94.

4 TAPERS FROM 12.34′ @ STA. 0+71.66 TO 18.28′ @ STA. 0+99.87.
TAPERS FROM 18.28′ @ STA. 0+99.87 TO 16.45′ @ STA. 1+58.66.

PROP. BANK DRIVE (RESURFACING)
SECTION APPLIES:

(LT. SIDE)		(RT. SIDE)	
STA. 0+90.11 TO STA. 1+58.66 =	68.55 FT.	STA. 0+71.66 TO STA. 1+58.66 =	87.00 FT.
TOTAL	68.55 FT.	TOTAL	87.00 FT.

CALCULATED JLS CHECKED DNM

TYPICAL SECTIONS (PROP. BANK DRIVE)

MUS-60-18.35

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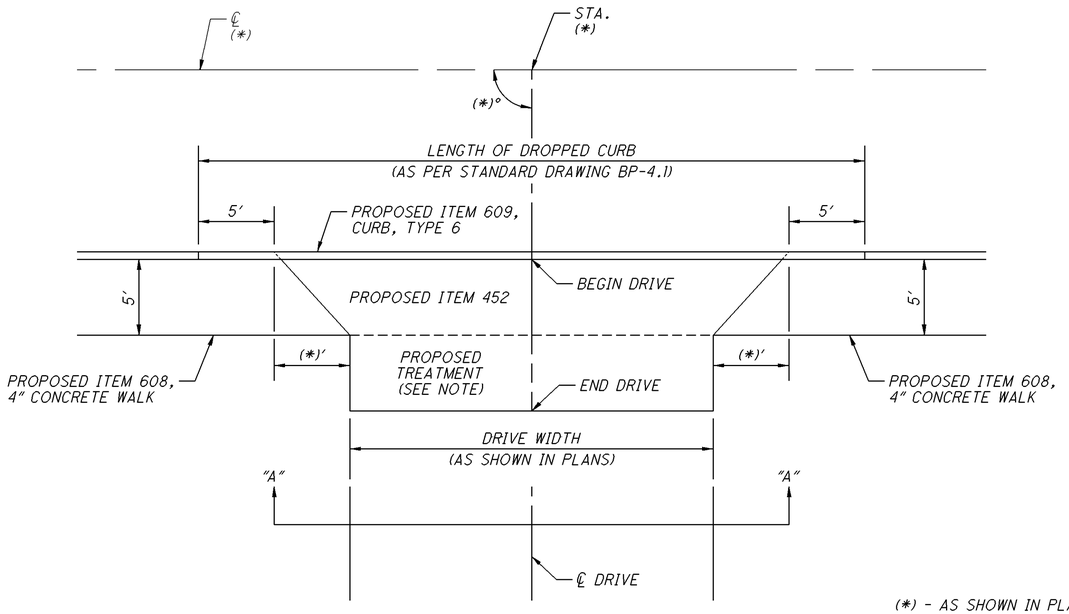
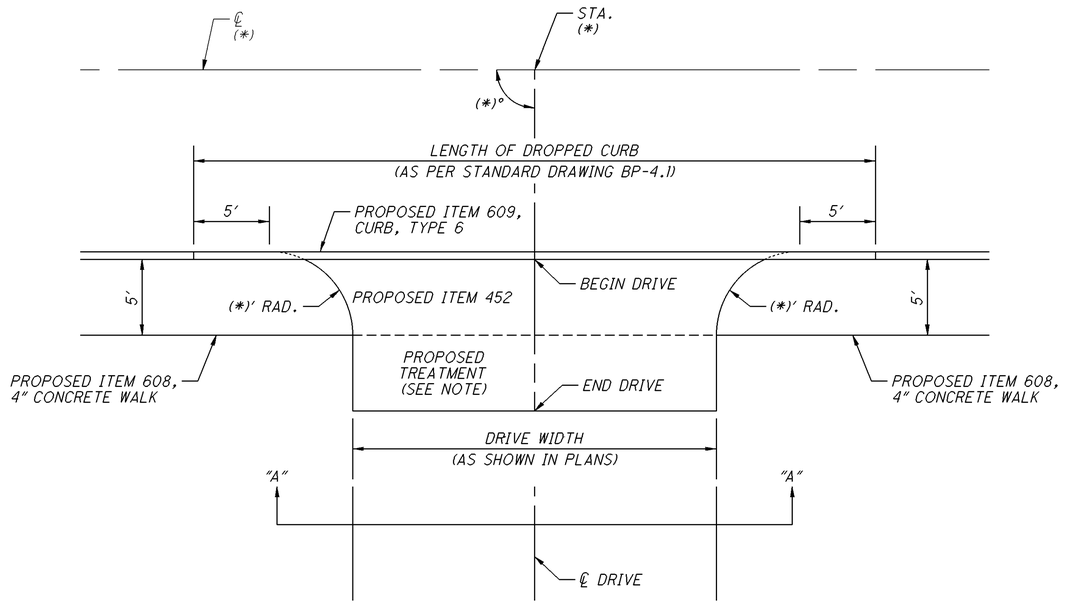
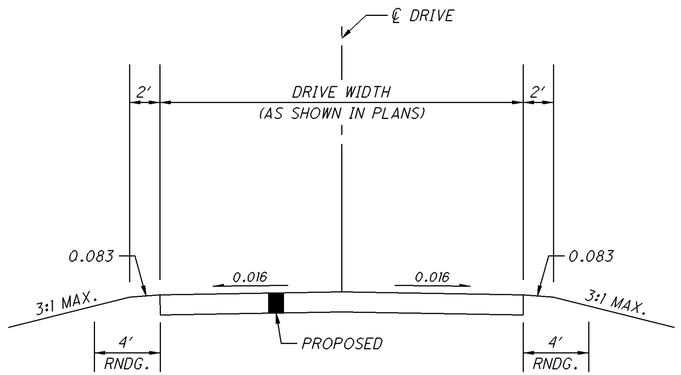


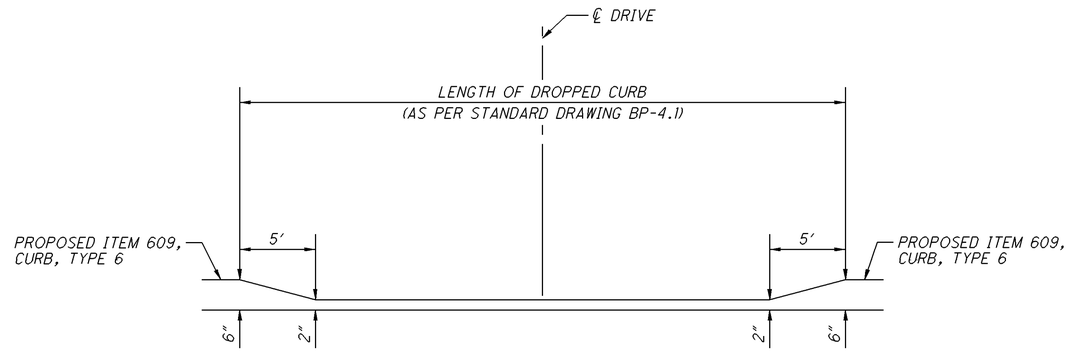


(*) - AS SHOWN IN PLANS

NOTE:
PROPOSED DRIVE SURFACE BEYOND CONCRETE APRON SHALL MATCH EXISTING DRIVE SURFACE (i.e. REPLACE EXISTING CONCRETE WITH NEW CONCRETE, REPLACE EXISTING ASPHALT CONCRETE WITH NEW ASPHALT CONCRETE, etc.).



SECTION A-A



CURB HEIGHT REDUCTION DETAIL
(AT BACK OF CURB)

RESIDENTIAL DRIVE

- 6″ OF ITEM 452, NON-REINFORCED CONCRETE PAVEMENT

OR

- 1 1/4″ OF ITEM 448, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS)
- ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE @ (0.05 GAL./SQ. YD.)
- 3 1/2″ OF ITEM 301, ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS)

OR

- 8″ ITEM 304, AGGREGATE BASE

COMMERCIAL DRIVE

- 8″ OF ITEM 452, NON-REINFORCED CONCRETE PAVEMENT

OR

- 1 1/4″ OF ITEM 448, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS)
- ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE @ (0.05 GAL./SQ. YD.)
- 5″ OF ITEM 301, ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS)

OR

- 10″ ITEM 304, AGGREGATE BASE

CALCULATED JLS
CHECKED DNM

PROPOSED TYPICAL SECTIONS (DRIVES)

MUS-60-18.35

83002_PTS_DRIVE.DGN 12/10/12

CALCULATED JLS CHECKED DNM

GENERAL NOTES

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

CABLE:
TIME WARNER CABLE
1260 DUBLIN ROAD
COLUMBUS, OHIO 43215
ATTN: TERRY ALLEN
614.255.6349

TELEPHONE:
AT&T
160 NORTH SIXTH STREET
ZANESVILLE, OHIO 43701
ATTN: JEANINE YOUNG
740.454.3455

ELECTRIC:
AMERICAN ELECTRIC POWER
COLUMBUS, OHIO 43215
850 TECH CENTER DR.
GAHANNA, OHIO 43230
ATTN: PAUL PAXTON
740.883.6829

SANITARY AND STORM
CITY OF ZANESVILLE
DIVISION OF SANITARY AND STORM
401 MARKET STREET
ZANESVILLE, OHIO 43701
ATTN: DAVE MARKLEY
740.455.0641

GAS:
NATIONAL GAS AND OIL CORP.
1500 GRANVILLE ROAD
P.O. BOX 4970
NEWARK, OHIO 43058
ATTN: GREG WILSON
740.348.1254

WATER
CITY OF ZANESVILLE
DIVISION OF WATER
401 MARKET STREET
ZANESVILLE, OHIO 43701
ATTN: JOHN SMITH
740.455.0653

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITIES AS REQUIRED BY SECTION 153.64 OF THE OHIO REVISED CODE. ODOT ASSUMES NO RESPONSIBILITY FOR THE LOCATION OR THE DEPTHS OF THE UNDERGROUND FACILITIES SHOWN ON THESE PLANS.

AT LEAST 48 HOURS BEFORE DIGGING, THE CONTRACTOR SHALL CALL THE OHIO UTILITIES PROTECTION SERVICE AT THE NUMBER LISTED ON THE TITLE SHEET. NON-MEMBER UTILITY COMPANIES MUST BE CALLED DIRECTLY. THE NAMES AND ADDRESSES OF THE UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS ARE LISTED ABOVE. THE CONTRACTOR SHALL ALSO CALL FRED BUCK, AT PHONE 740-819-4586, FOR LOCATION OF CITY OF ZANESVILLE EXISTING SIGNAL CONDUIT THAT IS UNDERGROUND.

ELEVATION DATUM

USE THE FOLLOWING VERTICAL POSITIONING AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID09

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (CORS 96)
ELLIPSOID: GRS 80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLAN (SOUTH)

UNITS ARE IN U.S. SURVEY FEET.

BENCH MARKS

BENCHMARKS ARE LISTED ON THE INDIVIDUAL PLAN SHEETS.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THE WORK LIMITS.

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 120 FT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. A COPY OF THE SUBMISSION AND TWO COPIES OF FORM 7460-1 SHALL BE FORWARDED TO THE ODOT OFFICE OF AVIATION.

NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

EXPRESS PROCESSING CENTER
THE FEDERAL AVIATION ADMINISTRATION
SOUTHWEST REGIONAL OFFICE
AIR TRAFFIC AIRSPACE BRANCH ASW-520
2601 MEACHAN BLVD.
FORT WORTH, TX 76137-4298

OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF AVIATION
2829 WEST DUBLIN-GRANVILLE ROAD
COLUMBUS, OHIO 43235
614-387-2346

CONSTRUCTION NOTIFICATION

THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF TWENTY ONE (21) DAYS PRIOR TO THE FOLLOWING: THE START OF CONSTRUCTION ACTIVITIES, LANE RESTRICTIONS, LANE CLOSURES, AND OR ROAD CLOSURES. THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY FAX AT (614) 887-4510 OR EMAIL AT D05.PIO@DOT.STATE.OH.US
DISTRICT PERMIT SECTION BY FAX AT (614) 887-4525 OR EMAIL AT BRIAN.BOSCH@DOT.STATE.OH.US
CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY FAX AT (614) 728-4099 OR EMAIL AT HAULING.PERMITS@DOT.STATE.OH.US

THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS, VIA MEDIA SOURCES.

CONTINGENCY QUANTITES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK LISTED IN THE GENERAL SUMMARY FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATING INTO THE FINAL CHANGE ORDER GOVERNING THE COMPLETION OF THIS PROJECT.

ITEM 201, CLEARING AND GRUBBING

THE DEPARTMENT HAS NOT MARKED INDIVIDUAL TREES AND STUMPS FOR REMOVAL. UNLESS SPECIFICALLY DESIGNATED AS "DO NOT DISTURB" IN THE PLANS, REMOVE ALL TREES AND STUMPS WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201 CLEARING AND GRUBBING.

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE

DEPTH OF PLANING SHALL BE 3" AND FULL WIDTH OF PAVEMENT UNLESS OTHERWISE NOTED. THE ROADWAY SHALL BE PLANED SUCH THAT POSITIVE DRAINAGE IS CREATED FROM THE CENTER LINE TO THE EDGE OF PAVEMENT IN TANGENT SECTIONS. ALL REQUIREMENTS OF ITEM 254 SHALL APPLY.

BUTT JOINT

A BUTT JOINT WILL BE REQUIRED AT LOCATIONS SPECIFIED BELOW. BUTT JOINTS SHALL BE AS PER STANDARD CONSTRUCTION DRAWING BP-3.1 UNLESS OTHERWISE SHOWN IN THE PLANS. THE MINIMUM BUTT JOINT LENGTHS SHALL BE 35'.

ROUTE	DESCRIPTION	STATION	ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC CU. YD.
S.R. 60	BEGIN WORK	96+05.6	3.3
S.R. 60	SUSPEND WORK	104+00	3.8
S.R. 60	RESUME WORK	152+50	3.4
S.R. 60	END WORK	164+40	3.3
DRESDEN RD.	END WORK	3+25	1.7
EX. BALLS LN.	END WORK	5+50	1.5
TOTAL			17.0

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 17 CU. YD.

MUS-60-18.35

16
157

83002_GGN_001.DGN 2/04/13

ITEM 407, TACK COAT, TRACKLESS TACK, INTERMEDIATE AND SURFACE COURSE

DESCRIPTION: THIS WORK CONSISTS OF PREPARING AND TREATING A PAVED SURFACE WITH NTSS-1HM TRACKLESS TACK PRODUCED BY BLACKLIDGE EMULSIONS, INC. MEET ALL REQUIREMENTS OF CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 407 TACK COAT EXCEPT AS NOTED BELOW.

MATERIAL: CONFORM TO THE FOLLOWING TYPICAL PHYSICAL PROPERTIES:

PARAMETER	TEST METHOD	MIN.	MAX.
SAYBOLT FUROL VISCOSITY, SFS @ 25°C	ASTM D88	15	100
STORAGE STABILITY, 24 HRS, %	ASTM D244	--	1
STORAGE STABILITY, 5 DAYS, %	ASTM D244	--	5
RESIDUE BY DISTILLATION, %	ASTM D244	0	--
OIL DISTILLATE, %	ASTM D244	--	1
SIEVE TEST, %	ASTM D244	--	0.3
TEST ON RESIDUE:			
PENETRATION, @ 25°C,	ASTM D5	--	20
SOFTENING POINT RANGE DEG C	ASTM D36	65	--
SOLUBILITY,%	ASTM D2042	97.5	--
ORIGINAL BINDER DSR@82°C G*/SIN Δ,10 RAD/SEC	AASHTO T111	1	--

NOTES:
PRODUCT SHOULD NOT CONTAIN FILLER SUCH AS CLAY, ETC.
KEEP FROM FREEZING.
SUPPLY CERTIFIED TEST DATA TO THE ENGINEER SHOWING THE MATERIAL SUPPLIED WAS TESTED FOR AND MEETS THE ABOVE PROPERTIES.

EQUIPMENT. ALL REQUIREMENTS OF 407.03 APPLY. SEE MANUFACTURER'S REPRESENTATIVE FOR CORRECT DISTRIBUTOR SETTINGS. THOROUGHLY CLEAN ALL EQUIPMENT IF CATIONIC EMULSION WAS PREVIOUSLY USED.

WEATHER LIMITATIONS. ALL REQUIREMENTS OF 407.04 APPLY.

PREPARATION OF SURFACE. ALL REQUIREMENTS OF 407.05 APPLY.

APPLICATION OF ASPHALT MATERIAL. UNIFORMLY APPLY THE ASPHALT MATERIAL WITH A DISTRIBUTOR PER THE REQUIREMENTS OF 407.06 EXCEPT AS NOTED.

IF PRODUCT IS STORED FOR AN EXTENDED PERIOD OF TIME, PRIOR TO APPLICATION, AGITATE OR GENTLY CIRCULATE THE MATERIAL.

ALL NOZZLES AND SPRAY PATTERNS SHALL BE IDENTICAL TO ONE ANOTHER ALONG THE DISTRIBUTOR SPRAY BAR. THE ANGLE OF THE NOZZLE SHOULD A 15 TO 30 DEGREE ANGLE TO THE SPRAY BAR AXIS TO MAXIMIZE OVERLAP OR AS RECOMMENDED BY THE NOZZLE MANUFACTURER. CONTACT THE MANUFACTURER'S REPRESENTATIVE FOR REQUIRED SPRAY NOZZLE SIZE, AND DISTRIBUTOR AND NOZZLE SETTINGS.

APPLY AT A RATE OF 0.04 TO 0.08 GALLONS PER SQUARE YARD. RECOMMENDED APPLICATION TEMPERATURE IS 160°F TO 180° F. DO NOT EXCEED 180°F.

DILUTION IS NOT ALLOWED.

THE ENGINEER AND MANUFACTURER'S REPRESENTATIVE WILL APPROVE RATE OF APPLICATION, TEMPERATURE, DISTRIBUTOR SETTINGS, AND AREAS TO BE TREATED BEFORE APPLICATION OF THE TACK COAT. THE ENGINEER WILL DETERMINE THE ACTUAL APPLICATION IN GALLONS PER SQUARE YARD BY A CHECK ON THE PROJECT.

THE APPLICATION IS CONSIDERED SATISFACTORY WHEN THE MATERIAL IS APPLIED UNIFORMLY WITH NO VISIBLE EVIDENCE OF STREAKING OR RIDGING AND THE APPLICATION RATE IS ±10% OF THE SPECIFIED RATE.

ITEM 407, TACK COAT, TRACKLESS TACK, INTERMEDIATE AND SURFACE COURSE (cont'd)

THE RATE OF APPLICATION OF THE 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE, SHALL BE SUBJECT TO ADJUSTMENT AS MENTIONED ABOVE. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.075 GALLONS PER SQUARE YARD FOR ESTIMATING PURPOSES ONLY.

THE RATE OF APPLICATION OF THE 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE, SHALL BE SUBJECT TO ADJUSTMENT AS MENTIONED ABOVE. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.05 GALLONS PER SQUARE YARD FOR ESTIMATING PURPOSES ONLY.

METHOD OF MEASUREMENT. ALL REQUIREMENTS OF 407.07 APPLY.

BASIS OF PAYMENT. ALL REQUIREMENTS OF 407.08 APPLY.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

PAVEMENT RESTORATION FOR PIPE INSTALLATIONS

THE FOLLOWING QUANTITY HAS BEEN PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION OF PIPES UNDER ITEM 603.

ITEM 301, ASPHALT CONCRETE BASE, PG64-22 20 CU. YD.

THE ABOVE QUANTITY IS BASED ON A 301 THICKNESS OF **12** INCHES AND A PAVEMENT RESTORATION WIDTH THAT INCLUDES THE TRENCH WIDTH PLUS TWO FEET ON EACH SIDE OF THE TRENCH. SEE STANDARD CONSTRUCTION DRAWING DM-1.4 FOR TRENCH WIDTH FORMULA AND CALCULATION.

ITEM 604, CATCH BASIN/ MANHOLE/ INLET ADJUSTED TO GRADE
ITEM 638, VALVE BOX ADJUSTED TO GRADE

EXISTING MANHOLES AND VALVE BOXES THAT ARE TO BE ADJUSTED TO GRADE ARE LISTED BELOW. THESE NUMBERS ARE TAKEN FROM FIELD COUNTS. HOWEVER, THE ACTUAL NUMBER THAT IS TO BE ADJUSTED TO GRADE WILL BE DETERMINED BY THE ENGINEER AT THE TIME OF CONSTRUCTION.

PAYMENT SHALL BE FOR THE ACTUAL NUMBERS OF EACH ITEM THAT IS ADJUSTED TO GRADE, AS DETERMINED BY THE ENGINEER.

WHEN ADJUSTING MANHOLES EXTREME CARE SHALL BE TAKEN WHEN REMOVING CONCRETE, SO AS NOT TO DAMAGE MANHOLE COVERS AND FRAMES. MANHOLES SHALL BE ADJUSTED USING CONCRETE SHOWN IN DRAWING BP-3.1. WHEN ADJUSTING MANHOLES AND VALVE BOXES ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND ANY OTHER INCIDENTALS AND REMOVAL OF THE EXISTING CONCRETE SHALL BE PAID FOR UNDER EACH ITEM AS SHOWN ON THE GENERAL SUMMARY.

ANY GAS VALVE BOXES AND TELEPHONE COMPANY MANHOLES ON THIS PROJECT SHALL BE ADJUSTED TO GRADE BY THE RESPECTIVE OWNERS.

ITEM 604, CATCH BASIN ADJUSTED TO GRADE	**2 EA.**
ITEM 604, INLET ADJUSTED TO GRADE	**2 EA.**
ITEM 604, MANHOLE ADJUSTED TO GRADE	**2 EA.**
ITEM 638, VALVE BOX ADJUSTED TO GRADE	**3 EA.**

UNRECORDED STORM WATER DRAINAGE

FURNISH A CONTINUANCE FOR ALL UNRECORDED STORM WATER DRAINAGE, SUCH AS ROOF DRAINS, FOOTER DRAINS, OR YARD DRAINS, DISTURBED BY THE WORK. FURNISH EITHER AN OPEN CONTINUANCE OR AN UNOBSTRUCTED CONTINUANCE BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEEDED CONDUIT TO REPLACE OR EXTEND AN EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER. ALL SUCH CONTINUANCE REQUIRES A RIGHT OF WAY USE PERMIT.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, 707.52 SDR35.

THE FOLLOWING ITEM 603 ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE WORK NOTED ABOVE:

ITEM 604, 4" CONDUIT, TYPE B	**50 FT.**
ITEM 604, 4" CONDUIT, TYPE C	**50 FT.**
ITEM 604, 4" CONDUIT, TYPE E	**50 FT.**
ITEM 604, 4" CONDUIT, TYPE F	**50 FT.**

CALCULATED JLS CHECKED DNM

GENERAL NOTES

MUS-60-18.35

MANHOLES, CATCH BASINS AND INLETS REMOVED OR ABANDONED

ALL CASTINGS SHALL BE CAREFULLY REMOVED AND STORED WITHIN THE RIGHT OF WAY FOR SALVAGE BY CITY OF ZANESVILLE FORCES.

CONTACT:
DAVE MARKLEY
CITY OF ZANESVILLE
740.455.0641

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 ITEM.

ITEM 608, 4" CONCRETE WALK, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING 4" CONCRETE WALK AT THE LOCATIONS SHOWN IN THE PLANS, IN ACCORDANCE WITH ODOT ITEM 608. THE WIDTH OF THE NEW WALK SHALL MATCH THE WIDTH OF EXISTING WALK OR THE ADJACENT WALK. THE WIDTH OF THE WALK MAY BE ADJUSTED BY THE ENGINEER TO ACCOMMODATE VARYING FIELD CONDITIONS. THE FINISH OF THE WALK SHALL MATCH THE FINISH OF THE ADJACENT OR SURROUNDING WALK. A BEDDING OF #8 CRUSHED AGGREGATE SHALL BE INCLUDED IN THE UNIT BID PRICE OF WALK FOR ANY FILL REQUIRED TO ACHIEVE THE FINAL WALK GRADES.

PAYMENT FOR ITEM 608 "4" CONCRETE WALK, AS PER PLAN" SHALL BE AT THE CONTRACT UNIT PRICE PER SQUARE FOOT OF WALK COMPLETE IN PLACE, AND SHALL INCLUDE ALL OF THE LABOR, MATERIALS AND EQUIPMENT NEEDED TO COMPLETE THE WORK.

ITEM 653, TOPSOIL FURNISHED AND PLACED, AS PER PLAN

THIS ITEM SHALL CONSIST OF FURNISHING AND PLACING TOPSOIL ADJACENT TO SIDEWALK AND CURB RAMPS THROUGHOUT THE PROJECT LIMITS AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE REQUIRED TO SEED AND MULCH THE TOPSOIL AS PER 659 OF THE 2010 CMS.

PAYMENT FOR ITEM 653 "TOPSOIL FURNISHED AND PLACED, AS PER PLAN", SHALL BE AT THE CONTRACT UNIT PRICE PER CUBIC YARD OF TOPSOIL FURNISHED AND PLACED, INCLUDING ALL OF THE LABOR, MATERIALS AND EQUIPMENT NEEDED TO COMPLETE THE WORK.

AN ESTIMATED QUANTITY OF **10 CU. YD.** HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

ITEM 202, CATCH BASIN ABANDONED, AS PER PLAN

THE EXISTING CATCH BASIN SHALL BE ABANDONED AS PER CMS 202. 12. THE EXISTING CONDUIT ON EITHER SIDE OF THE CATCH BASIN IS 48" DIAMETER PLASTIC. THE CONTRACTOR SHALL CONNECT THE PIPES THROUGH THE EXISTING CATCH BASIN AS NOTED IN THE CMS. IN ORDER TO CONNECT THE PIPES, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE A JOINT. THE APPROXIMATE ANGLE BETWEEN THE TWO EXISTING CONDUITS IS 163° ±.

ALL MATERIALS, LABOR EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO ABANDON THE CATCH BASIN, INCLUDING THE JOINT NEEDED TO CONNECT THE CONDUITS SHALL BE INCLUDED FOR PAYMENT WITH **ITEM 202, CATCH BASIN ABANDONED, AS PER PLAN.**

ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING 12 IN DIAMETER CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED.
THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

ITEM 659, SEEDING AND MULCHING, CLASS I (TOTALS CARRIED FROM SHEET 82)	**5,997 SQ. YD.**
ITEM 659, REPAIR SEEDING AND MULCHING	**300 SQ. YD.**
ITEM 659, INTER-SEEDING	**300 SQ. YD.**
ITEM 659, COMMERCIAL FERTILIZER	**0.84 TON**
ITEM 659, LIME	**1.24 ACRE**
ITEM 659, WATER	**33.19 M. GAL.**

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN

THIS ITEM SHALL CONSIST OF BUILDING A COMBINATION CURB AND GUTTER, TYPE 2 EXCEPT THAT THE TOTAL WIDTH WILL BE 1'-6". THE CURB SHALL BE BUILT AS PER THE DIMENSIONS IN THE STANDARD DRAWING, HOWEVER, THE GUTTER PLATE WILL BE REDUCED FROM 2'-0" TO 1'-0".

PAYMENT FOR ITEM 609 "COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN" SHALL BE AT THE CONTRACT UNIT PRICE PER FOOT OF COMBINATION CURB AND GUTTER COMPLETE IN PLACE, MEASURED ALONG THE FACE OF THE CURB SECTION AND SHALL INCLUDE ALL OF THE LABOR, MATERIALS AND EQUIPMENT NEEDED TO COMPLETE THE WORK.

CONSTRUCTION NOISE RESTRICTIONS

CONSTRUCTION NOISE IS RESTRICTED BETWEEN THE HOURS OF 9:00PM AND 7:00AM, EXCEPT FOR EMERGENCY WORK OF PUBLIC SERVICE UTILITIES, INCLUDING SIGNAL WORK AND PAVING OR BY SPECIAL VARIANCE. THE RESTRICTION IS BASED ON THE ZANESVILLE CODIFIED ORDINANCES (SECTION 1161.03).

TEM 204, SUBGRADE COMPACTION AND PROOF ROLLING

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.

2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE EXCAVATION LIMITS ARE :
FROM E/P TO STA. 2+50 TO STA. 3+65 (PROPOSED BALLS LANE).

UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO 204.05.

IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.

3. COMPACT THE SUBGRADE ACCORDING TO 204.03.

4. APPROXIMATE LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE ARE :
FROM STA. AT INTERSECTION TO STA. 1+00 (1'-0") (PROPOSED DRESDEN RD.) THE OVER EXCAVATION BY OTHER ITEMS.

FROM STA. 0+25 TO STA. 1+50 (1'-0")((PROPOSED BALLS LANE).
THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS. PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO 204.06.

5. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.

6. PROOF ROLL THE STABILIZED AREAS ACCORDING TO 204.06 TO VERIFY STABILITY.

7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204 EXCAVATION OF SUBGRADE.

ITEM 604, CATCH BASIN, NO. 3A, AS PER PLAN

THE CONTRACTOR WILL BE REQUIRED TO DETERMINE THE EXISTING FLOW LINE AND SIZE OF OUTLET/INLET CONDUIT(S) FOR THIS CATCH BASIN. THE CONTRACTOR WILL ALSO BE REQUIRED TO PROVIDE THE NECESSARY CONDUIT(S) TO CONNECT THE EXISTING CONDUIT(S) TO THE NEW CATCH BASIN.

PAYMENT FOR ITEM 604 "CATCH BASIN, NO. 3A, AS PER PLAN" SHALL BE AT THE CONTRACT UNIT PRICE FOR EACH COMPLETE IN PLACE, AND SHALL INCLUDE ALL OF THE LABOR, MATERIALS AND EQUIPMENT NEEDED TO COMPLETE THE WORK AS DESCRIBED ABOVE.

ITEM 604, CATCH BASIN, NO. 6, AS PER PLAN

THE CONTRACTOR WILL BE REQUIRED TO VERIFY THE EXISTING FLOW LINE AND SIZE OF OUTLET CONDUIT FOR THIS CATCH BASIN.

PAYMENT FOR ITEM 604 "CATCH BASIN, NO. 6, AS PER PLAN" SHALL BE AT THE CONTRACT UNIT PRICE FOR EACH COMPLETE IN PLACE, AND SHALL INCLUDE ALL OF THE LABOR, MATERIALS AND EQUIPMENT NEEDED TO COMPLETE THE WORK AS DESCRIBED ABOVE.

CALCULATED JLS CHECKED DNM

GENERAL NOTES

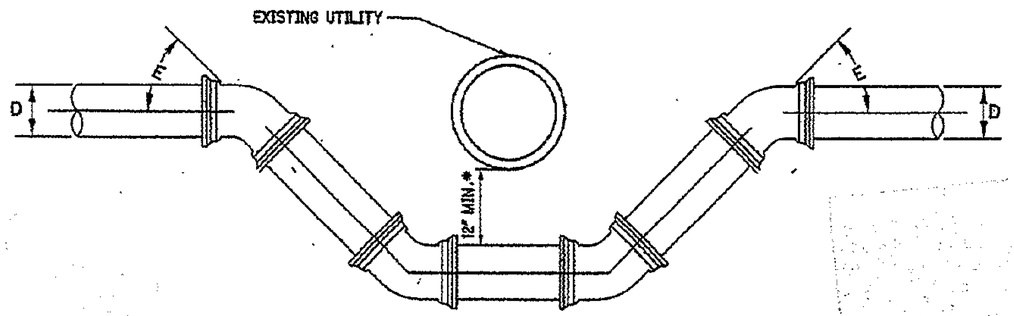
MUS-60-18.35

ITEM 638, WATER WORK

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY AND ARE TO BE USED AS DIRECTED BY THE ENGINEER FOR RELOCATING EXISTING WATER MAINS UNDER PROPOSED STORM SEWERS AND FOR REPLACING SERVICE BRANCHES WHICH MAY CONFLICT WITH THE PROPOSED CONSTRUCTION ACTIVITIES:

ITEM 638, 6" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, MECHANICAL JOINTS AND FITTINGS 30 FT.

ITEM 638, ¾" POLYETHELENE SERVICE BRANCH 400 FT.



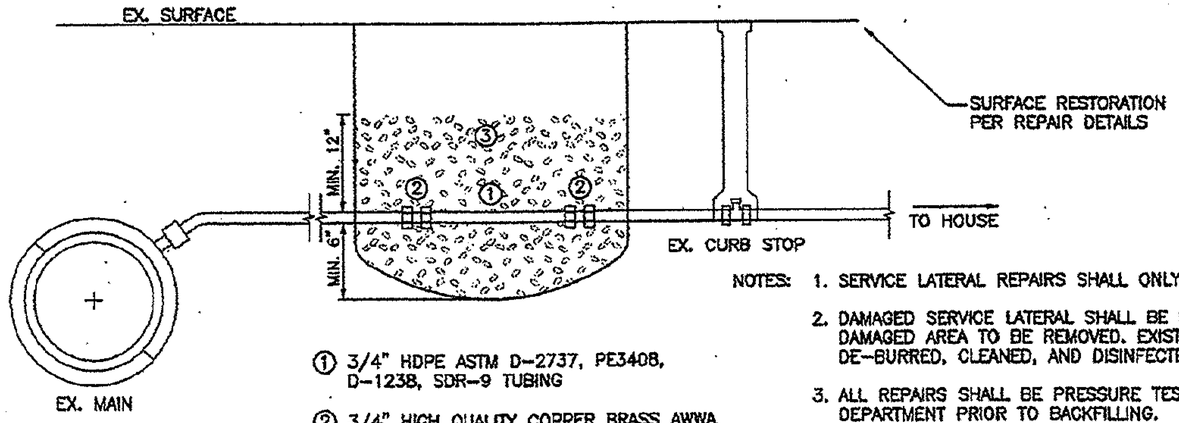
D - INSIDE DIAMETER OF PIPE
E - DEGREE OF DEFLECTION

* MAINTAIN 18" VERTICAL SEPARATION BETWEEN WATER AND SANITARY LINES.

WATER LINE VERTICAL ADJUSTMENT
NO SCALE

WATER LINE VERTICAL ADJUSTMENT SHALL BE UTILIZED IN LOCATIONS AS DETERMINED NECESSARY BY ENGINEER. PAYMENT FOR WATER LINE VERTICAL ADJUSTMENTS WILL BE MADE AS BID.

ALL FITTINGS REQUIRED TO CONSTRUCT WATER LINE VERTICAL ADJUSTMENT SHALL BE RESTRAINED JOINT FITTINGS AS SPECIFIED.



① 3/4" HDPE ASTM D-2737, PE3408, D-1238, SDR-9 TUBING

② 3/4" HIGH QUALITY COPPER BRASS AWWA COMPRESSION COUPLING WITH SS INSERT AS APPROVED BY CITY

③ NO. 8 OR NO. 9 CLEAR CRUSHED STONE

WATER SERVICE LATERAL REPAIR
(AS AUTHORIZED BY ENGINEER)
NO SCALE

NOTES:
1. SERVICE LATERAL REPAIRS SHALL ONLY BE MADE WHERE AUTHORIZED BY ENGINEER.
2. DAMAGED SERVICE LATERAL SHALL BE SUFFICIENTLY EXCAVATED TO ALLOW FOR THE DAMAGED AREA TO BE REMOVED. EXISTING TUBING SHALL BE CUT SQUARE, DE-BURRED, CLEANED, AND DISINFECTED PRIOR TO BEING RECONNECTED.
3. ALL REPAIRS SHALL BE PRESSURE TESTED AMD REVIEWED BY THE WATER DEPARTMENT PRIOR TO BACKFILLING.
4. APPROVED BEDDING SHALL BE PLACED BELOW THE REPAIR FOR SUPPORT.
5. PAYMENT FOR REPAIRS SHALL BE PAID UNDER BID ITEM "WATER SERVICE REPAIR". PAYMENT SHALL INCLUDE ALL COST RELATED TO REPAIR.
6. SURFACE RESTORATION SHALL BE MADE UNDER RELATED ITEMS.

CALCULATED JLS CHECKED DNM

GENERAL NOTES

MUS-60-18.35

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CALCULATED JLS CHECKED DNM

GENERAL NOTES

ENVIRONMENTAL WORK

*ENVIRONMENTAL STUDIES HAVE SHOWN THAT THERE IS THE POTENTIAL FOR ENCOUNTERING UNDERGROUND STORAGE TANKS (USTS), PETROLEUM CONTAMINATED SOILS AND SOILS IMPACTED BY DRY CLEANING FLUIDS AT **THE FORMER MR. TIRE SITE (PARCEL 11)**, LOCATED AT **STA. 0+34 TO 0+95 ALONG DRESDEN ROAD**. THE LOCATIONS OF THE USTS, PETROLEUM CONTAMINATED SOILS AND DRY CLEANING FLUID IMPACTED SOILS ARE SHOWN IN THE DRAWING ON THIS SHEET. THE CONTRACTOR SHALL MANAGE THESE MATERIALS ACCORDING TO THE FOLLOWING NOTES. THE ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THIS WORK. ALL EXCAVATIONS WITHIN THE AFOREMENTIONED LIMITS SHALL BE PAID FOR UNDER THE ORIGINAL PLAN BID ITEMS.*

*THE CONTRACTOR SHALL REMOVE 7 PETROLEUM UNDERGROUND STORAGE TANKS LOCATED ON **THE FORMER MR. TIRE (PARCEL 11)** SITE IN ACCORDANCE WITH ODOT CMS 202.08. THE ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THIS WORK.*

ALL MATERIALS EXCAVATED BY THE CONTRACTOR IN THE IDENTIFIED AREAS MAY BE STOCKPILED IN AN AREA PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE ENGINEER MAY PERMIT TEMPORARY STORAGE OF THE EXCAVATED MATERIAL IN A LINED AND COVERED ROLL OFF BOX. THE ENGINEER MAY PERMIT TEMPORARY STORAGE OF THE EXCAVATED MATERIAL ON AN IMPERMEABLE MEMBRANE. THE MEMBRANE SHALL BE SURROUNDED BY BALES OF STRAW TO PREVENT THE SUSPECTED SOILS FROM COMING IN CONTACT WITH PRECIPITATION AND/OR SURFACE RUNOFF. THE ENGINEER MAY PERMIT THE CONTRACTOR TO DIRECT LOAD THE EXCAVATED CONTAMINATED MATERIAL INTO TRUCKS.

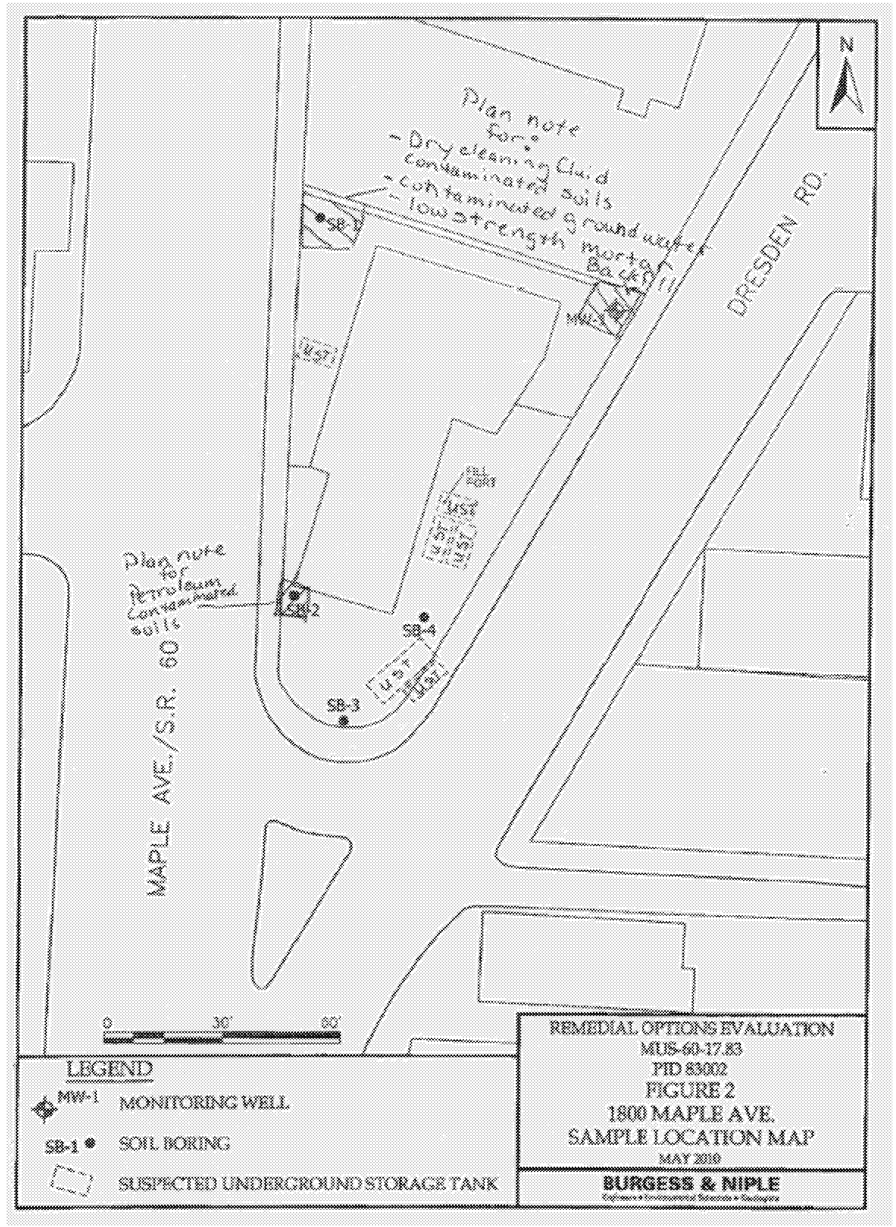
THE MATERIAL SHALL BE PROPERLY TESTED, TRANSPORTED, AND DISPOSED OF IN A LICENSED (BY THE LOCAL HEALTH DEPARTMENT) AND PERMITTED (BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY) SOLID WASTE FACILITY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS AND TO TRANSPORT THE MATERIALS TO A LICENSED AND PERMITTED SOLID WASTE DISPOSAL FACILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUCTING ANY ADDITIONAL SAMPLING AND ANALYSIS OF THIS MATERIAL.

*THE STORM SEWER BEDDING AND BACKFILL CONSTRUCTED ON **THE FORMER MR. TIRE SITE (PARCEL 11)** SHALL BE ITEM 613, LOW STRENGTH MORTAR (LSM). THE INTENT WILL BE TO PREVENT POTENTIALLY CONTAMINATED WATER FROM MIGRATING ALONG THE PIPE BEDDING AND BACKFILL. THE LSM WILL EXTEND FROM THE BOTTOM OF THE PIPE TRENCH TO A LEVEL ONE FOOT ABOVE THE PIPE. THE LSM BEDDING AND BACKFILL WILL EXTEND A MINIMUM OF TEN (10) FEET BEYOND THE ZONE OF SUSPECTED CONTAMINATION IN BOTH DIRECTIONS. IN ADDITION, LSM SHALL BE USED TO BACKFILL VOIDS LEFT FROM REMOVING THE UST'S AND CONTAMINATED SOILS.*

THE CONTRACTOR SHALL FURNISH ALL THE LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PROPERLY HANDLE, STORE (IF NECESSARY), TEST FOR DISPOSAL, TRANSPORT, AND DISPOSE OF REGULATED MATERIALS, INCLUDING ANY REQUIRED PERMITS, APPROVALS, OR FEES WITHIN THE LIMITS IDENTIFIED ABOVE. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTE ABOVE:

ITEM 202, REGULATED UNDERGROUND STORAGE TANK REMOVED	***7 EACH***
ITEM 613, LOW STRENGTH MORTAR BACKFILL	***1,100 CU. YD.***
ITEM 690, SPECIAL, MISC.: WORK INVOLVING SOLID WASTE	***15 TON***
ITEM 690, SPECIAL, MISC.: WORK INVOLVING CONTAMINATED SOIL	***100 TON***



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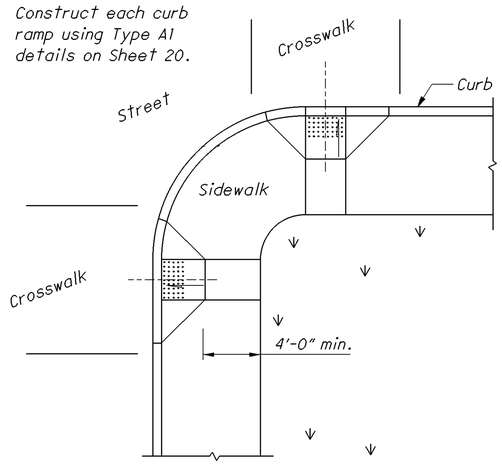
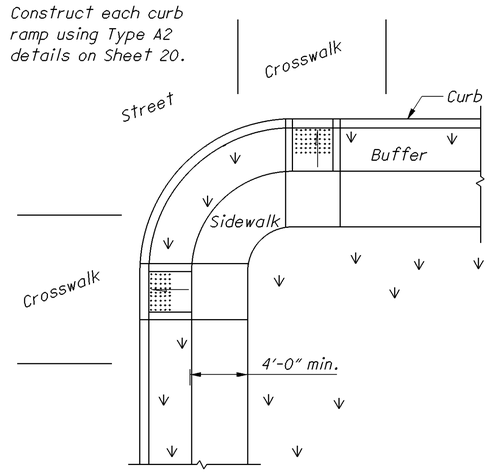
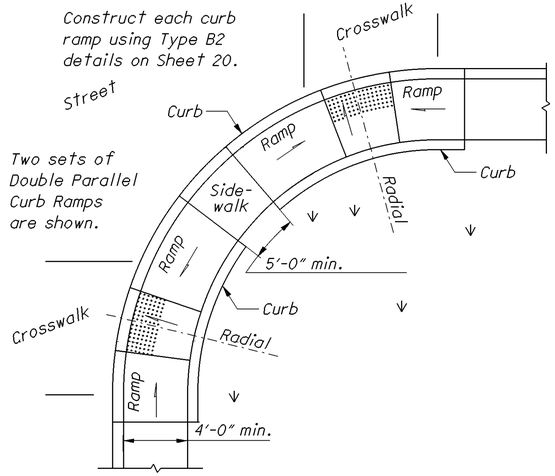


Use curb ramps with flared sides at locations with wide sidewalks.



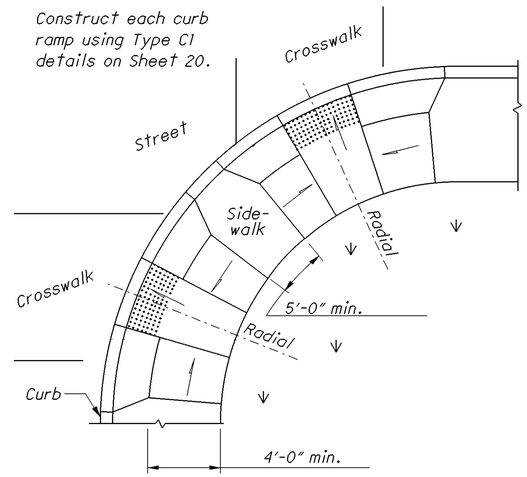
Use curb ramps with returned curbs where buffer is wide enough to accommodate ramp slope.

PERPENDICULAR CURB RAMPS



Place on streets having wide turning radius and where sidewalks are narrow.

PARALLEL CURB RAMPS



Curb ramp placement where streets have wide turning radius, and sufficient sidewalks width.

COMBINATION CURB RAMPS

NOTES

GENERAL: *This drawing shows curb ramp types details and placement examples for curb ramp construction, including the installation of detectable warnings.*

Curb ramp types are shown on Sheet 20 and include Perpendicular, Parallel, and Combined types as specified to be constructed in the locations shown in the project plans.

The contractor may adjust the placement of curb ramps if existing field conditions warrant with the approval of the Engineer.

Excavate, form, place, finish, and cure according to 608.03.A, 608.03.B, 608.03.C, and 608.03.E.

DETECTABLE WARNINGS: *Install Detectable Warnings on each curb ramp with approved materials, as shown on Sheet 21. Install these proprietary products as per manufacturer's written instructions.*

DRAINAGE: *Contractor is to ensure the base of each constructed curb ramp allows for proper drainage, without exceeding allowable cross slope or ramp slopes. Vertical change in level exceeding ⅛" between the 1) pavement and gutter, and 2) gutter and ramp, are not allowed.*

JOINTS: *Provide expansion joints in the curb ramp as extensions of walk joints and consistent with Item 608.03 requirements for a new concrete walk. Provide a ½" Item 705.03 expansion joint filler around the edge of ramps built in existing concrete walks. Lines shown on this drawing indicate the ramp edges and slope changes, and do not necessarily indicate joint lines.*

METHOD OF MEASUREMENT: *The Department will measure Curb Ramps by the number of each completed curb ramp. The Department will measure Detectable Warnings in existing curb ramps and at grade crossings by the number of square feet completed.*

Concrete Walk and Curb, Item 608 and 609, will be measured through out the curb ramp area and paid for under their respective Items.

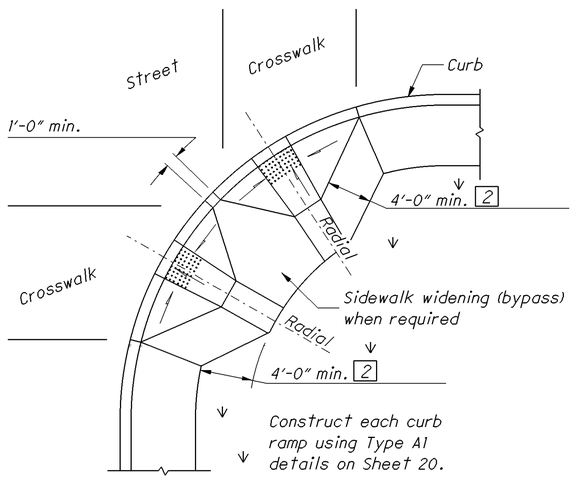
METHOD OF PAYMENT: *New Curb Ramps constructed in new or existing Walk are paid for under Item 690 Special Misc.: Curb Ramp, Type __ (A1, A2, B1, B2, B3, C1, C2, or D) each, and includes the cost of any additional materials and installation (including detectable warnings), grading, forming and finishing.*

Detectable Warnings constructed in existing curb ramps or for at-grade crossing locations are paid for under Item 690-Special Misc.: Detectable Warning (Sq. Ft.) and is full compensation for excavation, backfill, base course material, reinforcing steel, expansion joint materials, and any incidentals required to complete the installation as specified. The work to cast the tiles in place will also require removal of existing pavement or sidewalk (Item 202) to the nearest joint, or if no joint exists, a minimum of 4 feet.

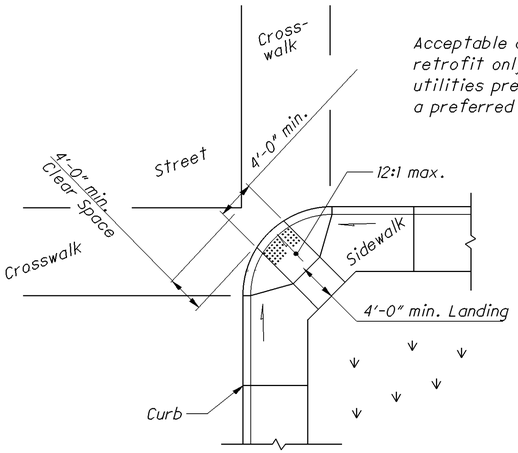
Removal of existing curb, pavement, walk (or existing curb ramps) are paid under Item 202.

LEGEND

[2] *May be reduced to 3'-4" in existing sidewalks to better fit the walk configuration or where site conditions are restricted by narrow walks, pole foundations, drainage inlets, etc. The width may be tapered.*



PERPENDICULAR RAMPS



Use this design only for existing walks, and when site constraints prohibit other designs. The diagonal Type D ramp may be constructed as either a Perpendicular, Parallel or Combination curb ramp type. Avoid using where curb radii are less than 20'-0" .

DIAGONAL RAMP (Type D)

ACCEPTABLE CONSTRUCTION PLACEMENT

CALCULATED JLS CHECKED DNM

CURB RAMP AND DETECTABLE WARNING DETAILS

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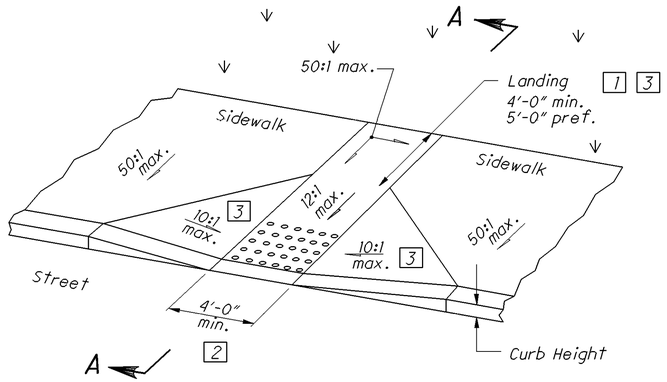
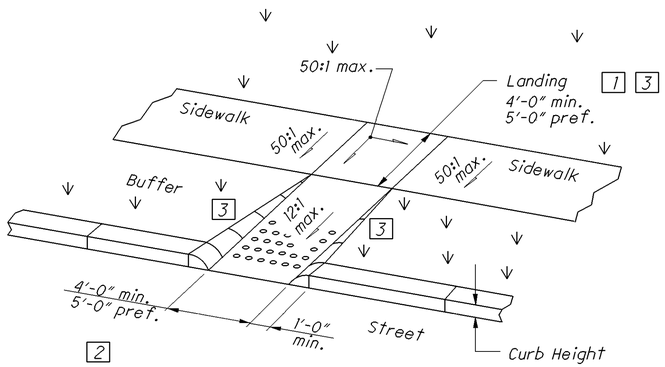
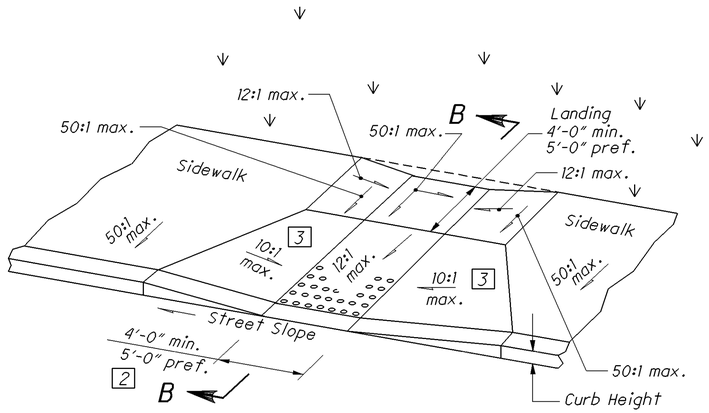


Type A1 (Perpendicular with flared sides)

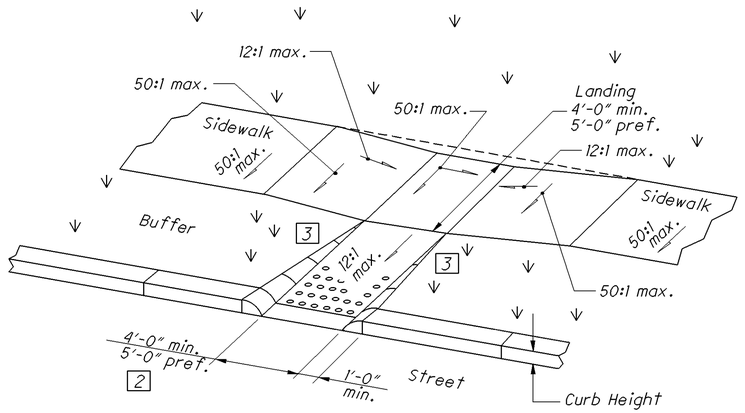


Type A2 (Perpendicular with returned curb)

PERPENDICULAR CURB RAMP DETAILS

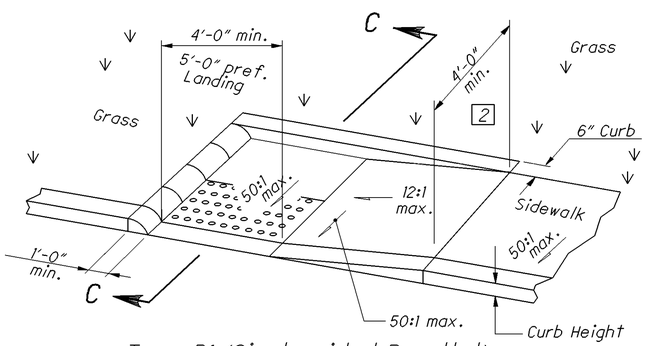


Type C1 (Combined with flared sides)

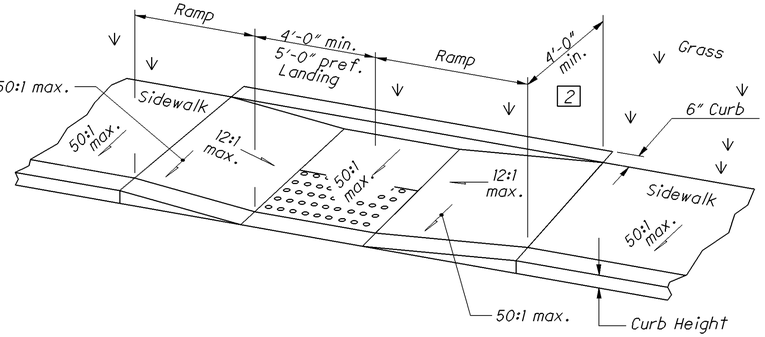


Type C2 (Combined with returned curb)

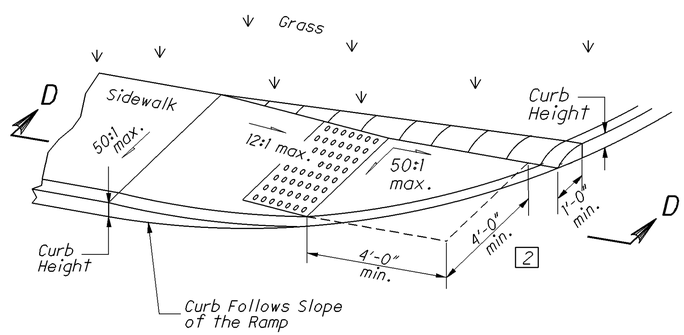
COMBINED CURB RAMP DETAILS



Type B1 (Single sided Parallel)



Type B2 (Double sided Parallel)



Type B3 (Single sided Parallel)

PARALLEL CURB RAMP DETAILS

NOTES

The running slope of the ramp is preferred to be 12:1 or flatter. In existing sidewalks, where the maximum ramp slope is not feasible due to site constraints (e.g. utility poles or vaults, right-of-way limits) it may be reduced as follows:

A) 10:1 for a max. rise of 6",
B) 8:1 for a max. rise of 3",
C) 6:1 over a max. run of 2'-0" for historic areas where a flatter slope is not feasible.

To prevent chasing the grade indefinately, the transition from exisiting sidewalk to the curb ramp area is not required to exceed 15 feet in length.

While ramps may be skewed to the crosswalk, the entire lower landing area must fall within the cross walk that the ramp serves and cannot be located in the traveled lane of opposing traffic.

The counter slope of the gutter or street at the foot of a curb ramp, landing, or blended transitions shall be 20:1 ot flatter.

The bottom edge of the ramp shall change planes perpendicular to the landing.

The edge of the curb shall be flush with the edge of the adjacent pavement and gutter and surface slopes that meet grade breaks shall also be flush.

Ramp landings shall be 4' min. x 4' min. with a 50:1 or flatter cross slope and running slope, unless otherwise shown.

LEGEND

1 Dimension may be reduced to 3'-0" in existing sidewalks if the landing is unconstrained along the back edge.

2 May be reduced to 3'-4" in existing sidewalks to better fit the walk configuration or where site conditions are restricted by narrow walks, pole foundations, drainage inlets, etc. The width may be tapered.

3 Where landing width (D) has been reduced to 3'-0" the flared sides shall have a maximum slope of 12:1.

Flared sides are not required where the edges of a curb ramp are protected by landscaping or other barriers to travel by wheelchair users or pedestrians across the edge of the curb ramp. However, if the flared sides are used in these areas, they may be of any slope.

See Sheeet 21 for Sections.

CALCULATED JLS CHECKED DNM

DETECTABLE WARNING DETAILS

CURB RAMP AND DE

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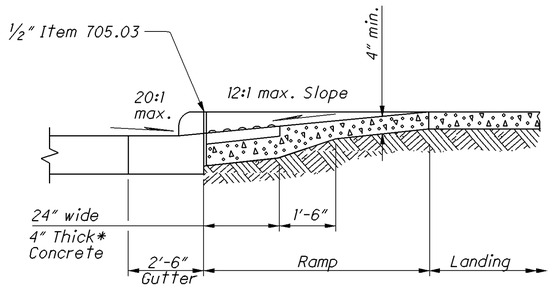
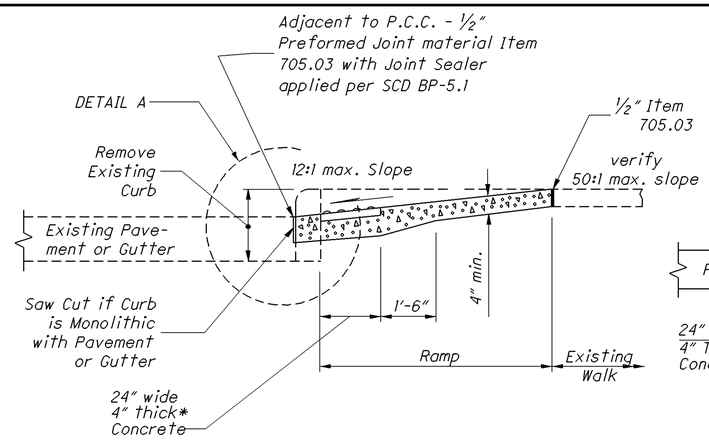


New gutter shown.

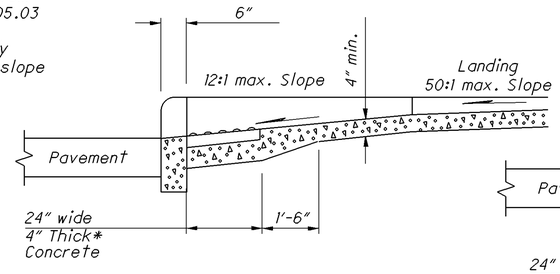
SECTION A-A NORMAL DETAIL

See Sheet 20.



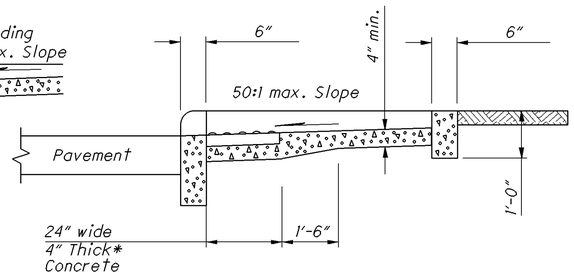
SECTION A-A EXISTING WALK DETAIL

See Sheet 20.



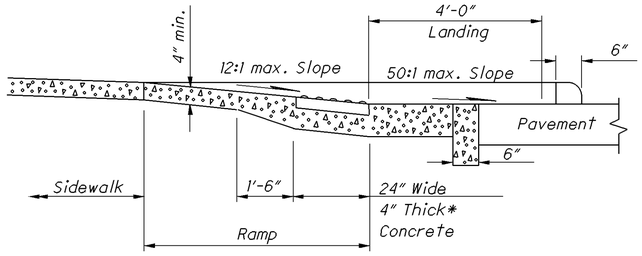
SECTION B-B

See Sheet 20.



SECTION C-C

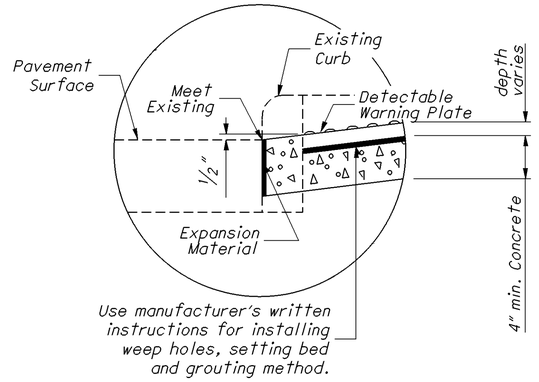
See Sheet 20.



SECTION D-D

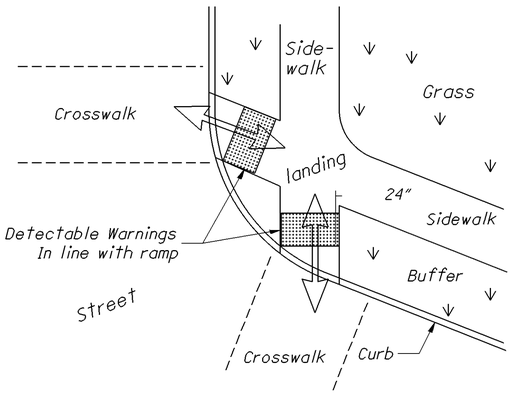
See Sheet 20.

*Where possible, pour ramp area integral with the curb, otherwise use 6" thick walk.



Use manufacturer's written instructions for installing weep holes, setting bed and grouting method.

DETAIL A



DETECTABLE WARNING ALIGNMENT

DETECTABLE WARNINGS NOTES

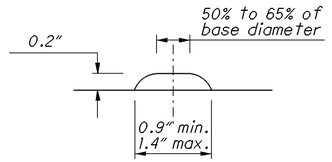
GENERAL: *Detectable Warnings are a distinctive surface pattern of truncated domes which are detectable by cane or underfoot to alert people with vision impairments of their approach to streets and hazardous drop-offs.*

PLACEMENT: *Detectable warnings are to be installed at any location where pedestrians might cross paths with vehicular traffic lanes, such as the base of curb ramps or at blended curbs. A 24" strip of domes is to be installed for the full width of the ramp or walk. Typical street corner placement locations are shown on Sheet 19.*

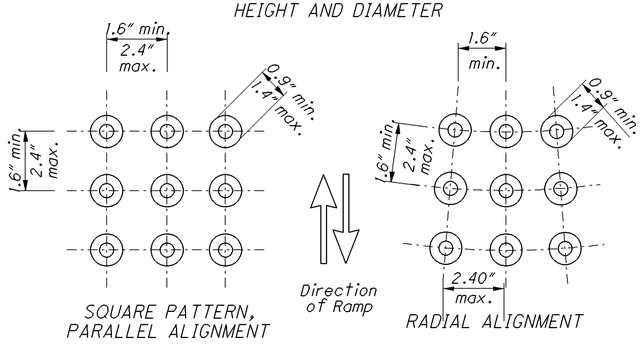
The depth of concrete underneath detectable warning products shall be a minimum of 4". See DETAIL A.

ALIGNMENT: *Truncated domes should be aligned with the primary direction of the ramp as shown on the DETECTABLE WARNING ALIGNMENT Detail. Normally the detectable warnings should be flush with the back of the curb, but in skewed conditions at least one corner of the 24" strip should be adjacent to the back of curb. For non-standard layouts, detectable warning materials may have to be mitered and placed segmentally.*

PRODUCTS & COLORS: *Color of the detectable warnings should contrast with surrounding concrete walk and ramp. Black is not an acceptable color. Approved products and guidance on color may be found on the Office of Roadway Engineering Service's Detectable Warnings Approved List. Install products as per manufacturer's printed instructions.*



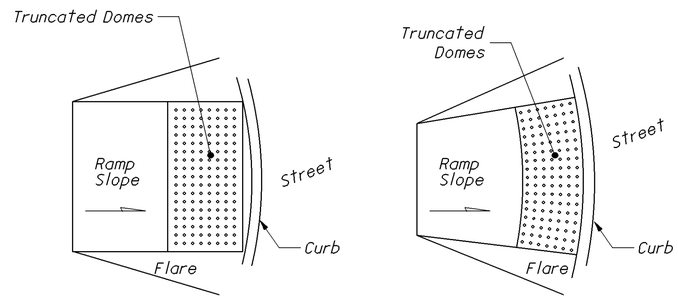
HEIGHT AND DIAMETER



SQUARE PATTERN, PARALLEL ALIGNMENT

RADIAL ALIGNMENT

TRUNCATED DOMES DETAILS



DOME ALIGNMENT ON RADIUSED CURB

CALCULATED JLS CHECKED DNM

CURB RAMP AND DETECTABLE WARNING DETAILS

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83002_CRD_003.DGN 10/22/12

ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT AND THE COMPLETED PAVEMENT, AS PER STANDARD DRAWINGS MT-97.10 & MT-97.12.

BEFORE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF A PERSON OR PERSONS WHO CAN BE CONTACTED 24 HOURS A DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ALL INTERESTED POLICING AGENCIES. THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR REPLACING NECESSARY TRAFFIC CONTROL DEVICES IMMEDIATELY.

THE CONTRACTOR SHALL ARRANGE HIS OPERATIONS SO AS TO PREVENT ANY INTERFERENCE TO THE CONTINUOUS FLOW OF TRAFFIC. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIME TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER.

EXISTING SIGNS OR CONTRACTOR SUPPLIED SIGNS SHALL BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION.

ALL CONFLICTING SIGNS AND PAVEMENT MARKINGS, WHETHER INSIDE OR OUTSIDE THE WORK LIMITS, SHALL BE COVERED OR REMOVED. WHERE APPLICABLE, AND WHEN DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PLACE TEMPORARY SIGNS OR TEMPORARY PAVEMENT MARKING AT THESE LOCATIONS.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT, IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

DRESDEN ROAD @ MAPLE AVE. (S.R. 60) INTERSECTION
DRESDEN ROAD @ IMLAY DR. INTERSECTION
WALMART DRIVE @ EXISTING BALLS LANE
EXISTING BALLS LANE @ JAMES STREET
PROPOSED BANK DRIVE @ EXISTING BALLS LANE

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES OF THE TYPE AND LOCATION AS FOLLOWS:

TYPE III @ DRESDEN RD./MAPLE AVE.
TYPE III @ DRESDEN RD./IMLAY DR.
TYPE III @ WALMART DR./EX. BALLS LN.
TYPE III @ EX. BALLS LN./JAMES ST.
TYPE III @ PR. BANK DR./EX. BALLS LN.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

THE FOLLOWING QUANTITY HAS BEEN PROVIDED IN THE GENERAL SUMMARY:

ITEM 614, MAINTAINING TRAFFIC LUMP

ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPENED TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

MEMORIAL DAY FOURTH OF JULY
LABOR DAY

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF THE WEEK	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE OF ***$50.00*** FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

PLACEMENT OF ASPHALT CONCRETE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON S.R. 60 (MAPLE AVE.). TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES FOR ALL OTHER ROADWAYS EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

TEMPORARY ACCESS TO DRIVES AND APPROACHES

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC TO DRIVES AND APPROACHES. ALL DRIVES SHALL BE PROVIDED ACCESS AS PER 614.02(A).

ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE C 10 CU. YD.
ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 20 CU. YD.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN ***3 INCHES*** BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED IN THE GENERAL SUMMARY:

ITEM 616, WATER 16 M. GAL.
(0.004 M. GAL. PER CU. YD. OF THE TOTAL EARTHWORK)
(2,342 CU. YD. TOTAL OF EXCAVATION)
(1,555 CU. YD. TOTAL OF EMBANKMENT)
2,342 + 1,555 = 3,897 CU. YD. TOTAL EARTHWORK
0.004 x 3,897 = 15.588

ITEM 614, WORK ZONE MARKING SIGN

IN ACCORDANCE WITH CMS SECTION 614.04, THE QUANTITY OF WORK ZONE MARKING SIGN HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

W8-H15 (GROOVED PAVEMENT): 12 EACH

ITEM 614, WORK ZONE MARKING SIGN 12 EACH

ITEM 614, REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

AN ESTIMATED QUANTITY OF ***20 EACH*** HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

CALCULATED JLS CHECKED DNM

MAINTENANCE OF TRAFFIC GENERAL NOTES

MUS-60-18.35

ITEM 614, BARRIER REFLECTORS AND/OR OBJECT MARKERS

BARRIER REFLECTORS AND/OR OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE CONCRETE BARRIER USED FOR TRAFFIC CONTROL. BARRIER REFLECTORS, OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO CMS 626, EXCEPT THAT THE SPACING SHALL BE 50 FEET.

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF CMS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP). IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.
- WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC. IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT. AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE (cont'd)

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BERETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE 150 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, **SIX (6)** CHANGEABLE MESSAGE SIGNS, ON SITE, FOR THE DURATION OF THE PROJECT. THE SIGNS SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR (OFFICE OF MATERIALS MANAGEMENT). THE APPROVED LIST OF PORTABLE CHANGEABLE MESSAGE SIGNS CAN BE FOUND ON THE ODOT WEBSITE BY CLICKING ON THE SERVICES MENU, THEN CLICKING ON MATERIALS MANAGEMENT. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 650 FT. AND 475 FT., RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PCMS TRAILERS SHALL BE DELINEATED ON A PERMANENT BASIS BY AFFIXING CONSPICUITY TAPE CONFORMING TO CMS 614.03, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON SHEET(S) OF THE PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE

CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED, FACING AWAY FROM ALL TRAFFIC, AND SHALL DISPLAY ONE OR MORE TYPE G YELLOW RETROREFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN (cont'd)

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN ONE HOUR FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF CMS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTORS NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK. THE CONTRACTOR SHALL ONLY BE PAID FOR PCMS UNITS WHEN THEY ARE IN OPERATION ON THE PROJECT AS SPECIFIED IN THE PLANS OR BY THE ENGINEER.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 480 DAY

CALCULATED JLS CHECKED DNM

MAINTENANCE OF TRAFFIC GENERAL NOTES

MUS-60-18.35

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

MAINTENANCE OF TRAFFIC SIGNAL INSTALLATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

1. EXISTING SIGNAL INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.

2. NEW OR REUSED SIGNAL INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE. THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE.

MAINTENANCE OF TRAFFIC SIGNAL INSTALLATION (cont'd)

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHERE THE CONTRACTOR HAS FAILED TO, OR CANNOT RESPOND TO, AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN THE PERIODS AS SPECIFIED ABOVE, THE ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE STATE OR THE CITY OF ZANESVILLE FOR POLICE SERVICES AND MAINTENANCE SERVICES BY CITY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICE ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A COOPERATIVE UNDERSTANDING WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE. THE CONTRACTOR SHALL INFORM THE ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM. WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED 24 HOURS. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY THE CONTRACTOR, BY OFF-DUTY CITY OF ZANESVILLE POLICE, HIRED BY THE CONTRACTOR:

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

1. TIME OF NOTIFICATION OF MALFUNCTION;

2. TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION;

3. ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED;

4. A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE;

5. TIME OF COMPLETION OF THE REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 614, MAINTAINING TRAFFIC (SIGNALS & NIGHTWORK)

TO MINIMIZE THE IMPACTS TO THE TRAVELING PUBLIC AND REDUCE CONGESTION, THE CONTRACTOR HAS THE OPTION TO WORK DURING NIGHT TIME HOURS. HOWEVER, ALL OF THE PROPOSED SIGNAL WORK AT THE FOLLOWING INTERSECTIONS SHALL BE COMPLETED DURING NIGHT TIME HOURS BEGINNING AT 9:00 P.M. AND ENDING AT 8:00 A.M.

- S.R. 60 (MAPLE AVE.) AND BROWN ST./DRESDEN RD.
- S.R. 60 (MAPLE AVE.) AND BELL ST.
- S.R. 60 (MAPLE AVE.) AND BETHESDA DR./BALLS LN.

THE CONTRACTOR SHALL ERECT TEMPORARY STOP SIGNS AT EACH LOCATION LISTED BELOW IN ORDER TO MAINTAIN THE TRAFFIC AS A STOP CONDITION UNTIL THE PROPOSED SIGNAL IS COMPLETEY OPERATIONAL:

- BROWN STREET AT S.R. 60 (MAPLE AVE.)
- BETHESDA DRIVE AT S.R 60 (MAPLE AVE.)

PRIOR TO REMOVING THE SIGNAL INSTALLATIONS, THE CONTRACTOR SHALL PLACE ONE PORTABLE CHANGEABLE MESSAGE SIGN IN ADVANCE OF THE INTERSECTION, AT EACH APPROACH, TO GIVE ADVANCED WARNING OF THE CHANGE IN TRAFFIC CONTROL. THE PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE IN PLACE AT LEAST 72 HOURS BEFORE THE INTERSECTION IS CONVERTED TO A STOP CONDITION.

THE LEFT TURN LANES, LOCATED AT THE SIGNALIZED INTERSECTIONS LISTED ABOVE, SHALL NOT BE UTIILIZED DURING STOP CONDITIONS. THE CONTRACTOR SHALL PROVIDE THE NECESSARY TRAFFIC CONTROL TO CLOSE OFF THE LEFT TURN LANES DURING THE TIME THAT SIGNALS ARE NOT IN OPERATION.

THE CONTRACTOR SHALL UTILIZE LEO'S TO HELP FACILITATE TRAFFIC FLOW AT THE INTERSECTION OF S.R 60 (MAPLE AVE.) AND BETHESDA DRIVE FROM THE TIME THAT THE EXISTING SIGNAL EQUIPMENT IS SHUT DOWN UNTIL THE PROPOSED SIGNAL EQUIPMENT IS IN PLACE AND OPERATIONAL.

WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC, THE CONTRACTOR SHALL MAKE PREPARATIONS TO REMOVE THE EXISTING SIGNAL INSTALLATIONS AT THE INTERSECTIONS LISTED ABOVE. ONCE THE CONTRACTOR BEGINS WORKING AT ONE INTERSECTION, THE CONTRACTOR SHALL CONTINUE WORKING AT THAT INTERSECTION UNTIL ALL OF THE NEW SIGNAL EQUIPMENT IS IN PLACE AND THE SIGNAL IS OPERATIONAL.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

CALCULATED JLS CHECKED DNM

MAINTENANCE OF TRAFFIC GENERAL NOTES

MUS-60-18.35

83002_MGN_003.DGN 1/30/13

SEQUENCE OF OPERATIONS

S.R. 60 (MAPLE AVE.) AND DRESDEN ROAD INTERSECTION

PHASE 1

S.R. 60 (MAPLE AVE.)

- *CONSTRUCT ALL PROPOSED WORK AT ST. LOUIS AVE., BROWN ST. AND CALDWELL ST. (i.e. CURB AND GUTTER, SIDEWALK AND CURB RAMPS).*

DRESDEN ROAD (See Sht. 28)

DRESDEN ROAD AND THE INTERSECTION OF DRESDEN ROAD WITH S.R. 60 (MAPLE AVE.), ***WILL BE CLOSED*** *TO THROUGH TRAFFIC FOR A TOTAL OF* ***60 CONSECUTIVE DAYS.*** *FOR PROPOSED DETOUR, SEE SHEET 27.*

- *CONSTRUCT ALL PROPOSED WORK FROM STA. 1+09.83 (RADII) TO STA. 3+25.00.*
- *PAVE ALL PROPOSED PAVEMENT, UP TO AND INCLUDING, THE INTERMEDIATE COURSE.*
- *INCLUDE WORK ON CLYDE COURT AND THE ALLEY OFF OF DRESDEN ROAD.*
- *PLACE TEMPORARY STRIPING ON THE INTERMEDIATE COURSE.*

NOTE: AT LEAST ONE DRIVE, AND PEDESTRIAN ACCESS TO ALL PROPERTIES, SHALL BE MAINTAINED AT ALL TIMES.

PHASE 2

S.R. 60 (MAPLE AVE.) (See Shts. 29-30)

ELIMINATE THE EXISTING LEFT TURN LANES ON S.R. 60 (MAPLE AVE.) AT ST. LOUIS AVE., McCONNELL AVE., BROWN ST. AND CALDWELL ST.

MAINTAIN 2 LANES OF TRAFFIC, IN EACH DIRECTION, ON S.R. 60 (MAPLE AVE.), IN THE AREA OF DRESDEN ROAD INTERSECTION.

- *CONSTRUCT THE PAVEMENT WIDENING AND ALL PROPOSED WORK ON THE RIGHT SIDE OF S.R. 60 (MAPLE AVE.) THROUGH THE INTERSECTION OF PROPOSED DRESDEN ROAD AT THIS TIME.*
- *PAVE ALL PROPOSED PAVEMENT, UP TO AND INCLUDING, THE INTERMEDIATE COURSE.*
- *REMOVE ALL EXISTING SIGNAL EQUIPMENT AND INSTALL PROPOSED SIGNAL.*

DRESDEN ROAD (See Shts. 29-30)

DRESDEN ROAD AND THE INTERSECTION OF DRESDEN ROAD WITH S.R. 60 (MAPLE AVE.), ***WILL BE CLOSED*** *TO THROUGH TRAFFIC FOR A TOTAL OF* ***60 CONSECUTIVE DAYS.*** *FOR PROPOSED DETOUR, SEE SHEET 27.*

- *OPEN PROPOSED DRESDEN ROAD FROM STA. 1+09.83 (RADII) TO STA. 3+25.00 TO PROVIDE ACCESS FROM DRESDEN ROAD TO PROPERTIES.*
- *CONSTRUCT ALL PROPOSED WORK ON THE INTERSECTION OF DRESDEN ROAD AND S.R. 60 (MAPLE AVE.) UP TO STA. 1+09.83.*

NOTE: AT LEAST ONE DRIVE, AND PEDESTRIAN ACCESS TO ALL PROPERTIES, SHALL BE MAINTAINED AT ALL TIMES.

PHASE 3

S.R. 60 (MAPLE AVE.)

- *PLANE EXISTING PAVEMENT AND RESURFACE EXISTING S.R. 60 (MAPLE AVE.) FROM STA. 96+05.00 TO STA. 104+00.00 UTILIZING FLAGGERS.*
- *PLACE SURFACE COURSE ON S.R. 60 (MAPLE AVE.) WIDENING AND PROPOSED DRESDEN ROAD.*
- *PAVE ST. LOUIS AVE., McCONNELL AVE., BROWN ST. AND CALDWELL ST. APPROACHES TO S.R. 60 (MAPLE AVE.).*
- *PLACE ALL PERMANENT TRAFFIC CONTROL ITEMS FOR DRESDEN ROAD, S.R. 60 (MAPLE AVE.) AND PERTINENT APPROACHES.*
- *OPEN DRESDEN ROAD INTERSECTION WITH S.R. 60 (MAPLE AVE.) AND DRESDEN ROAD TO THROUGH TRAFFIC.*

CALCULATED JLS CHECKED DNM

SEQUENCE OF OPERATIONS (DRESDEN ROAD AREA)

MUS-60-18.35

83002_SEQ_001.DGN 2/5/2013

SEQUENCE OF OPERATIONS

S.R. 60 (MAPLE AVE.), BETHESDA DRIVE AND PROPOSED BALLS LANE INTERSECTION

PHASE 1

S.R. 60 (MAPLE AVE.)/BETHESDA DRIVE

- REMOVE ALL EXISTING SIGNAL EQUIPMENT AND INSTALL PROPOSED SIGNAL. (NIGHT WORK ONLY).

PROPOSED BALLS LANE (See Sht. 31)

EXISTING TRAFFIC ON S.R. 60 (MAPLE AVE.) AND EXIST. BALLS LANE, SHALL NOT BE DISRUPTED.

- CONSTRUCT ALL PROPOSED WORK FROM STA. 0+76.62 AND 0+81.22 (RADII) TO STA. 3+17.52 AND STA. 3+29.18 (RADII).
- PAVE ALL PROPOSED PAVEMENT, UP TO AND INCLUDING, THE INTERMEDIATE COURSE.

BETHESDA DRIVE (See Sht. 32b)

MAINTAIN ALL EXISTING EXIT LANES OF TRAFFIC AND ONE ENTRANCE LANE OF TRAFFIC UTILIZING EXISTING LANES DURING THIS PHASE. PROPOSED SIGNAL MUST BE CONSTRUCTED PRIOR TO THIS WORK.

- CONSTRUCT ALL WORK ON THE OUTSIDE (NORTHWEST) OF THE APPROACH (i.e. CURB, CURB AND GUTTER, SIDEWALK AND CURB RAMP).
- PLACE TEMPORARY STRIPING ON THE INTERMEDIATE COURSE NEEDED FOR THE NEXT PHASE.

  NOTE: ALL PROPOSED PAVEMENT BUILT DURING THIS PHASE SHALL BE CONSTRUCTED UP TO AND INCLUDING THE INTERMEDIATE COURSE.

  NOTE: CONSTRUCT PROPOSED WORK AS DESCRIBED ABOVE UTILIZING DRUMS. DO NOT EXCEED THE DROP-OFF AS PER SCD MT-101.90, SO THAT DRUMS CAN BE USED.

  NOTE: WORK DURING THIS PHASE SHALL NOT EXCEED 5 CONSECUTIVE DAYS.

PHASE 2

S.R. 60 (MAPLE AVE.) (See Sht. 32)

EXISTING NORTHBOUND TRAFFIC, ON S.R. 60 (MAPLE AVE.), SHALL BE REDUCED TO ONE LANE OF TRAFFIC BETWEEN EXIST. BALLS LANE AND JAMES STREET. TRAFFIC ON EXIST. BALLS LANE, SHALL NOT BE DISRUPTED.

- CONSTRUCT ALL NORTHBOUND LANE WORK FROM STA. 158+50 TO STA. 162+60.85, INCLUDING PROP. BALLS LANE INTERSECTION.

  NOTE: BOTH S.R. 60 (MAPLE AVE.) DRIVES FOR PNC BANK SHALL BE CLOSED AT THIS TIME. ALL BANK TRAFFIC SHALL USE EXIST. BALLS LANE ACCESSES.

PROPOSED BALLS LANE (See Sht. 32)

- CONSTRUCT ALL PROPOSED WORK ON THE INTERSECTION OF PROP. BALLS LANE AND S.R. 60 (MAPLE AVE.) UP TO STA. 0+76.62 AND STA. 0+81.22 (RADII).
- PAVE ALL PROPOSED PAVEMENT, UP TO AND INCLUDING, THE INTERMEDIATE COURSE.

PHASE 2 (cont'd)

BETHESDA DRIVE (See Sht. 32b)

MAINTAIN TWO EXIT LANES OF TRAFFIC AND ONE ENTRANCE LANE OF TRAFFIC DURING THIS PHASE.

- CONSTRUCT ALL WORK IN THE MIDDLE OF THE APPROACH (i.e. CURB, MEDIAN AND FULL DEPTH PAVEMENT).
- PLACE TEMPORARY STRIPING ON THE INTERMEDIATE COURSE NEEDED FOR THE NEXT PHASE.

  NOTE: ALL PROPOSED PAVEMENT BUILT DURING THIS PHASE SHALL BE CONSTRUCTED UP TO AND INCLUDING THE INTERMEDIATE COURSE.

  NOTE: CONSTRUCT PROPOSED WORK AS DESCRIBED ABOVE UTILIZING DRUMS. DO NOT EXCEED THE DROP-OFF AS PER SCD MT-101.90, SO THAT DRUMS CAN BE USED.

  NOTE: WORK DURING THIS PHASE SHALL NOT EXCEED 5 CONSECUTIVE DAYS.

PHASE 3

EXIST. BALLS LANE INTERSECTION WITH, BOTH, PROP. BALLS LANE AND PROP. WALMART DRIVE, **WILL BE CLOSED** TO THROUGH TRAFFIC FOR A TOTAL OF **4 CONSECUTIVE DAYS.**

PROPOSED BALLS LANE (See Sht. 32a)

- CONSTRUCT ALL PROPOSED WORK FROM STA. 3+17.52 AND STA. 3+29.18 (RADII) TO THE INTERSECTION OF EXIST. BALLS LANE.
- PAVE ALL PROPOSED PAVEMENT, UP TO AND INCLUDING, THE INTERMEDIATE COURSE.

BETHESDA DRIVE (See Sht. 32b)

MAINTAIN TWO EXIT LANES OF TRAFFIC AND TWO ENTRANCE LANES OF TRAFFIC DURING THIS PHASE.

- CONSTRUCT ALL WORK ON THE OUTSIDE (NORTHEAST) OF THE APPROACH (i.e. CURB, CURB AND GUTTER, SIDEWALK AND CURB RAMPS).

  NOTE: ALL PROPOSED PAVEMENT BUILT DURING THIS PHASE SHALL BE CONSTRUCTED UP TO AND INCLUDING THE INTERMEDIATE COURSE.

  NOTE: CONSTRUCT PROPOSED WORK AS DESCRIBED ABOVE UTILIZING DRUMS. DO NOT EXCEED THE DROP-OFF AS PER SCD MT-101.90, SO THAT DRUMS CAN BE USED.

  NOTE: WORK DURING THIS PHASE SHALL NOT EXCEED 5 CONSECUTIVE DAYS.
- REMOVE EXIST. SIGNAL AND CONSTRUCT PROP. SIGNAL.
- PERFORM THE WEARING COURSE REMOVED AND RESURFACE THE WHOLE APPROACH WHILE MAINTAINING TRAFFIC.
- PLACE ALL PERMANENT TRAFFIC CONTROL DEVICES (i.e. PAVEMENT MARKINGS AND SIGNING).

EXISTING BALLS LANE (See Sht. 32a)

- CONSTRUCT ALL PROPOSED WORK FROM STA. 3+29.84 TO STA. 5+15.00.

PHASE 3 (cont'd)

- PAVE ALL PROPOSED PAVEMENT, UP TO AND INCLUDING, THE INTERMEDIATE COURSE.

  NOTE: AT LEAST ONE DRIVE, AND ACCESS TO ALL PROPERTIES, SHALL BE MAINTAINED AT ALL TIMES.

PROPOSED WALMART DRIVE (See Sht. 32a)

- CONSTRUCT ALL PROPOSED WORK FROM STA. 3+80.54 TO STA. 5+60.00.
- PAVE ALL PROPOSED PAVEMENT, UP TO AND INCLUDING, THE INTERMEDIATE COURSE.

  NOTE: AT LEAST ONE DRIVE, AND ACCESS TO ALL PROPERTIES, SHALL BE MAINTAINED AT ALL TIMES.

PROPOSED BANK DRIVE (See Sht. 32a)

- CONSTRUCT ALL PROPOSED WORK FROM STA. 0+00 TO STA. 0+71.66 RT. AND STA. 0+90.11 LT. (FULL DEPTH)

NOTE: AT THE END OF PHASE 3 CONSTRUCTION, PROP. BALLS LANE, EXIST. BALLS LANE, WALMART DRIVE AND PROP. BANK DRIVE SHALL BE OPENED TO TRAFFIC.

PHASE 4

S.R. 60 (MAPLE AVE.)

S.R. 60 (MAPLE AVE.) TRAFFIC CAN BE REDUCED TO ONE LANE OF TRAFFIC, IN EACH DIRECTION, DURING NIGHT TIME HOURS.

- CONSTRUCT PROPOSED WORK IN BOTH THE NORTHBOUND AND SOUTHBOUND LANES.

PROPOSED BANK DRIVE

- CONSTRUCT ALL PROPOSED WORK. (RESURFACING)
- CONSTRUCT PROPOSED BANK DRIVES.

  NOTE: THE BANK ACCESSES FROM PROP. BANK DRIVE SHALL REMAIN OPEN DURING CONSTRUCTION. ACCESS TO THOSE DRIVES SHALL BE PROVIDED FROM PROP. BALLS LANE.
- REMOVE EXISTING BALLS LANE FROM BANK DRIVES SOUTH TO EXIST. S.R. 60 (MAPLE AVE.).

PHASE 5

S.R. 60 (MAPLE AVE.)

- PLANE EXISTING PAVEMENT AND RESURFACE EXISTING S.R. 60 (MAPLE AVE.) FROM STA. 152+50.00 TO STA. 164+40.00 UTILIZING FLAGGERS.
- PAVE ALL PERTINNENT APPROACHES TO S.R. 60 (MAPLE AVE.).

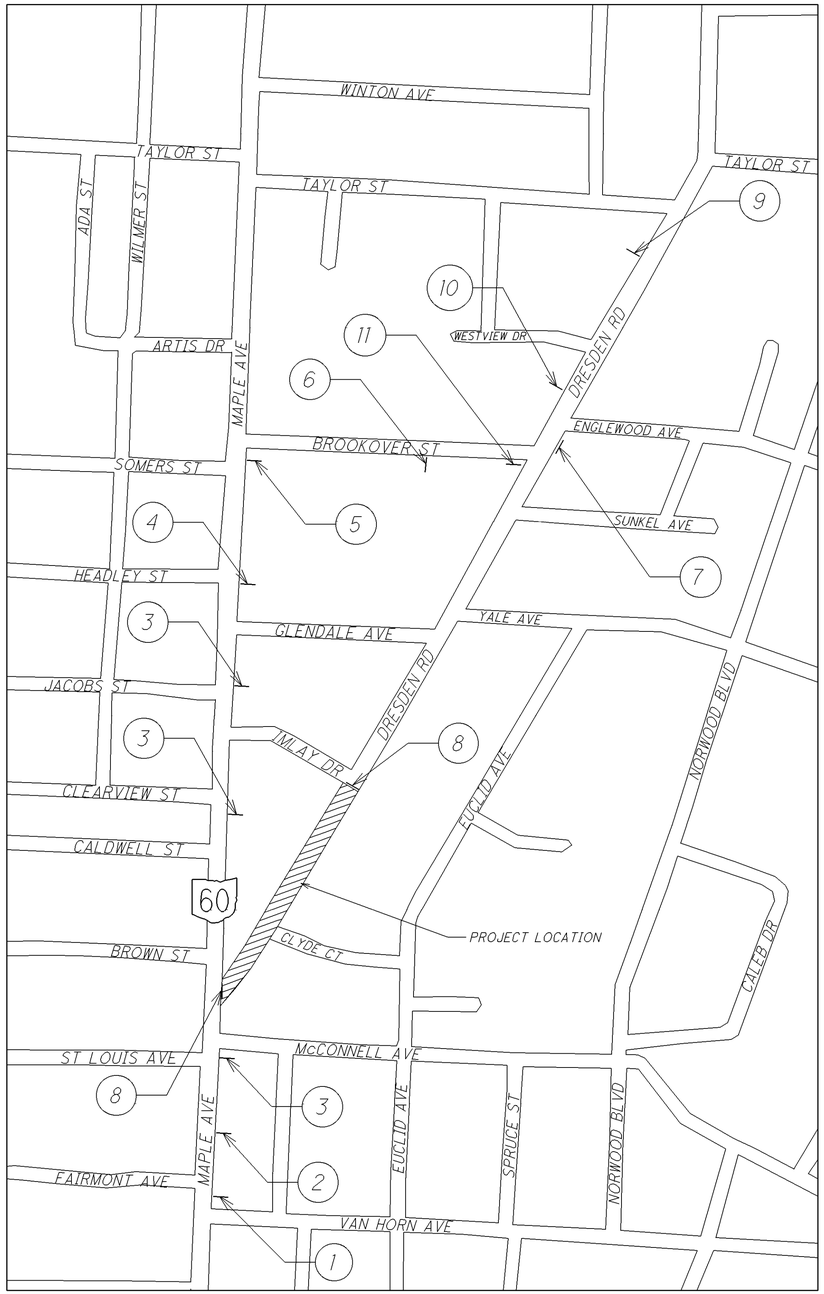
PLACE ALL PERMANENT TRAFFIC CONTROL ITEMS FOR PROPOSED BALLS LANE, EXISTING BALLS LANE, PROPOSED WALMART DRIVE, S.R. 60 (MAPLE AVE.) AND ALL PERTINENT APPROACHES.

CALCULATED JLS CHECKED DNM

SEQUENCE OF OPERATIONS (PROP. BALLS LANE AREA)

MUS-60-18.35

83002_SEQ_002.DGN 2/06/13



DETOUR MUS 60 18.35 DRESDEN RD

SCALE IN FEET
0 500
250 1000

N

1 ROAD CLOSED AHEAD
W20-3-36
DRESDEN RD

2 DETOUR AHEAD
W20-2-36
DRESDEN RD

3 DETOUR
M4-8-12
DRESDEN RD
W16-H8P-48
M6-3-12

4 DETOUR
M4-8-12
DRESDEN RD
W16-H8P-48
M5-1-12

5 DETOUR
M4-8-12
DRESDEN RD
W16-H8P-48
M6-1-12

6 DETOUR
M4-8-12
DRESDEN RD
W16-H8P-48
M5-1-12

7 DETOUR
M4-8-12
DRESDEN RD
W16-H8P-48
M6-1-12

8 ROAD CLOSED
R11-2-48
TYPE III BARRICADE

9 ROAD CLOSED AHEAD
W20-3-36
AT IMLAY DR
W16-H8P-48
1800 FEET
W16-2P-18

10 DETOUR
M4-8-12
MAPLE AVE
W16-H8P-48
M5-1-12

11 DETOUR
M4-8-12
MAPLE AVE
W16-H8P-48
M6-1-12

ITEM 614, DETOUR SIGNING, AS PER PLAN

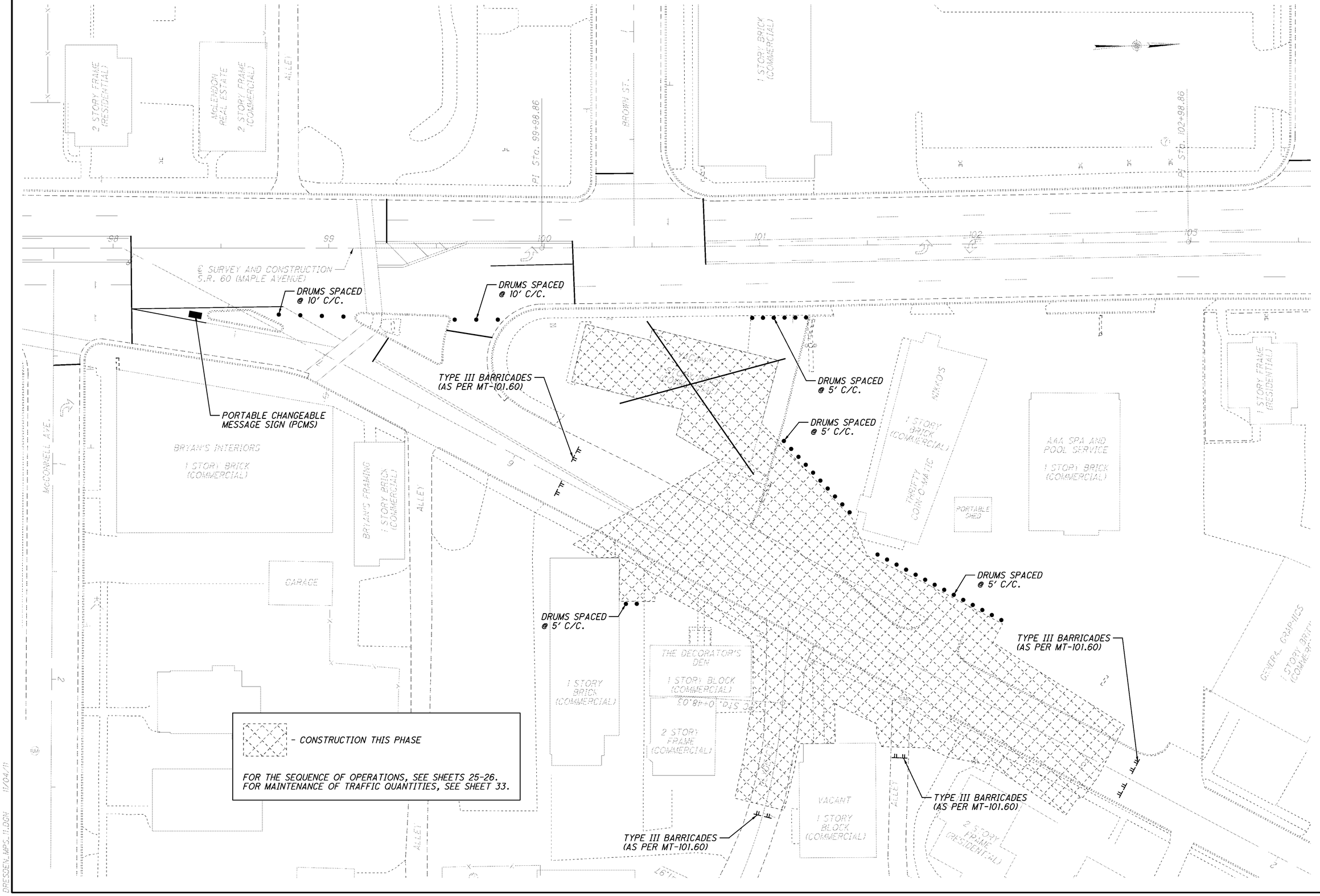
THE CONTRACTOR SHALL SUPPLY, ERECT, MAINTAIN AND REMOVE THE DETOUR SIGNING. ROUTE SIGNS DESIGNATED IN THIS PLAN AS ODOT SUPPLIED WILL BE PICKED UP FROM AND RETURNED TO THE ODOT DISTRICT FIVE OFFICE LOCATED AT 9600 JACKSONTOWN ROAD, JACKSONTOWN, OH 43030 BY THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE DISTRICT FIVE ROADWAY SERVICES MANAGER AT 740-323-4400 A MINIMUM OF SEVEN DAYS PRIOR TO PICK UP OF ALL ROUTE SIGNS DESIGNATED IN THIS PLAN AS ODOT SUPPLIED. PAYMENT FOR ALL MATERIAL, LABOR AND EQUIPMENT TO PERFORM THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, DETOUR SIGNING, AS PER PLAN.

CALCULATED BRH CHECKED DNM

DRESDEN ROAD DETOUR

MUS-60-18.35

83002_DET_001.DGN 12/17/12

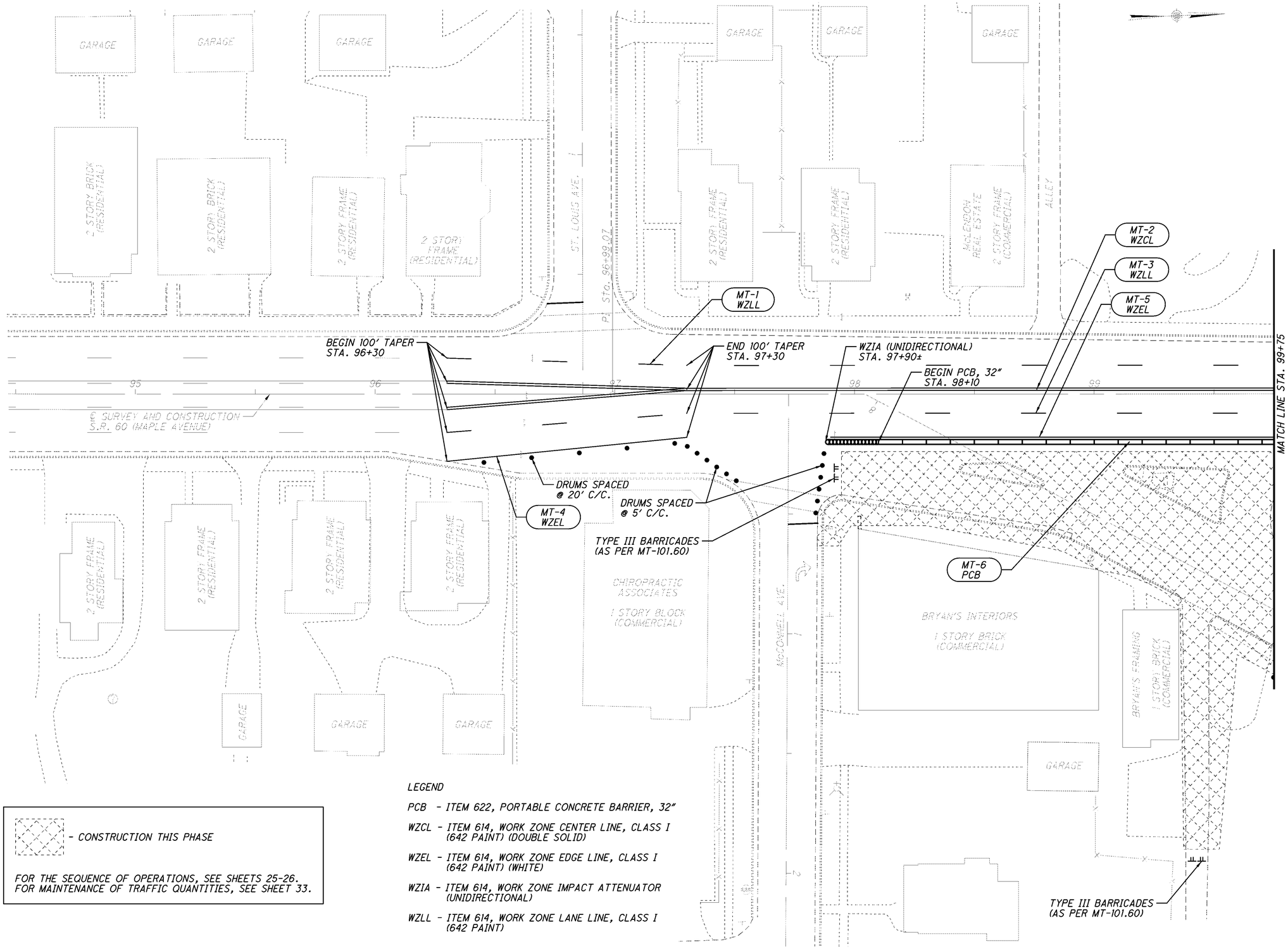


HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

MAINTENANCE OF TRAFFIC PLAN SHEET
DRESDEN ROAD (PHASE 1)

MUS-60-18.35



- CONSTRUCTION THIS PHASE

FOR THE SEQUENCE OF OPERATIONS, SEE SHEETS 25-26.
FOR MAINTENANCE OF TRAFFIC QUANTITIES, SEE SHEET 33.

LEGEND

PCB - ITEM 622, PORTABLE CONCRETE BARRIER, 32"

WZCL - ITEM 614, WORK ZONE CENTER LINE, CLASS I (642 PAINT) (DOUBLE SOLID)

WZEL - ITEM 614, WORK ZONE EDGE LINE, CLASS I (642 PAINT) (WHITE)

WZIA - ITEM 614, WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)

WZLL - ITEM 614, WORK ZONE LANE LINE, CLASS I (642 PAINT)

DRESDEN_MPC_01.DGN 10/18/11

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

MAINTENANCE OF TRAFFIC PLAN SHEET
DRESDEN RD. (PHASE 2)

MUS-60-18.35

- CONSTRUCTION THIS PHASE

FOR THE SEQUENCE OF OPERATIONS, SEE SHEETS 25-26.
FOR MAINTENANCE OF TRAFFIC QUANTITIES, SEE SHEET 33.

MATCH LINE STA. 99+75

PI Sta. 99+98.86

BROWN ST.

1 STORY BRICK (COMMERCIAL)

MT-1 WZLL

MT-2 WZCL

MT-3 WZLL

MT-5 WZEL

PI Sta. 102+98.86

CALDWELL ST.

BRAZER'S SPORTS CARDS AND ANTIQUES

2 STORY FRAME (COMMERCIAL)

2 STORY FRAME (RESIDENTIAL)

2 STORY FRAME (RESIDENTIAL)

BEGIN 50' TAPER STA. 102+75

END 50' TAPER STA. 103+25

℄ SURVEY AND CONSTRUCTION S.R. 60 (MAPLE AVENUE)

100 101 102 103 104 105

MT-6 PCB

END PCB, 32" STA. 102+75

NIKKO'S

1 STORY BRICK (COMMERCIAL)

THRIFTY COIN-O-MATIC

A.T. Sta. 2+26.18

PORTABLE SHED

AAA SPA AND POOL SERVICE

1 STORY BRICK (COMMERCIAL)

1 STORY FRAME (RESIDENTIAL)

HAIRT IT IS

2 STORY BRICK (COMMERCIAL)

MASSAGE THERAPY STATION

2 STORY FRAME (COMMERCIAL)

TYPE III BARRICADES (AS PER MT-101.60)

DRUMS SPACED @ 5' C/C.

GARAGE

MT-7 WZCL

PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

P.C. Sta. 0+25.01

P.I. Sta. 0+42.33

P.I. Sta. 3+42.63

GENERAL GRAPHICS

1 STORY BRICK (COMMERCIAL)

PORTABLE SHED

1 STORY BRICK (COMMERCIAL)

THE DECORATOR'S DEN

1 STORY BLOCK (COMMERCIAL)

PC Sta. 0+48.03

2 STORY FRAME (COMMERCIAL)

CLYDE CT.

VACANT

1 STORY BLOCK (COMMERCIAL)

ALLEY

2 STORY FRAME (RESIDENTIAL)

℄ SURVEY AND CONSTRUCTION PROP. DRESDEN ROAD

LEGEND

PCB - ITEM 622, PORTABLE CONCRETE BARRIER, 32"

WZCL - ITEM 614, WORK ZONE CENTER LINE, CLASS I (642 PAINT) (DOUBLE SOLID)

WZEL - ITEM 614, WORK ZONE EDGE LINE, CLASS I (642 PAINT) (WHITE)

WZIA - ITEM 614, WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)

WZLL - ITEM 614, WORK ZONE LANE LINE, CLASS I (642 PAINT)

DRESDEN-MPS_22.DGN 2/11/13

HORIZONTAL SCALE IN FEET 0 20 40

CALCULATED JLS CHECKED DNM

MAINTENANCE OF TRAFFIC PLAN SHEET
DRESDEN RD. (PHASE 2)

MUS-60-18.35

30
157

FOR ADDITIONAL DETAILS OF BETHESDA DRIVE, SEE SHEET 32b

- CONSTRUCTION THIS PHASE

FOR THE SEQUENCE OF OPERATIONS, SEE SHEETS 25-26.
FOR MAINTENANCE OF TRAFFIC QUANTITIES, SEE SHEET 33.

℄ SURVEY AND CONSTRUCTION
S.R. 60 (MAPLE AVENUE)

BETHESDA DRIVE

DRUMS SPACED
@ 10' C/C.

EXISTING RIGHT TURN LANE TO
BE CLOSED DURING PHASE 1
CONSTRUCTION OF BETHESDA DR

24'-0"
+77.52

36'-0"
+41.37

36'-0"
+10.00

158 159 160 161 162 163

BEGIN PCB, 32"
STA. 160+20

BEGIN PCB, 32"
STA. 161+00

MT-8
PCB

P.C. Sta. 161+06.39

DRUMS SPACED
@ 5' C/C.

P.C. Sta. 0+95.50

PNC BANK
1 STORY BRICK
(COMMERCIAL)

EXIST. BALLS LANE

℄ SURVEY AND CONSTRUCTION
PROP. BALLS LANE

℄ SURVEY AND CONSTRUCTION
PROP. BANK DRIVE

℄ SURVEY AND CONSTRUCTION
PROP. WALMART DRIVE

P.T. Sta. 4+03.27

LEGEND

PCB - ITEM 622, PORTABLE CONCRETE BARRIER, 32"

LAW OFFICE/
CHIROPRACTOR
1 STORY BRICK
(COMMERCIAL)

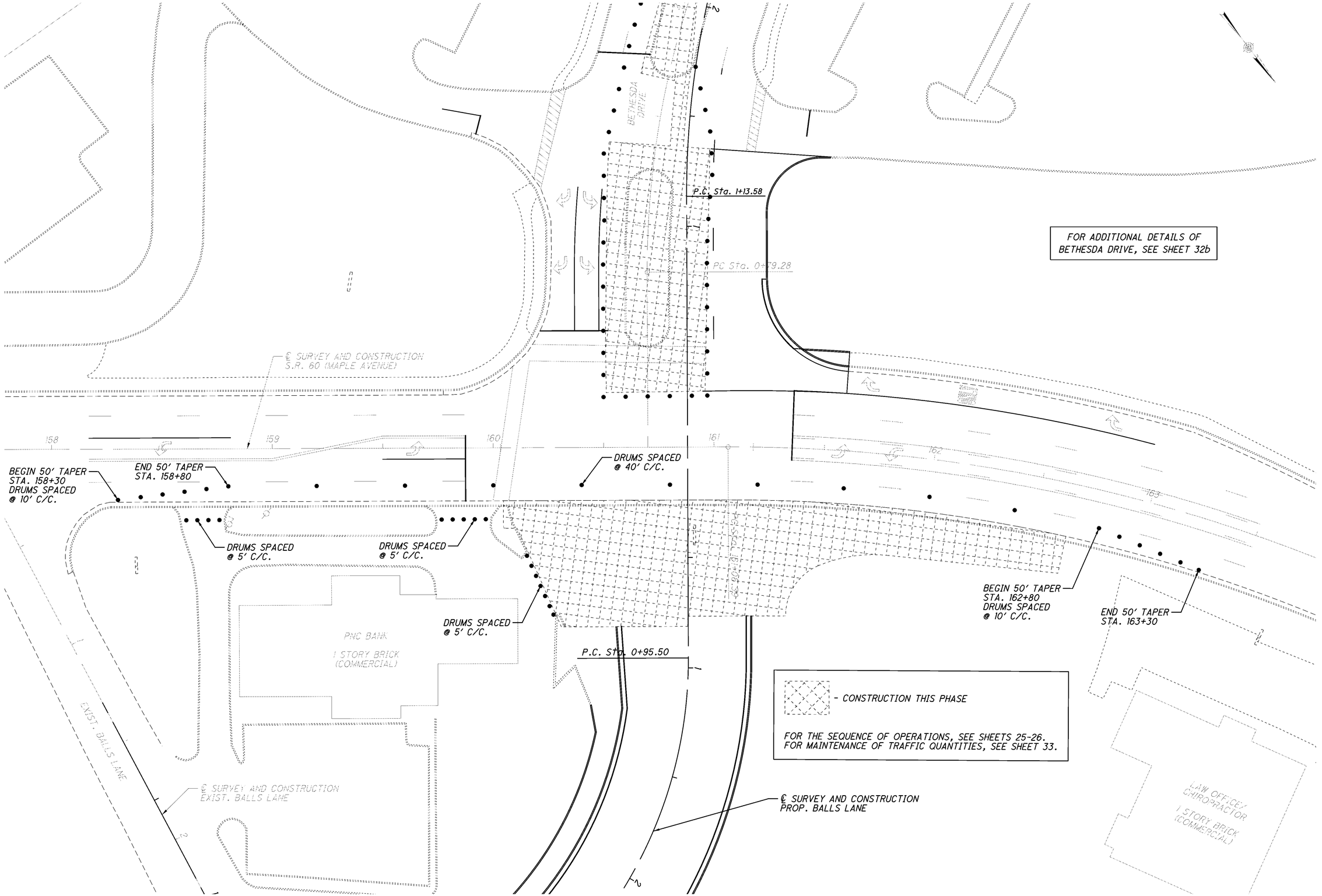
BALLSLN_MPS_H.DGN 2.06.13

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

MAINTENANCE OF TRAFFIC PLAN SHEET
BALLS LANE/BETHESDA DRIVE (PHASE 1)

MUS-60-18.35



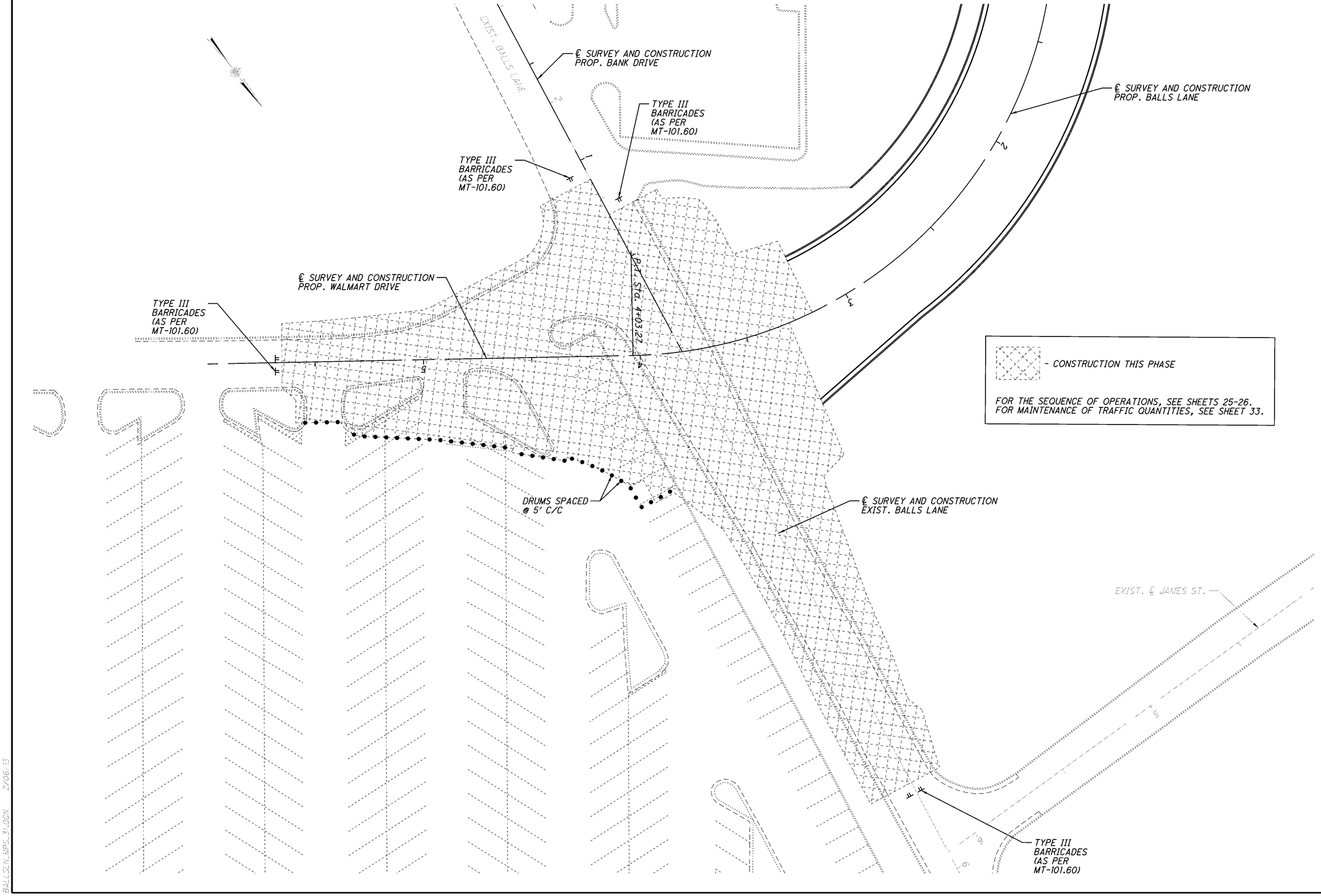
BALLSLN_MPS_2.DGN 2/06/13

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

MAINTENANCE OF TRAFFIC PLAN SHEET
BALLS LANE/BETHESDA DRIVE (PHASE 2)

MUS-60-18.35



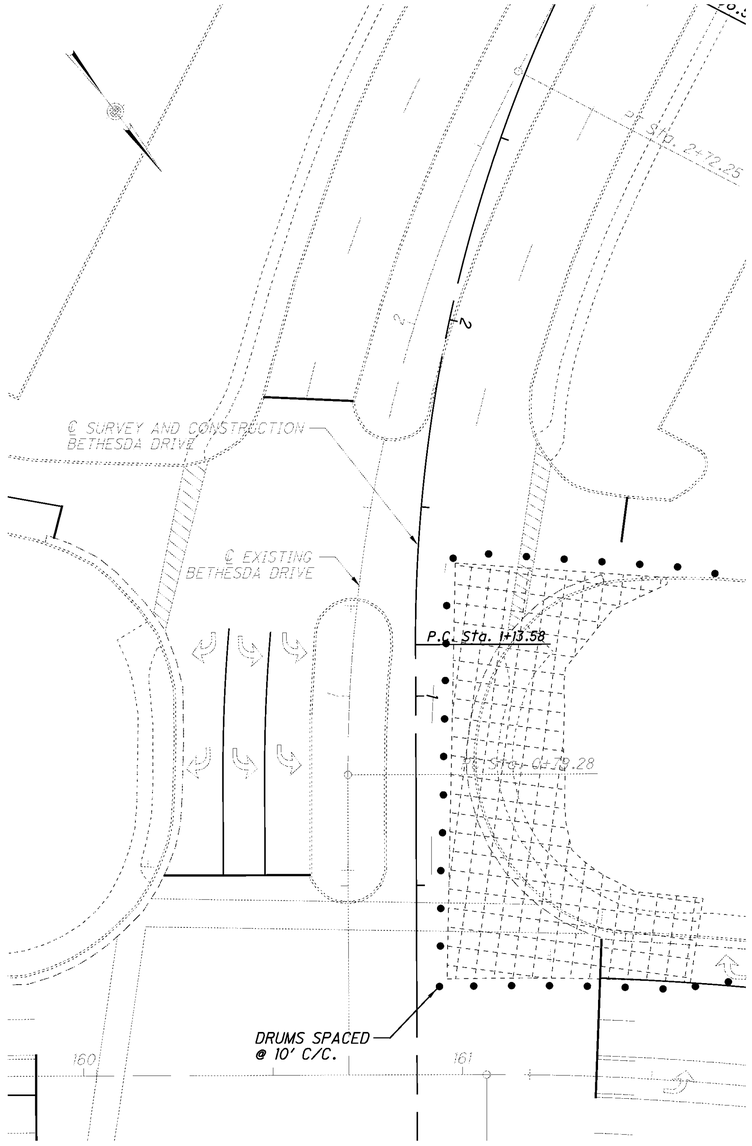
BALLSLN_MPS_31.DGN 2/06/13

HORIZONTAL SCALE IN FEET
0 20 40

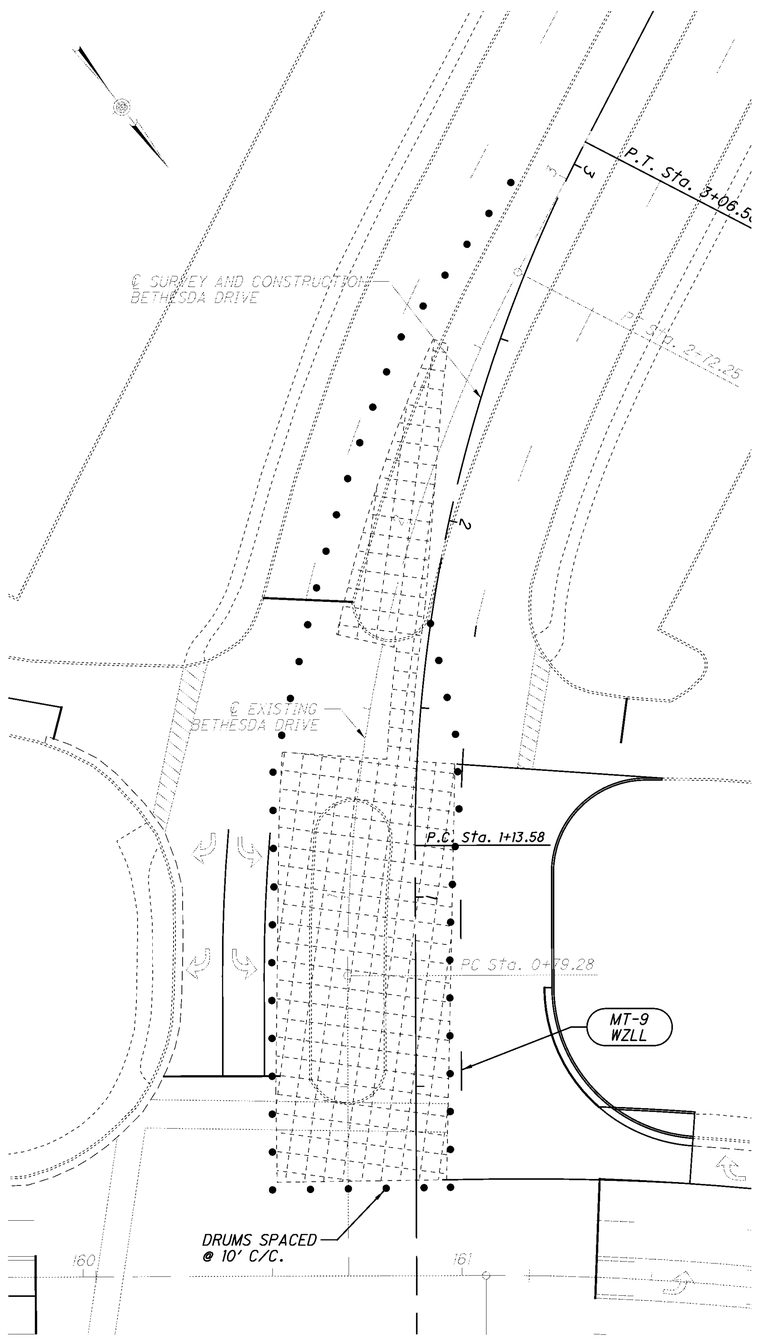
CALCULATED JLS
CHECKED DNM

MAINTENANCE OF TRAFFIC PLAN SHEET
BALLS LANE/BETHESDA DRIVE (PHASE 3)

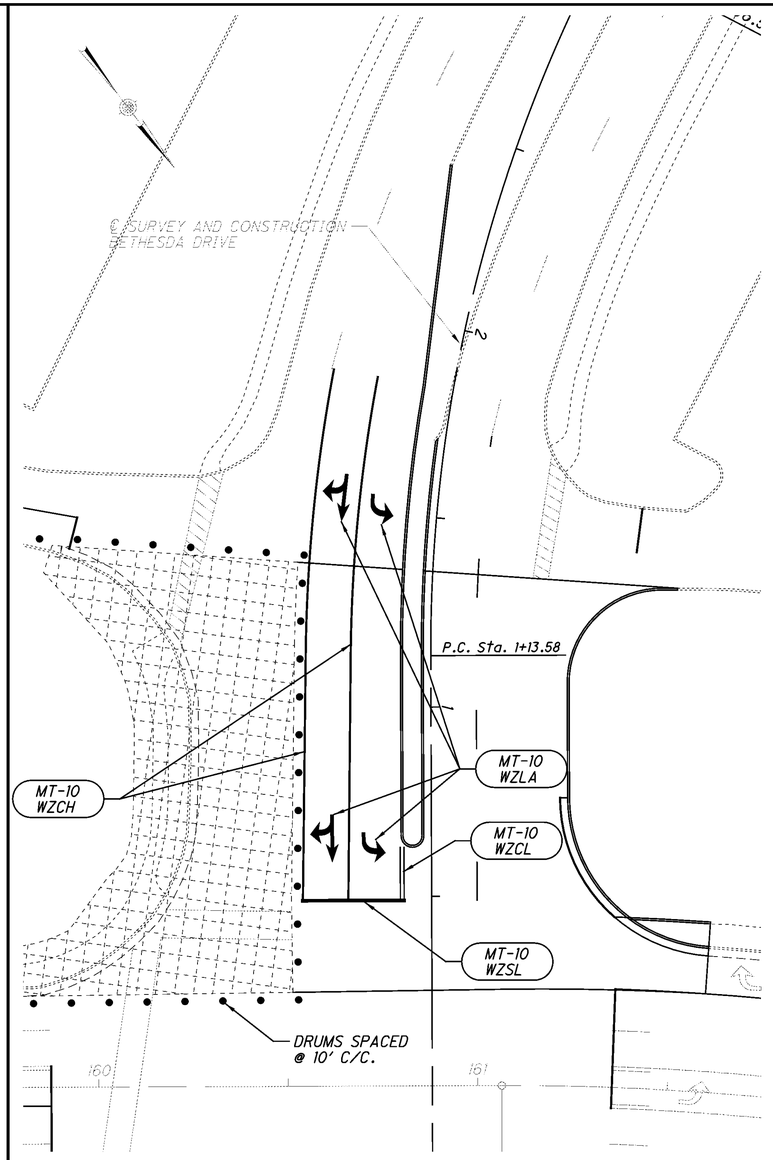
MUS-60-18.35



PHASE 1
(BETHESDA DRIVE)



PHASE 2
(BETHESDA DRIVE)



PHASE 3
(BETHESDA DRIVE)

- CONSTRUCTION THIS PHASE

FOR THE SEQUENCE OF OPERATIONS, SEE SHEETS 25-26.
FOR MAINTENANCE OF TRAFFIC QUANTITIES, SEE SHEET 33.

LEGEND

WZCH - ITEM 614, WORK ZONE CHANNELIZING LINE, CLASS III, (642 PAINT)

WZCL - ITEM 614, WORK ZONE CENTER LINE, CLASS III (642 PAINT) (DOUBLE SOLID)

WZLA - ITEM 614, WORK ZONE LANE ARROW, CLASS III (642 PAINT)

WZLL - ITEM 614, WORK ZONE LANE LINE, CLASS III (642 PAINT) (WHITE)

WZSL - ITEM 614, WORK ZONE STOP LINE, CLASS III (642 PAINT)

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

MAINTENANCE OF TRAFFIC PLAN SHEET
BETHESDA DRIVE DETAILS

MUS-60-18.35

32b
157

BETHESDA_MPS_00.DGN 2/1/13

SUMMARY OF TRAFFIC QUANTITIES

REFERENCE NO.	SHEET NO.	LOCATION Station to Station	SIDE	LENGTH	614													622
					WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)	BARRIER REFLECTOR, TYPE B	OBJECT MARKER, ONE WAY	WORK ZONE LANE LINE, CLASS I, 642 PAINT	WORK ZONE LANE LINE, CLASS III, 642 PAINT	WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE SOLID)	WORK ZONE CENTER LINE, CLASS III, 642 PAINT (DOUBLE SOLID)	WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	WORK ZONE ARROW, CLASS III, 642 PAINT		WORK ZONE WORD ON PAVEMENT, 96", CLASS III, 642 PAINT	PORTABLE CONCRETE BARRIER, 32"
															LEFT	THRU/ RIGHT		
			CL/Lt/Rt.	Lin. Ft.	EACH	EACH	EACH	MILE	MILE	MILE	MILE	MILE	FT.	FT.	EACH	EACH	FT.	EACH
		S.R. 60 (Maple Ave.) @ Dresden Road																
		Phase 2 Construction																
MT-1	29-30	96+30.00 to 103+33.00	Lt.	703.00				0.14										
MT-2	29-30	96+30.00 to 103+33.00	Lt.	703.00						0.14								
	29	96+30.00 to 97+30.00	Lt./Rt.	100.00						0.02								
	30	102+75.00 to 103+33.00	Lt./Rt.	58.00						0.02								
MT-3	29-30	96+30.00 to 103+33.00	Rt.	703.00				0.14										
MT-4	29	96+30.00 to 97+30.00	Rt.	100.00								0.02						
MT-5	29-30	97+90.00 to 102+75.00	Rt.	485.00								0.10						
MT-6	29-30	97+90.00 to 102+70.00	Rt.	480.00	1	10	10											460
		Prop. Dresden Road																
MT-7	30	1+09.83 to 3+45.00	CL	235.17						0.05								
SUB-TOTALS (THIS PHASE)					**1**	**10**	**10**	**0.28**		**0.23**		**0.12**						**460**
		S.R. 60 (Maple Ave.) @ Prop. Balls Lane																
		Phase 1 Construction																
MT-8	31	160+20.00 to 161+00.00	Rt.	80.00		2	2											80
SUB-TOTALS (THIS PHASE)						**2**	**2**											**80**
		Phase 2 Construction																
MT-9	32b	Bethesda Drive	Lt.						0.02									
SUB-TOTALS (THIS PHASE)									**0.02**									
		Phase 3 Construction																
MT-10	32b	Bethesda Drive									0.01		280	27	2	2		
		Prop. Balls Lane									0.06		222	61	4		2	
		Exist. Balls Lane									0.03			26				
		Walmart Drive									0.06							
SUB-TOTALS (THIS PHASE)											**0.16**		**502**	**114**	**6**	**2**	**2**	
SUB-TOTALS															**6**	**2**		
TOTALS (CARRIED TO GENERAL SUMMARY)					**1**	**12**	**12**	**0.28**	**0.02**	**0.23**	**0.16**	**0.12**	**502**	**114**	**8**		**2**	**540**

CALCULATED JLS CHECKED DNM

MAINTENANCE

MUS-60-18.35

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83002_MOS_01.DGN 2/06/13

SHEET NUMBER													PARTICIPATION	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
16	18	18b	38	39	40	82	90	91	103	104	111	145	"01/SAF/PV/ZANE"						
																		ROADWAY	
LUMP													LUMP	201	11000	LUMP		CLEARING AND GRUBBING	
								14	576				590	202	23000	590	SQ YD	PAVEMENT REMOVED	
							2,097	2,502	1,841				6,440	202	23010	6,440	SQ YD	PAVEMENT REMOVED, ASPHALT	
			533	1,369					79				1,981	202	23500	1,981	SQ YD	WEARING COURSE REMOVED	
							4,426	1,538					5,964	202	30000	5,964	SQ FT	WALK REMOVED	
							79	19					98	202	30600	98	SQ YD	CONCRETE MEDIAN REMOVED	
							633	303	592				1,528	202	32000	1,528	FT	CURB REMOVED	
							711	1,730					2,441	202	32500	2,441	FT	CURB AND GUTTER REMOVED	
											595		595	202	35100	595	FT	PIPE REMOVED, 24" AND UNDER	
											10		10	202	35200	10	FT	PIPE REMOVED, OVER 24"	
								2					2	202	53100	2	EACH	MAILBOX REMOVED	
							1						1	202	56100	1	EACH	BUILDING DEMOLISHED (Parcel No. 11)	
								1					1	202	56100	1	EACH	BUILDING DEMOLISHED (Parcel No. 2)	
								1					1	202	56100	1	EACH	BUILDING DEMOLISHED (Parcel No. 3)	
											12		12	202	58100	12	EACH	CATCH BASIN REMOVED	
											1		1	202	58501	1	EACH	CATCH BASIN ABANDONED, AS PER PLAN	18
		7											7	202	66500	7	EACH	UNDERGROUND STORAGE TANK REMOVED	18b
							2	1					3	202	98100	3	EACH	REMOVAL MISC.: PRIVATE SIGN	
								1					1	202	98100	1	EACH	REMOVAL MISC.: PRIVATE SIGN, REMOVED FOR STORAGE	
								1					1	202	98100	1	EACH	REMOVAL MISC.: UTILITY POLE	
								142					142	202	98200	142	FT	REMOVAL MISC.: CONCRETE RETAINING WALL	
						2,342			2				2,344	203	10000	2,344	CU YD	EXCAVATION	
						1,555			31				1,586	203	20000	1,586	CU YD	EMBANKMENT	
			2,292	5,322					406				8,020	204	10000	8,020	SQ YD	SUBGRADE COMPACTION	
			1.24	2.81									4.05	204	45000	4.05	HOUR	PROOF ROLLING	
		1,100											1,100	613	41200	1,100	CU YD	LOW STRENGTH MORTAR BACKFILL	18b
					1								1	690	50100	1	EACH	SPECIAL - MAILBOX SUPPORT SYSTEM, SINGLE	
		15											15	690	65010	15	TON	SPECIAL - WORK INVOLVING SOLID WASTE	18b
		100											100	690	65016	100	TON	SPECIAL - WORK INVOLVING PETROLEUM CONTAMINATED SOIL	18b
												5	5	823	38500	5	EACH	MONUMENT ASSEMBLY	
												22	22	823	40520	22	EACH	RIGHT-OF-WAY MONUMENT	
						32							32	653	10000	32	CU YD	TOPSOIL FURNISHED AND PLACED	
	10												10	653	10001	10	CU YD	TOPSOIL FURNISHED AND PLACED, AS PER PLAN	18
	5,997									107			6,104	659	00500	6,104	SQ YD	SEEDING AND MULCHING, CLASS 1	
	300												300	659	14000	300	SQ YD	REPAIR SEEDING AND MULCHING	
	300												300	659	15000	300	SQ YD	INTER-SEEDING	
	0.84												0.84	659	20000	0.84	TON	COMMERCIAL FERTILIZER	
	1.24												1.24	659	31000	1.24	ACRE	LIME	
	34												34	659	35000	34	M GAL	WATER	
														832	15000	LUMP		STORM WATER POLLUTION PREVENTION PLAN	
													1,800	832	30000	1,800	EACH	EROSION CONTROL	

CALCULATED JLS CHECKED DNM

GENERAL SUMMARY

MUS-60-18.35

SHEET NUMBER									PARTICIPATION	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
17	18a	38	39	40	41	103	104	111	"01/SAF/PV/ZANE"						
														DRAINAGE	
50									50	603	00100	50	FT	4" CONDUIT, TYPE B	
50									50	603	00200	50	FT	4" CONDUIT, TYPE C	
50									50	603	00400	50	FT	4" CONDUIT, TYPE E	
50									50	603	00406	50	FT	4" CONDUIT, TYPE F	
								810	810	603	04400	810	FT	12" CONDUIT, TYPE B	
								142	142	603	05900	142	FT	15" CONDUIT, TYPE B	
								22	22	603	06100	22	FT	15" CONDUIT, TYPE C	
								77	77	603	07400	77	FT	18" CONDUIT, TYPE B	
								350	350	603	08900	350	FT	21" CONDUIT, TYPE B	
								5	5	603	09100	5	FT	21" CONDUIT, TYPE C	
								10	10	603	20900	10	FT	48" CONDUIT, TYPE B	
								7	7	604	00400	7	EACH	CATCH BASIN, NO. 3	
								11	11	604	00800	11	EACH	CATCH BASIN, NO. 3A	
								1	1	604	00801	1	EACH	CATCH BASIN, NO. 3A, AS PER PLAN	18
								1	1	604	02001	1	EACH	CATCH BASIN, NO. 6, AS PER PLAN	18
2									2	604	09000	2	EACH	CATCH BASIN ADJUSTED TO GRADE	
2									2	604	20600	2	EACH	INLET ADJUSTED TO GRADE	
								3	3	604	30100	3	EACH	MANHOLE, NO. 1	
2									2	604	34500	2	EACH	MANHOLE ADJUSTED TO GRADE	
	30								30	638	00700	30	FT	6" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, MECHANICAL JOINTS AND FITTINGS	
	400								400	638	05300	400	FT	3/4" POLYETHYLENE SERVICE BRANCH	
3									3	638	10800	3	EACH	VALVE BOX ADJUSTED TO GRADE	
								60	60	835	10000	60	FT	EXFILTRATION TRENCH, TYPE A	
								8	8	835	10020	8	FT	EXFILTRATION TRENCH, TYPE C	
														PAVEMENT	
		4,362	6,677						11,039	254	01000	11,039	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE	
20		539	1,221						1,780	301	46000	1,780	CU YD	ASPHALT CONCRETE BASE, PG64-22	
						57			57	301	48000	57	CU YD	ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS)	
		2	5						7	407	13900	7	GALLON	TACK COAT, 702.13	
		541	998				6		1,545	407	20000	1,545	GALLON	TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE	
		361	628				25		1,014	407	20100	1,014	GALLON	TACK COAT, TRACKLESS TACK, SURFACE COURSE	
		351	611				4		966	448	46050	966	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22	
		252	464				3		719	448	46904	719	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M	
							15		15	448	48020	15	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS)	
							19		19	452	12000	19	SQ YD	8" NON-REINFORCED CONCRETE PAVEMENT	
				3,225	2,411				5,636	608	10000	5,636	SQ FT	4" CONCRETE WALK	
				1,542					1,542	608	10001	1,542	SQ FT	4" CONCRETE WALK, AS PER PLAN	18
							528		528	608	15000	528	SQ FT	8" CONCRETE WALK	
				2,150	360				2,510	609	12000	2,510	FT	COMBINATION CURB AND GUTTER, TYPE 2	
				365					365	609	12001	365	FT	COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN	18
				1,176	362		296		1,834	609	26000	1,834	FT	CURB, TYPE 6	
				11					11	609	28000	11	FT	CURB, TYPE 7	
				16			10		26	609	72000	26	SQ YD	CONCRETE MEDIAN	
					6				6	690	98000	6	EACH	SPECIAL - MISC.: CURB RAMP, TYPE A1	19-21
					4				4	690	98000	4	EACH	SPECIAL - MISC.: CURB RAMP, TYPE B1	19-21
					7				7	690	98000	7	EACH	SPECIAL - MISC.: CURB RAMP, TYPE B2	19-21
					5				5	690	98000	5	EACH	SPECIAL - MISC.: CURB RAMP, TYPE B3	19-21
					16				16	690	98200	16	SQ FT	SPECIAL - MISC.: DETECTABLE WARNING	19-21

CALCULATED JLS CHECKED DNM

GENERAL SUMMARY

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SHEET NUMBER								PARTICIPATION	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
90	91	119	120	123	140	141	142	"01/SAF/PV/ZANE"						
													TRAFFIC CONTROL	
				254.5				254.5	630	03100	254.5	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
				12.5				12.5	630	08510	12.5	FT	STREET NAME SIGN SUPPORT, NO. 2 POST	
				4				4	630	08600	4	EACH	SIGN POST REFLECTOR	
				26				26	630	79000	26	EACH	SIGN HANGER ASSEMBLY, SPAN WIRE	
				1				1	630	79500	1	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
				346.1				346.1	630	80100	346.1	SQ FT	SIGN, FLAT SHEET	
				41				41	630	84900	41	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
				4				4	630	85100	4	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
				29				29	630	86002	29	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
				2				2	630	87100	2	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	
				14				14	630	87400	14	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
				5				5	630	87500	5	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
		0.27	0.43					0.70	644	00200	0.70	MILE	LANE LINE, 4"	
		0.27	0.48					0.75	644	00300	0.75	MILE	CENTER LINE	
		359	1,254					1,613	644	00400	1,613	FT	CHANNELIZING LINE, 8"	
		190	392					582	644	00500	582	FT	STOP LINE	
		677	438					1,115	644	00600	1,115	FT	CROSSWALK LINE	
		60	476					536	644	00700	536	FT	TRANSVERSE/DIAGONAL LINE	
			181					181	644	00900	181	SQ FT	ISLAND MARKING	
		6	21					27	644	01300	27	EACH	LANE ARROW	
		1	3					4	644	01410	4	EACH	WORD ON PAVEMENT, 96"	
			102					102	644	01500	102	FT	DOTTED LINE, 4"	
													TRAFFIC SIGNAL	
					352	25	206	583	625	25400	583	FT	CONDUIT, 2", 725.04	
					15		10	25	625	25600	25	FT	CONDUIT, 4", 725.04	
					359	25	206	590	625	29003	590	FT	TRENCH, 24" DEEP, AS PER PLAN	124
					5		5	10	625	30700	10	EACH	PULL BOX, 725.08, 18"	
					1		1	2	625	30706	2	EACH	PULL BOX, 725.08, 24"	
					3		3	6	625	31510	6	EACH	PULL BOX REMOVED	
					5		5	10	625	32000	10	EACH	GROUND ROD	
						2	1	3	625	39520	3	EACH	PULL BOX CLEANED	
2	1							3	625	75400	3	EACH	LIGHT POLE REMOVED	
	1							1	625	75402	1	EACH	LIGHT POLE REMOVED FOR STORAGE	
1	2							3	625	75500	3	EACH	LIGHT POLE FOUNDATION REMOVED	
					6	5	3	14	632	04911	14	EACH	VEHICULAR SIGNAL HEAD, (LED) BLACK, 3-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN	125
					3		4	7	632	04921	7	EACH	VEHICULAR SIGNAL HEAD, (LED) BLACK, 5-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN	125
						4	2	6	632	04925	6	EACH	VEHICULAR SIGNAL HEAD, (LED) BLACK, 4-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN	125
					6	2	2	10	632	20721	10	EACH	PEDESTRIAN SIGNAL HEAD (LED) , TYPE D2, AS PER PLAN	125
					9	9	9	27	632	25000	27	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
					6	2	2	10	632	25010	10	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD	
					2			2	632	26000	2	EACH	PEDESTRIAN PUSHBUTTON	
					12	4	13	29	632	26500	29	EACH	DETECTOR LOOP	
					341		391	732	632	30300	732	FT	MESSENGER WIRE, 7 STRAND, 7/16" DIAMETER WITH ACCESSORIES	
					341	321	391	1,053	632	30601	1,053	FT	TETHER WIRE, WITH ACCESSORIES, AS PER PLAN	126
					2,048	1,054	1,142	4,244	632	40700	4,244	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
					645		208	853	632	53202	853	FT	INTERCONNECT CABLE, 6 PAIR, NO. 19 AWG, SOLID, REA (PE-39)	
					4		4	8	632	64000	8	EACH	STRAIN POLE FOUNDATION	
					1	1		2	632	64020	2	EACH	PEDESTAL FOUNDATION	
					3,025	638	2,939	6,602	632	65200	6,602	FT	LOOP DETECTOR LEAD-IN CABLE	
					67		70	137	632	67200	137	FT	POWER CABLE, 2 CONDUCTOR, NO. 8 AWG	
					200		50	250	632	69400	250	FT	SERVICE CABLE, 2 CONDUCTOR, NO. 8 AWG	
					1		1	2	632	70001	2	EACH	POWER SERVICE, AS PER PLAN	125
					4		4	8	632	83000	8	EACH	STRAIN POLE, TYPE TC-81.10, DESIGN 10	

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GENERAL SUMMARY

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SHEET NUMBER								PARTICIPATION	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
16	22	23	27	33	140	141	142	"01/SAF/PV/ZANE"						
													TRAFFIC SIGNAL (con't.)	
					1			1	632	89500	1	EACH	PEDESTAL, 3'	
						1		1	632	89600	1	EACH	PEDESTAL, 8'	
						2		2	632	90020	2	EACH	REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM , PEDESTRIAN HEAD WITH PUSHBUTTON	
					2		1	3	632	90101	3	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	125
					1		1	2	633	01831	2	EACH	CONTROLLER UNIT, TYPE TS2/A2, FURNISH ONLY, AS PER PLAN	126
					1		1	2	633	65501	2	EACH	CABINET, TYPE TS-1, AS PER PLAN	126
					1		1	2	633	67000	2	EACH	CABINET RISER	
					1		1	2	633	67100	2	EACH	CABINET FOUNDATION	
					117	76	114	307	633	67320	307	FT	PREEMPTION DETECTOR CABLE	
					1	1	1	3	633	99000	3	EACH	CONTROLLER ITEM, MISC.: PREEMPTION UNIT, REMOVED FOR REUSE	126
					117	76	114	307	633	99100	307	FT	CONTROLLER ITEM, MISC.: PREEMPTION CONFIRMATION LIGHT CABLE	126
													MAINTENANCE OF TRAFFIC	
	10							10	410	13000	10	CU YD	TRAFFIC COMPACTED SURFACE, TYPE C	
		150						150	614	11110	150	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
				1				1	614	12336	1	EACH	WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)	
			LUMP					LUMP	614	12421	LUMP		DETOUR SIGNING, AS PER PLAN	27
	12							12	614	12460	12	EACH	WORK ZONE MARKING SIGN	
	20							20	614	12600	20	EACH	REPLACEMENT DRUM	
17	20							37	614	13000	37	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
				12				12	614	13300	12	EACH	BARRIER REFLECTOR, TYPE B	
				12				12	614	13350	12	EACH	OBJECT MARKER, ONE WAY	
		480						480	614	18401	480	DAY	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	14
				0.28				0.28	614	20100	0.28	MILE	WORK ZONE LANE LINE, CLASS I, 642 PAINT	
				0.02				0.02	614	20550	0.02	MILE	WORK ZONE LANE LINE, CLASS III, 642 PAINT	
				0.23				0.23	614	21100	0.23	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
				0.16				0.16	614	21550	0.16	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
				0.12				0.12	614	22100	0.12	MILE	WORK ZONE EDGE LINE, CLASS I, 642 PAINT	
				502				502	614	23680	502	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	
				114				114	614	26610	114	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
				8				8	614	30650	8	EACH	WORK ZONE ARROW, CLASS III, 642 PAINT	
				2				2	614	31670	2	EACH	WORK ZONE WORD ON PAVEMENT, 96", CLASS III, 642 PAINT	
	16							16	616	10000	16	M GAL	WATER	
				540				540	622	40020	540	FT	PORTABLE CONCRETE BARRIER, 32"	
								LUMP	103	05000	LUMP		PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND	
	LUMP							LUMP	614	11000	LUMP		MAINTAINING TRAFFIC	
								6	619	16000	6	MONTH	FIELD OFFICE, TYPE A	
								LUMP	623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
								LUMP	624	10000	LUMP		MOBILIZATION	

CALCULATED JLS CHECKED DNM

GENERAL SUMMARY

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LOCATION Station to Station			SIDE	LENGTH	PAVEMENT WIDTH	PAVEMENT AREA	202	204		254	301		407			448	
										3.0"	6.0"	9.0"				1.25"	1.75"
							WEARING COURSE REMOVED (3")	SUBGRADE COMPACTION	PROOF ROLLING	PAVEMENT PLANING, ASPHALT CONCRETE	ASPHALT CONCRETE BASE, PG64-22	ASPHALT CONCRETE BASE, PG64-22	TACK COAT, 702.13 @ 0.025 GAL./SQ. YD. (FOR FACE OF TRENCH)	TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE @ 0.075 GAL./SQ. YD.	TACK COAT, TRACKLESS TACK, SURFACE COURSE @ 0.050 GAL./SQ. YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
			Lt./Rt.	Lin. Ft.	Ft.	Sq. Yd.	SQ. YD.	SQ. YD.	HOUR	SQ. YD.	CU.YD.	CU.YD.	GAL.	GAL.	GAL.	CU. YD	CU.YD.
S.R. 60 (Maple Ave.)																	
Resurfacing																	
96+05.00	to	96+49.55	Lt.	44.55	24.0	118.8				118.8				9.0	6.0	4.2	5.8
96+49.55	to	97+23.58	Lt.	74.03	24.5 (Avg.)	201.6				201.6				15.2	10.1	7.0	9.8
97+23.58	to	100+14.36	Lt.	290.78	23.0 (Avg.)	743.2				743.2				55.8	37.2	25.9	36.2
100+14.36	to	100+79.51	Lt.	65.15	21.0	152.1				152.1				11.5	7.7	5.3	7.4
100+79.51	to	103+23.41	Lt.	243.90	22.5 (Avg.)	609.8				609.8				45.8	30.5	21.2	29.7
103+23.41	to	104+00.00	Lt.	76.59	24.0	204.3				204.3				15.4	10.3	7.1	10.0
96+05.00	to	96+60.60	Rt.	55.60	28.5 (Avg.)	176.1				176.1				13.3	8.9	6.2	8.6
96+60.60	to	97+35.48	Rt.	74.88	33.0	274.6				274.6				20.6	13.8	9.6	13.4
97+35.48	to	97+94.51	Rt.	59.03	37.5 (Avg.)	246.0				246.0				18.5	12.3	8.6	12.0
97+94.51	to	101+15.43	Rt.	320.92	24.0	855.8				855.8				64.2	42.8	29.8	41.7
101+15.43	to	102+93.86	Rt.	178.43	25.0 (Avg.)	495.7				495.7				37.2	24.8	17.3	24.1
102+93.86	to	104+00.00	Rt.	106.14	24.0	283.1				283.1				21.3	14.2	9.9	13.8
Full Depth (Pavement Widening)																	
97+94.51	to	99+33.61	Rt.	139.10	18.0	278.3		278.3	0.14			69.6	0.4	20.9	14.0	9.7	13.6
99+33.61	to	101+15.43	Rt.	181.82	10.0 (Avg.)	202.1		202.1	0.11			50.6	0.6	15.2	10.2	7.1	9.9
St. Louis Avenue			Lt.		varies	96.5	96.5							7.3	4.9	3.4	4.7
McConnell Avenue			Rt.		varies	65.3	65.3							4.9	3.3	2.3	3.2
Alley																	
0+05.33	to	0+65.18	Lt.	59.85	8.0	53.2		53.2	0.03		8.9			4.0	2.7	1.9	2.6
0+65.18	to	1+55.47	Lt.	90.29	6.4 (Avg.)	64.3		64.3	0.04		10.8			4.9	3.3	2.3	3.2
0+05.33	to	0+61.07	Rt.	55.74	8.0	49.6		49.6	0.03		8.3			3.8	2.5	1.8	2.5
0+61.07	to	1+55.47	Rt.	94.40	6.4 (Avg.)	67.2		67.2	0.04		11.2			5.1	3.4	2.4	3.3
Dresden Road																	
Radius	to	1+09.83	Lt.		varies	209.5		209.5	0.11			52.4		15.8	10.5	7.3	10.2
1+09.83	to	2+26.18	Lt.	116.35	18.0	232.7		232.7	0.12			58.2		17.5	11.7	8.1	11.4
2+26.18	to	3+25.00	Lt.	98.82	15.2 (Avg.)	166.9		166.9	0.09			41.8		12.6	8.4	5.8	8.2
Radius	to	1+09.83	Rt.		varies	349.5		349.5	0.18			87.4		26.3	17.5	12.2	17.0
1+09.83	to	2+26.18	Rt.	116.35	18.0	232.7		232.7	0.12			58.2		17.5	11.7	8.1	11.4
2+26.18	to	3+25.00	Rt.	98.82	15.3 (Avg.)	168.0		168.0	0.09			42.0		12.6	8.4	5.9	8.2
Clyde Court																	
Radius	to	0+44.14	Lt.		varies	32.4		32.4	0.02		5.4			2.5	1.7	1.2	1.6
0+44.14	to	0+90.00	Lt.	45.86	8.4 (Avg.)	42.9		42.9	0.03		7.2			3.3	2.2	1.5	2.1
Radius	to	0+32.80	Rt.		varies	34.8		34.8	0.02		5.8			2.7	1.8	1.3	1.7
0+32.80	to	0+90.00	Rt.	57.20	9.1 (Avg.)	57.9		57.9	0.03		9.7			4.4	2.9	2.1	2.9
Alley			Rt.														
0+16.89	to	0+33.51			varies	22.4		22.4	0.02		3.8			1.7	1.2	0.8	1.1
Brown Street			Lt.		varies	274.4	274.4							20.6	13.8	9.6	13.4
Full Depth (Radius)			Lt.		varies	27.1		27.1	0.02			6.8	0.2	2.1	1.4	1.0	1.4
Caldwell Street			Lt.		varies	96.5	96.5							7.3	4.9	3.4	4.7
SUB-TOTALS											72	467					
TOTALS (CARRIED TO GENERAL SUMMARY)							533	2,292	1.24	4,362	539		2	541	361	252	351

CALCULATED JLS
CHECKED DNM

PAVEMENT CALCULATIONS

MUS-60-18.35

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83002_PCS_001.DGN 1/14/13

LOCATION Station to Station	SIDE	LENGTH	PAVEMENT WIDTH	PAVEMENT AREA	202		204		254	301			407			448	
									3.0"	6.0"	9.0"	12.0"				1.25"	1.75"
					WEARING COURSE REMOVED (1.25")	WEARING COURSE REMOVED (3.0")	SUBGRADE COMPACTION	PROOF ROLLING	PAVEMENT PLANING, ASPHALT CONCRETE	ASPHALT CONCRETE BASE, PG64-22	ASPHALT CONCRETE BASE, PG64-22	ASPHALT CONCRETE BASE, PG64-22	TACK COAT, 702.13 @ 0.025 GAL./SQ. YD. (FOR FACE OF TRENCH)	TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE @ 0.075 GAL./SQ. YD.	TACK COAT, TRACKLESS TACK, SURFACE COURSE @ 0.050 GAL./SQ. YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
	Lt./Rt.	Lin. Ft.	Ft.	Sq. Yd.	SQ. YD.	SQ. YD.	SQ. YD.	HOUR	SQ. YD.	CU.YD.	CU.YD.	CU.YD.	GAL.	GAL.	GAL.	CU. YD	CU.YD.
S.R. 60 (Maple Ave.)																	
Resurfacing																	
152+50.00 to 159+77.52	Lt.	727.52	24.0	1,940.1					1,940.1					145.6	97.1	67.4	94.4
159+77.52 to 161+41.37	Lt.	163.85	26.0	473.4					473.4					35.6	23.7	16.5	23.1
161+41.37 to 163+10.00	Lt.	168.63	36.0	674.6					674.6					50.6	33.8	23.5	32.8
163+10.00 to 164+10.00	Lt.	100.00	30.0 (Avg.)	333.4					333.4					25.1	16.7	11.6	16.3
164+10.00 to 164+40.00	Lt.	30.00	24.0	80.0					80.0					6.0	4.0	2.8	3.9
152+50.00 to 164+28.58	Rt.	1,178.58	24.0	3,142.9					3,142.9					235.8	157.2	109.2	152.8
164+28.58 to 164+40.00	Rt.	11.42	25.2 (Avg.)	32.0					32.0					2.4	1.6	1.2	1.6
Full Depth (Pavement Widening)																	
159+44.56 to 160+04.56	Rt.	60.00	2.0 (Avg.)	13.4			13.4	0.01			3.4		0.2	1.1	0.7	0.5	0.7
160+04.56 to 161+83.71	Rt.	179.15	4.0	79.7			79.7	0.04			20.0		0.5	6.0	4.0	2.8	3.9
161+83.71 to 162+60.85	Rt.	77.14	2.0 (Avg.)	17.2			17.2	0.01			4.3		0.3	1.3	0.9	0.6	0.9
Bell Street	Lt.		varies	263.3		263.3								19.8	13.2	9.2	12.8
Full Depth			varies	33.5			33.5	0.02			8.4		0.3	2.6	1.7	1.2	1.7
Bethesda Drive																	
Full Depth																	
Radius to 0+76.00	Lt.		varies	321.9			321.9	0.17			80.5			24.2	16.1	11.2	15.7
0+76.00 to 1+09.18	Lt.	33.18	40.0	147.5			147.5	0.08			36.9			11.1	7.4	5.2	7.2
1+09.18 to Radius	Lt.		varies	171.7			171.7	0.09			43.0			12.9	8.6	6.0	8.4
Radius to 0+75.91	Rt.		varies	284.4			284.4	0.15			71.1			21.4	14.3	9.9	13.9
0+75.91 to 1+06.17	Rt.	30.26	38.0	127.8			127.8	0.07			32.0			9.6	6.4	4.5	6.3
1+06.17 to Radius	Rt.		varies	137.6			137.6	0.07			34.4			10.4	6.9	4.8	6.7
Full Depth (Curb Median Construction)	Lt.		varies	91.2			91.2	0.05				30.4	3.3				
Resurfacing	Lt.		varies	339.3	339.3									40.5		18.8	
Resurfacing	Rt.		varies	214.1	214.1									16.1		7.5	
Prop. Balls Lane																	
Radius to 0+76.62	Lt.		varies	213.3			213.3	0.11			53.4			16.0	10.7	7.5	10.4
0+76.62 to 2+78.17	Lt.	201.55	26.25	587.9			587.9	0.30			147.0			44.1	29.4	20.5	28.6
2+78.17 to 3+29.18	Lt.	51.01	32.15 (Avg.)	182.3			182.3	0.10			45.6			13.7	9.2	6.4	8.9
3+29.18 to Radius	Lt.		varies	324.1			324.1	0.17			81.1			24.4	16.3	11.3	15.8
Radius to 0+81.22	Rt.		varies	254.6			254.6	0.13			63.7			19.1	12.8	8.9	12.4
0+81.22 to 1+22.11	Rt.	40.89	28.25 (Avg.)	128.4			128.4	0.07			32.1			9.7	6.5	4.5	6.3
1+22.11 to 3+17.52	Rt.	195.41	26.25	570.0			570.0	0.29			142.5			42.8	28.5	19.8	27.8
3+17.52 to Radius	Rt.		varies	294.3			294.3	0.15			73.6			22.1	14.8	10.3	14.4
Exist. Balls Lane																	
4+17.34 to 4+77.34	Lt.	60.00	12.0 (Avg.)	80.0			80.0	0.04			20.0			6.0	4.0	2.8	3.9
4+77.34 to 5+15.00	Lt.	37.66	9.8 (Avg.)	41.1			41.1	0.03			10.3			3.1	2.1	1.5	2.0
5+15.00 to 5+50.00	Lt.	35.00	9.6 (Avg.)	37.4		37.4								2.9	1.9	1.3	1.9
4+11.22 to 4+56.22	Rt.	45.00	14.5 (Avg.)	72.5			72.5	0.04			18.2			5.5	3.7	2.6	3.6
4+56.22 to 5+15.00	Rt.	58.78	12.8 (Avg.)	83.6			83.6	0.05			20.9			6.3	4.2	3.0	4.1
5+15.00 to 5+50.00	Rt.	35.00	12.5 (Avg.)	48.7		48.7								3.7	2.5	1.7	2.4
Walmart Drive																	
Radius to 4+47.04	Lt.		varies	376.3			376.3	0.19		62.8				28.3	18.9	13.1	18.3
4+47.04 to 4+91.74	Lt.	44.70	17.8 (Avg.)	88.5			88.5	0.05		14.8				6.7	4.5	3.1	4.4
4+91.74 to 5+29.21	Lt.	37.47	13.6 (Avg.)	56.7			56.7	0.03		9.5				4.3	2.9	2.0	2.8
5+29.21 to 5+60.00	Lt.	30.79	12.0 (Avg.)	41.1			41.1	0.03		6.9				3.1	2.1	1.5	2.0
Radius to 4+66.71	Rt.		varies	362.9			362.9	0.19		60.5				27.3	18.2	12.7	17.7
4+66.71 to 5+32.00	Rt.	65.29	14.2 (Avg.)	103.1			103.1	0.06		17.2				7.8	5.2	3.6	5.1
5+32.00 to 5+60.00	Rt.	28.00	11.3 (Avg.)	35.2			35.2	0.02		5.9				2.7	1.8	1.3	1.8
Prop. Bank Drive																	
0+90.11 to 1+58.66	Lt.		varies	96.6		96.6								7.3	4.9	3.4	4.7
0+71.66 to 1+58.66	Rt.		varies	168.5		168.5								12.7	8.5	5.9	8.2
SUB-TOTALS					754	615				178	1,043	31					
TOTALS (CARRIED TO GENERAL SUMMARY)					1,369		5,322	2.81	6,677	1,221			5	998	628	464	611

CALCULATED JLS
CHECKED DNM

PAVEMENT CALCULATIONS

MUS-60-18.35

REFERNCE NO.	SHEET NO.	LOCATION	SIDE	608		609					690
				4" CONCRETE WALK (Area Calculated By Computer)	4" CONCRETE WALK, AS PER PLAN (Area Calculated By Computer)	COMBINATION CURB AND GUTTER, TYPE 2	COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN	CURB, TYPE 6	CURB, TYPE 7	CONCRETE MEDIAN	SPECIAL - MAILBOX SUPPORT SYSTEM, SINGLE
			Lt/Rt.	SQ. FT.	SQ. FT.	FT.	FT.	FT.	FT.	SQ. YD.	EACH
		S.R. 60 (Maple Ave.)									
RD-1	44-45	Sta. 97+94.51 to Sta. 100+03.37	Rt.			209					
RD-2	44	Sta. 97+94.51 to Sta. 99+18.55	Rt.	724.0							
RD-3	44	Sta. 98+82.61 to Sta. 99+04.83	Rt.	133.0							
RD-4	44	at Prop. Alley	Lt./Rt.					183			
RD-5	44-45	Sta. 99+00.00 to Sta. 99+96.80	Lt.	484.1		97					
RD-6	44-45	Sta. 99+52.57 to Sta. 99+99.60	Rt.	258.6							
		Dresden Road									
RD-7	45	Sta. 0+68.33 to Sta. 1+09.83	Rt.			42					
RD-8	45	Sta. 0+68.33 to Sta. 1+19.61	Rt.	276.7							
RD-9	45	Sta. 0+88.49 to Sta. 1+09.83	Lt.			22					
RD-10	45	Sta. 0+88.49 to Sta. 1+34.60	Lt.		192.8						
RD-11	45	Sta. 1+09.83 to Sta. 3+25.00	Lt.					216			
RD-12	45	Sta. 1+09.83 to Sta. 1+64.86	Rt.					56			
RD-13	45	Sta. 1+30.39 to Sta. 1+64.86	Rt.	181.3							
RD-14	45	at Clyde Ct.	Lt./Rt.					61			
RD-15	45	Sta. 1+81.79 to Sta. 2+32.25	Lt.		209.2						
RD-16	45	Sta. 2+23.58 to Sta. 2+36.49	Rt.		67.1			26			
RD-17	45	Sta. 2+70.91 to Sta. 3+25.00	Rt.	257.9				55			
RD-18	45	Sta. 2+71.18 to Sta. 2+76.30	Lt.		17.1						
		S.R. 60 (Maple Ave.)									
RD-19	45	Sta. 100+95.80 to Sta. 102+50.00	Rt.			155					
RD-20	45	Sta. 100+95.80 to Sta. 101+34.00	Rt.	189.2					11		
RD-21	45	Sta. 101+34.00 to Sta. 102+50.00	Rt.		582.8						
RD-22	46	Sta. 153+39.00 to Sta. 153+83.00	Lt.		249.0	44					
RD-23	46	Sta. 153+95.00 to Sta. 154+55.00	Rt.			60					
RD-24	46	at Bell St.	Lt.	80.0				33		15.9	
RD-25	47	Sta. 157+25.00 to Sta. 157+66.00	Lt.		224.0	41					
RD-26	47&49	Sta. 157+45.00 to Sta. 0+71.66 Prop. Bank Dr.	Rt./Lt.			635					
RD-27	47	at Bethesda Drive	Lt.	639.3		74		82			
RD-28	47	at Bethesda Drive	Lt.			63		74			
RD-29	47	at Bethesda Drive	Lt.					293			
RD-30	47-49	Sta. 162+60.85 to Sta. 5+15.00 Exist. Balls Ln.	Rt./Lt.			603					
RD-31	49	Sta. 0+90.11 Prop. Bank Dr. to Sta. 1+58.66 Prop. Bank Dr.	Lt./Rt.					97			
RD-32	49	Sta. 0+90.11 Prop. Bank Dr. to Sta. 5+60.0 Walmart Drive	Rt.				175				
RD-33	49	Sta. 5+26.68 Walmart Drive to Sta. 4+11.22 Exist. Balls Ln.	Lt./Rt.				190				
		Exist. Balls Lane									
RD-34	49	Sta. 4+11.22 to Sta. 5+15.0	Rt.			105					
RD-35	49	Sta. 4+50.9	Lt.								1
TOTALS (CARRIED TO GENERAL SUMMARY)				**3,225**	**1,542**	**2,150**	**365**	**1,176**	**11**	**16**	**1**

CALCULATED JLS
CHECKED DNM

ROADWAY QUANTITIES

MUS-60-18.35

REFERNCE NO.	SHEET NO.	LOCATION	SIDE	608	609		690					REMARKS
				4" CONCRETE WALK (Area Calculated By Computer)	COMBINATION CURB AND GUTTER, TYPE 2	CURB, TYPE 6	SPECIAL-MISC.: CURB RAMPS, TYPE A1	SPECIAL-MISC.: CURB RAMPS, TYPE B1	SPECIAL-MISC.: CURB RAMPS, TYPE B2	SPECIAL-MISC.: CURB RAMPS, TYPE B3	SPECIAL - MISC.; DETECTABLE WARNING	
			Lt/Rt.	SQ. FT.	FT.	FT.	EACH	EACH	EACH	EACH	SQ. FT.	
		S.R. 60 (Maple Ave.)										
CR-1	44	at St. Louis Ave.	Lt.	142.4	25	13			1			
CR-2	44	at St. Louis Ave.	Lt.	103.7	23	16			1			
CR-3	44	at McConnell Ave.	Rt.	67.2	16		1					
CR-4	44	at McConnell Ave.	Rt.	63.2	20		1					
CR-5	44	at Prop. Alley	Rt.	60.1		32		1				
CR-6	44	at Prop. Alley	Rt.	70.20		22		1				
CR-7	45	at Prop. Dresden Rd.	Rt.	231.4	27		1					
CR-8	45	at Prop. Dresden Rd.	Rt.	436.1	56		2					
CR-9	45	at Brown St.	Lt.	298.1	43		1					
CR-10	45	at Brown St.	Lt.	120.1	21	17			1			
		Dresden Road										
CR-11	45	at Clyde Ct.	Rt.	50.1		36				1		Landing Length for the Ramp is 10' - 8".
CR-12	45	at Clyde Ct.	Rt.	41.3		27				1		Landing Length for the Ramp is 5' - 6".
CR-13	45	at Alley	Rt.	38.6		25				1		Landing Length for the Ramp is 4' - 2".
CR-14	45	at Alley	Rt.	38.7		25				1		Landing Length for the Ramp is 4' - 2".
		S.R. 60 (Maple Ave.)										
CR-15	45	at Caldwell St.	Lt.	143.1	27	28			1			
CR-16	45	at Caldwell St.	Lt.	64.7	20	17				1		
CR-17	46	at Bell St.	Lt.	89.2	18	15			1			
CR-18	46	at Bell St. (Concrete Median)	Lt.								16.0	
CR-19	46	at Bell St.	Lt.	87.6	18	15			1			
CR-20	47	at Bethesda Drive	Lt.	109.1	21	17			1			
CR-21	47	at Bethesda Drive	Lt.	83.2	25	23		1				
CR-22	47	Bethesda Drive	Lt.	72.7		34		1				
TOTALS (CARRIED TO GENERAL SUMMARY)				**2,411**	**360**	**362**	**6**	**4**	**7**	**5**	**16.0**	

CALCULATED JLS CHECKED DNM

SIDEWALK / CURB RAMP QUANTITIES

MUS-60-18.35

83002_ROS_002.DGN 1/15/13

PROJECT DATA			
DESCRIPTION	AREA (ACRES)	DESCRIPTION	VALUE
TOTAL AREA (RIGHT-OF-WAY)	2.26	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.9
PROJECT EARTH DISTURBED AREA	3.47	RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE	0.88
ESTIMATED CONTRACTOR EARTH DISTRUB AREA	0.46	IMMEDIATE RECEIVING WATER	ZANESVILLE STORM SEWER
NOTICE OF INTENT EARTH DISTURBED AREA	4.90	SUBQSEQUENT RECEIVING WATER	MUSKINGUM RIVER
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE	1.44		
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION SITE	1.48		

LEGEND

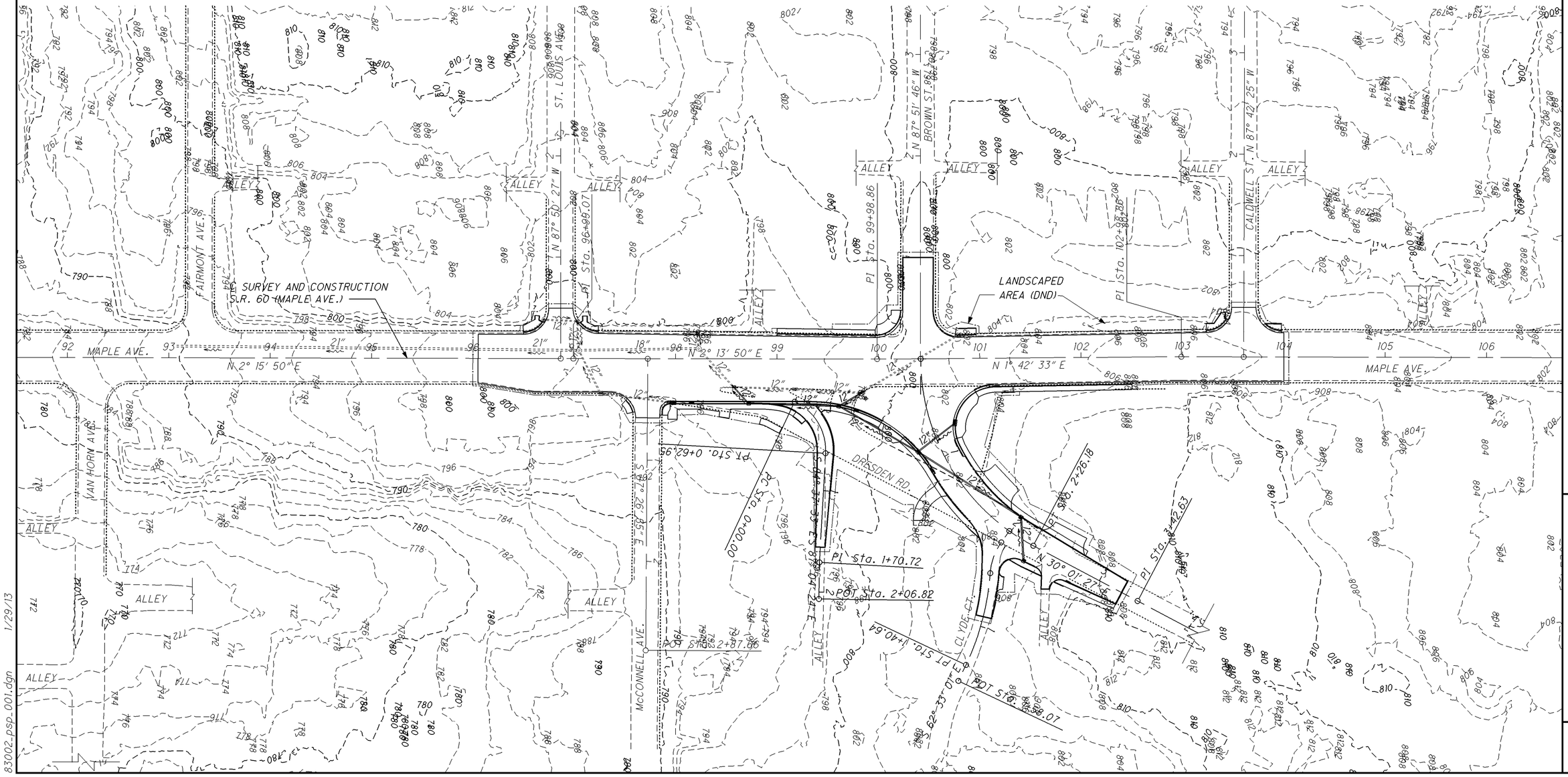
- CATCH BASIN, CB-3
- CATCH BASIN, CB-3A
- MANHOLE
- EXFILTRATION TRENCH

US TOPO 7.5 QUADRANGLE
ZANESVILLE WEST, OHIO 2010
LONGITUDE: 82° 00′ 36″*
LATITUDE: 39° 57′ 31″*

* LONGITUDE AND LATITUDE TO APPROX. CENTER OF PROJECT

PROJECT DESCRIPTION

THIS IS A SAFETY PROJECT THAT INCLUDES THE RELOCATION OF DRESDEN ROAD AND BALLS LANE IN THE CITY OF ZANESVILLE. THE PROJECT CONSISTS OF THE CONSTRUCTION OF APPROXIMATELY 300 FEET OF DRESDEN ROAD ON A NEW ALIGNMENT. DRESDEN ROAD IS BEING RELOCATED TO THE NORTH, CREATING A 4-WAY INTERSECTION WITH MAPLE AVENUE (S.R. 60) AND BROWN STREET. MAPLE AVENUE HAS A NORTH-SOUTH ORIENTATION AT THIS LOCATION. BROWN STREET TRAVELS EAST-WEST AND CONNECTS TO MAPLE AVENUE FROM THE WEST. DRESDEN ROAD INTERSECTS MAPLE AVENUE FROM THE EAST AND TRAVELS NORTH-SOUTH.



HORIZONTAL SCALE IN FEET
0 25 50 100

PROJECT SITE PLAN

MUS-60-18.35

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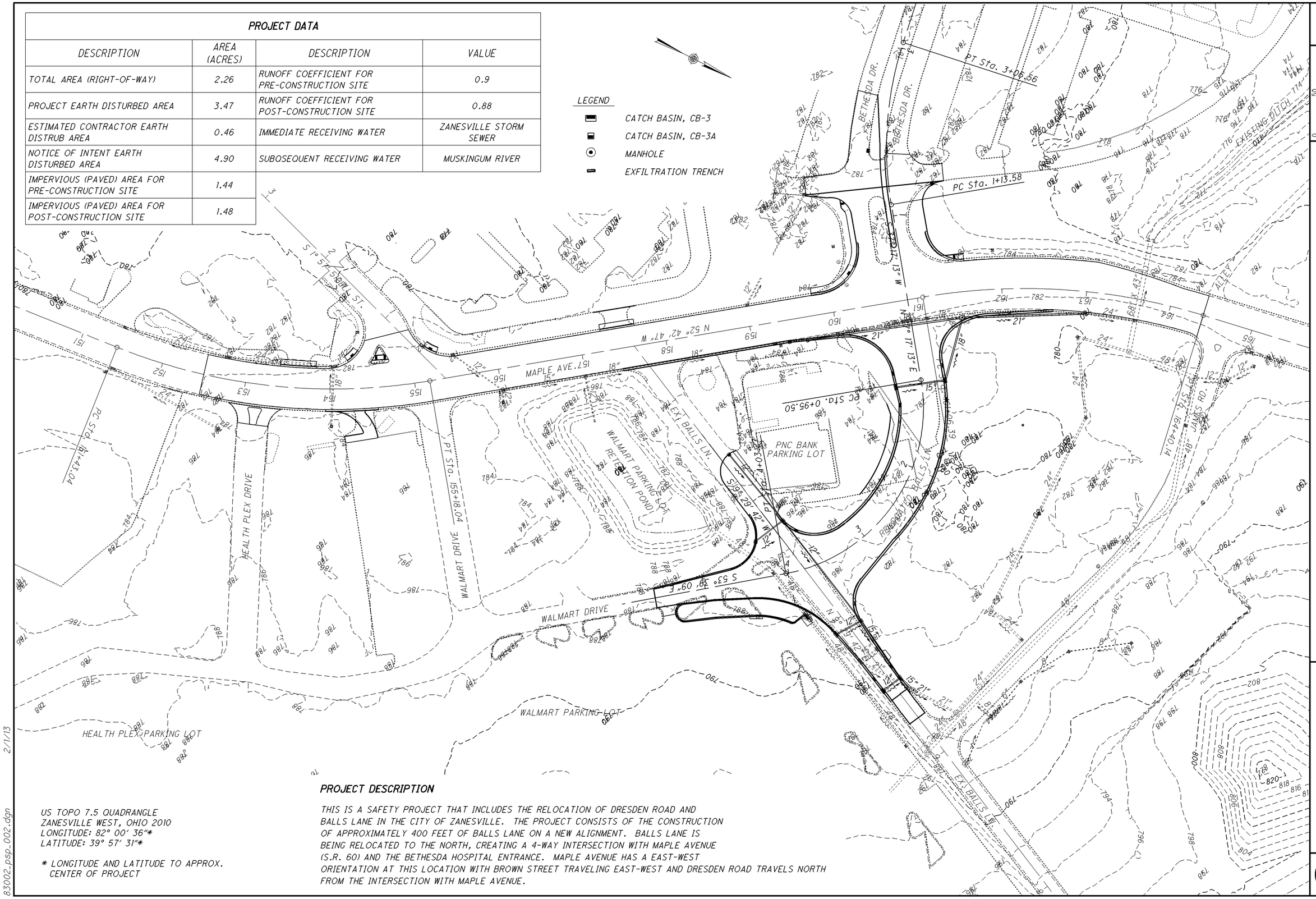
83002_psp_001.dgn 1/29/13

PROJECT DATA			
DESCRIPTION	AREA (ACRES)	DESCRIPTION	VALUE
TOTAL AREA (RIGHT-OF-WAY)	2.26	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.9
PROJECT EARTH DISTURBED AREA	3.47	RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE	0.88
ESTIMATED CONTRACTOR EARTH DISTRUB AREA	0.46	IMMEDIATE RECEIVING WATER	ZANESVILLE STORM SEWER
NOTICE OF INTENT EARTH DISTURBED AREA	4.90	SUBQSEQUENT RECEIVING WATER	MUSKINGUM RIVER
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE	1.44		
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION SITE	1.48		

LEGEND

- CATCH BASIN, CB-3
- CATCH BASIN, CB-3A
- MANHOLE
- EXFILTRATION TRENCH



US TOPO 7.5 QUADRANGLE
ZANESVILLE WEST, OHIO 2010
LONGITUDE: 82° 00′ 36″*
LATITUDE: 39° 57′ 31″*

* LONGITUDE AND LATITUDE TO APPROX. CENTER OF PROJECT

PROJECT DESCRIPTION

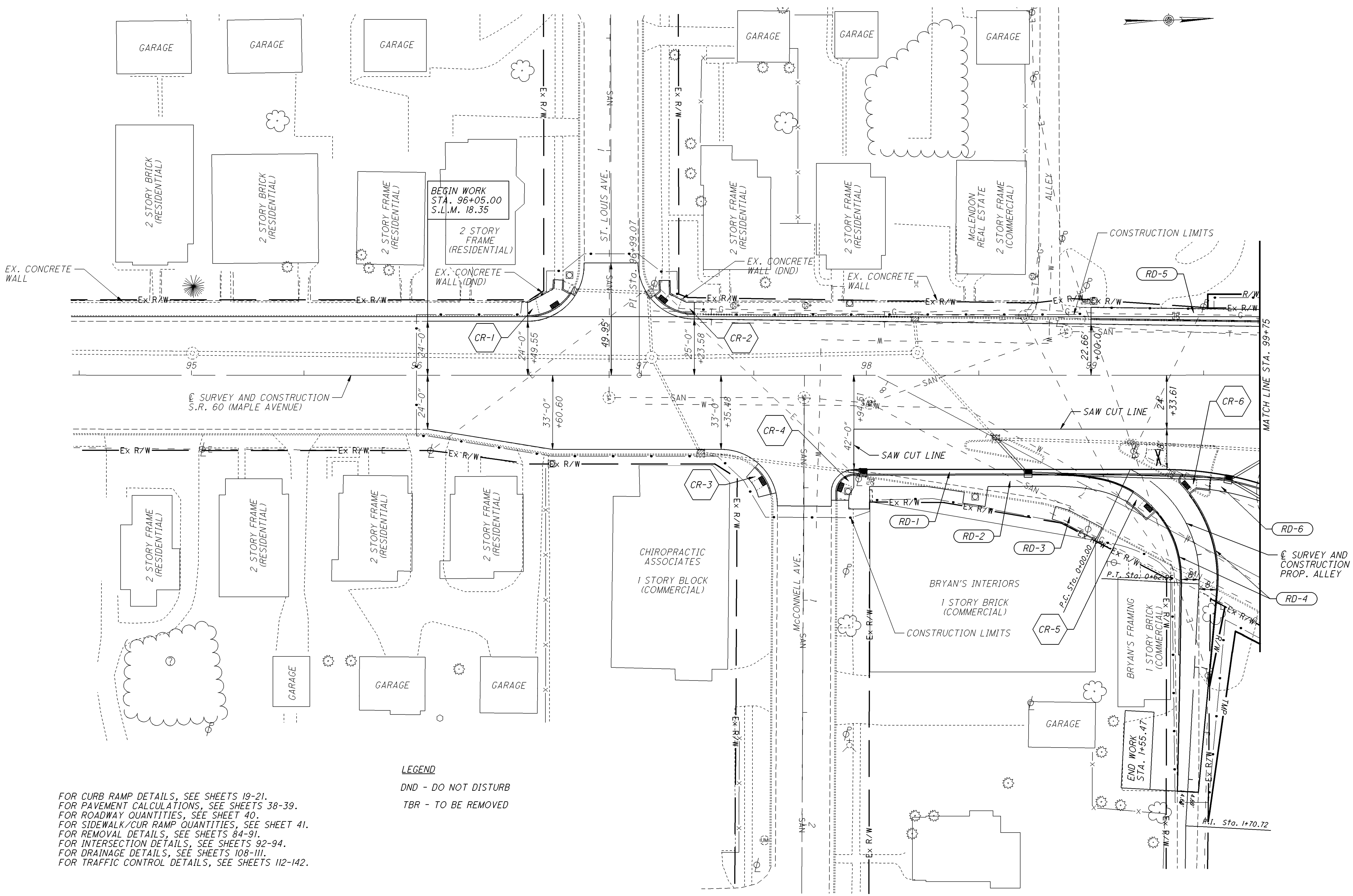
THIS IS A SAFETY PROJECT THAT INCLUDES THE RELOCATION OF DRESDEN ROAD AND BALLS LANE IN THE CITY OF ZANESVILLE. THE PROJECT CONSISTS OF THE CONSTRUCTION OF APPROXIMATELY 400 FEET OF BALLS LANE ON A NEW ALIGNMENT. BALLS LANE IS BEING RELOCATED TO THE NORTH, CREATING A 4-WAY INTERSECTION WITH MAPLE AVENUE (S.R. 60) AND THE BETHESDA HOSPITAL ENTRANCE. MAPLE AVENUE HAS A EAST-WEST ORIENTATION AT THIS LOCATION WITH BROWN STREET TRAVELING EAST-WEST AND DRESDEN ROAD TRAVELS NORTH FROM THE INTERSECTION WITH MAPLE AVENUE.

HORIZONTAL SCALE IN FEET
0 25 50 100

PROJECT SITE PLAN

MUS-60-18.35

83002_psp_002.dgn 2/1/13



FOR CURB RAMP DETAILS, SEE SHEETS 19-21.
FOR PAVEMENT CALCULATIONS, SEE SHEETS 38-39.
FOR ROADWAY QUANTITIES, SEE SHEET 40.
FOR SIDEWALK/CUR RAMP QUANTITIES, SEE SHEET 41.
FOR REMOVAL DETAILS, SEE SHEETS 84-91.
FOR INTERSECTION DETAILS, SEE SHEETS 92-94.
FOR DRAINAGE DETAILS, SEE SHEETS 108-111.
FOR TRAFFIC CONTROL DETAILS, SEE SHEETS 112-142.

LEGEND

DND - DO NOT DISTURB

TBR - TO BE REMOVED

MAPLAV_PPP_01.DGN 2/11/13

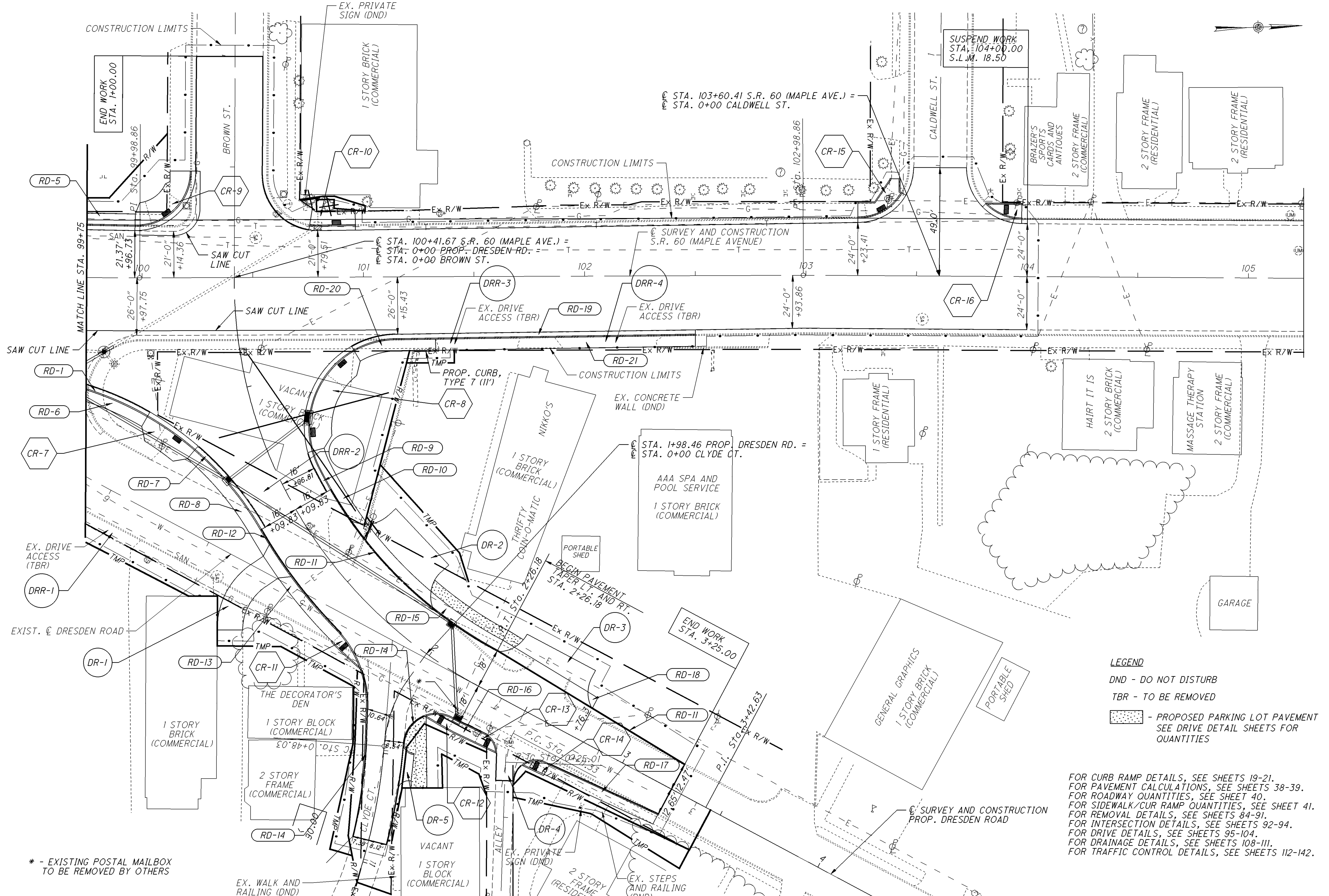
HORIZONTAL SCALE IN FEET (0, 20, 40)

CALCULATED JLS

CHECKED DNM

PLAN SHEET (S.R. 60)(MAPLE AVE.)
STA. 96+05 TO STA. 99+75

MUS-60-18.35



LEGEND

DND - DO NOT DISTURB

TBR - TO BE REMOVED

- PROPOSED PARKING LOT PAVEMENT SEE DRIVE DETAIL SHEETS FOR QUANTITIES

FOR CURB RAMP DETAILS, SEE SHEETS 19-21.
FOR PAVEMENT CALCULATIONS, SEE SHEETS 38-39.
FOR ROADWAY QUANTITIES, SEE SHEET 40.
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FOR INTERSECTION DETAILS, SEE SHEETS 92-94.
FOR DRIVE DETAILS, SEE SHEETS 95-104.
FOR DRAINAGE DETAILS, SEE SHEETS 108-111.
FOR TRAFFIC CONTROL DETAILS, SEE SHEETS 112-142.

HORIZONTAL SCALE IN FEET (0 20 40)

CALCULATED JLS
CHECKED DNM

PLAN SHEET (S.R. 60)(MAPLE AVE.)
STA. 99+75 TO STA. 104+00

MUS-60-18.35

MAPLAV_PPP_02.DGN 2/11/13

LEGEND

DND - DO NOT DISTURB

TBR - TO BE REMOVED

FOR CURB RAMP DETAILS, SEE SHEETS 19-21.
FOR PAVEMENT CALCULATIONS, SEE SHEETS 38-39.
FOR ROADWAY QUANTITIES, SEE SHEET 40.
FOR SIDEWALK/CUR RAMP QUANTITIES, SEE SHEET 41.
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FOR INTERSECTION DETAILS, SEE SHEETS 92-94.
FOR DRIVE DETAILS SEE SHEETS 95-104
FOR DRAINAGE DETAILS, SEE SHEETS 108-111.
FOR TRAFFIC CONTROL DETAILS, SEE SHEETS 112-142.

HUNTINGTON BANK
1 STORY BRICK
(COMMERCIAL)

RESUME WORK
STA. 152+50.00
S.L.M. 19.41

BELL ST.

EX. FIRE HYDRANT (DND)

EX. DRIVE ACCESS (TBR)

DRR-5

CONSTRUCTION LIMITS

CR-19

CR-18

CR-17

RD-22

RD-23

RD-24

24'-0"

24' +39.00

24' +83.00

24' +95.00

24' +55.00

28' +08.93

28' +20.65

PROP. CONCRETE MEDIAN

SAW CUT LINE

PROP. CONCRETE MEDIAN

PT STA. 155+18.04

℄ SURVEY AND CONSTRUCTION
S.R. 60 (MAPLE AVENUE)

MATCH LINE STA. 156+50

℄ STA. 155+36.63 S.R. 60 (MAPLE AVE.) =
℄ STA. 0+00 EX. BELL ST.

DR-6

DR-7

EX. LANDSCAPED AREA (DND)

EX. PRIVATE SIGN (DND)

AMERICAN GENERAL
1 STORY BRICK
(COMMERCIAL)

HEALTH PLEX DRIVE

COMMERCIAL ELECTRIC
1 STORY BLOCK
(COMMERCIAL)

CAPTAIN D's
RESTAURANT
1 STORY BLOCK
(COMMERCIAL)

WALMART DRIVE ENTRANCE

MAPLE BELL CAR WASH
1 STORY BLOCK
(COMMERCIAL)

Ex R/W

152 153 154 155 156

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

PLAN SHEET (S.R. 60)(MAPLE AVE.)
STA. 152+50 TO STA. 156+50

MUS-60-18.35

46
157

MAPLAV_PPP_03.DGN 10/16/12

MEDICAL OFFICES
1 STORY BRICK
(COMMERCIAL)

CONSTRUCTION LIMITS
EX. DRIVE ACESS (TBR)
DRR-6
CURB, TYPE 6
TMP
RD-25
RD-26
RD-27
RD-29
CR-22
CR-20
CR-21
RD-28
RD-30
DRR-7
DRR-8
DRR-9
Ex R/W
R/W
24' +25.00
24' +66.00
24' +45.00
24' +44.56
24' +77.52
28' +04.56
36'-0" +41.37
40.00' +09.18
38.00' +06.17
6.0'
38.00' +76.00
38.00' +75.91
26.25' +76.62
26.25' +22.11
30.25' 481.22
P.C. Sta. 1+13.58
P.C. Sta. 0+79.28
P.C. Sta. 0+95.50
P.T. Sta. 2+72.25
P.T. Sta. 161+06.29
SAW CUT LINE
EX. PRIVATE SIGNS (TBR)
EX. ℄ BETHESDA DRIVE
℄ SURVEY AND CONSTRUCTION PROP. BETHESDA DR.
EX. C.B. (DND)
EX. CONCRETE ISLAND TO BE REMOVED
EX. PRIVATE LIGHT POLE (TO BE RELOCATED)
EX. PRIVATE LIGHT POLE (DND)
EX. WALK (TBR)
EX. PRIVATE SIGN (TBR)
EX. WALK (TBR)
EX. C.B. (TBR)
EX. PRIVATE SIGN (TBR)
EX. CONCRETE (TBR)
EX. POLE (TBR)
EX. DRIVE ACESS (TBR)
EX. DRIVE ACESS (TBR)
EX. TREE (DND)
ROD SMITH INSURANCE CO.
2 STORY FRAME (COMMERCIAL)
PNC BANK
1 STORY BRICK
(COMMERCIAL)
EX. GROUP OF LOCKING MAIL BOXES (DND)
EXIST. ℄ BALLS LANE
EXIST. BALLS LANE
EX. TELEPHONE SUB STATION PROTECTED BY BOLLARDS (DND)
℄ SURVEY AND CONSTRUCTION S.R. 60 (MAPLE AVENUE)
℄ SURVEY AND CONSTRUCTION PROP. BALLS LANE
CONSTRUCTION LIMITS
MATCH LINE STA. 156+50
MATCH LINE STA. 161+50
MATCH LINE STA. 1+50 SEE SHEET 49.
157
158
159
160
161

LEGEND

DND - DO NOT DISTURB

TBR - TO BE REMOVED

- PROPOSED PARKING LOT PAVEMENT SEE DRIVE DETAIL SHEETS FOR QUANTITIES

FOR CURB RAMP DETAILS, SEE SHEETS 19-21.
FOR PAVEMENT CALCULATIONS, SEE SHEETS 38-39.
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FOR DRIVE DETAILS, SEE SHEETS 95-104
FOR DRAINAGE DETAILS, SEE SHEETS 108-111.
FOR TRAFFIC CONTROL DETAILS, SEE SHEETS 112-142.

℄ STA. 160+88.03 S.R. 60 (MAPLE AVE.) =
℄ STA. 0+00.00 PROP. BALLS LANE =
℄ STA. 0+00.00 BETHESDA DRIVE

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

PLAN SHEET (S.R. 60)(MAPLE AVE.)
STA. 156+50 TO STA. 161+50

MUS-60-18.35

47
157

MAPLAY_PPP_04.DGN 2/11/13

END WORK
STA. 164+40.00
S.L.M. 19.64

1 STORY FRAME
(RESIDENTIAL)

1 STORY FRAME
(RESIDENTIAL)

ALLEY

Ex R/W

M/R

E

G

SAN

163

164

165

166

162

MATCH LINE STA. 161+50

26'
+58.41

24'
+60.85

28'
+83.71

RD-30

TMP

EX. CONCRETE
(TBR)

CONSTRUCTION LIMITS

© SURVEY AND CONSTRUCTION
S.R. 60 (MAPLE AVENUE)

Sta. 164+40.44

JAMES ST.

LAW OFFICE/
CHIROPRACTOR

1 STORY BRICK
(COMMERCIAL)

PC Sta. 1+68.42

BOB EVANS

1 STORY BRICK
(COMMERCIAL)

LEGEND

DND - DO NOT DISTURB

TBR - TO BE REMOVED

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FOR ROADWAY QUANTITIES, SEE SHEET 40.
FOR SIDEWALK/CUR RAMP QUANTITIES, SEE SHEET 41.
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FOR INTERSECTION DETAILS, SEE SHEETS 92-94.
FOR DRAINAGE DETAILS, SEE SHEETS 108-111.
FOR TRAFFIC CONTROL DETAILS, SEE SHEETS 112-142.

HORIZONTAL
SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

PLAN SHEET (S.R. 60)(MAPLE AVE.)
STA. 161+50 TO STA. 164+40

MUS-60-18.35

48
157

MAPLAV_PPP_05.DGN 10/17/12

2 STORY BRICK (RESIDENTIAL/COMMERCIAL)

1 STORY FRAME (RESIDENTIAL)

END FULL DEPTH PAVEMENT STA. 5+15.00
BEGIN RESURFACING STA. 5+15.00

END WORK STA. 5+50.00

DR-10

CONSTRUCTION LIMITS

RD-35

EX. MAILBOX (TBR)

EX. FIRE HYDRANT (DND)

RD-34

RD-30

EX. CONCRETE RETAINING WALL (TBR)

EX. MANHOLE ADJUSTED TO GRADE

℄ SURVEY AND CONSTRUCTION PROP. BALLS LANE

℄ SURVEY AND CONSTRUCTION EXIST. BALLS LANE

EX. PRIVATE LIGHT POLE (TBR)

MATCH LINE STA. 1+50 SEE SHEET 47.

1 STORY BRICK RETAIL STORE (COMMERCIAL)

RD-26

DRR-11

DRR-10

℄ STA. 3+80.54 PROP. BALLS LANE =
℄ STA. 3+29.84 EXIST. BALLS LANE =
℄ STA. 3+80.54 PROP. WALMART DRIVE =
℄ STA. 0+00.00 PROP. BANK DR.

PRIVATE SIGN (DND)

DR-8

DR-9

RD-31

RD-32

RD-33

P-1

P-2

PRIVATE LIGHT POLE (TBR)

DR-11

℄ SURVEY AND CONSTRUCTION PROP. WALMART DRIVE

END WORK STA. 5+60.00

DETAILS FOR THE PROPOSED WALMART PARKING LOT, SEE SHEET 100.

LEGEND

DND - DO NOT DISTURB

TBR - TO BE REMOVED

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FOR ROADWAY QUANTITIES, SEE SHEET 40.
FOR SIDEWALK/CUR RAMP QUANTITIES, SEE SHEET 41.
FOR REMOVAL DETAILS, SEE SHEETS 84-91.
FOR INTERSECTION DETAILS, SEE SHEETS 92-94.
FOR DRIVE DETAILS, SEE SHEETS 95-104
FOR DRAINAGE DETAILS, SEE SHEETS 108-111.
FOR TRAFFIC CONTROL DETAILS, SEE SHEETS 111-142.

MATCH LINE STA. 1+50 SEE SHEET 47.

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

PLAN SHEET (PROP. BALLS LANE)
STA. 1+50 TO STA. 5+60.00

MUS-60-18.35

49
157

BALLSLN_PPP_01.DGN 2/11/13

797.15 797.35 797.38 797.24 796.99 796.74

840 835 830 825 820 815 810 805 800 795 790 785 780 775 770 765 760

80.0' V.C.
P.V.I. STA. 0+65.00
ELEV. 797.60
SSD = 545'

END PROFILE
STA. 1+55.47
ELEV. 796.68
(MEET EXISTING)

+1.12 % -1.02 %

BEGIN PROFILE
STA. 0+02.50
ELEV. 796.90

797.33 798.24 797.33 796.72 796.18

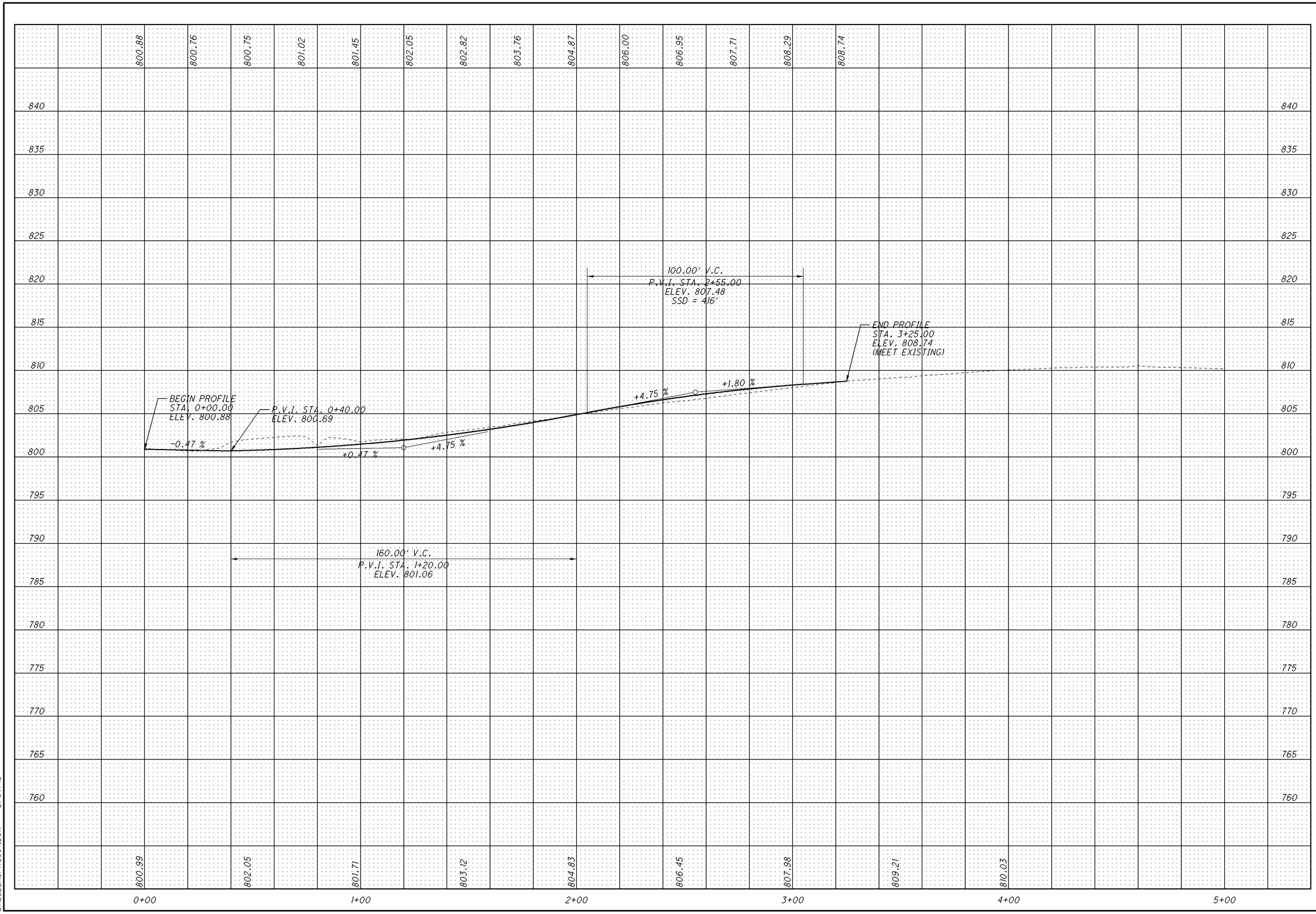
0+00 1+00 2+00

ALLEY_PRO_01.DGN 12/12/12

CALCULATED JLS
CHECKED DNM

PROFILE SHEET (PROP. ALLEY)
STA. 0+00 TO STA. 1+55.47

MUS-60-18.35



DRESDEN_PRO_01.DGN 2-07-13

CALCULATED JLS
CHECKED DNM

PROFILE SHEET (DRESDEN ROAD)
STA. 0+00 TO STA. 3+25

MUS-60-18.35

804.79 804.39 804.58 805.13

840 835 830 825 820 815 810 805 800 795 790 785 780 775 770 765 760

20.00' V.C.
P.V.I. STA. 0+70.00
ELEV. 805.23
SSD = 241'

BEGIN PROFILE
STA. 0+00.00
ELEV. 804.80

END PROFILE
STA. 0+90.00
ELEV. 804.95
(MEET EXISTING)

-1.60 % +3.26 % -1.41 %

20.00' V.C.
P.V.I. STA. 0+38.00
ELEV. 804.19

804.77 805.33 804.82 803.83

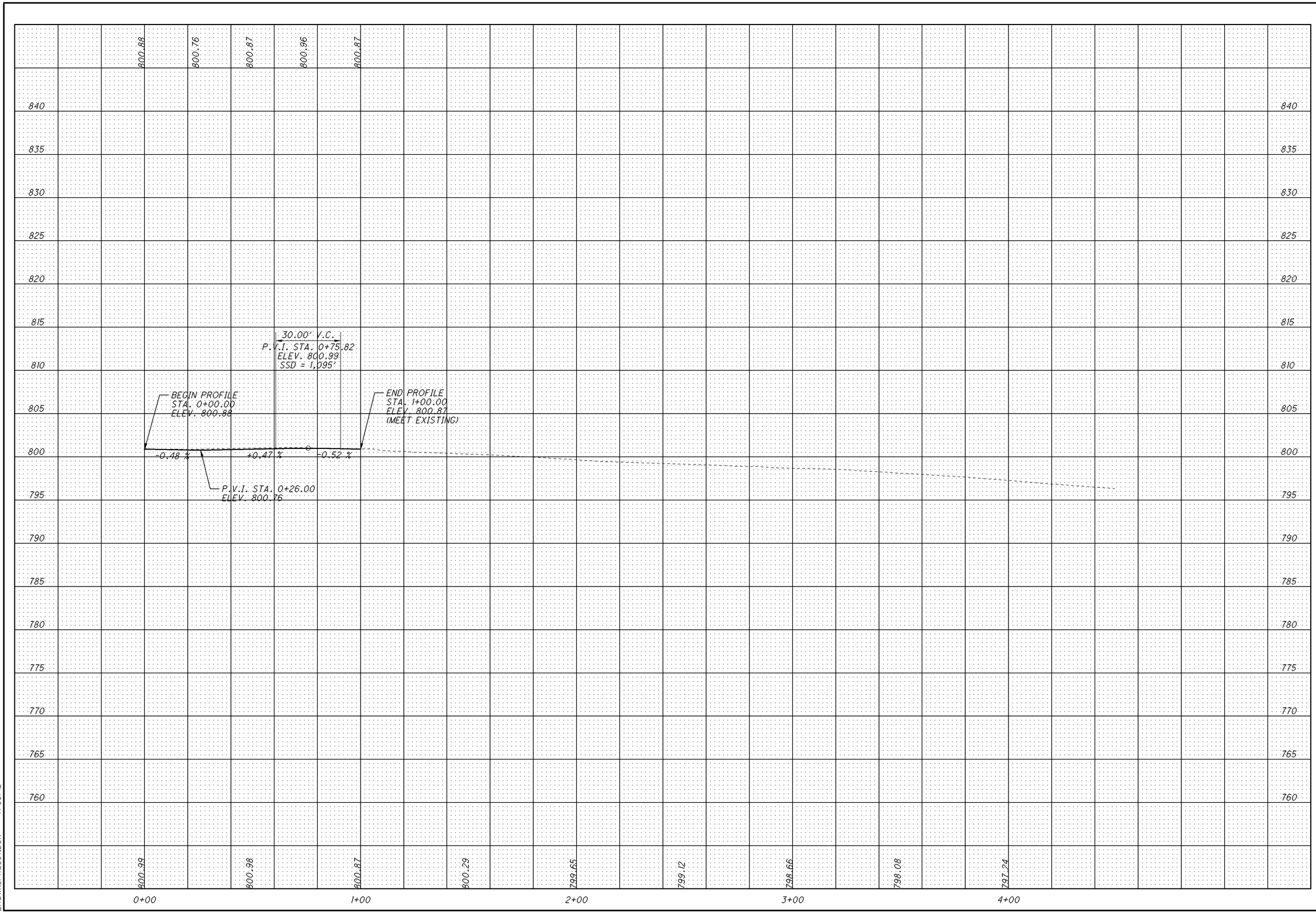
0+00 1+00

CLYDE_PRO_01.DGN 7/09/12

CALCULATED JLS
CHECKED DNM

PROFILE SHEET (CLYDE COURT)
STA. 0+00 TO STA. 0+90

MUS-60-18.35



BROWN_PRO_01.DGN 7/09/12

CALCULATED JLS
CHECKED DNM

PROFILE SHEET (BROWN STREET)
STA. 0+00 TO STA. 1+00

MUS-60-18.35

53
157

783.11 783.58 783.56 783.15 782.74 782.33

820 815 810 805 800 795 790 785 780 775 770 765 760 755 750 745 740

20.00' V.C.
P.V.I. STA. 0+36.00
ELEV. 783.79
SSD = 315'

+1.89 %

-1.64 %

BEGIN PROFILE
STA. 0+00.00
ELEV. 783.11

END PROFILE
STA. 1+35.80
ELEV. 782.15
(MEET EXISTING)

783.02 783.33 782.49 782.07 782.37 783.12 783.93 784.39 785.05

0+00 1+00 2+00 3+00 4+00

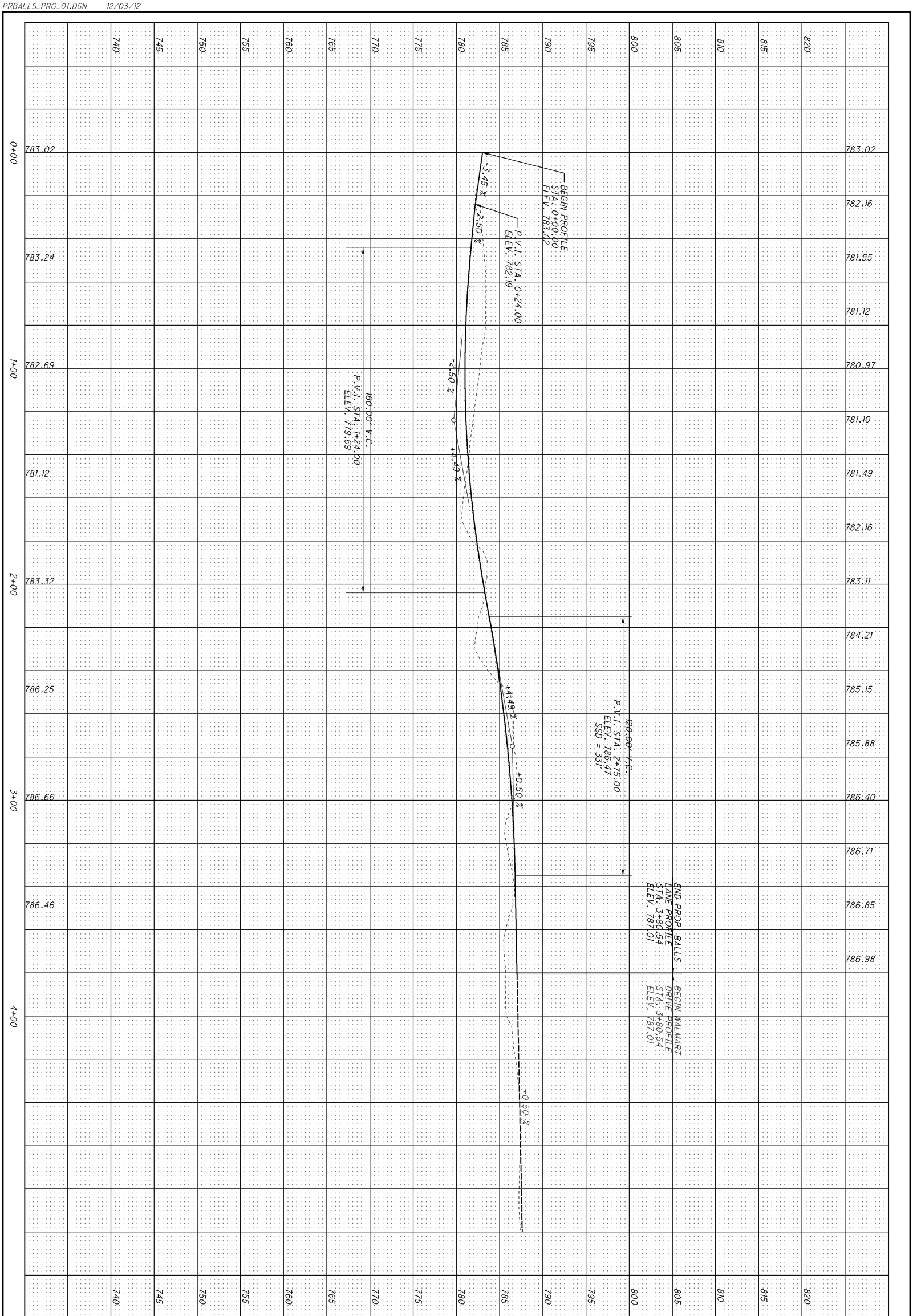
BEHTESDA_PRO_01.DGN 2/07/13

CALCULATED JLS
CHECKED DNM

PROFILE SHEET (BETHESDA DRIVE)
STA. 0+00 TO STA. 1+35.80

MUS-60-18.35

PRBALLS_PRO_01.DGN 12/03/12



55/157

MUS-60-18.35

PROFILE SHEET (PROP. BALLS LANE)
STA. 0+00 TO STA. 3+80.54

CALCULATED JLS
CHECKED DNM

786.26 785.85 785.51 785.28 785.14 785.08

820 815 810 805 800 795 790 785 780 775 770 765 760 755 750 745 740

BEGIN PROFILE
STA. 3+54.32
ELEV. 786.61
@ E/P OF PROP.
BALLS LANE

END PROFILE
STA. 5+00.00
ELEV. 785.08
(MEET EXISTING)

-1.65 %

1.65 %

-0.9 %

90.00' V.C.
P.V.I. STA. 4+39.59
ELEV. 785.20

786.62 785.38 785.01 784.78 785.08 785.55

3+00 4+00 5+00 6+00 7+00 8+00

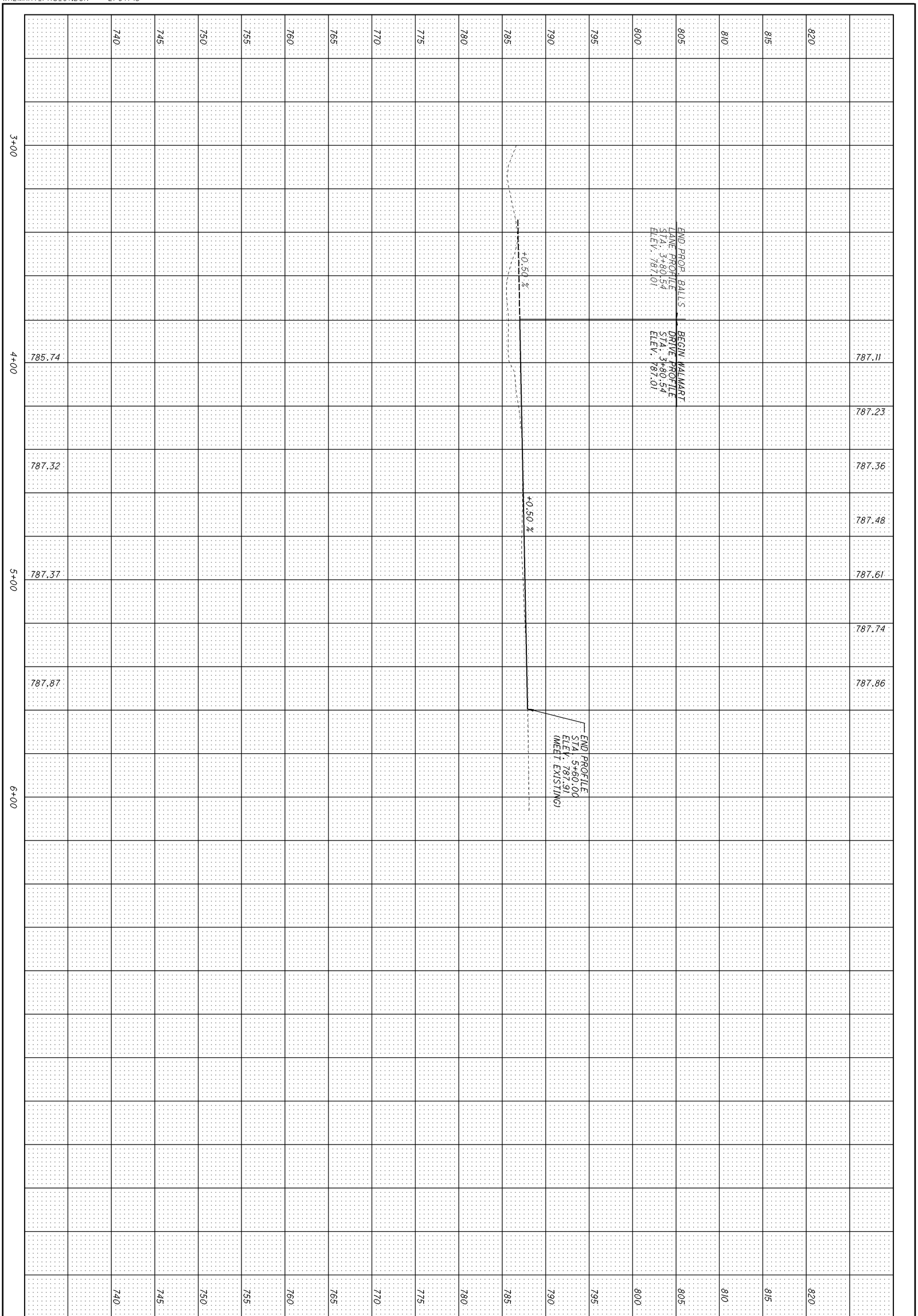
EXBALLS_PRO_01.DGN 2/7/13

CALCULATED JLS
CHECKED DNM

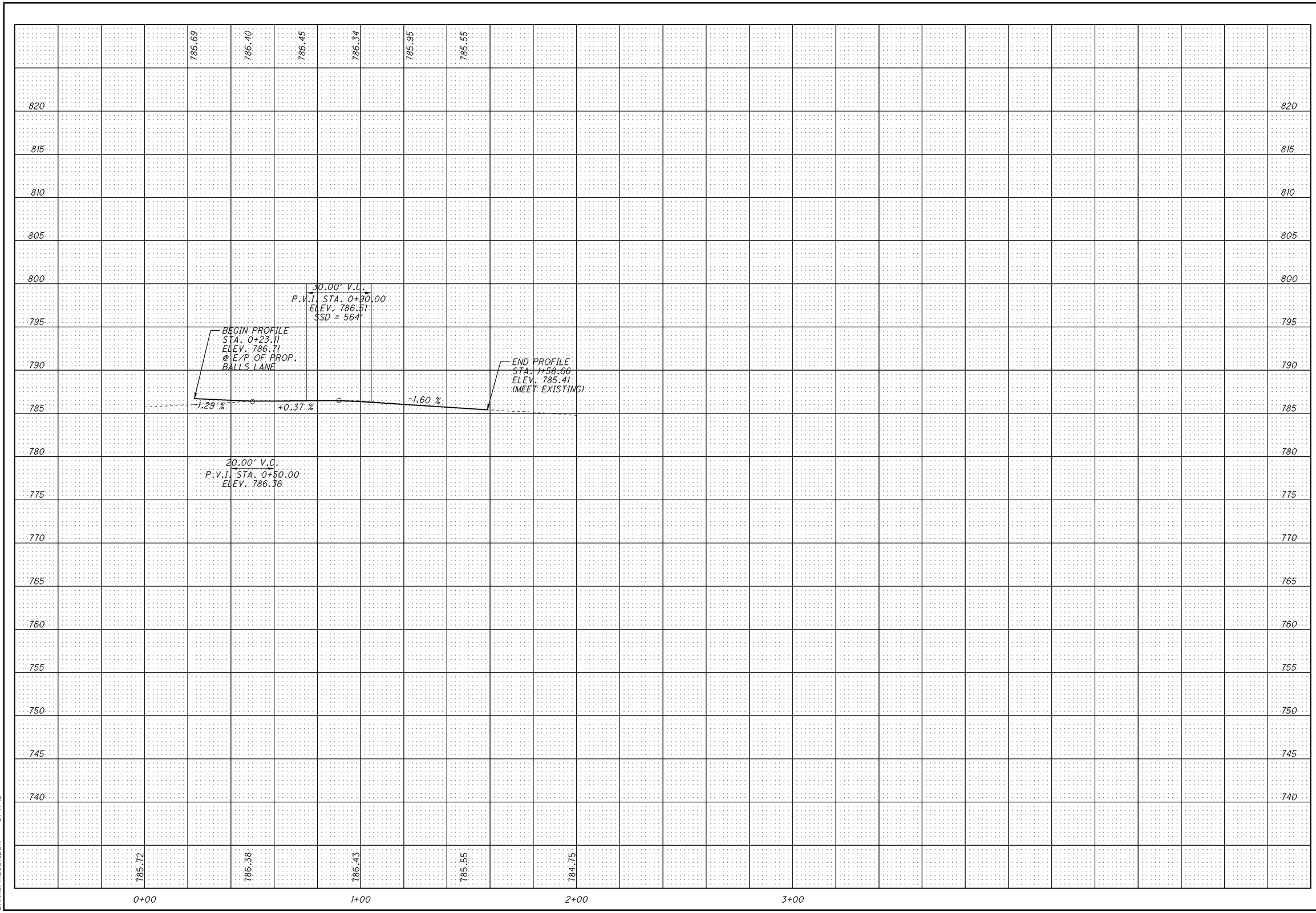
PROFILE SHEET (EXIST. BALLS LANE)
STA. 3+54.32 TO STA. 5+00

MUS-60-18.35

WALMART_PRO_01.DGN 2/07/13



57 / 157	MUS-60-18.35	PROFILE SHEET (WALMART DRIVE) STA. 3+80.54 TO STA. 5+60.00	CALCULATED JLS CHECKED DNM



BANK_PRO_01.DGN 2/7/13

CALCULATED JLS
CHECKED DNM

PROFILE SHEET (PROP. BANK DRIVE)
STA. 0+23.11 TO STA. 1+58.66

MUS-60-18.35

58
157

SEEDING	
END WIDTH	SQ. YDS.
20	56
0	0
0	0

END AREA	
CUT	FILL
2	20
7	0
1	0
1	0

VOLUME	
CUT	FILL
9	19
8	0
1	0
1	0

CALCULATED JLS
CHECKED DNM

CROSS SECTIONS (MAPLE AVE.)(S.R. 60)
STA. 98+00.00 TO STA. 99+00.00

MUS-60-18.35

59
157

SHEET 1 OF 6

MAPLE_PXS.DGN 11/27/12

99+00.00

EX. SH
Ex. Gas
Ex. Telephone
Ex. Telephone
Ex. Water
Ex. San. Sewer
796.97
1.60%
C-2
796.69
F-5
F-15
EX. R/W
EXIST. BUILDING
Ex. Water
Ex. Gas
Ex. San. Sewer
PR. 12" CONDUIT
℄ EL. = 793.02
Ex. Telephone
STA. 99+17.65, 30.43' RT.
EX. CB AND CONDUIT
(TO BE REMOVED)

98+50.00

EXIST. BUILDING
EX. SH
EX. R/W
EXIST. BUILDING
Ex. Gas
Ex. Telephone
Ex. Telephone
Ex. Water
Ex. San. Sewer
796.55
796.26
1.60%
C-7
Ex. Water
Ex. San. Sewer
CATCH BASIN NO. 3A
STA. 98+71.96, 44.0' RT.
℄ GRATE EL. 796.24
℄ EL. 12" (NE) 792.25
℄ EL. 12" (SW) 792.25
25' - 12" CONDUIT,
TYPE B @ -2.27%
CONNECT TO EX. 12"
CONDUIT @ STA. 98+55.54 ±,
AT 26.0' ± RT.
EX. 12" CONDUIT
℄ EL. = 791.51 ±

98+00.00

EX. SH
Ex. Gas
Ex. Telephone
796.42
796.00
VAR.%
C-1
Ex. Water
Ex. San. Sewer
CATCH BASIN NO. 3A
STA. 97+98.58, 43.69' RT.
℄ GRATE EL. 795.78
℄ EL. 12" (SW) 792.08
STA. 98+21.68, 28.0' LT.
EX. CB AND CONDUIT
(TO REMAIN IN PLACE)
Ex. Telephone
Ex. Water

STA. 97+94.51 (AHEAD)

BEGIN PAVEMENT WIDENING RT.
STA. 97+94.51

STA. 97+94.51 (AHEAD)

EX. MANHOLE
STA. 98+22.71, 10.09' LT.
GRATE EL. 796.48
℄ EL. EX. 12" (W) 792.14
℄ EL. PR. 18" (NE) 790.39
℄ EL. EX. 18" (S) 790.39

ITEM 202, PAVEMENT REMOVED, ASPHALT

BEGIN WORK
STA. 96+05.00
S.L.M. 18.35

810
800
790
780

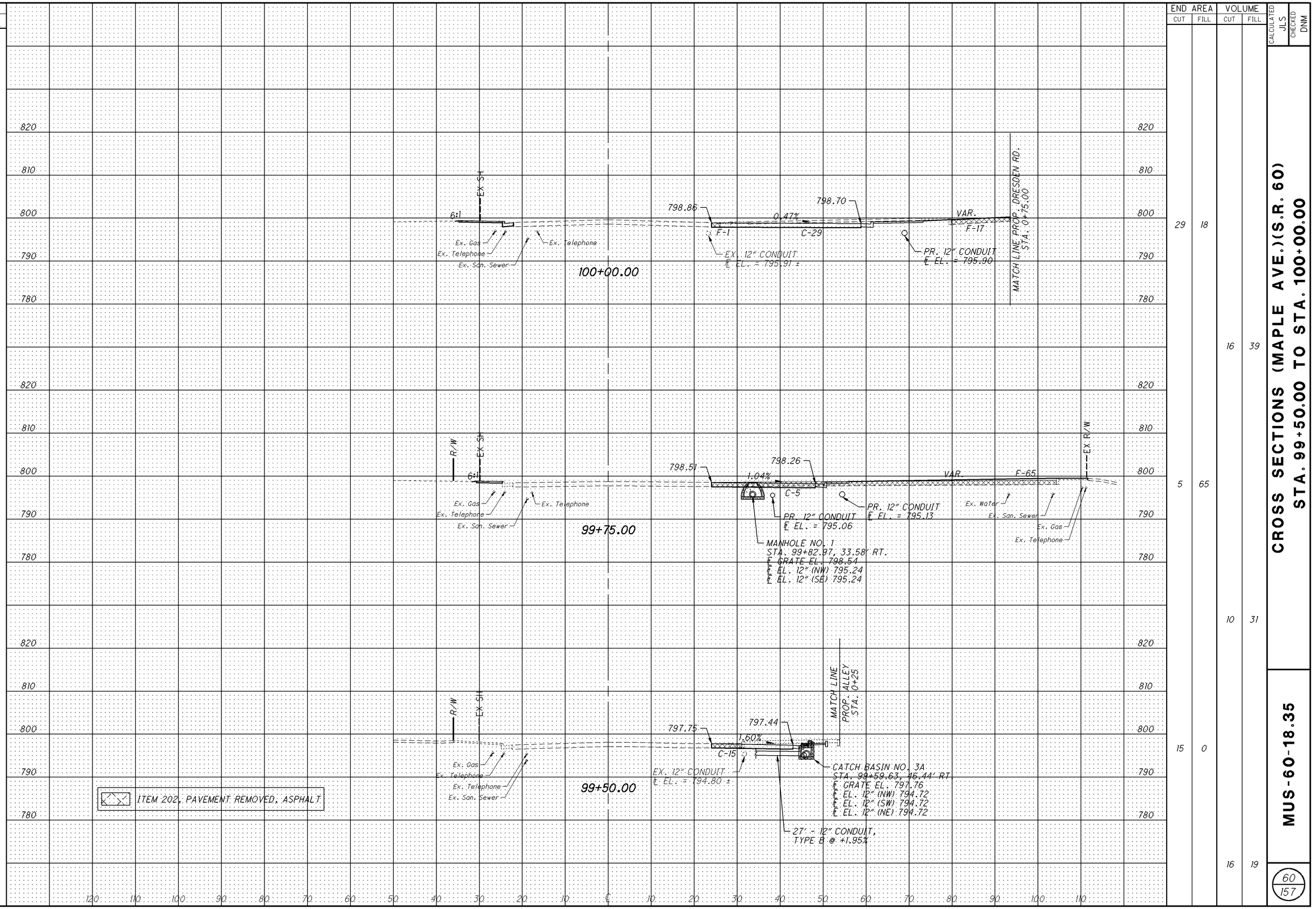
120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110

SEEDING	
END WIDTH	SQ. YDS.
26	121
61	85
0	56

END AREA	
CUT	FILL
29	18
5	65
15	0

VOLUME	
CUT	FILL
16	39
10	31
16	19

CALCULATED JLS
CHECKED DNM



CROSS SECTIONS (MAPLE AVE.)(S.R. 60)
STA. 99+50.00 TO STA. 100+00.00

MUS-60-18.35

60
157

SHEET 2 OF 6
11/27/12
MAPLE_PXS.DGN

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
10	18	14	3	9	2
10		14	3		
0	28	47	0	57	3
	73			71	17

CALCULATED JLS
CHECKED DNM

SUSPEND WORK
STA. 104+00.00
S.L.M. 18.50

SUSPEND PAVEMENT WIDENING RT.
STA. 101+15.43

STA. 101+15.43 (BACK)

STA. 101+15.43 (BACK)

EXIST. BUILDING

EX SH

802.65

802.50

1.04%

VAR.

F-1

C-14

F-2

EXIST. BUILDING

MATCH LINE PROP. DRESDEN RD.
STA. 0+75.00

Ex. Gas
Ex. Telephone

Ex. Telephone

101+00.00

STA. 100+79.56, 23.47' LT.
EX. CB AND CONDUIT
(TO REMAIN IN PLACE)

EX SH

800.92

0.47%

C-47

EXIST. BUILDING

MATCH LINE PROP. DRESDEN RD.
STA. 0+75.00

Ex. Gas
Ex. Telephone
Ex. San. Sewer
Ex. Telephone

100+50.00

ITEM 202, PAVEMENT REMOVED, ASPHALT

EX. 12" CONDUIT
E. EL. = 797.80 ±

820
810
800
790
780

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

CROSS SECTIONS (MAPLE AVE.)(S.R. 60)
STA. 100+50.00 TO STA. 101+00.00

MUS-60-18.35

61
157

SHEET 3 OF 6

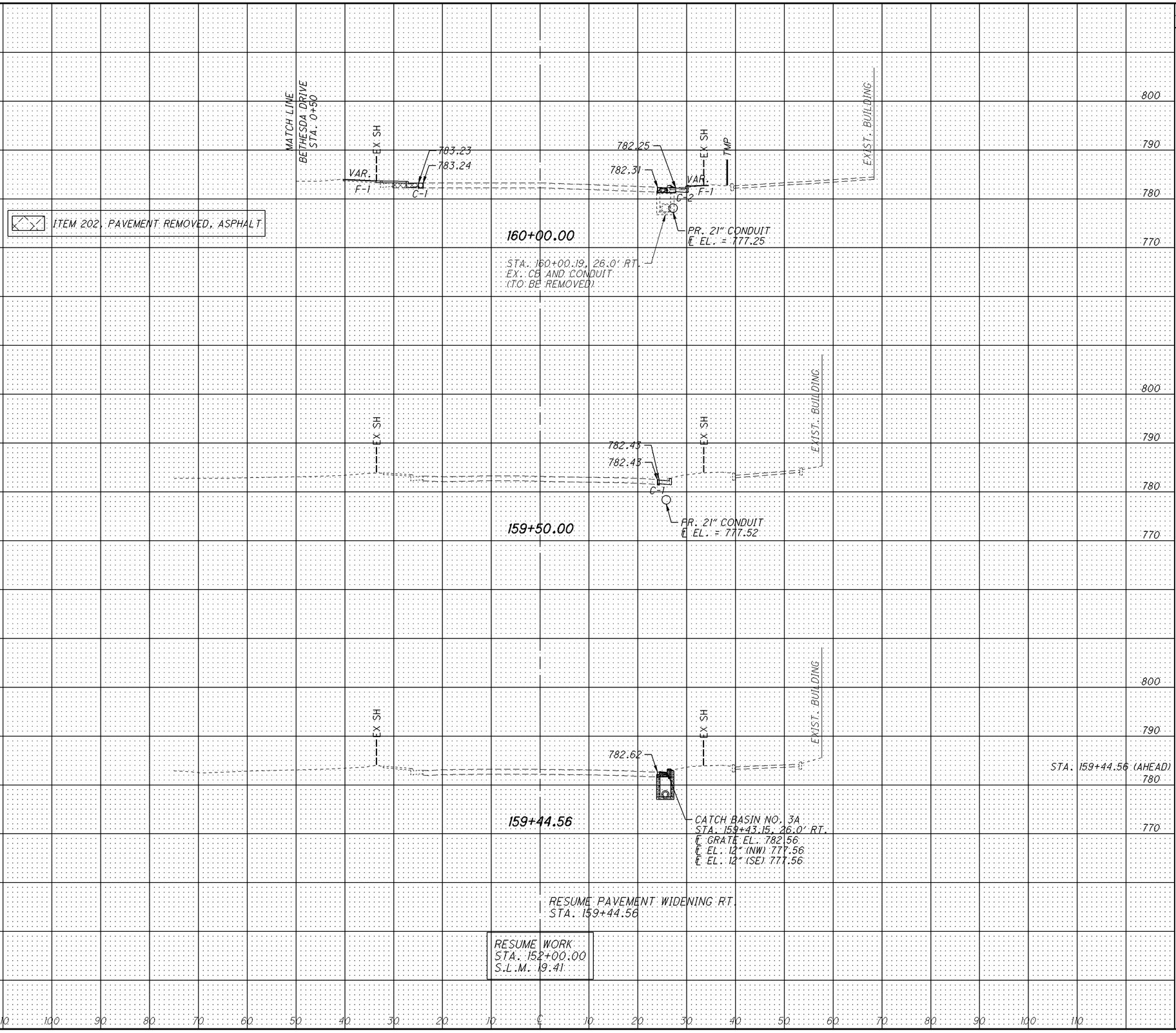
MAPLE_PXS.DGN 11/27/12

SEEDING	
END WIDTH	SQ. YDS.
21	59
0	0
0	0

END AREA	
CUT	FILL
3	2
1	0
0	0

VOLUME	
CUT	FILL
4	2
1	0
0	0

CALCULATED JLS
CHECKED DNM



CROSS SECTIONS (MAPLE AVE.)(S.R. 60)
STA. 159+44.56 TO STA. 160+00.00

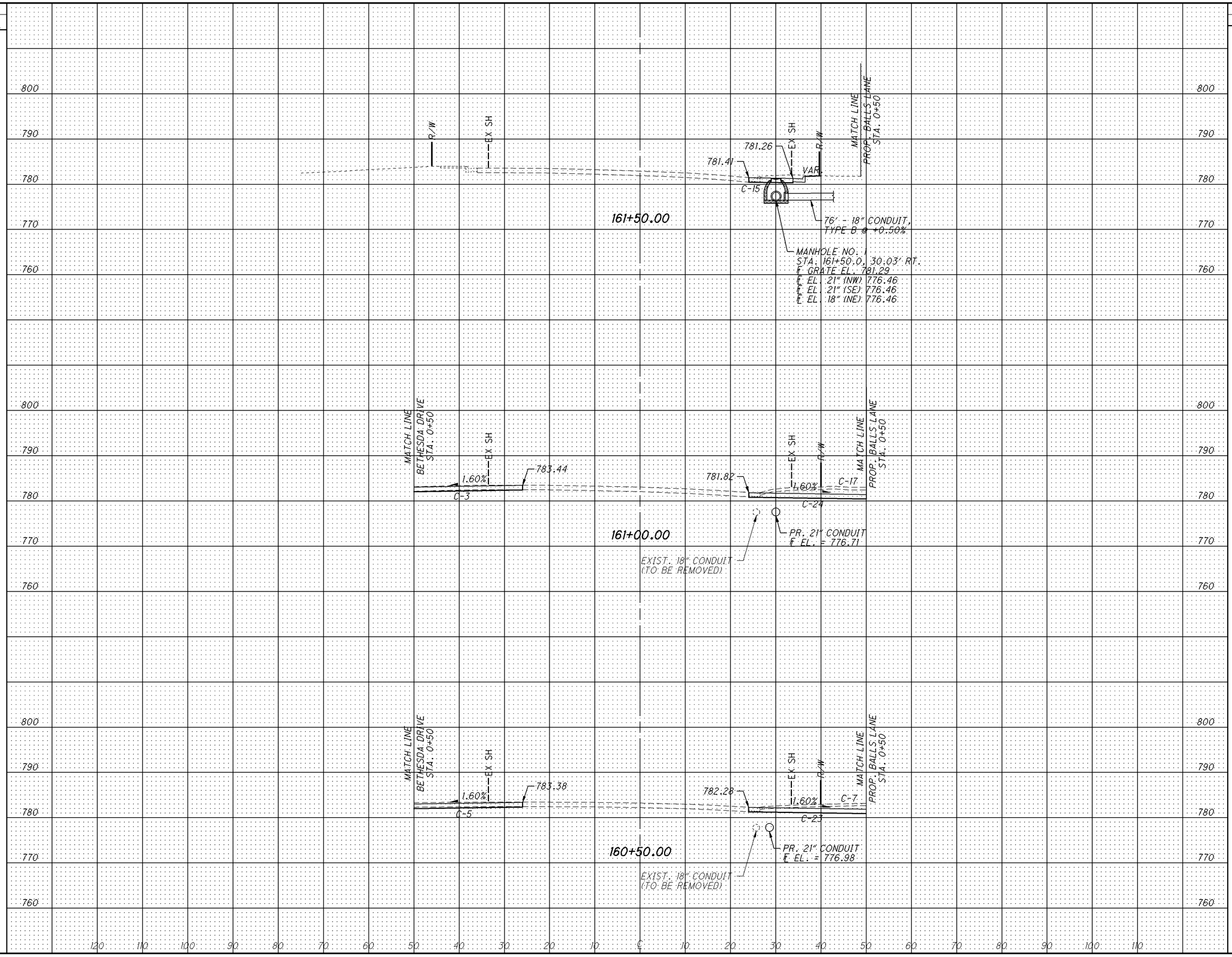
MUS-60-18.35

62
157

SHEET 4 OF 6

MAPLE_PXS.DGN 11/27/12

SEEDING	
END WIDTH	SQ. YDS.
9	25
0	0
0	59



END AREA	
CUT	FILL
15	0
44	0
35	0
36	2

VOLUME	
CUT	FILL
55	0
74	0

CALCULATED JLS
CHECKED DNM

CROSS SECTIONS (MAPLE AVE.)(S.R. 60)
STA. 160+50.00 TO STA. 161+50.00

MUS-60-18.35

63
157

SHEET 5 OF 6

MAPLE_PXS.DGN 11/27/12

SEEDING END WIDTH	SEEDING SQ. YDS.	
		END WORK STA. 164+40.00 S.L.M. 19.64
	694	TOTAL (CARRIED TO SHEET 82)
		SUSPEND PAVEMENT WIDENING RT. STA. 162+60.85
13		STA. 162+60.85 (BACK)
	14	162+60.85
9		162+50.00
	50	
9		162+00.00
	50	

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	
				TOTALS (CARRIED TO SHEET 82)
0	2			STA. 162+60.85 (BACK)
		1	1	
1	1			
		7	1	
6	0			
		20	0	

CALCULATED JLS
CHECKED DNM

CROSS SECTIONS (MAPLE AVE.)(S.R. 60) STA. 162+00.00 TO STA. 162+60.85

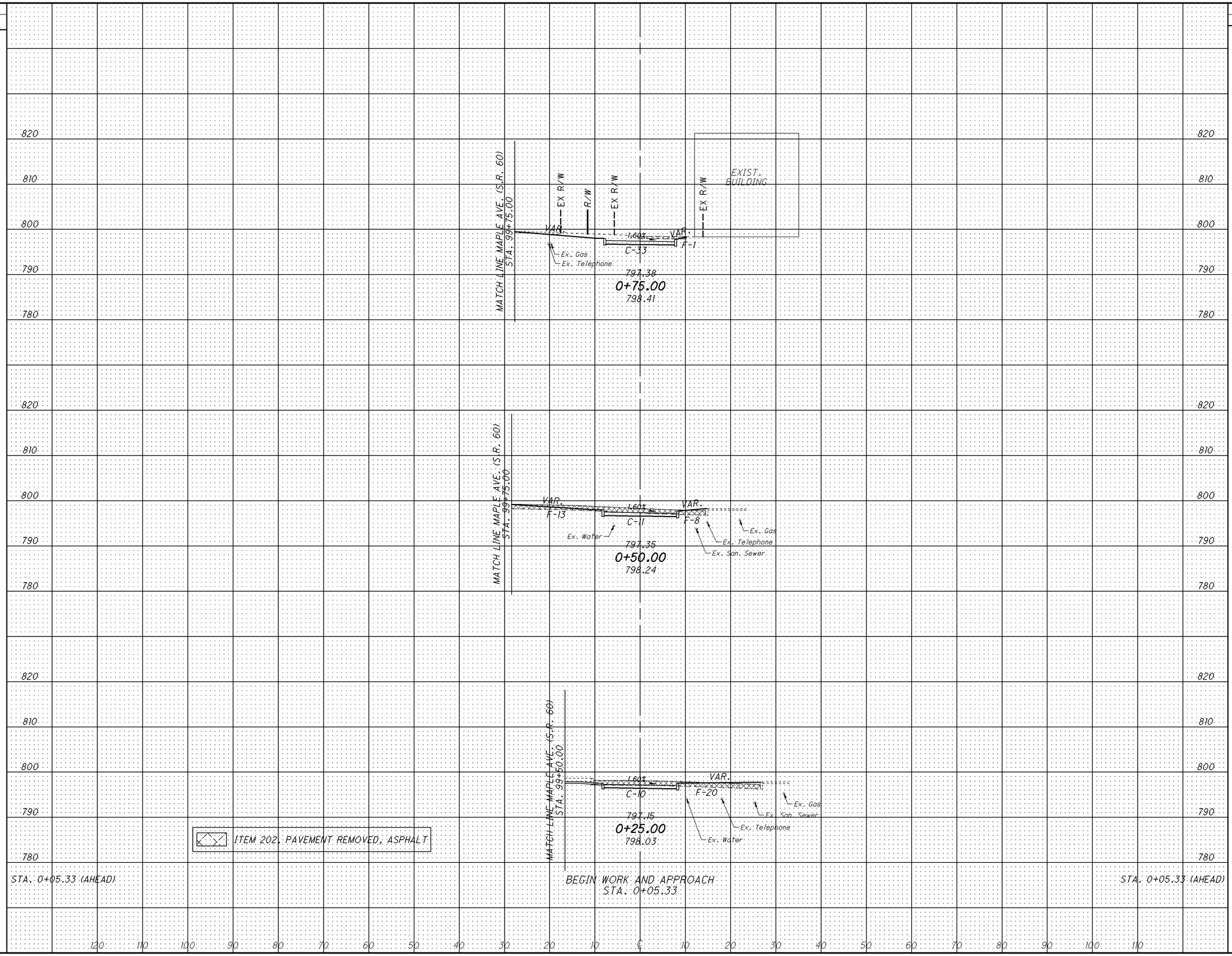
MUS-60-18.35

64
157

SHEET 6 OF 6

MAPLE_PXS.DGN 11/27/12

SEEDING	
END WIDTH	SQ. YDS.
32	96
37	85
24	53
24	



END AREA	
CUT	FILL
33	1
11	21
10	20
10	20

VOLUME	
CUT	FILL
21	11
10	19
8	15

CALCULATED JLS
CHECKED DNM

CROSS SECTIONS (PROP. ALLEY)
STA. 0+25.00 TO STA. 0+75.00

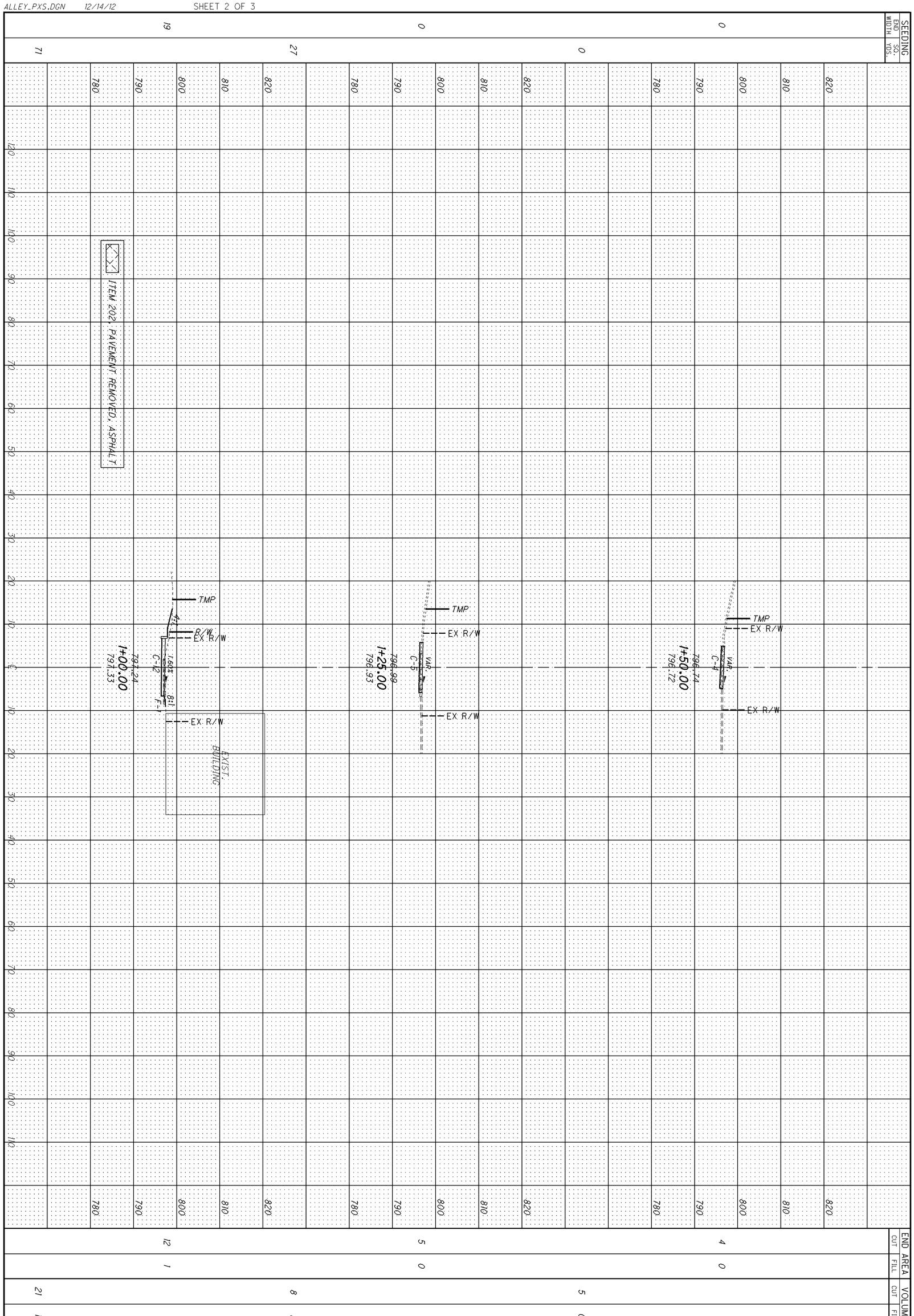
MUS-60-18.35

65
157

SHEET 1 OF 3

ALLEY-PXS.DGN 12/14/12

ALLEY_PXS.DGN 12/14/12 SHEET 2 OF 3



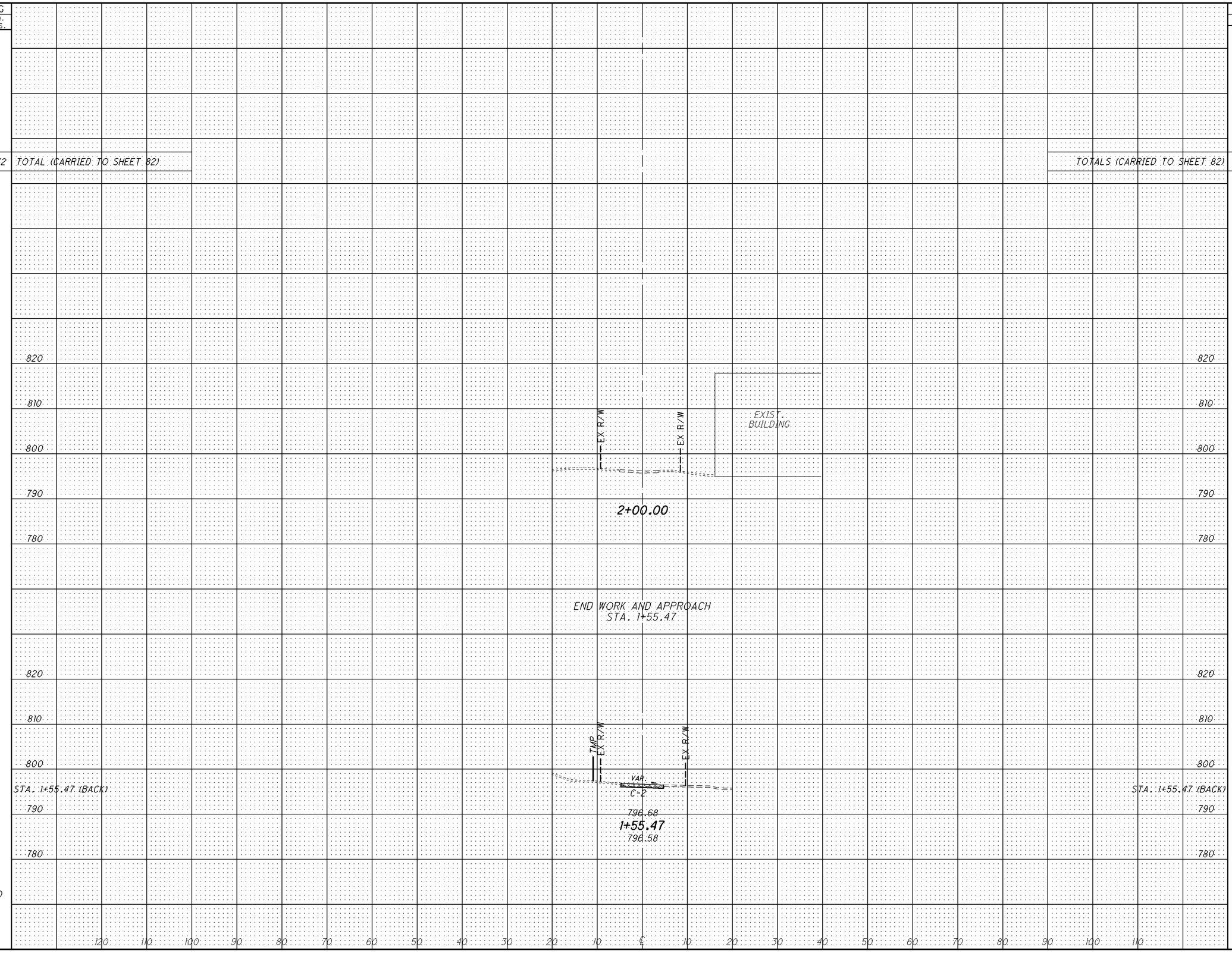
MUS-60-18.35

CROSS SECTIONS (PROP. ALLEY)
STA. 1+00.00 TO STA. 1+50.00

CALCULATED JLS
CHECKED DNM

66
157

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	332	TOTAL (CARRIED TO SHEET 82)			74	47
		TOTALS (CARRIED TO SHEET 82)				
0		STA. 1+55.47 (BACK)	2	0		
	0				1	0



CALCULATED JLS
CHECKED DNM

CROSS SECTIONS (PROP. ALLEY)
STA. 1+55.47 TO STA. 2+00.00

MUS-60-18.35

67
157

SHEET 3 OF 3

ALLEY-PXS.DGN 12/14/12

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
19	242	44	9	106	50
68	196	70	45	81	43
73	414	103	46	195	87
73		103	46		

CALCULATED JLS
CHECKED DNM

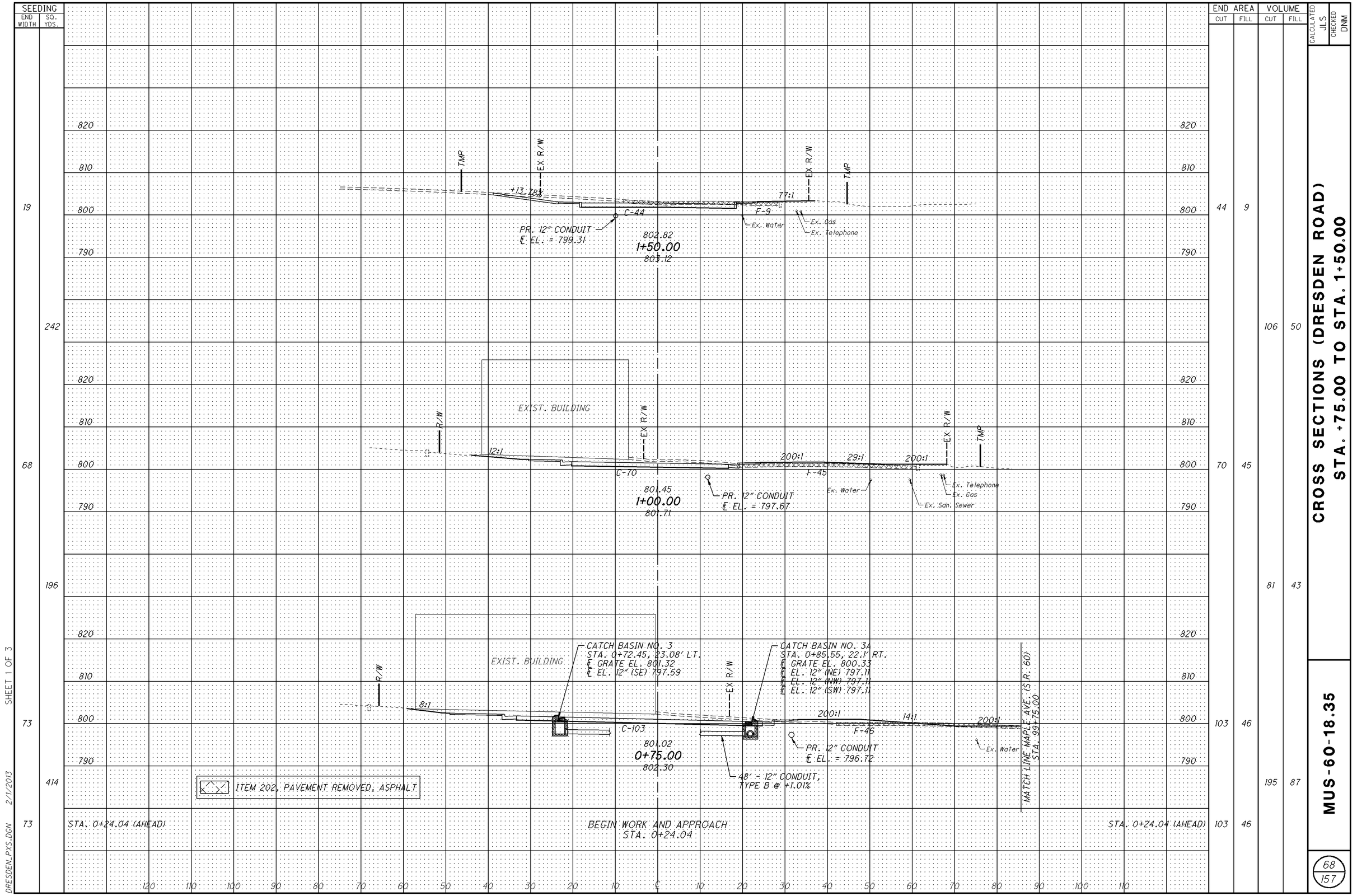
CROSS SECTIONS (DRESDEN ROAD)
STA. +75.00 TO STA. 1+50.00

MUS-60-18.35

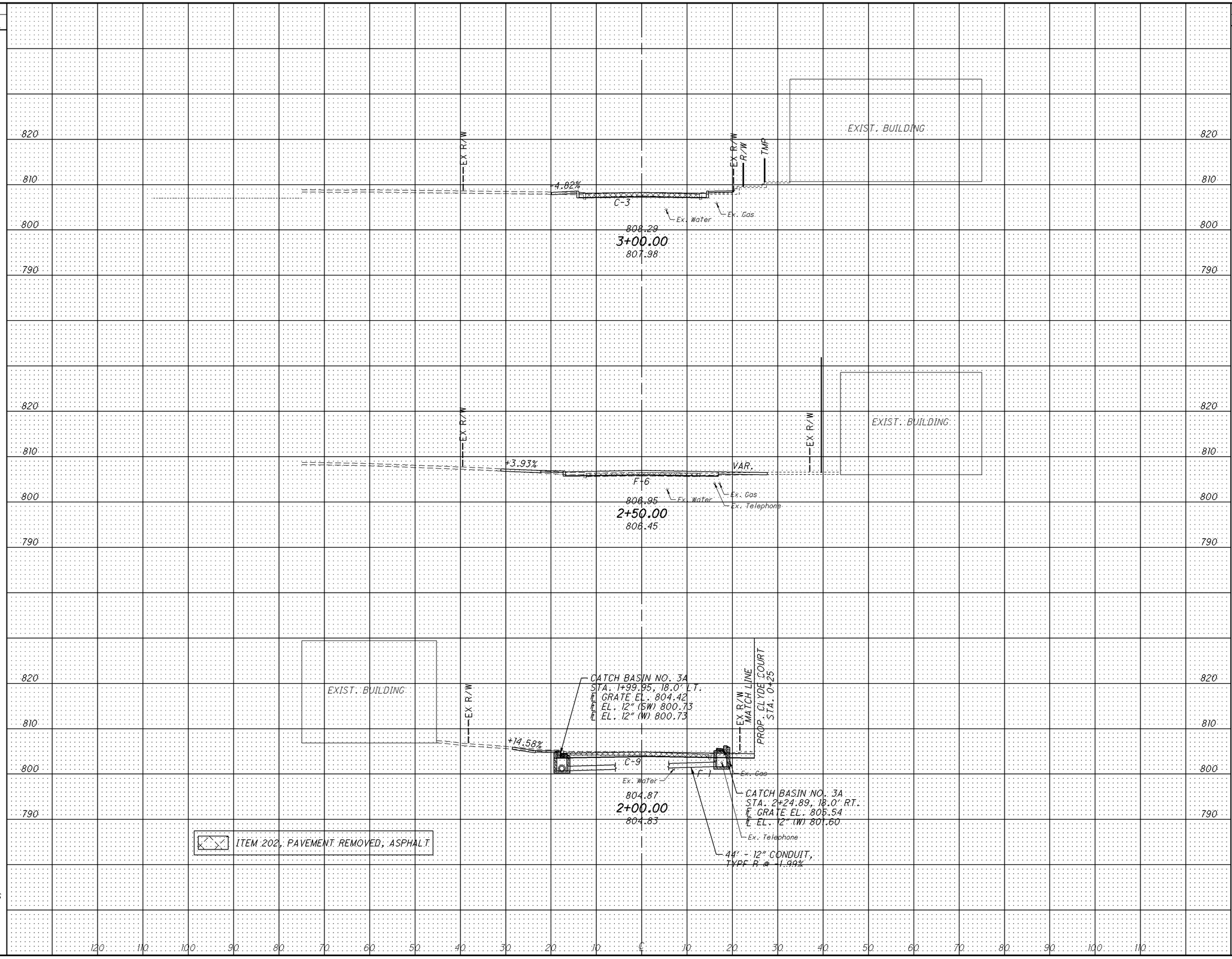
68
157

SHEET 1 OF 3

DRESDEN_PXS.DGN 2/1/2013



SEEDING	
END WIDTH	SQ. YDS.
0	0
0	53
19	106



END AREA		VOLUME	
CUT	FILL	CUT	FILL
3	0		
		3	6
0	6		
		9	7
9	1		
		50	10

CALCULATED JLS
CHECKED DNM

CROSS SECTIONS (DRESDEN ROAD)
STA. 2+00.00 TO STA. 3+00.00

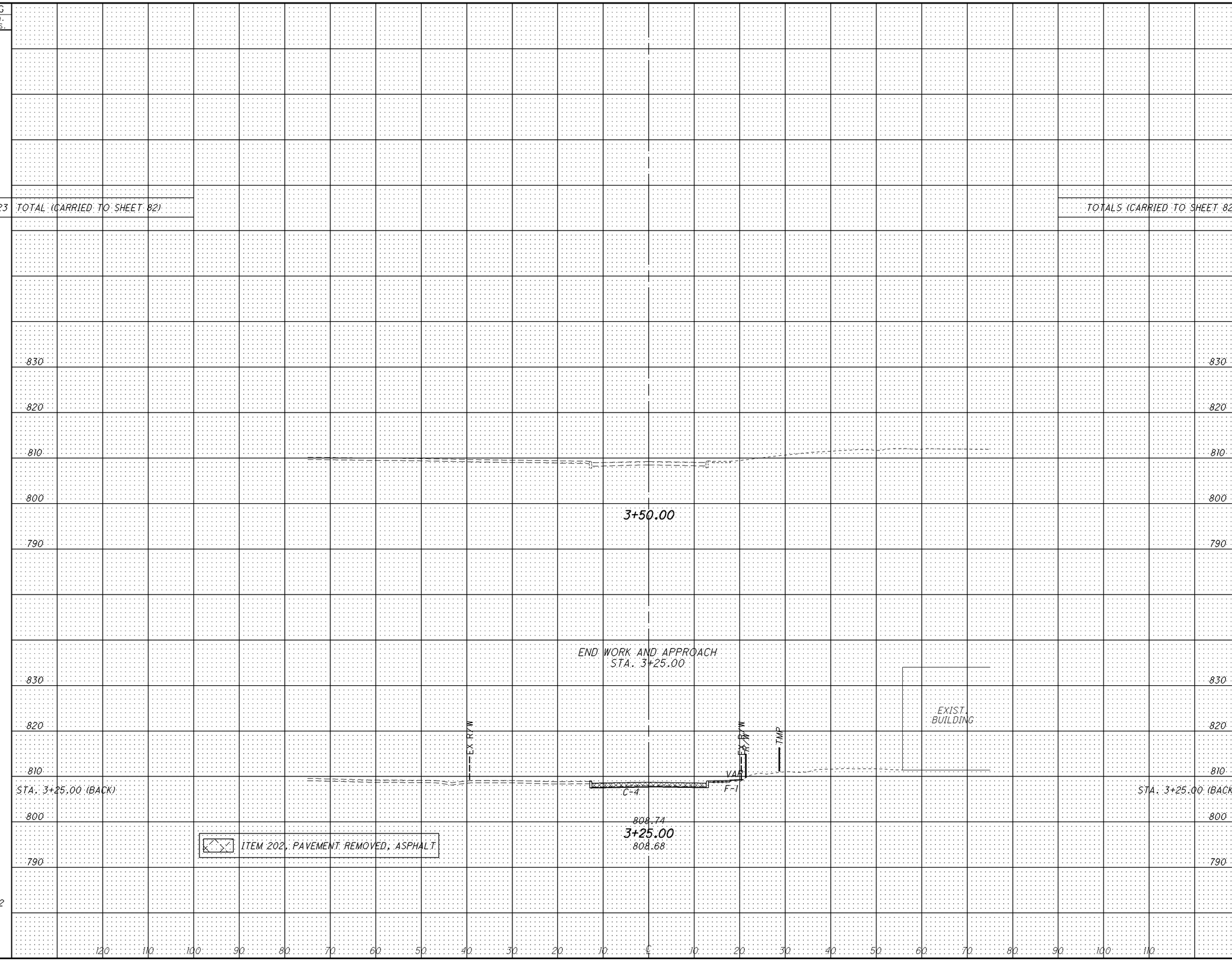
MUS-60-18.35

69
157

SHEET 2 OF 3

DRESDEN_PXS.DGN 2/1/2013

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	1023	TOTAL (CARRIED TO SHEET 82)			448	204
		TOTALS (CARRIED TO SHEET 82)				



8				4	1	
12				4	1	

CALCULATED JLS
CHECKED DNM

CROSS SECTIONS (DRESDEN ROAD)
STA. 3+45.00 TO STA. 3+50.00

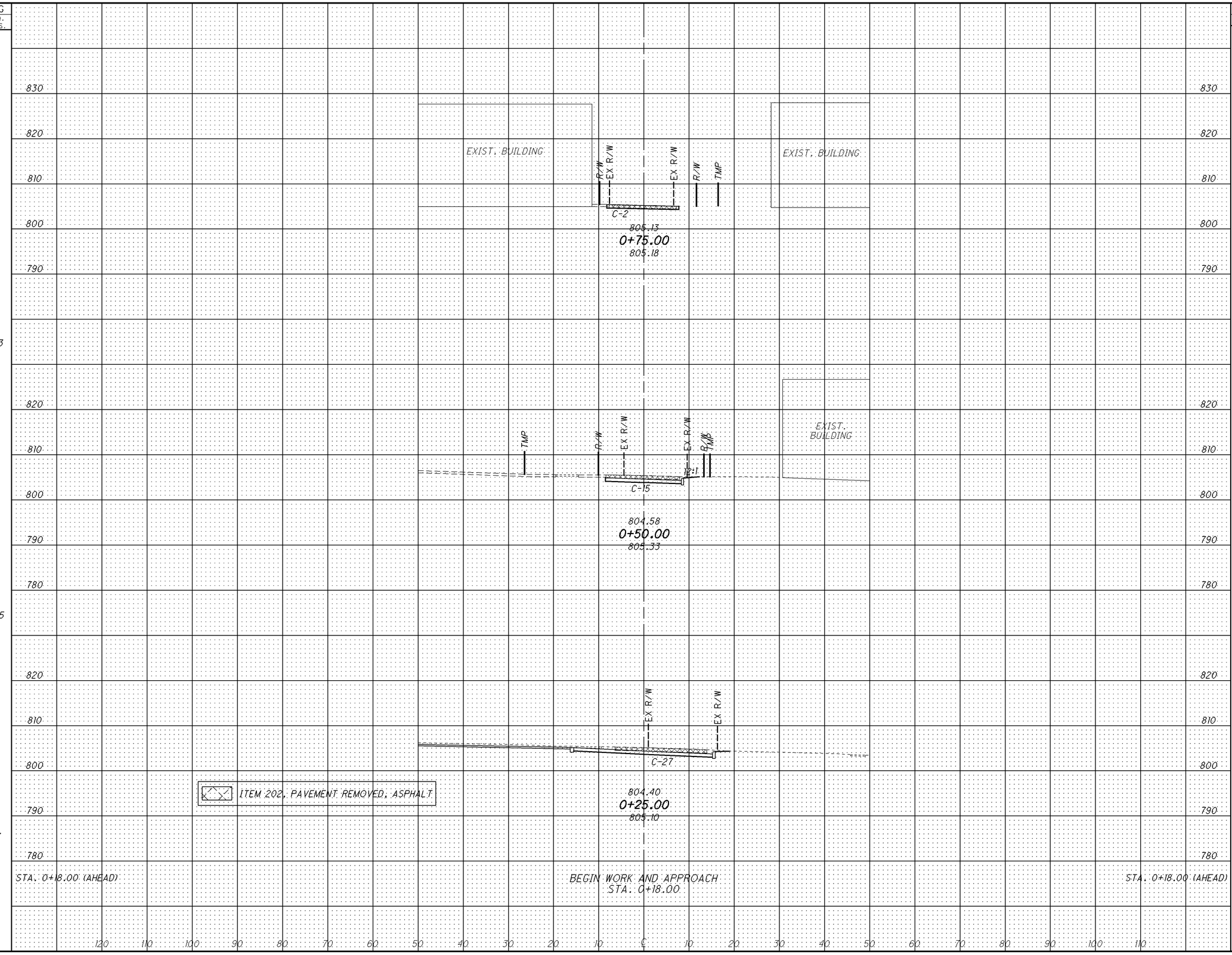
MUS-60-18.35

70
157

SHEET 3 OF 3

DRESDEN_PXS.DGN 2/1/2013

SEEDING	
END WIDTH	SQ. YDS.
0	13
9	7
9	25
9	9
9	STA. 0+18.00 (AHEAD)



END AREA	
CUT	FILL
2	0
15	0
27	0
27	0

VOLUME	
CUT	FILL
8	0
20	0
7	0

CALCULATED JLS
CHECKED DNM

CROSS SECTIONS (CLYDE COURT) STA. 0+25.00 TO STA. 0+75.00

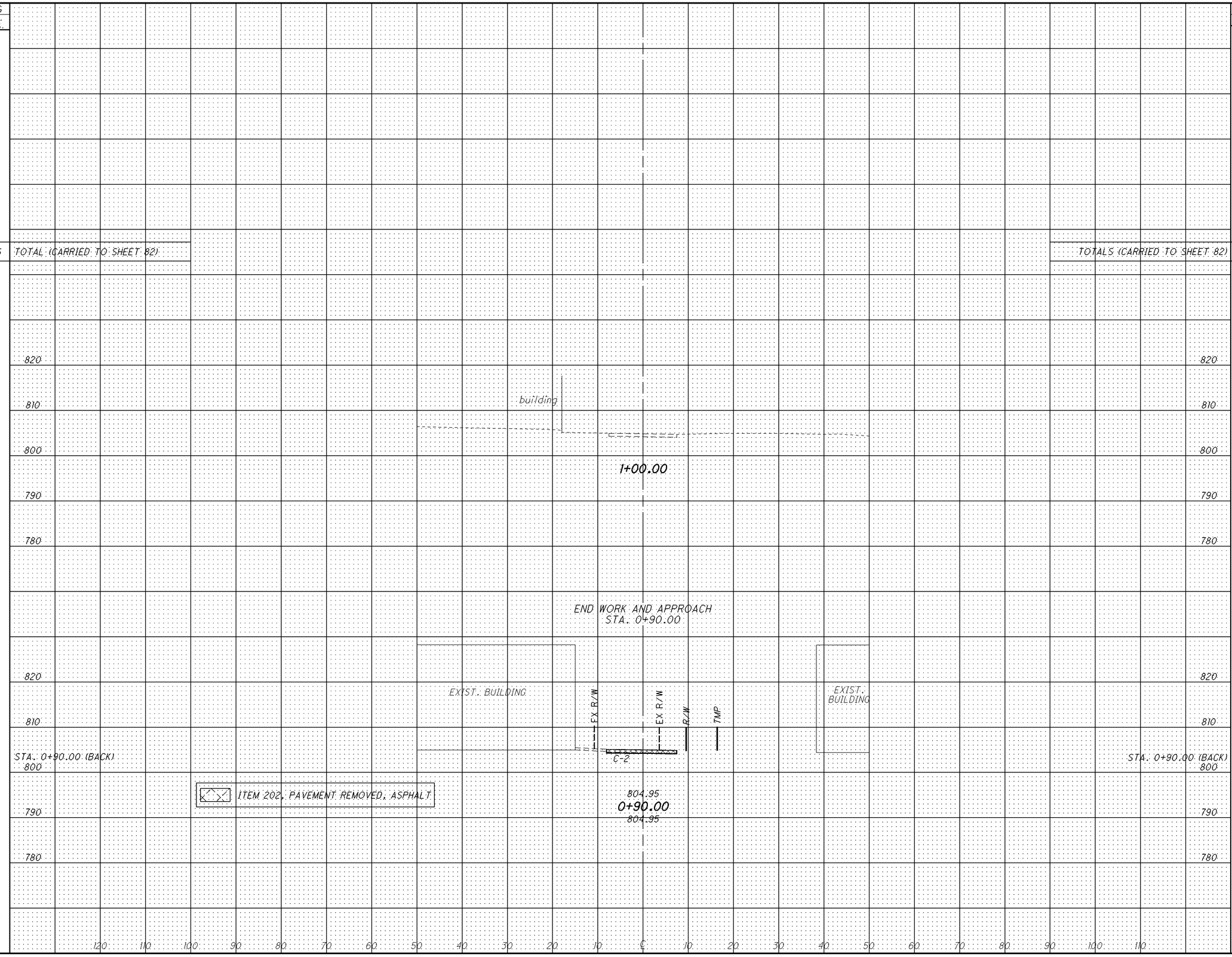
MUS-60-18.35

71
157

SHEET 1 OF 2

CLYDE_PXS.DGN 11/28/12

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	45	TOTAL (CARRIED TO SHEET 82)			37	0
	0	STA. 0+90.00 (BACK)	2	0		
	0				2	0



CALCULATED JLS
CHECKED DNM

CROSS SECTIONS (CLYDE COURT)
STA. 0+90.00 TO STA. 1+00.00

MUS-60-18.35

72
157

SHEET 2 OF 2

CLYDE_PXS.DGN 11/28/12

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
34	136	33	1 8(TS)	74	15 11(TS)
34		78	21 8(TS)		
37	198	109	71 8(TS)		
37	107	39	55 0(TS)	38	53 0(TS)
37		39	55 0(TS)		

CALCULATED JLS
CHECKED DNM

STA. 1+35.80 (BACK)

END FULL DEPTH PAVEMENT
STA. 1+35.80

STA. 1+35.80 (BACK)

800
790
780
770
760

TMP

VAR.

F-1 F-14 C-51 TS-8 F-6 C-27

VAR.

TMP

STA. 1+35.93, 100.1' LT.
EX. CB AND CONDUIT
(DO NOT DISTURB)

782.74
1+00.00
782.49

STA. 1+32.54, 50.8' RT.
EX. CB
(TO BE REMOVED)

CATCH BASIN NO. 3A, APP
STA. 1+31.62, 51.19' RT.
℄ GRATE EL. 781.84
℄ UNKNOWN

800
790
780
770
760

MATCH LINE MAPLE AVE. (S.R. 60)
STA. 160+00.00

VAR.

F-39 C-29 F-13 C-10 F-3

VAR.

R/W

MATCH LINE MAPLE AVE. (S.R. 60)
STA. 161+50.00

783.56
0+50.00
783.33

ITEM 202, PAVEMENT REMOVED, ASPHALT

STA. 0+24.00 (AHEAD)

BEGIN WORK AND APPROACH
STA. 0+24.00

STA. 0+24.00 (AHEAD)

TS = ITEM 653, TOPSOIL
FURNISHED AND PLACED (18")

120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110

CROSS SECTIONS (BETHESDA DRIVE)
STA. 0+50.00 TO STA. 1+00.00

MUS-60-18.35

73
157

SHEET 1 OF 2

1/14/13

BETHESDA_PXS.DGN

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	441	TOTAL (CARRIED TO SHEET 82)			254	139
						32
0		STA. 2+40.52	13	0 0(TS)		
	0				20	0 0(TS)
0			13	0 0(TS)		
	0				13	0 8(TS)
0			0	0 8(TS)		
	0				0	0 5(TS)
0		STA. 1+35.80 (AHEAD)	0	0 8(TS)		

TOTALS (CARRIED TO SHEET 82)

800
790
780
770
760

2+50.00

END WORK AND APPROACH
STA. 2+40.52

STA. 2+40.52

800
790
780
770
760

C-13

CATCH BASIN NO. 6, APP
STA. 1+77.48, 21.16' LT.
℄ GRATE EL. 781.42
℄ EL. 8" (SE) 779.00

2+00.00

STA. 1+77.46, 20.99' LT.
EX. CB (TO BE REMOVED)

STA. 1+76.78, 0.54' LT.
EX. CB AND CONDUIT
(DO NOT DISTURB)

800
790
780
770
760

TS-8

1+50.00

ITEM 202, PAVEMENT REMOVED, ASPHALT

TS = ITEM 653, TOPSOIL
FURNISHED AND PLACED (18")

800
790
780
770
760

STA. 1+35.80

STA. 1+35.80 (AHEAD)

120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110

CALCULATED JLS
CHECKED DNM

CROSS SECTIONS (BETHESDA DRIVE)
STA. 1+50.00 TO STA. 2+50.00

MUS-60-18.35

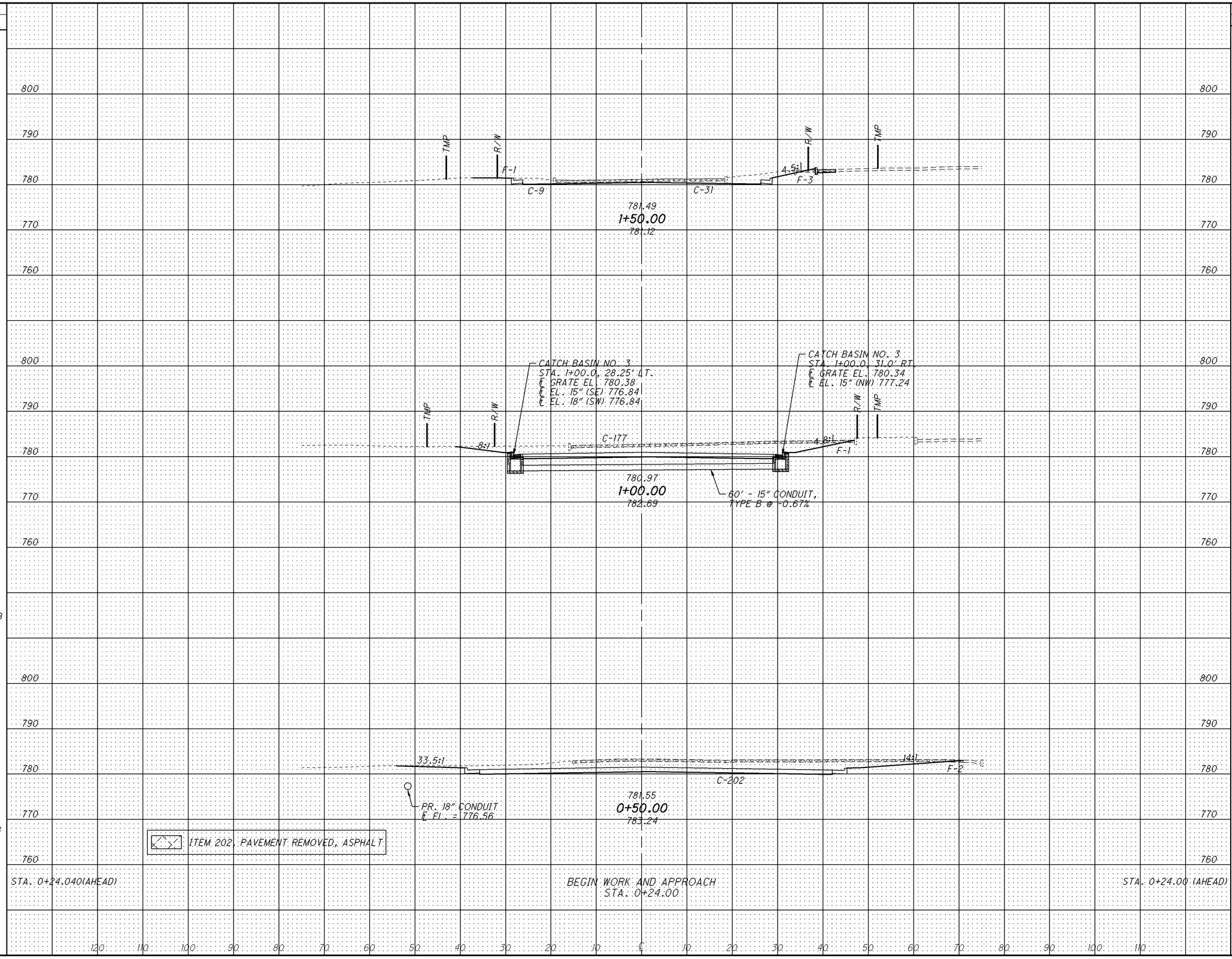
74
157

SHEET 2 OF 2

1/14/13

BETHESDA_PXS.DGN

SEEDING END WIDTH	SEEDING SQ. YDS.
29	187
38	248
51	148
51	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
40	4		
177	1		
202	2		
202	2		
		201	5
		351	3
		195	2

CALCULATED JLS
CHECKED DNM

CROSS SECTIONS (PROP. BALLS LANE)
STA. +50.00 TO STA. 1+50.00

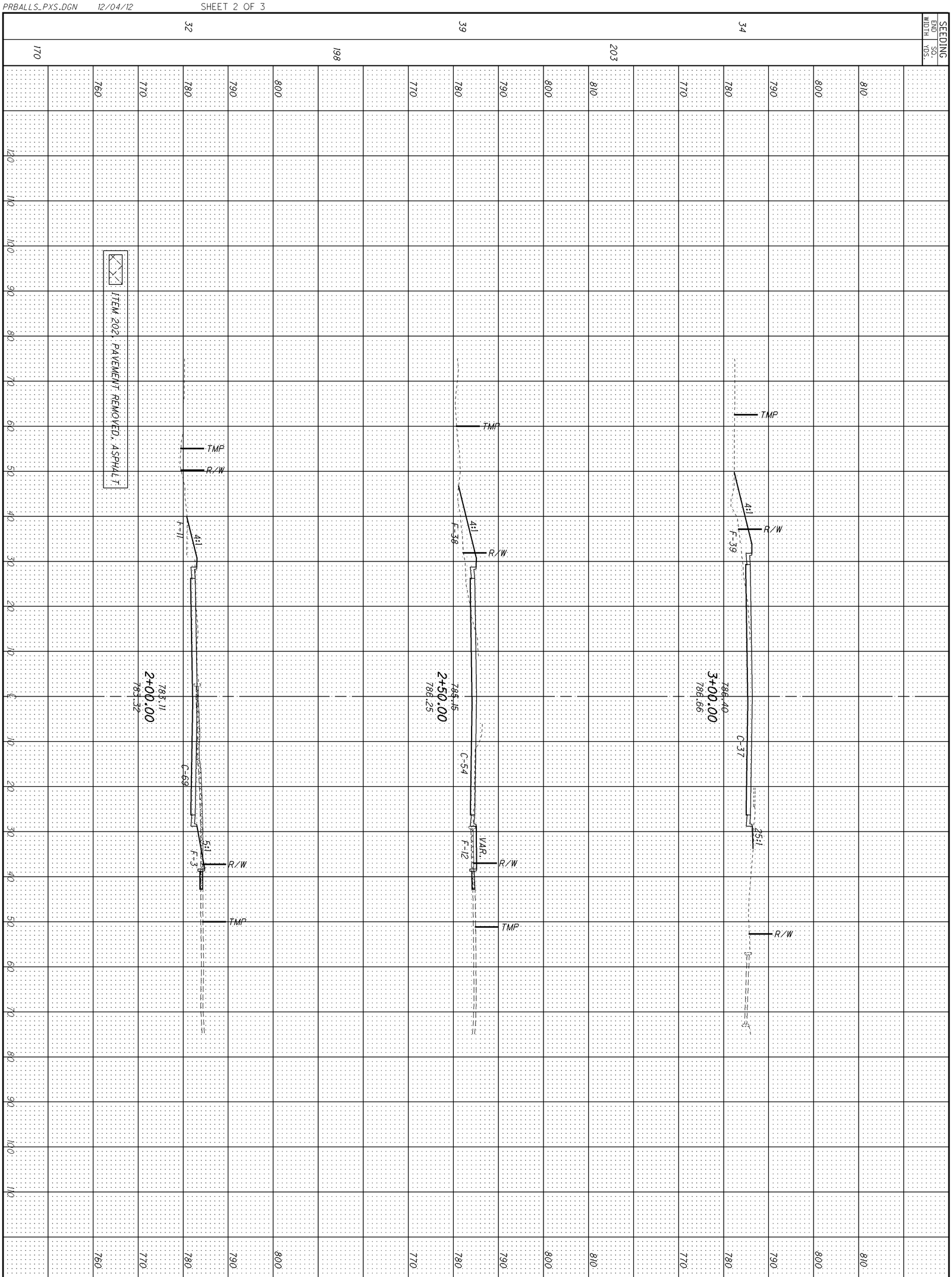
MUS-60-18.35

75
157

SHEET 1 OF 3

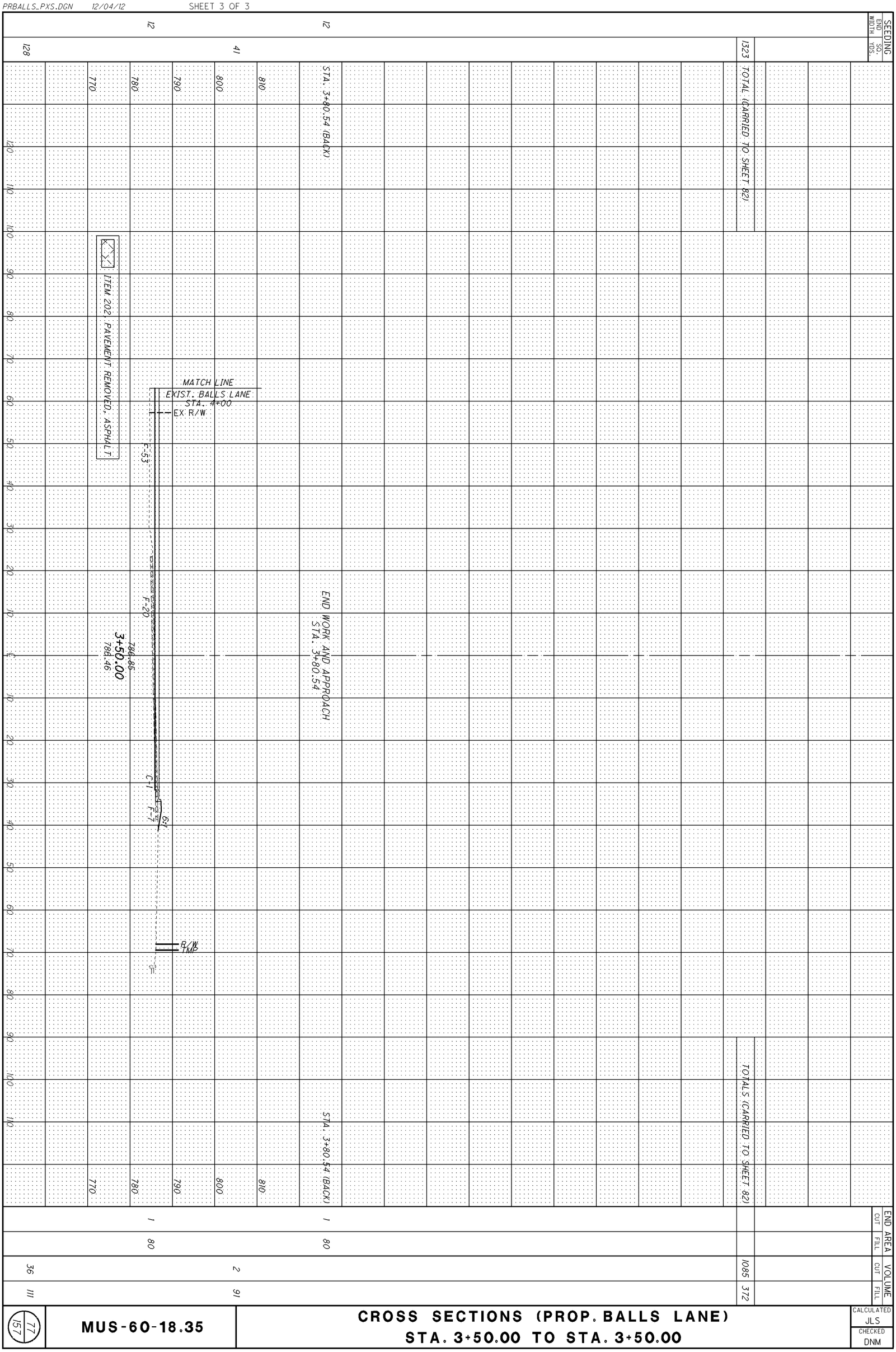
12/04/12

PRBALLS_PXS.DGN



76 / 157	MUS-60-18.35	CROSS SECTIONS (PROP. BALLS LANE) STA. 2+00.00 TO STA. 3+00.00

CALCULATED JLS
CHECKED DNM



77 / 157	MUS-60-18.35	CROSS SECTIONS (PROP. BALLS LANE) STA. 3+50.00 TO STA. 3+50.00

CALCULATED JLS
CHECKED DNM

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	755	TOTAL (CARRIED TO SHEET 82)			0	191
42		STA. 1+71.18 (BACK)	0	29		
	99				0	23
42			0	29		
	228				0	55
40			0	30		
	287				0	75
63			0	50		
	141				0	38
63		STA. 0+29.96 (AHEAD)	0	50		

TOTALS (CARRIED TO SHEET 82) — 0 | 191

END WORK AND REMOVAL
STA. 1+71.18

STA. 1+71.18 (BACK)

800 / 790 / 780 / 770

EX R/W — 0% — F-29 — 8.06% — EX R/W

15.69' RT.
ELEV. 784.92

1+50.00

800 / 790 / 780 / 770

EX R/W — 0% — F-30 — 9.76% — EX R/W

13.05' RT.
ELEV. 784.22

1+00.00

800 / 790 / 780 / 770

EX R/W — 1.07% — F-50 — EX R/W

0+50.00

ITEM 202. PAVEMENT REMOVED, ASPHALT

STA. 0+29.96 (AHEAD)

BEGIN WORK AND REMOVAL
STA. 0+29.96

120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110

CALCULATED JLS
CHECKED DNM

CROSS SECTIONS (EXIST. BALLS LANE)(REMOVAL)
STA. +50.00 TO STA. 1+00.00

MUS-60-18.35

78
157

SHEET 1 OF 1

12/06/12

EXBALLS_REM_PXS.DGN

SEEDING	
END WIDTH	SQ. YDS.
18	13
19	32
32	163
32	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
1	21	1	6
0	26	1	14
2	37	4	63
2	37		

CALCULATED JLS
CHECKED DNM

CROSS SECTIONS (EXIST. BALLS LANE)
STA. 4+00.00 TO STA. 4+17.34

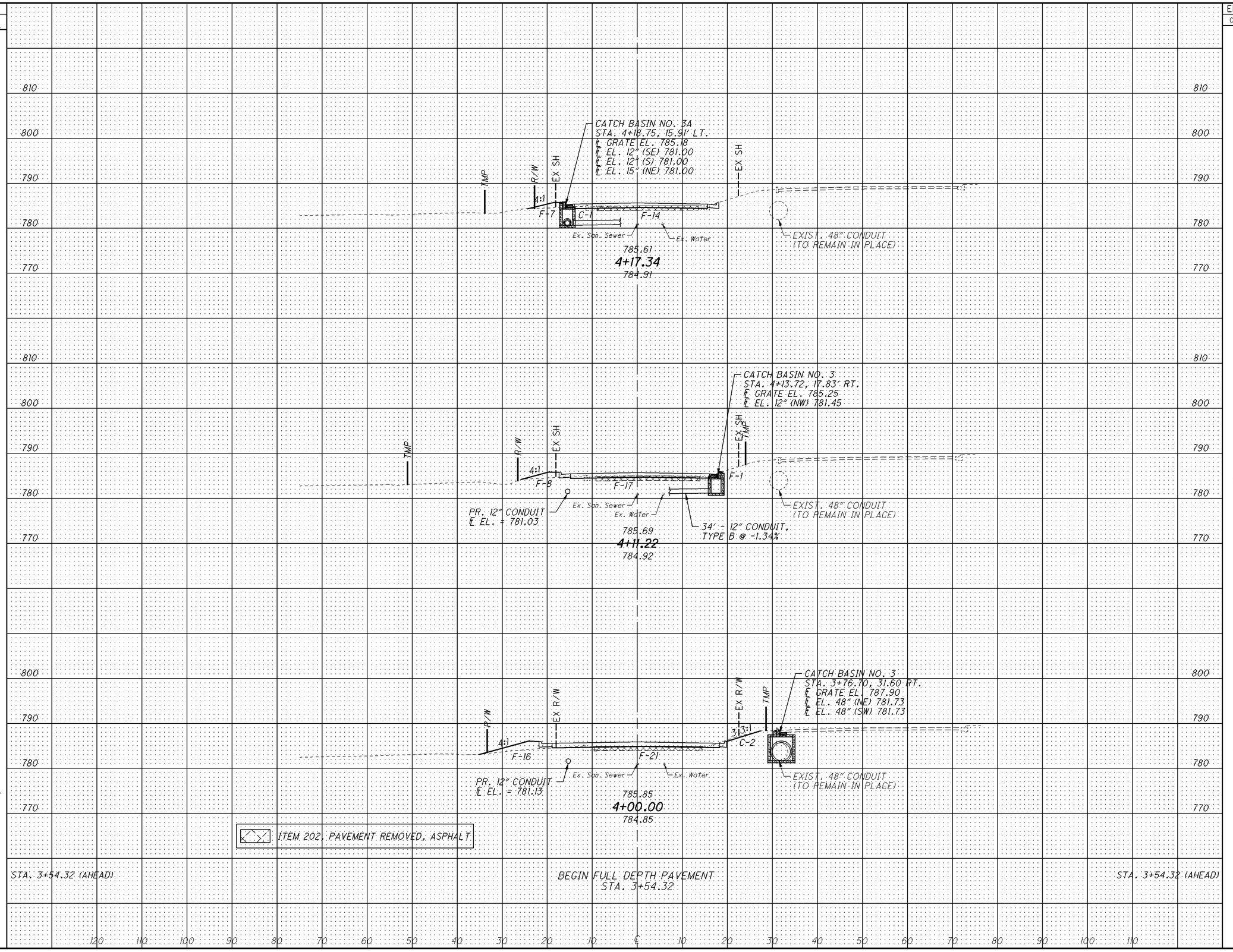
MUS-60-18.35

79
157

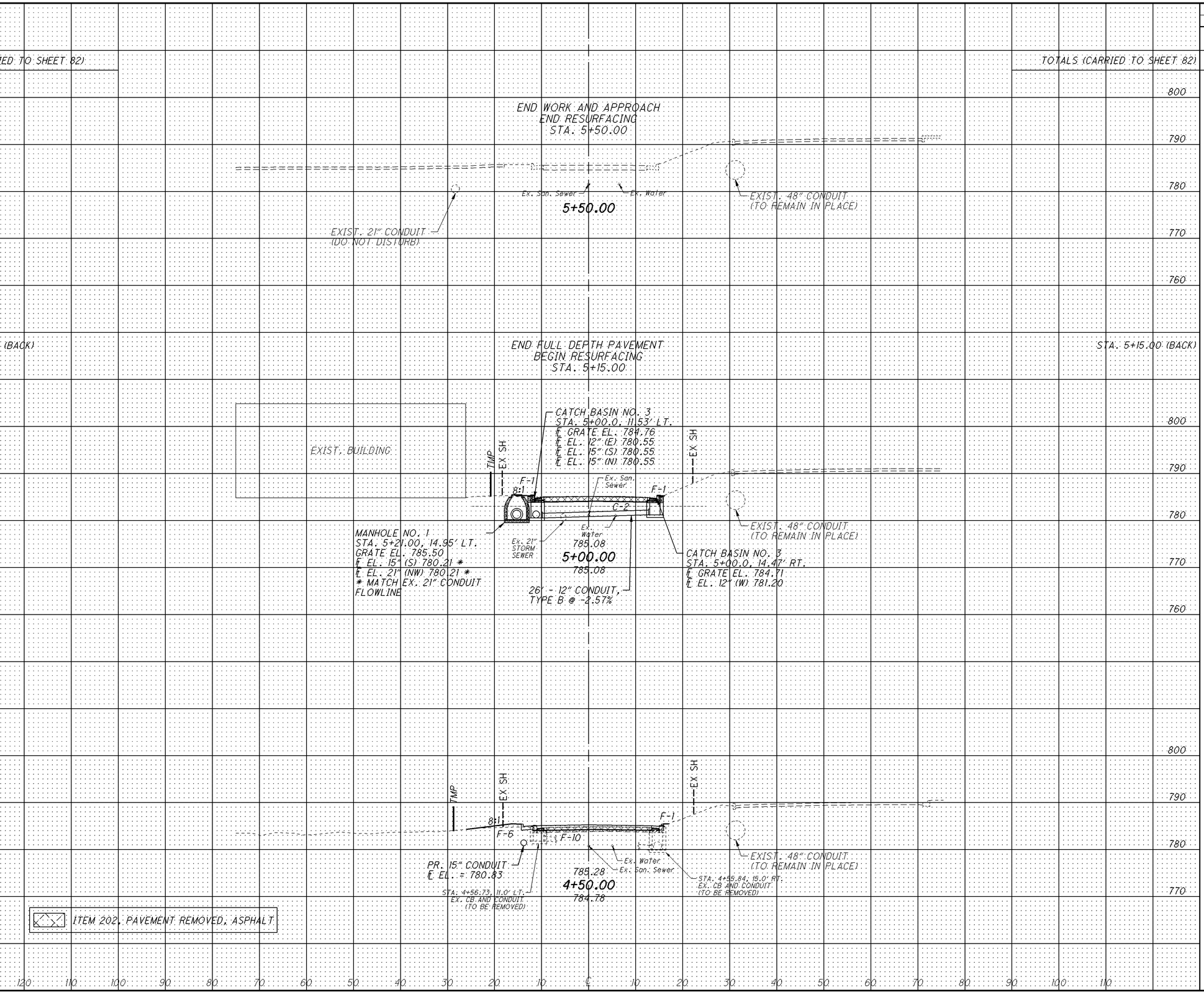
SHEET 1 OF 2

2/4/2013

EXBALLS.PXS.DGN



SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	414	TOTAL (CARRIED TO SHEET 82)			11	126
		TOTALS (CARRIED TO SHEET 82)				
15		STA. 5+15.00 (BACK)	2	2		
	25				2	2
15			2	2		
	106				2	18
23			0	17		
	75				1	23



CALCULATED JLS
CHECKED DNM

CROSS SECTIONS (EXIST. BALLS LANE)
STA. 4+50.00 TO STA. 5+50.00

MUS-60-18.35

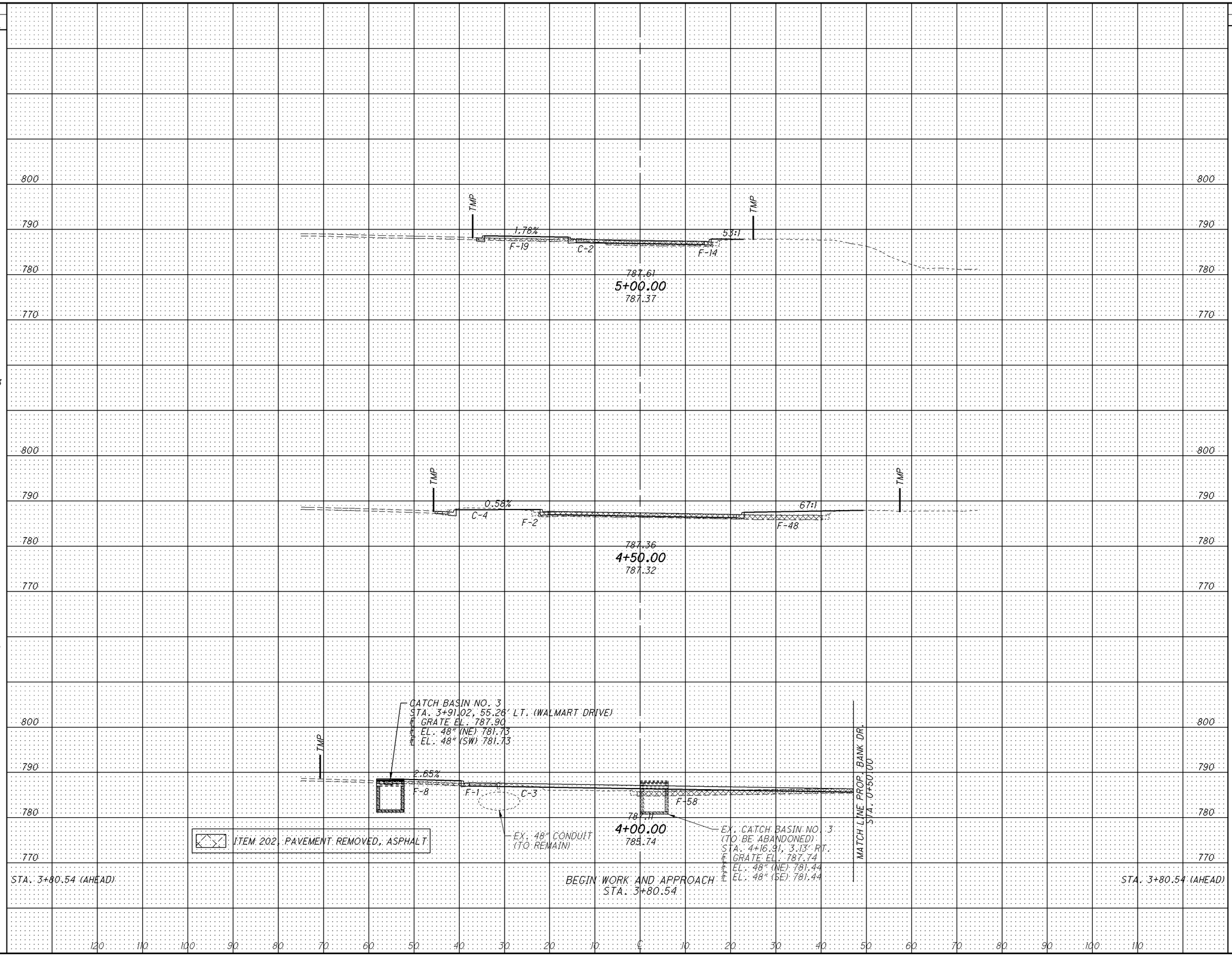
80
157

SHEET 2 OF 2

2/4/2013

EXBALLS.PXS.DGN

SEEDING		END AREA		VOLUME		CALCULATED	CHECKED
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	JLS	DNM
36	253	2	33	6	77		
55	212	4	50	7	109		
21	46	3	67	3	49		
21		3	67				



CROSS SECTIONS (WALMART DRIVE)
STA. 4+00.00 TO STA. 5+00.00

MUS-60-18.35

81
157

SHEET 1 OF 2

WALMART_PXS.DGN 2/5/2013

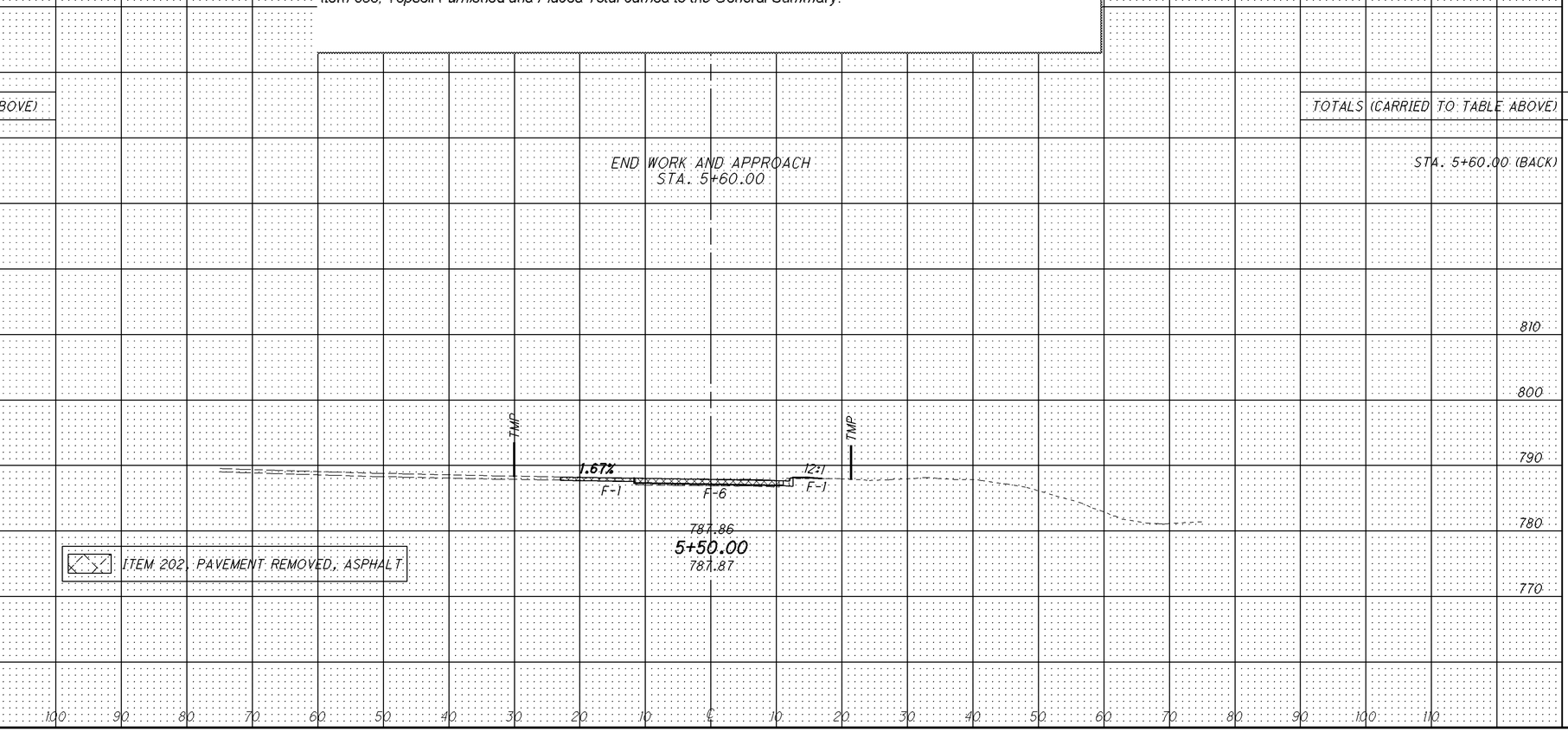
ITEM 659, SEEDING AND MULCHING, CLASS 1	EARTHWORK TOTALS	ITEM 203, EXCAVATION	ITEM 203, EMBANKMENT	ITEM 653, TOPSOIL FURNISHED AND PLACED
SQ. YD.		CU. YD.	CU. YD.	CU. YD.
694	Maple Ave. (S.R. 60)	395	136	
332	Prop. Alley	74	47	
1,023	Prop. Dresden Rd.	448	204	
45	Prop. Clyde Ct.	37	0	
441	Prop. Bethesda Dr.	254	139	32
1,323	Prop. Balls Ln.	1,085	372	
755	Exist. Balls Ln. (Removal)	0	191	
414	Exist. Balls Ln.	11	126	
651	Prop. Walmart Dr.	18	276	
319	Prop. Bank Dr.	20	64	
5,997	TOTALS	2,342	1,555	32

Item 659, Seeding and Mulching, Class 1 Total carried to Sheet 18.

Both Item 203, Excavation and Embankment Totals carried to the General Summary.

Item 653, Topsoil Furnished and Placed Total carried to the General Summary.

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	651	TOTAL (CARRIED TO TABLE ABOVE)			18	276
10		STA. 5+60.00 (BACK)	0	8		
	12				0	3
10			0	8		
	128				2	38



CALCULATED JLS
CHECKED DNM

CROSS SECTIONS (WALMART DRIVE) STA. 5+50.00 TO STA. 5+50.00

MUS-60-18.35

82
157

SHEET 2 OF 2

12/05/12

WALMART_PXS.DGN

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	319	TOTAL (CARRIED TO SHEET 82)			20	64
		TOTALS (CARRIED TO SHEET 82)				
18		STA. 1+58.66 (BACK)	0	13		
	18				0	5
18			0	13		
	103				0	24
19			0	12		
	123				10	23
25			10	12		
	75				10	12
25		STA. 0+23.11 (AHEAD)	10	12		

CALCULATED JLS
CHECKED DNM

CROSS SECTIONS (PROP. BANK DRIVE) STA. +50.00 TO STA. 1+50.00

MUS-60-18.35

83
157

SHEET 1 OF 1

PRBANKDR_PXS.DGN 12/06/12

END WORK AND APPROACH
STA. 1+58.66

CATCH BASIN NO. 3A
STA. 1+61.21, 11.0' RT.
℄ GRATE EL. 785.00
℄ EL. 12" (NE) 782.50

EX R/W
TMP
-2.21%
F-13
Ex. Water
Ex. San. Sewer
Ex. Gas
1+50.00

EX R/W
TMP
-5.53%
F-12
Ex. Water
Ex. San. Sewer
1+00.00
PR. 12" CONDUIT
℄ EL. = 782.20
Ex. Gas
EXIST. 48" CONDUIT
(TO REMAIN IN PLACE)

CATCH BASIN NO. 3A
STA. 0+60.74, 26.85' LT.
℄ GRATE EL. 786.20
℄ EL. 12" (E) 782.41

CATCH BASIN NO. 3A
STA. 0+60.74, 14.64' RT.
℄ GRATE EL. 786.28
℄ EL. 12" (W) 782.00
℄ EL. 12" (N) 782.00

MATCH LINE WALMART DRIVE
STA. 4+50.0

EX R/W
EX R/W
1.90%
C-10
F-12
Ex. Water
Ex. San. Sewer
786.40
0+50.00
786.38
42" - 12" CONDUIT,
TYPE B @ -0.99%
EXIST. 48" CONDUIT
(TO REMAIN IN PLACE)

MATCH LINE PROP. BALLS LN.
STA. 3+50.0

ITEM 202, PAVEMENT REMOVED, ASPHALT

BEGIN WORK AND APPROACH
STA. 0+23.11

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

BEGIN WORK
STA. 96+05.00
S.L.M. 18.35

Ex R/W

ST. LOUIS AVE.

P.I. STA. 99+07

EX. STRAIN POLE (DND)

ALLEY

CONSTRUCTION LIMITS

EX. STRAIN POLE (DND)

R/W

R-1 R-2 R-3 R-4 R-5 R-6 R-7 R-8 R-9 R-10 R-20 R-21 R-22

95 96 97 98 99

℄ SURVEY AND CONSTRUCTION
S.R. 60 (MAPLE AVENUE)

EX. STRAIN POLE (DND)

CONSTRUCTION LIMITS

McCONNELL AVE.

EX. STRAIN POLE (*)

EX. OVERHEAD SIGN (OHD)

EX. STRAIN POLE (*)

P.C. Sta. 0+00.00

P.T. Sta. 0+62.95

P.I. Sta. 1+70.72

MATCH LINE STA. 99+75

℄ SURVEY AND CONSTRUCTION PROP. ALLEY

TNP

LEGEND

DND - DO NOT DISTURB

TBR - TO BE REMOVED

- LIMITS OF EXISTING PAVEMENT TO BE REMOVED (SEE CROSS SECTIONS FOR MORE DETAILS)

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

REMOVAL PLAN SHEET (S.R. 60)(MAPLE AVE.)
STA. 96+05 TO STA. 99+75

MUS-60-18.35

84
157

FOR REMOVAL QUANTITIES, SEE SHEETS 90-91.

* - REFER TO TRAFFIC SIGNAL PLAN FOR DETAILS REGARDING REMOVAL OF EXISTING TRAFFIC SIGNAL POLES AND EQUIPMENT

MAP-PLAN-GRD_01.DGN 10.0412

LEGEND

DND - DO NOT DISTURB

TBR - TO BE REMOVED

- LIMITS OF EXIST. ROADWAY PAVEMENT TO BE REMOVED (SEE CROSS SECTIONS FOR MORE DETAILS)

- LIMITS OF EXIST. DRIVEWAY PAVEMENT TO BE REMOVED (SEE DRIVE DETAILS AND QUANTITIES)

℄ SURVEY AND CONSTRUCTION BROWN STREET

BROWN ST.

CALDWELL ST.

SUSPEND WORK STA. 104+00.00 S.L.M. 18.50

MATCH LINE STA. 99+75

STA. 99+98.86

STA. 102+98.86

EX. STRAIN POLE (*)

EX. PRIVATE SIGN (DND)

EX. BILLBOARD SIGN (DND)

EX. POSTAL MAILBOX (TO BE REMOVED BY OTHERS)

℄ SURVEY AND CONSTRUCTION S.R. 60 (MAPLE AVENUE)

℄ SURVEY AND CONSTRUCTION PROP. DRESDEN ROAD

℄ SURVEY AND CONSTRUCTION PROP. CLYDE COURT

EXIST. ℄ DRESDEN ROAD

VACANT 1.5 STORY BRICK (COMMERCIAL)

A.T. Sta. 2+26.18

P.I. Sta. 3+42.63

END WORK STA 3+25.00

Ex R/W

R/W

TMP

DRR-1 DRR-2 DRR-3 DRR-4

DR-1 DR-2 DR-3 DR-4 DR-5

R-10 R-11 R-12 R-13 R-14 R-15 R-16 R-17 R-18 R-19 R-20 R-21 R-23 R-24 R-25 R-26 R-27 R-28 R-29 R-30 R-31 R-32 R-33 R-34

* - REFER TO TRAFFIC SIGNAL PLAN FOR DETAILS REGARDING REMOVAL OF EXISTING TRAFFIC SIGNAL POLES AND EQUIPMENT

FOR REMOVAL QUANTITIES, SEE SHEETS 90-91.

HORIZONTAL SCALE IN FEET

0 20 40

CALCULATED JLS

CHECKED DNM

REMOVAL PLAN SHEET (S.R. 60)(MAPLE AVE.)
STA. 99+75 TO STA. 104+00

MUS-60-18.35

85
157

MAPLAY_GRP_02.DGN 10/05/12

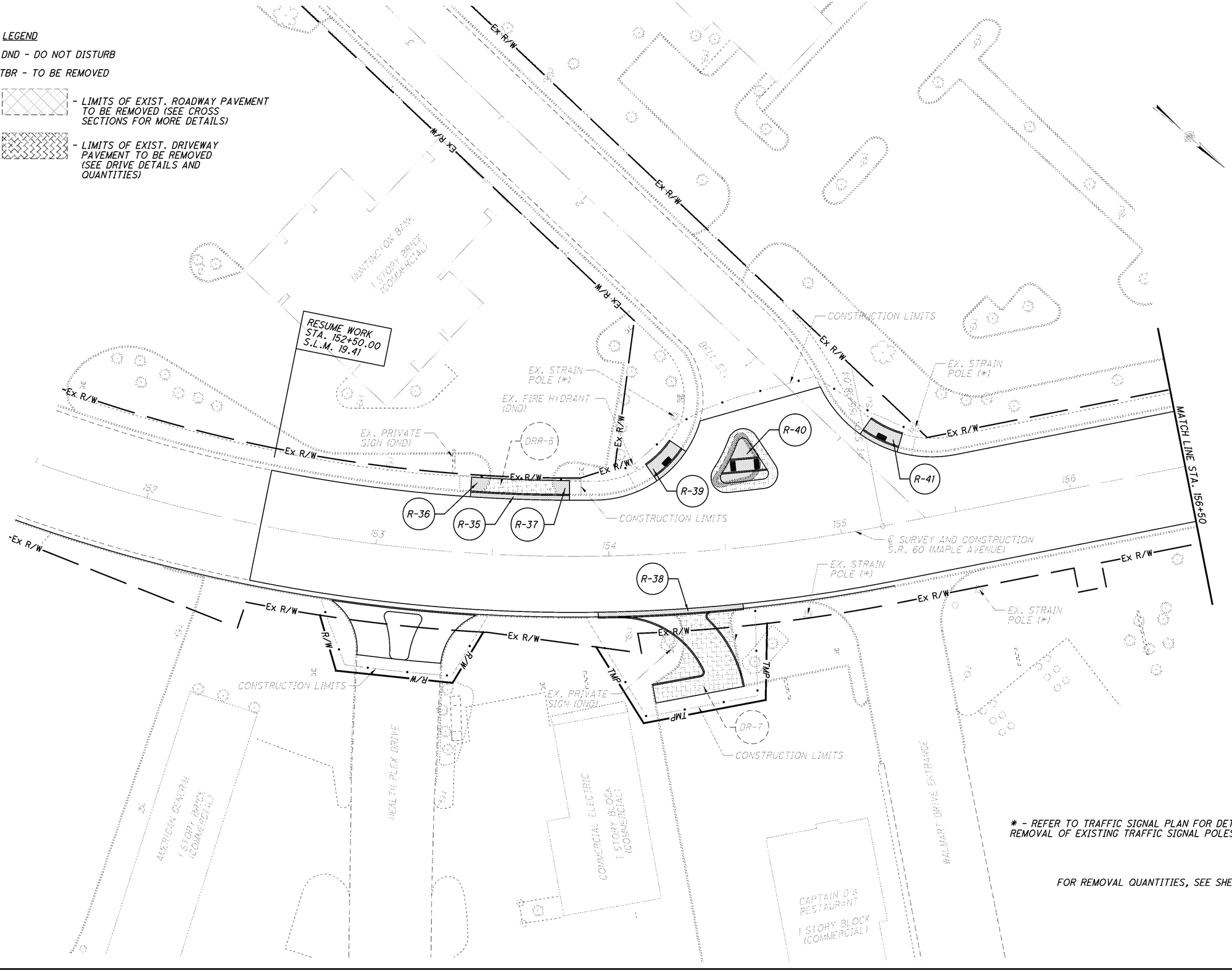
LEGEND

DND - DO NOT DISTURB

TBR - TO BE REMOVED

- LIMITS OF EXIST. ROADWAY PAVEMENT TO BE REMOVED (SEE CROSS SECTIONS FOR MORE DETAILS)

- LIMITS OF EXIST. DRIVEWAY PAVEMENT TO BE REMOVED (SEE DRIVE DETAILS AND QUANTITIES)



* - REFER TO TRAFFIC SIGNAL PLAN FOR DETAILS REGARDING REMOVAL OF EXISTING TRAFFIC SIGNAL POLES AND EQUIPMENT

FOR REMOVAL QUANTITIES, SEE SHEETS 90-91.

MAPLAY_GRP_03.DGN 10/05 12

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

REMOVAL PLAN SHEET (S.R. 60)(MAPLE AVE.)
STA. 152+50 TO STA. 156+50

MUS-60-18.35

86
157

MEDICAL OFFICES
(STORY) BRICK
(COMMERCIAL)

CONSTRUCTION LIMITS

DRR-6

TMP

Ex R/W

R-43

R-42

R-44

MATCH LINE STA. 156+50

- EXIST. PLANTED MEDIAN TO BE REMOVED
(SEE CROSS SECTIONS FOR EXCAVATION)

℄ SURVEY AND CONSTRUCTION
S.R. 60 (MAPLE AVENUE)

157 158 159 160 161

R-45 R-46 R-47

EXIST. ℄ BALLS LANE

EX. TELEPHONE
SUB STATION
PROTECTED BY
BOLLARDS (DND)

CONSTRUCTION
LIMITS

EX R/W

R/W

R-62

MATCH LINE STA. 1+50
SEE SHEET 89.

DRR-7

DRR-8

DRR-9

EX. PRIVATE SIGN
(REMOVED BY OTHERS)

PNC BANK
1 STORY BRICK
(COMMERCIAL)

EX. TREE
(DND)

EX. LOCKING
MAILBOXES
(DND)

CONSTRUCTION LIMITS

℄ SURVEY AND CONSTRUCTION
BETHESDA DRIVE

R-57 R-56 R-55

EX. PRIVATE
LIGHT POLE
(DND)

P.C. Sta. 1+13.58

EX. PRIVATE
SIGN (TBR)

CONSTRUCTION LIMITS

R-50 R-49 R-52 R-53 R-54 R-51

EX. STRAIN
POLE (*)

P.C. Sta. 0+79.28

EX. PRIVATE
SIGN (DND)

R-46 R-58

EX. STRAIN
POLE (*)

MATCH LINE STA. 161+50

R-48

P.C. Sta. 0+95.50

℄ SURVEY AND CONSTRUCTION
PROP. BALLS LANE

MATCH LINE STA. 1+50
SEE SHEET 89.

R-59

LEGEND

DND - DO NOT DISTURB

TBR - TO BE REMOVED

- LIMITS OF EXIST. ROADWAY PAVEMENT TO BE REMOVED (SEE CROSS SECTIONS FOR MORE DETAILS)

- LIMITS OF EXIST. DRIVEWAY PAVEMENT TO BE REMOVED (SEE DRIVE DETAILS AND QUANTITIES)

* - REFER TO TRAFFIC SIGNAL PLAN FOR DETAILS REGARDING REMOVAL OF EXISTING TRAFFIC SIGNAL POLES AND EQUIPMENT

FOR REMOVAL QUANTITIES, SEE SHEETS 90-91.

HORIZONTAL SCALE IN FEET
0 30 40

CALCULATED JLS
CHECKED DNM

REMOVAL PLAN SHEET (S.R. 60)(MAPLE AVE.)
STA. 156+50 TO STA. 161+50

MUS-60-18.35

87
157

MAPLAY_GRP_04.DGN 10:05:12

END WORK
STA. 164+40.00
S.L.M. 19.64

MATCH LINE STA. 161+50

R-46

R-48

CONSTRUCTION LIMITS

Ex R/W

R/W

TMP

1 STORY FRAME (RESIDENTIAL)

1 STORY FRAME (RESIDENTIAL)

ALLEY

JAMES ST.

LAW OFFICE/ CHIROPRACTOR
1 STORY BRICK (COMMERCIAL)

BOB EVANS
1 STORY BRICK (COMMERCIAL)

PC STA. 1+68.42

℄ SURVEY AND CONSTRUCTION
S.R. 60 (MAPLE AVENUE)

163

161

162

165

166

LEGEND

DND - DO NOT DISTURB

TBR - TO BE REMOVED

- LIMITS OF EXIST. DRIVEWAY PAVEMENT TO BE REMOVED (SEE DRIVE DETAILS AND QUANTITIES)

FOR REMOVAL QUANTITIES, SEE SHEETS 90-91.

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

REMOVAL PLAN SHEET (S.R. 60)(MAPLE AVE.)
STA. 161+50 TO STA. 164+40

MUS-60-18.35

88
157

MARLAY.GRP 05.DGN 10.09.12

LEGEND

DND - DO NOT DISTURB

TBR - TO BE REMOVED

- LIMITS OF EXIST. ROADWAY PAVEMENT TO BE REMOVED (SEE CROSS SECTIONS FOR MORE DETAILS)

- LIMITS OF EXIST. DRIVEWAY PAVEMENT TO BE REMOVED (SEE DRIVE DETAILS AND QUANTITIES)

END FULL DEPTH PAVEMENT STA. 5+15.00
BEGIN RESURFACING STA. 5+15.00

END RESURFACING STA. 5+50.00

CONSTRUCTION LIMITS

℄ SURVEY AND CONSTRUCTION PROP. BALLS LANE

℄ SURVEY AND CONSTRUCTION EXIST. BALLS LANE

℄ SURVEY AND CONSTRUCTION PROP. BANK DRIVE

℄ SURVEY AND CONSTRUCTION PROP. WALMART DRIVE

1 STORY BRICK RETAIL STORE (COMMERCIAL)

EXISTING LIGHT POLE (REMOVED BY OTHERS)

EX. PRIVATE SIGN (DND)

EX. CURB (DND)

EX. PRIVATE SIGN (DND)

P.I. Sta. 4+03.27

MATCH LINE STA. 1+50 SEE SHEET 87.

MATCH LINE STA. 1+50 SEE SHEET 87.

FOR REMOVAL QUANTITIES, SEE SHEETS 90-91.

R-60 R-61 R-62 R-63 R-64 R-65 R-66 R-67 R-68

DRR-9 DRR-10 DRR-11 DR-11 P-1 P-2

TMP R/W EX. R/W

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

REMOVAL PLAN SHEET (PROP. BALLS LANE)
STA. 1+50 TO STA. 5+99.41

MUS-60-18.35

89
157

BALLSLNPP 01.DGN 2.11.13

REMOVAL QUANTITIES

CALCULATED JLS CHECKED DNM

REFERNCE NO.	SHEET NO.	LOCATION	SIDE	202							625	
				PAVEMENT REMOVED, ASPHALT	WALK REMOVED	CONCRETE MEDIAN REMOVED	CURB REMOVED	CURB AND GUTTER REMOVED	BUILDING DEMOLISHED Parcel No. 11	REMOVAL MISC.: PRIVATE SIGN	LIGHT POLE REMOVED	LIGHT POLE FOUNDATION REMOVED
			Lt/Rt.	SQ. YD.	SQ. FT.	SQ. YD.	FT.	FT.	EACH	EACH	EACH	EACH
		S.R. 60 (Maple Ave.)										
R-1	84	at St. Louis Ave.	Lt.		162.4			25				
R-2	84	at St. Louis Ave.	Lt.		114.6			23				
R-3	84	at McConnell Ave.	Rt.		67.2			16				
R-4	84	at McConnell Ave.	Rt.		60.7			20				
R-5	84	Sta. 97+94.51 to Sta. 98+90.87	Rt.		131.8			98				
R-6	84	Sta.98+43.78 to Sta. 98+78.62	Rt.			18.8	78					
R-7	84	Sta. 98+84.26 to Sta. 99+04.83	Rt.		121.8		17					
R-8	84	Sta. 99+29.82	Rt.							1		
R-9	84	Sta. 99+12.14 to Sta. 99+56.14	Rt.			60.1	118					
R-10	84-85	Sta. 99+00.0 to Brown St.	Lt.	12.5	778.4			147				
R-11	85	at Brown St.	Lt.		121.5			21				
R-12	85	Exist. Dresden Rd. to Sta. 101+34.03	Rt.		977.6		11	198				
R-13	85	Sta. 100+07.25	Rt.								1	
R-14	85	Sta. 100+67.44	Rt.						1			
R-15	85	Sta. 101+34.03 to Sta. 102+50.00	Rt.					116				
R-16	85	Sta. 101+69.35 to Sta. 101+89.90	Rt.		83.4							
R-17	85	Sta. 102+32.14 to Sta. 102+50.00	Rt.		84.9							
R-18	85	at Caldwell St.	Lt.		146.1			27				
R-19	85	at Caldwell St.	Lt.		64.7			20				
		Prop. Dresden Road										
R-20	84-85	S.R. 60 (Maple Ave.)/Exist. Alley/Exist. Dresden Rd.	Lt./Rt.	1,922.2								
R-21	84-85	Sta. 0+62.97 to Sta. 2+42.97	Rt.				180					
R-22	84	Sta. 0+64.42 to Sta. 0+79.35	Rt.		132.1							
R-23	85	Sta. 0+93.86 to Sta. 1+21.03	Rt.		217.8							
R-24	85	Sta. 1+22.43 to Sta. 1+45.31	Lt.				37					
R-25	85	Sta. 1+33.16	Lt.								1	1
R-26	85	Sta. 1+33.25 to Sta. 1+84.69	Rt.		341.1							
R-27	85	Sta. 1+37.34	Lt.							1		
R-28	85	Sta. 1+92.21 to Sta. 2+42.90	Lt.				53					
R-29	85	Sta. 2+04.34 to Sta. 3+25.00	Rt.		630.9							
R-30	85	Sta. 2+60.58 to Sta. 3+25.00	Lt.				87					
R-31	85	Sta. 2+73.34 to Sta. 3+25.00	Rt.				52					
		Clyde Court										
R-32	85	Exist. Clyde Ct.	Lt./Rt.	147.7								
R-33	85	Sta. 0+21.56 to Sta. 0+63.31	Lt.		188.9							
		Alley										
R-34	85	Exist. Alley	Lt./Rt.	14.6								
TOTALS (CARRIED TO GENERAL SUMMARY)				**2,097**	**4,426**	**79**	**633**	**711**	**1**	**2**	**2**	**1**

MUS-60-18.35

83002_REM_001.DGN 1/16/13

REFERNCE NO.	SHEET NO.	LOCATION	SIDE	202													625		
				PAVEMENT REMOVED	PAVEMENT REMOVED, ASPHALT	WALK REMOVED	CONCRETE MEDIAN REMOVED	CURB REMOVED	CURB AND GUTTER REMOVED	MAILBOX REMOVED	BUILDING DEMOLISHED Parcel No. 2	BUILDING DEMOLISHED Parcel No. 3	REMOVAL MISC.: PRIVATE SIGN	REMOVAL MISC.: PRIVATE SIGN REMOVED FOR STORAGE	REMOVAL MISC.: UTILITY POLE	REMOVAL MISC.: CONCRETE RETAINING WALL	LIGHT POLE REMOVED	LIGHT POLE REMOVED FOR STORAGE	LIGHT POLE FOUNDATION REMOVED
			Lt./Rt.	SQ. YD.	SQ. YD.	SQ. FT.	SQ. YD.	FT.	FT.	EACH	EACH	EACH	EACH	EACH	EACH	FT.	EACH	EACH	EACH
		S.R. 60 (Maple Ave.)																	
R-35	86	Sta. 153+39.0 to Sta. 153+83.0	Lt.						44										
R-36	86	Sta. 153+39.0 to Sta. 153+46.85	Lt.			37.9		7											
R-37	86	Sta. 153+75.75 to Sta. 153+83.0	Lt.			36.2		7											
R-38	86	Sta. 153+95.0 to Sta. 154+55.0	Rt.						60										
R-39	86	at Bell St.	Lt.			89.2			18										
R-40	86	at Bell St.	Lt.		28.0		18.4		68										
R-41	86	at Bell St.	Lt.			87.6			18										
R-42	87	Sta. 157+25.0 to Sta. 157+66.0	Lt.						41										
R-43	87	Sta. 157+25.0 to Sta. 157+32.30	Lt.			33.4													
R-44	87	Sta. 157+60.09 to Sta. 157+66.0	Lt.			24.7													
R-45	87	at Exist. Balls Ln.	Rt.						33										
R-46	87-88	Exist. Balls Ln. to Sta. 162+60.85	Rt.						478										
R-47	87	Sta. 158+97.18	Rt.												1				
R-48	87-88	Sta. 161+27.62 to Sta. 161+52.76	Rt.	13.4															
		Bethesda Drive																	
R-49	87	Sta. 0+24.00 to Sta. 1+18.19	Lt.			608.6													
R-50	87	Sta. 0+24.00 to Sta. 1+37.11	Lt.						166										
R-51	87	Sta. 0+24.00 to Sta. 2+40.43	Lt./Rt.		1,117.2														
R-52	87	Sta. 0+45.72 to Sta. 1+24.93	Lt./Rt.					186											
R-53	87	Sta. 0+34.02 to Sta. 1+33.93	Rt.					16	153										
R-54	87	Sta. 0+36.51 to Sta. 1+18.52	Rt.			619.5													
R-55	87	Sta. 1+05.36	Rt.															1	1
R-56	87	Sta. 1+66.51 to Sta. 2+40.43	Lt.					87											
R-57	87	Sta. 1+75.53	Lt.											1					
		Prop. Balls Lane																	
R-58	87	Sta. 0+39.81	Lt.										1						
R-59	87	Sta. 0+71.33	Rt.								1								
R-60	89	Sta. 1+58.93 to Sta. 2+41.32	Lt./Rt.													142			
R-61	89	Sta. 2+94.70	Lt./Rt.									1							
		Exist. Balls Lane																	
R-62	87&89	Exist. Balls Ln.	Lt./Rt.		1,356.3														
R-63	89	Sta. 2+58.18 to Sta. 5+15.0	Lt.						257										
R-64	89	Sta. 2+90.23 to Sta. 5+15.0	Rt.						239										
R-65	89	Sta. 3+61.64	Lt.							1									
R-66	89	Sta. 4+50.70	Lt.							1									
		Walmart Drive																	
R-67	89	Sta. 4+38.95 to Sta. 5+60.0	Rt.						155										
R-68	89	Sta. 4+34.71	Rt.														1		1
TOTALS (CARRIED TO GENERAL SUMMARY)				14	2,502	1,538	19	303	1,730	2	1	1	1	1	1	142	1	1	2

CALCULATED JLS
CHECKED DNM

REMOVAL QUANTITIES

MUS-60-18.35

83002_REM_002.DGN 1/16/13

℄ SURVEY AND CONSTRUCTION
BROWN ST.

℄ SURVEY AND CONSTRUCTION
S.R. 60 (MAPLE AVENUE)

℄ SURVEY AND CONSTRUCTION
DRESDEN ROAD

℄ SURVEY AND CONSTRUCTION
CLYDE COURT

℄ SURVEY AND CONSTRUCTION
PROP. ALLEY

END WORK
STA. 3+25.00

25′ RADIUS POINT
STA. 99+97.09, 48.37′ LT.
℄ S.R. 60 (MAPLE AVE.) =
STA. STA. 0+48.05, 44.5′ LT.
℄ BROWN STREET

40′ RADIUS POINT
STA. 101+15.10, 67.97′ RT. ℄ S.R. 60 (MAPLE AVE.) =
STA. STA. 0+96.81, 58.0′ LT. ℄ DRESDEN ROAD

50′ RADIUS POINT
STA. STA. 1+61.61,
68.0′ RT.
℄ DRESDEN ROAD =
STA. 0+32.80,
60.54′ RT.
℄ CLYDE COURT

15′ RADIUS POINT
STA. STA. 2+22.77, 33.0′ RT. ℄ DRESDEN ROAD =
STA. 0+44.14, 23.54′ LT. ℄ CLYDE COURT =

140′ RADIUS POINT
STA. 99+33.61, 184.0′ RT. ℄ S.R. 60 (MAPLE AVE.) =
STA. STA. 1+09.83, 158.0′ RT. ℄ DRESDEN ROAD

NOTES:

ELEVATIONS ON THE RADII ARE AT THE EDGE OF PAVEMENT.
ALL INCREMENTS ON THE RADII ARE 10′, UNLESS OTHERWISE SHOWN.

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

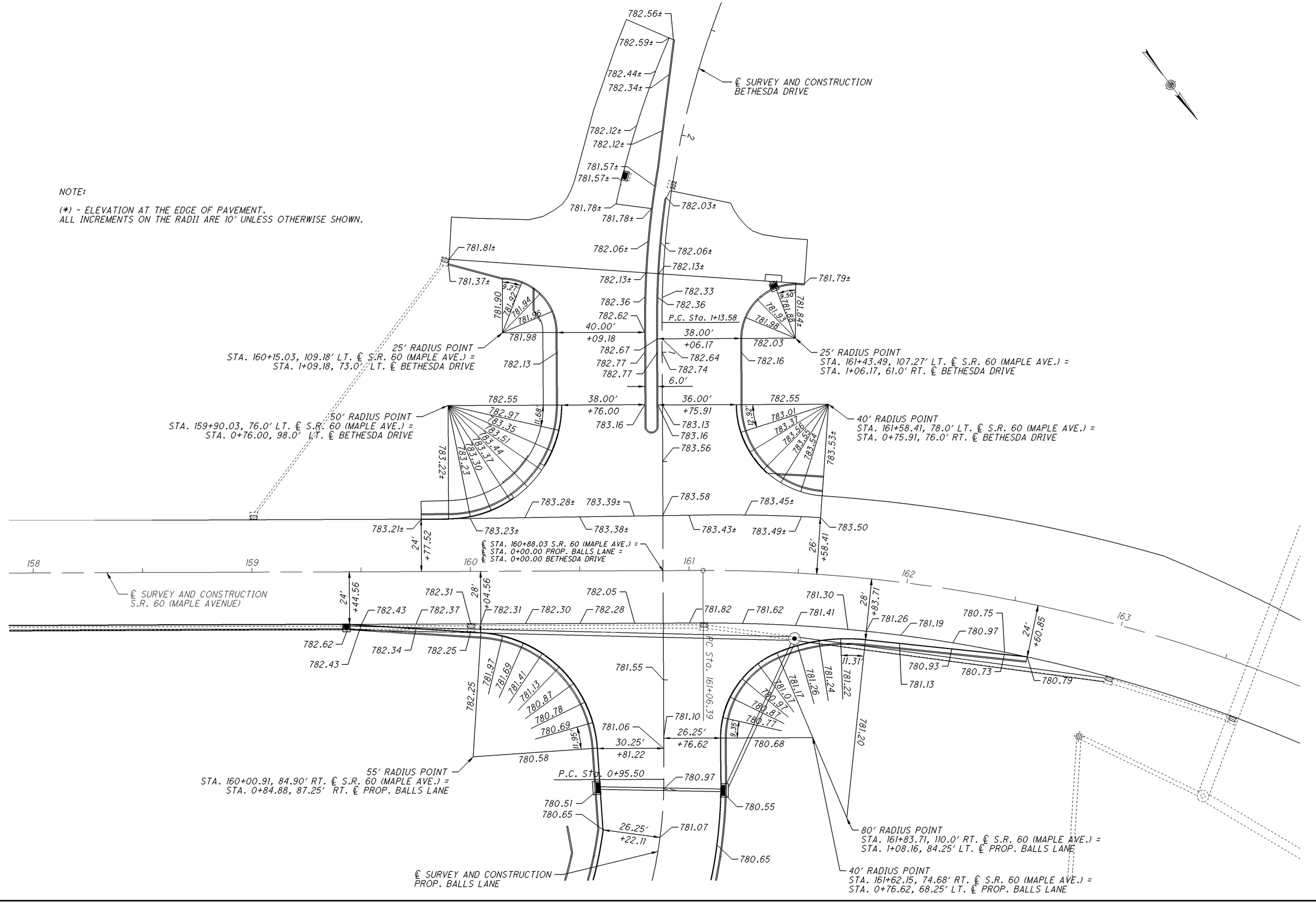
INTERSECTION DETAIL SHEET
S.R. 60/ DRESDEN RD./ BROWN ST.

MUS-60-18.35

DRESDEN_PDS_01.DGN 2/11/13

NOTE:

(*) - ELEVATION AT THE EDGE OF PAVEMENT.
ALL INCREMENTS ON THE RADII ARE 10' UNLESS OTHERWISE SHOWN.



HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

INTERSECTION DETAIL SHEET
S.R. 60/ PROP. BALLS LN./ BETHESDA DR.

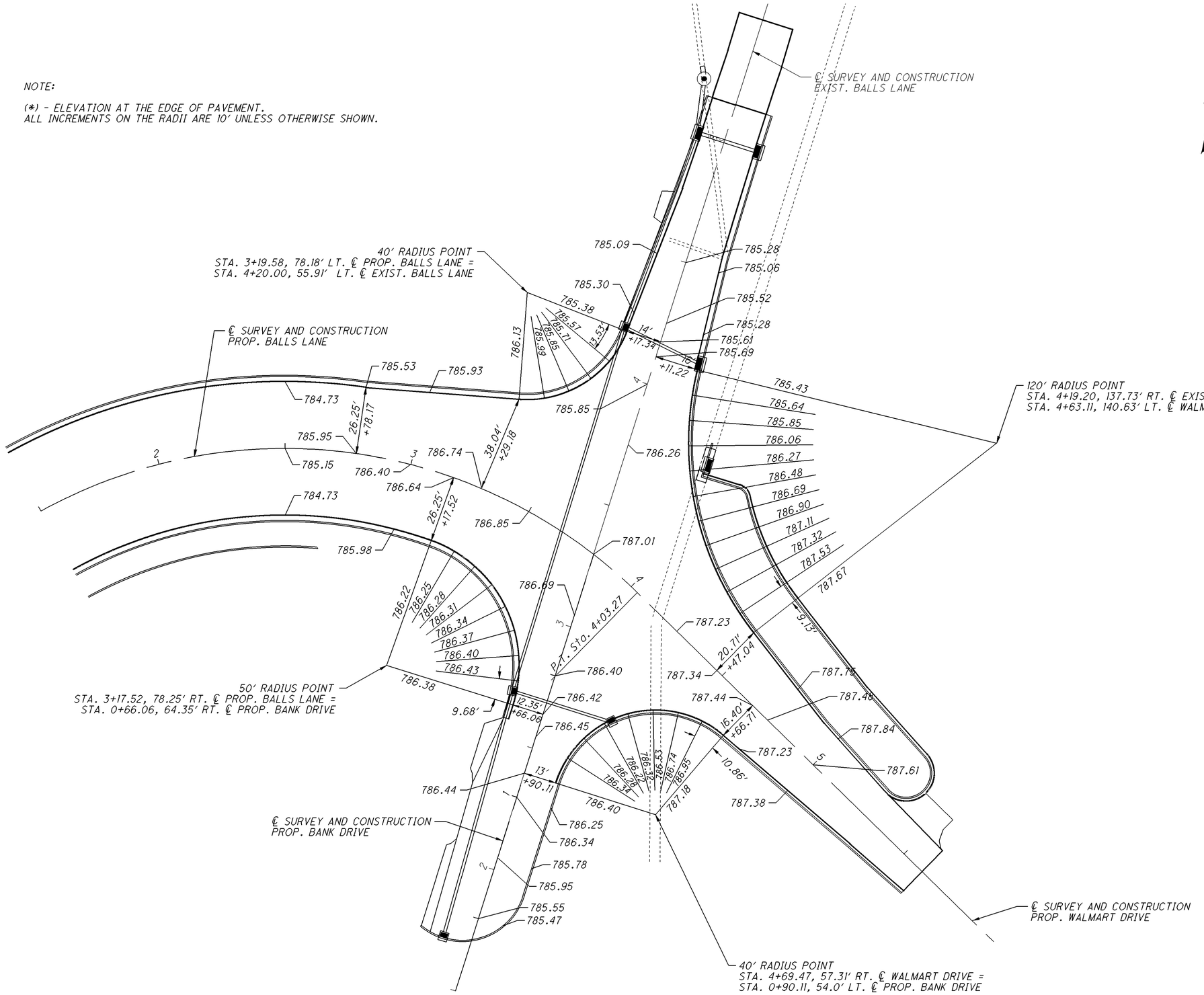
MUS-60-18.35

93
157

BALLSLN_PDS_01.DGN 1/31/13

NOTE:

(*) - ELEVATION AT THE EDGE OF PAVEMENT.
ALL INCREMENTS ON THE RADII ARE 10' UNLESS OTHERWISE SHOWN.



BALLSLN_PDS_02.DGN 1/31/13

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

INTERSECTION DETAIL SHEET
PROP. BALLS LN./EXIST. BALLS LN./DRIVES

MUS-60-18.35

DR-2
15' RAD.
90° TANGENT TO CURVE
STA. 1+25.0
35.0'
END DRIVE STA. 0+38.76
90° TANGENT TO CURVE
STA. 1+58.4
15' RAD.
5'
P.T. Sta. 2+26.18
15' RAD.
END DRIVE STA. 0+59.26
30' RAD.
11.53'
DR-1
35.0'
END DRIVE STA. 0+31.13
DR-3
15' RAD.
℄ SURVEY AND CONSTRUCTION PROP. DRESDEN ROAD
90°
STA. 2+52.0
P.C. Sta. 0+13.72
℄ SURVEY AND CONSTRUCTION CLYDE COURT
90° TANGENT TO CURVE
5' RAD.
P.C.C. Sta. 0+46.49
P.C. Sta. 0+11.33
P.I. Sta. 3+42.63
STA. 0+55.0
5' RAD.
12.0'
END DRIVE STA. 0+13.73
DR-5
20.25'
8.5'
DR-4
℄ SURVEY AND CONSTRUCTION EXIST. ALLEY

- PROPOSED PARKING LOT PAVEMENT (ASPHALT)

- PROPOSED PARKING LOT PAVEMENT (CONCRETE)

FOR DRIVE QUANTITIES, SEE SHEETS 103-104.

HORIZONTAL SCALE IN FEET
0 10 20

CALCULATED JLS
CHECKED DNM

DRIVE DETAILS (DRESDEN ROAD)

MUS-60-18.35

95
157

8300_PRO_01.DGN 10 02/12

DRR-5

EXIST. DRIVE ACCESS
(TO BE REMOVED)

℄ SURVEY AND CONSTRUCTION
S.R. 60 (MAPLE AVENUE)

BELL ST.

P.T. Sta. 156+18.04

153

154

155

28'
+08.93

28'
+20.65

24'
+95.00

24'
+55.00

STA. 154+41.23
26.0' RT.

2' RAD.

STA. 154+39.78
29.32' RT,

2' RAD.

2' RAD.

25' RAD.

14'

14'

25' RAD.

DR-6

2' RAD.

2' RAD.

STA. 154+02.73
26.0' RT.

40' RAD.

14'

STA. 154+36.83
50.84' RT.

2' RAD.

STA. 154+16.18
56.03' RT.

STA. 154+51.81
59.26' RT.

STA. 154+17.12
63.61' RT.

DR-7

STA. 154+35.29
53.54' RT.

HEALTH PLEX DRIVE

CAPTAIN D's DRIVE

WALMART DRIVE

FOR DRIVE QUANTITIES, SEE SHEETS 103-104.

- EXISTING PAVEMENT REMOVED

83002_DR2_02.DGN 9/27/12

HORIZONTAL SCALE IN FEET
0 10 20

CALCULATED JLS
CHECKED DNM

DRIVE DETAILS
S.R. 60 (MAPLE AVENUE)

MUS-60-18.35

96
157

- EXISTING PAVEMENT REMOVED

FOR DRIVE QUANTITIES, SEE SHEETS 103-104.

DRR-6

MEDICAL OFFICES DRIVE

ITEM 609, CURB, TYPE 6

EXIST. DRIVE ACCESS
(TO BE REMOVED)

24'
+25.00

24'
+66.00

℄ SURVEY AND CONSTRUCTION
S.R. 60 (MAPLE AVENUE)

158

159

160

24'
+45.00

32.5'

24'
+44.56

32.5'

28'
+04.56

EXIST. DRIVE ACCESS
(TO BE REMOVED)

DRR-7

EXIST. BANK
TO BE REMOVED

EXIST. DRIVE ACCESS
(TO BE REMOVED)

DRR-8

PNC BANK DRIVE

HORIZONTAL
SCALE IN FEET
0 10 20

CALCULATED JLS
CHECKED DNM

DRIVE DETAILS
S.R. 60 (MAPLE AVENUE)

MUS-60-18.35

97
157

8300.PRO.03.DGN 9/27/12

℄ SURVEY AND CONSTRUCTION
EXIST. BALLS LANE

℄ SURVEY AND CONSTRUCTION
PROP. BALLS LANE

P.T. Sta. 4+03.27

℄ SURVEY AND CONSTRUCTION
PROP. WALMART DRIVE

DR-8

18.35'

END DRIVE
STA. 0+20.87

90°

℄ SURVEY AND CONSTRUCTION
PROP. BANK DRIVE

STA. 0+85.4

DR-9

33.08'

END DRIVE
STA. 0+20.66

90°

STA. 1+42.7

- EXISTING PAVEMENT REMOVED

FOR DRIVE QUANTITIES, SEE SHEETS 103-104.

0 10 20
HORIZONTAL
SCALE IN FEET

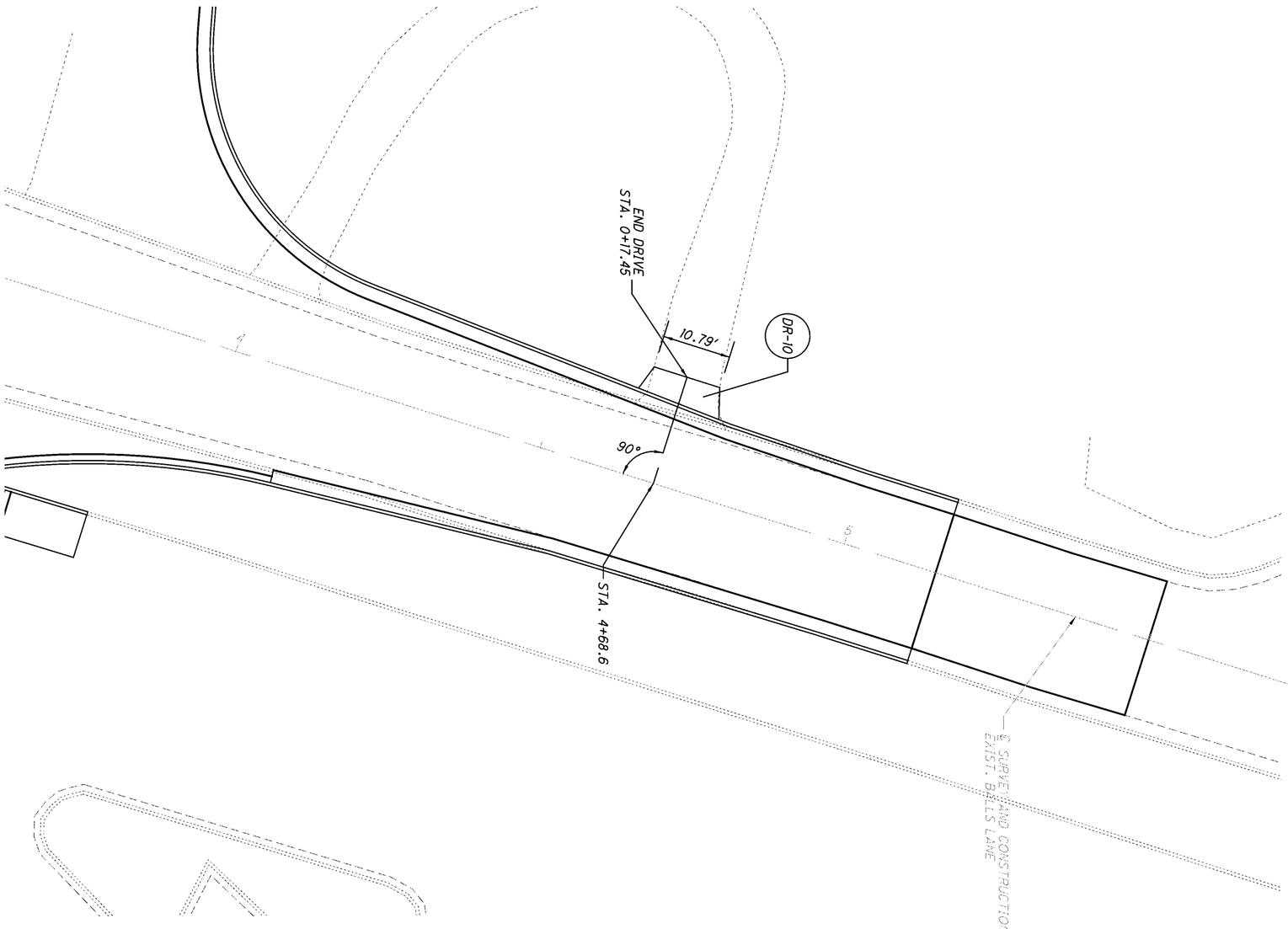
CALCULATED JLS
CHECKED DNM

DRIVE DETAILS
PROP. BANK DRIVE

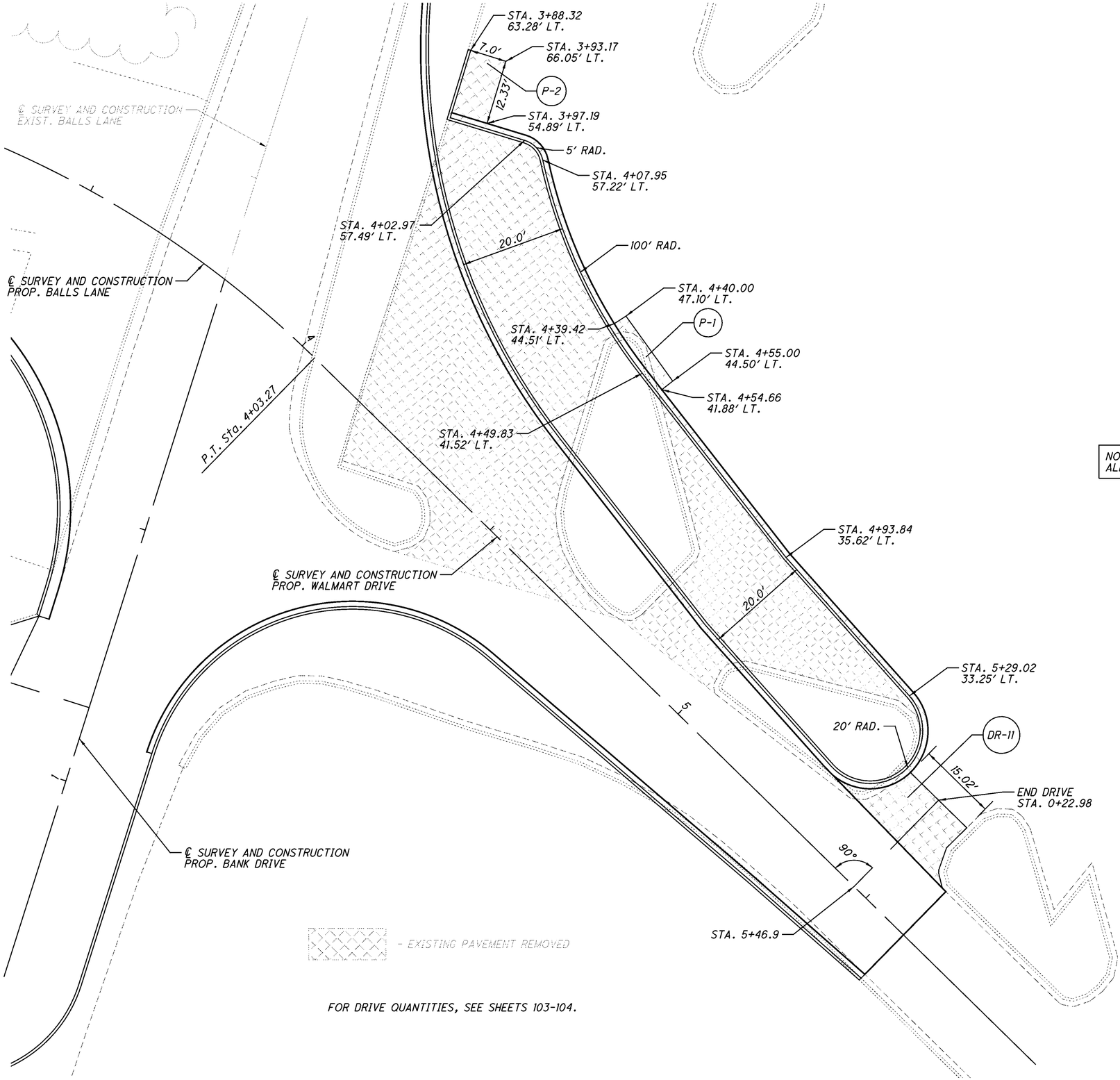
MUS-60-18.35

98
157

9300_DPD_04.DGN 11:29 12



FOR DRIVE QUANTITIES, SEE SHEETS 103-104.



NOTE:
ALL STATION AND OFFSET ARE TO THE FACE OF CURB.

FOR DRIVE QUANTITIES, SEE SHEETS 103-104.

HORIZONTAL SCALE IN FEET
0 10 20

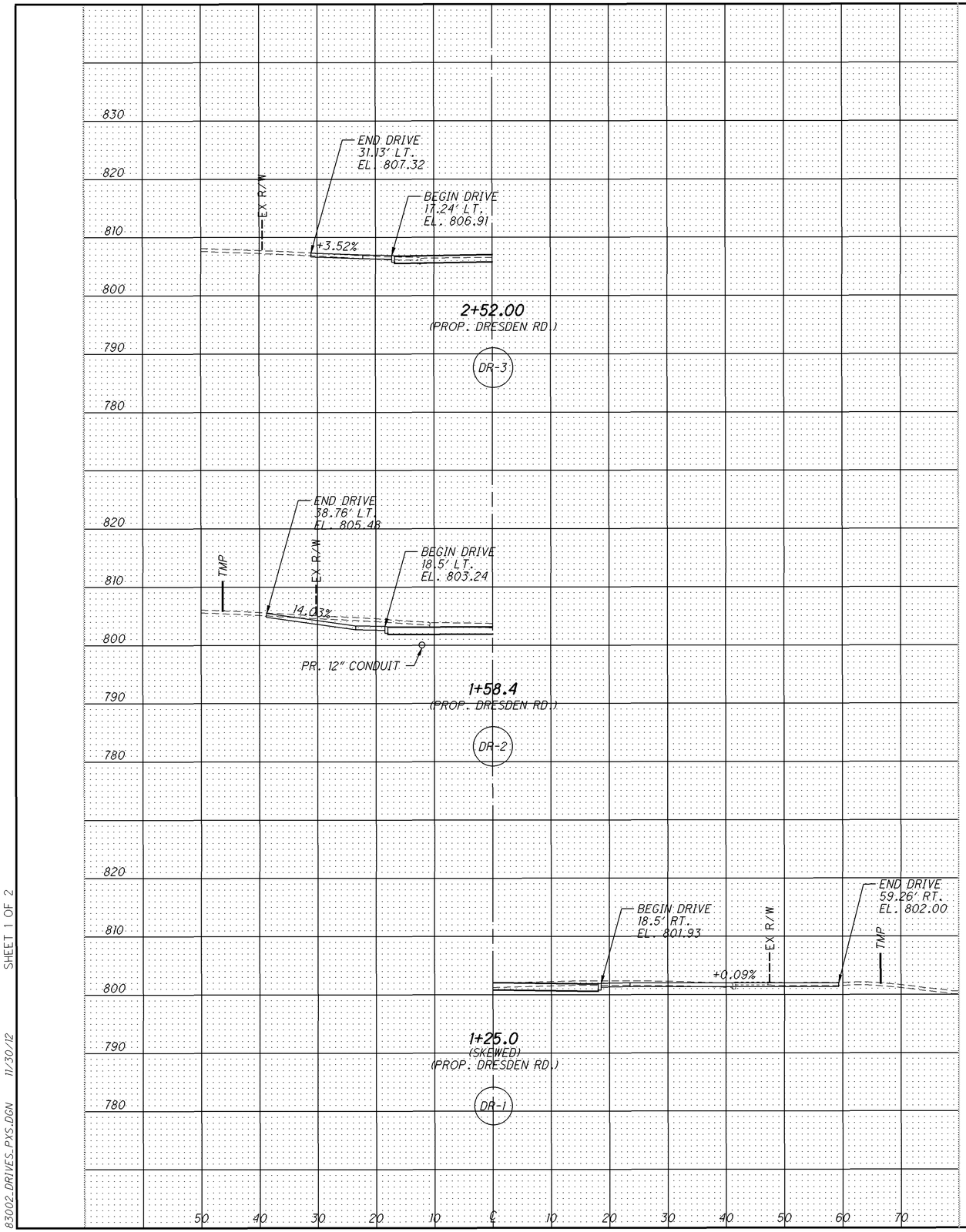
CALCULATED JLS
CHECKED DNM

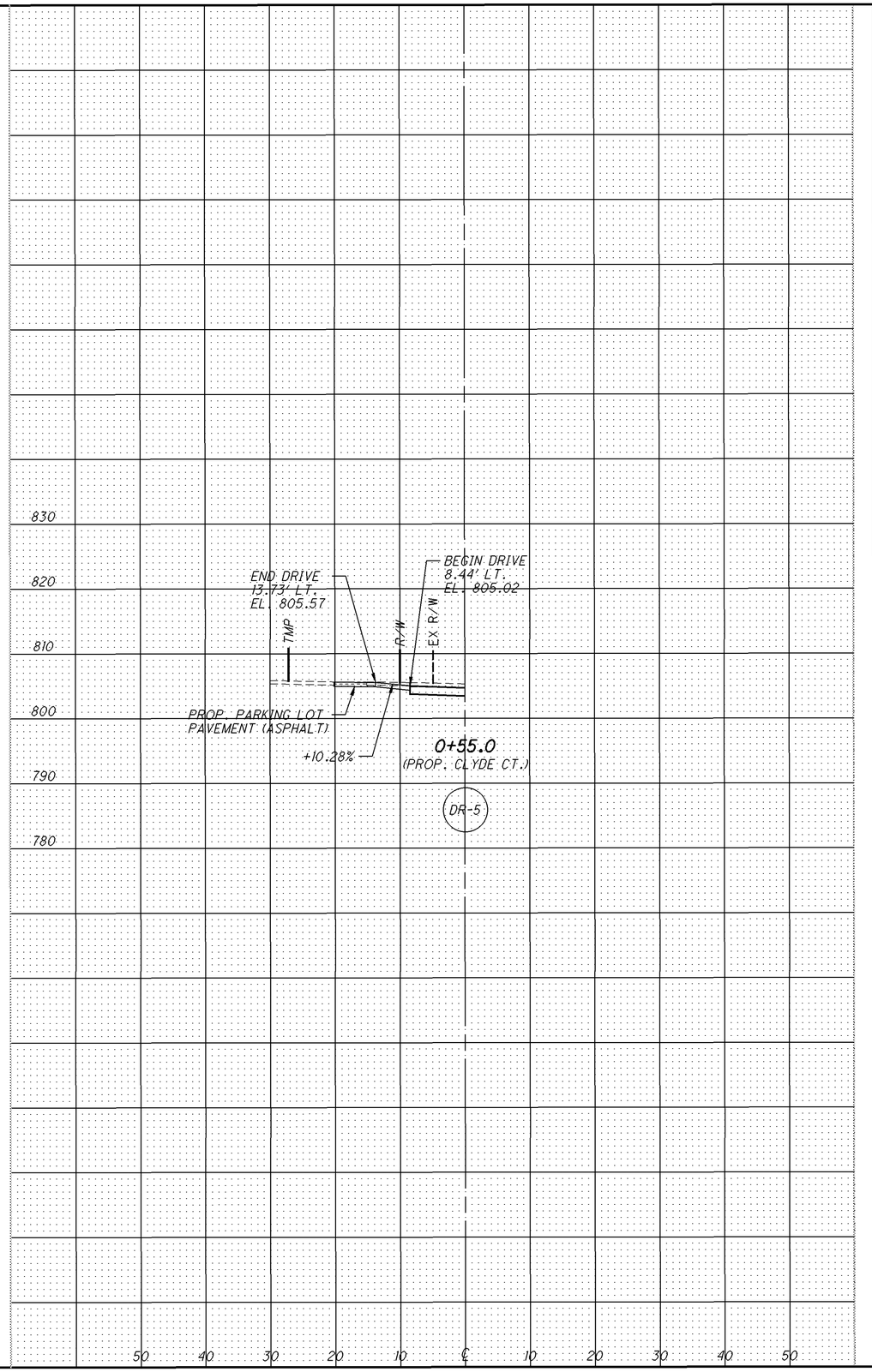
DRIVE DETAILS
PROP. WALMART DRIVE

MUS-60-18.35

100
157

3002_DRD_05.DGN 2/06.13





CALCULATED JLS
CHECKED DNM

DRIVE PROFILES

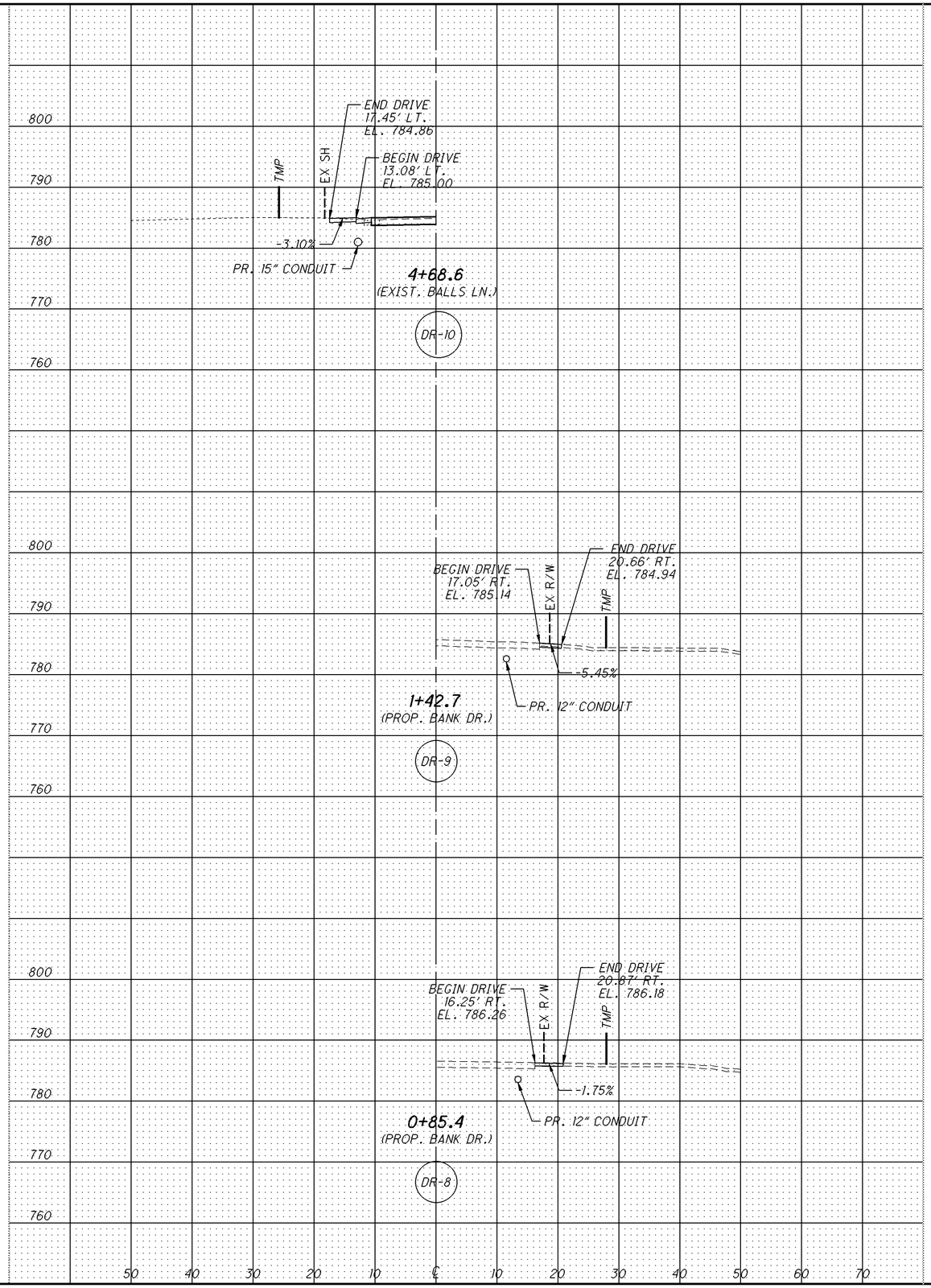
MUS-60-18.35

101
157

SHEET 1 OF 2

11/30/12

83002_DRIVES_PXS.DGN



CALCULATED JLS
CHECKED DNM

DRIVE PROFILES

MUS-60-18.35

102
157

83002_DRIVES_PXS.DGN 11/30/12 SHEET 2 OF 2

REFERNCE NO.	SHEET NO.	LOCATION	SIDE	DESCRIPTION	EXISTING SURFACE	AREA (CALCULATED BY COMPUTER)	202				203		204	301	
							PAVEMENT REMOVED	PAVEMENT REMOVED, ASPHALT	WEARING COURSE REMOVED (3")	CURB REMOVED	6" EXCAVATION	6" EMBANKMENT	SUBGRADE COMPACTION	5" ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS)	7.75" ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS)
			Lt./Rt.			Sq. Yd.	SQ. YD.	SQ. YD.	SQ. YD.	FT.	CU. YD.	CU. YD.	SQ. YD.	CU. YD.	CU. YD.
		Dresden Road													
DR-1	45,85,95	Sta. 1+25.0	Rt.	Commercial	Asphalt	46.9	11.6	17.5					46.9	6.6	
DR-2	45,85,95	Sta. 1+58.4	Lt.	Commercial	Asphalt	60.7		86.9					60.7	8.5	
		Parking Lot Pavement				26.3		26.3					26.3	3.7	
DR-3	45,85,95	Sta. 2+52.0	Lt.	Commercial	Asphalt	36.3		80.6					36.3	5.1	
DR-4	45,85,95	Parking Lot Pavement	Rt.	Commercial	Concrete	18.7	18.7						18.7		
		Clyde Court													
DR-5	45,85,95	Sta. 0+55.0	Lt.	Commercial	Asphalt	7.9		7.9					7.9	1.1	
		Parking Lot Pavement				46.4		14.4					46.4	6.5	
		S.R. 60 (Maple Ave.)													
DR-6	46 & 96	Health Plex Drive	Rt.	Commercial	Asphalt	78.9			78.9						
DR-7	46,86,96	Captain D's Drive	Rt.	Commercial	Asphalt	86.2		103.2		74	1.7	17.2	86.2	12.0	
		Prop. Bank Drive													
DR-8	49 & 98	Sta. 0+85.4	Rt.	Commercial	Asphalt	11.8		11.8					11.8	1.7	
DR-9	49 & 98	Sta. 1+42.7	Rt.	Commercial	Asphalt	14.1		14.1		5			14.1	2.0	
		Exist. Balls Lane													
DR-10	49 & 99	Sta. 4+68.6	Lt.	Residential	Gravel	6.7							6.7	1.0	
		Walmart Drive													
DR-11	49,89,100	Sta. 5+46.9	Lt.	Commercial	Asphalt	29.4		21.2					29.4	4.1	
		Walmart Parking Lot													
P-1	49,89,100		Lt.	Commercial	Asphalt	4.8							4.8		1.1
P-2	49,89,100		Lt.	Commercial		9.6		9.6					9.6		2.1
		Exist. Drives Removed													
		Exist. Dresden Road													
DRR-1	45 & 85	Sta. 5+92.2	Lt.				16.2								
DRR-2	45 & 85	Sta. 5+44.9	Lt./Rt.				446.2								
		S.R. 60 (Maple Ave.)													
DRR-3	45 & 85	Sta. 101+51.6	Rt.				21.2								
DRR-4	45 & 85	Sta. 102+10.9	Rt.				25.0								
DRR-5	46,86,96	Sta. 153+60.8	Lt.				18.6			14					
DRR-6	47,87,97	Sta. 157+46.2	Lt.				17.8	47.7		63		8.0			
DRR-7	47,87,97	Sta. 158+68.4	Rt.					14.6		18		2.5			
DRR-8	47,87,97	Sta. 159+86.2	Rt.					18.4		18		3.1			
		Prop. Balls Lane													
DRR-9	47,87,89	Sta. 1+00.0±	Lt./Rt.					853.3		209					
DRR-10	49 & 89	Sta. 2+00.0±	Lt./Rt.					251.7		191					
DRR-11	49 & 89	Sta. 3+50.0±	Lt./Rt.					261.3							
SUB-TOTAL														53	4
TOTALS (CARRIED TO GENERAL SUMMARY)							576	1,841	79	592	2	31	406	57	

CALCULATED JLS CHECKED DNM

DRIVE CALCULATIONS

MUS-60-18.35

103
157

83002_PCS_003.DGN 2/11/13

DRIVE CALCULATIONS

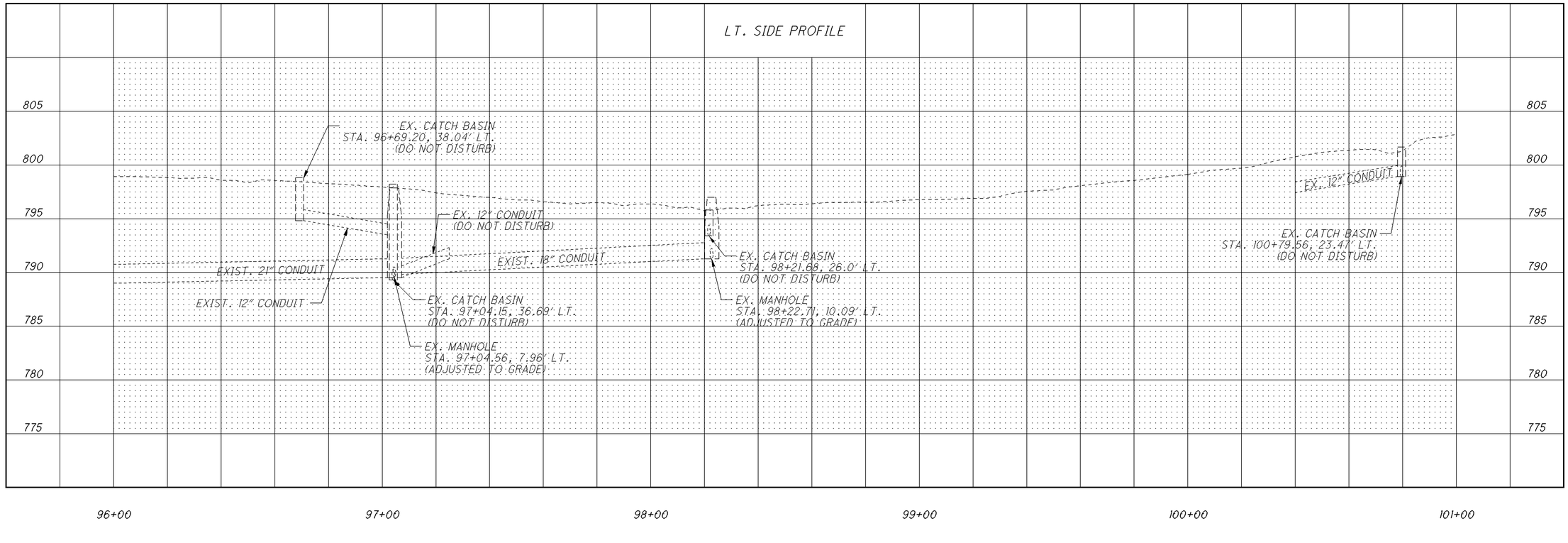
CALCULATED JLS
CHECKED DNM

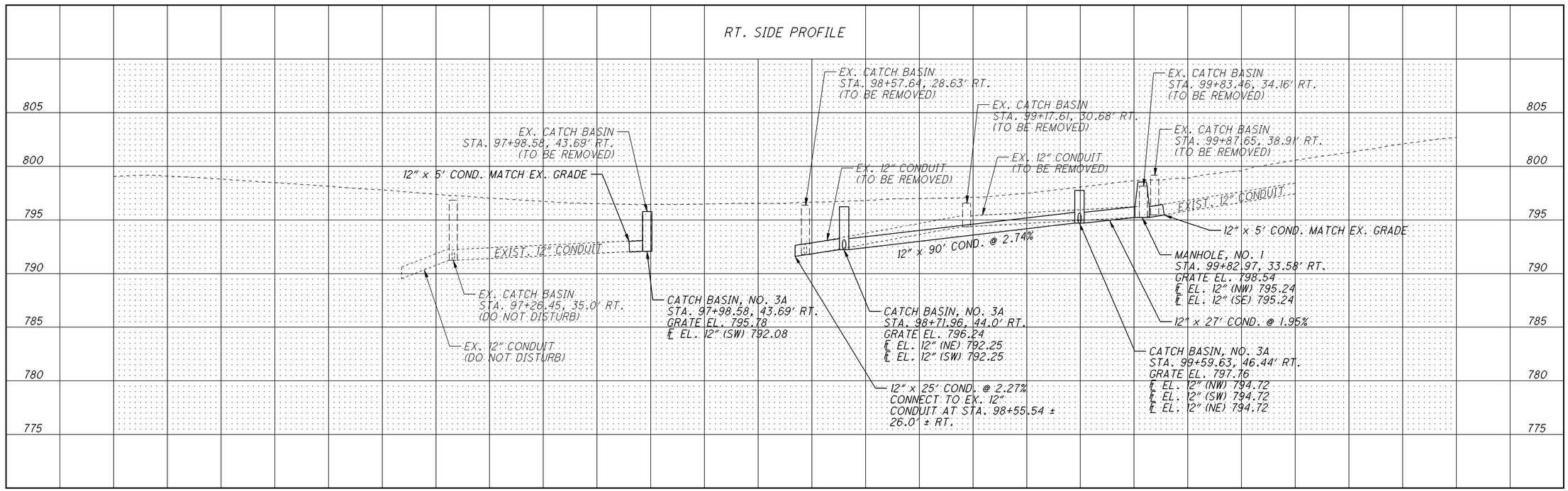
REFERNCE NO.	SHEET NO.	LOCATION	SIDE	DESCRIPTION	EXISTING SURFACE	AREA (CALCULATED BY COMPUTER)	407		448			452	608	609		659
									1.25"	1.75"	1.25"					
							TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE @0.075 GAL./SQ. YD.	TACK COAT, TRACKLESS TACK, SURFACE COURSE @ 0.050 GAL./SQ. YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS)	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M	8" NON-REINFORCED CONCRETE PAVEMENT	8" CONCRETE WALK	CURB, TYPE 6	CONCRETE MEDIAN	SEEDING AND MULCHING, CLASS 1
			Lt/Rt.			Sq. Yd.	GAL.	GAL.	CU. YD.	CU. YD.	CU. YD.	SQ. YD.	SQ. FT.	FT.	SQ. YD.	SQ. YD.
		Dresden Road														
DR-1	45,85,95	Sta. 1+25.0	Rt.	Commercial	Asphalt	46.9		2.4	1.7				73.7			
DR-2	45,85,95	Sta. 1+58.4	Lt.	Commercial	Asphalt	60.7		3.1	2.2				234.3			
		Parking Lot Pavement				26.3		1.4	1.0							
DR-3	45,85,95	Sta. 2+52.0	Lt.	Commercial	Asphalt	36.3		1.9	1.3				219.6			
DR-4	45,85,95	Parking Lot Pavement	Rt.	Commercial	Asphalt	18.7						18.7				
		Clyde Court														
DR-5	45,85,95	Sta. 0+55.0	Lt.	Commercial	Asphalt	7.9		0.4	0.3					9		
		Parking Lot Pavement				46.4		2.4	1.7							
		S.R. 60 (Maple Ave.)														
DR-6	46 & 96	Health Plex Drive	Rt.	Commercial	Asphalt	78.9	6.0	4.0		3.9	2.8				9.1	
DR-7	46,86,96	Captain D's Drive	Rt.	Commercial	Asphalt	86.2		4.4	3.0					109		25.7
		Prop. Bank Drive														
DR-8	49 & 98	Sta. 0+85.4	Rt.	Commercial	Asphalt	11.8		0.6	0.5							
DR-9	49 & 98	Sta. 1+42.7	Rt.	Commercial	Asphalt	14.1		0.8	0.5							
		Exist. Balls Lane														
DR-10	49 & 99	Sta. 4+68.6	Lt.	Residential	Gravel	6.7		0.4	0.3				—			—
		Walmart Drive														
DR-11	49,89,100	Sta. 5+46.9	Lt.	Commercial	Asphalt	29.4		1.5	1.1					12		
		Walmart Parking Lot														
P-1	49,89,100		Lt.	Commercial	Asphalt	4.8		0.3	0.2							
P-2	49,89,100		Lt.	Commercial		9.6		0.5	0.4							
		Exist. Drives Removed														
		Exist. Dresden Road														
DRR-1	45 & 85	Sta. 5+92.2	Lt.													
DRR-2	45 & 85	Sta. 5+44.9	Lt./Rt.													
		S.R. 60 (Maple Ave.)														
DRR-3	45 & 85	Sta. 101+51.6	Rt.													
DRR-4	45 & 85	Sta. 102+10.9	Rt.													
DRR-5	46,86,96	Sta. 153+60.8	Lt.													
DRR-6	47,87,97	Sta. 157+46.2	Lt.											50		47.4
DRR-7	47,87,97	Sta. 158+68.4	Rt.													14.6
DRR-8	47,87,97	Sta. 159+86.2	Rt.													18.4
		Prop. Balls Lane														
DRR-9	47,87,89	Sta. 1+00.0±	Lt./Rt.													
DRR-10	49 & 89	Sta. 2+00.0±	Lt./Rt.											116		
DRR-11	49 & 89	Sta. 3+50.0±	Lt./Rt.													
TOTALS (CARRIED TO GENERAL SUMMARY)							6	25	15	4	3	19	528	296	10	107

MUS-60-18.35

104
157

83002_PCS_004.DGN 2/11/13



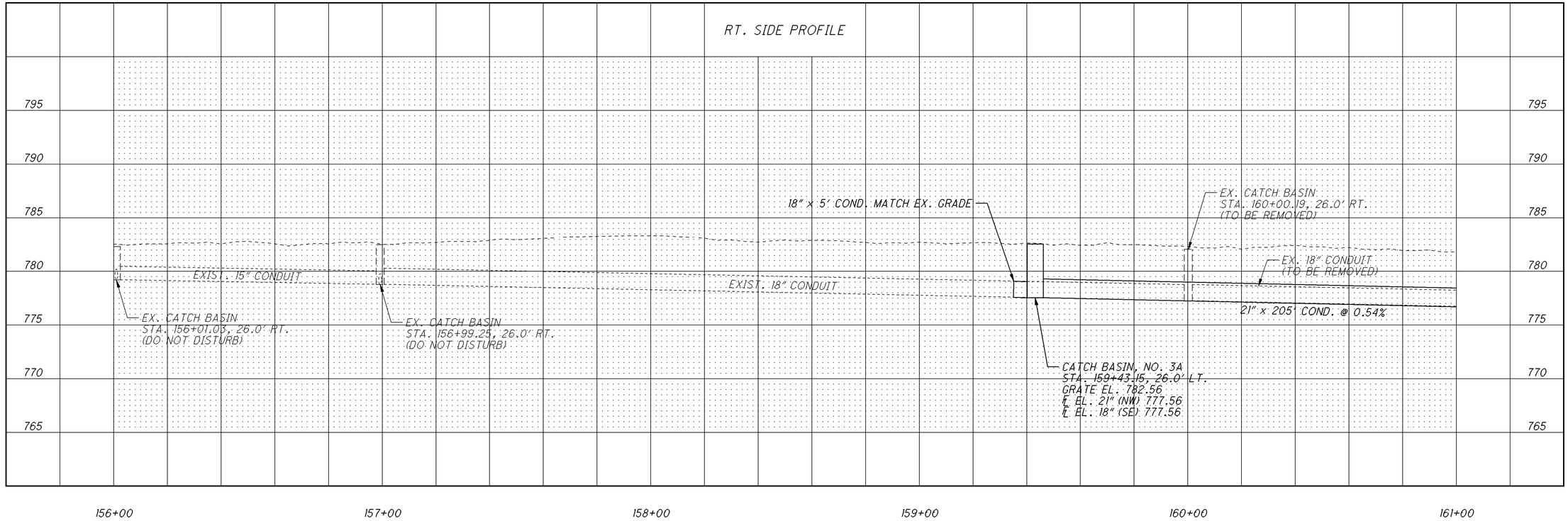


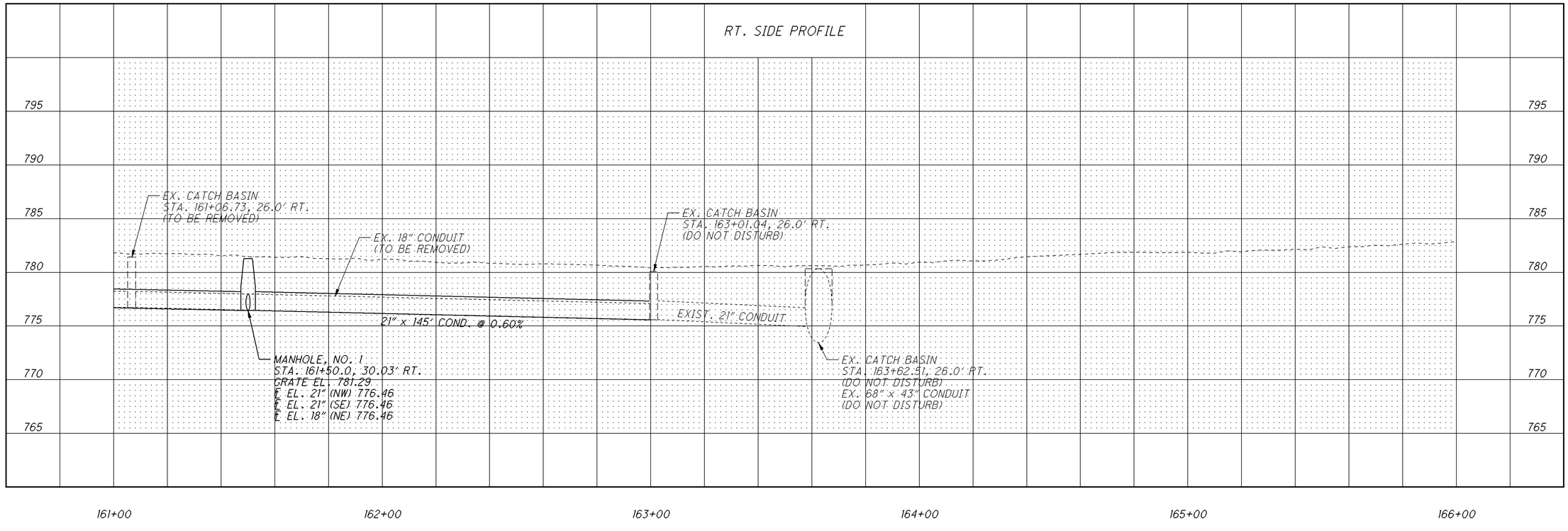
CALCULATED JLS
CHECKED DNM

STORM SEWER PROFILE SHEET (S.R. 60) (LT. AND RT.) STA. 96+00 TO STA. 101+00

MUS-60-18.35

83002_PRO_01.DGN 2/1/2013





CALCULATED JLS
CHECKED DNM

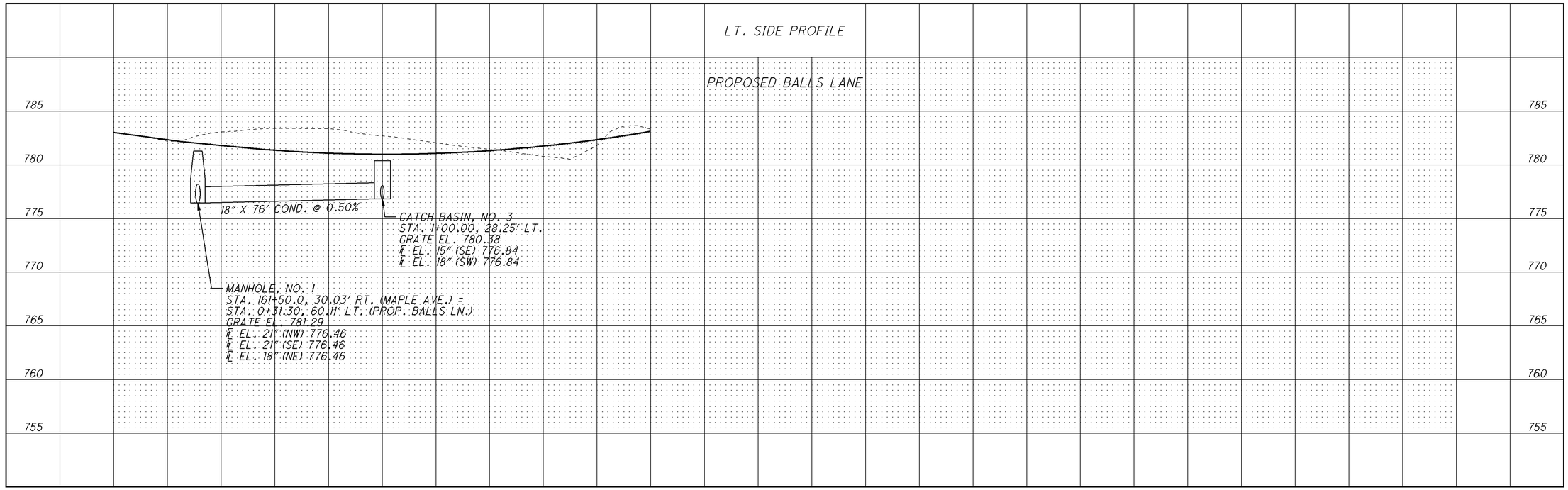
STORM SEWER PROFILE SHEET (S.R. 60) (RT.)
STA. 156+00 TO STA. 166+00

MUS-60-18.35

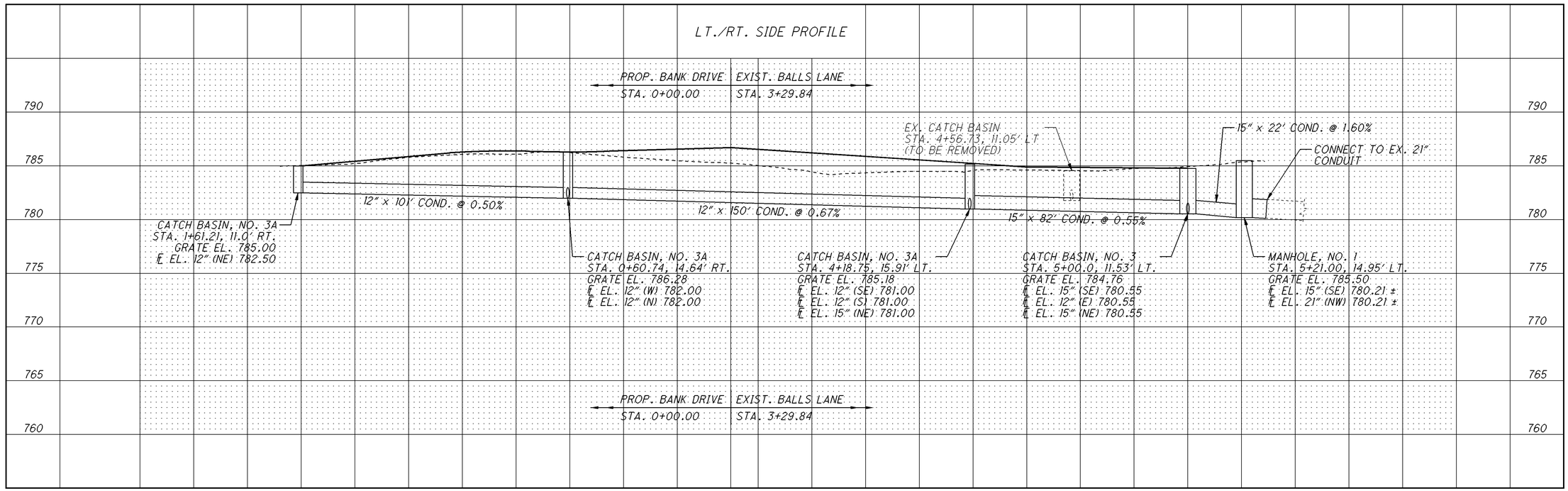
83002_PRO_02.DGN 2/07/13

LT. SIDE PROFILE

PROPOSED BALLS LANE



LT./RT. SIDE PROFILE



CALCULATED JLS
CHECKED DNM

STORM SEWER PROFILE SHEET
PROP. BALLS LN. AND PROP. BANK DR. (RT.)/EXIST. BALLS LN. (LT.)

MUS-60-18.35

83002_PRO_03.DGN 1/30/13

NOTES:

- FOR DRAINAGE QUANTITIES, SEE SHEET 111.
- FOR PLAN SHEETS, SEE SHEETS 44-45.
- FOR STORM SEWER PROFILE, SEE SHEET 105.

(TBR) - TO BE REMOVED

ST. LOUIS AVE.

P1 Sta. 96+99.07

EXIST. 12" COND.

EXIST. CB

EXIST. 12" COND.

EXIST. CB

EXIST. 21" COND.

EXIST. 18" COND.

EXIST. 12" COND.

EXIST. 12" COND. (TO REMAIN)

EXIST. CB

EXIST. 12" COND. (DND)

EXIST. 12" COND.

℄ SURVEY AND CONSTRUCTION S.R. 60 (MAPLE AVENUE)

CONNECT TO EX. 12" CONDUIT AT STA. 98+55.54, 26.0'± RT.

EXIST. 12" COND. (TBR)

EXIST. 12" COND. (TBR)

EXIST. CB (TBR)

EXIST. CB (TBR)

MH 1

12" TYPE B (5')

EXIST. CB (TBR)

D-2

12", TYPE B (27')

E-1

D-1

12", TYPE B (25')

CB 3A

12", TYPE B (5')

CB 3A

12", TYPE B (90')

D-2

P.C. Sta. 0+00.00

P.T. Sta. 0+62.95

℄ SURVEY AND CONSTRUCTION PROP. ALLEY

P.I. Sta. 1+70.72

McCONNELL AVE.

P1 Sta. 99+98.86

BROWN ST.

EXIST. 12" COND. (TO REMAIN)

EXIST. CB

℄ STA. 100+41.67 S.R. 60 (MAPLE AVE.) = ℄ STA. 0+00 PROP. DRESDEN RD. = ℄ STA. 0+00 BROWN ST.

E-3

D-4

CB 3

12", TYPE B (48')

CB 3A

12", TYPE B (91') @ 2.62 %

E-2

D-3

CB 3A

E-4

℄ SURVEY AND CONSTRUCTION PROP. DRESDEN ROAD

D-3

12", TYPE B (121') @ 3.00 %

EXIST. ℄ DRESDEN ROAD

CB 3A

E-5

P.T. Sta. 2+26.18

12", TYPE B (44')

℄ STA. 1+98.46 PROP. DRESDEN RD. = ℄ STA. 0+00 CLYDE CT.

D-3

CLYDE CT.

PC Sta. 0+48.03

CB 3A

E-6

83002_DPP_01.DGN 1/30/2013

HORIZONTAL SCALE IN FEET

0 20 40

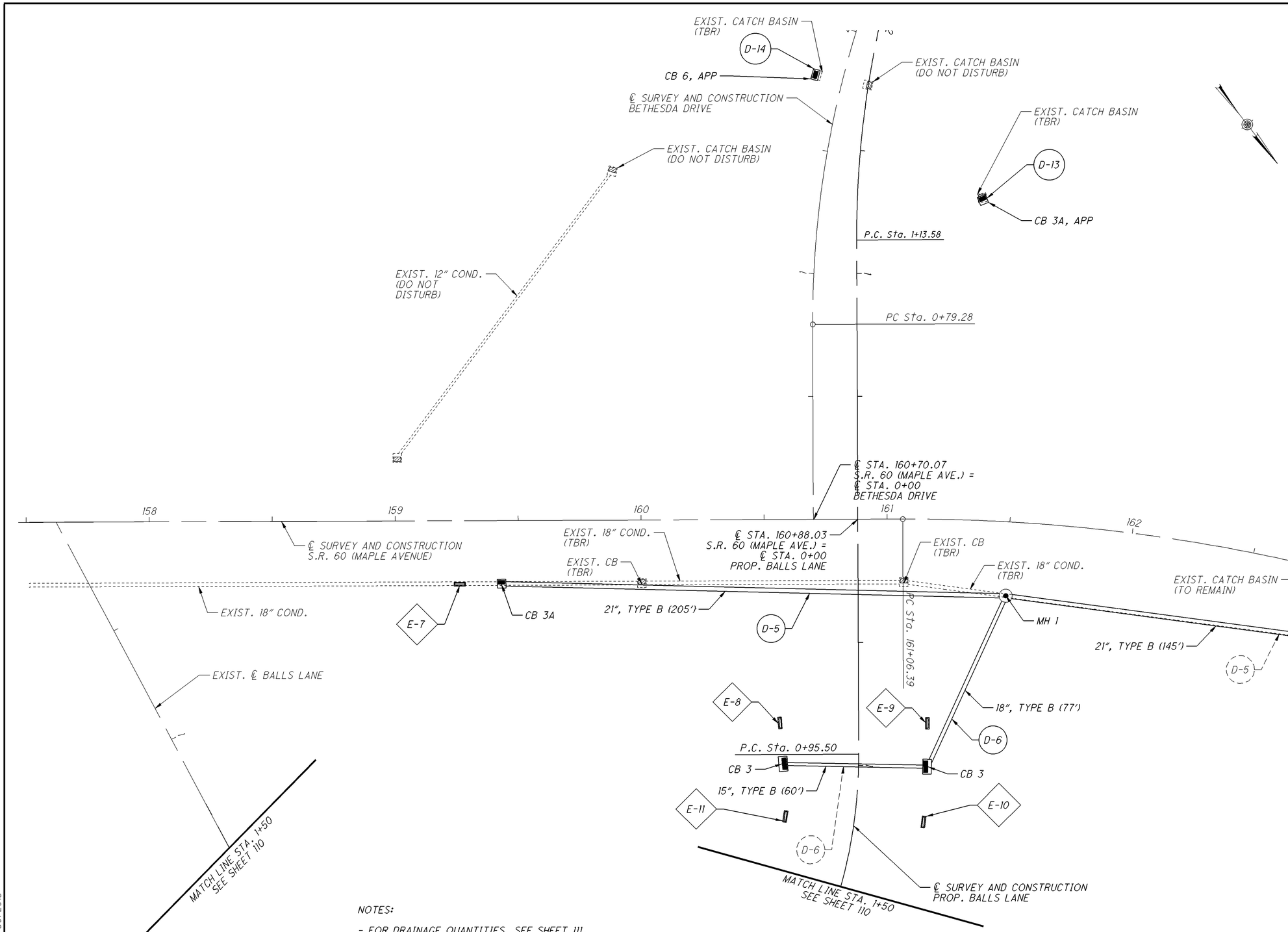
CALCULATED JLS

CHECKED DNM

DRAINAGE PLAN SHEET (S.R. 60)(MAPLE AVE.) STA. 96+50 TO STA. 102+00

MUS-60-18.35

108
157



NOTES:

- FOR DRAINAGE QUANTITIES, SEE SHEET 111.
- FOR PLAN SHEETS, SEE SHEETS 47-48.
- FOR STORM SEWER PROFILE, SEE SHEETS 106-107.

(TBR) - TO BE REMOVED

83002_DPP_02.DGN 1/30/2013

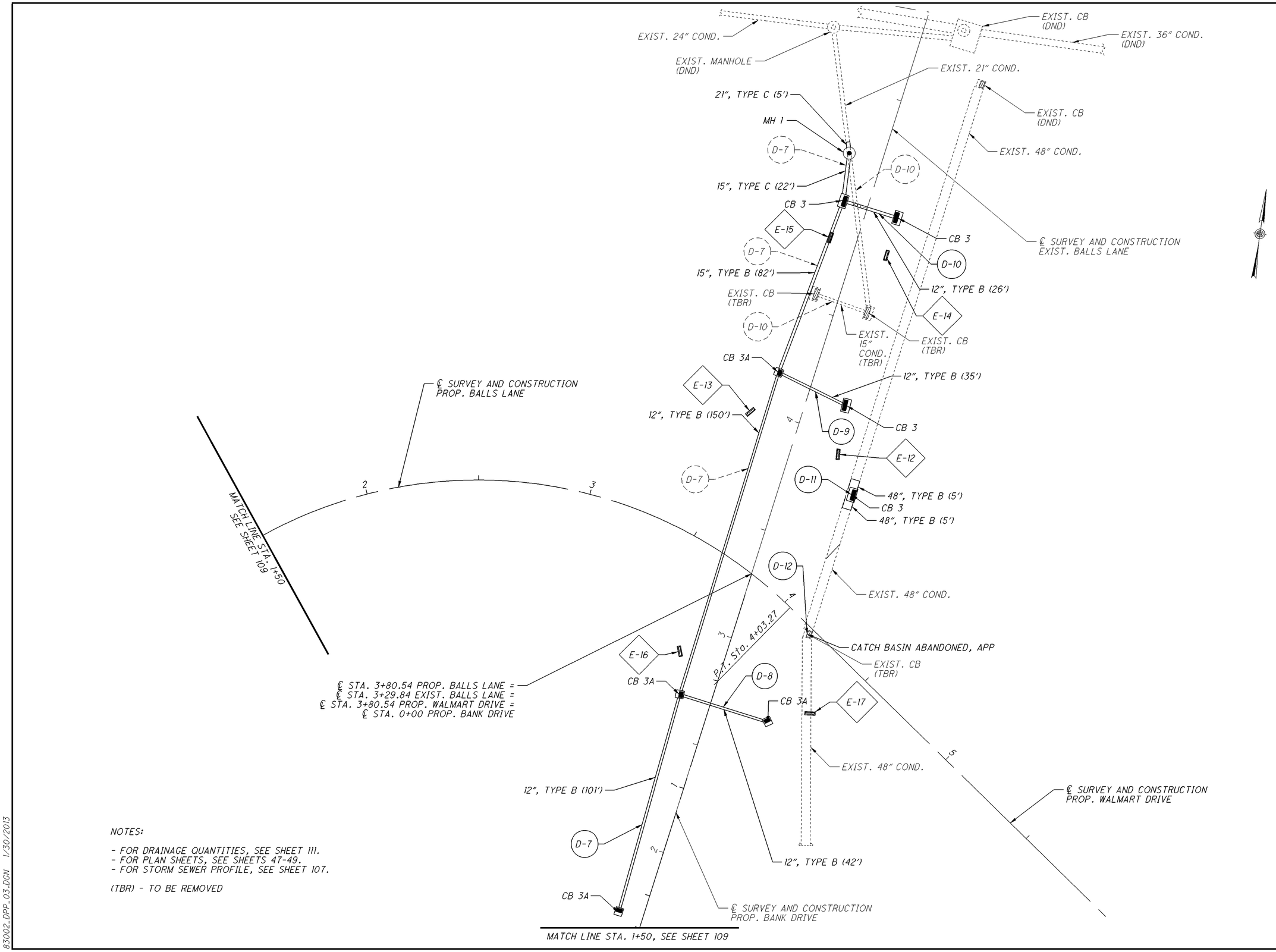
HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

DRAINAGE PLAN SHEET
STA. 157+50 TO STA. 163+00
(S.R. 60)(MAPLE AVE.)

MUS-60-18.35

109
157



NOTES:

- FOR DRAINAGE QUANTITIES, SEE SHEET 111.
- FOR PLAN SHEETS, SEE SHEETS 47-49.
- FOR STORM SEWER PROFILE, SEE SHEET 107.

(TBR) - TO BE REMOVED

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

DRAINAGE PLAN SHEET (PROP. BALLS LANE)
STA. 1+50 TO STA. 5+60

MUS-60-18.35

110
157

83002_DPP_03.DGN 1/30/2013

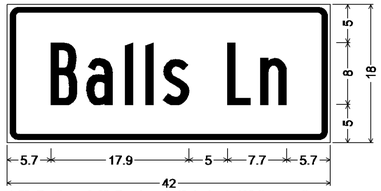
DRAINAGE QUANTITIES

CALCULATED JLS
CHECKED DNM

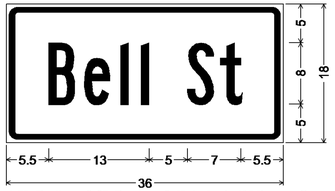
REFERENCE NO.	SHEET NO.	LOCATION Station to Station	SIDE	202				603							604					835	
				PIPE REMOVED, 24" AND UNDER	PIPE REMOVED, OVER 24"	CATCH BASIN REMOVED	CATCH BASIN ABANDONED, AS PER PLAN	12" CONDUIT, TYPE B	15" CONDUIT, TYPE B	15" CONDUIT, TYPE C	18" CONDUIT, TYPE B	21" CONDUIT, TYPE B	21" CONDUIT, TYPE C	48" CONDUIT, TYPE B	CATCH BASIN, NO. 3	CATCH BASIN, NO. 3A	CATCH BASIN, NO. 3A, AS PER PLAN	CATCH BASIN, NO. 6, AS PER PLAN	MANHOLE, NO. 1	EXFILTRATION TRENCH, TYPE A	EXFILTRATION TRENCH, TYPE C
			Lt./Rt.	FT.	FT.	EACH	EACH	FT.	FT.	FT.	FT.	FT.	FT.	FT.	EACH	EACH	EACH	EACH	EACH	FT.	FT.
		S.R. 60 (Maple Ave.)																			
D-1	108	Sta. 97+98.58	Rt.	5		1		5								1					
D-2	108	Sta. 98+55.54 to Sta. 99+87.27	Rt.	141		4		147								2			1		
		Dresden Road																			
D-3	108	Sta. 0+33.22 to Sta. 2+24.89	Lt./Rt.					256								3					
D-4	108	Sta. 0+72.45 to Sta. 0+85.55	Lt./Rt.					46							1						
		S.R. 60 (Maple Ave.)																			
D-5	109	Sta. 159+43.15 to Sta. 163+01.04	Rt.	351		2						350				1			1		
		Prop. Balls Lane																			
D-6	109	Sta. 0+31.30 to Sta. 1+00.00	Lt./Rt.						60		77				2						
		Exist. Balls Lane/Prop. Bank Drive																			
D-7	110	Sta. 1+61.21 to Sta. 5+25.54	Lt.					251	82	22			5		1	3			1		
D-8	110	Sta. 0+60.74	Lt./Rt.					42								1					
D-9	110	Sta. 4+13.72 to Sta. 4+18.75	Lt./Rt.					35							1						
D-10	110	Sta. 4+59.84 to Sta. 5+00.00	Lt./Rt.	98		2		26							1						
		Walmart Drive																			
D-11	110	Sta. 3+91.02	Lt.		10	1								10	1						
D-12	110	Sta. 4+16.96	Lt./Rt.				1														
		Prop. Bethesda Drive																			
D-13	109	Sta. 1+31.62	Rt.			1											1				
D-14	109	Sta. 1+77.46	Lt.			1												1			
		S.R. 60 (Maple Ave.)																			
E-1	108	Sta. 98+13.25 to Sta. 98+17.92	Rt.																	4	
E-2	108	Sta. 99+75.57 to Sta. 99+80.00	Rt.																	4	
E-3	108	Sta. 101+14.33 to Sta. 101+19.00	Rt.																	4	
		Dresden Road																			
E-4	108	Sta. 1+03.72 to Sta. 1+08.00	Rt.																	4	
E-5	108	Sta. 2+16.63 to Sta. 2+21.75	Lt																		4
E-6	108	Sta. 2+70.91 to Sta. 2+75.57	Rt.																		4
		S.R. 60 (Maple Ave.)																			
E-7	109	Sta. 159+23.81 to Sta. 159+28.48	Rt.																	4	
		Prop. Balls Lane																			
E-8	109	Sta. 0+80.34 to Sta. 0+85.00	Rt.																	4	
E-9	109	Sta. 0+80.67 to Sta. 0+85.33	Lt.																	4	
E-10	109	Sta. 1+17.71 to Sta. 1+21.79	Lt.																	4	
E-11	109	Sta. 1+22.17 to Sta. 1+27.63	Rt.																	4	
		Exist. Balls Lane																			
E-12	110	Sta. 3+89.90 to Sta. 3+94.44	Rt.																	4	
E-13	110	Sta. 3+96.63 to Sta. 4+00.55	Lt.																	4	
E-14	110	Sta. 4+80.34 to Sta. 4+85.01	Rt.																	4	
E-15	110	Sta. 4+80.34 to Sta. 4+85.01	Lt																	4	
		Prop. Bank Drive																			
E-16	110	Sta. 0+40.77 to Sta. 0+44.87	Rt.																	4	
		Prop. Walmart Drive																			
E-17	110	Sta. 4+40.28 to Sta. 4+44.73	Rt.																	4	
TOTALS (CARRIED TO GENERAL SUMMARY)				595	10	12	1	810	142	22	77	350	5	10	7	11	1	1	3	60	8

MUS-60-18.35

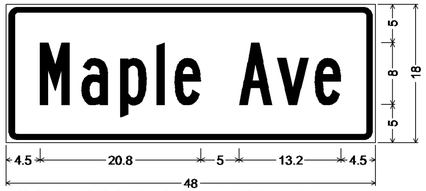
83002_DOS_001.DGN 2/04/13



1.5" Radius, 0.8" Border, 0.4" Indent, White on Green;
[Balls] B 75% spacing; [Ln] B 75% spacing;



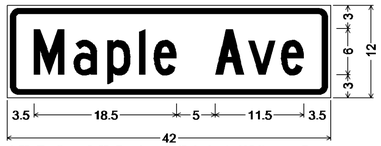
1.5" Radius, 0.8" Border, 0.4" Indent, White on Green;
[Bell] B 75% spacing; [St] B 75% spacing;



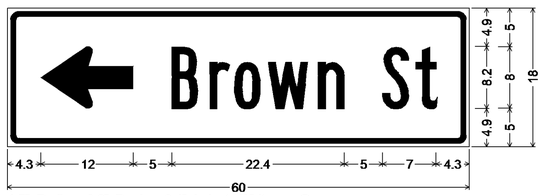
1.5" Radius, 0.8" Border, 0.4" Indent, White on Green;
[Maple] B 75% spacing; [Ave] B 75% spacing;

1.5" Radius, 0.8" Border, 0.4" Indent, White on Green;
[Brown] B 75% spacing; [St] B 75% spacing;

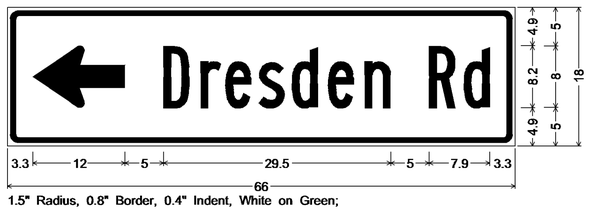
1.5" Radius, 0.8" Border, 0.4" Indent, White on Green;
[Dresden] B 75% spacing; [Rd] B 75% spacing;



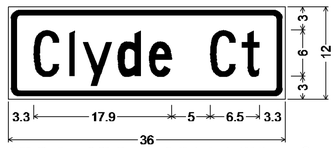
1.5" Radius, 0.8" Border, 0.4" Indent, White on Green;
[Maple] C 75% spacing; [Ave] C 75% spacing;



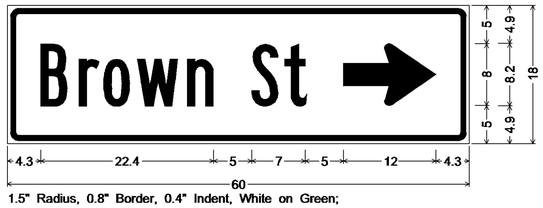
1.5" Radius, 0.8" Border, 0.4" Indent, White on Green;
Standard Arrow Custom 12.0" X 8.1" 180"; [Brown] B 75% spacing;
[St] B 75% spacing;



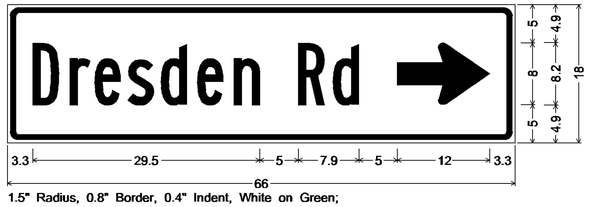
1.5" Radius, 0.8" Border, 0.4" Indent, White on Green;
Standard Arrow Custom 12.0" X 8.1" 180"; [Dresden] B 75% spacing;
[Rd] B 75% spacing;



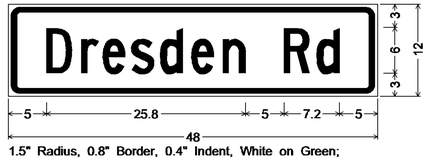
1.5" Radius, 0.8" Border, 0.4" Indent, White on Green;
[Clyde] C 75% spacing;
[Ct] C 75% spacing;



1.5" Radius, 0.8" Border, 0.4" Indent, White on Green;
[Brown] B 75% spacing; [St] B 75% spacing;
Standard Arrow Custom 12.0" X 8.1" 0";



1.5" Radius, 0.8" Border, 0.4" Indent, White on Green;
[Dresden] B 75% spacing; [Rd] B 75% spacing;
Standard Arrow Custom 12.0" X 8.1" 0";



1.5" Radius, 0.8" Border, 0.4" Indent, White on Green;
[Dresden] C 75% spacing; [Rd] C 75% spacing;

CALCULATED LME
CHECKED DNM

PROPOSED SIGN DETAILS

MUS-60-18.35

M060_TSD_001.DGN 1/18/13

TRAFFIC CONTROL PLAN (S.R. 60)(MAPLE AVE.)
STA. 96+05 TO STA. 99+75

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

MUS-60-18.35

113
157

MEET EXISTING MARKINGS

© SURVEY AND CONSTRUCTION S.R. 60 (MAPLE AVENUE)

BEGIN PROJECT STA. 96+05.00 S.L.M. 18.35

St Louis Ave

ST. LOUIS AVE.

P.I. Sta. 96+99.07

PM-14

PM-1

PM-2

PM-3

PM-4

PM-5

PM-6

PM-7

PM-15

+60.0

+17.0

+90.0

+40.0

+18.0

+10.0

+04.0

+05.0

+26.0

95 96 97 98 99

S-1

S-2

S-3

S-4

S-5

S-6

S-7

S-8

S-9

S-10

S-23

S-24

R3-H9K-30
30" x 12"
R3-9A-30
30" x 36"
STA. 97+91.9

R3-H9J-30
30" x 12"
R3-9A-30
30" x 36"
STA. 97+91.9

D3-1-42
42" x 12"
STA. 97+92.6
(POLE MOUNTED)

Maple Ave

SPEED LIMIT 35

ALLEY

MATCH LINE STA. 99+75

Maple Ave

McConnell Ave

REMOVED AND REERECT @ STA. 97+91.6

R3-5R-30
30" x 36"
STA. 97+91.0

McCONNELL AVE.

STOP
RIGHT TURN ONLY

REMOVE AND REERECT @ STA. 97+90.0

P.C. Sta. 0+00.00

P.T. Sta. 0+62.95

P.I. Sta. 1+70.72

© SURVEY AND CONSTRUCTION PROP. ALLEY

DO NOT ENTER

R5-1-36
36" x 36"
STA. 1+00.0

R5-1-36
36" x 36"
STA. 1+00.0

SIGNING LEGEND:

EXISTING SIGN (TO REMAIN IN PLACE)

EXISTING SIGN (TO BE REMOVED)

PROPOSED SIGN

FOR SIGN DETAILS, SEE SHEET 112.
FOR TRAFFIC CONTROL QUANTITIES, SEE SHEETS 119-123.

MAPLAV_TCS_01.DGN 1/18/13

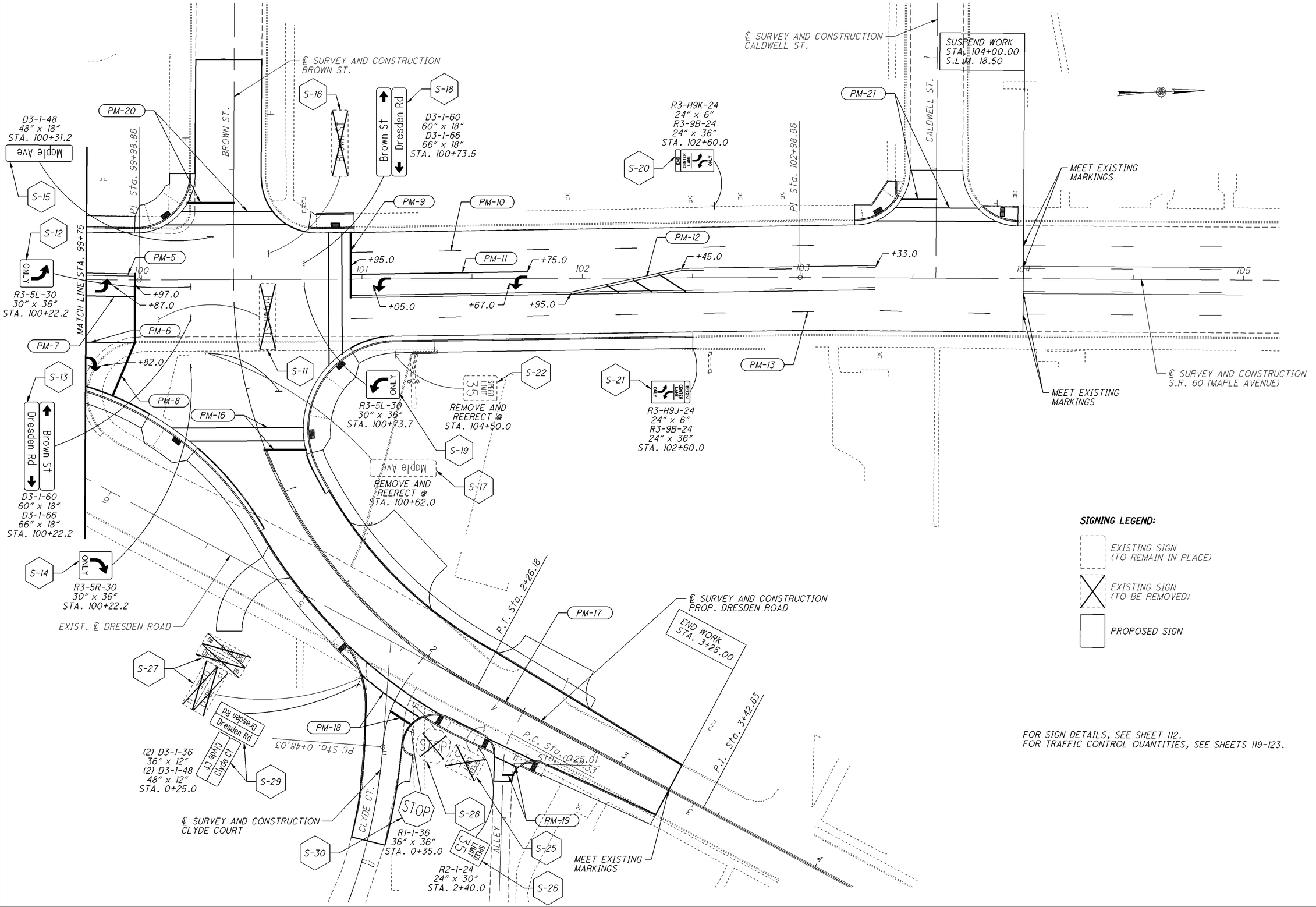
TRAFFIC CONTROL PLAN (S.R. 60)(MAPLE AVE.)
STA. 99+75 TO STA. 104+00

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

MUS-60-18.35

114
157

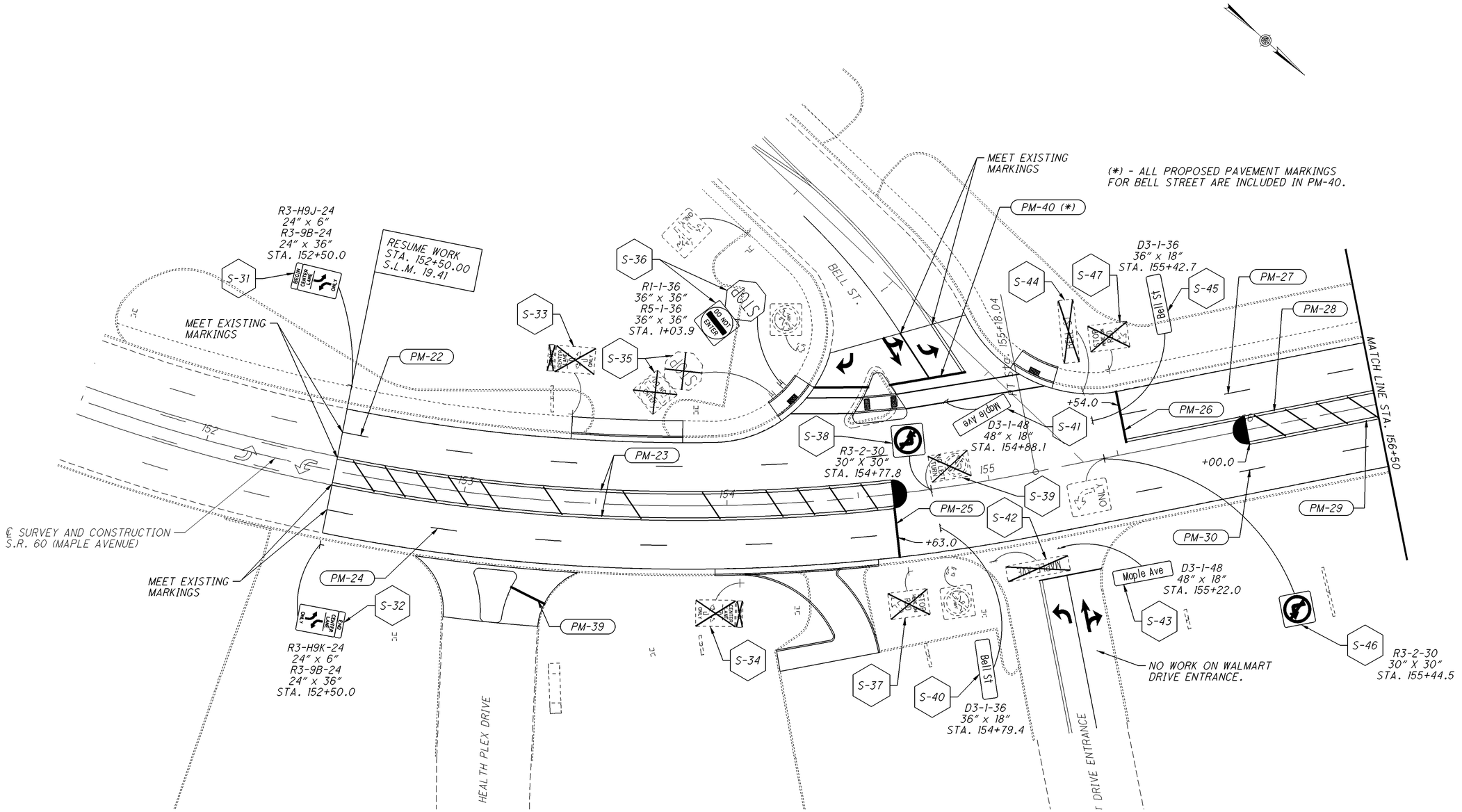


SIGNING LEGEND:

- EXISTING SIGN (TO REMAIN IN PLACE)
- EXISTING SIGN (TO BE REMOVED)
- PROPOSED SIGN

FOR SIGN DETAILS, SEE SHEET 112.
FOR TRAFFIC CONTROL QUANTITIES, SEE SHEETS 119-123.

MAPLAV_TCS_02.DGN 1/18/13



SIGNING LEGEND:

- EXISTING SIGN (TO REMAIN IN PLACE)
- EXISTING SIGN (TO BE REMOVED)
- PROPOSED SIGN

FOR SIGN DETAILS, SEE SHEET 112.
FOR TRAFFIC CONTROL QUANTITIES, SEE SHEETS 119-123.

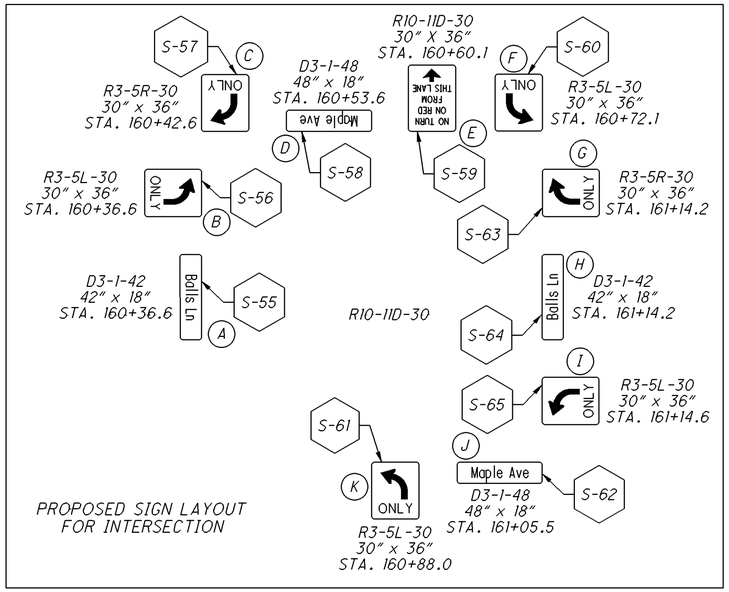
MAPLAV_TCS_03.DGN 1/18/13

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

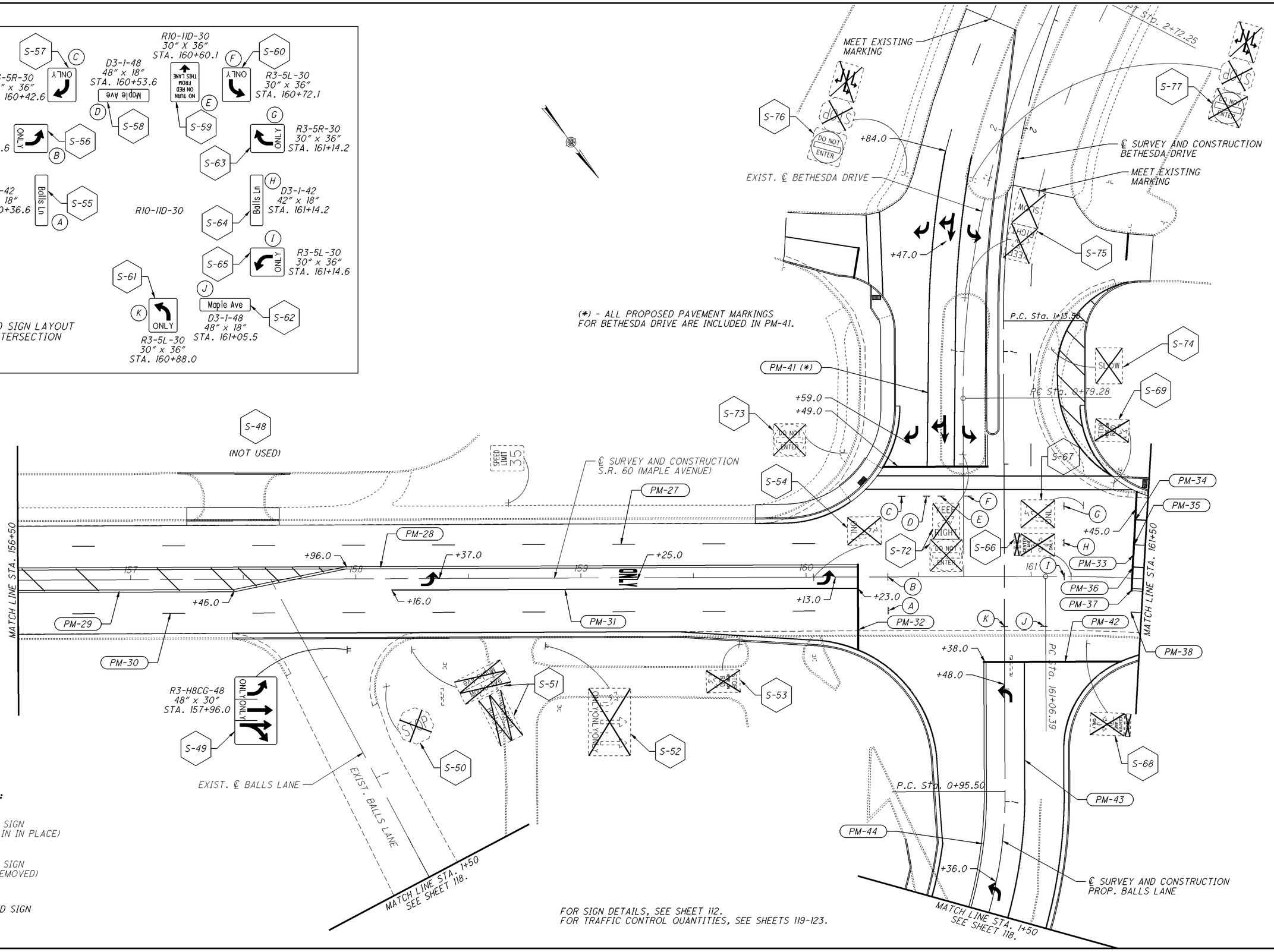
TRAFFIC CONTROL PLAN (S.R. 60)(MAPLE AVE.) STA. 152+50 TO STA. 156+50

MUS-60-18.35



S-48
(NOT USED)

(*) - ALL PROPOSED PAVEMENT MARKINGS
FOR BETHESDA DRIVE ARE INCLUDED IN PM-41.



SIGNING LEGEND:

- EXISTING SIGN (TO REMAIN IN PLACE)
- EXISTING SIGN (TO BE REMOVED)
- PROPOSED SIGN

FOR SIGN DETAILS, SEE SHEET 112.
FOR TRAFFIC CONTROL QUANTITIES, SEE SHEETS 119-123.

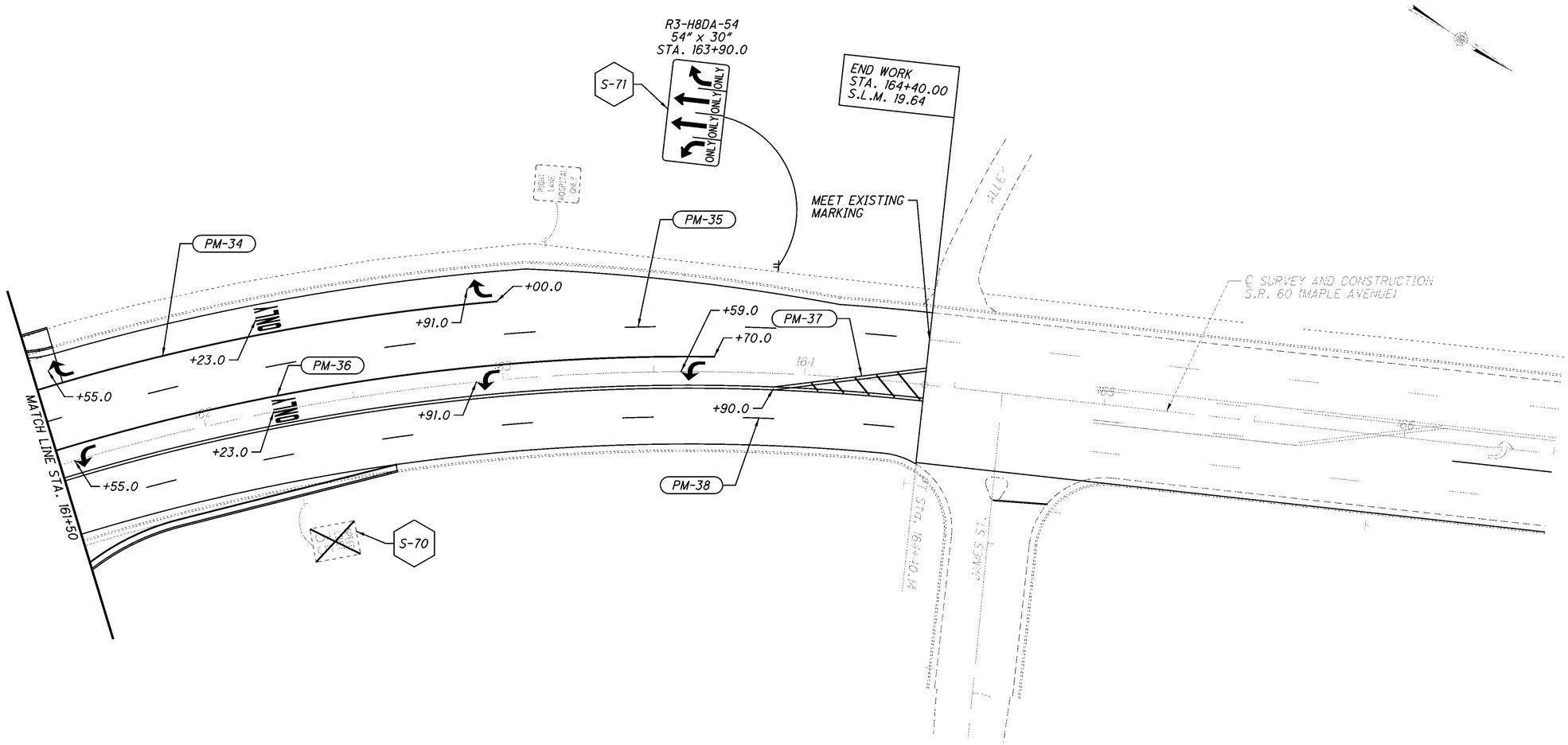
MAPLAV_TCS_04.DGN 2/11/13

HORIZONTAL SCALE IN FEET
0 20 40
CALCULATED JLS
CHECKED DNM

TRAFFIC CONTROL PLAN (S.R. 60)(MAPLE AVE.)
STA. 156+50 TO STA. 161+50

MUS-60-18.35

116
157



SIGNING LEGEND:

EXISTING SIGN
(TO REMAIN IN PLACE)

EXISTING SIGN
(TO BE REMOVED)

PROPOSED SIGN

FOR SIGN DETAILS, SEE SHEET 112.
FOR TRAFFIC CONTROL QUANTITIES, SEE SHEETS 119-123.

MAPLAN_TCS_05.DGN 1:22:13

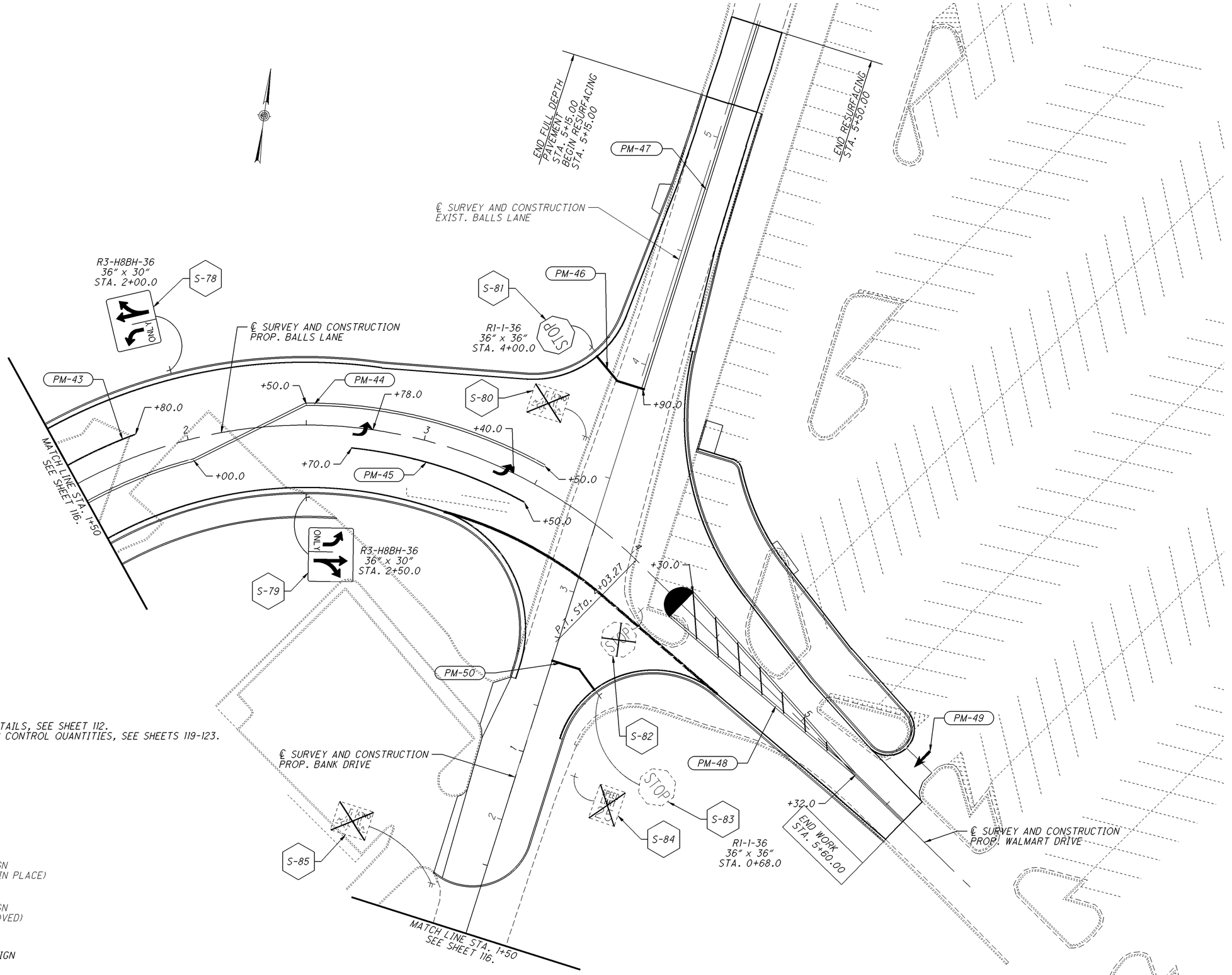
HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

TRAFFIC CONTROL PLAN (S.R. 60)(MAPLE AVE.)
STA. 161+50 TO STA. 164+40

MUS-60-18.35

117
157



FOR SIGN DETAILS, SEE SHEET 112.
FOR TRAFFIC CONTROL QUANTITIES, SEE SHEETS 119-123.

SIGNING LEGEND:

- EXISTING SIGN (TO REMAIN IN PLACE)
- EXISTING SIGN (TO BE REMOVED)
- PROPOSED SIGN

BALLSLN_TCS_01.DGN 1/22/13

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED JLS
CHECKED DNM

TRAFFIC CONTROL PLAN (PROP. BALLS LANE) STA. 1+50 TO STA. 5+99.41

MUS-60-18.35

REFERENCE NO.	SHEET NO.	LOCATION Station to Station	SIDE	LENGTH	644									
					LANE LINE, 4"	CENTER LINE		CHANNELIZING LINE, 8"	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE (YELLOW)	LANE ARROW		WORD ON PAVEMENT, 96"
						SOLID/DASHED	DOUBLE SOLID					LEFT	RIGHT	
			CL/Lt./Rt.	Lin. Ft.	MILE	MILE	MILE	FT.	FT.	FT.	FT.	EACH	EACH	EACH
		S.R. 60 (Maple Ave.)												
PM-1	113	96+05.00 to 96+60.00	Lt.	55.00	0.02									
PM-2	113	96+05.00 to 96+60.00	Lt.	55.00		0.02								
	113	96+05.00 to 96+60.00	Rt.	55.00		0.02								
PM-3	113-114	96+05.00 to 99+97.00	Rt.	392.00	0.08									
PM-4	113-114	97+17.00 to 99+97.00	Lt.	280.00	0.06									
PM-5	113	97+17.00 to 98+40.00	Lt.	123.00		0.03								
	113	97+17.00 to 98+40.00	Rt.	123.00		0.03								
	113-114	98+40.00 to 99+97.00	Lt.	157.00			0.03							
	113	98+40.00 to 98+90.00	Rt.	50.00			0.01				29			
PM-6	113-114	98+05.00 to 99+97.00	Rt.	192.00				192					2	1
PM-7	113-114	99+10.00 to 99+97.00	Rt.	87.00				87				2		
PM-8	114	99+97.00	Lt./Rt.						58					
PM-9	114	100+95.00	Lt./Rt.						30	116				
PM-10	114	100+95.00 to 103+33.00	Lt.	238.00	0.05									
PM-11	114	100+95.00 to 101+75.00	Lt./Rt.	80.00				80				2		
PM-12	114	100+95.00 to 102+45.00	Rt.	150.00			0.03							
	114	101+95.00 to 102+45.00	Lt./Rt.	50.00			0.01				31			
	114	102+45.00 to 103+33.00	Lt.	88.00		0.02								
	114	102+45.00 to 103+33.00	Rt.	88.00		0.02								
PM-13	114	100+95.00 to 104+00.00	Rt.	305.00	0.06									
PM-14	113	St. Louis Avenue	Lt.						15	84				
PM-15	113	McConnell Avenue	Rt.						13	57				
		Prop. Dresden Road												
PM-16	114	0+79.00	Lt./Rt.						19	112				
PM-17	114	0+79.00 to 3+25.00	CL	246.00			0.05							
PM-18	114	Clyde Court	Rt.						12	85				
PM-19	114	Alley (At Dresden Road)	Rt.						6	34				
PM-20	114	Brown Street	Lt.						21	97				
PM-21	114	Caldwell Street	Lt.						16	92				
SUB-TOTALS						0.14	0.13					4	2	
TOTALS (CARRIED TO GENERAL SUMMARY)					0.27	0.27		359	190	677	60	6		1

CALCULATED JLS CHECKED DNM

PAVEMENT MARKING QUANTITIES

MUS-60-18.35

119
157

83002_TOS_01.DGN 1/18/13

REFERENCE NO.	SHEET NO.	LOCATION Station to Station	SIDE	LENGTH	644															
					LANE LINE, 4"	CENTER LINE (DOUBLE SOLID)	CHANNELIZING LINE, 8"	STOP LINE	CROSSWALK LINE	TRANSVERSE/ DIAGONAL LINE		ISLAND MARKING (YELLOW)	LANE ARROW					WORD ON PAVEMENT, 96"	DOTTED LINE, 4"
										YELLOW	WHITE		LEFT	THRU	COMINATION THRU/LEFT	COMBINATION THRU/RIGHT	RIGHT		
			CL/Lt./Rt.	Lin. Ft.	MILE	MILE	FT.	FT.	FT.	FT.	FT.	SQ. FT.	EACH	EACH	EACH	EACH	EACH	EACH	FT.
		S.R. 60 (Maple Ave.)																	
PM-22	115	152+50.00 to 154+63.00	Lt.	213.00	0.05														
PM-23	115	152+50.00 to 154+63.00	Lt.	213.00		0.05													
	115	152+50.00 to 154+63.00	Rt.	213.00		0.05				152		48							
PM-24	115	152+50.00 to 154+63.00	Rt.	213.00	0.05														
PM-25	115	154+63.00	Rt.					19											
PM-26	115	155+54.00	Lt.					20											
PM-27	115-116	155+54.00 to 160+23.00	Lt.	469.00	0.09														
PM-28	115-116	155+54.00 to 160+23.00	Lt.	469.00		0.09													
PM-29	115-116	156+00.00 to 157+96.00	Rt.	196.00		0.04				142		48							
PM-30	115-116	155+54.00 to 160+23.00	Rt.	469.00	0.09														
PM-31	116	158+16.00 to 160+23.00	Lt./Rt.	207.00			207						2					1	
PM-32	116	160+23.00	Lt./Rt.					38											
PM-33	116	161+45.00	Lt./Rt.					45											
PM-34	116-117	161+45.00 to 163+00.00	Lt.	155.00			155										2	1	
PM-35	116-117	161+45.00 to 164+40.00	Lt.	295.00	0.06														
PM-36	116-117	161+45.00 to 163+70.00	Lt.	225.00			225						3					1	
PM-37	116-117	161+45.00 to 164+40.00	Rt.	295.00		0.06													
	117	163+90.00 to 164+40.00	Lt./Rt.	50.00		0.01				35									
PM-38	116-117	161+45.00 to 164+40.00	Rt.	295.00	0.06														
PM-39	115	Health Plex Drive	Rt.					14											
PM-40	115	Bell Street	Lt.			0.01	21	50	146				1		1		1		102
PM-41	116	Bethesda Drive	Lt.		0.03	0.01	424	71	292		67		2			2	2		
		Prop. Balls Lane																	
PM-42	116	0+38.00	Lt./Rt.					61											
PM-43	116&118	0+38.00 to 1+80.00	Lt.	142.00			142						2						
PM-44	116&118	0+38.00 to 3+50.00	Lt./Rt.	312.00		0.06													
PM-45	118	2+70.00 to 3+50.00	Rt.	80.00			80						2						
		Exist. Balls Lane																	
PM-46	118	3+90.00	Lt./Rt.					26											
PM-47	118	3+90.00 to 5+50.00	Rt.	160.00		0.04													
		Walmart Drive																	
PM-48	118	4+30.00 to 5+32.00	Lt.	102.00		0.02													
	118	4+30.00 to 5+99.41	CL/Rt.	169.41		0.04				80		85							
PM-49	118	Parking Lot	Lt.											1					
		Prop. Bank Drive																	
PM-50	118	0+60.00	Lt.					48											
SUB-TOTALS										409	67		12	1	1	2	5		
TOTALS (CARRIED TO GENERAL SUMMARY)					0.43	0.48	1,254	392	438	476		181	21					3	102

CALCULATED JLS CHECKED DNM

PAVEMENT MARKING QUANTITIES

MUS-60-18.35

REFERENCE NO.	SHEET NO.	LOCATION (Station)	SIDE	SIGN CODE	SIGN SIZE	630											
						GROUND MOUNTED SUPPORT, NO. 3 POST	STREET NAME SIGN SUPPORT, NO. 2 POST	SIGN POST REFLECTOR	SIGN HANGER ASSEMBLY, SPAN WIRE	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	SIGN, FLAT SHEET	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL
			CL/Lt./Rt.			FT.	FT.	EACH	EACH	EACH	SQ. FT.	EACH	EACH	EACH	EACH	EACH	EACH
		S.R. 60 (Maple Ave.)															
S-1	113	96+63.4	Rt.	Ex. Sign												2	
S-2	113	97+05.8	Lt.	Ex. Signs													4
S-3	113	97+90.0	Rt.	Ex. Signs		13.5							3	1			
S-4	113	97+91.0	Rt.	R3-5R-30	30" x 36"				1		7.5						
S-5	113	97+91.6	Rt.	Ex. Sign											1		
S-6	113	97+91.8	Rt.	Ex. Sign												1	
S-7	113	97+91.9	CL	R3-H9K-30	30" x 12"				1		2.5						
				R3-9A-30	30" x 36"						7.5						
				R3-H9J-30	30" x 12"				1		2.5						
				R3-9A-30	30" x 36"						7.5						
S-8	113	97+92.6	Lt.	D3-1-42	42" x 12"					1	3.5						
S-9	113	98+56.5	Rt.	Ex. Sign												1	
S-10	113	99+26.7	Rt.	Ex. Sign								1		1			
S-11	114	100+07.7	Rt.	Ex. Sign												1	
S-12	114	100+22.2	Rt.	R3-5L-30	30" x 36"				1		7.5						
S-13	114	100+22.2	Rt.	D3-1-60	60" x 18"				1		7.5						
				D3-1-66	66" x 18"						8.3						
S-14	114	100+22.2	Rt.	R3-5R-30	30" x 36"				1		7.5						
S-15	114	100+31.2	Lt.	D3-1-48	48" x 18"				1		6.0						
S-16	114	100+57.4	Lt.	Ex. Sign												1	
S-17	114	100+62.0	Rt.	Ex. Sign											1		
S-18	114	100+73.5	Lt.	D3-1-60	60" x 18"				1		7.5						
				D3-1-66	66" x 18"						8.3						
S-19	114	100+73.7	Rt.	R3-5L-30	30" x 36"				1		7.5						
S-20	114	102+60.0	Lt.	R3-H9K-24	24" x 6"	14.0					1.0						
				R3-9B-24	24" x 36"						6.0						
S-21	114	102+60.0	Rt.	R3-H9J-24	24" x 6"	14.0					1.0						
				R3-9B-24	24" x 36"						6.0						
S-22	114	104+50.0	Rt.	Ex. Sign		13.0							1	1			
		Prop. Alley															
S-23	113	1+00.0	Lt.	R5-1-36	36" x 36"	13.5					9.0						
S-24	113	1+00.0	Rt.	R5-1-36	36" x 36"	13.5					9.0						
		Prop. Dresden Road															
S-25	114	2+39.5	Rt.	Ex. Sign													1
S-26	114	2+40.0	Rt.	R2-1-24	24" x 30"	13.0					5.0						
		Clyde Court															
S-27	114	0+23.1	Rt.	Ex. Signs								4		1			
S-28	114	0+23.3	Lt.	Ex. Sign								1		1			
S-29	114	0+25.0	Rt.	D3-1-36	36" x 12"						3.0						
				D3-1-36	36" x 12"		12.5				3.0						
				D3-1-48	48" x 12"						4.0						
				D3-1-48	48" x 12"						4.0						
S-30	114	0+35.0	Lt.	R1-1-36	36" x 36"	13.5		1			9.0						
TOTALS (CARRIED TO SHEET 123)						108.0	12.5	1	9	1	151.1	6	4	5	2	6	5

CALCULATED JLS
CHECKED DNM

SIGNING SUB-SUMMARY

MUS-60-18.35

83002_TSS_01.DGN 1/22/13

REFERENCE NO.	SHEET NO.	LOCATION (Station)	SIDE	SIGN CODE	SIGN SIZE	630						
						GROUND MOUNTED SUPPORT, NO. 3 POST	SIGN POST REFLECTOR	SIGN HANGER ASSEMBLY, SPAN WIRE	SIGN, FLAT SHEET	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL
			CL/Lt/Rt.			FT.	EACH	EACH	SQ. FT.	EACH	EACH	EACH
		S.R. 60 (Maple Ave.)										
S-31	115	152+50.0	Lt.	R3-H9J-24	24" x 6"	14.0			1.0			
				R3-9B-24	24" x 36"				6.0			
S-32	115	152+50.0	Rt.	R3-H9K-24	24" x 6"	14.0			1.0			
				R3-9B-24	24" x 36"				6.0			
S-33	115	153+38.9	Lt.	Ex. Signs						2	1	
S-34	115	154+04.0	Rt.	Ex. Signs						2	1	
S-35	115	154+19.5	Lt.	Ex. Signs						2	1	
S-36	115	154+23.1	Lt.	R1-1-36	36" x 36"	13.5	1		9.0			
				R5-1-36	36" x 36"				9.0			
S-37	115	154+65.6	Rt.	Ex. Sign						1	1	
S-38	115	154+77.8	CL	R3-2-30	30" x 30"			1	6.3			
S-39	115	154+77.9	CL	Ex. Sign								1
S-40	115	154+79.4	Rt.	D3-1-36	36" x 18"			1	4.5			
S-41	115	154+88.1	Lt.	D3-1-48	48" x 18"			1	6.0			
S-42	115	154+96.7	Rt.	Ex. Sign								1
S-43	115	155+22.0	Rt.	D3-1-48	48" x 18"			1	6.0			
S-44	115	155+41.4	Lt.	Ex. Sign								1
S-45	115	155+42.7	Lt.	D3-1-36	36" x 18"			1	4.5			
S-46	115	155+44.5	CL	Ex. Sign								1
			CL	R3-2-30	30" x 30"			1	6.3			
S-47	115	155+53.0	Lt.	Ex. Sign						1	1	
S-48		NOT USED										
S-49	116	157+96.0	Rt.	R3-H8CG-48	48" x 30"	26.0			10.0			
S-50	116	158+13.5	Rt.	Ex. Signs						2	1	
S-51	116	158+24.7	Rt.	Ex. Signs						4	1	
S-52	116	158+84.0	Rt.	Ex. Sign						1	2	
S-53	116	159+70.2	Rt.	Ex. Sign						1	1	
S-54	116	160+03.4	CL	Ex. Sign								1
S-55	116	160+36.6	Rt.	D3-1-42	42" x 18"			1	5.3			
S-56	116	160+36.6	CL	R3-5L-30	30" x 36"			1	7.5			
S-57	116	160+42.6	Lt.	R3-5R-30	30" x 36"			1	7.5			
S-58	116	160+53.6	Lt.	D3-1-48	48" x 18"			1	6.0			
S-59	116	160+60.1	Lt.	R10-11D-30	30" x 36"			1	7.5			
S-60	116	160+72.1	Lt.	R3-5L-30	30" x 36"			1	7.5			
S-61	116	160+88.0	Rt.	R3-5L-30	30" x 36"			1	7.5			
S-62	116	161+05.5	Rt.	D3-1-48	48" x 18"			1	6.0			
S-63	116	161+14.2	Lt.	R3-5R-30	30" x 36"			1	7.5			
S-64	116	161+14.2	Lt.	D3-1-42	42" x 18"			1	5.3			
S-65	116	161+14.6	CL	R3-5L-30	30" x 36"			1	7.5			
S-66	116	161+17.7	CL	Ex. Signs								2
S-67	116	161+22.5	Lt.	Ex. Sign								1
S-68	116	161+25.3	Rt.	Ex. Signs						2	1	
S-69	116	161+35.3	Lt.	Ex. Sign						1	1	
S-70	117	162+27.3	Rt.	Ex. Sign						1	1	
S-71	117	163+65.0	Lt.	R3-H8DA-54	54" x 30"	26.0			11.3			
		TOTALS (CARRIED TO SHEET 123)				93.5	1	17	162.0	20	13	8

CALCULATED JLS
CHECKED DNM

SIGNING SUB-SUMMARY

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122
157

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REFERENCE NO.	SHEET NO.	LOCATION (Station)	SIDE	SIGN CODE	SIGN SIZE	630											
						GROUND MOUNTED SUPPORT, NO. 3 POST	STREET NAME SIGN SUPPORT, NO. 2 POST	SIGN POST REFLECTOR	SIGN HANGER ASSEMBLY, SPAN WIRE	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	SIGN, FLAT SHEET	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL
			CL/Lt/Rt.			FT.	FT.	EACH	EACH	EACH	SQ. FT.	EACH	EACH	EACH	EACH	EACH	EACH
		Bethesda Drive															
S-72	116	0+54.1	CL	Ex. Signs								2		1			
S-73	116	0+55.2	Lt.	Ex. Sign								1		1			
S-74	116	1+00.7	Rt.	Ex. Sign								1		1			
S-75	116	1+23.5	Lt.	Ex. Sign								2		1			
S-76	116	1+72.1	Lt.	Ex. Sign								2					
S-77	116	1+73.7	Lt.	Ex. Sign								3		1			
		Prop. Balls Lane															
S-78	118	2+00.0	Lt.	R3-H8BH-36	36" x 30"	13.0					7.5						
S-79	118	2+50.0	Rt.	R3-H8BH-36	36" x 30"	13.0					7.5						
		Exist. Balls Lane															
S-80	118	3+63.6	Lt.	Ex. Sign								1		2			
S-81	118	4+00.0	Lt.	R-1-1-36	36" x 36"	13.5		1			9.0						
		Walmart Drive															
S-82	118	4+19.5	Rt.	Ex. Sign								1		1			
					—								—				—
		Prop. Bank Drive															
S-83	118	0+68.0	Lt.	R-1-1-36	36" x 36"	13.5		1			9.0						
S-84	118	1+03.5	Lt.	Ex. Sign								1		1			
S-85	118	1+64.3	Rt.	Ex. Sign								1		2			
TOTALS (THIS SHEET)						53.0		2			33.0	15		11			
TOTALS (CARRIED FROM SHEET 121)						108.0	12.5	1	9	1	151.1	6	4	5	2	6	5
TOTALS (CARRIED FROM SHEET 122)						93.5		1	17		162.0	20		13		8	
TOTALS (CARRIED TO GENERAL SUMMARY)						254.5	12.5	4	26	1	346.1	41	4	29	2	14	5

CALCULATED JLS CHECKED DNM

SIGNING SUB-SUMMARY

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GENERAL

THE CONTRACTOR SHALL FURNISH AND INSTALL TRAFFIC CONTROL EQUIPMENT AND MATERIALS IN CONFORMANCE TO THESE PLANS AND SPECIFICATIONS AND THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (2008) AND ALL SUPPLEMENTAL SPECIFICATIONS. BEFORE ANY EQUIPMENT IS ORDERED OR INSTALLATION IS BEGUN, THREE (3) SETS OF A COMPLETE SCHEDULE OF EQUIPMENT INCLUDING CATALOG CUTS, DIAGRAMS, DRAWINGS, BROCHURES OR OTHER DESCRIPTIVE DATA SHALL BE SUBMITTED TO THE ENGINEER. ONE COPY WILL BE RETURNED MARKED "APPROVED" IF FOUND SATISFACTORY. WORK MAY BEGIN WHEN THE APPROVED COPY IS RECEIVED BY THE CONTRACTOR.

THE CONTRACTOR SHALL SUBMIT IN WRITING A SCHEDULE OF WORK FOR THE PROJECT TO THE PROJECT ENGINEER FOR APPROVAL. THIS SCHEDULE SHALL BE SUBMITTED NOT LESS THAN TWO (2) WEEKS IN ADVANCE OF STARTING WORK.

REFERENCE TO A PARTICULAR TRADE NAME, MANUFACTURER'S CATALOG OR MODEL NUMBER IS MADE FOR DESCRIPTIVE PURPOSES TO GUIDE THE BIDDER. IN INTERPRETING THE REQUIREMENTS OF THE CONTRACT, THEY SHOULD NOT BE CONSTRUED AS EXCLUDING PROPOSALS ON OTHER MATERIALS, EQUIPMENT OR SUPPLIES THAT ARE EQUAL TO OR BETTER THAN THOSE REFERRED TO.

ANY EQUIPMENT OR MATERIAL NOT SPECIFICALLY CALLED FOR IN THESE SPECIFICATIONS BUT NECESSARY TO PROVIDE A COMPLETE AND SUCCESSFULLY OPERATING SYSTEM SHALL BE FURNISHED AS INCIDENTAL TO THE CONTRACT. PAYMENT FOR SUCH ITEMS WILL BE MADE UNDER THE APPROPRIATE RELATED ITEM AT THE CONTRACT BID PRICE, COMPLETE AND IN PLACE.

PLAN AND SPECIFICATION COMPLIANCE

THESE SPECIFICATIONS, TOGETHER WITH THE ACCOMPANYING PLANS, ARE INTENDED TO DESCRIBE THE TYPE, SIZE AND LOCATION OF THE PRODUCTS AND MATERIALS TO BE PROVIDED AND INSTALLED UNDER VARIOUS BID ITEMS RELATED TO TRAFFIC CONTROL. THE CONTRACTOR SHALL FURNISH AND INSTALL TRAFFIC CONTROL DEVICES AND RELATED MATERIALS IN COMPLIANCE WITH THESE PLANS AND SPECIFICATIONS, AS WELL AS THE 2008 OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, THE TRAFFIC ENGINEERING MANUAL, AND THE STANDARD CONSTRUCTION DRAWINGS ISSUED BY THE OHIO DEPARTMENT OF TRANSPORTATION. THESE SPECIFICATIONS SET FORTH THE MINIMUM PERFORMANCE AND OPERATING REQUIREMENTS OF THE TRAFFIC CONTROL ITEMS REFERRED TO HEREIN.

TRAFFIC SIGNAL CONTROL EQUIPMENT SHALL MEET OR EXCEED THE STANDARDS SPECIFIED IN THE FOLLOWING DOCUMENTS:

(A) SPECIFICATIONS LISTED IN THIS PLAN
(B) NEMA STANDARDS PUBLICATION NO. TS1-1989 AND/OR TS2-1992 (OR CURRENT NEMA ISSUE) SECTIONS 1, 2, 5, 6, 8, 11, 13, & 14.
(C) 2008 ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS 625, 632, 633, 725, 732 AND 733.

IN CASE OF A CONFLICTING SPECIFICATION STATEMENT, THE SPECIFICATION DOCUMENT HIERARCHY SHALL BE IN THE ORDER LISTED FROM (A) – HIGHEST TO (C) - LOWEST.

MAINTENANCE OF TRAFFIC SIGNAL INSTALLATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE TRAFFIC SIGNAL/FLASHER INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

A) FOR EXISTING SIGNAL/FLASHER INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE. OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME THE INSTALLATIONS ARE FIRST DISTURBED UNTIL THEY HAVE BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.

B) FOR NEW OR REUSED SIGNAL/FLASHER INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. THE CONTRACTOR SHALL PROVIDE THE STATE AND THE ENGINEER ADDRESSES AND PHONE NUMBERS WHERE THE CONTRACTOR'S MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL ALSO PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS CONTINUALLY AVAILABLE 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MIS-ALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK INTO SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AND THE SIGNAL SHALL BE BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8 HOUR PERIOD AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHEN MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION, THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHEN OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHEN THE CONTRACTOR HAS FAILED TO OR CANNOT RESPOND TO AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, WITHIN THE PERIODS SPECIFIED ABOVE, THE ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15. ANY SUBSEQUENT BILLINGS TO THE STATE FOR POLICE SERVICES AND MAINTENANCE SERVICES BY STATE FORCES WILL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS WHICH REQUIRE HANDLING DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM.

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN SECTION 632.25.

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 180 DAYS FOLLOWING COMPLETION OF THE 10-DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY. EQUIPMENT, MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR.

THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM: CONTROLLERS AND ASSOCIATED EQUIPMENT, DETECTOR UNITS AND INTERCONNECTION ITEMS.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE STATE OR THE MAINTAINING AGENCY FOLLOWING ACCEPTANCE OF THE EQUIPMENT.

THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

ELECTRICAL INSPECTION BY STATE LICENSED INSPECTOR

MOST ELECTRIC COMPANIES REQUIRE THAT ALL NEW OR RELOCATED ELECTRIC SERVICE ENCLOSURES ARE TO BE INSPECTED BY A LICENSED STATE INSPECTOR PRIOR TO CONNECTION TO A UTILITY DISTRIBUTION LINE. THIS IS A NEW SITUATION FOR ODOT BECAUSE INSPECTIONS ARE NOW BEING REQUIRED FOR TRAFFIC CONTROL DEVICES.

THE CONTRACTOR SHALL HIRE A LICENSED ELECTRICAL INSPECTOR(S); PAY THE APPROPRIATE FEE(S), AND ADVISE THE ODOT PROJECT ENGINEER OF THE TIME OF THE INSPECTION(S) SO THAT HE/SHE MAY HAVE A REPRESENTATIVE IN ATTENDANCE. IT IS TO BE NOTED THAT THE INSPECTION DOES NOT SUBSTITUTE FOR ODOT'S FINAL INSPECTION, NOR DOES IT SUPERSEDE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS.

THE COST OF THE INSPECTIONS SHALL BE CONSIDERED AS INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE TRAFFIC CONTROL DEVICES.

SIGNAL SUPPORT DRAWINGS

THE SIGNAL SUPPORT DESIGNER SHALL PROVIDE DRAWINGS FOR ALL SIGNAL SUPPORTS IN THESE PLANS, WITH STRUCTURAL ASPECTS OF THE DESIGN AND MATERIALS IN COMPLIANCE WITH THE 2001 AASHTO STANDARD SPECIFICATIONS, WITH 2006 INTERIM REVISIONS. THE SIGNAL SUPPORT SHALL BE ASTM A595 GRADE A WITH A MINIMUM YIELD STRENGTH OF 50 KSI. THE FOLLOWING DESIGN PARAMETERS SHALL BE USED:

1. BASIC WIND SPEED = 90 MPH
2. DESIGN LIFE = 25 YEARS
3. FATIGUE CATEGORY = III
4. GALLOPING: NO
5. TRUCK INDUCED GUST: NO

SUBMIT, TO THE ENGINEER PRIOR TO INCORPORATION: TWO COPIES OF THE SIGNAL SUPPORT DRAWINGS AND SHOP DRAWINGS, WHICH IDENTIFY AND DESCRIBE EACH MANUFACTURED SIGNAL SUPPORT AND SIGNAL SUPPORT ITEM WHICH IS BEING INCORPORATED INTO THE CONSTRUCTION. THE SIGNAL SUPPORT DRAWINGS AND SHOP DRAWINGS SHALL EACH BE REVIEWED, SEALED, STAMPED, AND DATED BY TWO OHIO REGISTERED PROFESSIONAL ENGINEERS.

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TRAFFIC SIGNAL GENERAL NOTES

TRAFFIC

MUS-60-18.35

ITEM 625 TRENCH, 24" DEEP, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 625.12 AND THE STANDARD CONSTRUCTION DRAWINGS, WITHIN EACH TRENCH, THE LOCATION OF UNDERGROUND CABLE OR CONDUIT SHALL BE MARKED BY THE USE OF A CONTINUOUS IDENTIFYING TAPE BURIED IN THE TRENCH ABOVE THE LINE. THE IDENTIFYING TAPE SHALL BE AN INERT MATERIAL, APPROXIMATELY 6.0" WIDE, COMPOSED OF POLYETHYLENE PLASTIC, HIGHLY RESISTANT TO ALKALIS ACIDS OR OTHER CHEMICAL COMPONENTS LIKELY TO BE ENCOUNTERED IN SOILS. THE TAPE SHALL BE BRIGHT RED WITH IDENTIFYING PRINTING "ELECTRIC" IN BLACK LETTERS, ONE SIDE ONLY. TAPES SHALL BE SUPPLIED IN CONTINUOUS ROLLS WITH THE IDENTIFYING LETTERING REPEATED CONTINUOUSLY THE FULL LENGTH OF THE TAPE. IDENTIFYING TAPES SHALL BE BURIED IN THE ELECTRIC LINE TRENCH WITH ONE STRIP PLACED APPROXIMATELY 8.0" TO 12.0" BELOW THE FINISHED GRADE. THE TAPE SHALL BE PLACED PARALLEL WITH THE FINISHED SURFACE. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO INSURE THAT THE TAPE IS NOT PULLED, DISTORTED OR OTHERWISE MISPLACED IN COMPLETING THE TRENCH BACKFILL. THE TAPE SHALL BE ALLEN SYSTEM'S, TERRA TAPE OR EQUAL, AS APPROVED BY THE ENGINEER. PAYMENT SHALL BE INCLUDED IN THE BID PRICE PER LINEAR FOOT OF ITEM 625 TRENCH, 24" DEEP, AS PER PLAN, COMPLETE AND IN PLACE.

ITEM 632 POWER SERVICE, AS PER PLAN

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

AMERICAN ELECTRIC POWER
SOLUTION CENTER
PHONE: 1-800-672-2231

POWER SERVICE SHALL BE AS PER CMS 632 & SCD TC-83.10 WITH THE FOLLOWING EXCEPTIONS:

1. THE CONTRACTOR SHALL SUPPLY THE NECESSARY METER BASE. THE METER SHALL HAVE A LEVER OPERATED BYPASS. THE METER BASE MOUNTING HEIGHT SHALL BE NO MORE THAN 5 FEET HIGH TO THE CENTER OF THE METER BASE FROM THE GROUND.
2. THE CONTRACTOR SHALL SUPPLY 120 VOLT, 2-WIRE POWER SERVICE FOR THE TRAFFIC SIGNAL.
3. THE CONTRACTOR SHALL SUPPLY A 30 AMP WATERPROOF DISCONNECT SWITCH FOR THE TRAFFIC SIGNAL.
4. SERVICE AND POWER CABLE FOR OVERHEAD SERVICE HAVE BEEN ITEMIZED SEPARATELY IN THE PLANS FOR THE CONNECTION BETWEEN THE REMOTE POWER SOURCE AND THE DISCONNECT.

DISCONNECT SWITCH ENCLOSURES SHALL INCLUDE A PADLOCK EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNON 660, WITH LOCK BODY OF BRONZE OR BRASS AND KEYING SHALL BE TO THE STATE MASTER.

THE CONTRACTOR SHALL CONTACT THE METER SECTION OF THE POWER COMPANY FOR INFORMATION REGARDING THE METER BASE INSTALLATION PRIOR TO ORDERING POLES. THE CONTRACTOR WILL BE RESPONSIBLE FOR REQUESTING AND SCHEDULING ANY INSPECTIONS THE POWER COMPANY MAY REQUIRE FOR THE POWER SERVICE HOOK UP. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT THE POWER COMPANY FOR THE ELECTRICAL SERVICE CONNECTION. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE POWER CABLE INTO THE POWER COMPANY'S CIRCUITS. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND THE PAYING OF ALL FEES. THE CONTRACTOR SHALL PAY ALL POWER CHARGES UNTIL THE SIGNAL IS ACCEPTED BY THE MAINTAINING AGENCY.

ITEM 632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN

WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC, THE EXISTING SIGNAL INSTALLATION AT THE INTERSECTIONS LOCATED IN THESE PLANS SHALL BE REMOVED BY THE CONTRACTOR. ALTERNATE METHODS OF TRAFFIC CONTROL SHALL BE APPROVED BY THE ENGINEER AND IN PLACE PRIOR TO THE DEACTIVATION AND REMOVAL OF ANY EXISTING EQUIPMENT. THE FOLLOWING REMOVAL ITEMS SHALL BE STORED ON THE PROJECT FOR SALVAGE BY THE CITY OF ZANESVILLE:

- VEHICLE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS, PUSH BUTTONS, STRAIN POLES, PEDESTALS, CONTROLLER CABINETS (INCLUDING EQUIPMENT), PREEMPTION EQUIPMENT, SIGNAL CABLE AND LOOP DETECTOR LEAD-IN CABLE.

ONCE THESE ITEMS HAVE BEEN REMOVED AND ARE AVAILABLE FOR PICK UP, THE CONTRACTOR SHALL CONTACT MR. FRED BUCK AT, 740-819-4586, WHO WILL ARRANGE THE PICK UP OF THESE ITEMS BY CITY FORCES. IN THE EVENT THE ITEMS STORED ON THE PROJECT FOR SALVAGE ARE NOT REMOVED, THE CONTRACTOR SHALL, WHEN DIRECTED BY THE ENGINEER IN WRITING, REMOVE AND DISPOSE OF THE ITEMS AT NO ADDITIONAL COST TO THE PROJECT.

ITEM 632 TETHER WIRE WITH ACCESSORIES, AS PER PLAN

INSTALLATION OF THE TETHER WIRE SHALL BE IN ACCORDANCE WITH THE PIS 208521 AND CMS 632.225 & 732.185 WITH THE FOLLOWING EXCEPTIONS:

1. SHIM WASHERS SHALL BE INSTALLED INSIDE THE SPAN WIRE CLAMP ON THE PIN ON WHICH THE SIGNAL HEAD WIRE ENTRANCE HANGS WHEN NECESSARY TO MINIMIZE TWISTING OF THE SIGNAL HEAD.
2. BALANCE ADJUSTERS SHALL NOT BE USED.
3. ON ALL SPANS, BOTH SIMPLE AND COMPLEX, THE TETHER SPAN SHALL BE TIGHTENED BETWEEN 600 AND 800 LBS OF TENSION BEFORE ATTACHING SIGNAL HEAD CLAMPS TO PROVIDE A HORIZONTAL SPAN. SIGNAL HEAD DROP PIPES ON THE TOP SHALL BE USED TO KEEP THE TETHER WIRE SPAN IN A TIGHT HORIZONTAL POSITION.
4. DO NOT TETHER FLAT SHEET SIGNS

IF EXTERNAL CONDUIT RISERS ATTACHED TO THE SUPPORT INTERFERE WITH THE ATTACHMENT OF THE TETHER WIRE POLE CLAMP, THE CONTRACTOR SHALL LOOSEN AND REATTACH THE CONDUIT RISER TO ALLOW INSTALLATION OF THE POLE CLAMP. THE CONTRACTOR SHALL INSTALL THE PROPOSED SIGNAL HEADS THEN HANG THE BOTTOM TETHER WIRE. THE BOTTOM TETHER WIRE SHOULD BE HORIZONTAL WITH NO SLACK PRIOR TO ATTACHING SIGNAL HEADS.

THE DEPARTMENT WILL MEASURE ITEM 632 "TETHER WIRE WITH ACCESSORIES, AS PER PLAN" AS CALLED OUT IN CMS 632.29.

ITEM 632 PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 632 AND 732, THE FOLLOWING REQUIREMENTS SHALL ALSO APPLY:

LAMPS:

LED, LIGHT EMITTING DIODE, SIGNAL LAMP UNITS SHALL MEET THE REQUIREMENTS OF SUPPLEMENTAL SPECIFICATION 872. ALL LAMP UNITS SHALL BE THE 12 INCH SIZE. LED SIGNAL LAMP UNITS SHALL BE PROVIDED FOR THE FOLLOWING LENS TYPES: CIRCULAR RED, CIRCULAR YELLOW, CIRCULAR GREEN, YELLOW ARROW, GREEN ARROW.

SIGNAL SECTIONS:

1. SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF BLACK POLYCARBONATE PLASTIC AND MEET ITE SPECIFICATIONS.
2. PIPE, SPACERS AND FITTINGS CONSTRUCTED OF POLYCARBONATE PLASTIC SHALL BE USED IN LIEU OF GALVANIZED STEEL OR ALUMINUM.
3. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.

COUNTDOWN:

1. OPERATION.
   - A. DISPLAY DRIVER SHALL BE DESIGNED TO ALLOW INDIVIDUAL LED FAILURES WITHOUT AFFECTING OTHER LEDS IN THE SAME DISPLAY.
   - B. THE COUNTDOWN TIMER SHALL BE OF THE "SMART" TYPE, WHICH CONTINUOUSLY SAMPLES THE TIMING INTERVALS PRESENTED BY THE PEDESTRIAN SIGNAL LOAD SWITCH DRIVER(S) IN ORDER TO "LEARN" THE PROGRAMMED TIMING BEING USED BY THE CONTROLLER.
   - C. DURING INTERVAL SAMPLING TIME, THE COUNTDOWN TIMER NUMBERICAL DISPLAY SHALL BE BLANK.
   - D. SAMPLING TIME TO DETERMINE INTERVAL SETTINGS SHALL TAKE A MAXIMUM OF TWO COMPLETE SIGNAL CYLCLES.
   - E. THE UNIT SHALL BE CAPABLE OF DISPLAYING A COUNTDOWN COMMENCING AT THE ONSET OF THE PEDESTRIAN CLEARANCE INTERVAL AND REACHING ZERO AT THE END OF THE PEDESTRIAN CLEARANCE INTERVAL.
   - F. ANY INTERRUPTION OF THE FLASHING PEDESTRIAN CLEARANCE DISPLAY, E.G., PREEMPTION, TIMING PLAN CHANGE, DURING A COUNTDOWN DISPLAY SHALL IMMEDIATELY CAUSE BLANKING OF THE COUNTDOWN NUMERALS. THE COUNTDOWN TIMER SHALL "RE-LEARN" THE PEDESTRIAN CLEARANCE INTERVAL UPON RETURN TO NORMAL SERVICE AFTER PREEMPTION OR IMMEDIATELY FOLLOWING A CHANGE IN WALK CLEARANCE TIME ASSOCIATED WITH A TIMING PLAN CHANGE.
2. TYPE D. THE LEFT SIDE OF THE SIGNAL SECTION SHALL CONSIST OF AN INTERGRAL HAND/WALKING PERSON DISPLAY. THE RIGHT SIDE COMPARTMENT SHALL CONTAIN THE COUNTDOWN DISPLAY. THE DISPLAY NUMERAL SEGMENTS SHALL BE COMPRISED OF TWO ROWS OF DISCRETE LEDS.

THE DEPARTMENT WILL MEASURE PEDESTRIAN SIGNAL HEAD, (LED), TYPE D2, AS PER PLAN BY THE NUMBER OF COMPLETE UNITS FURNISHED AND INSTALLED, AND WILL INCLUDE ALL SUPPORT AND MOUNTING HARDWARE, CLOSURE CAPS, AND LAMPS AS SPECIFIED.

CALCULATED JSL CHECKED DNM

TRAFFIC SIGNAL GENERAL NOTES

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ITEM 632 VEHICULAR SIGNAL HEAD, (LED) BLACK, BY SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 632 AND 732, THE FOLLOWING REQUIREMENTS SHALL ALSO APPLY:

LAMPS:

LED, LIGHT EMITTING DIODE, SIGNAL LAMP UNITS SHALL MEET THE REQUIREMENTS OF SUPPLEMENTAL SPECIFICATION 872. ALL LAMP UNITS SHALL BE THE 12 INCH SIZE. LED SIGNAL LAMP UNITS SHALL BE PROVIDED FOR THE FOLLOWING LENS TYPES: CIRCULAR RED, CIRCULAR YELLOW, CIRCULAR GREEN, YELLOW ARROW, GREEN ARROW.

SIGNAL SECTIONS:

1. SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF BLACK POLYCARBONATE PLASTIC AND MEET ITE SPECIFICATIONS.
2. PIPE, SPACERS AND FITTINGS CONSTRUCTED OF POLYCARBONATE PLASTIC SHALL BE USED IN LIEU OF GALVANIZED STEEL OR ALUMINUM.
3. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.

MOUNTING HARDWARE:

1. ALL UPPER SIGNAL SUPPORT HARDWARE AND PIPING UP TO AND INCLUDING THE WIRE INLET FITTING SHALL BE FERROUS METAL FOR SIGNAL DISPLAYS OF TWO OR MORE SECTIONS.
2. THE ENTRANCE FITTING SHALL BE OF THE TRI-STUD DESIGN WITH SERRATED RINGS IN ORDER TO ACHIEVE POSITIVE LOCKING.
3. ALL BALANCE ADJUSTERS SHALL HAVE A MINIMUM THREE-QUARTER INCH EYE BOLT AND THREE-QUARTER INCH WIDE SLOT. EYE BOLTS ARE CAST FROM 316 STAINLESS STEEL AND PROVIDED WITH A SATIN FINISH. THREE-QUARTER INCH BODY HALVES ARE CAST FROM A MINIMUM 65-45-12 DUCTILE IRON AND PROVIDED WITH A BRIGHT ZINC FINISH (ZN1). BALANCE ADJUSTERS SHALL ONLY BE USED WHERE SPECIFIED.

THE DEPARTMENT WILL MEASURE VEHICULAR SIGNAL HEAD, (LED) BLACK, BY TYPE, WITH BACKPLATES, AS PER PLAN BY THE NUMBER OF COMPLETE UNITS FURNISHED AND INSTALLED, AND WILL INCLUDE ALL SUPPORT AND MOUNTING HARDWARE. DISCONNECT HANGERS, CLOSURE CAPS, DIMMERS, AND LAMPS AS SPECIFIED.

ITEM 633 CABINET, TYPE TS1, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS ITEM 633 AND 733, THE FOLLOWING REQUIREMENTS SHALL APPLY:

1. LOOP DETECTOR UNITS SHALL BE FOUR-CHANNEL AND RACK MOUNTED.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY RELABELING IN THE CABINET AS A RESULT OF ANY PHASE CHANGES INCLUDED IN THESE PLANS.

PAYMENT FOR ITEM 633 "CABINET, TYPE TS1, AS PER PLAN" SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH CABINET, IN PLACE, COMPLETELY INSTALLED IN THE LOCATION SHOWN IN THE PLANS, WIRED, TESTED AND ACCEPTED.

ITEM 633 CONTROLLER UNIT, TYPE TS2/A2, FURNISH ONLY, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS ITEM 633 AND 733, THE FOLLOWING REQUIREMENTS SHALL APPLY:

1. THE CONTROLLER SHALL BE AN EAGLE MODEL EPAC M-52 OR NEWER, MANUFACTURED BY EAGLE TRAFFIC CONTROL SYSTEMS, AUSTIN, TEXAS AND SHALL INCORPORATE OR BE FURNISHED WITH ALL OF THE DESIGN FEATURES, AUXILIARY EQUIPMENT, ACCESSORIES, AND PRE-WIRED CABINET FEATURES.
2. THE CONTRACTOR SHALL DELIVER EACH CONTROLLER UNIT TO, MR. FRED BUCK, OF THE CITY OF ZANESVILLE AT LEAST 14 DAYS IN ADVANCE OF ANY SCHEDULED SIGNAL WORK. THE CONTRACTOR SHALL CONTACT MR. BUCK AT, 740-819-4586 TO SCHEDULE THE DELIVERY OF THE CONTROLLER UNITS.
3. THE CONTRACTOR SHALL CONTACT MR. BUCK AT LEAST 24 HOURS IN ADVANCE OF WHEN HE/SHE WILL HAVE THE CABINET WIRED AND READY FOR THE CONTROLLER. MR. BUCK SHALL DELIVER AND INSTALL THE PROGRAMMED CONTROLLER UNIT TO THE CABINET.

PAYMENT FOR ITEM 633 "CONTROLLER UNIT, TYPE TS2/A2, FURNISH ONLY, AS PER PLAN" SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH CONTROLLER UNIT FURNISHED AND DELIVERED.

ITEM 633 CONTROLLER ITEM MISC.: PREEMPTION UNIT, REMOVED FOR REUSE

THIS ITEM SHALL CONSIST OF REMOVING THE PREEMPTION RECEIVING UNIT AND CONFIRMATION LIGHTS FROM THE EXISTING SIGNAL AND INSTALLING THEM AT THE PROPOSED SIGNAL LOCATION(S) SHOWN IN THE PLANS.

THIS ITEM ALSO INCLUDES THE REMOVAL OF THE PHASE SELECTOR FROM THE EXISTING CABINET AND INSTALLATION INTO THE PROPOSED CABINET, INCLUDING WIRING AND ALL ACCESSORIES THAT ARE NECESSARY TO MAKE THE PREEMPT PHASE SELECTOR COMPLETELY FUNCTIONAL AND OPERATIONAL.

PAYMENT FOR ITEM 633 "CONTROLLER UNIT MISC.: PREEMPTION UNIT, REMOVED FOR REUSE", WILL BE AT THE CONTRACT UNIT PRICE FOR REMOVING, STORING AND RE-INSTALLING THE RECEIVING UNIT, CONFIRMATION LIGHTS AND PHASE SELECTOR, IN PLACE, ALL CONNECTIONS MADE AND WIRING COMPLETED, TESTED AND ACCEPTED.

ITEM 633 CONTROLLER ITEM MISC.: PREEMPTION CONFIRMATION LIGHT CABLE

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING PREEMPTION CONFIRMATION LIGHT CABLE IN THE LOCATIONS SHOWN IN THE PLANS. THE CABLE SHALL CONNECT THE PREEMPTION CONFIRMATION LIGHT UNIT TO THE LOCAL CONTROLLER AS SHOWN IN THE PLANS.

THE PREEMPTION CONFIRMATION LIGHT CABLE SHALL BE SIGNAL CABLE, 2-CONDUCTOR, #14 AWG..

PAYMENT FOR ITEM 633 "CONTROLLER ITEM MISC.: PREEMPTION CONFIRMATION LIGHT CABLE" SHALL BE AT THE CONTRACT UNIT PRICE FOR THE CABLE FURNISHED, IN PLACE, ALL CONNECTIONS MADE AND WIRING COMPLETED, TESTED AND ACCEPTED.

CALCULATED JSL CHECKED DNM

TRAFFIC SIGNAL GENERAL NOTES

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GROUNDING AND BONDING

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND THE HL AND TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

1) ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH.

   A. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CONDUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR.

   B. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IN PLASTIC CONDUIT (725.05), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED.

   C. METALLIC CONDUIT CARRYING THE LOOP WIRES FROM IN THE PAVEMENT TO THE PULL BOX SPLICE LOCATION WILL ONLY BE BONDED AT THE PULL BOX END, AND WILL NOT CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR.

   D. METAL PULL BOX LIDS SHALL BE BONDED BY ATTACHMENT OF THE EQUIPMENT GROUNDING CONDUCTOR TO THE FRAME DIAGONAL AS PROVIDED ON HL-30.11.

   E. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, ONLY ONE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED.

   F. IF AN EQUIPMENT GROUNDING CONDUCTOR IS NEEDED IN CONDUIT BETWEEN SIGNALIZED INTERSECTIONS FOR UNDERGROUND INTERCONNECT CABLE, THE GROUNDING SYSTEM FOR EACH SIGNALIZED INTERSECTION WILL BE SEPARATED ABOUT MIDWAY BETWEEN THE INTERSECTIONS.

   G. THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS WILL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT.

2) CONDUITS.

   A. THE 725.04 CONDUIT SHALL HAVE GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.

   B. THE 725.05 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS.

   C. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

   D. METALLIC CONDUIT MAY BE BONDED TO METALLIC BOXES THROUGH THE USE OF CONDUIT FITTINGS UL APPROVED FOR THIS TYPE OF CONNECTION, WITH THE BOX BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

3) WIRE FOR GROUNDING AND BONDING.

   A. USE INSULATED, COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SIZE SHALL BE AS FOLLOWS:

      I) USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS.

      II) USE A MINIMUM 8 AWG BETWEEN LOOP DETECTOR PULL BOXES AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.

      III) USE A MINIMUM 8 AWG BETWEEN THE "PREPARE TO STOP WHEN FLASHING" INSTALLATION (INCLUDING SUPPORT) AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.

      IV) THE INSULATION SHALL BE GREEN OR GREEN WITH YELLOW STRIPE(S). FOR 4 AWG OR LARGER, INSULATION MAY ALSO BE BLACK WITH GREEN TAPE/LABELS INSTALLED AT ALL ACCESS POINTS.

   B. IN A HIGHWAY LIGHTING SYSTEM, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE THE SAME WIRE SIZE AS THE DUCT CABLE OR DISTRIBUTION CABLE CIRCUIT CONDUCTORS, WITH THE MINIMUM CONDUCTOR SIZE OF 4 AWG. BONDING JUMPERS WILL BE MINIMUM SIZE 4 AWG.

4) GROUND ROD.

   A. A 3/4 INCH SCHEDULE 40 PVC CONDUIT WILL BE USED IN FOUNDATIONS AND CONCRETE WALLS FOR THE GROUNDING CONDUCTOR (GROUND WIRE) RACEWAY TO THE GROUND ROD. SHOULD METALLIC CONDUIT BE USED, BOTH ENDS OF THE CONDUIT SHALL BE BONDED TO THE GROUNDING CONDUCTOR.
   B. THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED, COPPER.

5) THE GREEN CONDUCTOR IN SIGNAL CABLES (CONDUCTOR #4) SHALL NOT BE USED TO SUPPLY POWER TO A SIGNAL INDICATION. IT WILL BE CONNECTED TO THE SIGNAL BODY AS AN EQUIPMENT GROUND IN ALUMINUM HEADS AND IT WILL BE UNUSED IN PLASTIC HEADS. UNUSED CONDUCTORS SHALL BE GROUNDED IN THE CABINET. TYPICAL USE OF CONDUCTORS IS AS FOLLOWS:

COND. NO.	COLOR	VEHICLE SIGNAL	PEDESTRIAN SIGNAL
1	BLACK	GREEN BALL	#1 WALK
2	WHITE	AC NEUTRAL	AC NEUTRAL
3	RED	RED BALL	#1 DW/FDW
4	GREEN	EQUIPMENT GROUND	EQUIPMENT GROUND
5	ORANGE	YELLOW BALL	#2 DW/FDW
6	BLUE	GREEN ARROW	# 2 WALK
7	WHITE/BLACK STRIPE	YELLOW ARROW	NOT USED

6) POWER SERVICE AND DISCONNECT SWITCH.

   A. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE DISCONNECT SWITCH NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS, UNSPLICED CONDUCTOR. IF SPLICED, IT SHALL BE AN EXOTHERMIC WELD BUTT SPICE.

   B. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE PRIMARY POWER SERVICE DISCONNECT SWITCH.

      I) NEMA CONTROLLER CABINETS: IF A POWER SERVICE DISCONNECT SWITCH IS LOCATED BEFORE THE CONTROLLER CABINET, THE NEUTRAL (AC-) AND THE GROUNDING BARS IN THE CONTROLLER CABINET SHALL NOT BE CONNECTED TOGETHER AS SHOWN IN NEMA TS-2, FIGURE 5-4.

      II) IF SECONDARY DISCONNECT SWITCHES ARE CONNECTED AFTER THE PRIMARY DISCONNECT SWITCH, THE NEUTRAL (AC-) SHALL ONLY BE GROUNDED AT THE PRIMARY SWITCH. EQUIPMENT GROUNDING CONDUCTORS SHALL BE BROUGHT TO THE PRIMARY SWITCH, BUT SHALL BE GROUNDED AT BOTH SECONDARY AND PRIMARY SWITCHES.

7) STRUCTURE GROUNDING: HL-50.21 SHOWS A 1/0 AWG STRANDED COPPER CABLE USED FOR STRUCTURE GROUNDING. ADDITIONALLY, THIS SAME CABLE SHALL BE INSULATED AND ANY CONNECTIONS AND BARE COPPER STRANDS EXPOSED TO CONCRETE SHALL BE COVERED WITH MASTIC TO PREVENT CONTACT WITH THE CONCRETE.

8) PAYMENT.

   A. ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.

   B. WORK ON BRIDGES MAY BE INCLUDED IN THE BID ITEM FOR "ITEM 625, STRUCTURE GROUNDING."

   C. IN A 3-WIRE HIGHWAY LIGHTING SYSTEM, THE THIRD CONDUCTOR OF THE DUCT CABLE OR DISTRIBUTION CABLE WILL BE USED AS THE EQUIPMENT GROUNDING CONDUCTOR AND MAY AS SUCH BE PART OF THE CABLE BID ITEM.

CALCULATED JSL CHECKED DNM

TRAFFIC SIGNAL GENERAL NOTES

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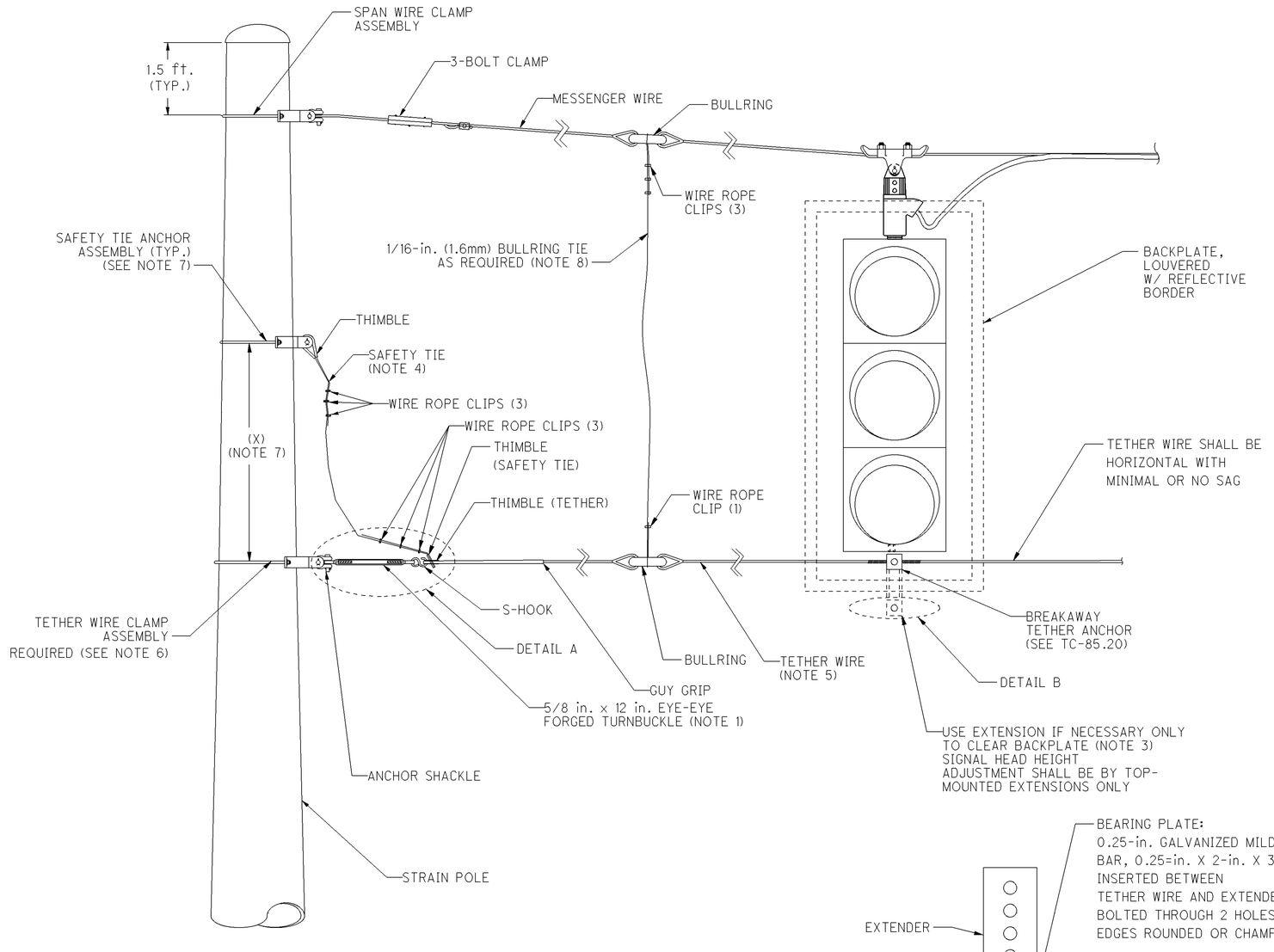
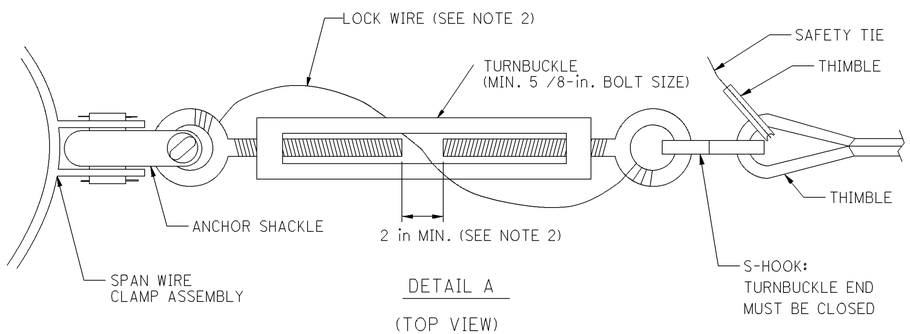
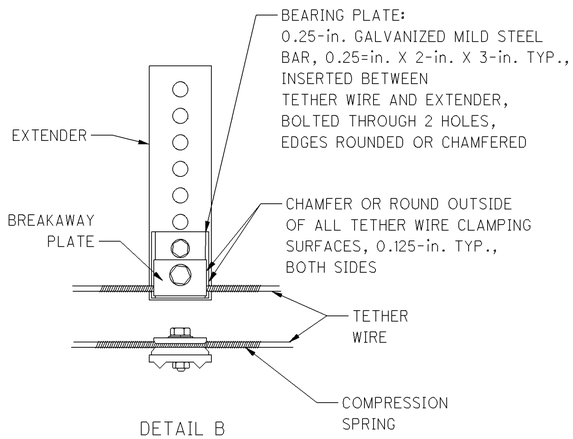




DETAIL A

(TOP VIEW)
(NOT TO SCALE)



DETAIL B

(FRONT VIEW)
(BOTTOM VIEW)

NOTES

1. S-Hook is matched to the strain pole design number (see table). S-Hook and turnbuckle are required only at one end of simple spans, all ends of complex spans. S-hook shall be closed at pole end. If S-hook begins to yield during installation, it shall be removed and replaced. The wire tension shall be adjusted to minimize movement of signal heads in high winds. Typical tension is 600 to 800 lbs.

2. Lock wire shall be stainless steel, 1/8 inch soft temper, wound to prevent turning of the turnbuckle body. Finished span shall have at leasf 2 inches of space for turnbuckle adjustment. Turnbuckle shall not be overtightened. Use 8-inch hand tools, maximum.

3. If signal orientation is not perpendicular to span and tether wire, then use an anchor extension. Clamp assembly must be attached to the flat side of the extender bar.

4. Install safety tie at each turnbuckle. This wire shall be 1x19, 1/8 inch stainless steel. Tie should be slack, but not so slack as to contact pole. Use 3 clips per end at 3-1/4 inch spacing.

5. Tether wire shall be 7-strand ASTM A475 HS or EHS Grade 1/4 inch. On all spans, install tether horizontally. Maintain clearance of 17 feet to 19 feet over roadway.

6. Span wire clamp as per Standard Construction Drawing TC-81.10 required for tether wire attachment or approved equal rated at 3000 lbs. or higher. Alternate attachment method shall not be permitted.

7. Safety tie anchor height above tether is adjusted in the field before S-hook is installed. Dimension X (Safety Tie Height) shall be adjusted so that the minimum vertical clearance of the sagging tether wire above the pavement without the S-hook installed is at least 14 feet. Minimum distance between the safety tie clamp and tether clamp shall be 1.5 feet and contain enough slack for head to sway in high winds. Safety tie anchor may be any galvanized or stainless steel pole clamp assembly rated at 3000 pounds. or higher.

8. On spans with bullrings, a tie shall be provided between messenger and tether bullrings if a 14 foot clearance cannot be maintained after S-hook opening. This vertical tie shall be 1x19, 1/16 inch stainless steel. Tie shall be slightly slack, tied back using cast wire rope clips as shown. Wire rope clips shall not be over-tightened.

Strain Pole Design No.	Galvanized Mild Steel S-Hook Wire Diameter (Inches)	S-hook yield point (+10%/-20%) (Pounds)
1 - 4	3/8	2000
5 - 14	1/2	3300

OFFICE OF TRAFFIC ENGINEERING

DESIGNED | REVIEWED KRD

REVISION DATE 04/20/12 | CHECKED

PIS NUMBER 208521

PLAN INSERT SHEET

SIGNAL TETHER ATTACHMENT

MUS-60-18.35

1 / 1

128 / 157

9/29/2011

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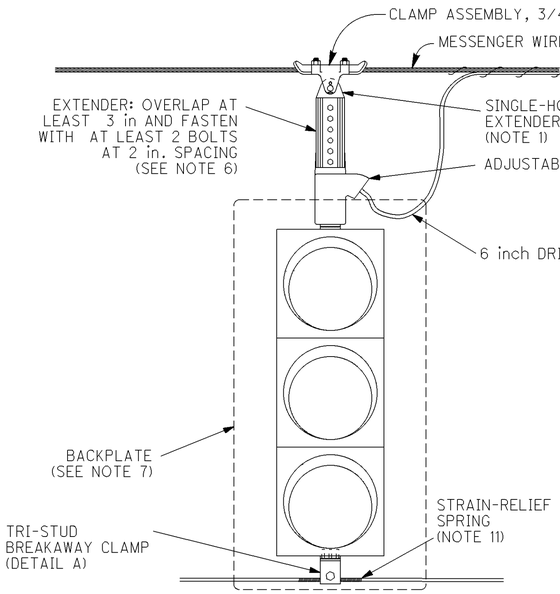
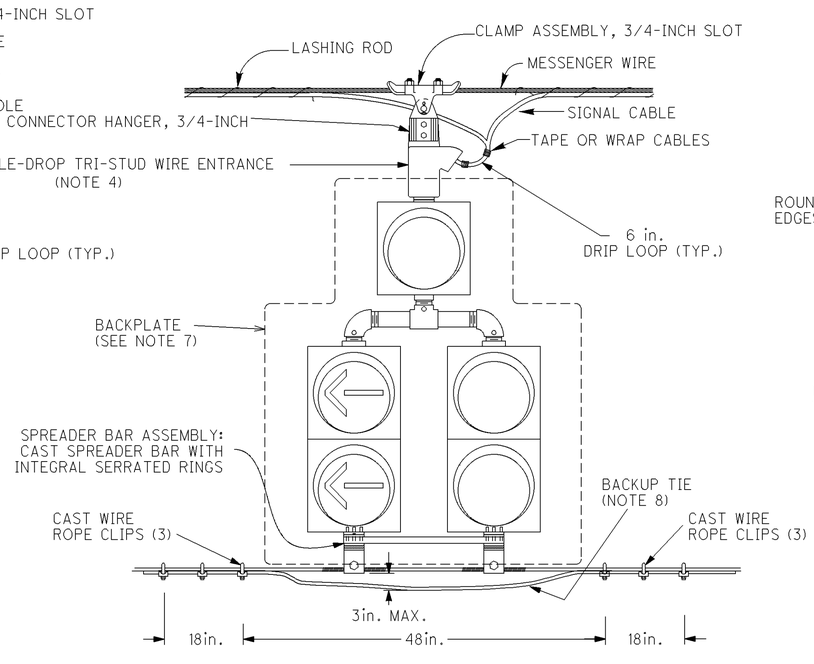


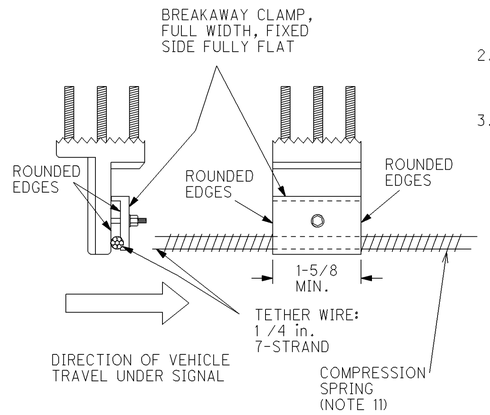
1-4 SECTION SIGNAL HEAD SUSPENSION

(NOTE 10)



5-SECTION SIGNAL HEAD SUSPENSION

(NOTE 10)

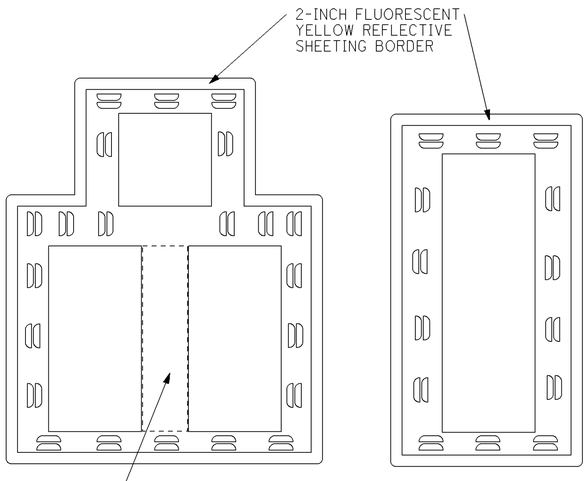


DETAIL A: BREAKAWAY TETHER ANCHOR

(TYPICAL, SEE NOTE 6)

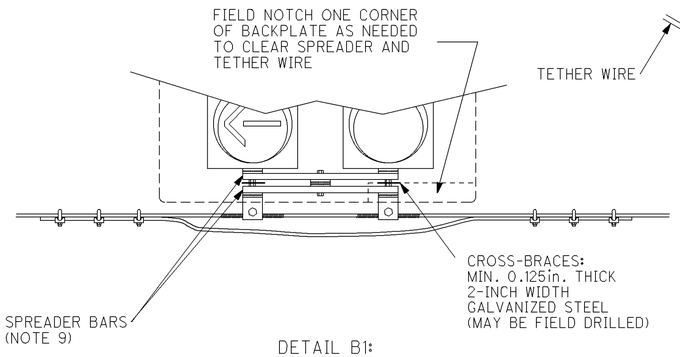
NOTES

1. Adjust hanger and span wire clamp to eliminate all play between hanger and clamp by using shim washers as necessary. Cast 3/4-inch aluminum matching clamps and hangers with a tight initial fit shall be used.
2. All signal head assemblies shall be installed in a plumb position and perpendicular to the approach lane.
3. All signal heads shall be installed with their lowest part (including tether attachment hardware and backplates) with a clearance above the roadway pavement at all points of 17 feet to 19 feet It is intended that this clearance be obtained without the use of bottom extenders, but rather by the careful selection of foundation heights, attachment heights, span wire sag, and other factors during the installation. If the installation cannot be adjusted to the proper clearance the contractor shall advise the engineer of all signals which exceed the maximum. The engineer will, in consultation with the maintaining agency, direct the use of extenders or waive the maximum clearance requirement for each head. If extenders are necessary, adjustable signal hangers as detailed may be used. Only top extenders shall be used; see Note 6.
4. Signal head rotation shall be prevented by the use of serrated rings and tri-studs or other positive devices incorporated in the signal housing and at critical locations in the supporting hardware. Only single-piece tri-stud entrance ports shall be used, not inserts.
5. All conductors shall have adequate clearance between hangers, thimbles, bullrings, etc. in order to avoid damage from rubbing.
6. For all tethered installations, breakaway tether anchor(s) shall be installed in bottom bracket. Bottom tether anchor extender shall be used only if there is interference between backplate and tether wire. Signal height adjustment shall be made by top-mounted extenders only. Breakaway clamp shall be full width with rounded edges. Clamp shuld compress tether wire only against a flat surface (Detail A).
7. All backplates shall have louvers and 2 inch fluorescent yellow reflective border. Border shall not be applied over louvers. Louvers should be oriented to scoop air from the front side and oriented with the openings facing alternate directions by groups, as shown. Louver open area shall be at least 8 percent of the total backplate area. 5-section backplates shall have notched top corners, as shown.
8. Backup tie shall be 1/4-inch, 7-strand wire identical to tether wire. Three cast wire rope clips on each side shall be used with 18in. ovelap and spacing as shown. Tie shall hang no lower than 16.5 feet. above pavement, and must not rub against the breakaway clamp. Ties under 3-section heads are recommended in windy areas; shall be installed if specified in plans, or if directed by the Engineer. Spacing of clips may be adjusted to accomodate adjacent heads. Closely spaced adjacent heads may share a single backup tie and wire rope clips; there shall be a minimum of three wire rope clips between heads.
9. On diagonal spans, a double spreader bar assembly shall be used. Each spreader bar shall be cast aluminum or steel with intergral serrations, 2 on the ends, one in the middle on the opposite side. These shall be attached as shown in Details B1 and B2.
10. Multi-way heads with backplates shall not be used on tethered spans. Existing multi-way heads shall be separated as directed by the Engineer. Rewire as necessary to separate the heads per the proper alignment.
11. Compression spring, 0.375-inch OD, 0.054-inch wire diameter, 10-12 coils per inch, stainless steel 6-inch minimum length.



BACKPLATE LOUVER CONFIGURATION (TYP.)

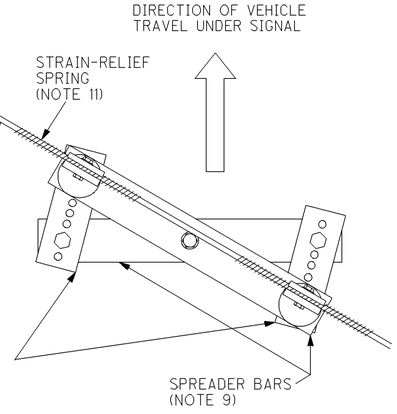
(SEE NOTE 7)



DETAIL B1:

DOUBLE SPREADER BARS AND CROSS-BRACING ON DIAGONAL SPANS

(FRONT VIEW)



DETAIL B2:

DOUBLE SPREADER BARS AND CROSS-BRACING ON DIAGONAL SPANS

(BOTTOM VIEW)

(TYP.)

OFFICE OF TRAFFIC ENGINEERING

DESIGNED | REVIEWED KRD

REVISION DATE 04/20/12 | CHECKED

PIS NUMBER 208522

PLAN INSERT SHEET

OVERHEAD SIGNAL ATTACHMENTS, SPAN WIRE

MUS-60-18.35

1 / 1

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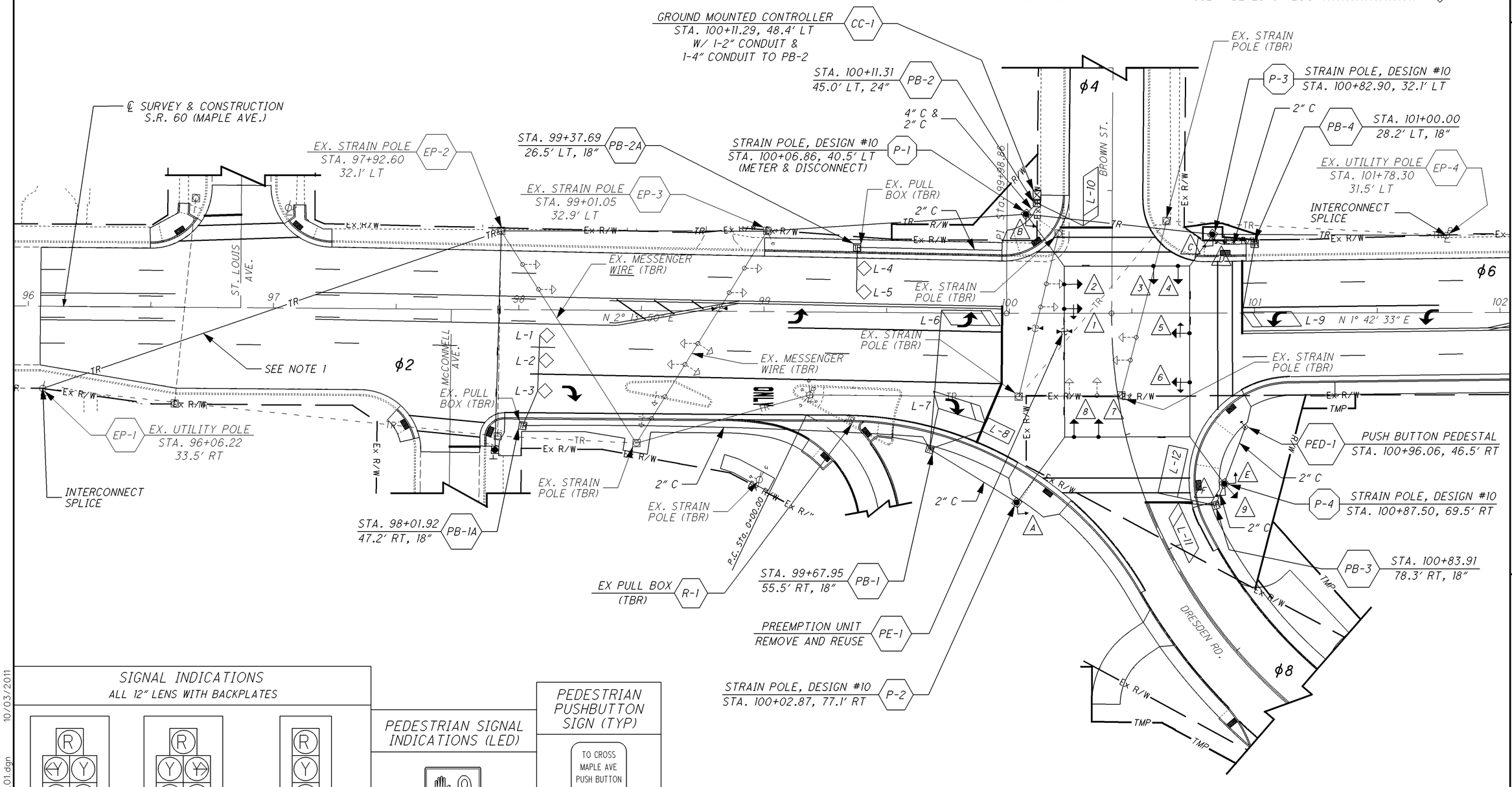
83002_sgn_06.dgn 9/29/2011

CROSS REFERENCES	
SHEET(S)	DESCRIPTION
131	WIRING DIAGRAM, PHASING DIAGRAM AND DETECTOR CHART
132	FIELD HOOKUP CHART AND SIGNAL HEAD AND SIGN PLACEMENT
139	STRAIN POLE DETAILS
140	TRAFFIC SIGNAL SUBSUMMARY

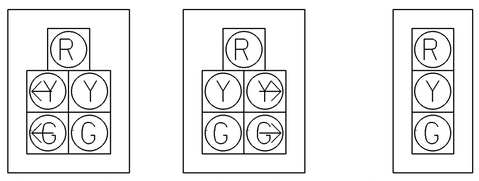
NOTES: (1) THE CONTRACTOR SHALL SPLICE THE PROPOSED INTERCONNECT CABLE TO THE EXISTING INTERCONNECT CABLE LOCATED AT THE TOP OF EXISTING UTILITY POLES EP-1 AND EP-4.

LEGEND

- PEDESTRIAN PUSH BUTTON.....
- PEDESTRIAN SIGNAL HEAD..... W/ COUNTDOWN
- VEHICULAR SIGNAL HEAD..... W/ BACKPLATE
- SIGNAL/PEDESTRIAN HEAD..... I.D. NUMBER
- EX. PREEMPT DETECTOR W/ CONFIRMATION LIGHTS.....
- PROPOSED PULL BOX..... TR
- PUSH BUTTON PEDESTAL.....
- SIGNAL STRAIN POLE.....
- CONTROLLER CABINET GROUND MOUNTED....
- POWERHEAD DETECTOR LOOP.....
- RECTANGULAR DETECTOR LOOP.....
- ANGULAR DETECTOR LOOP.....



SIGNAL INDICATIONS
ALL 12" LENS WITH BACKPLATES



SIGNAL: 1,5 — SIGNAL: 6 — SIGNAL: 2,3,4,7,8,9

PEDESTRIAN SIGNAL INDICATIONS (LED)

TYPE D2: A,B,C,D,E,F

PEDESTRIAN PUSHBUTTON SIGN (TYP)

R10-H4D-9

NOTE: MOUNT PESDESTRIAN PUSHBUTTON SIGN ABOVE PUSHBUTTON ON STRAIN POLE AND BELOW PUSHBUTTON ON PEDESTAL

83002_sds_01.dgn 10/03/2011

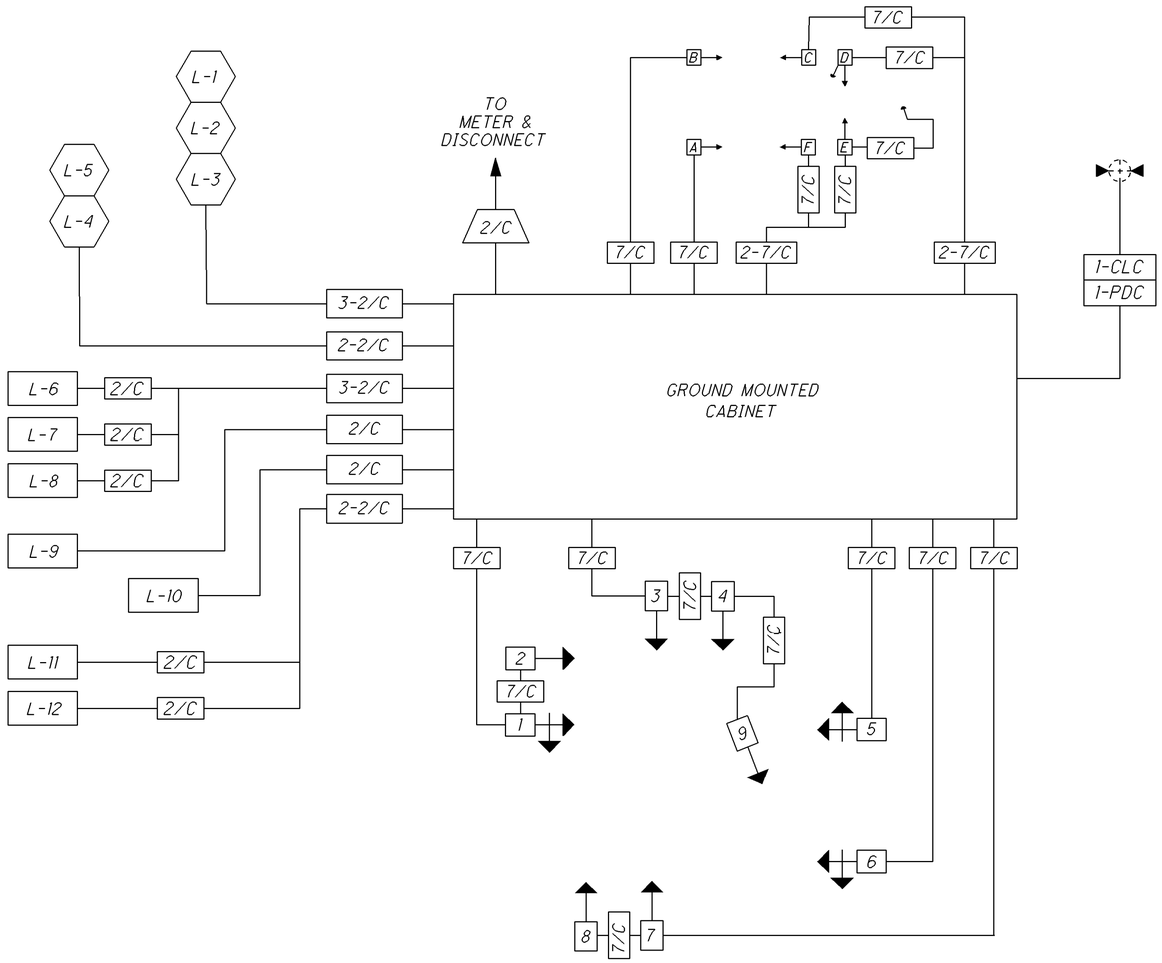
HORIZONTAL SCALE IN FEET (0, 10, 20, 40)

CALCULATED JSL CHECKED DNM

SIGNAL PLAN - MAPLE AVE. & BROWN ST. STA. 97+00 TO STA. 103+00

MUS-60-18.35

TRAFFIC SIGNAL WIRING DIAGRAM



LEGEND

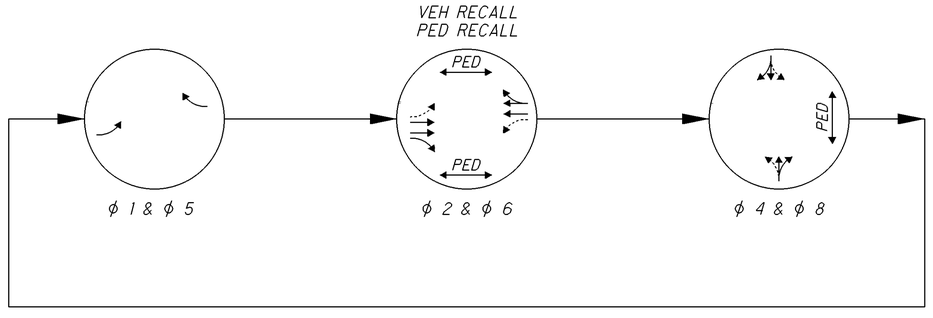
- SIGNAL HEAD WITH TURN ARROW
- SIGNAL HEAD
- 1-PDC — PREEMPT DETECTOR CABLE
- 1-CLC — CONFIRMATION LIGHT CABLE
- 2/C — 2/C #14 AWG (LEAD-IN CABLE)
- 7/C — 7/C #14 AWG SIGNAL CABLE
- PUSHBUTTON
- PEDESTRIAN SIGNAL HEAD W/ COUNTDOWN
- EX. PREEMPT DETECTOR W/ CONFIRMATION LIGHTS
- 2/C — 2/C #8 AWG POWER CABLE
- L-# — SYSTEM DETECTOR LOOP
- L-# — VEHICLE DETECTOR LOOP

LOOP DETECTOR CHART

LOOP	SIZE (W X L)	MODE	DELAY (SEC.)	EXTENSION (SEC.)	ASSOCIATED CONTROLLER PHASE
L-1	6' X 6'	SYSTEM LOOP			
L-2	6' X 6'	SYSTEM LOOP			
L-3	6' X 6'	SYSTEM LOOP			
L-4	6' X 6'	SYSTEM LOOP			
L-5	6' X 6'	SYSTEM LOOP			
L-6	5' X 20'	PRESENCE			ϕ 5
L-7	6' X 20'	PRESENCE	8		ϕ 2
L-8	6' X 12'	PRESENCE	8		ϕ 2
L-9	5' X 20'	PRESENCE			ϕ 1
L-10	6' X 20'	PRESENCE	8		ϕ 4
L-11	6' X 20'	PRESENCE	8		ϕ 8
L-12	6' X 12'	PRESENCE	8		ϕ 8

SEE TC-82.10 FOR LOOP DETECTOR INSTALLATION DETAILS

SIGNAL PHASING DIAGRAM



CALCULATED JSL
CHECKED DNM

SIGNAL PLAN DETAILS - MAPLE AVE. & BROWN ST.

MUS-60-18.35

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83002_sds_02.dgn 9/29/2011

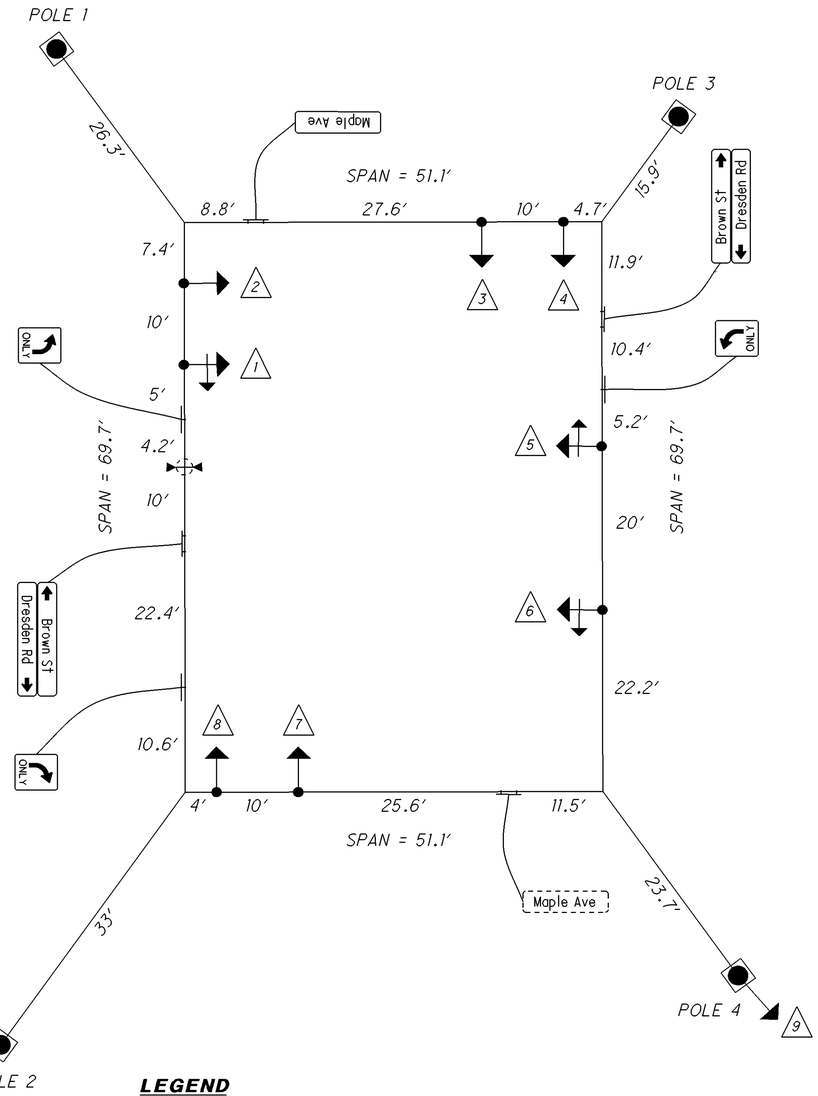
FIELD HOOKUP CHART

SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
1	R	ϕ 6 R	Y
	Y	ϕ 6 Y	
	G	ϕ 6 G	
	←Y←	ϕ 1 Y	
	←G←	ϕ 1 G	
2	R	ϕ 6 R	Y
	Y	ϕ 6 Y	
	G	ϕ 6 G	
3,4,9	R	ϕ 8 R	R
	Y	ϕ 8 Y	
	G	ϕ 8 G	
5	R	ϕ 2 R	Y
	Y	ϕ 2 Y	
	G	ϕ 2 G	
	←Y←	ϕ 5 Y	
	←G←	ϕ 5 G	
6	R	ϕ 2 R	Y
	Y	ϕ 2 Y	
	G	ϕ 2 G	
	→Y→	ϕ 2 Y	
	→G→	ϕ 2 G	
7,8	R	ϕ 4 R	R
	Y	ϕ 4 Y	
	G	ϕ 4 G	
PEDESTRIAN HEAD			
A,F	W	ϕ 2 G	OUT
	DW	ϕ 2 R	
B,C	W	ϕ 6 G	OUT
	DW	ϕ 6 R	
D,E	W	ϕ 8 G	OUT
	DW	ϕ 8 R	

TRAFFIC SIGNAL HEAD & SIGN PLACEMENT

NOTE 1: SEE TRAFFIC CONTROL PLAN SHEET 114 FOR SIGN DETAILS.

NOTE 2: THE OVERHEAD STREET NAME SIGNS ATTACHED TO THE MESSENGER WIRE SHALL BE FIELD ADJUSTED TO MAXIMIZE THE VIEW OF THE SIGNAL HEADS.



LEGEND

SPAN WIRE OVERHEAD SIGN .....

SIGNAL HEAD STD ONE WAY .....

SIGNAL HEAD I.D. NUMBER ..... #

EX. PREEMPT DETECTOR W/CONFIRMATION LIGHTS..

CALCULATED JSL CHECKED DNM

SIGNAL PLAN DETAILS - MAPLE AVE. & BROWN ST.

MUS-60-18.35

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CROSS REFERENCES	
SHEET(S)	DESCRIPTION
134	WIRING DIAGRAM, PHASING DIAGRAM AND DETECTOR CHART
135	FIELD HOOKUP CHART AND SIGNAL HEAD AND SIGN PLACEMENT
139	STRAIN POLE DETAILS
141	TRAFFIC SIGNAL SUBSUMMARY

NOTES: (1) ABANDONED ALL EXISTING LOOPS

(2) REMOVE EXISTING PEDESTRIAN PUSHBUTTON SIGNS

LEGEND

- PEDESTRIAN PUSH BUTTON.....
- PEDESTRIAN SIGNAL HEAD..... W/ COUNTDOWN
- VEHICULAR SIGNAL HEAD..... W/ BACKPLATE
- SIGNAL/PEDESTRIAN HEAD..... I.D. NUMBER
- EX. PREEMPT DETECTOR W/ CONFIRMATION LIGHTS.....
- EXISTING PULL BOX.....
- PEDESTAL.....
- EX. SIGNAL STRAIN POLE.....
- EX. GROUND MOUNTED CONTROL CABINET...
- EX. DETECTOR LOOP.....
- POWERHEAD DETECTOR LOOP.....

℄ SURVEY & CONSTRUCTION S.R. 60 (MAPLE AVE.)

EX. PULL BOX STA. 154+35.69, 65.9' LT — EPB-1

PR. PEDESTAL STA. 154+23.61, 44.3' LT — PED-2

EP-6 EX. STRAIN POLE STA. 154+32.08, 58.4' LT

EP-7 EX. STRAIN POLE STA. 155+39.97, 38.9' LT

R-2 EX. PEDESTRIAN HEAD W/ PUSHBUTTON (TBR)

SEE NOTE 1

SEE NOTE 2

PE-2 PREEMPTION UNIT REMOVE AND REUSE

R-3 EX. PEDESTRIAN HEAD W/ PUSHBUTTON (TBR)

ECC EX. GROUND MOUNTED CONTROLLER STA. 155+61.44, 34.8' RT

EP-8 EX. STRAIN POLE STA. 155+53.34, 34.6' RT

EPB-2 EX. PULL BOX STA. 155+41.86, 39.2' RT

EP-5 EX. STRAIN POLE STA. 154+80.97, 31.9' RT

EX. INTERCONNECT CABLE DO NOT DISTURB

EX. INTERCONNECT CABLE DO NOT DISTURB

HEALTH PLEX DRIVE

WALMART ENTRANCE DRIVE

BELL ST.

2" C

SAN

TMP

TR

Ex R/W

φ1 φ2 φ3 φ4 φ6

SIGNAL INDICATIONS ALL 12" LENS WITH BACKPLATES	
SIGNAL: 1,2,4,5,6	SIGNAL: 3,7,8,9

PEDESTRIAN SIGNAL INDICATIONS (LED)

TYPE D2: A,B

10/04/2011

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CALCULATED JSL CHECKED DNM

HORIZONTAL SCALE IN FEET 0 10 20 40

SIGNAL PLAN - MAPLE AVE. & BELL ST.
STA. 152+00 TO STA. 158+00

MUS-60-18.35

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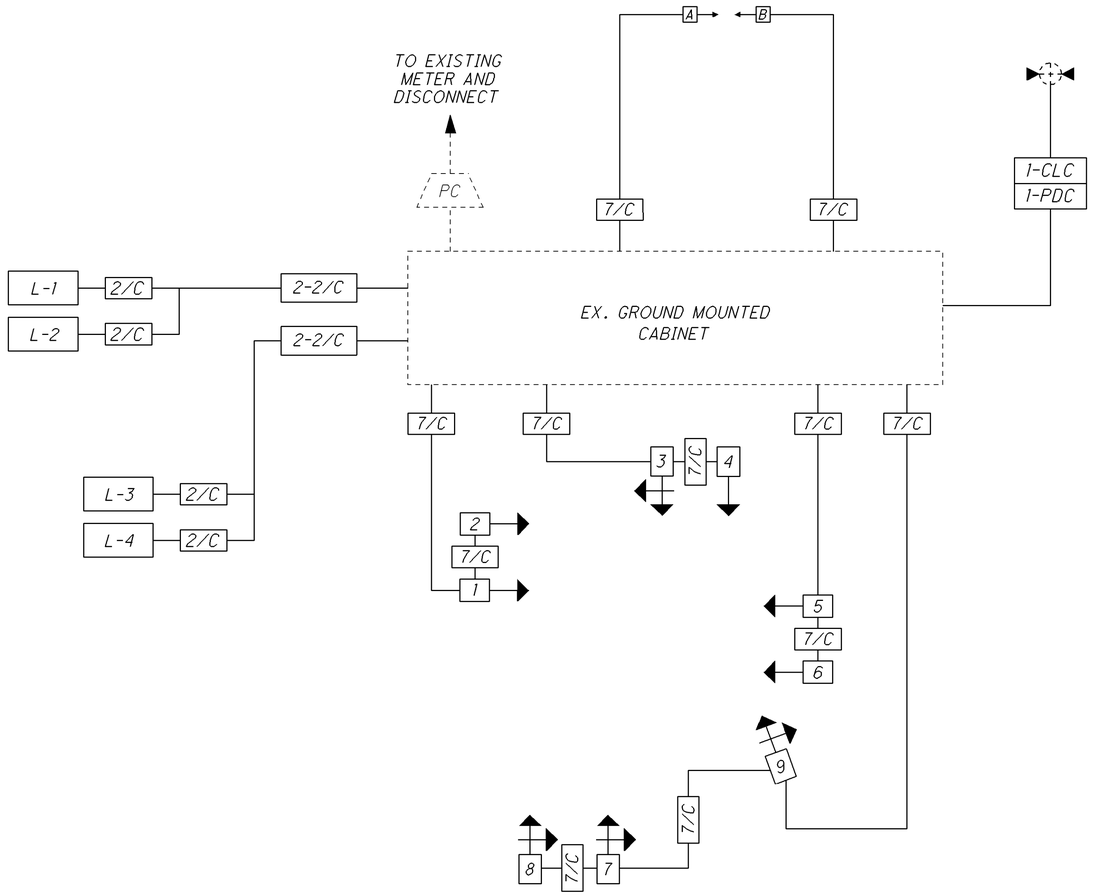
TRAFFIC SIGNAL WIRING DIAGRAM



LEGEND

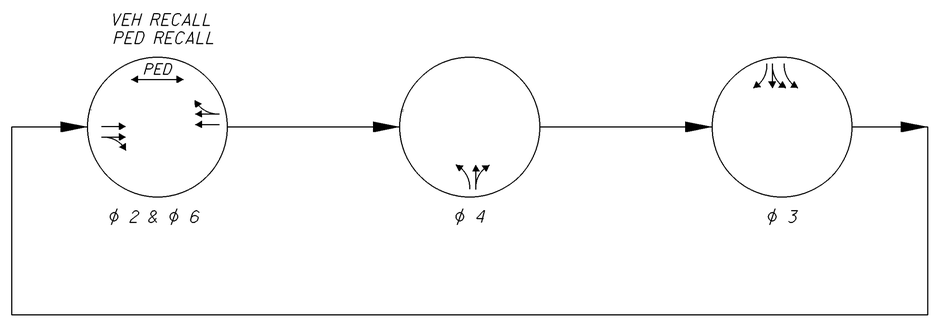
	SIGNAL HEAD WITH TURN ARROW
	SIGNAL HEAD
1-PDC	EX. PREEMPT DETECTOR CABLE
1-CLC	EX. CONFIRMATION LIGHT CABLE
2/C	2/C #14 AWG (LEAD-IN CABLE)
7/C	7/C #14 AWG SIGNAL CABLE
→	PUSHBUTTON
	PEDESTRIAN SIGNAL HEAD W/ COUNTDOWN
	EX. PREEMPT DETECTOR W/ CONFIRMATION LIGHTS
PC	EX. POWER CABLE
L-#	VEHICLE DETECTOR LOOP

LOOP DETECTOR CHART

LOOP	SIZE (W X L)	MODE	DELAY (SEC.)	EXTENSION (SEC.)	ASSOCIATED CONTROLLER PHASE
L-1	6' X 20'	PRESENCE			ϕ 3
L-2	6' X 20'	PRESENCE			ϕ 3
L-3	5' X 20'	PRESENCE			ϕ 4
L-4	6' X 20'	PRESENCE	8		ϕ 4

SEE TC-82.10 FOR LOOP DETECTOR INSTALLATION DETAILS

SIGNAL PHASING DIAGRAM



CALCULATED JSL
CHECKED DNM

SIGNAL PLAN DETAILS - MAPLE AVE. & BELL ST.

MUS-60-18.35

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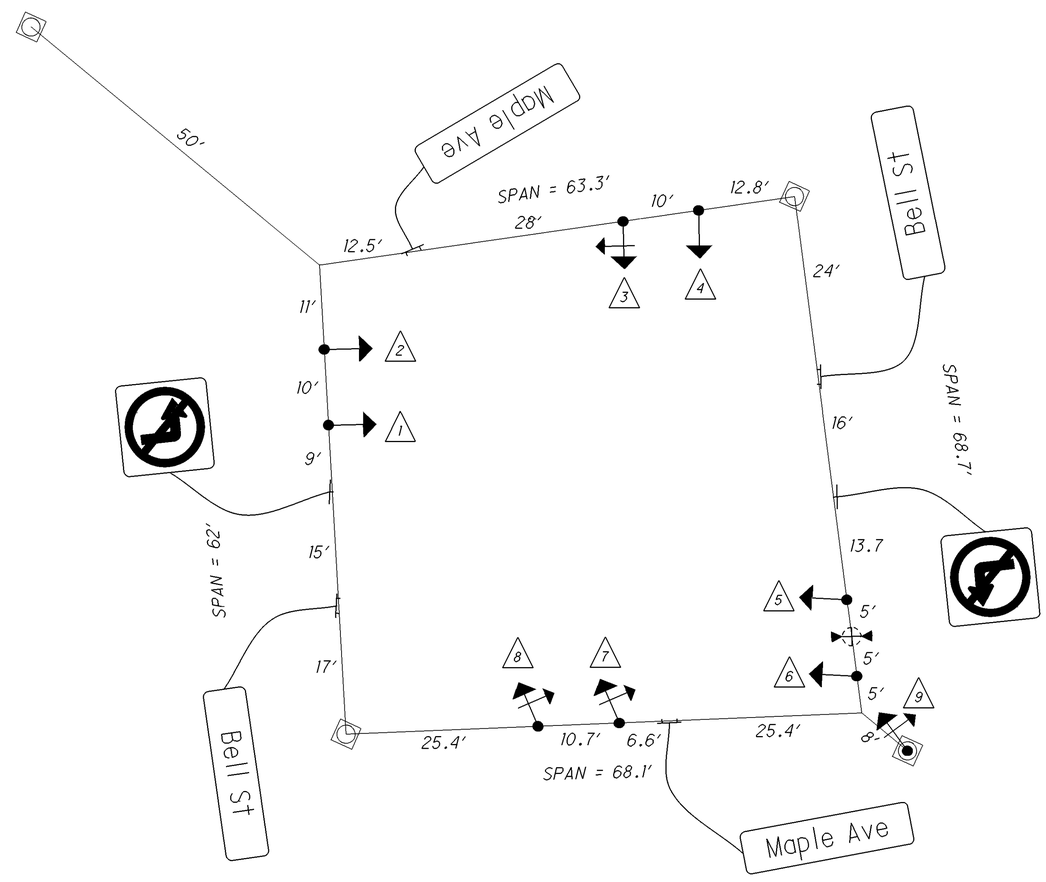
FIELD HOOKUP CHART

SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
1,2	R	ϕ 6 R	Y
	Y	ϕ 6 Y	
	G	ϕ 6 G	
3	R	ϕ 4 R	R
	Y	ϕ 4 Y	
	G	ϕ 4 G	
	←G	ϕ 4 G	
4	R	ϕ 4 R	R
	Y	ϕ 4 Y	
	G	ϕ 4 G	
5,6	R	ϕ 2 R	Y
	Y	ϕ 2 Y	
	G	ϕ 2 G	
7,8,9	R	ϕ 3 R	R
	Y	ϕ 3 Y	
	G	ϕ 3 G	
	←G	ϕ 3 G	
PEDESTRIAN HEAD			
A,B	W	ϕ 6 G	OUT
	DW	ϕ 6 R	

TRAFFIC SIGNAL HEAD & SIGN PLACEMENT

NOTE 1: SEE TRAFFIC CONTROL PLAN SHEET 115 FOR SIGN DETAILS.

NOTE 2: THE OVERHEAD STREET NAME SIGNS ATTACHED TO THE MESSENGER WIRE SHALL BE FIELD ADJUSTED TO MAXIMIZE THE VIEW OF THE SIGNAL HEADS.



LEGEND

SPAN WIRE OVERHEAD SIGN .....

SIGNAL HEAD STD ONE WAY .....

SIGNAL HEAD I.D. NUMBER ..... (#)

EX. PREEMPT DETECTOR W/CONFIRMATION LIGHTS..

CALCULATED JSL
CHECKED DNM

SIGNAL PLAN DETAILS - MAPLE AVE. & BELL ST.

MUS-60-18.35

135
157

83002_sds_06.dgn 9/29/2011

CROSS REFERENCES	
SHEET(S)	DESCRIPTION
137	WIRING DIAGRAM, PHASING DIAGRAM AND DETECTOR CHART
138	FIELD HOOKUP CHART AND SIGNAL HEAD AND SIGN PLACEMENT
139	STRAIN POLE DETAILS
142	TRAFFIC SIGNAL SUBSUMMARY

NOTE (1): THE CONTRACTOR SHALL SPLICE THE PROPOSED INTERCONNECT CABLE TO THE EXISTING INTERCONNECT CABLE LOCATED AT THE TOP OF EXISTING UTILITY POLES EP-9 AND EP-10.

LEGEND

- PEDESTRIAN PUSH BUTTON.....
- PEDESTRIAN SIGNAL HEAD..... W/ COUNTDOWN
- VEHICULAR SIGNAL HEAD..... W/ BACKPLATE
- SIGNAL/PEDESTRIAN HEAD..... I.D. NUMBER
- EX. PREEMPT DETECTOR W/ CONFIRMATION LIGHTS.....
- PROPOSED PULL BOX.....
- PUSH BUTTON PEDESTAL.....
- SIGNAL STRAIN POLE.....
- CONTROLLER CABINET GROUND MOUNTED..
- POWERHEAD DETECTOR LOOP.....
- ANGULAR DETECTOR LOOP.....

STA. 160+26.97, 73.8' LT, 18" — PB-7
2" C
EX PULL BOX (TBR) — R-5
GROUND MOUNTED CONTROLLER — CC-2
STA. 160+26.40, 55.2' LT
W/ 1-2" CONDUIT &
1-4" CONDUIT TO PB-7
STA. 160+23.74, 56.7' LT, 24" — PB-6
STRAIN POLE, DESIGN #10 — P-5
STA. 160+15.19, 51.4' LT
(METER & DISCONNECT)
4" C & 2" C
℄ SURVEY & CONSTRUCTION S.R. 60 (MAPLE AVE.)
EX. GROUND MOUNTED CONTROLLER (TBR)
EX. UTILITY POLE — EP-9
STA. 159+79.64, 41.1' LT
SEE NOTE 1
INTERCONNECT SPLICE
EX. STRAIN POLE (TBR)
EX. PULL BOX (TBR)
STA. 159+32.17, 28.4' RT, 18" — PB-5A
EX PULL BOX (TBR) — R-4
2" C
STA. 160+11.05, 32.9' RT, 18" — PB-5
STRAIN POLE, DESIGN #10 — P-6
STA. 160+16.50, 36.9' RT
BETHESDA DRIVE
P.C. Sta. 1+13.56
P.C. Sta. 0+79.28
P.C. Sta. 0+95.50
EX. STRAIN POLE (TBR)
P-7 STRAIN POLE, DESIGN #10
STA. 161+34.16, 52.3' LT
PB-9 STA. 161+40.02
46.7' LT, 18"
EP-10 EX. UTILITY POLE
STA. 161+63.17, 50.6' LT
INTERCONNECT SPLICE
2" C
EPB-3 EX. PULL BOX
STA. 161+91.13, 45.8' LT
P-8 STRAIN POLE, DESIGN #10
STA. 161+50.12, 45.1' RT
PB-8 STA. 161+25.53
56.4' RT, 18"
BALLS LN.
ϕ2 ϕ4 ϕ6 ϕ8
L-1 L-2 L-3 L-4 L-5 L-6 L-7 L-8 L-9 L-10 L-11 L-12
TMP R/W Ex R/W TR M/R

SIGNAL INDICATIONS
ALL 12" LENS WITH BACKPLATES

SIGNAL: 1,3,5 | SIGNAL: 2 | SIGNAL: 4,6 | SIGNAL: 7 | SIGNAL: 8,9

PEDESTRIAN SIGNAL INDICATIONS (LED)

TYPE D2: A,B

83002_sds_07.dgn 10/04/2011

HORIZONTAL SCALE IN FEET 0 10 20 40
CALCULATED JSL CHECKED DNM

SIGNAL PLAN - MAPLE AVE. & BALLS LN.
STA. 157+50 TO STA. 163+50

MUS-60-18.35

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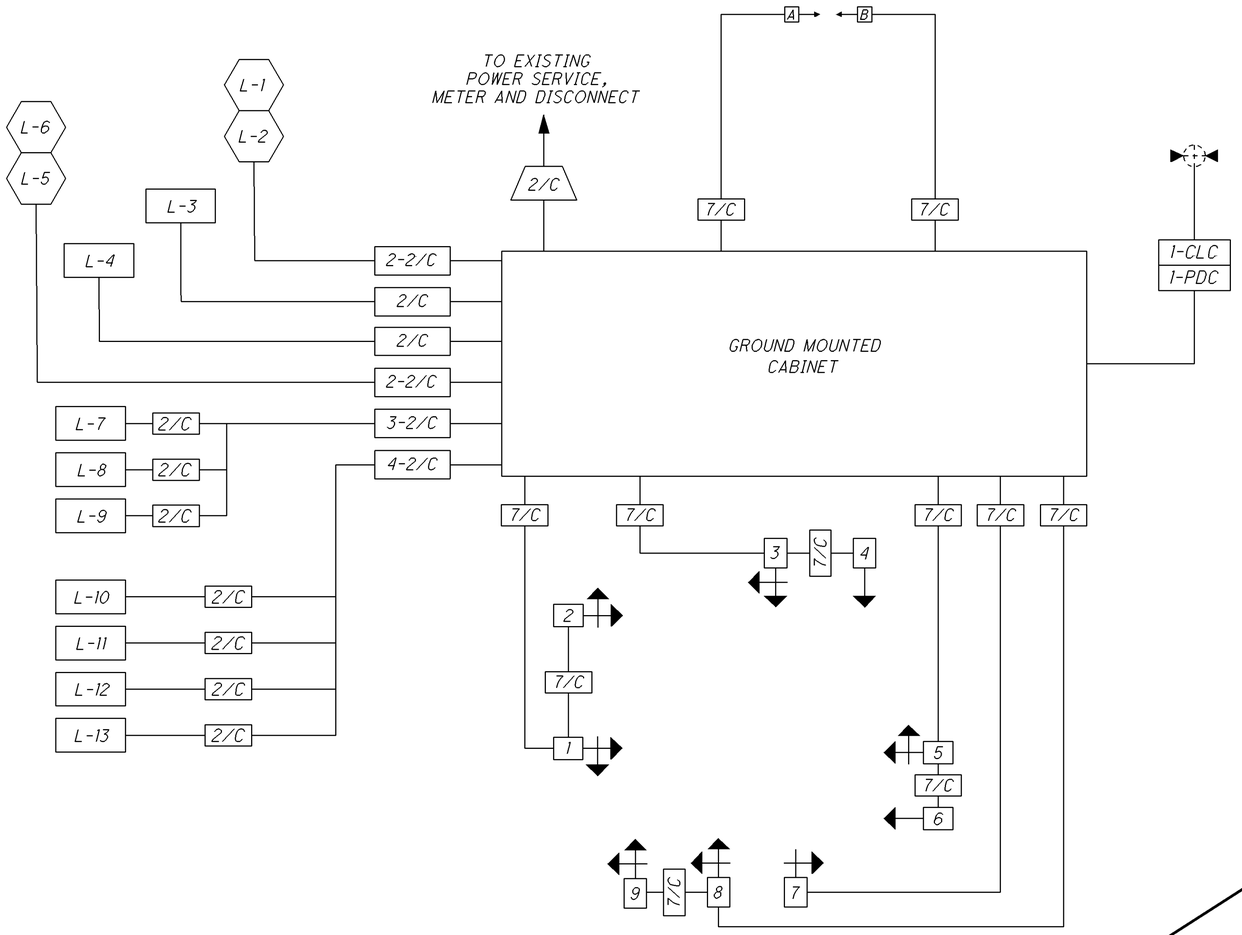
157

TRAFFIC SIGNAL WIRING DIAGRAM



LEGEND

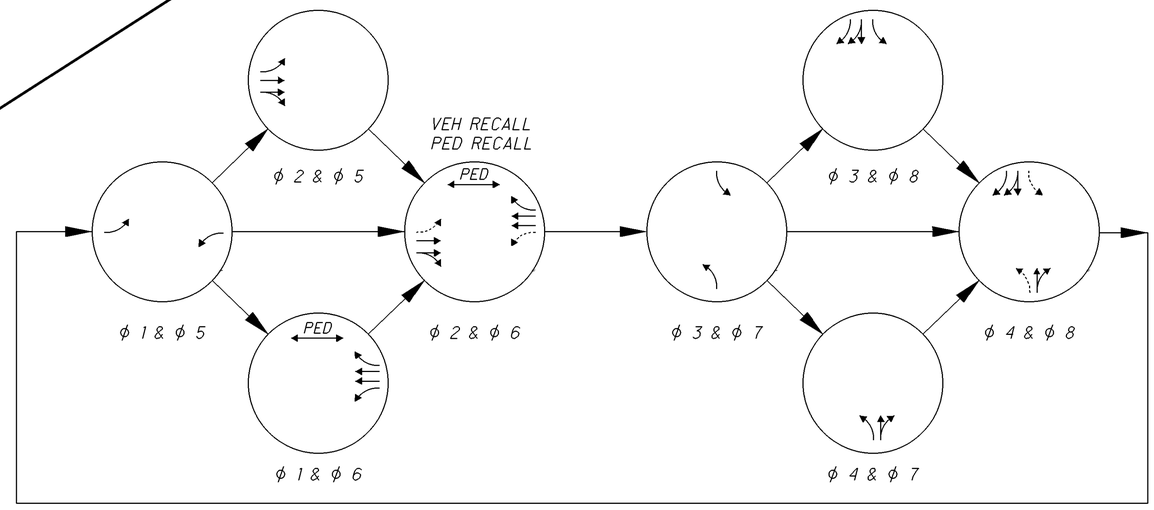
- SIGNAL HEAD WITH TURN ARROW
- SIGNAL HEAD WITH ALL TURN ARROWS
- SIGNAL HEAD
- 1-PDC — PREEMPT DETECTOR CABLE
- 1-CLC — CONFIRMATION LIGHT CABLE
- 2/C — 2/C #14 AWG (LEAD-IN CABLE)
- 7/C — 7/C #14 AWG SIGNAL CABLE
- → PUSHBUTTON
- PEDESTRIAN SIGNAL HEAD W/ COUNTDOWN
- EX. PREEMPT DETECTOR W/ CONFIRMATION LIGHTS
- 2/C — 2/C #8 AWG POWER CABLE
- L-# — SYSTEM DETECTOR LOOP
- L-# — VEHICLE DETECTOR LOOP

LOOP DETECTOR CHART

LOOP	SIZE (W X L)	MODE	DELAY (SEC.)	EXTENSION (SEC.)	ASSOCIATED CONTROLLER PHASE
L-1	6' X 6'	SYSTEM LOOP			
L-2	6' X 6'	SYSTEM LOOP			
L-3	5' X 20'	PRESENCE			ϕ 5
L-4	5' X 20'	PRESENCE			ϕ 1
L-5	6' X 6'	SYSTEM LOOP			
L-6	6' X 6'	SYSTEM LOOP			
L-7	6' X 20'	PRESENCE	8		ϕ 4
L-8	6' X 20'	PRESENCE			ϕ 4
L-9	6' X 20'	PRESENCE			ϕ 7
L-10	6' X 20'	PRESENCE			ϕ 3
L-11	6' X 20'	PRESENCE			ϕ 3
L-12	6' X 20'	PRESENCE	8		ϕ 8
L-13	6' X 20'	PRESENCE	8		ϕ 8

SEE TC-82.10 FOR LOOP DETECTOR INSTALLATION DETAILS

SIGNAL PHASING DIAGRAM



CALCULATED JSL
CHECKED DNM

SIGNAL PLAN DETAILS - MAPLE AVE. & BALLS LN.

MUS-60-18.35

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157

83002_sds_08.dgn 9/29/2011

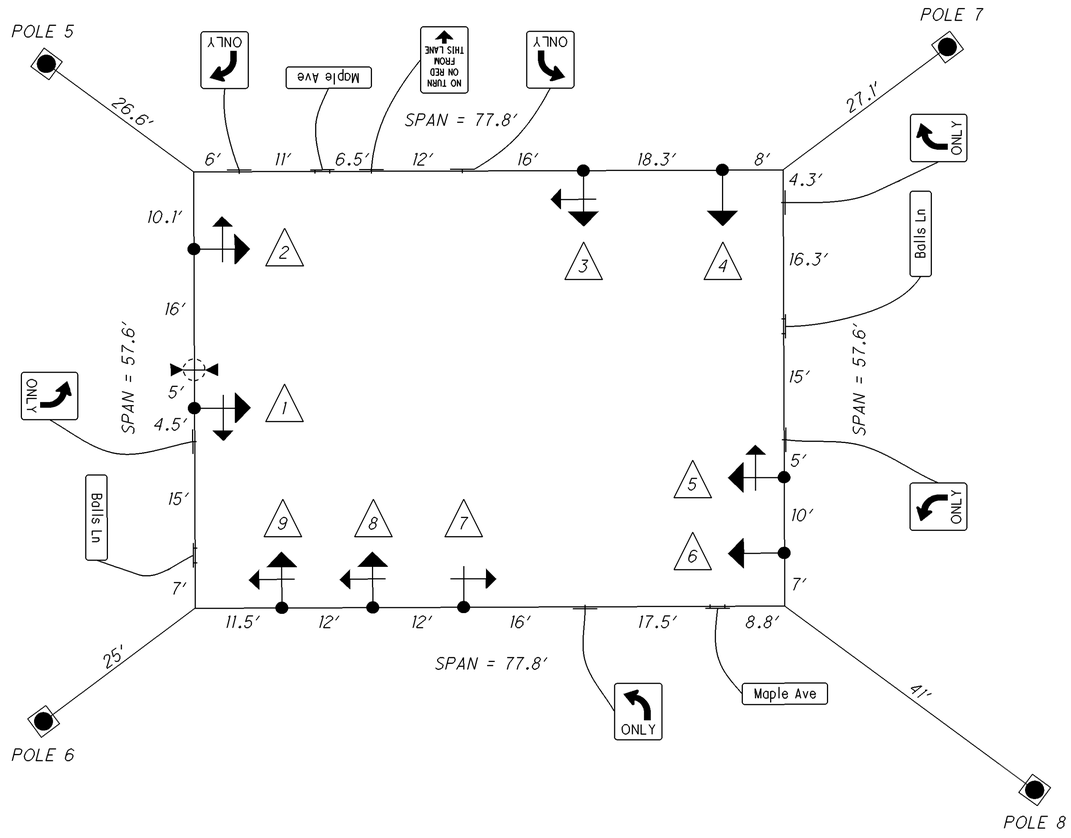
FIELD HOOKUP CHART

SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
1	R	ϕ 6 R	Y
	Y	ϕ 6 Y	
	G	ϕ 6 G	
	~~←Y~~	ϕ 1 Y	
	~~←G~~	ϕ 1 G	
2	R	ϕ 6 R	Y
	Y	ϕ 6 Y	
	G	ϕ 6 G	
	~~Y→~~	ϕ 6 Y	
	~~G→~~	ϕ 6 G	
3	R	ϕ 8 R	R
	Y	ϕ 8 Y	
	G	ϕ 8 G	
	~~←Y~~	ϕ 3 Y	
	~~←G~~	ϕ 3 G	
4	R	ϕ 8 R	R
	Y	ϕ 8 Y	
	G	ϕ 8 G	
5	R	ϕ 2 R	Y
	Y	ϕ 2 Y	
	G	ϕ 2 G	
	~~←Y~~	ϕ 5 Y	
	~~←G~~	ϕ 5 G	
6	R	ϕ 2 R	Y
	Y	ϕ 2 Y	
	G	ϕ 2 G	
7	~~←R~~	ϕ 7 R	R
	~~←Y~~	ϕ 7 Y	
	~~←G~~	ϕ 7 G	
8,9	R	ϕ 4 R	R
	Y	ϕ 4 Y	
	G	ϕ 4 G	
	~~G→~~	ϕ 4 G	
PEDESTRIAN HEAD			
A,B	W	ϕ 2 G	OUT
	DW	ϕ 2 R	

TRAFFIC SIGNAL HEAD & SIGN PLACEMENT

NOTE 1: SEE TRAFFIC CONTROL PLAN SHEET 116 FOR SIGN DETAILS.

NOTE 2: THE OVERHEAD STREET NAME SIGNS ATTACHED TO THE MESSENGER WIRE SHALL BE FIELD ADJUSTED TO MAXIMIZE THE VIEW OF THE SIGNAL HEADS.



LEGEND

SPAN WIRE OVERHEAD SIGN .....

SIGNAL HEAD STD ONE WAY .....

SIGNAL HEAD I.D. NUMBER ..... #

EX. PREEMPT DETECTOR W/CONFIRMATION LIGHTS.....

CALCULATED JSL CHECKED DNM

SIGNAL PLAN DETAILS - MAPLE AVE. & BALLS LN.

MUS-60-18.35

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83002_sds_09.dgn 9/29/2011

INTERSECTION	SHEET NUMBER	POLE DESIGNATION	TC-81.10 POLE DESIGN NUMBER	POLE HEIGHT	ATTACHMENT HEIGHT (NOTE 1)		FOUNDATION ELEVATION	INDEX LINE ANGLE (CL HANDHOLE)	ANGLE FROM INDEX LINE						
					MIN.	MAX.			MESSENGER WIRE ATTACHMENT	METER & DISCONNECT (NOTE 2)	SERVICE CABLE ENTRANCE	SIGNAL CABLE ENTRANCE	SUPPLEMENTAL SIGNAL HEAD	PEDESTRIAN HEADS (NOTE 3)	PEDESTRIAN PUSHBUTTON
				FT.	FT.	FT.	FT.	DEG.	DEG.	DEG.	DEG.	DEG.	DEG.	DEG.	DEG.
MAPLE AVE & BROWN ST	130	P-1	10	32	27.4	29.9	800.25	144	180	0	0	180		220	
		P-2	10	32	27.8	30.6	800.25	216	180			180		220	
		P-3	10	32	24.5	26.4	802.50	216	180			180		50 / 145	120
		P-4	10	32	24.8	26.8	802.25	144	180			180	0	30 / 305	
MAPLE AVE & BELL ST	133	EP-5	EXISTING BOX CONFIGURATION MAINTAINED												
		EP-6													
		EP-7													
		EP-8													
MAPLE AVE & BALLS LN	136	P-5	10	32	24.5	25.6	784.25	126	180	0	0	180		240	
		P-6	10	32	26.7	27.8	782.25	234	180			180			
		P-7	10	32	25.2	26.3	783.75	234	180			180		128	
		P-8	10	32	28.6	30.2	781.75	126	180			180			

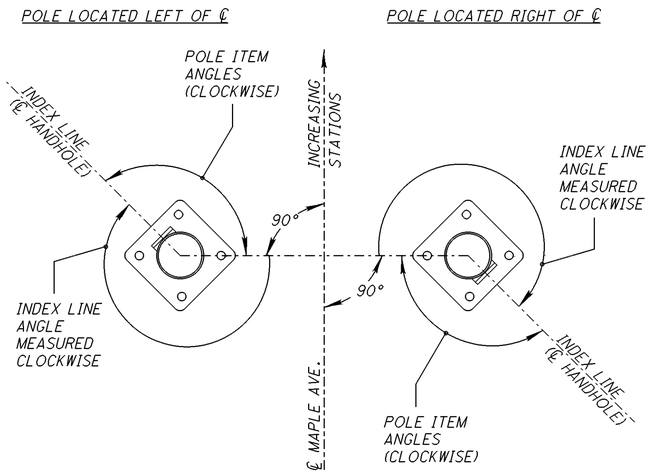
NOTES:

(1) THE ATTACHEMENT HEIGHTS FOR THE MIN. SAG AND MAX. SAG HAVE BEEN PROVIDED IN THE TABLE. THE CONTRACTOR SHALL ATTACH THE MESSENGER WIRE AT A HEIGHT THAT PROVIDES ADEQUATE CLEARANCE TO THE SIGNAL HEADS AS SHOWN IN THE SIGNAL ELEVATION VIEW.

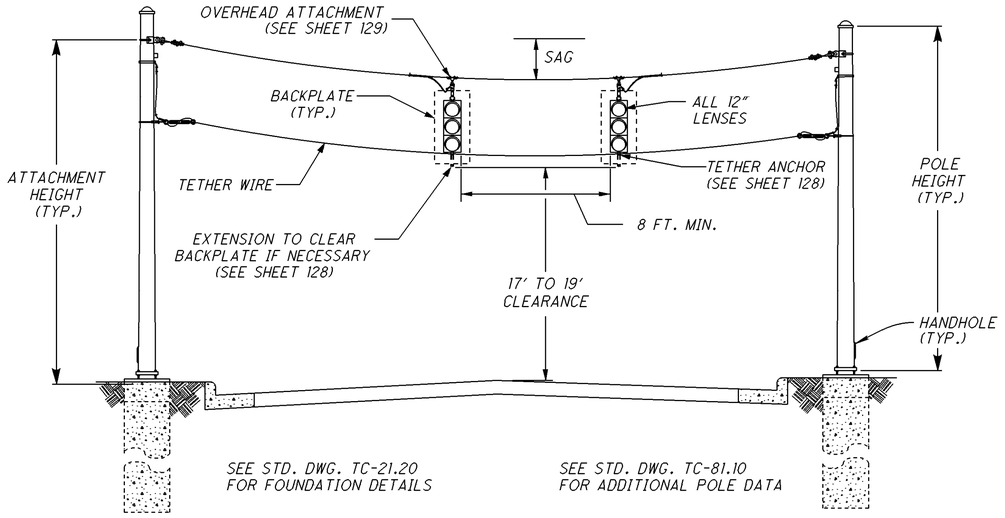
(2) POWER SERVICE SHALL BE AS PER TC-83.10, AND ORIENTATED AT THE ANGLE SHOWN IN THE TABLE.

(3) WHEN PEDESTRIAN SIGNALS ARE LOCATED ON NEW SIGNAL POLES, 1-1/2 IN. BLIND HALF COUPLINGS SHALL BE PROVIDED IN THE POLE AS PER TC-85.10 AND AT THE ORIENTATION NOTED IN THE TABLE.

STRAIN POLE ORIENTATION DETAIL



TYPICAL SIGNAL ELEVATION VIEW



CALCULATED JSL
CHECKED DNM

STRAIN POLE DETAILS

MUS-60-18.35

139
157

83002_sds_10.dgn 9/29/2011

SHEET NO.	LOCATION	625							632																			633							
		CONDUIT, 2", 725.04	CONDUIT, 4", 725.04	TRENCH, 24" DEEP, AS PER PLAN	PULL BOX, 725.08, 18"	PULL BOX, 725.08, 24"	PULL BOX REMOVED	GROUND ROD	VEHICULAR SIGNAL HEAD, (LED) BLACK, 3-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN	VEHICULAR SIGNAL HEAD, (LED) BLACK, 5-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN	PEDESTRIAN SIGNAL HEAD (LED) , TYPE D2, AS PER PLAN	COVERING OF VEHICULAR SIGNAL HEAD	COVERING OF PEDESTRIAN SIGNAL HEAD	PEDESTRIAN PUSHBUTTON	DETECTOR LOOP	MESSENGER WIRE, 7 STRAND, 7/16" DIAMETER WITH ACCESSORIES	TETHER WIRE, WITH ACCESSORIES, AS PER PLAN	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	INTERCONNECT CABLE, 6 PAIR, NO. 19 AWG, SOLID, REA (PE-39)	STRAIN POLE FOUNDATION	PEDESTAL FOUNDATION	LOOP DETECTOR LEAD-IN CABLE	POWER CABLE, 2 CONDUCTOR, NO. 8 AWG	SERVICE CABLE, 2 CONDUCTOR, NO. 8 AWG	POWER SERVICE, AS PER PLAN	STRAIN POLE, TYPE TC-81.10, DESIGN 10	PEDESTAL, 3'	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	CONTROLLER UNIT, TYPE TS2/A2, FURNISH ONLY, AS PER PLAN	CABINET, TYPE TS-1, AS PER PLAN	CABINET RISER	CABINET FOUNDATION	PREEMPTION DETECTOR CABLE	CONTROLLER ITEM, MISC.: PREEMPTION UNIT, REMOVED FOR REUSE	CONTROLLER ITEM, MISC.: PREEMPTION CONFIRMATION LIGHT CABLE
		FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	EACH	EACH	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	EACH	FT
130	**MAPLE AVE & BROWN ST**															341	341									200	1			2					
	CONTROLLER CABINET CC-1							1																							1	1	1	1		
	LOOP L-1 THROUGH L-12														12																				
	PEDESTAL PED-1													1							1								1						
	PED HEAD A,B,C,D,E,F										6		6	1																					
	POLE P-1,P-2,P-3,P-4							4												4								4							
	PREEMPTION PE-1																																	1	
	PULLBOX PB-1A,PB-2A				2		2																												
	PULLBOX PB-1,PB-3,PB-4				3																														
	PULLBOX PB-2					1																													
	REMOVAL R-1						1																												
	SIGNAL 1,5,6									3		3																							
	SIGNAL 2,3,4,7,8,9								6			6																							
	PB-1A TO PB-1	170		170																															
	PB-1 TO P-2	42		42																															
	PB-3 TO P-4	10		10																															
	PED-1 TO P-4	25		25																															
	PB-4 TO P-3	20		20																															
	PB-2A TO PB-2	85		85																															
	P-2 TO PB-2		7	7																															
	PB-2 TO CC-1		8																																
	EP-1 TO EP-4																		645																
	P-1 TO CC-1																								67										
	L-1,L-2,L-3 TO CC-1																						1320												
	L-4,L-5 TO CC-1																						214												
	L-6,L-7,L-8 TO CC-1																						795												
	L-9 TO CC-1																						182												
	L-10 TO CC-1																						16												
	L-11,L-12 TO CC-1																						498												
	1,2 TO CC-1																	118																	
	3,4,9 TO CC-1																	271																	
	5 TO CC-1																	169																	
	6 TO CC-1																	189																	
	7,8 TO CC-1																	184																	
	A TO CC-1																	213																	
	B TO CC-1																	40																	
	C TO CC-1																	177																	
	D TO CC-1																	187																	
	PED-1,E TO CC-1																	270																	
	F TO CC-1																	230																	
	PE-1 TO CC-1																																	117		117
	TOTALS CARRIED TO GENERAL SUMMARY	352	15	359	5	1	3	5	6	3	6	9	6	2	12	341	341	2048	645	4	1	3025	67	200	1	4	1	2	1	1	1	1	117	1	117

CALCULATED JSL
CHECKED DNM

SIGNAL PLAN DETAILS - MAPLE AVE. & BROWN ST.

MUS-60-18.35

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9/29/2011

83002_sss_01.dgn

SHEET NO.	LOCATION	625			632												633							
		CONDUIT, 2", 725.04	TRENCH, 24" DEEP, AS PER PLAN	PULL BOX CLEANED	VEHICULAR SIGNAL HEAD, (LED) BLACK, 3-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN	VEHICULAR SIGNAL HEAD, (LED) BLACK, 4-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN	PEDESTRIAN SIGNAL HEAD (LED) , TYPE D2, AS PER PLAN	COVERING OF VEHICULAR SIGNAL HEAD	COVERING OF PEDESTRIAN SIGNAL HEAD	DETECTOR LOOP	TETHER WIRE, WITH ACCESSORIES, AS PER PLAN	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	PEDESTAL FOUNDATION	LOOP DETECTOR LEAD-IN CABLE	PEDESTAL, 8'	REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM, PEDESTRIAN HEAD WITH PUSHBUTTON	PREEMPTION DETECTOR CABLE	CONTROLLER ITEM, MISC.: PREEMPTION UNIT, REMOVED FOR REUSE	CONTROLLER ITEM, MISC.: PREEMPTION CONFIRMATION LIGHT CABLE						
		FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	EACH	FT	EACH	EACH	FT	EACH	FT						
133	**MAPLE AVE & BELL ST**										321													
	LOOP L-1,L-2,L-3,L-4									4														
	PEDESTAL PED-2												1		1									
	PED HEAD A,B						2		2															
	PREEMPTION PE-2																	1						
	PULLBOX EPB-1,EPB-2			2																				
	REMOVAL R-2,R-3															2								
	SIGNAL 1,2,4,5,6				5			5																
	SIGNAL 3,7,8,9					4		4																
	PED-2 TO EPB-1	25	25																					
	L-1,L-2 TO ECC													562										
	L-3,L-4 TO ECC													76										
	1,2 TO ECC											195												
	3,4 TO ECC											168												
	5,6 TO ECC											91												
	7,8,9 TO ECC											124												
	A TO ECC											321												
	B TO ECC											155												
	PE-2 TO ECC																76		76					
TOTALS CARRIED TO GENERAL SUMMARY		25	25	2	5	4	2	9	2	4	321	1054	1	638	1	2	76	1	76					

CALCULATED JSL
CHECKED DNM

SIGNAL PLAN DETAILS - MAPLE AVE. & BELL ST.

MUS-60-18.35

141
157

9/29/2011

83002_sss_02.dgn

SHEET NO.	LOCATION	625								632																633							
		CONDUIT, 2", 725.04	CONDUIT, 4", 725.04	TRENCH, 24" DEEP, AS PER PLAN	PULL BOX, 725.08, 18"	PULL BOX, 725.08, 24"	PULL BOX REMOVED	GROUND ROD	PULL BOX CLEANED	VEHICULAR SIGNAL HEAD, (LED) BLACK, 3-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN	VEHICULAR SIGNAL HEAD, (LED) BLACK, 5-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN	VEHICULAR SIGNAL HEAD, (LED) BLACK, 4-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN	PEDESTRIAN SIGNAL HEAD (LED) , TYPE D2, AS PER PLAN	COVERING OF VEHICULAR SIGNAL HEAD	COVERING OF PEDESTRIAN SIGNAL HEAD	DETECTOR LOOP	MESSENGER WIRE, 7 STRAND, 7/16" DIAMETER WITH ACCESSORIES	TETHER WIRE, WITH ACCESSORIES, AS PER PLAN	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	INTERCONNECT CABLE, 6 PAIR, NO. 19 AWG, SOLID, REA (PE-39)	STRAIN POLE FOUNDATION	LOOP DETECTOR LEAD-IN CABLE	POWER CABLE, 2 CONDUCTOR, NO. 8 AWG	SERVICE CABLE, 2 CONDUCTOR, NO. 8 AWG	POWER SERVICE, AS PER PLAN	STRAIN POLE, TYPE TC-81.10, DESIGN 10	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	CONTROLLER UNIT, TYPE TS2/A2, FURNISH ONLY, AS PER PLAN	CABINET, TYPE TS-1, AS PER PLAN	CABINET RISER	CABINET FOUNDATION	PREEMPTION DETECTOR CABLE	CONTROLLER ITEM, MISC.: PREEMPTION UNIT, REMOVED FOR REUSE	CONTROLLER ITEM, MISC.: PREEMPTION CONFIRMATION LIGHT CABLE
		FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	EACH	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	FT	EACH	FT
136	**MAPLE AVE & BALLS LN**																391	391											1						
	CONTROLLER CABINET CC-2							1																	1	1	1	1					
	LOOP L-1 THROUGH L-13															13																	
	PED HEAD A,B												2		2																		
	POLE P-5,P-6,P-7,P-8							4													4				4								
	PREEMPTION PE-3																															1	
	PULLBOX PB-5A				1		1																										
	PULLBOX PB-5,PB-6,PB-8,PB-9				4																												
	PULLBOX PB-7					1																											
	PULLBOX EPB-3								1																								
	REMOVAL R-4,R-5						2																										
	SIGNAL 1,2,3,5										4			4																			
	SIGNAL 4,6,7									3				3																			
	SIGNAL 8,9											2		2																			
	PB-5A TO PB-5	80		80																													
	PB-5 TO P-6	7		7																													
	PB-7 TO PB-6	18		18																													
	PB-8 TO P-8	26		26																													
	EPB-3 TO PB-9	56		56																													
	PB-9 TO P-7	9		9																													
	P-5 TO PB-6	10	10	10																													
	EP-9 TO EP-10																			208													
	EP-9 TO P-5																						50										
	P-5 TO CC-2																					70											
	L-1,L-2 TO CC-2																				590												
	L-3 TO CC-2																				210												
	L-4 TO CC-2																				232												
	L-5,L-6 TO CC-2																				586												
	L-7,L-8,L-9 TO CC-2																				117												
	L-10,L-11,L-12,L-13 TO CC-2																				1204												
	1,2 TO CC-2																	129															
	3,4 TO CC-2																	168															
	5,6 TO CC-2																	227															
	7 TO CC-2																	182															
	8,9 TO CC-2																	180															
	A TO CC-2																	41															
	B TO CC-2																	215															
	PE-3 TO CC-2																															114		114
	TOTALS CARRIED TO GENERAL SUMMARY	206	10	206	5	1	3	5	1	3	4	2	2	9	2	13	391	391	1142	208	4	2939	70	50	1	4	1	1	1	1	1	114	1	114

CALCULATED JSL
CHECKED DNM

SIGNAL PLAN DETAILS - MAPLE AVE. & BALLS LN.

MUS-60-18.35

142
157

9/29/2011

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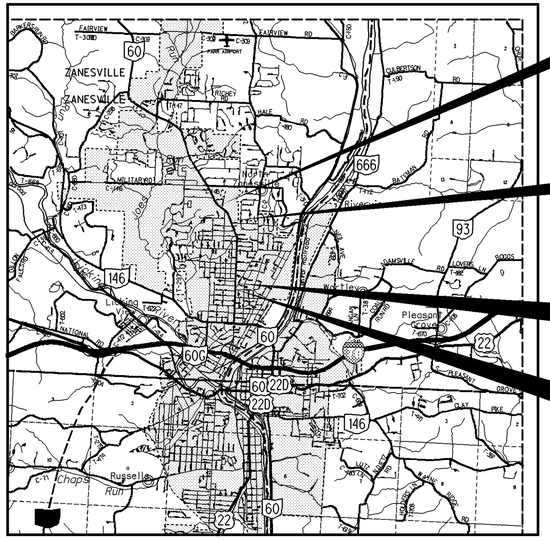

END RW ACQUISITION
STA. 163+49.86
S.R. 60

RESUME RW ACQUISITION
STA. 152+80.93
S.R. 60

SUSPEND RW ACQUISITION
STA. 101+01
S.R. 60

BEGIN RW ACQUISITION
STA. 99+51.86
S.R. 60

LOCATION MAP

LATITUDE: 39°57'31" N LONGITUDE: 82°00'36" W

SCALE IN MILES

0 1 2 3 4

N

NOTE:
THE LOCATION OF THE UNDERGROUND UTILITES SHOWN ON THE PLANS ARE OBTAINED FROM THE OWNER OF THE UTILITIES AS REQUIRED BY SECTION 153.64 O.R.C.

UTILITY OWNERS

AEP OHIO
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230
ATTN: PAUL PAXTON
614-883-6829

AT&T OHIO
160 NORTH SIXTH STREET
ZANESVILLE, OHIO 43701
ATTN: SANDY RANDOLPH
740-454-3455

NATIONAL GAS & OIL CORP.
1500 GRANVILLE ROAD
P.O. BOX 4970
NEWARK, OHIO 43058
ATTN: GREG WILSON
740-348-1254

TIME WARNER CABLE
3760 INTERCHANGE DRIVE
COLUMBUS, OHIO 43204
ATTN: TERRY ALLEN
614-255-6349

CITY OF ZANESVILLE
DIVISION OF WATER
401 MARKET STREET
ZANESVILLE, OHIO 43701
ATTN: NEIL MAXWELL
740-455-0653

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY LEGEND SHEET MUS-60-18.35

CITY OF ZANESVILLE MUSKINGUM COUNTY BALLS LANE AND DRESDEN ROAD QTR. TWP. 4, R7&8W, T1N, U.S.M.L.

INDEX OF SHEETS:

LEGEND:
WL = FEE SIMPLE WITH LIMITATION OF ACCESS
WD = WARRANTY DEED
SH = STANDARD HIGHWAY EASEMENT
LA = LIMITED ACCESS EASEMENT
T = TEMPORARY EASEMENT
CH = CHANNEL EASEMENT

STRUCTURE KEY

RESIDENTIAL
COMMERCIAL
OUT-BUILDING

PROJECT DESCRIPTION

SAFETY PROJECT INCLUDING THE REALIGNMENTS OF THE DRESDEN ROAD INTERSECTION AND THE BALLS LANE/ BETHESDA DRIVE INTERSECTION ALONG MAPLE AVENUE (S.R. 60) IN THE CITY OF ZANESVILLE.

PLAN PREPARED BY:

FIRM NAME: ODOT, DISTRICT 5
PLANS PREPARED BY: CANDY SHOEMAKER
FIELD REVIEW BY: CHUCK PRICE & CANDY SHOEMAKER
OWNERSHIP VERIFIED BY: CHARLES PRICE, JR.
DATE COMPLETED: OCTOBER 6, 2011

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE SERVICE CALL: 1-800-925-0988

CONVENTIONAL SYMBOLS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (Ex) x (Pr)
Center Line
Right of Way (Ex) Ex R/W
Right of Way (Pr) R/W
Standard Highway Ease.(Ex) Ex SH
Temporary Right of Way TMP
Channel Ease. (Pr) CH
Utility Ease. (Ex) Ex U
Railroad or
Guardrail (Ex) (Pr)
Construction Limits
Edge of Pavement (Ex)
Edge of Pavement (Pr)
Edge of Shoulder (Ex)
Edge of Shoulder (Pr)

Ditch / Creek (Ex)
Ditch / Creek (Pr)
Tree Line (Ex)
Ownership Hook Symbol , Example
Property Line Symbol , Example
Break Line Symbol , Example
Tree (Pr) , Tree (Ex) , Shrub (Ex)
Tree (Remove) , Shrub (Remove)
Evergreen (Ex) , Stump
Evergreen (Remove) , Stump (Remove)
Wetland (Pr) , Grass (Pr) , Aerial Target
Post (Ex) , Mailbox (Ex) MB , Mailbox (Pr) MB
Light (Ex) , Telephone Marker (Ex) TEL
Fire Hydrant (Ex) , Water Meter (Ex) W
Water Valve (Ex) , Utility Valve Unknown (Ex.)
Telephone Pole (Ex) , Power Pole (Ex)
Light Pole (Ex)

FEDERAL PROJECT NO. FAN E070 (987)
STATE JOB NO. 457266
PID NO. 83002
RAILROAD INVOLVEMENT NONE
RIGHT OF WAY LEGEND SHEET
MUS-60-18.35
1 / 15
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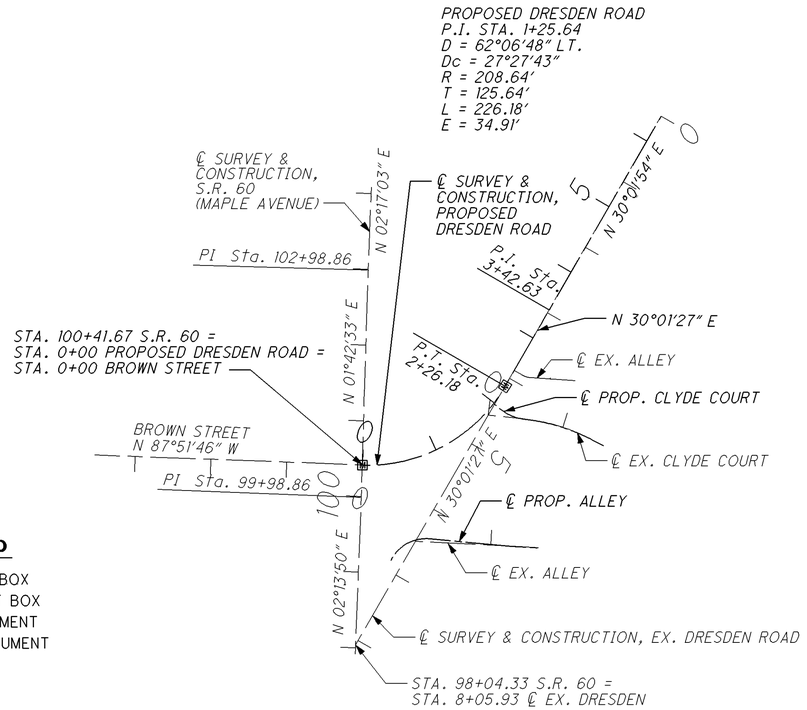
MONUMENT TABLE

℄ OF PROP. R/W S.R. 60		PROJECT COORDINATES SEE SURVEY CERTIFICATION		MONUMENTS TO BE SET DURING CONSTRUCTION	R/W MON. EXPECTED TO BE DISTURBED	
STATION	OFFSET	NORTHING (Y)	EASTING (X)	MON. ASSEMBLY	R/W MON.	DESCRIPTION
STA. 99+59.37	103' RT.	714,303.7277	2,105,882.9189		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
STA. 100+79	29.72' LT.	714,428.1865	2,105,754.2156		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
STA. 100+79	35' LT.	714,428.3439	2,105,748.9397		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
STA. 100+87	35' LT.	714,436.3404	2,105,749.1783		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
STA. 100+87	31' LT.	714,436.2211	2,105,753.1765		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
℄ OF PROP. R/W DRESDEN ROAD						
PC STA. 0+00	℄	714,389.9915	2,105,782.8109	1		
STA. 1+19.94	36' LT.	714,450.1954	2,105,878.9902		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
STA. 1+79.78	25.50' RT.	714,439.5044	2,105,962.4811		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
PT STA. 2+26.18	℄	714,494.0894	2,105,971.2335	1		
STA. 2+63	24' RT.	714,513.9599	2,106,010.4365		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
SUBTOTAL TO RW SHEET 3				2	8	



MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.R.F. IRON PIN FOUND
- I.R.F. IRON PIN FOUND W/ ID CAP
- I.R.S. IRON PIN SET W/ ID CAP
- P.F. IRON PIPE FOUND
- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

RECEIVED _____, 2013
RECORDED _____, 2013
INSTRUMENT NUMBER:

_____
COUNTY RECORDER

CITY OF ZANESVILLE
MUSKINGUM COUNTY
DRESDEN ROAD
QTR. TWP. 4, R7&8W, T1N, U.S.M.L.

THE PROPOSED RIGHT OF WAY SHALL BE REFERENCED FROM THE CENTERLINE OF RIGHT OF WAY.

PLACEMENT OF ALL MONUMENTS SHALL BE UNDER THE DIRECTION OF A SURVEYOR REGISTERED IN THE STATE OF OHIO. THE CENTERLINE MONUMENT ASSEMBLY BOX(S) AND REFERENCE MONUMENTS WILL BE INSTALLED BY THE HIGHWAY CONTRACTOR AT THE TIME OF CONSTRUCTION.

THE IRON PIN WITH CAP (WHEN REQUIRED) ARE TO BE INSTALLED SET BY THE CONTRACTOR'S SURVEYOR.

CHANGES OR ALTERATIONS TO THE LOCATION OF ANY MONUMENTS SHOWN ON THIS PLAT, REQUIRES PRIOR APPROVAL OF THE DISTRICT REAL ESTATE ADMINISTRATOR OF THE OHIO DEPARTMENT OF TRANSPORTATION. A REVISED CENTERLINE PLAT WITH THE NEW LOCATIONS SHALL BE RECORDED IN THE APPLICABLE COUNTY RECORDS AND THE OHIO DEPARTMENT OF TRANSPORTATION. SPECIFICATIONS FOR CENTERLINE MONUMENTS, REFERENCE MONUMENTS AND RIGHT OF WAY MONUMENTS ARE SHOWN ON STANDARD CONSTRUCTION DRAWING RM-1.1 OF THE OHIO DEPARTMENT OF TRANSPORTATION.

BASIS FOR BEARINGS:

ALL BEARINGS SHOWN ARE BASED ON THE OHIO STATE PLANE COORDINATES SYSTEM, SOUTH ZONE.

NOTE: THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

I, Charles W. Price, Jr., P. S. have conducted a survey of the existing conditions for the Ohio Department of Transportation in July, 2011. The results of that survey are contained herein.

Underground utility locations are shown for informational purposes only. Though they are believed to be accurate, their location is as marked on the ground by the utility company per OUPS Confirmation Number A919000421 and those markings subsequently being surveyed as a part of this project.

The horizontal coordinates expressed herein are based on the Ohio State Plane Coordinates system, NAD 83, South Zone.

As a part of this project I have reestablished the locations of the existing property lines and centerline of existing Right of Way for property takes contained herein.

As a part of this project I have established the proposed property lines, calculated the Gross Take, present roadway occupied (PRO), Net Take and Net Residue; as well as prepared the legal descriptions necessary to acquire the parcels as shown herein.

As a part of this work I have set monuments at the proposed property corners, and other points shown herein.

The iron pins and caps will be 3/4" x 30" rebar with aluminum cap stamped "Odot R/W District 5". All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "A Minimum Standards for Boundary Surveys in the State of Ohio" unless so noted.

The words I and my as used herein are to mean that either myself or someone working under my direct supervision.

_____
Charles W. Price, Jr., Professional Land Surveyor # 7825

Date: 10/06 /11

SURVEYORS SEAL

STATE OF OHIO
CHARLES W. PRICE, JR.
S-7825
REGISTERED
SURVEYOR

SIGNED: _____
DATE: 10/06/11

HORIZONTAL SCALE IN FEET
0 50 100 200

PID NO. 83002

R/W DESIGNER C.S
R/W REVIEWER C.P.

CENTERLINE PLAT
DRESDEN ROAD

MUS-60-18.35

2 / 11

144
157

P:\MUS\83002\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\83002_DRESDEN_RCP.dgn 01/22/13

MONUMENT TABLE

℄ OF PROP. R/W S.R. 60		PROJECT COORDINATES SEE SURVEY CERTIFICATION		MONUMENTS TO BE SET DURING CONSTRUCTION	R/W MON. EXPECTED TO BE DISTURBED	
STATION	OFFSET	NORTHING (Y)	EASTING (X)	MON. ASSEMBLY	R/W MON.	DESCRIPTION
STA. 160+10.72	33.50' RT.	719,990.8698	2,104,681.5264		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
STA. 161+48.19	50' RT.	720,086.3993	2,104,585.1757		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
STA. 161+89.22	33.50' RT.	720,100.1787	2,104,545.4977		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
℄ OF PROP. R/W BALLS LANE						
POT STA. 0+00	℄	720,011.0534	2,104,599.7211	1		
STA. 0+60	35' LT.	720,079.9933	2,104,608.2231		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
PC STA. 0+95.50	℄	720,087.0333	2,104,657.5744	1		
STA. 1+00	47.59' RT.	720,060.8970	2,104,697.5432		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
STA. 1+25	33' LT.	720,132.7567	2,104,654.1299		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
STA. 1+35	36' RT.	720,088.8207	2,104,708.2230		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
STA. 1+75	36' RT.	720,107.7908	2,104,734.8232		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
STA. 2+09.59	31.39' LT.	720,183.0454	2,104,737.7832		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
STA. 2+25	36' RT.	720,123.3867	2,104,772.5253		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
STA. 2+29.47	34' LT.	720,192.2441	2,104,759.1919		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
STA. 2+86.17	36' RT.	720,128.9497	2,104,808.5430		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
STA. 3+34	50' LT.	720,205.1108	2,104,884.7231		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
STA. 3+47.46	74.27' LT.	720,222.6056	2,104,909.1134		1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
POC STA. 3+80.54	74.27' LT.	720,138.9528	2,104,913.4144	1	1	IRON PIN SET INSIDE CONSTRUCTION LIMITS
SUBTOTAL				3	14	
SUBTOTAL FROM RW SHEET 2				2	8	
TOTAL TO GENERAL SUMMARY				5	22	

CITY OF ZANESVILLE
MUSKINGUM COUNTY
BALLS LANE
QTR. TWP. 4, R8W, T1N, U.S.M.L.

THE PROPOSED RIGHT OF WAY SHALL BE REFERENCED FROM THE CENTERLINE OF RIGHT OF WAY.

PLACEMENT OF ALL MONUMENTS SHALL BE UNDER THE DIRECTION OF A SURVEYOR REGISTERED IN THE STATE OF OHIO. THE CENTERLINE MONUMENT ASSEMBLY BOX(S) AND REFERENCE MONUMENTS WILL BE INSTALLED BY THE HIGHWAY CONTRACTOR AT THE TIME OF CONSTRUCTION.

THE IRON PIN WITH CAP (WHEN REQUIRED) ARE TO BE INSTALLED SET BY THE CONTRACTOR'S SURVEYOR.

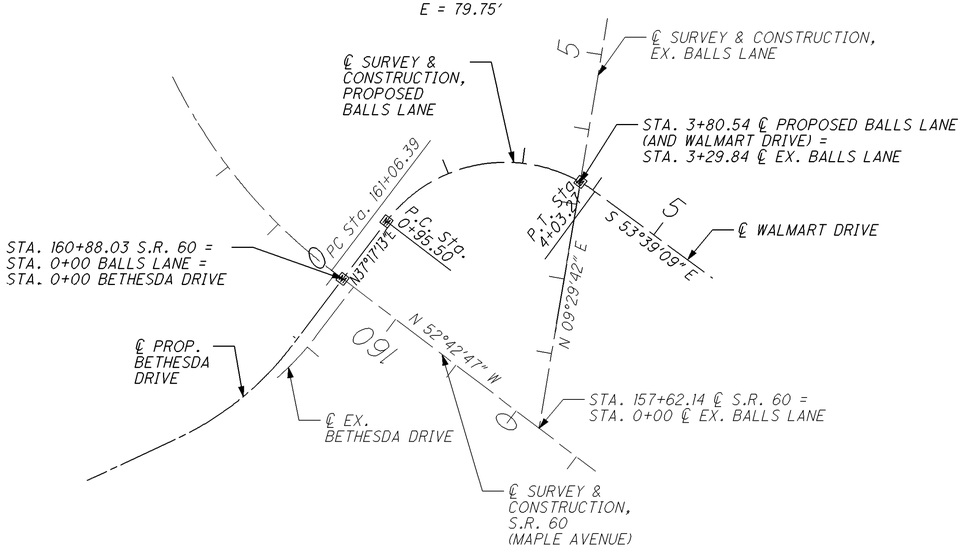
CHANGES OR ALTERATIONS TO THE LOCATION OF ANY MONUMENTS SHOWN ON THIS PLAT, REQUIRES PRIOR APPROVAL OF THE DISTRICT REAL ESTATE ADMINISTRATOR OF THE OHIO DEPARTMENT OF TRANSPORTATION. A REVISED CENTERLINE PLAT WITH THE NEW LOCATIONS SHALL BE RECORDED IN THE APPLICABLE COUNTY RECORDS AND THE OHIO DEPARTMENT OF TRANSPORTATION. SPECIFICATIONS FOR CENTERLINE MONUMENTS, REFERENCE MONUMENTS AND RIGHT OF WAY MONUMENTS ARE SHOWN ON STANDARD CONSTRUCTION DRAWING RM-1.1 OF THE OHIO DEPARTMENT OF TRANSPORTATION.

BASIS FOR BEARINGS:

ALL BEARINGS SHOWN ARE BASED ON THE OHIO STATE PLANE COORDINATES SYSTEM, SOUTH ZONE.

NOTE: THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

PROPOSED BALLS LANE
P.I. STA. 2+90.28
D = 89°03'38" RT.
Dc = 28°56'14"
R = 198.00'
T = 194.78'
L = 307.77'
E = 79.75'



MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. IRON PIN SET W/ ID CAP
- P.F. IRON PIPE FOUND
- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

I, Charles W. Price, Jr., P. S. have conducted a survey of the existing conditions for the Ohio Department of Transportation in July, 2011. The results of that survey are contained herein.

Underground utility locations are shown for informational purposes only. Though they are believed to be accurate, their location is as marked on the ground by the utility company per OUPS Confirmation Number A919000421 and those markings subsequently being surveyed as a part of this project.

The horizontal coordinates expressed herein are based on the Ohio State Plane Coordinates system, NAD 83, South Zone.

As a part of this project I have reestablished the locations of the existing property lines and centerline of existing Right of Way for property takes contained herein.

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The words I and my as used herein are to mean that either myself or someone working under my direct supervision.

Charles W. Price, Jr., Professional Land Surveyor # 7825

Date: 10/06 /11

SURVEYORS SEAL

STATE OF OHIO
CHARLES W. PRICE, JR.
S-7825
REGISTERED
SURVEYOR

SIGNED:
DATE: 10/06/11

RECEIVED --------, 2011
RECORDED ----------, 2010
INSTRUMENT NUMBER:

COUNTY RECORDER

HORIZONTAL SCALE IN FEET
0 50 100 200

PID NO. 83002

R/W DESIGNER C.S
R/W REVIEWER C.P.

CENTERLINE PLAT
BALLS LANE

MUS-60-18.35

3 / 11

145 / 157

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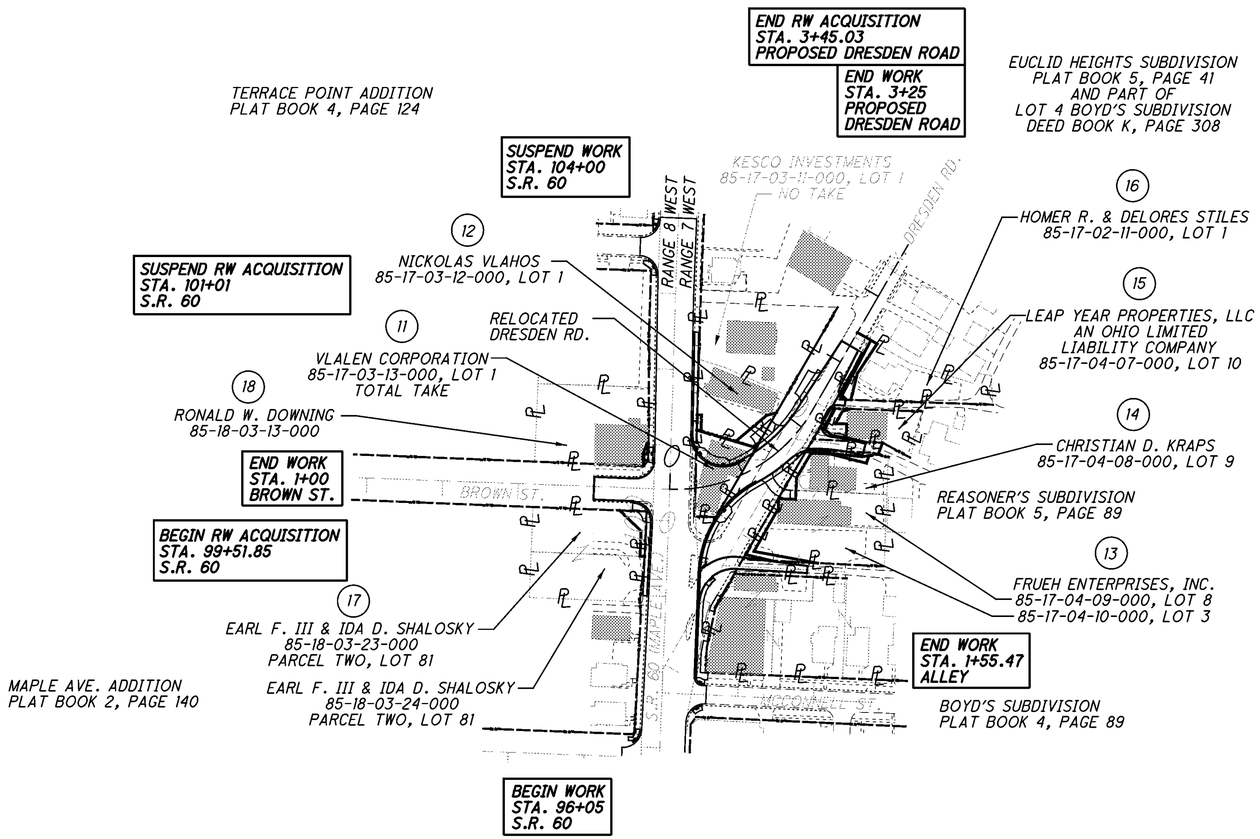
CITY OF ZANESVILLE
MUSKINGUM COUNTY
DRESDEN ROAD
QTR. TWP. 4, R7&8W, T1N, U.S.M.L.



HORIZONTAL SCALE IN FEET
0 50 100 200

PID NO. 83002

STATE JOB NO.

R/W DESIGNER CS
P/R REVIEWER CP

PROPERTY MAP DRESDEN ROAD

MUS-60-18.35

REV. BY	DATE	DESCRIPTION
CS	10/09/12	NEW OWNER PARCEL 17
CS	08/01/12	REVISED 12-WDV, 12-T1 & 12-T2

FIELD REVIEW BY: CS & CP
OWNERSHIP VERIFIED BY: CP
DATE COMPLETED: 10/06/11

4 / 15

146
157

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CITY OF ZANESVILLE
MUSKINGUM COUNTY
BALLS LANE
QTR. TWP. 4, R7W, T1N, U.S.M.L.

MILITARY ROAD

(1) NATIONAL CITY BANK, COLUMBUS
85-39-03-19-000

(2) RODNEY A. & REBECCA SMITH
85-39-03-17-000, LOT 13
85-39-03-18-000, LOT 14
TOTAL TAKE

(7) CNL APF PARTNERS LP SUITE 500
85-39-01-13-000

(8) HARRY BOEDECKER
85-39-01-18-001

(10) HARRY BOEDECKER
85-39-01-18-000

(4) WAL-MART REAL ESTATE BUSINESS TRUST
85-39-01-01-000

H.G. SLACK'S SUBDIVISION
PLAT BOOK 5, PAGE 79

DYE'S SUBDIVISION
PLAT BOOK 7, PAGE 55

END RW ACQUISITION
STA. 5+72.58
EX. BALLS LANE

℄ SURVEY & CONSTRUCTION, EX. BALLS LANE

85-39-03-02-000, LOT 33
85-39-03-03-000, LOT 34
85-39-03-04-000, LOT 35
85-39-03-05-000, LOT 36
85-39-03-06-000, LOT 37
85-39-03-07-000, LOT 38
85-39-03-13-000
NO TAKE, LOT 9

85-39-03-01-000, LOT 26
85-39-03-25-000, LOT 27
85-39-03-24-000, LOT 28
85-39-03-23-000, LOT 29

END WORK
STA. 5+50
EX. BALLS LN.

JAMES ST.

END WORK
STA. 164+40
S.R. 60

END RW ACQUISITION
STA. 163+49.86
S.R. 60

(3) JOK COMPANY AN OHIO CORPORATION
85-39-03-22-000, LOT 30
85-39-03-20-000, LOTS 31 & 32

℄ SURVEY & CONSTRUCTION, BALLS LANE
℄ SURVEY & CONSTRUCTION, WALMART DRIVE

END WORK
STA. 5+60
WALMART DRIVE

END RW ACQUISITION
STA. 5+70
WALMART DRIVE

85-39-03-14-000
NO TAKE, LOT 10
85-39-03-15-000, LOT 11
85-39-03-16-000, LOT 12

PROP. BETHESDA DRIVE

℄ SURVEY & CONSTRUCTION S.R. 60 CHAPEL HILL

MARTIN FARMS PARTNERSHIP
85-39-01-13-001
NO TAKE

(5) BETHESDA HOSPITAL
86-17-01-04-000

(5) BETHESDA HOSPITAL
86-17-01-03-000

(5) BETHESDA HOSPITAL
86-17-01-01-000

86-17-01-01-006
PARCEL TWO

(6) NATIONWIDE HEALTH PROPERTIES, AN OHIO NON PROFIT CORPORATION
86-16-02-01-000
PARCEL ONE

(5) BETHESDA HOSPITAL
86-17-01-02-000

(9) NATIONWIDE HEALTH PROPERTIES INC.
85-39-01-19-000

RESUME RW ACQUISITION
STA. 152+80.93
S.R. 60

RESUME WORK
STA. 152+50
S.R. 60

℄ SURVEY & CONSTRUCTION, BELL ST.

VANGADER DRIVE

86-18-01-24-000
86-18-01-23-000
86-18-01-22-000
86-18-01-10-000
86-18-01-09-000
86-18-01-08-000
86-18-01-07-000
86-18-01-06-000
86-18-01-05-550
86-18-01-04-550
86-18-01-03-550
86-18-01-02-550
86-18-01-01-550

REV. BY	DATE	DESCRIPTION
CS	11/15/11	REVISED PARCEL 3
FIELD REVIEW BY: CS & CP		
OWNERSHIP VERIFIED BY: CP		
DATE COMPLETED: 10/06/11		

HORIZONTAL SCALE IN FEET
0 50 100 200

PID NO. 83002

STATE JOB NO.

R/W DESIGNER CS
P/W REVIEWER CP

PROPERTY MAP BALLS LANE

MUS-60-18.35

5 / 15

147 / 157

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TOTAL NUMBER OF :

18 - OWNERSHIPS
18 - OWNERSHIPS WITH TAKES
2 - TOTAL TAKES
3 - OWNERSHIPS WITH STRUCTURES INVOLVED
0 - OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA - TOTAL P.R.O. - NET TAKE

ALL AREAS IN ACRES

GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF STATE OF OHIO DEPARTMENT OF TRANSPORTATION UNLESS OTHERWISE SHOWN.

*DENOTES RIGHT OF WAY ENCROACHMENT

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA(AC.)	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED INSTRUMENT NUMBER
														80% FED 20% STATE		
1-WDV	NATIONAL CITY BANK, COLUMBUS	12-15	DV 1079	0031	85-39-03-19-000	0.979	0.000	0.102	0.000	0.102	NO		0.877		TO BE TAKEN IN NAME OF CITY OF ZANESVILLE	
1-T1		12-13						0.005	0.000	0.005	NO				FOR GRADING	
1-T2		12-15						0.051	0.000	0.051	S (1)				TO CONSTRUCT CURB; BANK SIGN TO BE REMOVED	
1-T3		14-15						0.024	0.000	0.024	NO				FOR GRADING	
															TOTAL TAKE, STRUCTURE TO BE REMOVED, NATIONWIDE SIGN TO BE REMOVED; **RECORD AREA=0.144 AC., CALCULATED AREA=0.148 AC.; LOT 13 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
2-WDV	RODNEY A. & REBECCA SMITH	12-13	DV 1005	0369	85-39-03-17-000	**0.148	0.000	0.148	0.000	0.148	YES; S(1)		0.000			
					85-39-03-18-000	**0.076	0.000	0.076	0.000	0.076	NO		0.000		LOT 14 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79); TO BE TAKEN IN NAME OF CITY OF ZANESVILLE; **RECORD AREA=0.097 AC.,CALCULATED AREA=0.076 AC.	
3-WDV1	JOK COMPANY, AN OHIO CORPORATION	12-13	DV 2007	0263	85-39-03-16-000	0.136	0.000	0.064	0.000	0.064	NO		0.072		LOT 12 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79) TO BE TAKEN IN NAME OF CITY OF ZANESVILLE	
			DV 2007	0263	85-39-03-15-000	0.139	0.000	0.008	0.000	0.008	NO		0.131		LOT 11 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
								0.072	0.000	0.072			0.203			
3-WDV2		14-15	DV 2013	0560	85-39-03-03-000	0.208	0.000	0.007	0.000	0.007	NO		0.201		LOT 34 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79) TO BE TAKEN IN NAME OF CITY OF ZANESVILLE	
			DV 2078	0635	85-39-03-20-000	**0.214	0.000	0.214	0.000	0.214	YES		0.000		LEASE (LAET) **RE-CALCULATED AREA=0.214 AC. RECORD AREA= 0.208 AC. LOT 35 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79); TO BE TAKEN IN NAME OF CITY OF ZANESVILLE	
			DV 2021	0130	85-39-03-22-000	0.136	0.000	0.055	0.000	0.055	NO		0.081		LOT 30 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79) TO BE TAKEN IN NAME OF CITY OF ZANESVILLE	
			DV 2021	0130	85-39-03-23-000	0.142	0.000	0.001	0.000	0.001	NO		0.141		LOT 29 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
								0.277	0.000	0.277			0.423			
3-WDV3			DV 1999	0534	85-39-03-01-000	0.126	0.000	0.008	0.000	0.008	NO		0.118		LOT 26 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
3-T		12-15	DV 1999	0534	85-39-03-01-000	0.126	0.000	0.005	0.000	0.005	NO				FOR GRADING; LOT 26 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
			DV 2007	0263	85-39-03-13-000	0.139	0.000	0.011	0.000	0.011	NO				FOR GRADING; LOT 9 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
			DV 2007	0263	85-39-03-14-000	0.137	0.000	0.016	0.000	0.016	NO				FOR GRADING; LOT 10 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
			DV 2007	0263	85-39-03-15-000	0.139	0.000	0.011	0.000	0.011	NO				FOR GRADING; LOT 11 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
			DV 2007	0263	85-39-03-16-000	0.136	0.000	0.030	0.000	0.030	NO				FOR GRADING; LOT 12 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
			DV 2013	0560	85-39-03-04-000	0.225	0.000	0.007	0.000	0.007	NO				FOR GRADING; LOT 35 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
			DV 2013	0560	85-39-03-03-000	0.208	0.000	0.018	0.000	0.018	NO				FOR GRADING; LOT 34 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
			DV 2021	0130	85-39-03-22-000	0.136	0.000	0.074	0.000	0.074	NO				FOR GRADING; LOT 30 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
			DV 2021	0130	85-39-03-23-000	0.142	0.000	0.016	0.000	0.016	NO				FOR GRADING; LOT 29 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
			DV 2021	0130	85-39-03-24-000	0.112	0.000	0.007	0.000	0.007	NO				FOR GRADING; LOT 28 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
			DV 1999	0534	85-39-03-25-000	0.119	0.000	0.002	0.000	0.002	NO				FOR GRADING; LOT 27 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
								0.197	0.000	0.197						
			DV 2013	0560	85-39-03-02-000	0.110									NO TAKE; LOT 33 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
			DV 2111	0490	85-39-03-05-000	0.197									NO TAKE; LOT 36 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
					85-39-03-06-000	0.159									NO TAKE; LOT 37 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
					85-39-03-07-000	0.154									NO TAKE; LOT 38 H.G. SLACK'S SUBDIVISION (PB 5 PG. 79)	
4-T	WAL-MART REAL ESTATE BUSINESS TRUST	14-15	DV 2049	0862	85-39-01-01-000	24.670	0.304	0.331	0.000	0.331	NO				TO CONSTRUCT DRIVE; DYE'S SUBDIVISION (PB. 7 PG. 55)	
														80% FED 20% STATE		

NOTE:
ALL TEMPORARY PARCELS TO BE OF 6 MONTHS DURATION.

LEGEND:
WL = FEE SIMPLE WITH LIMITATION OF ACCESS
WD = WARRANTY DEED
SH = STANDARD HIGHWAY EASEMENT
LA = LIMITED ACCESS EASEMENT
T = TEMPORARY EASEMENT
CH = CHANNEL EASEMENT

NOTE:
UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS ACQUIRED FOR THE PURPOSE OF STRUCTURE REMOVAL TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR. UPON COMPLETION OF THE WORK REQUIRED FOR SUCH REMOVAL AND SUBSEQUENT RECLAMATION, THE EASEMENT SHALL BE VACATED IMMEDIATELY.

REV BY:	DATE	DESCRIPTION
CS	03/16/12	REVISED RECORD AREA LOTS 31 & 32 OF 3-WDV2
CS	11/15/11	REVISED 3-WDV1, 3-T; ADDED 3-WDV3

FIELD REVIEW BY: CS & CP
OWNERSHIP VERIFIED BY: CP
DATE COMPLETE: 10/06/11

P:\MUS\83002\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\83002_0001_RSS.DGN 01/22/13

FEDERAL PROJECT NO. E070 (826)
PID NO. 83002
STATE JOB NO. MUS-60-18.35
R.W. DESIGNER C.S.
R.W. REVIEWER C.P.

SUMMARY OF ADDITIONAL RIGHT OF WAY PARCELS 1-4

NET RESIDUE = RECORD AREA - TOTAL P.R.O. - NET TAKE

ALL AREAS IN ACRES

GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF
STATE OF OHIO DEPARTMENT OF TRANSPORTATION
UNLESS OTHERWISE SHOWN.

*DENOTES RIGHT OF WAY ENCROACHMENT

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA(AC.)	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED INSTRUMENT NUMBER
														80% FED 20% STATE		
5-WD	BETHESDA HOSPITAL	12-13	DV 483	0378	86-17-01-01-000	1.5		0.102	0.000	0.102	NO		1.398			
					86-17-01-02-000	6.22		0.040	0.000	0.040			6.18			
5-T	BETHESDA HOSPITAL	12-13	DV 483	0378	86-17-01-01-000	1.5		0.216	0.000	0.216	S (2)				TO CONSTRUCT DRIVE; 2 SIGNS TO BE REMOVED	
					86-17-01-02-000	6.22		0.063	0.000	0.063	NO				TO CONSTRUCT DRIVE	
			DV 483	0369	86-17-01-03-000	10.2									NO TAKE	
			DV 483	0369	86-17-01-04-000	14.36									NO TAKE	
			DV 516	0904	86-18-01-01-550	0.098									NO TAKE	
			DV 517	0915	86-18-01-02-550	0.112									NO TAKE	
			DV 521	0066	86-18-01-03-550	0.112									NO TAKE	
			DV 516	0906	86-18-01-04-550	0.112									NO TAKE	
			DV 519	0401	86-18-01-05-550	0.112									NO TAKE	
			DV 519	0401	86-18-01-06-000	0.112									NO TAKE	
			DV 519	0401	86-18-01-07-000	0.112									NO TAKE	
			DV 519	0401	86-18-01-08-000	0.112									NO TAKE	
			DV 519	0401	86-18-01-09-000	0.112									NO TAKE	
			DV 516	0902	86-18-01-10-000	0.112									NO TAKE	
			DV 516	0908	86-18-01-22-000	0.112									NO TAKE	
			DV 535	0679	86-18-01-23-000	0.112									NO TAKE	
			DV 321	0281	86-18-01-24-000	0.102									NO TAKE	
6-T	NATIONWIDE HEALTH PROPERTIES, AN OHIO NON PROFIT CORPORATION	11	DV 2316	0079	86-16-02-01-000	2.023		0.017	0.000	0.017	NO				TO CONSTRUCT CURB; PARCEL ONE	
					86-17-01-01-006	0.11		0.017	0.000	0.017	NO				PARCEL TWO	
7-T	CNL APF PARTNERS LP SUITE 500	11	DV 2029	0455	85-39-01-13-000	0.55		0.042	0.000	0.042	NO				TO CONSTRUCT DRIVE; * 2 SIGNS ENCROACHING, AND TO BE REMOVED	
8-WD	HARRY BOEDECKER	11	DV 2048	0632	85-39-01-18-001	0.74	0.000	0.003	0.000	0.003	NO		0.71		PARCEL ONE	
8-T		11						0.008	0.000	0.008	NO				TO CONSTRUCT DRIVE	
9-WD	NATIONWIDE HEALTH PROPERTIES INC.	11	DV 2316	0072	85-39-01-19-000	9.16	0.000	0.026	0.000	0.026	NO		9.134			
10-WD	HARRY BOEDECKER	11	DV 2048	0632	85-39-01-18-000	2.31	0.000	0.002	0.000	0.002	NO		2.308		PARCEL TWO	
														80% FED 20% STATE		

NOTE:
ALL TEMPORARY PARCELS TO BE OF 6 MONTHS DURATION.

LEGEND:
WL = FEE SIMPLE WITH LIMITATION OF ACCESS
WD = WARRANTY DEED
SH = STANDARD HIGHWAY EASEMENT
LA = LIMITED ACCESS EASEMENT
T = TEMPORARY EASEMENT
CH = CHANNEL EASEMENT

NOTE:
UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS ACQUIRED FOR THE PURPOSE OF STRUCTURE REMOVAL TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR. UPON COMPLETION OF THE WORK REQUIRED FOR SUCH REMOVAL AND SUBSEQUENT RECLAMATION, THE EASEMENT SHALL BE VACATED IMMEDIATELY.

REV BY:	DATE	DESCRIPTION
CS	02/23/12	REVISED RECORD AREA & RESIDUE ON 8-WD

FIELD REVIEW BY: CS & CP
OWNERSHIP VERIFIED BY: CP
DATE COMPLETE: 10/06/11

FEDERAL PROJECT NO. E070 (826)
PID NO. 83002
STATE JOB NO.
R.W. DESIGNER C.S.
R.W. REVIEWER C.P.

SUMMARY OF ADDITIONAL RIGHT OF WAY PARCELS 5-10

MUS-60-18.35

P:\MUS\83002\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\83002_0002_RSS.DGN 01/22/13

NET RESIDUE = RECORD AREA - TOTAL P.R.O. - NET TAKE

ALL AREAS IN ACRES

GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF
STATE OF OHIO DEPARTMENT OF TRANSPORTATION
UNLESS OTHERWISE SHOWN.

*DENOTES RIGHT OF WAY ENCROACHMENT

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA(AC.)	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED INSTRUMENT NUMBER
														80% FED 20% STATE		
11-WDV	VLALEN CORPORATION	9-10	DV 1122	0245	85-17-03-13-000	**0.134	0.000	0.134	0.000	0.134	YES; P		0.000		TOTAL TAKE, STRUCTURE TO BE REMOVED; LOT 1 TERRACE POINT ADDITION (PB. 4 PG. 124); **RECORD AREA = 0.145 AC.; CALC. AREA = 0.134 ACRE; PRIVATE LIGHT TO BE REMOVED	
12-WDV	NICKOLAS VLAHOS	9-10	DV 1155	0521	85-17-03-12-000	0.206	0.000	0.0004	0.000	0.0004	P		0.206		* ENCROACHING SIGN TO BE REMOVED; TO BE TAKEN IN NAME OF CITY OF ZANESVILLE; PRIVATE LIGHT TO BE REMOVED	
12-T1		9-10						0.020	0.000	0.020	NO				TO CONSTRUCT DRIVE	
12-T2		9-10						0.003	0.000	0.003	NO				LOT 1 TERRACE POINT ADDITION (PB. 4 PG. 124); TO BE TAKEN IN NAME OF CITY OF ZANESVILLE	
13-WDV	FRUEH ENTERPRISES, INC.	9-10	DV 2062	0476	85-17-04-10-000	0.194	0.000	0.003	0.000	0.003	NO		0.191		LOT 3 BOYD'S SUBDIVISION (PB. 4 PG. 89); PARCEL TWO; TO BE TAKEN IN NAME OF CITY OF ZANESVILLE	
13-T		9-10			85-17-04-10-000			0.018	0.000	0.018	NO				FOR GRADING	
					85-17-04-09-000	0.153	0.000	0.010	0.000	0.010	NO				LOT 8 BOYD'S SUBDIVISION (PB. 4 PG. 89); PARCEL ONE	
14-WDV	CHRISTIAN D. KRAPS	9-10	DV 1057	0590	85-17-04-08-000	0.11	0.000	0.009	0.000	0.009	NO		0.101		LOT 9 REASONER'S SUBDIVISION (PB. 5 PG. 89); TO BE TAKEN IN NAME OF CITY OF ZANESVILLE	
14-T		9-10						0.017	0.000	0.017	NO				FOR GRADING	
15-WDV	LEAP YEAR PROPERTIES, LLC AN OHIO LIMITED LIABILITY COMPANY	9-10	DV 2172	0252	85-17-04-07-000	0.14	0.000	0.013	0.000	0.013	NO		0.127		LOT 10 REASONER'S SUBDIVISION (PB. 5 PG. 89); TO BE TAKEN IN NAME OF CITY OF ZANESVILLE	
15-T		9-10						0.015	0.000	0.015	NO				FOR GRADING	
16-WDV	HOMER R. & DELORES STILES	9-10	DV 1113	0188	85-17-02-11-000	0.216	0.000	0.005	0.000	0.005	NO		0.211		LOT 1 EUCLID HEIGHTS SUBDIVISION (PB. 5 PG. 41) AND PART OF LOT 1 BOYD'S SUBDIVISION (PB. 5 PG. 309); TO BE TAKEN IN NAME OF CITY OF ZANESVILLE	
16-T		9-10						0.015	0.000	0.015	S (1)				FOR GRADING; SIGN TO BE REMOVED	
17-WD	EARL F. III & IDA D. SHALOSKY	9-10	DV 2420	0714	85-18-03-23-000	0.21	0.000	0.017	0.000	0.017	NO		0.193		PARCEL TWO; LOT 81 MAPLE AVE. ADDITION (PB. 2 PG. 140)	
					85-18-03-24-000	0.21	0.000								NO TAKE; PARCEL TWO; LOT 81 MAPLE AVE. ADDITION (PB. 2 PG. 140)	
18-WD	RONALD W. DOWNING	9-10	DV 2225	0306	85-18-03-13-000	0.35	0.000	0.001	0.000	0.001	NO		0.349		* BUILDING ENCROACHING	
18-T		9-10						0.002	0.000	0.002	NO				FOR GRADING: *ENCROACHING SIGN TO REMAIN	
														80% FED 20% STATE		

NOTE:
ALL TEMPORARY PARCELS TO BE OF 6 MONTHS DURATION.

LEGEND:
WL = FEE SIMPLE WITH LIMITATION OF ACCESS
WD = WARRANTY DEED
SH = STANDARD HIGHWAY EASEMENT
LA = LIMITED ACCESS EASEMENT
T = TEMPORARY EASEMENT
CH = CHANNEL EASEMENT

NOTE:
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REV BY:	DATE	DESCRIPTION
CS	10/09/12	NEW OWNER PARCEL 17
CS	08/01/12	REVISED 12-WDV, 12-T1 & 12-T2
FIELD REVIEW BY: CS & CP		
OWNERSHIP VERIFIED BY: CP		
DATE COMPLETE: 10/06/11		

FEDERAL PROJECT NO. FAN E070 (987)
PID NO. 83002
STATE JOB NO. 457266
R.W. DESIGNER C.S.
R.W. REVIEWER C.P.

SUMMARY OF ADDITIONAL RIGHT OF WAY PARCELS 11-18

MUS-60-18.35

CITY OF ZANESVILLE
MUSKINGUM COUNTY
DRESDEN ROAD
QTR. TWP. 4, R7&8W, T1N, U.S.M.L.

NOTE:
THE EXISTING RIGHT OF WAY WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE MUSKINGUM COUNTY ENGINEERS OFFICE MUSKINGUM COUNTY, OHIO

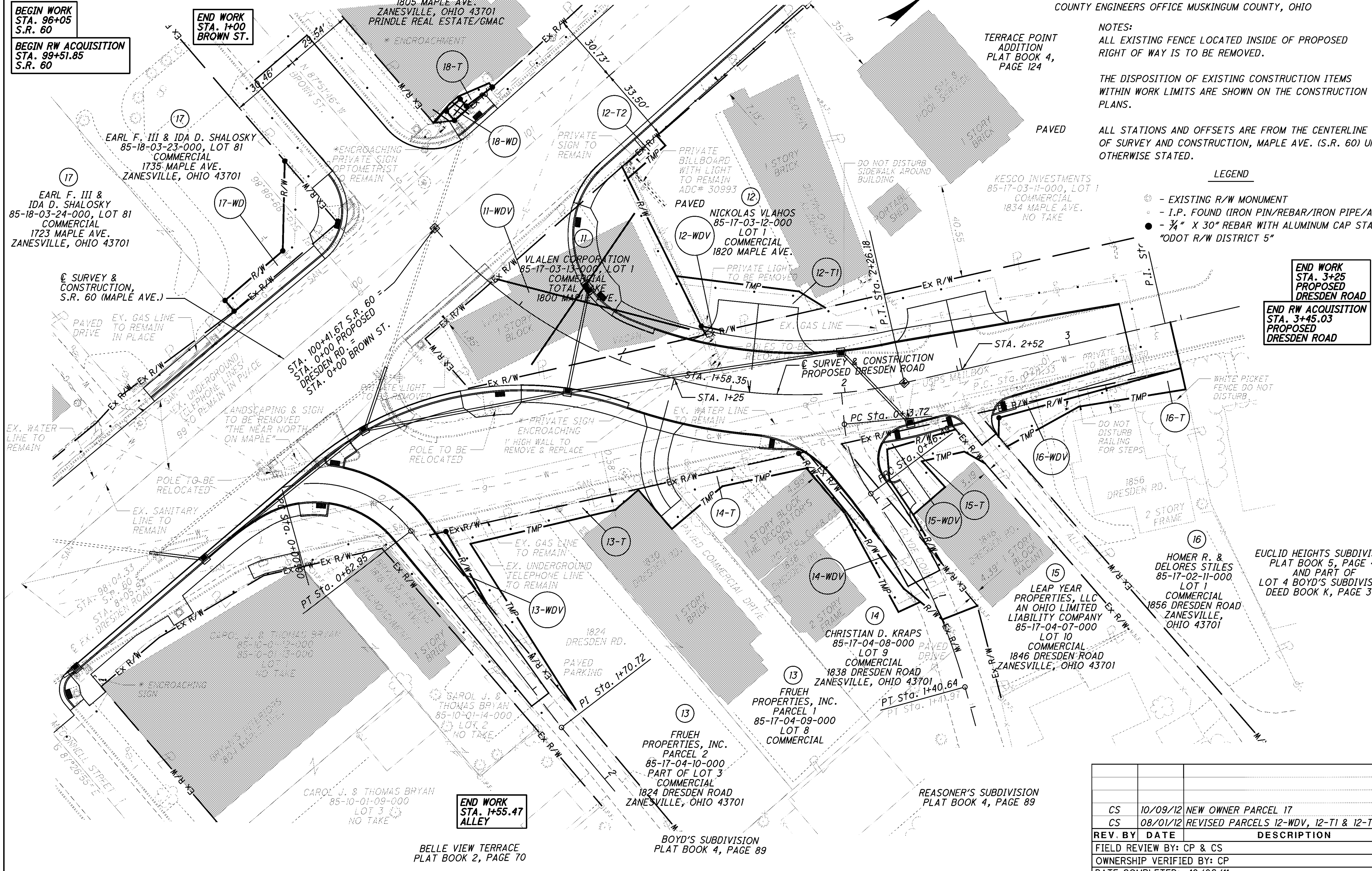
NOTES:
ALL EXISTING FENCE LOCATED INSIDE OF PROPOSED RIGHT OF WAY IS TO BE REMOVED.

THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE OF SURVEY AND CONSTRUCTION, MAPLE AVE. (S.R. 60) UNLESS OTHERWISE STATED.

LEGEND

◎ - EXISTING R/W MONUMENT
◦ - I.P. FOUND (IRON PIN/REBAR/IRON PIPE/AXLE)
● - ¾" X 30" REBAR WITH ALUMINUM CAP STAMPED "ODOT R/W DISTRICT 5"



REV. BY	DATE	DESCRIPTION
CS	10/09/12	NEW OWNER PARCEL 17
CS	08/01/12	REVISED PARCELS 12-WDV, 12-T1 & 12-T2

FIELD REVIEW BY: CP & CS
OWNERSHIP VERIFIED BY: CP
DATE COMPLETED: 10/06/11

HORIZONTAL SCALE IN FEET 0 10 40

CALCULATED C.S. CHECKED C.P.

RIGHT OF WAY TOPO SHEET
DRESDEN ROAD

MUS-60-18.35

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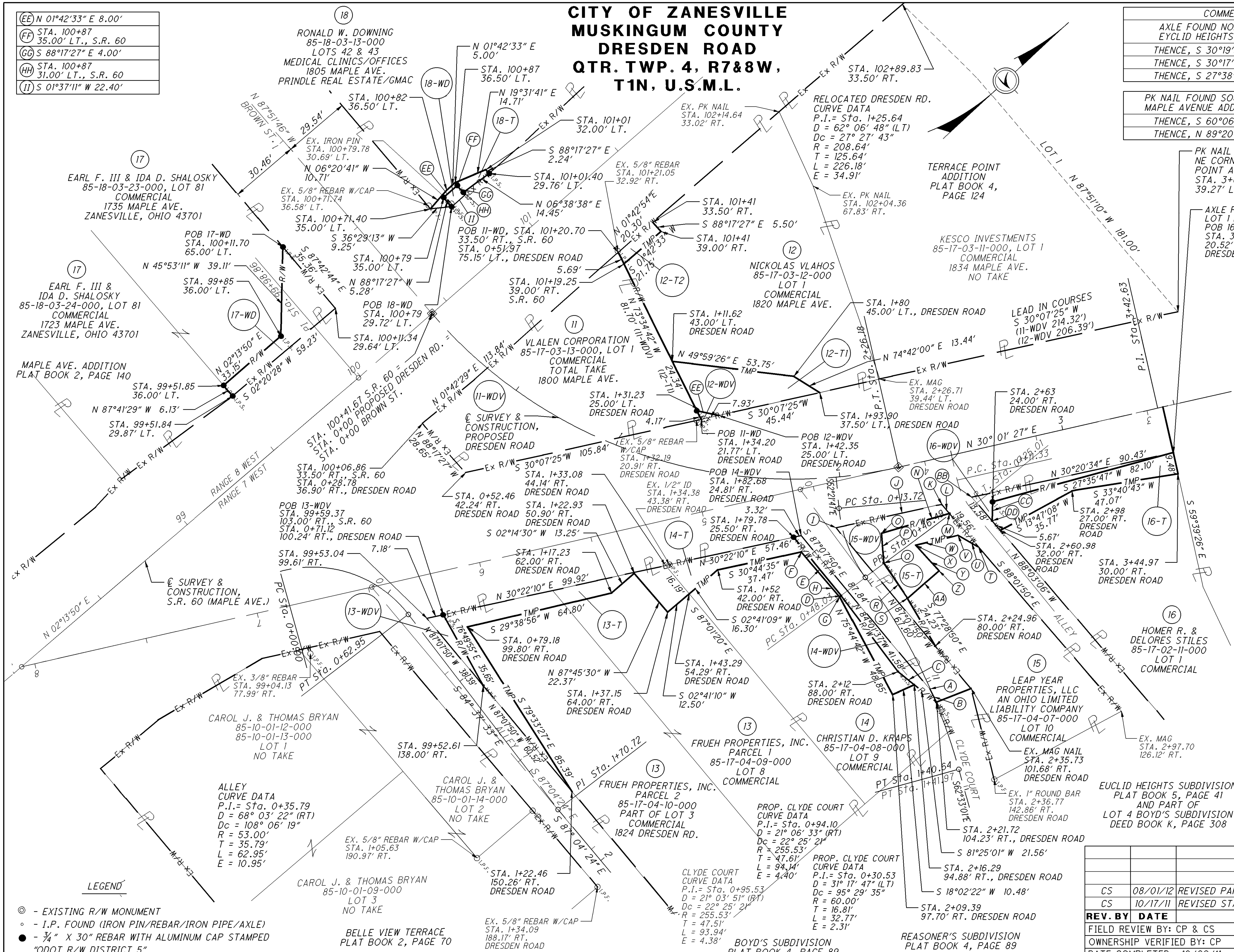
CITY OF ZANESVILLE
MUSKINGUM COUNTY
DRESDEN ROAD
QTR. TWP. 4, R7&8W, T1N, U.S.M.L.

(EE)	N 01°42'33" E 8.00'
(FF)	STA. 100+87 35.00' LT., S.R. 60
(GG)	S 88°17'27" E 4.00'
(HH)	STA. 100+87 31.00' LT., S.R. 60
(II)	S 01°37'11" W 22.40'

COMMENCEMENT POINTS
AXLE FOUND NORTHERLY CORNER LOT 1 EYCLID HEIGHTS (P.B. 5, PG. 41)
THENCE, S 30°19'39" W 327.85' (13-WDV)
THENCE, S 30°17'15" W 167.16' (14-WDV)
THENCE, S 27°38'50" W 101.67' (15-WDV)

PK NAIL FOUND SOUTHWESTERLY CORNER LOT 43 MAPLE AVENUE ADDITION (P.B. 2, PG. 140)
THENCE, S 60°06'48" E 129.44' (17-WD)
THENCE, N 89°20'23" E 149.50' (18-WD)



LEGEND
◎ - EXISTING R/W MONUMENT
◦ - I.P. FOUND (IRON PIN/REBAR/IRON PIPE/AXLE)
● - ¾" X 30" REBAR WITH ALUMINUM CAP STAMPED "ODOT R/W DISTRICT 5"

(A)	STA. 2+20.58 98.02' RT., DRESDEN ROAD
(B)	S 73°44'45" E 6.43'
(C)	N 81°25'01" E 9.24'
(D)	STA. 1+96.39 52.00' RT., DRESDEN ROAD
(E)	N 86°08'31" W 32.99'
(F)	STA. 1+82.70 32.00' RT., DRESDEN ROAD
(G)	STA. 1+95.78 52.47' RT., DRESDEN ROAD
(H)	N 87°22'19" W 25.80'
(I)	EX. MAG NAIL STA. 1+96.67 22.15' RT., DRESDEN ROAD
(J)	N 30°18'04" E 47.34'
(K)	POB 15-WDV EX. MAG NAIL STA. 2+40.98 20.08' RT., DRESDEN ROAD
(L)	S 87°44'20" E 5.27'
(M)	STA. 2+43.44 24.74' RT., DRESDEN ROAD
(N)	S 26°35'31" W 31.06'
(O)	STA. 2+14 27.00' RT., DRESDEN ROAD
(P)	S 51°24'06" E 13.06'
(Q)	STA. 2+13 40.00' RT., DRESDEN ROAD
(R)	S 81°07'16" E 18.63'
(S)	STA. 2+19.13 57.04' RT., DRESDEN ROAD
(T)	STA. 2+52.64 42.00' RT., DRESDEN ROAD
(U)	S 72°32'05" W 10.36'
(V)	STA. 2+45 35.00' RT., DRESDEN ROAD
(W)	S 30°01'27" W 19.03'
(X)	STA. 2+26 35.00' RT., DRESDEN ROAD
(Y)	S 89°25'33" E 15.14'
(Z)	STA. 2+33.42 48.19' RT., DRESDEN ROAD
(AA)	S 01°47'57" W 18.40'
(BB)	STA. 2+54.59 20.02' RT., DRESDEN ROAD
(CC)	S 45°50'06" E 8.25'
(DD)	STA. 2+60.98 32.00' RT., DRESDEN ROAD
(EE)	N 54°34'20" E 9.79'

HORIZONTAL SCALE IN FEET 0 10 40

CALCULATED C.S. CHECKED C.P.

RIGHT OF WAY BOUNDARY SHEET DRESDEN ROAD

MUS-60-18.35

REV. BY	DATE	DESCRIPTION
CS	08/01/12	REVISED PARCELS 12-WDV, 12-T1 & 12-T2
CS	10/17/11	REVISED STA./OFFSET ON 16-WDV

FIELD REVIEW BY: CP & CS
OWNERSHIP VERIFIED BY: CP
DATE COMPLETED: 10/06/11

P:\MUS\83002\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\83002_DRESDEN_RDS_1D.dgn 01/22/13

CITY OF ZANESVILLE
MUSKINGUM COUNTY
BALLS LANE
QTR. TWP. 4, R8W, T1N, U.S.M.L.

RESUME WORK
STA. 152+50
S.R. 60

RESUME RW ACQUISITION
STA. 152+80.93
S.R. 60

4
WAL-MART REAL ESTATE BUSINESS TRUST
85-39-01-01-000
COMMERCIAL
2850 MAPLE AVENUE
ZANESVILLE, OHIO 43701

MARTIN FARMS PARTNERSHIP
85-39-01-13-001
2830 MAPLE AVENUE
ZANESVILLE, OHIO 43701
NO TAKE

WAL-MART REAL ESTATE BUSINESS TRUST
85-39-01-01-000
COMMERCIAL
2850 MAPLE AVENUE
ZANESVILLE, OHIO 43701

7
CNL APF PARTNERS
LP SUITE 500
85-39-01-13-000
COMMERCIAL
2820 MAPLE AVENUE
ZANESVILLE, OHIO 43701

8
HARRY BOEDECKER
85-39-01-18-001
PARCEL ONE
COMMERCIAL
2812 MAPLE AVENUE
ZANESVILLE, OHIO 43701

9
NATIONWIDE
HEALTH
PROPERTIES
INC.
85-39-01-19-000
COMMERCIAL
2800 MAPLE AVENUE
ZANESVILLE,
OHIO 43701

10
HARRY BOEDECKER
85-39-01-18-000
PARCEL TWO
COMMERCIAL
2812 MAPLE AVENUE
ZANESVILLE,
OHIO 43701

6
NATIONWIDE HEALTH PROPERTIES,
AN OHIO NON PROFIT CORPORATION
86-16-02-01-000
PARCEL ONE
COMMERCIAL
2825 MAPLE AVENUE
ZANESVILLE, OHIO 43701

86-17-01-01-006
PARCEL TWO

TWOARBEE INCORPORATED
86-17-01-01-001
NO TAKE

FIRST NATIONAL BANK
86-16-01-01-000
COMMERCIAL
NO TAKE

EX. R/W
© SURVEY & CONSTRUCTION, EX. BALLS LANE
N 09°29'47" E 68.00'
EX. 5/8" REBAR STA. 157+58.06 33.85' RT.
EX. WATERLINE TO REMAIN
EX. 5/8" REBAR (BENT) STA. 156+06.60 44.17' RT.
EX. 5/8" REBAR STA. 155+94.70 44.39' RT.
EX. 5/8" REBAR STA. 155+80.19 33.77' RT.
EX. 5/8" REBAR (BENT) STA. 156+06.79 33.97' RT.
EX. 5/8" REBAR W CAP STA. 155+94.74 33.88' RT.
EX. 5/8" REBAR STA. 155+47.04 33.97' RT.
OLD SIGN POST TO BE REMOVED
VACUUM
STA. 157+62.14 S.R. 60 = STA. 0+00 EX. BALLS LANE
N 52°42'47" W
© SURVEY & CONSTRUCTION, S.R. 60 (MAPLE AVE.)
STA. 155+36.63 S.R. 60 STA. 0+00 BELL ST.
EX. GAS LINE TO REMAIN
EX. DRIVE TO BE REMOVED
M/R EX
S 52°42'47" E 68.00'
STA. 157+80 33.50' LT.
TMP
N 37°17'13" E 21.50'
N 52°42'47" W 68.00'
STA. 157+80 55.00' LT.
STA. 157+12 33.50' LT.
S 37°17'13" W 21.50'
STA. 157+12 55.00' LT.
6-T
1 STORY RESTAURANT CAPTAIN D'S
1 STORY BUILDING
FRENCH FROM
CAPTAIN D'S SIGN TO REMAIN LANDSCAPE AREA TO BE REMOVED
*CAPTAIN D'S DRIVE-THRU SIGN ENCROACHING
POLE TO REMAIN
CAPTAIN D'S LANDSCAPE AREA
*CAPTAIN D'S SIGN ENCROACHING
EX. 3/4" ID STA. 154+11.06 33.50' RT.
EX. 3/4" REBAR STA. 154+12.24 42.06' RT.
STA. 154+64 33.50' RT.
STA. 154+60 66.00' RT.
STA. 154+16.19 71.32' RT.
4.68'
S 52°17'42" E 48.50' TMP
N 49°31'02" E 32.78' TMP
S 37°45'11" W
S 16°31'10" W 38.42'
29.63'
38.22'
S 37°44'57" W 8.59'
7-T
CH = N 45°57'00" W 55.53'
D = 04°26'49" LT.
Dc = 08°00'24"
ARC = 55.54'
R = 715.59'
7-T
STA. 154+12 72.00' RT.
8-T
STA. 153+36.93 56.00' RT.
STA. 153+94 38.87' RT.
8-WD
APPROVATE SIGN
APPROVATE SIGN
FLOWER BED
N 79°41'45" E 25.40'
POB 8-WD STA. 153+48 33.50' RT.
N 33°51'24" W 19.59'
8-WD
CH = N 37°54'54" W 12.85'
D = 01°01'43" LT.
Dc = 08°00'24"
ARC = 12.85'
R = 715.59'
A
S 49°21'16" W
N 49°21'58" E
9-WD
STA. 153+35.75 33.50' RT.
POB 9-WD STA. 153+35.75 33.50' RT.
9-WD
CH = N 35°23'24" W 50.21'
D = 04°01'17" LT.
Dc = 08°00'24"
ARC = 50.22'
R = 715.59'
S 35°33'05" E 50.20' R/W
22.54'
22.68'
24.72'
S 35°32'12" W
STA. 153+08.32
STA. 152+90.53 56.00' RT.
10-WD
10-WD
CH = N 33°05'15" W 7.29'
D = 0°35'00" LT.
Dc = 08°00'12"
ARC = 7.29'
R = 715.90'
B
STA. 152+80.93 33.50' RT.
POB 10-WD STA. 152+87.88 33.50' RT.
15.83'
23.5'
EX. DRIVE TO BE REMOVED
PRIVATE BANK DRIVE THRU SIGN
FIRE HYDRANT
HUNTINGTON BANK SIGN
S.R. 60
P.I.= Sta. 153+35.41
D = 31°30'00" LT.
Dc = 08°24'00"
R = 682.09'
T = 192.37'
L = 375.00'
E = 26.6'
S 01°57'51" W
155.18'

NOTE:
THE EXISTING RIGHT OF WAY WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE MUSKINGUM COUNTY ENGINEERS OFFICE MUSKINGUM COUNTY, OHIO

NOTES:
ALL EXISTING FENCE LOCATED INSIDE OF PROPOSED RIGHT OF WAY IS TO BE REMOVED.

THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE OF SURVEY AND CONSTRUCTION, S.R. 60 (MAPLE AVE.) UNLESS OTHERWISE STATED.

COMMENCEMENT POINTS
3/4" ID @ SW CORNER, LOT 6, FAIRVIEW VILLAGE (PB7, PG. 57)
THENCE, S 57°25'29" E 1,317.94' (8-WD)
THENCE, S 57°14'24" E 1,330.05' (9-WD)
THENCE, S 56°27'44" E 1,376.78' (10-WD)

LEGEND

- ⊙ - EXISTING R/W MONUMENT
- ▫ - I.P. FOUND (IRON PIN/REBAR/IRON PIPE/AXLE)
- ● - ¾" X 30" REBAR WITH ALUMINUM CAP STAMPED "ODOT R/W DISTRICT 5"

REV. BY	DATE	DESCRIPTION

FIELD REVIEW BY: CP & CS
OWNERSHIP VERIFIED BY: CP
DATE COMPLETED: 10/06/11

HORIZONTAL SCALE IN FEET
0 10 40

CALCULATED C.S.
CHECKED C.P.

RIGHT OF WAY PLAN SHEET
STA. 152+50 TO STA. 158+00 S.R. 60 (MAPLE AVE.)

MUS-60-18.35

11 / 15
153
157

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CITY OF ZANESVILLE
MUSKINGUM COUNTY
BALLS LANE
QTR. TWP. 4, R8W, T1N, U.S.M.L.

LEGEND

- ⊙ - EXISTING R/W MONUMENT
- ○ - I.P. FOUND (IRON PIN/REBAR/IRON PIPE/AXLE)
- ● - ¾" X 30" REBAR WITH ALUMINUM CAP STAMPED "ODOT R/W DISTRICT 5"

NOTES:
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THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE OF SURVEY AND CONSTRUCTION, S.R. 60 (MAPLE AVE.) UNLESS OTHERWISE STATED.

NOTE:
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CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE MUSKINGUM COUNTY ENGINEERS OFFICE MUSKINGUM COUNTY, OHIO

END WORK
STA. 164+40
S.R. 60

END RW ACQUISITION
STA. 163+49.86
S.R. 60

H.G. SLACK'S SUBDIVISION
PLAT BOOK 5, PAGE 79

3 JOK COMPANY 85-39-03-13-000 LOT 9 COMMERCIAL

3 JOK COMPANY 85-39-03-14-000 LOT 10 COMMERCIAL

3 JOK COMPANY 85-39-03-15-000 LOT 11 COMMERCIAL

3 JOK COMPANY 85-39-03-04-000 LOT 35 RESIDENTIAL VACANT

3-T

3-WDV1

3-WDV1

POLES TO BE RELOCATED

MATCHLINE STA. 2+00 BALLS LANE SEE SHEET 14

2 RODNEY A. & REBECCA SMITH 85-39-03-17-000 TOTAL TAKE, LOT 13 COMMERCIAL

℄ SURVEY & CONSTRUCTION, PROPOSED BALLS LANE

3' HIGH WALL TO BE REMOVED

2-WDV

1-WDV

1-T2

POLE TO REMAIN

℄ SURVEY & CONSTRUCTION, S.R. 60 (MAPLE AVE.)

5-WD

5 BETHESDA HOSPITAL 86-17-01-02-000 COMMERCIAL 2951 MAPLE AVE. ZANESVILLE, OHIO 43701

5 85-39-03-16-000 LOT 12 COMMERCIAL

PRIVATE SIGN "ENTER HERE" TO BE REMOVED

NATIONWIDE INSURANCE SIGN TO BE REMOVED

STA. 161+06.38

233.17'

EX. ASPHALT COMMERCIAL DRIVE

STAIRS

PRIVATE METAL MAILBOX DO NOT DISTURB

DO NOT DISTURB

2 RODNEY A. & REBECCA SMITH 85-39-03-18-000 TOTAL TAKE, LOT 14 COMMERCIAL 2934 MAPLE AVENUE ZANESVILLE, OHIO 43701

1 NATIONAL CITY BANK, COLUMBUS 85-39-03-19-000 COMMERCIAL 2920 MAPLE AVE. ZANESVILLE, OHIO 43701

PROPOSED BALLS LN. STA. 0+00 = BETHESDA DRIVE STA. 160+88.03

N 37° 17' 13" W

BETHESDA DRIVE

STA. 160+70.07

N 52°42'47" W

POLE TO REMAIN

PRIVATE SIGN "SLOW" TO BE REMOVED

PRIVATE LIGHT TO BE REMOVED

5 BETHESDA HOSPITAL 86-17-01-01-000 COMMERCIAL

S 37° 17' 13" W

BANK SIGN TO BE REMOVED

EX. DRIVE APRON TO BE REMOVED

24.21'

EX. ASPHALT PARKING LOT

BANK DRIVE

33.50'

33.50'

EX. ASPHALT COMMERCIAL DRIVE

EX. DRIVE APRON TO BE REMOVED

LANDSCAPE AREA

1-T1

5-T

PRIVATE LIGHT TO BE REMOVED

EX. GAS LINE TO REMAIN

EX. UNDERGROUND TELEPHONE LINE TO REMAIN

NOTE:
ALL WORK OUTSIDE OF TEMPORARY R/W TO BE PERFORMED PER WORK AGREEMENT WITH BETHESDA SIGNED DECEMBER, 2012.

REV. BY	DATE	DESCRIPTION
CS	11/15/11	REVISED 3-WDV1 & 3-T
FIELD REVIEW BY: CP & CS		
OWNERSHIP VERIFIED BY: CP		
DATE COMPLETED: 10/06/11		

HORIZONTAL SCALE IN FEET

CALCULATED C.S. CHECKED C.P.

RIGHT OF WAY TOPO SHEET
STA. 0+00 TO STA. 2+00 BALLS LANE

MUS-60-18.35

12 / 15

154 / 157

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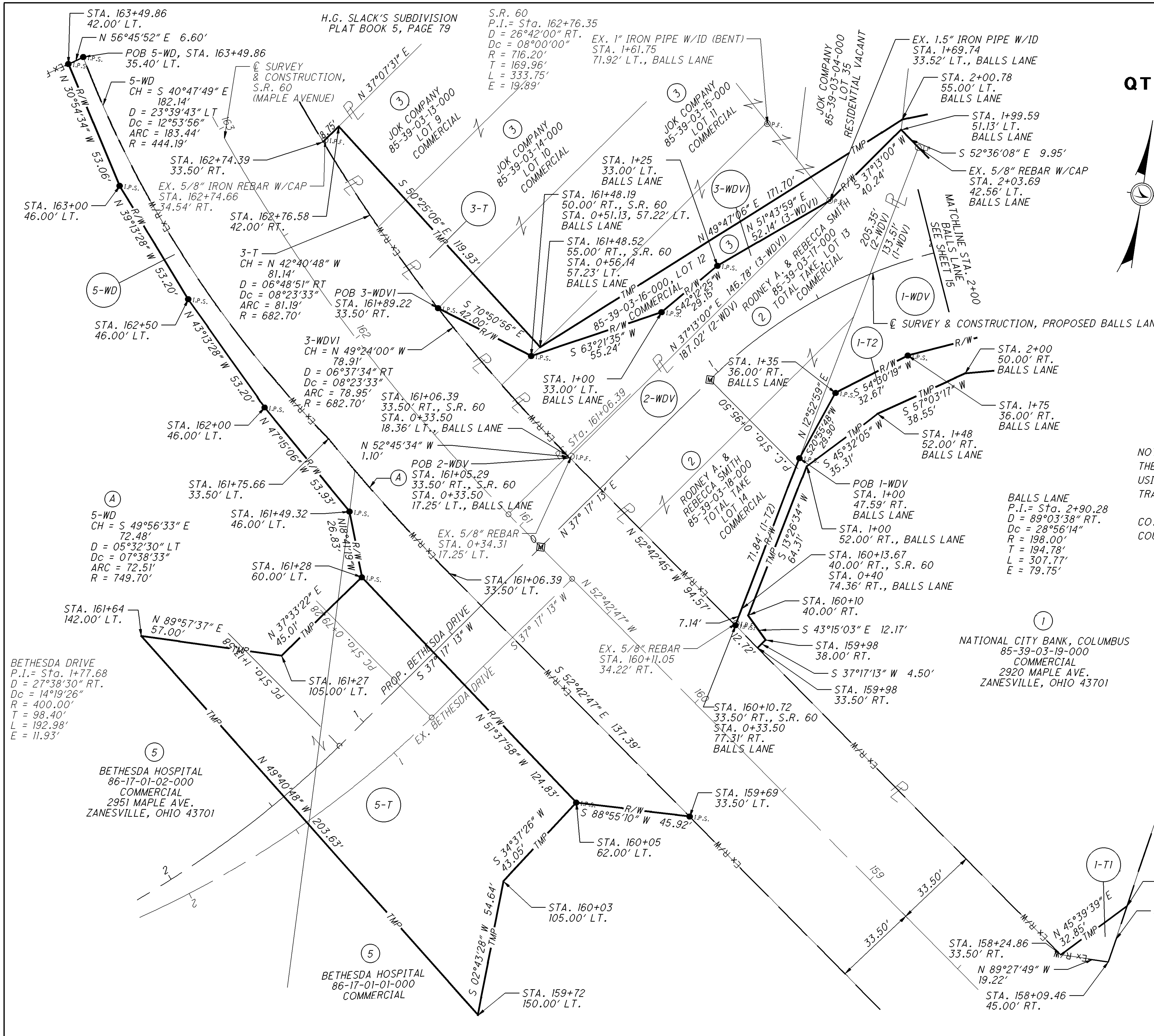


CITY OF ZANESVILLE
MUSKINGUM COUNTY
BALLS LANE
QTR. TWP. 4, R8W, T1N, U.S.M.L.

LEGEND

- ◎ - EXISTING R/W MONUMENT
- ◦ - I.P. FOUND (IRON PIN/REBAR/IRON PIPE/AXLE)
- ● - ¾" X 30" REBAR WITH ALUMINUM CAP STAMPED "ODOT R/W DISTRICT 5"

NOTES:
ALL EXISTING FENCE LOCATED INSIDE OF PROPOSED RIGHT OF WAY IS TO BE REMOVED.

THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE OF SURVEY AND CONSTRUCTION, S.R. 60 (MAPLE AVE.) UNLESS OTHERWISE STATED.

NOTE:
THE EXISTING RIGHT OF WAY WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE MUSKINGUM COUNTY ENGINEERS OFFICE MUSKINGUM COUNTY, OHIO

COMMENCEMENT POINTS
3/4" ID @ SW CORNER, LOT 6, FAIRVIEW VILLAGE (PB7, PG. 57)
THENCE, S 70°23'04" E 645.01' (1-WDV)
THENCE, S 66°03'23" E 564.94' (2-WDV)
THENCE, S 68°44'18" E 488.80' (3-WDV1)
THENCE, S 74°45'05" E 420.61' (5-WD)

CS	11/15/11	REVISED 3-WDV1 & 3-T
REV. BY	**DATE**	**DESCRIPTION**

FIELD REVIEW BY: CP & CS
OWNERSHIP VERIFIED BY: CP
DATE COMPLETED: 10/06/11

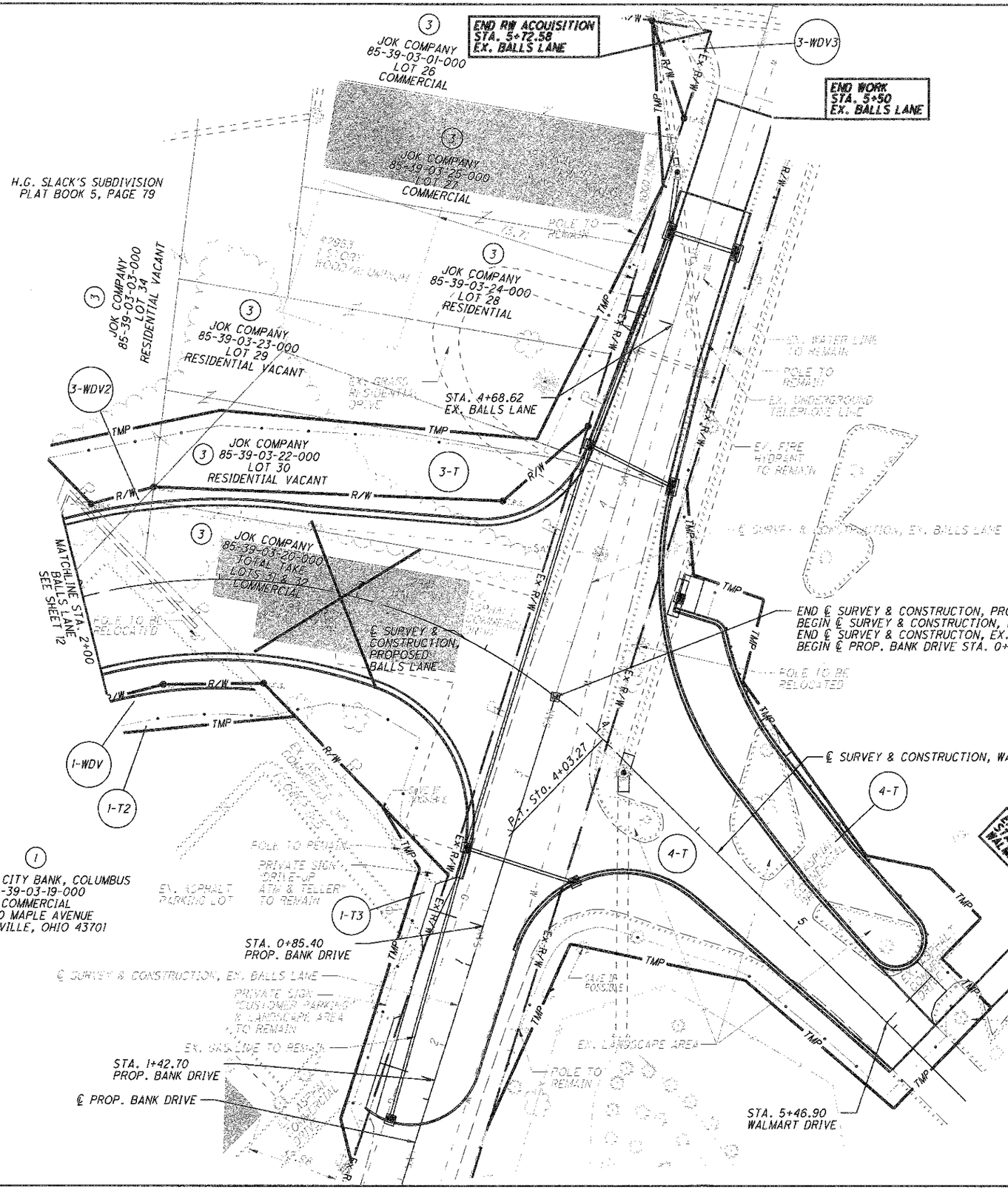
HORIZONTAL SCALE IN FEET 0 10 40

CALCULATED C.S. CHECKED C.P.

RIGHT OF WAY BOUNDARY SHEET STA. 0+00 TO STA. 2+00 BALLS LANE

MUS-60-18.35

CITY OF ZANESVILLE
MUSKINGUM COUNTY
BALLS LANE
QTR. TWP. 4, R8W, T1N, U.S.M.L.



LEGEND

- ⊙ - EXISTING R/W MONUMENT
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CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE MUSKINGUM COUNTY ENGINEERS OFFICE MUSKINGUM COUNTY, OHIO

REV. BY	DATE	DESCRIPTION
CS	04/11/12	ADDED LOT 26 TEXT AT REQUEST OF REAL ESTATE
CS	03/16/12	LABELED LOTS 31 & 32 OF PARCEL 3-WDV2 A TOTAL TAKE
CS	11/15/11	REVISED 3-T; ADDED 3-WDV3

FIELD REVIEW BY: CP & CS
OWNERSHIP VERIFIED BY: CP
DATE COMPLETED: 10/06/11

HORIZONTAL SCALE IN FEET

COMPUTED C.S. CHECKED C.P.

RIGHT OF WAY TOPO SHEET
STA. 2+00 TO STA. 5+96.98 WALMART DRIVE

MUS-60-18.35

14 / 15

156 / 157

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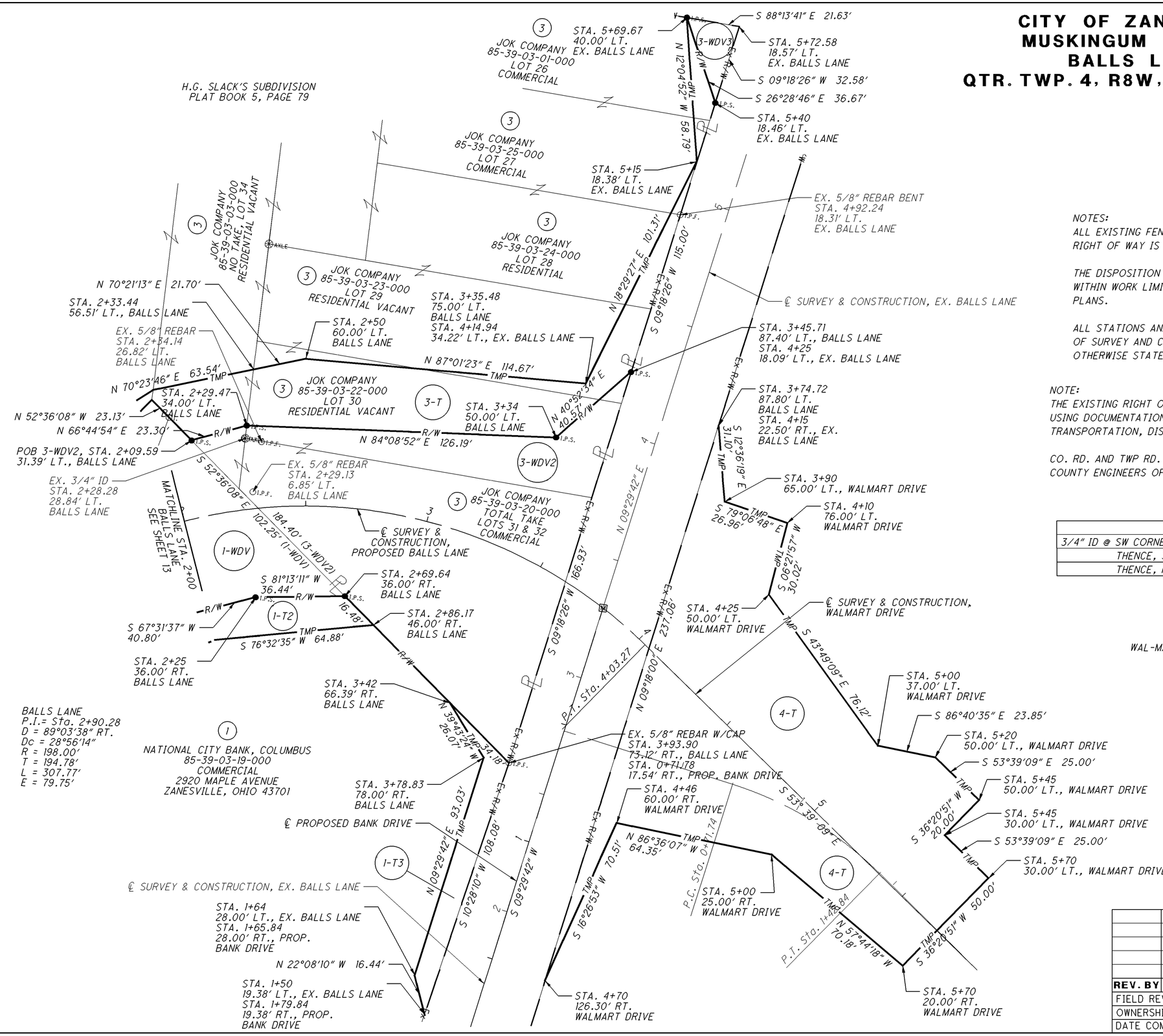
CITY OF ZANESVILLE
MUSKINGUM COUNTY
BALLS LANE
QTR. TWP. 4, R8W, T1N, U.S.M.L.



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CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE MUSKINGUM COUNTY ENGINEERS OFFICE MUSKINGUM COUNTY, OHIO

COMMENCEMENT POINTS
3/4" ID @ SW CORNER, LOT 6, FAIRVIEW VILLAGE (PB7, PG. 57)
THENCE, S 81°42'38" E 654.65' (3-WDV2)
THENCE, N 82°45'26" E 830.18' (3-WDV3)

HORIZONTAL SCALE IN FEET
0 10 40

CALCULATED C.S.
CHECKED C.P.

RIGHT OF WAY BOUNDARY SHEET
STA. 2+00 TO STA. 5+96.98

MUS-60-18.35

15 / 15

157 / 157

REV. BY	DATE	DESCRIPTION

FIELD REVIEW BY: CP & CS
OWNERSHIP VERIFIED BY: CP
DATE COMPLETED: 10/06/11

01/28/13

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PROJECT DESCRIPTION

SAFETY PROJECT INCLUDING THE REALIGNMENTS OF THE DRESDEN ROAD INTERSECTION AND THE BALLS LANE/BETHESDA DRIVE INTERSECTION ALONG MAPLE AVENUE (S.R. 60) IN THE CITY OF ZANESVILLE.

HISTORIC RECORDS

NO HISTORIC RECORDS WERE FOUND IN THE VICINITY OF THIS PROJECT.

GEOLOGY

THE PROJECT IS LOCATED WITHIN THE UNGLAGICATED ALLEGHENY PLATEAUS PROVINCE AND WITHIN THE DISSECTED MUSKINGUM-PITTSBURGH PLATEAU. THE AREA IS CHARACTERIZED BY MODERATE TO HIGH RELIEF WITH THIN RESIDUAL SOILS ALONG THE RIDGES AND HILLTOPS AND THICKER COLLUVIAL SOILS WITHIN THE VALLEYS AND BASE OF THE HILLS. THE OVERBURDEN SOILS ARE UNDERLAIN BY PENNSYLVANIAN AGED BEDROCK. THE VALLEYS ARE COMPRISED OF ROCKS FROM THE ALLEGHENY AND POTTSVILLE GROUPS AND THE HILLSIDES AND RIDGELINES ARE COMPRISED OF ROCKS FROM THE CONEMAUGH GROUP. THESE GROUPS ARE CHARACTERIZED AS HAVING HIGHLY VARIABLE ROCK TYPES RANGING FROM SANDSTONE, SHALE, SILTSTONE, CLAYSTONE, LIMESTONE, AND COAL.

RECONNAISSANCE

THE INITIAL SITE RECONNAISSANCE WAS CONDUCTED ON 3/27/2012. THE PROJECT INVOLVES TWO SITES LOCATED AT THE INTERSECTION OF MAPLE AVENUE AND DRESDON ROAD AND AT THE INTERSECTION OF MAPLE AVENUE AND BALLS LANE WITHIN THE CITY LIMITS OF ZANESVILLE. ONLY ONE OF THE FOUR BORINGS IS LOCATED WITHIN THE ROADWAY. ALL OTHER BORINGS ARE POSITIONED WITHIN COMMERCIAL PROPERTIES AND WILL BE CONSTRUCTED THROUGH DRIVE OR PARKING LOT PAVEMENT. WITH THESE SITES BEING SITUATED WITHIN THE CITY OF ZANESVILLE, A SIGNIFICANT NUMBER OF UNDERGROUND AND OVERHEAD UTILITIES ARE PRESENT. ALL BORINGS WERE FIELD MARKED AND PHOTOGRAPHED. THE LOCATION OF EACH BORING WAS OBTAINED USING A SUBMETER GPS RECEIVER.

SUBSURFACE EXPLORATION

FOUR (4) BORINGS, B-001-0-12 THROUGH B-004-0-12, WERE COMPLETED TO A DEPTH OF 7.5 FEET AS PART OF THE SUBSURFACE EXPLORATION PROGRAM ON 4/12/2012. THE BORINGS WERE DRILLED WITH A TRUCK MOUNTED (CME 55) ROTARY DRILL RIG USING 3¼-INCH I.D. HOLLOW STEM AUGERS TO ADVANCE THE BORING THROUGH SOIL. DISTURBED SAMPLES WERE COLLECTED IN ACCORDANCE WITH STANDARD PENETRATION TESTING METHODS (AASHTO T206) AT CONTINUOUS INTERVALS FOR THE FULL DEPTH OF THE BORINGS. A CME AUTO-HAMMER WAS USED FOR ALL SPT SAMPLES. THE HAMMER SYSTEM WAS LAST CALIBRATED ON 5/17/2011. THE AVERAGE DRILL ROD ENERGY RATIO (ER) WAS 91.3%.

EXPLORATION FINDINGS

SURFACE MATERIAL ENCOUNTERED DURING THE DRILLING OPERATIONS WAS A COMBINATION OF CONCRETE, ASPHALT, BRICK, AND SAND AND GRAVEL. BELOW, THE BORINGS ENCOUNTERED LAYERS OF COHESIVE AND GRANULAR SOILS. COHESIVE SOILS WERE COMPRISED OF SILT (A-4b), SANDY SILT (A-4a), SILTY CLAY (A-6b), AND CLAY (A-7-6, A-6b). THE MAJORITY OF COHESIVE SOILS WERE CLAY AND SILTY CLAY. THE GRANULAR SOILS ENCOUNTERED RANGED FROM FINE SAND (A-3) TO FINE TO COARSE SAND (A-3a) TO GRAVEL WITH SAND (A-1-b).

A HYDROCARBON ODOR WAS DETECTED IN B-001-0-12.

BEDROCK WAS NOT ENCOUNTERED IN ANY OF THE BORINGS.

NO GROUNDWATER WAS ENCOUNTERED DURING DRILLING OPERATIONS.

SPECIFICATIONS

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED JANUARY 2012.

AVAILABLE INFORMATION

ALL AVAILABLE SOIL AND BEDROCK INFORMATION THAT CAN BE CONVENIENTLY SHOWN ON THE GEOTECHNICAL EXPLORATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL EXPLORATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE, THE OFFICE OF GEOTECHNICAL ENGINEERING AT 1600 WEST BROAD STREET OR THE OFFICE OF STRUCTURAL ENGINEERING AT 1980 WEST BROAD STREET.

LEGEND

DESCRIPTION	ODOT CLASS	CLASSIFIED MECH.	CLASSIFIED VISUAL
GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b	1	1
FINE SAND	A-3	1	0
COARSE AND FINE SAND	A-3a	2	2
SANDY SILT	A-4a	1	0
SILT	A-4b	1	0
SILTY CLAY	A-6b	5	1
CLAY	A-7-6	2	2
	TOTAL	13	6

PAVEMENT OR BASE = X = APPROXIMATE THICKNESS *VISUAL*

BORING LOCATION - PLAN VIEW.

DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.

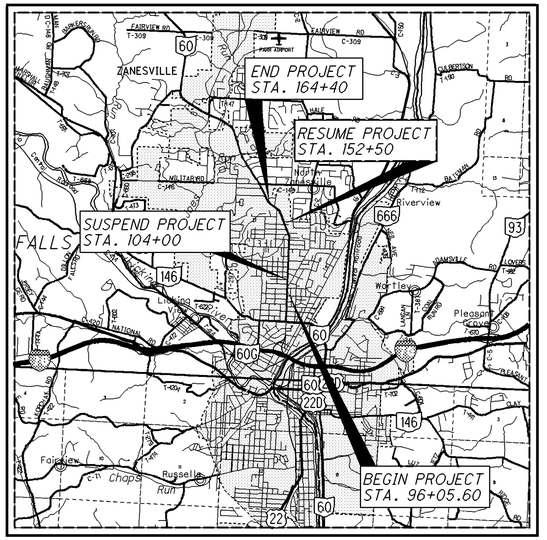
WC INDICATES WATER CONTENT IN PERCENT.

N_{60} INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.

* INDICATES A SAMPLE TAKEN WITHIN 3 FT OF PROPOSED GRADE.

SS INDICATES A SPLIT SPOON SAMPLE.

NP INDICATES A NON-PLASTIC SAMPLE.



LOCATION MAP

SCALE IN MILES

0 1 2 3 4

N

PARTICLE SIZE DEFINITIONS

BOULDERS	COBBLES	GRAVEL	COARSE SAND	FINE SAND	SILT	CLAY
12"	3"	2.0 mm	0.42 mm	0.074 mm	0.005 mm	
		No. 10 SIEVE	No. 40 SIEVE	No. 200 SIEVE		

RECON. - NK 03/27/12
DRILLING - KAM 04/12/12
DRAWN - JAG 09/12
REVIEWED - MRS 10/12

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF GEOTECHNICAL ENGINEERING
1600 W. BROAD ST. COLUMBUS, OH 43223

PID NO. 83002

SOIL PROFILE

MUS-60-18.35

1 / 4

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SUMMARY OF SOIL TEST DATA
PROPOSED DRESDEN ROAD

EXPLORATION NO., STATION & OFFSET	FROM	TO	SAMPLE ID	N60	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	OHIO CLASS
B-001-0-12	01.50	03.00	SS-1	6	78	27	13	23	22	15	23	15	8	19	A-4a (0)*
STA. 0+75, 8' RT.	03.00	04.50	SS-2	11	89	2	15	57	12	14	NP	NP	NP	18	A-3a (0)*
LATITUDE = 39.9603803	04.50	06.00	SS-3	18	100				SAME AS SS-2					16	A-3a (VISUAL)
LONGITUDE = -82.0099906	06.00	07.50	SS-4	23	100				SAME AS SS-2					19	A-3a (VISUAL)
B-002-0-12	01.50	01.75	SS-1A	21	89	0	17	10	15	58	46	26	20	30	A-7-6 (13)*
STA. 3+00, 5' LT.	01.75	03.00	SS-1B			21	49	17	6	7	NP	NP	NP	12	A-1-b (0)*
LATITUDE = 39.9608381	03.00	04.17	SS-2A	21	100				SAME AS SS-1B					11	A-1-b (VISUAL)
LONGITUDE = -82.0094716	04.17	04.50	SS-2B						SAME AS SS-3					23	A-7-6 (VISUAL)
	04.50	06.00	SS-3	24	100	0	1	0	28	71	45	26	19	24	A-7-6 (13)
	06.00	07.50	SS-4	23	100				SAME AS SS-3					25	A-7-6 (VISUAL)

SUMMARY OF SOIL TEST DATA
PROPOSED BALLS LANE

EXPLORATION NO., STATION & OFFSET	FROM	TO	SAMPLE ID	N60	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	OHIO CLASS
B-003-0-12	01.50	03.00	SS-1	5	100	0	11	5	49	35	35	19	16	25	A-6b (10)*
STA. 0+40, 25' RT.	03.00	04.50	SS-2	17	100	2	1	2	60	35	36	19	17	29	A-6b (11)*
LATITUDE = 39.9758663	04.50	06.00	SS-3	12	100				SAME AS SS-2					23	A-6b (VISUAL)
LONGITUDE = -82.0142182	06.00	07.50	SS-4	18	100	12	31	50	7	0	NP	NP	NP	16	A-3 (0)
B-004-0-12	01.50	03.00	SS-1	9	100	0	3	11	54	32	29	20	9	21	A-4b (8)*
STA. 3+50, 10' LT.	03.00	04.50	SS-2	20	100	0	0	9	56	35	34	16	18	23	A-6b (11)
LATITUDE = 39.976222950	04.50	05.25	SS-3A	17	100	9	8	20	33	30	30	14	16	19	A-6b (8)
LONGITUDE = -82.0133394	05.25	06.00	SS-3B			10	19	36	22	13	NP	NP	NP	16	A-3a (0)
	06.00	07.50	SS-4	29	100	3	3	10	40	44	33	17	16	20	A-6b (10)

DRAWN JAG | CHECKED MRS

SOIL PROFILE

SUMMARY OF SOIL TEST DATA

MUS-60-18.35

2 / 4

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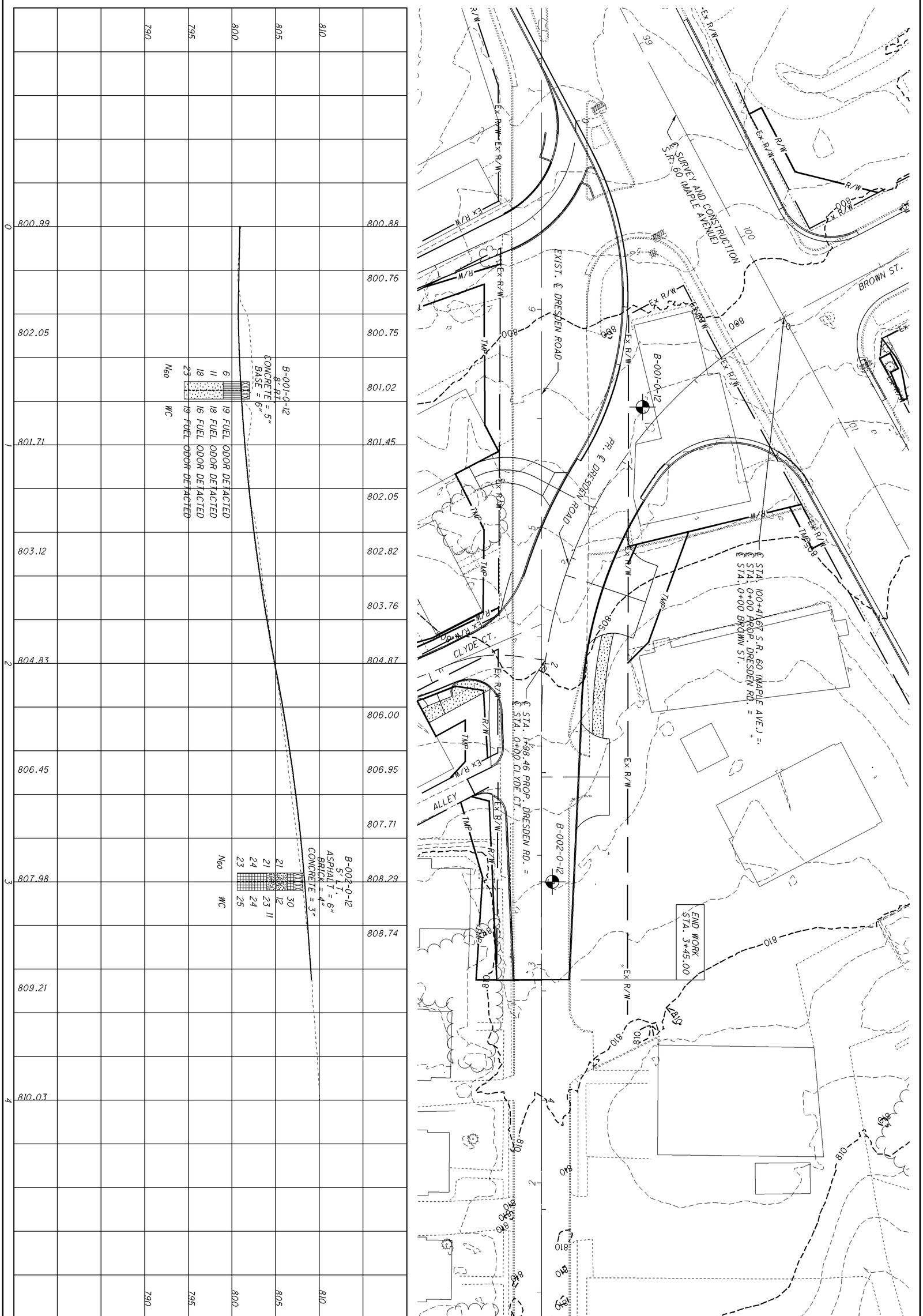

3/4	MUS-60-18.35	SOIL PROFILE STA. 0+00 TO STA. 4+00 PR. DRESDEN ROAD

DRAWN JAG
CHECKED MRS
0 20 40
HORIZONTAL SCALE IN FEET

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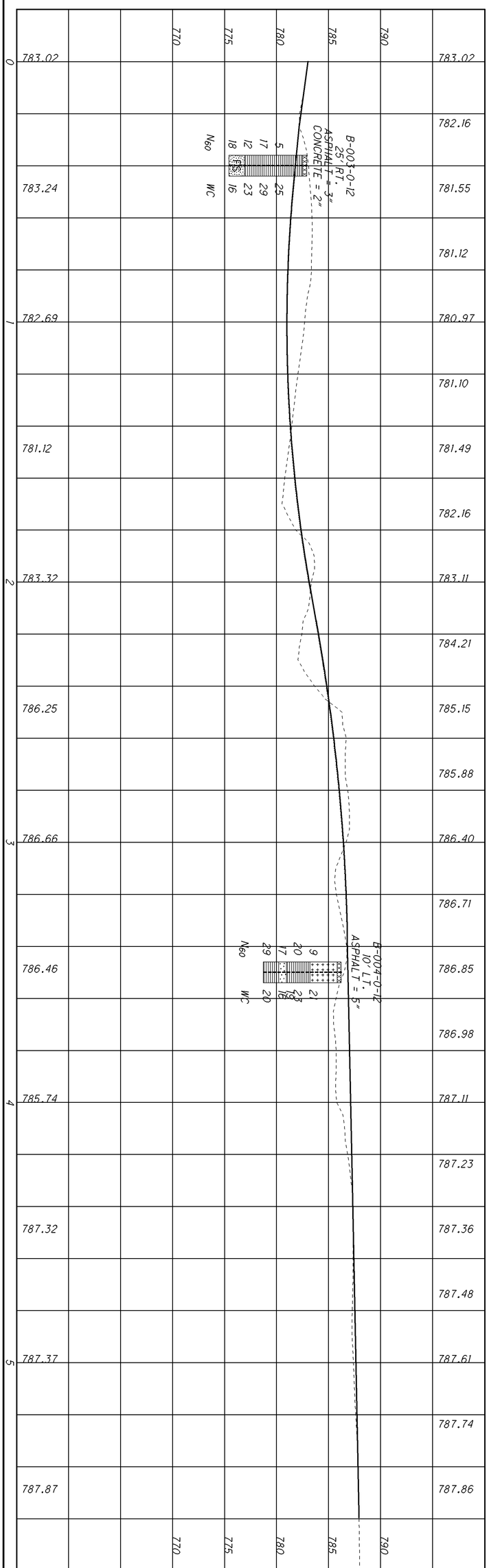

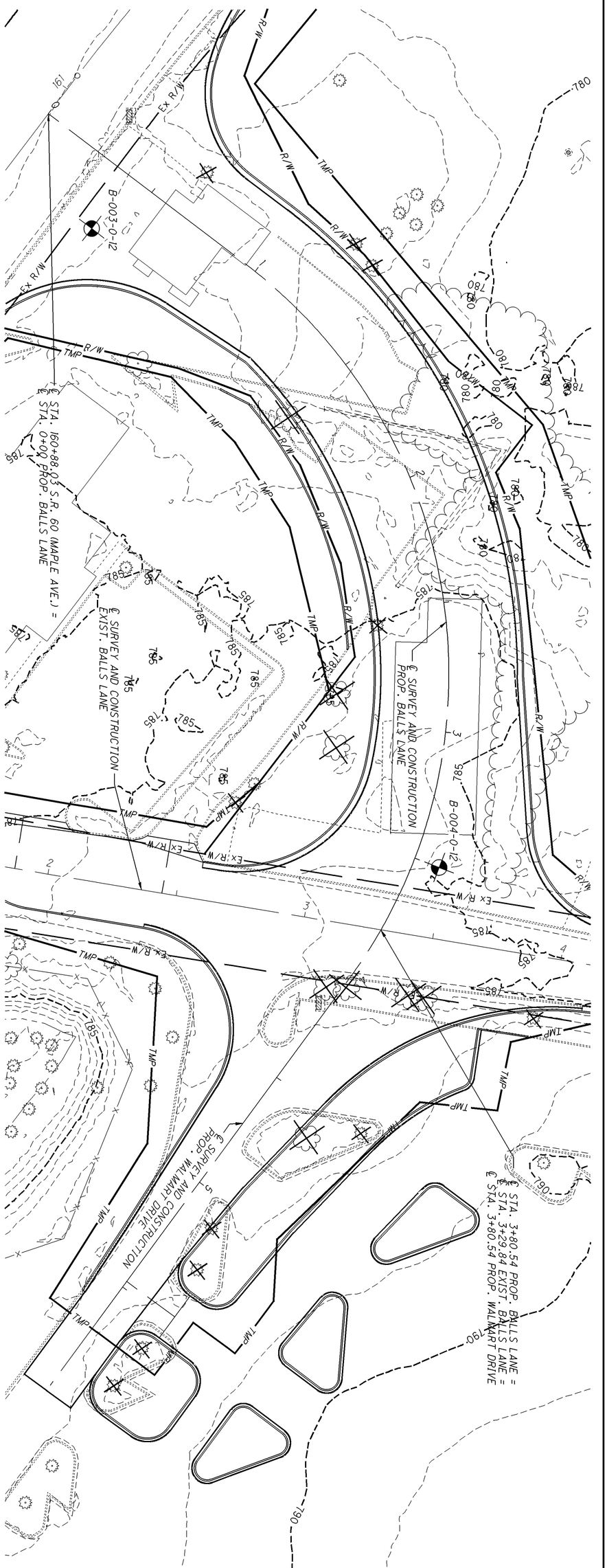

4/4	MUS-60-18.35	SOIL PROFILE STA. 0+00 TO STA. 5+60 PR. BALLS LANE	DRAWN JAG CHECKED MRS	0 20 40 HORIZONTAL SCALE IN FEET