

CITY OF MADISON

CITY ENGINEERING DIVISION

DEPARTMENT OF PUBLIC WORKS

PLAN OF PROPOSED IMPROVEMENT

BIRCHWOOD POINT SOUTH

STORMWATER MANAGEMENT

PUBLIC IMPROVEMENT PROJECT
APPROVED

OCTOBER 15, 2019

BY THE COMMON COUNCIL
OF MADISON, WISCONSIN

PUBLIC IMPROVEMENT DESIGN
APPROVED BY:

Greg Fries

Jul 27, 2021

City Engineer

Date

STORMWATER PONDS
DESIGNED BY:

**SEE
INDIVIDUAL
SHEETS**

INDEX OF SHEETS

FOR BIRCHWOOD POINT SOUTH: PHASE 1 (PROJ NO. 11932: BPS 1)

- SHEET NO. 1 PROPOSED NORTH BASIN LAYOUT
- SHEET NO. 2 NORTH DETENTION/INFILTRATION BASIN DETAIL

FOR BIRCHWOOD POINT SOUTH: PHASE 2 (PROJ NO. 11997: BPS 2)

- SHEET NO. 3 SOUTH STORMWATER SYSTEM LAYOUT
- SHEET NO. 4 SOUTH DETENTION/INFILTRATION BASIN DETAIL
- SHEET NO. 5 REGIONAL BYPASS CHANNEL
- SHEET NO. 6 TEMPORARY INFILTRATION BYPASS EXHIBIT

FOR WESTERN ADDITION TO 1000 OAKS: PHASE 1 (PROJ NO. 12325: TOW 1)

- SHEET NO. 7 OL 20 DETENTION BASIN LAYOUT
- SHEET NO. 8 OL 20 DETENTION BASIN DETAIL

FOR WESTERN ADDITION TO 1000 OAKS: PHASE 2 (PROJ NO. 12629: TOW 2)

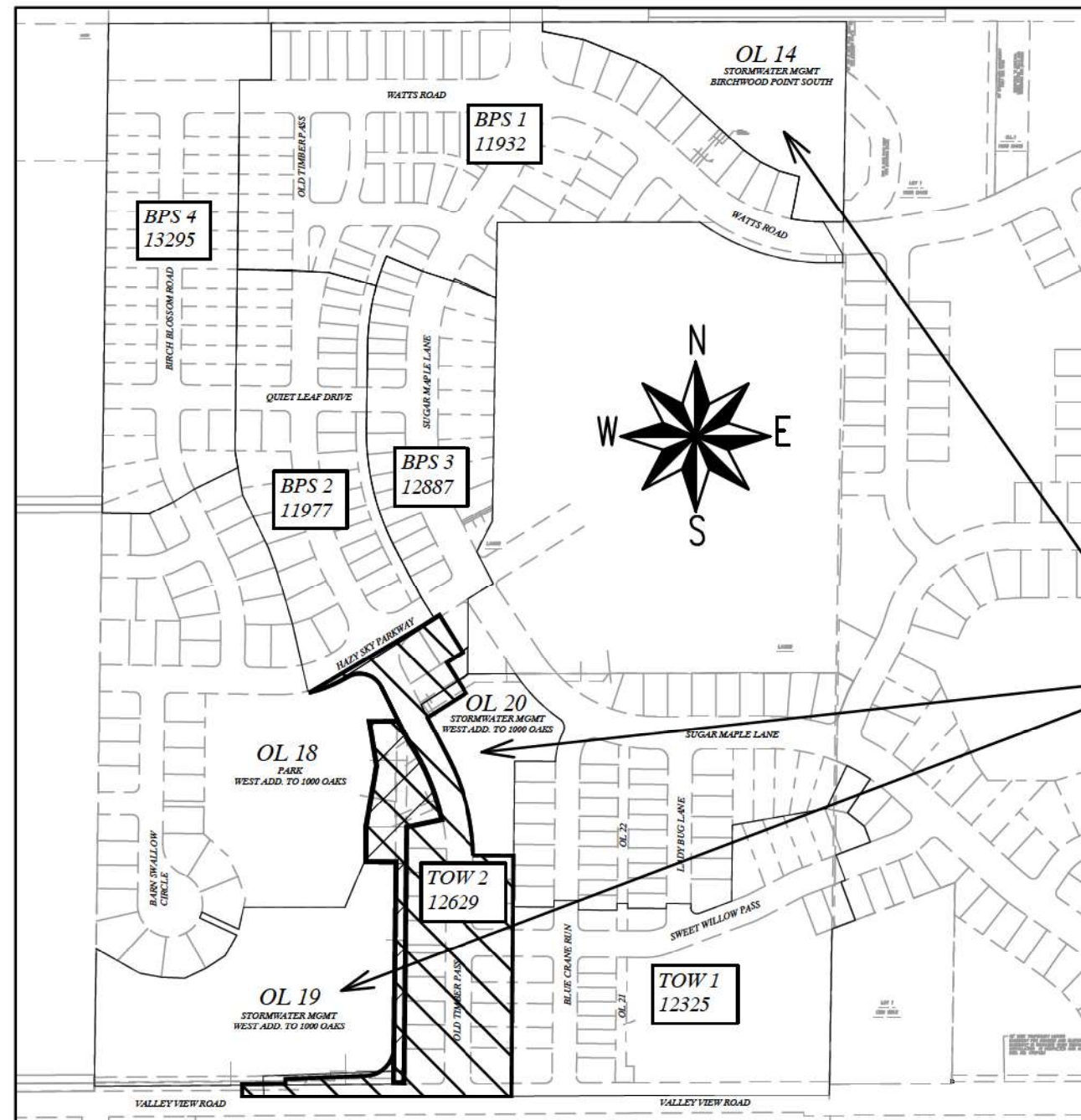
- * SHEET NO. 9 PHASE 2 STORMWATER MANAGEMENT DETAIL
- * SHEET NO. PBM-1 PROPERTY BOUNDARY MARKER PLAN

* = REVISED SHEETS ADDED AS PART OF CURRENT PLAN REVISION

= THIS PROJECT (OVERLAPS WITH TOW 2)
BIRCHWOOD POINT SOUTH
STORMWATER MANAGEMENT

= ADJACENT PROJECT,
WESTERN ADDITION
TO 1000 OAKS: PHASE 2
PROJECT NO. 12629
CONTRACT NO. 8463

CITY PROJECT NO. 11933 CITY CONTRACT NO. 8196 MUNIS NO. 11933



PREVIOUS STORMWATER
MANAGEMENT

PLOT SCALE: 1" = 1'

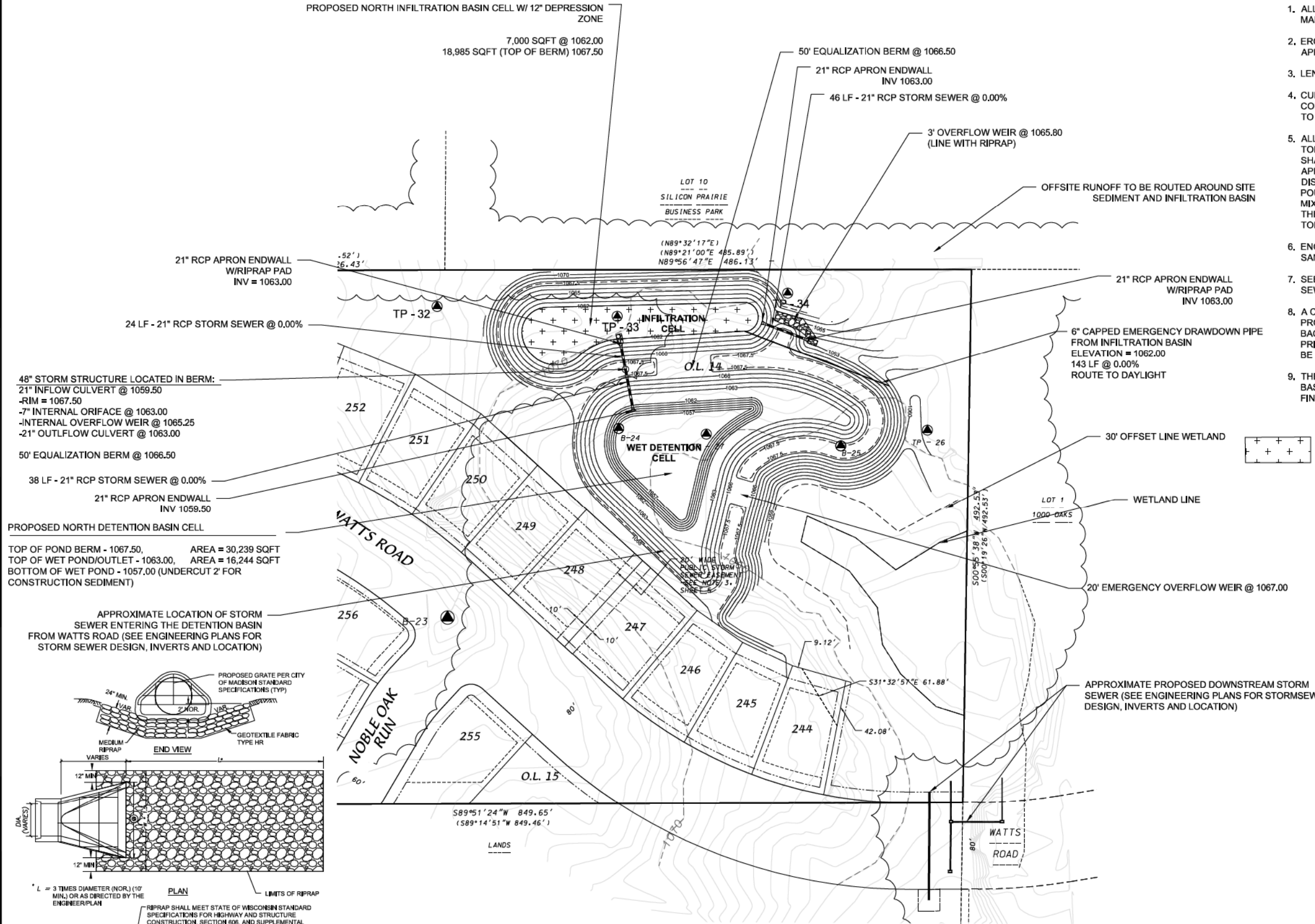
PLOT NAME: ---

REV. DATE: 6/30/2021 11:55 AM

ORIGINATOR: CITY_OF_MADISON

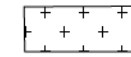
PROPOSED NORTH INFILTRATION BASIN CELL W/ 12" DEPRESSION ZONE

7,000 SQFT @ 1062.00
18,985 SQFT (TOP OF BERM) 1067.50



GENERAL NOTES:

1. ALL SITE WORK AND MATERIALS SHALL BE PER THE CITY OF MADISON STANDARD SPECIFICATIONS.
2. EROSION CONTROL MEASURES SHALL BE PLACED PER THE APPROVED EROSION CONTROL PLAN.
3. LENGTHS OF CULVERTS INCLUDE ENDWALLS.
4. CULVERT LENGTHS SHALL BE FIELD VERIFIED DURING CONSTRUCTION TO ENSURE THAT THEY ARE LONG ENOUGH TO CONFORM TO TYPICAL CROSS SECTION.
5. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 6" OF TOPSOIL, FERTILIZER, SEED AND MULCH. SEED MIXTURE SHALL BE WISCONSIN DOT SEED MIX #40 OR EQUIVALENT APPLIED AT A RATE OF 5 POUNDS PER 100 SQFT ON ALL DISTURBED AREAS. ANNUAL RYEGRASS AT A RATE OF 1 1/2 POUNDS PER 1000 SQFT SHALL BE ADDED TO THE MIXTURE. FERTILIZER SHALL BE PLACED PER A SOIL TEST. THE INFILTRATION AREA SHALL BE SEED WITH A SEED MIX TOLERANT OF FLUCTUATING WATER CONDITIONS.
6. ENGINEERED SOIL IN INFILTRATION BASIN SHALL BE 70-85% SAND & 15-30% COMPOST
7. SEE APPROVED ENGINEERING PLANS FOR SITE STORM SEWER TYPE, LENGTHS, AND SIZES
8. A CERTIFIED SOIL INSPECTOR SHALL CERTIFY THAT THE PROPOSED SOILS TO BE USED FOR THE INFILTRATION BASIN BACKFILL LAYER HAS THE INFILTRATION RATE REQUIRED PRIOR TO BACKFILLING. CLEAN SAND OR CLEAR STONE MAY BE USED AS AN ALTERNATIVE BACKFILL MATERIAL.
9. THE EMERGENCY DRAWDOWN PIPE IN THE INFILTRATION BASIN MAY BE OPEN TO ALLOW FOR RESTORATION UNTIL FINAL INFILTRATION BASIN RESTORATION OCCURS.



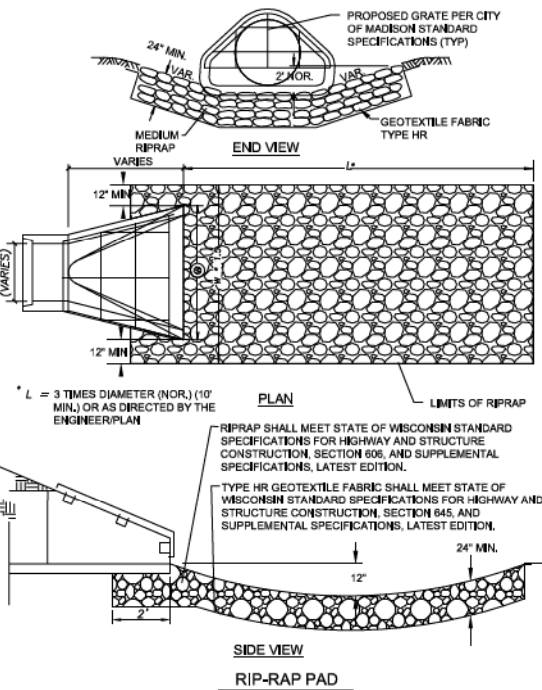
HATCH INDICATES INFILTRATION BASIN BOTTOM AREA. THIS AREA SHALL BE SEED WITH A NATIVE SEED MIX TOLERANT OF FLUCTUATING WATER CONDITIONS.

48" STORM STRUCTURE LOCATED IN BERM:
21" INFLOW CULVERT @ 1059.50
-RIM = 1067.50
-7" INTERNAL ORIFACE @ 1063.00
-INTERNAL OVERFLOW WEIR @ 1065.25
-21" OUTFLOW CULVERT @ 1063.00

50' EQUALIZATION BERM @ 1066.50
38 LF - 21" RCP STORM SEWER @ 0.00%
21" RCP APRON ENDWALL
INV 1059.50

PROPOSED NORTH DETENTION BASIN CELL
TOP OF POND BERM - 1067.50, AREA = 30,239 SQFT
TOP OF WET POND/OUTLET - 1063.00, AREA = 16,244 SQFT
BOTTOM OF WET POND - 1057.00 (UNDERCUT 2' FOR CONSTRUCTION SEDIMENT)

APPROXIMATE LOCATION OF STORM SEWER ENTERING THE DETENTION BASIN FROM WATTS ROAD (SEE ENGINEERING PLANS FOR STORM SEWER DESIGN, INVERTS AND LOCATION)



PLAN VIEW
PROPOSED NORTH WET DETENTION/INFILTRATION BASIN DETAIL
NOT TO SCALE

DONORIO KOTTKE AND ASSOCIATES, INC.
7590 Westwood Way, Madison, WI 53717
Phone: 608.833.7530 • Fax: 608.833.1089
YOUR NATURAL RESOURCE FOR LAND DEVELOPMENT

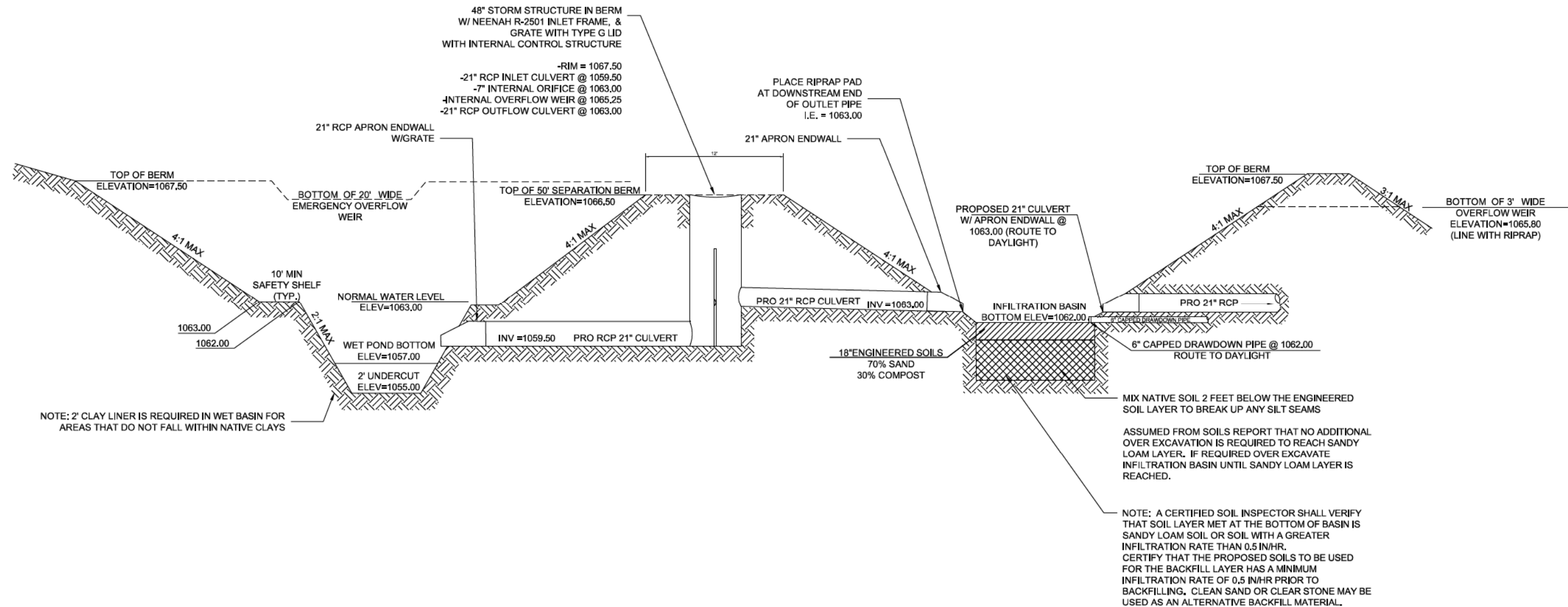
PROPOSED NORTH BASIN LAYOUT
SOUTH ADDITION TO BIRCHWOOD POINT

CITY OF MADISON, WISCONSIN



DATE: 09-17-18
REVISED:
DRAWN BY: GVP
FN: 17-04-110
Sheet Number:
1 OF 2





PROFILE VIEW

PROPOSED NORTH WET DETENTION/INFILTRATION BASIN DETAIL
 NOT TO SCALE

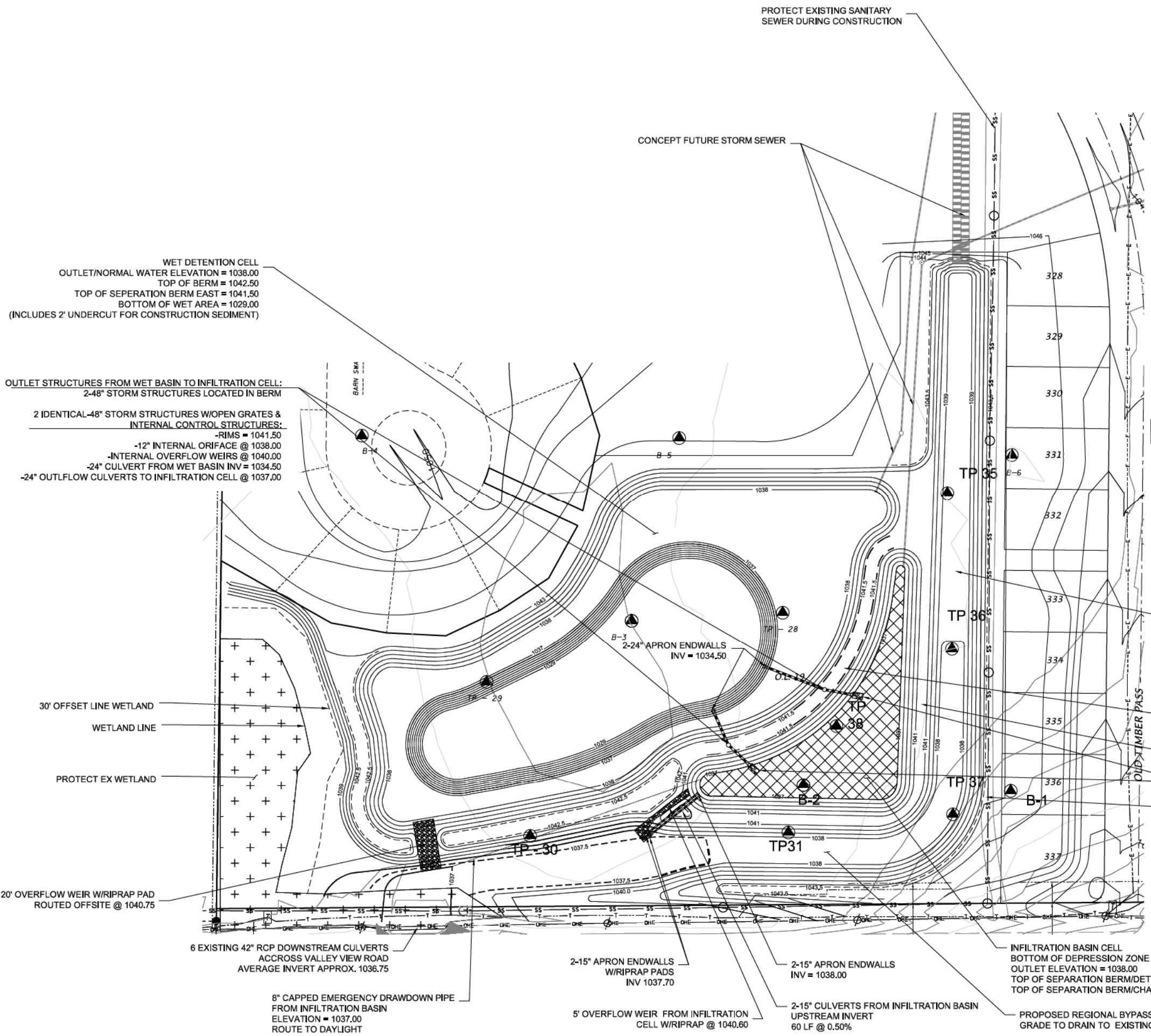


DATE: 09/17/18
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SOUTHERN ADDITION TO BIRCHWOOD POINT - SOUTH STORMWATER SYSTEM LAYOUT
SOUTHERN ADDITION TO BIRCHWOOD POINT-SOUTH BASIN
 CITY OF MADISON, WISCONSIN

- GENERAL NOTES:
1. ALL SITE WORK AND MATERIALS SHALL BE PER THE CITY OF MADISON STANDARD SPECIFICATIONS.
 2. EROSION CONTROL MEASURES SHALL BE PLACED PER THE APPROVED EROSION CONTROL PLAN.
 3. LENGTHS OF CULVERTS INCLUDE ENDWALLS.
 4. CULVERT LENGTHS SHALL BE FIELD VERIFIED DURING CONSTRUCTION TO ENSURE THAT THEY ARE LONG ENOUGH TO CONFORM TO TYPICAL CROSS SECTION.
 5. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 6" OF TOPSOIL, FERTILIZER, SEED AND MULCH. SEED MIXTURE SHALL BE PER THE CITY OF MADISON REQUIREMENTS. FERTILIZER SHALL BE PLACED PER A SOIL TEST. THE INFILTRATION AREA SHALL BE SEEDED WITH A SEED MIX TOLERANT OF FLUCTUATING WATER CONDITIONS.
 6. ENGINEERED SOIL IN INFILTRATION BASIN SHALL BE 70-85% SAND & 15-30% COMPOST
 7. SEE APPROVED ENGINEERING PLANS FOR SITE STORM SEWER TYPE, LENGTHS, AND SIZES
 8. A CERTIFIED SOIL INSPECTOR SHALL CERTIFY THAT THE PROPOSED SOILS TO BE USED FOR THE INFILTRATION BASIN BACKFILL LAYER HAS THE INFILTRATION RATE REQUIRED PRIOR TO BACKFILLING. CLEAN SAND OR CLEAR STONE MAY BE USED AS AN ALTERNATIVE BACKFILL MATERIAL.
 9. THE EMERGENCY DRAWDOWN PIPE IN THE INFILTRATION BASIN MAY BE OPEN TO ALLOW FOR RESTORATION UNTIL FINAL INFILTRATION BASIN RESTORATION OCCURS.



WET DETENTION CELL
 OUTLET/NORMAL WATER ELEVATION = 1038.00
 TOP OF BERM = 1042.50
 TOP OF SEPERATION BERM EAST = 1041.50
 BOTTOM OF WET AREA = 1029.00
 (INCLUDES 2' UNDERCUT FOR CONSTRUCTION SEDIMENT)

OUTLET STRUCTURES FROM WET BASIN TO INFILTRATION CELL:
 2-48" STORM STRUCTURES LOCATED IN BERM

2 IDENTICAL-48" STORM STRUCTURES W/OPEN GRATES & INTERNAL CONTROL STRUCTURES:
 -RIMS = 1041.50
 -12" INTERNAL ORIFACE @ 1038.00
 -INTERNAL OVERFLOW WEIRS @ 1040.00
 -24" CULVERT FROM WET BASIN INV = 1034.50
 -24" OUTFLOW CULVERTS TO INFILTRATION CELL @ 1037.00

HATCH INDICATES INFILTRATION BASIN BOTTOM AREA. THIS AREA SHALL BE SEEDED WITH A NATIVE SEED MIX TOLERANT OF FLUCTUATING WATER CONDITIONS.

REGIONAL BYPASS CHANNEL AREA

SEPERATION BERM BETWEEN WET DETENTION AND INFILTRATION BASIN @ 1041.50

SEPERATION BERM BETWEEN BYPASS CHANNEL AND INFILTRATION BASIN @ 1041.00

24" APRON ENDWALLS W/RIPRAP PADS INV 1037.00

EAST TOP OF CHANNEL = 1043.50

30' OFFSET LINE WETLAND

WETLAND LINE

PROTECT EX WETLAND

20' OVERFLOW WEIR W/RIPRAP PAD ROUTED OFFSITE @ 1040.75

6 EXISTING 42" RCP DOWNSTREAM CULVERTS ACCROSS VALLEY VIEW ROAD AVERAGE INVERT APPROX. 1036.75

8" CAPPED EMERGENCY DRAWDOWN PIPE FROM INFILTRATION BASIN ELEVATION = 1037.00 ROUTE TO DAYLIGHT

2-15" APRON ENDWALLS W/RIPRAP PADS INV 1037.70

5' OVERFLOW WEIR FROM INFILTRATION CELL W/RIPRAP @ 1040.60

2-15" APRON ENDWALLS INV = 1038.00

2-15" CULVERTS FROM INFILTRATION BASIN UPSTREAM INVERT 60 LF @ 0.50%

INFILTRATION BASIN CELL BOTTOM OF DEPRESSION ZONE = 1037.00
 OUTLET ELEVATION = 1038.00
 TOP OF SEPERATION BERM/DETENTION BASIN = 1041.50
 TOP OF SEPERATION BERM/CHANNEL EAST = 1041.00

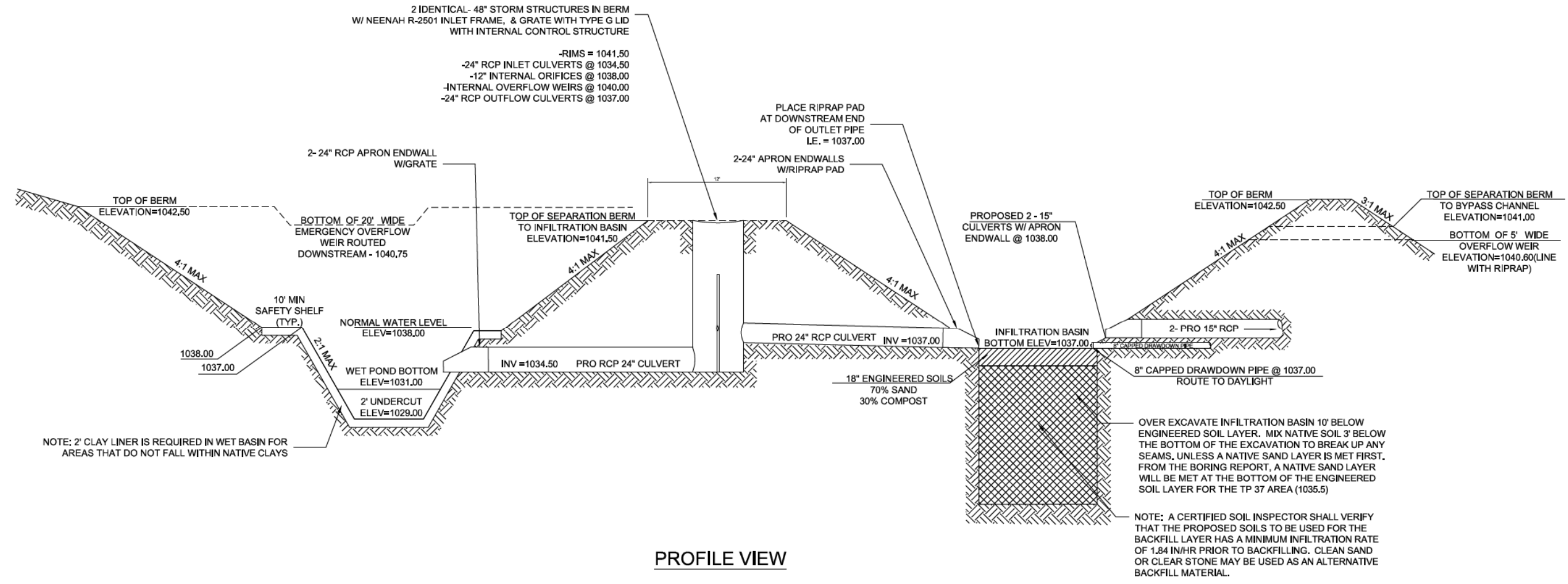
PROPOSED REGIONAL BYPASS CHANNEL GRADE TO DRAIN TO EXISTING CULVERTS



DATE: 06/10/19
 REVISIONS:

 DRAWN BY: GVP
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 Sheet Number:
 3

SOUTHERN ADDITION TO BIRCHWOOD POINT-SOUTH BASIN



PROFILE VIEW
 SOUTHERN ADDITION TO BIRCHWOOD POINT - SOUTH WET
 DETENTION/INFILTRATION BASIN DETAIL
 NOT TO SCALE

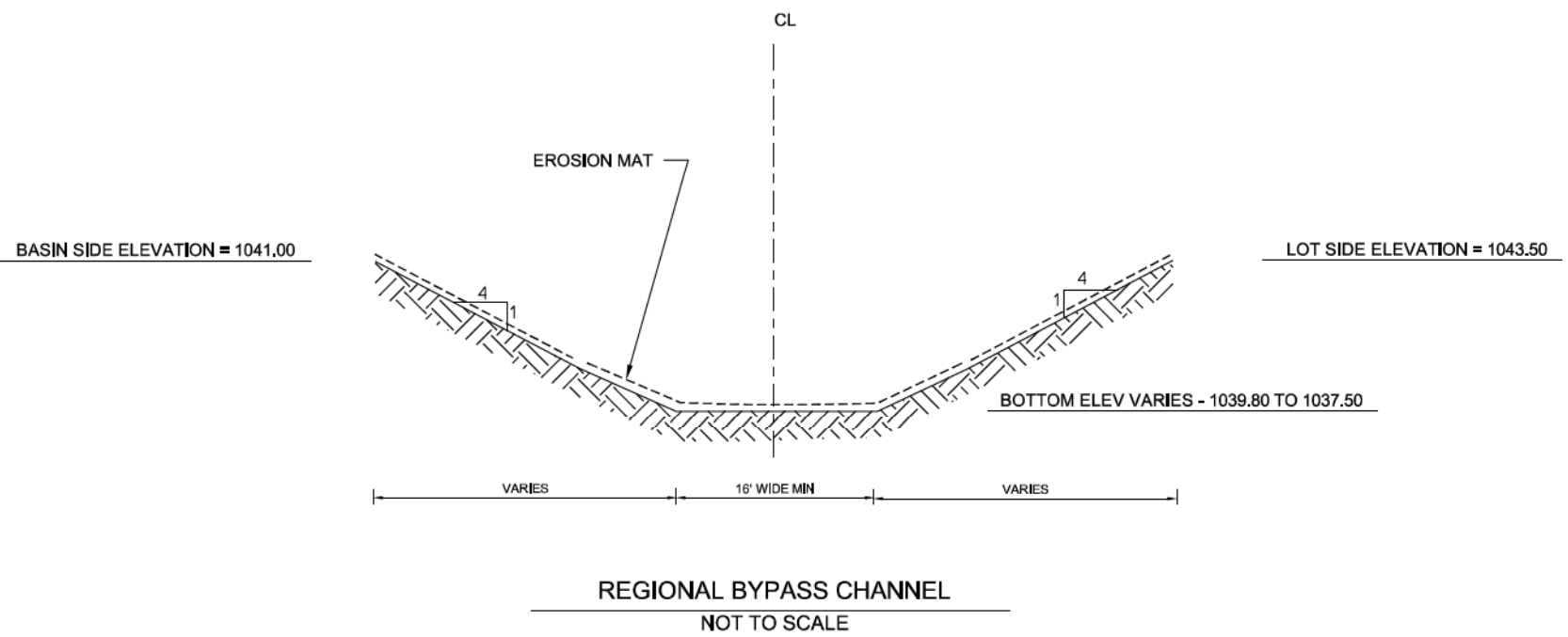


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Westwood, WI
Phone: 608.833.7530 • Fax: 608.833.1089

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REGIONAL BYPASS CHANNEL
NOT TO SCALE

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7530 Westward Way, Madison, WI 53717
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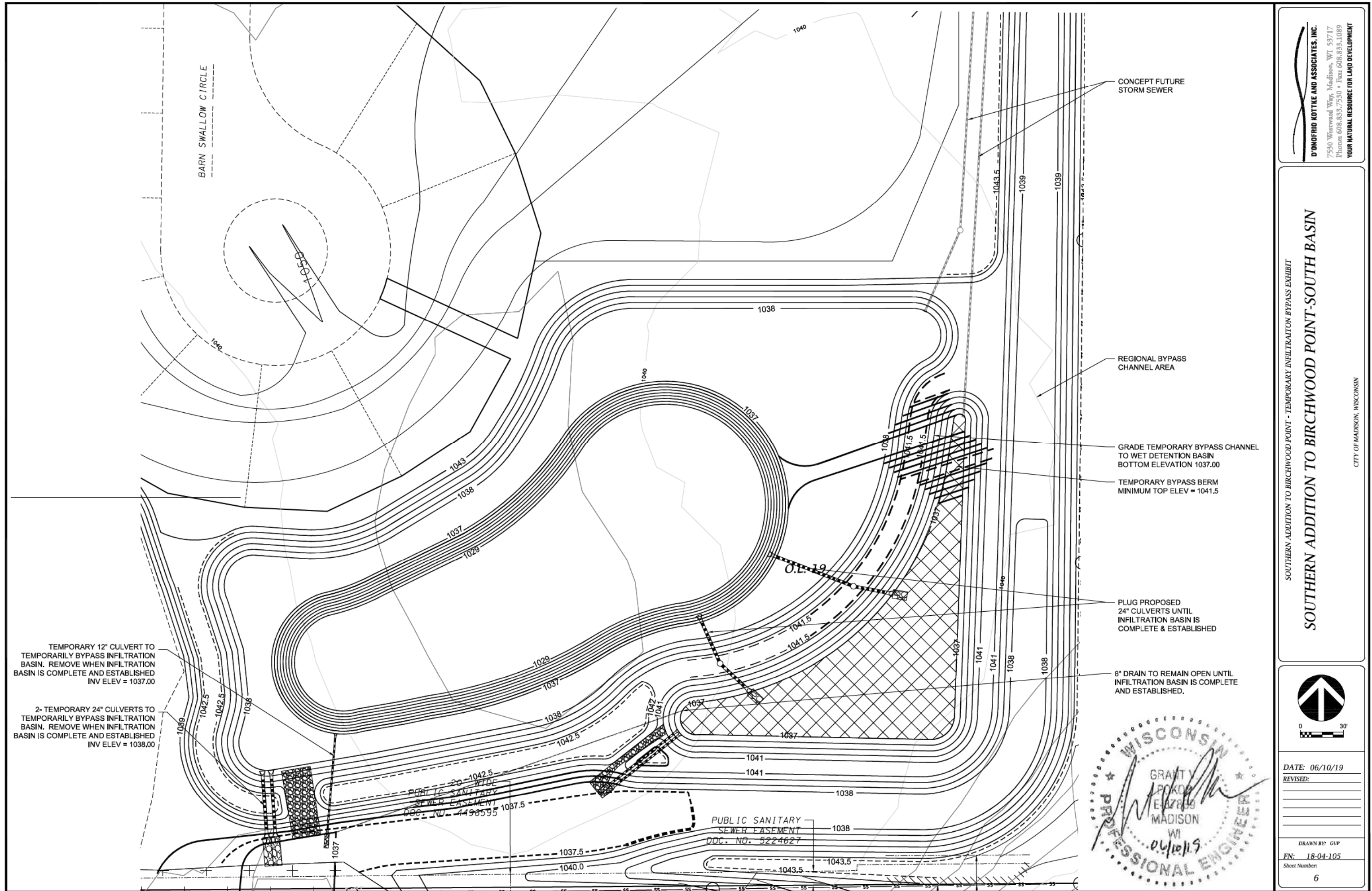
SOUTHERN ADDITION TO BIRCHWOOD POINT - REGIONAL BYPASS CHANNEL
SOUTHERN ADDITION TO BIRCHWOOD POINT-SOUTH BASIN

CITY OF MADISON, WISCONSIN



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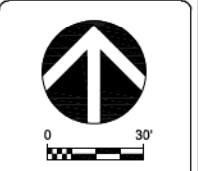


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SOUTHERN ADDITION TO BIRCHWOOD POINT - TEMPORARY INFILTRATION BYPASS EXHIBIT

SOUTHERN ADDITION TO BIRCHWOOD POINT-SOUTH BASIN

CITY OF MADISON, WISCONSIN

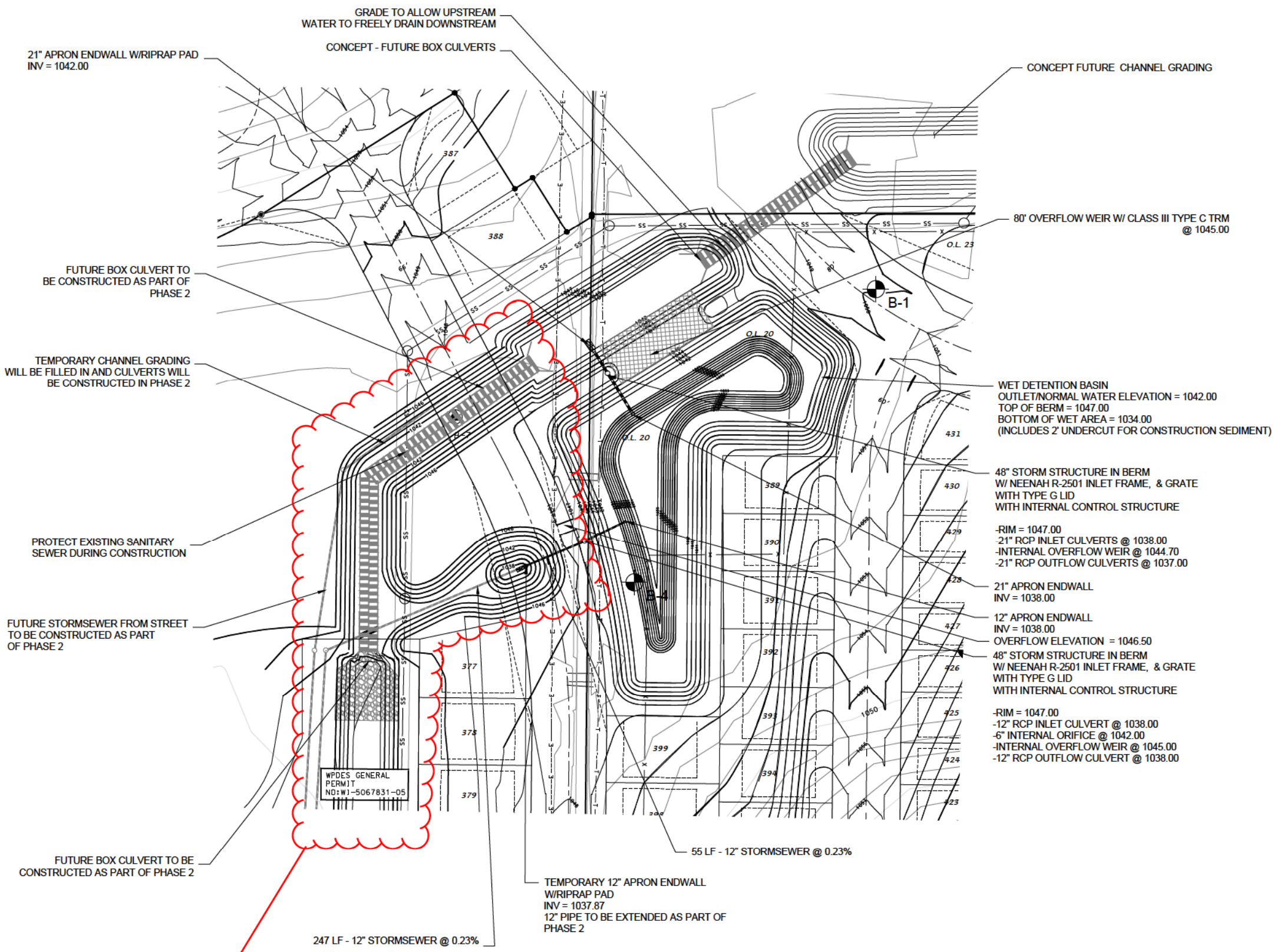
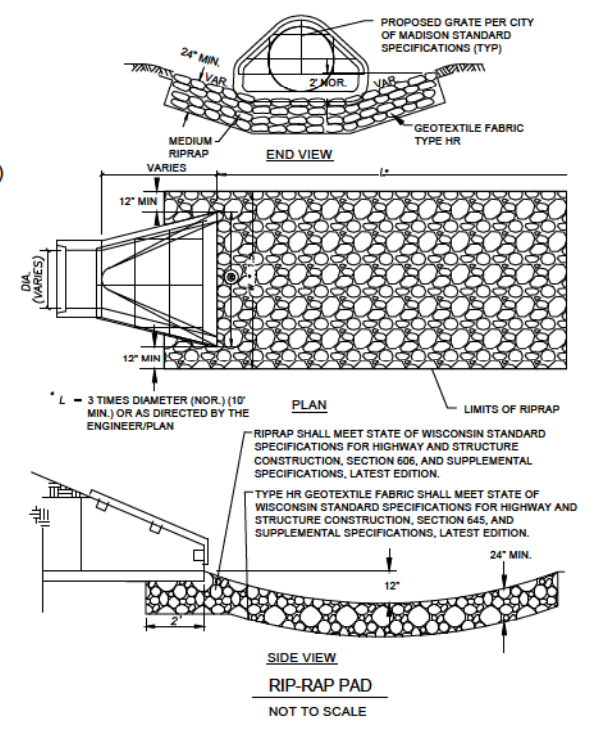


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 6. SEE APPROVED ENGINEERING PLANS FOR SITE STORM SEWER TYPE, LENGTHS, AND SIZES



REV 2021 06-30 JPS
 PREVIOUSLY BUILT CHANNEL AND PREVIOUSLY DESIGNED CHANNEL HAS BEEN UPDATED WITH WESTERN ADDITION 1000 OAKS PHASE 2 WORK. SEE 12629 FOR UTILITY AND STREET DESIGN SEE SHEET 9 THIS PLAN SET FOR GRADING DESIGN

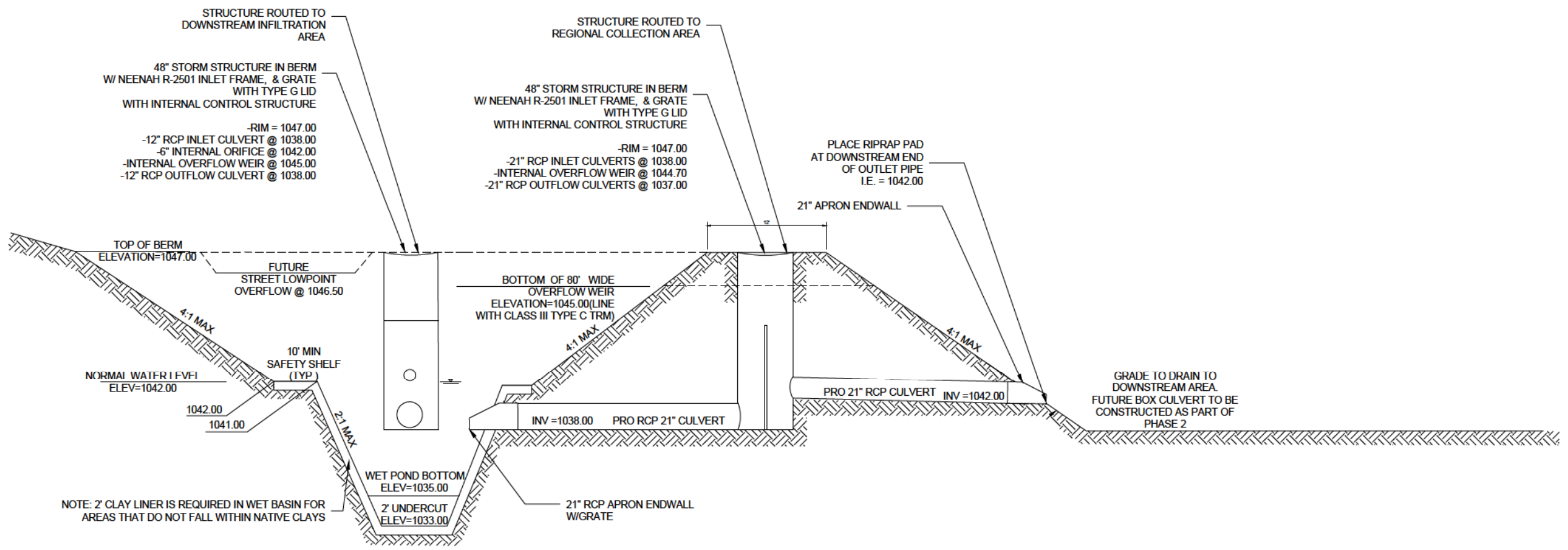


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WESTERN ADDITION TO 1000 OAKS- PHASE 1

WESTERN ADDITION TO 1000 OAKS- WET DETENTION DETAIL.

CITY OF MADISON, WISCONSIN



PROFILE VIEW

PROPOSED WESTERN ADDITION TO 1000 OAKS WET DETENTION BASIN
DETAIL

NOT TO SCALE

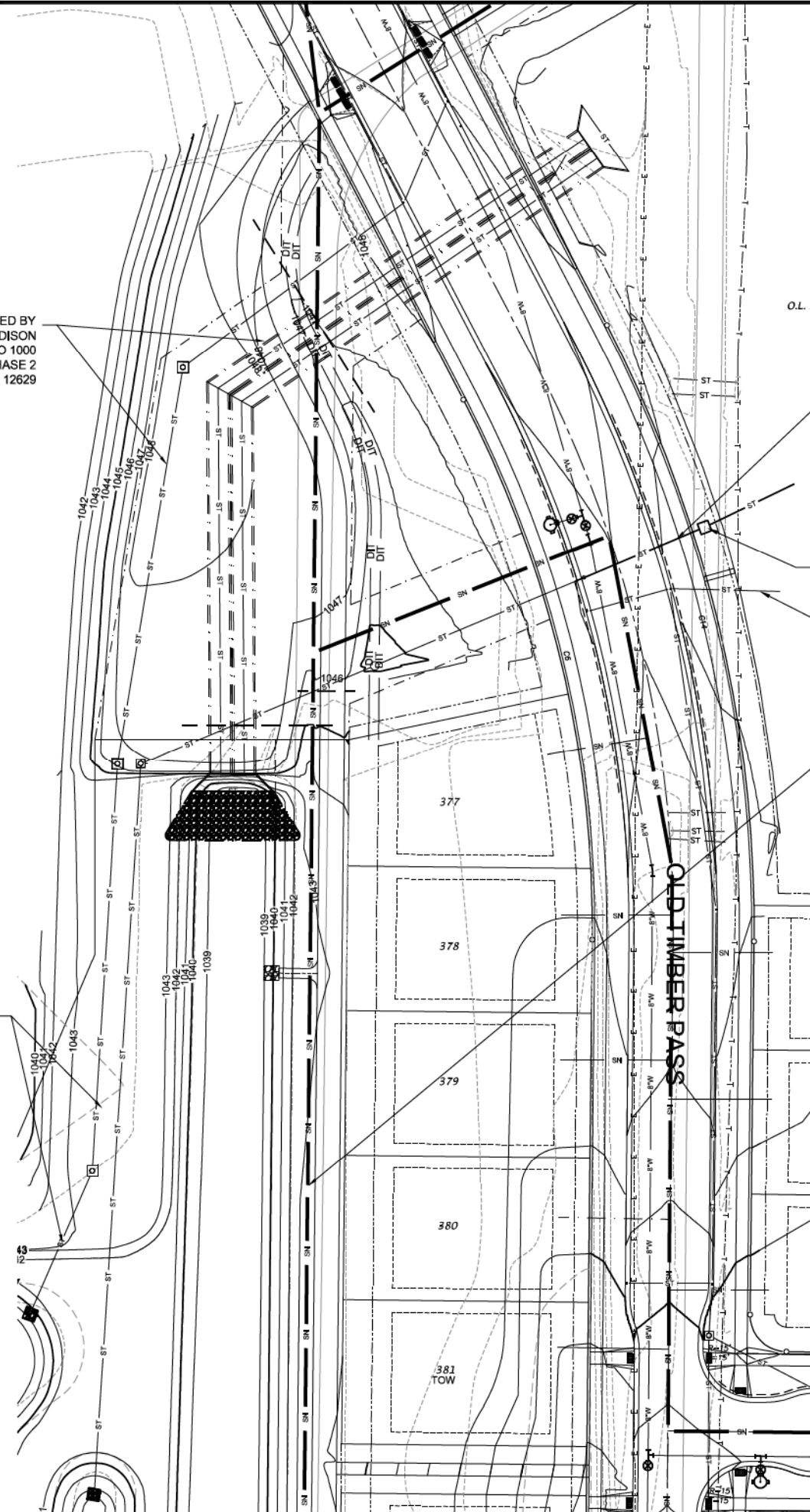


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STORMSEWER TO BE DESIGNED BY THE CITY OF MADISON
SEE WESTERN ADDITION TO 1000 OAKS - PHASE 2
PROJECT NO. 12629

STORMSEWER TO BE DESIGNED BY THE CITY OF MADISON
SEE WESTERN ADDITION TO 1000 OAKS - PHASE 2
PROJECT NO. 12629



O.L. 20

EX 12" STORMSEWER @ 0.23%

EX. 12" RCP OUTFLOW CULVERT @ 1038.00

STORMSEWER DESIGNED BY THE CITY OF MADISON. STORM SEWER TO DRAIN OLD TIMBER PASS TO WET DETENTION BASIN
SEE WESTERN ADDITION TO 1000 OAKS - PHASE 2
PROJECT NO. 12629

EX SANITARY SEWER MH
INV N = 1029.82

REV 2021 06-30 JPS
REVIOUSLY BUILT CHANNEL AND PREVIOUSLY DESIGNED STORM SEWER HAS BEEN UPDATED WITH WESTERN ADDITION 1000 OAKS PHASE 2 WORK.
SEE 12629 FOR UTILITY AND STREET DESIGN
SEE THIS SHEET FOR GRADING DESIGN

GENERAL NOTES:

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4. SEE WESTERN ADDITION TO 1000 OAKS - PHASE 2 (PROJECT NO. 12629) ENGINEERING PLANS FOR SITE STORM SEWER TYPE, LENGTHS, AND SIZES.

PHASE 2 STORMWATER MANAGEMENT DETAIL

WESTERN ADDITION TO 1000 OAKS - PHASE 2

CITY OF MADISON, WISCONSIN

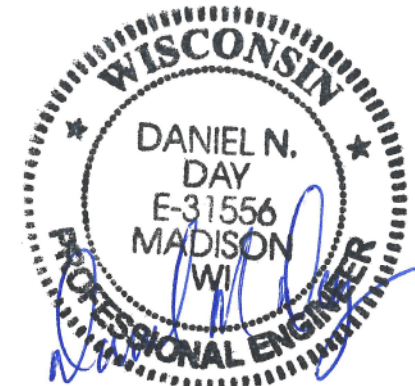


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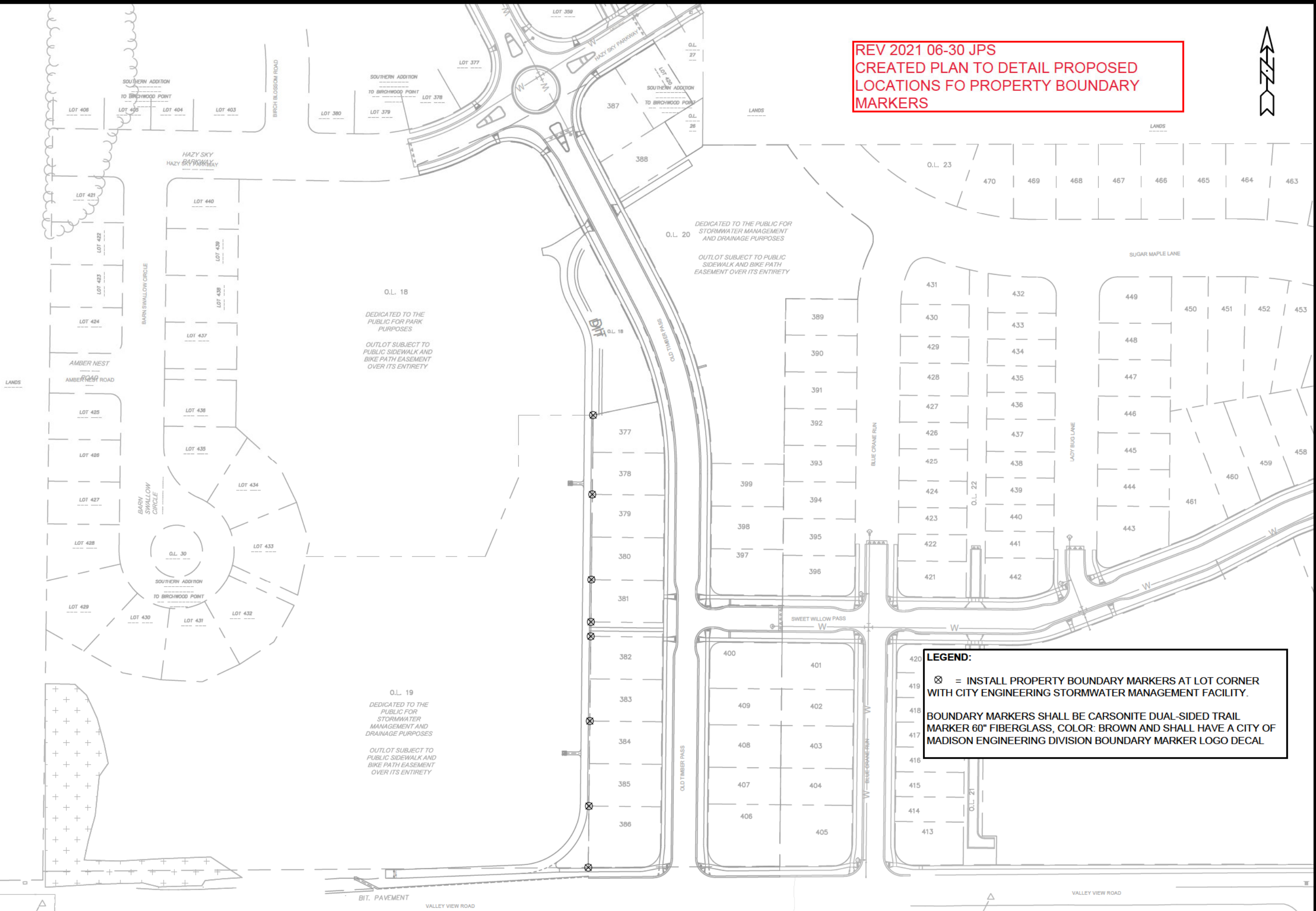
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07/21/2021

REV 2021 06-30 JPS
 CREATED PLAN TO DETAIL PROPOSED
 LOCATIONS FO PROPERTY BOUNDARY
 MARKERS



LEGEND:
 ⊗ = INSTALL PROPERTY BOUNDARY MARKERS AT LOT CORNER WITH CITY ENGINEERING STORMWATER MANAGEMENT FACILITY.
 BOUNDARY MARKERS SHALL BE CARSONITE DUAL-SIDED TRAIL MARKER 60" FIBERGLASS, COLOR: BROWN AND SHALL HAVE A CITY OF MADISON ENGINEERING DIVISION BOUNDARY MARKER LOGO DECAL

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REVISION	
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11933	
PBM-1	

11933
 MADISON, WI
 BIRCHWOOD POINT SOUTH STORMWATER MANAGEMENT
 CONTRACT NO: 8196
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