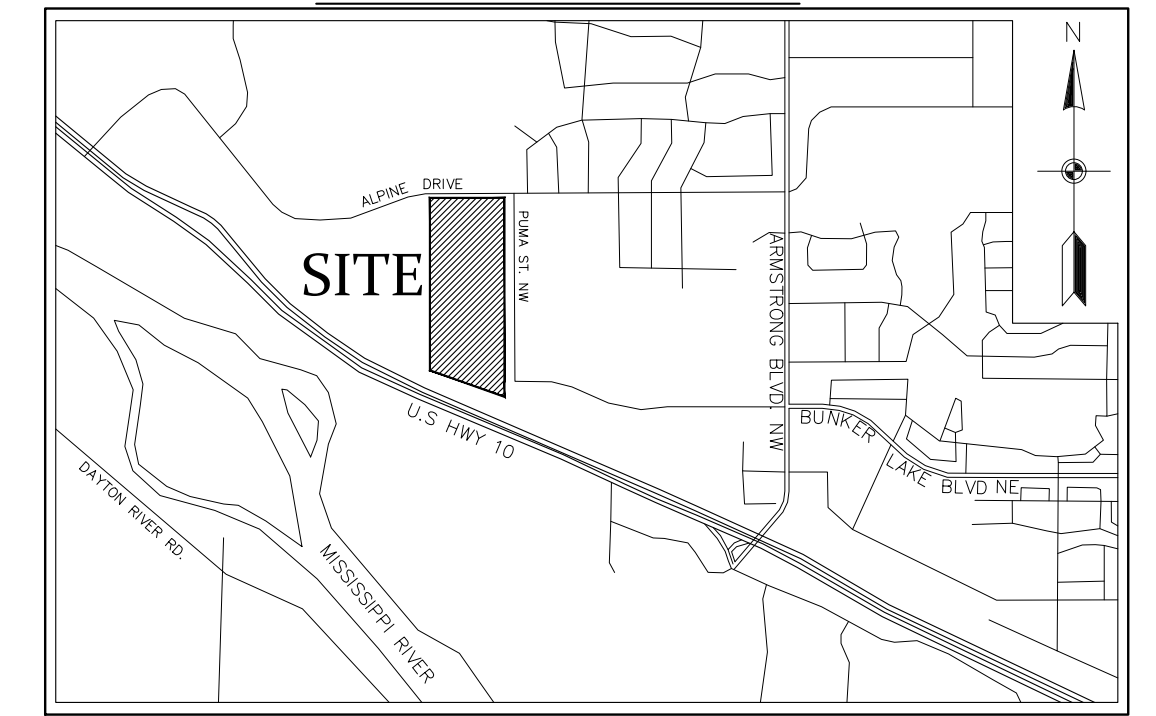


# RIVERSTONE 2ND ADDITION

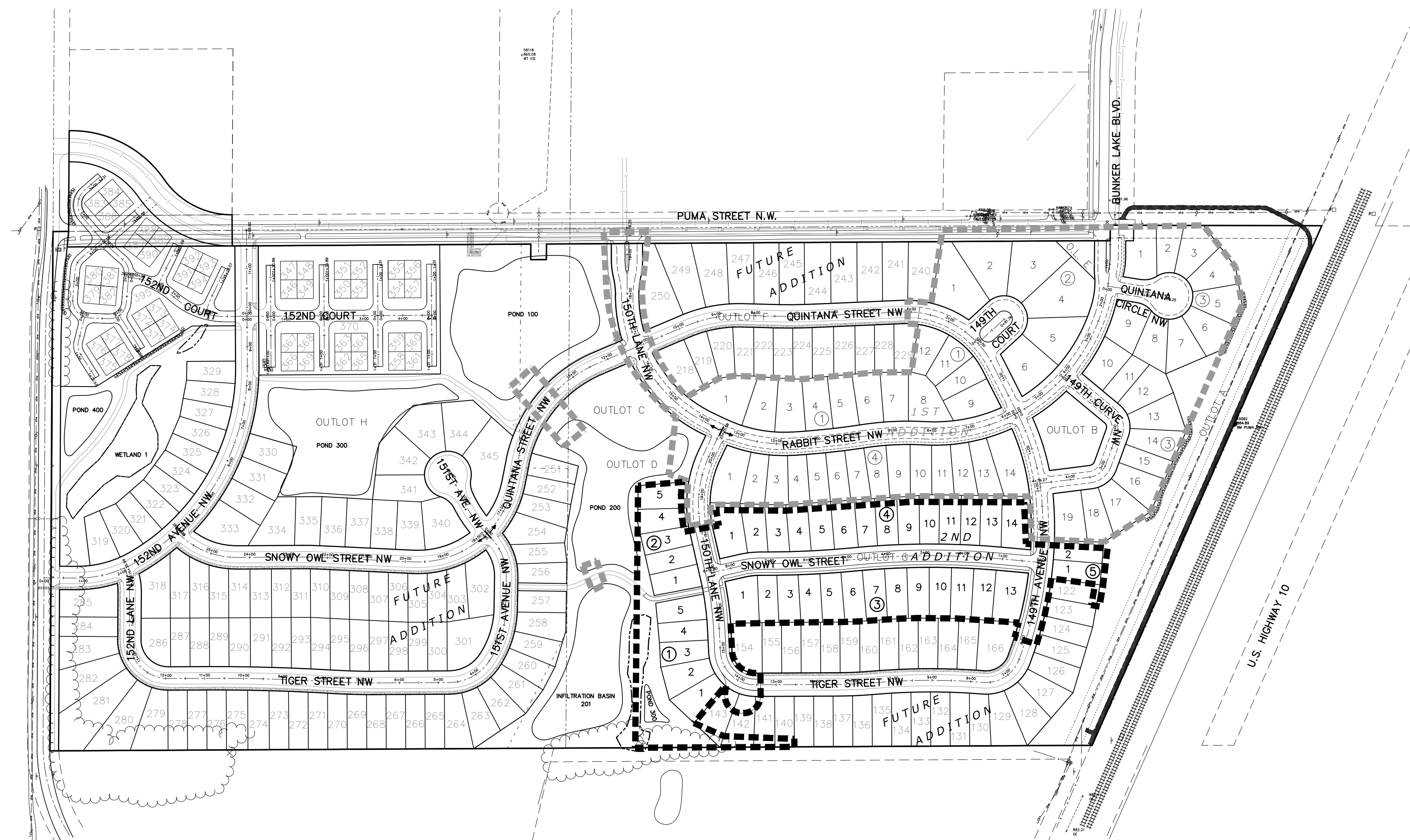
## SANITARY SEWER, WATER MAIN, STORM SEWER AND STREET CONSTRUCTION PLANS

### RAMSEY, MINNESOTA

#### VICINITY MAP

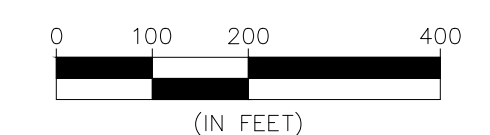
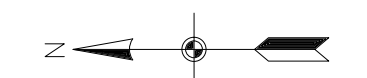


NOT TO SCALE



#### SHEET INDEX

1. COVER
2. SANITARY SEWER INDEX
3. STORM SEWER INDEX
- 4-5. SANITARY SEWER & WATERMAIN
- 6-7. STORM SEWER
8. STREET CONSTRUCTION
  - 150TH LANE NW / 149TH AVENUE NW
9. STREET CONSTRUCTION
  - SNOWY OWL STREET NW
- 10-12. DETAILS



#### BENCHMARK

1. Anoka County Benchmark No. 3076  
Elev.= 890.186 (NAVD 88)
2. Anoka County Benchmark No. 2078  
Elev.= 899.499 (NAVD 88)

CALL BEFORE YOU DIG



Know what's below.  
Call before you dig.

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



3890 Pheasant Ridge DR. NE,  
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Print Name: Brian J. Krystofiak, P.E.  
Signature: *Brian J. Krystofiak*  
Date: 4/13/18 License #: 25063

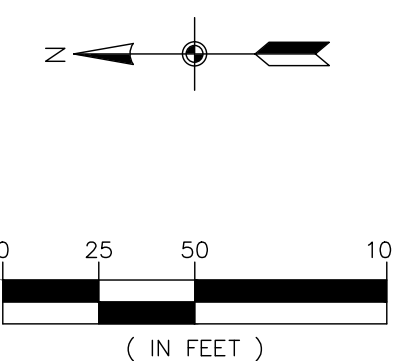
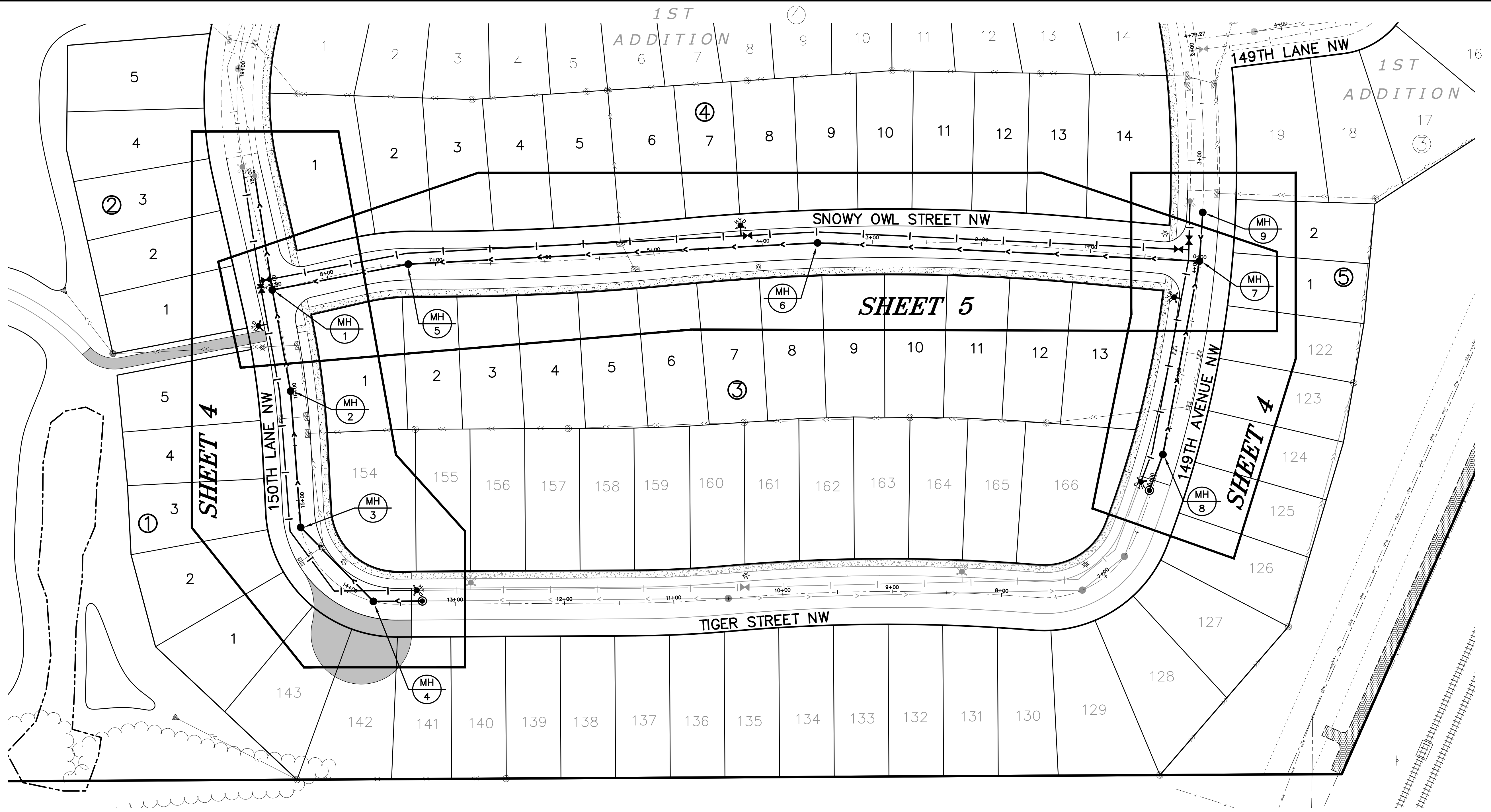
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Designed: BJK  
Date: 4/13/18

Revisions:  
1. 6/13/18 Per City Comments

**RIVERSTONE DEVELOPMENT, LLC.**  
14015 Sunfish Lake Blvd., Suite 400  
Ramsey, MN 55303

**RIVERSTONE 2ND ADDITION**  
Ramsey, Minnesota

**COVER**



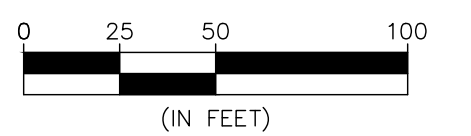
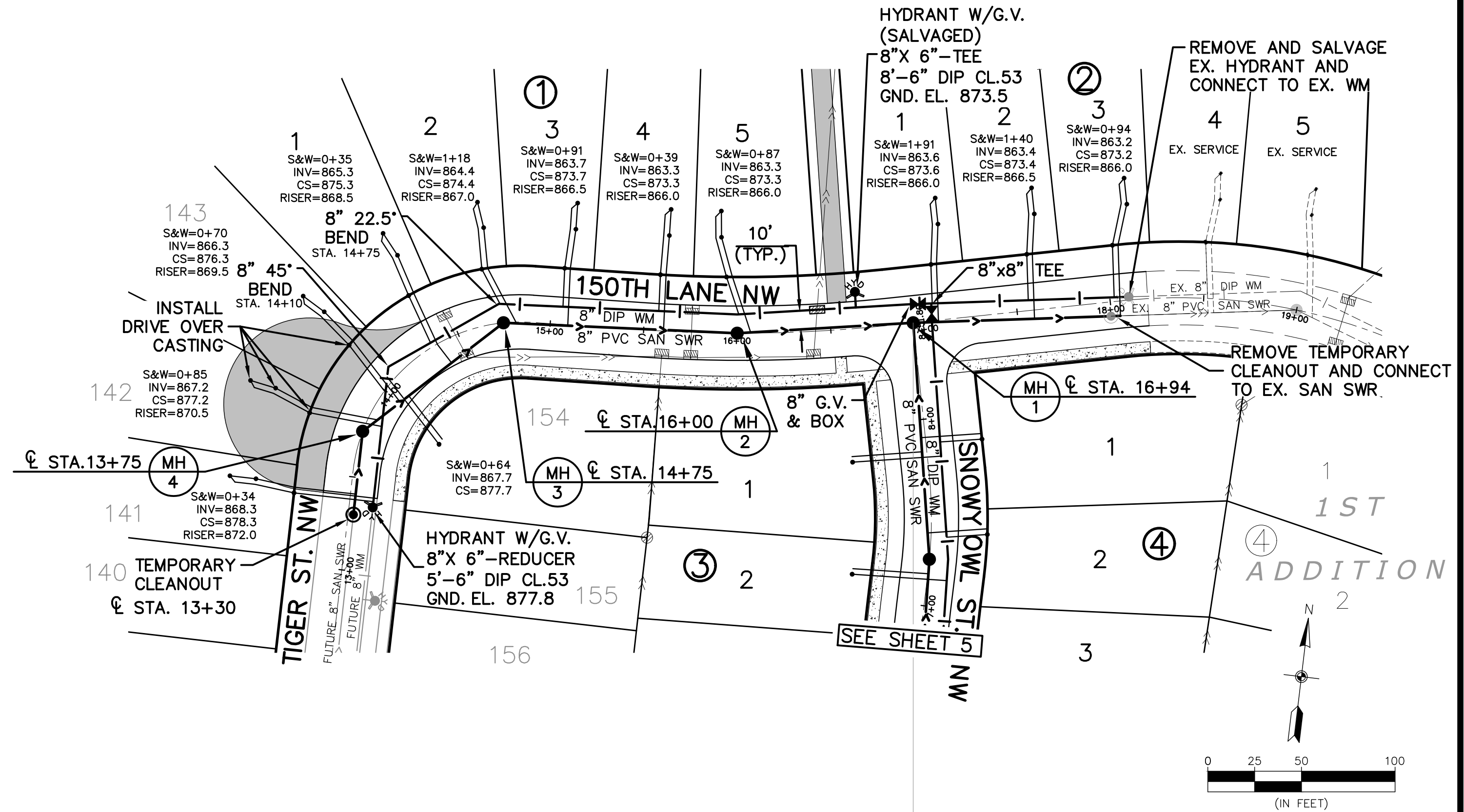
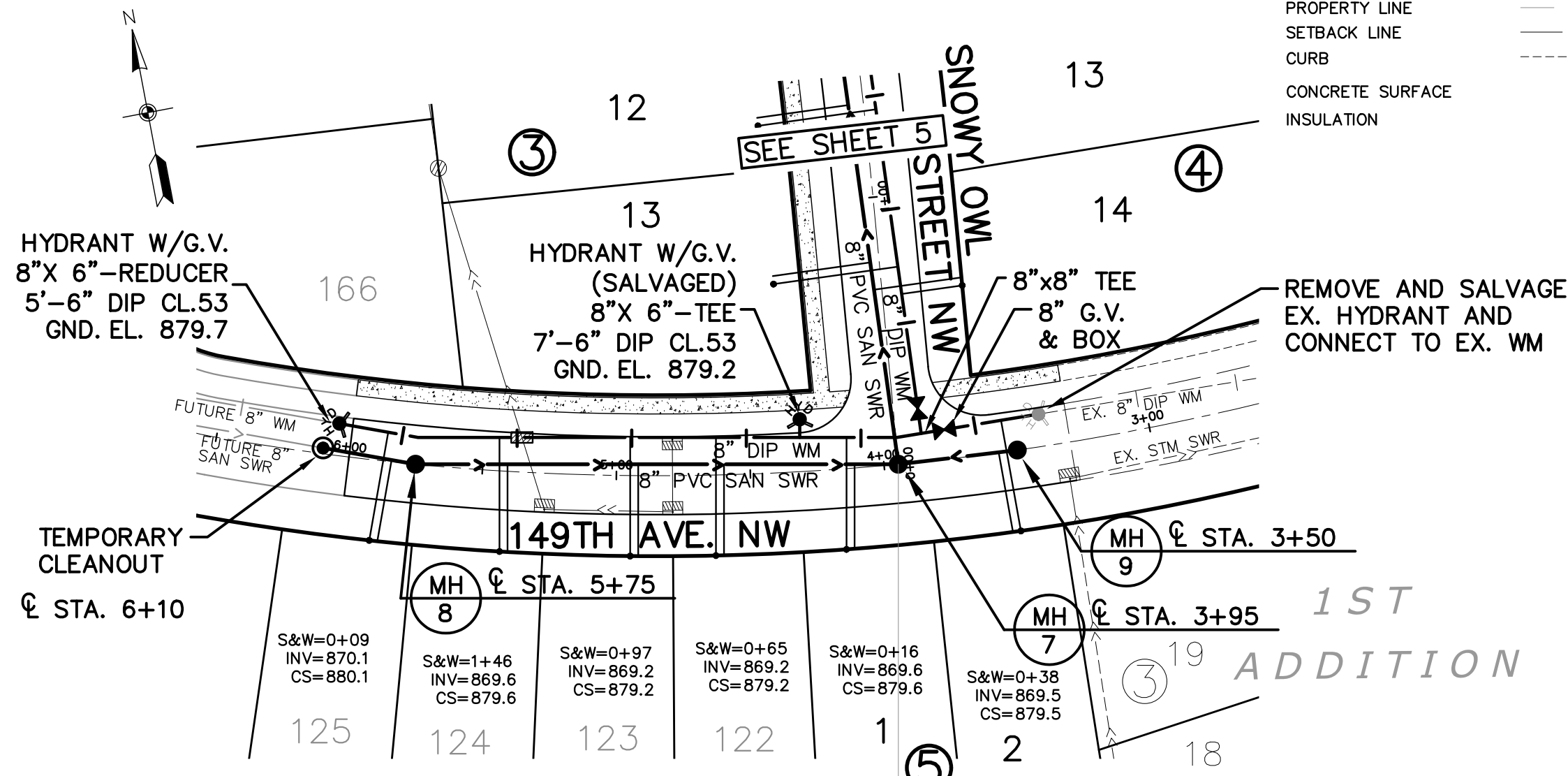
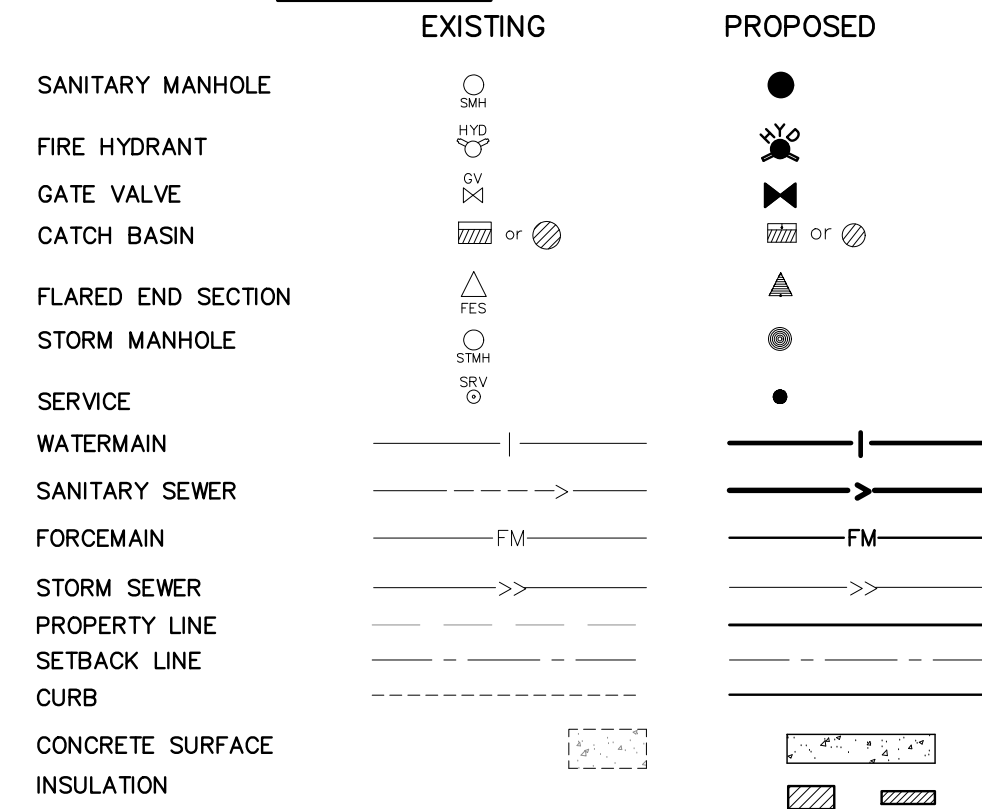
BENCHMARK	
1.	Anoka County Benchmark No. 3076 Elev.= 890.186 (NAVD 88)
2.	Anoka County Benchmark No. 2078 Elev.= 899.499 (NAVD 88)



**GENERAL NOTES:**

- SANITARY SEWER SERVICES SHALL BE 4" PVC SDR 26 UNLESS OTHERWISE NOTED.
- 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 AND AT THE RISER PIPE INSIDE THE BUILDING (FOR VILLA UNITS).
- SANITARY SEWER & WATER SERVICES SHALL BE CONSTRUCTED TO THE R/W WHERE THERE IS NO SIDEWALK, AND 10' BEYOND THE R/W WHERE THERE IS SIDEWALK.

**LEGEND**

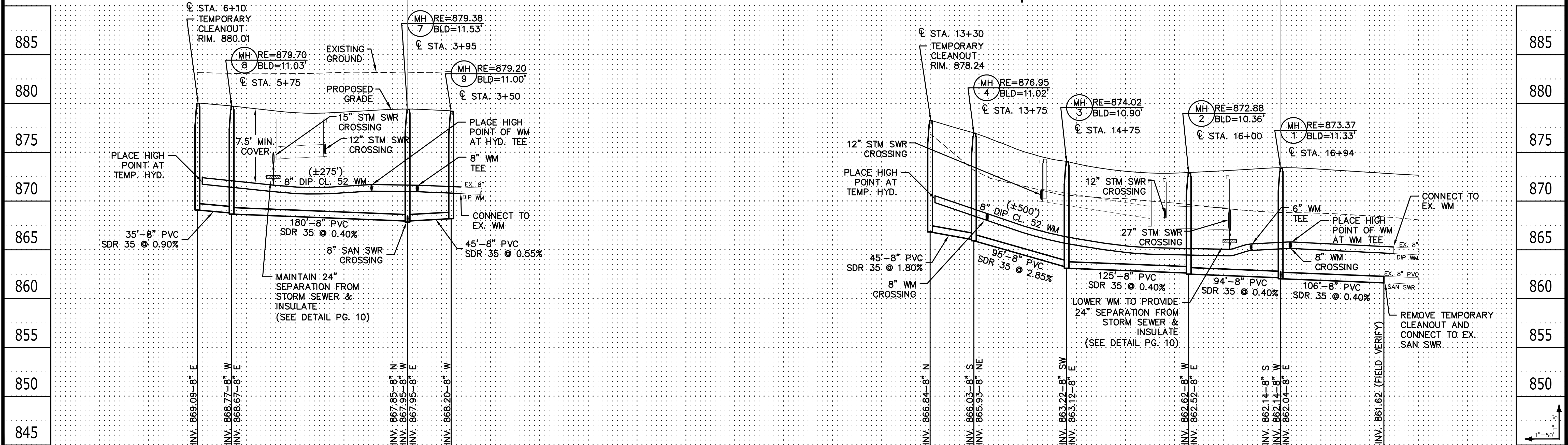


**BENCHMARK**

- Anoka County Benchmark No. 3076  
Elev. = 890.186 (NAVD 88)
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**149TH AVENUE NW**

**TIGER STREET NW ↔ 150TH LANE NW**



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Revisions:  
1. 6/13/18 Per City Comments

**RIVERSTONE DEVELOPMENT, LLC.**  
14015 Sunfish Lake Blvd., Suite 400  
Ramsey, MN 55303

**RIVERSTONE 2ND ADDITION**  
Ramsey, Minnesota

**SANITARY SEWER & WATER MAIN**

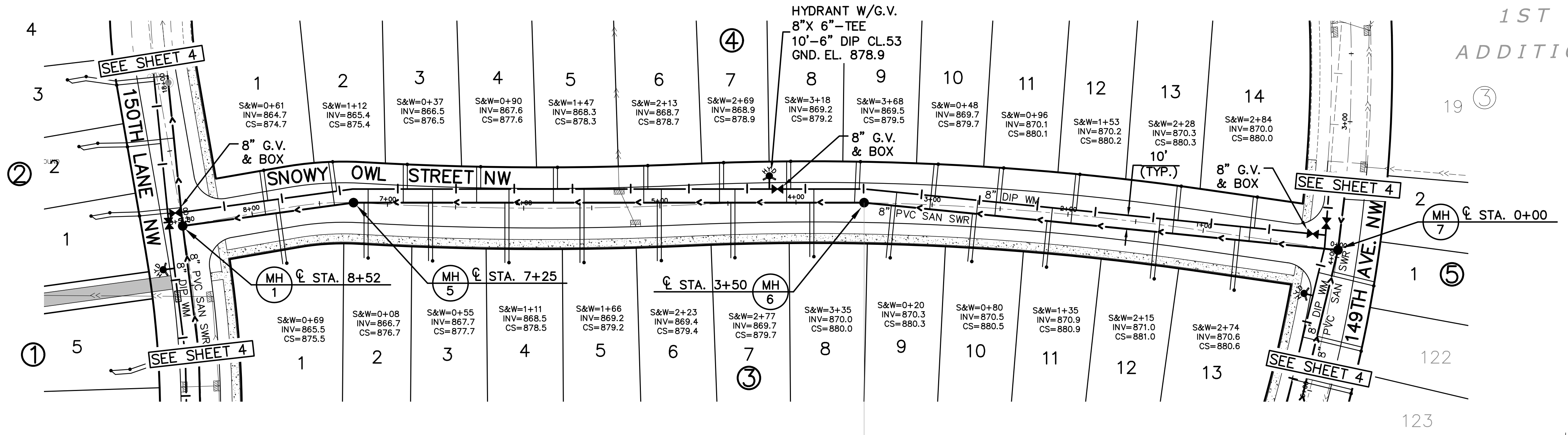
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**LEGEND**

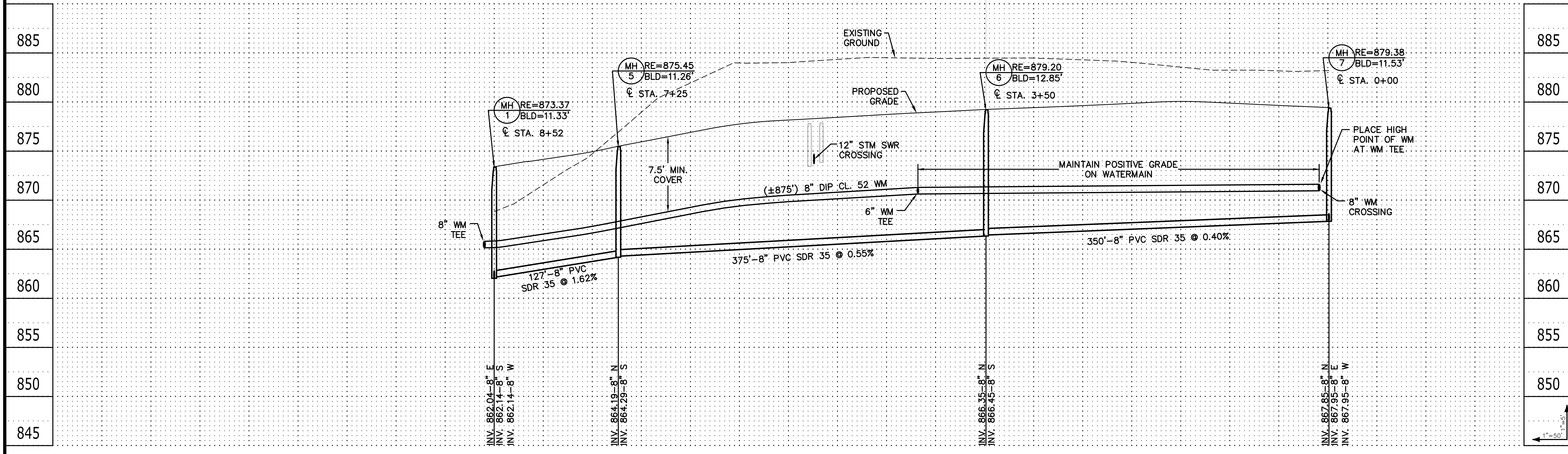
	EXISTING	PROPOSED
SANITARY MANHOLE		
FIRE HYDRANT		
GATE VALVE		
CATCH BASIN		
FLARED END SECTION		
STORM MANHOLE		
SERVICE		
WATERMAIN		
SANITARY SEWER		
FORCEMAIN		
STORM SEWER		
PROPERTY LINE		
SETBACK LINE		
CURB		
CONCRETE SURFACE		
INSULATION		



**SNOWY OWL STREET NW**

**BENCHMARK**

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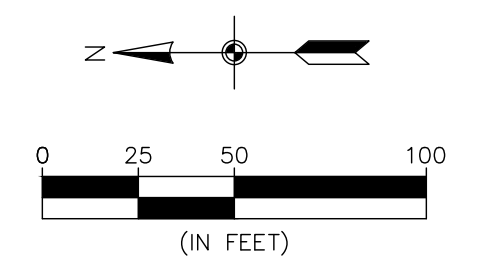
**RIVERSTONE 2ND ADDITION**  
Ramsey, Minnesota

**SANITARY SEWER & WATER MAIN**

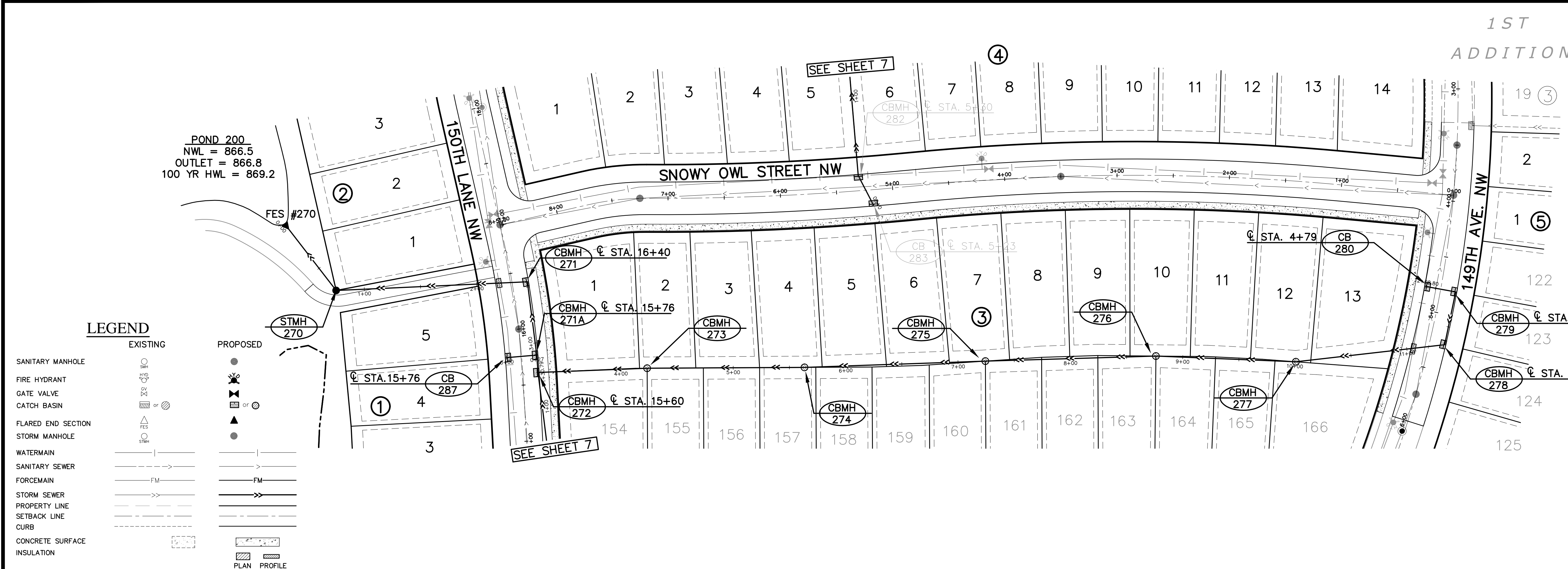
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STORM SEWER SCHEDULE		
STRUCTURE	NEENAH CASTING or EQUAL	
STMH-270	60" DIA.	R-1733
CBMH-271	72" DIA.	R-3067
CBMH-271A	60" DIA.	R-3067
CBMH-272	72" DIA.	R-3067
CBMH-273	48" DIA.	R-2570
CBMH-274	48" DIA.	R-2570
CBMH-275	48" DIA.	R-2570
CBMH-276	48" DIA.	R-2570
CBMH-277	48" DIA.	R-2570
CBMH-278	48" DIA.	R-3067
CBMH-279	48" DIA.	R-3067
CB-280	24"X36"	R-3067
CB-287	24"X36"	R-3067

- GENERAL NOTES:
- INSTALL SEDIMENT CONTROL BARRIER INSERTS ON ALL CATCH BASINS (SEE DETAIL).
  - R-3067 SHALL HAVE BICYCLE SAFE GRATED BACK.

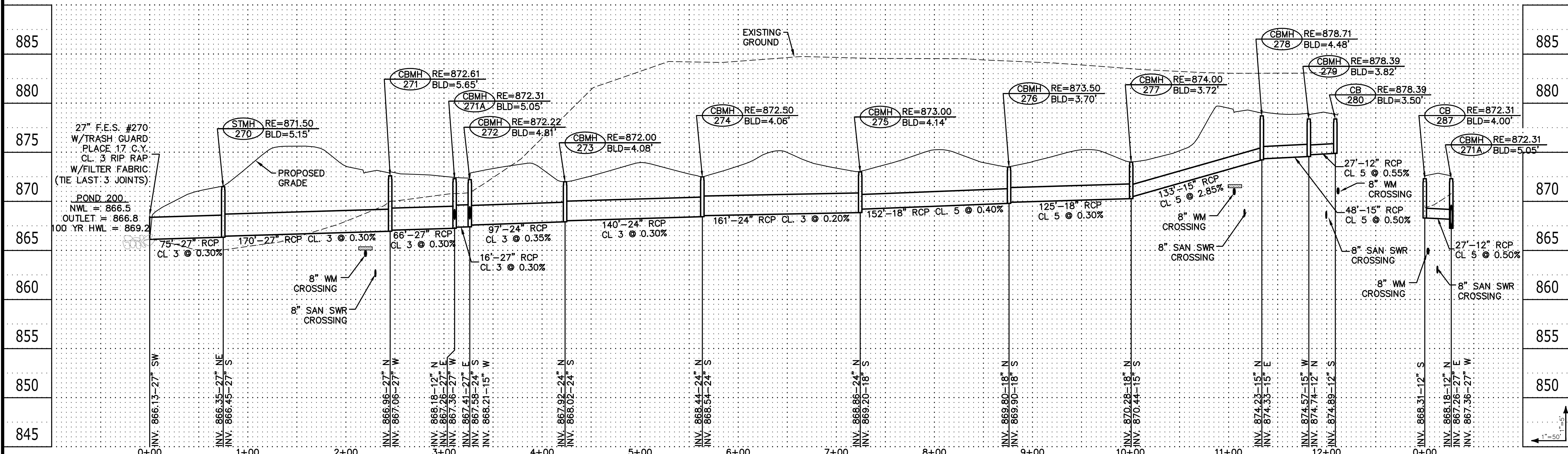


BENCHMARK	
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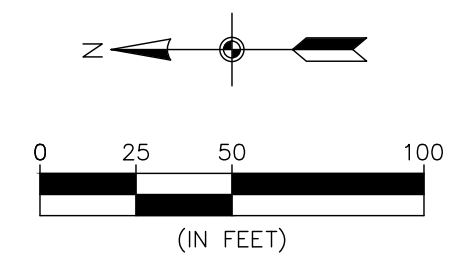


**LEGEND**

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



	3890 Pheasant Ridge DR. 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: Date: 4/13/18 License #: 25063	Drawn: ADB Designed: BJK Date: 4/13/18	Revisions: 1. 6/13/18 Per City Comments	RIVERSTONE DEVELOPMENT, LLC. 14015 Sunfish Lake Blvd., Suite 400 Ramsey, MN 55303	RIVERSTONE 2ND ADDITION Ramsey, Minnesota	STORM SEWER	6 of 12
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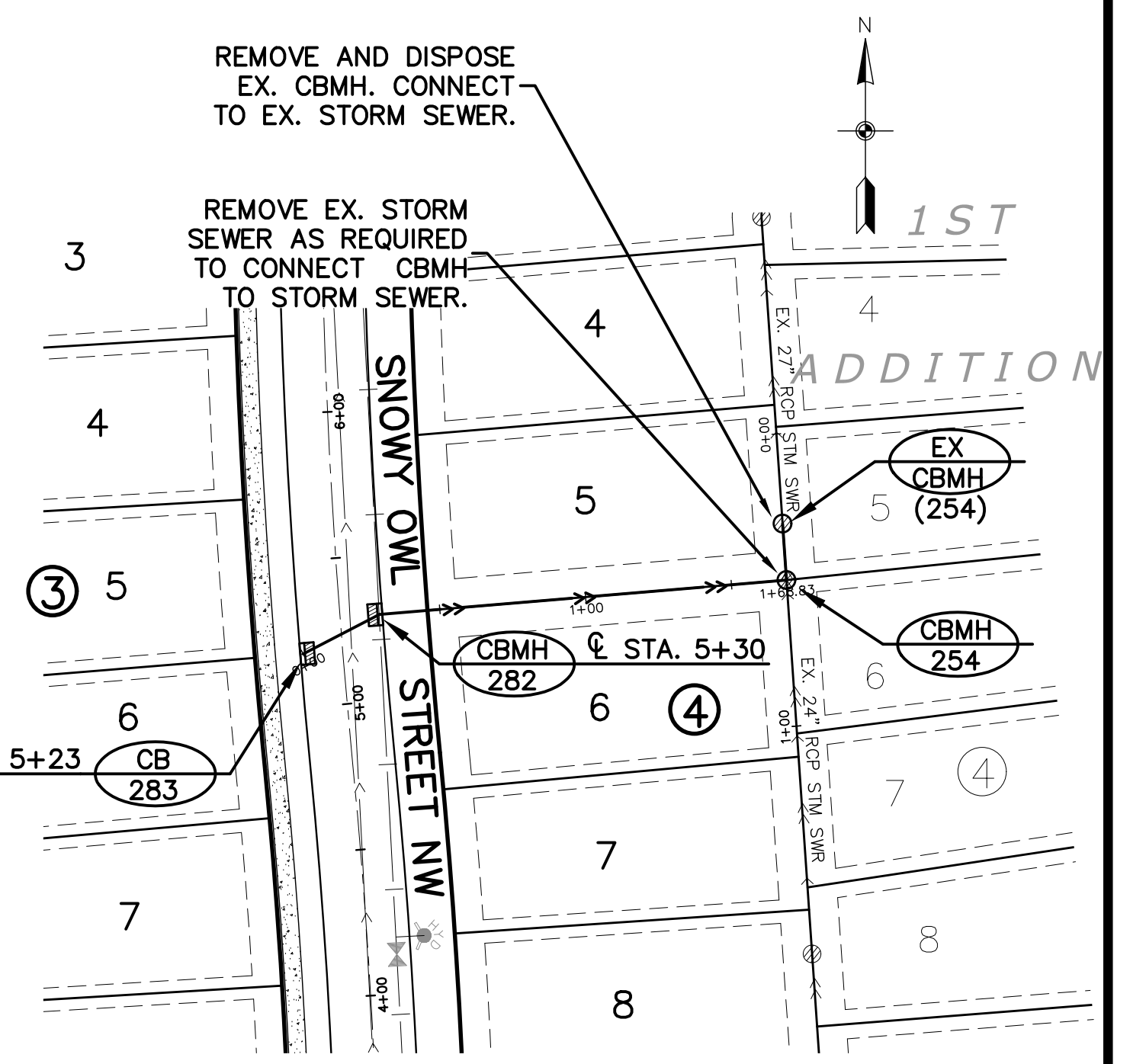
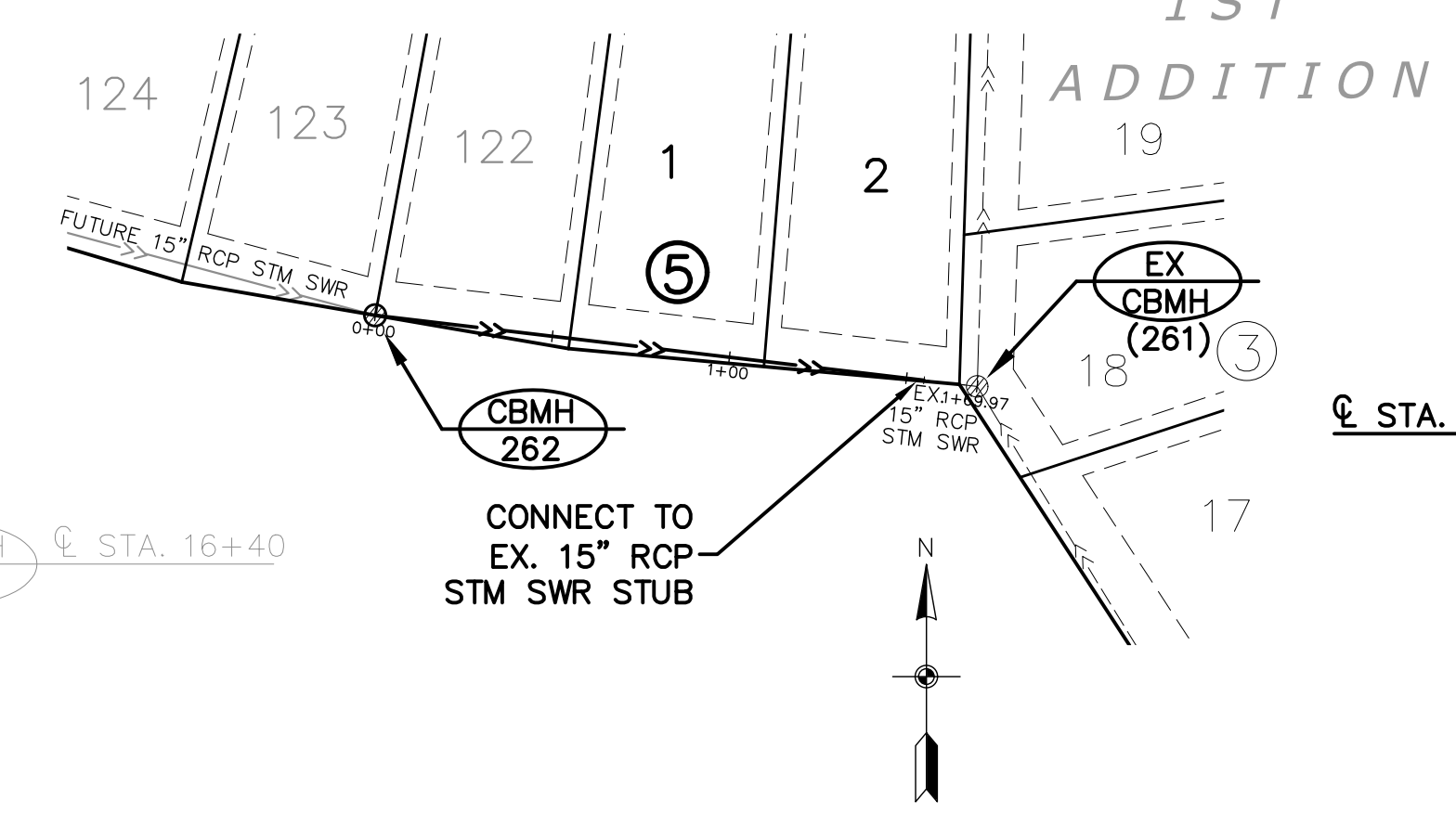
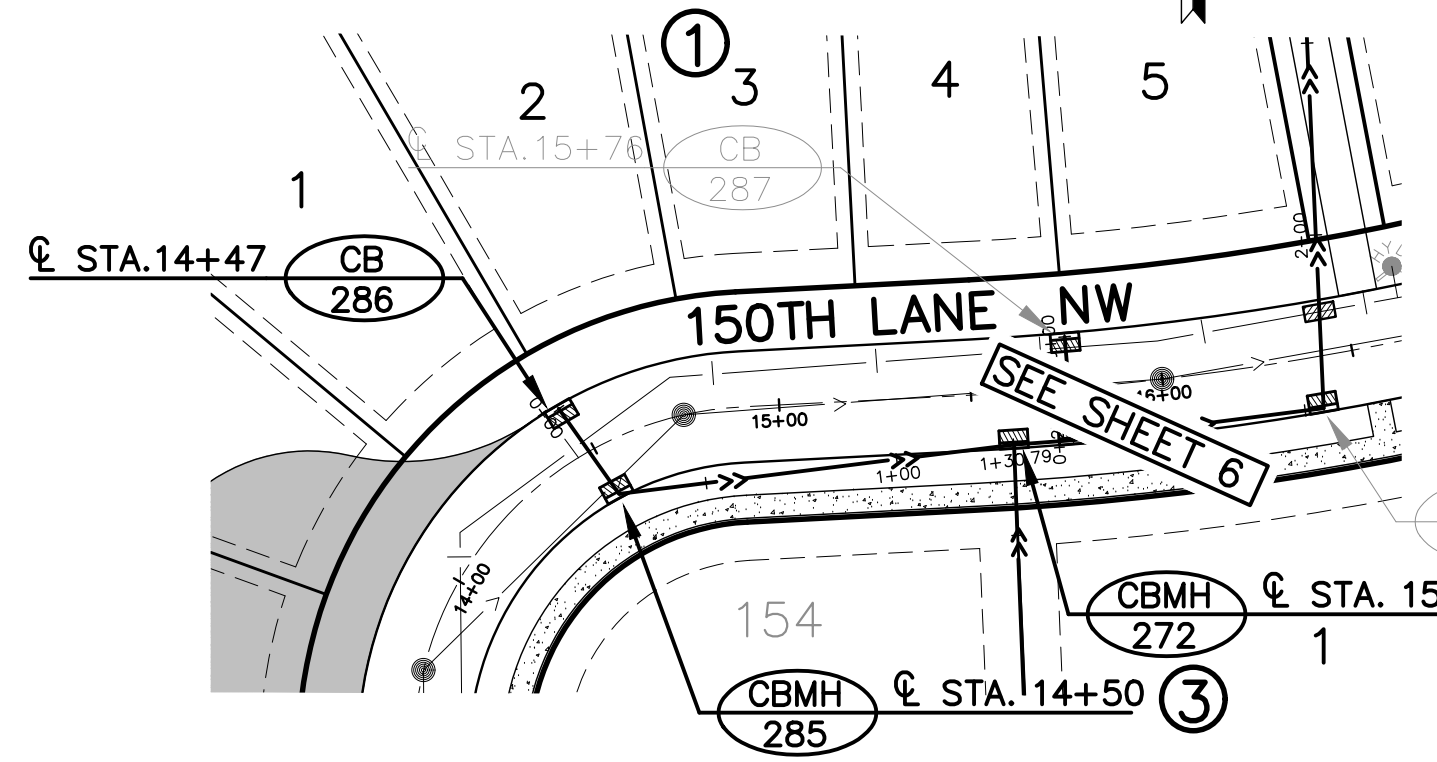
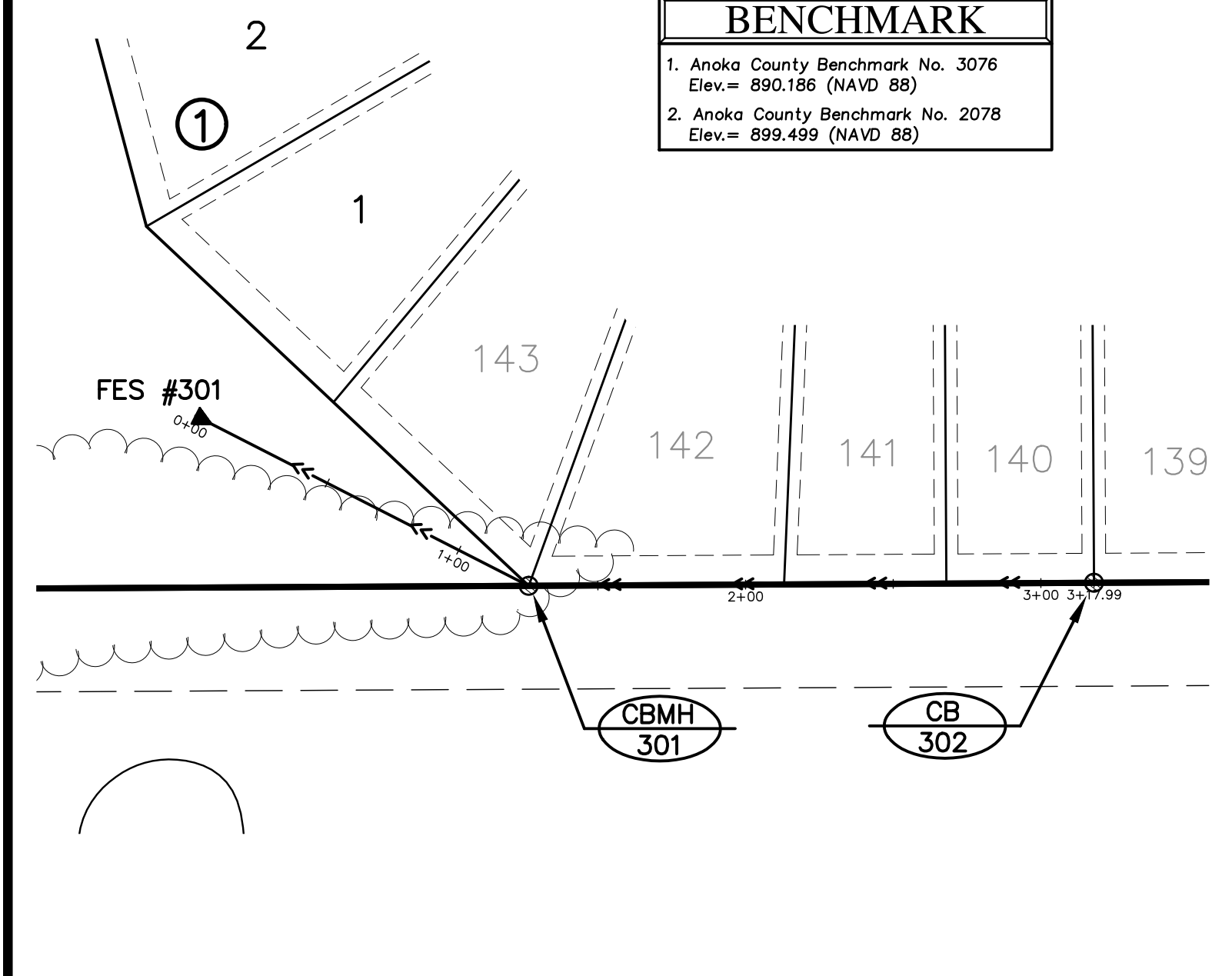
BENCHMARK	
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STORM SEWER SCHEDULE		
STRUCTURE	SIZE	NEENAH CASTING or EQUAL
CBMH-254	60" DIA.	R-2570
CBMH-262	48" DIA.	R-2570
CBMH-282	48" DIA.	R-3067
CB-283	24"X36"	R-3067
CBMH-285	48" DIA.	R-3067
CB-286	24"X36"	R-3067
CBMH-301	48" DIA.	R-2570
CB-302	27" DIA.	R-2570

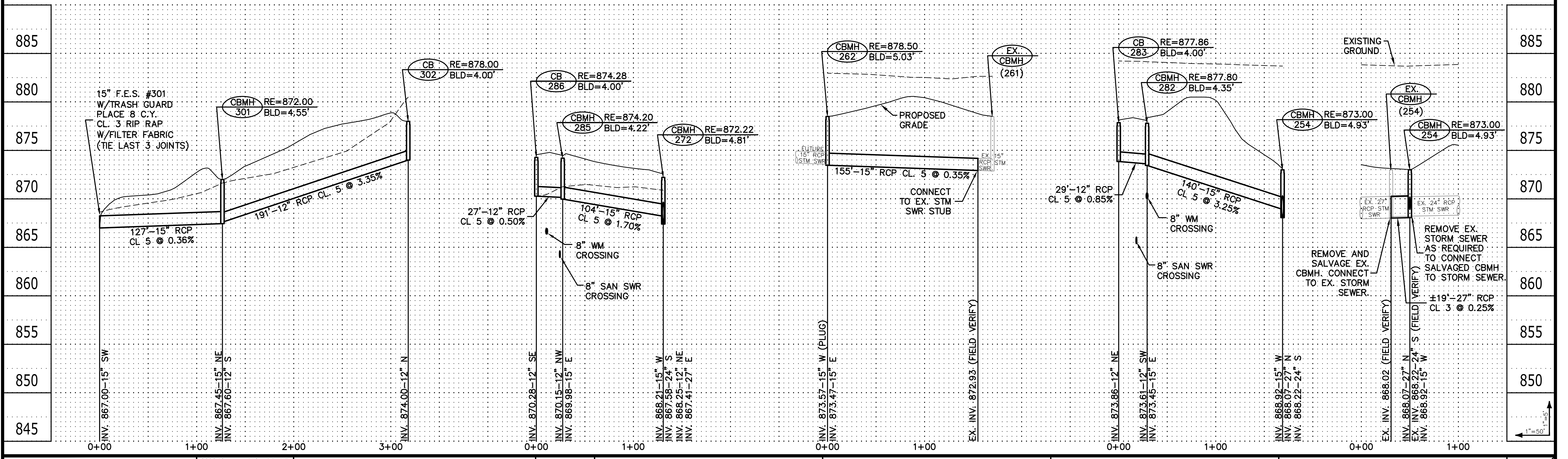
- GENERAL NOTES:**
- INSTALL SEDIMENT CONTROL BARRIER INSERTS ON ALL CATCH BASINS (SEE DETAIL).
  - R-3067 SHALL HAVE BICYCLE SAFE GRATED BACK.

**LEGEND**

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



NOTE: SEE STORM SEWER INDEX ON SHEET 3 FOR OVERVIEW OF STORM SEWER.



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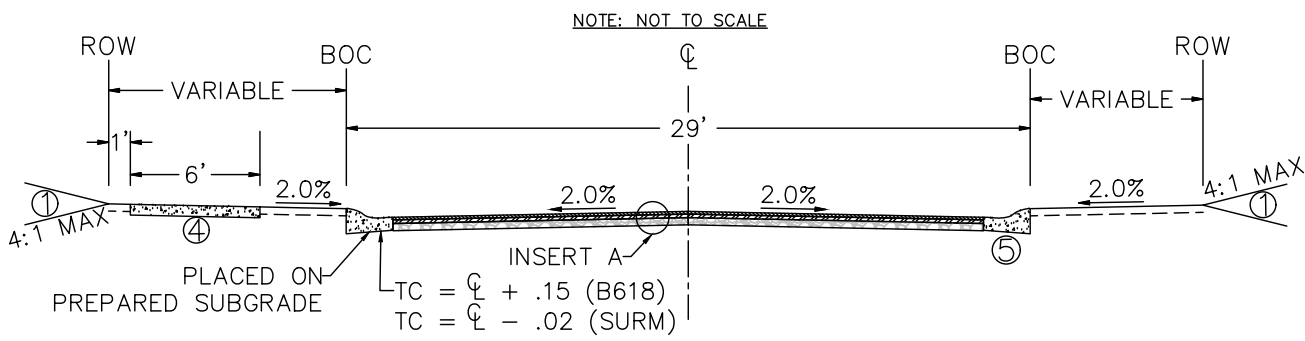
Revisions:  
1. 6/13/18 Per City Comments

**RIVERSTONE DEVELOPMENT, LLC.**  
14015 Sunfish Lake Blvd., Suite 400  
Ramsey, MN 55303

**RIVERSTONE 2ND ADDITION**  
Ramsey, Minnesota

**STORM SEWER**

**29' - URBAN STREET**



**REFERENCE NOTES:**

- GRADE TO MATCH EXISTING SURFACE MINIMUM 4" COMMON TOPSOIL BORROW IN BOULEVARDS. SEE CITY PLATE No. ER0-6
- 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.

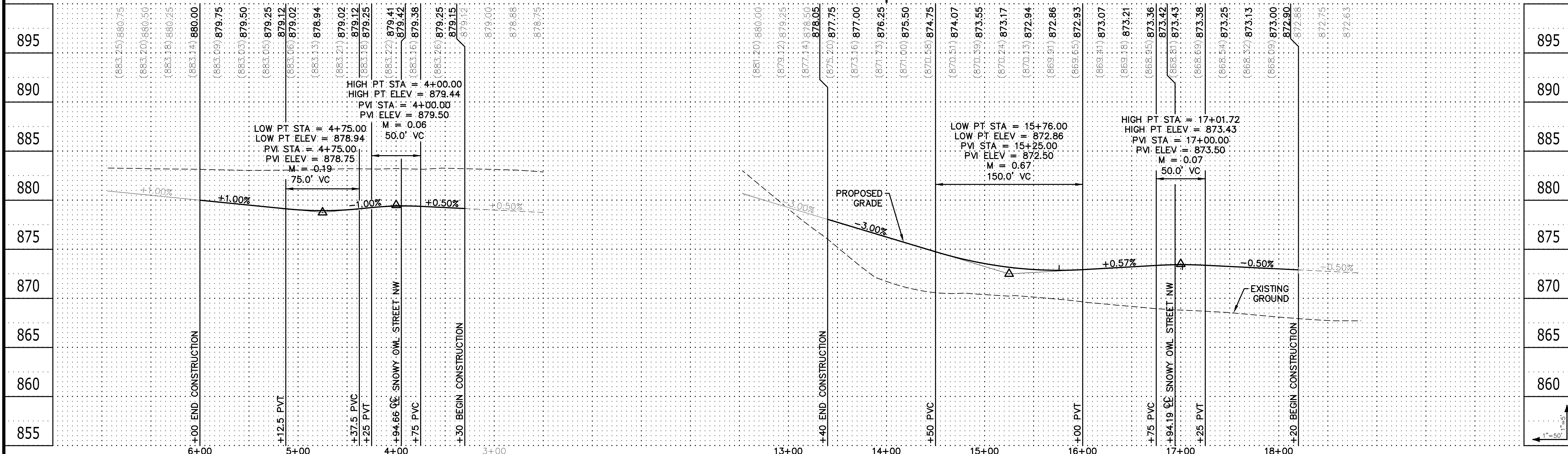
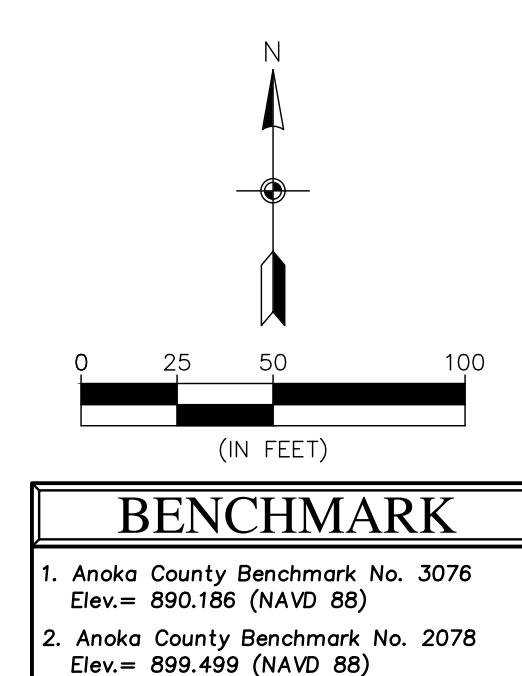
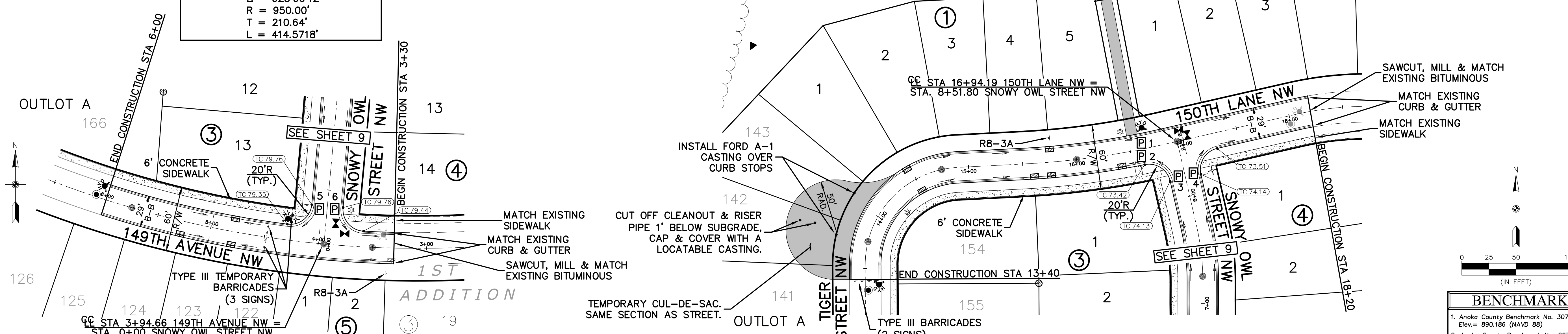
**INSERT A:**

- 1.5" TYPE SP 9.5 WEARING COURSE MIXTURE (SPWEA340B)
- BITUMINOUS MATERIAL FOR TACK COAT
- 2" TYPE SP 12.5 NON WEARING COURSE MIXTURE (SPNWB330B)
- MIN. 4" MODIFIED CLASS 5 AGGREGATE BASE
- PLACED ON PREPARED SUBGRADE

C CURVE DATA (150TH LANE NW)		
PC = 13+52.95	PC = 15+51.01	PC = 18+05.64
PT = 14+90.17	PT = 16+80.72	PT = 20+05.78
Δ = 087°21'25"	Δ = 009°54'32"	Δ = 038°13'23"
R = 90.00'	R = 750.00'	R = 300.00'
T = 85.94'	T = 65.02'	T = 103.95'
L = 137.2201'	L = 129.7060'	L = 200.1349'

CURB TYPES LEGEND	
	SURMOUNTABLE CONCRETE CURB & GUTTER
	B618 CONCRETE CURB & GUTTER
	B618 CONCRETE CURB & GUTTER (TIP OUT)
	TC 98.76 DENOTES TOP OF CURB ELEVATION FOR THE TYPE OF CURB SHOWN.
	1 DENOTES PEDESTRIAN RAMP. (SEE DETAIL)

C CURVE DATA (149TH AVENUE NW)	
PC = 2+37.41	PT = 6+51.98
Δ = 025°00'12"	R = 950.00'
T = 210.64'	L = 414.5718'



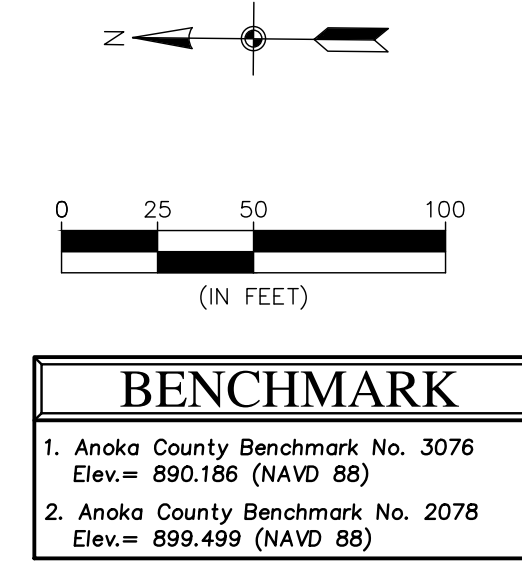
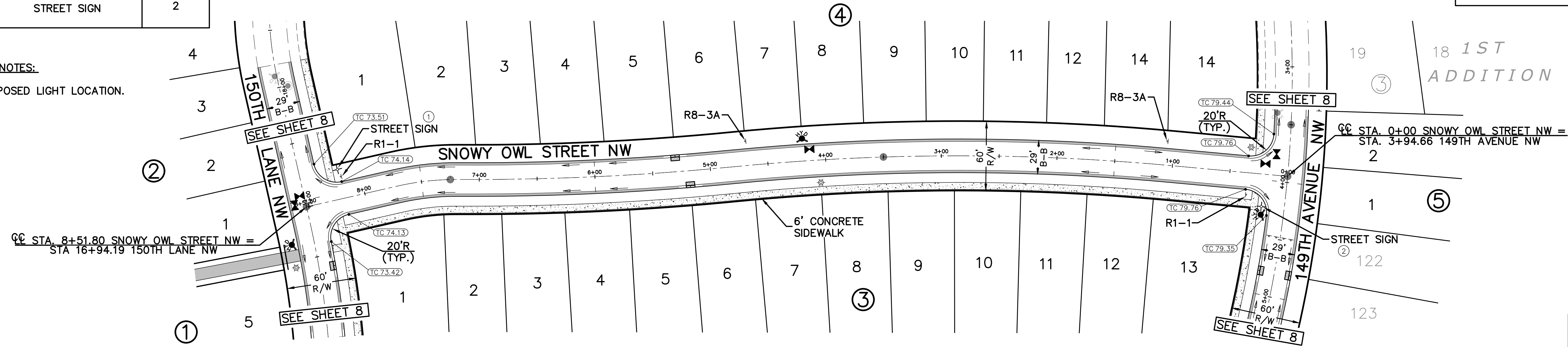
SIGN SCHEDULE			
SIGN	SIGN NO.	SIZE	QUANTITY
	R1-1	30" x 30"	2
	R8-3A	12" x 18"	4
	TYPE III BARRICADES		4
+	STREET SIGN		2

STREET NAME SIGNS	
NAMES	QUANTITY
① 150th Ln. NW Snowy Owl St. NW	1
② 149th Ave. NW Snowy Owl St. NW	1

C CURVE DATA (SNOWY OWL STREET NW)		
PC = 1+01.70	PC = 4+80.40	PC = 7+19.22
PT = 4+80.40	PT = 7+19.22	PT = 7+71.02
$\Delta = 010^{\circ}50'56''$	$\Delta = 005^{\circ}55'25''$	$\Delta = 013^{\circ}11'26''$
R = 2000.00'	R = 2310.00'	R = 225.00'
T = 189.92'	T = 119.52'	T = 26.01'
L = 378.6961'	L = 238.8203'	L = 51.7989'

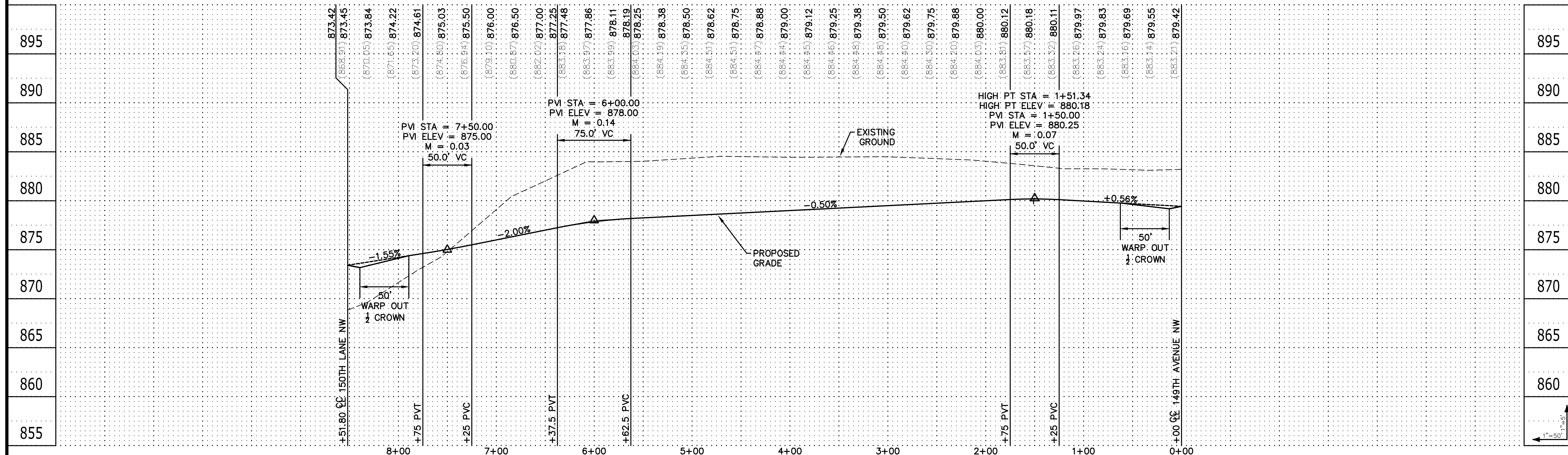
CURB TYPES LEGEND	
	SURMOUNTABLE CONCRETE CURB & GUTTER
	B618 CONCRETE CURB & GUTTER
	B618 CONCRETE CURB & GUTTER (TIP OUT)
	TC 98.76 DENOTES TOP OF CURB ELEVATION FOR THE TYPE OF CURB SHOWN.
	P1 DENOTES PEDESTRIAN RAMP. (SEE DETAIL)

**LIGHTING NOTES:**  
 PROPOSED LIGHT LOCATION.



BENCHMARK	
1.	Anoka County Benchmark No. 3076 Elev = 890.186 (NAVD 88)
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### SNOWY OWL STREET NW



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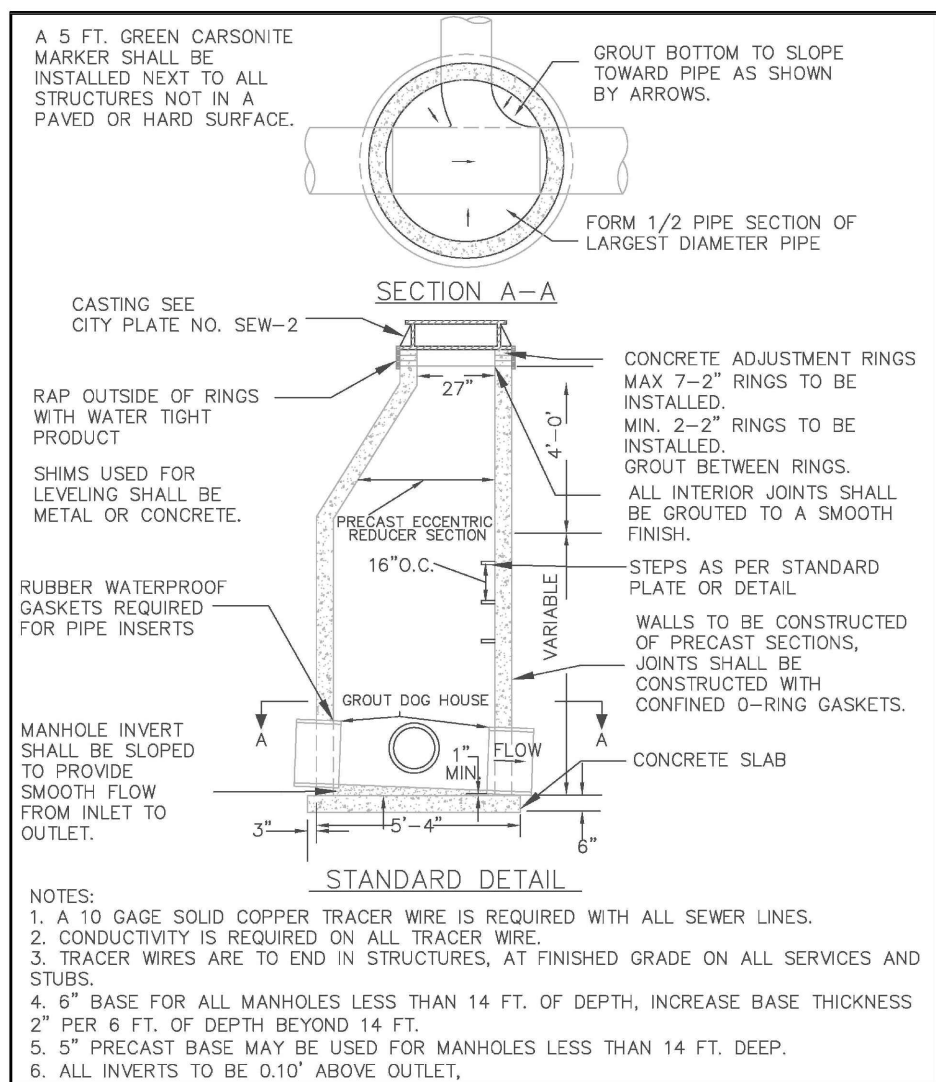
Revisions:  
 1. 6/13/18 Per City Comments

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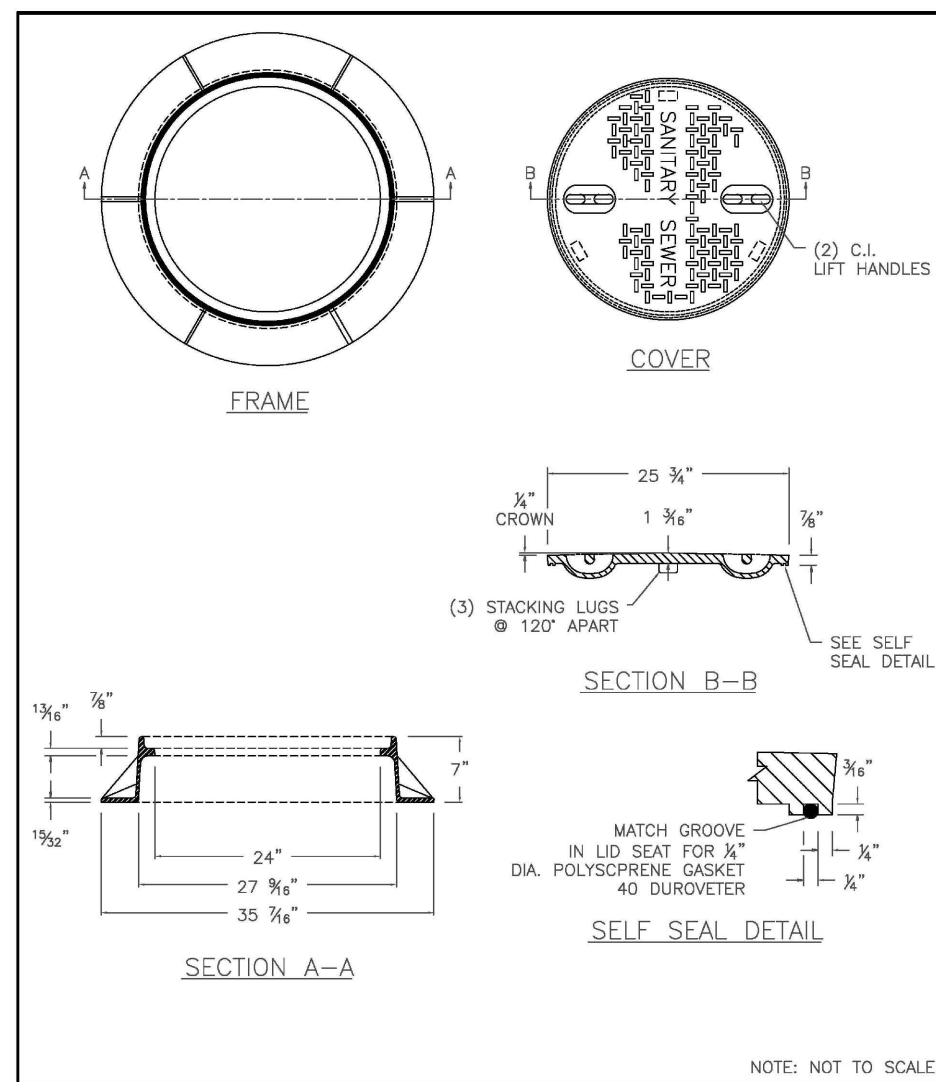
**RIVERSTONE 2ND ADDITION**  
 Ramsey, Minnesota

**STREET CONSTRUCTION**

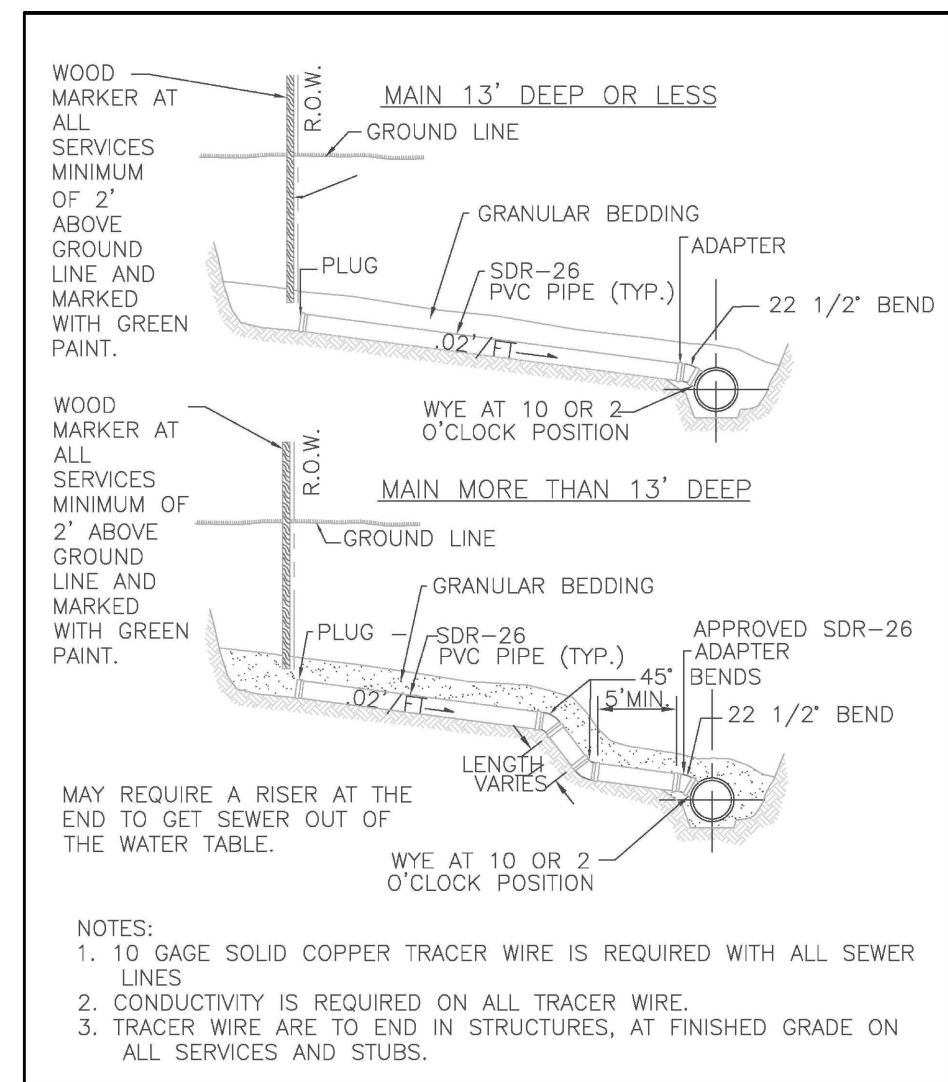
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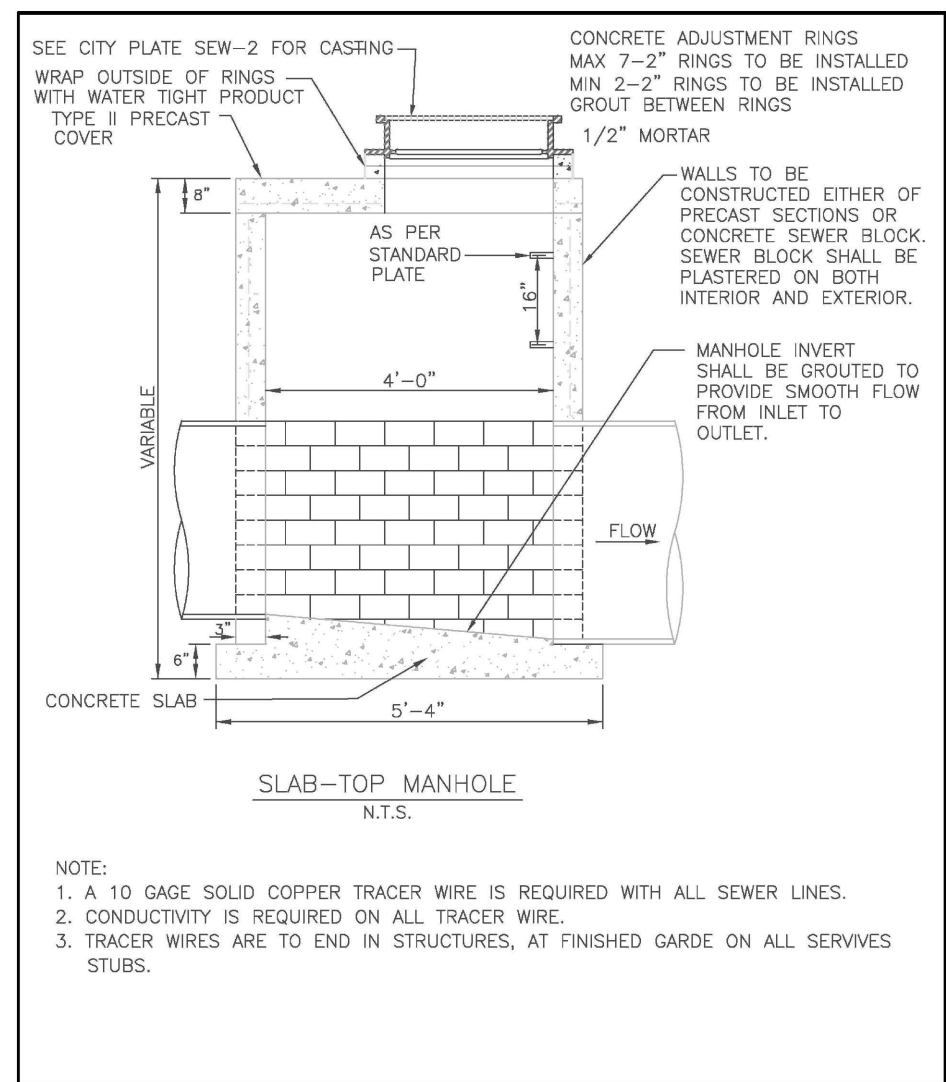
APPROVED: 1 - 2016  
**City of RAMSEY**  
 STANDARD DETAILS: SANITARY MANHOLE  
 CITY PLATE No. SEW-1



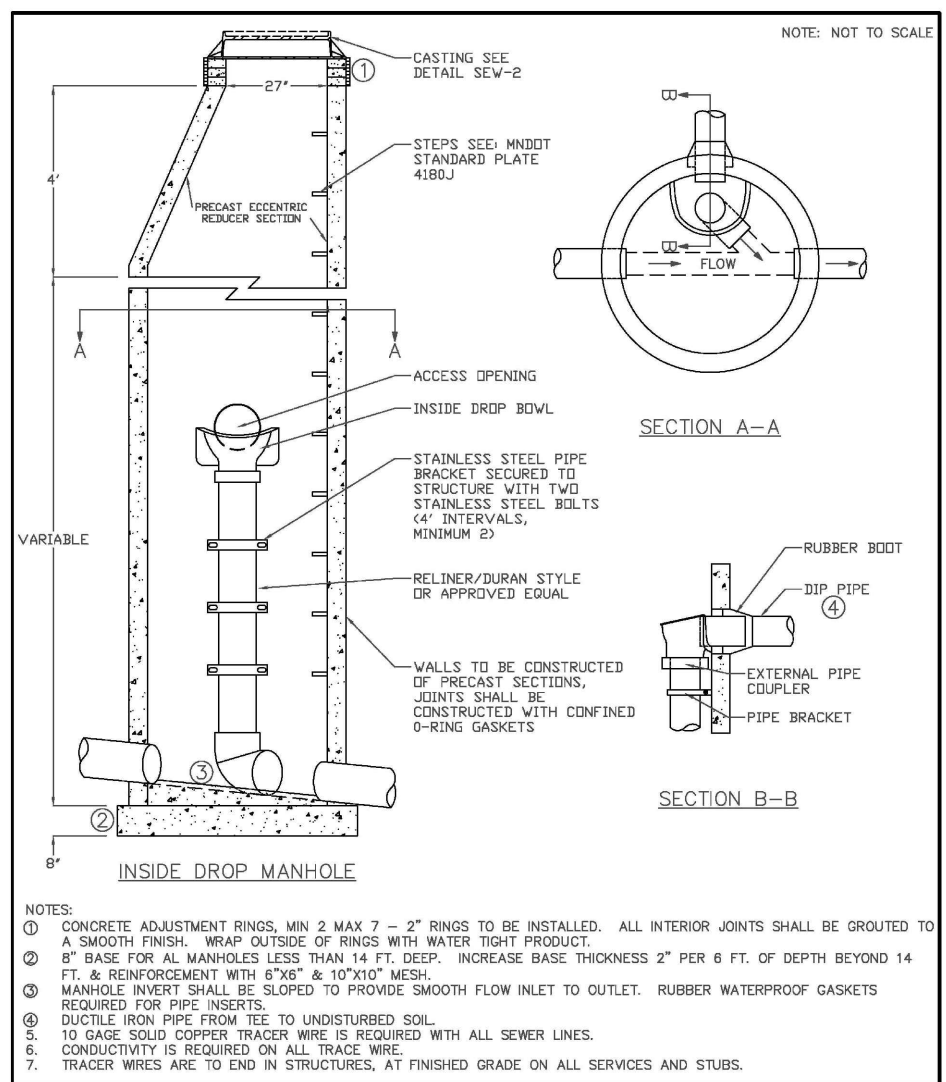
APPROVED: 11 - 2015  
**City of RAMSEY**  
 STANDARD DETAILS: WATER TIGHT CASTING  
 CITY PLATE No. SEW-2



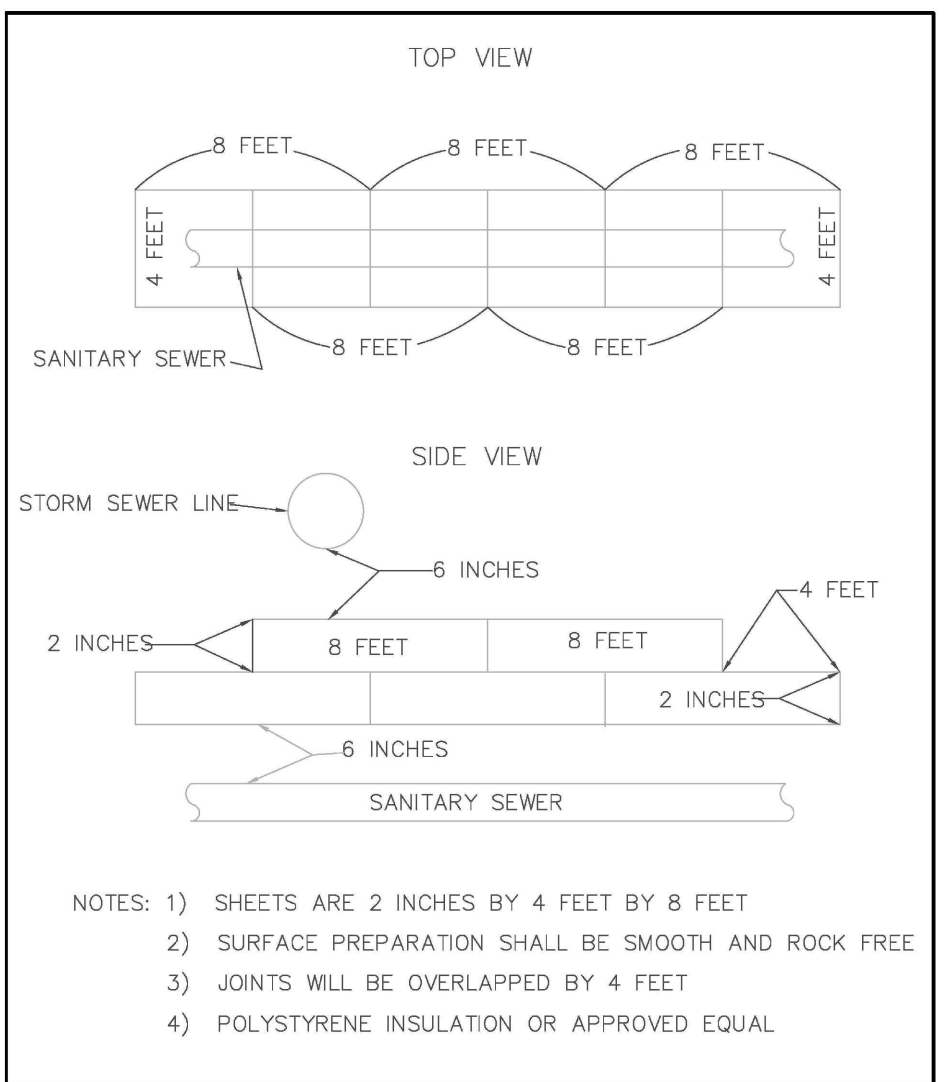
APPROVED: 4 - 2016  
**City of RAMSEY**  
 STANDARD DETAILS: SANITARY SEWER SERVICE  
 CITY PLATE No. SEW-3



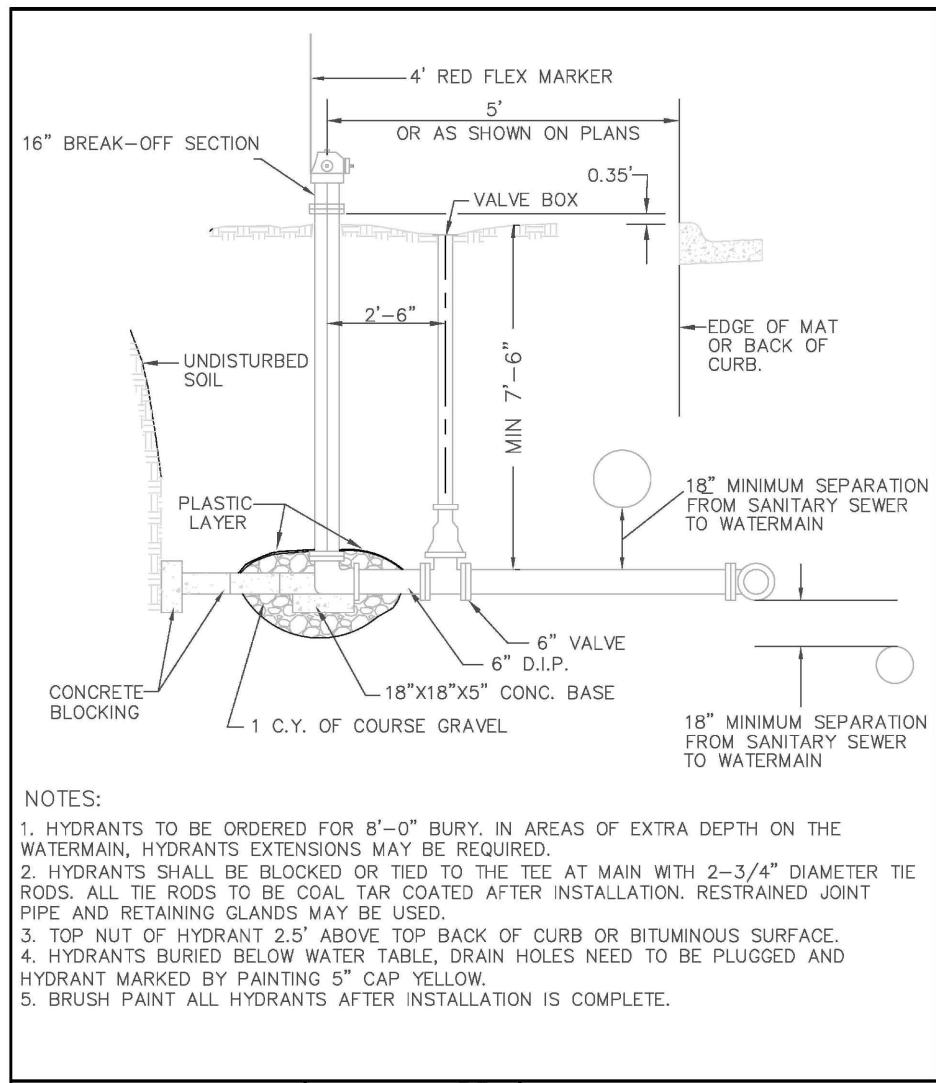
APPROVED: 4 - 2016  
**City of RAMSEY**  
 STANDARD DETAILS: SLAB-TOP MANHOLE  
 CITY PLATE No. SEW-4



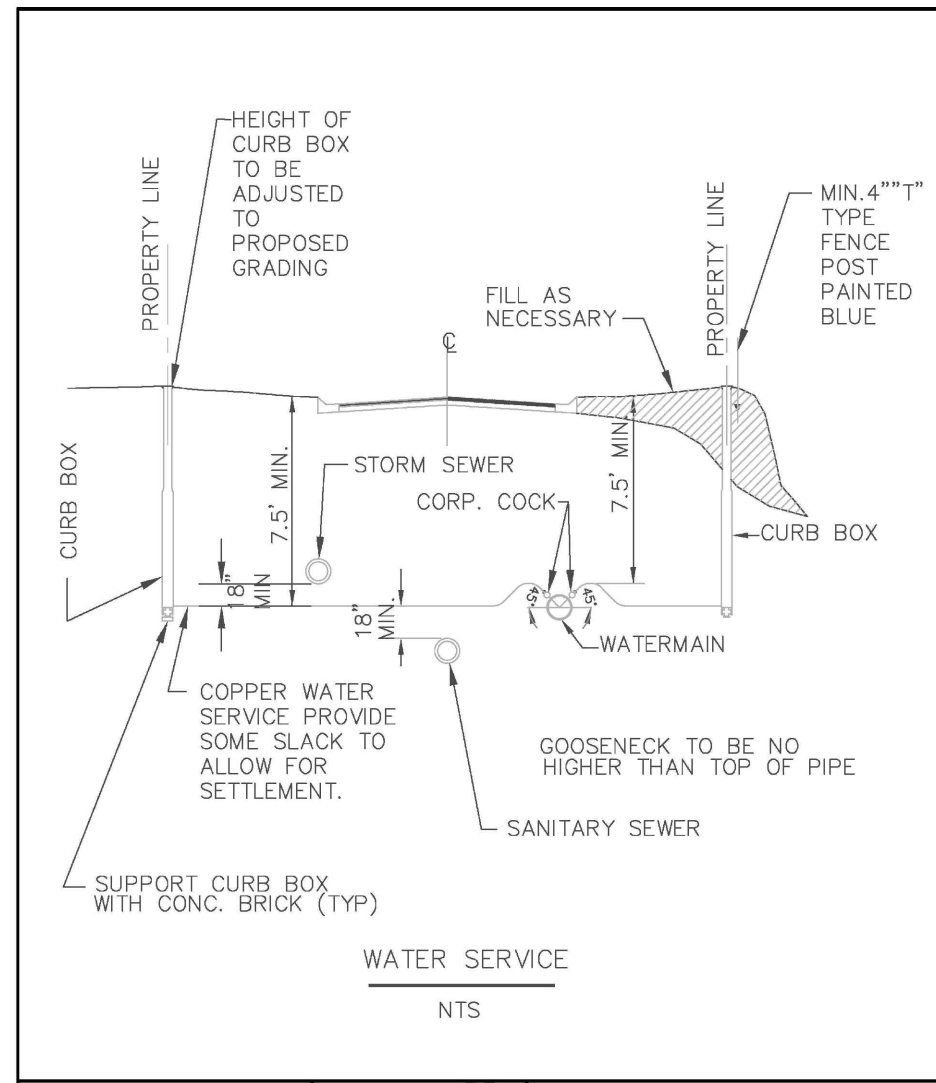
APPROVED: 4 - 2016  
**City of RAMSEY**  
 STANDARD DETAILS: INSIDE DROP MANHOLE  
 CITY PLATE No. SEW-5



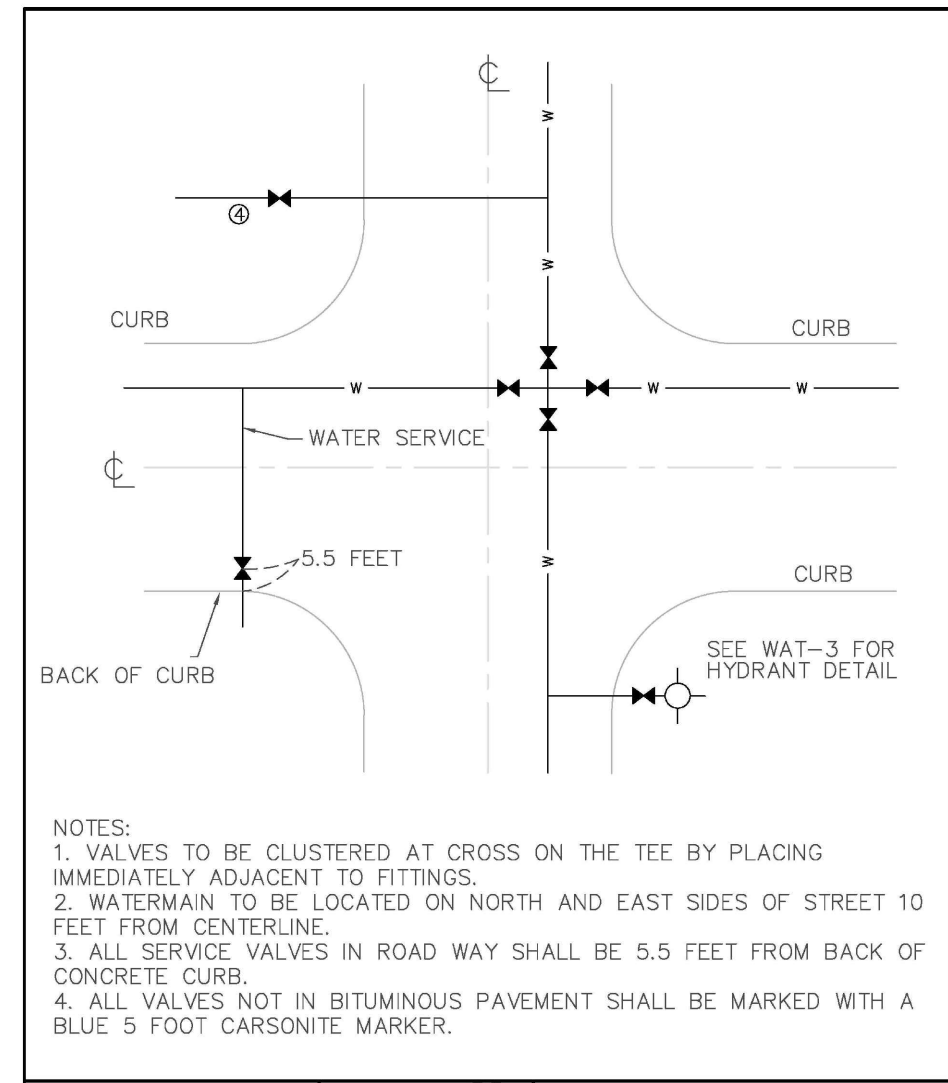
APPROVED: 9 - 2011  
**City of RAMSEY**  
 STANDARD DETAILS: SANITARY SEWER INSULATION  
 CITY PLATE No. SEW-6



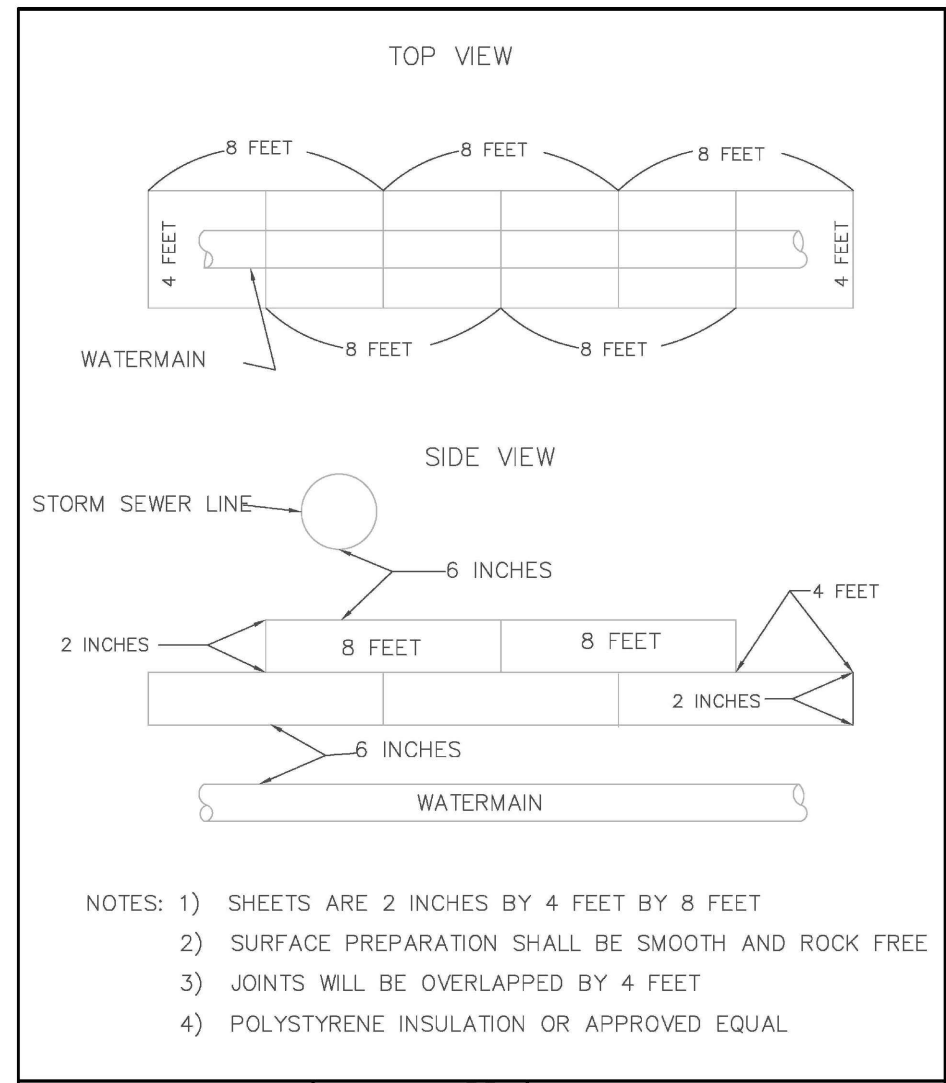
APPROVED: 4 - 2016  
**City of RAMSEY**  
 STANDARD DETAILS: HYDRANT  
 CITY PLATE No. WAT-1



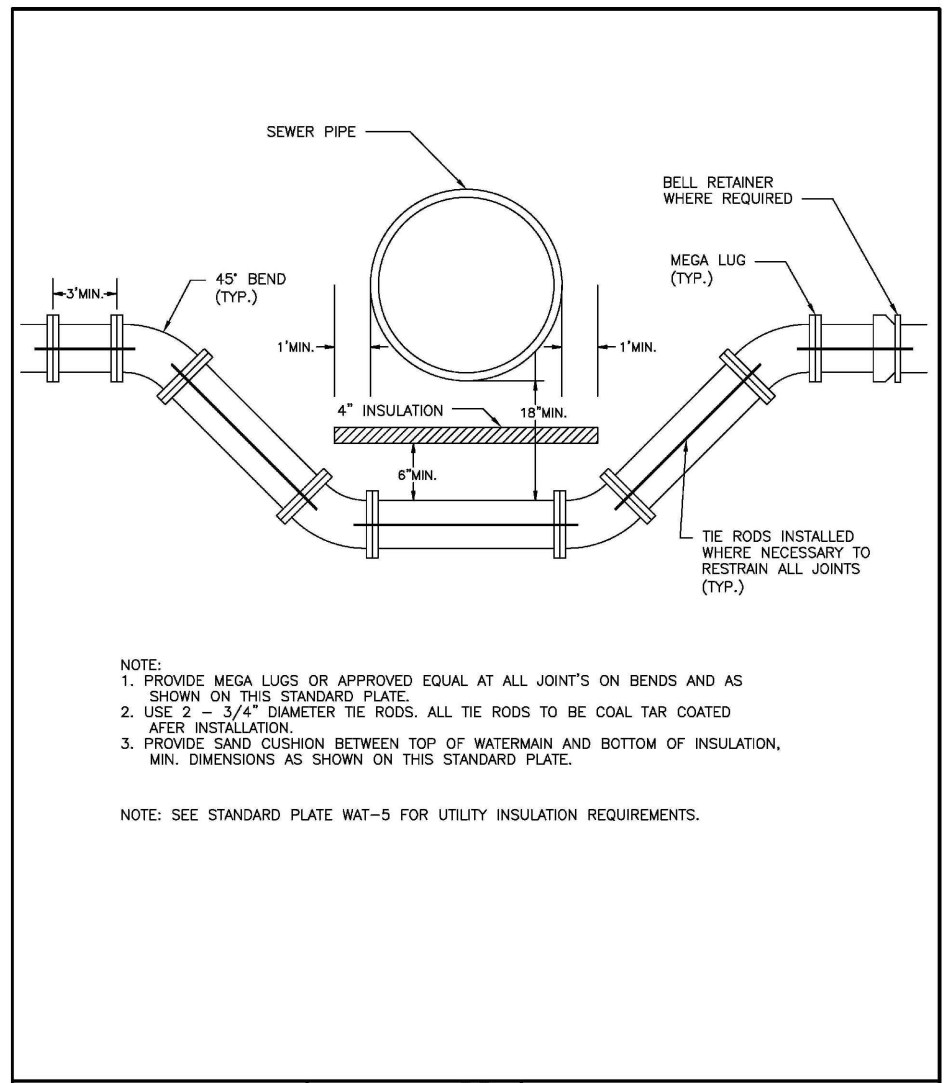
APPROVED: 4 - 2016  
**City of RAMSEY**  
 STANDARD DETAILS: WATER SERVICE  
 CITY PLATE No. WAT-2



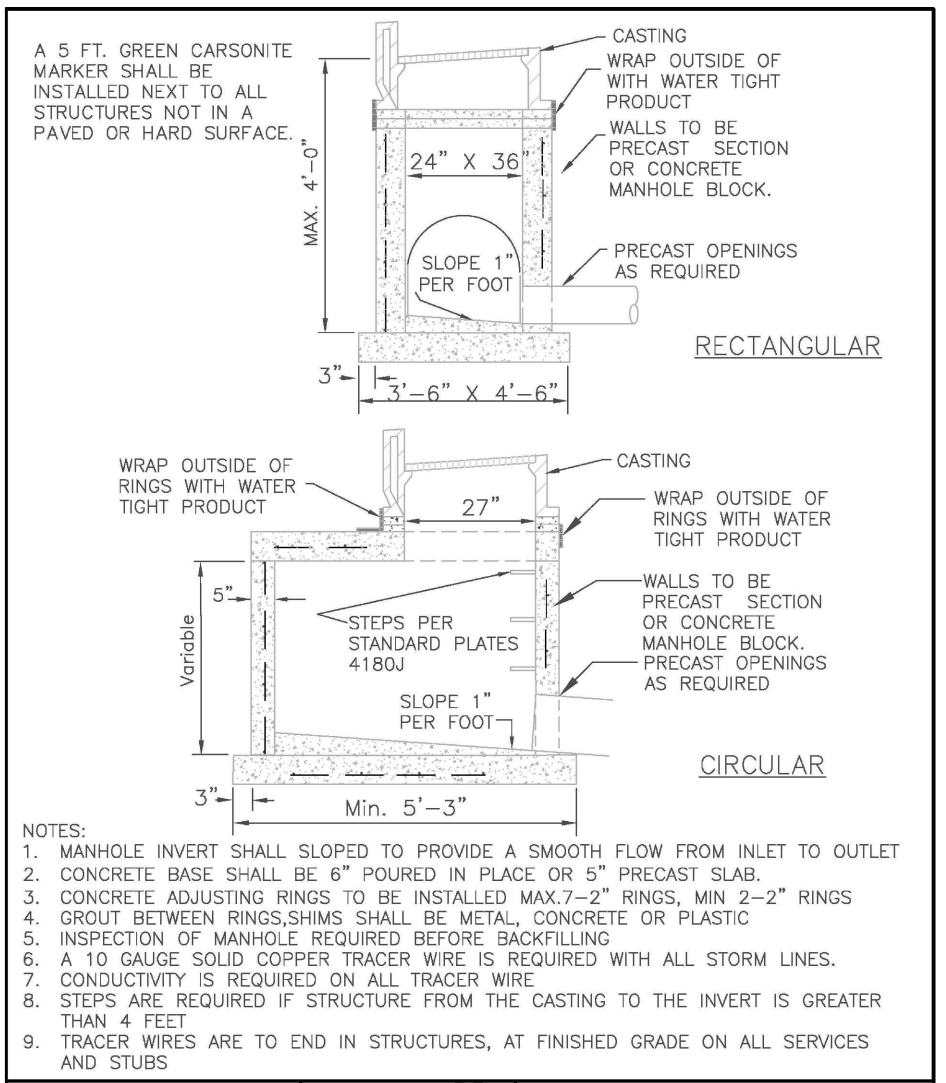
APPROVED: 4 - 2016  
**City of RAMSEY**  
 STANDARD DETAILS: WATERMAIN VALVE LOCATION  
 CITY PLATE No. WAT-3



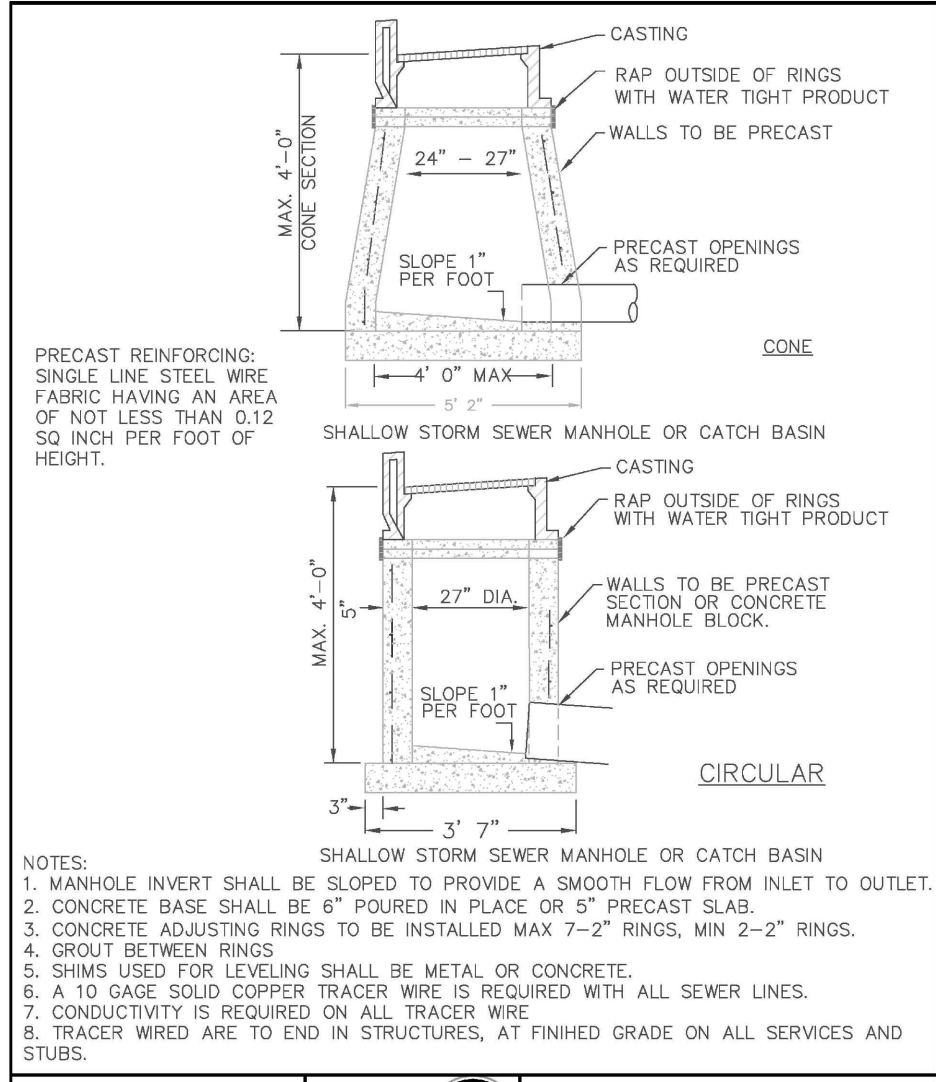
APPROVED: 4 - 2016  
**City of RAMSEY**  
 STANDARD DETAILS: UTILITY INSULATION  
 CITY PLATE No. WAT-6



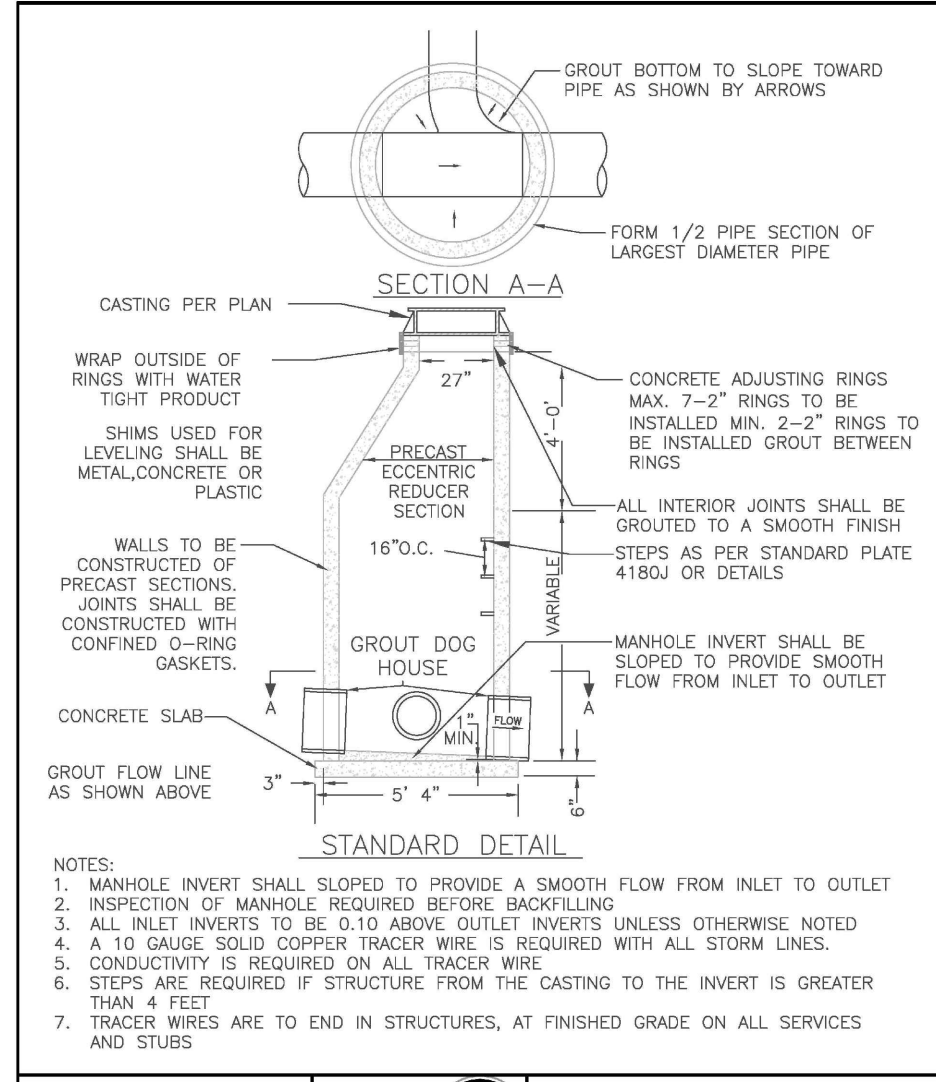
APPROVED: 6 - 2015  
**City of RAMSEY**  
 STANDARD DETAILS: WATERMAIN LOWERING  
 CITY PLATE No. WAT-7



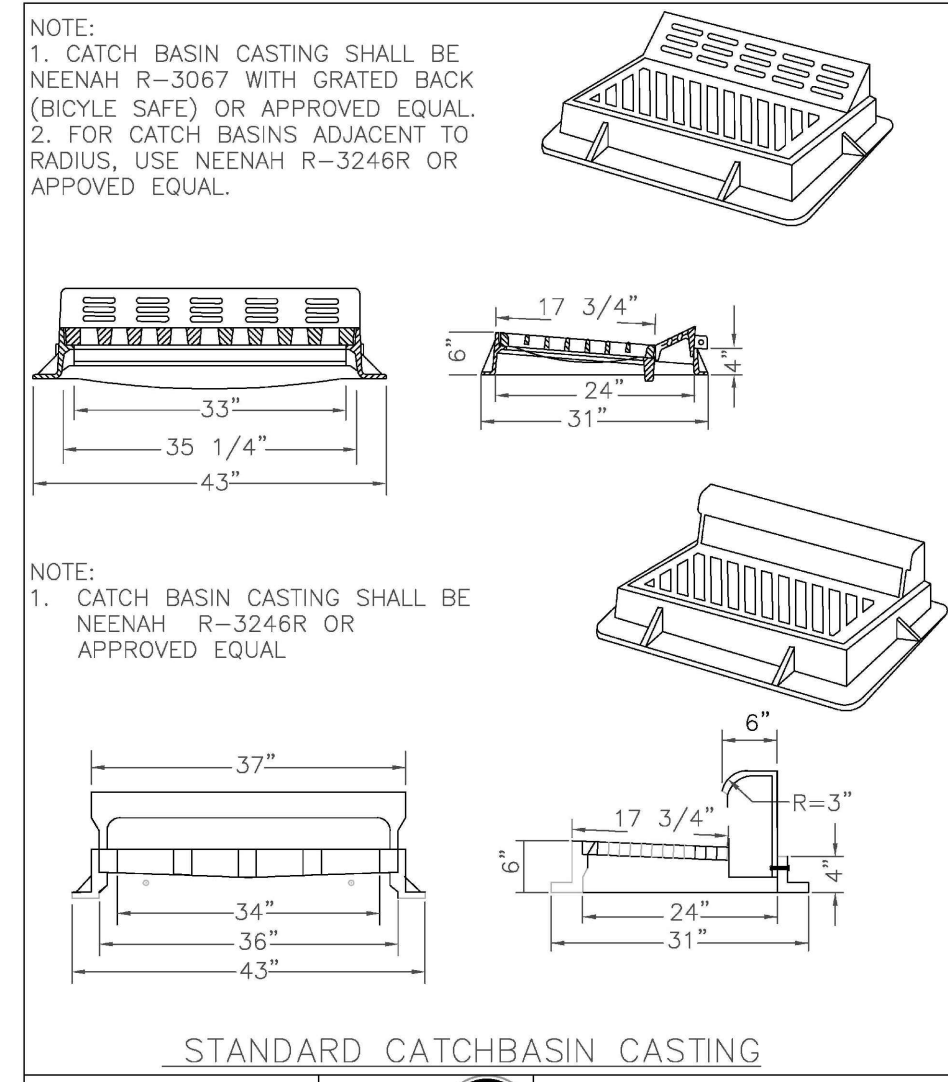
APPROVED: 4 - 2007  
**City of RAMSEY**  
 STANDARD DETAILS: CATCH BASIN  
 CITY PLATE No. STO-1



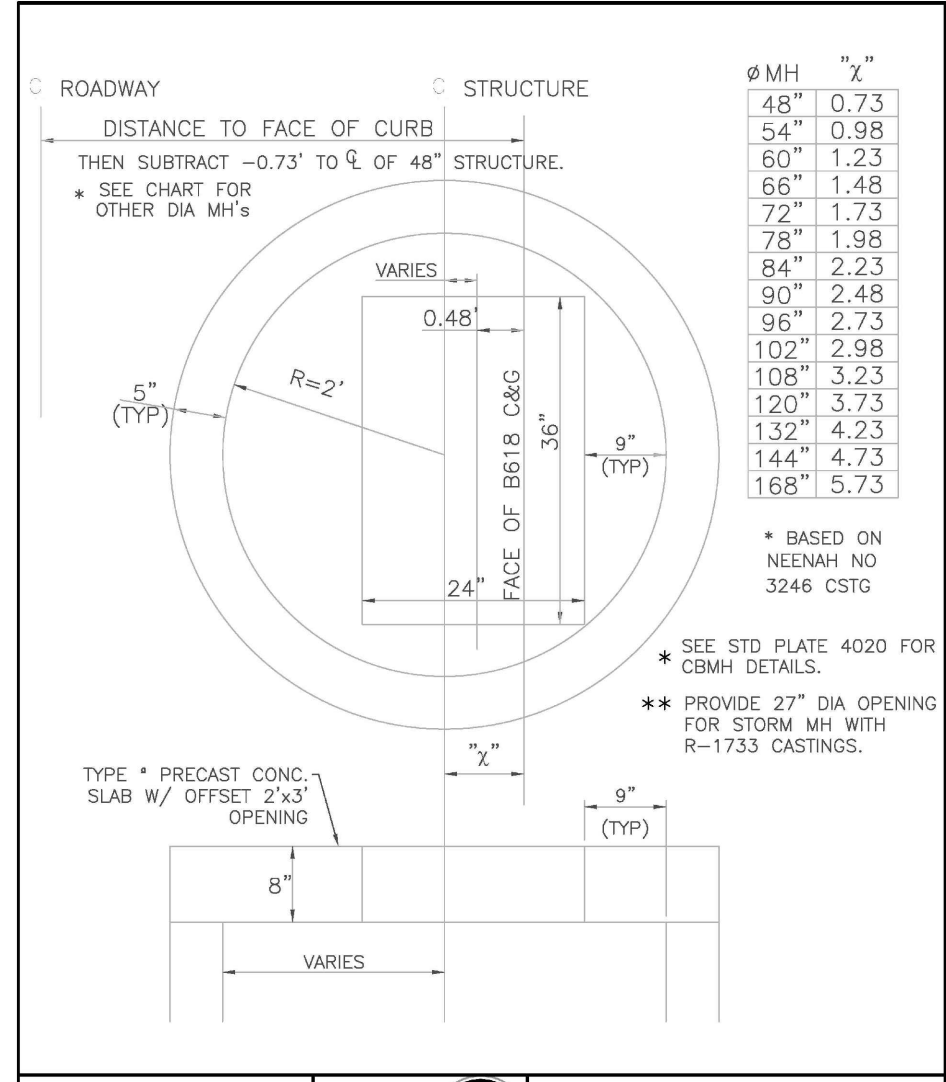
APPROVED: 6 - 2008  
**City of RAMSEY**  
 STANDARD DETAILS: STORM AREA INLET  
 CITY PLATE No. STO-2



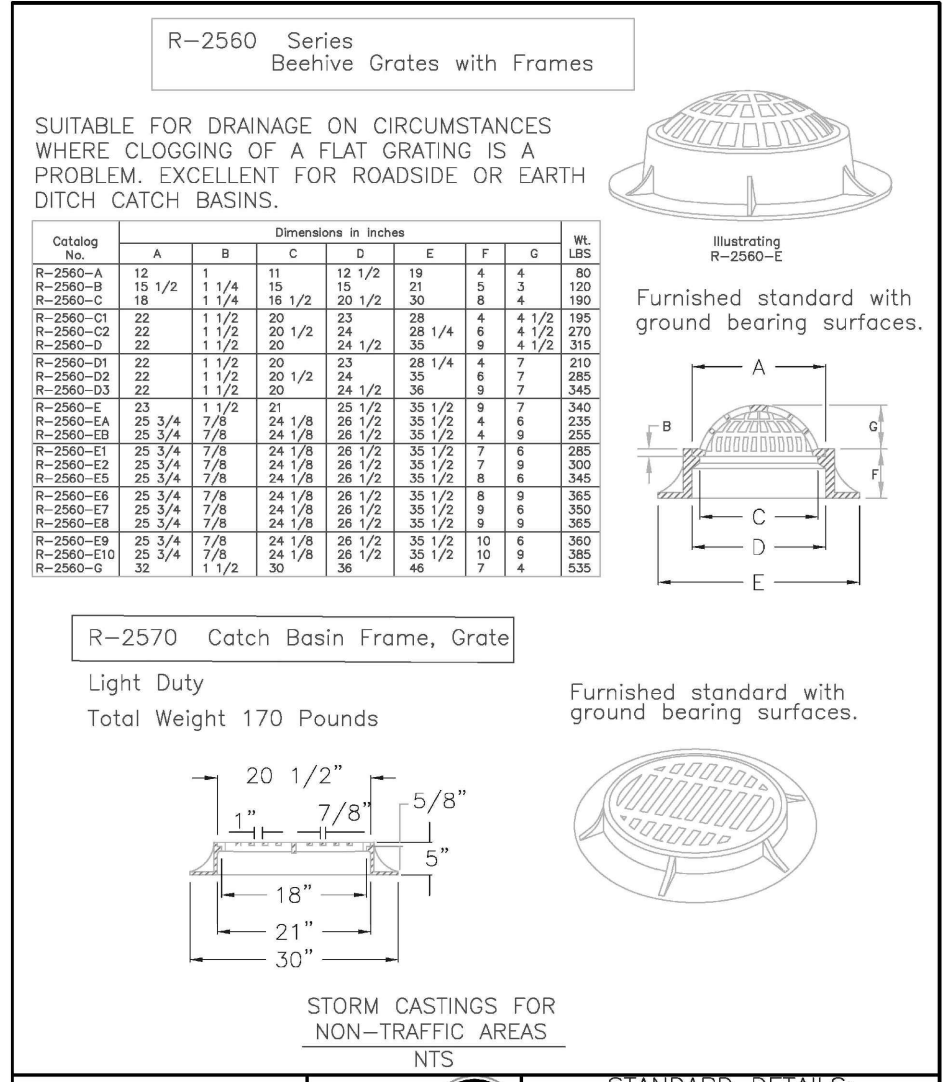
APPROVED: 1 - 2016  
**City of RAMSEY**  
 STANDARD DETAILS: STORM MANHOLE  
 CITY PLATE No. STO-3



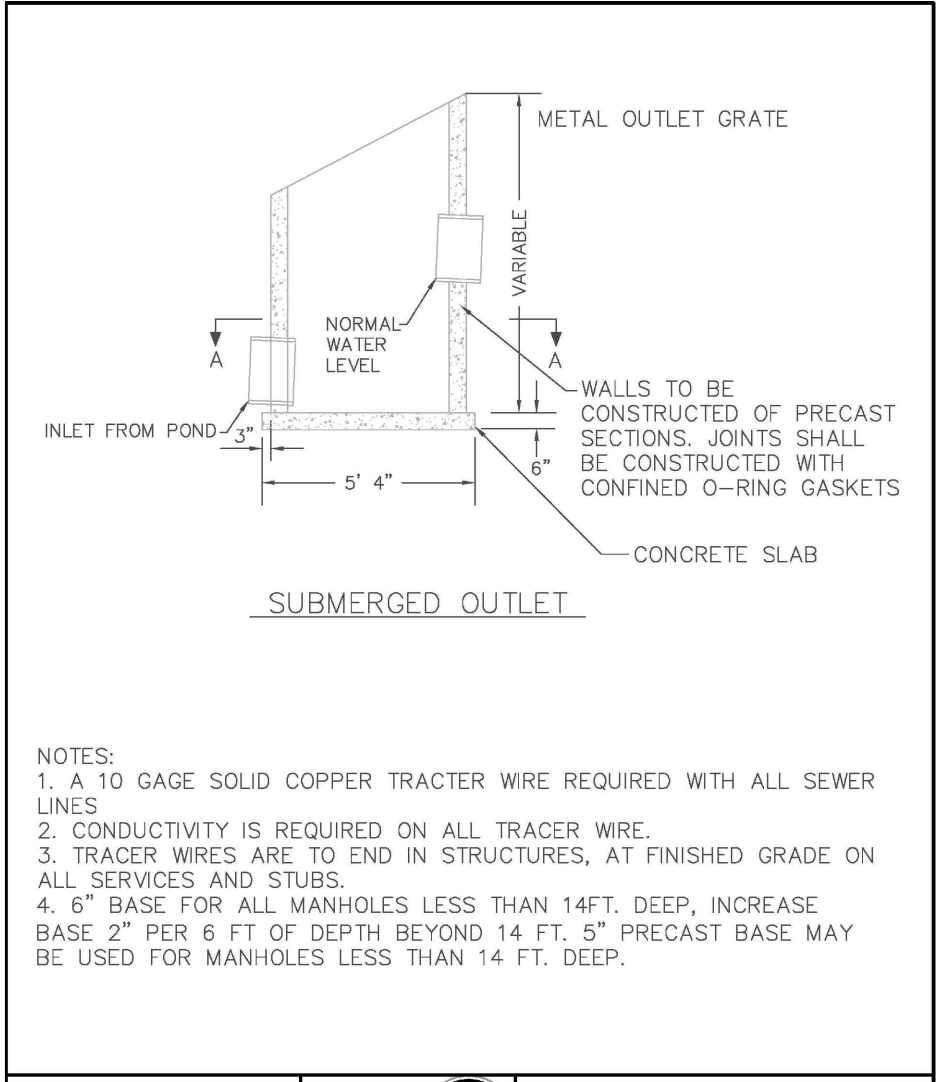
APPROVED: 6 - 2016  
**City of RAMSEY**  
 STANDARD DETAILS: STORMWATER CASTING  
 CITY PLATE No. ST2-4



APPROVED: 4 - 2005  
**City of RAMSEY**  
 STANDARD DETAILS: SLAB TOP MANHOLE COVER  
 CITY PLATE No. STO-5

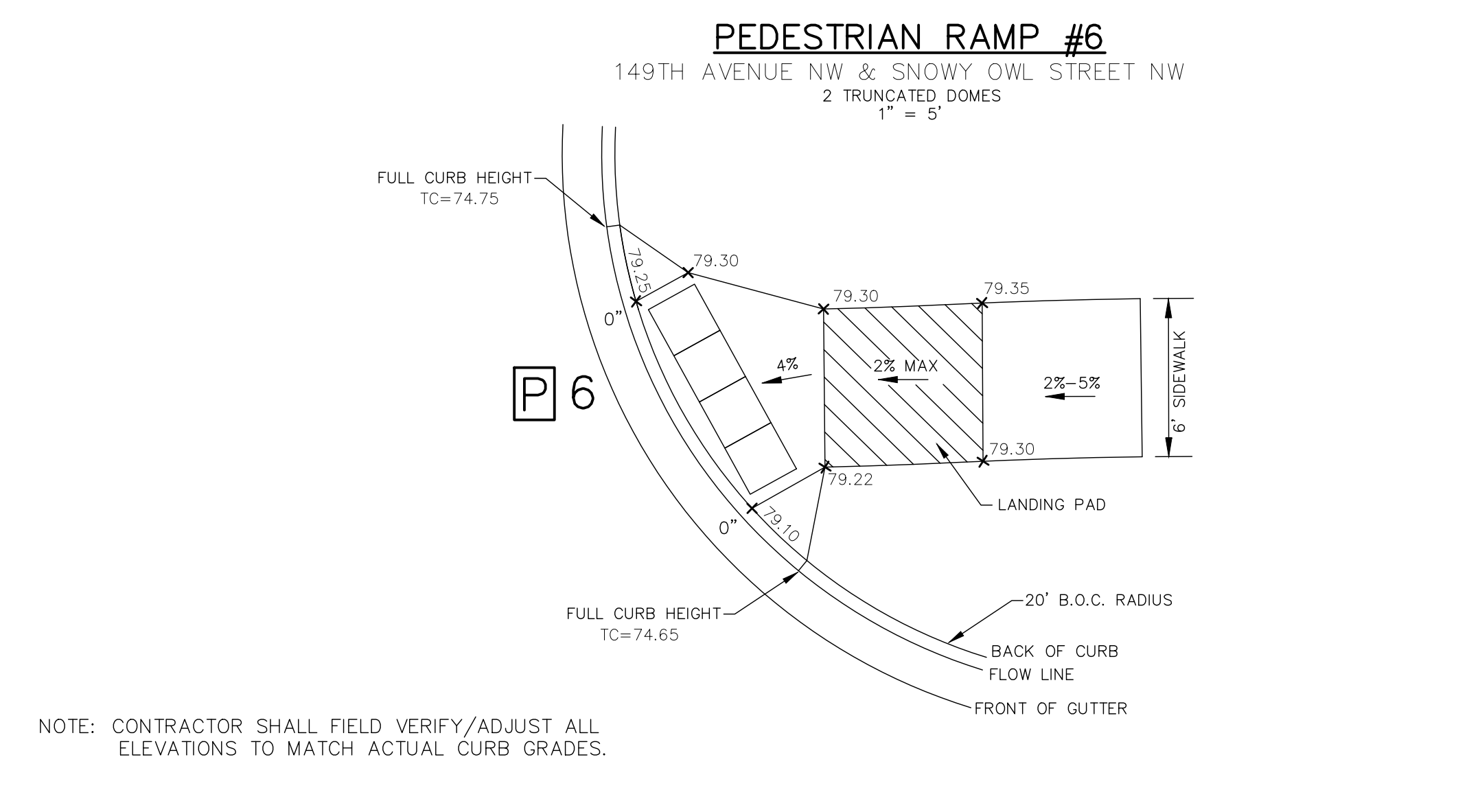
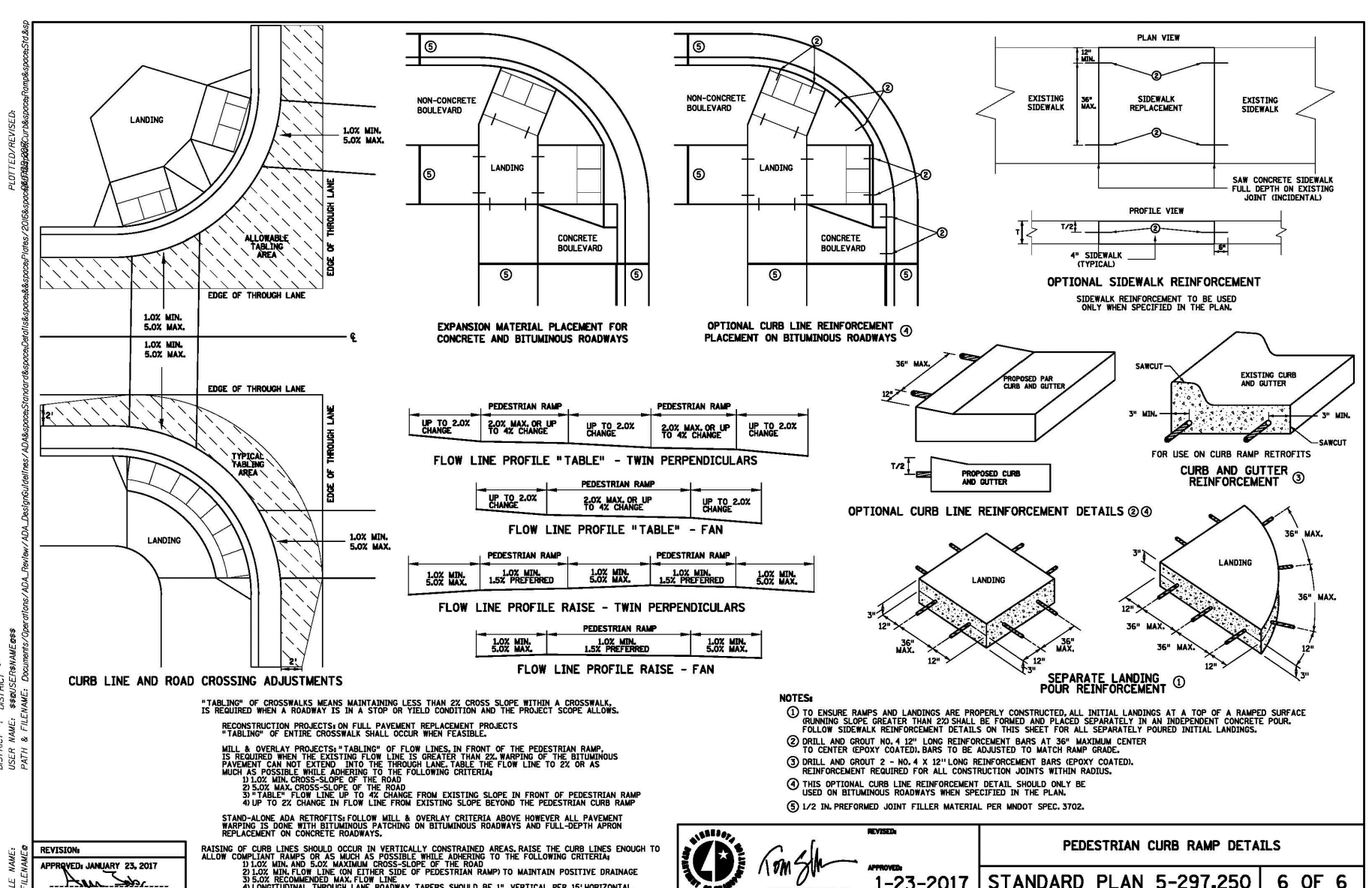
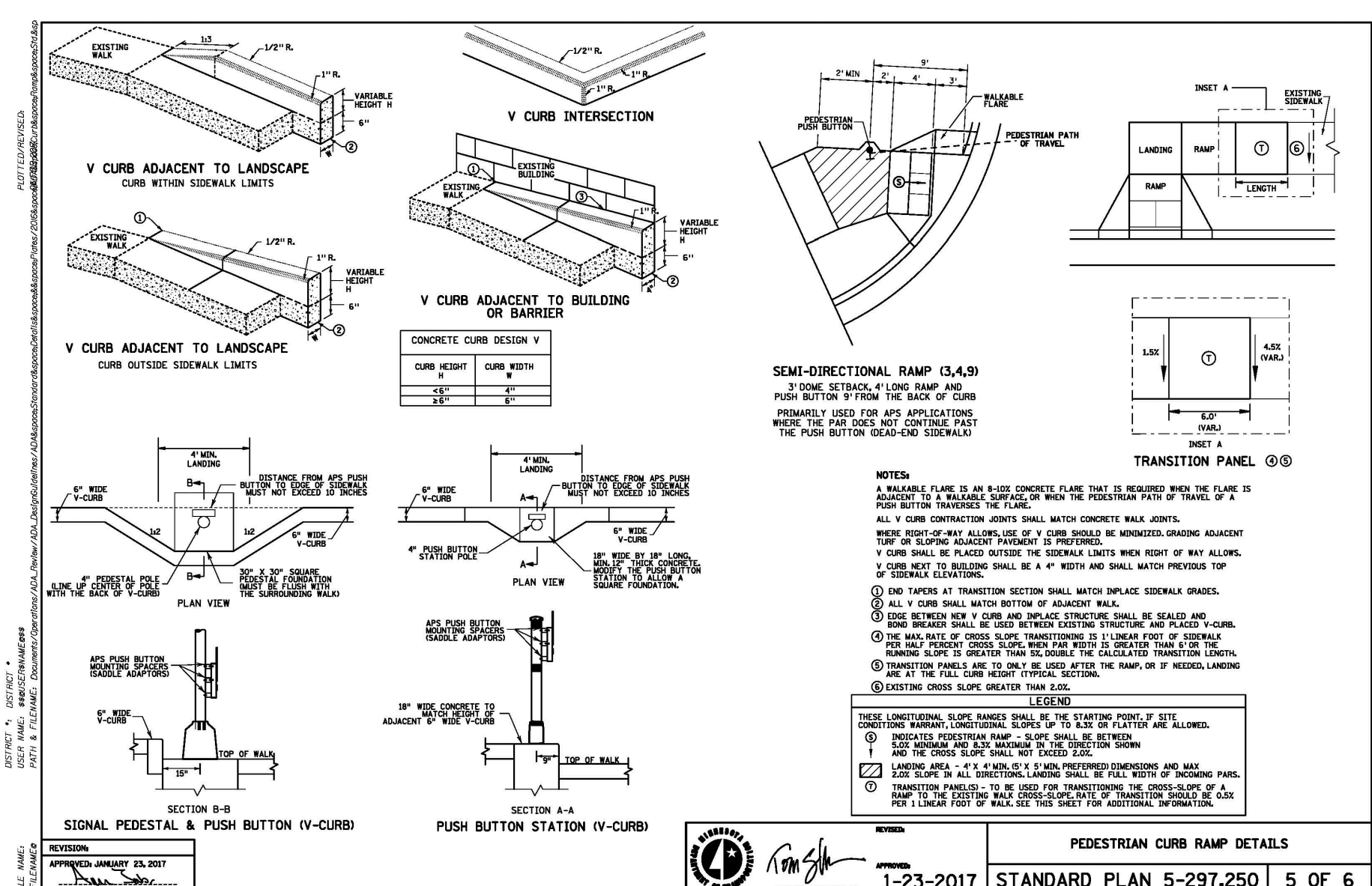
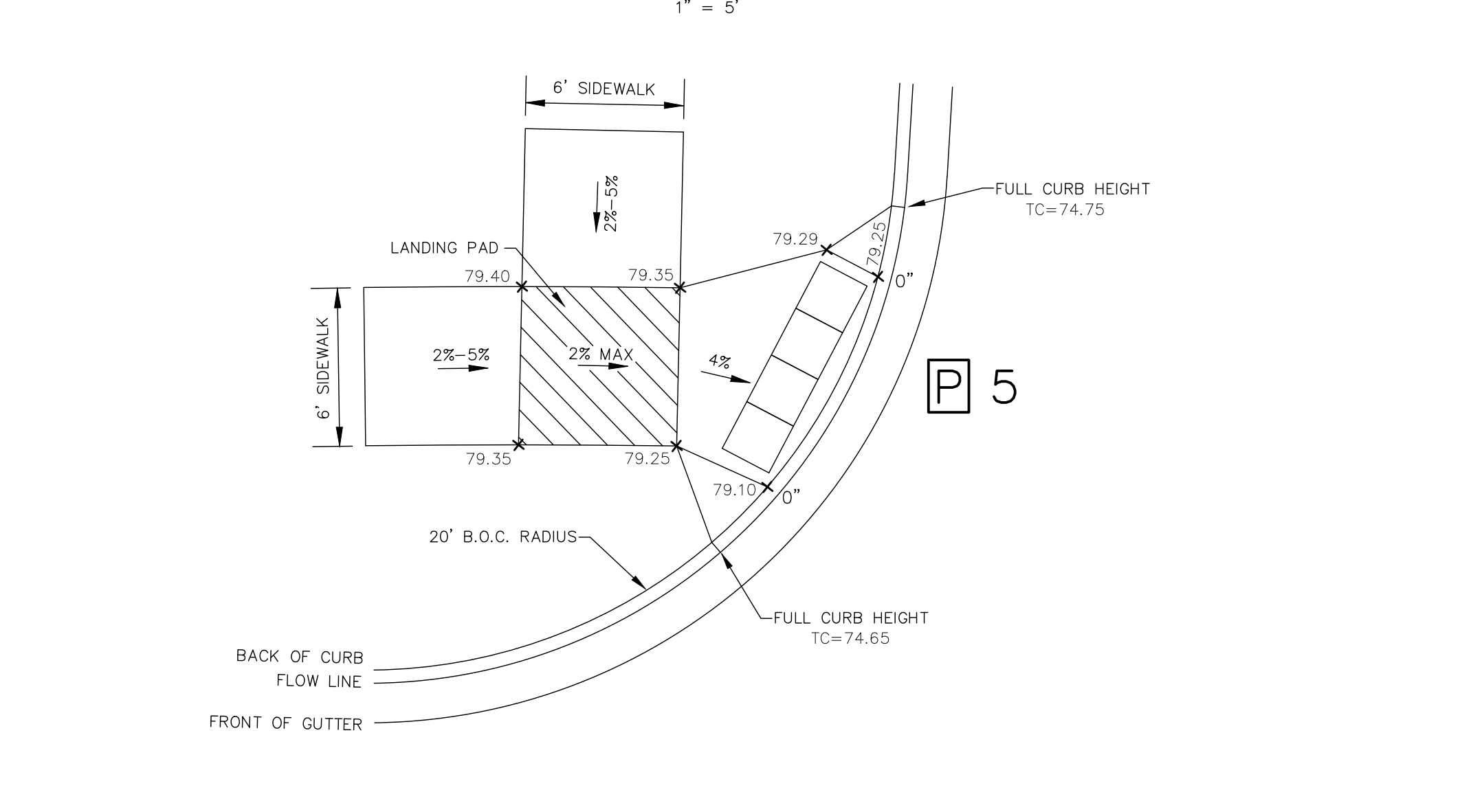
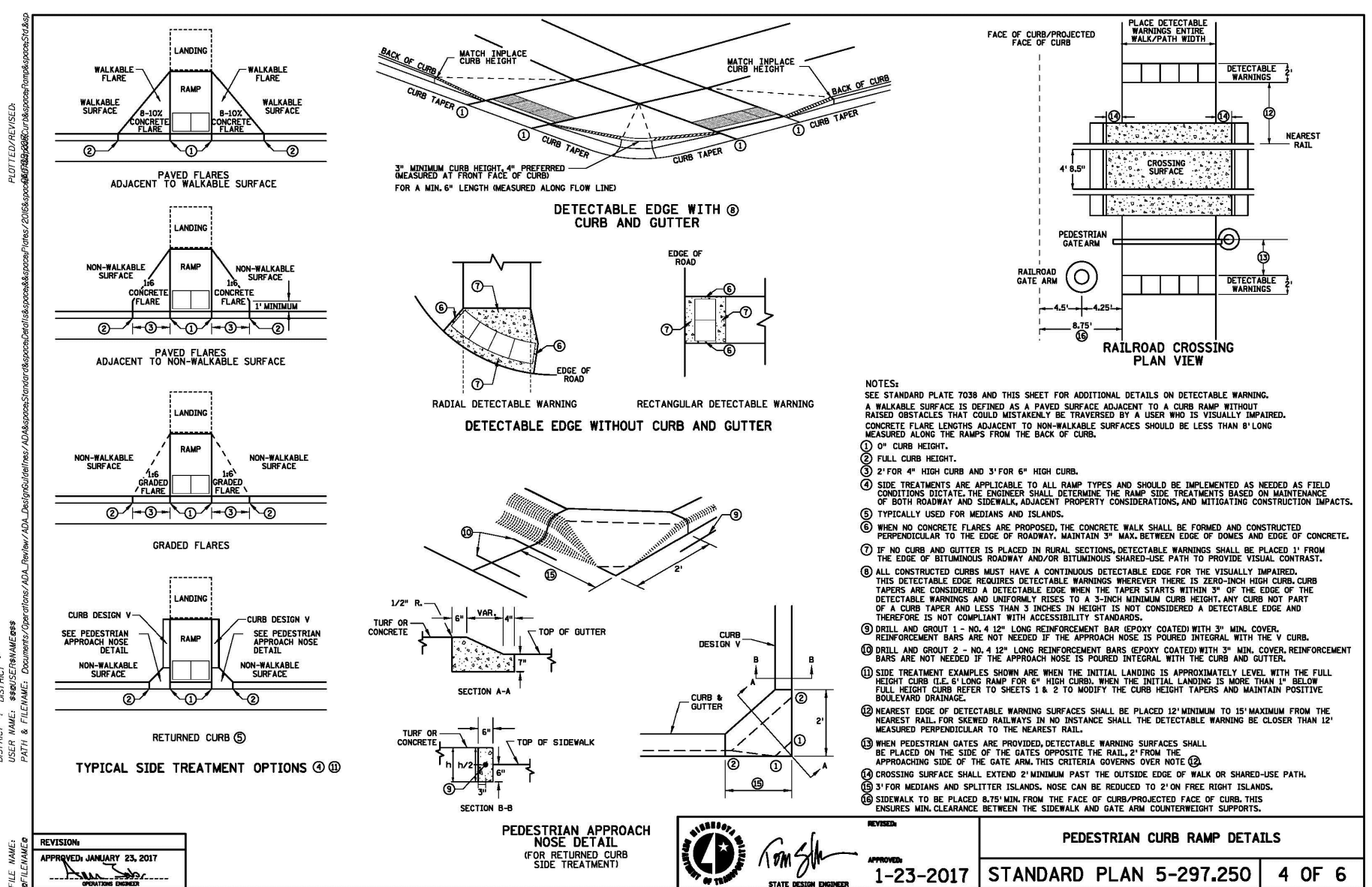
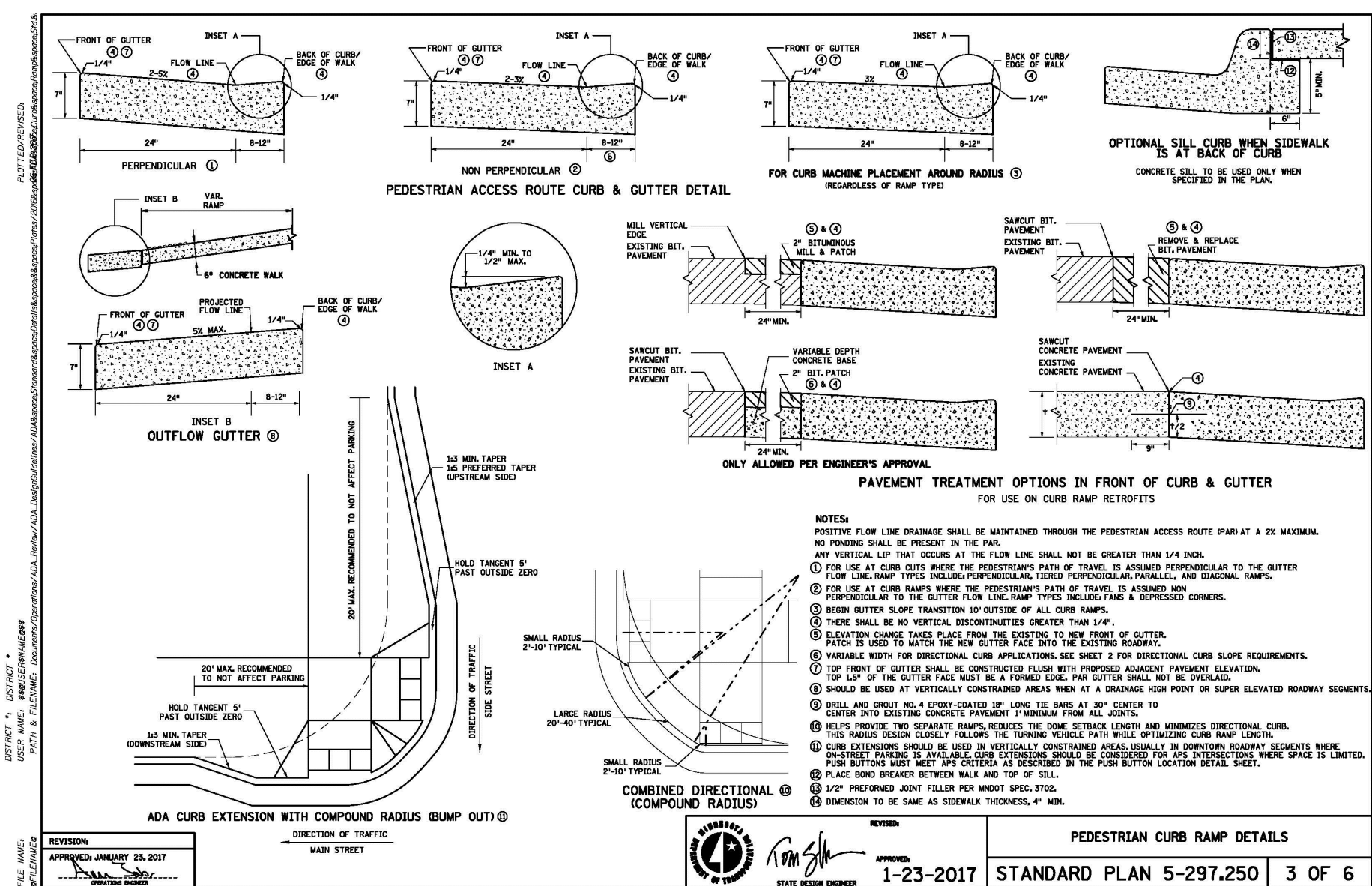
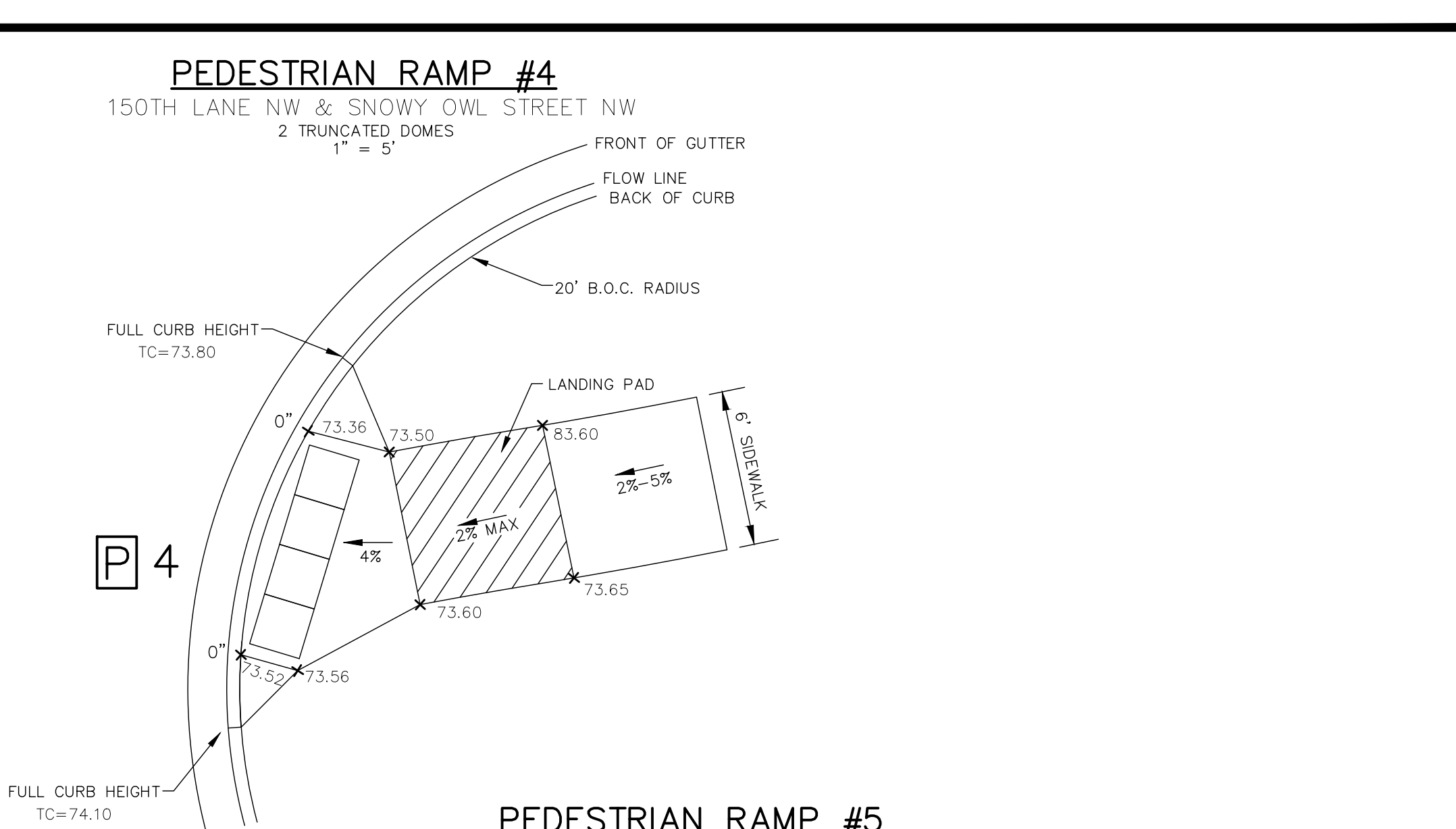
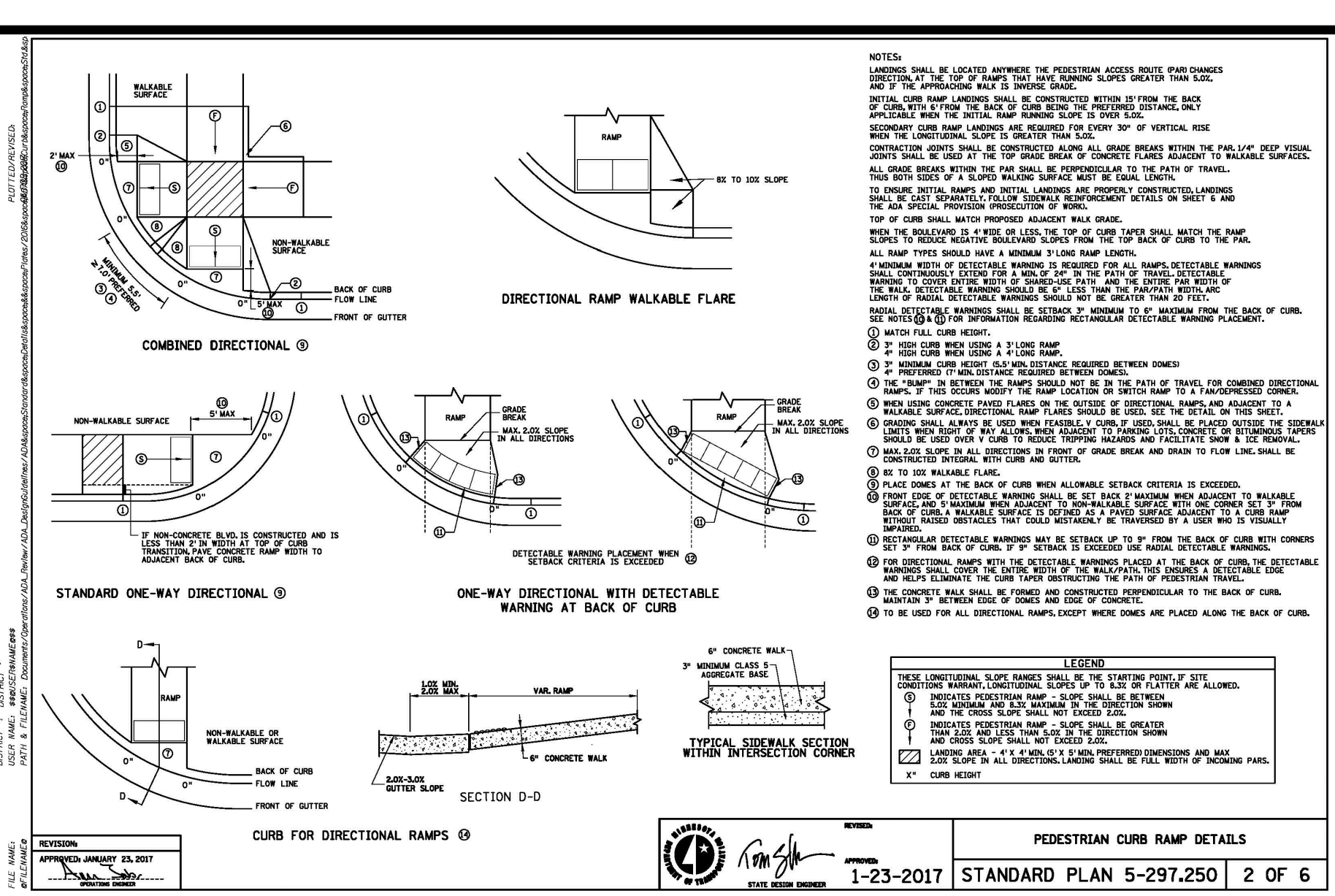
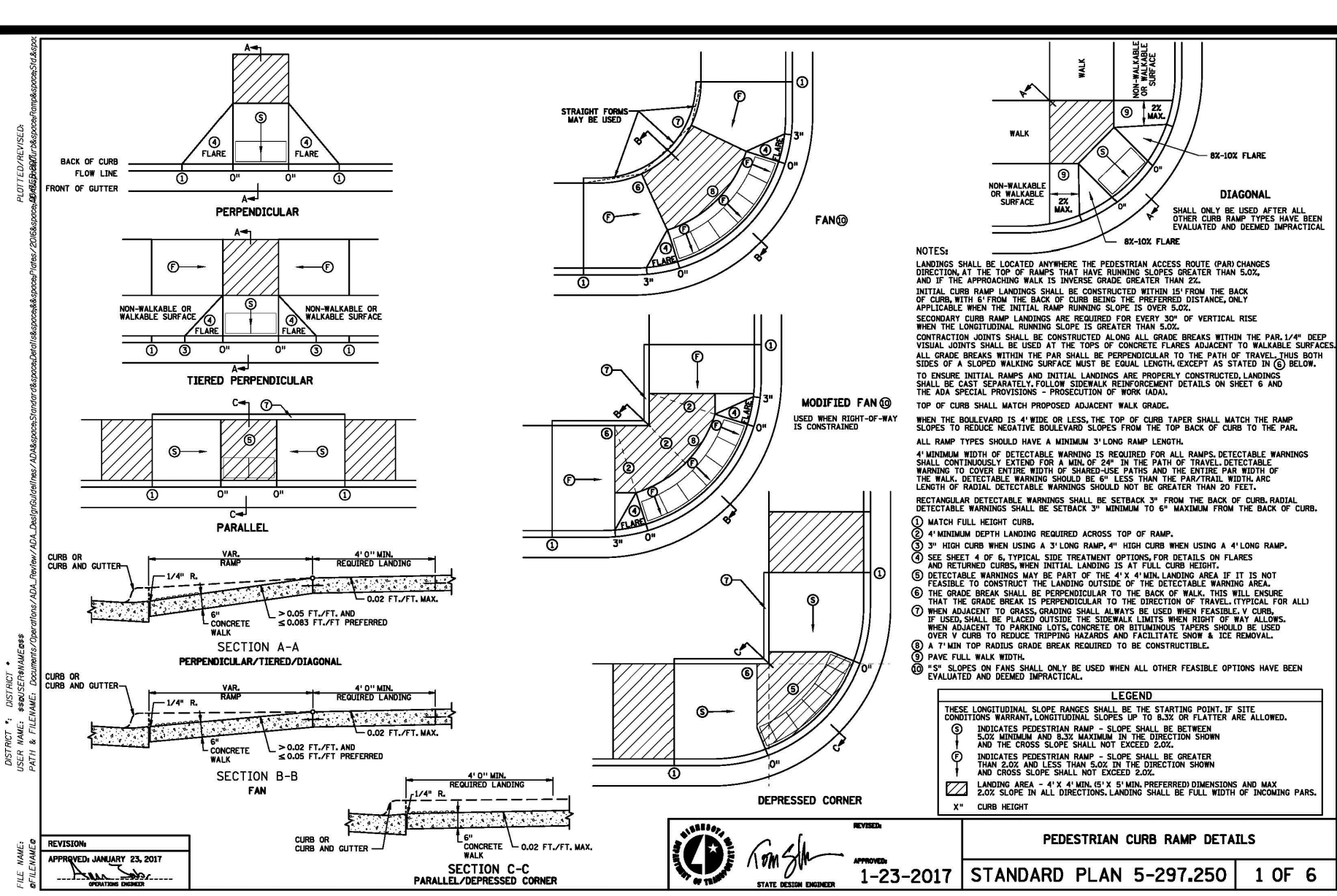


APPROVED: 9 - 2011  
**City of RAMSEY**  
 STANDARD DETAILS: STORM CASTING - NON TRAFFIC AREAS  
 CITY PLATE No. STO-6



APPROVED: 1 - 2006  
**City of RAMSEY**  
 STANDARD DETAILS: POND OUTLET  
 CITY PLATE No. STO-7





**Carlson McCain**

- environmental
- engineering
- surveying

1890 Pheasant Ridge DR. NE, Suite 100  
Blaine, MN 55449  
Phone: (763) 489-7900  
Fax: (763) 489-7959  
www.carlsonmccain.com

I hereby certify that this plan, specification of 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. Krystofak, P.E.  
Signature: *Brian J. Krystofak*  
Date: 4/13/18 License #: 25063

Drawn: ADB  
Designed: BJK  
Date: 4/13/18

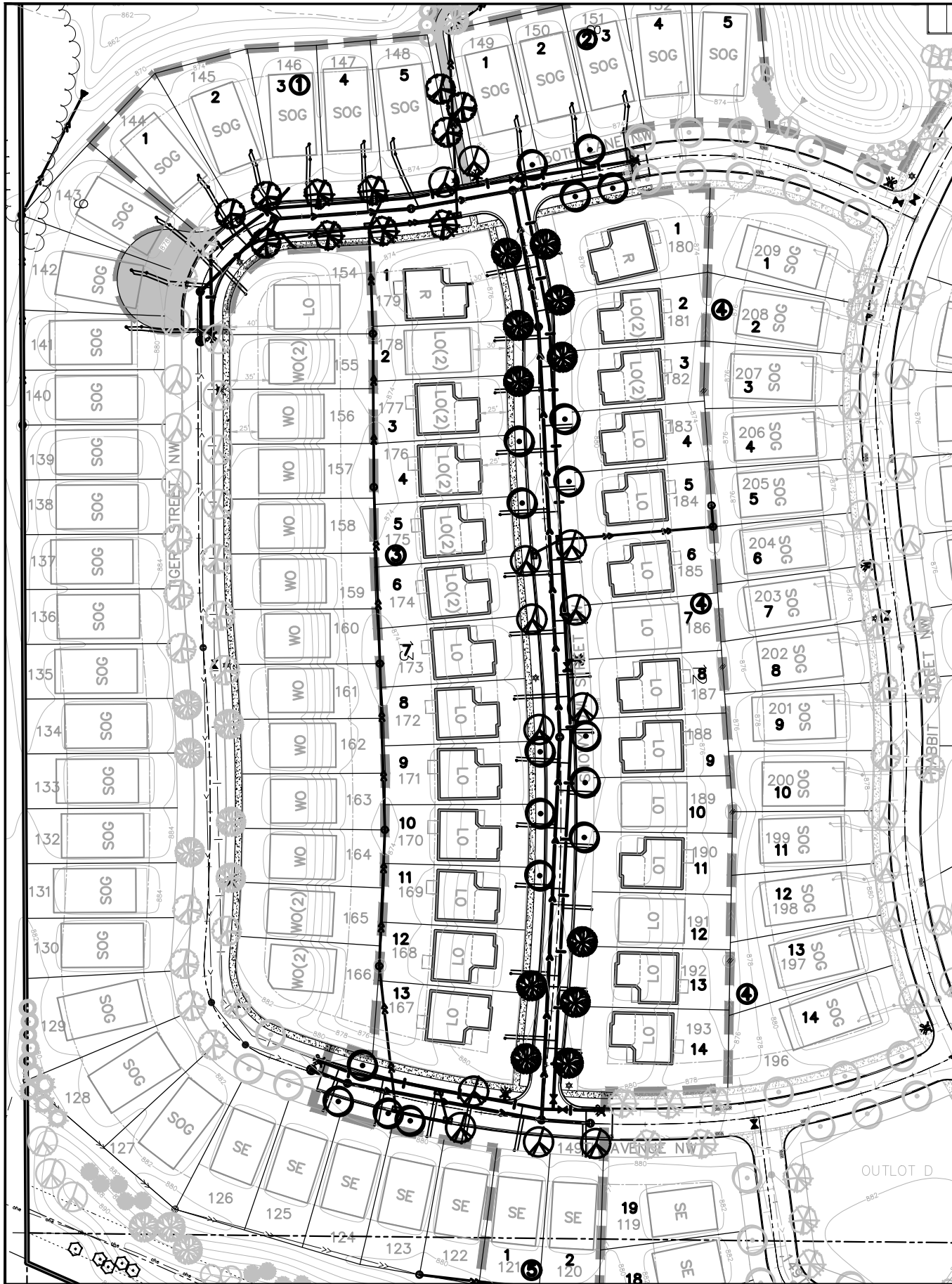
Revisions:  
1. 6/13/18 Per City Comments

**RIVERSTONE DEVELOPMENT, LLC.**  
14015 Sunfish Lake Blvd., Suite 400  
Ramsey, MN 55303

**RIVERSTONE 2ND ADDITION**  
Ramsey, Minnesota

**DETAILS**

12 of 12



**LANDSCAPE LEGEND (PHASE 2 OVERALL)**

OVERSTORY TREES	SWAMP WHITE OAK	SIZE	ROOT	QTY.
	Quercus bicolor	2"	BB	12
	Acer X freemanii 'Jeffersred'	2"	BB	18
	Tilia americana 'Boulevard'	2"	BB	5
	Celtis occidentalis	2"	BB	6
	Gleditsia tricanthos var. inermis 'Skycole'	2"	BB	11

**GENERAL NOTES:**

- LANDSCAPE CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS ON THE PROPERTY WITH THE GENERAL CONTRACTOR AND BY GOPHER STATE ONE CALL PRIOR TO STAKING PLANT LOCATIONS.
- COORDINATE THE PHASES OF CONSTRUCTION AND PLANTING INSTALLATION WITH OTHER CONTRACTORS WORKING ON THE SITE.
- WHERE EXISTING TREES AND/OR SIGNIFICANT SHRUB MASSING ARE FOUND ON THE SITE WHETHER SHOWN ON THE DRAWINGS OR NOT, THEY SHALL BE PROTECTED AND SAVED UNLESS NOTED TO BE REMOVED AND/OR ARE WITHIN THE GRADING LIMITS. ANY QUESTION REGARDING WHETHER PLANT MATERIAL SHOULD OR SHOULD NOT REMAIN SHOULD BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO REMOVAL.
- ALL EXISTING TREES TO REMAIN SHALL BE FERTILIZED AND PRUNED TO REMOVE DEAD WOOD AND DAMAGED OR RUBBING BRANCHES.
- BB TREES AND SHRUBS ARE BALLED AND BURLAPPED.
- NO PLANT MATERIAL SUBSTITUTIONS WILL BE ACCEPTED UNLESS APPROVAL IS REQUESTED OF THE LANDSCAPE ARCHITECT BY THE LANDSCAPE CONTRACTOR PRIOR TO SUBMISSION OF BID AND/OR QUOTATION.
- ALL PLANT MATERIAL SHALL COMPLY WITH THE LATEST ADDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMEN.
- THE CONTRACTOR IS RESPONSIBLE FOR ON-GOING MAINTENANCE OF ALL NEWLY INSTALLED MATERIALS UNTIL TIME OF OWNER ACCEPTANCE. ANY ACTS OF VANDALISM OR DAMAGE WHICH MAY OCCUR PRIOR TO OWNER ACCEPTANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL PROVIDE A WRITTEN REQUEST FOR THE OWNER ACCEPTANCE INSPECTION.
- WARRANTY FOR THE LANDSCAPE MATERIALS SHALL BEGIN ON THE DATE OF ACCEPTANCE BY THE LANDSCAPE ARCHITECT AFTER THE COMPLETION OF PLANTING ALL LANDSCAPE MATERIALS. NO PARTIAL ACCEPTANCE WILL BE CONSIDERED.
- CONTRACTOR SHALL GUARANTEE NEW PLANT MATERIAL THROUGH ONE CALENDAR YEAR FROM THE DATE OF LANDSCAPE ARCHITECT ACCEPTANCE WITH ALL REPLACEMENTS TO BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER. THE CITY IS REQUIRING AN ADDITIONAL TWO YEARS (3 TOTAL) FOR ALL TREES AT NO ADDITIONAL COST TO THE OWNER.

**CITY OF RAMSEY REQUESTED NOTES:**

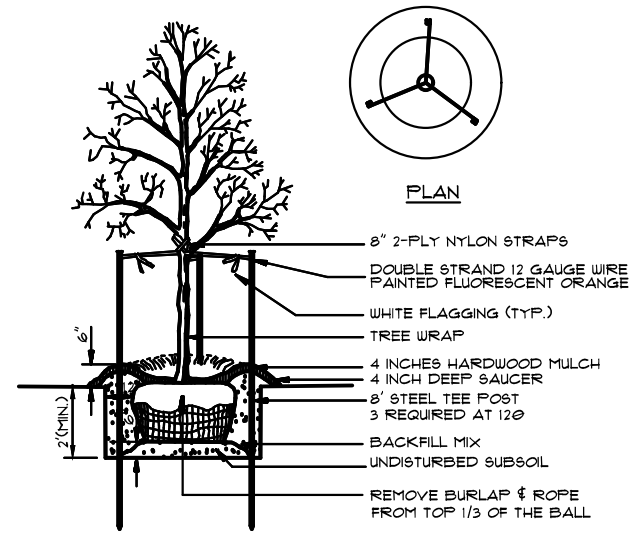
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- TREES SHALL NOT BE PLANTED WITHIN THE VISION TRIANGLE AS DEFINED IN CITY CODE 117-348.
- ALL TREES IN ISLANDS/CENTER MEDIAN SHALL BE PRIVATELY MAINTAINED PER THE PER THE HOME OWNERS ASSOCIATION DOCTRINE.
- TOPSOIL MEETING THE CITY'S SPECIFICATION SHALL BE REQUIRED PER EACH LOT. COPIES OF THE LOAD TICKET SHALL BE PROVIDED AND CITY INSPECTION IS REQUIRED PRIOR TO INSTALLATION OF SOD.
- NO TOPSOIL (OR OTHER FILL) SHALL BE PLACED WITHIN ANY WETLAND OR WETLAND SETBACK AREA.
- IRRIGATION SYSTEM SHALL BE DESIGN BUILT BY THE CONTRACTOR AND SHALL UTILIZE MATCH PRECIPITATION HEADS, HEAD TO HEAD COVERAGE AND WEATHER COMPENSATING SMART CONTROLLER.

**PLANTING SPECIFICATIONS:**

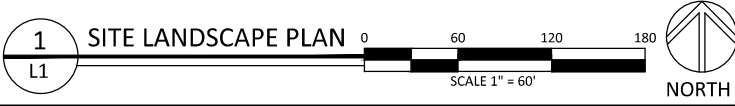
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- MULCH MATERIAL: AS SPECIFIED ON LANDSCAPE PLANS. MASS MULCH ALL PLANTING BEDS TO 3" DEPTH OVER FIBER MAT WEED BARRIER. ALL PERENNIAL PLANTING BEDS TO RECEIVE 3" DEEP SHREDDED HARDWOOD MULCH WITH NO FIBER WEED MAT BARRIER. ALL DECIDUOUS AND EVERGREEN TREES TO RECEIVE 6" DEEP SHREDDED HARDWOOD MULCH WITH NO MULCH IN DIRECT CONTACT WITH TREE TRUNK.
- TREE STAKING: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO STAKE AND/OR GUY THE TREES ACCORDING TO THE DETAILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO TAKE EVERY STEP NECESSARY TO MAINTAIN THE TREES AND SHRUBS IN AN UPRIGHT AND PLUMB CONDITION AT ALL TIMES UNTIL THE END OF THE PLANT GUARANTEE PERIOD, ESPECIALLY WHERE VANDALISM, SOIL OR WIND CONDITIONS ARE A PROBLEM.
- TREE WRAPPING: WRAPPING MATERIAL SHALL BE QUALITY HEAVY WATERPROOF CREPE PAPER MANUFACTURED FOR THIS PURPOSE. WRAP ALL DECIDUOUS TREES IN THE FALL PRIOR TO 12-1 AND REMOVE ALL WRAPPING BY 5-1.
- RODENT PROTECTION: PROVIDE ON ALL TREES, EXCEPT SPRUCE UNLESS OTHERWISE NOTED.
- PLANTING PLAN: ALL PROPOSED PLANTS SHALL BE LOCATED CAREFULLY AS SHOWN ON THE PLANS. THE PLANT TAKES PRECEDENCE OVER THE NOTES. RESPECT STATED DIMENSIONS. DO NOT SCALE DRAWINGS.
- EDGING: EDGING SHALL BE 4" P.V.C COMMERCIAL GRADE EDGING WITH THREE (3) METAL ANCHOR STAKES PER 20 FOOT SECTION, UNLESS OTHERWISE NOTED ON THE PLAN. ALL MASS PLANTING BEDS SHALL HAVE EDGING PLACED BETWEEN MULCH AND ANY ADJACENT TURF AREAS.

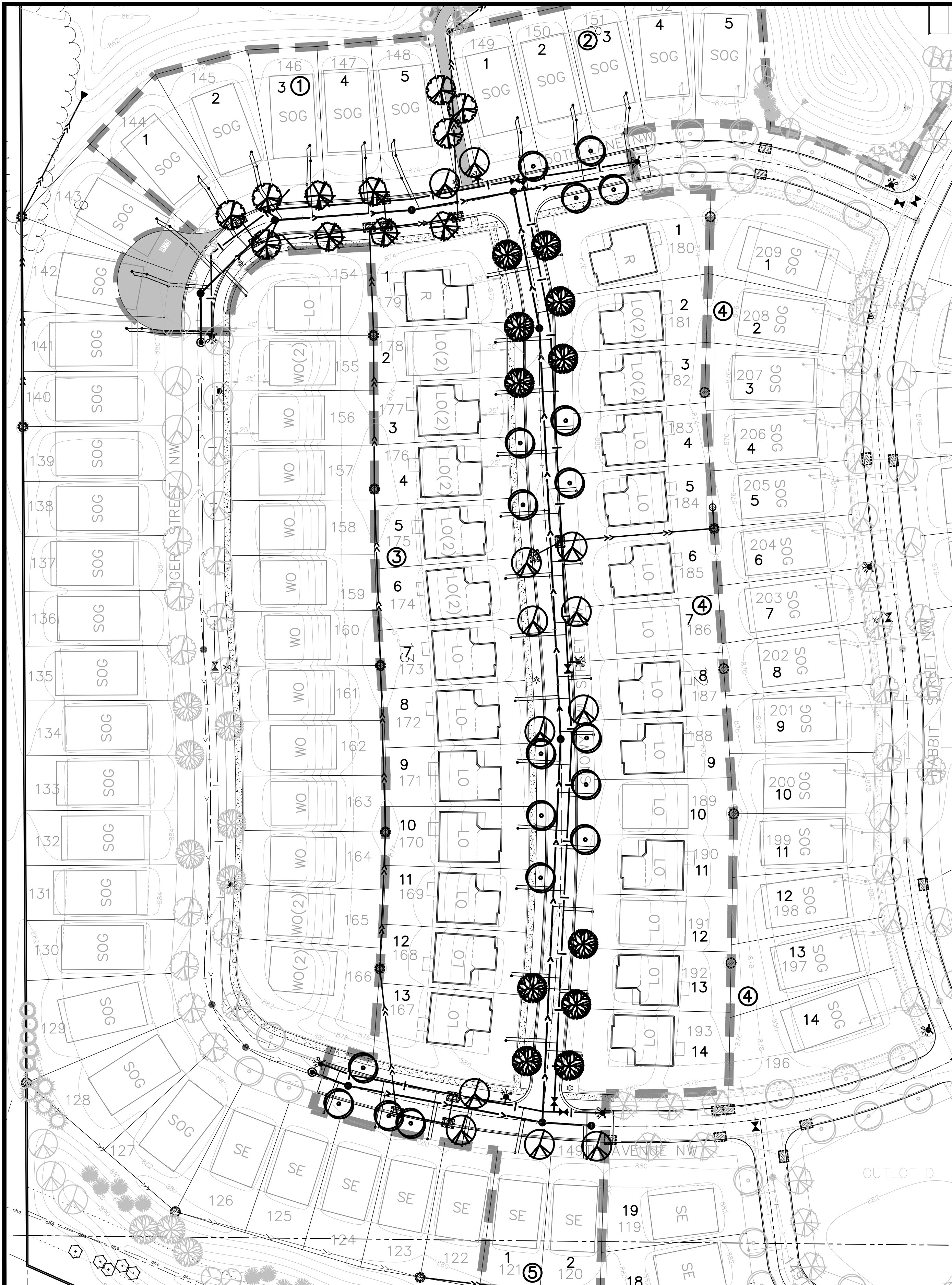
**PLANTING NOTES:**

- NO PLANTING TO BE INSTALLED UNTIL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
- ALL PLANT MATERIAL LOCATIONS MUST BE REVIEWED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ANY AND ALL DIGGING.
- IF THE LANDSCAPE CONTRACTOR PERCEIVES AND DEFICIENCIES IN THE PLANT SELECTIONS, SOIL CONDITIONS, OR ANY OTHER SITE CONDITION WHICH MIGHT NEGATIVELY AFFECT PLANT MATERIAL ESTABLISHMENT, SURVIVAL OR GUARANTEE, THEY SHALL BRING THESE DEFICIENCIES TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
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- ONE SHRUB PER TYPE AND SIZE IN EACH PLANTING BED AND EVERY TREE SHOULD BE CLEARLY IDENTIFIED (COMMON OR LATIN NOMENCLATURE) WITH A PLASTIC TAG WHICH SHALL NOT BE REMOVED PRIOR TO OWNER ACCEPTANCE.
- WHERE SOD/SEED ABUTS PAVED SURFACES, FINISHED GRADE OF SEED SOD SHALL BE HELD 1" BELOW SURFACE ELEVATION OF TRAIL, SLAB, CURB, ETC.
- SOD SHALL BE LAID PARALLEL TO THE CONTOURS AND SHALL HAVE STAGGERED JOINTS. STAGGERED JOINTS SHALL BE 3" OR IN DRAINAGE SWALES, THE SOD SHALL BE STAKED TO THE GROUND.
- SEED ALL AREAS DISTURBED DUE TO GRADING OTHER THAN THOSE TO RECEIVE SOD.
- REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO THE OWNER.



NOTE: SEE PLANTING NOTES FOR THE TYPE OF MULCH MATERIAL TO USE.  
**A DECIDUOUS TREE PLANTING DETAIL**  
NOT TO SCALE





**LANDSCAPE LEGEND (PHASE 2 OVERALL)**

OVERSTORY TREES	SIZE	ROOT	QTY.
Quercus bicolor	SWAMP WHITE OAK	2"	BB 12
Acer X freemanii 'Jeffersred'	AUTUMN BLAZE MAPLE	2"	BB 18
Tilia americana 'Boulevard'	BOULEVARD LINDEN	2"	BB 5
Celtis occidentalis	HACKBERRY	2"	BB 6
Gleditsia tricanthos var. inermis 'Skycole'	HONEYLOCUST	2"	BB 11

**GENERAL NOTES:**

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- CONTRACTOR SHALL SCHEDULE A PRE-PLANTING MEETING WITH THE CITY AND THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF ANY TREES IN THE PUBLIC REALM, INCLUDING BOULEVARDS. CONTRACTOR SHALL USE A WOOD LATH STAKE TO MARK LOCATION AND CULTIVAR OF PROPOSED TREE.

**CITY OF RAMSEY REQUESTED NOTES:**

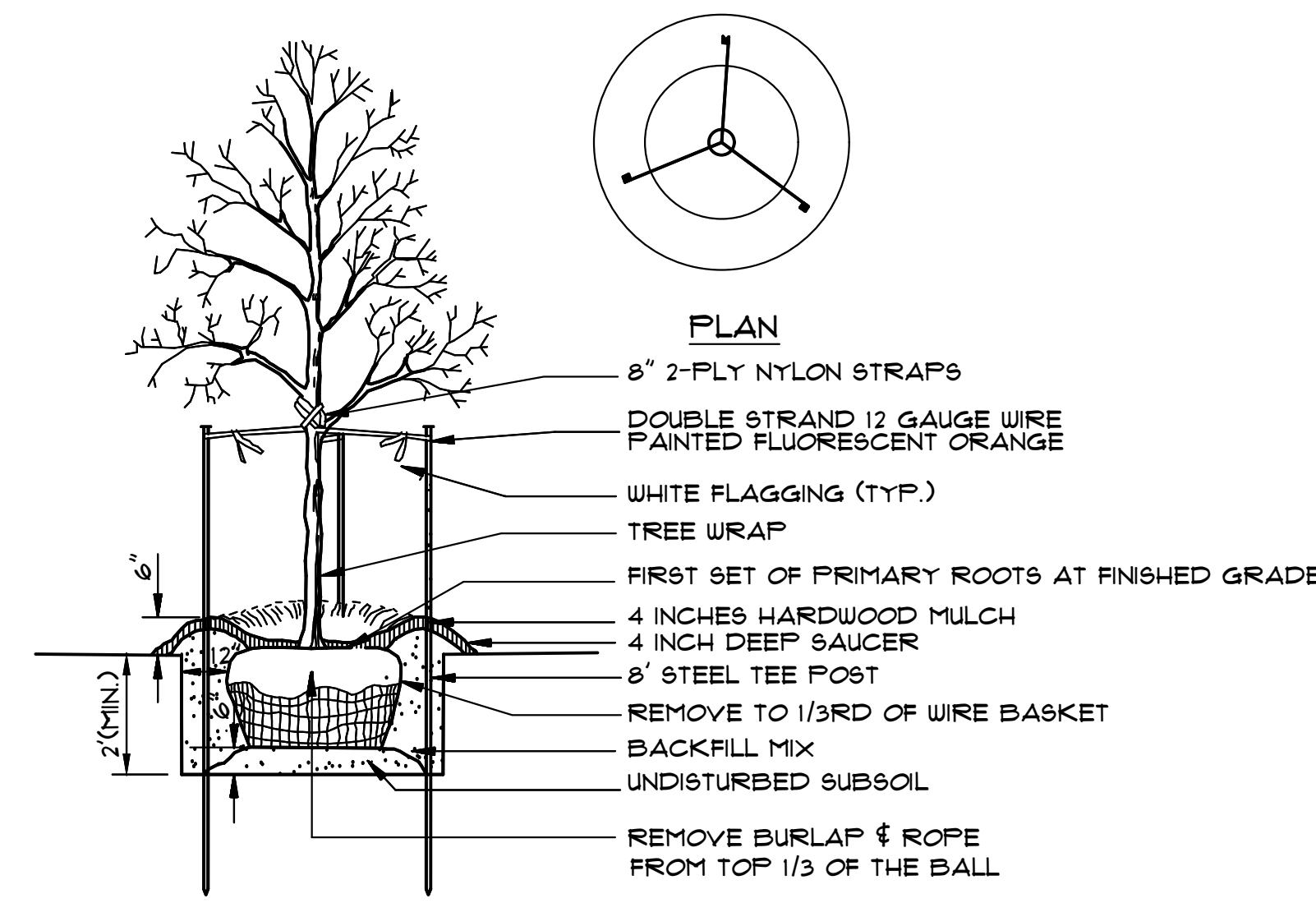
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**PLANTING NOTES:**

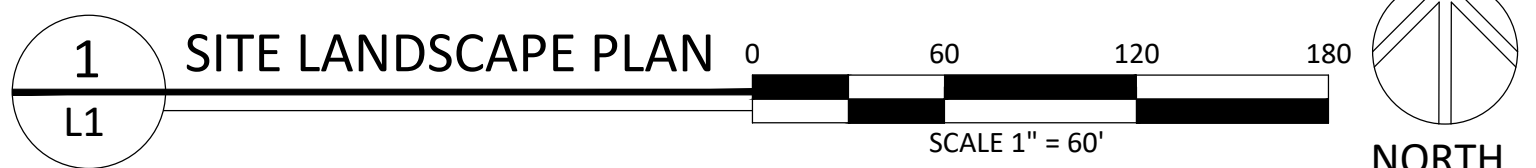
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NOTE: SEE PLANTING NOTES FOR THE TYPE OF MULCH MATERIAL TO USE.

**A DECIDUOUS TREE PLANTING DETAIL**

NOT TO SCALE



3890 Pheasant Ridge DR. NE,  
Suite 100  
Blaine, MN 55449  
Phone: (763) 489-7900  
Fax: (763) 489-7959  
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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: 04/13/18 License #: 45071

Drawn: JAK  
Designed: JAK  
Date: 04/13/18

Revisions:  
1. 6/13/18 Per City Comments

**RIVERSTONE DEVELOPMENT, LLC.**  
14015 Sunfish Lake Blvd., Suite 400  
Ramsey, MN 55303

**RIVERSTONE 2ND ADDITION**  
Ramsey, Minnesota

**LANDSCAPE PLAN**

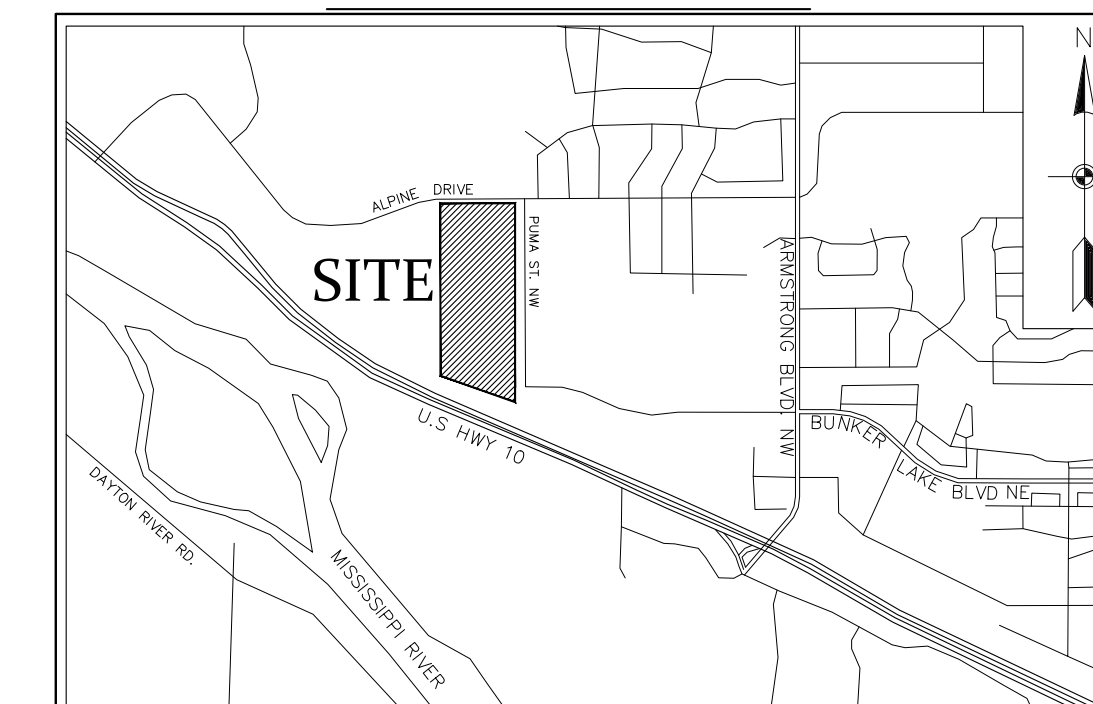
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# RIVERSTONE

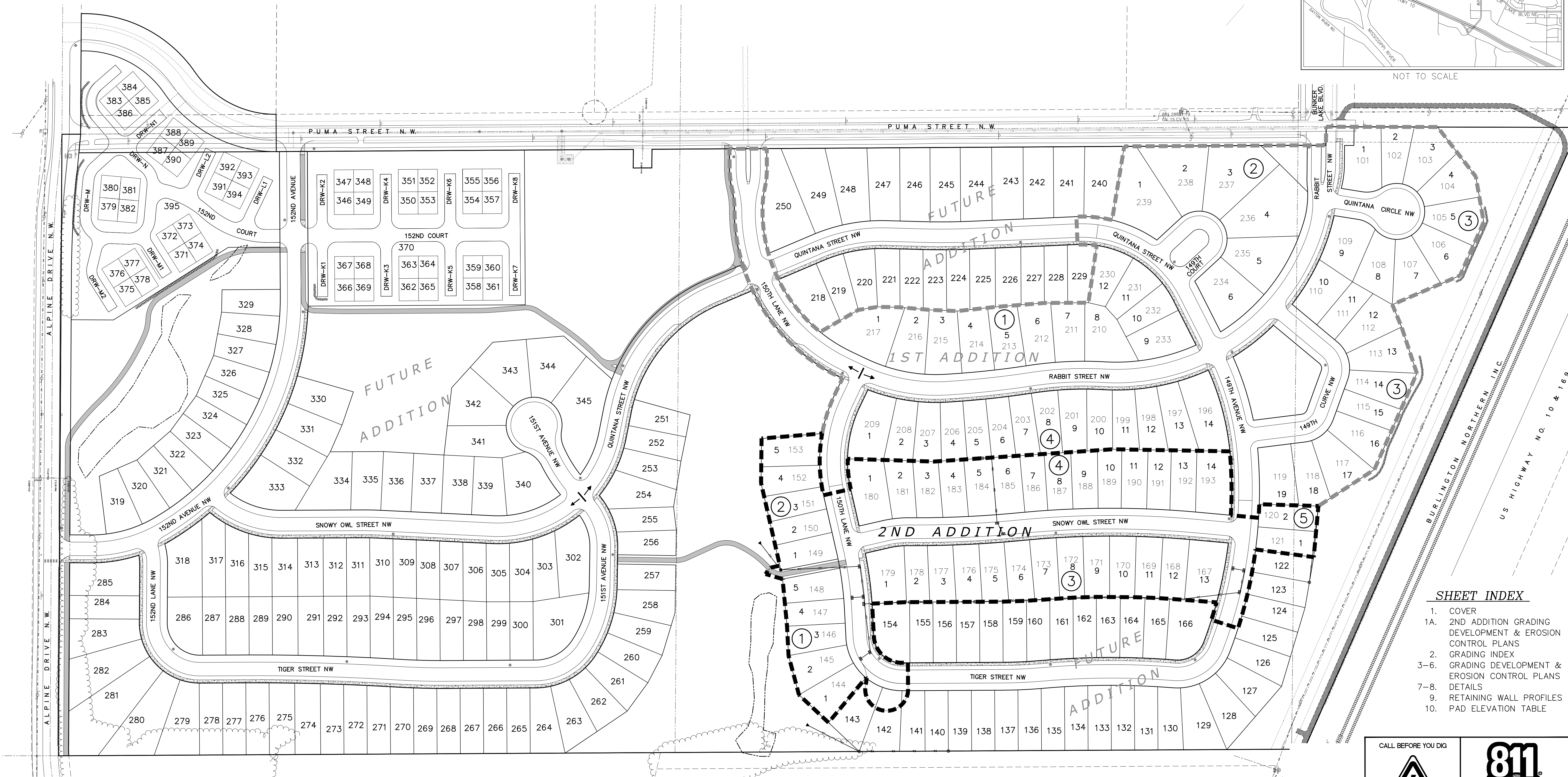
## GRADING, DEVELOPMENT & EROSION CONTROL PLANS

### RAMSEY, MINNESOTA

#### VICINITY MAP



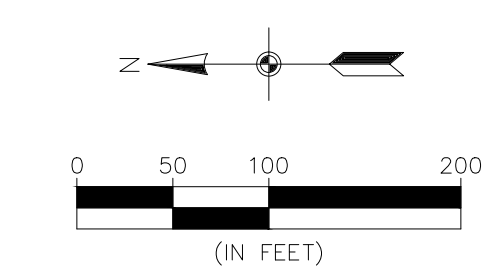
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#### SHEET INDEX

1. COVER
- 1A. 2ND ADDITION GRADING DEVELOPMENT & EROSION CONTROL PLANS
2. GRADING INDEX
- 3-6. GRADING DEVELOPMENT & EROSION CONTROL PLANS DETAILS
- 7-8. RETAINING WALL PROFILES
9. PAD ELEVATION TABLE
- 10.

BENCHMARK	
1.	Anoka County Benchmark No. 3076 Elev. = 890.186 (NAVD 88)
2.	Anoka County Benchmark No. 2078 Elev. = 899.499 (NAVD 88)



CALL BEFORE YOU DIG

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

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Date: 6/23/17 License #: 25063

Drawn: ADB  
Designed: BJK  
Date: 6/23/17

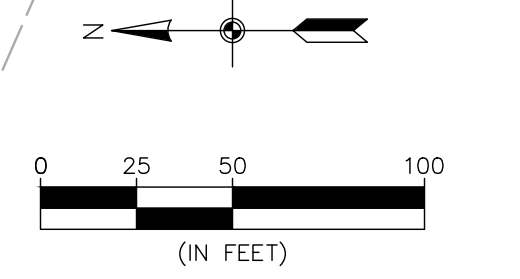
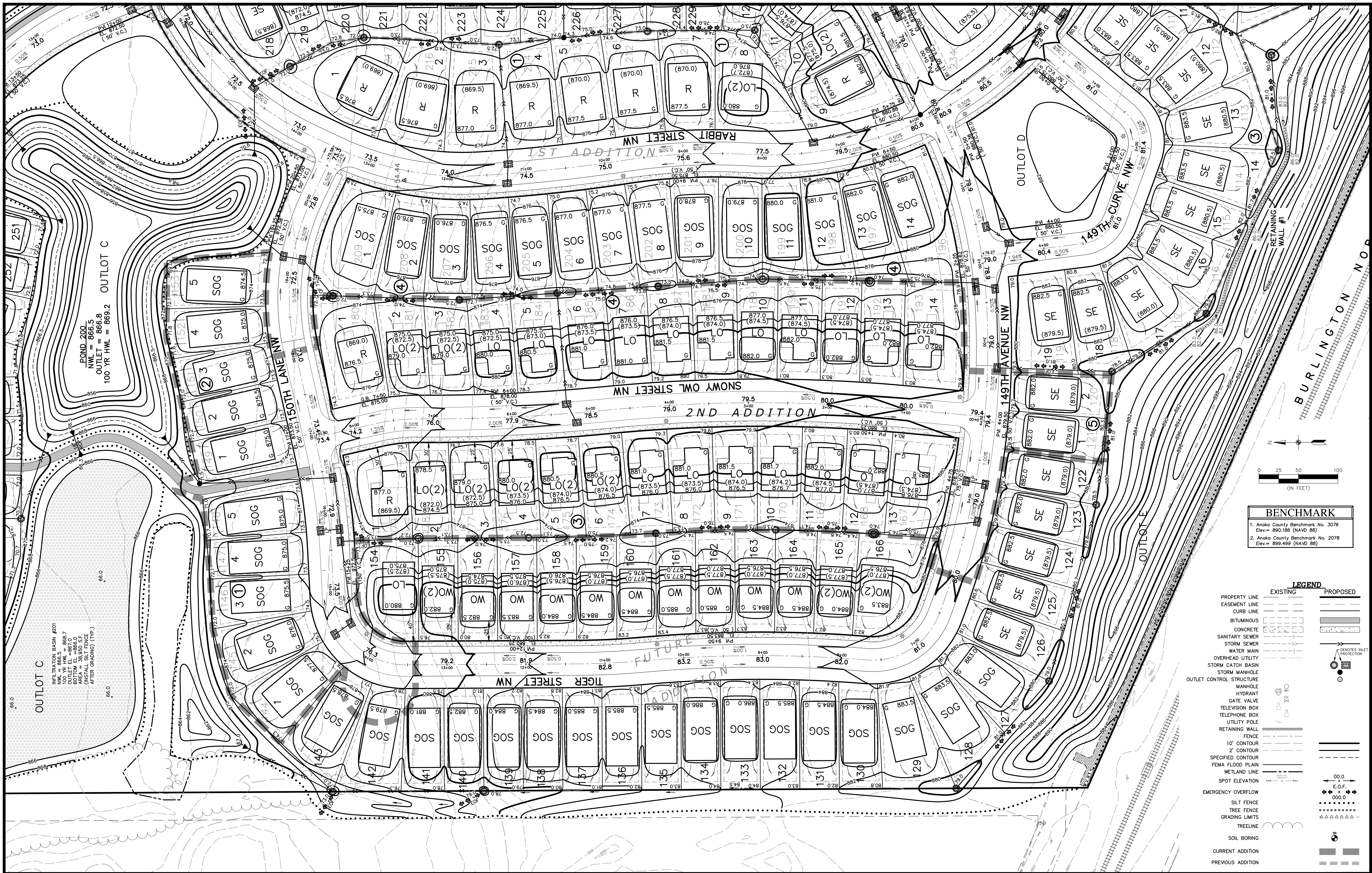
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Ramsey, MN

**COVER SHEET**



BENCHMARK	
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LEGEND	
EXISTING	PROPOSED
PROPERTY LINE	PROPERTY LINE
EASEMENT LINE	EASEMENT LINE
CURB LINE	CURB LINE
BITUMINOUS	BITUMINOUS
CONCRETE	CONCRETE
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
UTILITY POLE	UTILITY POLE
RETAINING WALL	RETAINING WALL
FENCE	FENCE
10' CONTOUR	10' CONTOUR
2' CONTOUR	2' CONTOUR
SPECIFIED CONTOUR	SPECIFIED CONTOUR
FEMA FLOOD PLAIN	FEMA FLOOD PLAIN
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
CURRENT ADDITION	CURRENT ADDITION
PREVIOUS ADDITION	PREVIOUS ADDITION

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Drawn: LC  
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**RIVERSTONE**  
 Ramsey, MN

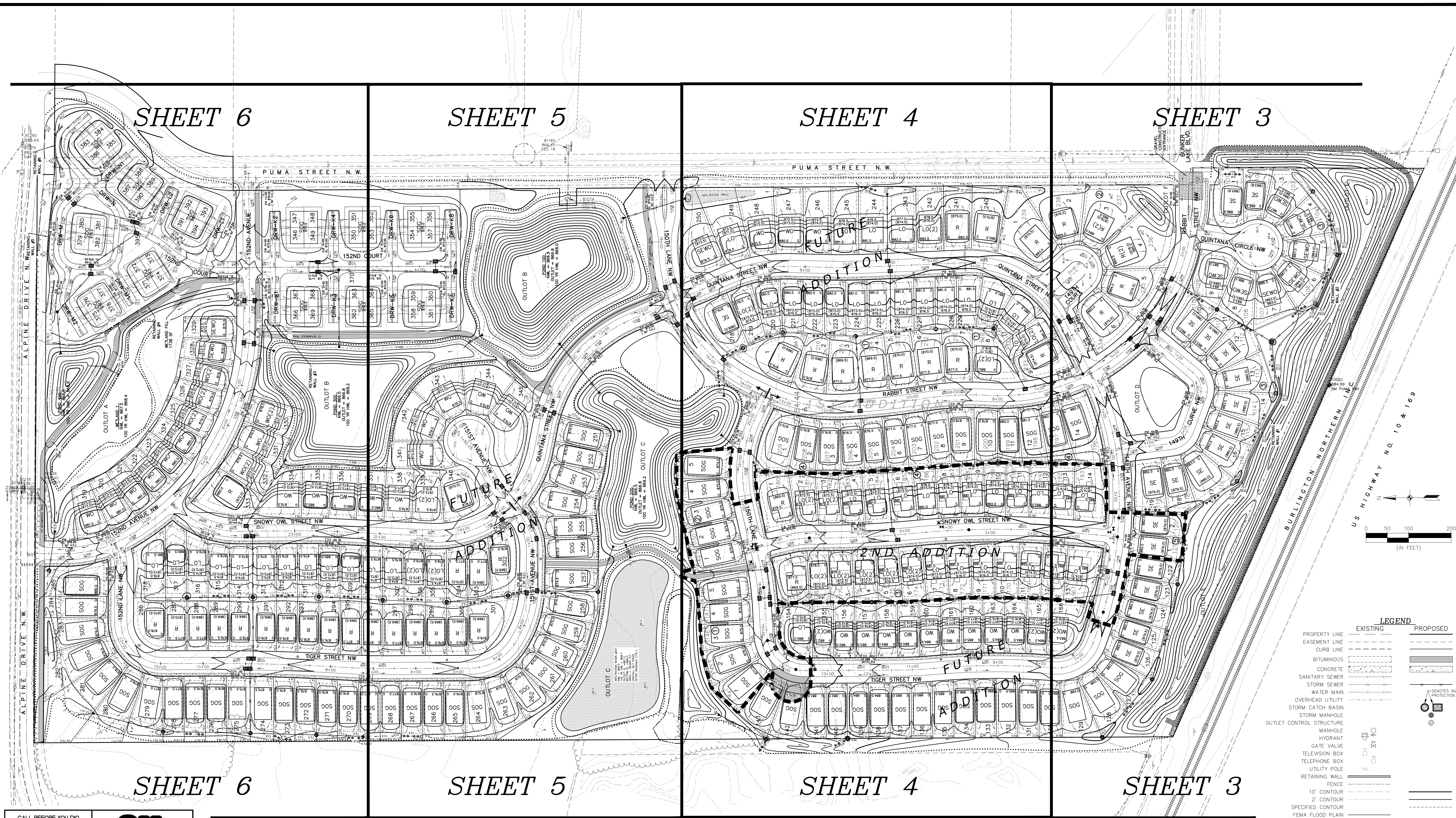
**GRADING, DEVELOPMENT & EROSION CONTROL PLAN**

SHEET 6

SHEET 5

SHEET 4

SHEET 3

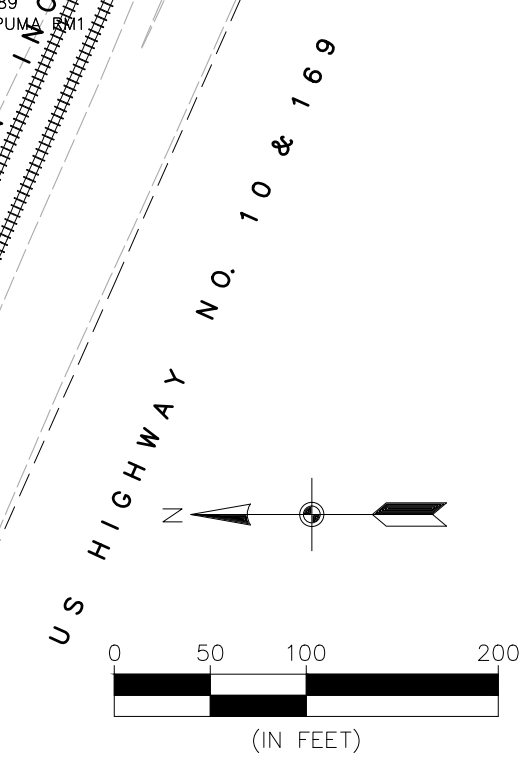


SHEET 6

SHEET 5

SHEET 4

SHEET 3



**LEGEND**

EXISTING	PROPOSED
Property Line	Property Line
Easement Line	Easement Line
Curb Line	Curb Line
Bituminous	Bituminous
Concrete	Concrete
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 Flood Plain	FEMA Flood Plain
Wetland Line	Wetland Line
Spot Elevation	Spot Elevation
Emergency Overflow	Emergency Overflow
Silt Fence	Silt Fence
Tree Fence	Tree Fence
Grading Limits	Grading Limits
Tree Line	Tree Line
Soil Boring	Soil Boring
Current Addition	Current Addition
Previous Addition	Previous Addition

**WETLAND SUMMARY**

WETLAND FILL = 1738 SF

NOTE: WETLAND FILL TOTAL IS LESS THAN THE MINIMUM AMOUNT; NO WETLAND REPLACEMENT WILL BE REQUIRED

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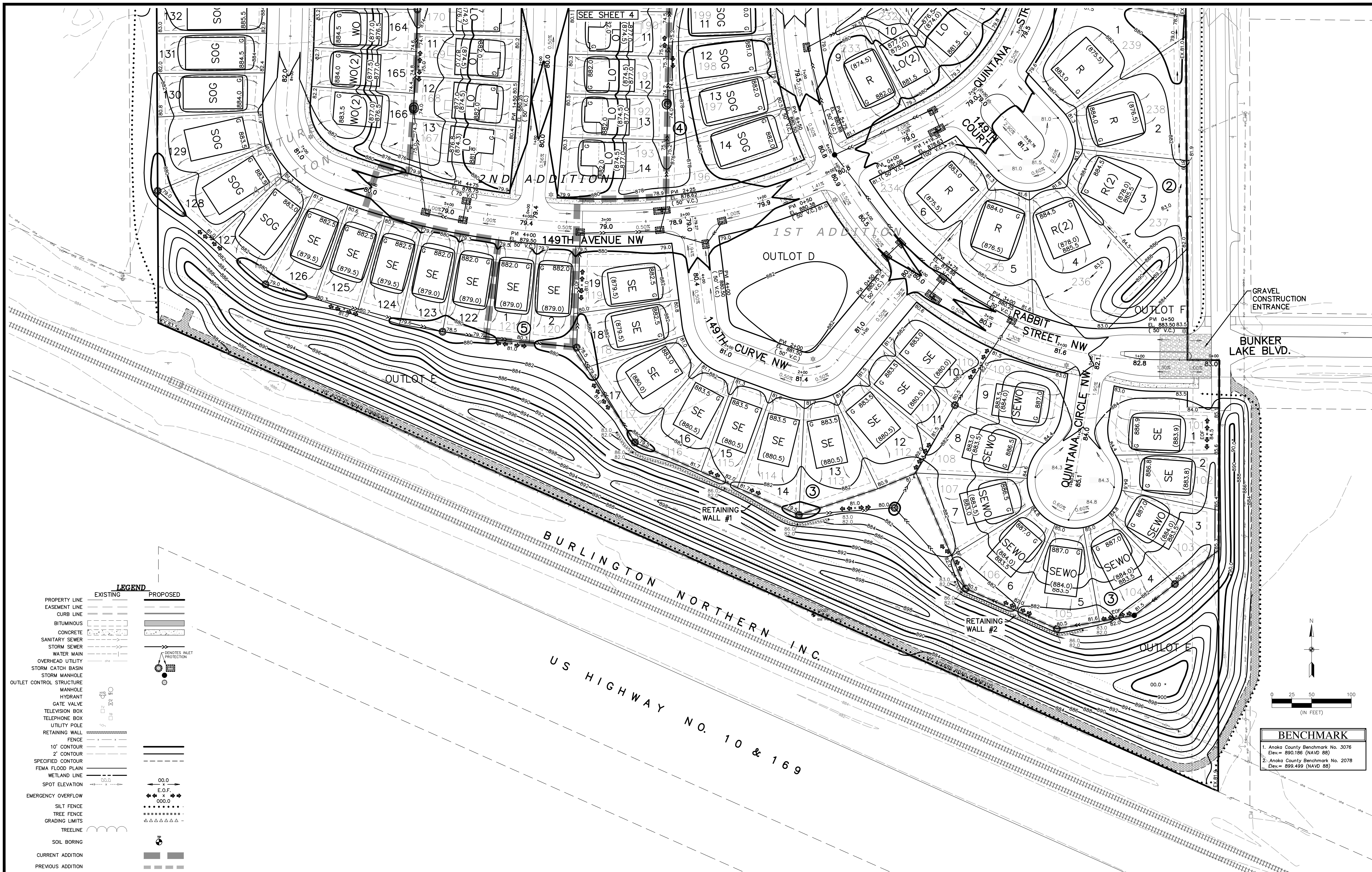
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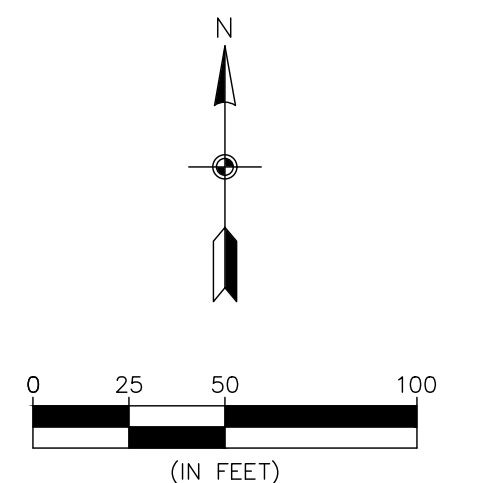
**RIVERSTONE**  
Ramsey, MN

**GRADING INDEX**



GRAVEL CONSTRUCTION ENTRANCE

BUNKER LAKE BLVD.



**BENCHMARK**  
 1. Anoka County Benchmark No. 3076  
 Elev. = 890.186 (NAVD 88)  
 2. Anoka County Benchmark No. 2078  
 Elev. = 899.499 (NAVD 88)

**LEGEND**

EXISTING	PROPOSED
PROPERTY LINE	---
EASEMENT LINE	---
CURB LINE	---
BITUMINOUS	---
CONCRETE	---
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 FLOOD PLAIN	---
WETLAND LINE	---
SPOT ELEVATION	00.0
EMERGENCY OVERFLOW	E.O.F.
SILT FENCE	---
TREE FENCE	---
GRADING LIMITS	---
TREELINE	---
SOIL BORING	---
CURRENT ADDITION	---
PREVIOUS ADDITION	---

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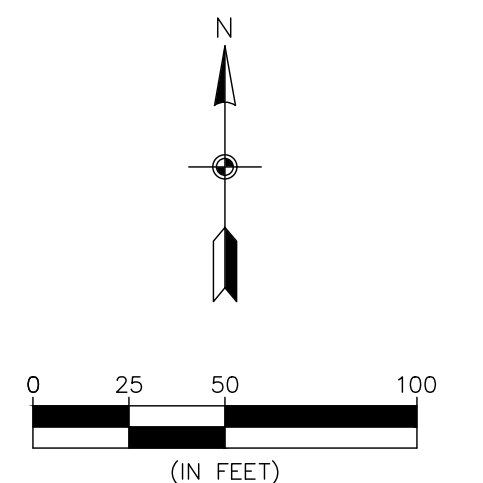
**RIVERSTONE**  
 Ramsey, MN

**GRADING, DEVELOPMENT & EROSION CONTROL PLAN**



**LEGEND**

	EXISTING	PROPOSED
PROPERTY LINE	[Solid line]	[Dashed line]
EASEMENT LINE	[Dotted line]	[Dashed line]
CURB LINE	[Dashed line]	[Dashed line]
BITUMINOUS	[Hatched pattern]	[Hatched pattern]
CONCRETE	[Hatched pattern]	[Hatched pattern]
SANITARY SEWER	[Line with 'S']	[Line with 'S']
STORM SEWER	[Line with 'S']	[Line with 'S']
WATER MAIN	[Line with 'W']	[Line with 'W']
OVERHEAD UTILITY	[Line with 'O']	[Line with 'O']
STORM CATCH BASIN	[Circle with 'S']	[Circle with 'S']
STORM MANHOLE	[Circle with 'M']	[Circle with 'M']
OUTLET CONTROL STRUCTURE	[Circle with 'O']	[Circle with 'O']
MANHOLE	[Circle with 'M']	[Circle with 'M']
HYDRANT	[Circle with 'H']	[Circle with 'H']
GATE VALVE	[Circle with 'G']	[Circle with 'G']
TELEVISION BOX	[Circle with 'T']	[Circle with 'T']
TELEPHONE BOX	[Circle with 'P']	[Circle with 'P']
UTILITY POLE	[Circle with 'U']	[Circle with 'U']
RETAINING WALL	[Line with 'R']	[Line with 'R']
FENCE	[Line with 'F']	[Line with 'F']
10' CONTOUR	[Dashed line]	[Dashed line]
2' CONTOUR	[Dashed line]	[Dashed line]
SPECIFIED FLOOR	[Dashed line]	[Dashed line]
FEMA FLOOD PLAIN	[Dashed line]	[Dashed line]
WETLAND LINE	[Dashed line]	[Dashed line]
SPOT ELEVATION	[Circle with 'E']	[Circle with 'E']
EMERGENCY OVERTFLOW	[Circle with 'E']	[Circle with 'E']
SILT FENCE	[Line with 'S']	[Line with 'S']
TREE FENCE	[Line with 'T']	[Line with 'T']
GRADING LIMITS	[Line with 'G']	[Line with 'G']
TREELINE	[Line with 'T']	[Line with 'T']
SOIL BORING	[Circle with 'B']	[Circle with 'B']
CURRENT ADDITION	[Hatched pattern]	[Hatched pattern]
PREVIOUS ADDITION	[Hatched pattern]	[Hatched pattern]



**BENCHMARK**

- Anoka County Benchmark No. 3076  
Elev = 890.186 (NAVD 88)
- Anoka County Benchmark No. 2078  
Elev = 899.499 (NAVD 88)

NWL = 866.5  
OUTLET = 866.8  
100 YR HWL = 869.2 OUTLOT C

SEE SHEET 5

SEE SHEET 3

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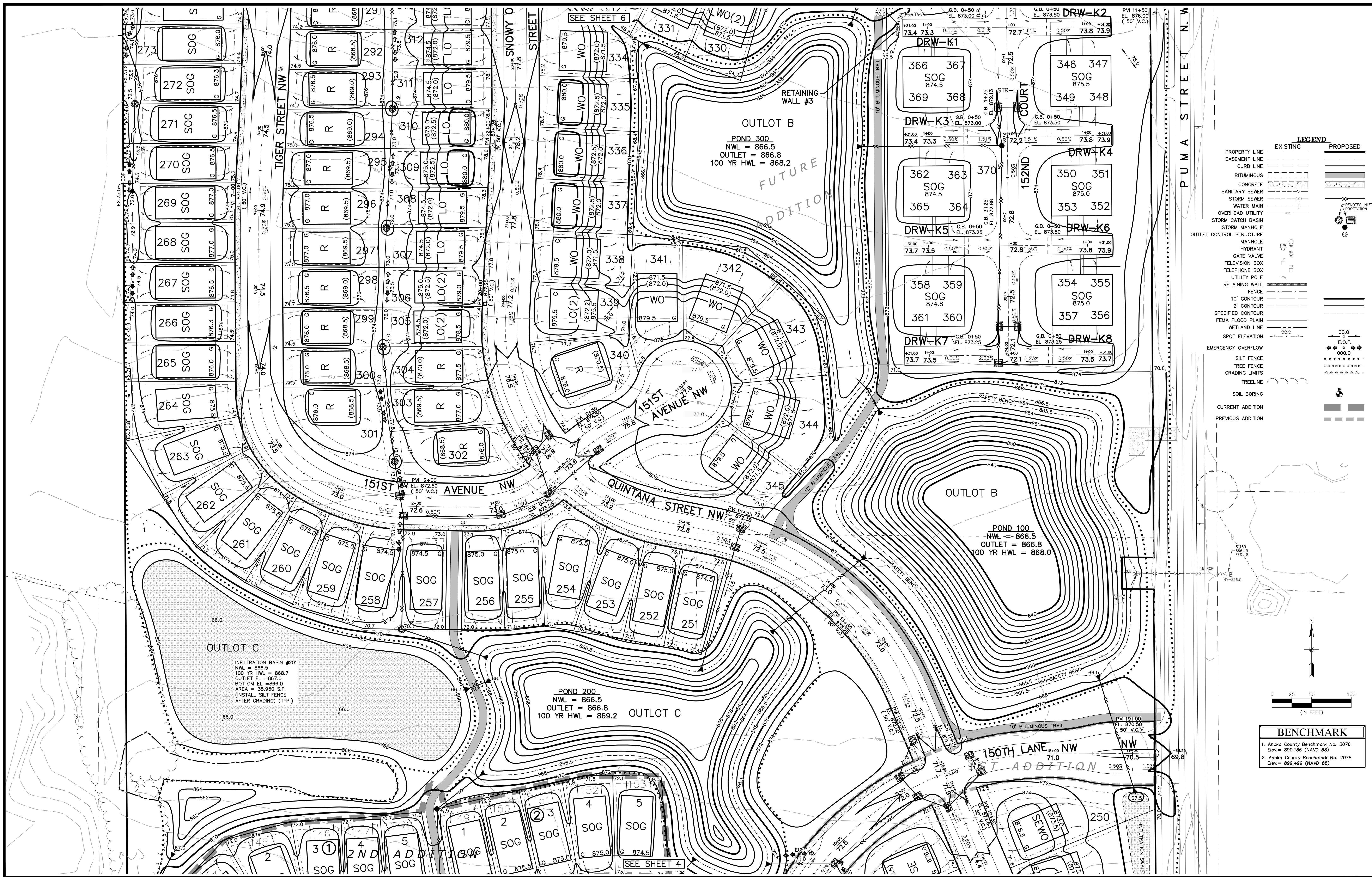
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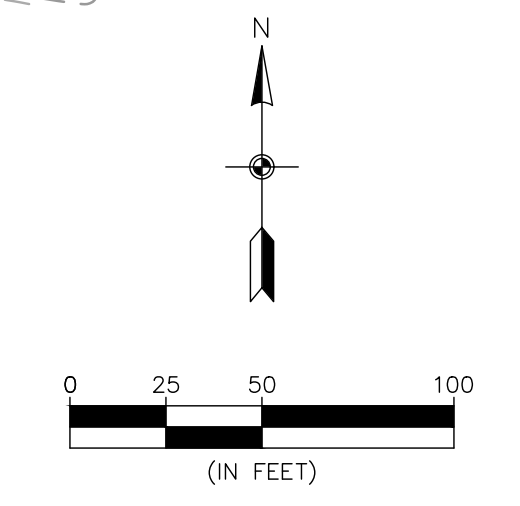
**RIVERSTONE**  
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**GRADING, DEVELOPMENT & EROSION CONTROL PLAN**



**LEGEND**

EXISTING	PROPOSED
PROPERTY LINE	PROPERTY LINE
EASEMENT LINE	EASEMENT LINE
CURB LINE	CURB LINE
BITUMINOUS	BITUMINOUS
CONCRETE	CONCRETE
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
UTILITY POLE	UTILITY POLE
RETAINING WALL	RETAINING WALL
FENCE	FENCE
10' CONTOUR	10' CONTOUR
2' CONTOUR	2' CONTOUR
SPECIFIED CONTOUR	SPECIFIED CONTOUR
FEMA FLOOD LINE	FEMA FLOOD LINE
WETLAND LINE	WETLAND LINE
SPOT ELEVATION	SPOT ELEVATION
EMERGENCY OVERTFLOW	EMERGENCY OVERTFLOW
SILT FENCE	SILT FENCE
TREE FENCE	TREE FENCE
GRADING LIMITS	GRADING LIMITS
TREELINE	TREELINE
SOIL BORING	SOIL BORING
CURRENT ADDITION	CURRENT ADDITION
PREVIOUS ADDITION	PREVIOUS ADDITION



**BENCHMARK**

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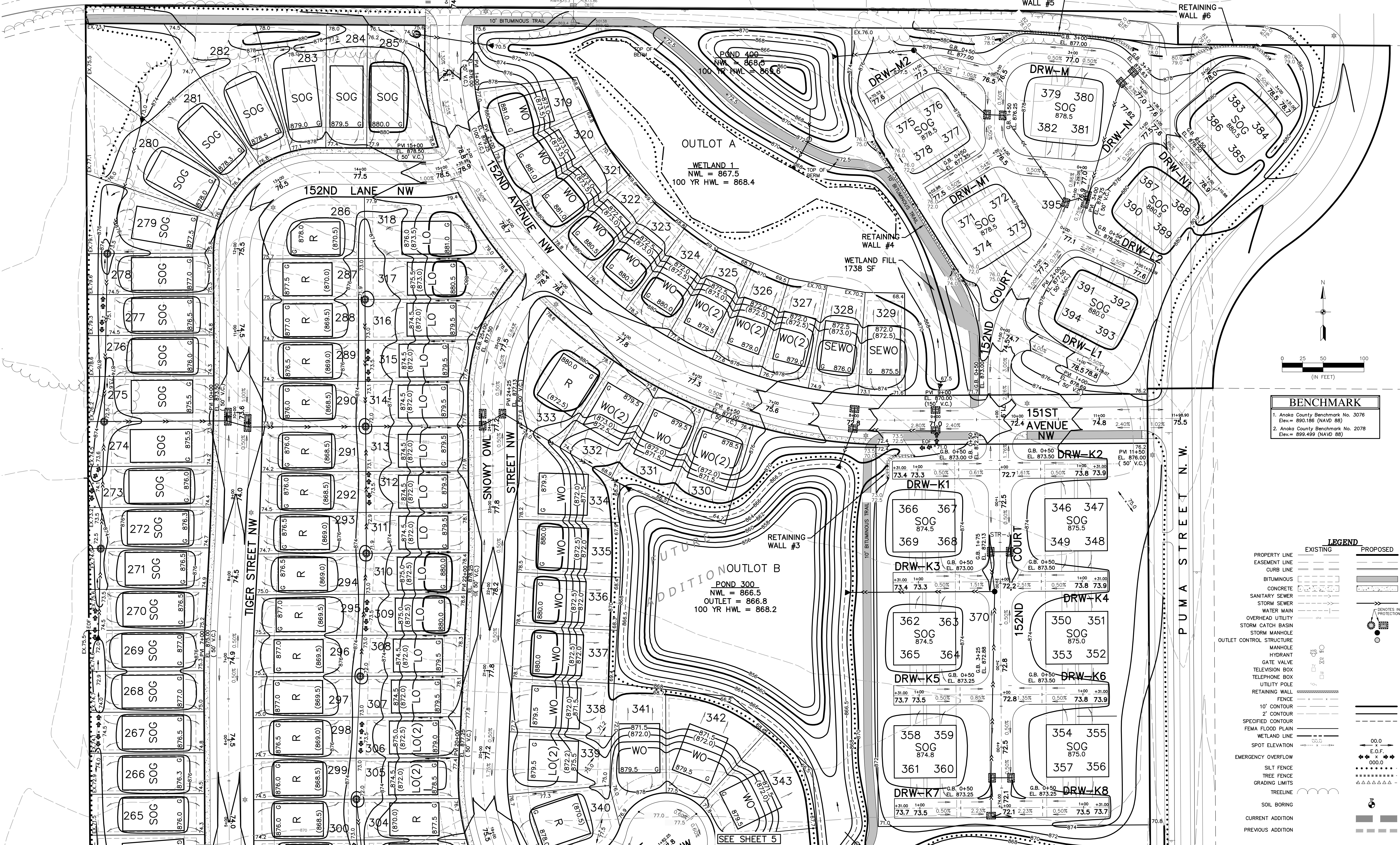
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 Ramsey, MN

**GRADING, DEVELOPMENT & EROSION CONTROL PLAN**



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**LEGEND**

	EXISTING	PROPOSED
PROPERTY LINE	---	---
EASEMENT LINE	---	---
CURB LINE	---	---
BITUMINOUS	---	---
CONCRETE	---	---
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 FLOOD PLAIN	---	---
WETLAND LINE	---	---
SPOT ELEVATION	---	---
EMERGENCY OVERFLOW	---	---
SILT FENCE	---	---
TREE FENCE	---	---
GRADING LIMITS	---	---
TREELINE	---	---
SOIL BORING	---	---
CURRENT ADDITION	---	---
PREVIOUS ADDITION	---	---

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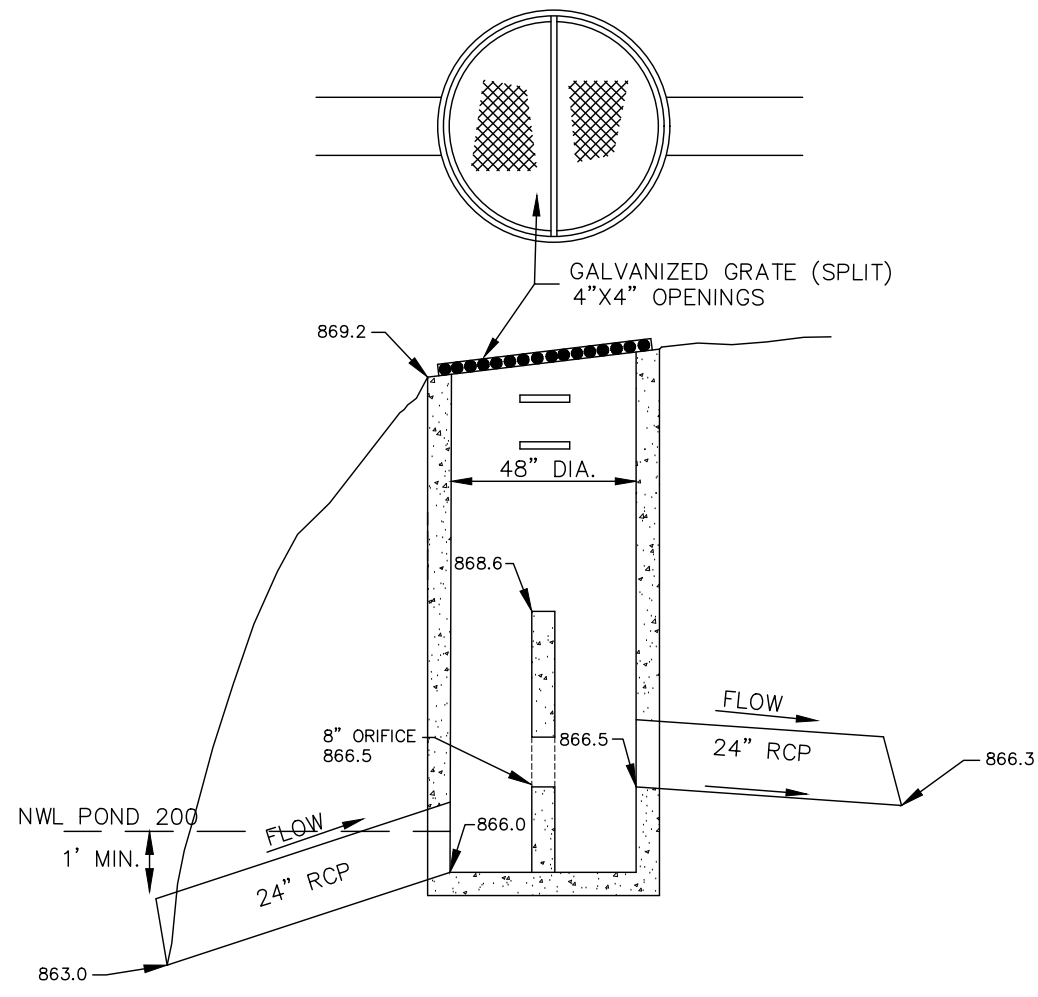
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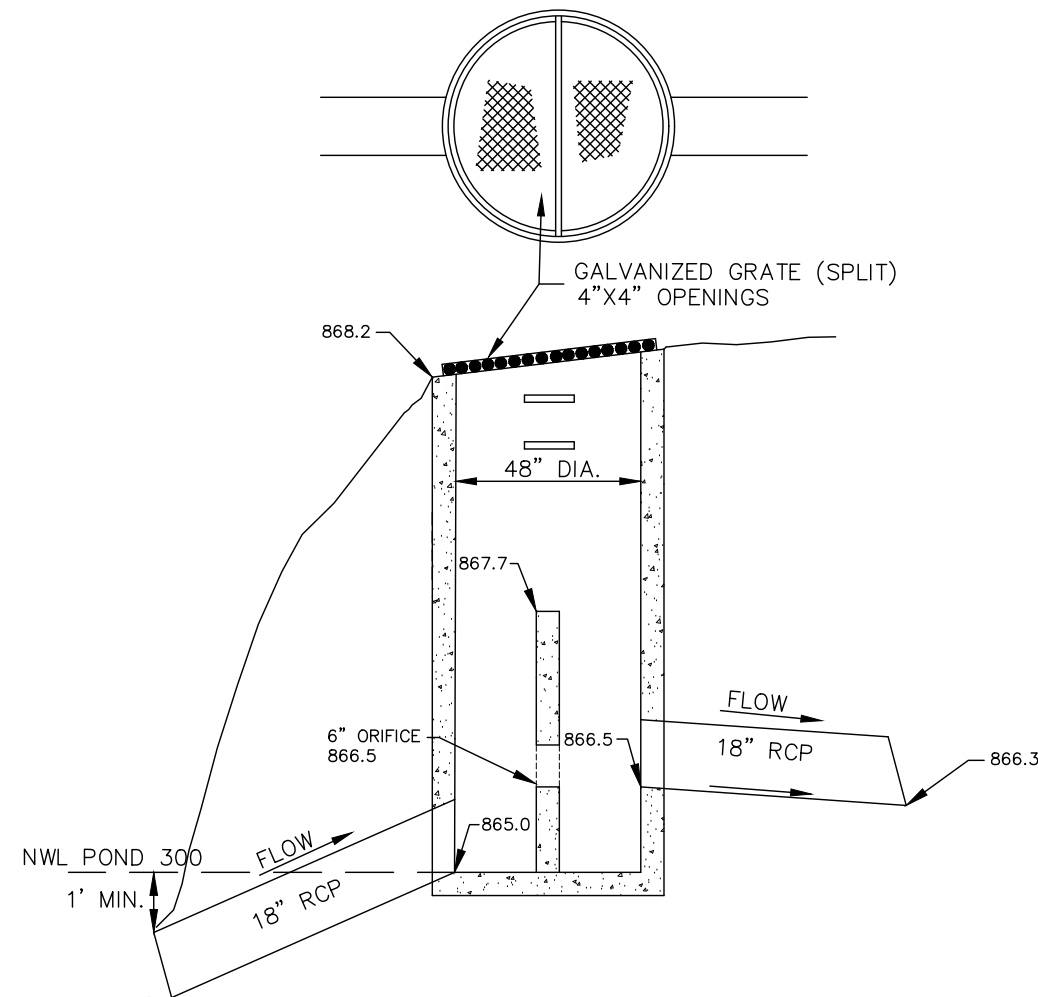
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**GRADING, DEVELOPMENT & EROSION CONTROL PLAN**

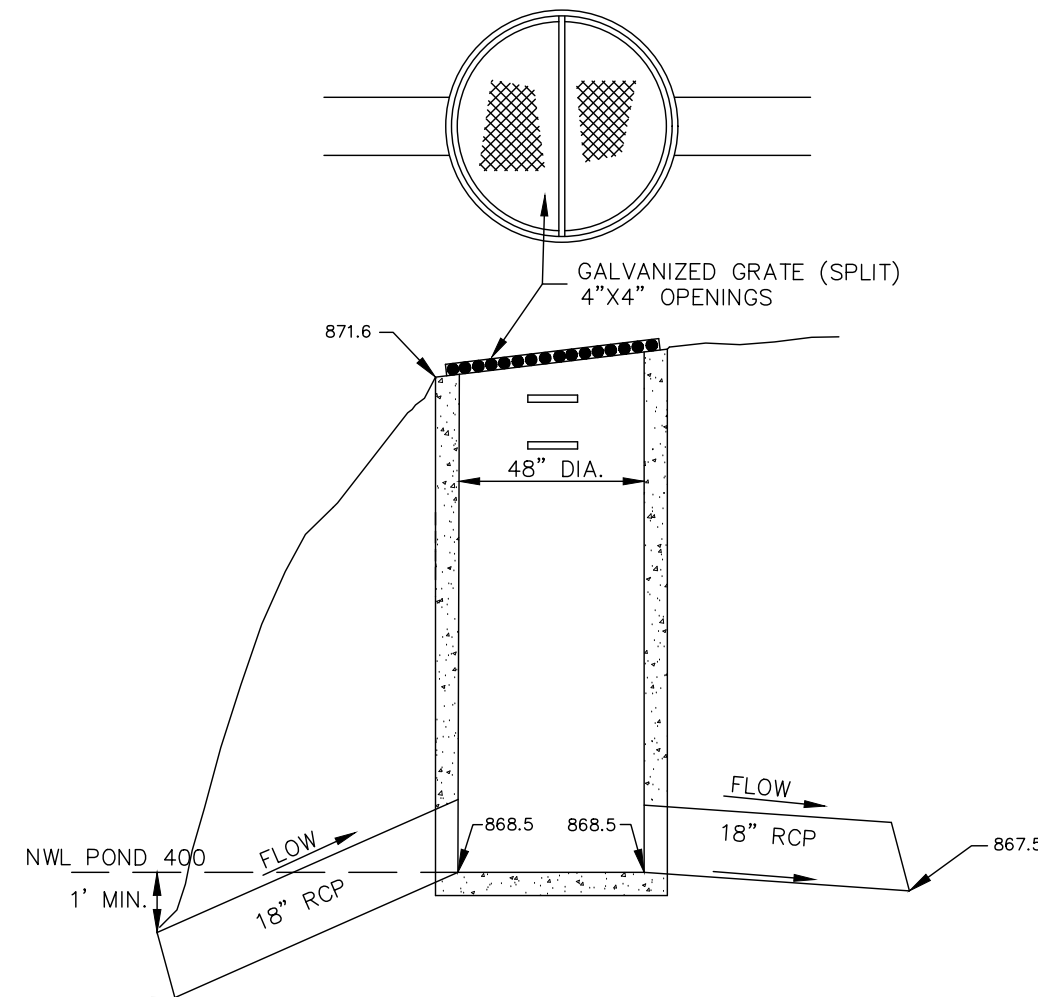
**OUTLET CONTROL STRUCTURE POND 200**



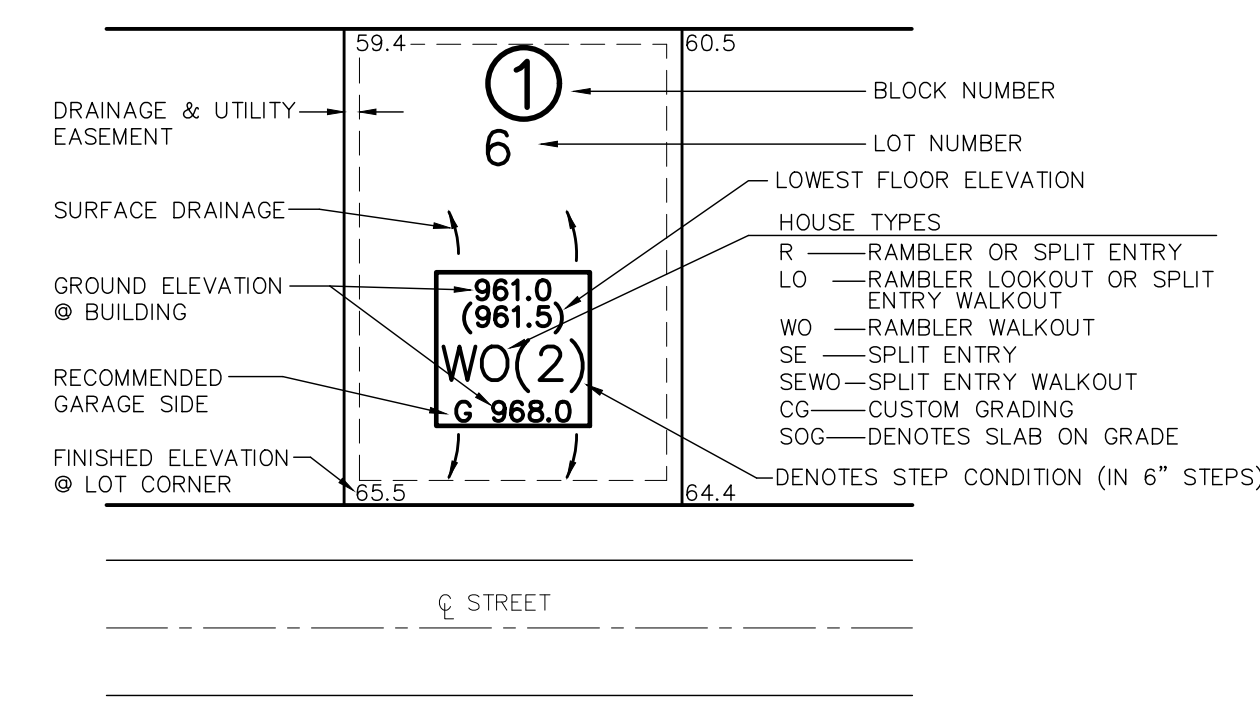
**OUTLET CONTROL STRUCTURE POND 300**



**OUTLET CONTROL STRUCTURE POND 400**



**GRADING PLAN LOT KEY**

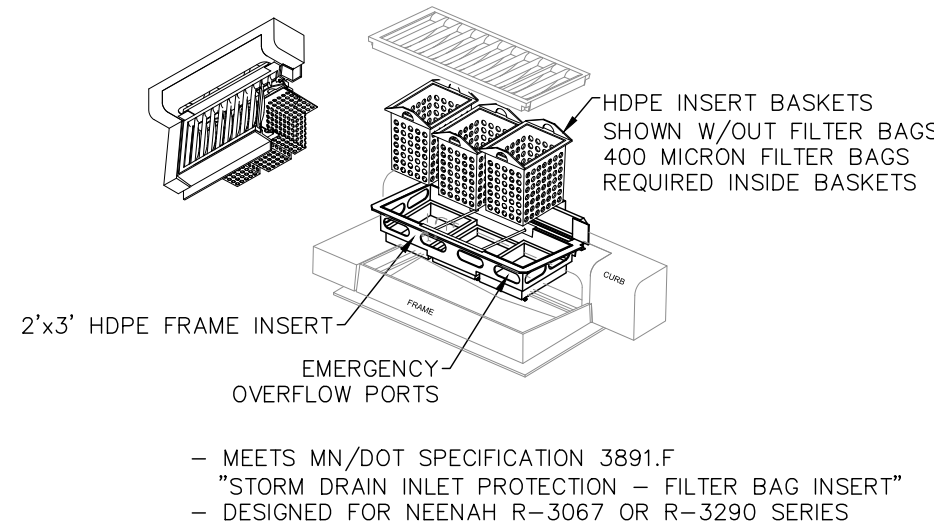


**LEGEND**

	EXISTING	PROPOSED
PROPERTY LINE	---	---
EASEMENT LINE	---	---
CURB LINE	---	---
BITUMINOUS	---	---
CONCRETE	---	---
SANITARY SEWER	---	---
STORM SEWER	---	---
WATER MAIN	---	---
OVERHEAD UTILITY	---	---
STORM CATCH BASIN	---	---
STORM MANHOLE	---	---
OUTLET CONTROL STRUCTURE	---	---
MANHOLE	---	---
HYDRANT	---	---
GATE VALVE	---	---
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TELEPHONE BOX	---	---
UTILITY POLE	---	---
RETAINING WALL	---	---
FENCE	---	---
10' CONTOUR	---	---
2' CONTOUR	---	---
SPECIFIED CONTOUR	---	---
FEMA FLOOD PLAIN	---	---
WETLAND LINE	---	---
SPOT ELEVATION	---	---
EMERGENCY OVERFLOW	---	---
SILT FENCE	---	---
TREE FENCE	---	---
GRADING LIMITS	---	---
TREELINE	---	---
SOIL BORING	---	---
CURRENT ADDITION	---	---
PREVIOUS ADDITION	---	---

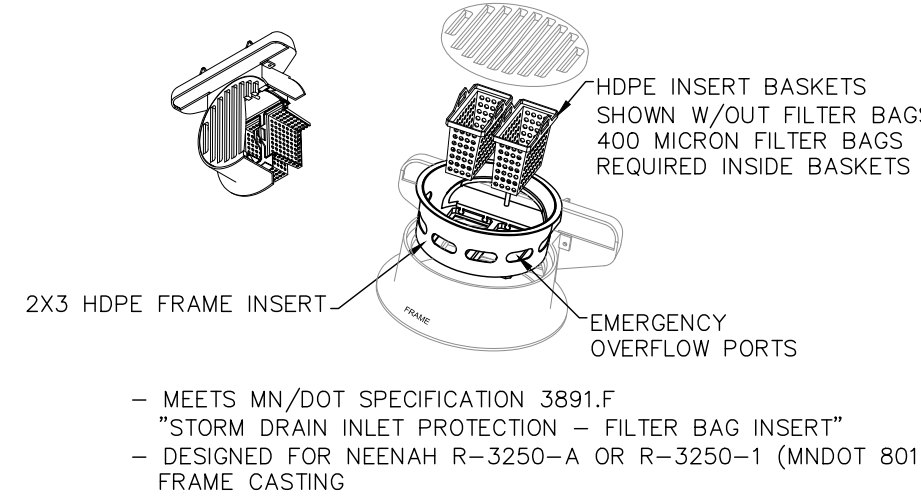
**INFRA SAFE - 2'x3' DEBRIS COLLECTION DEVICE**

AS MANUFACTURED BY ROYAL ENVIRONMENTAL SYSTEMS



**INFRA SAFE - 27" DEBRIS COLLECTION DEVICE**

AS MANUFACTURED BY ROYAL ENVIRONMENTAL SERVICES



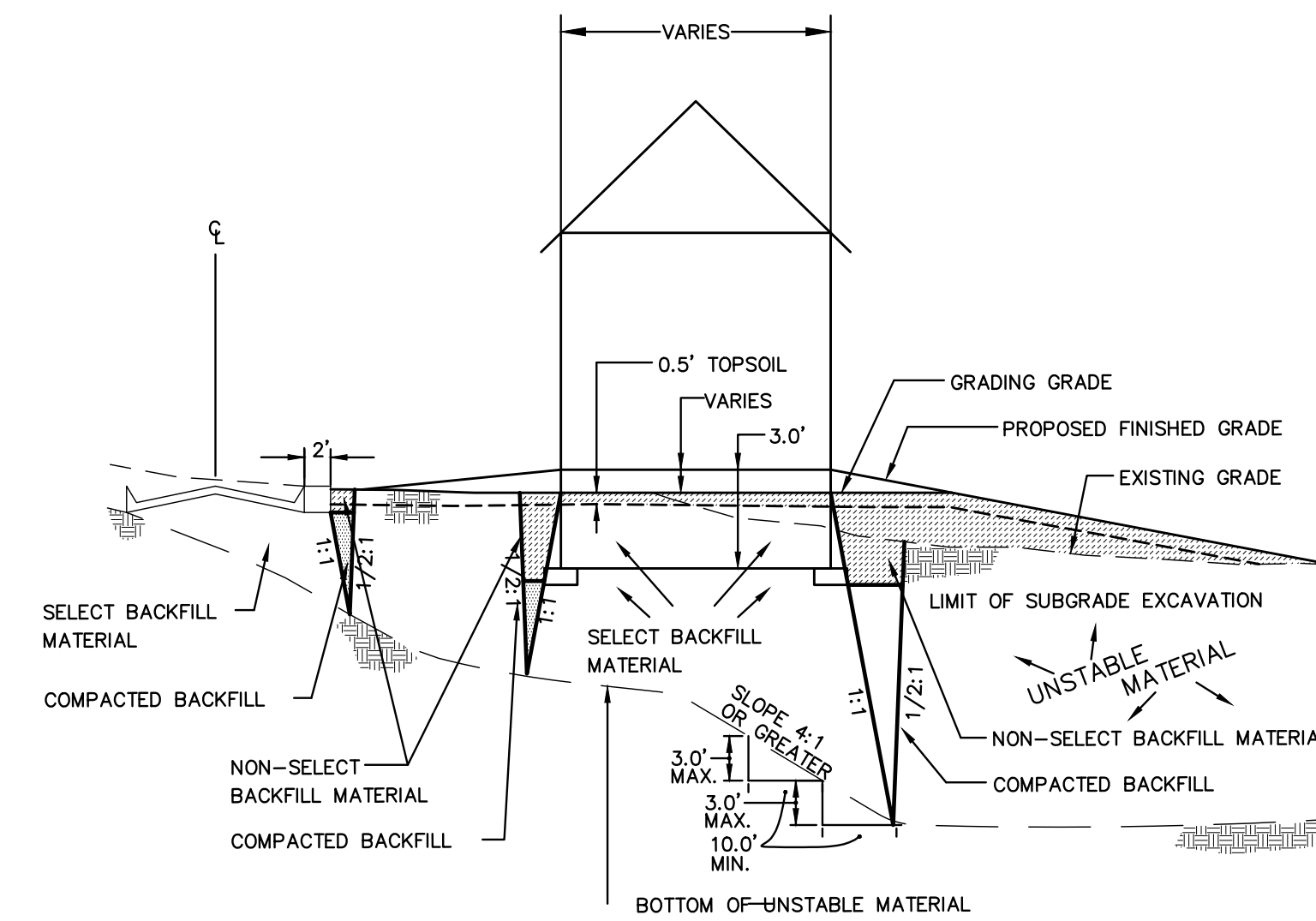
**TABLE A  
MODIFIED CLASS 5  
SPECIFICATIONS**

SIZE	% 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

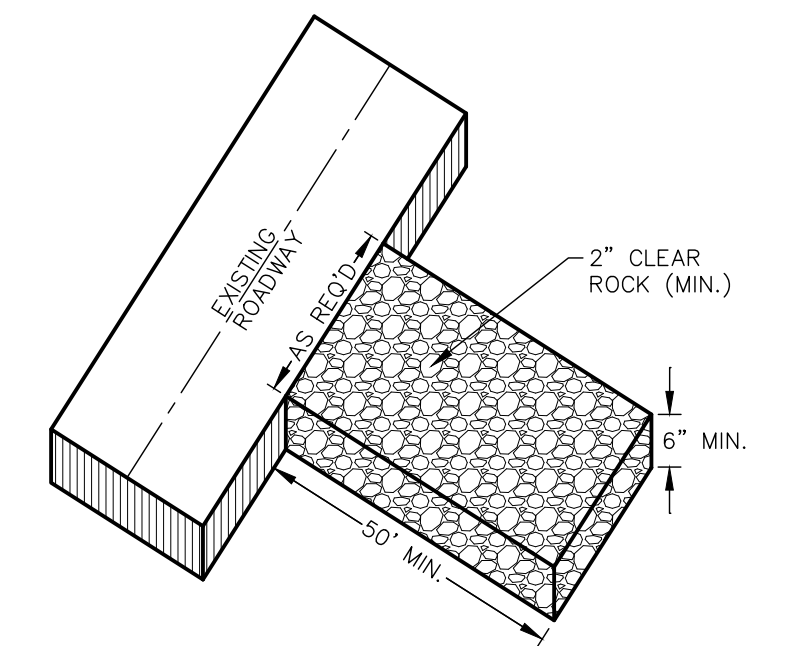
NOTES:  
1. THE AGGREGATE BASE CONSTRUCTION WILL BE ACCEPTED FOR PAYMENT IN ACCORDANCE WITH THE PROVISIONS IN TABLE A.  
2. IF THE AGGREGATE BASE FAILS TO MEET THE REQUIREMENTS OF TABLE A THE MATERIAL CAN BE CORRECTED IN PLACE OR REMOVED AND REPLACED WITH MATERIAL THAT MEET THE REQUIREMENTS OF TABLE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

APPROVED: 2 - 2003  
City of Ramsey  
STANDARD DETAILS: MODIFIED CLASS 5 SPECIFICATIONS  
CITY PLAT. NO. STR-26

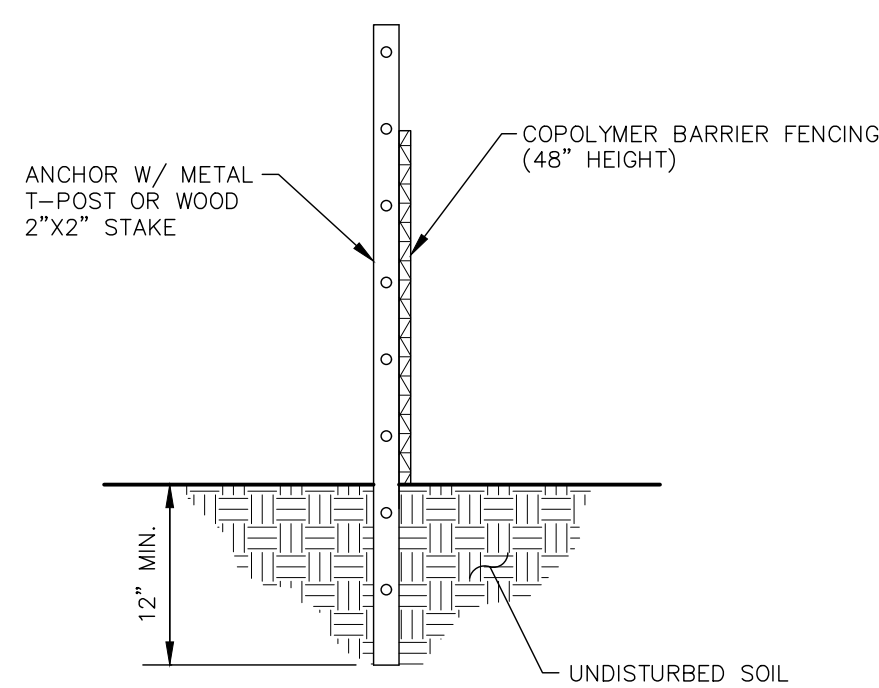
**SUBGRADE CORRECTION**



**ROCK CONSTRUCTION ENTRANCE**

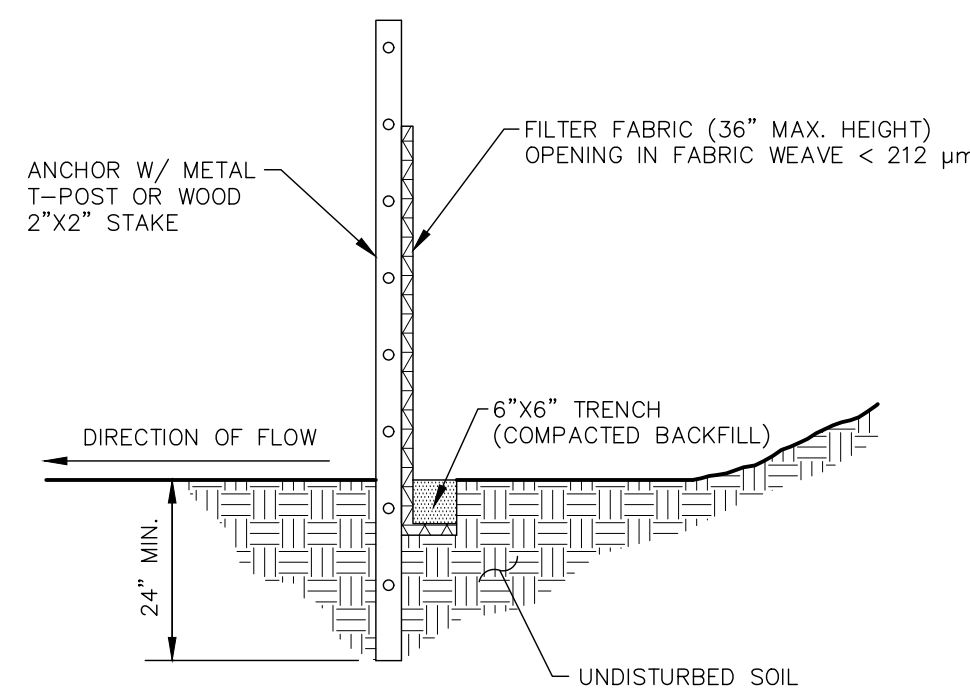


**TREE FENCE**



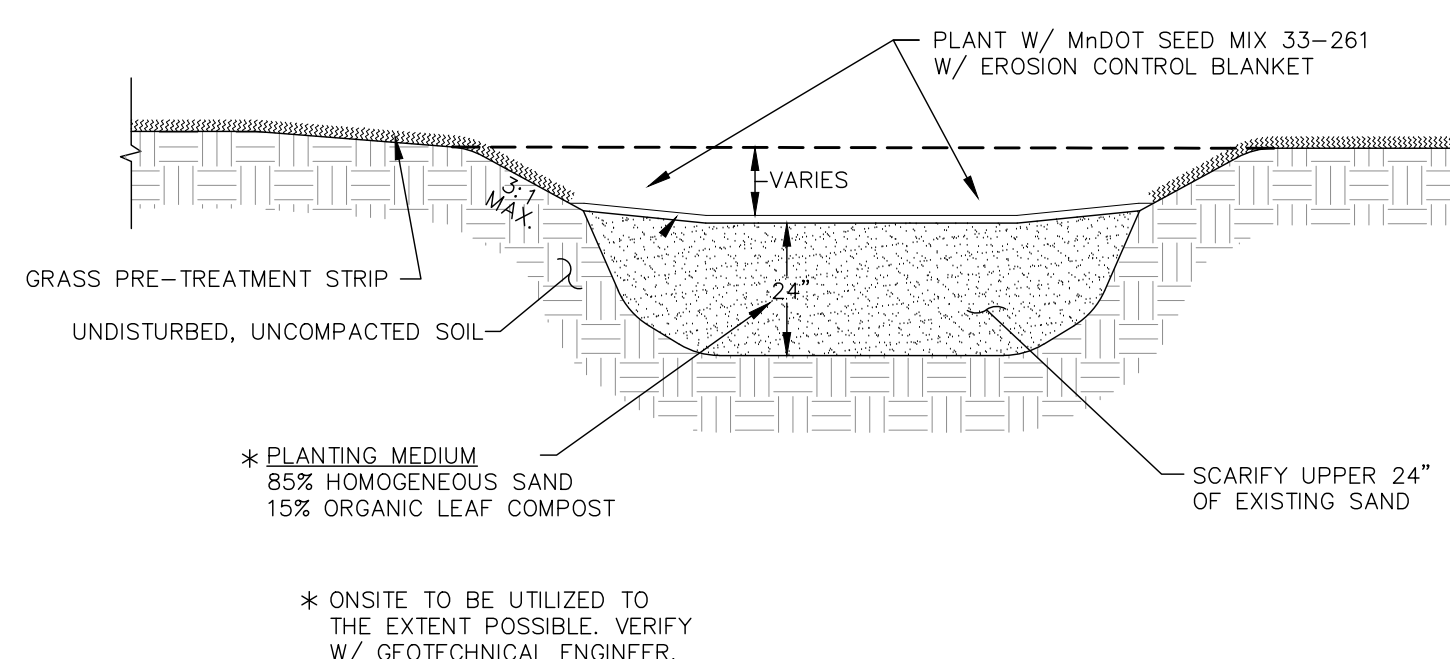
- NOTES:
- TREE FENCING SHALL BE PLACED A MINIMUM OF 1 FOOT PER CALIPER INCH OF TREE DIAMETER FROM TREE(S) THAT IS/ARE TO BE SAVED.
  - ANCHOR POST MAY BE SPACED UP TO 10 FEET APART.
  - SECURELY ATTACH TREE FENCE TO ANCHOR POSTS W/ MINIMUM OF TWO ATTACHMENTS PER POST.
  - SEE MNDOT SPECIFICATION 2572.

**SILT FENCE**

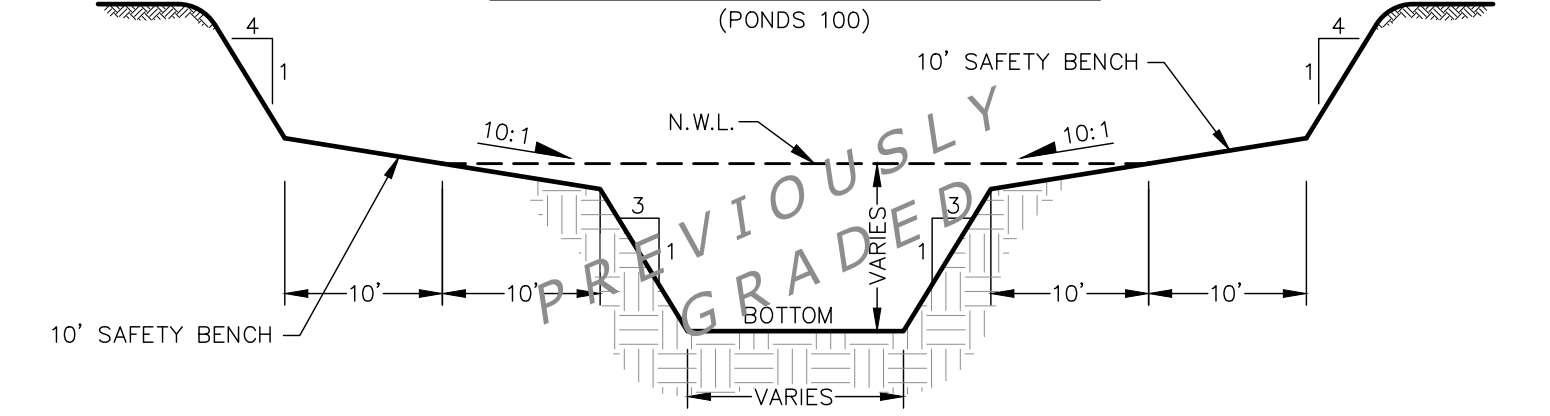


- NOTES:
- DIG A 6"X6" TRENCH ALONG THE INTENDED SILT FENCE LINE.
  - DRIVE ALL ANCHOR POSTS INTO THE GROUND AT THE DOWNHILL SIDE OF THE TRENCH.
  - POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART.
  - LAY OUT SILT FENCE ALONG THE UPHILL SIDE OF THE ANCHOR POSTS AND BACK FILL 6"X6" TRENCH.
  - SECURELY ATTACH SILT FENCE TO ANCHOR POSTS W/ MINIMUM OF THREE ATTACHMENTS PER POST.
  - SEE MNDOT SPECIFICATIONS 2573 & 3886.

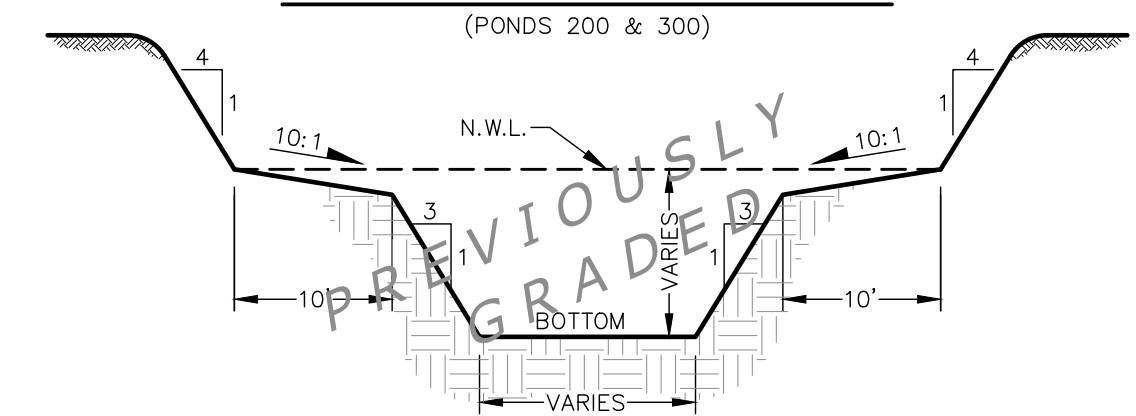
**INFILTRATION BASIN**



**TYPICAL POND SECTION (PONDS 100)**



**TYPICAL POND SECTION (PONDS 200 & 300)**



**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.

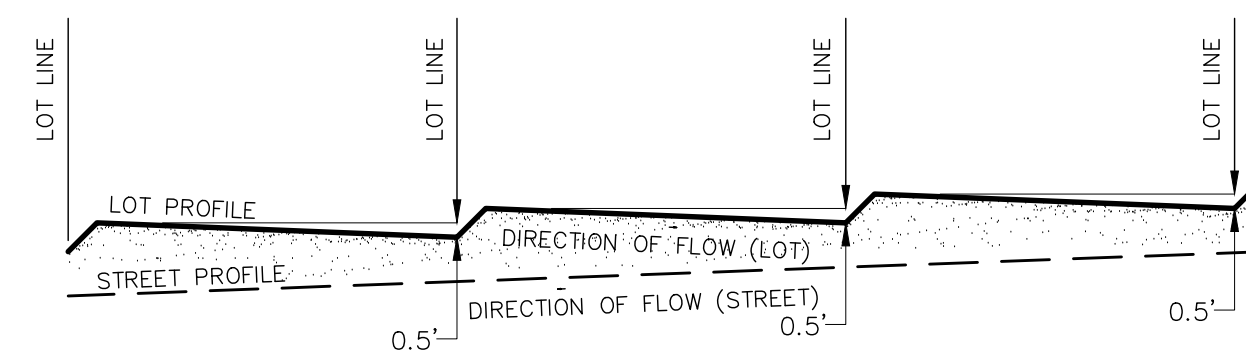
SEED: MNDOT MIXTURE 25-141 AT 60 POUNDS PER ACRE.

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

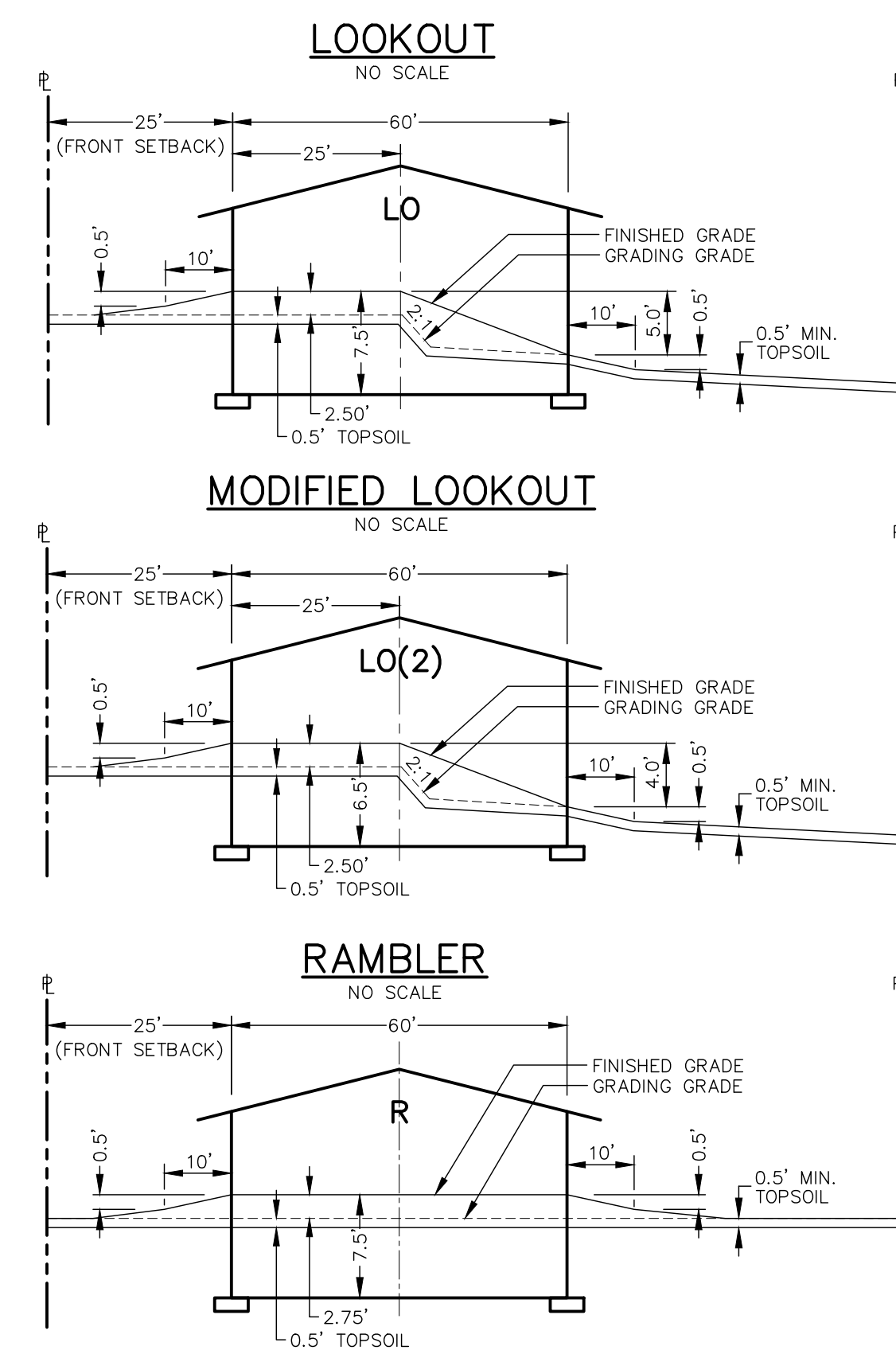
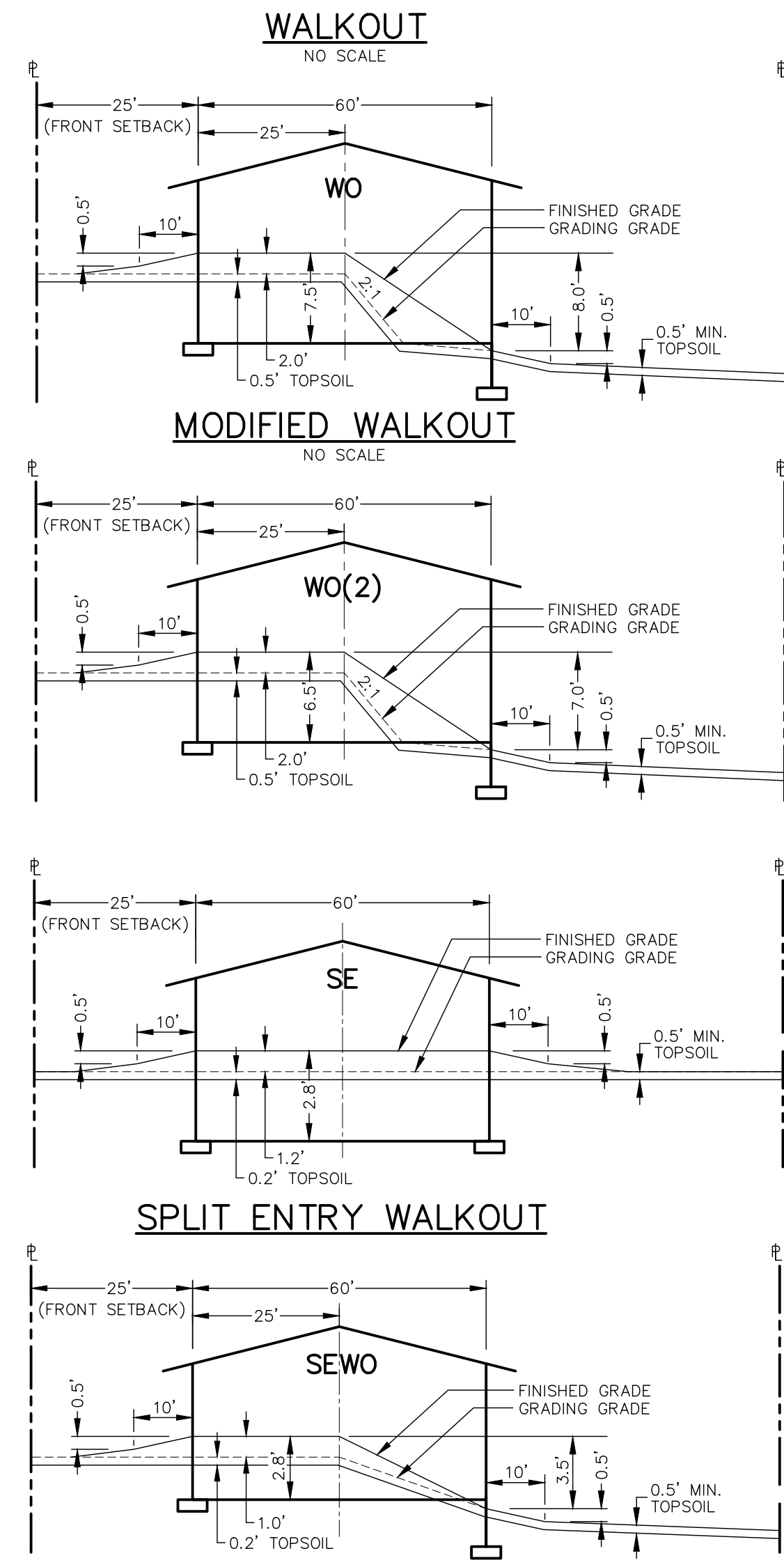
MULCH: TYPE 1 AT 2 TONS PER ACRE (DISK ANCHORED).

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

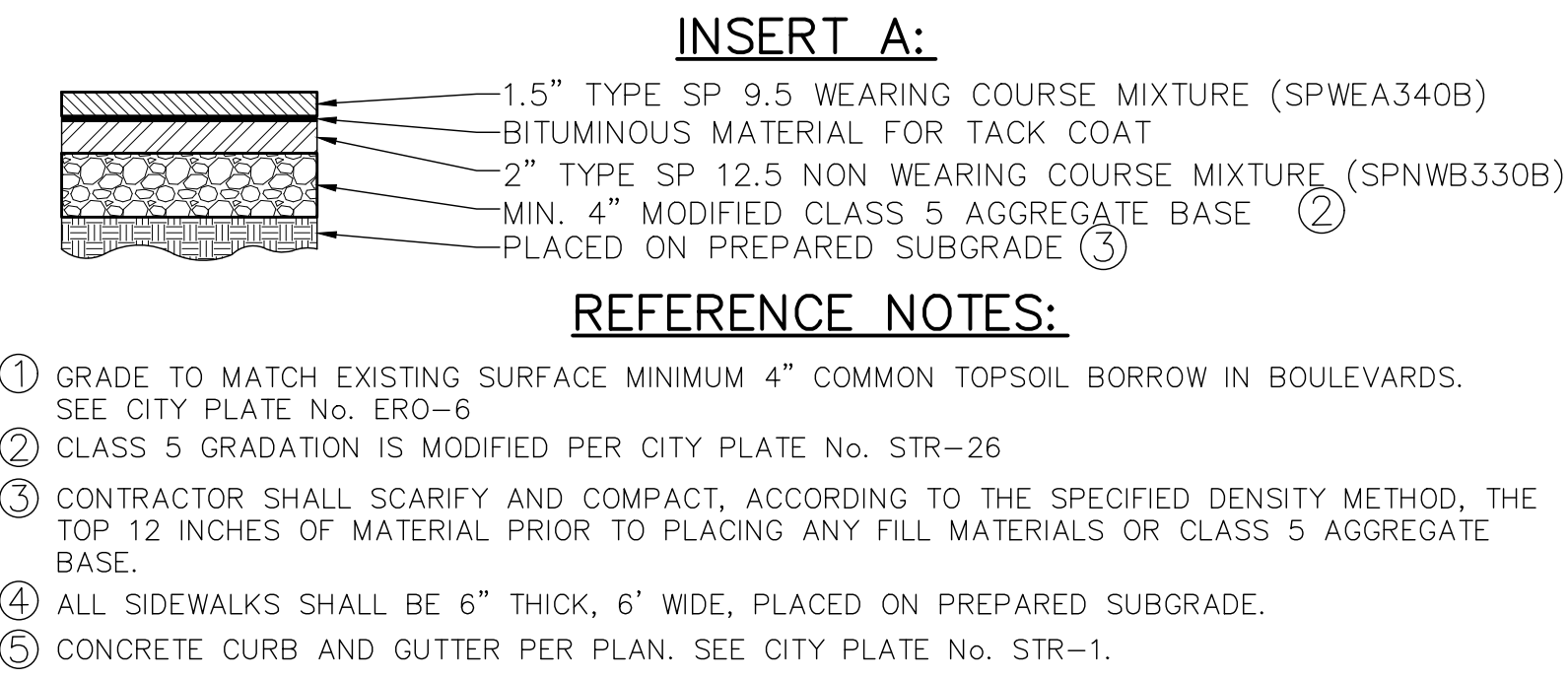
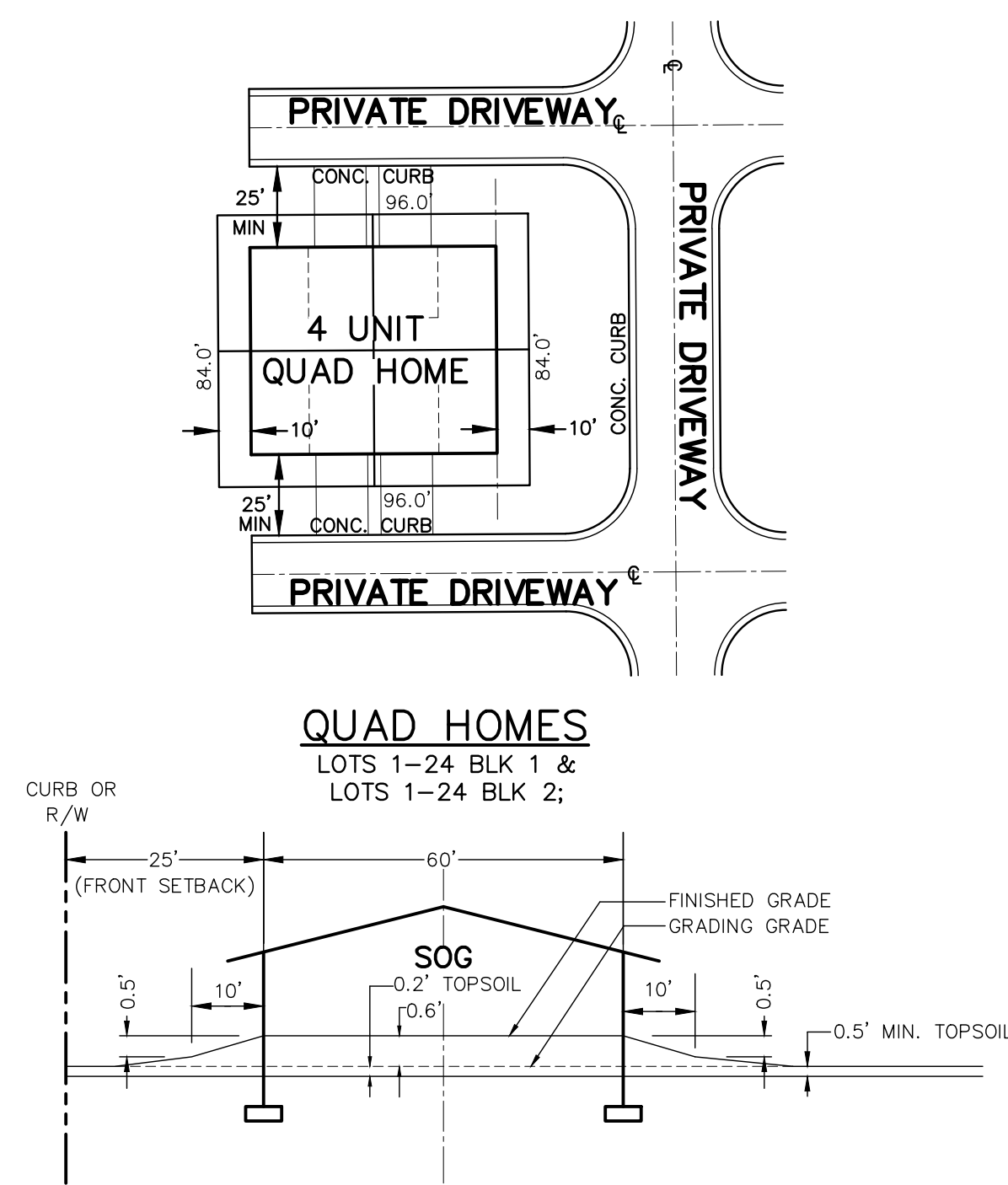
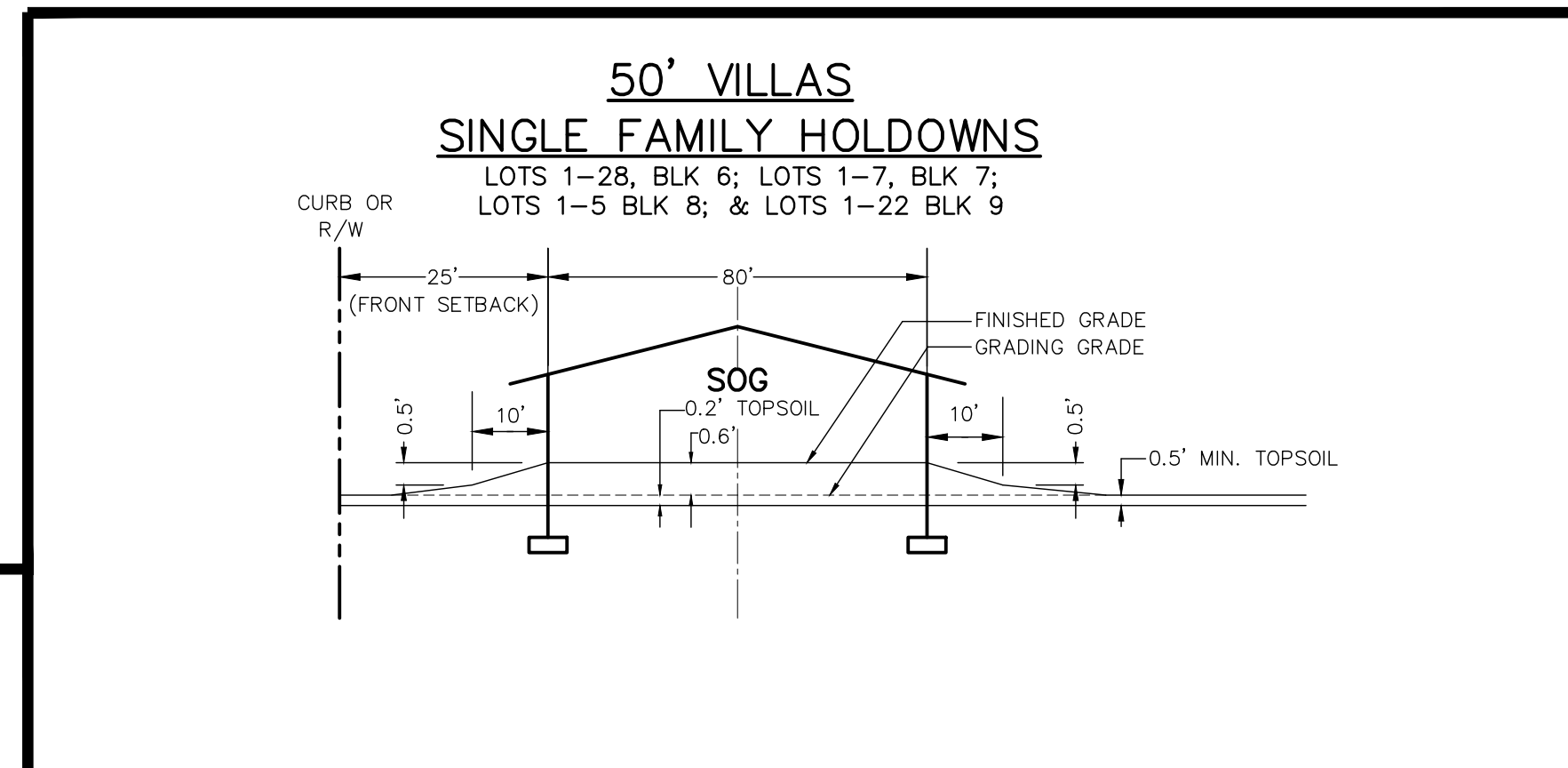
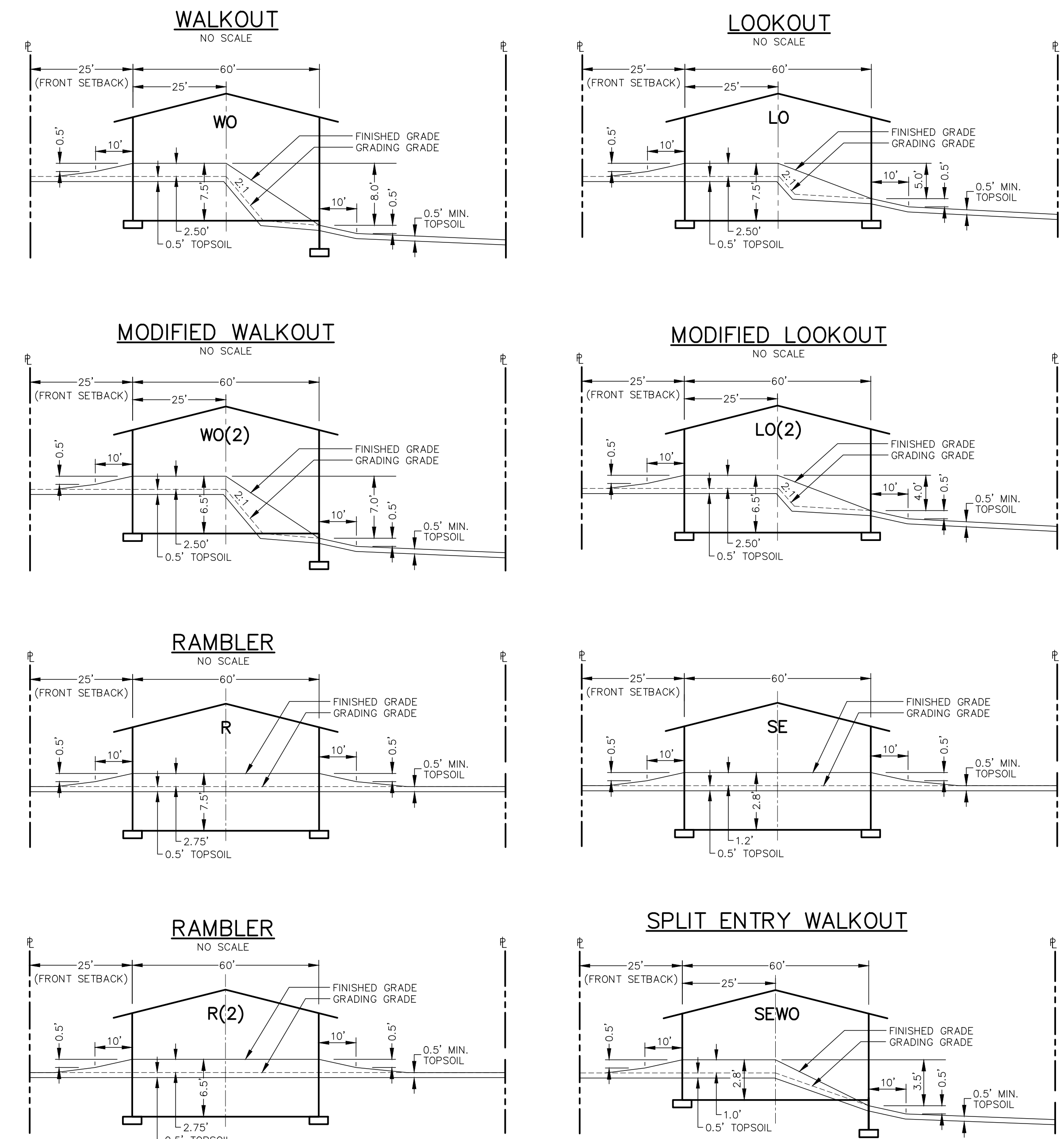
**LOT BENCHING DETAIL**



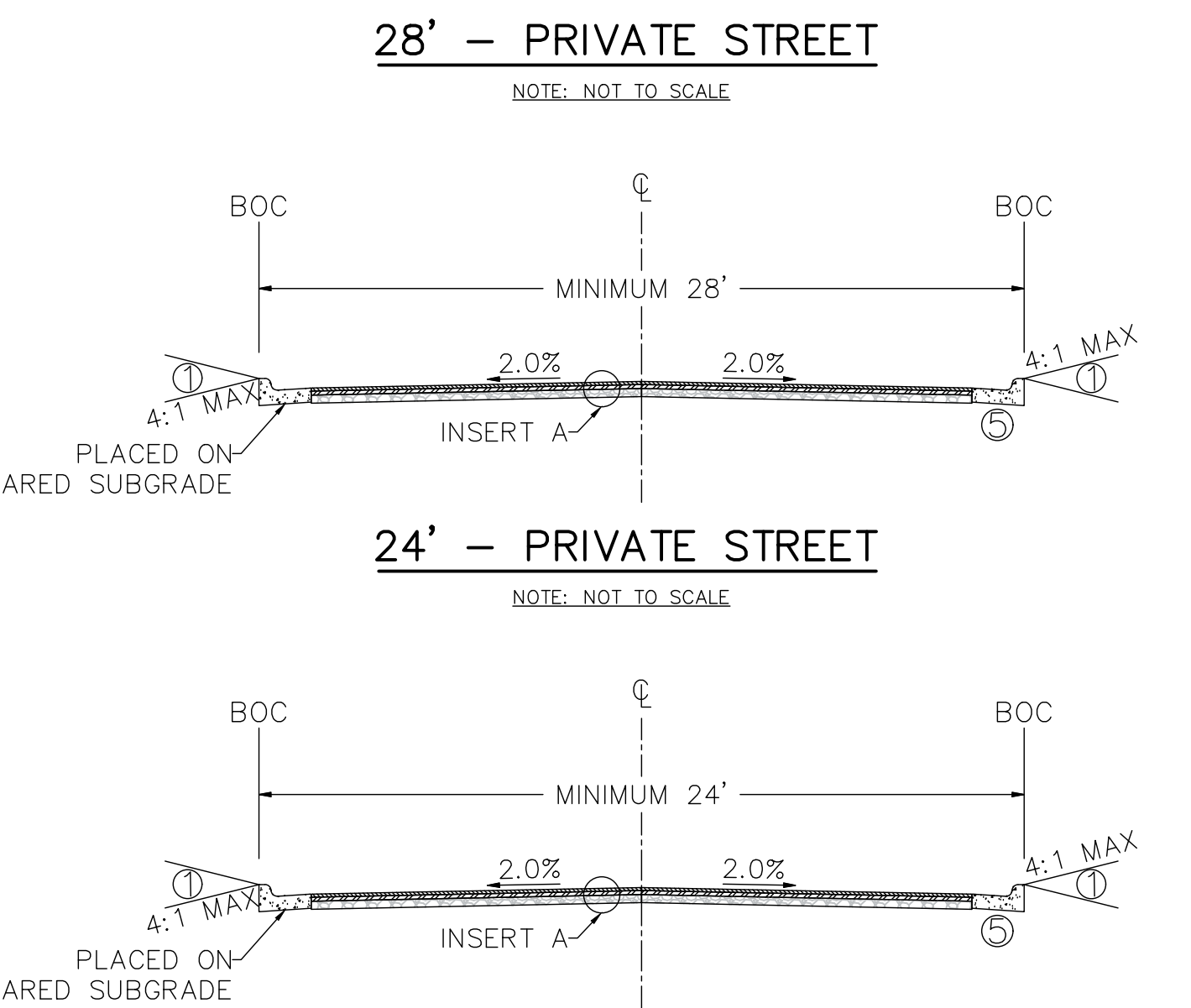
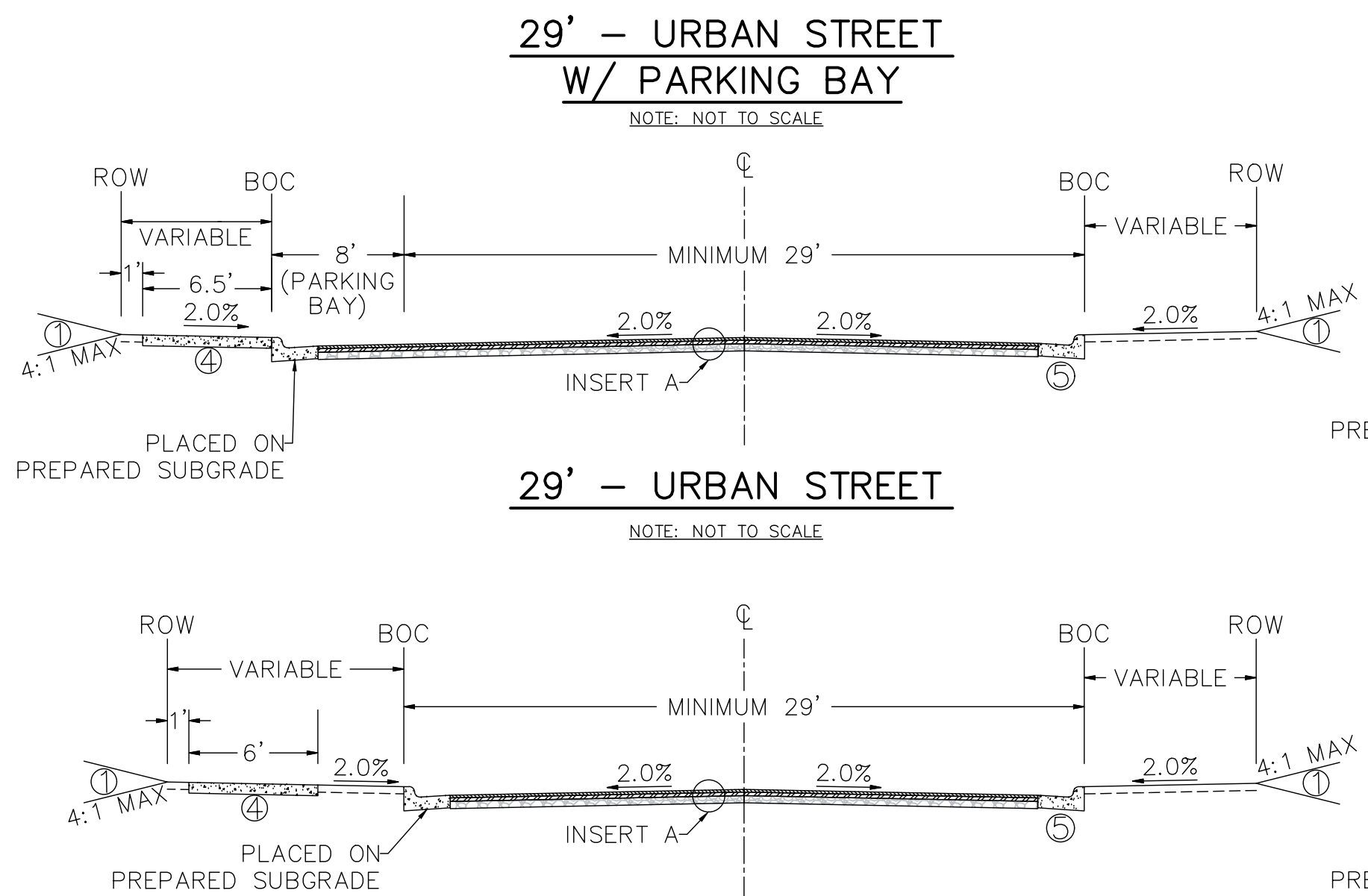
65' LOTS



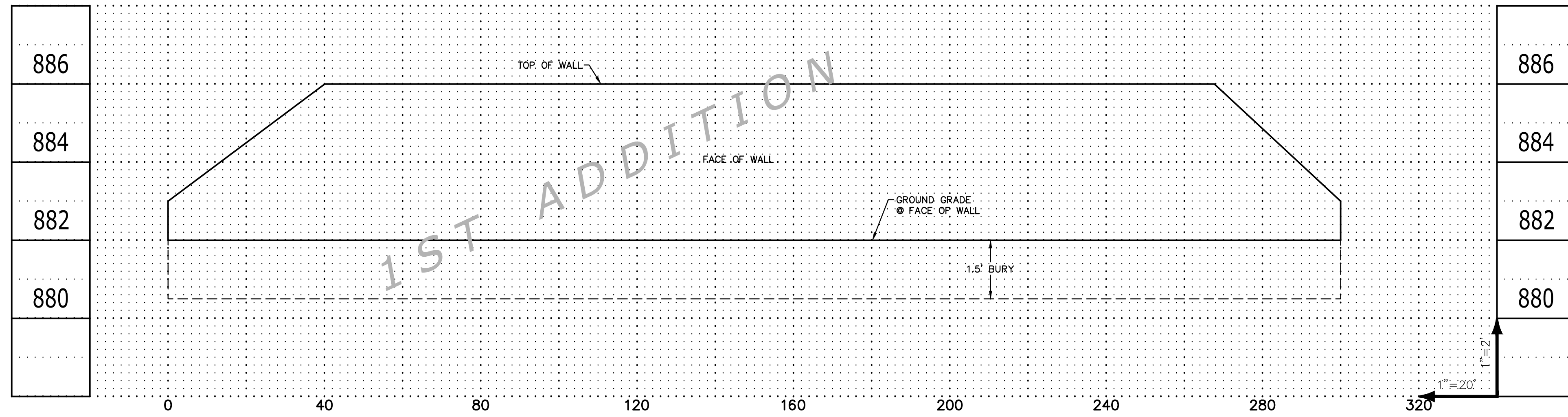
50' LOTS



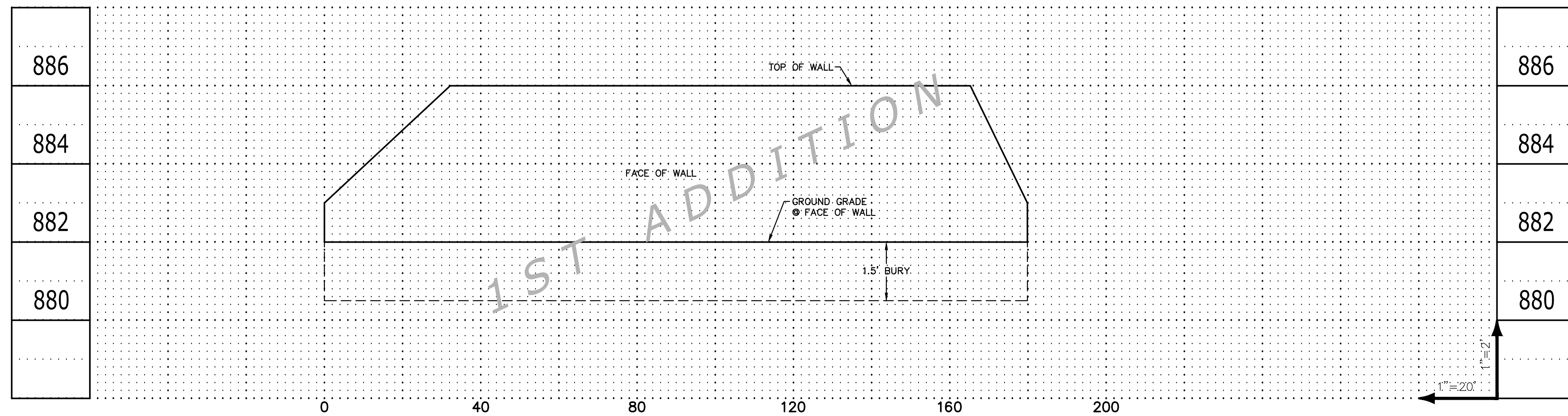
- REFERENCE NOTES:
- GRADE TO MATCH EXISTING SURFACE MINIMUM 4" COMMON TOPSOIL BORROW IN BOULEVARDS. SEE CITY PLATE No. ERO-6
  - CLASS 5 GRADATION IS MODIFIED PER CITY PLATE No. STR-26
  - CONTRACTOR SHALL SCARIFY AND COMPACT, ACCORDING TO THE SPECIFIED DENSITY METHOD, THE TOP 12 INCHES OF MATERIAL 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.



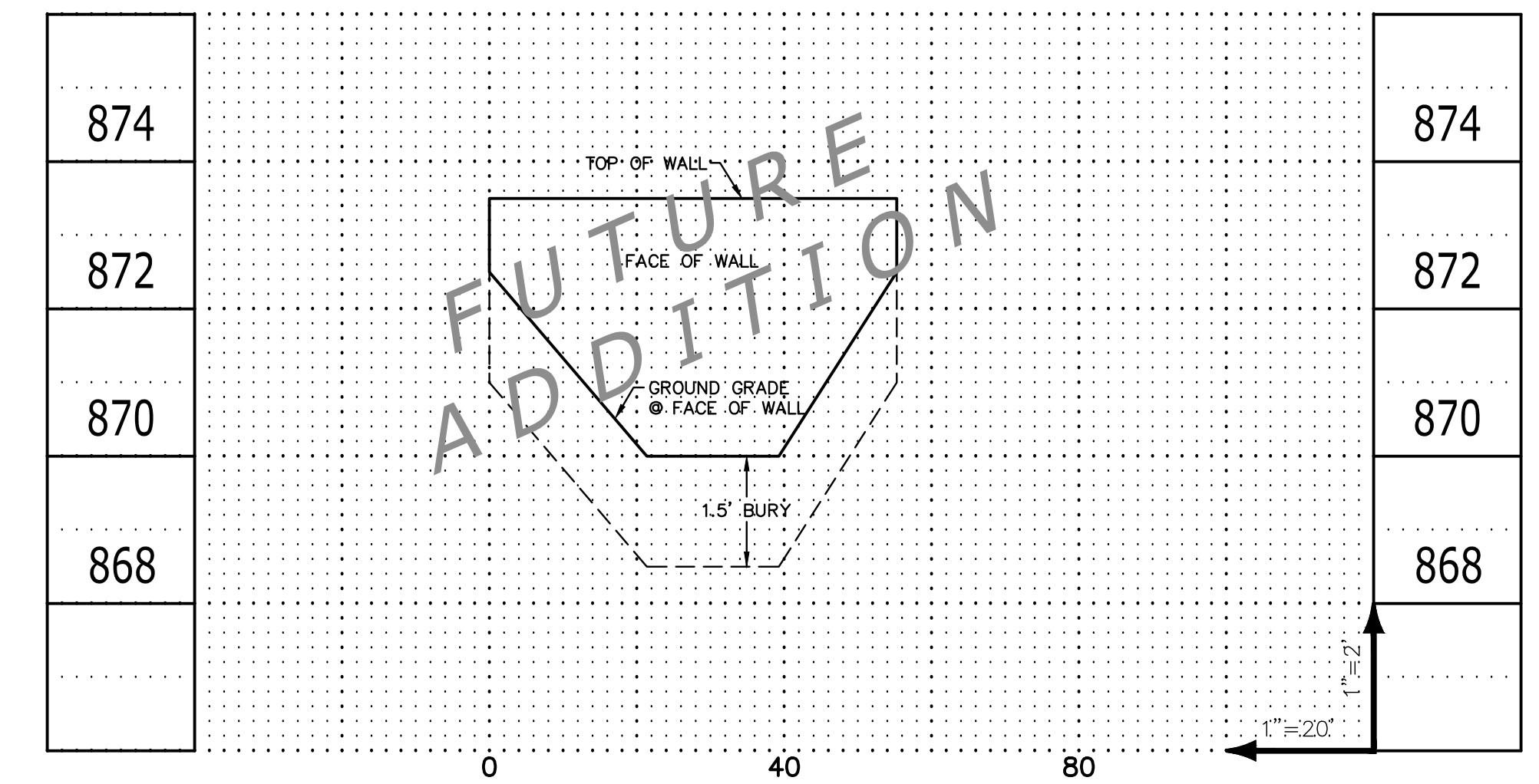
MODULAR RETAINING WALL #1  
(1542 SF)



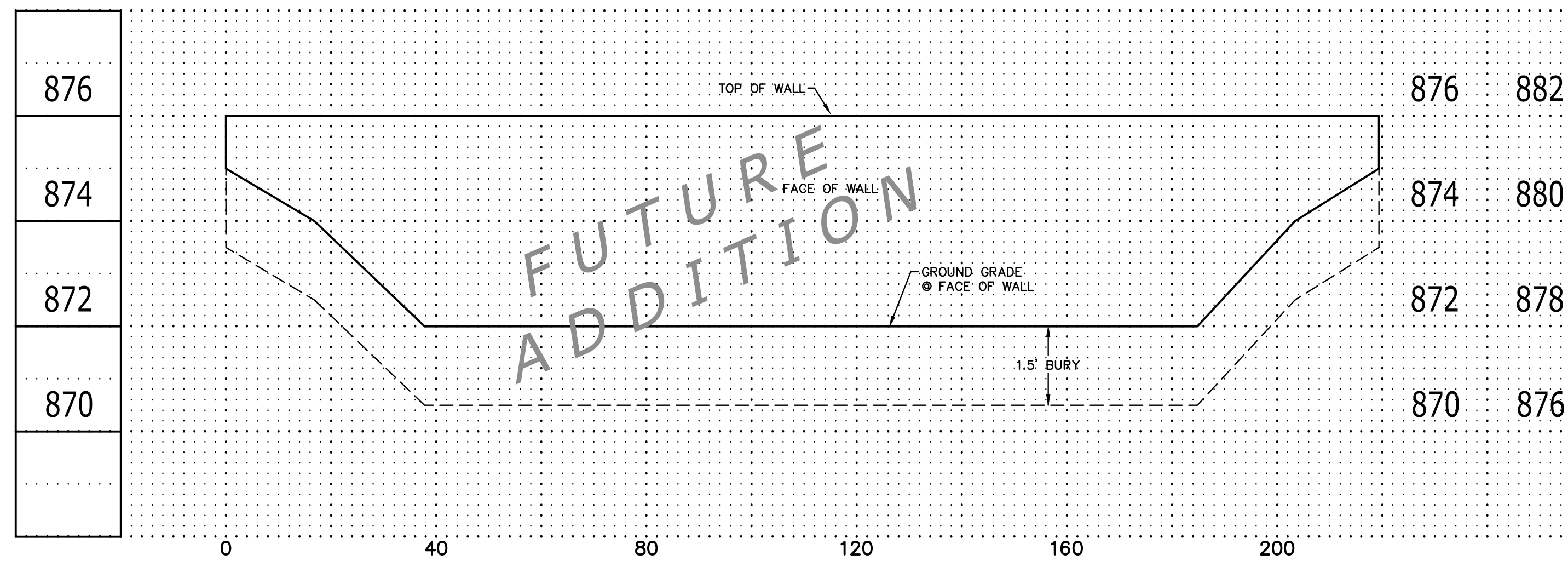
MODULAR RETAINING WALL #2  
(919 SF)



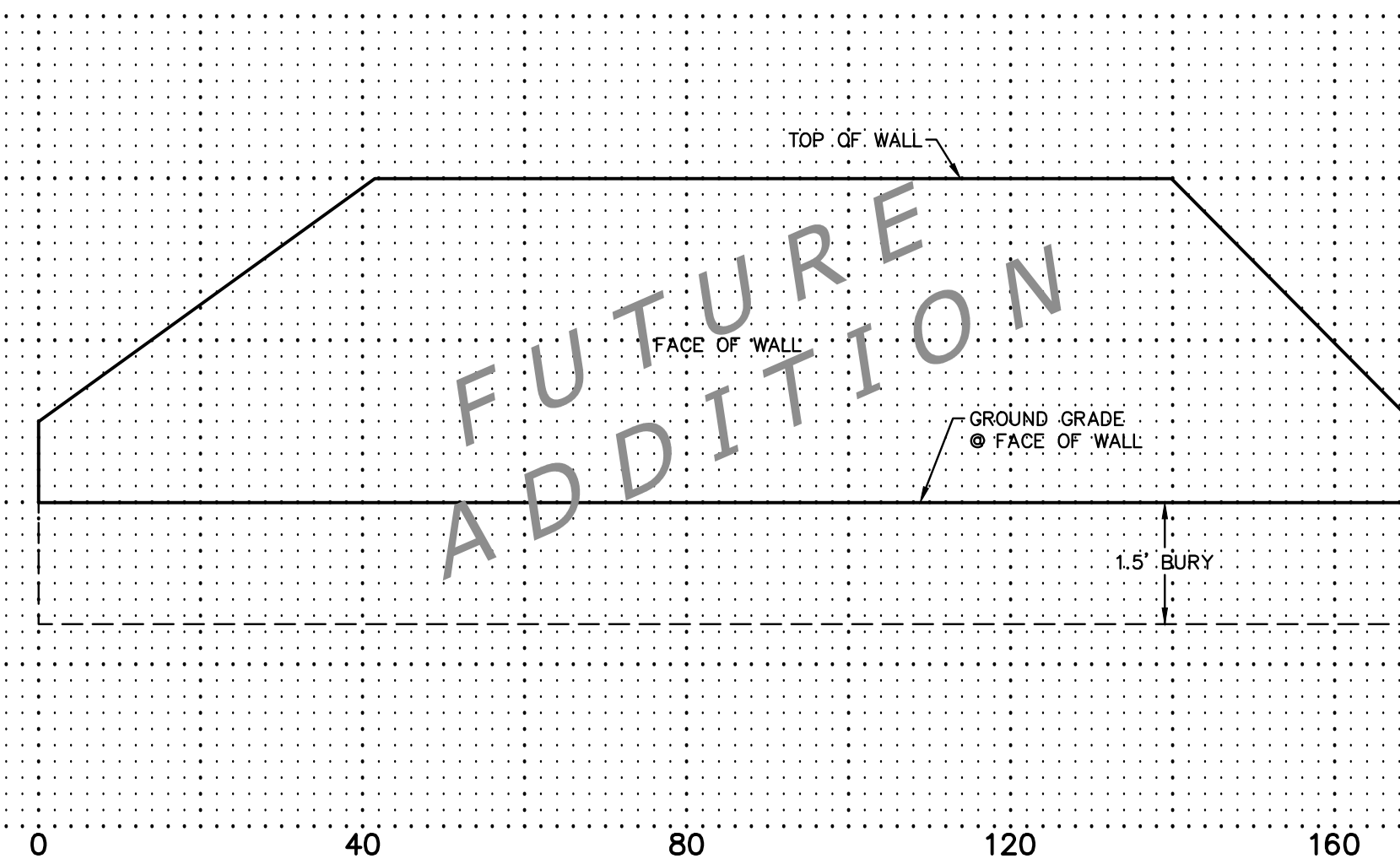
MODULAR RETAINING WALL #3  
(235 SF)



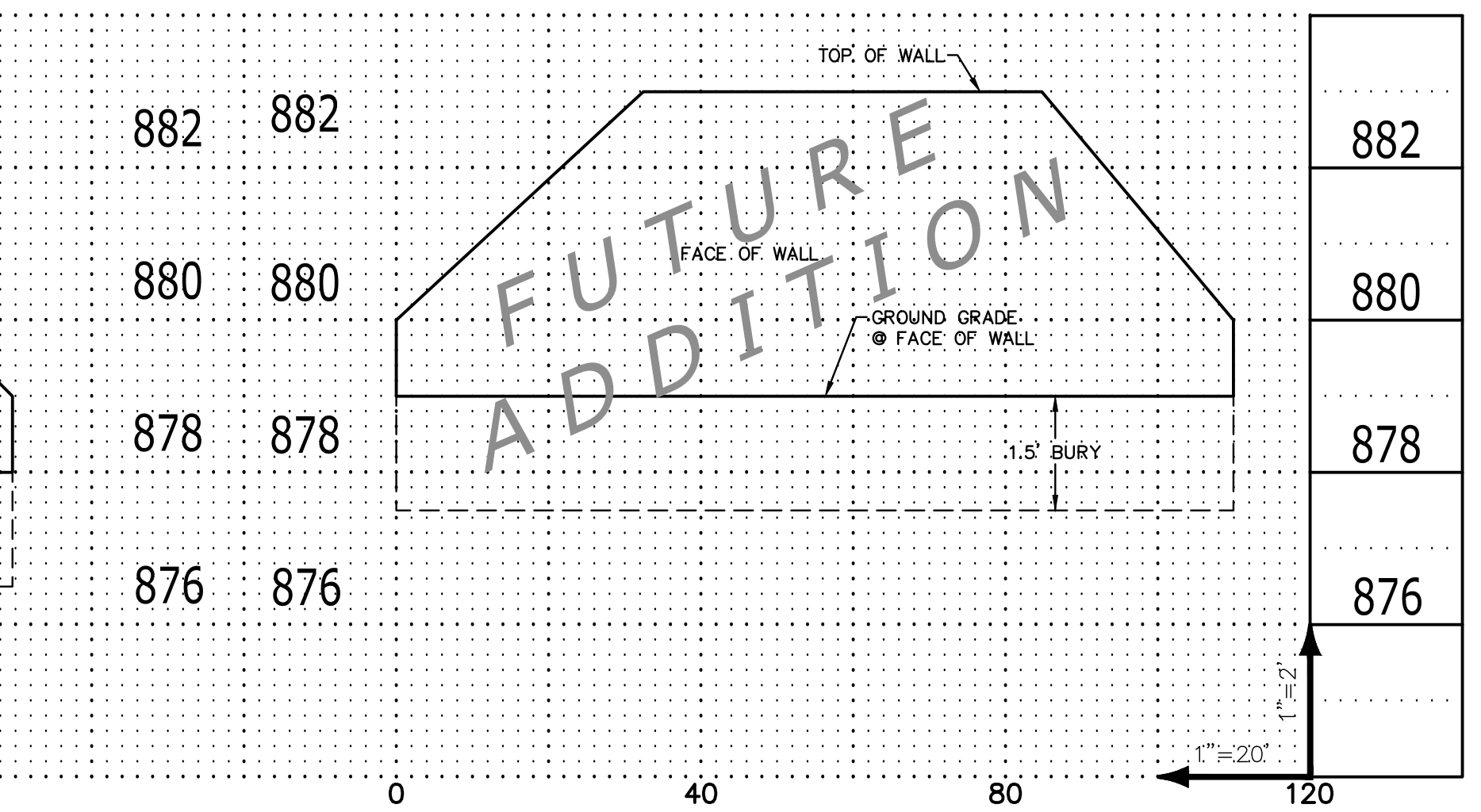
MODULAR RETAINING WALL #4  
(1085 SF)



MODULAR RETAINING WALL #5  
(830 SF)



MODULAR RETAINING WALL #6  
(525 SF)



Grading Lot Number	Addition	Block	Lot	House Type	Garage Floor Elevation	Proposed Lowest Floor Elevation	Lowest opening Elevation	EOF	100 Year	Water Table	Controlling Elevation		Method
											LF	LO	
101	1	3	1	SE	886.9	883.9	886.9	884.5	-	864.7	-	885.5	EOF
102	1	3	2	SE	886.8	883.8	886.8	882.0	-	864.7	-	883.0	EOF
103	1	3	3	SEWO	887.0	884.0	884.0	882.0	-	864.7	-	883.0	EOF
104	1	3	4	SEWO	887.0	884.0	884.0	882.0	-	864.7	-	883.0	EOF
105	1	3	5	SEWO	887.0	884.0	884.0	882.0	-	864.7	-	883.0	EOF
106	1	3	6	SEWO	887.0	884.0	884.0	882.0	-	864.7	-	883.0	EOF
107	1	3	7	SEWO	886.5	883.5	883.5	882.0	-	864.7	-	883.0	EOF
108	1	3	8	SEWO	886.5	883.5	883.5	882.0	-	864.7	-	883.0	EOF
109	1	3	9	SEWO	887.0	884.0	884.0	882.0	-	864.7	-	883.0	EOF
110	1	3	10	SE	883.0	880.0	883.0	882.0	-	864.7	-	883.0	EOF
111	1	3	11	SE	883.5	880.5	883.5	882.0	-	864.7	-	883.0	EOF
112	1	3	12	SE	883.5	880.5	883.5	882.0	-	864.7	-	883.0	EOF
113	1	3	13	SE	883.5	880.5	883.5	882.0	-	864.7	-	883.0	EOF
114	1	3	14	SE	883.5	880.5	883.5	882.0	-	864.7	-	883.0	EOF
115	1	3	15	SE	883.5	880.5	883.5	882.0	-	864.7	-	883.0	EOF
116	1	3	16	SE	883.5	880.5	883.5	881.0	-	864.7	-	882.0	EOF
117	1	3	17	SE	883.0	880.0	883.0	881.0	-	864.7	-	882.0	EOF
118	1	3	18	SE	882.5	879.5	882.5	881.0	-	864.7	-	882.0	EOF
119	1	3	19	SE	882.5	879.5	882.5	881.0	-	864.7	-	882.0	EOF
120	2	5	2	SE	882.0	879.0	882.0	881.0	-	864.7	-	882.0	EOF
121	2	5	1	SE	882.0	879.0	882.0	881.0	-	864.7	-	882.0	EOF
122				SE	882.0	879.0	882.0	881.0	-	864.7	-	882.0	EOF
123				SE	882.0	879.0	882.0	881.0	-	864.7	-	882.0	EOF
124				SE	882.5	879.5	882.5	881.0	-	864.7	-	882.0	EOF
125				SE	882.5	879.5	882.5	881.0	-	864.7	-	882.0	EOF
126				SE	882.5	879.5	882.5	881.0	-	864.7	-	882.0	EOF
127				SO	883.0	883.0	883.0	881.0	-	864.7	-	882.0	EOF
128				SO	883.5	883.5	883.5	881.0	-	864.7	-	882.0	EOF
129				SO	883.5	883.5	883.5	881.0	-	864.7	-	882.0	EOF
130				SO	884.0	884.0	884.0	881.0	-	864.7	-	882.0	EOF
131				SO	884.5	884.5	884.5	881.0	-	864.7	-	882.0	EOF
132				SO	885.5	885.5	885.5	881.0	-	864.7	-	882.0	EOF
133				SO	886.0	886.0	886.0	881.0	-	864.7	-	882.0	EOF
134				SO	886.0	886.0	886.0	879.0	-	864.7	-	880.0	EOF
135				SO	885.5	885.5	885.5	879.0	-	864.7	-	880.0	EOF
136				SO	885.5	885.5	885.5	879.0	-	864.7	-	880.0	EOF
137				SO	885.0	885.0	885.0	879.0	-	864.7	-	880.0	EOF
138				SO	884.5	884.5	884.5	879.0	-	864.7	-	880.0	EOF
139				SO	884.0	884.0	884.0	879.0	-	864.7	-	880.0	EOF
140				SO	882.5	882.5	882.5	879.0	-	864.7	-	880.0	EOF
141				SO	881.0	881.0	881.0	873.0	-	864.7	-	874.0	EOF
142				SO	879.5	879.5	879.5	873.0	-	864.7	-	874.0	EOF
143				SO	878.5	878.5	878.5	-	869.2	864.7	871.2	-	100 YR
144	2	1	1	SO	877.5	877.5	877.5	-	869.2	864.7	871.2	-	100 YR
145	2	1	2	SO	876.0	876.0	876.0	-	869.2	864.7	871.2	-	100 YR
146	2	1	3	SO	875.5	875.5	875.5	-	869.2	864.7	871.2	-	100 YR
147	2	1	4	SO	875.0	875.0	875.0	-	869.2	864.7	871.2	-	100 YR
148	2	1	5	SO	875.0	875.0	875.0	-	869.2	864.7	871.2	-	100 YR
149	2	2	1	SO	875.0	875.0	875.0	-	869.2	864.7	871.2	-	100 YR
150	2	2	2	SO	875.5	875.5	875.5	-	869.2	864.7	871.2	-	100 YR
151	2	2	3	SO	875.0	875.0	875.0	-	869.2	864.7	871.2	-	100 YR
152	2	2	4	SO	875.0	875.0	875.0	-	869.2	864.7	871.2	-	100 YR
153	2	2	5	SO	874.5	874.5	874.5	-	869.2	864.7	871.2	-	100 YR
154				LO	880.0	872.5	875.0	873.5	-	864.7	-	874.5	EOF
155				WO(2)	882.0	875.5	875.0	873.5	-	864.7	-	874.5	EOF
156				WO	882.5	875.0	875.0	874.0	-	864.7	-	875.0	EOF
157				WO	883.5	876.0	876.0	874.0	-	864.7	-	875.0	EOF
158				WO	884.0	876.5	876.5	874.0	-	864.7	-	875.0	EOF
159				WO	884.5	877.0	877.0	875.0	-	864.7	-	876.0	EOF
160				WO	884.5	877.0	877.0	875.0	-	864.7	-	876.0	EOF
161				WO	885.0	877.5	877.5	875.0	-	864.7	-	876.0	EOF
162				WO	885.0	877.5	877.5	875.0	-	864.7	-	876.0	EOF
163				WO	884.5	877.0	877.0	875.0	-	864.7	-	876.0	EOF
164				WO	884.5	877.0	877.0	875.0	-	864.7	-	876.0	EOF
165				WO(2)	884.0	877.5	877.5	875.0	-	864.7	-	876.0	EOF
166				WO(2)	883.5	877.0	877.0	875.0	-	864.7	-	876.0	EOF
167	2	3	13	LO	881.8	874.3	876.8	875.0	-	864.7	-	876.0	EOF
168	2	3	12	LO	882.0	874.5	877.0	875.0	-	864.7	-	876.0	EOF
169	2	3	11	LO	882.0	874.5	877.0	875.0	-	864.7	-	876.0	EOF
170	2	3	10	LO	881.7	874.2	876.7	875.0	-	864.7	-	876.0	EOF
171	2	3	9	LO	881.5	874.0	876.5	875.0	-	864.7	-	876.0	EOF
172	2	3	8	LO	881.0	873.5	876.0	875.0	-	864.7	-	876.0	EOF
173	2	3	7	LO	881.0	873.5	876.0	875.0	-	864.7	-	876.0	EOF
174	2	3	6	LO(2)	880.5	874.0	876.5	875.0	-	864.7	-	876.0	EOF
175	2	3	5	LO(2)	880.5	874.0	876.5	874.0	-	864.7	-	875.0	EOF
176	2	3	4	LO(2)	880.0	873.5	876.0	874.0	-	864.7	-	875.0	EOF
177	2	3	3	LO(2)	879.0	872.5	875.0	874.0	-	864.7	-	875.0	EOF
178	2	3	2	LO(2)	878.5	872.0	874.5	873.5	-	864.7	-	874.5	EOF
179	2	3	1	R	877.0	869.5	877.0	873.5	-	864.7	-	874.5	EOF
180	2	4	1	R	876.5	869.0	876.5	872.5	-	864.7	-	873.5	EOF
181	2	4	2	LO(2)	879.0	872.5	875.0	874.0	-	864.7	-	875.0	EOF

Grading Lot Number	Addition	Block	Lot	House Type	Garage Floor Elevation	Proposed Lowest Floor Elevation	Lowest opening Elevation	EOF	100 Year	Water Table	Controlling Elevation		Method
											LF	LO	
182	2	4	3	LO(2)	879.0	872.5	875.0	874.0	-	864.7	-	875.0	EOF
183	2	4	4	LO	880.0	872.5	875.0	874.0	-	864.7	-	875.0	EOF
184	2	4	5	LO	880.5	873.0	875.5	874.0	-	864.7	-	875.0	EOF
185	2	4	6	LO	881.0	873.5	876.0	875.0	-	864.7	-	876.0	EOF
186	2	4	7	LO	881.0	873.5	876.0	875.0	-	864.7	-	876.0	EOF
187	2	4	8	LO	881.5	874.0	876.5	875.0	-	864.7	-	876.0	EOF
188	2	4	9	LO	881.5	874.0	876.5	875.5	-	864.7	-	876.5	EOF
189	2	4	10	LO	882.0	874.5	877.0	875.5	-	864.7	-	876.5	EOF
190	2	4	11	LO	882.0	874.5	877.0	875.5	-	864.7	-	876.5	EOF
191	2	4	12	LO	882.0	874.5	877.0	875.5	-	864.7	-	876.5	EOF
192	2	4	13	LO	882.0	874.5	877.0	875.5	-	864.7	-	876.5	EOF
193	2	4	14	LO	882.0	874.5	877.0	875.5	-	864.7	-	876.5	EOF
196	1	4	14	SOG	882.0	882.0	882.0	875.5	-	864.7	-	876.5	EOF
197	1	4	13	SOG	882.0	882.0	882.0	875.5	-	864.7	-	876.5	EOF
198	1	4	12	SOG	881.0	881.0	881.0	875.5	-	864.7	-	876.5	EOF
199	1	4	11	SOG	880.0	880.0	880.0	875.5	-	864.7	-	876.5	EOF
200	1	4	10	SOG	879.0	879.0	879.0	875.5	-	864.7	-	876.5	EOF
201	1	4	9	SOG	878.0	878.0	878.0	875.5	-	864.7	-	876.5	EOF
202	1	4	8	SOG	877.5	877.5	877.5	875.0	-	864.7	-	876.0	EOF
203	1	4	7	SOG	877.0	877.0	877.0	875.0	-	864.7	-	876.0	EOF
204	1	4	6	SOG	877.0	877.0	877.0	875.0	-	864.7	-	876.0	EOF
205	1	4	5	SOG	876.5	876.5	876.5	874.0	-	864.7	-	875.0	EOF
206	1	4	4	SOG	876.5	876.5	876.5	874.0	-	864.7	-	875.0	EOF
207	1	4	3	SOG	876.0	876.0	876.0	874.0	-	864.7	-	875.0	EOF
208	1	4	2	SOG	876.0	876.0	876.0	874.0	-	864.7	-	875.0	EOF
209	1	4	1	SOG	875.5	875.5							