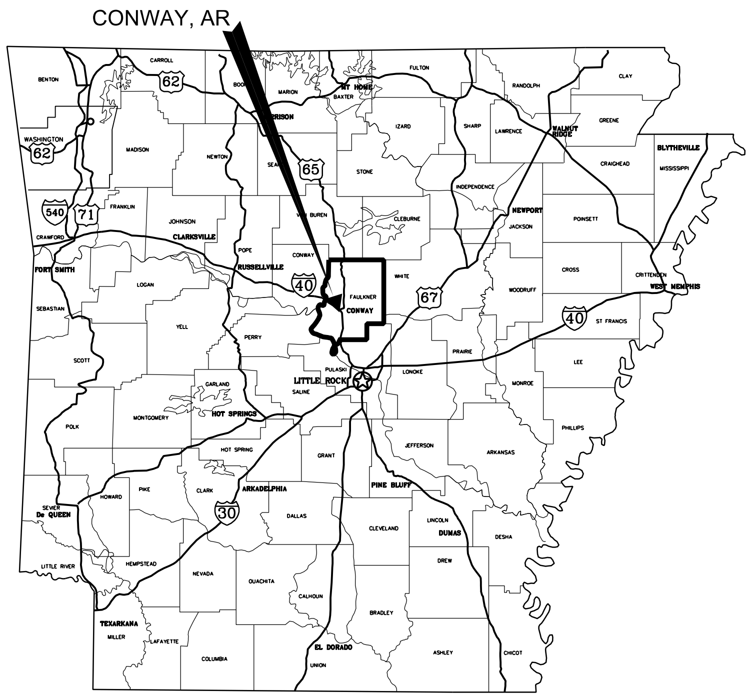
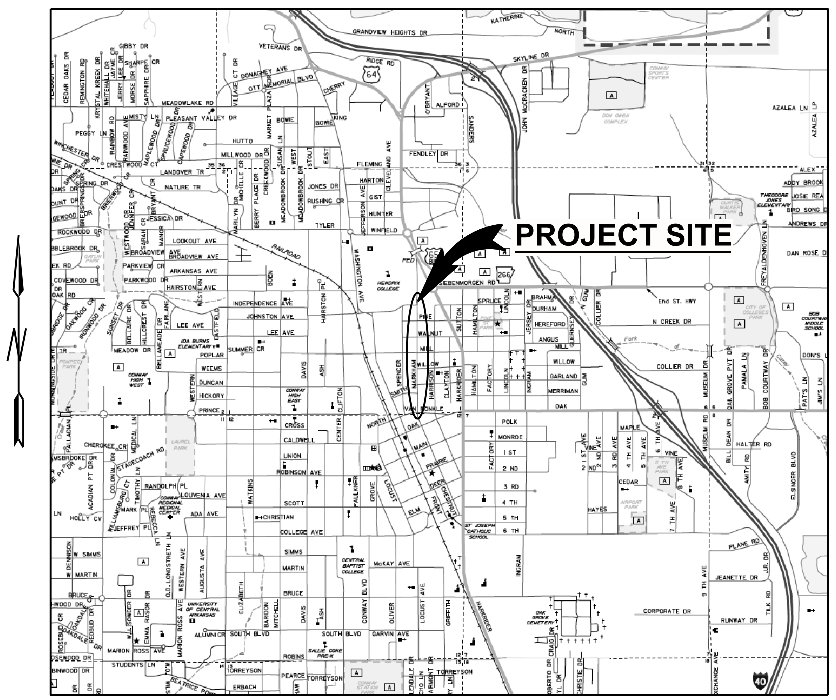
MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)
F.A.P. STPU-9095(33)
ARDOT JOB 080566



LOCATION MAP

METROPLAN
SMART PLANNING MAKES SMART PLACES.



VICINITY MAP
NO SCALE

GARVER PROJECT NO. 16017122
FEBRUARY 2019

DESIGN TRAFFIC DATA

DESIGN YEAR	2037
2017 ADT	5,000
2037 ADT	5,800
2037 DHV	460
DIRECTIONAL DISTRIBUTION	0.70
TRUCKS	2%
DESIGN SPEED	30 MPH

GARVER
831 Parkway
Suite C
Conway, AR 72034
(501) 537-3293

CERTIFICATE OF AUTHORIZATION
GARVER LLC
No. 766
ARKANSAS–ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 02/25/2019

REV.	DATE	DESCRIPTION	BY

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

COVER SHEET

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: DLT

BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
G-001

SHEET NUMBER **1**

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REVISED DATE:

INDEX OF SHEETS

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2	INDEX OF SHEETS, GENERAL NOTES AND LEGEND	G-002	
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10-13	LAYOUT DETAILS	C-201 TO C-204	
14-15A	INTERSECTION DETAILS	C-205 TO C-206A/1	
16-22	MISCELLANEOUS DETAILS	C-207 TO C-213	
23	SOIL BORING LOG	C-214	
24-26	TEMPORARY EROSION CONTROL PLAN	C-301 TO C-303	
27-34	MAINTENANCE OF TRAFFIC PLAN	C-401 TO C-408	
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63	LANDSCAPE DETAILS	L-101	
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68	DETAILS OF DROP INLETS (TYPE MO)	FPC-9M	8/22/02
69	DETAILS OF DROP INLET & JUNCTION BOX (TYPE ST)	FPC-9S	7/26/12
70	CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING	PCC-1	2/27/14
71	STANDARD HIGHWAY SIGNS AND SUPPORT ASSEMBLIES	SHS-1	9/12/13
72	U-CHANNEL POST ASSEMBLIES	SHS-2	2/27/14
73	DETAILS OF SPECIAL ITEMS	SI-1	10/25/18
74	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-1	4/13/17
75	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-2	9/2/15
76	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-3	9/2/15
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CX1-CX12	MARKHAM STREET CROSS SECTIONS	CX-01 TO CX-12/1	

LEGEND

- BOREHOLE
- CONTROL POINTS
- SIGN
- GAS METER
- SANITARY MANHOLE
- WATER VALVE
- WATER METER
- STORM DRAIN MANHOLE
- TELEPHONE RISER
- ELECTRIC JUNCTION BOX
- FIBER OPTIC MANHOLE
- UTILITY POLE
- GUY ANCHOR
- LIGHT POLE

- EXISTING CENTERLINE
- EXISTING MAJOR CONTOUR (290)
- EXISTING MINOR CONTOUR (289)
- EXISTING STRUCTURE
- EXISTING FENCE
- EXISTING STORM DRAIN
- EXISTING TREE LINE
- EXISTING PROPERTY LINE (PL … F)
- EXISTING RIGHT-OF-WAY (R / W)
- EXISTING EASEMENT
- EXISTING GAS UTILITY (G)
- EXISTING SANITARY UTILITY (SS)
- EXISTING WATER UTILITY (W)
- EXISTING UNDERGROUND TELEPHONE UTILITY (UGT)
- EXISTING OVERHEAD ELECTRIC UTILITY (OHE)
- PROPOSED TEMP. CONST. EASEMENT
- PROPOSED PERMANENT EASEMENT
- PROPOSED CENTERLINE
- PROPOSED STORM DRAIN
- PROPOSED TOP-OF-BANK (TOB)
- PROPOSED TOE-OF-SLOPE (TOS)
- PROPOSED SPECIAL DITCH
- PROPOSED SILT FENCE (SILT)

GENERAL NOTES:

1. CAUTION: UNDERGROUND UTILITIES EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. AN ATTEMPT HAS BEEN MADE TO LOCATE THESE UTILITIES ON THE PLANS; HOWEVER, ALL EXISTING UTILITIES MAY NOT BE SHOWN AND THE ACTUAL LOCATIONS OF THE UTILITIES MAY VARY FROM THE LOCATIONS SHOWN. SOME UTILITIES MAY HAVE BEEN RELOCATED SINCE THE TIME OF DESIGN AND THE CONTRACTOR'S NOTICE TO PROCEED. PRIOR TO BEGINNING ANY TYPE OF EXCAVATION, THE CONTRACTOR SHALL CONTACT THE UTILITIES INVOLVED AND MAKE ARRANGEMENTS FOR THE LOCATION OF THE UTILITIES ON THE GROUND. THE CONTRACTOR SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL THEY ARE NO LONGER NECESSARY. ARKANSAS STATE LAW, THE UNDERGROUND FACILITIES DAMAGE PREVENTION ACT, REQUIRES TWO WORKING DAYS ADVANCE NOTIFICATION THROUGH THE ARKANSAS ONE-CALL SYSTEM CENTER BEFORE EXCAVATING USING MECHANIZED EQUIPMENT OR EXPLOSIVES (EXCEPT IN THE CASE OF EMERGENCY). THE ONE-CALL SYSTEM PHONE NUMBER IS 1-800-482-8998. THE CONTRACTOR IS ADVISED THAT THERE IS A SEVERE PENALTY FOR NOT MAKING THIS CALL. NOT ALL UTILITY COMPANIES ARE MEMBERS OF THE ARKANSAS ONE-CALL SYSTEM; THEREFORE, THE CONTRACTOR IS ADVISED TO CONTACT ALL NON-MEMBER UTILITIES AS WELL AS THE ONE-CALL SYSTEM. THE LOCATION OF THE EXISTING UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE, AND ARE THE LOCATIONS AT THE TIME OF DESIGN.
2. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
3. ALL PIPE LINES, POWER, TELEPHONE AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
4. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING U. S. MAILBOXES WITHIN THE PROJECT LIMITS IN SUCH A MANNER THAT THE PUBLIC MAY RECEIVE CONTINUED MAIL SERVICE. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS BID ITEMS.
6. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
7. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO ENSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
8. THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

CERTIFICATE OF AUTHORIZATION — GARVER LLC No. 766 — ARKANSAS ENGINEER

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No.14994 — DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - REVISE INDEX OF SHEETS	DLT

METROPLAN — SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

INDEX OF SHEETS, GENERAL NOTES AND LEGEND

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: DLT

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DRAWING NUMBER
G-002

SHEET NUMBER **2**

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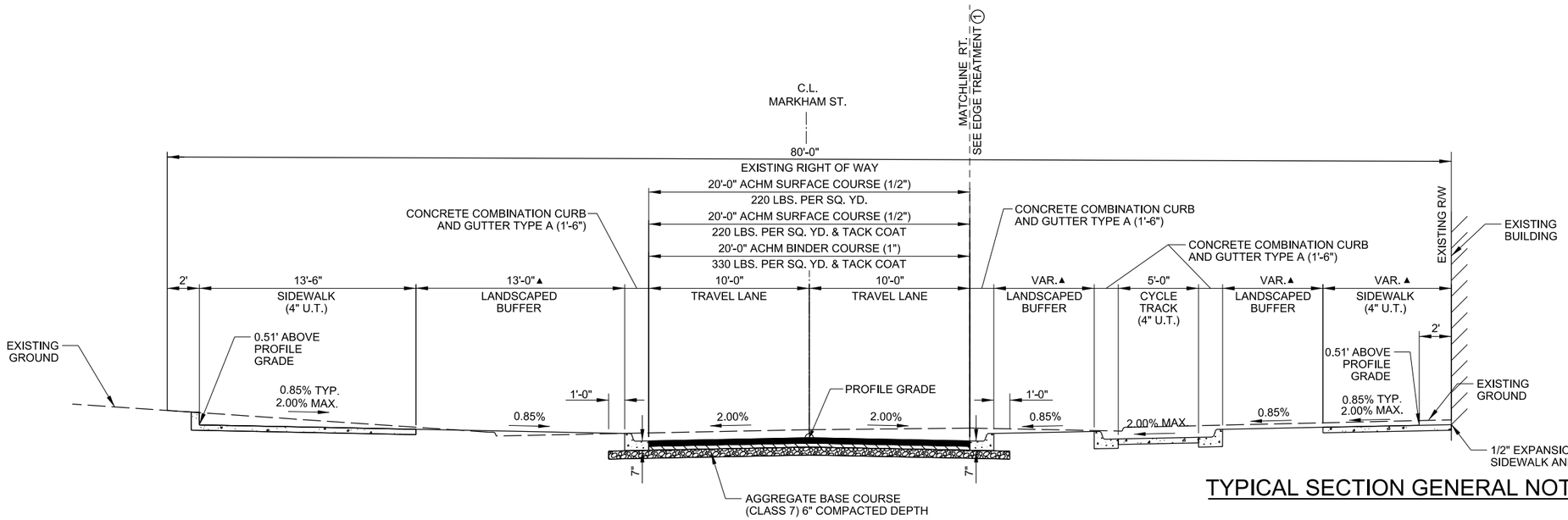


▲ SEE LAYOUT DETAILS FOR VARIATIONS

TYPICAL SECTION - MARKHAM ST.

STA. 27+05.00 TO STA. 27+50.00

TYPICAL SECTION GENERAL NOTES

1. REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

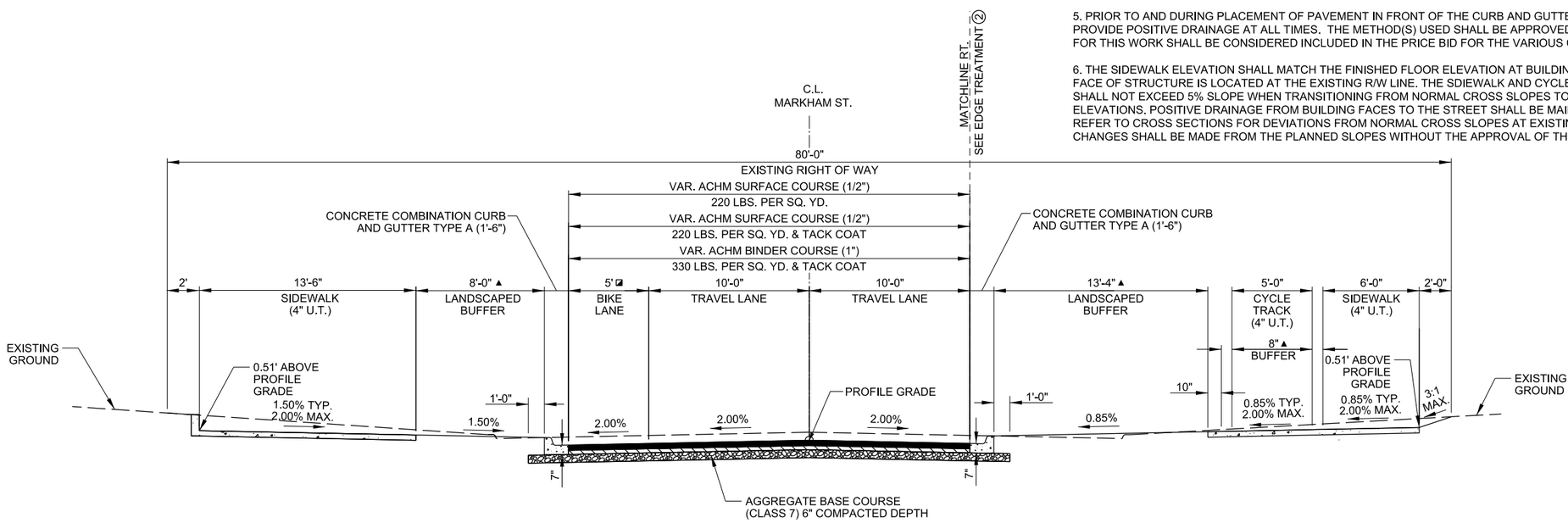
2. THE THICKNESS OF AGG. BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

3. THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT THE LANE LINES.

4. THE EXISTING PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE TO THE PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

5. PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

6. THE SIDEWALK ELEVATION SHALL MATCH THE FINISHED FLOOR ELEVATION AT BUILDING ENTRY POINTS WHEN THE FACE OF STRUCTURE IS LOCATED AT THE EXISTING R/W LINE. THE SDIEWALK AND CYCLE TRACK LONGITUDIAL GRADE SHALL NOT EXCEED 5% SLOPE WHEN TRANSITIONING FROM NORMAL CROSS SLOPES TO EXISTING FINISHED FLOOR ELEVATIONS. POSITIVE DRAINAGE FROM BUILDING FACES TO THE STREET SHALL BE MAINTAINED AT ALL LOCATIONS. REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL CROSS SLOPES AT EXISTING BUILDING LOCATIONS. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.



TYPICAL SECTION - MARKHAM ST.

STA. 27+50.00 TO STA. 27+59.67
STA. 30+31.98 TO STA. 30+82.72

◪ STA. 27+50.00 TO STA. 27+59.67 - TRANSITION 0'-0" TO 1'-4"
▲ SEE LAYOUT DETAILS FOR VARIATIONS

GARVER LLC No. 766 CERTIFICATE OF AUTHORIZATION ARKANSAS ENGINEER

STATE OF ARKANSAS DUSTIN L. TACKETT LICENSED PROFESSIONAL ENGINEER No. 14994

Digitally Signed 02/25/2019

REV.	DATE	DESCRIPTION	BY

METROPLAN SMART PLANNING MAKES SMART PLACES

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

TYPICAL SECTIONS (SHEET 1 OF 7)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: DLT

BAR IS ONE INCH ON ORIGINAL DRAWING
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DRAWING NUMBER
C-101

SHEET NUMBER **3**

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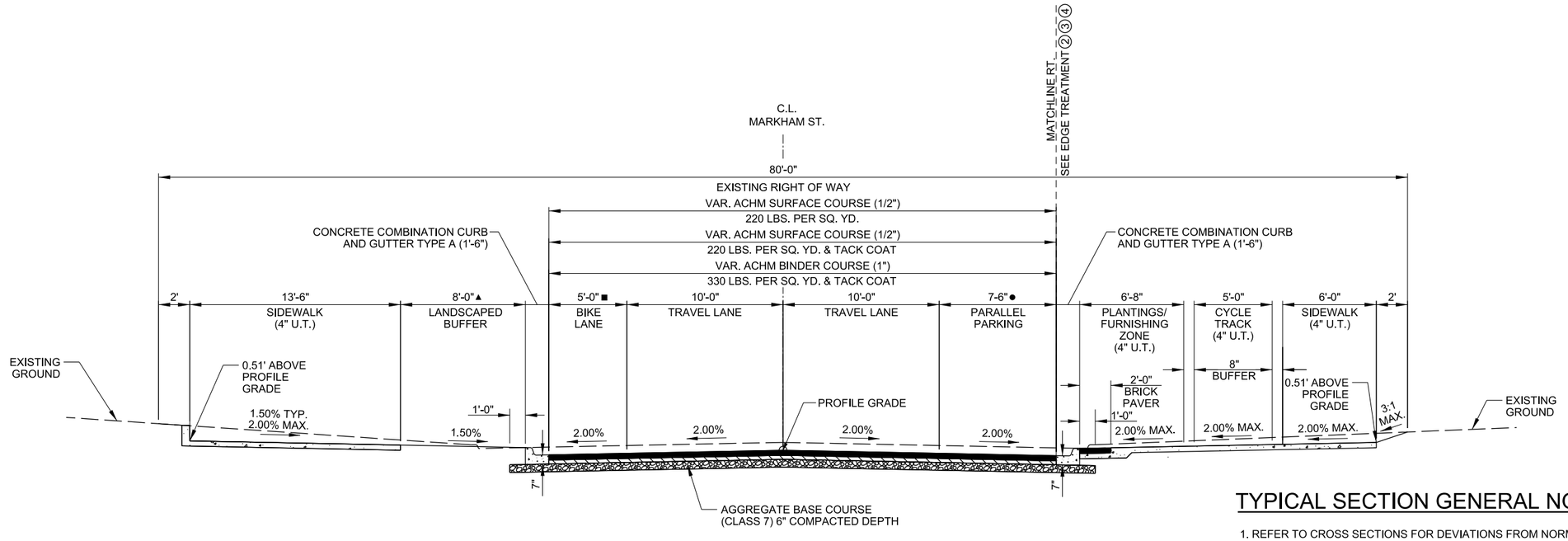


■ STA. 27+59.67 TO STA. 27+85.00 - TRANSITION 1'-4" TO 5'-0"
● STA. 27+59.67 TO STA. 27+67.17 - TRANSITION 0'-0" TO 7'-6"
STA. 30+24.48 TO STA. 30+31.98 - TRANSITION 7'-6" TO 0'-0"
▲ SEE LAYOUT DETAILS FOR VARIATIONS

TYPICAL SECTION - MARKHAM ST.

STA. 27+59.67 TO STA. 30+31.98

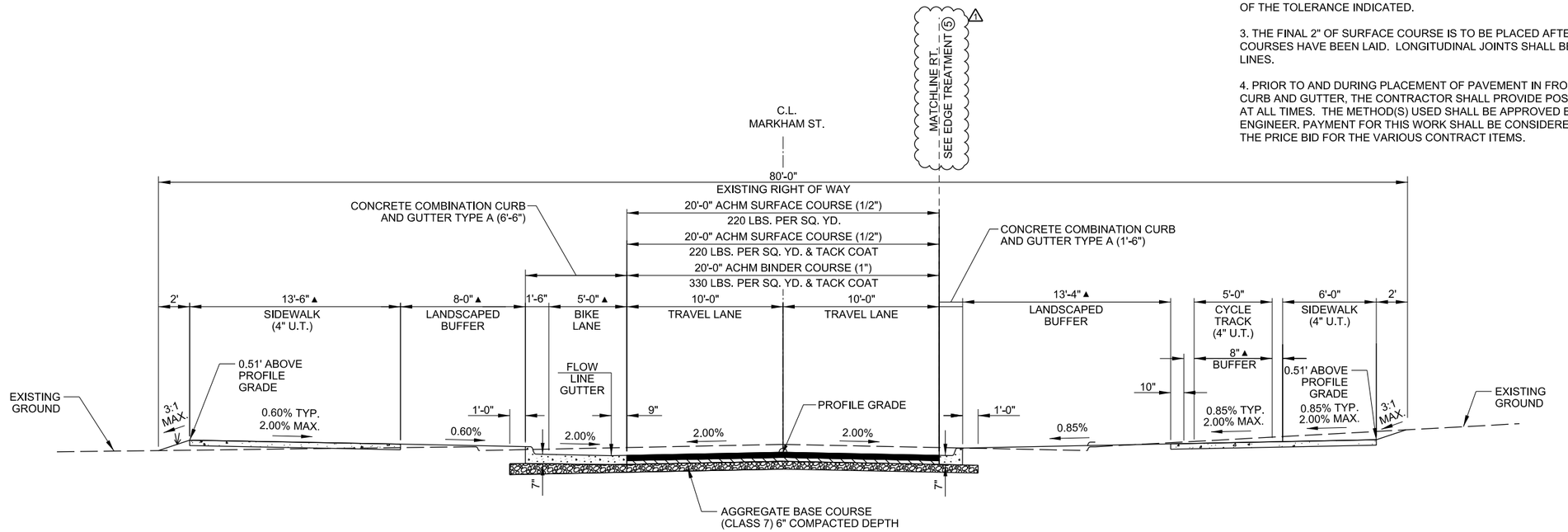
TYPICAL SECTION GENERAL NOTES

1. REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

2. THE THICKNESS OF AGG. BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

3. THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT THE LANE LINES.

4. PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.



TYPICAL SECTION - MARKHAM ST.

STA. 30+82.72 TO STA. 31+32.32
STA. 39+88.43 TO STA. 40+08.27

▲ SEE LAYOUT DETAILS FOR VARIATIONS

GARVER LLC No. 766 – CERTIFICATE OF AUTHORIZATION – ARKANSAS ENGINEER

STATE OF ARKANSAS – LICENSED PROFESSIONAL ENGINEER – No.14994 – DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - ADD STATION RANGES AND EDGE TREATMENT	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

TYPICAL SECTIONS (SHEET 2 OF 7)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: DLT

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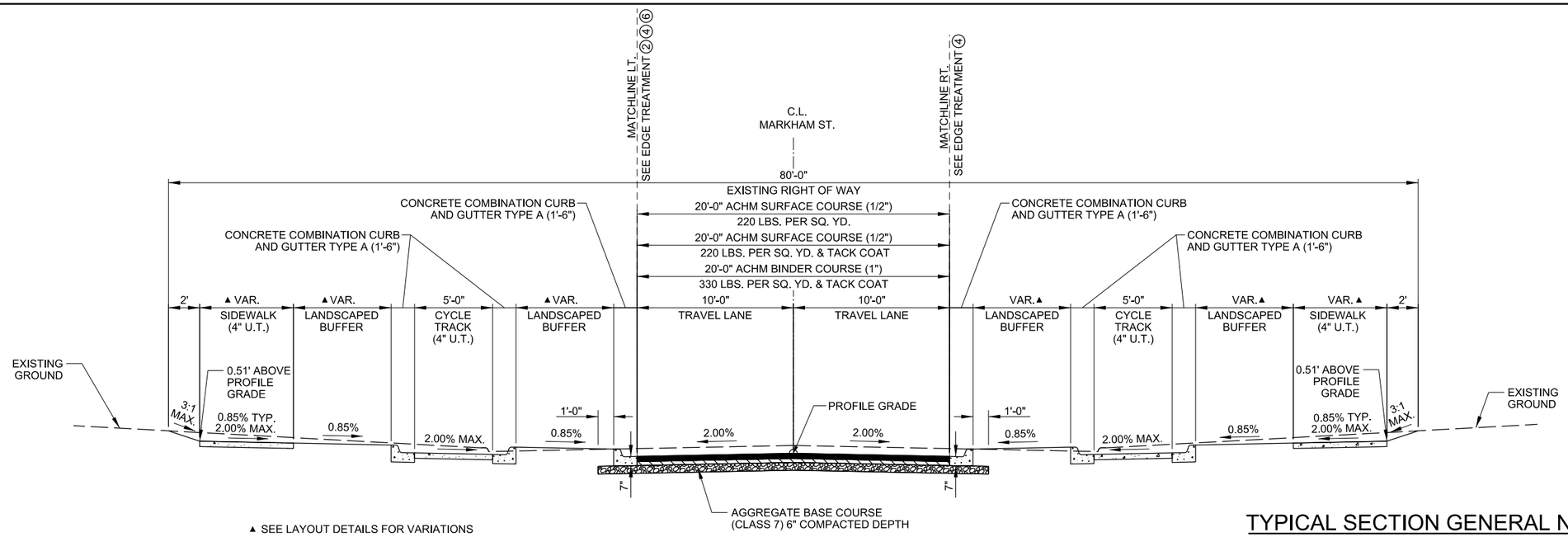
DRAWING NUMBER
C-102

SHEET NUMBER **4**



▲ SEE LAYOUT DETAILS FOR VARIATIONS

TYPICAL SECTION - MARKHAM ST.

STA. 31+32.32 TO STA. 31+58.56
STA. 33+00.83 TO STA. 33+14.22
STA. 35+03.89 TO STA. 35+17.33
STA. 36+41.09 TO STA. 36+67.31
STA. 38+25.43 TO STA. 38+51.70
STA. 40+08.27 TO STA. 40+14.70
STA. 41+81.61 TO STA. 41+93.09

⚠1

TYPICAL SECTION GENERAL NOTES

1. REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

2. THE THICKNESS OF AGG. BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

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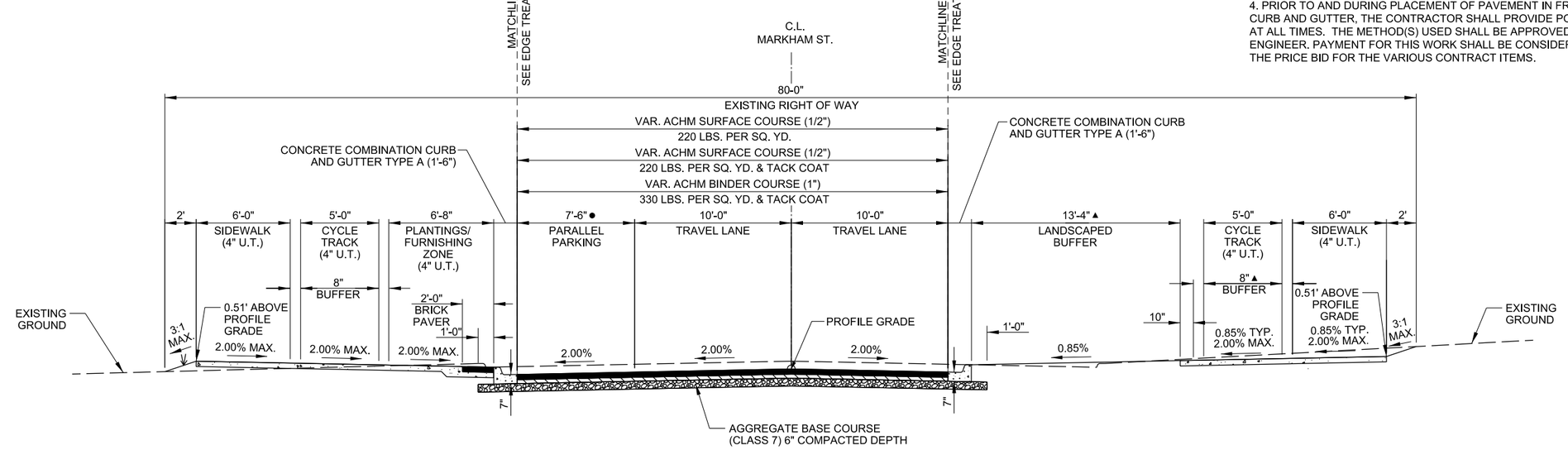

TYPICAL SECTION - MARKHAM ST.

STA. 31+58.56 TO STA. 31+72.09
STA. 33+14.22 TO STA. 33+27.08
STA. 34+91.08 TO STA. 35+03.89
STA. 41+66.94 TO STA. 41+81.61

⚠1

● STA. 31+58.56 TO STA. 31+66.09 - TRANSITION 0'-0" TO 7'-6"
STA. 33+14.22 TO STA. 33+21.72 - TRANSITION 0'-0" TO 7'-6"
STA. 34+96.39 TO STA. 35+03.89 - TRANSITION 7'-6" TO 0'-0"
▲ SEE LAYOUT DETAILS FOR VARIATIONS

GARVER LLC No. 766 CERTIFICATE OF AUTHORIZATION ARKANSAS ENGINEER

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.14994 DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - REVISE STATION RANGES	DLT

METROPLAN SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

TYPICAL SECTIONS (SHEET 3 OF 7)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: DLT

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DRAWING NUMBER
C-103

SHEET NUMBER **5**

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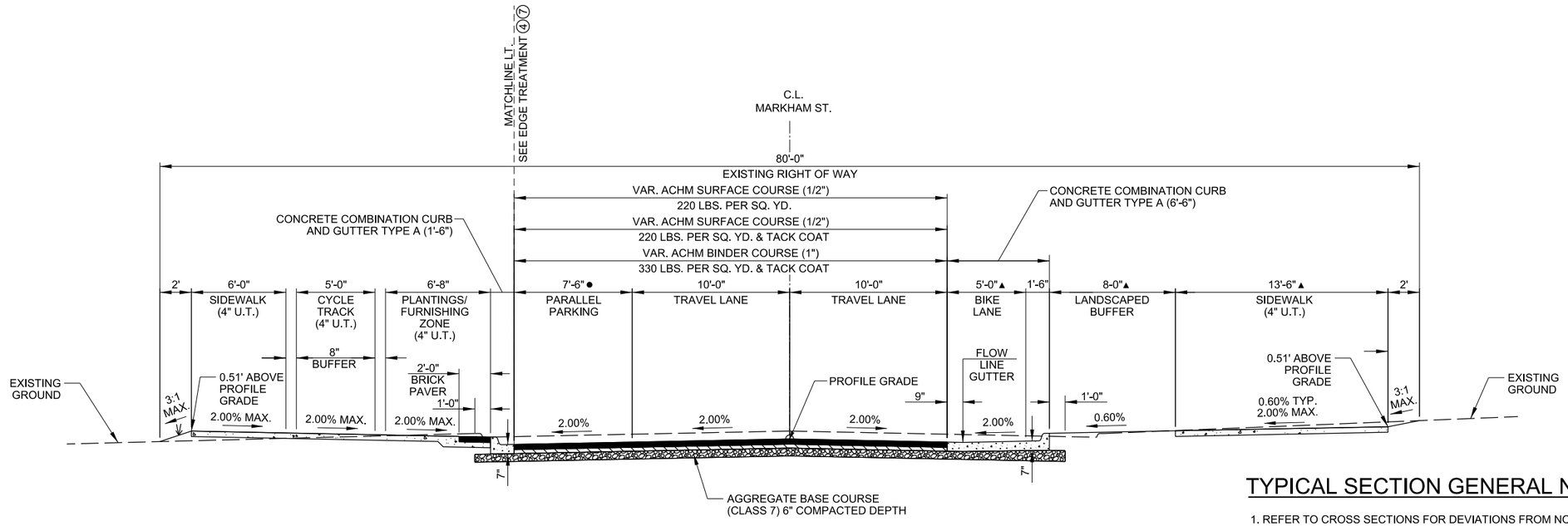
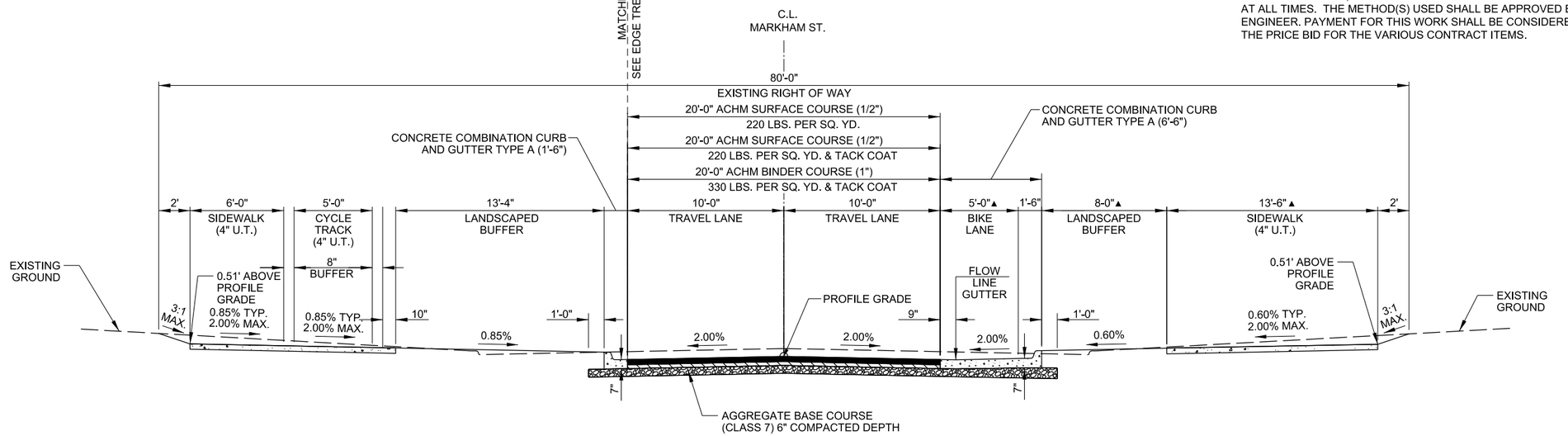


● STA. 32+43.83 TO STA. 32+51.33 - TRANSITION 7'-6" TO 0'-0"

TYPICAL SECTION - MARKHAM ST.

STA. 31+72.09 TO STA. 32+51.33



TYPICAL SECTION - MARKHAM ST.

STA. 32+51.33 TO STA. 33+00.83
STA. 35+17.33 TO STA. 36+41.04
STA. 38+51.70 TO STA. 38+71.55
STA. 41+93.09 TO STA. 42+07.87 ⚠

TYPICAL SECTION GENERAL NOTES

1. REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

2. THE THICKNESS OF AGG. BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

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GARVER LLC No. 766 — CERTIFICATE OF AUTHORIZATION — ARKANSAS ENGINEER

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No.14994 — DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
4	10/14/2019	CHANGE ORDER NO. 1 - ADD STATION RANGE	DLT

METROPLAN — SMART PLANNING MAKES SMART PLACES

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

TYPICAL SECTIONS
(SHEET 4 OF 7)

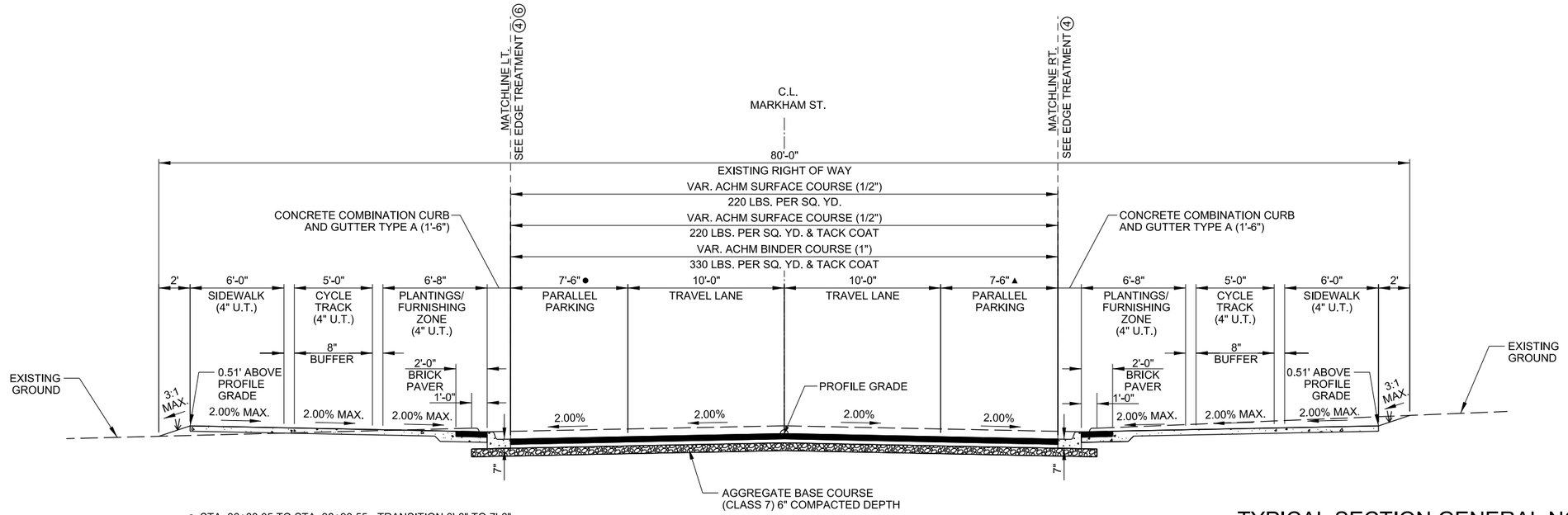
JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: DLT

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-104

SHEET NUMBER **6**

DLTackett 10/14/2019 2:37:30 PM
WORKSPACE\Garver_2012
L:\2016\16017122 - Conway - Markham Street\Drawings\CMSH-C101-TS-CO1.dgn



● STA. 36+83.05 TO STA. 36+90.55 - TRANSITION 0'-0" TO 7'-6"
STA. 38+07.72 TO STA. 38+15.22 - TRANSITION 7'-6" TO 0'-0"
▲ STA. 33+27.08 TO STA. 33+34.58 - TRANSITION 0'-0" TO 7'-6"
STA. 34+83.58 TO STA. 34+91.08 - TRANSITION 7'-6" TO 0'-0"

TYPICAL SECTION - MARKHAM ST.

STA. 33+27.08 TO STA. 34+91.08
STA. 36+83.05 TO STA. 38+15.22
STA. 40+34.44 TO STA. 41+66.94
1

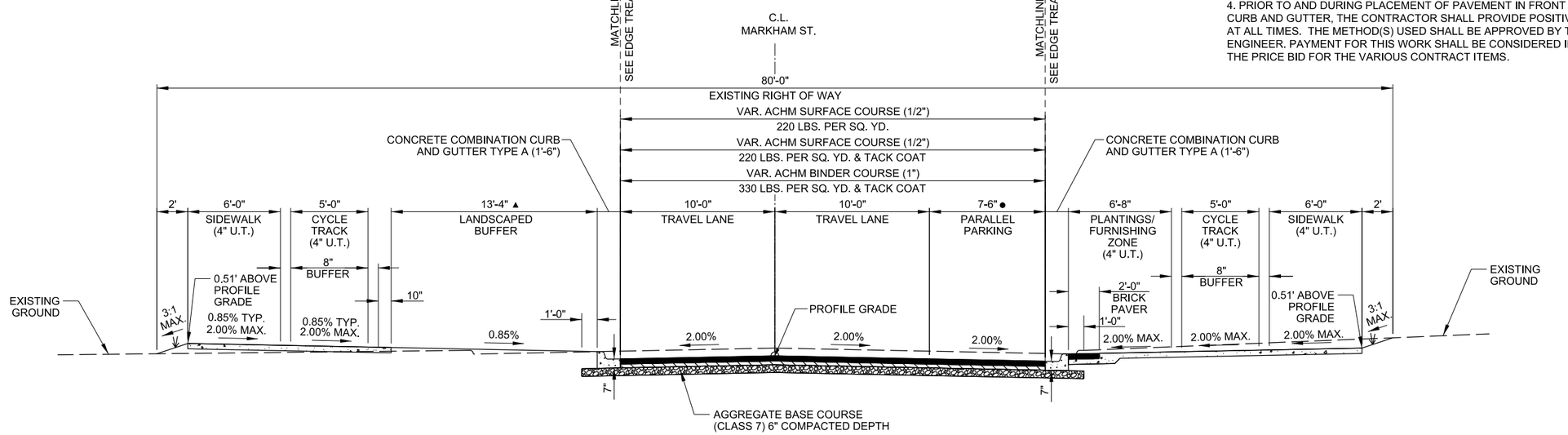
TYPICAL SECTION GENERAL NOTES

1. REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

2. THE THICKNESS OF AGG. BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

3. THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT THE LANE LINES.

4. PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.



TYPICAL SECTION - MARKHAM ST.

STA. 36+67.31 TO STA. 36+83.05
STA. 38+15.22 TO STA. 38+25.43
STA. 40+14.70 TO STA. 40+34.44
1

● STA. 36+67.31 TO STA. 36+74.81 - TRANSITION 0'-0" TO 7'-6"
STA. 38+17.93 TO STA. 38+25.43 - TRANSITION 7'-6" TO 0'-0"

▲ SEE LAYOUT DETAILS FOR VARIATIONS

GARVER LLC No. 766 CERTIFICATE OF AUTHORIZATION ARKANSAS ENGINEER

STATE OF ARKANSAS DUSTIN L. TACKETT LICENSED PROFESSIONAL ENGINEER No.14994

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - REVISE STATION RANGES	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

TYPICAL SECTIONS (SHEET 5 OF 7)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: DLT

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-105

SHEET NUMBER **7**

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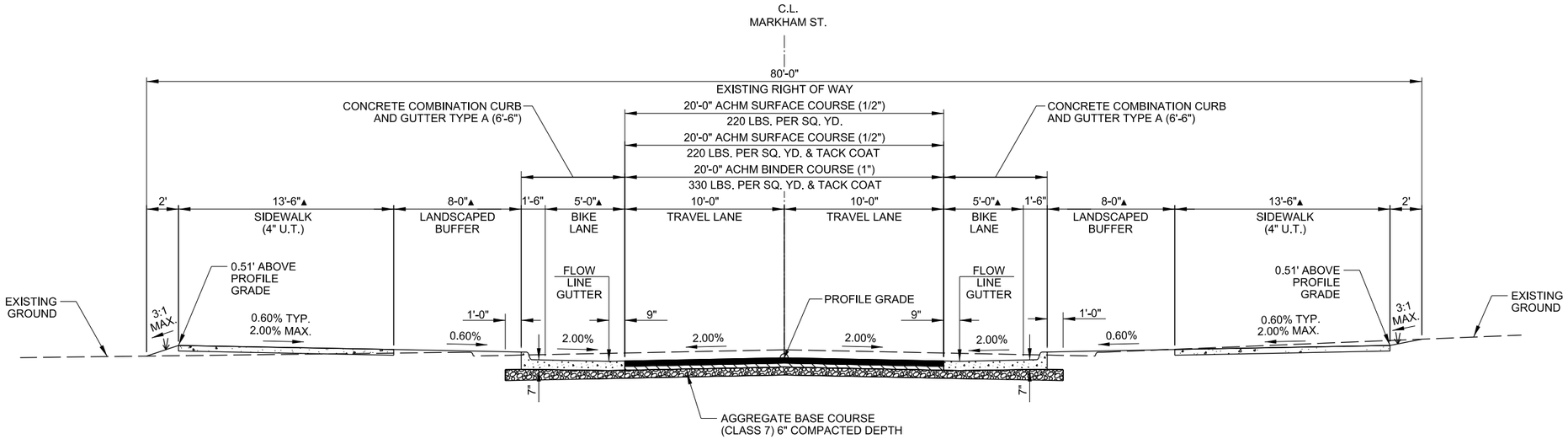
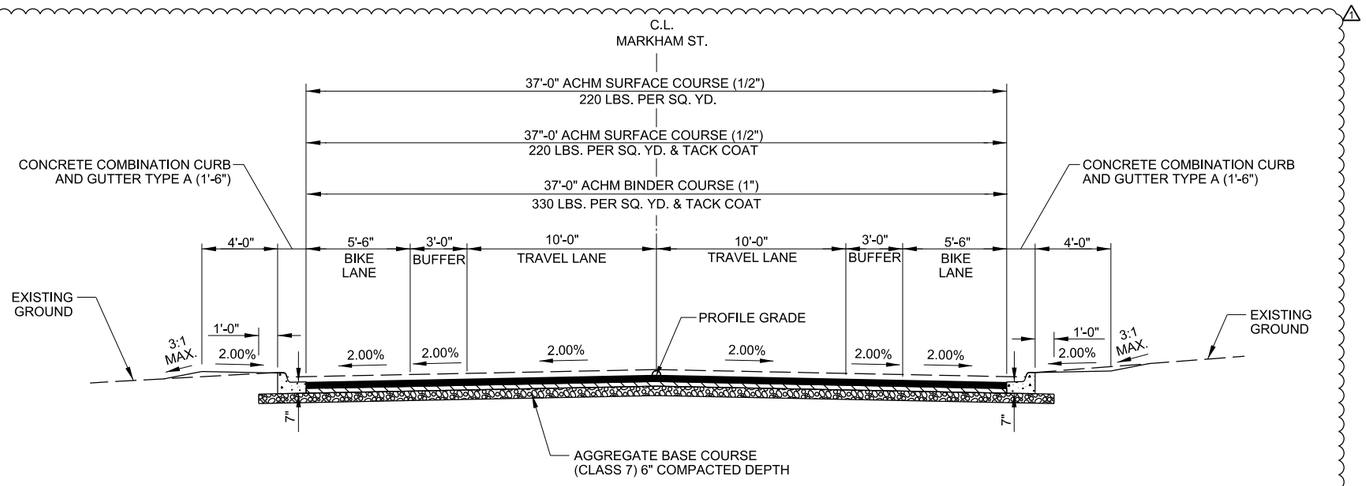


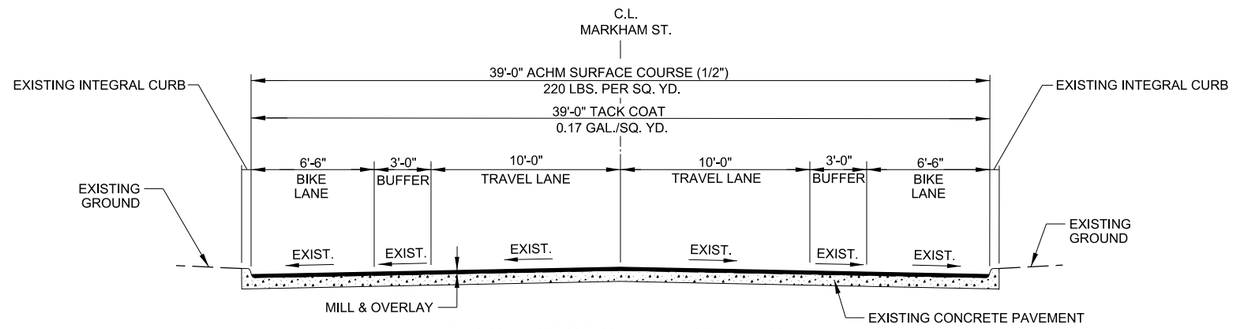
TYPICAL SECTION - MARKHAM ST.

STA. 38+71.55 TO STA. 39+88.43
STA. 42+07.87 TO STA. 42+80.00 ⚠



TYPICAL SECTION - MARKHAM ST.

STA. 42+80.00 TO STA. 43+00.00



TYPICAL SECTION - MARKHAM ST.

STA. 43+00.00 TO STA. 51+60.00

TYPICAL SECTION GENERAL NOTES

1. REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

2. THE THICKNESS OF AGG. BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

3. THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT THE LANE LINES.

4. THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE TO THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

5. PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

GARVER LLC No. 766 — CERTIFICATE OF AUTHORIZATION — ARKANSAS ENGINEER

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No.14994 — DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - REVISE/ADD STATION RANGES AND REVISE/ADD TYPICAL SECTIONS	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

TYPICAL SECTIONS
(SHEET 6 OF 7)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: DLT

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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DRAWING NUMBER
C-106

SHEET NUMBER **8**

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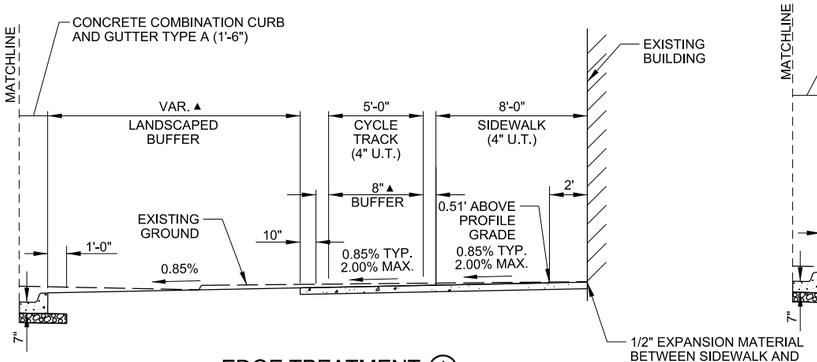
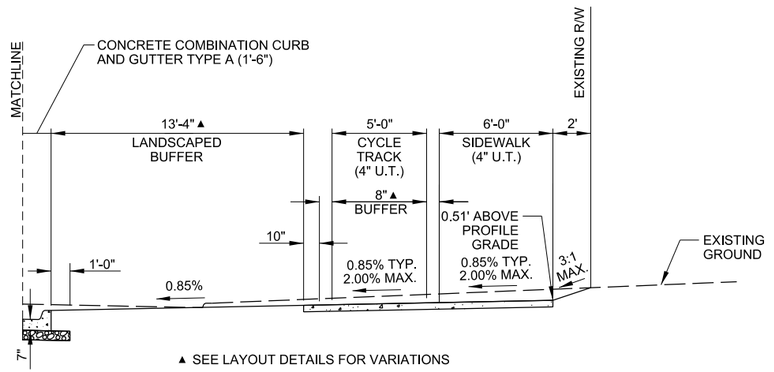


EDGE TREATMENT ①

STA. 27+49.71 TO STA. 27+50.00

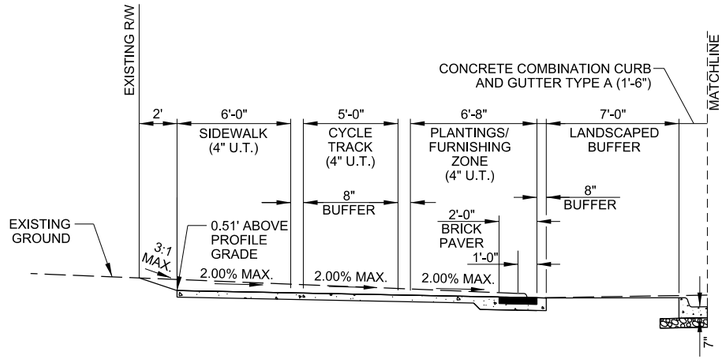
▲ SEE LAYOUT DETAILS FOR VARIATIONS



▲ SEE LAYOUT DETAILS FOR VARIATIONS

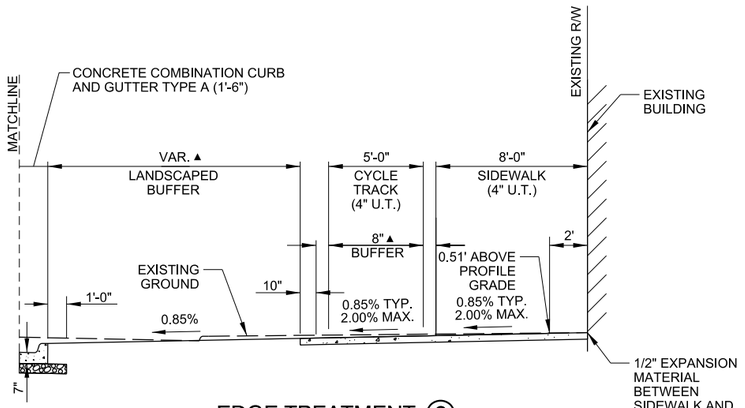
EDGE TREATMENT ④

STA. 30+24.27 TO STA. 30+31.98
STA. 31+32.32 TO STA. 31+55.85
STA. 31+48.57 TO STA. 31+66.30 (LEFT SIDE)
STA. 32+43.62 TO STA. 32+51.33 (LEFT SIDE)
STA. 33+00.83 TO STA. 33+21.93 (LEFT SIDE)
STA. 33+27.08 TO STA. 33+34.79
STA. 34+83.37 TO STA. 34+91.08
STA. 34+96.18 TO STA. 35+17.33 (LEFT SIDE)
STA. 36+41.04 TO STA. 36+90.75 (LEFT SIDE)
STA. 36+57.29 TO STA. 36+75.02
STA. 38+17.73 TO STA. 38+35.46
STA. 38+26.67 TO STA. 38+55.30 (LEFT SIDE)
STA. 40+08.27 TO STA. 40+22.41
STA. 40+34.44 TO STA. 40+42.14 (LEFT SIDE)
STA. 41+59.23 TO STA. 41+66.94
STA. 41+73.91 TO STA. 41+81.61 (LEFT SIDE)
STA. 41+81.61 TO STA. 41+91.63



EDGE TREATMENT ⑥

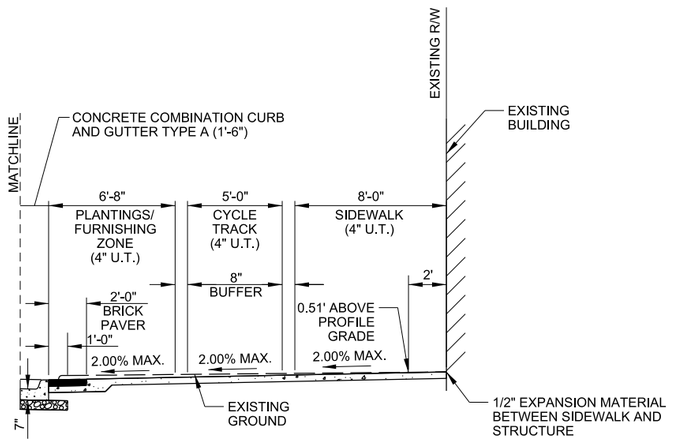
STA. 38+07.51 TO STA. 38+26.67



EDGE TREATMENT ②

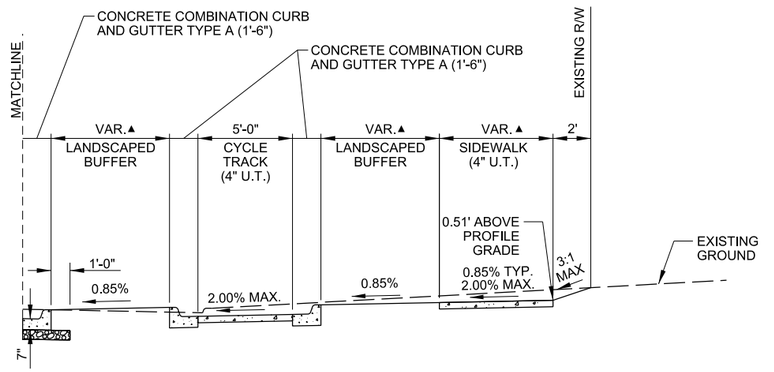
STA. 27+50.00 TO STA. 27+67.38
STA. 36+14.63 TO STA. 36+48.83 (LEFT SIDE)

▲ SEE LAYOUT DETAILS FOR VARIATIONS



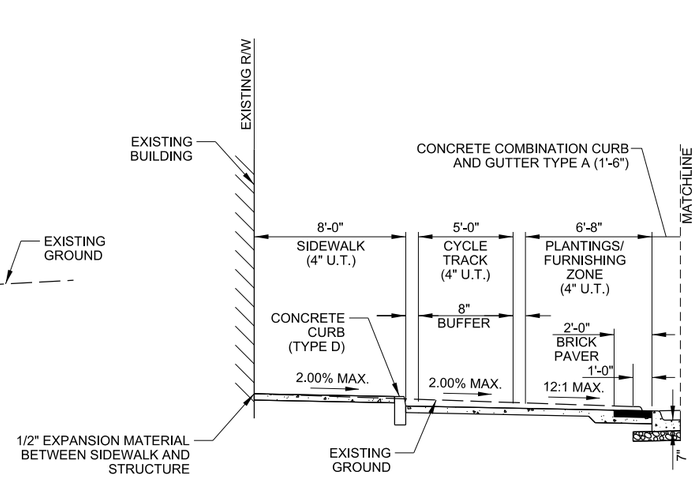
EDGE TREATMENT ③

STA. 27+67.38 TO STA. 27+76.59



EDGE TREATMENT ⑤

STA. 31+58.56 TO STA. 31+72.09
STA. 33+14.22 TO STA. 33+17.07
STA. 35+01.09 TO STA. 35+03.89
STA. 38+55.30 TO STA. 38+71.55 (LEFT SIDE)
STA. 39+88.43 TO STA. 40+04.67
STA. 40+14.70 TO STA. 40+24.51 (LEFT SIDE)
STA. 41+76.85 TO STA. 41+81.61
STA. 41+93.09 TO STA. 42+07.87 (LEFT SIDE)



EDGE TREATMENT ⑦

STA. 31+68.80 TO STA. 32+41.12

TYPICAL SECTION GENERAL NOTES

1. REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

2. THE SIDEWALK ELEVATION SHALL MATCH THE FINISHED FLOOR ELEVATION AT BUILDING ENTRY POINTS WHEN THE FACE OF STRUCTURE IS LOCATED AT THE EXISTING R/W LINE. THE SDIEWALK AND CYCLE TRACK LONGITUDIAL GRADE SHALL NOT EXCEED 5% SLOPE WHEN TRANSITIONING FROM NORMAL CROSS SLOPES TO EXISTING FINISHED FLOOR ELEVATIONS. POSITIVE DRAINAGE FROM BUILDING FACES TO THE STREET SHALL BE MAINTAINED AT ALL LOCATIONS. REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL CROSS SLOPES AT EXISTING BUILDING LOCATIONS. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

CERTIFICATE OF AUTHORIZATION
GARVER LLC
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
DUSTIN L. TACKETT
LICENSED PROFESSIONAL ENGINEER
No.14994

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - ADD STATION RANGES	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

TYPICAL SECTIONS (SHEET 7 OF 7)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: DLT

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-107

SHEET NUMBER **9**

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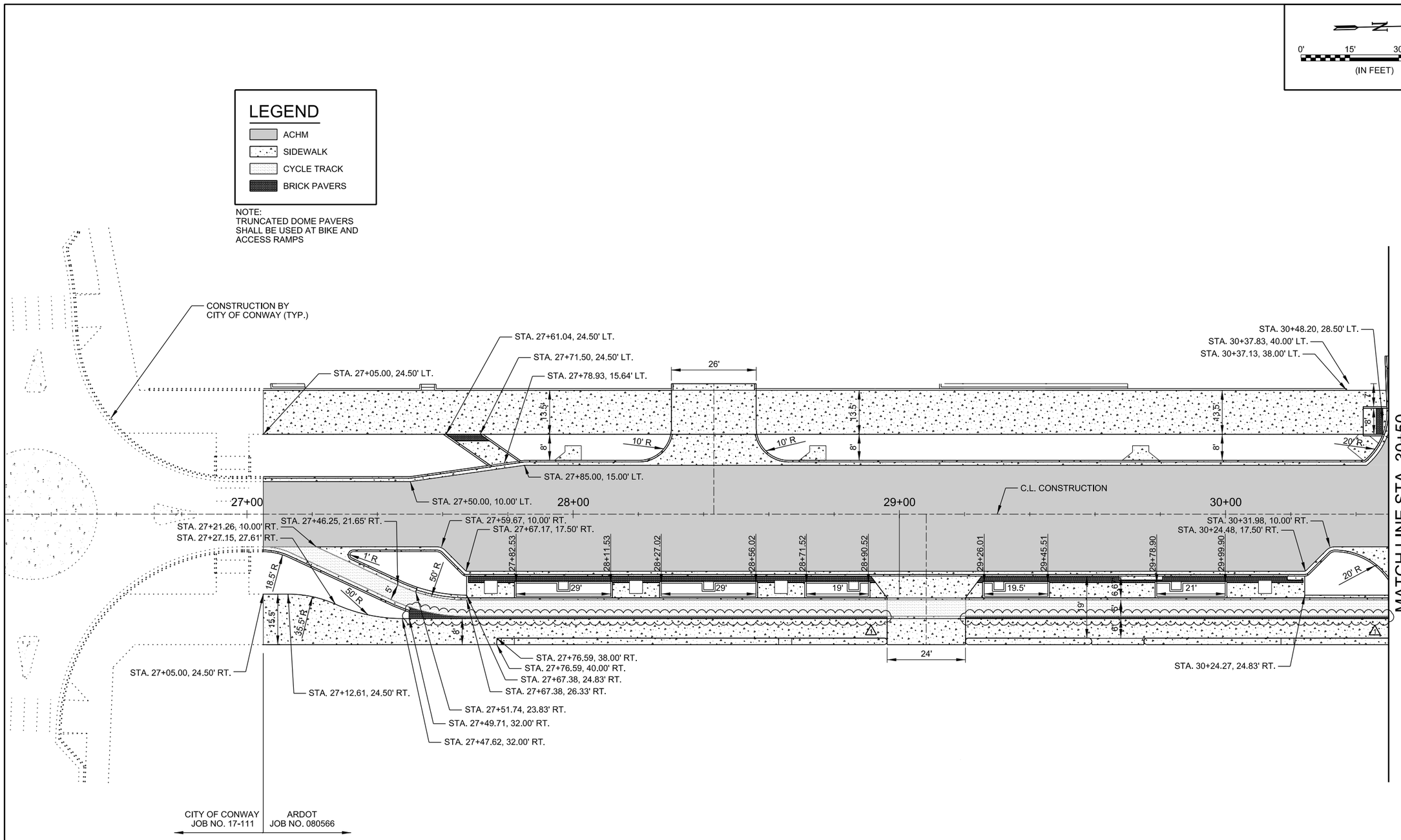

GARVER LLC No. 766 CERTIFICATE OF AUTHORIZATION ARKANSAS ENGINEER

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.14994 DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - ADD BRICK PAVER BUFFER	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

LAYOUT DETAILS (SHEET 1 OF 4)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-201

SHEET NUMBER **10**

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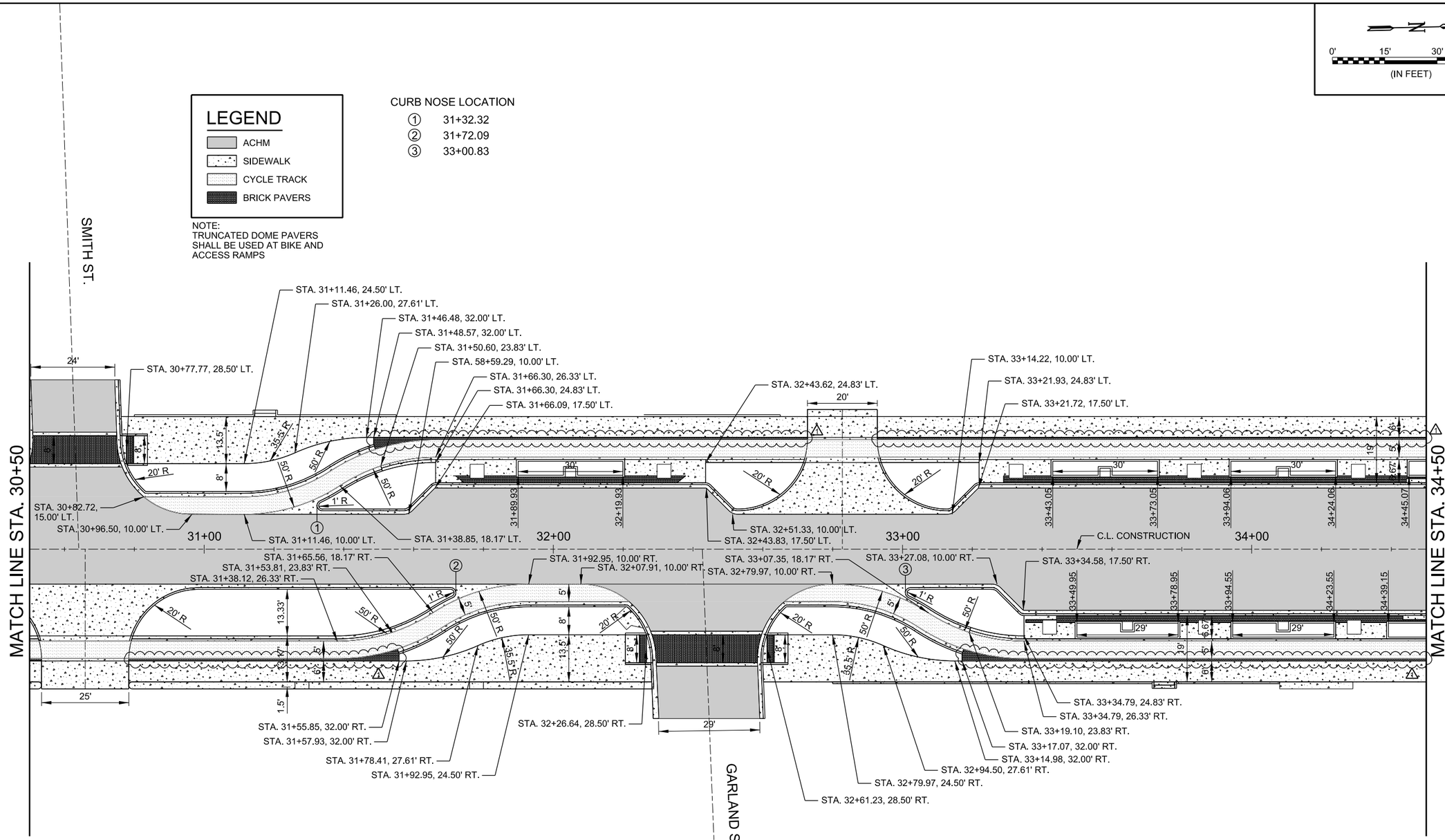

0' 15' 30' 45'
(IN FEET)

CERTIFICATE OF AUTHORIZATION
GARVER LLC
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT
Digitally Signed 10/14/2019

REV.	DESCRIPTION	DATE	BY
1	CHANGE ORDER NO. 1 - ADD BRICK PAVER BUFFER	10/14/2019	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

LAYOUT DETAILS
(SHEET 2 OF 4)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-202

SHEET NUMBER 11

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LEGEND

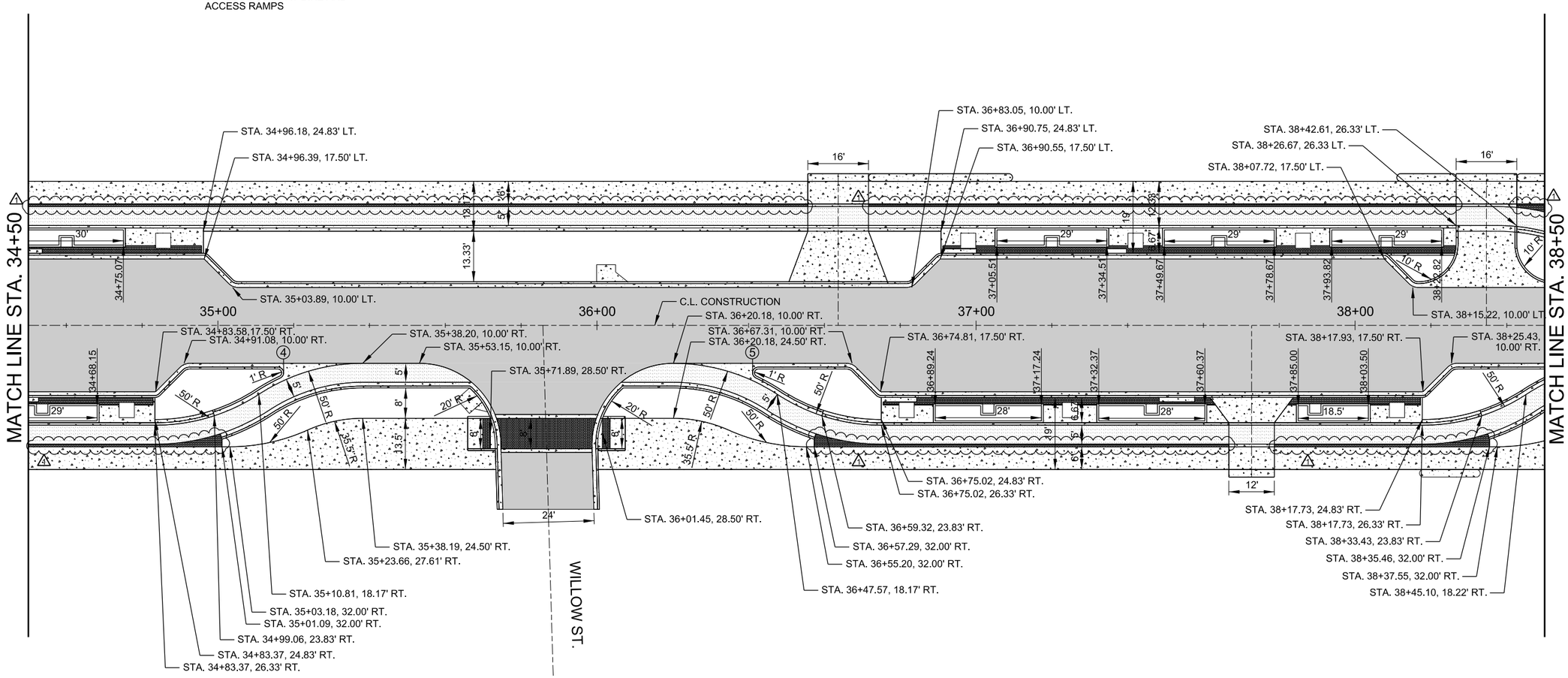
- ACHM
- SIDEWALK
- CYCLE TRACK
- BRICK PAVERS

NOTE:
TRUNCATED DOME PAVERS SHALL BE USED AT BIKE AND ACCESS RAMPS

CURB NOSE LOCATION

④ 35+17.33
⑤ 36+41.04

0' 15 30 45
(IN FEET)



GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DESCRIPTION	DATE	BY
1	CHANGE ORDER NO. 1 - ADD BRICK PAVER BUFFER	10/14/2019	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

LAYOUT DETAILS
(SHEET 3 OF 4)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-203

SHEET NUMBER **12**

DLTackett 10/14/2019 2:37:46 PM
WORKSPACE:Garver_2012
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LEGEND

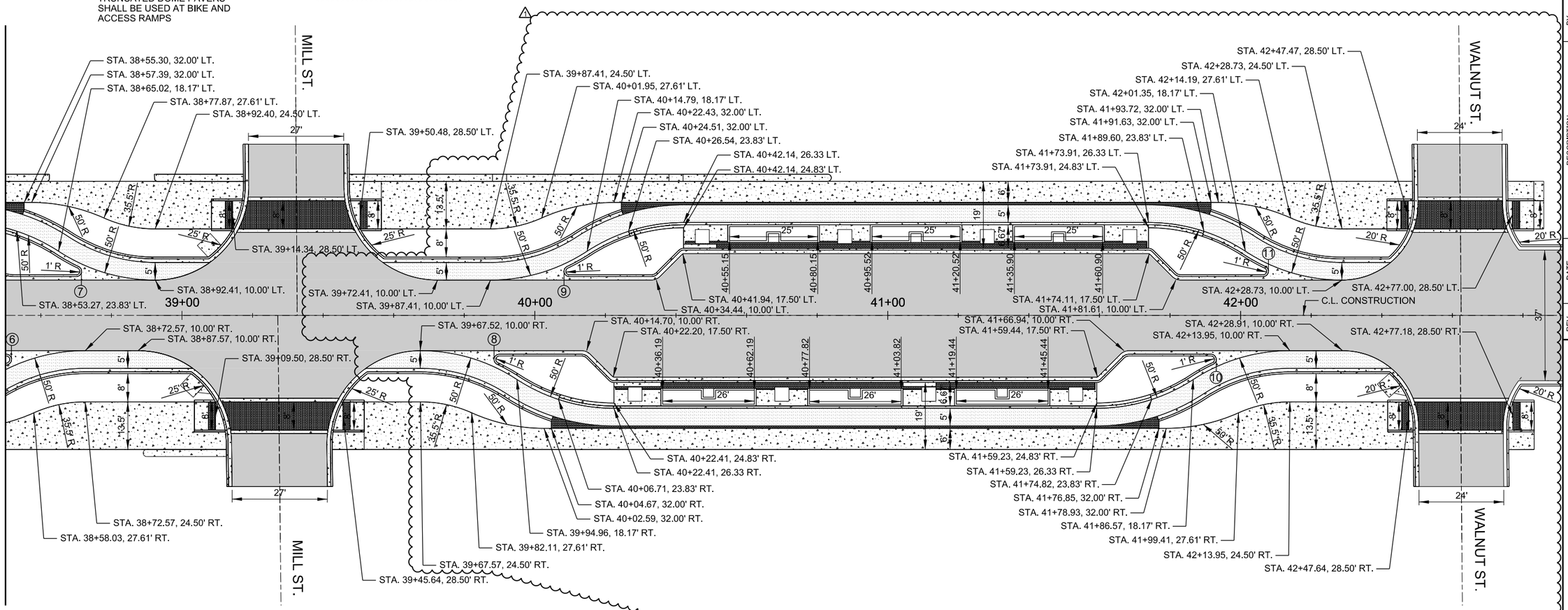
- ACHM
- SIDEWALK
- CYCLE TRACK
- BRICK PAVERS

NOTE:
TRUNCATED DOME PAVERS SHALL BE USED AT BIKE AND ACCESS RAMPS

CURB NOSE LOCATION

⑥	38+51.70
⑦	38+71.55
⑧	39+88.43
⑨	40+08.27
⑩	41+93.09
⑪	42+07.87

0' 15 30 45
(IN FEET)



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GARVER LLC No. 766 — CERTIFICATE OF AUTHORIZATION — ARKANSAS ENGINEER

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No. 14994 — DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - REVISE LAYOUT MILL TO WALNUT AND ADD CURB NOSE LOCATIONS	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

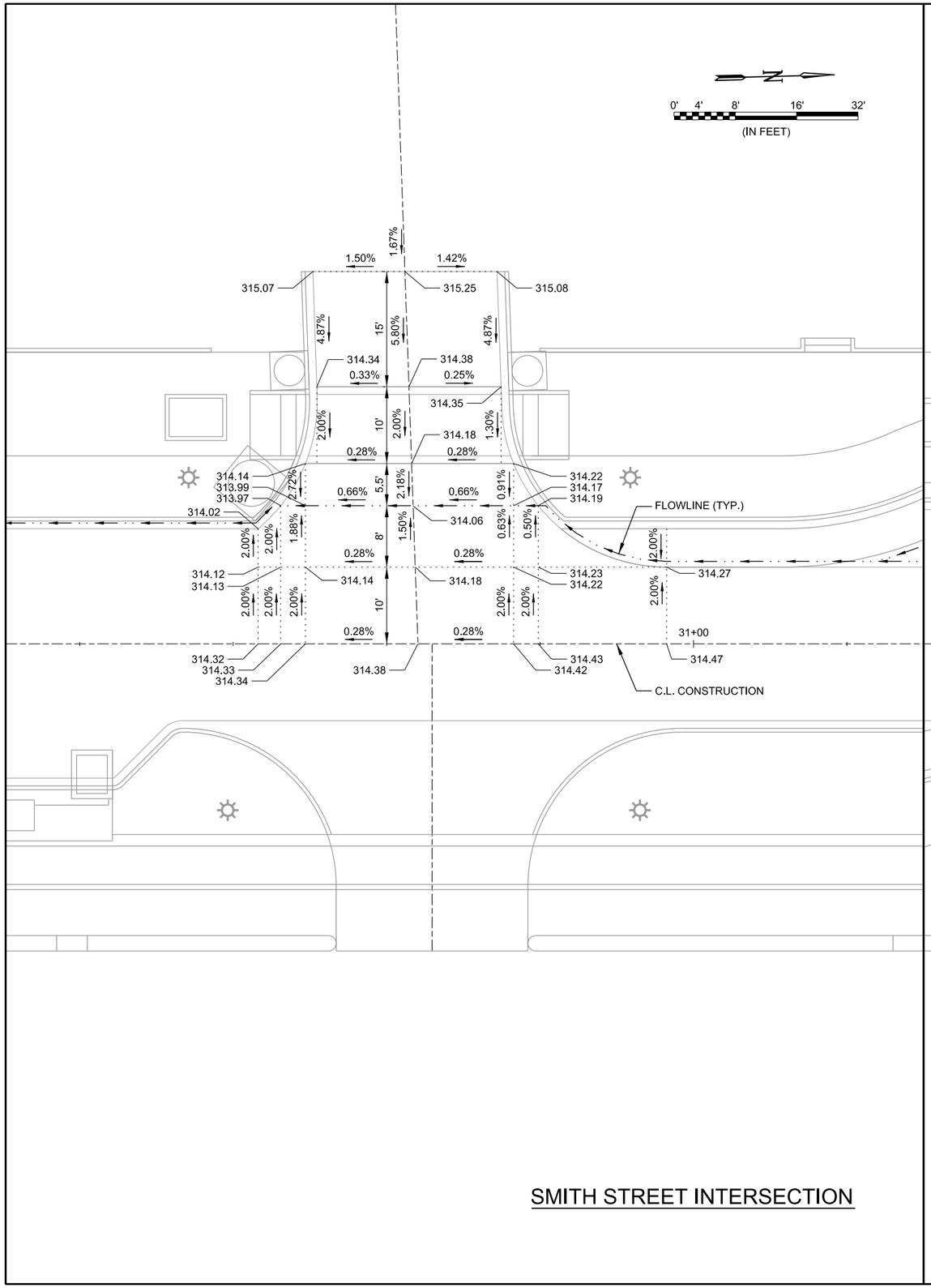
LAYOUT DETAILS
(SHEET 4 OF 4)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

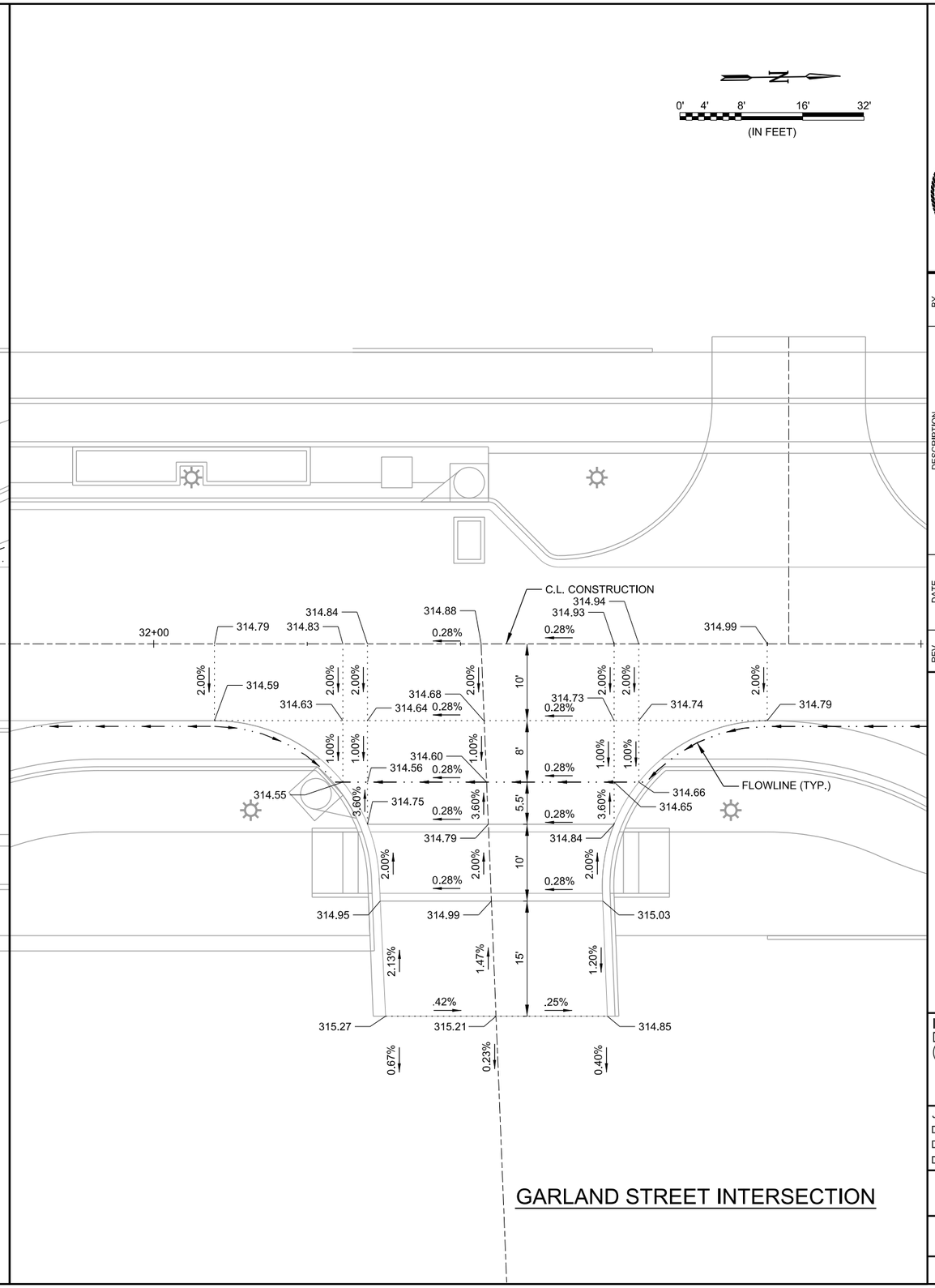
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-204

SHEET NUMBER **13**



SMITH STREET INTERSECTION



GARLAND STREET INTERSECTION

GARVER LLC No. 766 CERTIFICATE OF AUTHORIZATION ARKANSAS ENGINEER

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.14994 DUSTIN L. TACKETT

Digitally Signed 02/25/2019

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

INTERSECTION DETAILS
(SHEET 1 OF 2)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-205

SHEET NUMBER **14**

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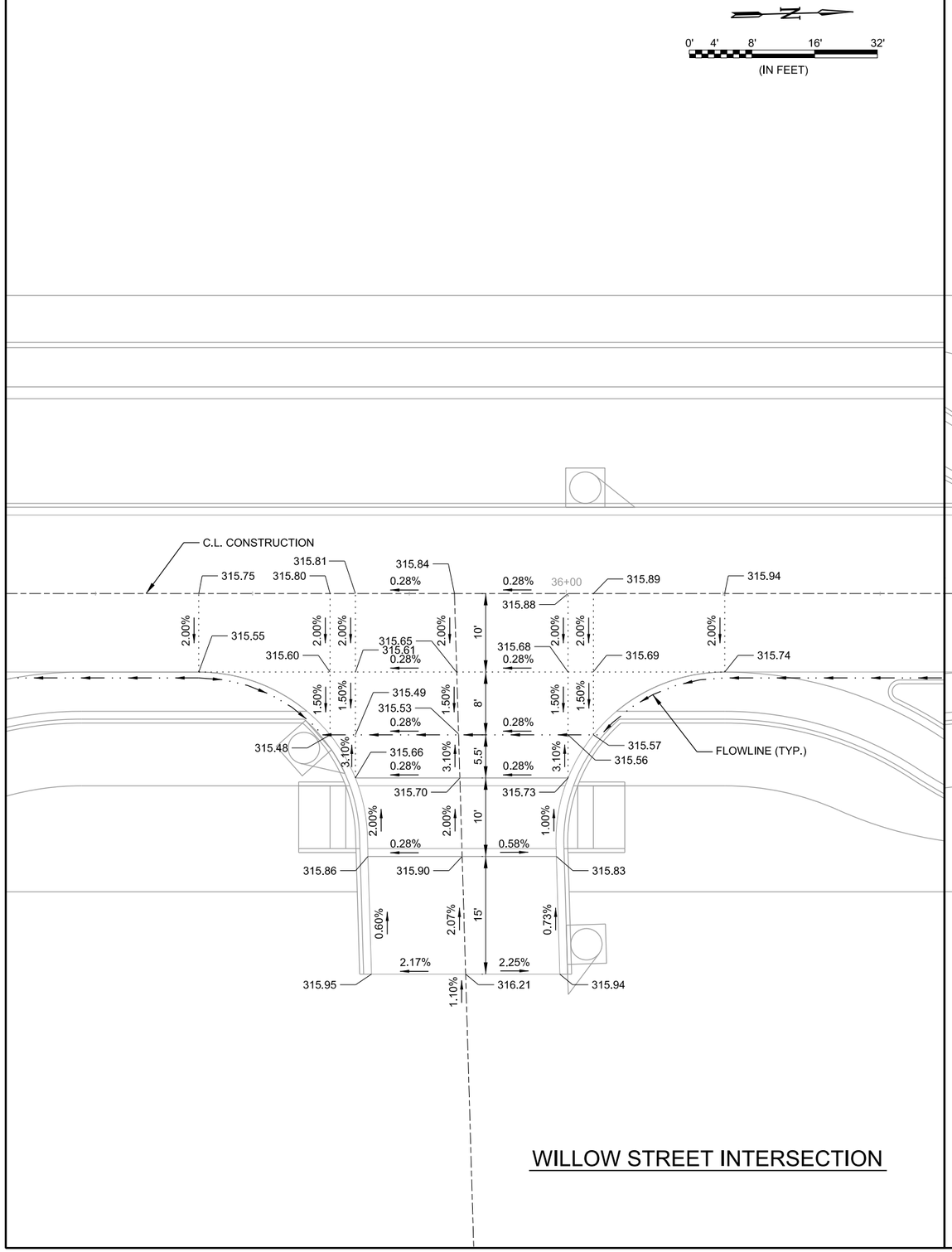
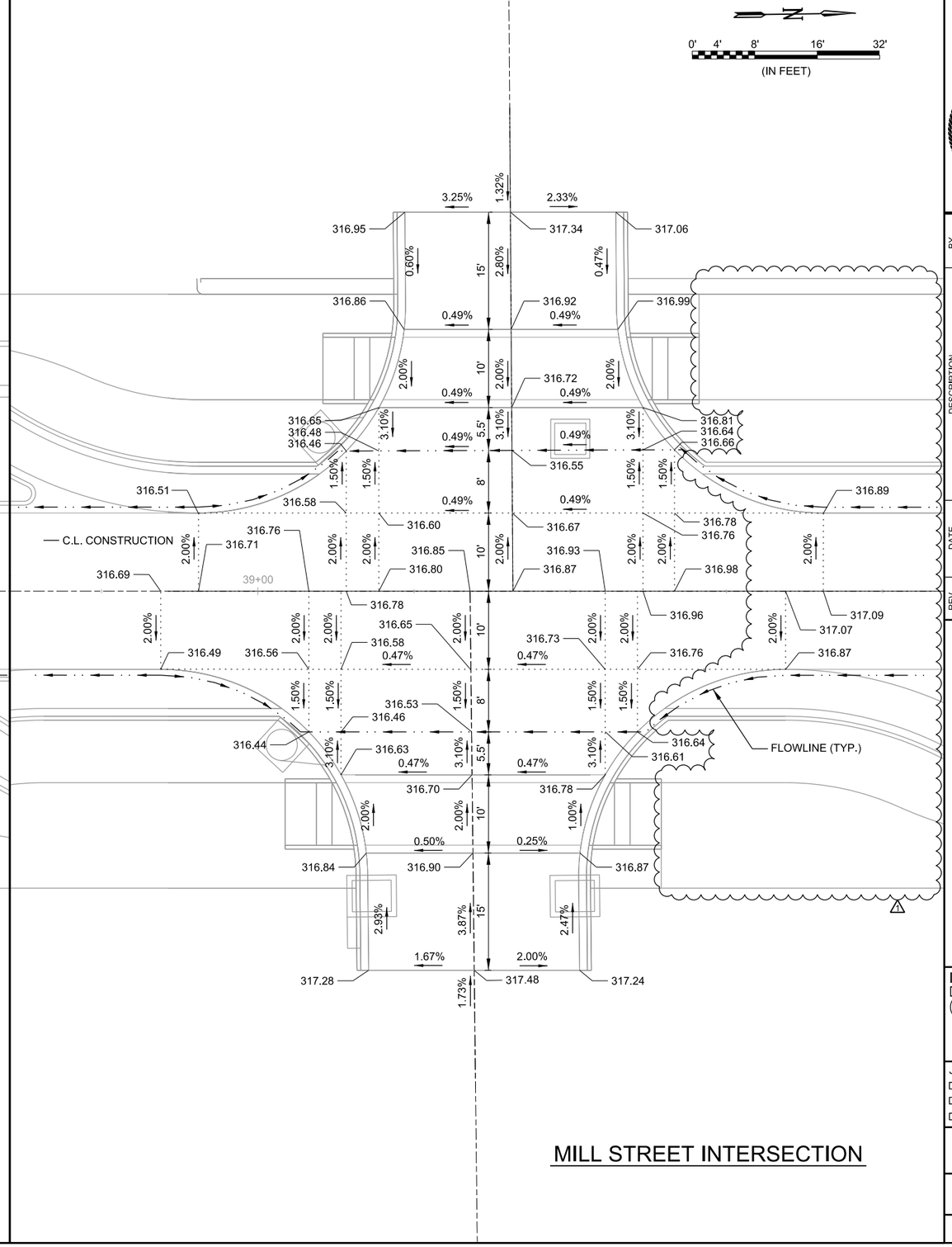


WILLOW STREET INTERSECTION



MILL STREET INTERSECTION

GARVER LLC No. 766 CERTIFICATE OF AUTHORIZATION ARKANSAS–ENGINEER

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.14994 DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DESCRIPTION	DATE	BY
1	CHANGE ORDER NO. 1 - REVISE DETAIL EAST OF MILL	10/14/2019	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

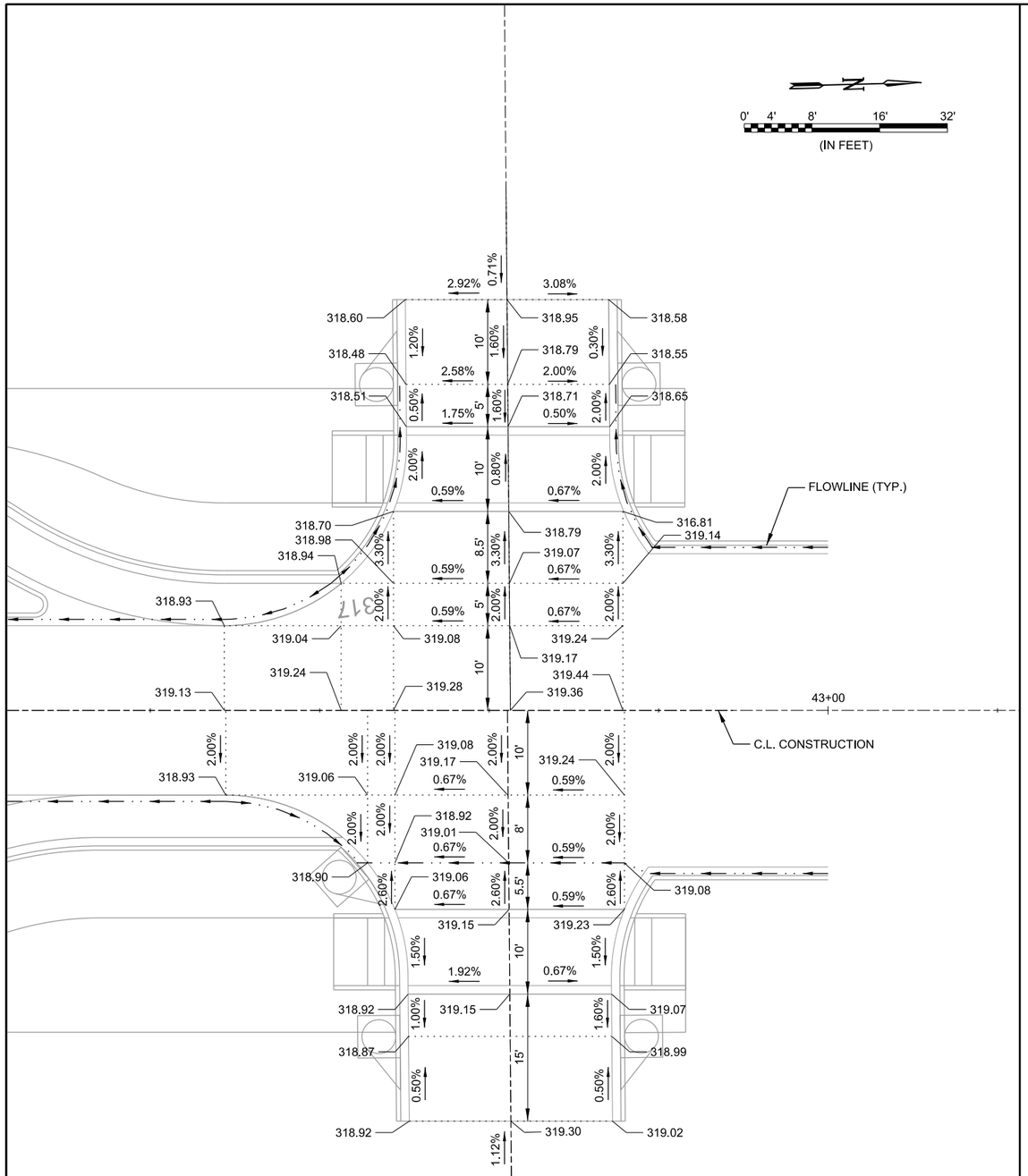
INTERSECTION DETAILS
(SHEET 2 OF 2)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-206

SHEET NUMBER **15**



WALNUT STREET INTERSECTION

DLTackett 10/14/2019 2:38:04 PM
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GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
	10/14/2019	CHANGE ORDER NO. 1 - ADD SHEET	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

INTERSECTION DETAILS

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
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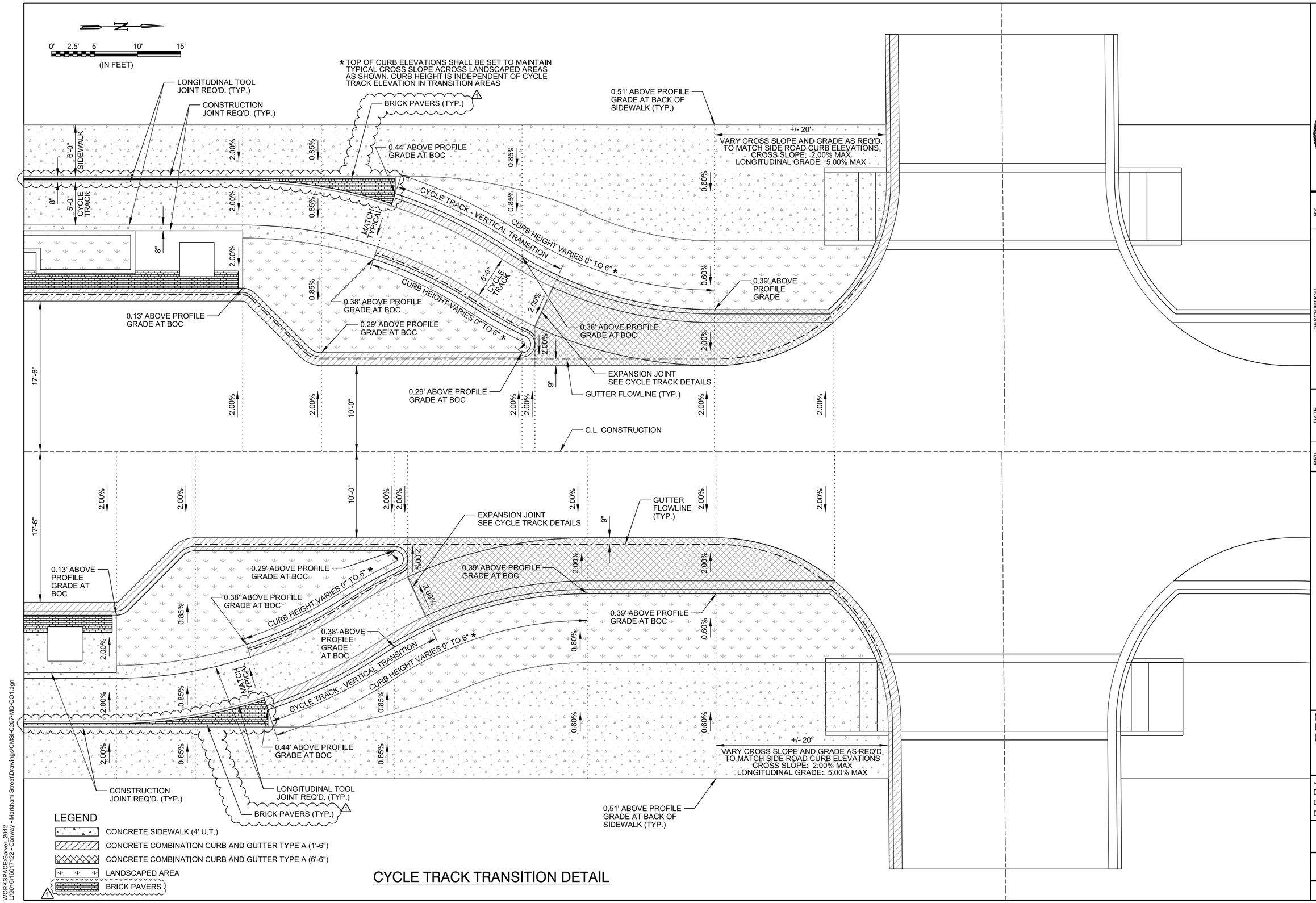
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-206A

SHEET NUMBER **15A**



CYCLE TRACK TRANSITION DETAIL

GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - ADD BRICK PAVER BUFFER	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MISCELLANEOUS DETAILS
(SHEET 1 OF 7)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: DLT

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0 1"
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DRAWING NUMBER
C-207

SHEET NUMBER 16

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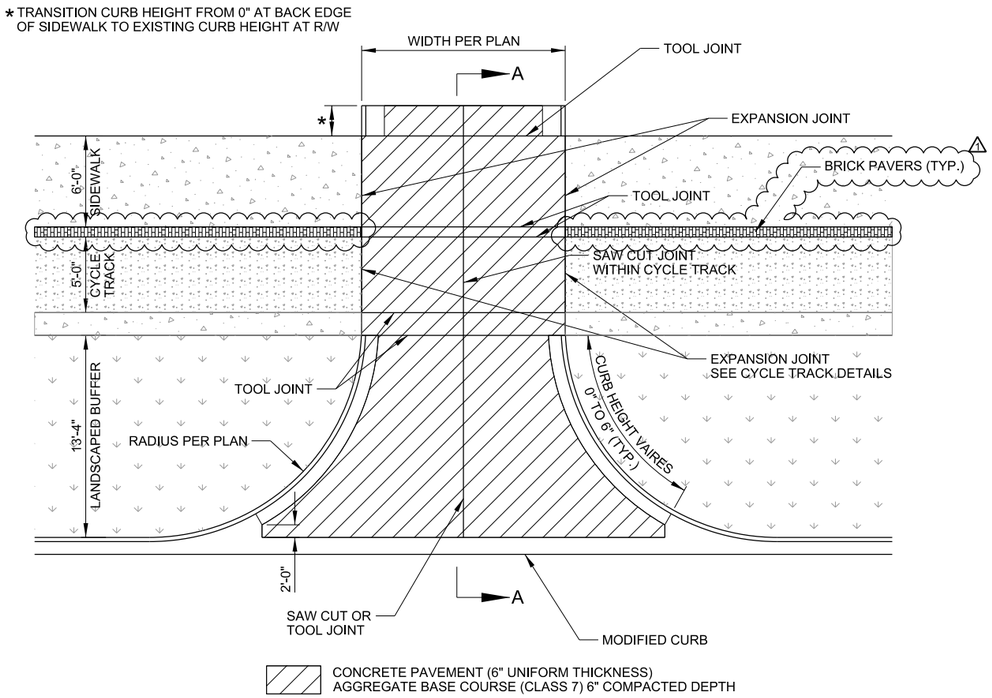
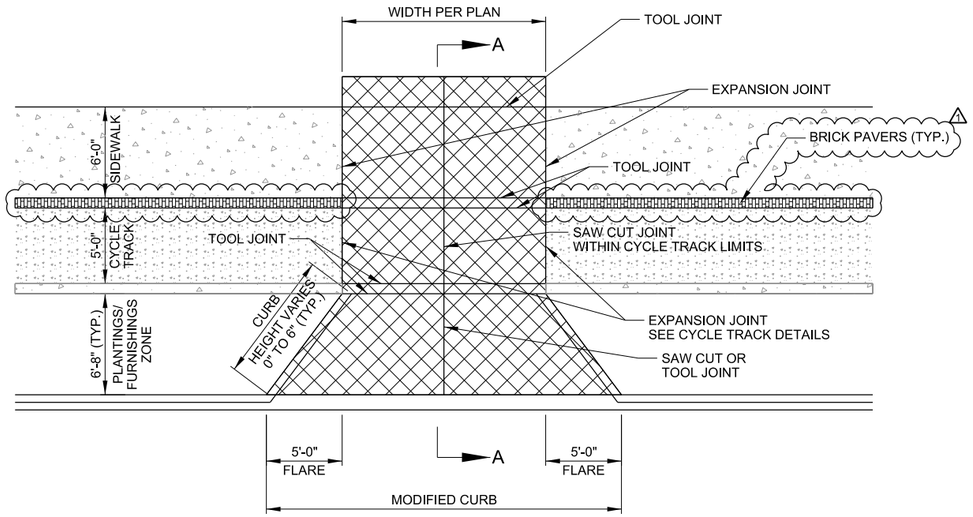
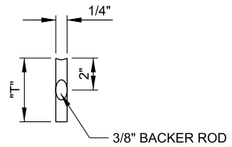


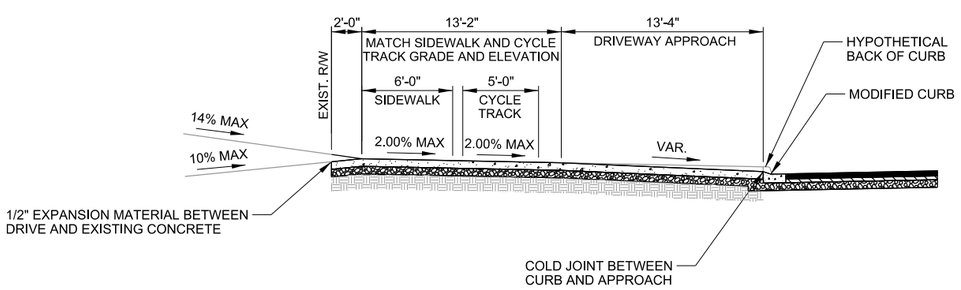
PLAN VIEW



PLAN VIEW



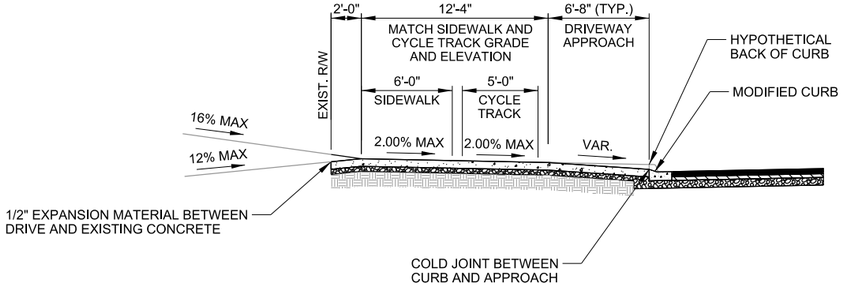
JOINT SEALER DETAIL



SECTION A-A

CONCRETE DRIVEWAY (TYPE I) DETAIL

N.T.S.



SECTION A-A

CONCRETE DRIVEWAY (TYPE II) DETAIL

N.T.S.

NOTES:
1. FULL DEPTH EXPANSION JOINTS (FOUR INCHES) SHALL BE PROVIDED AT THE EDGE OF THE SIDEWALK OPPOSITE THE STREET.
2. CONCRETE TO BE SAW-CUT OR PLACE A TOOL JOINT AT THE CENTER OF DRIVE AND SEALED. IF POSSIBLE CONTRACTOR SHALL TRY TO ALIGN THE JOINT AT THE CENTER OF THE DRIVE WITH THE A JOINT IN THE ADJACENT SIDEWALK.
3. ALL WORK SHALL COMPLY WITH SECTION 505 OF THE ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION, 2014 EDITION

CERTIFICATE OF AUTHORIZATION
GARVER LLC
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ARKANSAS ENGINEER

STATE OF ARKANSAS
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DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - ADD BRICK PAVER BUFFER	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

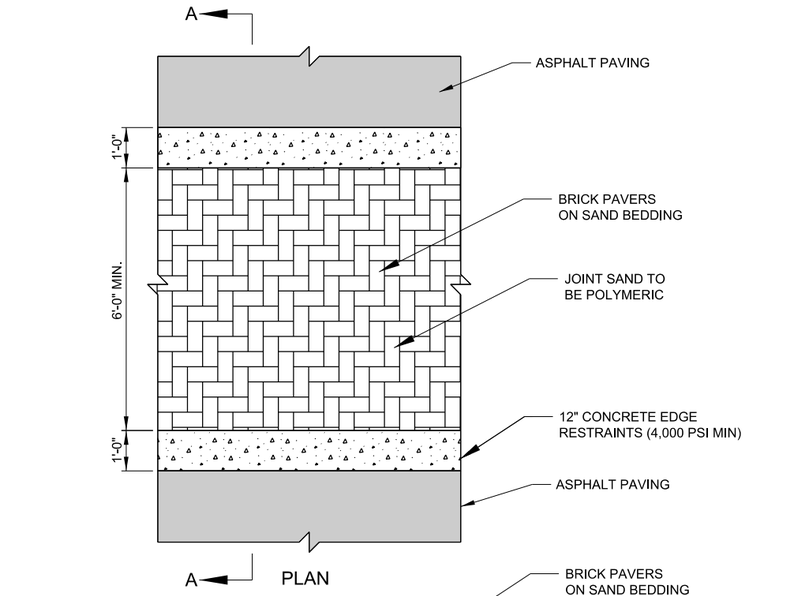
MISCELLANEOUS DETAILS
(SHEET 2 OF 7)

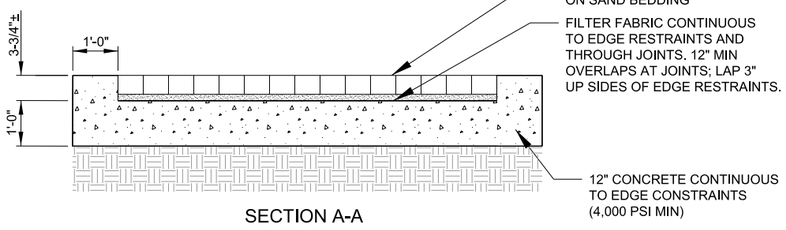
JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-208

SHEET NUMBER **17**





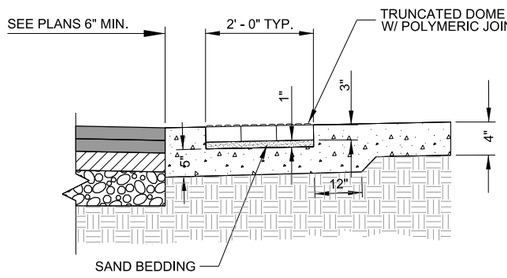
SECTION A-A

NOTES

1. PAVERS TO BE SURROUNDED WITH 1'-0" CONCRETE BAND FOR EDGE RESTRAINT.
2. JOINT SAND SHALL BE POLYMERIC.
3. PAVER SHALL BE PINE HALL ENGLISH EDGE HEAVY DUTY RED (4"x8"x2-3/4") OR APPROVED EQUAL.
4. SAND BEDDING FOR PAVERS TO BE MAX. 1" TO MIN. 1/2" THICK SAND.

BRICK PAVER CROSSWALKS

N.T.S.

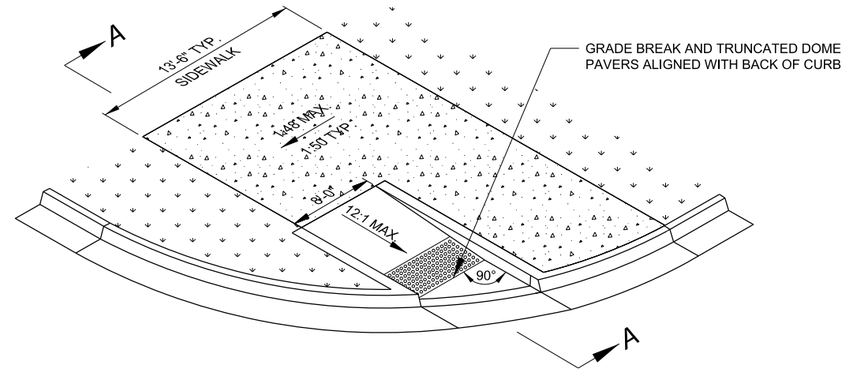


NOTES:

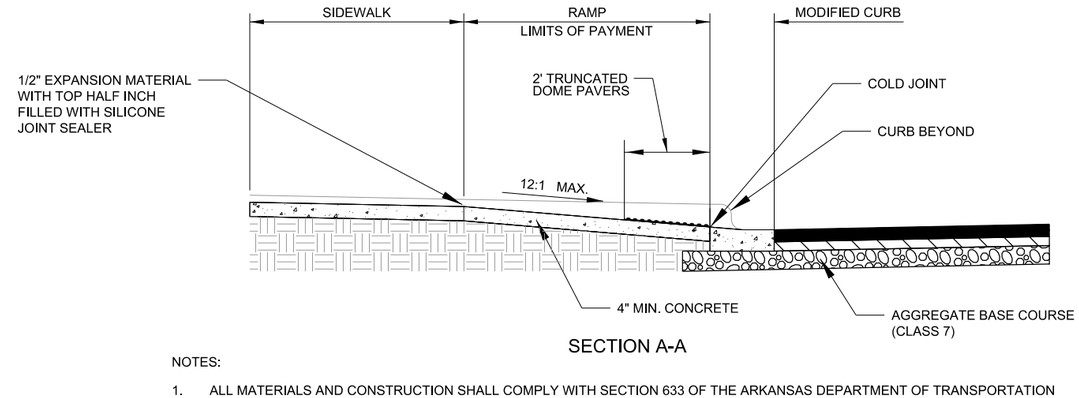
1. PAVERS TO BE SURROUNDED WITH 6" MIN. CONCRETE BAND FOR EDGE RESTRAINT.
2. JOINT SAND SHALL BE POLYMERIC.
3. TRUNCATED DOME PAVERS TO BE PINE HALL 4"x8" TRUNCATED ADA RED 360 OR APPROVED EQUAL.
4. SAND BEDDING FOR PAVERS TO BE MAX. 1" TO MIN. 1/2" THICK SAND.

TRUNCATED DOME PAVERS

N.T.S.



PLAN



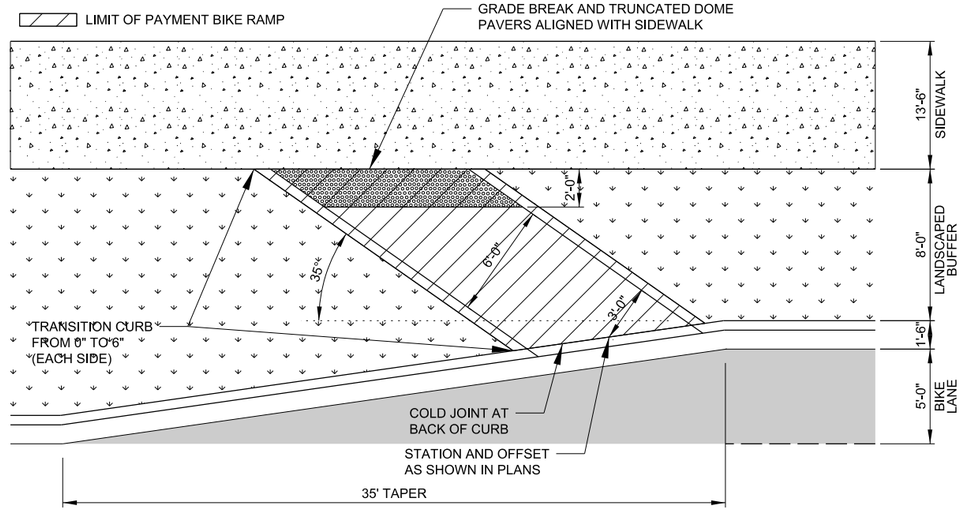
SECTION A-A

NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH SECTION 633 OF THE ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 DITION.
2. FULL DEPTH EXPANSION JOINTS (FOUR INCHES) SHALL BE PROVIDED AT THE EDGE OF THE SIDEWALK AND RAMP.
3. ALL SIDEWALKS AND DRIVEWAY APPROACHES SHALL BE CONSTRUCTED WITH A BROOM FINISH.

ACCESS RAMP DETAIL

N.T.S.



BIKE RAMP DETAIL

N.T.S.

REV.	DATE	DESCRIPTION	BY

METROPLAN
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METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

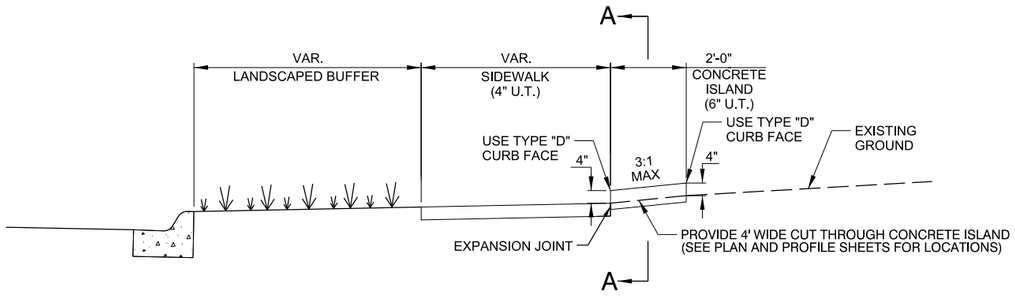
MISCELLANEOUS
DETAILS
(SHEET 3 OF 7)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

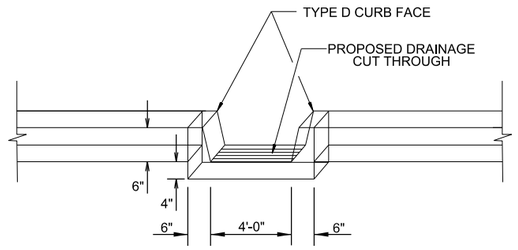
DRAWING NUMBER
C-209

SHEET NUMBER **18**



NOTES:

1. SEE PLAN AND PROFILE SHEETS FOR ISLAND LOCATIONS.
2. THE EXISTING PAVEMENT SHALL BE SAWCUT ALONG A NEAT LINE AT THE BACK SIDE OF THE CONCRTE ISLAND.
3. A 2' RADIUS SHALL BE CONSTRUCTED AT ISLAND TERMINATION POINTS WITH DRIVEWAYS AND STRUCTURES AS SHOWN IN THE PLANS.



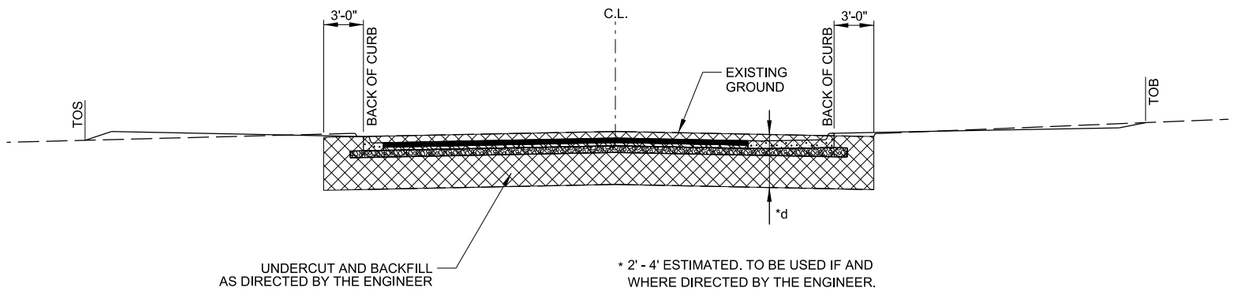
NOTE:

DRAINAGE CUT THROUGH ISLAND SHALL BE POURED MONOLITHICALLY. ALL MATERIALS REQUIRED TO CONSTRUCT DRAINAGE CUT THROUGH ISLAND SHALL BE INCLUDED IN THE PRICE BID FOR "CONCRETE ISLAND BEHIND WALK (6")"

SECTION A-A

CURBED ISLAND BEHIND WALK DETAIL

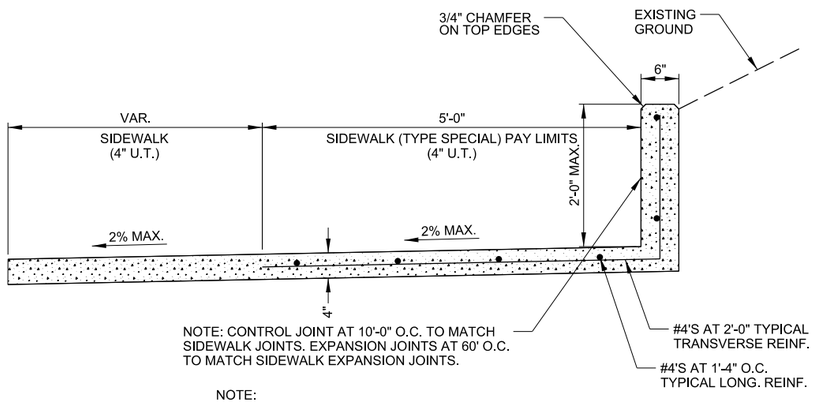
N.T.S.



* 2' - 4' ESTIMATED. TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER. 7,836 CU. YDS. HAS BEEN INCLUDED IN THE UNIT PRICE SCHEDULE.

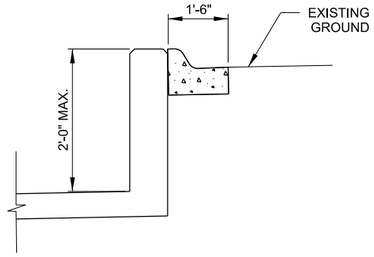
UNDERCUT DETAIL

N.T.S.



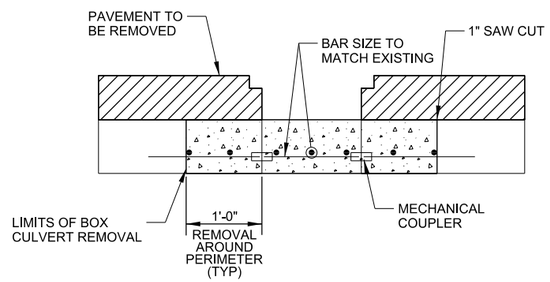
NOTE:

SEE PLAN AND PROFILE SHEETS FOR LOCATIONS



SIDEWALK (TYPE SPECIAL I) DETAIL

N.T.S.



NOTE:

EXISTING INLET PATCH WILL NOT BE PAID FOR DIRECTLY BUT WILL BE INCLUDED IN THE UNIT PRICE OF "SITE PREPARATION"

EXISTING INLET PATCH DETAIL

N.T.S.

GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT
Digitally Signed 02/25/2019

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MISCELLANEOUS DETAILS
(SHEET 4 OF 7)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-210

SHEET NUMBER **19**

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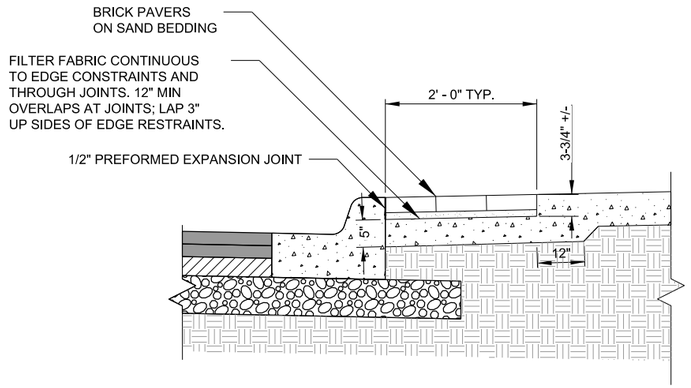
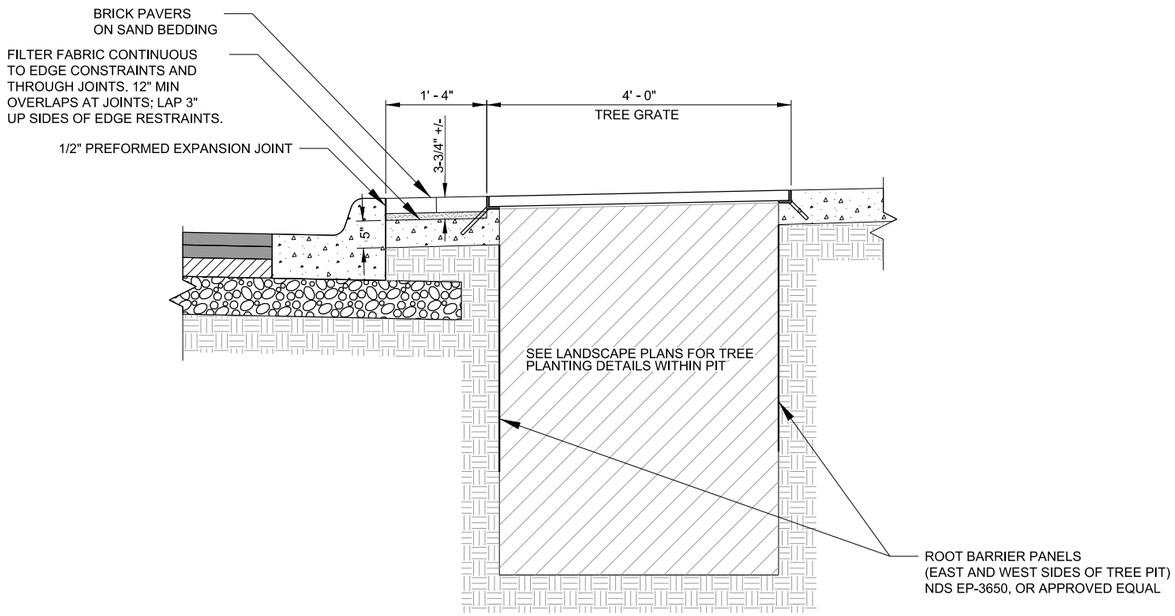


BRICK PAVER STEP-OUT ZONE DETAIL

N.T.S.

NOTES:

1. PAVERS TO BE SURROUNDED WITH 6" MIN. CONCRETE BAND FOR EDGE RESTRAINT NEAR PLANTING BEDS.
2. JOINT SAND SHALL BE POLYMERIC.
3. PAVER SHALL BE PINE HALL ENGLISH EDGE RED (4"x8"x2-1/4") OR APPROVED EQUAL.
4. SAND BEDDING FOR PAVERS TO BE MAX. 1" TO MIN. 1/2" THICK SAND.

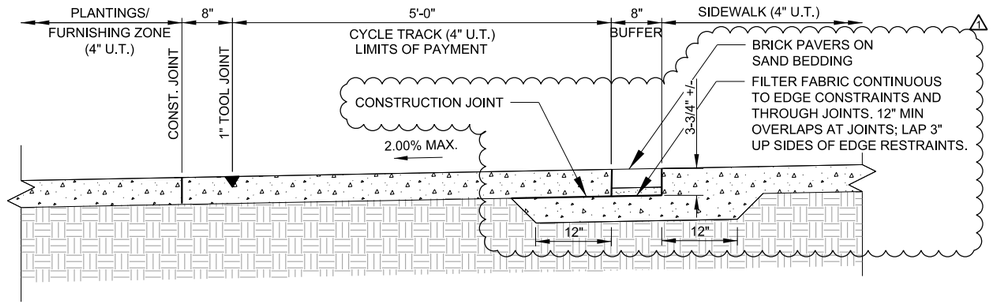


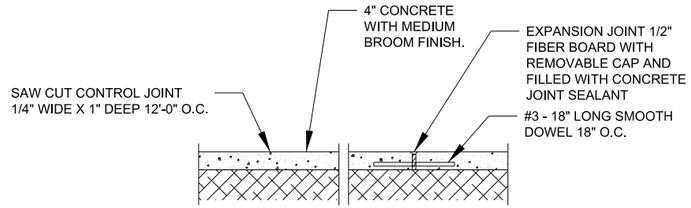
TREE GRATE DETAIL

N.T.S.

NOTES

1. TREE GRATES SHALL BE NEENAH BOULEVARD COLLECTION, R-8708, OR APPROVED EQUAL.
2. ROOT BARRIER PANELS SHALL BE NDS EP-3650 OR APPROVED EQUAL. PANELS SHALL BE PLACED ON TWO SIDES OF TREE PIT ADJACENT TO BACK OF CURB AND CYCLE TRACK.
3. TREE PIT EXCAVATION WITHIN TREE GRATES WILL NOT BE PAID FOR DIRECTLY BUT WILL BE INCLUDED IN THE UNIT PRICE OF "TREE GRATES".
4. SEE LANDSCAPE PLANS FOR TREE PLANTING DETAILS.





SECTION THROUGH JOINTS

N.T.S.

CONCRETE CYCLE TRACK CONSTRUCTION NOTES:

1. ALL WORK SHALL COMPLY WITH SECTIONS 303 & 633 OF THE ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
2. FULL DEPTH EXPANSION JOINTS WITH DOWELS ARE REQUIRED AT THE END OF EACH DAYS POUR, ADJACENT TO ALL EXISTING CONCRETE, LOCATIONS ABUTING PROPOSED DRIVEWAYS, AND TRANSITIONS FROM CYCLE TRACK TO CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (6'-6") AS SHOWN ON THE CYCLE TRACK TRANSITION DETAIL.
3. ONE-QUARTER DEPTH (ONE INCH) SAW-CUT JOINTS SHALL BE PLACED IN CONCRETE AT REGULAR INTERVALS MATCHING THE WIDTH, BUT NOT TO EXCEED 12 FEET APART. JOINTS SHALL BE PLACED 24 HOURS AFTER CONCRETE HAS BEEN FINISHED UNLESS APPROVED BY THE ENGINEER.
4. ALL EXPANSION JOINTS AND SAW JOINTS SHALL BE SEALED WITH JOINT SEALANT MEETING THE REQUIREMENTS SET FORTH IN THE ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.

CERTIFICATE OF AUTHORIZATION
GARVER LLC
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ARKANSAS ENGINEER

STATE OF ARKANSAS
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No.14994
DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - ADD BRICK PAVER BUFFER	DLT

METROPLAN
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METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MISCELLANEOUS DETAILS
(SHEET 5 OF 7)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

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DRAWING NUMBER
C-211

SHEET NUMBER 20

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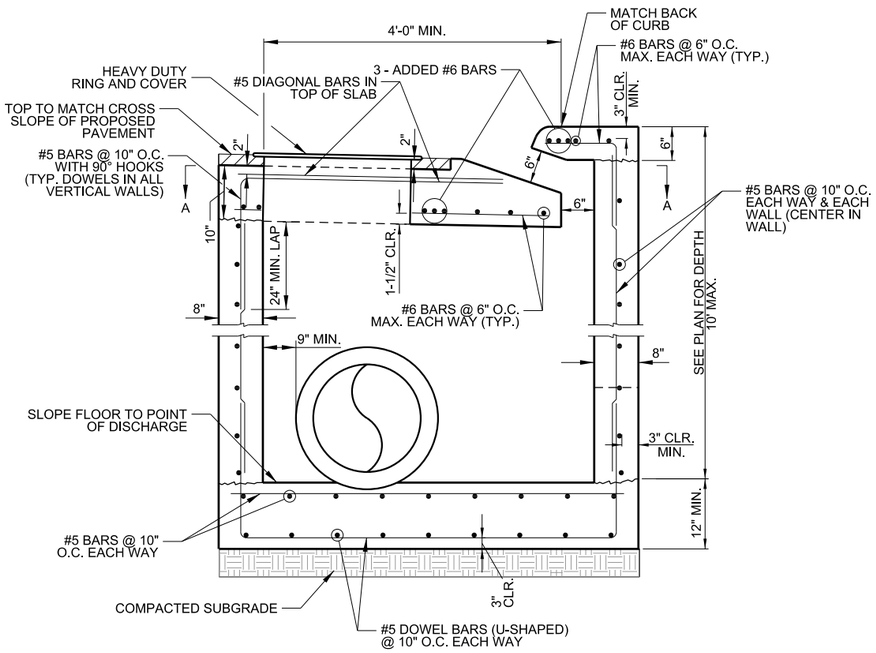
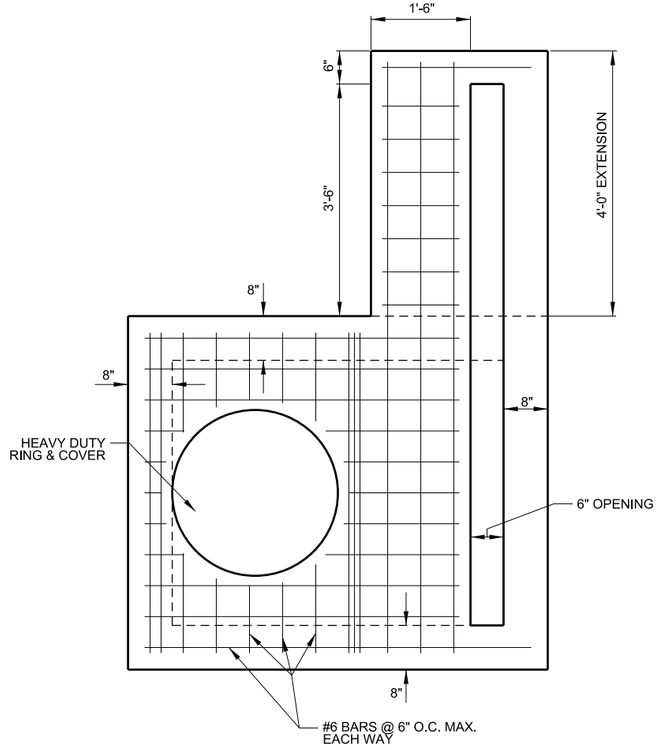


NOTE:

1. HEAVY DUT RING AND COVER TO BE EAST JORDAN V-1600-2 & 1348A OR APPROVED EQUAL.
2. ALL EXPOSED CORNERS SHALL HAVE 3/4" CHAMFER.
3. ALL REINFORCING BARS SHALL BE GRADE 60.
4. ALL WORK SHALL COMPLY WITH SECTION 609 OF THE ARDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION.

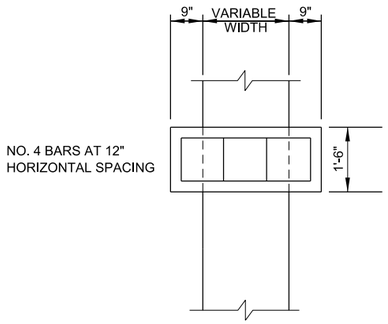
REVERSE THROAT CURB INLET

N.T.S.

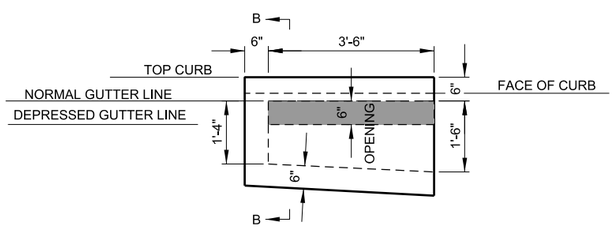


SECTION A-A

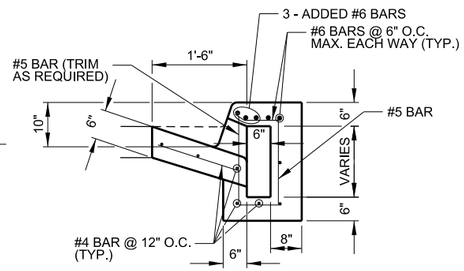
(SHOWING BOTTOM MAT OF TOP SLAB)



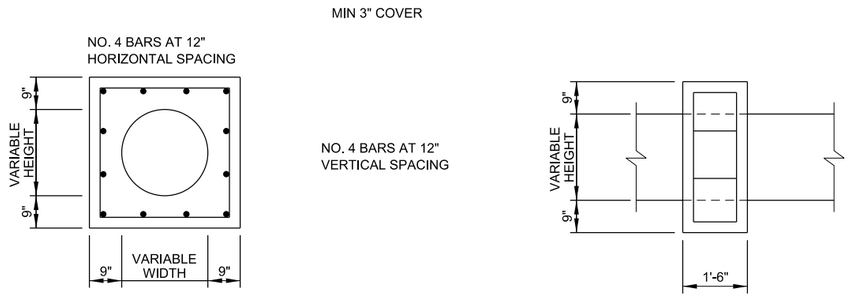
TOP VIEW



4'-0" EXTENSION



SECTION B-B



FRONT VIEW

SIDE VIEW

REVERSE THROAT EXTENSION DETAIL

N.T.S.

PIPE EXTENSION REINFORCED CONCRETE COLLAR DETAIL

N.T.S.

REV.	DATE	DESCRIPTION	BY

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

MISCELLANEOUS DETAILS (SHEET 6 OF 7)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

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0 1"
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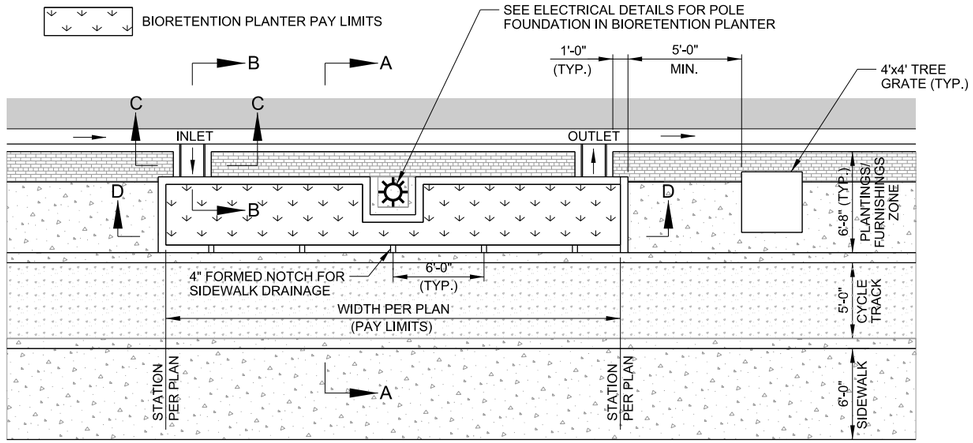
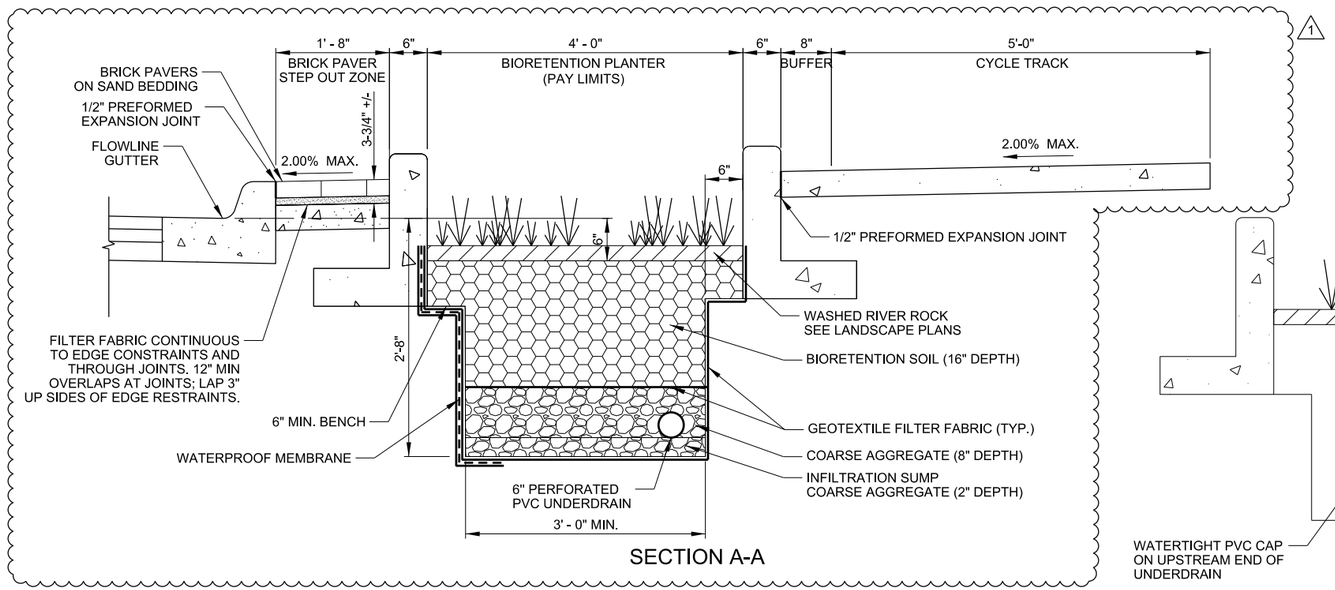
DRAWING NUMBER **C-212**

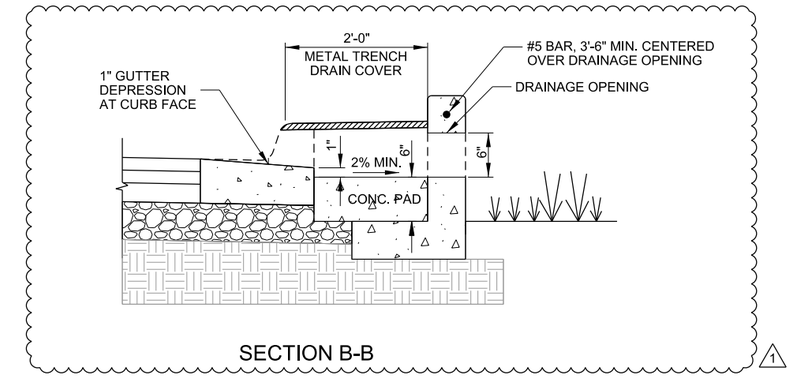
SHEET NUMBER **21**



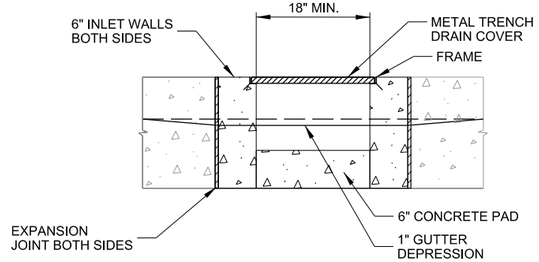
PLAN VIEW



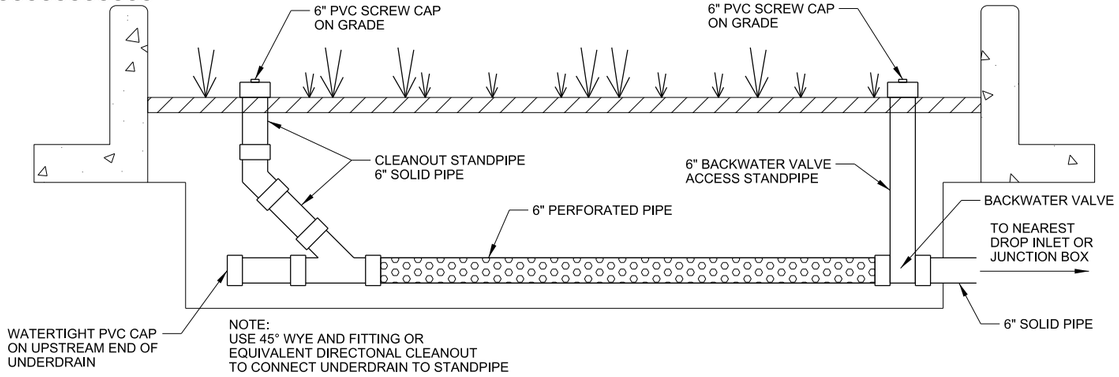
SECTION A-A



SECTION B-B



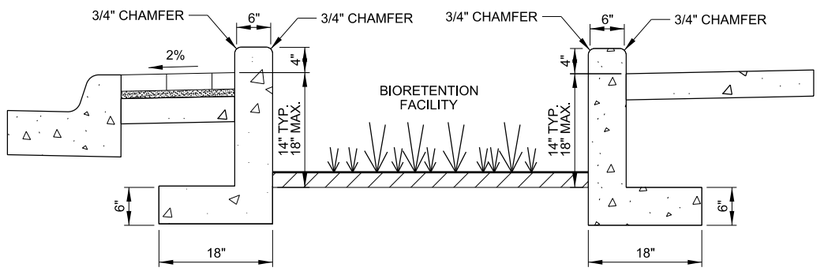
SECTION C-C



SECTION D-D

BIORETENTION PLANTER DETAIL

N.T.S.



L - WALL DETAIL

N.T.S.

NOTES:

1. A MINIMUM OF ONE CLEANOUT, LOCATED AT THE UPSTREAM END OF THE UNDERDRAIN SYSTEM, SHALL BE INSTALLED FOR EACH CONNECTION TO THE PROPOSED STORM SEWER SYSTEM. CLEANOUT SPACING ALONG THE UNDERDRAIN SYSTEM SHALL NOT EXCEED 100 FEET.
2. ONE BACKWATER VALVE SHALL BE LOCATED AT THE DOWNSTREAM END OF THE UNDERDRAIN SYSTEM PRIOR TO CONNECTION TO THE PROPOSED STORM SEWER SYSTEM.
3. ALL CLEANOUT AND BACKWATER VALVE ACCESS STANDPIPES SHALL BE LOCATED WITHIN THE BIORETENTION PLANTERS AND SHALL BE CAPPED AT AN ELEVATION CORRESPONDING TO THE TOP OF THE WASHED RIVER ROCK LAYER.
4. A MAXIMUM OF THREE BIORETENTION PLANTERS MAY BE CONNECTED IN A SERIES BY ONE PVC UNDERDRAIN SYSTEM PRIOR TO CONNNECTION TO THE PROPOSED STORM SEWER SYSTEM.
5. SOLID PIPE SHALL BE USED FOR STANDPIPES AND PORTIONS OF THE UNDERDRAIN SYSTEM LOCATED OUTSIDE OF THE BIORETENTION PLANTER LIMITS. PERFORATED PIPE SHALL ONLY BE USED WITHIN THE LIMITS OF THE BIORETENTION PLANTERS.
6. ALL PLANTINGS AND MULCH WITHIN THE BIORETENTION PLANTERS WILL BE PAID FOR AS TREES, PLANTS, AND GROUNDCOVER.
7. INLET AND OUTLET LOCATIONS MAY BE MODIFIED AS DIRECTED BY THE ENGINEER WHEN IN CONFLICT WITH PROPOSED DROP INLETS OR OTHER OBSTRUCTIONS.
8. ALL FITTINGS SHALL BE LONG SWEEP 90° OR 45° FOR CONNECTION TO THE PROPOSED STORM SEWER SYSTEM TO FACILITATE FUTURE CLEANOUT OPERATIONS.
9. FINISH ALL EXPOSED CONCRETE SURFACES.
10. TRENCH GRATES AND FRAMES SHALL BE NEENAH R-4999-FX BOLTED TRENCH GRATE, TYPE D SOLID LID, OR APPROVED EQUAL. FRAME END PIECES SHALL BE PLACED AT THE CURB FACE. 1
11. FILTER FABRIC SHALL BE NON-WOVEN GEOTEXTILE COMPLYING WITH SECTION 625, TYPE 1. THE GEOTEXTILE FABRIC SHALL HAVE A MINIMUM FLOW RATE OF 110 GAL./MIN./SQ.FT.
12. WATERPROOF MEMBRANE SHALL BE A 30 MIL. PVC FABRICATED LINER.

CERTIFICATE OF AUTHORIZATION GARVER LLC No. 766 ARKANSAS ENGINEER

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.14994 DUSTIN L. TACKETT

Digitally Signed 07/08/2019

REV.	DATE	DESCRIPTION	BY
1	07-08-2019	ADDENDUM #1	

METROPLAN SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

MISCELLANEOUS DETAILS (SHEET 7 OF 7)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-213

SHEET NUMBER **22**

SOIL BORING LOG

BORING NO.	APPROX. STATION (ft)	OFFSET (ft)	SAMPLE DEPTH (ft)	WATER CONTENT (%)	ATTERBERG LIMITS			Percent Retained on No. 4, %	Percent Passing No. 200, %	UNIFIED CLASS.	AASHTO CLASS.
					LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX				
1	28+93	20' RT.	1-2	28	32	19	13	---	80	CL	A-6
1	31+52	5' LT.	4.5-5.5	13	39	24	15	---	---	SHALE	
2	31+93	10' LT.	1-2	23	33	19	14	6	65	CL	A-6
3	38+38	10' RT.	0.5-1.5	26	27	21	6	---	87	CL-ML	A-4
3	38+75	39' RT.	4.5-5.5	21	42	24	18	7	77	CL	A-7-6
4	40+08	1' LT.	1-2	24	36	19	17	15	65	CL	A-6
4	47+15	24' LT.	4.5-5.5		39	19	20	---	---	CL	A-6
5	48+70	21' RT.	2.5-3.5	31	56	24	32	---	95	CH	A-7-6
6	48+98	54' RT.	1-2	28	45	20	25	---	88	CL	A-7-6

SOIL CHARACTERISTICS TABULATED ABOVE ARE REPRESENTATIVE AT THE LOCATION OF THE SAMPLE, AND FROM SURFACE INDICATIONS ARE TYPICAL FOR THE LIMITS SHOWN. THESE DATA ARE SHOWN FOR INFORMATION ONLY. THE OWNER WILL NOT BE RESPONSIBLE FOR VARIATIONS IN THE SOIL CHARACTERISTICS AND/OR EXTENT OF SAME DIFFERING FROM THE ABOVE TABULATIONS.

CERTIFICATE OF AUTHORIZATION
GARVER LLC
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 14994
DUSTIN L. TACKETT
Digitally Signed 02/25/2019

BY | DESCRIPTION | DATE | REV.

METROPLAN
SMART PLANNING MAKES SMART PLACES

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

SOIL BORING LOG

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

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0 1"
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DRAWING NUMBER
C-214

SHEET NUMBER **23**

EROSION CONTROL NOTES

1. THE SYMBOLS SHOWN IN THE SHEET REPRESENT EROSION CONTROL DEVICES AS DETAILED IN THE AHTD STANDARD ROADWAY DRAWINGS. THE SYMBOLS ARE NOT TO SCALE AND REPRESENT THE GENERAL LOCATION TO WHICH THE DEVICES SHALL BE PLACED. NO WORK OR EROSION CONTROL DEVICES SHALL BE PLACED OUTSIDE THE EXISTING RIGHT OF WAY.
2. ALL DISTURBED AREAS CONTAINING EXPOSED SOIL SHALL RECEIVE TEMPORARY EROSION AND SEDIMENT CONTROL APPLICATIONS. CONTRACTOR MAY CHOOSE TO UTILIZE ALTERNATIVE EROSION CONTROL PRODUCTS SUCH AS WATTLES AS APPROVED BY THE ENGINEER.
3. SILT FENCE SHALL BE PLACED PRIOR TO THE CLEARING AND GRUBBING OPERATIONS.
4. SEE AHTD STANDARD DRAWING TEC-1 FOR TEMPORARY EROSION CONTROL DEVICES.
5. POST-GRADING SLOPES WILL NOT BE SIGNIFICANTLY STEEPER THAN EXISTING GRADES.
6. LOCATION OF OFFSITE STORAGE OF MATERIALS IS TO BE DETERMINED BY THE CONTRACTOR. THE SWPPP WILL BE UPDATED ACCORDINGLY.
7. PAVED CONSTRUCTION ENTRANCES/EXITS EXIST ALONG THE PROPOSED ROUTE.
8. CURB OPENINGS FOR BIORETENTION PLANTERS SHALL BE BLOCKED DURING CONSTRUCTION TO PREVENT STORMWATER INFLOW PRIOR TO FINAL PAVING OPERATIONS

SEQUENCE OF CONSTRUCTION OF E & SC FEATURES

1. INSTALL SILT FENCE / WATTLES.
2. CLEAR / GRUB ACTIVITIES.

EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

LEGEND

285	EXISTING CONTOUR
	DRAINAGE FLOW DIRECTION
SILT	SILT FENCE
	DISTURBED AREA BOUNDARY
TOB	TOP OF BANK
TOS	TOE OF SLOPE
E-7	DROP INLET SILT FENCE

DISTURBED AREA = 2.84 ACRES

REVISION BOX

DATE OF REVISION	REVISION

GARVER LLC No. 766 — CERTIFICATE OF AUTHORIZATION — ARKANSAS ENGINEER

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No.14994 — DUSTIN L. TACKETT

Digitally Signed 02/25/2019

REV.	DATE	DESCRIPTION	BY

METROPLAN — SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

TEMPORARY EROSION CONTROL PLAN -
(SHEET 1 OF 3)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-301

SHEET NUMBER **24**

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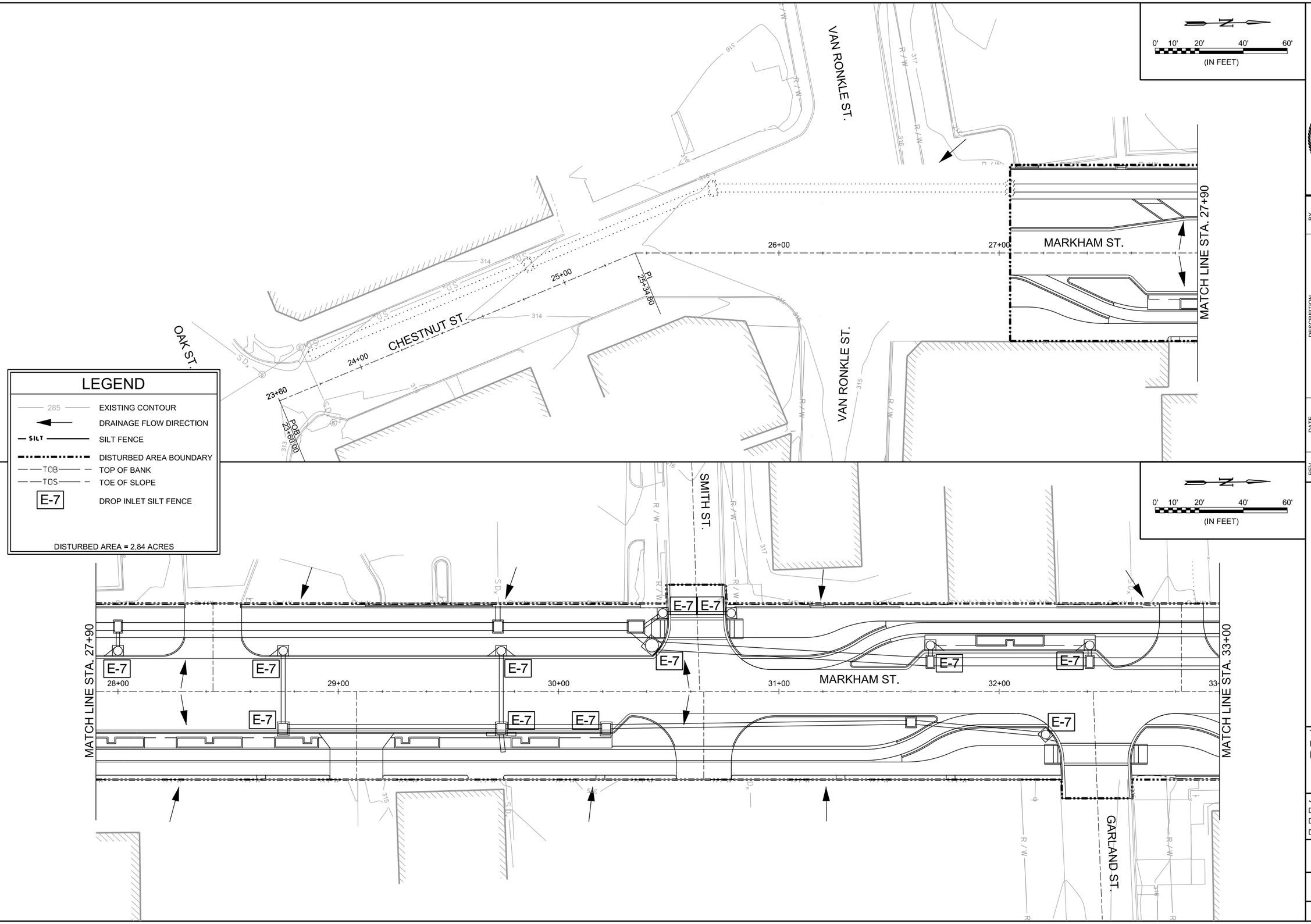

LEGEND

285	EXISTING CONTOUR
	DRAINAGE FLOW DIRECTION
SILT	SILT FENCE
	DISTURBED AREA BOUNDARY
TOB	TOP OF BANK
TOS	TOE OF SLOPE
E-7	DROP INLET SILT FENCE

DISTURBED AREA = 2.84 ACRES

GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 02/25/2019

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

TEMPORARY EROSION CONTROL PLAN - (SHEET 2 OF 3)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-302

SHEET NUMBER **25**

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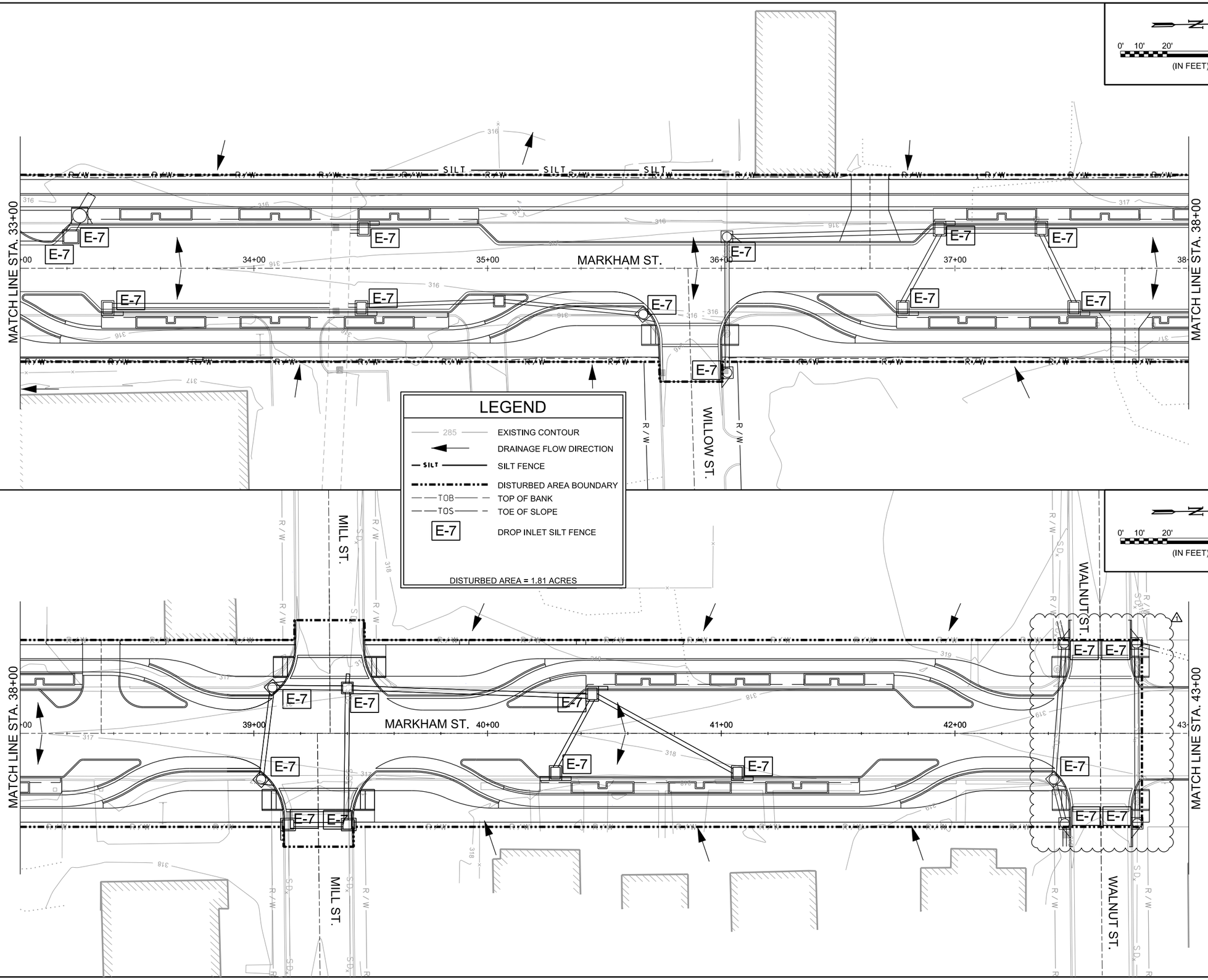

GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DESCRIPTION	DATE	BY
1	CHANGE ORDER NO. 1 - ADD EROSION CONTROL DEVICES AT WALNUT	10/14/2019	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

TEMPORARY EROSION CONTROL PLAN

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

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0 1"
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DRAWING NUMBER
C-303

SHEET NUMBER **26**

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WORKSPACE:Garver_2012
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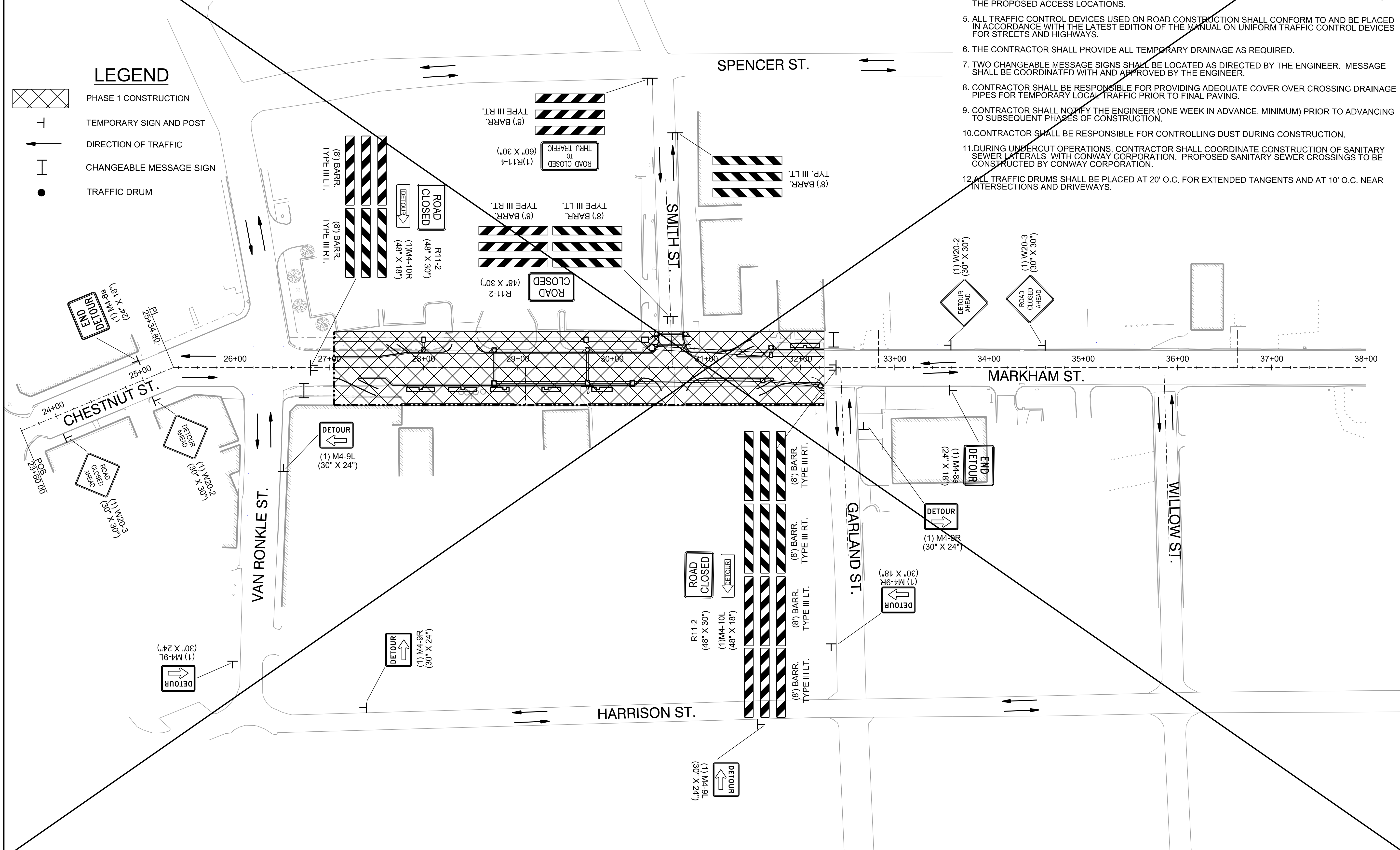
PHASE 1 CONSTRUCTION SEQUENCE

1. PLACE LANE CLOSURE AND DETOUR DEVICES FOR EXISTING TRAFFIC ON MARKHAM ST. BETWEEN VAN RONKLE ST. AND GARLAND ST.
2. CONSTRUCT MARKHAM ST. IMPROVEMENTS INCLUDING UNDERCUT EXCAVATION AND BACKFILL, DRAINAGE, AGGREGATE BASE COURSE, AND CURB AND GUTTER (WHEN ADJACENT TO THE 10' TRAVEL LANES), FROM VAN RONKLE ST. TO GARLAND ST. WHILE MAINTAINING ACCESS FOR LOCAL BUSINESSES FROM SIDE STREETS.

GENERAL NOTES:

1. THE MAINTENANCE OF TRAFFIC AS SHOWN IN THE PLANS IS PROVIDED TO THE CONTRACTOR AS MINIMUM CONTROLS AND AS GUIDANCE. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER AND OWNER FOR APPROVAL A DETAILED MAINTENANCE OF TRAFFIC PLAN IN ACCORDANCE WITH THE SPECIFICATIONS PRIOR TO START OF CONSTRUCTION.
2. ALL EXISTING SIGNS NEEDED TO MAINTAIN TRAFFIC SHALL REMAIN IN PLACE AND IN CLEAR SIGHT UNLESS OTHERWISE NOTED.
3. TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS SHOWN.
4. CONTRACTOR SHALL, AT A MINIMUM, MAINTAIN ACCESS TO ALL LOCAL BUSINESSES AND RESIDENTS AT THE PROPOSED ACCESS LOCATIONS.
5. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO AND BE PLACED IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
6. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY DRAINAGE AS REQUIRED.
7. TWO CHANGEABLE MESSAGE SIGNS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER. MESSAGE SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE COVER OVER CROSSING DRAINAGE PIPES FOR TEMPORARY LOCAL TRAFFIC PRIOR TO FINAL PAVING.
9. CONTRACTOR SHALL NOTIFY THE ENGINEER (ONE WEEK IN ADVANCE, MINIMUM) PRIOR TO ADVANCING TO SUBSEQUENT PHASES OF CONSTRUCTION.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST DURING CONSTRUCTION.
11. DURING UNDERCUT OPERATIONS, CONTRACTOR SHALL COORDINATE CONSTRUCTION OF SANITARY SEWER LATERALS WITH CONWAY CORPORATION. PROPOSED SANITARY SEWER CROSSINGS TO BE CONSTRUCTED BY CONWAY CORPORATION.
12. ALL TRAFFIC DRUMS SHALL BE PLACED AT 20' O.C. FOR EXTENDED TANGENTS AND AT 10' O.C. NEAR INTERSECTIONS AND DRIVEWAYS.



REV.	DATE	DESCRIPTION	BY

CERTIFICATE OF AUTHORIZATION GARVER LLC No. 766 ARKANSAS-ENGINEER

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.14994 DUSTIN L. TACKETT

Dustin Tackett

Digitally Signed 02/25/2019

METROPLAN SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN - PHASE 1

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

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DRAWING NUMBER
C-401

SHEET NUMBER **27**

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WORKSPACE:Garver_2012
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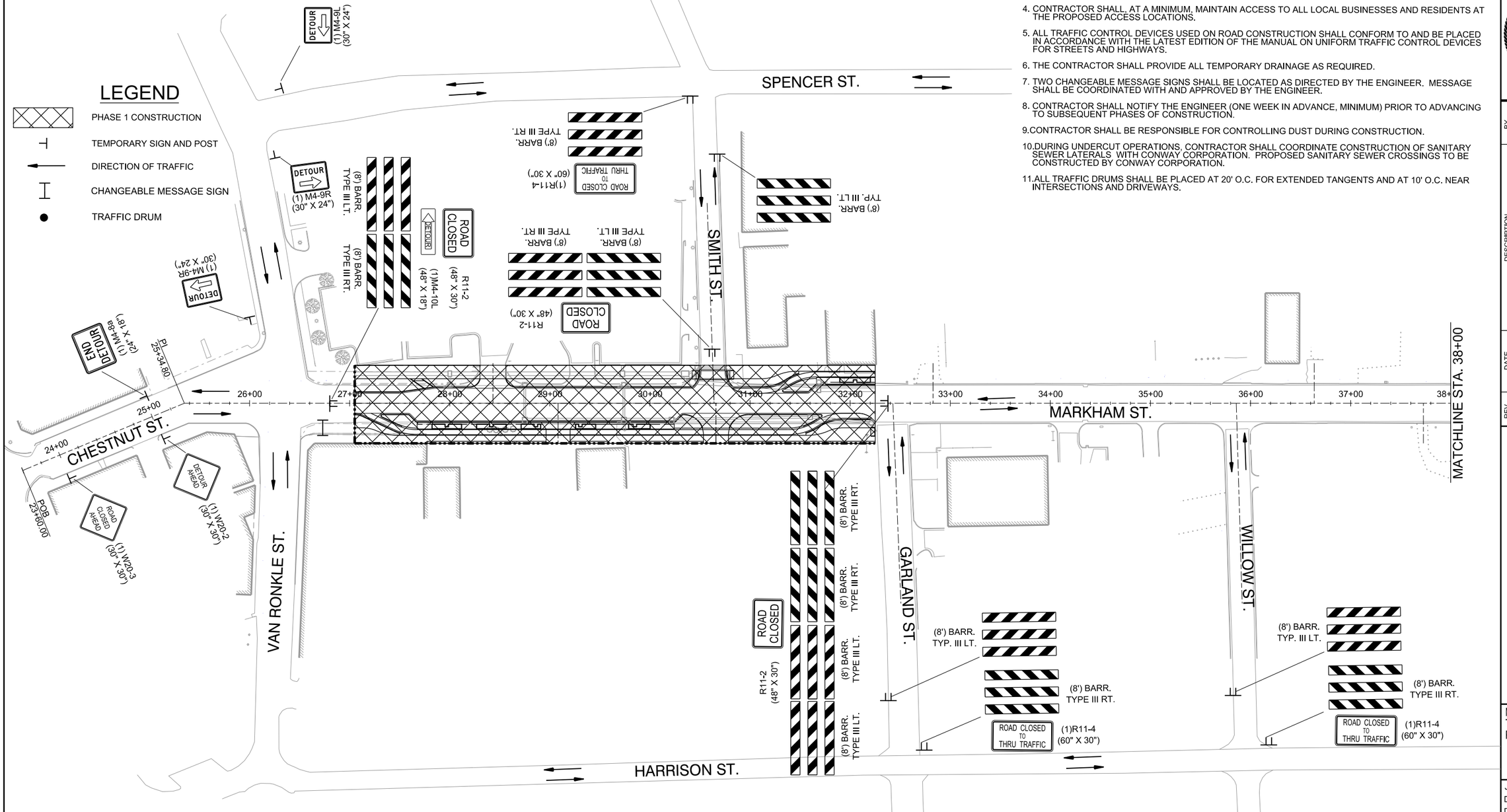
PHASE 1 CONSTRUCTION SEQUENCE

1. PLACE LANE CLOSURE AND DETOUR DEVICES FOR EXISTING TRAFFIC ON MARKHAM ST. BETWEEN VAN RONKLE ST. AND GARLAND ST.
2. CONSTRUCT MARKHAM ST. IMPROVEMENTS INCLUDING UNDERCUT EXCAVATION AND BACKFILL, DRAINAGE, AGGREGATE BASE COURSE, CURB AND GUTTER, ACHM BINDER COURSE, FIRST LIFT OF ACHM SURFACE COURSE, CYCLE TRACK, AND SIDEWALK FROM VAN RONKLE ST. TO GARLAND ST. WHILE MAINTAINING ACCESS FOR LOCAL BUSINESSES FROM SIDE STREETS.

LEGEND

- PHASE 1 CONSTRUCTION
- TEMPORARY SIGN AND POST
- DIRECTION OF TRAFFIC
- CHANGEABLE MESSAGE SIGN
- TRAFFIC DRUM



GENERAL NOTES:

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2. ALL EXISTING SIGNS NEEDED TO MAINTAIN TRAFFIC SHALL REMAIN IN PLACE AND IN CLEAR SIGHT UNLESS OTHERWISE NOTED.
3. TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS SHOWN.
4. CONTRACTOR SHALL, AT A MINIMUM, MAINTAIN ACCESS TO ALL LOCAL BUSINESSES AND RESIDENTS AT THE PROPOSED ACCESS LOCATIONS.
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11. ALL TRAFFIC DRUMS SHALL BE PLACED AT 20' O.C. FOR EXTENDED TANGENTS AND AT 10' O.C. NEAR INTERSECTIONS AND DRIVEWAYS.

CERTIFICATE OF AUTHORIZATION
GARVER LLC
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
	10/14/2019	CHANGE ORDER NO. 1 - REPLACE SHEET	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN - PHASE 1

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-401

SHEET NUMBER **27**

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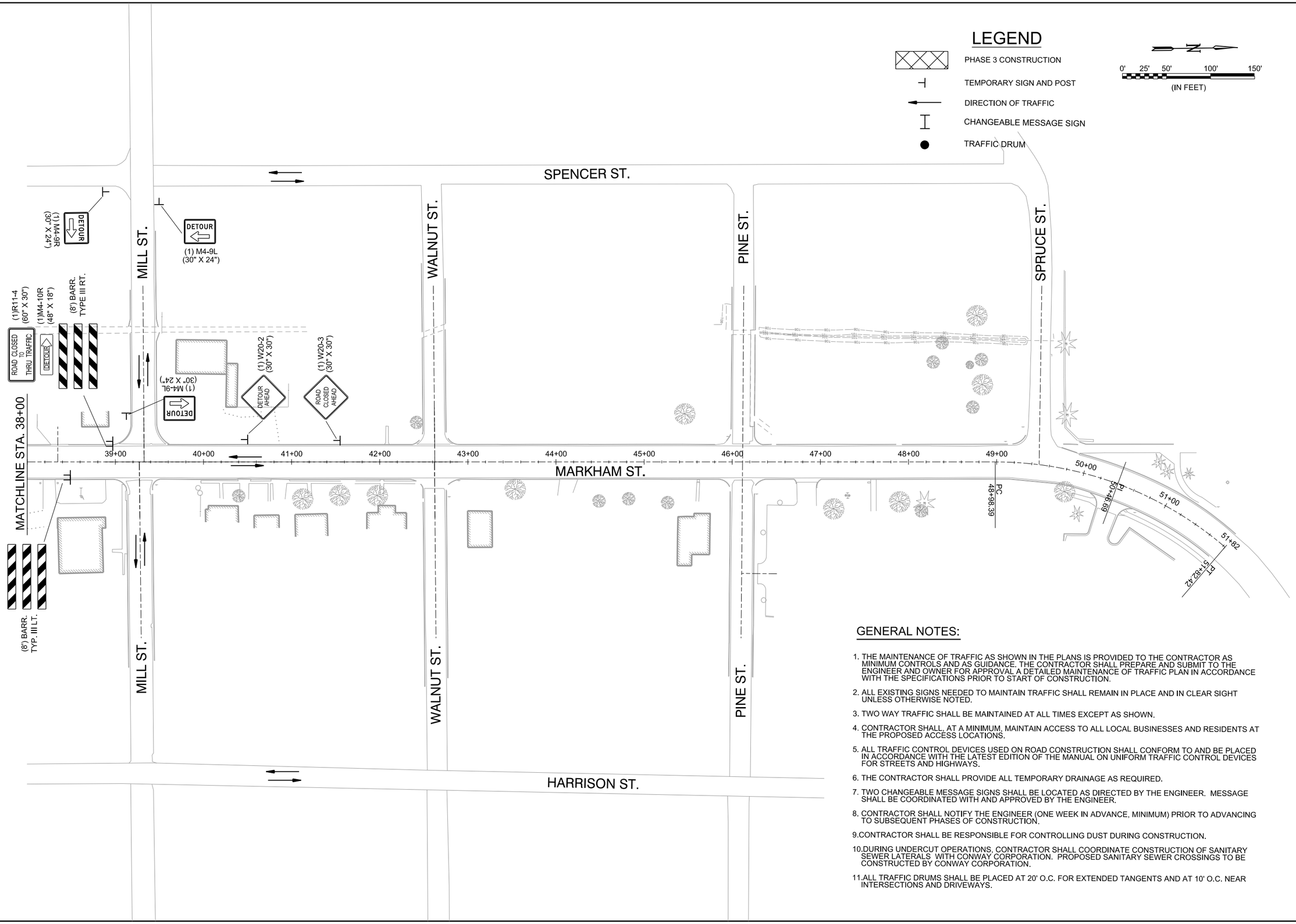

GENERAL NOTES:

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3. TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS SHOWN.
4. CONTRACTOR SHALL, AT A MINIMUM, MAINTAIN ACCESS TO ALL LOCAL BUSINESSES AND RESIDENTS AT THE PROPOSED ACCESS LOCATIONS.
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8. CONTRACTOR SHALL NOTIFY THE ENGINEER (ONE WEEK IN ADVANCE, MINIMUM) PRIOR TO ADVANCING TO SUBSEQUENT PHASES OF CONSTRUCTION.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST DURING CONSTRUCTION.
10. DURING UNDERCUT OPERATIONS, CONTRACTOR SHALL COORDINATE CONSTRUCTION OF SANITARY SEWER LATERALS WITH CONWAY CORPORATION. PROPOSED SANITARY SEWER CROSSINGS TO BE CONSTRUCTED BY CONWAY CORPORATION.
11. ALL TRAFFIC DRUMS SHALL BE PLACED AT 20' O.C. FOR EXTENDED TANGENTS AND AT 10' O.C. NEAR INTERSECTIONS AND DRIVEWAYS.

GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DESCRIPTION	DATE	BY
	CHANGE ORDER NO. 1 - ADD SHEET	10/14/2019	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN - PHASE 1

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

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DRAWING NUMBER
C-401A

SHEET NUMBER **27A**

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WORKSPACE:Garver_2012
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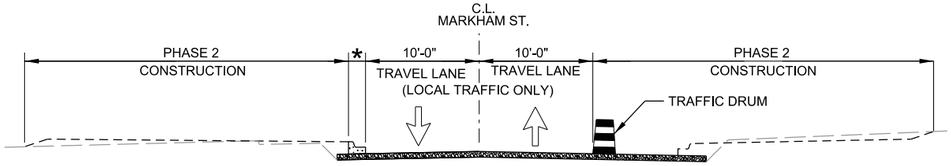
PHASE 2 CONSTRUCTION SEQUENCE

1. PLACE AND/OR RELOCATE LANE CLOSURE AND DETOUR DEVICES FOR EXISTING TRAFFIC ON MARKHAM ST. BETWEEN VAN RONKLE ST. AND WILLOW ST.
2. OPEN STAGE 1 TRAVEL LANES TO LOCAL TRAFFIC.
3. CONSTRUCT MARKHAM ST. IMPROVEMENTS INCLUDING UNDERCUT EXCAVATION AND BACKFILL, DRAINAGE, AGGREGATE BASE COURSE, AND CURB AND GUTTER (WHEN ADJACENT TO THE 10' TRAVEL LANES) FROM GARLAND ST. TO WILLOW ST. WHILE MAINTAINING ACCESS FOR LOCAL BUSINESSES FROM SIDE STREETS.



* CONCRETE CURB AND GUTTER TYPE A (1'-6") AND (6'-6") SHALL BE CONSTRUCTED, WHEN ADJACENT TO THE 10'-0" TRAVEL LANE, PRIOR TO OPENING TRAVEL LANES TO LOCAL TRAFFIC.

PHASE 2 TYPICAL SECTION

GENERAL NOTES:

1. THE MAINTENANCE OF TRAFFIC AS SHOWN IN THE PLANS IS PROVIDED TO THE CONTRACTOR AS MINIMUM CONTROLS AND AS GUIDANCE. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER AND OWNER FOR APPROVAL A DETAILED MAINTENANCE OF TRAFFIC PLAN IN ACCORDANCE WITH THE SPECIFICATIONS PRIOR TO START OF CONSTRUCTION.
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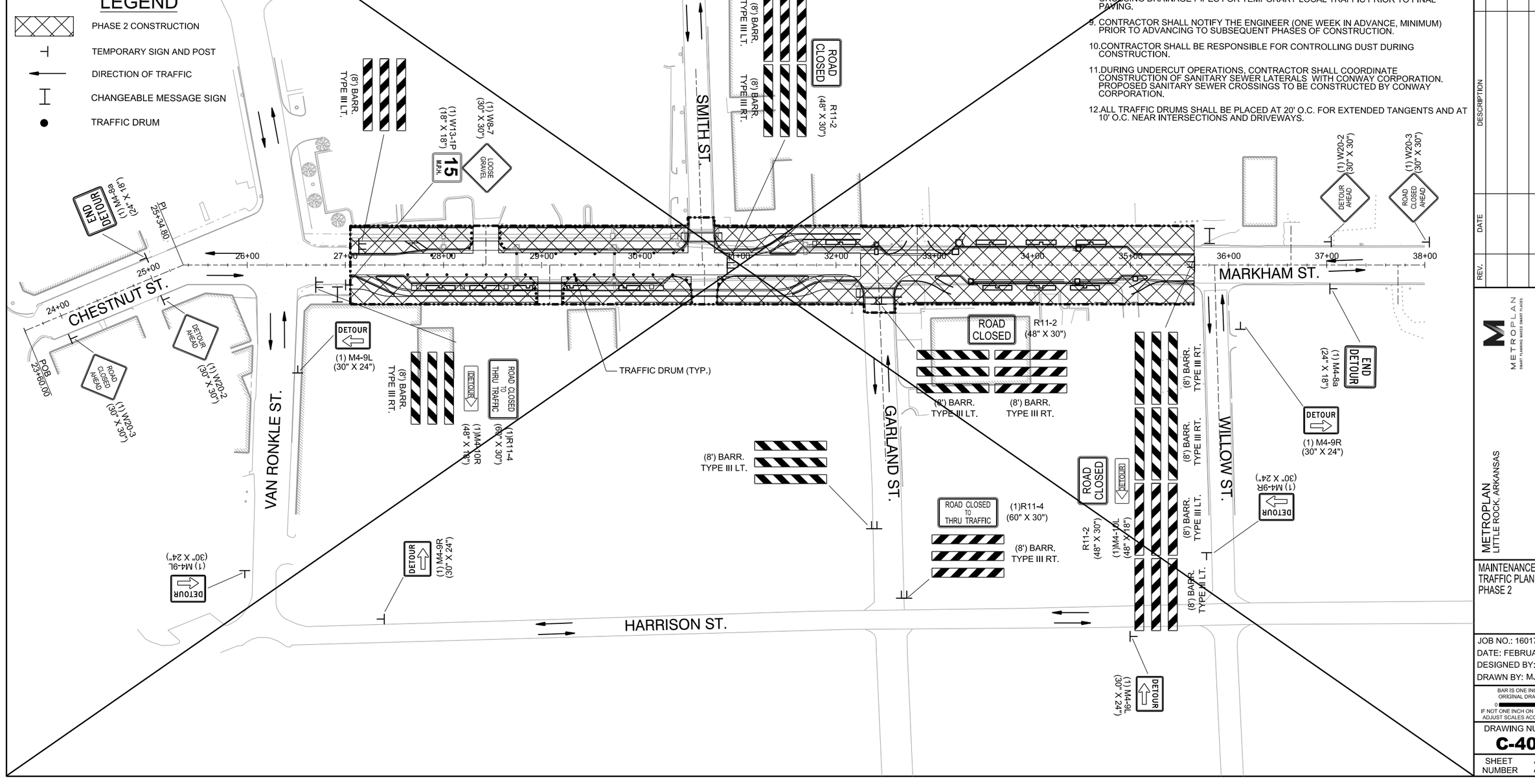
3. TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS SHOWN.
4. CONTRACTOR SHALL, AT A MINIMUM, MAINTAIN ACCESS TO ALL LOCAL BUSINESSES AND RESIDENTS AT THE PROPOSED ACCESS LOCATIONS.
5. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO AND BE PLACED IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
6. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY DRAINAGE AS REQUIRED.
7. TWO CHANGEABLE MESSAGE SIGNS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER. MESSAGE SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE COVER OVER CROSSING DRAINAGE PIPES FOR TEMPORARY LOCAL TRAFFIC PRIOR TO FINAL PAVING.
9. CONTRACTOR SHALL NOTIFY THE ENGINEER (ONE WEEK IN ADVANCE, MINIMUM) PRIOR TO ADVANCING TO SUBSEQUENT PHASES OF CONSTRUCTION.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST DURING CONSTRUCTION.
11. DURING UNDERCUT OPERATIONS, CONTRACTOR SHALL COORDINATE CONSTRUCTION OF SANITARY SEWER LATERALS WITH CONWAY CORPORATION. PROPOSED SANITARY SEWER CROSSINGS TO BE CONSTRUCTED BY CONWAY CORPORATION.
12. ALL TRAFFIC DRUMS SHALL BE PLACED AT 20' O.C. FOR EXTENDED TANGENTS AND AT 10' O.C. NEAR INTERSECTIONS AND DRIVEWAYS.

0' 25' 50' 100' 150'
(IN FEET)

LEGEND

- PHASE 2 CONSTRUCTION
- TEMPORARY SIGN AND POST
- DIRECTION OF TRAFFIC
- CHANGEABLE MESSAGE SIGN
- TRAFFIC DRUM



REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN - PHASE 2

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-402

SHEET NUMBER **28**

HJBeck 6/4/2019 2:36:01 PM
WORKSPACE\Garver_2012
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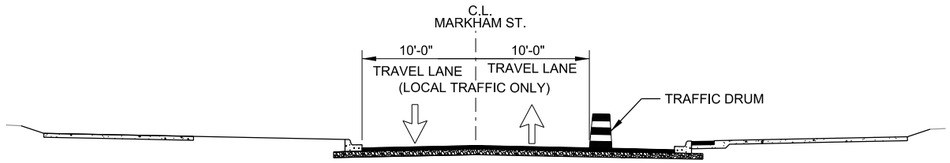
PHASE 2 CONSTRUCTION SEQUENCE

1. PLACE LANE CLOSURE AND DETOUR DEVICES FOR EXISTING TRAFFIC ON MARKHAM ST. BETWEEN VAN RONKLE ST. AND GARLAND ST.
2. CONSTRUCT MARKHAM ST. IMPROVEMENTS INCLUDING UNDERCUT EXCAVATION AND BACKFILL, DRAINAGE, AGGREGATE BASE COURSE, CURB AND GUTTER, ACHM BINDER COURSE, FIRST LIFT OF ACHM SURFACE COURSE, CYCLE TRACK, AND SIDEWALK FROM VAN RONKLE ST. TO GARLAND ST. WHILE MAINTAINING ACCESS FOR LOCAL BUSINESSES FROM SIDE STREETS.



PHASE 2 TYPICAL SECTION

GENERAL NOTES:

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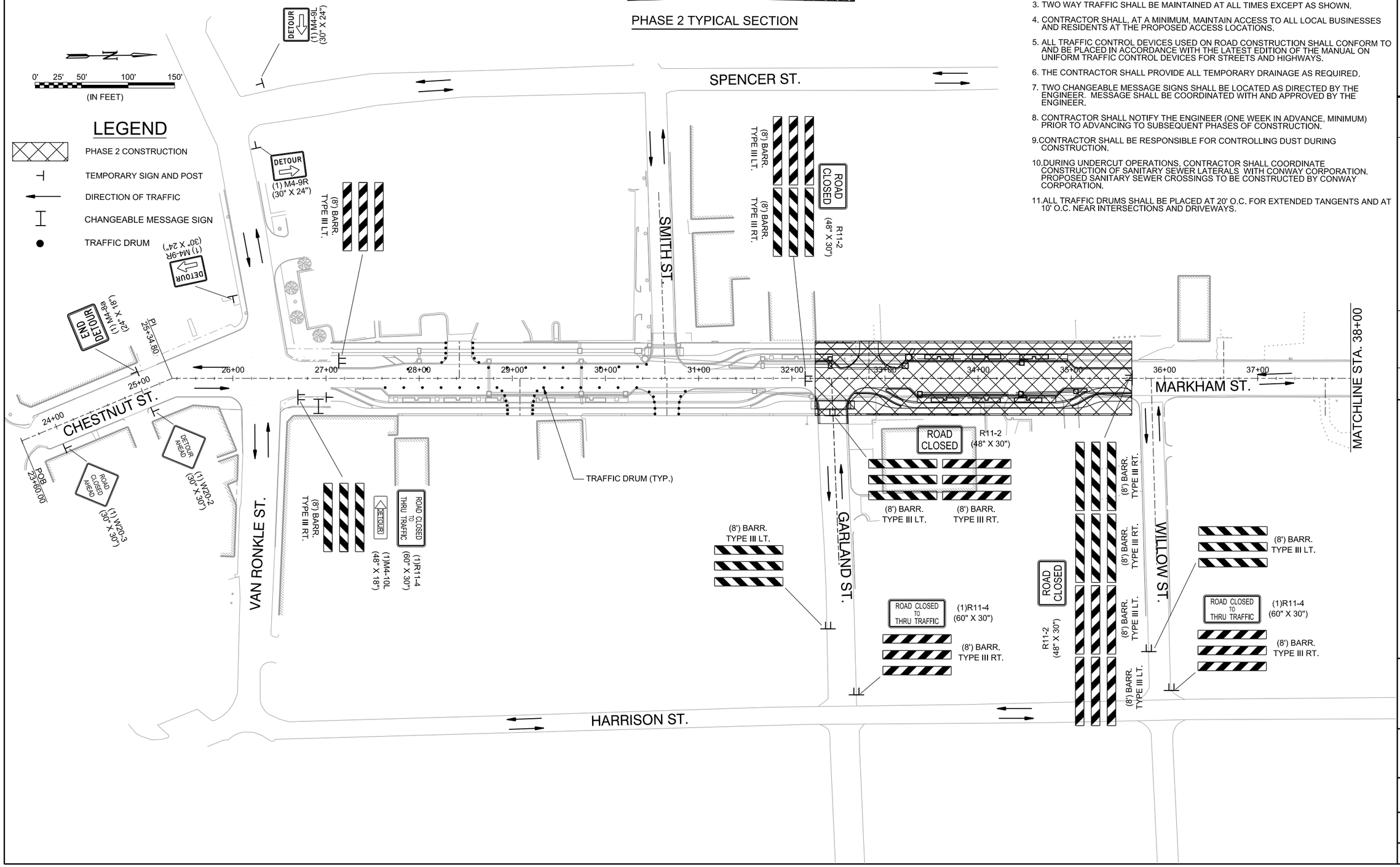

GARVER LLC
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER
No. 766

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT
Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
	10/14/2019	CHANGE ORDER NO. 1 - REPLACE SHEET	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN - PHASE 2

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-402

SHEET NUMBER **28**

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WORKSPACE\Garver_2012
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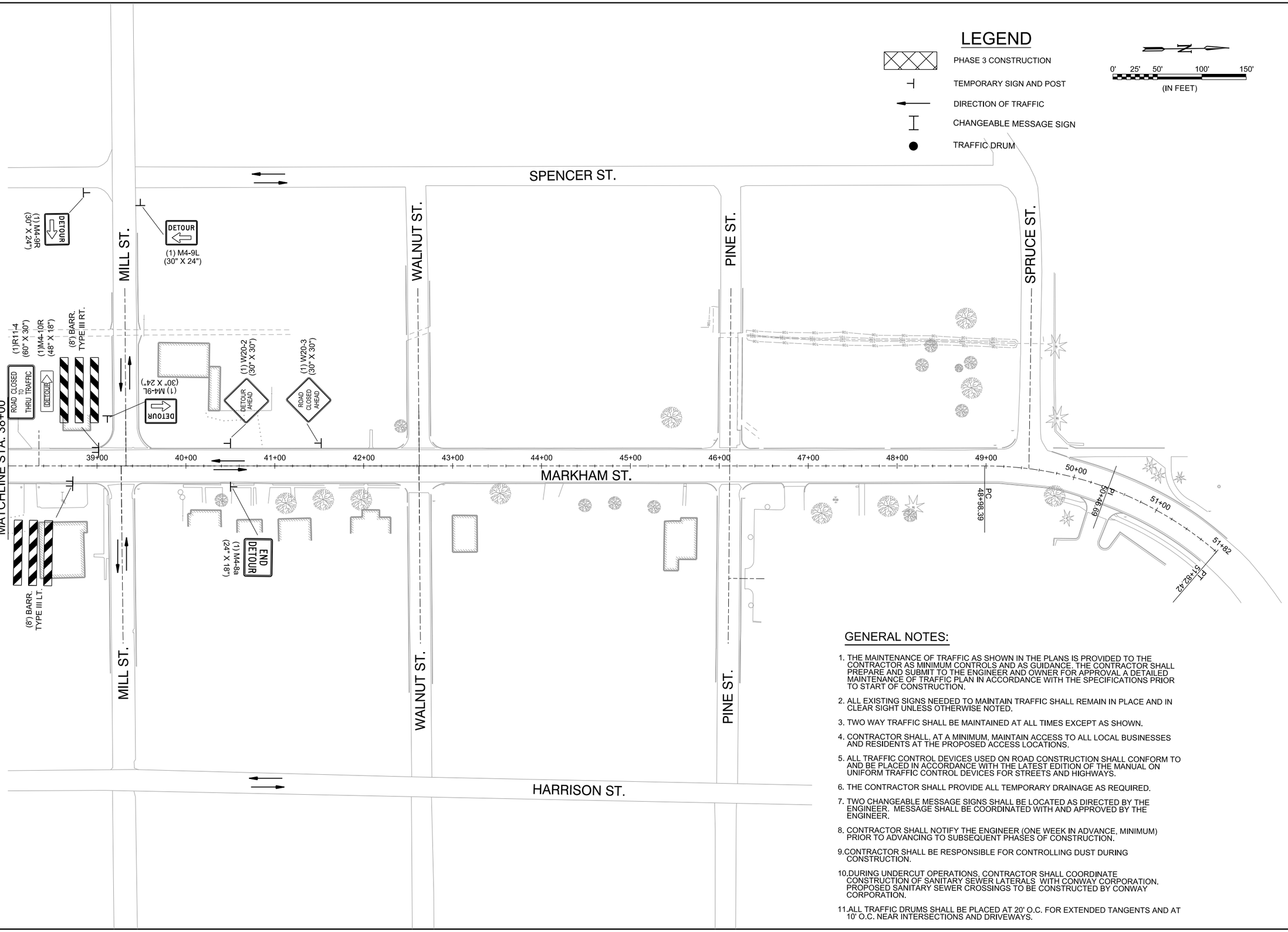

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REV.	DESCRIPTION	DATE	BY
	CHANGE ORDER NO. 1 - ADD SHEET	10/14/2019	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN - PHASE 2

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

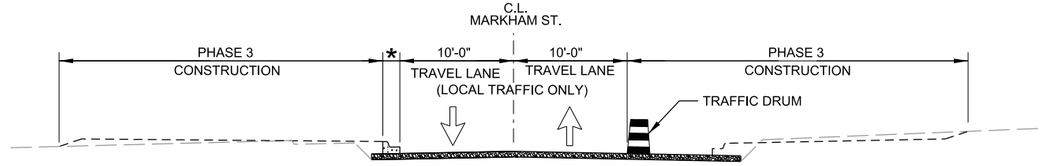
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-402A

SHEET NUMBER **28A**

PHASE 3 CONSTRUCTION SEQUENCE

1. PLACE AND/OR RELOCATE LANE CLOSURE AND DETOUR DEVICES FOR EXISTING TRAFFIC ON MARKHAM ST. BETWEEN VAN RONKLE ST. AND MILL ST.
2. OPEN PHASE 2 TRAVEL LANES TO LOCAL TRAFFIC.
3. CONSTRUCT MARKHAM ST. IMPROVEMENTS, INCLUDING UNDERCUT EXCAVATION AND BACKFILL, DRAINAGE, AGGREGATE BASE COURSE, AND CURB AND GUTTER (WHEN ADJACENT TO THE 10' TRAVEL LANES), FROM WILLOW ST. TO MILL ST.WHILE MAINTAINING ACCESS FOR LOCAL BUSINESSES.



* CONCRETE CURB AND GUTTER TYPE A (1'-6") AND (6'-6") SHALL BE CONSTRUCTED, WHEN ADJACENT TO THE 10'-0" TRAVEL LANE, PRIOR TO OPENING TRAVEL LANES TO LOCAL TRAFFIC.

PHASE 3 TYPICAL SECTION

GENERAL NOTES:

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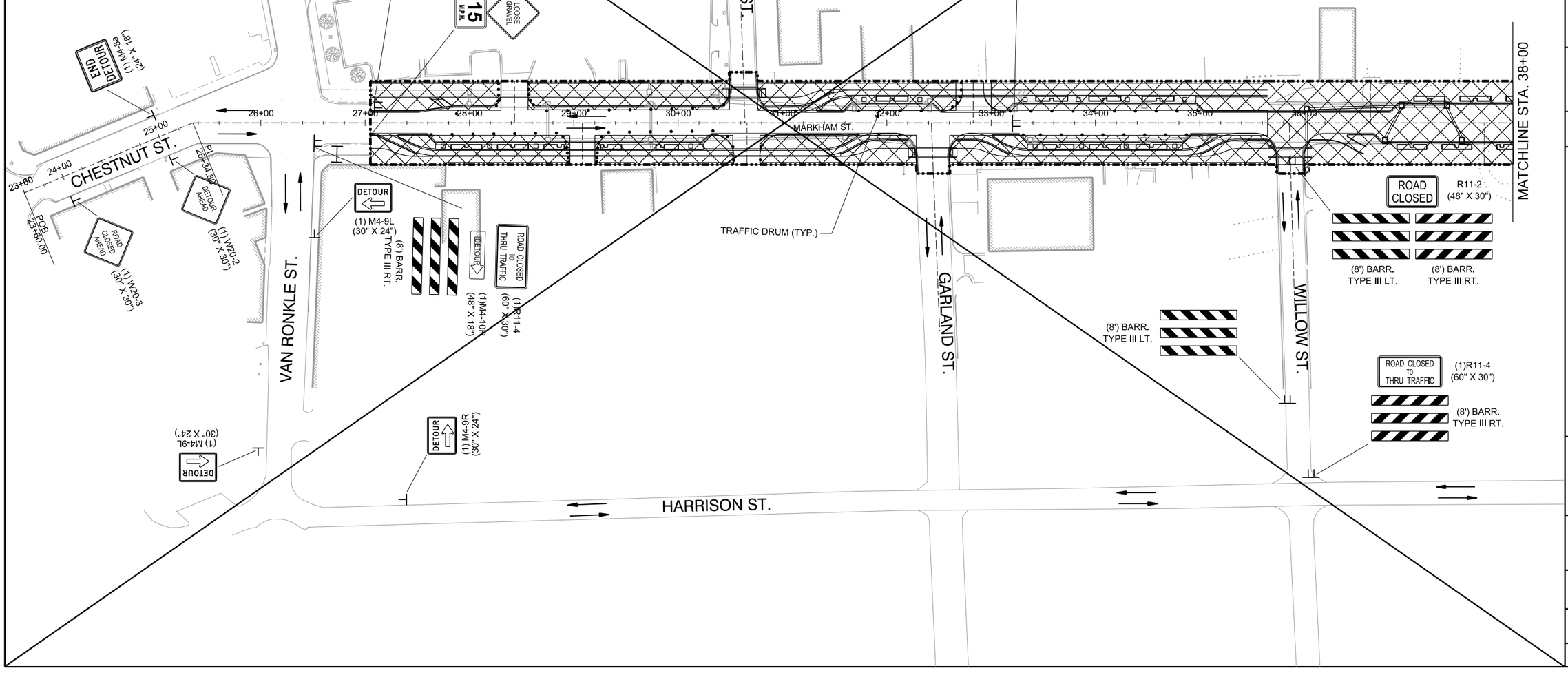
0' 25' 50' 100' 150'

(IN FEET)

LEGEND

- PHASE 3 CONSTRUCTION
- TEMPORARY SIGN AND POST
- DIRECTION OF TRAFFIC
- CHANGEABLE MESSAGE SIGN
- TRAFFIC DRUM



CERTIFICATE OF AUTHORIZATION
GARVER LLC
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT
Digitally Signed 06/15/2019

REV.	DESCRIPTION	DATE	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN - PHASE 3
(SHEET 1 OF 2)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-403

SHEET NUMBER **29**

HJBeck 6/4/2019 2:36:03 PM
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PHASE 3 CONSTRUCTION SEQUENCE

1. PLACE AND/OR RELOCATE LANE CLOSURE AND DETOUR DEVICES FOR EXISTING TRAFFIC ON MARKHAM ST. BETWEEN VAN RONKLE ST. AND MILL ST.
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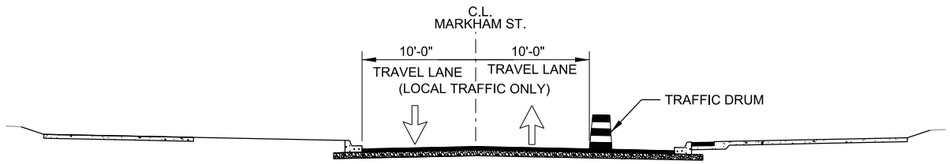
3. CONSTRUCT MARKHAM ST. IMPROVEMENTS INCLUDING UNDERCUT EXCAVATION AND BACKFILL, DRAINAGE, AGGREGATE BASE COURSE, CURB AND GUTTER, ACHM BINDER COURSE, FIRST LIFT OF ACHM SURFACE COURSE, CYCLE TRACK, AND SIDEWALK FROM WILLOW ST. TO MILL ST. WHILE MAINTAINING ACCESS FOR LOCAL BUSINESSES.



PHASE 3 TYPICAL SECTION

GENERAL NOTES:

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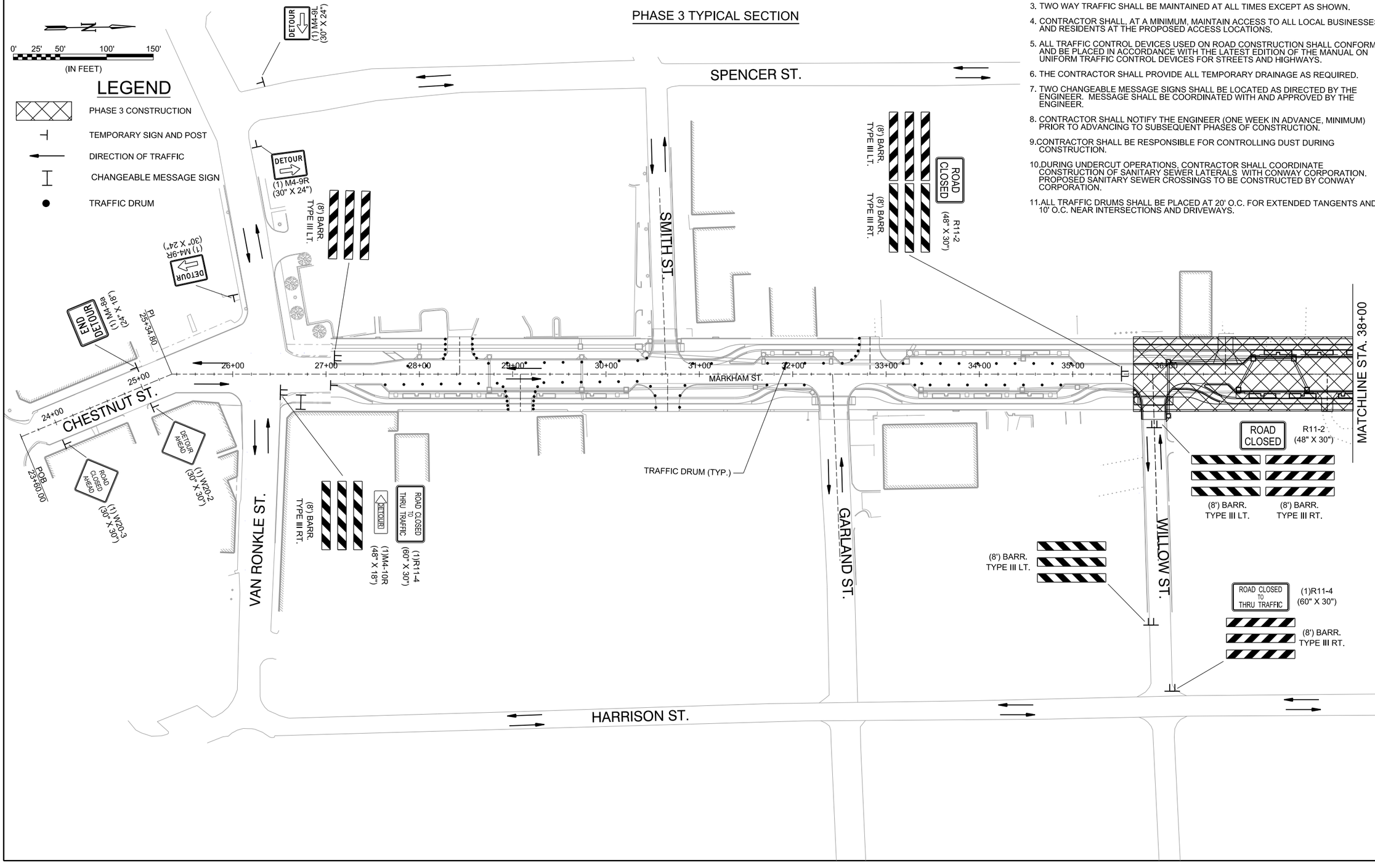
11. ALL TRAFFIC DRUMS SHALL BE PLACED AT 20' O.C. FOR EXTENDED TANGENTS AND AT 10' O.C. NEAR INTERSECTIONS AND DRIVEWAYS.

0' 25' 50' 100' 150'
(IN FEET)

LEGEND

- PHASE 3 CONSTRUCTION
- TEMPORARY SIGN AND POST
- DIRECTION OF TRAFFIC
- CHANGEABLE MESSAGE SIGN
- TRAFFIC DRUM



GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DESCRIPTION	DATE	BY
	CHANGE ORDER NO. 1 - REPLACE SHEET	10/14/2019	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN-PHASE 3

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-403

SHEET NUMBER **29**

DLTackett 10/14/2019 2:38:24 PM
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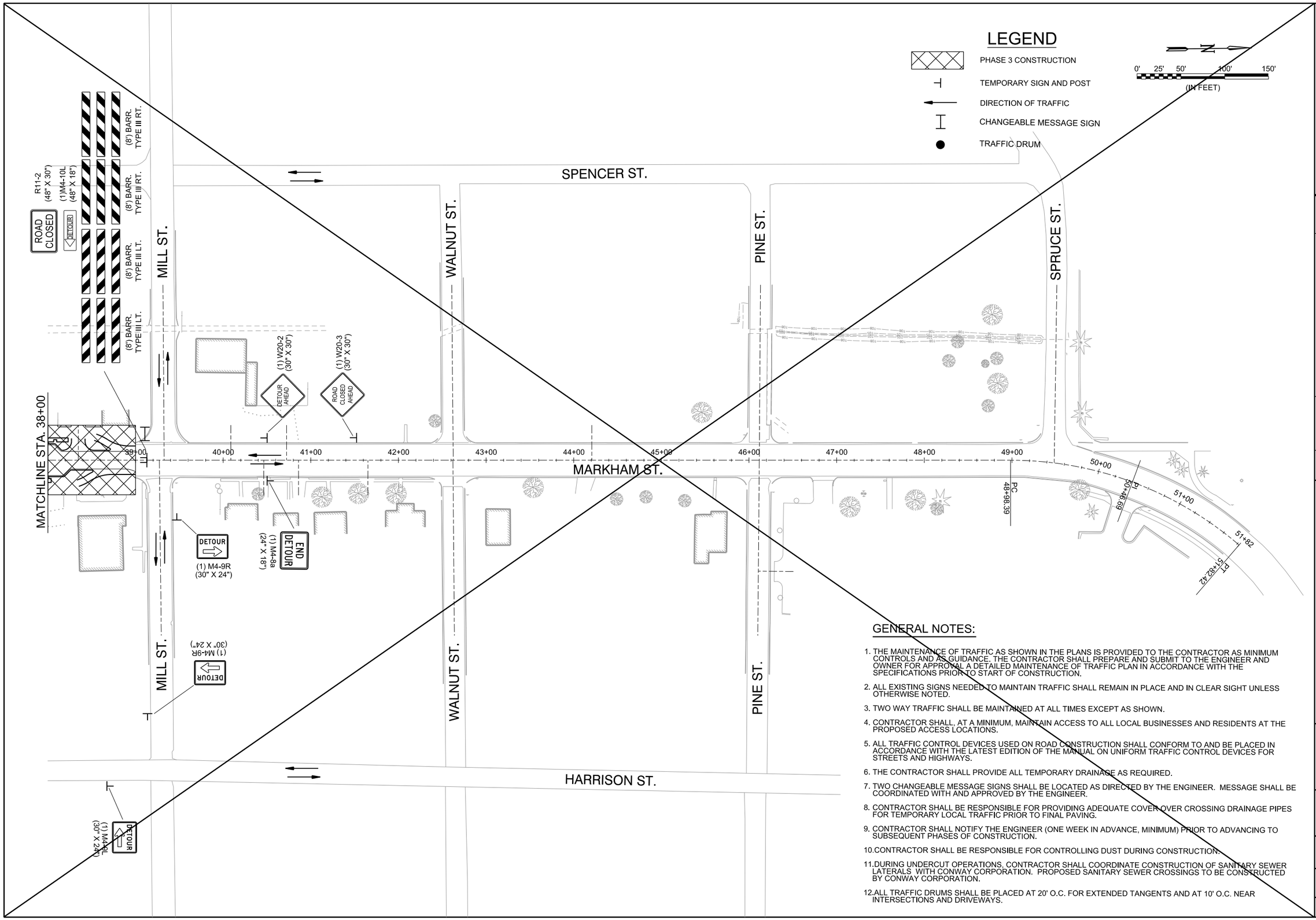

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GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 14994
DUSTIN L. TACKETT
Digitally Signed 02/25/2019

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN - PHASE 3 (SHEET 2 OF 2)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER **C-404**

SHEET NUMBER **30**

HJBeck 2/25/2019 4:14:29 PM
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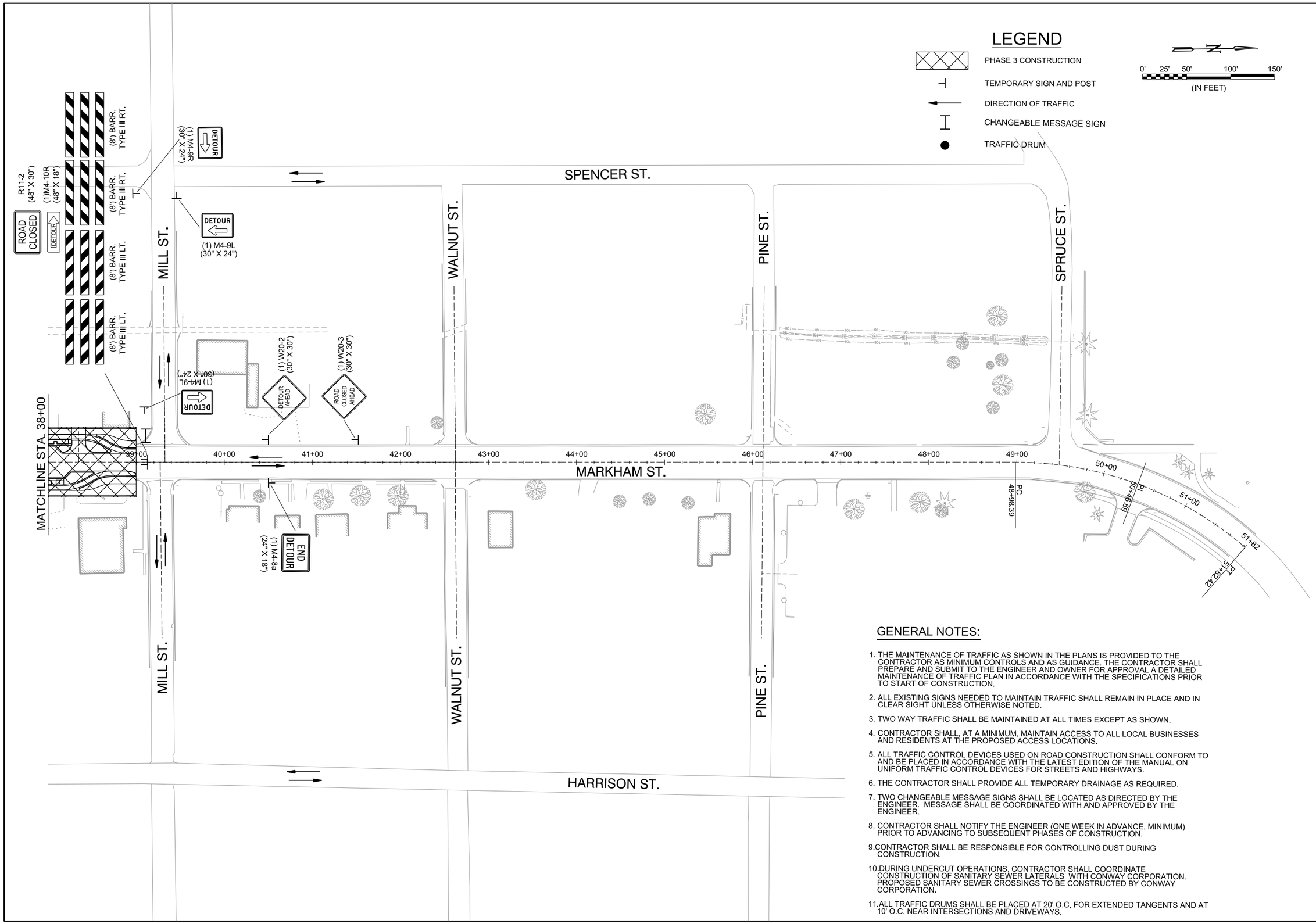

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GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DESCRIPTION	DATE	BY
	CHANGE ORDER NO. 1 - REPLACE SHEET	10/14/2019	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN - PHASE 3

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
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DRAWING NUMBER
C-404

SHEET NUMBER **30**

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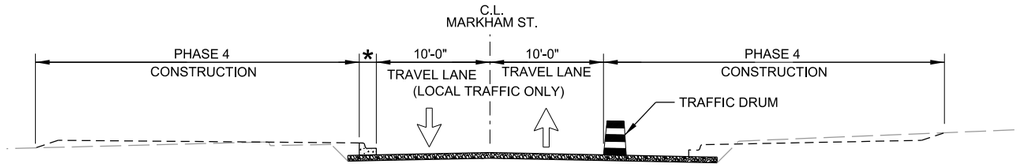
PHASE 4 CONSTRUCTION SEQUENCE

1. PLACE AND/OR RELOCATE LANE CLOSURE AND DETOUR DEVICES FOR EXISTING TRAFFIC ON MARKHAM ST. BETWEEN VAN RONKLE ST. AND WALNUT ST.
2. OPEN PHASE 3 TRAVEL LANES TO LOCAL TRAFFIC.
3. CONSTRUCT MARKHAM ST. IMPROVEMENTS, INCLUDING UNDERCUT EXCAVATION AND BACKFILL, DRAINAGE, AGGREGATE BASE COURSE, AND CURB AND GUTTER (WHEN ADJACENT TO THE 10' TRAVEL LANES), FROM MILL ST. TO WALNUT ST.WHILE MAINTAINING ACCESS FOR LOCAL BUSINESSES AND RESIDENTIAL TRAFFIC.



* CONCRETE CURB AND GUTTER TYPE A (1'-6") AND (6'-6") SHALL BE CONSTRUCTED, WHEN ADJACENT TO THE 10'-0" TRAVEL LANE, PRIOR TO OPENING TRAVEL LANES TO LOCAL TRAFFIC.

PHASE 4 TYPICAL SECTION

GENERAL NOTES:

1. THE MAINTENANCE OF TRAFFIC AS SHOWN IN THE PLANS IS PROVIDED TO THE CONTRACTOR AS MINIMUM CONTROLS AND AS GUIDANCE. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER AND OWNER FOR APPROVAL A DETAILED MAINTENANCE OF TRAFFIC PLAN IN ACCORDANCE WITH THE SPECIFICATIONS PRIOR TO START OF CONSTRUCTION.
2. ALL EXISTING SIGNS NEEDED TO MAINTAIN TRAFFIC SHALL REMAIN IN PLACE AND IN CLEAR SIGHT UNLESS OTHERWISE NOTED.
3. TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS SHOWN.
4. CONTRACTOR SHALL, AT A MINIMUM, MAINTAIN ACCESS TO ALL LOCAL BUSINESSES AND RESIDENTS AT THE PROPOSED ACCESS LOCATIONS.
5. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO AND BE PLACED IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
6. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY DRAINAGE AS REQUIRED.
7. TWO CHANGEABLE MESSAGE SIGNS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER. MESSAGE SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE COVER OVER CROSSING DRAINAGE PIPES FOR TEMPORARY LOCAL TRAFFIC PRIOR TO FINAL PAVING.
9. CONTRACTOR SHALL NOTIFY THE ENGINEER (ONE WEEK IN ADVANCE, MINIMUM) PRIOR TO ADVANCING TO SUBSEQUENT PHASES OF CONSTRUCTION.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST DURING CONSTRUCTION.
11. DURING UNDERCUT OPERATIONS, CONTRACTOR SHALL COORDINATE CONSTRUCTION OF SANITARY SEWER LATERALS WITH CONWAY CORPORATION. PROPOSED SANITARY SEWER CROSSINGS TO BE CONSTRUCTED BY CONWAY CORPORATION.
12. ALL TRAFFIC DRUMS SHALL BE PLACED AT 20' O.C. FOR EXTENDED TANGENTS AND AT 10' O.C. NEAR INTERSECTIONS AND DRIVEWAYS.

0' 25' 50' 100' 150'
(IN FEET)

LEGEND

- PHASE 4 CONSTRUCTION
- TEMPORARY SIGN AND POST
- DIRECTION OF TRAFFIC
- CHANGEABLE MESSAGE SIGN
- TRAFFIC DRUM

SPENCER ST.
SMITH ST.
CHESTNUT ST.
VAN RONKLE ST.
GARLAND ST.
WILLOW ST.
HARRISON ST.
MATCHLINE STA. 38+00
TRAFFIC DRUM (TYP.)
(8') BARR. TYPE III LT.
(8') BARR. TYPE III RT.
(1) W8-7 (30" X 30")
(1) W13-1P (18" X 18")
15 M.P.H.
LOOSE GRAVEL
(1) M4-8a (24" X 18")
END
PI 25+34.80
POB 23+60.00
(1) W20-3 (30" X 30")
ROAD CLOSED AHEAD
(1) W20-2 (30" X 30")
DETOUR AHEAD
(1) M4-9L (30" X 24")
DETOUR
(1)M4-10R (48" X 18")
DETOUR
(1)R11-4 (60" X 30")
ROAD CLOSED TO THRU TRAFFIC
(1) M4-9R (30" X 24")
DETOUR
(1) M4-9L (30" X 24")
DETOUR
23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00

GARVER LLC
CERTIFICATE OF AUTHORIZATION
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT
Digitally Signed 06/15/2019

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN - PHASE 4
(SHEET 1 OF 2)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-405

SHEET NUMBER 31

HJBeck 6/4/2019 2:36:05 PM
WORKSPACE\Garver, 2012
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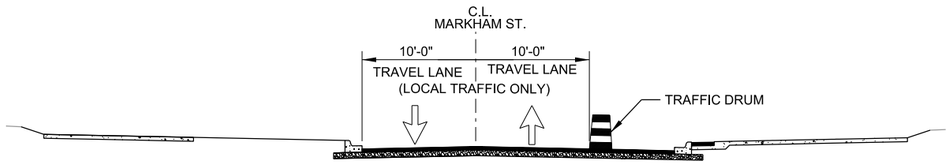
PHASE 4 CONSTRUCTION SEQUENCE

1. PLACE AND/OR RELOCATE LANE CLOSURE AND DETOUR DEVICES FOR EXISTING TRAFFIC ON MARKHAM ST. BETWEEN VAN RONKLE ST. AND WALNUT ST.
2. OPEN PHASE 3 TRAVEL LANES TO LOCAL TRAFFIC.
3. CONSTRUCT MARKHAM ST. IMPROVEMENTS INCLUDING UNDERCUT EXCAVATION AND BACKFILL, DRAINAGE, AGGREGATE BASE COURSE, CURB AND GUTTER, ACHM BINDER COURSE, FIRST LIFT OF ACHM SURFACE COURSE, CYCLE TRACK, AND SIDEWALK FROM MILL ST. TO WALNUT ST. WHILE MAINTAINING ACCESS FOR LOCAL BUSINESSES RESIDENTIAL TRAFFIC.



PHASE 4 TYPICAL SECTION

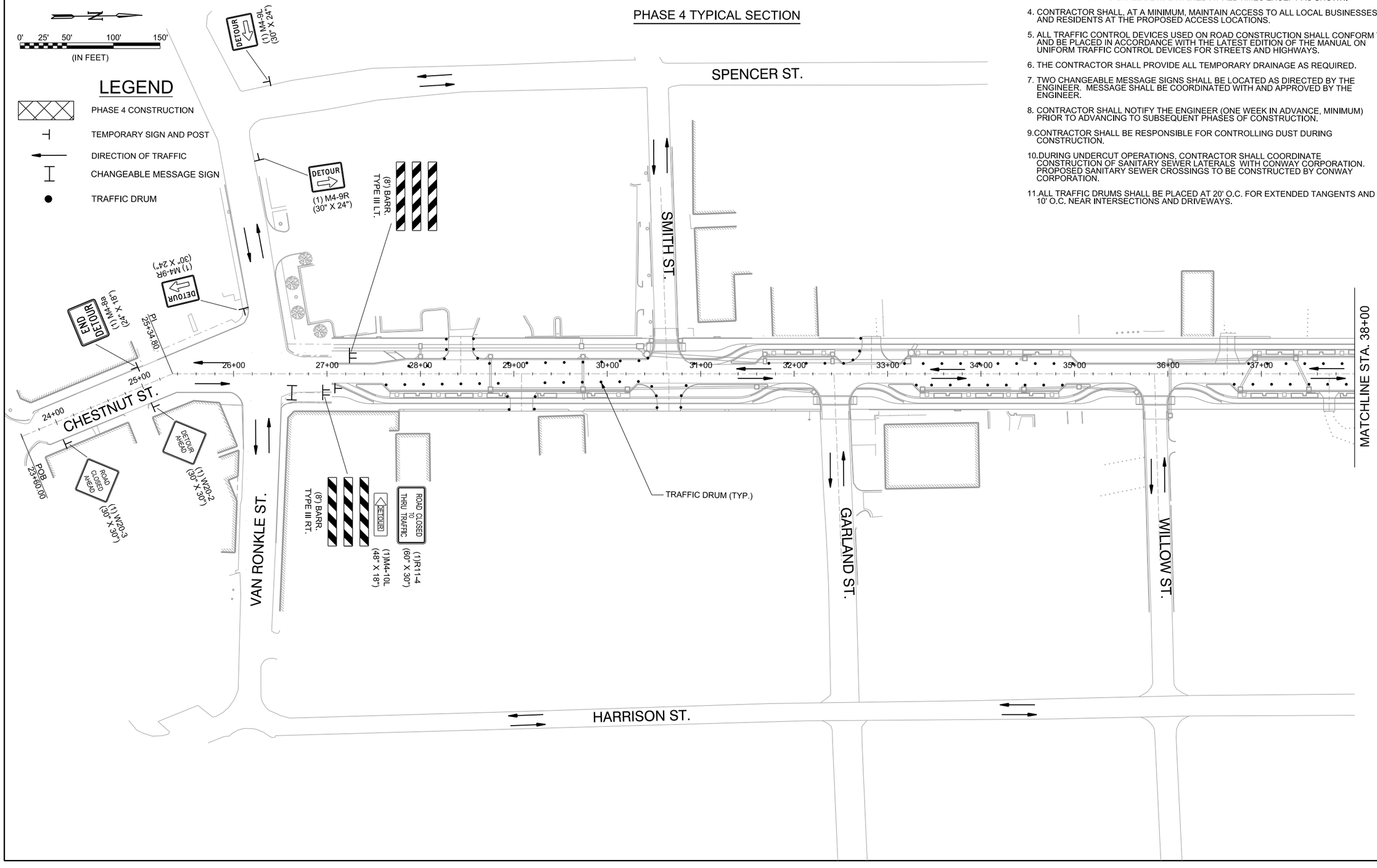
GENERAL NOTES:

1. THE MAINTENANCE OF TRAFFIC AS SHOWN IN THE PLANS IS PROVIDED TO THE CONTRACTOR AS MINIMUM CONTROLS AND AS GUIDANCE. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER AND OWNER FOR APPROVAL A DETAILED MAINTENANCE OF TRAFFIC PLAN IN ACCORDANCE WITH THE SPECIFICATIONS PRIOR TO START OF CONSTRUCTION.
2. ALL EXISTING SIGNS NEEDED TO MAINTAIN TRAFFIC SHALL REMAIN IN PLACE AND IN CLEAR SIGHT UNLESS OTHERWISE NOTED.
3. TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS SHOWN.
4. CONTRACTOR SHALL, AT A MINIMUM, MAINTAIN ACCESS TO ALL LOCAL BUSINESSES AND RESIDENTS AT THE PROPOSED ACCESS LOCATIONS.
5. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO AND BE PLACED IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
6. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY DRAINAGE AS REQUIRED.
7. TWO CHANGEABLE MESSAGE SIGNS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER. MESSAGE SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.
8. CONTRACTOR SHALL NOTIFY THE ENGINEER (ONE WEEK IN ADVANCE, MINIMUM) PRIOR TO ADVANCING TO SUBSEQUENT PHASES OF CONSTRUCTION.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST DURING CONSTRUCTION.
10. DURING UNDERCUT OPERATIONS, CONTRACTOR SHALL COORDINATE CONSTRUCTION OF SANITARY SEWER LATERALS WITH CONWAY CORPORATION. PROPOSED SANITARY SEWER CROSSINGS TO BE CONSTRUCTED BY CONWAY CORPORATION.
11. ALL TRAFFIC DRUMS SHALL BE PLACED AT 20' O.C. FOR EXTENDED TANGENTS AND AT 10' O.C. NEAR INTERSECTIONS AND DRIVEWAYS.

0' 25' 50' 100' 150'
(IN FEET)

LEGEND

- PHASE 4 CONSTRUCTION
- TEMPORARY SIGN AND POST
- DIRECTION OF TRAFFIC
- CHANGEABLE MESSAGE SIGN
- TRAFFIC DRUM



GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
	10/14/2019	CHANGE ORDER NO. 1 - REPLACE SHEET	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN - PHASE 4

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-405

SHEET NUMBER **31**

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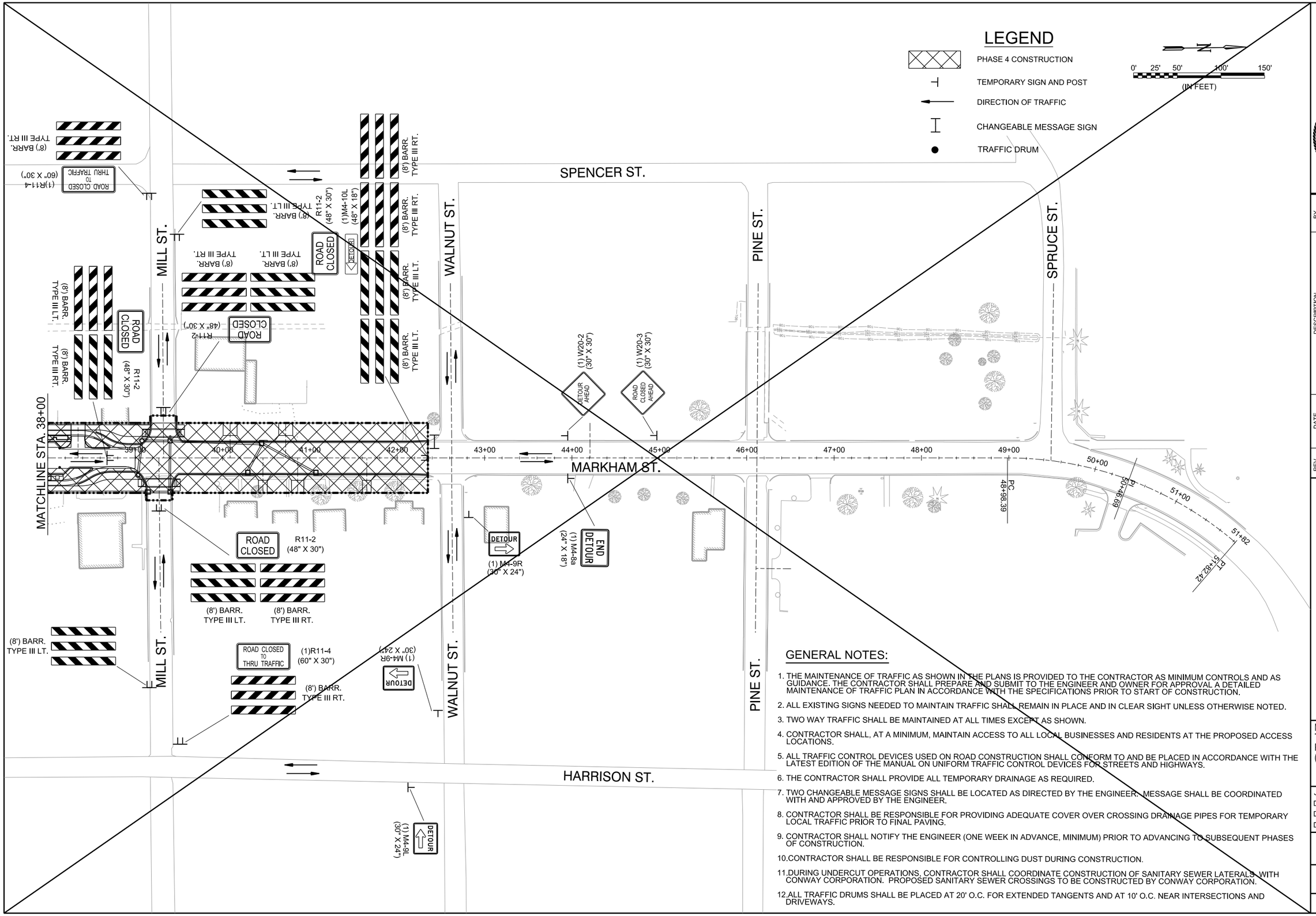

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12. ALL TRAFFIC DRUMS SHALL BE PLACED AT 20' O.C. FOR EXTENDED TANGENTS AND AT 10' O.C. NEAR INTERSECTIONS AND DRIVEWAYS.

CERTIFICATE OF AUTHORIZATION
GARVER LLC
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT
Digitally Signed 02/25/2019

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN - PHASE 4
(SHEET 2 OF 2)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-406

SHEET NUMBER **32**

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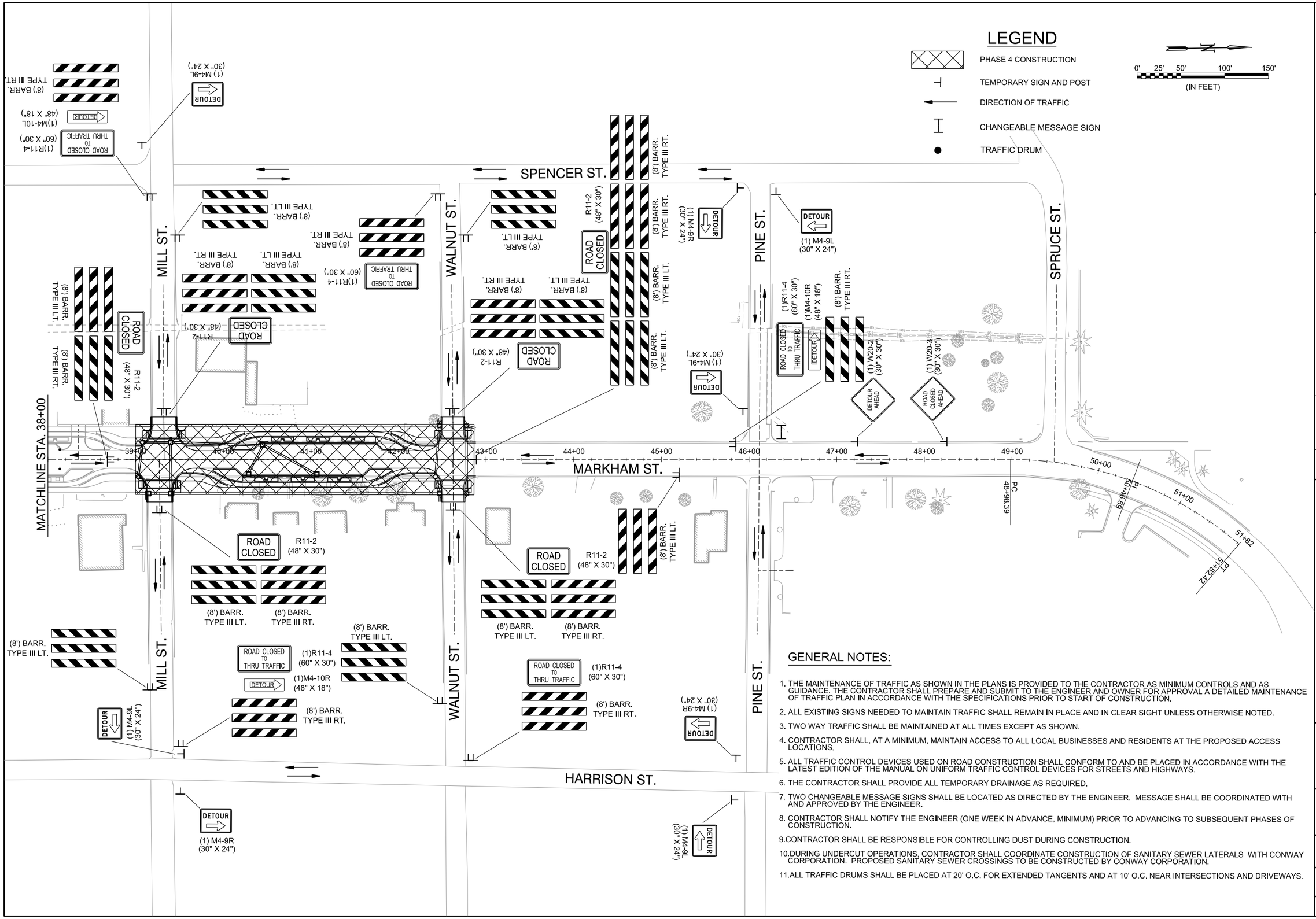

GENERAL NOTES:

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11. ALL TRAFFIC DRUMS SHALL BE PLACED AT 20' O.C. FOR EXTENDED TANGENTS AND AT 10' O.C. NEAR INTERSECTIONS AND DRIVEWAYS.

GARVER LLC No. 766 — CERTIFICATE OF AUTHORIZATION — ARKANSAS ENGINEER

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No.14994 — DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DESCRIPTION	BY	DATE
	CHANGE ORDER NO. 1 - REPLACE SHEET	DLT	10/14/2019

METROPLAN
LITTLE ROCK, ARKANSAS

METROPLAN SMART PLANNING MAKES SMART PLACES.

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN - PHASE 4

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-406

SHEET NUMBER **32**

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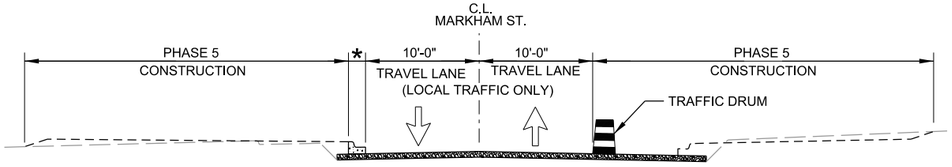
PHASE 5 CONSTRUCTION SEQUENCE

1. PLACE AND/OR RELOCATE LANE CLOSURE AND DETOUR DEVICES FOR EXISTING TRAFFIC ON MARKHAM ST. BETWEEN VAN RONKLE ST. AND WALNUT ST.
2. OPEN PHASE 4 TRAVEL LANES TO LOCAL TRAFFIC.
3. CONSTRUCT MARKHAM ST. PAVING AND REMAINING IMPROVEMENTS BEHIND THE BACK OF CURB FROM VAN RONKLE ST. TO WALNUT ST. WHILE MAINTAINING ACCESS FOR LOCAL BUSINESS AND RESIDENTIAL TRAFFIC.



* CONCRETE CURB AND GUTTER TYPE A (1'-6") AND (6'-6") SHALL BE CONSTRUCTED, WHEN ADJACENT TO THE 10'-0" TRAVEL LANE, PRIOR TO OPENING TRAVEL LANES TO LOCAL TRAFFIC.

PHASE 5 TYPICAL SECTION

GENERAL NOTES:

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12. ALL TRAFFIC DRUMS SHALL BE PLACED AT 20' O.C. FOR EXTENDED TANGENTS AND AT 10' O.C. NEAR INTERSECTIONS AND DRIVEWAYS.

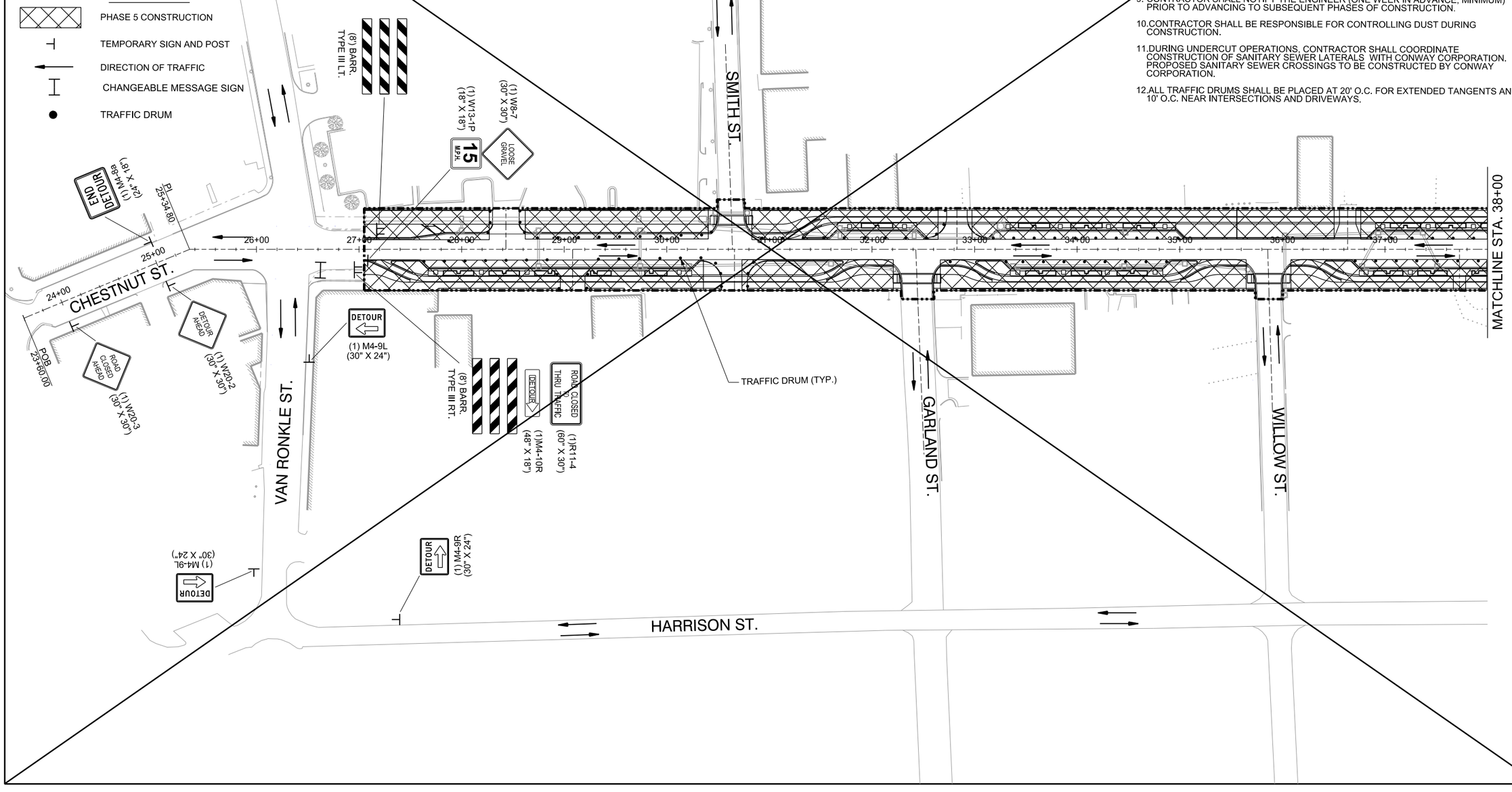
N

0' 25' 50' 100' 150'

(IN FEET)

LEGEND

- PHASE 5 CONSTRUCTION
- TEMPORARY SIGN AND POST
- DIRECTION OF TRAFFIC
- CHANGEABLE MESSAGE SIGN
- TRAFFIC DRUM



GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 06/15/2019

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN - PHASE 5
(SHEET 1 OF 2)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-407

SHEET NUMBER **33**

H.Beck 6/4/2019 2:36:08 PM
WORKSPACE:Garver_2012
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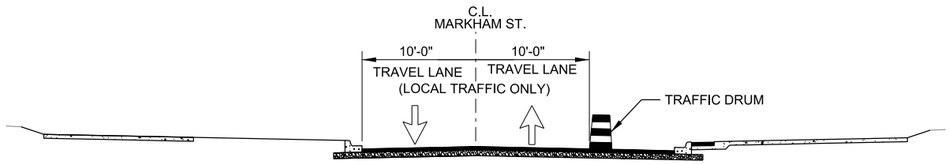
PHASE 5 CONSTRUCTION SEQUENCE

1. PLACE AND/OR RELOCATE LANE CLOSURE AND DETOUR DEVICES FOR EXISTING TRAFFIC ON MARKHAM ST. BETWEEN VAN RONKLE ST. AND WALNUT ST.
2. OPEN PHASE 4 TRAVEL LANES TO LOCAL TRAFFIC.
3. COSNTRUCT IRRIGATION AND LANDSCAPING WHILE MAINTAINING ACCESS FOR LOCAL BUSINESS AND RESIDENTIAL TRAFFIC.
4. COORDINATE LIGHTING INSTALLATION WITH CONWAY CORPORATION.
5. CONSTRUST THE FINAL LIFT OF ACHM SURFACE COURSE, INCLUDING MILL AND OVERLAY, AND PAVEMENT MARKINGS FROM VAN RONKLE ST. TO HARKRIDER ST. WHILE MAINTAING ACCESS FOR LOCAL BUSINESS AND RESIDENTIAL TRAFFIC.
6. PERFORM FINAL CLEANUP



PHASE 5 TYPICAL SECTION

GENERAL NOTES:

1. THE MAINTENANCE OF TRAFFIC AS SHOWN IN THE PLANS IS PROVIDED TO THE CONTRACTOR AS MINIMUM CONTROLS AND AS GUIDANCE. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER AND OWNER FOR APPROVAL A DETAILED MAINTENANCE OF TRAFFIC PLAN IN ACCORDANCE WITH THE SPECIFICATIONS PRIOR TO START OF CONSTRUCTION.
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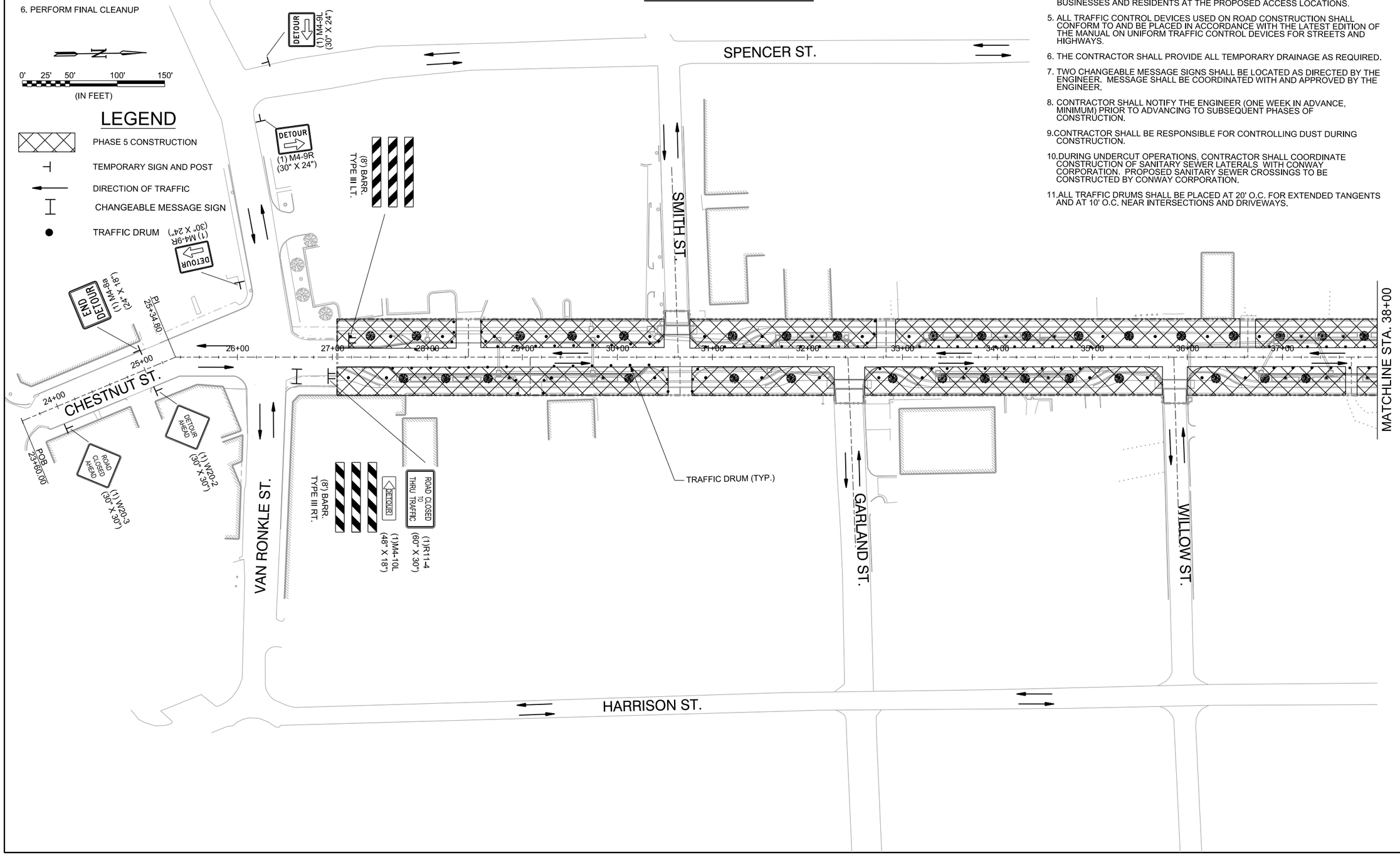

REV.	DATE	DESCRIPTION	BY
	10/14/2019	CHANGE ORDER NO. 1 - REPLACE SHEET	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN - PHASE 5

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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DRAWING NUMBER
C-407

SHEET NUMBER **33**

DLTackett 10/14/2019 2:38:35 PM
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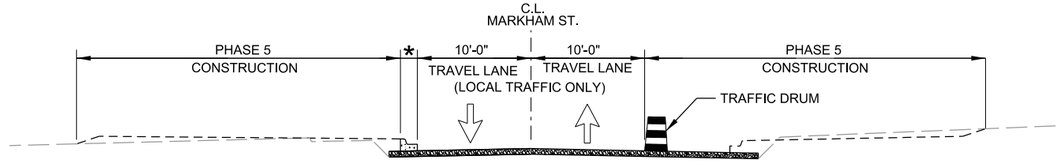


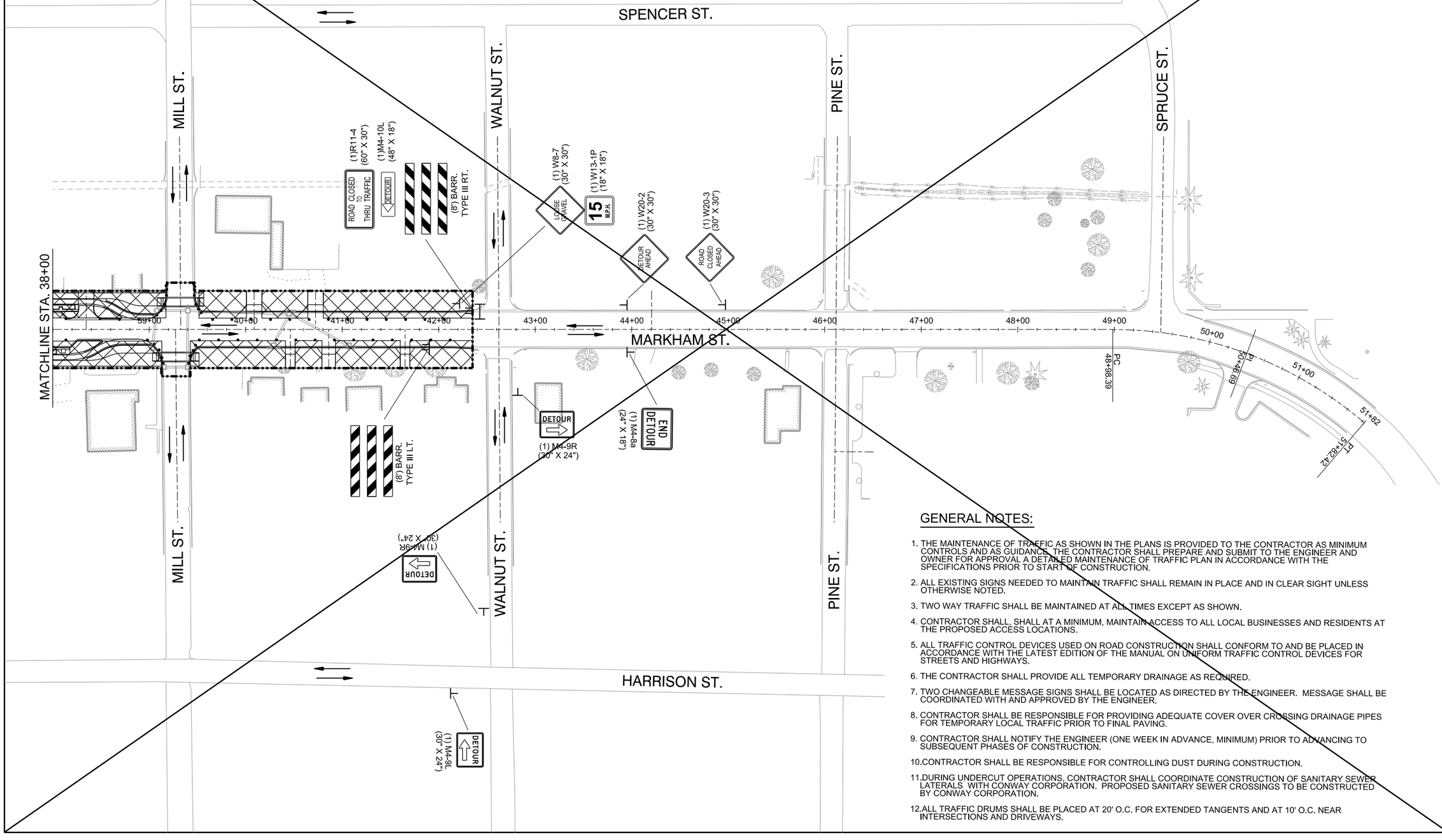
* CONCRETE CURB AND GUTTER TYPE A (1'-6") AND (6'-6") SHALL BE CONSTRUCTED, WHEN ADJACENT TO THE 10'-0" TRAVEL LANE, PRIOR TO OPENING TRAVEL LANES TO LOCAL TRAFFIC.

PHASE 5 TYPICAL SECTION

LEGEND

- PHASE 5 CONSTRUCTION
- TEMPORARY SIGN AND POST
- DIRECTION OF TRAFFIC
- CHANGEABLE MESSAGE SIGN
- TRAFFIC DRUM

0' 25' 50' 100' 150'
(IN FEET)



GENERAL NOTES:

1. THE MAINTENANCE OF TRAFFIC AS SHOWN IN THE PLANS IS PROVIDED TO THE CONTRACTOR AS MINIMUM CONTROLS AND AS GUIDANCE. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER AND OWNER FOR APPROVAL A DETAILED MAINTENANCE OF TRAFFIC PLAN IN ACCORDANCE WITH THE SPECIFICATIONS PRIOR TO START OF CONSTRUCTION.
2. ALL EXISTING SIGNS NEEDED TO MAINTAIN TRAFFIC SHALL REMAIN IN PLACE AND IN CLEAR SIGHT UNLESS OTHERWISE NOTED.
3. TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS SHOWN.
4. CONTRACTOR SHALL, SHALL AT A MINIMUM, MAINTAIN ACCESS TO ALL LOCAL BUSINESSES AND RESIDENTS AT THE PROPOSED ACCESS LOCATIONS.
5. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO AND BE PLACED IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
6. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY DRAINAGE AS REQUIRED.
7. TWO CHANGEABLE MESSAGE SIGNS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER. MESSAGE SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE COVER OVER CROSSING DRAINAGE PIPES FOR TEMPORARY LOCAL TRAFFIC PRIOR TO FINAL PAVING.
9. CONTRACTOR SHALL NOTIFY THE ENGINEER (ONE WEEK IN ADVANCE, MINIMUM) PRIOR TO ADVANCING TO SUBSEQUENT PHASES OF CONSTRUCTION.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST DURING CONSTRUCTION.
11. DURING UNDERCUT OPERATIONS, CONTRACTOR SHALL COORDINATE CONSTRUCTION OF SANITARY SEWER LATERALS WITH CONWAY CORPORATION. PROPOSED SANITARY SEWER CROSSINGS TO BE CONSTRUCTED BY CONWAY CORPORATION.
12. ALL TRAFFIC DRUMS SHALL BE PLACED AT 20' O.C. FOR EXTENDED TANGENTS AND AT 10' O.C. NEAR INTERSECTIONS AND DRIVEWAYS.

CERTIFICATE OF AUTHORIZATION
GARVER LLC
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 06/15/2019

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN - PHASE 5
(SHEET 2 OF 2)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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DRAWING NUMBER
C-408

SHEET NUMBER **34**

H.JBeck 6/4/2019 2:36:10 PM
WORKSPACE:Garver_2012
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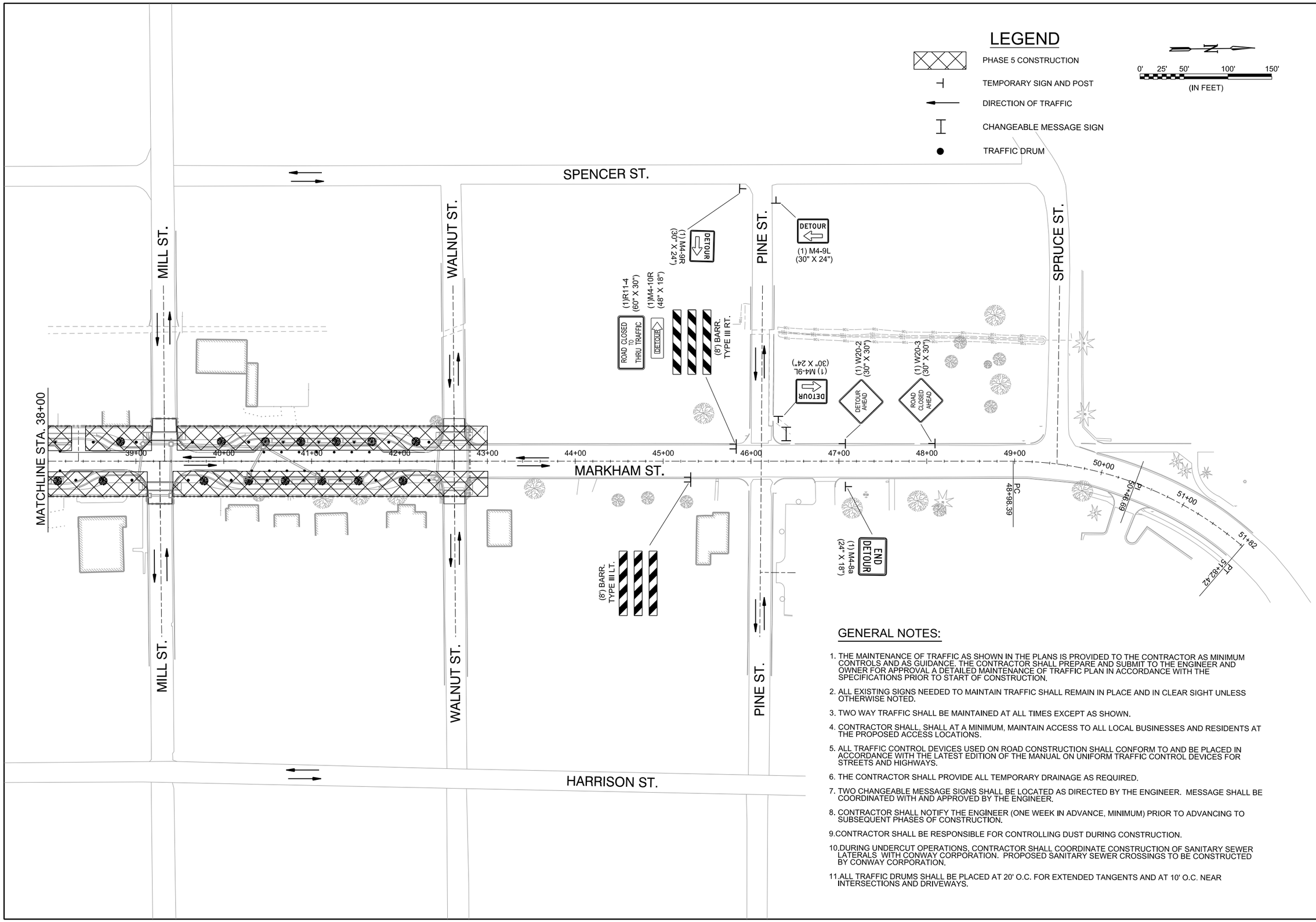

GENERAL NOTES:

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GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DESCRIPTION	DATE	BY
	CHANGE ORDER NO. 1 - REPLACE SHEET	10/14/2019	DLT

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METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

MAINTENANCE OF TRAFFIC PLAN - PHASE 5

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

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DRAWING NUMBER
C-408

SHEET NUMBER **34**

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WORKSPACE:Garver_2012 - WORKSPACE:Garver_2012 • Markham Street\Drawings\CMSH-C408-MOT-CO1.dgn
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SURVEY CONTROL POINTS						
POINT No.	NORTHING	EASTING	STATION	OFFSET	ELEVATION	DESCRIPTION
1	278648.7543	1180804.5440	49+37.96	32.95' RT.	324.38	ALUM MON
2	278311.3588	1180716.3212	45+95.23	45.40' LT.	321.28	ALUM MON
3	277994.1745	1180718.8025	42+78.20	35.34' LT.	318.85	ALUM MON
4	277601.0704	1180768.7705	38+86.40	24.01' RT.	316.89	ALUM MON
6	277281.4684	1180765.5827	35+66.81	28.46' RT.	316.32	ALUM MON
7	276961.9434	1180706.2449	32+45.96	23.22' LT.	315.58	ALUM MON
8	276749.9097	1180699.8631	30+33.83	24.54' LT.	315.43	ALUM MON
9	276382.4461	1180678.4300	26+65.96	37.18' LT.	316.46	ALUM MON
10	276923.3318	1180753.3805	32+08.49	24.82' RT.	315.59	60D NAIL
100	279056.7880	1181770.3510	N/A	N/A	330.24	CAGIS 1004, 3" ALM CAP SET IN CONCRETE POST
101	278270.5040	1180411.5370	45+47.10	349.12' LT.	323.04	CAGIS 1004-01, 3 1/4" ALM CAP SET IN CONCRETE POST
102	278251.1531	1179853.4530	45+14.42	906.58' LT.	337.23	CAGIS 1004-02, 3 1/4" ALM CAP SET IN CONCRETE POST
106	279055.4410	1181465.6650	N/A	N/A	337.11	CAGIS 1004-06, 5/8" REBAR WITH 2 1/2" ALM CAP SET IN CONCRETE POST
900	276255.6334	1180490.2224	N/A	N/A	315.14	TBM - CHISELED SQUARE

COORDINATES FOR ALL POINTS ARE GRID

HORIZONTAL DATUM: NAD 83 (1997) HARN
VERTICAL DATUM: NAVD 88

CONTROL POINT 100 = CAGIS CONTROL POINT 1004
CONTROL POINT 101 = CAGIS CONTROL POINT 1004-01

ELEVATIONS ARE BASED OFF OF CONTROL POINT 101

BASIS OF BEARINGS:
ARKANSAS STATE PLANE GRID BEARINGS - ZONE 0301 - ARKANSAS NORTH ZONE
DETERMINED FROM CAGIS CONTROL POINTS 1004 AND 1004-01
CONVERGENCE ANGLE: 00°15'14.34" LEFT AT CAGIS CONTROL POINT 1004
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE

MARKHAM STREET COORDINATES			
STATION	TYPE	NORTHING	EASTING
23+60.00	POB	276087.4659	1180775.6928
25+34.80	PI	276250.4317	1180712.4694
48+98.39	PC	278613.3422	1180768.9476
50+46.69	PI	278761.6014	1180772.4913
51+82.42	PT	278871.7171	1180871.8285

GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 14994
DUSTIN L. TACKETT

Digitally Signed 02/25/2019

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

SURVEY CONTROL DETAILS
(SHEET 1 OF 2)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

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0 1"
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DRAWING NUMBER
C-501

SHEET NUMBER 35

H.Beck 2/25/2019 4:15:03 PM
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CP #102

0' 30' 60' 120' 180'
(IN FEET)

CP #101

PI 50+46.69

STA 51+82.42
END JOB 080566

50+00 51+00

49+00

CP #1

PT 51+82.42

PC 48+98.39

48+00

CP #2

47+00

46+00

45+00

CP #5

44+00

CP #3

43+00 N01°22'09"E 2363.59'

42+00

41+00

40+00

CP #106

CP #100

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No. 766
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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 02/25/2019

REV.	DATE	DESCRIPTION	BY

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LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

SURVEY CONTROL DETAILS
(SHEET 2 OF 2)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

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0 1"
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DRAWING NUMBER
C-502

SHEET NUMBER **36**

HJBeck 2/25/2019 4:15:05 PM
WORKSPACE:Garver_2012
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RAMP		
LOCATION	TYPE	AREA (SQ. YD.)
27+77 LT.	BIKE	12.02

CONCRETE ISLAND BEHIND WALK			
STATION	STATION	SIDE	AREA (SQ. YD.)
27+76.59	28+96.26	RT.	26.52

SIDEWALK (TYPE SPECIAL I)			
STATION	STATION	SIDE	AREA (SQ. YD.)
27+05.00	27+53.00	LT.	26.67
27+58.00	28+30.14	LT.	40.08

TREE GRATES	
STATION	OFFSET
27+74.78	22.33' RT.

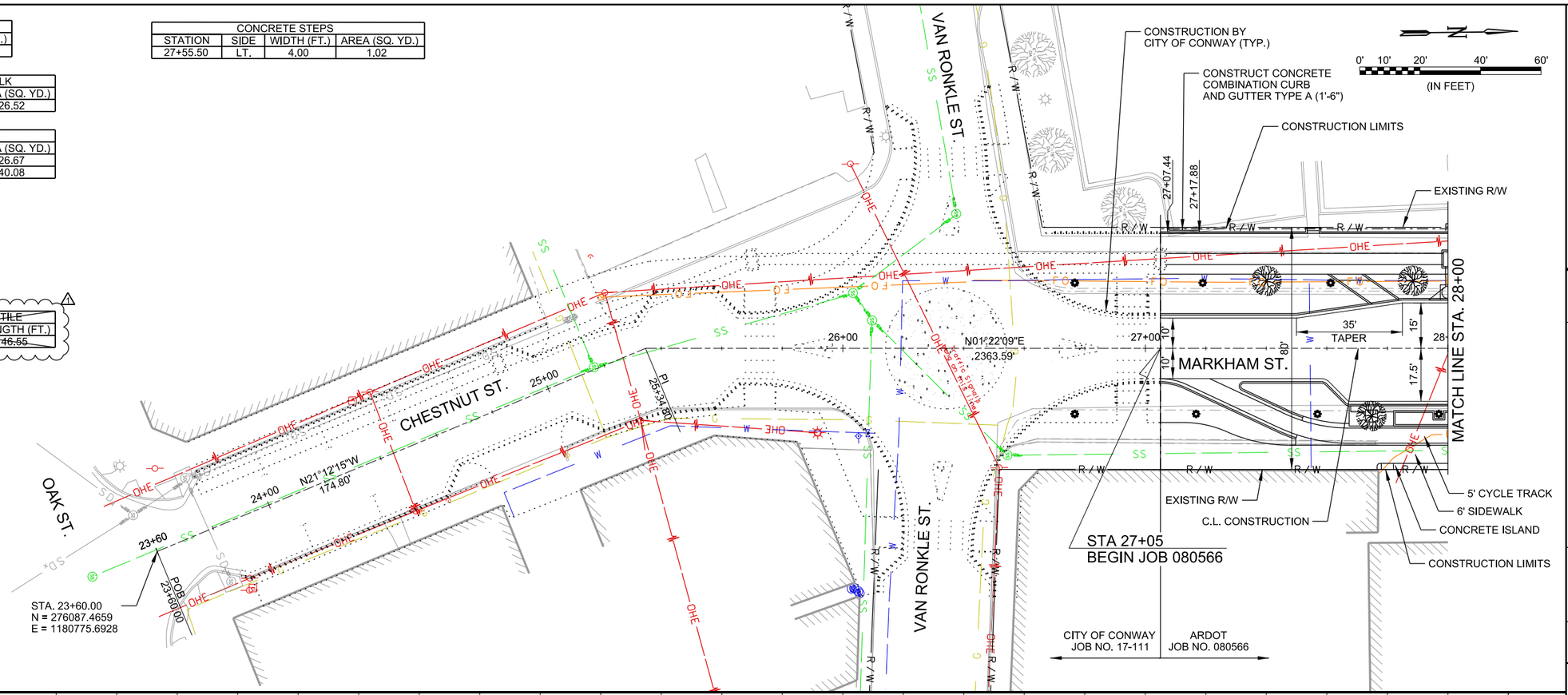
DRAINAGE CUT THROUGH ISLAND		
LOCATION	SIDE	WIDTH
27+80.00	RT.	4'-0"

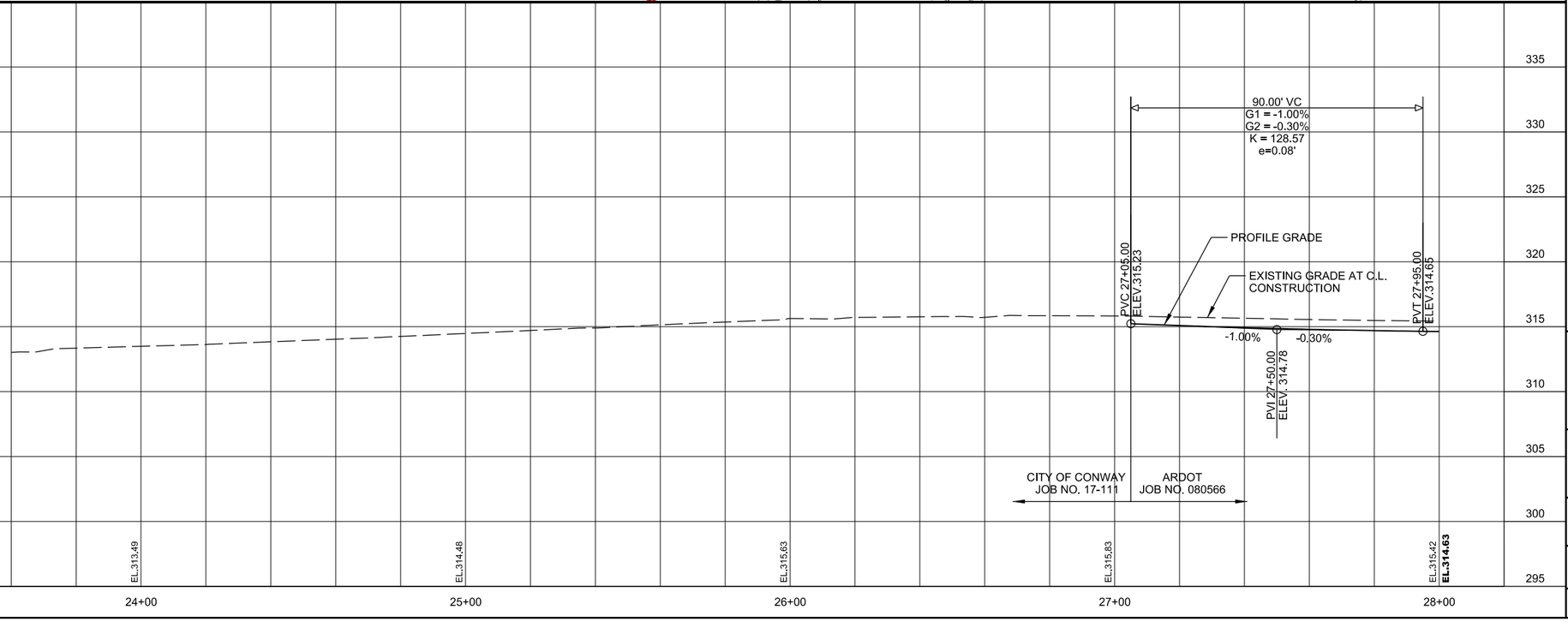
~~DETECTABLE DIRECTIONAL BAR TILE~~			
~~STATION~~	~~STATION~~	~~SIDE~~	~~LENGTH (FT.)~~
~~27+49.71~~	28+96.26	RT.	~~146.55~~

CONCRETE STEPS			
STATION	SIDE	WIDTH (FT.)	AREA (SQ. YD.)
27+55.50	LT.	4.00	1.02

CALL BEFORE YOU DIG! ARKANSAS ONE CALL 1-800-482-8998 OR 811

SEE GENERAL NOTE 1, DRAWING G-002 OF THESE PLANS.





GARVER LLC No. 766 CERTIFICATE OF AUTHORIZATION ARKANSAS ENGINEER

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.14994 DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - REMOVE DETECTABLE DIRECTIONAL BAR TILE	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

PLAN AND PROFILE - MARKHAM ST. (SHEET 1 OF 6)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: DLT

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-601

SHEET NUMBER **37**

DLTackett 10/14/2019 2:38:39 PM
WORKSPACE\Garver_2012 - Conway - Markham Street\Drawings\CMSH-C601-PP-C01.dgn
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TREE GRATES	
STATION	OFFSET
28+19.28	22.33' RT.
28+63.77	22.33' RT.
30+12.09	22.33' RT.
31+78.16	22.33' LT.
32+31.69	22.33' LT.

RAMPS		
LOCATION	TYPE	AREA (SQ. YD.)
30+48 LT.	ACCESS	6.86
30+78 LT.	ACCESS	6.87
32+27 RT.	ACCESS	6.87
32+61 RT.	ACCESS	6.86

DETECTABLE DIRECTIONAL BAR TILE			
STATION	STATION	SIDE	LENGTH (FT.)
29+20.26	30+53.43	RT.	133.17
30+78.43	31+55.85	RT.	77.42
31+48.57	32+72.77	LT.	124.20

CONCRETE STEPS			
LOCATION	SIDE	WIDTH (FT.)	AREA (SQ. YD.)
31+17.50	LT.	6.00	1.43

CONSTRUCTION BY CITY OF CONWAY (TYP.)

CONSTRUCT CONCRETE COMBINATION CURB AND GUTTER TYPE A (1'-6")

C.L. MARKHAM ST. STA. 30+64.09
C.L. SMITH ST.
∢ = 87°59'47"

MARKHAM ST. STA. 28+43.14 CONSTRUCT CONCRETE DRIVEWAY (TYPE I) LT.

EXISTING R/W

C.L. CONSTRUCTION

CONSTRUCTION LIMITS

6' SIDEWALK

5' CYCLE TRACK

MARKHAM ST. STA. 32+82.77 CONSTRUCT CONCRETE DRIVEWAY (TYPE I) LT.

BIORETENTION PLANTER (TYP.)

MATCH LINE STA. 28+00

MATCH LINE STA. 33+00

MARKHAM ST.

SMITH ST.

GARLAND ST.

N01°22'09"E
2363.59'

BIORETENTION PLANTER (TYP.)

5' CYCLE TRACK

6' SIDEWALK

CONCRETE ISLAND

EXISTING R/W

CONSTRUCTION LIMITS

MARKHAM ST. STA. 29+08.26 CONSTRUCT CONCRETE DRIVEWAY (TYPE II) RT.

MARKHAM ST. STA. 30+65.93 CONSTRUCT CONCRETE DRIVEWAY (TYPE I) RT.

C.L. MARKHAM ST. STA. 32+42.67
C.L. GARLAND ST.
∢ = 87°42'24"

0' 10' 20' 40' 60'
(IN FEET)

DRAINAGE CUT THROUGH ISLAND		
LOCATION	SIDE	WIDTH
28+65.00	RT.	4'-0"
30+19.00	RT.	4'-0"
31+28.00	RT.	4'-0"
31+78.00	RT.	4'-0"

CONCRETE ISLAND BEHIND WALK			
STATION	STATION	SIDE	AREA (SQ. YD.)
29+20.26	29+59.00	RT.	8.51
29+75.00	30+53.43	RT.	17.33
30+78.43	32+28.24	RT.	33.24

SIDEWALK (TYPE SPECIAL I)			
STATION	STATION	SIDE	AREA (SQ. YD.)
28+56.14	30+37.13	LT.	100.55
30+80.00	31+14.00	LT.	18.89
31+21.00	31+55.00	LT.	18.89
32+25.93	32+65.00	LT.	21.70

CALL BEFORE YOU DIG! ARKANSAS ONE CALL 1-800-482-8998 OR 811

SEE GENERAL NOTE 1, DRAWING G-002 OF THESE PLANS.

90.00' VC
G1 = -0.30%
G2 = 0.28%
K = 155.17
e=0.07'

PVC 29+25.00
ELEV.314.26

PVI 29+70.00
ELEV. 314.12

PVT 30+15.00
ELEV.314.25

PROFILE GRADE

EXISTING GRADE AT C.L. CONSTRUCTION

-0.30%

0.28%

	EXISTING	PROPOSED
28+00	EL.315.42	EL.314.63
29+00	EL.315.22	EL.314.33
30+00	EL.315.09	EL.314.21
31+00	EL.315.31	EL.314.48
32+00	EL.315.56	EL.314.76
33+00	EL.315.83	EL.315.04

335 330 325 320 315 310 305 300 295

GARVER LLC No. 766 ARKANSAS ENGINEER

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.14994 DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - REMOVE DETECTABLE DIRECTIONAL BAR TILE	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

PLAN AND PROFILE - MARKHAM ST. (SHEET 2 OF 6)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: DLT

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DRAWING NUMBER
C-602

SHEET NUMBER 38

DLTackett 10/14/2019 2:38:40 PM
WORKSPACE:Garver_2012
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TREE GRATES	
STATION	OFFSET
33+32.54	22.33' LT.
33+42.15	22.33' RT.
33+83.55	22.33' LT.
33+86.75	22.33' RT.
34+29.35	22.33' RT.
34+30.56	22.33' LT.
34+75.95	22.33' RT.
34+85.57	22.33' LT.
36+81.67	22.33' RT.
36+97.94	22.33' LT.
37+24.80	22.33' RT.
37+42.09	22.33' LT.
37+86.24	22.33' LT.

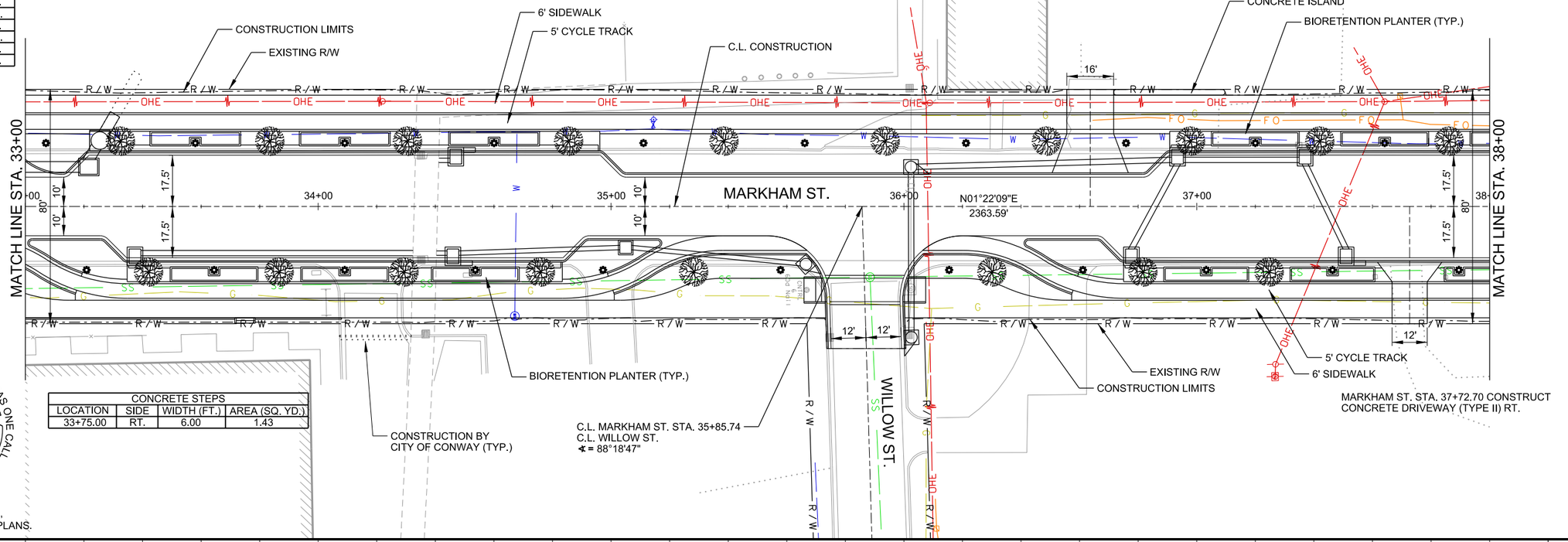
CONCRETE ISLAND BEHIND WALK			
STATION	STATION	SIDE	AREA (SQ. YD.)
36+71.63	37+09.63	LT.	8.35

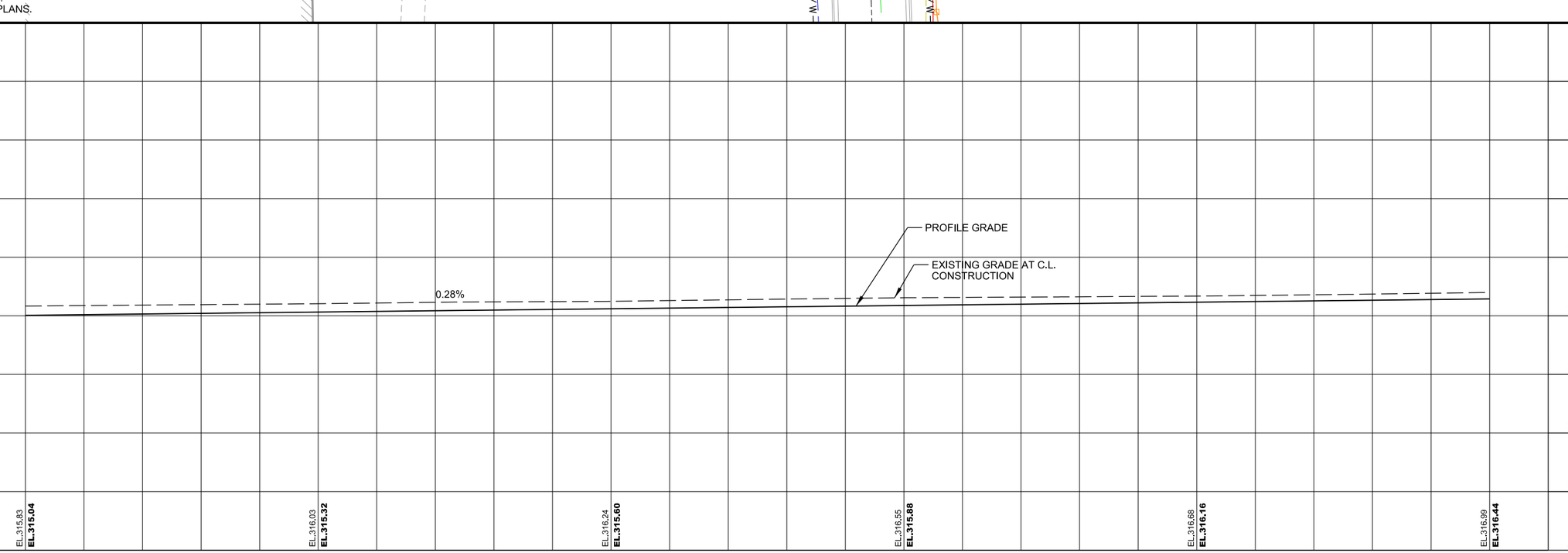
SIDEWALK (TYPE SPECIAL I)			
STATION	STATION	SIDE	AREA (SQ. YD.)
32+80.00	33+71.50	RT.	50.83
33+78.50	34+08.00	RT.	16.39

RAMPS		
LOCATION	TYPE	AREA (SQ. YD.)
35+72 RT.	ACCESS	6.87
36+01 RT.	ACCESS	6.86

DETECTABLE DIRECTIONAL BAR TILE			
STATION	STATION	SIDE	LENGTH (FT.)
32+92.77	36+56.63	LT.	362.86
33+17.07	35+01.09	RT.	184.02
36+57.29	37+66.70	RT.	109.41
36+71.63	38+26.67	LT.	155.04

CONCRETE STEPS			
LOCATION	SIDE	WIDTH (FT.)	AREA (SQ. YD.)
33+75.00	RT.	6.00	1.43





SEE GENERAL NOTE 1, DRAWING G-002 OF THESE PLANS.

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0' 10' 20' 40' 60'
(IN FEET)

CERTIFICATE OF AUTHORIZATION
GARVER LLC
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT
Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - REMOVE DETECTABLE DIRECTIONAL BAR TILE	DLT

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METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

PLAN AND PROFILE - MARKHAM ST. (SHEET 3 OF 6)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: DLT

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-603

SHEET NUMBER **39**

DLTackett 10/14/2019 2:38:41 PM
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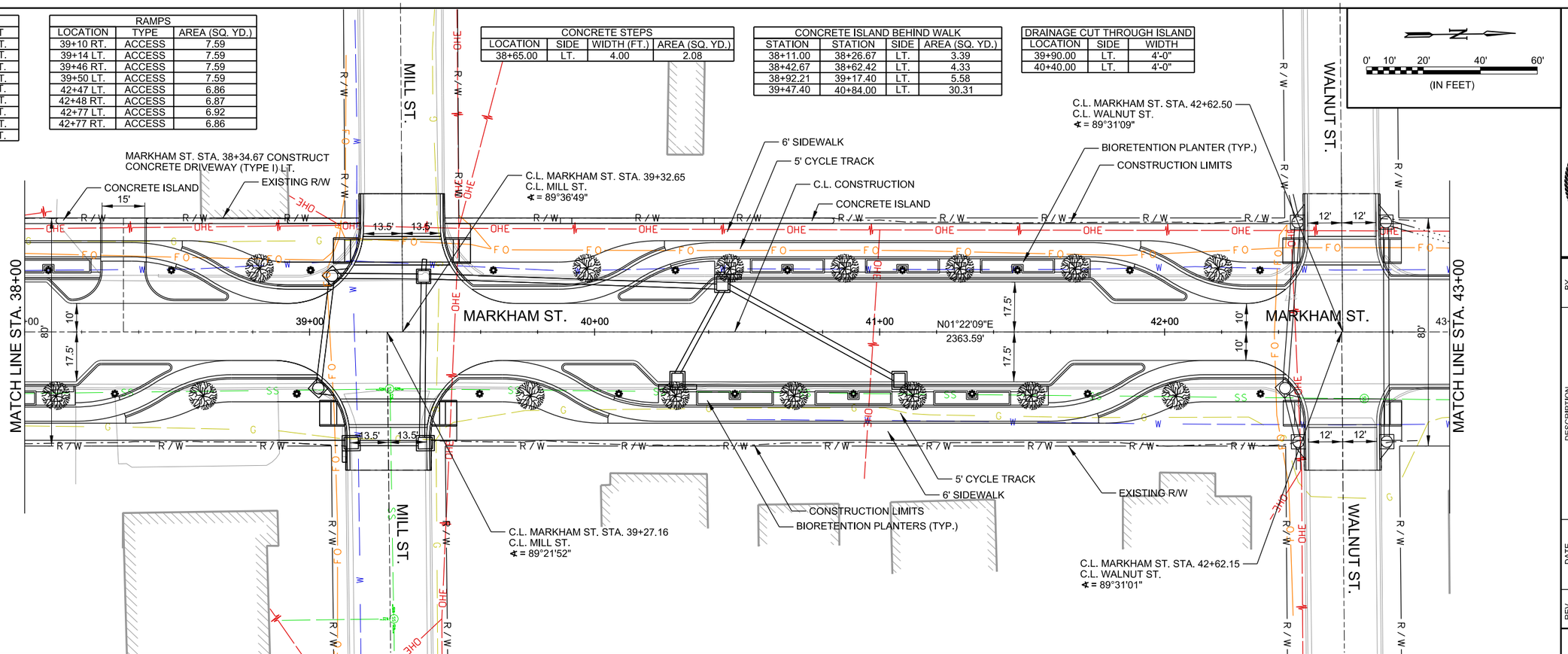
TREE GRATES	
STATION	OFFSET
38+11.06	22.33' RT.
40+28.38	22.33' RT.
40+47.46	22.33' LT.
40+70.01	22.33' RT.
40+87.84	22.33' LT.
41+11.63	22.33' RT.
41+28.21	22.33' LT.
41+53.26	22.33' RT.
41+68.59	22.33' LT.

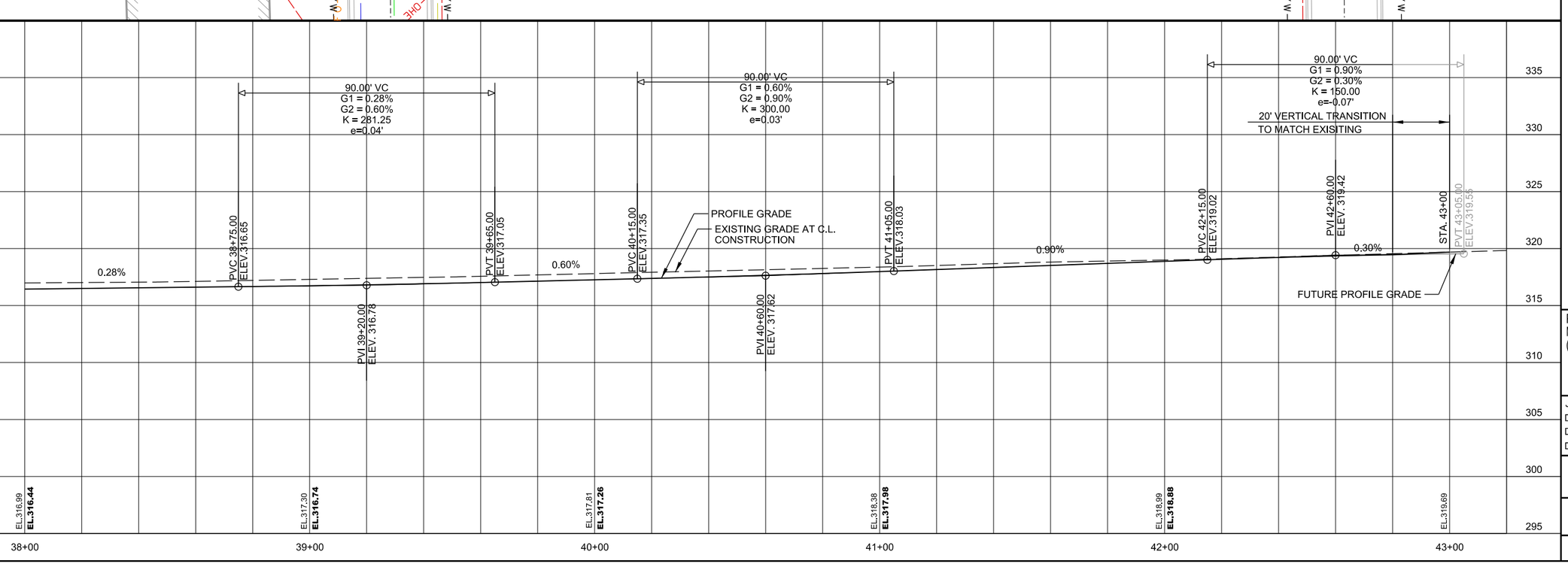
RAMPS		
LOCATION	TYPE	AREA (SQ. YD.)
39+10 RT.	ACCESS	7.59
39+14 LT.	ACCESS	7.59
39+46 RT.	ACCESS	7.59
39+50 LT.	ACCESS	7.59
42+47 LT.	ACCESS	6.86
42+48 RT.	ACCESS	6.87
42+77 LT.	ACCESS	6.92
42+77 RT.	ACCESS	6.86

CONCRETE STEPS			
LOCATION	SIDE	WIDTH (FT.)	AREA (SQ. YD.)
38+65.00	LT.	4.00	2.08

CONCRETE ISLAND BEHIND WALK			
STATION	STATION	SIDE	AREA (SQ. YD.)
38+11.00	38+26.67	LT.	3.39
38+42.67	38+62.42	LT.	4.33
38+92.21	39+17.40	LT.	5.58
39+47.40	40+84.00	LT.	30.31

DRAINAGE CUT THROUGH ISLAND		
LOCATION	SIDE	WIDTH
39+90.00	LT.	4'-0"
40+40.00	LT.	4'-0"





0' 10' 20' 40' 60'
(IN FEET)

CERTIFICATE OF AUTHORIZATION
GARVER LLC
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
DUSTIN L. TACKETT
LICENSED PROFESSIONAL ENGINEER
No.14994
Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
	10/14/2019	CHANGE ORDER NO. 1 - REPLACE SHEET	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

PLAN AND PROFILE - MARKHAM ST. (SHEET 4 OF 6)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: DLT

BAR IS ONE INCH ON ORIGINAL DRAWING
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DRAWING NUMBER
C-604

SHEET NUMBER **40**

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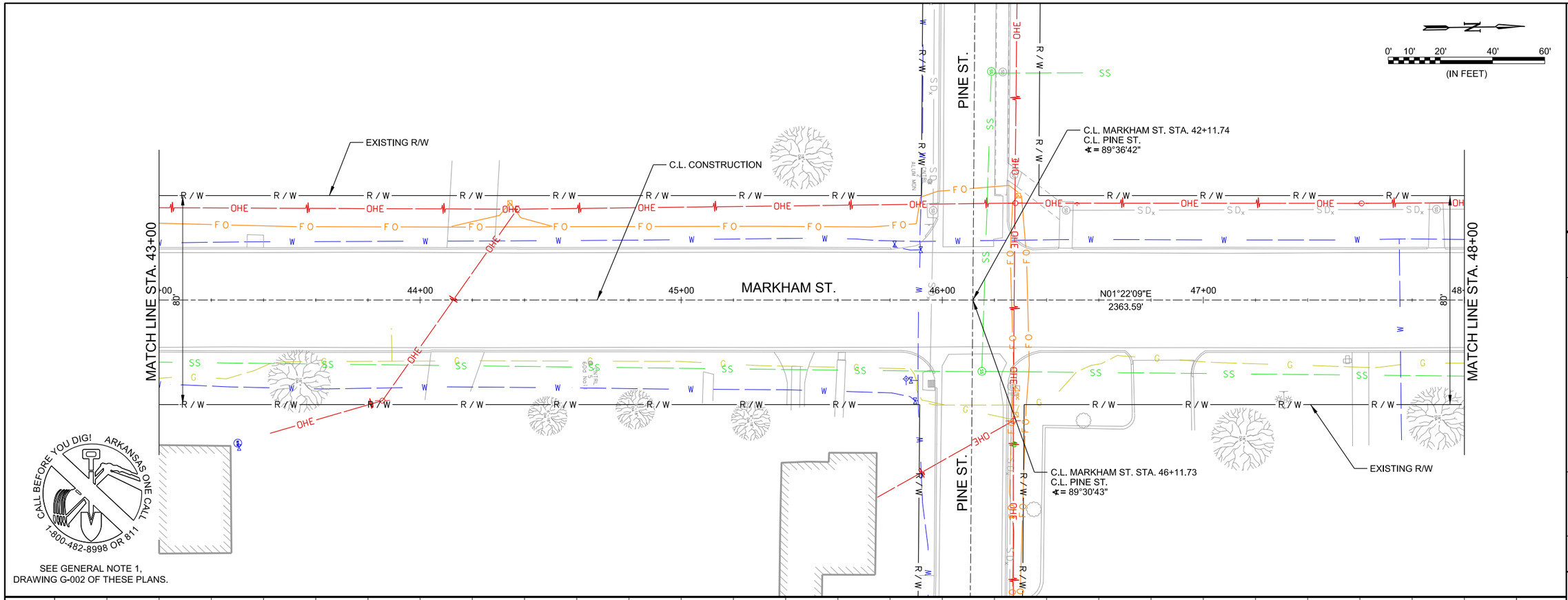
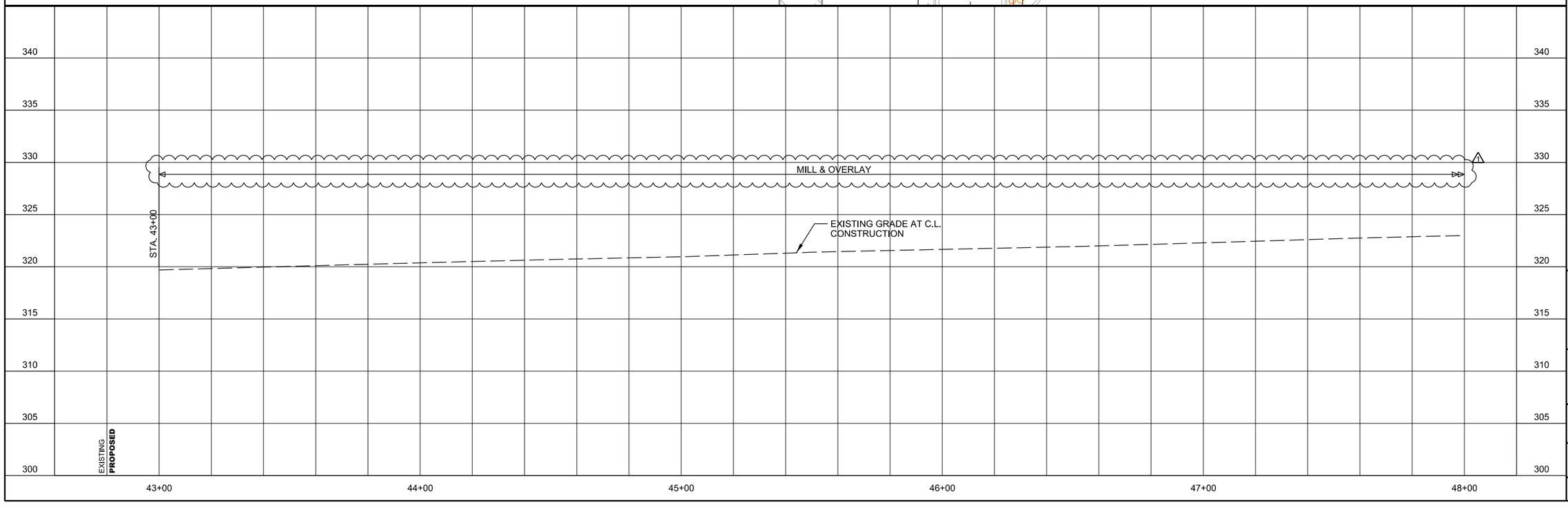


CALL BEFORE YOU DIG! ARKANSAS ONE CALL 1-800-482-8998 OR 811

SEE GENERAL NOTE 1, DRAWING G-002 OF THESE PLANS.



GARVER LLC No. 766 CERTIFICATE OF AUTHORIZATION ARKANSAS ENGINEER

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.14994 DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - ADD MILL & OVERLAY	DLT

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LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

PLAN AND PROFILE - MARKHAM ST.

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: DLT

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DRAWING NUMBER
C-605

SHEET NUMBER **41**

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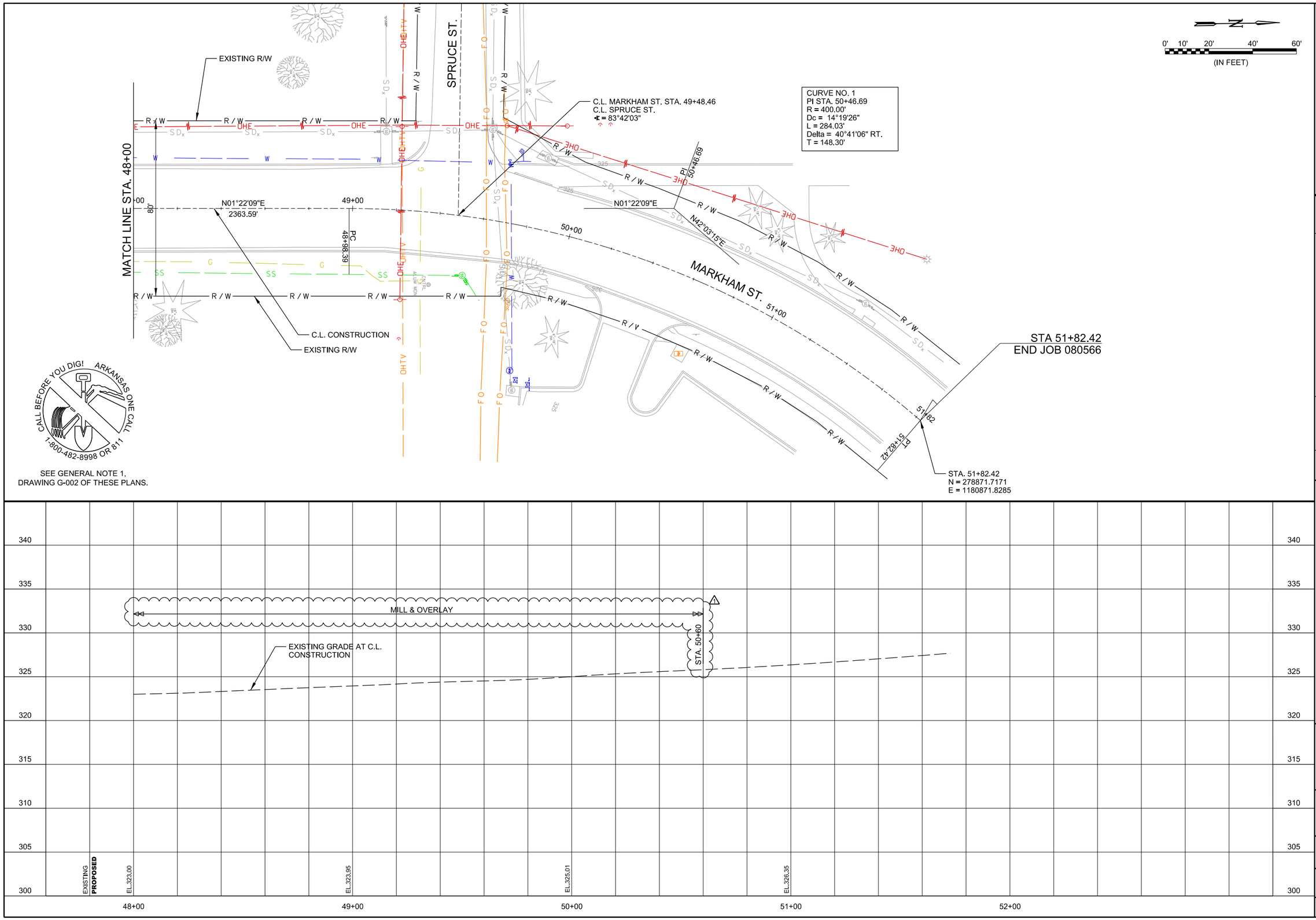

GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 14994
DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - ADD MILL & OVERLAY	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

PLAN AND PROFILE - MARKHAM ST.

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: DLT

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DRAWING NUMBER
C-606

SHEET NUMBER **42**

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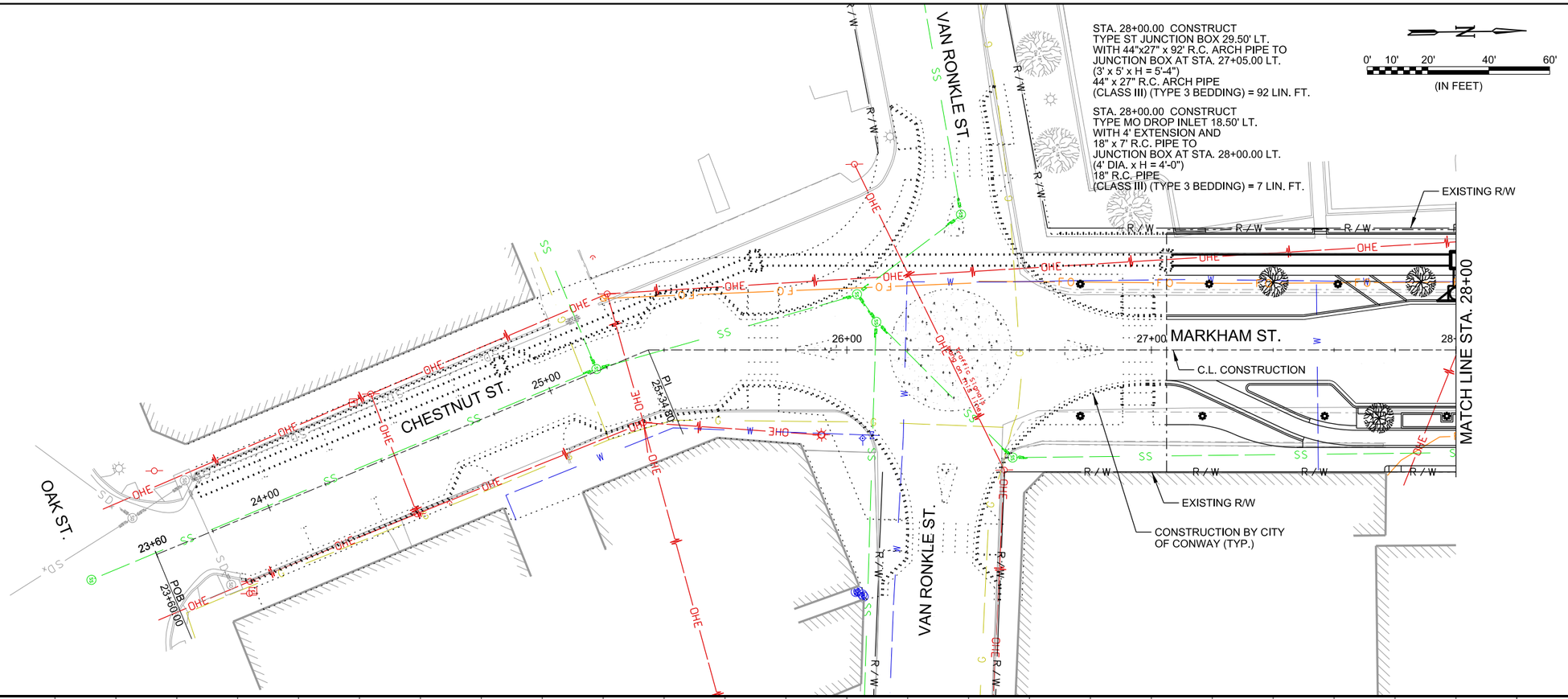

CALL BEFORE YOU DIG! ARKANSAS ONE CALL 1-800-482-8998 OR 811

SEE GENERAL NOTE 1, DRAWING G-002 OF THESE PLANS.

GARVER LLC
CERTIFICATE OF AUTHORIZATION
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

Digitally Signed 02/26/2019

BY	DESCRIPTION	DATE	REV.

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

DRAINAGE PLAN AND PROFILE - MARKHAM ST. (SHEET 1 OF 4)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: AEW
DRAWN BY: AEW

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DRAWING NUMBER
C-701

SHEET NUMBER **43**

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STA. 28+75.00 CONSTRUCT
TYPE MO DROP INLET 18.50' LT.
WITH 4' EXTENSION AND
22" x 14" x 31' R.C. ARCH PIPE TO
DROP INLET AT STA. 28+75.00 RT.
(4' DIA. x H = 2'-10")
22" x 14" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 31 LIN. FT.

STA. 29+72.50 COORDINATE
CONSTRUCTION OF
TYPE ST DROP INLET 41.00' LT.
WITH CITY OF CONWAY
JACOB REYNOLDS (501) 733-6078

STA. 29+72.50 CONSTRUCT
TYPE ST JUNCTION BOX 29.50' LT.
WITH 44" x 27" x 169' R.C. ARCH PIPE TO
JUNCTION BOX AT STA. 28+00.00 LT.
ADD 24" x 8' R.C. PIPE STUB
(4' x 5' x H = 4'-8")
44" x 27" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 169 LIN. FT.

STA. 29+74.00 CONSTRUCT
TYPE MO DROP INLET 18.50' LT.
WITH 2-4' EXTENSIONS AND
22" x 14" x 31' R.C. ARCH PIPE TO
DROP INLET AT STA. 29+74.00 RT.
(4' DIA. x H = 2'-11")
22" x 14" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 31 LIN. FT.

STA. 30+35.15 CONSTRUCT
TYPE ST JUNCTION BOX 29.50' LT.
WITH 44" x 27" x 57' R.C. ARCH PIPE TO
JUNCTION BOX AT STA. 29+72.50 LT.
(7' x 5' X H = 4'-8")
44" x 27" R.C. ARCH PIPE
(CLASS III) (TYPE 3 BEDDING) = 57 LIN. FT.

STA. 30+42.39 CONSTRUCT
TYPE MO DROP INLET 20.93' LT.
WITH 44" x 27" x 9' R.C. ARCH PIPE TO
JUNCTION BOX AT STA. 30+35.15 LT.
(6' DIA. x H = 4'-6")
44" x 27" R.C. ARCH PIPE
(CLASS III) (TYPE 3 BEDDING) = 9 LIN. FT.

STA. 30+47.33 CONSTRUCT
TYPE MO DROP INLET 35.62' LT.
WITH 18" x 9' R.C. PIPE TO
JUNCTION BOX AT STA. 30+35.15 LT.
(4' DIA. x H = 4'-0")
18" R.C. PIPE
(CLASS III) (TYPE 3 BEDDING) = 9 LIN. FT.

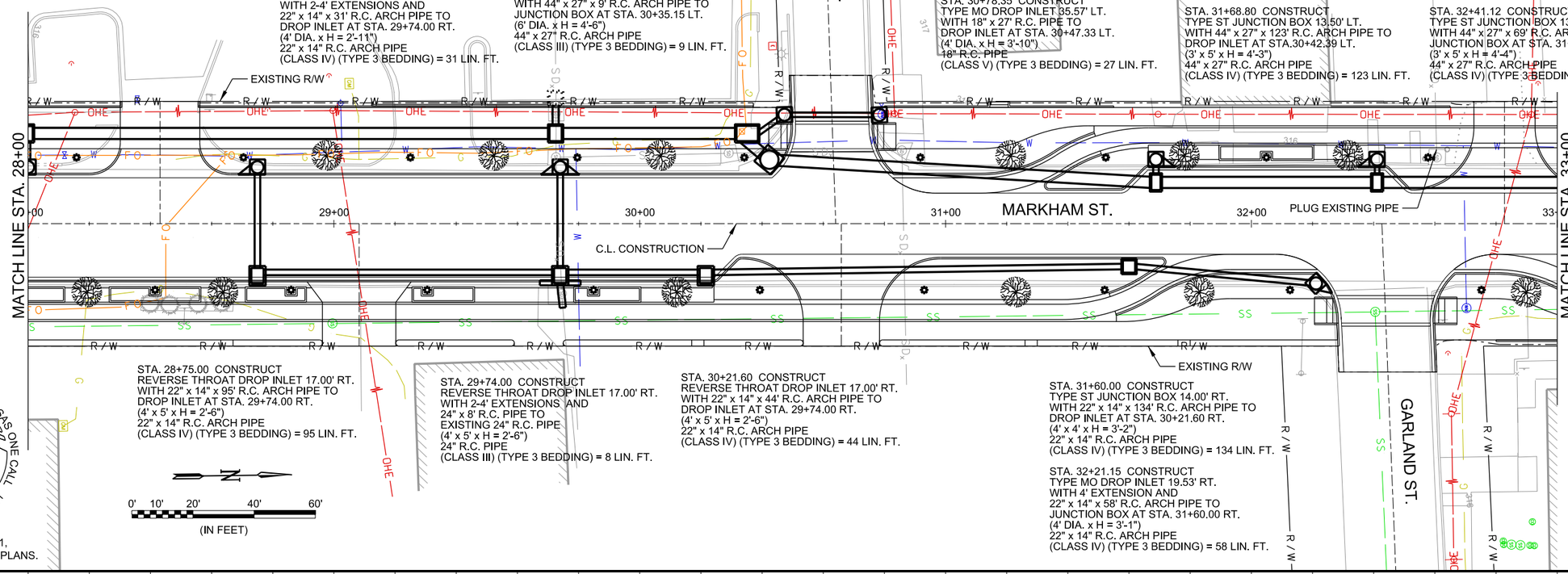
STA. 30+78.35 CONSTRUCT
TYPE MO DROP INLET 35.57' LT.
WITH 18" x 27' R.C. PIPE TO
DROP INLET AT STA. 30+47.33 LT.
(4' DIA. x H = 3'-10")
18" R.C. PIPE
(CLASS V) (TYPE 3 BEDDING) = 27 LIN. FT.

STA. 31+68.80 CONSTRUCT
TYPE MO DROP INLET 21.00' LT.
WITH 4' EXTENSION AND
18" x 3' R.C. PIPE TO
JUNCTION BOX AT STA. 31+68.80 LT.
(4' DIA. x H = 3'-9")
18" R.C. PIPE
(CLASS V) (TYPE 3 BEDDING) = 3 LIN. FT.

STA. 31+68.80 CONSTRUCT
TYPE ST JUNCTION BOX 13.50' LT.
WITH 44" x 27" x 123' R.C. ARCH PIPE TO
DROP INLET AT STA.30+42.39 LT.
(3' x 5' x H = 4'-3")
44" x 27" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 123 LIN. FT.

STA. 32+41.12 CONSTRUCT
TYPE MO DROP INLET 21.00' LT.
WITH 4' EXTENSION AND
18" x 3' R.C. PIPE TO
JUNCTION BOX AT STA. 32+41.12 LT.
(4' DIA. x H = 3'-11")
18" R.C. PIPE
(CLASS V) (TYPE 3 BEDDING) = 3 LIN. FT.

STA. 32+41.12 CONSTRUCT
TYPE ST JUNCTION BOX 13.50' LT.
WITH 44" x 27" x 69' R.C. ARCH PIPE TO
JUNCTION BOX AT STA. 31+68.80 LT.
(3' x 5' x H = 4'-4")
44" x 27" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 69 LIN. FT.



STA. 28+75.00 CONSTRUCT
REVERSE THROAT DROP INLET 17.00' RT.
WITH 22" x 14" x 95' R.C. ARCH PIPE TO
DROP INLET AT STA. 29+74.00 RT.
(4' x 5' x H = 2'-6")
22" x 14" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 95 LIN. FT.

STA. 29+74.00 CONSTRUCT
REVERSE THROAT DROP INLET 17.00' RT.
WITH 2-4' EXTENSIONS AND
24" x 8' R.C. PIPE TO
EXISTING 24" R.C. PIPE
(4' x 5' x H = 2'-6")
24" R.C. PIPE
(CLASS III) (TYPE 3 BEDDING) = 8 LIN. FT.

STA. 30+21.60 CONSTRUCT
REVERSE THROAT DROP INLET 17.00' RT.
WITH 22" x 14" x 44' R.C. ARCH PIPE TO
DROP INLET AT STA. 29+74.00 RT.
(4' x 5' x H = 2'-6")
22" x 14" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 44 LIN. FT.

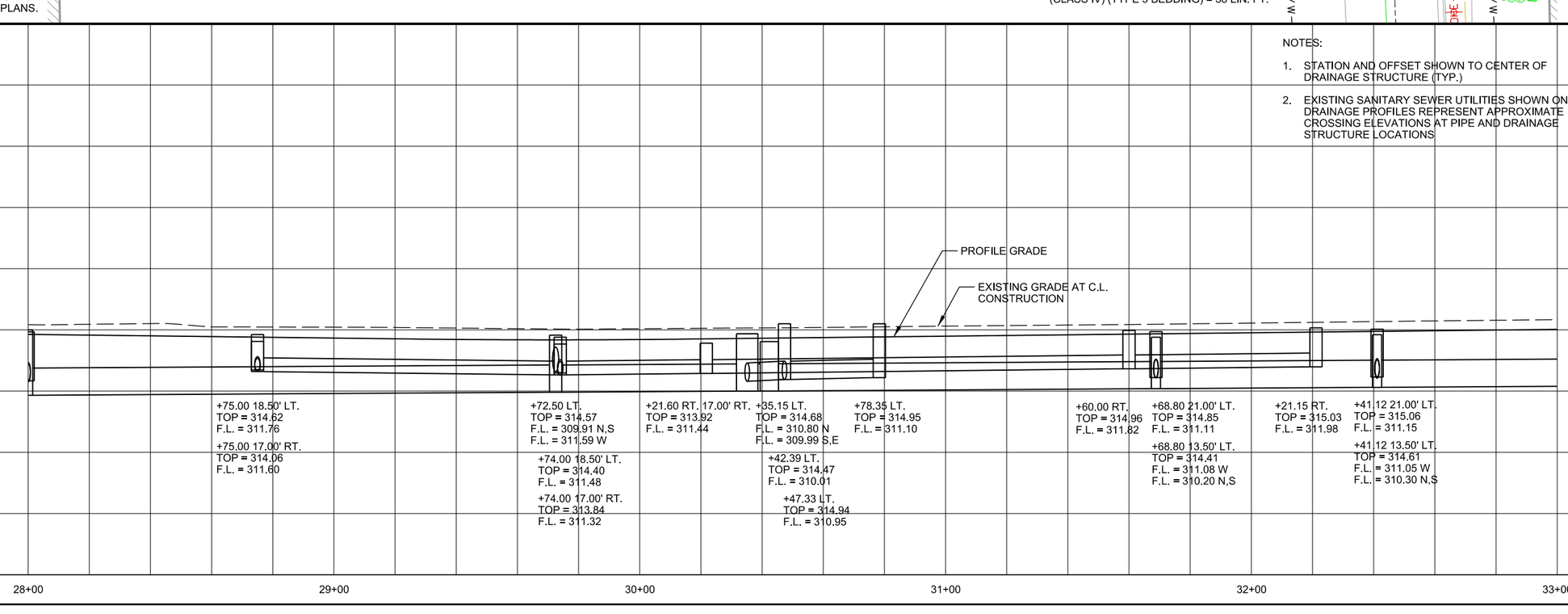
STA. 31+60.00 CONSTRUCT
TYPE ST JUNCTION BOX 14.00' RT.
WITH 22" x 14" x 134' R.C. ARCH PIPE TO
DROP INLET AT STA. 30+21.60 RT.
(4' x 4' x H = 3'-2")
22" x 14" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 134 LIN. FT.

STA. 32+21.15 CONSTRUCT
TYPE MO DROP INLET 19.53' RT.
WITH 4' EXTENSION AND
22" x 14" x 58' R.C. ARCH PIPE TO
JUNCTION BOX AT STA. 31+60.00 RT.
(4' DIA. x H = 3'-1")
22" x 14" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 58 LIN. FT.

0' 10' 20' 40' 60'
(IN FEET)

CALL BEFORE YOU DIG! ARKANSAS ONE CALL 1-800-482-8998 OR 811

SEE GENERAL NOTE 1,
DRAWING G-002 OF THESE PLANS.



NOTES:

1. STATION AND OFFSET SHOWN TO CENTER OF DRAINAGE STRUCTURE (TYP.)
2. EXISTING SANITARY SEWER UTILITIES SHOWN ON THE DRAINAGE PROFILES REPRESENT APPROXIMATE CROSSING ELEVATIONS AT PIPE AND DRAINAGE STRUCTURE LOCATIONS

GARVER LLC No. 766 CERTIFICATE OF AUTHORIZATION ARKANSAS ENGINEER

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.13653 ADAM E. WIERCIAK

Digitally Signed 02/26/2019

BY	DESCRIPTION	DATE	REV.

METROPLAN SMART PLANNING MAKES SMART PLACES

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

DRAINAGE PLAN AND PROFILE - MARKHAM ST. (SHEET 2 OF 4)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: AEW
DRAWN BY: AEW

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DRAWING NUMBER
C-702

SHEET NUMBER **44**

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STA. 33+25.43 CONSTRUCT
TYPE MO DROP INLET 22.50' LT.
WITH 2' EXTENSION AND
WITH 44" x 27" x 6' R.C. ARCH PIPE TO
JUNCTION BOX AT STA. 33+21.68 LT.
AND 44" x 27" x 8' R.C. ARCH PIPE STUB
(6' DIA. x H = 4'-11")
44" x 27" R.C. ARCH PIPE
(CLASS III) (TYPE 3 BEDDING) = 14 LIN. FT.

STA. 33+30.62 COORDINATE
CONSTRUCTION OF
44" x 27" R.C. ARCH PIPE EXTENSION
WITH CITY OF CONWAY
JACOB REYNOLDS (501) 733-6078

STA. 33+21.68 CONSTRUCT
TYPE ST JUNCTION BOX 13.50' LT.
WITH 44" x 27" x 76' R.C. ARCH PIPE TO
JUNCTION BOX AT STA. 32+41.12 LT.
(6' x 5' x H = 4'-5")
44" x 27" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 76 LIN. FT.

STA. 34+47.00 CONSTRUCT
REVERSE THROAT DROP INLET 17.00' LT.
WITH 4' EXTENSION AND
18" x 4' R.C. PIPE TO
EXISTING BOX CULVERT
(4' x 5' x H = 2'-9")
18" R.C. PIPE
(CLASS V) (TYPE 3 BEDDING) = 4 LIN. FT.

STA. 36+02.42 CONSTRUCT
TYPE MO DROP INLET 13.50' LT.
WITH 4' EXTENSION
CONNECT TO EXISTING 18" PIPE
(4' DIA. x H = 3'-1")

STA. 36+93.42 CONSTRUCT
REVERSE THROAT DROP INLET 17.00' LT.
WITH 4' EXTENSION AND
22" x 14" x 87' R.C. ARCH PIPE TO
INLET AT STA. 36+02.42 LT.
(4' x 5' x H = 2'-5")
22" x 14" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 87 LIN. FT.

STA. 37+37.00 CONSTRUCT
REVERSE THROAT DROP INLET 17.00' LT.
WITH 22" x 14" x 40' R.C. ARCH PIPE TO
DROP INLET AT STA. 36+93.42 LT.
(4' x 5' x H = 2'-5")
22" x 14" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 40 LIN. FT.

EXISTING R/W

MATCH LINE STA. 33+00

MATCH LINE STA. 38+00

MARKHAM ST.

15.92' LT.

15.92' RT.

15.92' RT.

C.L. CONSTRUCTION

WILLOW ST.

EXISTING R/W

STA. 33+37.46 CONSTRUCT
REVERSE THROAT DROP INLET 17.00' RT.
WITH 4' EXTENSION AND
22" x 14" x 93' R.C. ARCH PIPE TO
EXISTING BOX CULVERT
(4' x 5' x H = 2'-5")
22" x 14" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 93 LIN. FT.

STA. 34+46.00 CONSTRUCT
REVERSE THROAT DROP INLET 17.00' RT.
WITH 4' EXTENSION AND
18" x 4' R.C. PIPE TO
EXISTING BOX CULVERT
(4' x 5' x H = 2'-9")
18" R.C. PIPE
(CLASS V) (TYPE 3 BEDDING) = 4 LIN. FT.

STA. 35+05.00 CONSTRUCT
TYPE ST JUNCTION BOX 14.00' RT.
WITH 18" x 55' R.C. PIPE TO
DROP INLET AT STA. 34+46.00 RT.
(4' x 4' x H = 3'-5")
18" R.C. PIPE
(CLASS V) (TYPE 3 BEDDING) = 55 LIN. FT.

STA. 35+66.55 CONSTRUCT
TYPE MO DROP INLET 19.69' RT.
WITH 4' EXTENSION AND
18" x 58' R.C. PIPE TO
JUNCTION BOX AT STA. 35+05.00
(4' DIA. x H = 3'-3")
18" R.C. PIPE
(CLASS III) (TYPE 3 BEDDING) = 58 LIN. FT.

STA. 36+02.56 CONSTRUCT
TYPE MO DROP INLET 44.69' RT.
WITH 4' EXTENSION AND
22" x 14" x 55' R.C. ARCH PIPE TO
DROP INLET AT STA. 36+02.42 LT.
(4' DIA. x H = 3'-0")
22" x 14" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 55 LIN. FT.

STA. 36+77.69 CONSTRUCT
REVERSE THROAT DROP INLET 17.00' RT.
WITH 4' EXTENSION AND
22" x 14" x 33' R.C. ARCH PIPE TO
DROP INLET AT STA. 36+93.42 LT.
(4' x 5' x H = 2'-3")
22" x 14" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 33 LIN. FT.

STA. 37+51.00 CONSTRUCT
REVERSE THROAT DROP INLET 17.00' RT.
WITH 4' EXTENSION AND
22" x 14" x 32' R.C. ARCH PIPE TO
DROP INLET AT STA. 37+37.00 LT.
(4' x 5' x H = 2'-5")
22" x 14" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 32 LIN. FT.

0' 10' 20' 40' 60'
(IN FEET)

CALL BEFORE YOU DIG! ARKANSAS ONE CALL 1-800-482-8998 OR 811

SEE GENERAL NOTE 1,
DRAWING G-002 OF THESE PLANS.

NOTES:

1. STATION AND OFFSET SHOWN TO CENTER OF DRAINAGE STRUCTURE (TYP.)
2. EXISTING SANITARY SEWER UTILITIES SHOWN ON THE DRAINAGE PROFILES REPRESENT APPROXIMATE CROSSING ELEVATIONS AT PIPE AND DRAINAGE STRUCTURE LOCATIONS

335 330 325 320 315 310 305 300 295

EXISTING BOX CULVERT

PROFILE GRADE

EXISTING GRADE AT C.L. CONSTRUCTION

+21.68 LT.
TOP = 314.83
F.L. = 310.42

+30.62 LT.
F.L. = 310.44

+25.43 LT.
TOP = 315.32
F.L. = 310.43

+37.46 17.00' RT.
TOP = 314.81
F.L. = 312.38

+32.38 15.92 RT.
F.L. = 312.10

+40.38 15.92' RT.
F.L. = 312.25

+41.17 15.92' LT.
F.L. = 312.25

+47.00 LT.
TOP = 315.12
F.L. = 312.37

+46.00 RT.
TOP = 315.11
F.L. = 312.37

+05.00 RT.
TOP = 315.92
F.L. = 312.54

+66.55 RT.
TOP = 315.96
F.L. = 312.71

+02.42 LT.
TOP = 316.19
F.L. = 313.13

+02.56 RT.
TOP = 316.39
F.L. = 313.35

+93.42 17.00' LT.
TOP = 315.81
F.L. = 313.37

+77.52 RT.
TOP = 315.76
F.L. = 313.47

+37.00 17.00' LT.
TOP = 315.93
F.L. = 313.48

+51.00 RT.
TOP = 315.97
F.L. = 313.57

EXISTING 8" SANITARY SEWER (TYP.)

33+00 34+00 35+00 36+00 37+00 38+00

GARVER LLC
CERTIFICATE OF AUTHORIZATION
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

Digitally Signed 02/26/2019

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

DRAINAGE PLAN AND PROFILE - MARKHAM ST.
(SHEET 3 OF 4)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: AEW
DRAWN BY: AEW

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DRAWING NUMBER
C-703

SHEET NUMBER 45

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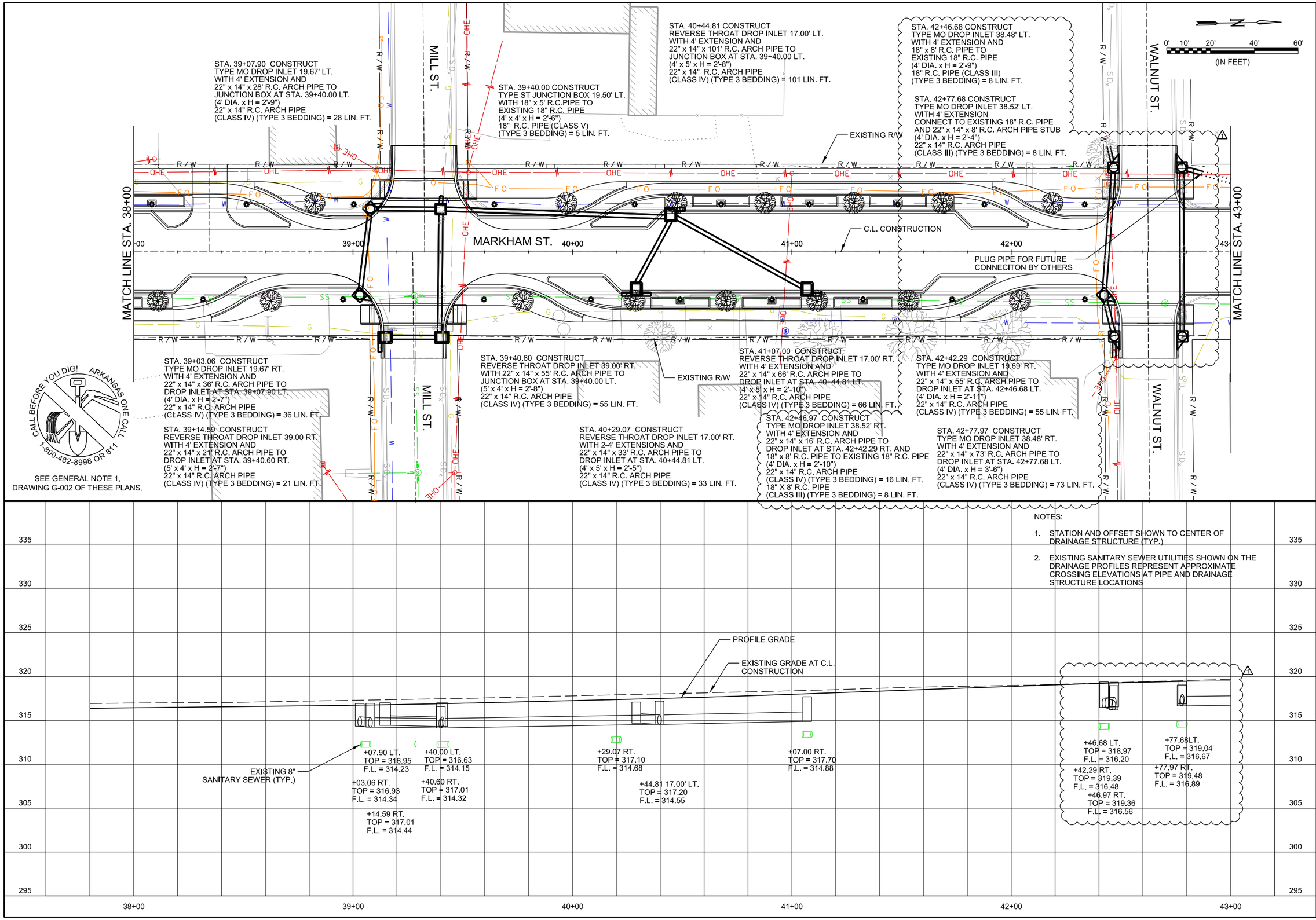

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GARVER LLC
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - ADD DRAINAGE STRUCTURES AT WALNUT	AEW

METROPLAN
SMART PLANNING MAKES SMART PLACES

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

DRAINAGE PLAN AND PROFILE - MARKHAM ST.

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: AEW
DRAWN BY: AEW

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-704

SHEET NUMBER 46

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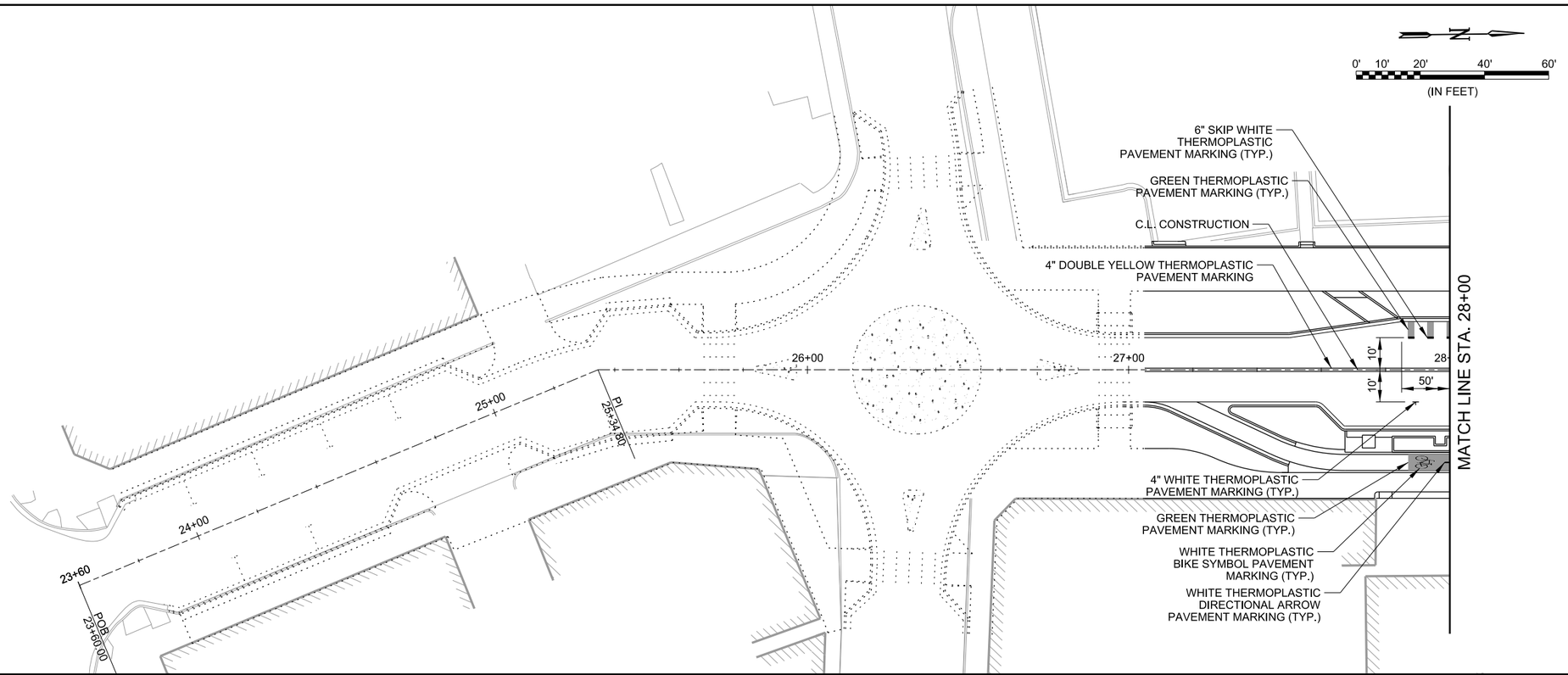

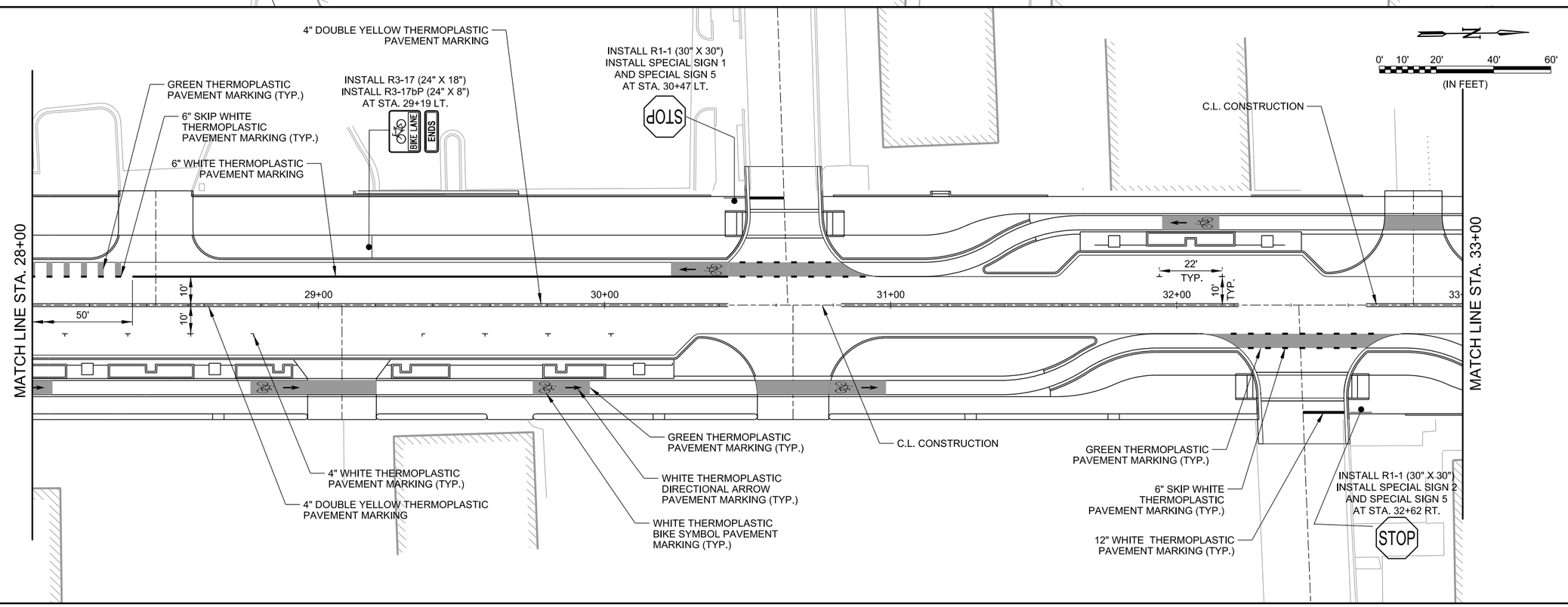

GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 14994
DUSTIN L. TACKETT

Digitally Signed 02/25/2019

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

PAVEMENT MARKING AND SIGNING PLANS (SHEET 1 OF 3)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

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0 1"
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DRAWING NUMBER
C-801

SHEET NUMBER **47**

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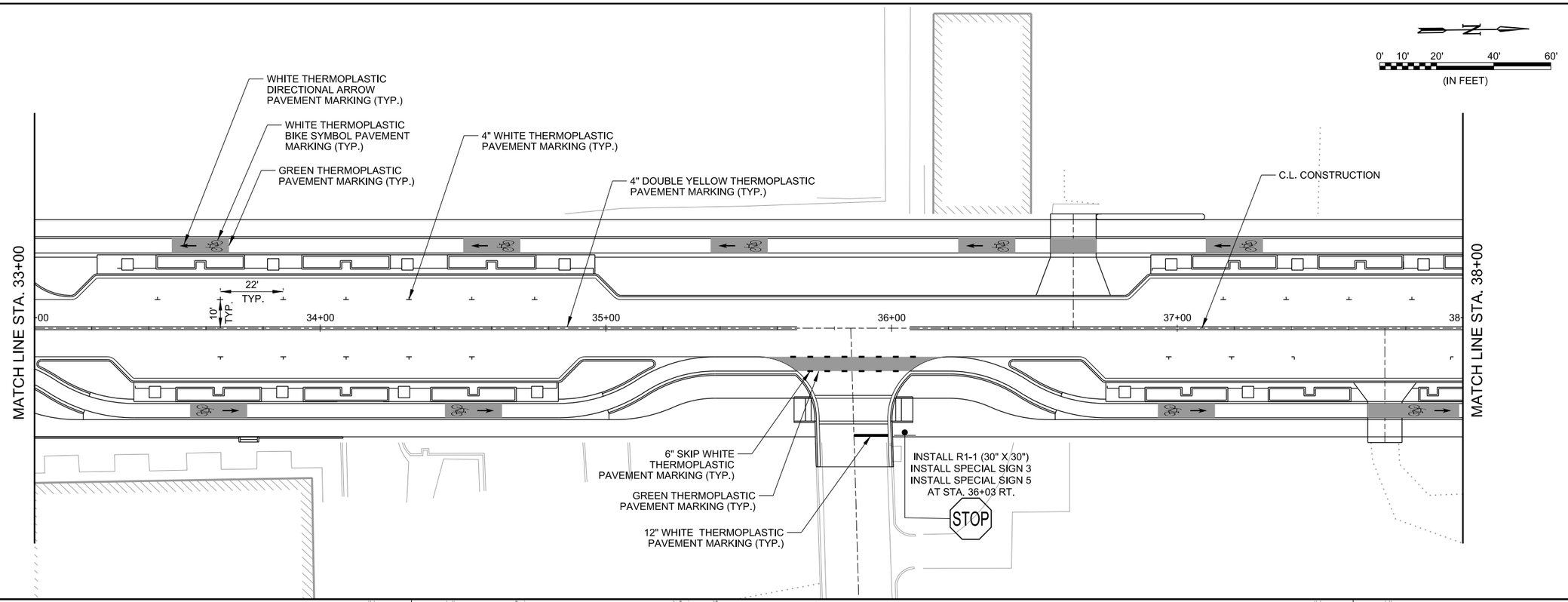

GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - REVISE MARKINGS MILL TO WALNUT	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

PAVEMENT MARKING AND SIGNING PLANS

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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DRAWING NUMBER
C-802

SHEET NUMBER **48**

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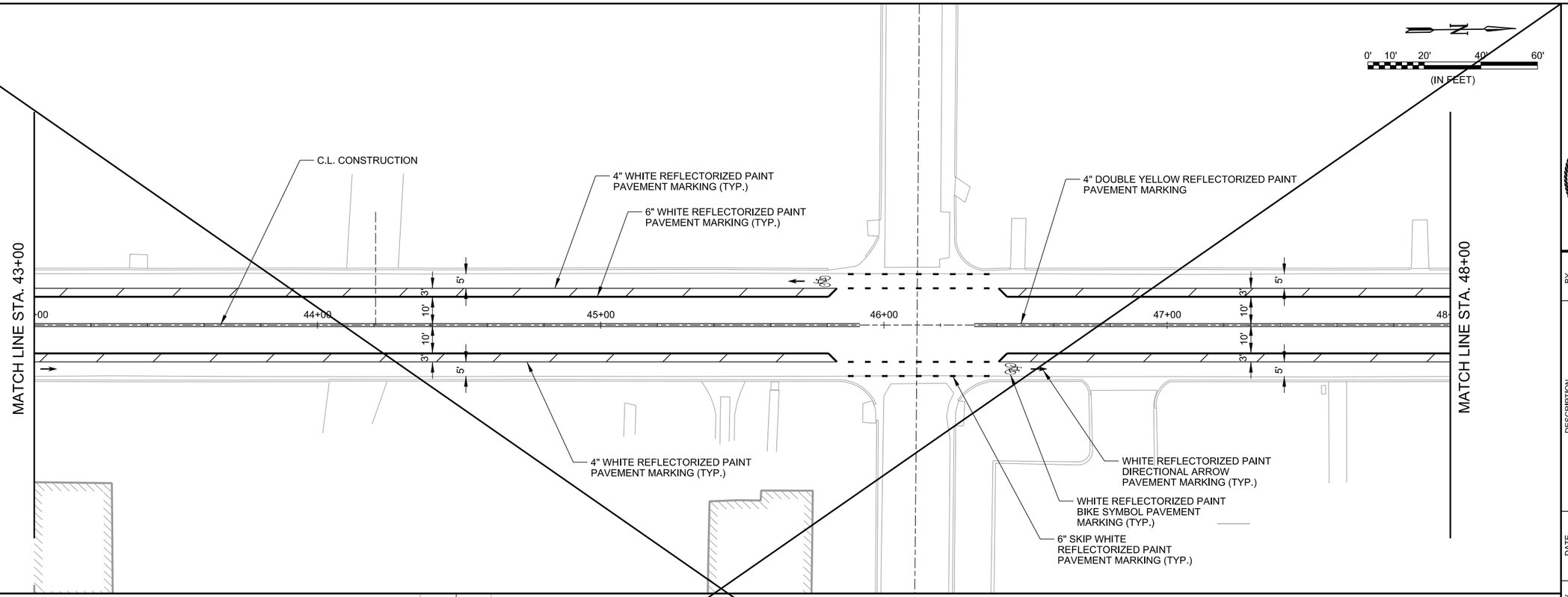

CERTIFICATE OF AUTHORIZATION
GARVER LLC
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 02/25/2019

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

PAVEMENT MARKING AND SIGNING PLAN
(SHEET 3 OF 3)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-803

SHEET NUMBER **49**

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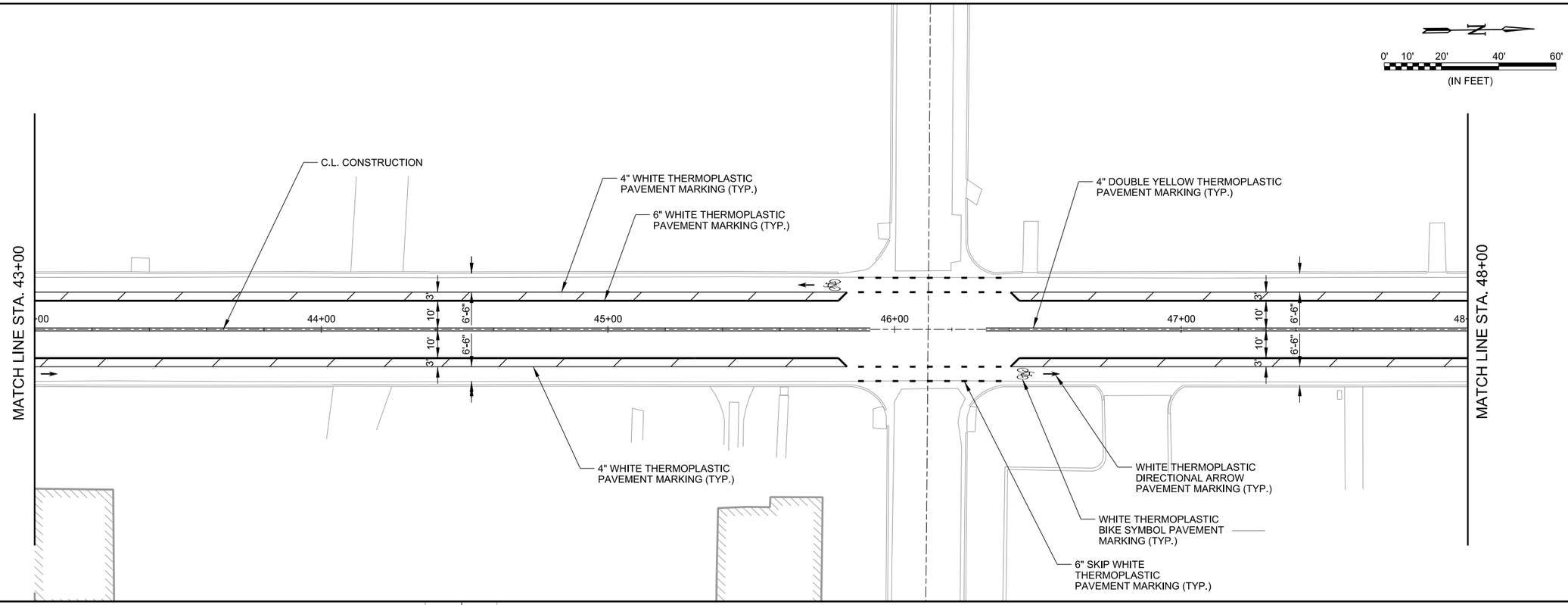

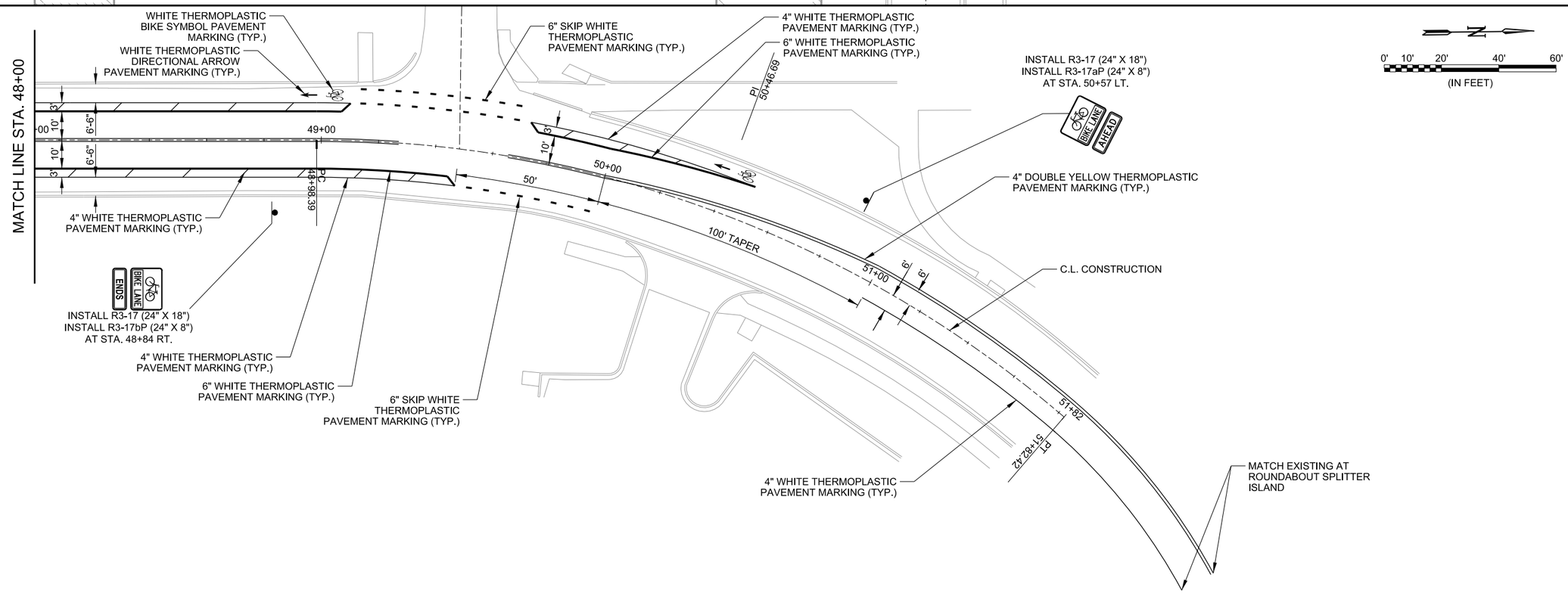

GARVER LLC
No. 766
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT

Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
	10/14/2019	CHANGE ORDER NO. 1 - REPLACE SHEET	DLT

METROPLAN
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METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

PAVEMENT MARKING AND SIGNING PLAN
(SHEET 3 OF 3)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-803

SHEET NUMBER **49**

DLTackett 10/14/2019 2:38:49 PM
WORKSPACE:Garver_2012
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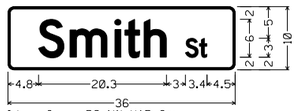

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[Smith] D 2K;[St] D 2K;

SPECIAL SIGN 1

Identifier : D3-1(1)_VARx8*;
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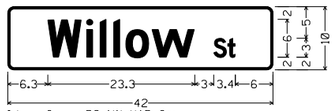
[Garland] D 2K;[St] D 2K;

SPECIAL SIGN 2



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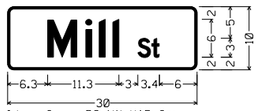
SPECIAL SIGN 3



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[Mill] D 2K;[St] D 2K;

SPECIAL SIGN 4

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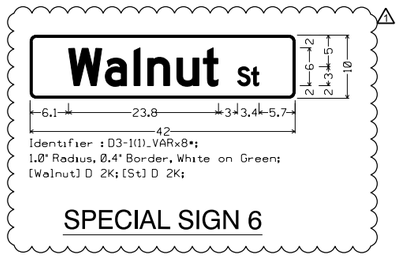
[Markham] D 2K;[St] D 2K;

SPECIAL SIGN 5



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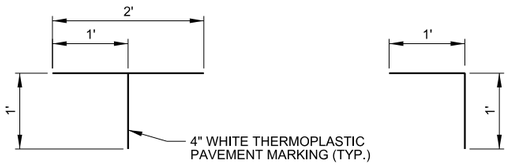
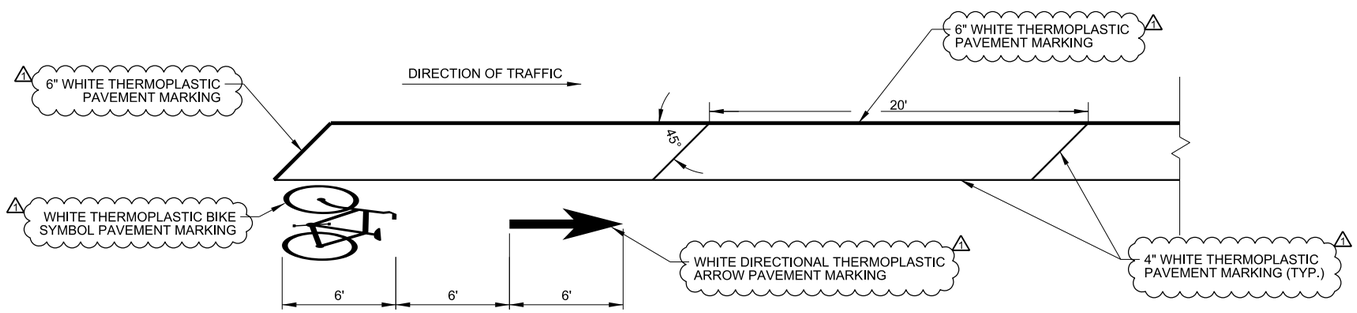
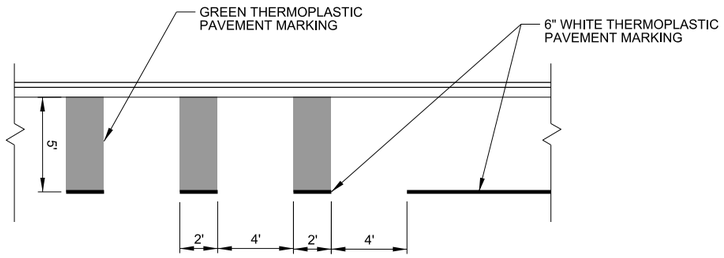
SPECIAL SIGN 6



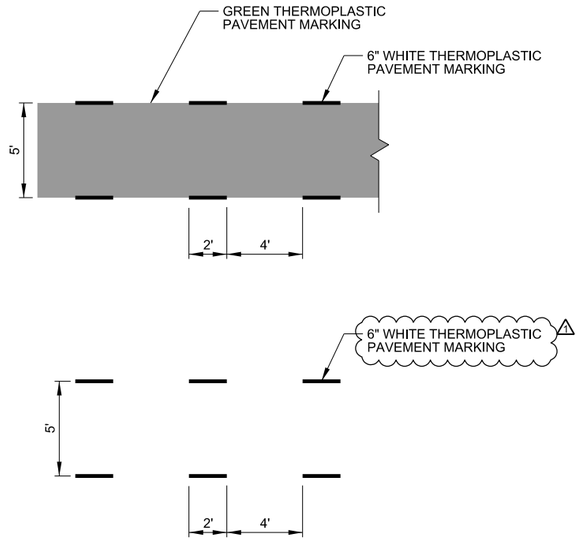
PARALLEL PARKING PAVEMENT MARKING DETAILS



BIKE LANE BUFFER PAVEMENT MARKING DETAIL



END BIKE LANE PAVEMENT MARKING DETAIL



BIKE LANE AT INTERSECTIONS PAVEMENT MARKING DETAILS

GARVER LLC
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER
No. 766

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14994
DUSTIN L. TACKETT
Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - ADD SIGN AND REMOVE REFLECTORIZED PAINT PAVEMENT MARKINGS	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

PAVEMENT MARKING AND SIGNING DETAILS

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: MJM

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C-804

SHEET NUMBER **50**

ELECTRICAL SYMBOLS LEGEND

●	NEW POLE FOUNDATION. LUMINAIRE AND POLE TO BE INSTALLED BY CONWAY CORPORATION. SEE NOTES, PLANS, AND SCHEDULES FOR MORE INFORMATION.
PB	PULLBOX, SIZE AS NOTED IN PLANS AND DETAILS.
SP	SERVICE POINT, REFER TO ONE-LINE DIAGRAMS FOR MORE INFORMATION.
———	CONDUIT AS NOTED IN NOTES AND SCHEDULES. WIRE TO BE INSTALLED BY CONWAY CORPORATION.
⏚	3/4" x 10' COPPER CLAD GROUND ROD.
PEC	WATERPROOF PHOTOELECTRIC CONTROL
M	METER TO BE PROVIDED BY CONWAY CORPORATION
⏚	LIGHTING CONTACTOR
SPD	SURGE PROTECTIVE DEVICE WITH INDICATING LIGHTS
20A/1P	CIRCUIT BREAKER, TRIP RATING AND POLE NUMBER SHOWN
	20 AMP DUPLEX RECEPTACLE, WITH GROUND WIRE

ABBREVIATIONS

A	AMP
AIC	AMPS INTERRUPTING CAPACITY
AUX	AUXILIARY
BKR	BREAKER
C	CONDUIT
CB	CIRCUIT BREAKER
CGRS	PVC COATED GALVANIZED RIGID STEEL
DEB	DIRECT EARTH BURIED
EC	EMPTY OR EMBEDDED CONDUIT
EG	EQUIPMENT GROUND
EMT	ELECTRICAL METALLIC TUBING
FDS	FUSED DISCONNECT SWITCH
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
GRS	GALVANIZED RIGID STEEL
HOA	HAND-OFF-AUTO
HR	HOUR
JB	JUNCTION BOX
kVA	KILOVOLT-AMPERE
kVAR	KILOVOLT-AMPERE, REACTIVE
kW	KILOWATT
LO	LUGS ONLY
LOR	LOCAL-OFF-REMOTE
LSI	LONG, SHORT, INSTANTANEOUS
LSIG	LONG, SHORT, INSTANTANEOUS, GROUND
LV	LOW VOLTAGE
MCB	MAIN CIRCUIT BREAKER
MIN	MINIMUM
MLO	MAIN LUGS ONLY
N	NEUTRAL
PEC	PHOTO ELECTRIC CELL
PNL	PANEL
PVC	SCHEDULE 40 POLYVINYL CONDUIT
RECPT	RECEPTACLE
SE	SERVICE ENTRANCE
SN	SOLID NEUTRAL
SPD	SURGE PROTECTIVE DEVICE
SS	STAINLESS STEEL
STA	STATION
SW	SWITCH
TC	TIME CLOCK
TR	TAMPER RESISTANT
UG	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UGP	UNDERGROUND PRIMARY
UGS	UNDERGROUND SECONDARY
UON	UNLESS OTHERWISE NOTED
V	VOLT
VA	VOLT-AMP
WP	WEATHERPROOF
XFMR	TRANSFORMER

GENERAL NOTES:

1. SOME SYMBOLS OR ABBREVIATIONS MAY APPEAR ON THIS SHEET BUT NOT BE UTILIZED ON THE PROJECT.
2. LEGEND SHOWS EXAMPLE IDENTIFIERS, REFER TO NOTES AND PLANS FOR MORE INFORMATION.
3. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARDS AND DETAILS, AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITIONS.
4. CONDUIT INSTALLED UNDER ROADWAY SECTIONS SHALL BE INSTALLED BY PUSHING OR BORING METHODS. IF THE ENGINEER DETERMINEES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD MAY BE USED.
5. CONTRACTOR SHALL USE HDPE OR PVC FOR BORING. SECTIONAL PVC SHALL BE UL LISTED AND MARKED FOR USE IN DIRECTIONAL BORING.

FIXTURE LOCATION SCHEDULE

STATION	OFFSET	FOUNDATION TYPE
26+76.67	21.67 RT.	TYPE I
26+76.67	21.67 LT.	TYPE I
27+16.79	21.67 RT.	TYPE I
27+18.96	21.67 LT.	TYPE I
27+56.91	21.67 RT.	TYPE I
27+61.25	21.67 LT.	TYPE I
27+97.03	21.67 RT.	TYPE III
28+15.84	21.67 LT.	TYPE I
28+41.52	21.67 RT.	TYPE III
28+70.43	21.67 LT.	TYPE I
28+86.02	21.67 RT.	TYPE II
29+25.02	21.67 LT.	TYPE I
29+30.51	21.67 RT.	TYPE III
29+79.61	21.67 LT.	TYPE I
29+84.90	21.67 RT.	TYPE III
30+34.20	21.67 LT.	TYPE I
30+39.29	21.67 RT.	TYPE I
30+91.77	21.67 LT.	TYPE I
30+93.02	21.67 RT.	TYPE I
31+52.02	21.67 RT.	TYPE I
31+52.39	21.67 LT.	TYPE I
32+04.93	21.67 LT.	TYPE III
32+12.64	21.67 RT.	TYPE I
32+57.77	21.67 LT.	TYPE I
32+75.23	21.67 RT.	TYPE I
33+07.04	21.67 LT.	TYPE I
33+20.89	21.67 RT.	TYPE I
33+58.05	21.67 LT.	TYPE III
33+64.45	21.67 RT.	TYPE III
34+09.05	21.67 RT.	TYPE III
34+09.06	21.67 LT.	TYPE III
34+53.65	21.67 RT.	TYPE III
34+60.07	21.67 LT.	TYPE III
34+97.27	21.67 RT.	TYPE II
35+11.08	21.67 LT.	TYPE I
35+57.89	21.67 RT.	TYPE II
35+66.14	21.67 LT.	TYPE I
36+15.45	21.67 RT.	TYPE II
36+21.21	21.67 LT.	TYPE I
36+61.11	21.67 RT.	TYPE II
36+75.86	21.67 LT.	TYPE I
37+03.24	21.67 RT.	TYPE III
37+20.01	21.67 LT.	TYPE III
37+46.37	21.67 RT.	TYPE III
37+64.17	21.67 LT.	TYPE III
37+89.50	21.67 RT.	TYPE III
38+08.32	21.67 LT.	TYPE III
38+31.64	21.67 RT.	TYPE II
38+51.48	21.67 LT.	TYPE I
38+95.50	21.67 RT.	TYPE II
39+00.34	21.67 LT.	TYPE I
39+59.64	21.67 RT.	TYPE II
39+64.48	21.67 LT.	TYPE I
40+08.50	21.67 RT.	TYPE II
40+28.34	21.67 LT.	TYPE I
40+49.19	21.67 RT.	TYPE III
40+67.65	21.67 LT.	TYPE III
40+90.82	21.67 RT.	TYPE III
41+08.02	21.67 LT.	TYPE III
41+32.44	21.67 RT.	TYPE III
41+48.40	21.67 LT.	TYPE III
41+73.02	21.67 RT.	TYPE II
41+87.80	21.67 LT.	TYPE I
42+33.64	21.67 RT.	TYPE II
42+33.47	21.67 LT.	TYPE I

1

CERTIFICATE OF AUTHORIZATION
GARVER LLC
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16153
NICHOLAS A. HOLLAND

Digitally Signed 10/11/2019

REV.	DATE	DESCRIPTION	BY
1	10/11/19	CHANGE ORDER NO. 1 - ADD FIXTURE LOCATIONS	NAH

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

ELECTRICAL LEGEND

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: NAH
DRAWN BY: CJH

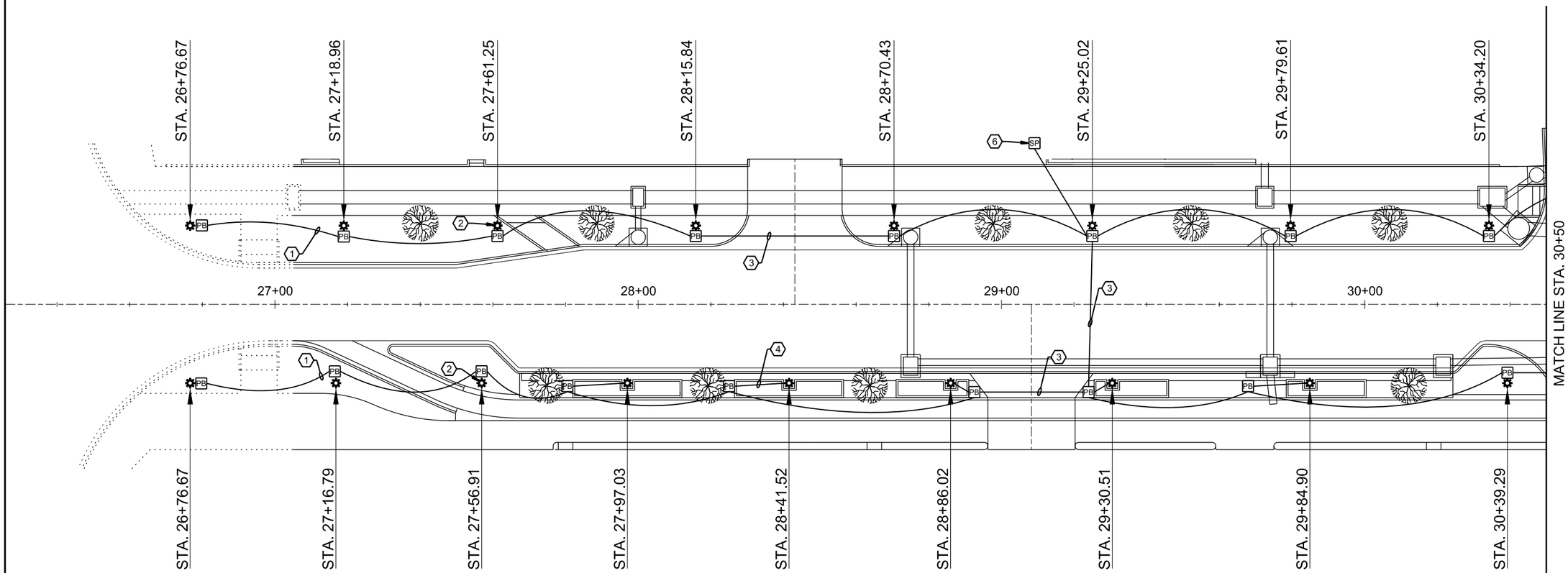
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
E-001

SHEET NUMBER **51**

GENERAL NOTES:

1. LIGHTING POLES, LUMINAIRES, AND WIRING SHALL BE PROVIDED AND INSTALLED BY CONWAY CORPORATION.
2. LIGHTING SHALL BE CONNECTED TO NEW SERVICE POINTS FOR CONTROLS AND POWER, COORDINATE FINAL LOCATIONS WITH ENGINEER AND UTILITY.
3. COORDINATE ALL WORK WITH THE ROADWAY, LANDSCAPING, AND IRRIGATION PLANS. CONDUIT ROUTING AS SHOWN IS APPROXIMATE WITH THE INTENT OF AVOIDING LANDSCAPING AND DRAINAGE SYSTEMS. CONTRACTOR SHALL COORDINATE LOCATION AND ROUTING OF CONDUIT WITH ENGINEER AND OTHER TRADES SUCH THAT THERE ARE MINIMUM CONFLICTS.
4. EXPOSED CONDUIT SHALL BE PVC COATED GALVANIZED RIGID STEEL. CONDUIT BURIED IN EARTH SHALL BE SCHEDULE 40 PVC. CONDUIT BURIED BELOW ROADWAY AND DRIVEWAYS SHALL BE SCHEDULE 80 PVC.
5. PROVIDE PULLROPE WITH 3' SLACK THROUGH ALL HANDHOLES, JUNCTION BOXES, AND PULLBOXES. (TYPICAL)



KEYED NOTES:

1. PROVIDE AND INSTALL NEW 2" PVC SCHEDULE 40 CONDUIT, BETWEEN PULLBOXES. PROVIDE AND INSTALL PULLROPE FOR FUTURE USE. (TYPICAL)
2. PROVIDE AND INSTALL NEW POLE FOUNDATON, SEE FIXTURE LOCATION SCHEDULE AND DETAILS FOR ADDITIONAL INFORMATION (TYPICAL). CONTRACTOR SHALL FIELD VERIFY POLE FOUNDATION TYPES AND LOCATIONS WITH CONSTRUCTION OBSERVER PRIOR TO CONSTRUCTION.
3. PROVIDE AND INSTALL NEW 2" PVC SCHEDULE 80 CONDUIT, BETWEEN PULLBOXES. PROVIDE AND INSTALL PULLROPE FOR FUTURE USE.
4. PROVIDE AND INSTALL NEW 2" PVC SCHEDULE 40 CONDUIT FROM PULLBOX TO POLE FOUNDATION, SEE DETAILS FOR ADDITIONAL INFORMATION. (TYPICAL) (1)
5. PROVIDE AND INSTALL NEW GFCI/WP RECEPTACLE CO-LOCATED WITHIN NEW IRRIGATION BACKFLOW PREVENTER ENCLOSURE. REFER TO IRRIGATION PLANS FOR ADDITIONAL INFORMATION.
6. PROVIDE AND INSTALL NEW POWER SERVICE PEDESTAL, MILBANK STYLE OR APPROVED EQUAL. REFER TO DETAILS FOR ADDITIONAL INFORMATION.

N

0' 15' 30' 45'
(IN FEET)

CERTIFICATE OF AUTHORIZATION
GARVER LLC
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16153
NICHOLAS A. HOLLAND
Digitally Signed 10/11/2019

REV.	DATE	DESCRIPTION	BY
1	10/11/19	CHANGE ORDER NO. 1 - REVISE CONDUIT SIZE	NAH

METROPLAN
SMART PLANNING MAKES SMART PLACES

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

ELECTRICAL INFRASTRUCTURE PLAN (SHEET 1 OF 4)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: NAH
DRAWN BY: CJH

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

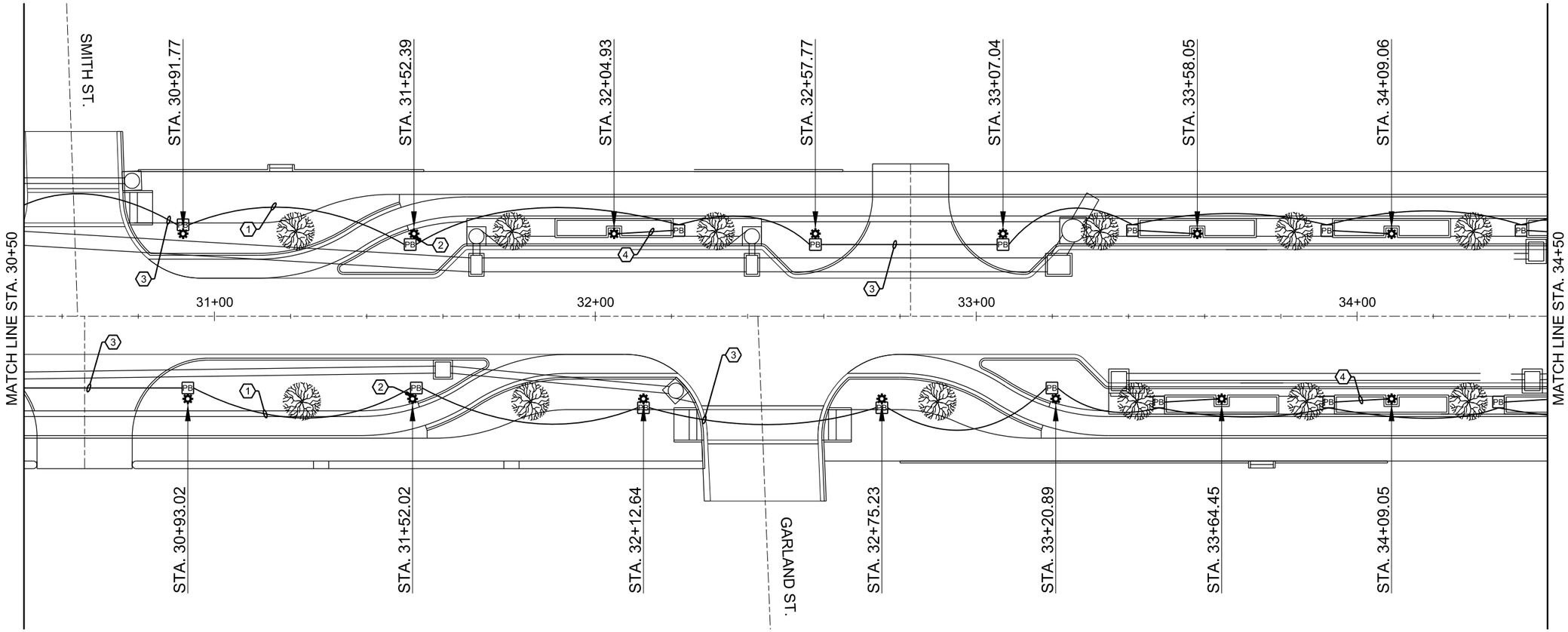
DRAWING NUMBER
E-201

SHEET NUMBER **52**

D.Tackett 10/11/2019 8:01:27 AM
WORKSPACE:Ganer_2012
L:\2016\16017122 - Conway - Markham Street\Drawings\CMSH-E201-LP-CO1.dgn

GENERAL NOTES:

1. LIGHTING POLES, LUMINAIRES, AND WIRING SHALL BE PROVIDED AND INSTALLED BY CONWAY CORPORATION.
2. LIGHTING SHALL BE CONNECTED TO NEW SERVICE POINTS FOR CONTROLS AND POWER, COORDINATE FINAL LOCATIONS WITH ENGINEER AND UTILITY.
3. COORDINATE ALL WORK WITH THE ROADWAY, LANDSCAPING, AND IRRIGATION PLANS. CONDUIT ROUTING AS SHOWN IS APPROXIMATE WITH THE INTENT OF AVOIDING LANDSCAPING AND DRAINAGE SYSTEMS. CONTRACTOR SHALL COORDINATE LOCATION AND ROUTING OF CONDUIT WITH ENGINEER AND OTHER TRADES SUCH THAT THERE ARE MINIMUM CONFLICTS.
4. EXPOSED CONDUIT SHALL BE PVC COATED GALVANIZED RIGID STEEL. CONDUIT BURIED IN EARTH SHALL BE SCHEDULE 40 PVC. CONDUIT BURIED BELOW ROADWAY AND DRIVEWAYS SHALL BE SCHEDULE 80 PVC.
5. PROVIDE PULLROPE WITH 3' SLACK THROUGH ALL HANDHOLES, JUNCTION BOXES, AND PULLBOXES. (TYPICAL)



KEYED NOTES:

1. PROVIDE AND INSTALL NEW 2" PVC SCHEDULE 40 CONDUIT, BETWEEN PULLBOXES. PROVIDE AND INSTALL PULLROPE FOR FUTURE USE. (TYPICAL)
2. PROVIDE AND INSTALL NEW POLE FOUNDATION, SEE FIXTURE LOCATION SCHEDULE AND DETAILS FOR ADDITIONAL INFORMATION (TYPICAL). CONTRACTOR SHALL FIELD VERIFY POLE FOUNDATION TYPES AND LOCATIONS WITH CONSTRUCTION OBSERVER PRIOR TO CONSTRUCTION.
3. PROVIDE AND INSTALL NEW 2" PVC SCHEDULE 80 CONDUIT, BETWEEN PULLBOXES. PROVIDE AND INSTALL PULLROPE FOR FUTURE USE.
4. PROVIDE AND INSTALL NEW 2" PVC SCHEDULE 40 CONDUIT FROM PULLBOX TO POLE FOUNDATION, SEE DETAILS FOR ADDITIONAL INFORMATION. (TYPICAL) (1)
5. PROVIDE AND INSTALL NEW GFCI/WP RECEPTACLE CO-LOCATED WITHIN NEW IRRIGATION BACKFLOW PREVENTER ENCLOSURE. REFER TO IRRIGATION PLANS FOR ADDITIONAL INFORMATION.
6. PROVIDE AND INSTALL NEW POWER SERVICE PEDESTAL, MILBANK STYLE OR APPROVED EQUAL. REFER TO DETAILS FOR ADDITIONAL INFORMATION.

0' 15' 30' 45'
(IN FEET)

CERTIFICATE OF AUTHORIZATION
GARVER LLC
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16153
NICHOLAS A. HOLLAND
Digitally Signed 10/11/2019

REV.	DATE	DESCRIPTION	BY
1	10/11/19	CHANGE ORDER NO. 1 - REVISE CONDUIT SIZE	NAH

METROPLAN
SMART PLANNING MAKES SMART PLACES

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

ELECTRICAL INFRASTRUCTURE PLAN (SHEET 2 OF 4)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: NAH
DRAWN BY: CJH

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
E-202

SHEET NUMBER **53**

DLTackett 10/11/2019 8:01:27 AM
WORKSPACE:Garver_2012
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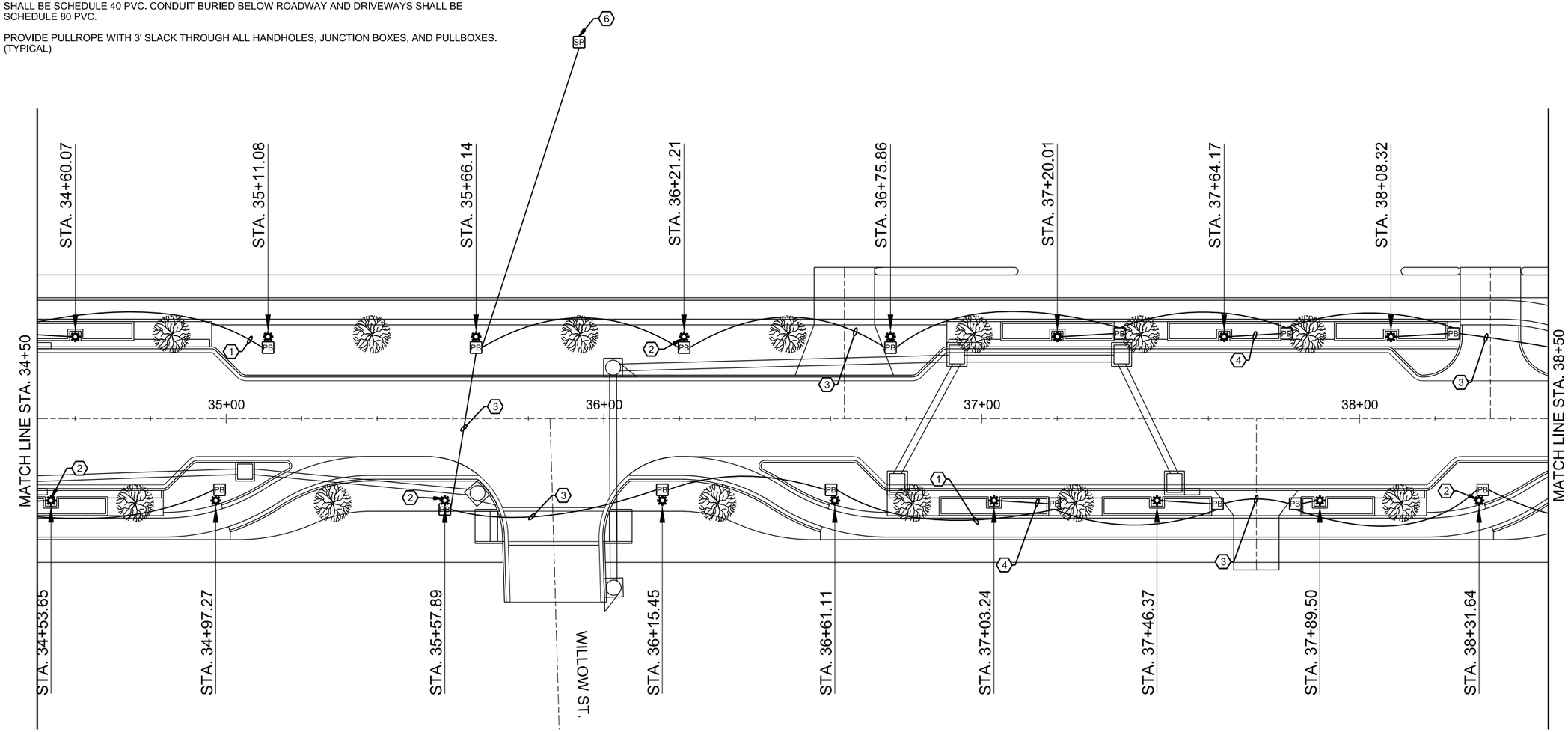
GENERAL NOTES:

1. LIGHTING POLES, LUMINAIRES, AND WIRING SHALL BE PROVIDED AND INSTALLED BY CONWAY CORPORATION.
2. LIGHTING SHALL BE CONNECTED TO NEW SERVICE POINTS FOR CONTROLS AND POWER, COORDINATE FINAL LOCATIONS WITH ENGINEER AND UTILITY.
3. COORDINATE ALL WORK WITH THE ROADWAY, LANDSCAPING, AND IRRIGATION PLANS. CONDUIT ROUTING AS SHOWN IS APPROXIMATE WITH THE INTENT OF AVOIDING LANDSCAPING AND DRAINAGE SYSTEMS. CONTRACTOR SHALL COORDINATE LOCATION AND ROUTING OF CONDUIT WITH ENGINEER AND OTHER TRADES SUCH THAT THERE ARE MINIMUM CONFLICTS.
4. EXPOSED CONDUIT SHALL BE PVC COATED GALVANIZED RIGID STEEL. CONDUIT BURIED IN EARTH SHALL BE SCHEDULE 40 PVC. CONDUIT BURIED BELOW ROADWAY AND DRIVEWAYS SHALL BE SCHEDULE 80 PVC.
5. PROVIDE PULLROPE WITH 3' SLACK THROUGH ALL HANDHOLES, JUNCTION BOXES, AND PULLBOXES. (TYPICAL)



KEYED NOTES:

1. PROVIDE AND INSTALL NEW 2" PVC SCHEDULE 40 CONDUIT, BETWEEN PULLBOXES. PROVIDE AND INSTALL PULLROPE FOR FUTURE USE. (TYPICAL)
2. PROVIDE AND INSTALL NEW POLE FOUNDATION, SEE FIXTURE LOCATION SCHEDULE AND DETAILS FOR ADDITIONAL INFORMATION (TYPICAL). CONTRACTOR SHALL FIELD VERIFY POLE FOUNDATION TYPES AND LOCATIONS WITH CONSTRUCTION OBSERVER PRIOR TO CONSTRUCTION.
3. PROVIDE AND INSTALL NEW 2" PVC SCHEDULE 80 CONDUIT, BETWEEN PULLBOXES. PROVIDE AND INSTALL PULLROPE FOR FUTURE USE.
4. PROVIDE AND INSTALL NEW 2" PVC SCHEDULE 40 CONDUIT FROM PULLBOX TO POLE FOUNDATION, SEE DETAILS FOR ADDITIONAL INFORMATION. (TYPICAL) (1)
5. PROVIDE AND INSTALL NEW GFCI/WP RECEPTACLE CO-LOCATED WITHIN NEW IRRIGATION BACKFLOW PREVENTER ENCLOSURE. REFER TO IRRIGATION PLANS FOR ADDITIONAL INFORMATION.
6. PROVIDE AND INSTALL NEW POWER SERVICE PEDESTAL, MILBANK STYLE OR APPROVED EQUAL. REFER TO DETAILS FOR ADDITIONAL INFORMATION.

0' 15 30 45
(IN FEET)

CERTIFICATE OF AUTHORIZATION
GARVER LLC
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16153
NICHOLAS A. HOLLAND
Digitally Signed 10/11/2019

REV.	DATE	DESCRIPTION	BY
1	10/11/19	CHANGE ORDER NO. 1 - REVISE CONDUIT SIZE	NAH

METROPLAN
SMART PLANNING MAKES SMART PLACES

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

ELECTRICAL INFRASTRUCTURE PLAN (SHEET 3 OF 4)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: NAH
DRAWN BY: CJH

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
E-203

SHEET NUMBER 54

DLTackett 10/11/2019 8:01:28 AM
WORKSPACE:Garver_2012
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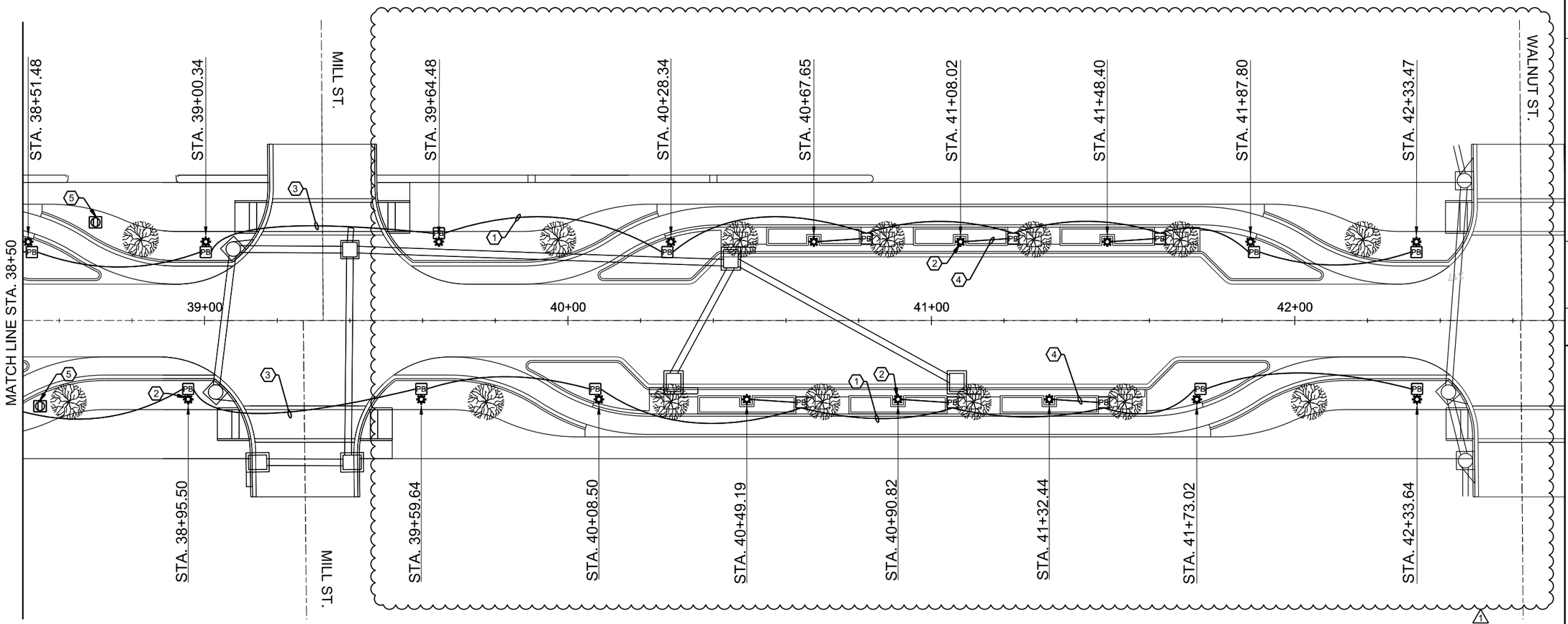
GENERAL NOTES:

1. LIGHTING POLES, LUMINAIRES, AND WIRING SHALL BE PROVIDED AND INSTALLED BY CONWAY CORPORATION.
2. LIGHTING SHALL BE CONNECTED TO NEW SERVICE POINTS FOR CONTROLS AND POWER, COORDINATE FINAL LOCATIONS WITH ENGINEER AND UTILITY.
3. COORDINATE ALL WORK WITH THE ROADWAY, LANDSCAPING, AND IRRIGATION PLANS. CONDUIT ROUTING AS SHOWN IS APPROXIMATE WITH THE INTENT OF AVOIDING LANDSCAPING AND DRAINAGE SYSTEMS. CONTRACTOR SHALL COORDINATE LOCATION AND ROUTING OF CONDUIT WITH ENGINEER AND OTHER TRADES SUCH THAT THERE ARE MINIMUM CONFLICTS.
4. EXPOSED CONDUIT SHALL BE PVC COATED GALVANIZED RIGID STEEL. CONDUIT BURIED IN EARTH SHALL BE SCHEDULE 40 PVC. CONDUIT BURIED BELOW ROADWAY AND DRIVEWAYS SHALL BE SCHEDULE 80 PVC.
5. PROVIDE PULLROPE WITH 3' SLACK THROUGH ALL HANDHOLES, JUNCTION BOXES, AND PULLBOXES. (TYPICAL)



KEYED NOTES:

1. PROVIDE AND INSTALL NEW 2" PVC SCHEDULE 40 CONDUIT, BETWEEN PULLBOXES. PROVIDE AND INSTALL PULLROPE FOR FUTURE USE. (TYPICAL)
2. PROVIDE AND INSTALL NEW POLE FOUNDATION, SEE FIXTURE LOCATION SCHEDULE AND DETAILS FOR ADDITIONAL INFORMATION (TYPICAL). CONTRACTOR SHALL FIELD VERIFY POLE FOUNDATION TYPES AND LOCATIONS WITH CONSTRUCTION OBSERVER PRIOR TO CONSTRUCTION.
3. PROVIDE AND INSTALL NEW 2" PVC SCHEDULE 80 CONDUIT, BETWEEN PULLBOXES. PROVIDE AND INSTALL PULLROPE FOR FUTURE USE.
4. PROVIDE AND INSTALL NEW 2" PVC SCHEDULE 40 CONDUIT FROM PULLBOX TO POLE FOUNDATION, SEE DETAILS FOR ADDITIONAL INFORMATION. (TYPICAL) (1)
5. PROVIDE AND INSTALL NEW GFCI/WP RECEPTACLE CO-LOCATED WITHIN NEW IRRIGATION BACKFLOW PREVENTER ENCLOSURE. REFER TO IRRIGATION PLANS FOR ADDITIONAL INFORMATION.
6. PROVIDE AND INSTALL NEW POWER SERVICE PEDESTAL, MILBANK STYLE OR APPROVED EQUAL. REFER TO DETAILS FOR ADDITIONAL INFORMATION.

N

0' 15 30 45
(IN FEET)

CERTIFICATE OF AUTHORIZATION
GARVER LLC
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16153
NICHOLAS A. HOLLAND

Digitally Signed 10/11/2019

REV.	DATE	DESCRIPTION	BY
1	10/11/19	CHANGE ORDER NO. 1 - REVISE CONDUIT SIZE AND ADD IMPROVEMENTS MILL TO WALNUT	NAH

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

ELECTRICAL INFRASTRUCTURE PLAN
SHEET (4 OF 4)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: NAH
DRAWN BY: CJH

BAR IS ONE INCH ON ORIGINAL DRAWING
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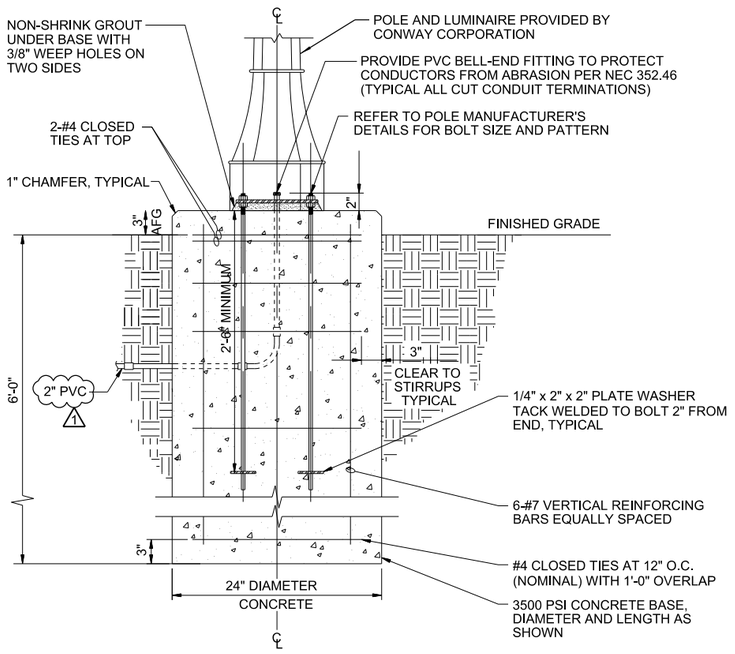
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
E-204

SHEET NUMBER **55**

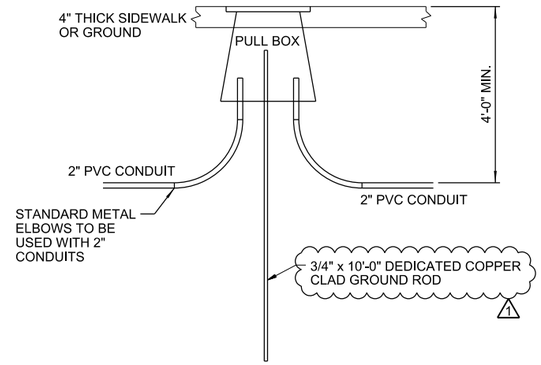


TYPE I POLE FOUNDATION DETAIL

SCALE: NONE

NOTES:

1. ALL HARDWARE SHALL BE CORROSION RESISTANT, GALVANIZED RIGID STEEL.
2. CONSTRUCT FOUNDATION IN ACCORDANCE WITH POLE MANUFACTURER'S GUIDELINES, INSTALLING BOLT TEMPLATE LEVELING UNIT, ANCHOR BOLTS, FULL BASE-PLATE BOLT COVER, AND ACCESSORIES FOR A COMPLETE INSTALLATION. COORDINATE WITH CONWAY CORPORATION FOR POLE MANUFACTURER'S DATA AS REQUIRED.
3. USE LONG SWEEP 90 DEGREE ELBOWS ON ALL CONDUIT BENDS.
4. PROVIDE NEW INSULATED GROUNDING BUSHING, BONDED TO DEDICATED #6 AWG ALUMINUM GROUND WIRE FOR EACH POLE FOUNDATIONS GROUND ROD. COORDINATE WITH CONWAY CORPORATION ON FINAL CONNECTIONS OF GROUNDING BUSHINGS AND OTHER ITEMS TO POLE GROUND ROD.
5. WHERE POLE FOUNDATION IS ON A SLOPED SURFACE PROVIDE 1' FLAT GRADE EARTH BEFORE RETURNING TO SLOPE. COORDINATE WITH ROADWAY PLANS.

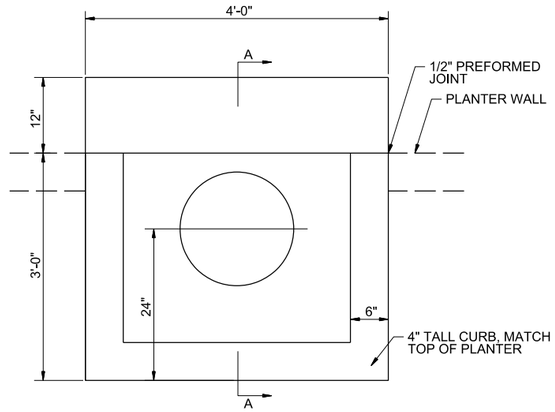


PULL BOX NOTES:

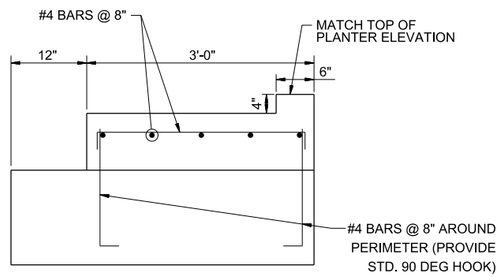
1. PULL BOX SHALL BE INSTALLED FLUSH TO SURROUNDING GRADE UNLESS OTHERWISE INSTRUCTED BY ENGINEER.
2. PULL BOX SHALL BE NEW BASIS MODEL #PCA13241800019, 13 x 24 x 18, TIER 22 TYPE OR QUAZITE MODEL #PG1324BA18, WITH PG1324HHT09P LID; OR APPROVED EQUAL PULL BOX AS PERMITTED AND APPROVED BY CONWAY CORPORATION.
3. PULL BOX LID SHALL UTILIZE PENTA HEAD STYLE BOLTS.
4. PROVIDE MINIMUM 3' SLACK PULL ROPE IN EACH PULL BOX.
5. EXACT LOCATION OF EACH PULL BOX SHALL BE APPROVED BY CONWAY CORPORATION AND ENGINEER PRIOR TO INSTALLATION.
6. INSTALL 3/4" x 10'-0" DEDICATED COPPER CLAD GROUND ROD IN EACH PULL BOX. (1)

PULL BOX DETAIL

SCALE: NONE



PLAN VIEW



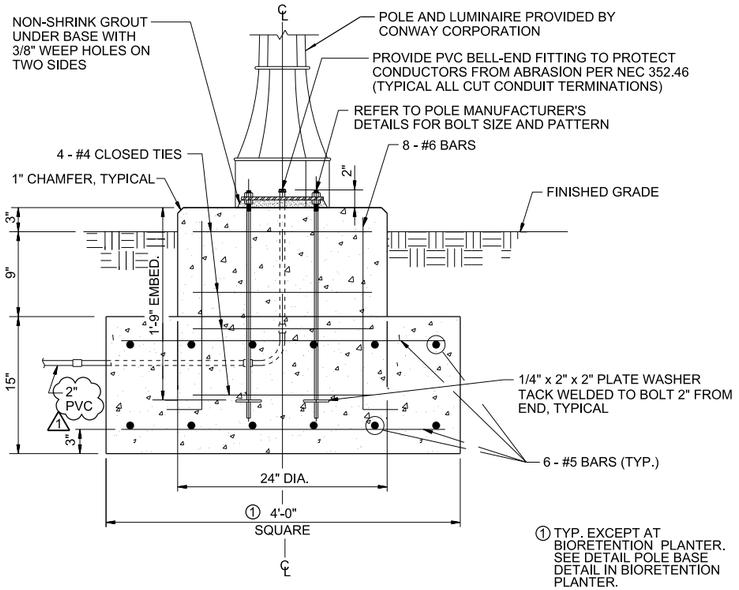
SECTION A-A

NOTE:

FOOTING REINFORCING AND ANCHOR BOLT DETAILS SIMILAR TO SPREAD TYPE POLE FOOTING DETAIL SHOWN THIS SHEET.

TYPE III POLE FOUNDATION DETAIL

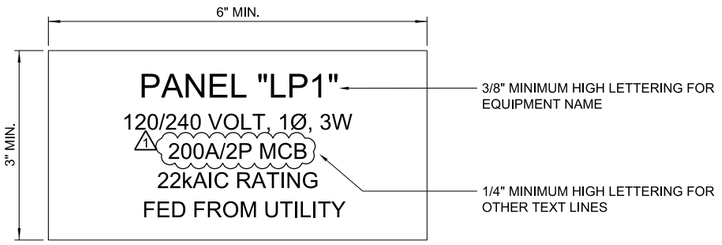
SCALE: NONE



① TYP. EXCEPT AT BIORETENTION PLANTER. SEE DETAIL POLE BASE DETAIL IN BIORETENTION PLANTER.

TYPE II POLE FOUNDATION DETAIL

SCALE: NONE



EQUIPMENT NAMEPLATE NOTES:

1. INSTALL 2-PLEX ACRYLIC, WHITE ON BLACK CORE, MULTIPLE LINES TEXT, CUSTOM ENGRAVED NAME PLATES.
2. MOUNT WITH STAINLESS STEEL SCREWS.
3. SEAL SCREW HOLES WITH SILICONE RUBBER.
4. NAMEPLATE INFORMATION SHALL INCLUDE:
   A. IDENTIFICATION NAME
   B. VOLTAGE SYSTEM
   C. AMPACITY RATING AND TYPE
   D. EQUIPMENT AIC RATING
   E. FEEDER DESCRIPTION

TYPICAL ENGRAVED NAMEPLATE AND SIGNAGE DETAIL

SCALE: NONE

CERTIFICATE OF AUTHORIZATION GARVER LLC No. 766 ARKANSAS ENGINEER

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.16153 NICHOLAS A. HOLLAND

Digitally Signed 10/11/2019

REV.	DATE	DESCRIPTION	BY
1	10/11/19	CHANGE ORDER NO. 1 - REVISE CONDUIT SIZE, GROUND ROD LOCATION, AND NAMEPLATE	NAH

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

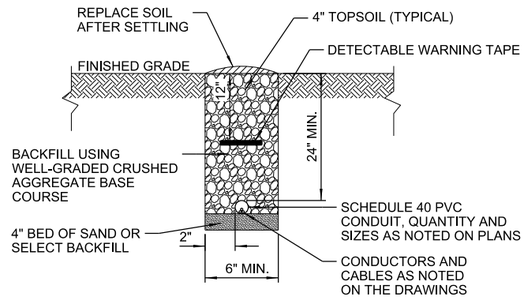
ELECTRICAL DETAILS (SHEET 1 OF 2)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: NAH
DRAWN BY: CJH

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

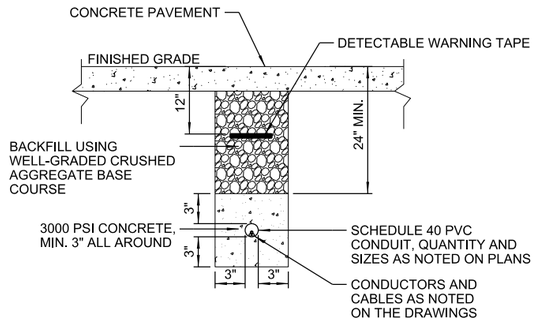
DRAWING NUMBER
E-501

SHEET NUMBER **56**



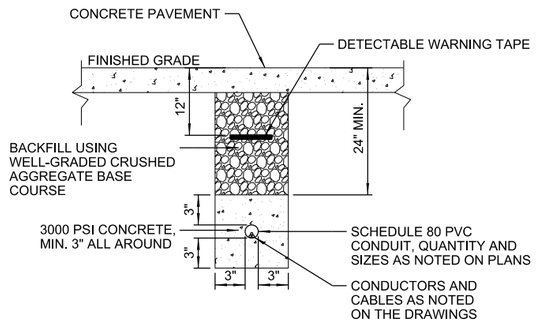
NON-ENCASED DUCT DETAIL

SCALE: NONE



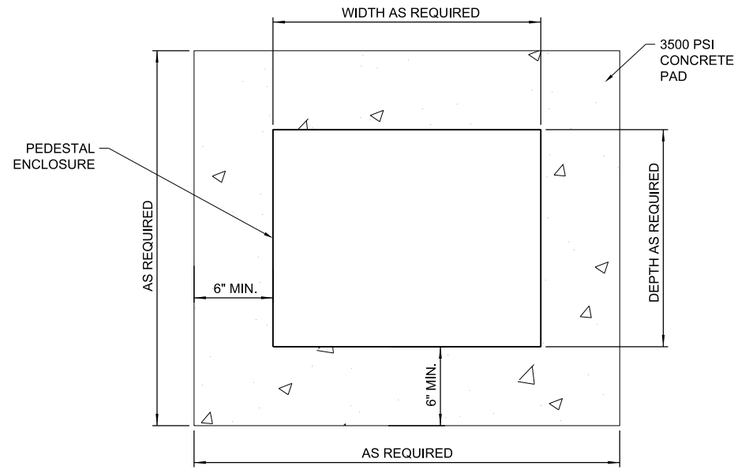
CONCRETE ENCASED DUCT DETAIL (NON-VEHICULAR)

SCALE: NONE



CONCRETE ENCASED DUCT DETAIL (VEHICULAR)

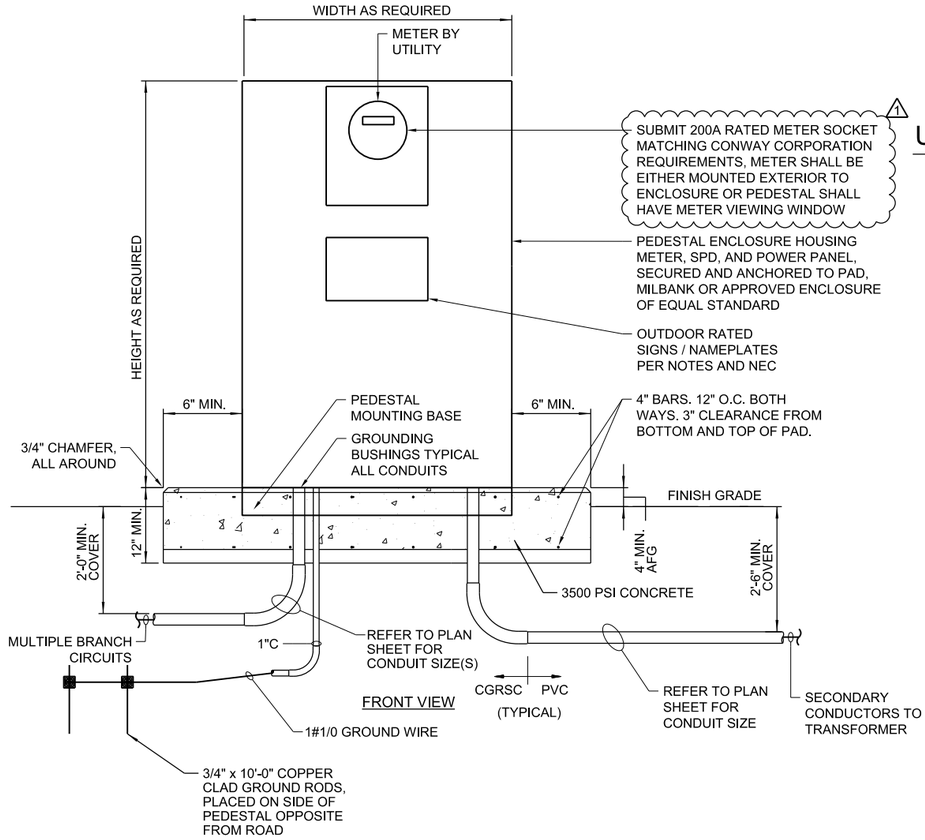
SCALE: NONE



OVERHEAD VIEW

NOTES:

1. CONDUIT AND CONDUCTOR INSTALLATION ON TRANSFORMER SIDE OF METER SHALL CONFORM WITH ELECTRICAL UTILITY STANDARDS.
2. COORDINATE LAYOUT WITH UTILITY PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL PAY ALL FEES AS REQUIRED BY UTILITY.



POWER PEDESTAL DETAIL

SCALE: NONE

GENERAL NOTES:

1. POWER MARKING TAPES SHALL BE DETECTABLE TYPE CONSTRUCTION WITH RED BACKGROUND AND BLACK LETTERING.
2. COMMUNICATION MARKING TAPES SHALL BE DETECTABLE TYPE CONSTRUCTION WITH ORANGE BACKGROUND AND BLACK LETTERING, "TELEPHONE LINE" OR "FIBER OPTIC LINE" RESPECTIVELY.
3. TAPE SHALL BE DETECTABLE, DURABLE, HIGHLY VISIBLE, RESISTANT TO ELEMENTS, MEETING AND / OR EXCEEDING ALL INDUSTRY STANDARDS.

UNDERGROUND DETECTABLE WARNING TAPE

SCALE: NONE

PEDESTAL NOTES:

1. INSTALL ALL NAMEPLATES AND WARNING SIGNS IN ACCORDANCE WITH NEC AND NFPA 70E REQUIREMENTS.
2. INSTALL NAMEPLATES AND WARNING SIGNS ON ALL ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO, SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SWITCHES, CONTROL PANELS, AND MOTOR CONTROL CENTERS.
3. EXSTERIOR EQUIPMENT SHALL HAVE WEATHER-RESISTANT, NON-FADING NAMEPLATES AND SIGNAGE.
4. REFER TO SPECIFICATIONS FOR ADDITIONAL NAMEPLATE AND SIGNAGE REQUIREMENTS.
5. THE FOLLOWING NAMEPLATES SHALL BE INCLUDED:
   - A. EQUIPMENT NAMEPLATE PER DETAIL AND NEC
   - B. CONDUCTOR COLOR CODING IDENTIFICATION NAMEPLATE PER NEC ARTICLES 200.6, 210.5 AND 215.12; VERIFY IDENTIFICATION SCHEME WITH AHJ AND ENGINEER
   - C. ARC FLASH HAZARD WARNING SIGN PER NEC ARTICLE 110.16 AND NFPA 70E
   - D. AVAILABLE FAULT CURRENT SIGN INCLUDING DATE CALCULATED, PER NEC ARTICLE 110.24 (THIS IS CALCULATED VALUE, NOT EQUIPMENT RATING)
   - E. ARC FLASH BOUNDARY, SHOCK HAZARD, AND PPE REQUIREMENT WARNING SIGN PER NEC AND NFPA 70E
   - F. WHEN REQUIRED, PROVIDE HIGHLEG IDENTIFICATION SIGN OR UNGROUNDED SYSTEM SIGN BY NEC ARTICLE 408.3(F)

GARVER LLC
CERTIFICATE OF AUTHORIZATION
No. 766
ARKANSAS ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16153
NICHOLAS A. HOLLAND
Digitally Signed 10/11/2019

REV.	DATE	DESCRIPTION	BY
1	10/11/19	CHANGE ORDER NO. 1 - SPECIFY 200A METER SOCKET	

METROPLAN
SMART PLANNING MAKES SMART PLACES

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

ELECTRICAL DETAILS (SHEET 2 OF 2)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: NAH
DRAWN BY: CJH

BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
E-502

SHEET NUMBER **57**

DLTackett 10/11/2019 8:05:02 AM
WORKSPACE\Garver_2012
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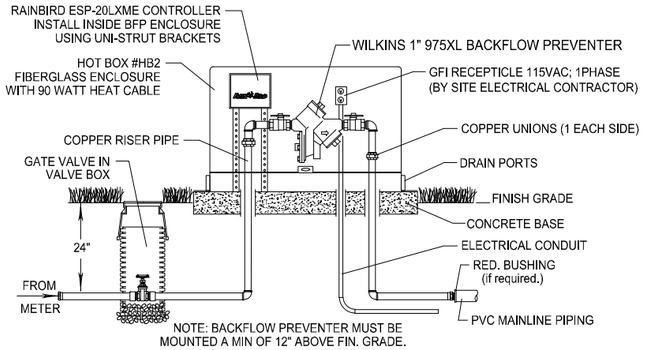
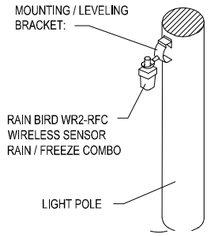
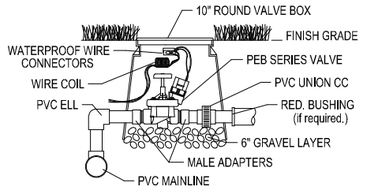


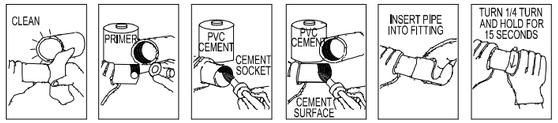
1 INSTALLATION DETAIL
RP-TYPE BFP / IRRIGATION CONTROLLER



2 INSTALLATION DETAIL
RAIN / FREEZE SENSOR

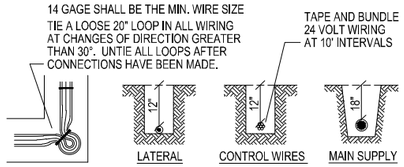


3 INSTALLATION DETAIL
ZONE VALVE ASSEMBLY



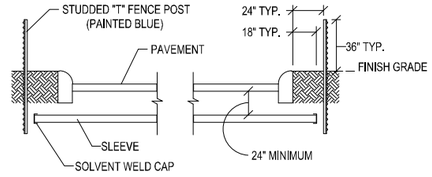
NOTES:
NEVER LAY PVC PIPE WHEN THERE IS WATER IN THE TRENCH
NEVER LAY PVC PIPE WHEN THE TEMPERATURE IS 32°F OR BELOW

4 INSTALLATION DETAIL
PVC ASSEMBLING

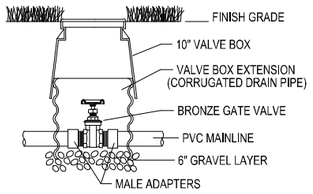


NOTES: BACKFILL MATERIAL SHALL BE FREE FROM ROCKS OR HEAVY UNSUITABLE SUBSTANCES WHICH COULD DAMAGE THE PIPE OR CREATE UNUSUAL SETTLING PROBLEMS. BACKFILL SHALL BE DONE IN SIX INCH LAYERS AND TAMPED DOWN AFTER EACH LAYER IS PUT BACK TO PREVENT EXCESSIVE SETTLING.

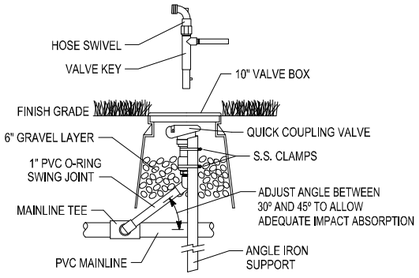
5 INSTALLATION DETAIL
MAINLINE, LATERAL & WIRING



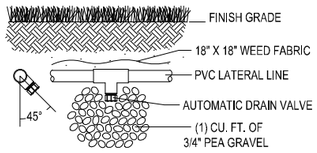
6 INSTALLATION DETAIL
TYPICAL SLEEVING



7 INSTALLATION DETAIL
ISOLATION GATE VALVE

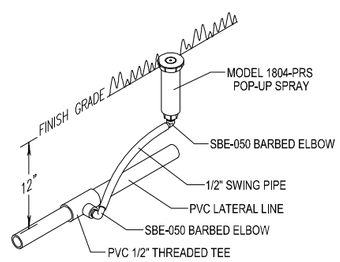


8 INSTALLATION DETAIL
QUICK COUPLING VALVE

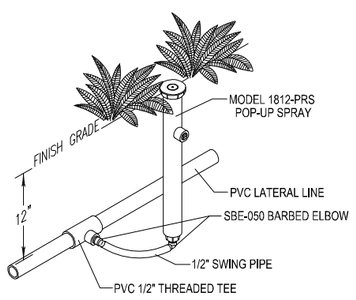


(NOT SHOWN ON PLAN-
INSTALL IN LOW AREAS AS NEEDED)

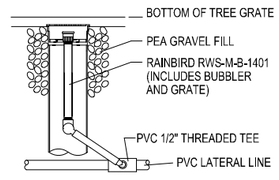
9 INSTALLATION DETAIL
AUTOMATIC DRAIN VALVE



10 INSTALLATION DETAIL
4" POP-UP TURF SPRAY



11 INSTALLATION DETAIL
12" POP-UP SHRUB SPRAY



INSTALL 2 PER TREE ON
OPPOSITE SIDES OF ROOTBALL.

12 INSTALLATION DETAIL
ROOT WATERING SYSTEM

$$USER$$ $$DATE$$ $$TIME$$
WORKSPACE: $$WORKSPACE$$
$$FILE$$

MITCHELL D. LANGLEY
CERTIFIED IRRIGATION DESIGNER
00.3375
COMMERCIAL
2015

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

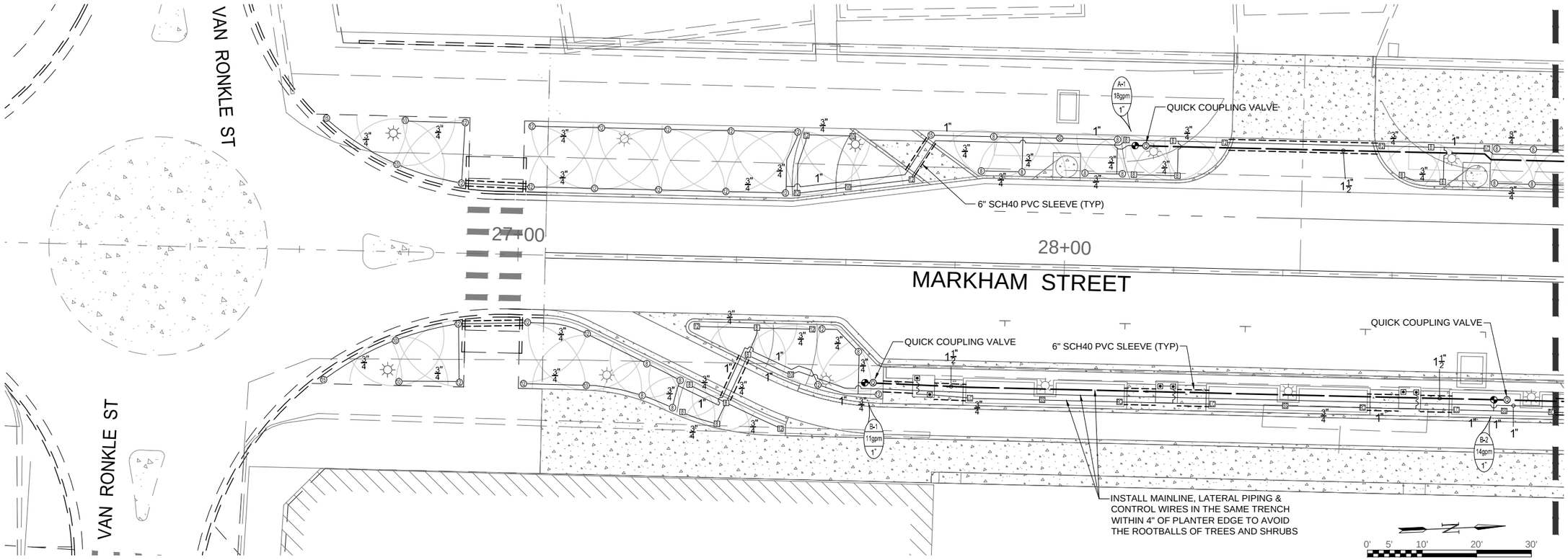
IRRIGATION DETAILS

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: MDL
DRAWN BY: MDL

BAR IS ONE INCH ON
ORIGINAL DRAWING.
0 1"
IF NOT ONE INCH ON THIS SHEET,
ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
I-101

SHEET NUMBER 58



SLEEVING / BORING NOTES

COORDINATE EXACT LOCATION OF SLEEVES WITH GENERAL CONTRACTOR.

ALL SLEEVING UNDER DRIVEWAYS, SIDEROADS AND SIDEWALKS SHALL BE BURIED A MIN. OF 24" BELOW THE FINISHED GRADE.

ENDS OF SLEEVES SHALL EXTEND 12" PAST THE EDGES OF ALL PAVING AND CURBS AND BE CLEARLY MARKED FOR FUTURE USE BY THE SPRINKLER SYSTEM CONTRACTOR.

BELOW EXISTING DRIVES, BORE & REAM FOR SLEEVES AS NOTED ON THE DRAWING OR AS MAY BE REQUIRED FOR ACCESS.

BORING SHALL BE DONE BY THE DIRECTIONAL BORING METHOD.

DRY BORES SHALL BE CONDUCTED IN A MANNER CONSISTENT WITH INDUSTRY ACCEPTED PRACTICES THAT MINIMIZE ANNULAR VOIDS AND OVER-BREAKS AND PROTECT THE INTEGRITY OF GROUND COVER, SURFACES AND STRUCTURES. IN NO CASE SHALL OVERBORE EXCEED 5 PERCENT OF THE PIPE DIAMETER. THE USE OF WATER UNDER PRESSURE GREATER THAN 10 POUNDS PER SQUARE INCH TO JET A HOLE AHEAD OF THE BIT IS NOT PERMITTED.

WET BORING IS NOT ALLOWED.

GENERAL NOTES

CONTRACTOR SHALL INSTALL ALL EQUIPMENT PER MANUFACTURER'S CURRENT SPECIFICATIONS AND RECOMMENDATIONS.

COORDINATE EXACT LOCATION OF WATER METERS, BACKFLOW PREVENTERS, CONTROLLERS AND RAIN/FREEZE SENSORS WITH THE ENGINEER AND OWNER. PROVIDE GFI OUTLET WITH 115VAC; 1PHASE POWER AT THE BFP / CONTROLLER ENCLOSURES AS SHOWN ON DETAIL #1.

CONTRACTOR SHALL CAREFULLY VERIFY A MINIMUM DYNAMIC WATER PRESSURE OF 75psi @ 25gpm AT EACH WATER METER. CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER IF WATER PRESSURE IS LESS THAN OR SIGNIFICANTLY HIGHER THAN NOTED.

WHEN TRENCHING UNDER THE DRIPLINE OF EXISTING TREES EXTREME CARE MUST BE GIVEN TO AVOID ROOT DAMAGE. IF AT ALL POSSIBLE AVOID TRENCHING INSIDE THE DRIPLINE BY GOING AROUND THE TREE RATHER THAN UNDER IT. INSTALL PIPING AND SPRINKLERS ON THE INSIDE OF NEW CURBLINES IF POSSIBLE. IF TRENCHING MUST OCCUR UNDER THE DRIPLINE, USE EITHER TUNNELING OR HAND-DIGGING METHODS RATHER THAN A MECHANICAL TRENCHER. MINIMIZE THE IMPACT OF ROOT SEVERING BY AVOIDING CONSTRUCTION DURING HOT, DRY WEATHER, KEEPING TREES WELL WATERED BEFORE AND AFTER DIGGING AND COVERING ROOTS WITH SOIL OR MULCH AS SOON AS POSSIBLE.

CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES CAUSED TO ALL UTILITIES (BOTH OVERHEAD AND BELOWGROUND) DURING THE IRRIGATION INSTALLATION. CONTRACTOR SHALL SEEK THE ASSISTANCE AT LOCAL UTILITIES AND THE OWNER IN THE LOCATION OF THE UTILITIES PRIOR TO PERFORMING TRENCHING OPERATIONS IN THE WORKING AREA.

THE IRRIGATION DESIGN IS DIAGRAMMATIC. THE INTENT OF THE DRAWINGS IS TO SHOW THE GENERAL LAYOUT AND LOGIC OF THE SYSTEM. SCALED MEASUREMENTS MAY NOT BE ACCURATE. ACTUAL LOCATIONS AND QUANTITIES OF PIPE AND FITTINGS MAY VARY DUE TO FIELD ADJUSTMENTS FOR EXISTING CONDITIONS AND OTHER OBSTRUCTIONS TO PROVIDE THE PROPER AND INTENDED COVERAGE.

ALL PVC MAINLINE PIPING SHALL BE PVC SCH40. ALL LATERAL PIPING SHALL BE PVC CL200. ALL PVC FITTINGS SHALL BE SCH40 PVC TYPE 1 AND MUST BE OF DOMESTIC MANUFACTURE. PVC SOLVENT CEMENT AND PRIMER SHALL BE AS RECOMMENDED / APPROVED BY THE MANUFACTURER OF THE PIPE.

1 QUANTITIES ARE SHOWN FOR CONVENIENCE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CALCULATE ALL MATERIALS NECESSARY FOR A COMPLETE IRRIGATION SYSTEM.

IRRIGATION LEGEND

2		1" IRRIGATION WATER METER (25gpm @ 75 psi REQUIRED)
2		1" WILKINS #975XL RP-TYPE BACKFLOW PREVENTER
4		1-1/2" BRONZE ISOLATION GATE VALVE
27 ~~31~~		RAINBIRD 100PEB ZONE VALVE with FLO CONTROL
18 ~~21~~		RAINBIRD 3RC QUICK COUPLING VALVE (PROVIDE 4 KEYS)
2		RAINBIRD ESP-20LXME (20) STATION IRRIGATION CONTROLLER
2		RAINBIRD WR2 - WIRELESS RAIN / FREEZE SENSOR
154 ~~166~~	8	RAINBIRD 1804-PRS 4" POP-UP TURF SPRAY with 8-HE-VAN NOZZLE
10	10	RAINBIRD 1804-PRS 4" POP-UP TURF SPRAY with 10-HE-VAN NOZZLE
90 ~~96~~	12	RAINBIRD 1804-PRS 4" POP-UP TURF SPRAY with 12-HE-VAN NOZZLE
3	15	RAINBIRD 1804-PRS 4" POP-UP TURF SPRAY with 15-HE-VAN NOZZLE
2	SS	RAINBIRD 1804-PRS 4" POP-UP TURF SPRAY with 15SST NOZZLE
103 ~~114~~	8	RAINBIRD 1812-PRS 12" POP-UP SHRUB SPRAY with 8-HE-VAN NOZZLE
43 ~~48~~	10	RAINBIRD 1812-PRS 12" POP-UP SHRUB SPRAY with 10-HE-VAN NOZZLE
51 ~~56~~	12	RAINBIRD 1812-PRS 12" POP-UP SHRUB SPRAY with 12-HE-VAN NOZZLE
4	15	RAINBIRD 1812-PRS 12" POP-UP SHRUB SPRAY with 15-HE-VAN NOZZLE
24 ~~26~~	SS	RAINBIRD 1812-PRS 12" POP-UP SHRUB SPRAY with 15SST NOZZLE
28 ~~31~~	SS	RAINBIRD 1812-PRS 12" POP-UP SHRUB SPRAY with 15SST NOZZLE
26 ~~29~~	SS	RAINBIRD 1812-PRS 12" POP-UP SHRUB SPRAY with 15SST NOZZLE
38 ~~42~~		RAINBIRD RWS-M-B-1401 ROOT WATERING SYSTEM for TREE GRATES

CLASS 200 PVC LATERAL PIPING

SCHEDULE 40 PVC MAINLINE PIPING

SCHEDULE 40 PVC SLEEVING

REV.	DATE	DESCRIPTION	BY
1	10/11/2019	CHANGE ORDER NO. 1 - REVISE QUANTITIES	MDL

MITCHELL D. LANGLEY CERTIFIED IRRIGATION DESIGNER 00.3375 COMMERCIAL 2019

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METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

IRRIGATION PLAN -
(SHEET 1 OF 4)

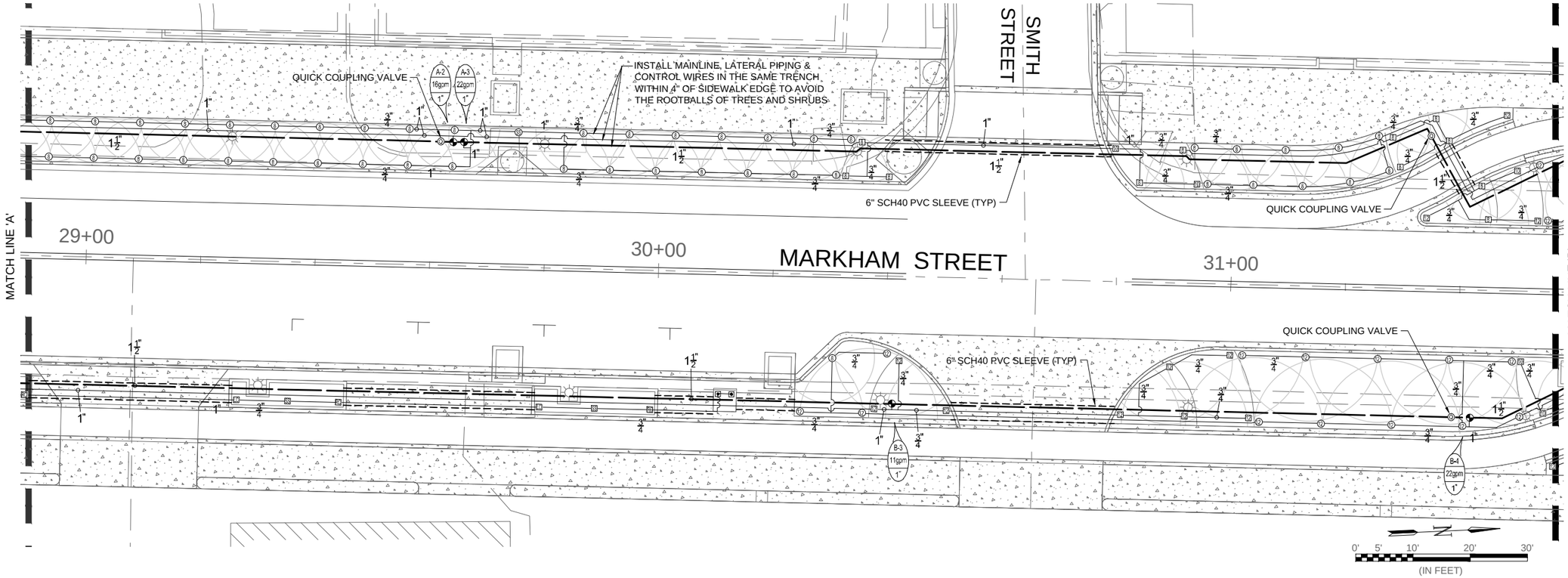
JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: MDL
DRAWN BY: MDL

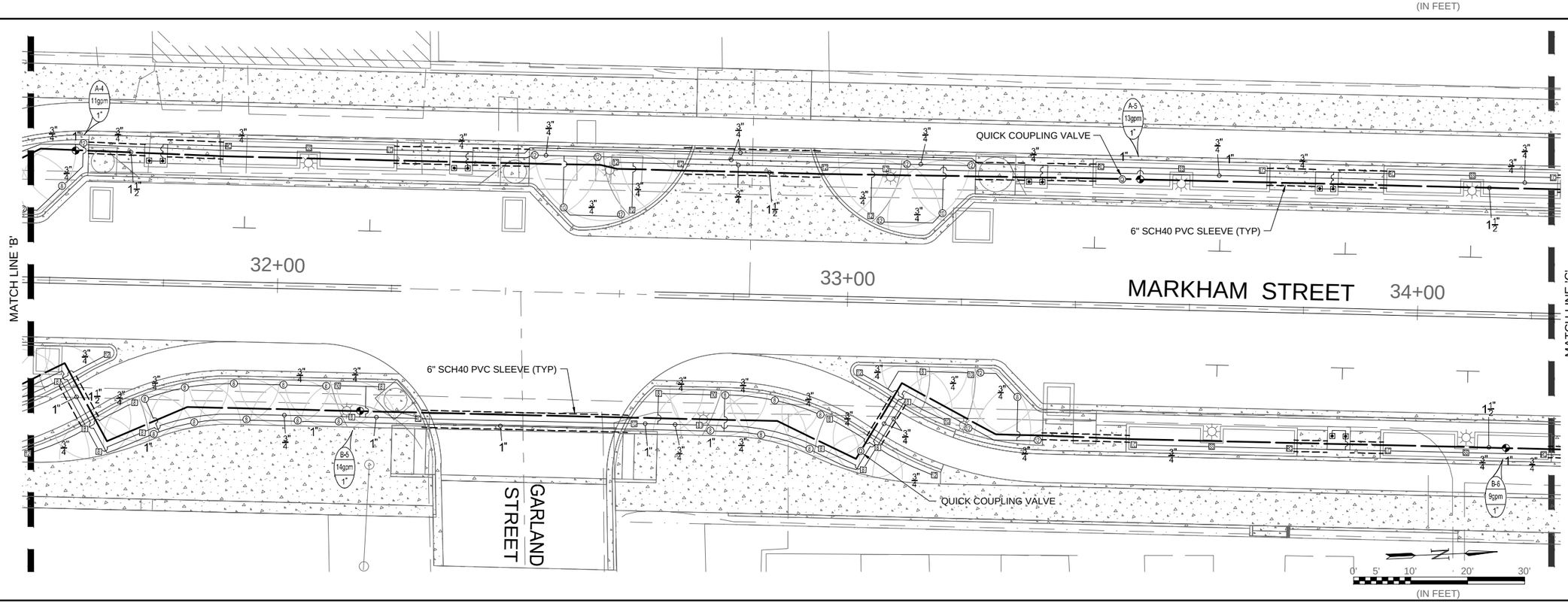
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
I-201

SHEET NUMBER **59**

$$USER$$ $$DATE$$ $$TIME$$
WORKSPACE:$$WORKSPACE$$
$$FILE$$





MITCHELL D. LANGLEY
CERTIFIED IRRIGATION DESIGNER
003375
COMMERCIAL
2015

REV.	DATE	DESCRIPTION	BY

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LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

IRRIGATION PLAN -
(SHEET 2 OF 3)

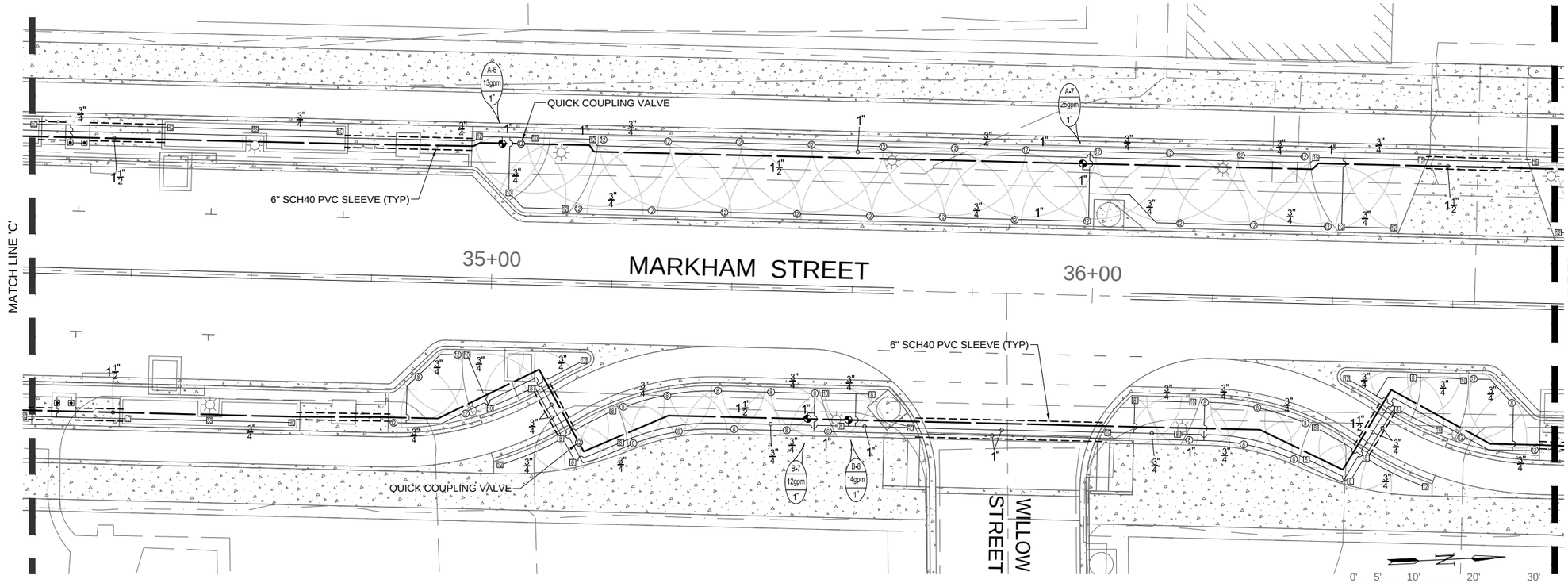
JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: MDL
DRAWN BY: MDL

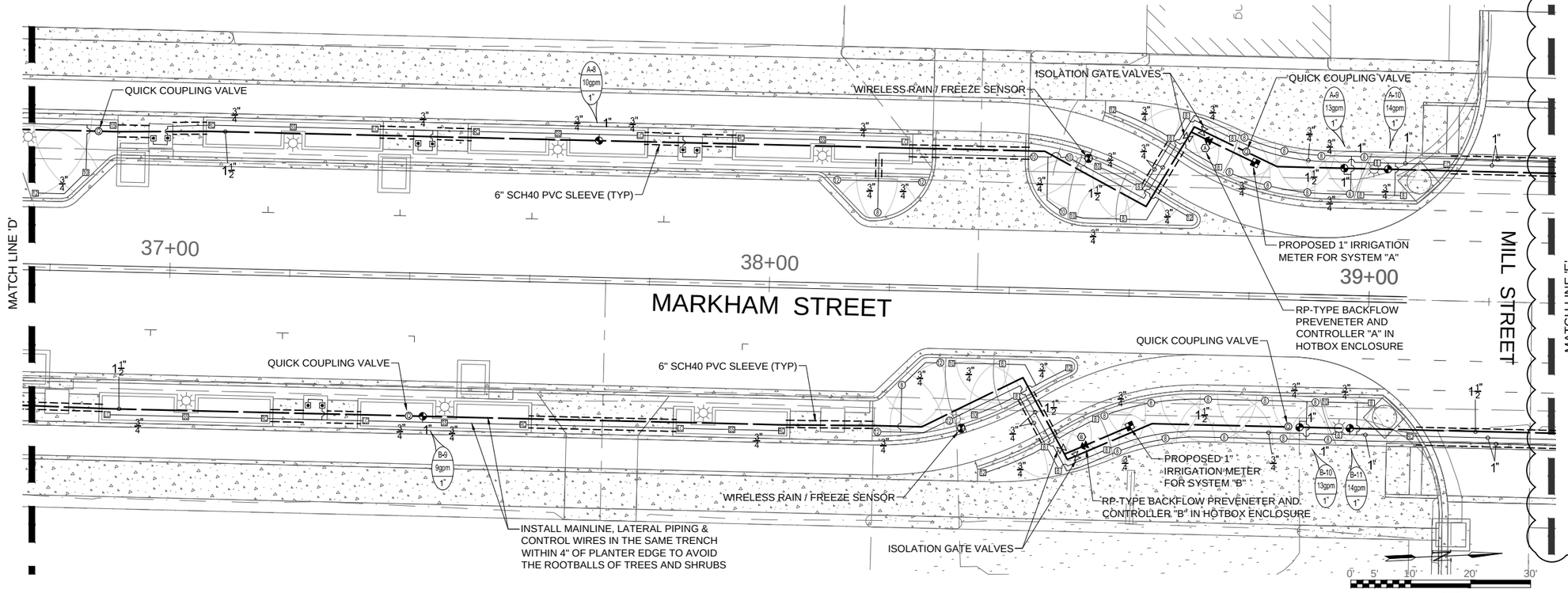
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
I-202

SHEET NUMBER **60**

$$USER$$
WORKSPACE: $$WORKSPACE$$
$$FILE$$
$$DATE$$ $$TIME$$





MITCHELL D. LANGLEY
CERTIFIED IRRIGATION DESIGNER
00.3375
COMMERCIAL 2019

REV.	DATE	DESCRIPTION	BY
1	10/11/2019	CHANGE ORDER NO. 1 - ADD MATCHLINE	MDL

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MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

IRRIGATION PLAN -
(SHEET 3 OF 4)

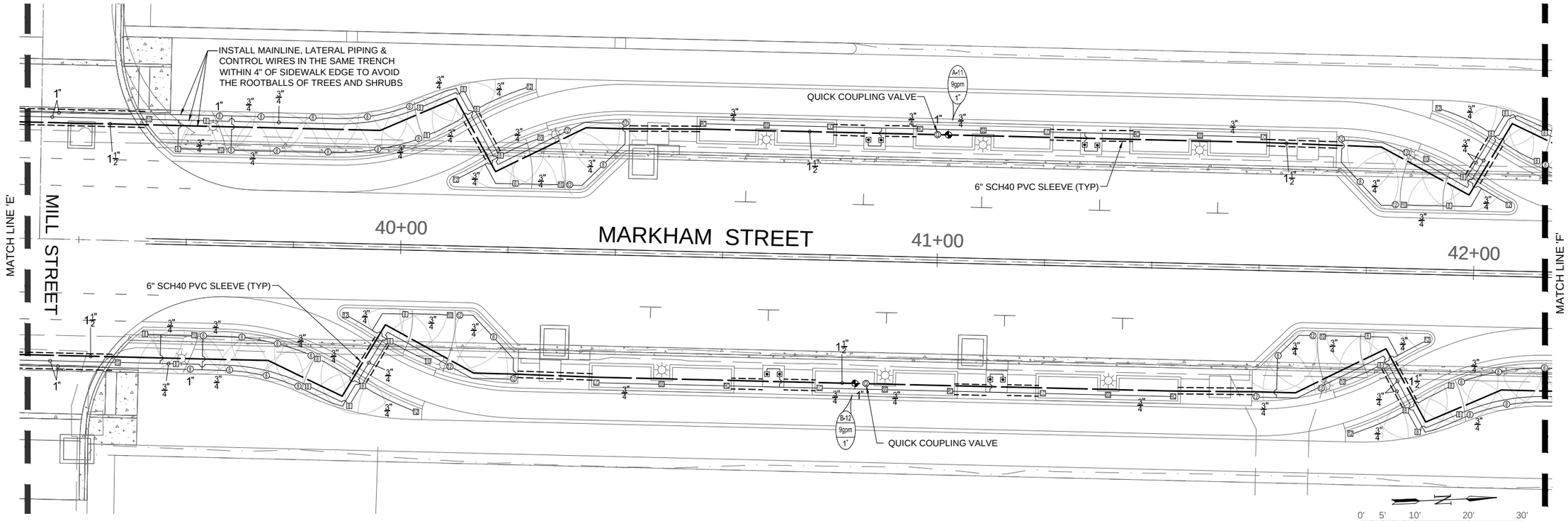
JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: MDL
DRAWN BY: MDL

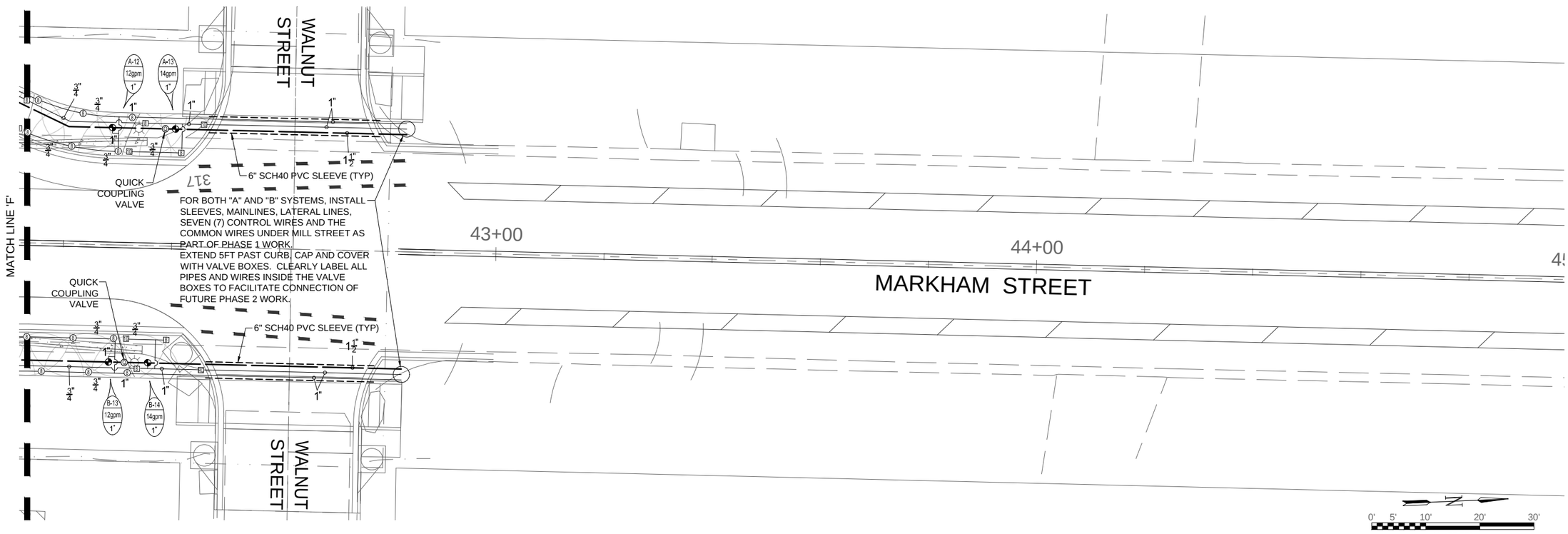
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
I-203

SHEET NUMBER **61**

$$USER$$
WORKSPACE:$$WORKSPACE$$
$$FILE$$
$$DATE$$ $$TIME$$





$$USER$$
WORKSPACE:$$WORKSPACE$$
$$FILE$$
$$DATE$$ $$TIME$$

MITCHELL D. LANGLEY
CERTIFIED IRRIGATION DESIGNER
00.3375
COMMERCIAL 2019

REV.	DATE	DESCRIPTION	BY
1	10/11/2019	CHANGE ORDER NO. 1 - ADD SHEET	MDL

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LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

IRRIGATION PLAN -
(SHEET 4 OF 4)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: MDL
DRAWN BY: MDL

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
I-204

SHEET NUMBER **61A**

PLANT MATERIALS SCHEDULE

ITEM		SIZE AND DESCRIPTION
Trees / Avenue Street Tree		
*1.	Willow Oak Quercus phellos	Specimen; height min. 14'-16'; 3"-3 1/2" min. caliper; spread min. 5'-6'; trees well branched, well balanced all sides; trees well matched; trees to have strong central leaders; B&B. Note: Trees to have forms adaptable to pruning for pedestrian and vehicular clearance.
Shrubs / Flowering		
*2.	'Little Henry' Dwarf Sweetspire Itea virginica 'Sprich' #10,988	Height min. 15"-18"; spread min. 15"-18"; full, well branched; 3 gal.
Ornamental Grasses		
*4.	Pink Muhly Grass Muhlenbergia capillaris	Full clump; height min. 15"-18"; spread min. 15"-18"; well rooted; 3 gal.
Bioretention Grasses		
*5.	'The Blues' Little Bluestem Schizachyrium scoparium 'The Blues'	Full clump; height min. 14"-16"; spread min. 12"-14"; well rooted; 3 gal.
*6.	Soft Rush Juncus effusus	Full clump; height min. 14"-16"; spread min. 12"-14"; well rooted; 3 gal.
Perennials		
*7.	Goldsturm Rudbeckia Rudbeckia fulgidawell 'Goldsturm'	Full clump; height 12"-15"; rooted; 1 gal.
Turf		
8.	'Tifway 419' Bermuda Cynodon dactydon x C. transvaalensis germplasma 'Tifway 419' Solid Sod	Solid sod, free of weeds, debris, insects and other grasses.

*Note: Upon approval of a bid, submit pictures of representative samples from the nurseries supplying the plant materials, to the Engineer for review. Approval of submittals does not preclude rejection on site after planting of materials not meeting the specifications.

*Note: Requests for substitutions must be submitted and approved prior to "Bid" Date by Engineer.

*Note: Do not substitute B&B materials for materials designated to be containerized. B&B materials will not be accepted for these items. Note requirements for specimen quality and well matched, well balanced trees for tree species.

*Note: Plant acceptance for shrubs shall be based on meeting the size specification rather than the container size. The container size specified is the minimum size acceptable.

*Note: All plant material used shall comply with the latest amended edition of the 'American Standards for Nursery Stock'.

Note: Caliper of trees to be measured 12" above grade at installation.

GENERAL NOTES

1. Stake the location of all trees and mass planting areas and obtain approval of the General Contractor and Engineer prior to installation. Tree locations may be adjusted based on the exterior light standard locations, power poles, security camera locations and signage, as applicable.

2. Trees shall be selected with forms adaptable to placement adjacent to sidewalks and/or vehicular use areas. Trees shall have forms and clear trunks adaptable to future pruning for pedestrian and\ vehicular clearance.

3. Provide a minimum 3'-0" diameter mulch ring with a 4" mulch saucer for all trees located in turf and mass planting areas. Provide 3" depth of mulch inside the saucers. Review subsurface drainage conditions. Install trees "high" if necessary due to subsurface conditions.

4. Provide a 3" minimum depth of shredded hardwood mulch in all mass shrub and ornamental grasses planting beds excluding in bioretention areas.. Provide a 2" minimum depth of shredded hardwood mulch in all perennial beds. Finished grades of the mulch shall be 1/2" below the finished grade of adjacent paving, edging or curbing . Submit a sample of the mulch for approval by the Owner and Engineer prior to installation. Provide 3" depth 'washed' river rock mulch in bioretention planters. Refer to Civil drawing, sheet C-213. Submit sample of 'washed' river rock for approval of Engineer and Owner prior to installation.

5. Provide 4" x 1/8" steel landscape edging with stakes between all turf areas and perennials or shrub beds. No edging shall be installed between the different types of shrub material. Taper-off or pound down corner of steel edging.

6. Refer to the Drawings for the plantings of 'Little Henry' Virginia Sweetspire. Set the shrubs in mass plantings 2'-6" on center, staggered rows, unless otherwise noted. Provide consistent spacing in the mass plantings. Define the outside edges of any mass plantings and work inward. Set the first row of shrubs 24" from any edging or paving or other shrub mass.

7. Ornamental Grasses: Refer to the Drawings for the mass planting of Pink Muhly Grass. Set the ornamental grasses 2'-6" on center, staggered rows, unless otherwise noted. Define the outside edges or any mass plantings and work inward. Set the first row 18" from any edging or paving or other shrub mass.

8. Bioretention Grasses: Refer to the Drawings for the mass planting of 'The Blues' Little Bluestem. Set the Little Bluestem grasses 2'-6" on center in staggered rows. Set the first row 18" from planter edges. Refer to the Drawings for the mass planting of Soft Rush. Set the Soft Rush grasses 18" on center in staggered row. Set the first row 18" from planter edges.

9. Refer to Civil drawing, sheet C-213 for Bioretention planter. The Landscape Contractor to provide 'washed' river rock mulch in bioretention planters. Confirm finished grades for the top of mulch in bioretention planters with General Contractor prior to installation of plants and placing 'washed' river rock. All other work within bioretention planters by General Contractor with exception of planting ornamental grasses and placing 'washed' river rock. Washed river rock shall be approximately 2" - 3" in size. Submit sample of 'washed' river rock for approval of Engineer and Owner prior to installation. Provide minimum 3" depth of 'washed' river rock.

10. Perennials: Refer to the Drawings for the plantings of Goldsturm Rubeckia. Set the perennials plants equally spaced in staggered rows 18" on center. Set the first row of plants 18" from any edging or paving or shrub mass.

11. All exterior mass planting and perennials beds are to be full with material equally spaced, at the designated "on-center" spacing, at the time of planting.

12. Exterior shrubs and perennials quantities shown on this plan are the minimum required quantities. The Landscape Contractor is responsible to verify quantities indicated on the plans. All exterior mass shrub planting areas and perennials beds are to be full with material equally spaced at the designated "on-center" spacing, at times of planting. Beds which are not full at the time of planting based on the designated spacing, shall have additional material added at no expense to the Owner. Additional materials shall be added prior to the completion date.

13. All solid sod shall be 'Tifway 419' Bermuda. Provide positive drainage in all turf areas. Solid sod to be laid on a smooth uniform grade with all joints tight and even.

14. Contractor shall calculate all square footage of sod areas.

15. Begin maintenance immediately after planting. Maintain plant materials by watering, pruning, cultivating, and fertilizing as required for healthy growth. Restore planting saucers. Tighten and repair stake and guy supports and reset trees and shrubs to proper grades or vertical position as required. Provide positive chemical, insect and disease control as indicated by inspection. Fertilize plants as required by good horticultural practice. Provide and replace mulch in planting beds and inside the saucers as necessary. Remove trash from planting and lawn areas at least once a week. Weed shrub and groundcover beds as required to maintain a neat appearance. Mow and edge lawns at least once each week during the growing season. Bag and remove clippings from the project site. Monitor operation and coverage of the irrigation system.

16. All container grown material shall be thoroughly hand watered upon arrival, while in the containers, before planting. Protect the tree trunks at all times during the removal from delivery trailer.

17. Prune any trees as requested by the Engineer, General Contractor or Owner.

18. Review existing utilities and new utility plans, as applicable, prior to installing the plant materials. Do not install trees or shrubs over underground drainage structures, utilities or directly under overhead power lines. Make minor adjustments in tree locations if necessary. Coordinate revised locations with the Engineer and General Contractor.

19. Coordinate the installation of the landscape with the installation of the site lighting, as applicable. Minor adjustments in the field may be made as required to position the trees between the light standards. Stake the locations of all trees and obtain approval of Engineer and General Contractor prior to installation.

20. Landscape Contractor to secure any permits, including franchise agreements, required for planting and irrigation in public right-of-way, when applicable, prior to commencing work. Coordinate with General Contractor and Engineer as necessary. Pull all required permits.

REV.	DATE	DESCRIPTION	BY

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METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

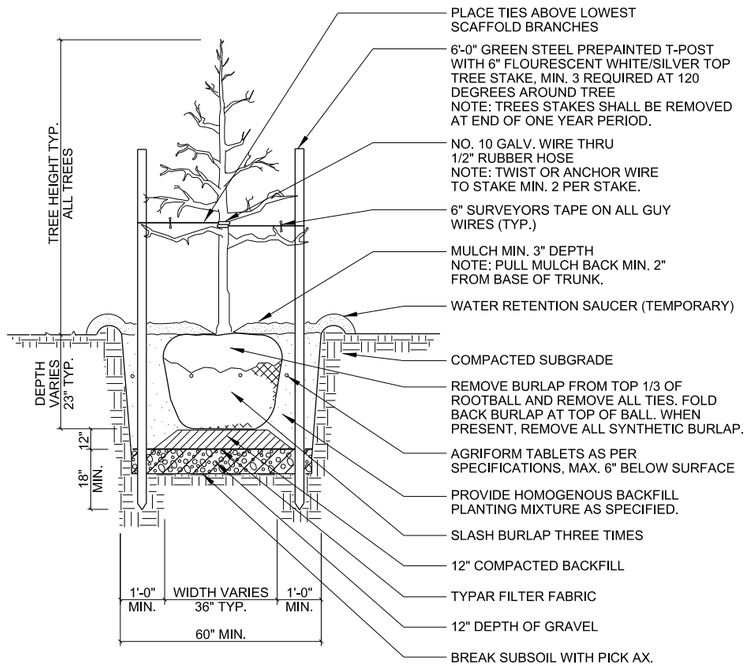
LANDSCAPE
GENERAL NOTES

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: CBD
DRAWN BY: LCJ

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
L-001

SHEET NUMBER **62**



NOTE: PLANTS SHALL BE SET SLIGHTLY HIGHER THAN GRADE TO ALLOW FOR SETTLING AND POSITIVE DRAINAGE.

PLACE TIES ABOVE LOWEST SCAFFOLD BRANCHES

6'-0" GREEN STEEL PREPAINTED T-POST WITH 6" FLOURESCENT WHITE/SILVER TOP TREE STAKE, MIN. 3 REQUIRED AT 120 DEGREES AROUND TREE
NOTE: TREES STAKES SHALL BE REMOVED AT END OF ONE YEAR PERIOD.

NO. 10 GALV. WIRE THRU 1/2" RUBBER HOSE
NOTE: TWIST OR ANCHOR WIRE TO STAKE MIN. 2 PER STAKE.

6" SURVEYORS TAPE ON ALL GUY WIRES (TYP.)

MULCH MIN. 3" DEPTH
NOTE: PULL MULCH BACK MIN. 2" FROM BASE OF TRUNK.

WATER RETENTION SAUCER (TEMPORARY)

COMPACTED SUBGRADE

REMOVE BURLAP FROM TOP 1/3 OF ROOTBALL AND REMOVE ALL TIES. FOLD BACK BURLAP AT TOP OF BALL. WHEN PRESENT, REMOVE ALL SYNTHETIC BURLAP.

AGRIFORM TABLETS AS PER SPECIFICATIONS, MAX. 6" BELOW SURFACE

PROVIDE HOMOGENOUS BACKFILL PLANTING MIXTURE AS SPECIFIED.

SLASH BURLAP THREE TIMES

12" COMPACTED BACKFILL

TYPAR FILTER FABRIC

12" DEPTH OF GRAVEL

BREAK SUBSOIL WITH PICK AX.

NOTE: PROVIDE FERTILOME ROOT STIMULATOR IN EACH TREE PIT.

NOTE: PLACE ALL PVC LATERIALS OUTSIDE OF ROOTBALL.

1 TREE PLANTNG / STAKING DETAIL

NO SCALE (FOR TREES IN MASS PLANTING AND TURF AREAS)

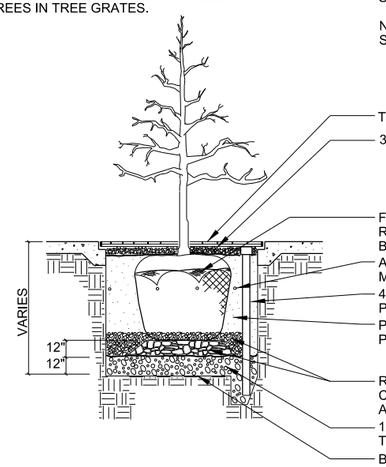
NOTE: TREE GRATES TO BE PROVIDED AND INSTALLED BY GENERAL CONTRACTOR. REFER TO CIVIL DRAWING, SHEET C-211, FOR TREE GRATE AND PIT.

NOTE: NO GUYING TO BE PROVIDED FOR TREES IN TREE GRATES.

NOTE: COORDINATE INSTALLATION OF IRRIGATION WITH INSTALLATION OF TREES.

NOTE: PLACE ALL PVC LATERALS FOR SPRINKLER SYSTEM OUTSIDE OF ROOTBALL.

NOTE: PROVIDE FERTILOME ROOT STIMULATOR IN EACH TREE PIT.



TREE GRATE BY GENERAL CONTRACTOR.

3" DEPTH HARDWOOD MULCH

FOLD BACK BURLAP FROM TOP 1/3 OF ROOTBALL. REMOVE ALL TIES OR WIRE BASKETS FROM TOP OF ROOTBALL.

AGRIFORM TABLET AS PER SPECIFICATIONS MAX.6" BELOW SURFACE.

4" PVC OBSERVATION SUMP WITH GRAVEL. PROVIDE CAP BELOW TREE GRATE.

PROVIDE HOMOGENOUS BACKFILL PLANTING MIXTURE AS SPECIFIED

ROOTBALL SHALL BE SET IN PLACE ON COMPACTED SB-2 SUB-BASE PEDESTAL AND COVERED WITH 2" WASHED GRAVEL.

12" LAYER OF COMPACTED GRAVEL WITH TYPAR FILTER FABRIC OR APPROVED EQUAL.

BREAK SUBSOIL WITH PICK AX.

2 TREE PLANTING IN TREE GRATE DETAIL

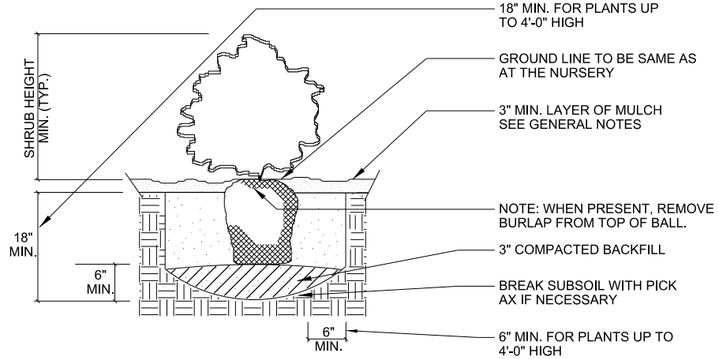
NO SCALE

NOTES:

1. PROVIDE HOMOGENOUS BACKFILL PLANTING MIXTURE AS SPECIFIED. PROVIDE FERTILOME ROOT STIMULATOR OR APPROVED EQUAL IN PITS. APPLY BALAN PRE-EMERGENT WEED CONTROL OR APPROVED EQUAL TREATMENT ON ALL SHRUB BEDS.

2. PROVIDE AGRIFORM TABLETS AS PER MANUFACTURERS RECOMMENDATIONS.

3. PROVIDE WEED CONTROL AND/OR FERTILIZER AS SPECIFIED. WEED CONTROL AND FERTILIZER MAY BE APPLIED AT A LATER DATE TO COMPLY WITH SEASONAL CONDITIONS AND THE GROWING PERIOD.



18" MIN. FOR PLANTS UP TO 4'-0" HIGH

GROUND LINE TO BE SAME AS AT THE NURSERY

3" MIN. LAYER OF MULCH SEE GENERAL NOTES

NOTE: WHEN PRESENT, REMOVE BURLAP FROM TOP OF BALL.

3" COMPACTED BACKFILL

BREAK SUBSOIL WITH PICK AX IF NECESSARY

6" MIN. FOR PLANTS UP TO 4'-0" HIGH

3 SHRUB AND ORNMENTAL GRASS PLANTING DETAIL

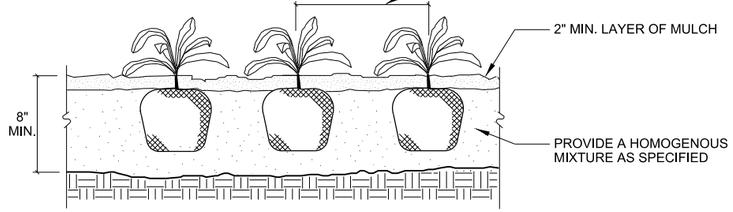
NO SCALE

NOTES:

1. PROVIDE HOMOGENOUS BACKFILL PLANTING MIXTURE AS SPECIFIED. PROVIDE FERTILOME ROOT STIMULATOR OR APPROVED EQUAL IN PITS.

2. PROVIDE AGRIFORM TABLETS AS PER MANUFACTURERS RECOMMENDATIONS.

3. APPLY BALAN PRE-EMERGENT WEED CONTROL OR APPROVED EQUAL TREATMENT ON ALL PERENNIAL BEDS. WEED CONTROL AND FERTILIZER MAY BE APPLIED AT A LATER DATE TO COMPLY WITH SEASONAL CONDITIONS AND THE GROWING PERIOD.



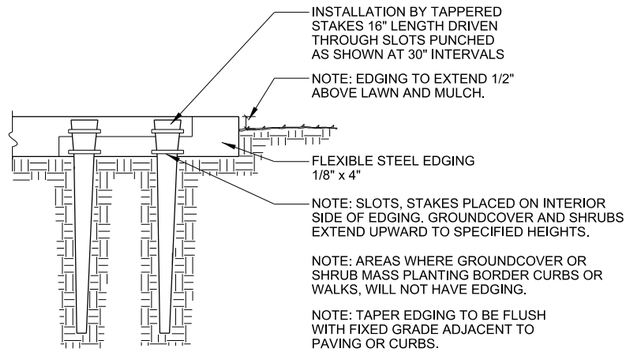
SEE PLANS FOR SPACING

2" MIN. LAYER OF MULCH

PROVIDE A HOMOGENOUS MIXTURE AS SPECIFIED

4 PERENNIAL PLANTING DETAIL

NO SCALE



INSTALLATION BY TAPPERED STAKES 16" LENGTH DRIVEN THROUGH SLOTS PUNCHED AS SHOWN AT 30" INTERVALS

NOTE: EDGING TO EXTEND 1/2" ABOVE LAWN AND MULCH.

FLEXIBLE STEEL EDGING 1/8" x 4"

NOTE: SLOTS, STAKES PLACED ON INTERIOR SIDE OF EDGING. GROUNDCOVER AND SHRUBS EXTEND UPWARD TO SPECIFIED HEIGHTS.

NOTE: AREAS WHERE GROUNDCOVER OR SHRUB MASS PLANTING BORDER CURBS OR WALKS, WILL NOT HAVE EDGING.

NOTE: TAPER EDGING TO BE FLUSH WITH FIXED GRADE ADJACENT TO PAVING OR CURBS.

5 STEEL EDGING DETAIL

NO SCALE

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

LANDSCAPE DETAILS

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: CBD
DRAWN BY: LCJ

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
L-101

SHEET NUMBER **63**

DLTackett 2/25/2019 11:41:38 PM
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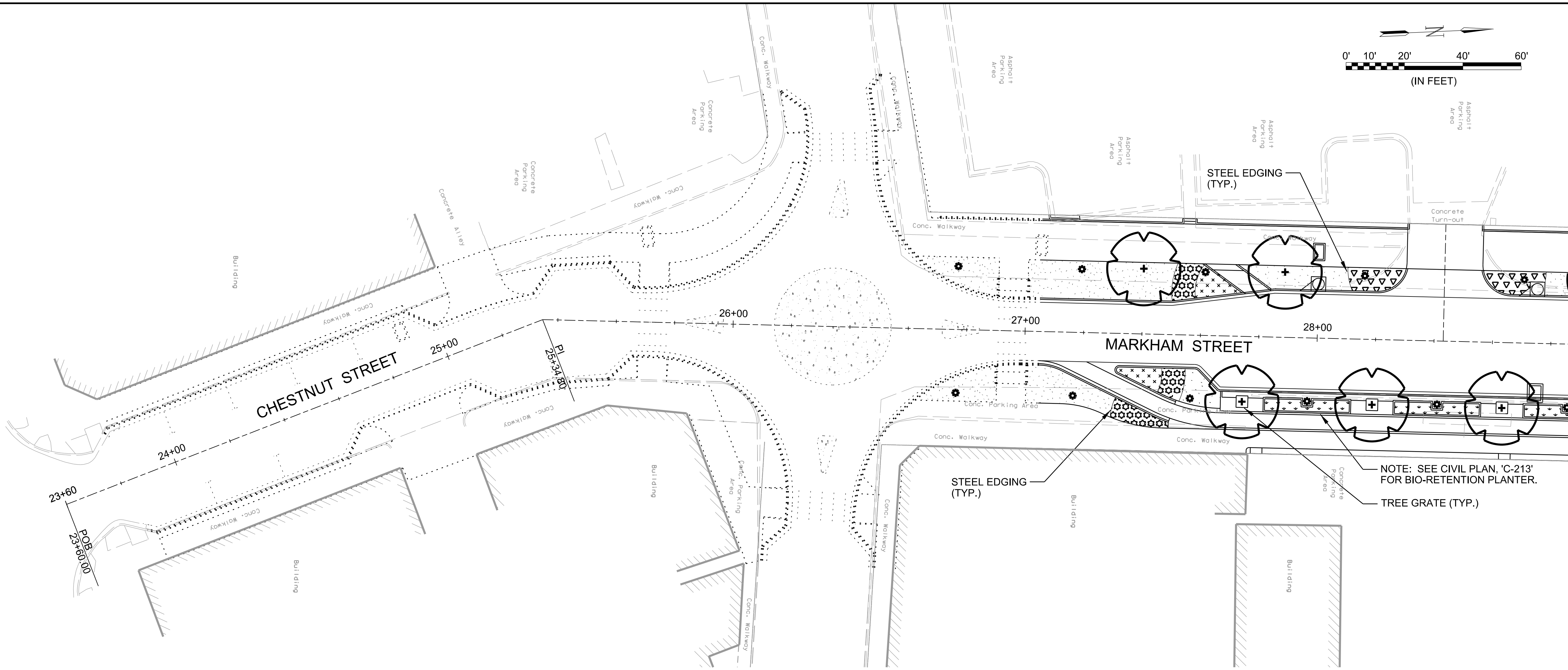
L:\2016\16017122 - Conway - Markham Street\Drawings\CMSH-101-LS.dgn



LICENSED LANDSCAPE ARCHITECT
CINDE
License Number 8550
STATE OF ARKANSAS
[illegible]
2-22-19

NOTES:

1. THE LISTED QUANTITIES ARE PROVIDED FOR ESTIMATING PURPOSES ONLY. ESTIMATED QUANTITIES OF MASS PLANTING AREAS ARE BASED ON DESIGNATED ON-CENTER SPACING PER SQUARE FOOTAGE. ALL MASS PLANTING BEDS SHALL BE FULL UPON COMPLETION OF LANDSCAPE INSTALLATION BASED ON THE ON-CENTER SPACING. THE NUMBER OF PLANT MATERIAL SYMBOLS (CIRCLES) SHOWN ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER ESTIMATED QUANTITIES SHOWN ABOVE. CONFIRM ALL QUANTITIES.

2. ALL NEW LANDSCAPE AREAS SHALL HAVE AN AUTOMATIC IRRIGATION SYSTEM.

3. REFER TO CIVIL SHEET, C-211, FOR TREE GRATE DETAIL AND DETAIL, 2 / L-101 FOR TREE PLANTING IN TREE GRATES.

LEGEND:

		QUANTITY
✚	AVENUE STREET TREE: WILLOW OAK	5
▽	'LITTLE HENRY' VIRGINIA SWEETSPIRE MASS PLANTING 2'-6" O.C. (TYP.)	40
✡	PINK MUHLY GRASS MASS PLANTING 2'-6" O.C. (TYP.)	45
▨	SOFT RUSH MASS PLANTING 18" O.C. (TYP.)	125
×	'GOLDSTURM' RUDBECKIA MASS PLANTING 18" O.C. (TYP.)	80
⁘	'TIFWAY 419' BERMUDA SOLID SOD	

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

LANDSCAPE PLAN - (SHEET 1 OF 3)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: CBD
DRAWN BY: LCJ

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
L-201

SHEET NUMBER **64**

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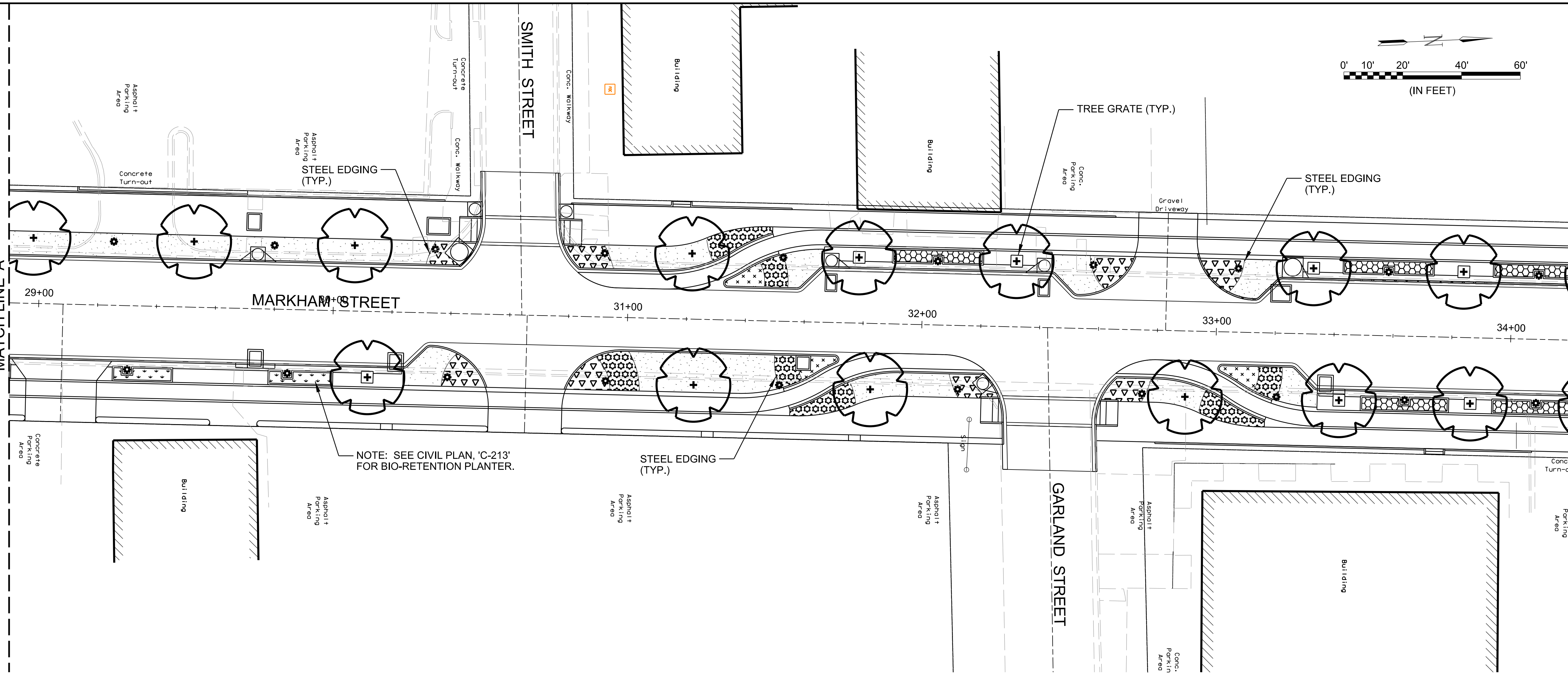

NOTES:

1. THE LISTED QUANTITIES ARE PROVIDED FOR ESTIMATING PURPOSES ONLY. ESTIMATED QUANTITIES OF MASS PLANTING AREAS ARE BASED ON DESIGNATED ON-CENTER SPACING PER SQUARE FOOTAGE. ALL MASS PLANTING BEDS SHALL BE FULL UPON COMPLETION OF LANDSCAPE INSTALLATION BASED ON THE ON-CENTER SPACING. THE NUMBER OF PLANT MATERIAL SYMBOLS (CIRCLES) SHOWN ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER ESTIMATED QUANTITIES SHOWN ABOVE. CONFIRM ALL QUANTITIES.

2. ALL NEW LANDSCAPE AREAS SHALL HAVE AN AUTOMATIC IRRIGATION SYSTEM.

3. REFER TO CIVIL SHEET, C-211, FOR TREE GRATE DETAIL AND DETAIL, 2 / L-101 FOR TREE PLANTING IN TREE GRATES.

LEGEND:

		QUANTITY
⊕	AVENUE STREET TREE: WILLOW OAK	14
▽	'LITTLE HENRY' VIRGINIA SWEETSPIRE MASS PLANTING 2'-6" O.C. (TYP.)	115
✡	PINK MUHLY GRASS MASS PLANTING 2'-6" O.C. (TYP.)	120
⬡	'THE BLUES' LITTLE BLUESTEM MASS PLANTING 2'-6" O.C. (TYP.)	90
⍦	SOFT RUSH MASS PLANTING 18" O.C. (TYP.)	80
×	'GOLDSTURM' RUDBECKIA MASS PLANTING 18" O.C. (TYP.)	80
⁘	'TIFWAY 419' BERMUDA SOLID SOD	

LICENSED LANDSCAPE ARCHITECT
License Number 8550
STATE OF ARKANSAS
[illegible]
2-22-19

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

LANDSCAPE PLAN - (SHEET 2 OF 3)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: CBD
DRAWN BY: LCJ

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
L-202

SHEET NUMBER **65**

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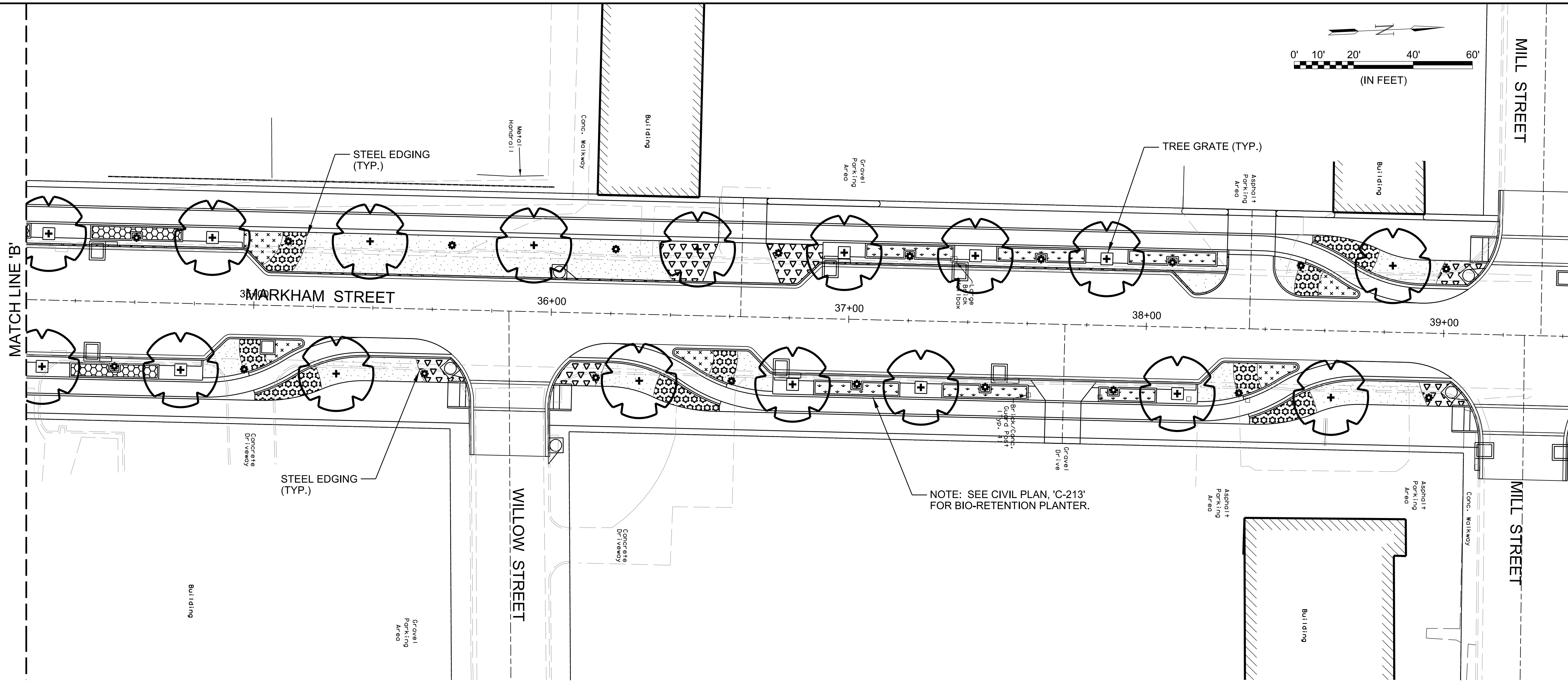

NOTES:

1. THE LISTED QUANTITIES ARE PROVIDED FOR ESTIMATING PURPOSES ONLY. ESTIMATED QUANTITIES OF MASS PLANTING AREAS ARE BASED ON DESIGNATED ON-CENTER SPACING PER SQUARE FOOTAGE. ALL MASS PLANTING BEDS SHALL BE FULL UPON COMPLETION OF LANDSCAPE INSTALLATION BASED ON THE ON-CENTER SPACING. THE NUMBER OF PLANT MATERIAL SYMBOLS (CIRCLES) SHOWN ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER ESTIMATED QUANTITIES SHOWN ABOVE. CONFIRM ALL QUANTITIES.

2. ALL NEW LANDSCAPE AREAS SHALL HAVE AN AUTOMATIC IRRIGATION SYSTEM.

3. REFER TO CIVIL SHEET, C-211, FOR TREE GRATE DETAIL AND DETAIL, 2 / L-101 FOR TREE PLANTING IN TREE GRATES.

LEGEND:

		QUANTITY
⊕	AVENUE STREET TREE: WILLOW OAK	17
▽	'LITTLE HENRY' VIRGINIA SWEETSPIRE MASS PLANTING 2'-6" O.C. (TYP.)	110
✡	PINK MUHLY GRASS MASS PLANTING 2'-6" O.C. (TYP.)	145
⬡	'THE BLUES' LITTLE BLUESTEM MASS PLANTING 2'-6" O.C. (TYP.)	35
⋎	SOFT RUSH MASS PLANTING 18" O.C. (TYP.)	265
×	'GOLDSTURM' RUDBECKIA MASS PLANTING 18" O.C. (TYP.)	160
⋯	'TIFWAY 419' BERMUDA SOLID SOD	

LICENSED LANDSCAPE ARCHITECT
CINDI BAUER BALLING
License Number 8550
STATE OF ARKANSAS
[illegible]
2-22-19

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

LANDSCAPE PLAN - (SHEET 3 OF 3)

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: CBD
DRAWN BY: LCJ

BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
L-203

SHEET NUMBER **66**

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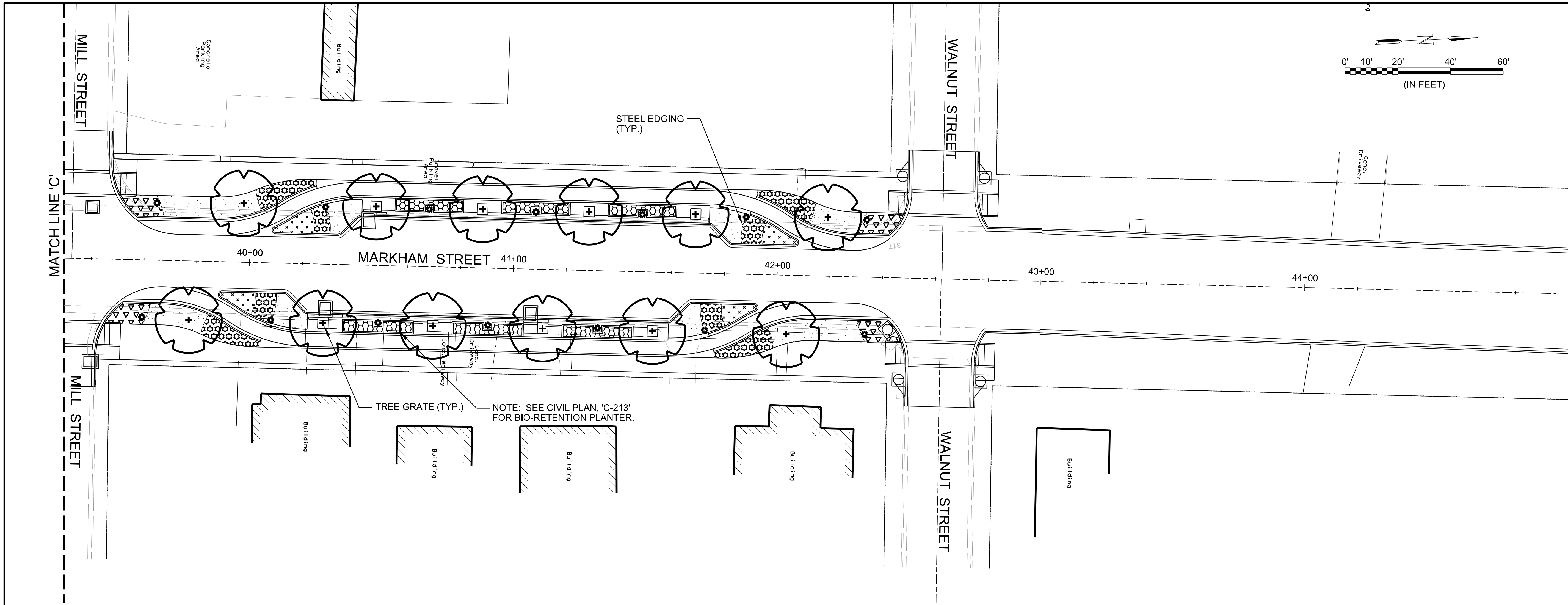

NOTES:

1. THE LISTED QUANTITIES ARE PROVIDED FOR ESTIMATING PURPOSES ONLY. ESTIMATED QUANTITIES OF MASS PLANTING AREAS ARE BASED ON DESIGNATED ON-CENTER SPACING PER SQUARE FOOTAGE. ALL MASS PLANTING BEDS SHALL BE FULL UPON COMPLETION OF LANDSCAPE INSTALLATION BASED ON THE ON-CENTER SPACING. THE NUMBER OF PLANT MATERIAL SYMBOLS (CIRCLES) SHOWN ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER ESTIMATED QUANTITIES SHOWN ABOVE. CONFIRM ALL QUANTITIES.

2. ALL NEW LANDSCAPE AREAS SHALL HAVE AN AUTOMATIC IRRIGATION SYSTEM.

3. REFER TO CIVIL SHEET, C-211, FOR TREE GRATE DETAIL AND DETAIL, 2 / L-101 FOR TREE PLANTING IN TREE GRATES.

LEGEND:

		QUANTITY
✚	AVENUE STREET TREE: WILLOW OAK	12
▽	'LITTLE HENRY' VIRGINIA SWEETSPIRE MASS PLANTING 2'-6" O.C. (TYP.)	55
✡	PINK MUHLY GRASS MASS PLANTING 2'-6" O.C. (TYP.)	131
⬡	'THE BLUES' LITTLE BLUESTEM MASS PLANTING 2'-6" O.C. (TYP.)	87
×	'GOLDSTURM' RUDBECKIA MASS PLANTING 18" O.C. (TYP.)	126
░	'TIFWAY 419' BERMUDA SOLID SOD	

LICENSED LANDSCAPE ARCHITECT
CINDE BAU LLING
License Number 8550
STATE OF ARKANSAS
[illegible]
Digitally Signed 10/14/2019

REV.	DATE	DESCRIPTION	BY
	10/14/2019	CHANGE ORDER NO. 1 - ADD SHEET	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

LANDSCAPE PLAN - (SHEET 4 OF 4)

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: CBD
DRAWN BY: LCJ

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
L-204

SHEET NUMBER **66A**

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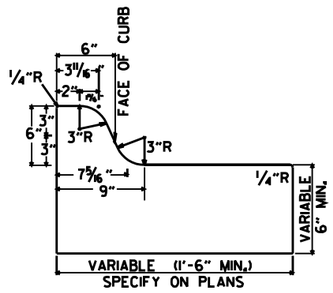
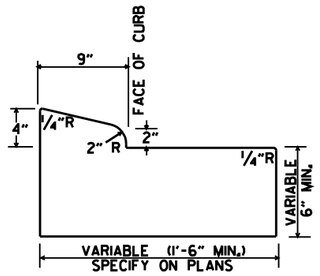
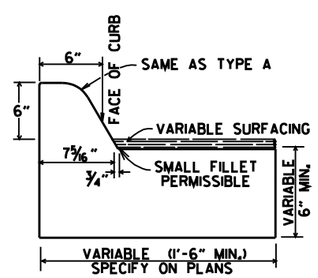


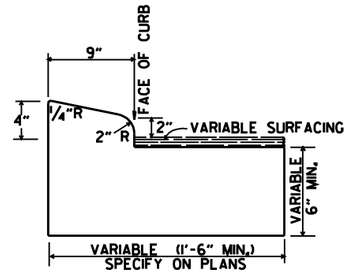
TYPE A



TYPE B-1



TYPE C



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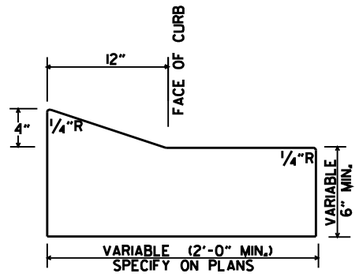
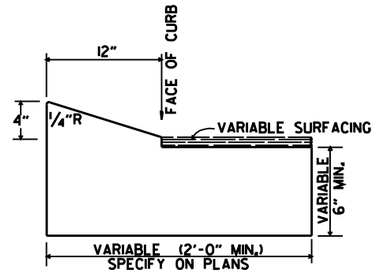
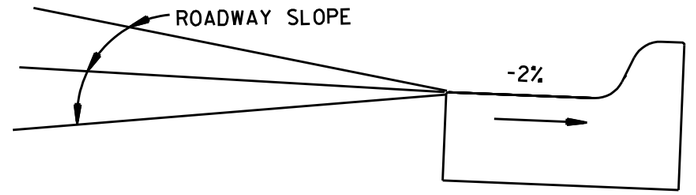


TYPE E-1



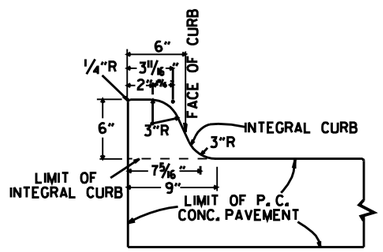
TYPE E-2

CONCRETE COMBINATION CURB AND GUTTER

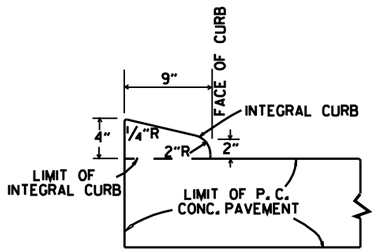


DETAIL OF GUTTER SLOPE

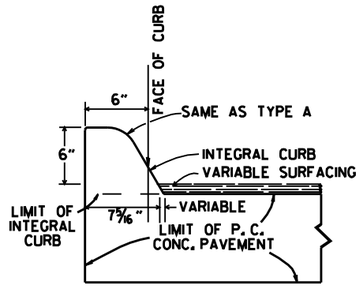
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.



TYPE A

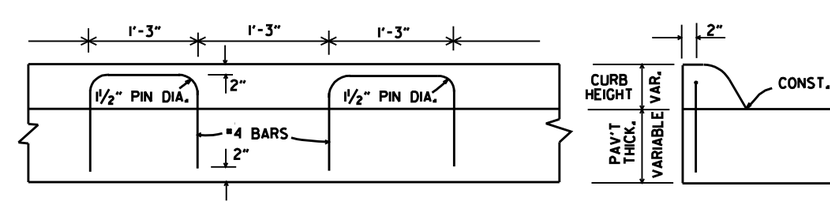


TYPE B

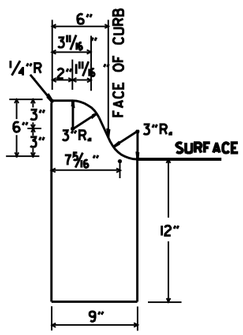


TYPE C

INTEGRAL CURB



ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB



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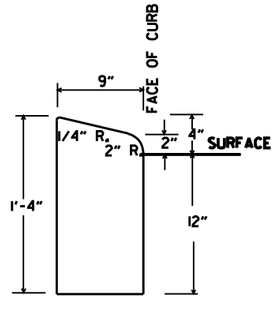
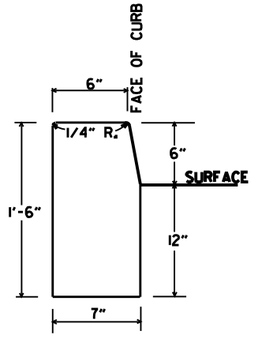
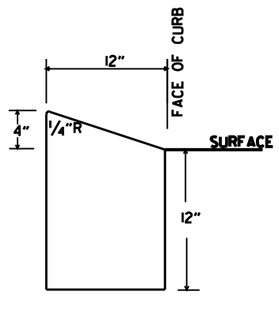


TYPE B

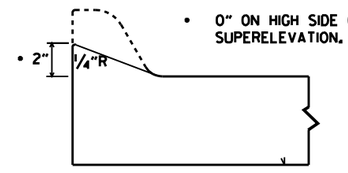


TYPE D



TYPE E

CONCRETE CURB



NOTE: USE MODIFIED CURB AS SPECIFIED ON STD. DR-1. COMPENSATION FOR MODIFIED CURB WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE TYPE OF CURB OR CURB AND GUTTER SPECIFIED.

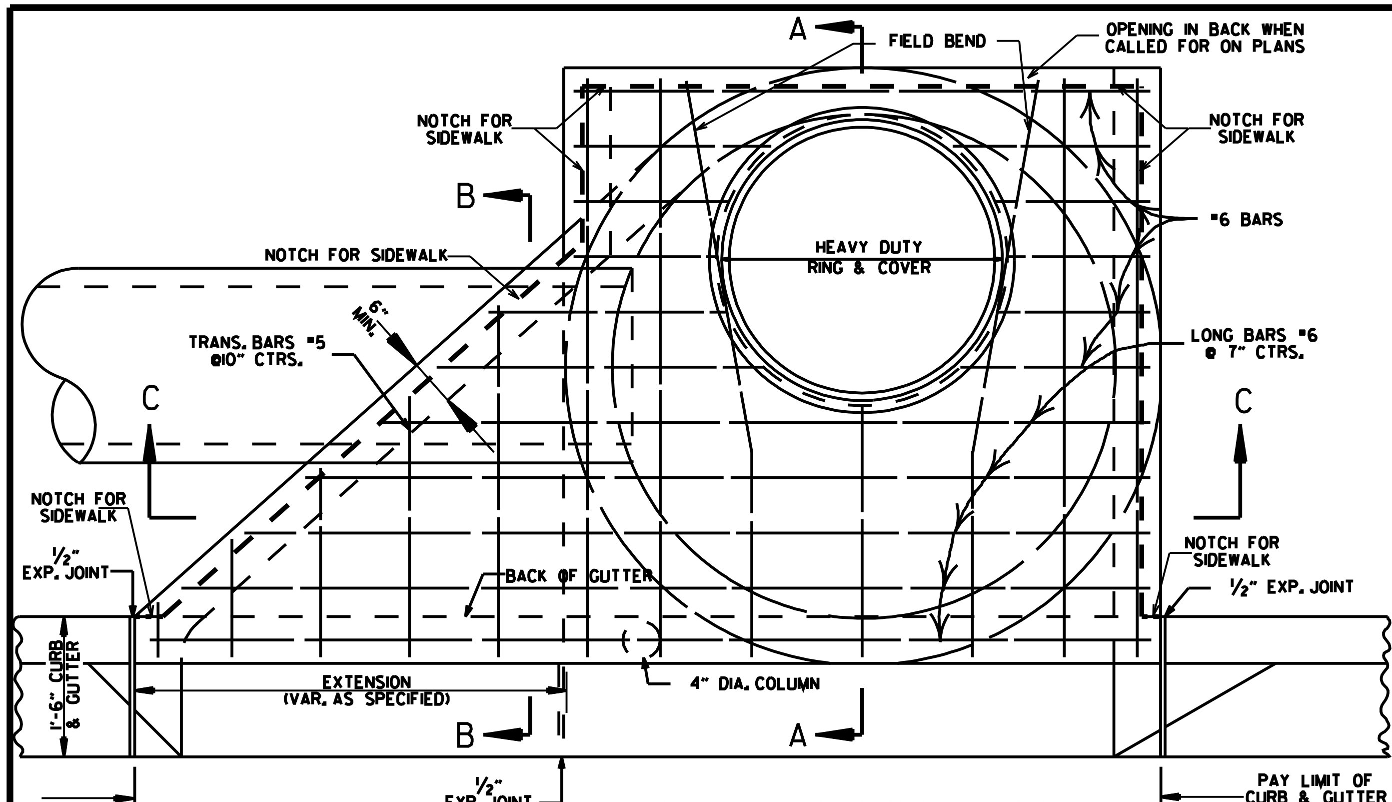
DETAILS OF MODIFIED CURB

DATE	REVISION	DATE FILMED
11-29-07	REVISED GUTTER SLOPE & MODIFIED CURB DETAILS	
11-10-05	ADDED DETAILS OF TYPE E CURBS	
11-16-01	REVISED CONCRETE CURB TYPE B	
11-18-98	REVISED MODIFIED CURB	
6-2-94	ADDED NOTE TO SPECIAL MODIFIED CURB	
8-5-93	CORRECTED GUTTER SLOPE	8-5-93
10-1-92	ADDED DETAILS OF GUTTER SLOPE	10-1-92
5-24-90	ADDED DETAILS OF MODIFIED CURB	5-24-90
11-30-89	VARIBLE DEPTH TYPE A & B I	11-30-89
7-15-88	REVISED MODIFIED CURB	630-7-15-88
11-1-73	REVISED MODIFIED CURB	500-11-1-73
10-2-72	REVISED AND REDRAWN	52-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

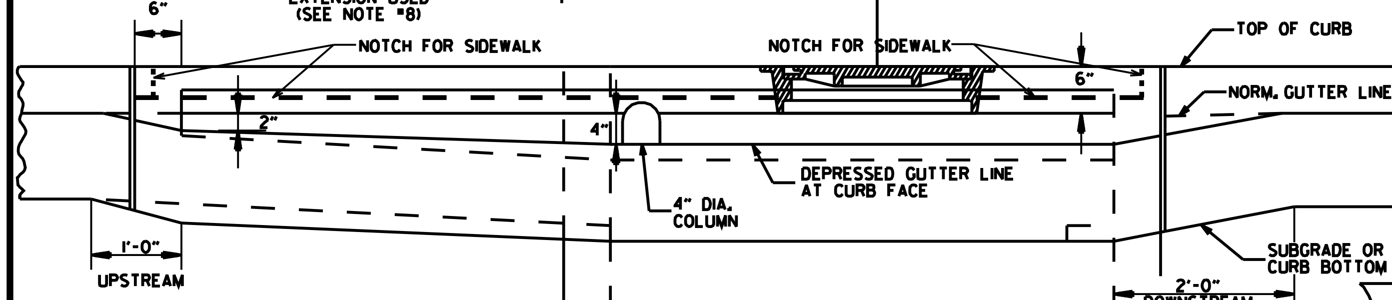
CURBING DETAILS

STANDARD DRAWING CG-1

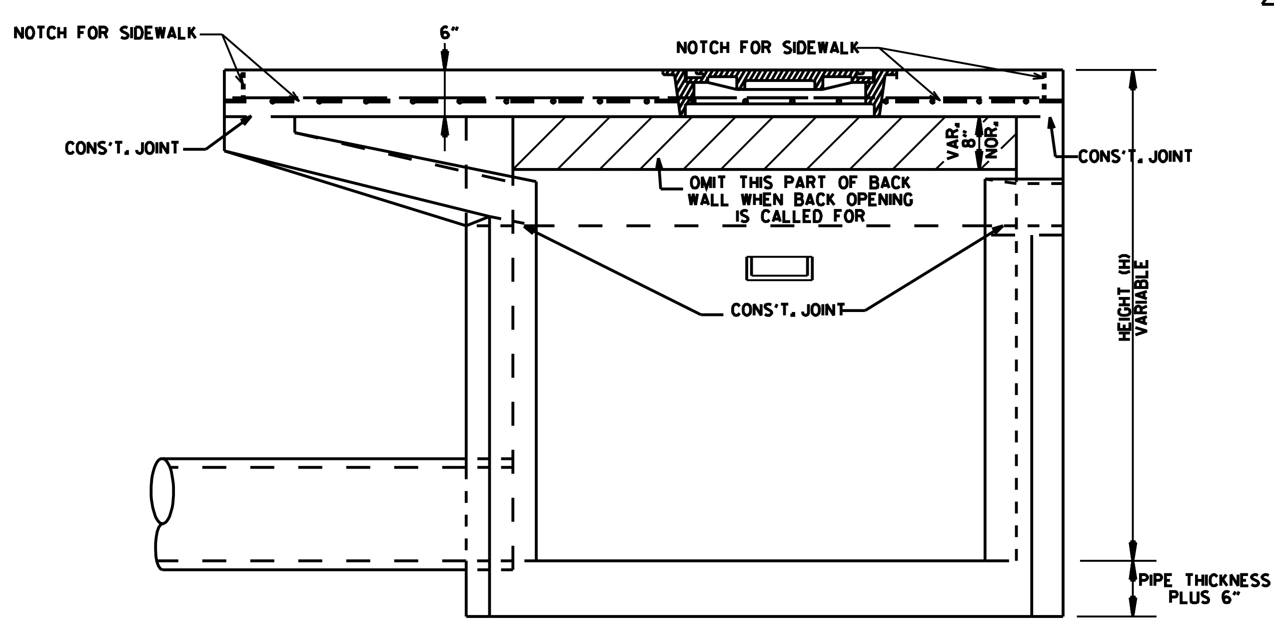


PLAN - W/SINGLE EXTENSION

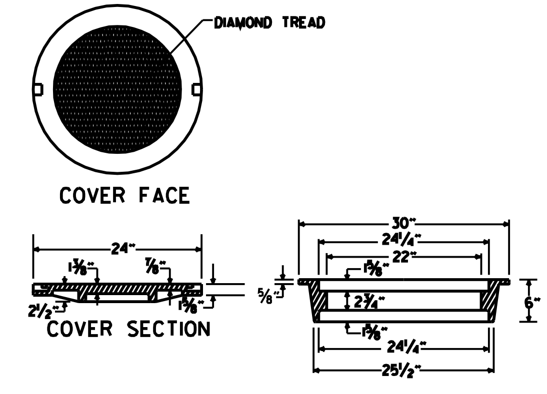
NOTE: FOR DOUBLE EXTENSION USE SINGLE ON BOTH SIDES.



FRONT ELEVATION



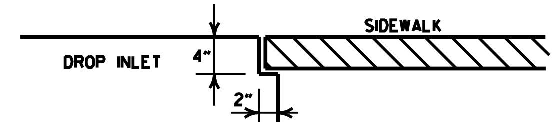
SECTION C-C



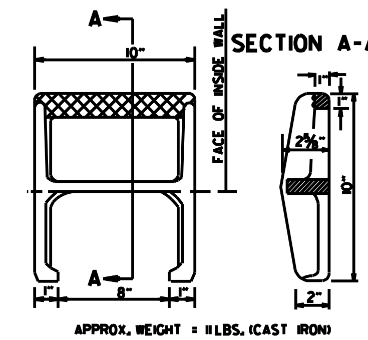
APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER

1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.



DETAIL OF NOTCH FOR SIDEWALKS

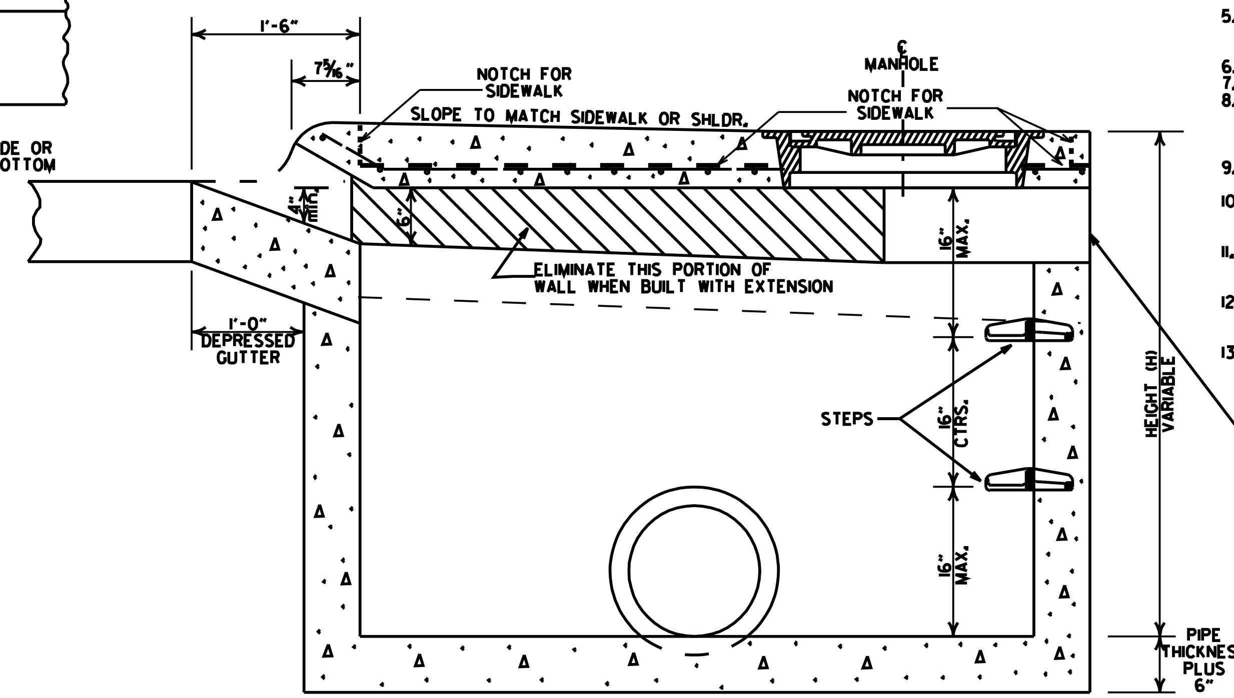


APPROX. WEIGHT = 11LBS. (CAST IRON)

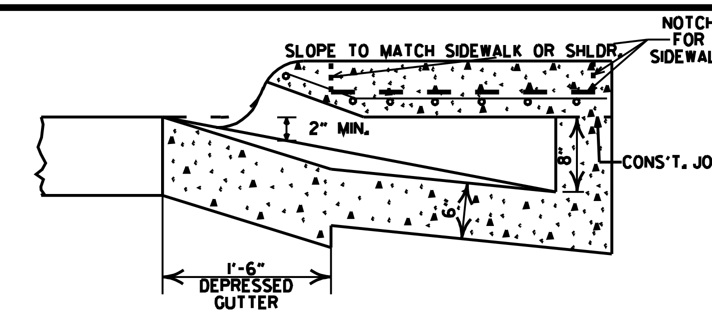
PLAN

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

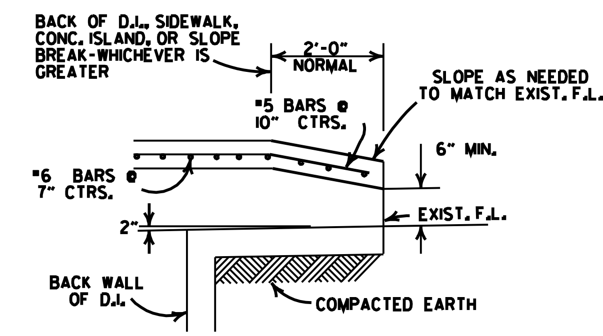
DETAIL OF STEP FOR DROP INLET



SECTION A-A



SECTION B-B



BACK OPENING

WHEN OPENING IN BACK IS CALLED FOR ON PLANS EXTEND OPENING AS SHOWN IN DETAIL. PAYMENT TO BE INCLUDED IN PRICE BID FOR DROP INLET (TYPE MO).

GENERAL NOTES:
1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER.
2. STEPS SHALL BE INSTALLED IN ALL INLETS 4'-0" HIGH AND OVER OR AS DIRECTED BY THE ENGINEER.
3. ALL REINFORCING BARS SHALL BE GRADE 60 AND HAVE MIN. 1 1/2" COVER.
4. DROP INLETS AND EXTENSION ON CURVED SECTIONS SHALL CONFORM TO THE CURVATURE OF THE CURB.
5. 4" DIA. COLUMNS SPACED AT MAX. 4'-0" INTERVALS SHALL BE INSTALLED ALONG INLET AND EXTENSION TO SUPPORT TOP.
6. BASE AND INLET WALLS SHALL BE CAST MONOLITHICALLY.
7. THE THROAT SHALL BE CAST INTEGRALLY WITH THE GUTTER.
8. PAYMENT FOR CURB AND/OR CURB AND GUTTER WITHIN THE LIMITS OF DROP INLETS AND DROP INLET EXTENSIONS SHALL BE CONSIDERED INCLUDED IN PAYMENT MADE FOR DROP INLETS AND/OR DROP INLET EXTENSIONS.
9. PIPES MAY ENTER DROP INLET FROM ANY ANGLE OR ELEVATION AS MAY BE APPROVED BY THE ENGINEER.
10. APPROPRIATE SIZE TYPE C DROP INLETS MAY BE SUBSTITUTED FOR TYPE MO DROP INLETS AS APPROVED BY THE ENGINEER. PAYMENT TO BE AS DROP INLET (TYPE MO).
11. DURING CONSTRUCTION OF THE ROADWAY THE CONTRACTOR SHALL MAINTAIN DRAINAGE INTO OR AROUND THE DROP INLET AS APPROVED BY THE ENGINEER.
12. 4"x2" NOTCH SHALL BE FORMED IN ALL DROP INLETS TO SUPPORT SIDEWALK CONSTRUCTION. REFER TO DETAIL OF NOTCH FOR SIDEWALKS.
13. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

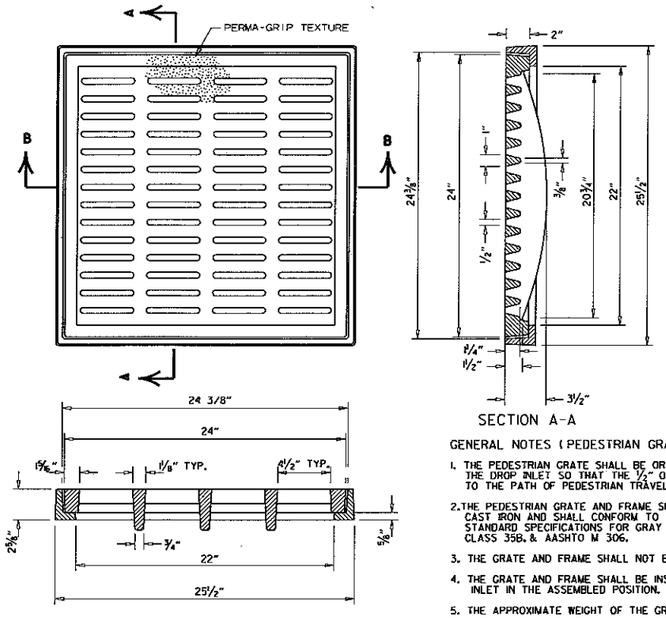
		MINIMUM WALL THICKNESS	
DIA. OF D.I.	DIA. OF OUTLET PIPE	CAST IN PLACE	PRECAST
4' I.D.	12" THRU 27"	6"	5"
5' I.D.	30" THRU 42"	8"	6"
6' I.D.	48" THRU 54"	8"	7"

DATE	REVISIONS	DATE FILMED
8-22-02	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B	
11-16-01	ADDED NOTE 13	
1-12-00	REVISED HEAVY DUTY RING & COVER	
5-13-99	ADDED NOTCH DETAIL FOR SIDEWALKS	
7-02-98	REP. NOTE 8, REM. PLAN DET., REV. PICTURE FOR NEW RING & COVER, ADDED HEAVY DUTY RING & COVER AND DETAIL OF STEP FOR DROP INLET	
4-26-96	ADDED NOTE 11, ADJ. OPENING DIMENSION	
10-12-95	CORRECTED "6 BAR SPACING	
7-20-95	CORRECTED DIAMETER OF D.I. IN BOX	
2-2-95	TYPE C TO MO (OPEN. BACK DETAIL)	
11-3-94	REVISED GENERAL NOTES	11-3-94
4-1-93	REV. BACK OPEN. DETAIL & NOTE	4-1-93
8-15-91	REVISED NOTES 11,12 & ADDED BK. OPEN DETAIL	8-15-91
11-30-89	ADDED NOTE NO. 12	11-30-89
3-23-89	ADDED NOTE & MINIMUM WALL THICKNESS	513-3-23-89
7-15-88	ADDED EXTEND NOTE TO SECTION A-A	639-7-15-88
1-14-87	MODIFIED WALL THICKNESS	783-1-14-87
6-12-87	ISSUED	4-6-12-87

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLET (TYPE MO)

STANDARD DRAWING FPC-9M



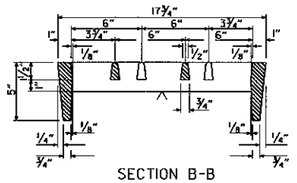
SECTION B-B

SECTION A-A

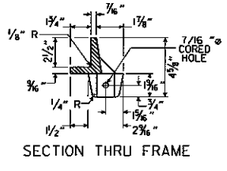
DETAILS OF PEDESTRIAN GRATE AND FRAME

GENERAL NOTES (PEDESTRIAN GRATE & FRAME)

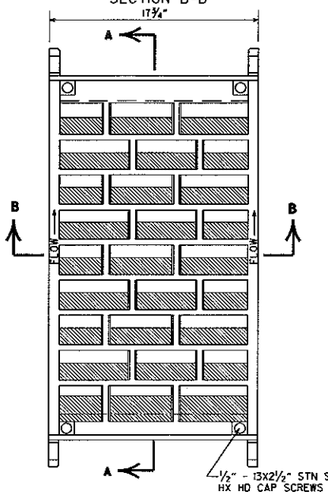
1. THE PEDESTRIAN GRATE SHALL BE ORIENTED IN THE TOP OF THE DROP INLET SO THAT THE ½" OPENINGS ARE PERPENDICULAR TO THE PATH OF PEDESTRIAN TRAVEL.
2. THE PEDESTRIAN GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
3. THE GRATE AND FRAME SHALL NOT BE PAINTED.
4. THE GRATE AND FRAME SHALL BE INSTALLED IN THE DROP INLET IN THE ASSEMBLED POSITION.
5. THE APPROXIMATE WEIGHT OF THE GRATE AND FRAME SHALL BE 211LBS.
6. THE MINIMUM WATERWAY OPENING SHALL BE 122 SQ. IN.

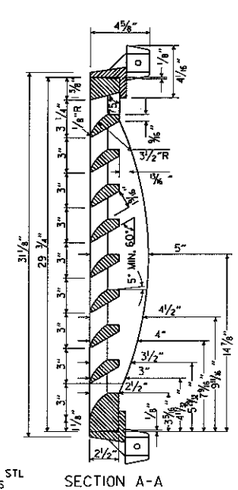


SECTION B-B



SECTION THRU FRAME



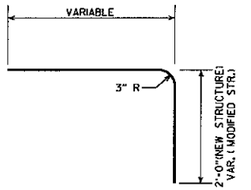


SECTION A-A

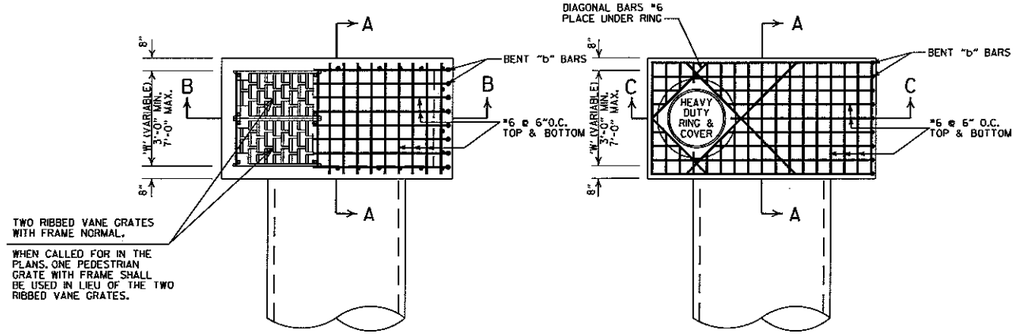
DETAILS OF RIBBED VANE GRATE AND FRAME

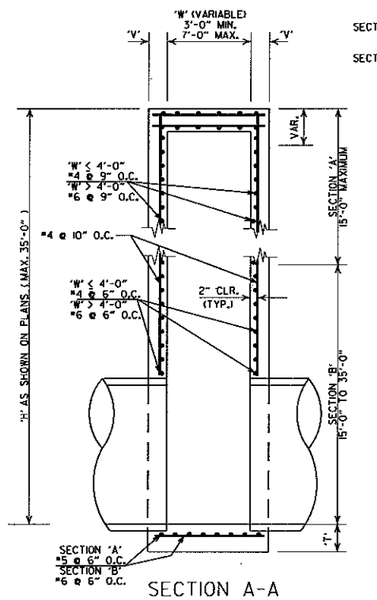
GENERAL NOTES (RIBBED VANE GRATE & FRAME)

1. RIBBED VANE GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
2. GRATE AND FRAME SHALL NOT BE PAINTED.
3. GRATE AND FRAME SHALL BE INSTALLED IN DROP INLET IN ASSEMBLED POSITION.
4. APPROXIMATE WEIGHT OF GRATE SHALL BE 170 LBS.



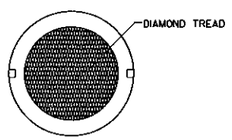
DETAIL OF BENT "b" BAR



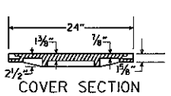


SECTION A-A

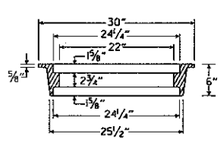
DETAILS OF DROP INLET (TYPE ST)



COVER FACE



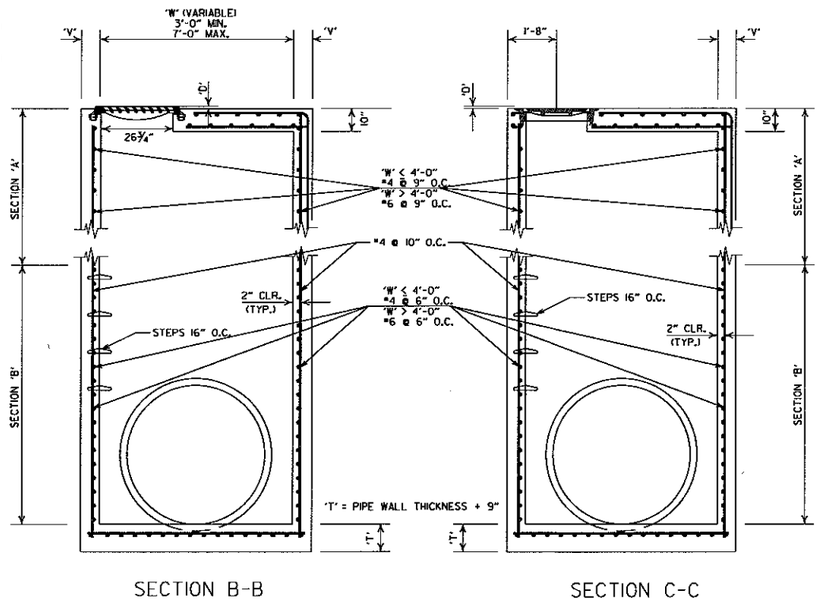
COVER SECTION



RING SECTION

HEAVY DUTY RING & COVER

APPROXIMATE TOTAL WEIGHT = 333 LBS.



SECTION B-B

SECTION C-C

DETAILS OF JUNCTION BOX (TYPE ST)

GENERAL NOTES (TYPE ST DROP INLET & JUNCTION BOX)

1. THE 'D' DIMENSION SHALL MATCH THE FINAL LIFT OF ACHM SURFACE COURSE SHOWN IN THE PLANS WHEN ASPHALT PAVING SURROUNDS THE GRATE OR RING COVER, AND SHALL BE 0" AT OTHER INSTALLATIONS.
2. THE STEPS SHALL BE OMITTED WHERE 'H' IS LESS THAN 4'-0".
3. ALL EXPOSED CORNERS ARE TO HAVE A ¾" CHAMFER.

GENERAL NOTES (HEAVY DUTY RING & COVER):

1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
4. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

DATE REVISED	DATE FILMED	DESCRIPTION
7-26-12		REMOVED NOTE 4, REVISED 'T', REVISED BOTTOM SLAB REBAR FOR SECTION 'A', SHOWED REBAR CLEARANCE IN SECTIONS
11-16-01		ADDED NOTE 4
1-12-00		REVISED HEAVY DUTY RING & COVER
5-13-99		ADDED PEDESTRIAN FRAME & GRATE
7-02-98		REMOVED NOTE 5, REV. DIMENSIONS, ADDED HEAVY DUTY RING & COVER ADDED AASHTO REF. REVISED GRATE
10-18-96		REVISED ASTM REF. TO AASHTO
10-1-92		REVISED & REISSUED
8-15-91	8-15-91	REVISED & REISSUED

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLET & JUNCTION BOX (TYPE ST)

STANDARD DRAWING FPC-9S

REINFORCED CONCRETE ARCH PIPE DIMENSIONS

EQUIV. DIA.	SPAN		RISE	
	AASHTO M 206	AHTD NOMINAL	AASHTO M 206	AHTD NOMINAL
INCHES	INCHES			
15	18	18	11	11
18	22	22	13½	14
21	26	26	15½	16
24	28½	29	18	18
30	36¼	36	22½	23
36	43⅜	44	26⅝	27
42	51⅛	51	31⅝	31
48	58½	59	36	36
54	65	65	40	40
60	73	73	45	45
72	88	88	54	54
84	102	102	62	62
90	115	115	72	72
96	122	122	77½	77
108	138	138	87⅛	87
120	154	154	96⅞	97
132	168¾	169	106½	107

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M206.

REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE DIMENSIONS

EQUIV. DIA.	AASHTO M 207	
	SPAN	RISE
INCHES	INCHES	
18	23	14
24	30	19
27	34	22
30	38	24
33	42	27
36	45	29
39	49	32
42	53	34
48	60	38
54	68	43
60	76	48
66	83	53
72	91	58
78	98	63
84	106	68

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M207.

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE MIDDLE OF THE PIPE.
5. COMPLETE BACKFILL ACCORDING TO SUBSECTION 606.03.(f)(1).

NOTE: HAUNCH AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF CONCRETE PIPE.

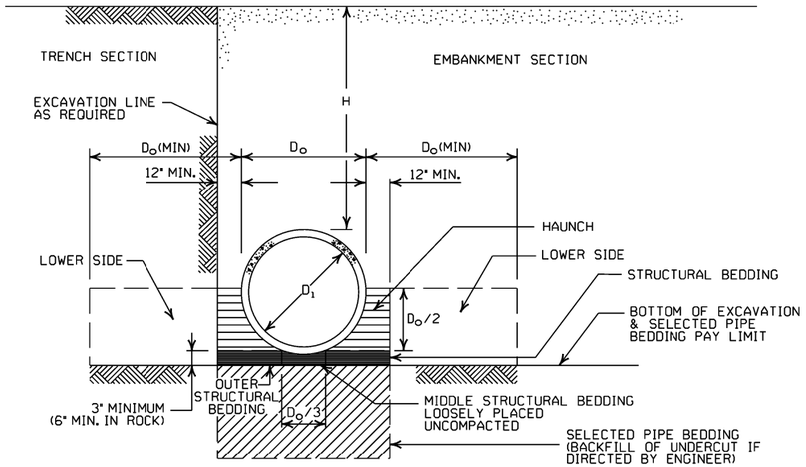
- LEGEND -

D_1 = NORMAL INSIDE DIAMETER OF PIPE
D_o = OUTSIDE DIAMETER OF PIPE
H = FILL COVER HEIGHT OVER PIPE (FEET)
MIN. = MINIMUM
= UNDISTURBED SOIL

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR HAUNCH AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 5 OR CLASS 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL*
TYPE 3**	AASHTO CLASSIFICATION A-1 THRU A-6 SOIL OR TYPE 1 OR 2 INSTALLATION MATERIAL

* SM-3 WILL NOT BE ALLOWED.

** MATERIALS SHALL NOT INCLUDE ORGANIC MATERIALS OR STONES LARGER THAN 3 INCHES.



EMBANKMENT AND TRENCH INSTALLATIONS

1. MATERIAL IN THE HAUNCH AND OUTER STRUCTURAL BEDDING SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. FOR TRENCHES WITH WALLS OF NATURAL SOIL, THE DENSITY OF THE SOIL IN THE LOWER SIDE ZONE SHALL BE AS FIRM AS THE 95% DENSITY REQUIRED FOR THE HAUNCH. IF THE EXISTING SOIL DOES NOT MEET THIS CRITERIA, IT SHALL BE REMOVED AND RECOMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OF MATERIAL USED.
3. FOR EMBANKMENTS, THE MATERIAL IN THE LOWER SIDE ZONE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

GENERAL NOTES

1. CONCRETE PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. CONCRETE PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. ALL PIPE SHALL CONFORM TO SECTION 606. CIRCULAR R.C. PIPE CULVERTS SHALL CONFORM TO AASHTO M170, R.C. ARCH PIPE CULVERTS SHALL CONFORM TO AASHTO M206 AND HORIZONTAL ELLIPTICAL PIPE CULVERTS SHALL CONFORM TO AASHTO M207.
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. NOT MORE THAN ONE LIFTING HOLE MAY BE PROVIDED IN CONCRETE PIPE TO FACILITATE HANDLING. HOLE MAY BE CAST IN PLACE, CUT INTO THE FRESH CONCRETE AFTER FORMS ARE REMOVED, OR DRILLED. THE HOLE SHALL NOT BE MORE THAN TWO INCHES IN DIAMETER OR TWO INCHES SQUARE. CUTTING OR DISPLACEMENT OF REINFORCEMENT WILL NOT BE PERMITTED. SPALLED AREAS AROUND THE HOLE SHALL BE REPAIRED IN A WORKMANLIKE MANNER. LIFTING HOLE SHALL BE FILLED WITH MORTAR, CONCRETE, OR OTHER METHOD AS APPROVED BY THE ENGINEER.
9. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
10. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS THE HAUNCH), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

MINIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

	CLASS OF PIPE			
	CLASS III		CLASS IV	CLASS V
INSTALLATION TYPE	TYPE 1 OR 2	TYPE 3	ALL	ALL
PIPE ID (IN.)	FEET			
12-15	2	2.5	2	1
18-24	2.5	3	2	1
27-33	3	4	2	1
36-42	3.5	5	2	1
48	4.5	5.5	2	1
54-60	5	7	2	1
66-78	6	8	2	1
84-108	7.5	8	2	1

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

MAXIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE		
	CLASS III	CLASS IV	CLASS V
	FEET		
TYPE 1	21	32	50
TYPE 2	16	25	39
TYPE 3	12	20	30

NOTE: IF FILL HEIGHT EXCEEDS 50 FEET, A SPECIAL DESIGN CONCRETE PIPE WILL BE REQUIRED USING TYPE 1 INSTALLATION.

MINIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2 OR TYPE 3	2.5	1.5

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

MAXIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2	13	21
TYPE 3	10	16

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED FOR LRFD DESIGN SPECIFICATIONS	
5-18-00	REVISED TYPE 3 BEDDING & ADDED NOTE	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

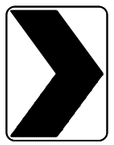
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1

R1-1
30"X30"

W1-3
30"X30"
(LT. OR RT.)



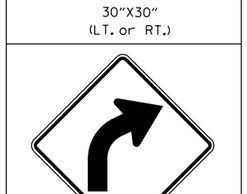
W1-8
18"X24"

W2-5
30"X30"

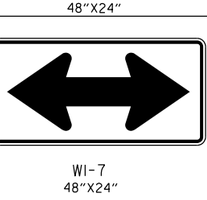
W3-1
36"X36"

W5-1
36"X36"

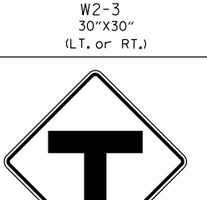
M6-3
21"X15"



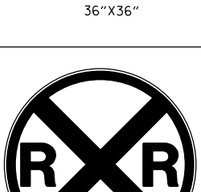
R1-2
36"X36"X36"



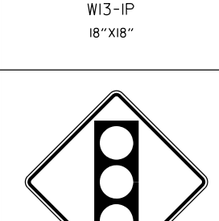
W1-4
30"X30"
(LT. or RT.)



W2-1
30"X30"



S1-1
36"X36"

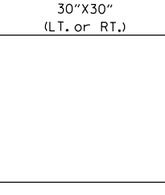


W3-2
36"X36"

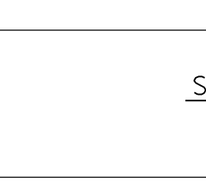
County
Route Marker
M1-6
24"X24"

NOTE: REFLECTORIZED YELLOW LEGEND (COUNTY NAME, ROUTE LETTER & NUMBER) & BORDER ON A BLUE BACKGROUND.

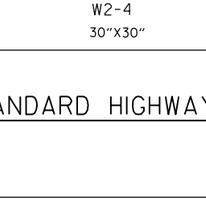
M6-4
21"X15"



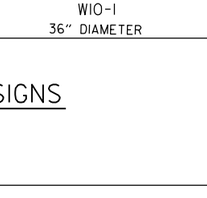
R2-1
24"X30"



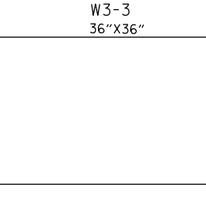
W1-5
30"X30"
(LT. or RT.)



W2-2
30"X30"

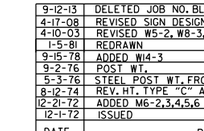


W5-2
36"X36"



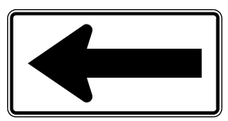
W8-3
36"X36"

R1-3P
18"X6"



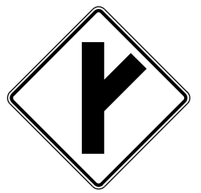
M6-5
21"X15"

W1-1
30"X30"
(LT. or RT.)



W1-6
48"X24"

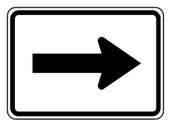
W1-7
48"X24"



W2-3
30"X30"
(LT. or RT.)

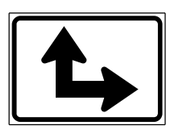
W5-3
36"X36"

W13-1P
18"X18"



M6-1
21"X15"

NOTE: ALL M6 SIGNS TO BE MADE WITH REFLECTORIZED YELLOW ARROW & BORDER WITH BLUE BACKGROUND.



M6-6
21"X15"

W1-2
30"X30"
(LT. or RT.)

W2-4
30"X30"

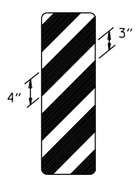
W10-1
36" DIAMETER

W3-3
36"X36"

M6-2
21"X15"

S4-3P
24"X8"

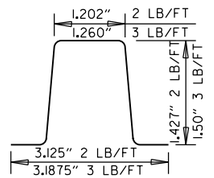
S4-2P
24"X10"



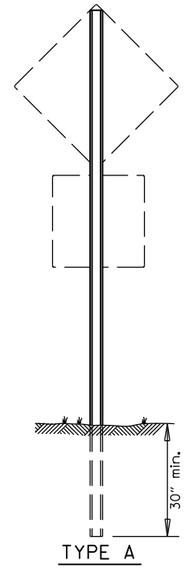
OM-3
12"X36"
(LT. or RT.)

MINIMUM DIMENSIONS SHOWN

SUPPORT SECTION

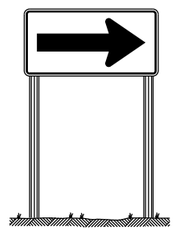


(U-CHANNEL)
STANDARD SUPPORT
ASSEMBLIES



TYPE A

NOTE: LENGTH OF SIGN POSTS SHALL BE DETERMINED SO AS TO PROVIDE FOR MINIMUM VERTICAL CLEARANCES AS CALLED FOR IN THE SPECIFICATIONS PLUS A MINIMUM VERTICAL PENETRATION OF 30" IN THE SOIL.



TYPE B

TYPE C

MINIMUM WEIGHT

TYPE A & B = 3 LBS./FT.
TYPE C = 2 LBS./FT.

STANDARD HIGHWAY SIGNS

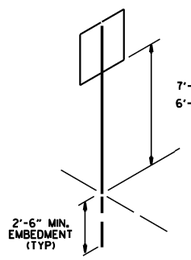
DATE	REVISION	DATE FILMED
9-12-13	DELETED JOB NO. BLOCK; REVISED RI-3 TO RI-3P	
4-17-08	REVISED SIGN DESIGNATION - W3-1 & W3-2	
4-10-03	REVISED W5-2, W8-3, OM-3; ADDED WI-8	
1-5-81	REDRAWN	960-1-15-81
9-15-78	ADDED WI4-3	877-9-15-78
9-2-76	POST WT.	623-9-3-76
5-3-76	STEEL POST WT. FROM 2"-3"; ADDED S4-2 & S4-3	504-5-3-76
8-12-74	REV. HT. TYPE "C" ASSEMBLY	500-8-21-74
12-21-72	ADDED M6-2,3,4,5,6	500-12-21-72
12-1-72	ISSUED	562-12-1-72

SUPPORT ASSEMBLIES

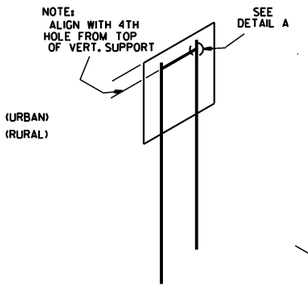
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD HIGHWAY SIGNS AND SUPPORT ASSEMBLIES

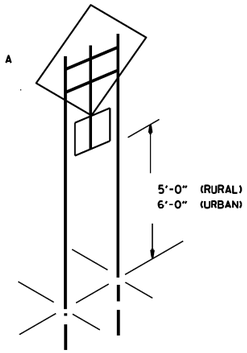
STANDARD DRAWING SHS-1



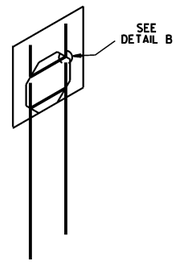
U-1



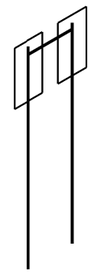
U-2



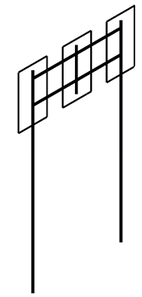
U-2 (A)



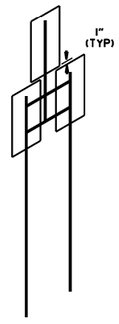
U-2 (B)



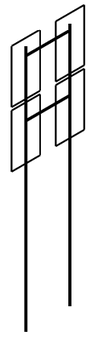
U-2 (1)



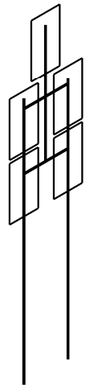
U-2 (2)



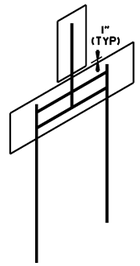
U-2 (3)



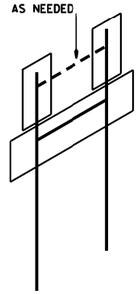
U-2 (4)



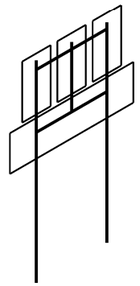
U-2 (5)



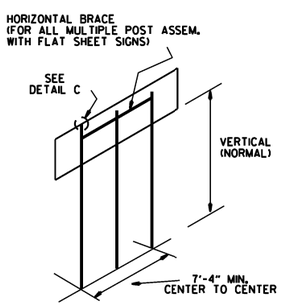
U-2 (6)



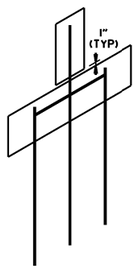
U-2 (7)



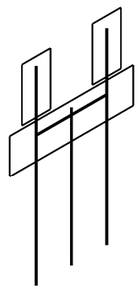
U-2 (8)



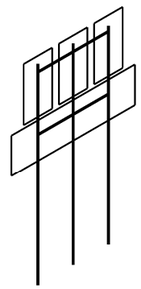
U-3



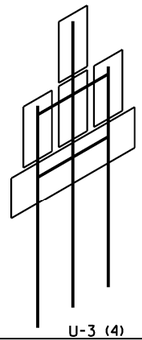
U-3 (1)



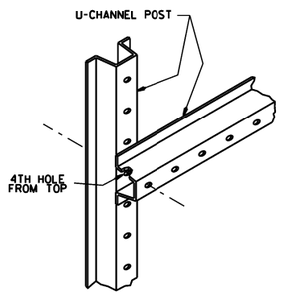
U-3 (2)



U-3 (3)

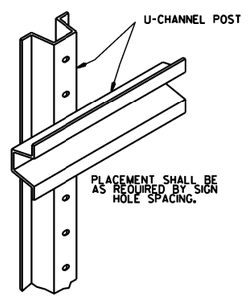


U-3 (4)



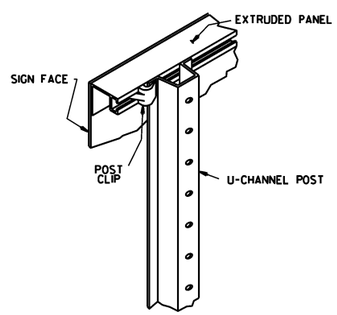
DETAIL A

SHOWING HORIZONTAL BRACE



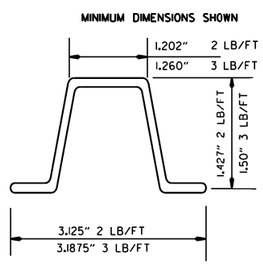
DETAIL B

SHOWING BACK-TO-BACK INSTALLATION



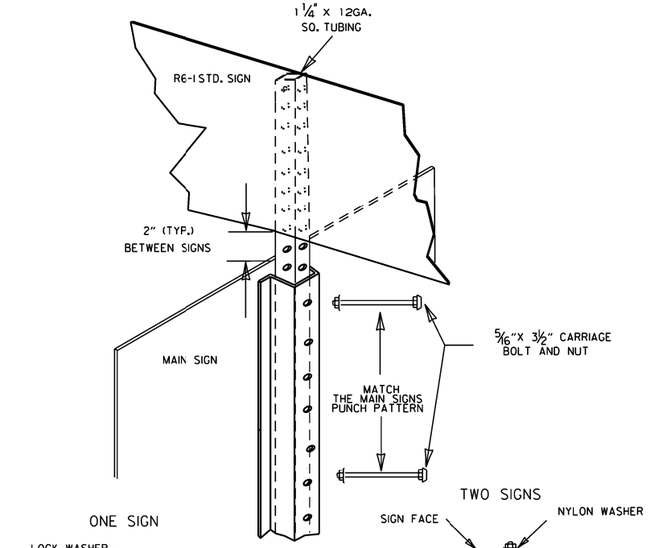
DETAIL C

SHOWING GUIDE SIGN MOUNTING WITH EXTRUDED PANELS



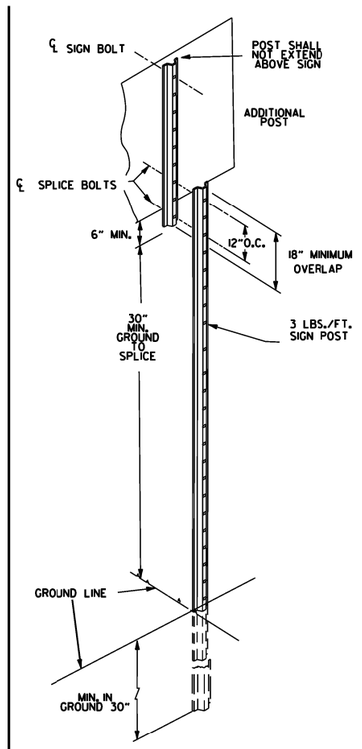
DETAIL D

U-CHANNEL POST



DETAIL E

R6-1 EXTENSION FOR U-CHANNEL POST



DETAIL F

DETAIL OF SPLICES

NOTES:

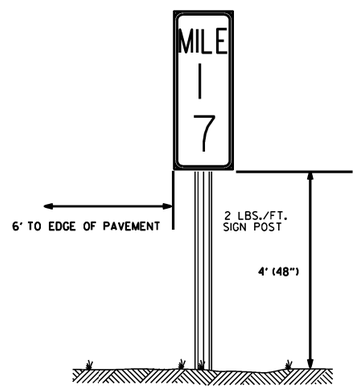
SIGNS AT LEAST 8' IN LENGTH MAY BE INSTALLED ON THREE 3 LB. POST. IN NO CASE SHALL THERE BE MORE THAN TWO 3 LB. POSTS WITHIN A 7' PATH.

SPLICES NECESSARY TO ATTAIN PROPER MOUNTING HEIGHT SHALL BE AS SHOWN IN DETAIL (F).

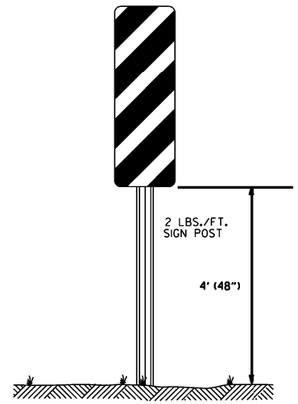
NORMAL INSTALLATIONS WILL REQUIRE 5/16" DIA. CARRIAGE BOLTS TO MOUNT SIGNS TO POST AND TO ASSEMBLE THE VARIOUS POST SUPPORTS.

ALL SIGN POSTS SHALL BE PLUMB.

THE POST FOR "TYPE U" SUPPORTS SHALL BE HOT DIP GALVANIZED.



TYPICAL MILE MARKER INSTALLATION



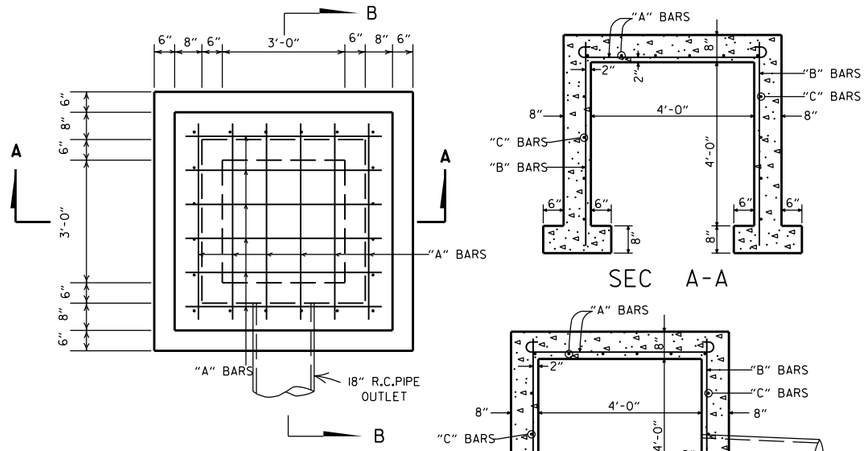
TYPICAL OM-3 INSTALLATION AT EDGE OF OBSTRUCTION

DATE	REVISION	FILMED
2-27-14	REVISED NOTES.	
9-12-13	REVISED U-2(3), U-2(6), U-3(1), DETAIL D; ADDED DETAILS E & F; ADDED TYPICAL MARKERS	
10-9-03	REMOVED ROUND POST & REVISED SPACING	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL	6-8-95
2-2-95	REDRAWN	2-2-95

ARKANSAS STATE HIGHWAY COMMISSION

U-CHANNEL POST ASSEMBLIES

STANDARD DRAWING SHS-2



SEC A-A

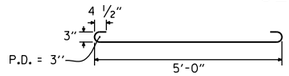
SEC B-B

NOTE: MAX FILL HEIGHT ABOVE TOP OF BOX = 13'-0".

STEEL SCHEDULE

BARS	NUMBER	LENGTH	SPACING
"A"	12	6'-0"	10"
"B"	20	5'-0"	10 ½"
"C"	16	5'-0"	12"

ALL STEEL TO BE #4 BARS



"A" BARS

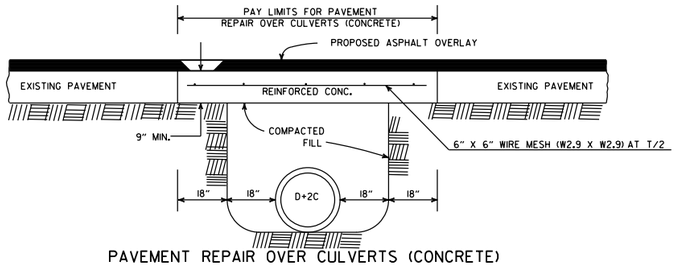
QUANTITIES

CONCRETE 3.31 CU. YDS.
REINFORCING STEEL 168 LB.

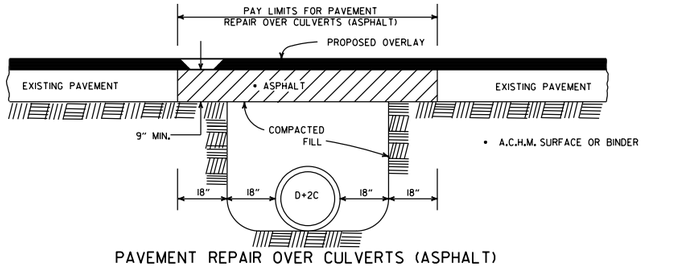
GENERAL NOTE:

THE PAY ITEMS FOR REINFORCED CONCRETE SPRING BOXES SHALL BE FOR THE QUANTITIES OF CONCRETE OF THE CLASS SPECIFIED, REINFORCING STEEL, EXCAVATION FOR STRUCTURES AND 18" R.C. PIPE CULVERT.

REINFORCED CONCRETE SPRING BOX



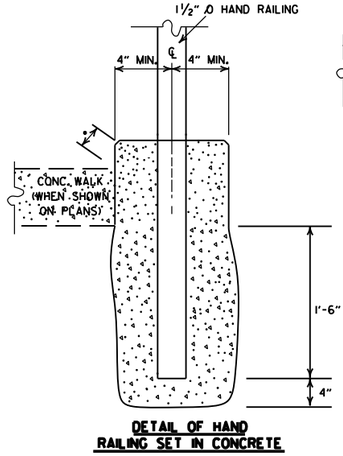
PAVEMENT REPAIR OVER CULVERTS (CONCRETE)



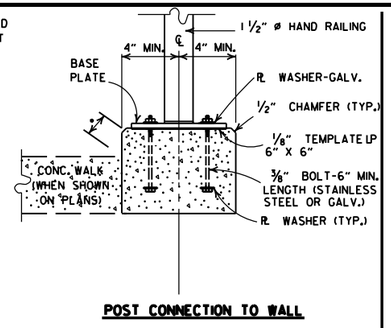
PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS

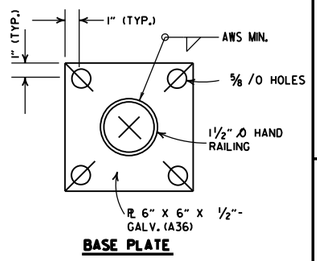
• A 2" MIN. HIGH CURB IS REQUIRED WHEN CONCRETE WALK IS ADJACENT TO THE HAND RAILING. PAYMENT FOR CURB SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR CONCRETE WALKS.



DETAIL OF HAND RAILING SET IN CONCRETE

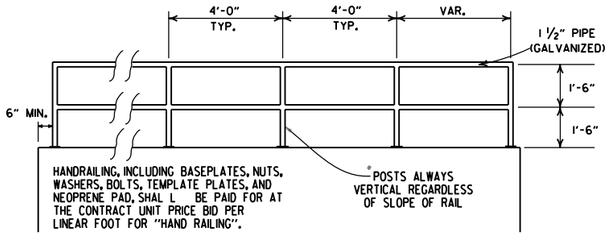


POST CONNECTION TO WALL

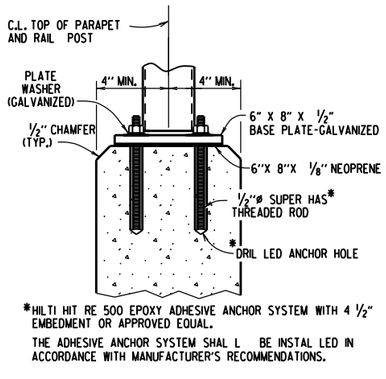


BASE PLATE

POST CONNECTION DETAILS



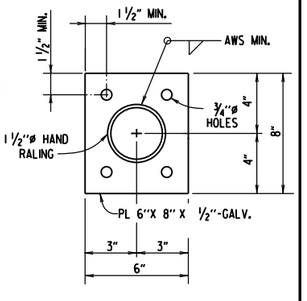
HAND RAILING SHALL CONFORM TO SECTION 633.



*HILTI HIT RE 500 EPOXY ADHESIVE ANCHOR SYSTEM WITH 4 ½" EMBEDMENT OR APPROVED EQUAL.

THE ADHESIVE ANCHOR SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

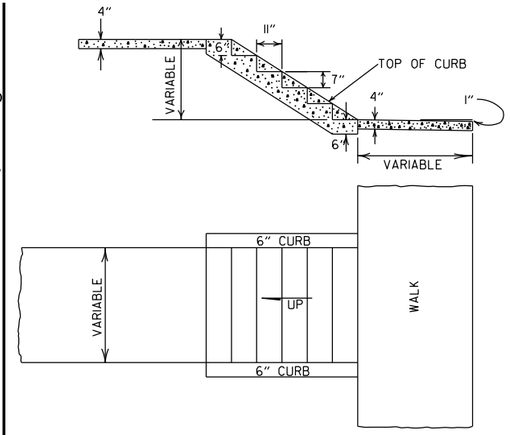
POST CONNECTION TO WALL



BASE PLATE

DETAILS OF ALTERNATE POST ANCHOR SYSTEM
(EPOXY ADHESIVE ANCHORS)

HAND RAILING DETAILS



GENERAL NOTES

1. RISE AND TREAD DIMENSIONS OF STEPS MAY BE VARIED AS DIRECTED BY THE ENGINEER, HOWEVER, TREAD WIDTHS SHALL BE 11" MIN. ALL STEPS IN A FLIGHT SHALL HAVE CONSISTENT TREAD & RISER DIMENSIONS.
2. 1" TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45' INTERVALS.

DETAILS OF CONCRETE STEPS & WALKS

DATE	REVISION	DATE FILMED
10-25-18	REVISED DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS	
9-12-13	REVISED REINFORCED CONCRETE SPRING BOX	
7-26-12	REMOVED RETAINING WALL DETAILS & REVISED HAND RAILING DETAILS	
4-17-08	REV. JOINT & FOOTING STEP DETAILS	
11-29-07	REVISED RETAINING WALL DRAINAGE	
5-25-06	REVISED PVMT REPAIR OVER CULVERTS (CONC); REVISED REINFORCED CONC SPRING BOX	
10-9-03	REVISED PIPE RAILING DETAILS TO HAND RAILING DETAILS	
4-10-03	REVISED RETAINING WALL DRAWING	
8-22-02	ADDED HAND RAILING DETAIL	
11-16-01	REVISED PVMT REPAIR OVER CULVERTS (CONC); CORRECTED SPELLING IN GENERAL NOTES	
11-18-98	ADDED GENERAL NOTES TO CONCRETE STEPS & WALKS	
7-02-98	ENLARGED PIPE	
4-03-97	ADDED NOTE TO STEEL BAR SCHED.	
10-18-96	CORRECTED SPELLING	
4-26-94	ADD WEEP HOLE;REV. JOINT SPACING IN RET. WALL	
6-2-94	CHANGED CONST. TO CONTRACTION JOINT	
10-1-92	CHANGED MESH FABRIC TO WIRE MESH	10-1-92
8-15-91	DELETED HDWL MODIFICATION DETAIL	8-15-91
11-8-90	DELETED COLD MIX FROM CULV'T. REPAIR	11-8-90
11-30-89	REV. RETAINING WALL STEEL SCHEDULE	11-30-89
11-17-88	V. BARS BEHIND ARROW	665-11-17-88
7-15-88	REV. PAVEMENT REPAIR ADDED HDWL. MODS, DEL. PIPE UNDERDRAINS	649-7-15-88
11-1-84	REV. TRENCH FOR PIPE UNDERDRAIN	510-11-1-84
1-4-83	ELIMINATED CONC. CLASS & ADDED CHAMFER NOTE	682-1-4-83
3-2-81	SPELLING OF "UNDERDRAIN"	721-3-2-81
4-20-79	REV. UNDERDRAIN DET& PAVEMENT REPAIR	674-4-20-79
2-2-76	12"MIN. GRAN. MAT'L. OVER PIPE	919-2-2-76
4-10-75	REM. SPECS. FOR GRAN. MAT'L.	568-4-10-75-853
5-22-74	GRANULAR MAT'L. TO BE SB-3	567-5-22-74-740
10-2-72	REVISED AND REDRAWN	564-10-16-72

ARKANSAS STATE HIGHWAY COMMISSION

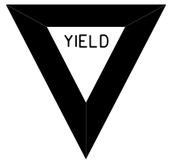
DETAILS OF SPECIAL ITEMS

STANDARD DRAWING SI - 1

R1-1

STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

R1-2



STD. 36"X36"X36"
EXPWY. 48"X48"X48"
FWY. 60"X60"X60"

R2-1

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

W3-5

STD. 36"X36"
EXPWY. 48"X48"
FWY. 48"X48"

W3-5a

STD. 36"X36"
EXPWY. 48"X48"
FWY. 48"X48"

R4-1

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-2

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

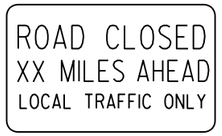
R5-1

STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

R11-2

48"X30"

R11-3A



60"X30"

R11-4

60"X30"

W21-5a

STD. 36"X36"
FWY. 48"X48"

W1-1

STD. 36"X36"
FWY. 48"X48"

W1-2

STD. 36"X36"
FWY. 48"X48"

W1-3

STD. 48"X48"

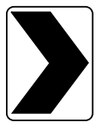
W1-4

STD. 48"X48"

W1-6

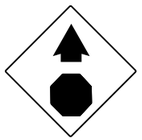
STD. 48"X24"
SPECIAL 60"X30"

W1-8



STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

W3-1

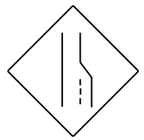


STD. 36"X36"
SPECIAL 48"X48"

W3-2

STD. 36"X36"
SPECIAL 48"X48"

W4-2



STD. 36"X36"
FWY. 48"X48"

W5-1

STD. 36"X36"
SPECIAL 48"X48"

W6-3

EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7

EXPWY. 36"X36"
FWY. 48"X48"

W9-2

STD. 36"X36"
FWY. 48"X48"

W13-1

STD. 24"X24"

W20-1

STD. 48"X48"

W20-2

STD. 48"X48"

W20-3

STD. 48"X48"

W20-4

STD. 48"X48"

W20-5

STD. 48"X48"

W20-7a

STD. 36"X36"
FWY. 48"X48"

W21-2

STD. 30"X30"
SPECIAL 36"X36"

W21-5

STD. 30"X30"
SPECIAL 36"X36"

W24-1

STD. 36"X36"

W1-4b

STD. 48"X48"

R56-1

STD. 18"X18"

W8-11

STD. 36"X36"
FWY. 48"X48"

W8-9

STD. 36"X36"
FWY. 48"X48"

G20-1

60"X24"

G20-2

48"X24"

OM-3L OM-3R

12"X36"

M4-9

STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10

48"X18"

R55-1

36"X60"

• USE 6" C LETTERS
•• USE 4" D LETTERS

ADVANCE DISTANCES
(XXXX)

500 FT	½ MILE
1000 FT	¾ MILE
1500 FT	1 MILE AHEAD

GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.
2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.
3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.
- 4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.
- 5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.
6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.
7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.
8. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.
10. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

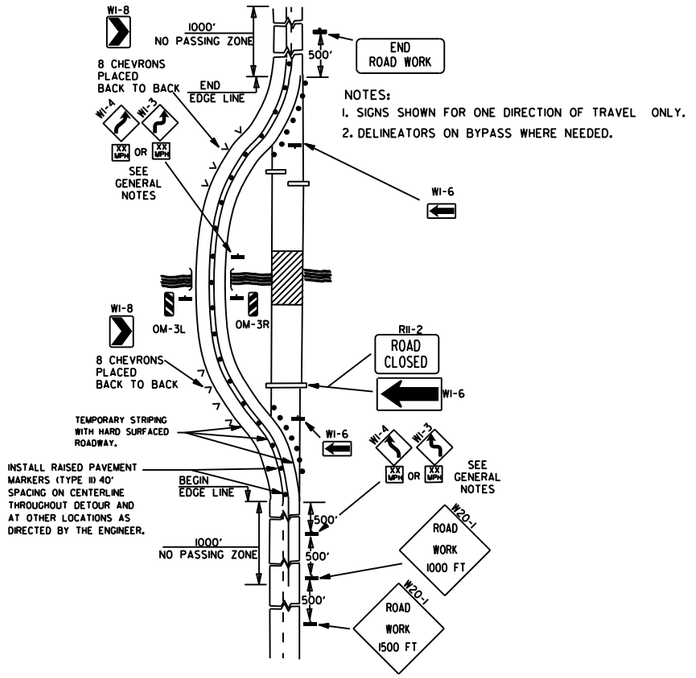
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.

DATE	REVISION	FILMED
4-13-17	DELETED RSP-1 & ADDED W21-5a	
9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES	
12-15-11	REVISED W24-1	
11-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
11-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
11-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
11-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED NOTE 5	
10-18-96	ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7	
10-12-95	ADDED R55-1	
6-8-95	REVISED TO CORRECT SIGN ILLUSTRATIONS	6-8-95
2-2-95	REVISED PER PART VI, MUTCD SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

ARKANSAS STATE HIGHWAY COMMISSION

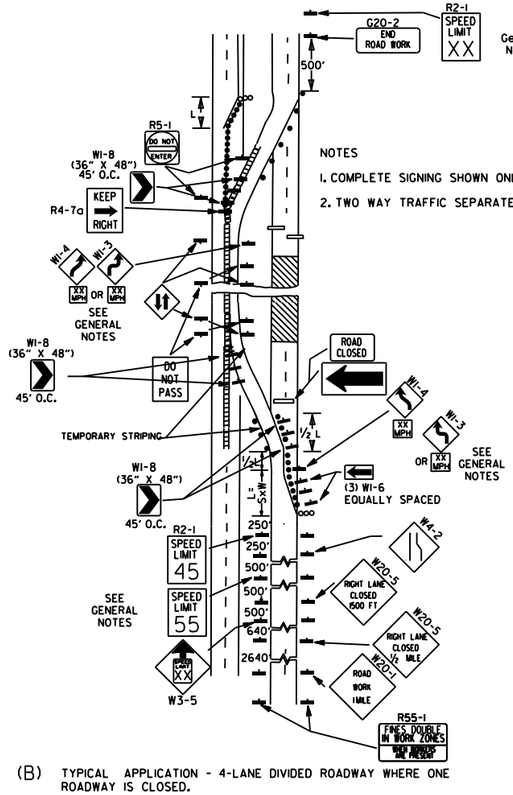
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



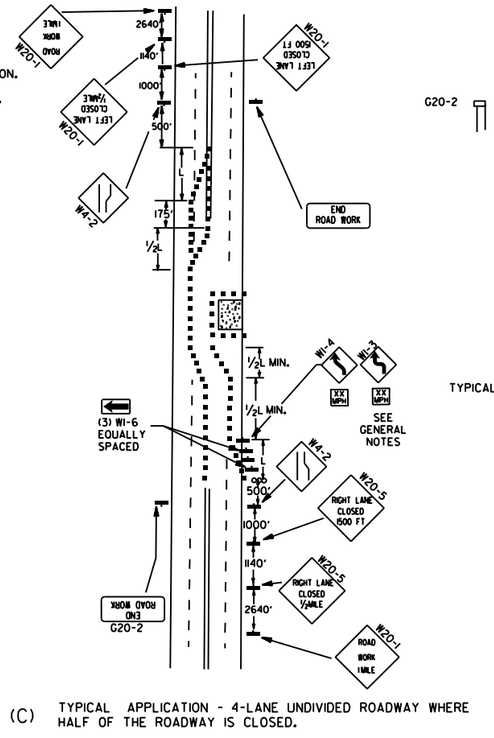
NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.

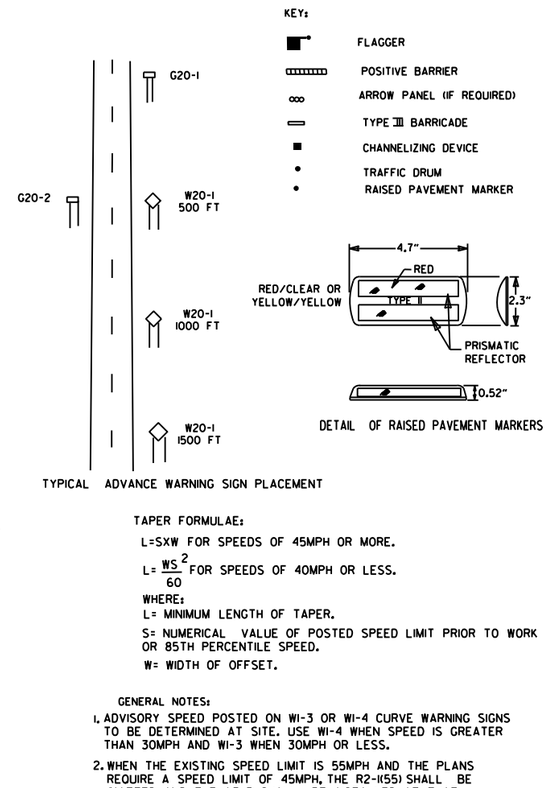


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.



(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



DETAIL OF RAISED PAVEMENT MARKERS

TYPICAL ADVANCE WARNING SIGN PLACEMENT

TAPER FORMULAE:

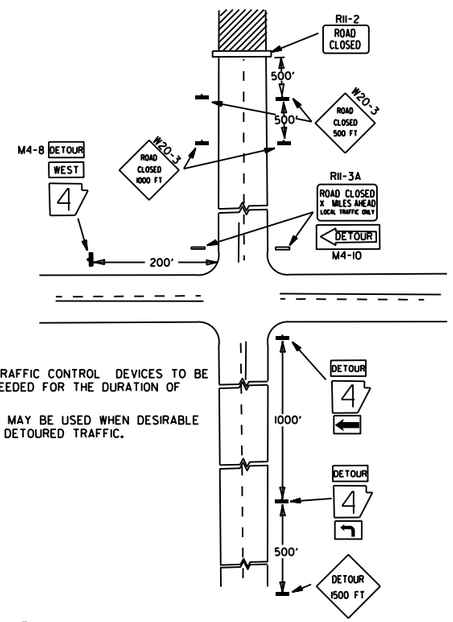
L=SXW FOR SPEEDS OF 45MPH OR MORE.

$L = \frac{WS^2}{60}$ FOR SPEEDS OF 40MPH OR LESS.

WHERE:
L= MINIMUM LENGTH OF TAPER.
S= NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.
W= WIDTH OF OFFSET.

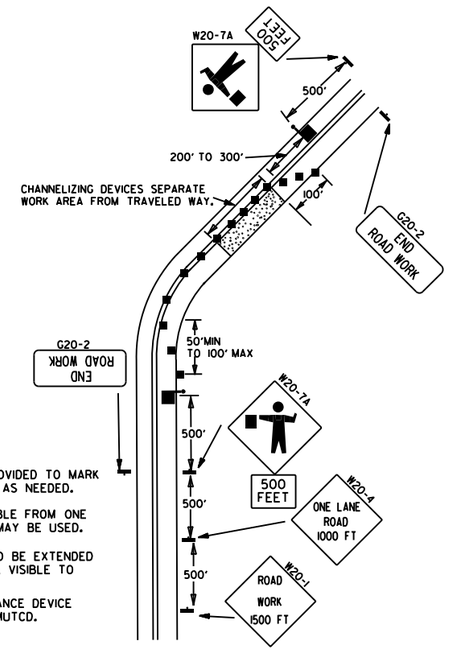
GENERAL NOTES:

1. ADVISORY SPEED POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-145MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(45) SHALL BE OMITTED. ADDITIONAL R2-155MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE.
8. DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.



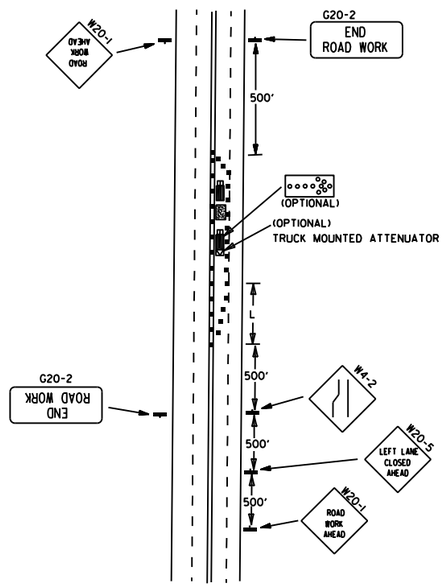
NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.



NOTES:
1. FLOOD LIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
2. IF ENTIRE WORK AREA IS VISIBLE FROM ONE STATION, A SINGLE FLAGGER MAY BE USED.
3. CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
4. AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) OPTIONAL. REFER TO MUTCD.

(E) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.



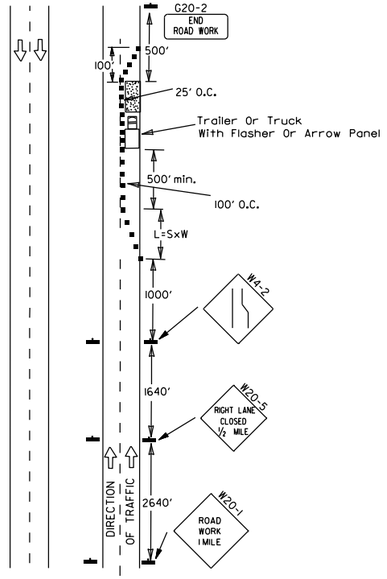
(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

DATE	REVISION	FILMED
9-2-15	REVISED NOTE 2. ADDED NOTE 8. REVISED DRAWING (A) & REPLACED R2-5A WITH W3-5	
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-11-10	ADDED (AFAD)	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (a) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

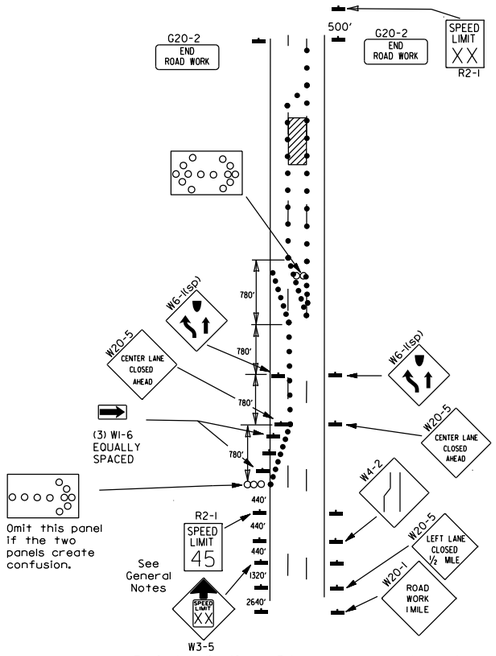
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

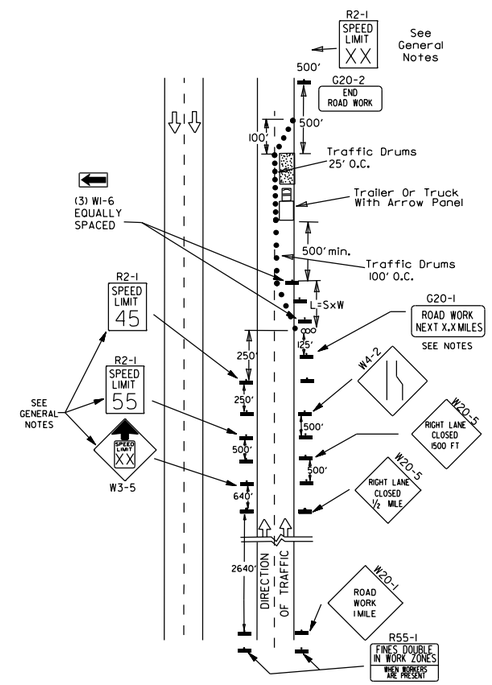
STANDARD DRAWING TC-2



(A) Typical application - daytime maintenance operations of short duration on a 4-lane divided roadway where half of the roadway is closed.



(B) Typical application - 3-lane oneway roadway where center lane is closed.



(C) Typical application - construction operations of intermediate to long term duration on a 4-lane divided roadway where half of the roadway is closed.

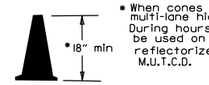
KEY:

- ○○○ Arrow Panel (If Required)
- ■ Channelizing Device
- ● Traffic drum

GENERAL NOTES:

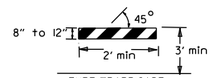
1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the W3-5 shall be installed at that location. Additional R2-1 45mph speed limit signs shall be installed at a maximum of 1mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
3. When the existing speed limit is 65mph and the plans require a speed limit of 55mph, the R2-1(45) shall be omitted. Additional R2-1 55mph speed limit signs shall be installed at a maximum of 1mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
4. The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit or as directed by the Engineer.
5. Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
6. Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
7. The G20-1 sign will be required on jobs of over two miles in length. When the lane closure is not at the beginning of the project, the G20-1 sign shall be erected 125' in advance of the job limit. Additional W20-1 (1 MILE) signs are not required in advance of lane closures that begin inside the project limits.
8. Flaggers shall use STOP/SLOW paddles for controlling traffic through work zones. Flags may be used only for emergency situations.
9. All plastic drums and cones shall meet the requirements of NCHRP-350 or Manual For Assessing Safety Hardware (MASH).
10. Trailer mounted devices such as arrow panels and portable changeable message signs shall be delineated by affixing conspicuity material in a continuous line on the face of the trailer. When placed on or adjacent to the shoulder and not behind a positive barrier, these devices shall be delineated by placing five (5) traffic drums, equally spaced along the traffic side of the device.

Channelizing devices



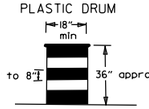
CONES

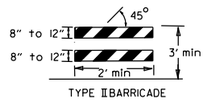
* When cones are used on freeways and multi-lane highways, they shall be 28" min. During hours of darkness, 28" cones shall be used on all roadways, and shall be reflectorized in accordance with the M.U.T.C.D.



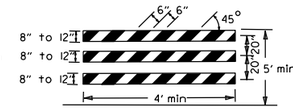
TYPE I BARRICADE

PLASTIC DRUM



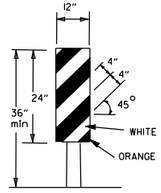


TYPE II BARRICADE



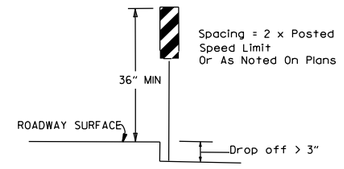
TYPE III BARRICADE

NOTE:
For all road closures, the Type III barricades shall be of sufficient length to extend across entire roadway.



VERTICAL PANEL
VP-1R

VERTICAL PANEL PLACEMENT



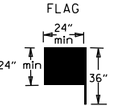
TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

VERTICAL DIFFERENTIAL	LOCATIONS	TRAFFIC CONTROL
1" to 3"	Centerline, lane lines	W8-11
1" to 3"	Edge of shoulder	W8-9
Greater than 3"	Lane lines	Standard lane closure required
Greater than 3"	Edge of traveled lane	*RSP-1 and vertical panels, drums or concrete barrier
Greater than 3"	Edge of shoulder	*Vertical panels, drums or concrete barrier

* When shown on the plans concrete barrier will be used.

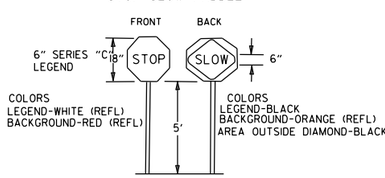
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

FLAG



Flag shall be of good grade red material

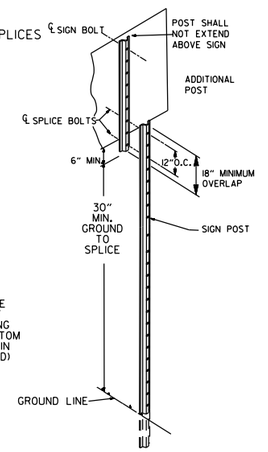
STOP SLOW PADDLE



COLORS
LEGEND-WHITE (REFL)
BACKGROUND-RED (REFL)

COLORS
LEGEND-BLACK
BACKGROUND-ORANGE (REFL)
AREA OUTSIDE DIAMOND-BLACK

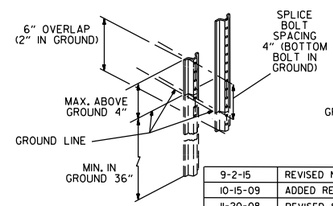
DETAIL OF SPLICES

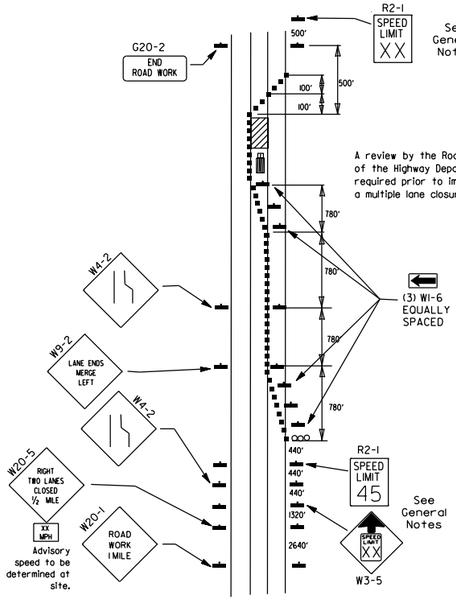


NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)

NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS.

SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.





(D) Typical application - closing multiple lanes of a multilane highway.

DATE	REVISION	FILMED
9-2-15	REVISED NOTE 2 & REPLACED R2-5A WITH W3-5	
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

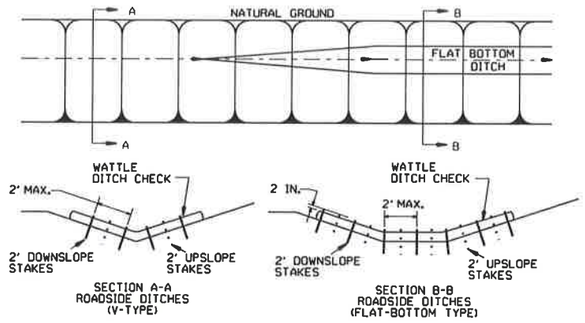
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

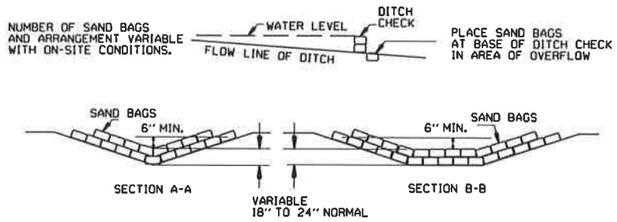
STANDARD DRAWING TC-3

GENERAL NOTES

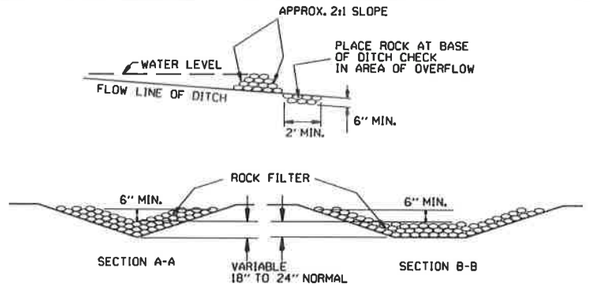
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



SAND BAG DITCH CHECK (E-5)

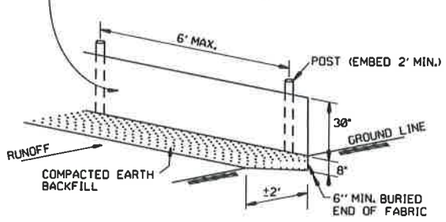


ROCK DITCH CHECK (E-6)

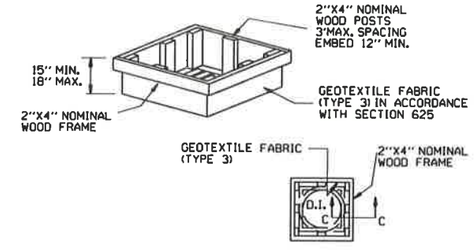
GENERAL NOTES

GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625

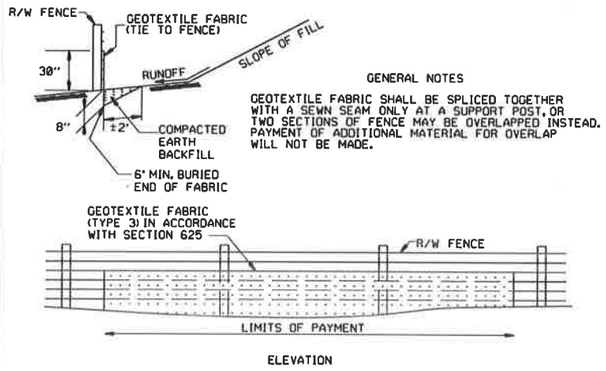
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



SILT FENCE (E-11)



DROP INLET SILT FENCE (E-7)



GENERAL NOTES

GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

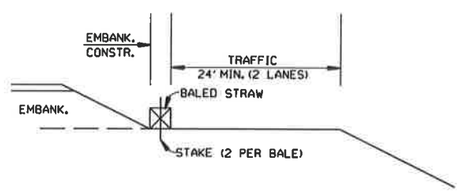
SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

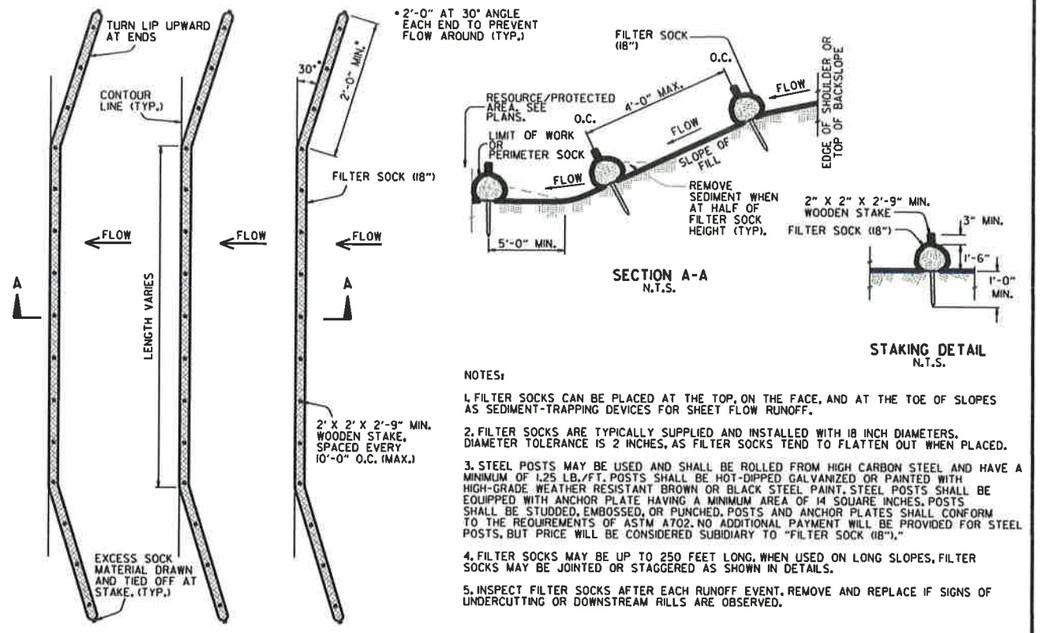
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

2. NO GAPS SHALL BE LEFT BETWEEN BALES.

3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.



BALED STRAW FILTER BARRIER (E-2)



NOTES:

1. FILTER SOCKS CAN BE PLACED AT THE TOP, ON THE FACE, AND AT THE TOE OF SLOPES AS SEDIMENT-TRAPPING DEVICES FOR SHEET FLOW RUNOFF.

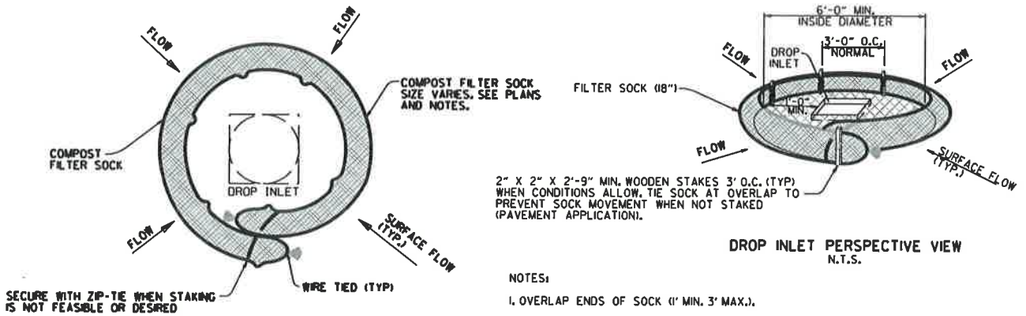
2. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED WITH 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES, AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.

3. STEEL POSTS MAY BE USED AND SHALL BE ROLLED FROM HIGH CARBON STEEL AND HAVE A MINIMUM OF 1.25 LB./FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH-GRADE WEATHER RESISTANT BROWN OR BLACK STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR STEEL POSTS, BUT PRICE WILL BE CONSIDERED SUBIDIARY TO "FILTER SOCK (18")."

4. FILTER SOCKS MAY BE UP TO 250 FEET LONG. WHEN USED ON LONG SLOPES, FILTER SOCKS MAY BE JOINTED OR STAGGERED AS SHOWN IN DETAILS.

5. INSPECT FILTER SOCKS AFTER EACH RUNOFF EVENT. REMOVE AND REPLACE IF SIGNS OF UNDERCUTTING OR DOWNSTREAM RILLS ARE OBSERVED.

FILTER SOCK ALONG SLOPE (E-3)



NOTES:

1. OVERLAP ENDS OF SOCK (1' MIN. 3' MAX.).

2. USE 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

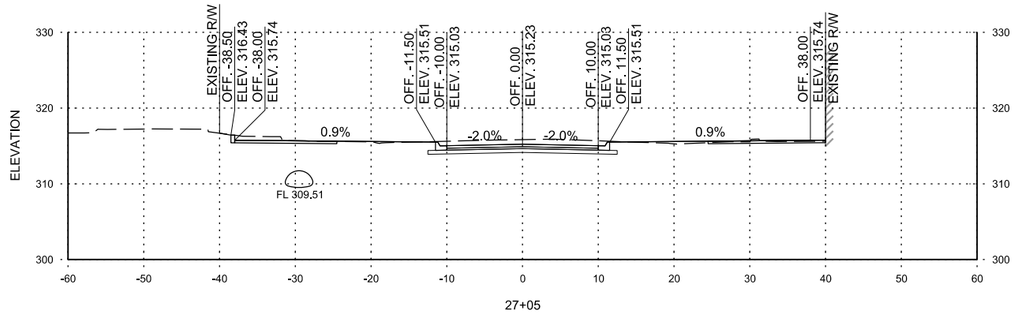
COMPOST FILTER SOCK DROP INLET PROTECTION (E-13)

DATE	REVISION	FILMED
11-16-17	ADDED FILTER SOCK E-3 AND E-13	
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK	
11-18-98	ADDED NOTES	
07-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
07-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95
07-15-94	REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC	
06-02-94	REVISED E-1,4,7 & 11; DELETED E-2 & 3	6-2-94
04-01-93	REDRAWN	
10-01-92	REDRAWN	
08-02-76	ISSUED R.D.M.	298-7-28-76

ARKANSAS STATE HIGHWAY COMMISSION

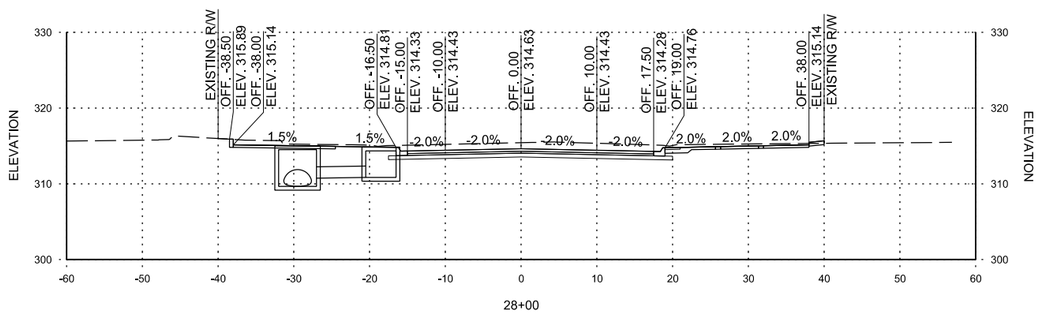
TEMPORARY EROSION CONTROL DEVICES

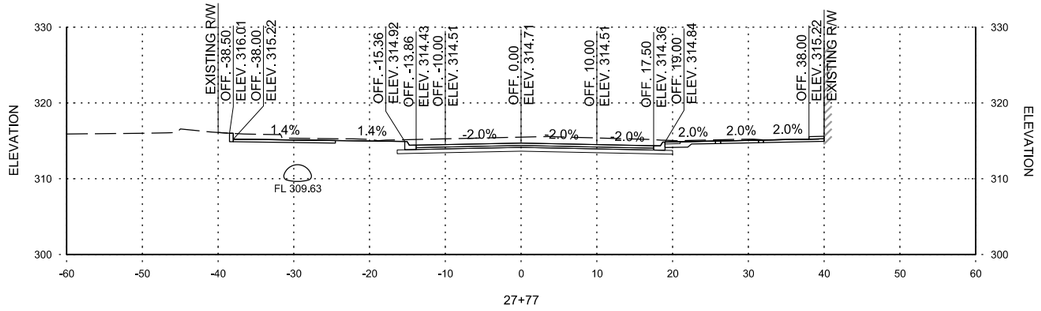
STANDARD DRAWING TEC-1

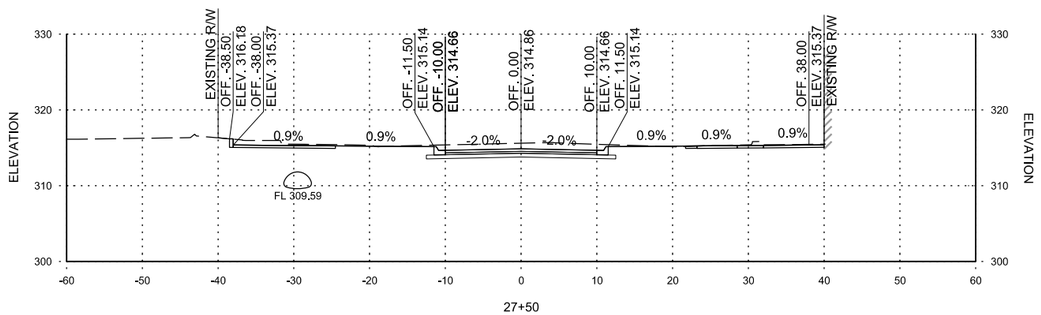


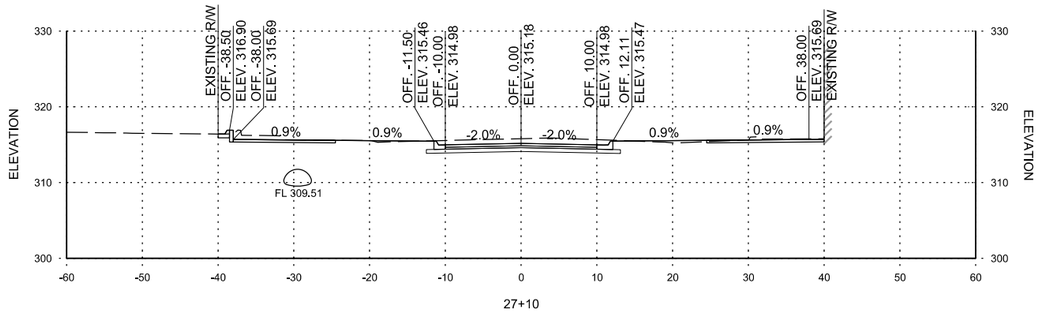
STA. 28+00.00 CONSTRUCT
TYPE ST JUNCTION BOX 29.50' LT.
WITH 44"x27" x 92' R.C. ARCH PIPE TO
JUNCTION BOX AT STA. 27+05.00 LT.
(3' x 5' x H = 5'-4")
44" x 27" R.C. ARCH PIPE
(CLASS III) (TYPE 3 BEDDING) = 92 LIN. FT.

STA. 28+00.00 CONSTRUCT
TYPE MO DROP INLET 18.50' LT.
WITH 4' EXTENSION AND
18" x 7' R.C. PIPE TO
JUNCTION BOX AT STA. 28+00.00 LT.
(4' DIA. x H = 4'-0")
18" R.C. PIPE
(CLASS III) (TYPE 3 BEDDING) = 7 LIN. FT.









STA. 27+05 TO STA. 28+00

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REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MARKHAM STREET
CROSS
SECTIONS

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: DLT

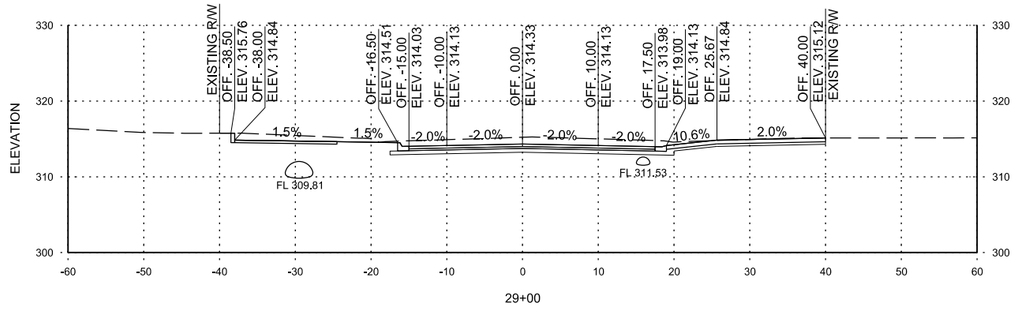
BAR IS ONE INCH ON
ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET,
ADJUST SCALES ACCORDINGLY.

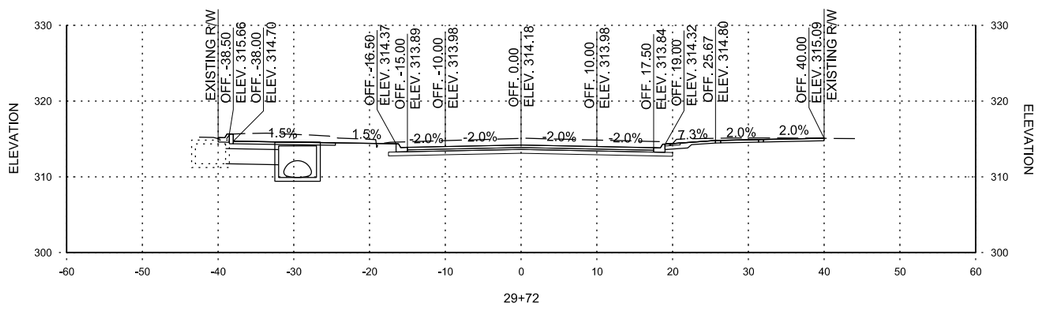
DRAWING NUMBER
CX-01

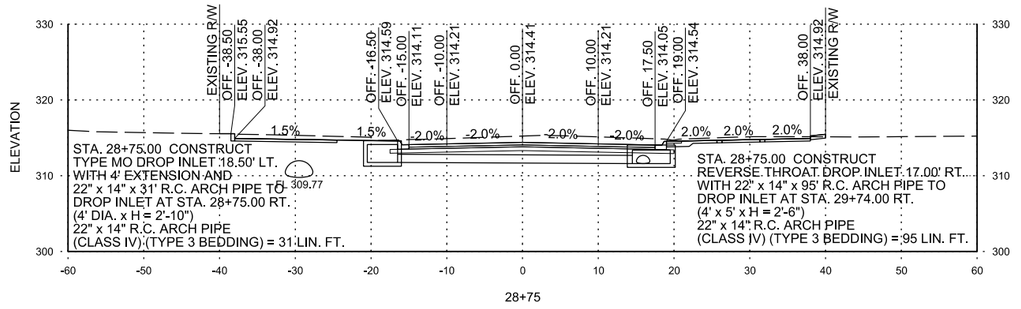
SHEET
NUMBER **CX1**

STA. 29+72.50 COORDINATE
CONSTRUCTION OF
TYPE ST DROP INLET 41.00' RT.
WITH CITY OF CONWAY
JACOB REYNOLDS (501) 733-6078

STA. 29+72.50 CONSTRUCT
TYPE ST JUNCTION BOX 29.50' LT.
WITH 44" x 27" x 169' R.C. ARCH PIPE TO
JUNCTION BOX AT STA. 28+00.00 LT.
ADD 24" x 8' R.C. PIPE STUB
(4' x 5' x H = 4'-8")
44" x 27" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 169 LIN. FT.

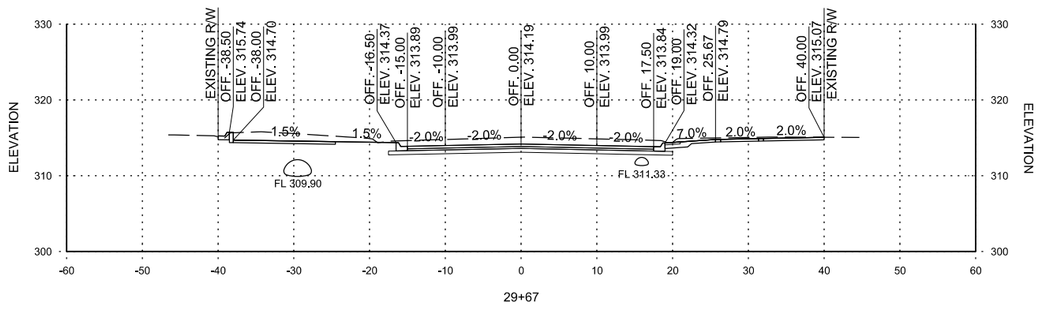


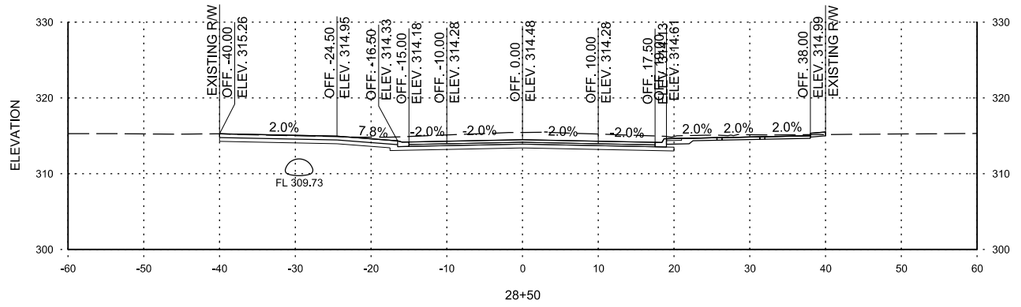


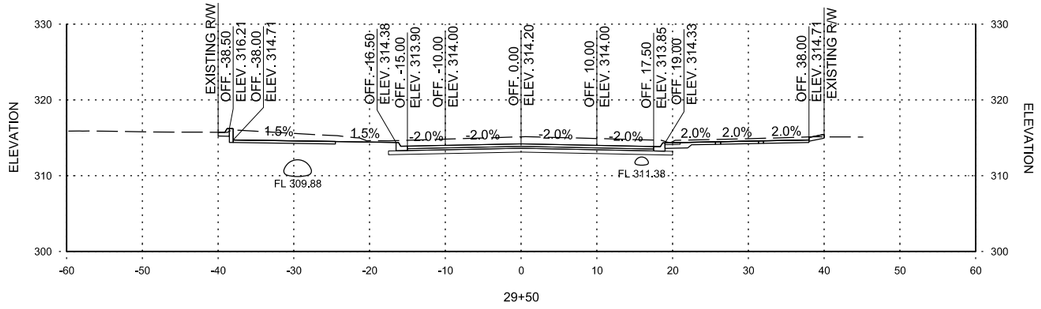


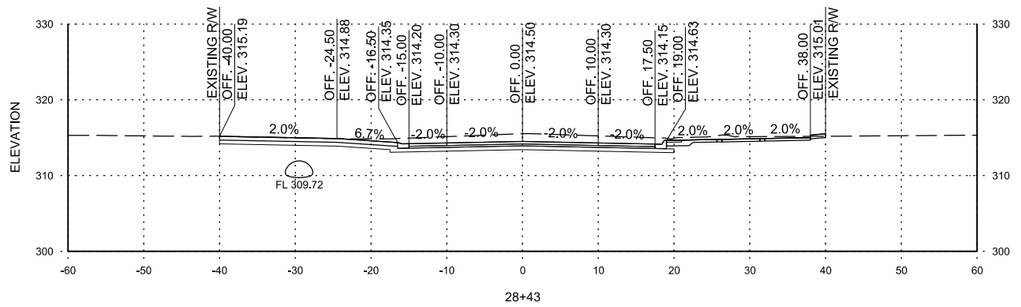
STA. 28+75.00 CONSTRUCT
TYPE MO DROP INLET 18.50' LT.
WITH 4' EXTENSION AND
22" x 14" x 31' R.C. ARCH PIPE TO
DROP INLET AT STA. 28+75.00 RT.
(4' DIA. x H = 2'-10")
22" x 14" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 31 LIN. FT.

STA. 28+75.00 CONSTRUCT
REVERSE THROAT DROP INLET 17.00' RT.
WITH 22" x 14" x 95' R.C. ARCH PIPE TO
DROP INLET AT STA. 29+74.00 RT.
(4' x 5' x H = 2'-6")
22" x 14" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 95 LIN. FT.

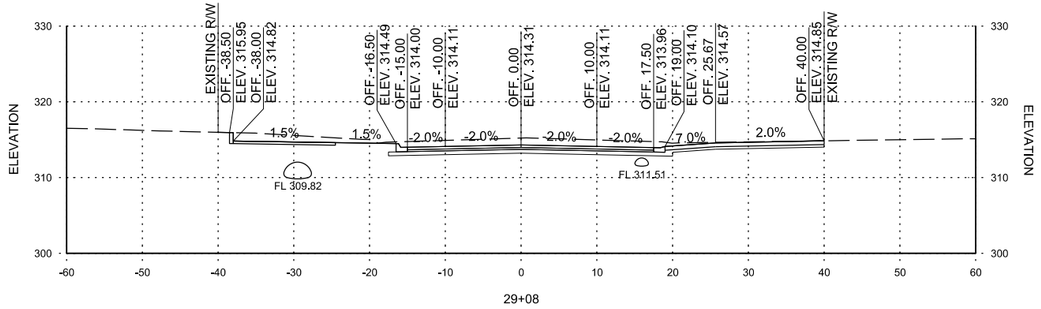








STA. 28+43 CONSTRUCT DRIVEWAY LT.



STA. 29+08 CONSTRUCT DRIVEWAY RT.

STA. 28+43 TO STA. 29+72

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REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MARKHAM STREET
CROSS
SECTIONS

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: DLT

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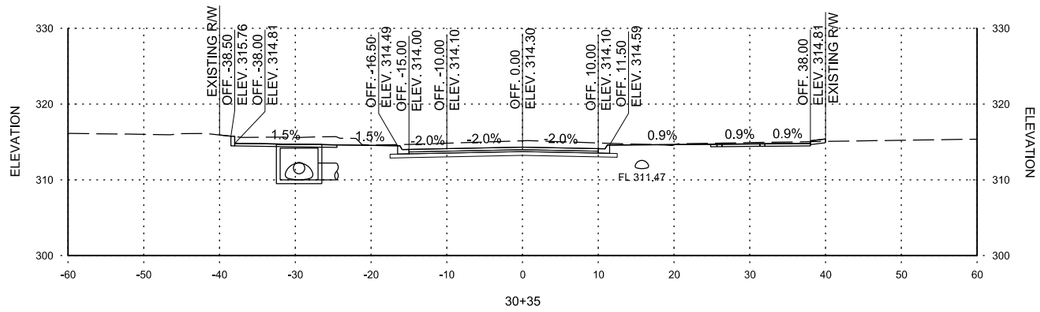
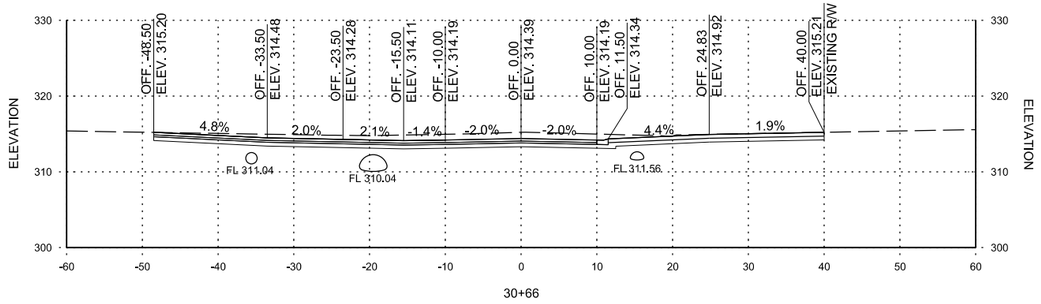
DRAWING NUMBER
CX-02

SHEET
NUMBER **CX2**

STA. 30+35.15 CONSTRUCT
TYPE ST JUNCTION BOX 29.50' LT.
WITH 44" x 27" x 57' R.C. ARCH PIPE TO
JUNCTION BOX AT STA. 29+72.50 LT.
(7' x 5' X H = 4'-8")
44" x 27" R.C. ARCH PIPE
(CLASS III) (TYPE 3 BEDDING) = 57 LIN. FT.

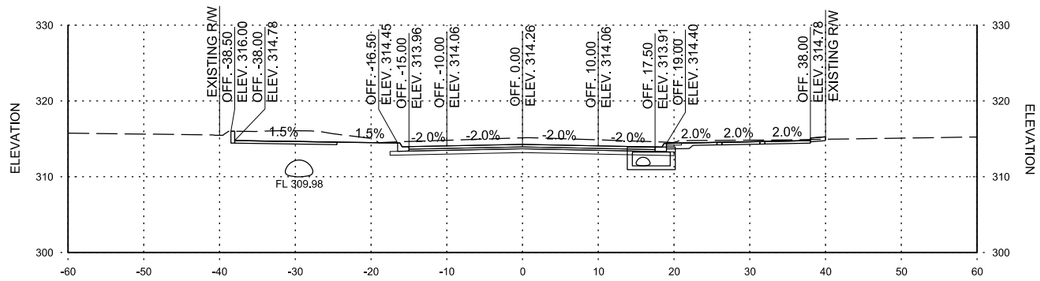


30+35



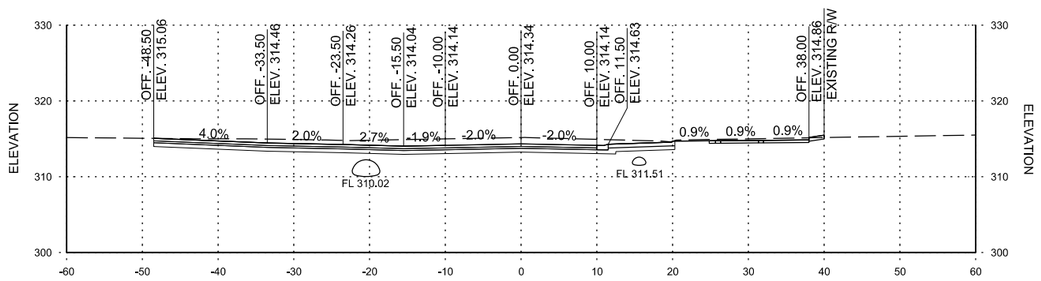
30+66

STA. 30+66 CONSTRUCT DRIVEWAY RT.

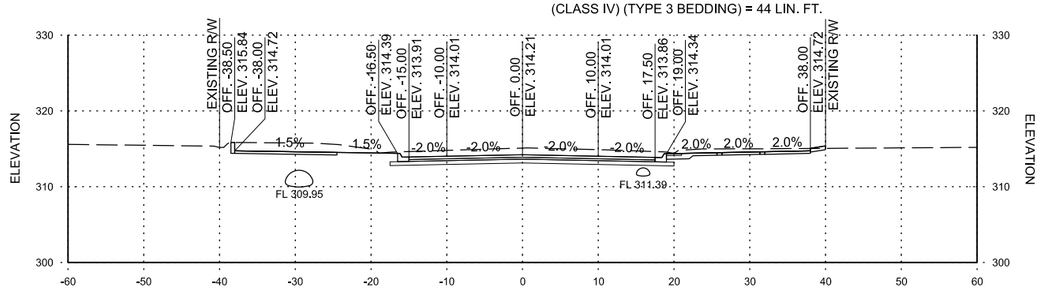


30+22

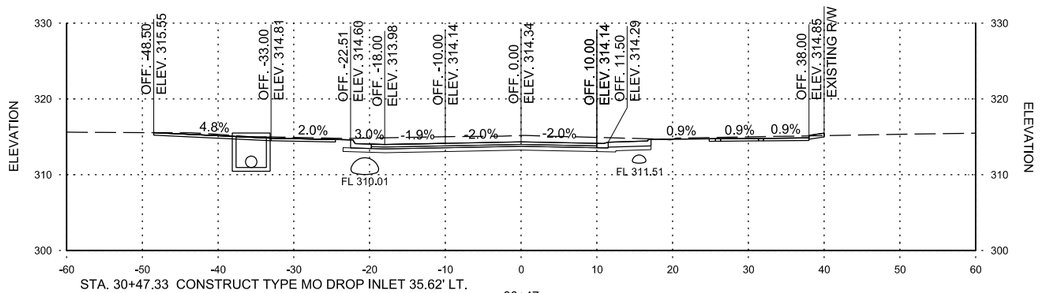
STA. 30+21.60 CONSTRUCT REVERSE THROAT DROP INLET 17.00' RT.
WITH 22" x 14" x 44' R.C. ARCH PIPE TO DROP INLET AT STA. 29+74.00 RT.
(4'x 5' x H = 2'-6") 22" x 14" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 44 LIN. FT.



30+50

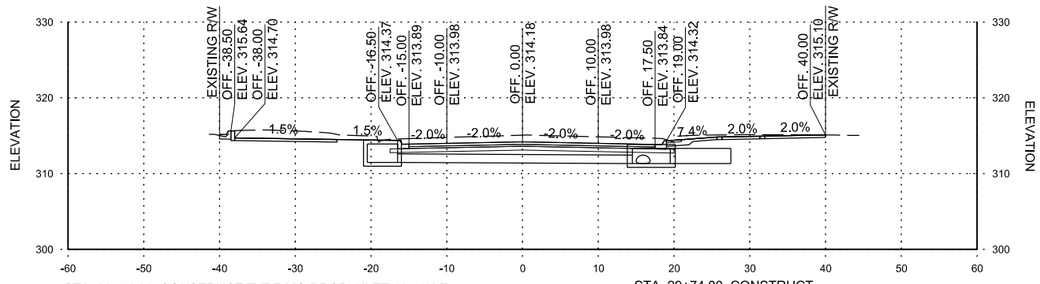


30+00



30+47

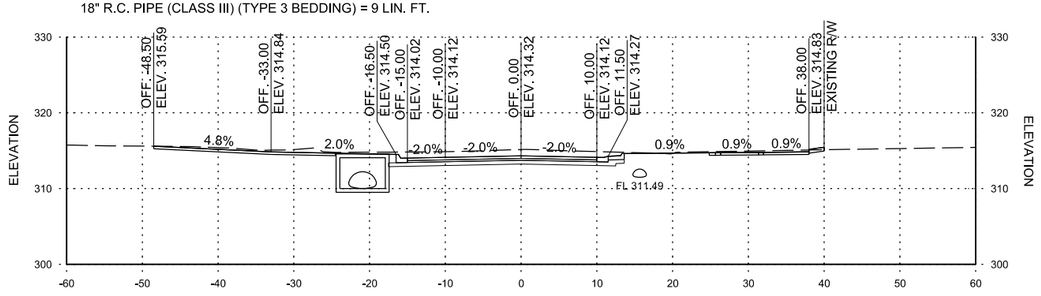
STA. 30+47.33 CONSTRUCT TYPE MO DROP INLET 35.62' LT.
WITH 18" x 9' R.C. PIPE TO JUNCTION BOX AT STA. 30+35.15 LT.
(4' DIA. x H = 4'-0")
18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 9 LIN. FT.



29+74

STA. 29+74.00 CONSTRUCT TYPE MO DROP INLET 18.50' LT.
WITH 2-4' EXTENSIONS AND 22" x 14" x 31' R.C. ARCH PIPE TO
DROP INLET AT STA. 29+74.00 RT. (4' DIA. x H = 2'-11")
22" x 14" R.C. ARCH PIPE (CLASS IV) (TYPE 3 BEDDING) = 31 LIN. FT.

STA. 29+74.00 CONSTRUCT
REVERSE THROAT DROP INLET 17.00' RT.
WITH 2-4' EXTENSIONS AND
24" x 8' R.C. PIPE TO
EXISTING 24" R.C. PIPE
(4' x 5' x H = 2'-6")
24" R.C. PIPE
(CLASS III) (TYPE 3 BEDDING) = 8 LIN. FT.



30+42

STA. 30+42.39 CONSTRUCT TYPE MO DROP INLET 20.93' LT.
WITH 44" x 27" x 9' R.C. ARCH PIPE TO JUNCTION BOX AT STA. 30+35.15 LT.
(6' DIA. x H = 4'-6")
44" x 27" R.C. ARCH PIPE
(CLASS III) (TYPE 3 BEDDING) = 9 LIN. FT.

STA. 29+74 TO STA. 30+66

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MARKHAM STREET
CROSS
SECTIONS

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: DLT

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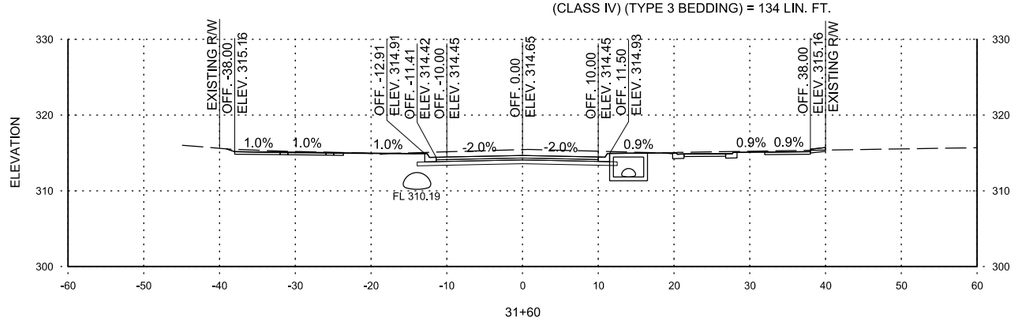
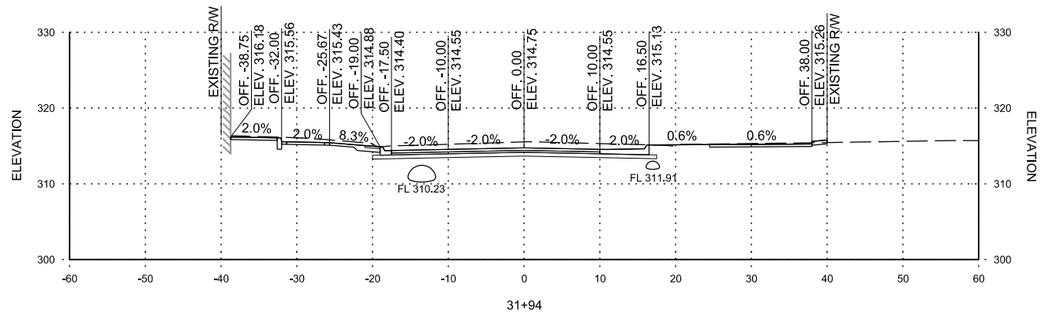
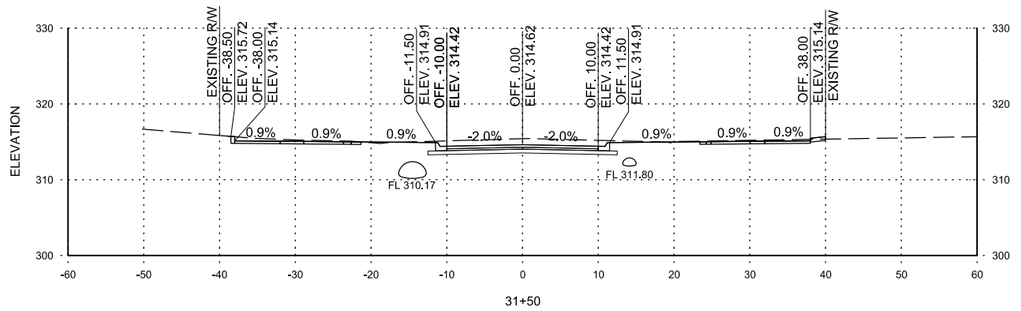
DRAWING NUMBER
CX-03

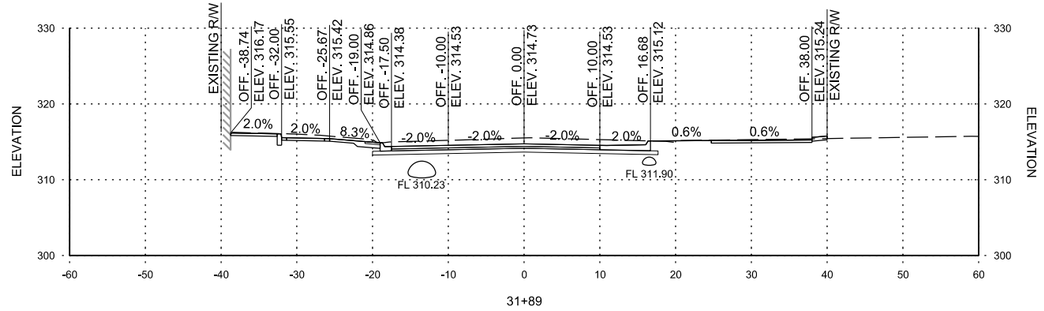
SHEET
NUMBER **CX3**

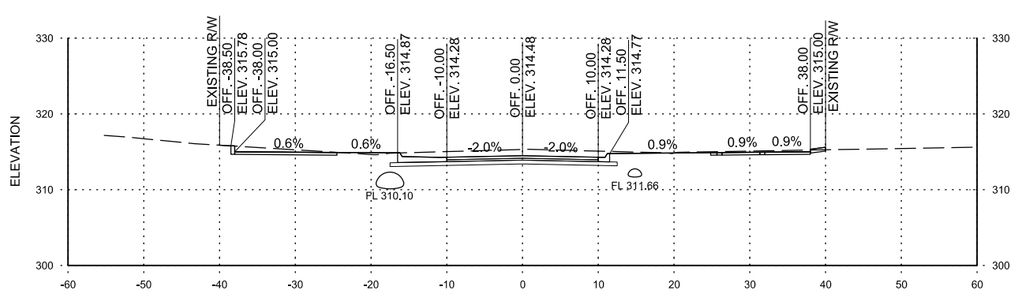
STA. 31+60.00 CONSTRUCT
TYPE ST JUNCTION BOX 14.00' RT.
WITH 22" x 14" x 134' R.C. ARCH PIPE TO
DROP INLET AT STA. 30+21.60 RT.
(4' x 4' x H = 3'-2")
22" x 14" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 134 LIN. FT.

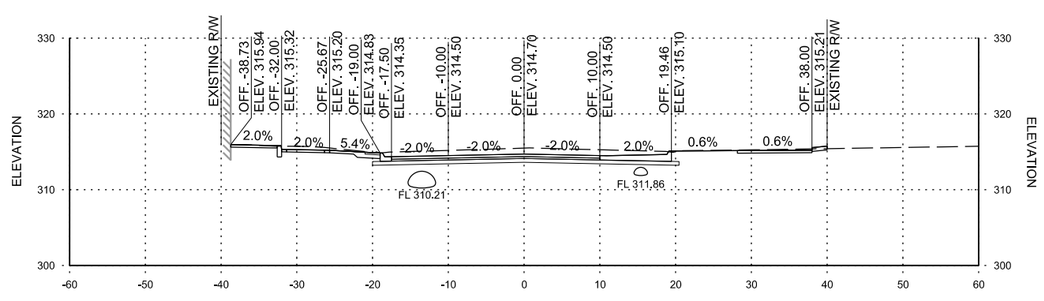


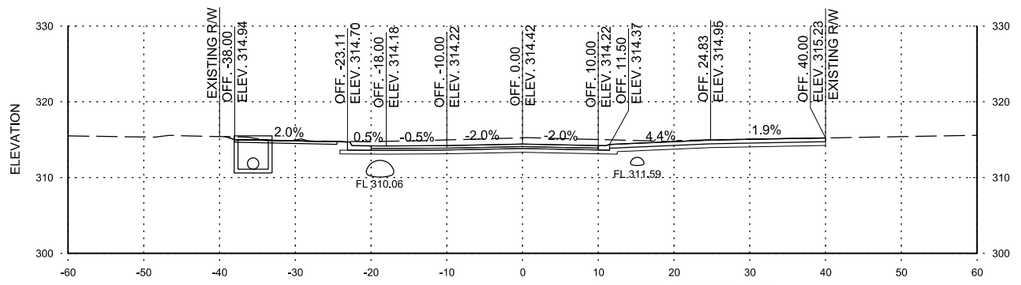


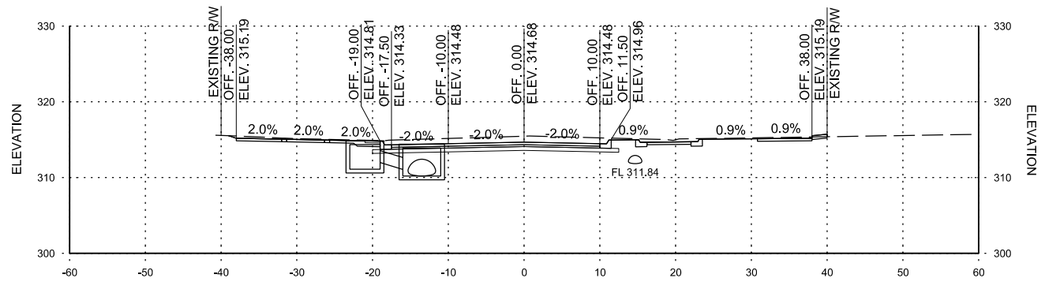












STA. 30+78.35 CONSTRUCT
TYPE MO DROP INLET 35.57' LT.
WITH 18" x 27' R.C. PIPE TO
DROP INLET AT STA. 30+47.33 LT.
(4' DIA. x H = 3'-10")
18" R.C. PIPE
(CLASS V) (TYPE 3 BEDDING) = 27 LIN. FT.

STA. 31+68.80 CONSTRUCT TYPE ST JUNCTION BOX 13.50' LT.
WITH 44" x 27" x 123' R.C. ARCH PIPE TO DROP INLET AT STA.30+42.39 LT.
(3' x 5' x H = 4'-3")
44" x 27" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 123 LIN. FT.

STA. 31+68.80 CONSTRUCT TYPE MO DROP INLET 21.00' LT.
WITH 4' EXTENSION AND 18" x 3' R.C. PIPE TO JUNCTION BOX AT STA. 31+68.80 LT.
(4' DIA. x H = 3'-9")
18" R.C. PIPE
(CLASS V) (TYPE 3 BEDDING) = 3 LIN. FT.

STA. 30+78 TO STA. 31+94

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MARKHAM STREET
CROSS
SECTIONS

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: DLT

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
CX-04

SHEET NUMBER **CX4**

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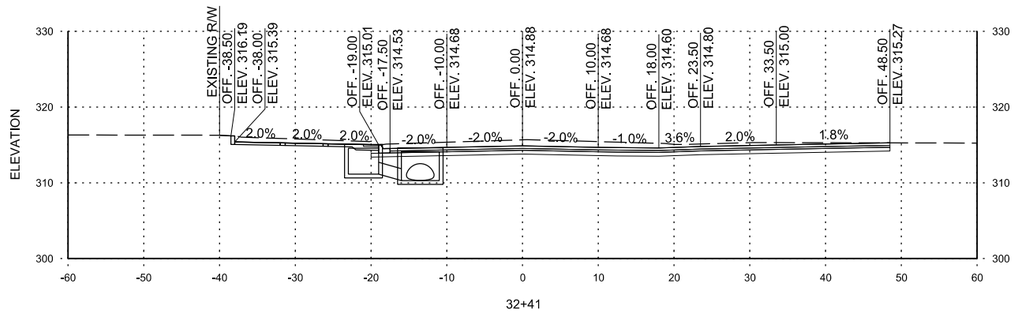
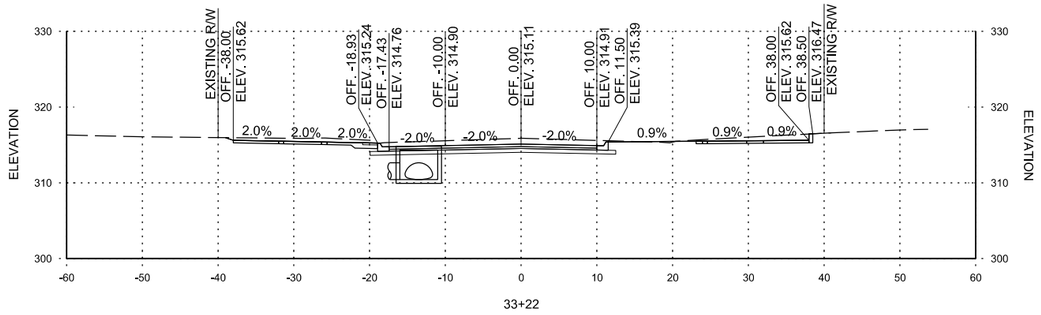
L:\2016\16017122 - Conway - Markham Street\Drawings\CMSH-C900-CX.dgn

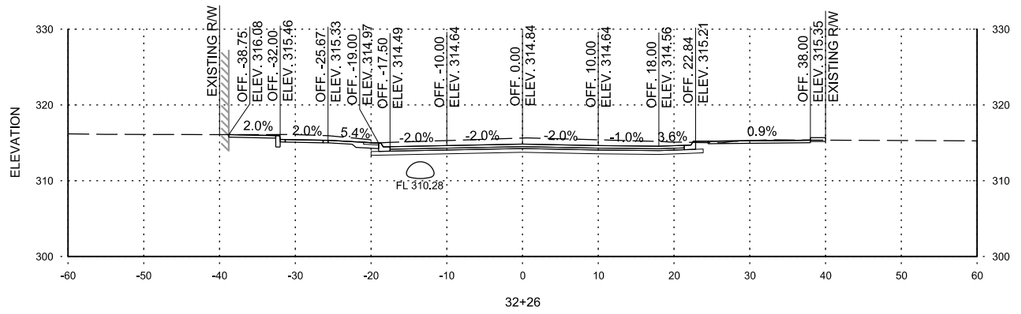
STA. 32+41.12 CONSTRUCT
TYPE ST JUNCTION BOX 13.50' LT.
WITH 44" x 27" x 69' R.C. ARCH PIPE TO
JUNCTION BOX AT STA. 31+68.80 LT.
(3' x 5' x H = 4'-4")
44" x 27" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 69 LIN. FT.

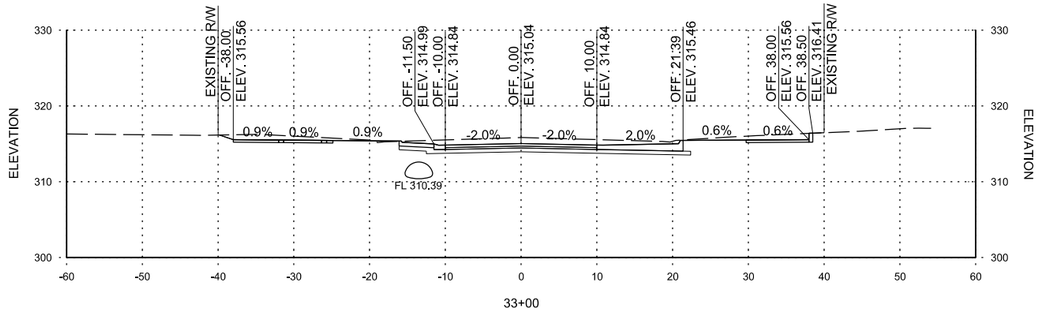


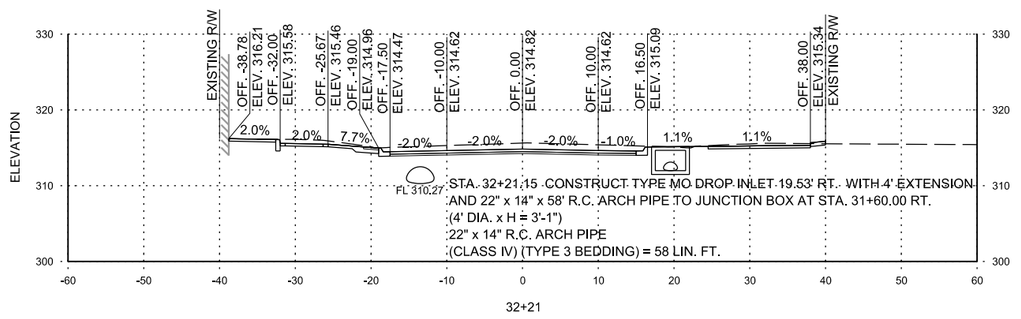
STA. 32+41.12 CONSTRUCT
TYPE MO DROP INLET 21.00' LT.
WITH 4' EXTENSION AND
18" x 3' R.C. PIPE TO
JUNCTION BOX AT STA. 32+41.12 LT.
(4' DIA. x H = 3'-11")
18" R.C. PIPE
(CLASS V) (TYPE 3 BEDDING) = 3 LIN. FT.

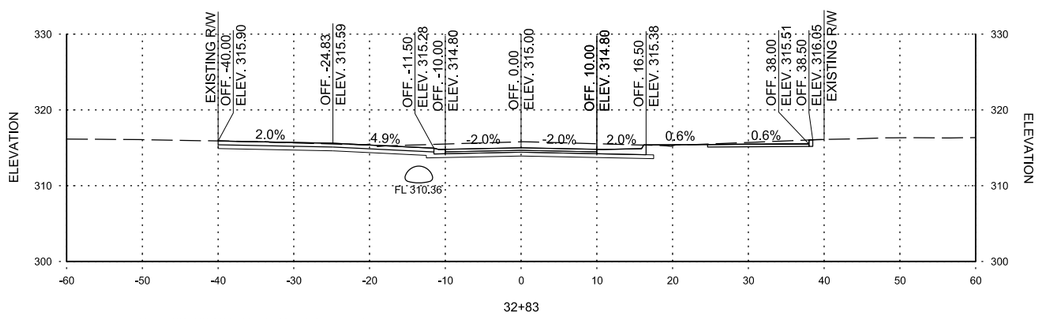
STA. 33+21.68 CONSTRUCT
TYPE ST JUNCTION BOX 13.50' LT.
WITH 44" x 27" x 76' R.C. ARCH PIPE TO
JUNCTION BOX AT STA. 32+41.12 LT.
(6' x 5' x H = 4'-5")
44" x 27" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 76 LIN. FT.



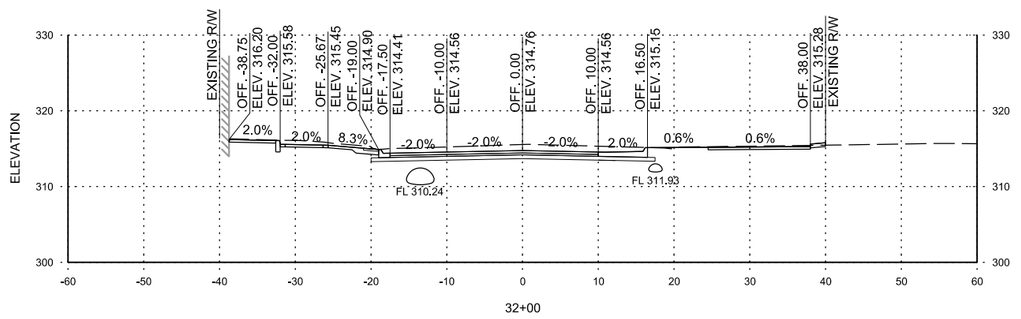


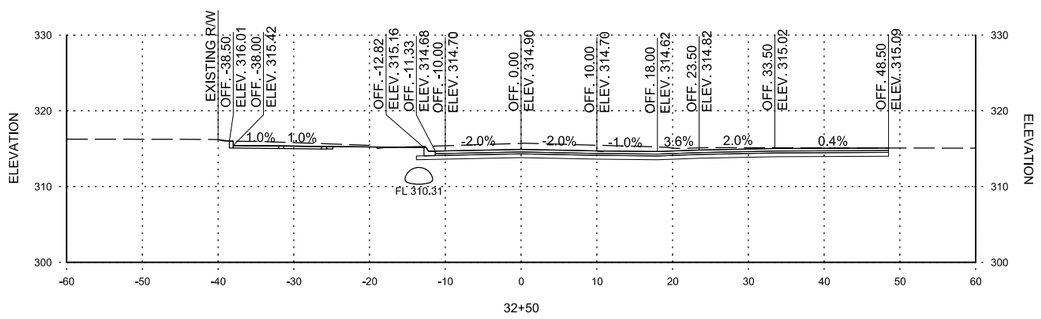






STA. 32+83 CONSTRUCT DRIVEWAY LT.





STA. 32+00 TO STA. 33+22

REV.	DATE	DESCRIPTION	BY

METROPLAN
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METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MARKHAM STREET
CROSS
SECTIONS

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: DLT

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CX-05

SHEET
NUMBER **CX5**

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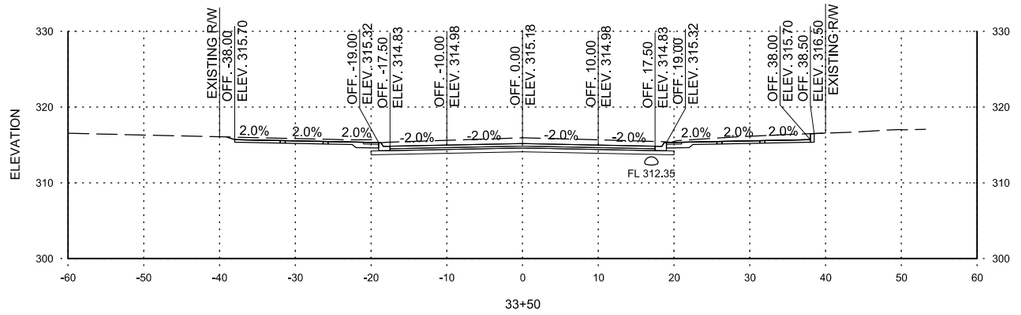
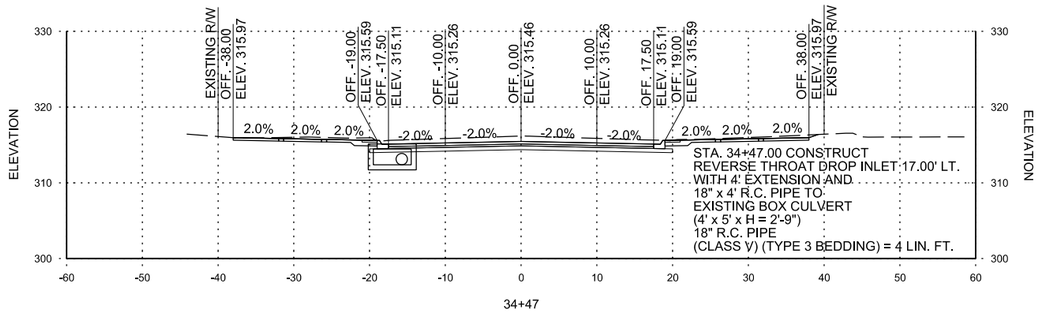
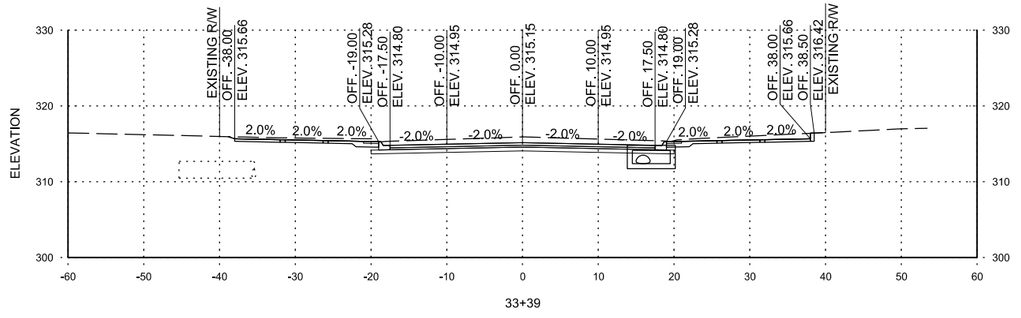


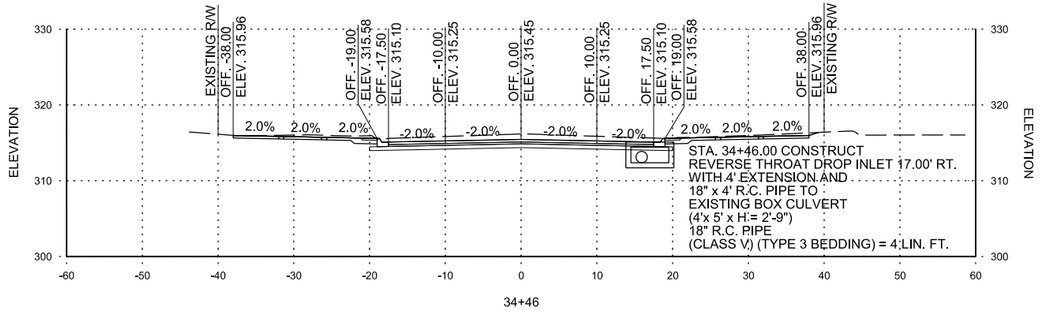
33+50



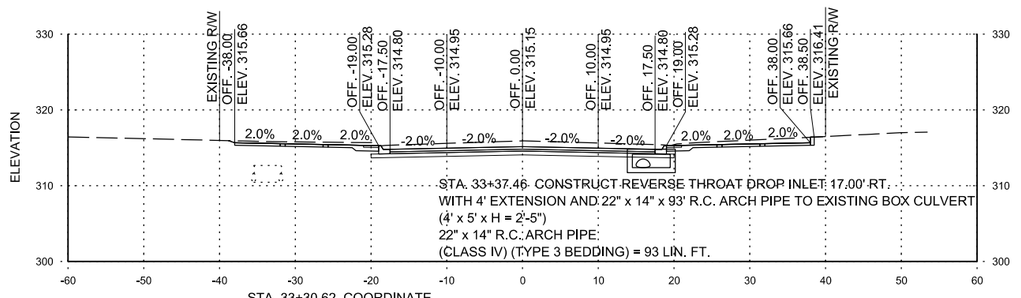
34+47



33+39

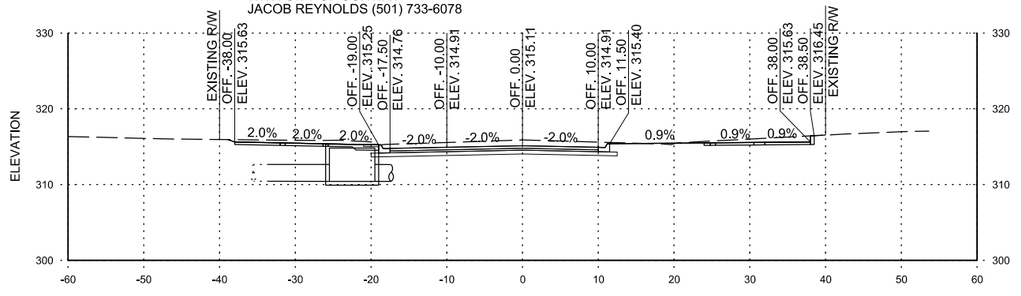


34+46



33+37

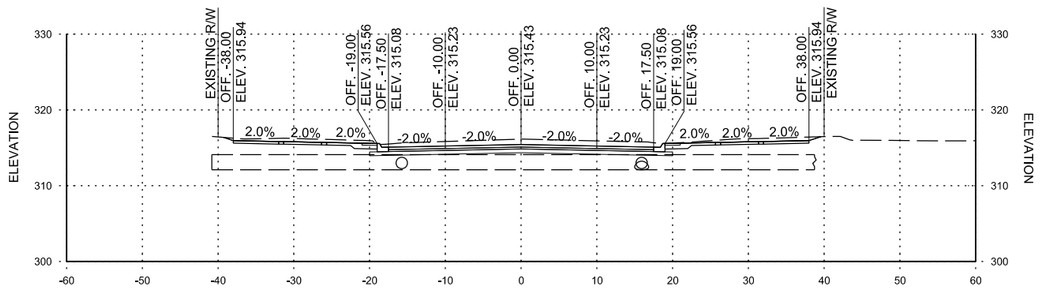
STA. 33+30.62 COORDINATE
CONSTRUCTION OF
44" x 27" R.C. ARCH PIPE EXTENSION
WITH CITY OF CONWAY
JACOB REYNOLDS (501) 733-6078



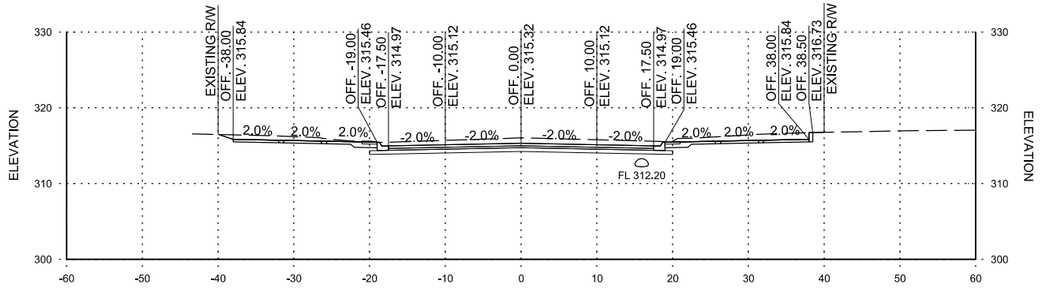
33+25

STA. 33+25.43 CONSTRUCT TYPE MO DROP INLET 22.50' LT. WITH 2' EXTENSION AND
WITH 44" x 27" x 6' R.C. ARCH PIPE TO JUNCTION BOX AT STA. 33+21.68 LT.
AND 44" x 27" x 8' R.C. ARCH PIPE STUB (6' DIA. x H = 4'-11")
44" x 27" R.C. ARCH PIPE (CLASS III) (TYPE 3 BEDDING) = 14 LIN. FT.

STA. 33+25 TO STA. 34+47



34+37



34+00

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MARKHAM STREET
CROSS
SECTIONS

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: DLT

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DRAWING NUMBER
CX-06

SHEET
NUMBER **CX6**

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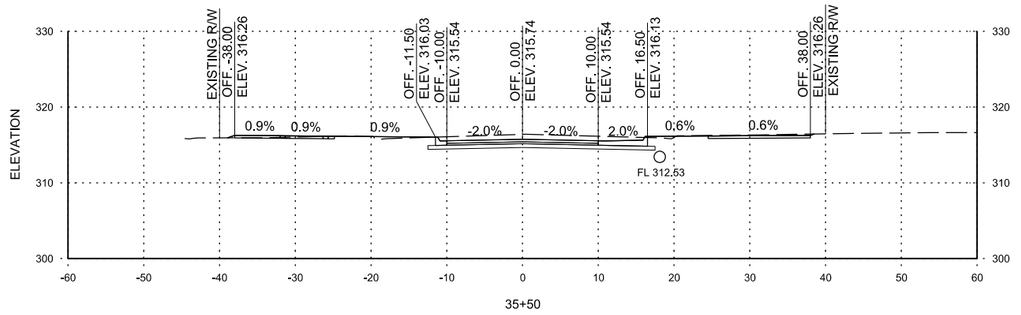

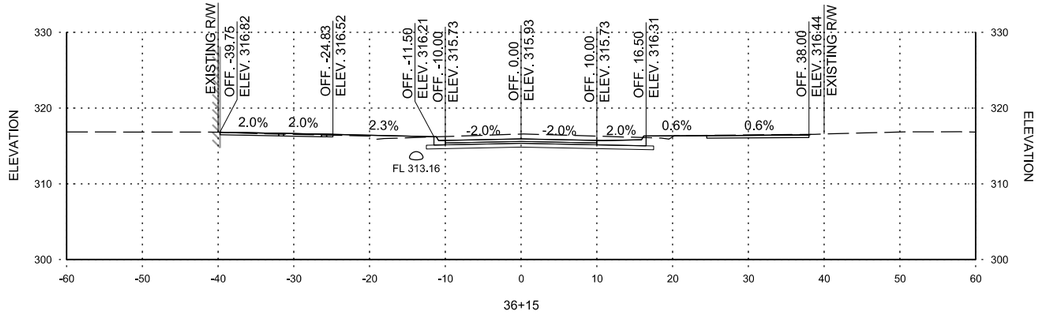

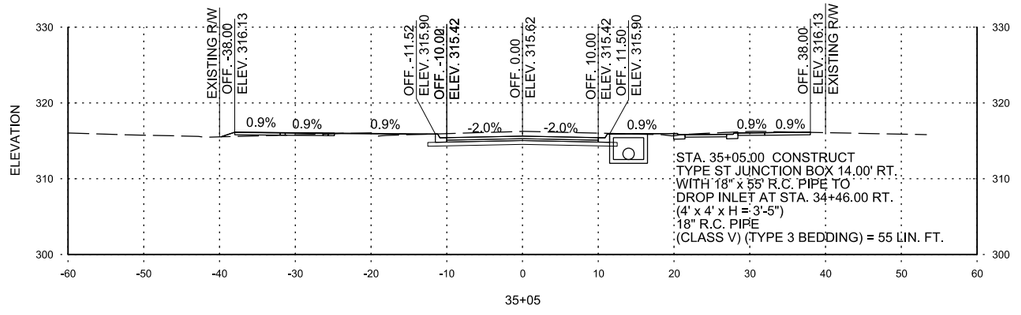

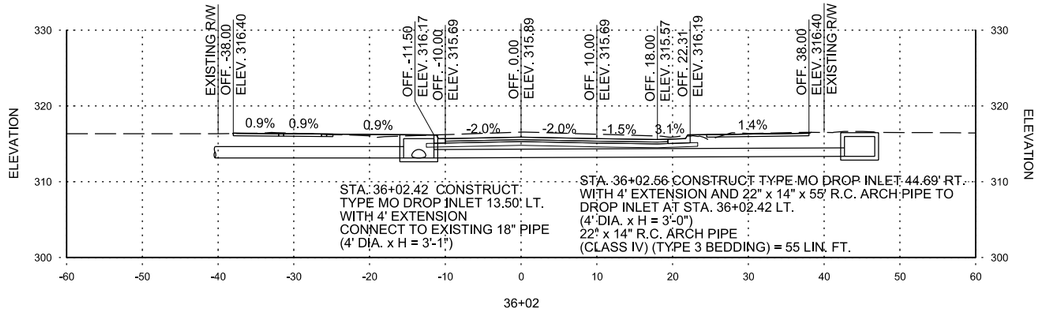

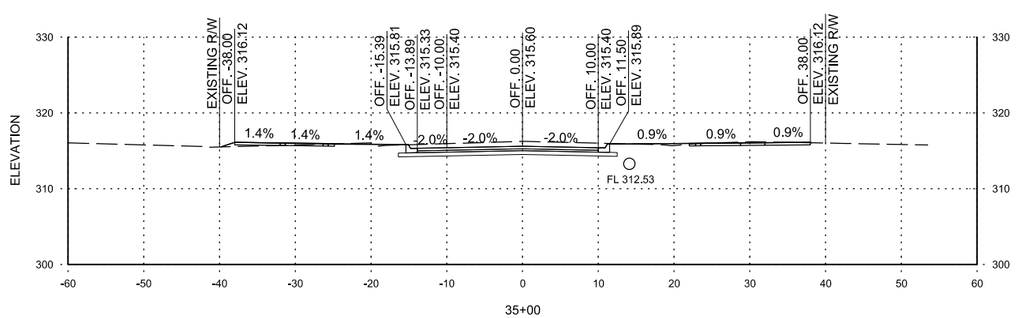

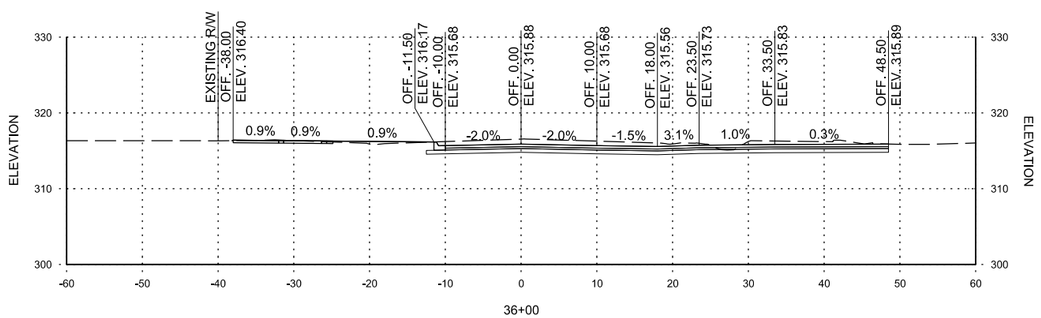

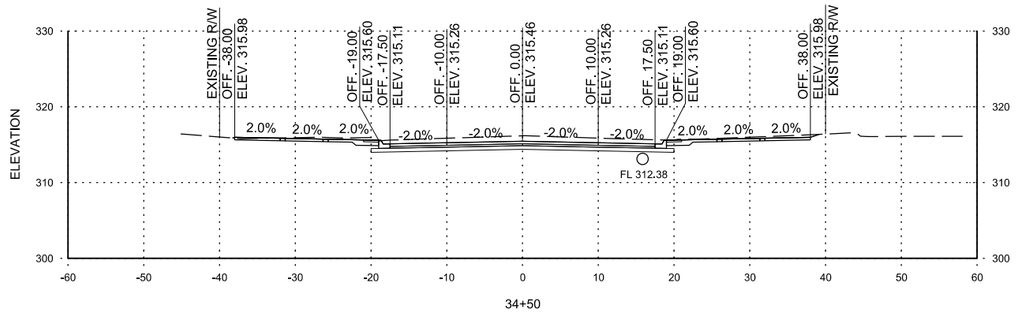

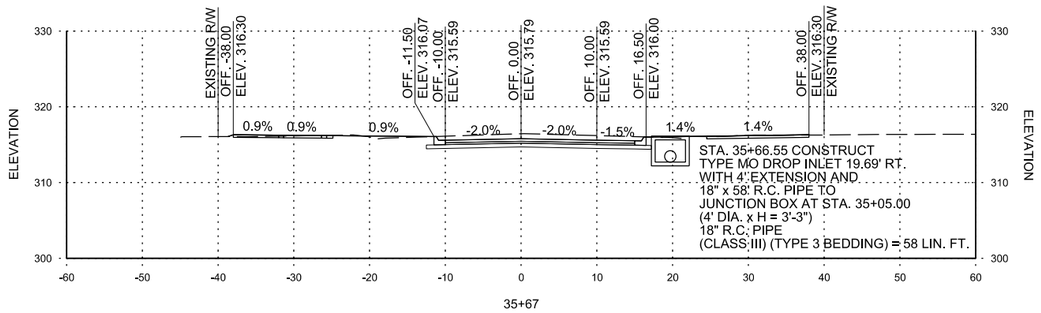

STA. 34+50 TO STA. 36+15

REV.	DATE	DESCRIPTION	BY

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)

MARKHAM STREET
CROSS
SECTIONS

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: DLT

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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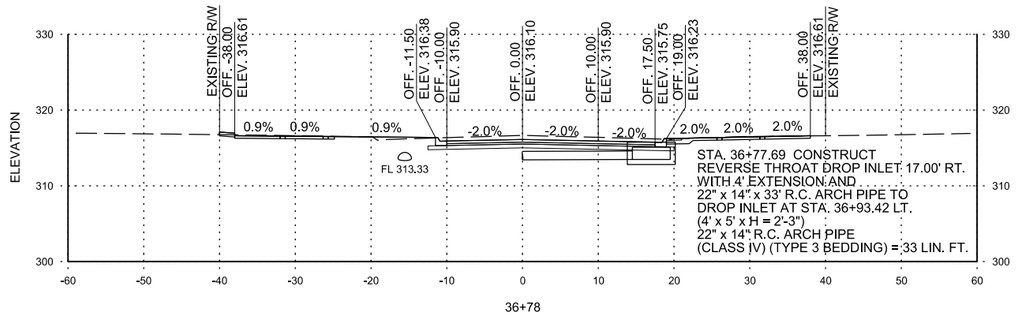
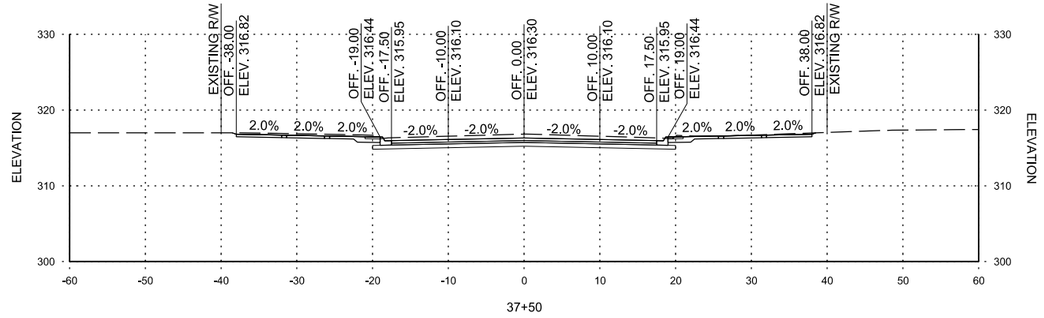
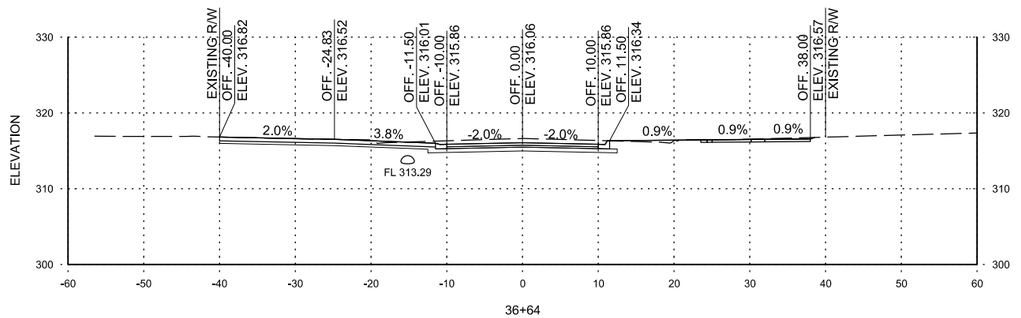
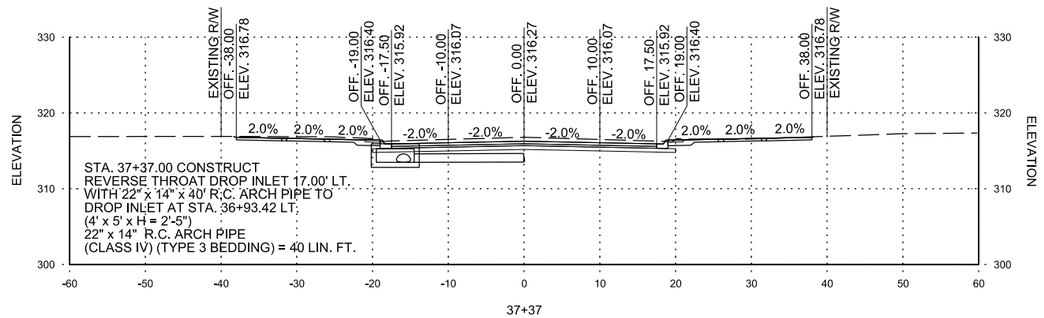
DRAWING NUMBER
CX-07

SHEET NUMBER **CX7**

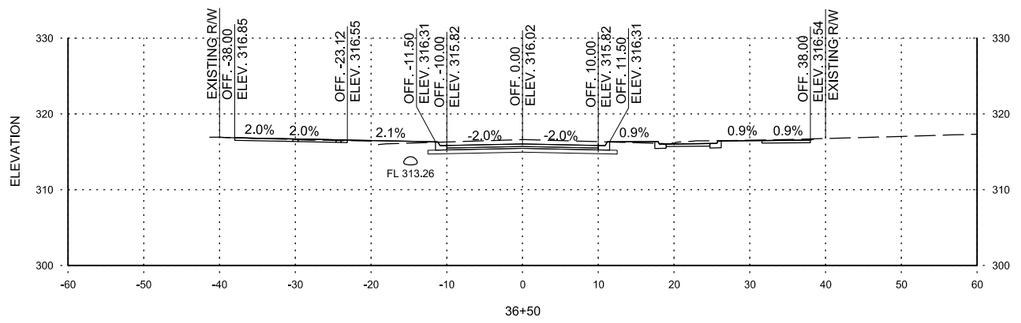


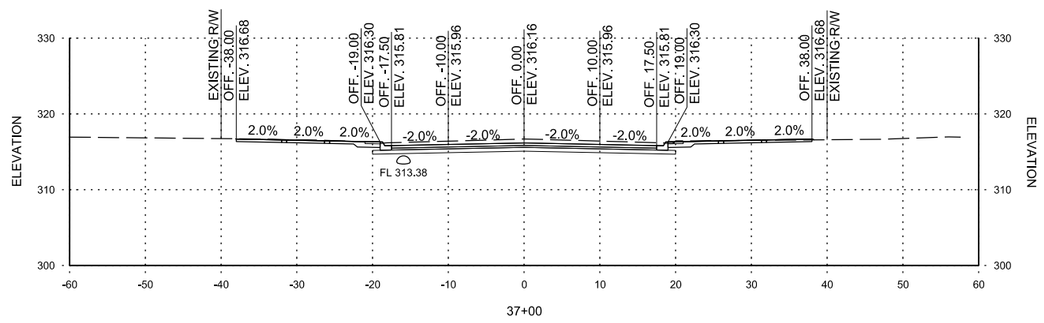


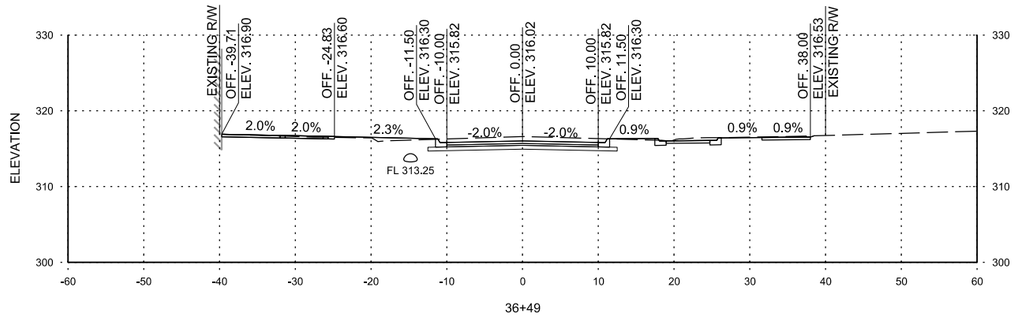


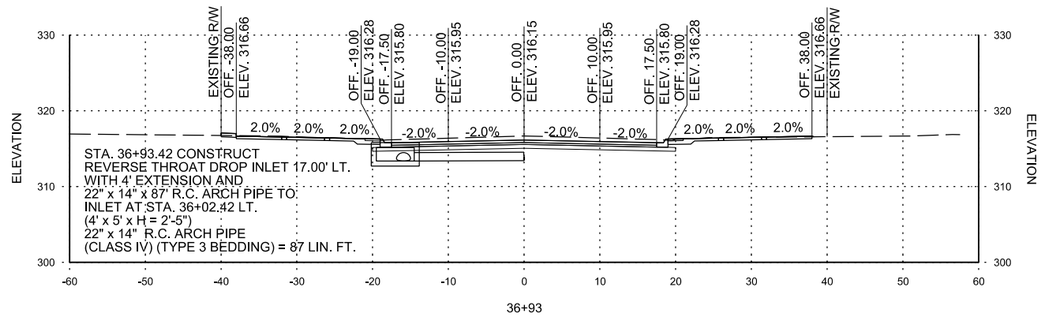


STA. 36+64 CONSTRUCT DRIVEWAY LT.









STA. 36+49 TO STA. 37+50

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MARKHAM STREET
CROSS
SECTIONS

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: DLT

BAR IS ONE INCH ON
ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET,
ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
CX-08

SHEET
NUMBER **CX8**

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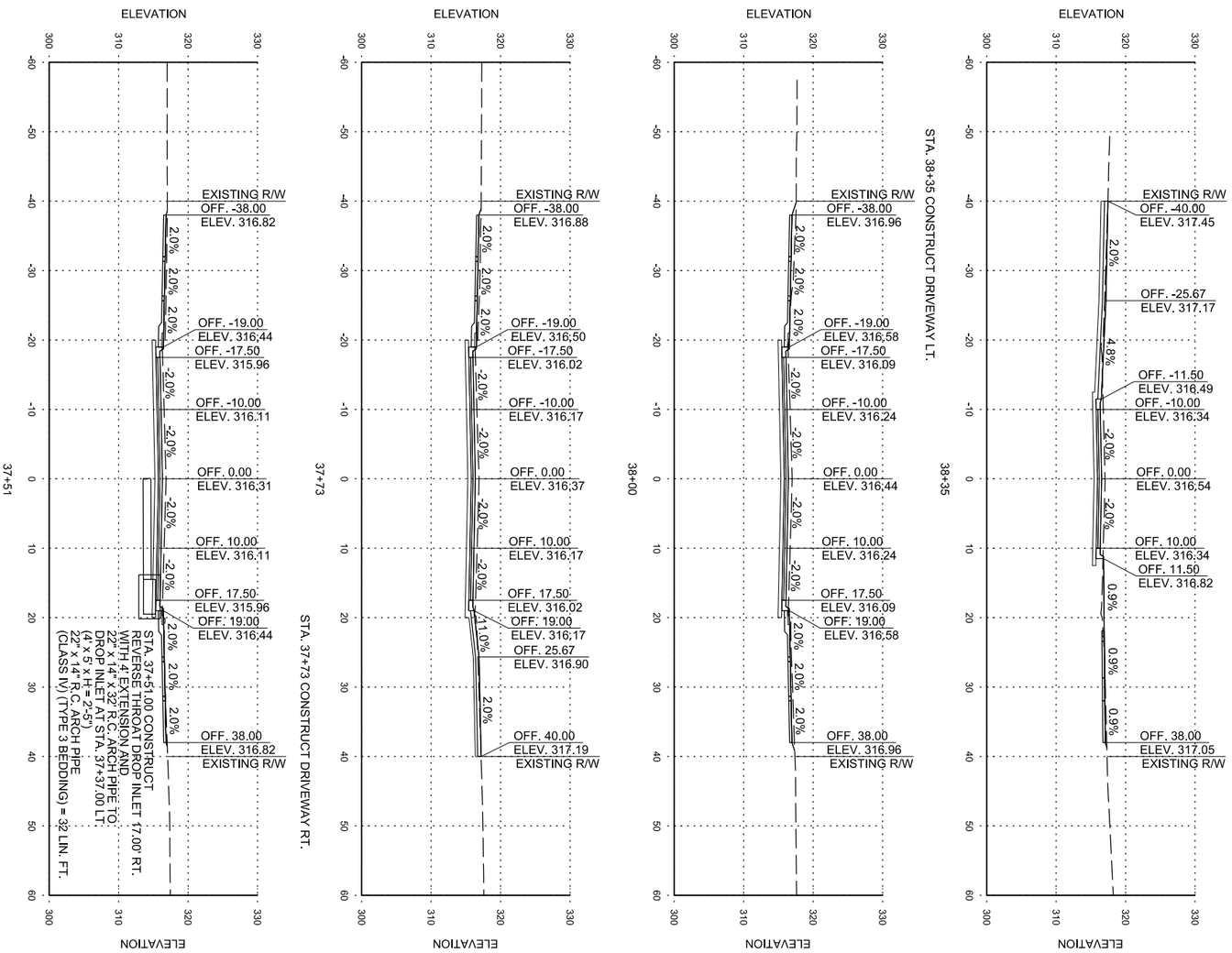
STA. 37+51 TO STA. 39+00



JOB NO.: 16017122 DATE: FEBRUARY 2019 DESIGNED BY: DLT DRAWN BY: DLT	MARKHAM STREET CROSS SECTIONS	METROPLAN LITTLE ROCK, ARKANSAS MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)	METROPLAN SMART. PLANNING MAKES SMART. PLACES.

REV.	DATE	DESCRIPTION	BY

BAR IS ONE INCH ON ORIGINAL DRAWING
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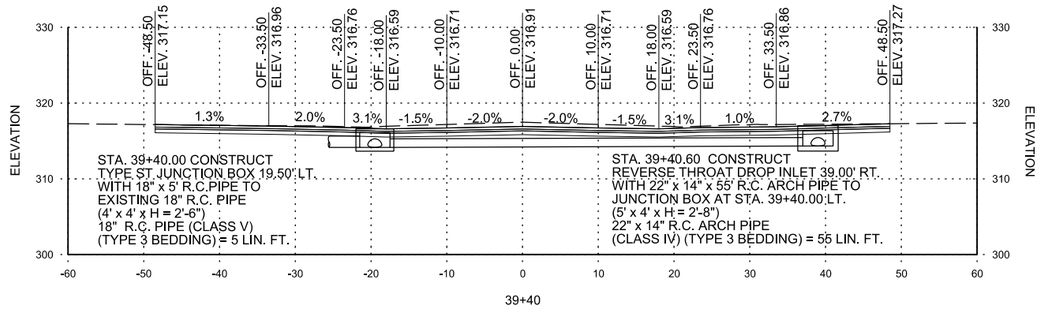
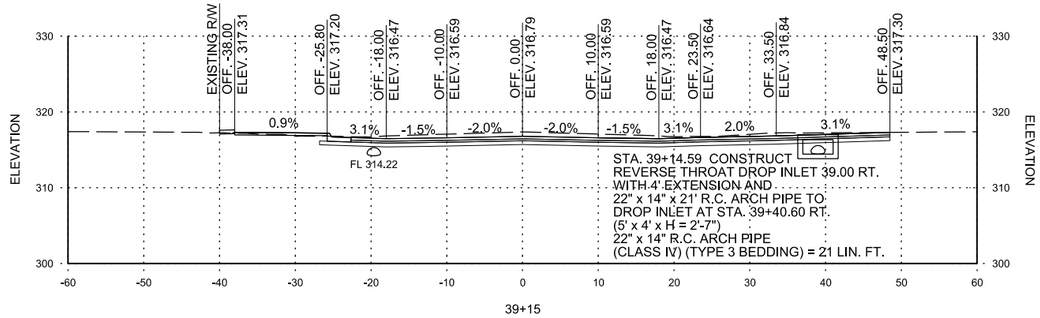
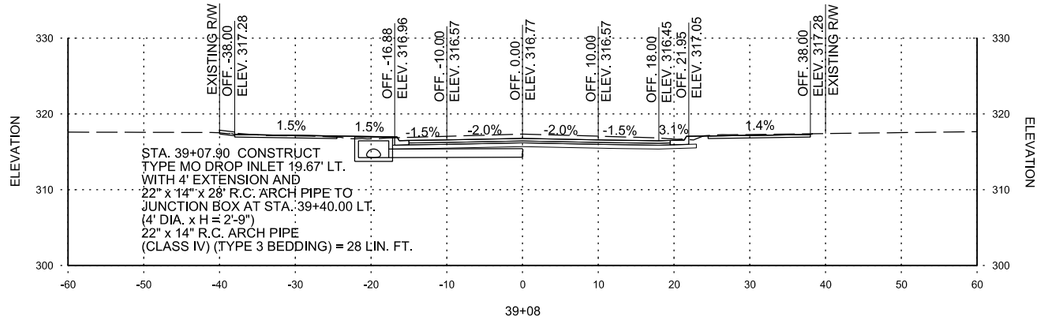
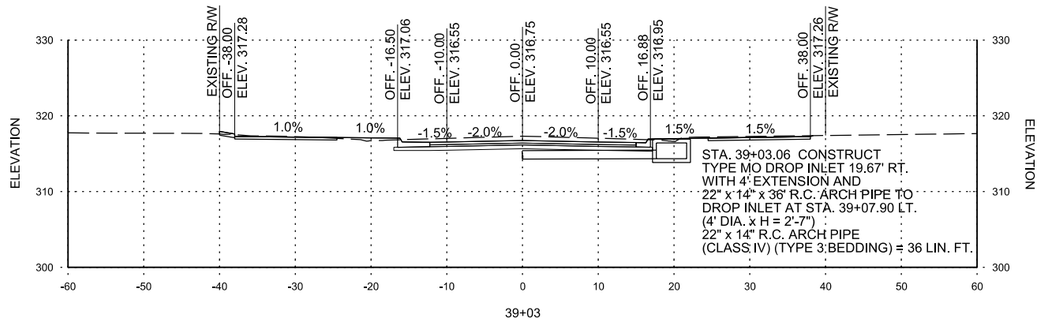
DRAWING NUMBER **CX-09**

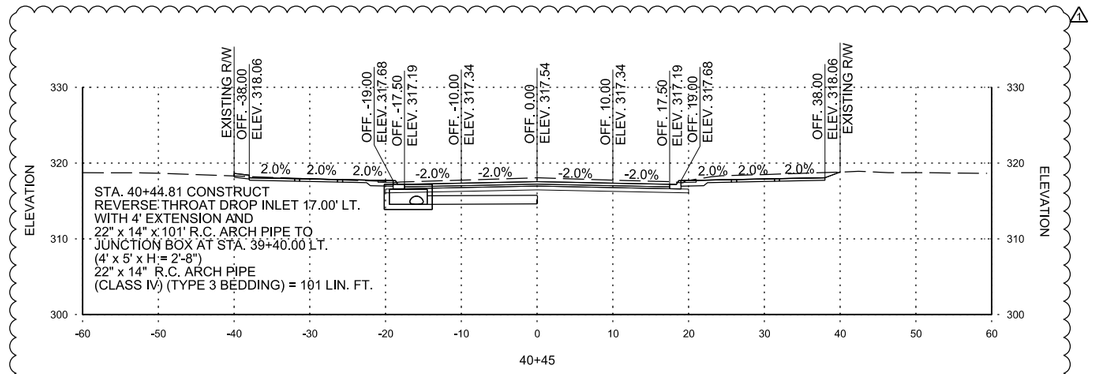
SHEET NUMBER **CX9**

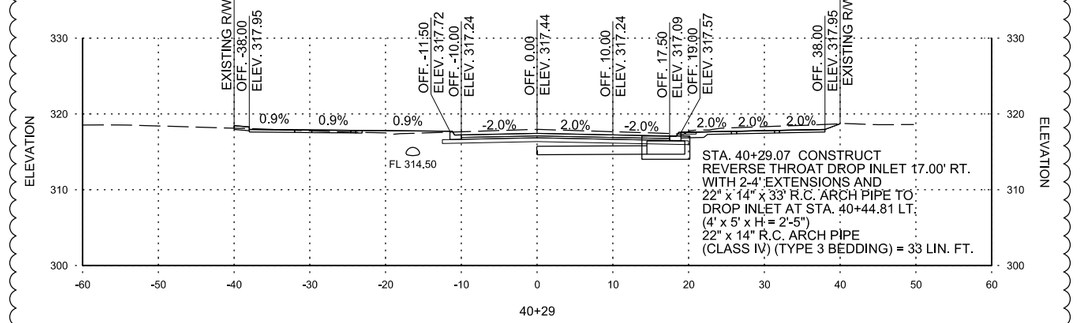


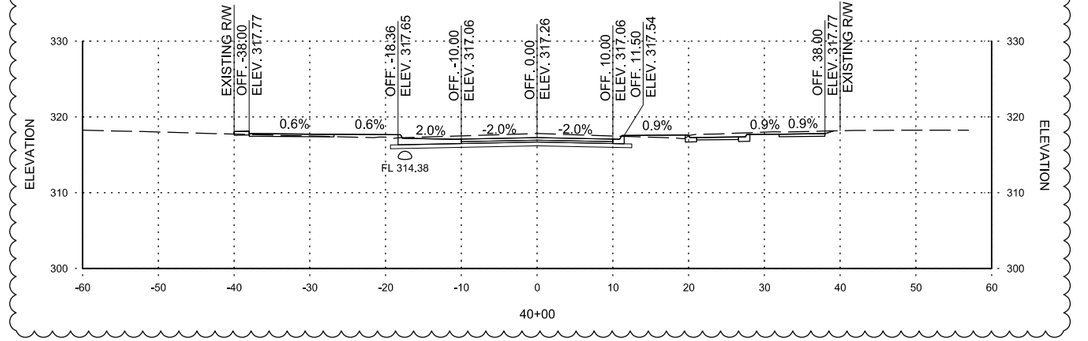


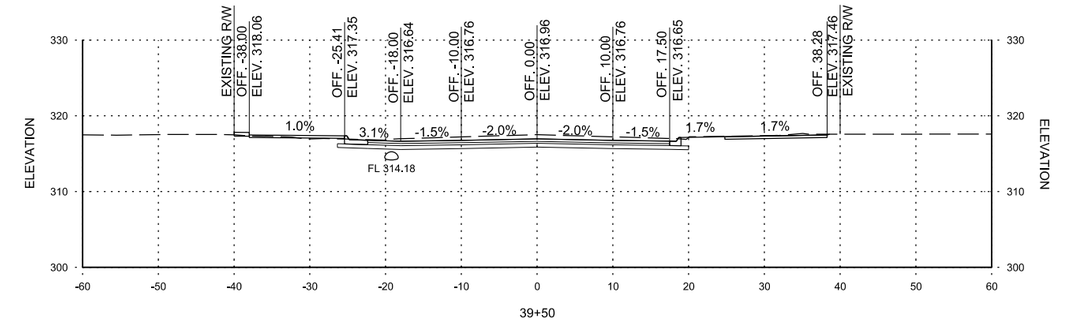












STA. 39+03 TO STA. 40+45

REV.	DATE	DESCRIPTION	BY
1	10/14/2019	CHANGE ORDER NO. 1 - REVISE CROSS SECTIONS FOR EXTENTION MILL TO WALNUT	DLT

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MARKHAM STREET
CROSS
SECTIONS

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: DLT

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0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
CX-10

SHEET NUMBER **CX10**

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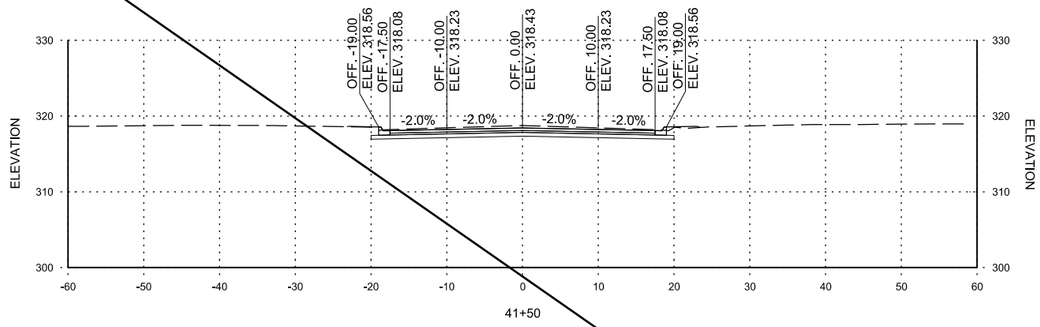
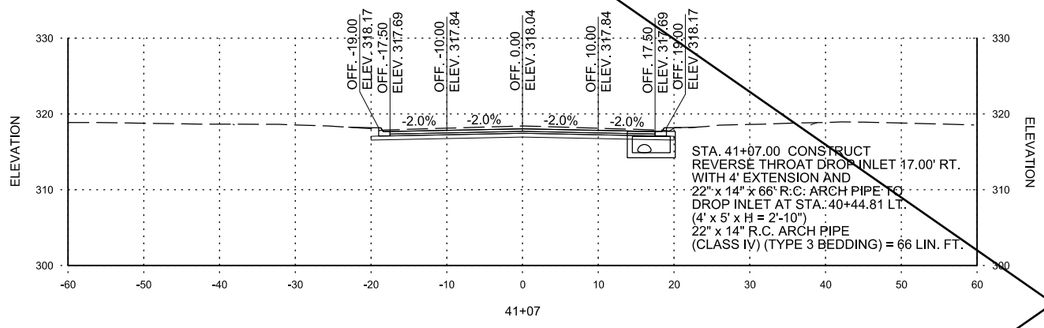
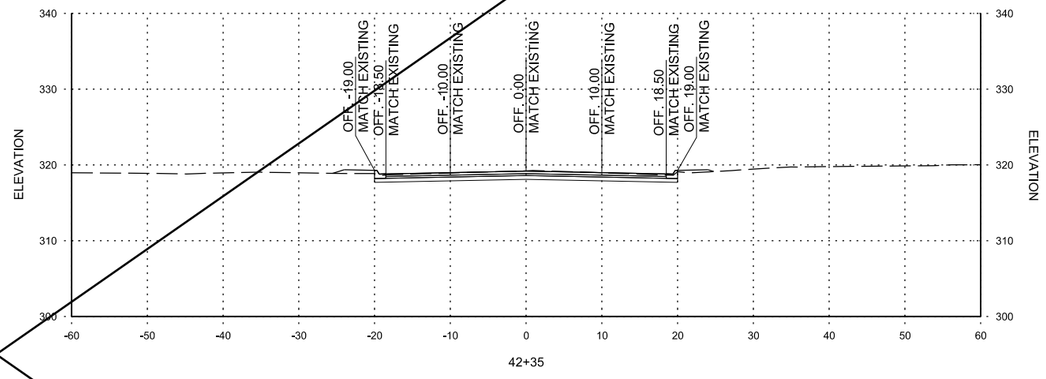
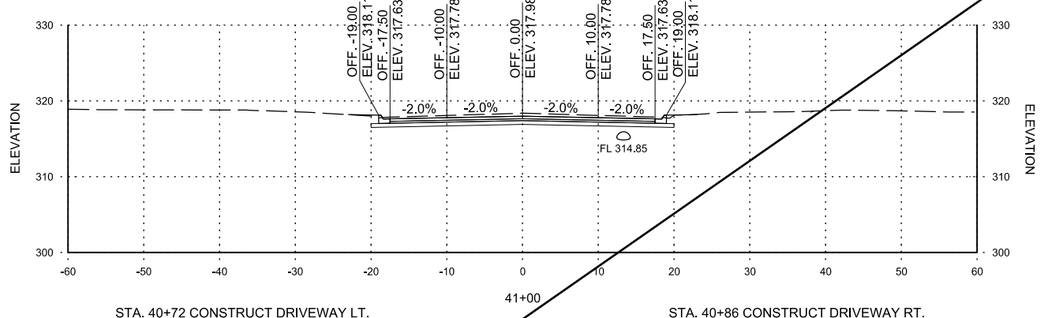
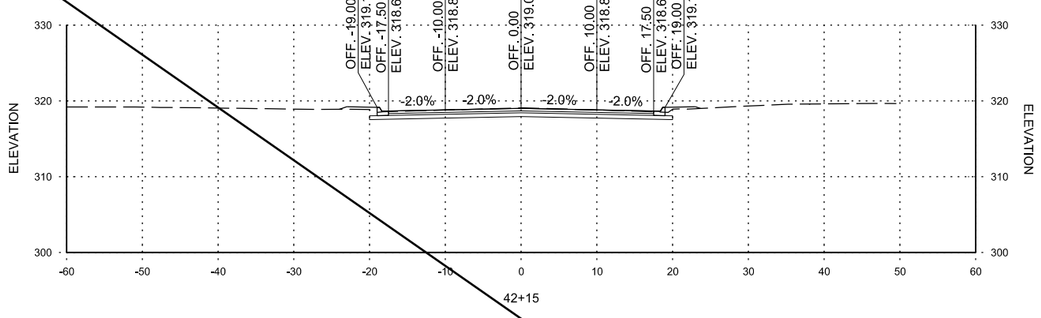




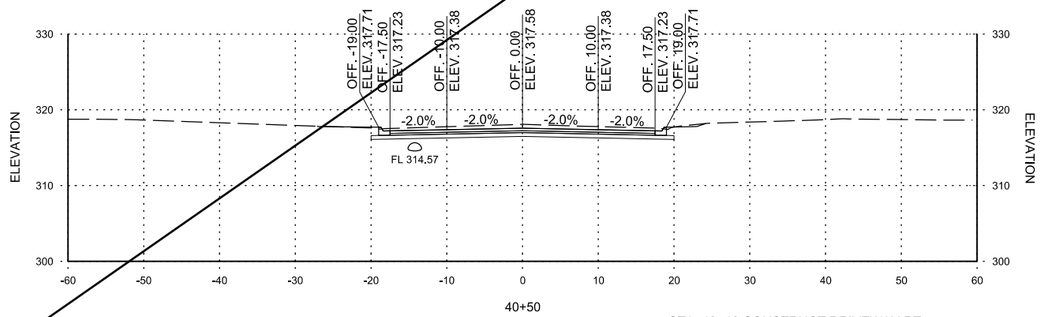




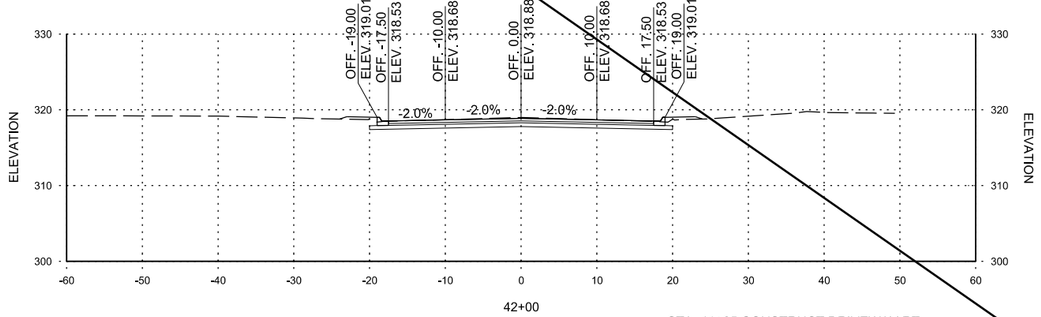
STA. 40+72 CONSTRUCT DRIVEWAY LT.



STA. 40+86 CONSTRUCT DRIVEWAY RT.



STA. 40+46 CONSTRUCT DRIVEWAY RT.



STA. 41+65 CONSTRUCT DRIVEWAY RT.

STA. 40+50 TO STA. 42+47

REV.	DATE	DESCRIPTION	BY

METROPLAN
SMART PLANNING MAKES SMART PLACES.

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MARKHAM STREET
CROSS
SECTIONS

JOB NO.: 16017122
DATE: FEBRUARY 2019
DESIGNED BY: DLT
DRAWN BY: DLT

BAR IS ONE INCH ON
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0 1"
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DRAWING NUMBER
CX-11

SHEET
NUMBER **CX11**

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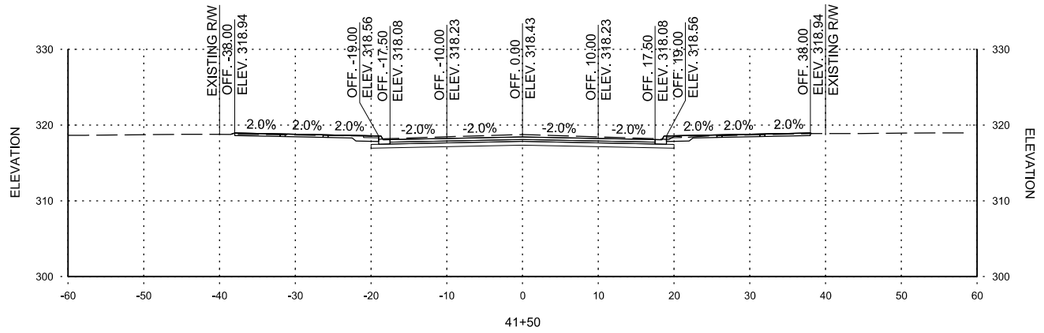
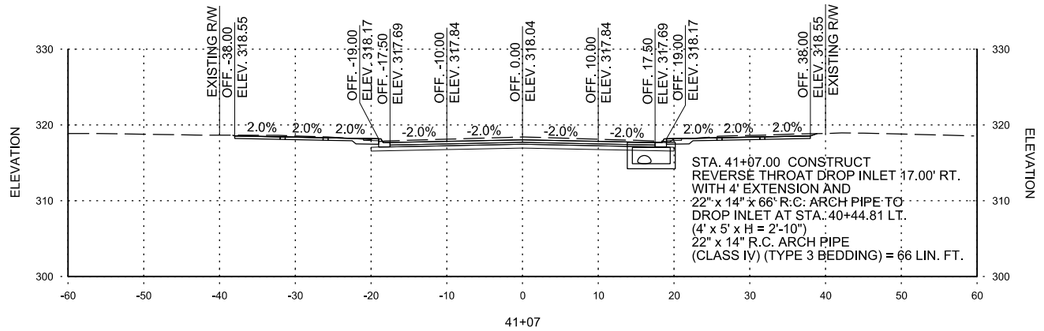
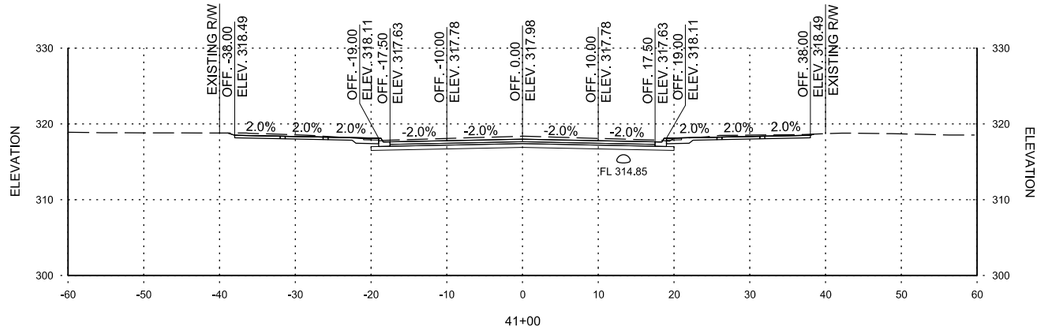
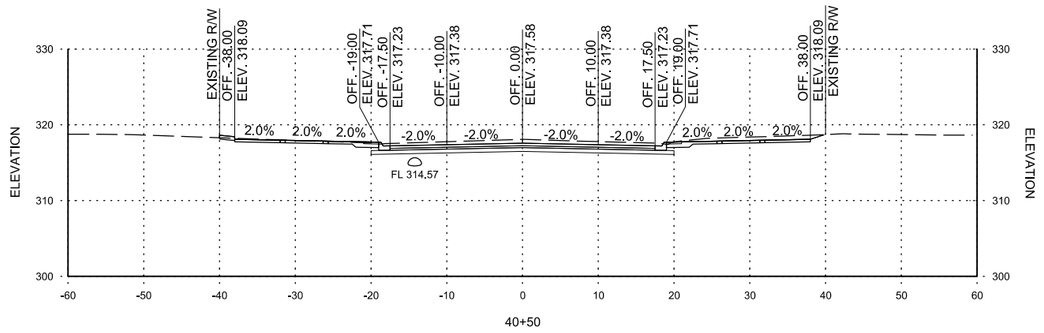




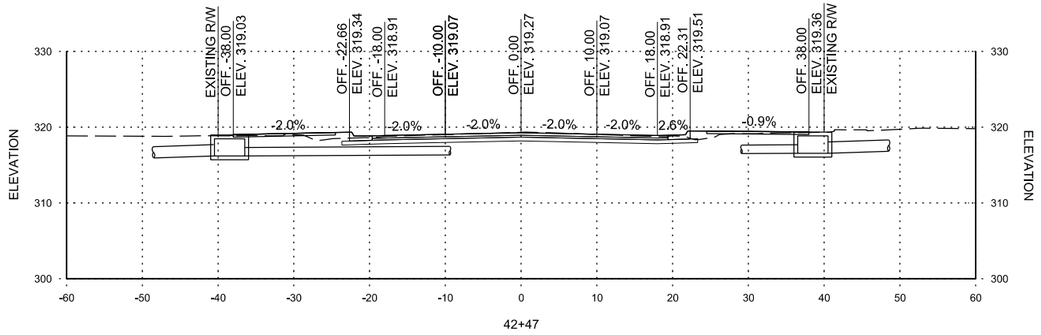


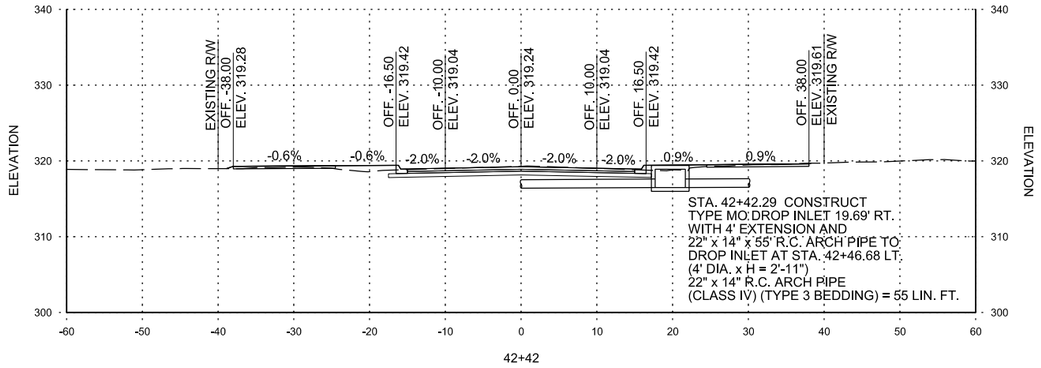


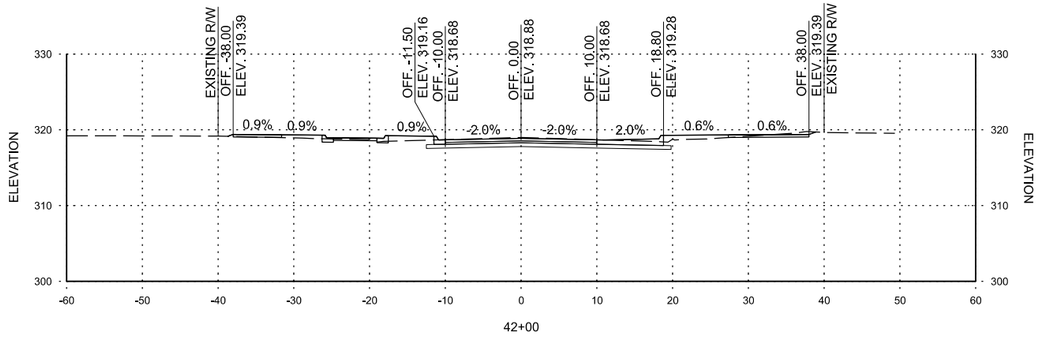
STA. 40+50 TO STA. 42+47

STA. 42+46.68 CONSTRUCT
TYPE MO DROP INLET 38.48' LT.
WITH 4' EXTENSION AND
18" x 8' R.C. PIPE TO
EXISTING 18" R.C. PIPE
(4' DIA. x H = 2'-9")
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 8 LIN. FT.

STA. 42+46.97 CONSTRUCT
TYPE MO DROP INLET 38.52' RT.
WITH 4' EXTENSION AND
22" x 14" x 16' R.C. ARCH PIPE TO
DROP INLET AT STA. 42+42.29 RT. AND
18" x 8' R.C. PIPE TO EXISTING 18" R.C. PIPE
(4' DIA. x H = 2'-10")
22" x 14" R.C. ARCH PIPE
(CLASS IV) (TYPE 3 BEDDING) = 16 LIN. FT.
18" X 8' R.C. PIPE
(CLASS III) (TYPE 3 BEDDING) = 8 LIN. FT.







REV.	DATE	DESCRIPTION	BY
	10/14/2019	CHANGE ORDER NO. 1 - REPLACE SHEET FOR EXTENTION MILL TO WALNUT	DLT

METROPLAN
LITTLE ROCK, ARKANSAS

MARKHAM ST. JUMP START IMPVTS.
(CONWAY) (S)

MARKHAM STREET
CROSS
SECTIONS

JOB NO.: 16017122
DATE: OCTOBER 2019
DESIGNED BY: DLT
DRAWN BY: DLT

BAR IS ONE INCH ON
ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET,
ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
CX-11

SHEET
NUMBER **CX11**

DLTackett 10/14/2019 2:47:41 PM
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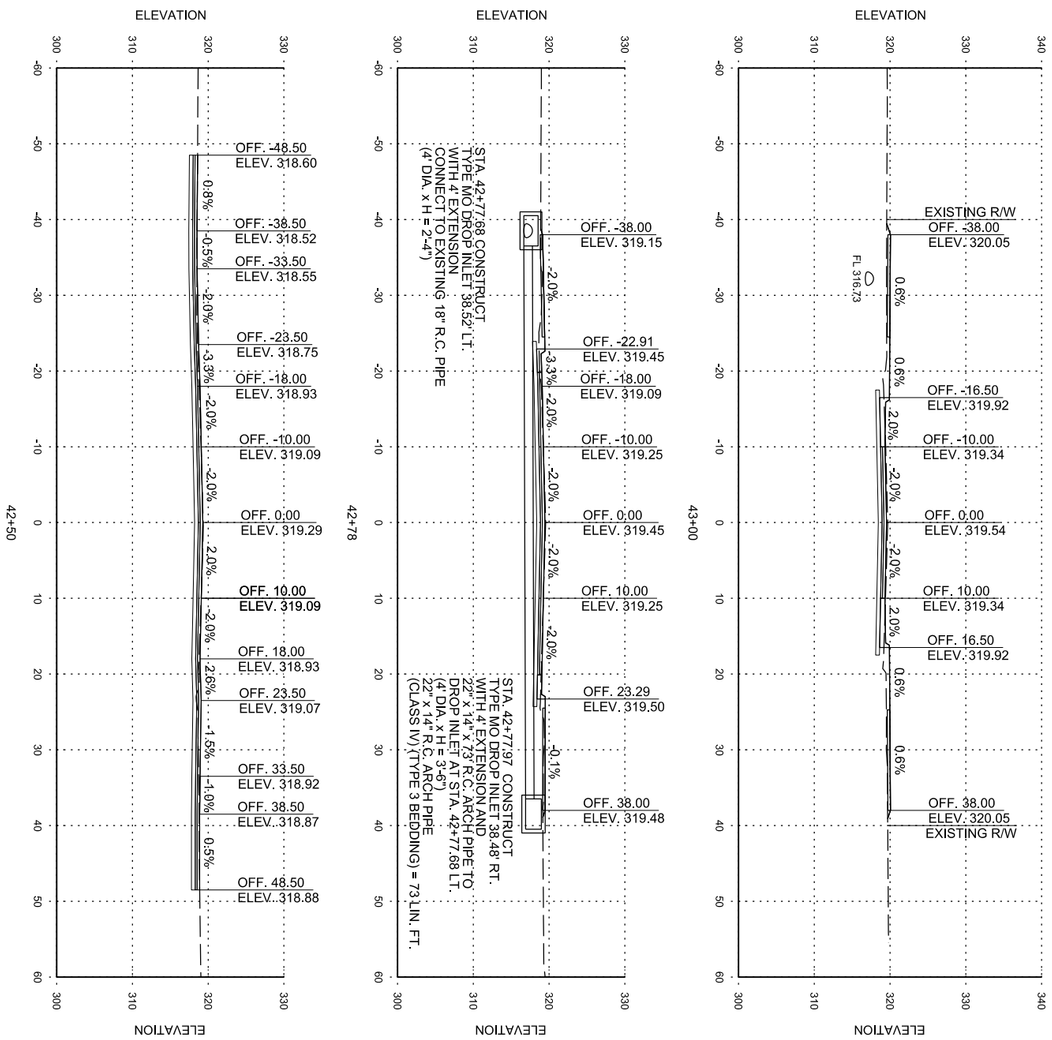
STA. 42+50 TO STA. 43+00



JOB NO.: 16017122	METROPLAN LITTLE ROCK, ARKANSAS		
DATE: OCTOBER 2019			
DESIGNED BY: DLT			
DRAWN BY: DLT			
BAR IS ONE INCH ON ORIGINAL DRAWING 1" IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY.	MARKHAM ST. JUMP START IMPVTS. (CONWAY) (S)		
DRAWING NUMBER **CX-12**	MARKHAM STREET CROSS SECTIONS		
SHEET NUMBER **CX12**			

REV.	DATE	DESCRIPTION	BY
	10/14/2019	CHANGE ORDER NO. 1 - ADD SHEET FOR EXTENTION MILL TO WALNUT	DLT