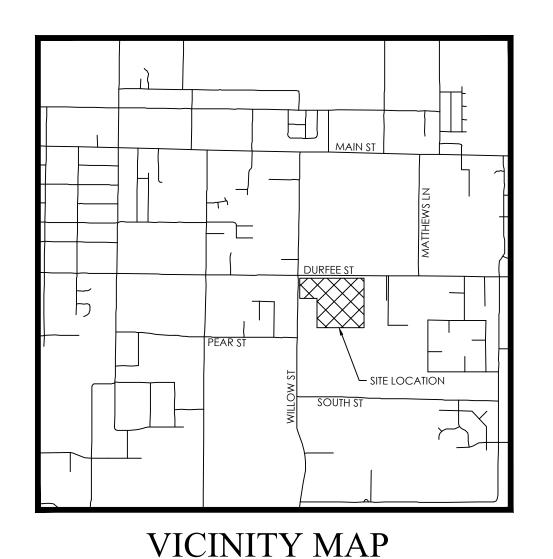
MATTHEWS MEADOWS SUBDIVISION PHASE 2

PREPARED FOR:

GRANTSVILLE'S NEW TEAM, LLC

LOCATED IN:

GRANTSVILLE, UT



BENCHMARK

OWNSHIP 03 SOUTH, RANGE 05 WEST SALT LAKE BASE AND MERIDIAN

"APPROVED FOR CONSTRUCTION"

GRANTSVILLE CITY PUBLIC WORKS DIRECTOR

APPROVED BY CITY ENGINEER: GRANTSVILLE CITY, UTAH FOR PUBLIC IMPROVEMENTS ONLY (SHEETS _

GRANTSVILLE CITY ENGINEER

"Approval of these plans does not release the developer from responsibility for correction of mistakes, errors or omissions contained therein. If during the course of construction, the public intrest requires a modification or departure from the city specifications, or the approved plans, the city shall have he authority to require such modification or departure, and specify the manner which the same is made"



COVER SHEET C1 FINAL PLAT **EXISTING CONDITIONS** C3 C4 OVERALL SITE PLAN C4.1 SITE PLAN C4.2 SITE PLAN C4.3 SITE PLAN C4.4 SITE PLAN C4.5 HARDSCAPE PLAN C5 OVERALL GRADING & DRAINAGE PLAN C5.1 GRADING & DRAINAGE PLAN **GRADING & DRAINAGE PLAN** C5.2 C5.3 **GRADING & DRAINAGE PLAN** C5.4 **GRADING & DRAINAGE PLAN** C5.5 **GRADING & DRAINAGE PLAN** C5.6 **GRADING & DRAINAGE PLAN** C6 **SEWER PLAN** C6.1 **SEWER PLAN** SEWER PLAN C6.2 SEWER PLAN C6.3 C7 **WATER PLAN** C7.1 **WATER PLAN** C7.2 **WATER PLAN** C7.3 **WATER PLAN** C8 **EROSION CONTROL PLAN** C9 **OVERALL SIGNAGE & STRIPING PLAN** MERRILL STREET PP02 MERRILL STREET PP03 MCCONAUGHEY DRIVE MCCONAUGHEY DRIVE CHRISTENSEN WAY PP06 CHRISTENSEN WAY PP07 DAMON DRIVE PP08 DAMON DRIVE D1 DETAILS D2 DETAILS DETAILS D3 **DETAILS** D4 D5 **DETAILS DETAILS** D6 D7 DETAILS D8 DETAILS D9 DETAILS D10 NOTES D11 PRE-CON NOTES

Sheet List Table

Sheet Title

Sheet Number

GENERAL NOTES

1. CONTRACTOR TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION, AND REPORT ANY DISCREPANCIES TO THE ENGINEER.

2. ANY AND ALL DISCREPANCIES IN THESE PLANS ARE TO BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO COMMENCEMENT OF CONSTRUCTION.

ALL CONSTRUCTION SHALL ADHERE TO GRANTSVILLE CITY STANDARD PLANS AND SPECIFICATIONS.

4. ALL UTILITIES AND ROAD IMPROVEMENTS SHOWN ON THE PLANS HEREIN SHALL BE CONSTRUCTED USING REFERENCE TO SURVEY CONSTRUCTION STAKES PLACED UNDER THE SUPERVISION OF A PROFESSIONAL LICENSED SURVEYOR WITH A CURRENT LICENSE ISSUED BY THE STATE OF UTAH. ANY IMPROVEMENTS INSTALLED BY ANY OTHER VERTICAL OR HORIZONTAL REFERENCE WILL NOT BE ACCEPTED OR CERTIFIED BY THE ENGINEER OF RECORD.

THIS DRAWING SET IS SCALED TO BE PRINTED ON A 24" X 36" SIZE OF PAPER (ARCH. D). IF PRINTED ON A SMALLER PAPER SIZE, THE DRAWING WILL NOT BE TO SCALE AND SHOULD NOT BE USED TO SCALE MEASUREMENTS FROM THE PAPER DRAWING. ALSO USE CAUTION, AS THERE MAY BE TEXT OR DETAIL THAT MAY BE OVERLOOKED DUE TO THE SMALL SIZE OF THE DRAWING.

CONSTRUCTION SHALL WORK AROUND SCHOOL SCHEDULE.

NOTICE

BEFORE PROCEEDING WITH THIS WORK, THE CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL CONDITIONS, OUANTITIES, DIMENSIONS, AND GRADE ELEVATIONS, AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER.

ENGINEER'S NOTES TO CONTRACTOR

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS, TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS. IF UTILITY LINES ARE ENCOUNTERED DURING CONSTRUCTION THAT ARE NOT IDENTIFIED BY THESE PLANS, CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.

2. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE CITY, THE OWNER, AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

3. UNAUTHORIZED CHANGES & USES: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

4. ALL CONTOUR LINES SHOWN ON THE PLANS ARE AN INTERPRETATION BY CAD SOFTWARE OF FIELD SURVEY WORK PERFORMED BY A LICENSED SURVEYOR. DUE TO THE POTENTIAL DIFFERENCES IN INTERPRETATION OF CONTOURS BY VARIOUS TYPES OF GRADING SOFTWARE BY OTHER ENGINEERS OR CONTRACTORS, FOCUS DOES NOT GUARANTEE OR WARRANTY THE ACCURACY OF SUCH LINEWORK. FOR THIS REASON, FOCUS WILL NOT PROVIDE ANY GRADING CONTOURS IN CAD FOR ANY TYPE OF USE BY THE CONTRACTOR. SPOT ELEVATIONS AND PROFILE ELEVATIONS SHOWN IN THE DESIGN DRAWINGS GOVERN ALL DESIGN INFORMATION ILLUSTRATED ON THE APPROVED CONSTRUCTION SET. CONSTRUCTION EXPERTISE AND JUDGMENT BY THE CONTRACTOR IS ANTICIPATED BY THE ENGINEER TO COMPLETE BUILD-OUT OF THE INTENDED IMPROVEMENTS.

CONTACTS

ENGINEER & SURVEYOR

FOCUS ENGINEERING & SURVEYING, LLC 6949 S. HIGH TECH DRIVE SUITE 200 MIDVALE, UTAH 84047 (801) 352-0075

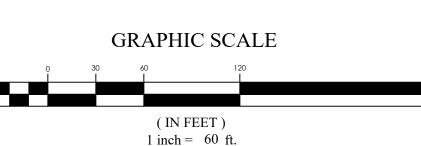
PROJECT MANAGER: MATT CHRISTENSEN SURVEY MANAGER: MATT MERRILL

GRANTSVILLE'S NEW TEAM LLC 1676 PROGRESS WAY TOOELE, UTAH 84074 (801) 301-8591 CONTACT: SHAWN HOLSTE

Know what's **below.**









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MEADO

COVER SHEET

04/03/24 | Job #: 23-0012

Jason Smith

Fire Department 04/29/2024

APPROVED

Cody Christensen

Public Works

05/15/2024

APPROVED

Shay Stark

Planning Department

04/30/2024

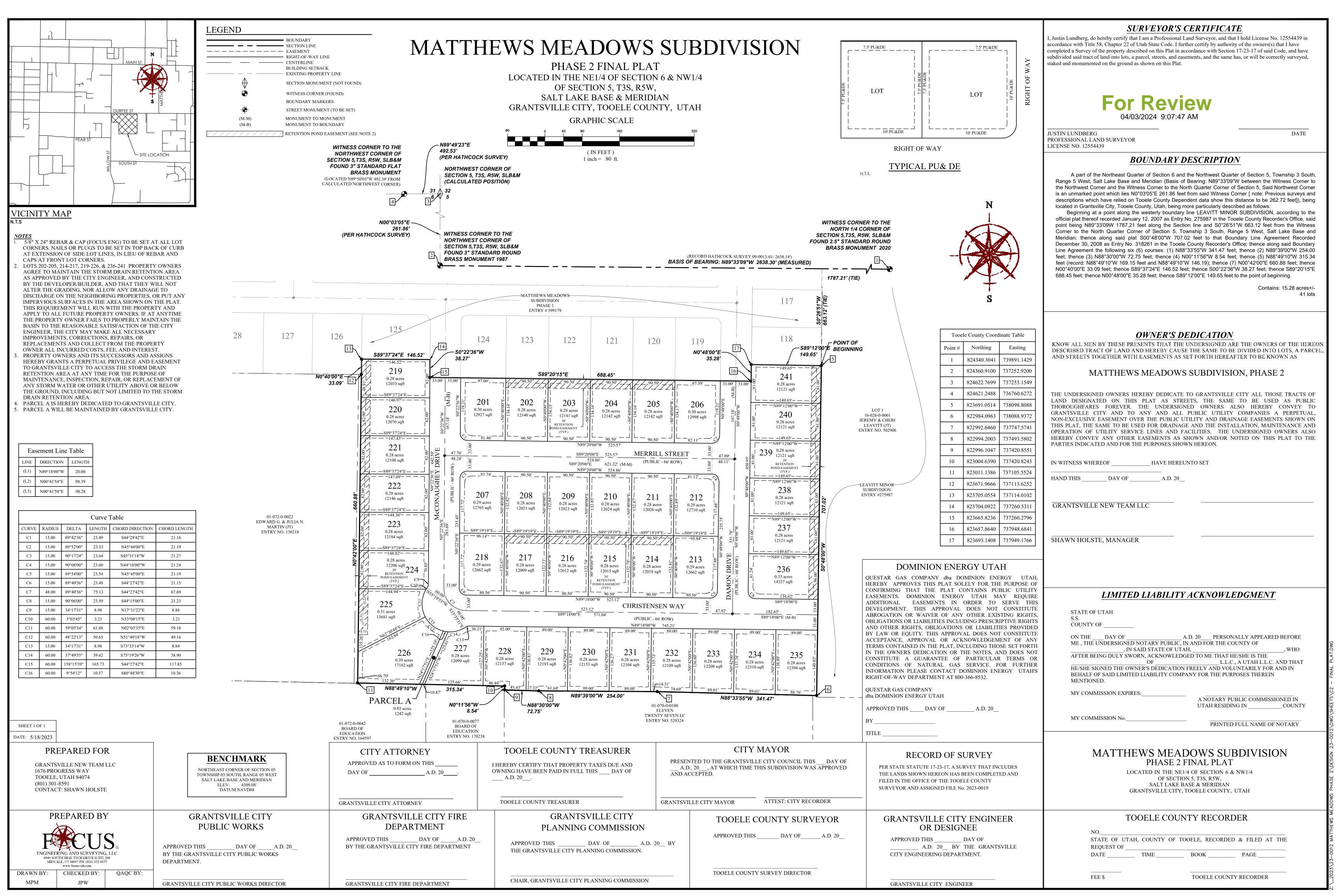
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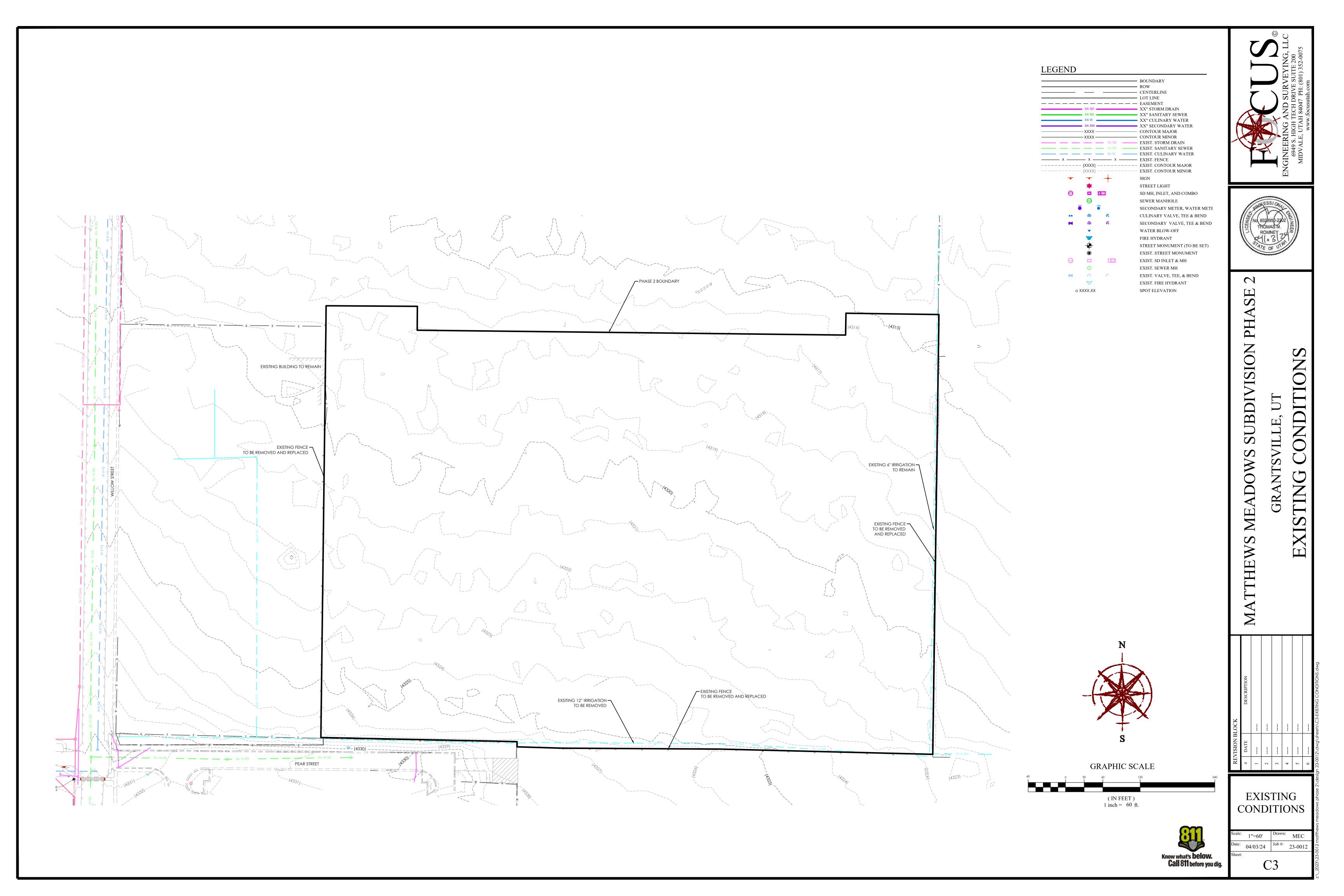
APPROVED Robert Rousselle City Engineer 04/04/2024

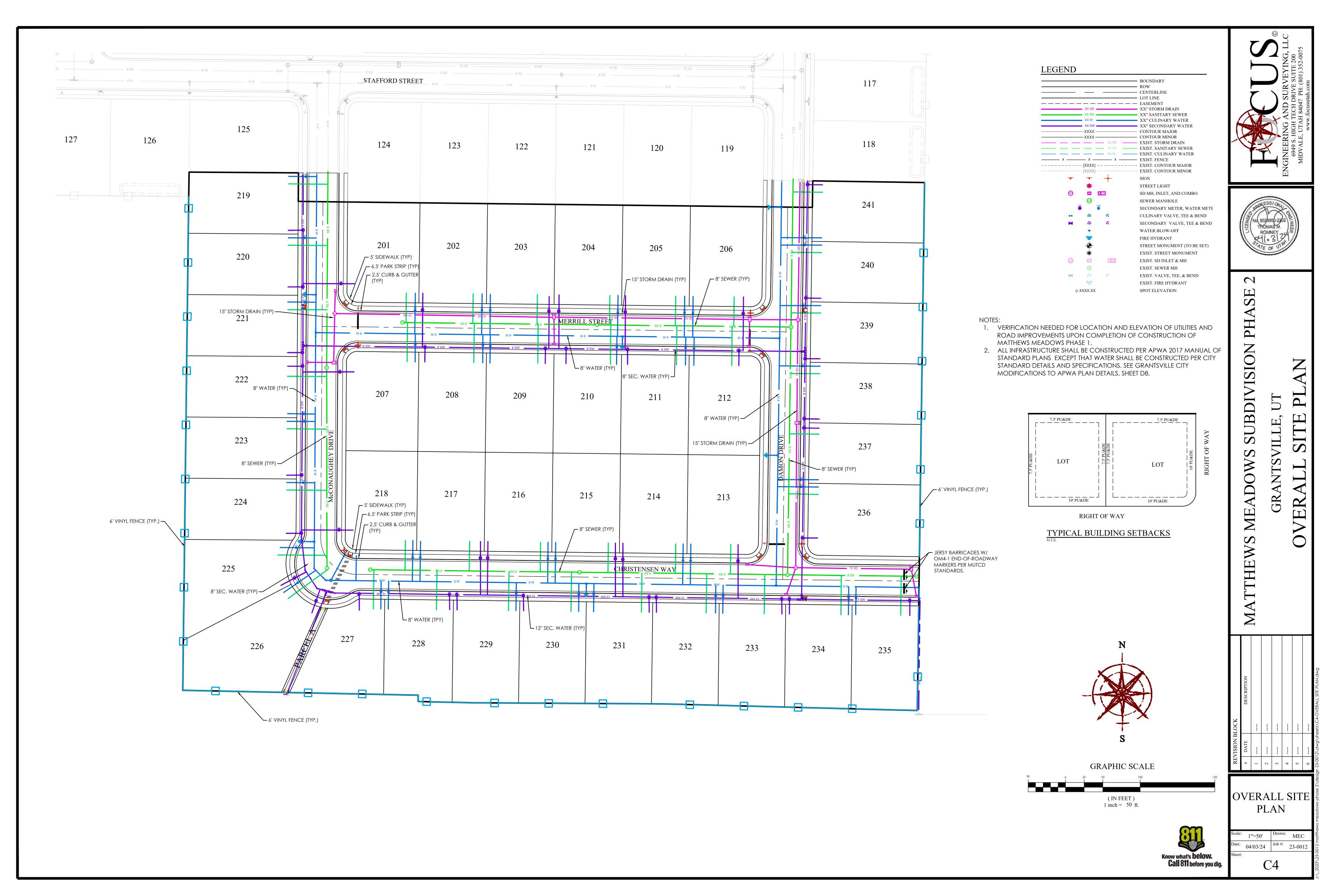
APPROVED

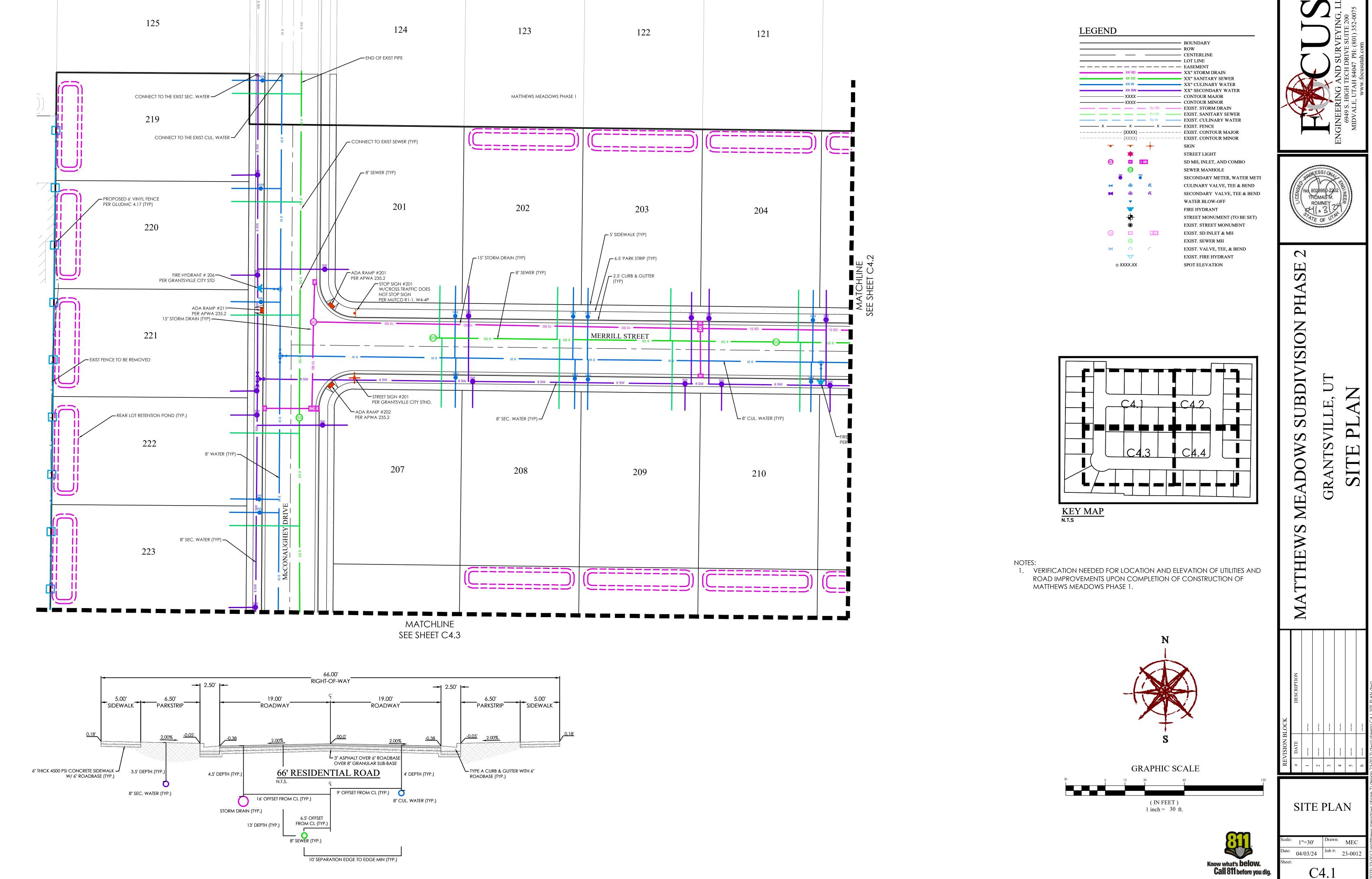
Planning Department

05/14/2024

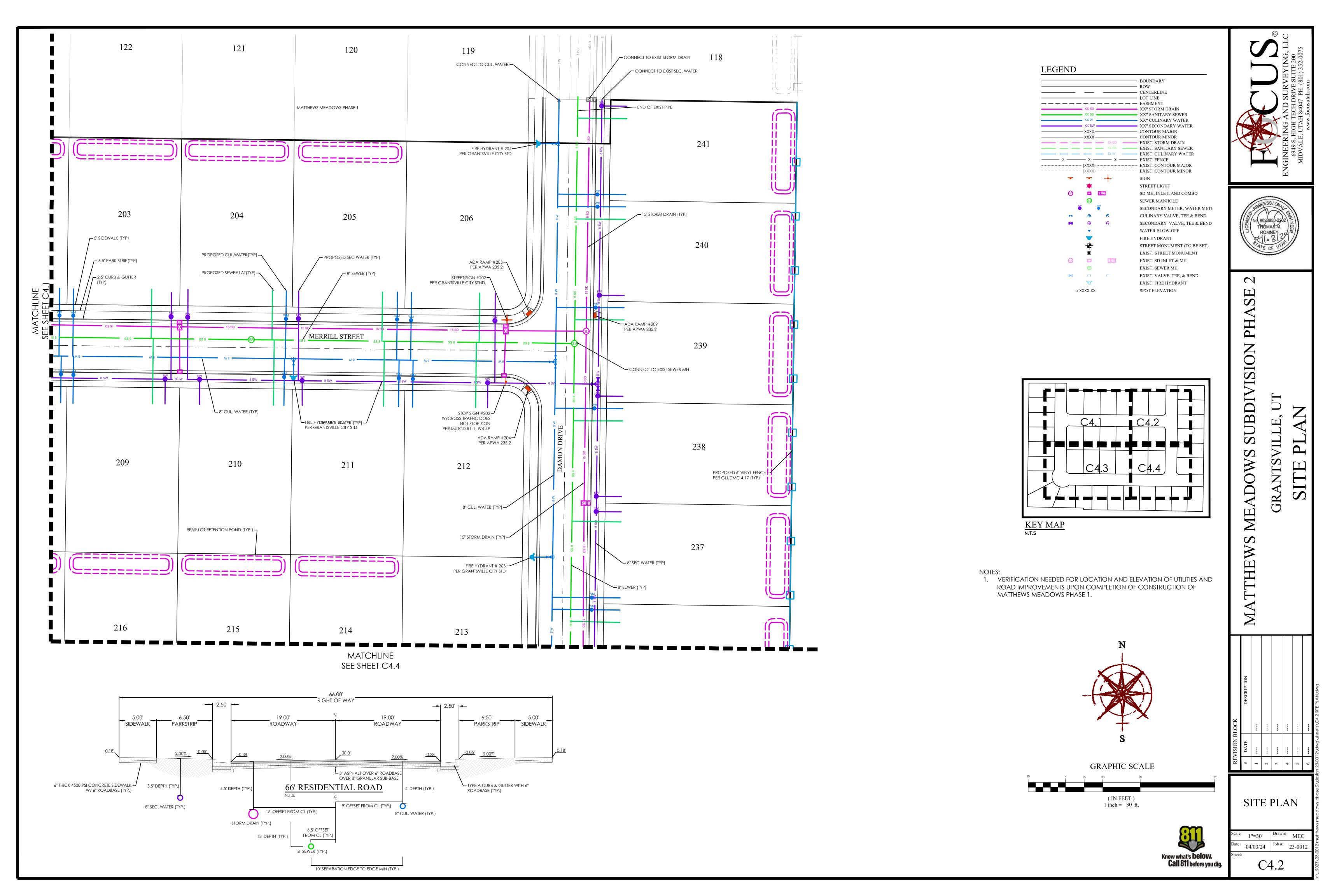


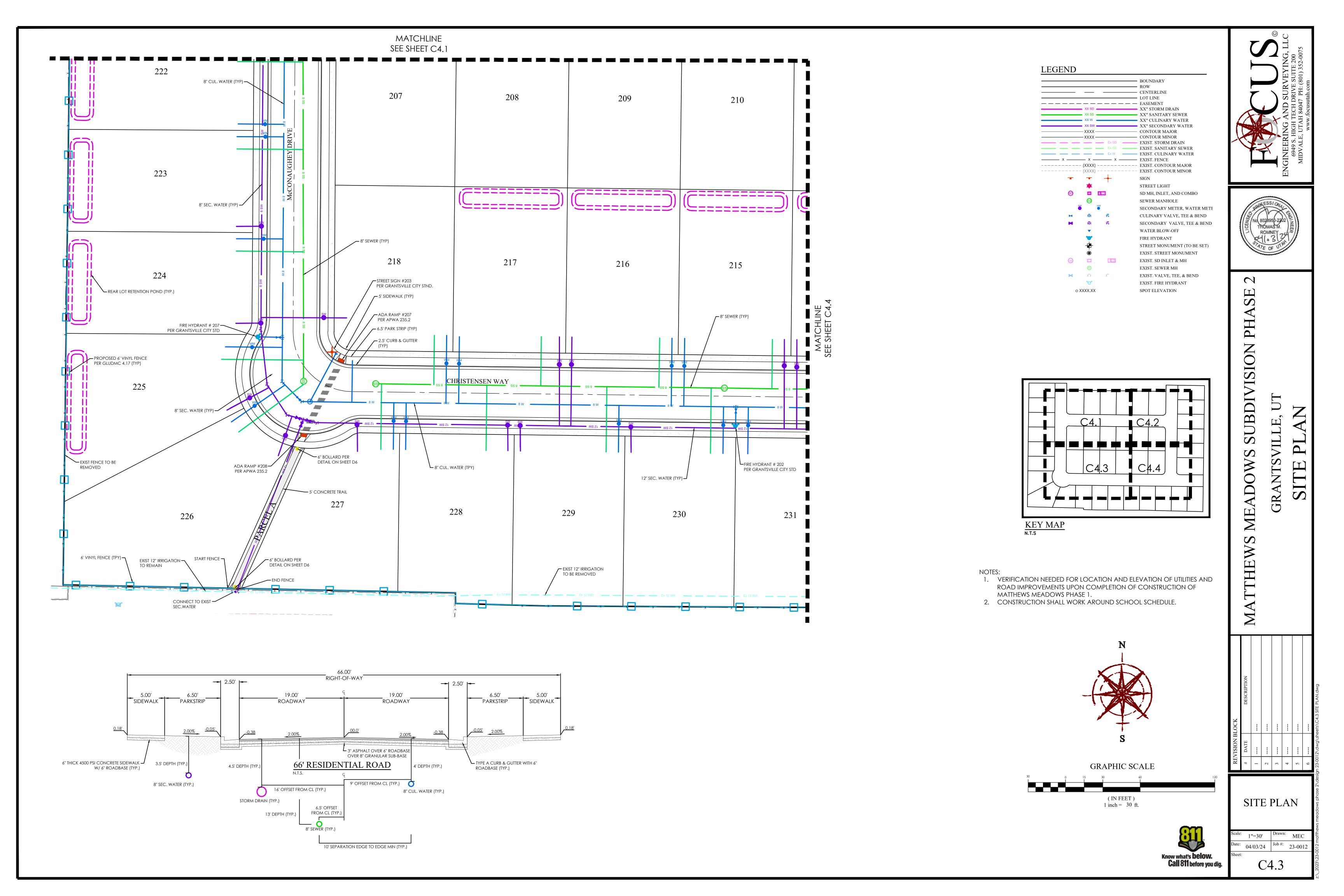


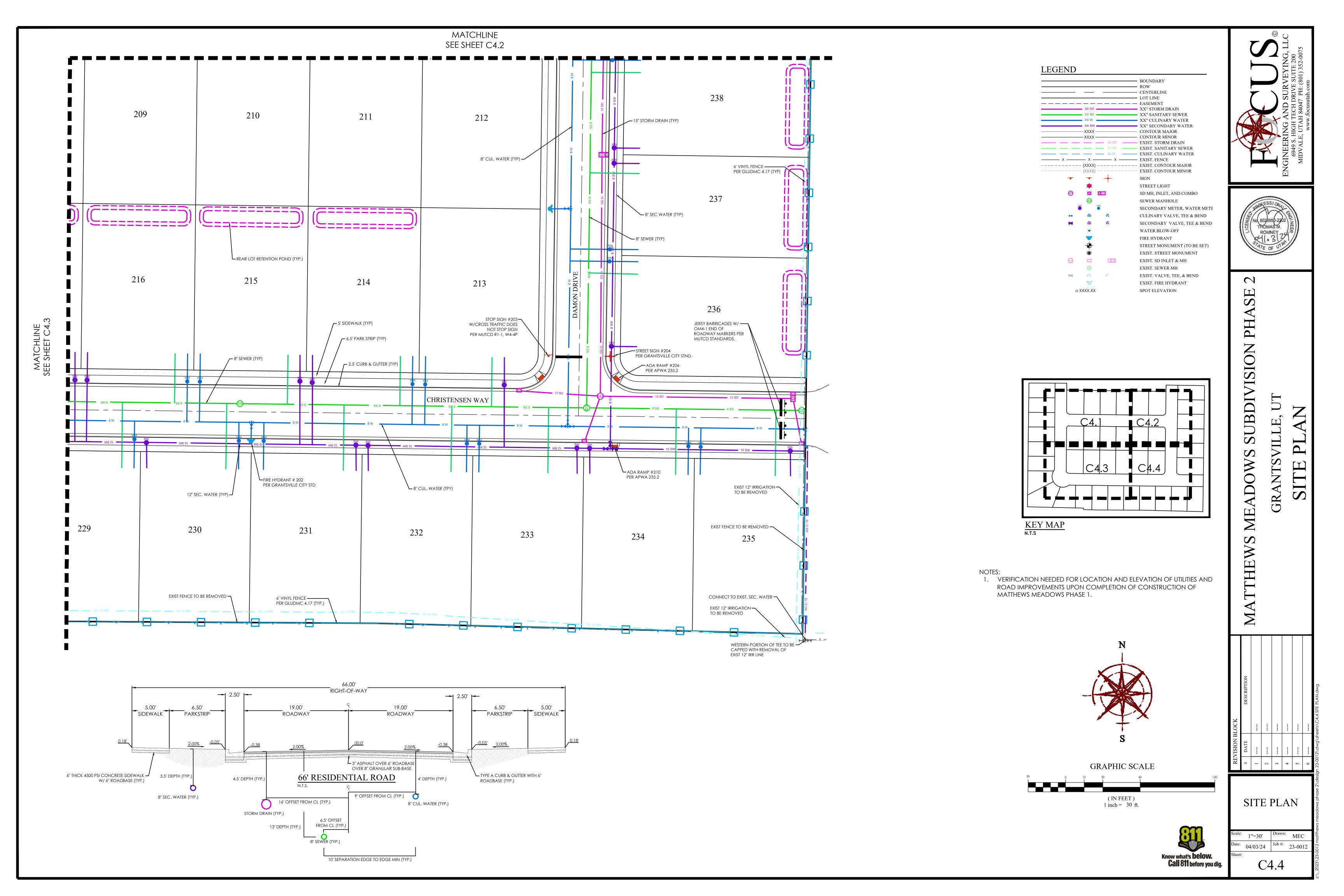




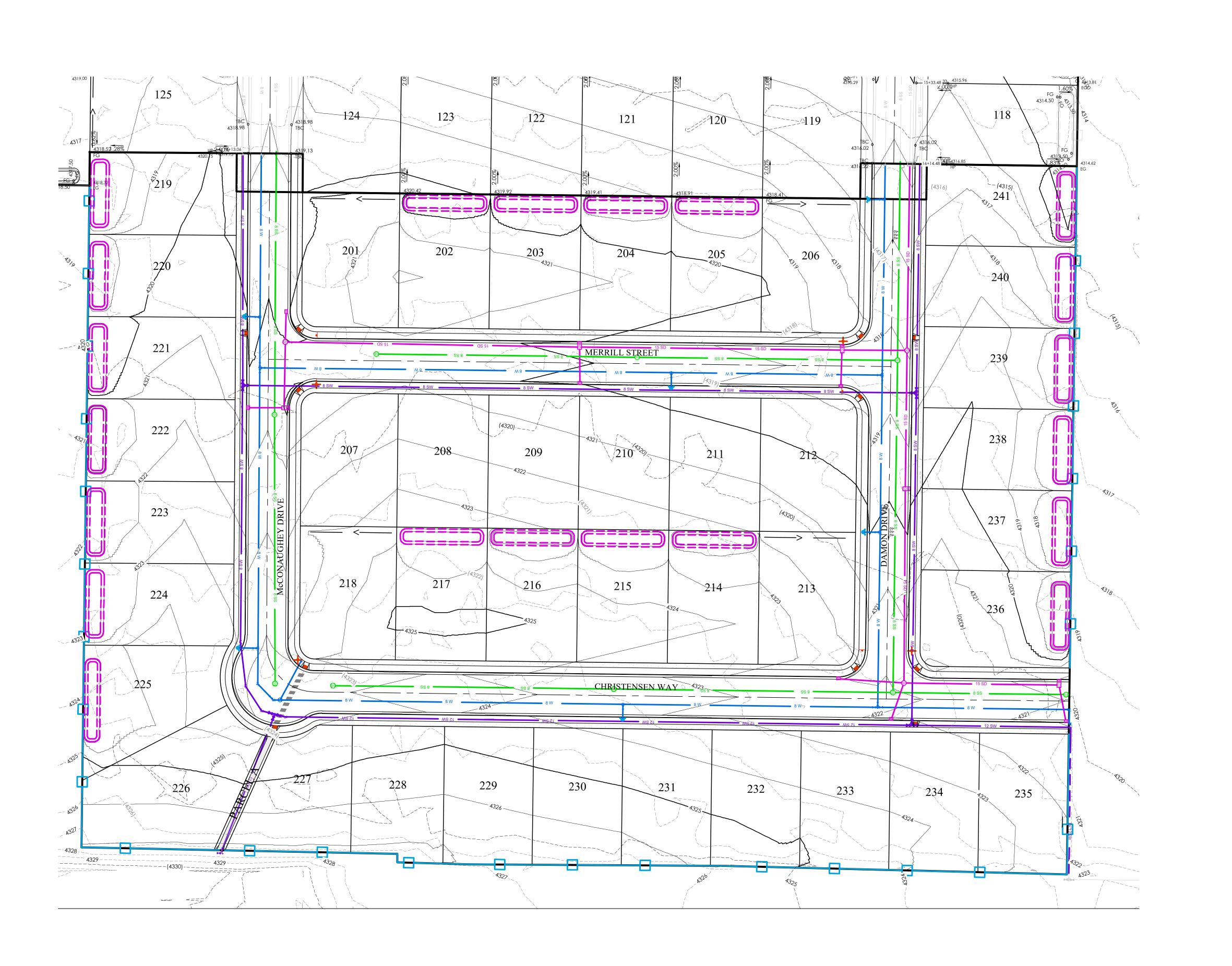




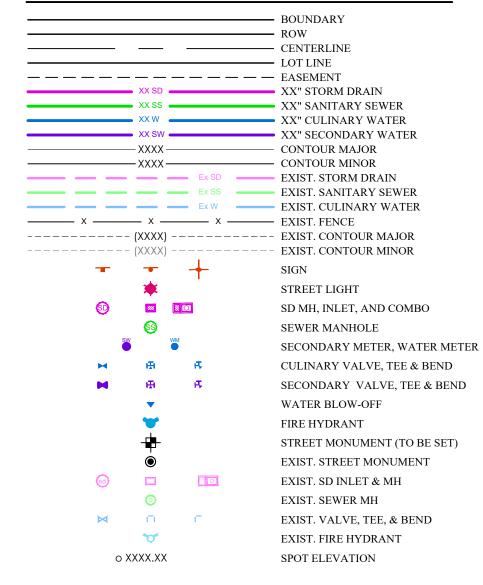


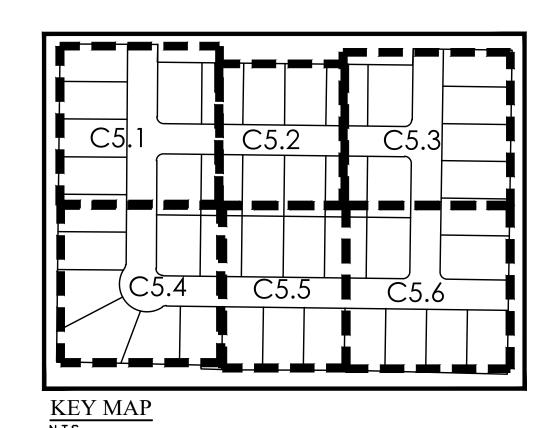










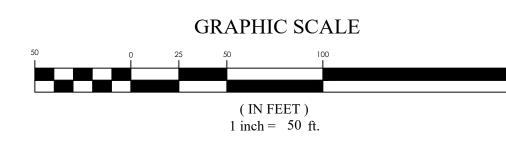


NOTES:

1. SD PIPE SHALL BE RCP OR HIGH PERFORMANCE STORM POLYPROPYLENE PIPE (HP STORM).

WITH CENTERLINE SLOPES THAT ARE DESIGNED AT MINIMUM 0.5% CONTRACTOR TO VERIFY THAT CURB & GUTTER, FLOW LINE DOES NOT SLOPE LESS THAN 0.5%.







OVERALL GRADING & DRAINAGE PLAN

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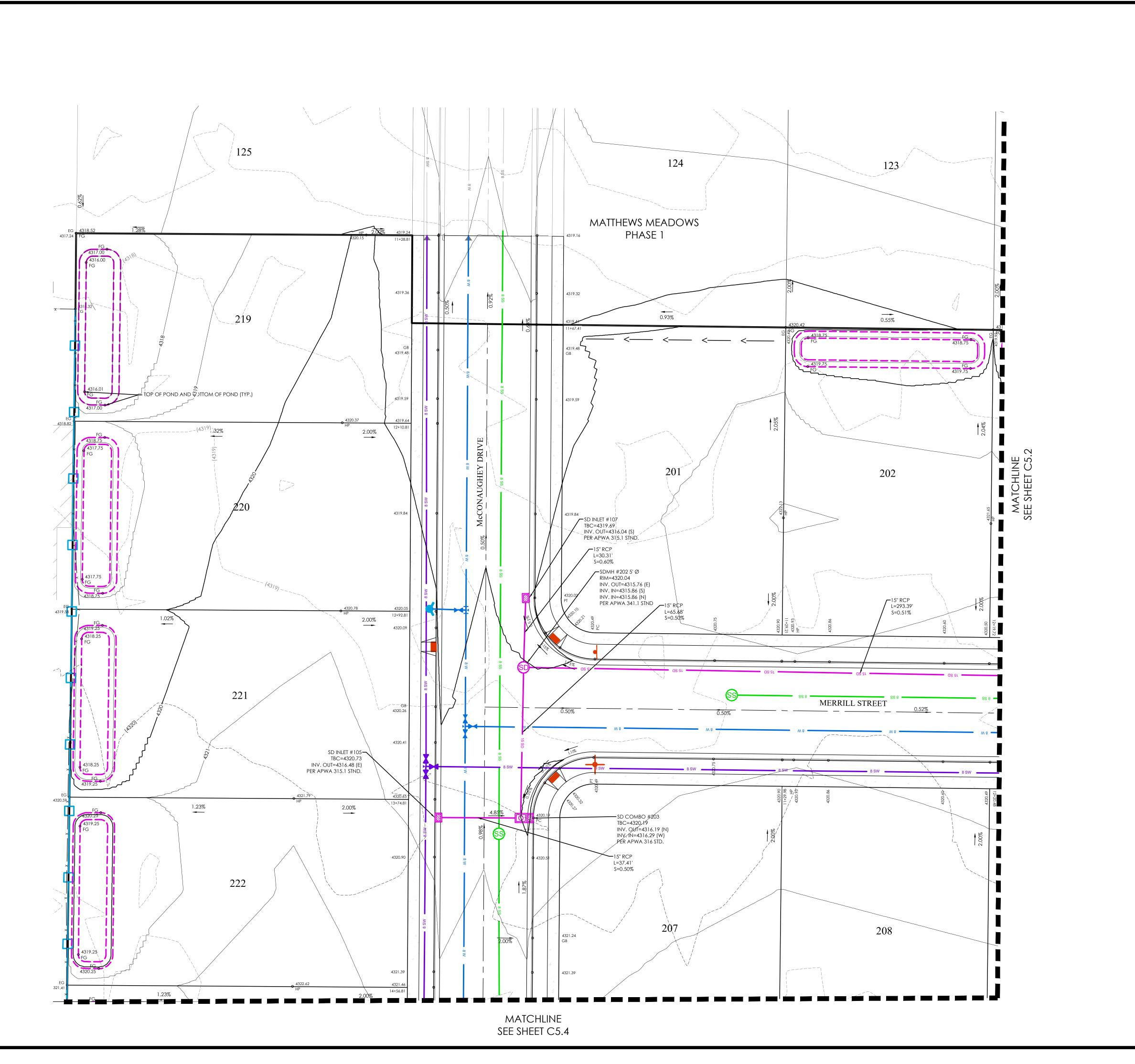
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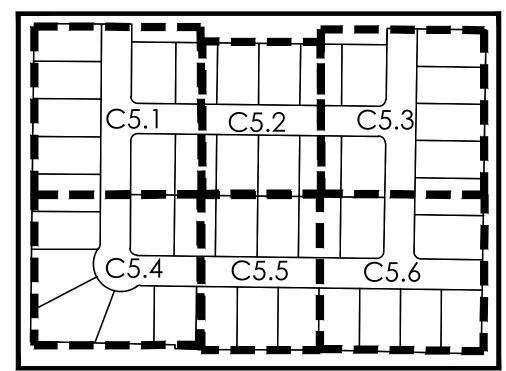
OVERALL

rale: 1"=50' Drawn: MEC
ate: 04/03/24 Job #: 23-0012



LEGEND

	■ BOUNDARY LINE
	- EXIST. EASEMENT LINE
	- EXIST. PROPERTY LINE
(XXXX)	- EXIST. CONTOUR MAJOR
(XXXX)	- EXIST. CONTOUR MINOR
Ex SD	- EXIST STORM DRAIN
Ex SS	EXIST. SANITARY SEWER
	EXIST. CULINARY WATER
	EXIST. SECONDARY WATER
Ex IRR	EXIST. IRRIGATION
	EXIST. NATURAL GAS
	EXIST. COMMUNICATIONS
	EXIST. OVERHEAD POWER
	EXIST. UNDERGROUND POWER
x x x	- EXIST. FENCE
	EXIST. IRRIGATION DITCH FLOWLINE
	– EXIST. CONCRETE, CURB & GUTTER, SIDEWAL
	EXIST. EDGE OF ASPHALT
•	SECTION MONUMENT (FOUND)
\bigoplus	SECTION MONUMENT (NOT FOUND)
©	BOUNDARY MARKER
sd 🗖 🔽	EXIST. SD INLET, MANHOLE & COMBO BOX
⑤	EXIST. SEWER MANHOLE
M O	EXIST. WATER VALVE & WATER METER
₩	EXIST. FIRE HYDRANT
R	EXIST. IRRIGATION BOX
™ GAS	EXIST. GAS VALVE & GAS METER
☆	EXIST. STREET LIGHT
-0-	EXIST. POWER POLE
E	EXIST. ELECTRICAL BOX
	EXIST. COMMUNICATIONS BOX
+ XXXX.X	EXIST. SPOT ELEVATION
XXXX/XXXX	DEED BOOK/PAGE PER xxxx COUNTY RECORDS
XX:XXX:XXX	XXXX COUNTY PARCEL No.
M.MM.MM	MAN COUNT I TARCEL NO.

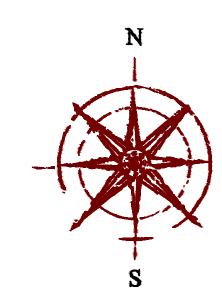


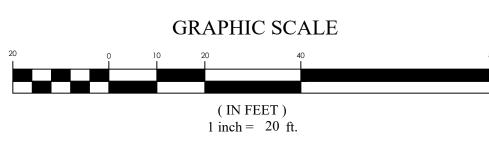
KEY MAP

NOTES:

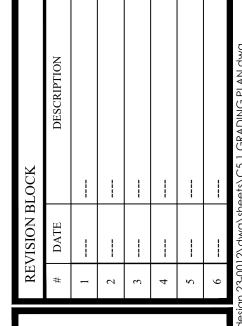
1. SD PIPE SHALL BE RCP OR HIGH PERFORMANCE STORM POLYPROPYLENE PIPE (HP STORM).

WITH CENTERLINE SLOPES THAT ARE DESIGNED AT MINIMUM 0.5% CONTRACTOR TO VERIFY THAT CURB & GUTTER, FLOW LINE DOES NOT SLOPE LESS THAN 0.5%.









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MEADOWS

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GRADING & DRAINAGE PLAN

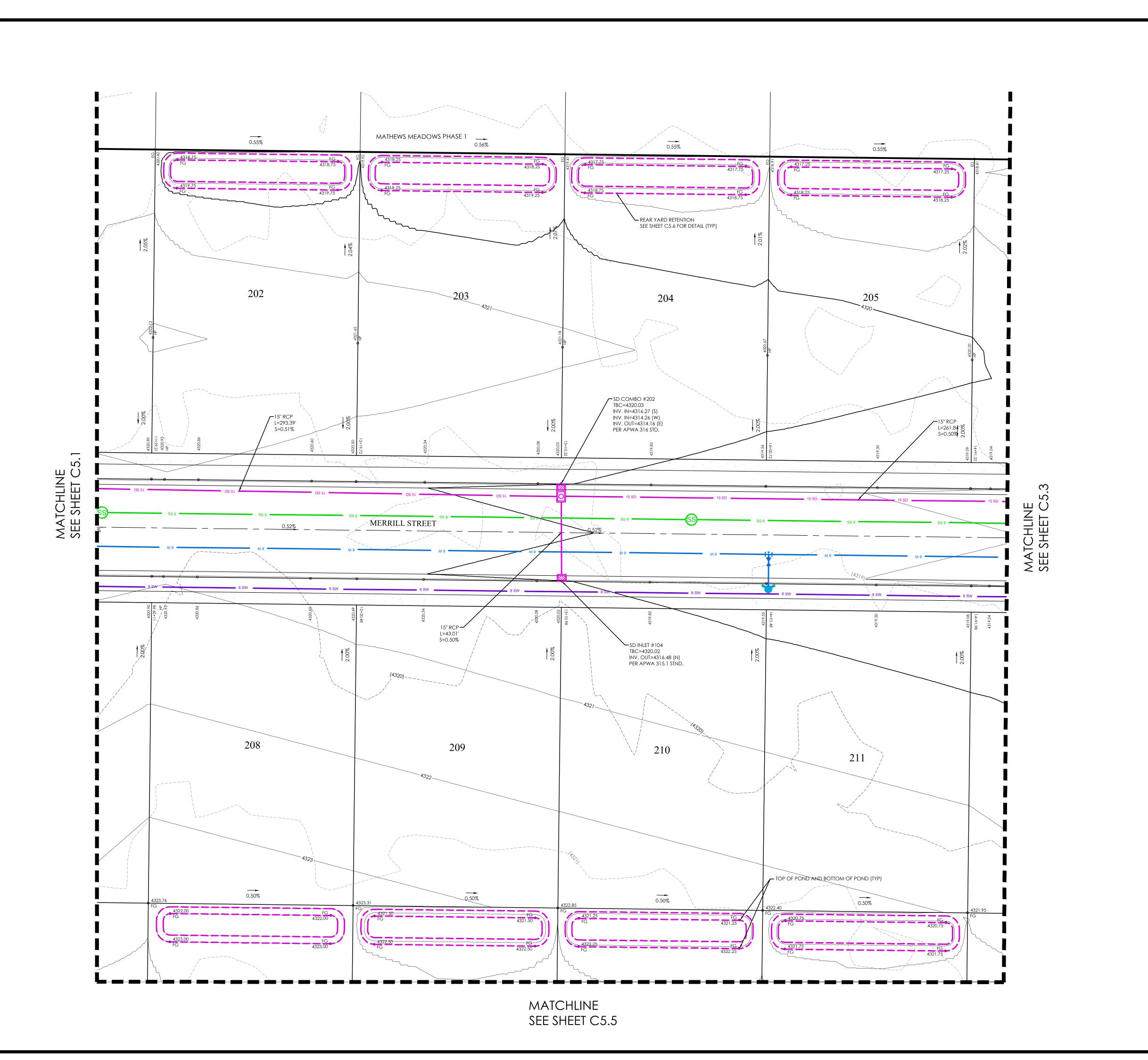
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Date: 04/03/24 Job #: 23-0012

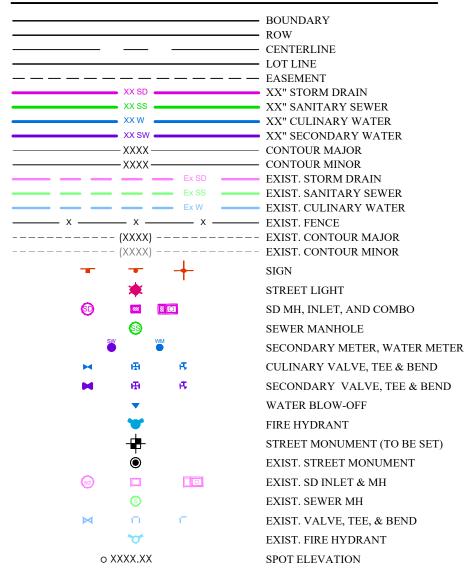
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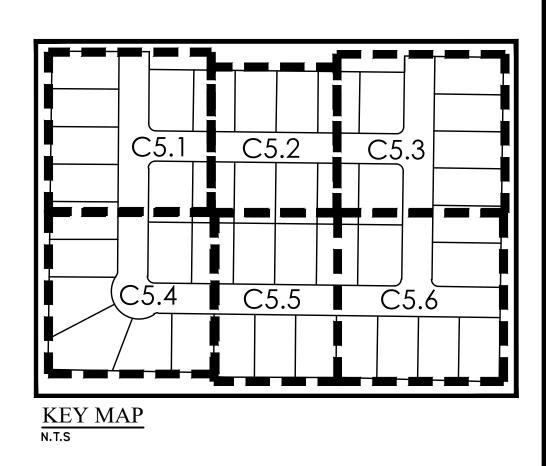
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C5.1



LEGEND

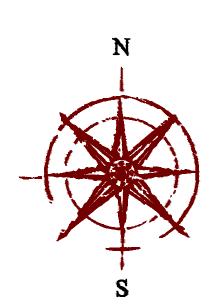


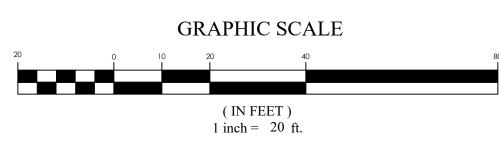


NOTES:

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WITH CENTERLINE SLOPES THAT ARE DESIGNED AT MINIMUM 0.5% CONTRACTOR TO VERIFY THAT CURB & GUTTER, FLOW LINE DOES NOT SLOPE LESS THAN 0.5%.







GRADING & DRAINAGE PLAN

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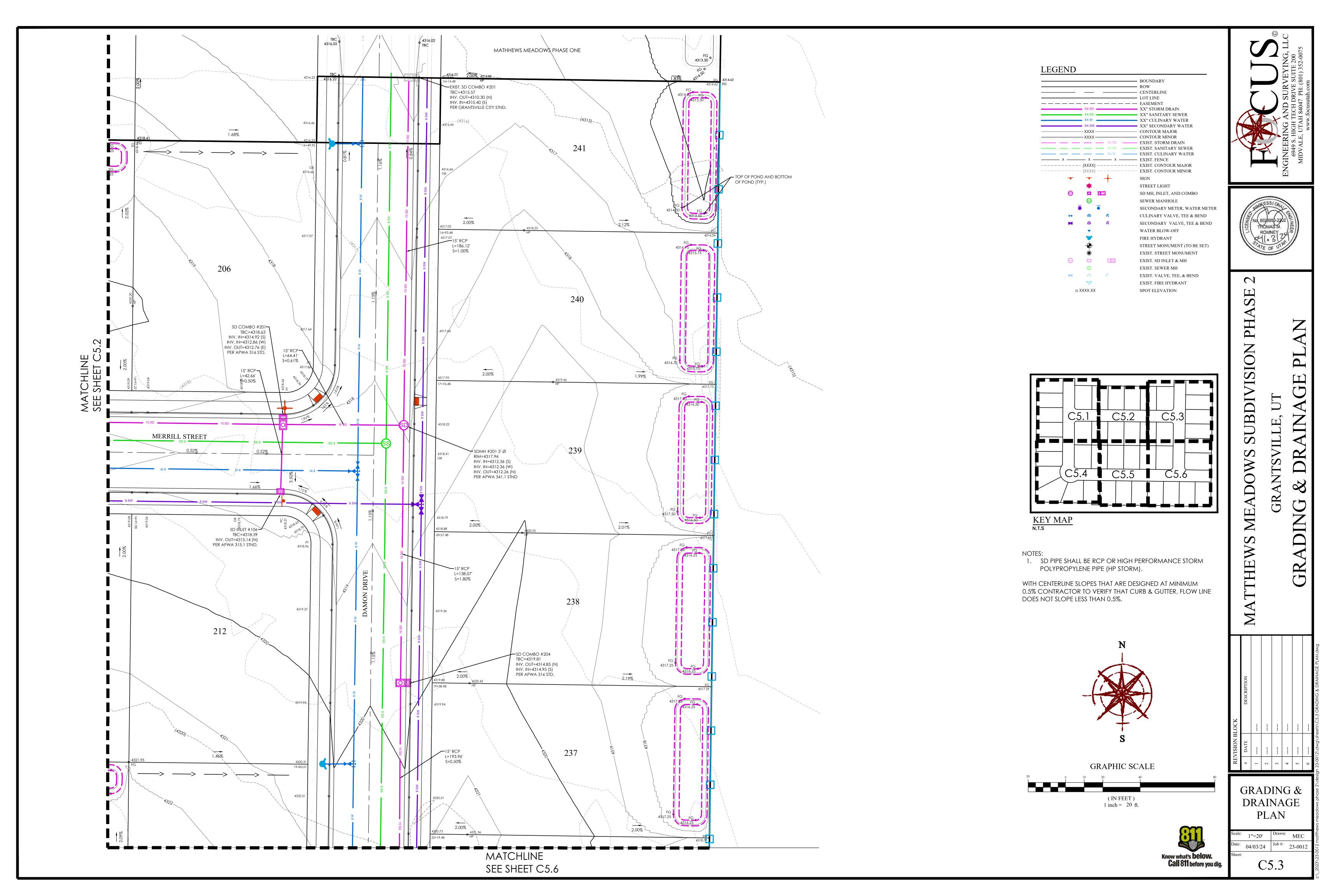
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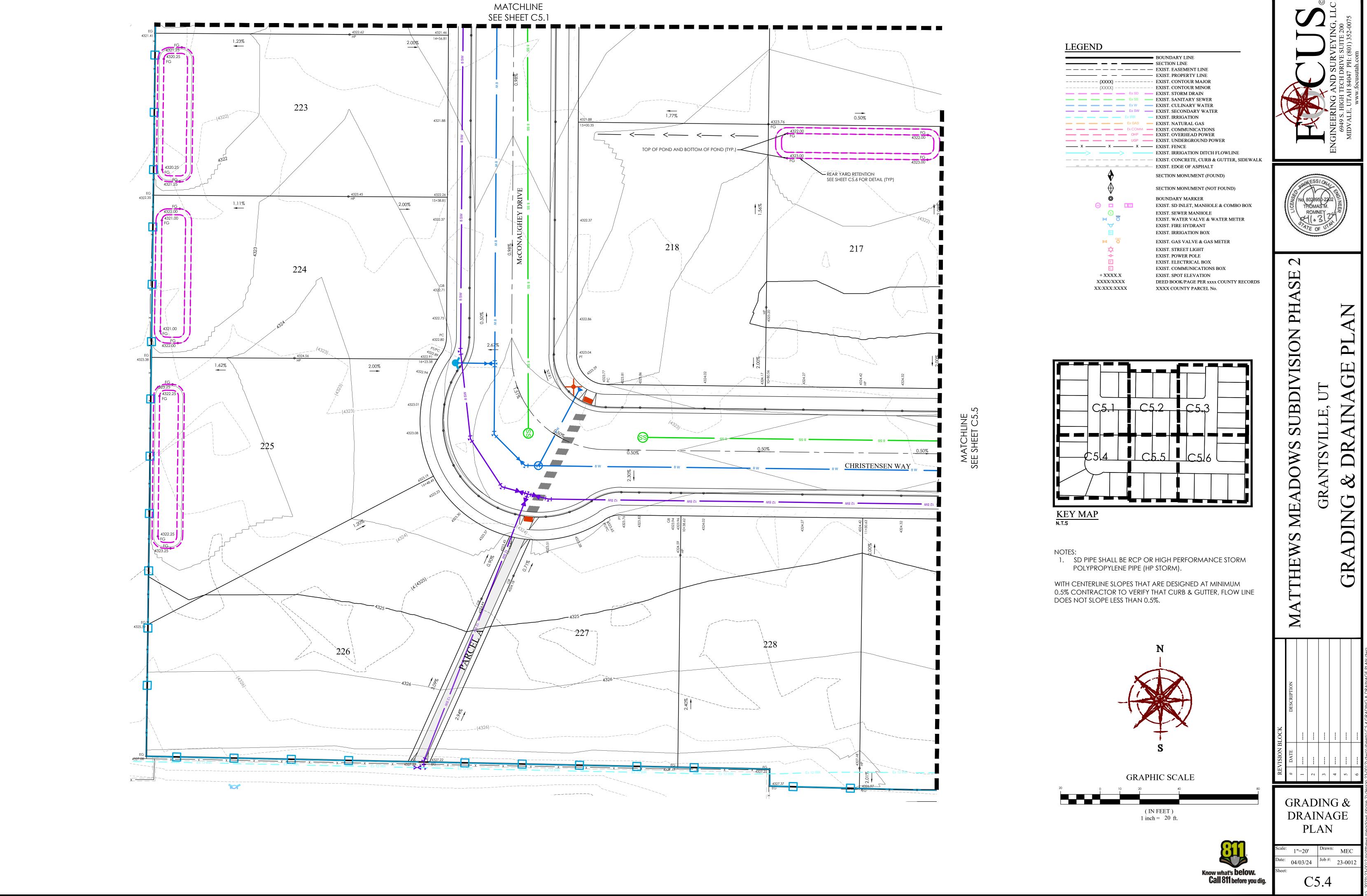
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Date: 04/03/24 Job #: 23-0012

Sheet: C5.2





1. SD PIPE SHALL BE RCP OR HIGH PERFORMANCE STORM POLYPROPYLENE PIPE. (HP STORM).

WITH CENTERLINE SLOPES THAT ARE DESIGNED AT MINIMUM 0.5% CONTRACTOR TO VERIFY THAT CURB & GUTTER, FLOW

LEGENDOES NOT SLOPE LESS THAN 0.5%.

	BOUNDARY LINE
	SECTION LINE
	EXIST. EASEMENT LINE
	EXIST. PROPERTY LINE
(XXXX)	EXIST. CONTOUR MAJOR
(XXXX)	EXIST. CONTOUR MINOR
— — — Ex SD —	EXIST. STORM DRAIN
— — — Ex SS —	EXIST. SANITARY SEWER
— — — Ex W —	EXIST. CULINARY WATER
Ex SW	EXIST. SECONDARY WATER
— — — Ex IRR —	EXIST. IRRIGATION
— — — Ex GAS —	EXIST. NATURAL GAS
	EXIST. COMMUNICATIONS
	EXIST. OVERHEAD POWER
	EXIST. UNDERGROUND POWER
x x x	
<i>──> ──></i>	EXIST. IRRIGATION DITCH FLOWLINE
	EXIST. CONCRETE, CURB & GUTTER, SIDEWAL
	EXIST. EDGE OF ASPHALT
lack	SECTION MONUMENT (FOUND)
\bigoplus	SECTION MONUMENT (NOT FOUND)
©	BOUNDARY MARKER
sd 🔲 🗓 🖸	EXIST. SD INLET, MANHOLE & COMBO BOX
(S)	EXIST. SEWER MANHOLE
₩ O	EXIST. WATER VALVE & WATER METER
₩	EXIST. FIRE HYDRANT
	EXIST. IRRIGATION BOX
pa GAS	EXIST. GAS VALVE & GAS METER
X	EXIST. STREET LIGHT
- -	EXIST. POWER POLE
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EXIST. ELECTRICAL BOX EXIST. COMMUNICATIONS BOX

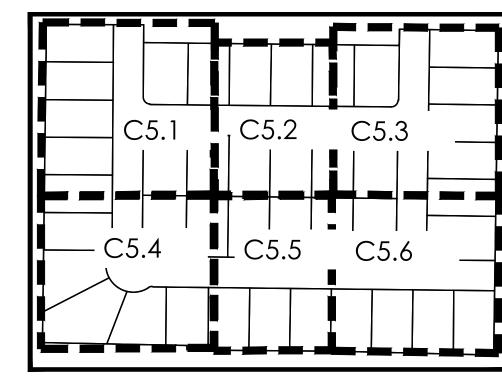
EXIST. SPOT ELEVATION

XXXX COUNTY PARCEL No.

DEED BOOK/PAGE PER xxxx COUNTY RECORDS

2

PL



+ XXXX.X

XX:XXX:XXXX

XXXX/XXXX

KEY MAP

Rear Lot Retention Pond Project: Matthews Meadows Subdivision

> Intensity Table: Return Period:

Location Grantsville City, Utah Date: 4/20/2022



0.01

100-Year Retention Sizing

	Allowable Discharge:	0.00° cfs/acre	Per Grants	ville City Sta	ndards	
Allowc	ıble Discharges					
	Storm Drain Discharge	0.00 cfs				
	Other Discharge:	0.00 cfs	Source:			
	Total Discharge:	0 cfs				
Woigh	tod "C" Value					
Weigh	ted "C" Value Surface Type	Area (sf)	•	"C" Value	•	C*A
Weigh		Area (sf) 2,662	•	"C" Value	1	C*A 2,263
Weigh	Surface Type		•		•	
Weigh	Surface Type Homes (rooftops)	2,662	•	0.85	•	2,263
Weigh	Surface Type Homes (rooftops) Drives	2,662 0	•	0.85 0.85	•	2,263

Per NOAA Atlas 14 **100 year**

Drainage Calculations

Weighted "C" Value

Duration	Intensity \	Runoff C	Area	Rainfall	ccumulate	Allowable	Discharge	Required
					Flow	Discharge		Storage
min	in/hr		Ac	cfs	cf	cfs	cf	cf
15.0	3.82	0.33	0.23	0.30	266	0.00	0	266
30.0	2.57	0.33	0.23	0.20	358	0.00	0	358
60.0	1.59	0.33	0.23	0.12	444	0.00	0	444
120.0	0.84	0.33	0.23	0.07	469	0.00	0	469
180.0	0.56	0.33	0.23	0.04	471	0.00	0	471
360.0	0.30	0.33	0.23	0.02	495	0.00	0	495
720.0	0.17	0.33	0.23	0.01	559	0.00	0	559
1440 0	0.10	0.33	0.03	0.01	4.40	0.00		4.10

Maximum Storage Requirement:
Maximum Storage Requirement (ac-ff):

RETENTION ADEQUATE

0.33

Retention Basin Design		
Storage Requirement:	649 cf	
Allowable Depth:	1.0 <i>ft</i>	Retention Calculated Using Basic Geometry
Retention Pond Volume:	990 cf	of a Trapezoidal Trench
Poadway Sump Storage:	0 of	

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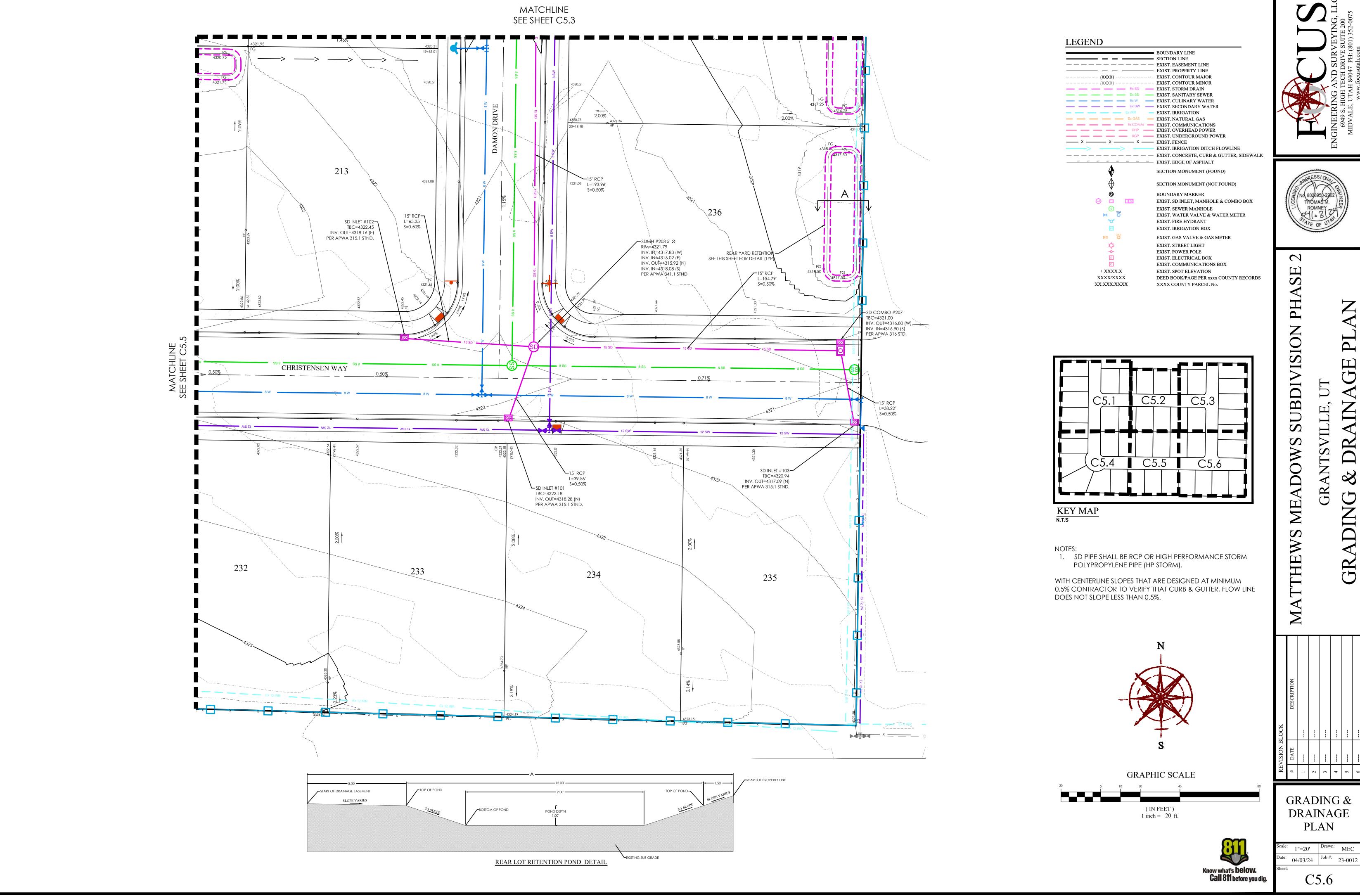
DRAINAGE

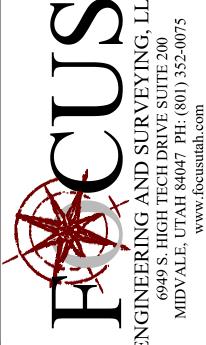
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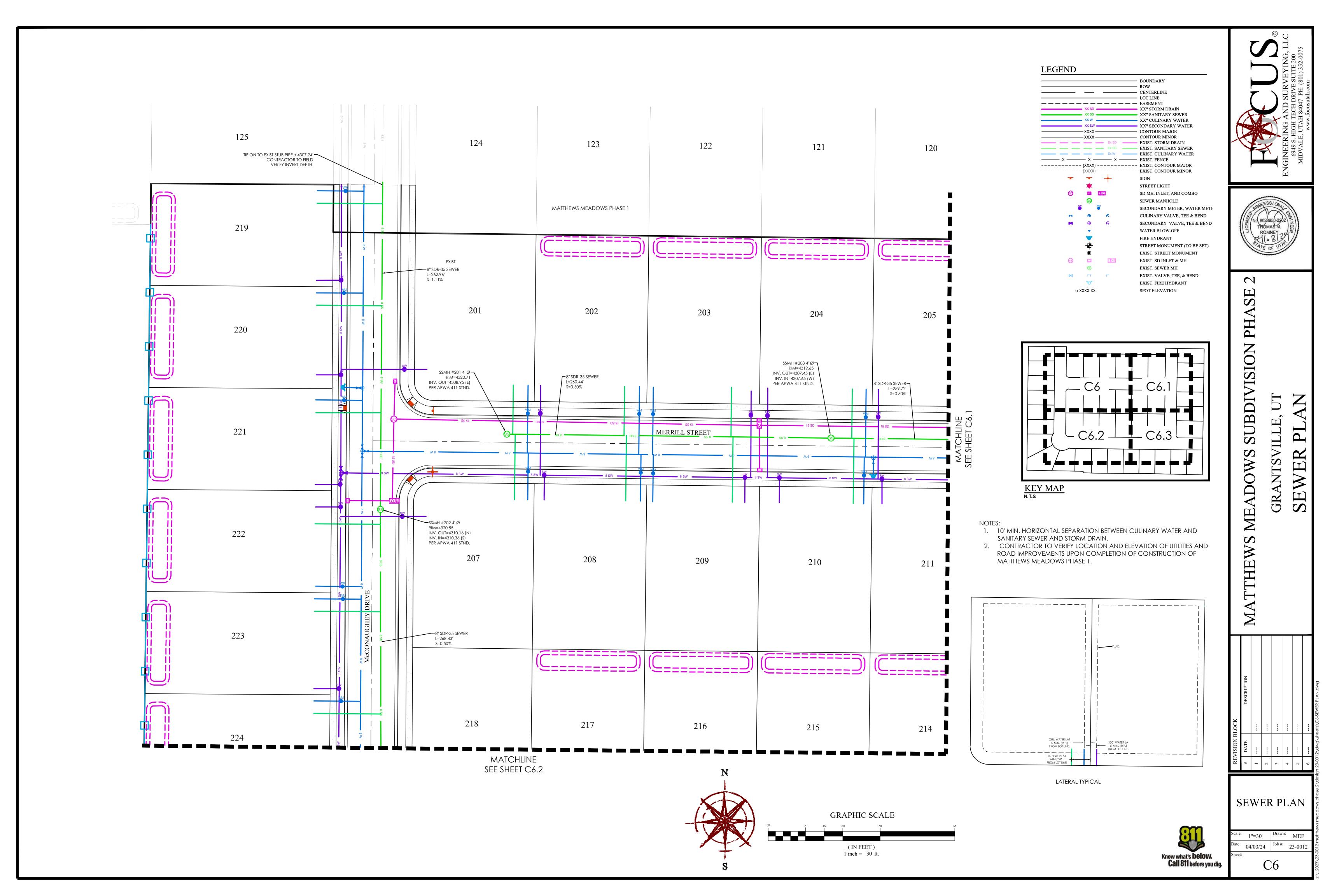
04/03/24 | Job #: 23-0012

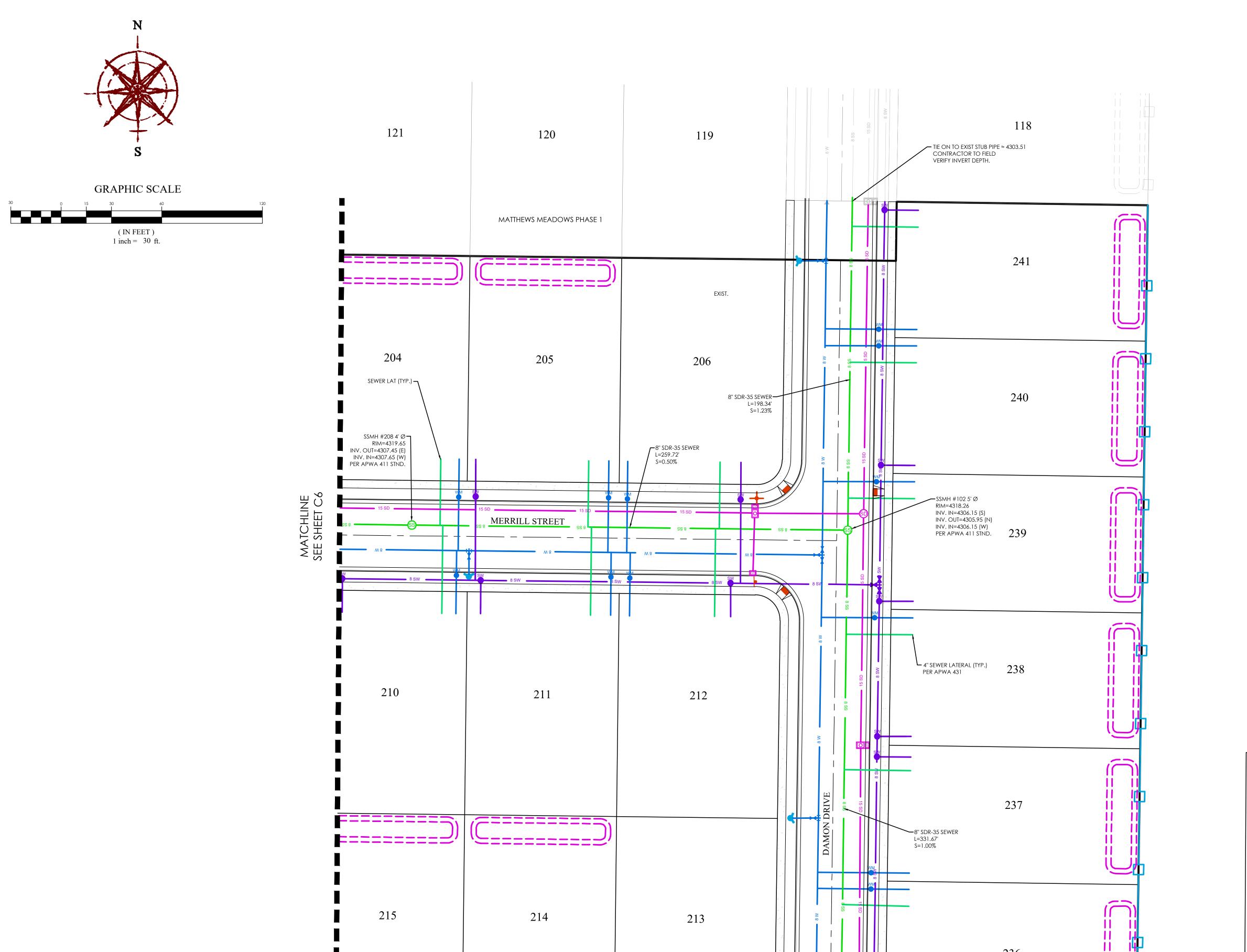
C5.5

1"=20'



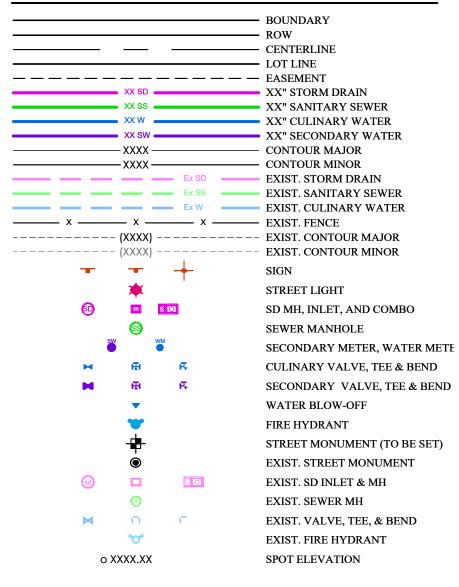


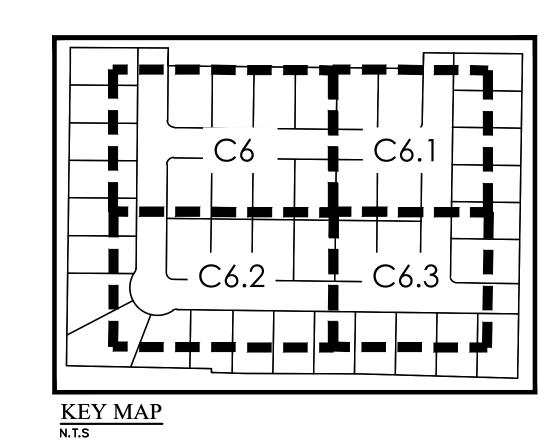




MATCHLINE SEE SHEET C6.3

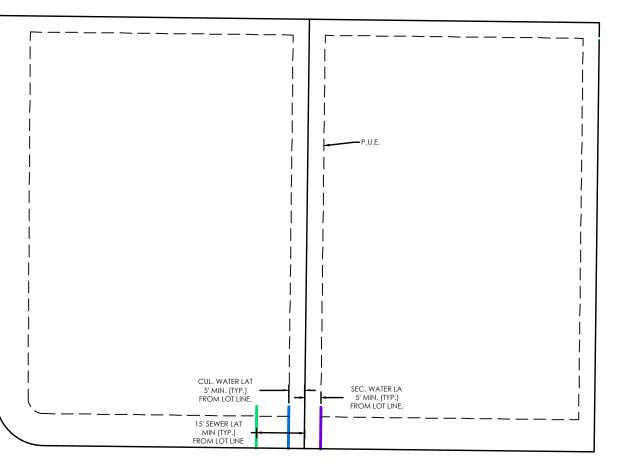




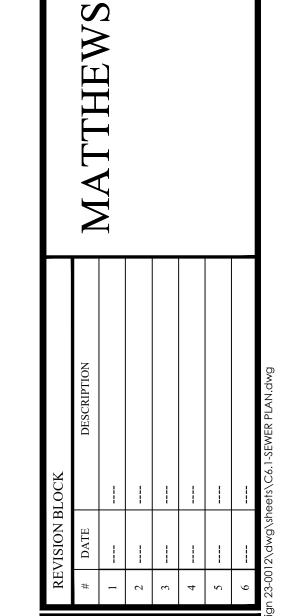


NOTES:

- 1. 10' MIN. HORIZONTAL SEPARATION BETWEEN CULINARY WATER AND SANITARY SEWER AND STORM DRAIN.
- CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF UTILITIES AND ROAD IMPROVEMENTS UPON COMPLETION OF CONSTRUCTION OF MATTHEWS MEADOWS PHASE 1.



LATERAL TYPICAL



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SEWER PLAN

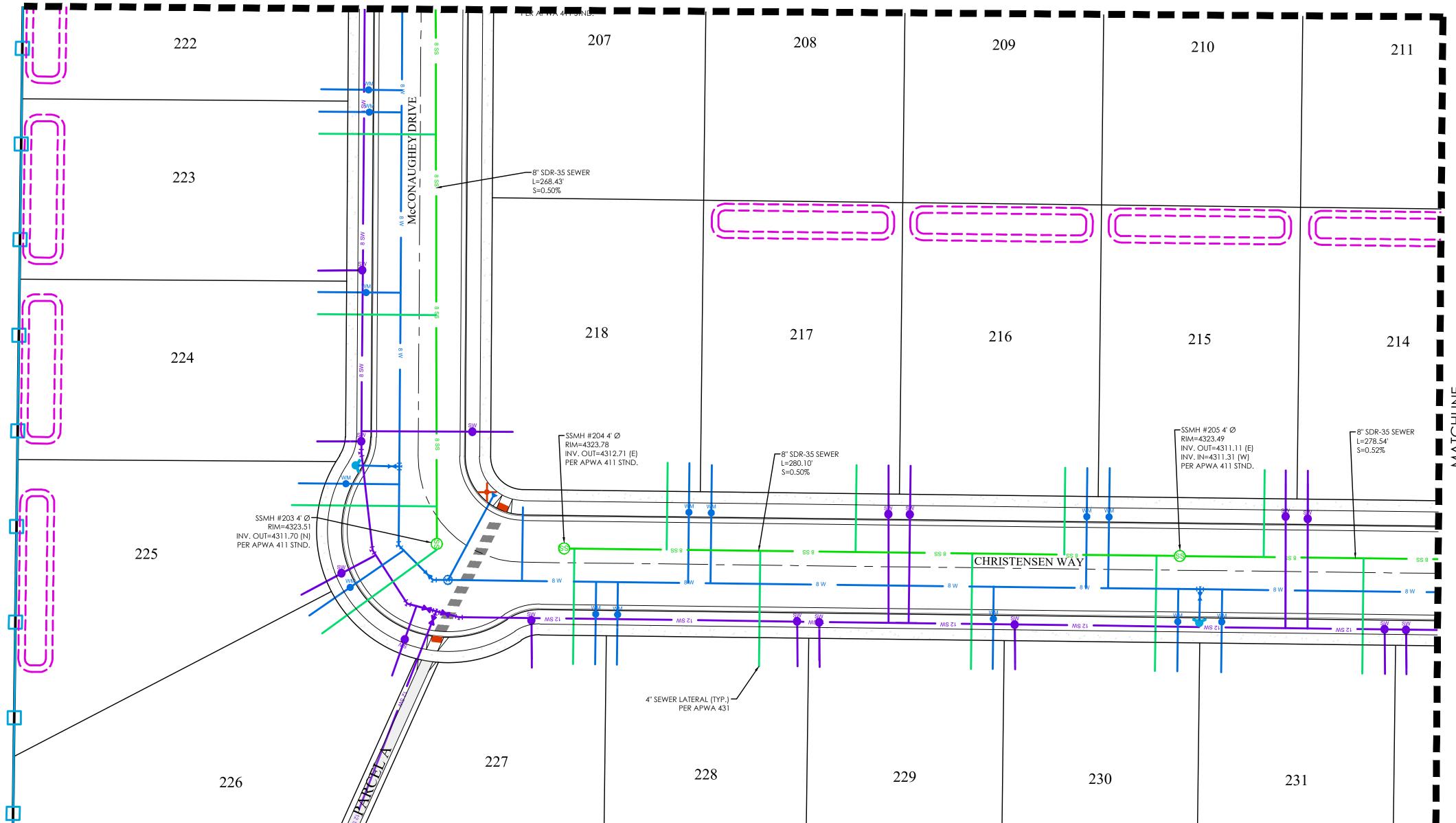
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Date: 04/03/24 Job #: 23-0012

Sheet: C6.1



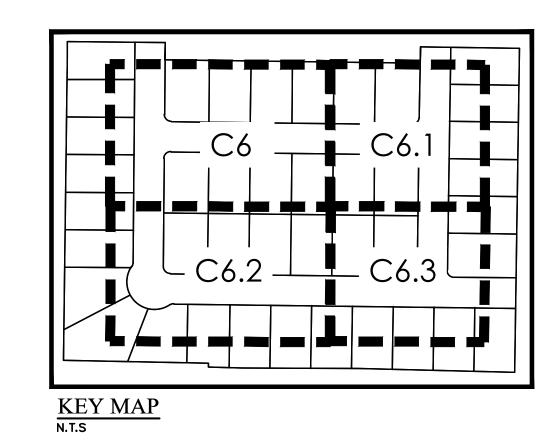
MATCHLINE SEE SHEET C6



LEGEND

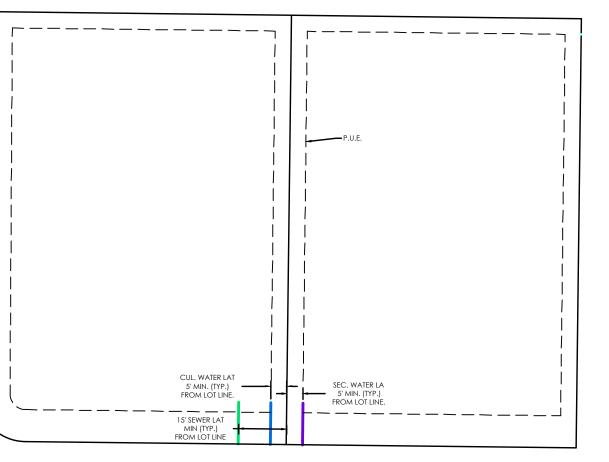
			ROW
			——— CENTERLINE
			LOT LINE
			— — EASEMENT
	XX SD -		XX" STORM DRAIN
	XX SS -		XX" SANITARY SEWER
	XX W		XX" CULINARY WATER
	XX SW -		XX" SECONDARY WATER
			CONTOUR MAJOR
	— xxxx —		——— CONTOUR MINOR
		Ex SD	EXIST. STORM DRAIN
			EXIST. SANITARY SEWER
		Ex W	
			EXIST. FENCE
			EXIST. CONTOUR MAJOR
	(XXXX) -		EXIST. CONTOUR MINOR
-	•	+	SIGN
	*		STREET LIGHT
9	200		SD MH, INLET, AND COMBO
	<u>s</u>		SEWER MANHOLE
	SW W	M	SECONDARY METER, WATER M
×	æ	F	CULINARY VALVE, TEE & BENI
H	æ	r.	SECONDARY VALVE, TEE & BE
	•		WATER BLOW-OFF
			FIRE HYDRANT
	⊕ ⊚		STREET MONUMENT (TO BE SE
	◉		EXIST. STREET MONUMENT
sd			EXIST. SD INLET & MH
	©		EXIST. SEWER MH
×	\Box	T.	EXIST. VALVE, TEE, & BEND
	4		EXIST. FIRE HYDRANT
	o XXXXXX		SPOT ELEVATION

BOUNDARY



NOTES:

- 1. 10' MIN. HORIZONTAL SEPARATION BETWEEN CULINARY WATER AND SANITARY SEWER AND STORM DRAIN.
- CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF UTILITIES AND ROAD IMPROVEMENTS UPON COMPLETION OF CONSTRUCTION OF MATTHEWS MEADOWS PHASE 1.



LATERAL TYPICAL



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MATTHEWS

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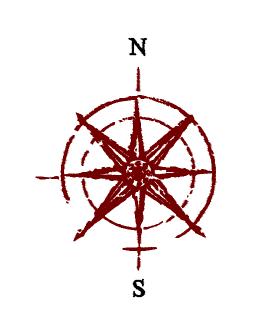
SEWE

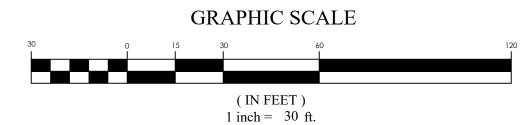
SEWER PLAN

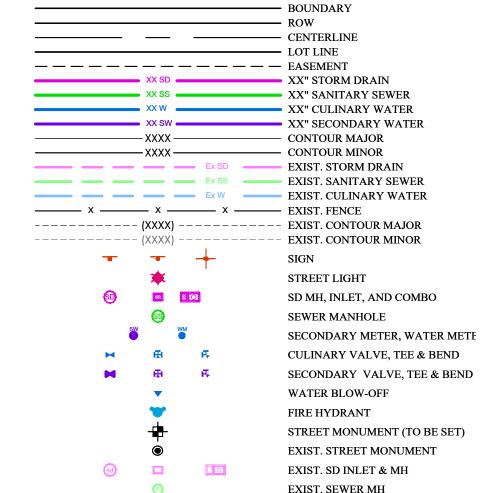
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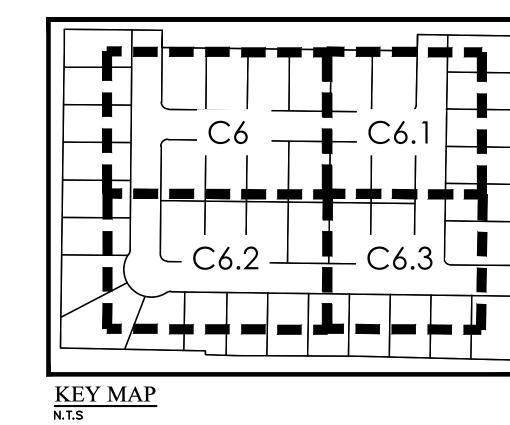
Date: 04/03/24 Job #: 23-0012

Sheet: C6.2



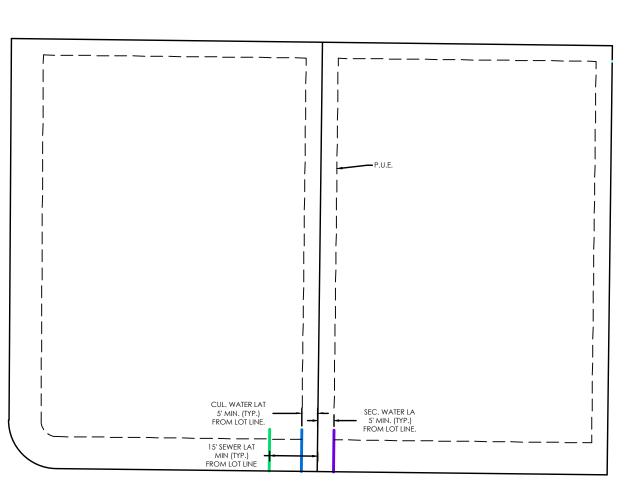






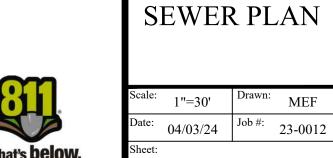
o XXXX.XX

- 1. 10' MIN. HORIZONTAL SEPARATION BETWEEN CULINARY WATER AND SANITARY SEWER AND STORM DRAIN.
- 2. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF UTILITIES AND ROAD IMPROVEMENTS UPON COMPLETION OF CONSTRUCTION OF MATTHEWS MEADOWS PHASE 1.



LATERAL TYPICAL





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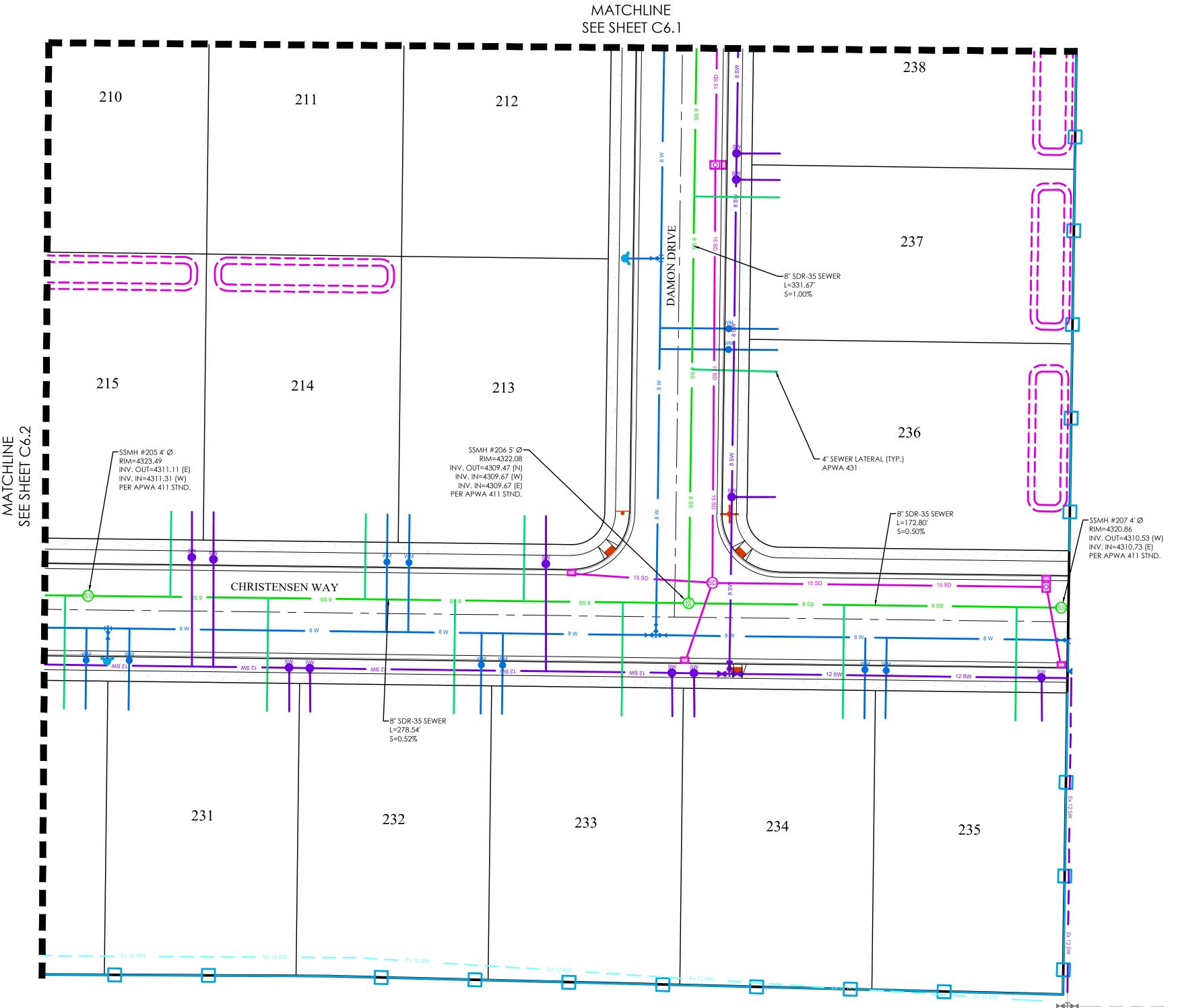
MATTHEWS

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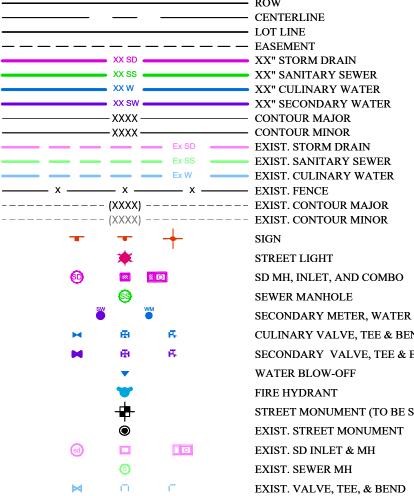
SV

GRANT

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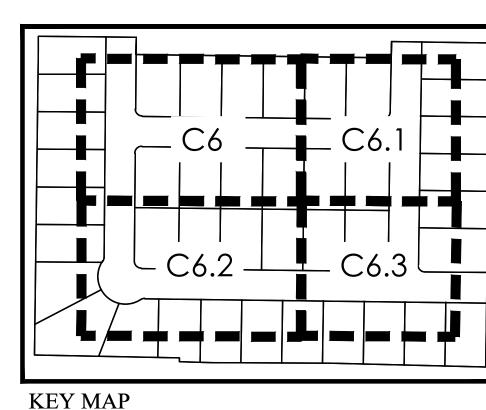


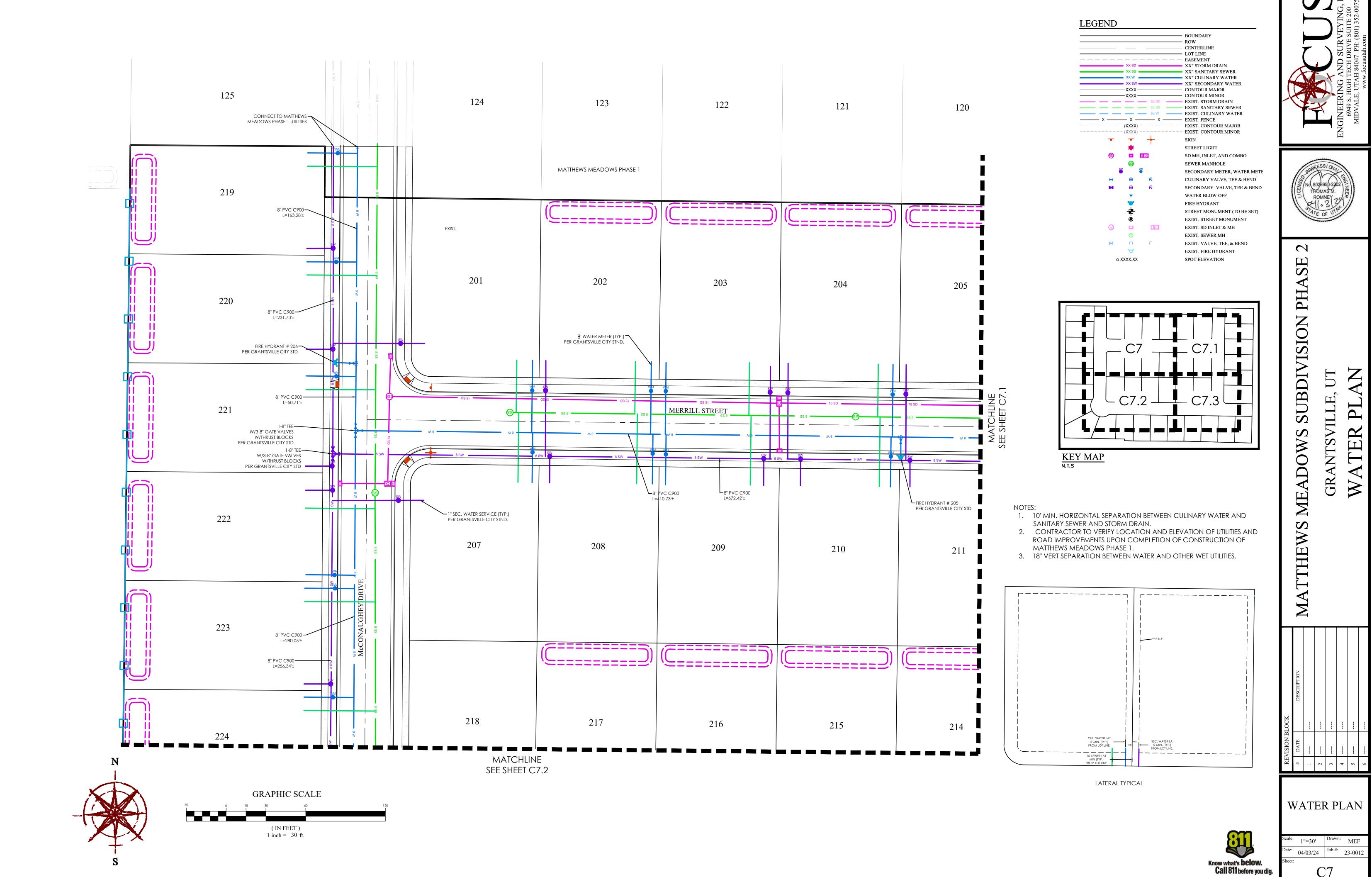


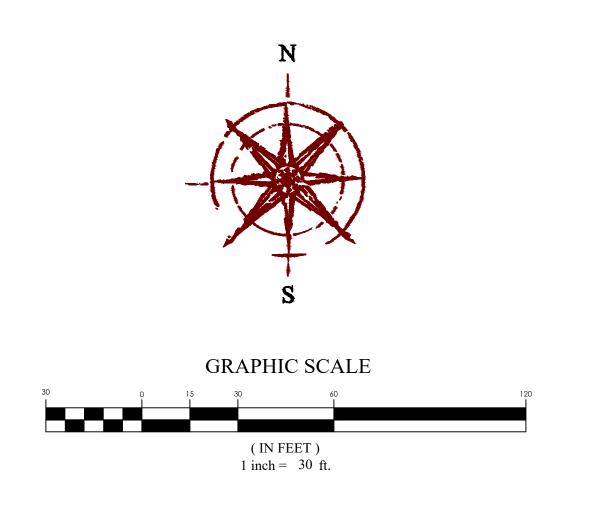


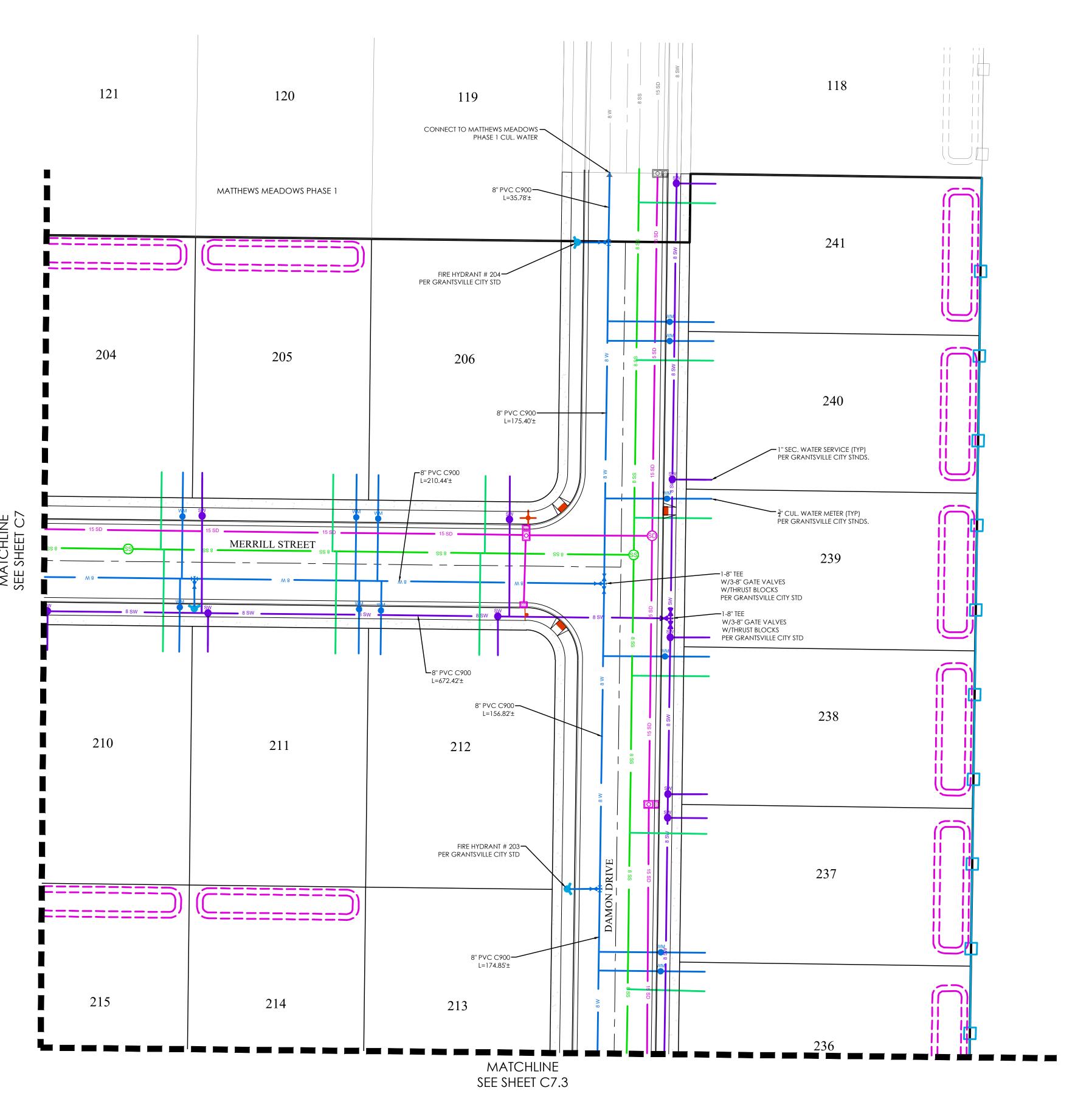
EXIST. FIRE HYDRANT

SPOT ELEVATION



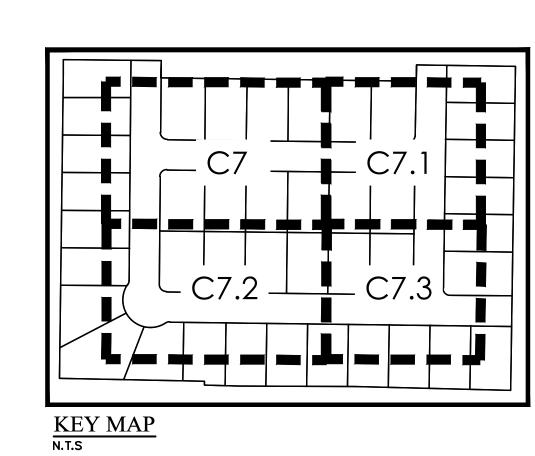








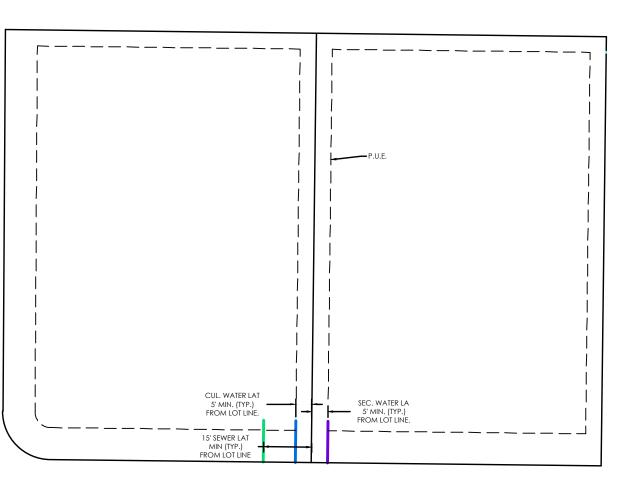
			BOUNDARY
			—— ROW
-			CENTERLINE
			LOT LINE
			— — EASEMENT
	XX SD -		XX" STORM DRAIN
	xx ss -		XX" SANITARY SEWER
	xx w		XX" CULINARY WATER
	XX SW —		XX" SECONDARY WATER
	—— XXXX —		CONTOUR MAJOR
			CONTOUR MINOR
		Ex SD	EXIST. STORM DRAIN
			EXIST. SANITARY SEWER
			EXIST. CULINARY WATER
			EXIST. FENCE
			EXIST. CONTOUR MAJOR
	(XXXX) -		EXIST. CONTOUR MINOR
-	•	+	SIGN
	*		STREET LIGHT
9	%		SD MH, INLET, AND COMBO
	69		SEWER MANHOLE
	SW WI	л)	SECONDARY METER, WATER METE
×	æ	F	CULINARY VALVE, TEE & BEND
H	æ	r.	SECONDARY VALVE, TEE & BEND
	•		WATER BLOW-OFF
			FIRE HYDRANT
	4		STREET MONUMENT (TO BE SET)
	•		EXIST. STREET MONUMENT
Sd			EXIST. SD INLET & MH
	(3)		EXIST. SEWER MH
×	\Box	F	EXIST. VALVE, TEE, & BEND
	4		EXIST. FIRE HYDRANT
	o XXXXXX		SPOT ELEVATION



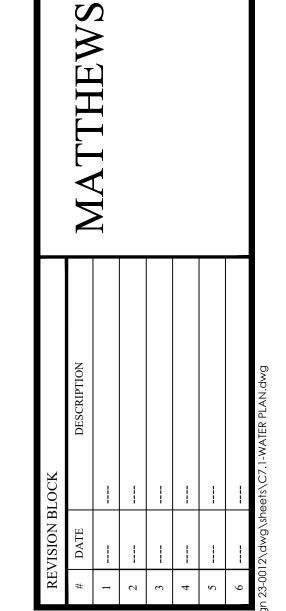
NOTES:

- 1. 10' MIN. HORIZONTAL SEPARATION BETWEEN CULINARY WATER AND SANITARY SEWER AND STORM DRAIN.
- 2. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF UTILITIES AND ROAD IMPROVEMENTS UPON COMPLETION OF CONSTRUCTION OF MATTHEWS MEADOWS PHASE 1.
- MATTHEWS MEADOWS PHASE 1.

 3. 18" VERT SEPARATION BETWEEN WATER AND OTHER WET UTILITIES.



LATERAL TYPICAL



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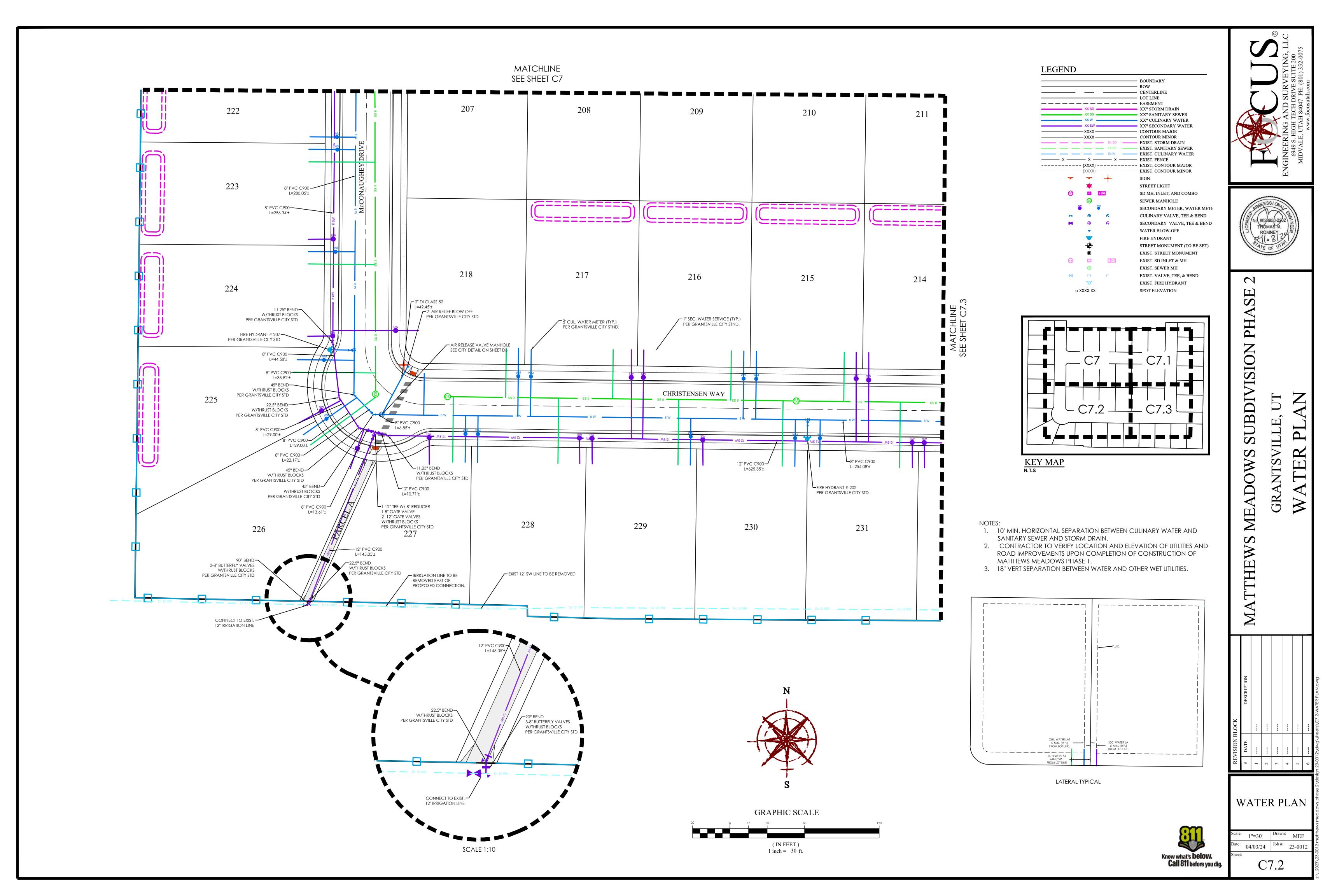
WATER PLAN

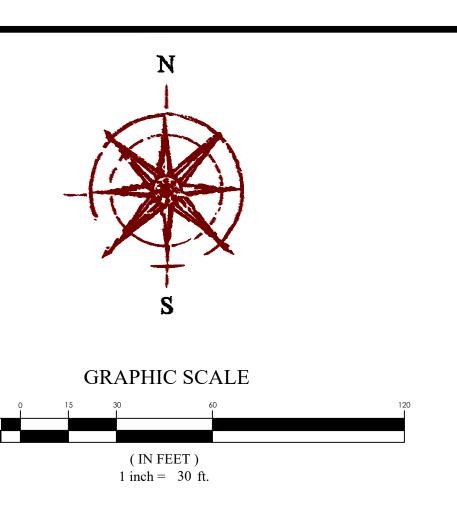
Scale: 1"=30' Drawn: MEF

Date: 04/03/24 Job #: 23-0012

Sheet:







210

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215

211

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214

CHRISTENSEN WAY

L12" PVC C900

L=625.35'±

FIRE HYDRANT # 202
PER GRANTSVILLE CITY STD

EXISTING 12" SW LINE TO BE — REMOVED

231

L=254.08'±

232

238

237

236

L_{12" PVC C900}

235

EXIST 12" IRR LINE

WESTERN PORTION OF TEE TO BE CAPPED WITH REMOVAL OF

L=157.03'±

L=560.27'±

8" PVC C900

L=191.39'±

L_{1-12"X8" TEE} 2-12" GATE VALVES

1-8" GATE VALVE

W/THRUST BLOCKS PER GRANTSVILLE CITY STD

234

MATCHLINE

SEE SHEET C7.1

212

213

8" PVC C900 L=156.82'±

FIRE HYDRANT # 203-

8" PVC C900 L=174.85'±

W/3-8" GATE VALVES

233

W/THRUST BLOCKS PER GRANTSVILLE CITY STD

PER GRANTSVILLE CITY STD

LEGEND

- ROW CENTERLINE — LOT LINE — — — — — — — — EASEMENT XX" STORM DRAIN XX" SANITARY SEWER — XX" CULINARY WATER XX" SECONDARY WATER - CONTOUR MAJOR CONTOUR MINOR EXIST. STORM DRAIN EXIST. SANITARY SEWER EXIST. CULINARY WATER X — X — EXIST. FENCE ----- (XXXX) ----- EXIST. CONTOUR MAJOR ---- (XXXX) -----SIGN

EXIST. CONTOUR MINOR STREET LIGHT SD MH, INLET, AND COMBO SEWER MANHOLE SECONDARY METER, WATER METE CULINARY VALVE, TEE & BEND SECONDARY VALVE, TEE & BEND WATER BLOW-OFF FIRE HYDRANT STREET MONUMENT (TO BE SET) EXIST. STREET MONUMENT EXIST. SD INLET & MH

2

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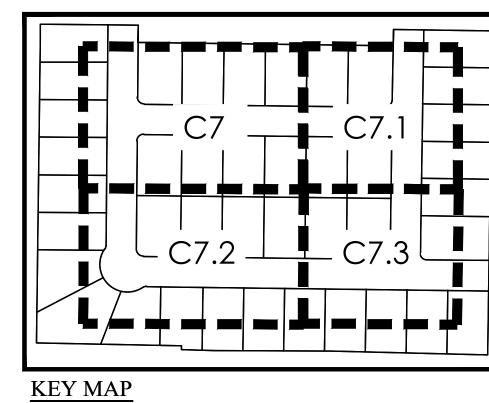
MEADOV

MATTHEWS

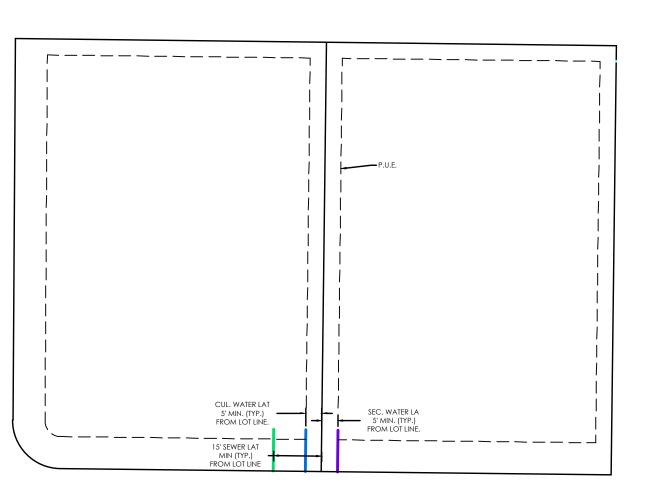
SVILLE,

GRANTS

- BOUNDARY

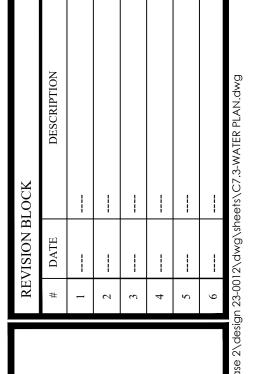


- 1. 10' MIN. HORIZONTAL SEPARATION BETWEEN CULINARY WATER AND
- 2. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF UTILITIES AND ROAD IMPROVEMENTS UPON COMPLETION OF CONSTRUCTION OF MATTHEWS MEADOWS PHASE 1.



LATERAL TYPICAL





WATER PLAN

1"=30' 04/03/24 | Job #: 23-0012

EXIST. SEWER MH EXIST. VALVE, TEE, & BEND EXIST. FIRE HYDRANT o XXXX.XX SPOT ELEVATION KEY MAP

90° BEND W/THRUST BLOCKS AND GATE VALVE PER GRANTSVILLE CITY STD

8" PVC C900 L=14.49'±

___2" TEMP BLOW OFF

EXIST. 12" PVC C900

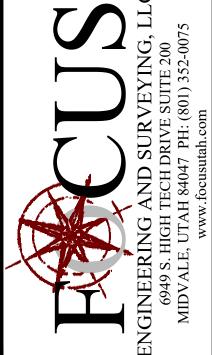
L=145.80'±

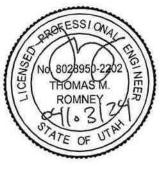
PER GRANTSVILLE CITY STD

W/THRUST BLOCKS
PER GRANTSVILLE CITY STND.

- SANITARY SEWER AND STORM DRAIN.
- 3. 18" VERT SEPARATION BETWEEN WATER AND OTHER WET UTILITIES.



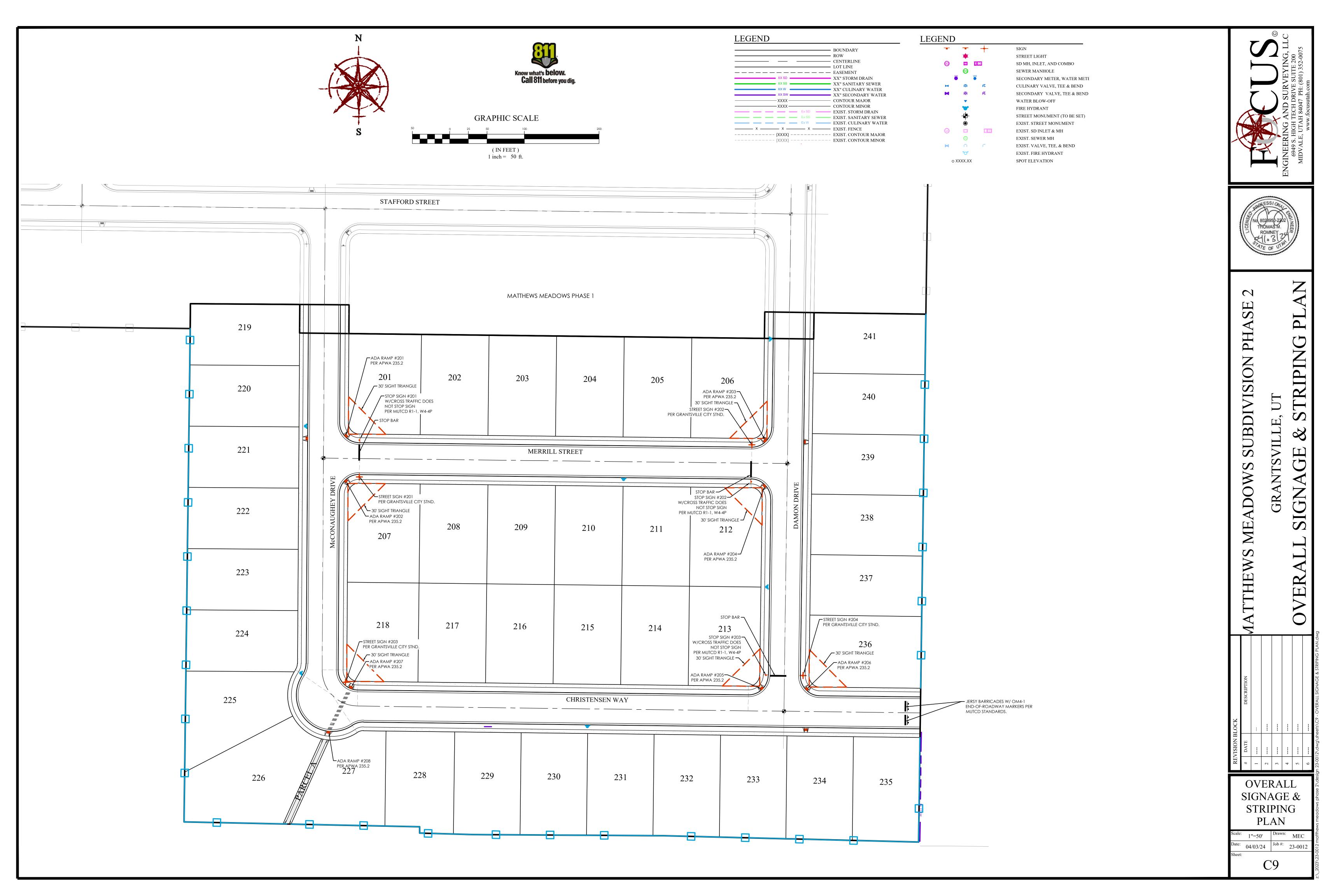


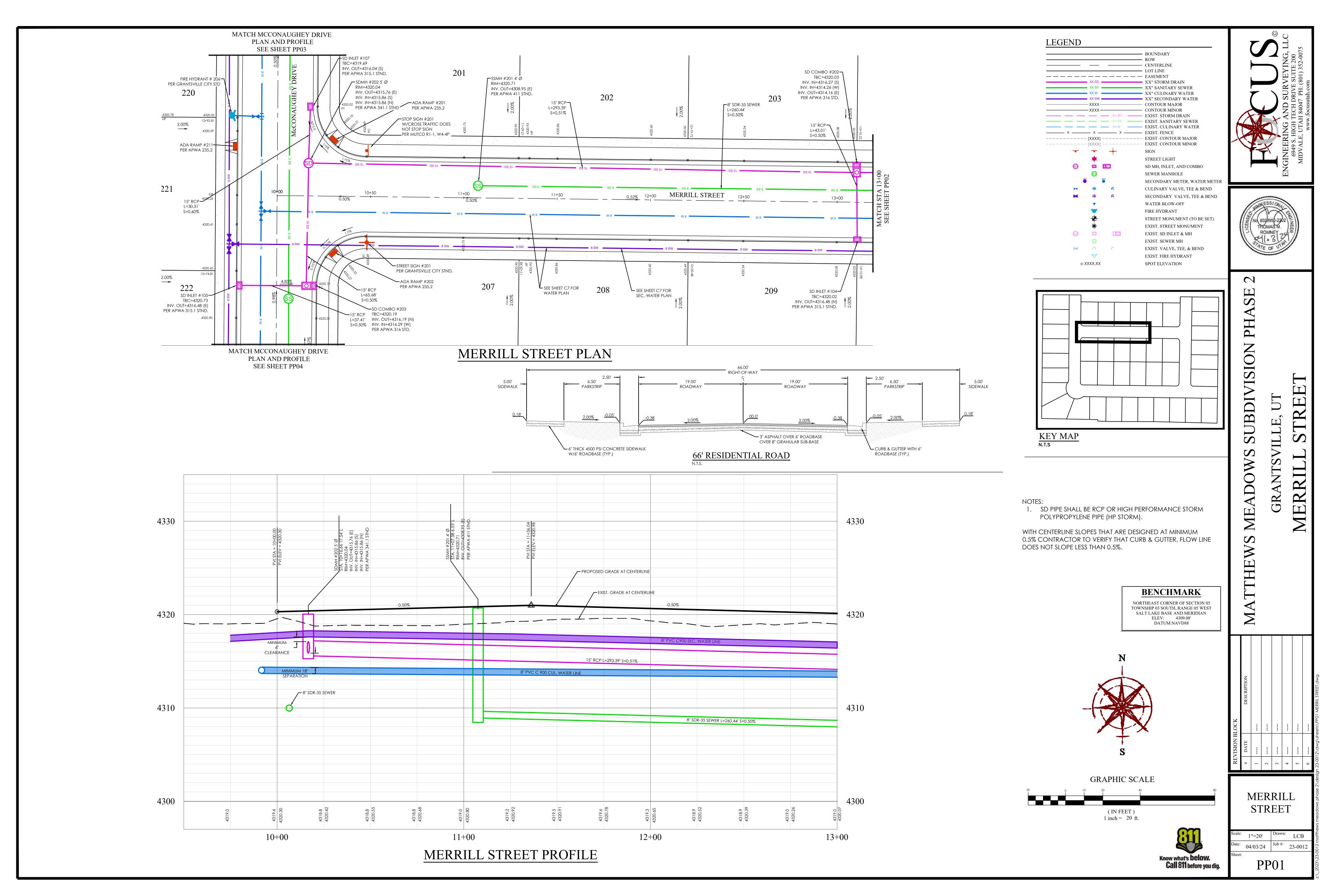


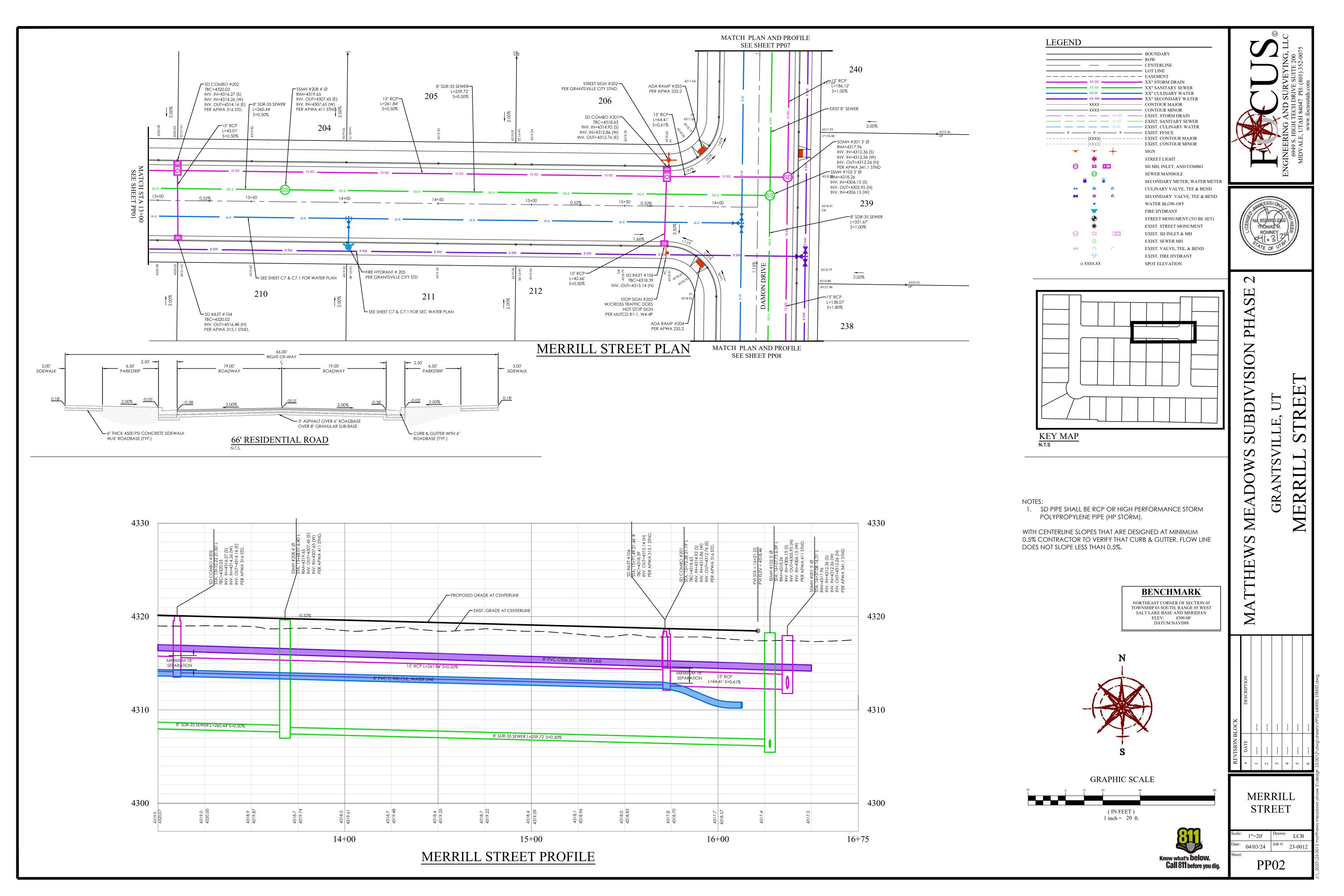
EROSION CONTROL PLAN

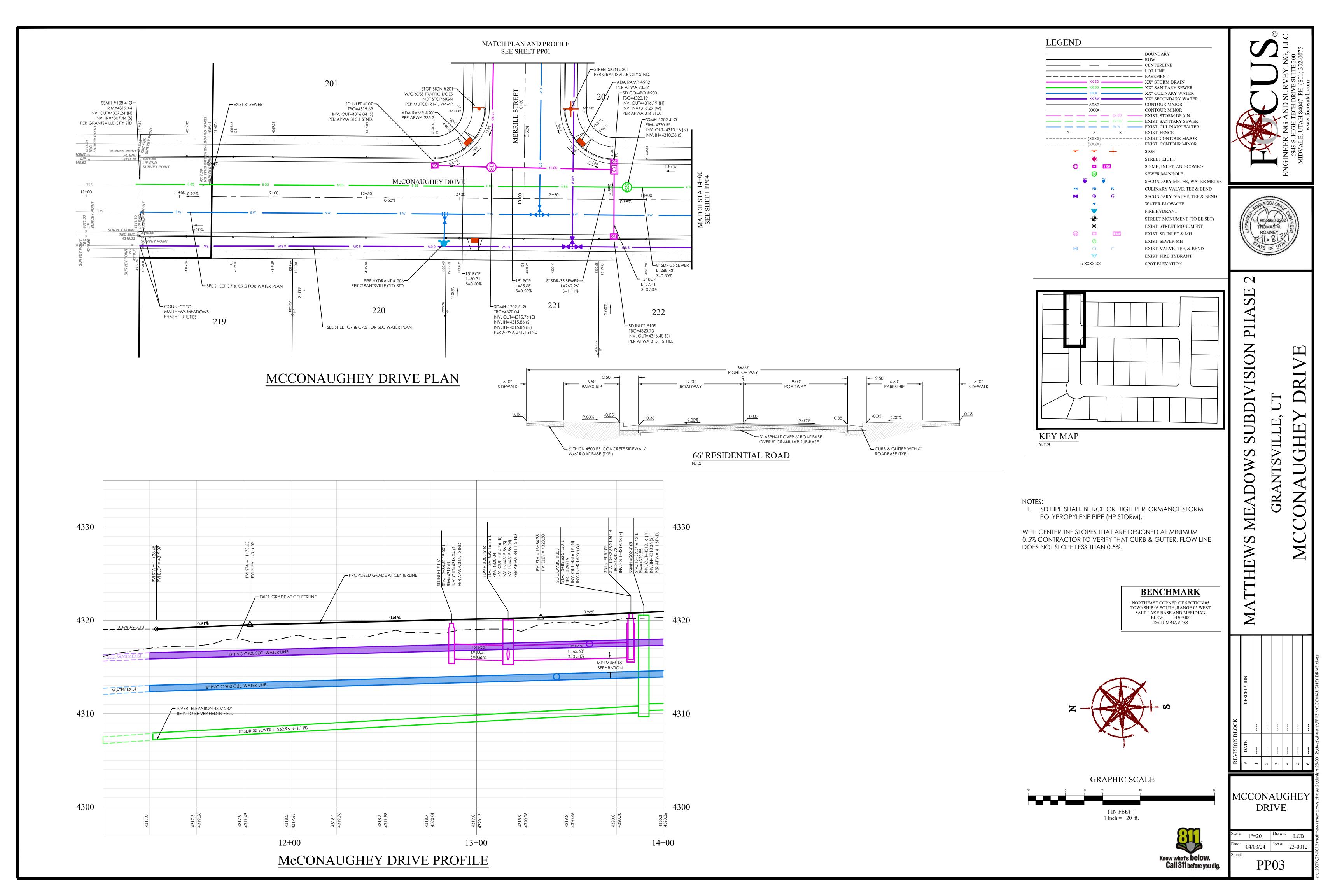
04/03/24 Job #: 23-0012

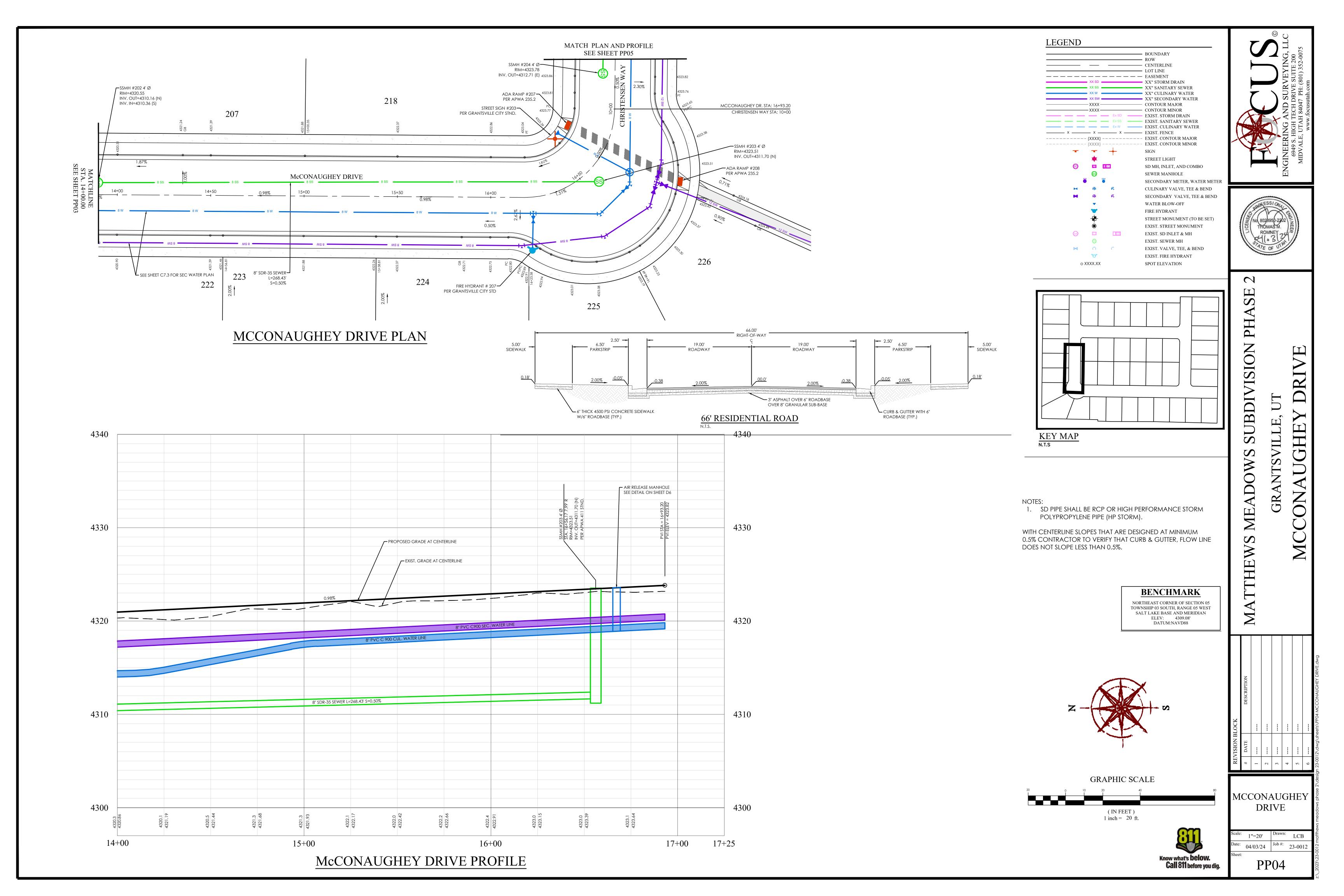
C8

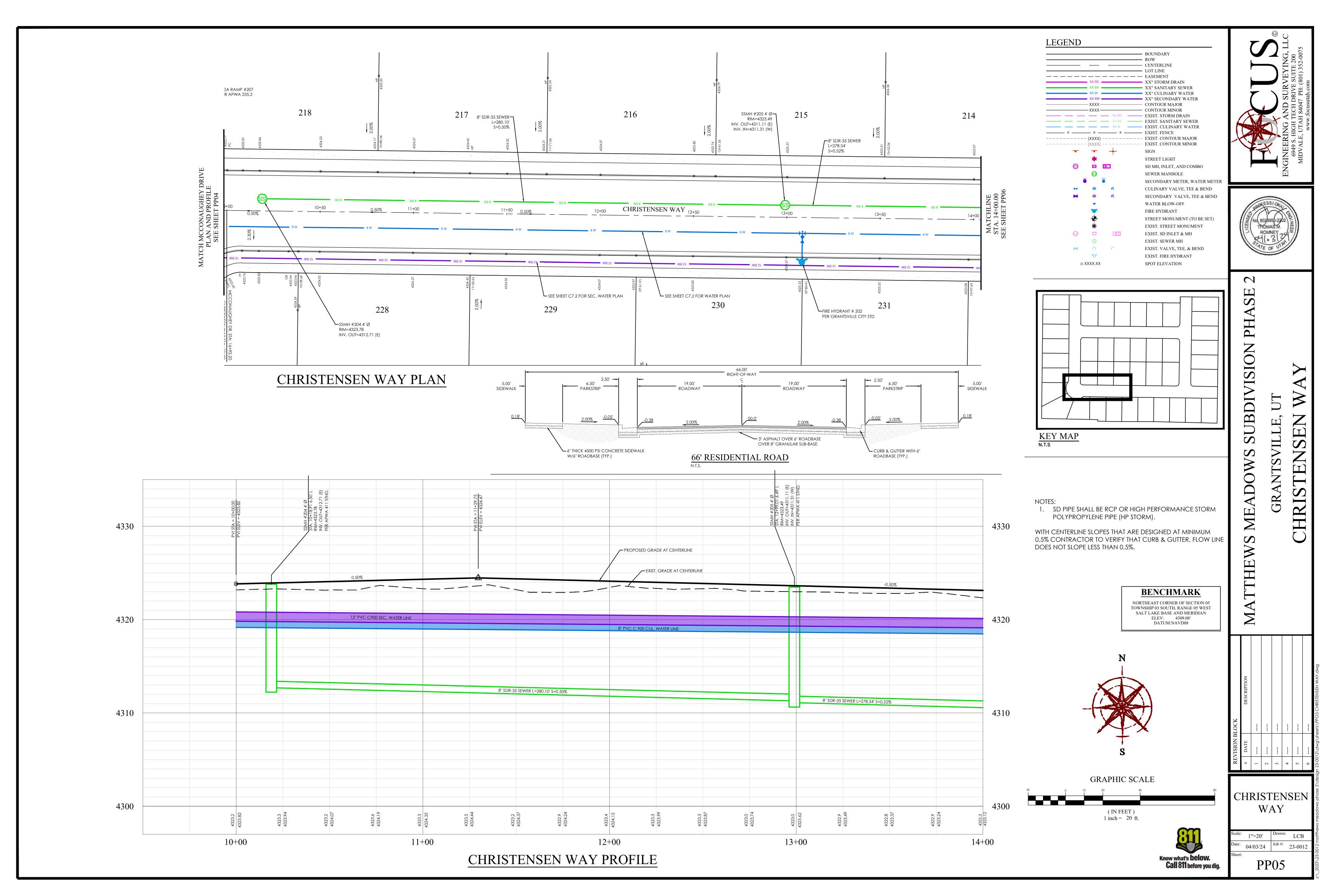


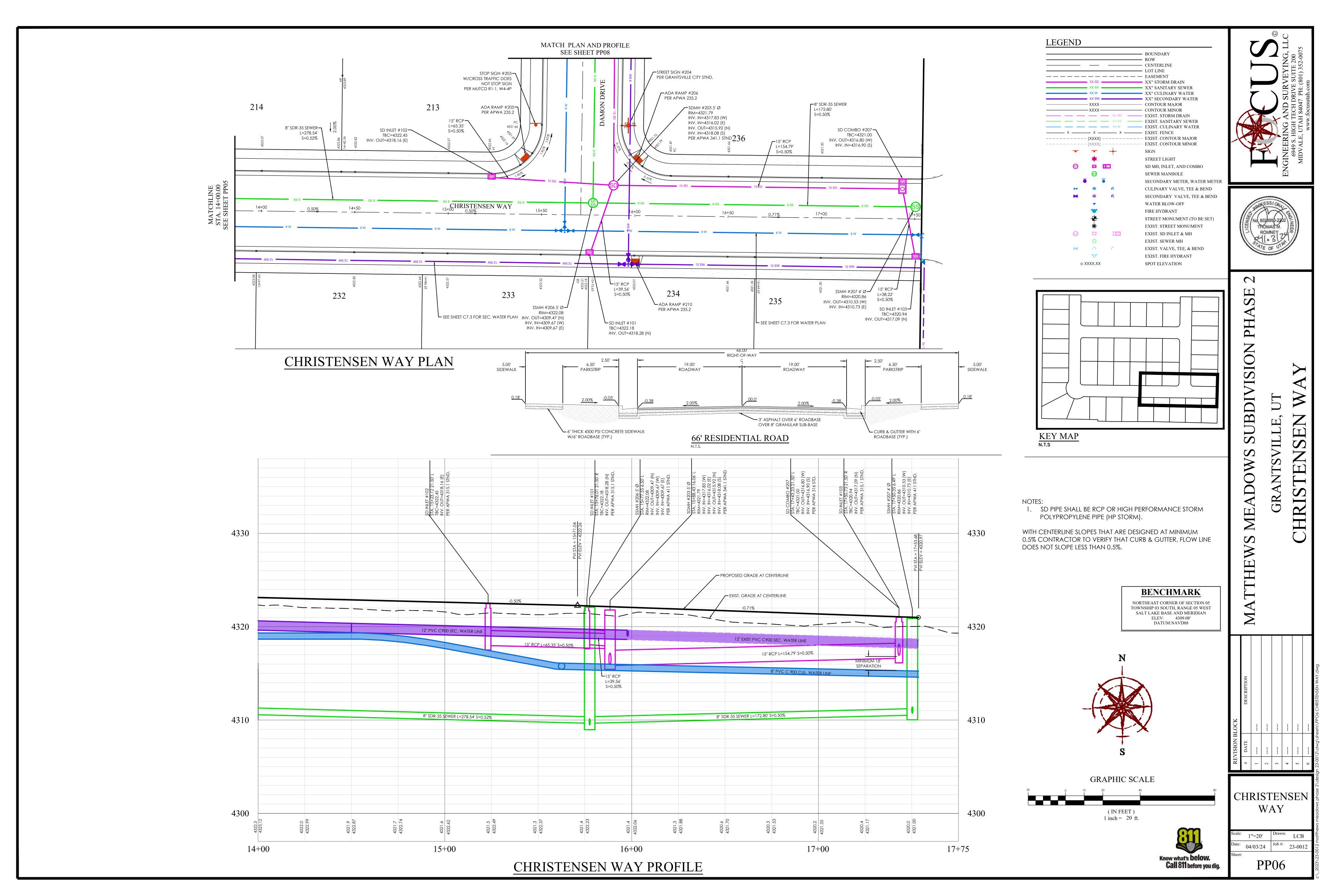


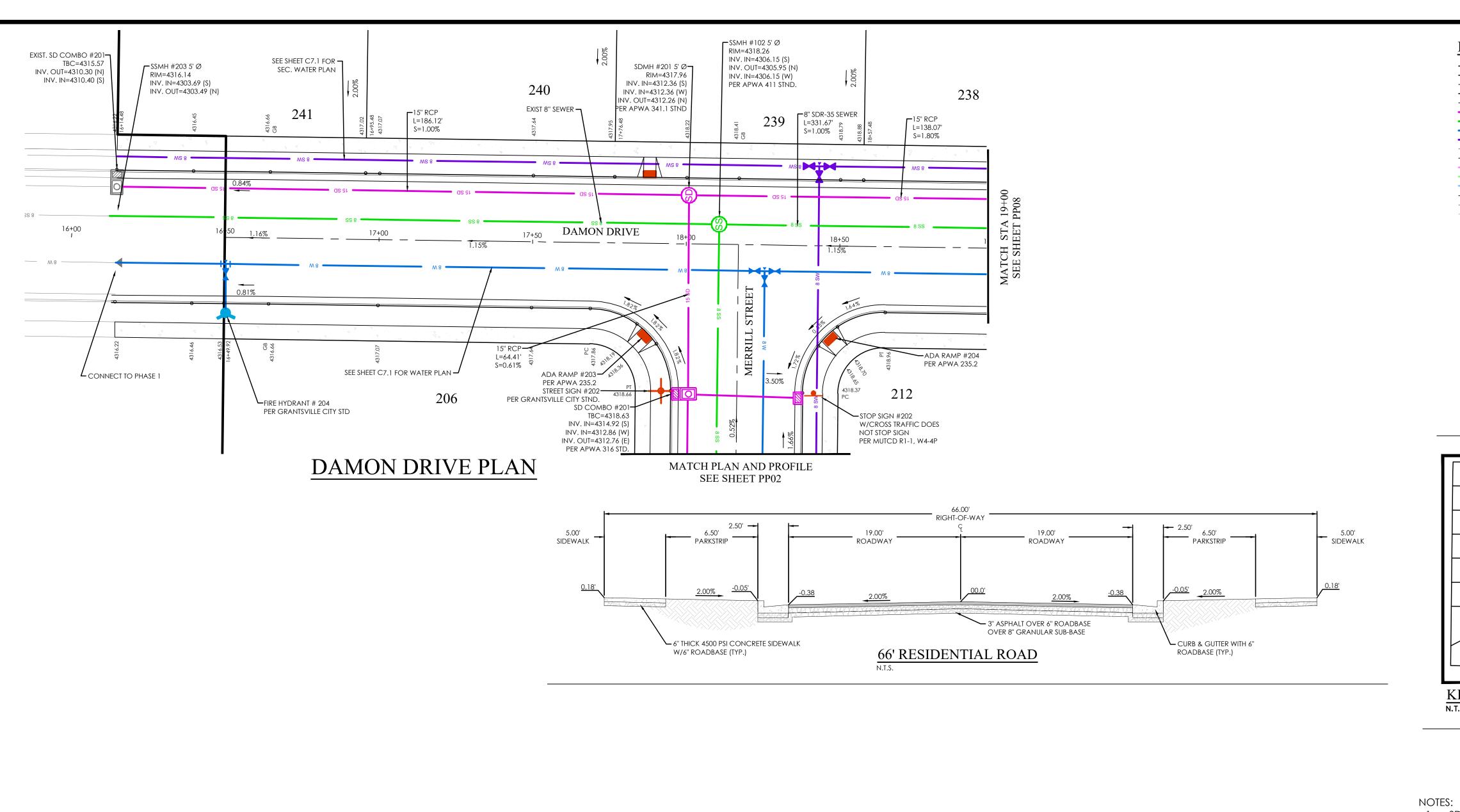


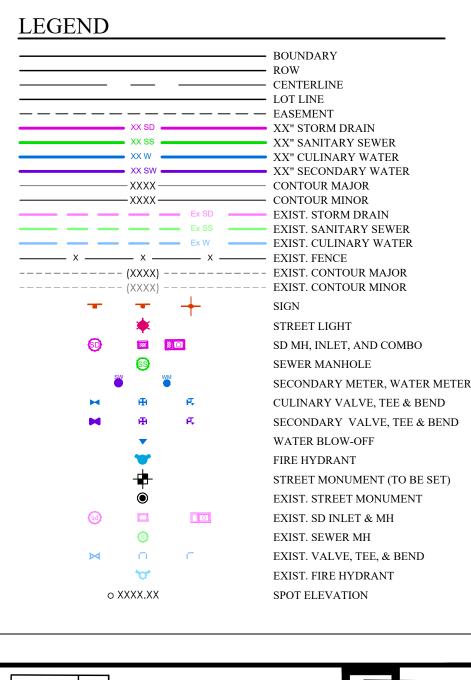


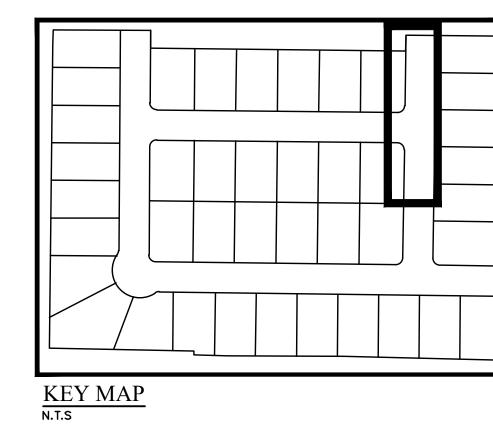










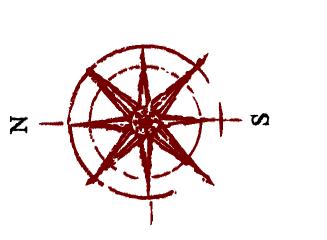


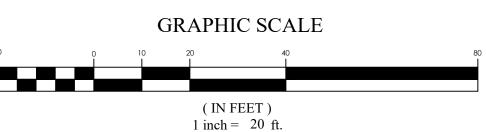
SD PIPE SHALL BE RCP OR HIGH PERFORMANCE STORM POLYPROPYLENE PIPE (HP STORM).

WITH CENTERLINE SLOPES THAT ARE DESIGNED AT MINIMUM 0.5% CONTRACTOR TO VERIFY THAT CURB & GUTTER, FLOW LINE DOES NOT SLOPE LESS THAN 0.5%.

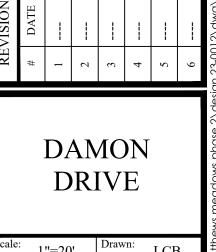
BENCHMARK

NORTHEAST CORNER OF SECTION 05 TOWNSHIP 03 SOUTH, RANGE 05 WEST SALT LAKE BASE AND MERIDIAN ELEV: 4309.08' DATUM:NAVD88









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THEWS

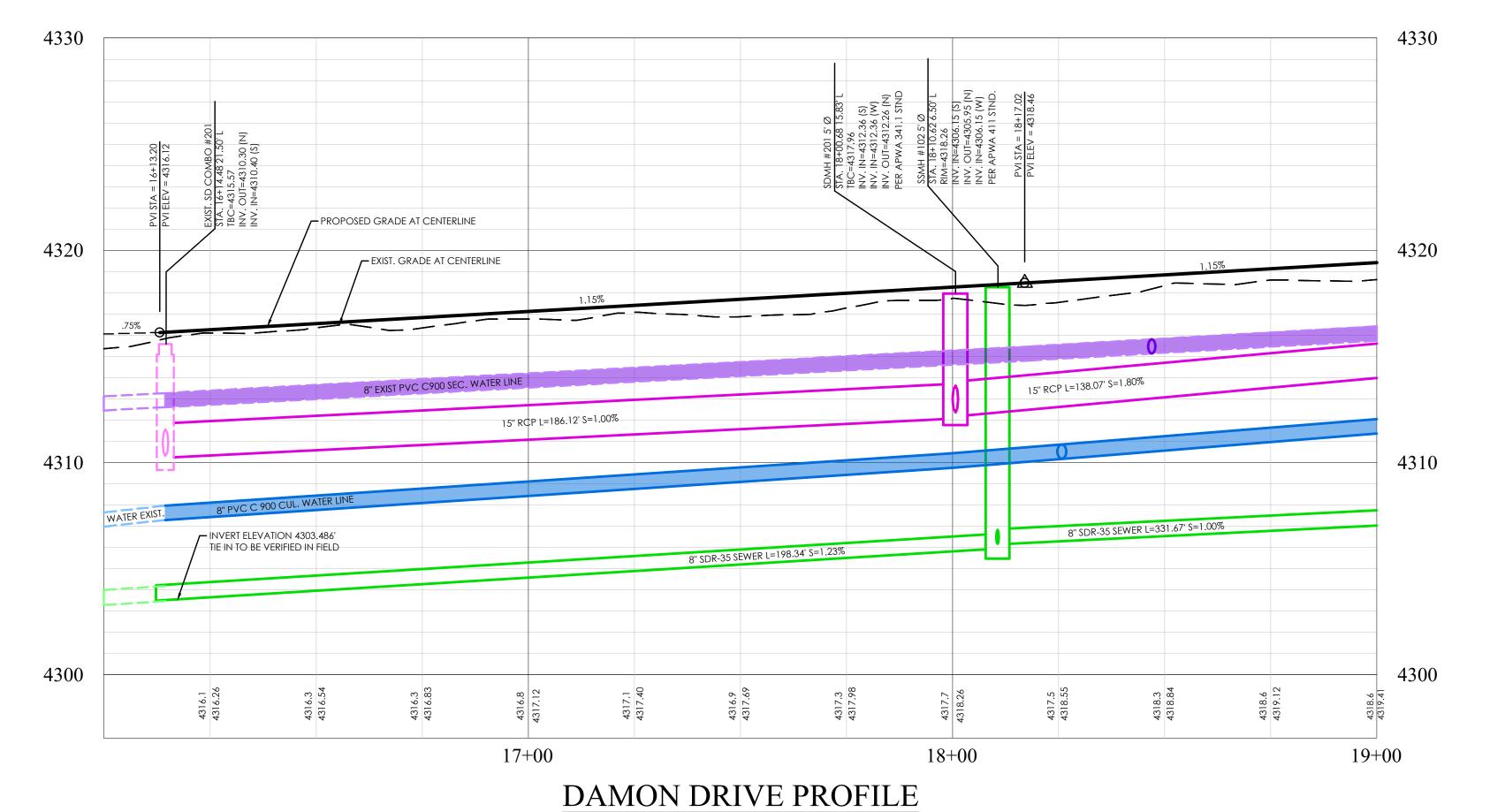
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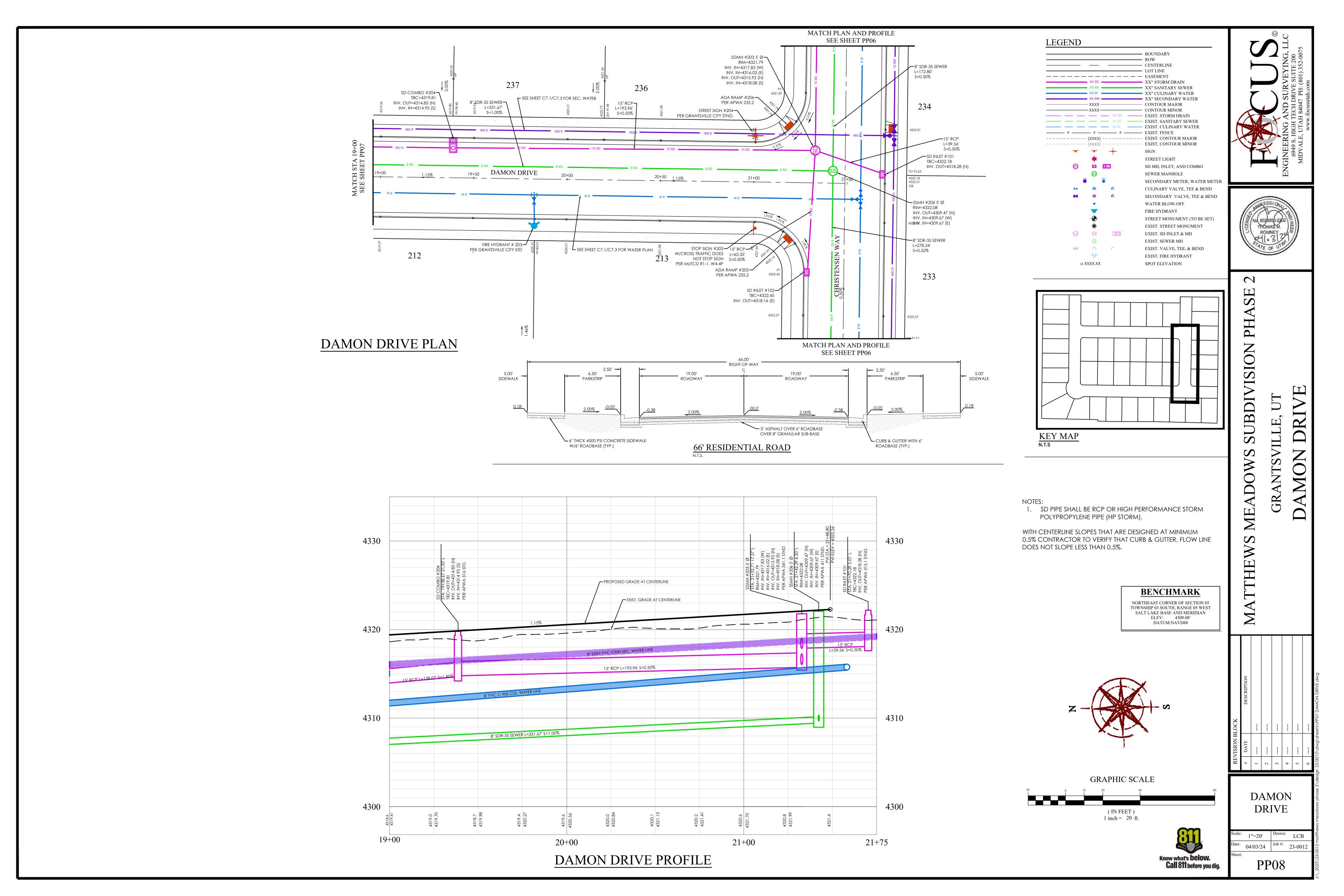
GRANT

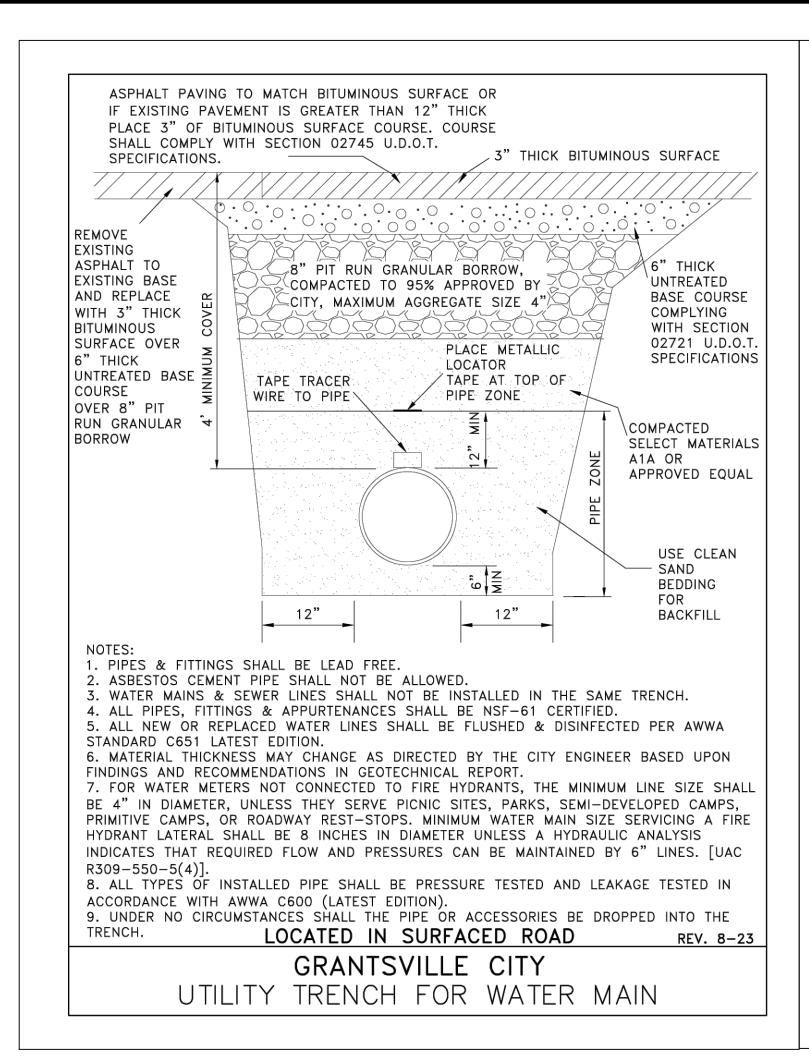
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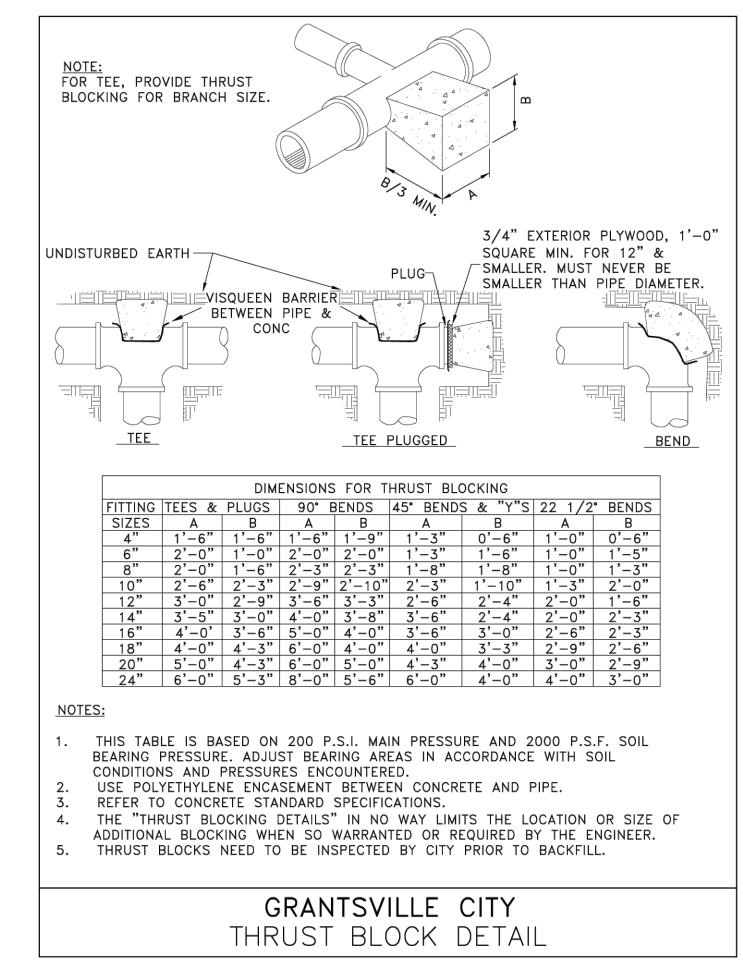
Date: 04/03/24 Job #: 23-0012

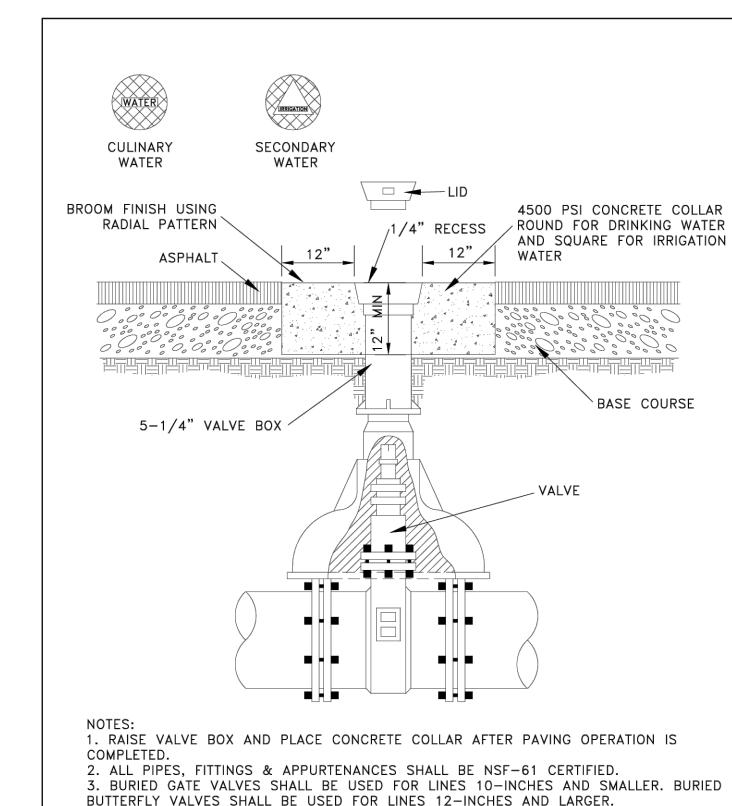
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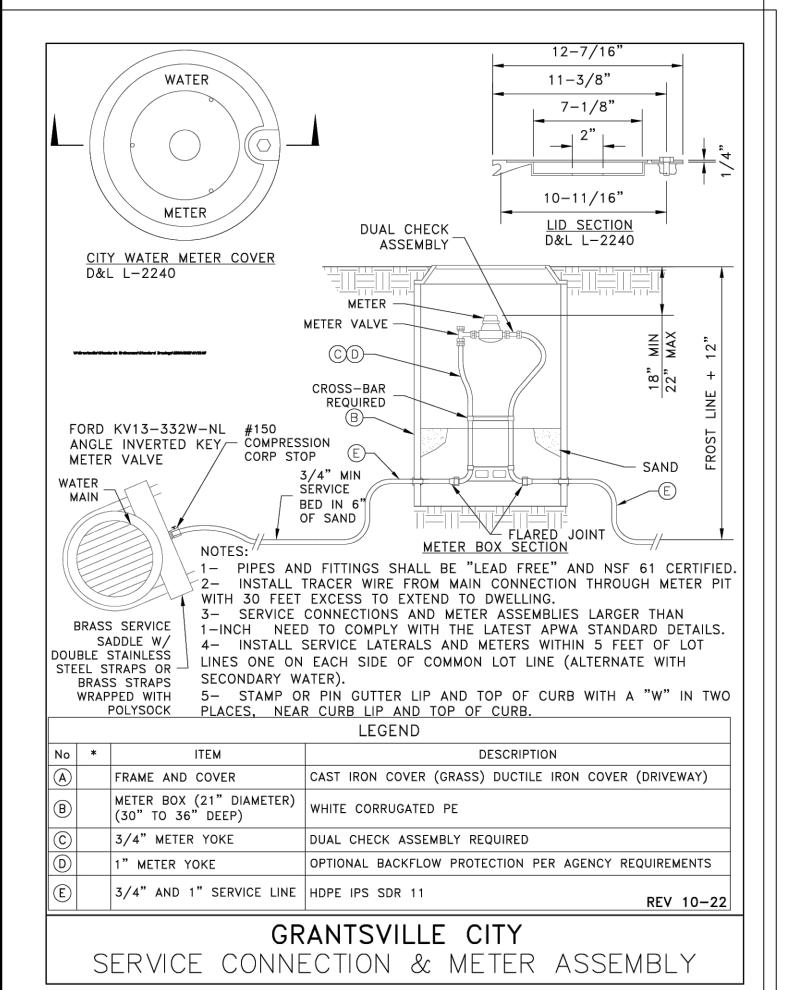




3. BURIED GATE VALVES SHALL BE USED FOR LINES 10-INCHES AND SMALLER. BURIED BUTTERFLY VALVES SHALL BE USED FOR LINES 12-INCHES AND LARGER.
4. ISOLATION VALVES SHALL BE PROVIDED AT NO MORE THAN 500-FOOT INTERVALS IN COMMERCIAL DISTRICTS AND AT NOT MORE THAN ONE BLOCK OR 800-FOOT INTERVALS IN OTHER DISTRICTS, [UAC 309-550-5(8)].

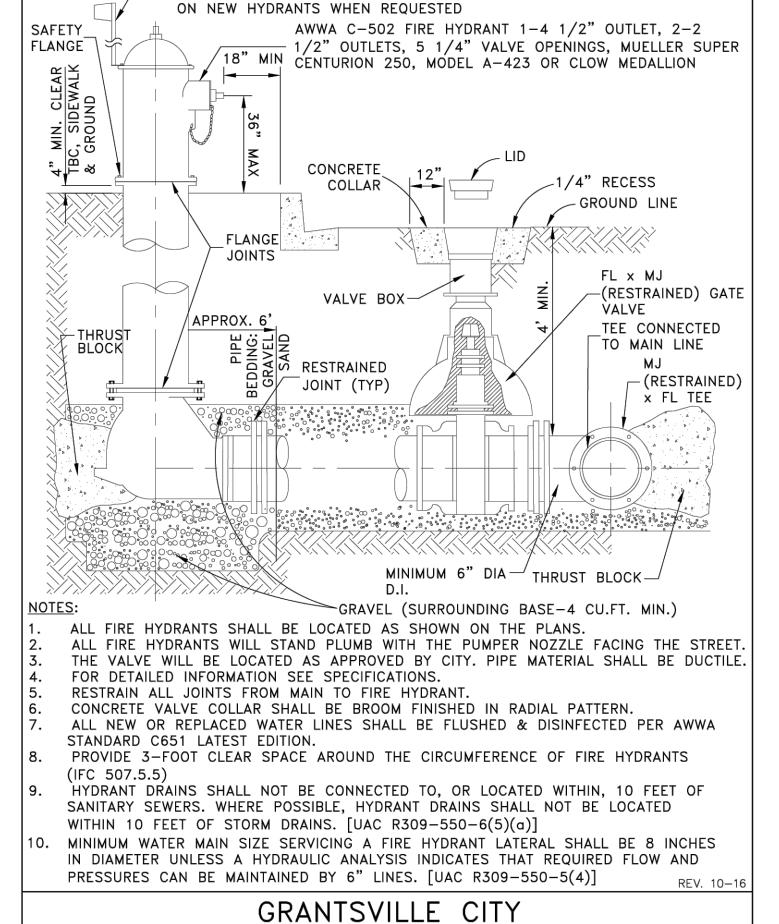
REV. 01-22

GRANTSVILLE CITY VALVE BOX COLLAR DETAIL



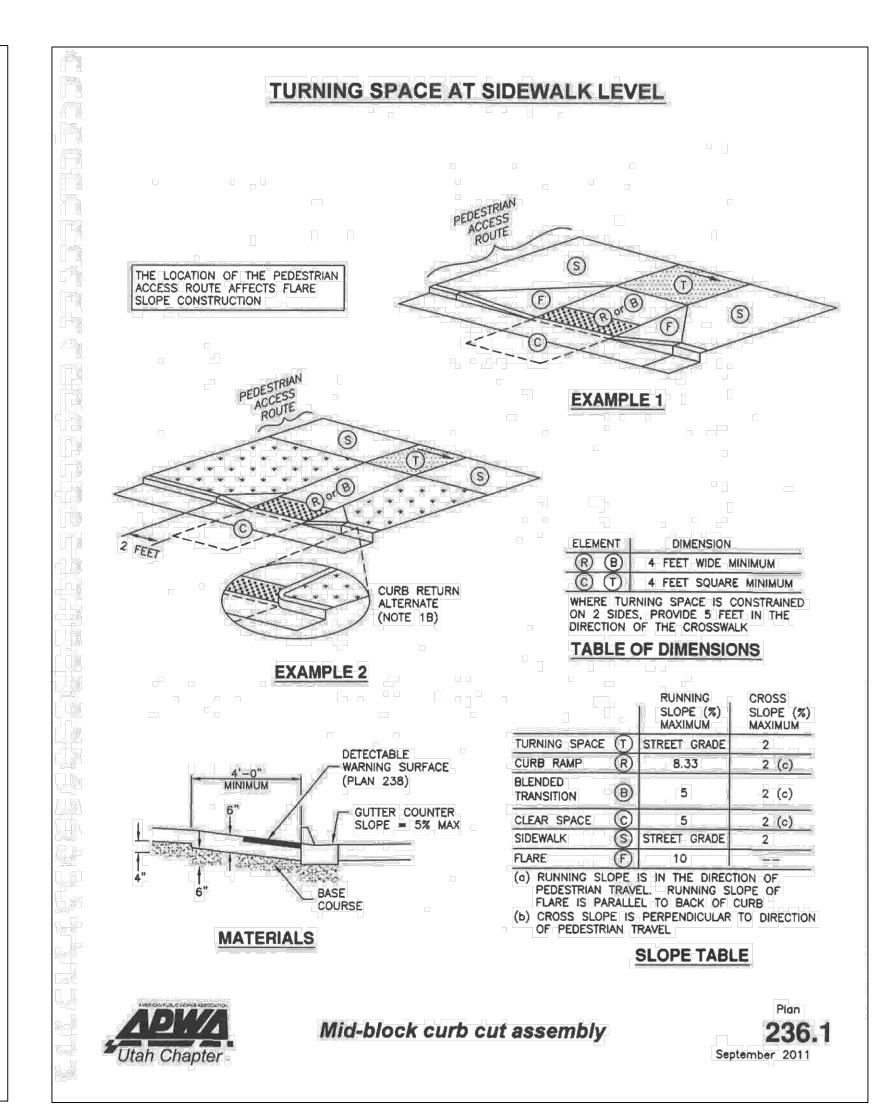
ALL SURFACE CONCRETE TO BE 4500 PSI.

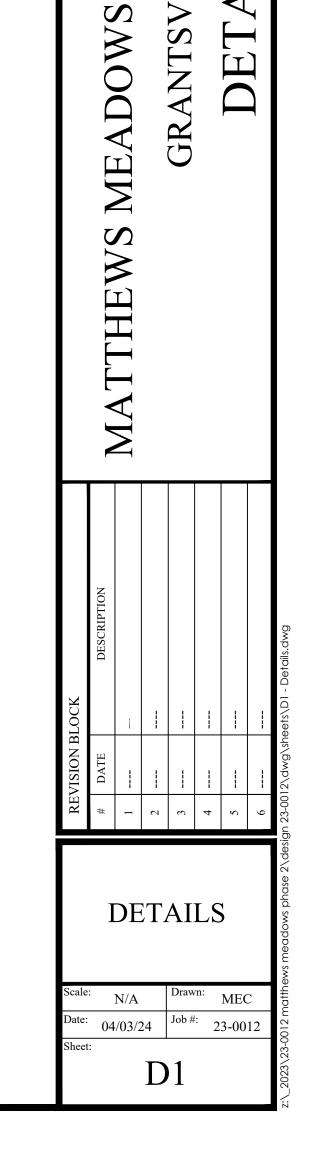
2. SIDEWALK SHALL BE 6" THICK ON 6" OF COMPACTED ROADBASE



FIRE HYDRANT ASSEMBLY

5-FOOT HYDRAFINDER SHALL BE PLACED





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Curb and gutter connection

A. Connect new curb and gutter to existing curb and gutter that has not been placed by

A. Reinforcement: Galvanized or epoxy coated, 60 ksi yield grade steel, ASTM A615

C. Bond Breaker: Paraffin wax, lithium grease, or other semi-solid, inert lubricant.

A. Ensure drill rigs (or jigs) are set at mid-depth of the gutter and horizontal to the

surface. Make hole size large enough to account for dowel bar and adhesive

D. Insert dowels with at least one full turning motion and if necessary, place a grout

. Apply complete coverage of bond-breaker on the protruding end of each dowel.

B. Clean holes and dowel bars of dirt, dust and particles. Ensure coating on bars have

C. Place bonding agent in the back of each hole so adhesive flows out around each bar

fully encasing it. DO NOT apply adhesive to end of the bar and then insert the bar

B. Adhesive: Epoxy adhesive grout, APWA Section 03 61 00.

D. Expansion Cap: Plastic, with bar movement allowance of 1/2-inch.

retention disk on the dowel after insertion to contain adhesive.

F. Install expansion caps on protruding dowel bar ends.

Curb and gutter

1. GENERAL

- A. Variance from specified dimensions and slopes must be acceptable to the ENGINEER. System configuration may be changed at ENGINEER's discretion.
- B. Additional requirements are specified in APWA Section 32 16 13.

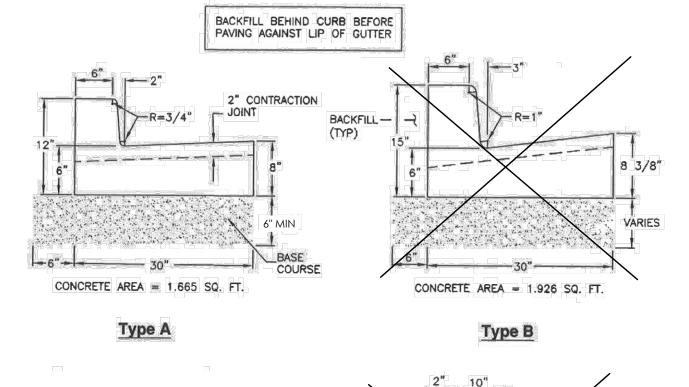
2. PRODUCTS

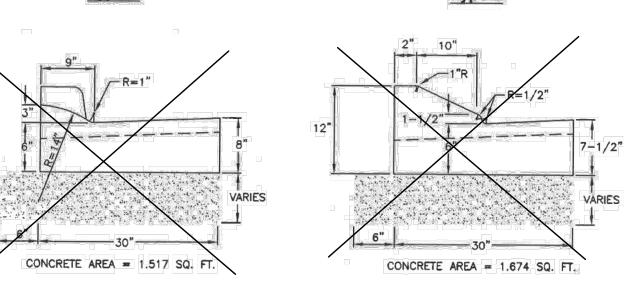
- A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
- B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73. C. Concrete: Class 4500 APWA Section 03 30 04. If necessary, provide concrete that achieves design strength-in less than 7 days. Use caution; however, as concrete
- crazing (spider cracks) may develop if air temperature exceeds 90 degrees F D. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

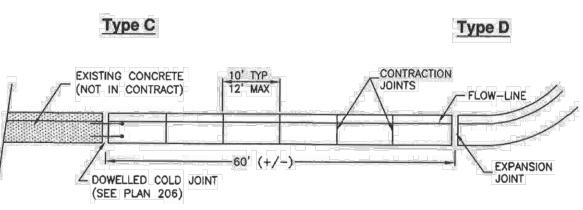
3. EXECUTION

205.1

- A. Base Course Placement: APWA Section 32 05 10. Thickness is 6-inches if flowline grade is 0.5 percent (s=0.005) or greater. If slope is less, provide 8-inches. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26. B. Concrete Placement: APWA Section 03 30 10.
- 1) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface. Install at the start or end of a street intersection curb return. Expansion joints are not required in concrete placement using slip-form construction.
- 2) Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Match joint location in adjacent Portland-cement concrete roadway pavement.
- 3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent. C. Protection and Repair: Protect concrete from deicing chemicals during cure. Repair construction that does not drain. If necessary, fill flow-line with water to verify.







JOINT DETAIL



205.1 December 2008

1. ALL SURFACE CONCRETE TO BE 4500 PSI.

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(R) (B) 4 FEET WIDE MINIMUM C T 4 FEET SQUARE MINIMUM WHERE TURNING SPACE IS CONSTRAINED ON 2 SIDES, PROVIDE 5 FEET IN THE DIRECTION OF THE CROSSWALK TABLE OF DIMENSIONS CROSS SLOPE (%) SLOPE (%) MAXIMUM 1 2 (c) 2 (c)

DETAILS

N/A Job #: 23-0012 04/03/24

Corner curb cut assembly

- GENERAL A. Where existing elements or spaces are altered to receive an assembly; slopes and dimensions shall comply with slopes and dimensions shown on the drawing, or to the maximum extent feasible permitted by the ENGINEER. Final configuration of the assembly may be different than shown. Where physical constraints (e.g. utility covers, poles, vaults, etc.) prevent compliance, a single diagonal curb cut assembly may serve both pedestrian street crossings.
 - B. Installation of flares or curb returns is ENGINEER's choice. C. Definitions and supplemental requirements are specified in APWA Section 32 16 14.
- 2. PRODUCTS
 - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a
 - base course without ENGINEER's permission. B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73. C. Detectable Warning Surface: Paver, ribbed composite panel, or tile. Provide a color
 - ENGINEER to select type and color unless indicated elsewhere. D. Concrete: Class 4500 APWA Section 03 30 04. E. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

that contrasts with adjacent walking surface, either light-on-dark or dark-on-light.

- 3. EXECUTION
- A. Base Course Placement: APWA Section 32 05 10. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
- B. Curb Modifications: 1) The sloped surface created to accommodate a flare area shall be perpendicular to
- 2) No grade break shall exist between the flow-line and the foot of the curb ramp or blended transition. Length of the curb modification abutting the curb ramp or transition is 4 feet minimum for each crosswalk served.
- C. Curb Ramp: Length not required to exceed 15 feet. Grade breaks are perpendicular to the direction of ramp run and are not permitted on ramp or turning space surface. Sides are parallel to each other and perpendicular to the ends. At the bottom grade break it may be necessary to install a transition zone, (APWA Plan 238). D. Concrete Placement: APWA Section 03 30 10.
- 1) Maximum length to width ratio for rectangular panel joints is 1.5 to 1. Joint spacing measured in feet not to exceed twice slab thickness measured in inches or a maximum of 15 feet.
- 2) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface. Install contraction joints vertical, 1/8-inch wide, and 1/4 of the depth of the
- 3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
- E. Clear Space: No trip hazards in the clear space.

206 June 2009

RETENTION -No. 5, GALVANIZED BLOW HOLE CLEAN AND APPLY BONDING AGENT TO OR EPOXY COATED SMOOTH STEEL DOWEL END OF HOLE BEFORE INSERTING DOWEL BAR BOND-BREAKER TO PROTRUDING BAR

Curb and gutter connection

1. GENERAL

2. PRODUCTS

3. EXECUTION

CONTRACTOR.

into the hole.

235.1

PEDESTRIAN ACCESS 5

- ALTERNATE

(NOTE 1B)

TURNING SPACE AT SIDEWALK LEVEL

THE LOCATION OF THE PEDESTRIAN ACCESS ROUTE AFFECTS FLARE SLOPE CONSTRUCTION.

(PLAN 238)

DETECTABLE - WARNING SURFACE (PLAN 238)

GUTTER COUNTER SLOPE = 5% MAX

(c) SLOPE MAY EQUAL STREET OR HIGHWAY GRADE AT CROSSWALKS THAT ARE WITHOUT VEHICULAR YIELD OR STOP CONTROL SLOPE TABLE

OF PEDESTRIAN TRAVE

Corner curb cut assembly

September 2011

2 (c)

ACCESS ROUTE

EXAMPLE A

DIMENSION

RUNNING

MAXIMUM

8.33

STREET GRADE

(a) RUNNING SLOPE IS IN THE DIRECTION OF

PEDESTRIAN TRAVEL. RUNNING SLOPE OF FLARE IS PARALLEL TO BACK OF CURB

(b) CROSS SLOPE IS PERPENDICULAR TO DIRECTION

ELEMENT |

TURNING SPACE

CURB RAMP

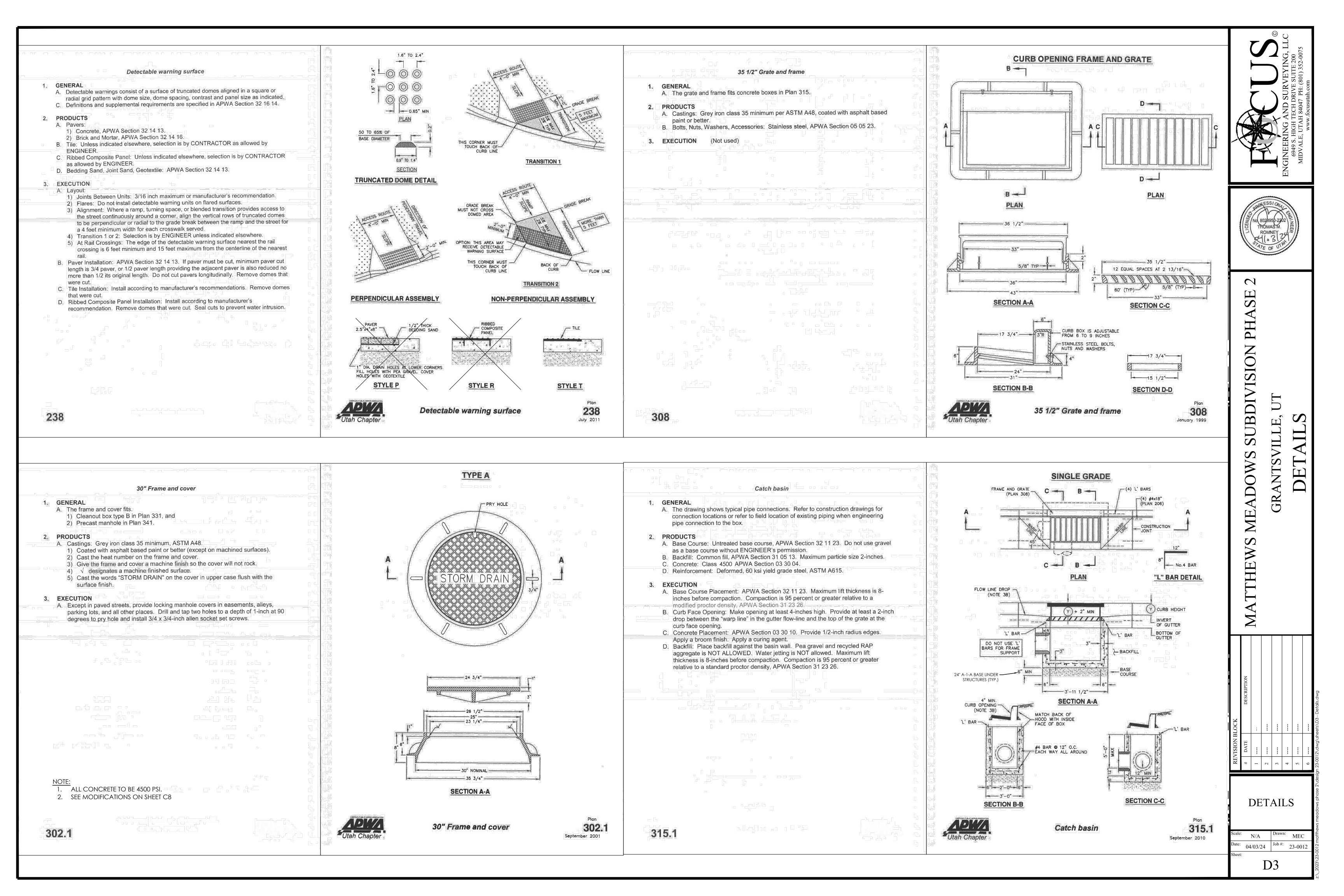
TRANSITION

SIDEWALK

CLEAR SPACE

BLENDED

235.



box or 1 foot above the top of the pipe. Place top rung within 3 feet of bottom of box D. Concrete Placement: APWA Section 03 30 10. Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent. E. Backfill; Provide backfill against all sides of the box. Pea gravel and recycled RAP

aggregate is NOT ALLOWED. Water jetting is NOT allowed. Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a standard proctor density, APWA Section 31 23 26.

1. ALL CONCRETE TO BE 4500 PSI

Cover collar for storm drains

316

A. In a pavement surface, the concrete will support the frame under traffic loadings.

2. PRODUCTS

A. Concrete: Class 4500 APWA Section 03 30 04.

B. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

3. EXECUTION

concrete and existing bituminous concrete surfaces. Clean edges of all dirt, oil, and

B. Concrete Placement: APWA Section 03 30 10. Fill the annular space around the frame and cover casting with concrete. Apply a broom finish. Apply a curing agent.

(PLAN 308) MATCH FACE WITH TOP BACK OF CURB ALIGNMENT BACKFILL No.4 @ 12" O.C. BASE COURSE 24" A-1-A BASE UNDER STRUCTURES (TYP.,) **SECTION A-A**

Combination catch basin and cleanout box

316 March 2011

Precast manhole

GENERAL

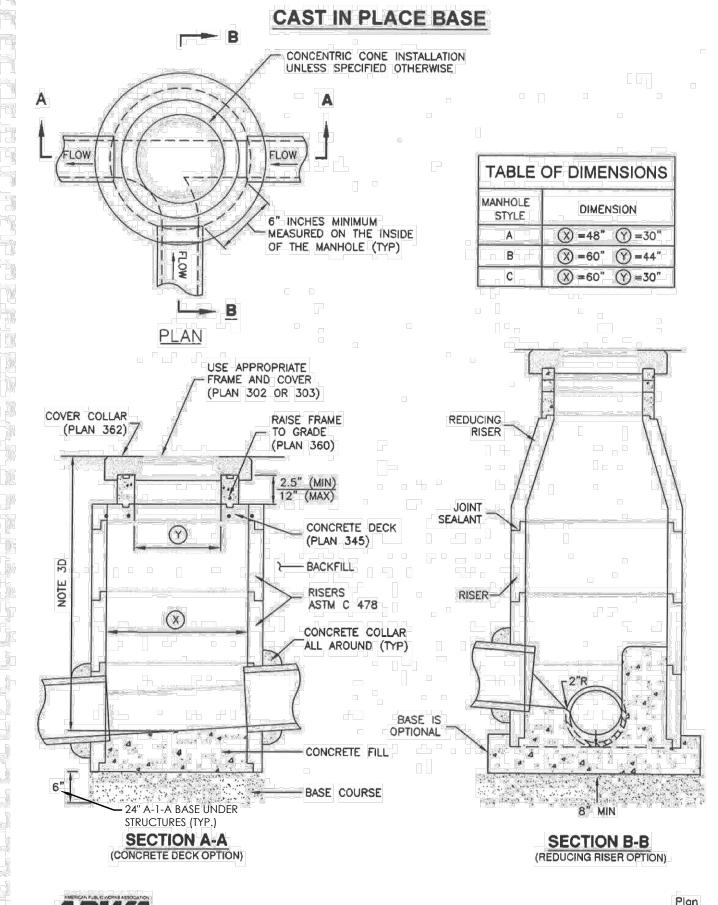
- A. The drawing shows typical pipe connections. Refer to construction drawings for connection locations or refer to field location of existing piping when engineering pipe connection to the manhole.
- 1) Diameter is 4-feet: For pipe under 12" diameter.
- 2) Diameter is 5-feet: For pipe 12" and larger, or when 3 or more drain pipes intersect
- C. Wall thickness:
- 1) Precast reinforced concrete walls 4 3/4" minimum.
- 2) Cast-in-place concrete to be 8 inches thick minimum.

2. PRODUCTS

- A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
- B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
- C. Concrete: Class 4500 APWA Section 03 30 04.
- D. Riser and Reducing Riser: ASTM C478.
- E. Joint Sealant: Rubber based, compressible. F. Grout: 2 parts sand to 1 part cement mortar, ASTM C1329.
- G. Stabilization-Separation Geotextile: Moderate or high at CONTRACTOR's choice, APWA Section 31 05 19,

3. EXECUTION

- A. Foundation Stabilization: Get ENGINEER's permission to use a sewer rock or a sewer rock in a geotextile wrap to stabilize an unstable foundation.
- B. Base Course Placement: APWA Section 32 11 23. Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
- C. Invert cover. During construction, place invert covers over the top of pipe in manholes that currently convey sewerage. See Plan 412.
- D. Concrete Deck or Reducing Riser: When depth of manhole from pipe invert to finish grade exceeds 7 feet, use an ASTM C478 reducing riser.
- E. Pipe Connections: Grout around all pipe openings.
- F. Pipe Seal: Install rubber-based pipe seals on all plastic pipes when connecting plastic
- pipes to manholes. Hold water-stop in place with stainless steel bands. G. Joints: Place flexible sealant in all riser joints. Finish with grout.
- H. Adjustment: If the required manhole adjustment is more than 1'-0", remove the cone and grade rings and adjust the manhole elevation with the appropriate manhole section, the cone section, and the grade rings or plastic form to make frame and lid match finish
- I. Finish: Provide smooth and neat finishes on interior of cones, shafts, and rings. Imperfect moldings or honeycombs will not be accepted.
- J. Backfill: Provide backfill against the manhole shaft. Pea gravel and recycled RAP aggregate is NOT ALLOWED. Water jetting is NOT allowed. Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a standard proctor density, APWA Section 31 23 26.



Precast manhole

THIS PLAN SHOWS VARIOUS SLOPES RECOMMENDED FOR VARIOUS TYPES OF SLOPE STABILITY PROBLEMS. THE VERTICAL TEXT INDICATES VARIOUS MATERIALS THAT MAY BE ENCOUNTERED. THE SERVICES OF A PROFESSIONAL SOILS ENGINEER SHOULD BE USED TO VERIFY SLOPE STABILITY.

341.1 November 2010

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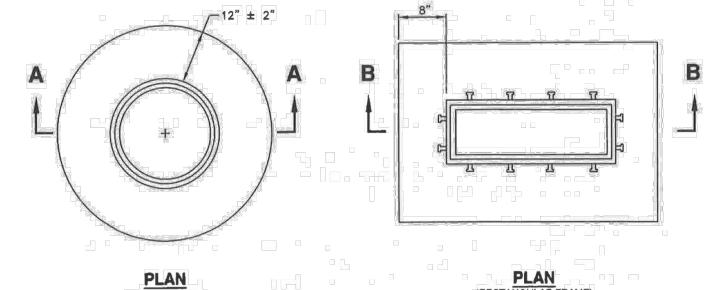
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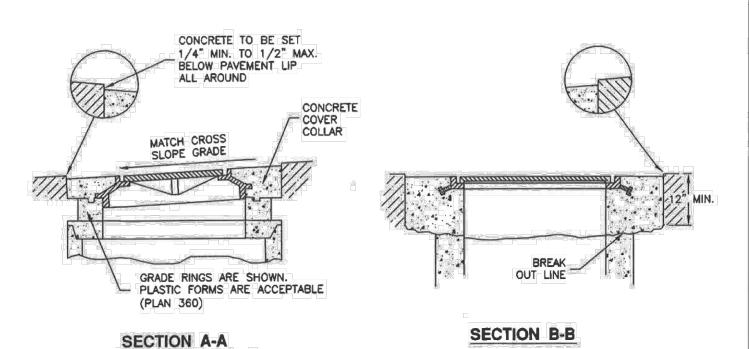
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A. Pavement Preparation: Provide a neat vertical and concentric joint between





Cover collar for storm drains

362 December 2010

Trench backfill

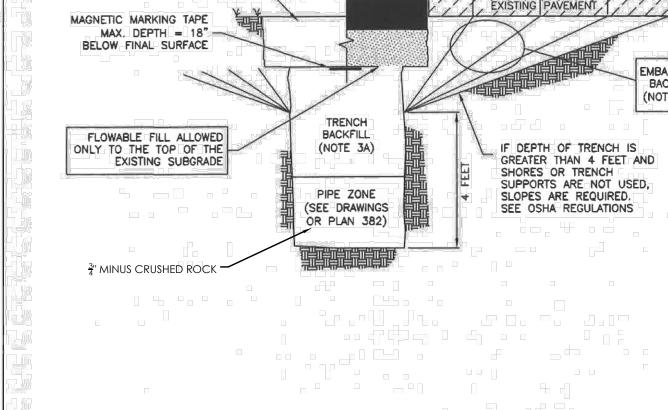
A. The drawing applies to backfilling a trench (and embankment) above the pipe zone

PRODUCTS

A. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 3-inches. B. Flowable Fill: APWA Section 31 05 15. Target is 60 psi in 28 days with 90 psi maximum in 28 days, It must flow easily requiring no vibration for consolidation.

3. EXECUTION

- A. Trench Backfill Above the Pipe Zone: Follow requirement indicated in APWA Section 33 05 20 and the following provisions. See Standard Plan 382 for backfilling
- 1) DO NOT USE sewer rock, pea gravel, or recycled RAP aggregate as trench
- 2) Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent-or-greater relative to a standard proctor-density, APWA Section 31-23
 - 3) Water jetting is NOT allowed.
 - B. Flowable Fill: If controlled low strength material is placed in the trench. Cure the material before placing surface restorations.
 - C. Embankment Backfill: When trench sides are sloped proceed as follows.
 - 1) Maximum lift thickness is 8-inches before compaction. 2) Compact per APWA Section 31 23 26 to 95 percent or greater relative to a
 - standard proctor density. 3) Submission of quality control compaction test result data may be requested by
 - ENGINEER at any time. Provide results of tests immediately upon request. D. Surface Restoration:
 - 1) Landscaped Surface: Follow APWA Section 32 92 00 (turf or grass) or APWA Section 32 93 13 (ground cover) requirements. Rake to match existing grade. Replace vegetation to match pre-construction conditions.
 - 2) Paved Surface: Follow APWA Section 33 05 25 (bituminous pavement surfacing), or APWA Section 33 05 25 (concrete pavement surfacing). Do not install surfacing until compaction density is acceptable to ENGINEER.



PAVEMENT RESTORATION

(PLAN 255 OR 256)



SEWER AND STORM DRAIN Trench backfill

381 July 2016

EMBANKMENT

BACKFILL

(NOTE 3C)

DETAILS

N/A Job #: 23-0012 04/03/24

2. PRODUCTS A. Castings: Grey iron class 35 minimum, ASTM A48, coated with asphalt based paint or better (except on machined surfaces).

1) Cast the heat number on the frame and cover. 2) Give the frame and cover a machine finish so the cover will not rock.

√ designates machined surface.

4) Cast the words "SEWER" on the cover in upper case flush with the surface

3. EXECUTION

GENERAL

A Except in paved streets, provide locking manhole covers in easements, alleys, parking lots, and all other places. Drill and tap two holes to a depth of 1-inch at 90 degrees to pry hole and install 3/4 x 3/4-inch allen socket set screws.

-3/4" D HOLE (TYP) SECTION A-A

30" Frame and cover



Sanitary sewer manhole

1 GENERAL

A. The drawing shows typical pipe connections. Refer to construction drawings for connection locations or refer to field location of existing piping when engineering pipe connection to the manhole.

B. Manhole size.

1) Diameter is 4 feet: For sewers under 12" diameter. 2) Diameter is 5 feet. For sewers 12" and larger, or when 3 or more pipes intersect the manhole.

2. PRODUCTS

A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.

B. Backfill: Common fill APWA Section 31 05 13. Maximum particle size 2-inches. C. Concrete: Class 4500 APWA Section 03 30 04.

D. Riser and Reducing Riser: ASTM C478. E. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615.

F. Grout: 2 parts sand to 1 part cement mortar, ASTM C1329.

G. Stabilization-Separation Geotextile: Moderate or high at CONTRACTOR's choice, APWA Section 31 05 19.

3. EXECUTION A. Foundation Stabilization: Get ENGINEER's permission to use a sewer rock or a granular backfill borrow in a geotextile wrap to stabilize an unstable foundation.

B. Base Course Placement: APWA Section 32 11 23. Maximum lift thickness is 8inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.

C. Invert Cover. During construction, place invert covers over the top of pipe in manholes that currently convey sewerage. See Plan 412.

D. Pipe Connections: Grout around all pipe openings.

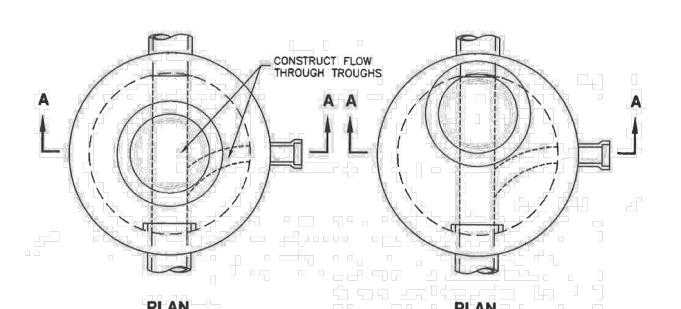
E. Pipe Seal: Install rubber-based pipe seals on all plastic pipes when connecting plastic pipes to manholes. Hold water-stop in place with stainless steel bands.

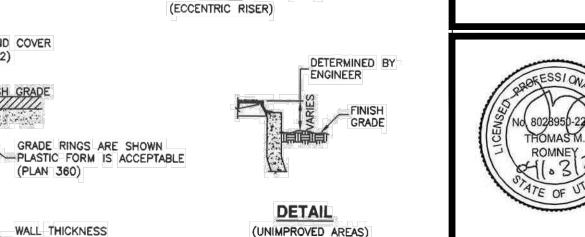
F. Joints: Place flexible gasket-type sealant in all riser joints. Finish with grout. G. Adjustment: If the required manhole adjustment is more than 1'-0", remove the cone and grade rings and adjust the manhole elevation with the appropriate manhole section, the cone section, and the grade rings or plastic form to make frame and lid match finish grade.

H Finish: Provide smooth and neat finishes on interior of cones, shafts, and rings. Imperfect moldings or honeycombs will not be accepted.

Backfill: Provide backfill against the manhole shaft. Pea gravel and recycled RAP aggregate is NOT ALLOWED. Water jetting is NOT allowed. Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a standard proctor density, APWA Section 31 23 26.

> 24" A-1-A BASE UNDER + STRUCTURES (TYP.)





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Sanitary sewer manhole

4 OR 5 FEET DIAMETER

(CONCENTRIC RISER)

CONCRETE COLLAR

BACKFILL .

FRAME AND COVER

(PLAN 360)

WALL THICKNESS

4 3/4" MINIMUM

CONE AND RISERS

OF 1.5" IN 12"

REMOVE UPPER 1/3 OF PIPE AFTER MANHOLE IS COMPLETED.

PROVIDE MORTAR SHELF WITH SLOPE

ASTM C 478

(PLAN 402)

Cover collar for sanitary sewer manhole

1. GENERAL

A. In a pavement surface, the concrete will support the frame under traffic loadings.

2. PRODUCTS

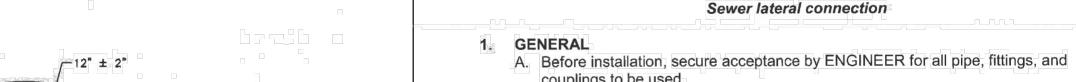
A. Concrete: Class 4500 APWA Section 03 30 04.

B. Concrete Curing Agent: Type ID Class A (clear with fugitive dye), membrane

forming compound, APWA Section 03 39 00.

3. EXECUTION A. Pavement Preparation: Provide a neat vertical and concentric joint between the concrete collar and the bituminous payment surface. Clean edges of all dirt, oil, and

B. Concrete Placement: Fill the annular space around the frame and cover casting with concrete. Apply a broom finish. Apply a curing agent.



couplings to be used. B. Before backfilling, secure inspection of installation by ENGINEER. Give at least 24

C. Verify if CONTRACTOR or agency is to install the wye.

2. PRODUCTS

A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.

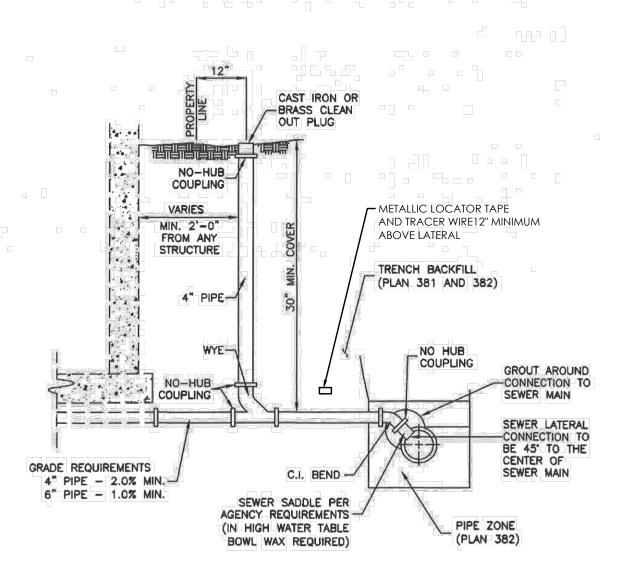
B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches. C. Provide agency approved wye or tee with appropriate donut.

D. Stainless steel straps required.

EXECUTION

A. Tape wrap pipe as required by soil conditions. B. Remove core plug from sewer main. Do not break into sewer main to make

C. Base Course and Backfill Placement: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a standard proctor density, APWA Section 31-23-26.



DETAILS N/A Job #: 23-0012 04/03/24

Sewer lateral connection

Cover collar for sanitary sewer manhole

CONCRETE TO BE SET

1/4" MIN TO 1/2" MAX BELOW PAVEMENT

SLOPE GRADE

-GRADE RINGS ARE SHOWN.

ACCEPTABLE (PLAN 360)

PLASTIC FORMS ARE

SECTION A-A

413 September 2001

413

431 January 2011

rough surface is necessary, place a barrier such as plastic or a tarp

8. Loose compost may be backfilled along the upslope side of the

the device, improving filtration and sediment retention.

perimeter control, filling the seam between the soil surface and

9. If the perimeter control is to be left as a permanent filter or part

of the natural landscape, it may be seeded at time of installation

for establishment of permanent vegetation. The Engineer will

under Soxx to prevent tearing.

specify seed requirements.

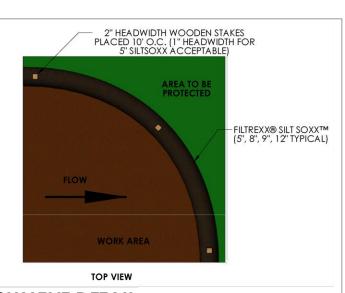
INSTALLATION

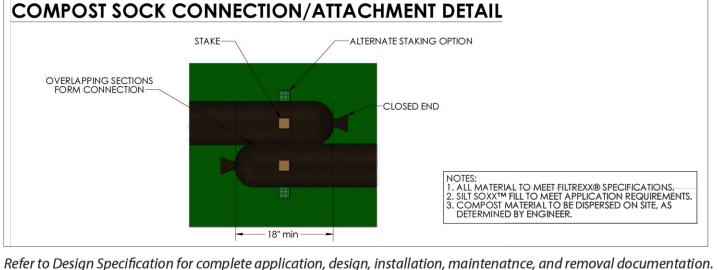
- . Perimeter control will be placed at locations indicated on plans and in a manner as directed by the Engineer or Manufacturer. 2. Perimeter control should be installed parallel to the base of the slope or other disturbed area. In challenging conditions (i.e., 2:1 slopes), a second perimeter control shall be constructed at the
- top of the slope, or staking may be increased. 3. Effective Soxx height in the field should be as follows: 5" diameter Soxx = 4" high; 8" diameter Soxx = 6.5" high; 12" diameter Soxx = 9.5" high; 18" diameter Soxx = 14.5" high; 24" diameter Soxx = 19" MAINTENANCE & DISPOSAL
- 4. Stakes should be installed through the middle of the perimeter control on 10 ft (3m) centers, using 2 in (50mm) by 2 in (50mm) by 3 ft (1m) wooden stakes. 5" diameter Soxx may use 1" (25 mm) x 1" (25 mm) x 18" (0.5 m) wooden stakes. In the event staking is not possible, i.e., when perimeter control is used on pavement, heavy concrete blocks shall be used behind the perimeter
- control to help stabilize during rainfall/runoff events. 5. Staking depth for sand and silt loam soils shall be 12 in (300mm),

and 8 in (200mm) for clay soils.

- 6. Straighten or position the Soxx as needed on the ground, ensuring there is good ground contact and no void spaces under 7. Do not drag Soxx across rough surfaces. If dragging across a
- 1. The contractor shall remove sediment at the base of the upslope
 - side of the perimeter when accumulation has reached 1/2 of the effective height of the sock, or as directed by the Engineer. Alternatively, a new perimeter control sock can be placed on top of and slightly behind the original one creating more sediment storage capacity without soil disturbance. 2. Perimeter control shall be maintained until disturbed area above the device has been permanently stabilized and construction
 - activity has ceased. 3. The FilterMedia will be dispersed on site once disturbed area has been permanently stabilized, construction activity has ceased, or as determined by the Engineer.

FILTREXX® SILT SOXX™ . 2" HEADWIDTH WOODEN STAKES ACED 10' ON CENTER (1" HEADWIDTH FOR 5" SILTSOXX ACCEPTABLE) — FILTREXX® SILT SOXX™ (5", 8", 9", OR 12" TYPICAL) AREA TO BE PROTECTED SECTION VIEW





6" REFLECTIVE ENGINEER'S TAPE (3M HIGH DENSITY RED PRESSURE SENSITIVE TAPE OR APPROVED EQUIVALENT) 4" DIA. OR 6" DIA. X SCH 40 GALVANIZED PAINTED YELLOW EXIST. CONCRETE OR ASPHALT EXIST. GRADE PAVEMENT STEEL RECEIVING CONCRETE REMOVABLE BOLLARD DETAIL

FILL WITH GROUT

& CROWN TOP

filtrexx® SUSTAINABLE TECHNOLOGIES

INSTALLATION

1. Inlet protection shall be placed at locations indicated on plans as directed by the Engineer. Inlet protection should be installed in a pattern that allows complete protection of the inlet area. 2. Installation of curb inlet protection will ensure a minimal overlap of at least 1 ft (300mm) on either side of the opening being protected. Inlet protection will be anchored to the soil behind

the curb using staples, stakes or other devices capable of holding

- the inlet protection in place. 3. Standard inlet protection for curb inlet protection and curb sediment containment will use 8 in (200mm) diameter inlet protection, and drain inlets on soil will use 12 in (300mm) or 18 in (450mm) diameter inlet protection. In severe flow situations, larger inlet protection may be specified by the Engineer. During curb installation, inlet protection shall be compacted to be slightly shorter than curb height.
- 4. If inlet protection becomes clogged with debris and sediment, they shall be maintained so as to assure proper drainage and water flow into the storm drain. In severe storm events, overflow

 2. Inlet protection shall be maintained until disturbed area above of the inlet protection may be acceptable in order to keep the
- 5. Curb and drain inlet protection shall be positioned so as to provide a permeable physical barrier to the drain itself, allowing sediment to collect on the outside of the inlet protection.

6. For drains and inlets that have only curb cuts, without street

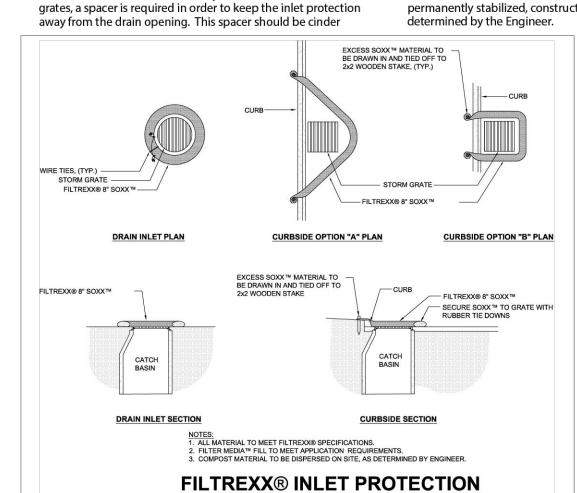
area from flooding.

INSTALLATION SPECIFICATION

INLET PROTECTION - Compost Filter Sock

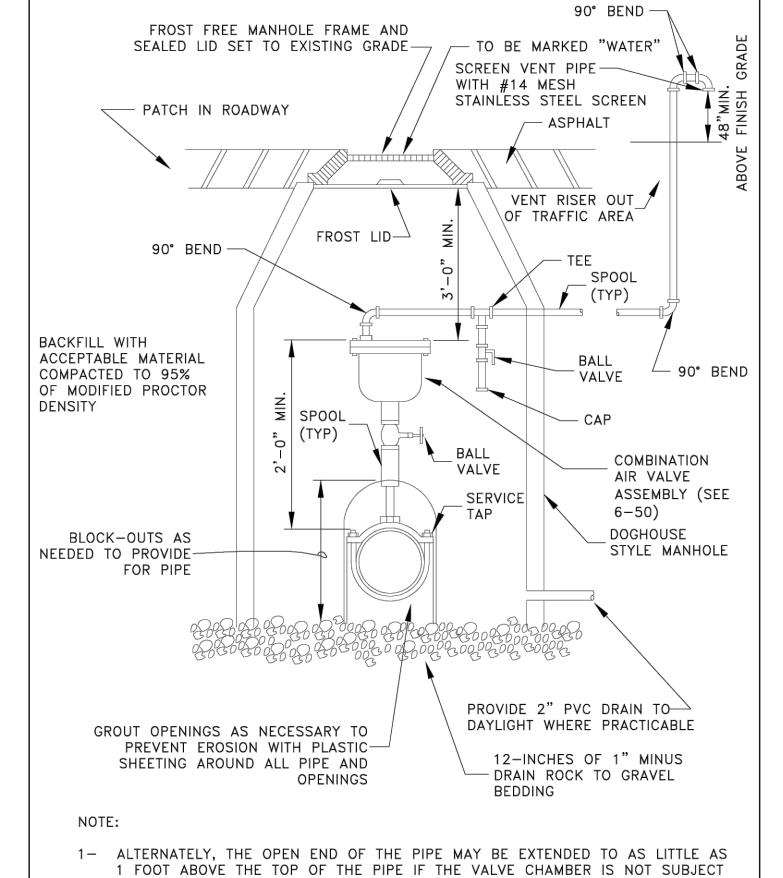
- blocks or a hog wire screen bent to overlap the grate opening and keep the sock from falling into the opening. Use at least one spacer for every 4 ft (1.2m) of curb drain opening. The wire grid also prevents other floatable waste from passing over the inlet
- Stakes shall be installed through the middle of the drain inlet protection on 5 ft (1.5m) centers, using 2 in (50mm) by 2 in (50mm) by 3 ft (1m) wooden stakes. 8. Staking depth for sand and silt loam soils shall be 12 in (300mm),
- and 8 in (200mm) for clay soils.

- 1. The Contractor shall remove sediment at the base of the upslope side of the inlet protection when accumulation has reached 1/2 of the effective height of the inlet protection, or as directed by the Engineer. Alternatively, for drain inlet protection, a new Soxx may be placed on top of the original increasing the sediment storage capacity without soil disturbance.
- or around the device has been permanently stabilized and construction activity has ceased. Regular maintenance includes lifting the inlet protection and cleaning around and under them as sediment collects.
- 3. The FilterMedia will be removed from paved areas or dispersed on site soil or behind curb once disturbed area has been permanently stabilized, construction activity has ceased, or as

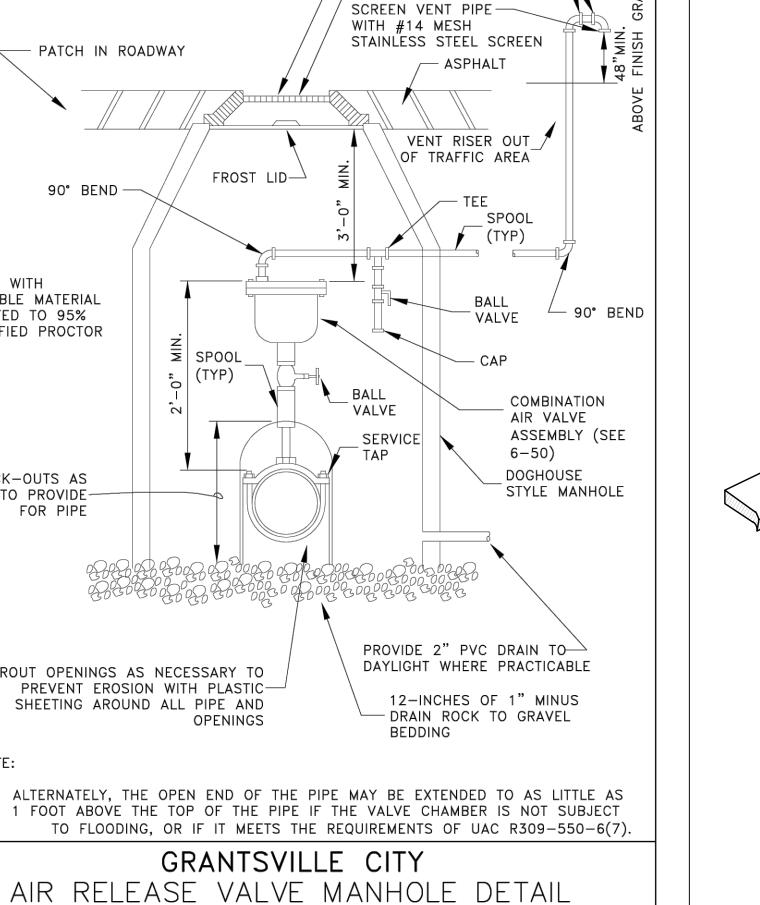


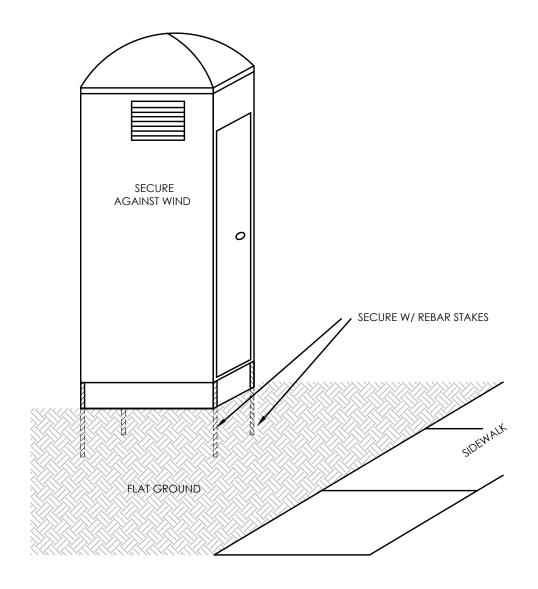
Refer to Design Specification for complete application, design, installation, maintenannce, and removal documentation.

Filtrexx, DrainChexx, EnviroSoxx, StormExx, GroSoxx, GreenLoxx, and the Branch & Leaf logo are Registered Trademarks of Filtrexx International SiltSoxx, FilterMedia, and GrowingMedia are Trademarks of Filtrexx International US Patents 7,226,240; 7,452,165; 7,654,292; 8,272,812; 8,439,607; 8,740,503; 8,821,076; 9,044,795; 9,945,090; and 9,982,409 may apply & patents pending. © 2019 Filtrexx International, all rights reserved. Filtrexx Design Manual Version 11.0

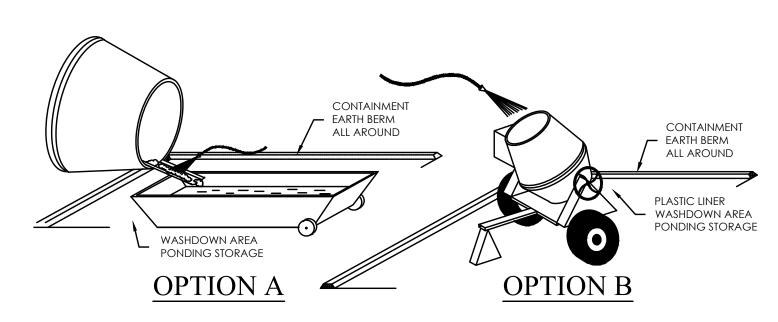


GRANTSVILLE CITY

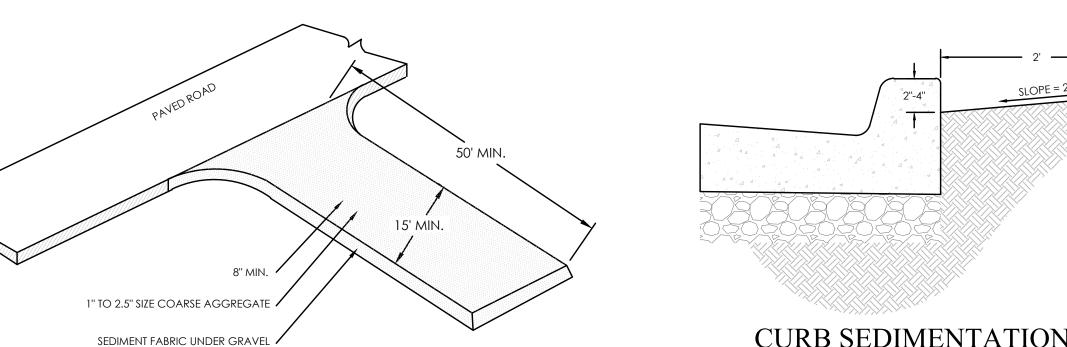




PORTABLE TOILET



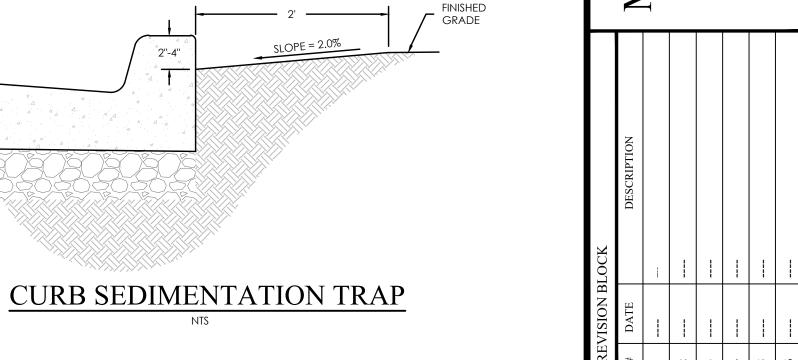
CONCRETE WASTE MANAGEMENT



STABILIZED CONSTRUCTION ENTRANCE

NOTE:

1. ALL CONCRETE TO BE 4500 PSI.



DETAILS

N/A Job #: 23-0012 04/03/24

D6



H GRANT

UBDI

S

Pipe zone backfill

1. GENERAL

A. Install the pipe in the center of the trench or no closer than 6-inches from the wall of the pipe to the wall of the trench.

2. PRODUCTS

- A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
- B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
- C. Concrete: APWA Section 03 30 04.
- D. Flowable Fill: Target is 60 psi in 28 days with 90 psi maximum in 28 days, APWA Section 31,05,15. It must flow easily requiring no vibration for consolidation.
- E. Stabilization-Separation Geotextile: Moderate or high at CONTRACTOR's choice, APWA Section 31 05 19.

3. EXECUTION

- A. Excavate the Pipe Zone: Width is measured at the pipe spring line and includes any necessary sheathing. Provide width recommended by pipe manufacturer. Follow manufacturer's recommendations when using trench boxes.
- B. Foundation Stabilization: Get ENGINEER's permission before installing common fill. Vibrate to stabilize. Installation of stabilization-separation geotextile will be required to separate backfill material and native subgrade materials if common fill cannot provide a working surface or prevent soils migration.
- C. Bedding: Follow APWA Section 33 05 20 requirements and the following provisions. 1) Furnish untreated base course material unless specified otherwise by pipe
- Maximum lift thickness is 8-inches.
- 3) Bedding immediately under the pipe should not be compacted, but loosely
- 4) Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
- 5) When using concrete, provide at least Class 2,000, APWA Section 03 30 04. Pipe Zone: DO NOT USE sewer rock, pea gravel, or recycled RAP aggregate in the
- pipe zone. Water jetting is NOT allowed. 1) Maximum lift thickness is 8-inches before compaction. Compaction is 95 USE 3/4" DRAIN ROCK Dercent or greater relative to a modified proctor density, APWA Section 31 23 26
 - unless pipe manufacturer requires more stringent installation. 2) Submission of quality control compaction test result data developed for the haunch zone may be requested by ENGINEER at any time. CONTRACTOR is

GENERAL NOTES:

NEEDED.

 #2 ECLIPSE POST HYDRANT SHALL BE SELF-DRAINING, NON-FREEZING, COMPRESSION TYPE WITH 2-3/16" MAIN

VALVE OPENING. INLET CONNECTION

STANDARD DEPTH OF BURY IS 4'.

2. ALL WATER FLOW SHALL PASS THRU A

3-1/2" FBE COATED STEEL PIPE AND

SERVICEABLE FROM ABOVE GROUND

WITH NO DIGGING OR REPLACEMENT

CAST IRON TOP STOCK WATERWAY.

ALL WORKING PARTS SHALL BE

4. HYDRANT SHALL BE SET IN 4 CUBIC FEET OF CRUSHED STONE TO ALLOW FOR PROPER DRAINAGE OF HYDRANT

5. THE #2 ECLIPSE POST HYDRANT AS

MANUFACTURED BY THE KUPFERLE

LOCATED OUT OF THE TRAVEL AREA

BOTH TEMPORARY AND PERMANENT

IN THE STREET IN THE PARK STRIP

FOUNDRY, ST. LOUIS MO. 63102.

6. ALL BLOW-OFF VALVES SHALL BE

7. THIS VALVE SHALL BE USED FOR

BLOW-OFF LOCATIONS.

SHALL BE 2" FIP. OUTLET SHALL BE 2 1/2".

- to provide results of tests immediately upon request. E. Flowable Fill (when required and if allowed by pipe manufacturer):
- 1) Place the controlled low strength material, APWA Section 31 05 15.
- 2) Prevent pipe flotation by installing in lifts and providing pipe restraints as required by pipe manufacturer.
- 3) Reset pipe to line and grade if pipe "floats" out of position.

SIDE VIEW

1 OPERATING SCREW

5 3-1/2" FBE COATED STEEL PIPE

13 HYDRANT SHUT-OFF VALVE

ITEM / DESCRIPTION

SCALE: NTS

2 TOP CAP

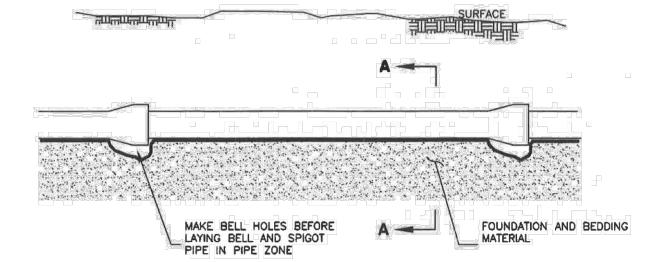
3 SIDE CAP 4 TOP STOCK

6 DRAIN HOLE 7 COUPLING

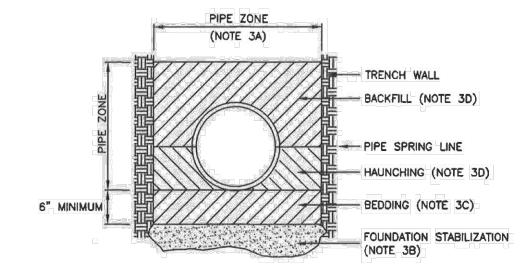
10 VALVE BOX 11 THRUST BLOCK 12 CRUSHED ROCK

THIS DETAIL IS THE APPROVED CITY STANDARD

8 INLET VALVE BODY 9 UNDISTURBED EARTH



ELEVATION VIEW



SECTION A-A

INSTALLATION

CONCRETE PIPE: FOLLOW ASTM C 1479 "STANDARD PRACTICE FOR INSTALLATION OF PRECAST CONCRETE SEWER, STORM DRAIN, AND CULVERT PIPE USING STANDARD INSTALLATIONS.

PLASTIC PIPE: FOLLOW ASTM D 2321 STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER

CORRUGATED METAL PIPE: FOLLOW ASTM A 798 "STANDARD PRACTICE FOR INSTALLING FACOTRY-MADE CORRUGATED STEEL PIPE FOR SEWERS AND OTHER APPLICATIONS.

VITRIFIED CLAY PIPE: FOLLOW ASTM C 12. "STANDARD RECOMMENDED PRACTICE FOR INSTALLING VITRIFIED CLAY PIPE LINES.

Pipe zone backfill

382 January 2011

Tie-down thrust restraints

GENERAL

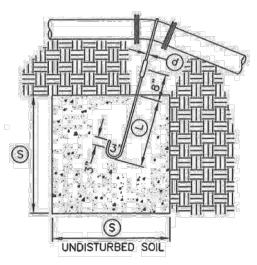
- A. Thrust design for pipe sizes or configurations not shown require special design. B. Bearing areas, volumes, and special thrust blocking details shown on Drawings take
- precedence over this plan.
- C. Restraint sizing is based upon a maximum operating pressure of 150 psi and a test pressure of 200 psi, and a minimum soil bearing strength of 2,000 psf. Operating pressures in excess of 150 psi or soils with less than 2,000 pound bearing strength will require special design.
- D. Before backfilling around thrust block, secure inspection of installation by ENGINEER.

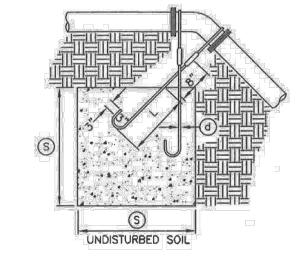
PRODUCTS

- A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
- B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
- C. Concrete: Class 4500 minimum, APWA Section 03 30 04. D. Reinforcement: Deformed, steel, ASTM A615. Give bars an epoxy coating at least
- 15 mils thick. Minimum stress yield strength of steel tie-down bars is 70,000 ksi. E. Grease: Non-oxide poly-FM.

3. EXECUTION

- A. Pour concrete against undisturbed soil. Concrete must be allowed to cure in thrust restraints for 5 days before pressurizing water lines or have additional approved thrust restraints installed before pressurizing the water line.
- B. Pipe Joints: Do not cover with concrete. Leave completely accessible.
- C. Grease: Apply grease to all buried metal surfaces. Wrap with polyethylene sheet
- D. Locking restraint devices may be used in conjunction with concrete thrust blocking (at discretion of ENGINEER).
- E. Base Course and Backfill Placement: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.





TYPE A RESTRAINT FOR 11 1/4" - 22 1/2" VERTICAL BENDS

TYPE B RESTRAINT FOR 45" VERTICAL BENDS

LE OF DIMENSIONS				TAI	BLE OF	MIG	ENSI	ON		
		(3)	@	╚					<u>(S)</u>	a
Vertical Bend In Degrees	CONCRETE BLOCKING IN CUBIC FEET	SIDE OF CUBE — FEET	DIAMETER OF SHANK OR REBAR RODS - INCH	DEPTH OF ROD CONCRETE - FEET		PIPE SIZE NOMINAL DIAMETER — INCH	VERTICAL BEND IN DEGREES	CONCRETE BLOCKING IN CUBIC FEET	SIDE OF CUBE - FEET	DIAMETER OF SHANK OR
1 1/4	8	2.0	5/8"	1.5		4"	45*	1	3.0	5/8 5/8
2 1/2° 1 1/4°	15.6	2.5	5/8"	2.0						5/8
	15.6	2.5	5/8"	2.0		6"	5	2.37	4.0	5/8
2 1/2*	34.3	3.25	5/8"	2.0	}	>tr	<u> </u>		k-rever-	5/8 5/8
1 1/4	27	3.0	5/8"	2.0	5	8"	0	3.97	4.75	5/3
2 1/2°	64	4.0	5/8"	2.0						5/8
1 1/4	64	4.0	5/8"	2.0		12"		9.04	6.25	5/8 5/8
2 1/2	125	5.0	3/4"	3.0						5/8
1 1/4	107	4.25	7/8"	3.0		16"		17.24	7.75	3/4
2 1/2	216	6.0	7/8"	3.0					<u> </u>	3/4
1 1/4	138	5.17		3.5	}	20"	50	26.52	92.17	3/4
2 1/2	334	6.94	1".	4.0		-234				3/4
1 1/4	240	6.22	1"	4.0		24"		37.82	10.07	3/4
2 1/2	476	7.81	1"	4.0						3/4
1 1/4	369	7.17	1"	4.0		30"		58.26	11.63	3/4
2 1/2	733	9.02	1"_	4.0		00-7				3/4

Tie-down thrust restraints

562 April 1997

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WHEN UNDISTURBED EARTH IS UNAVAILABLE FOR THRUST BLOCKING, REFER TO APWA 562 FOR ALTERNATIVE THRUST BLOCKING METHOD.

STYLE A

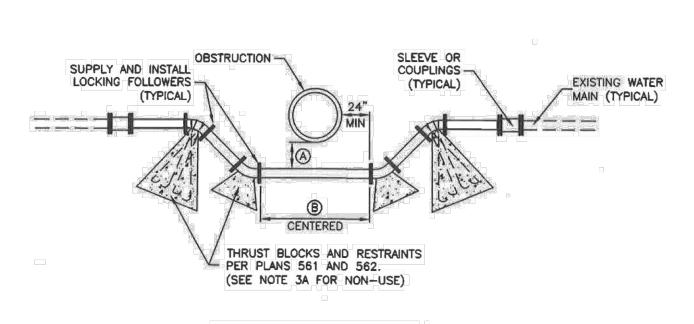


TABLE	NSIONS	
OBSTRUCTION	(8)	B
SEWER	18" MIN	20' MIN
OTHER	12" MIN	O.D. + 48

1. GENERAL

A. Before backfilling, secure inspection of installation by ENGINEER.

Water main line loop

2. PRODUCTS

- A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel
- as a base course without ENGINEER's permission.
- B. Piping: Match existing pipe, fittings, coupling sizes and materials.
- C. Thrust Bocks: Concrete Class 4000, APWA Section 03 30 04
- D. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615. E. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
- F. Grease: Non-oxide poly-FM. G. Couplings: Brass.

EXECUTION

- A. Thrust Blocks: Not required for flanged or welded pipe systems. Before pouring thrust block concrete, wrap pipe system in plastic sheet to prevent bonding of
- locking split clamp on iron pipe side and flare on copper side.
- D. Steel Spool: Weld in place and provide slip on flange except when fitting in pipe system could move. Epoxy line per AWWA C210, C213, and coated per AWWA
- E. Location: Loop water mains over top of sewer lines.
- compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.

GRANTSVILLE CITY

ABOVE GRADE 2" BLOW-OFF INSTALLATION

543.1



Water main line loop

543.1 March 2011

DETAILS

Job #: 23-0012 04/03/24

concrete to pipe system. B. Fittings: Use copper to copper flare fittings or copper to iron pack joint coupling with

C. Grease: Apply grease to all buried metal surfaces. Wrap with polyethylene sheet

E. Base Course and Backfill Placement: Maximum lift thickness is 8-inches before

MODIFICATIONS TO APWA PLAN DETAILS

APWA PLAN NO.	GRANTSVILLE CITY MODIFICATION
205.1	USE TYPE "A" UNLESS APPROVED OTHERWISE.
205.1	2.C. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
211	2.C. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
213	2.C. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
215	2.C. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
216	2.C. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
221.1	2.C. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
221.2	2.C. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
225	2.C. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
231	THE MINIMUM CONCRETE THICKNESS SHALL BE 6" AND THE MINIMUM BASE COURSE THICKNEWW SHALL BE 6'.
231	THE MINIMUM WIDTH OF THE SIDEWALK SHALL BE 5'.
231	2.C. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
235.1	THE MINIMUM CONCRETE THICKNESS SHALL BE 6" AND THE MINIMUM BASE COURSE THICKNEWW SHALL BE 6'.
235.1	THE MINIMUM WIDTH OF THE SIDEWALK SHALL BE 5'.
235.1	2.D. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
235.2	2.D. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
235.3	2.D. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
235.4	2.D. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
236.1	THE MINIMUM CONCRETE THICKNESS SHALL BE 6" AND THE MINIMUM BASE COURSE THICKNEWW SHALL BE 6'.
236.1	THE MINIMUM WIDTH OF THE SIDEWALK SHALL BE 5'.
236.1	2.D. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
236.2	2.D. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
236.3	2.D. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
237	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
238	GRANTSVILLE CITY IS REQUIRING TYPE "T".
245	2.B. BACKFILL SHALL BE A-1-a OR AS APPROVED BY THE CITY.
256.2	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
274	2.C. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
275	2.A. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 PSI.
275	REBAR HOOP SHALL BE EPOXY COATED.
292	MATCH GRANTSVILLE CITY STANDARD.
315.1	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
315.1	2.D. REBAR SHALL BE EPOXY COATED.

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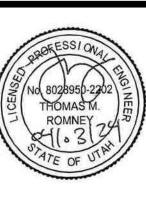
APWA PLAN NO.	GRANTSVILLE CITY MODIFICATION
315.1	THERE SHALL BE A MINIMUM OF 24" OF BASE COURSE UNDER THE STRUCTURE FOR THE DISTANCE OF 24" BEYOND THE BASE OF THE STRUCTURE UNLESS APPROVED OTHERWISE BY GRANTSVILLE CITY.
315.1	2.B. BACKFILL AND BASE COURSE SHALL BE A-1-a OR AS APPROVED BY THE CITY.
315.2	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
315.2	2.D. REBAR SHALL BE EPOXY COATED.
315.2	THERE SHALL BE A MINIMUM OF 24" OF BASE COURSE UNDER THE STRUCTURE FOR THE DISTANCE OF 24" BEYOND THE BASE OF THE STRUCTURE UNLESS APPROVED OTHERWISE BY GRANTSVILLE CITY.
315.2	2.B. BACKFILL SHALL BE A-1-a OR AS APPROVED BY THE CITY.
316	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
316	2.D. REBAR SHALL BE EPOXY COATED.
316	THERE SHALL BE A MINIMUM OF 24" OF BASE COURSE UNDER THE STRUCTURE FOR THE DISTANCE OF 24" BEYOND THE BASE OF THE STRUCTURE UNLESS APPROVED OTHERWISE BY GRANTSVILLE CITY.
316	2.B. BACKFILL AND BASE COURSE SHALL BE A-1-a OR AS APPROVED BY THE CITY.
317	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
317	2.D. REBAR SHALL BE EPOXY COATED.
317	THERE SHALL BE A MINIMUM OF 24" OF BASE COURSE UNDER THE STRUCTURE FOR THE DISTANCE OF 24" BEYOND THE BASE OF THE STRUCTURE UNLESS APPROVED OTHERWISE BY GRANTSVILLE CITY.
320	DEBRIS GRATE INLET SHALL BE GALVANIZED
322	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
322	2.D. REBAR SHALL BE EPOXY COATED.
322	THERE SHALL BE A MINIMUM OF 24" OF BASE COURSE UNDER THE STRUCTURE FOR THE DISTANCE OF 24" BEYOND THE BASE OF THE STRUCTURE UNLESS APPROVED OTHERWISE BY GRANTSVILLE CITY.
322	2.B. BACKFILL SHALL BE A-1-a OR AS APPROVED BY THE CITY.
323.3	2.B. BACKFILL SHALL BE A-1-a OR AS APPROVED BY THE CITY.
331.1	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
331.1	2.D. REBAR SHALL BE EPOXY COATED.
331.1	THERE SHALL BE A MINIMUM OF 24" OF BASE COURSE UNDER THE STRUCTURE FOR THE DISTANCE OF 24" BEYOND THE BASE OF THE STRUCTURE UNLESS APPROVED OTHERWISE BY GRANTSVILLE CITY.
331.1	2.B. BACKFILL SHALL BE A-1-a OR AS APPROVED BY THE CITY.
331.2	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
331.2	2.D. REBAR SHALL BE EPOXY COATED.
331.2	THERE SHALL BE A MINIMUM OF 24" OF BASE COURSE UNDER THE STRUCTURE FOR THE DISTANCE OF 24" BEYOND THE BASE OF THE STRUCTURE UNLESS APPROVED OTHERWISE BY GRANTSVILLE CITY.

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APWA PLAN NO.	GRANTSVILLE CITY MODIFICATION
331.2	2.B. BACKFILL SHALL BE A-1-a OR AS APPROVED BY THE CITY.
331.3	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
331.3	2.D. REBAR SHALL BE EPOXY COATED.
331.3	THERE SHALL BE A MINIMUM OF 24" OF BASE COURSE UNDER THE STRUCTURE FOR THE DISTANCE OF 24" BEYOND THE BASE OF THE STRUCTURE UNLESS APPROVED OTHERWISE BY GRANTSVILLE CITY.
331.3	2.B. BACKFILL SHALL BE A-1-a OR AS APPROVED BY THE CITY.
332	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
332	2.D. REBAR SHALL BE EPOXY COATED.
332	THERE SHALL BE A MINIMUM OF 24" OF BASE COURSE UNDER THE STRUCTURE FOR THE DISTANCE OF 24" BEYOND THE BASE OF THE STRUCTURE UNLESS APPROVED OTHERWISE BY GRANTSVILLE CITY.
332	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH
332	2.B. BACKFILL SHALL BE A-1-a OR AS APPROVED BY THE CITY.
335	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
335	2.B. BACKFILL SHALL BE A-1-a OR AS APPROVED BY THE CITY.
335	2.D. REBAR SHALL BE EPOXY COATED.
341.1	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
341.1	THERE SHALL BE A MINIMUM OF 24" OF BASE COURSE UNDER THE STRUCTURE FOR THE DISTANCE OF 24" BEYOND THE BASE OF THE STRUCTURE UNLESS APPROVED OTHERWISE BY GRANTSVILLE CITY
341.1	2.B. BACKFILL SHALL BE A-1-a OR AS APPROVED BY THE CITY.
341.2	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
341.2	THERE SHALL BE A MINIMUM OF 24" OF BASE COURSE UNDER THE STRUCTURE FOR THE DISTANCE OF 24" BEYOND THE BASE OF THE STRUCTURE UNLESS APPROVED OTHERWISE BY GRANTSVILLE CITY
341.2	2.B. BACKFILL SHALL BE A-1-a OR AS APPROVED BY THE CITY.
362	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
381	2.B. BACKFILL SHALL BE A-1-a OR AS APPROVED BY THE CITY.
382	PIPE ZONE MATERIAL FOR SANITARY SEWER PIPE SALL BE 3/4" DRAIN ROCK.
	DETAIL – SEWER PIPE SHALL BE SDR-35.
382	2.B. BACKFILL SHALL BE A-1-a OR AS APPROVED BY THE CITY.
411	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
411	THERE SHALL BE A MINIMUM OF 24" OF BASE COURSE UNDER THE STRUCTURE FOR THE DISTANCE OF 24" BEYOND THE BASE OF THE STRUCTURE UNLESS APPROVED OTHERWISE BY GRANTSVILLE CITY.

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APWA PLAN NO.	GRANTSVILLE CITY MODIFICATION
411	2.B. BACKFILL SHALL BE A-1-a OR AS APPROVED BY THE CITY.
413	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
431	2.B. BACKFILL SHALL BE A-1-a OR AS APPROVED BY THE CITY.
	DETAIL - SEWER PIPE SHALL BE SDR-35 PIPE MATERIAL
432	2.B. BACKFILL SHALL BE A-1-a OR AS APPROVED BY THE CITY.
	DETAIL - SEWER PIPE SHALL BE SDR-35 PIPE MATERIAL
441	THERE SHALL BE A MINIMUM OF 24" OF BASE COURSE OF A-1-a UNDER THE STRUCTURE FOR THE DISTANCE OF 24" BEYOND THE BASE OF THE STRUCTURE UNLESS APPROVED OTHERWISE BY GRANTSVILLE CITY.
505	ALL EXPOSED CONCRETE SHALL BE 4500 PSI MINIMUM STRENGTH.
505	THERE SHALL BE A MINIMUM OF 24" OF BASE COURSE UNDER THE STRUCTURE FOR THE DISTANCE OF 24" BEYOND THE BASE OF THE STRUCTURE UNLESS APPROVED OTHERWISE BY GRANTSVILLE CITY.
505	2.B. BACKFILL SHALL BE A-1-a OR AS APPROVED BY THE CITY.
511	REFER TO GRANTSVILLE CITY STANDARD DETAIL.
521	REFER TO GRANTSVILLE CITY STANDARD DETAIL.
522	REFER TO GRANTSVILLE CITY STANDARD DETAIL.
523	REFER TO GRANTSVILLE CITY STANDARD DETAIL.
525	REFER TO GRANTSVILLE CITY STANDARD DETAIL.
527	REFER TO GRANTSVILLE CITY STANDARD DETAIL.
529	REFER TO GRANTSVILLE CITY STANDARD DETAIL.
541	REFER TO GRANTSVILLE CITY STANDARD DETAIL.
542	REFER TO GRANTSVILLE CITY STANDARD DETAIL.
543.1	2.B. BACKFILL SHALL BE A-1-a WITH 18" SEPARATION BETWEEN UNTILITIES.
543.2	2.B. BACKFILL SHALL BE A-1-a WITH 18" SEPARATION BETWEEN UNTILITIES.
546	6" LATERAL ON FH
551	REFER TO GRANTSVILLE CITY STANDARD DETAIL.
552	REFER TO GRANTSVILLE CITY STANDARD DETAIL.
571	REFER TO GRANTSVILLE CITY STANDARD DETAIL.
572	REFER TO GRANTSVILLE CITY STANDARD DETAIL.
573	REFER TO GRANTSVILLE CITY STANDARD DETAIL.
574	REFER TO GRANTSVILLE CITY STANDARD DETAIL.
575	REFER TO GRANTSVILLE CITY STANDARD DETAIL.
681	ADD 1" PVP PIPE FROM BOTTOM OF ROOT BALL TO SURFACE FOR ROOT WATERING. WRAP BOTTOM OF PIPE WITH CLOTH AND ½ CUBIC FOOT DRAIN ROCK.



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SUBDIVISION PHA MATTHEWS MEADOWS GRANT

DETAILS

04/03/24 | Job #: 23-0012

D8

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GRANTSVILLE CITY GENERAL NOTES

- ALL WORK DONE OR IMPROVEMENTS INSTALLED WITHIN GRANTSVILLE CITY INCLUDING BUT NOT LIMITED TO EXCAVATION, CONSTRUCTION, ROADWORK AND UTILITIES SHALL CONFORM TO THE GRANTSVILLE CITY CONSTRUCTION STANDARDS AND SPECIFICATIONS, CITY MUNICIPAL CODE, THE LATEST EDITION OF THE APWA MANUAL OF STANDARD SPECIFICATIONS AND MANUAL OF STANDARD PLANS, THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND ANY STATE OR FEDERAL REGULATIONS AND PERMIT REQUIREMENTS OF VARIOUS GOVERNING BODIES. THE CONTRACTOR IS RESPONSIBLE TO HAVE A COPY OF THESE SPECIFICATIONS AND TO KNOW AND CONFORM TO THE APPROPRIATE CODES, REGULATIONS, DRAWINGS, STANDARDS AND SPECIFICATIONS.
- 2. THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR THE PROTECTION OF UTILITIES AND THE ENGINEER BEARS NO RESPONSIBILITY FOR UTILITIES NOT SHOWN ON THE PLANS OR NOT IN THE LOCATION SHOWN ON THE PLANS. THIS INCLUDES ALL SERVICE LATERALS OF ANY KIND. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCES, WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE OF THE SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COST AND LIABILITY IN CONNECTION THEREWITH.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITY LINES, STRUCTURES, SURVEY MONUMENTS AND STREET IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE, AND ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED SATISFACTORY TO THE CITY ENGINEER AND OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.
- 4. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER AND PUBLIC WORKS DIRECTOR.
- PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.
- CURB, GUTTER, AND SIDEWALK, FOUND TO BE UNACCEPTABLE PER CITY STANDARDS AND APWA SHALL BE REMOVED AND REPLACED.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION. THE EXTENT OF TRANSITIONS TO BE AS SHOWN ON PLANS.
- 8. ANY SURVEY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER TOOELE COUNTY SURVEYORS REQUIREMENTS.
- 9. ALL PRIVACY WALLS, NEW OR EXISTING, ARE ONLY SHOWN ON CIVIL PLANS FOR THE PURPOSE OF REVIEWING GRADING RELATIONSHIPS; FLOOD CONTROL AND SIGHT DISTANCE AT INTERSECTIONS. ALL WALLS SHALL HAVE A MINIMUM 2 FT X 2 FT X 30 INCH DEEP SPOT FOOTINGS. BOTTOM OF ALL FOOTINGS ON ALL WALLS SHALL BE A MINIMUM OF 30 INCHES BELOW FINISHED GRADE. WALLS GREATER THAN 6 FEET REQUIRE A SEPARATE PERMIT AND INSPECTION BY THE BUILDING DEPARTMENT.
- 10. ALL CONSTRUCTION MATERIALS PER APWA MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHT OF WAY. GRANTSVILLE PUBLIC WORKS WILL APPROVE PIPE ZONE MATERIAL TO BE PLACED.
- 11. REQUEST FOR INSPECTION BY THE GRANTSVILLE CITY ENGINEERING DEPT. SHALL BE MADE BY THE CONTRACTOR AT LEAST 48 HOURS BEFORE THE INSPECTION SERVICES WILL BE
- 12. WORK IN PUBLIC WAY, ONCE BEGUN, SHALL BE PROSECUTED TO COMPLETION WITHOUT DELAY AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC. PLEASE SEE CODE 17 GENERAL PROVISIONS FOR MORE DETAILS.
- 13. THE CONTRACTOR SHALL TAKE ALL NECESSARY AND PROPER PRECAUTIONS TO PROTECT ADJACENT PROPERTIES FROM ANY AND ALL DAMAGE THAT MAY OCCUR FROM STORM WATER RUNOFF AND/OR DEPOSITION OF DEBRIS RESULTING FROM ANY AND ALL WORK IN CONNECTION WITH CONSTRUCTION.
- 14. POWER POLES AND/OR OTHER EXISTING FACILITIES NOT IN PROPER LOCATION BASED ON PROPOSED IMPROVEMENTS SHOWN HEREON WILL BE RELOCATED AT NO EXPENSE TO THE GRANTSVILLE CITY. POWER LINES AND ALL OTHER AERIAL UTILITIES ARE TO BE BURIED AND POLES REMOVED AS DETERMINED BY THE CITY ENGINEER.
- 15. CURB AND GUTTER WITH A GRADE OF LESS THAN FOUR-TENTHS OF ONE PERCENT SHALL BE CONSTRUCTED BY FORMING. EACH JOINT SHALL BE CHECKED FOR A GRADE PRIOR TO CONSTRUCTION AND WATER TESTED AS SOON AS POSSIBLE AFTER CONSTRUCTION.
- 16. CONTRACTOR TO FOLLOW GRANTSVILLE CITY NOISE ORDINANCE STANDARDS CODE ORDINANCE 2018-19
- 17. CONTRACTORS ARE RESPONSIBLE FOR ALL OSHA REQUIREMENTS ON THE PROJECT SITE.
- 18. A UPDES (UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM) PERMIT IS REQUIRED FOR ALL CONSTRUCTION ACTIVITIES AS PER STATE LAW AS WELL AS PROVIDING A STORM

WATER POLLUTION PREVENTION PLAN TO THE CITY.

THROUGH FRIDAY 7:00 AM TO 4:00 PM

- 19. ALL CITY MAINTAINED UTILITIES INCLUDING; WATERLINE, FIRE HYDRANTS, STREETLIGHT WIRING, AND STORM DRAIN MUST BE IN PUBLIC RIGHT OF WAY OR IN RECORDED EASEMENTS. 20. CONTRACTOR SHALL WORK GRANTSVILLE CITY REGULAR WORKING HOURS OF MONDAY
- 21. PRIOR TO 90% BOND RELEASE, A LEGIBLE AS-BUILT DRAWING MUST BE SUBMITTED TO THE GRANTSVILLE CITY STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER. AS-BUILTS MUST SHOW ALL CHANGES AND ACTUAL FIELD LOCATIONS OF STORM DRAINAGE, WATERLINES, IRRIGATION, STREET LIGHTING, AND POWER. AS-BUILTS WILL BE HELD TO THE SAME STANDARD AS APPROVED DESIGN DRAWINGS, NO "REDLINED PLANS" ALLOWED. IN THE ABSENCE OF CHANGES, COPIES OF THE APPROVED DRAWINGS WILL BE REQUIRED STATING "INSTALLED AS PER DRAWINGS". AS-BUILT DRAWINGS FOR NEW DEVELOPMENTS SHALL BE SUBMITTED TO THE CITY IN THE FOLLOWING FORMATS AND QUANTITIES PRIOR TO THE 90% BOND RELEASE: 1 .DXF COPY, 1 .PDF COPY, AND 1 GIS SHAPE FILE CONTAINING THE SAME.
- 22. FILTER FABRIC WRAPPED AROUND AN INLET GRATE IS NOT AN ACCEPTABLE INLET SEDIMENT BARRIER. SEE GRANTSVILLE CITY CONSTRUCTION STANDARDS AND SPECIFICATIONS FOR DETAILS OF APPROVED STORM WATER BMPS WHICH SPECIFICALLY STATES THE UTILIZATION OF AN OIL WATER SNOUT SEPARATOR.
- 23. ASPHALT PAVING IS NOT ALLOWED WITHOUT A WRITTEN EXCEPTION FROM THE ENGINEERING DEPARTMENT AND PUBLIC WORKS DEPARTMENT BELOW AN AMBIENT TEMPERATURE OF 50 DEGREES AND RISING.
- 24. TO ENSURE PROPER PLANTING, PROTECTION AND IRRIGATION OF TREES, MITIGATING RISK OF TREE FAILURE OR FUTURE DAMAGE TO INFRASTRUCTURE, CONTRACTORS ARE REQUIRED TO FOLLOW THE STANDARDS AND SPECIFICATIONS OF THE ISA - INTERNATIONAL SOCIETY OF ARBORICULTURE.
- 25. WHEN A PROPOSED DEVELOPMENT BORDERS A COLLECTOR, MINOR COLLECTOR OR ARTERIAL STREET AND IS REQUIRED TO CONSTRUCT COLLECTOR STREET FENCING ALONG THE BACK OF SIDEWALK, THE DEVELOPMENT SHALL ALSO BE REQUIRED PUT IN A CONCRETE MOW STRIP FROM THE BACK OF SIDEWALK TO UNDERNEATH THE FENCE PANELS. CONCRETE MOW STRIPS SHALL ALSO BE REQUIRED BETWEEN THE SIDEWALK AND FENCING ALONG THE REAR OF DOUBLE FRONTAGE LOTS.
- 26. CONCRETE FOR ALL SURFACE IMPROVEMENTS INCLUDING BUT NOT LIMITED TO; SIDEWALK, DRIVEWAY ENTRANCES, PEDESTRIAN RAMPS, CURB AND GUTTER, WATER WAYS, MANHOLE, VAULT AND VALVE COLLARS, AND ANY OTHER CAST IN PLACE SURFACE CONCRETE FEATURES SHALL BE CONSTRUCTED WITH MINIMUM 4,500 PSI CONCRETE.
- 27. CULINARY WATER AND SEWER SERVICE LATERALS SHALL BE MARKED ON THE TOP BACK OF CURB AND LIP OF CURB AT THEIR ACTUAL LOCATION OF CROSSING THE CURB AND GUTTER. PINS OR STAMPS SHALL BE USED AND MUST BE INSTALLED WHILE THE CONCRETE IS STILL WET AND WILL READILY ACCEPT THE MARKER. GRINDING MARKING DUE TO DRY CEMENT IS NOT ALLOWED.

GRANTSVILLE CITY TRAFFIC NOTES

- 1. WHEN A DESIGNATED "SAFE ROUTE TO SCHOOL" IS ENCROACHED UPON BY A CONSTRUCTION WORK ZONE THE SAFE ROUTE SHALL BE MAINTAINED IN A MANNER ACCEPTABLE TO GRANTSVILLE CITY.
- 2. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY ENGINEER, PUBLIC WORKS DIRECTOR
- 3. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS AND THE LATEST MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) MANUAL. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS AND THE LATEST MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) MANUAL.
- 5. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HEREUNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR PER APPROVED CONSTRUCTION DRAWINGS UNLESS APPROVED BY THE CITY ENGINEER & PUBLIC WORKS
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UTAH TRANSIT AUTHORITY (UTA) IF APPLICABLE, IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.
- BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY. THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING PUBLIC STREETS. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PER THE CURRENT EDITION ADOPTED BY UDOT AND BE APPROVED BY THE GRANTSVILLE CITY BEFORE CONSTRUCTION BEGINS. TRAFFIC CONTROL PLANS SHALL BE SUBMITTED AS PART OF THE ENGINEERING CONSTRUCTION PACKAGE AND APPROVED BY THE GRANTSVILLE CITY ENGINEER AND PUBLIC WORKS DIRECTOR.
- 8. ALL SIGNS LARGER THAN 36" X 36" OR 1296 SQUARE INCHES PER SIGN POLE SHALL BE MOUNTED ON A SLIP BASE SYSTEM PER UDOT STANDARD DRAWING SN 10B (DETAIL DRAWING ATTACHED TO STANDARD DRAWINGS) WITH A "Z" BAR BACKING. SIGNS OF THIS
- SIZE ARE NOT ALLOWED TO BE MOUNTED ON A YIELDING POLE 9. SIGN COMPONENTS SUCH AS SHEETING, EC FILM, INKS, LETTERS AND BORDERS ARE ALL REQUIRED TO BE FROM THE SAME MANUFACTURER. ONLY EC FILM MAY BE USED TO
- 10. ALL NEW ROUNDABOUTS, CROSSWALKS, STOP BARS AND LEGENDS SHALL BE INSTALLED WITH PAINT AND GLASS BEAD.

ACHIEVE COLOR. VINYL EC FILM IS NOT ACCEPTED.

- 11. PAVING ASPHALT BINDER GRADE SHALL BE PG 58-28 UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. ASPHALT AGGREGATE SIZE SHALL BE ½ INCH FOR RESIDENTIAL AND COLLECTOR ROADS. NO MORE THAN 15% RAP (RECLAIMED ASPHALT PAVEMENT) BY WEIGHT WILL BE ALLOWED IN THE ASPHALT MIX DESIGN FOR THE PAVING OF PUBLIC AND PRIVATE STREETS. UP TO THE 15 PERCENT WILL BE ALLOWED WITH NO CHANGE IN THE SPECIFIC BINDER GRADE. THE ASPHALT MIX DESIGN SHALL HAVE NO MORE THAN 3½ % AIR
- 14. POTHOLING: ALL POTHOLES MUST BE SAW CUT SQUARE AND HAVE A MINIMUM SIZE OF 1 SQUARE FOOT. WHEN REPAIRING A POTHOLE, SAND OR PEA GRAVEL MEETING GRANTSVILLE CITY STANDARDS SHALL BE PLACED OVER THE EXPOSED UTILITY TO A DEPTH OF 6 INCHES. FOLLOWING THE PEA GRAVEL WILL BE FLOWABLE FILL UP TO 1 INCH BELOW THE BOTTOM EDGE OF THE EXISTING ASPHALT. THE REMAINING PORTION OF THE HOLE SHALL BE FILLED WITH ASPHALT, WHICH WILL HAVE AN OVERALL THICKNESS OF THE EXISTING ASPHALT PLUS 1 INCH.
- 15. ALL FILL WITHIN THE PUBLIC RIGHT OF WAY SHALL BE A-1-A TO A-3, WITH THE EXCEPTION OF TOP SOIL IN THE PARK STRIP FOR LANDSCAPING AND TRENCH BACKFILL. TRENCH BACKFILL MATERIAL UNDER PAVEMENTS OR SURFACE IMPROVEMENTS SHALL BE CLEAN, NONCLUMPING, GRANULAR AND FLOWABLE, 2" MINUS, A-1-A TO A-2-7 SOILS ACCORDING TO AASHTO 145 SOIL CLASSIFICATION SYSTEM. LIME TREATED FLOWABLE FILLS, IF APPROVED, SHALL HAVE A 28-DAY STRENGTH OF 65 PSI. 16. ALL TRAFFIC ROAD CLOSURES INVOLVING 1 OR MORE LANES OF TRAFFIC MUST RECEIVE PRIOR APPROVAL FROM THE CITY ENGINEER, PUBLIC WORKS DIRECTOR OR HIS/HER REPRESENTATIVE, VMS PCMS BOARDS MUST BE PLACED A MINIMUM OF 7 DAYS IN ADVANCE OF ANY LANE CLOSURE ON COLLECTOR, MINOR COLLECTOR OR ARTERIAL STREET. VMS PCMS BOARDS MUST ALSO BE PLACED IN ADVANCE OF ANY LANE CLOSURES ON A SUBDIVISION STREET PER THE CITY ENGINEER'S DIRECTION.
- 17.ROUNDABOUTS, INCLUDING THEIR INGRESS AND EGRESS, SHALL BE CONSTRUCTED WITH CONCRETE PAVEMENT. ENGINEER SHALL DESIGN CROSS SECTION AND SUBMIT TO THE CITY FOR REVIEW AND APPROVAL.

GRANTSVILLE CITY GRADING NOTES

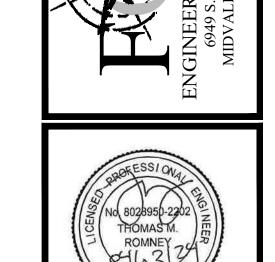
- 1. IN THE EVENT THAT ANY UNFORESEEN CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE OWNER AND CITY ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTION.
- 2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK, SO AS TO GENERATE THE DESIRED SUBGRADE, FINISH GRADES AND SLOPES SHOWN.
- 3. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL EXCAVATION. ADEQUATE SHORING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR FACILITIES AND/OR CAVING OF THE
- 4. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF THIS PROJECT. ANY ADDITIONAL MATERIAL REQUIRED OR LEFTOVER MATERIAL FOLLOWING EARTHWORK OPERATIONS BECOMES THE RESPONSIBILITY OF THE CONTRACTOR.
- 5. CONTRACTOR SHALL GRADE THE PAVEMENT AREA SUBGRADE TO THE LINES (HORIZONTAL) AND ELEVATIONS (VERTICAL) SHOWN ON THE PLANS WITHIN A TOLERANCE OF
- 6. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.
- 7. THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING CONSOLIDATION OF BACKFILL OR DUST CONTROL IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER FROM GRANTSVILLE CITY ENGINEERING AND UTILITIES DEPARTMENT.
- 8. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE
- 9. IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, THE DEVELOPER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.
- 10. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE SOILS ENGINEER AND APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.
- 11. ALL QUALITY CONTROL TESTING SHALL BE PERFORMED BY AN INDEPENDENT LICENSED AND CERTIFIED THIRD-PARTY TESTING SERVICE.

GRANTSVILLE CITY FIRE DEPARTMENT NOTES

- 1. ON ANY NEW HOME OR BUILDING INSTALLATION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMBUSTIBLE CONSTRUCTION COMMENCES AND SAID FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER WITH AN ADEQUATE WATER SUPPLY.
- 2. CONTRACTOR SHALL CALL THE PUBLIC WORKS DEPARTMENT AND ENGINEERING DEPARTMENT FOR UNDERGROUND INSPECTION, PRESSURE AND FLUSH VERIFICATION OF ALL FIRE HYDRANTS AND FIRE LINES BEFORE BACK FILLING.
- 3. PAINTING OF THE CURBS AND HYDRANT AND ANY WORK NECESSARY FOR PROTECTION OF HYDRANTS FROM PHYSICAL DAMAGE SHALL BE APPROVED BEFORE BEING CONSTRUCTED. HYDRA-FINDERS WILL BE INSTALLED PER GRANTSVILLE CITY STANDARDS DETAIL.
- 4. A FLOW TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT PRIOR TO OCCUPANCY FOR VERIFICATION OF REQUIRED ON-SITE WATER SUPPLY.
- ALL ON-SITE FIRE MAIN MATERIALS MUST BE U.L. LISTED AND A.W.W.A. APPROVED.
- 6. THE TURNING RADIUS FOR ANY FIRE APPARATUS ACCESS ROAD AND/OR FIRE LANE, PUBLIC OR PRIVATE, SHALL BE NOT LESS THAN FORTY-EIGHT FEET (48') OUTSIDE RADIUS EQUALING 96' OR LARGER AND TWENTY-TWO FEET (22') INSIDE RADIUS AND SHALL BE PAVED.
- 7. A FIRE APPARATUS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN ONE-HUNDRED FIFTY FEET (150') FROM FIRE DEPARTMENT VEHICLE ACCESS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF ONE HUNDRED FIFTY FEET (150') IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND AREA. CONTRACTOR/ENGINEER SHALL FOLLOW LATEST INTERNATIONAL FIRE CODE REGULATIONS AT ALL TIMES IN REGARDS TO DISTANCE.
- 8. ACCESS ROADS SHALL BE MARKED BY PLACING APPROVED SIGNS AT THE START OF THE DESIGNATED FIRE LANE ONE SIGN AT THE END OF THE FIRE LANE AND WIDTH SIGNS AT INTERVALS OF ONE-HUNDRED FEET (100') ALONG ALL DESIGNATED FIRE LANES. SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS SHALL BE INSTALLED AT LEAST 5', MEASURED FROM THE BOTTOM EDGE OF THE SIGN TO THE NEAR EDGE OF PAVEMENT. WHERE PARKING OR PEDESTRIAN MOVEMENTS OCCUR, THE CLEARANCE TO THE BOTTOM OF THE SIGN SHALL BE AT LEAST 7'. THE CURB ALONG OR ON THE PAVEMENT OR CEMENT IF CURB IS NOT PRESENT, SHALL BE PAINTED WITH RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS.
- 9. ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE GRANTSVILLE CITY F.D. APPROVAL, GATES ARE ONLY ALLOWED WITH PRIOR APPROVAL.
- 10. ALL PRIVATE UNDERGROUND FIRE LINES THAT SERVICE AUTOMATIC FIRE SPRINKLER SYSTEMS SHALL BE NO SMALLER THAN EIGHT (8) INCHES IN DIAMETER AND HAVE A POST INDICATOR VALVE (PIV) BETWEEN THE WATER MAIN AND THE BUILDING. IF A PIV ISN'T FEASIBLE DUE TO SITE CONSTRAINTS, A WATER INDICATOR VALVE (WIV) MAY BE USED WITH THE APPROVAL OF THE CITY ENGINEER OR FIRE CODE OFFICIAL. FOR A WIV TO BE ALLOWED, ANOTHER VALVE MUST BE INSTALLED ON THE FIRE SERVICE LINE BACK AT THE CONNECTION TO THE WATER MAIN, WHICH WILL BE MAINTAINED BY THE CITY AS PART OF IT'S CULINARY WATER SYSTEM. ALL FIRE LINES MATERIAL SHALL BE DUCTILE IRON. (DUCTILE IRON FROM THE PIV TO THE BUILDING SHALL BE PERMITTED OR DUCTILE IRON FROM THE MAIN WATER LINE TO THE WIV).
- 11. POST INDICATOR VALVES (PIV) SHALL BE BETWEEN 6 AND 40 FEET FROM BUILDINGS NOT EXCEEDING THREE STORIES OR EQUIVALENT IN HEIGHT AND BETWEEN 30 AND 40 FEET ON BUILDINGS IN EXCESS OF THREE OR MORE STORIES IN HEIGHT OR EQUIVALENT.
- 12. ROADS AND ACCESSES SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRE APPARATUS. SURFACE SHALL BE PAVED BEFORE THE APPLICATION OF COMBUSTIBLE MATERIAL.
- 13. ALL NEW BUILDINGS EQUIPPED WITH A FIRE DEPARTMENT CONNECTION (FDC) MUST HAVE INLETS SECURED WITH KNOX BRAND LOCKING FDC CAP(S) WITH A SWIVEL COLLAR. ALL NEW BUILDINGS ARE ALSO REQUIRED TO HAVE A KNOX BRAND KEY LOCK BOX MOUNTED ON THE EXTERIOR BUILDING, SUCH THAT FIRE DEPARTMENT PERSONNEL MAY GAIN ACCESS IN CASE OF AN EMERGENCY.

GRANTSVILLE CITY WATER NOTES

- 1. THE FOLLOWING GRANTSVILLE CITY WATER NOTES ARE INTENDED FOR GENERAL WATER STANDARDS ONLY AND ARE NOT ALL INCLUSIVE. THE CITY HAS INCLUDED THE CULINARY WATER DESIGN AND CONSTRUCTION STANDARDS WITHIN THE CITY CONSTRUCTION STANDARDS AND SPECIFICATIONS.
- 2. NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN RELEASED FOR CONSTRUCTION BY THE ENGINEERING DEPARTMENT. FOLLOWING WATER PLAN APPROVAL, FORTY-EIGHT (48) HOUR NOTICE SHALL BE GIVEN TO THE ENGINEERING DEPARTMENT AND THE PUBLIC WORKS DEPARTMENT PRIOR TO THE START OF CONSTRUCTION. NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO AN
- 3. ALL WORK WITHIN GRANTSVILLE CITY SHALL CONFORM TO GRANTSVILLE CITY STANDARDS AND SPECIFICATIONS, AWWA AND APWA.
- 4. FOR RESIDENTIAL DEVELOPMENTS THE DEVELOPER SHALL PURCHASE AND INSTALL METER BOXES AND SETTERS ACCORDING TO CITY STANDARDS ON NEWLY DEVELOPED LOTS AND REAL PROPERTY AT THE TIME OF WATER MAIN INSTALLATION. WATER METERS WILL BE SUPPLIED AND INSTALLED BY THE GRANTSVILLE UTILITIES DEPARTMENT (AT DEVELOPER'S EXPENSE). THE DEVELOPER SHALL ALSO PROVIDE THE SITE ADDRESS, LOT NUMBER, METER SIZE AND PAY METER FEES PRIOR TO BUILDING PERMIT APPROVAL. THE DEVELOPER SHOULD ALSO PAY FOR RENTAL OF A HYDRANT METER, AND/OR USE THE GRANTSVILLE CITY PUBLIC WATER STANDPIPE LOCATED BY THE PUBLIC WORKS BUILDING.
- 5. FOR COMMERCIAL AND CONDOMINIUM DEVELOPMENTS THE DEVELOPER SHALL PURCHASE AND INSTALL METER BOXES AND SETTERS ACCORDING TO CITY STANDARDS. WATER METERS WILL BE SUPPLIED BY GRANTSVILLE CITY PUBLIC WORKS DEPARTMENT (AT DEVELOPER'S EXPENSE) AND INSTALLED BY DEVELOPER.
- 6. ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED AND AN ACCEPTABLE WATER SAMPLE OBTAINED PRIOR TO COMMISSIONING THE NEW WATER LINE TO THE GRANTSVILLE CITY CULINARY WATER DISTRIBUTION SYSTEM.
- 7. GRANTSVILLE CITY UTILITIES DEPARTMENT MUST APPROVE WATER SHUT DOWN WHICH MAY REQUIRE EVENING AND WEEKEND SHUT DOWN AS DEEMED NECESSARY, REQUIRING THE CONTRACTOR TO BE BILLED FOR OVERTIME. 48 HOUR NOTICE IS REQUIRED.
- 8. WATER STUB-OUT INSTALLATIONS WILL NOT BE CONSTRUED AS A COMMITMENT
- 9. CONDITIONAL APPROVAL OF VALVED OUTLET (6" AND LARGER): IN THE EVENT THE WATER PLANS SHOW ONE OR MORE VALVED OUTLETS EXTENDING OUT OF PAVED AREAS, INSTALLATIONS OF THESE OUTLETS IS ACCEPTABLE, HOWEVER, IF THE OUTLETS ARE INCORRECTLY LOCATED OR NOT USED FOR ANY REASON WHEN THE PROPERTY IS DEVELOPED, THE DEVELOPER SHALL ABANDON THE OUTLETS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH THE CITY STANDARDS AND AT THE DEVELOPER'S EXPENSE.
- 10. ALL LINES TO BE PRESSURE TESTED ACCORDING TO GRANTSVILLE CITY AND AWWA STANDARDS AND CHLORINATED PRIOR TO USE AND FINAL ACCEPTANCE.
- 11. ALL FITTINGS TO BE COATED WITH POLY FM GREASE AND WRAPPED WITH 8-MIL THICK POLYETHYLENE.
- 12. NO OTHER UTILITY LINES MAY BE PLACED IN THE SAME TRENCH WITH WATER LINE UNLESS APPROVED BY THE CITY ENGINEER.
- 13. ANY CONFLICT WITH EXISTING UTILITIES SHALL BE IMMEDIATELY CALLED TO THE ATTENTION OF THE CITY ENGINEER OR DESIGNEE.
- 14. ALL WATER VAULTS WILL BE CONSTRUCTED PER GRANTSVILLE CITY STANDARD DRAWINGS AND SPECIFICATIONS. NO VAULTS ARE ALLOWED IN TRAFFIC AREAS WITHOUT PRIOR APPROVAL OF THE CITY ENGINEER.
- 15. LANDSCAPING AND IRRIGATION ADJACENT TO VAULTS SHALL DRAIN AWAY FROM
- 16. ONCE THE WATERLINE HAS BEEN TESTED, APPROVED AND CITY WATER IS FLOWING THROUGH THE PIPE, ONLY CITY PERSONNEL ARE AUTHORIZED TO SHUT DOWN AND CHARGE THE WATERLINE.
- 17. MEGALUG FOLLOWING RING OR AN APPROVED EQUIVALENT SHALL BE USED ON ALL FITTINGS.
- 18. APWA PLAN 562, CITY REQUIRES STAINLESS STEEL TIE-DOWN RESTRAINTS WITH TURNBUCKLES ONLY. 5/8" REBAR IS NOT ACCEPTABLE. MEGALUG FOLLOWERS REQUIRED ON ALL FITTINGS AND ALL DIMENSIONS OF THRUST BLOCKING STILL APPLY. THRUST BLOCKS MAY BE ELIMINATED IF HORIZONTAL TIE DOWN RESTRAINTS HAVE BEEN PRE-ENGINEERED AND RECEIVE PRIOR CITY APPROVAL.
- 19. WATER MAINS WILL BE HOT TAPPED AS CALLED OUT ON THE APPROVED PLANS. UNDER SPECIAL CIRCUMSTANCES, WHEN A CONTRACTOR SUBMITS A REQUEST FOR A SHUTDOWN CONTRARY TO THE APPROVED PLANS AND THE REQUEST IS APPROVED AT THE DISCRETION OF THE CITY ENGINEER OR DESIGNEE, THE CONTRACTOR MUST PROVIDE 48-HOUR NOTICE TO NEIGHBORS AND THOSE AFFECTED. IF BUSINESSES ARE IMPACTED BY THE SHUTDOWN IT WILL BE DONE AFTER HOURS AND ALL OVERTIME FEES FOR CITY PERSONNEL, EQUIPMENT AND VEHICLES MUST BE PAID IN ADVANCE.
- 20. CONTRACTORS ARE REQUIRED TO WRITE THE LOT NUMBER WITH A BLACK PERMANENT MARKER ON THE INSIDE OF THE WATER METER BARRELS AS THEY ARE



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NOTES

N/A 08/11/23 | Job #: 23-0012

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GRANTSVILLE CITY PRE-CONSTRUCTION NOTES

CHAIN OF COMMUNICATION

- FIRST CONTACT: CODY CHRISTENSEN PUBLIC WORKS INSPECTOR -435-237-4769
- SECOND CONTACT: GLEN MILLWARD (WATER), MARKUS SEAT (SEWER), TRAVIS DANIELS (FIRE CHIEF), JASON SMITH (ASSISTANT FIRE CHIEF).
- PLEASE COMMUNICATE THROUGH E-MAIL TO MAINTAIN A WRITTEN RECORD.

MAIN CONSTRUCTION CONTACT

PROJECT FOREMAN:

CONSTRUCTION SCHEDULE

- CONSTRUCTION STARTS:
- PLEASE PROVIDE A CONSTRUCTION SCHEDULE. HELPS CITY TO PLAN FOR WHAT IS HAPPENING. PROVIDE TO JAMES AND HE WILL DISSEMINATE TO OTHERS.

PERMITTING

CONSTRUCTION STAKING

- SURVEYING & STAKING:
- WE ARE HAVING SOME ALIGNMENT ISSUES ON CITY UTILITIES PLEASE MAKE SURE YOU GET ADEQUATE STAKING.

GEOTECHNICAL

- DOES THE CONTRACTOR HAVE A COPY OF THE GEOTECHNICAL REPORT AND IS HE FAMILIAR WITH THE REQUIREMENTS?
- DOES THE CITY INSPECTOR HAVE A COPY OF THE GEOTECHNICAL REPORT AND IS HE FAMILIAR WITH THE REQUIREMENTS? THE CITY INSPECTORS WILL BE GIVEN A COPY.
- GEO-TECH SHALL MONITOR THE EXCAVATION AND DETERMINE THE LOCATIONS THAT REQUIRE ADDITIONAL GRANULAR SUB-BASE AND SPECIFY THE DEPTH REQUIRED. CITY WOULD LIKE A DRAWINGS SHOWING THE AREAS THAT REQUIRE ADDITIONAL WORK.
- WHO WILL DO SOILS, COMPACTION TESTING?

SUBMITTALS:

- THE CONTRACTOR SHALL PROVIDE SUBMITTALS FOR MATERIAL TO THE CITY FOR APPROVAL PRIOR TO PURCHASE OF MATERIALS AND INSTALLATION. THE CITY WANTS TO CHECK THAT THE MATERIALS MEET SPEC BEFORE THEY ARE ORDERED SO THEY DON'T GET REJECTED WHEN THEY HAVE BEEN INSTALLED. SUBMIT TO DAN ENGLAND, CODY CHRISTENSEN, MARKUS SEAT, GLEN MILLWARD, AND JAMES WALTZ IN PUBLIC WORKS.
- THE CITY IS FINE WITH THE MATERIALS THAT HAVE PREVIOUSLY BEEN USED.

- PIPE MATERIAL: PVC ASTM D-3034 SDR-35
- FOLLOW OSHA REQUIREMENTS FOR TRENCHING (4' VERTICAL WITH 1:1
- SLOPING OR STEPPING OR USE TRENCH BOXES). • SEWER LATERALS PER CITY STANDARD. (APWA 431).
- UTAH REQUIREMENT OF 10' HORIZONTAL SEPARATION BETWEEN SEWER AND WATER LATERALS.
- 18" MINIMUM VERTICAL SEPARATION BETWEEN WATER AND SEWER.
- CRUSHED ROCK ¾-INCH MINUS IN PIPE ZONE (3/8-INCH ROUNDED PEA
- GRAVEL IS NOT ALLOWED BY THE CITY).
- SEWER LATERALS, GRAVEL BEDDING TO BE EXTENDED TO DWELLING.
- A-1-a SOILS MAY BE USED ABOVE THE PIPE ZONE IF THEY ARE SUITABLE TO THE CITY AND CAN MEET COMPACTION REQUIREMENTS (BLENDING MAY
- REQUIRED). • OFFSET TEES FOR SEWER LATERALS; GASKET TYPE.
- COMPACTION 95% IN ROADS, 90% OFF-ROAD (ASTM D-1557, MODIFIED
- INSTALLATION AS PER ASTM D-2321 ALL PRECAST MANHOLES TO BE PROVIDED WITH RUBBER BOOTS AND
- STAINLESS-STEEL BANDS AT PIPE PENETRATIONS. • INTERIOR PIPE PENETRATIONS IN ALL SEWER MANHOLES SHALL BE
- GROUTED.
- TRACER WIRE EXTENDING FROM MAIN TO LATERAL STUB ON ALL LATERALS AND EXTENDED TO SURFACE AT STUB MARKER. INCLUDE AN EXTRA 30-FEET TO EXTEND ALONG THE SERVICE TO THE DWELLING.
- STAMP (WHEN WET) OR PIN (DO NOT GRIND) GUTTER BOTH AT THE LIP AND TOP OF CURB AN "S" AT ALL SERVICE LATERALS (TWO PLACES FOR EACH SERVICE). MAKE SURE THESE ARE LOCATED ABOVE THE LATERALS IN THE PROPER LOCATIONS.
- EXTEND UTILITY LATERAL STUB MARKERS BEYOND THE 15-FOOT PU&DE (15-FEET BEHIND BACK OF WALK).
- END OF SEWER LATERALS SHALL BE PLUGGED.

TESTING:

PROCTOR)

- AIR TEST MANDATORY CERTIFICATION REQUIRED.
- VACUUM TEST REQUIRED FOR THE MANHOLES. VIDEO INSPECTION AFTER FLUSHING - THE CITY DOES NOT NEED TO
- OBSERVE THE VIDEO INSPECTION. VIDEO RECORD TO BE PROVIDED FOR CITY REVIEW.
- PLEASE PROVIDE THE CITY 48 HOURS' NOTICE PRIOR TO TESTING.

EMERGENCY SERVICES

- INSTALL A SILT FENCE FIVE FEET OUT AROUND LIVE FIRE HYDRANTS AND ELECTRICAL TRANSFORMERS. THIS HELPS MAINTAIN A CLEAR SPACE AROUND THEM AND MAKES THEM VISIBLE IF EMERGENCY SERVICES ARE NEEDING TO FIND THEM DURING CONSTRUCTION
- INSTALL TEMPORARY SIGNAGE AT THE BEGINNING OF WORK ON THE SITE. PARK ONLY ON ONE SIDE OF ACCESS ROADS SO EMERGENCY ACCESS IS
- COORDINATE WITH FIRE CHIEF FOR HIS INSPECTIONS. ROADS: FACE OF CURB TO FACE OF CURB IS PROPER DISTANCE AND HYDRANTS ARE PROPERLY PLACED. THE HEIGHT OF THE HYDRANTS WILL ALSO BE INSPECTED. 18" ABOVE GROUND FROM THE PUMPER NOZZLE.
- PAINT RED CURB TEN FEET EITHER DIRECTION FIRE HYDRANTS.

CULINARY WATER

• PIPE MATERIAL: PVC C900 DR18

USE 150# CORP STOPS.

- USE BEDDING SAND FOR BACKFILL IN THE PIPE ZONE (CITY NEEDS TO PREAPPROVE SAND BEDDING.) CITY WANTS CLEANED WASHED SAND. THE CITY WANTS A BUCKET AHEAD OF TIME SO THE CITY CAN WET IT AND SEE IF IT SETS UP LIKE CONCRETE OR NOT. IT CAN'T SET UP LIKE CONCRETE. THEY CAN PULL FROM THE STAKER PIT BUT THE SAND NEEDS TO BE WASHED. THE CITY CAN PROVIDE AN EXAMPLE FOR WHAT
- THEY ARE LOOKING FOR. • WATER LATERALS SAND BEDDING NEEDS TO GO TO THE DWELLING.
- A-1-a SOILS MAY BE USED ABOVE THE PIPE ZONE. VALVES SHALL BE CLUSTERED IN INTERSECTIONS
- VALVES & TEMP. BLOW-OFF ARE LOCATED AT THE DEAD-END MAIN OF PHASE LINES TO ALLOW FOR FLUSHING, ISOLATION AND CONTINUED SERVICE TO EXISTING CONNECTIONS WHEN FUTURE PHASES ARE CONSTRUCTED.
- METER AND SERVICES SHALL BE ¾-INCH POLYETHYLENE SDR11 IPS. INSTALL SERVICE LATERALS AND METERS WITHIN 5-FEET OF LOT LINES (AS CLOSE TO LOT LINE AS PRACTICABLE), ONE ON EACH SIDE OF COMMON LOT LINE (ALTERNATE WITH SECONDARY WATER).
- 10' HORIZONTAL SEPARATION OF WATER AND SEWER LATERAL PER STATE REQUIREMENTS. WATER LATERAL TO BE LOCATED UPSLOPE OF
- SEWER LATERAL TO THE EXTENT PRACTICABLE. • 18" MINIMUM VERTICAL SEPARATION BETWEEN WATER AND SEWER.
- 10' HORIZONTAL SEPARATION OF WATER AND STORMWATER. METER BARRELS SHALL BE 21-INCH DIAMETER WHITE CORRUGATED
- POLYETHYLENE
- METER TO BE INSTALLED 18 TO 22 INCHES BELOW THE LID. PLACE SAND AROUND THE WATER SERVICE SETTER BASES AND ABOVE
- TO STABILIZE SETTER AND PROVIDE INSULATION. GRAVEL IS NOT
- TAPPING SADDLES SHALL BE BRASS WITH DOUBLE STAINLESS STEEL OR BRASS STRAPS WRAPPED WITH POLYSOCK.
- USE DUAL CHECK AND HEAVY-DUTY ANGLE VALVES FOR ALL SERVICES. • INSTALL TRACER WIRE AND LOCATING TAPE ABOVE WATER MAIN.
- INSTALL TRACER WIRE FROM MAIN CONNECTION THROUGH METER PIT TO STUB MARKER WITH 30' EXCESS TO EXTEND TO THE DWELLING.
- STAMP (WHEN WET) OR PIN (DO NOT GRIND) GUTTER BOTH AT THE LIP AND TOP OF CURB WITH A "W" AT ALL SERVICE LATERALS (2 PLACES EACH SERVICE). MAKE SURE THESE ARE LOCATED ABOVE THE LATERALS IN THE PROPER LOCATIONS.
- THRUST BLOCKS NEED TO BE INSPECTED BY THE CITY PRIOR TO BACKFILL. SIZE BASED ON TEST PRESSURES
- MAKE SURE FIRE HYDRANTS NEED TO BE INSTALLED TO THE PROPER HEIGHT TO HELP THE BREAK A WAY FUNCTION WORKS.
- HYDRO FINDERS MUST BE INSTALLED.

TESTING:

• HYDROSTATIC PRESSURE TEST: 200 PSI FOR A MINIMUM OF 2 HOURS FOR MAIN ONLY AND 150 PSI IF TESTING WITH TAPPING SADDLES AND CORPORATIONS IN PLACE - INSPECTOR (GLEN MILLWARD OR ASSIGNED CITY INSPECTOR) MUST BE PRESENT FOR THE ENTIRE DURATION OF THE

DISINFECTION:

- HYPOCHLORITE POWDER
- CHLORINE RESIDUALS WILL BE TESTED ONCE BY THE CITY, BUT ANY RETESTS WILL BE PERFORMED BY THE CONTRACTOR/DEVELOPER
- ONLY ONE SERIES OF BAC-T TESTING WILL BE PERFORMED BY THE CITY
- TO ACCEPT WATER LINES AND ANY RETESTS WILL BE PERFORMED BY THE CONTRACTOR/DEVELOPER (PRELIMINARY INVESTIGATIVE TESTS BY THE CONTRACTOR/DEVELOPER ARE ENCOURAGED) THE CITY NEEDS TO
- DO THE GRAB ON ANY SAMPLES. PER AWWA C651, BAC-T TESTING SHALL BE COMPLETED FOR EVERY 1,200 FEET OF NEW WATER MAIN, AT THE END OF THE LINE, AND AT EACH BRANCH. TWO CONSECUTIVE SAMPLE SETS SHALL BE COLLECTED AT THE AFOREMENTIONED LOCATIONS AT LEAST 24 HOURS APART.
- THE CITY WILL NOT SWING METER BOXES TO ACCOMMODATE THE DRIVEWAY. THINK ABOUT THE LATERAL LOCATIONS BEFORE LOCATING THE DWELLING.

STORM WATER

PIPE MATERIAL

- REINFORCED CONCRETE (RCP) AND/OR ADS POLYPROPYLENE GRAY PIPE INSTALLATION AND COMPACTION TO FOLLOW MANUFACTURERS
- RECOMMENDATIONS.
- ALL CATCH BASIN BOXES INCLUDE A SUMP. FOR BOXES WITH SNOUTS THE SUMP DEPTH IS BASED UPON THE SNOUT MODEL MANUFACTURES RECOMMENDATION. FOR ALL OTHER BOXES THE DEPTH IS 12" BELOW THE FLOW LINE OF THE PIPES.

FRANCHISE UTILITIES

- GAS: DOMINION
- POWER: ROCKY MOUNTAIN POWER
- CABLE: COMCAST
- PHONE: CENTURY LINK
- PLEASE INSTALL STUBS FOR FUTURE PHASES FOR FRANCHISED UTILITIES SO THAT NEW STREETS AND CONCRETE DON'T HAVE TO BE CUT TO EXTEND TO A FUTURE PHASE.

SURFACE IMPROVEMENTS

PAVEMENT:

- ½" OR ¾-INCH ASPHALT AGGREGATE (1/2" IS THE CITY PREFERENCE). THE CITY STANDARD PAVEMENT SECTION IS 3-INCH ASPHALT ON 6-INCH UBC ON
- 8-INCH GRANULAR BORROW. (FABRIC) MARSHALL MIX REQUIRED PRIOR TO PAVING
- ROAD BASE AND CROSS-SECTION PER APPROVED DRAWINGS.
- PROVIDE PROPER SIGNAGE PER UTAH MUTCD. PROVIDE STOPS BARS AT STOP SIGNS.
- ADA TRUNCATED DOME INSERTS NEED TO BE YELLOW IN PED RAMPS. THE SPACING IS REQUIRED TO BE 2" TO FRONT OF RAMP AND NO MORE THAN 2" OFF THE SIDES OF THE WALKING PATH.
- INSTALL "NO PARKING" SIGNS IN TEMPORARY TURNAROUNDS. HOMEOWNERS ARE PARKING VEHICLES IN THEM.

- CONCRETE: • AIR TEST EVERY 50 YARDS UNLESS RESULTS ARE OUT OF SPEC (5% - 7%)
- 3 CYLINDERS EVERY 50 YARDS 4,500 PSI CONCRETE FOR ALL SURFACE IMPROVEMENTS.

• SIDEWALK SECTION IS 6" PCC ON 6" UBC.

- EARTHWORK: PROVIDE COMPACTION AND SIEVE ANALYSIS ON ALL INITIAL PROCTORS AND NEW MATERIAL
- COMPACTION TESTS EVERY 100 FEET OF PIPE TRENCH. VARY DEPTHS TO PROVIDE RESULTS THROUGHOUT STRATA. ROAD WORK AND BASE - BOTH SHOULDERS AND CENTERLINE WITH A
- MAXIMUM OF 200' BETWEEN TESTS.
- PROOF ROLL TRENCHES, SUBGRADE, AND BASE MINIMUM OF FOUR COMPACTION TESTS AROUND EACH MANHOLE AND
- CLEANOUT. • USE APWA DETAIL 255 FOR PIPE TRENCH PATCHING.

TESTING AND QA/QC

- 48-HOUR NOTICE IS REQUIRED PRIOR TO ANY TESTING. MAKE SURE THE
- TEST IS SCHEDULED. • INSPECTOR(S) REPRESENTING THE CITY MUST BE PRESENT FOR ALL
- TESTING INCLUDING THOSE PERFORMED BY AN INDEPENDENT AGENCY. PUBLIC WORKS HOURS ARE 7 AM TO 3:30 PM MONDAY THROUGH FRIDAY. HOWEVER, THE CITY WILL WORK WITH CONTRACTOR IF CONTRACTOR IS
- WORKING OUTSIDE THESE HOURS. COMPACT FILL IN 8" LIFT'S.

CONSTRUCTION WATER

- CONTRACTOR SHALL OBTAIN WATER FOR CONSTRUCTION FROM A CITY APPROVED FIRE HYDRANT USING A HYDRANT METER RENTED FROM THE CITY. THERE IS A \$1600 REFUNDABLE DEPOSIT FOR HYDRANT METERS AND A CHARGE OF \$6 PER 1000 GALLONS FOR ALL WATER USED. \$75 A MONTH RENTAL CHARGE.
- PLEASE DON'T DAMAGE THE METERS AND DON'T TAKE ANYTHING OFF THE METER.

EROSION CONTROL / STORM WATER SYSTEM PROTECTION

- MINIMIZE POTENTIAL FOR OFF-SITE RUN-OFF
- MINIMIZE DISTURBED AREAS.
- KEEP WORKING AREA WETTED TO MINIMIZE DUST PROVIDE SILT FENCE TO PREVENT SEDIMENT TRANSPORT DOWNSTREAM.
- CONTAIN ALL SEDIMENT ON SITE.
- MAINTAIN BMPS AS PER SWPPP.
- SWPPP TO BE ON-SITE AT ALL TIMES. • PROOF OF COVERAGE UNDER UPDES REQUIRED
- O CITY WILL NEED A COPY OF THE NOI. • THE CITY IS ON COMPLIANCE GO. MAKE SURE UPDATES ARE LOADED IN COMPLIANCE GO. ADD THE CITY PUBLIC WORKS E-MAIL CONTACT. HAVE A
- RSI AND PTOE ON SITE.
- THE CITY WILL CHECK WITH THE CONTRACTOR AFTER AN EVENT • INSPECT AFTER RAINFALL AND OTHER EVENTS (WEATHER, AND
- CONSTRUCTION AROUND BMPS) THAT MAY AFFECT BMPS.
- MAKE SURE TO FOLLOW THE SWPPP AS SHOWN ON THE PLANS. • PROVIDE VEGETATIVE COVER ON COMPLETED OR LONG-TERM
- TEMPORARY GRADING WITHIN 14 DAYS. • PUT THE SWPPP SIGN ON SITE AND VISIBLE SO THE STATE CAN SEE IT ON A DRIVE BY.

CONSTRUCTION DEBRIS DISPOSAL

- MAINTAIN A WORK SITE THAT IS CLEAN AS POSSIBLE AND PROPERLY
- DISPOSE OF DEBRIS AND TRASH.
- NO GARBAGE PITS ALLOWED NO ON-SITE CONCRETE WASHOUT ALLOWED UNLESS HAULED FROM SITE AT END OF PROJECT OR OTHER PROVISIONS ARE MADE

SITE SAFETY

CONFORM TO OSHA STANDARDS.

• SECURE OPEN TRENCHES AND PLUG LINES.

CLOSE TRENCHES AT NIGHT.

SECURE CONSTRUCTION EQUIPMENT WHEN NOT IN USE

<u>SECURITY</u>

SANITATION

• CLEAN AND PROPERLY MAINTAINED PORT-A-JOHN(S) ON SITE AT ALL

HAZARDOUS MATERIAL STORAGE ON SITE

• IF THERE ARE HAZARDOUS MATERIALS ON SITE, MAKE SURE THE CITY HAS APPROVED IT AND THAT IT HAS SECONDARY CONTAINMENT. THE FIRE CHIEF NEEDS TO KNOW WHAT IS ON SITE, HOW IT IS SECURED AND WERE IT IS LOCATED.

SITE ACCESS

AS SHOWN ON THE SWPPP DON'T DEVIATE FROM IT

CONSTRUCTION OBSERVATION

CITY PERSONNEL WILL INSPECT REGULARLY AS NEEDED.

CONSTRUCTION DRAWINGS

- KEEP AN ACCURATE SET OF AS-BUILTS.
- PROVIDE COPIES OF AS-BUILTS AT COMPLETION OF PROJECT PRIOR TO OCCUPANCY.
- MAKE SURE CHANGES IN AS-BUILTS ARE BUBBLED AND CLEAR AS WHAT CHANGES HAVE OCCURRED.
- CITY HAS STORM BASIN PLAN CERTIFICATION THE DESIGNING ENGINEER NEEDS TO SIGN AND STAMP.
- PROVIDE DIGITAL SET OF AS-BUILTS (PDF, DWG AND SHAPE FILES ARE REQUIRED.) FOR CITY
- PRIOR TO OCCUPANCY CITY WILL PROVIDE A LIST OF ITEMS REQUIRED IN THE SHAPE FILE.
- KRISTY WILL PROVIDE HER REQUIREMENTS FOR THE CONSTRUCTION DRAWINGS. IF THERE ARE QUESTIONS ABOUT THE PLANS AND CONDITIONS ON THE GROUND FIRST REQUEST THE DESIGN ENGINEER'S INTERPRETATION AND BRING THAT INTERPRETATION TO

THE CITY WHEN QUESTIONS COME UP. THE ONSITE INSPECTORS CANNOT MAKE APPROVALS TO

CONSTRUCTION DRAWINGS:

DON'T PRINT ANY PLANS UNTIL ALL OF THE CHANGES HAVE BEEN MADE AND YOU HAVE RECEIVED A COPY OF THE SIGNED PLANS FROM KRISTY CLARK.

PROVIDE KRISTY CLARK WITH ONE 24X36 AND FOUR 11X17'S.

PROJECT CONCERNS OR QUESTIONS:

CHANGES. DOCUMENT CHANGES.

SHARE THIS DOCUMENT WITH THOSE ON SITE TO USE AS CONSTRUCTION STANDARDS.

END





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N/A 04/03/24 | Job #: 23-0012

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