LAKE COUNTRY LUTHERAN

PRELIMINARY DEVELOPMENT PLANS
CAMPUS DRIVE
VILLAGE OF HARTLAND, WISCONSIN

GENERAL NOTES

THE LATEST EDITIONS OF THE FOLLOWING DOCUMENTS AND ANY SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS ON THIS PLAN UNLESS OTHERWISE NOTED.

- STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, 6TH EDITION (SSSWCW)
- THE WISCONSIN D.O.T. STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION
- WDNR STORMWATER RUNOFF TECHNICAL STANDARDS.
- WISDOT PAL APPROVED EROSION CONTROL MEASURES LIST, LATEST EDITION.
- VILLAGE OF HARTLAND STANDARDS & REQUIREMENTS FOR DEVELOPMENT, LATEST EDITION.

THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO MINIMIZE EROSION, WATER POLLUTION AND SILTATION CAUSED BY CONSTRUCTION OF THIS PROJECT. EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS.

EROSION CONTROL PLAN: PRIOR TO BEGINNING WORK, AN APPROVED EROSION CONTROL PLAN WILL BE PROVIDED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY IMPLEMENTING THE APPROVED PLAN.

THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATIONS OF THE BENCHMARKS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL ALSO FIELD VERIFY LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES, AND VERIFY FLOOR, CURB OR PAVEMENT ELEVATIONS WHERE MATCHING INTO EXISTING WORK. THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL CONTROL BY REFERENCING SHOWN COORDINATES TO KNOWN PROPERTY LINES. NOTIFY ENGINEER OF DISCREPANCIES IN EITHER VERTICAL OR HORIZONTAL CONTROL PRIOR TO PROCEEDING WITH WORK.

THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION (CALL DIGGERS HOTLINE AT 800-242-8511). COST OF REPLACEMENT OR REPAIR OF EXISTING UTILITIES DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATION SHALL BE THE CONTRACTOR'S RESPONSIBILITY

EXISTING UTILITY INFORMATION IS SHOWN FROM SURVEY WORK, FIELD OBSERVATIONS, AVAILABLE PUBLIC RECORDS, AND AS-BUILT DRAWINGS. EXACT LOCATIONS AND ELEVATIONS OF UTILITIES SHALL BE DETERMINED PRIOR TO INSTALLING NEW WORK. EXCAVATE TEST PITS AS REQUIRED.

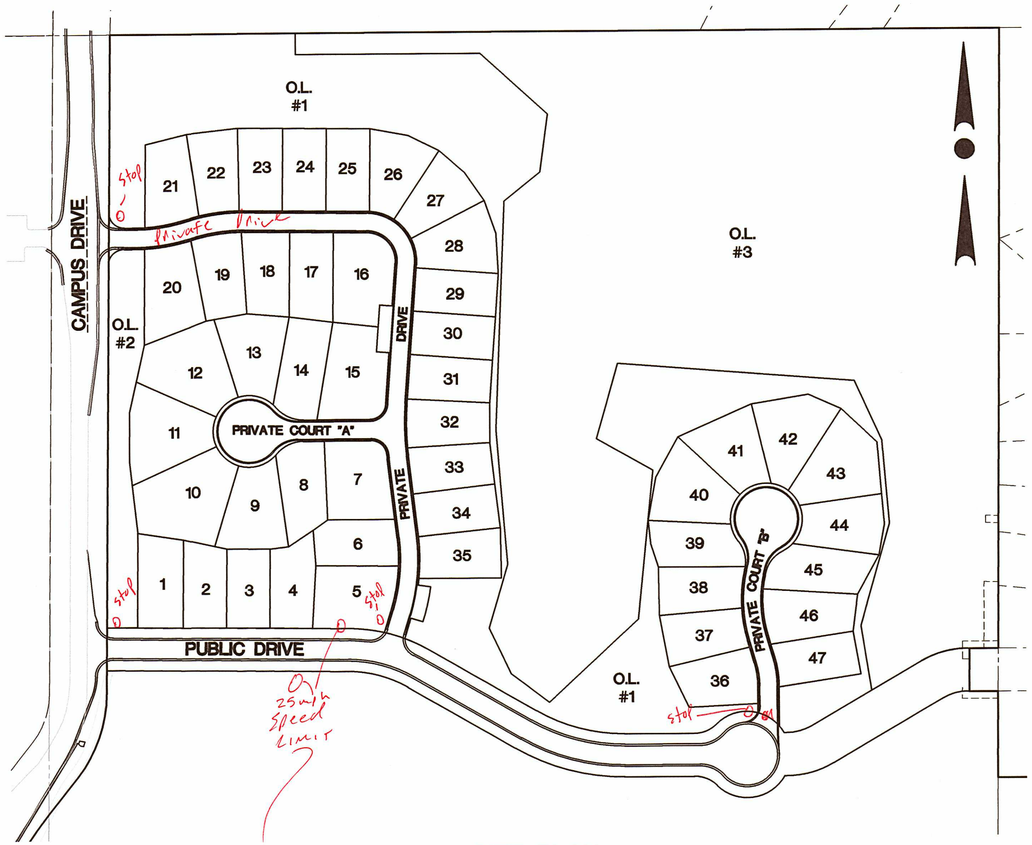
PROPERTY CORNERS SHALL BE CAREFULLY PROTECTED UNTIL THEY HAVE BEEN REFERENCED BY A PROFESSIONAL LAND SURVEYOR. PROPERTY MONUMENTS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

ENGINEER SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF PERFORMING ANY CONSTRUCTION.

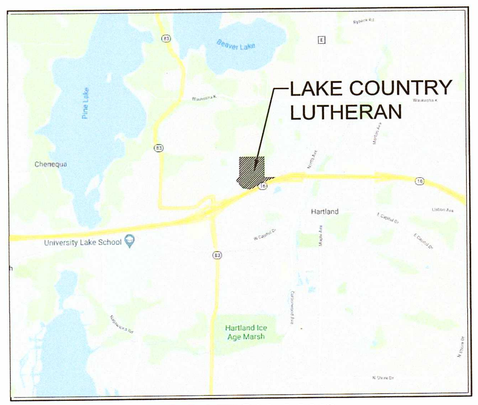
ALL TRENCHING SHALL BE PERFORMED ACCORDING TO OSHA STANDARDS.

ALL ITEMS SHALL INCLUDE ALL THE NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.

THE CONTRACTOR SHALL CLEAN ALL ADJACENT STREETS OF ANY SEDIMENT OR DEBRIS AS REQUIRED BY MUNICIPAL ORDINANCE.



SITE PLAN
SCALE: 1" = 100'



LOCATION MAP
NOT TO SCALE

Village STAFF Review Comments Dated 7/14/2020

DEVELOPER:
NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072
PHONE: (262) 542-9200
FAX: (262) 349-9324

SHEET INDEX

CIVIL		
T1	–	COVER SHEET
C0.10	–	EXISTING SITE PLAN
C0.20	–	PROPOSED SITE PLAN
C1.00	–	OVERALL GRADING & DRAINAGE PLAN
C1.01–C1.04	–	GRADING & DRAINAGE PLANS
C1.05–C1.07	–	POND DETAIL PLANS
C2.00	–	EROSION CONTROL PLAN
C3.00	–	SANITARY SEWER & WATER MAIN SYSTEM PLAN
C3.01–C3.04	–	SANITARY SEWER AND WATER MAIN PLAN & PROFILE
C4.00	–	STORM SEWER SYSTEM PLAN
C4.01–C4.03	–	ROADWAY AND STORM SEWER PLAN & PROFILE
C4.04–C4.05	–	STORM SEWER PLAN & PROFILE
C5.00–C5.01	–	INTERSECTION DETAIL
C6.00–C6.03	–	CONSTRUCTION NOTES & DETAILS

ADD Pavement Marking/Signing (Show Existing Conditions @ Campus Drive Connections)
ADD Landscape sheet

CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.
CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.

WISCONSIN PROFESSIONAL ENGINEER
JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI

TRIO DESIGN • LAND SURVEYING CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

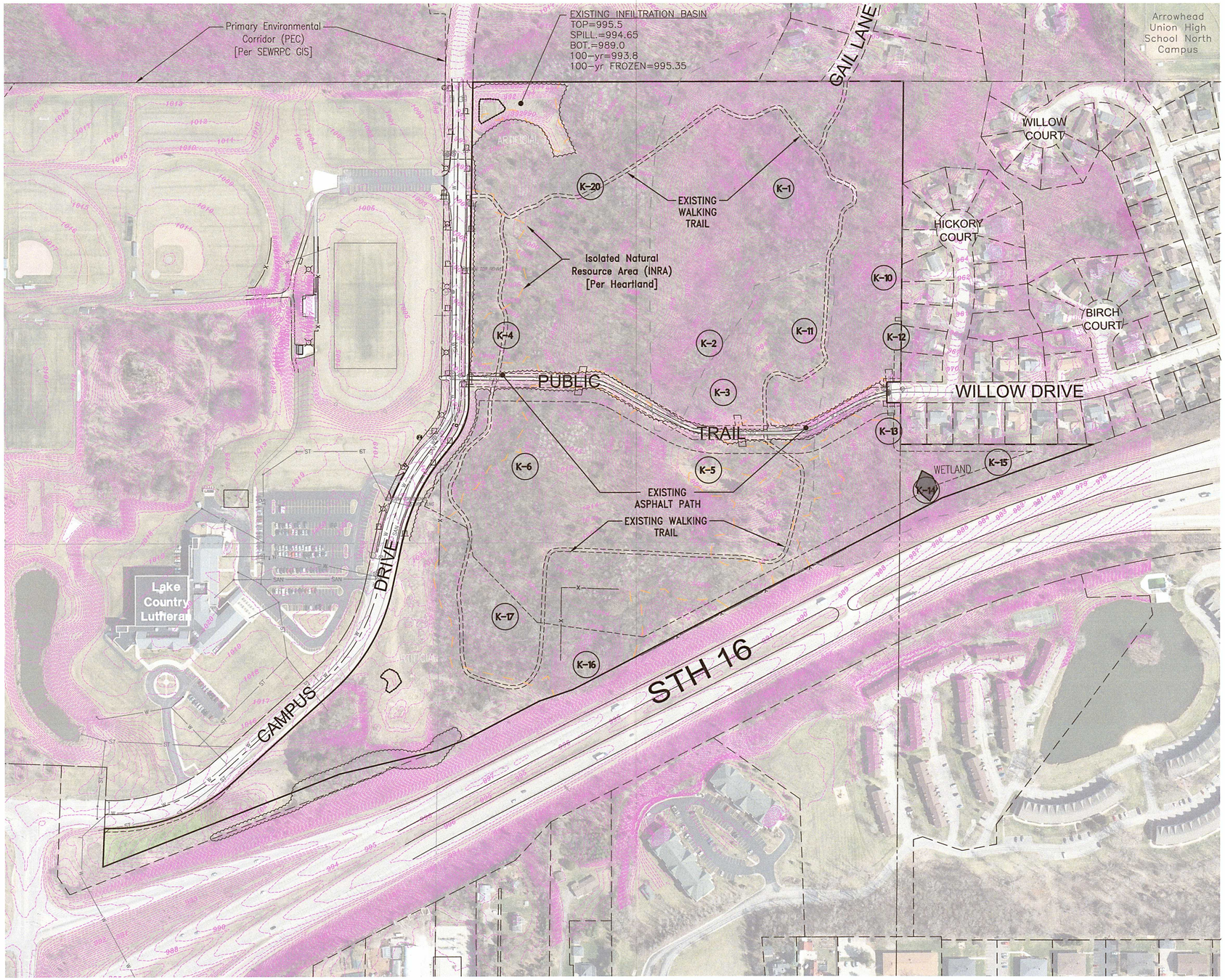
DATE:
JULY 2, 2020

JOB NUMBER:
19023-953

DESCRIPTION:
COVER SHEET

SHEET
T1

H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_COVER & DETAILS-22X34.DWG



		Storm Event	Existing
Kettle 1	Spillway-975 Bottom-944	100-yr	953.25
		FROZEN	*964.03*
Kettle 2	Spillway-973.7 Bottom-966	100-yr	973.89
		FROZEN	*975.56*
Kettle 3	Spillway-976 Bottom-972	100-yr	976.29
		FROZEN	*976.79*
Kettle 4	Spillway-1008.5 Bottom-1007	100-yr	1008.13
		FROZEN	*1008.66*
Kettle 5	Spillway-985.1 Bottom-982.5	100-yr	984.22
		FROZEN	*985.82*
Kettle 6	Spillway-1012.7 Bottom-1011	100-yr	1012.10
		FROZEN	*1012.96*
Kettle 10	Spillway-964.5 Bottom-953	100-yr	960.89
		FROZEN	*965.08*
Kettle 11	Spillway-980.5 Bottom-979	100-yr	980.51
		FROZEN	*980.84*
Kettle 12	Spillway-963 Bottom-956	100-yr	960.40
		FROZEN	*965.08*
Kettle 13	Spillway-966 Bottom-959.4	100-yr	960.14
		FROZEN	*963.41*
Kettle 14	Spillway-961.3 Bottom-955	100-yr	961.49
		FROZEN	*963.41*
Kettle 15	Spillway-972.5 Bottom-970	100-yr	972.15
		FROZEN	*972.77*
Kettle 16	Spillway-1007 Bottom-1005	100-yr	1007.15
		FROZEN	*1008.04*
Kettle 17	Spillway-1012 Bottom-1011	100-yr	1012.19
		FROZEN	*1012.87*
Kettle 20	Spillway-995.5 Bottom-992	100-yr	993.60
		FROZEN	*995.21*

~~Hit~~ update w/ revised elevations

0 75 150 300

Scale: 1" = 150' (22"X34")

Scale: 1" = 300' (11"X17")

ISOLATED NATURAL RESOURCE AREA NOTE:

Isolated Natural Resource Area boundary shown (in orange) hereon was delineated by Heartland Ecological Group Inc. in February 2020.

HORIZONTAL DATUM PLANE:

ALL BEARINGS ARE REFERENCED TO GRID NORTH OF THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (NAD-27), IN WHICH THE NORTH LINE OF THE S.W. 1/4 OF SECTION 34, TOWN 8 NORTH, RANGE 18 EAST, BEARS N89°54'10"E.

VERTICAL DATUM PLANE:

All elevations are referenced to the National Geodetic Vertical Datum of 1929 via a ground survey by Trio Engineering, LLC. and Waukesha County GIS topographic data.

WISCONSIN
JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI
PROFESSIONAL ENGINEER

DESIGN • LAND SURVEYING
TRIO
CIVIL ENGINEERING

4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN

LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN

BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

DATE:
JULY 2, 2020

JOB NUMBER:
19023-953

DESCRIPTION:
EXISTING SITE PLAN

SHEET
C0.10

H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_SITE PLAN-22X34.DWG



0 75 150 300

Scale: 1" = 150' (22"X34")

Scale: 1" = 300' (11"X17")

DEVELOPMENT SUMMARY

Total Area		
Area A - RS-5 (PUD)	=	27.435 acres
Area B - Institutional	=	16.968 acres
Existing Institutional I-1	=	8.910 acres
Total Area	=	53.313 acres

Proposed UCO (Isolated Natural Resource Area)		
Area A - UCO	=	11.018 acres
Area B - UCO	=	4.246 acres
Proposed UCO Area	=	15.264 acres

AREA A Development Summary

- Total Area: 27.435 acres
- Public Road Dedication -1.746 acres
- UCO Area: - 11.018 acres
- Net Area: 14.671 acres

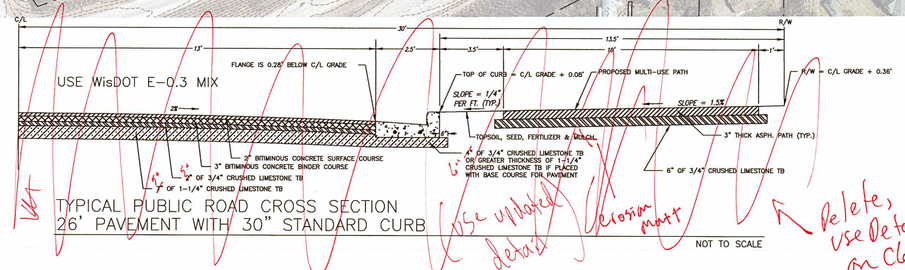
- Proposed Zoning: RS-5 PUD "Clustered Conservancy Community"

- 47 - Single Family Condominiums
- Net Density = 47 / 14.671 = 3.20 units/acre

AREA B Development Summary

- Total Area: 16.968 acres
- UCO Area: - 4.246 acres
- Net Area: 12.722 acres

- Existing Zoning: I-1 "Institutional"



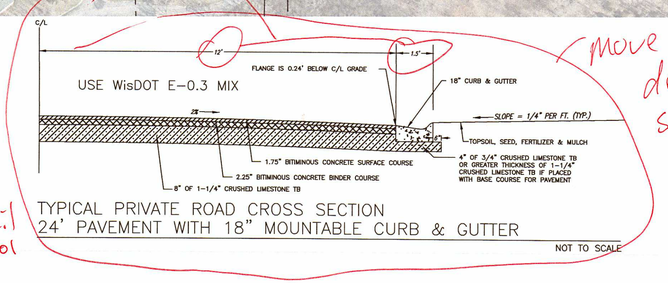
TYPICAL PUBLIC ROAD CROSS SECTION
26' PAVEMENT WITH 30" STANDARD CURB

NOT TO SCALE

Use updated details

Erosion matt

Delete, use detail on C601



TYPICAL PRIVATE ROAD CROSS SECTION
24' PAVEMENT WITH 18" MOUNTABLE CURB & GUTTER

NOT TO SCALE

move to detail sheet

ISOLATED NATURAL RESOURCE AREA NOTE:

Isolated Natural Resource Area boundary shown (in orange) hereon was delineated by Heartland Ecological Group Inc. in February 2020.

HORIZONTAL DATUM PLANE:

ALL BEARINGS ARE REFERENCED TO GRID NORTH OF THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (NAD-27), IN WHICH THE NORTH LINE OF THE S.W. 1/4 OF SECTION 34, TOWN 8 NORTH, RANGE 18 EAST, BEARS N89°54'10"E.

VERTICAL DATUM PLANE:

All elevations are referenced to the National Goedetic Vertical Datum of 1929 via a ground survey by Trio Engineering, LLC. and Waukesha County GIS topographic data.

DEVELOPER:

NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072
PHONE: (262) 542-9200
FAX: (262) 349-9324

ENGINEER / SURVEYOR:

TRIO ENGINEERING, LLC
4100 N CALHOUN ROAD, SUITE 300
BROOKFIELD, WISCONSIN 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481

WISCONSIN
JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI
PROFESSIONAL ENGINEER

TRIO
DESIGN • LAND SURVEYING
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

DATE:
JULY 2, 2020

JOB NUMBER:
19023-953

DESCRIPTION:
OVERALL PROPOSED SITE PLAN

SHEET
C0.20

H:\C900\953\19023-01\CONSTRUCTION PLANS\CIVIL_LCL NORTH\CIVIL_LCL NORTH_SITE PLAN-22X34.DWG

EXISTING INFILTRATION BASIN

WET DETENTION POND #20

O.L. #1

CAMPUS DRIVE

PRIVATE ROAD

PRIVATE COURT "A"

PRIVATE COURT "B"

PUBLIC DRIVE

O.L. #2

O.L. #3

WET DETENTION POND #11

WET DETENTION POND #5

KETTLE 1

KETTLE 2

KETTLE 3

KETTLE 10

KETTLE 12

40' WIDE PUBLIC SANITARY SEWER EASEMENT TO BE REPLACED BY PUBLIC R.O.W.

CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.
CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.

Scale: 1" = 60' (22"X34")
Scale: 1" = 120' (11"X17")

H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_GRADING-22X34.DWG

WISCONSIN
JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI
PROFESSIONAL ENGINEER

DESIGN • LAND SURVEYING
TRIO
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

DATE: JULY 2, 2020

JOB NUMBER: 19023-953

DESCRIPTION: OVERALL GRADING PLAN

SHEET C1.00

0 15 30 60

Scale: 1" = 30' (22"X34")

Scale: 1" = 60' (11"X17")

CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.
CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.

- Where does Existing Infil Basin overflow too? East - per Josh
- Show overflow route

EXISTING INFILTRATION BASIN

O.L. #1

PROPOSED TREELINE

CAMPUS DRIVE

PRIVATE ROAD

PRIVATE COURT "A"

PROPOSED TREELINE

O.L. #2

PROPOSED TREELINE

O.L. #3

WET DETENTION POND 20
N.W.L=989.00
TOP=994.25
BOTTOM=984.00
15' SPILLWAY=993.25
1-YEAR=989.61
2-YEAR=989.77
10-YEAR=990.55
100-YEAR=993.08
100-YEAR FROZEN=993.90

- Change to Basin - Update
- What type/size of Inlet Grates?
- Why is this 3'? → 11' F-3'
  - What type Classification
  - Where is Row Line
  - Who
- Min Stall Size Should Be 180 Sq. Ft.
  - Use 20' length from Back Curb To End Stall (Typ. for all parking areas)

H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_GRADING-22X34.DWG

JOSHUA D. PUDELKO E-39420 WAUWATOSA, WI
WISCONSIN PROFESSIONAL ENGINEER

DESIGN • LAND SURVEYING
TRIO
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: Info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

DATE: JULY 2, 2020

JOB NUMBER: 19023-953

DESCRIPTION: GRADING AND DRAINAGE PLAN

SHEET C1.01



CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.

WISCONSIN
JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI
PROFESSIONAL ENGINEER

TRIO
DESIGN • LAND SURVEYING
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

DATE:
JULY 2, 2020

JOB NUMBER:
19023-953

DESCRIPTION:
GRADING AND DRAINAGE PLAN

SHEET
C1.02

H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_GRADING-22X34.DWG

PUBLIC DRIVE

40' WIDE PUBLIC SANITARY SEWER EASEMENT TO BE REPLACED BY PUBLIC R.O.W.

KETTLE 2

KETTLE 3

KETTLE 12

O.L. #1

PRIVATE COURT "B"

34 — FG 1001.0 — EXP 997.0

35 — FG 1001.5 — EXP 993.5

36 — FG 984.5 — EXP 980.5

37 — FG 986.0 — EXP 980.0

38 — FG 987.2 — EXP 983.2

39 — FG 986.0 — EXP 982.0

40 — FG 984.0 — EXP 976.0

44 — FG 984.2 — EXP 980.2 — F. Gutters

45 — FG 986.6 — F. Gutters

46 — FG 987.9 — F. Gutters

47 — FG 988.5 — F. Gutters

Gutters

Route Roof Tops Drainage to Front of Lots

What is Village's Min. Dia. Culdesac?

WET DETENTION POND 5
N.W.L=981.00
TOP=987.25
BOTTOM=976.00
15' SPILLWAY=985.64
1-YEAR=981.20
2-YEAR=981.29
10-YEAR=981.63
100-YEAR=982.40
100-YEAR FROZEN=984.04

where is Spillway

Is this Modeled to Dynamic Kettle 3, Kettle 1

Scale: 1" = 30' (22"X34")

Scale: 1" = 60' (11"X17")

CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.
CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.

WISCONSIN
JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI
PROFESSIONAL ENGINEER

DESIGN • LAND SURVEYING
TRIO
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELMINARY SUBMITTAL

DATE:
JULY 2, 2020

JOB NUMBER:
19023-953

DESCRIPTION:
GRADING AND DRAINAGE PLAN

SHEET
C1.03

H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_GRADING-22X34.DWG

CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.

0 15 30 60

Scale: 1" = 30' (22"X34")

Scale: 1" = 60' (11"X17")

O.L. #3

WET DETENTION POND 11
N.W.L=964.00
TOP=969.00
BOTTOM=959.00
15' SPILLWAY=968.00
1-YEAR=964.37
2-YEAR=964.46
10-YEAR=964.83
100-YEAR=965.91
100-YEAR FROZEN=968.34

KETTLE 1

KETTLE 2

KETTLE 10

KETTLE 12

PRIVATE COURT "B"

27 FG 998.0

28 FG 998.1

29 FG 998.3

30 FG 998.9

31 FG 999.4

32 FG 1000.0

33 FG 1000.5

34 FG 1001.0 EXP 991.0

35 FG 1001.5 EXP 998.5

38 FG 987.2

39 EXP 982.0 FG 986.0

40 EXP 976.0 FG 984.0

41 EXP 978.9 FG 983.9

42 EXP 980.8 FG 984.8

43 EXP 980.2 FG 984.2

44 FG 984.2 EXP 980.2

45 FG 986.6

Erosion protection

4:1 Slopes or Walls?

WISCONSIN
JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI
PROFESSIONAL ENGINEER

TRIO
DESIGN • LAND SURVEYING
CIVIL ENGINEERING

4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

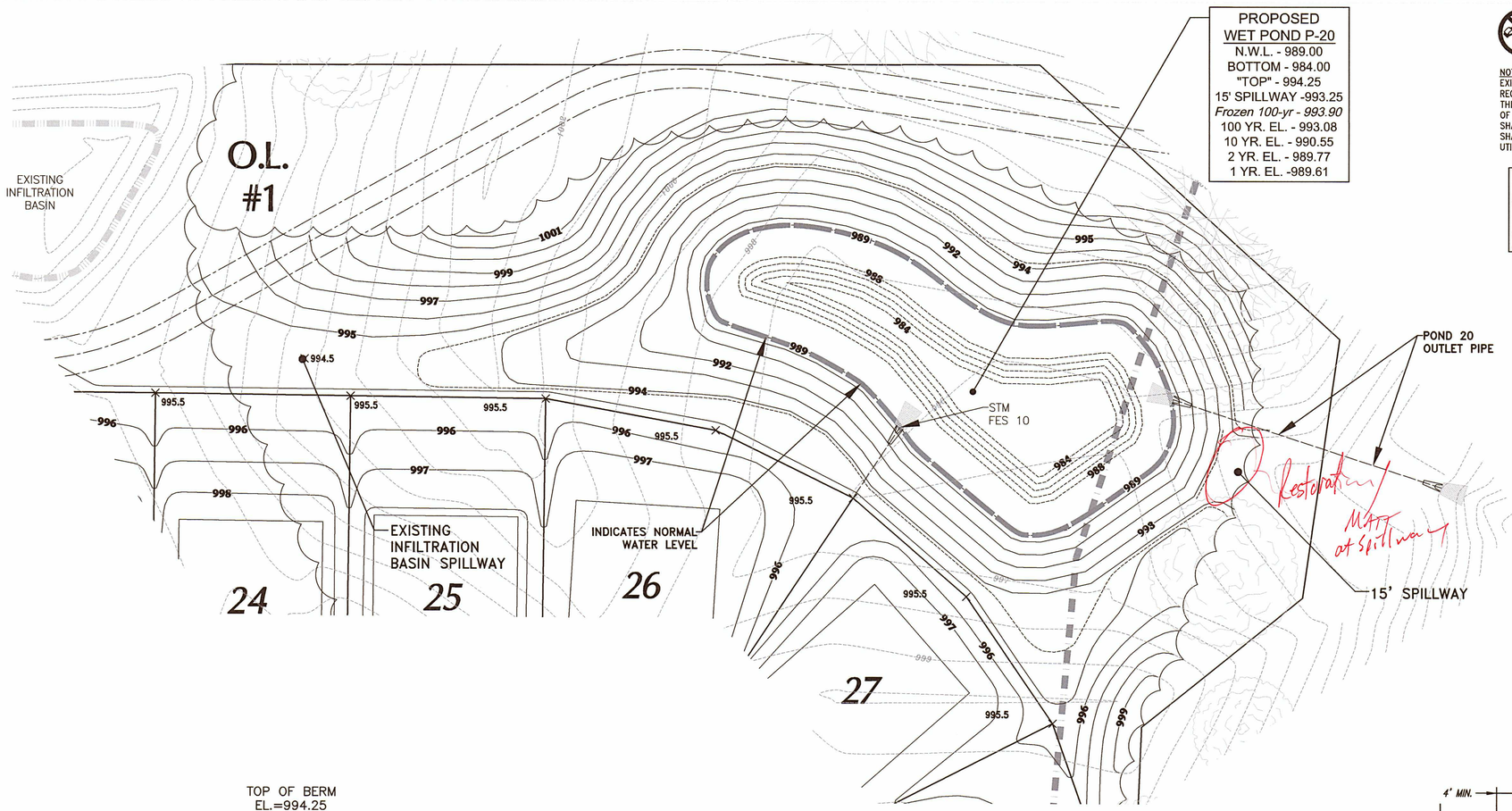
DATE:
JULY 2, 2020

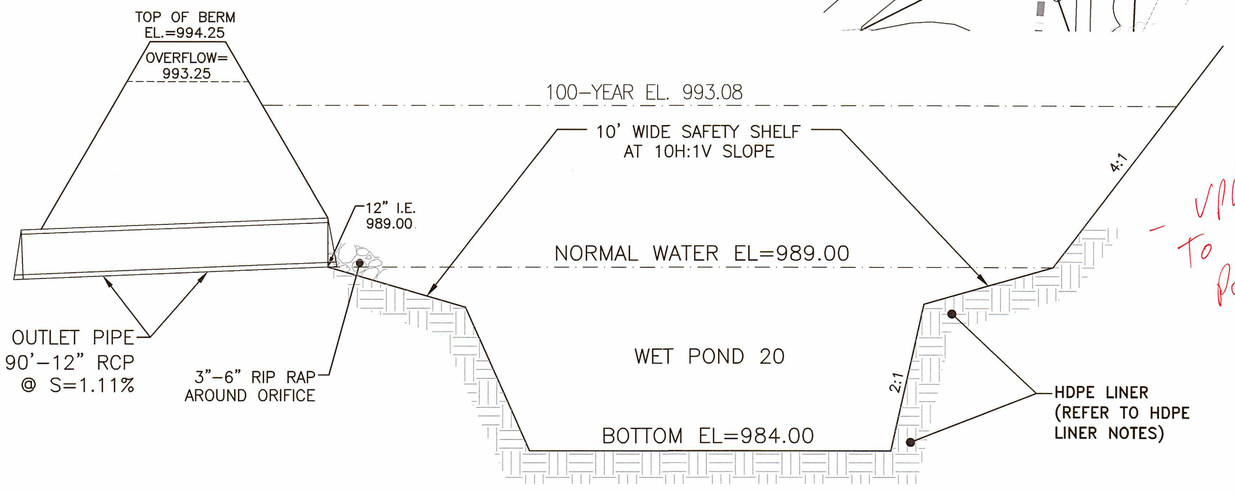
JOB NUMBER:
19023-953

DESCRIPTION:
GRADING AND DRAINAGE PLAN

SHEET
C1.04

H:\C900\953\19023-01\CONSTRUCTION PLANS\VIL_LCL NORTH\CIVIL_LCL NORTH_GRADING-22X34.DWG

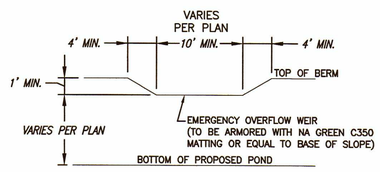




WET POND P-20 DETAIL
NO SCALE

Update To Pr. Ponds.

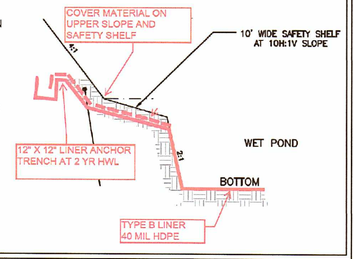
Any Clay Soils on Site?



TYPICAL EMERGENCY OVERFLOW WEIR DETAIL
NOT TO SCALE

NOTE: GRADES FOR TOP OF BERM, OVERFLOW SPILLWAY, AND BOTTOM OF POND SHALL BE PER PLAN.

HDPE LINER NOTE:
- TYPE B HDPE LINER HAS BEEN SPECIFIED FOR THE WET PONDS.
- LINER PRODUCT INFORMATION:
  - MIN. THICKNESS = 40 MILS
  - COLOR = BLACK
  - SUPPLIER = SOLMAX
- INSTALLED PER MANUFACTURER SPECIFICATIONS
- LINER SHALL BE TRENCHED INTO POND SLOPE PER DETAIL AND SAFETY SHELF COVERED WITH MIN. 6" OF TOPSOIL.



CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.
CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.

RIP-RAP NOTE:
RIP-RAP IS TO EXTEND FROM ALL STORM SEWER OUTFALLS TO THE DOWNSLOPE EDGE OF THE WET POND SAFETY SHELL.

0 10 20 40
Scale: 1" = 20' (22"X34")
Scale: 1" = 30' (11"X17")

WISCONSIN
JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI
PROFESSIONAL ENGINEER

TRIO
DESIGN • LAND SURVEYING
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

DATE:
JULY 2, 2020

JOB NUMBER:
19023-953

DESCRIPTION:
POND DETAIL

SHEET
C1.05

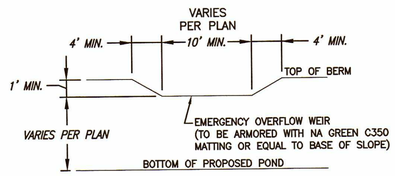
H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_POND DETAIL-22X34.DWG

CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.

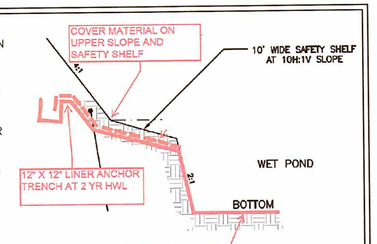
RIP-RAP NOTE:
RIP-RAP IS TO EXTEND FROM ALL STORM SEWER OUTFALLS TO THE DOWNSLOPE EDGE OF THE WET POND SAFETY SHELL.



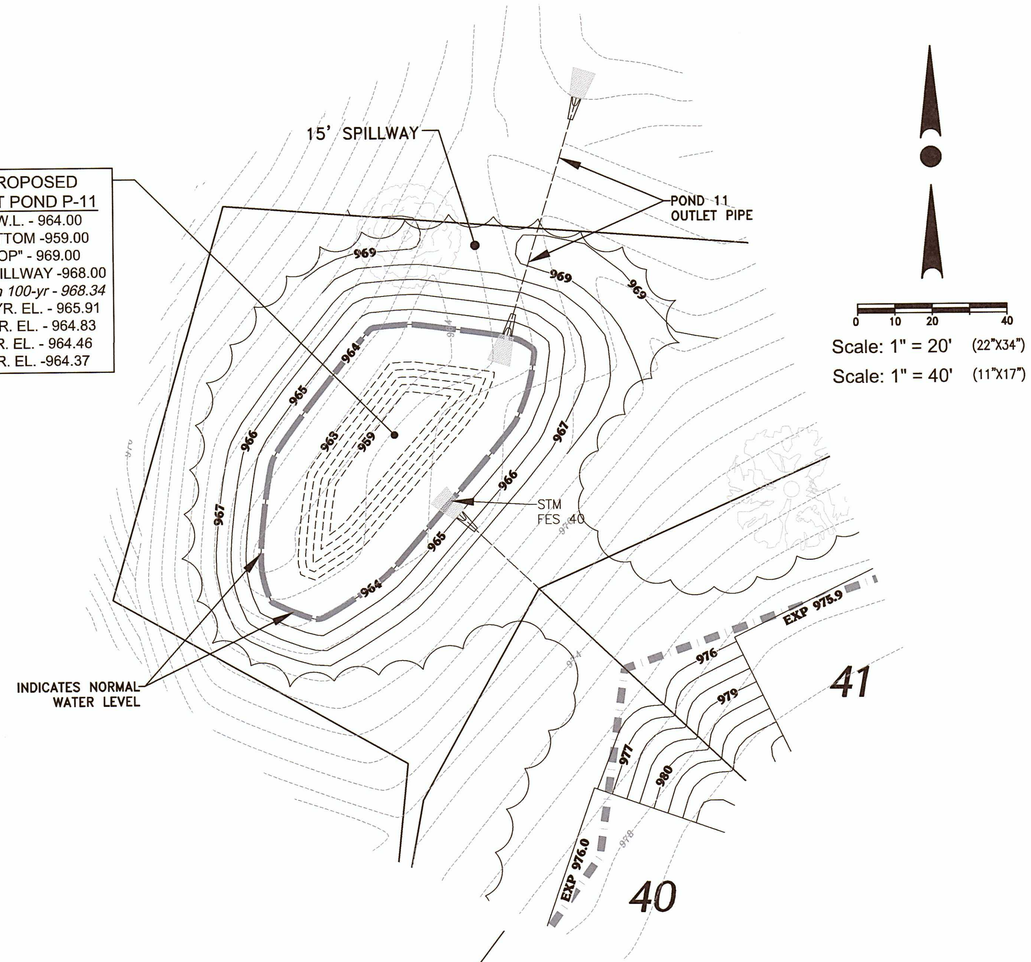
TYPICAL EMERGENCY OVERFLOW WEIR DETAIL
NOT TO SCALE

NOTE: GRADES FOR TOP OF BERM, OVERFLOW SPILLWAY, AND BOTTOM OF POND SHALL BE PER PLAN.

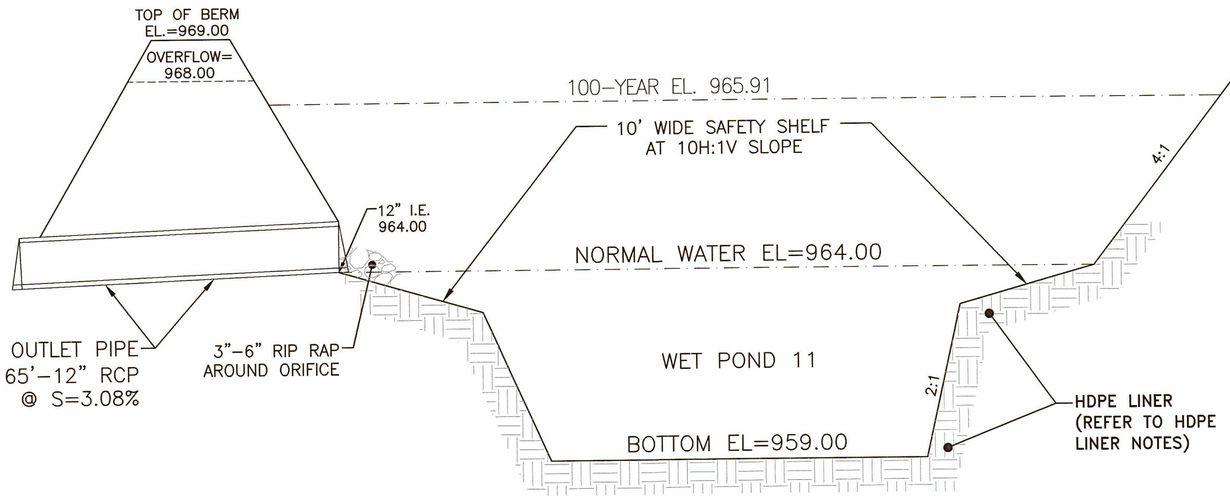
HDPE LINER NOTE:
- TYPE B HDPE LINER HAS BEEN SPECIFIED FOR THE WET PONDS.
- LINER PRODUCT INFORMATION:
  - MIN. THICKNESS = 40 MILS
  - COLOR = BLACK
  - SUPPLIER = SOLMAX
- INSTALLED PER MANUFACTURER SPECIFICATIONS
- LINER SHALL BE TRENCHED INTO POND SLOPE PER DETAIL AND SAFETY SHELF COVERED WITH MIN. 6" OF TOPSOIL.



PROPOSED
WET POND P-11
N.W.L. - 964.00
BOTTOM -959.00
"TOP" - 969.00
15' SPILLWAY -968.00
Frozen 100-yr - 968.34
100 YR. EL. - 965.91
10 YR. EL. - 964.83
2 YR. EL. - 964.46
1 YR. EL. -964.37



Scale: 1" = 20' (22"X34")
Scale: 1" = 40' (11"X17")



WET POND P-11 DETAIL
NO SCALE

WISCONSIN
JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI
PROFESSIONAL ENGINEER

DESIGN • LAND SURVEYING
TRIO
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

DATE: JULY 2, 2020

JOB NUMBER: 19023-953

DESCRIPTION: POND DETAIL

SHEET C1.06

H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_POND DETAIL-22X34.DWG

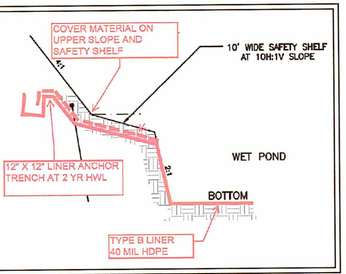
CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

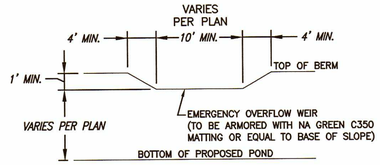
CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.

RIP–RAP NOTE:
RIP–RAP IS TO EXTEND FROM ALL STORM SEWER OUTFALLS TO THE DOWNSLOPE EDGE OF THE WET POND SAFETY SHELL.

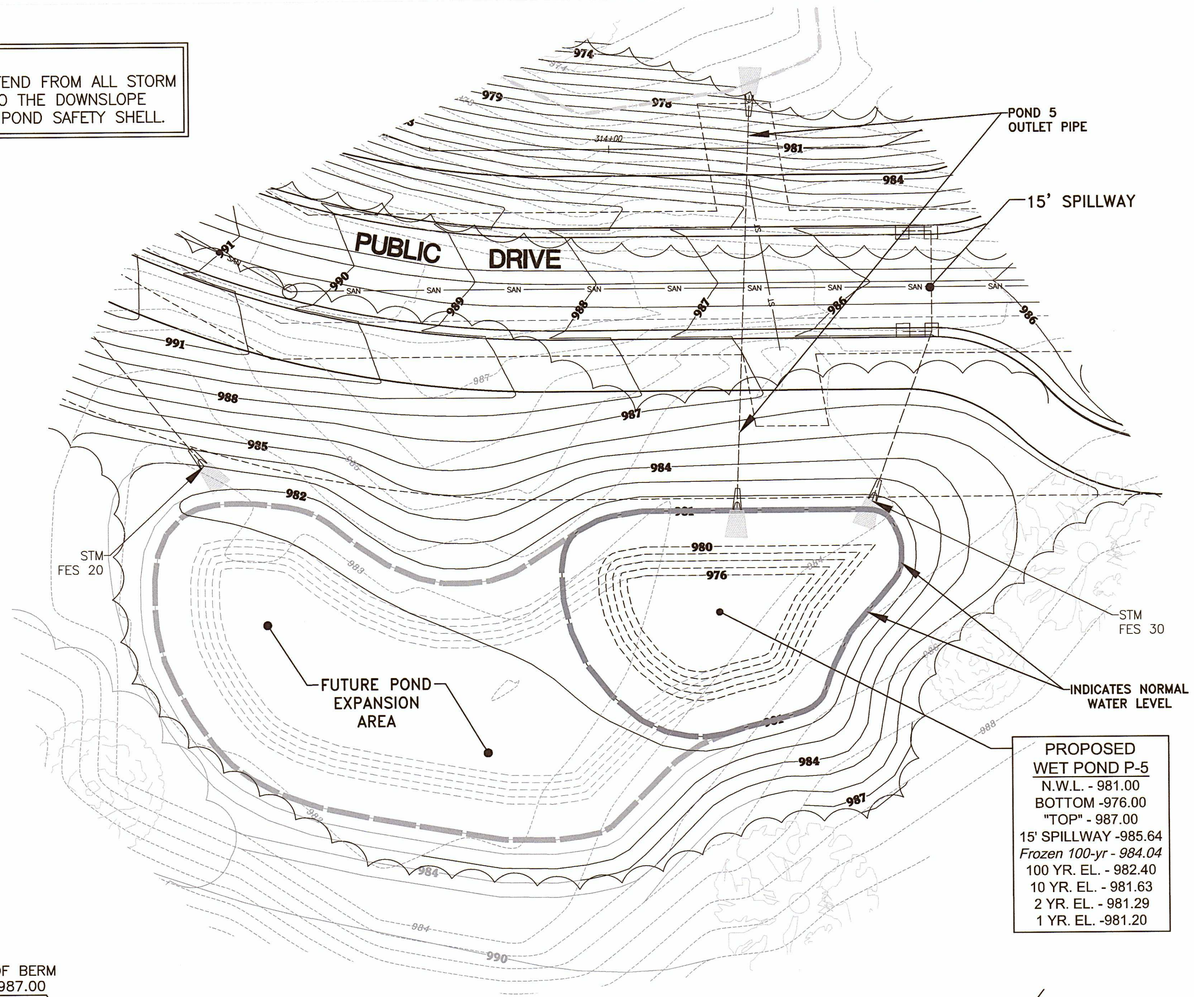
HDPE LINER NOTE:
- TYPE B HDPE LINER HAS BEEN SPECIFIED FOR THE WET PONDS.
- LINER PRODUCT INFORMATION:
  - MIN. THICKNESS = 40 MILS
  - COLOR = BLACK
  - SUPPLIER = SOLMAX
- INSTALLED PER MANUFACTURER SPECIFICATIONS
- LINER SHALL BE TRENCHED INTO POND SLOPE PER DETAIL AND SAFETY SHELF COVERED WITH MIN. 6" OF TOPSOIL.





TYPICAL EMERGENCY OVERFLOW WEIR DETAIL
NOT TO SCALE

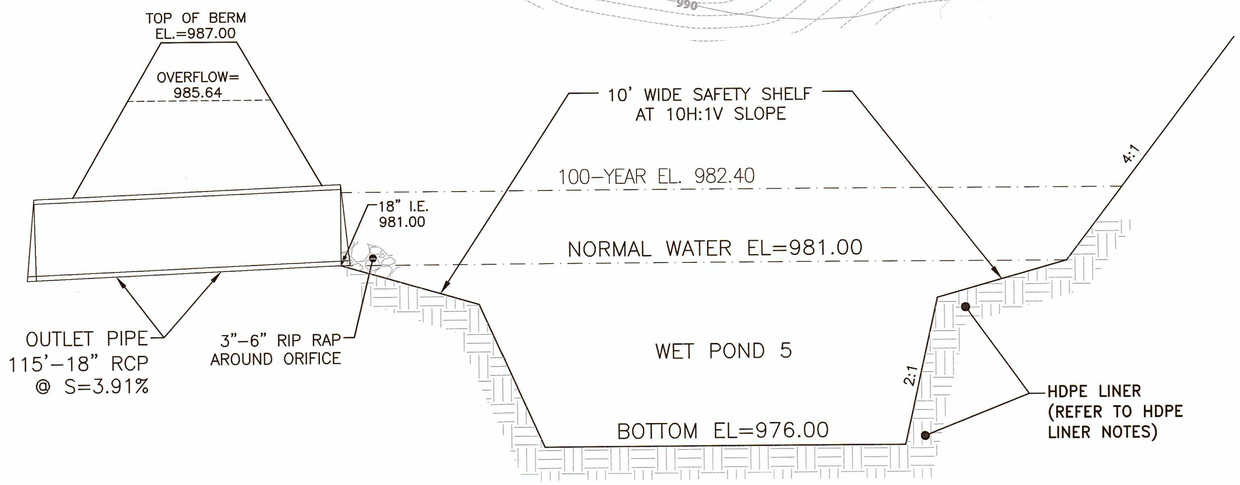
NOTE: GRADES FOR TOP OF BERM, OVERFLOW SPILLWAY, AND BOTTOM OF POND SHALL BE PER PLAN.



0 10 20 40

Scale: 1" = 20' (22"X34")

Scale: 1" = 40' (11"X17")



WET POND P–5 DETAIL
NO SCALE

WISCONSIN PROFESSIONAL ENGINEER
JOSHUA D. PUDELKO
E–39420
WAUWATOSA, WI

TRIO ENGINEERING
DESIGN • LAND SURVEYING • CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN

LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

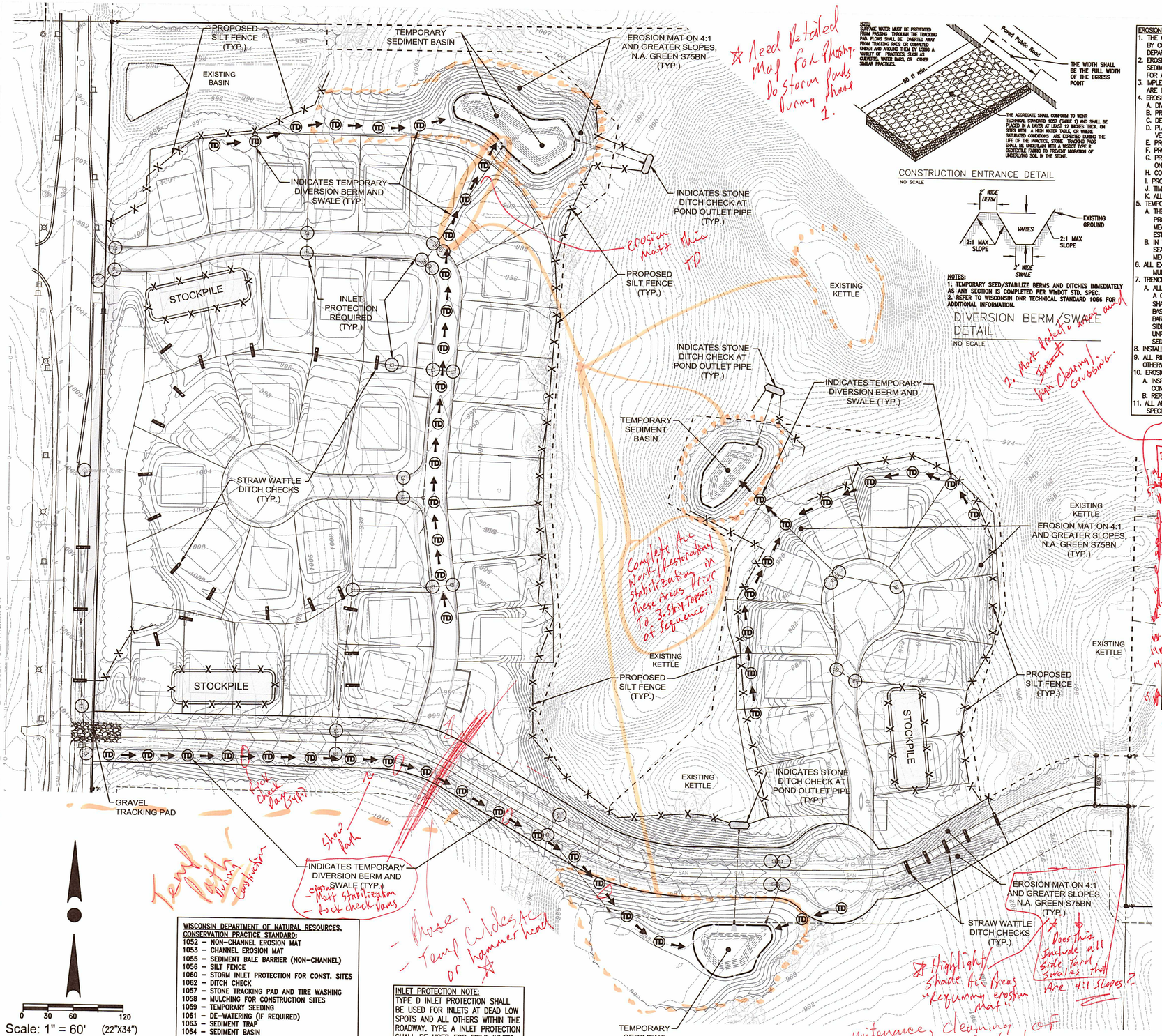
DATE: JULY 2, 2020

JOB NUMBER: 19023-953

DESCRIPTION: POND DETAIL

SHEET C1.07

H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_POND DETAIL-22X34.DWG



H:\CAD\9053\19023-01\CONSTRUCTION PLANS\LCL NORTH_EROSION CONTROL.DWG

WISCONSIN DEPARTMENT OF NATURAL RESOURCES, CONSERVATION PRACTICE STANDARD:
1052 – NON-CHANNEL EROSION MAT
1053 – CHANNEL EROSION MAT
1055 – SEDIMENT BALE BARRIER (NON-CHANNEL)
1056 – SILT FENCE
1060 – STORM INLET PROTECTION FOR CONST. SITES
1062 – DITCH CHECK
1057 – STONE TRACKING PAD AND TIRE WASHING
1058 – MULCHING FOR CONSTRUCTION SITES
1059 – TEMPORARY SEEDING
1061 – DE-WATERING (IF REQUIRED)
1063 – SEDIMENT TRAP
1064 – SEDIMENT BASIN

INLET PROTECTION NOTE:
TYPE D INLET PROTECTION SHALL BE USED FOR INLETS AT DEAD LOW SPOTS AND ALL OTHERS WITHIN THE ROADWAY. TYPE A INLET PROTECTION SHALL BE USED FOR FIELD INLETS.

NOTE:
SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY FROM TRACKING PADS OR CONVEYED UNDER AND AROUND THEM BY USING A VARIETY OF PRACTICES, SUCH AS CULVERTS, WATER BARS, OR OTHER SIMILAR PRACTICES.

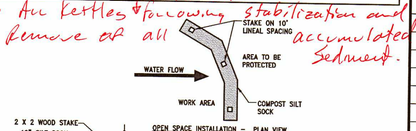
CONSTRUCTION ENTRANCE DETAIL
NO SCALE

NOTES:
1. TEMPORARY SEED/STABILIZE BERMS AND DITCHES IMMEDIATELY AS ANY SECTION IS COMPLETED PER WisDOT STD. SPEC.
2. REFER TO WISCONSIN DNR TECHNICAL STANDARD 1066 FOR ADDITIONAL INFORMATION.

DIVERSION BERM/SWALE DETAIL
NO SCALE

EROSION CONTROL NOTES:
1. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO MINIMIZE EROSION, WATER POLLUTION AND SILTATION CAUSED BY CONSTRUCTION OF THIS PROJECT. EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS AND THE CITY OF PEWAUKEE TECHNICAL STANDARDS.
2. EROSION CONTROL PLAN: PRIOR TO BEGINNING WORK, THE CONTRACTOR MAY BE REQUIRED TO SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN, DETAILING SPECIFIC MEASURES THAT WILL BE USED IN THE VARIOUS STAGES OF CONSTRUCTION FOR APPROVAL BY THE ENGINEER, THE WISCONSIN DNR AND THE CITY OF PEWAUKEE. Village of Hartland
3. IMPLEMENTATION: THE CONTRACTOR SHALL NOT BEGIN WORK UNTIL AFTER INITIAL EROSION AND SEDIMENT CONTROL DEVICES ARE IN PLACE AND APPROVED BY THE ENGINEER.
4. EROSION CONTROL MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
   A. DIVERT UPSTREAM RUNOFF FROM FLOWING THROUGH THE CONSTRUCTION SITE.
   B. PROTECT DOWNSTREAM OR ADJACENT WATERWAYS AND WETLANDS WITH SILT FENCE.
   C. DELAY STRIPPING TOPSOIL UNTIL REQUIRED FOR CONSTRUCTION.
   D. PLACE STRAW WATTLES OR SILT LOGS IN DITCHES AND OTHER DRAINAGE WAYS TO COLLECT SEDIMENT AND TO SLOW THE VELOCITY OF RUNOFF.
   E. PROTECT STORM SEWER INLETS AND THE UPSTREAM END OF CULVERTS WITH STRAW WATTLES OR SILT LOGS.
   F. PROMPT REMOVAL OF EXCAVATED MATERIAL.
   G. PROPER STORAGE OF BACKFILL AND BEDDING MATERIALS INCLUDING PLACING SILT FENCE OR EROSION CONTROL BALES ON THE DOWNSLOPE SIDES OF SPOIL PILES.
   H. CONSTRUCTION OF TRACKING PAD TO CONSTRUCTION SITE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO ROADWAYS.
   I. PROMPT (SAME DAY) CLEANUP OF MATERIAL TRACKED ONTO ADJACENT STREETS.
   J. TIMELY RESTORATION OF DAMAGE SURFACE AREAS.
   K. ALL AREAS THAT WILL REMAIN DISTURBED AFTER OCTOBER 15, MUST BE TEMPORARY SEEDED AS OF THAT DATE.
5. TEMPORARY EROSION CONTROL MEASURES.
   A. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY EROSION CONTROL MEASURES, WHERE EROSION IS LIKELY TO BE A PROBLEM, PRIOR TO BEGINNING WORK ON THOSE SECTION(S) OF THE PROJECT. TEMPORARY EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL AFTER PERMANENT EROSION CONTROL, SUCH AS SEEDING OR SODDING, HAS BEEN ESTABLISHED.
   B. IN THE EVENT THE PERMANENT EROSION CONTROL MEASURES ARE NOT FULLY IMPLEMENTED IN CURRENT CONSTRUCTION SEASON, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL NECESSARY TEMPORARY EROSION CONTROL MEASURES UNTIL AFTER PERMANENT MEASURES HAVE BEEN COMPLETED IN THE FOLLOWING YEAR.
6. ALL EXPOSED SOIL AREAS NOT DISTURBED FOR UP TO SEVEN DAYS MUST BE IMMEDIATELY RESTORED WITH SEED AND MULCH.
7. TRENCH DEWATERING SHALL BE IN ACCORDANCE WITH WDNR AND THE CITY OF PEWAUKEE TECHNICAL STANDARDS.
   A. ALL PUMPED EFFLUENT FROM DEWATERING OPERATIONS (TRENCH DEWATERING OR OTHERWISE) SHALL BE DISCHARGED TO A GEOTEXTILE FILTER BAG CONFORMING TO WDNR CONSERVATION PRACTICE STANDARD 1061. THE GEOTEXTILE FILTER BAG SHALL BE PLACED ON VEGETATED/STABILIZED GROUND AND DISCHARGE TO A SEDIMENT BASIN OR TRAP. SHOULD NO BASIN EXIST, THE GEOTEXTILE BAG SHALL BE PLACED ON FILTER FABRIC AND SURROUNDED BY A SEDIMENT BALE BARRIER CONFORMING TO CONSERVATION PRACTICE STANDARD 1055. THE FILTER FABRIC SHALL BE BROUGHT UP THE SIDES AND OVER THE TOP OF THE HAY BALES AND SECURED. DISCHARGE SHALL NOT BE ALLOWED TO FLOW OVER UNPROTECTED GROUND. IN NO CASE SHALL PUMPED WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS PRIOR TO SEDIMENT REMOVAL.
8. INSTALL SILT FENCE IN ACCORDANCE WITH WDNR TECHNICAL STANDARD DETAILS
9. ALL RIP RAP AT PIPE OUTLETS SHALL BE 3'x5' MEDIUM RIP RAP OVER TYPE HR FABRIC PER WDOT SPECIFICATIONS UNLESS OTHERWISE DESIGNATED.
10. EROSION CONTROL INSPECTION AND MAINTENANCE
    A. INSPECT EROSION CONTROL MEASURES WEEKLY AND AFTER SITE RECEIVES 0.5" OF RAIN IN A 24–HOUR PERIOD DURING CONSTRUCTION.
    B. REPAIR OR REPLACE EROSION CONTROLS THAT ARE DAMAGED OR FAILING.
11. ALL AREAS TO BE SEEDED AND MULCHED SHALL USE WDOT SEED MIXTURE NO. 20. MULCH SHALL APPLIED PER WDOT SPECIFICATIONS USING METHOD B FOR PLACEMENT.

CONSTRUCTION SEQUENCE PLAN
1. INSTALL SILT FENCE, STRAW WATTLE & STONE DITCH CHECKS.
2. STRIP TOPSOIL. SEED AND STABILIZE STOCKPILES IMMEDIATELY UPON COMPLETION OF STOCKPILING.
3. INSTALL DIVERSION BERMS AND SWALES. BEGIN MASS GRADING OF THE REMAINDER OF SITE (MASS GRADING MAY ONLY OCCUR/CONTINUE AFTER EROSION CONTROL MEASURES ARE INSTALLED/CONSTRUCTED -SEDIMENT BASINS, SILT TRAPS, SWALES, DITCH CHECKS, ETC).
4. ROUGH GRADE SITE. NOTE THAT ROUGH GRADING MAY OCCUR CONCURRENT WITH CONSTRUCTION OF THE DIVERSION BERMS/SWALES. BEGIN UTILITIES ONCE STORM WATER IS CONTROLLED.
5. INSTALL SANITARY SEWER AND WATER MAIN. COMPLETE ALL TESTING AND CONTACT THE VILLAGE PRIOR TO CONNECTING TO EXISTING MAINS. NOTE THAT THIS STEP MAY BEGIN CONCURRENT WITH ROUGH GRADING ONCE THE UTILITY AREAS HAVE BEEN GRADED TO SUBGRADE. and inlet protection
6. SUMMER 2019: INSTALL STORM SEWER AND ASSOCIATED EROSION CONTROL MEASURES PER EROSION CONTROL PLAN. NOTE THAT THIS STEP MAY BEGIN CONCURRENT WITH SANITARY SEWER AND WATER MAIN INSTALLATION.
7. FINISH GRADE THE SITE. NOTE THAT THIS STEP MAY OCCUR CONCURRENT WITH STORM SEWER INSTALLATION.
8. RE–SPREAD TOPSOIL AND PLACE SEED, MULCH, MATTING AND OTHER SITE STABILIZERS AS NEEDED. NOTE THAT THIS STEP MAY BEGIN CONCURRENT WITH FINISH GRADING AND ROAD CONSTRUCTION. ALSO NOTE THAT ANY AREAS, SUCH AS POND SLOPES, THAT ARE FINISH GRADED AND TOPSOILED SHALL BE SEEDED, MULCHED AND/OR MATTED IMMEDIATELY AFTER TOPSOIL IS PLACED. NOTE: TOPSOIL IN RIGHT–OF–WAY ONLY AFTER WE ENERGIES WORK IS COMPLETED.
9. INSTALL STONE BASE COURSE, CONSTRUCT CURB AND SIDEWALK, AND PLACE BINDER COURSE PAVEMENT. NOTE THAT THIS STEP MAY BEGIN CONCURRENT WITH FINISH GRADING.
10. REMOVE TRACKING PAD ONCE ROADS ARE STONED/COMPLETE. RESTORE DISTURBED AREA.
11. COMPLETE DRY PONDS. REMOVE SEDIMENT TRAP SILT, CONSTRUCT DRY POND BOTTOM PER DESIGN PLAN, AND TOPSOIL, SEED, MULCH OR MAT. SEED BOTTOM OF DRY POND WITH RAIN GARDEN OR INFILTRATION BASIN NATIVE SEED MIX. STABILIZE SLOPES AS NECESSARY.
12. LATE SEASON (AFTER OCTOBER 15) STABILIZATION NOTES:
    12.1. ALL AREAS THAT WILL REMAIN DISTURBED AFTER OCTOBER 15 MUST BE TEMPORARY SEEDED AS OF THAT DATE.
    12.2. ANY FINAL SITE STABILIZATION THAT OCCURS AFTER OCTOBER 15 MAY REQUIRE CONTRACTOR TO COVER DISTURBED AREAS WITH THE ANIONIC FORM OF POLYACRYLAMIDE (PAM), PER WDNR TECHNICAL STANDARD 1050 AND WisDOT PAL LIST. CONTRACTOR SHALL COORDINATE WITH VILLAGE ENGINEER AND WDNR FOR LATE SEASON STABILIZATION REQUIREMENTS.
13. REMOVE CONSTRUCTION EROSION CONTROL MEASURES AFTER SITE IS STABILIZED (SUBSTANTIALLY VEGETATED) AND ALL CONSTRUCTION IS COMPLETE.



NOTES:
1. ALL MATERIAL TO MEET MANUFACTURER'S SPECIFICATIONS
2. REFER TO MANUFACTURERS AND/OR SUPPLIERS. SPECIFICATIONS FOR INSTALLATION RECOMMENDATIONS.
3. ACTUAL LOCATION MAY BE FIELD ADJUSTED TO MINIMIZE DISTURBANCE TO EXISTING VEGETATION.
4. INSTALL EVERY 200' OR 2' GRADE DROP IN SWALES.

STRAW WATTLE DITCH CHECK INSTALLATION DETAIL
NO SCALE

CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.
CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.

WISCONSIN
JOSHUA D. PUDELKO
E–39420
WAUWATOSA, WI
PROFESSIONAL ENGINEER

DESIGN • LAND SURVEYING
TRIO
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: Info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

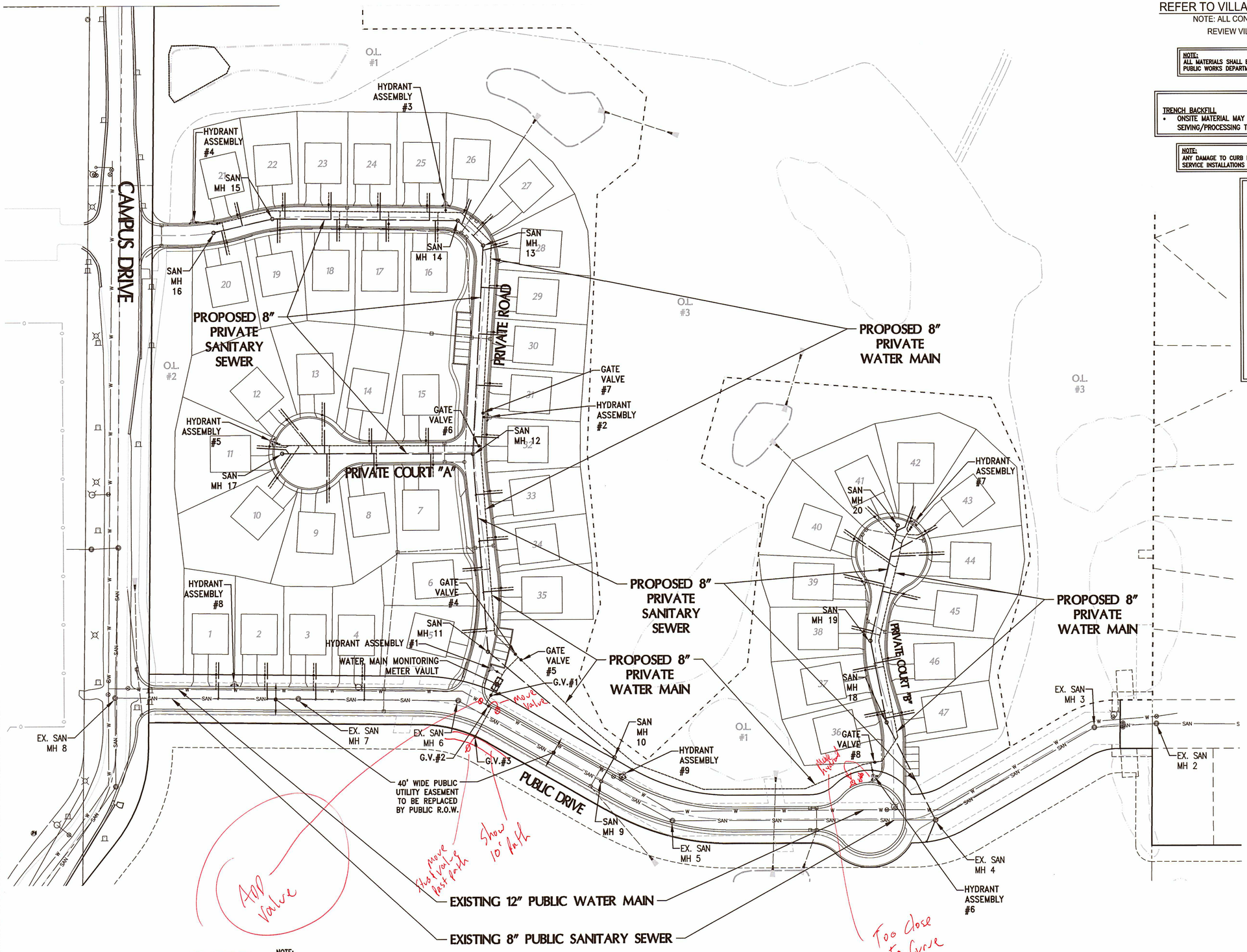
DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

DATE: JULY 2, 2020

JOB NUMBER: 19023-953

DESCRIPTION: EROSION CONTROL PLAN

SHEET C2.00



REFER TO VILLAGE SPECS. ON SHEET C6.0

NOTE: ALL CONTRACTORS ARE REQUIRED TO REVIEW VILLAGE SPECS AND DETAILS

NOTE:
ALL MATERIALS SHALL BE APPROVED BY THE VILLAGE OF HARTLAND PUBLIC WORKS DEPARTMENT PRIOR TO INSTALLATION.

BACKFILL NOTES

TRENCH BACKFILL
- ONSITE MATERIAL MAY BE USED AS GRANULAR BACKFILL WITH PROPER SEIVING/PROCESSING TO MEET VILLAGE SPECIFICATIONS.

NOTE:
ANY DAMAGE TO CURB BY UNDERMINING OR SETTLING FOR SEWER/WATER SERVICE INSTALLATIONS SHALL BE REPAIRED BY THE DEVELOPER.

SANITARY SEWER NOTES

SANITARY SEWER
- ALL PVC SEWER PIPE SHALL MEET THE REQUIREMENTS SET FORTH IN SECTION 8.10.0 (SSSWCW).
- ALL SANITARY MANHOLES SHALL MEET THE REQUIREMENTS SET FORTH IN SSSWCW.
- ALL SANITARY SEWER LATERALS (OUTSIDE OF BUILDINGS) SHALL BE MADE OF GASKETED PVC FITTINGS MEETING ASTM D-3034, SDR 35.
- GREEN TRACER WIRE IS REQUIRED FOR ALL SANITARY SEWER & LATERALS.
- ALL SANITARY SEWER LATERALS SHALL BE 6" DIA. SDR-35 PVC & MADE OF GASKETED PVC FITTINGS MEETING ASTM D-3034.
- ALL SANITARY SEWER LATERALS SHALL CONFORM TO VILLAGE SPECS AND SECTION 3.2.26 & FILE NO.10E OF SSSWCW.

TRACER WIRE NOTE
- CONTRACTOR SHALL INSTALL GREEN PLASTIC COATED TRACER WIRE (10 GAUGE SOLID COPPER). PLASTIC WIRE MAY BE TAPED TO PLASTIC DRAIN PIPE. IF ATTACHED, THE TRACER SHALL BE SECURED EVERY 6 TO 20 FEET AND AT ALL BENDS. SPLICES SHALL BE CONNECTED BY USING A SNAKEBITE LOCKING CONNECTOR OR APPROVED EQUAL. INSTALL DETECTOR WIRE AT EVERY MAIN, LATERAL, AND MANHOLE. SANITARY WIRES MAY BE PLACED INTO THE MANHOLE BELOW THE FRAME. AN ANODE RODE SHALL BE INSTALLED AT ALL DEAD ENDS, INCLUDING LATERALS.

WATERMAIN NOTES

WATER MAIN
- ALL 8" AND 6" PVC WATER MAIN CONSTRUCTED AS PART OF THIS PLAN SHALL BE PVC, C-900, CLASS 150 (DR18). PVC PIPE SHALL HAVE PUSH-ON JOINTS WITH RUBBER GASKET.
- INSULATION TO WATER MAINS AND LATERALS SHALL BE PROVIDED AT ALL STORM SEWER CROSSINGS.
- ALL WATER MAINS (AND SERVICES) CALLED FOR ON THESE PLANS ARE TO BE INSTALLED WITH CLASS "B" BEDDING AS SPECIFIED IN CH. 4.3.0, LAYING OF WATER MAIN, AND FILE NO. 36, PART VII (SSSWCW).
- BLUE TRACER WIRE IS REQUIRED FOR ALL WATER MAIN & LATERALS.
- WATER MAIN SERVICES SHALL BE 1 1/4" POLYETHYLENE TUBING.
- MIN. 7' BURY DEPTH

TRACER WIRE NOTE
- CONTRACTOR SHALL INSTALL BLUE PLASTIC COATED TRACER WIRE (10 GAUGE SOLID COPPER). PLASTIC WIRE MAY BE TAPED TO PLASTIC PIPE. IF ATTACHED, THE TRACER SHALL BE SECURED EVERY 6 TO 20 FEET AND AT ALL BENDS. SPLICES SHALL BE CONNECTED BY USING A SNAKEBITE LOCKING CONNECTOR OR APPROVED EQUAL. INSTALL DETECTOR WIRE AT EVERY MAIN, LATERAL, HYDRANT, CURB STOP, AND VALVE BOX. TRACER WIRES SHALL BE WRAPPED AROUND THE CURB STOP AND HYDRANT AT GROUND LEVEL. AN ANODE ROD SHALL BE INSTALLED AT ALL DEAD ENDS, INCLUDING HYDRANTS AND LATERALS.

Scale: 1" = 60' (22"X34")
Scale: 1" = 120' (11"X17")

CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.
CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.

WISCONSIN PROFESSIONAL ENGINEER
JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI

TRIO DESIGN • LAND SURVEYING CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

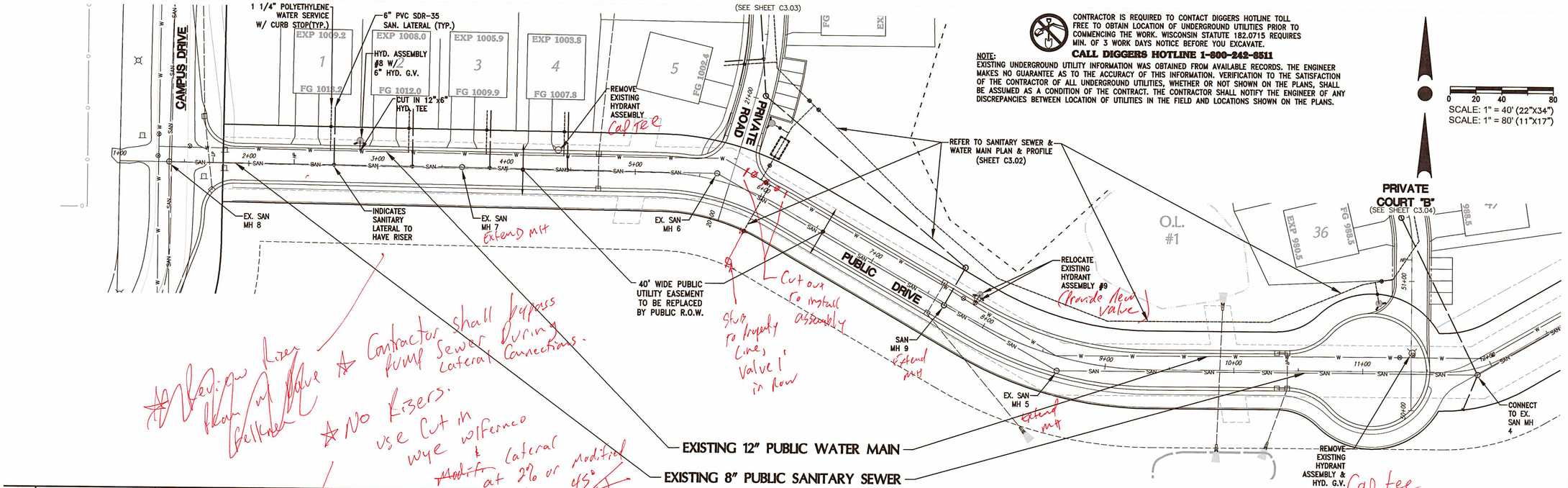
DATE:
JULY 2, 2020

JOB NUMBER:
19023-953

DESCRIPTION:
SANITARY SEWER & WATER MAIN SYSTEM PLAN

SHEET
C3.00

H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_SAN&WM P&P-22X34.DWG

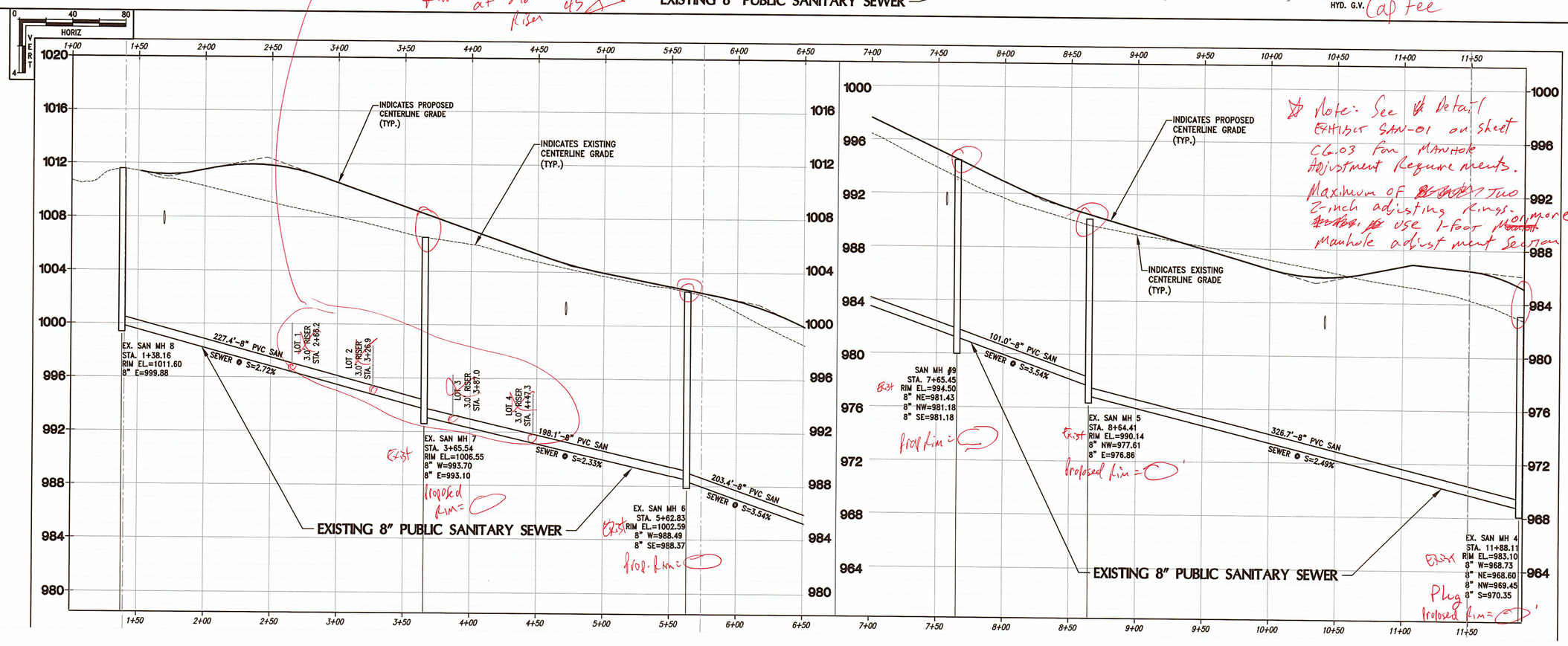


CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.

Review Layout w/ Pelkman ☆ Contractor shall bypass pump Sewer during Connections. ☆ No Risers. use Cut in wye w/fernco & Lateral at 2% or modified 45° Riser



WISCONSIN
JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI
PROFESSIONAL ENGINEER

DESIGN • LAND SURVEYING
TRIO
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: Info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

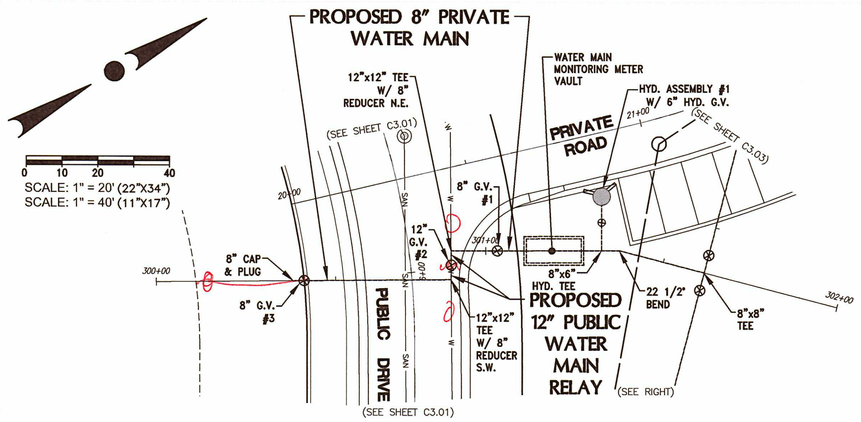
DATE:
JULY 2, 2020

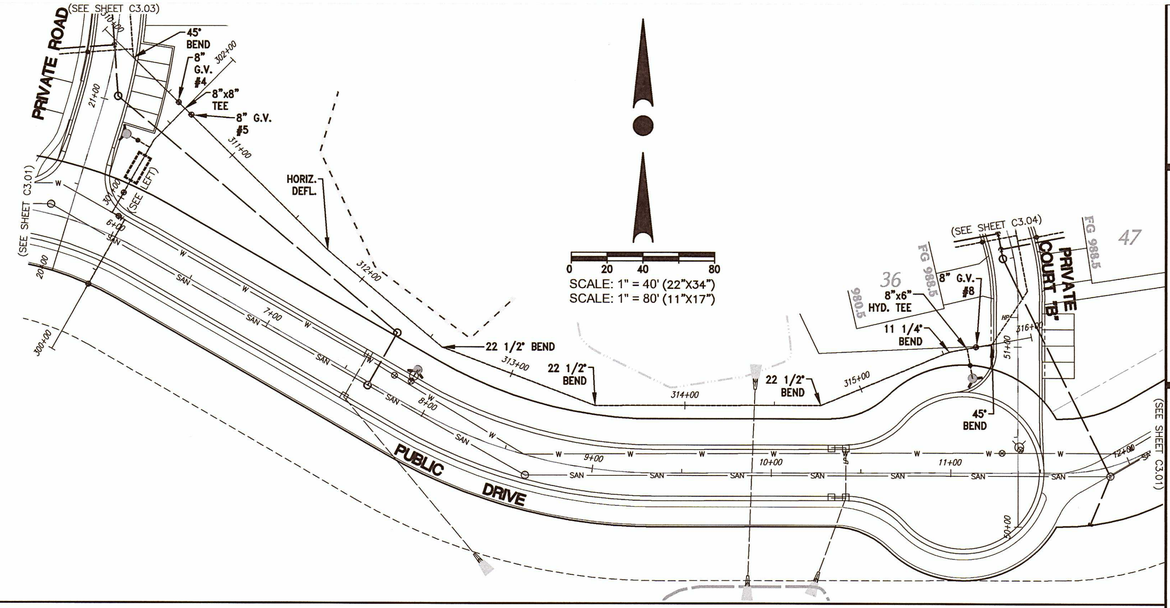
JOB NUMBER:
19023-953

DESCRIPTION:
SANITARY SEWER & WATER MAIN PLAN & PROFILE

SHEET
C3.01

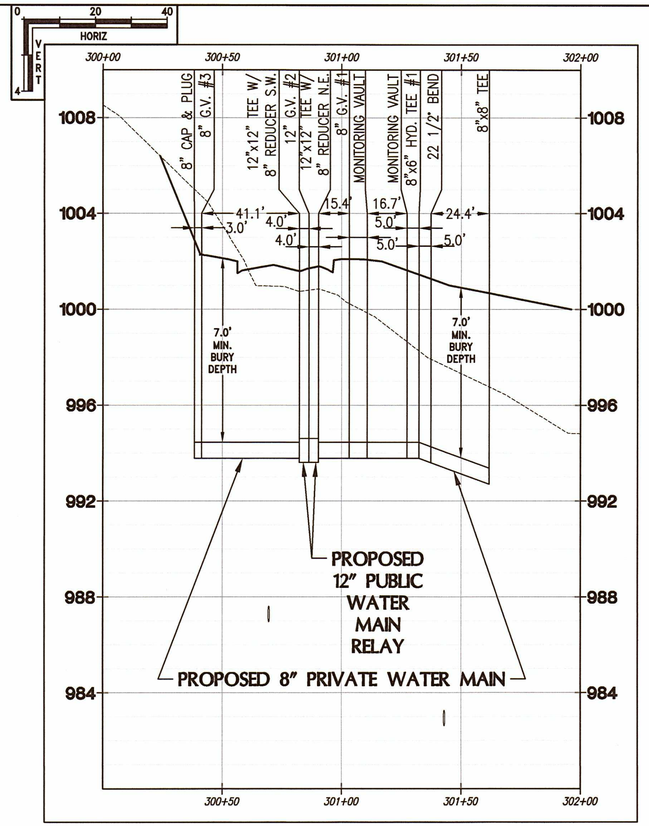
H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL_NORTHCIVIL_LCL_NORTH_SAN&WM P&P-22X34.DWG

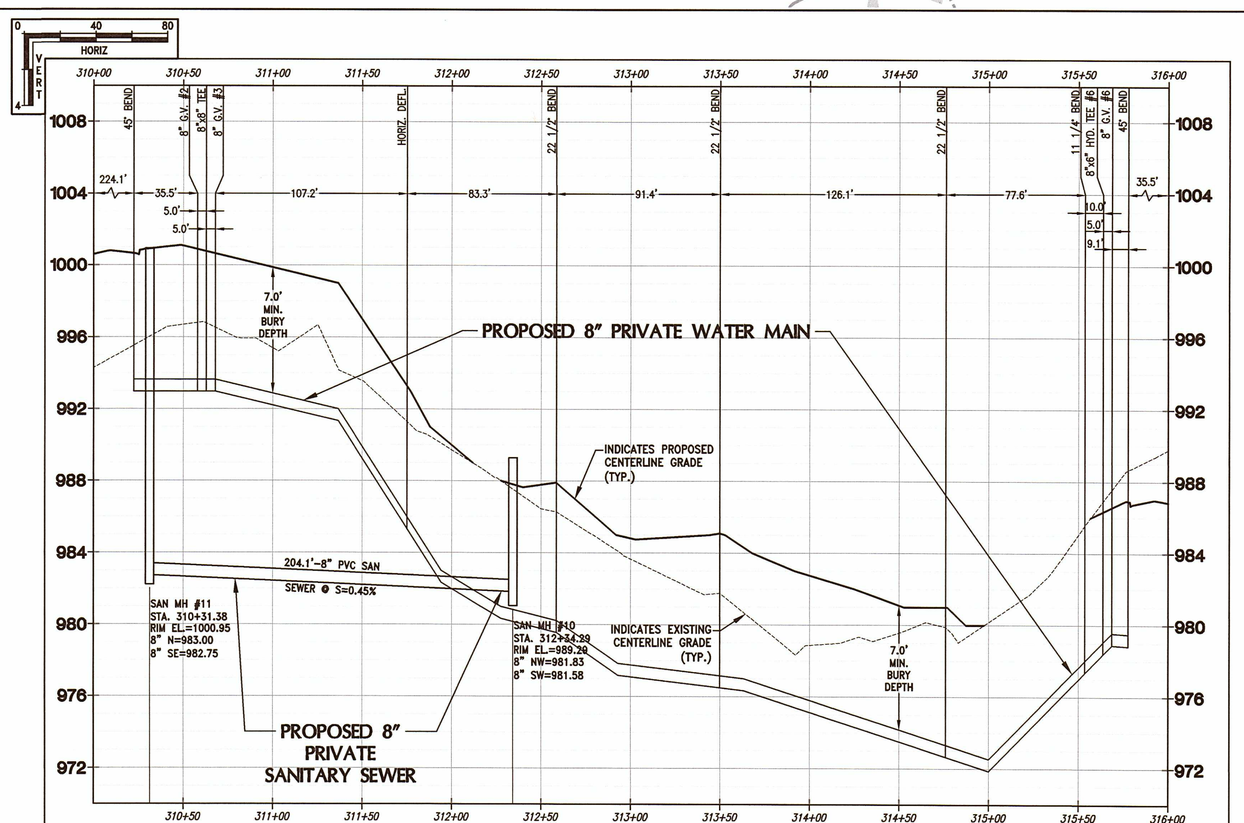




CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.
CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.





WISCONSIN
JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI
PROFESSIONAL ENGINEER

TRIO
DESIGN • LAND SURVEYING
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: Info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

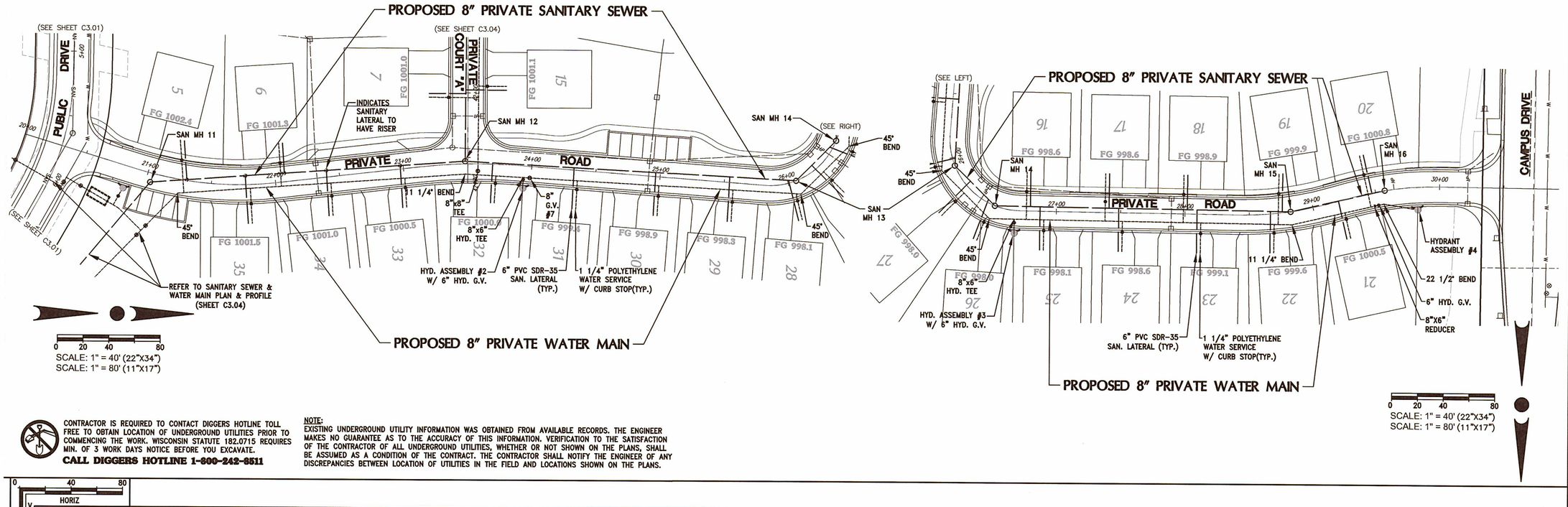
DATE:
JULY 2, 2020

JOB NUMBER:
19023-953

DESCRIPTION:
SANITARY SEWER & WATER MAIN PLAN & PROFILE

SHEET
C3.02

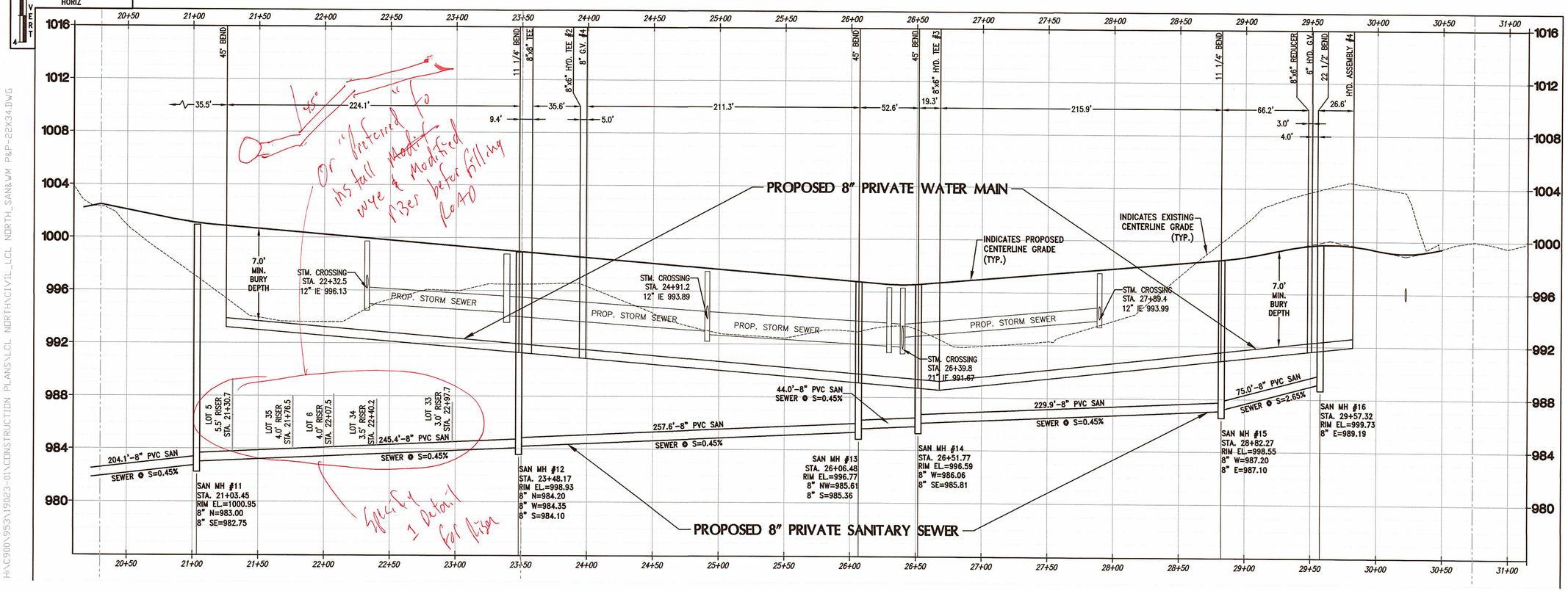
H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_SAN&WM P&P-22X34.DWG



CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.



JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI
WISCONSIN PROFESSIONAL ENGINEER

TRIO
DESIGN • LAND SURVEYING
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: Info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

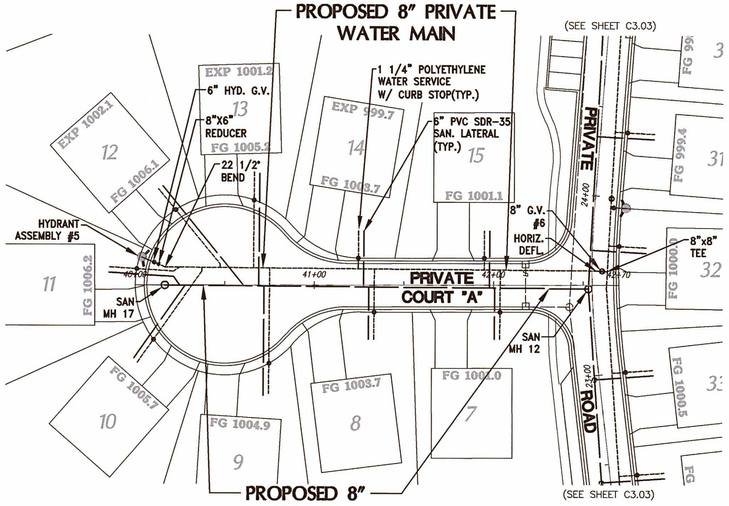
DATE: JULY 2, 2020

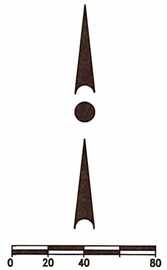
JOB NUMBER: 19023-953

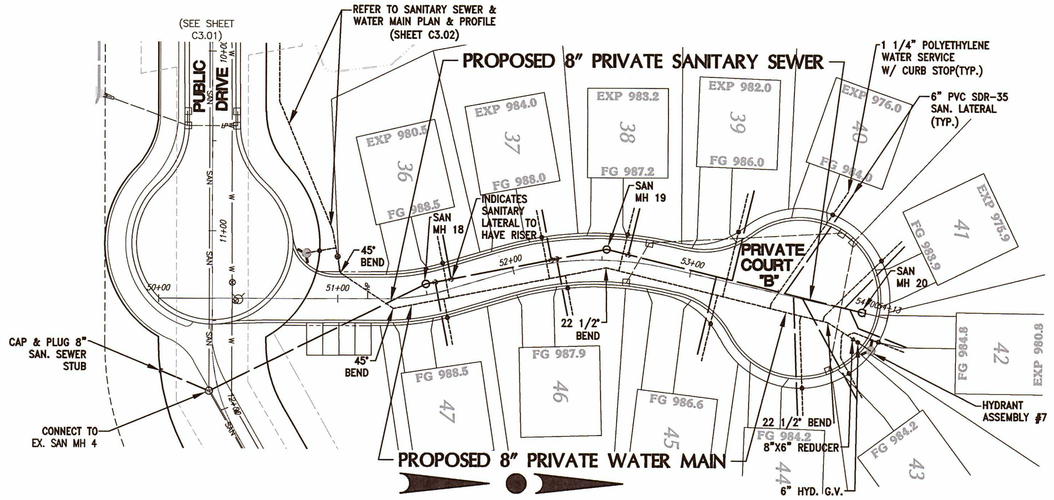
DESCRIPTION: SANITARY SEWER & WATER MAIN PLAN & PROFILE

SHEET C3.03

H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_SAN&WM P&P-22X34.DWG



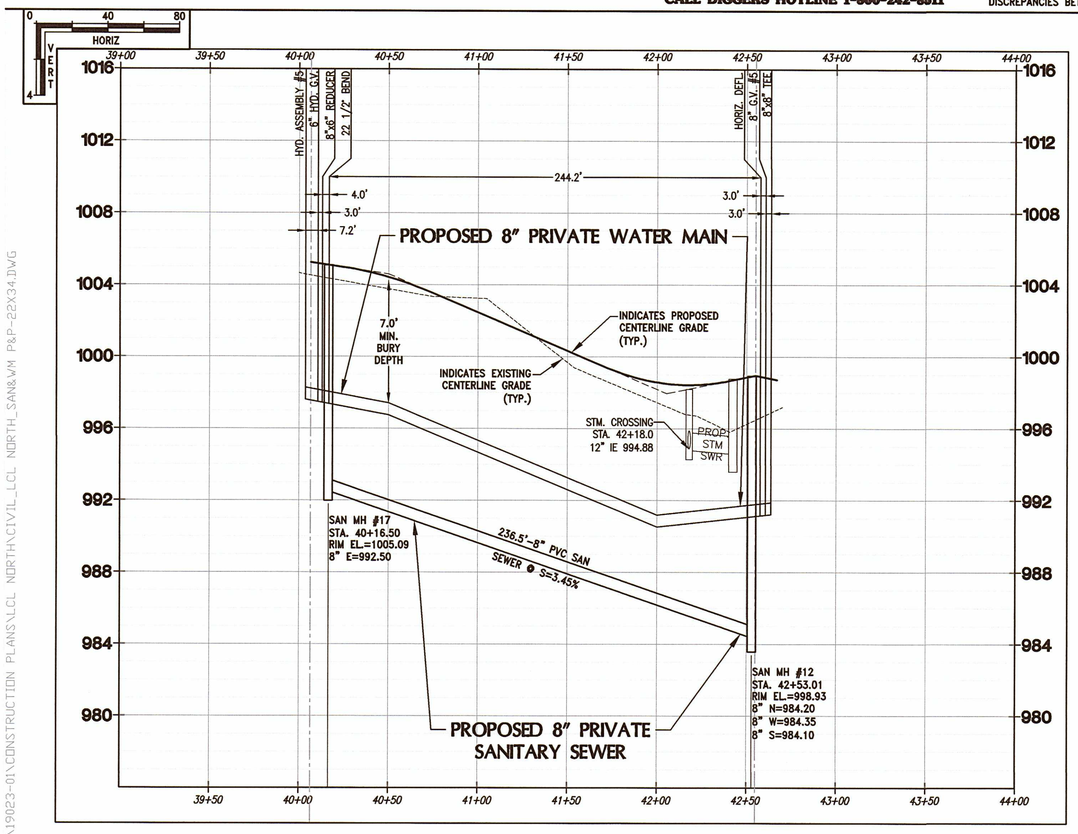


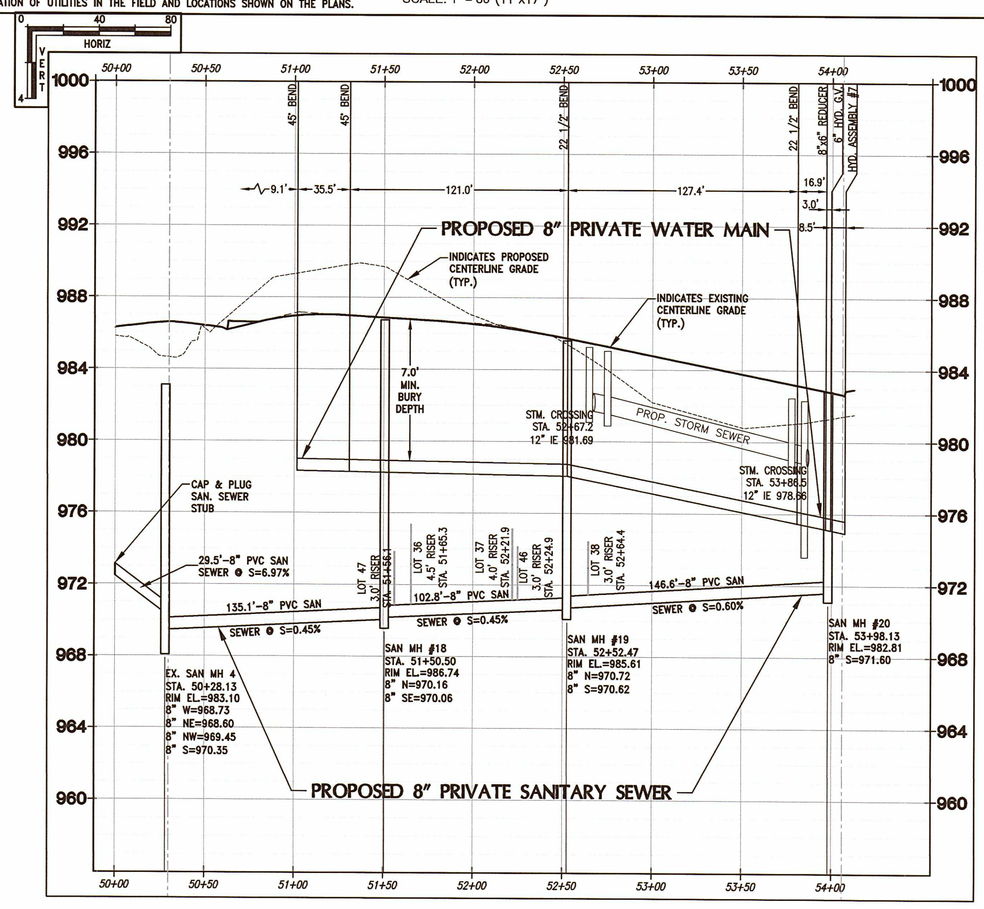


CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.





JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI
WISCONSIN PROFESSIONAL ENGINEER

TRIO
DESIGN • LAND SURVEYING
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

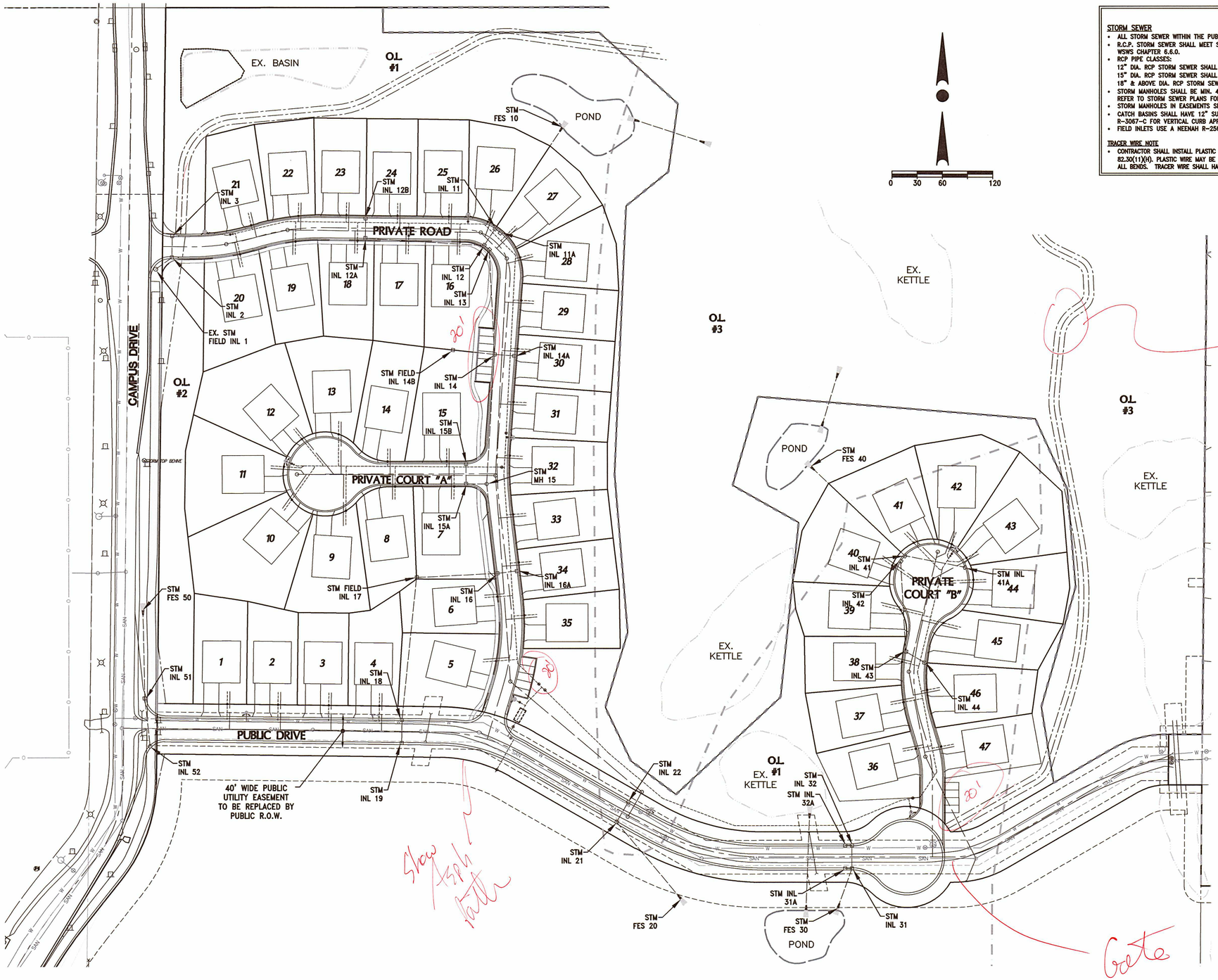
DATE:
JULY 2, 2020

JOB NUMBER:
19023-953

DESCRIPTION:
SANITARY SEWER & WATER MAIN PLAN & PROFILE

SHEET
C3.04

H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_SAN&WM P&P-22X34.DWG



STORM SEWER NOTES

STORM SEWER

- ALL STORM SEWER WITHIN THE PUBLIC ROADWAY SHALL BE RCP (REINFORCED CONCRETE PIPE) WITH GASKETED JOINTS.
- R.C.P. STORM SEWER SHALL MEET SECTION 8.6.0 (SSSWCW) AND BE RUBBER GASKETED MEETING THE REQUIREMENTS SET FORTH IN WSWS CHAPTER 8.6.0.
- RCP PIPE CLASSES:
  12" DIA. RCP STORM SEWER SHALL BE CL-V
  15" DIA. RCP STORM SEWER SHALL BE CL-IV
  18" & ABOVE DIA. RCP STORM SEWER SHALL BE CL-III
- STORM MANHOLES SHALL BE MIN. 48" DIAMETER PRECAST CONCRETE WITH NEENAH R-1660 FRAMES & COVERS WITH 6 VENT HOLES. REFER TO STORM SEWER PLANS FOR MANHOLE SIZING INFORMATION.
- STORM MANHOLES IN EASEMENTS SHALL USE NEENAH R-1660 FRAMES WITH TYPE C GRATES.
- CATCH BASINS SHALL HAVE 12" SUMPS AND SHALL CONFORM TO FILE NO. 26 OF THE STANDARD SPECIFICATIONS WITH A NEENAH R-3067-C FOR VERTICAL CURB APPLICATIONS.
- FIELD INLETS USE A NEENAH R-2560-D8 TYPE BEEHIVE CASTING.

TRACER WIRE NOTE

- CONTRACTOR SHALL INSTALL PLASTIC COATED TRACER WIRE (10 TO 14 GAUGE SOLID COPPER, OR COPPER COATED STEEL WIRE) PER COMM 82.30(1)(b). PLASTIC WIRE MAY BE TAPED TO PLASTIC PIPE. IF ATTACHED, THE TRACER SHALL BE SECURED EVERY 6 TO 20 FEET AND AT ALL BENDS. TRACER WIRE SHALL HAVE ACCESS POINTS AT LEAST EVERY 300 FEET.

NOTE:
ALL MATERIALS SHALL BE APPROVED BY THE VILLAGE OF HARTLAND PUBLIC WORKS DEPARTMENT PRIOR TO INSTALLATION.

CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.
CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.

WISCONSIN
JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI
PROFESSIONAL ENGINEER

TRIO
DESIGN • LAND SURVEYING
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

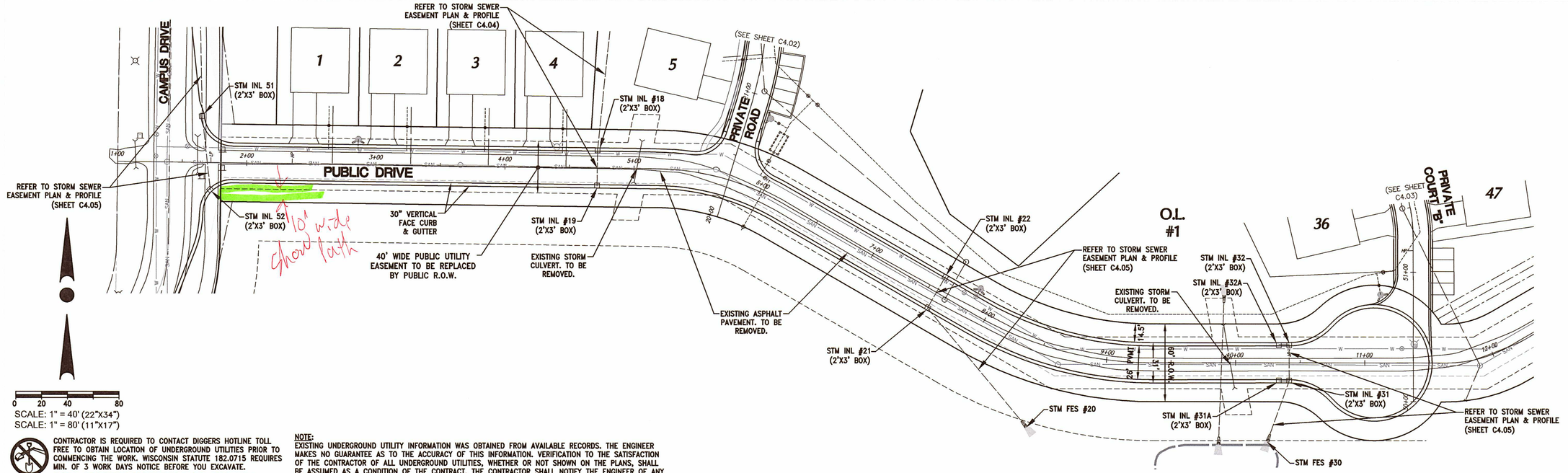
DATE:
JULY 2, 2020

JOB NUMBER:
19023-953

DESCRIPTION:
STORM SEWER SYSTEM PLAN

SHEET
C4.00

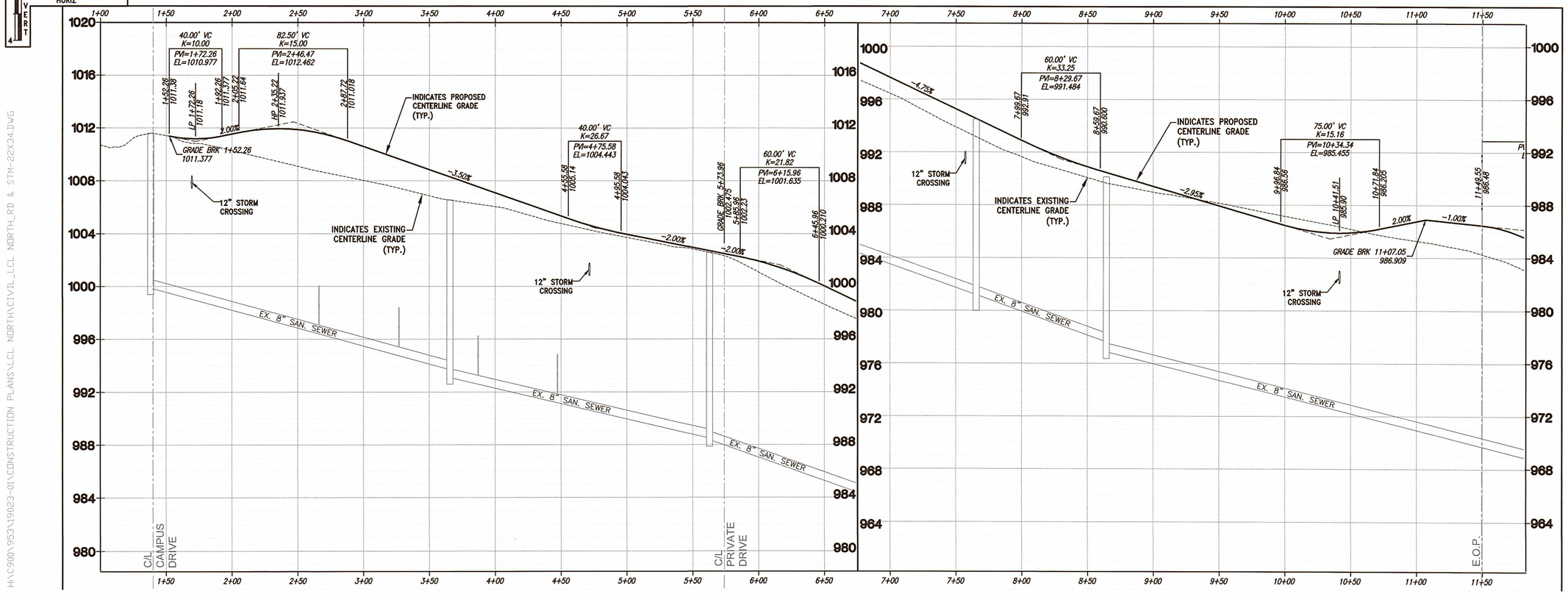
H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_RD & STM-22X34.DWG



0 20 40 80
SCALE: 1" = 40' (22"X34")
SCALE: 1" = 80' (11"X17")

CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.
CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.



H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_RD & STM-22X34.DWG

WISCONSIN
JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI
PROFESSIONAL ENGINEER

DESIGN • LAND SURVEYING
TRIO
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: Info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERAN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

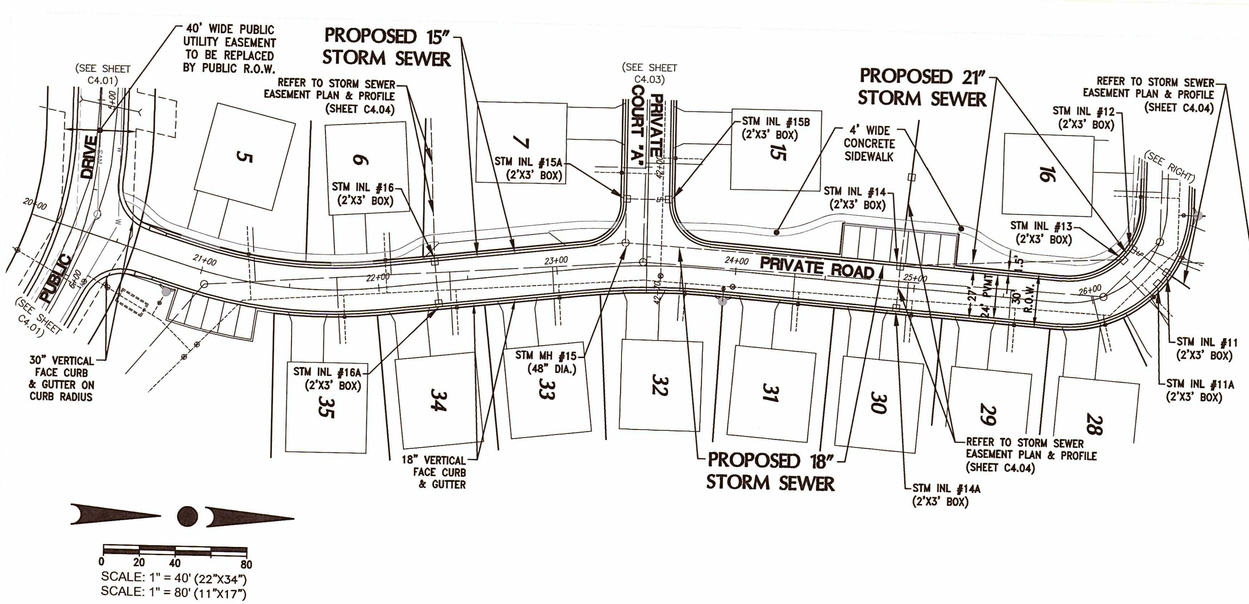
DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

DATE:
JULY 2, 2020

JOB NUMBER:
19023-953

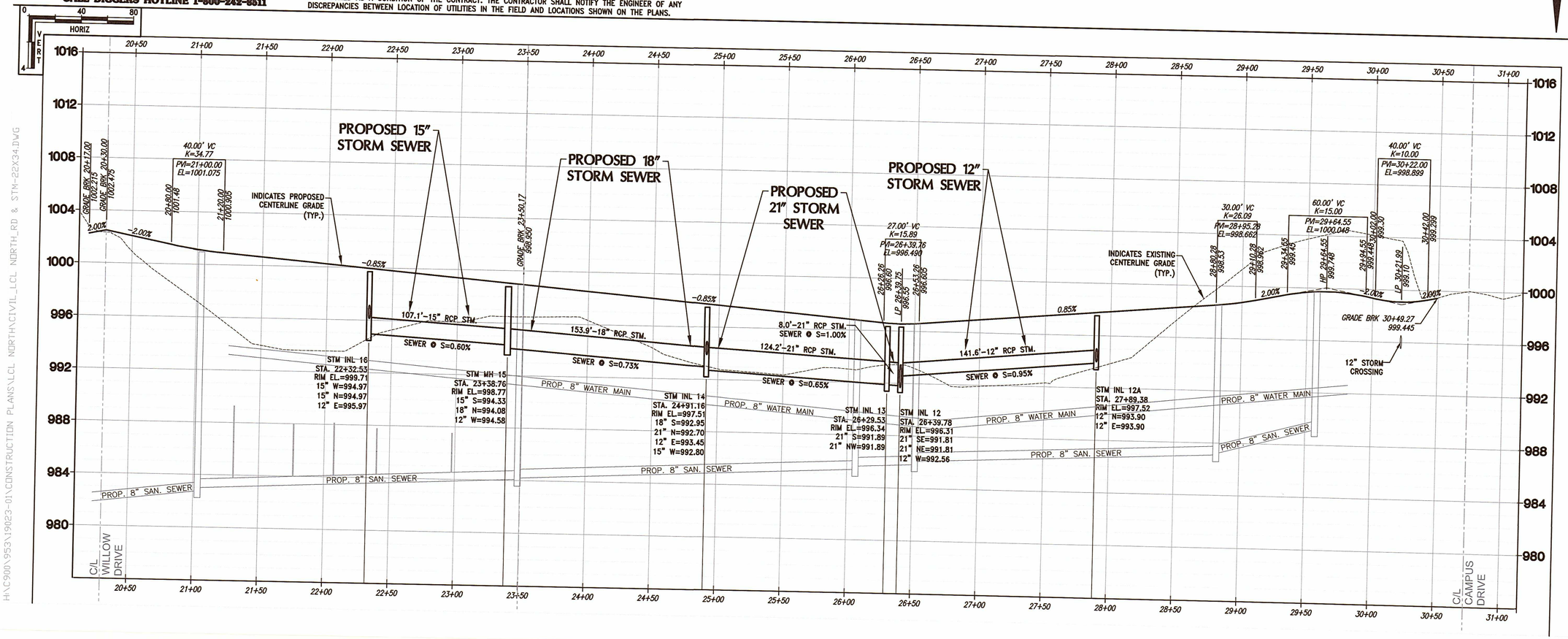
DESCRIPTION:
ROADWAY & STORM SEWER PLAN & PROFILE

SHEET
C4.01



CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.
CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.



H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_RD & STM-22X34.DWG

JOSHUA D. PUDELKO E-39420 WAUWATOSA, WI
WISCONSIN PROFESSIONAL ENGINEER

TRIO DESIGN • LAND SURVEYING CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: Info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

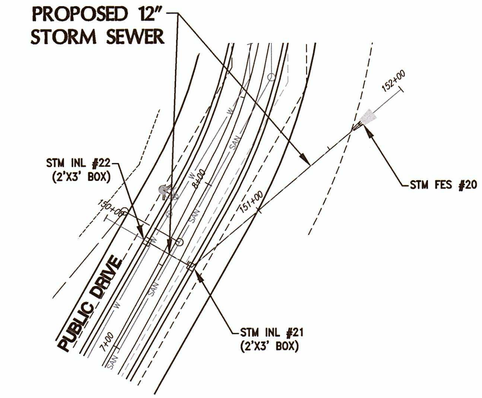
DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

DATE: JULY 2, 2020

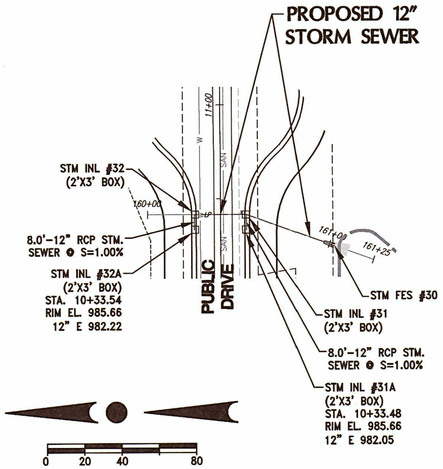
JOB NUMBER: 19023-953

DESCRIPTION: ROADWAY & STORM SEWER PLAN & PROFILE

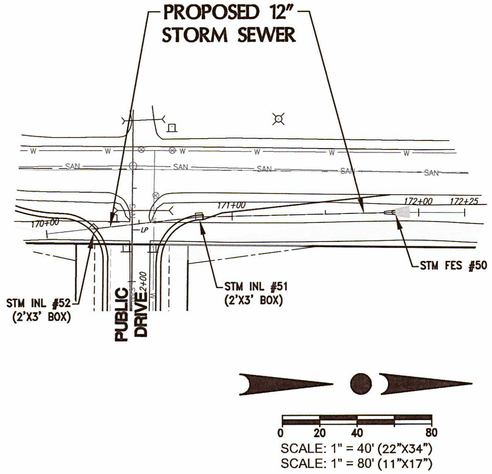
SHEET C4.02



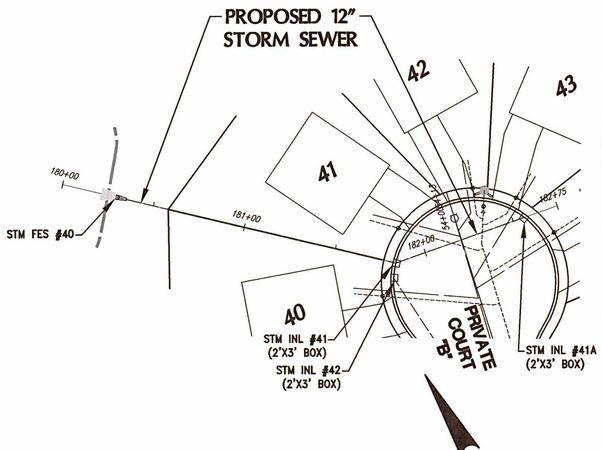
0 20 40 80
SCALE: 1" = 40' (22"X34")
SCALE: 1" = 80' (11"X17")



0 20 40 80
SCALE: 1" = 40' (22"X34")
SCALE: 1" = 80' (11"X17")



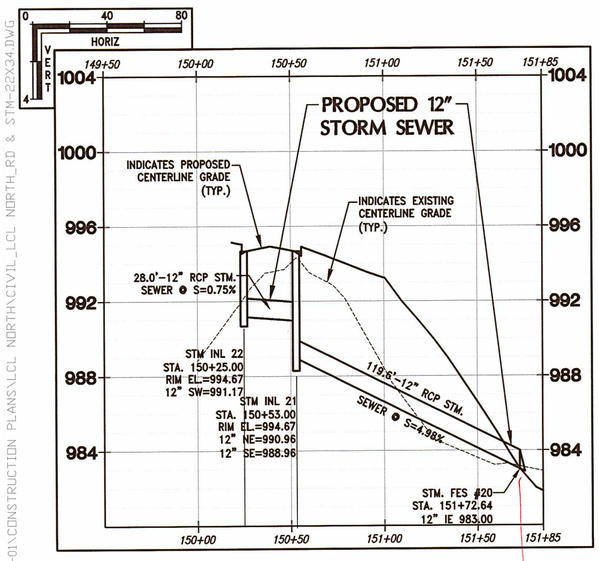
0 20 40 80
SCALE: 1" = 40' (22"X34")
SCALE: 1" = 80' (11"X17")

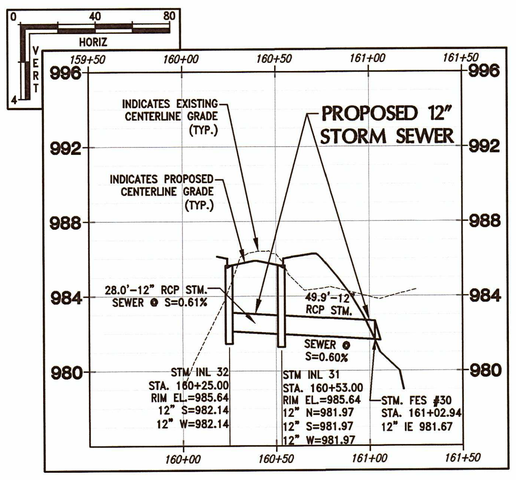


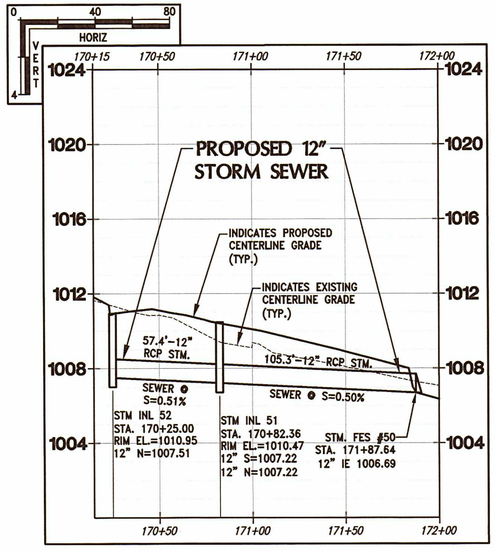
0 20 40 80
SCALE: 1" = 40' (22"X34")
SCALE: 1" = 80' (11"X17")

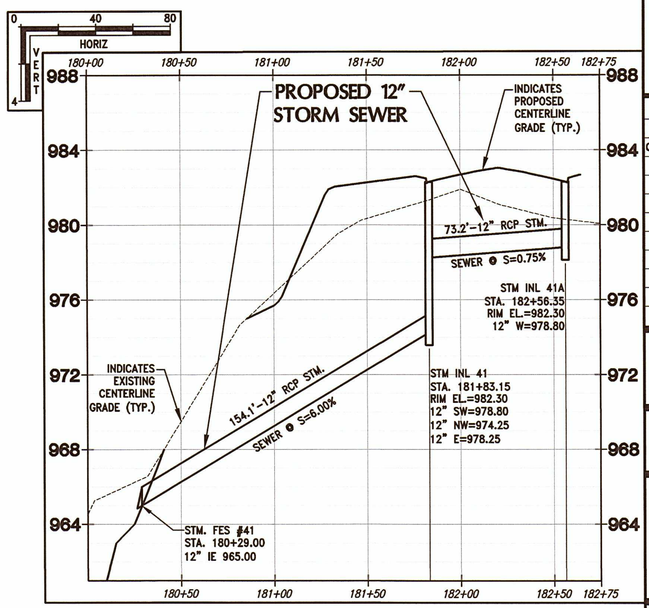
CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.
CALL DIGGERS HOTLINE 1-800-242-8511

NOTE:
EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS.









Concrete Cut off wall, bolt AEW TO, Show detail Ekk

H:\C900\953\19023-01\CONSTRUCTION PLANS\CL NORTH\CIVIL_CL NORTH_RD & STM-22X34.DWG

JOSHUA D. PUDELKO E-39420 WAUWATOSA, WI
WISCONSIN PROFESSIONAL ENGINEER

DESIGN • LAND SURVEYING
TRIO
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: Info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

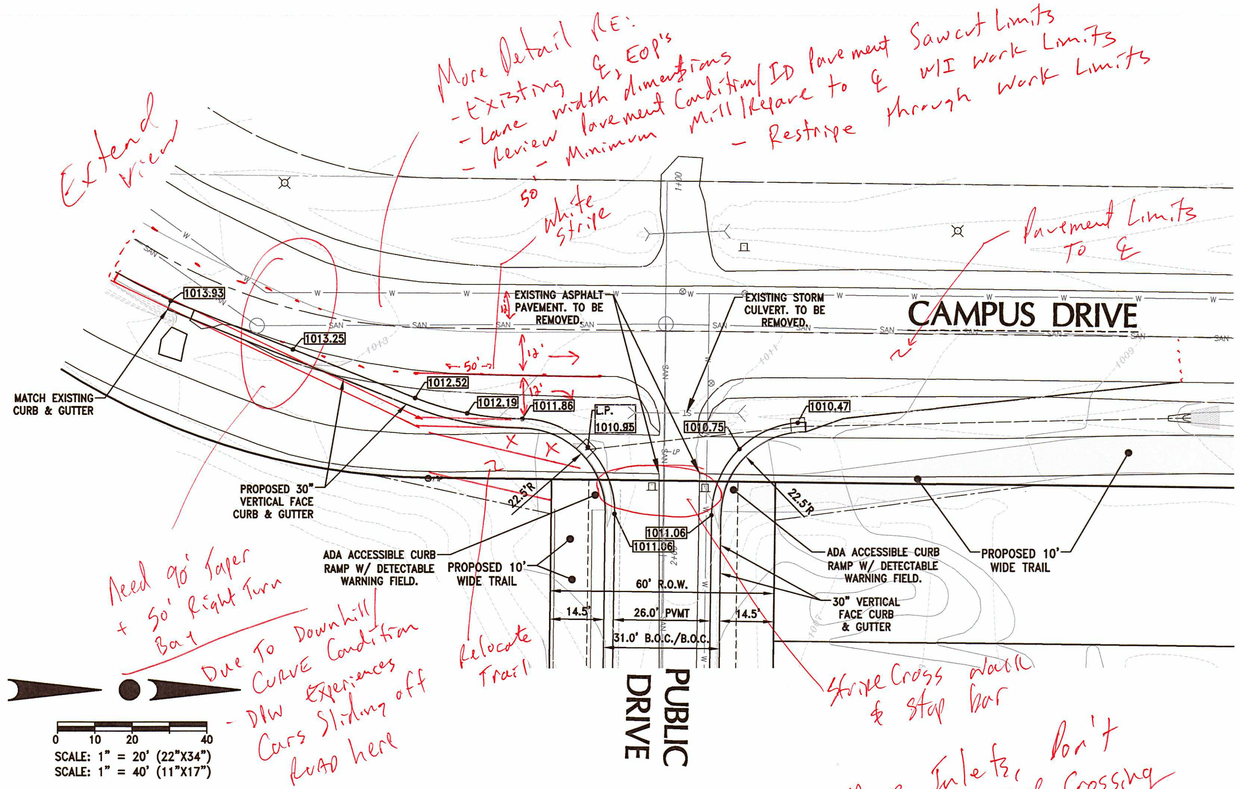
DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

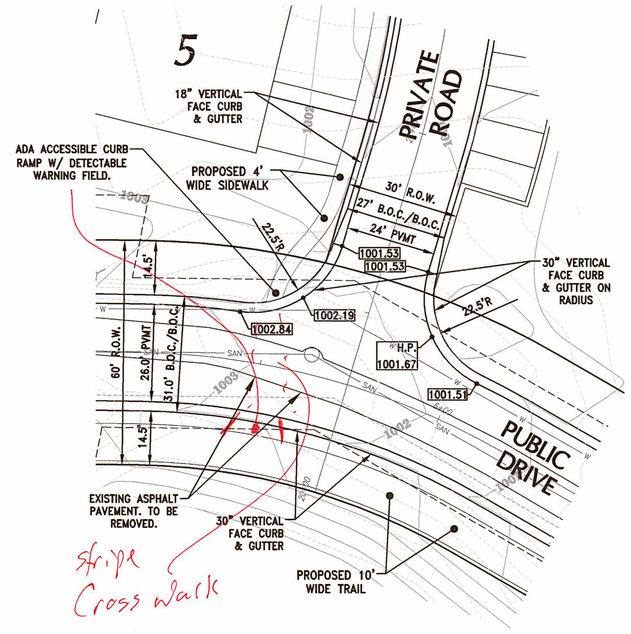
DATE:
JULY 2, 2020

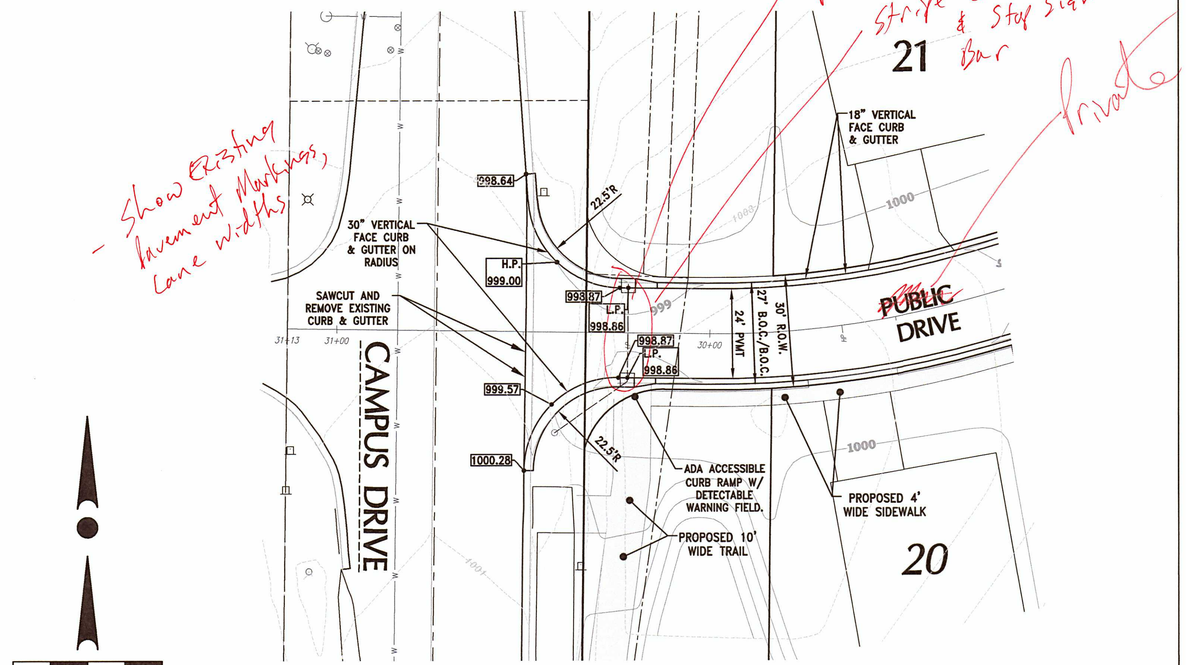
JOB NUMBER:
19023-953

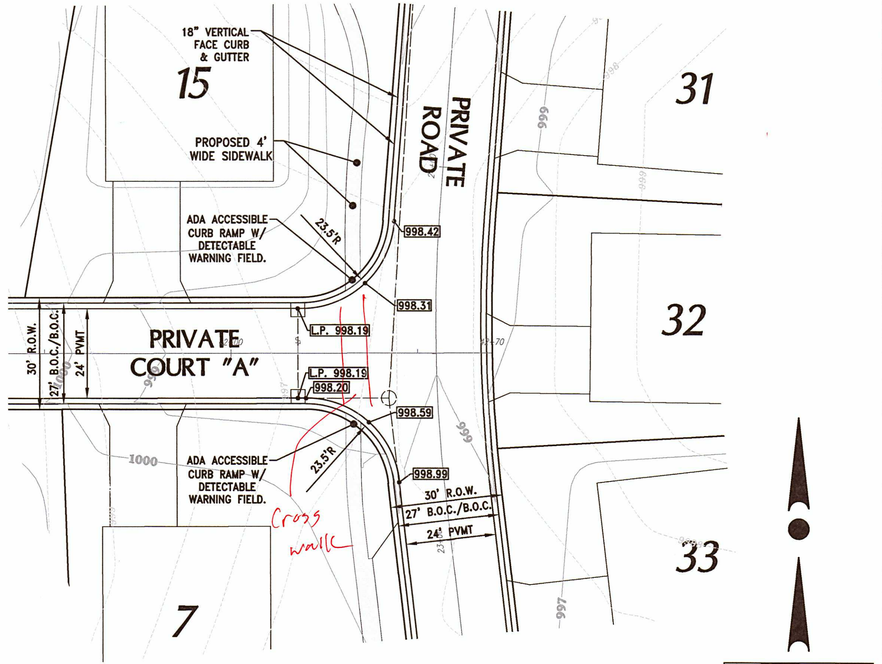
DESCRIPTION:
STORM SEWER PLAN & PROFILE

SHEET
C4.05









WISCONSIN
JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI
PROFESSIONAL ENGINEER

DESIGN • LAND SURVEYING
TRIO
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: Info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

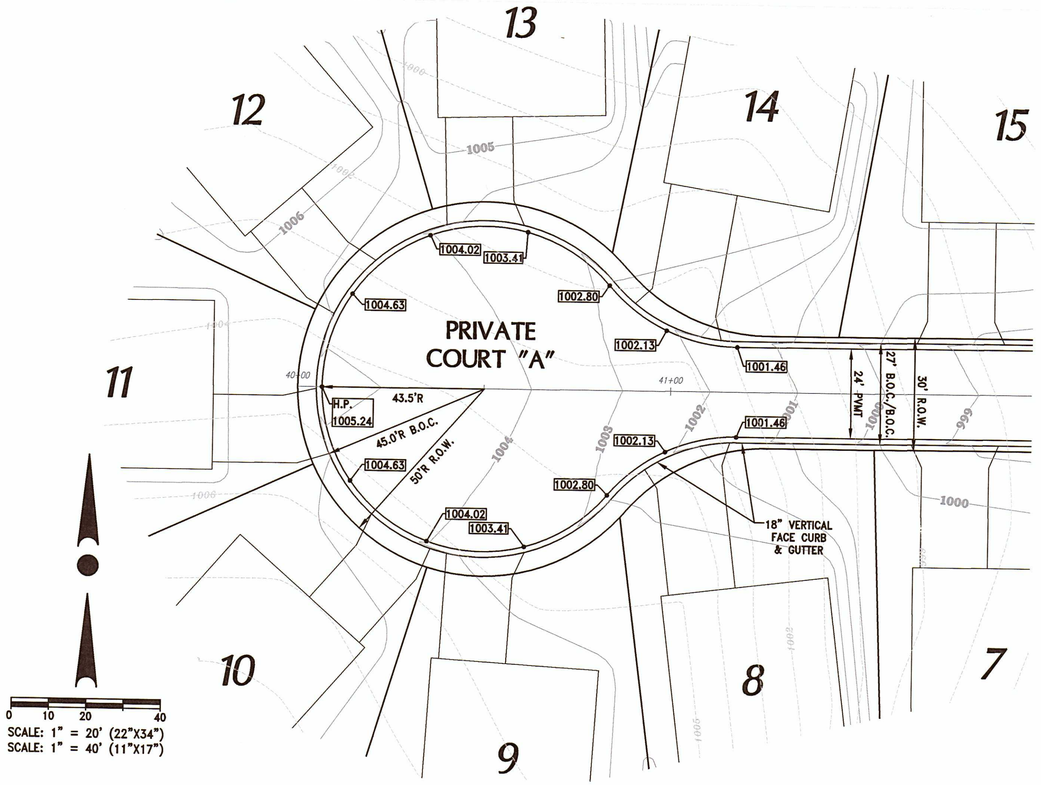
DATE: JULY 2, 2020

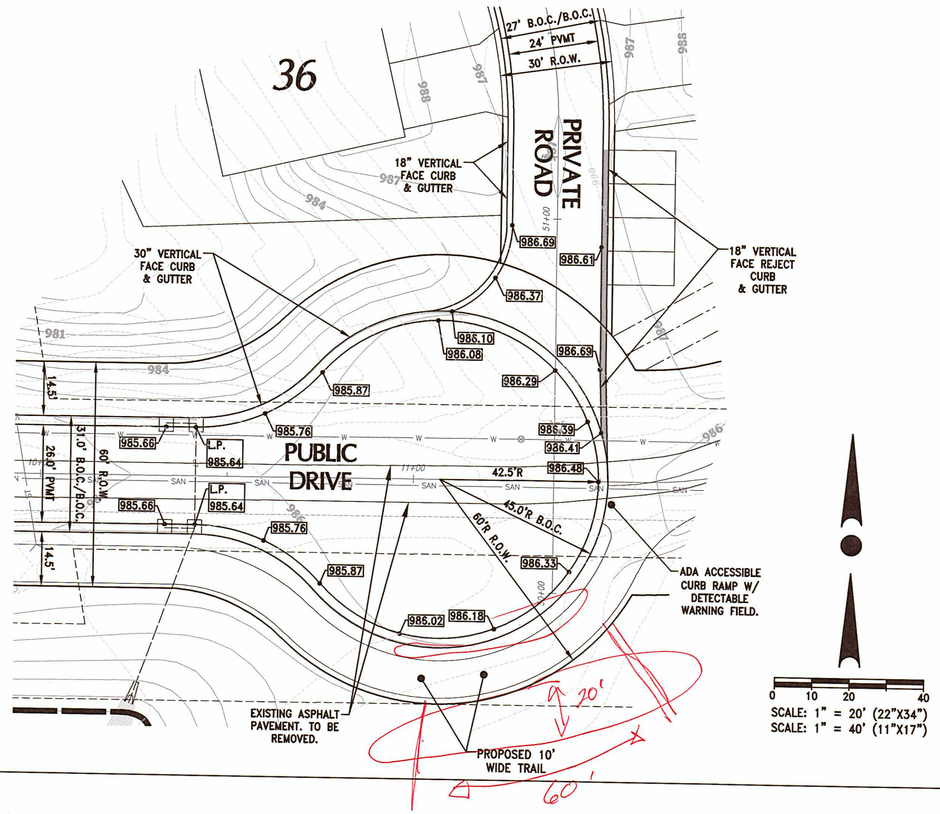
JOB NUMBER: 19023-953

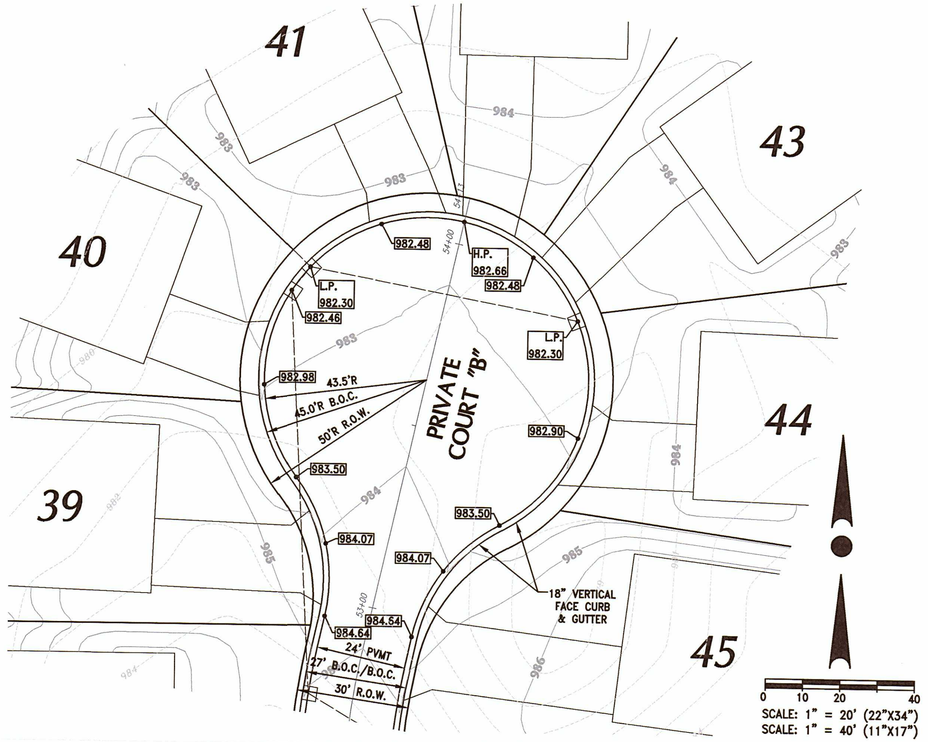
DESCRIPTION: CUL-DE-SAC & INTERSECTION DETAILS

SHEET C5.00

H:\C900\953\19023-01\CONSTRUCTION PLANS\CL NORTH\CIVIL_LCL NORTH_INTERSECTION.DWG







- No trees in Terrace here
- No trees Beyond Row here - need 20' wide Snow Storage area

WISCONSIN
JOSHUA D.
PUDELKO
E-39420
WAUWATOSA,
WI
PROFESSIONAL ENGINEER

TRIO
DESIGN • LAND SURVEYING
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: Info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

DATE:
JULY 2, 2020

JOB NUMBER:
19023-953

DESCRIPTION:
CUL-DE-SAC & INTERSECTION DETAILS

SHEET
C5.01

H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_INTERSECTION.DWG

VILLAGE OF HARTLAND STANDARD SPECIFICATIONS AND DETAIL DRAWINGS (HARTLAND STANDARDS)
CURRENT EDITION: MARCH 1, 2017

SECTION 33 05 00 HARTLAND COMMON WORK RESULTS FOR UTILITIES

PART 2 – PRODUCTS
2.03 BACKFILL
A. GRANULAR: LIMESTONE SCREENING NOT ALLOWED.
B. SPOIL: MAXIMUM PARTICLE SIZE 3–INCHES.
2.04 LOCATION AIDS
A. TRACER WIRE:
2. FOR OPEN–CUT: DIRECT–BURIAL–RATED INSULATED #10 AWG SOLID COPPER CONDUCTOR.
4. SPLICES: COPPERHEAD INDUSTRIES DRYCONN® 3–WAY DIRECT BURY LUG CONNECTOR 3WB–01 OR APPROVED EQUAL.
5. COLOR:
a. WATER: BLUE.
b. SANITARY: GREEN.
B. LOCATION BOXES FOR TRACER WIRE ACCESS.
1. BURIED:
a. SNAKEPIT TEST STATION, BY COPPERHEAD INDUSTRIES, OR APPROVED EQUAL.
C. GROUNDING ANODE ROD TO HAVE A MINIMUM OF 1 POUND OF MAGNESIUM AND #10 AWG WIRE.
D. MARKER FLAG:
1. "HYDRAFINDER".
2. 5 FEET LONG.
3. FIBERGLASS, RED AND WHITE.
4. SPRING LOAD ACTION.

PART 3 – EXECUTION
3.04 LOCATION AIDS
A. DETECTOR WIRE:
2. PLACE MAXIMUM 3 INCHES DIRECTLY ABOVE PIPE. (NO NEED TO TAPE TO PIPE)
3. TEST DETECTOR WIRE CONTINUITY PRIOR TO ACCEPTANCE OF PIPE INSTALLATION.
B. INSTALL DETECTOR WIRE AT:
1. WATER MAINS.
a. EVERY HYDRANT. EXTEND DETECTOR WIRE THROUGH A TEST STATION BOX THAT IS TO BE LOCATED ADJACENT TO THE HYDRANT.
b. EVERY CURB STOP. EXTEND DETECTOR WIRE UP CURB STOP BOX AND CONNECT TO CURB STOP LID.
2. SEWERS, LATERALS.
a. EVERY MANHOLE.
b. SANITARY WIRES CAN BE PLACED INTO THE MANHOLE BELOW THE FRAME.
c. EVERY LATERAL. EXTEND DETECTOR WIRE TO TOP OF HARDWOOD MARKER AT END OF LATERAL.
C. GROUNDING ANODE ROD:
1. INSTALL AT EVERY HYDRANT USING WIRE CONNECTOR EXTENDED FROM MAIN.
2. INSTALL AT EVERY CURB STOP BOX USING WIRE CONNECTOR EXTENDED FROM MAIN.
D. DEMONSTRATE CONTINUITY OF DETECTOR WIRES TO ENGINEER. CONNECT OHM METER IN A SERIES LOOP WITH DETECTOR WIRE AND ABOVE–GROUND WIRE. CIRCUIT RESISTANCE SHALL NOT EXCEED 5 OHMS.
E. TEST LOCATING. CONTACT OWNER AT (262) 367–2714 TO LOCATE ALL UTILITIES.
1. AFTER COMPLETION OF CONTINUITY TEST.
2. BEFORE ACCEPTANCE FOR USE.
3.06 INSULATION
A. WHERE STORM SEWER CROSS OVER WATER MAIN OR LATERALS.
3.07 BEDDING AND COVER
A. USE 6 INCHES OF BEDDING MATERIAL.
3.08 TRENCH BACKFILLING AND CONSOLIDATION
A. MATERIAL:
1. FOR NEW DEVELOPMENTS.
a. GRANULAR. UTILIZE SPOIL IF IT MEETS THE GRADATION OF GRANULAR. MAXIMUM PARTICLE SIZE ALLOWED IS 3–INCHES. SCREEN EXISTING MATERIAL, OTHERWISE PROVIDE HAULED IN GRANULAR.
b. AGGREGATE SLURRY. USE WHERE PERMANENT ASPHALT PATCHES ARE BEING USED OR AS DIRECTED BY ENGINEER.
3. OTHER AREAS: SPOIL.
4. AROUND AND OVER UNDERGROUND FACILITIES: FOLLOW RESPECTIVE OWNER'S REQUIREMENTS.
B. CONSOLIDATION: EITHER OF THE FOLLOWING METHODS MAY BE USED FOR NEW DEVELOPMENTS OR VILLAGE PROJECTS.
1. FLOODING. FOLLOWING SWS 2.6.14(A), INSERTIONS SHALL BE MADE IN A GRID PATTERN WITH 3–FOOT MAXIMUM SPACING BOTH LONGITUDINALLY AND LATERALLY.
2. MECHANICAL COMPACTION. FOLLOW SWS 2.6.14(B) EXCEPT CONTRACTOR SHALL FURNISH AND PAY FOR COMPACTION TESTING SERVICES FROM A GEOTECHNICAL TESTING FIRM APPROVED BY THE VILLAGE.
a. IN ADDITION, ALL UTILITY STRUCTURES WITHIN THE VILLAGE RIGHT–OF–WAY OR UNDER OTHER PAVED AREAS SHALL BE FURTHER CONSOLIDATED BY FLOODING. FOLLOW SWS 2.6.12(A). INSERTIONS SHALL BE MADE IN A GRID PATTERN WITH 3–FOOT MAXIMUM SPACING BOTH LONGITUDINALLY AND LATERALLY TO A MINIMUM RADIUS OF 6 FEET FROM THE STRUCTURE.
3. REPAIR ANY TRENCH THAT SETTLES WITHIN ONE YEAR AFTER FINAL COMPLETION.

SECTION 33 11 00 HARTLAND WATER UTILITY DISTRIBUTION PIPING

PART 2 – PRODUCTS
2.02 WATER MAIN PIPE AND APPURTENANCES
A. PIPE, 3–INCH AND LARGER.
2. PVC:
a. FOR 3 THROUGH 12–INCH DIAMETER: AWWA C–900, CLASS 150, AND HAVE A MINIMUM PRESSURE CLASS OF 235 PSI AND A THICKNESS OF DR 18.
B. RESILIENT SEATED GATE VALVES:
h. ALL BOLTS SHALL BE 300 SERIES (18–8) STAINLESS STEEL.
i. AFC 2500 SERIES OR CLOW C2640.
C. VALVE ENCLOSURES:
1. BOXES:
b. MANUFACTURERS: TYLER 6860 OR EAST JORDAN.
d. VALVE BOX ADAPTERS: ADAPTOR, INC.
e. POLYETHYLENE FILM WRAP AROUND ALL VALVE BOXES.
D. HYDRANT ASSEMLBY.
1. FOLLOW AWWA C502 AND SWS 8.26.0:
a. BURY DEPTHS: 7'–6" MINIMUM.
d. 5–1/4 INCH MINIMUM MAIN VALVE OPENING, NATIONAL STANDARD 2–1/2 INCH HOSE NOZZLE AND A 5–INCH STORZ NOZZLE–FACTORY INSTALLED. NOZZLES SHALL BE MECHANICALLY ATTACHED.
e. FACTORY PAINTED RED, WITH ALL CAPS PAINTED WHITE.
g. HYDRANTS SHALL BE FACTORY INSTALLED WITH 304 STAINLESS STEEL BOLTS BETWEEN BARREL AND SHOE.
h. UPPER STAND PIPE DIMENSION OF 16 INCHES.
2. AMERICAN FLOW CONTROL INC. (FORMERLY WATEROUS) WB–67 PACER.
4. MARKER FLAG:
a. "HYDRAFINDER".
b. 5 FEET LONG.
c. FIBERGLASS, RED AND WHITE.
d. SPRINGLOAD ACTION.
E. FITTINGS:
1. JOINTS:
a. BURIED: MECHANICAL
2. PRESSURE RATING
a. FULLY BODY: 250 PSI.
b. COMPACT: 350 PSI.
3. MATERIAL:
a.DUCTILE IRON:
1.) CLASS 52 WALL THICKNESS.
4.) COR–BLUE TEE BOLTS.
F. SERVICE LINES, VALVES AND FITTINGS.
1. LINES:
a. 2 INCH AND SMALLER SHALL FOLLOW SWS 8.24.0 AND:
2.) POLYETHYLENE (HDPE) SDR 9 CTS. STAINLESS STEEL STIFFENERS SHALL BE USED.
2. CORPORATION VALVES FOR COPPER OR HDPE:
b. COMPRESSION FITTINGS: MUELLER B–25008 (1, 1 1/2, OR 2 INCH), FORD FB1000–5Q FULL PORT (1 1/4 INCH ONLY).
c. USE COMPRESSION FITTINGS WITH STAINLESS STEEL STIFFENERS FOR HDPE.
3. CURB VALVES FOR COPPER OR HDPE:
b. COMPRESSION FITTINGS: MUELLER B–25155 (1 OR 1 1/2 INCH) MINNEAPOLIS PATTERN, OR APPROVED EQUAL WITH LID PENTAGONAL BRASS PLUG. A.Y. MCDONALD NOT ALLOWED.
4. CURB BOXES:
a. SCREW–ON STYLE.
b. MUELLER H–10300 WITH TRACER WIRE LID OR A.Y. MCDONALD 5610TW.
c. LID PENTAGONAL BRASS PLUG.
5. VALVE STEM EXTENSION TO WITHIN 18 INCHES OF SURFACE ON 1 AND 1–1/4–INCH CURB STOPS.
6. NO SPLICES WILL BE ALLOWED BETWEEN THE MAIN AND THE CURB STOP.
I. RESTRAINED JOINTS FOR PVC PIPE:
1. EBBA IRON SERIES 2000 PVC MEGALUG.
2. IN ADDITION TO MEGALUGS, HARDWOOD OR SOLID CONCRETE BLOCK BUTTRESSES MAY BE USED.

PART 3 – EXECUTION
3.01 WATER MAIN INSTALLATION
D. SET VALVE BOXES TO 1/2 BELOW FINISH GRADE AFTER CURB AND GUTTER PLACEMENT AND BEFORE ASPHALT PLACEMENT.
F. HYDRANTS:
1. LOCATE HYDRANT VALVES BEHIND CURB AS SHOWN ON DETAIL DRAWING WM–01. ALL JOINTS ALONG HYDRANT LEAD SHALL BE RESTRAINED.
b. RESTRAINED JOINTS FOR PVC PIPE:
1.) EBBA IRON SERIES 2000 PVC MEGALUG
3.) POSITION CENTERLINE OF LOWEST HYDRANT OUTLET NOZZLE 20 INCHES (PLUS–OR–MINUS) ABOVE FINISH GRADE.
G. BUTTRESSES: NO POURED BUTTRESSES WILL BE ALLOWED. HARDWOOD OR SOLID CONCRETE BLOCK BUTTRESSES MAY SUPPLEMENT MECHANICAL RESTRAINTS.
H. PRESSURE TEST PIPELINES FOLLOWING SWS 4.15.0. COMBINATION LEAK/PRESSURE TEST AT 150 PSI FOR TWO HOURS IS ALLOWED.
I. DISINFECT PIPELINES FOLLOWING SWS 4.3.12 AND 4.16.0 UTILIZING GRANULAR CHLORINE NOT TABLETS. AFTER SUCCESSFUL PRESSURE TEST, VILLAGE SHALL TAKE TWO SUCCESSIVE SAFE WATER SAMPLES PRIOR TO APPROVAL OF INSTALLED PIPE FIRST AFTER FLUSHING CHLORINE AND SECOND IN 24 HOURS.
J. ALL CHLORINATED, CHEMICALLY TREATED OR CONTAMINATED FLUSHING WATER SHALL BE DISCHARGED TO THE VILLAGE SANITARY SEWER VIA FLEXIBLE HOSE PROVIDED BY CONTRACTOR. CONTRACTOR SHALL NOTIFY OWNER PRIOR TO DISCHARGING TO SANITARY SEWER AND SHALL MONITOR/QUANTIFY AND REPORT THE TOTAL FLOWS TO THE OWNER. METER AVAILABLE FROM DPW OPERATIONS SUPERVISOR BY CALLING (414) 630–8167. ALL OTHER FLUSHING WATER MAY BE DISCHARGED TO GRASSED AREAS, PROVIDED THAT THERE IS NO CHANCE FOR NEGATIVE IMPACT TO PRIVATE PROPERTY. WATER WASTED FROM PIPELINE THAT MAY REACH BODIES OF SURFACE WATER MAY NOT CONTAIN ANY SUBSTANCES IN CONCENTRATIONS THAT ADVERSELY AFFECT THE WATER AS DETERMINED BY THE WISCONSIN ADMINISTRATIVE CODE NR 105 AND 106. FOR CHLORINE, NO TOTAL RESIDUAL CHLORINE MAY BE MEASURED IN WATER BEING DISCHARGED TO A SURFACE WATER. ADVISE THE VILLAGE OF PROPOSED DISCHARGE SCHEDULE TO ARRANGE DNR–REQUIRED MEASUREMENTS. CONTRACTOR SHALL REVIEW FLUSHING PLAN WITH VILLAGE AND RECEIVE APPROVAL PRIOR TO CHLORINATING AND FLUSHING ANY WATER MAIN.
K. SERVICES:
5. FOR 2 INCH AND SMALLER FOLLOW SWS PART V AND:
A. PROVIDE CURB VALVE AND BOX AT 1 FOOT INSIDE RIGHT–OF–WAY LINE OR AS DIRECTED BY ENGINEER.
B. PROVIDE 2 BY 6–INCH HARDWOOD MARKER AT CURB BOX LOCATION FROM INVERT OF SERVICE TO 2 FEET ABOVE FINISHED GRADE.
C. PROVIDE TAILPIECE. FOLLOW SWS DRAWING FILE NO. 51 DRAWING.
L. CONNECTIONS TO EXISTING MAINS AND SERVICES:
1. CONTRACTOR SHALL COORDINATE HIS WORK SCHEDULE WITH THE OWNER WHEN CONNECTING INTERSECTING STREETS TO THE NEW WATER MAIN IN ORDER TO MINIMIZE INCONVENIENCE AND DISRUPTION CAUSED BY THE TEMPORARY DISCONTINUANCE OF WATER SERVICE. THE CONTRACTOR SHALL NOTIFY THE VILLAGE AT LEAST 72 HOURS PRIOR TO SHUTTING OFF ANY WATER SERVICE. WATER SERVICE TO RESIDENCES SHALL NOT BE SHUT DOWN FOR A PERIOD LONGER THAN EIGHT (8) HOURS, NOR AFTER 4:00 P.M. OR ON WEEKENDS, WITHOUT APPROVAL OF THE OWNER. RESIDENTIAL WATER SERVICE MAY ONLY BE SHUT DOWN BETWEEN THE HOURS OF 7:30 A.M. TO 4:00 P.M., EXCEPT THAT RESIDENTIAL WATER SERVICES MAY BE SHUT DOWN OUTSIDE OF THESE HOURS WITH THE OWNER'S PERMISSION. WATER SERVICE TO BUSINESSES OR OTHER ENTITIES SHALL NOT BE SHUT DOWN FOR A PERIOD LONGER THAN TWO (2) HOURS UNLESS SATISFACTORY ARRANGEMENTS ARE MADE WITH THE BUSINESS OR OTHER ENTITIES AFFECTED. THE CONTRACTOR SHALL TAKE WHATEVER MEASURES ARE NECESSARY TO RETURN SERVICE AT THE END OF EACH WORKING DAY, INCLUDING THE USE OF TEMPORARY VALVES OR PLUGS.

SECTION 33 30 00 HARTLAND SANITARY SEWERAGE

PART 2 – PRODUCTS
2.01 GRAVITY SANITARY SEWER
A. PIPE. IF NOT SHOWN ON DRAWINGS, USE ONE TYPE FROM FOLLOWING:
1. POLYVINYL CHLORIDE AND FITTINGS SOLID WALL:
a. 4 THROUGH 15 INCH: TYPE PSM, FOLLOW ASTM D3034, SDR 35.
B. C900 PVC PIPE WITH DUCTILE IRON FITTINGS TO BE USED FOR EXTRA DEPTH SEWER, AS SHOWN ON THE DRAWINGS.
D. STRUCTURES:
1. MANHOLES:
a. FOLLOW SWS 3.5.0. AND SWS 8.39.0. NO STEPS ALLOWED IN TOP FIVE FEET OF STRUCTURE, MEASURED DOWN FROM RIM ELEVATION.
2. FRAME:
a. NEENAH R–1661–B (NON–MODERNIZED)
3. COVER: SELF SEALING, CONCEALED PICK HOLE, NO VENTS. FOLLOW SWS DRAWING FILE NO. 148, APPROXIMATE WEIGHT 108 POUNDS.
4. PIPE TO MANHOLE CONNECTION: FOLLOW SWS 3.5.7.
5. FRAME AND CHIMNEY SEALANTS: FOLLOW SWS 8.42.0. BETWEEN GRADE RINGS AND CASTING. BUTYL RUBBER ROPE JOINT SEALANT (MASTIC) AND BACK PLASTER GROUT ON THE EXTERIOR OF THE STRUCTURE. NO BACK PLASTER INSIDE STRUCTURE. NO CHIMNEY SEALS.
6. GROUT: IPATOP PENNGROUT, NON–SHRINK CEMENTITIOUS GROUT BY IPA SYSTEMS.
9. EXTERNAL JOINT WRAP IF GROUND WATER IS ABOVE BOTTOM OF MANHOLE:
a. CADDILLOC, INC.
b. ESKY – WRAP.
c. MAC WRAP.

PART 3 – EXECUTION
3.01 GRAVITY SANITARY SEWER INSTALLATION
A. BEFORE STARTING, BULKHEAD AND/OR PLUG THE CONNECTION TO EXISTING SEWER. LEAVE IN PLACE UNTIL NEW SEWER HAS BEEN CLEANED AND ACCEPTED.
C. SET MANHOLE FRAMES TO 1/4 TO 1/2–INCH BELOW FINISH GRADE AFTER PLACEMENT OF CURB AND GUTTER AND BEFORE ASPHALT PLACEMENT. PROVIDE ASPHALT RAMPING IF ONLY BINDER IS BEING PAVED. SET GRADE RINGS AND CASTING FLANGES ONTO A BUTYL RUBBER ROPE JOINT SEALANT (MASTIC).
1. CONTRACTOR SHALL INSTALL CONCRETE COLLAR AT THEIR COST AROUND MANHOLE IF 1/4 TO 1/2– INCH TOLERANCE CANNOT BE ACHIEVED.
D. CHIMNEY:
2. NO STEPS ALLOWED.
3. USE SINGLE MONOLITHIC PRECAST CONCRETE RING AND TWO 2–INCH PRECAST CONCRETE ADJUSTING RINGS FOR MANHOLE CHIMNEY.
E. LATERALS. FOLLOW SWS PART V AND:
2. PROVIDE 2 BY 6–INCH HARDWOOD MARKER AT END OF LATERAL FROM INVERT TO LATERAL TO 2 FEET ABOVE FINISH GRADE.
G. AIR TEST: FOLLOW SWS 3.7.3.
H. GO–NO–GO TEST: FOLLOW SWS 3.2.6(i)4.
I. MANHOLE VACUUM TEST:
a. FOLLOW SWS 3.7.6.
b. TEST AFTER BACKFILLING.
J. USE EXTERNAL JOINT WRAP ON MANHOLE JOINTS BELOW THE GROUND WATER LEVEL.
K. TELEVISE MAINS AND RECORD VIDEO. USE SELF–PROPELLED CRAWLER CAMERA. DO NOT USE JETTER–PROPELLED CAMERA. FOLLOW SWS 7.1.2. PERFORM AFTER:
1. MANHOLE BENCHES INSTALLED.
L. CONVEY COPY OF VIDEO RECORD TO OWNER. FURNISH DVD.

SECTION 33 40 00 HARTLAND STORM DRAINAGE

PART 2 – PRODUCTS
2.01 STORM SEWER
B. STRUCTURES:
1. MANHOLES: NO STEPS ALLOWED IN TOP FIVE FEET OF STRUCTURE, MEASURED DOWN FROM RIM ELEVATION.
2. CATCH BASIN FRAME AND COVER: NEENAH R–3067–L FOR CURB SECTION AND NEENAH R–3290–C FOR DRIVEWAY SECTION.
3. CATCH BASIN: FOLLOW SWS 3.6.0 FOR PRECAST.
4. MANHOLE FRAME AND COVER: NEENAH R–1661 OPEN GRATE, APPROXIMATE WEIGHT 500 POUNDS.
6. INLET AND CATCH BASIN GROUT: IPATOP PENNGROUT, NON–SHRINK CEMENTITIOUS GROUT BY IPA SYSTEMS. BACKPLASTER ALLOWED ON EXTERIOR OF STRUCTURE ONLY.
7. BUTYL RUBBER (MASTIC) SHALL BE USED BETWEEN SECTIONS, ADJUSTING RINGS, AND FRAME. BACKPLASTER GROUT ON EXTERIOR OF STRUCTURE ONLY.
D. PIPE GRATES: FOLLOW SWS 8.16.0. 15–INCH ENDWALLS AND LARGER. WAUSAU CONCRETE PLATE A20 OR APPROVED EQUAL.

PART 3 – EXECUTION
3.01 STORM SEWER INSTALLATION
B. SET MANHOLE FRAMES TO 1/4 TO 1/2–INCH BELOW FINISH GRADE AFTER PLACEMENT OF CURB AND GUTTER AND BEFORE ASPHALT PLACEMENT. PROVIDE ASPHALT RAMPING IF ONLY BINDER IS BEING PAVED. SET CASTING FLANGES ONTO A CONTINUOUS LAYER OF MASTIC ROPE.
1. CONTRACTOR SHALL INSTALL CONCRETE COLLAR AT THEIR COST AROUND MANHOLE IF 1/4 TO 1/2– INCH TOLERANCE CANNOT BE ACHIEVED.
C. SET INLET FRAMES TO FINISH GRADE, UNLESS INTERIM INLETS ARE CALLED FOR ON THE DRAWINGS. SET CASTING FLANGES ONTO A CONTINUOUS LAYER OF MASTIC ROPE.

SECTION 34 71 00 HARTLAND ROADWAY CONSTRUCTION

PART 1 – GENERAL
1.01 SUBMITTALS
A. ACTION:
1. FOLLOW 01 33 00 FOR:
a. PRODUCT DATA.
b. SIEVE ANALYSES FROM STATE–CERTIFIED LABORATORY.
c. MIX DESIGN. SUBMIT AT LEAST 7 DAYS BEFORE PAVING:
1) ASPHALTIC CONCRETE PAVEMENT. FOLLOW STATE SPECIFICATION 460.2.7.
2) PORTLAND CEMENT CONCRETE CURB AND GUTTER, DRIVEWAY, SIDEWALK.
3) HIGH–EARLY–STRENGTH CONCRETE. FOLLOW STATE SPECIFICATION 415.2.1.
d. WISCONSIN DOT–VERIFIED HOT MIX ASPHALT (HMA) PAVEMENT MIX DESIGN FOR EACH PAVEMENT CLASSIFICATION SPECIFIED. SUBMIT AT LEAST 7 DAYS BEFORE PAVING.
B. INFORMATIONAL:
1. BASE COMPACTION TEST REPORTS: FOLLOW 01 43 26.
2. SUBBASE COMPACTION TEST REPORTS. FOLLOW 01 43 26.
3. PAVING MIX DELIVERY TICKETS.
a. ASPHALTIC MATERIALS:
1) FURNISH TICKET BEFORE PLACING MATERIAL.
2) DISPLAY ON TICKET:
a) PROJECT.
b) DATE.
c) TIME.
d) TICKET NUMBER.
e) TYPE OF MIX.
f) GROSS WEIGHT.
g) TARE WEIGHT.
h) NET WEIGHT.
i) JOB TOTAL.
b. CONCRETE:
1) FURNISH TICKETS AFTER DELIVERY.
2) DISPLAY ON TICKET:
a) PROJECT.
b) DATE.
c) TIME.
d) TICKET NUMBER.
e) CLASS OF CONCRETE.
f) GRADE OF CONCRETE.
g) CEMENT WEIGHT.
h) FLY ASH TYPE AND WEIGHT.
i) FINE AGGREGATE WEIGHT.
j) COARSE AGGREGATE WEIGHT.
k) GALLONS OF WATER.
l) TIME WATER WAS ADDED.
m) ADDITIVES.
4. BASE COURSE DELIVERY TICKETS THAT DISPLAY:
a. PROJECT.
b. DATE.
c. TICKET NUMBER.
d. TYPE OF MATERIAL.
e. GROSS WEIGHT.
f. TARE WEIGHT.
g. NET WEIGHT.
h. JOB TOTAL.
5. WRITTEN CONCRETE CYLINDER COMPRESSION TEST RESULTS. SUBMIT TO ENGINEER.
6. PROVIDE QUALITY MANAGEMENT PROGRAM FOLLOWING STATE SPECIFICATIONS 460.2.8.1. GENERAL AND 460.2.8.2. CONTRACTOR TESTING CONTROL PLAN INCLUDING:
a. DO NOT USE 460.2.8.3. DEPARTMENT TESTING.
1.07 QUALITY MANAGEMENT PROGRAM
A. AS A CONDITION OF ACCEPTANCE, ARRANGE, CONDUCT, AND PAY FOR TESTS NECESSARY TO DEMONSTRATE SATISFACTORY COMPLIANCE WITH CONTRACT DOCUMENTS. MAKE ADJUSTMENTS AT THE PLANT NECESSARY TO MEET REQUIREMENTS OF SPECIFICATIONS INCLUDING THE INSTRUCTIONS.
B. LAB TESTING:
1. TEST MATERIAL FROM THE PLANT AT LEAST ONCE A DAY.
2. MEET THE FOLLOWING PARAMETERS:
a. AIR VOIDS (VA): FOLLOW STATE SPECIFICATIONS 460.2.8.3.1.6 AND FOLLOW STATE SPECIFICATION–ADDITIONAL SPECIAL PROVISION 460.2.1 ISSUED UNDER ASP–6.
b. VOIDS IN THE MINERAL AGGREGATE (VMA): FOLLOW STATE SPECIFICATIONS TABLE 460–1.
c. GRADATIONS: JOB MIX FORMULA (JMF): FOLLOW PARAGRAPH 1 OF STATE SPECIFICATION–ADDITIONAL SPECIAL PROVISION 460.2.8.2.1.5 ISSUED UNDER ASP–6.
C. DENSITY TESTING:
1. TAKE A MINIMUM ONE TEST PER LOCATION AND ONE TEST PER 250 TONS.
a. USE NUCLEAR METHOD.
b. TARGETS SPECIFIED HEREINAFTER.
2. LOCATIONS WILL BE AT ENGINEER'S REQUEST.
D. RESULTS AND REPORTS:
1. MAKE FIELD ADJUSTMENTS TO KEEP MATERIAL WITHIN SPECIFIED TOLERANCES. IF TEST RESULTS FALL OUT OF TOLERANCE, INCREASE TESTING FREQUENCY UNTIL MATERIAL IS WITHIN SPECIFICATION.
2. SUBMIT TEST REPORTS WITHIN 48 HOURS TO ENGINEER.

PART 2 – PRODUCTS
2.01 EMBANKMENTS OR SUBGRADE FILL
A. USE STATE SPECIFICATIONS 207. DO NOT USE LOGS, STUMPS, BRUSH, PERISHABLE MATERIAL, FROZEN MATERIALS OR HUMUS–BEARING MATERIALS. NO STONES LARGER THAN 3–INCHES OR LUMPS ALLOWED WITHIN ENTIRE SUBGRADE OF ROADWAY, APPROACHES, CURB AND GUTTER, SIDEWALK OR PATHWAYS.
2.02 EXCAVATION OF SUBGRADE CUT.
A. FOLLOW STATE SPECIFICATIONS 205. NO ORGANIC MATERIAL OR STONES LARGER THAN 3–INCHES ALLOWED WITHIN UPPER 12–INCHES OF SUBGRADE OF ROADWAY, APPROACHES, CURB AND GUTTER, OR SIDEWALK OR PATHWAYS. SCARIFYING IS REQUIRED.
2.03 EXCAVATION BELOW SUBGRADE (EBS) BACKFILL
A. BREAKER RUN: STATE SPECIFICATION 311, MAXIMUM PARTICLE SIZE 3 INCHES.
B. GEOTEXTILE SUBGRADE STABILIZATION MATERIAL: FOLLOW STATE SPECIFICATION 645, TYPE SAS.
2.04 BASE COURSE
A. USE CRUSHED LIMESTONE TRAFFIC BOND. SEE HARTLAND DETAILS DRAWINGS FOR THICKNESS AND GRADATION.
2.05 ASPHALTIC CONCRETE PAVEMENT (HMA)
A. BINDER COURSE (LOWER AND INTERMEDIATE LAYERS): FOLLOW STATE SPECIFICATION 460.2 AND:
1. TYPE: SEE HARTLAND DETAIL DRAWINGS.
2. BINDER GRADATION: SEE HARTLAND DETAIL DRAWINGS.
3. MAXIMUM RECYCLED CONTENT: FOLLOW STATE SPECIFICATIONS 460.2.5.
B. SURFACE COURSE (UPPER LAYER): FOLLOW STATE SPECIFICATION 460.2 AND:
1. TYPE: SEE HARTLAND DETAIL DRAWINGS.
2. SURFACE GRADATION: SEE HARTLAND DETAIL DRAWINGS.
3. MAXIMUM RECYCLED MATERIAL CONTENT: FOLLOW STATE SPECIFICATIONS 460.2.5.
C. TACK COAT: FOLLOW STATE SPECIFICATION 455.2.5 ASPHALTIC MATERIAL CSS–1H.
2.06 INCIDENTAL CONSTRUCTION
A. CONCRETE CURB AND GUTTER:
1. FOLLOW STATE SPECIFICATIONS 601. MAXIMUM PARTICLE SIZE 3–INCHES, WITHIN SUBGRADE. FOLLOW 2.04 OF THIS SECTION FOR BASE COURSE.
2. DO NOT ADD CALCIUM CHLORIDE.
B. CONCRETE SIDEWALKS AND RAMPS:
1. FOLLOW STATE SPECIFICATIONS 602.2. MAXIMUM PARTICLE SIZE 3–INCHES, WITHIN SUBGRADE. FOLLOW 2.04 OF THIS SECTION FOR BASE COURSE.
2. DO NOT ADD CALCIUM CHLORIDE.
C. CURB RAMPS.
1. DETECTABLE WARNING FIELD COLOR: YELLOW.
2. FOLLOW STATE SPECIFICATIONS 602.2. FURNISH METAL DETECTABLE WARNING FIELD FROM THE DOT APPROVED PRODUCTS LIST FOR THE COLOR DEFINED ABOVE.
3. MAXIMUM PARTICLE SIZE 3–INCHES, WITHIN SUBGRADE. FOLLOW 2.04 OF THIS SECTION FOR BASE COURSE.
E. PAVEMENT MARKING: FOLLOW STATE SPECIFICATIONS 646:
1. EPOXY.
F. DRAINAGE FACILITIES:
1. CULVERT PIPE.
b. RCP IN VALLAGE RIGHT–OF–WAY
2. BEDDING: 3/8–INCH CLEAR STONE CHIPS.

PART 3 – EXECUTION
3.01 EARTHWORK
B. ROADWAY AND DRAINAGE EXCAVATION.
1. NO ORGANIC MATERIAL OR STONES LARGER THAN 3–INCHES ALLOWED WITHIN UPPER 12–INCHES OF SUBGRADE IN A CUT SECTION. NO ORGANIC MATERIAL OR STONES LARGER THAN 3–INCHES ALLOWED WITHIN ENTIRE SUBGRADE LAYER IN A FILL SECTION.
D. SUBGRADE PROOF ROLL: ALLOW ENGINEER TO INSPECT PREPARED SUBGRADE AND TO WITNESS PROOF ROLL TEST BY A FULLY LOADED QUAD AXLE DUMP TRUCK. RECONSTRUCT WHERE DEFLECTION IS GREATER THAN 1/2 INCH. ADDITIONAL PROOF ROLL TESTS WILL BE PERFORMED UNTIL ENTIRE SUBGRADE PASSES.
3.02 BASE COURSE
A. CRUSHED AGGREGATE BASE COURSE:
1. COMPACTION: STANDARD COMPACTION.
b. ALLOW ENGINEER TO INSPECT PREPARED BASE COURSE AND TO WITNESS PROOF ROLL TEST BY A FULLY LOADED QUAD AXLE DUMP TRUCK. RECONSTRUCT WHERE DEFLECTION IS GREATER THAN 1/2 INCH. ADDITIONAL PROOF ROLL TESTS WILL BE PERFORMED UNTIL ENTIRE BASE COURSE PASSES.
2. ALLOWABLE DEVIATION FROM DESIGN GRADE: 1/2 INCH.
3.05 INCIDENTAL CONSTRUCTION
A. CONCRETE CURB AND GUTTER:
1. JOINTS.
a. CONSTRUCT EXPANSION JOINTS AT:
1) 5 FEET FROM INLETS OR CATCH BASINS.
2) END OF CURVES.
3) 100 FEET MAXIMUM INTERVALS.
4) AT ONE END OF ALL CURB AND GUTTER REMOVED AND REPLACED.
5) SINGLE LAYER 1/2–INCH THICK EXPANSIVE MATERIAL.
b. CONSTRUCT CONTRACTION JOINTS AT 10 FEET SPACING.
1) MINIMUM SPACING: 6 FEET.
2) MAXIMUM SPACING: 12 FEET.
3) MATCH ABUTTING CONCRETE JOINTS.
4) DEPTH: MINIMUM 2 INCHES.
2. CURING:
a. APPLY IMPERVIOUS COATING WITHIN ONE HOUR OF PLACEMENT. COAT ALL SIDES OF CURB
B. SIDEWALKS
2. CURB RAMPS: FOLLOW STATE SPECIFICATIONS 602.3.
3. CURING:
a. FOLLOW STATE SPECIFICATIONS 415.3.12.
b. APPLY IMPERVIOUS COATING WITHIN ONE HOUR OF PLACEMENT.
c. COAT ALL SIDES OF SIDEWALK INCLUDING EXPOSED SURFACE AFTER FORMS REMOVED.
d. APPLY TWO COATS IN PERPENDICULAR DIRECTIONS.
C. CONCRETE DRIVE APPROACHES:
1. JOINTS.
a. EXPANSION JOINTS ABUTTING CURB OR WALK: USE 1/2–INCH EXPANSION JOINT FILLER.
2. CURING.
d. APPLY TWO COATS IN PERPENDICULAR DIRECTIONS.
F. DRAINAGE FACILITIES:
3. BACKFILL WITH:
a. EXCAVATED MATERIAL–WHEN GRANULAR GRADATION IS MET. MAXIMUM PARTICLE SIZE 3–INCHES.
b. GRANULAR BACKFILL.
4. CONSOLIDATE BACKFILL BY: FLOODING.

WISCONSIN
JOSHUA D. PUDELKO
E–39420
WAUWATOSA, WI
PROFESSIONAL ENGINEER

DESIGN • LAND SURVEYING
TRIO
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790–1480
FAX: (262) 790–1481
EMAIL: Info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMNARY SUBMITTAL

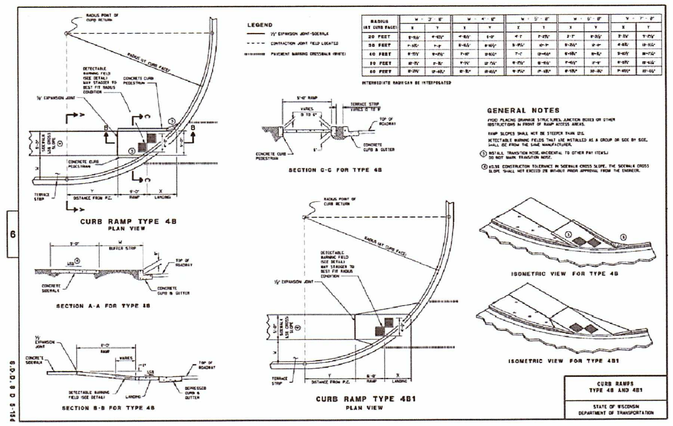
DATE:
JULY 2, 2020

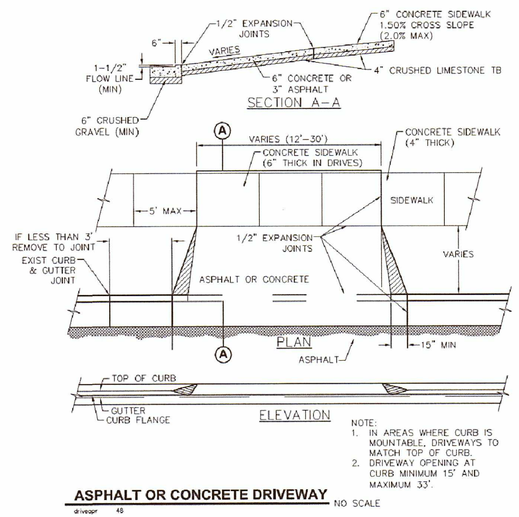
JOB NUMBER:
19023–953

DESCRIPTION:
CONSTRUCTION SPECIFICATIONS

SHEET
C6.00

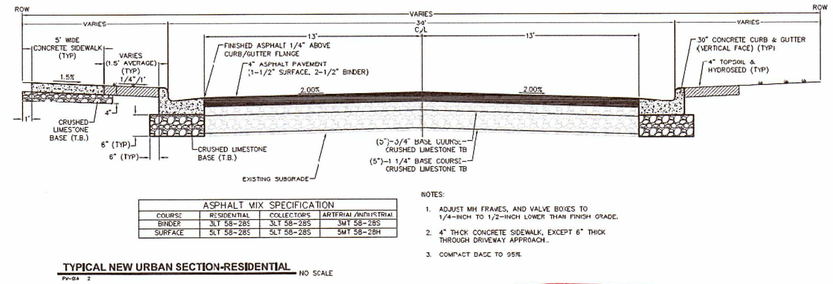
H:\C900\953\19023–01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH CIVIL COVER & DETAILS–22X34.DWG





ASPHALT OR CONCRETE DRIVEWAY NO SCALE

driveapr 48



ASPHALT MIX SPECIFICATION			
COURSE	RESIDENTIAL	COLLECTORS	ARTERIAL/INDUSTRIAL
BINDER	3LT 58-28S	3LT 58-28S	3MT 58-28S
SURFACE	5LT 58-28S	5LT 58-28S	5MT 58-28H

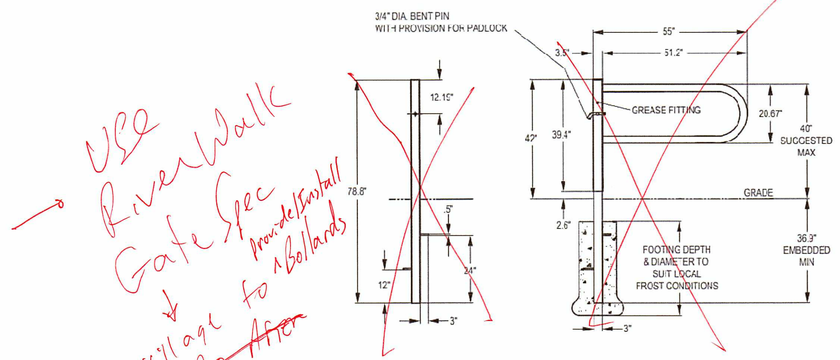
NOTES:
1. ADJUST MH FRAMES, AND VALVE BOXES TO 1/4-INCH TO 1/2-INCH LOWER THAN FINISH GRADE.
2. 4" THICK CONCRETE SIDEWALK, EXCEPT 6" THICK THROUGH DRIVEWAY APPROACH.
3. COMPACT BASE TO 95%.

TYPICAL NEW URBAN SECTION-RESIDENTIAL NO SCALE

PV-DA 2

Private Road Detail

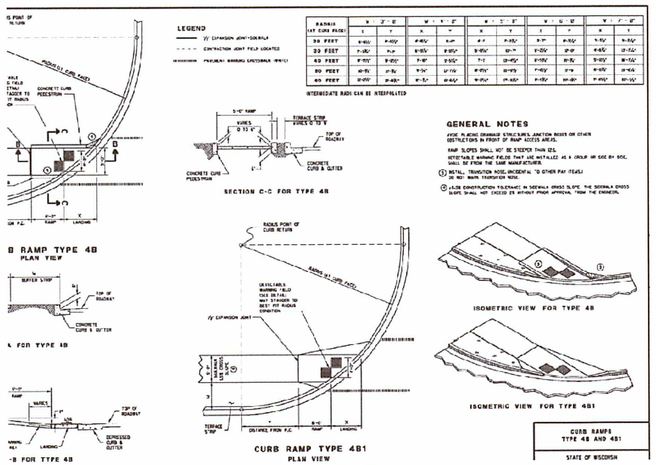
18" Mountable C/G Detail



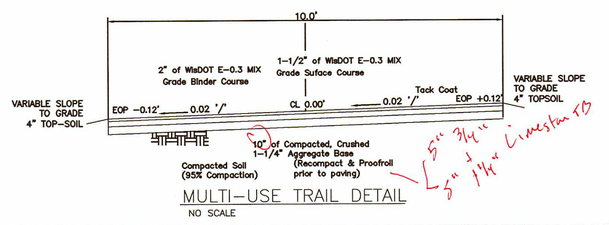
Use RiverWalk Gate Spec provide Bollards Village to do After

SWING GATE BOLLARD DETAIL

NO SCALE



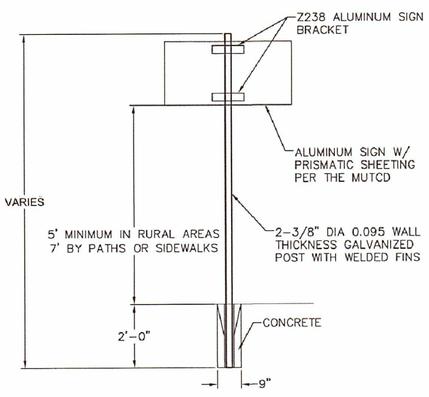
NOTE: TRUNCATED DOME PANELS SHALL BE YE LOW METAL



MULTI-USE TRAIL DETAIL

NO SCALE

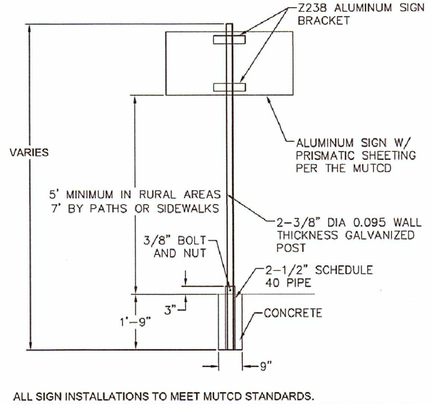
5" 3/4" 5" 1 1/4" Limestone CB



ALL SIGN INSTALLATIONS TO MEET MUTCD STANDARDS.
SIGNS TO BE HELD TO THE BRACKETS WITH STAINLESS STEEL NYLOK LOCK NUTS.
ALL PEDESTRIAN AND SCHOOL CROSSING SIGNS HAVE TO BE FYGHIP.
STREET NAME PLATES SHALL BE 9" BLADE WITH 6" UPPER/LOWER CASE LETTERING, WHITE ON GREEN LETTERING. (FOR PRIVATE ROADS LETTERING IS WHITE ON BLUE)

SIGN POST DETAIL IN UNPAVED AREAS NO SCALE

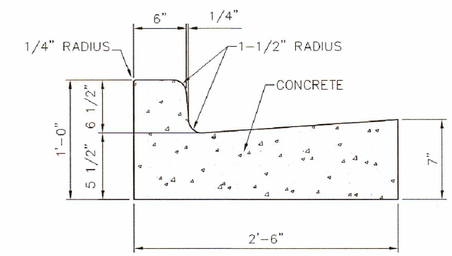
Sign post detail in rural 2



ALL SIGN INSTALLATIONS TO MEET MUTCD STANDARDS.
SIGNS TO BE HELD TO THE BRACKETS WITH STAINLESS STEEL NYLOK LOCK NUTS.
ALL PEDESTRIAN AND SCHOOL CROSSING SIGNS HAVE TO BE FYGHIP.
STREET NAME PLATES SHALL BE 9" BLADE WITH 6" UPPER/LOWER CASE LETTERING, WHITE ON GREEN LETTERING. (FOR PRIVATE ROADS LETTERING IS WHITE ON BLUE)

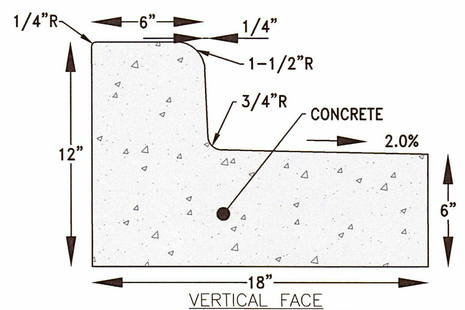
SIGN POST DETAIL IN PAVEMENT NO SCALE

Sign post detail in pavement 2



30" VERTICAL FACE CURB & GUTTER NO SCALE

02770C&G2 1



VERTICAL FACE
REJECT CURB & GUTTER
SECTION DETAIL
NO SCALE

Where is this being used?

WISCONSIN
JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI
PROFESSIONAL ENGINEER

TRIO
DESIGN • LAND SURVEYING
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY	
DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

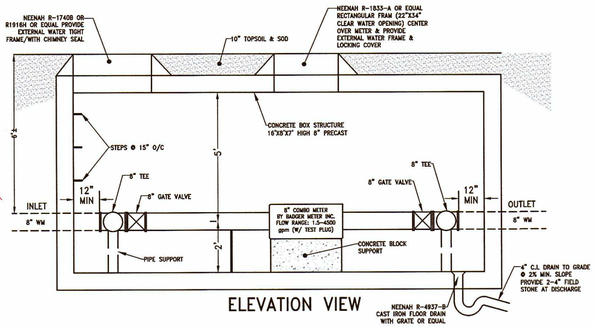
DATE:
JULY 2, 2020

JOB NUMBER:
19023-953

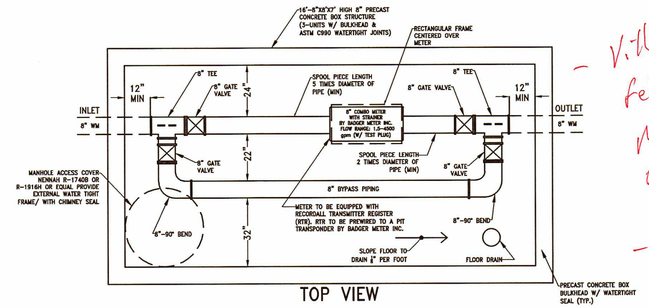
DESCRIPTION:
CONSTRUCTION DETAILS

SHEET
C6.01

H:\C900\V53\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_COVER & DETAILS-22X34.DWG



ELEVATION VIEW



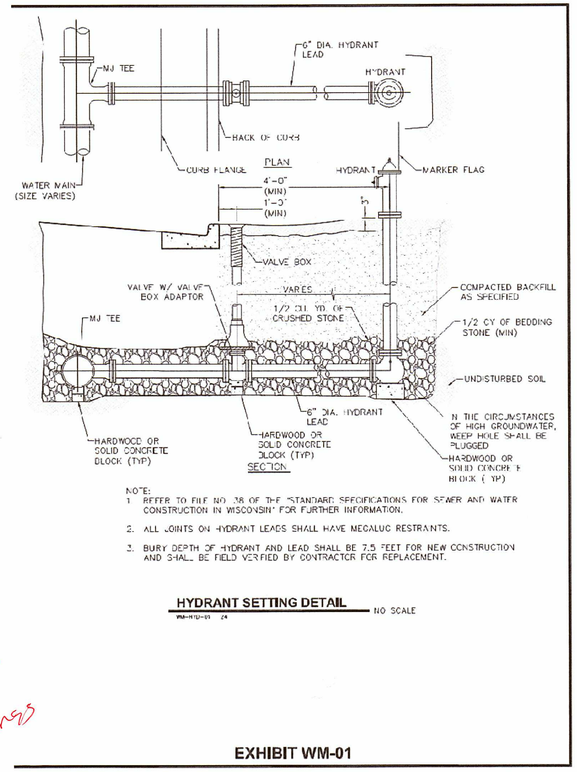
TOP VIEW

WATER MAIN MONITORING METER VAULT DETAIL

NO SCALE

- Village, have Felker getting more detail from Midwest Meter.

★ ~~Shop~~ Shop Drawing to be Reviewed/Approved by Village prior to ORDERING MATERIALS.



NOTE:
1. REFER TO FILE NO. 38 OF THE "STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN" FOR FURTHER INFORMATION.
2. ALL JOINTS ON HYDRANT LEADS SHALL HAVE MEGALUG RESTRAINTS.
3. BURY DEPTH OF HYDRANT AND LEAD SHALL BE 7.5 FEET FOR NEW CONSTRUCTION AND SHALL BE FIELD VERIFIED BY CONTRACTOR FOR REPLACEMENT.

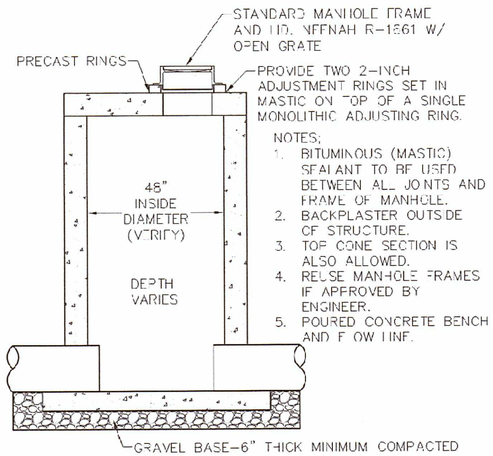
HYDRANT SETTING DETAIL NO SCALE

WM-HYD-01 24

EXHIBIT WM-01

STORM SEWER END SECTION NOTE:
APRON END WALLS SHALL HAVE CONCRETE CUT-OFF WALLS ON THEM.

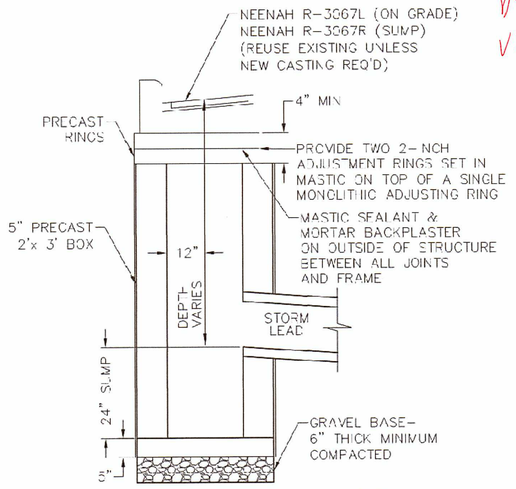
W/ 4'on Golf of TO WALL



NOTES;
1. BITUMINOUS (MASTIC) SEALANT TO BE USED BETWEEN ALL JOINTS AND FRAME OF MANHOLE.
2. BACKPLASTER OUTSIDE OF STRUCTURE.
3. TOP CONE SECTION IS ALSO ALLOWED.
4. REUSE MANHOLE FRAMES IF APPROVED BY ENGINEER.
5. POURED CONCRETE BENCH AND FLOW LINE.

STORM MANHOLE DETAIL NO SCALE

STO-01 20

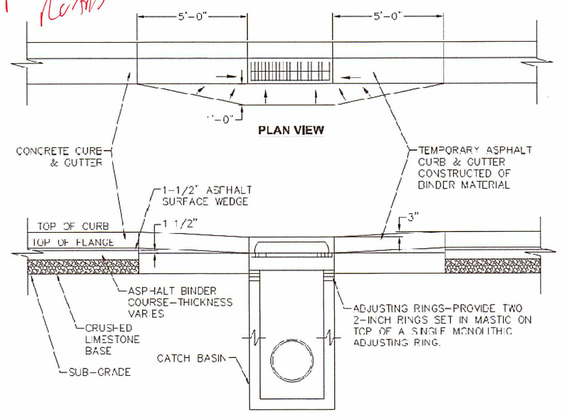


1. INLET TO BE PROTECTED WITH GEOTEXTILE FABRIC BETWEEN THE GRATE AND FRAME. PROTECTION TO REMAIN IN PLACE UNTIL SITE VEGETATION IS ESTABLISHED.
2. IN AREAS WITH ROLL FACE CURB, REPLACEMENT CURB SHALL TRANSITION TO VERTICAL FACE CURB & GUTTER AT INLET FRAME.

CATCH BASIN DETAIL NO SCALE

STO-03 20

- What type of Castings being used in private roads?

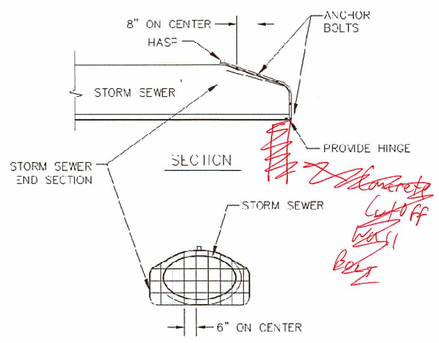


CROSS SECTION

NOTE:
TEMPORARY BITUMINOUS CONCRETE CURB AND GUTTER TO REMAIN IN PLACE UNTIL FINISHED ASPHALT SURFACE COURSE IS SCHEDULED PRIOR TO REPLACEMENT OF ASPHALT SURFACE COURSE, CONTRACTOR TO REMOVE TEMPORARY ASPHALT BINDER, CURB AND GUTTER, ADJUST FRAME TO PROPER GRADE AND POUR CONCRETE CURB AND GUTTER

INTERIM CATCH BASIN NO SCALE

STO-CB-07 32



END VIEW

NOTES:
1) TRASH RACK BARS TO BE GALVANIZED.
2) CONNECTOR PLATE WITH BOLT ATTACHED AT THREE POINTS TO ENDWALL.
3) PLANT FIT TRASH RACK CONFIGURATION TO FIT RELATIVE END SECTION.

TRASH RACK NO SCALE

STO GRATE 04 96

JOSHUA D. PUDELKO E-39420 WAUWATOSA, WI
WISCONSIN PROFESSIONAL ENGINEER

TRIO DESIGN • LAND SURVEYING CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: Info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN
LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

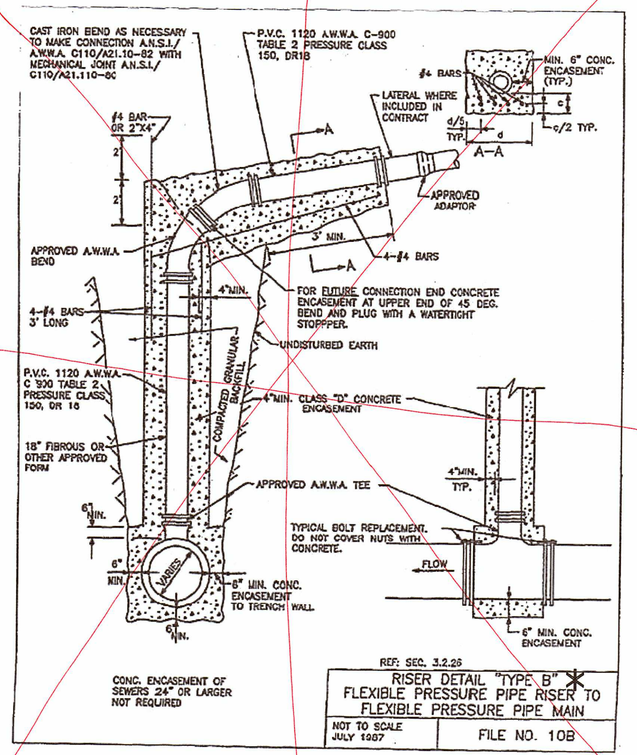
DATE: JULY 2, 2020

JOB NUMBER: 19023-953

DESCRIPTION: CONSTRUCTION DETAILS

SHEET C6.02

H:\VC900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_COVER & DETAILS-22X34.DWG

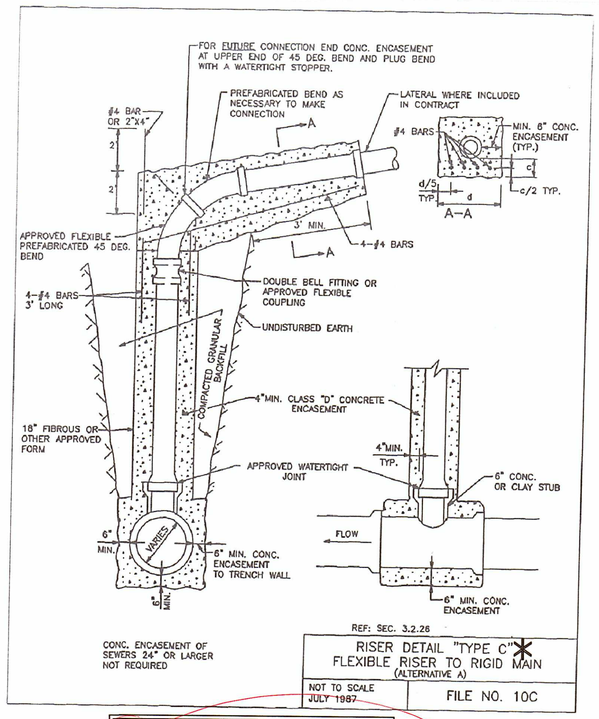


CONC. ENCASEMENT OF SEWERS 24" OR LARGER NOT REQUIRED

REF: SEC. 3.2.26

RISER DETAIL "TYPE B" * FLEXIBLE PRESSURE PIPE RISER TO FLEXIBLE PRESSURE PIPE MAIN	
NOT TO SCALE JULY 1987	FILE NO. 10B

NOTE: FOR RISERS ON SEWERS THAT ARE C900 PVC WITH DEPTH GREATER THAN 20'.



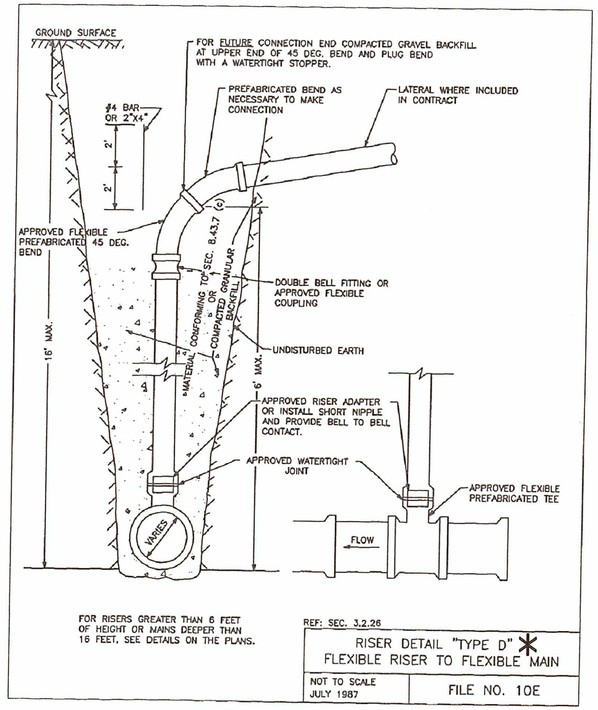
CONC. ENCASEMENT OF SEWERS 24" OR LARGER NOT REQUIRED

REF: SEC. 3.2.26

RISER DETAIL "TYPE C" * FLEXIBLE RISER TO RIGID MAIN (ALTERNATIVE A)	
NOT TO SCALE JULY 1987	FILE NO. 10C

* ALTERNATIVE RISER DETAILS MAY BE ALLOWED IF ACCEPTABLE TO VILLAGE ENGINEER

Specify 1 Riser For Detail

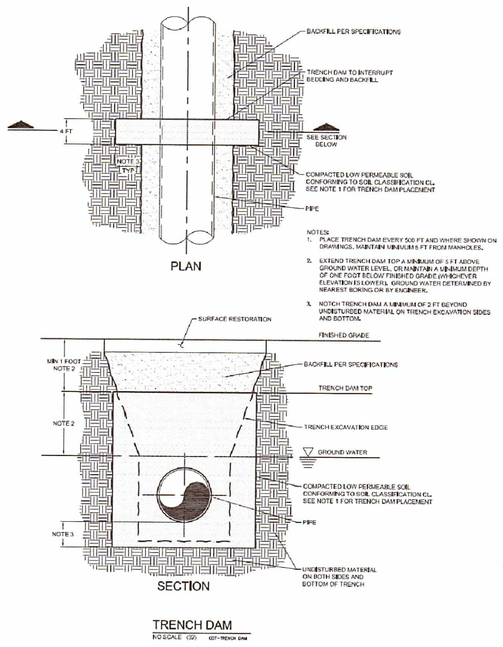


FOR RISERS GREATER THAN 6 FEET OF HEIGHT OR MAINS DEEPER THAN 16 FEET, SEE DETAILS ON THE PLANS.

REF: SEC. 3.2.26

RISER DETAIL "TYPE D" * FLEXIBLE RISER TO FLEXIBLE MAIN	
NOT TO SCALE JULY 1987	FILE NO. 10E

NOT TO be used for PUBLIC Laterals



NOTES:
1. PLACE TRENCH DAM EVERY 500 FT AND WHERE SHOWN ON DRAWINGS, MAINTAIN MINIMUM 5 FT FROM MANHOLES.
2. EXTEND TRENCH DAM TOP A MINIMUM OF 1 FT ABOVE GROUND WATER LEVEL, OR MAINTAIN A MINIMUM DEPTH OF ONE FOOT BELOW FINISHED GRADE (WHICHEVER ELEVATION IS LOWER). GROUND WATER DETERMINED BY NEAREST BORING OR BY ENGINEER.
3. NOTCH TRENCH DAM A MINIMUM OF 2 FT BEYOND UNDISTURBED MATERIAL ON TRENCH EXCAVATION SIDES AND BOTTOM.

TRENCH DAM

NO SCALE (SD) 1201-TRENCH DAM

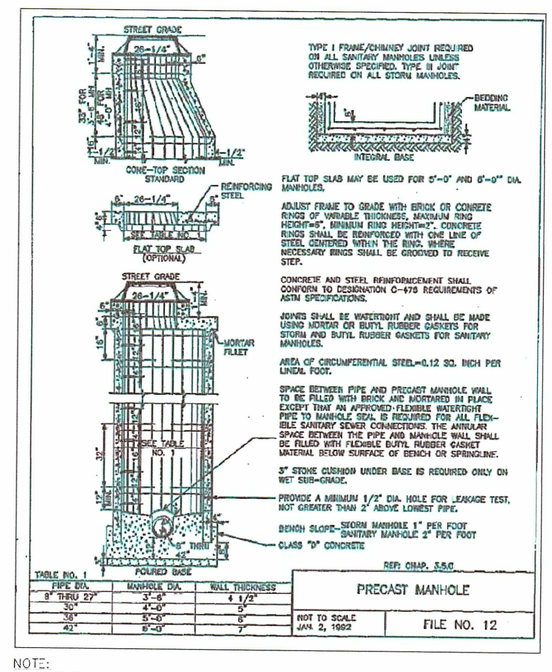


TABLE NO. 1		
PIPE DIA.	MANHOLE DIA.	WALL THICKNESS
8" THRU 27"	3'-6"	4 1/2"
30"	4'-0"	5"
36"	5'-0"	6"
42"	6'-0"	7"

REF: CHAP. 3.5.C

PRECAST MANHOLE	
NOT TO SCALE JAN. 2, 1992	FILE NO. 12

NOTE:
1. USE SINGLE LAYER MONOLITHIC RING AND TWO 2-INCH ADJUSTING RINGS IN CHIMNEY.
2. NO STEPS ALLOWED IN TOP FIVE FEET OF MANHOLE, MEASURED FROM RIM ELEVATION DOWN.
3. SET ADJUSTING RINGS AND FRAME IN MASTIC.
4. BACKPLASTER OUTSIDE OF STRUCTURE. NO BACKPLASTER ALLOWED INSIDE MANHOLE

EXHIBIT SAN-01

WISCONSIN PROFESSIONAL ENGINEER
JOSHUA D. PUDELKO
E-39420
WAUWATOSA, WI

DESIGN • LAND SURVEYING
TRIO
CIVIL ENGINEERING
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: info@trioeng.com

PROJECT:
LAKE COUNTRY LUTHERN

LAKE COUNTRY LUTHERAN LAND
VILLAGE OF HARTLAND, WISCONSIN
BY: NEUMANN DEVELOPMENTS, INC.
N27W24025 PAUL COURT, SUITE 100
PEWAUKEE, WI 53072

REVISION HISTORY

DATE	DESCRIPTION
07/02/20	PRELIMINARY SUBMITTAL

DATE:
JULY 2, 2020

JOB NUMBER:
19023-953

DESCRIPTION:
CONSTRUCTION DETAILS

SHEET
C6.03

H:\C900\953\19023-01\CONSTRUCTION PLANS\LCL NORTH\CIVIL_LCL NORTH_COVER & DETAILS-22X34.DWG