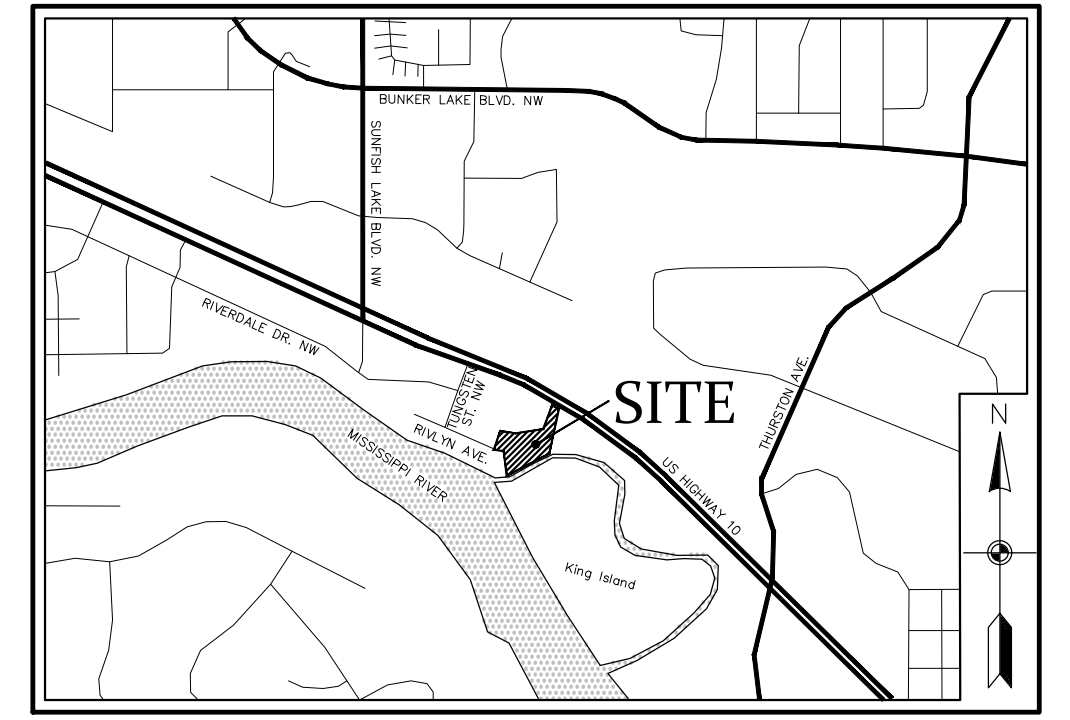


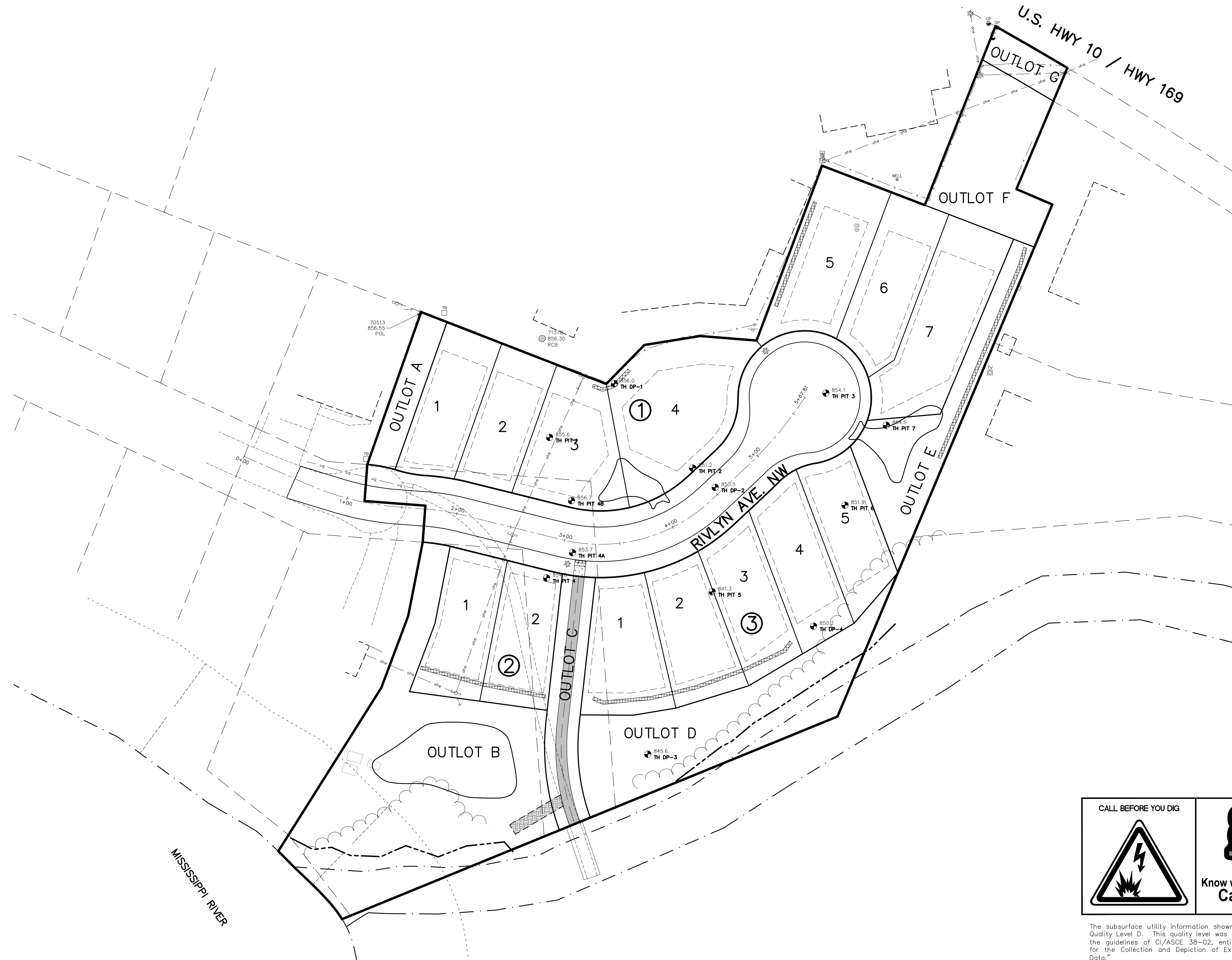
# RIVER WALK VILLAGE

## RAMSEY, MINNESOTA

### VICINITY MAP

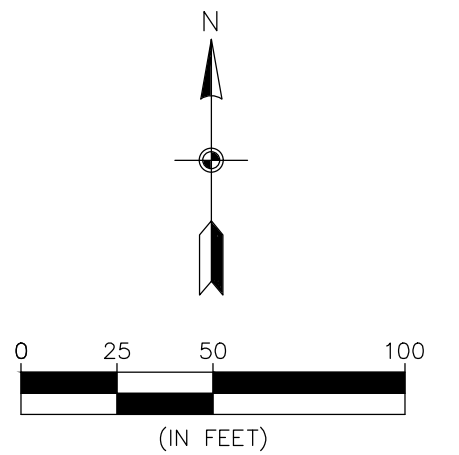


NOT TO SCALE



### SHEET INDEX

- 1. COVER
- 2. EXISTING CONDITIONS
- 3. PRELIMINARY PLAT
- 4. REMOVALS PLAN
- 5. SITE PLAN
- 6. GRADING & EROSION CONTROL PLAN
- 7-9. DETAILS
- L1. LANDSCAPE PLAN
- T1. TREE PRESERVATION PLAN
- FP1. FLOODPLAIN MITIGATION PLAN

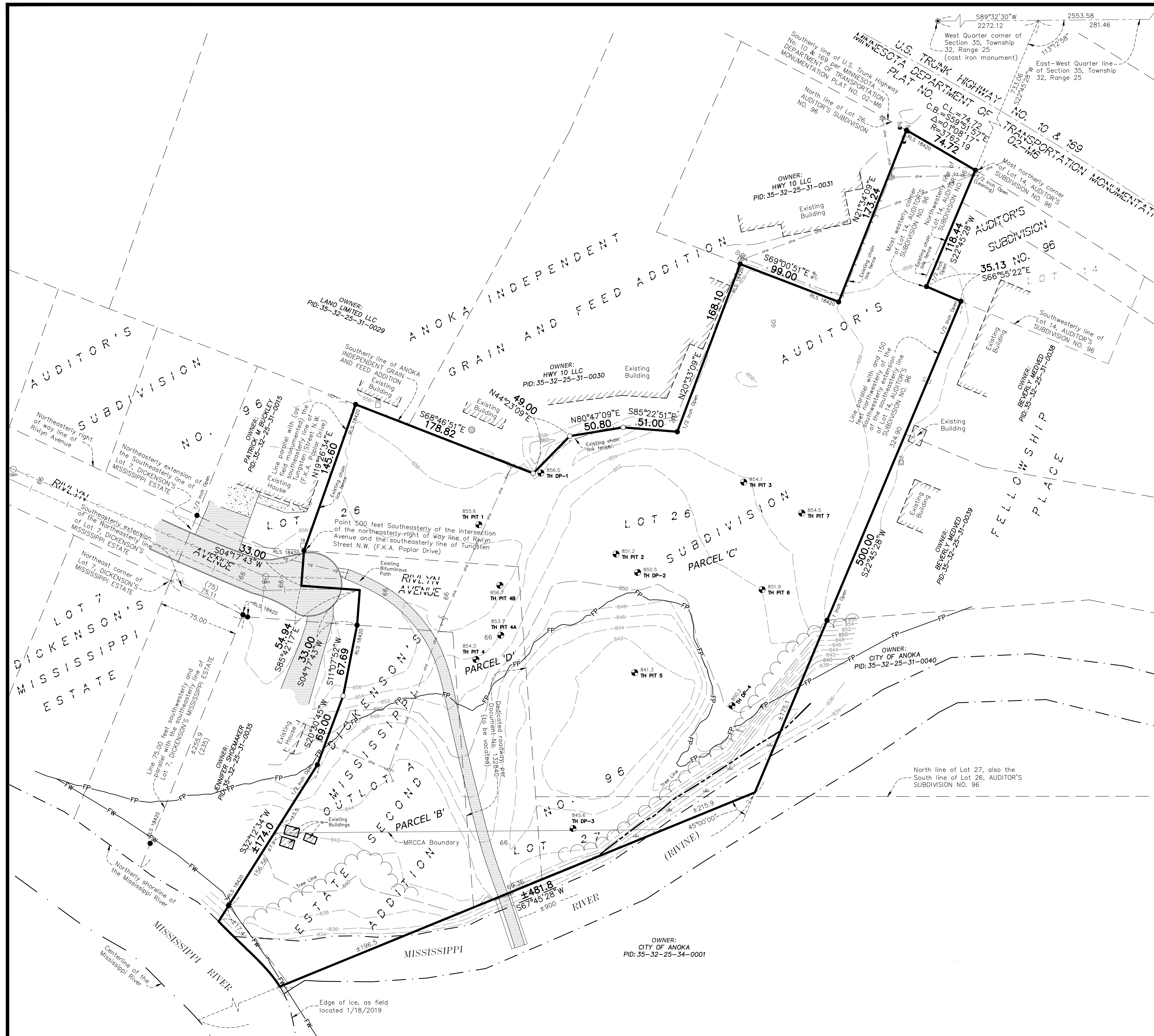


CALL BEFORE YOU DIG

Know what's below.  
Call before you dig.

BENCHMARK
1. MNDOT GSD Station #833, Named "Lumber MNDT RM 1" Elev.= 859.11
2. MNDOT GSD Station #775, Named "E 257" Elev.= 863.67

The subsurface utility information shown on this plan is utility Quality Level D. This quality level was determined according to the guidelines of QI/ASCE 38-02, entitled "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data."



**PARCEL DESCRIPTION:** (Per Schedule A of Title Commitment File No. 104617, with a commitment date of January 4, 2019 at 8:00 A.M., prepared by All American Commercial Title, Inc., as issuing agent for Old Republic National Title Insurance Company)

**Parcel B:**

Outlot A, DICKENSON'S MISSISSIPPI ESTATE SECOND ADDITION, Anoka County, Minnesota.

**Parcel C:**

That part of Lots 26 and 27 AUDITOR'S SUBDIVISION NO. 96, Anoka County, Minnesota, lying Easterly and Southeasterly of the following described line: Beginning at intersection of Northernly shoreline of the Mississippi River and a line 75.00 feet Southeasterly of and parallel with the Southeasterly line of Lot 7, DICKENSON'S MISSISSIPPI ESTATE, said Anoka County, as measured along Southeasterly extension of the Northeasterly line of said Lot 7; thence Northeasterly along said parallel line 235 feet, more or less, to its intersection with the Southeasterly extension of Northeasterly line of said Lot 7; thence Northwesterly along said Southeasterly extension 75 feet to the Northeast corner of said Lot 7; thence Northeasterly along Northeasterly extension of said Southeasterly line 66 feet to Northeasterly right-of-way line of Rivlyn Avenue; thence Southeasterly along said right-of-way line to a point 500 feet Southeasterly (as measured along said right-of-way line) of the intersection of said right-of-way line with Southeasterly right-of-way line of Poplar Drive (now known as Tungsten Street N.W.) as shown on the plat of DICKENSON'S MISSISSIPPI ESTATE; thence Northeasterly parallel with said Southeasterly right-of-way line to its intersection with the Southerly line of the plat of ANOKA INDEPENDENT GRAIN AND FEED; thence Southeasterly and Northeasterly along the Southerly and Easterly line of said plat of ANOKA INDEPENDENT GRAIN AND FEED to the North line of said Lot 26 and there terminating.

And lying Westerly of the following described line: Beginning at the most Northernly corner of Lot 14, said AUDITOR'S SUBDIVISION NO. 96; thence Southerly along Northwesterly line of said Lot 14 to the most Westerly corner thereof; thence Southerly along Southwesterly line of said Lot 14 to its intersection with a line parallel and 150 feet Northwesterly (as measured at right angle) of the Southwesterly extension of Southeasterly line of said Lot 14; thence Southwesterly along said parallel line a distance of 500 feet; thence Southwesterly deflecting to right 45 degrees 00 minutes 00 seconds a distance of 900 feet, more or less, to the centerline of the Mississippi River and there terminating.

EXCEPT that property dedicated by deed of dedication dated December 9, 1949 to the Township of Ramsey for public road purposes, recorded as Document No. 132840.

ALSO EXCEPT that part platted as DICKENSON'S MISSISSIPPI ESTATE SECOND ADDITION.

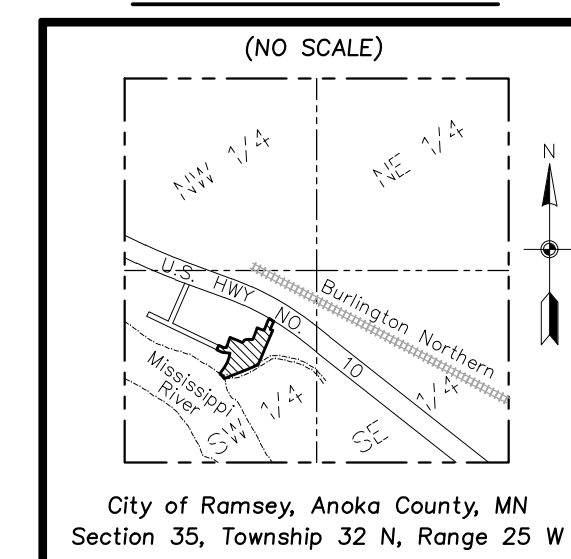
**PARCEL D (proposed public roadway to be vacated):**

That part of vacated RIVLYN Avenue accruing thereto by reason of street vacation.

**GENERAL NOTES:**

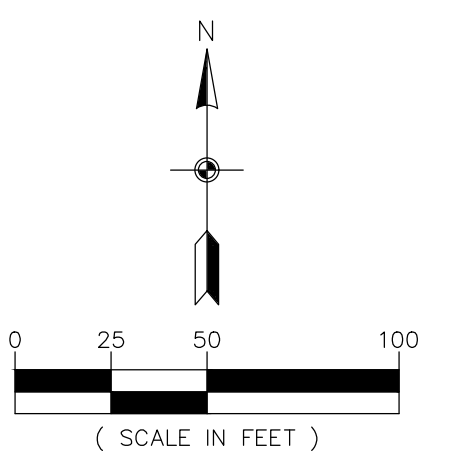
- 1) The field work for this survey was completed on January 18, 2019.
- 2) Bearings shown are based on the East-West Quarter line of Section 35, Township 32, Range 25, Anoka County, Minnesota, which is assumed to bear N89°32'30"E.
- 3) Surveyed property address:  
Parcel B - unassigned situs, Ramsey, MN.  
Parcel C - 6080 Highway 10 NW, Ramsey, MN
- 4) Above ground utilities have been field located as shown. All underground locations shown hereon are APPROXIMATE. Prior to any excavations or digging, contact Gopher State One Call for an on-site location (651-454-0002).
- 5) Due to snow and other winter conditions, additional improvements may not have been visible at the time of the survey.

**VICINITY MAP**



**LEGEND**

- - Denotes Anoka County Section Monument, as noted
- - Denotes Found Iron Monument
- - Denotes 5/8 inch by 14 inch rebar, marked with RLS 40361
- ⊙ - Denotes Light Pole
- ⊙ - Denotes Miscellaneous Sign
- ⊙ - Denotes Sanitary Manhole
- ⊙ - Denotes Catch Basin
- ⊙ - Denotes Cleanout
- ⊙ - Denotes Existing Well
- ⊙ - Denotes Guy Wire
- ⊙ - Denotes Utility Pole
- ⊙ - Denotes Telephone Box
- ⊙ - Denotes Electric Transformer
- ⊙ - Denotes Curb Stop
- ⊙ - Denotes Television Box
- ⊙ - Denotes Soil Boring/Test Hole
- ⊙ - Denotes Guard Post
- ⊙ - Denotes Underground Gas
- ⊙ - Denotes Overhead Electric
- ⊙ - Denotes Watermain
- ⊙ - Denotes Sanitary Sewer
- ⊙ - Denotes Existing Fence as noted
- ⊙ - Denotes Concrete Surface
- ⊙ - Denotes Bituminous Surface
- ⊙ - Denotes Wet Land
- ⊙ - Denotes Existing Contour



BENCHMARK	
1. MNDOT GSID Station #833, Named "Lumber MNDT RM 1"	Elev. = 859.11
2. MNDOT GSID Station #775, Named "E 257"	Elev. = 863.67

**Carlson McCain**  
 • environmental  
 • engineering  
 • surveying

3890 Pheasant Ridge Drive NE,  
 Suite 100  
 Blaine, MN 55449  
 Phone: (763) 489-7900  
 Fax: (763) 489-7959  
 www.carlsonmccain.com

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota

Print Name: Thomas R. Balluff, L.S.  
 Signature: *Thomas R. Balluff*  
 Date: 01/25/19 License #: 40361

DRAWN BY: KCM  
 ISSUE DATE: 1/25/19  
 FILE NO: 1825

Revisions:  
 1. Per City Comments - 4/04/19  
 2. Per City Comments - 5/16/19  
 3. Per City Comments - 7/26/19

**VILLAGE BANK**  
 9298 Central Avenue NE  
 Blaine, MN, 55434

**RIVER WALK VILLAGE**  
 Ramsey, Minnesota

**EXISTING CONDITIONS**

Save Date: 07/29/19 | F:\jobs\7801 - 7820\7802 - highway 10 ramsey\cadd\3d\survey\preliminary\7802\_excon.dwg

# RIVER WALK VILLAGE

**PARCEL DESCRIPTION:** (Per Schedule A of Title Commitment File No. 104617, with a commitment date of January 4, 2019 at 8:00 A.M., prepared by All American Commercial Title, Inc., as issuing agent for Old Republic National Title Insurance Company)

**Parcel B:**

Outlot A, DICKENSON'S MISSISSIPPI ESTATE SECOND ADDITION, Anoka County, Minnesota.

**PARCEL C:**

That part of Lots 26 and 27 AUDITOR'S SUBDIVISION NO. 96, Anoka County, Minnesota, lying Easterly and Southeasterly of the following described line: Beginning at intersection of Northerly shoreline of the Mississippi River and a line 75.00 feet Southeasterly of and parallel with the Southeasterly line of Lot 7, DICKENSON'S MISSISSIPPI ESTATE, said Anoka County, as measured along Southeasterly extension of the Northeasterly line of said Lot 7; thence Northeasterly along said parallel line 235 feet, more or less, to its intersection with the Southeasterly extension of Northeasterly line of said Lot 7; thence Northwesterly along said Southeasterly extension 75 feet to the Northeast corner of said Lot 7; thence Northeasterly along Northeasterly extension of said Southeasterly line 66 feet to Northeasterly right-of-way line of Rivlyn Avenue; thence Southeasterly along said right-of-way line to a point 500 feet Southeasterly (as measured along said right-of-way line) of the intersection of said right-of-way line with Southeasterly right-of-way line of Poplar Drive (now known as Tungsten Street N.W.) as shown on the plat of DICKENSON'S MISSISSIPPI ESTATE; thence Northeasterly parallel with said Southeasterly right-of-way line to its intersection with the Southerly line of the plat of ANOKA INDEPENDENT GRAIN AND FEED; thence Southeasterly and Northeasterly along the Southerly and Easterly line of said plat of ANOKA INDEPENDENT GRAIN AND FEED to the North line of said Lot 26 and there terminating.

And lying Westerly of the following described line: Beginning at the most Northerly corner of Lot 14, said AUDITOR'S SUBDIVISION NO. 96; thence Southerly along Northwesterly line of said Lot 14 to the most Westerly corner thereof; thence Southerly along Southerly line of said Lot 14 to its intersection with a line parallel with and 150 feet Northwesterly (as measured at right angle) of the Southerly extension of Southeasterly line of said Lot 14; thence Southwesterly along said parallel line a distance of 500 feet; thence Southwesterly deflecting to right 45 degrees 00 minutes 00 seconds a distance of 900 feet, more or less, to the centerline of the Mississippi River and there terminating.

EXCEPT that property dedicated by deed of dedication dated December 9, 1949 to the Township of Ramsey for public road purposes, recorded as Document No. 132840.

ALSO EXCEPT that part platted as DICKENSON'S MISSISSIPPI ESTATE SECOND ADDITION.

**PARCEL D (proposed public roadway to be vacated):**

That part of vacated Rivlyn Avenue accruing thereto by reason of street vacation.

**GENERAL NOTES:**

- Bearings shown are based on the East-West Quarter line of Section 35, Township 32, Range 25, Anoka County, Minnesota, which is assumed to bear N89°32'30"E.
- Surveyed property address:  
Parcel B - unassigned situs, Ramsey, MN.  
Parcel C - 6080 Highway 10 NW, Ramsey, MN

**SITE DATA**

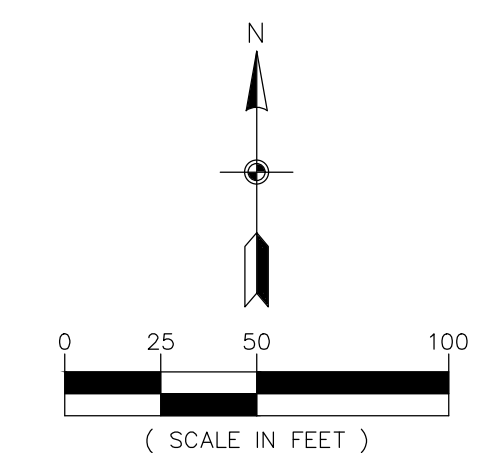
TOTAL SITE AREA	±5.55 AC.	EXISTING ZONING	R-1: MUSA
TOTAL ROW AREA	±0.77 AC.	EXISTING ZONING	E-1
TOTAL OUTLOT AREA	±2.06 AC.	PROPOSED ZONING	PUD
OUTLOT A	±0.08 AC.	UTILITIES	AVAILABLE
OUTLOT B	±0.84 AC.		
OUTLOT C	±0.15 AC.		
OUTLOT D	±0.42 AC.		
OUTLOT E	±0.25 AC.	MINIMUM RESIDENTIAL SETBACK DATA:	
OUTLOT F	±0.26 AC.	FRONT	25 FT.
OUTLOT G	±0.06 AC.	SIDE (GARAGE)	7.5 FT.
		SIDE (HOUSE)	7.5 FT.
		REAR SETBACK	30 FT.
TOTAL LOT AREA	±2.72 AC.		
SMALLEST LOT	±6,676 S.F.		
LARGEST LOT	±13,545 S.F.		
AVERAGE LOT	±8,454 S.F.		
TOTAL NUMBER OF LOTS	14		
GROSS DENSITY	2.52 LOTS/AC.		

**LEGEND**

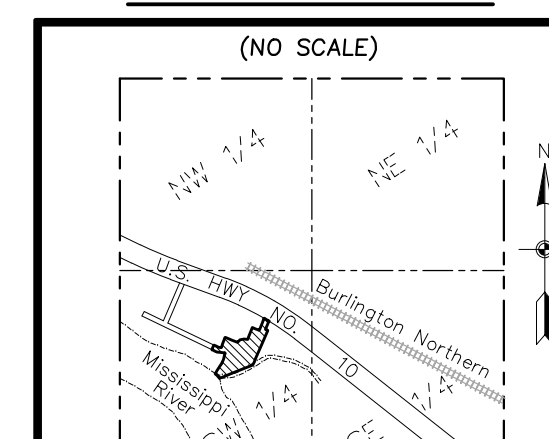
- - Denotes Anoka County Section Monument, as noted
- - Denotes Found Iron Monument
- - Denotes 5/8 inch by 14 inch rebar, marked with RLS 40361
- - Denotes Wetland, as noted

**BENCHMARK**

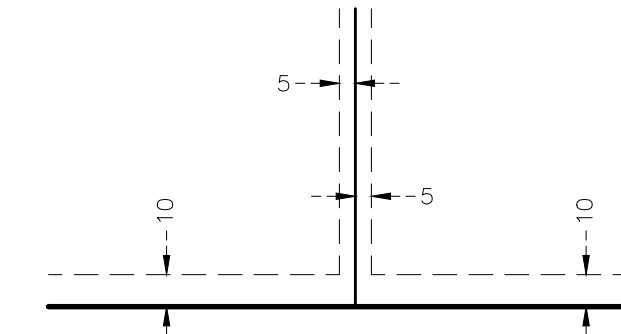
1. MNDOT GSD Station #833, Named "Lumber MNDT RM 1" Elev.= 859.11
2. MNDOT GSD Station #775, Named "E 257" Elev.= 863.67



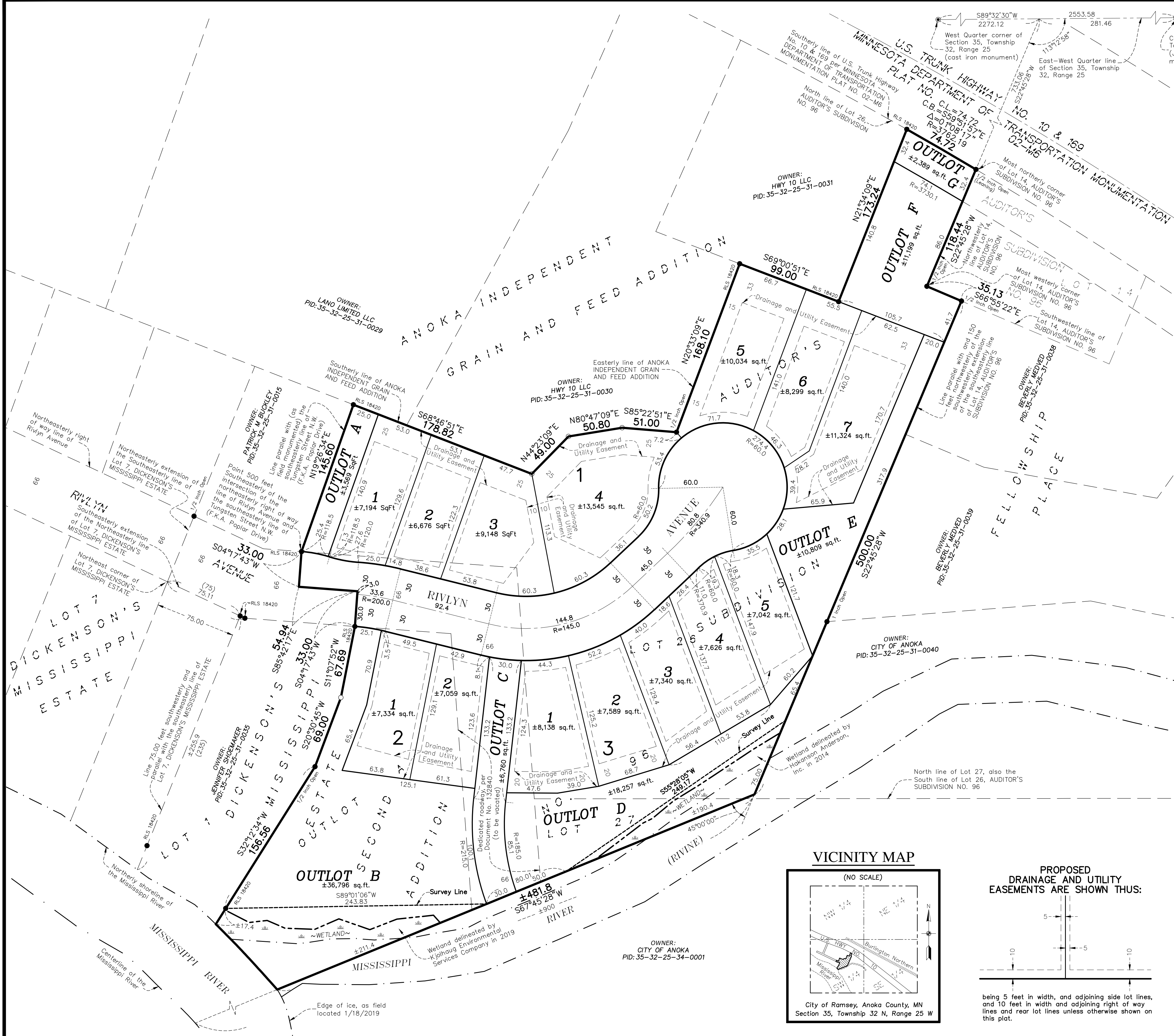
**VICINITY MAP**



**PROPOSED DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:**



being 5 feet in width, and adjoining side lot lines, and 10 feet in width and adjoining right of way lines and rear lot lines unless otherwise shown on this plat.



**Carlson McCain**  
 • environmental  
 • engineering  
 • surveying

3890 Pheasant Ridge Drive NE, Suite 100  
 Blaine, MN 55449  
 Phone: (763) 489-7900  
 Fax: (763) 489-7959  
 www.carlsonmccain.com

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota

Print Name: Thomas R. Balluff, L.S.  
 Signature: *Thomas R. Balluff*  
 Date: 01/25/19 License #: 40361

DRAWN BY: KCM  
 ISSUE DATE: 1/25/19  
 FILE NO.: 1825

Revisions:  
 1. Per City Comments - 4/04/19  
 2. Per City Comments - 5/16/19  
 3. Per City Comments - 7/26/19

**VILLAGE BANK**  
 9298 Central Avenue NE  
 Blaine, MN, 55434

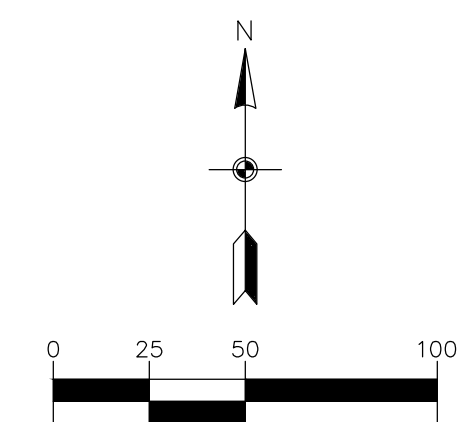
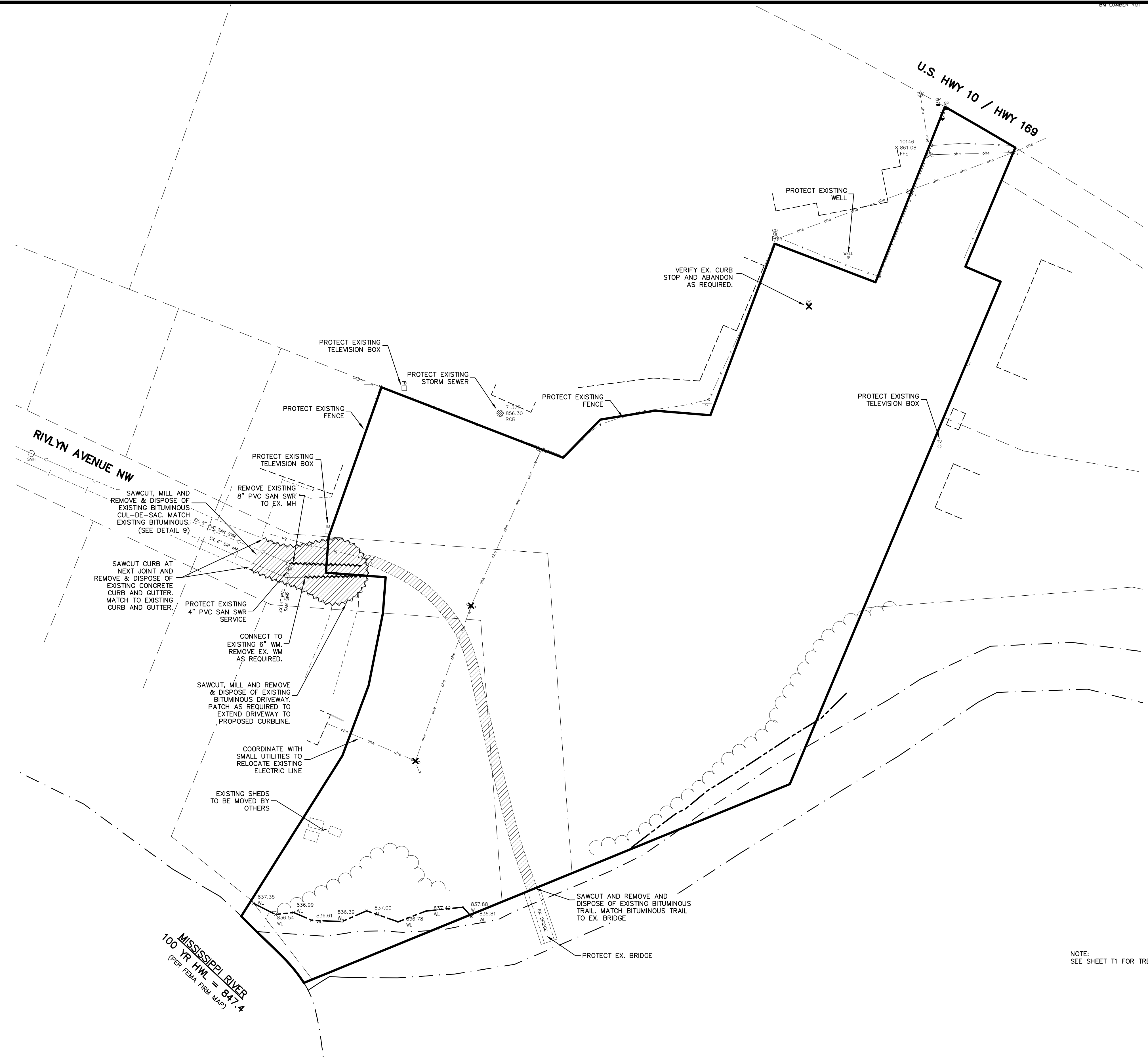
**RIVER WALK VILLAGE**  
 Ramsey, Minnesota

**PRELIMINARY PLAT**

Save Date: 07/29/19 F:\jobs\7801 - 7820\7802 - highway 10 ramsey\cad\c3d\survey\preliminary\7802\_ppr.dwg

**REMOVALS PLAN LEGEND**

	EXISTING	REMOVAL
LIGHT POLE		✕
SANITARY MANHOLE		✕
MISCELLANEOUS SIGN		✕
EXISTING SPOT ELEVATION	1,0000.0	(SEE TREE PRESERVATION PLAN)
EXISTING TREE		✕
TELEVISION BOX		✕
FIRE HYDRANT		✕
FLUSHING HYDRANT		✕
GATE VALVE		✕
CLEANOUT		✕
ELECTRIC BOX		✕
GAS METER		✕
CATCH BASIN		✕
RAIN GUARDIAN		✕
ELECTRIC METER		✕
TELEPHONE BOX		✕
UTILITY POLE		✕
FLARED END SECTION		✕
STORM MANHOLE		✕
SERVICE		✕
SOIL BORING/TEST HOLE		✕
RETAINING WALL		
WATERMAIN		
SANITARY SEWER		
FORCEMAIN		
STORM SEWER		
PROPERTY LINE		
SETBACK LINE		
CURB		
WATER LINE		
WETLAND		
DITCH		
UNDERGROUND TELEPHONE		
UNDERGROUND ELECTRIC		
UNDERGROUND GAS		
UNDERGROUND FIBEROPTIC		
FENCE		
OVERHEAD ELECTRIC		
CONCRETE SURFACE		
BITUMINOUS SURFACE		



BENCHMARK
1. MNDOT GSD Station #833, Named "Lumber MNDT RM 1" Elev. = 859.11
2. MNDOT GSD Station #775, Named "E 257" Elev. = 863.67

NOTE:  
SEE SHEET T1 FOR TREE REMOVALS



3890 Pheasant Ridge Drive NE, Suite 100  
Blaine, MN 55449  
Phone: (763) 489-7900  
Fax: (763) 489-7959  
www.carlsonmccain.com

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Print Name: Brian J. Krystofiak, P.E.  
Signature: *Brian J. Krystofiak*  
Date: 1/25/19 License #: 25063

Drawn: ADB  
Designed: BJK  
Date: 1/25/19

Revisions:  
1. 4/4/19 per City Comments  
2. 5/16/19 per City Comments  
3. 7/26/19 per City Comments

**VILLAGE BANK**  
9298 Central Avenue NE  
Blaine, MN 55434

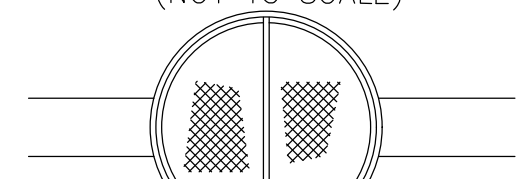
**RIVER WALK VILLAGE**  
Ramsey, Minnesota

**REMOVALS PLAN**

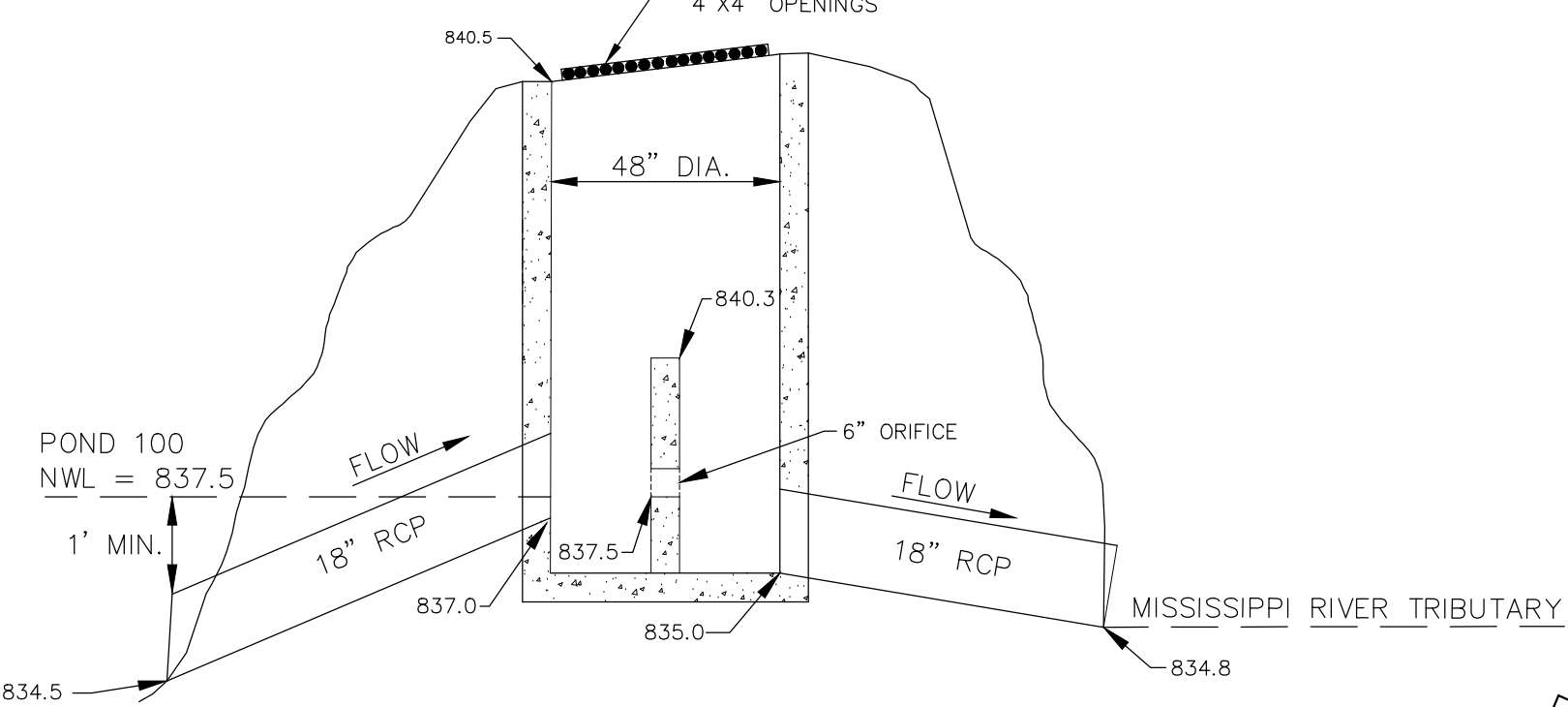
Save Date: 07/28/19 | F:\j08617801 - 782017802 - Highway 10 ramsey\cad\_c3d\engineering\preliminary\7802\_remove.dwg

**OUTLET CONTROL STRUCTURE**

POND 100  
(NOT TO SCALE)



GALVANIZED GRATE (SPLIT)  
4"X4" OPENINGS

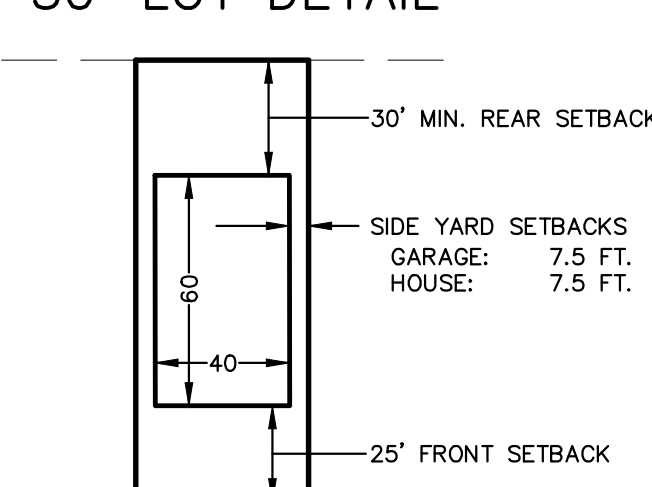


**SITE PLAN LEGEND**

	EXISTING	PROPOSED
LIGHT POLE		
SANITARY MANHOLE		
MISCELLANEOUS SIGN		
EXISTING SPOT ELEVATION		
EXISTING TREE		
TELEVISION BOX		
FIRE HYDRANT		
FLUSHING HYDRANT		
GATE VALVE		
CLEANOUT		
ELECTRIC BOX		
GAS METER		
CATCH BASIN		
RAIN GUARDIAN		
ELECTRIC METER		
TELEPHONE BOX		
UTILITY POLE		
FLARED END SECTION (W/ RIP RAP)		
STORM MANHOLE		
BREAKAWAY BOLLARD SERVICE		
SOIL BORING/TEST HOLE		
RETAINING WALL		
WATERMAIN		
SANITARY SEWER		
FORCEMAIN		
STORM SEWER		
PROPERTY LINE		
SETBACK LINE		
CURB		
WATER LINE		
WETLAND		
DITCH		
TREE LINE		
UNDERGROUND TELEPHONE		
UNDERGROUND ELECTRIC		
UNDERGROUND GAS		
UNDERGROUND FIBEROPTIC		
FENCE		
OVERHEAD ELECTRIC		
CONCRETE SURFACE		
BITUMINOUS SURFACE		
MAINTENANCE ACCESS		
INFILTRATION BASIN		
FEMA FLOODWAY		
FEMA FLOODPLAIN		

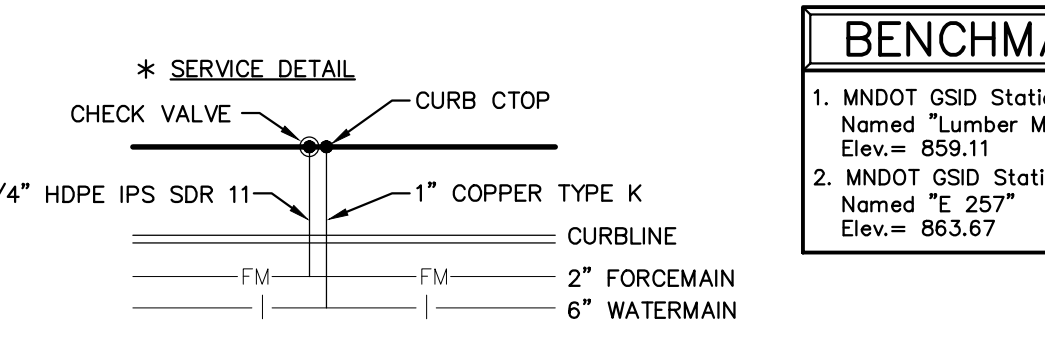
	EXISTING	PROPOSED
RETAINING WALL		
WATERMAIN		
SANITARY SEWER		
FORCEMAIN		
STORM SEWER		
PROPERTY LINE		
SETBACK LINE		
CURB		
WATER LINE		
WETLAND		
DITCH		
TREE LINE		
UNDERGROUND TELEPHONE		
UNDERGROUND ELECTRIC		
UNDERGROUND GAS		
UNDERGROUND FIBEROPTIC		
FENCE		
OVERHEAD ELECTRIC		
CONCRETE SURFACE		
BITUMINOUS SURFACE		
MAINTENANCE ACCESS		
INFILTRATION BASIN		
FEMA FLOODWAY		
FEMA FLOODPLAIN		

**50' LOT DETAIL**



LOTS 1-2, BLK 1 & LOT 1, BLK 2  
TYPICAL SERVICES SHALL BE:  
WATER: 1" COPPER TYPE K  
SEWER: 4" PVC SDR 26  
SERVICES TO BE BURIED AT 7.5' MINIMUM DEPTH  
CURB STOP TO BE PLACED AT THE R/W

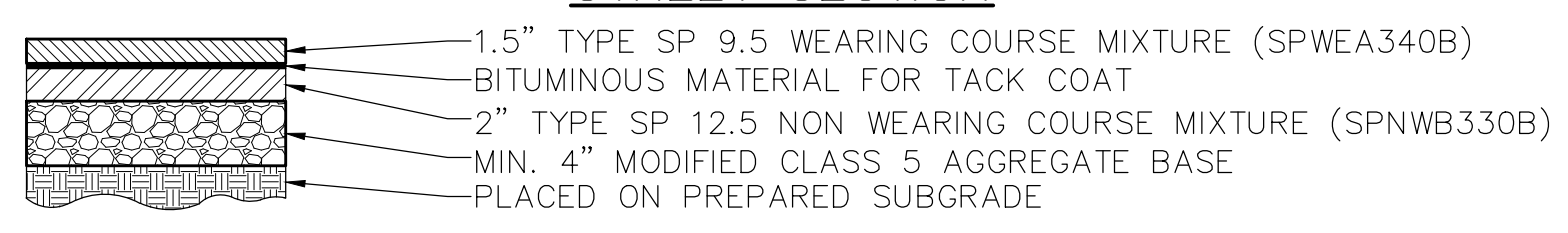
LOTS 3-7, BLK 1, LOT 2 BLK 2 & LOTS 1-5, BLK 3  
\* TYPICAL SERVICES SHALL BE:  
WATER: 1" COPPER TYPE K  
SEWER: 1-1/4" HDPE IPS SDR 11  
DHO71-57 INDOOR GRINDER PUMP  
SERVICES TO BE BURIED AT 7.5' MINIMUM DEPTH  
CURB STOP AND CHECK VALVE TO BE PLACED AT THE R/W  
(SEE STAINLESS STEEL LATERAL ASSEMBLY DETAIL 8)



**BENCHMARK**

- MNDOT GSD Station #833, Named "Lumber MNDT RM 1" Elev.= 859.11
- MNDOT GSD Station #775, Named "E 257" Elev.= 863.67

**STREET SECTION**



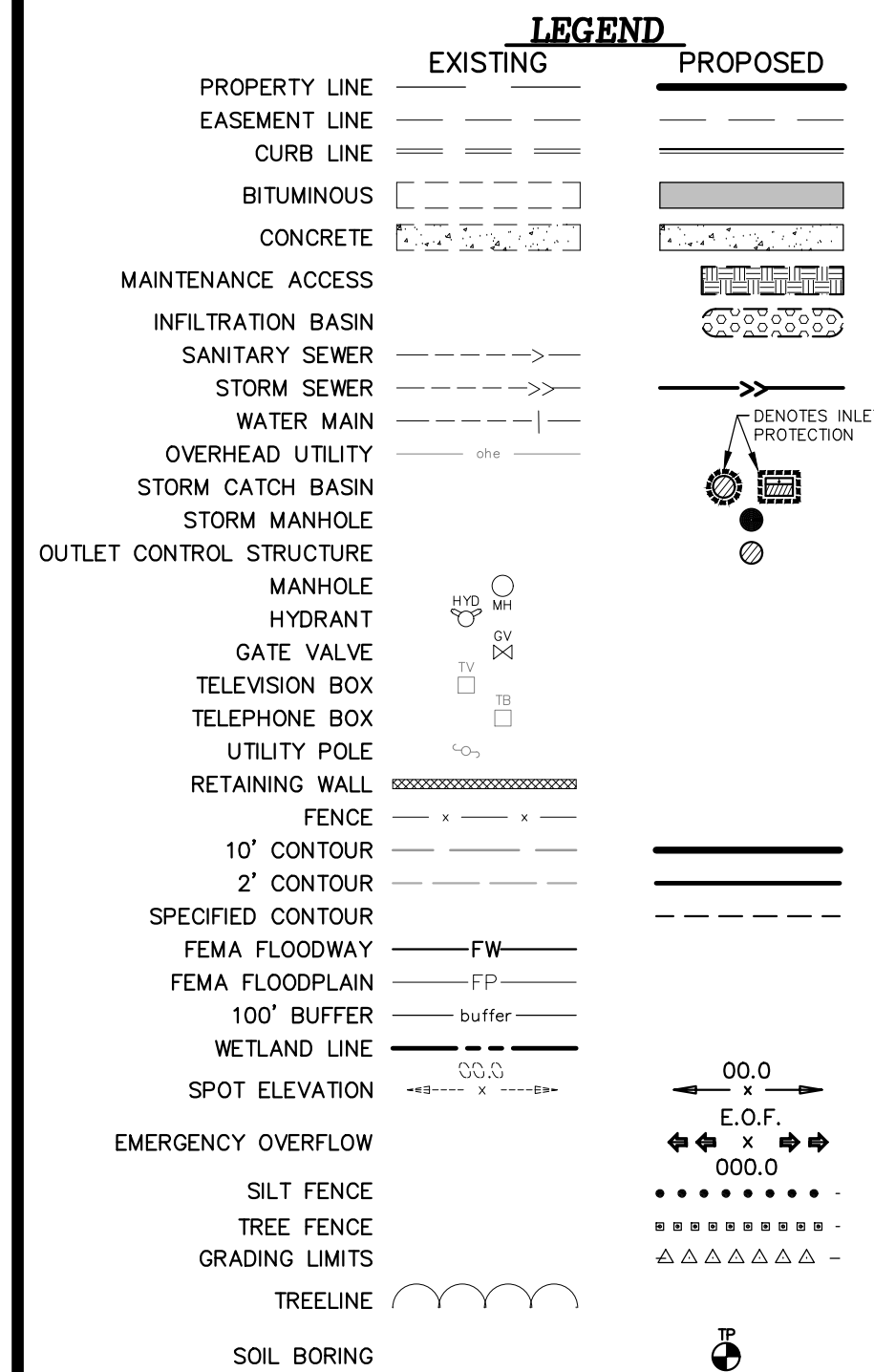
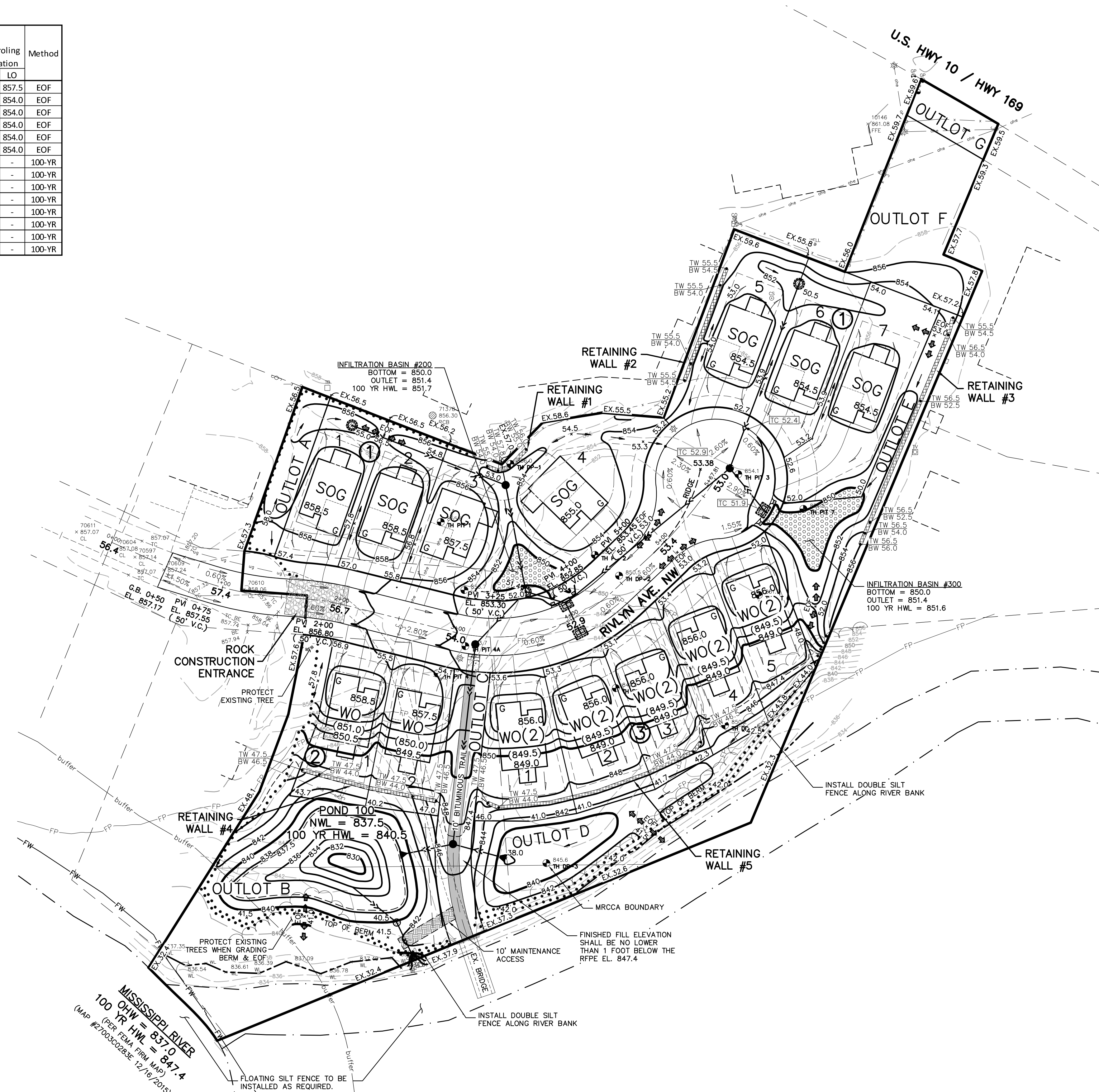
MISSISSIPPI RIVER  
100 YR HWL = 847.4  
(PER FEMA FIRM M4D)

**LOT TABULATION**

Block	Lot	House Type	Garage Floor Elevation	Proposed Lowest Floor Elevation	Lowest opening Elevation	EOF	100 Year	Water Table	Controlling Elevation		Method
									LF	LO	
1	1	SOG	858.5	858.5	858.5	856.5	-	833.0	-	857.5	EOF
1	2	SOG	858.5	858.5	858.5	853.0	851.7	833.0	-	854.0	EOF
1	3	SOG	857.5	857.5	857.5	853.0	851.7	833.0	-	854.0	EOF
1	4	SOG	855.0	855.0	855.0	853.0	851.7	833.0	-	854.0	EOF
1	5	SOG	854.5	854.5	854.5	853.0	-	833.0	-	854.0	EOF
1	6	SOG	854.5	854.5	854.5	853.0	-	833.0	-	854.0	EOF
1	7	SOG	854.5	854.5	854.5	853.0	851.6	833.0	854.0	-	100-YR
2	1	WO	858.5	851.0	851.0	-	847.4	833.0	849.4	-	100-YR
2	2	WO	857.5	850.0	850.0	-	847.4	833.0	849.4	-	100-YR
3	1	WO(2)	856.0	849.5	849.5	-	847.4	833.0	849.4	-	100-YR
3	2	WO(2)	856.0	849.5	849.5	-	847.4	833.0	849.4	-	100-YR
3	3	WO(2)	856.0	849.5	849.5	-	847.4	833.0	849.4	-	100-YR
3	4	WO(2)	856.0	849.5	849.5	-	847.4	833.0	849.4	-	100-YR
3	5	WO(2)	856.0	849.5	849.5	-	847.4	833.0	849.4	-	100-YR

**NOTES**

- SEE SWPPP FOR STORMWATER POLLUTION PREVENTION PRACTICES.
- STREET SWEEPER MUST BE ONSITE OR AVAILABLE WITHIN 3 HOURS IF NOTIFIED BY THE CITY THAT STREET SWEEPING IS REQUIRED.
- ALL DUMPSITE DEBRIS SHALL BE REMOVED FROM THE RIGHT-OF-WAY AND BUILDING PAD. (TO BE COMPLETED WITH THE SITE CLEANUP PROJECT)

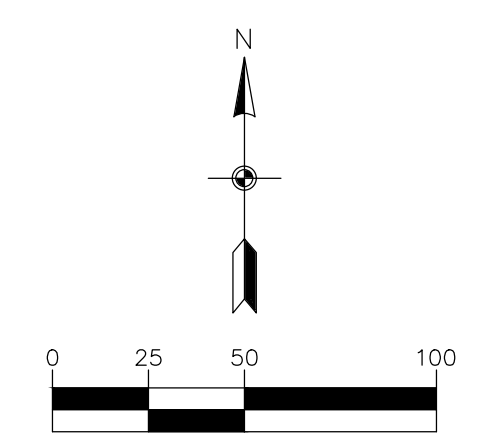


**WETLAND FILL SUMMARY**

THERE ARE NO PROPOSED WETLAND IMPACTS

**FLOODPLAIN SUMMARY**

FLOODPLAIN MITIGATION = 4,471 C.Y.  
 FLOODPLAIN FILL = 4,313 C.Y.  
 (SEE FLOODPLAIN MITIGATION EXHIBIT)



**BENCHMARK**

- MNDOT GSID Station #833, Named "Lumber MNDT RM 1" Elev. = 859.11
- MNDOT GSID Station #775, Named "E 257" Elev. = 863.67



3890 Pheasant Ridge Drive NE, Suite 100  
 Blaine, MN 55449  
 Phone: (763) 489-7900  
 Fax: (763) 489-7959  
 www.carlsonmccain.com

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Print Name: Brian J. Krystofiak, P.E.  
 Signature: *Brian J. Krystofiak*  
 Date: 1/25/19 License #: 25063

Drawn: ADB  
 Designed: BJK  
 Date: 1/25/19

Revisions:  
 1. 4/4/19 per City Comments  
 2. 5/16/19 per City Comments  
 3. 7/26/19 per City Comments

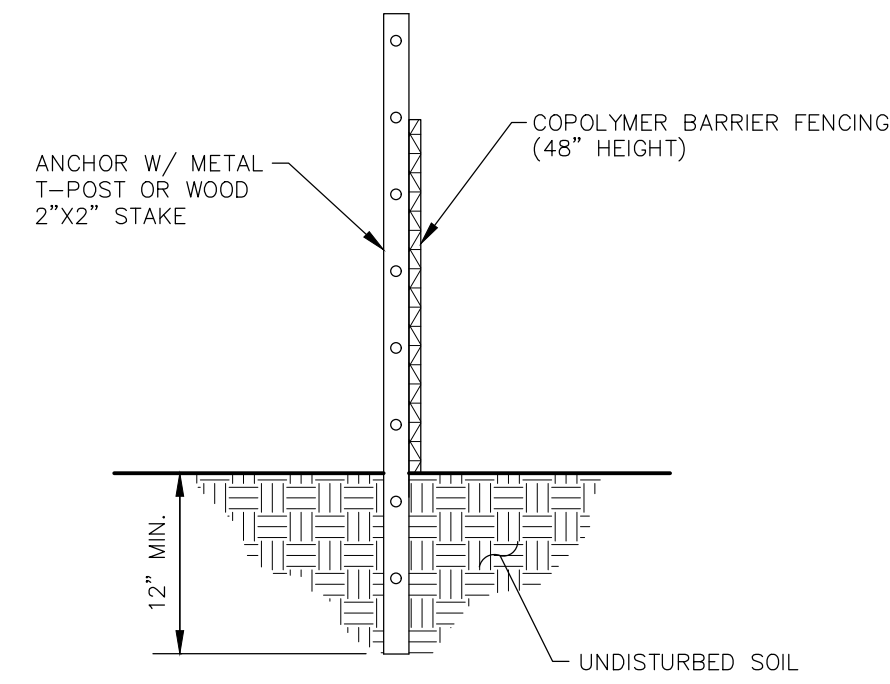
**VILLAGE BANK**  
 9298 Central Avenue NE  
 Blaine, MN 55434

**RIVER WALK VILLAGE**  
 Ramsey, Minnesota

**PRELIMINARY GRADING & EROSION CONTROL PLAN**

Save Date: 07/29/19 | F:\08617801 - 782017802 - Highway 10 ramsey\cad\_c3d\engineering\preliminary\7802\_grade.dwg

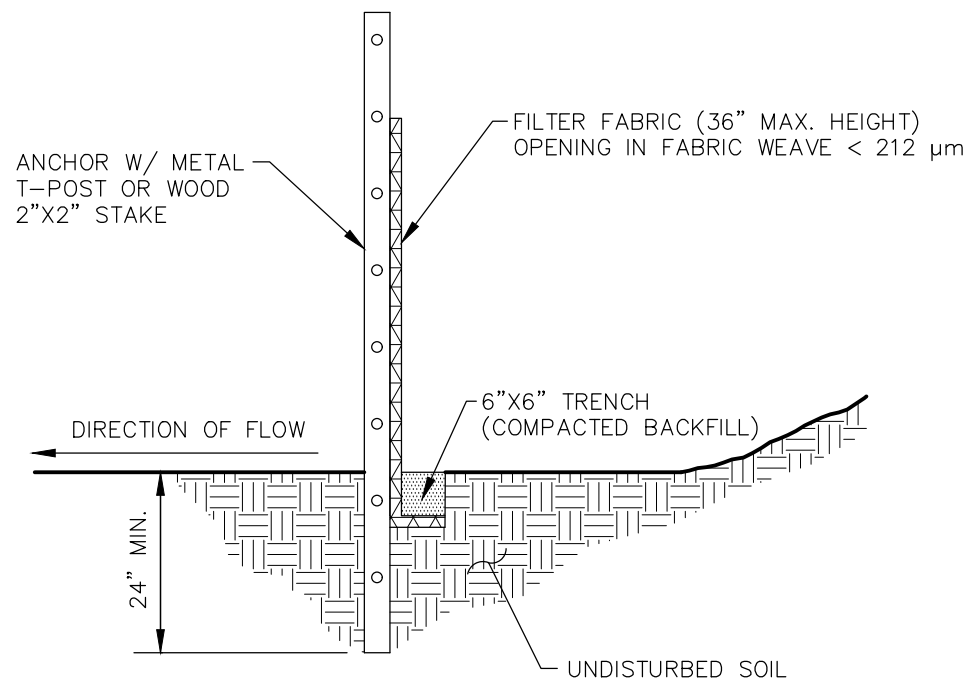
### TREE FENCE



**NOTES:**

- TREE FENCING SHALL BE PLACED A MINIMUM OF 1 FOOT PER CALIPER INCH OF TREE DIAMETER FROM TREE(S) THAT IS/ARE TO BE SAVED.
- ANCHOR POST MAY BE SPACED UP TO 10 FEET APART.
- SECURELY ATTACH TREE FENCE TO ANCHOR POSTS W/ MINIMUM OF TWO ATTACHMENTS PER POST.
- SEE MNDOT SPECIFICATION 2572.

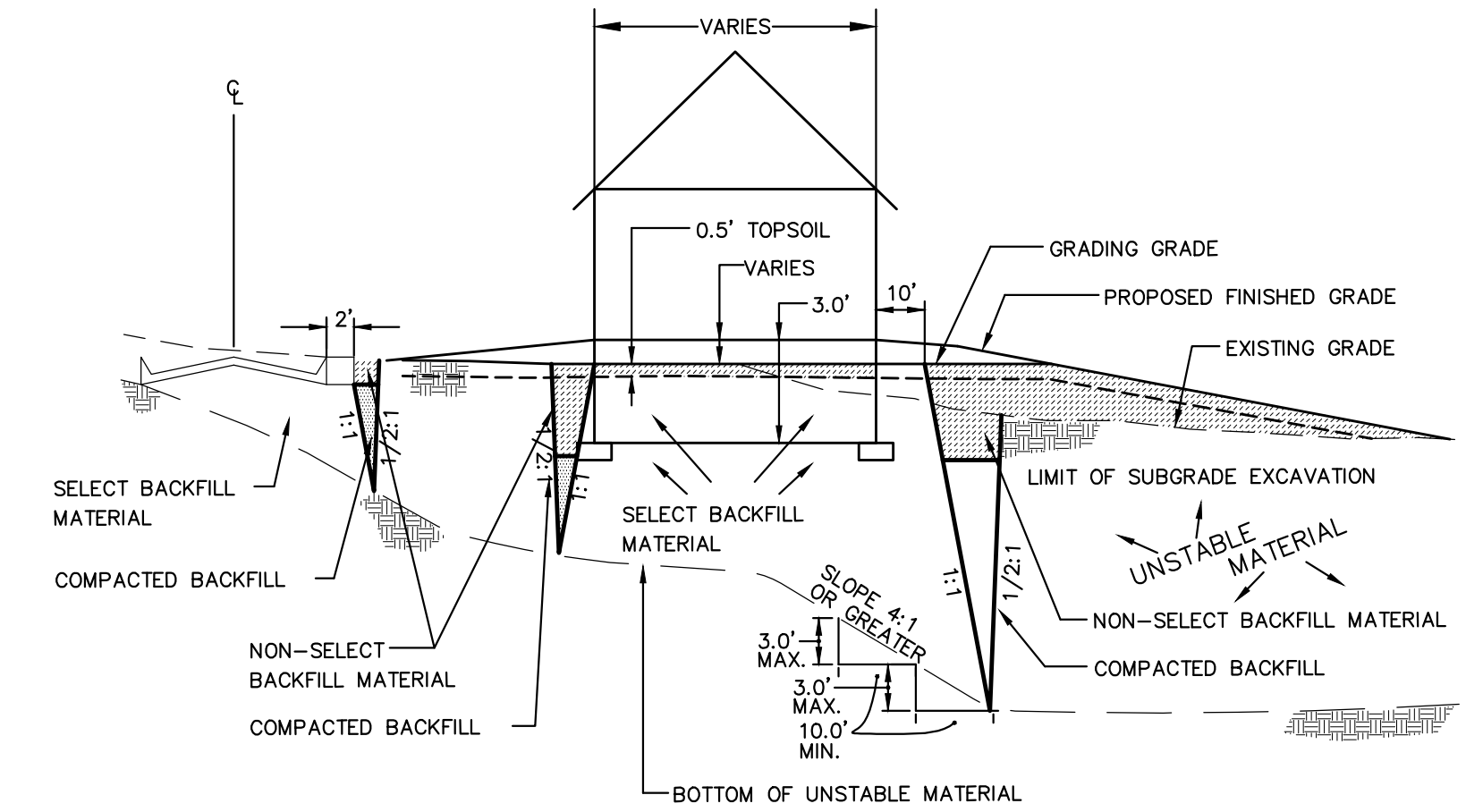
### SILT FENCE



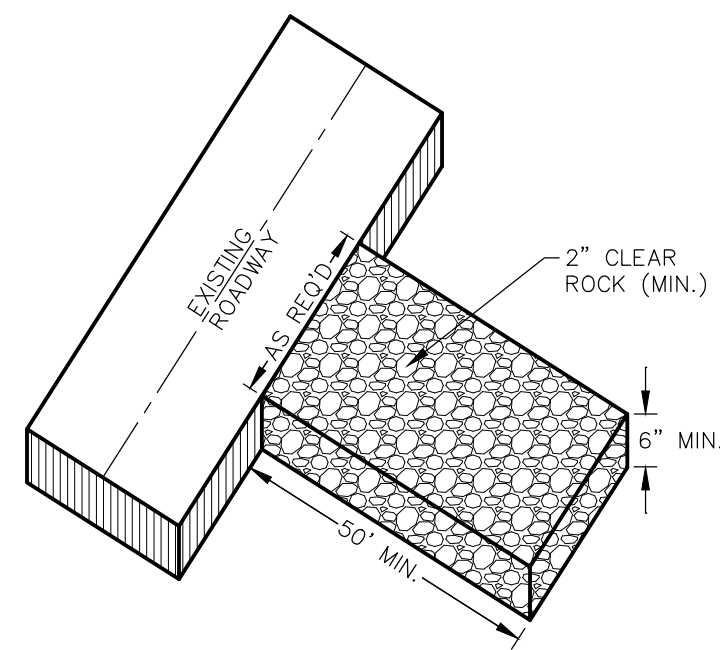
**NOTES:**

- DIG A 6"x6" TRENCH ALONG THE INTENDED SILT FENCE LINE.
- DRIVE ALL ANCHOR POSTS INTO THE GROUND AT THE DOWNHILL SIDE OF THE TRENCH.
- POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART.
- LAY OUT SILT FENCE ALONG THE UPHILL SIDE OF THE ANCHOR POSTS AND BACK FILL 6"x6" TRENCH.
- SECURELY ATTACH SILT FENCE TO ANCHOR POSTS W/ MINIMUM OF THREE ATTACHMENTS PER POST.
- SEE MNDOT SPECIFICATIONS 2573 & 3886.

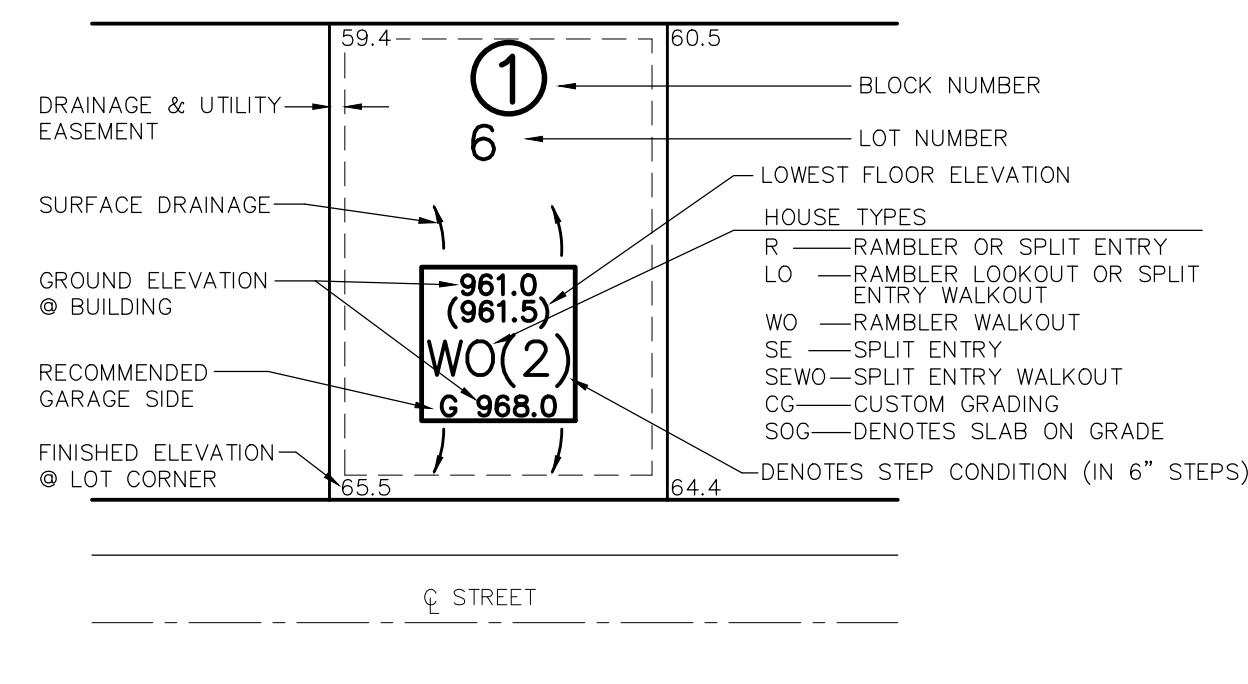
### SUBGRADE CORRECTION



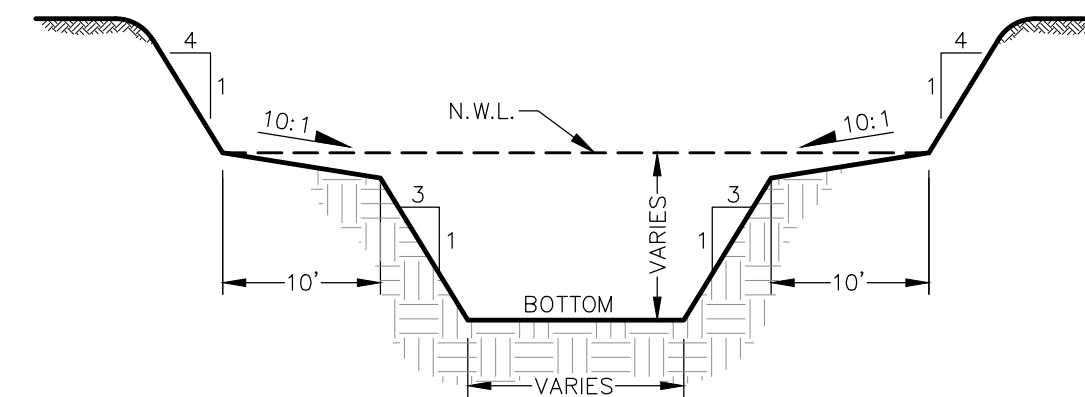
### ROCK CONSTRUCTION ENTRANCE



### GRADING PLAN LOT KEY



### TYPICAL POND SECTION



### TURF ESTABLISHMENT

TURF ESTABLISHMENT SHALL APPLY TO ALL DISTURBED AREAS AND SHALL BE ACCORDING TO MNDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION (LATEST EDITION) EXCEPT AS MODIFIED BELOW.

TURF ESTABLISHMENT SHALL OCCUR AS SOON AS POSSIBLE BUT IN NO CASE MORE THAN 7 DAYS.

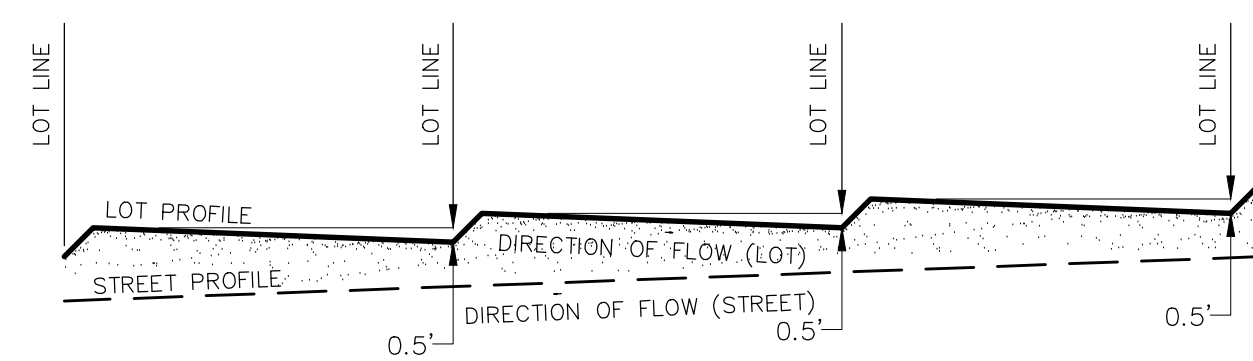
SEED: MNDOT MIXTURE 25-141 AT 60 POUNDS PER ACRE.

DORMANT SEED: SHALL BE APPLIED AT TWICE THE NORMAL RATE AFTER NOVEMBER 1ST.

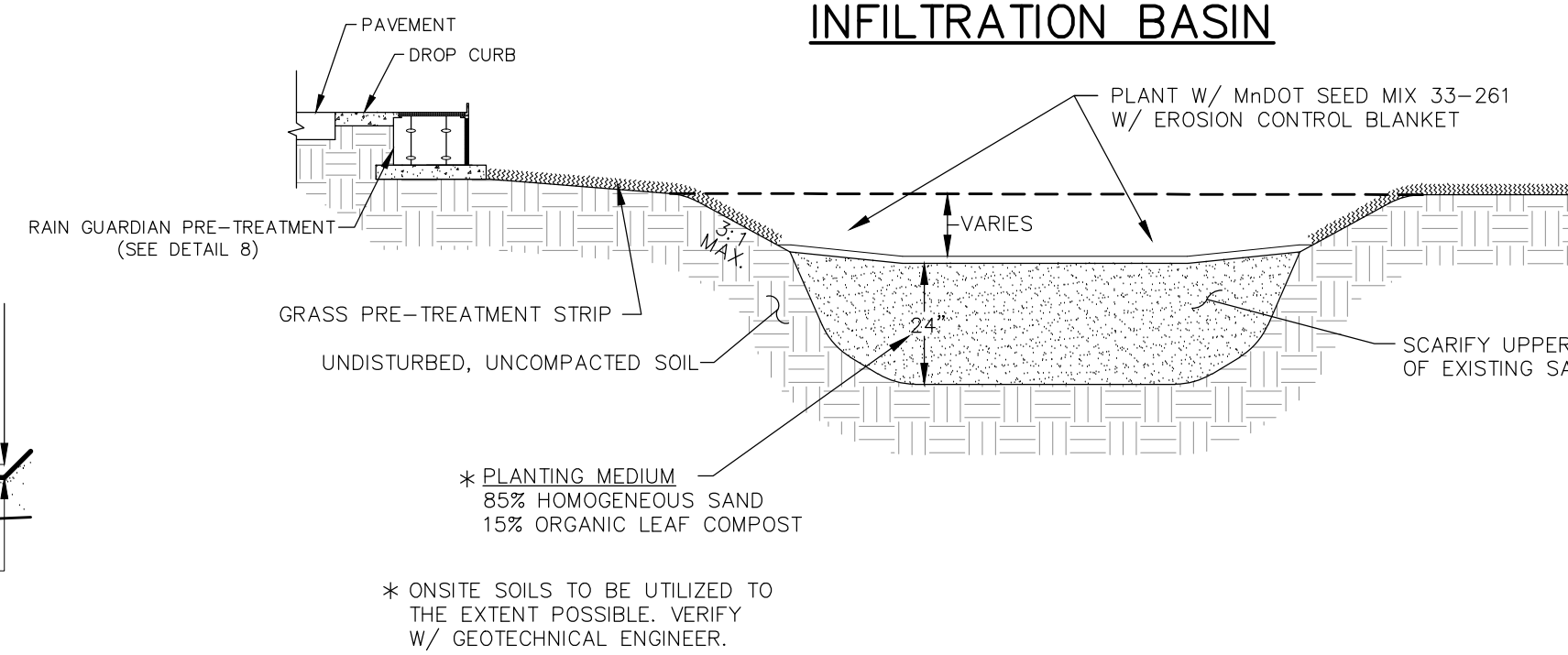
MULCH: TYPE 1 AT 2 TONS PER ACRE (DISK ANCHORED).

FERTILIZER: TYPE 1 10-10-10 AT 200 POUNDS PER ACRE.

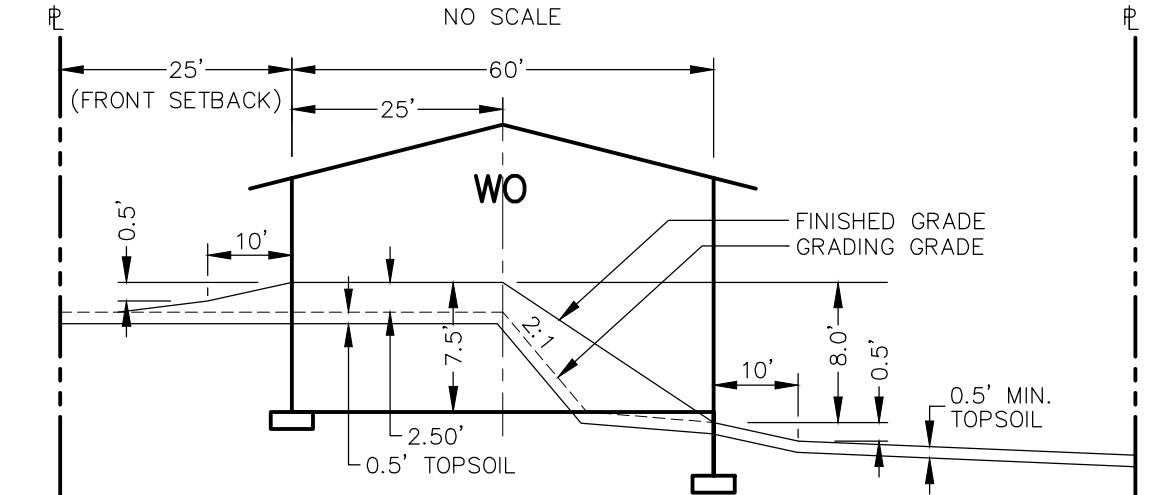
### LOT BENCHING DETAIL



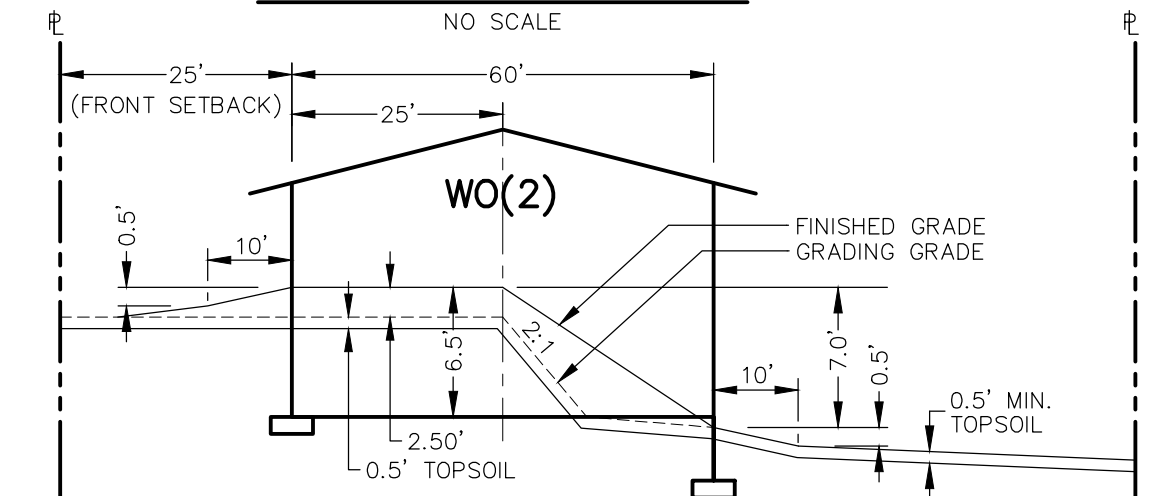
### INFILTRATION BASIN



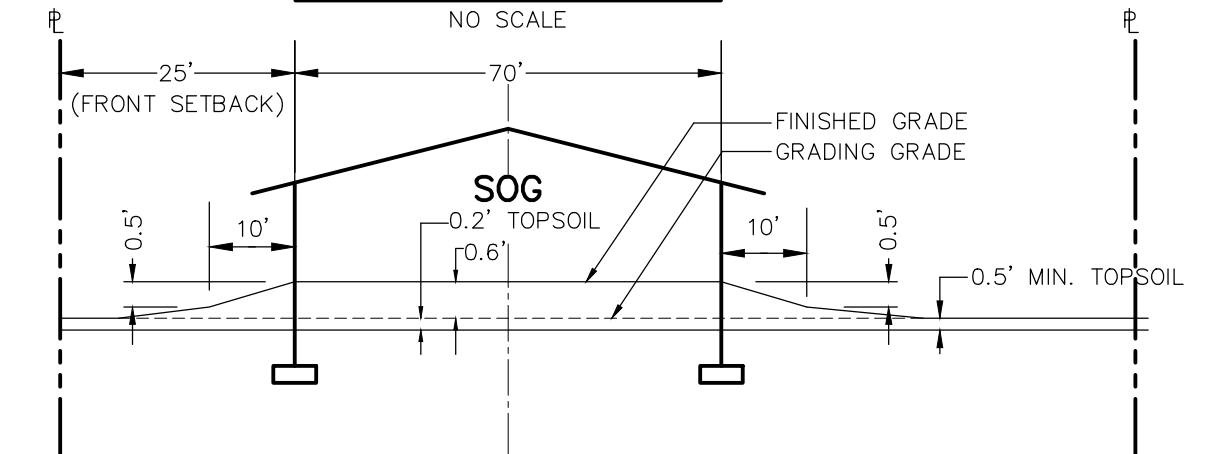
### WALKOUT

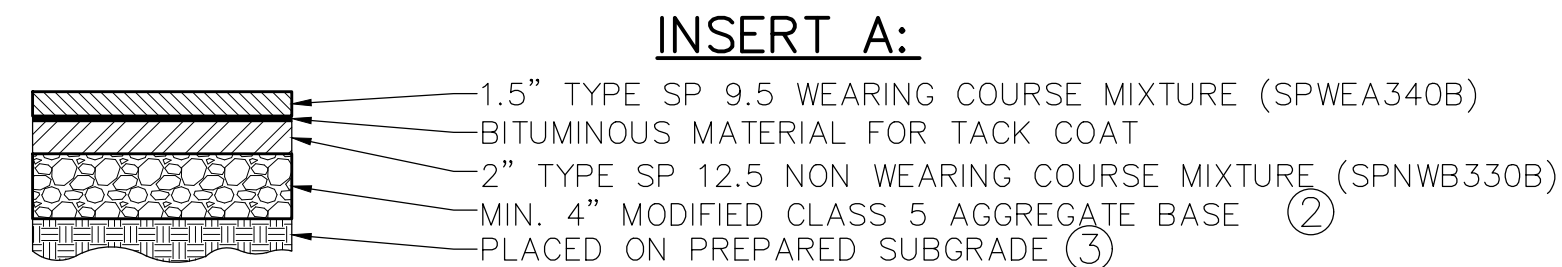
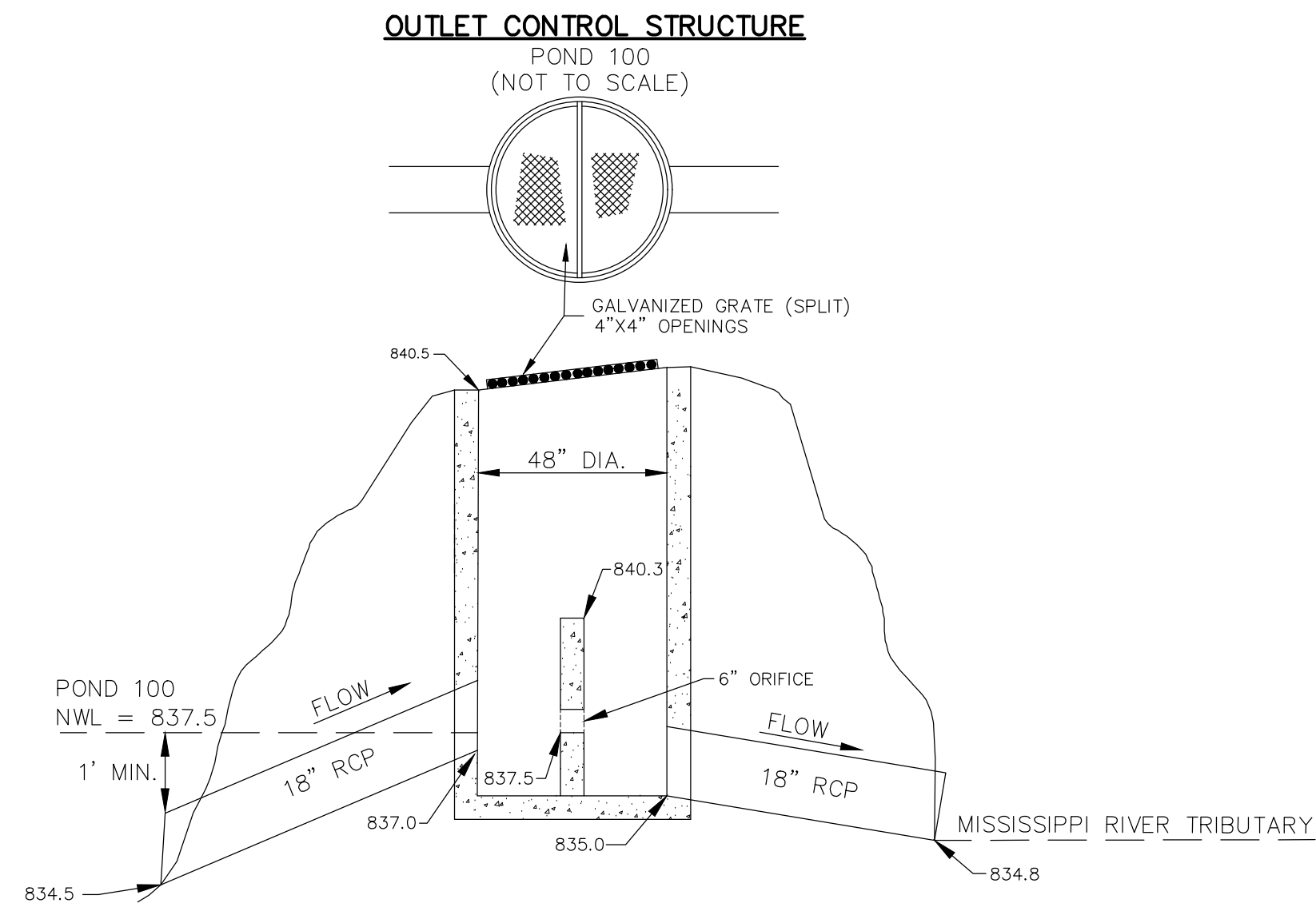


### MODIFIED WALKOUT

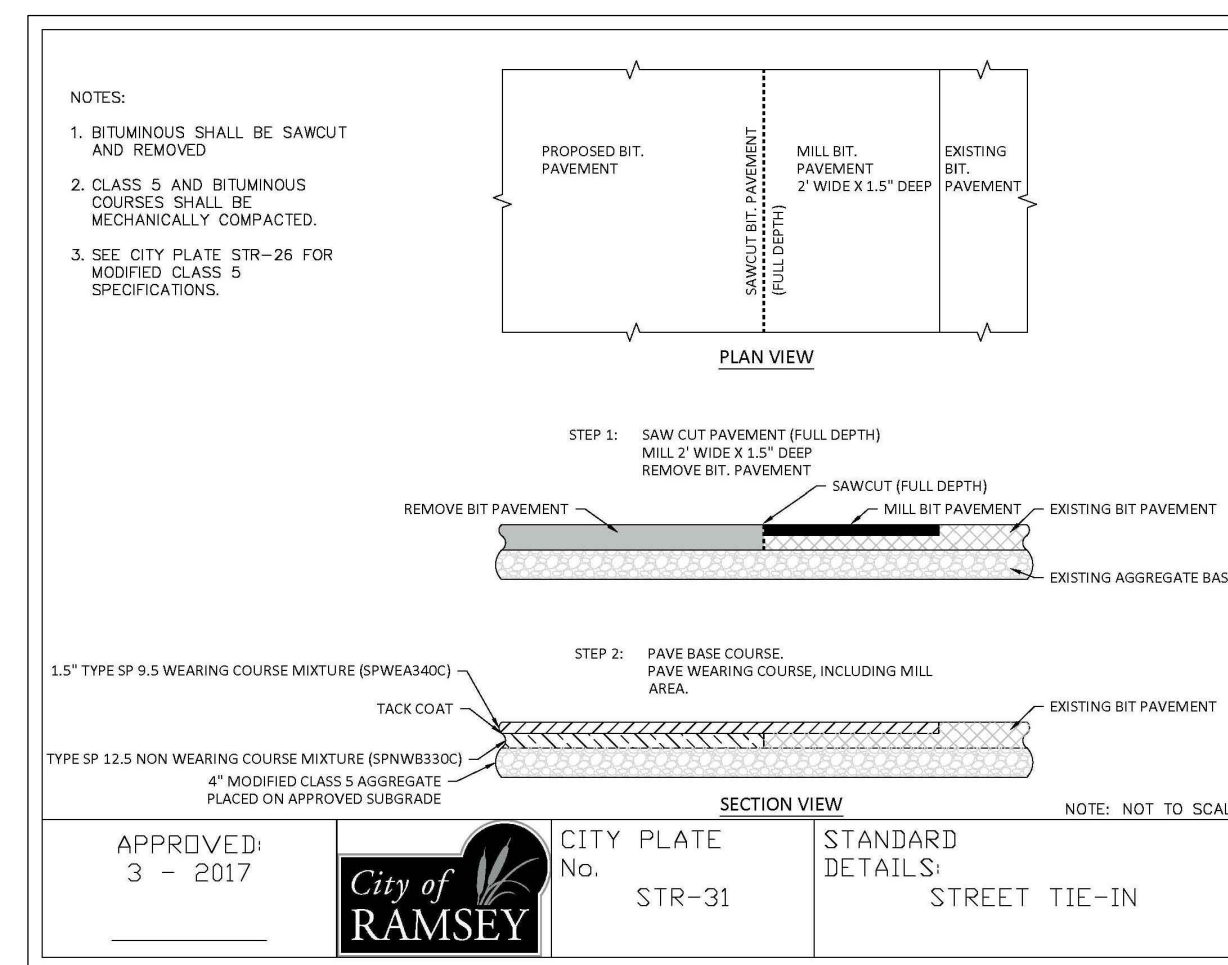
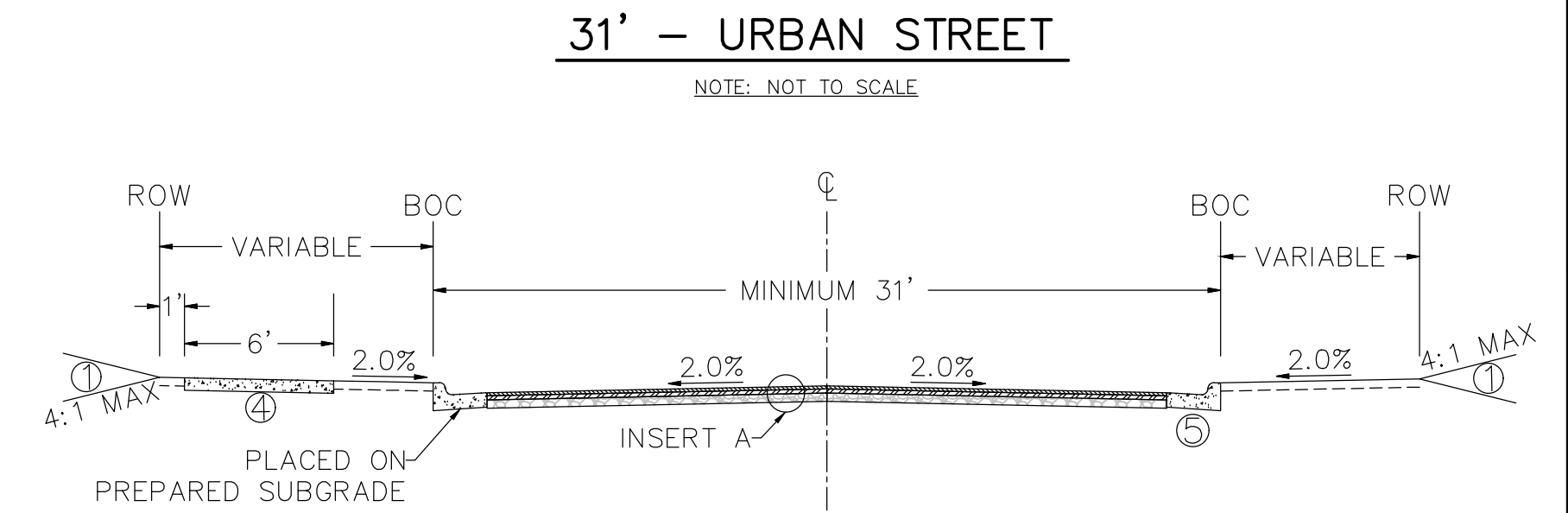


### SLAB ON GRADE





- ### REFERENCE NOTES:
- GRADE TO MATCH EXISTING SURFACE MINIMUM 4" COMMON TOPSOIL BORROW IN BOULEVARDS. SEE CITY PLATE No. ERO-6
  - CLASS 5 GRADATION IS MODIFIED PER CITY PLATE No. STR-26
  - CONTRACTOR SHALL SCARIFY AND COMPACT, ACCORDING TO THE SPECIFIED DENSITY METHOD, THE TOP 12 INCHES OF MATERIAL PRIOR TO PLACING ANY FILL MATERIALS OR CLASS 5 AGGREGATE BASE.
  - ALL SIDEWALKS SHALL BE 6" THICK, 6' WIDE, PLACED ON PREPARED SUBGRADE.
  - CONCRETE CURB AND GUTTER PER PLAN. SEE CITY PLATE No. STR-1.



### TABLE A MODIFIED CLASS 5 SPECIFICATIONS

% PASSING

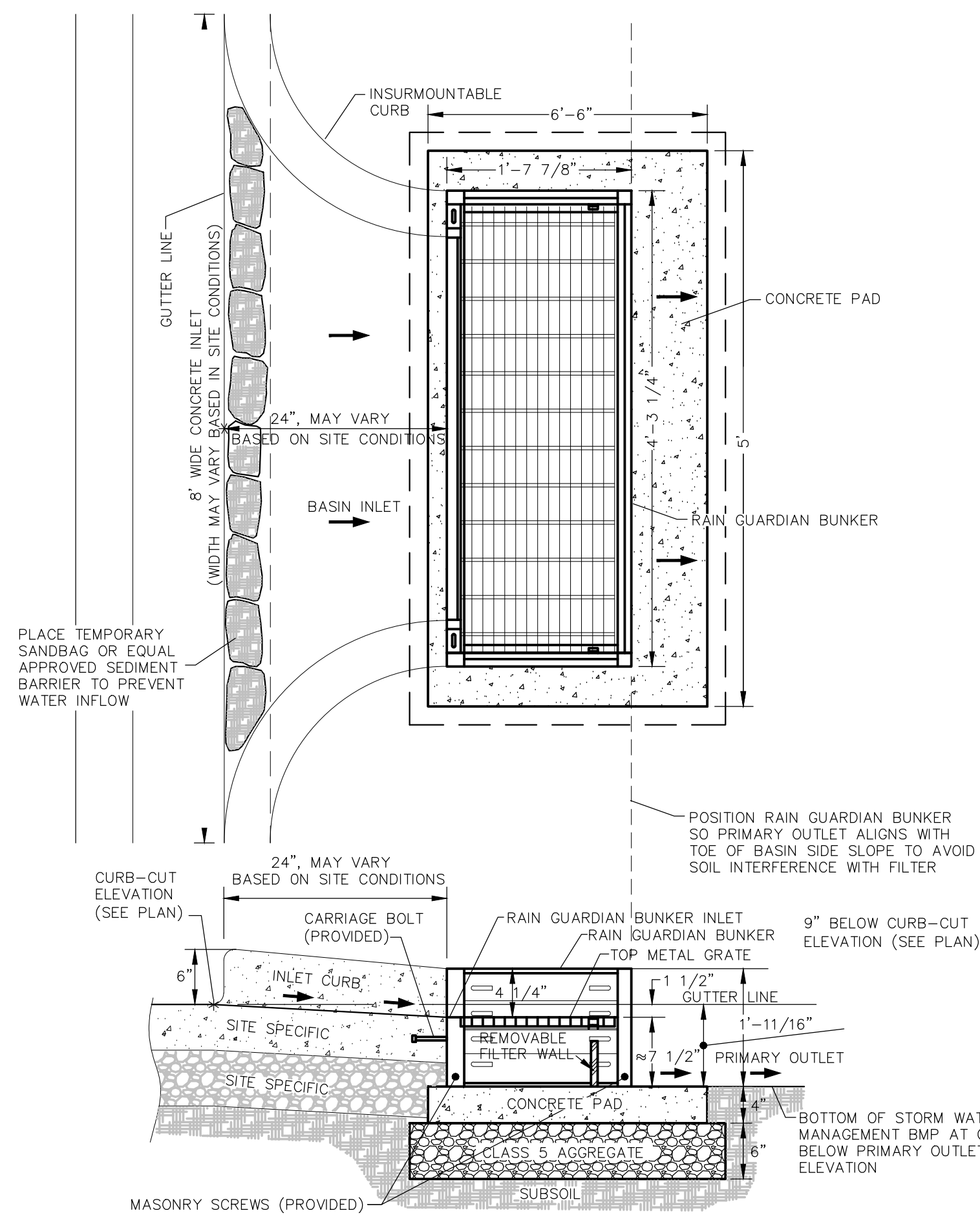
1"	100
3/4"	90 - 100
3/8"	50 - 80
No. 4	35 - 70
No. 10	20 - 60
No. 40	10 - 35
No. 200	5 - 10

NOTES:  
1. THE AGGREGATE BASE CONSTRUCTION WILL BE ACCEPTED FOR PAYMENT IN ACCORDANCE WITH THE PROVISIONS IN TABLE A.  
2. IF THE AGGREGATE BASE FAILS TO MEET THE REQUIREMENTS OF TABLE A THE MATERIAL CAN BE CORRECTED IN PLACE OR REMOVED AND REPLACED WITH MATERIAL THAT MEET THE REQUIREMENTS OF TABLE A.  
3. IN THE EVENT THAT RECYCLED MATERIAL IS USED IT MUST MEET MNDOT REQUIREMENTS FOR RECYCLED BASE.

APPROVED: 2 - 2003

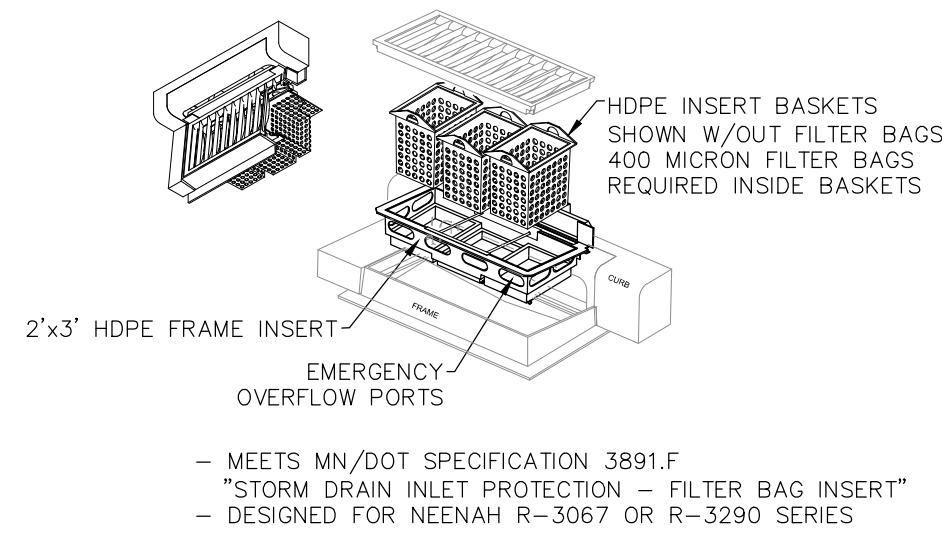
CITY OF RAMSEY  
CITY PLATE No. STR-26

### RAIN GUARDIAN DETAIL



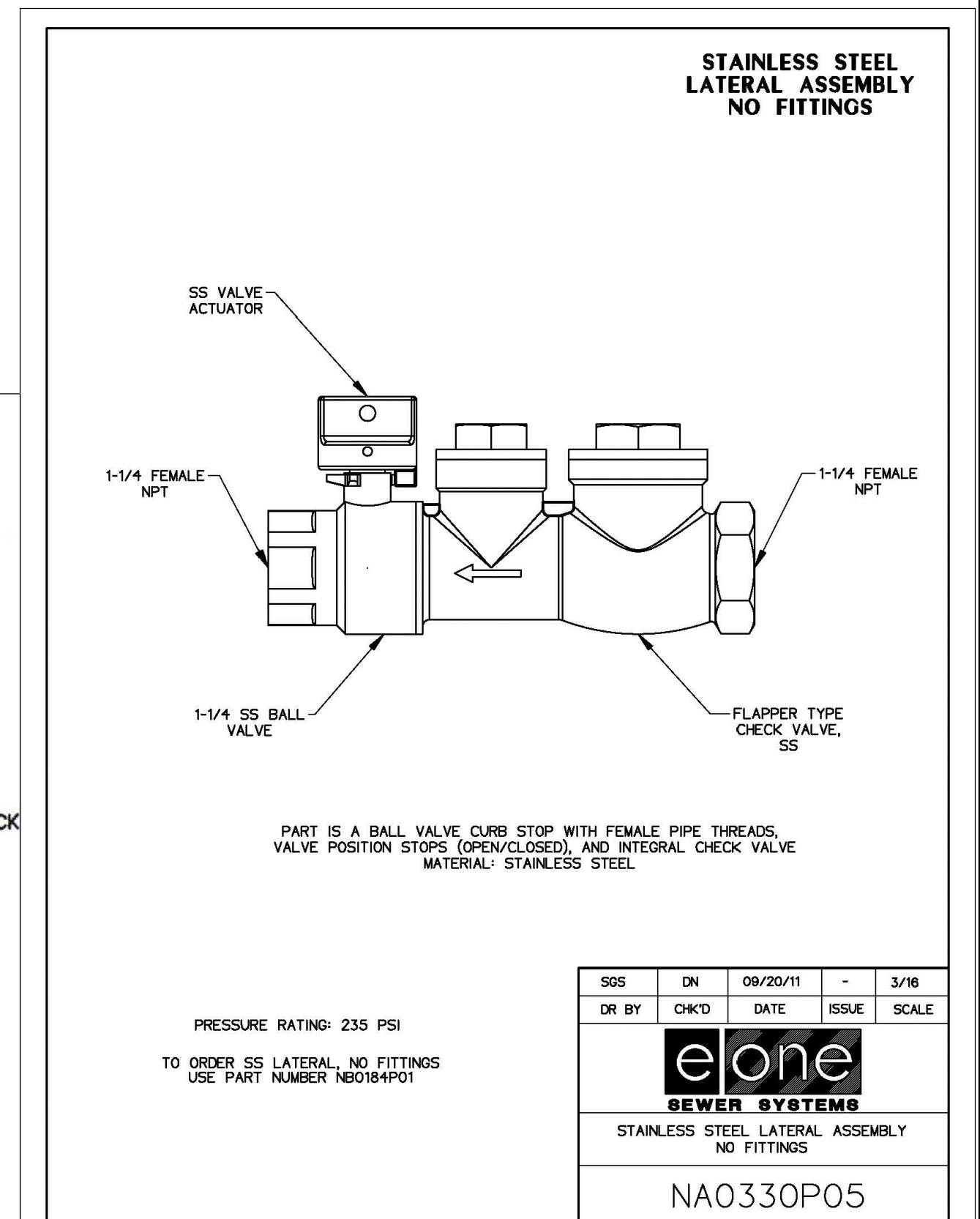
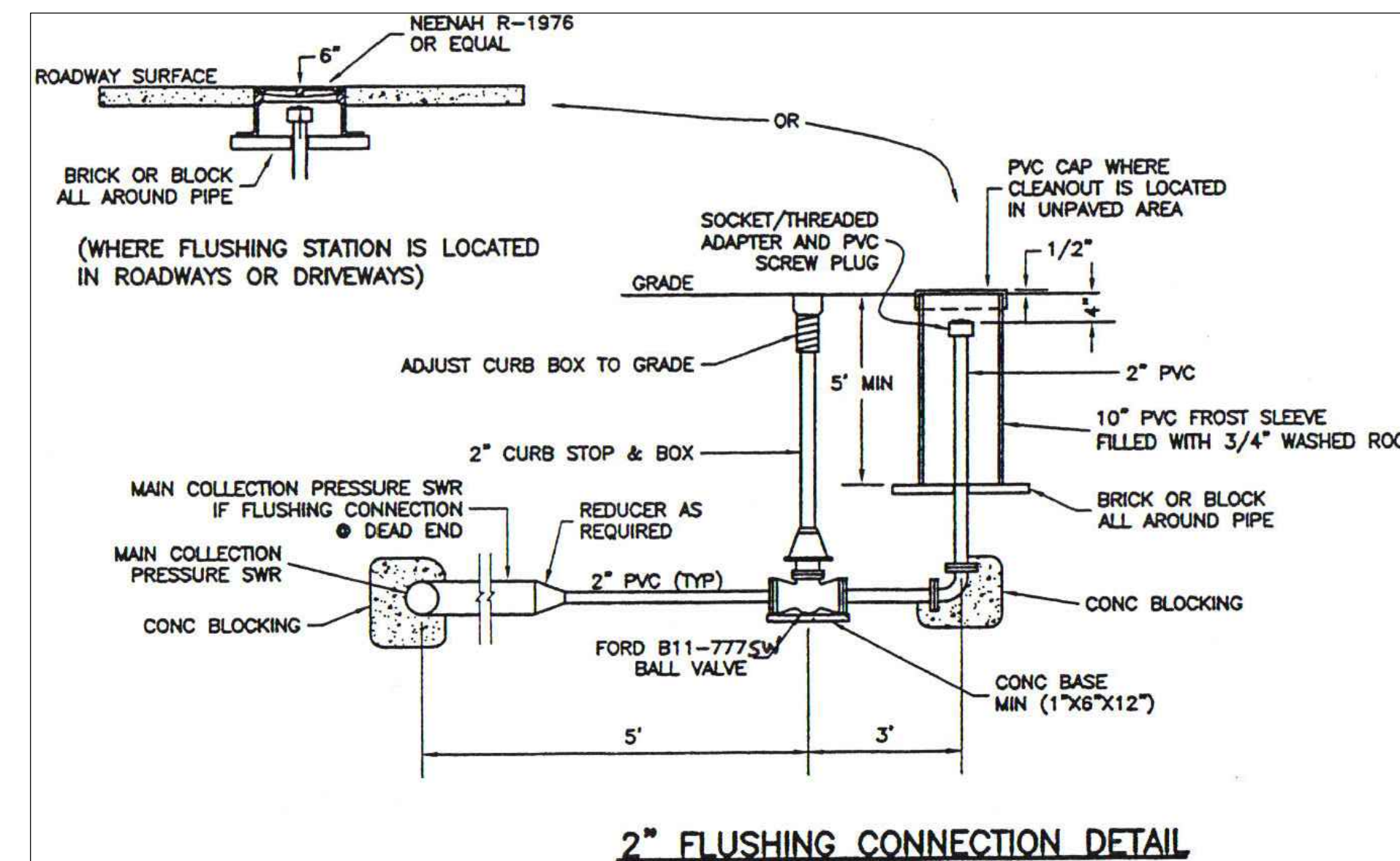
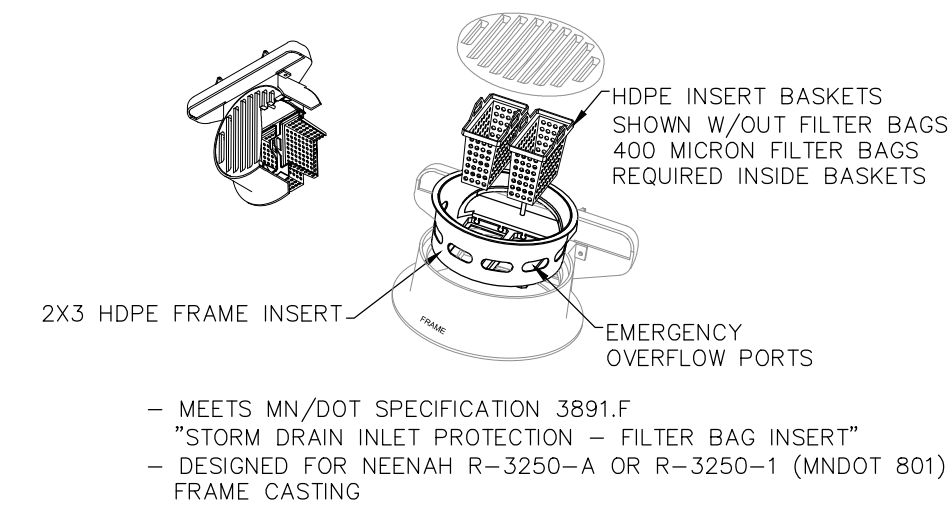
### INFRA SAFE - 2'x3' DEBRIS COLLECTION DEVICE

AS MANUFACTURED BY ROYAL ENVIRONMENTAL SYSTEMS

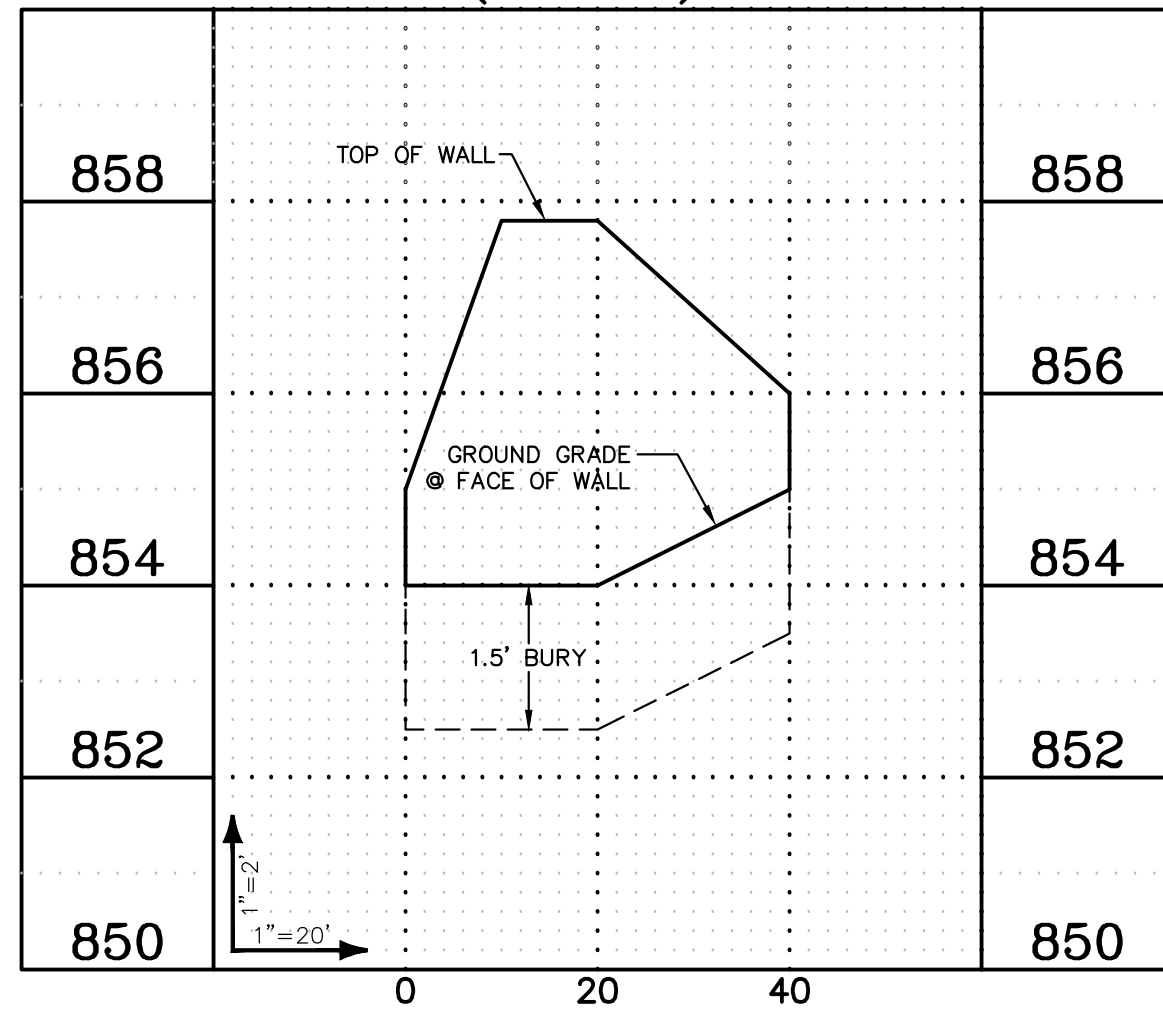


### INFRA SAFE - 27" DEBRIS COLLECTION DEVICE

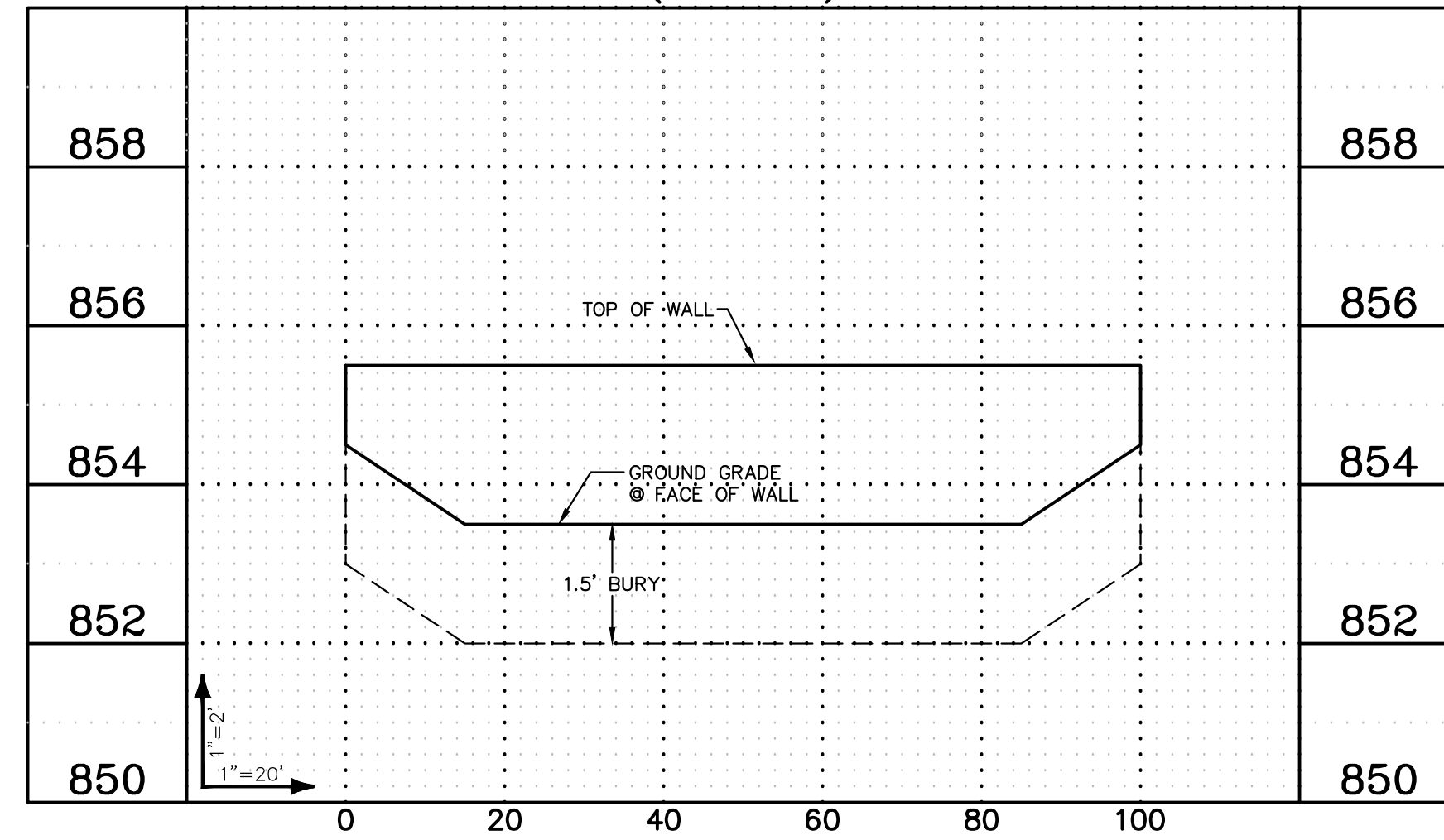
AS MANUFACTURED BY ROYAL ENVIRONMENTAL SERVICES



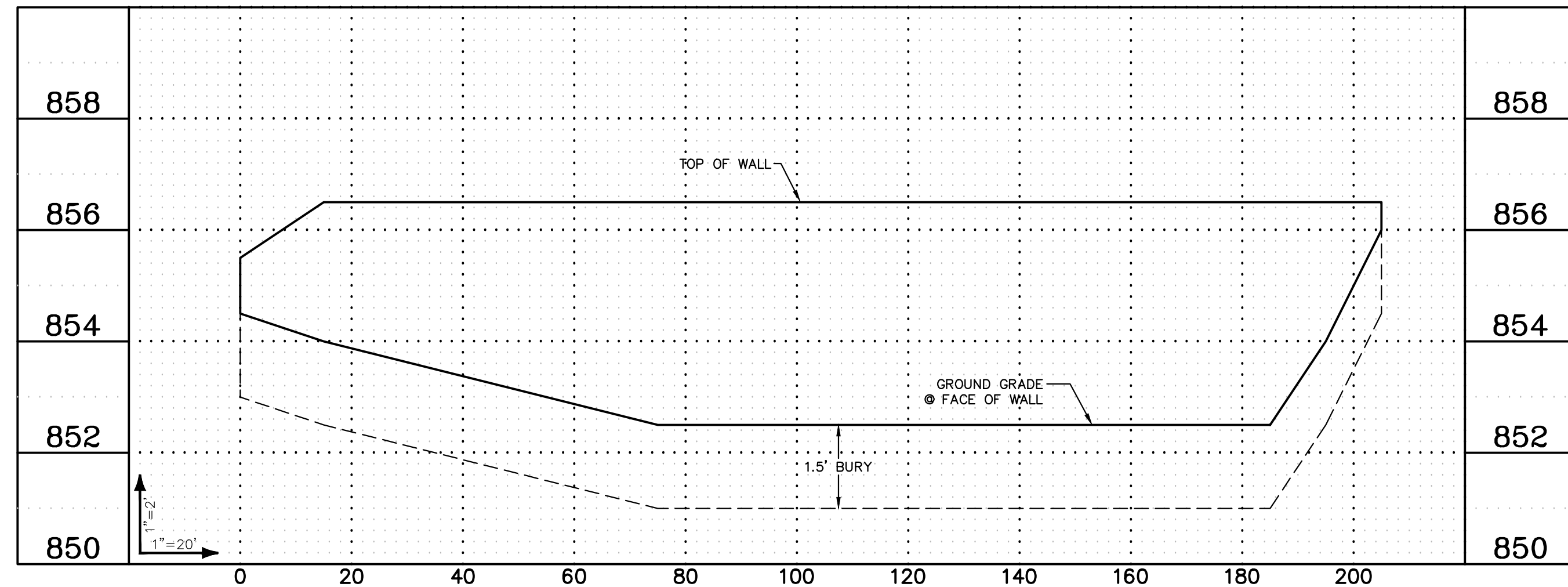
ROCK RETAINING WALL #1  
(170 SF)



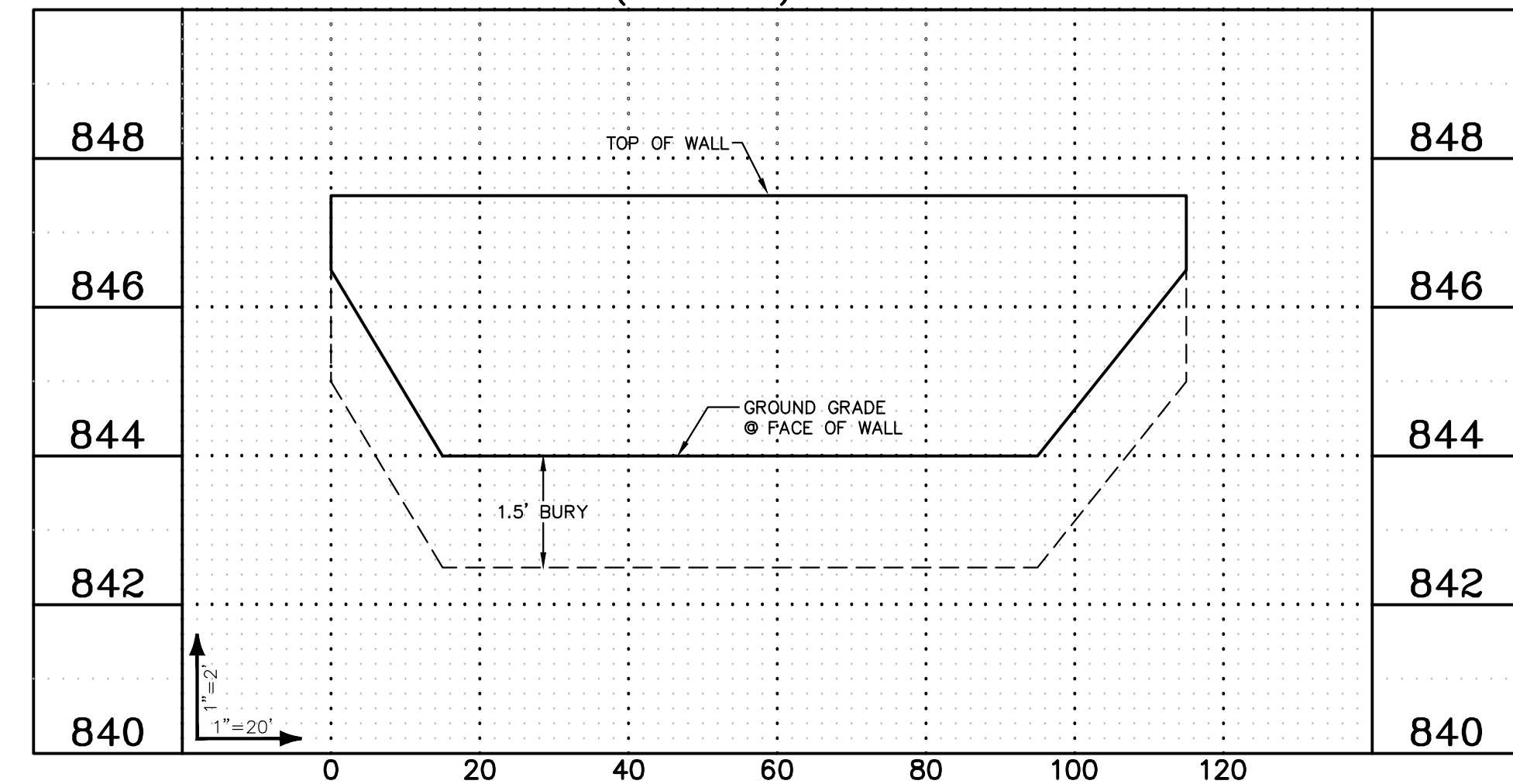
ROCK RETAINING WALL #2  
(335 SF)



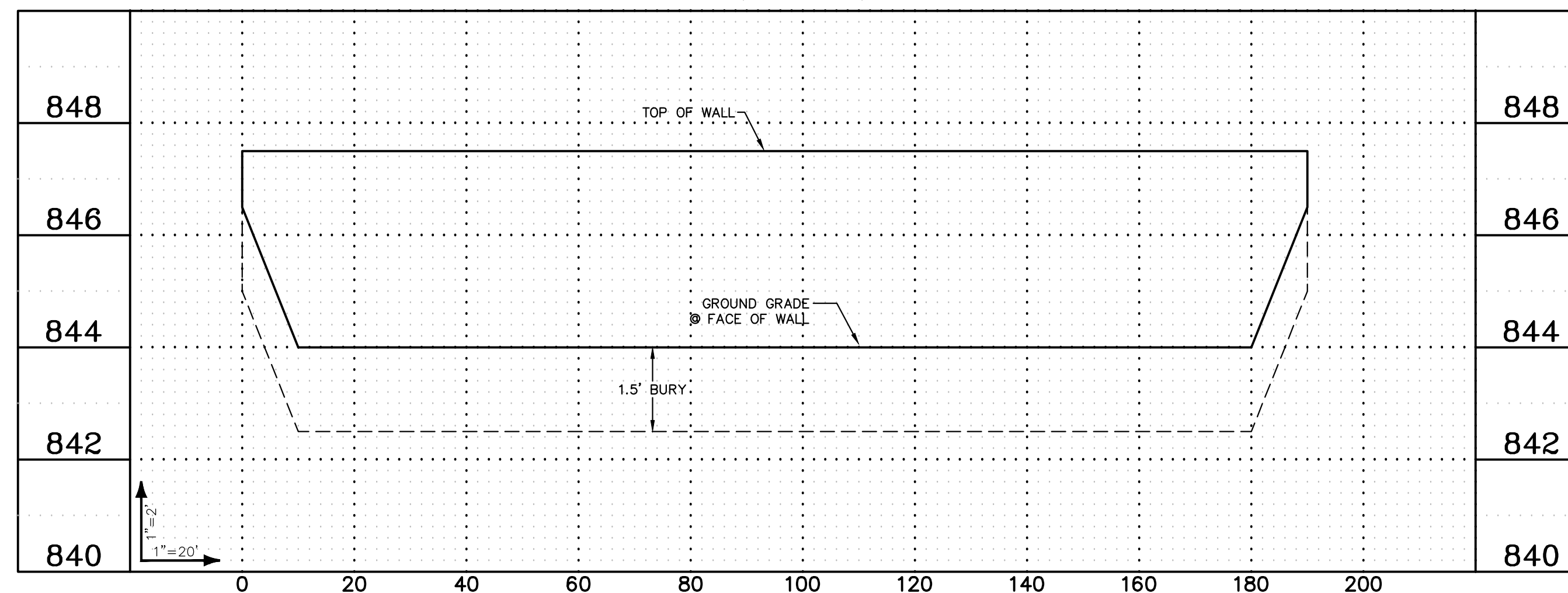
MODULAR RETAINING WALL #3  
(1020 SF)



ROCK RETAINING WALL #4  
(535 SF)



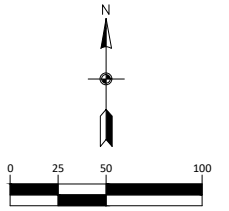
MODULAR RETAINING WALL #5  
(930 SF)





**LEGEND**

EXISTING	PROPOSED
PROPERTY LINE	PROPERTY LINE
EASEMENT LINE	EASEMENT LINE
CURB LINE	CURB LINE
BITUMINOUS	BITUMINOUS
CONCRETE	CONCRETE
MAINTENANCE ACCESS	MAINTENANCE ACCESS
INFILTRATION BASIN	INFILTRATION BASIN
SANITARY SEWER	SANITARY SEWER
STORM SEWER	STORM SEWER
WATER MAIN	WATER MAIN
OVERHEAD UTILITY	OVERHEAD UTILITY
STORM CATCH BASIN	STORM CATCH BASIN
STORM MANHOLE	STORM MANHOLE
OUTLET CONTROL STRUCTURE	OUTLET CONTROL STRUCTURE
MANHOLE	MANHOLE
HYDRANT	HYDRANT
GATE VALVE	GATE VALVE
TELEVISION BOX	TELEVISION BOX
TELEPHONE BOX	TELEPHONE BOX
UTILITY POLE	UTILITY POLE
RETAINING WALL	RETAINING WALL
FENCE	FENCE
10' CONTOUR	10' CONTOUR
2' CONTOUR	2' CONTOUR
SPECIFIED CONTOUR	SPECIFIED CONTOUR
FEMA FLOODWAY	FEMA FLOODWAY
FEMA FLOODPLAIN	FEMA FLOODPLAIN
100' BUFFER	100' BUFFER
WETLAND LINE	WETLAND LINE
SPOT ELEVATION	SPOT ELEVATION
EMERGENCY OVERFLOW	EMERGENCY OVERFLOW
SILT FENCE	SILT FENCE
TREE FENCE	TREE FENCE
GRADING LIMITS	GRADING LIMITS
TREELINE	TREELINE
SOIL BORING	SOIL BORING



BENCHMARK	
1.	MNDOT GSID Station #833, Named "Lumber MNDT RM 1" Elev. = 859.11
2.	MNDOT GSID Station #775, Named "E 257" Elev. = 863.67

- BLUFF LINE**
1. A LINE ALONG THE TOP OF A SLOPE CONNECTING THE POINTS AT WHICH THE SLOPE OF THE LAND BECOMES MORE THAN 12 PERCENT. THIS APPLIES TO THOSE SLOPES WITHIN THE LAND USE DISTRICT WHICH ARE BEYOND THE SETBACK PROVISIONS FROM THE ORDINARY HIGH WATER LEVEL; OR
  2. THE LINE WHICH GENERALLY FOLLOWS THE RIVERBANK WHERE THE SLOPE CHANGES FROM STEEP (MORE THAN 12 PERCENT TO LESS THAN 12 PERCENT).

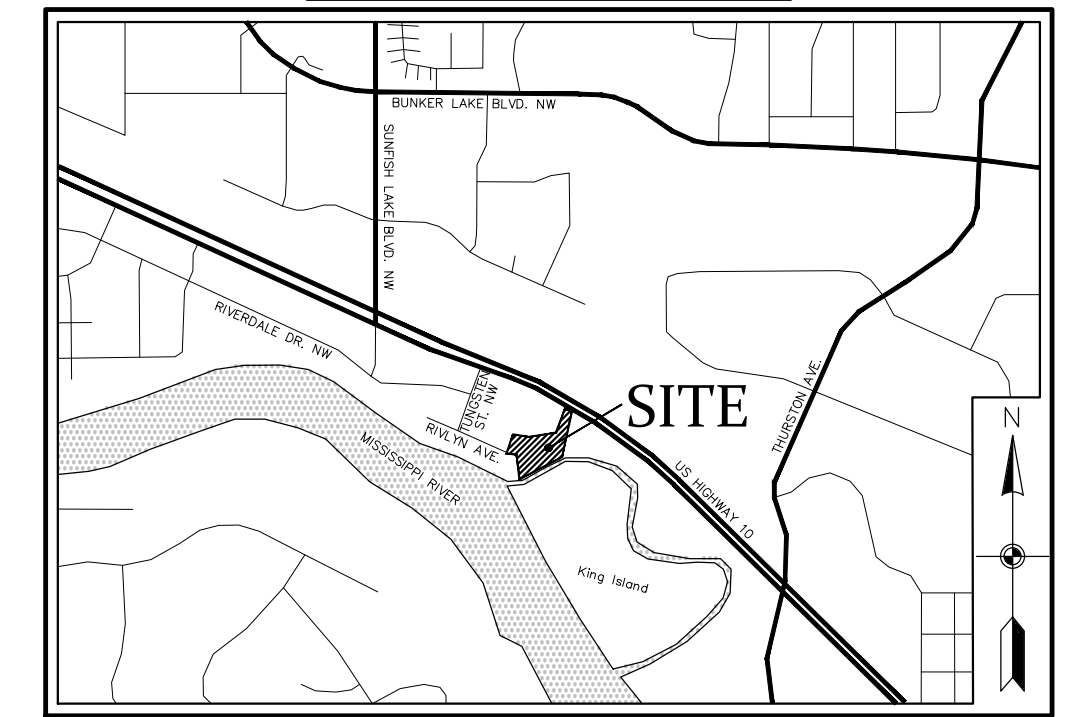
Issue Date: 04/25/19 | P:\jpb\17801 - 7820\7802 - Highway 10 ramsey\cad\_c3d\engineering\7802\_mcca exhibit.dwg

# RIVER WALK VILLAGE

## GRADING, DEVELOPMENT & EROSION CONTROL PLAN

### RAMSEY, MINNESOTA

#### VICINITY MAP



NOT TO SCALE

#### LOT TABULATION

Block	Lot	House Type	Garage Floor Elevation	Proposed Lowest Floor Elevation	Lowest opening Elevation	EOF	100 Year	Water Table	Controlling Elevation		Method
									LF	LO	
1	1	SOG	858.5	858.5	858.5	856.5	-	833.0	-	857.5	EOF
1	2	SOG	858.5	858.5	858.5	853.0	851.7	833.0	-	854.0	EOF
1	3	SOG	857.5	857.5	857.5	853.0	851.7	833.0	-	854.0	EOF
1	4	SOG	855.0	855.0	855.0	853.0	851.7	833.0	-	854.0	EOF
1	5	SOG	854.5	854.5	854.5	853.0	-	833.0	-	854.0	EOF
1	6	SOG	854.5	854.5	854.5	853.0	-	833.0	-	854.0	EOF
1	7	SOG	854.5	854.5	854.5	853.0	851.6	833.0	854.0	-	100-YR
2	1	WO	858.5	851.0	851.0	-	847.4	833.0	849.4	-	100-YR
2	2	WO	857.5	850.0	850.0	-	847.4	833.0	849.4	-	100-YR
3	1	WO(2)	856.0	849.5	849.5	-	847.4	833.0	849.4	-	100-YR
3	2	WO(2)	856.0	849.5	849.5	-	847.4	833.0	849.4	-	100-YR
3	3	WO(2)	856.0	849.5	849.5	-	847.4	833.0	849.4	-	100-YR
3	4	WO(2)	856.0	849.5	849.5	-	847.4	833.0	849.4	-	100-YR
3	5	WO(2)	856.0	849.5	849.5	-	847.4	833.0	849.4	-	100-YR

#### SHEET INDEX

- COVER
- 2-3. DETAILS

#### NOTES

- SEE SWPPP FOR STORMWATER POLLUTION PREVENTION PRACTICES.
- STREET SWEEPER MUST BE ON-SITE OR AVAILABLE WITHIN 3 HOURS IF NOTIFIED BY THE CITY THAT STREET SWEEPING IS REQUIRED.
- ALL DUMPSITE DEBRIS SHALL BE REMOVED FROM THE RIGHT-OF-WAY AND BUILDING PADS. (TO BE COMPLETED WITH THE SITE CLEANUP PROJECT)

#### WETLAND FILL SUMMARY

THERE ARE NO PROPOSED WETLAND IMPACTS

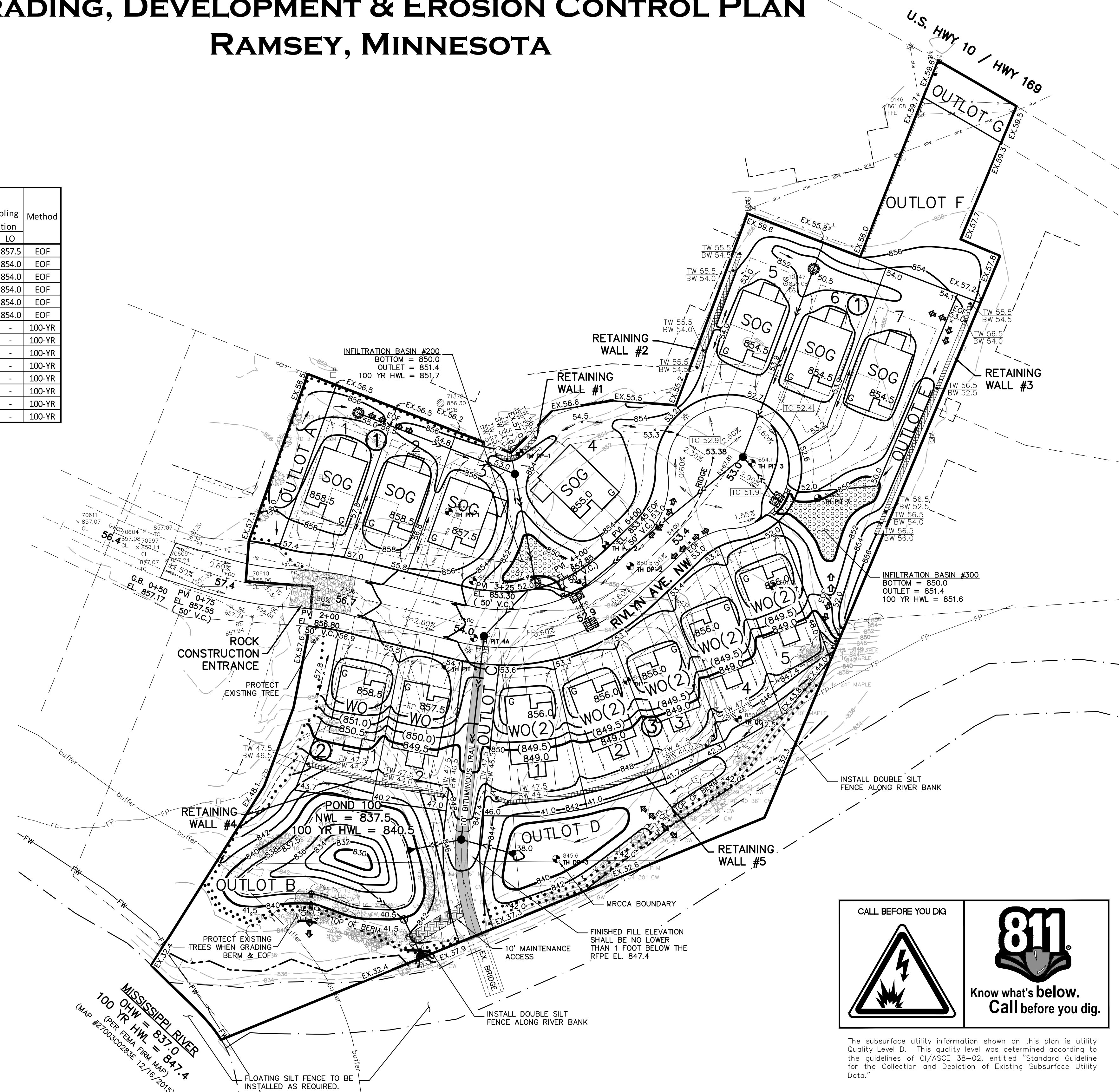
#### FLOODPLAIN SUMMARY

FLOODPLAIN MITIGATION = 4,471 C.Y.

FLOODPLAIN FILL = 4,313 C.Y.

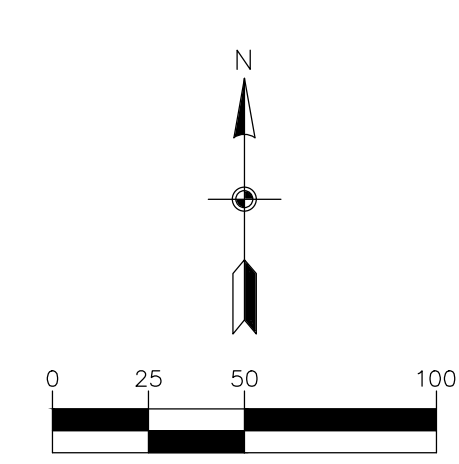
#### LEGEND

EXISTING	PROPOSED
PROPERTY LINE	PROPERTY LINE
EASEMENT LINE	EASEMENT LINE
CURB LINE	CURB LINE
BITUMINOUS	BITUMINOUS
CONCRETE	CONCRETE
MAINTENANCE ACCESS	MAINTENANCE ACCESS
INFILTRATION BASIN	INFILTRATION BASIN
SANITARY SEWER	SANITARY SEWER
STORM SEWER	STORM SEWER
WATER MAIN	WATER MAIN
OVERHEAD UTILITY	OVERHEAD UTILITY
STORM CATCH BASIN	STORM CATCH BASIN
STORM MANHOLE	STORM MANHOLE
OUTLET CONTROL STRUCTURE	OUTLET CONTROL STRUCTURE
MANHOLE	MANHOLE
HYDRANT	HYDRANT
GATE VALVE	GATE VALVE
TELEVISION BOX	TELEVISION BOX
TELEPHONE BOX	TELEPHONE BOX
UTILITY POLE	UTILITY POLE
RETAINING WALL	RETAINING WALL
FENCE	FENCE
10' CONTOUR	10' CONTOUR
2' CONTOUR	2' CONTOUR
SPECIFIED CONTOUR	SPECIFIED CONTOUR
FEMA FLOODWAY	FEMA FLOODWAY
FEMA FLOODPLAIN	FEMA FLOODPLAIN
100' BUFFER	100' BUFFER
WETLAND LINE	WETLAND LINE
SPOT ELEVATION	SPOT ELEVATION
EMERGENCY OVERFLOW	EMERGENCY OVERFLOW
SILT FENCE	SILT FENCE
TREE FENCE	TREE FENCE
GRADING LIMITS	GRADING LIMITS
TREELINE	TREELINE
SOIL BORING	SOIL BORING



CALL BEFORE YOU DIG

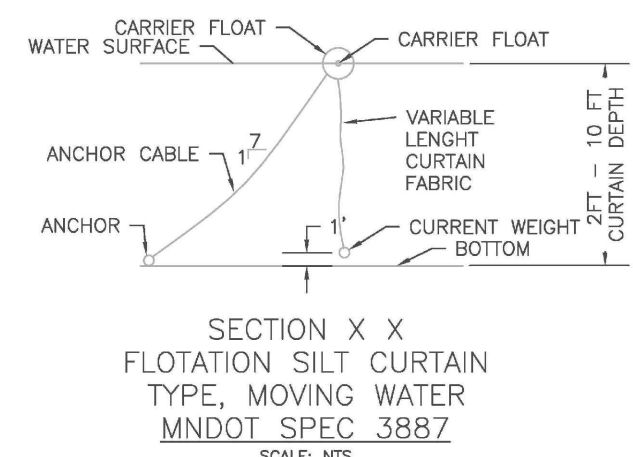
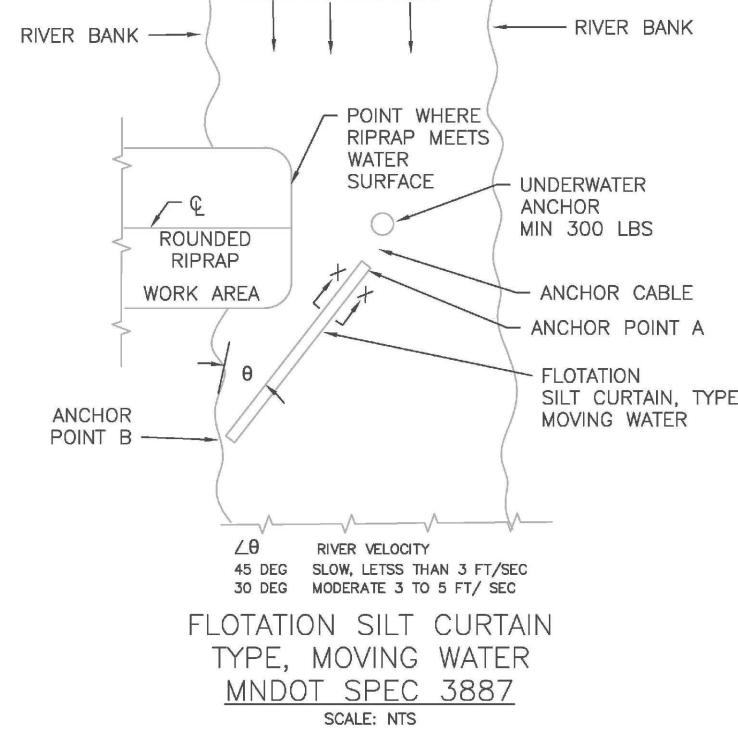
Know what's below.  
Call before you dig.



#### BENCHMARK

1. MNDOT GSID Station #833, Named "Lumber MNDT RM 1" Elev. = 859.11
2. MNDOT GSID Station #775, Named "E 257" Elev. = 863.67

Save Date: 07/29/19 | F:\08617801 - 782017802 - Highway 10 ramsey\cad\_c3\engineering\final\plans\grade\7802\_gr.dwg

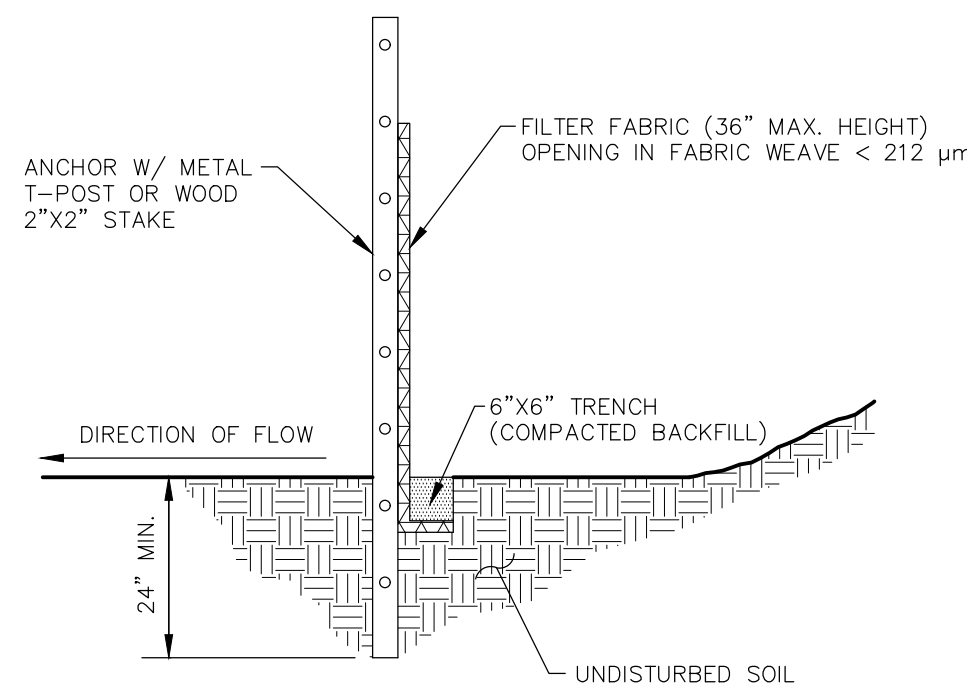


APPROVED:  
9 - 2014



STANDARD DETAILS:  
FLOTATION SILT CURTAIN  
CITY PLATE No. ERO-7

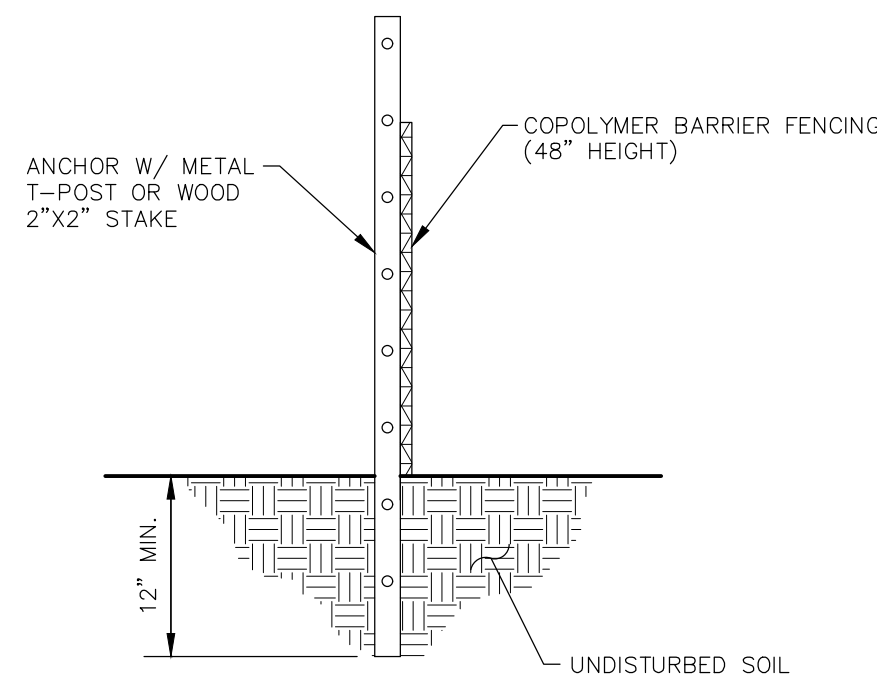
### SILT FENCE



#### NOTES:

1. DIG A 6"x6" TRENCH ALONG THE INTENDED SILT FENCE LINE.
2. DRIVE ALL ANCHOR POSTS INTO THE GROUND AT THE DOWNHILL SIDE OF THE TRENCH.
3. POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART.
4. LAY OUT SILT FENCE ALONG THE UPHILL SIDE OF THE ANCHOR POSTS AND BACK FILL 6"x6" TRENCH.
5. SECURELY ATTACH SILT FENCE TO ANCHOR POSTS W/ MINIMUM OF THREE ATTACHMENTS PER POST.
6. SEE MNDOT SPECIFICATIONS 2573 & 3886.

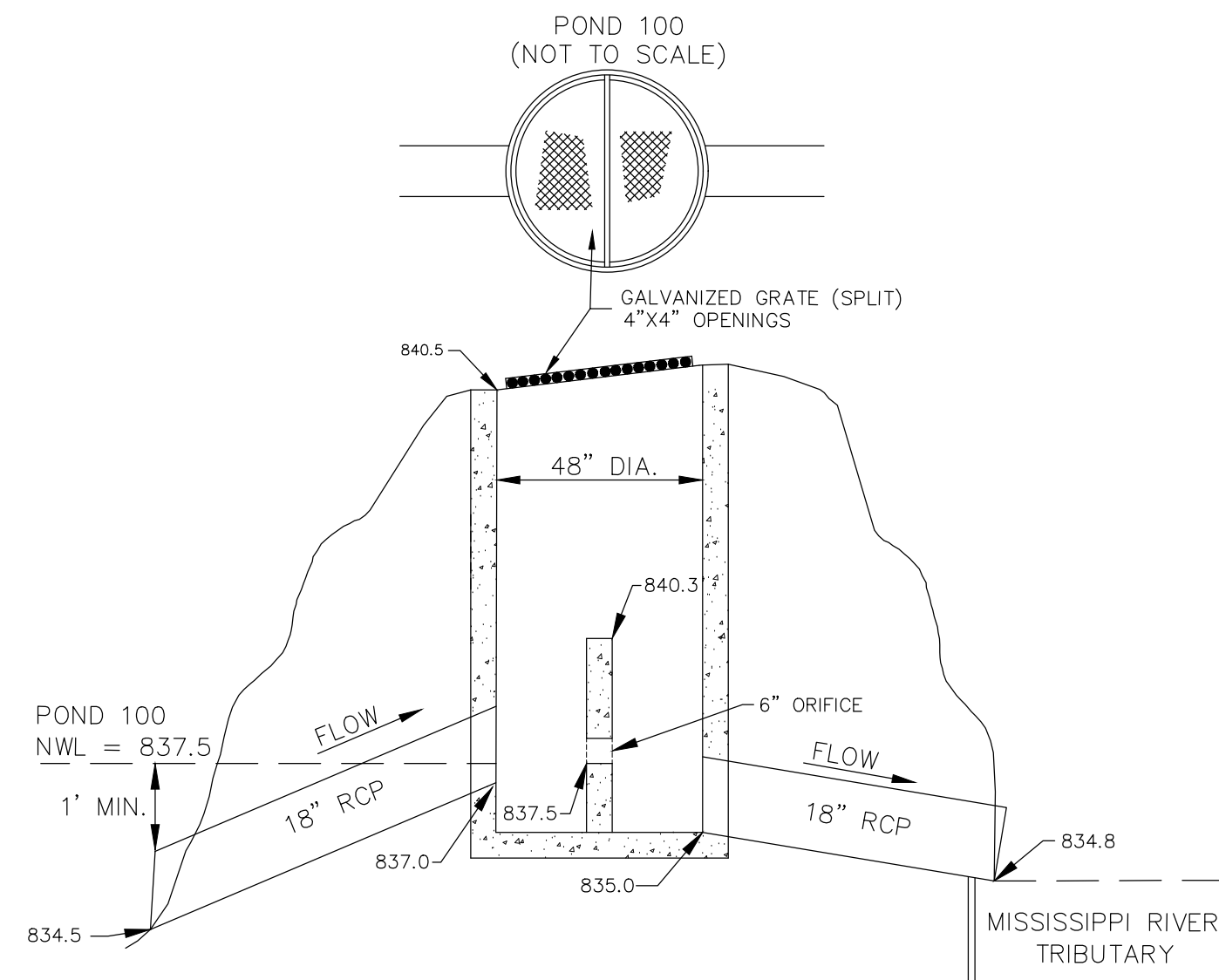
### TREE FENCE



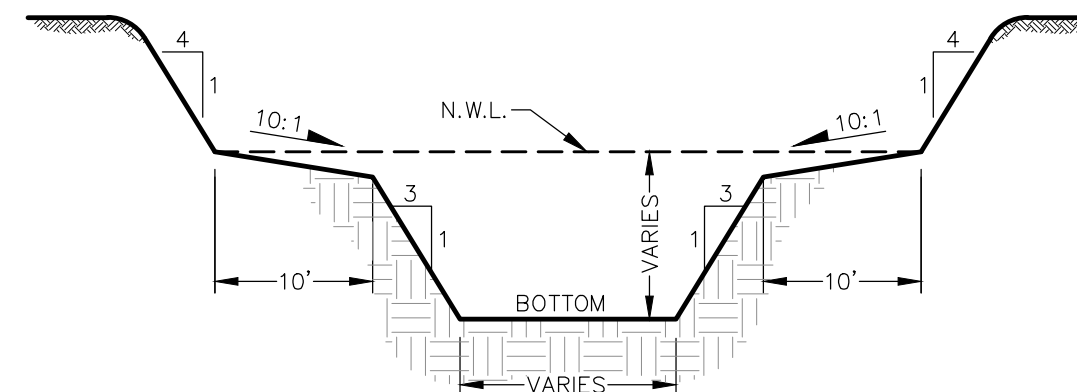
#### NOTES:

1. TREE FENCING SHALL BE PLACED A MINIMUM OF 1 FOOT PER CALIPER INCH OF TREE DIAMETER FROM TREE(S) THAT IS/ARE TO BE SAVED.
2. ANCHOR POST MAY BE SPACED UP TO 10 FEET APART.
3. SECURELY ATTACH TREE FENCE TO ANCHOR POSTS W/ MINIMUM OF TWO ATTACHMENTS PER POST.
4. SEE MNDOT SPECIFICATION 2572.

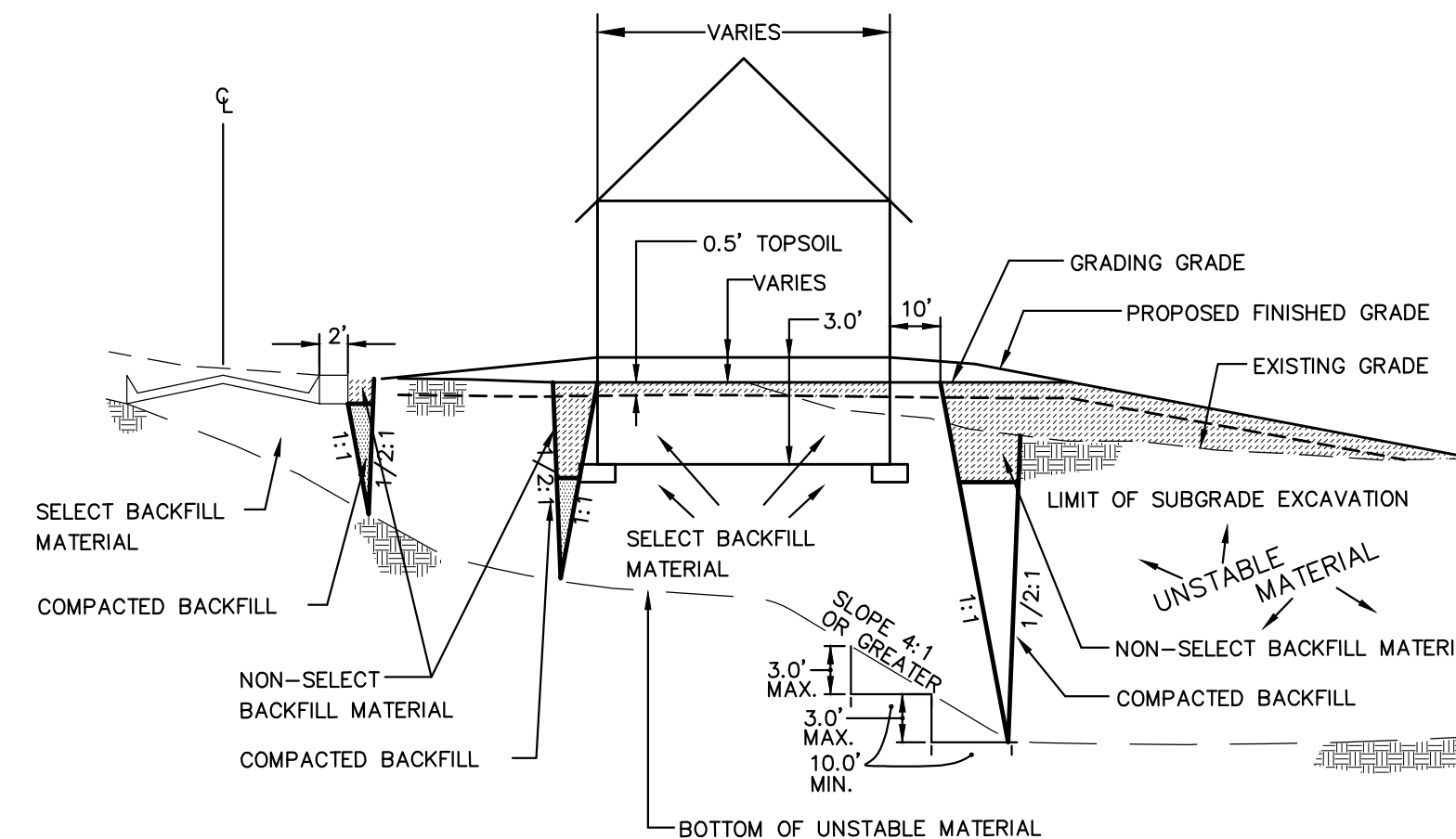
### OUTLET CONTROL STRUCTURE



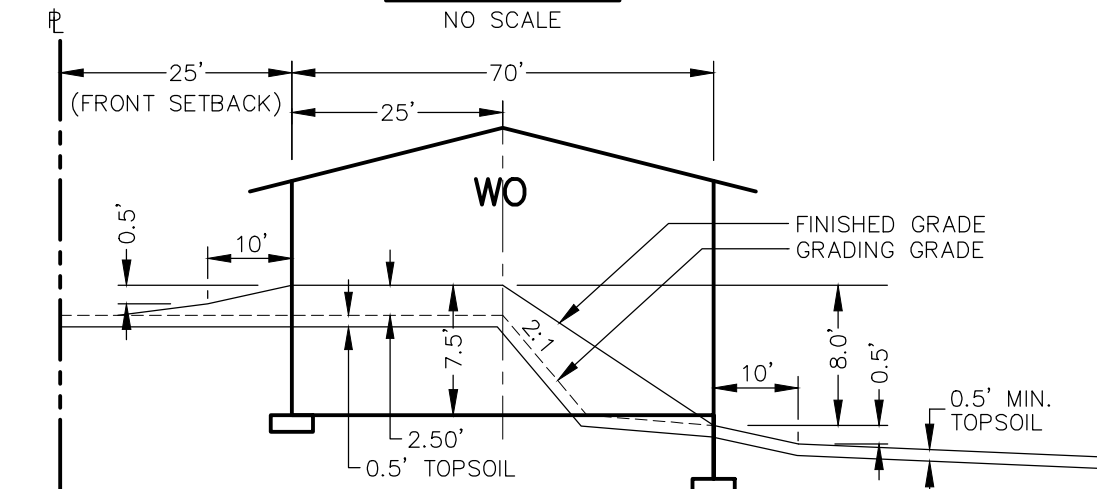
### TYPICAL POND SECTION



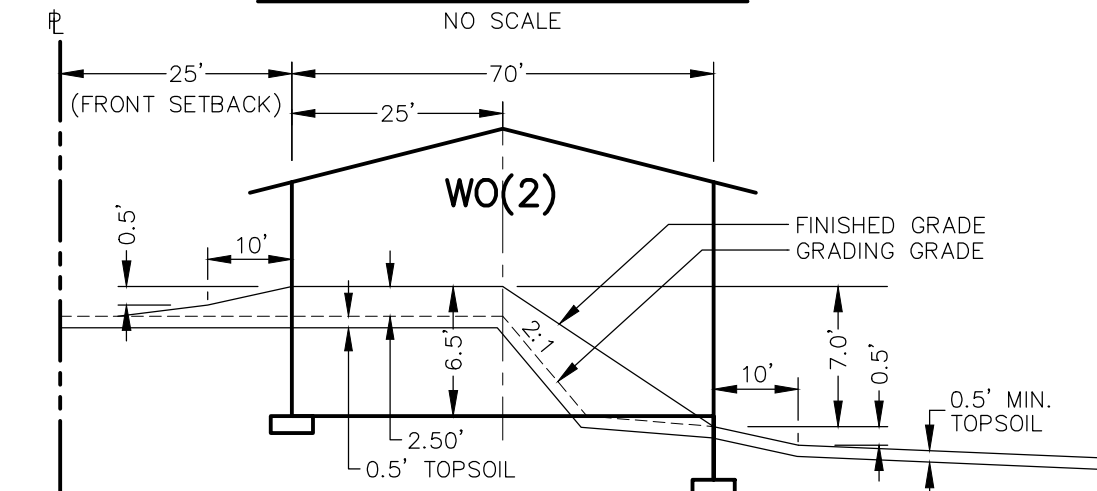
### SUBGRADE CORRECTION



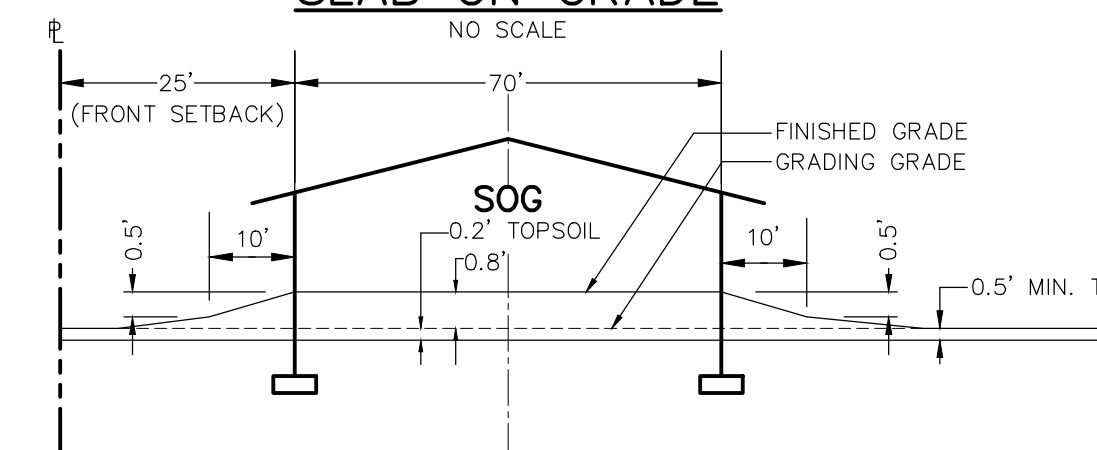
### WALKOUT



### MODIFIED WALKOUT



### SLAB ON GRADE



### TURF ESTABLISHMENT

TURF ESTABLISHMENT SHALL APPLY TO ALL DISTURBED AREAS AND SHALL BE ACCORDING TO MNDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION (LATEST EDITION) EXCEPT AS MODIFIED BELOW.

TURF ESTABLISHMENT SHALL OCCUR AS SOON AS POSSIBLE BUT IN NO CASE MORE THAN 7 DAYS.

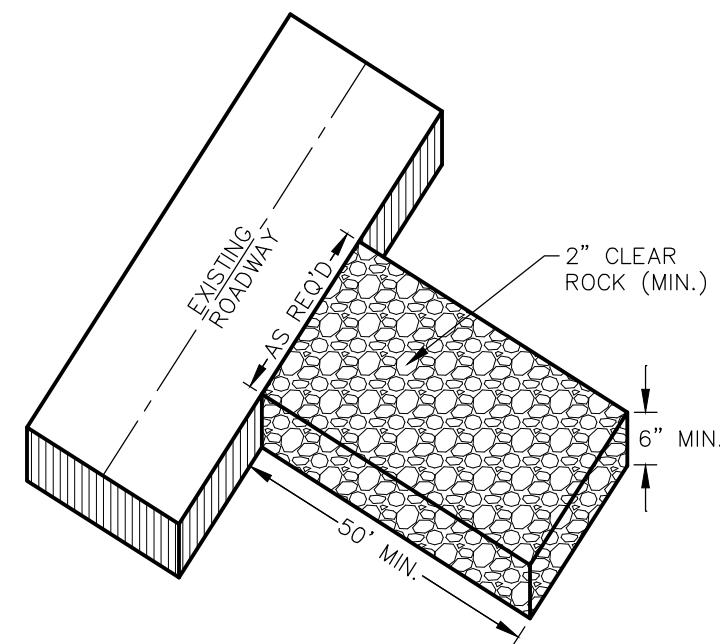
SEED: MNDOT MIXTURE 25-141 AT 60 POUNDS PER ACRE.

DORMANT SEED: SHALL BE APPLIED AT TWICE THE NORMAL RATE AFTER NOVEMBER 1ST.

MULCH: TYPE 1 AT 2 TONS PER ACRE (DISK ANCHORED).

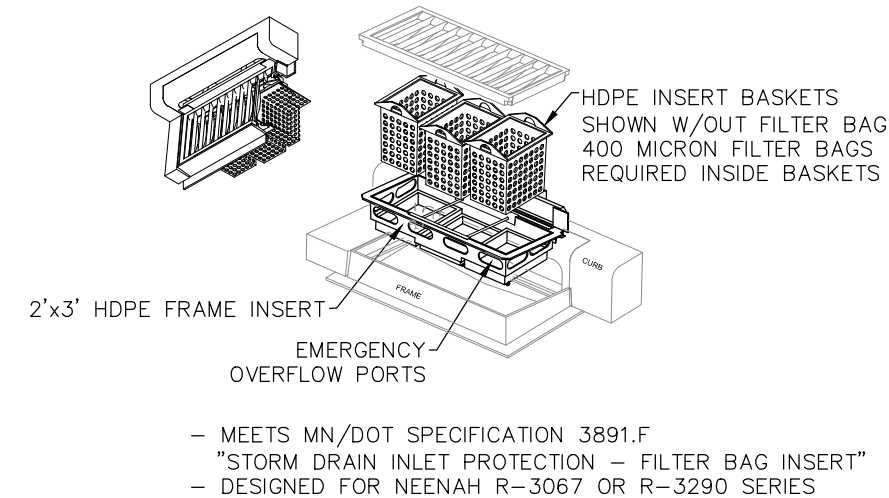
FERTILIZER: TYPE 1 10-10-10 AT 200 POUNDS PER ACRE.

### ROCK CONSTRUCTION ENTRANCE



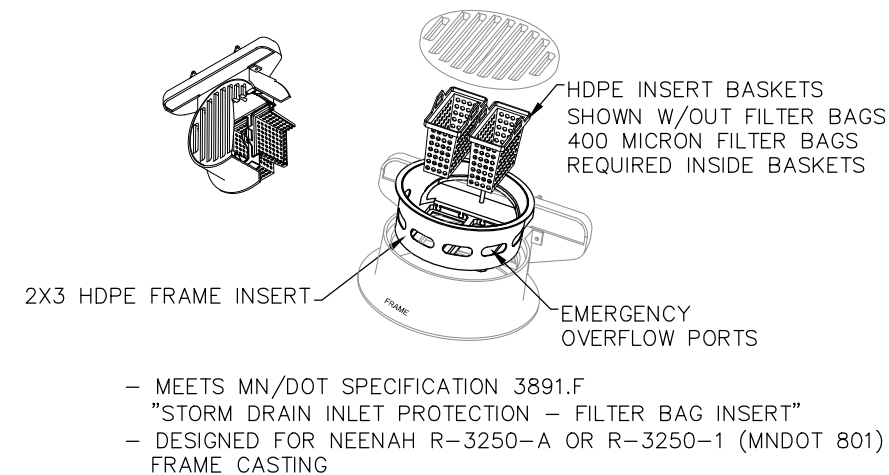
### INFRA SAFE - 2'x3' DEBRIS COLLECTION DEVICE

AS MANUFACTURED BY ROYAL ENVIRONMENTAL SYSTEMS

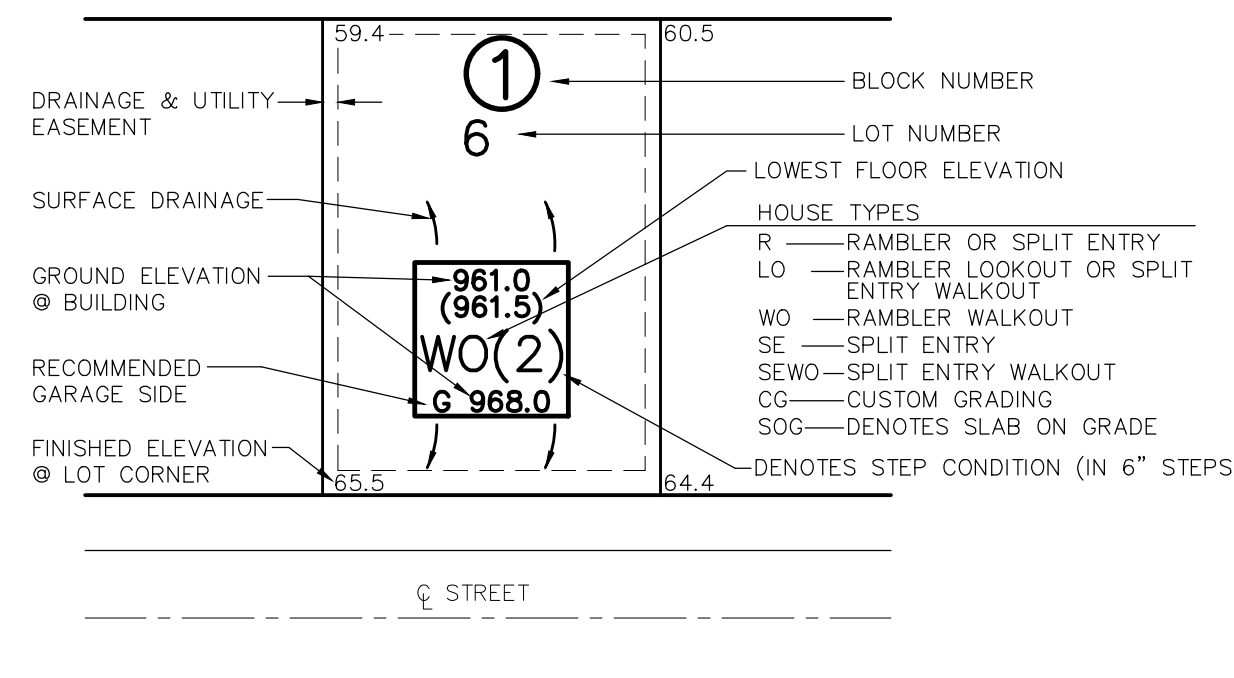


### INFRA SAFE - 27" DEBRIS COLLECTION DEVICE

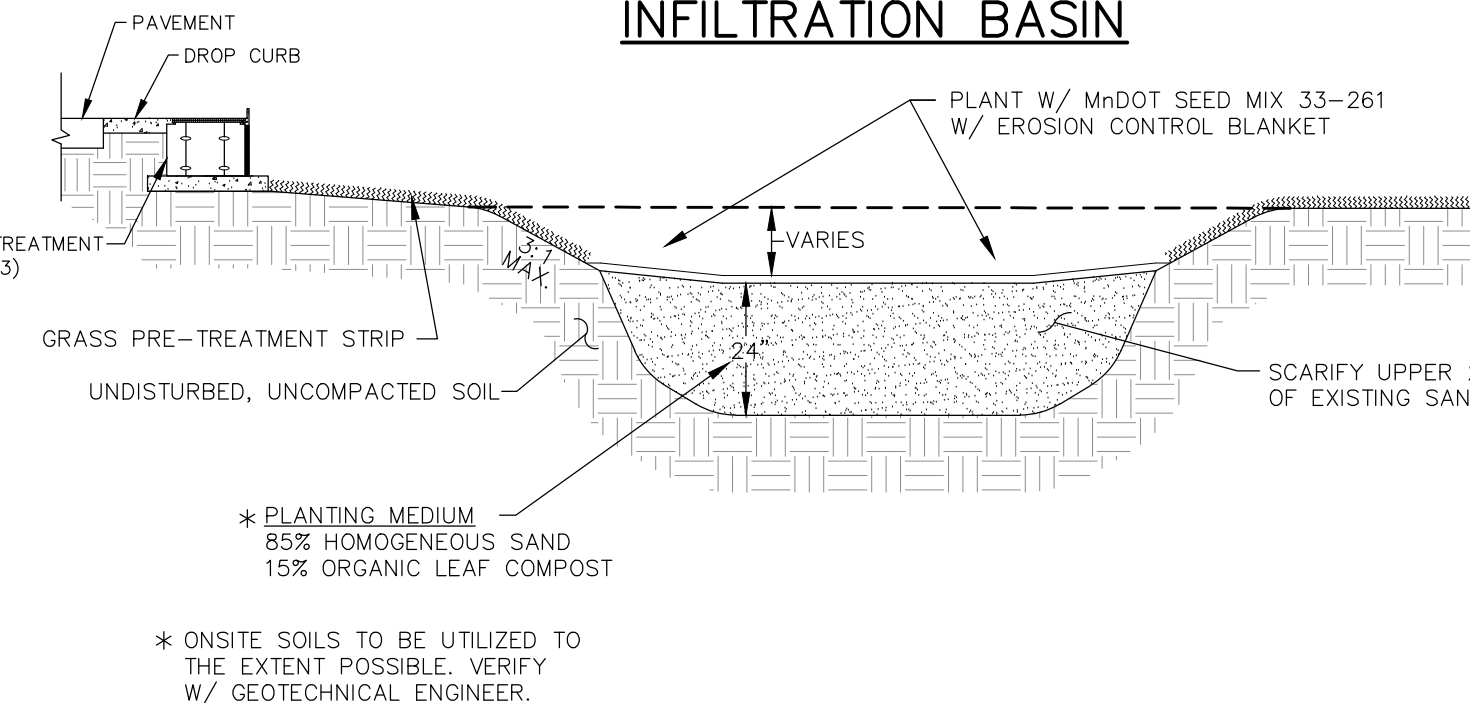
AS MANUFACTURED BY ROYAL ENVIRONMENTAL SERVICES



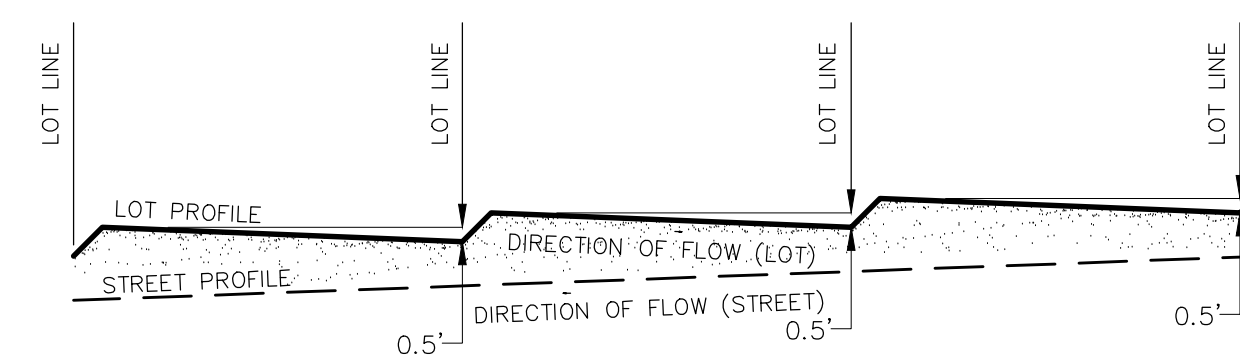
### GRADING PLAN LOT KEY



### INFILTRATION BASIN



### LOT BENCHING DETAIL



1424 Pheasant Ridge Drive NE, Suite 100  
Blaine, MN 55449  
Phone: (763) 489-7900  
Fax: (763) 489-7959  
www.carlsonmccain.com

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Print Name: Brian J. Krystofiak, P.E.  
Signature: *Brian J. Krystofiak*  
Date: 7/11/19 License #: 25063

Drawn: ADB  
Designed: BJK  
Date: 7/11/19

Revisions:  
1. 7/26/19 per City Comments

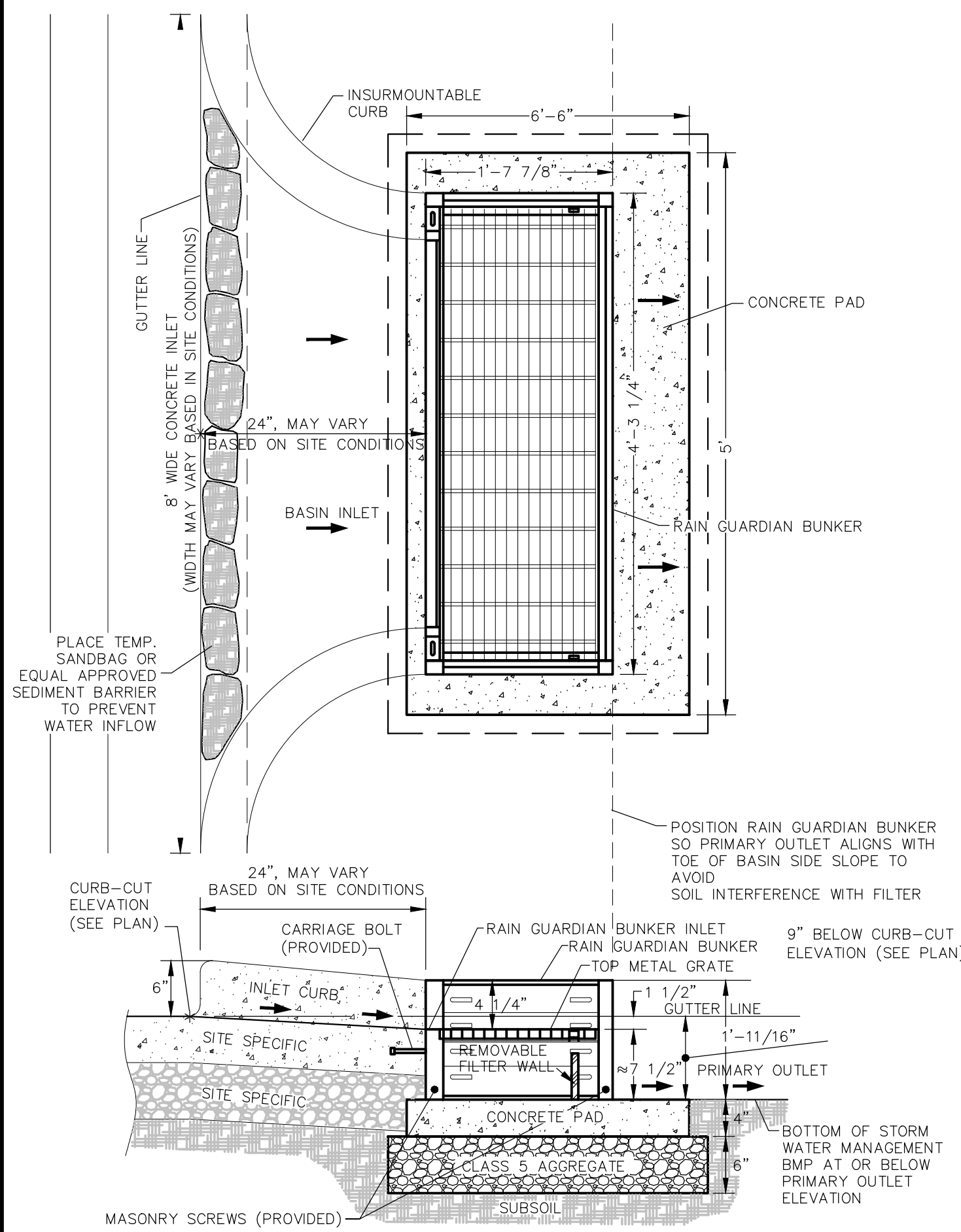
VILLAGE BANK  
9298 Central Avenue NE  
Blaine, MN 55434

RIVER WALK VILLAGE  
Ramsey, Minnesota

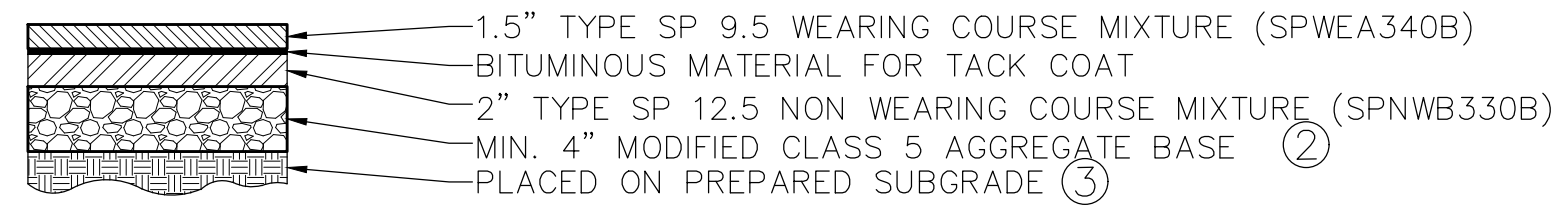
DETAILS

2 of 3

**RAIN GUARDIAN DETAIL**



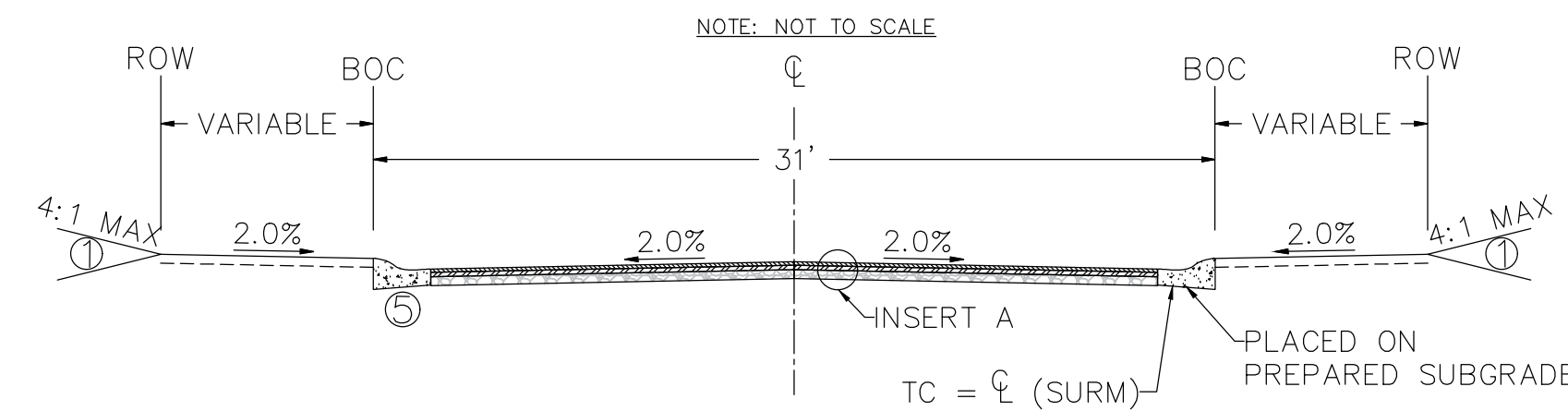
**INSERT A:**



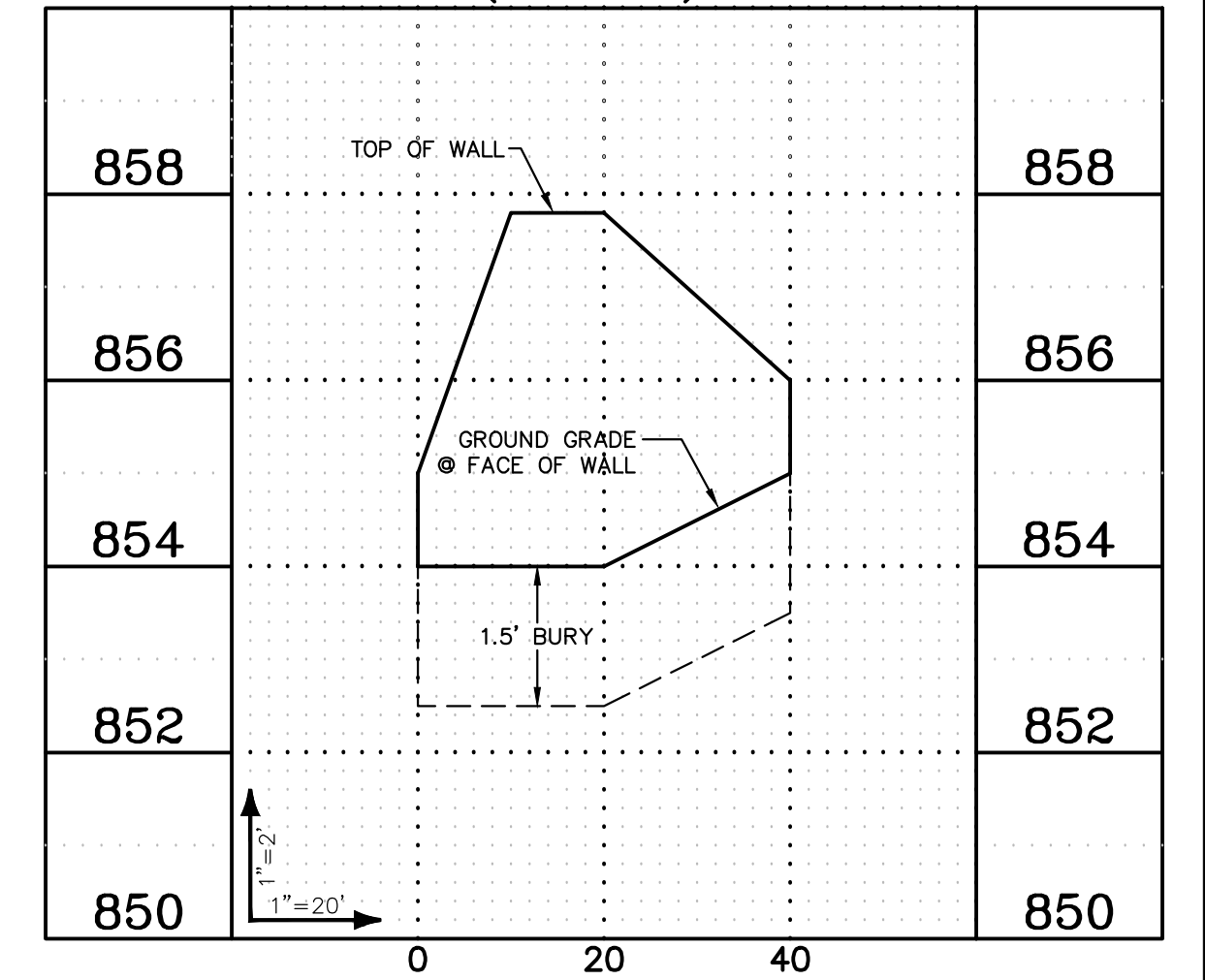
**REFERENCE NOTES:**

- ① GRADE TO MATCH EXISTING SURFACE MINIMUM 4" COMMON TOPSOIL BORROW IN BOULEVARDS. SEE CITY PLATE No. ERO-6
- ② CLASS 5 GRADATION IS MODIFIED PER CITY PLATE No. STR-26
- ③ CONTRACTOR SHALL SCARIFY AND COMPACT, ACCORDING TO THE SPECIFIED DENSITY METHOD, THE TOP 12 INCHES OF MATERIAL PRIOR TO PLACING ANY FILL MATERIALS OR CLASS 5 AGGREGATE BASE.
- ④ ALL SIDEWALKS SHALL BE 6" THICK, 6' WIDE, PLACED ON PREPARED SUBGRADE.
- ⑤ CONCRETE CURB AND GUTTER PER PLAN. SEE CITY PLATE No. STR-1.

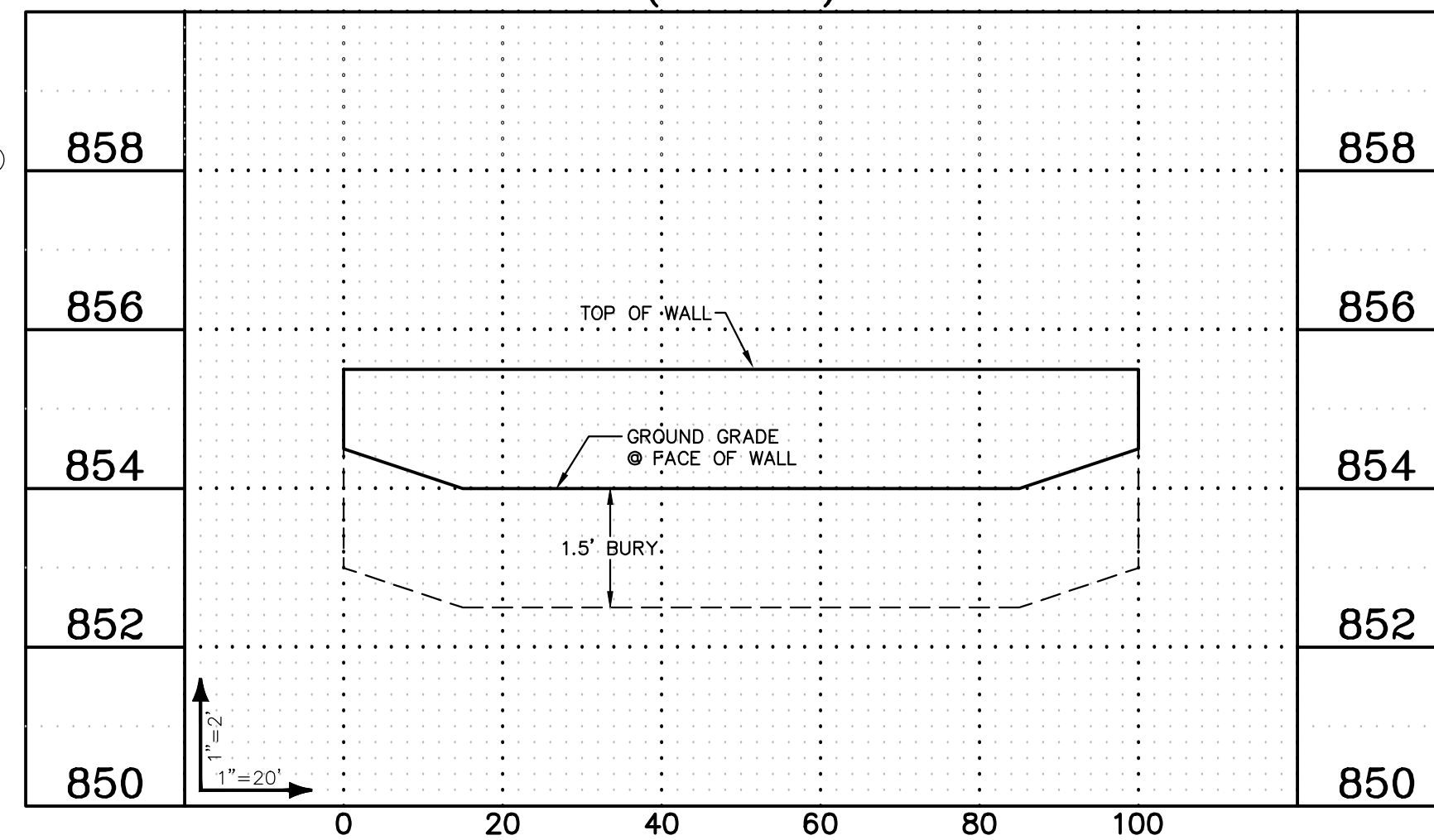
**31' - URBAN STREET**



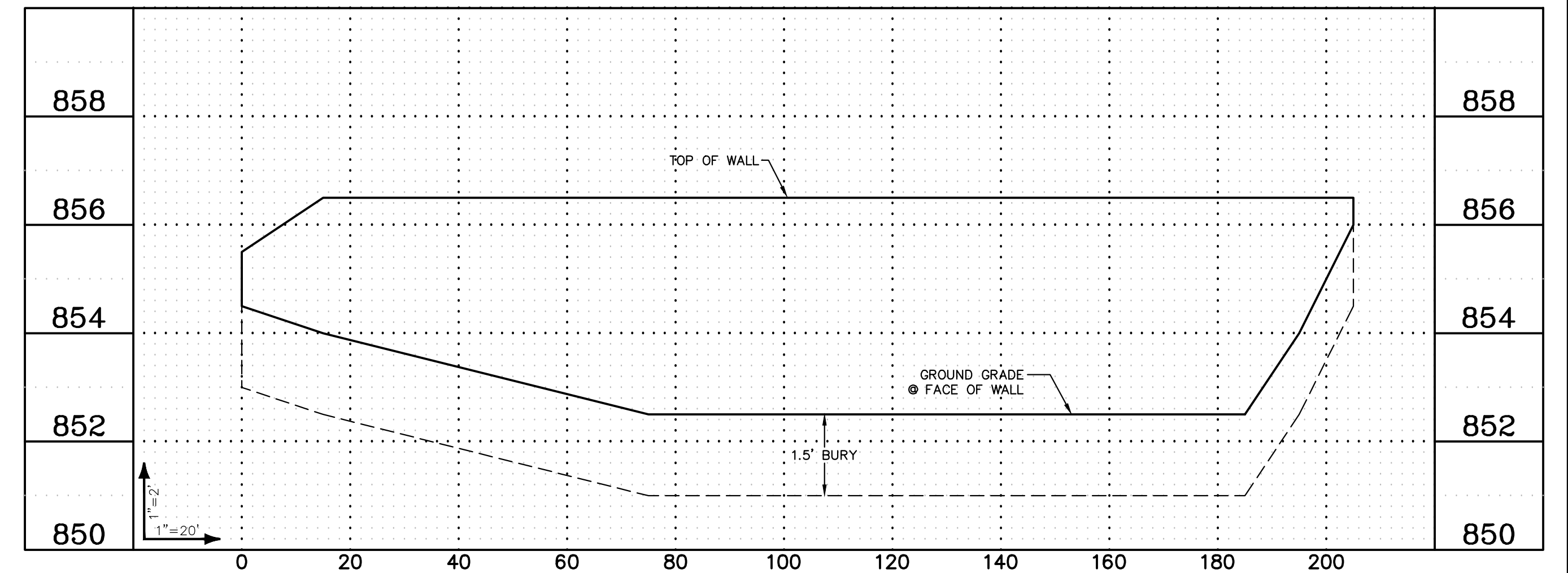
**ROCK RETAINING WALL #1  
(170 SF)**



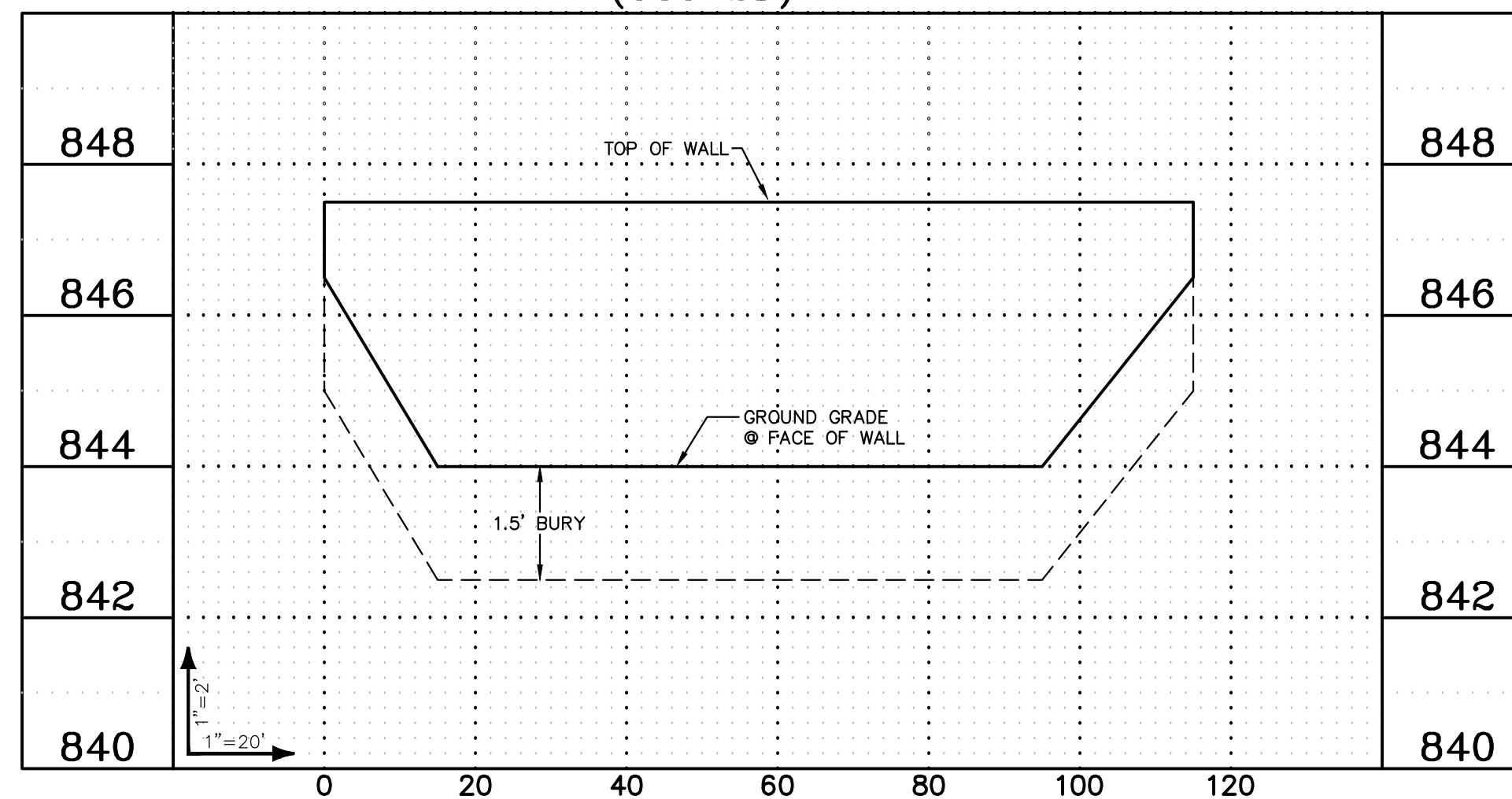
**ROCK RETAINING WALL #2  
(300 SF)**



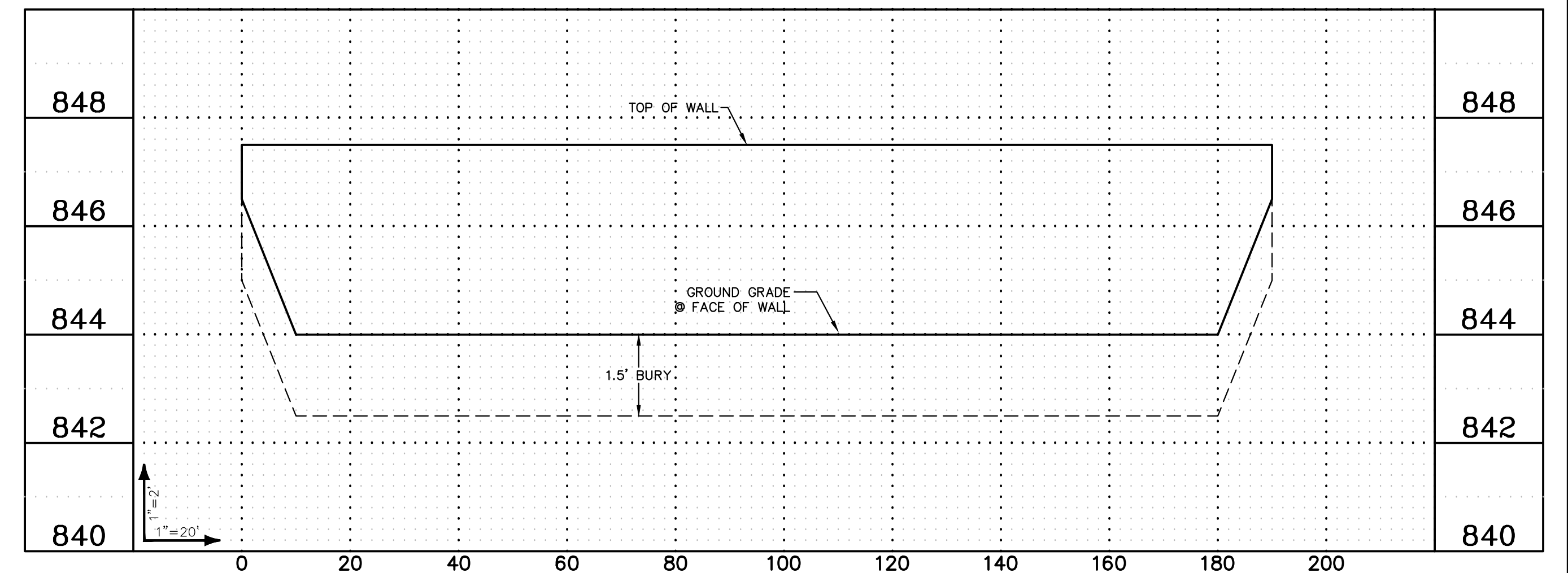
**MODULAR RETAINING WALL #3  
(1020 SF)**



**ROCK RETAINING WALL #4  
(535 SF)**



**MODULAR RETAINING WALL #5  
(930 SF)**



**TABLE A  
MODIFIED CLASS 5  
SPECIFICATIONS**

**% PASSING**

1"	100
3/4"	90 - 100
3/8"	50 - 80
No.4	35 - 70
No.10	20 - 60
No.40	10 - 35
No.200	5 - 10

- NOTES:  
 1. THE AGGREGATE BASE CONSTRUCTION WILL BE ACCEPTED FOR PAYMENT IN ACCORDANCE WITH THE PROVISIONS IN TABLE A.  
 2. IF THE AGGREGATE BASE FAILS TO MEET THE REQUIREMENTS OF TABLE A THE MATERIAL CAN BE CORRECTED IN PLACE OR REMOVED AND REPLACED WITH MATERIAL THAT MEET THE REQUIREMENTS OF TABLE A.  
 3. IN THE EVENT THAT RECYCLED MATERIAL IS USED IT MUST MEET MNDOT REQUIREMENTS FOR RECYCLED BASE.

APPROVED:  
2 - 2003



STANDARD DETAILS:  
MODIFIED CLASS 5  
SPECIFICATIONS  
CITY PLATE No. STR-26



3890 Pheasant Ridge Drive NE, Suite 100  
Blaine, MN 55449  
Phone: (763) 489-7900  
Fax: (763) 489-7959  
www.carlsonmccain.com

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Print Name: Brian J. Krystofiak, P.E.  
Signature: *Brian J. Krystofiak*  
Date: 7/11/19 License #: 25063

Drawn: ADB  
Designed: BJK  
Date: 7/11/19

Revisions:  
1. 7/26/19 per City Comments

**VILLAGE BANK**  
9298 Central Avenue NE  
Blaine, MN 55434

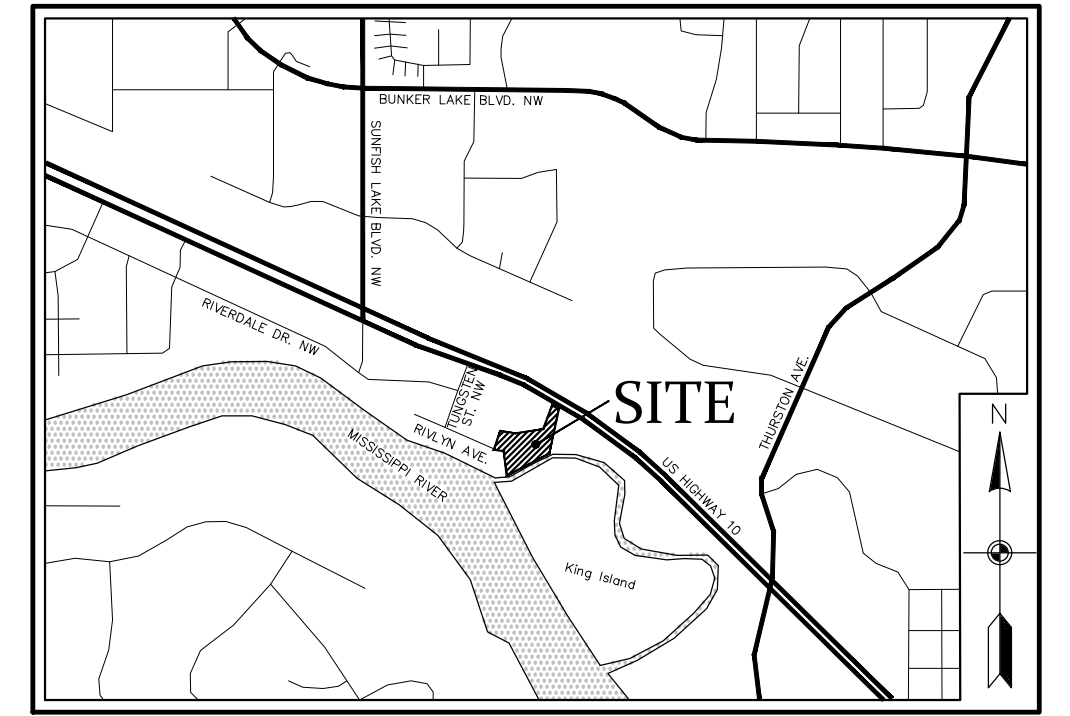
**RIVER WALK VILLAGE**  
Ramsey, Minnesota

**DETAILS**

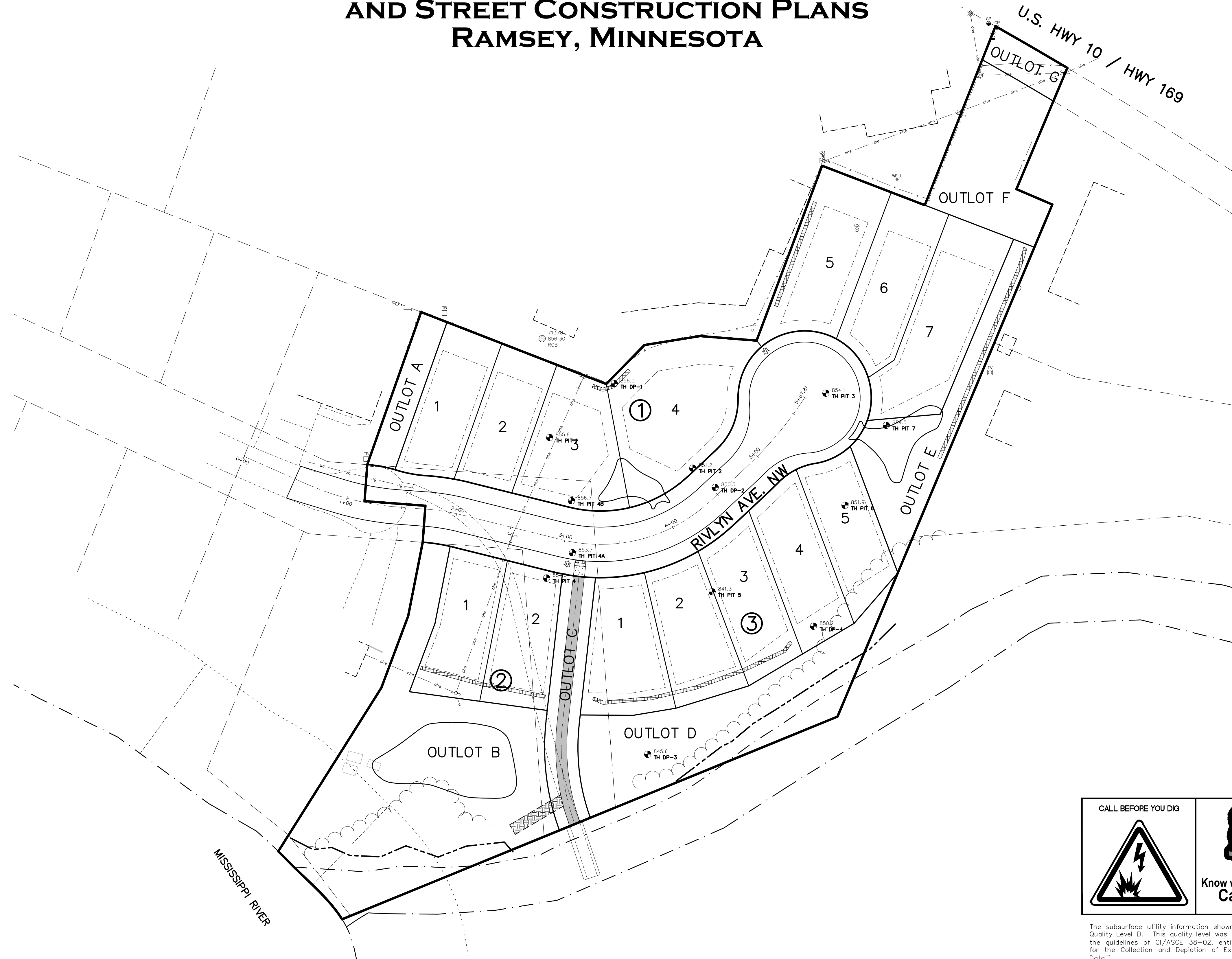
# RIVER WALK VILLAGE

## SANITARY SEWER, WATER MAIN, STORM SEWER AND STREET CONSTRUCTION PLANS RAMSEY, MINNESOTA

### VICINITY MAP

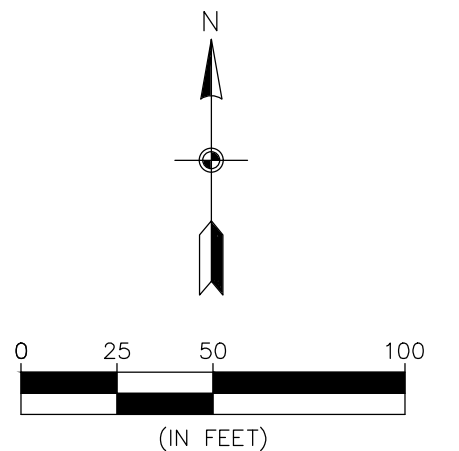


NOT TO SCALE



### SHEET INDEX

1. COVER
2. INDEX
3. REMOVALS PLAN
4. SANITARY SEWER & WATERMAIN
5. STORM SEWER
6. STREET CONSTRUCTION
- 7-9. DETAILS



CALL BEFORE YOU DIG



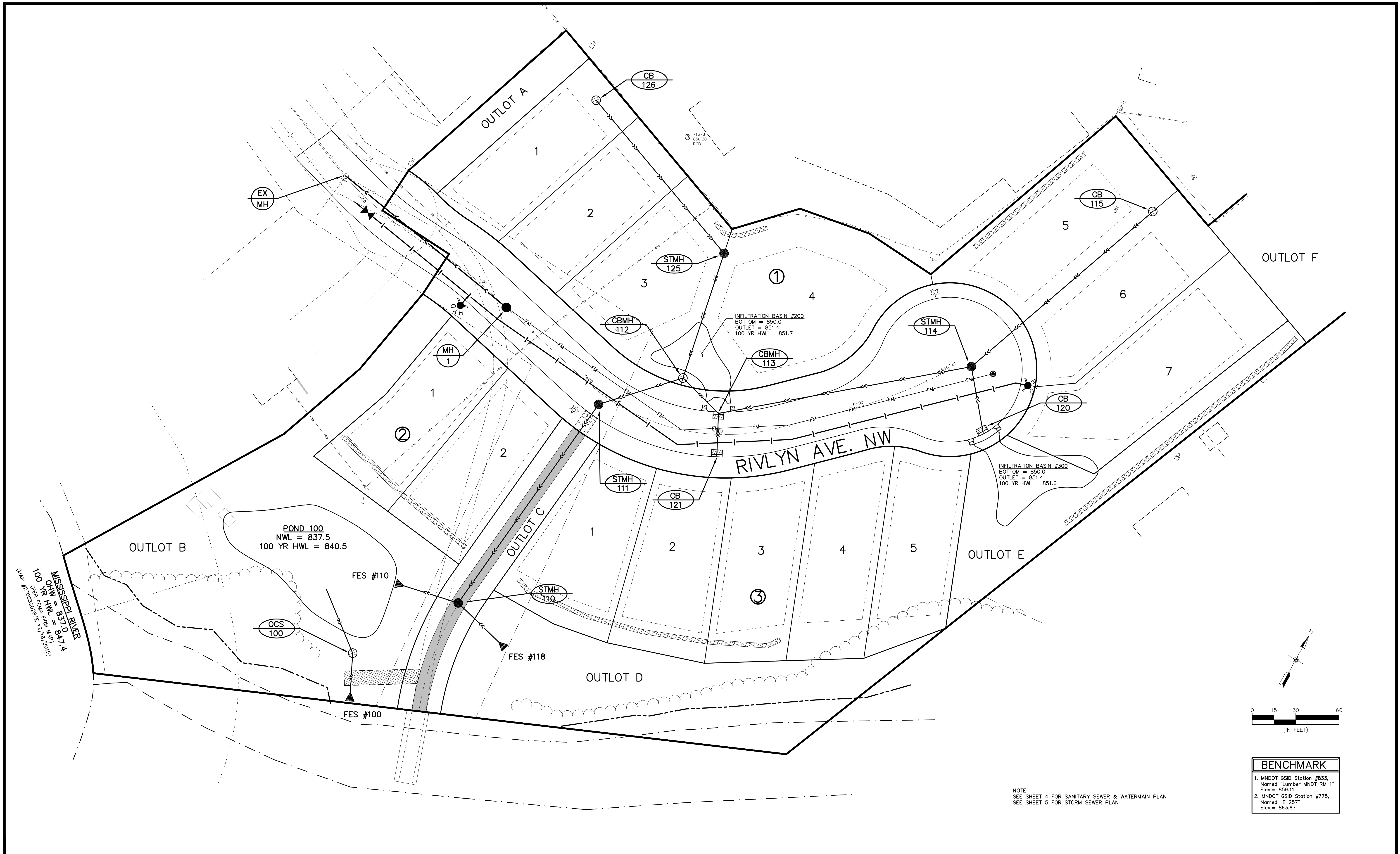


Know what's below.  
Call before you dig.

BENCHMARK	
1.	MNDOT GSD Station #833, Named "Lumber MNDT RM 1" Elev.= 859.11
2.	MNDOT GSD Station #775, Named "E 257" Elev.= 863.67

The subsurface utility information shown on this plan is utility Quality Level D. This quality level was determined according to the guidelines of OI/ASCE 38-02, entitled "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data."

Save Date: 07/26/19 F:\j08617801 - 782017802 - Highway 10 ramsey\cad\_c3d\engineering\final plans\utility\7802\_cover.dwg



NOTE:  
SEE SHEET 4 FOR SANITARY SEWER & WATERMAIN PLAN  
SEE SHEET 5 FOR STORM SEWER PLAN

BENCHMARK	
1.	MNDOT GSD Station #833, Named "Lumber MNDT RM 1" Elev. = 859.11
2.	MNDOT GSD Station #775, Named "E 257" Elev. = 863.67



3890 Pheasant Ridge Drive NE, Suite 100  
Blaine, MN 55449  
Phone: (763) 489-7900  
Fax: (763) 489-7959  
www.carlsonmccain.com

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Print Name: Brian J. Krystofiak, P.E.  
Signature: *Brian J. Krystofiak*  
Date: 7/26/19 License #: 25063

Drawn: ADB  
Designed: BJK  
Date: 7/26/19

**VILLAGE BANK**  
9298 Central Avenue NE  
Blaine, MN 55434

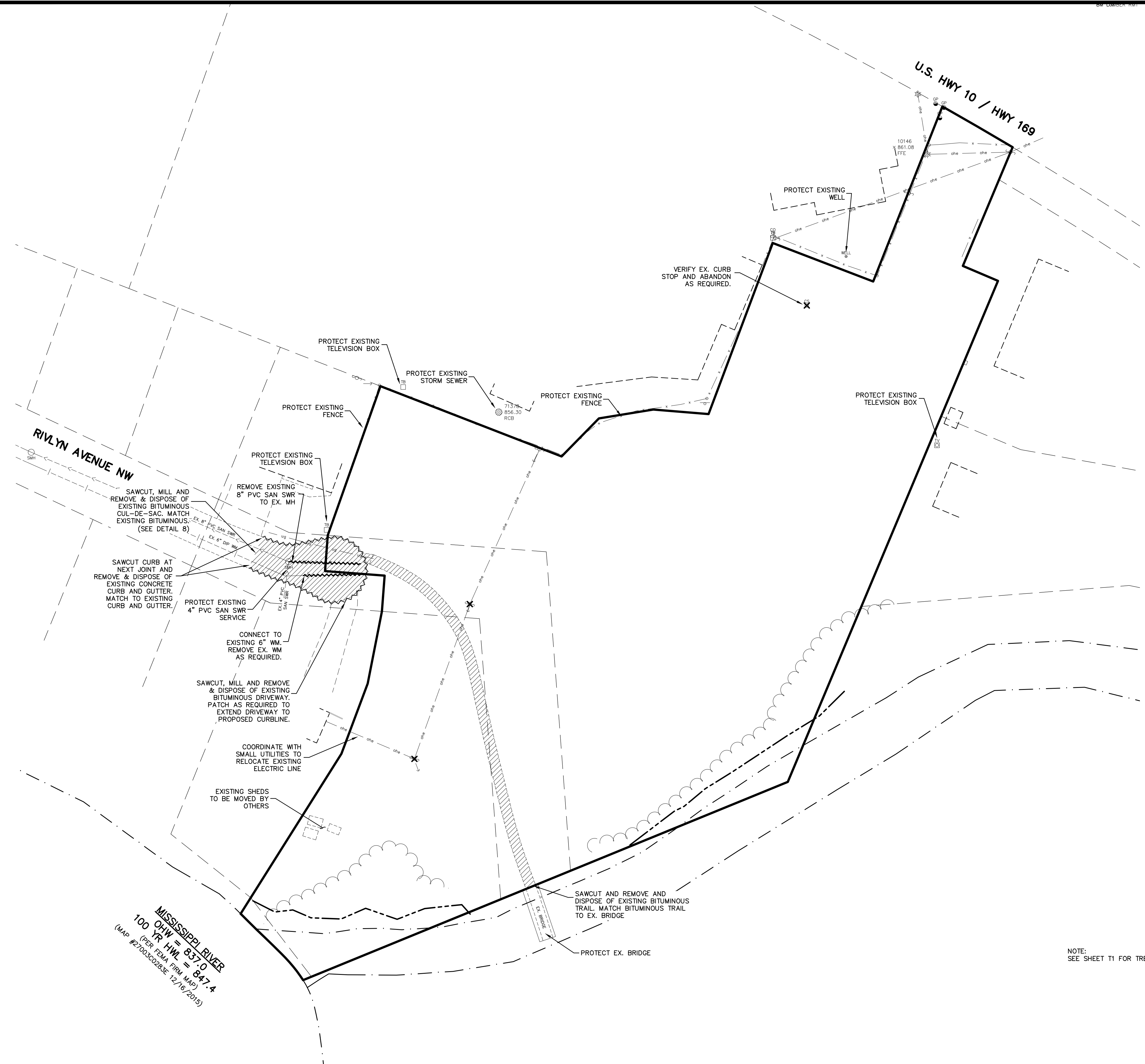
**RIVER WALK VILLAGE**  
Ramsey, Minnesota

**INDEX**

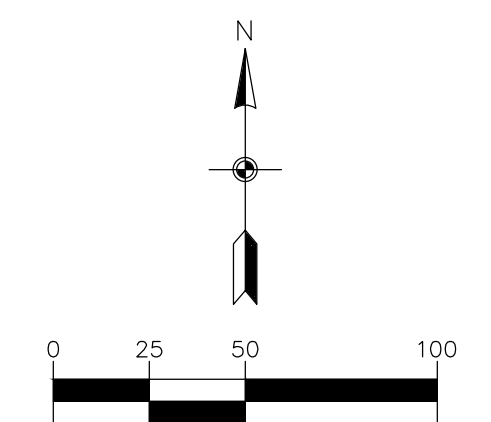
Save Date: 07/26/19 | F:\08617801 - 782017802 - Highway 10 ramsey\cad\_c3d\engineering\final\plans\utility\7802\_cover.dwg

**REMOVALS PLAN LEGEND**

	EXISTING	REMOVAL
LIGHT POLE		✕
SANITARY MANHOLE		✕
MISCELLANEOUS SIGN		✕
EXISTING SPOT ELEVATION	1,0000.0	(SEE TREE PRESERVATION PLAN)
EXISTING TREE		✕
TELEVISION BOX		✕
FIRE HYDRANT		✕
FLUSHING HYDRANT		✕
GATE VALVE		✕
CLEANOUT		✕
ELECTRIC BOX		✕
GAS METER		✕
CATCH BASIN		✕
RAIN GUARDIAN		✕
ELECTRIC METER		✕
TELEPHONE BOX		✕
UTILITY POLE		✕
FLARED END SECTION		✕
STORM MANHOLE		✕
SERVICE		✕
SOIL BORING/TEST HOLE		✕
RETAINING WALL		
WATERMAIN		
SANITARY SEWER		
FORCEMAIN		
STORM SEWER		
PROPERTY LINE		
SETBACK LINE		
CURB		
WATER LINE		
WETLAND		
DITCH		
UNDERGROUND TELEPHONE		
UNDERGROUND ELECTRIC		
UNDERGROUND GAS		
UNDERGROUND FIBEROPTIC		
FENCE		
OVERHEAD ELECTRIC		
CONCRETE SURFACE		
BITUMINOUS SURFACE		



NOTE:  
SEE SHEET T1 FOR TREE REMOVALS



BENCHMARK	
1. MNDOT GSD Station #833, Named "Lumber MNDT RM 1" Elev. = 859.11	
2. MNDOT GSD Station #775, Named "E 257" Elev. = 863.67	



3890 Pheasant Ridge Drive NE, Suite 100  
Blaine, MN 55449  
Phone: (763) 489-7900  
Fax: (763) 489-7959  
www.carlsonmccain.com

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Print Name: Brian J. Krystofiak, P.E.  
Signature: *Brian J. Krystofiak*  
Date: 7/26/19 License #: 25063

Drawn: ADB  
Designed: BJK  
Date: 7/26/19

**VILLAGE BANK**  
9298 Central Avenue NE  
Blaine, MN 55434

**RIVER WALK VILLAGE**  
Ramsey, Minnesota

**REMOVALS PLAN**

Save Date: 07/26/19 | F:\08617801 - 782017802 - Highway 10 ramsey\cad\_c3d\engineering\final plans\utility\7802\_remove.dwg

**LEGEND**

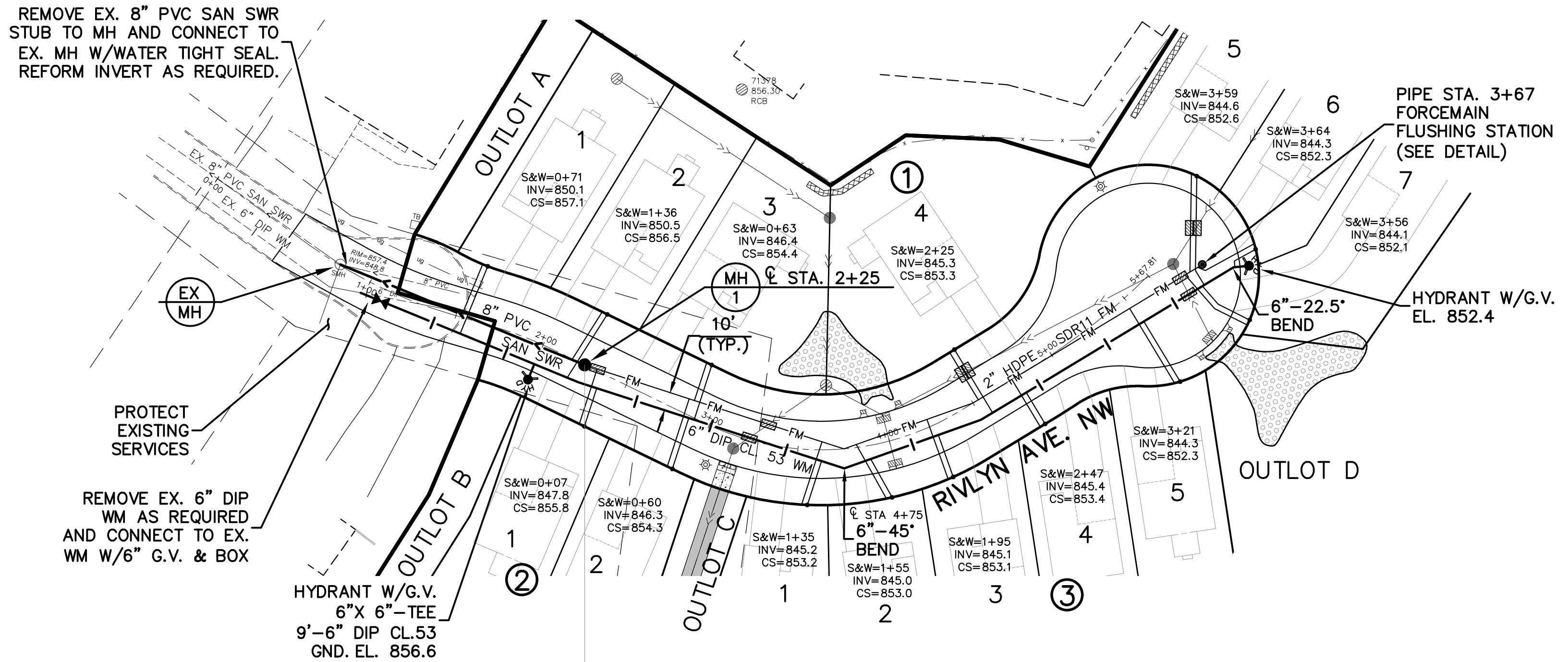
	EXISTING	PROPOSED
SANITARY MANHOLE		
FIRE HYDRANT		
GATE VALVE		
CATCH BASIN		
FLARED END SECTION		
STORM MANHOLE		
SERVICE WATERMAIN		
SANITARY SEWER		
FORCEMAIN		
STORM SEWER		
PROPERTY LINE		
SETBACK LINE		
CURB		
CONCRETE SURFACE		
INSULATION		
		PLAN PROFILE

REMOVE EX. 8" PVC SAN SWR STUB TO MH AND CONNECT TO EX. MH W/WATER TIGHT SEAL. REFORM INVERT AS REQUIRED.

REMOVE EX. 6" DIP WM AS REQUIRED AND CONNECT TO EX. WM W/6" G.V. & BOX

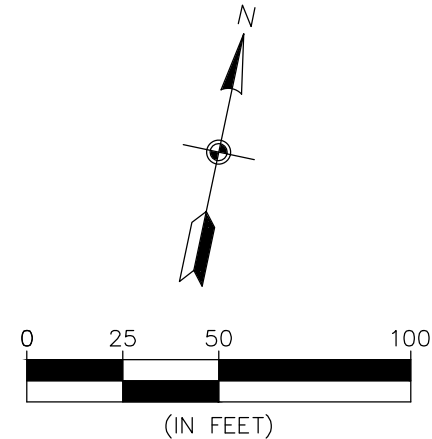
PROTECT EXISTING SERVICES

HYDRANT W/G.V. 6"X 6"-TEE 9'-6" DIP CL.53 GND. EL. 856.6



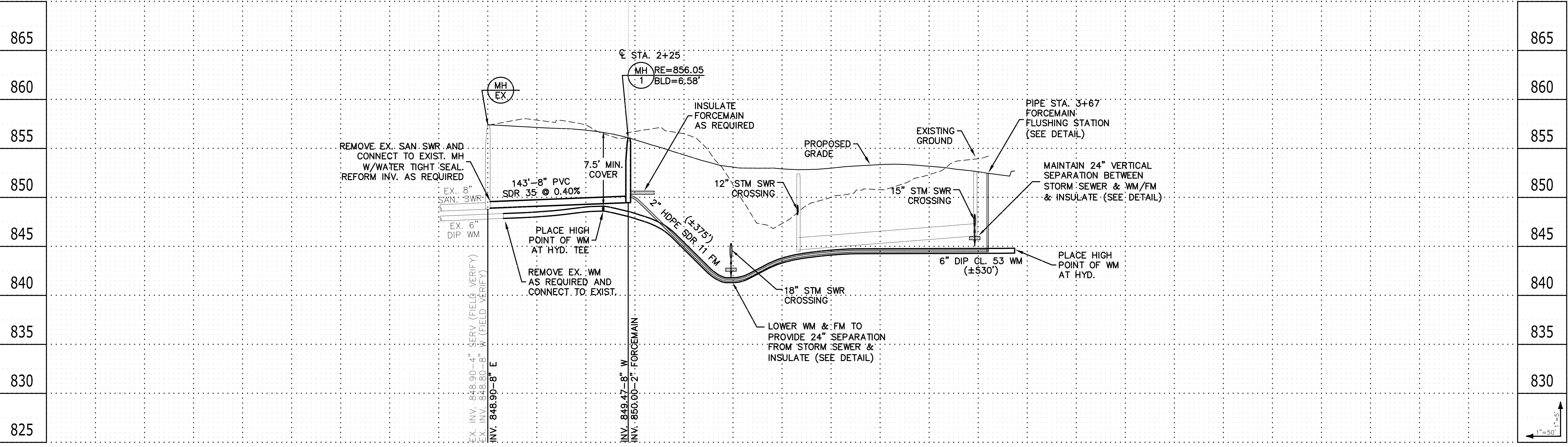
**GENERAL NOTES:**

- SANITARY SEWER SERVICES FOR BLOCK 1 LOTS 1&2 SHALL BE 4" PVC SDR 26.
- SANITARY SEWER SERVICES FOR BLOCK 1 LOTS 3-7, BLOCK 2 LOTS 1-2 AND BLOCK 3 LOTS 1-5 SHALL BE 1-1/4" HDPE IPS SDR 11. THOSE LOTS WILL HAVE A DH071-57 INDOOR GRINDER PUMP INSTALLED AT THE TIME OF HOME CONSTRUCTION.
- WATER SERVICES SHALL BE 1" DIA. TYPE K COPPER WITH 7.5' MINIMUM COVER.
- SANITARY SEWER SERVICE WYES ARE STATIONED FROM THE DOWN STREAM MANHOLE.
- SANITARY SEWER INVERTS ARE SHOWN AT THE CURB STOP.
- SANITARY SEWER & WATER SERVICES SHALL BE CONSTRUCTED TO THE R/W.
- SLEEVES ARE NOT PERMITTED FOR JOINING WATERMAIN. ALLOW ROOM TO DEFLECT PIPE TO JOIN PIPE AT BELLS OR FITTINGS (EXCLUDING SLEEVES).
- THE SEWER AND WATER SERVICES FOR BLOCK 1 LOTS 4 & 5 SHALL BE LOWERED 2 FEET BELOW THE STORM SEWER AND INSULATED.
- THE SEWER SERVICES FOR BLOCK 1 LOT 7, BLOCK 2 LOTS 1-2 AND BLOK 3 LOTS 1-5 SHALL BE LOWERED 2' BELOW THE WATERMAIN.
- THE WATER SERVICES FOR BLOCK 1 LOTS 1-2 & 4-5 SHALL BE LOWERED 2 FEET BELOW THE FORCEMAIN/SANITARY SEWER.



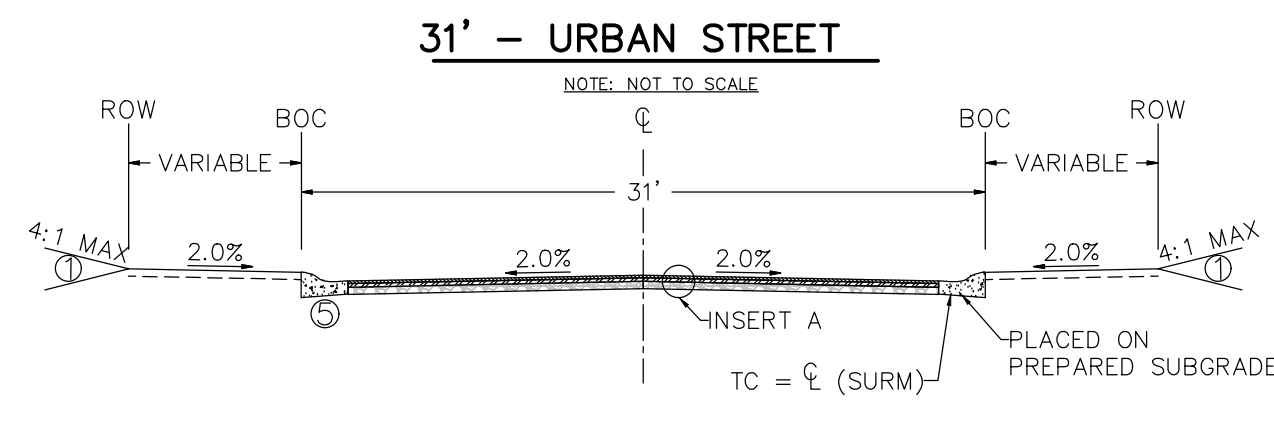
BENCHMARK	
1.	MNDOT GSD Station #833, Named "Lumber MNDT RM 1" Elev.= 859.11
2.	MNDOT GSD Station #775, Named "E 257" Elev.= 863.67

**RIVLYN AVENUE NW**

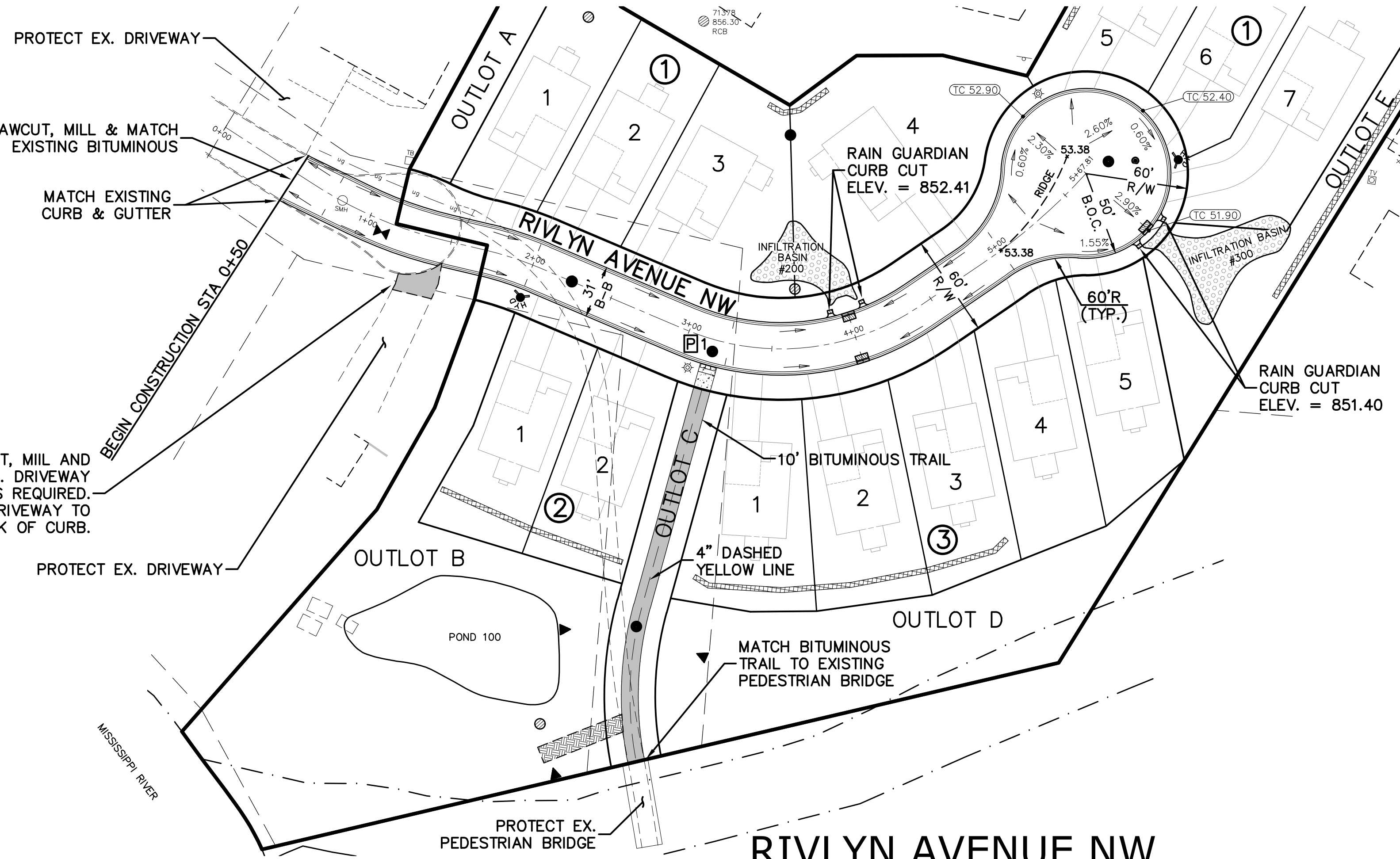
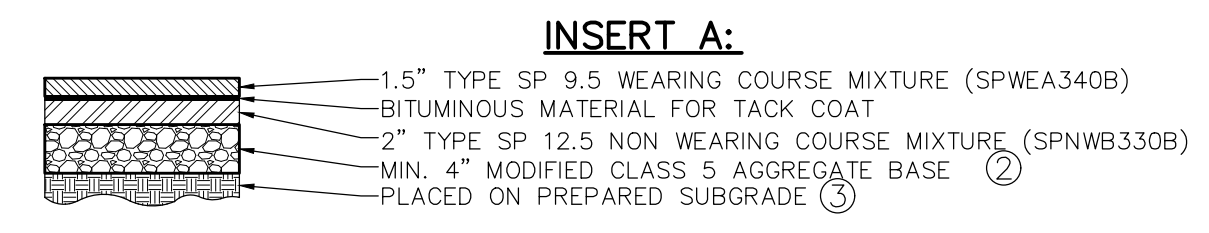


Save Date: 07/26/19 F:\jobs\7801 - 7820\7802 - highway 10 ramsey\cad\engineering\final plans\utility\7802\_utility.dwg





- REFERENCE NOTES:**
- GRADE TO MATCH EXISTING SURFACE. MINIMUM 4" COMMON TOPSOIL BORROW IN BOULEVARDS. (BLACK DIRT WITH NO MORE THAN 35% SAND)
  - CLASS 5 GRADATION IS MODIFIED PER CITY PLATE No. STR-26
  - CONTRACTOR SHALL SCARIFY AND COMPACT, ACCORDING TO THE SPECIFIED DENSITY METHOD, THE TOP 12 INCHES OF MATERIAL PRIOR TO PLACING ANY FILL MATERIALS OR CLASS 5 AGGREGATE BASE.
  - ALL SIDEWALKS SHALL BE 6" THICK, 6' WIDE, PLACED ON PREPARED SUBGRADE.
  - CONCRETE CURB AND GUTTER PER PLAN. SEE CITY PLATE No. STR-1.

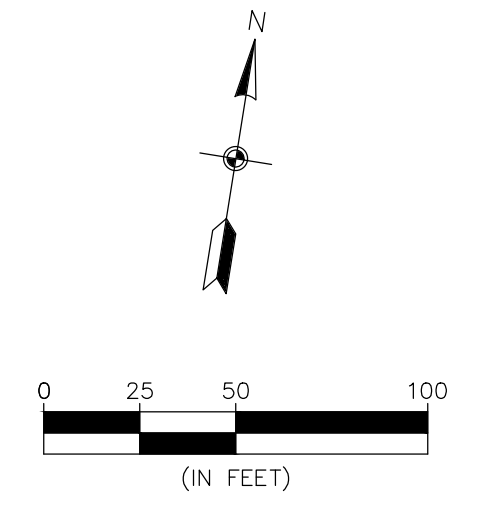


**☺ CURVE DATA (RIVLYN AVENUE NW)**

PC = 0+61.71	PC = 1+71.13	PC = 2+97.22	PC = 4+86.97
PT = 1+46.95	PT = 2+04.80	PT = 4+41.97	PT = 5+67.81
Δ = 19°29'46"	Δ = 9°43'33"	Δ = 57°12'34"	Δ = 13°35'22"
R = 250.52'	R = 198.35"	R = 144.97"	R = 340.85"
T = 43.04'	T = 16.88'	T = 79.05'	T = 40.61'
L = 85.2443'	L = 33.6700'	L = 144.7465'	L = 80.8443'

**CURB TYPES LEGEND**

- SURMOUNTABLE CONCRETE CURB & GUTTER
- DENOTES TOP OF CURB ELEVATION FOR THE TYPE OF CURB SHOWN.
- DENOTES PEDESTRIAN RAMP. (SEE DETAIL)

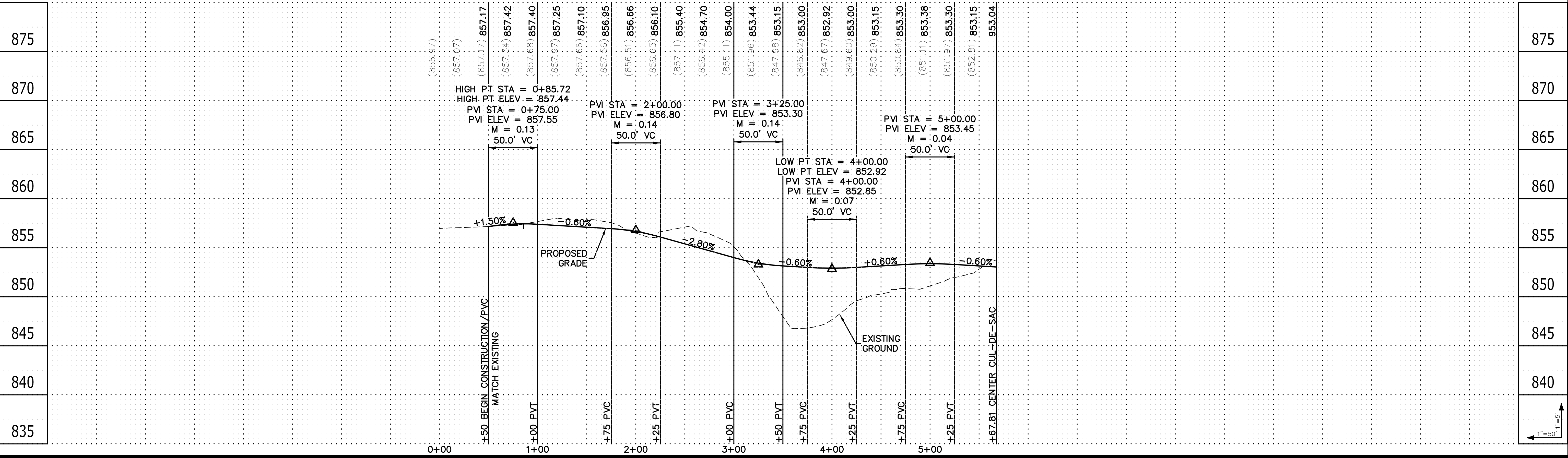


**LIGHTING NOTES:**

- PROPOSED LIGHT LOCATION.

**BENCHMARK**

- MNDOT GSD Station #833, Named "Lumber MNDT RM 1" Elev. = 859.11
- MNDOT GSD Station #775, Named "E 25" Elev. = 863.67



3890 Pheasant Ridge Drive NE, Suite 100  
Blaine, MN 55449  
Phone: (763) 489-7900  
Fax: (763) 489-7959  
www.carlsonmccain.com

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Print Name: Brian J. Krystofiak, P.E.  
Signature: *Brian J. Krystofiak*  
Date: 7/26/19 License #: 25063

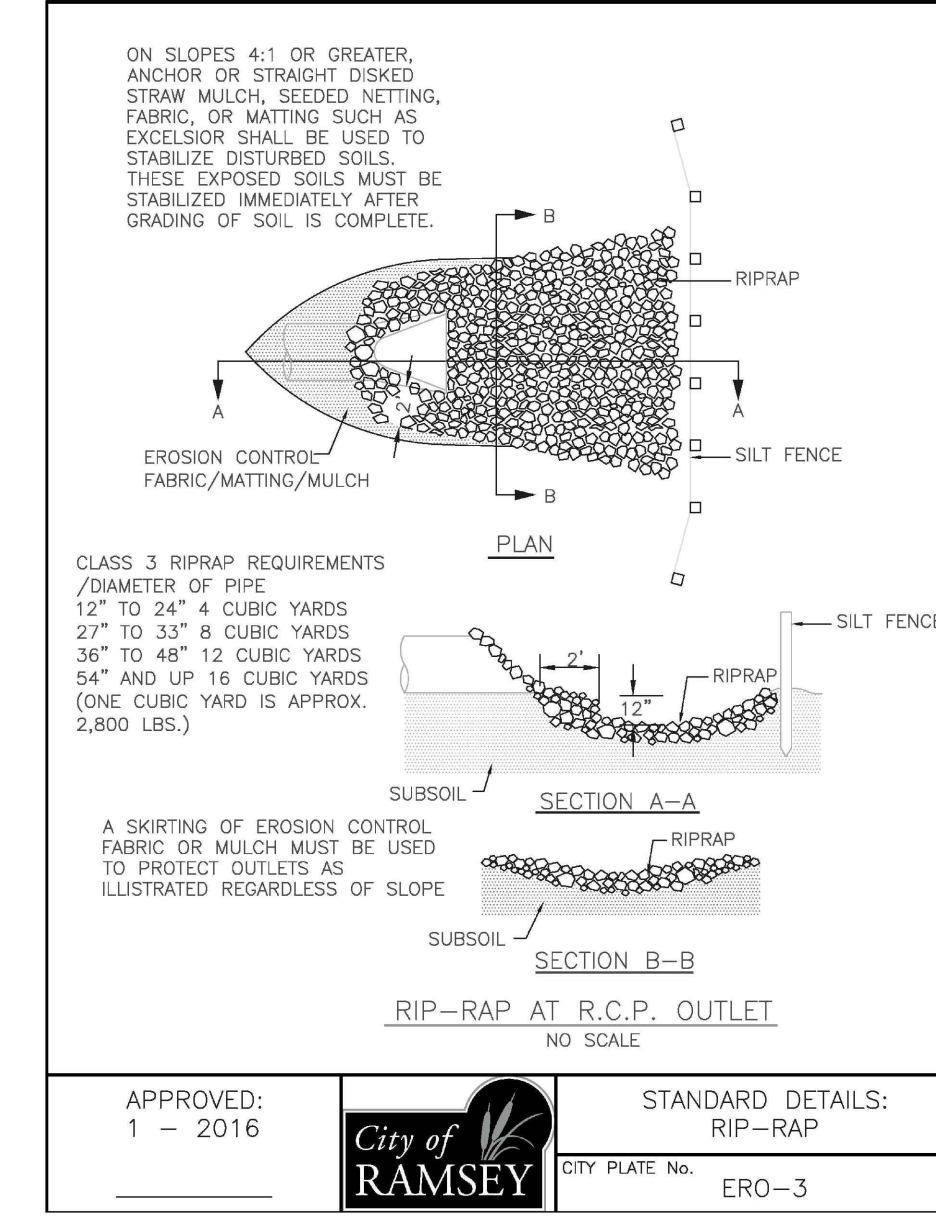
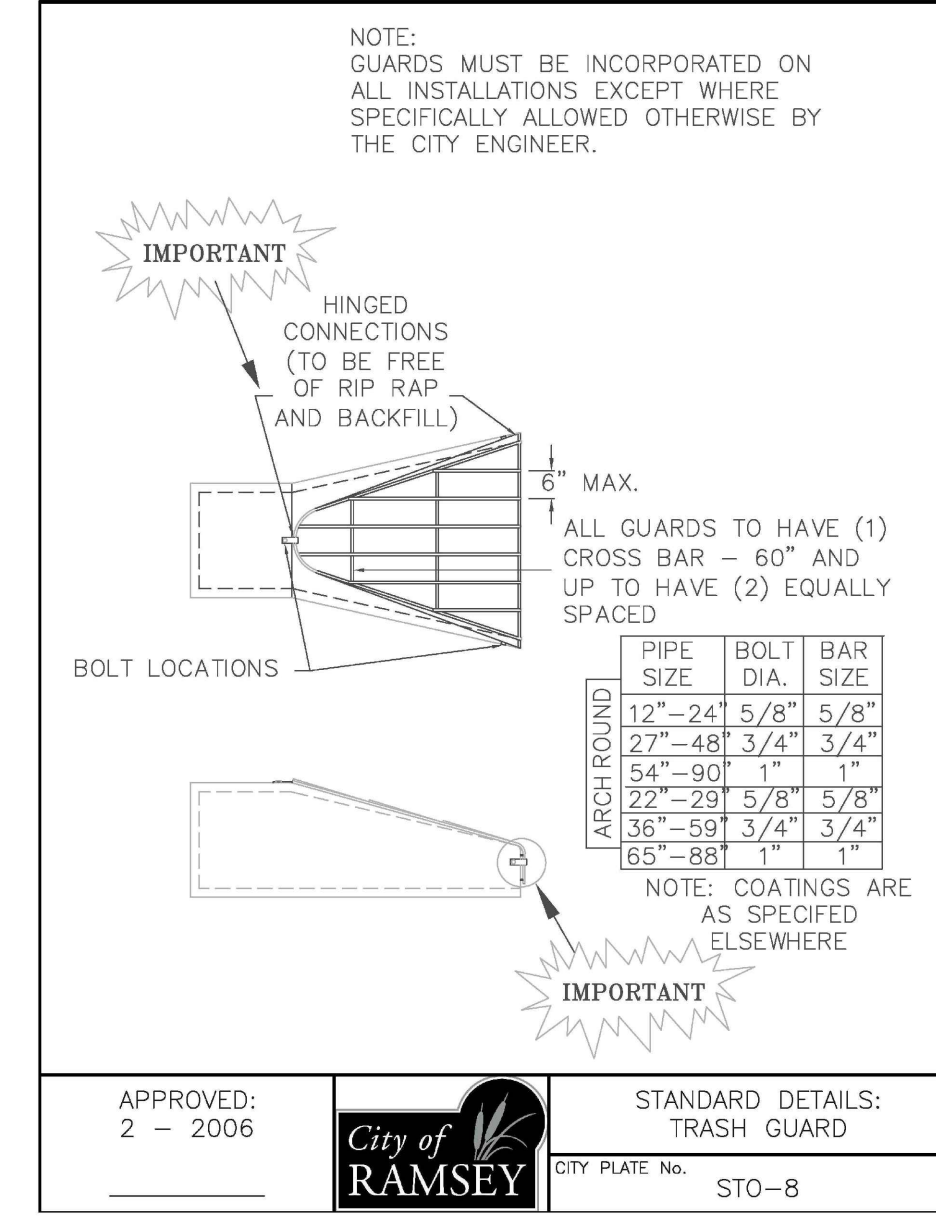
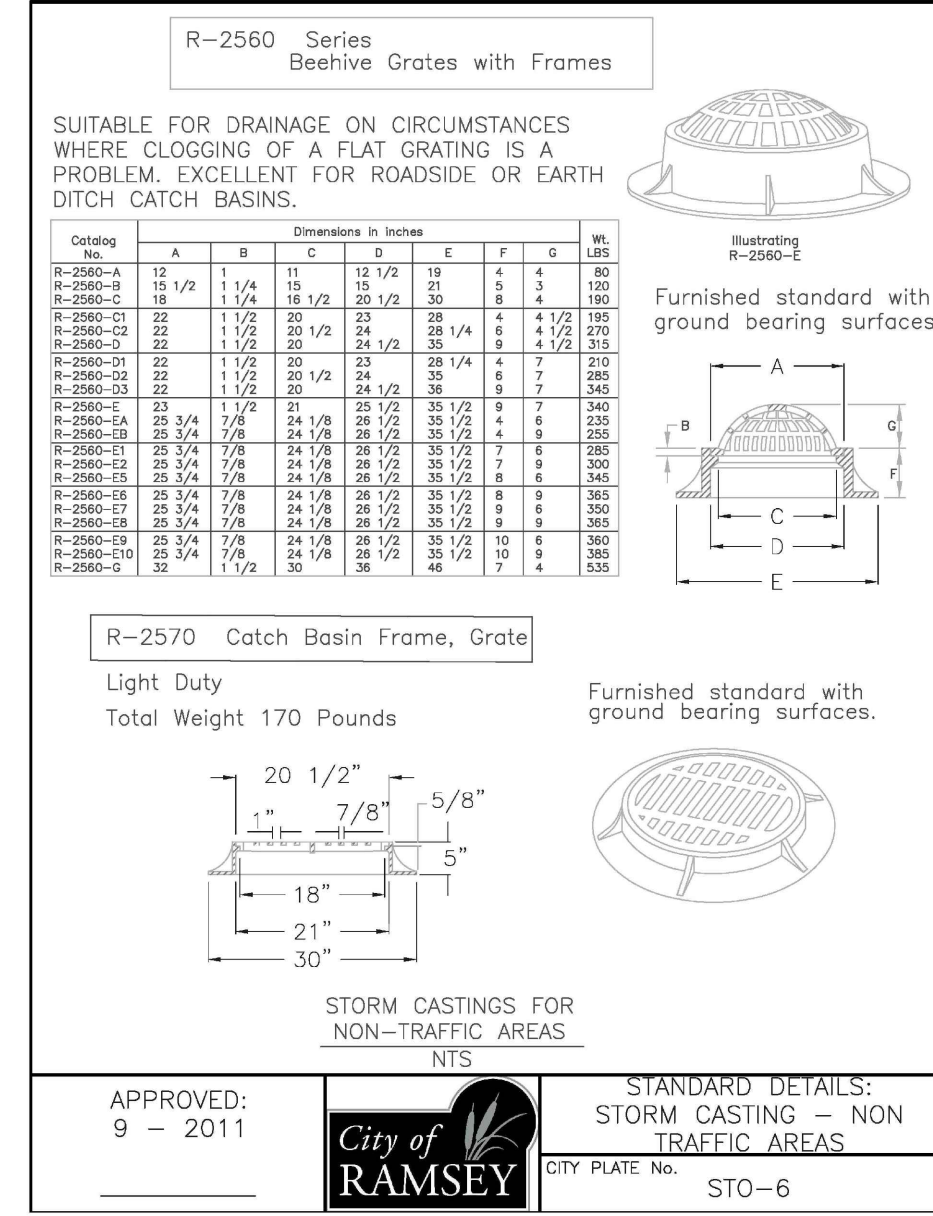
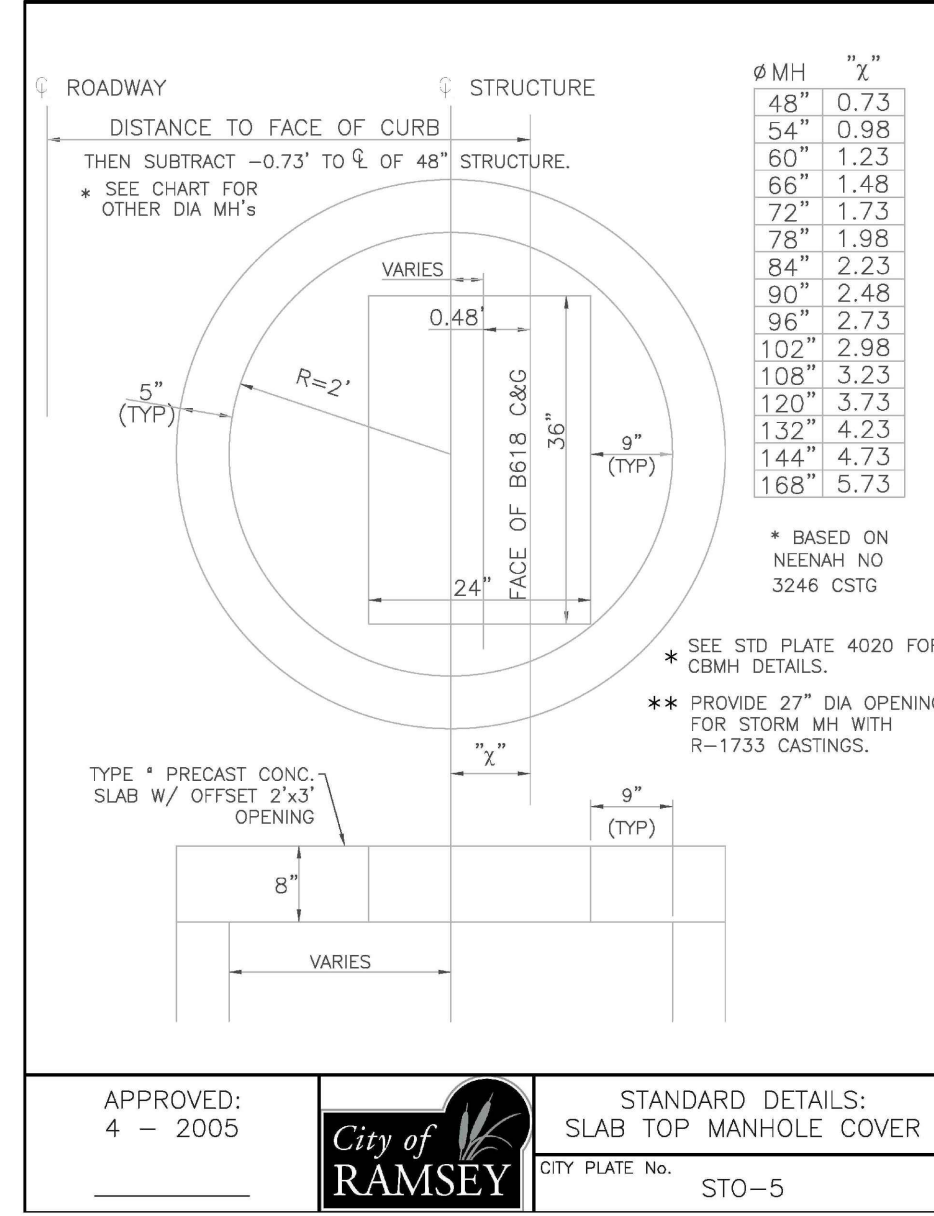
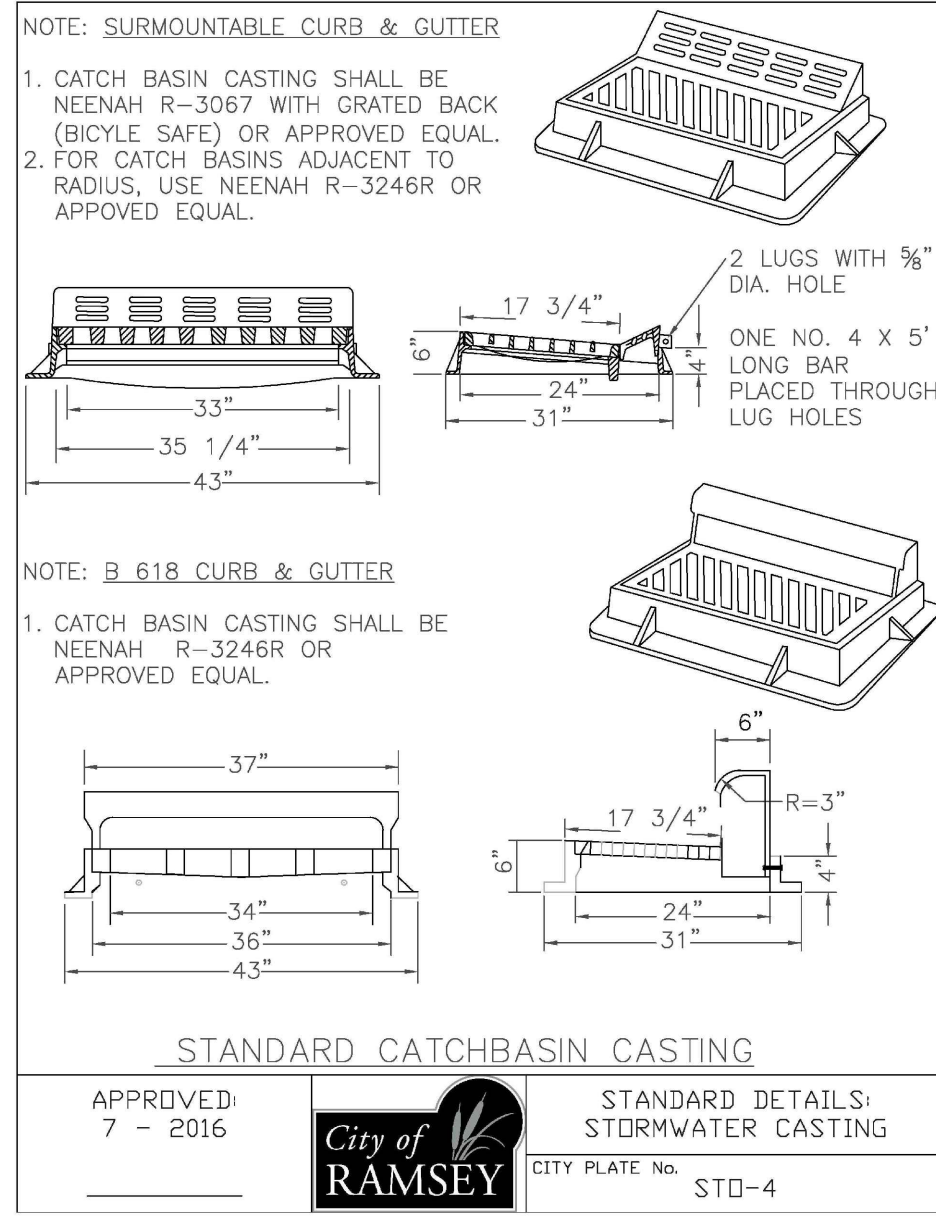
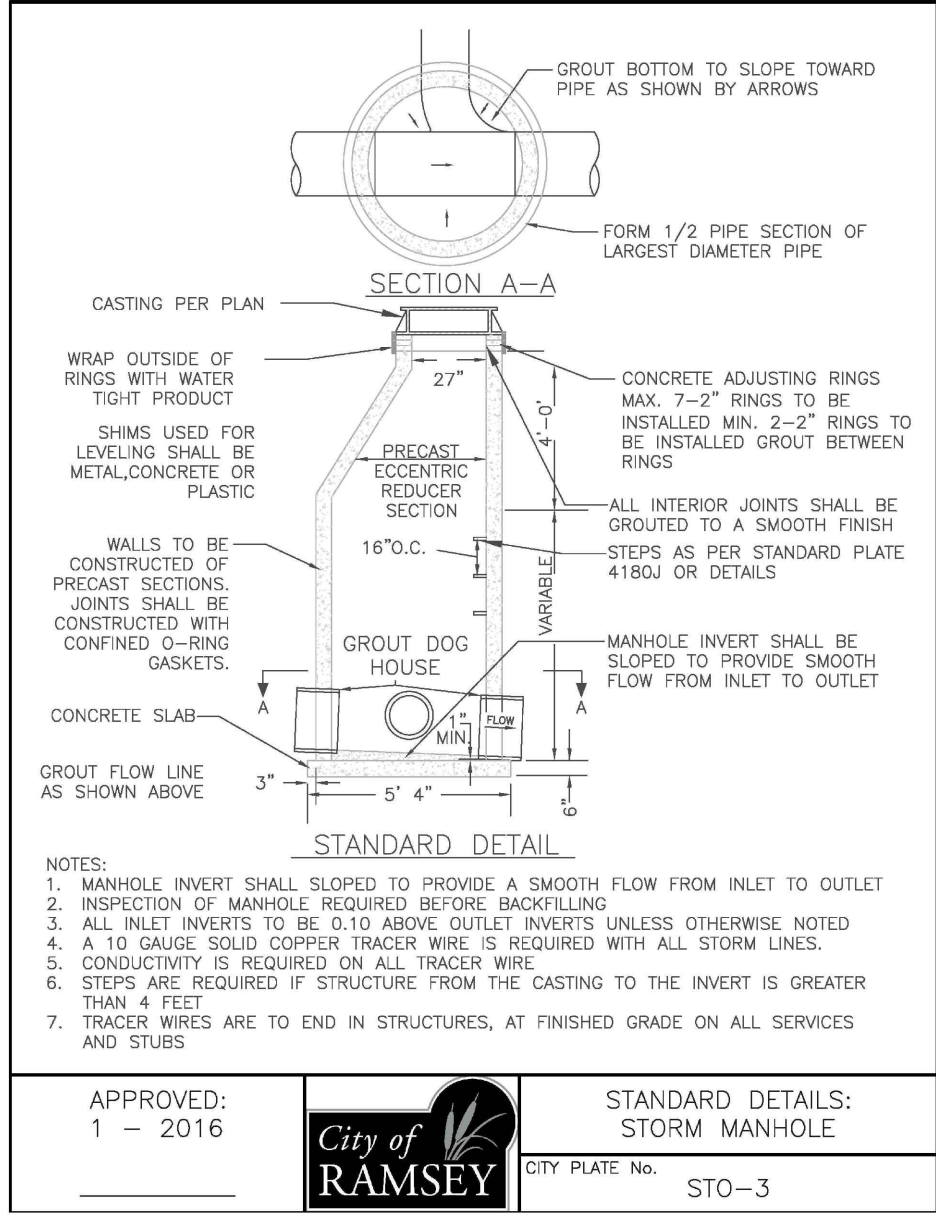
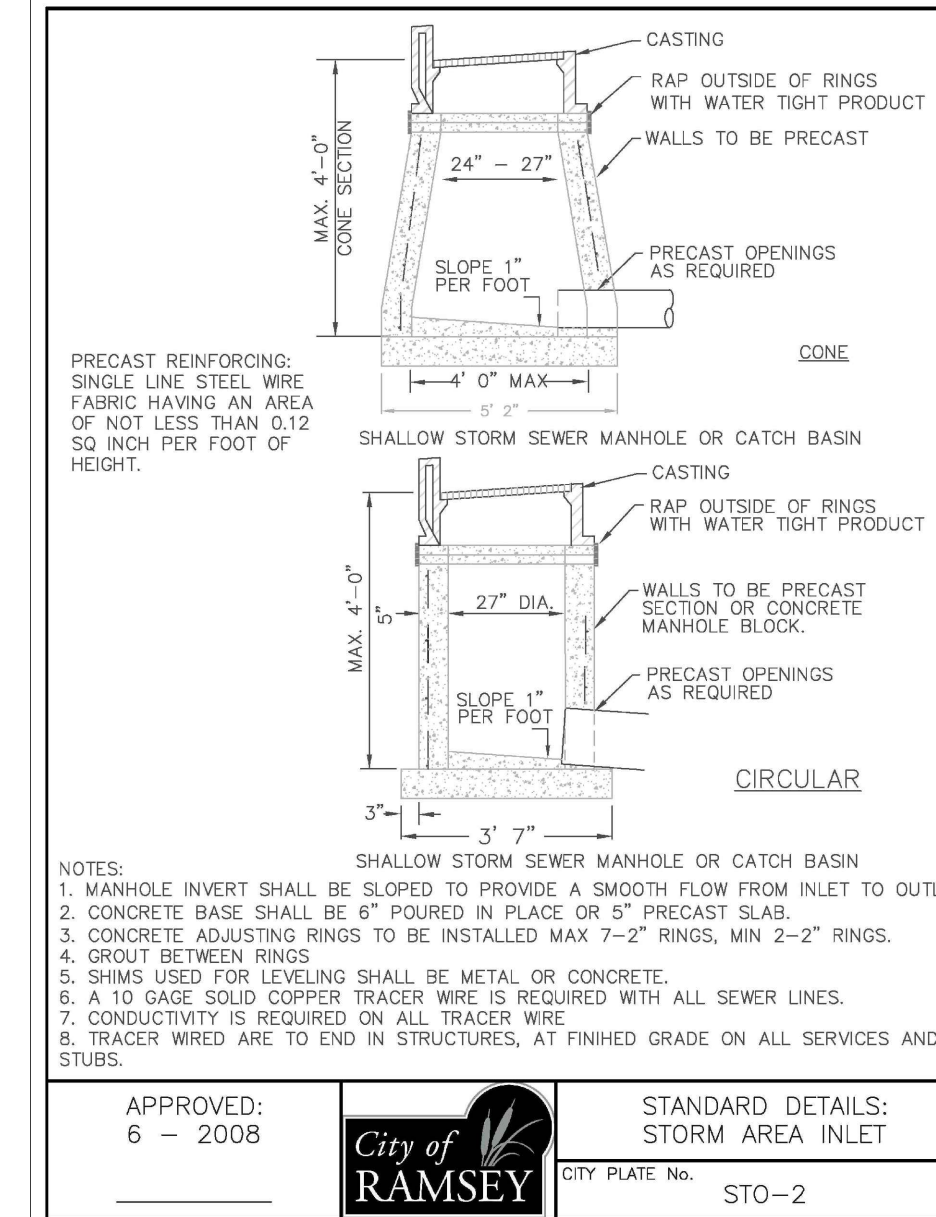
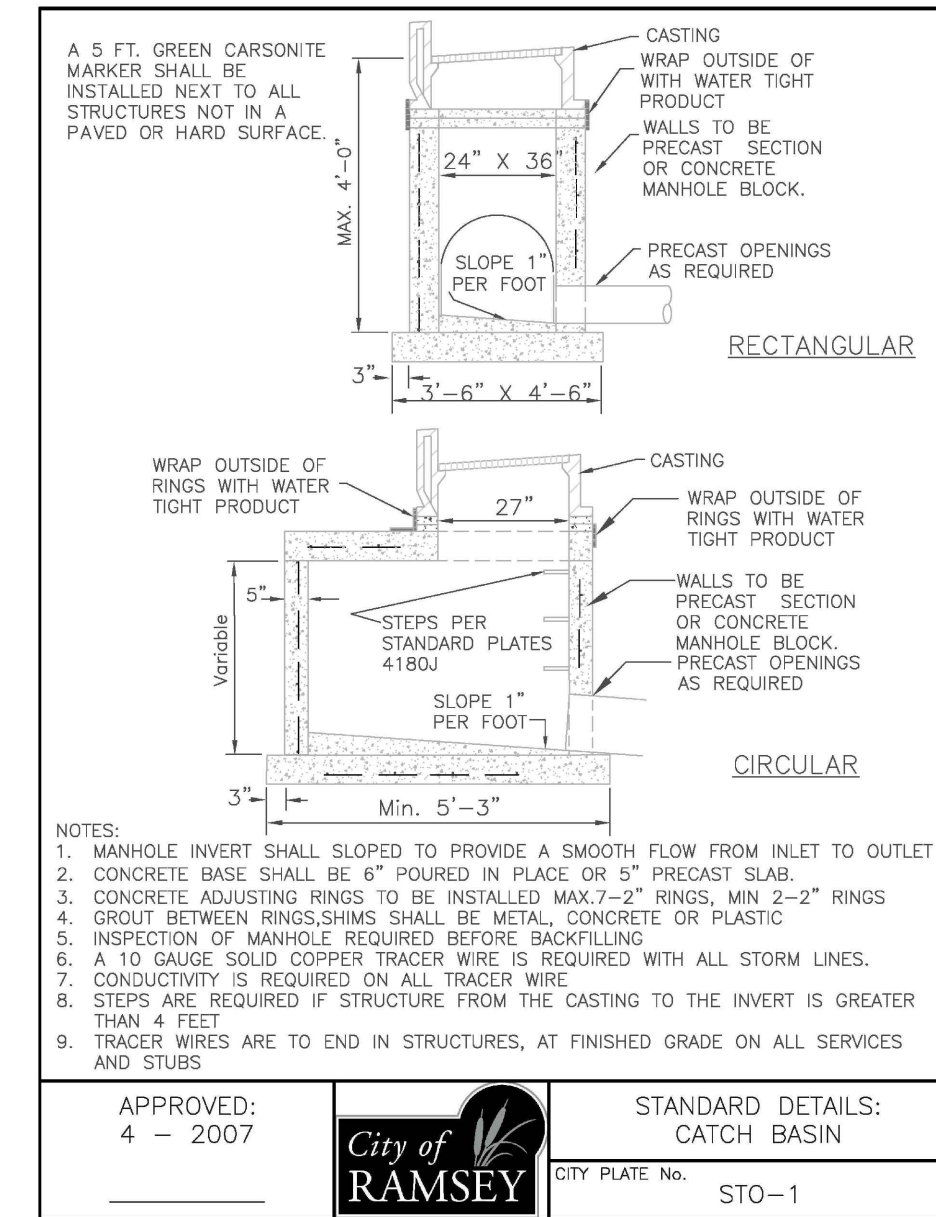
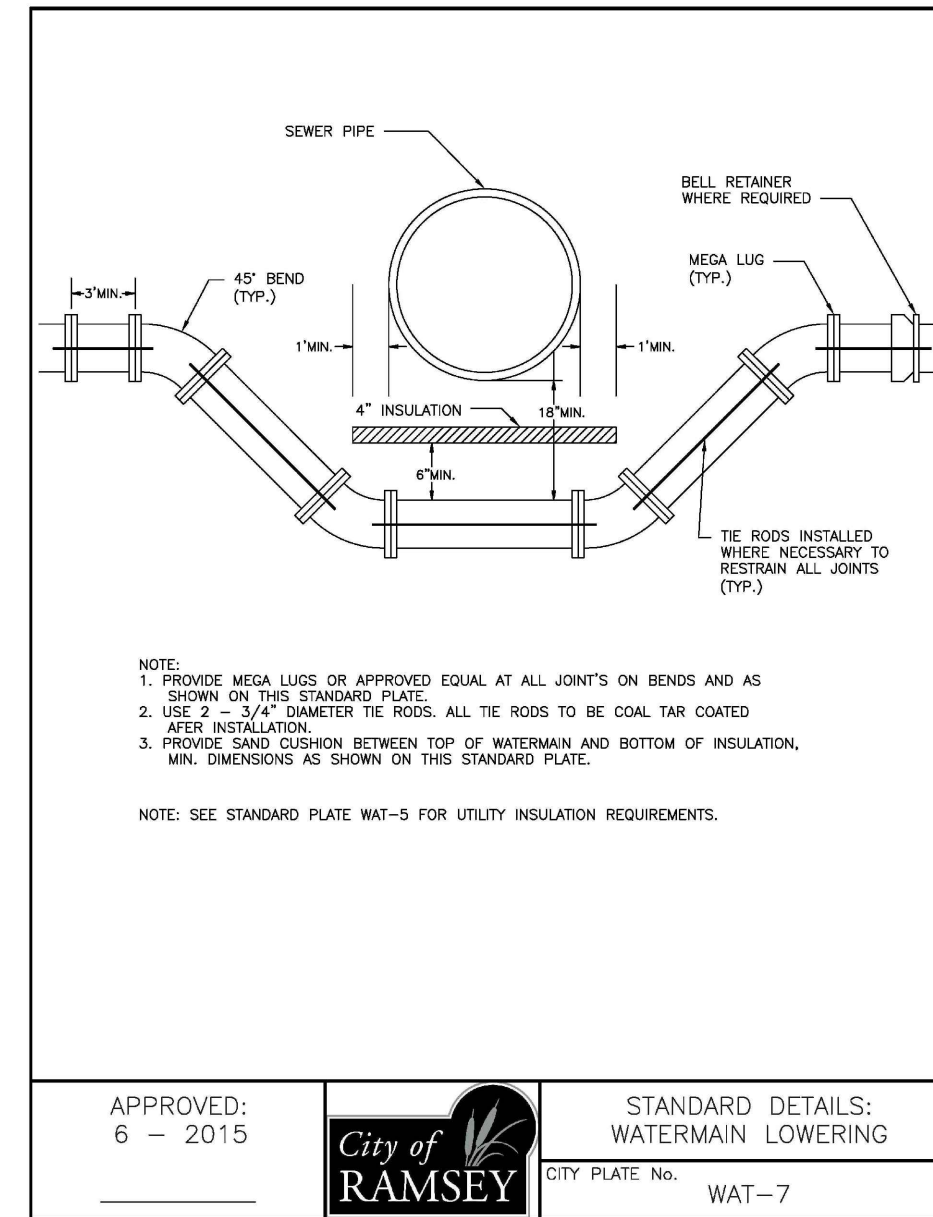
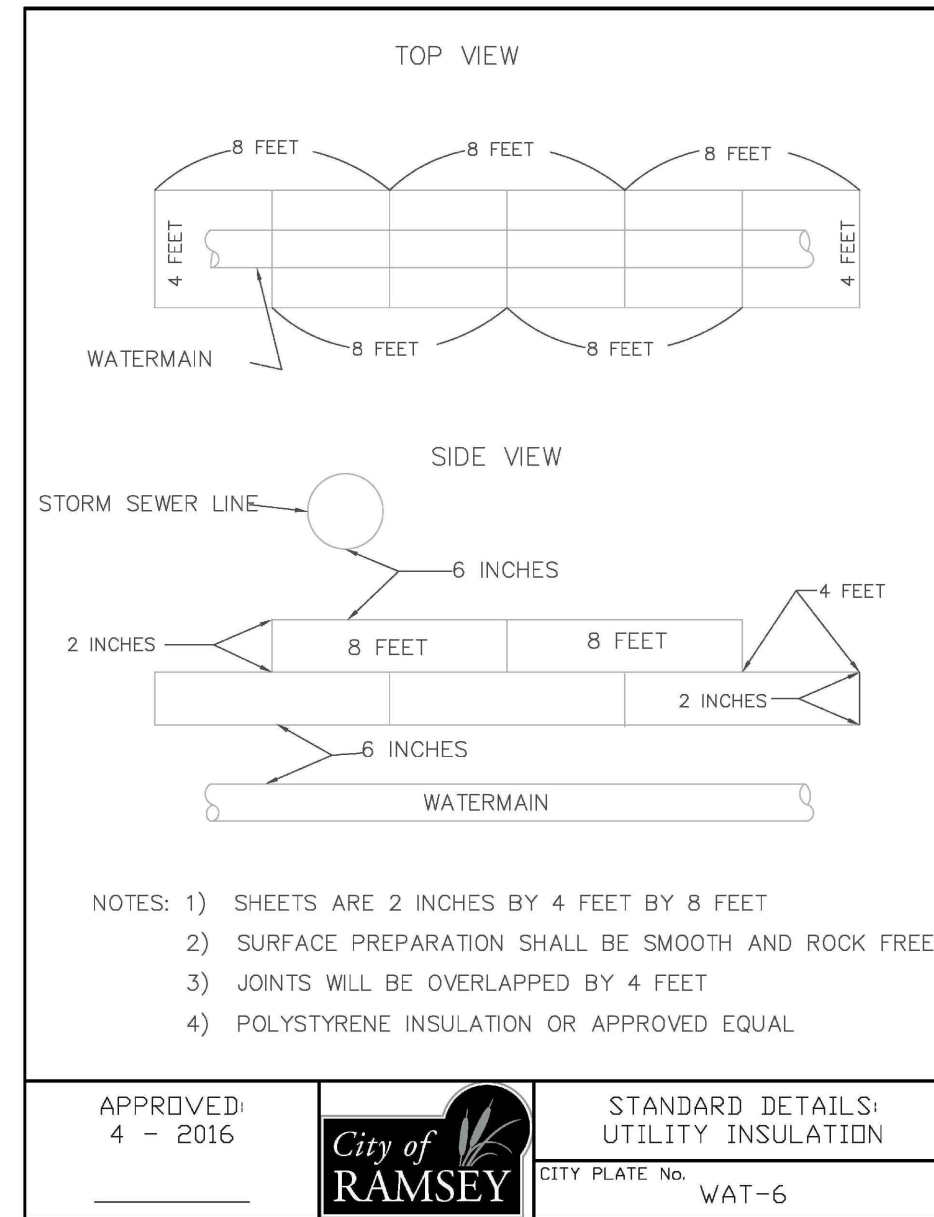
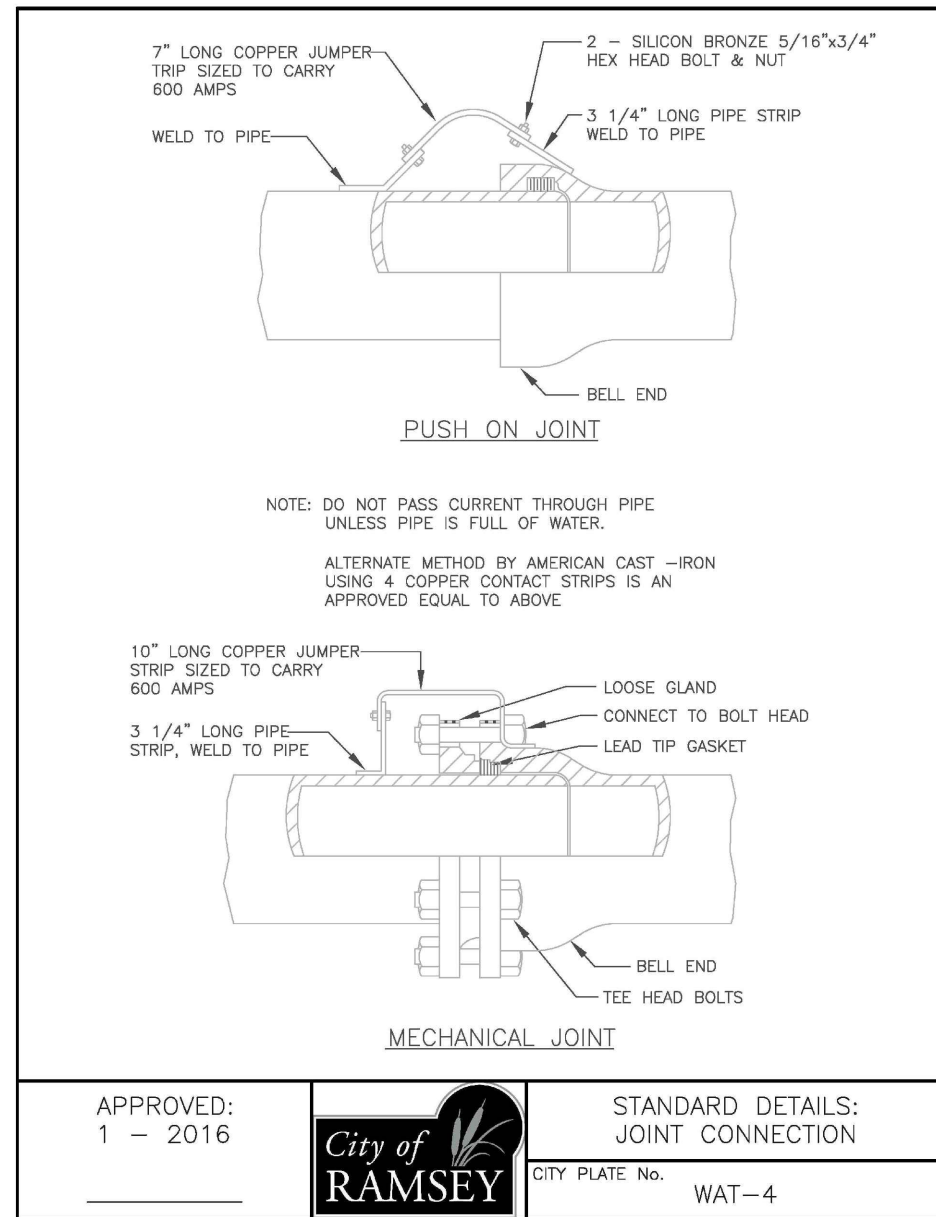
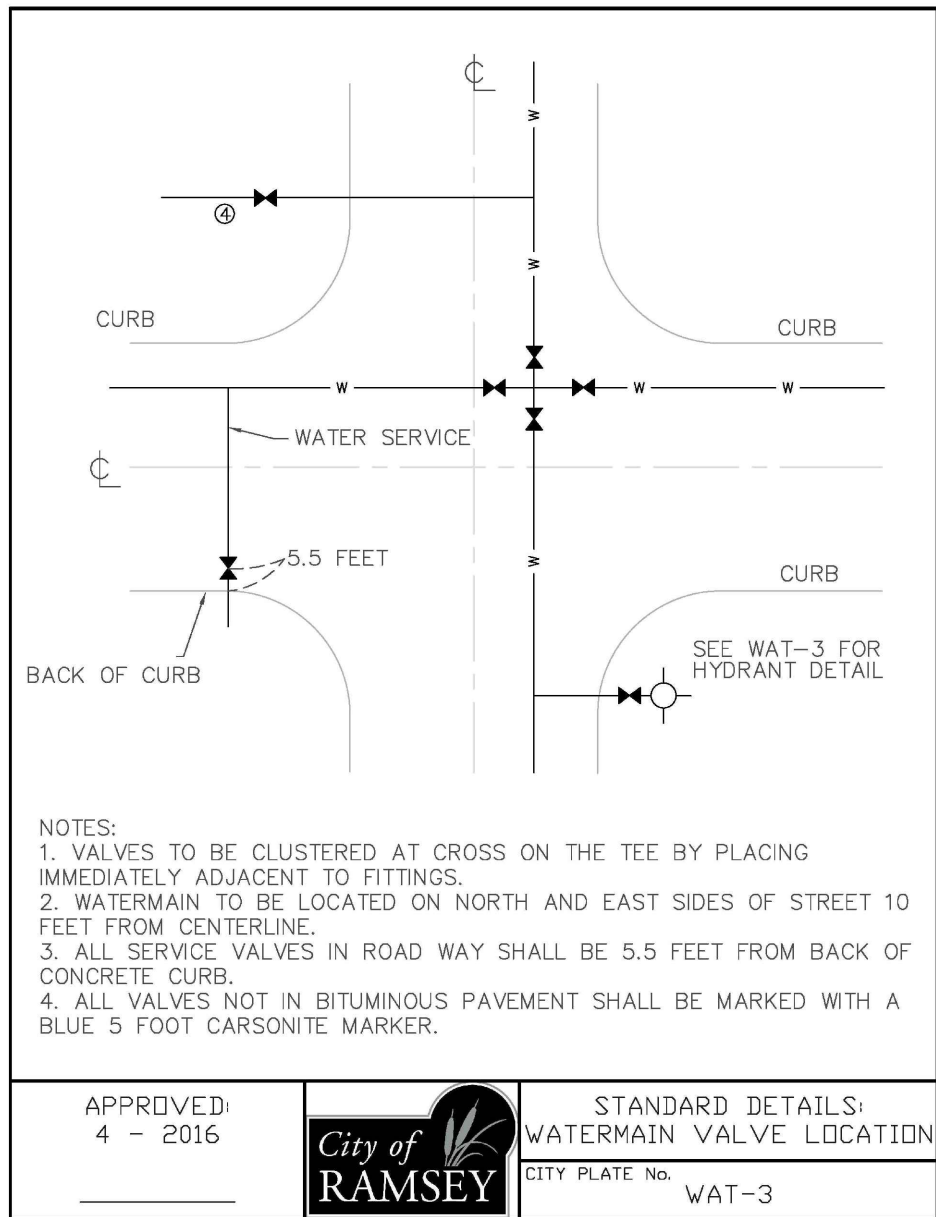
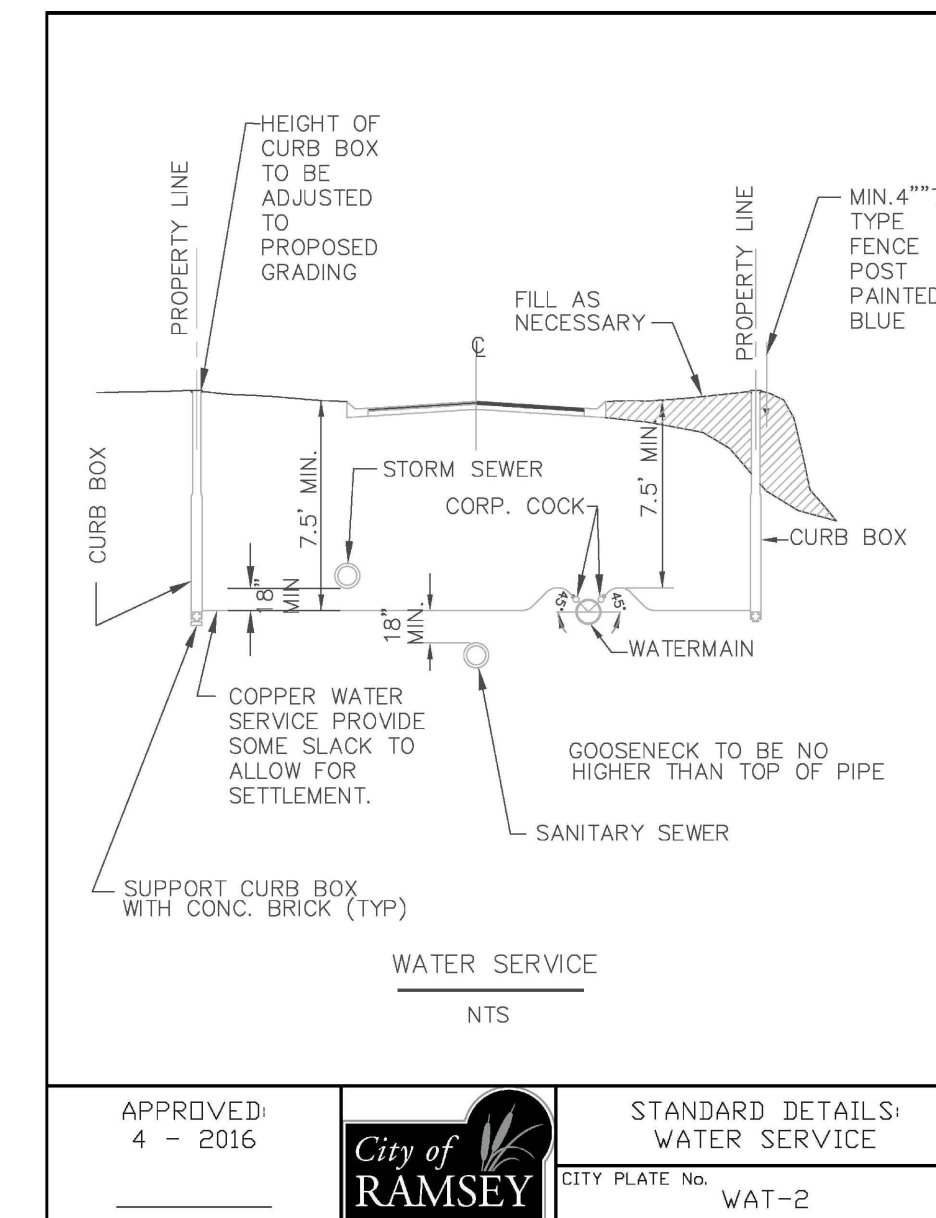
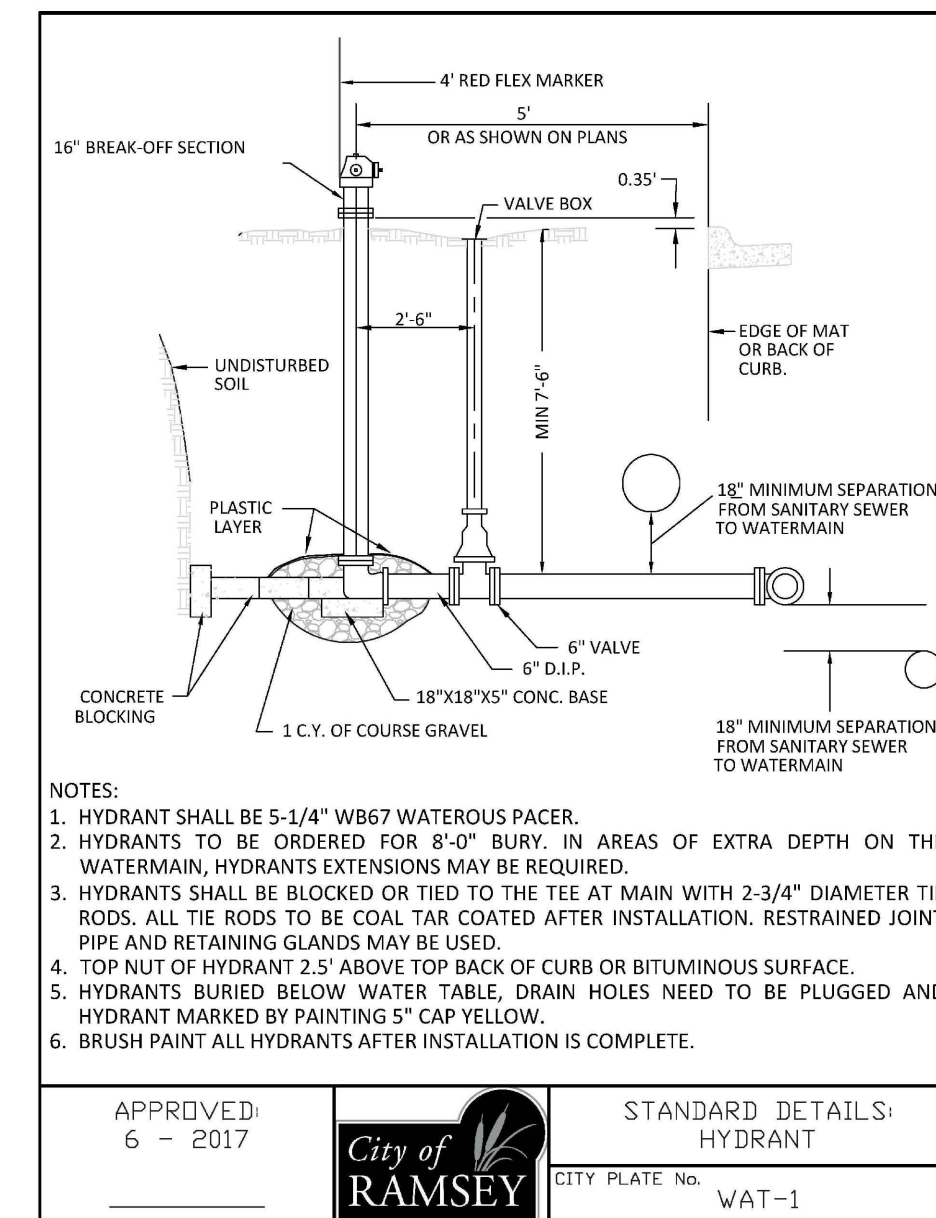
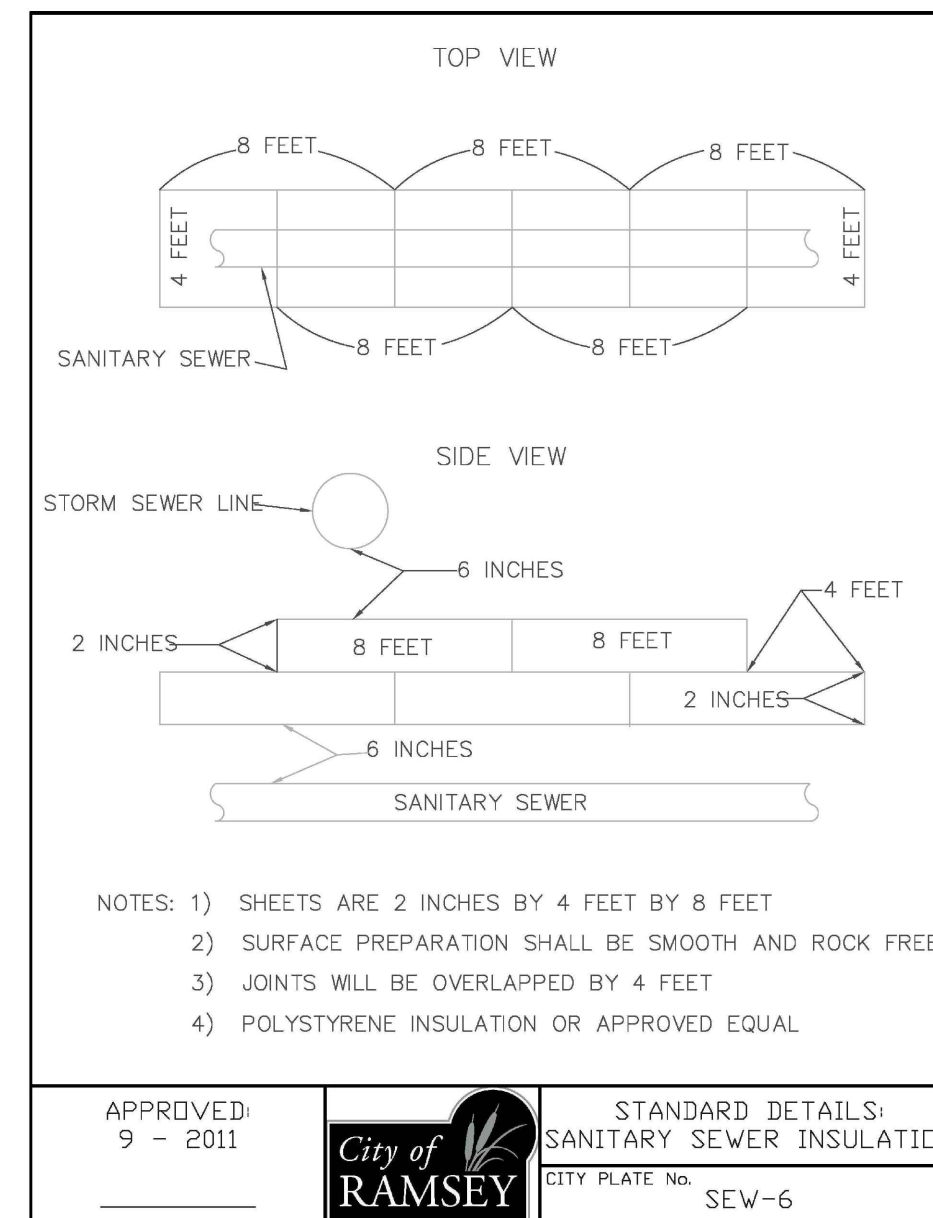
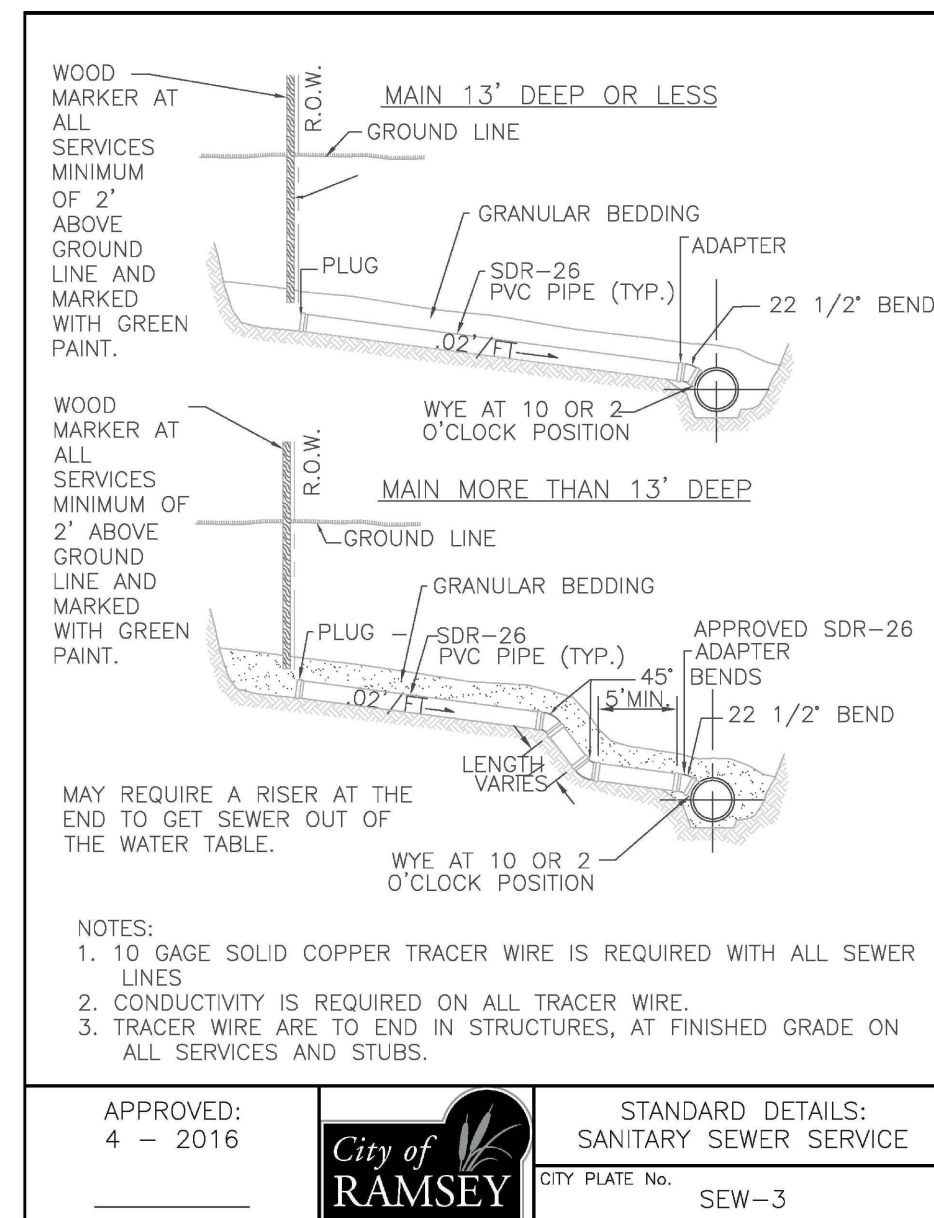
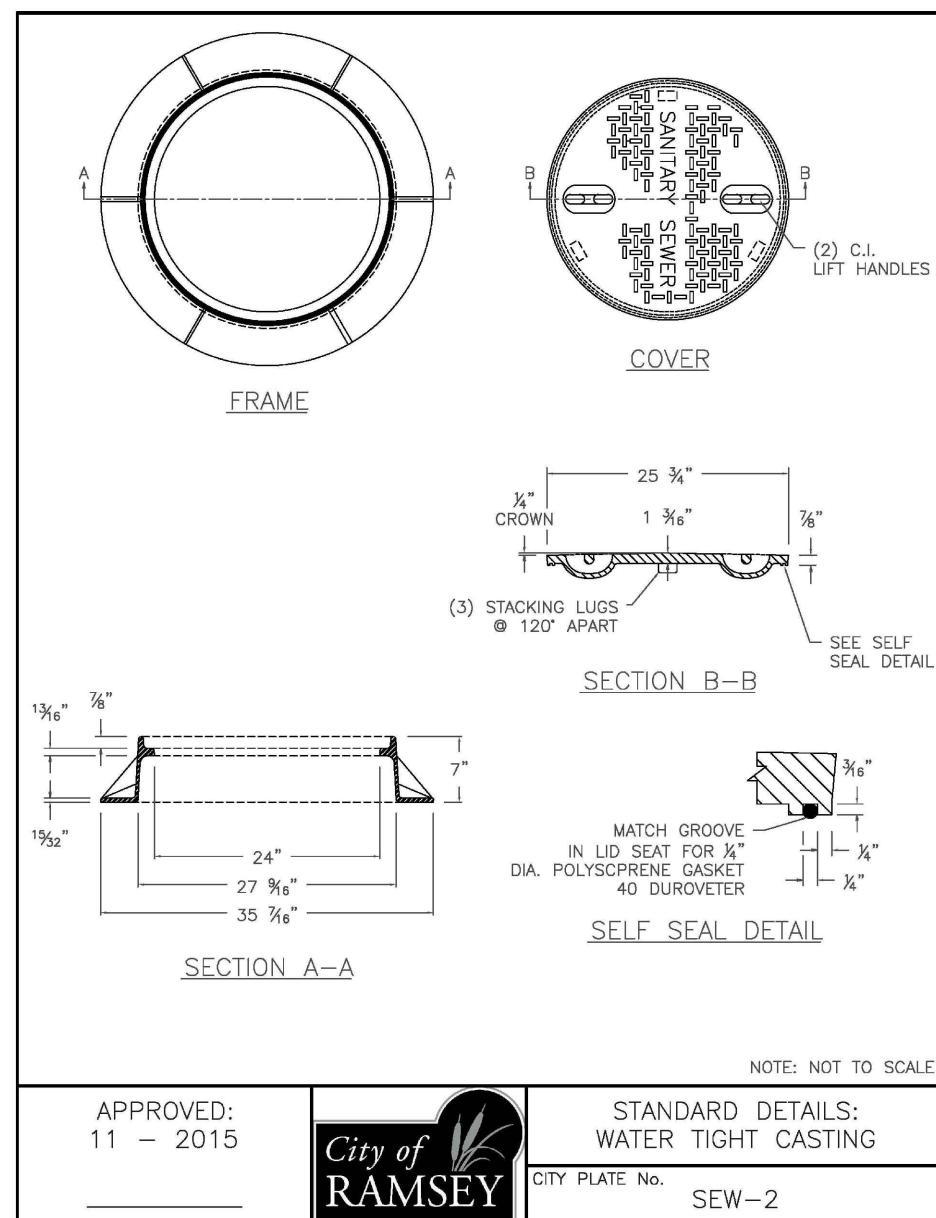
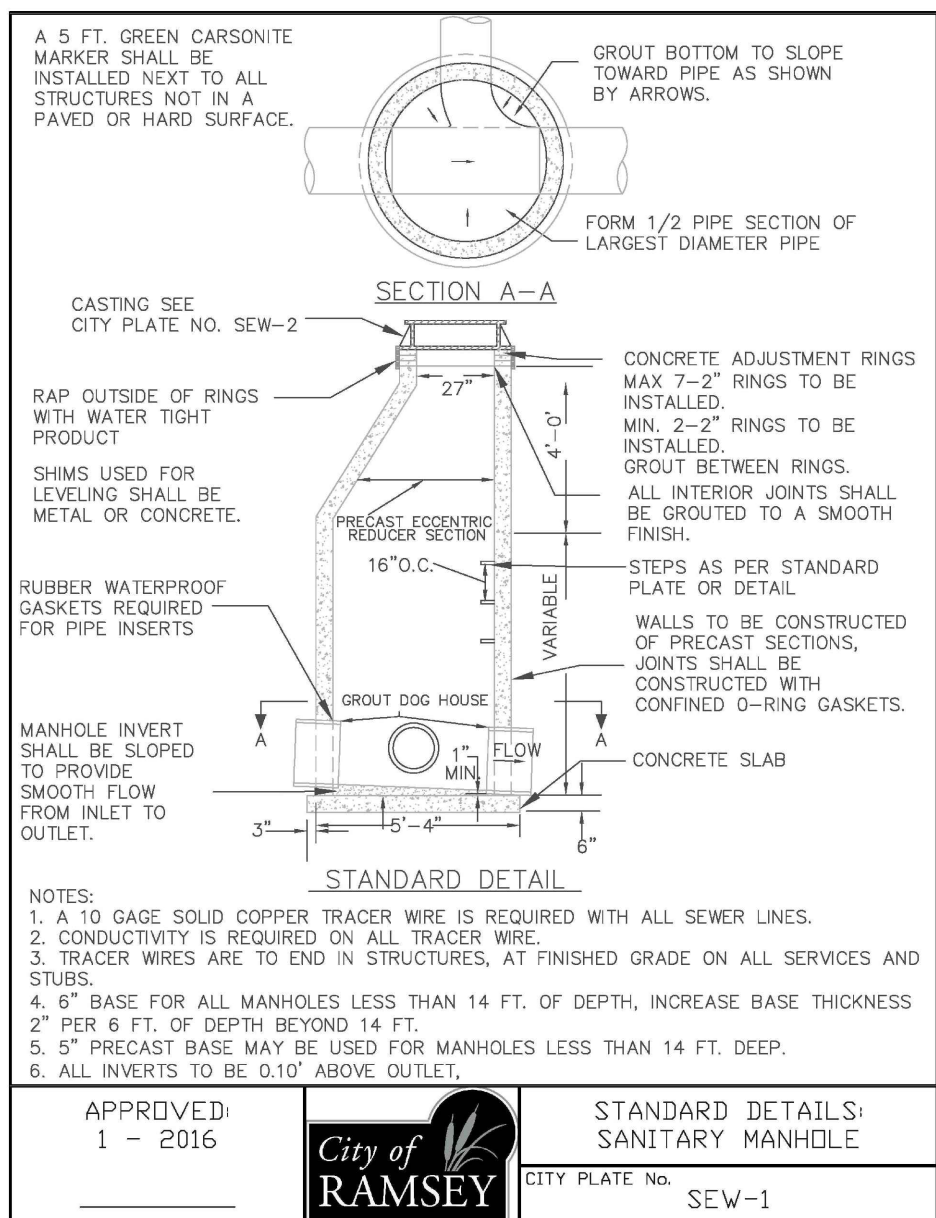
Drawn: ADB  
Designed: BJK  
Date: 7/26/19

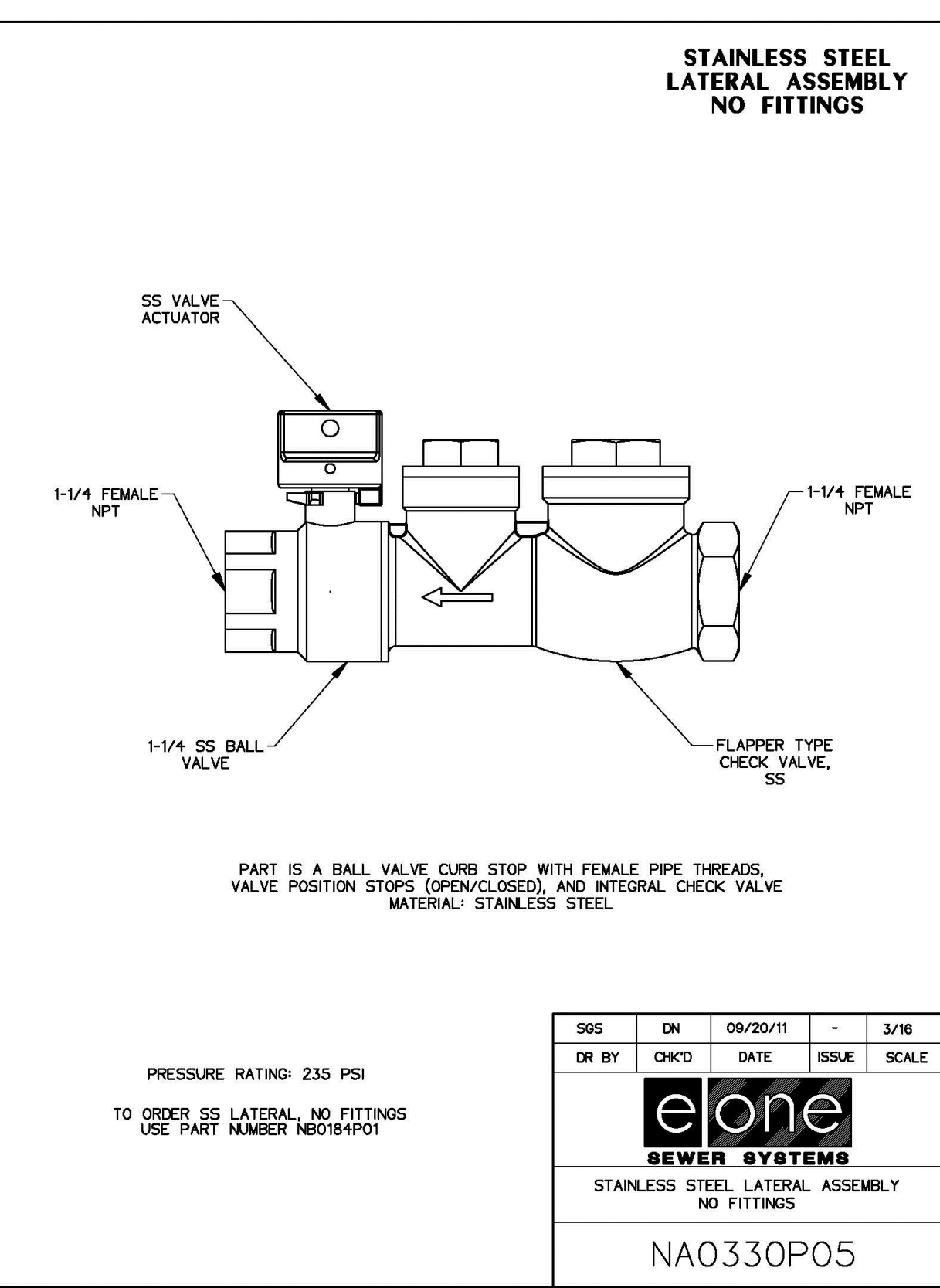
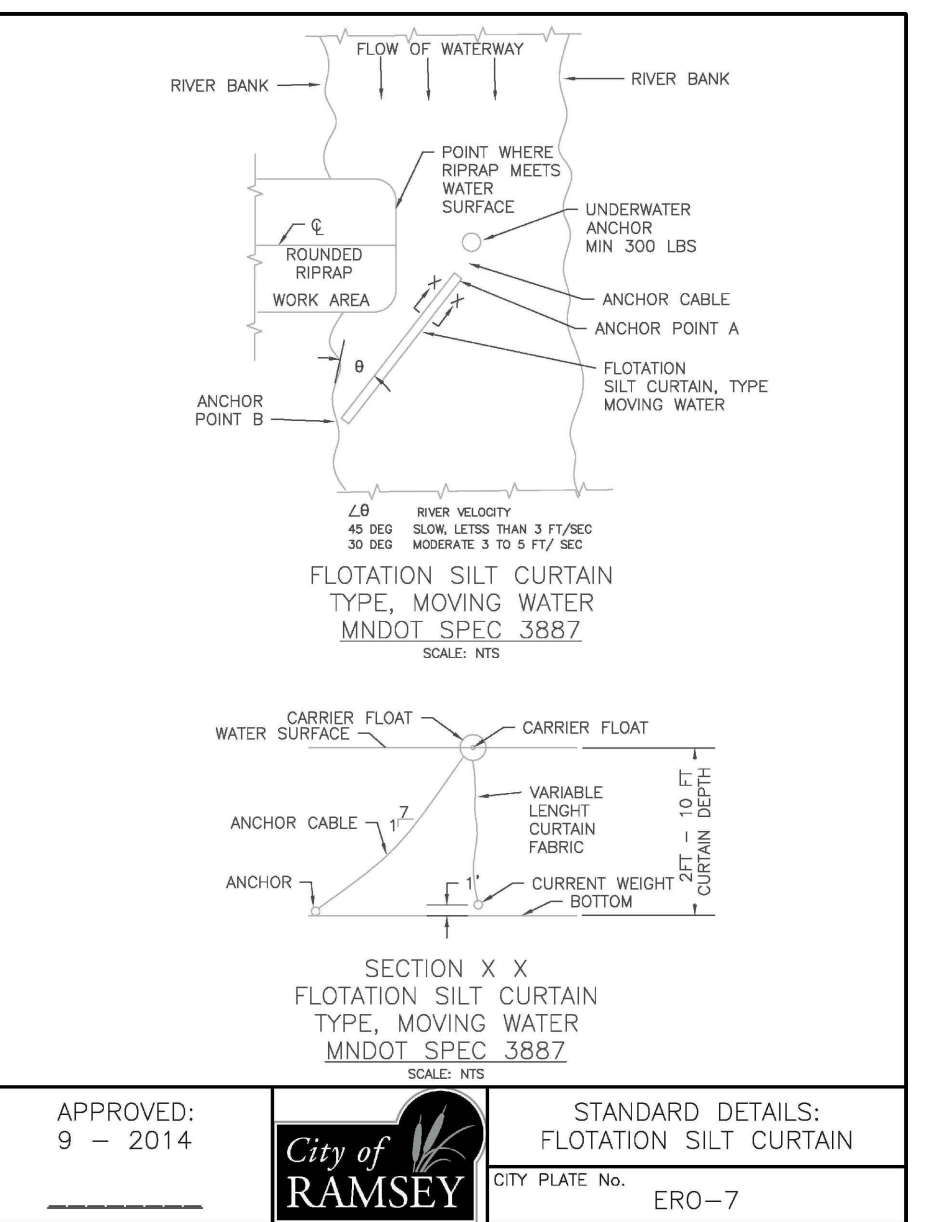
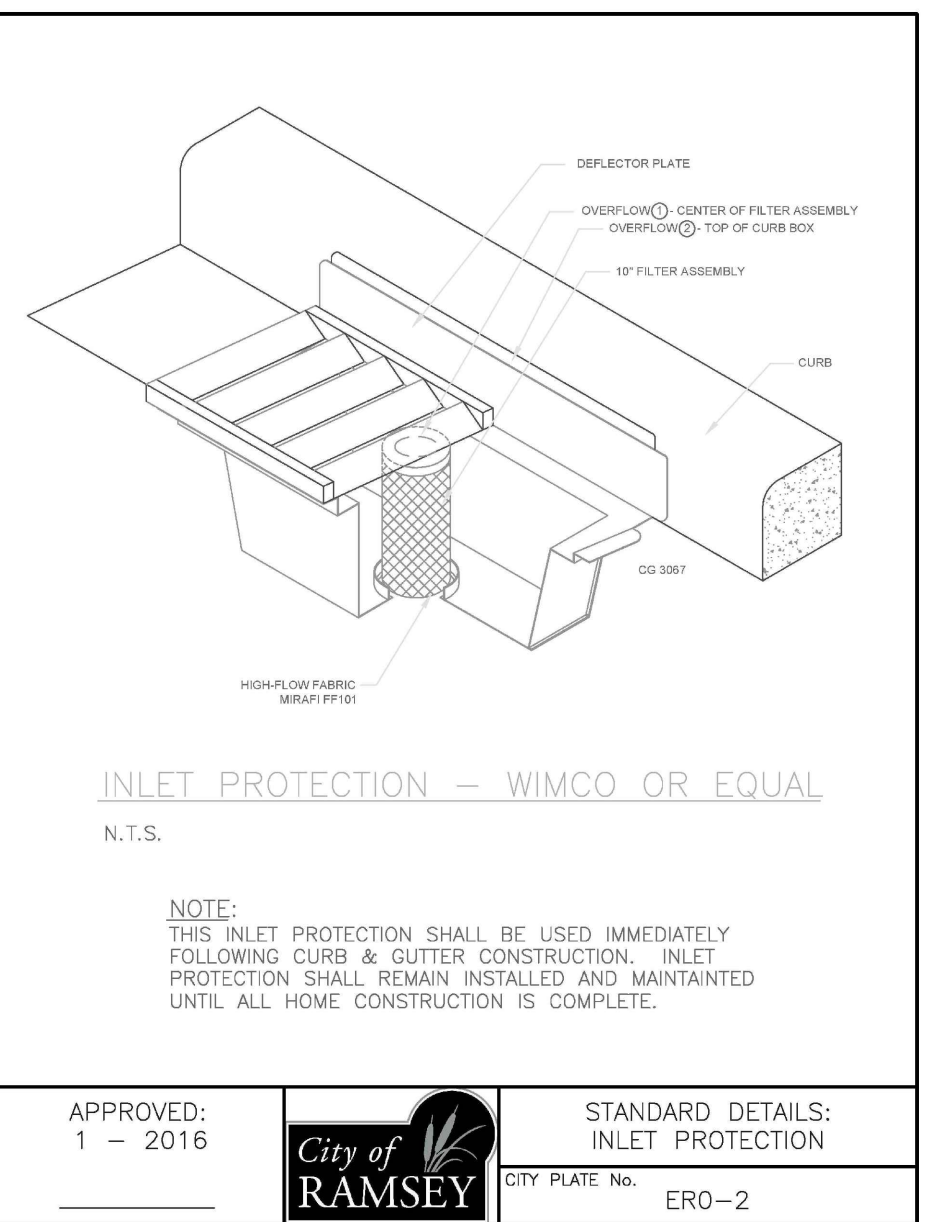
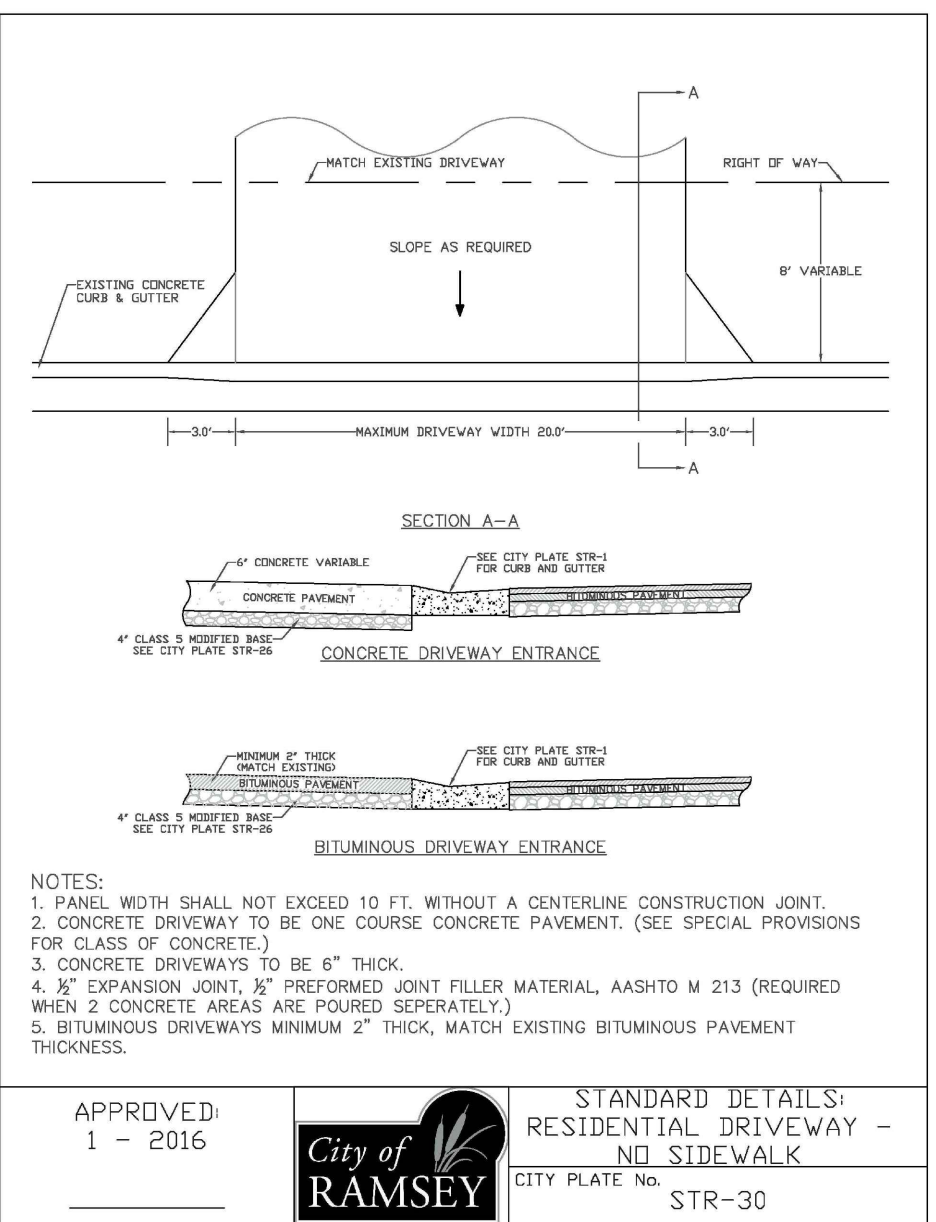
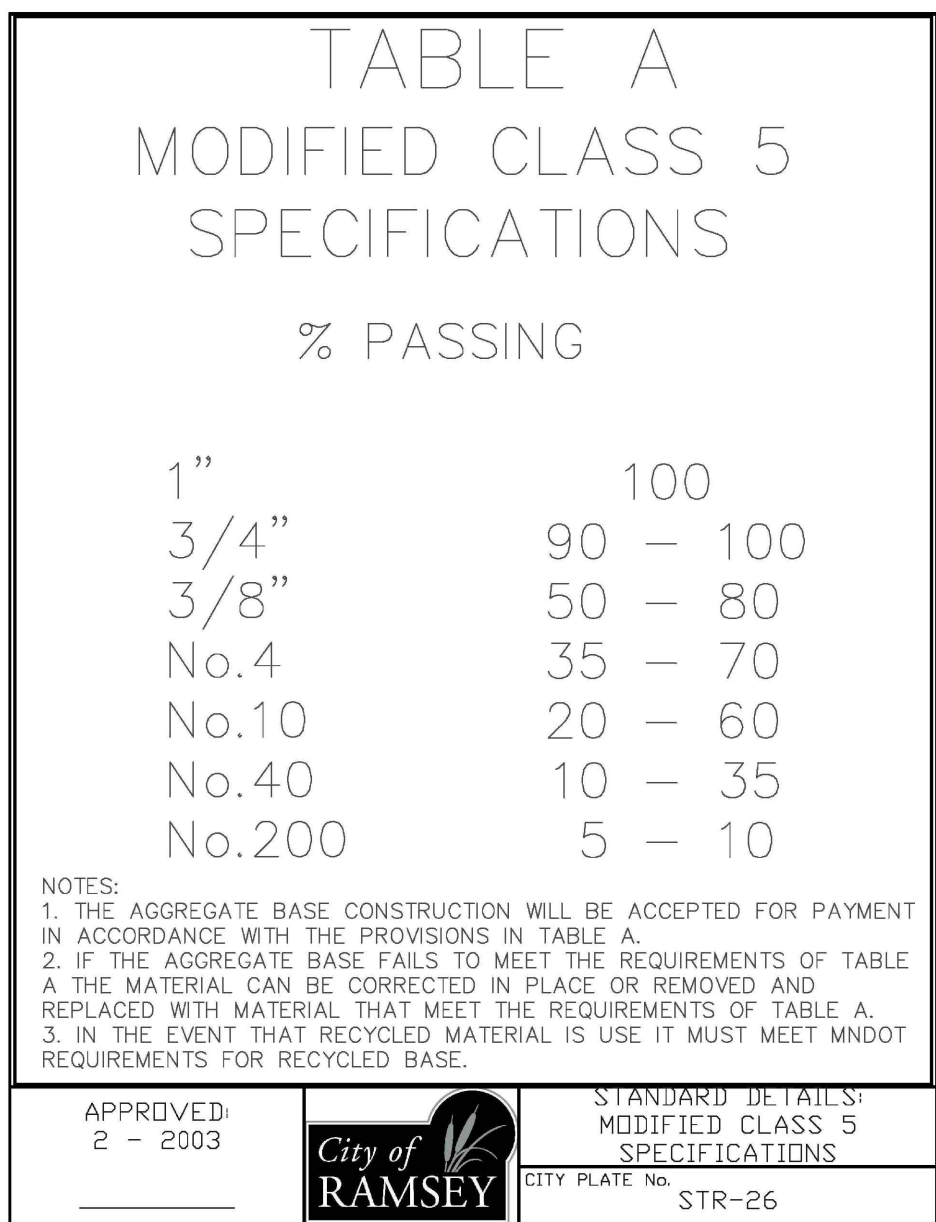
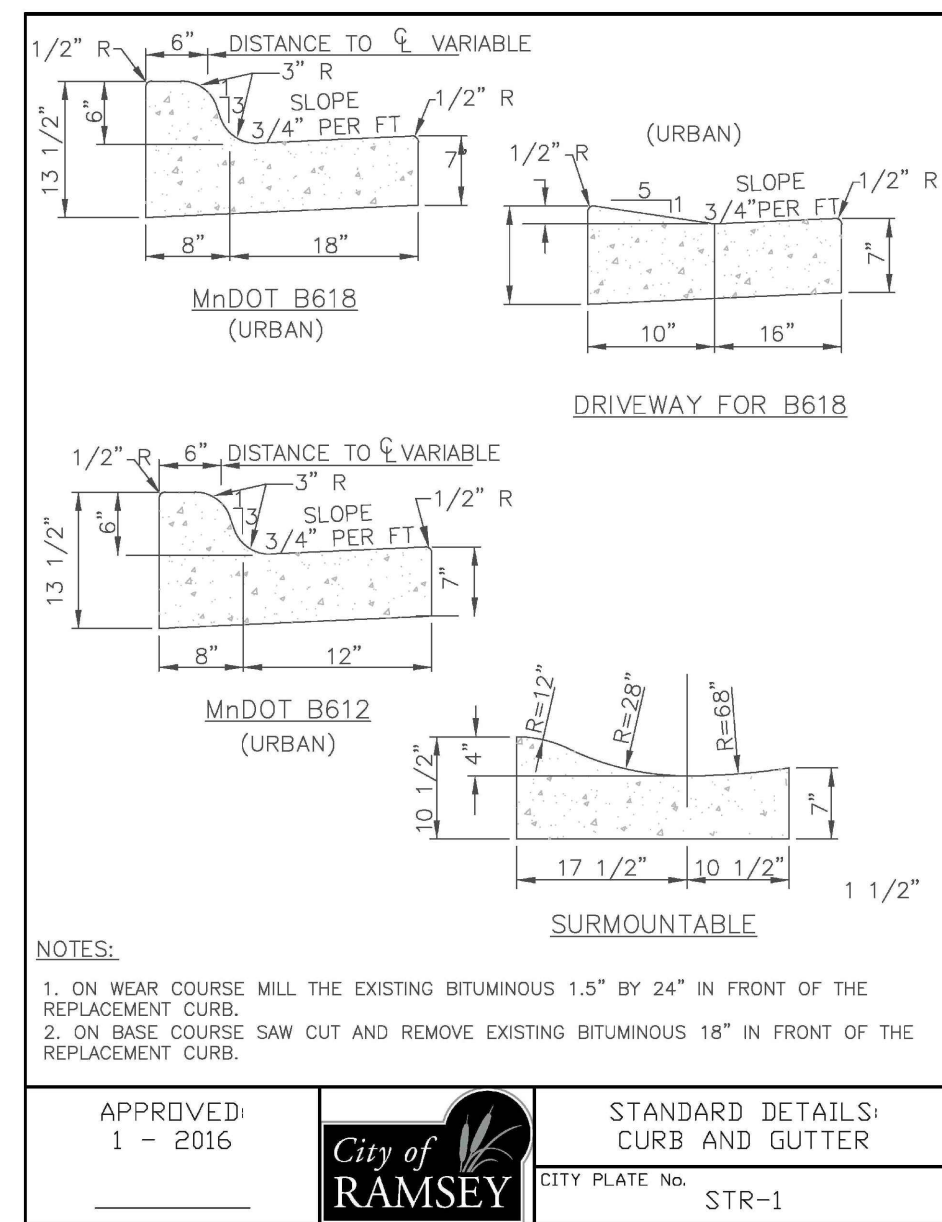
**VILLAGE BANK**  
9298 Central Avenue NE  
Blaine, MN 55434

**RIVER WALK VILLAGE**  
Ramsey, Minnesota

**STREET CONSTRUCTION**

Save Date: 07/29/19 | F:\06617801 - 782017802 - Highway 10 ramsey\cad\_c3d\engineering\final plans\utility\7802\_street.dwg



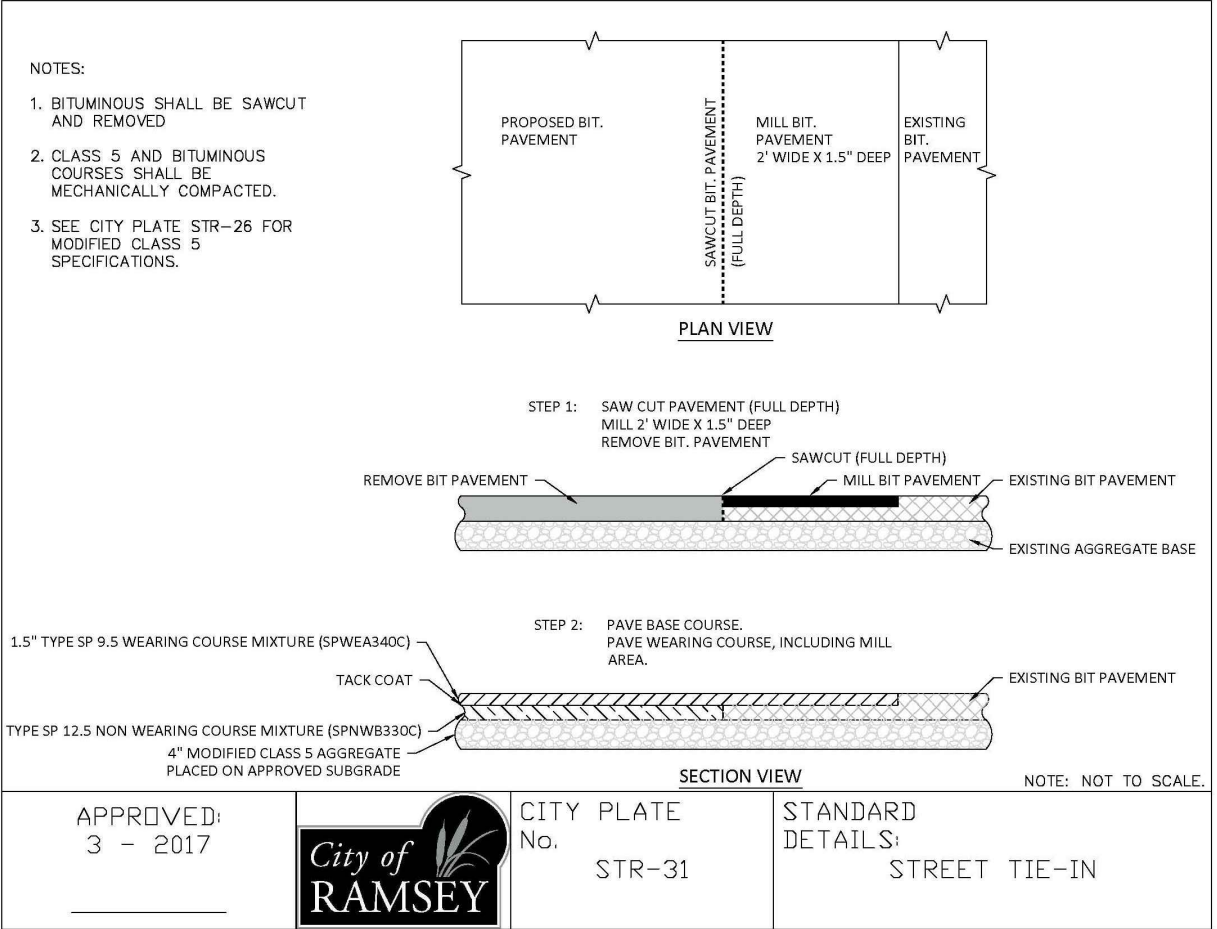


**MNDOT 2016 SPEC**

MNDOT 2016 SPEC TABLE 3877-1 COMMON TOPSOIL BORROW REQUIREMENT	RANGE	TEST METHOD
MATERIAL PASSING THE 3/4 IN [19MM]	100%	ASTM D 422
MATERIAL PASSING NO. 4 [4.75MM]	>85%	-
CLAY	5% - 35%	ASTM D 422
SILT	5% - 70%	ASTM D 422
SAND	10% - 75%	ASTM D 422
ORGANIC MATTER	3% - 15%	ASTM D 2974
pH	6.1 - 7.8	ASTM G 51

NOTE:  
1. INSTALLATION OF 4" OF TOPSOIL MEETING MNDOT SPECIFICATION 3877A COMMON TOPSOIL BORROW, MAY BE REQUIRED ACROSS ALL DISTURBED AREAS.  
2. A SOIL CERTIFICATION FROM A GEOTECHNICAL FIRM MUST BE PROVIDED VERIFYING THE TOPSOIL MEETS SPECIFICATION ALONG WITH LOAD TICKETS TO VERIFY THE SOURCE OF MATERIAL AND QUANTITY.  
3. TOPSOIL MUST COME FROM A CITY APPROVED SOURCE.

APPROVED: 1 - 2016  
City of RAMSEY  
STANDARD DETAILS: TOPSOIL REQUIREMENTS  
CITY PLATE No. ERO-6



**Carlson McCain**  
environmental engineering surveying

3890 Pheasant Ridge Drive NE, Suite 100  
Blaine, MN 55449  
Phone: (763) 489-7900  
Fax: (763) 489-7959  
www.carlsonmccain.com

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Print Name: Brian J. Krystofiak, P.E.  
Signature: *Brian J. Krystofiak*  
Date: 7/26/19 License #: 25063

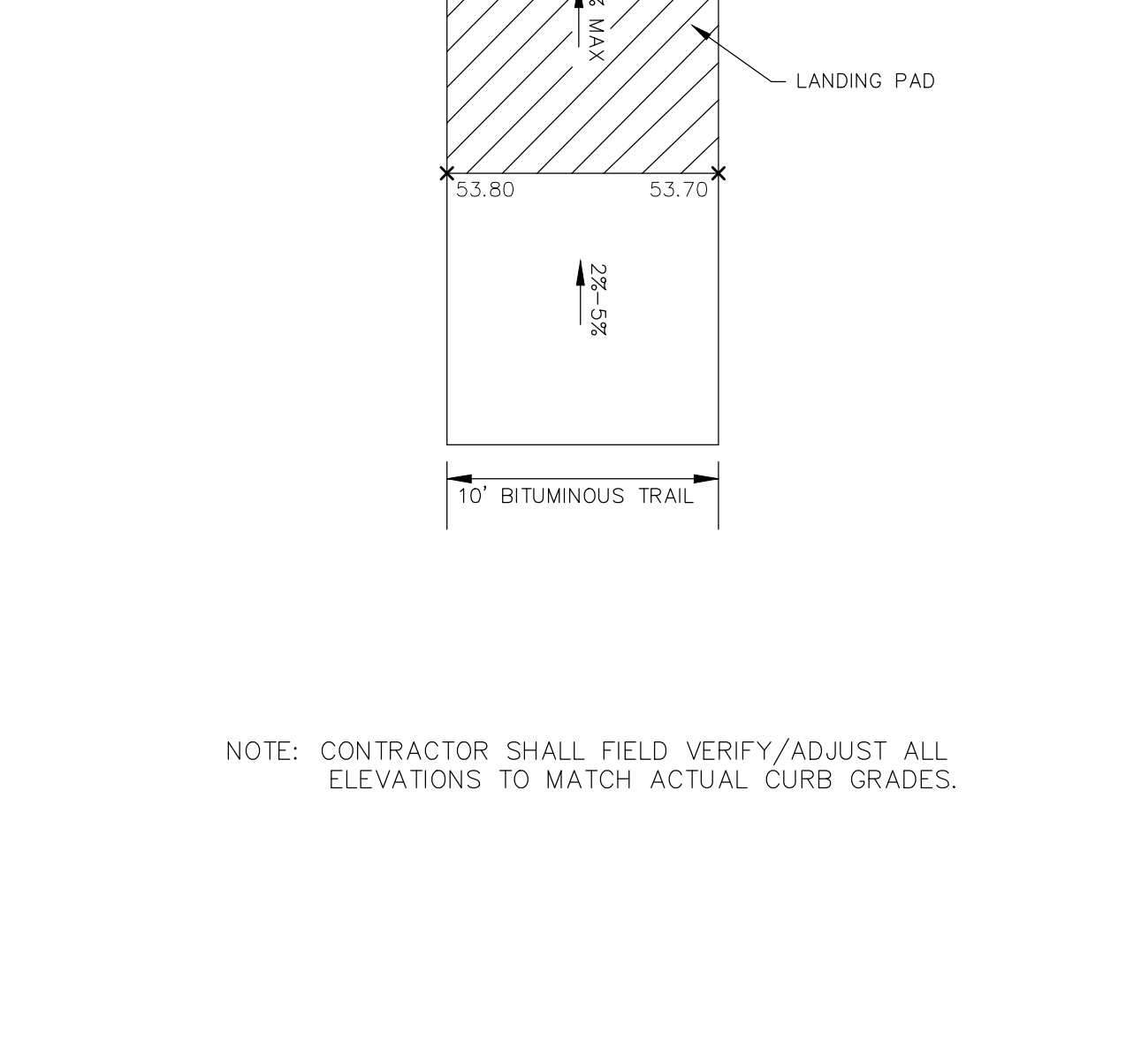
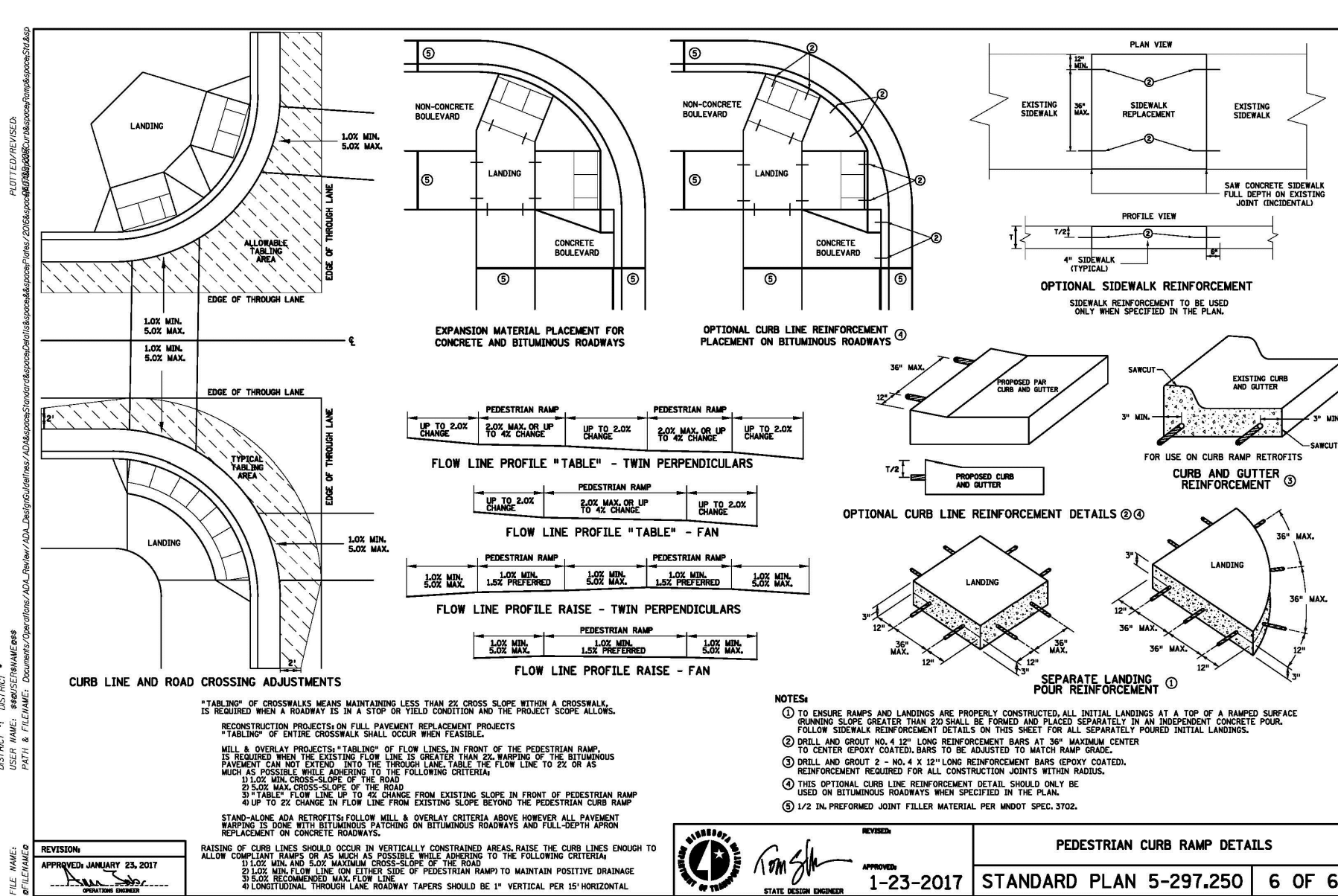
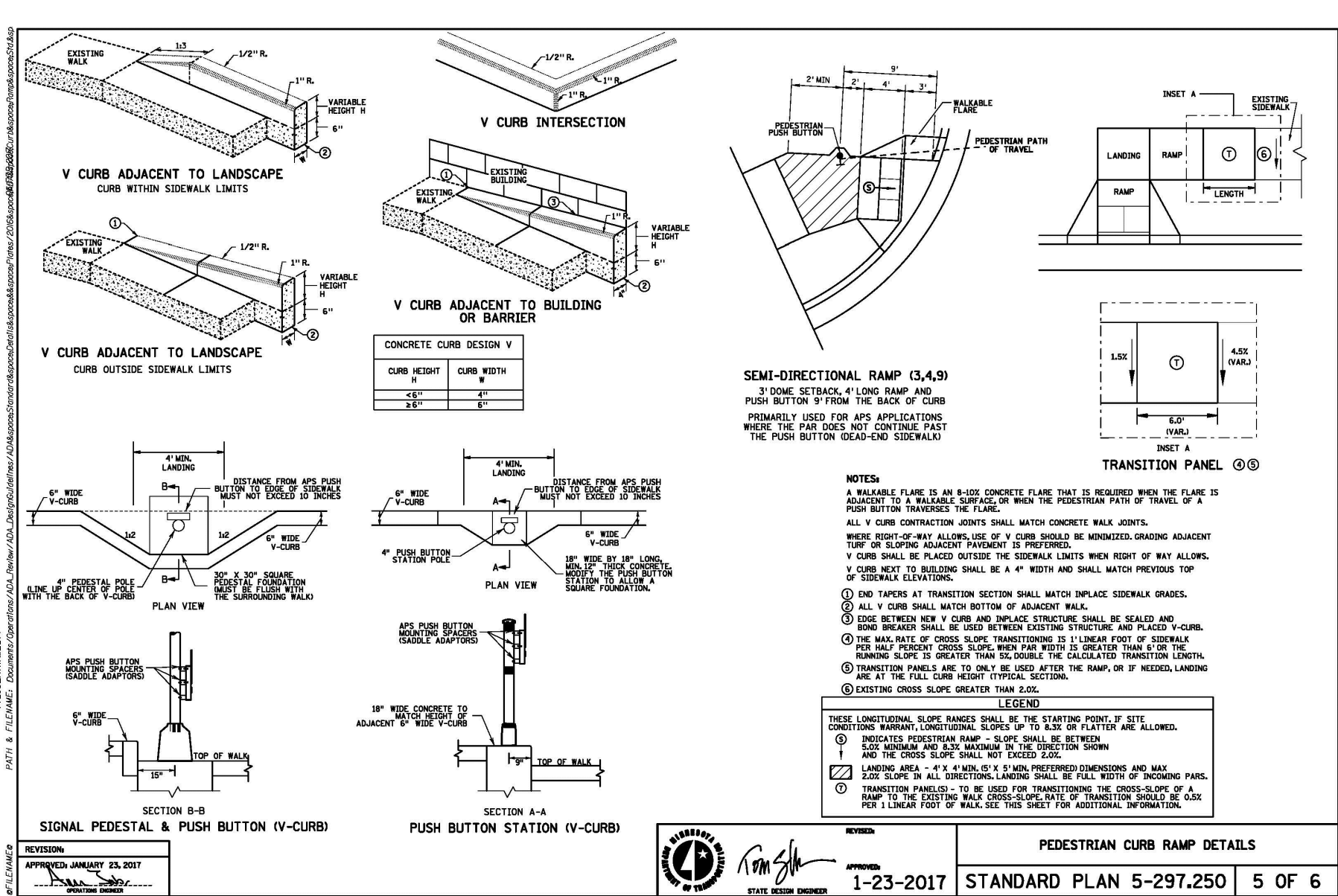
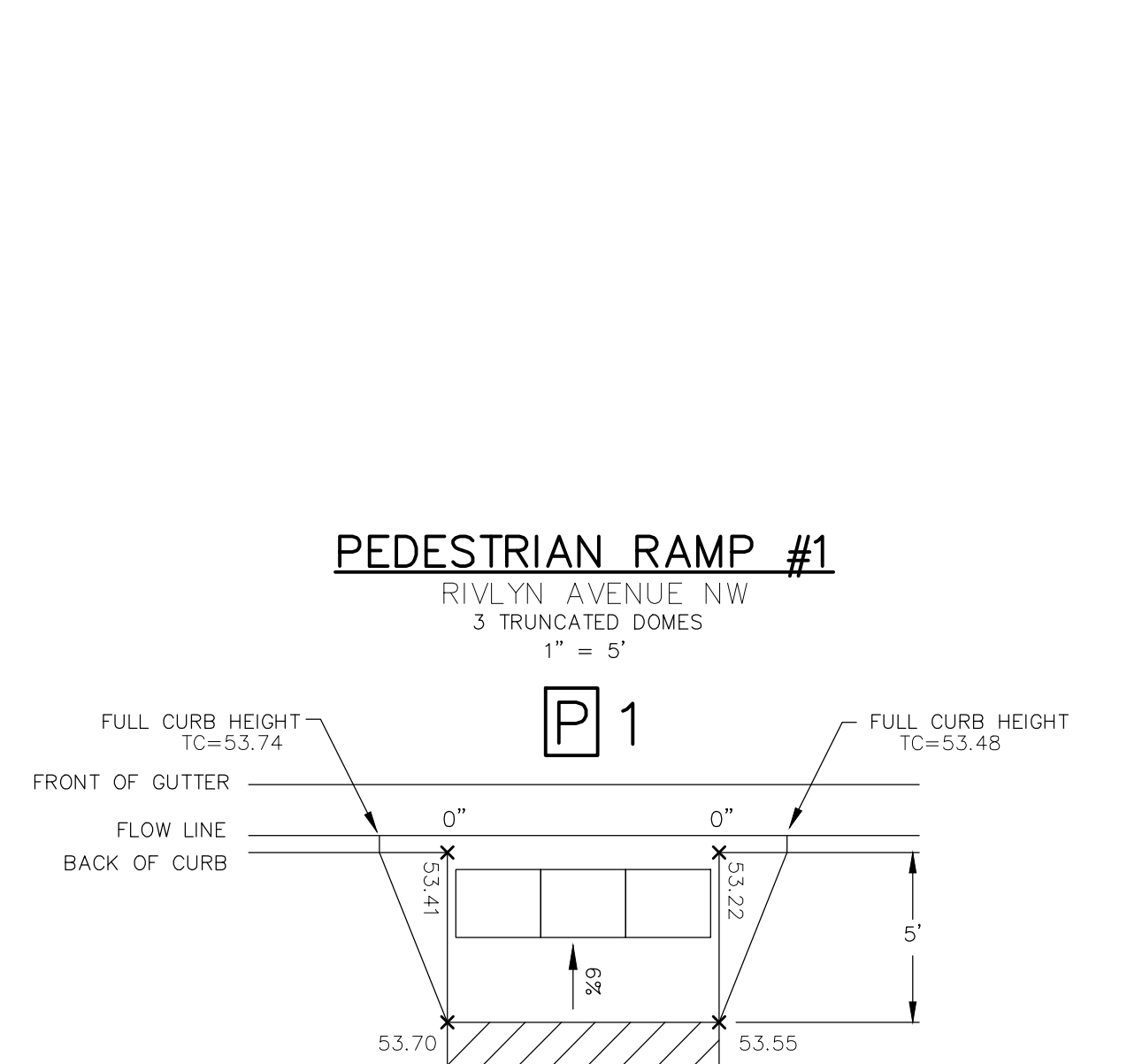
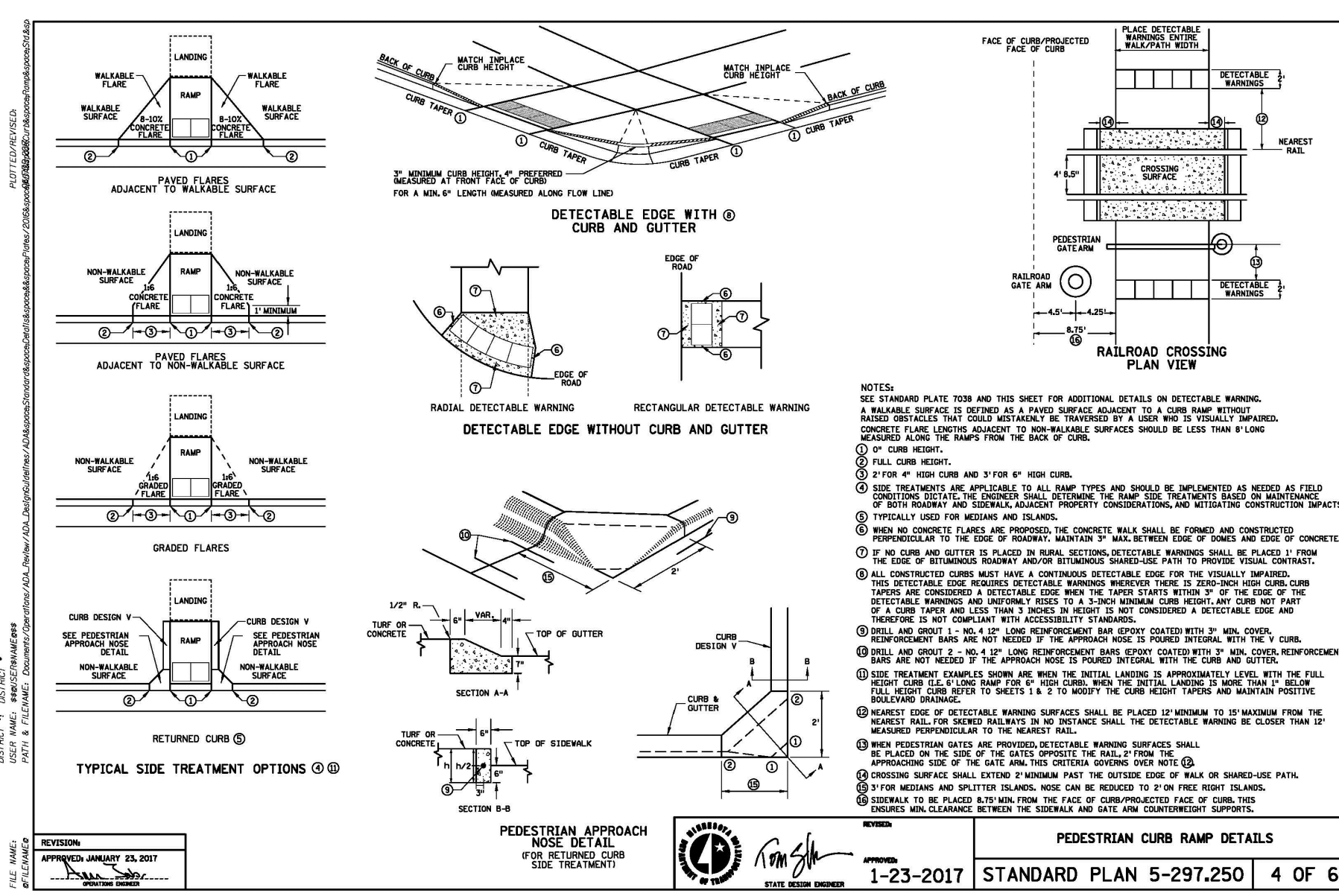
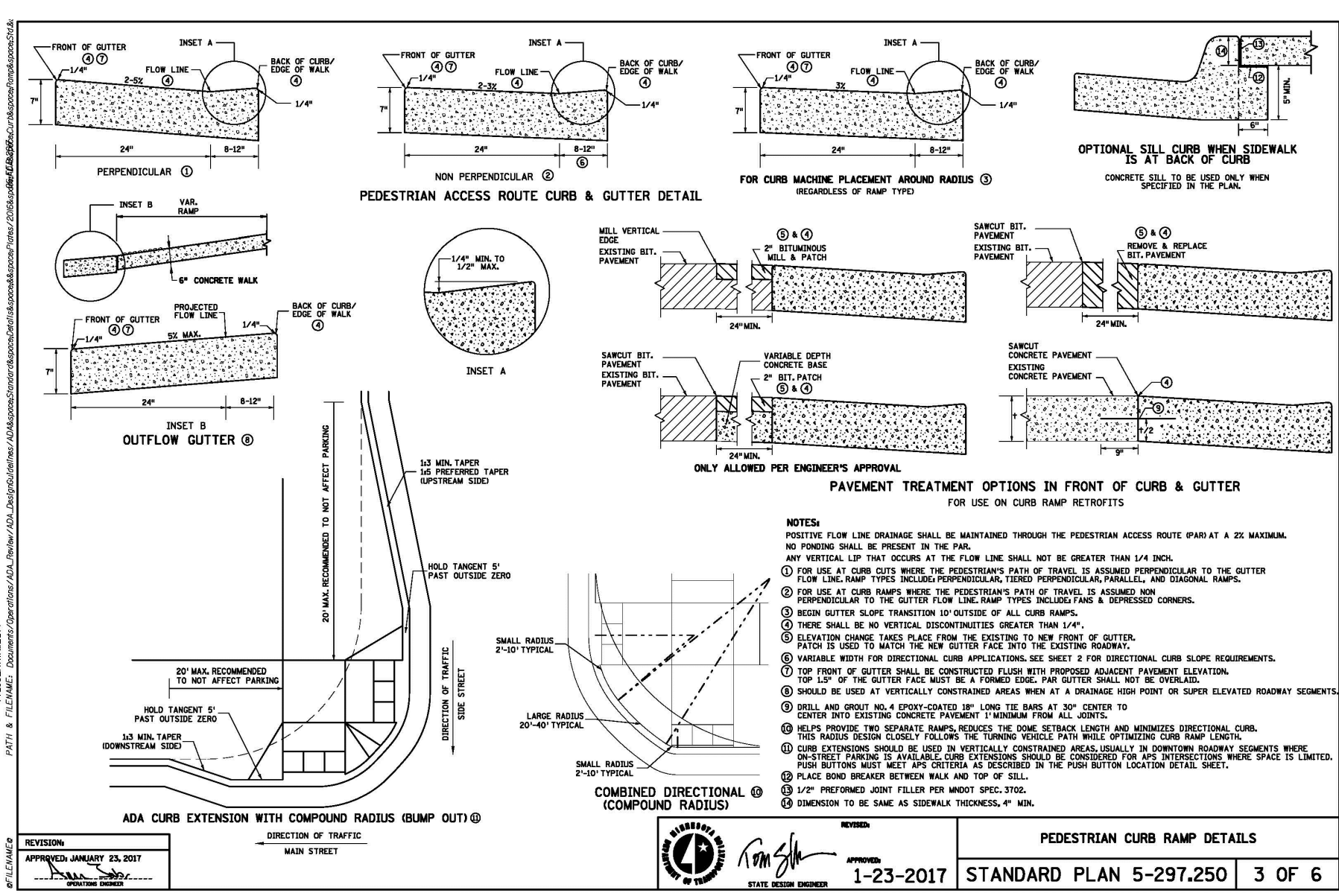
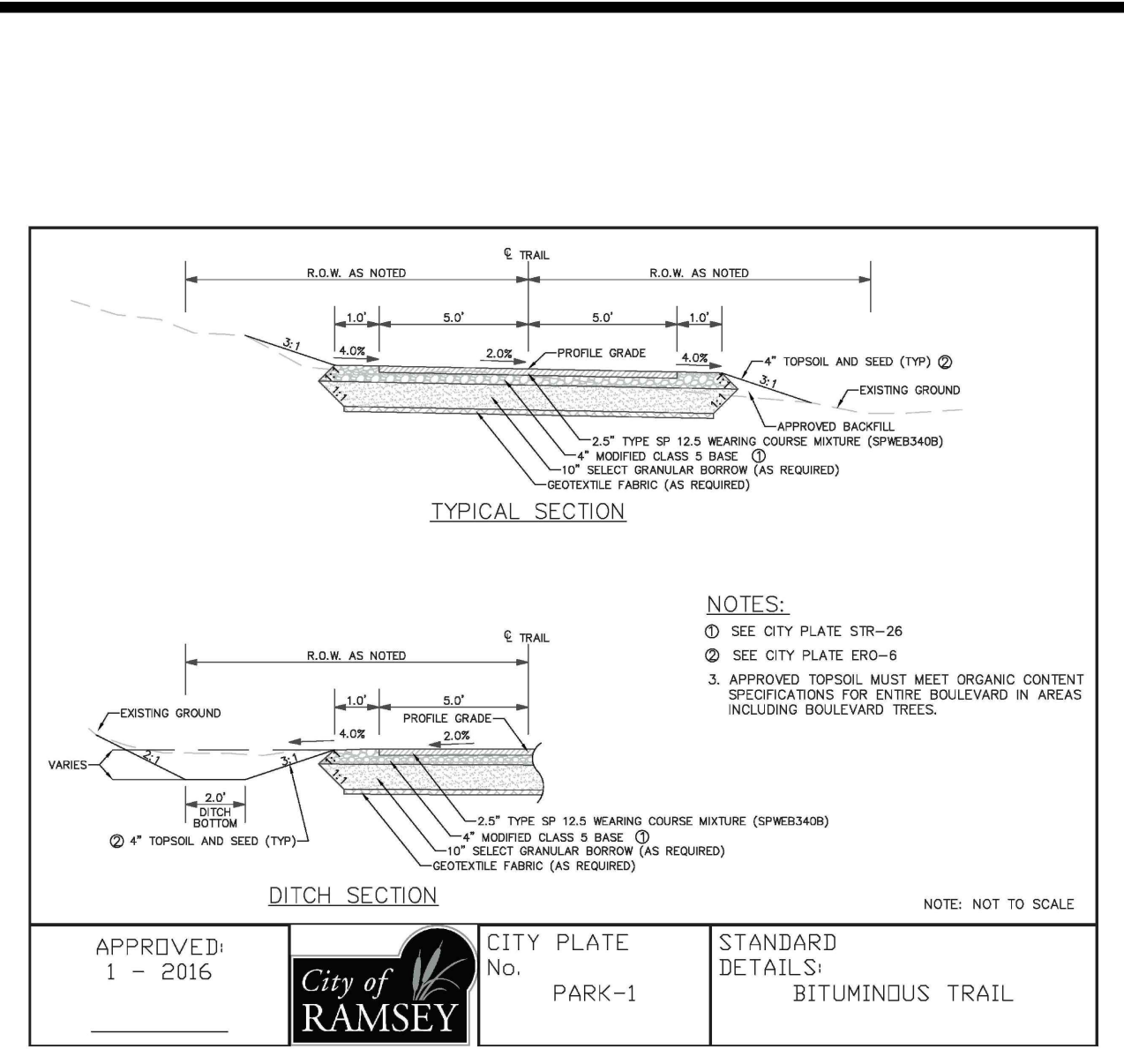
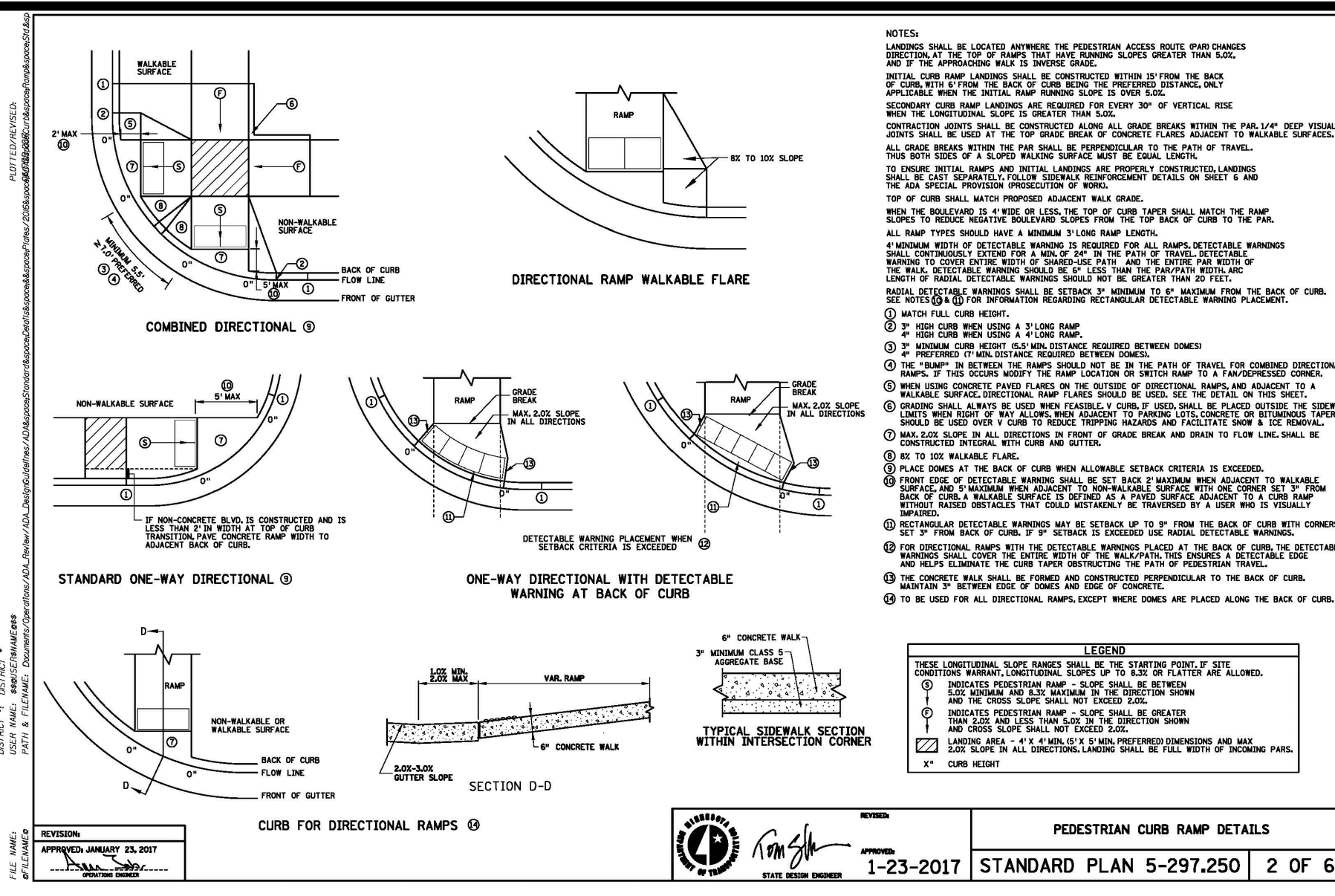
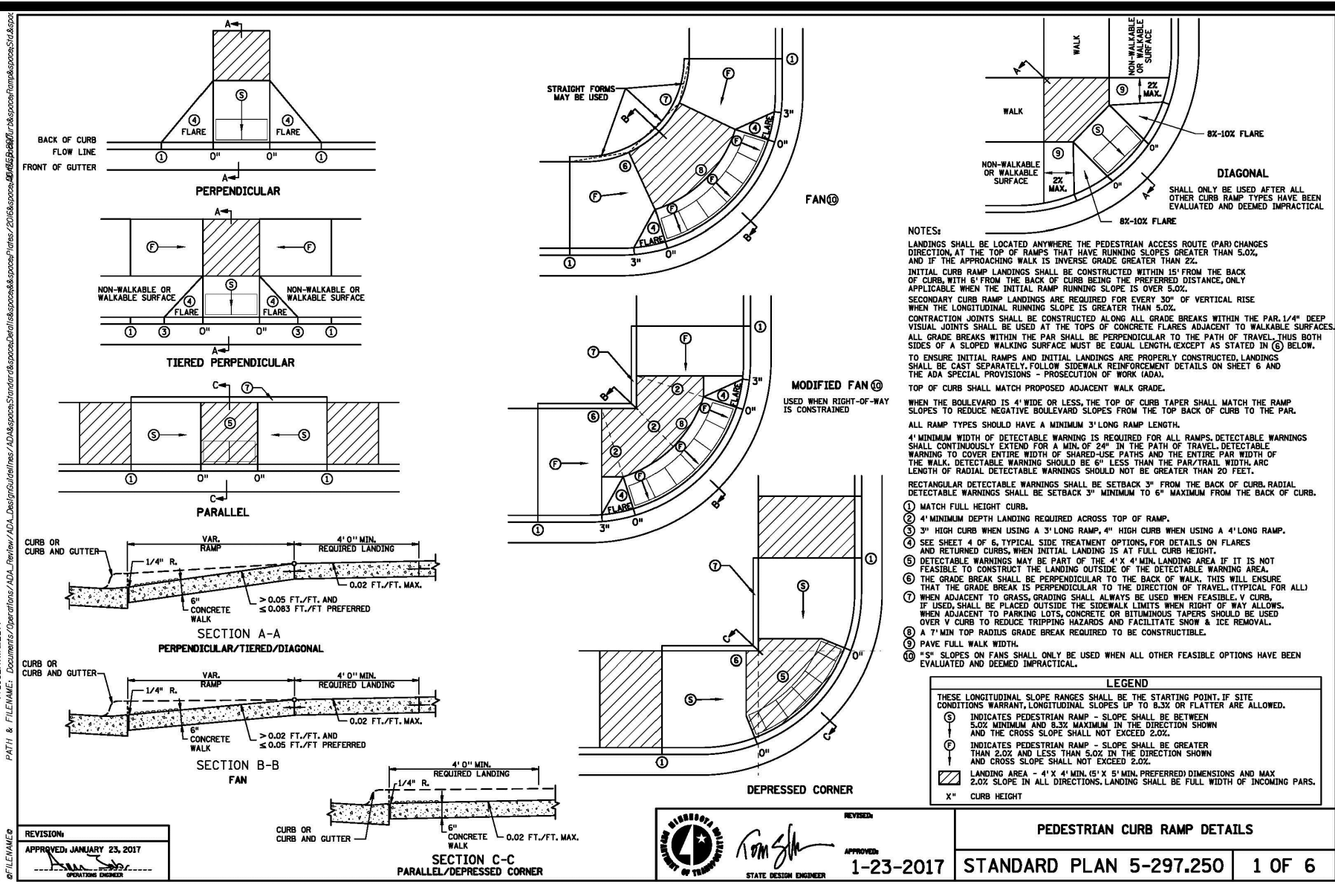
Drawn: ADB  
Designed: BJK  
Date: 7/26/19

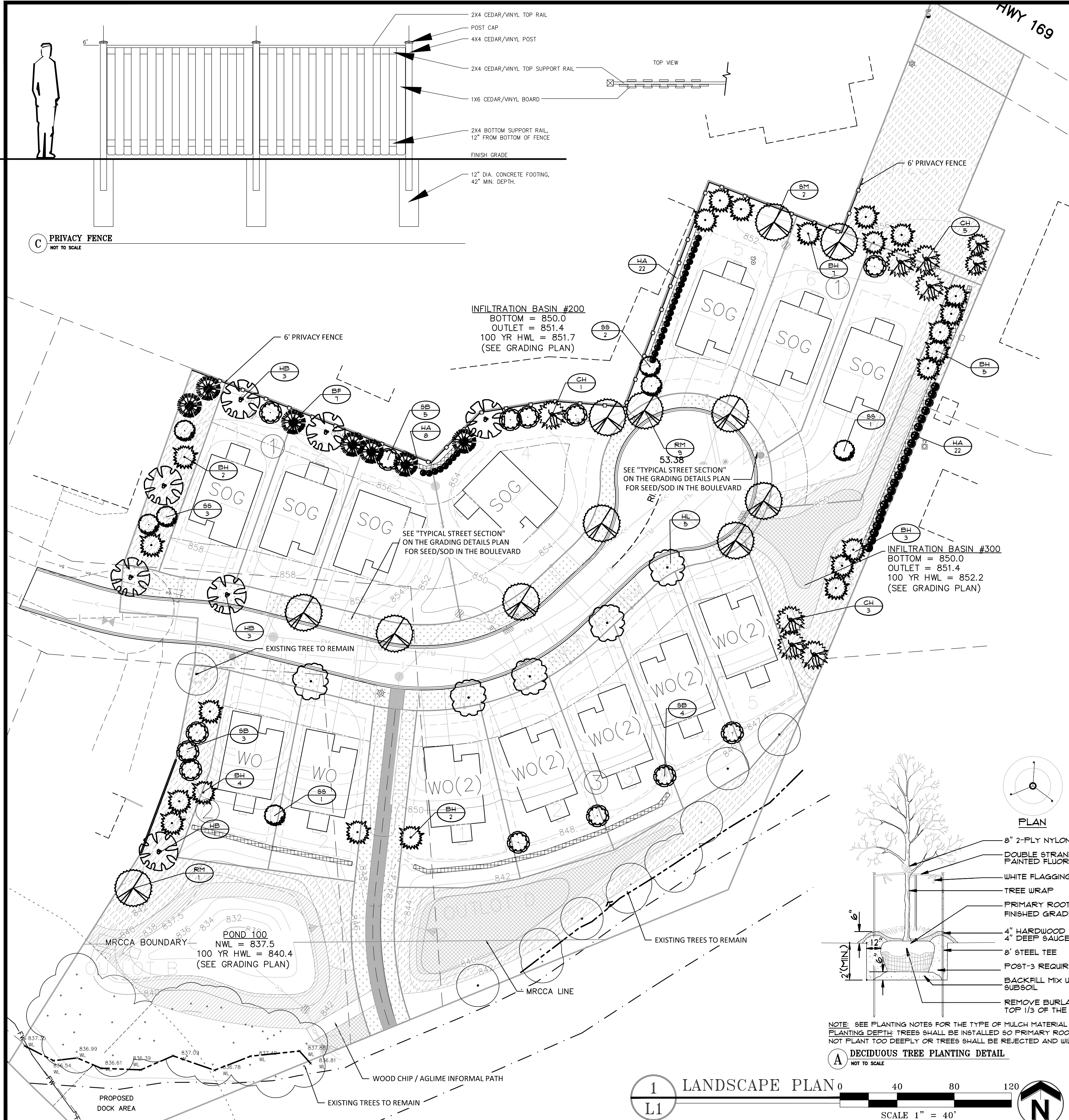
Revisions:  
1.

**VILLAGE BANK**  
9298 Central Avenue NE  
Blaine, MN 55434

**RIVER WALK VILLAGE**  
Ramsey, Minnesota

**DETAILS**





**SEED MIX LEGEND (FOR ALL SHEETS)**

SYM.	TYPE	SEED MIX
[Symbol]	NATIVE WET PRAIRIE	MN SEED MIX 35-641
[Symbol]	WETLAND FRINGE	MN SEED MIX 35-621
[Symbol]	COMMERCIAL TURF - SOD	SOD
[Symbol]	MNDOT 260 ALL AREAS DISTURBED BY CONSTRUCTION NOT INTENDED SODDED, OR RETENTION BASINS	MN SEED MIX 25-131 (OLD MNDOT 260) & (USE EROSION CONTROL BLANKET FOR SLOPES OVER 3:1)
[Symbol]	MESIC GENERAL ROADSIDE FOR GENERAL STABILIZATION OF PAD AREAS	MN SEED MIX 25-131 (USE EROSION CONTROL BLANKET FOR SLOPES OVER 3:1)
[Symbol]	HARDWOOD MULCH SHREDDED HARDWOOD MULCH	(NATURAL COLOR)
[Symbol]	1/2" CRUSHED GRANITE	CRUSHED QUARRY GRANITE

**LANDSCAPE LEGEND**

KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	QTY.	INSTALL HEIGHT	MATURE HEIGHT
<b>DECIDUOUS TREES</b>							
HL	<i>Gleditsia triacanthos</i> var. <i>inermis</i> 'Shademaster'	SHADEMASTER HONEYLOCUST	2.5"	BB	5	10'	50'
HB	<i>Celtis occidentalis</i>	HACKBERRY	2.5"	BB	7	15'	50'
RM	<i>Acer rubrum</i> 'Nothwoods'	NORTHWOODS MAPLE	2.5"	BB	12	14'	50'
<b>ORNAMENTAL TREES</b>							
SB	<i>Amelanchier x grandiflora</i> 'Autumn Brilliance'	AUTUMN BRILLIANCE SERVICEBERRY	1.5"	BB	13	8'	20'
SS	<i>Malus x 'Spring Snow'</i>	SPRING SNOW CRABAPPLE	1.5"	BB	7	8'	25'
<b>EVERGREEN TREES</b>							
BH	<i>Picea glauca</i> var. <i>Densata</i>	BLACK HILLS SPRUCE	6"	BB	23	6'	40'
CH	<i>Tsuga canadensis</i>	CANADIAN HEMLOCK	6"	BB	9	6'	40'
HA	<i>Thuja occidentalis</i> 'Holmstrup'	HOLMSTRUP ARBORVITAE	5'	BB	52	4'	10'
BF	<i>Abies Balsamea</i>	BALSAM FIR	6"	BB	7	6'	40'

QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE.  
CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.

**DECIDUOUS TREE PLANTING DETAIL**  
NOT TO SCALE

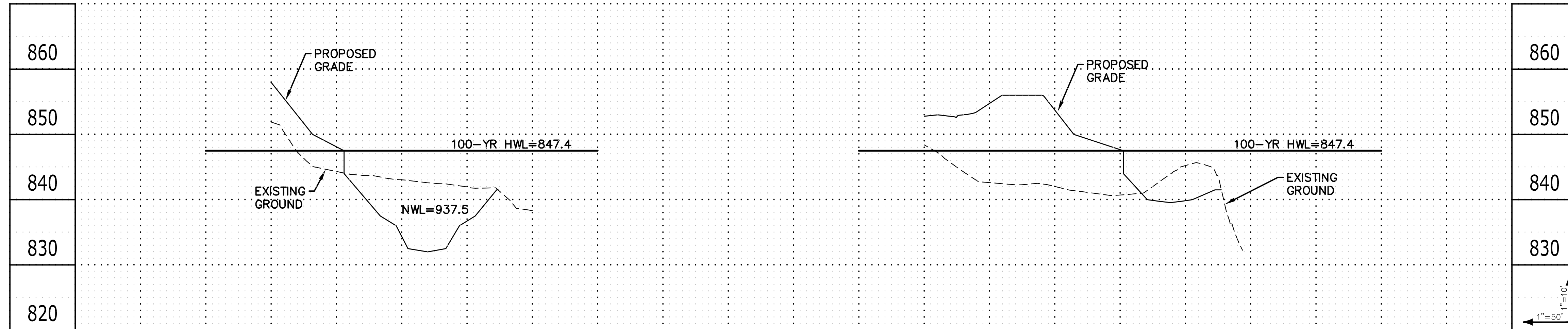
**CONFIFEROUS TREE PLANTING DETAIL**  
NOT TO SCALE

**PLANTING NOTES**

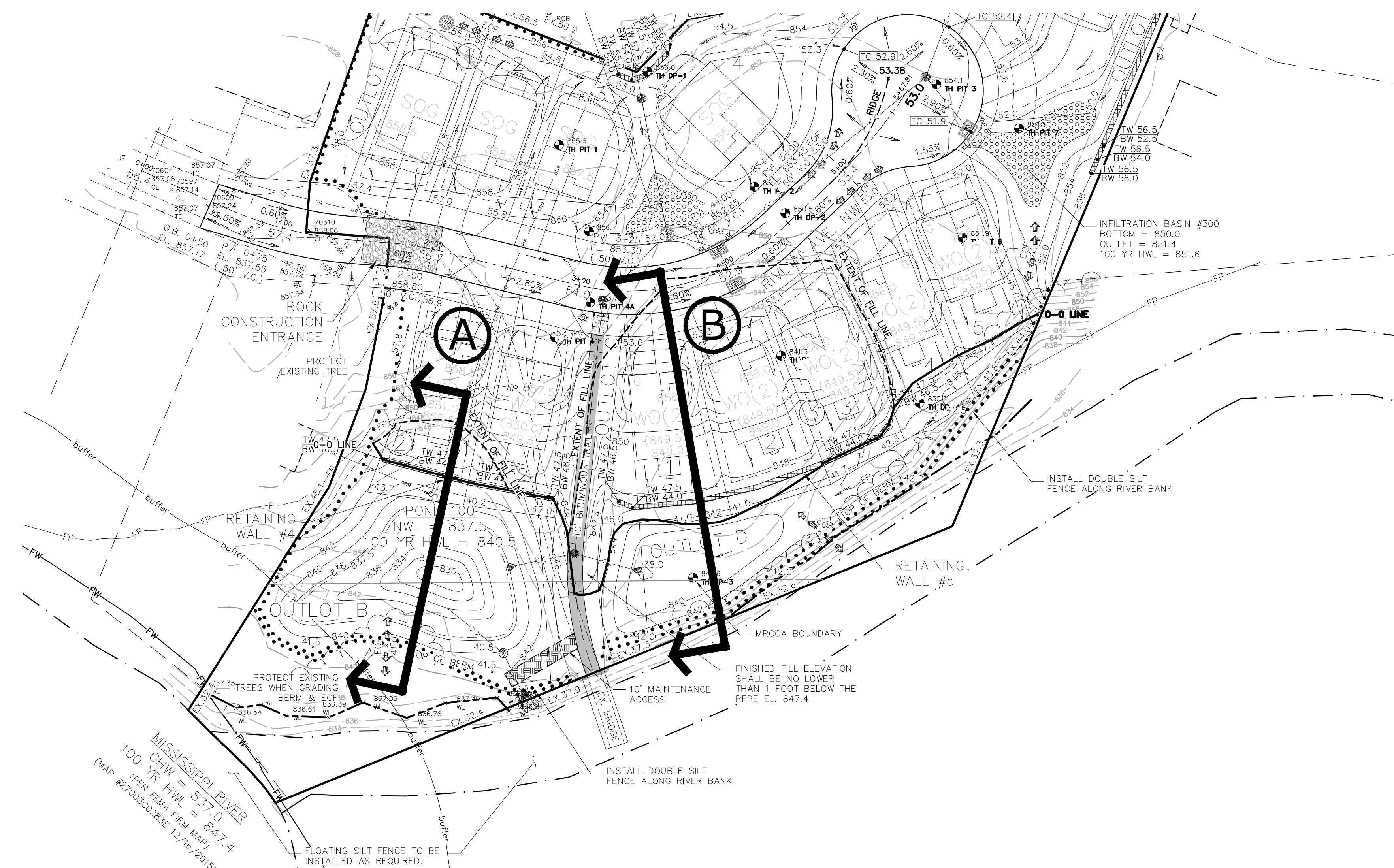
- ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE AND BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE LANDSCAPE LEGEND.
- ALL TREES MUST BE STRAIGHT TRUNKED AND FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
- THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING, OR AFTER INSTALLATION.
- NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE ACCEPTED UNLESS APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.
- ALL PLANTING STOCK SHALL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK," ANSI-Z60, LATEST EDITION, OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIALS.
- EXISTING TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED TO THE DRIP LINE FROM ALL CONSTRUCTION TRAFFIC, STORAGE OF MATERIALS ETC. WITH 4' HT. ORANGE PLASTIC SAFETY FENCING ADEQUATELY SUPPORTED BY STEEL FENCE POSTS 6" O.C. MAXIMUM SPACING.
- ALL PLANT MATERIAL QUANTITIES, SHAPES OF BEDS AND LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN AND ADJUSTED TO CONFORM TO THE EXACT CONDITIONS OF THE SITE. THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIALS PRIOR TO INSTALLATION.
- ALL PLANTING AREAS MUST BE COMPLETELY MULCHED AS SPECIFIED.
- MULCH: SHREDDED HARDWOOD MULCH, CLEAN AND FREE OF NOXIOUS WEEDS OR OTHER DELETERIOUS MATERIAL, IN ALL MASS PLANTING BEDS AND FOR TREES, UNLESS INDICATED AS ROCK MULCH ON DRAWINGS. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT PRIOR TO DELIVERY ON-SITE FOR APPROVAL. DELIVER MULCH ON DAY OF INSTALLATION. USE 4" FOR SHRUB BEDS, AND 3" FOR PERENNIAL/GROUND COVER BEDS, UNLESS OTHERWISE DIRECTED.
- PLACE LANDSCAPE FILTER FABRIC UNDER ALL MULCHED AREAS. FILTER FABRIC SHALL BE 100% INTERWOVEN 5.1oz NEEDLE PUNCHED POLYPROPYLENE FABRIC MANUFACTURED BY DEWITT. USE PRO 5 "WEED BARRIER" OR APPROVED EQUAL.
- PLACE EDGING BETWEEN ALL PLANTING/ROCK BEDS AND TURF. EDGING SHALL BE POLY.
- THE PLAN TAKES PRECEDENCE OVER THE LANDSCAPE LEGEND IF DISCREPANCIES EXIST. THE SPECIFICATIONS TAKE PRECEDENCE OVER THE PLANTING NOTES AND GENERAL NOTES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MULCHES AND PLANTING SOIL QUANTITIES TO COMPLETE THE WORK SHOWN ON THE PLAN. VERIFY ALL QUANTITIES SHOWN ON THE LANDSCAPE LEGEND.
- LONG-TERM STORAGE OF MATERIALS OR SUPPLIES ON-SITE WILL NOT BE ALLOWED.
- THE CONTRACTOR SHALL KEEP PAVEMENTS, PLANTERS AND BUILDINGS CLEAN AND UNSTAINED. ALL PEDESTRIAN AND VEHICLE ACCESS TO BE MAINTAINED THROUGHOUT CONSTRUCTION PERIOD. ALL WASTES SHALL BE PROMPTLY REMOVED FROM THE SITE. ANY PLANT STOCK NOT PLANTED ON DAY OF DELIVERY SHALL BE HELED IN AND WATERED UNTIL INSTALLATION. PLANTS NOT MAINTAINED IN THIS MANNER WILL BE REJECTED. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPAVED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS, AND PERMITS GOVERNING THE WORK.
- LOCATE AND VERIFY ALL UTILITIES, INCLUDING IRRIGATION LINES, WITH THE OWNER FOR PROPRIETARY UTILITIES AND GOPHER STATE ONE CALL AT 454-0002 (TWIN CITIES METRO AREA) OR 800-252-1166 (GREATER MINNESOTA) 48 HOURS BEFORE DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ANY DAMAGES TO SAME. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS TO FACILITATE PLANT RELOCATION.
- USE ANTI-DESICCANT (WILTTRUF OR APPROVED EQUAL) ON DECIDUOUS PLANTS MOVED IN LEAF OR EVERGREENS MOVED ANYTIME. APPLY AS PER MANUFACTURER'S INSTRUCTION. ALL EVERGREENS SHALL BE SPRAYED IN THE LATE FALL FOR WINTER PROTECTION DURING WARRANTY PERIOD.
- PLANTING SOIL FOR TREES, SHRUBS AND GROUND COVERS: FERTILE FRABLE LOAM CONTAINING A LIBERAL AMOUNT OF HUMUS AND CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHALL COMPLY WITH MN/DOT SPECIFICATION 3877 TYPE B SELECT TOPSOIL. MIXTURE SHALL BE FREE FROM HARDPAK SUBSOIL, STONES, CHEMICALS, NOXIOUS WEEDS, ETC. SOIL MIXTURE SHALL HAVE A PH BETWEEN 6.1 AND 7.5 AND 10-0-10 FERTILIZER AT THE RATE OF 3 POUNDS PER CUBIC YARD. IN PLANTING BEDS INCORPORATE THIS MIXTURE THROUGHOUT THE ENTIRE BED BY ROTOTILLING IT INTO THE TOP 12" OF SOIL.
- ALL PLANTS SHALL BE QUARANTEED FOR TWO COMPLETE GROWING SEASONS (APRIL 1 - NOVEMBER 1), UNLESS OTHERWISE SPECIFIED. THE GUARANTEE SHALL COVER THE FULL COST OF REPLACEMENT INCLUDING LABOR AND PLANTS.
- CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 3 DAYS PRIOR TO PLANNED DELIVERY. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 24 HOURS IN ADVANCE OF BEGINNING PLANT INSTALLATION.
- SEASONS/TIME OF PLANTING AND SEEDING: NOTE: THE CONTRACTOR MAY ELECT TO PLANT IN OFF-SEASONS ENTIRELY AT HIS/HER RISK.  
DECIDUOUS POTTED PLANTS: 4/1 - 6/1; 9/21 - 11/1  
DECIDUOUS /B&B: 4/1 - 6/1; 9/21 - 11/1  
EVERGREEN POTTED PLANTS: 4/1 - 6/1; 9/21-11/1  
EVERGREEN B&B: 4/1 - 5/1; 9/21 - 11/1  
TURF/LAWN SEEDING: 4/1 - 6/1; 7/20 - 9/20  
NATIVE MIX SEEDING: 4/1 - 6/1; 9/20-10/20
- MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PORTION OF THE WORK IS IN PLACE. PLANT MATERIAL SHALL BE PROTECTED AND MAINTAINED UNTIL THE INSTALLATION OF THE PLANTS IS COMPLETE. INSPECTION HAS BEEN MADE, AND PLANTINGS ARE ACCEPTED EXCLUSIVE OF THE GUARANTEE. MAINTENANCE SHALL INCLUDE WATERING, CULTIVATING, MULCHING, REMOVAL OF DEAD MATERIALS, RE-SETTING PLANTS TO PROPER GRADE AND KEEPING PLANTS IN A PLUMB POSITION. AFTER ACCEPTANCE, THE OWNER SHALL ASSUME MAINTENANCE RESPONSIBILITIES. HOWEVER, THE CONTRACTOR SHALL CONTINUE TO BE RESPONSIBLE FOR KEEPING THE TREES PLUMB THROUGHOUT THE GUARANTEE PERIOD.
- ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFLOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL LANDSCAPE LEGEND SPECIFICATIONS.
- WATERING: MAINTAIN A WATERING SCHEDULE WHICH WILL THOROUGHLY WATER ALL PLANTS ONCE A WEEK, IN EXTREMELY HOT, DRY WEATHER, WATER MORE OFTEN AS REQUIRED BY INDICATIONS OF HEAT STRESS SUCH AS WILTING LEAVES. CHECK MOISTURE UNDER MULCH PRIOR TO WATERING TO DETERMINE NEED. CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR WATER.
- CONTRACTOR SHALL REQUEST IN WRITING, A FINAL ACCEPTANCE INSPECTION.
- ALL DISTURBED AREAS TO BE TURF SEEDDED, ARE TO RECEIVE 4" TOP SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
- ALL DISTURBED AREAS TO RECEIVE NATIVE WETLAND SEEDED, ARE TO RECEIVE ENGINEERED SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
- ALL IN GROUND IRRIGATION SYSTEMS SHALL BE EQUIPPED WITH RAIN SENSOR AND A WATER EFFICIENT/ WEATHER BASED CONTROLLER. PERMIT FOR AN IRRIGATION SYSTEM IS REQUIRED.

**CROSS SECTION A**

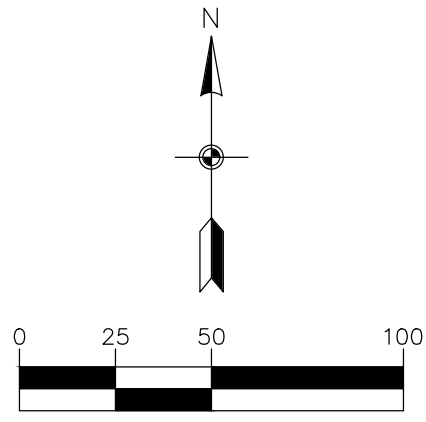
**CROSS SECTION B**



LEGEND	
EXISTING	PROPOSED
PROPERTY LINE	---
EASEMENT LINE	---
CURB LINE	---
BITUMINOUS	▬
CONCRETE	▬
MAINTENANCE ACCESS	▬
INFILTRATION BASIN	▬
SANITARY SEWER	▬
STORM SEWER	▬
WATER MAIN	▬
OVERHEAD UTILITY	▬
STORM CATCH BASIN	▬
STORM MANHOLE	▬
OUTLET CONTROL STRUCTURE	▬
MANHOLE	▬
HYDRANT	▬
GATE VALVE	▬
TELEVISION BOX	▬
TELEPHONE BOX	▬
UTILITY POLE	▬
RETAINING WALL	▬
FENCE	▬
10' CONTOUR	▬
2' CONTOUR	▬
SPECIFIED CONTOUR	▬
FEMA FLOODWAY	▬
FEMA FLOODPLAIN	▬
100' BUFFER	▬
WETLAND LINE	▬
SPOT ELEVATION	▬
EMERGENCY OVERFLOW	▬
SILT FENCE	▬
TREE FENCE	▬
GRADING LIMITS	▬
TREELINE	▬
SOIL BORING	▬



**FLOODPLAIN SUMMARY**  
 FLOODPLAIN MITIGATION = 4,471 C.Y.  
 FLOODPLAIN FILL = 4,313 C.Y.



BENCHMARK	
1.	MNDOT GSID Station #833, Named "Lumber MNDT RM 1" Elev. = 858.11
2.	MNDOT GSID Station #775, Named "E 257" Elev. = 863.67



3890 Pheasant Ridge Drive NE, Suite 100  
 Blaine, MN 55449  
 Phone: (763) 489-7900  
 Fax: (763) 489-7955  
 www.carlsonmccain.com

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Print Name: Brian J. Krystofiak, P.E.  
 Signature: *Brian J. Krystofiak*  
 Date: 1/25/19 License #: 25063

Drawn: ADB  
 Designed: BJK  
 Date: 1/25/19

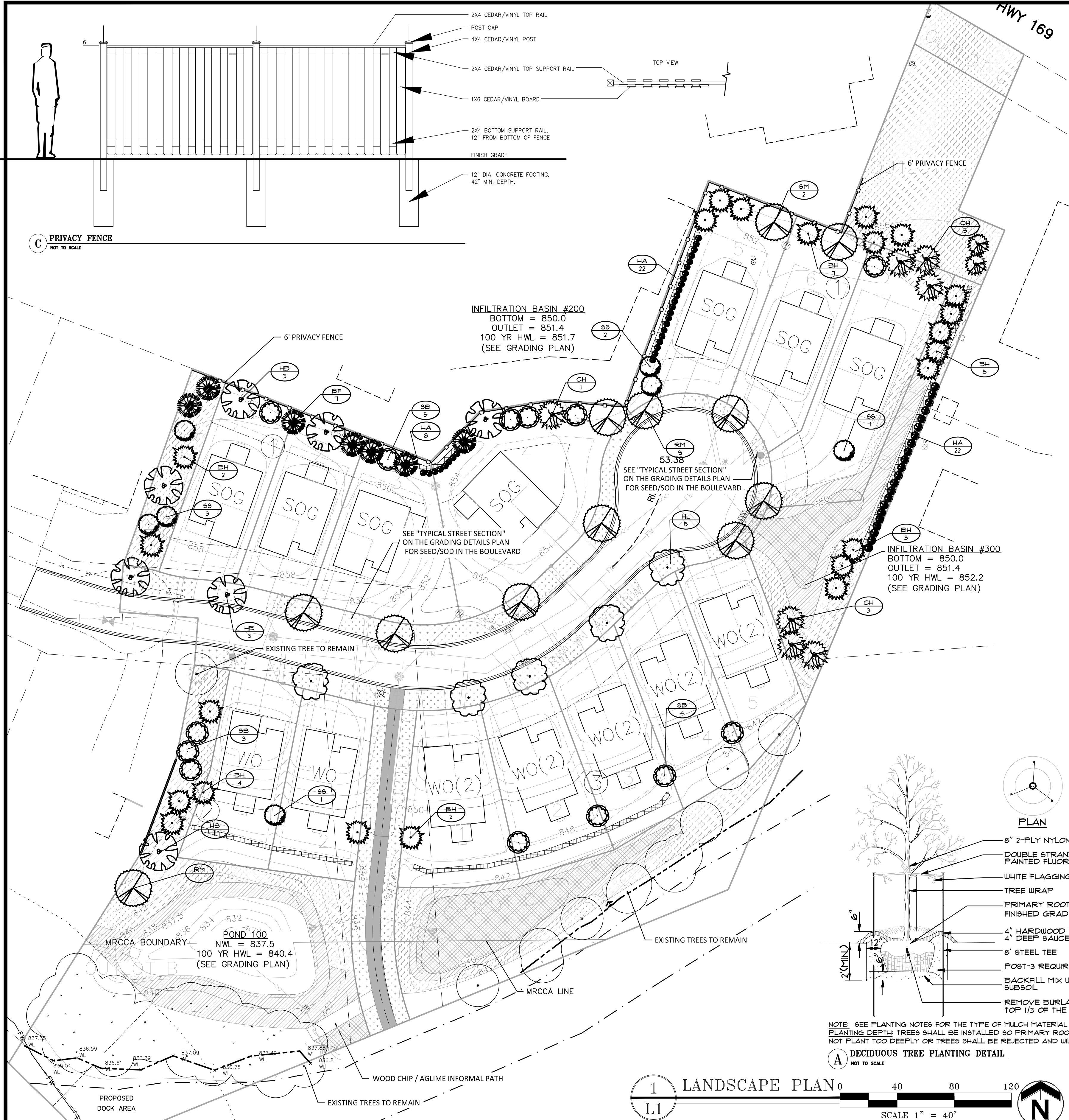
Revisions:  
 1. 4/4/19 per City Comments  
 2. 5/16/19 per City Comments  
 3. 7/26/19 per City Comments

**VILLAGE BANK**  
 9298 Central Avenue NE  
 Blaine, MN 55434

**RIVER WALK VILLAGE**  
 Ramsey, Minnesota

**FLOODPLAIN MITIGATION PLAN**

Save Date: 07/29/19 F:\j08617801 - 782017802 - Highway 10 ramsey\cad\_c3d\engineering\preliminary\7802\_flood\_mitigation.dwg



**SEED MIX LEGEND (FOR ALL SHEETS)**

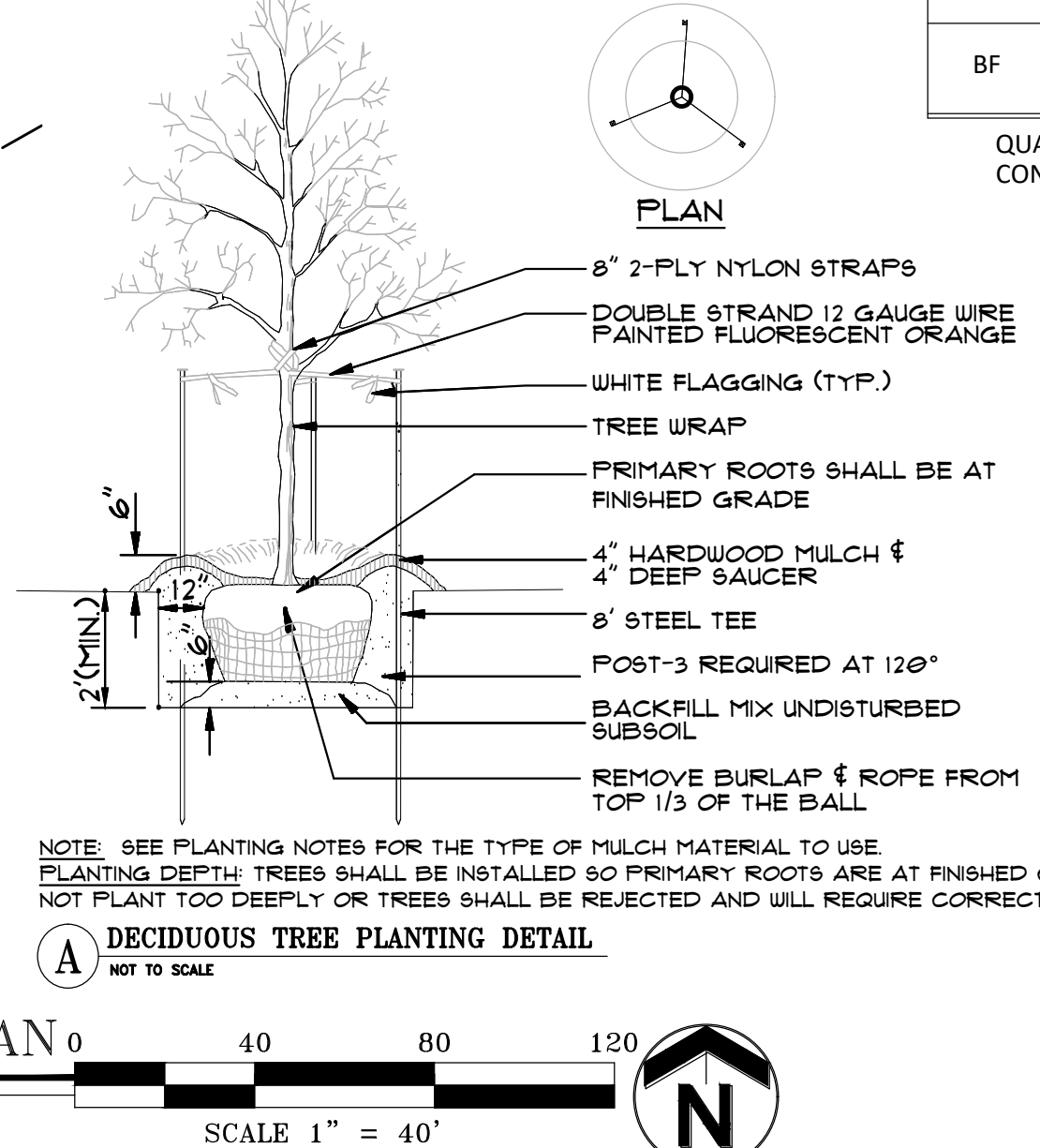
SYM.	TYPE	SEED MIX
[Symbol]	NATIVE WET PRAIRIE	MN SEED MIX 35-641
[Symbol]	WETLAND FRINGE	MN SEED MIX 35-621
[Symbol]	COMMERCIAL TURF - SOD	SOD
[Symbol]	MNDOT 260 ALL AREAS DISTURBED BY CONSTRUCTION NOT INTENDED SODDED, OR RETENTION BASINS	MN SEED MIX 25-131 (OLD MNDOT 260) & (USE EROSION CONTROL BLANKET FOR SLOPES OVER 3:1)
[Symbol]	MESIC GENERAL ROADSIDE FOR GENERAL STABILIZATION OF PAD AREAS	MN SEED MIX 25-131 (USE EROSION CONTROL BLANKET FOR SLOPES OVER 3:1)
[Symbol]	HARDWOOD MULCH SHREDDED HARDWOOD MULCH	(NATURAL COLOR)
[Symbol]	1/2" CRUSHED GRANITE	CRUSHED QUARRY GRANITE

**LANDSCAPE LEGEND**

KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	QTY.	INSTALL HEIGHT	MATURE HEIGHT	STRAIT LEADER NO "Y" CROTCH
HL	<i>Gleditsia triacanthos</i> var. <i>inermis</i> 'Shademaster'	SHADEMASTER HONEYLOCUST	2.5"	BB	5	10'	50'	
HB	<i>Celtis occidentalis</i>	HACKBERRY	2.5"	BB	7	15'	50'	
RM	<i>Acer rubrum</i> 'Nothwoods'	NORTHWOODS MAPLE	2.5"	BB	12	14'	50'	
SB	<i>Amelanchier x grandiflora</i> 'Autumn Brilliance'	AUTUMN BRILLIANCE SERVICEBERRY	1.5"	BB	13	8'	20'	
SS	<i>Malus x 'Spring Snow'</i>	SPRING SNOW CRABAPPLE	1.5"	BB	7	8'	25'	
BH	<i>Picea glauca</i> var. <i>Densata</i>	BLACK HILLS SPRUCE	6"	BB	23	6'	40'	
CH	<i>Tsuga canadensis</i>	CANADIAN HEMLOCK	6"	BB	9	6'	40'	
HA	<i>Thuja occidentalis</i> 'Holmstrup'	HOLMSTRUP ARBORVITAE	5'	BB	52	4'	10'	
BF	<i>Abies Balsamea</i>	BALSAM FIR	6"	BB	7	6'	40'	

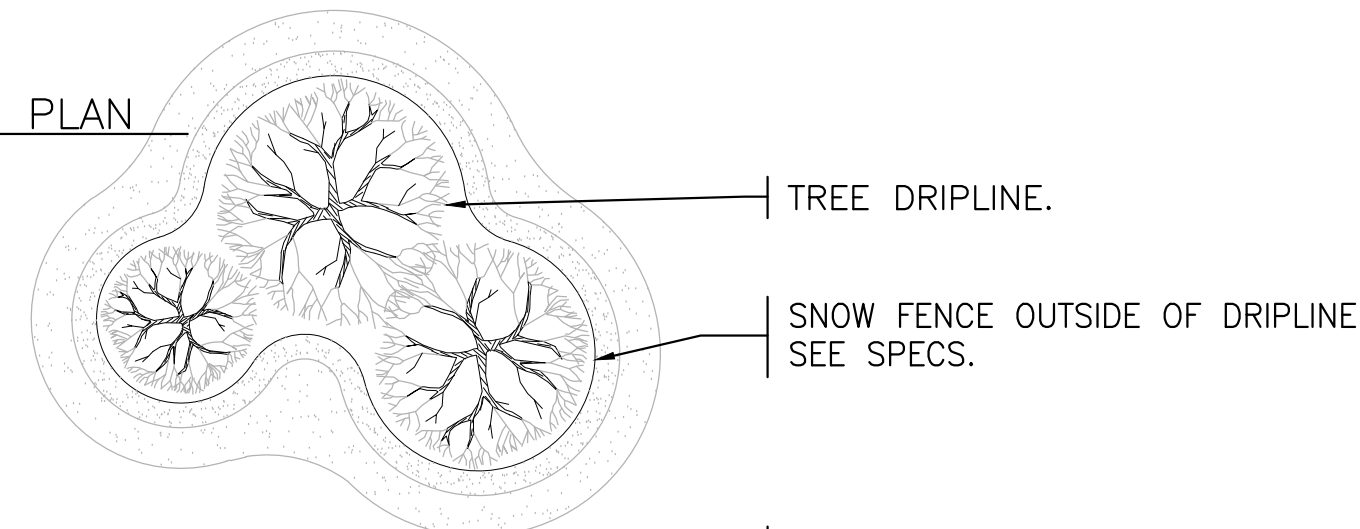
QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE.  
CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.

- PLANTING NOTES**
- ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE AND BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE LANDSCAPE LEGEND.
  - ALL TREES MUST BE STRAIGHT TRUNKED AND FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
  - THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING, OR AFTER INSTALLATION.
  - NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE ACCEPTED UNLESS APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.
  - ALL PLANTING STOCK SHALL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK," ANSI-Z60, LATEST EDITION, OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIALS.
  - EXISTING TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED TO THE DRIP LINE FROM ALL CONSTRUCTION TRAFFIC, STORAGE OF MATERIALS ETC. WITH 4' HT. ORANGE PLASTIC SAFETY FENCING ADEQUATELY SUPPORTED BY STEEL FENCE POSTS 6" O.C. MAXIMUM SPACING.
  - ALL PLANT MATERIAL QUANTITIES, SHAPES OF BEDS AND LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN AND ADJUSTED TO CONFORM TO THE EXACT CONDITIONS OF THE SITE. THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIALS PRIOR TO INSTALLATION.
  - ALL PLANTING AREAS MUST BE COMPLETELY MULCHED AS SPECIFIED.
  - MULCH: SHREDDED HARDWOOD MULCH, CLEAN AND FREE OF NOXIOUS WEEDS OR OTHER DELETERIOUS MATERIAL, IN ALL MASS PLANTING BEDS AND FOR TREES, UNLESS INDICATED AS ROCK MULCH ON DRAWINGS. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT PRIOR TO DELIVERY ON-SITE FOR APPROVAL. DELIVER MULCH ON DAY OF INSTALLATION. USE 4" FOR SHRUB BEDS, AND 3" FOR PERENNIAL/GROUND COVER BEDS, UNLESS OTHERWISE DIRECTED.
  - PLACE LANDSCAPE FILTER FABRIC UNDER ALL MULCHED AREAS. FILTER FABRIC SHALL BE 100% INTERWOVEN 5.1oz NEEDLE PUNCHED POLYPROPYLENE FABRIC MANUFACTURED BY DEWITT. USE PRO 5 "WEED BARRIER" OR APPROVED EQUAL.
  - PLACE EDGING BETWEEN ALL PLANTING/ROCK BEDS AND TURF. EDGING SHALL BE POLY.
  - THE PLAN TAKES PRECEDENCE OVER THE LANDSCAPE LEGEND IF DISCREPANCIES EXIST. THE SPECIFICATIONS TAKE PRECEDENCE OVER THE PLANTING NOTES AND GENERAL NOTES.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MULCHES AND PLANTING SOIL QUANTITIES TO COMPLETE THE WORK SHOWN ON THE PLAN. VERIFY ALL QUANTITIES SHOWN ON THE LANDSCAPE LEGEND.
  - LONG-TERM STORAGE OF MATERIALS OR SUPPLIES ON-SITE WILL NOT BE ALLOWED.
  - THE CONTRACTOR SHALL KEEP PAVEMENTS, PLANTERS AND BUILDINGS CLEAN AND UNSTAINED. ALL PEDESTRIAN AND VEHICLE ACCESS TO BE MAINTAINED THROUGHOUT CONSTRUCTION PERIOD. ALL WASTES SHALL BE PROMPTLY REMOVED FROM THE SITE. ANY PLANT STOCK NOT PLANTED ON DAY OF DELIVERY SHALL BE HELED IN AND WATERED UNTIL INSTALLATION. PLANTS NOT MAINTAINED IN THIS MANNER WILL BE REJECTED. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPAVED AT THE CONTRACTOR'S EXPENSE.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS, AND PERMITS GOVERNING THE WORK.
  - LOCATE AND VERIFY ALL UTILITIES, INCLUDING IRRIGATION LINES, WITH THE OWNER FOR PROPRIETARY UTILITIES AND GOPHER STATE ONE CALL AT 454-0002 (TWIN CITIES METRO AREA) OR 800-252-1166 (GREATER MINNESOTA) 48 HOURS BEFORE DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ANY DAMAGES TO SAME. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS TO FACILITATE PLANT RELOCATION.
  - USE ANTI-DESICCANT (WILTTRUF OR APPROVED EQUAL) ON DECIDUOUS PLANTS MOVED IN LEAF OR EVERGREENS MOVED ANYTIME. APPLY AS PER MANUFACTURER'S INSTRUCTION. ALL EVERGREENS SHALL BE SPRAYED IN THE LATE FALL FOR WINTER PROTECTION DURING WARRANTY PERIOD.
  - PLANTING SOIL FOR TREES, SHRUBS AND GROUND COVERS: FERTILE FRABLE LOAM CONTAINING A LIBERAL AMOUNT OF HUMUS AND CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHALL COMPLY WITH MN/DOT SPECIFICATION 3877 TYPE B SELECT TOPSOIL. MIXTURE SHALL BE FREE FROM HARDPAK SUBSOIL, STONES, CHEMICALS, NOXIOUS WEEDS, ETC. SOIL MIXTURE SHALL HAVE A PH BETWEEN 6.1 AND 7.5 AND 10-0-10 FERTILIZER AT THE RATE OF 3 POUNDS PER CUBIC YARD. IN PLANTING BEDS INCORPORATE THIS MIXTURE THROUGHOUT THE ENTIRE BED BY ROTOTILLING IT INTO THE TOP 12" OF SOIL.
  - ALL PLANTS SHALL BE GUARANTEED FOR TWO COMPLETE GROWING SEASONS (APRIL 1 - NOVEMBER 1), UNLESS OTHERWISE SPECIFIED. THE GUARANTEE SHALL COVER THE FULL COST OF REPLACEMENT INCLUDING LABOR AND PLANTS.
  - CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 3 DAYS PRIOR TO PLANNED DELIVERY. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 24 HOURS IN ADVANCE OF BEGINNING PLANT INSTALLATION.
  - SEASONS/TIME OF PLANTING AND SEEDING: NOTE: THE CONTRACTOR MAY ELECT TO PLANT IN OFF-SEASONS ENTIRELY AT HIS/HER RISK.
- DECIDUOUS POTTED PLANTS:** 4/1 - 6/1; 9/21 - 11/1  
**DECIDUOUS /B&B:** 4/1 - 6/1; 9/21 - 11/1  
**EVERGREEN POTTED PLANTS:** 4/1 - 6/1; 9/21-11/1  
**EVERGREEN B&B:** 4/1 - 5/1; 9/21 - 11/1  
**TURF/LAWN SEEDING:** 4/1 - 6/1; 7/20 - 9/20  
**NATIVE MIX SEEDING:** 4/1 - 6/1; 7/20; 9/20-10/20
23. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PORTION OF THE WORK IS IN PLACE. PLANT MATERIAL SHALL BE PROTECTED AND MAINTAINED UNTIL THE INSTALLATION OF THE PLANTS IS COMPLETE. INSPECTION HAS BEEN MADE, AND PLANTINGS ARE ACCEPTED EXCLUSIVE OF THE GUARANTEE. MAINTENANCE SHALL INCLUDE WATERING, CULTIVATING, MULCHING, REMOVAL OF DEAD MATERIALS, RE-SETTING PLANTS TO PROPER GRADE AND KEEPING PLANTS IN A PLUMB POSITION. AFTER ACCEPTANCE, THE OWNER SHALL ASSUME MAINTENANCE RESPONSIBILITIES. HOWEVER, THE CONTRACTOR SHALL CONTINUE TO BE RESPONSIBLE FOR KEEPING THE TREES PLUMB THROUGHOUT THE GUARANTEE PERIOD.
24. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFLOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL LANDSCAPE LEGEND SPECIFICATIONS.
25. WATERING: MAINTAIN A WATERING SCHEDULE WHICH WILL THOROUGHLY WATER ALL PLANTS ONCE A WEEK, IN EXTREMELY HOT, DRY WEATHER, WATER MORE OFTEN AS REQUIRED BY INDICATIONS OF HEAT STRESS SUCH AS WILTING LEAVES. CHECK MOISTURE UNDER MULCH PRIOR TO WATERING TO DETERMINE NEED. CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR WATER.
26. CONTRACTOR SHALL REQUEST IN WRITING, A FINAL ACCEPTANCE INSPECTION.
27. ALL DISTURBED AREAS TO BE TURF SEEDDED, ARE TO RECEIVE 4" TOP SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
28. ALL DISTURBED AREAS TO RECEIVE NATIVE WETLAND SEEDED, ARE TO RECEIVE ENGINEERED SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
29. ALL IN GROUND IRRIGATION SYSTEMS SHALL BE EQUIPPED WITH RAIN SENSOR AND A WATER EFFICIENT/ WEATHER BASED CONTROLLER. PERMIT FOR AN IRRIGATION SYSTEM IS REQUIRED.

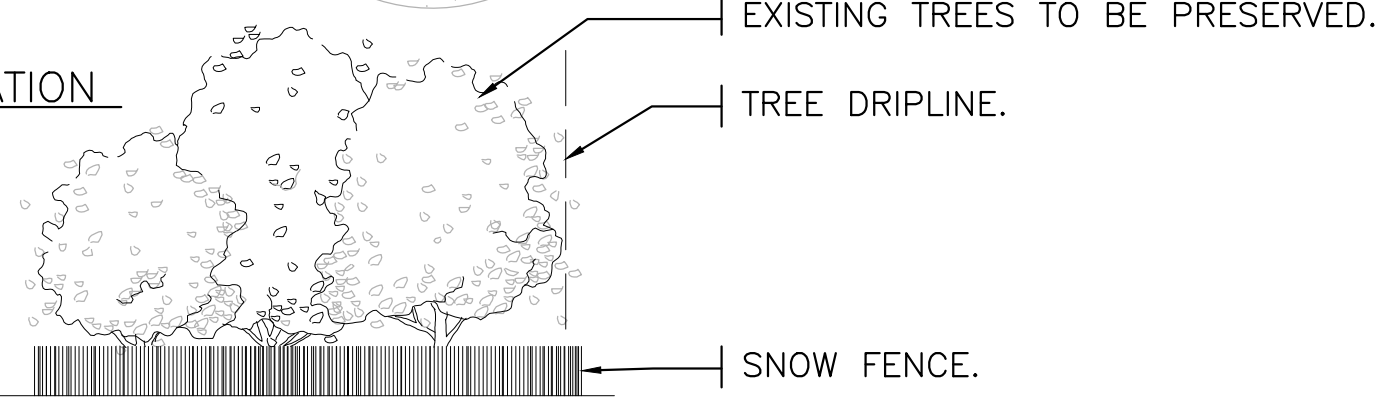


**TREE PROTECTION FENCE**

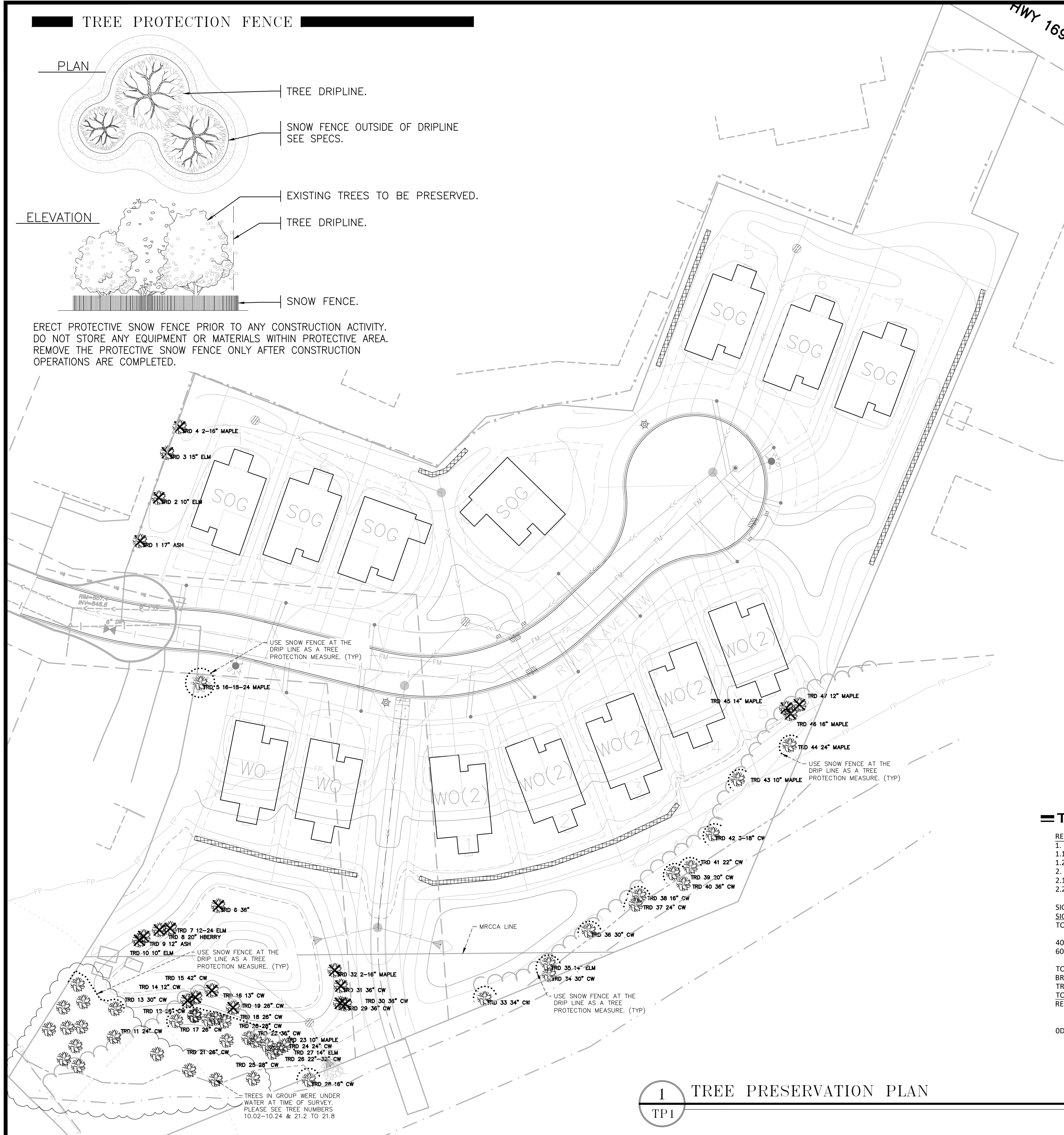
PLAN



ELEVATION



ERECT PROTECTIVE SNOW FENCE PRIOR TO ANY CONSTRUCTION ACTIVITY.  
DO NOT STORE ANY EQUIPMENT OR MATERIALS WITHIN PROTECTIVE AREA.  
REMOVE THE PROTECTIVE SNOW FENCE ONLY AFTER CONSTRUCTION OPERATIONS ARE COMPLETED.

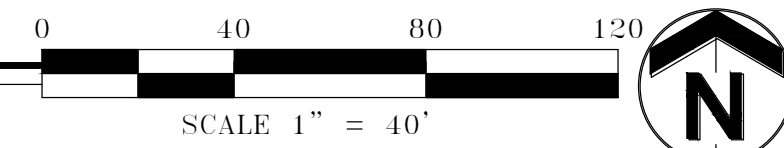


**TREE REMOVAL/REPLACEMENT SUMMARY**

REMOVED/SAVED	REPLACEMENT/CREDIT
1. SIGNIFICANT TREES;	
1.1. OAK AND EVERGREEN OVER 4 DBH	0 dbh
1.2. ALL TREES OVER 8 DBH	1,829 dbh
2. REMOVAL THRESHOLD	
2.1. AT LEAST 40% OF THE EXISTING SIGNIFICANT TREE DBH SHALL BE RETAINED ON-SITE	733 dbh
2.2. FOR EVERY SIGNIFICANT DBH REMOVED ABOVE THE 40%, REPLACE AT 1.25%	1,096 dbh
SIGNIFICANT TREES (OAK / EVERGREEN)	0 dbh
SIGNIFICANT TREES (ALL OTHERS)	1,829 dbh
TOTAL DBH ON SITE -	1,829 dbh
40% TO REMAIN ON-SITE	733 dbh
60% ALLOWABLE REMOVAL	1,096 dbh
TOTAL TREES TO REMAIN	1249 dbh
BROKEN TREES	147 dbh
TREES REMOVED	- 430 dbh
TOTAL REPLACEMENT TREES	0 dbh
REPLACEMENT X 1.25% - TOTAL REPLACEMENT DBH	0 dbh
ODDBH / 2.5DBH =	0 REPLACEMENT TREES

Tree Tag	DBH	Tree Type	Significant	Dead/Broke	Remove
1	17	Ash	Y	N	Y
2	10	Boxelder	N	Broken	B
3	15	Elm	Y	N	Y
4.1	16	Boxelder	Y	N	Y
4.2	16	Boxelder	Y	N	Y
5.1	16	Silver Maple	Y	N	Y
5.2	18	Silver Maple	Y	N	Y
5.3	24	Silver Maple	Y	N	Y
6	36	Silver Maple	Y	N	Y
7.1	11	Elm	Y	N	Y
7.2	24	Elm	Y	N	Y
8	20	Hackberry	Y	N	Y
9	12	Ash	Y	N	Y
10.1	11	Elm	N	Broken	B
10.2	12	Cottonwood	N	N	N
10.3	10	Cottonwood	Y	N	N
10.4	12	Cottonwood	Y	N	N
10.5	12	Cottonwood	Y	N	N
10.6	10	Cottonwood	Y	N	N
10.7	12	Cottonwood	Y	N	N
10.8	12	Cottonwood	Y	N	N
10.9	12	Cottonwood	Y	N	N
10.10	10	Cottonwood	Y	N	N
10.11	12	Cottonwood	Y	N	N
10.12	12	Cottonwood	Y	N	N
10.13	12	Cottonwood	Y	N	N
10.14	18	Cottonwood	Y	N	N
10.15	20	Cottonwood	Y	N	N
10.16	18	Cottonwood	Y	N	N
10.17	18	Cottonwood	N	Broken	B
10.18	20	Cottonwood	Y	N	N
10.19	18	Cottonwood	Y	N	N
10.20	20	Cottonwood	Y	N	N
10.21	20	Cottonwood	Y	N	N
10.22	18	Cottonwood	N	Broken	B
10.23	20	Cottonwood	N	Broken	B
10.24	20	Cottonwood	N	Broken	B
11	24	Cottonwood	Y	N	N
12	26	Cottonwood	Y	N	N
13	30	Cottonwood	Y	N	N
14	12	Cottonwood	Y	N	Y
15	42	Cottonwood	Y	N	Y
16	13	Cottonwood	Y	N	Y
17	26	Cottonwood	Y	N	N
18.1	30	Cottonwood	Y	N	N
18.2	26	Cottonwood	N	Broken	B
18.3	18	Cottonwood	Y	N	N
18.4	12	Cottonwood	Y	N	N
10.5	10	Cottonwood	Y	N	N
18.6	22	Cottonwood	Y	N	N
18.7	24	Cottonwood	N	Broken	B
18.8	30	Cottonwood	Y	N	N
19	26	Cottonwood	Y	N	N
20	28	Cottonwood	Y	N	N
21.1	26	Cottonwood	Y	N	N
21.2	20	Cottonwood	Y	N	N
21.3	18	Cottonwood	Y	N	N
21.4	12	Cottonwood	Y	N	N
21.5	10	Cottonwood	Y	N	N
21.6	22	Cottonwood	Y	N	N
21.7	24	Cottonwood	Y	N	N
21.8	30	Cottonwood	Y	N	N
22	36	Cottonwood	Y	N	N
23	10	Silver Maple	Y	N	N
24	22	Cottonwood	Y	N	N
25	28	Cottonwood	Y	N	N
26.1	32	Cottonwood	Y	N	N
26.2	22	Cottonwood	Y	N	N
27	14	Elm	Y	N	N
28	16	Cottonwood	Y	N	Y
29	36	Cottonwood	Y	N	Y
30.1	36	Cottonwood	Y	N	Y
30.2	8	Elm	Y	N	Y
30.3	8	Elm	Y	N	Y
31	36	Cottonwood	Y	N	Y
32	16	Boxelder	Y	N	Y
33	34	Cottonwood	Y	N	N
34	30	Cottonwood	Y	N	N
35	14	Elm	Y	N	N
36	30	Cottonwood	Y	N	N
37	24	Cottonwood	Y	N	N
38	16	Cottonwood	Y	N	N
39	20	Cottonwood	Y	N	N
40	36	Cottonwood	Y	N	N
41	22	Cottonwood	Y	N	N
42.1	18	Cottonwood	Y	N	N
42.2	18	Cottonwood	Y	N	N
42.3	18	Cottonwood	Y	N	N
43	10	Boxelder	Y	N	N
44	24	Silver Maple	Y	N	N
45	14	Silver Maple	Y	N	Y
46	14	Silver Maple	Y	N	Y
47	12	Silver Maple	Y	N	Y

**1 TREE PRESERVATION PLAN**  
TP1



**Carlson McCain**  
 • environmental engineering • surveying

3890 Pheasant Ridge Drive NE, Suite 100  
Blaine, MN 55449  
Phone: (763) 489-7900  
Fax: (763) 489-7959  
www.carlsonmccain.com

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Print Name: James A. Kalkes RLA  
Signature: *James A. Kalkes*  
Date: 7/26/19 License #: 45071

Drawn: JAK  
Designed: JAK  
Date: 4/4/19

Revisions:  
1. 4/4/19 per City Comments  
2. 5/16/19 per City Comments  
3. 7/26/19 per City Comments

**VILLAGE BANK**  
9298 Central Avenue NE  
Blaine, MN 55434

**RIVER WALK VILLAGE**  
Ramsey, Minnesota

**TREE PRESERVATION PLAN**

Save Date: 07/29/19 | F:\06817801 - 782017802 - Highway 10 Ramsey\cad\_c3d\landscape\7802\_tree\_preservation.dwg