

Madison, Wisconsin

CITY OF MADISON

CITY ENGINEERING DIVISION

DEPARTMENT OF PUBLIC WORKS

PLAN OF PROPOSED IMPROVEMENT

NINTH ADDITION TO BLACKHAWK SUBDIVISION - PLAT AND REZONE

CITY PROJECT NO. 11943

CONTRACT NO. 8226

PUBLIC IMPROVEMENT PROJECT APPROVED

JULY 10, 2018

BY THE COMMON COUNCIL
OF MADISON, WISCONSIN

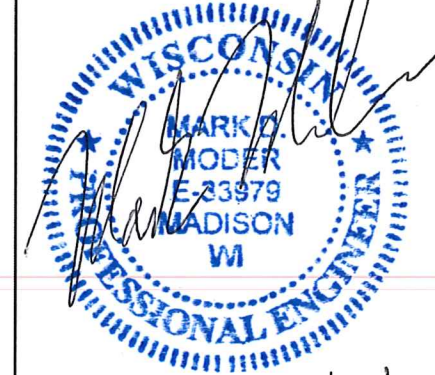
PUBLIC IMPROVEMENT DESIGN
APPROVED BY:

[Signature] 10/25/18
City Engineer Date

STREET
DESIGNED BY:



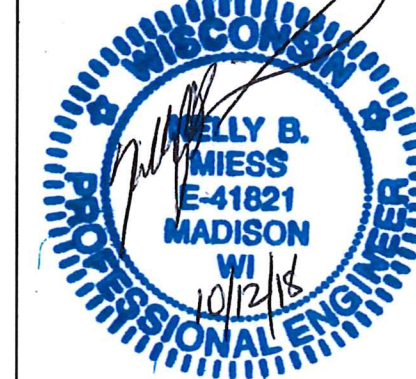
SANITARY SEWER
DESIGNED BY:



STORM SEWER
DESIGNED BY:



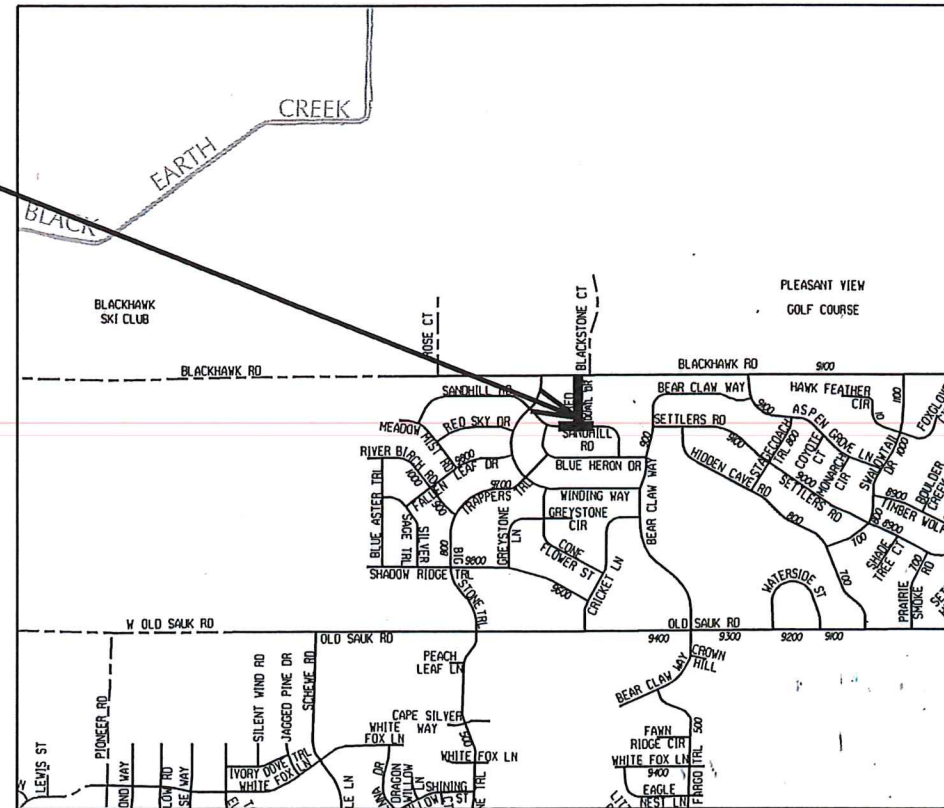
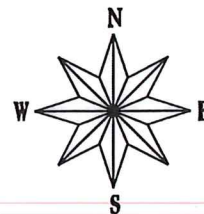
WATER MAIN
DESIGNED BY:



INDEX OF SHEETS

SHEET NO.	TITLE
1	NOTES & TYPICAL SECTION
DX-D2	STORM WATER BASIN DETAILS
SWMI-SWM4	STREET PLAN & PROFILE
PI-P4	SEWER PLAN & PROFILE
U1-U3	SANITARY SEWER SCHEDULE
USAN	STORM SEWER SCHEDULE
USTM	WATER PLAN & PROFILE
W1-W4	WATER ESTIMATE OF MATERIALS
W5	SANDHILL ROAD CROSS SECTIONS
X1-X5	RED ROCK LANE CROSS SECTIONS
X6-X11	BLACKHAWK ROAD SIDEWALK CROSS SECTIONS

PROJECT
LOCATION



CONVENTIONAL SIGNS

FIELD VERIFY ALL UTILITY LOCATIONS

GAS	G
STORM SEWER	ST
SANITARY SEWER	SAN
WATER	W
OVERHEAD ELECTRIC	OH
POWER POLE	□

NOTES:

ALL GUTTERS SHALL DRAIN WITH A MINIMUM GRADE OF 0.50% TOWARD STORM SEWER INLETS.

SIDEWALK RAMPS AND CURB THRU SIDEWALK RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1" PER 12". SIDEWALK AND CURB RAMPS SHALL BE CONSTRUCTED WITH A SIDE SLOPE OF 2.00%. SIDEWALK SHALL HAVE A MINIMUM LONGITUDINAL SLOPE OF 0.50% AND A MAXIMUM LONGITUDINAL SLOPE OF 5.00%

PLOT SCALE: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

EXISTING STREET TREES SHALL BE PROTECTED. CONTRACTOR SHALL INSTALL TREE PROTECTION FENCING IN THE AREA BETWEEN THE CURB AND SIDEWALK AND EXTEND IT AT LEAST 5 FEET FROM BOTH SIDES OF THE TREE ALONG THE LENGTH OF THE TERRACE. NO EXCAVATION IS PERMITTED WITHIN 5 FEET OF THE OUTSIDE EDGE OF A TREE TRUNK. IF EXCAVATION WITHIN 5 FEET OF ANY TREE IS NECESSARY, CONTRACTOR SHALL CONTACT CITY FORESTRY (266-4816) 48 HOURS PRIOR TO EXCAVATION TO ASSESS THE IMPACT TO THE TREE AND ROOT SYSTEM. TREE PRUNING SHALL BE COORDINATED WITH CITY FORESTRY PRIOR TO THE START OF CONSTRUCTION. TREE PROTECTION SPECIFICATIONS CAN BE FOUND IN SECTION 107.13 OF CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION
-[HTTP://WWW.CITYOFMADISON.COM/BUSINESS/PWDOCUMENTS/STDSPESCS2013/PART1.PDF](http://www.cityofmadison.com/business/pw/documents/stdspecs2013/part1.pdf)

CONTRACTOR SHALL CONTACT CITY FORESTRY BRAD HOFMANN BHOFMANN@CITYOFMADISON.COM OR 266-4816 AT LEAST ONE WEEK PRIOR TO PLANTING TO SCHEDULE INSPECTING THE NURSERY STOCK AND REVIEW PLANTING SPECIFICATIONS WITH THE LANDSCAPER.

ANY TREE REMOVALS THAT ARE REQUIRED FOR CONSTRUCTION WILL REQUIRE AT LEAST A 72 HOUR WAIT PERIOD BEFORE A TREE REMOVAL PERMIT CAN BE ISSUED BY FORESTRY, TO NOTIFY THE ALDER OF THE CHANGE IN THE TREE PLAN.

CONTRACTOR/DEVELOPER SHALL SUBMIT A TRAFFIC CONTROL PLAN TO CITY TRAFFIC ENGINEERING AT LEAST 10 WORKING DAYS PRIOR TO THE START OF WORK. WORK WITHIN THE RIGHT-OF-WAY SHALL NOT BEGIN UNTIL THE TRAFFIC CONTROL PLAN IS APPROVED.

ANY PAVEMENT MARKINGS THAT ARE REMOVED OR DAMAGED SHALL BE REPLACED BY THE DEVELOPER/CONTRACTOR AS DIRECTED BY CITY TRAFFIC ENGINEERING.

ALL PAVEMENT WITHIN THE SANDHILL ROAD AND RED ROCK LANE RIGHT-OF-WAY SHALL CONSIST OF
1 3/4" BITUMINOUS UPPER LAYER, 4 LT 58-28 S
1 3/4" BITUMINOUS LOWER LAYER, 4 LT 58-28 S

ALL PAVEMENT WITHIN THE BLACKHAWK ROAD RIGHT-OF-WAY SHALL CONSIST OF
1 3/4" BITUMINOUS UPPER LAYER, 4 MT 58-28 S
3 1/2" BITUMINOUS LOWER LAYER, 3 MT 58-28 S

ALL GUTTERS SHALL DRAIN WITH A MINIMUM GRADES OF 0.5% TOWARD STORM SEWER INLETS.

THE CROSS SLOPE OF SIDEWALKS AND BARRIER FREE SIDEWALK CURB RAMPS SHALL BE 1.5%. THE LONGITUDINAL GRADE OF BARRIER FREE SIDEWALK CURB RAMPS SHALL NOT EXCEED 8.33%. ALL SIDEWALK RAMPS SHALL BE CONSTRUCTED ACCORDING TO S.D.D. 3.03. AT ALL OTHER LOCATIONS THE LONGITUDINAL GRADE OF SIDEWALKS SHALL NOT EXCEED 5.0 % OR THE ADJACENT STREET GRADE WHICHEVER IS GREATER NOR BE LESS THAN 0.4% AND SHALL DRAIN TOWARD STORM SEWER INLETS. SIDE SLOPES WITHIN TEN FEET OF A PUBLIC SIDEWALK SHALL NOT EXCEED 4.00:1. ALL SIDEWALK AND SIDEWALK RAMP ELEVATIONS AND GRADES SHALL BE FIELD VERIFIED AND SET TO COMPLY WITH THE CITY OF MADISON STANDARD SPECIFICATIONS AND THE A.D.A. GUIDELINES.

POWER POLES AND OTHER OBSTRUCTIONS SHALL BE MOVED TO PROVIDE 2 FEET MINIMUM OF CLEAR DISTANCE FROM ANY FACE OF CURB OR EDGE OF SIDEWALK.

THERE MAY BE EXISTING UTILITIES OR OTHER FEATURES WHICH ARE EITHER NOT SHOWN OR SHOWN INCORRECTLY ON THIS PLAN. IT IS THE RESPONSIBILITY OF THE DEVELOPER TO LOCATE AND IDENTIFY ALL UTILITIES AND TOPOGRAPHY WHICH MAY AFFECT THE CONSTRUCTION OF THESE IMPROVEMENTS.

ALL PERMANENT SIGNING AND POSTING WILL BE DETERMINED AND PROVIDED BY THE TRAFFIC ENGINEERING DIVISION, FOLLOWING CONSTRUCTION OF THESE IMPROVEMENTS.

THE DEVELOPER SHALL PROVIDE, INSTALL AND MAINTAIN ALL STREET END BARRICADES, SIGNING AND TRAFFIC CONTROL, AS REQUIRED BY THE CITY TRAFFIC ENGINEER.

PAVEMENT SAWCUTS SHALL BE AS DIRECTED BY THE CITY CONSTRUCTION ENGINEER. SAWCUTS SHOWN ON THE PLAN ARE APPROXIMATE.

DAMAGE TO ANY EXISTING CURB, PAVEMENT, SIDEWALK, ETC. THAT IS TO REMAIN SHALL BE REPAIRED BY THE DEVELOPER/CONTRACTOR AS DIRECTED BY THE ENGINEER.

DEVELOPER/CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES TO ADJUST STRUCTURES, MANHOLES, HANDHOLES, ETC. AS NEEDED TO MATCH THE GRADE OF THE NEW PAVEMENT.

ANY WORK SHOWN ON THIS PLAN THAT IS OUTSIDE OF THE RIGHT-OF-WAY OR BEYOND THE LIMITS OF THIS PROJECT SHALL BE CONSIDERED APPROXIMATE AND NOT FOR CONSTRUCTION.

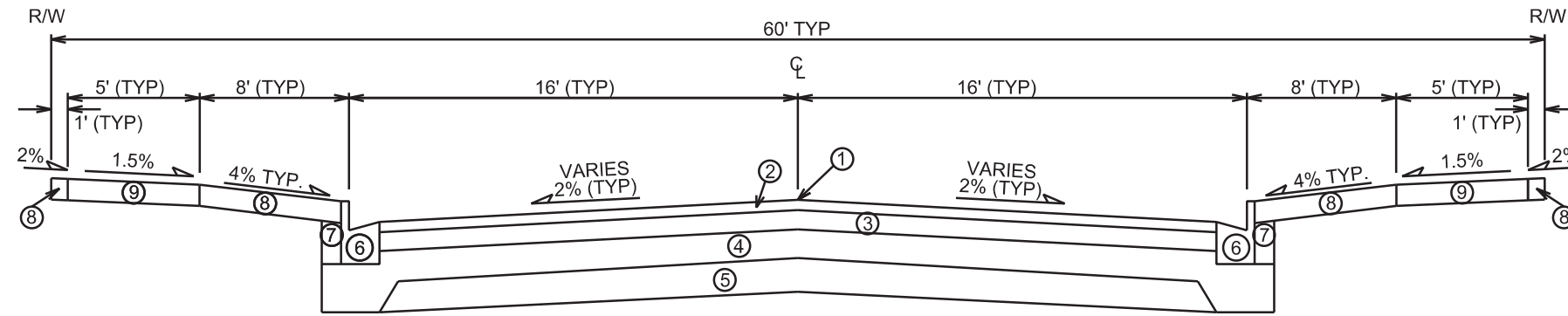
PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

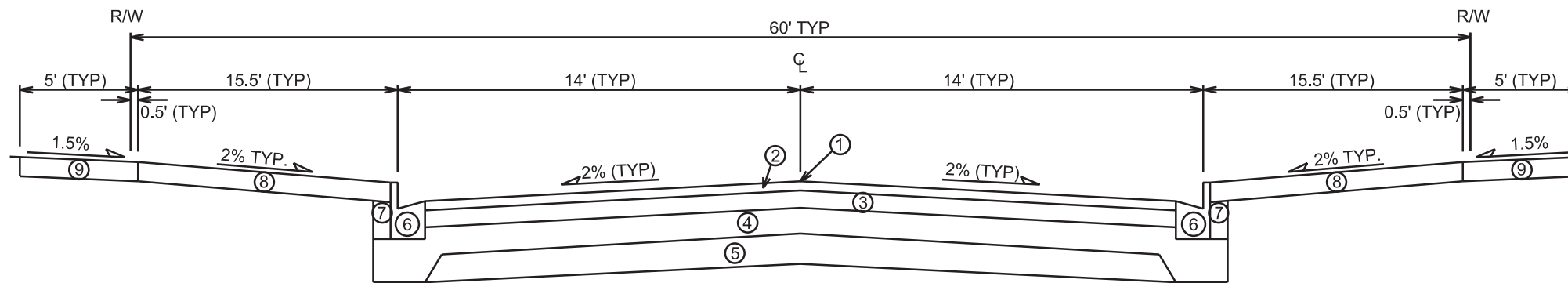
Revised 11-15-2018 AJZ
-revise terrace slope



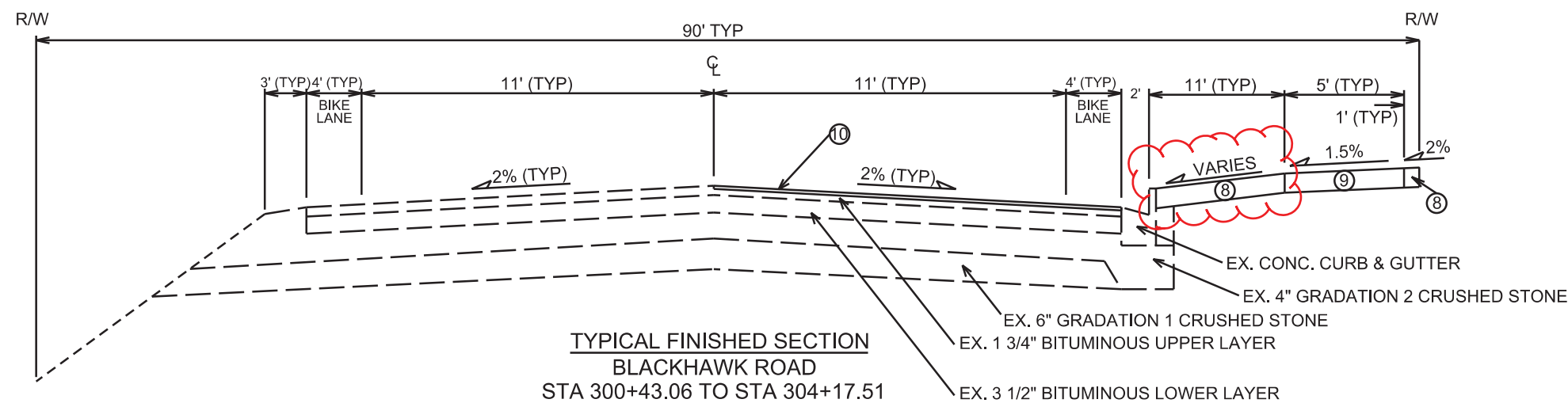
TYPICAL FINISHED SECTION
SANDHILL ROAD
STA 100+31.28 TO STA 104+63.78

- ① POINT REFERRED TO ON PROFILE
- ② 1 3/4" BITUMINOUS UPPER LAYER, 4 LT 58-28 S
- ③ 1 3/4" BITUMINOUS LOWER LAYER, 4 LT 58-28 S
- ④ 6" GRADATION 2 CRUSHED STONE
- ⑤ 6" GRADATION 1 CRUSHED STONE
- ⑥ TYPE 'A' CONCRETE CURB & GUTTER
- ⑦ FILL, INCIDENTAL
- ⑧ 6" TOPSOIL, TERRACE SEED AND EROSION MAT
- ⑨ 5" CONCRETE SIDEWALK
- ⑩ 2" MILL & OVERLAY, 4 MT 58-28 S

NOTE:
- SEE PLAN/PROFILE SHEETS FOR
TOP OF CURB ELEVATIONS.
- TYPICAL SECTION NOT TO SCALE.



TYPICAL FINISHED SECTION
RED ROCK LANE
STA 200+49.00 TO STA 205+75.60



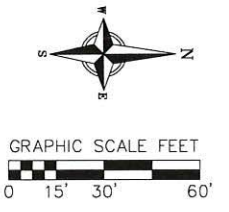
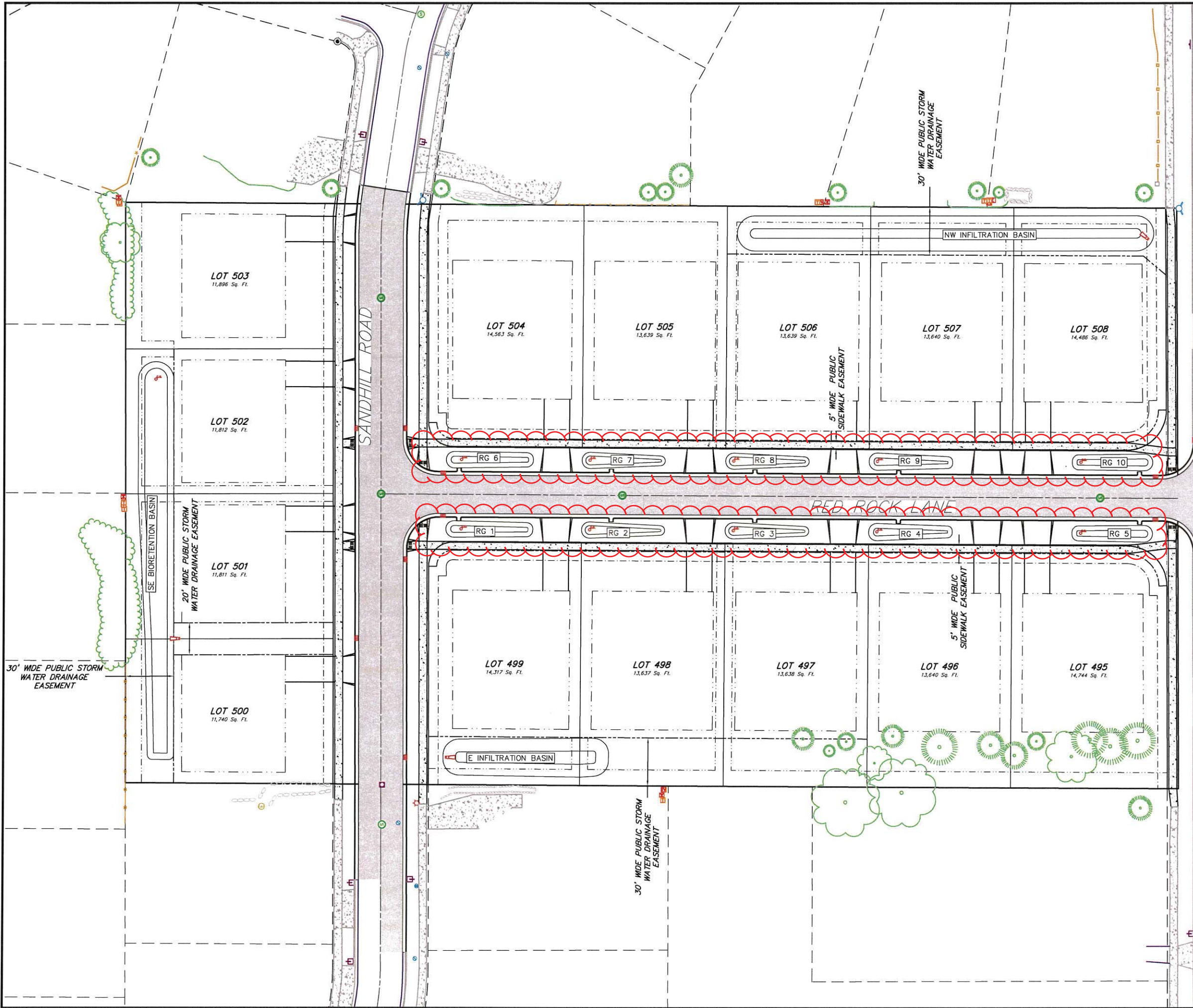
TYPICAL FINISHED SECTION
BLACKHAWK ROAD
STA 300+43.06 TO STA 304+17.51

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



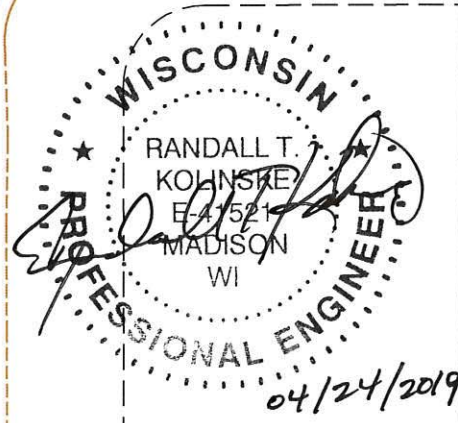
Revised 4-29-2019 Vierbicher
-revise concrete flumes & rain
gardens

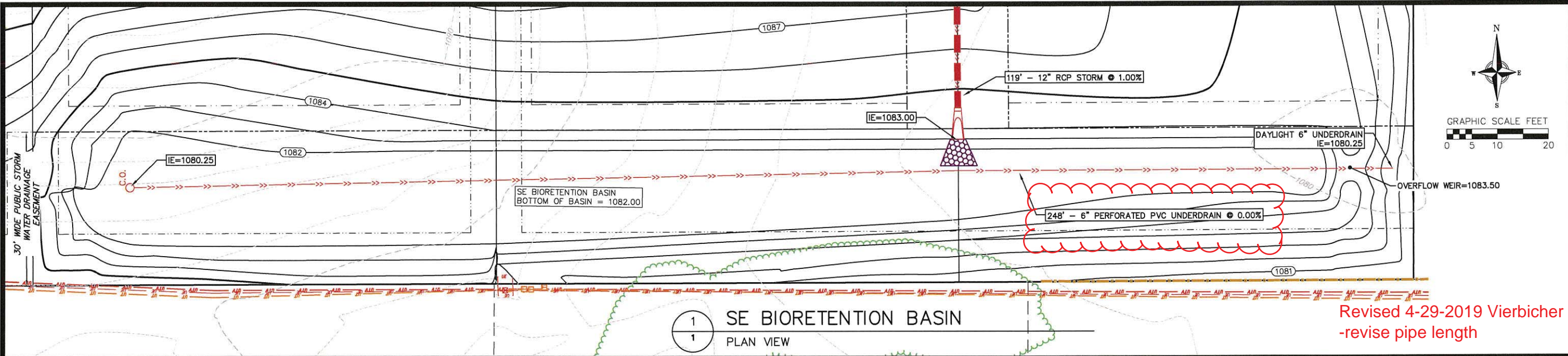


Stormwater - Master Plan
Ninth Addition to Blackhawk Subdivision
City of Madison
Dane County, WI

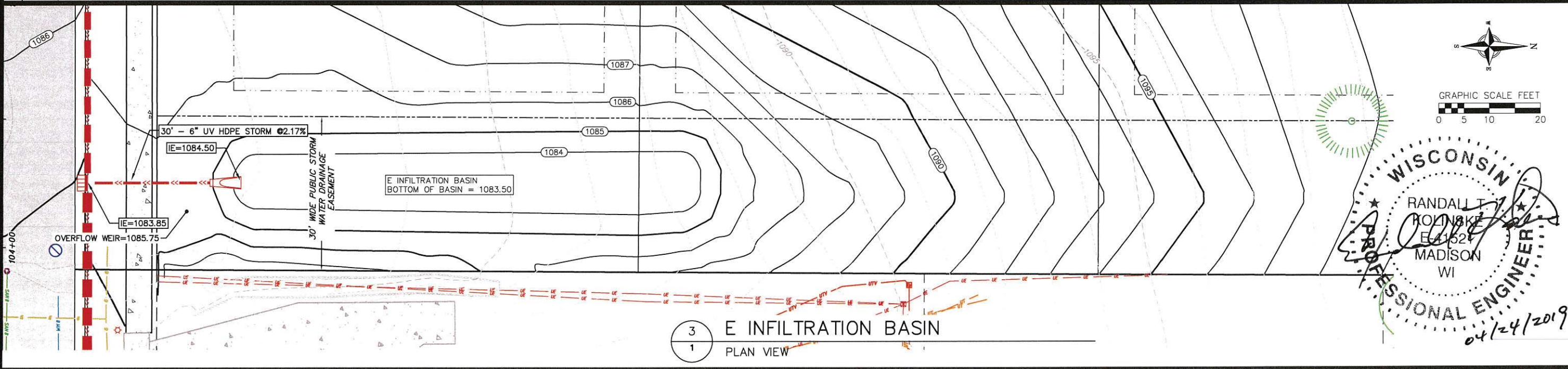
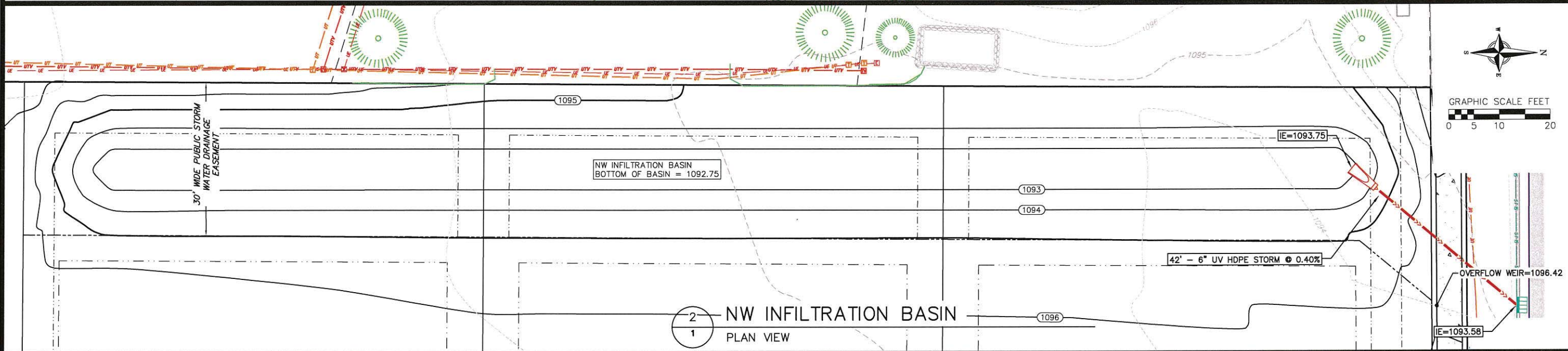
REVISIONS	NO.	DATE	REMARKS
	A	04/24/19	CITY RESUBMITTAL

SCALE: AS SHOWN
DATE: 10/23/2018
DRAFTER: AMEA
CHECKED: RKOL
PROJECT NO.: 170269
SHEET: 1 OF 3
DWG. NO.: SWM-1





Revised 4-29-2019 Vierbicher
-revise pipe length



WISCONSIN
PROFESSIONAL ENGINEER
RANDALL T. KOLISKE
E 41524
MADISON
WI
04/24/2019

REVISIONS	NO.	DATE	REMARKS
	1	04/24/19	CITY RESUBMITAL

SCALE AS SHOWN

DATE 10/23/2018

DRAFTER AMEA

CHECKED RKOL

PROJECT NO. 170269

SHEET 2 OF 3

DWG. NO. SWM-2



Revised 4-29-2019 Vierbicher
-revise rain garden table

BIO-RETENTION AREA RESTORATION SPECIFICATIONS:
NOTE: BIO-RETENTION AREA MUST NOT BE CONSTRUCTED (INSTALLED) UNTIL THE SITE IS STABILIZED, I.E. THE GRASS COVER IS WELL ESTABLISHED.

BIO-RETENTION AREA MUST CONFORM TO WISCONSIN DNR TECHNICAL STANDARD 1004 (BIORETENTION FOR INFILTRATION)

USE RAINWATER GARDEN LIVE NATIVE PLANT PLUGS FROM AGRECOL (SUNNY, SHORT, OR MEDIUM STATURE) - OR ENGINEER APPROVED EQUAL.

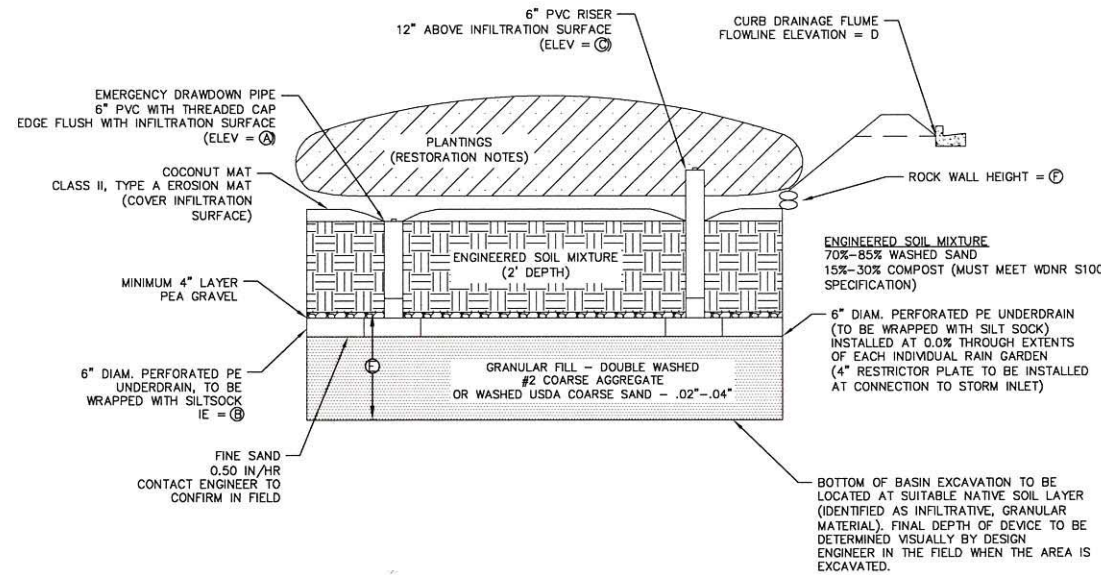
PLANT PLUGS AT 1 PER SQUARE FOOT.

PLANTING, MULCH, AND MAINTENANCE NOTES:
PLANTING SHOULD TAKE PLACE BETWEEN AVAILABILITY OF PLANTS IN SPRING AND JUNE 30TH, OR BETWEEN SEPTEMBER 1ST AND OCTOBER 15TH. IF PLANTED JULY 1ST THROUGH AUGUST 31ST, HEAVILY WATER THE PLANTS AT THE TIME THEY ARE PLANTED, AND EVERY OTHER DAY FOR A TOTAL OF 4 WATERINGS. A RAIN EVENT GREATER THAN 0.5 INCHES CONSTITUTES A WATERING. IF PLANTED SEPTEMBER 1ST THROUGH OCTOBER 15TH, PLACE CERTIFIED WEED-FREE STRAW MULCH AT 3" MINIMUM THICKNESS BETWEEN PLANTS TO HELP PREVENT FROST HEAVE. IF PLANTING IS TO OCCUR AFTER OCTOBER 15TH, IT MUST BE POSTPONED UNTIL THE FOLLOWING SPRING (MAY). FOR THE FIRST 3 YEARS AFTER PLANTING, SPOT TREAT THE AREA WITH HERBICIDE TO REMOVE WEEDS.

RESTORATION OF THE INFILTRATION AREA (NOT INCLUDING SIDE SLOPES):

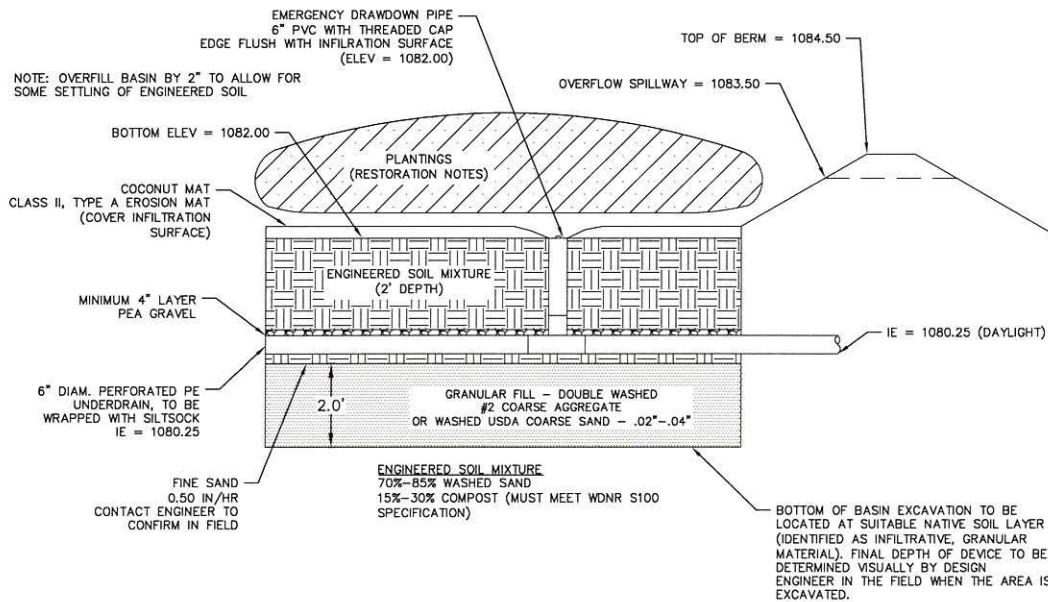
1. OVER-EXCAVATE THE AREA TO INFILTRATIVE LAYER TO BE DETERMINED IN THE FIELD, DURING EXCAVATION, BY DESIGN ENGINEER.
2. CHISEL PLOW, OR ROTO-TILL THE BASE OF THE AREA TO BREAK UP ANY HARDPAN IN THE NATIVE SOIL LAYER.
3. PLACE WASHED SAND (FREE OF P200 PARTICLES) TO 46 INCHES BELOW GROUND SURFACE (IF REQUIRED).
4. PLACE 24 INCHES OF ENGINEERED SOIL, COMPRISED OF:
70-85% WASHED SAND
15-30% COMPOST (MUST MEET WDNR S100 SPECIFICATION)
5. PLANT PLUG, MULCH, WATER, AND MAINTAIN AS DIRECTED ABOVE.

NOTE: OVERFILL BASIN BY 2" TO ALLOW FOR SOME SETTLING OF ENGINEERED SOIL



1 TERRACE BIO-RETENTION BASINS
2 NOT TO SCALE

RAIN GARDEN ELEVATION TABLE						
RAIN GARDEN ID #	A	B	C	D	E	F
RG 1	1089.45	1086.95	1090.70	1091.20	36"	9"
RG 6	1089.55	1087.05	1090.55	1091.30	36"	9"
RG 2 & RG 7	1090.90	1088.40	1092.25	1092.65	36"	12"
RG 3 & RG 8	1093.00	1090.50	1094.35	1094.75	36"	12"
RG 4 & RG 9	1095.05	1092.55	1096.40	1096.80	36"	9"
RG 5 & RG 10	1096.35	1093.85	1097.70	1098.10	36"	9"



2 SOUTHEAST BIO-RETENTION BASIN
2 NOT TO SCALE

BIO-RETENTION AREA RESTORATION SPECIFICATIONS:
NOTE: BIO-RETENTION AREA MUST NOT BE CONSTRUCTED (INSTALLED) UNTIL THE SITE IS STABILIZED, I.E. THE GRASS COVER IS WELL ESTABLISHED.

BIO-RETENTION AREA MUST CONFORM TO WISCONSIN DNR TECHNICAL STANDARD 1004 (BIORETENTION FOR INFILTRATION)

USE RAINWATER GARDEN LIVE NATIVE PLANT PLUGS FROM AGRECOL (SUNNY, SHORT, OR MEDIUM STATURE) - OR ENGINEER APPROVED EQUAL.

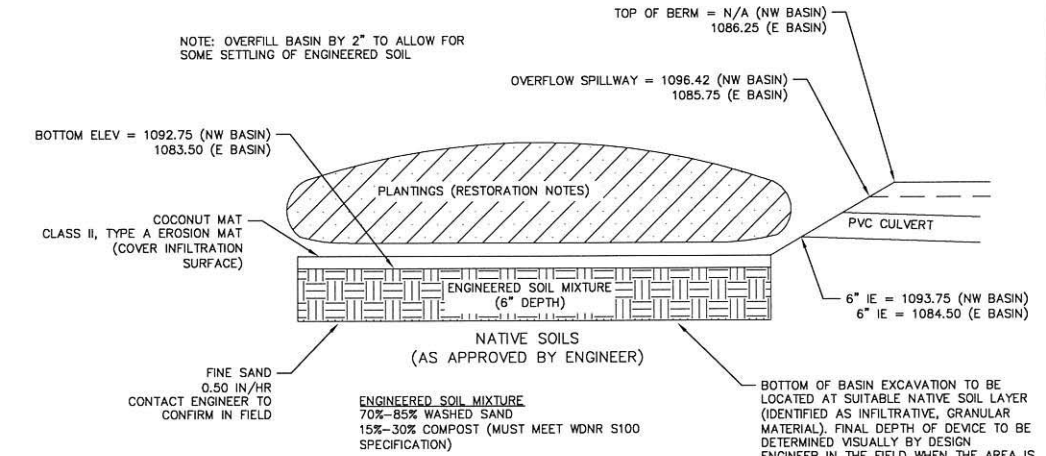
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RESTORATION OF THE INFILTRATION AREA (NOT INCLUDING SIDE SLOPES):

1. OVER-EXCAVATE THE AREA TO INFILTRATIVE LAYER TO BE DETERMINED IN THE FIELD, DURING EXCAVATION, BY DESIGN ENGINEER.
2. CHISEL PLOW, OR ROTO-TILL THE BASE OF THE AREA TO BREAK UP ANY HARDPAN IN THE NATIVE SOIL LAYER.
3. PLACE WASHED SAND (FREE OF P200 PARTICLES) TO 46 INCHES BELOW GROUND SURFACE (IF REQUIRED).
4. PLACE 24 INCHES OF ENGINEERED SOIL, COMPRISED OF:
70-85% WASHED SAND
15-30% COMPOST (MUST MEET WDNR S100 SPECIFICATION)
5. PLANT PLUG, MULCH, WATER, AND MAINTAIN AS DIRECTED ABOVE.

NOTE: OVERFILL BASIN BY 2" TO ALLOW FOR SOME SETTLING OF ENGINEERED SOIL



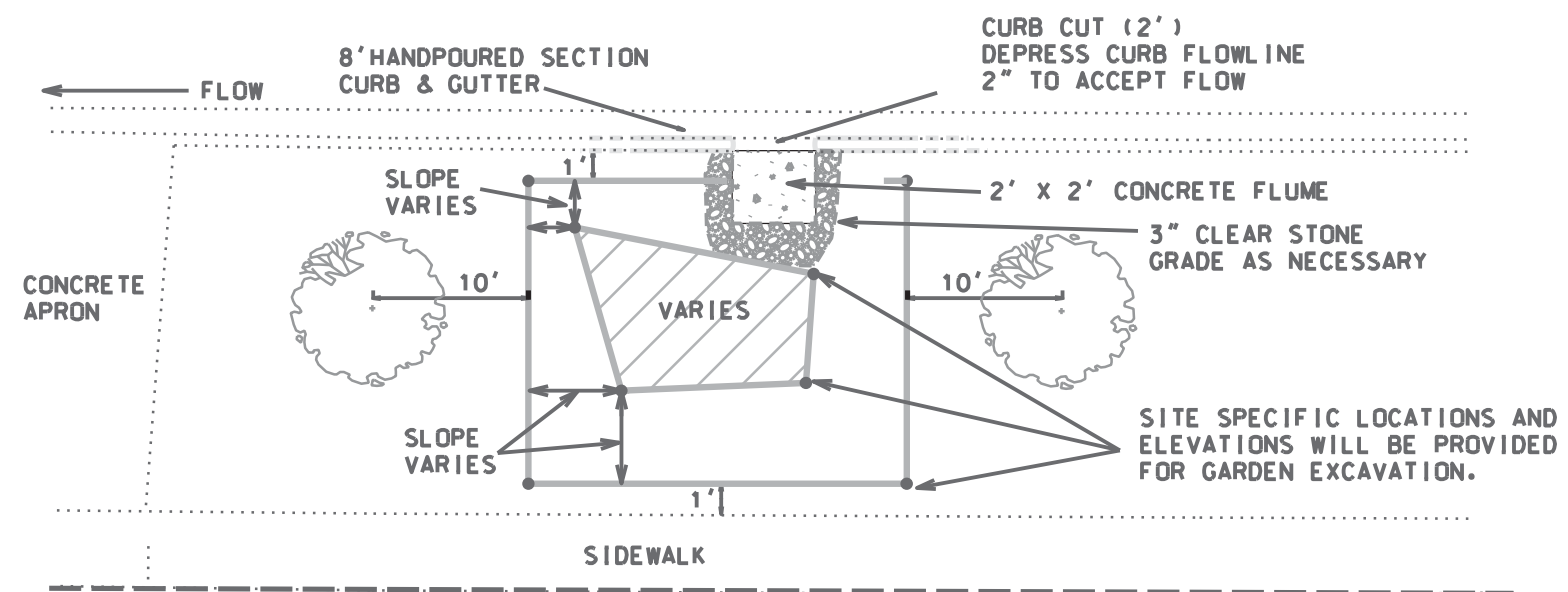
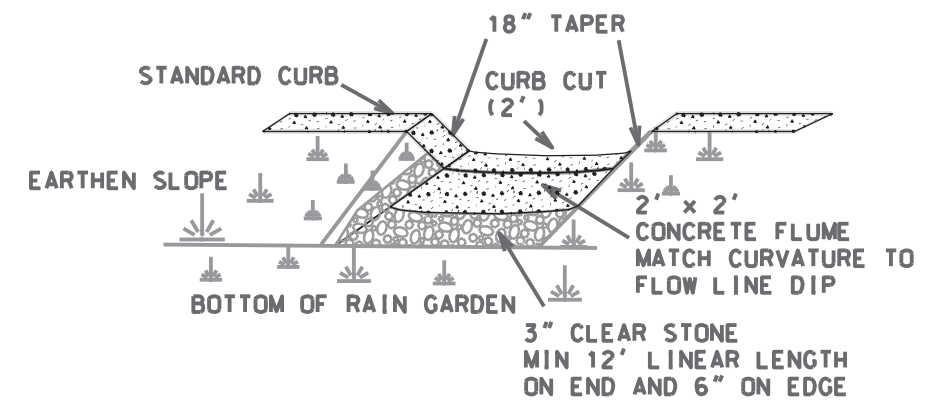
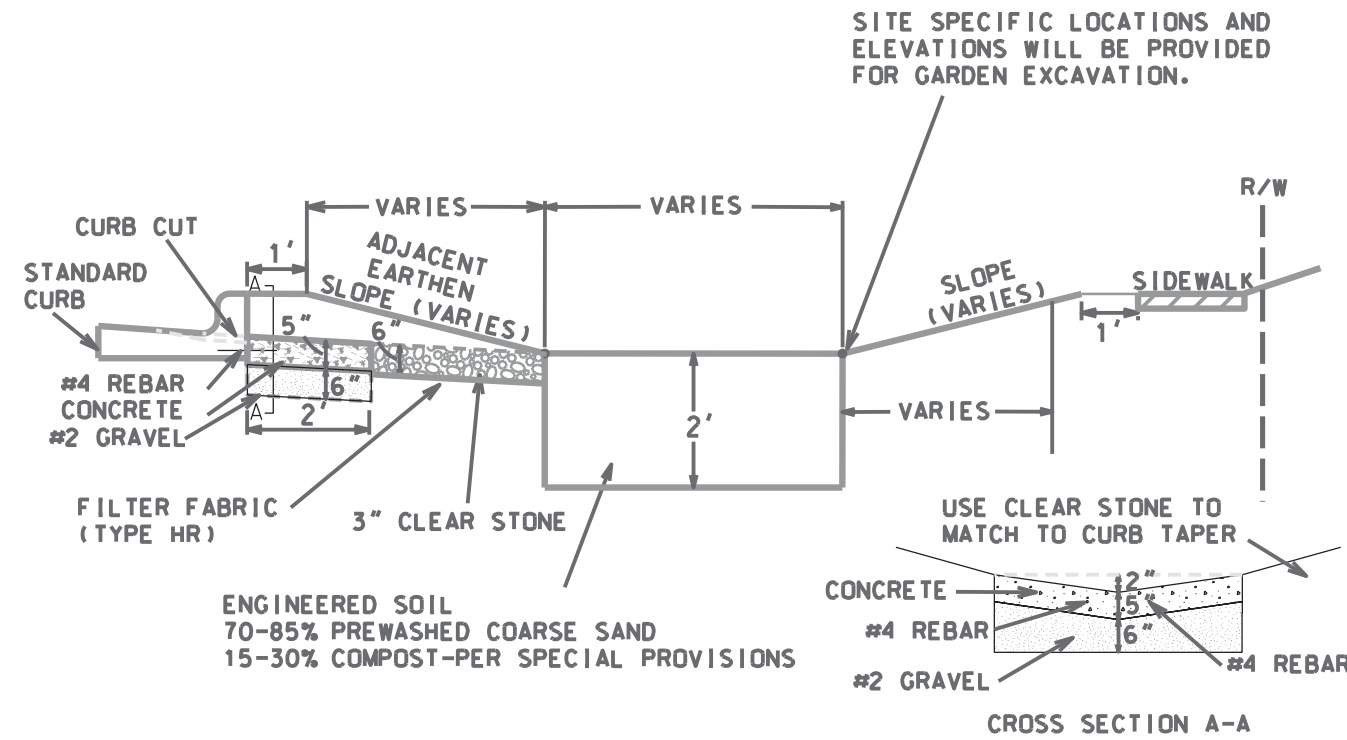
3 INFILTRATION BASINS
2 NOT TO SCALE

- RESTORATION OF THE INFILTRATION AREA (NOT INCLUDING SIDE SLOPES):**
1. OVER-EXCAVATE THE AREA TO INFILTRATIVE LAYER TO BE DETERMINED IN THE FIELD, DURING EXCAVATION, BY DESIGN ENGINEER.
 2. CONTRACTOR SHALL CHISEL PLOW OR ROTO-TILL THE BOTTOM OF THE INFILTRATION FACILITY TO BREAK UP ANY HARDPAN IN THE NATIVE SOIL LAYER.
 3. PLACE WASHED SAND (FREE OF P200 PARTICLES) TO DEPTH OF SUITABLE NATIVE SOIL LAYER (IF REQUIRED).
 4. PLACE 6 INCHES OF ENGINEERED SOIL, COMPRISED OF:
70-85% WASHED SAND
15-30% COMPOST (MUST MEET WDNR S100 SPECIFICATION)
 5. INFILTRATION FACILITY INTERIOR SIDE SLOPES AND TOP OF ACCESS BERM SHALL BE SEED WITH SHORT GRASS PRAIRIE SEED MIX BY AGRECOL (OR APPROVED EQUAL). APPLICATION RATES PER MANUFACTURER'S RECOMMENDATIONS.
 6. BOTTOM OF INFILTRATION FACILITY TO BE RESTORED WITH INFILTRATION SWALE SEED MIX BY AGRECOL (OR APPROVED EQUAL). APPLICATION RATES PER MANUFACTURER'S RECOMMENDATIONS.

NO.	DATE	REVISIONS
1	04/24/18	CITY RESUBMITAL
2		
3		

SCALE: AS SHOWN
DATE: 10/23/2018
DRAFTER: AMEA
CHECKED: RKOL
PROJECT NO.: 170269
SHEET: 3 OF 3
DWG. NO.: SWM-3

RAINGARDEN DETAIL



PLOT SCALE: 10

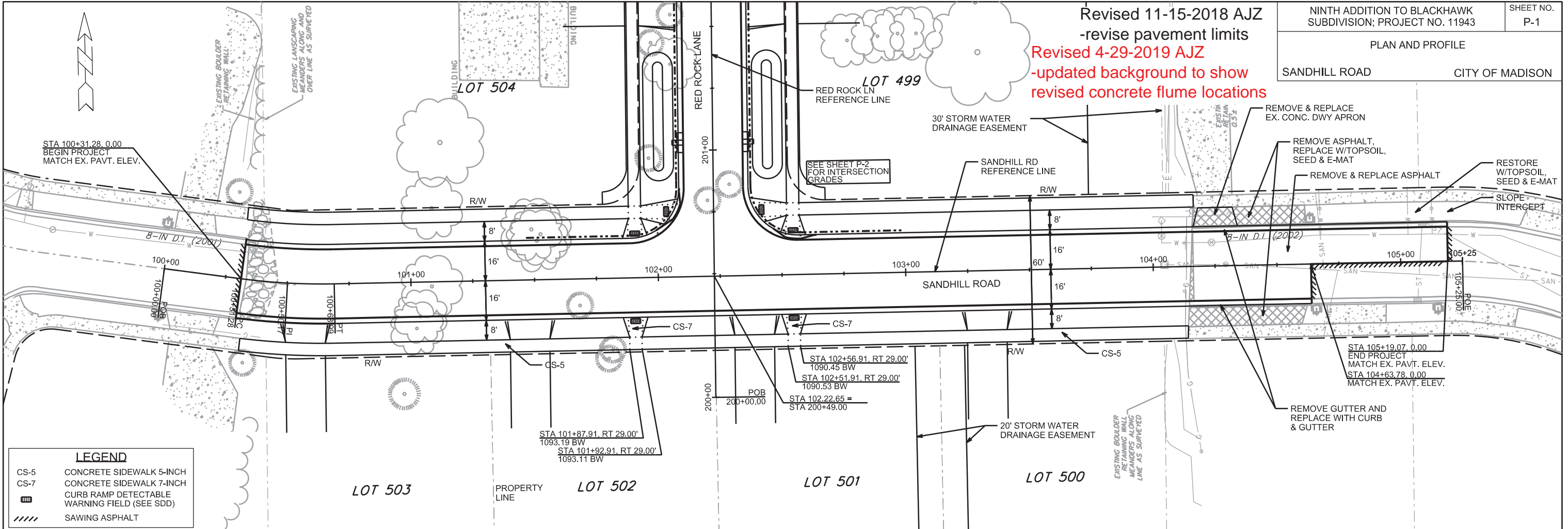
PLOT NAME: RG1

REV. DATE: 01/25/2017

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

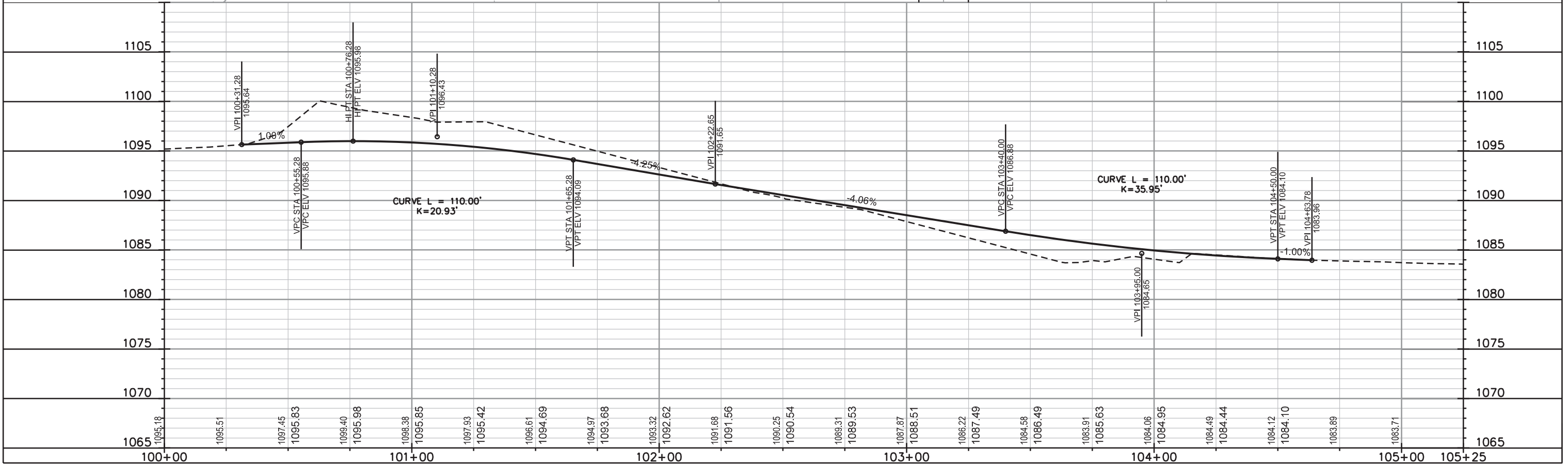
PLAN AND PROFILE SANDHILL ROAD CITY OF MADISON

Revised 11-15-2018 AJZ
 -revise pavement limits
 Revised 4-29-2019 AJZ
 -updated background to show revised concrete flume locations



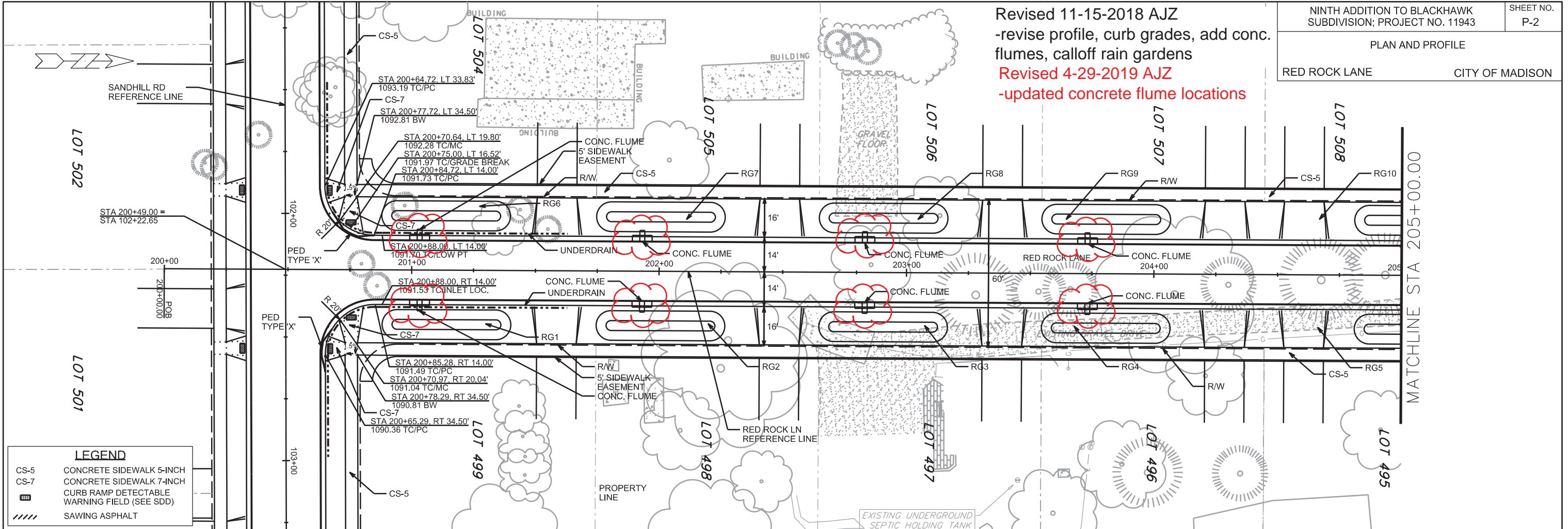
LEGEND

- CS-5 CONCRETE SIDEWALK 5-INCH
- CS-7 CONCRETE SIDEWALK 7-INCH
- CURB RAMP DETECTABLE WARNING FIELD (SEE SDD)
- SAWING ASPHALT



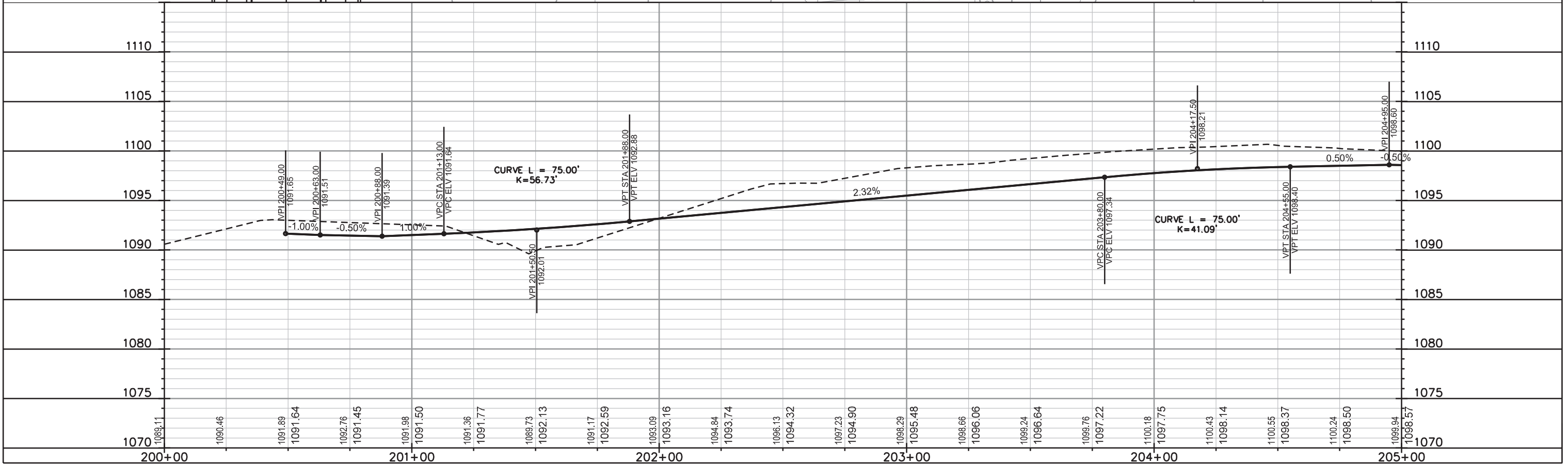
PLOT SCALE: _____ PLOT NAME: _____ REV. DATE: _____ ORIGINATOR: CITY OF MADISON, STREETS DIVISION

Revised 11-15-2018 AJZ
-revise profile, curb grades, add conc. flumes, calloff rain gardens
Revised 4-29-2019 AJZ
-updated concrete flume locations



LEGEND

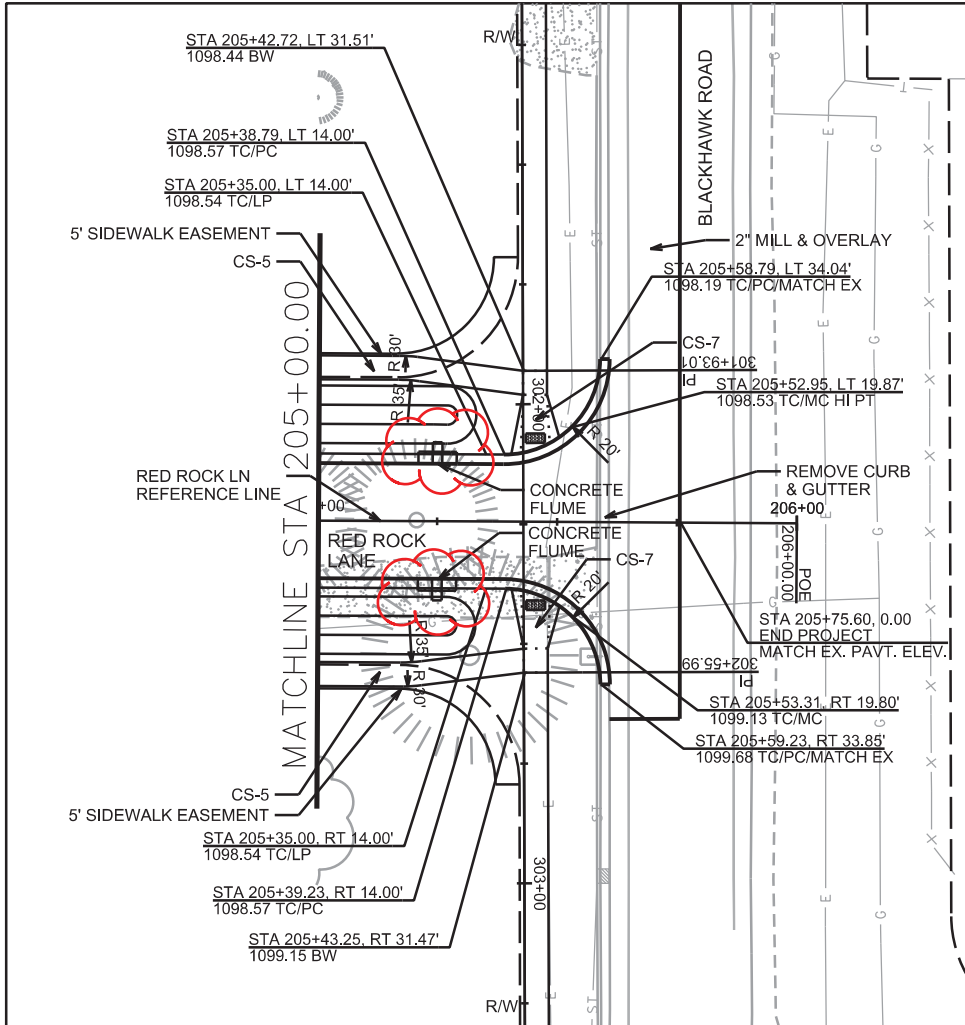
- CS-5 CONCRETE SIDEWALK 5-INCH
- CS-7 CONCRETE SIDEWALK 7-INCH
- CURB RAMP DETECTABLE WARNING FIELD (SEE SDD)
- SAWING ASPHALT



PLOT SCALE: _____
PLOT NAME: _____
REV. DATE: _____
ORIGINATOR: CITY OF MADISON, STREETS DIVISION

PLAN AND PROFILE
RED ROCK LANE CITY OF MADISON

Revised 4-29-2019 AJZ
-updated concrete flume locations



NOTE:
1. STREET PAVEMENT MARKINGS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. ANY DAMAGE OR MISSING MARKINGS SHALL BE RE-INSTALLED USING EPOXY, BY CONTRACTOR. A PLAN CAN BE PROVIDED AT THE CONTRACTOR'S REQUEST.

LEGEND	
CS-5	CONCRETE SIDEWALK 5-INCH
CS-7	CONCRETE SIDEWALK 7-INCH
	CURB RAMP DETECTABLE WARNING FIELD (SEE SDD)
	SAWING ASPHALT



PLOT SCALE: _____

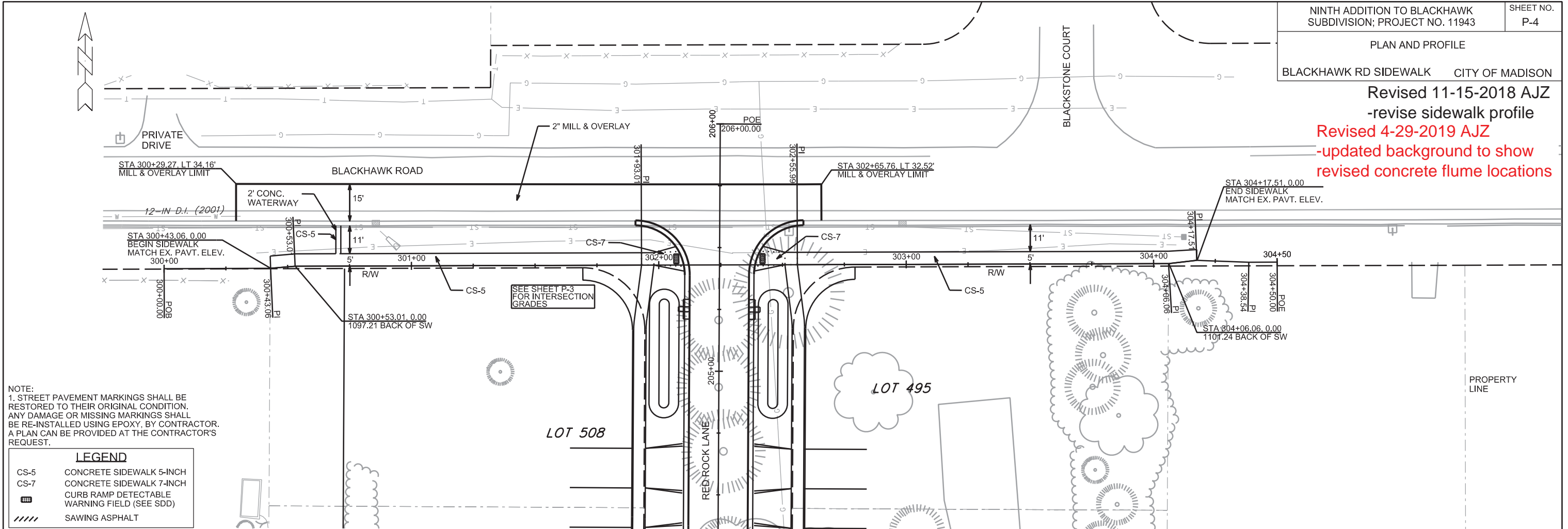
PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

PLAN AND PROFILE
BLACKHAWK RD SIDEWALK CITY OF MADISON

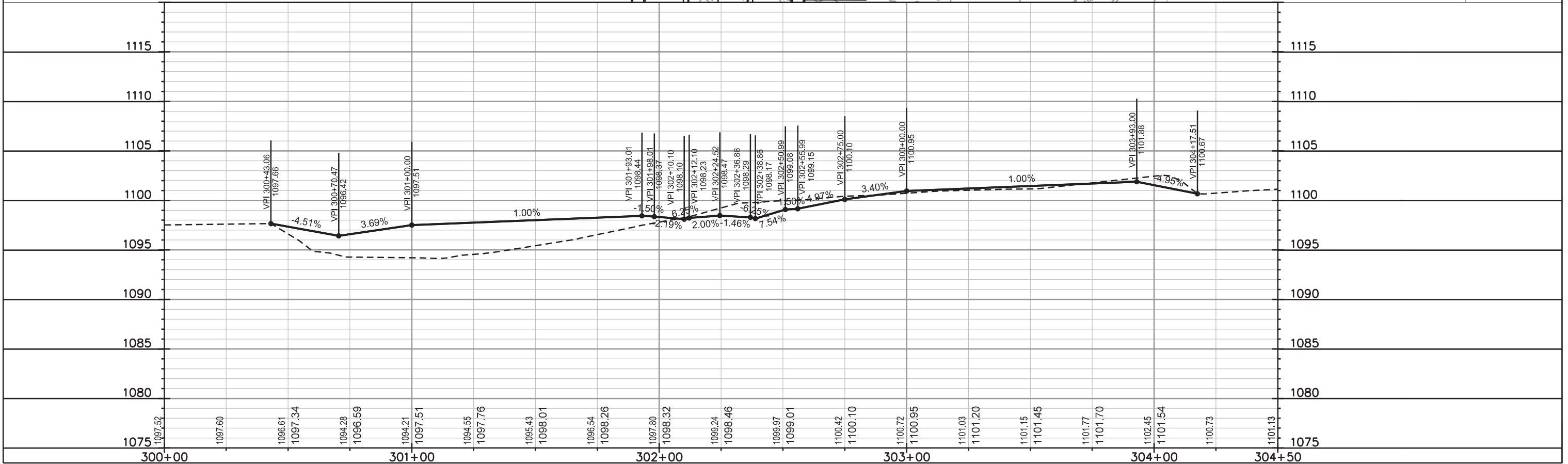
Revised 11-15-2018 AJZ
-revise sidewalk profile
Revised 4-29-2019 AJZ
-updated background to show revised concrete flume locations



NOTE:
1. STREET PAVEMENT MARKINGS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. ANY DAMAGE OR MISSING MARKINGS SHALL BE RE-INSTALLED USING EPOXY, BY CONTRACTOR. A PLAN CAN BE PROVIDED AT THE CONTRACTOR'S REQUEST.

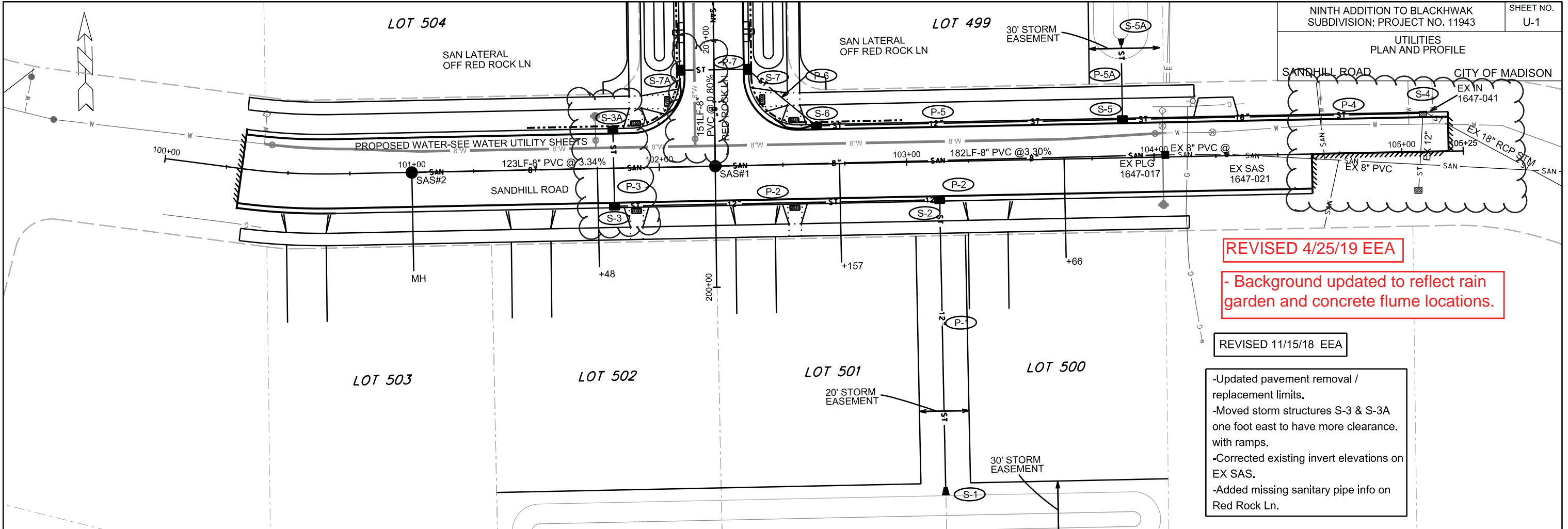
LEGEND

CS-5	CONCRETE SIDEWALK 5-INCH
CS-7	CONCRETE SIDEWALK 7-INCH
	CURB RAMP DETECTABLE WARNING FIELD (SEE SDD)
	SAWING ASPHALT



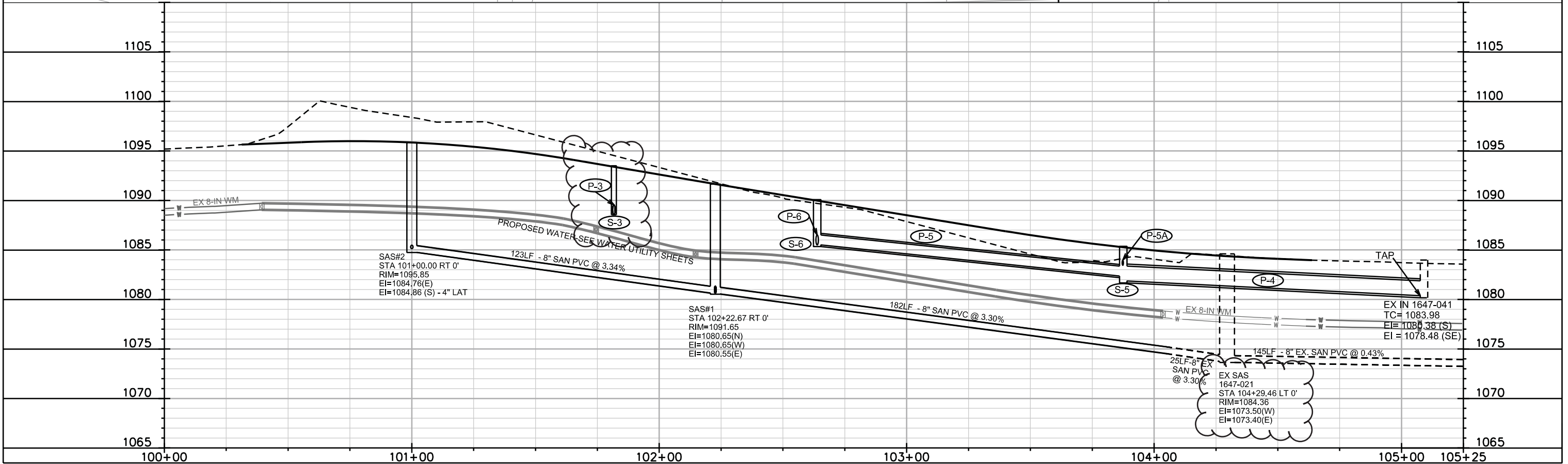
PLOT SCALE: _____
PLOT NAME: _____
REV. DATE: _____
ORIGINATOR: CITY OF MADISON, STREETS DIVISION

UTILITIES PLAN AND PROFILE



REVISED 4/25/19 EEA
 - Background updated to reflect rain garden and concrete flume locations.

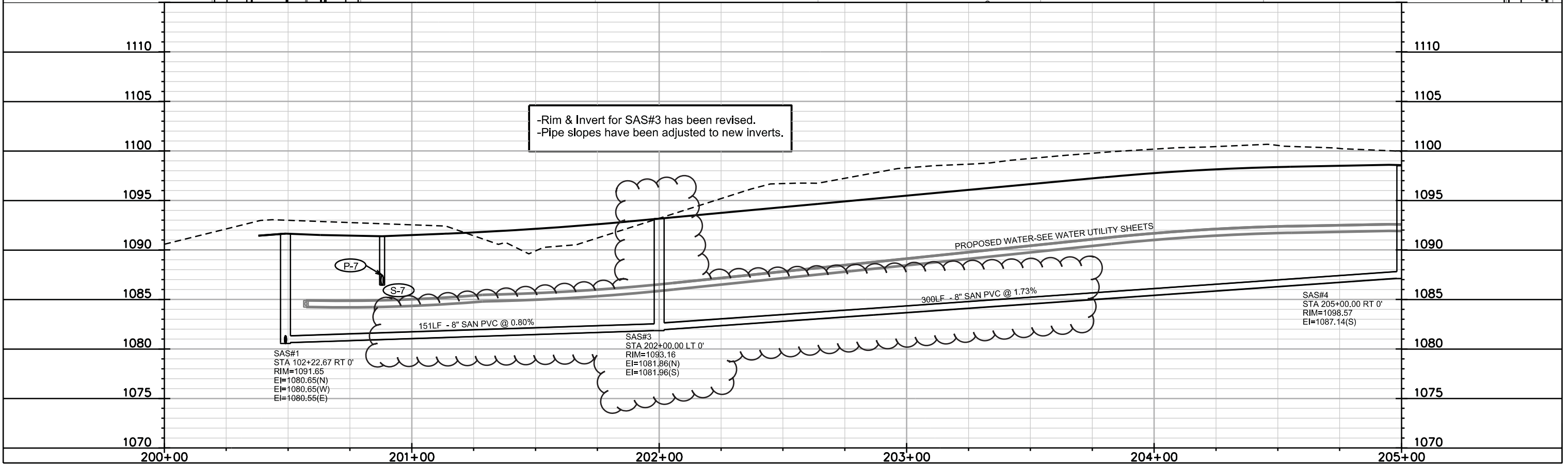
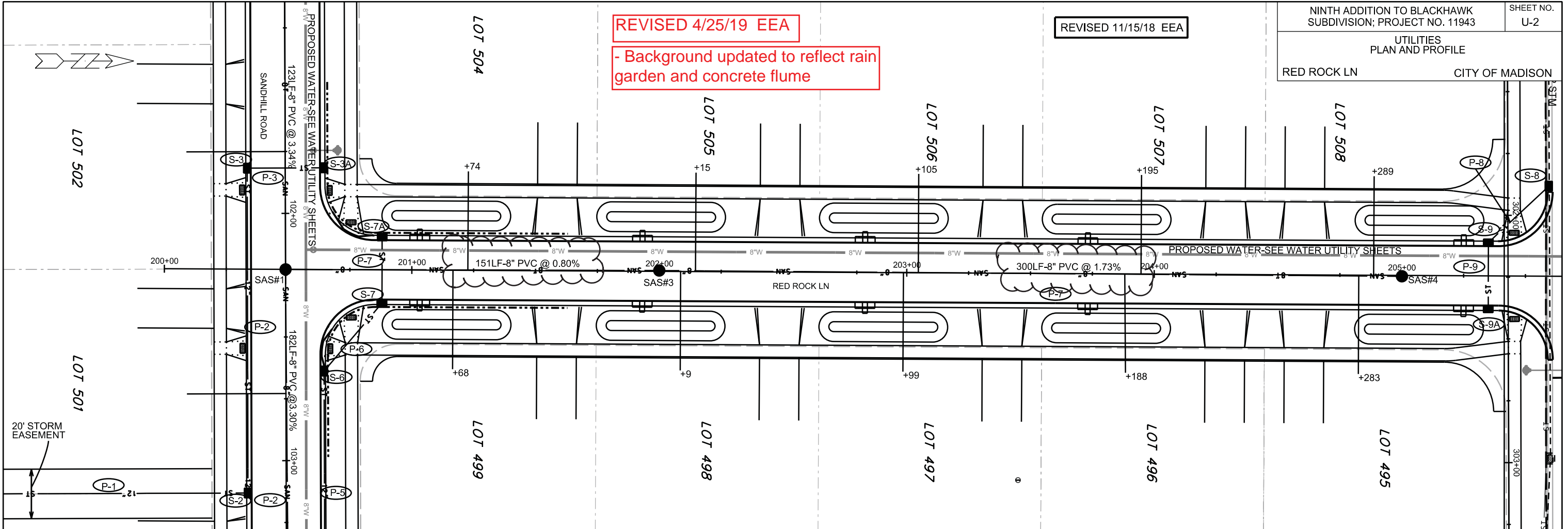
REVISED 11/15/18 EEA
 -Updated pavement removal / replacement limits.
 -Moved storm structures S-3 & S-3A one foot east to have more clearance with ramps.
 -Corrected existing invert elevations on EX SAS.
 -Added missing sanitary pipe info on Red Rock Ln.



PLOT SCALE: _____
 PLOT NAME: _____
 REV. DATE: _____
 ORIGINATOR: CITY OF MADISON, STREETS DIVISION

REVISED 4/25/19 EEA
 - Background updated to reflect rain garden and concrete flume

REVISED 11/15/18 EEA



PLOT SCALE:

PLOT NAME:

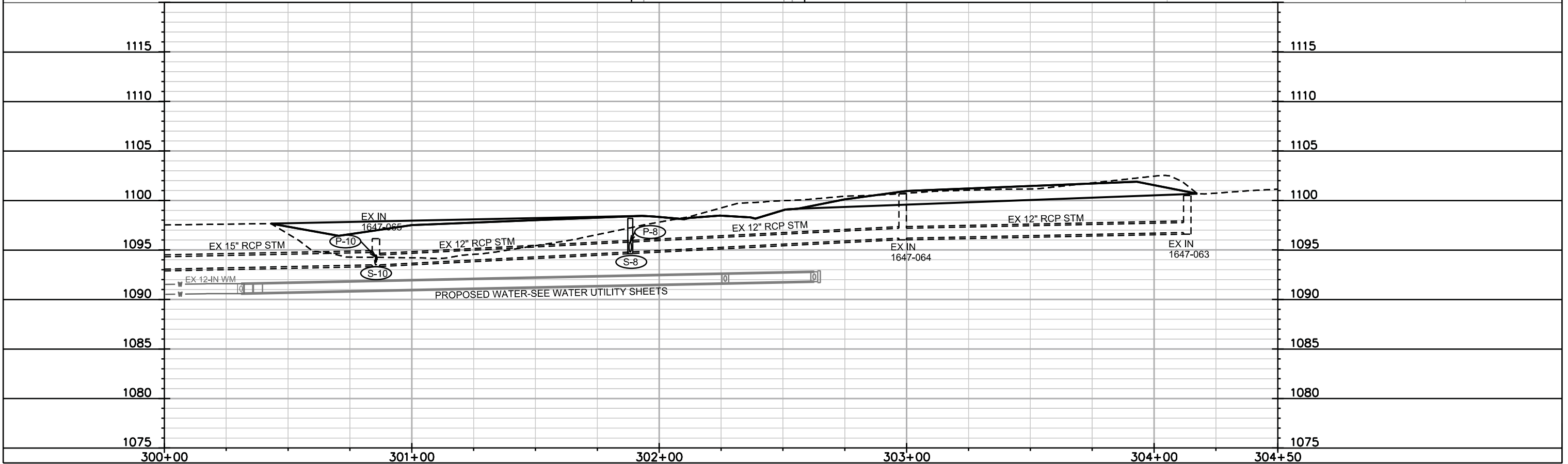
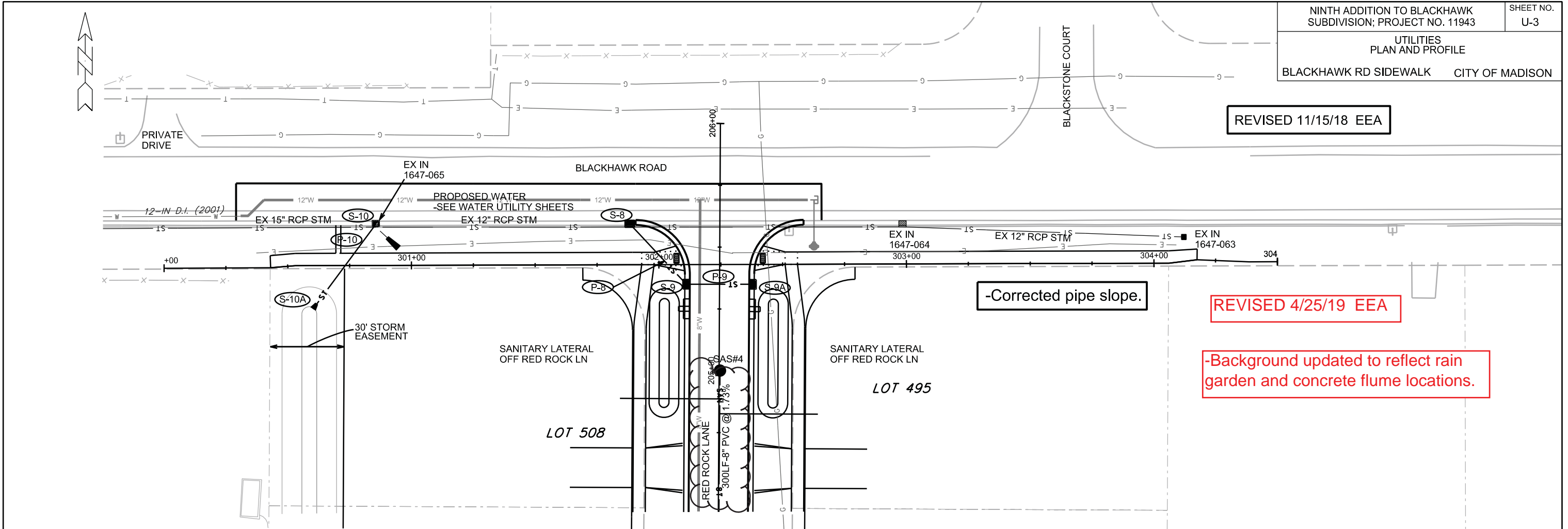
REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

REVISED 11/15/18 EEA

REVISED 4/25/19 EEA

-Background updated to reflect rain garden and concrete flume locations.



PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

SANITARY SEWER SCHEDULE

* REVISED 11/7/18 EEA

NINTH ADD TO BLACKHAWK SUBDIVISION	SHEET NO.
PROJECT NO. 11943	U-SAN
SANITARY SEWER SCHEDULE	
CITY OF MADISON	

PROPOSED SANITARY STRUCTURES

SAS NO.	STATION	LOCATION (OFFSET)	TOP OF CASTING	E.I.	DEPTH	NOTES
SANDHILL ROAD						
SAS#1	102+22.67	CL	1091.65	1080.55	11.10	-
SAS#2	101+00.00	CL	1095.85	1084.76	11.09	-
RED ROCK LANE						
* SAS#3	202+00.00	CL	1093.16	1081.25	11.91	-
SAS#4	205+00.00	CL	1098.57	1087.14	11.43	-

PROPOSED SANITARY PIPES

FROM (DNSTM)	TO (UPSTM)	DWNSTRM E.I.	UPSTRM E.I.	PLAN LGTH (FT)	SLOPE (%)	PIPE SIZE	PVC TYPE	NOTES
EX PLG 1647-017	SAS#1	1074.55	1080.55	182	3.30%	8"	SDR-35	-
SAS#1	SAS#2	1080.65	1084.76	123	3.34%	8"	SDR-35	-
SAS#1	SAS#3	1080.65	1081.25	151	0.40%	8"	SDR-35	-
SAS#3	SAS#4	1081.35	1087.14	300	1.93%	8"	SDR-35	-

STORM SEWER SCHEDULE

* REVISED 11/7/18 EEA

NINTH ADDITION TO BLACKHAWK
PROJECT NO. 11943

SHEET NO.
U-STM

STORM SEWER SCHEDULE

CITY OF MADISON

PROPOSED STORM STRUCTURES

PROPOSED STORM PIPES

STRUC. NO.	STATION	LOCATION (OFFSET)	TYPE	TOP OF CASTING	E.I.	DEPTH	NOTES	PIPE NO.	FROM (DNSTM)	TO (UPSTM)	DISCH. E.I.	INLET E.I.	PLAN (PAY) LGTH (FT)	PIPE LGTH (FT)	SLOPE (%)	PIPE SIZE	TYPE	NOTES	
SANDHILL ROAD								P-1	S-1	S-2	1083.00	1083.94	120	119	0.79%	12"	TYPE II	-	
	S-1	103+13.00	RT-134.95	12" RCP AE	-	1083.00	-	W/ GATE	* P-2	S-2	S-3	1084.19	1088.55	131	128	3.41%	12"	TYPE II	-
	S-2	103+13.00	RT-15.50	H INLET	1088.08	1083.94	4.14	W/ R-3067-7004-V	* P-3	S-3	S-3A	1088.55	1088.88	31	29	1.14%	12"	TYPE I	-
*	S-3	101+81.66	RT-15.50	H INLET	1093.50	1088.55	4.95	W/ R-3067-7004-V	P-4	S-4	S-5	1080.38	1081.87	122	119	1.25%	18"	TYPE II	-
*	S-3A	101+81.66	LT-15.50	H INLET	1093.50	1088.88	4.62	W/ R-3067-7004-V	P-5	S-5	S-6	1082.37	1085.50	124	121	2.59%	12"	TYPE II	-
	S-4	105+09.08	LT-15.50	STM TAP	-	1080.38	-	TAP EX IN 1647-041	P-5A	S-5	S-5A	1083.85	1084.50	33	32	2.03%	6"	TYPE II	-
	S-5	103+87.54	LT-15.50	H INLET	1085.37	1081.87	3.50	FP; LP; W/ R-3067-7004-VB	P-6	S-6	S-7	1085.50	1086.44	36	33	2.85%	12"	TYPE II	-
	S-5A	103+87.69	LT-48.26	6" AE	-	1084.50	-	-	P-7	S-7	S-7A	1086.44	1086.73	27	25	1.16%	12"	TYPE I	-
	S-6	102+63.82	LT-15.50	H INLET	1090.08	1085.50	4.58	W/ R-3067-7004-V	P-8	S-8	S-9	1094.79	1094.98	33	31	0.61%	12"	TYPE II	-
RED ROCK LANE								P-9	S-9	S-9A	1094.98	1095.13	27	25	0.60%	12"	TYPE I	-	
*	S-7	200+88.00	RT-13.50	H INLET	1091.70	1086.44	5.26	LP; W/ R-3067-7004-VB	* P-10	S-10	S-10A	1093.37	1093.75	43	43	0.88%	6"	TYPE II	-
*	S-7A	200+88.00	LT-13.50	H INLET	1091.53	1086.73	4.80	LP; W/ R-3067-7004-VB											
	S-8	205+59.22	LT-36.38	H INLET	1098.19	1094.79	3.40	W/ R-3067-7004-V; (1)											
	S-9	205+35.00	LT-13.50	H INLET	1098.54	1094.98	3.56	LP; W/R-3067-7004-VB											
	S-9A	205+35.00	RT-13.50	H INLET	1098.54	1095.13	3.41	LP; W/R-3067-7004-VB											
*	S-10	205+58.53	LT-138.98	STM TAP	-	1093.37	-	TAP EX IN 1647-065											
	S-10A	205+24.11	LT-164.20	6" AE	-	1093.75	-	-											

SPECIFIC NOTES

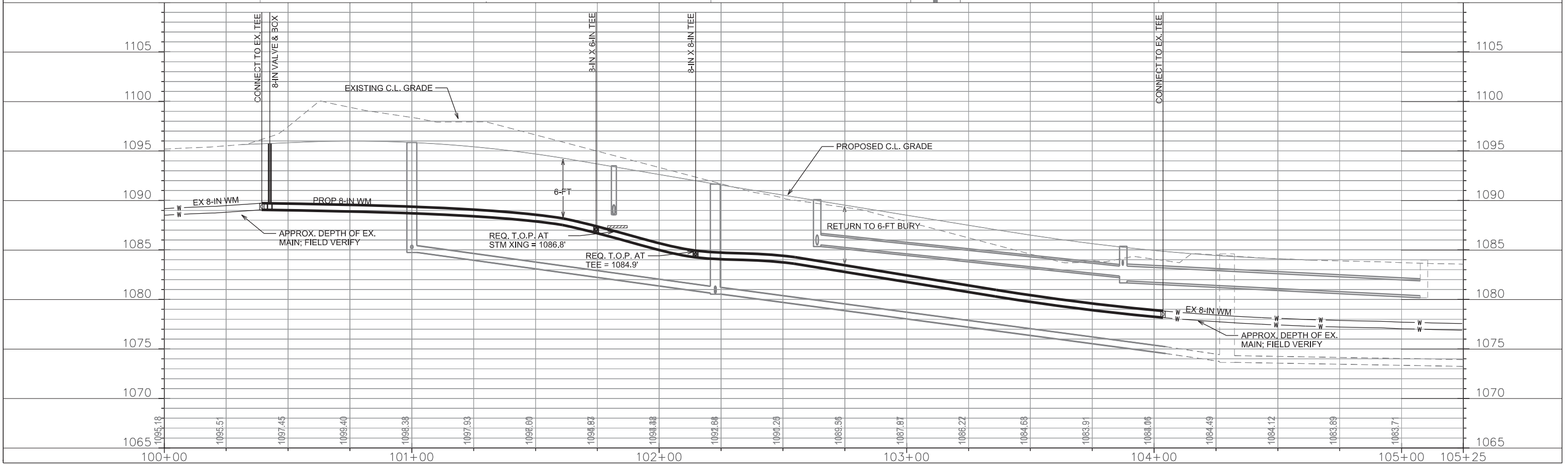
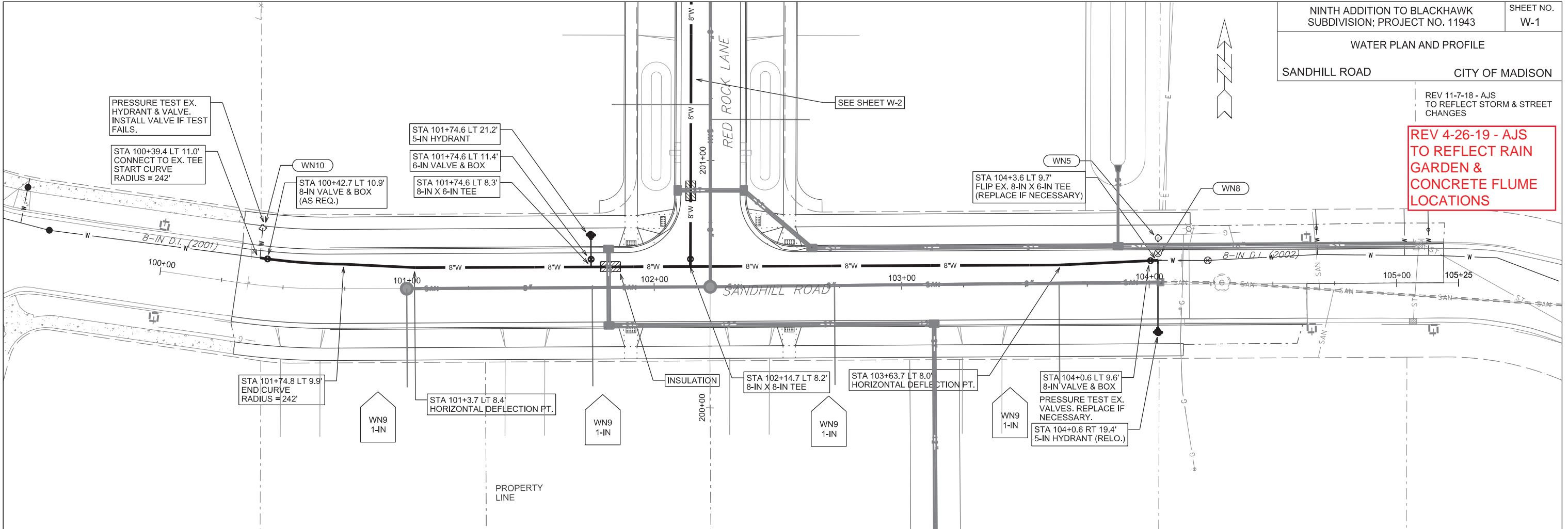
(1) RECONNECT EX 12" PIPE TO EAST & WEST

STANDARD NOTES:

- ABBREVIATIONS: AE = APRON ENDWALL; RCP = REINFORCED CONCRETE PIPE; HERCP = HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE; DNA = DOES NOT APPLY; SAS = SEWER ACCESS STRUCTURE; LP = LOW POINT INLET STRUCTURE; FP = FIELD POURED STRUCTURE; TR = TOP OF CONCRETE ROOF; NCM = NO CROWN MATCH FOR PIPES; UD = UNDERDRAIN
- APPROXIMATE DISCHARGE E.I. GIVEN, ADJUST E.I. AND PIPE SLOPE IN THE FIELD.
- TOP OF CASTING GRADE GIVEN IS THE TOP OF CURB FOR INLET STRUCTURES AND THE FLOWLINE OF THE CLOSED CASTING FOR SAS's.
- TOP OF CONCRETE ROOF (TR) IS 1.25' BELOW TOP OF CASTING UNLESS OTHERWISE NOTED.
- ALL REINFORCED CONCRETE PIPES TO BE CLASS III UNLESS OTHERWISE NOTED.
- SURVEYOR TO CONFIRM THAT ALL INLET STATION / OFFSETS LINE UP WITH PROPOSED CURB AND GUTTER.
- ALL STRUCTURES CALLED OUT AS FIELD POURED SHALL BE FIELD POURED. ALL OTHER STRUCTURES (NOT INDICATED AS FIELD POURED) SHALL BE SUBMITTED TO CITY ENGINEERING FOR APPROVAL IF PRECAST STRUCTURES ARE PREFERRED. CONTACT ELIA E. ACOSTA OF CITY ENGINEERING AT (608) 266-4096 FOR PRECAST APPROVALS, FAX SHOP DRAWINGS TO (608)264-9275, OR EMAIL SHOP DRAWINGS TO EACOSTA@CITYOFMADISON.COM.

REV 11-7-18 - AJS TO REFLECT STORM & STREET CHANGES

REV 4-26-19 - AJS TO REFLECT RAIN GARDEN & CONCRETE FLUME LOCATIONS



PLOT SCALE:

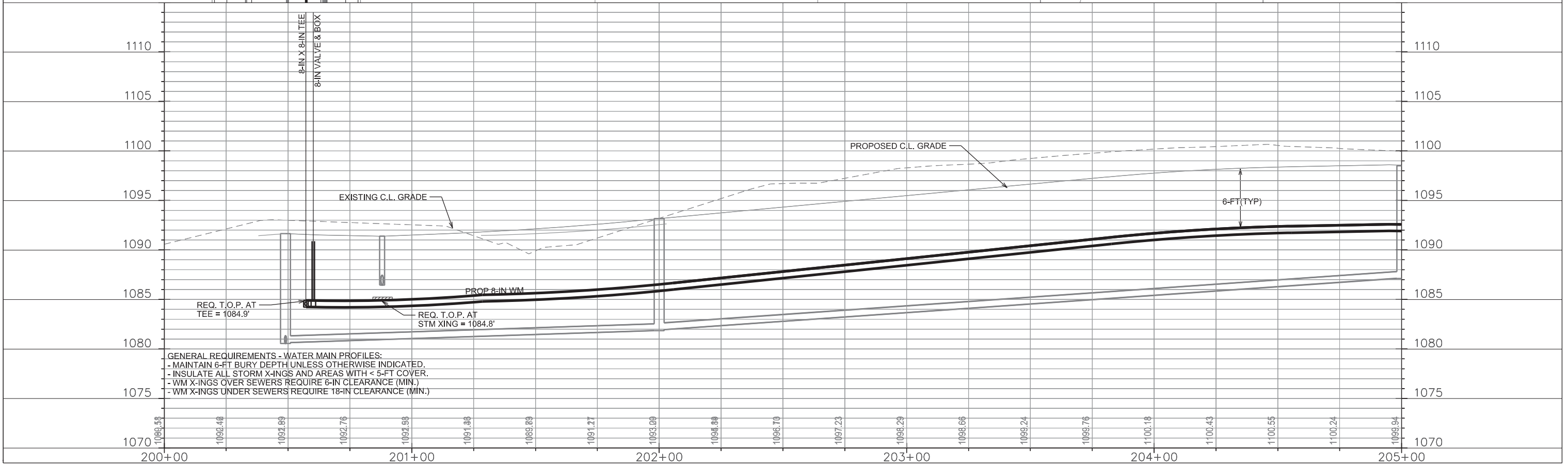
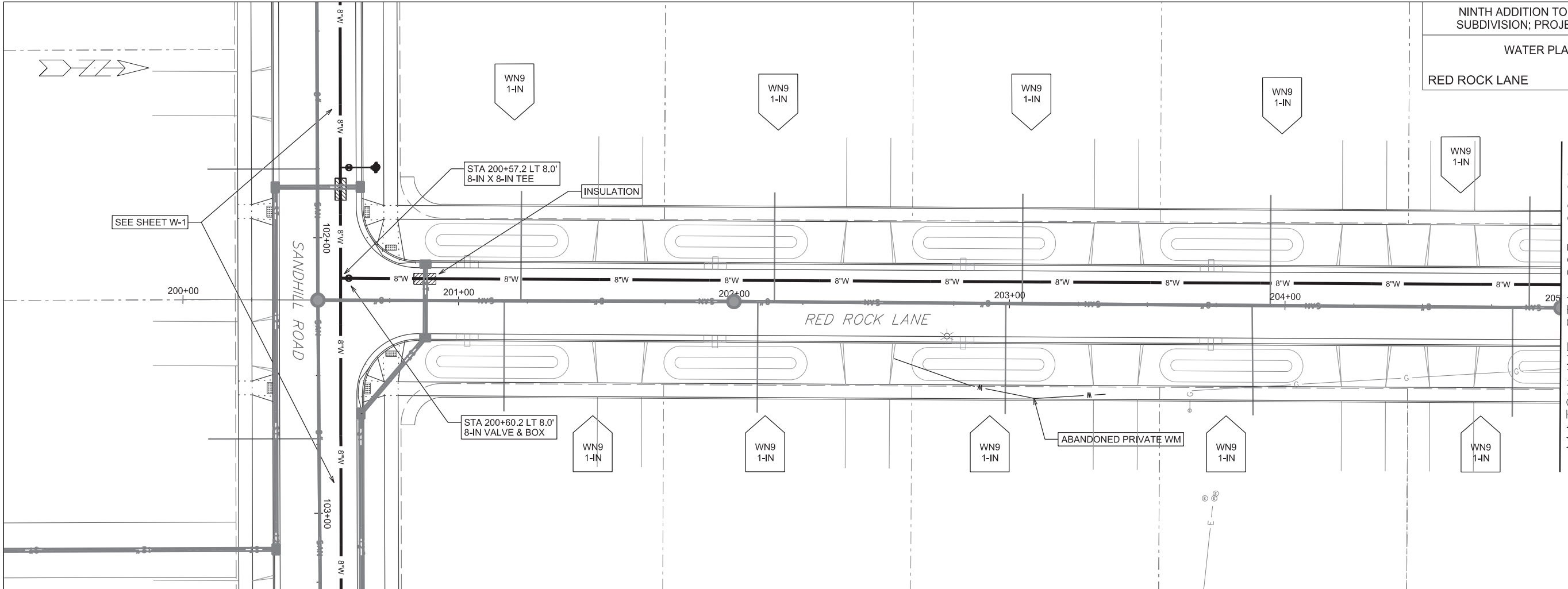
PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

REV 11-7-18 - AJS TO REFLECT STORM & STREET CHANGES

REV 4-26-19 - AJS TO REFLECT RAIN GARDEN & CONCRETE FLUME LOCATIONS



GENERAL REQUIREMENTS - WATER MAIN PROFILES:
 - MAINTAIN 6-FT BURY DEPTH UNLESS OTHERWISE INDICATED.
 - INSULATE ALL STORM X-INGS AND AREAS WITH < 5-FT COVER.
 - WM X-INGS OVER SEWERS REQUIRE 6-IN CLEARANCE (MIN.)
 - WM X-INGS UNDER SEWERS REQUIRE 18-IN CLEARANCE (MIN.)

PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

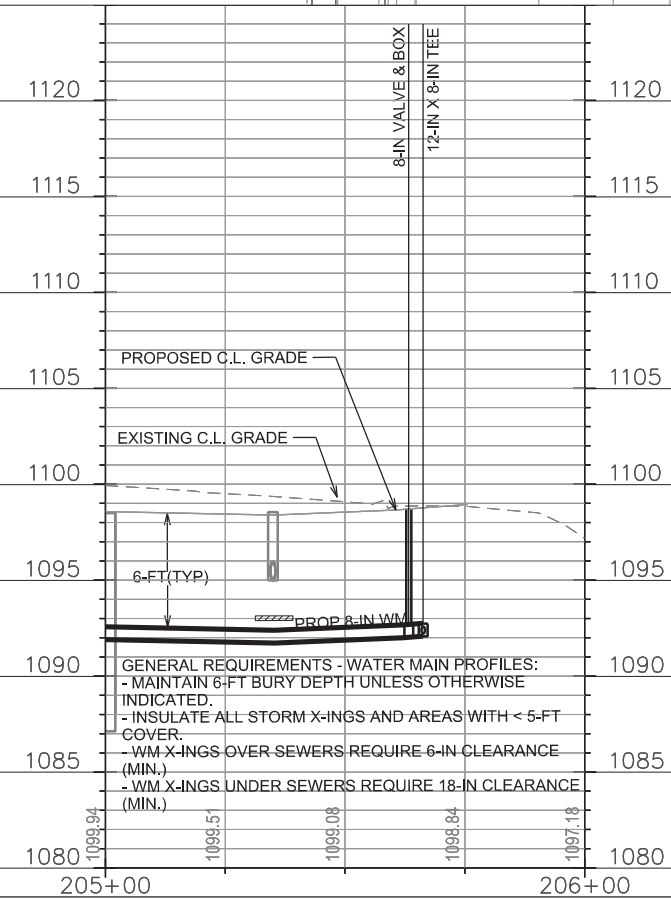
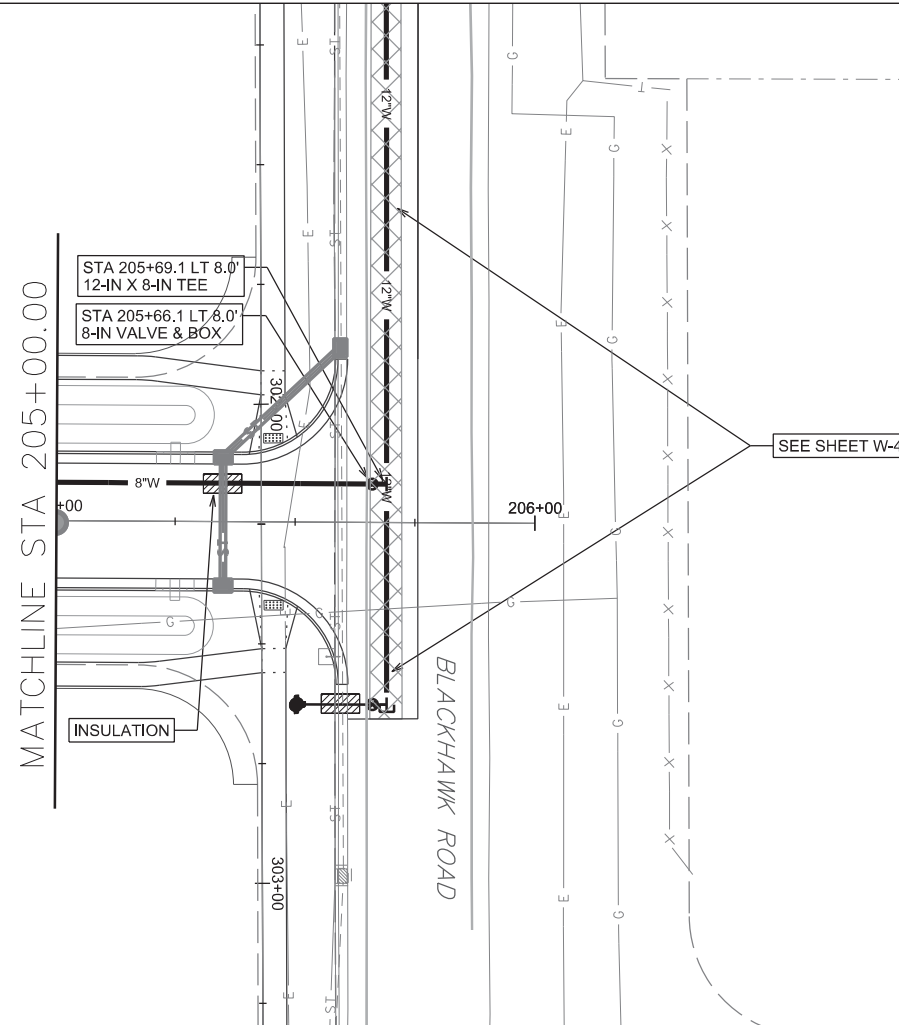
WATER PLAN AND PROFILE

RED ROCK LANE

CITY OF MADISON

REV 11-26-18 - AJS
TO REFLECT STORM & STREET
CHANGES

REV 4-26-19 - AJS
TO REFLECT RAIN
GARDEN &
CONCRETE FLUME
LOCATIONS

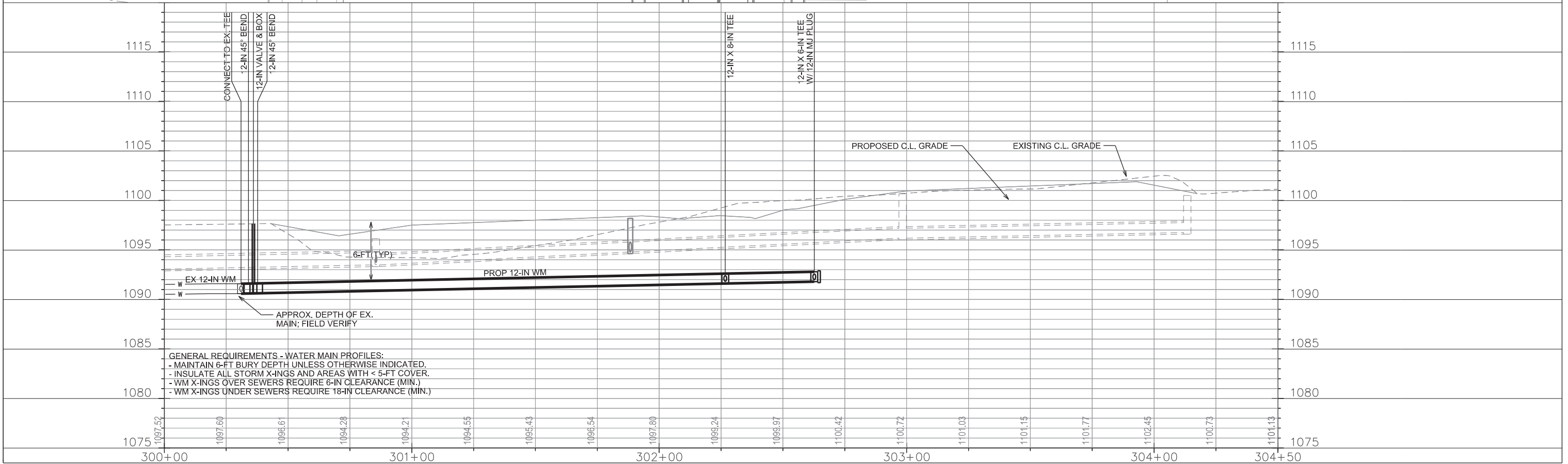
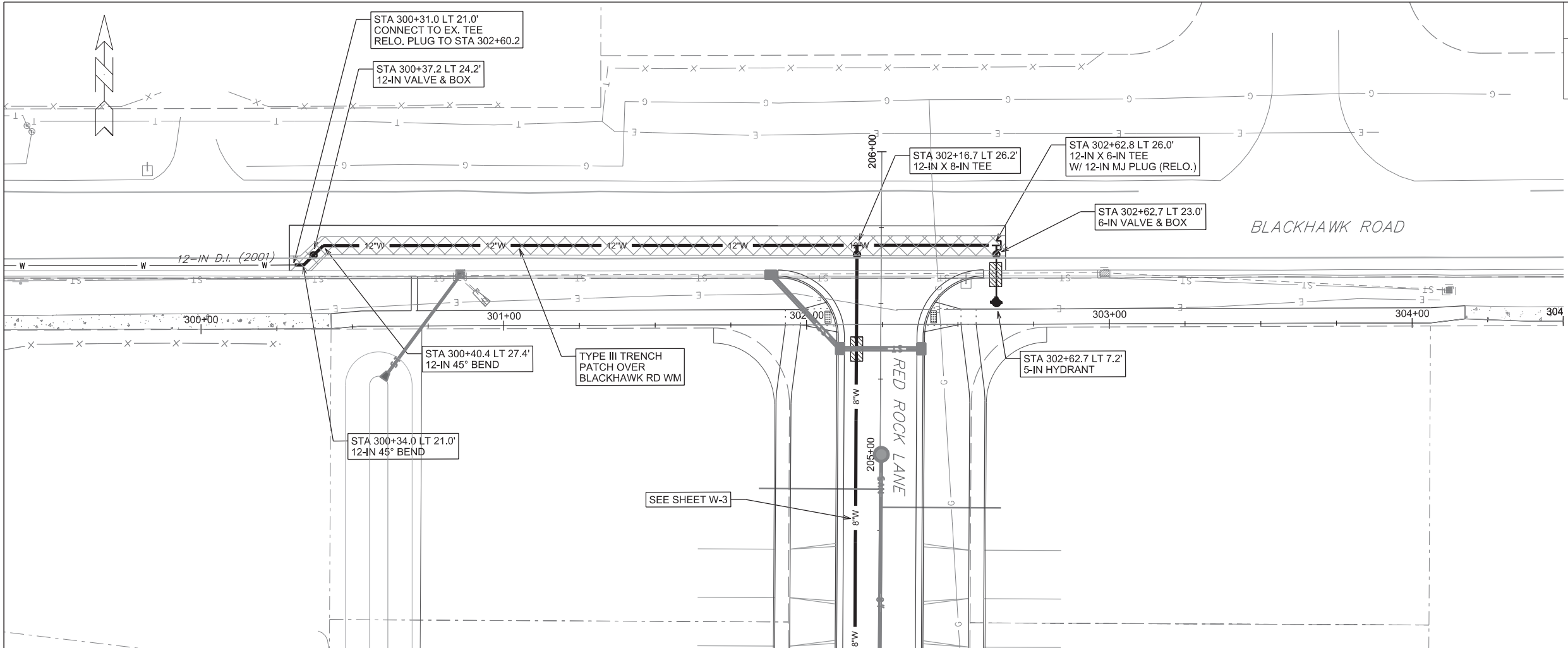


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PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR: CITY OF MADISON, STREETS DIVISION

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PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

CONSTRUCTION NOTES:

1. CONSTRUCT NEW WATER MAIN 6.0' BELOW FINISHED GRADE, UNLESS OTHERWISE NOTED. INSULATE MAIN WITH POLYSTYRENE BOARD AT UTILITY CROSSINGS OR OTHER AREAS IDENTIFIED BY ENGINEER AS HAVING INADEQUATE COVER.
2. VERIFY SIZE OF EXISTING WATER SERVICES AND RECONNECT SERVICES AS INDICATED.
3. MINIMIZE DISRUPTION OF SERVICE TO EXISTING CUSTOMERS. NOTIFY PER CONTRACT REQUIREMENTS OF ANY PLANNED WATER OUTAGE.
4. THE EXISTING UTILITIES SHOWN ON THIS PLAN REPRESENT THE BEST INFORMATION AVAILABLE TO THE WATER UTILITY AT THE TIME OF PLAN PREPARATION. CONTRACTOR IS RESPONSIBLE FOR HAVING EACH UTILITY LOCATED PRIOR TO COMMENCING WORK.

- WN1 REPLACE THE EXISTING LEAD SERVICE WITH A NEW COPPER SERVICE.
- WN2 EXTEND AND RECONNECT THE EXISTING COPPER SERVICE TO THE NEW WATER MAIN.
- WN3 EXISTING SERVICE TO BE ABANDONED WHEN THE WATER MAIN IS CUT OFF.
- WN4 DISCONNECT FROM THE OLD WATER MAIN AND RECONNECT THE EXISTING COPPER WATER SERVICE LATERAL TO THE NEW WATER MAIN.
- WN5 RELOCATE THE EXISTING FIRE HYDRANT.
- WN6 ABANDON WATER VALVE ACCESS STRUCTURE.
- WN7 FURNISH AND INSTALL THE NEW TOP SECTION FOR THE WATER ACCESS STRUCTURE.
- WN8 ABANDON THE VALVE BOX.
- WN9 FURNISH THE DITCH, COMPACTION, AND ALL MATERIALS AND LABOR FOR THE INSTALLATION OF NEW SERVICE LATERAL.
- WN10 REMOVE AND SALVAGE EXISTING HYDRANT
- WN11 REPLACE THE EXISTING COPPER SERVICE WITH A COPPER SERVICE
- WN20+ SEE WATER IMPACT PLAN FOR CONNECTION POINT ISOLATION AND WATER SHUT-OFF NOTIFICATION INFORMATION.

ESTIMATE OF MATERIALS SUPPLIED BY CONTRACTOR:

* ESTIMATE OF MATERIALS IS FOR INFORMATION ONLY. ENGINEER DOES NOT GUARANTEE ACCURACY OF MATERIAL TAKE-OFF.

- | | |
|--|-----------------------------------|
| 60-FT - 6-IN PIPE | 2 - 12-IN 45° BEND |
| 840-FT - 8-IN PIPE | 1 - 5-IN HYDRANT |
| 240-FT - 12-IN PIPE | 32-FT - 2-IN STYROFOAM INSULATION |
| 2 - 6-IN VALVE & BOX | 1320-FT - POLY WRAP |
| 4 - 8-IN VALVE & BOX
(INCLUDES 2 AS REQ.) | 1-IN COPPER (AS REQ'D) |
| 1 - 12-IN VALVE & BOX | |
| 1 - 8-IN X 6-IN TEE | |
| 1 - 8-IN X 8-IN TEE | |
| 1 - 12-IN X 6-IN TEE | |
| 1 - 12-IN X 8-IN TEE | |

ESTIMATE OF MATERIALS SALVAGED:

* ESTIMATE OF MATERIALS IS FOR INFORMATION ONLY. ENGINEER DOES NOT GUARANTEE ACCURACY OF MATERIAL TAKE-OFF.

ESTIMATE OF MATERIALS REUSED:

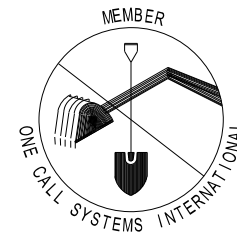
* ESTIMATE OF MATERIALS IS FOR INFORMATION ONLY. ENGINEER DOES NOT GUARANTEE ACCURACY OF MATERIAL TAKE-OFF.

- 1 - 12-IN MJ PLUG
1 - 5-IN HYDRANT

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE
TOLL FREE
811 OR 1-800-242-8511
FAX-A-LOCATE 1-800-338-3860
TDD (FOR HEARING IMPAIRED) 1-800-542-2289

WIS. STATUTE 182.0175 (1974)
REQUIRES MIN. OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE.

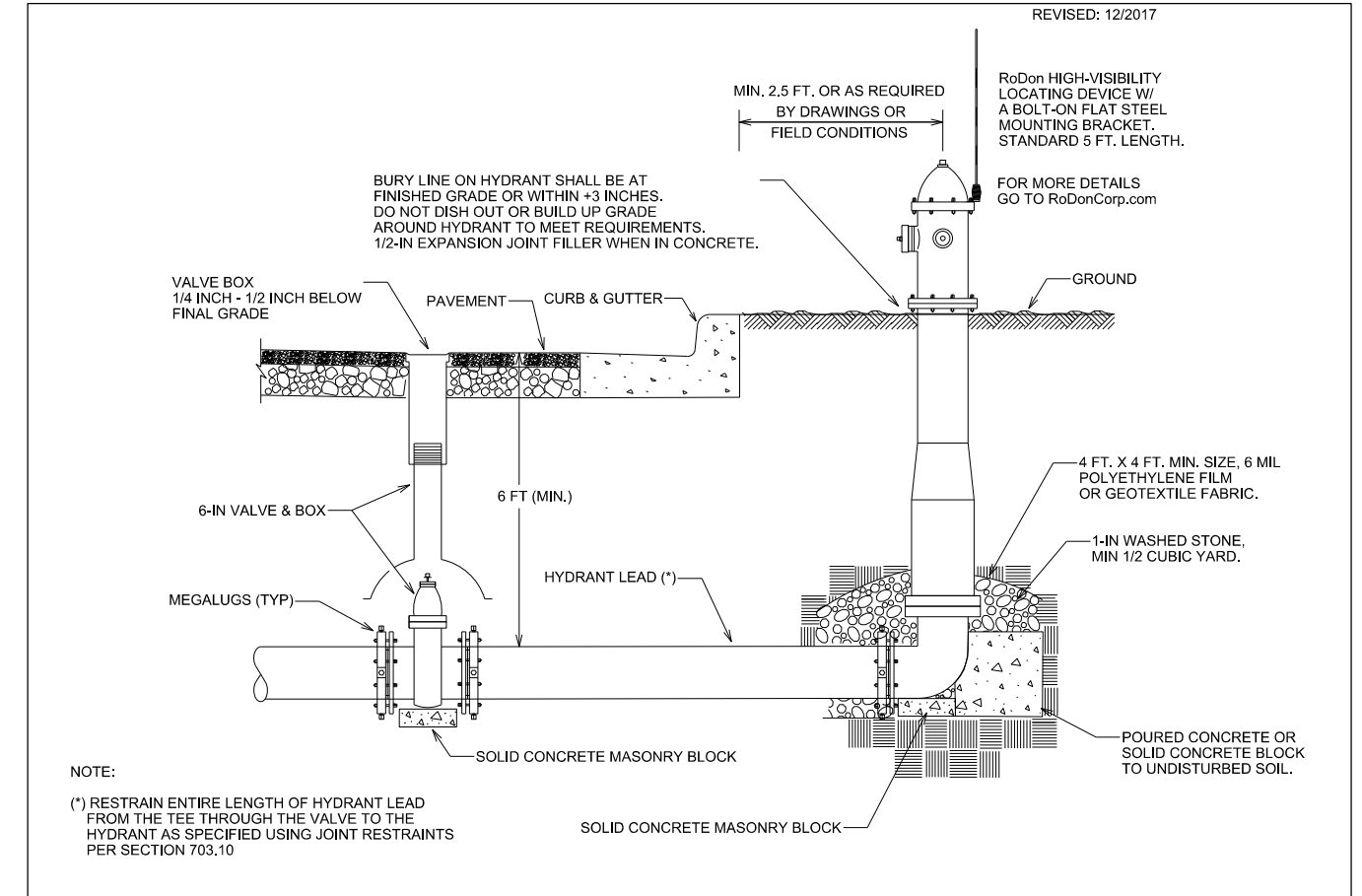


DISCLAIMER NOTE:
UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING WORK.

PART VII - WATER MAINS AND SERVICE LATERALS

DETAIL DRAWING NO. 7.04

REVISED: 12/2017



NOTE:

(*) RESTRAIN ENTIRE LENGTH OF HYDRANT LEAD FROM THE TEE THROUGH THE VALVE TO THE HYDRANT AS SPECIFIED USING JOINT RESTRAINTS PER SECTION 703.10

CITY OF MADISON
WATER UTILITY

NOT TO SCALE

TYPICAL HYDRANT INSTALLATION

City of Madison Standard Specifications for Public Works Construction

PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

Revised 11-15-2018 AJZ
-revise STA 100+50

NINTH ADDITION TO BLACKHAWK
SUBDIVISION; PROJECT NO. 11943

SHEET NO.
X-1

CROSS SECTIONS

SANDHILL ROAD

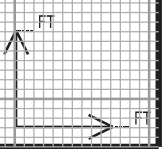
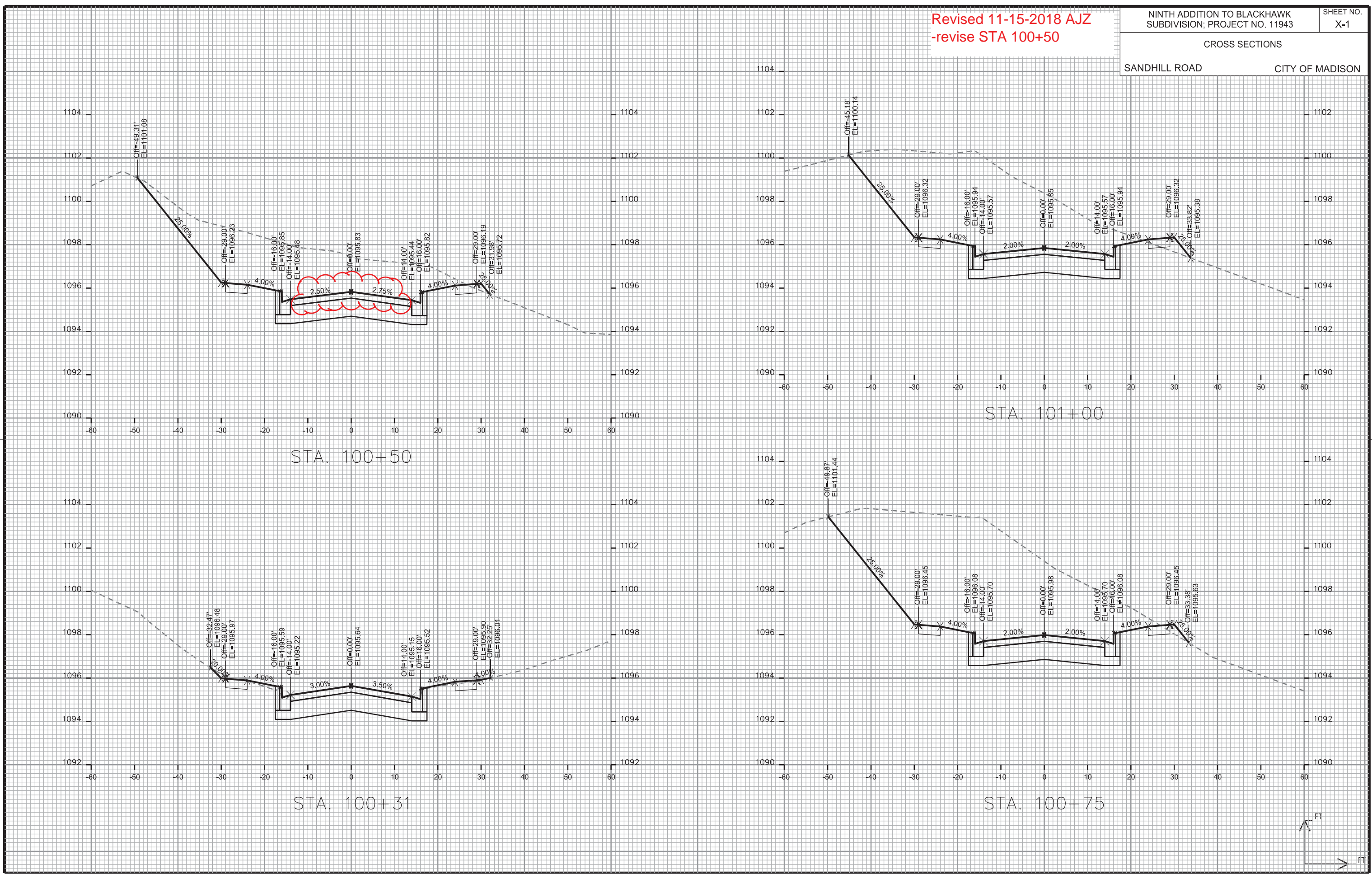
CITY OF MADISON

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION



CROSS SECTIONS

SANDHILL ROAD

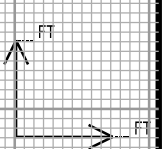
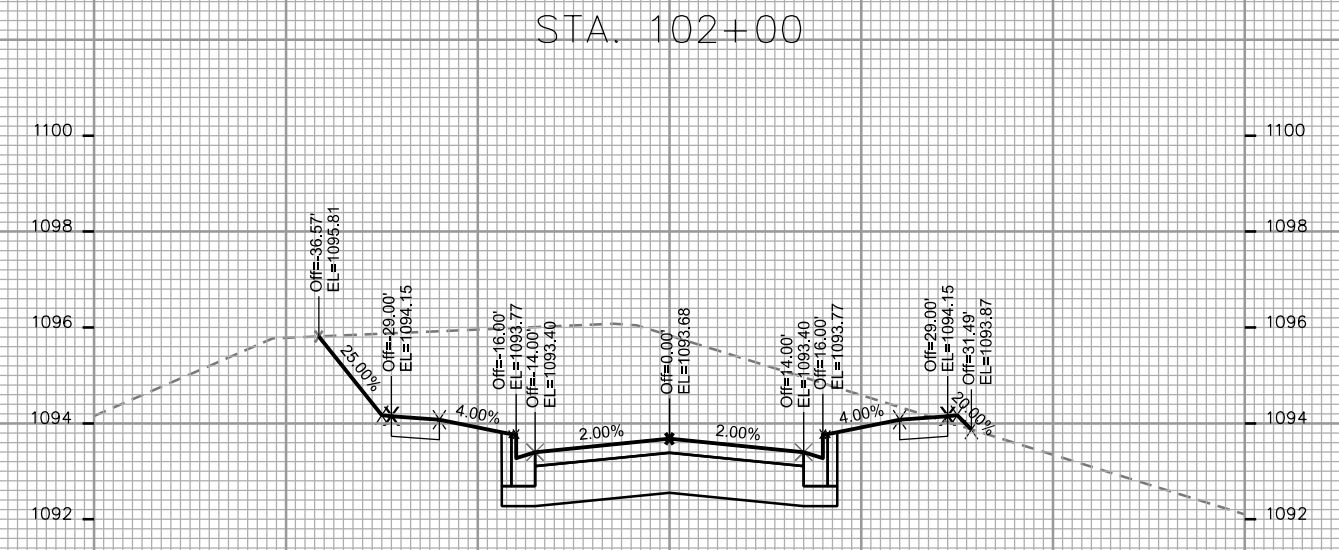
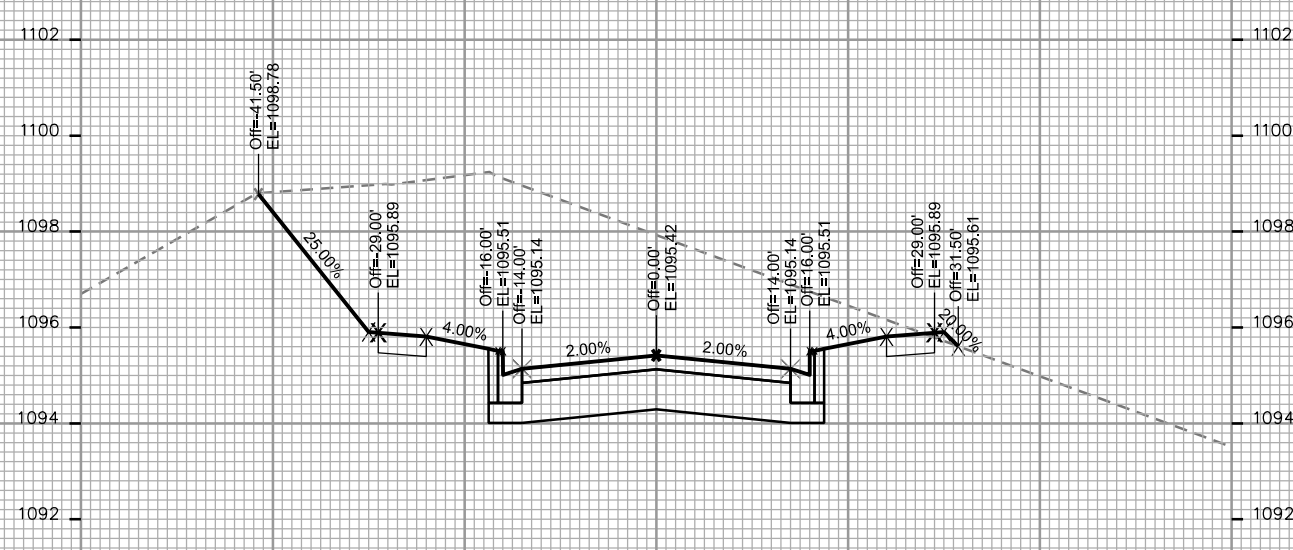
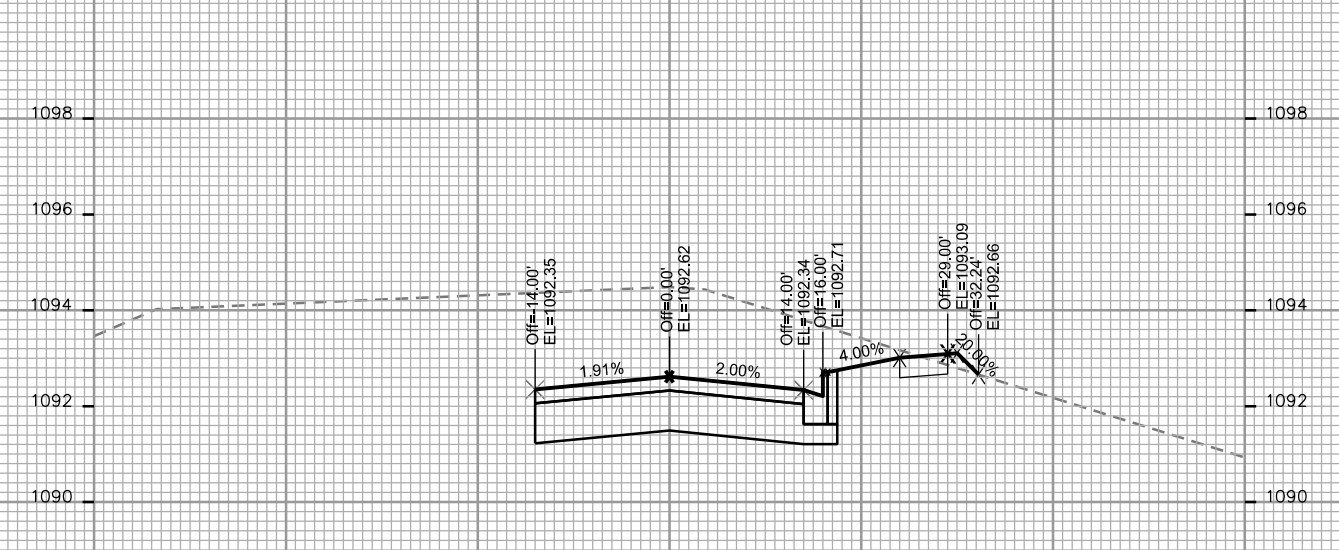
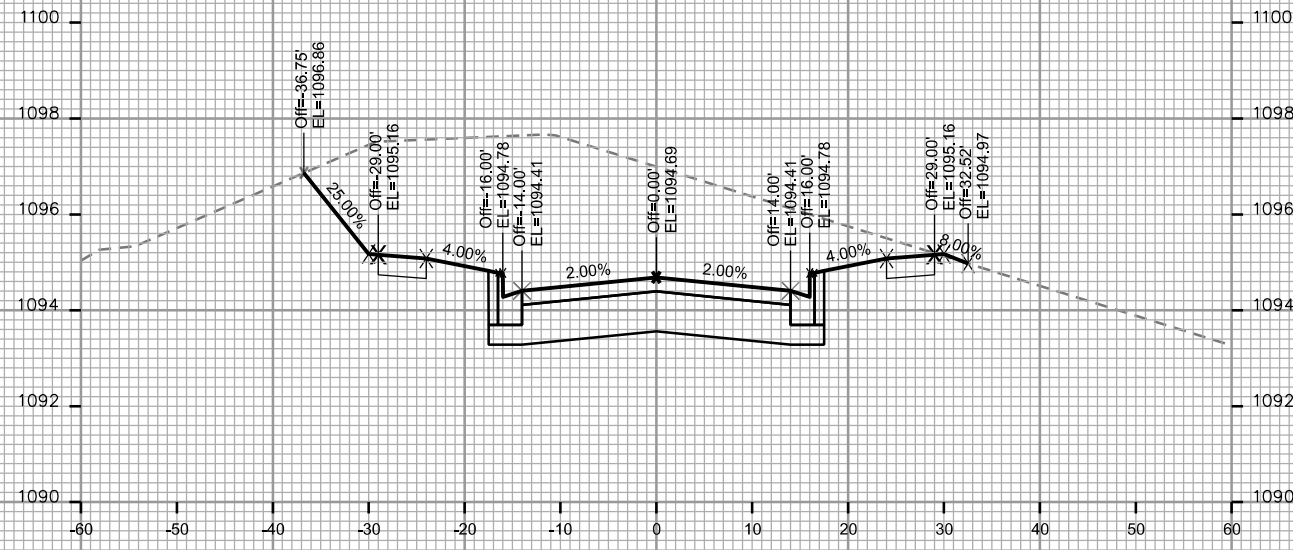
CITY OF MADISON

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

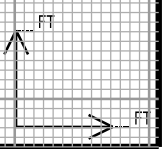
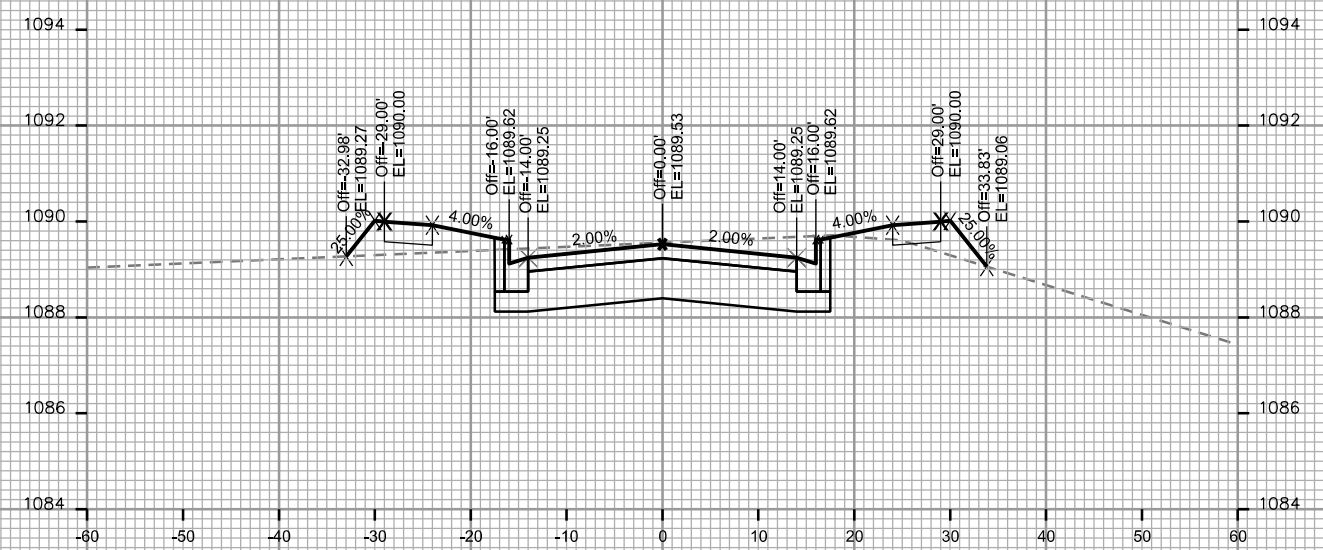
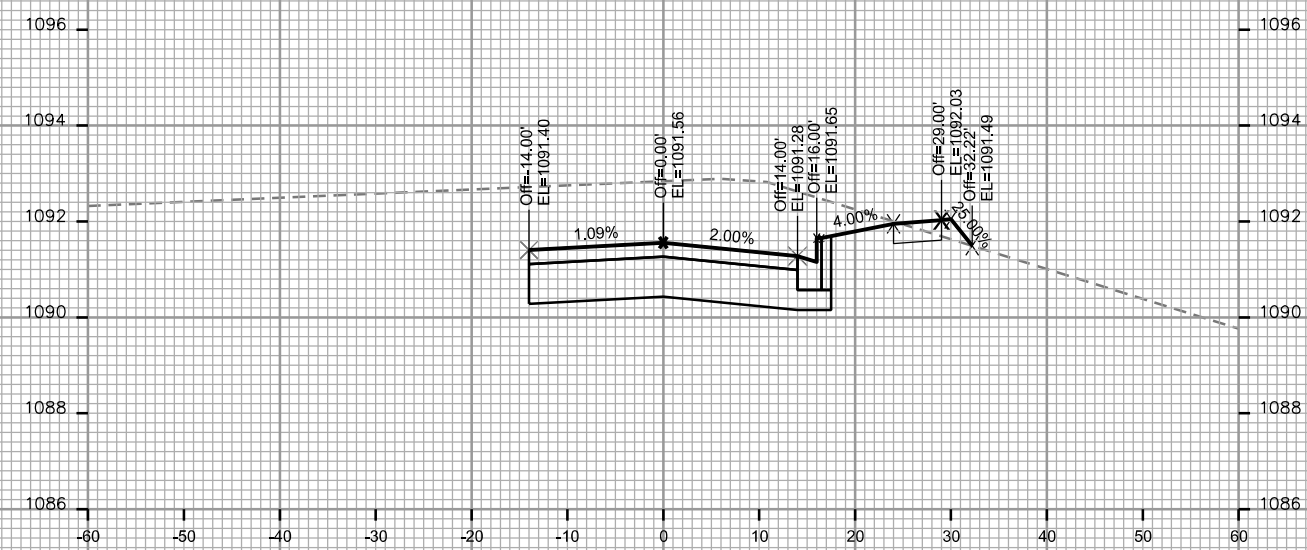
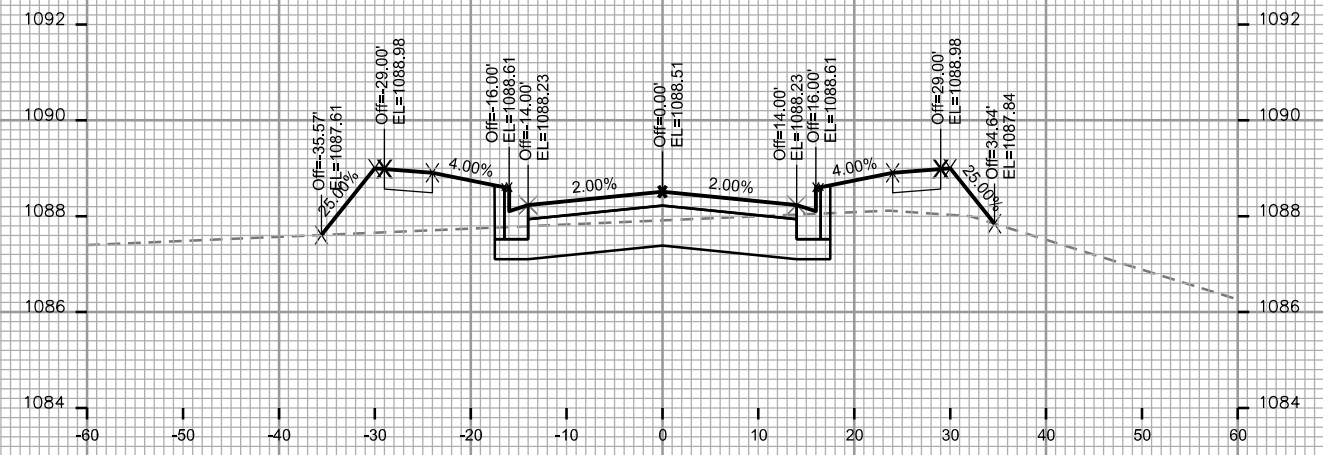
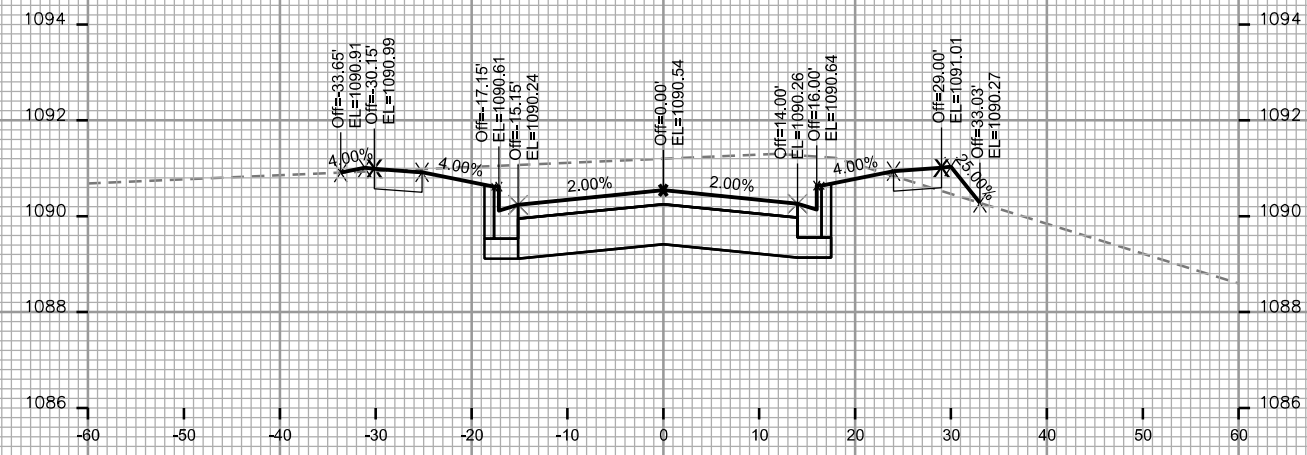
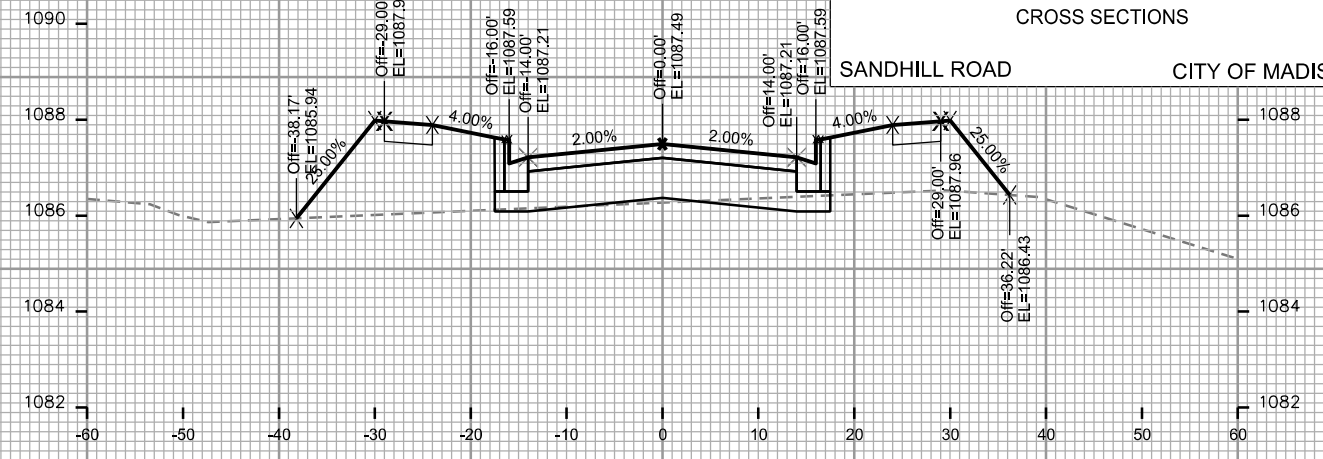
ORIGINATOR: CITY OF MADISON - STREETS DIVISION



CROSS SECTIONS

SANDHILL ROAD

CITY OF MADISON



PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION

CROSS SECTIONS

SANDHILL ROAD

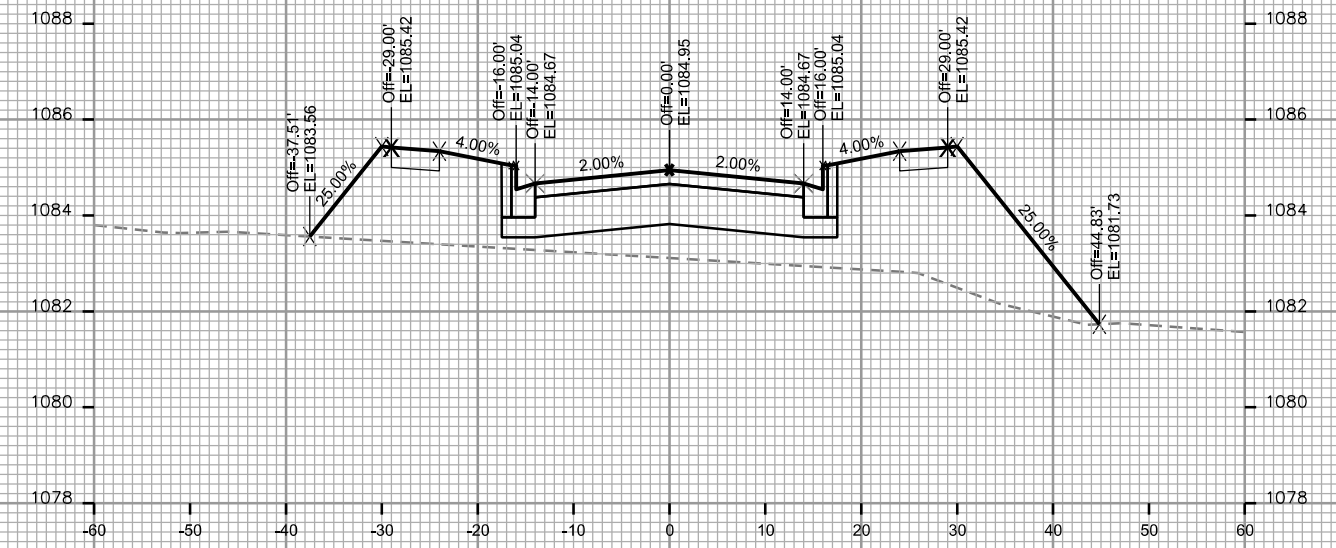
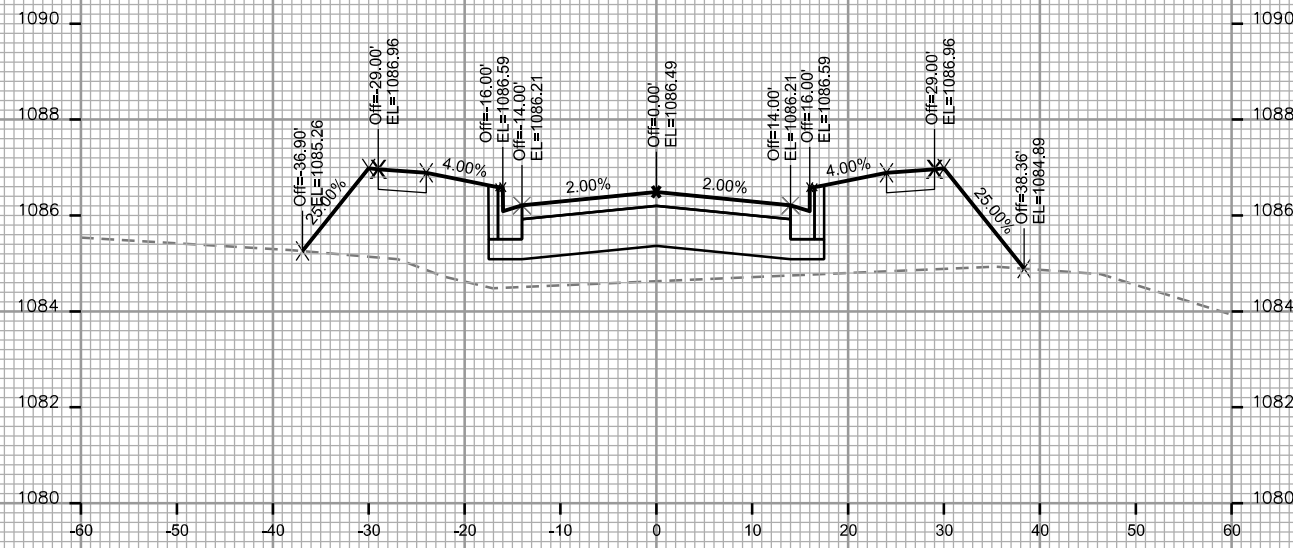
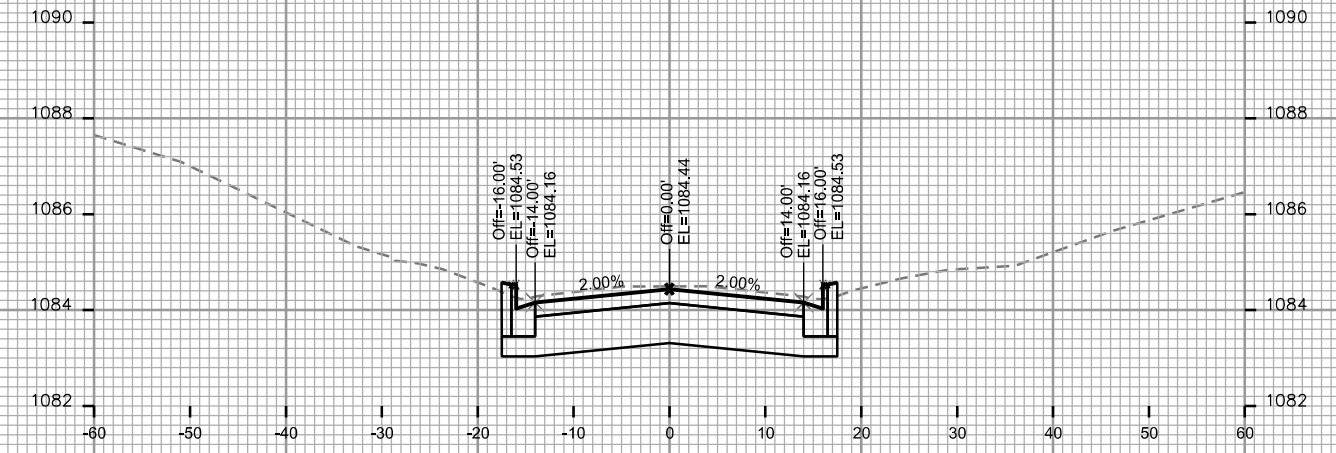
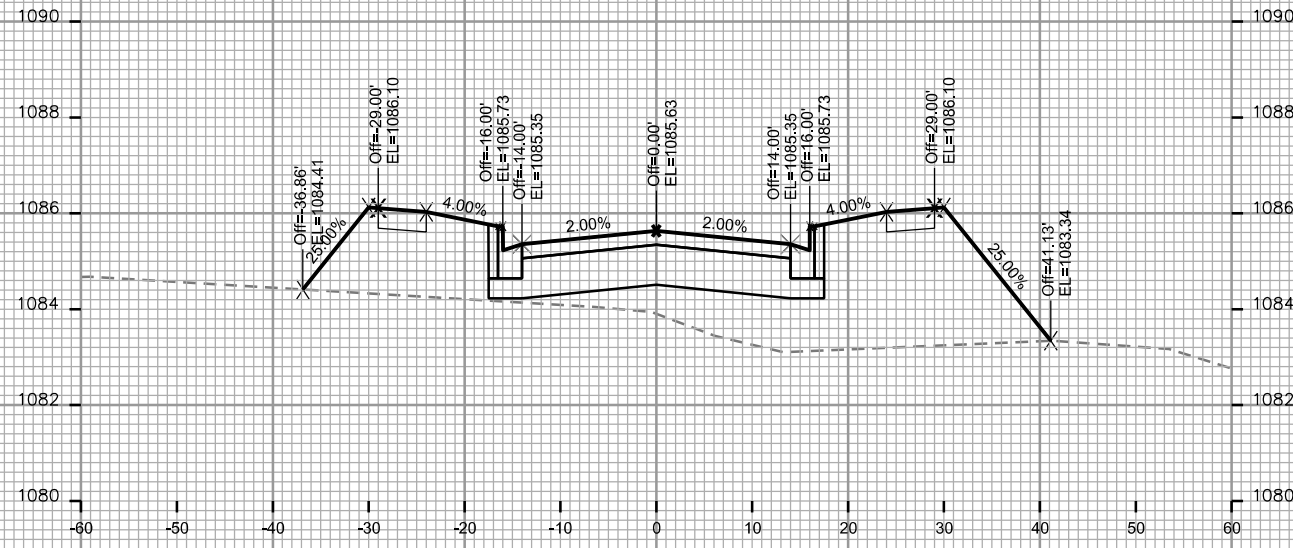
CITY OF MADISON

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION



CROSS SECTIONS

SANDHILL ROAD

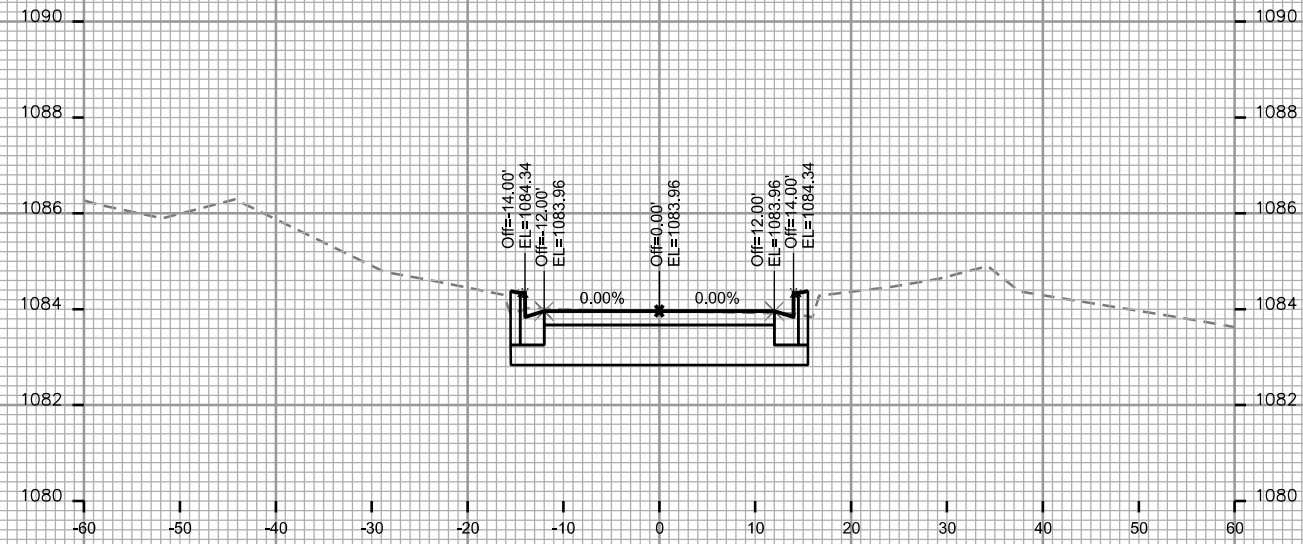
CITY OF MADISON

PLOT SCALE: _____

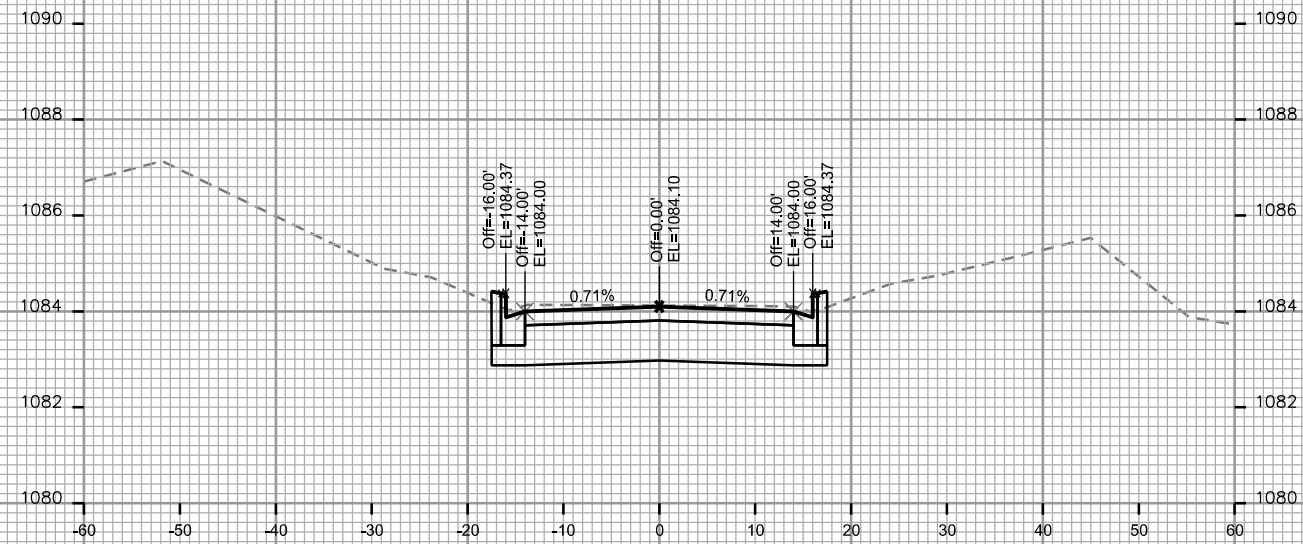
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REV. DATE: _____

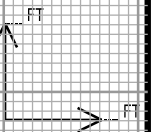
ORIGINATOR: CITY OF MADISON - STREETS DIVISION



STA. 104+64



STA. 104+50



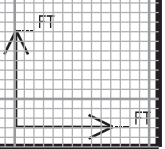
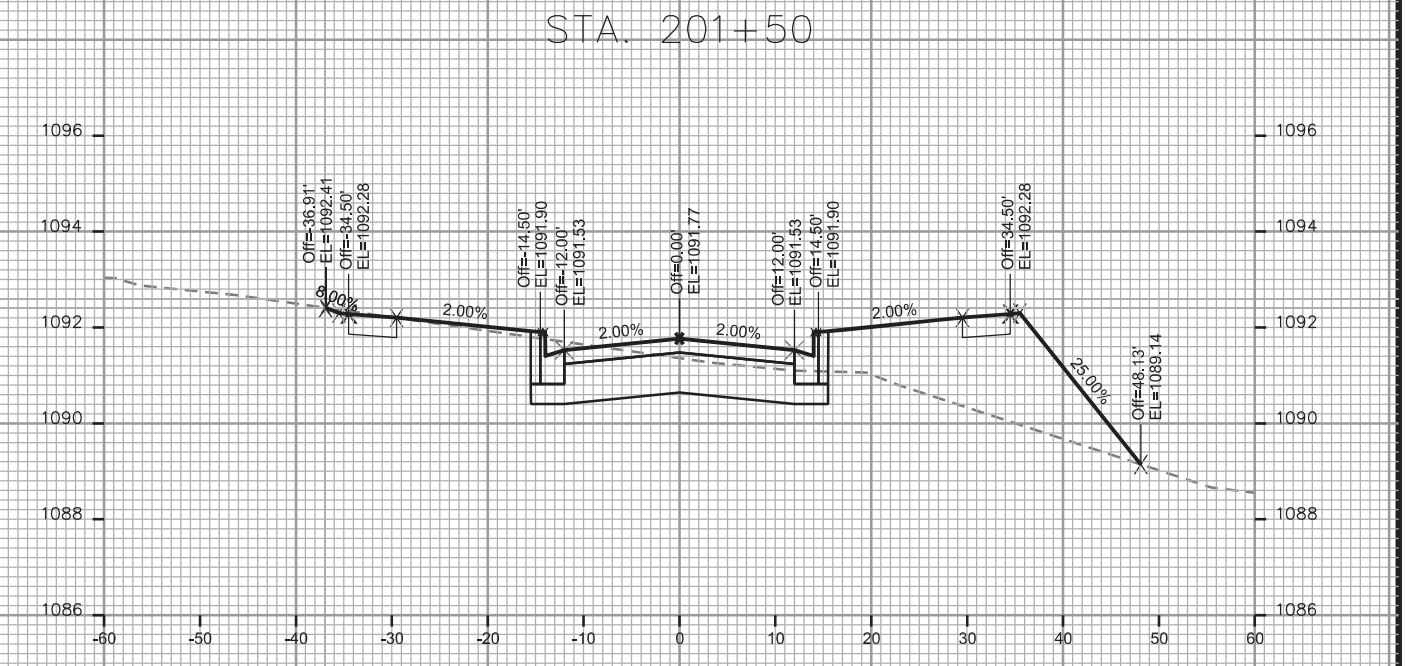
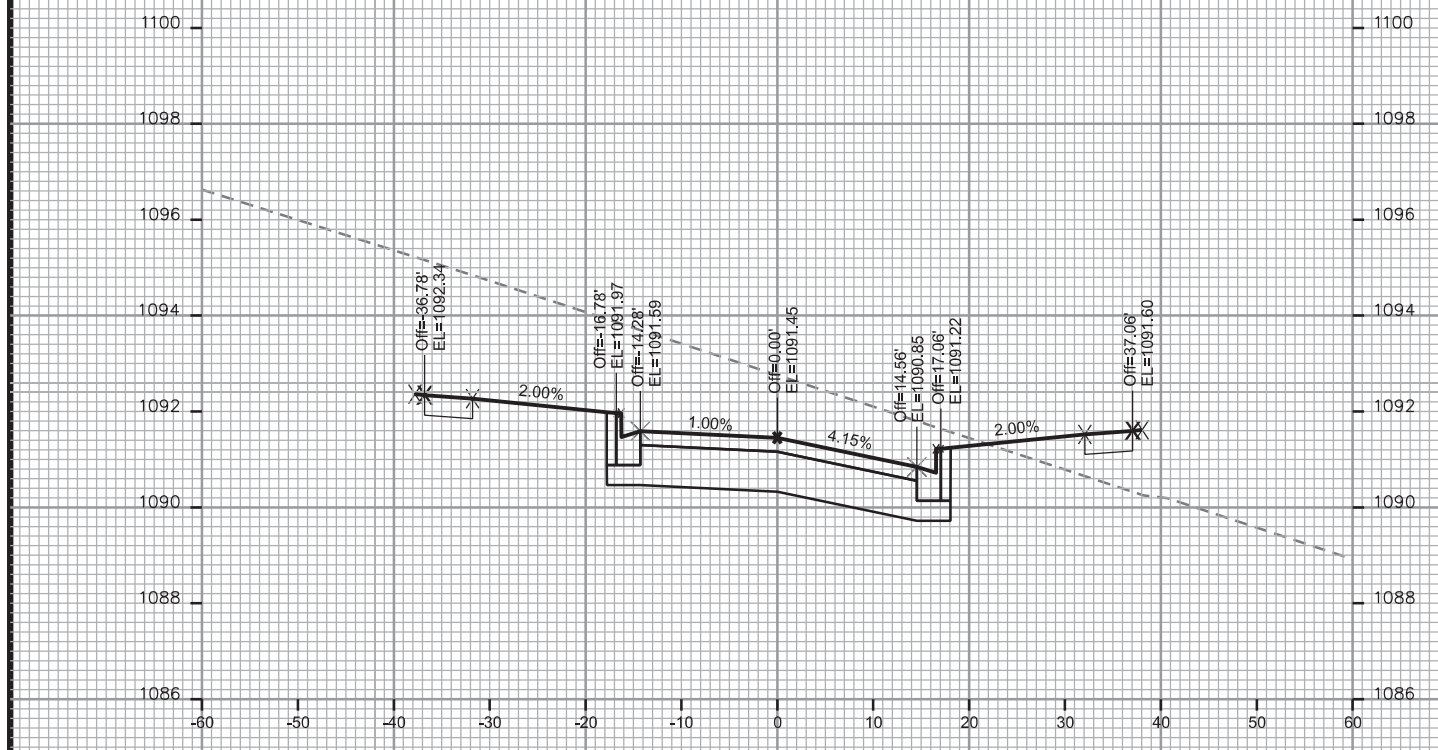
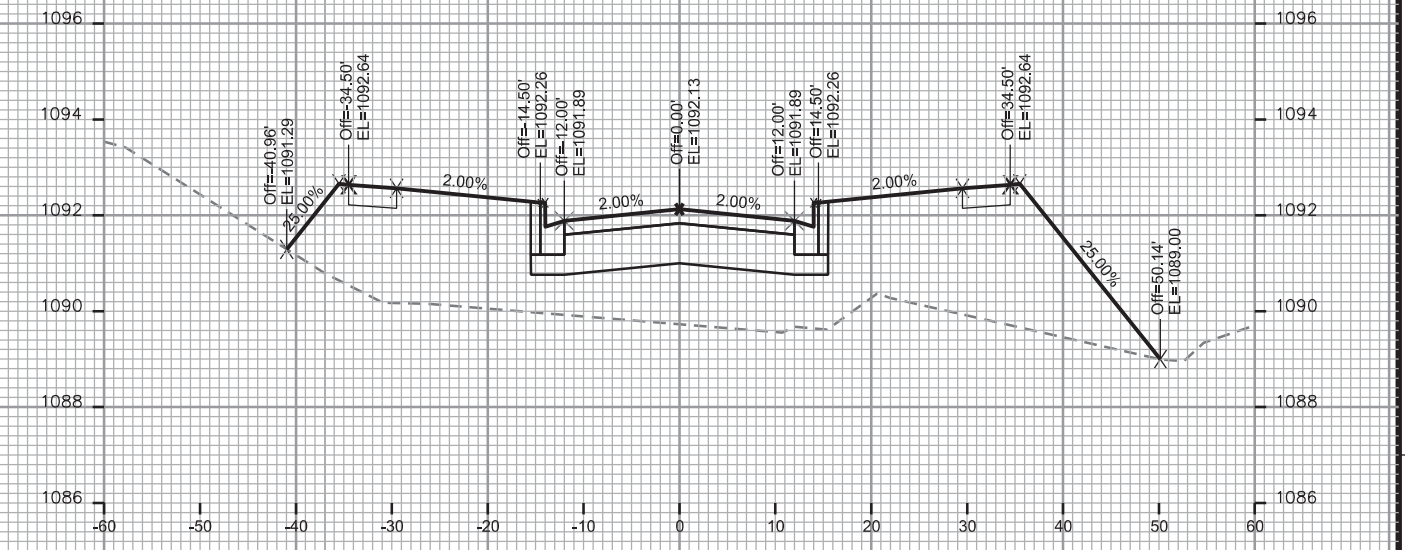
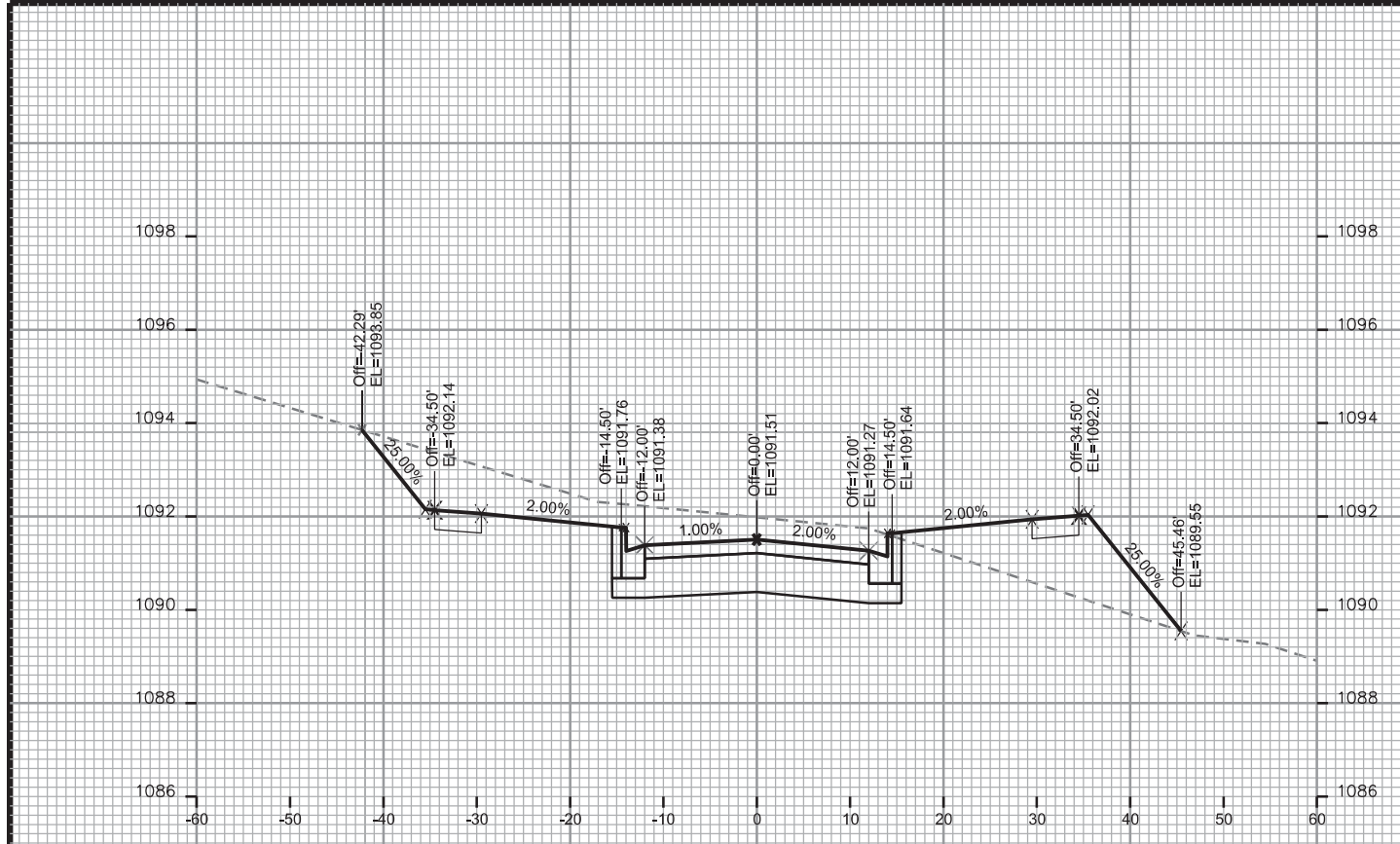
Revised 11-15-2018 AJZ
-revise to reflect correct
terrace width profile updates

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION



Revised 11-15-2018 AJZ
-revise to reflect correct
terrace width profile updates

CROSS SECTIONS

RED ROCK LANE

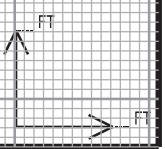
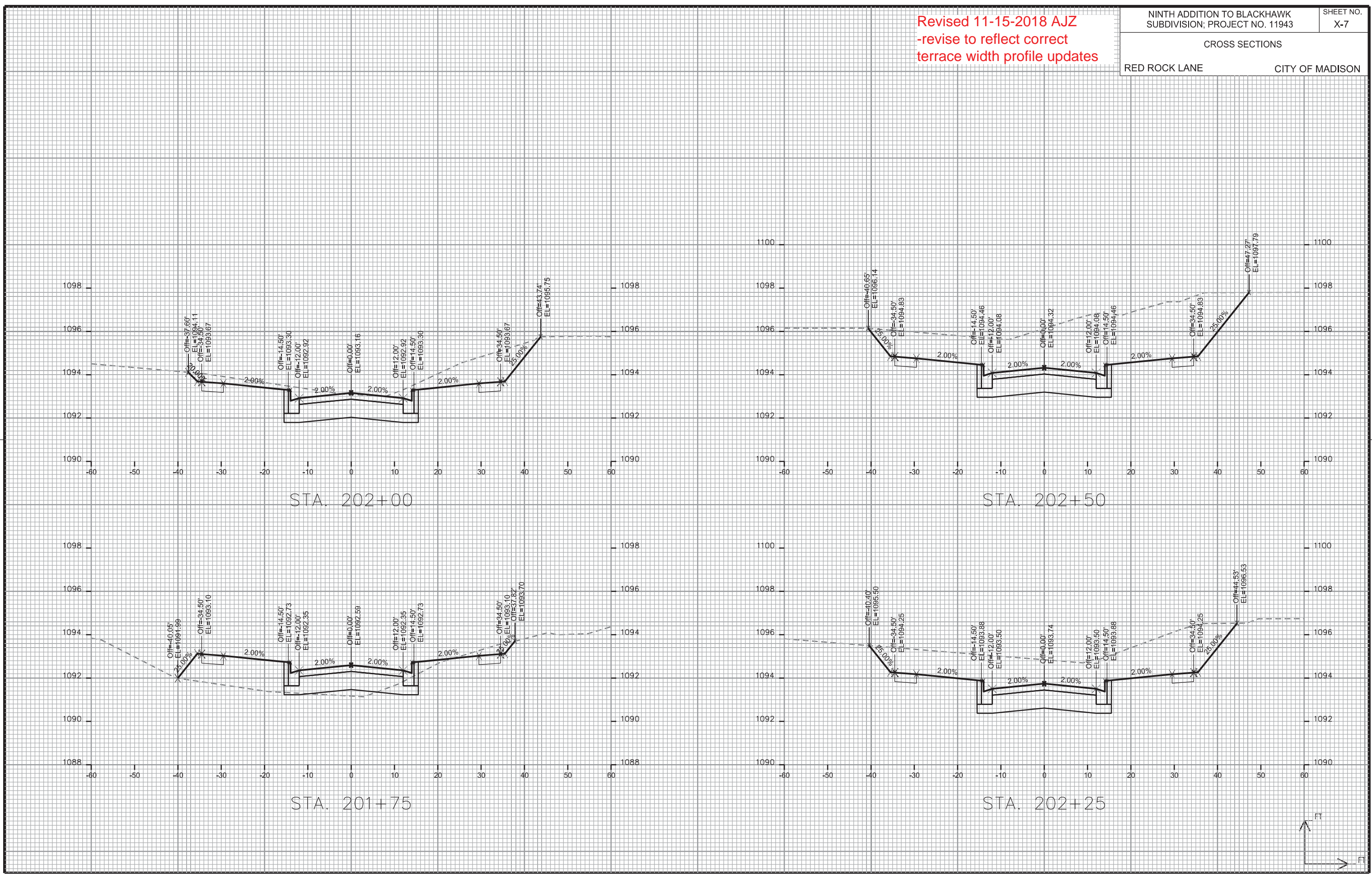
CITY OF MADISON

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION



Revised 11-15-2018 AJZ
-revise to reflect correct
terrace width profile updates

NINTH ADDITION TO BLACKHAWK
SUBDIVISION; PROJECT NO. 11943

SHEET NO.
X-8

CROSS SECTIONS

RED ROCK LANE

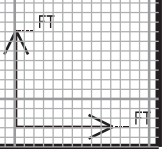
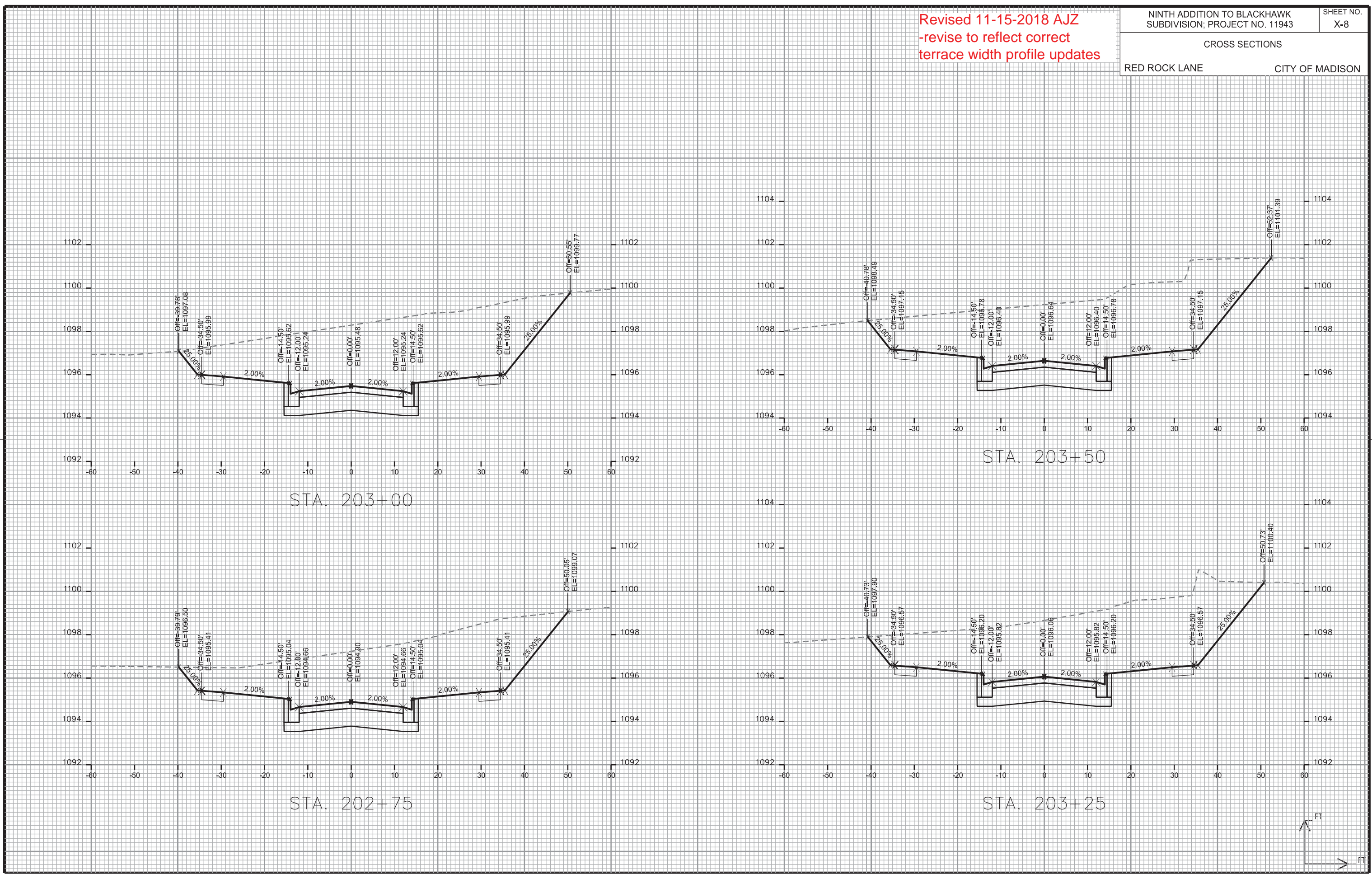
CITY OF MADISON

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION



Revised 11-15-2018 AJZ
-revise to reflect correct
terrace width profile updates

NINTH ADDITION TO BLACKHAWK
SUBDIVISION; PROJECT NO. 11943

SHEET NO.
X-9

CROSS SECTIONS

RED ROCK LANE

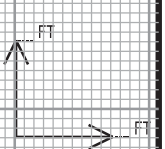
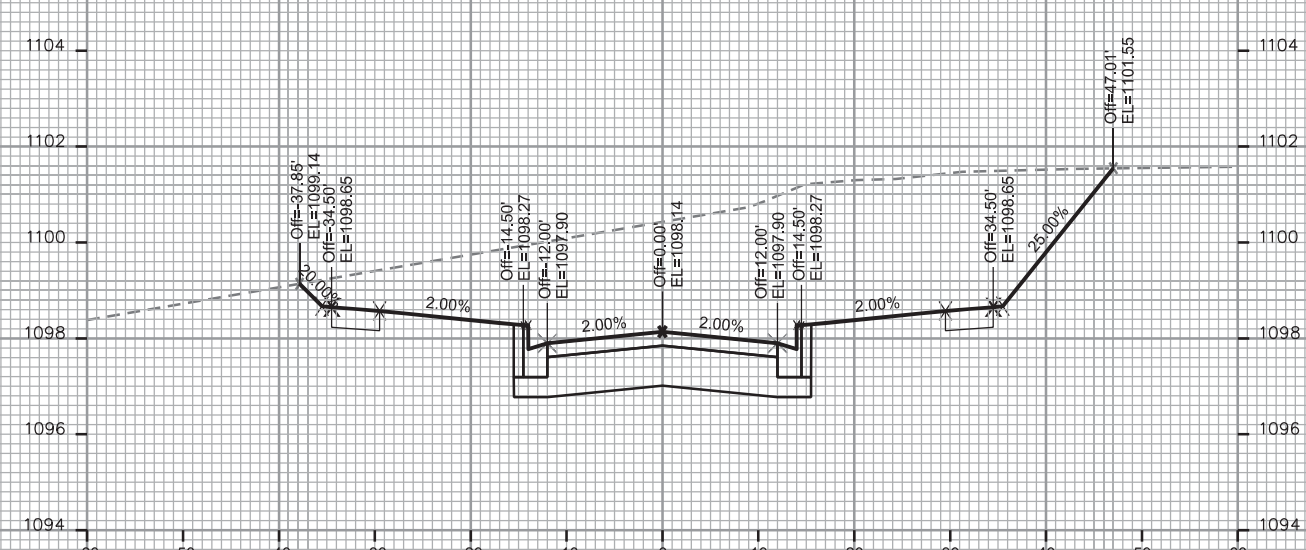
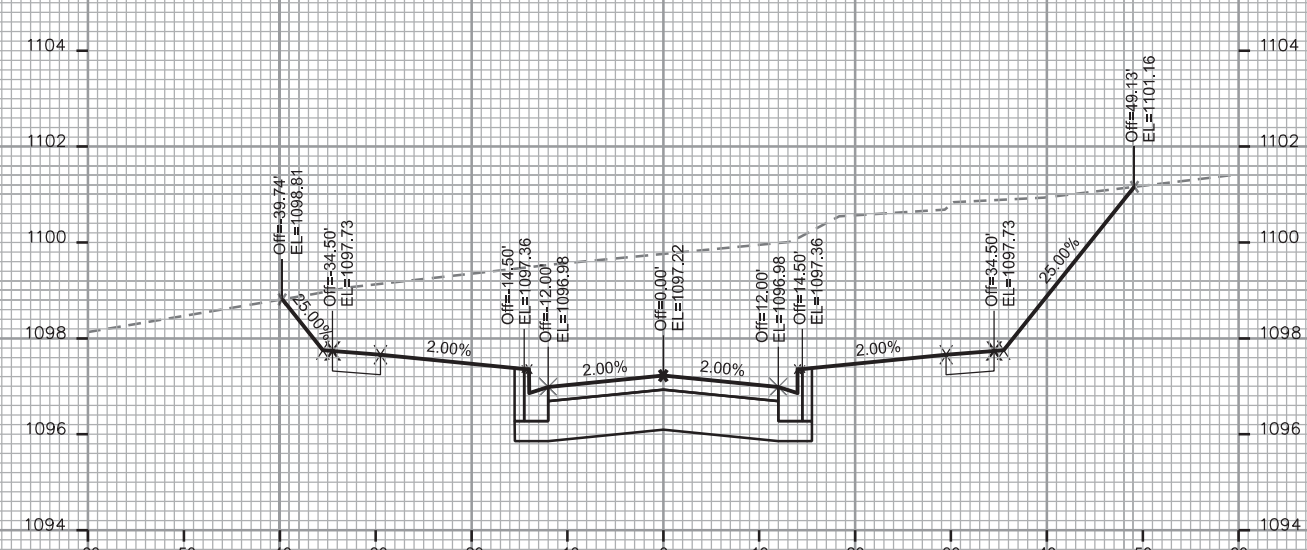
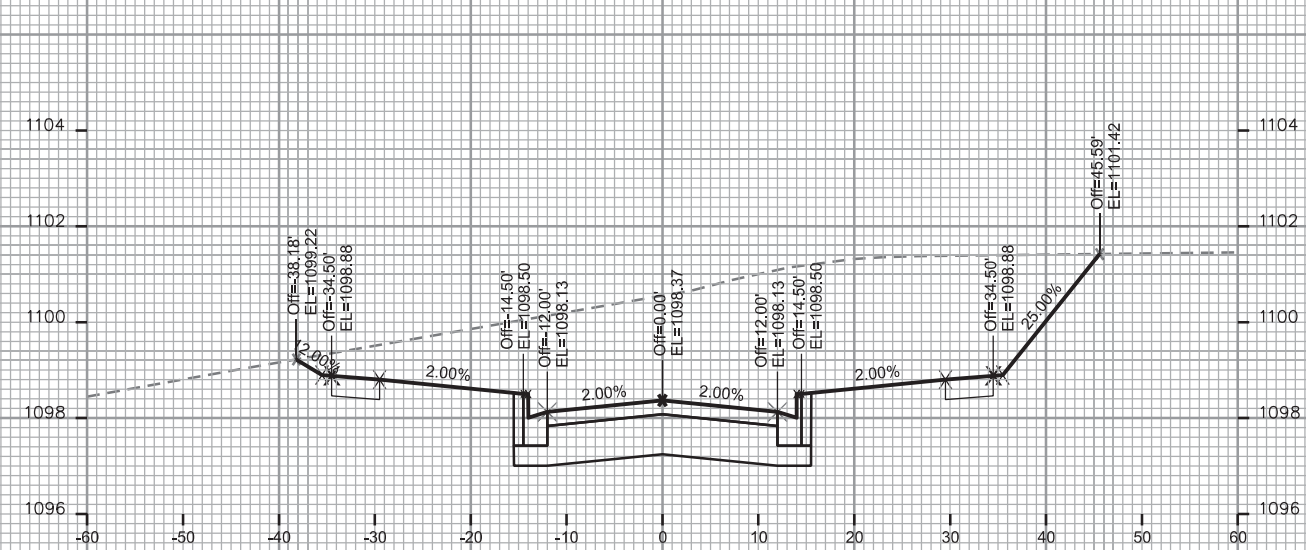
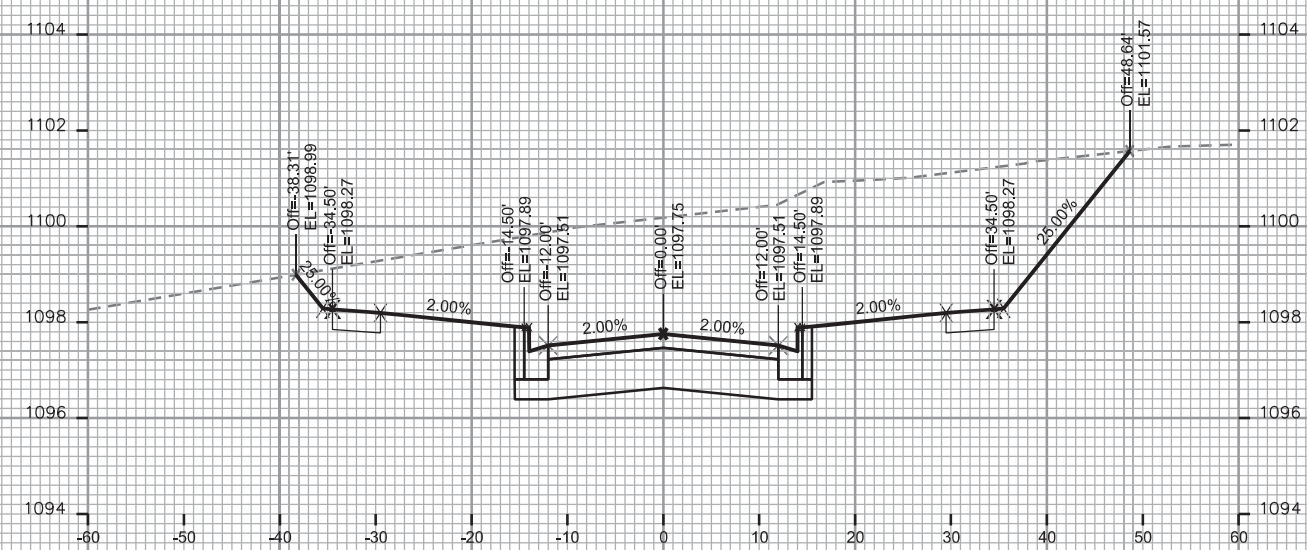
CITY OF MADISON

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION



Revised 11-15-2018 AJZ
-revise to reflect correct
terrace width profile updates

CROSS SECTIONS

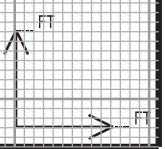
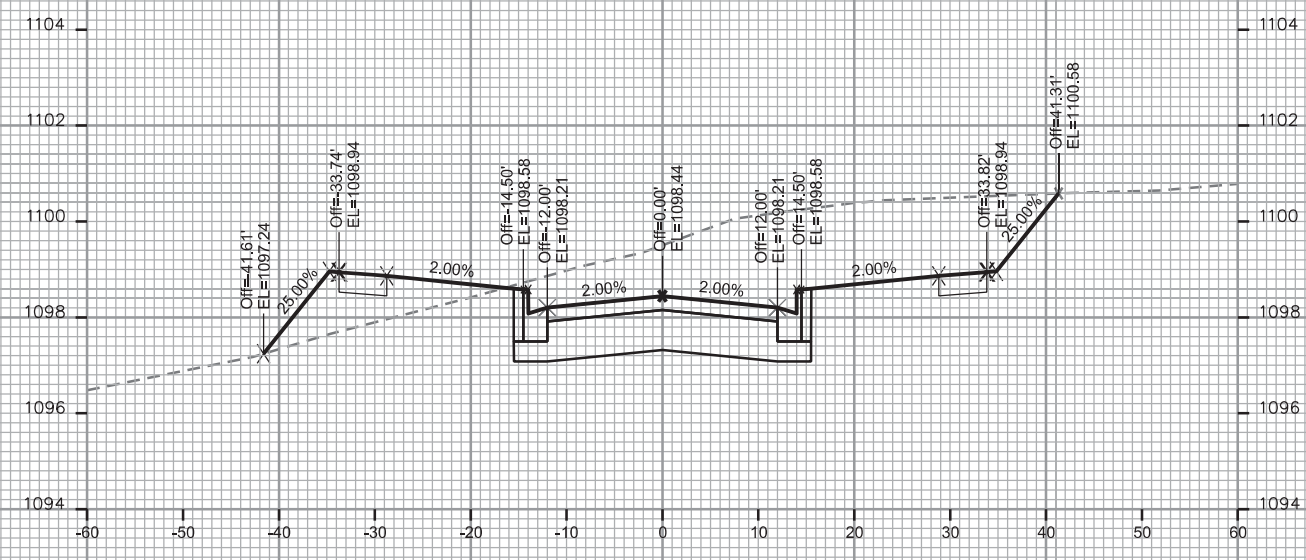
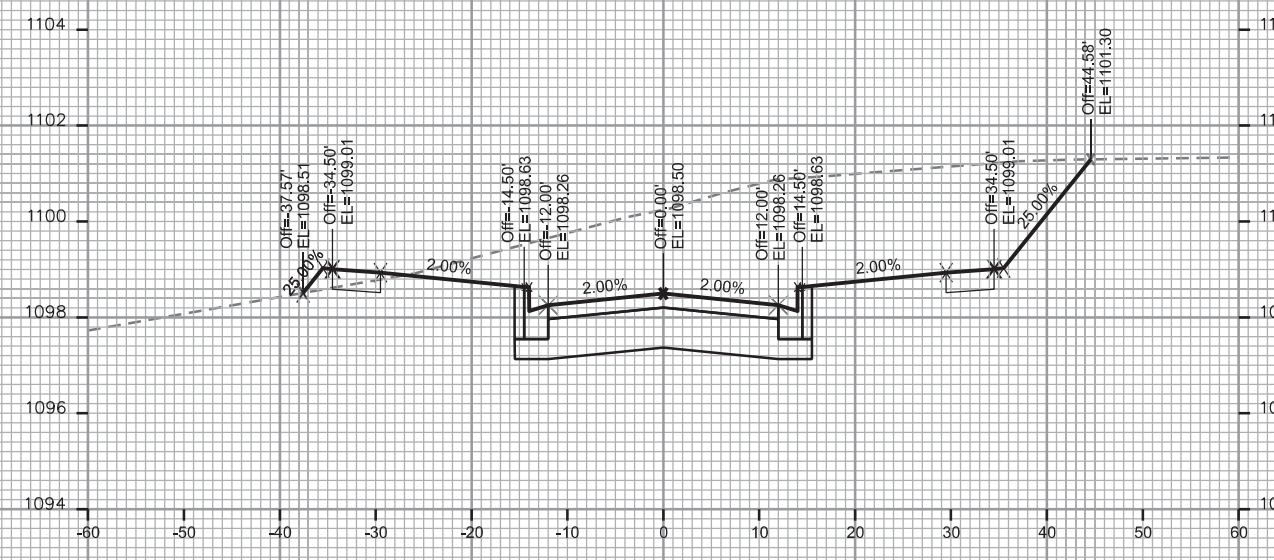
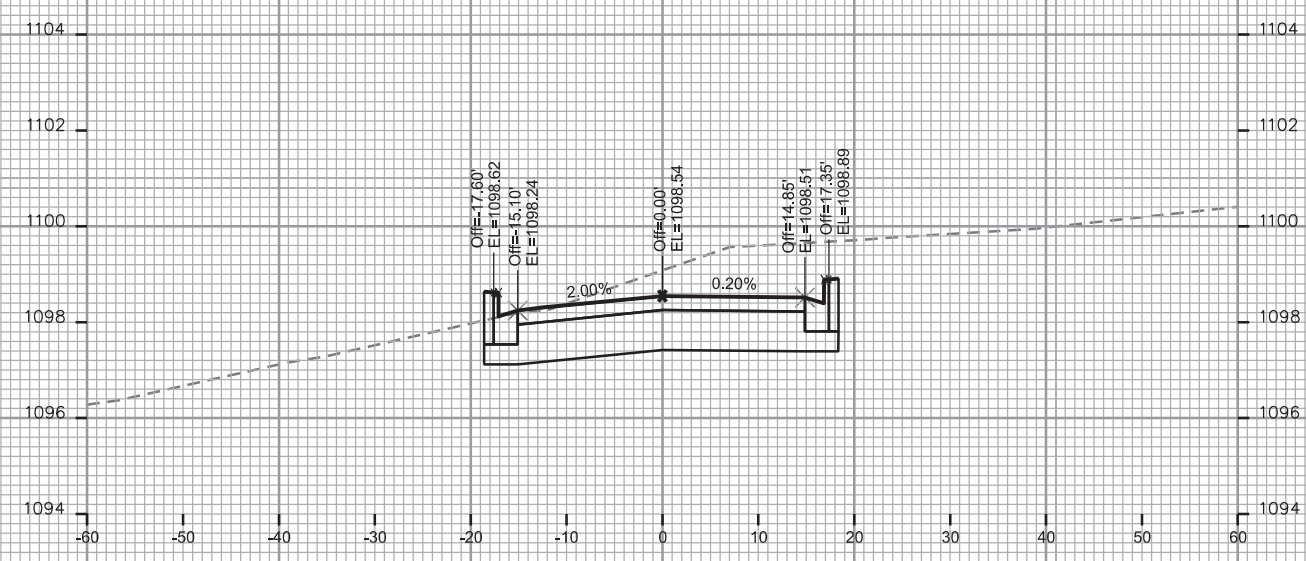
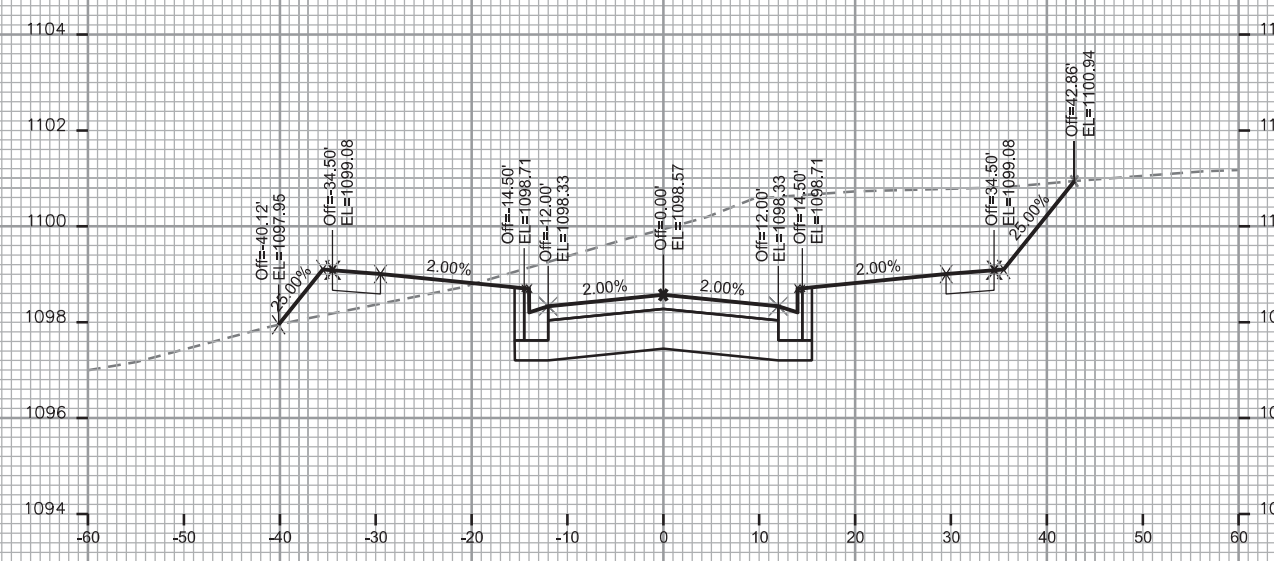
RED ROCK LANE CITY OF MADISON

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION



Revised 11-15-2018 AJZ
-revise to reflect sidewalk
elevation changes

NINTH ADDITION TO BLACKHAWK
SUBDIVISION; PROJECT NO. 11943

SHEET NO.
X-11

CROSS SECTIONS

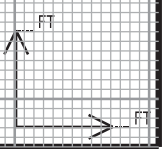
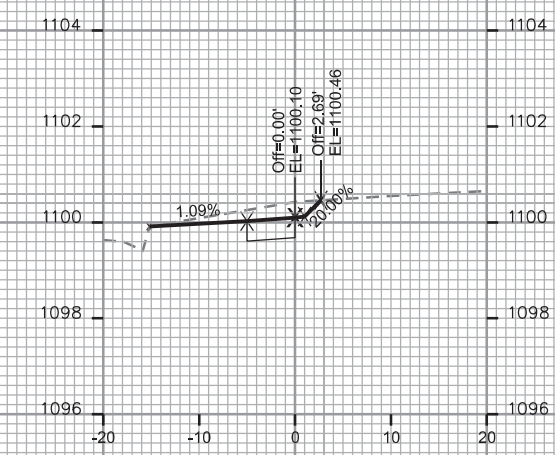
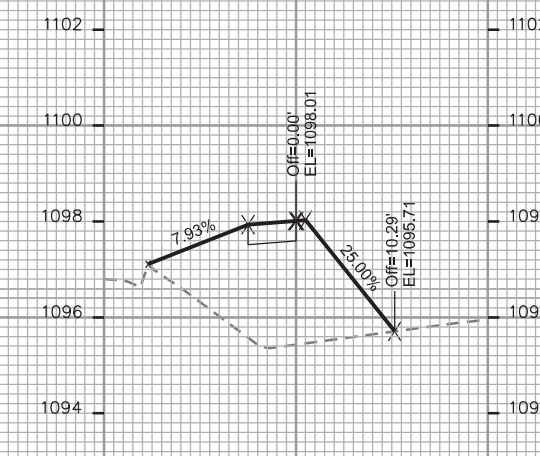
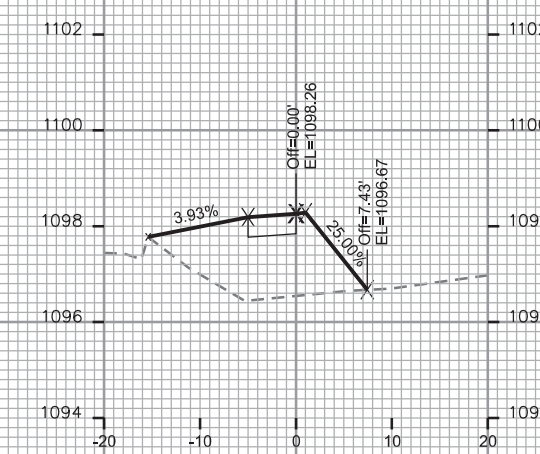
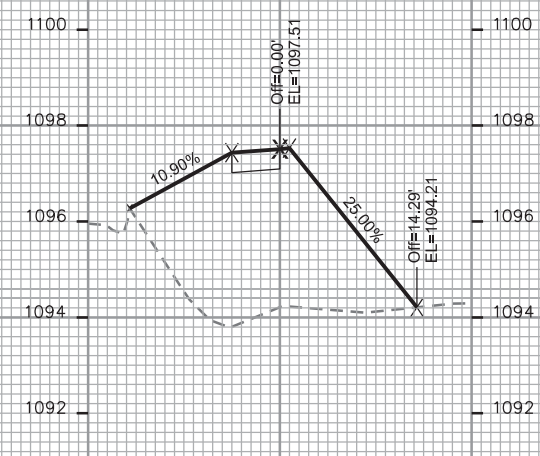
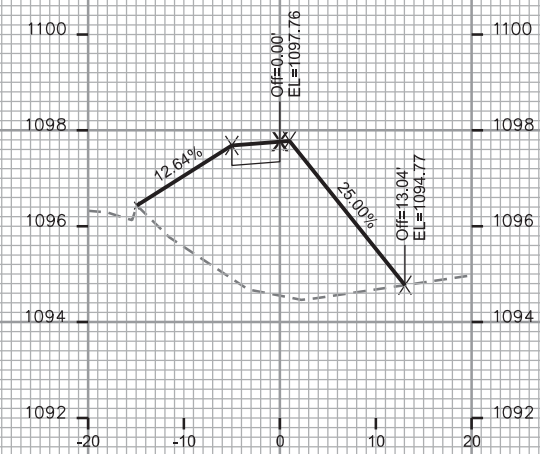
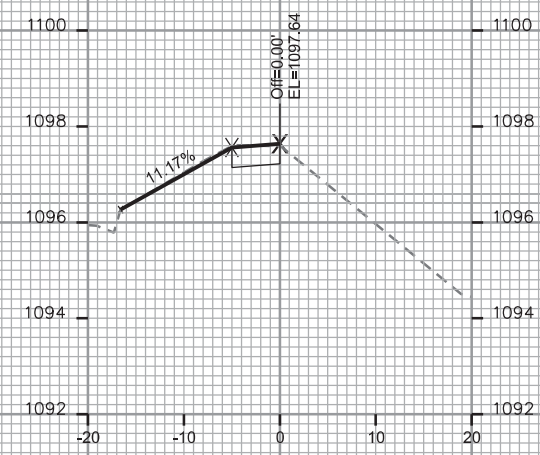
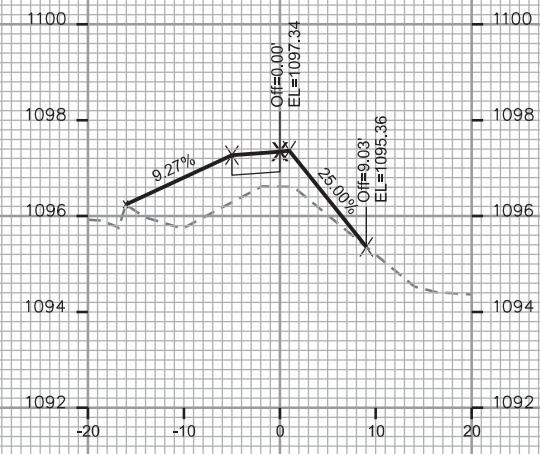
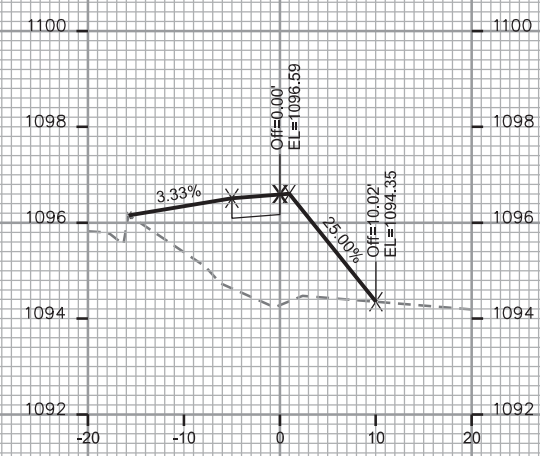
BLACKHAWK RD SIDEWALK CITY OF MADISON

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION



Revised 11-15-2018 AJZ
-revise to reflect sidewalk
elevation changes

NINTH ADDITION TO BLACKHAWK
SUBDIVISION; PROJECT NO. 11943

SHEET NO.
X-12

CROSS SECTIONS

BLACKHAWK RD SIDEWALK CITY OF MADISON

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION

