GRANTSVILLE

CITY COUNCIL

November 2nd, 2022

City Council Meeting

Information Packet

AGENDA ITEM #1

Public Comments.

Public Comments will also be taken by email until 5:00 pm on November 2nd, 2022. Please email comments to bbaugh@grantsvilleut.gov. Please add 'Public Comment' in the subject line.

AGENDA ITEM #2

Summary Action Items:

a. Minutes from the Regular Meeting held on 10/19/2022
b. Approval of Bills

MINUTES OF THE REGULAR MEETING OF THE GRANTSVILLE CITY COUNCIL, HELD ON OCTOBER 19TH, 2022 AT THE GRANTSVILLE CITY HALL, 429 EAST MAIN STREET, GRANTSVILLE, UTAH AND ON ZOOM. THE MEETING BEGAN AT 7:00 P.M.

Mayor and Council Members Present:
Mayor Neil Critchlow
Jolene Jenkins
Scott Bevan
Jeff Hutchins
Darrin Rowberry
Jewel Allen

Council Members Not Present:

Appointed Officers and Employees Present:
Jacob Enslen, Police Chief
Gina Francom, Deputy Recorder
Braydee Baugh, Recorder
Jesse Wilson, City Manager
Brett Coombs, City Attorney

Citizens and Guests Present:

There were many members of the public present in person and via Zoom

Mayor Critchlow asked Max Bleazard to lead the Pledge of Allegiance.

AGENDA:

1. **Public Comments:** Mark Nielsen stood to provide public comment. Mr. Nielsen advised he was concerned the construction was starting at 6:15am and the noise that was creating. Mr. Nielsen advised there is an issue with water in the county and that needed to be considered when building is happening. Rick Barchers stood for public comment. Mr. Barchers advised there was a report on "Redfin" the average home last year vs this year payment increased by 45%. Mr. Barchers does not want the City to be run on fees due to the potential of there being a down cycle soon. Ms. Terri Durfee stood to provide public comment. Ms. Durfee advised she was not against the annexation of the land; however, she was opposed to the development the annexation would bring in. Ms. Durfee requested a stop to all mass development until water shortage for the county has been addressed.

2. **Summary Action Items.**
   a. Approval of minutes from October 5th, 2022 regular meeting and the Joint Meeting held on September 28th, 2022
   b. Approval of Bills totaling $519,997.91

   Motion: Councilmember Allen made a motion to approve the summary action items with the requested amendments

   Second: Councilmember Hutchins seconded the motion.

   Vote: The vote was as follows: Councilmember Rowberry, "Aye", Councilmember Hutchins, "Aye", Councilmember Bevan, "Aye", Councilmember Allen "Aye", and Councilmember Jenkins, "Aye". The motion carried.

3. **Discussion with Teresa Reed and the request for easement through Grantsville City owned property**

   THIS ITEM WAS REMOVED BY THE APPLICANT

4. **Consideration of Resolution 2022-58 approving the Annexation Agreement with Six Mile Ranch**

   Craig Smith stood to represent this item. Councilmember Hutchins asked Mr. Smith to address the public comments. Mr. Smith explained before any of the development could happen, the Developer/Property Owner would need to have a development agreement. Mr. Smith explained the amount of open space cannot be removed from the Annexation agreement. Councilmember Allen asked what the open space would be. Mr. Smith advised it has been dedicated to 25%, which is over the 10% required currently by City Ordinance. Mr. Smith advised there is property that will be used as a functioning ranch. Councilmember Allen advised a sewer plant would not be considered open space. Mr. Smith advised there are 1500 acres of open space in this agreement. Councilmember Jenkins asked what the goals with being annexed into Grantsville. Mr. Smith advised the owners preferred to stay in Tooele County; however, they were drawn into Erda. Mr. Smith advised the Bleazard's consider themselves to be from Grantsville. Councilmember Allen asked what would happen if the property was not annexed. Mr. Smith advised the property owners would request to be de-annexed from Erda City. Mr. Smith advised there are offers to buy the property regularly, but there are no intentions to sale now. Councilmember Jenkins wanted to clarify the potential developments would still be required to follow the same rules other developers would have to follow. Councilmember Hutchins advised it would concern him more if he did not know who owned the property and believes the property owner wants what is best for Grantsville. Councilmember Hutchins noted the development will not happen in his lifetime and believes in the long run this is good for Grantsville. Councilmember Jenkins asked what

the plans for the islands caused by the annexation. Mr. Smith advised they would be in Erda City and that would need to be worked out between Erda and Grantsville. Mr. Smith advised the majority of the islands wanted to be involved in the annexation but were not able to. Mr. Smith advised there is a paragraph that needed to be changed from A-20 to A-10 and a single parcel would need to be commercial.

Motion: Councilmember Hutchins made the motion to approve Resolution 2022-58 approving the Annexation Agreement with Six Mile Ranch with the correction to the 2nd paragraph moving A-20 to A-10

Second: Councilmember Rowberry seconded the motion.

Vote: The vote was as follows: Councilmember Rowberry, "Aye", Councilmember Hutchins, "Aye", Councilmember Bevan, "Aye", Councilmember Allen "Aye", and Councilmember Jenkins, "Aye". The motion carried.

5. **Consideration of Resolution 2022-63 approving the 2022-2023 Grantsville Dispatch Service Agreement and Fee Allocation**

Jesse Wilson stood for this item. Councilmember Hutchins acknowledged the incidents have dropped from 2019, despite the population growth. Chief Enslen advised the report system has been changed so the data maybe different but the Police Department has also used alternative methods for dispatching that may have affected the numbers.

Motion: Councilmember Rowberry made the motion to approve Resolution 2022-63 approving the 2022-2023 Grantsville Dispatch Service Agreement and Fee Allocation

Second: Councilmember Jenkins seconded the motion.

Vote: The vote was as follows: Councilmember Rowberry, "Aye", Councilmember Hutchins, "Aye", Councilmember Bevan, "Aye", Councilmember Allen "Aye", and Councilmember Jenkins, "Aye". The motion carried.

6. **Consideration of Resolution 2022-64 appointing John Limburg to serve as Planning Commission Member**

Motion: Councilmember Allen made the motion approve Consideration of Resolution 2022-64 appointing John Limburg to serve as Planning Commission Member

Second: Councilmember Bevan seconded the motion.

Vote: The vote was as follows: Councilmember Rowberry, "Aye", Councilmember Hutchins, "Aye", Councilmember Bevan, "Aye", Councilmember Allen "Aye", and Councilmember Jenkins, "Aye". The motion carried.

7. **Consideration of Resolution 2022-65 amending the Employee Handbook to include stipend for Mayor and out-of-county Department Heads**

Jesse Wilson stood for this item. Mr. Wilson advised this is too help the Mayor not have to track his mileage for the smaller trips. Mr. Wilson advised this would also help with recruitment.

Motion: Councilmember Hutchins made a motion to approve Resolution 2022-65 amending the Employee Handbook to include stipend for Mayor and out-of-county Department Heads

Second: Councilmember Rowberry seconded the motion.

Vote: The vote was as follows: Councilmember Rowberry, "Aye", Councilmember Hutchins, "Aye", Councilmember Bevan, "Aye", Councilmember Allen "Aye", and Councilmember Jenkins, "Aye". The motion carried.

8. **Consideration of a Water Transfer and Banking Agreement with Gunderson Family Trust**

Motion: Councilmember Hutchins made the motion to approve the Water Right Transfer and Banking Agreement with Gunderson Family Trust

Second: Councilmember Bevan seconded the motion.

Vote: The vote was as follows: Councilmember Rowberry, "Aye", Councilmember Hutchins, "Aye", Councilmember Bevan, "Aye", Councilmember Allen "Aye", and Councilmember Jenkins, "Aye". The motion carried.

9. **Consideration of Ordinance 2022-28 Approving of Grantsville City, Utah annexing into it City Limits Approximately 7,888.65 acres of Real Property Located on the North Eastern Boundary of Grantsville City, Utah to Designate the Property as a Special Overlay Zone**

Craig Smith was present for this item. Councilmember Jenkins asked for clarification regarding the overlay zone. Attorney Coombs explained the idea behind the overlay was to provide flexibility for the zoning of the property when the property owners decide to develop.

Motion: Councilmember Allen made the motion to approve Ordinance 2022-28 Approving of Grantsville City, Utah annexing into it City Limits Approximately 7,888.65

acres of Real Property Located on the North Eastern Boundary of Grantsville City, Utah to Designate the Property as a Special Overlay Zone

Second: Councilmember Jenkins seconded the motion.

Vote: The vote was as follows: Councilmember Rowberry, "Aye", Councilmember Hutchins, "Aye", Councilmember Bevan, "Aye", Councilmember Allen "Aye", and Councilmember Jenkins, "Aye". The motion carried.

10. Discussion regarding the Final Plat for Reuban Wayman Subdivision

Guy and Reuben Wayman were present for this item.

Motion: Councilmember Rowberry made the motion to make Item 10 an action item.

Second: Councilmember Jenkins seconded the motion.

Vote: The vote was as follows: Councilmember Rowberry, "Aye", Councilmember Hutchins, "Aye", Councilmember Bevan, "Aye", Councilmember Allen "Aye", and Councilmember Jenkins, "Aye". The motion carried.

Motion: Councilmember Rowberry made the motion to approve the final plat for the Rueban Wayman Subdivisions

Second: Councilmember Hutchins seconded the motion.

Vote: The vote was as follows: Councilmember Rowberry, "Aye", Councilmember Hutchins, "Aye", Councilmember Bevan, "Aye", Councilmember Allen "Aye", and Councilmember Jenkins, "Aye". The motion carried.

11. Discussion regarding the Final Plat for Cloward Court Subdivision

Motion: Councilmember Rowberry made the motion to make Item 11 an action item.

Second: Councilmember Hutchins seconded the motion.

Vote: The vote was as follows: Councilmember Rowberry, "Aye", Councilmember Hutchins, "Aye", Councilmember Bevan, "Aye", Councilmember Allen "Aye", and Councilmember Jenkins, "Aye". The motion carried.

Motion: Councilmember Rowberry made the motion to approve the final plat for the Cloward Court Subdivisions

Second: Councilmember Allen seconded the motion.

Vote: The vote was as follows: Councilmember Rowberry, "Aye", Councilmember Hutchins, "Aye", Councilmember Bevan, "Aye", Councilmember Allen "Aye", and Councilmember Jenkins, "Aye". The motion carried.

12. Discussion Regarding the Final Plat for Cowboy Estates

Shawn Holste was present for this item. Councilmember Jenkins asked for the size of the lots. Mayor Critchlow asked if the retention basin will be attached to the property and if there would be a fence. Mr. Holste advised there would be a fence. Mr. Holste asked if this could be moved to an action item as well. Mr. Hutchins advised he did not feel that would be appropriate for this development because the size of the previous 2 subdivisions were not comparable to the size of his subdivisions; and there is more to consider with Mr. Holste's projects.

13. Discussion Regarding the Final Plat for Matthews Meadows Subdivision

Shawn Holste was present for this item. Councilmember Hutchins asked if the email that had requested verbiage be added on the plat was addressed. Mayor Critchlow advised there are a lot of houses going in next to animals and requested the plat also indicate to the future homeowners there is farmland here. Councilmember Allen asked if the fence issue was discussed. Mr. Holste was concerned the rules don't apply the same across the board. Councilmember Allen advised the neighbors did not feel they had the opportunity to speak during the rezone. Mr. Holste advised the rezone was not his doing or responsibility. Mr. Holste advised a 9-foot concrete fence is too much to impose. Mayor Critchlow asked if this would be part of a Development Agreement. Attorney Coombs advised it could but the Developer would have to agree to it. Mr. Holste advised the roof pitch, the house size, and the down lighting are not good requirements and he felt would not be appropriate to request. Attorney Combs wanted to confirm Mr. Holste was agreeable to no vinyl siding, 3 car garages and fencing. Councilmember Allen asked how to resolve the issue with the fence. Attorney Coombs explained the Council can only address actual and real issues. Councilmember Allen advised an 8-foot fence would be preferred. Councilmember Rowberry advised if someone wants to throw stuff over the fence they will regardless of the height of the fence. Mayor Critchlow requested another meeting between Mr. Holste and the residents to reach an agreement regarding the fence.

14. Discussion regarding the Concept Plan for Grantsville Townhomes located at 825 East Main Street

Chase Andrizzi was present for this item. Mr. Andrizzi advised this concept plan was presented to Planning Commission. Mr. Andrizzi advised they have been working with the Fire Marshall to discuss the different options to correct both accesses being on the same road. Councilmember Jenkins asked if logistically they could get another exit.

Councilmember Allen acknowledged the concern with the exits. Councilmember Rowberry advised this development has a stoplight when no other development does and felt this would only improve the flow of traffic in that area. Councilmember Allen advised this area will have school aged children and how they would get to school. Mayor Critchlow advised he didn't feel kids would be walking to school but the bus stops would be an issue. Councilmember Bevan asked if the neighbors have been spoken too. Mr. Andrizzi advised the actual property owner has communicated with the neighbors. Councilmember Allen asked if they would be developing in phases. Mr. Andrizzi advised most likely would phase the southern portion first of the plan first. Councilmember Jenkins asked if the amenity area meets the open space requirement. Councilmember Jenkins asked what is the benefit to Grantsville would be. Mr. Andrizzi advised that is part of the reason for the concept. Mayor Critchlow advised the zoning was changed a long time ago. Councilmember Allen asked what the amount of open space would be required. Attorney Coombs advised its just 10%. Councilmember Jenkins asked if there was a way to make it feel more like a community. Mr. Andrizzi advised there was some consideration regarding making the amenity area be publicly dedicated.

15. Discussion regarding the Grantsville Bike Hike

Jesse Wilson was present for this item. Mr. Wilson explained the school asked to reserve the Splash Pad. Councilmember Jenkins advised she wanted the bike hike to stay at Deseret Peak. Councilmember Hutchins advised the discussion is about allowing them to utilize the entire park and not the Deseret Peak. It was agreed that using the entire park would be allowed.

16. Council Reports

Jewel Allen: She presented to the Chamber of Commerce regarding the PAR Tax. Would like to acknowledge how well the Honey Harvest Festival turned out.
Jeff Hutchins: Advised there is a survey and wants as many responses as possible. He would like over 500 responses.
Scott Bevan: Banners are up on Main Street. Met with Moana Dalton and went through the CERT trailer and there is a lot of stuff still in there. He will get with City Manager Jesse Wilson regarding those items.
Jolene Jenkins: Recognized the Honey Harvest Festival success and Cavett Eaton won some awards with his wife. There is Trunk or Treat on October 29th at 5:00pm and the Halloween Carnival is happening now.
Darren Rowberry: Participated in the Survey and Planning with PSOMAS and felt the planning went similar to the Six Mile development with the forward thinking vision.
Mayor Critchlow: Work on speed limits on Worthington, Quirk, and Willow Streets.

17. Closed Session (Personnel, Real Estate, Imminent Litigation).

Councilmember Hutchins made the motion to enter into a closed session

Closed session started at 8:53 pm

Closed session ended at 9:35

12. Adjourn.

Motion: Councilmember Allen made the motion to adjourn

Second: Councilmember Hutchins seconded the motion.

Vote: The vote was as follows: Councilmember Rowberry, "Aye", Councilmember Hutchins, "Aye", Councilmember Stice, "Aye", Councilmember Allen "Aye", and Councilmember Sparks, "Aye". The motion carried.

AGENDA ITEM #3

Presentation by Alta Calcagno

AGENDA ITEM #4

Annual Training on Open and Public Meetings

AGENDA ITEM #5

Consideration of Resolution 2022-66 approving the Final Plat for Cowboy Estates

GRANTSVILLE CITY
RESOLUTION NO. 2022-66

A RESOLUTION APPROVING THE FINAL PLAT ON THE COWBOY ESTATES SUBDIVISION FOR THE CREATION OF NINETEEN (19) SINGLE FAMILY LOTS IN THE R-1-21 ZONE

Be it enacted and ordained by the City Council of Grantsville City, Utah as follows:

WHEREAS, Grantsville New Team, LLC (Developer) submitted an application for a final subdivision plat for the Cowboy Estates Subdivision, Grantsville City, Utah for the creation of 19 single family lots in the R-1-21 zone;

WHEREAS, the proposed amendments of the subject property are permitted in the R-1-21 zone as indicated in the Grantsville City Land Use Management and Development Code (GLUMDC);

WHEREAS, the Grantsville City Planning and Zoning Commission reviewed the final plat in a regularly scheduled public meeting for compliance with the requirements of the pertinent Grantsville City code requirements, and found that the proposed final plat has met or can meet the requirements of GLUMDC;

WHEREAS, Developer is required to construct certain public improvements;

WHEREAS, the Grantsville City Council hereby determines that it is in the best interest of the City to approve the final subdivision plat for Developer at the Cowboy Estates Subdivision located in Grantsville City, Utah for the creation of 19 single family lots in the R-1-21 zone.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF GRANTSVILLE CITY, STATE OF UTAH, AS FOLLOWS:

Section 1. Final Plat. The City of Grantsville approves the Final Plat Amendment provided in Exhibit A.

Section 2. Severability Clause. If any part or provision of this Resolution is held invalid or unenforceable, such invalidity or unenforceability shall not affect any other portion of this Resolution and all provisions, clauses and words of this Resolution shall be severable.

ADOPTED AND PASSED BY THE CITY COUNCIL OF GRANTSVILLE CITY, THIS 2nd DAY OF NOVEMBER, 2022.

BY ORDER OF THE
GRANTSVILLE CITY COUNCIL

_____
By Mayor Neil Critchlow

ATTEST

_____
Braydee Baugh, City Recorder

MEMORANDUM

DATE: October 17, 2022

TO: Braydee Baugh, City Recorder

FROM: Cavett Eaton, Planning & Zoning Administrator

RE: **ZONING ITEMS UP FOR CONSIDERATION AT COUNCIL MEETING TO BE HELD OCTOBER 19TH, 2022**

City Council Agenda Items #: Consideration of Resolution 2022-__ approving the Final Plat for Grantsville New Team, LLC. on the Cowboy Estates Subdivision located approximately at 416 South Willow Street for the creation of nineteen (19) lots in the R-1-21 zone.

The Planning Commission recommended approval this item on October 6 2022, with little discussion and the motion is at the end of the discussion:

Discussion:

Commission Member Pinkham has a question about sewer installation. Commission Member Topham asked Dan England where are they at with who is doing what with the installation. He replied he would need to talk to finance about if there are fund available to go through with the installation.

Commission Member Topham asked Dan England if for the purpose of this city project are the drawing correct for the Final Plat. He answered "Yes" Commission Member Pinkham also affirmed the Final Plat is correct.

Commission Member Topham made a motion to recommend approval of the Final Plat for Final Plat for Cowboy Estates. Commission Member Barchers seconded the motion. All voted in favor and the motion carried unanimously

- End of Memorandum-

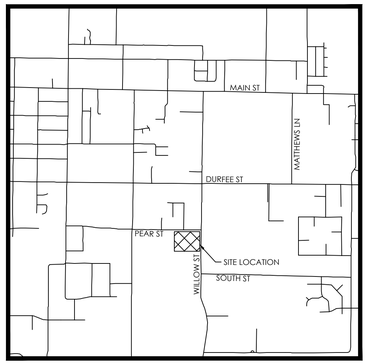
COWBOY ESTATES SUBDIVISION

PREPARED FOR:

GRANTSVILLE'S NEW TEAM LLC

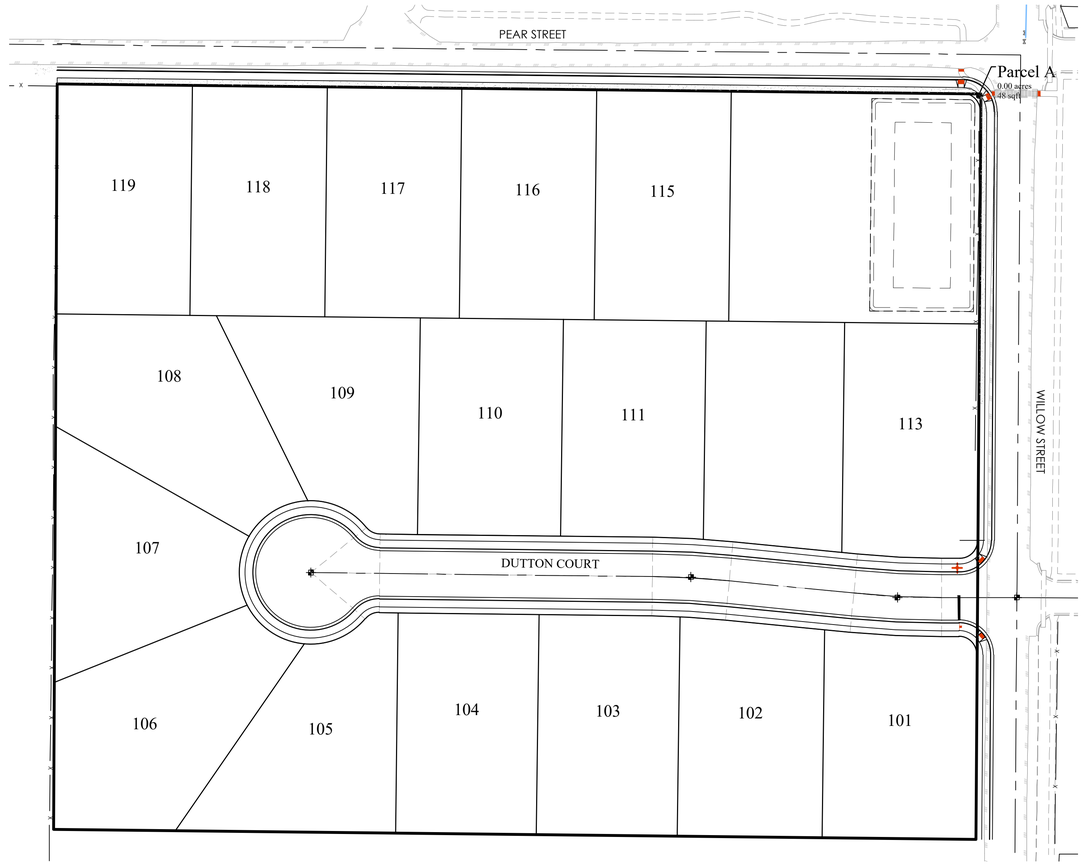
LOCATED IN:

GRANTSVILLE, UT



VICINITY MAP

NTS



SITE MAP

Sheet List Table	
Sheet Number	Sheet Title
C1	COVER SHEET
C2	FINAL PLAT
C3	SITE PLAN
C4	GRADING AND DRAINAGE PLAN
C4.1	GRADING AND DRAINAGE PLAN
C4.2	GRADING AND DRAINAGE PLAN
C4.3	GRADING AND DRAINAGE PLAN
C4.4	POND CALCULATIONS
C5	SEWER PLAN
C6	WATER PLAN
C7	EROSION CONTROL PLAN
PP01	DUTTON COURT
PP02	DUTTON COURT
PP03	WILLOW STREET
PP04	WILLOW STREET
PP05	PEAR STREET
PP06	PEAR STREET
PP07	RETENTION POND
D1	DETAILS
D2	DETAILS
D3	DETAILS
D4	DETAILS
D5	DETAILS
D6	DETAILS
D7	DETAILS
D8	DETAILS
D9	DETAILS
D10	CITY NOTES
D11	PRE CONSTRUCTION NOTES

BENCHMARK

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

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.

3. ALL CONSTRUCTION SHALL ADHERE TO GRANTSVILLE CITY AND APWA 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.

5. 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.

NOTICE

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

ENGINEER'S NOTES TO CONTRACTOR

1. 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: EVAN WOOD

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

N

S

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

Know what's below. Call 811 before you dig.

FOCUS©
ENGINEERING AND SURVEYING, LLC
6949 S. HIGH TECH DRIVE SUITE 200
MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

LICENSED PROFESSIONAL ENGINEER
No. 8028950-2202
THOMAS M. ROMNEY
STATE OF UTAH
9/16/22

COWBOY ESTATES SUBDIVISION
GRANTSVILLE, UT
COVER SHEET

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
2	----	----
3	----	----
4	----	----
5	----	----
6	----	----

COVER SHEET

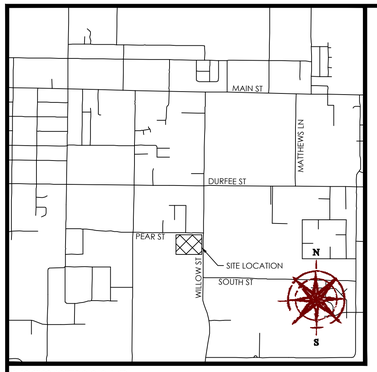
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Date: 09/13/22 | Job #: 21-0512
Sheet: C1

Z:_2021\21-0512 Grantsville Willow Street\design 21-0512\dwg\sheets\UrbA\1C1 COVER.dwg

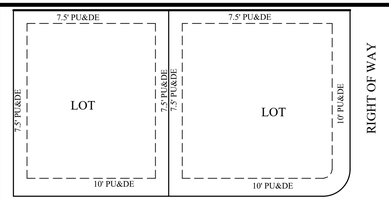
COWBOY ESTATES SUBDIVISION

FINAL PLAT

LOCATED IN THE NE1/4 OF SECTION 6, T3S, R5W,
SALT LAKE BASE & MERIDIAN
GRANTSVILLE CITY, TOOELE COUNTY, UTAH

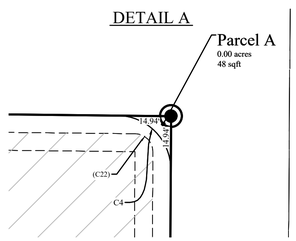


VICINITY MAP
N.T.S

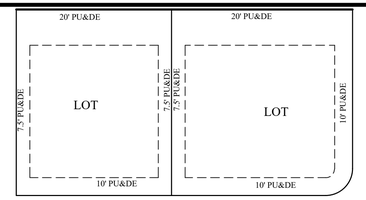


RIGHT OF WAY
TYPICAL PUBLIC UTILITY AND DRAINAGE EASEMENT
N.T.S.

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.







RIGHT OF WAY
TYPICAL PUBLIC UTILITY AND DRAINAGE EASEMENT
LOTS#107-113
N.T.S.

WITNESS CORNER TO THE NORTH QUARTER CORNER OF SECTION 6,T3S, R5W, SLB&M IN QUIRK STREET FOUND 3" STANDARD FLAT BRASS MONUMENT 1986

WITNESS CORNER TO THE NORTHWEST CORNER OF SECTION 5,T3S, R5W, SLB&M IN QUIRK STREET FOUND 3" STANDARD FLAT BRASS MONUMENT 1986
(LOCATED N89°50'03"W 492.39' FROM CALCULATED NORTHWEST CORNER)

NORTHWEST CORNER OF SECTION 5, T3S, R5W, SLB&M (CALCULATED POSITION)

(RECORD: S89°49'23"W 2078.93')
S89°49'43"W 2078.96' (MEASURED)
BASIS OF BEARING

N89°49'23"E 492.53'
(PER HATHCOCK SURVEY)
(DEPENDENT RESURVEY: N89°49'45"E 491.17')

N00°03'05"E 261.86'
(PER HATHCOCK SURVEY)
(DEPENDENT RESURVEY: N00°0'1'41"E 262.72')

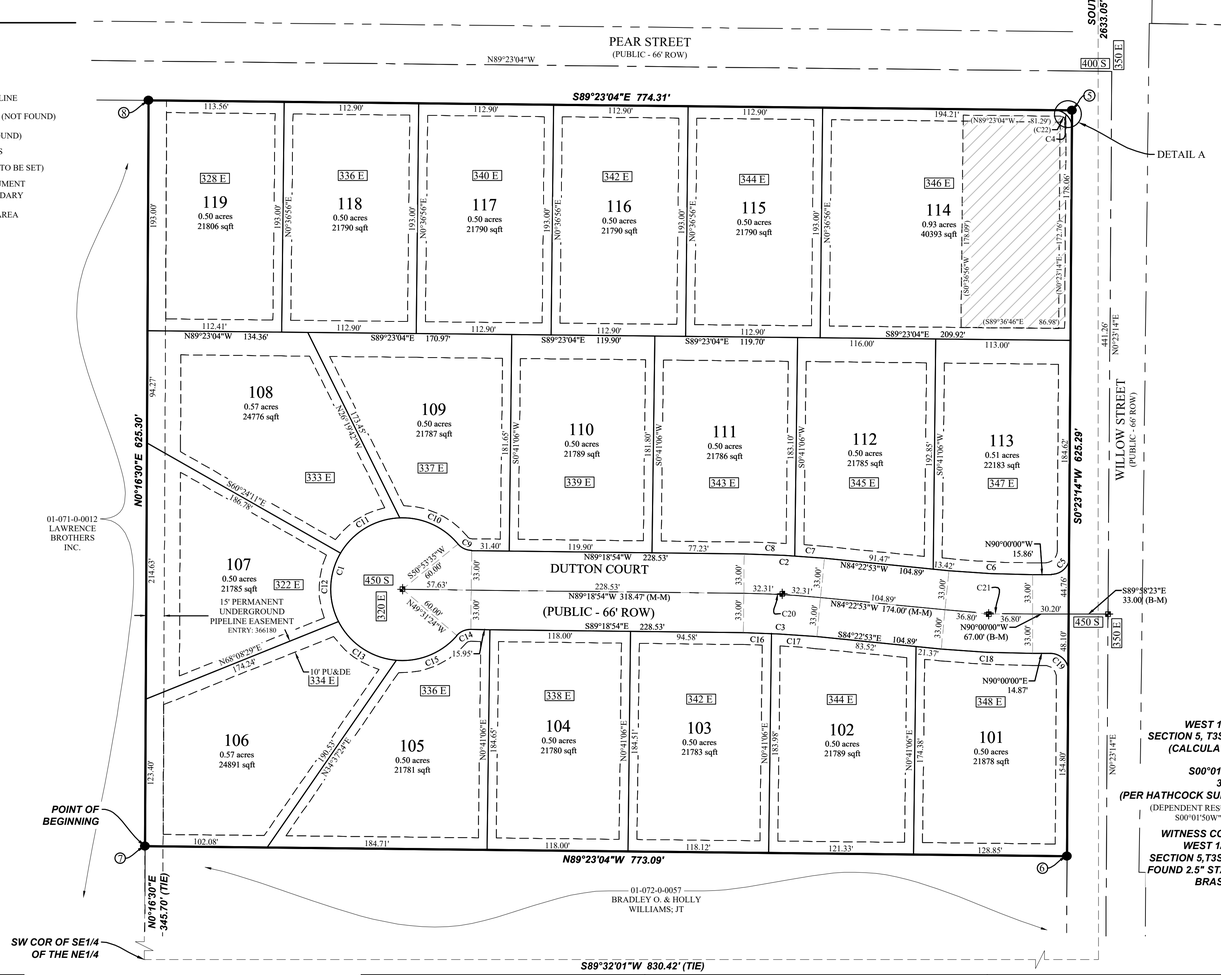
(BASIS OF BEARING HATHCOCK SURVEY: N89°33'09"W 2638.18')
N89°33'09"W 2638.30' (MEASURED)

WITNESS CORNER TO THE NORTHWEST CORNER OF SECTION 5,T3S, R5W, SLB&M INTERSECTION ON WILLOW STREET AND DURFEE STREET FOUND 3" STANDARD ROUND BRASS MONUMENT 2020

WITNESS CORNER TO THE NORTH 1/4 CORNER OF SECTION 5,T3S, R5W, SLB&M IN DURFEE STREET FOUND 2.5" STANDARD ROUND BRASS MONUMENT 2020

LEGEND

- BOUNDARY
- SECTION LINE
- EASEMENT
- RIGHT-OF-WAY LINE
- CENTERLINE
- BUILDING SETBACK
- EXISTING PROPERTY LINE
- SECTION MONUMENT (NOT FOUND)
- WITNESS CORNER (FOUND)
- BOUNDARY MARKERS
- STREET MONUMENT (TO BE SET)
- (M-M) MONUMENT TO MONUMENT
- (M-B) MONUMENT TO BOUNDARY
- PRIVATE DRAINAGE AREA



NOTES

1. #5 X 24" REBAR & CAP (FOCUS ENG) TO BE SET AT ALL LOT CORNERS. NAILS OR PLUGS TO BE SET IN TOP BACK OF CURB AT EXTENSION OF SIDE LOT LINES, IN LIEU OF REBAR AND CAPS AT FRONT LOT CORNERS.
2. LOTS 107-114 PROPERTY OWNERS AGREE TO MAINTAIN THE RETENTION AREAS AS APPROVED BY THE CITY ENGINEER, AND CONSTRUCTED BY THE DEVELOPER/BUILDER, AND THAT THEY WILL NOT ALTER THE GRADING, NOR ALLOW ANY DRAINAGE TO DISCHARGE ON THE NEIGHBORING PROPERTIES, OR PUT ANY IMPERVIOUS SURFACES IN THE AREA SHOWN ON THE PLAT. THIS REQUIREMENT WILL RUN WITH THE PROPERTY AND APPLY TO ALL FUTURE PROPERTY OWNERS.
3. LOTS 101,113,114 SHALL ONLY HAVE ONE DRIVEWAY ACCESS. NO SECONDARY ACCESS ALONG WILLOW STREET WILL BE ALLOWED.
4. SIDE LOT PU&DE OF LOT #106 TO BE 10' ALONG NORTHWEST PROPERTY LINE FOR SECONDARY WATER LINE.
5. PARCEL A TO BE DEDICATED TO GRANTSVILLE CITY AS PUBLIC ROW.

Tooele County Coordinate Table		
Point #	Northing	Easting
1	824340.3041	739891.1429
2	824360.9100	737252.9200
3	824622.7699	737253.1549
4	821977.4610	737250.7823
5	822944.1095	736709.1605
6	822318.8308	736704.9346
7	822327.2323	735932.0361
8	822952.4281	735934.8952
9	824621.2488	736760.6272
10	824614.8286	734681.7071

Curve Table					
CURVE	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C1	60.00	280°24'59"	293.65	S00°41'06"W	76.80
C2	783.00	4°56'01"	67.42	N86°50'54"W	67.40
C3	717.00	4°56'01"	61.74	S86°50'54"E	61.72
C4	15.00	89°46'18"	23.50	N44°29'55"W	21.17
C5	15.00	77°32'13"	20.30	S51°13'54"W	18.79
C6	717.00	5°37'07"	70.31	N87°11'27"W	70.28
C7	783.00	1°49'28"	24.93	N85°17'37"W	24.93
C8	783.00	3°06'33"	42.49	N87°45'38"W	42.49
C9	15.00	50°12'29"	13.14	N64°12'40"W	12.73
C10	60.00	53°13'42"	55.74	N65°43'16"W	53.76
C11	60.00	57°17'45"	60.00	S59°01'01"W	57.53
C12	60.00	57°17'45"	60.00	S01°43'16"W	57.53
C13	60.00	57°50'34"	60.57	S55°50'54"E	58.03
C14	15.00	50°12'29"	13.14	N65°34'51"E	12.73
C15	60.00	54°45'13"	57.34	N67°51'13"E	55.18
C16	717.00	1°52'53"	23.54	S88°22'28"E	23.54
C17	717.00	3°03'08"	38.19	S85°54'27"E	38.19
C18	783.00	5°37'07"	76.78	S87°11'27"E	76.75
C19	15.00	90°23'14"	23.66	S44°48'23"E	21.28
C20	750.00	4°56'01"	64.58	N86°50'54"W	64.56
C21	750.00	5°37'07"	73.55	N87°11'27"W	73.52

Easement Curve Table					
CURVE	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
(C22)	5.00	89°46'18"	7.83	N44°29'55"W	7.06

DATE: 9/12/2022

DOMINION ENERGY UTAH

QUESTAR GAS COMPANY dba DOMINION ENERGY UTAH, HEREBY APPROVES THIS PLAT SOLELY FOR THE PURPOSE OF CONFIRMING THAT THE PLAT CONTAINS PUBLIC UTILITY EASEMENTS. DOMINION ENERGY UTAH MAY REQUIRE ADDITIONAL EASEMENTS IN ORDER TO SERVE THIS DEVELOPMENT. THIS APPROVAL DOES NOT CONSTITUTE ABROGATION OR WAIVER OF ANY OTHER EXISTING RIGHTS, OBLIGATIONS OR LIABILITIES INCLUDING PRESCRIPTIVE RIGHTS AND OTHER RIGHTS, OBLIGATIONS OR LIABILITIES PROVIDED BY LAW OR EQUITY. THIS APPROVAL DOES NOT CONSTITUTE ACCEPTANCE, APPROVAL OR ACKNOWLEDGEMENT OF ANY TERMS CONTAINED IN THE PLAT, INCLUDING THOSE SET FORTH IN THE OWNERS DEDICATION OR THE NOTES, AND DOES NOT CONSTITUTE A GUARANTEE OF PARTICULAR TERMS OR CONDITIONS OF NATURAL GAS SERVICE. FOR FURTHER INFORMATION PLEASE CONTACT DOMINION ENERGY UTAH'S RIGHT-OF-WAY DEPARTMENT AT 800-366-8532.

QUESTAR GAS COMPANY
dba DOMINION ENERGY UTAH

APPROVED THIS _____ DAY OF _____ A.D. 20__

BY _____

TITLE _____

SURVEYOR'S CERTIFICATE

I, Evan J. Wood, do hereby certify that I am a Professional Land Surveyor, and that I hold License No. 183395 in accordance with Title 58, Chapter 22 of the Professional Engineers and Land Surveyors Act; I further certify that by authority of the owners I have completed a survey of the property described on this subdivision plat in accordance with Section 17-23-17, have verified all measurements, and have subdivided said tract of land into lots, a parcel, and streets, together with easements, to be hereafter known as COWBOY ESTATES SUBDIVISION, and the same has, or will be correctly surveyed and monumented on the ground as shown on this Plat.

For Review
09/14/2022 2:30:31 PM

EVAN J. WOOD
PROFESSIONAL LAND SURVEYOR
LICENSE NO. 183395

DATE

BOUNDARY DESCRIPTION

A parcel of land located in the Northeast Quarter of Section 6, Township 3 South, Range 5 West, Salt Lake Base and Meridian, being the Northerly eleven (11) acres, more or less of that parcel of land described in that certain Quit Claim Deed recorded June 18, 2021 as Entry No. 547089 in the office of the Tooele County Recorder, and is described by survey as follows:

Commencing at a point which lies South 2633.05 feet, South 89°32'01" West 830.42 feet to the Southwest corner of the Southeast Quarter of the Northeast Quarter of Section 6, Township 3 South, Range 5 West, Salt Lake Base and Meridian, (said point being determined from ancient fence lines), and North 00°16'30" East 345.70 feet from a Tooele County Surveyor brass witness monument in Willow Street, intended to witness the unmarked location of the Northeast corner of said Section 6, which lies North 89°49'23" East 492.52 feet from said witness monument. (Basis of bearing for this description is North 89°49'23" East 2078.93 feet along the section line defined by Tooele County Surveyor brass witness monuments in Quirk and Willow Streets); thence North 00°16'30" East 625.30 feet to intersect the Southerly right-of-way line of Pear Street, a 66-foot wide public street; thence along said Southerly right-of-way line, South 89°23'04" East 774.31 feet (record=South 89°00' East 11.98 chains = 790.68 feet) to intersect the Westerly right-of-way line of Willow Street, a 66-foot wide public street; thence along said Westerly right-of-way line, South 00°23'14" West 625.293 feet; thence North 89°23'04" West 773.085 feet to the point of beginning.

Contains: 11.11+/- Acres
19 Lots & 1 Parcel

OWNER'S DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT THE UNDERSIGNED ARE THE OWNERS OF THE HEREON DESCRIBED TRACT OF LAND AND HEREBY CAUSE THE SAME TO BE DIVIDED INTO LOTS, A PARCEL, AND STREETS TOGETHER WITH EASEMENTS AS SET FORTH HEREAFTER TO BE KNOWN AS

COWBOY ESTATES
SUBDIVISION

THE UNDERSIGNED OWNERS HEREBY DEDICATE TO GRANTSVILLE CITY ALL THOSE TRACTS OF LAND DESIGNATED ON THIS PLAT AS STREETS, THE SAME TO BE USED AS PUBLIC THOROUGHFARES FOREVER. THE UNDERSIGNED OWNERS ALSO HEREBY CONVEY TO GRANTSVILLE CITY AND TO ANY AND ALL PUBLIC UTILITY COMPANIES A PERPETUAL, NON-EXCLUSIVE EASEMENT OVER THE PUBLIC UTILITY AND DRAINAGE EASEMENTS SHOWN ON THIS PLAT, THE SAME TO BE USED FOR DRAINAGE AND THE INSTALLATION, MAINTENANCE AND OPERATION OF UTILITY SERVICE LINES AND FACILITIES. THE UNDERSIGNED OWNERS ALSO HEREBY CONVEY ANY OTHER EASEMENTS AS SHOWN AND/OR NOTED ON THIS PLAT TO THE PARTIES INDICATED AND FOR THE PURPOSES SHOWN HEREON.

IN WITNESS WHEREOF _____ HAVE HEREUNTO SET _____

HAND THIS _____ DAY OF _____ A.D. 20__

GRANTSVILLE NEW TEAM, LLC

LIMITED LIABILITY ACKNOWLEDGMENT

STATE OF UTAH
S.S.
COUNTY OF _____

ON THE ____ DAY OF _____ A.D. 20____ PERSONALLY APPEARED BEFORE ME , THE UNDERSIGNED NOTARY PUBLIC, IN AND FOR THE COUNTY OF _____, IN SAID STATE OF UTAH, _____, WHO AFTER BEING DULY SWORN, ACKNOWLEDGED TO ME THAT HE/SHE IS THE _____ OF _____ L.L.C., A UTAH L.L.C. AND THAT HE/SHE SIGNED THE OWNER'S DEDICATION FREELY AND VOLUNTARILY FOR AND IN BEHALF OF SAID LIMITED LIABILITY COMPANY FOR THE PURPOSES THEREIN MENTIONED.

MY COMMISSION EXPIRES:_____

A NOTARY PUBLIC COMMISSIONED IN UTAH RESIDING IN _____ COUNTY

MY COMMISSION No._____

_____
PRINTED FULL NAME OF NOTARY

PREPARED FOR
GTM BUILDERS
1676 PROGRESS WAY
TOOELE, UTAH 84074
(801) 301-8591
CONTACT: SHAWN HOLSTE

PREPARED BY
FOCUS ENGINEERING AND SURVEYING, LLC
6949 HIGH TECH DRIVE
MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

CITY ATTORNEY

APPROVED AS TO FORM ON THIS _____
DAY OF _____ A.D. 20____.

GRANTSVILLE CITY ATTORNEY

TOOELE COUNTY TREASURER

I HEREBY CERTIFY THAT PROPERTY TAXES DUE AND OWNING HAVE BEEN PAID IN FULL THIS ____ DAY OF ____ A.D. 20___.

TOOELE COUNTY TREASURER

CITY MAYOR

PRESENTED TO THE GRANTSVILLE CITY COUNCIL THIS ___ DAY OF ___A.D., 20___, AT WHICH TIME THIS SUBDIVISION WAS APPROVED AND ACCEPTED.

GRANTSVILLE CITY MAYOR

ATTEST: CITY RECORDER

RECORD OF SURVEY

PER STATE STATUTE 17-23-17, A SURVEY THAT INCLUDES THE LANDS SHOWN HEREON HAS BEEN COMPLETED AND FILED IN THE OFFICE OF THE TOOELE COUNTY SURVEYOR AND ASSIGNED FILE No. _____.

GRANTSVILLE CITY PUBLIC WORKS

APPROVED THIS _____ DAY OF _____A.D. 20__ BY THE GRANTSVILLE CITY PUBLIC WORKS DEPARTMENT.

GRANTSVILLE CITY PUBLIC WORKS DIRECTOR

GRANTSVILLE CITY FIRE DEPARTMENT

APPROVED THIS _____ DAY OF _____A.D. 20__ BY THE GRANTSVILLE CITY FIRE DEPARTMENT

GRANTSVILLE CITY FIRE DEPARTMENT

GRANTSVILLE CITY PLANNING COMMISSION

APPROVED THIS _____ DAY OF_____ A.D. 20__ BY THE GRANTSVILLE CITY PLANNING COMMISSION.

CHAIR, GRANTSVILLE CITY PLANNING COMMISSION

TOOELE COUNTY SURVEYOR

APPROVED THIS _____ DAY OF_____ A.D. 20__

TOOELE COUNTY SURVEY DIRECTOR

GRANTSVILLE CITY ENGINEER OR DESIGNEE

APPROVED THIS _____ DAY OF _____ A.D. 20__ BY THE GRANTSVILLE CITY ENGINEERING DEPARTMENT.

GRANTSVILLE CITY ENGINEER

TOOELE COUNTY RECORDER

NO._____
STATE OF UTAH, COUNTY OF TOOELE, RECORDED & FILED AT THE REQUEST OF _____
DATE _____ TIME _____ BOOK _____ PAGE _____

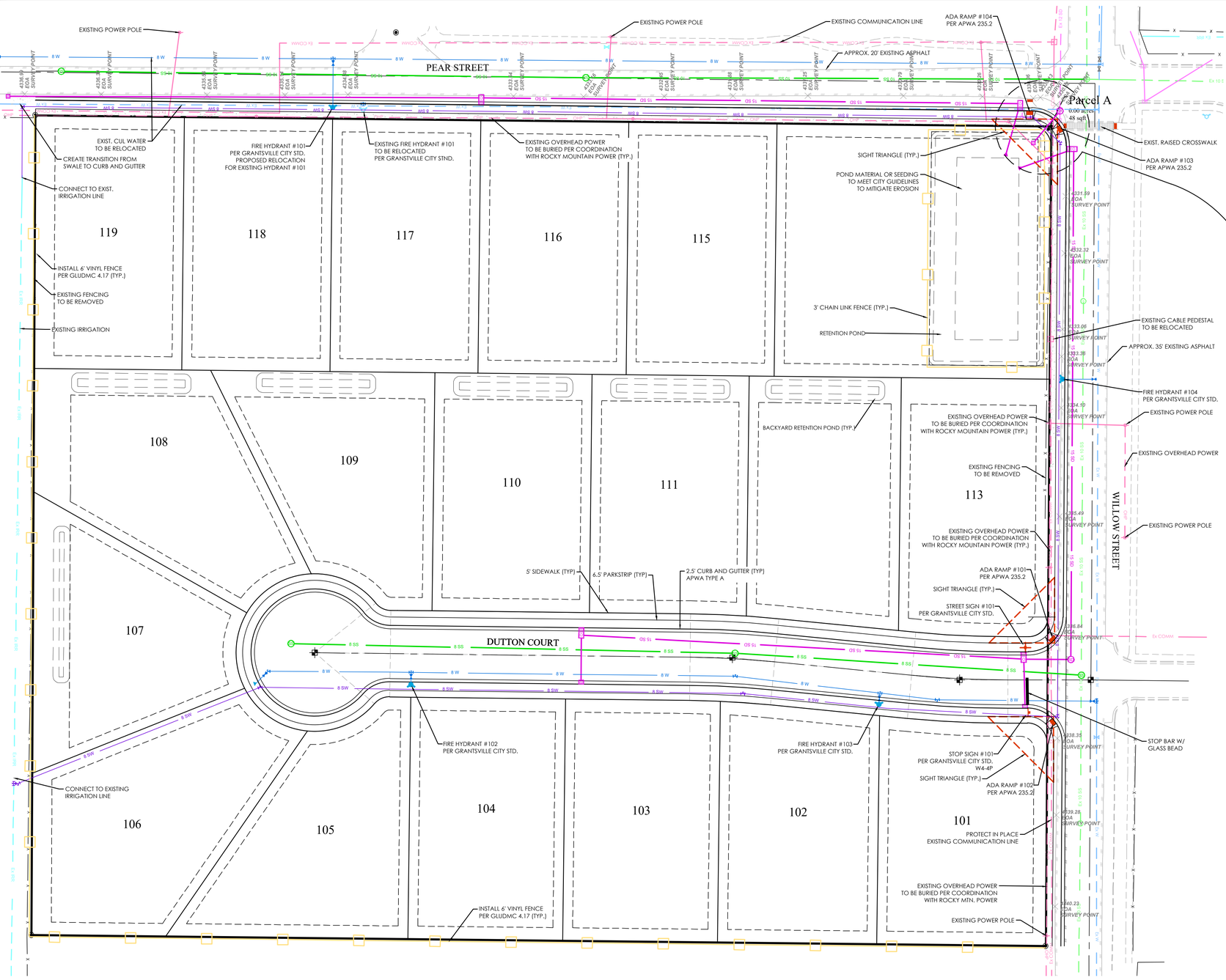
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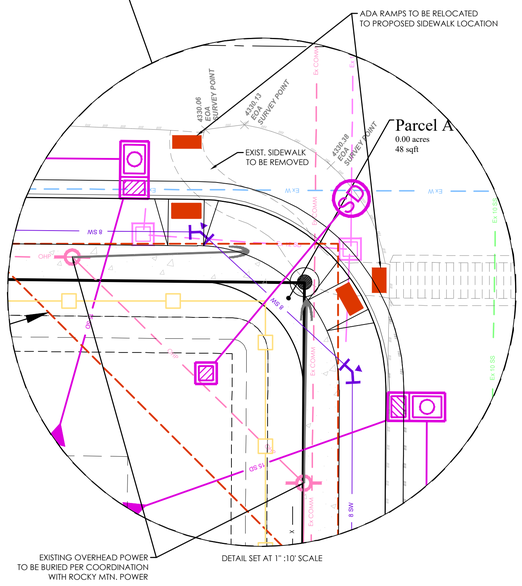
TOOELE COUNTY RECORDER

COWBOY ESTATES
SUBDIVISION

LOCATED IN THE NE1/4 OF SECTION 6, T3S, R5W,
SALT LAKE BASE & MERIDIAN
GRANTSVILLE CITY, TOOELE COUNTY, UTAH

Z:_2021\21-0512 GRANTSVILLE WILLOW STREET\DESIGN 21-0512\DWG\SHEETS\C2 - FINAL PLAT.DWG



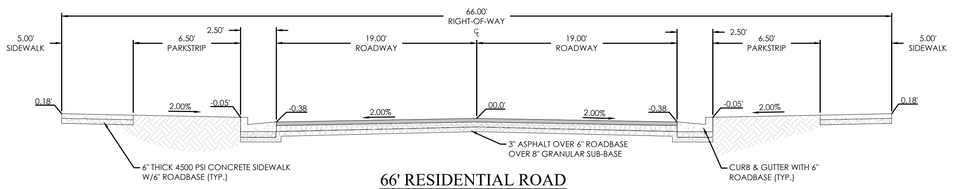


LEGEND

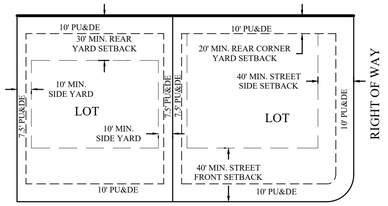
- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
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- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- CULINARY VALVE, TEE & BEND
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- WATER BLOW-OFF
- FIRE HYDRANT
- STREET MONUMENT (TO BE SET)
- EXIST. STREET MONUMENT
- EXIST. SD INLET & MH
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION

NOTES:

1. ALL STOP SIGNS TO HAVE YELLOW RETROGRADE "CROSS TRAFFIC DOES NOT STOP" SIGN MOUNTED BELOW THE "STOP" SIGN
2. STREET SIGNS TO HAVE STREET NAME AND STREET NUMBER PRINTED ON SIGN
3. STREET SIGNS TO HAVE NEW GRANTSVILLE CITY LOGO
4. A RIGHT-OF-WAY ENCROACHMENT PERMIT MUST BE OBTAINED FROM THE CITY OF GRANTSVILLE PRIOR TO DOING ANY WORK IN THE EXISTING CITY RIGHT-OF-WAY.
5. PER NEW CITY CODE MAXIMUM DRIVEWAY WIDTHS ARE 30 FEET WIDE.
6. TREES ALONG NORTH SIDE OF PEAR STREET TO BE REMAIN AND BE PROTECTED WHEREVER POSSIBLE.



66' RESIDENTIAL ROAD
N.T.S.



RIGHT OF WAY

TYPICAL R-1-21 BUILDING SETBACKS
N.T.S.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

N

S

Know what's below. Call 811 before you dig.

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ENGINEERING AND SURVEYING, LLC
6949 S. HIGH TECH DRIVE SUITE 200
MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

LICENSED PROFESSIONAL ENGINEER
No. 8028950-2202
THOMAS M. ROMNEY
9/16/22
STATE OF UTAH

COWBOY ESTATES SUBDIVISION
GRANTSVILLE, TOOELE COUNTY, UT
SITE PLAN

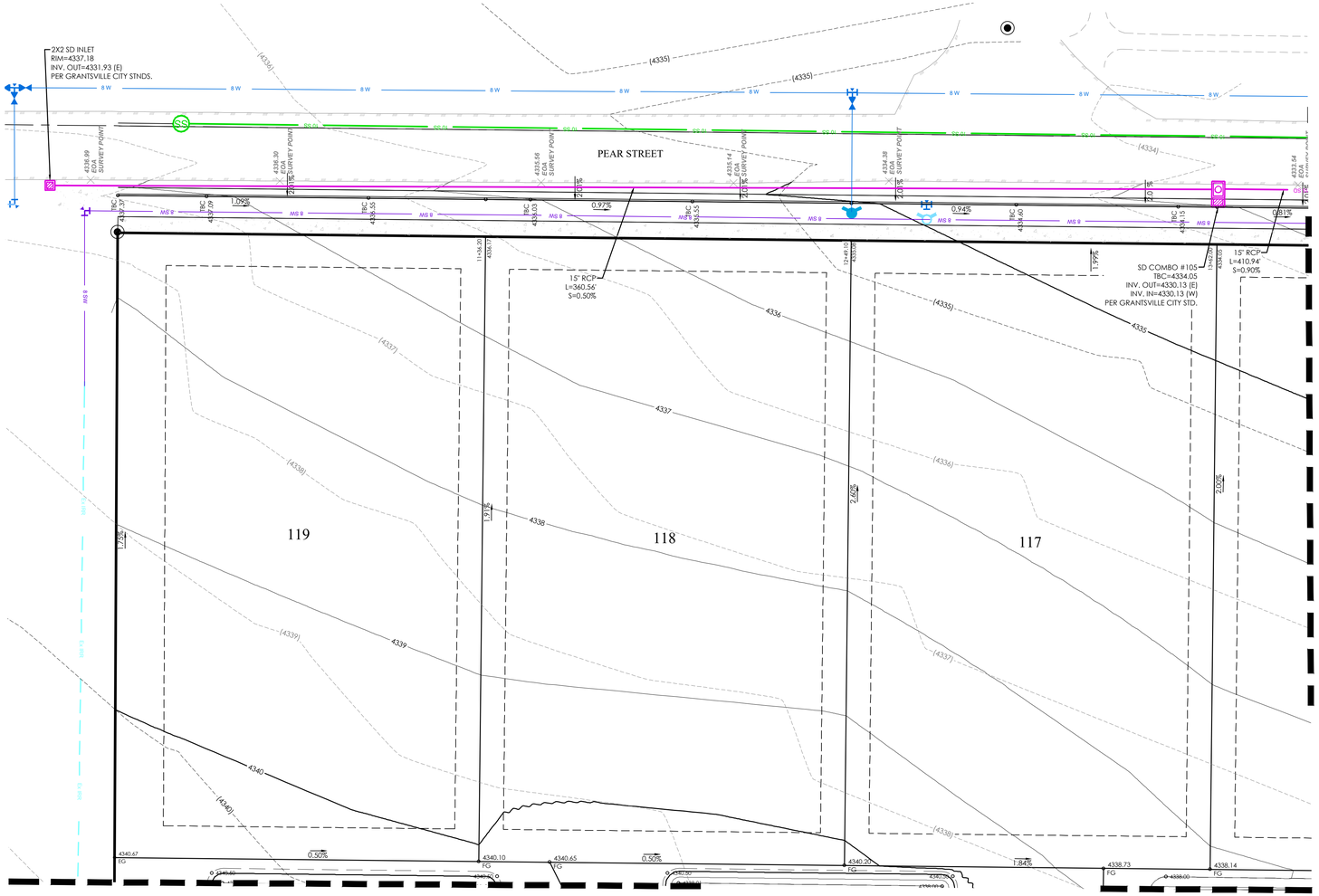
REVISION BLOCK

#	DATE	DESCRIPTION
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SITE PLAN

Scale:	1"=40'	Drawn:	MEF
Date:	09/13/22	Job #:	21-0512
Sheet:	C3		

Z:_2021\21-0512 Grantsville Willow Street\design\21-0512\dwg\sheets\FINAL\C3 SITE PLAN.dwg



LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- 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
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION

NOTES:

1. ALL LOTS SHALL DRAIN TOWARDS STREET STORM DRAINAGE UNLESS INDIVIDUAL LOT RETENTION BASIN SHOWN.
2. HOMEOWNER/CONTRACTOR/BUILDER TO ADHERE TO APPROVED GRADING PLAN. IF THERE IS ANY DEVIATION FROM PLAN, IMMEDIATELY CONTACT ENGINEER.
3. THE CIVIL ENGINEER CERTIFYING THESE PLANS FOR THE ONSITE DRAINAGE OF THIS DEVELOPMENT ACKNOWLEDGES THAT IT WAS PREPARED BY HIM (OR UNDER HIS DIRECT SUPERVISION) IN ACCORDANCE WITH THE PROVISIONS OF GRANTSVILLE CITY STANDARD SPECIFICATIONS AND DRAWINGS, AND WAS DESIGNED TO COMPLY WITH THE PROVISIONS THEREOF. SAME CIVIL ENGINEER UNDERSTANDS THAT THE CITY ASSUMES NO RESPONSIBILITY OR LIABILITY WHATSOEVER FOR THIS DESIGN
4. ACCEPTED CONSTRUCTION DRAWINGS OR A GRADING PERMIT MUST BE OBTAINED FROM GRANTSVILLE CITY ENGINEER PRIOR TO DISTURBING ANY VEGETATION OR MOVING ANY SOIL. CONTACT THE CITY ENGINEERING DEPT AT 435-884-1661
5. A RIGHT-OF-WAY ENCROACHMENT PERMIT MUST BE OBTAINED FROM GRANTSVILLE CITY PRIOR TO DOING ANY WORK IN THE EXISTING RIGHT-OF-WAY, OR ON ANY STATE ROADS.
6. A MINIMUM OF 18" VERTICAL SEPARATION NEEDS TO BE MAINTAINED BETWEEN ALL CULINARY AND STORM DRAIN CROSSINGS. IF A CONFLICT ARISES CONTACT FOCUS ENGINEERING IMMEDIATELY.

N

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GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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MIDVALE, UTAH 84047 PH: (801) 352-0075
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LICENSED PROFESSIONAL ENGINEER
No. 8028950-2202
THOMAS M. ROMNEY
11/14/22
STATE OF UTAH

COWBOY ESTATES SUBDIVISION

GRANTSVILLE, UT

GRADING AND DRAINAGE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
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GRADING AND DRAINAGE PLAN

Scale:	1"=20'	Drawn:	MEF
Date:	09/13/22	Job #:	21-0512
Sheet:	C4		

Z:_2021\21-0512 Grantsville Willow Street\design 21-0512\dwg\sheets\FINAL\C4 GRADING PLAN.dwg

NOTES:

1. ALL LOTS SHALL DRAIN TOWARDS STREET STORM DRAINAGE UNLESS INDIVIDUAL LOT RETENTION BASIN SHOWN
2. HOMEOWNER/CONTRACTOR/BUILDER TO ADHERE TO APPROVED GRADING PLAN. IF THERE IS ANY DEVIATION FROM PLAN, IMMEDIATELY CONTACT ENGINEER.
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N

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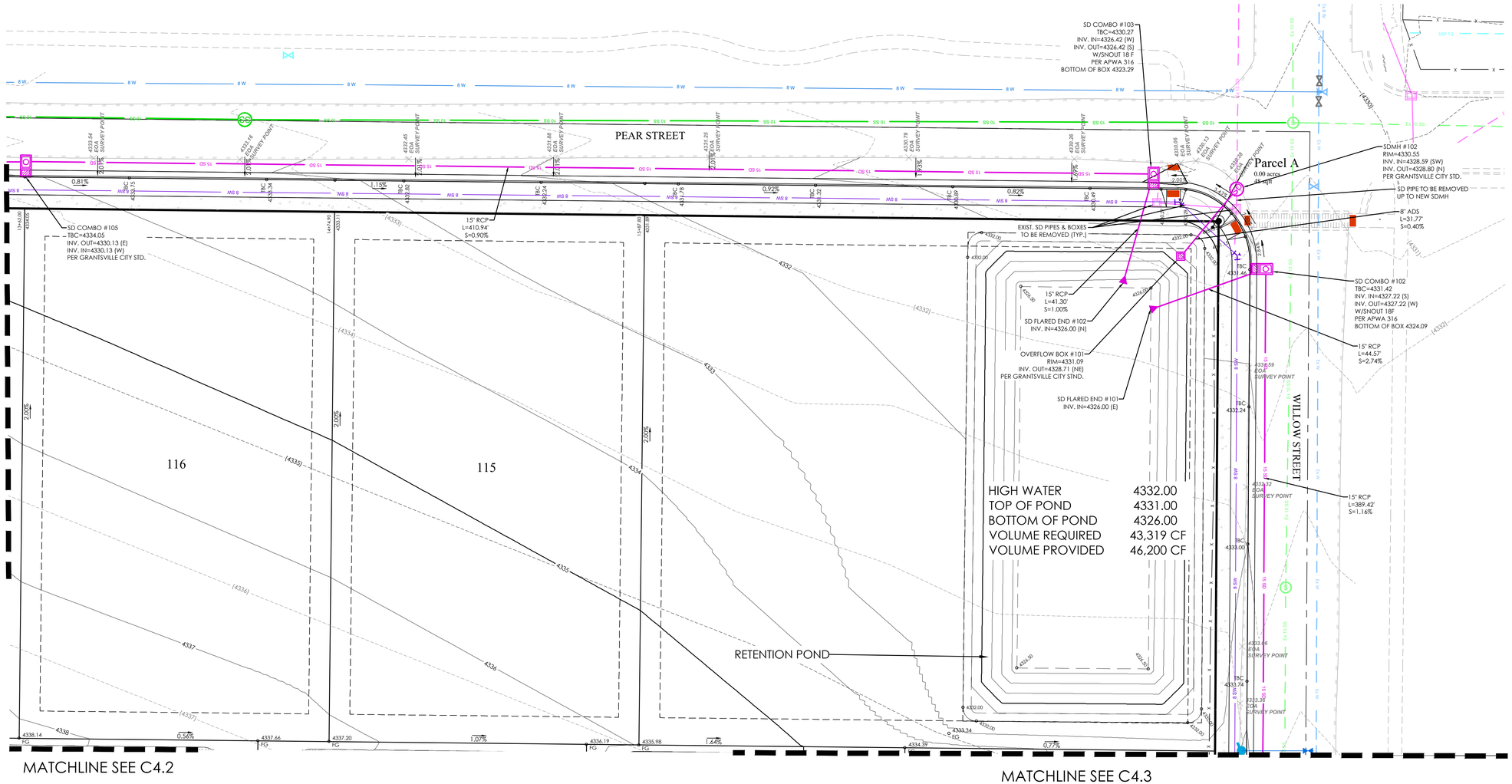
GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15 SD — 15" STORM DRAIN
- 8 SS — 8" SANITARY SEWER
- 8 W — 8" CULINARY WATER
- 8 SW — 8" SECONDARY WATER
- XXXX — CONTOUR MAJOR
- XXXX — CONTOUR MINOR
- Ex SD — EXIST. STORM DRAIN
- Ex SS — EXIST. SANITARY SEWER
- Ex W — EXIST. CULINARY WATER
- EXIST. FENCE
- (XXXX) — EXIST. CONTOUR MAJOR
- (XXXX) — EXIST. CONTOUR MINOR
- SIGN
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- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- o XXXX.XX — SPOT ELEVATION



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COWBOY ESTATES SUBDIVISION

GRANTSVILLE, UT

GRADING AND DRAINAGE PLAN

REVISION BLOCK

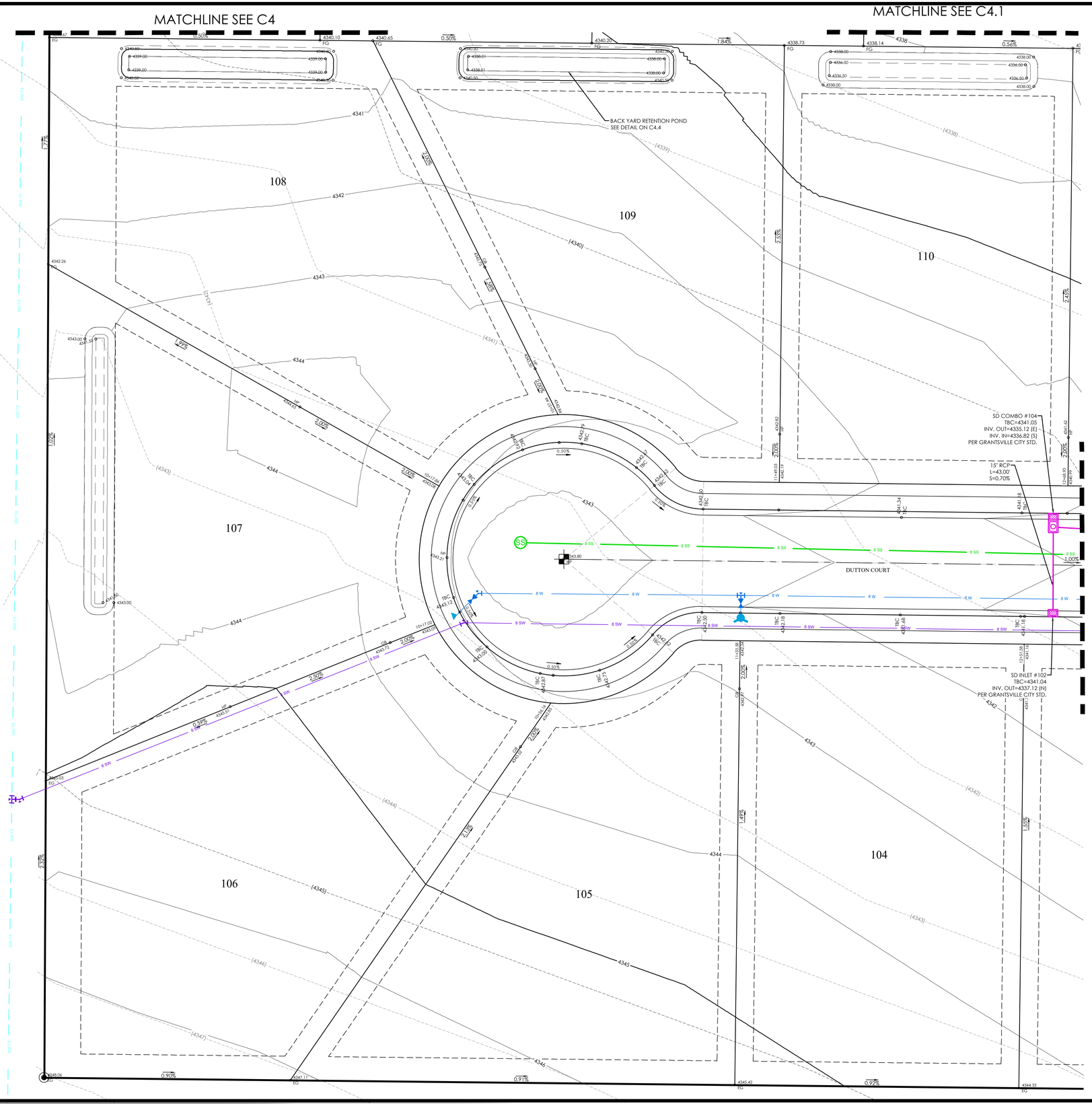
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GRADING AND DRAINAGE PLAN

Scale:	1"=20'	Drawn:	MEF
Date:	09/13/22	Job #:	21-0512
Sheet:	C4.1		

Know what's below. Call 811 before you dig.

Z:_2021\21-0512 Grantsville Willow Street\design\21-0512.dwg\sheet\VINAL\C4.1 GRADING PLAN.dwg



LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- 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
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- o XXXX.XX SPOT ELEVATION

N

S

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

NOTES:

1. ALL LOTS SHALL DRAIN TOWARDS STREET STORM DRAINAGE UNLESS INDIVIDUAL LOT RETENTION BASIN SHOWN.
2. HOMEOWNER/CONTRACTOR/BUILDER TO ADHERE TO APPROVED GRADING PLAN. IF THERE IS ANY DEVIATION FROM PLAN, IMMEDIATELY CONTACT ENGINEER.
3. THE CIVIL ENGINEER CERTIFYING THESE PLANS FOR THE ONSITE DRAINAGE OF THIS DEVELOPMENT ACKNOWLEDGES THAT IT WAS PREPARED BY HIM (OR UNDER HIS DIRECT SUPERVISION) IN ACCORDANCE WITH THE PROVISIONS OF GRANTSVILLE CITY STANDARD SPECIFICATIONS AND DRAWINGS, AND WAS DESIGNED TO COMPLY WITH THE PROVISIONS THEREOF. SAME CIVIL ENGINEER UNDERSTANDS THAT THE CITY ASSUMES NO RESPONSIBILITY OR LIABILITY WHATSOEVER FOR THIS DESIGN
4. ACCEPTED CONSTRUCTION DRAWINGS OR A GRADING PERMIT MUST BE OBTAINED FROM GRANTSVILLE CITY ENGINEER PRIOR TO DISTURBING ANY VEGETATION OR MOVING ANY SOIL. CONTACT THE CITY ENGINEERING DEPT AT 435-884-1661
5. A RIGHT-OF-WAY ENCROACHMENT PERMIT MUST BE OBTAINED FROM GRANTSVILLE CITY PRIOR TO DOING ANY WORK IN THE EXISTING RIGHT-OF-WAY, OR ON ANY STATE ROADS.
6. A MINIMUM OF 18" VERTICAL SEPARATION NEEDS TO BE MAINTAINED BETWEEN ALL CULINARY AND STORM DRAIN CROSSINGS. IF A CONFLICT ARISES CONTACT FOCUS ENGINEERING IMMEDIATELY.

Know what's below.
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MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

LICENSED PROFESSIONAL ENGINEER
No. 8028950-2202
THOMAS M. ROMNEY
9/16/22
STATE OF UTAH

COWBOY ESTATES SUBDIVISION

GRANTSVILLE, UT

GRADING AND DRAINAGE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
2	----	----
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GRADING AND DRAINAGE PLAN

Scale:	1"=20'	Drawn:	MEF
Date:	09/13/22	Job #:	21-0512
Sheet:	C4.2		

Z:_2021\21-0512 Grantsville Willow Street\design 21-0512\dwg\sheets\FINAL\C4.2 GRADING PLAN.dwg

MATCHLINE SEE C4.1

MATCHLINE SEE C4.2

BACKYARD RETENTION POND
SEE DETAIL ON C4.4

SD COMBO #104
TBC=4341.05
INV. OUT=4335.12 (E)
INV. IN=4336.82 (S)
PER GRANTSVILLE CITY STD.

15" RCP
L=337.41'
S=0.84%

SD COMBO #101
TBC=4337.64
INV. IN=4332.28 (S)
INV. OUT=4332.28 (E)
INV. IN=4332.28 (W)
PER GRANTSVILLE CITY STD.

15" RCP
L=37.29'
S=3.50%

15" RCP
L=35.87'
S=1.56%

15" RCP
L=389.42'
S=1.16%

SDMH #101
RIM=4337.31
INV. IN=4331.73 (W)
INV. OUT=4331.72 (N)
PER GRANTSVILLE CITY STD.

15" RCP
L=43.00'
S=0.70%

SD INLET #102
TBC=4341.04
INV. OUT=4337.12 (N)
PER GRANTSVILLE CITY STD.

SD INLET #103
TBC=4337.65
INV. OUT=4333.59 (N)
PER GRANTSVILLE CITY STD.

DUTTON COURT

WILLOW STREET

111 113 103 102 101

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
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- WATER BLOW-OFF
- FIRE HYDRANT
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- EXIST. FIRE HYDRANT
- o XXXX.XX SPOT ELEVATION

N

S

GRAPHIC SCALE

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(IN FEET)
1 inch = 20 ft.

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3. THE CIVIL ENGINEER CERTIFYING THESE PLANS FOR THE ONSITE DRAINAGE OF THIS DEVELOPMENT ACKNOWLEDGES THAT IT WAS PREPARED BY HIM (OR UNDER HIS DIRECT SUPERVISION) IN ACCORDANCE WITH THE PROVISIONS OF GRANTSVILLE CITY STANDARD SPECIFICATIONS AND DRAWINGS, AND WAS DESIGNED TO COMPLY WITH THE PROVISIONS THEREOF. SAME CIVIL ENGINEER UNDERSTANDS THAT THE CITY ASSUMES NO RESPONSIBILITY OR LIABILITY WHATSOEVER FOR THIS DESIGN
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STATE OF UTAH

COWBOY ESTATES SUBDIVISION
GRANTSVILLE, UT
GRADING AND DRAINAGE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
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GRADING AND DRAINAGE PLAN

Scale: 1"=20'	Drawn: MEF
Date: 09/13/22	Job #: 21-0512
Sheet: C4.3	

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Retention Pond

Project: COWBOY ESTATES SUBDIVISION
Location Grantsville, Utah
Date: 12/7/2021
Designer: MEC

FOCUS ENGINEERING & SURVEYING

100-Year Retention Sizing

Design Criteria

Intensity Table: Per NOAA Atlas 14
Return Period: **100 year**
Allowable Discharge: **0.00 cfs/acre** Per Grantsville City Standards

Allowable Discharges

Storm Drain Discharge 0.00 cfs
Other Discharge: 0.00 cfs Source:
Total Discharge: **0 cfs**

Weighted "C" Value

Surface Type	*Area (sf)*	*"C" Value*	*C*A*
Homes (rooftops)	55,000	0.85	46,750
Drives	8,800	0.85	7,480
Roadway and Sidewalk	62,098	0.85	52,783
Landscape	326,576	0.15	48,986
Totals	452,474		155,999.70
Weighted "C" Value		**0.34**	

Drainage Calculations

Duration	Intensity	Runoff C	Area	Rainfall	ccumulate Flow	Allowable Discharge	Discharge	Required Storage
min	*in/hr*		*Ac*	*cfs*	*cf*	*cfs*	*cf*	*cf*
15.0	4.56	0.34	10.39	16.33	14,697	0.00	0	14,697
30.0	3.07	0.34	10.39	10.99	19,790	0.00	0	19,790
60.0	1.90	0.34	10.39	6.80	24,496	0.00	0	24,496
120.0	1.11	0.34	10.39	3.98	28,621	0.00	0	28,621
180.0	0.76	0.34	10.39	2.72	29,395	0.00	0	29,395
360.0	0.41	0.34	10.39	1.47	31,716	0.00	0	31,716
720.0	0.24	0.34	10.39	0.86	37,131	0.00	0	37,131
1440.0	0.14	0.34	10.39	0.50	43,319	0.00	0	43,319

Maximum Storage Requirement: ***43,319***
Maximum Storage Requirement (ac-ft): 0.99

Retention Basin Design

Storage Requirement: 43,319 *cf*
Allowable Depth: 5.0 *ft* Retention Calculated Using Basic Geometry
Retention Pond Volume: 48,663 *cf* of a Trapezoidal Trench
Roadway Sump Storage: 0 *cf*

Total Storage **48,663** ***RETENTION ADEQUATE***

Retention Pond

Project: COWBOY ESTATES SUBDIVISION
Location Grantsville, Utah
Date: 12/3/2021
Designer: RSH

FOCUS ENGINEERING & SURVEYING

100-Year Retention Sizing

Design Criteria

Intensity Table: Per NOAA Atlas 14
Return Period: **100 year**
Allowable Discharge: **0.00 cfs/acre** Per xxxxxxxxxxxxx Standards

Allowable Discharges

Storm Drain Discharge 0.00 cfs
Other Discharge: 0.00 cfs Source:
Total Discharge: **0 cfs**

Weighted "C" Value

Surface Type	*Area (sf)*	*"C" Value*	*C*A*
Homes (rooftops)	2,500	0.85	2,125
Drives	0	0.85	0
Roadway and Sidewalk	0	0.85	0
Landscape	13,663	0.15	2,049
Totals	16,163		4,174.45
Weighted "C" Value		**0.26**	

Drainage Calculations

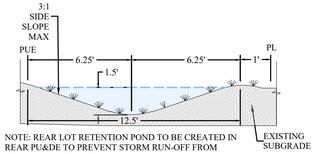
Duration	Intensity	Runoff C	Area	Rainfall	ccumulate Flow	Allowable Discharge	Discharge	Required Storage
min	*in/hr*		*Ac*	*cfs*	*cf*	*cfs*	*cf*	*cf*
15.0	4.56	0.26	0.37	0.44	393	0.00	0	393
30.0	3.07	0.26	0.37	0.29	530	0.00	0	530
60.0	1.90	0.26	0.37	0.18	655	0.00	0	655
120.0	1.11	0.26	0.37	0.11	766	0.00	0	766
180.0	0.76	0.26	0.37	0.07	787	0.00	0	787
360.0	0.41	0.26	0.37	0.04	849	0.00	0	849
720.0	0.24	0.26	0.37	0.02	994	0.00	0	994
1440.0	0.14	0.26	0.37	0.01	1,159	0.00	0	1,159

Maximum Storage Requirement: ***1,159***
Maximum Storage Requirement (ac-ft): 0.03

Retention Basin Design

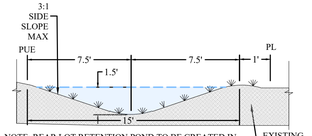
Storage Requirement: 1,159 *cf*
Allowable Depth: 1.5' *ft* Retention Calculated Using Basic Geometry
Retention Pond Volume: 1,375 *cf* of a Trapezoidal Trench
Roadway Sump Storage: 0 *cf*

Total Storage **1,375** ***RETENTION ADEQUATE***



NOTE: REAR LOT RETENTION POND TO BE CREATED IN REAR PU&DE TO PREVENT STORM RUN-OFF FROM IMPACTING ADJACENT PROPERTIES.

REAR YARD RETENTION SECTION
NTS
LOT #107



NOTE: REAR LOT RETENTION POND TO BE CREATED IN REAR PU&DE TO PREVENT STORM RUN-OFF FROM IMPACTING ADJACENT PROPERTIES.

REAR YARD RETENTION SECTION
NTS
LOTS #108-112

LEGEND

BOUNDARY
ROW
CENTERLINE
LOT LINE
EASEMENT
15" STORM DRAIN
8" SANITARY SEWER
8" CULINARY WATER
8" SECONDARY WATER
CONTOUR MAJOR
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o XXXX.XX SPOT ELEVATION

N
S

GRAPHIC SCALE

20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

NOTES:

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6. A MINIMUM OF 18" VERTICAL SEPARATION NEEDS TO BE MAINTAINED BETWEEN ALL CULINARY AND STORM DRAIN CROSSINGS. IF A CONFLICT ARISES CONTACT FOCUS ENGINEERING IMMEDIATELY.
7. PERCOLATION RATE ACROSS THE SITE WAS FOUND TO BE 40min/1in PER GEOTECHNICAL REPORT.

Know what's below. Call 811 before you dig.

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THOMAS M. ROMNEY
11/4/22
STATE OF UTAH

COWBOY ESTATES SUBDIVISION
GRANTSVILLE, UT
POND CALCULATIONS

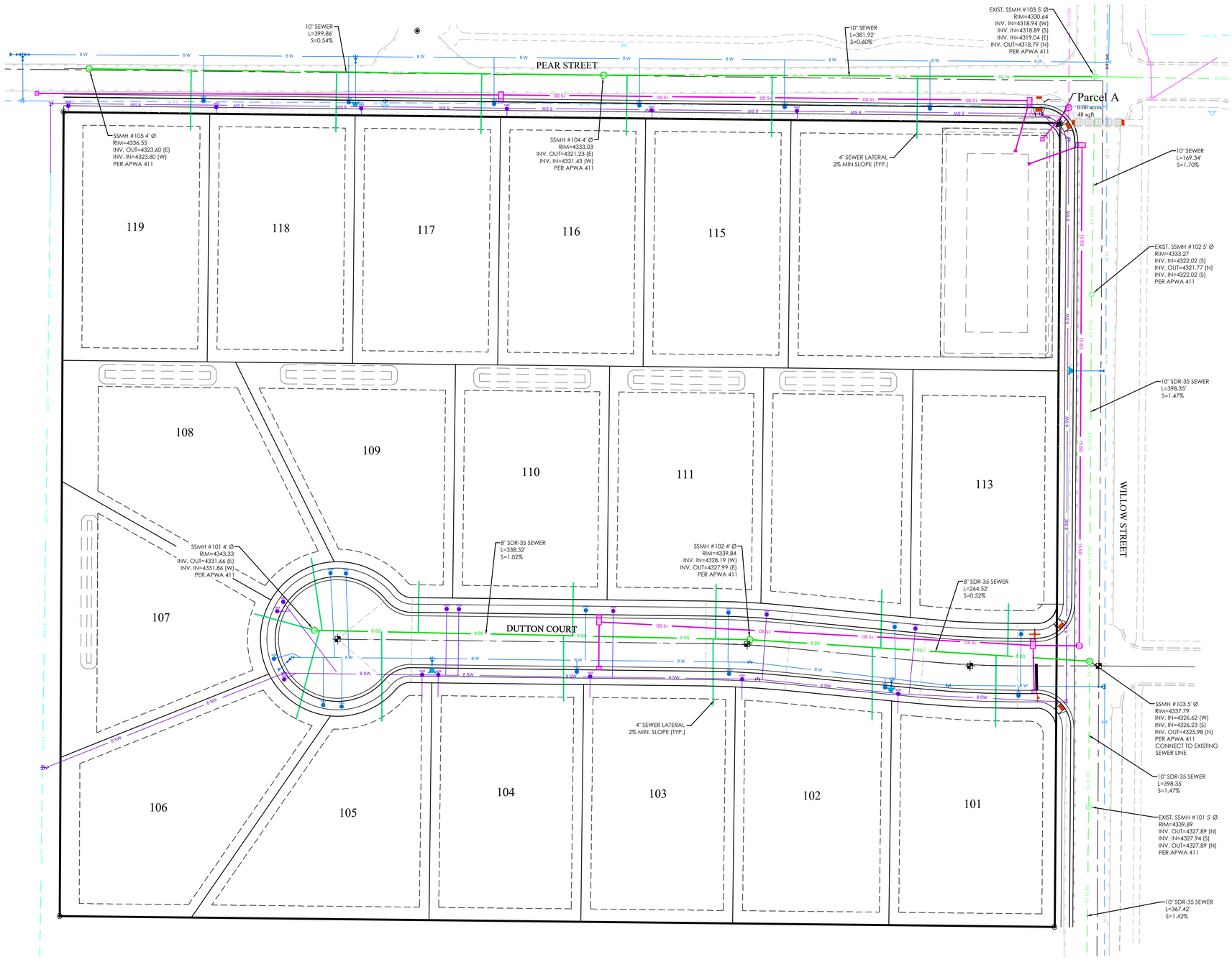
REVISION BLOCK

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POND CALCULATIONS

Scale: 1"=20' | Drawn: MEF
Date: 09/13/22 | Job #: 21-0512
Sheet: C4.4

Z:_2021\21-0512 Grantsville Willow Sheet\design 21-0512\dwg\sheets\FINAL\C4.4 POND CALCULATIONS.dwg



LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
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- EXIST. SD INLET & MH
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION

NOTES:

1. CONTRACTOR TO ENSURE THAT THERE IS 18" MIN. OF VERTICAL SEPARATION BETWEEN WATER AND SANITARY SEWER LINES. WHEN SEPARATION CAN NOT BE OBTAINED, AN EXCEPTION CAN BE APPLIED FOR WITH ADDITIONAL MEASURES TO PROTECT PUBLIC HEALTH, IN ACCORDANCE WITH UAC R309-105-6(2)(B). IF CONFLICTS EXIST THEY SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY.
2. A RIGHT-OF-WAY ENCROACHMENT PERMIT MUST BE OBTAINED BY GRANTSVILLE CITY PRIOR TO DOING ANY WORK IN THE EXISTING CITY RIGHT-OF-WAY.
3. 10' MIN. HORIZONTAL SEPARATION BETWEEN WATER AND SANITARY SEWER LINES.
4. UTILITY WATER TO THE NORTH SIDE OF PEAR STREET TO BE RECONNECTED WHERE EXISTING AND NEW SEWER SERVICES TO BE INSTALLED.

N

S

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

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SEWER PLAN

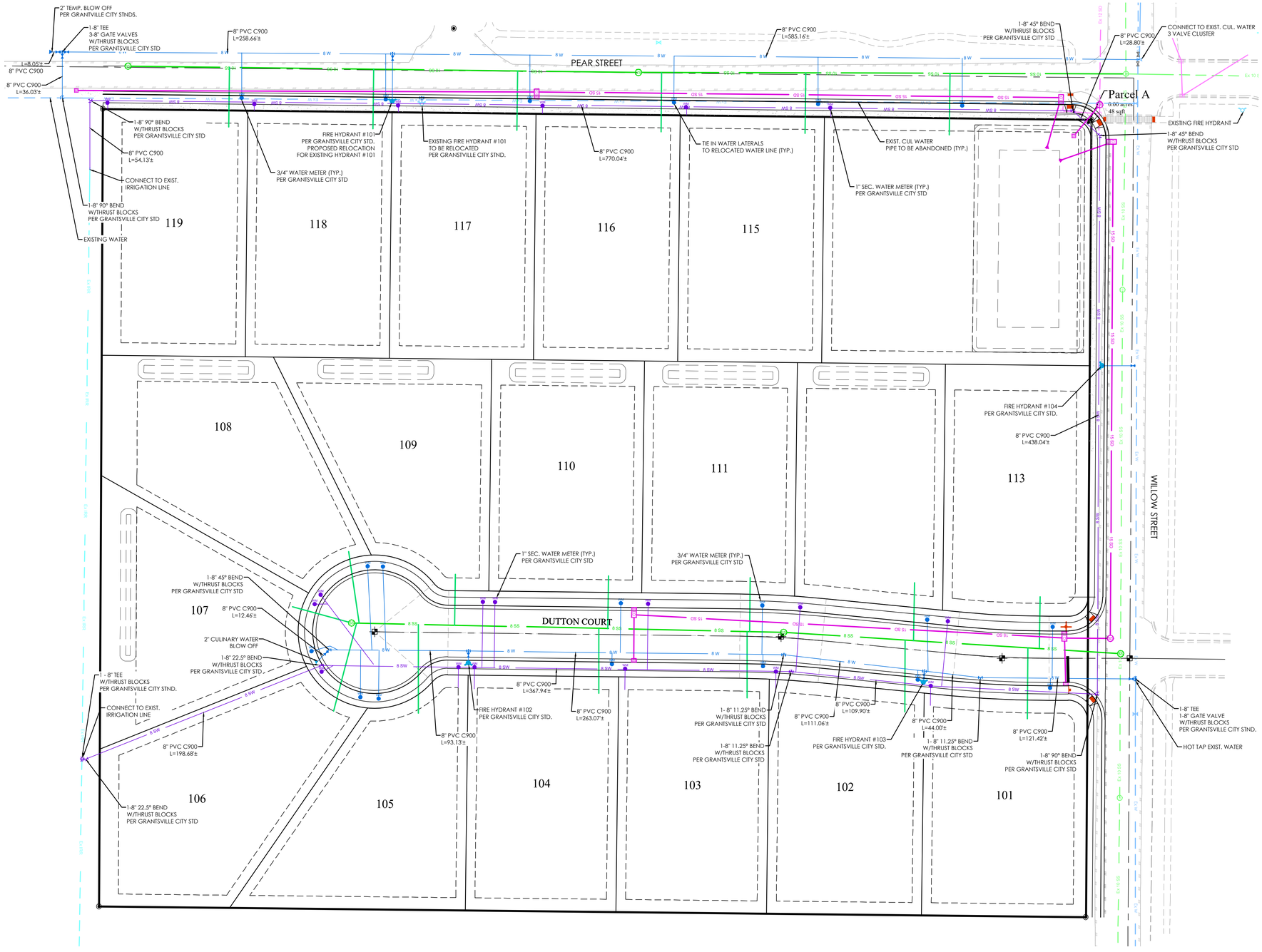
REVISION BLOCK

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SEWER PLAN

Scale:	1"=40'	Drawn:	MEF
Date:	09/13/22	Job #:	21-0512
Sheet:	C5		

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LEGEND

- BOUNDARY
- ROW
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- 15" STORM DRAIN
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N

S

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(IN FEET)
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GRANTSVILLE, UT

WATER PLAN

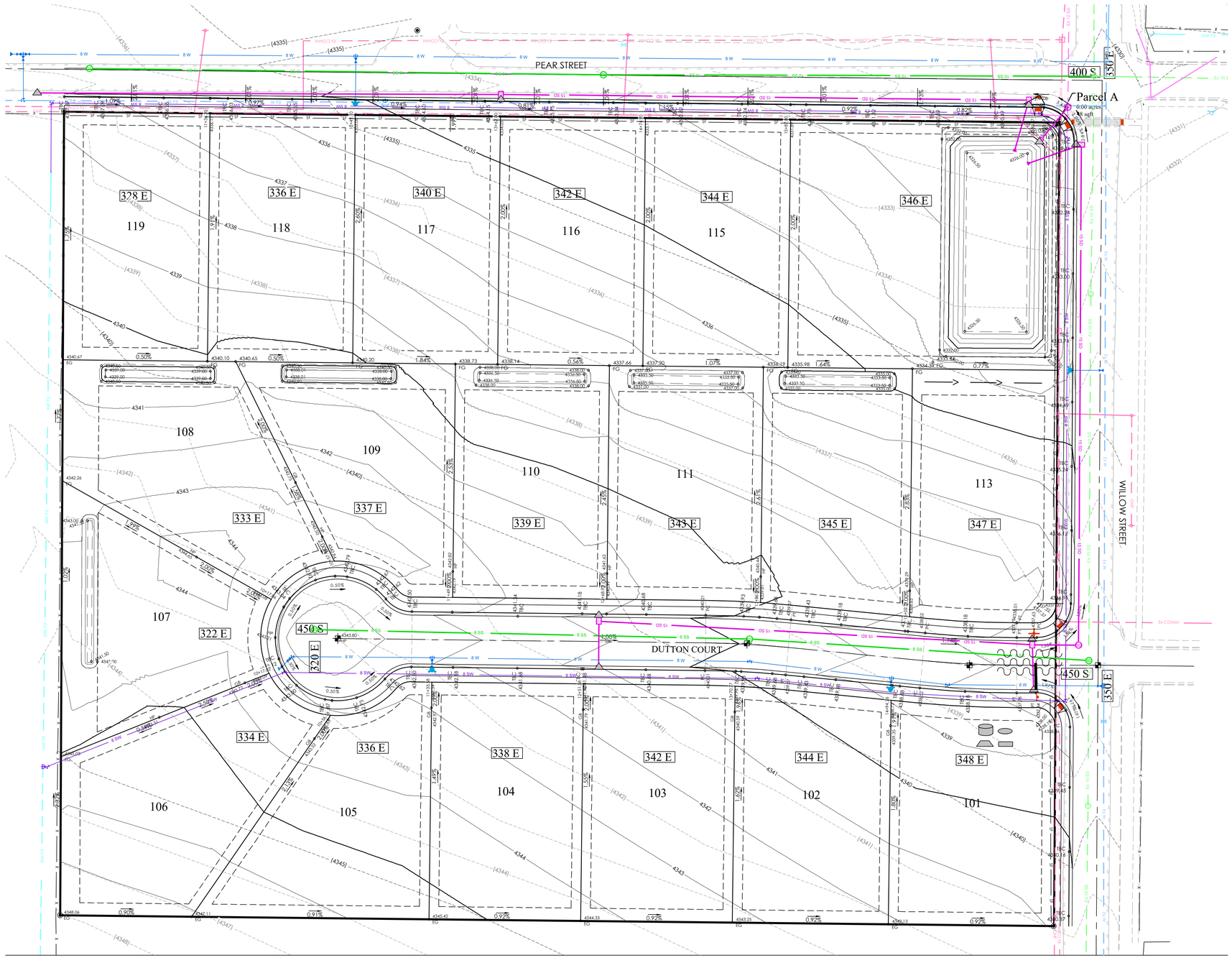
REVISION BLOCK

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WATER PLAN

Scale:	1"=40'	Drawn:	MEF
Date:	09/13/22	Job #:	21-0512
Sheet:	C6		

Z:_2021\21-0512 Grantsville Willow Street\design 21-0512\dwg\sheets\FINAL\C6 WATER PLAN.dwg



EROSION CONTROL LEGEND

- CONSTRUCTION ENTRANCE
- MATERIALS STORAGE
- FUEL TANKS
- CONCRETE WASHOUT
- TRASH BIN
- PORTABLE TOILET
- CONSTRUCTION TRAILER
- INLET PROTECTION
- SURFACE WATERS
- OUTFALL
- SF — SILT FENCE
- CUTBACK CURB
- FIBER ROLL

SWPPP DATA:

PROJECT LOCATION (LAT/LONG):
NORTHING:40°35'14" EASTING:112°26'59"

RECEIVING WATERS: GREAT SALT LAKE

AREA AFFECTED:

1. TOTAL PROJECT AREA IS 11.1 ACRES. AN ESTIMATED 11.1 ACRES WITHIN THE PROJECT LIMITS WILL BE DISTURBED WITH NEW CONSTRUCTION OR CONTRACTOR STORAGE ACTIVITIES.
2. THE MAJORITY OF EXISTING SITE GRADES RANGE FROM 1.5% TO 2.5%. THE PROPOSED GRADING RAISES THE SITE APPROXIMATELY 1' WITH ROADS OF APPROXIMATELY 1.00% TO PROVIDE THE PROPER DRAINAGE.
3. THE INITIAL SITE IS APPROXIMATELY 0% IMPERVIOUS. THE FINISHED SITE WILL BE APPROXIMATELY 50% IMPERVIOUS.

CONSTRUCTION ACTIVITIES:

1. THE PROJECT EXTENTS CONSIST OF 19 INDIVIDUALLY GRADED RESIDENTIAL LOTS. PLANNED ACTIVITIES INCLUDE CONSTRUCTION OF THE INFRASTRUCTURE, VERTICAL CONSTRUCTION OF HOMES, LANDSCAPING AND RELATED ACTIVITIES. OBTAIN UPDES "NOI" PERMIT AND ANY OTHER REQUIRED STORM WATER PERMIT PRIOR TO THE BEGINNING OF CONSTRUCTION.
2. INSTALL BMP'S ACCORDING TO THE PHASE OF CONSTRUCTION AS INDICATED IN THIS SWPPP.
3. CONSTRUCTION ACTIVITIES WILL PROCEED AS FOLLOWS: ROUGH GRADING, UTILITY INFRASTRUCTURE, ROADWAY INFRASTRUCTURE, HOME CONSTRUCTION AND LANDSCAPING. AS NEW DRAINAGE ELEMENTS ARE COMPLETED, CONTRACTOR SHALL IMPLEMENT THE USE OF PROPER BMP'S AS OUTLINED IN SECTION 3.5.1B IN THE UPDES PERMIT REGULATIONS.
4. SITE STABILIZATION OF AREAS DISTRIBUTED BY CONSTRUCTION ACTIVITIES MUST BE FINISHED WITHIN 14 DAYS OF COMPLETION OF CONSTRUCTION AND PRIOR TO OBTAINING AN "NOT" PERMIT.
5. CLEAR SITE OF NON-ESSENTIAL MATERIALS AND CLEAN STREETS AND ASSOCIATED GUTTERS, UPON PROJECT COMPLETION AND OBTAINING "NOT" PERMIT. REMOVE TEMPORARY STORM WATER MEASURES AND PERFORM REQUIRED STORM DRAIN SYSTEM MAINTENANCE PRIOR TO RELEASE OF SYSTEM TO THE OWNER.

RUNOFF COEFFICIENTS OF DISCHARGE:

1. THE EXISTING RUNOFF COEFFICIENT FOR THE PROJECT AREA IS ESTIMATED TO BE 0.15. THE PROPOSED RUNOFF COEFFICIENT WILL BE APPROXIMATELY 0.34 FOR THE PROPOSED IMPROVEMENTS UPON COMPLETION OF IMPROVEMENTS.
2. DISCHARGE FROM THE SITE WILL BE THROUGH THE EXISTING STORM DRAIN SYSTEM.

GENERAL STORM WATER POLLUTION CONTROL NOTES:

1. FOR INSTALLATION PROCEDURES, SEE SWPPP DETAIL BEST MANAGEMENT PRACTICES (BMP) SPECIFICATIONS IN SECTION 5.
2. THE BMPS AND SITE WILL BE MONITORED REGULARLY. ANY ADDITIONAL BMPS THAT ARE NEEDED WILL BE DETERMINED DURING REGULAR INSPECTIONS AND INSTALLED ACCORDING TO SPECIFICATION. ANY CHANGES TO PROTECT BMPS WILL NEED TO BE REFLECTED ON THE SWPPP MAP(S).
3. SWPPP PLAN COMPILED FROM INFORMATION OBTAINED FROM MATERIAL PRODUCED BY: FOCUS ENGINEERING AND SURVEYING
   6949 S. HIGH TECH DRIVE, SUITE 200
   MIDVALE, UTAH 84047
   PH: (801) 352-0075

ALL INFORMATION SHOWN ON SWPPP MAPS WAS TAKEN OR DERIVED FROM THE ABOVE STATED SOURCE. ANY INFORMATION NOT DEPICTED WAS NOT PROVIDED AS PART OF THIS PROJECT.

N

S

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

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No. 8028950-2202
THOMAS M. ROMNEY
9/16/22
STATE OF UTAH

COWBOY ESTATES SUBDIVISION

GRANTSVILLE, UT

EROSION CONTROL PLAN

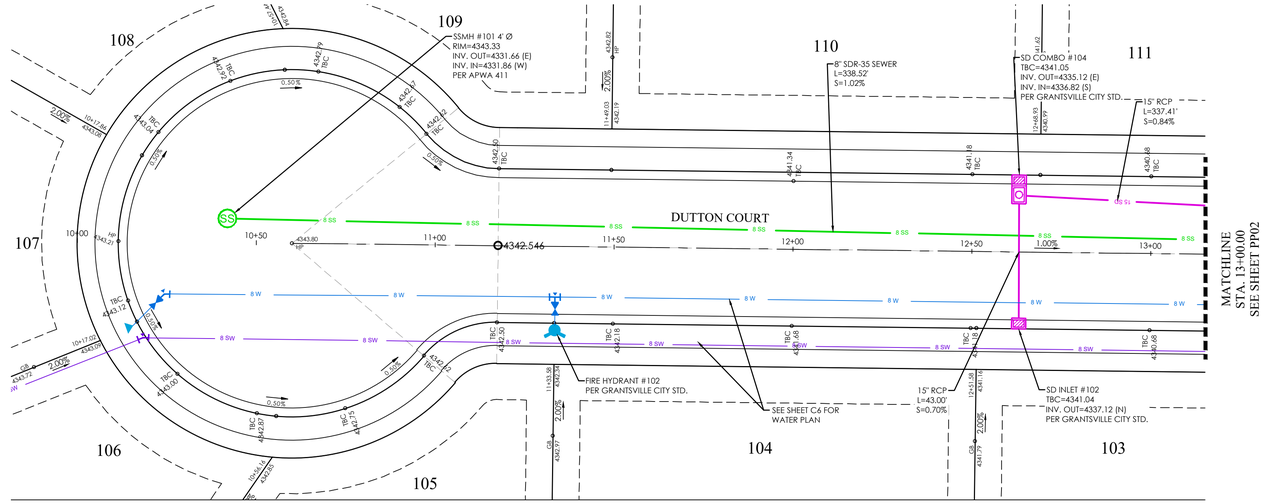
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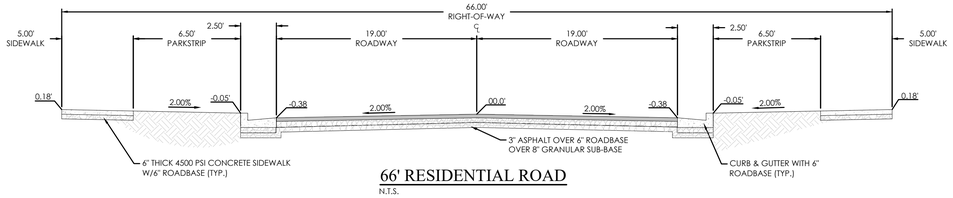
EROSION CONTROL PLAN

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Date: 09/13/22 | Job #: 21-0512
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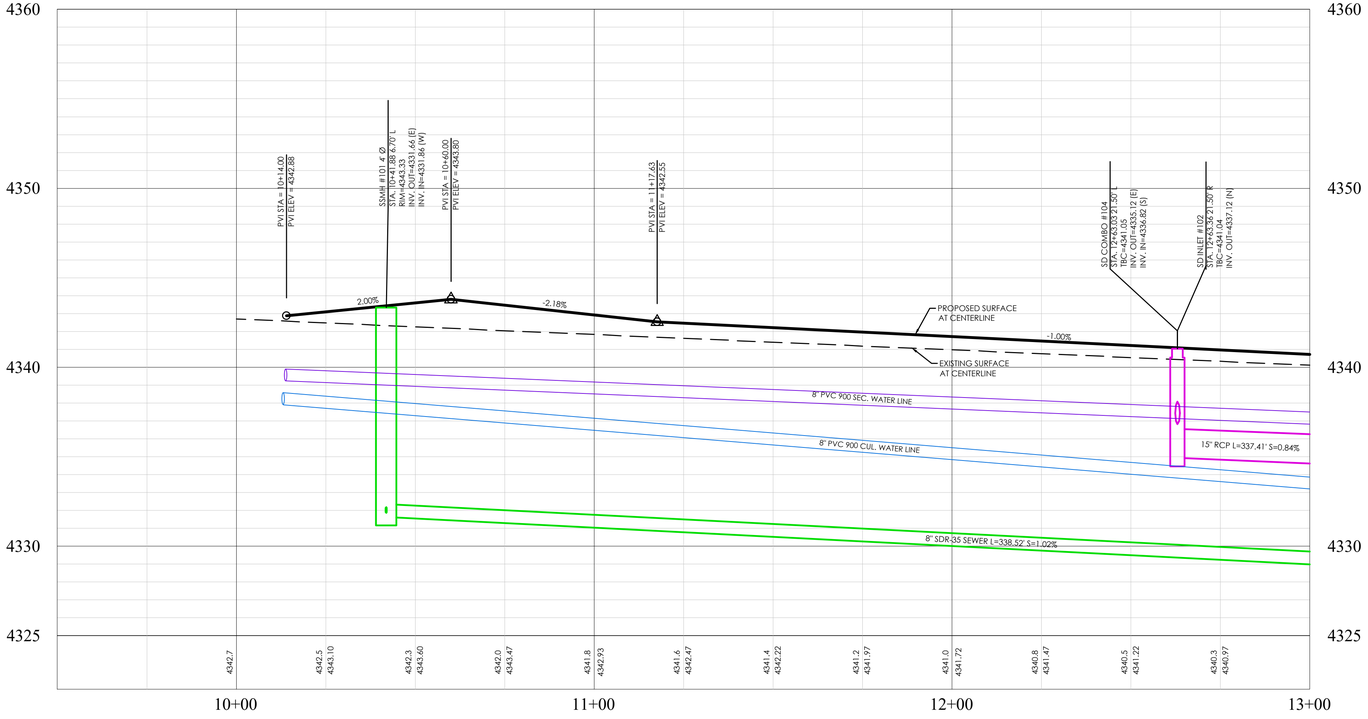


DUTTON COURT PLAN



66' RESIDENTIAL ROAD

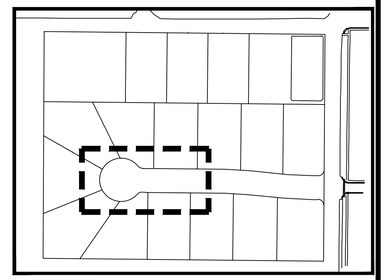
N.T.S.



DUTTON COURT PROFILE

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
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- SEWER MANHOLE
- CULINARY VALVE, TEE & BEND
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- WATER BLOW-OFF
- FIRE HYDRANT
- STREET MONUMENT (TO BE SET)
- EXIST. STREET MONUMENT
- EXIST. SD INLET & MH
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION



KEY MAP

N.T.S

NOTES:

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BENCHMARK

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

N

S

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

Know what's below. Call 811 before you dig.

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No. 8028950-2202
THOMAS M. ROMNEY
STATE OF UTAH
4/14/22

COWBOY ESTATES SUBDIVISION
GRANTSVILLE, UT
DUTTON COURT

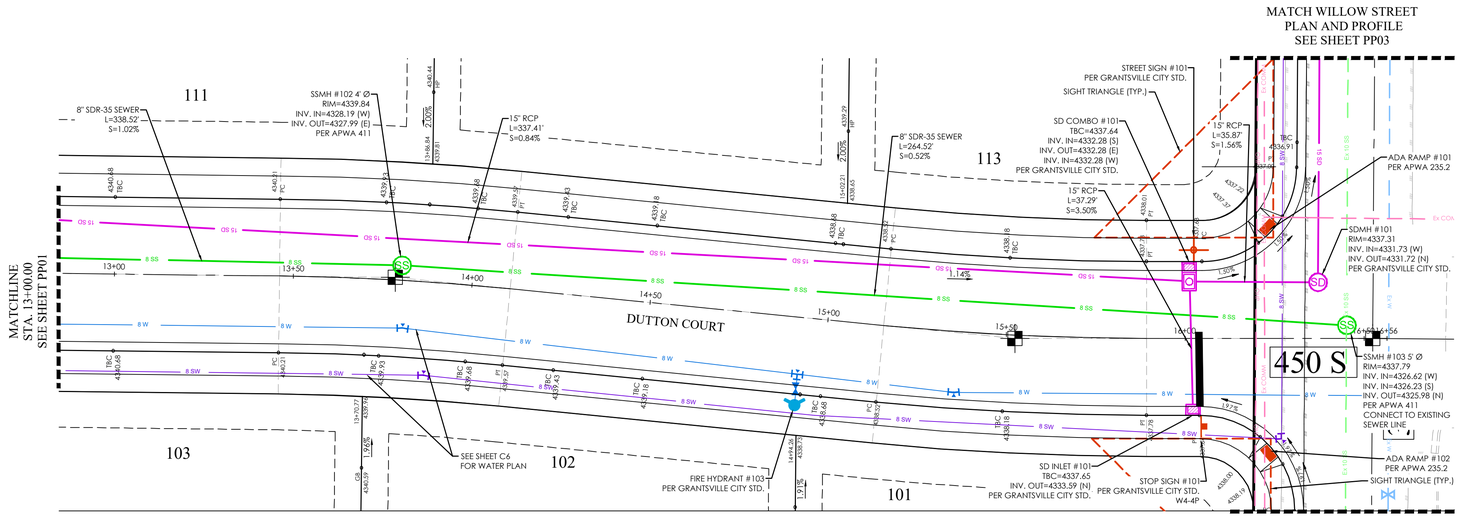
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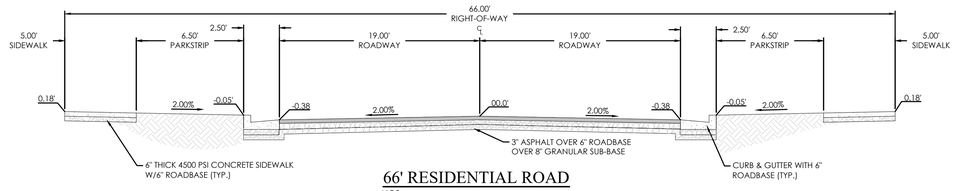
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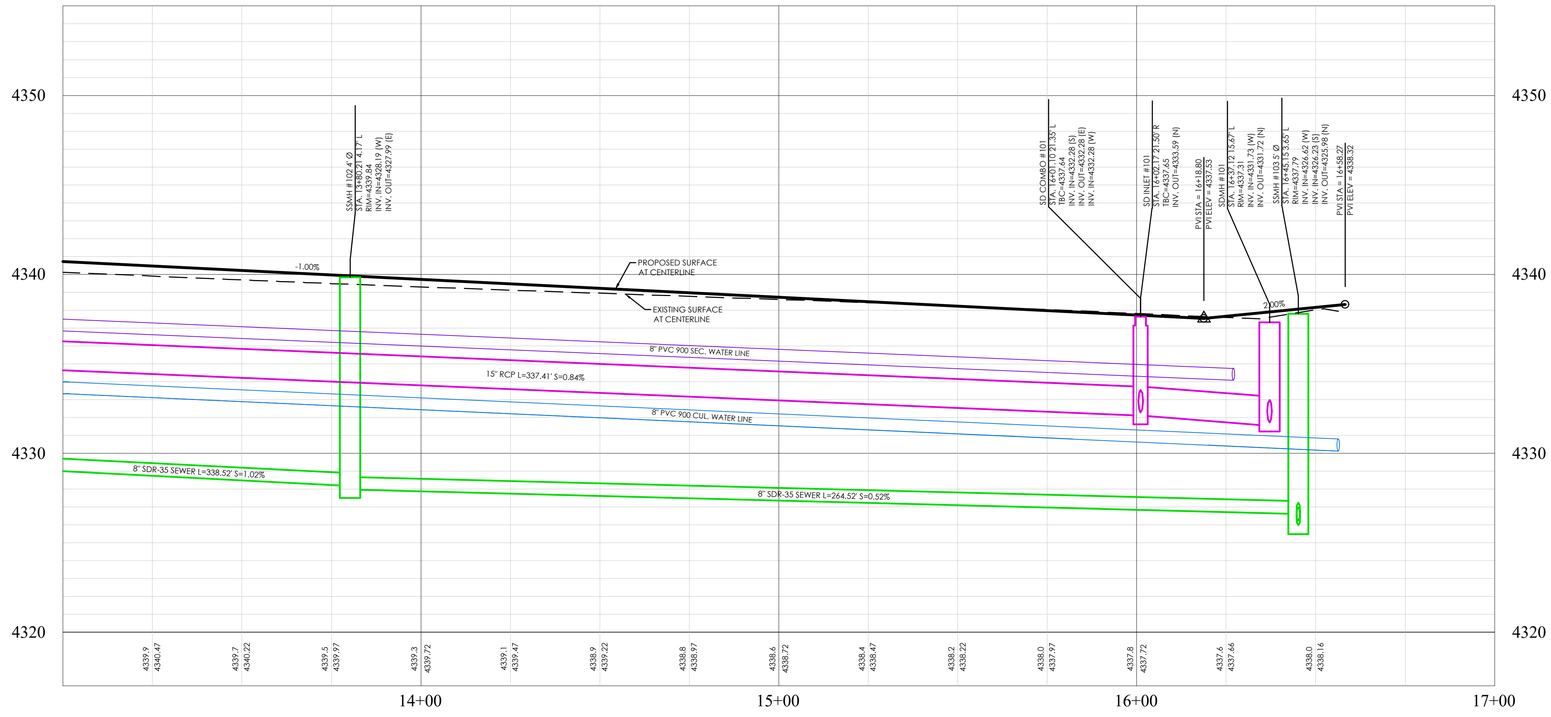


DUTTON COURT PLAN



66' RESIDENTIAL ROAD

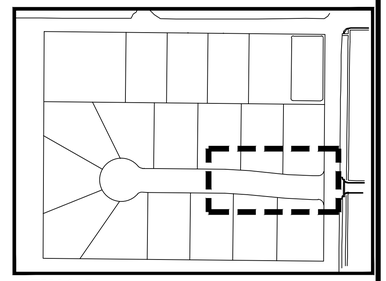
N.T.S.



DUTTON COURT PROFILE

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
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- SEWER MANHOLE
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- WATER BLOW-OFF
- FIRE HYDRANT
- STREET MONUMENT (TO BE SET)
- EXIST. STREET MONUMENT
- EXIST. SD INLET & MH
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION



KEY MAP
N.T.S

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BENCHMARK

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

N
S

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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9/16/22
STATE OF UTAH

COWBOY ESTATES SUBDIVISION
GRANTSVILLE, UT
DUTTON COURT

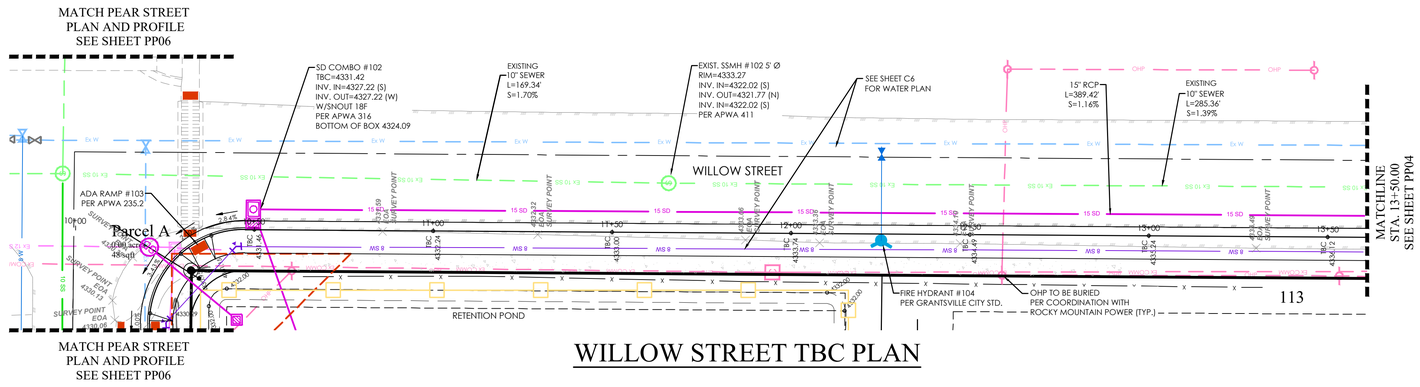
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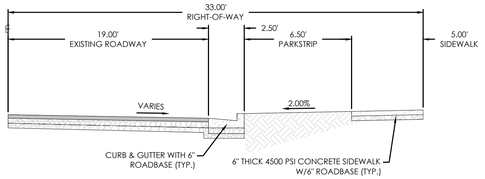
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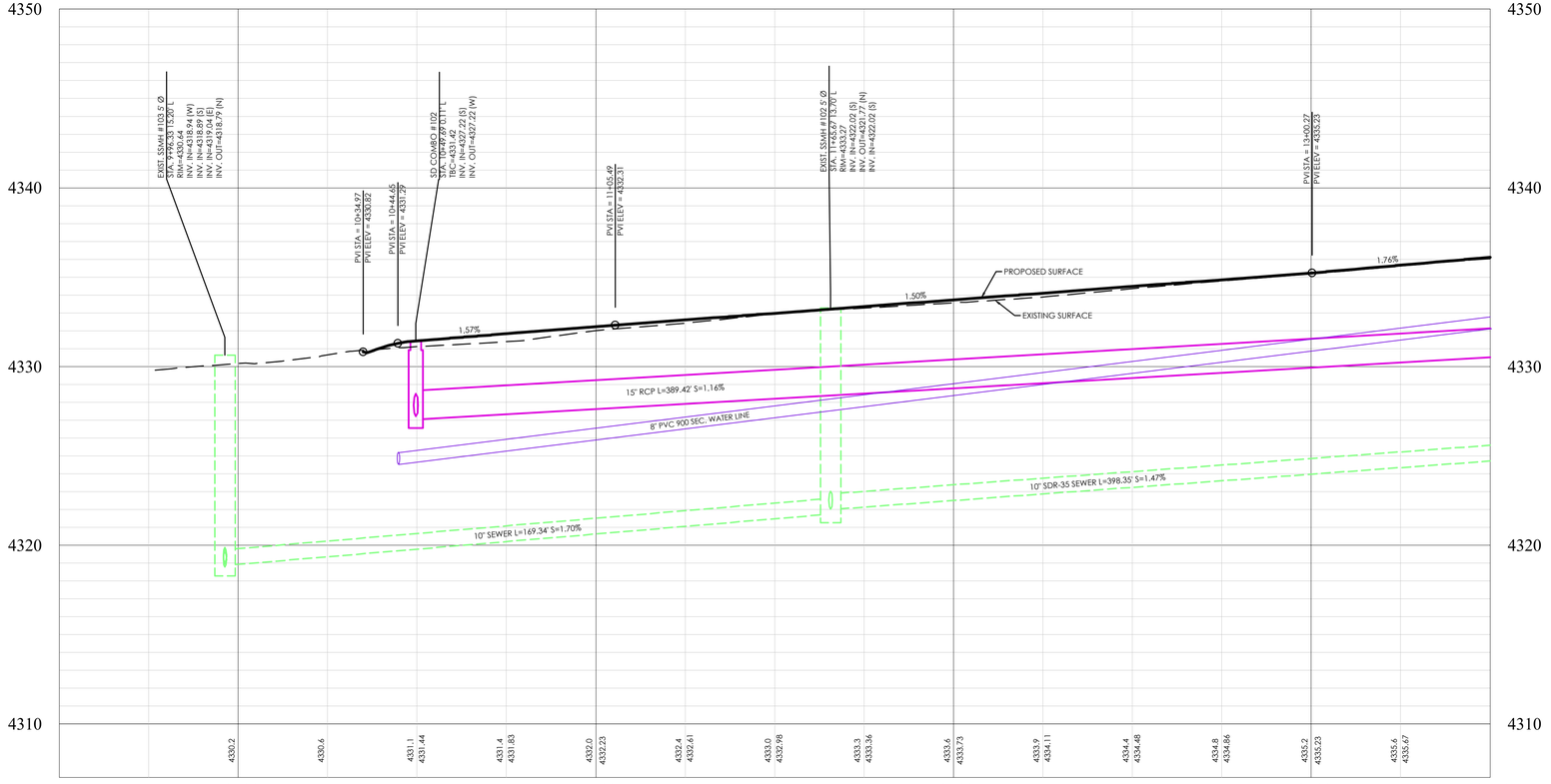


WILLOW STREET TBC PLAN



66' ROW WILLOW STREET (HALF WIDTH)

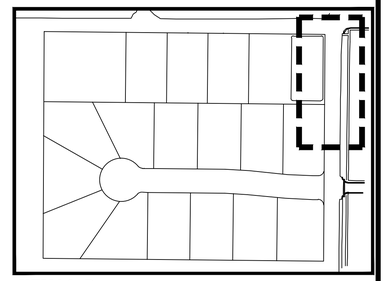
N.T.S.



WILLOW STREET TBC PROFILE

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
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- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
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KEY MAP

N.T.S

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BENCHMARK

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

N S

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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GRANTSVILLE, UT
WILLOW STREET

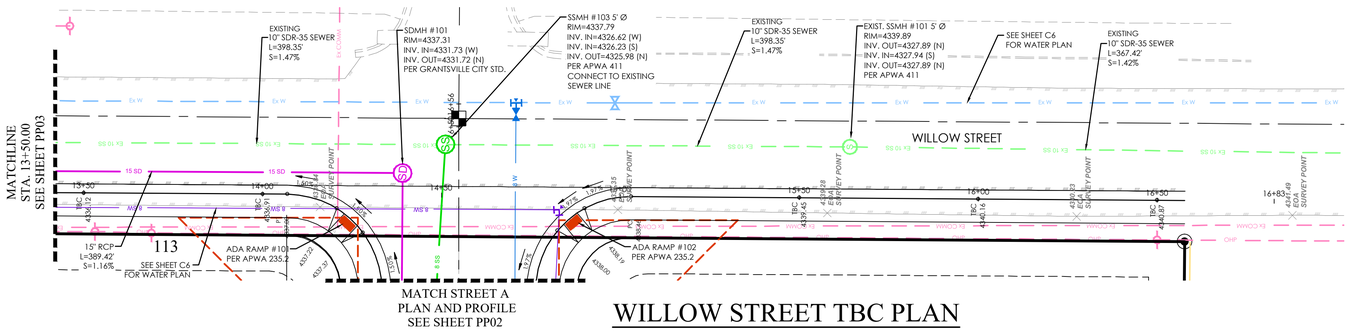
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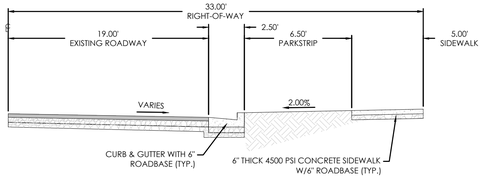
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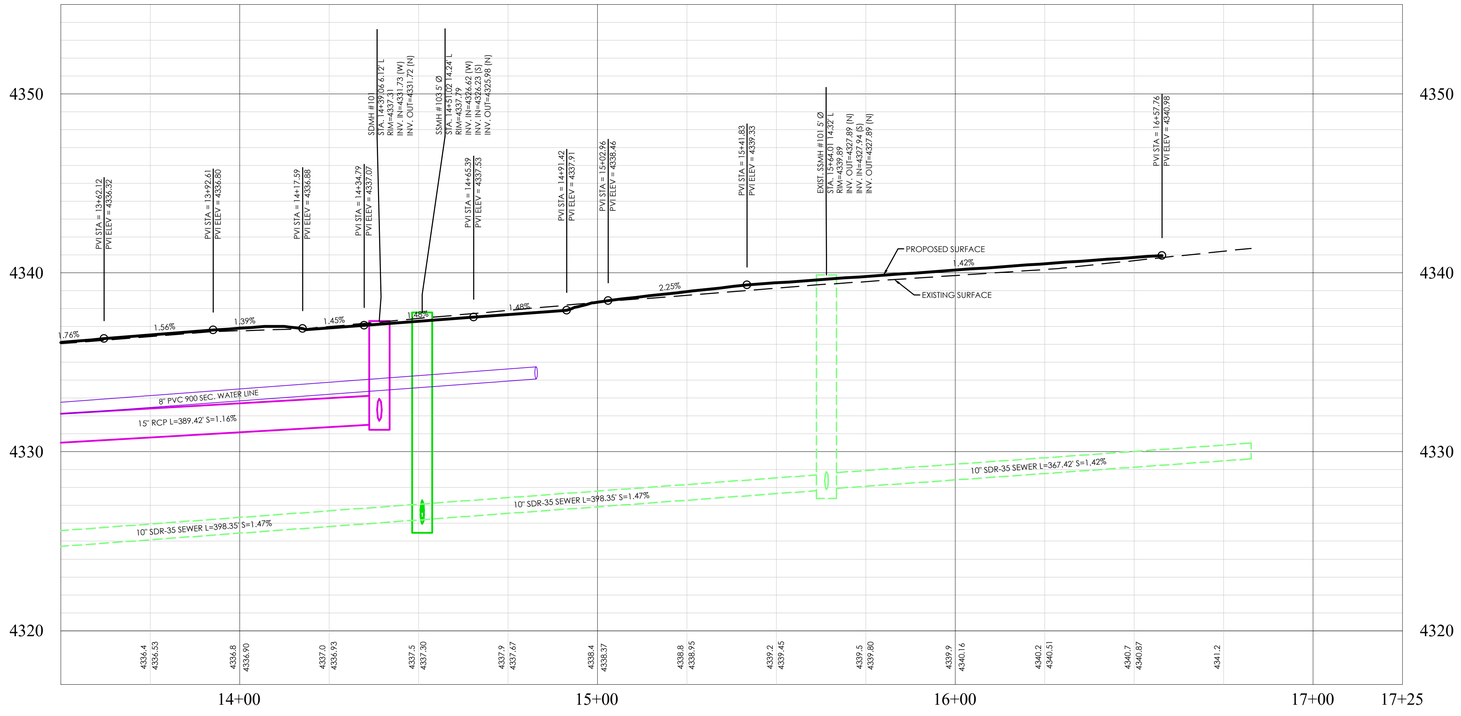


WILLOW STREET TBC PLAN



66' ROW WILLOW STREET (HALF WIDTH)

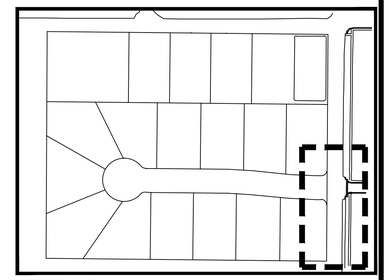
N.T.S.



WILLOW STREET TBC PROFILE

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
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- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- o XXXX.XX SPOT ELEVATION



KEY MAP
N.T.S

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BENCHMARK

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

20 0 10 20 40 80

(IN FEET)
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GRANTSVILLE, UT
WILLOW STREET

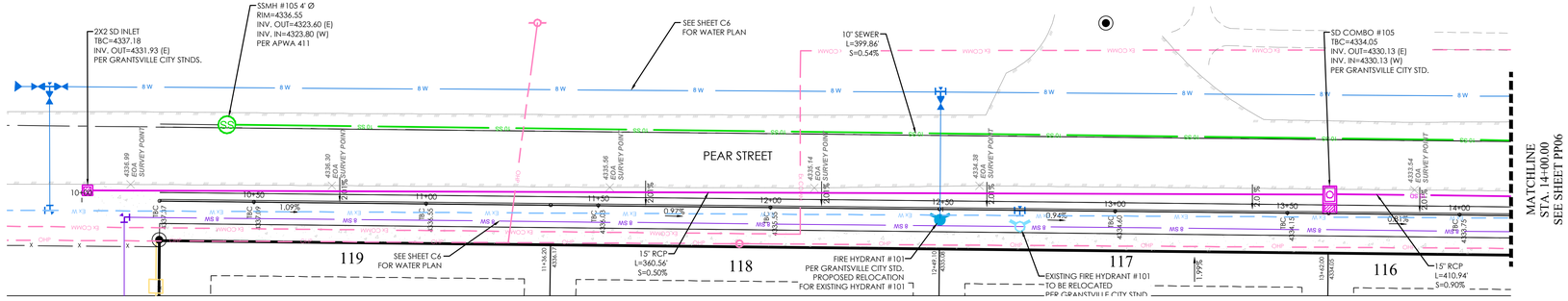
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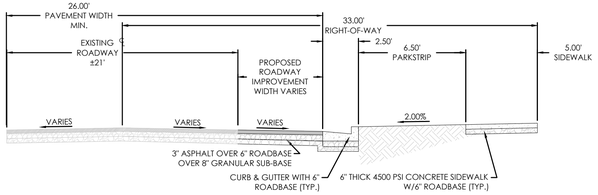
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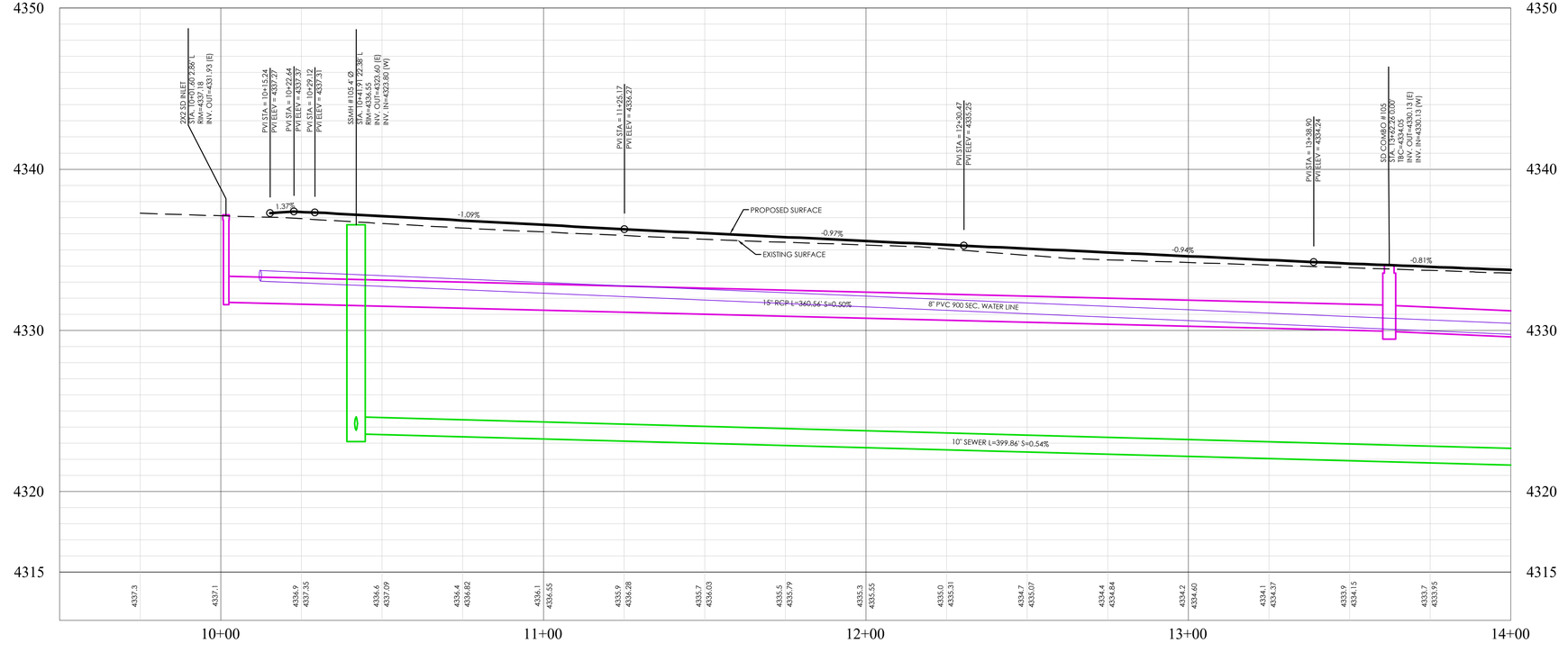


PEAR STREET TBC PLAN

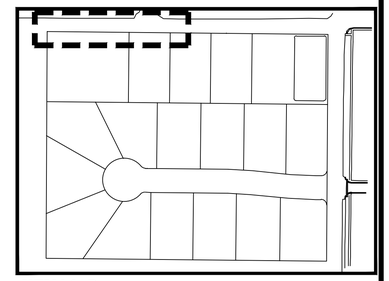


66' ROW PEAR STREET (HALF WIDTH IMPROVEMENT)

N.T.S.



PEAR STREET TBC PROFILE



KEY MAP
N.T.S

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BENCHMARK

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

20 0 10 20 40 80

(IN FEET)
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LEGEND

- BOUNDARY
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- LOT LINE
- EASEMENT
- 15" STORM DRAIN
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- EXIST. STREET MONUMENT
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LICENSED PROFESSIONAL ENGINEER
No. 8028950-2202
THOMAS M. ROMNEY
9/16/22
STATE OF UTAH

COWBOY ESTATES SUBDIVISION
GRANTSVILLE, UT
PEAR STREET

REVISION BLOCK

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PEAR STREET

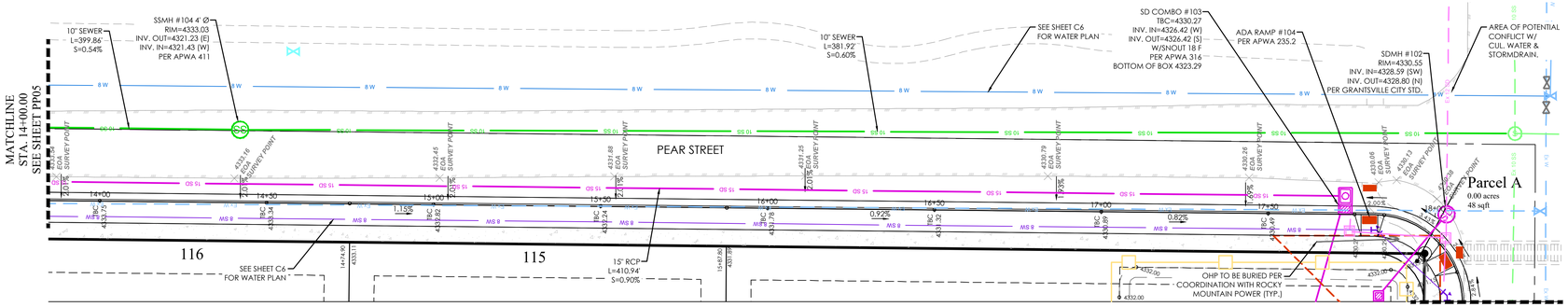
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Date: 09/13/22 | Job #: 21-0512
Sheet: PP05

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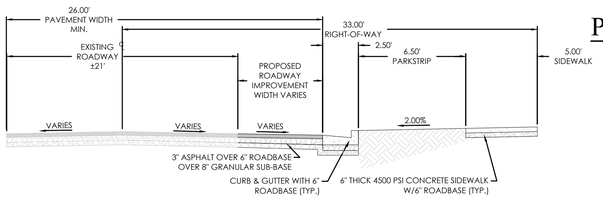
NOTES:
1. CONTRACTOR TO ENSURE THAT THERE IS ADEQUATE SEPARATION BETWEEN WATER LATERALS AND SEWER MAIN. IF CONFLICTS EXIST THEY SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY.
2. PROVIDE 12" SUMPS ON ALL STORM WATER MANHOLES AND BOXES
3. ALL WATER SERVICES TO BE LOOPED UNDER THE STORM DRAIN WHERE EVER CONFLICTS OCCUR.

LEGEND

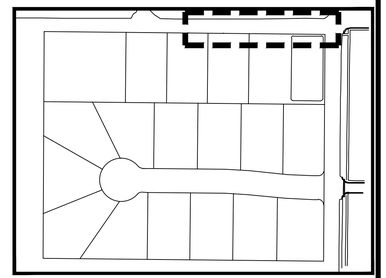
	BOUNDARY
	ROW
	CENTERLINE
	LOT LINE
	EASEMENT
15 SD	15" STORM DRAIN
8 SS	8" SANITARY SEWER
8 W	8" CULINARY WATER
8 SW	8" SECONDARY WATER
XXXX	CONTOUR MAJOR
XXXX	CONTOUR MINOR
Ex SD	EXIST. STORM DRAIN
Ex SS	EXIST. SANITARY SEWER
Ex W	EXIST. CULINARY WATER
x x x	EXIST. FENCE
(XXXX)	EXIST. CONTOUR MAJOR
(XXXX)	EXIST. CONTOUR MINOR
	SIGN
	STREET LIGHT
	SD MH, INLET, AND COMBO
	SEWER MANHOLE
	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
	EXIST. SEWER MH
	EXIST. VALVE, TEE, & BEND
	EXIST. FIRE HYDRANT
o XXXX.XX	SPOT ELEVATION



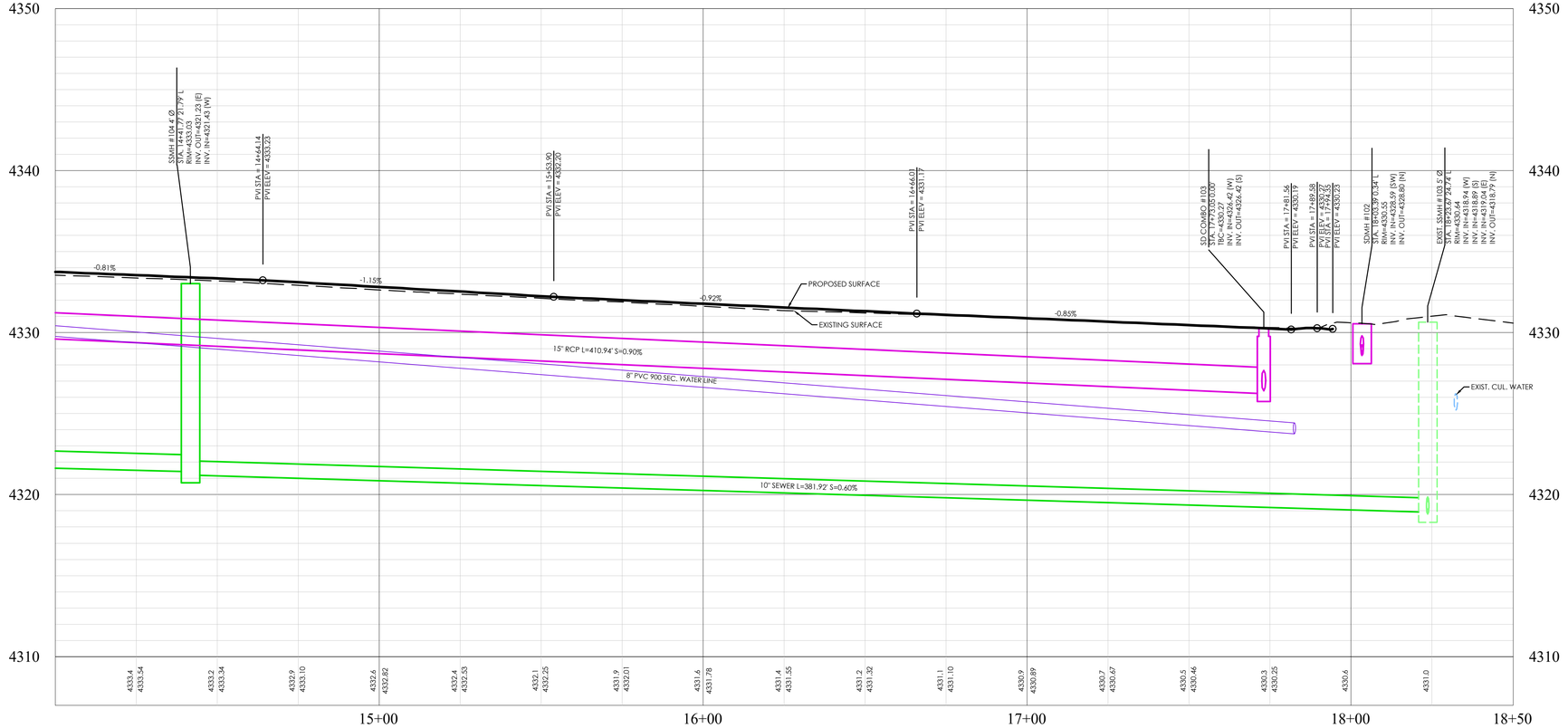
PEAR STREET TBC PLAN



66' ROW PEAR STREET (HALF WIDTH IMPROVEMENT)
N.T.S.



KEY MAP
N.T.S



PEAR STREET TBC PROFILE

BENCHMARK

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

N
S

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

Know what's below. Call 811 before you dig.

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6949 S. HIGH TECH DRIVE SUITE 200
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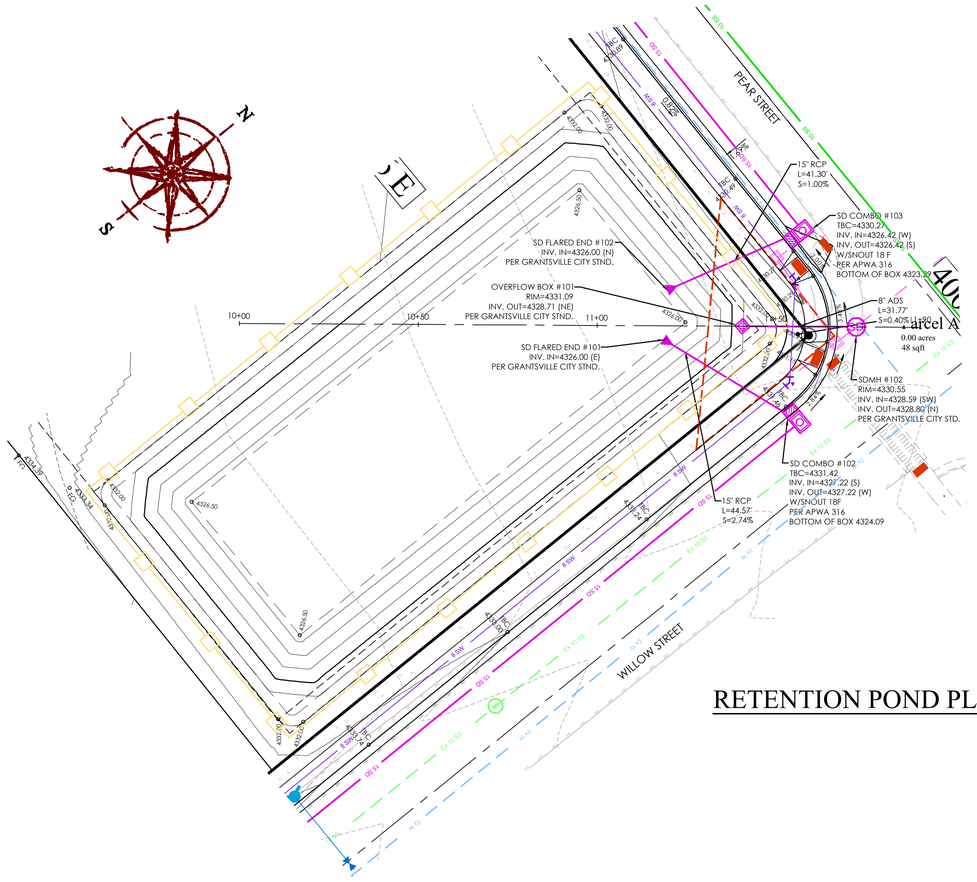
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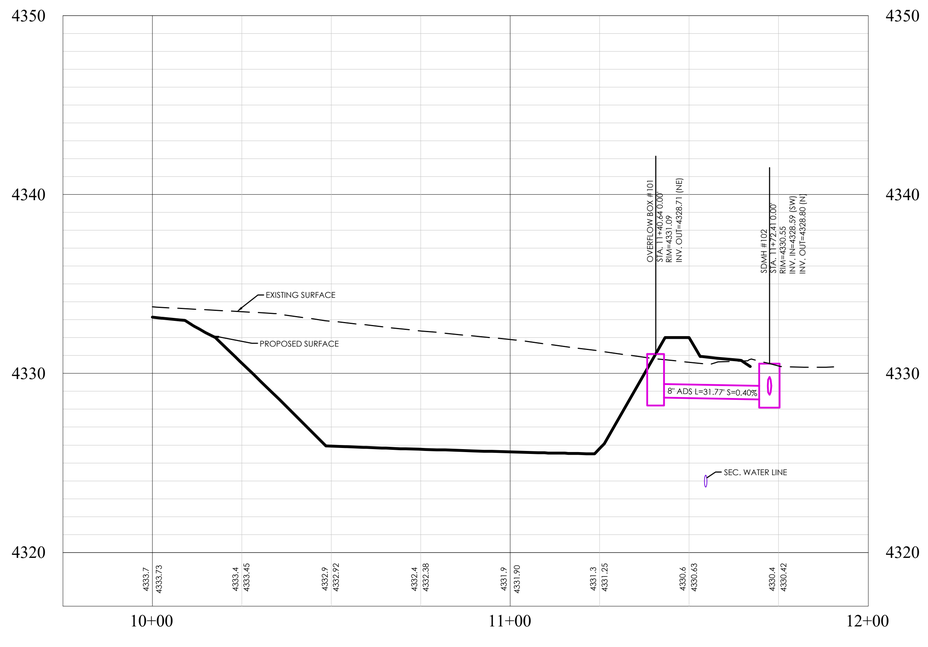
PEAR STREET

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Date:	09/13/22	Job #:	21-0512
Sheet:	PP06		

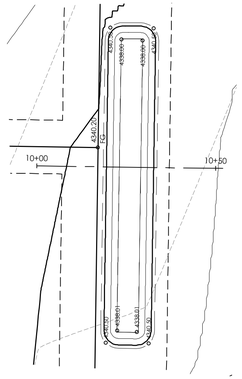
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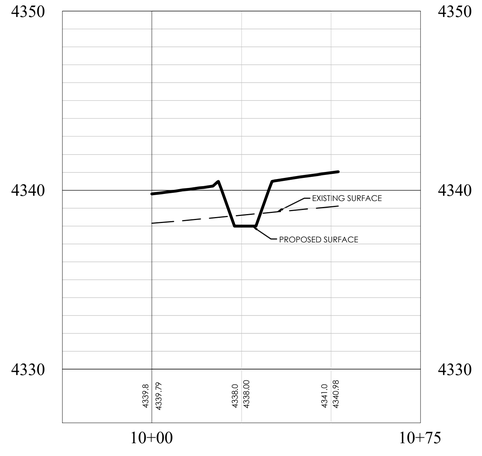
RETENTION POND PLAN



RETENTION POND PROFILE



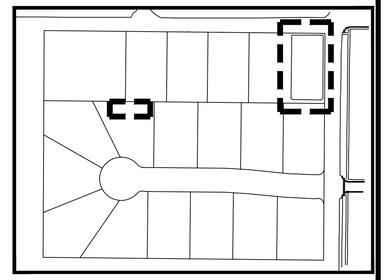
REAR LOT RETENTION POND PLAN



REAR LOT RETENTION POND PROFILE

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- 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
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION



KEY MAP
N.T.S

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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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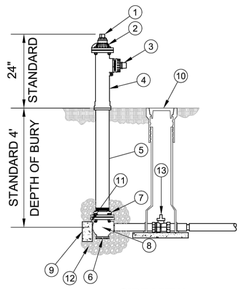
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RETENTION POND

Scale: 1"=20' | Drawn: MEF
Date: 09/13/22 | Job #: 21-0512
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SIDE VIEW
SCALE: NTS

GENERAL NOTES:

1. #2 ECLIPSE POST HYDRANT SHALL BE SELF-DRAINING, NON-FREEZING, COMPRESSION TYPE WITH 2-3/16" MAIN VALVE OPENING. INLET CONNECTION SHALL BE 2" FIP. OUTLET SHALL BE 2 1/2". STANDARD DEPTH OF BURY IS 4'.
2. ALL WATER FLOW SHALL PASS THRU A 3-1/2" FBE COATED STEEL PIPE AND CAST IRON TOP STOCK WATERWAY.
3. ALL WORKING PARTS SHALL BE SERVICEABLE FROM ABOVE GROUND WITH NO DIGGING OR REPLACEMENT NEEDED.
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 FOUNDRY, ST. LOUIS MO. 63102.

ITEM	ITEM / DESCRIPTION	NOTES
1	OPERATING SCREW	
2	TOP CAP	
3	SIDE CAP	
4	TOP STOCK	
5	3-1/2" FBE COATED STEEL PIPE	
6	DRAIN HOLE	
7	COUPLING	
8	INLET VALVE BODY	
9	UNDISTURBED EARTH	
10	VALVE BOX	
11	THRUST BLOCK	
12	CRUSHED ROCK	
13	HYDRANT SHUT-OFF VALVE	

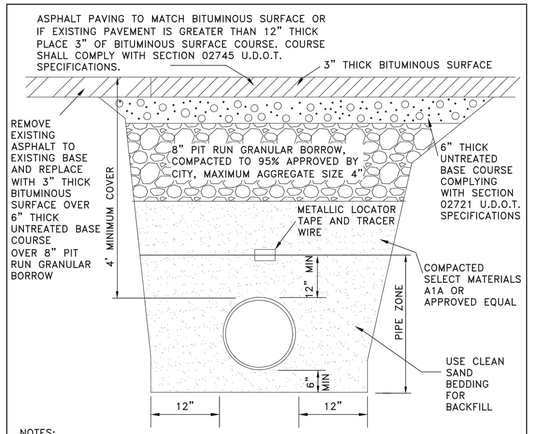
REV.	DATE	APPR.	DESCRIPTION

SCALE: -

GRANTSVILLE CITY

ABOVE GRADE 2" BLOW-OFF INSTALLATION

SHEET 6-56

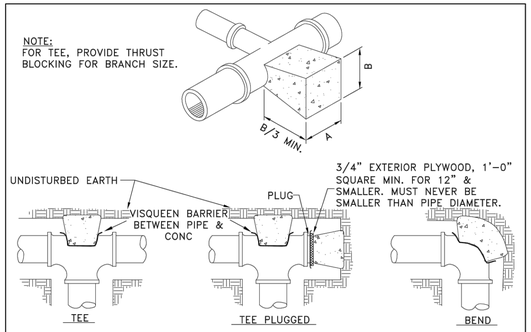


NOTES:
1. PIPES & FITTINGS SHALL BE LEAD FREE.
2. ASBESTOS CEMENT PIPE SHALL NOT BE ALLOWED.
3. WATER MAINS & SEWER LINES SHALL NOT BE INSTALLED IN THE SAME TRENCH.
4. ALL PIPES, FITTINGS & APPURTENANCES SHALL BE NSF-61 CERTIFIED.
5. ALL NEW OR REPLACED WATER LINES SHALL BE FLUSHED & DISINFECTED PER AWWA STANDARD C651 LATEST EDITION.
6. MATERIAL THICKNESS MAY CHANGE AS DIRECTED BY THE CITY ENGINEER BASED UPON FINDINGS AND RECOMMENDATIONS IN GEOTECHNICAL REPORT.
7. FOR WATER METERS NOT CONNECTED TO FIRE HYDRANTS, THE MINIMUM LINE SIZE SHALL BE 4" IN DIAMETER, UNLESS THEY SERVE PICNIC SITES, PARKS, SEMI-DEVELOPED CAMPS, PRIMITIVE CAMPS, OR ROADWAY REST-STOPS. MINIMUM WATER MAIN SIZE SERVICING A FIRE HYDRANT LATERAL SHALL BE 8 INCHES IN DIAMETER UNLESS A HYDRAULIC ANALYSIS INDICATES THAT REQUIRED FLOW AND PRESSURES CAN BE MAINTAINED BY 6" LINES. [UAC R309-550-5(4)].
8. ALL TYPES OF INSTALLED PIPE SHALL BE PRESSURE TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA C600 (LATEST EDITION).
9. UNDER NO CIRCUMSTANCES SHALL THE PIPE OR ACCESSORIES BE DROPPED INTO THE TRENCH.

LOCATED IN SURFACED ROAD

REV. 01-22

GRANTSVILLE CITY
UTILITY TRENCH FOR WATER MAIN



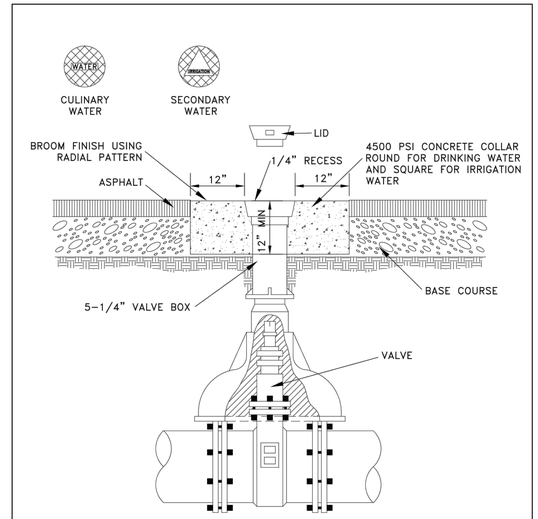
DIMENSIONS FOR THRUST BLOCKING

FITTING	TEES & PLUGS		90° BENDS		45° BENDS & "Y"S		22 1/2° BENDS	
SIZES	A	B	A	B	A	B	A	B
4"	1'-6"	1'-6"	1'-6"	1'-9"	1'-3"	0'-6"	1'-0"	0'-6"
6"	2'-0"	1'-0"	2'-0"	2'-0"	1'-3"	1'-6"	1'-0"	1'-5"
8"	2'-0"	1'-6	2'-3	2'-3	1'-8"	1'-8	1'-0"	1'-3
10"	2'-6"	2'-3"	2'-9"	2'-10"	2'-3"	1'-10"	1'-3"	2'-0"
12"	3'-0"	2'-9"	3'-6"	3'-3"	2'-6"	2'-4	2'-0"	1'-6"
14"	3'-5"	3'-0"	4'-0"	3'-8"	3'-6"	2'-4	2'-0"	2'-3"
16"	4'-0"	3'-6"	5'-0"	4'-0"	3'-6"	3'-0"	2'-6"	2'-3"
18"	4'-0"	4'-3"	6'-0"	4'-0"	4'-0"	3'-3"	2'-9"	2'-6"
20"	5'-0"	4'-3"	6'-0"	5'-0"	4'-3"	4'-0"	3'-0"	2'-9"
24"	6'-0"	5'-3"	8'-0"	5'-6"	6'-0"	4'-0"	4'-0"	3'-0"

NOTES:

1. THIS TABLE IS BASED ON 200 P.S.I. MAIN PRESSURE AND 2000 P.S.F. SOIL BEARING PRESSURE. ADJUST BEARING AREAS IN ACCORDANCE WITH SOIL CONDITIONS AND PRESSURES ENCOUNTERED.
2. USE POLYETHYLENE ENCASEMENT BETWEEN CONCRETE AND PIPE.
3. REFER TO CONCRETE STANDARD SPECIFICATIONS.
4. THE "THRUST BLOCKING DETAILS" IN NO WAY LIMITS THE LOCATION OR SIZE OF ADDITIONAL BLOCKING WHEN SO WARRANTED OR REQUIRED BY THE ENGINEER.
5. THRUST BLOCKS NEED TO BE INSPECTED BY CITY PRIOR TO BACKFILL.

GRANTSVILLE CITY
THRUST BLOCK DETAIL

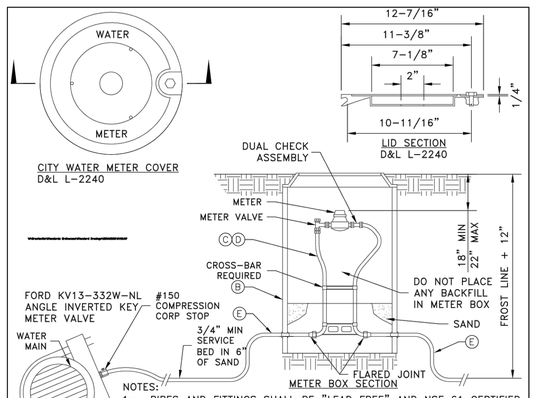


NOTES:
1. RAISE VALVE BOX AND PLACE CONCRETE COLLAR AFTER PAVING OPERATION IS COMPLETED.
2. ALL PIPES, FITTINGS & APPURTENANCES SHALL BE NSF-61 CERTIFIED.
3. BURIED GATE VALVES SHALL BE USED FOR LINES 10-INCHES AND SMALLER. BURIED BUTTERFLY VALVES SHALL BE USED FOR LINES 12-INCHES AND LARGER.
4. ISOLATION 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

NOTE:
1. ALL SURFACE CONCRETE TO BE 4500 PSI.



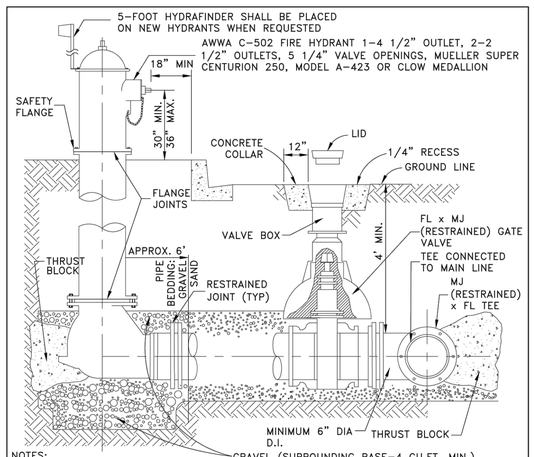
NOTES:
1- PIPES AND FITTINGS SHALL BE "LEAD FREE" AND NSF 61 CERTIFIED.
2- INSTALL TRACER WIRE FROM MAIN CONNECTION THROUGH METER PIT WITH 30 FEET EXCESS TO EXTEND TO DWELLING.
3- SERVICE CONNECTIONS AND METER ASSEMBLIES LARGER THAN 1-INCH NEED TO COMPLY WITH THE LATEST APWA STANDARD DETAILS.
4- INSTALL SERVICE LATERALS AND METERS WITHIN 5 FEET OF LOT LINES ON EACH SIDE OF COMMON LOT LINE (ALTERNATE WITH SECONDARY WATER).
5- STAMP OR PIN GUTTER LIP AND TOP OF CURB WITH A "W" IN TWO PLACES, NEAR CURB LIP AND TOP OF CURB.

LEGEND

No	*	ITEM	DESCRIPTION
(A)		FRAME AND COVER	CAST IRON COVER (GRASS) DUCTILE IRON COVER (DRIVEWAY)
(B)		METER BOX (21" DIAMETER) (30" TO 36" DEEP)	WHITE CORRUGATED PE
(C)		3/4" METER YOKE	DUAL CHECK ASSEMBLY REQUIRED
(D)		1" METER YOKE	OPTIONAL BACKFLOW PROTECTION PER AGENCY REQUIREMENTS
(E)		3/4" AND 1" SERVICE LINE	HDPE IPS SDR 11

REV 07-22

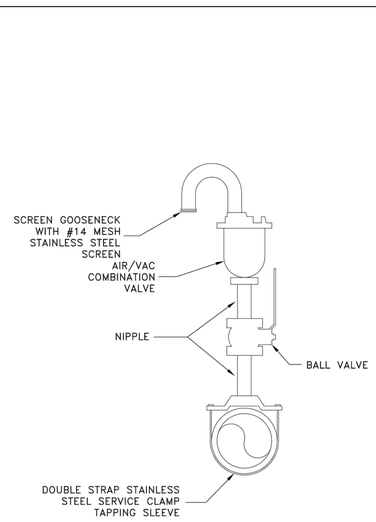
GRANTSVILLE CITY
SERVICE CONNECTION & METER ASSEMBLY



NOTES:
1. ALL FIRE HYDRANTS SHALL BE LOCATED AS SHOWN ON THE PLANS.
2. ALL FIRE HYDRANTS WILL STAND PLUMB WITH THE PUMPER NOZZLE FACING THE STREET.
3. THE VALVE WILL BE LOCATED AS APPROVED BY CITY. PIPE MATERIAL SHALL BE DUCTILE.
4. FOR DETAILED INFORMATION SEE SPECIFICATIONS.
5. RESTRAIN ALL JOINTS FROM MAIN TO FIRE HYDRANT.
6. CONCRETE VALVE COLLAR SHALL BE BROOM FINISHED IN RADIAL PATTERN.
7. ALL NEW OR REPLACED WATER LINES SHALL BE FLUSHED & DISINFECTED PER AWWA STANDARD C651 LATEST EDITION.
8. PROVIDE 3-FOOT CLEAR SPACE AROUND THE CIRCUMFERENCE OF FIRE HYDRANTS (IFC 507.5.5)
9. HYDRANT DRAINS SHALL NOT BE CONNECTED TO, OR LOCATED WITHIN, 10 FEET OF SANITARY SEWERS. WHERE POSSIBLE, HYDRANT DRAINS SHALL NOT BE LOCATED WITHIN 10 FEET OF STORM DRAINS. [UAC R309-550-6(5)(a)]
10. MINIMUM WATER MAIN SIZE SERVICING A FIRE HYDRANT LATERAL SHALL BE 8 INCHES IN DIAMETER UNLESS A HYDRAULIC ANALYSIS INDICATES THAT REQUIRED FLOW AND PRESSURES CAN BE MAINTAINED BY 6" LINES. [UAC R309-550-5(4)]

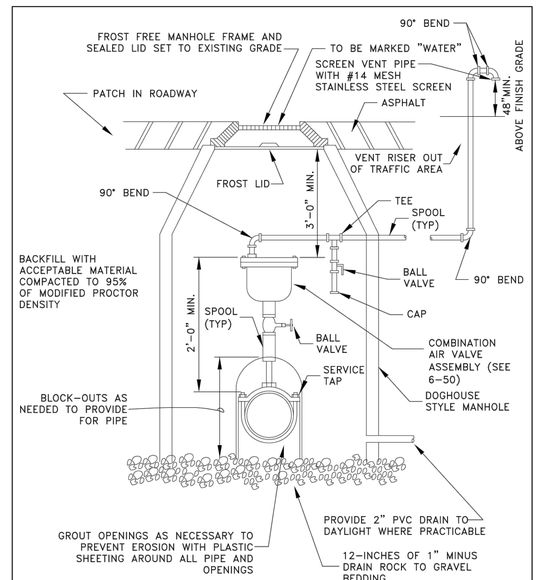
REV. 05-22

GRANTSVILLE CITY
FIRE HYDRANT ASSEMBLY



NOTES:
1- ALL PIPES, FITTINGS & APPURTENANCES SHALL BE NSF-61 CERTIFIED.

GRANTSVILLE CITY
COMBINATION AIR RELEASE VALVE



NOTE:
1- ALTERNATELY, THE OPEN END OF THE PIPE MAY BE EXTENDED TO AS LITTLE AS 1 FOOT ABOVE THE TOP OF THE PIPE IF THE VALVE CHAMBER IS NOT SUBJECT TO FLOODING, OR IF IT MEETS THE REQUIREMENTS OF UAC R309-550-6(7).

GRANTSVILLE CITY
AIR RELEASE VALVE MANHOLE DETAIL

FOCUS ENGINEERING AND SURVEYING, LLC
6949 S. HIGH TECH DRIVE SUITE 200
MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

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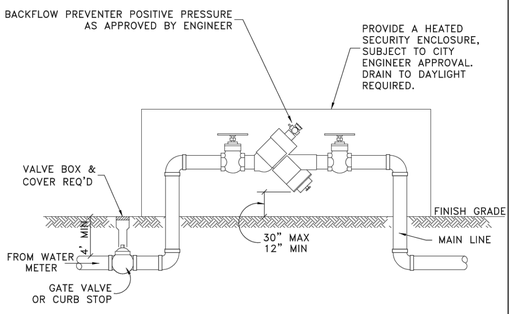
COWBOY ESTATES SUBDIVISION
GRANTSVILLE, UT
DETAILS

REVISION BLOCK		
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DETAILS

Scale: N/A | Drawn: MEF
Date: 09/13/22 | Job #: 21-0512
Sheet: D1

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NOTES:

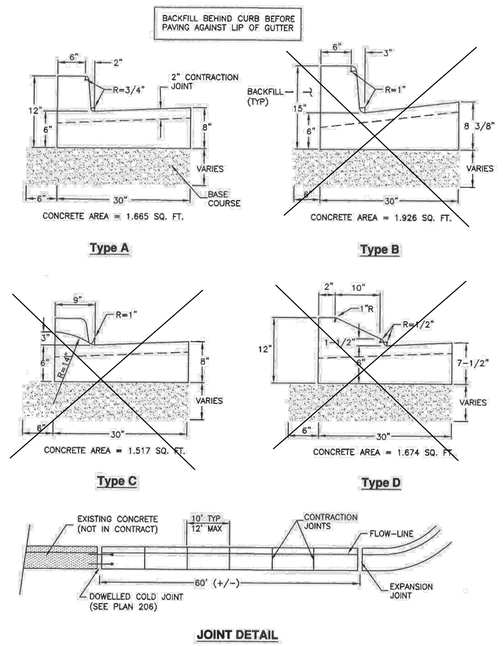
1. ALL PIPES, FITTING & APPURTENANCES SHALL BE NSF-61 CERTIFIED.
2. ALL NEW OR REPLACED WATER LINES SHALL BE FLUSHED & DISINFECTED PER AWWA STANDARD C651 LATEST EDITION.

GRANTSVILLE CITY
TYPICAL BACKFLOW PREVENTER INSTALLATION

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
   A. Base Course Placement: APWA Section 32 05 10. Thickness is 6-inches if flow-line 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.

205.1



APWA Utah Chapter

Curb and gutter

Plan 205.1 December 2008

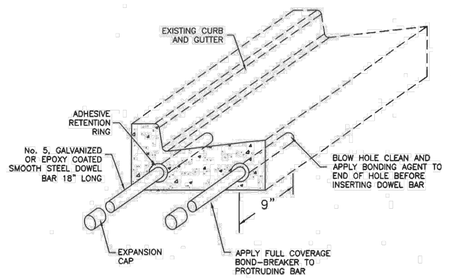
NOTE:

1. ALL SURFACE CONCRETE TO BE 4500 PSI.
2. ALL SIDEWALK TO BE 6" CONCRETE ON 6" BASE ROCK

Curb and gutter connection

1. **GENERAL**
   A. Connect new curb and gutter to existing curb and gutter that has not been placed by CONTRACTOR.
2. **PRODUCTS**
   A. Reinforcement: Galvanized or epoxy coated, 60 ksi yield grade steel, ASTM A615.
   B. Adhesive: Epoxy adhesive grout, APWA Section 03 61 00.
   C. Bond Breaker: Paraffin wax, lithium grease, or other semi-solid, inert lubricant.
   D. Expansion Cap: Plastic, with bar movement allowance of 1/2-inch.
3. **EXECUTION**
   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.
   B. Clean holes and dowel bars of dirt, dust and particles. Ensure coating on bars have no surface defects.
   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 into the hole.
   D. Insert dowels with at least one full turning motion and if necessary, place a grout retention disk on the dowel after insertion to contain adhesive.
   E. Apply complete coverage of bond-breaker on the protruding end of each dowel.
   F. Install expansion caps on protruding dowel bar ends.

206



APWA Utah Chapter

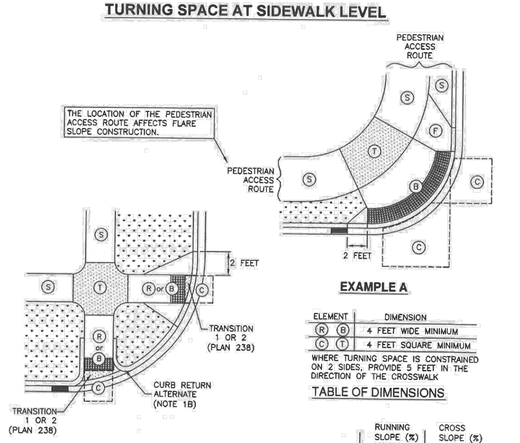
Curb and gutter connection

Plan 206 June 2009

Corner curb cut assembly

1. **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 that contrasts with adjacent walking surface, either light-on-dark or dark-on-light. 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.
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 the back of curb.
      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 concrete flatwork.
      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.

235.1



ELEMENT	DIMENSION
(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

		RUNNING SLOPE (%) MAXIMUM	CROSS SLOPE (%) MAXIMUM
TURNING SPACE	(T)	2	2
CURB RAMP	(R)	8.33	2 (c)
BLENDED TRANSITION	(B)	5	2 (c)
CLEAR SPACE	(C)	5	2 (c)
SIDEWALK	(S)	STREET GRADE	2
FLARE	(F)	10	—

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

SLOPE TABLE

APWA Utah Chapter

Corner curb cut assembly

Plan 235.1 September 2011

FOCUS©
ENGINEERING AND SURVEYING, LLC
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LICENSED PROFESSIONAL ENGINEER
No. 8028950-2202
THOMAS M. ROMNEY
STATE OF UTAH
9/16/22

COWBOY ESTATES SUBDIVISION
GRANTSVILLE, UT
DETAILS

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
2	----	----
3	----	----
4	----	----
5	----	----
6	----	----

DETAILS

Scale: N/A | Drawn: MEF
Date: 09/13/22 | Job #: 21-0512
Sheet: D2

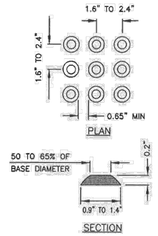
Z:\...2021\21-0512 Grantsville Willow Street\design 21-0512\dwg\sheets\FINAL\D2 - Details.dwg

Detectable warning surface

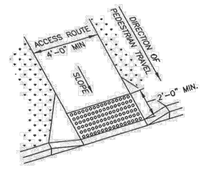
1. **GENERAL**
   - A. Detectable warnings consist of a surface of truncated domes aligned in a square or radial grid pattern with dome size, dome spacing, contrast and panel size as indicated.
   - C. Definitions and supplemental requirements are specified in APWA Section 32 16 14.

2. **PRODUCTS**
   - A. Pavers:
     1) Concrete, APWA Section 32 14 13.
     2) Brick and Mortar, APWA Section 32 14 16.
   - B. Tile: Unless indicated elsewhere, selection is by CONTRACTOR as allowed by ENGINEER.
   - C. Ribbed Composite Panel: Unless indicated elsewhere, selection is by CONTRACTOR as allowed by ENGINEER.
   - D. Bedding Sand, Joint Sand, Geotextile: APWA Section 32 14 13.

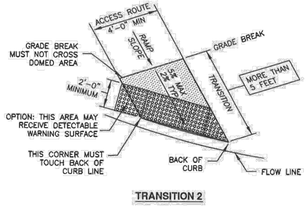
3. **EXECUTION**
   - A. Layout:
     1) Joints Between Units: 3/16 inch maximum or manufacturer's recommendation.
     2) Flares: Do not install detectable warning units on flared surfaces.
     3) Alignment: Where a ramp, turning space, or blended transition provides access to the street continuously around a corner, align the vertical rows of truncated domes to be perpendicular or radial to the grade break between the ramp and the street for a 4 feet minimum width for each crosswalk served.
     4) Transition 1 or 2: Selection is by ENGINEER unless indicated elsewhere.
     5) At Rail Crossings: The edge of the detectable warning surface nearest the rail crossing is 6 feet minimum and 15 feet maximum from the centerline of the nearest rail.
   - B. Paver Installation: APWA Section 32 14 13. If paver must be cut, minimum paver cut length is 3/4 paver, or 1/2 paver length providing the adjacent paver is also reduced no more than 1/2 its original length. Do not cut pavers longitudinally. Remove domes that were cut.
   - C. Tile Installation: Install according to manufacturer's recommendations. Remove domes that were cut.
   - D. Ribbed Composite Panel Installation: Install according to manufacturer's recommendation. Remove domes that were cut. Seal cuts to prevent water intrusion.



TRUNCATED DOME DETAIL

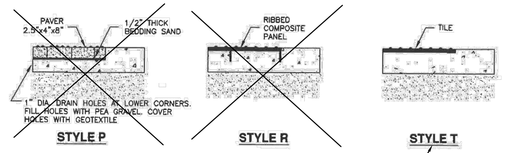


PERPENDICULAR ASSEMBLY



TRANSITION 2

NON-PERPENDICULAR ASSEMBLY



STYLE P **STYLE R** **STYLE T**

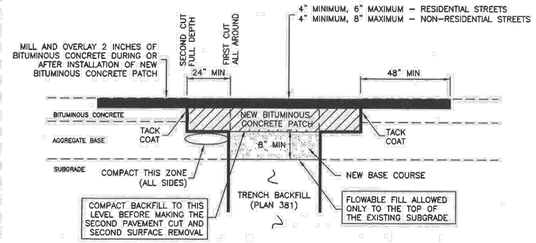
NOTE:
ONLY STYLE "T" TO BE USED PER GRANTSVILLE CITY

Bituminous pavement T-patch

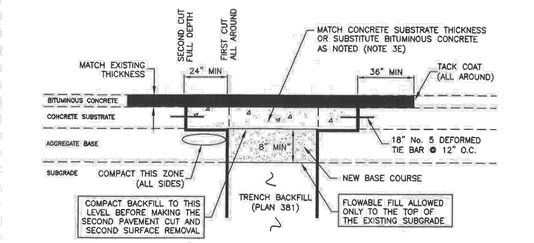
1. **GENERAL**
   - A. Vertical cuts in bituminous pavement may be done by saw or pavement zipping. If cuts greater than 6 inches are necessary to prevent pavement "break off" consult ENGINEER for directions on handling addtional costs.
   - B. Repair a T-patch restoration if any of the following conditions occur prior to final payment or at the end of the one year correction period.
     1) Pavement surface distortion exceeds 1/4-inch deviation in 10 feet. Repair option - plane off surface distortions. coat planed surface with a cationic or anionic mulsion that complies with APWA Section 32 12 03..
     2) Separation appears at a connection to an existing pavement or any Street Fixture. Repair option - blow separation clean and apply joint sealant, Plan 265.
     3) Cracks at least 1-foot long and 1/4-inch wide occur more often than 1 in 10 square feet. Repair option - blow clean and apply crack seal, Plan 265.
     4) Pavement raveling is greater than 1 square foot per 100 square feet. Repair option - Mill and inlay, APWA Sections 32 01 16.71 and 32 12 05.

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. 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.
   - C. Reinforcement. No. 5, galvanized or epoxy coated, deformed, 60 ksi yield grade steel, ASTM A615.
   - D. Concrete: Class 4500 APWA Section 03 30 04.
   - E. Tack Coat: APWA Section 32 12 13.13.
   - F. Bituminous Concrete. APWA Section 32 12 05.
     1) Warm Weather Patch: PG64-22-DM-1/2, unless indicated otherwise.
     2) Cold Weather Patch: Modified MC-250-FM-1 as indicated in APWA Section 33 05 25.

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. Flowable Fill: Cure to initial set before placing aggregate base or bituminous pavement. Use in excavations that are too narrow to receive compaction equipment.
   - C. Tack Coat. Clean all horizontal and vertical surfaces. Apply full coverage all surfaces.
   - D. Pavement Placement: Follow APWA Section 32 12 16.13. Unless indicated otherwise, lift thickness is 3-inches minimum after compaction. Compact to 94 percent of ASTM D2041 (Rice density) plus or minus 2 percent.
   - E. Bituminous Concrete Substitution: If bituminous concrete is substituted for Portland cement concrete substrate, omit rebar and provide 1.25 inches of bituminous concrete for each 1 inch of Portland cement concrete. Follow paragraph E requirements.
   - F. Reinforcement. Required if thickness of existing Portland-cement concrete substrate is 6-inches or greater. Not required if 1) less than 6-inches thick, 2) if existing concrete is deteriorating, 3) if excavation is less than 3 feet square, or 4) if bituminous pavement is substituted for Portland-cement concrete substrate.
   - G. Concrete Substrate. Cure to initial set before placing new bituminous concrete patch.



BITUMINOUS CONCRETE RESTORATION



COMPOSITE RESTORATION

30" Frame and cover

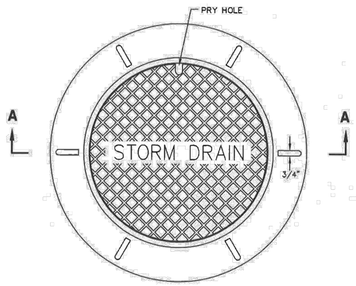
1. **GENERAL**
   - A. The frame and cover fits.
     1) Cleanout box type B in Plan 331, and
     2) Precast manhole in Plan 341.

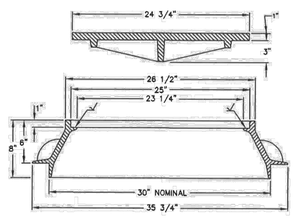
2. **PRODUCTS**
   - A. Castings: Grey iron class 35 minimum, ASTM A48.
     1) Coated with asphalt based paint or better (except on machined surfaces).
     2) Cast the heat number on the frame and cover.
     3) Give the frame and cover a machine finish so the cover will not rock.
     4) √ designates a machine finished surface.
     5) Cast the words "STORM DRAIN" on the cover in upper case flush with the surface finish.

3. **EXECUTION**
   - 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.

NOTE:
1. ALL CONCRETE TO BE 4500 PSI.

TYPE A





SECTION A-A

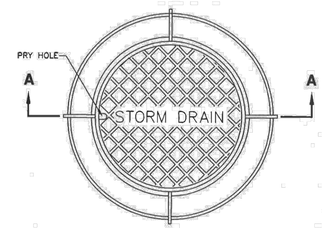
30" Frame and cover

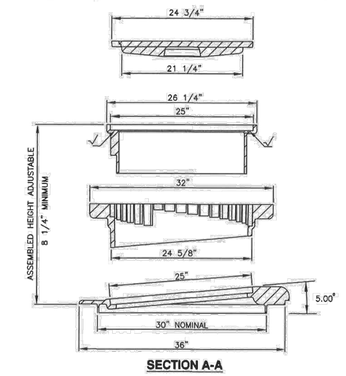
1. **GENERAL**
   - A. The frame and cover fits.
     1) Cleanout box type B in Plan 331, and
     2) Precast manhole in Plan 341.

2. **PRODUCTS**
   - A. Castings: Grey iron class 35 minimum, ASTM A48.
     1) Coated with asphalt based paint or better (except on machined surfaces).
     2) Cast the heat number on the frame and cover.
     3) Give the frame and cover a machine finish so the cover will not rock.
     4) √ designates a machine finished surface.
     5) Cast the words "STORM DRAIN" on the cover in upper case flush with the surface finish.

3. **EXECUTION**
   - 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.

TYPE B





SECTION A-A

FOCUS ENGINEERING AND SURVEYING, LLC
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MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

LICENSED PROFESSIONAL ENGINEER
No. 8028950-2202
THOMAS M. ROMNEY
9/16/22
STATE OF UTAH

COWBOY ESTATES SUBDIVISION
GRANTSVILLE, UT
DETAILS

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
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3	----	----
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DETAILS

Scale: N/A | Drawn: MEF
Date: 09/13/22 | Job #: 21-0512
Sheet: D3

Z:\...2021\21-0512 Grantsville Willow Sheet\design 21-0512\dwg\sheets\FINAL\D3 - Details.dwg

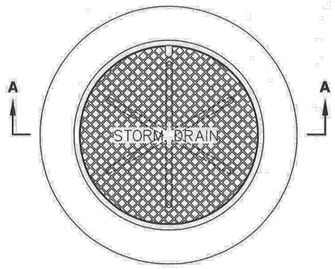
44" Frame and cover

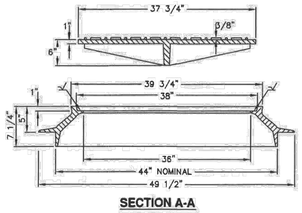
1. **GENERAL**
   A. The frame and cover fits.
      1) Cleanout box type B in Plan 331, and
      2) Precast manhole in Plan 341.

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.
      3) √ designates a machine-finished surface.
      4) Cast the words "STORM DRAIN" on the cover in upper case flush with the surface finish.

3. **EXECUTION**
   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.

NOTE:
1. ALL CONCRETE TO BE 4500 PSI.





SECTION A-A

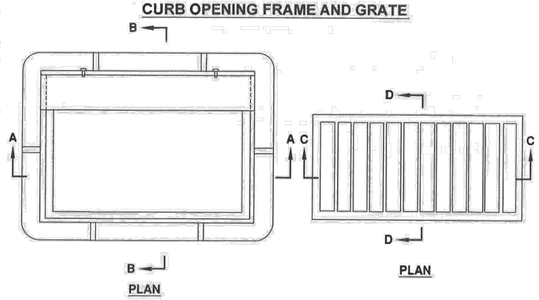
35 1/2" Grate and frame

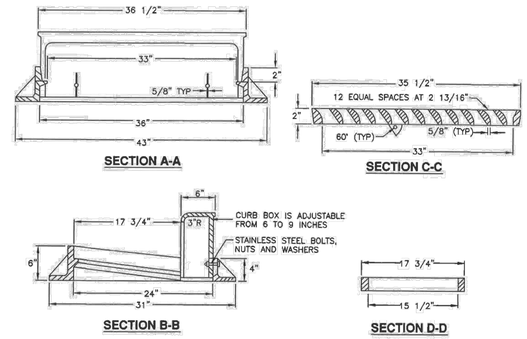
1. **GENERAL**
   A. The grate and frame fits concrete boxes in Plan 315.

2. **PRODUCTS**
   A. Castings: Grey iron class 35 minimum per ASTM A48, coated with asphalt based paint or better.
   B. Bolts, Nuts, Washers, Accessories: Stainless steel, APWA Section 05 05 23.

3. **EXECUTION** (Not used)

CURB OPENING FRAME AND GRATE





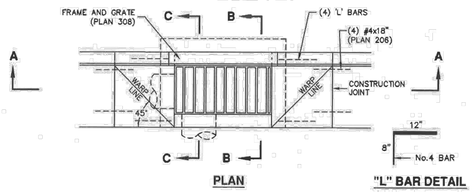
Catch basin

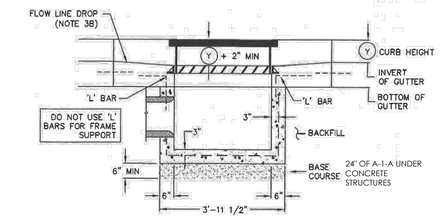
1. **GENERAL**
   A. The drawing shows typical pipe connections. Refer to construction drawings for connection locations or refer to field location of existing piping when engineering pipe connection to the box.

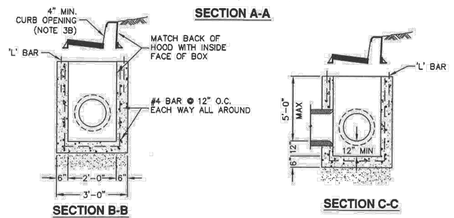
2. **PRODUCTS**
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   C. Concrete: Class 4500 APWA Section 03 30 04.
   D. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615.

3. **EXECUTION**
   A. 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.
   B. Curb Face Opening: Make opening at least 4-inches high. Provide at least a 2-inch drop between the "warp line" in the gutter flow-line and the top of the grate at the curb face opening.
   C. Concrete Placement: APWA Section 03 30 10. Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   D. Backfill: Place backfill against the basin wall. 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.

SINGLE GRADE







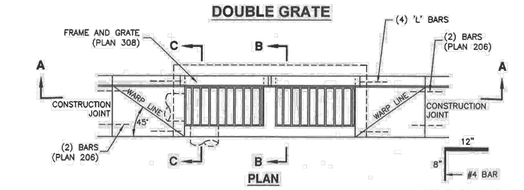
Catch basin

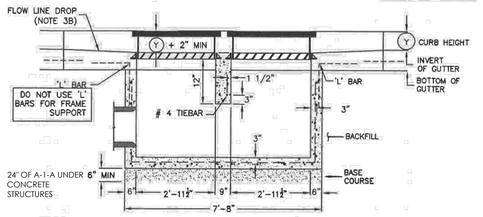
1. **GENERAL**
   A. The drawing shows typical pipe connections. Refer to construction drawings for connection locations or refer to field location of existing piping when engineering pipe connection to the box.

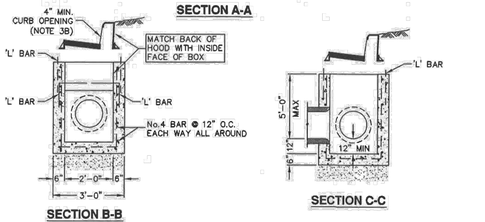
2. **PRODUCTS**
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   C. Concrete: Class 4500 APWA Section 03 30 04.
   D. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615.

3. **EXECUTION**
   A. 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.
   B. Curb Face Opening: Make opening at least 4-inches high. Provide at least a 2-inch drop between the "warp line" in the gutter flow-line and the top of the grate at the curb face opening.
   C. Concrete Placement: APWA Section 03 30 10. Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   D. Backfill: Place backfill against the basin wall. 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.

DOUBLE GRADE







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LICENSED PROFESSIONAL ENGINEER
No. 8028950-2202
THOMAS M. ROMNEY
STATE OF UTAH
5/16/22

COWBOY ESTATES SUBDIVISION
GRANTSVILLE, UT
DETAILS

REVISION BLOCK

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DETAILS

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Date:	09/13/22	Job #:	21-0512
Sheet:	D4		

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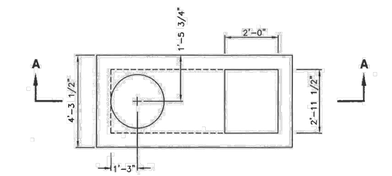
Combination catch basin and cleanout box

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 box.

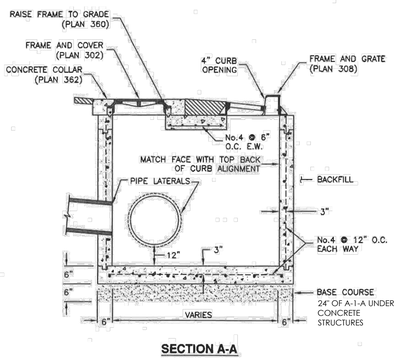
2. **PRODUCTS**
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   C. Concrete: Class 4500 APWA Section 03 30 04.
   D. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615.
   E. Ladder Rungs: Plastic, or plastic coated steel typically 8-inches wide.

3. **EXECUTION**
   A. 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.
   B. Curb Face Opening: Make opening at least 4-inches high. Provide at least a 2-inch drop between the "begin warp" line in the gutter flow-line and the top of the grate at the curb face opening.
   C. Ladder Rungs: Provide rungs in boxes over 6 feet deep. When measured from the floor of the box, place bottom rung the greater distance of 4 feet from the floor of the box or 1 foot above the top of the pipe. Place top rung within 3 feet of bottom of box ceiling.
   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.

NOTE:
1. ALL CONCRETE TO BE 4500 PSI.



PLAN



SECTION A-A

Precast 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 pipe under 12" diameter.
      2) Diameter is 5-feet: For pipe 12" and larger, or when 3 or more drain pipes intersect the manhole.
   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 grade.
   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.

CAST IN PLACE BASE

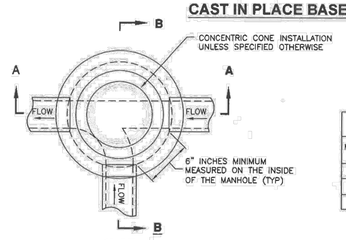
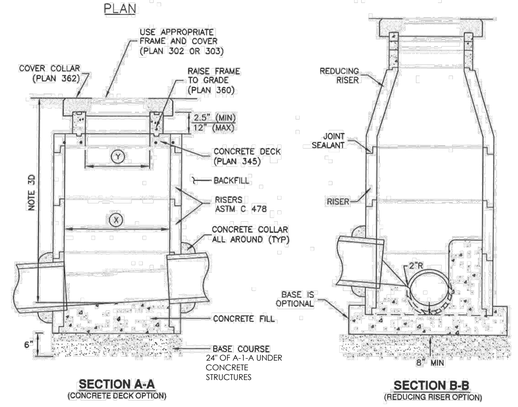


TABLE OF DIMENSIONS	
MANHOLE STYLE	DIMENSION
A	(X) =48" (Y) =30"
B	(X) =60" (Y) =44"
C	(X) =60" (Y) =30"

PLAN



SECTION A-A (CONCRETE DECK OPTION)

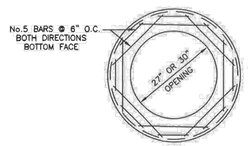
SECTION B-B (REDUCING RISER OPTION)

Concrete deck

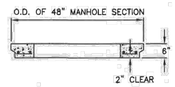
1. **GENERAL**
   A. Deck is made for round manhole riser grade rings.

2. **PRODUCTS**
   A. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615.
   B. Concrete: Class 4500 APWA Section 03 40 00

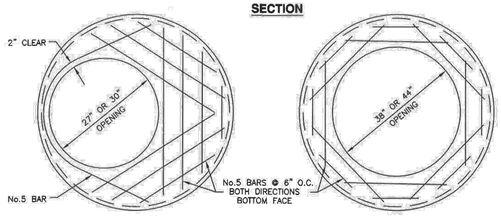
3. **EXECUTION**
   A. Reinforcement: Placement APWA Section 03 20 00.
   B. Concrete Placement: APWA Section 03 30 10. Apply a curing agent.



48" DECK PLAN

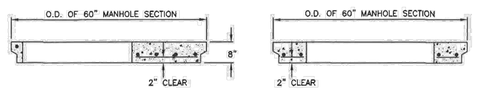


SECTION



60" DECK PLAN

60" DECK PLAN



SECTION

SECTION

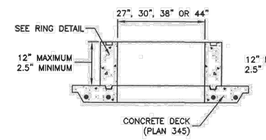
Raise frame to grade

1. **GENERAL**
   A. Grade rings are used in non-pressurized applications to adjust frame to grade.

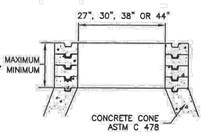
2. **PRODUCTS**
   A. Concrete: Class 4500 APWA Section 03 30 04.
   B. Reinforcement: Deformed, 60 ksi yield grade hoop steel, ASTM A615.
      1) 2 1/2" High Rings: Provide two 1/4" diameter steel hoops tied with No. 14 AWS gage wire, 8" on center.
      2) 6" and 8" High Rings: Provide four 1/4" diameter steel hoops, tied with No. 14 AWS gage wire, 8" on center.
   C. Gasket: Rubber-based, compressible.

3. **EXECUTION**
   A. Ring Manufacture:
      1) Fabrication, APWA Section 03 30 10.
      2) Cure, APWA Section 03 39 00.
   B. Field Installation: Seat rings with a compressible gasket.

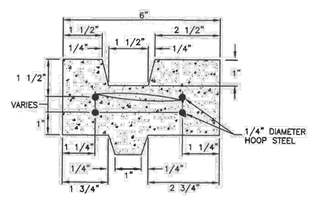
GRADE RING



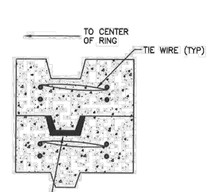
DECK SECTION



CONE SECTION



RING DETAIL



GASKET DETAIL

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Raise frame to grade

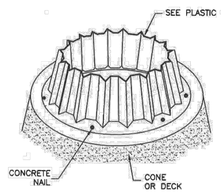
1. **GENERAL**
   A. The plastic form is used to keep concrete in the annular space when fabricating cover collars for storm drain manholes, sanitary sewer manholes or other utilities.

2. **PRODUCTS**
   A. Concrete Nails: CONTRACTOR's choice.

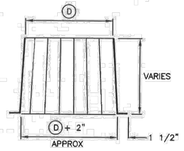
3. **EXECUTION**
   A. Adjust plastic form height so that the top of the manhole frame and cover matches longitudinal slope and cross slope of the pavement surface, and cover is 1/2-inch lower than the pavement surface.

NOTE:
1. ALL CONCRETE TO BE 4500 PSI.

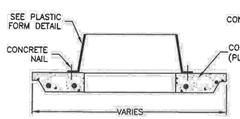
PLASTIC FORM



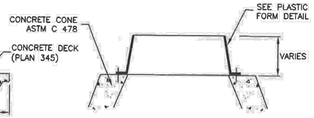
PLASTIC FORM OBLIQUE



PLASTIC FORM DETAIL



DECK SECTION



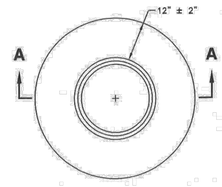
CONE SECTION

Cover collar for storm drains

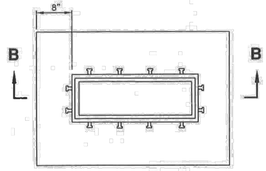
1. **GENERAL**
   A. In a pavement surface, the concrete will support the frame under traffic loadings.

2. **PRODUCTS**
   A. Concrete: Class 4500 APWA Section 03 30 04.
   B. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

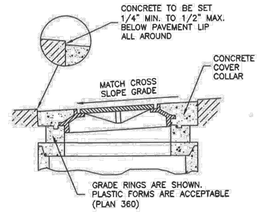
3. **EXECUTION**
   A. Pavement Preparation: Provide a neat vertical and concentric joint between concrete and existing bituminous concrete surfaces. Clean edges of all dirt, oil, and loose debris.
   B. Concrete Placement: APWA Section 03 30 10. Fill the annular space around the frame and cover casting with concrete. Apply a broom finish. Apply a curing agent.



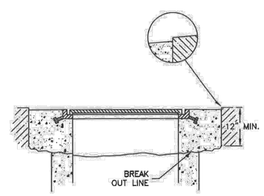
PLAN
(ROUND FRAME)



PLAN
(RECTANGULAR FRAME)



SECTION A-A



SECTION B-B

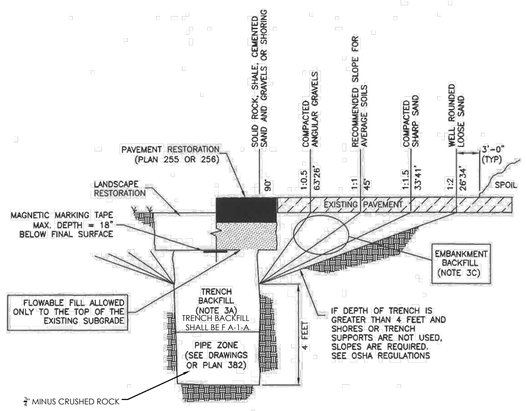
Trench backfill

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

2. **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 the pipe zone.
      1) DO NOT USE sewer rock, pea gravel, or recycled RAP aggregate as trench backfill.
      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 26.
      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. .

NARRATIVE: 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.



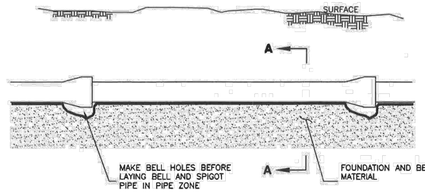
SEWER AND STORM DRAIN

Pipe zone backfill

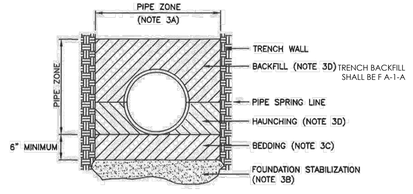
1. **GENERAL**
   A. Install the pipe in the center of the trench or no closer than 6-inches from the wall of the trench.

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 manufacturer.
      2) Maximum lift thickness is 8-inches.
      3) Bedding immediately under the pipe should not be compacted, but loosely placed.
      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.
   D. 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 percent 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 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.



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 GRAVITY-FLOW APPLICATIONS"

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.

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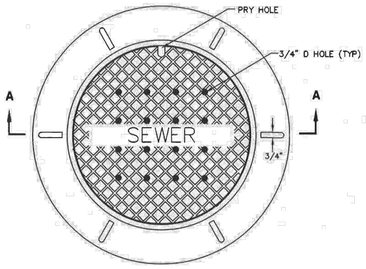
30" Frame and cover

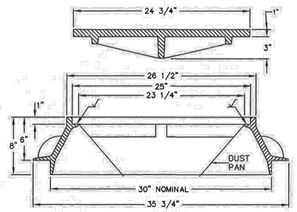
1. **GENERAL**
   A. The frame and cover fits the manhole in Plan 411.

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.
      3) √ designates machined surface.
      4) Cast the words "SEWER" on the cover in upper case flush with the surface finish.

3. **EXECUTION**
   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.

NOTE:
1. ALL CONCRETE TO BE 4500 PSI.





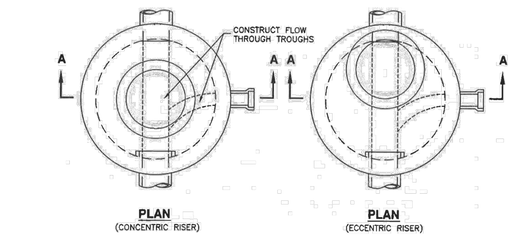
SECTION A-A

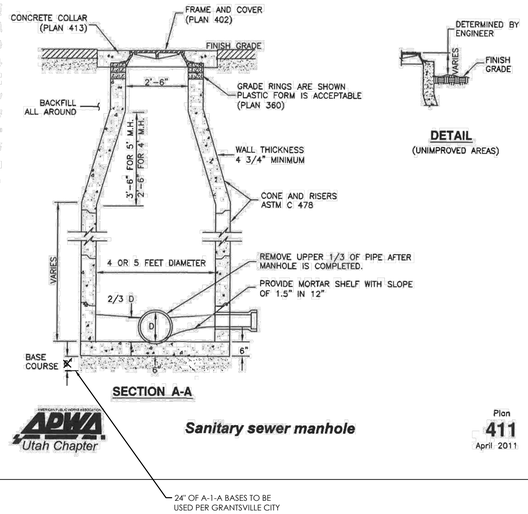
Sanitary sewer manhole

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 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. 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.
   I. 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.





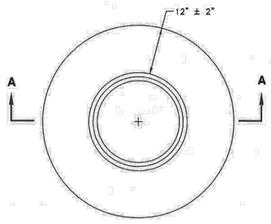
SECTION A-A

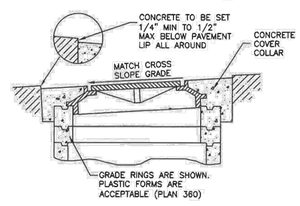
Cover collar for sanitary sewer manhole

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 pavment surface. Clean edges of all dirt, oil, and loose debris.
   B. Concrete Placement: Fill the annular space around the frame and cover casting with concrete. Apply a broom finish. Apply a curing agent.





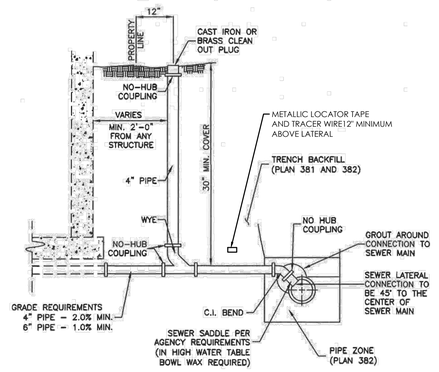
SECTION A-A

Sewer lateral connection

1. **GENERAL**
   A. Before installation, secure acceptance by ENGINEER for all pipe, fittings, and couplings to be used.
   B. Before backfilling, secure inspection of installation by ENGINEER. Give at least 24 hours notice.
   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.

3. **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 connection.
   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.



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9/16/22
STATE OF UTAH

COWBOY ESTATES SUBDIVISION
GRANTSVILLE, UT
DETAILS

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
2	----	----
3	----	----
4	----	----
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DETAILS

Scale:	N/A	Drawn:	MEF
Date:	09/13/22	Job #:	21-0512
Sheet:	D7		

Z:_2021\21-0512 Grantsville Willow Street\design 21-0512\.dwg\Sheet\TINAL\D7 - Details.dwg

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SUSTAINABLE TECHNOLOGIES

INSTALLATION SPECIFICATION

PERIMETER CONTROL - Compost Filter Sock

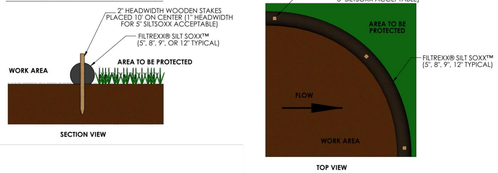
INSTALLATION

1. 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" high.
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 the Soxx.
7. Do not drag Soxx across rough surfaces. If dragging across a rough surface is necessary, place a barrier such as plastic or a tarp under Soxx to prevent tearing.
8. Loose compost may be backfilled along the upslope side of the perimeter control, filling the seam between the soil surface and the device, improving filtration and sediment retention.
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 specify seed requirements.

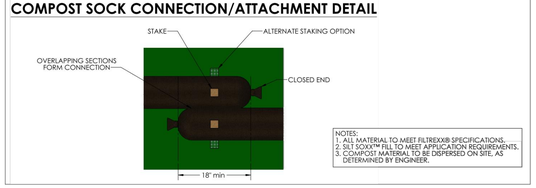
MAINTENANCE & DISPOSAL

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™



COMPOST SOCK CONNECTION/ATTACHMENT DETAIL



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

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SUSTAINABLE TECHNOLOGIES

INSTALLATION SPECIFICATION

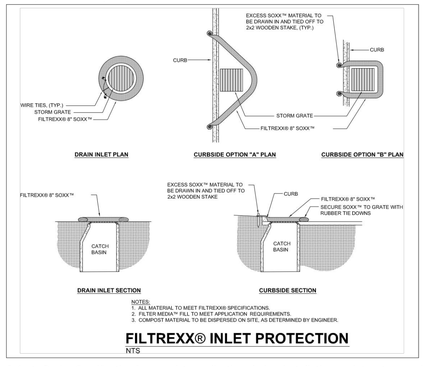
INLET PROTECTION - Compost Filter Sock

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 of the inlet protection may be acceptable in order to keep the area from flooding.
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 grates, a spacer is required in order to keep the inlet protection away from the drain opening. This spacer should be cinder 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 protection.
7. 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.

MAINTENANCE & DISPOSAL

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.
2. Inlet protection shall be maintained until disturbed area above 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 determined by the Engineer.

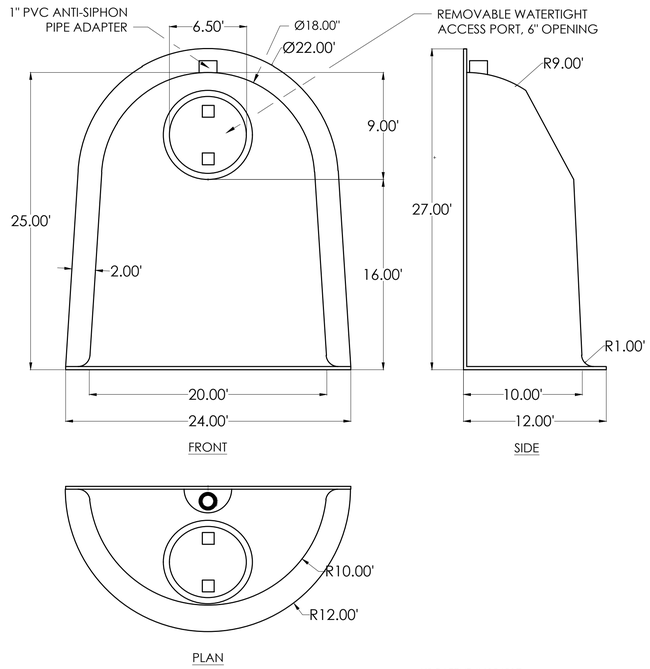


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Refer to Design Specification for complete application, design, installation, maintenatnce, and removal documentation.

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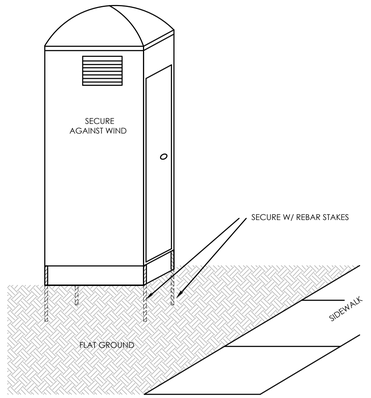
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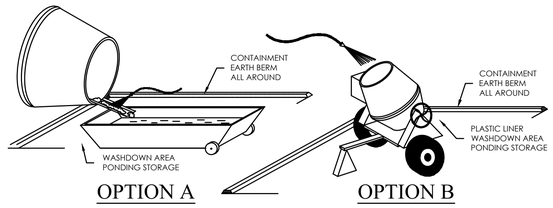
US PATENT #6126817ADDITIONAL PATENTS PENDING

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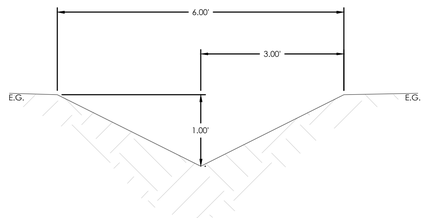
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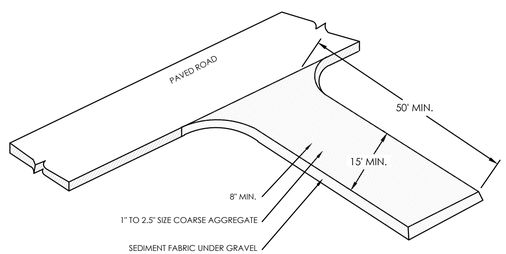
PORTABLE TOILET
NTS



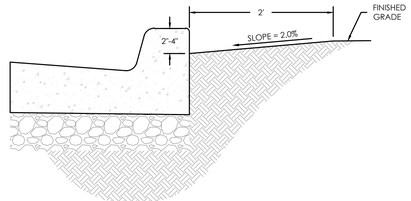
CONCRETE WASTE MANAGEMENT
NTS



DITCH
N.T.S



STABILIZED CONSTRUCTION ENTRANCE
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CURB SEDIMENTATION TRAP
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NOTE:
1. ALL CONCRETE TO BE 4500 PSI.

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GRANTSVILLE, UT

DETAILS

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
2	----	----
3	----	----
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DETAILS

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Date: 09/13/22	Job #: 21-0512
Sheet: D8	

Z:_2021\21-0512 Grantsville Willow Street\design 21-0512.dwg\sheets\TINAL\DB- Details.dwg

Tie-down thrust restraints

1. 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.

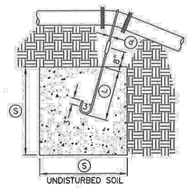
2. PRODUCTS

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 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.

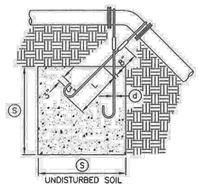
3. EXECUTION

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 and tape wrap.
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.

562



TYPE A RESTRAINT
FOR 11 1/4° – 22 1/2° VERTICAL BENDS



TYPE B RESTRAINT
FOR 45° VERTICAL BENDS

TABLE OF DIMENSIONS

PIPE SIZE NOMINAL DIAMETER – INCH	VERTICAL BEND IN DEGREES	CONCRETE BLOCKING IN CUBIC FEET	S SIDE OF CUBE – FEET	d DIAMETER OF SHANK OR REBAR RODS – INCH	L DEPTH OF ROD IN CONCRETE – FEET
4"	11 1/4°	8	2.0	5/8"	1.5
	22 1/2°	15.6	2.5	5/8"	2.0
6"	11 1/4°	15.6	2.5	5/8"	2.0
	22 1/2°	34.3	3.25	5/8"	2.0
8"	11 1/4°	27	3.0	5/8"	2.0
	22 1/2°	64	4.0	5/8"	2.0
12"	11 1/4°	64	4.0	5/8"	2.0
	22 1/2°	125	5.0	3/4"	3.0
16"	11 1/4°	107	4.25	7/8"	3.0
	22 1/2°	216	6.0	7/8"	3.0
20"	11 1/4°	138	5.17	1"	3.5
	22 1/2°	334	6.94	1"	4.0
24"	11 1/4°	240	6.22	1"	4.0
	22 1/2°	476	7.81	1"	4.0
30"	11 1/4°	369	7.17	1"	4.0
	22 1/2°	733	9.02	1"	4.0

TABLE OF DIMENSIONS

PIPE SIZE NOMINAL DIAMETER – INCH	VERTICAL BEND IN DEGREES	CONCRETE BLOCKING IN CUBIC FEET	S SIDE OF CUBE – FEET	d DIAMETER OF SHANK OR REBAR RODS – INCH	L DEPTH OF ROD IN CONCRETE – FEET
4"	45°	1	3.0	5/8"	2.0
				5/8"	
6"		2.37	4.0	5/8"	2.5
				5/8"	
8"		3.97	4.75	5/8"	3.0
				5/8"	
12"		9.04	6.25	5/8"	4.0
				5/8"	
16"		17.24	7.75	3/4"	4.0
				3/4"	
20"		26.52	92.17	3/4"	4.0
				3/4"	
24"		37.82	10.07	3/4"	4.0
				3/4"	
30"		58.26	11.63	3/4"	4.0
				3/4"	

APWA Utah Chapter

Tie-down thrust restraints

Plan **562** April 1997

Open driveway approach

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. Field Changes to Slope Requirements:
   1) Grades may have a 6 percent change in slope over a 11 feet wheel base run for both crest or sag vertical curves.
   2) Where heavy truck use and fire truck access applies, or to improve design speed, design grades should be cut in half.
   3) Specific uses or site conditions may require profile design submittal for review and acceptance.
C. Additional requirements are specified in APWA Section 32 16 13.

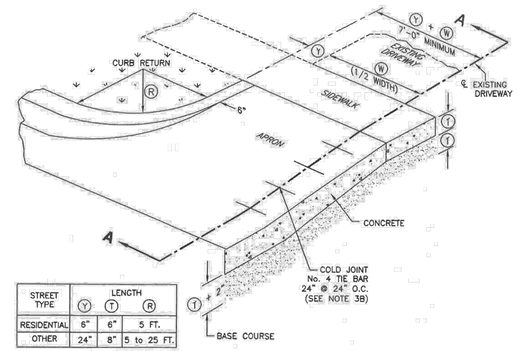
2. PRODUCTS

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. Reinforcement: Galvanized or epoxy coated, deformed, 60 ksi yield grade steel, ASTM A615.
E. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

3. EXECUTION

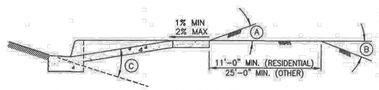
A. Base Course Placement: APWA Section 32 05 10. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
B. Reinforcement: Not required if driveway apron is constructed without a cold joint.
C. Concrete Placement: APWA Section 03 30 10.
   1) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface.
   2) Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Maximum length to width ratio for non-square panels is 1.5 to 1. Maximum panel length (in feet) is 1.5 times the slab thickness (in inches).
   3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
D. 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.

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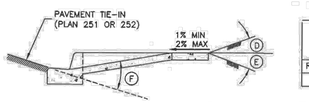
STREET TYPE	LENGTH Y	T	R
RESIDENTIAL	6"	6"	5 FT.
OTHER	24"	8"	5 to 25 FT.

OBLIQUE



STREET TYPE	BREAK OVER ANGLE (MAXIMUM) A	B	C
RESIDENTIAL	16%	12%	16%
OTHER	6%	8%	10%

SECTION A-A - APPROACH REQUIRING SERVICE TRUCK ACCESS



STREET TYPE	BREAK OVER ANGLE (MAXIMUM) D	E	F
RESIDENTIAL	16%	12%	16%
OTHER	6%	8%	10%

SECTION A-A - TYPICAL DRIVEWAY APPROACH

APWA Utah Chapter

Open driveway approach

Plan **225** December 2009

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

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LICENSED PROFESSIONAL ENGINEER
No. 8028950-2202
THOMAS M. ROMNEY
STATE OF UTAH

COWBOY ESTATES SUBDIVISION
GRANTSVILLE, UT
DETAILS

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
2	----	----
3	----	----
4	----	----
5	----	----
6	----	----

DETAILS

Scale:	N/A	Drawn:	MEF
Date:	09/13/22	Job #:	21-0512
Sheet:	D9		

Z:_2021\21-0512 Grantsville Willow Street\design 21-0512\dwg\sheet\FINAL\D9- Details.dwg

GRANTSVILLE CITY GENERAL NOTES

1. 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.

3. 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.

5. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.

6. CURB, GUTTER, AND SIDEWALK, FOUND TO BE UNACCEPTABLE PER CITY STANDARDS AND APWA SHALL BE REMOVED AND REPLACED.

7. 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 REQUIRED.

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.

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 THROUGH FRIDAY 7:00 AM TO 4:00 PM

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 OR DESIGNEE.

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 DIRECTOR.

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.

7. 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 ACHIEVE COLOR. VINYL EC FILM IS NOT ACCEPTED.

10. ALL NEW ROUNDABOUTS, CROSSWALKS, STOP BARS AND LEGENDS SHALL BE INSTALLED WITH PAINT AND GLASS BEAD.

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 VOIDS.

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 EXCAVATION.

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 0.1 + TO 0.1 -.

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 CONDITION.

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.

5. 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 INSPECTION.

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 FOR WATER SERVICE.

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 VAULTS.

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 INSTALLED.

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6949 S. HIGH TECH DRIVE SUITE 200
MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

LICENSED PROFESSIONAL ENGINEER
No. 8028950-2202
THOMAS M. ROMNEY
09/14/22
STATE OF UTAH

COWBOY ESTATES SUBDIVISION

GRANTSVILLE, UT

CITY NOTES

REVISION BLOCK

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CITY NOTES

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Date: 09/13/22	Job #: 21-0512
Sheet: D10	

Z:_2021\21-0512 Grantsville Willow Street\design 21-0512\dwg\sheets\FINAL\D2 NOTES.dwg

GRANTSVILLE CITY
PRE-CONSTRUCTION NOTES

CHAIN OF COMMUNICATION

- FIRST CONTACT: BRAD PACE PUBLIC WORKS INSPECTOR
- 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 CHRISTY MONTIERTH IN PUBLIC WORKS.
  THE CITY IS FINE WITH THE MATERIALS THAT HAVE PREVIOUSLY BEEN USED.

SEWER

- 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.
- NATIVE SOILS MAY BE USED ABOVE THE PIPE ZONE IF THEY ARE SUITABLE TO THE CITY AND CAN MEET COMPACTION REQUIREMENTS (BLENDING MAY BE REQUIRED).
- OFFSET TEES FOR SEWER LATERALS; GASKET TYPE.
- COMPACTION - 95% IN ROADS, 90% OFF-ROAD (ASTM D-1557, MODIFIED PROCTOR)
- 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:

- 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 CLEAR.
- 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 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.
- NATIVE SOILS MAY BE USED ABOVE THE PIPE ZONE IF THEY ARE SUITABLE TO THE CITY AND CAN MEET COMPACTION REQUIREMENTS (BLENDING MAY BE REQUIRED)
- 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).
- USE 150# CORP STOPS.
- 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 ALLOWED.
- 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 TEST.

  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 N-12-WT
- 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
  - 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.
- THE CITY WILL SHARE INSPECTION REPORTS WITH THE CONTRACTOR.
- 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.
- CLOSE TRENCHES AT NIGHT.
- SECURE OPEN TRENCHES AND PLUG LINES.

SECURITY

- SECURE CONSTRUCTION EQUIPMENT WHEN NOT IN USE.

SANITATION

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

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 CHANGES. DOCUMENT CHANGES.

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:

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

END

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LICENSED PROFESSIONAL ENGINEER
No. 8028950-2202
THOMAS M. ROMNEY
9/16/22
STATE OF UTAH

COWBOY ESTATES SUBDIVISION
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PRE CONSTRUCTION NOTES

REVISION BLOCK

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PRE CONSTRUCTION NOTES

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Date:	09/13/22	Job #:	21-0512
Sheet:	D11		

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AGENDA ITEM #6

Consideration of Resolution 2022-67 approving the Final Plat for Matthews Meadows Subdivision

GRANTSVILLE CITY
RESOLUTION NO. 2022-67

A RESOLUTION APPROVING THE FINAL PLAT ON THE MATTHEWS MEADOWS SUBDIVISION, PHASE I FOR THE CREATION OF FORTY-SIX (46) SINGLE FAMILY LOTS IN THE R-1-12 ZONE

Be it enacted and ordained by the City Council of Grantsville City, Utah as follows:

WHEREAS, Grantsville New Team, LLC (Developer) submitted an application for a final subdivision plat for the Matthews Meadows Subdivision, Grantsville City, Utah for the creation of 46 single family lots in the R-1-12 zone;

WHEREAS, the proposed amendments of the subject property are permitted in the R-1-12 zone as indicated in the Grantsville City Land Use Management and Development Code (GLUMDC);

WHEREAS, the Grantsville City Planning and Zoning Commission reviewed the final plat in a regularly scheduled public meeting for compliance with the requirements of the pertinent Grantsville City code requirements, and found that the proposed final plat has met or can meet the requirements of GLUMDC;

WHEREAS, Developer is required to construct certain public improvements;

WHEREAS, the Grantsville City Council hereby determines that it is in the best interest of the City to approve the final subdivision plat for Developer at the Matthews Meadows Subdivision located in Grantsville City, Utah for the creation of 46 single family lots in the R-1-12 zone.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF GRANTSVILLE CITY, STATE OF UTAH, AS FOLLOWS:

Section 1. Final Plat. The City of Grantsville approves the Final Plat Amendment provided in Exhibit A.

Section 2. Severability Clause. If any part or provision of this Resolution is held invalid or unenforceable, such invalidity or unenforceability shall not affect any other portion of this Resolution and all provisions, clauses and words of this Resolution shall be severable.

ADOPTED AND PASSED BY THE CITY COUNCIL OF GRANTSVILLE CITY, THIS 2nd DAY OF NOVEMBER, 2022.

BY ORDER OF THE
GRANTSVILLE CITY COUNCIL

_____
By Mayor Neil Critchlow

ATTEST

_____
Braydee Baugh, City Recorder

MEMORANDUM

DATE: October 17, 2022

TO: Braydee Baugh, City Recorder

FROM: Cavett Eaton, Planning & Zoning Administrator

RE: **ZONING ITEMS UP FOR CONSIDERATION AT COUNCIL MEETING TO BE HELD OCTOBER 19TH, 2022**

City Council Agenda Items #: Consideration of Resolution 2022-__ approving the Final Plat for Grantsville New Team, LLC. on the Matthews Meadows Subdivision located approximately at 401 West Durfee Street for the creation of eighty-eight (88) lots in the R-1-12 zone.

The Planning Commission recommended approval this item on October 6 2022, with little discussion and the motion is at the end of the discussion:

Discussion:

Commission Member Topham asked Dan England if all the documents presented tonight meet the Final and are ready for our approval He answered "Yes"

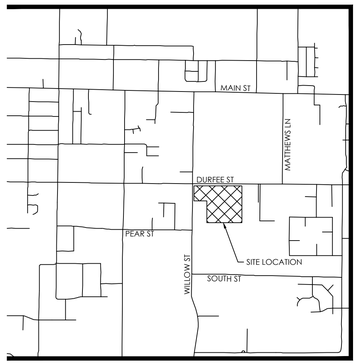
Commission Member Topham made a motion to recommend approval of the Final Plat for Reuben Wayman Subdivision located at 800 North Hale Street. Commission Member Pinkham seconded the motion. All voted in favor and the motion carried unanimously

- End of Memorandum-

MATTHEWS MEADOWS SUBDIVISION PHASE 1

PRELIMINARY PLANS
PREPARED FOR:
GRANTSVILLE'S NEW TEAM LLC
LOCATED IN:
GRANTSVILLE, UT

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



VICINITY MAP
NTS

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.

3. 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.

5. 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.

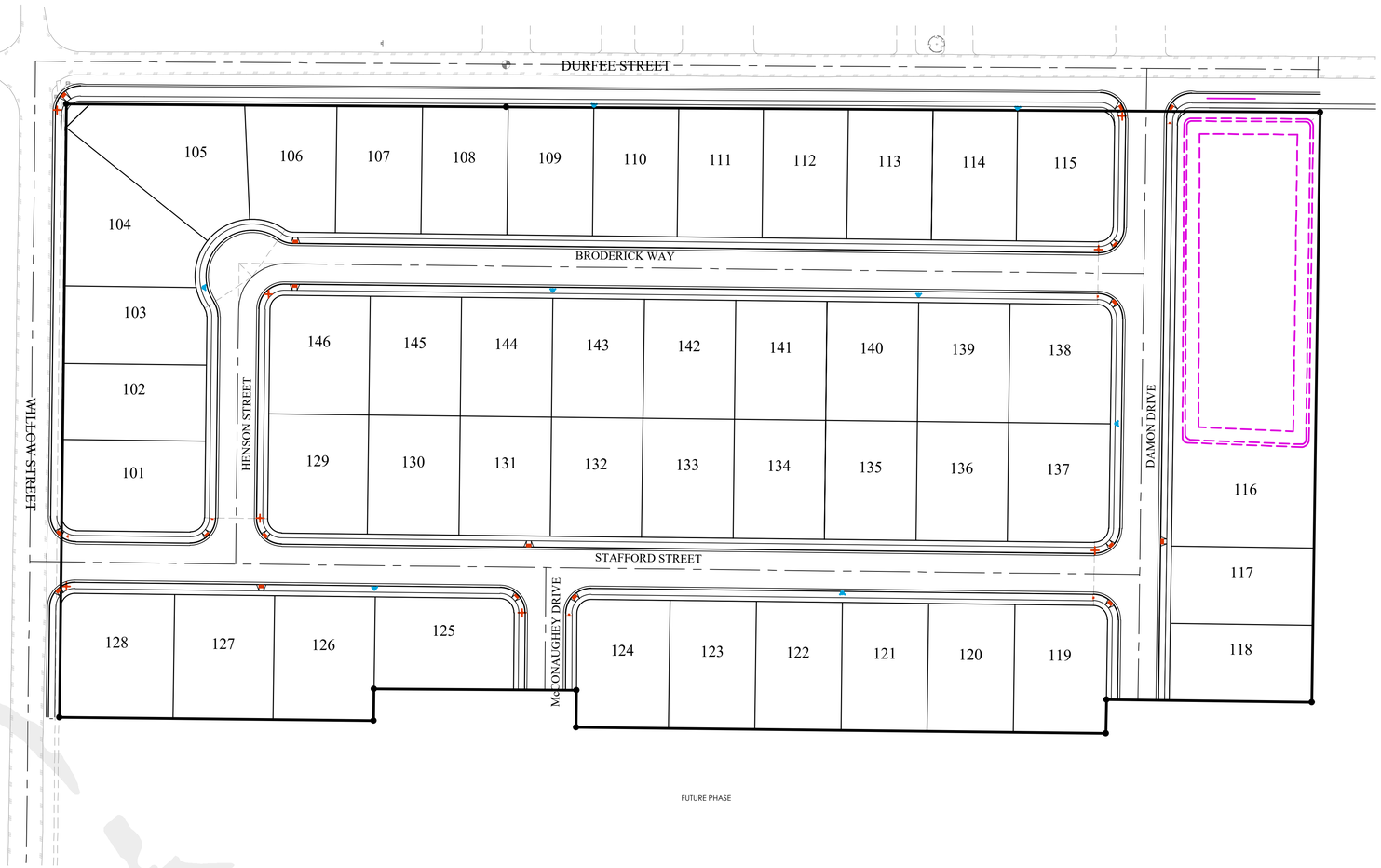
NOTICE

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

CONTACTS

ENGINEER & SURVEYOR
FOCUS ENGINEERING & SURVEYING, LLC
6949 S. HIGH TECH DRIVE SUITE 200
MIDVALE, UTAH 84047
(801) 352-0075
PROJECT MANAGER: RYAN HOPKINS
SURVEY MANAGER: EVAN WOOD

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



SITE MAP

ENGINEER'S NOTES TO CONTRACTOR

1. 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.

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

BY:_____
DATE:
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 INTEREST REQUIRES A MODIFICATION OR A DEPARTURE FROM THE CITY SPECIFICATIONS, OR THE APPROVED PLANS, THE CITY SHALL HAVE THE AUTHORITY TO REQUIRE SUCH A MODIFICATION OR A DEPARTURE, AND TO SPECIFY THE MANNER WHICH THE SAME IS MADE.



GRAPHIC SCALE
70 0 35 70 140 280
(IN FEET)
1 inch = 70 ft.

Sheet List Table

Sheet Number	Sheet Title
C1	COVER SHEET
C2	FINAL PLAT
C2.1	FINAL PLAT
C3	EXISTING CONDITIONS
C4	OVERALL SITE PLAN
C4.1	SITE PLAN
C4.2	SITE PLAN
C4.3	SITE PLAN
C4.4	SITE PLAN
C5	OVERALL GRADING PLAN
C5.1	GRADING AND DRAINAGE PLAN
C5.2	GRADING AND DRAINAGE PLAN
C5.3	GRADING AND DRAINAGE PLAN
C5.4	GRADING AND DRAINAGE PLAN
C5.5	GRADING AND DRAINAGE PLAN
C5.6	GRADING AND DRAINAGE PLAN
C5.7	STORMWATER REPORT
C6	SEWER PLAN
C6.1	SEWER PLAN
C6.2	SEWER PLAN
C6.3	SEWER PLAN
C7	WATER PLAN
C7.1	WATER PLAN
C7.2	WATER PLAN
C7.3	WATER PLAN
C8	EROSION CONTROL PLAN
C9	OVERALL SIGNAGE & STRIPING PLAN
PP01	DAMON DRIVE
PP02	DAMON DRIVE
PP03	BRODERICK WAY
PP04	BRODERICK WAY
PP05	BRODERICK WAY
PP06	HENSON STREET
PP07	HENSON STREET
PP08	STAFFORD STREET
PP09	STAFFORD STREET
PP10	STAFFORD STREET
PP11	STAFFORD STREET
PP12	McCONAUGHEY DRIVE
PP13	DAMON DRIVE OFFSITE SEWER
PP14	DURFEE STREET TBC
PP15	DURFEE STREET TBC
PP16	DURFEE STREET TBC
PP17	DURFEE STREET TBC
PP18	WILLOW STREET TBC
PP19	WILLOW STREET TBC
D1	DETAILS
D2	DETAILS
D3	DETAILS
D4	DETAILS
D5	DETAILS
D6	DETAILS
D7	DETAILS
D8	DETAILS
D9	DETAILS
D10	NOTES
D11	PRE-CON NOTES

FOCUS©
ENGINEERING AND SURVEYING, LLC
6949 S. HIGH TECH DRIVE SUITE 200
MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

LICENSED PROFESSIONAL ENGINEER
No. 8028850-2202
THOMAS M. ROMNEY
9/14/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
COVER SHEET

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
2	----	----
3	----	----
4	----	----
5	----	----
6	----	----

COVER SHEET

Scale: 1"=70' | Drawn: DCJ
Date: 09/14/22 | Job #: 21-0377
Sheet: C1

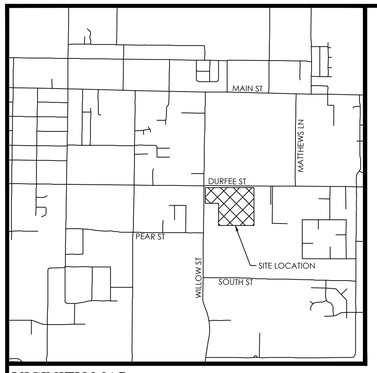
Know what's below. Call 811 before you dig.

Z:_2021\21-0377 GTM - Durfee Street\design 21-0377\dwg\sheets\Final\Phase 1 Finish\C1 - COVER SHEET.dwg

MATTHEWS MEADOWS SUBDIVISION

PHASE 1 FINAL PLAT

LOCATED IN THE NE1/4 OF SECTION 6, T3S, R5W,
SALT LAKE BASE & MERIDIAN
GRANTSVILLE CITY, TOOELE COUNTY, UTAH



VICINITY MAP
N.T.S

GRAPHIC SCALE

150 0 75 150 300 600

(IN FEET)
1 inch = 150ft.

BENCHMARK

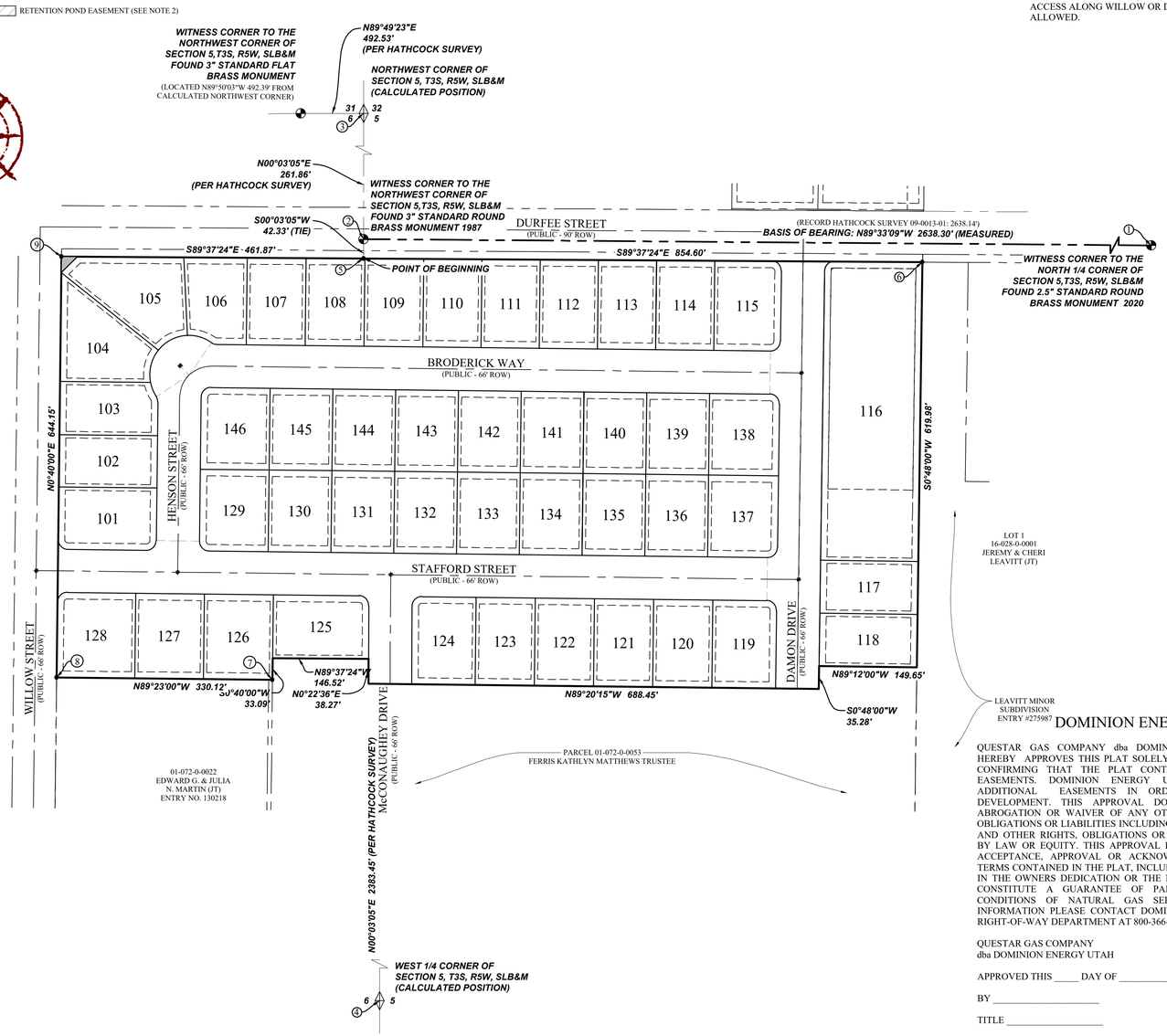
NORTHEAST CORNER OF SECTION 05
TOWNSHIP 03 SOUTH, RANGE 05 WEST
SALT LAKE BASE AND MERIDIAN
ELEV: 4309.08'
DATUM:NAVD88

LEGEND

- BOUNDARY
- SECTION LINE
- EASEMENT
- RIGHT-OF-WAY LINE
- CENTERLINE
- BUILDING SETBACK
- EXISTING PROPERTY LINE
- SECTION MONUMENT (NOT FOUND)
- WITNESS CORNER (FOUND)
- BOUNDARY MARKERS
- STREET MONUMENT (TO BE SET)
- (M-M) MONUMENT TO MONUMENT
- (M-B) MONUMENT TO BOUNDARY
- ROW DEDICATION AREA
- RETENTION POND EASEMENT (SEE NOTE 2)

N

S



01-072-0-0022
EDWARD G. & JULIA
N. MARTIN (JT)
ENTRY NO. 130218

PARCEL 01-072-0-0053
FERRIS KATHLYN MATTHEWS TRUSTEE

LOT 1
16-028-0-0001
JEREMY & CHERI
LEAVITT (JT)

LEAVITT MINOR
SUBDIVISION
ENTRY #275987

Tooele County Coordinate Table		
Point #	Northing	Easting
1	822994.2003	737493.5802
2	824340.3041	739891.1429
3	824360.9100	737252.9200
4	824622.7699	737253.1549
5	821977.4610	737250.7823
6	824316.5848	737252.8802
7	823671.9666	737113.6252
8	823675.5223	736783.5256
9	824319.6212	736791.0191

NOTES

1. #5 X 24" REBAR & CAP (FOCUS ENG) TO BE SET AT ALL LOT CORNERS. NAILS OR PLUGS TO BE SET IN TOP BACK OF CURB AT EXTENSION OF SIDE LOT LINES, IN LIEU OF REBAR AND CAPS AT FRONT LOT CORNERS.
2. LOT 116 PROPERTY OWNER AGREES TO MAINTAIN THE RETENTION AREA AS APPROVED BY THE CITY ENGINEER, AND CONSTRUCTED BY THE DEVELOPER/BUILDER, AND THAT THEY WILL NOT ALTER THE GRADING, NOR ALLOW ANY DRAINAGE TO DISCHARGE ON THE NEIGHBORING PROPERTIES, OR PUT ANY IMPERVIOUS SURFACES IN THE AREA SHOWN ON THE PLAT. THIS REQUIREMENT WILL RUN WITH THE PROPERTY AND APPLY TO ALL FUTURE PROPERTY OWNERS.
3. PARCEL A IS HEREBY DEDICATED TO GRANTSVILLE CITY AS A PUBLIC RIGHT OF WAY.
4. FOR LOTS 101-115 & 128, NEITHER PRIMARY NOR SECONDARY ACCESS ALONG WILLOW OR DURFEE STREETS WILL BE ALLOWED.

SURVEYOR'S CERTIFICATE

I, Evan J. Wood, do hereby certify that I am a Professional Land Surveyor, and that I hold License No. 183395 in accordance with Title 58, Chapter 22 of Utah State Code. I further certify by authority of the owners(s) that I have completed a Survey of the property described on this Plat in accordance with Section 17-23-17 of said Code, and have subdivided said tract of land into lots, parcels, streets, and easements, and the same has, or will be correctly surveyed, staked and monumented on the ground as shown on this Plat, and that this Plat is true and correct.

For Review
09/16/2022 3:29:31 PM

EVAN J. WOOD — DATE
PROFESSIONAL LAND SURVEYOR
LICENSE NO. 183395

BOUNDARY DESCRIPTION

A part of the Northeast Quarter of Section 6 and the Northwest Quarter of Section 5, Township 3 South, Range 5 West, Salt Lake Base and Meridian, being located in Grantsville City, Tooele County, Utah, being more particularly described as follows:

Beginning at a point on the southerly line of Durfee Street known as Project Number F-R299(400), said point being S00°03'05"W 44.33 feet along the Tooele County Dependent Resurvey Section line from a monument in Durfee Street being the Witness Corner to the Northwest Corner of Section 5, T3S, R5W, SLB&M. Said Northwest Corner is an unmarked point which lies N0°03'05"E 261.86 feet (Note: Previous surveys and descriptions which have relied on Tooele County Dependent data show this distance to be 262.72 feet.) from said Witness Corner. (Basis of Bearing: N89°33'09"W between said Witness Corner and the Witness Corner to the North Quarter Corner of said Section 5.); running thence along said southerly line of Durfee Street, S89°37'24"E 854.60 feet to the westerly line of LEAVITT MINOR SUBDIVISION, according to the official plat thereof recorded as Entry Number 275987 in the Office of the Tooele County Recorder; thence along said westerly line and a line established by that certain Boundary Line Agreement recorded as Entry Number 274951 in the Office of the Tooele County Recorder, S00°48'00"W 619.98 feet; thence N89°12'00"W 149.65 feet; thence S0°48'00"W 35.28 feet; thence N89°20'15"W 688.45 feet; thence N0°22'36"E 38.27 feet; thence N89°37'24"W 146.52 feet to an existing fence; thence along said existing fence the following two (2) courses: (1) S00°40'00"W 33.09 feet; thence (2) N89°23'00"W 330.12 feet to a point on the easterly line of South Willow Street; thence along said easterly line, N00°40'00"E 644.15 feet to a point on said southerly line of Durfee Street; thence along said southerly line, S89°37'24"E 461.87 feet to the point of beginning.

Contains: 19.40 acres+/-

OWNER'S DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT THE UNDERSIGNED ARE THE OWNERS OF THE HEREON DESCRIBED TRACT OF LAND AND HEREBY CAUSE THE SAME TO BE DIVIDED INTO LOTS, PARCELS AND STREETS TOGETHER WITH EASEMENTS AS SET FORTH HEREAFTER TO BE KNOWN AS

MATTHEWS MEADOWS SUBDIVISION

THE UNDERSIGNED OWNERS HEREBY DEDICATE TO GRANTSVILLE CITY ALL THOSE TRACTS OF LAND DESIGNATED ON THIS PLAT AS STREETS, THE SAME TO BE USED AS PUBLIC THOROUGHFARES FOREVER. THE UNDERSIGNED OWNERS ALSO HEREBY CONVEY TO GRANTSVILLE CITY AND TO ANY AND ALL PUBLIC UTILITY COMPANIES A PERPETUAL, NON-EXCLUSIVE EASEMENT OVER THE PUBLIC UTILITY AND DRAINAGE EASEMENTS SHOWN ON THIS PLAT, THE SAME TO BE USED FOR DRAINAGE AND THE INSTALLATION, MAINTENANCE AND OPERATION OF UTILITY SERVICE LINES AND FACILITIES. THE UNDERSIGNED OWNERS ALSO HEREBY CONVEY ANY OTHER EASEMENTS AS SHOWN AND/OR NOTED ON THIS PLAT TO THE PARTIES INDICATED AND FOR THE PURPOSES SHOWN HEREON.

IN WITNESS WHEREOF _____ HAVE HEREUNTO SET _____

HAND THIS _____ DAY OF _____ A.D. 20__

CORPORATE ACKNOWLEDGMENT

STATE OF UTAH
S.S.
COUNTY OF _____

ON THE ____ DAY OF _____ A.D. 20____ PERSONALLY APPEARED BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, IN AND FOR THE COUNTY OF _____, IN SAID STATE OF UTAH, _____, WHO AFTER BEING DULY SWORN, ACKNOWLEDGED TO ME THAT HE/SHE IS THE _____ OF DRP MANAGEMENT INC. A UTAH INC. AND THAT HE SIGNED THE OWNERS DEDICATION FREELY AND VOLUNTARILY FOR AND IN BEHALF OF SAID COMPANY FOR THE PURPOSES THEREIN MENTIONED.

MY COMMISSION EXPIRES:_____ _____
A NOTARY PUBLIC COMMISSIONED IN UTAH RESIDING IN _____ COUNTY

MY COMMISSION No._____ _____
PRINTED FULL NAME OF NOTARY

LIMITED PARTNERSHIP ACKNOWLEDGMENT

STATE OF UTAH
S.S.
COUNTY OF _____

ON THE ____ DAY OF _____ A.D. 20____ PERSONALLY APPEARED BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, IN AND FOR THE COUNTY OF _____, IN SAID STATE OF UTAH, _____, WHO AFTER BEING DULY SWORN, ACKNOWLEDGED TO ME THAT HE/SHE IS A PARTNER OF THE FIRM OF A.W. HARDY FAMILY INVESTMENTS, L.P. A UTAH LIMITED PARTNERSHIP, AND THAT HE/SHE SIGNED THE OWNERS DEDICATION FREELY AND VOLUNTARILY FOR AND IN BEHALF OF SAID COMPANY FOR THE PURPOSES THEREIN MENTIONED.

MY COMMISSION EXPIRES:_____ _____
A NOTARY PUBLIC COMMISSIONED IN UTAH RESIDING IN _____ COUNTY

MY COMMISSION No._____ _____
PRINTED FULL NAME OF NOTARY

DOMINION ENERGY

QUESTAR GAS COMPANY dba DOMINION ENERGY UTAH, HEREBY APPROVES THIS PLAT SOLELY FOR THE PURPOSE OF CONFIRMING THAT THE PLAT CONTAINS PUBLIC UTILITY EASEMENTS. DOMINION ENERGY UTAH MAY REQUIRE ADDITIONAL EASEMENTS IN ORDER TO SERVE THIS DEVELOPMENT. THIS APPROVAL DOES NOT CONSTITUTE ABROGATION OR WAIVER OF ANY OTHER EXISTING RIGHTS, OBLIGATIONS OR LIABILITIES INCLUDING PRESCRIPTIVE RIGHTS AND OTHER RIGHTS, OBLIGATIONS OR LIABILITIES PROVIDED BY LAW OR EQUITY. THIS APPROVAL DOES NOT CONSTITUTE ACCEPTANCE, APPROVAL OR ACKNOWLEDGEMENT OF ANY TERMS CONTAINED IN THE PLAT, INCLUDING THOSE SET FORTH IN THE OWNERS DEDICATION OR THE NOTES, AND DOES NOT CONSTITUTE A GUARANTEE OF PARTICULAR TERMS OR CONDITIONS OF NATURAL GAS SERVICE. FOR FURTHER INFORMATION PLEASE CONTACT DOMINION ENERGY UTAH'S RIGHT-OF-WAY DEPARTMENT AT 800-366-8532.

QUESTAR GAS COMPANY
dba DOMINION ENERGY UTAH

APPROVED THIS ____ DAY OF _____ A.D. 20__

BY _____

TITLE _____

SHEET 1 OF 3

DATE: 05/04/2022

PREPARED FOR

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

PREPARED BY

FOCUS ENGINEERING AND SURVEYING, LLC
6949 HIGH TECH DRIVE
MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

CITY ATTORNEY

APPROVED AS TO FORM ON THIS _____
DAY OF _____ A.D. 20____.

GRANTSVILLE CITY ATTORNEY

TOOELE COUNTY TREASURER

I HEREBY CERTIFY THAT PROPERTY TAXES DUE AND OWNING HAVE BEEN PAID IN FULL THIS ____ DAY OF ____ A.D. 20___.

TOOELE COUNTY TREASURER

CITY MAYOR

PRESENTED TO THE GRANTSVILLE CITY COUNCIL THIS ___ DAY OF ____A.D., 20___, AT WHICH TIME THIS SUBDIVISION WAS APPROVED AND ACCEPTED.

GRANTSVILLE CITY MAYOR — ATTEST: CITY RECORDER

RECORD OF SURVEY

PER STATE STATUTE 17-23-17, A SURVEY THAT INCLUDES THE LANDS SHOWN HEREON HAS BEEN COMPLETED AND FILED IN THE OFFICE OF THE TOOELE COUNTY SURVEYOR AND ASSIGNED FILE No. 2018-0082.

GRANTSVILLE CITY PUBLIC WORKS

APPROVED THIS _____ DAY OF _____A.D. 20__ BY THE GRANTSVILLE CITY PUBLIC WORKS DEPARTMENT.

GRANTSVILLE CITY PUBLIC WORKS DIRECTOR

GRANTSVILLE CITY FIRE DEPARTMENT

APPROVED THIS _____ DAY OF _____A.D. 20__ BY THE GRANTSVILLE CITY FIRE DEPARTMENT

GRANTSVILLE CITY FIRE DEPARTMENT

GRANTSVILLE CITY PLANNING COMMISSION

APPROVED THIS _____ DAY OF_____ A.D. 20__ BY THE GRANTSVILLE CITY PLANNING COMMISSION.

CHAIR, GRANTSVILLE CITY PLANNING COMMISSION

TOOELE COUNTY SURVEYOR

APPROVED THIS _____ DAY OF_____ A.D. 20__

TOOELE COUNTY SURVEY DIRECTOR

GRANTSVILLE CITY ENGINEER OR DESIGNEE

APPROVED THIS _____ DAY OF _____ A.D. 20__ BY THE GRANTSVILLE CITY ENGINEERING DEPARTMENT.

GRANTSVILLE CITY ENGINEER

TOOELE COUNTY RECORDER

NO._____
STATE OF UTAH, COUNTY OF TOOELE, RECORDED & FILED AT THE REQUEST OF _____
DATE _____ TIME _____ BOOK _____ PAGE _____

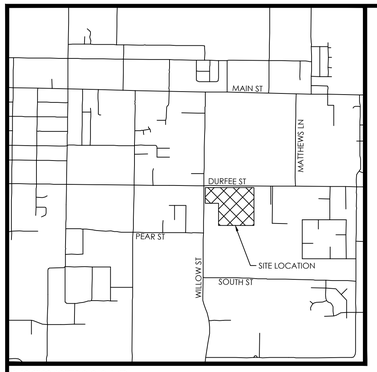
FEE $ _____ TOOELE COUNTY RECORDER

MATTHEWS MEADOWS SUBDIVISION
LOCATED IN THE NE1/4 OF SECTION 6, T3S, R5W,
SALT LAKE BASE & MERIDIAN
GRANTSVILLE CITY, TOOELE COUNTY, UTAH

2_2021\21-0377 GTM - DURFEE STREET\DESIGN 21-0377\DWG\SHEETS\C2 - FINAL PLAT.DWG

MATTHEWS MEADOWS SUBDIVISION

PHASE 1 FINAL PLAT
LOCATED IN THE NE1/4 OF SECTION 6, T3S, R5W,
SALT LAKE BASE & MERIDIAN
GRANTSVILLE CITY, TOOELE COUNTY, UTAH



VICINITY MAP
N.T.S

LEGEND

- BOUNDARY
- SECTION LINE
- EASEMENT
- RIGHT-OF-WAY LINE
- CENTERLINE
- BUILDING SETBACK
- EXISTING PROPERTY LINE
- SECTION MONUMENT (NOT FOUND)
- WITNESS CORNER (FOUND)
- BOUNDARY MARKERS
- STREET MONUMENT (TO BE SET)
- (M-M) MONUMENT TO MONUMENT
- (M-B) MONUMENT TO BOUNDARY
- ROW DEDICATION AREA
- RETENTION POND EASEMENT (SEE NOTE 2)

GRAPHIC SCALE

60 0 30 60 120 240

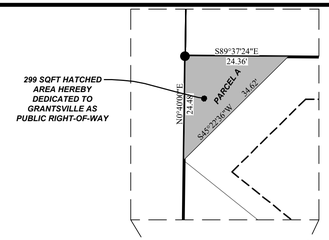
(IN FEET)
1 inch = 60 ft.

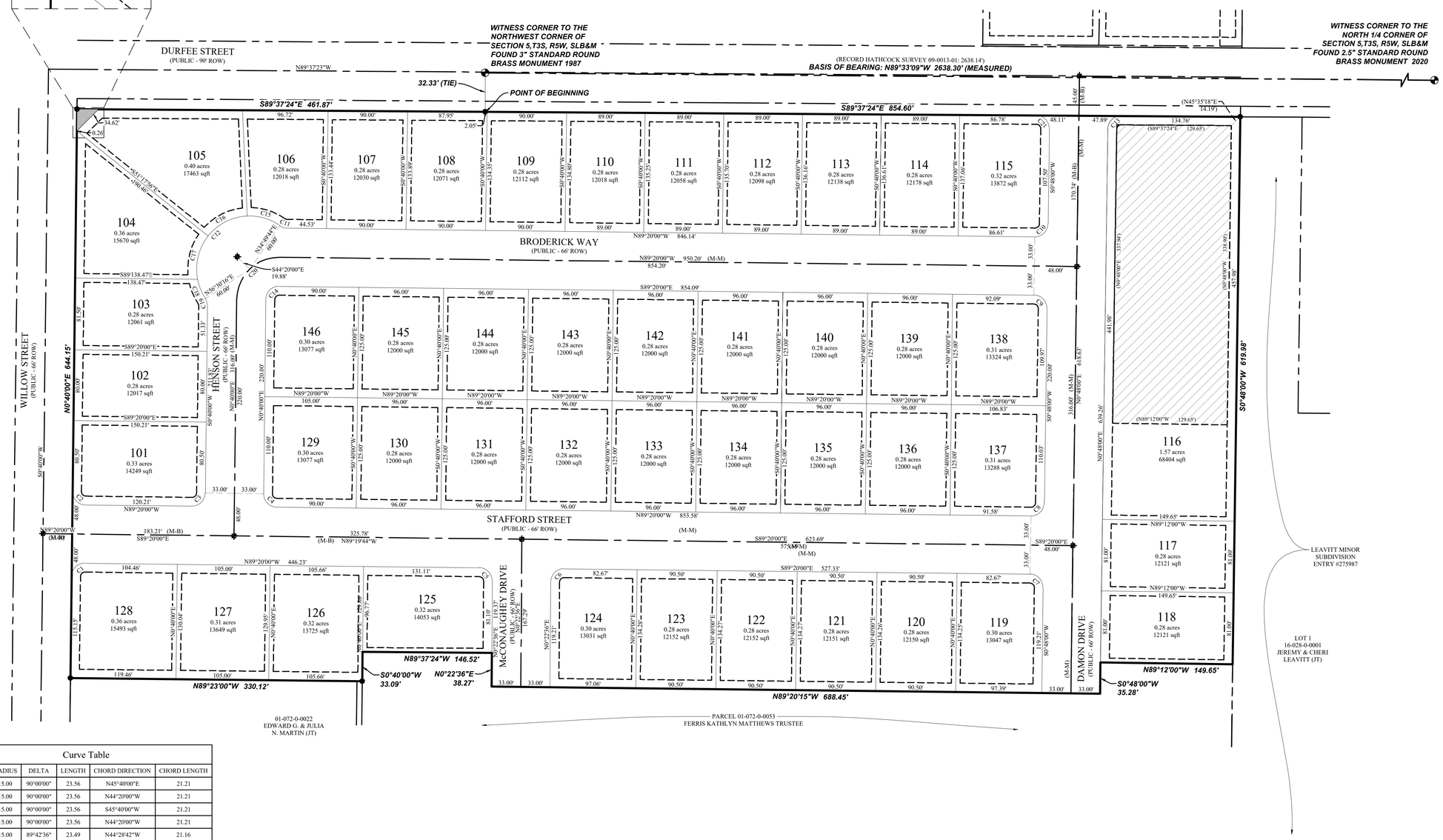
N

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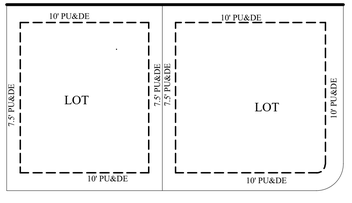
NOTES

1. #5 X 24" REBAR & CAP (FOCUS ENG) TO BE SET AT ALL LOT CORNERS. NAILS OR PLUGS TO BE SET IN TOP BACK OF CURB AT EXTENSION OF SIDE LOT LINES, IN LIEU OF REBAR AND CAPS AT FRONT LOT CORNERS.
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3. PARCEL A IS HEREBY CONVEYED TO GRANTSVILLE CITY AS A PUBLIC RIGHT OF WAY.





Curve Table					
CURVE	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C1	15.00	90°00'00"	23.56	N45°40'00"E	21.21
C2	15.00	90°00'00"	23.56	N44°20'00"W	21.21
C3	15.00	90°00'00"	23.56	S45°40'00"W	21.21
C4	15.00	90°00'00"	23.56	N44°20'00"W	21.21
C5	15.00	89°42'36"	23.49	N44°28'42"W	21.16
C6	15.00	90°17'24"	23.64	N45°31'18"E	21.27
C7	15.00	90°08'00"	23.60	S44°16'00"E	21.24
C8	15.00	89°52'00"	23.53	S45°44'00"W	21.19
C9	15.00	90°08'00"	23.60	S44°16'00"E	21.24
C10	15.00	89°52'00"	23.53	S45°44'00"W	21.19
C11	15.00	34°09'44"	8.94	N72°15'08"W	8.81
C12	60.00	158°19'28"	165.80	S45°40'00"W	117.86
C13	15.00	89°34'36"	23.45	N45°35'18"E	21.13
C14	15.00	90°00'00"	23.56	N45°40'00"E	21.21
C15	60.00	37°21'57"	39.13	N73°51'15"W	38.44
C16	60.00	48°45'43"	51.06	N63°04'55"E	49.54
C17	60.00	49°30'50"	51.85	S13°56'39"W	50.25
C18	60.00	22°40'57"	23.75	S22°09'15"E	23.60
C19	15.00	34°09'44"	8.94	S16°24'52"E	8.81
C20	48.00	90°00'00"	75.40	N45°40'00"E	67.88
C21	15.00	90°25'24"	23.67	S44°24'42"E	21.29



TYPICAL LOT PU&DE
N.T.S.

PREPARED FOR

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

PREPARED BY

FOCUS ENGINEERING AND SURVEYING, LLC
6949 HIGH TECH DRIVE
MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

MATTHEWS MEADOWS SUBDIVISION

LOCATED IN THE NE1/4 OF SECTION 6, T3S, R5W,
SALT LAKE BASE & MERIDIAN
GRANTSVILLE CITY, TOOELE COUNTY, UTAH

TOOELE COUNTY RECORDER

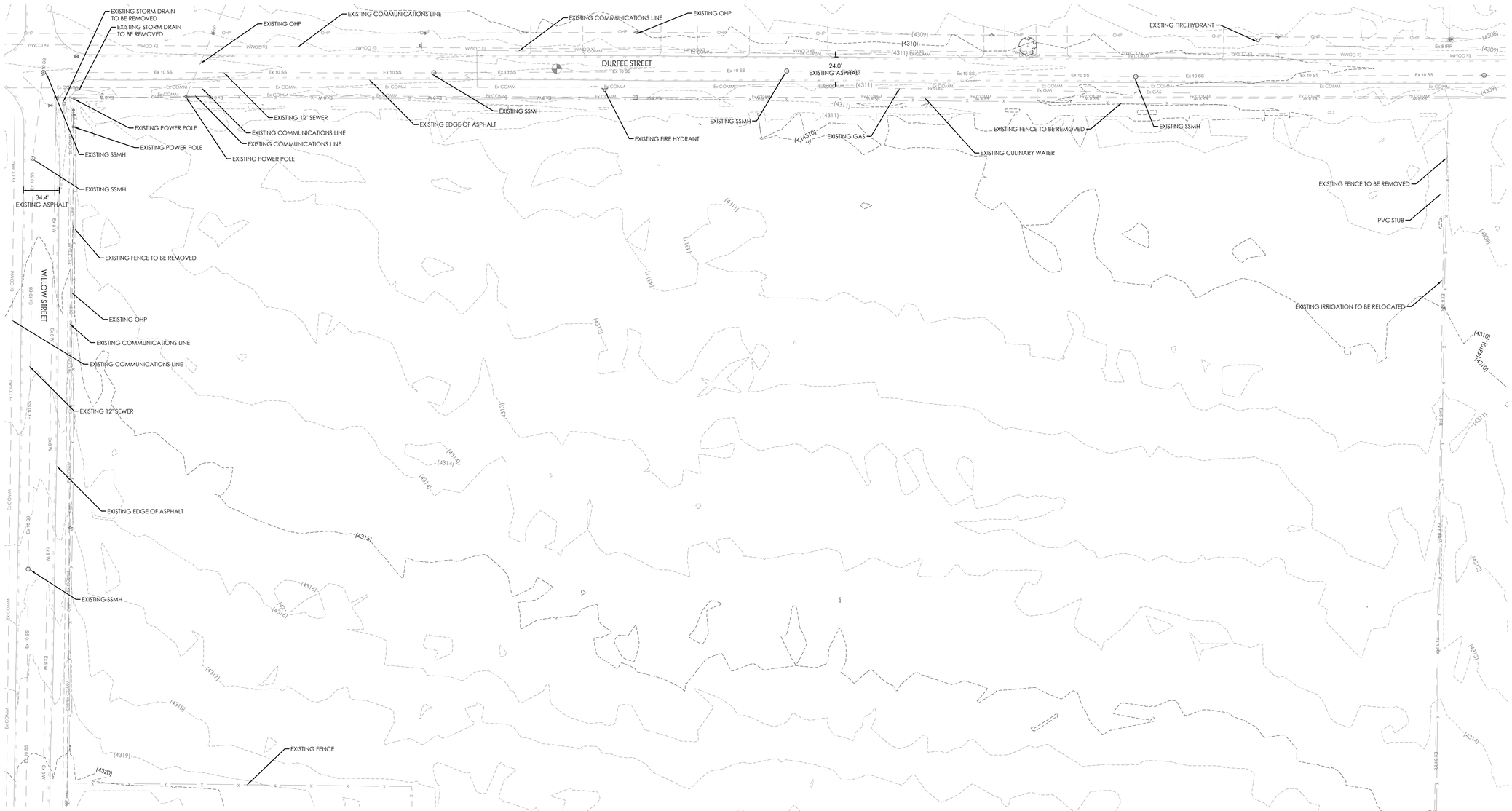
NO. _____
STATE OF UTAH, COUNTY OF TOOELE, RECORDED & FILED AT THE REQUEST OF _____
DATE _____ TIME _____ BOOK _____ PAGE _____

_____ _____
FEE $ TOOELE COUNTY RECORDER

SHEET 2 OF 3

DATE: 05/04/2022

Z:_2021\21-0377 GTM - DURFEE STREET\DESIGN 21-0377\DWG\SHEETS\C2 - FINAL PLAT.DWG



LEGEND

- 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 IRR EXIST. IRRIGATION
- Ex COMM EXIST. COMMUNICATIONS
- OHP EXIST. OVERHEAD POWER
- UGP EXIST. UNDERGROUND POWER
- x x x EXIST. FENCE
- EXIST. EDGE OF ASPHALT
- SECTION MONUMENT (FOUND)
- SECTION MONUMENT (NOT FOUND)
- WITNESS MONUMENT (FOUND)
- BOUNDARY MARKER
- EXIST. SD INLET, MANHOLE & COMBO BOX
- EXIST. SEWER MANHOLE
- EXIST. WATER VALVE & WATER METER
- EXIST. FIRE HYDRANT
- EXIST. POWER POLE
- EXIST. ELECTRICAL BOX
- EXIST. COMMUNICATIONS BOX
- + XXXX.X EXIST. SPOT ELEVATION
- XX-XXX-X-XXXX TOOELE COUNTY PARCEL No.

N

S

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

Know what's below. Call 811 before you dig.

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www.focusutah.com

LICENSED PROFESSIONAL ENGINEER
No. 8028850-2202
THOMAS M. ROMNEY
9/16/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
EXISTING CONDITIONS

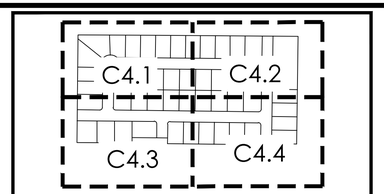
REVISION BLOCK

#	DATE	DESCRIPTION
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6	----	----

EXISTING CONDITIONS

Scale:	1"=50'	Drawn:	DCJ
Date:	09/14/22	Job #:	21-0377
Sheet:	C3		

Z:_2021\21-0377 GTM - Durfee Street\design 21-0377\dwg\sheets\Final\Phase 1 final\C3 EXISTING CONDITIONS.dwg





Know what's below. Call 811 before you dig.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

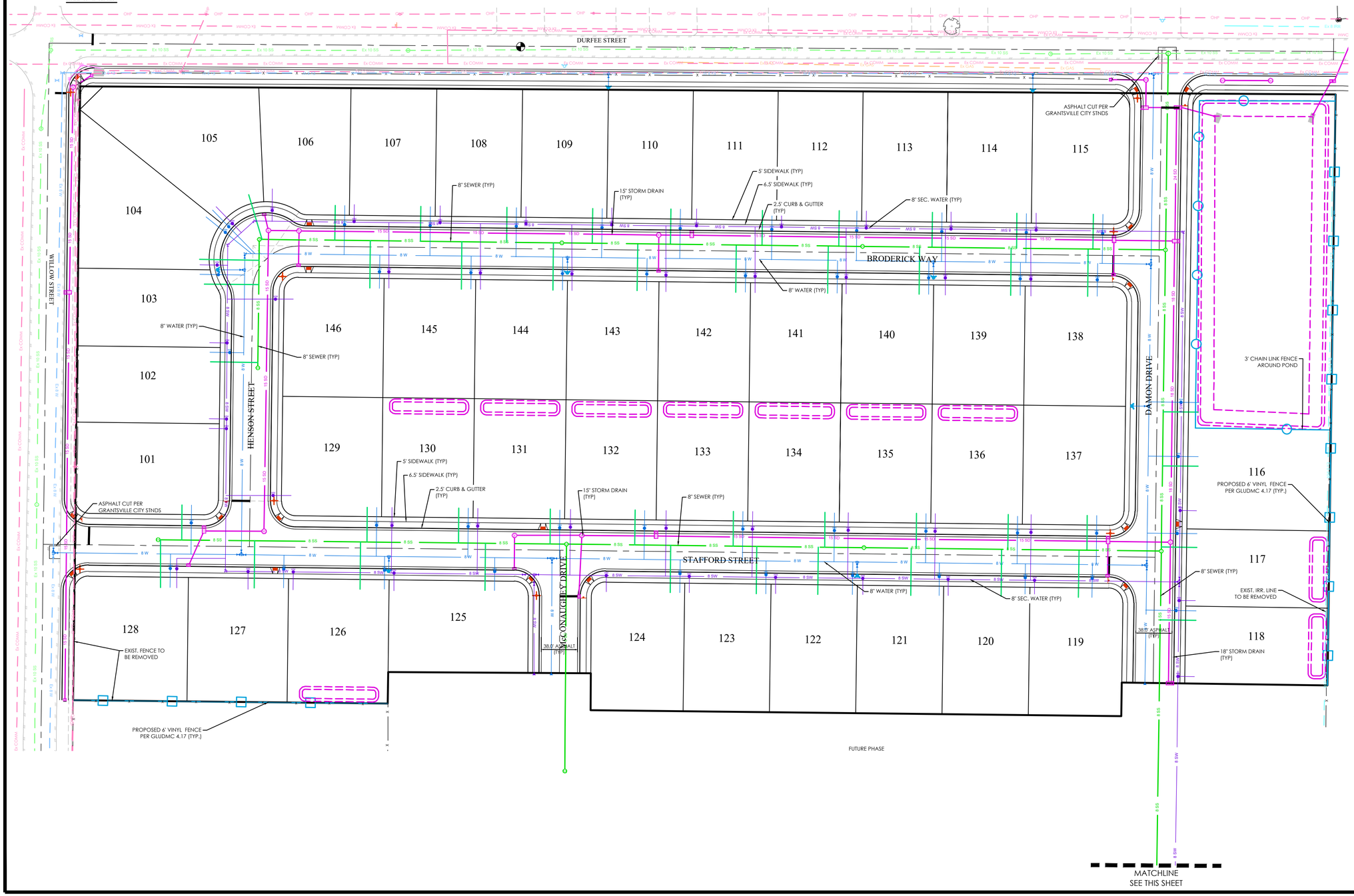
LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR

LEGEND

- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- 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
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- o XXXX.XX SPOT ELEVATION

KEY MAP



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No. 8028850-2202
THOMAS M. ROMNEY
9/14/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
OVERALL SITE PLAN

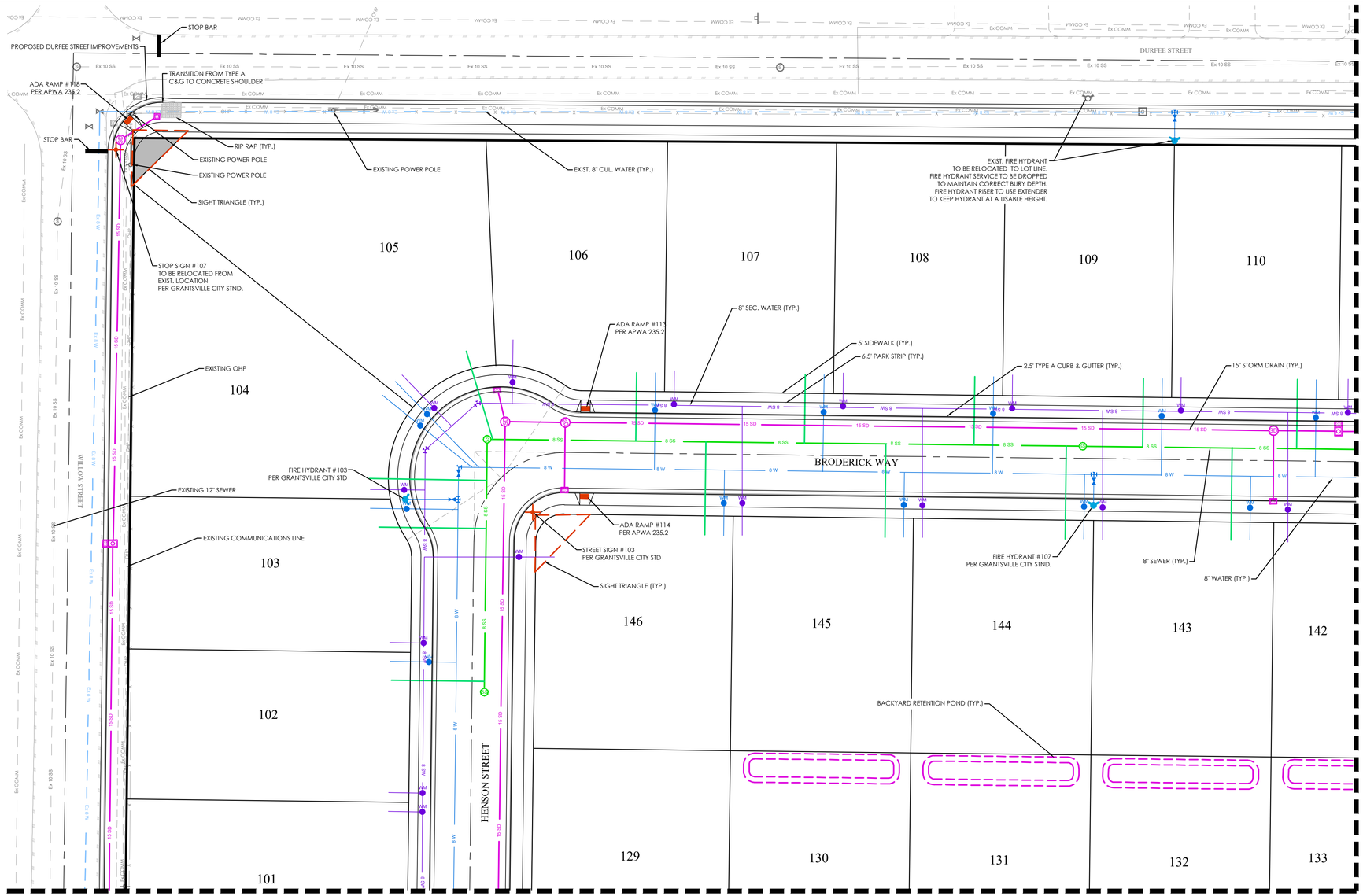
REVISION BLOCK

#	DATE	DESCRIPTION
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6	----	----

OVERALL SITE PLAN

Scale: 1"=50'	Drawn: DCJ
Date: 09/14/22	Job #: 21-0377
Sheet: C4	

Z:_2021\21-0377 GTM - Durfee Street\design\21-0377-dwg\sheet\Vinal\Phase 1 Finals\C4 - OVERALL SITE PLAN.dwg



MATCHLINE
SEE SHEET C4.2

811
Know what's below.
Call 811 before you dig.

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15 SD — 15" STORM DRAIN
- 8 SS — 8" SANITARY SEWER
- 8 W — 8" CULINARY WATER
- 8 SW — 8" SECONDARY WATER
- XXXX — CONTOUR MAJOR
- XXXX — CONTOUR MINOR
- Ex SD — EXIST. STORM DRAIN
- Ex SS — EXIST. SANITARY SEWER
- Ex W — EXIST. CULINARY WATER
- X — X — EXIST. FENCE
- (XXXX) — EXIST. CONTOUR MAJOR
- (XXXX) — EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- 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
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- o XXXX.XX — SPOT ELEVATION

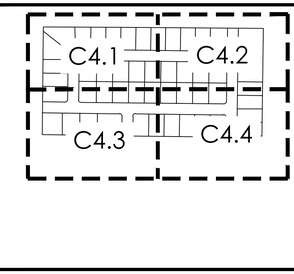
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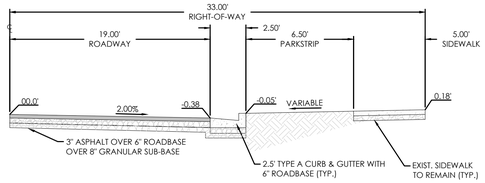
GRAPHIC SCALE

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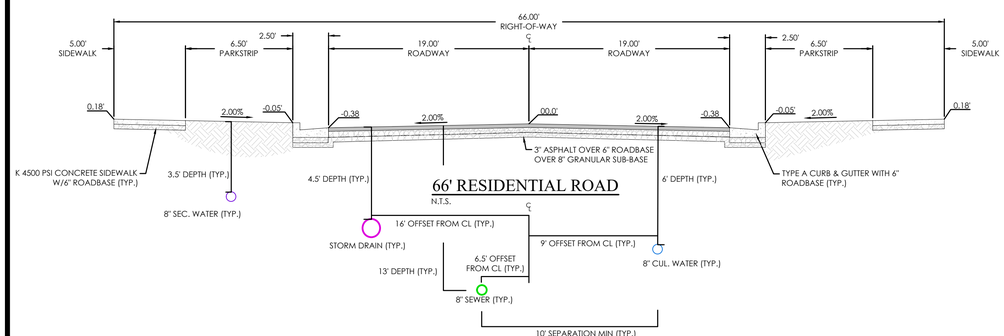
(IN FEET)
1 inch = 30 ft.



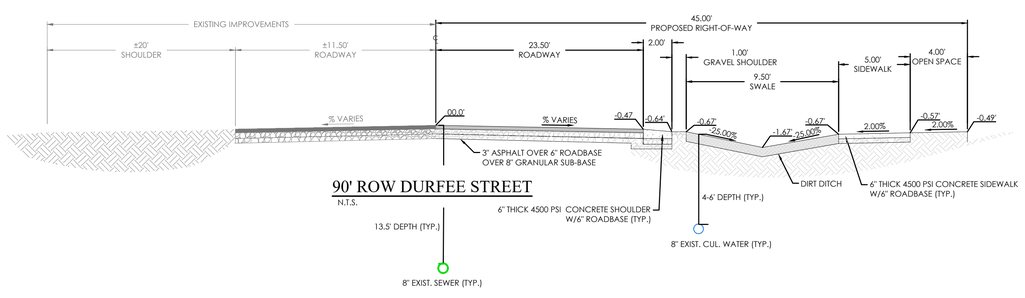
KEY MAP



66' ROW WILLOW STREET (HALF WIDTH)
N.T.S.



66' RESIDENTIAL ROAD
N.T.S.



90' ROW DURFEE STREET
N.T.S.

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9/14/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
SITE PLAN

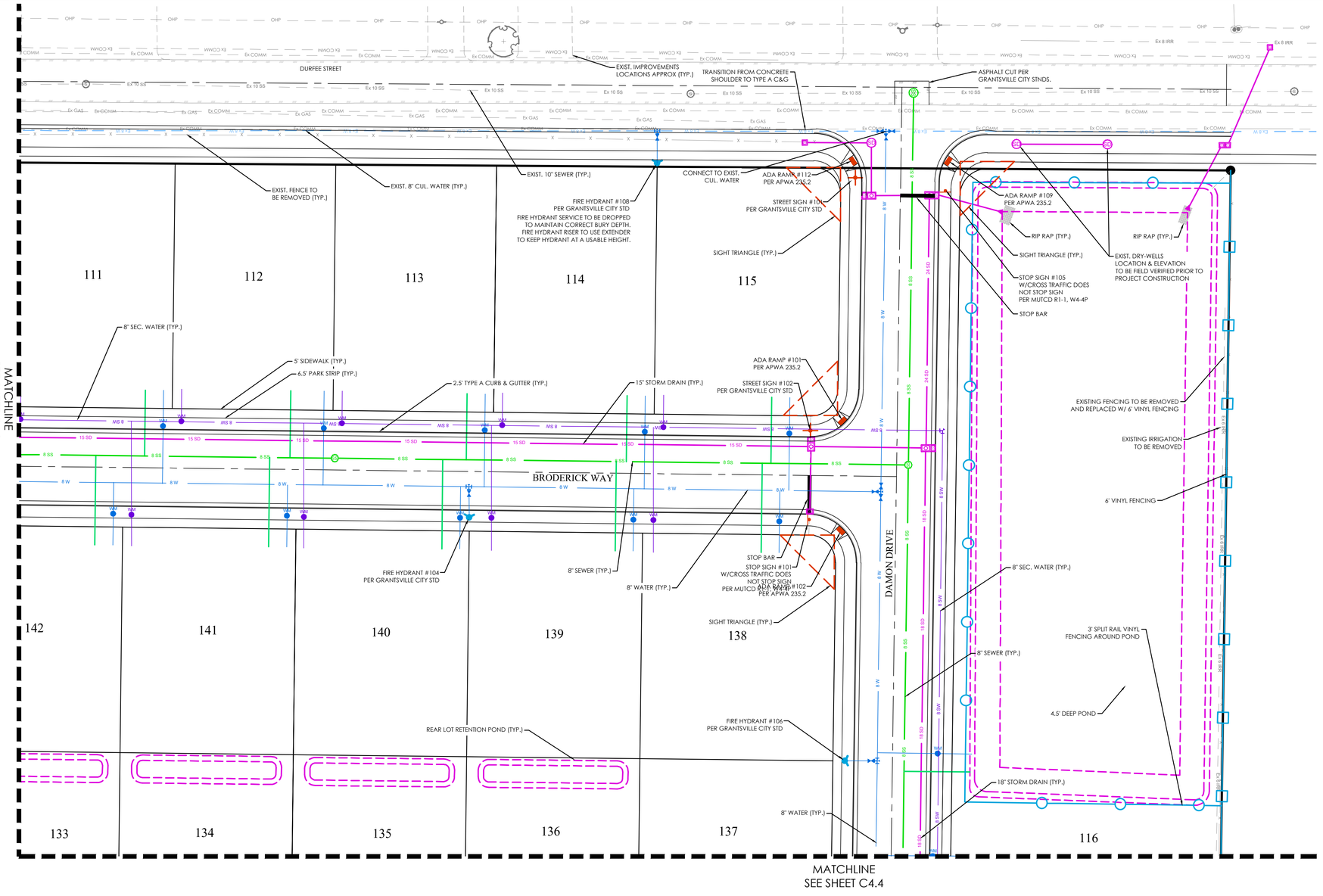
REVISION BLOCK

#	DATE	DESCRIPTION
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6	----	----

SITE PLAN

Scale:	1"=30'	Drawn:	DCJ
Date:	09/14/22	Job #:	21-0377
Sheet:	C4.1		

Z:_2021\21-0377 GTM - Durfee Street\design 21-0377.dwg\sheets\Final\Phase 1 Finish\C4.1 SITE PLAN.dwg



LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- 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
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION

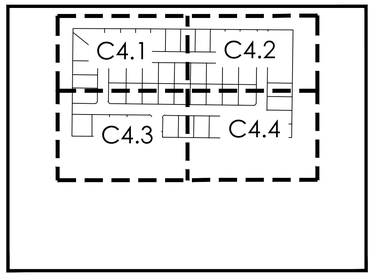
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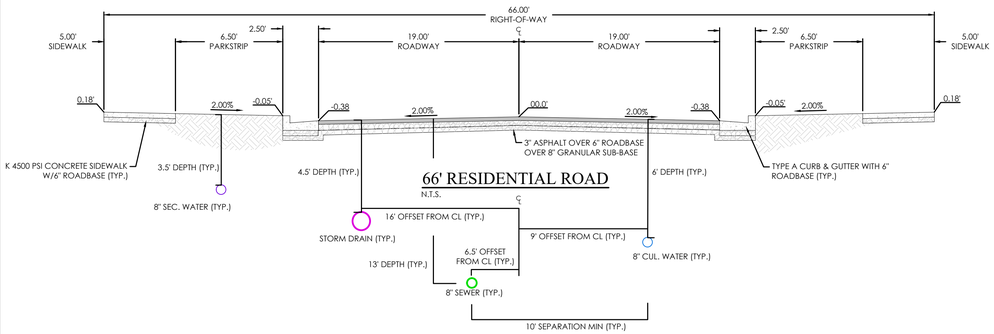
GRAPHIC SCALE

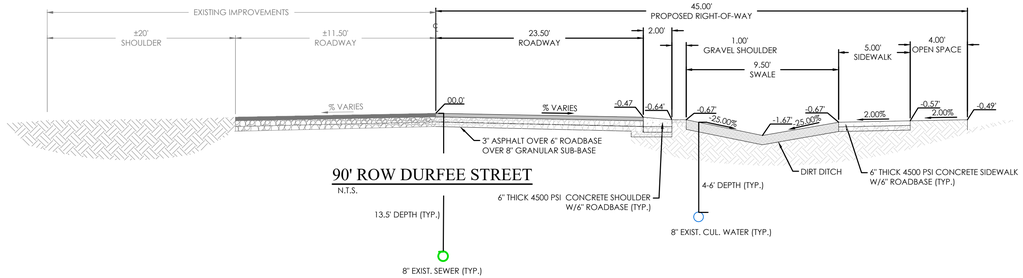
30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.



KEY MAP





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MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
SITE PLAN

REVISION BLOCK

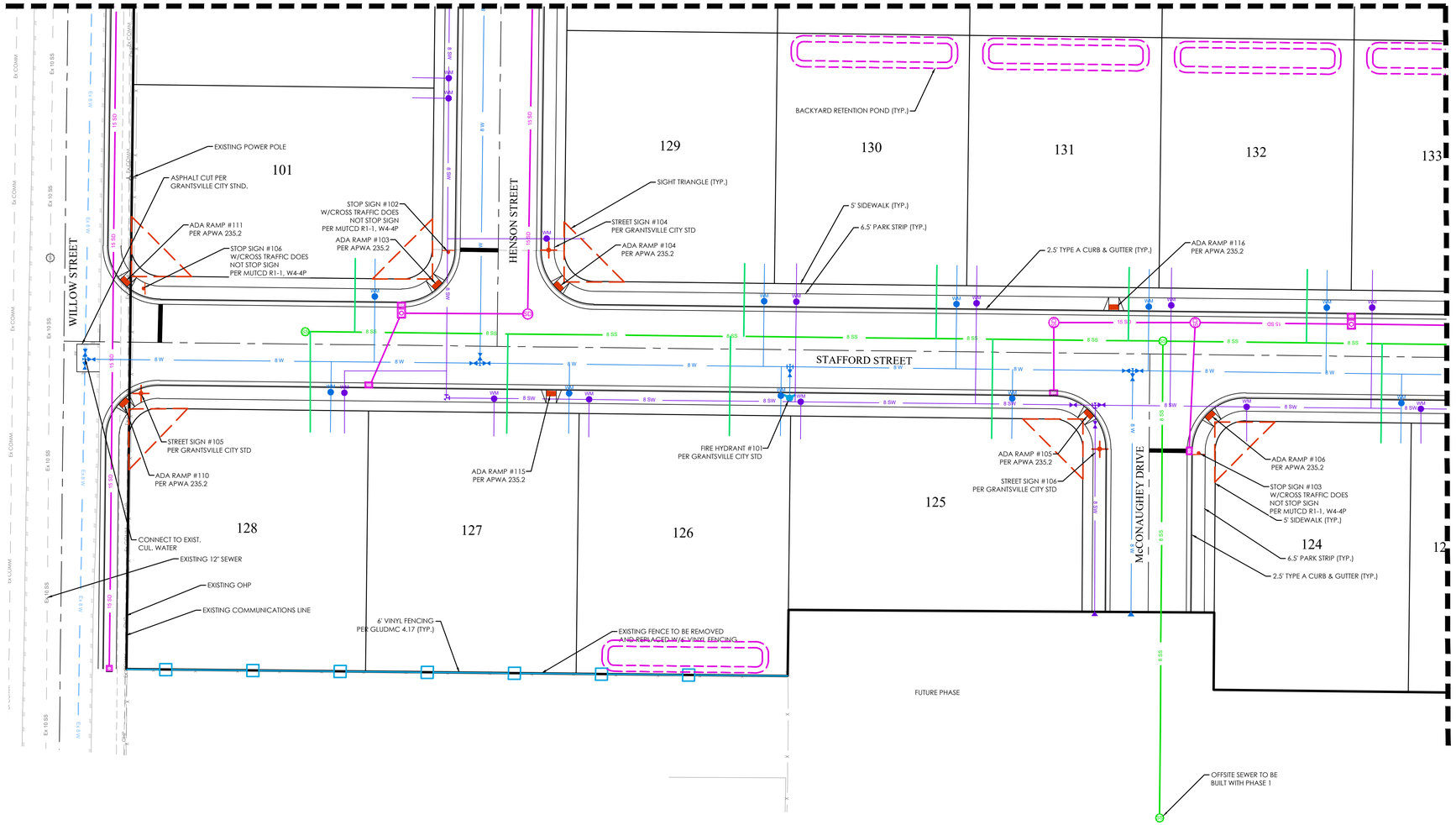
#	DATE	DESCRIPTION
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3	----	----
4	----	----
5	----	----
6	----	----

SITE PLAN

Scale:	1"=30'	Drawn:	DCJ
Date:	09/14/22	Job #:	21-0377
Sheet:	C4.2		

Z:_2021\21-0377 GTM - Durfee Street\design 21-0377\dwg\sheets\final\Phase 1 Final\C4.2 SITE PLAN.dwg

MATCHLINE
SEE SHEET C4.1



MATCHLINE
SEE SHEET C4.4

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
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- SEWER MANHOLE
- 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
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION

N

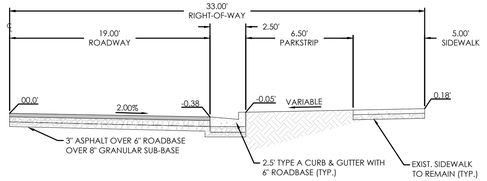
S

GRAPHIC SCALE

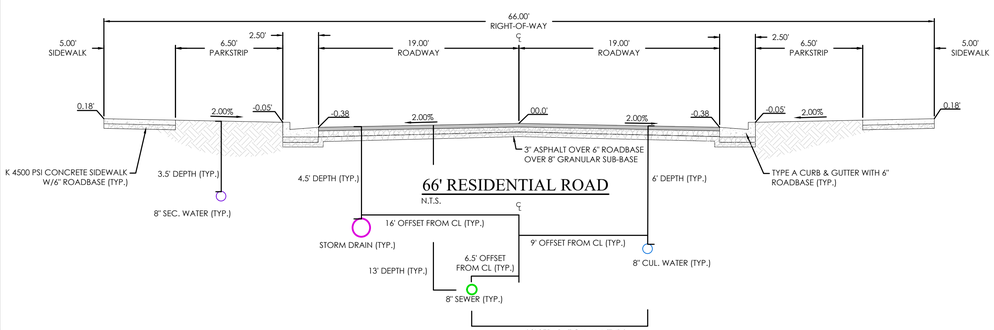
30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

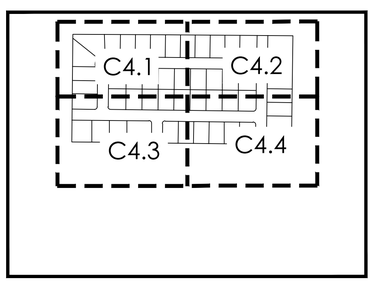
Know what's below. Call 811 before you dig.



66' ROW WILLOW STREET (HALF WIDTH)
N.T.S.



66' RESIDENTIAL ROAD
N.T.S.



KEY MAP

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STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
SITE PLAN

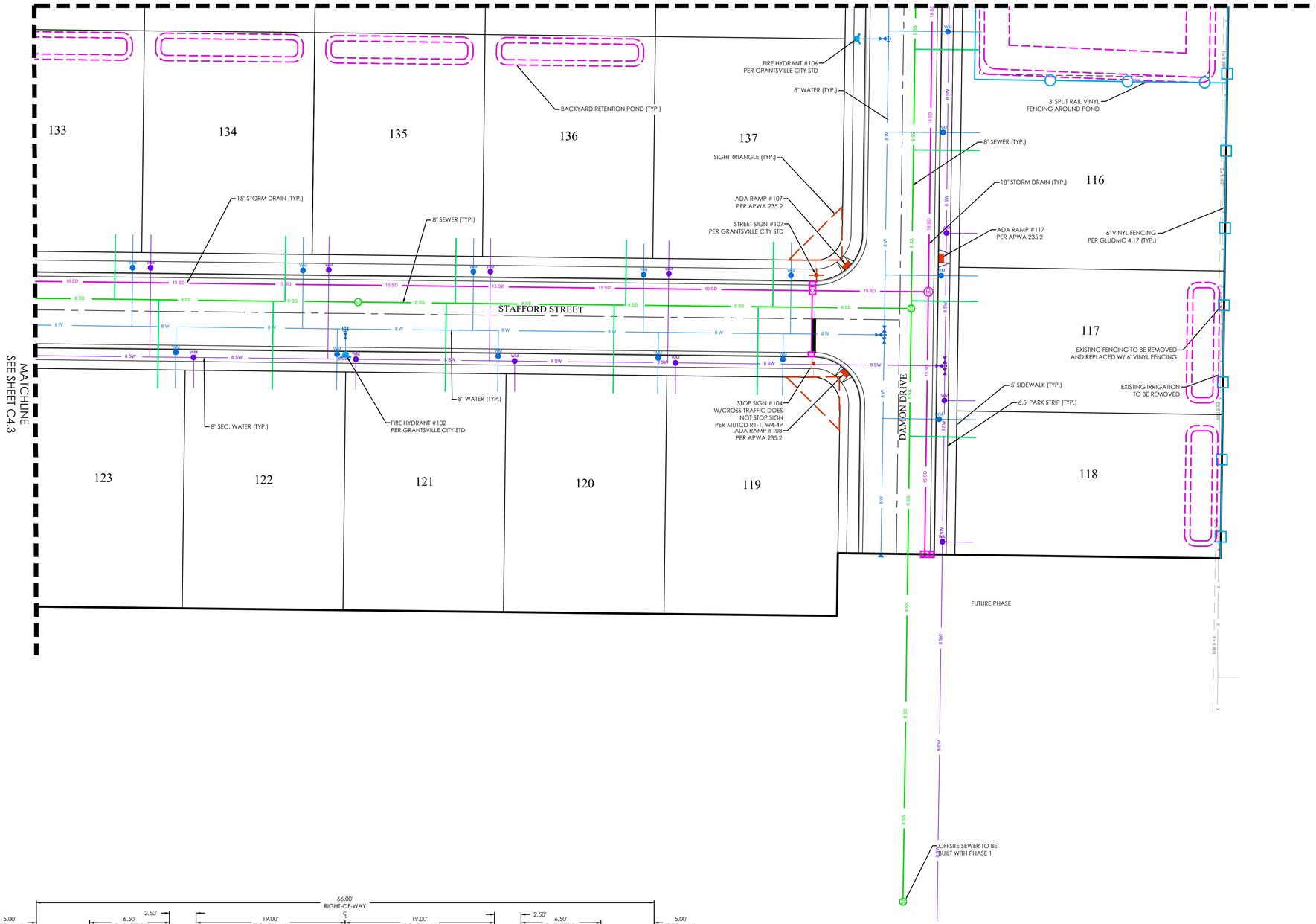
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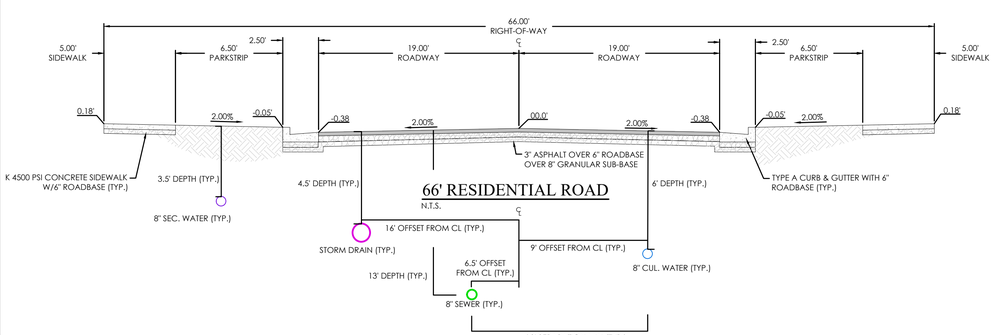
#	DATE	DESCRIPTION
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SITE PLAN

Scale: 1"=30'	Drawn: DCJ
Date: 09/14/22	Job #: 21-0377
Sheet: C4.3	

Z:_2021\21-0377 GTM - Duffes Street\design 21-0377\dwg\sheet\Final\Phase 1 Finish\C4.3 SITE PLAN.dwg





LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- 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
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION

o XXXX.XX

N

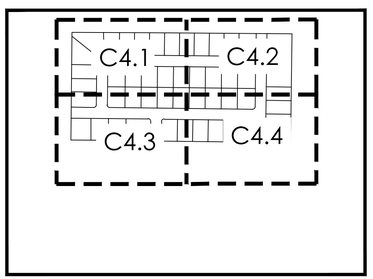
S

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

Know what's below. Call 811 before you dig.



KEY MAP

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9/14/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
SITE PLAN

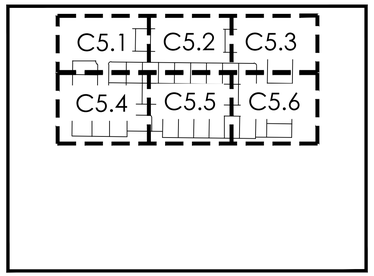
REVISION BLOCK

#	DATE	DESCRIPTION
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3	----	----
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5	----	----
6	----	----

SITE PLAN

Scale:	1"=30'	Drawn:	DCJ
Date:	09/14/22	Job #:	21-0377
Sheet:	C4.4		

Z:_2021\21-0377 GTM - Duffes Street\design 21-0377\dwg\sheet\Final\Phase 1 Finish\C4.4 SITE PLAN.dwg



KEY MAP

N

S

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

811 Know what's below. Call 811 before you dig.

NOTE:
AFTER REMOVING TOP SOIL, ALL FILL IN THE ROADWAY AREA MUST BE A-1-A MATERIAL OR AS APPROVED BY THE GEOTECHNCAL REPORT. COMPACTION TO BE INSPECTED UP TO THE ELEVATION OF THE ROAD SUB-GRADE

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15 SD — 15" STORM DRAIN
- 8 SS — 8" SANITARY SEWER
- 8 W — 8" CULINARY WATER
- 8 SW — 8" SECONDARY WATER
- XXXX — CONTOUR MAJOR
- XXXX — CONTOUR MINOR
- Ex SD — EXIST. STORM DRAIN
- Ex SS — EXIST. SANITARY SEWER
- Ex W — EXIST. CULINARY WATER
- X — X — EXIST. FENCE
- (XXXX) — EXIST. CONTOUR MAJOR
- (XXXX) — EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- 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
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- o XXXX.XX — SPOT ELEVATION

DURFEE STREET

BRODERICK WAY

STAFFORD STREET

WILLOW STREET

HENSON STREET

McCONAUGHEY DRIVE

DAMON DRIVE

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No. 8028850-2202
THOMAS M. ROMNEY
9/14/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
OVERALL GRADING PLAN

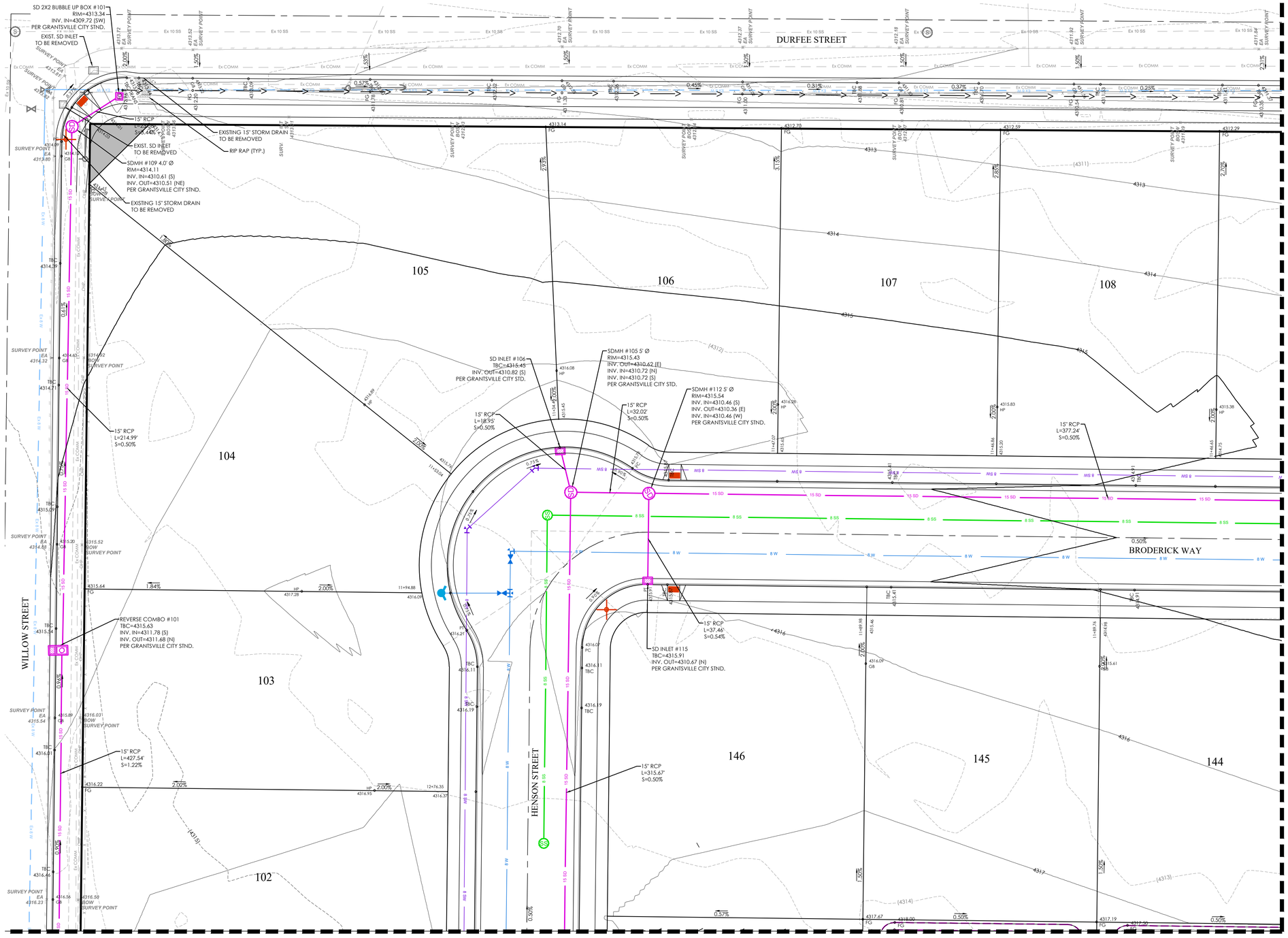
REVISION BLOCK

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OVERALL GRADING PLAN

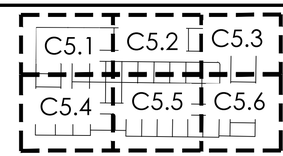
Scale:	1"=50'	Drawn:	DCJ
Date:	09/14/22	Job #:	21-0377
Sheet:	C5		

Z:_2021\21-0377 GIM - Durfee Street\design 21-0377\dwg\sheets\Final\Phase 1 Final\C5 - OVERALL GRADING PLAN.dwg



LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
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- CULINARY VALVE, TEE & BEND
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- WATER BLOW-OFF
- FIRE HYDRANT
- STREET MONUMENT (TO BE SET)
- EXIST. STREET MONUMENT
- EXIST. SD INLET & MH
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION



KEY MAP

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GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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No. 8028850-2202
THOMAS M. ROMNEY
9/16/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT

GRADING AND DRAINAGE PLAN

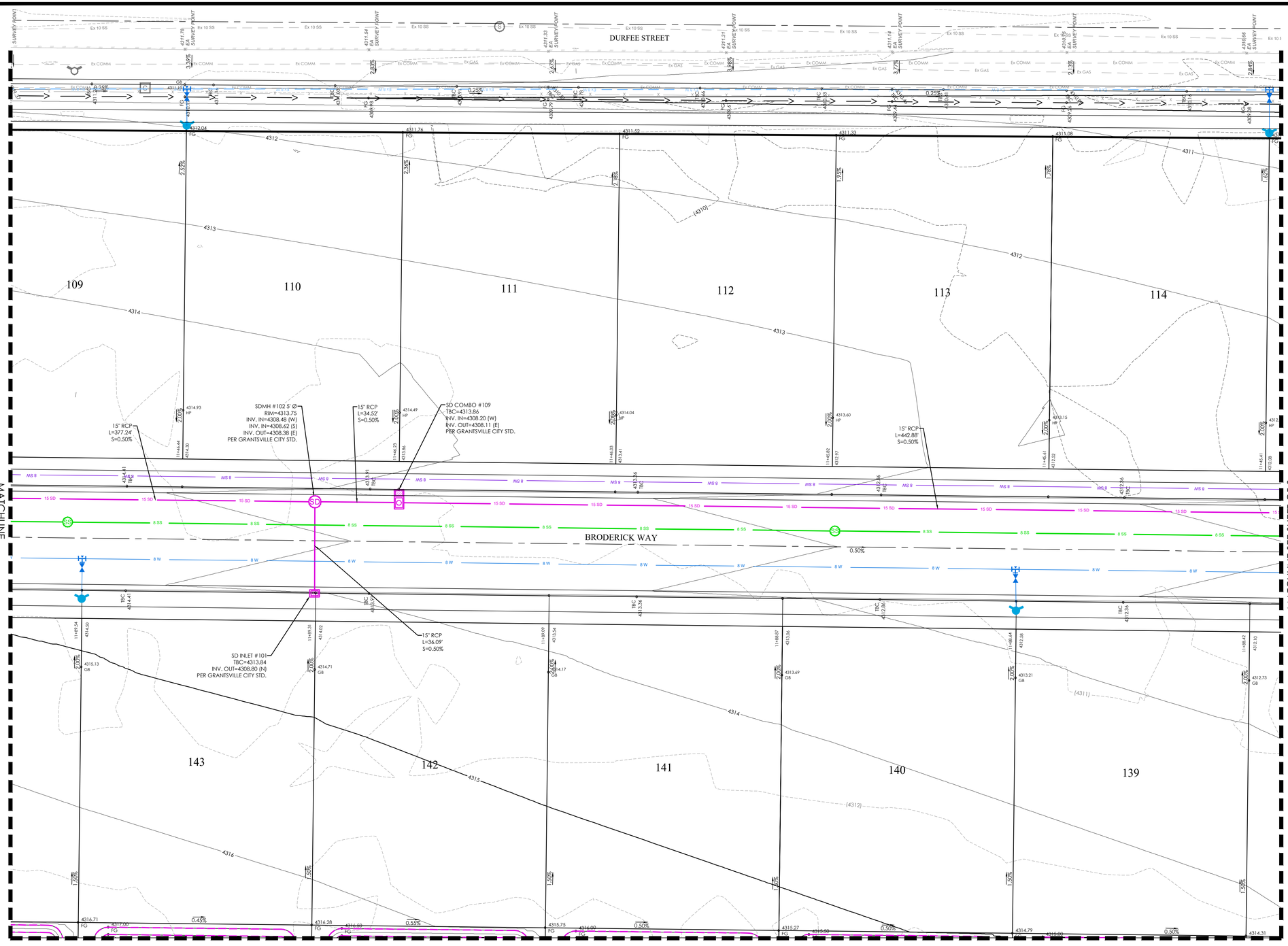
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GRADING AND DRAINAGE PLAN

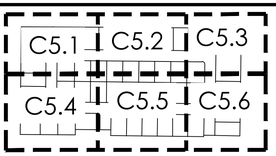
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Sheet: C5.1	

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LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
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GRAPHIC SCALE

20 0 10 20 40 80

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STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT

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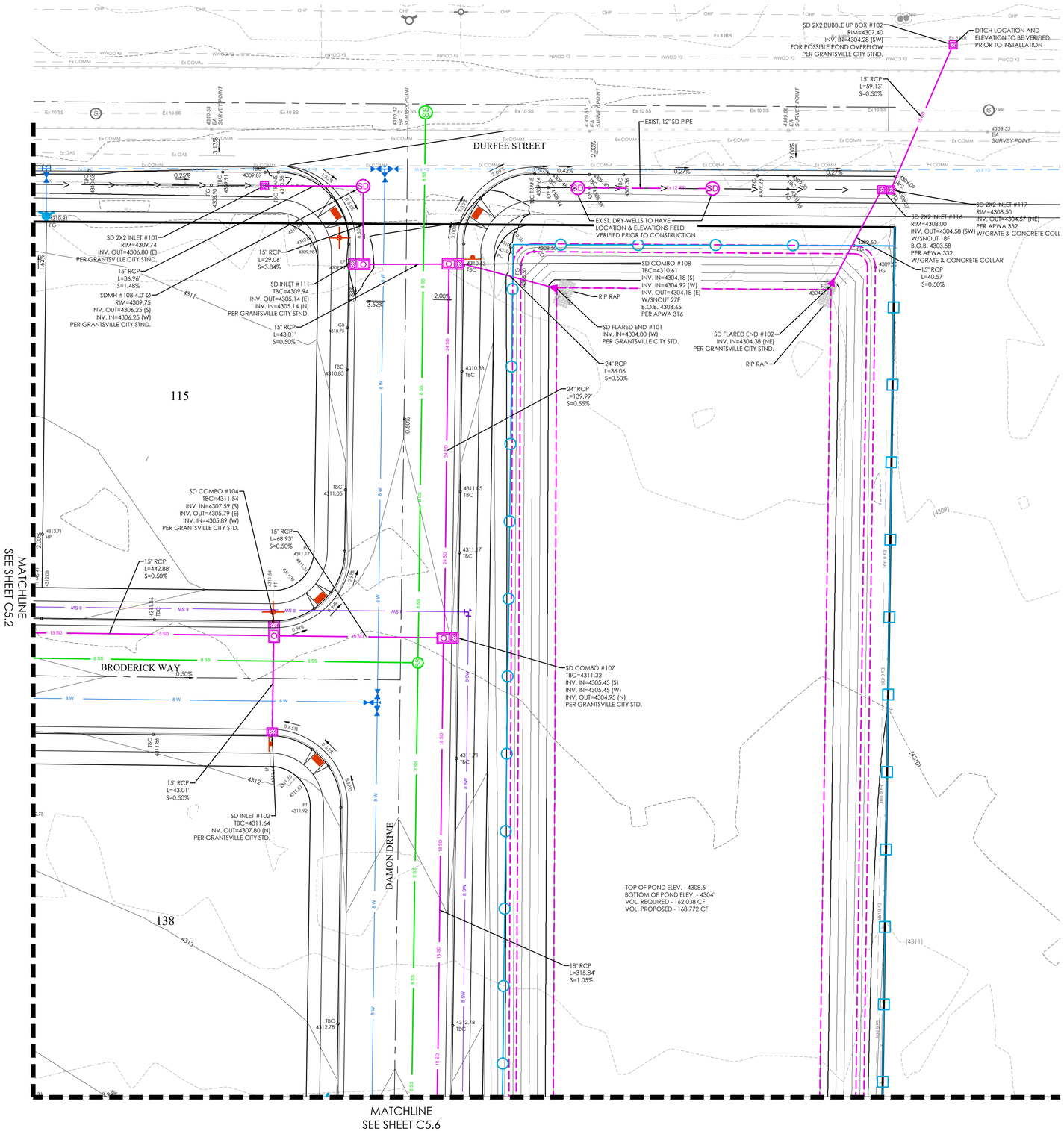
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GRADING AND DRAINAGE PLAN

Scale: 1"=20'	Drawn: DCJ
Date: 09/14/22	Job #: 21-0377
Sheet: C5.2	

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LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
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- o XXXX.XX SPOT ELEVATION

C5.1 C5.2 C5.3
C5.4 C5.5 C5.6

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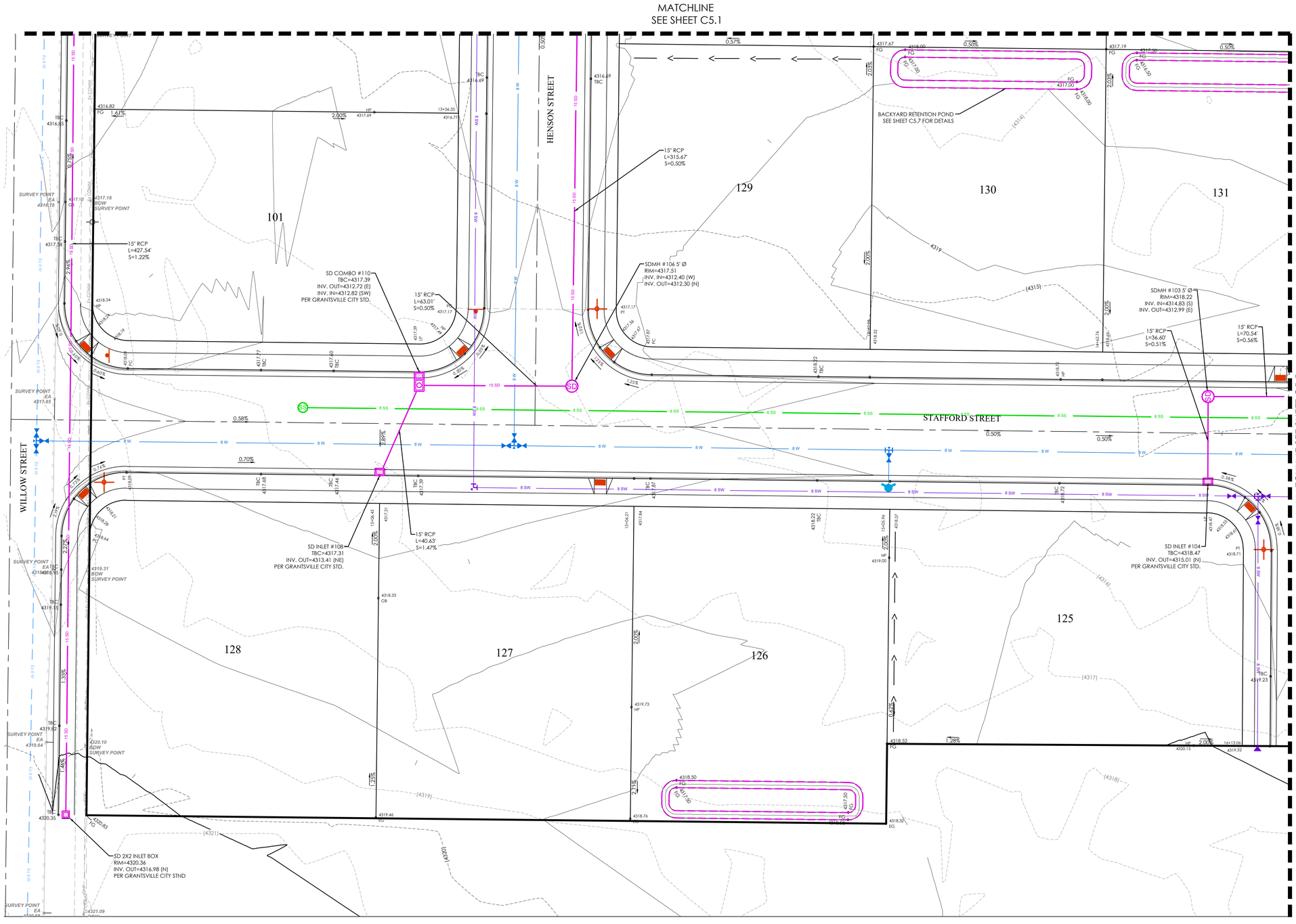
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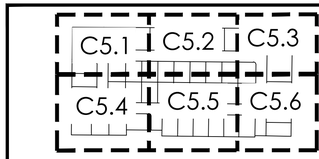
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Sheet:	C5.3		

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- BOUNDARY
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- LOT LINE
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(IN FEET)
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STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT

GRADING AND DRAINAGE PLAN

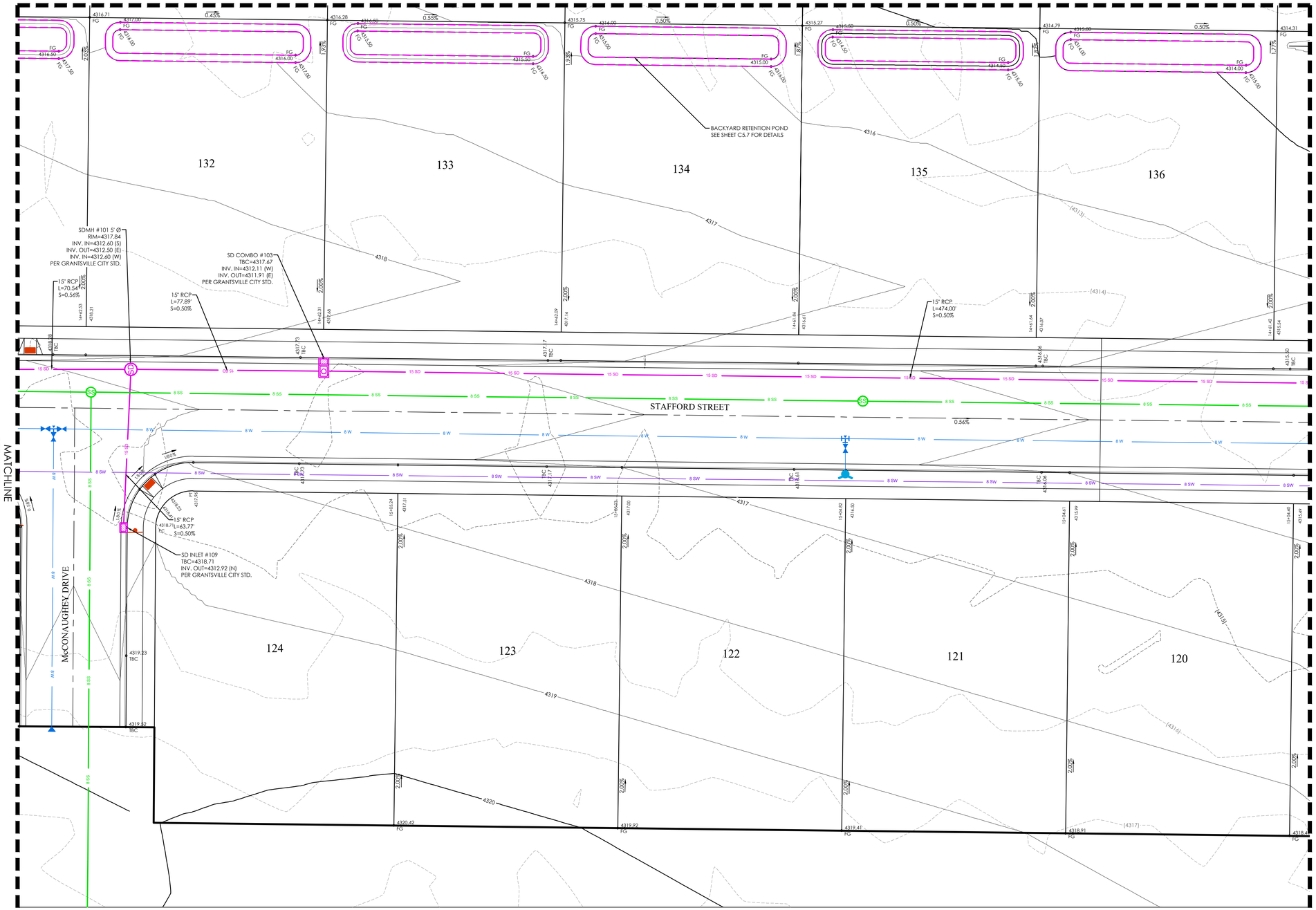
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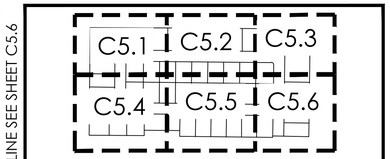
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Sheet: C5.4

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LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
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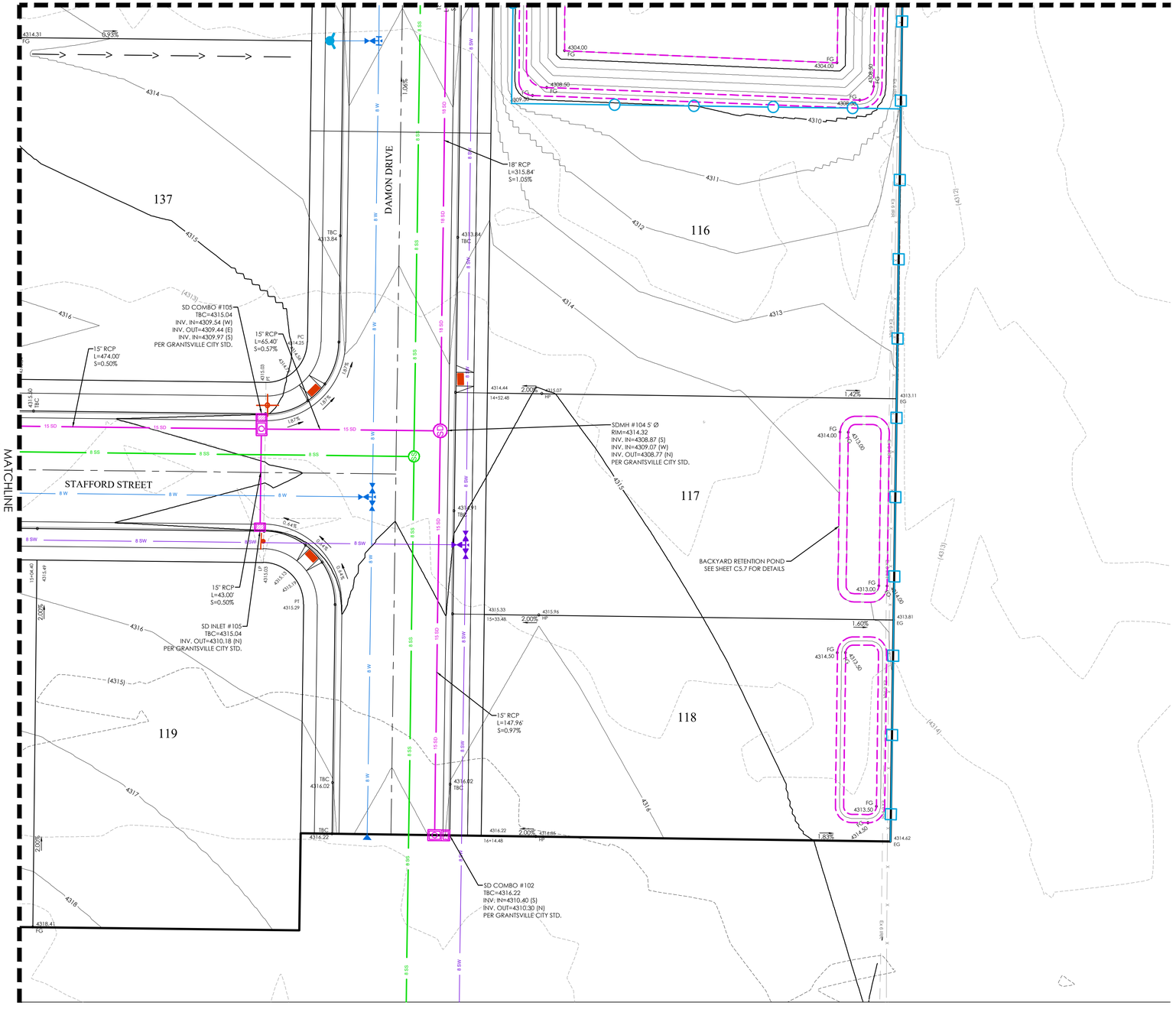
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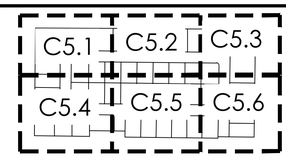
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- LOT LINE
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11-11-22

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GRADING AND DRAINAGE PLAN

REVISION BLOCK

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GRADING AND DRAINAGE PLAN

Scale:	1"=20'	Drawn:	DCJ
Date:	09/14/22	Job #:	21-0377
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Rear Lot Retention Pond

Project: Matthews Meadows Subdivision
Location Grantsville City, Utah
Date: 4/20/2022
Designer: DCJ

FOCUS ENGINEERING & SURVEYING

100-Year Retention Sizing

Design Criteria

Intensity Table: Per NOAA Atlas 14
Return Period: **100 year**
Allowable Discharge: **0.00 cfs/acre** Per Grantsville City Standards

Allowable Discharges

Storm Drain Discharge 0.00 cfs
Other Discharge: 0.00 cfs Source:
Total Discharge: **0 cfs**

Weighted "C" Value

Surface Type	*Area (sf)*	*"C" Value*	C*A
Homes (rooftops)	2,662	0.85	2,263
Drives	0	0.85	0
Roadway and Sidewalk	0	0.85	0
Landscape	7,419	0.15	1,113
Totals	10,081		3,375.55
Weighted "C" Value		**0.33**	

Drainage Calculations

Duration	Intensity	Runoff C	Area	Rainfall	ccumulate Flow	Allowable Discharge	Discharge	Required Storage
min	*in/hr*		*Ac*	*cfs*	*cf*	*cfs*	*cf*	*cf*
15.0	4.56	0.33	0.23	0.35	318	0.00	0	318
30.0	3.07	0.33	0.23	0.24	428	0.00	0	428
60.0	1.90	0.33	0.23	0.15	530	0.00	0	530
120.0	1.11	0.33	0.23	0.09	619	0.00	0	619
180.0	0.76	0.33	0.23	0.06	636	0.00	0	636
360.0	0.41	0.33	0.23	0.03	686	0.00	0	686
720.0	0.24	0.33	0.23	0.02	803	0.00	0	803
1440.0	0.14	0.33	0.23	0.01	937	0.00	0	937

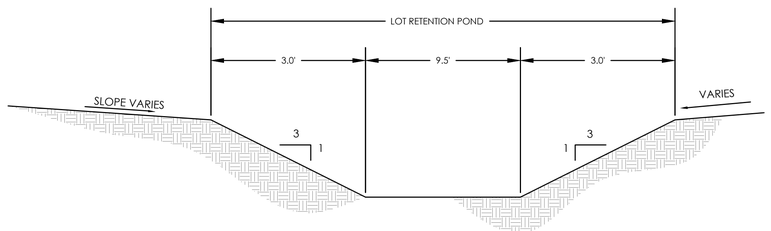
Maximum Storage Requirement: ***937***
Maximum Storage Requirement (ac-ft): 0.02

Retention Basin Design

Storage Requirement: 937 *cf*
Allowable Depth: 2.0 *ft*
Retention Pond Volume: 990 *cf*
Roadway Sump Storage: 0 *cf*

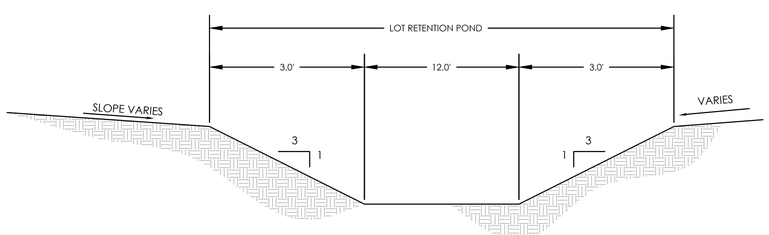
Retention Calculated Using Basic Geometry of a Trapezoidal Trench

Total Storage **990** ***RETENTION ADEQUATE***



LOT RETENTION POND DETAIL

N.T.S.



LOT RETENTION POND DETAIL

N.T.S.

Retention Pond

Project: Matthews Meadows Subdivision
Location Grantsville City, Utah
Date: 12/7/2021
Designer: MEC

FOCUS ENGINEERING & SURVEYING

100-Year Retention Sizing

Design Criteria

Intensity Table: Per NOAA Atlas 14
Return Period: **100 year**
Allowable Discharge: **0.00 cfs/acre** Per Grantsville City Standards

Allowable Discharges

Storm Drain Discharge 0.00 cfs
Other Discharge: 0.00 cfs Source:
Total Discharge: **0 cfs**

Weighted "C" Value

Surface Type	*Area (sf)*	*"C" Value*	C*A
Homes (rooftops)	220,000	0.85	187,000
Drives	35,200	0.85	29,920
Roadway and Sidewalk	279,064	0.85	237,204
Landscape	862,713	0.15	129,407
Totals	1,396,977		583,531.35
Weighted "C" Value		**0.42**	

Drainage Calculations

Duration	Intensity	Runoff C	Area	Rainfall	ccumulate Flow	Allowable Discharge	Discharge	Required Storage
min	*in/hr*		*Ac*	*cfs*	*cf*	*cfs*	*cf*	*cf*
15.0	4.56	0.42	32.07	61.09	54,977	0.00	0	54,977
30.0	3.07	0.42	32.07	41.13	74,026	0.00	0	74,026
60.0	1.90	0.42	32.07	25.45	91,629	0.00	0	91,629
120.0	1.11	0.42	32.07	14.87	107,061	0.00	0	107,061
180.0	0.76	0.42	32.07	10.18	109,955	0.00	0	109,955
360.0	0.41	0.42	32.07	5.49	118,635	0.00	0	118,635
720.0	0.24	0.42	32.07	3.22	138,890	0.00	0	138,890
1440.0	0.14	0.42	32.07	1.88	162,038	0.00	0	162,038

Maximum Storage Requirement: ***162,038***
Maximum Storage Requirement (ac-ft): 3.72

Retention Basin Design

Storage Requirement: 162,038 *cf*
Allowable Depth: 4.5 *ft*
Retention Pond Volume: 168,772 *cf*
Roadway Sump Storage: 0 *cf*

Retention Calculated Using Basic Geometry of a Trapezoidal Trench

Total Storage **168,772** ***RETENTION ADEQUATE***

RETENTION POND DETAIL

N.T.S.

PIPE CAPACITY TABLE (BASED ON MANNING'S EQUATION)

Pipe Name	Size (Inches)	Length (Feet)	Slope (%)	C-VALUE	Intensity (In/Hr)	Tc (Min.)	Qcap (CFS)	Q10 (CFS)
Pipe - (141)	15	37	1.48%	0.42	1.55	30	7.9	0.000
Pipe - (142)	15	29	3.84%	0.42	1.55	30	12.7	0.000
Pipe - (143)	15	428	1.22%	0.42	1.55	30	7.1	0.000
Pipe - (143) (1)	15	215	0.50%	0.42	1.55	30	4.6	0.000
Pipe - (144)	15	23	3.44%	0.42	1.55	30	12.0	0.000
Pipe - (145)	12	50	0.29%	0.42	1.55	30	1.9	0.000
REACH - (1)	24	36	0.50%	0.42	1.55	30	16.0	14.920
REACH - (2)	15	43	0.50%	0.42	1.55	30	4.6	3.510
REACH - (3)	24	140	0.55%	0.42	1.55	30	16.8	11.340
REACH - (4)	15	69	0.50%	0.42	1.55	30	4.6	3.600
REACH - (5)	15	43	0.50%	0.42	1.55	30	4.6	1.080
REACH - (6)	15	443	0.50%	0.42	1.55	30	4.6	2.520
REACH - (7)	15	35	0.50%	0.42	1.55	30	4.6	2.140
REACH - (8)	15	36	0.50%	0.42	1.55	30	4.6	0.850
REACH - (9)	15	377	0.50%	0.42	1.55	30	4.6	1.290
REACH - (10)	15	37	0.54%	0.42	1.55	30	4.8	0.490
REACH - (11)	15	32	0.50%	0.42	1.55	30	4.6	0.800
REACH - (12)	15	316	0.50%	0.42	1.55	30	4.6	0.490
REACH - (13)	15	19	0.50%	0.42	1.55	30	4.6	0.310
REACH - (14)	15	63	0.50%	0.42	1.55	30	4.6	0.490

PIPE CAPACITY TABLE (BASED ON MANNING'S EQUATION)

Pipe Name	Size (Inches)	Length (Feet)	Slope (%)	C-VALUE	Intensity (In/Hr)	Tc (Min.)	Qcap (CFS)	Q10 (CFS)
REACH - (15)	15	41	1.47%	0.42	1.55	30	7.9	0.370
REACH - (16)	18	316	1.05%	0.42	1.55	30	10.8	7.440
REACH - (17)	15	65	0.57%	0.42	1.55	30	4.9	2.310
REACH - (18)	15	43	0.50%	0.42	1.55	30	4.6	1.470
REACH - (19)	15	474	0.50%	0.42	1.55	30	4.6	0.840
REACH - (20)	15	78	0.50%	0.42	1.55	30	4.6	0.680
REACH - (21)	15	64	0.50%	0.42	1.55	30	4.6	0.330
REACH - (22)	15	71	0.56%	0.42	1.55	30	4.8	0.350
REACH - (23)	15	37	0.51%	0.42	1.55	30	4.6	0.350
REACH - (24)	15	148	0.97%	0.42	1.55	30	6.4	5.130
REACH - (25)	15	41	0.50%	0.42	1.55	30	4.6	0.110
REACH - (26)	15	59	0.50%	0.42	1.55	30	4.6	0.000
REACH - (27)	15	183	0.45%	0.42	1.55	30	4.3	0.000

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THOMAS M. ROMNEY
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STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
STORMWATER REPORT

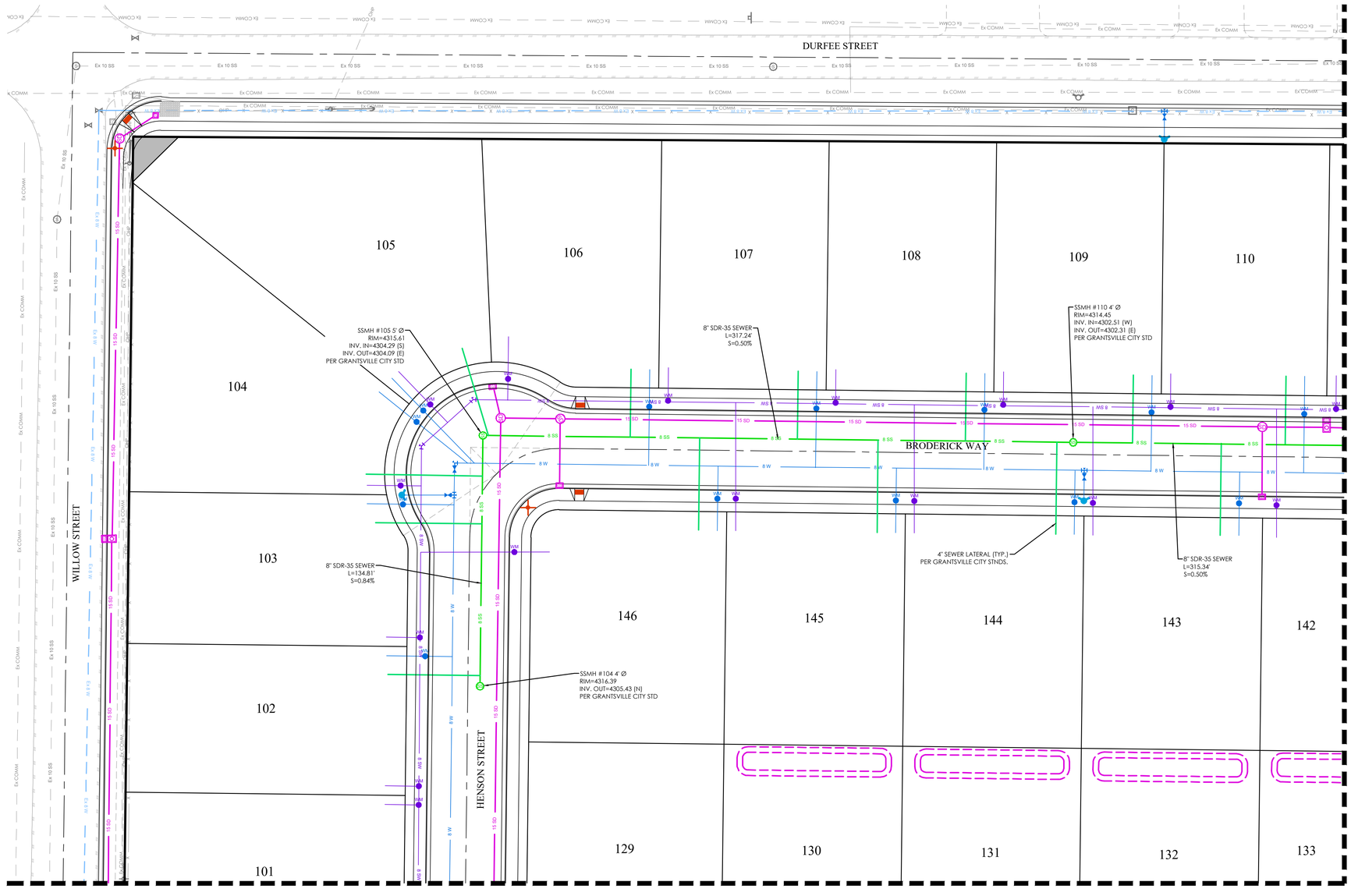
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STORMWATER REPORT

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Date: 09/14/22	Job #: 21-0377
Sheet: C5.7	

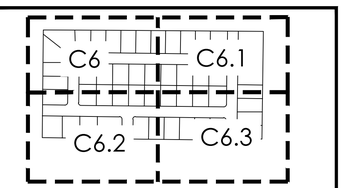
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Know what's below. Call 811 before you dig.

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
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- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- CULINARY VALVE, TEE & BEND
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- FIRE HYDRANT
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- EXIST. STREET MONUMENT
- EXIST. SD INLET & MH
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION



KEY MAP

NOTES:

1. CONTRACTOR TO ENSURE THAT THERE IS 18" MIN. OF VERTICAL SEPARATION BETWEEN WATER AND SANITARY SEWER LINES. WHEN SEPARATION CAN NOT BE OBTAINED, AN EXCEPTION CAN BE APPLIED FOR WITH ADDITIONAL MEASURES TO PROTECT PUBLIC HEALTH, IN ACCORDANCE WITH UAC R309-105-6(2)(B). IF CONFLICTS EXIST THEY SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY.
2. A RIGHT-OF-WAY ENCROACHMENT PERMIT MUST BE OBTAINED BY GRANTSVILLE CITY PRIOR TO DOING ANY WORK IN THE EXISTING CITY RIGHT-OF-WAY.
3. 10' MIN. HORIZONTAL SEPARATION BETWEEN WATER AND SANITARY SEWER LINES.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
SEWER PLAN

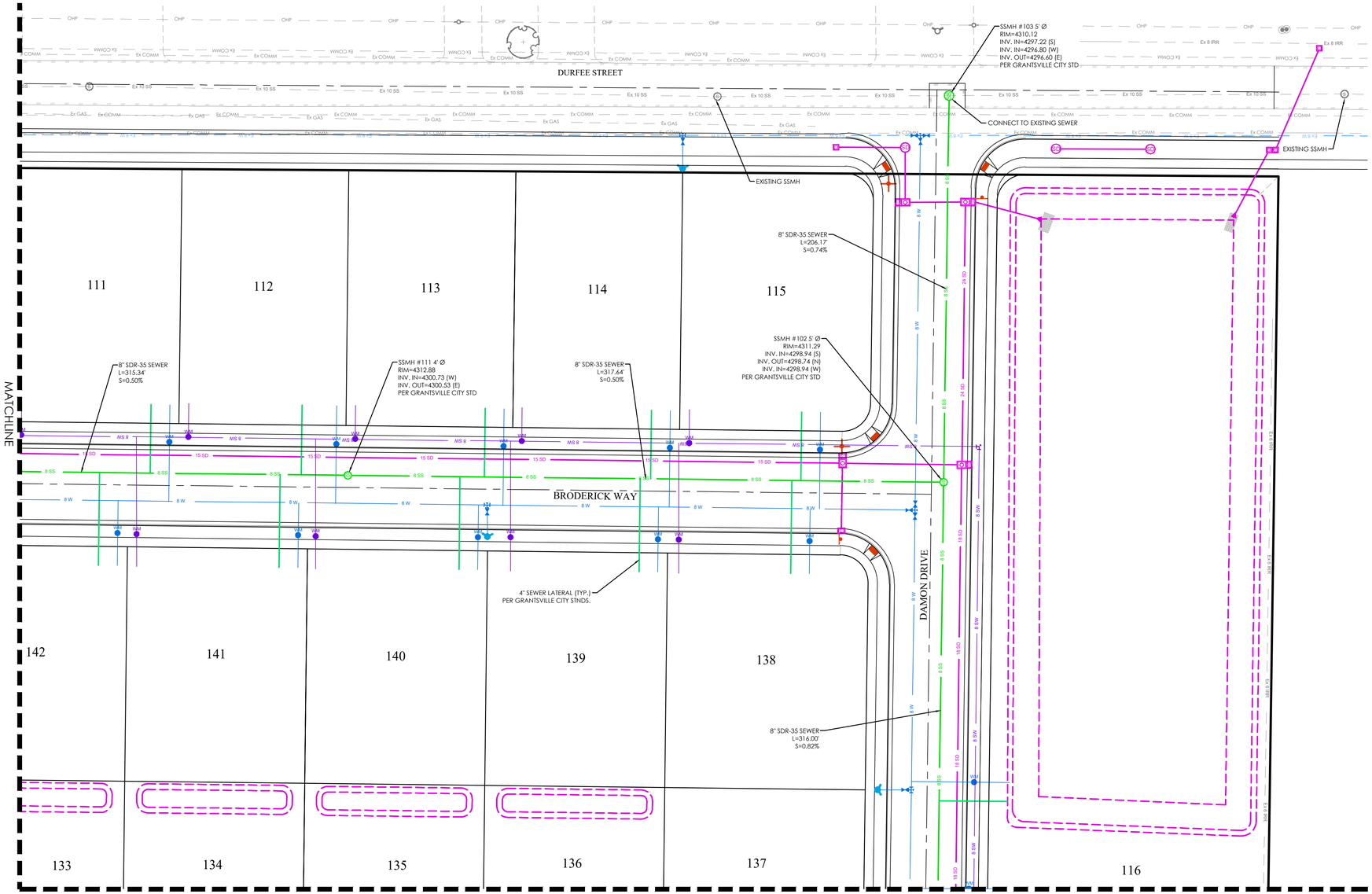
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SEWER PLAN

Scale:	1"=30'	Drawn:	DCJ
Date:	09/14/22	Job #:	21-0377
Sheet:	C6		

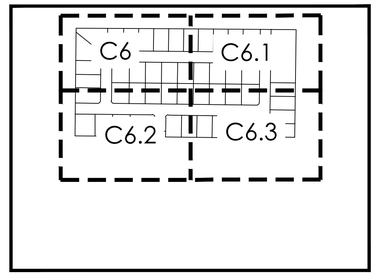
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LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
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N

S

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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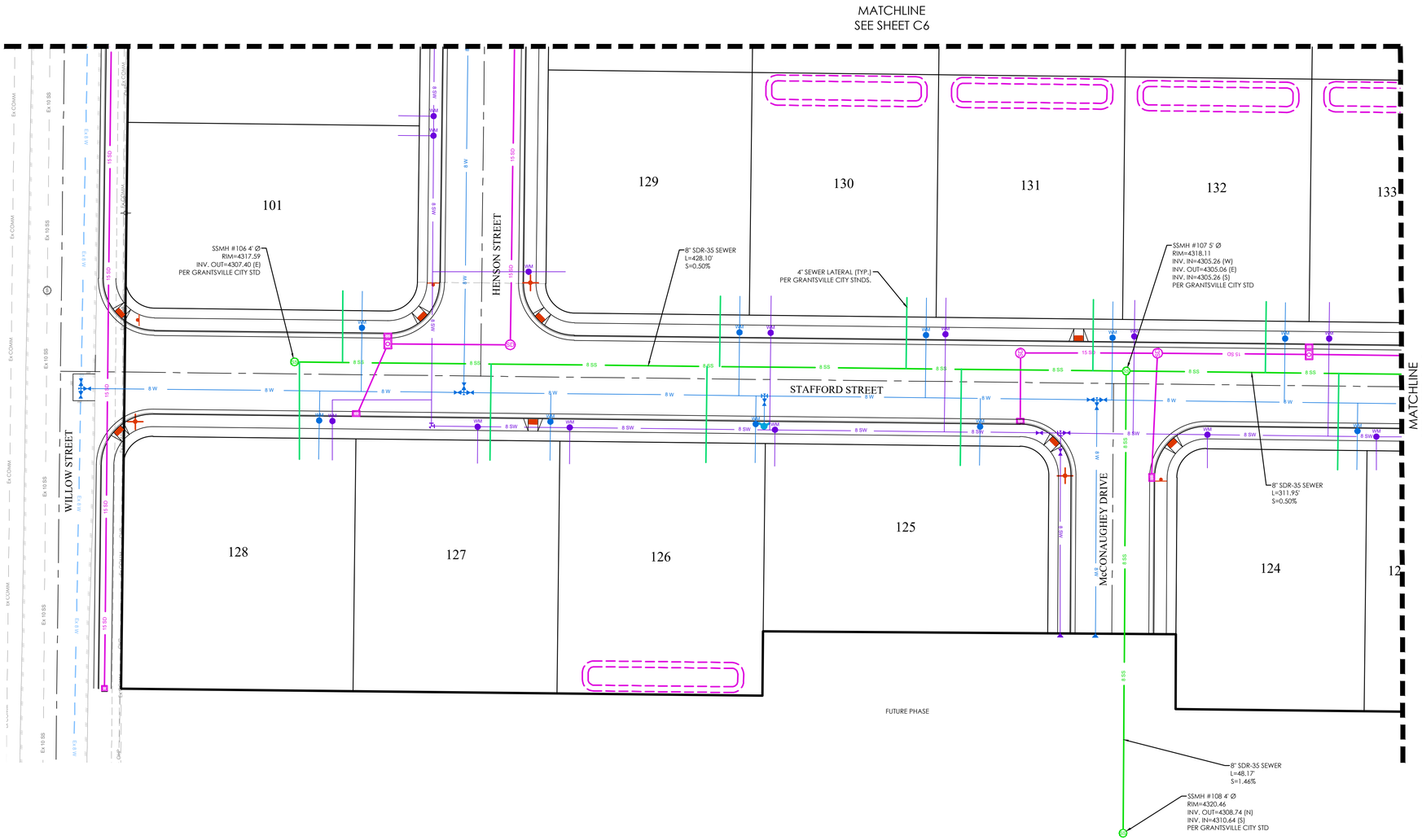
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SEWER PLAN

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Date:	09/14/22	Job #:	21-0377
Sheet:	C6.1		

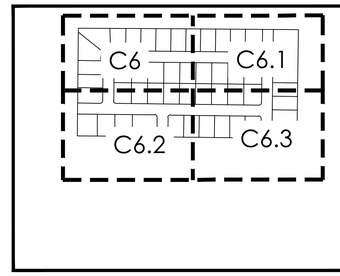
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LEGEND

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- o XXXX.XX SPOT ELEVATION

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GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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STATE OF UTAH
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MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
SEWER PLAN

REVISION BLOCK

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SEWER PLAN

Scale:	1"=30'	Drawn:	DCJ
Date:	09/14/22	Job #:	21-0377
Sheet:	C6.2		

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MATCHLINE
SEE SHEET C6.1

133 134 135 136 137 116 117 118 119 120 121 122 123

8" SDR-35 SEWER
L=311.95'
S=0.50%

SSMH #109 4' Ø
RIM=4316.38
INV. IN=4303.50 (W)
INV. OUT=4303.30 (E)
PER GRANTSVILLE CITY STD

8" SDR-35 SEWER
L=311.79'
S=0.50%

8" SDR-35 SEWER
L=316.00'
S=0.82%

STAFFORD STREET

DAMON DRIVE

SSMH #101 5' Ø
RIM=4314.61
INV. IN=4301.74 (S)
INV. OUT=4301.54 (N)
INV. IN=4301.74 (W)
PER GRANTSVILLE CITY STD

4" SEWER LATERAL (TYP.)
PER GRANTSVILLE CITY STNDS.

FUTURE PHASE

8" SDR-35 SEWER
L=334.43'
S=1.26%

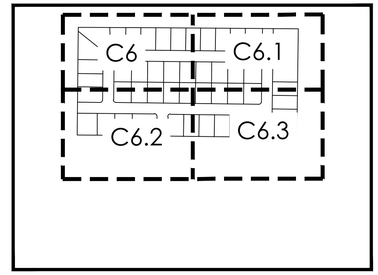
SSMH #203 5' Ø
RIM=4318.31
INV. IN=4306.15 (S)
INV. OUT=4305.95 (N)
PER GRANTSVILLE CITY STD

MATCHLINE
SEE SHEET C6.2

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KEY MAP

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N

S

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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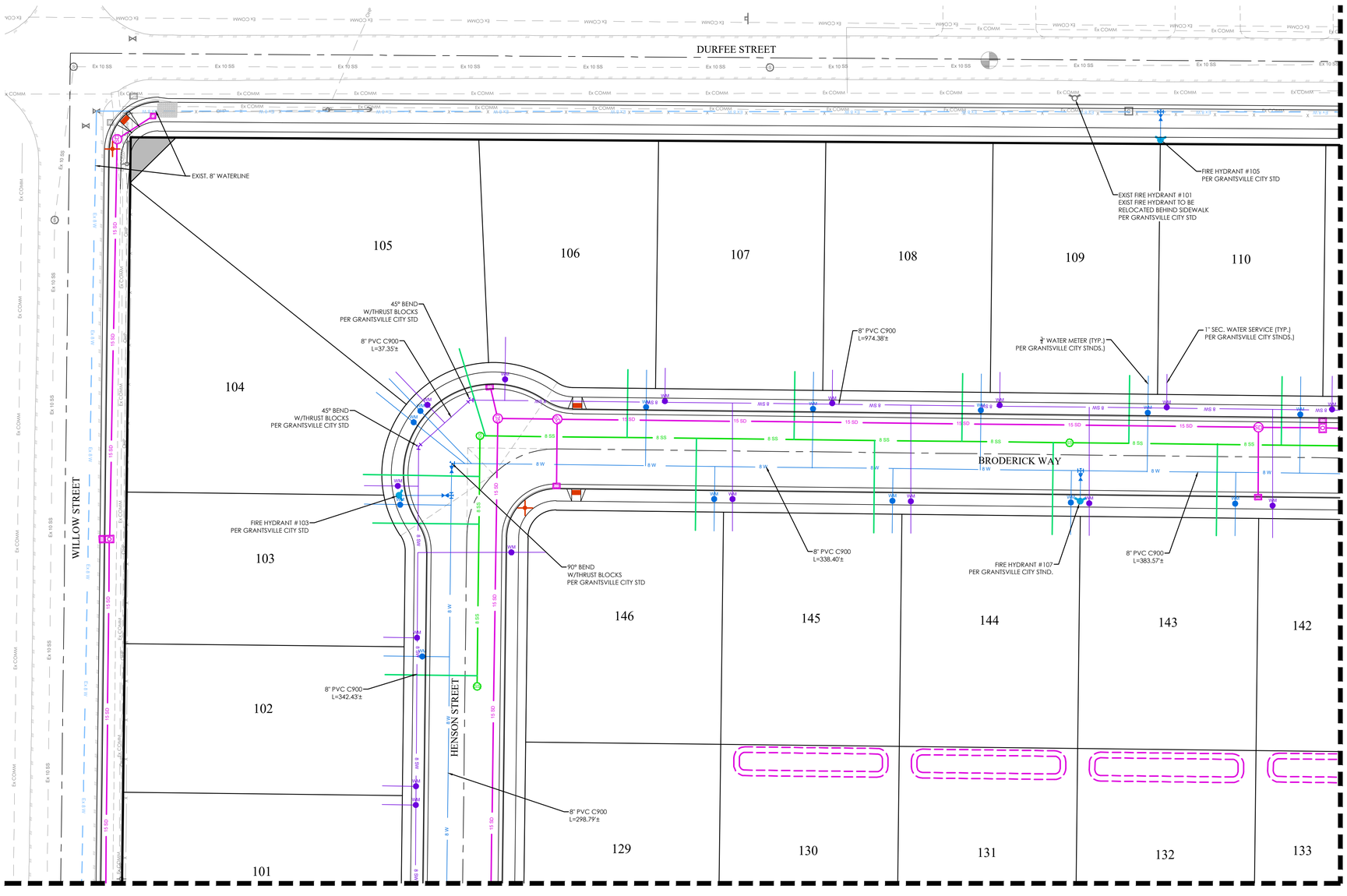
REVISION BLOCK

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SEWER PLAN

Scale:	1"=30'	Drawn:	DCJ
Date:	09/14/22	Job #:	21-0377
Sheet:	C6.3		

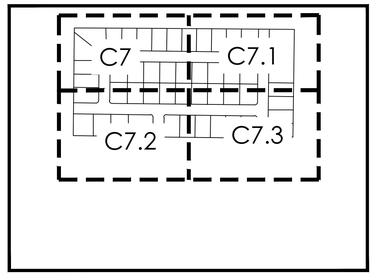
Z:_2021\21-0377 GTM - Duffee Street\design 21-0377\dwg\sheets\final\Phase 1 Final\C6.3 SEWER PLAN.dwg



811 Know what's below. Call 811 before you dig.

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- 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
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION



KEY MAP

NOTES:

1. CONTRACTOR TO ENSURE THAT THERE IS 18" MIN. OF VERTICAL SEPARATION BETWEEN WATER AND SANITARY SEWER LINES. WHEN SEPARATION CAN NOT BE OBTAINED, AN EXCEPTION CAN BE APPLIED FOR WITH ADDITIONAL MEASURES TO PROTECT PUBLIC HEALTH, IN ACCORDANCE WITH UAC R309-105-6(2)(B). IF CONFLICTS EXIST THEY SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY.
2. A RIGHT-OF-WAY ENCROACHMENT PERMIT MUST BE OBTAINED BY GRANTSVILLE CITY PRIOR TO DOING ANY WORK IN THE EXISTING CITY RIGHT-OF-WAY.
3. 10' MIN. HORIZONTAL SEPARATION BETWEEN WATER AND SANITARY SEWER LINES.

N

S

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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No. 8028850-2202
THOMAS M. ROMNEY
9/14/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
WATER PLAN

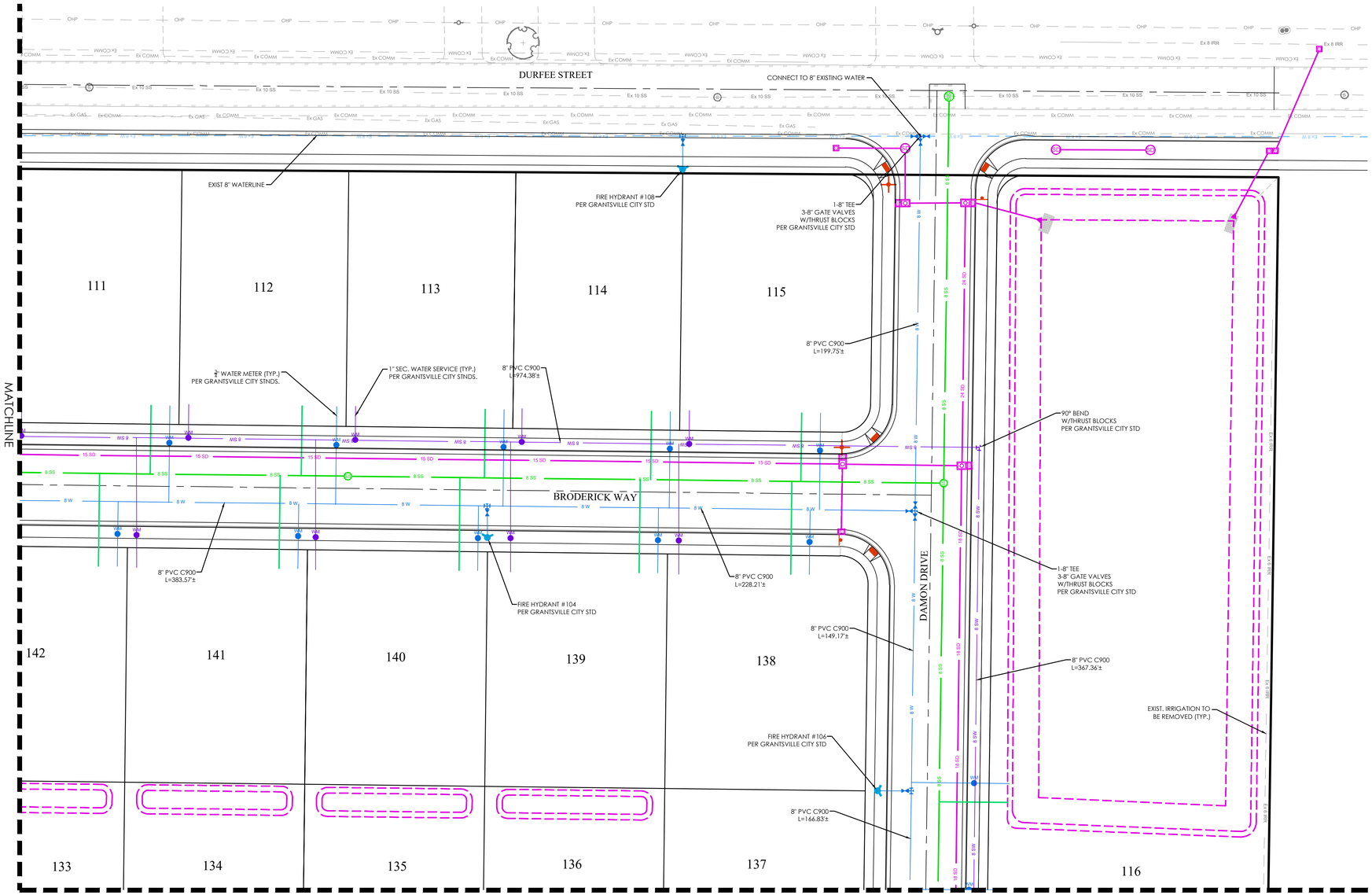
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WATER PLAN

Scale:	1"=30'	Drawn:	DCJ
Date:	09/14/22	Job #:	21-0377
Sheet:	C7		

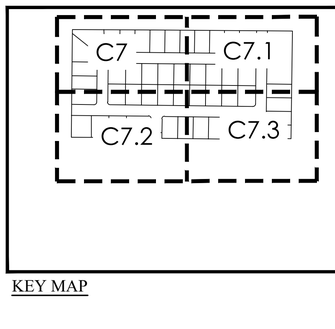
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LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
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- 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
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION

Know what's **below.** **Call 811** before you dig.



KEY MAP

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1. CONTRACTOR TO ENSURE THAT THERE IS 18" MIN. OF VERTICAL SEPARATION BETWEEN WATER AND SANITARY SEWER LINES. WHEN SEPARATION CAN NOT BE OBTAINED, AN EXCEPTION CAN BE APPLIED FOR WITH ADDITIONAL MEASURES TO PROTECT PUBLIC HEALTH, IN ACCORDANCE WITH UAC R309-105-6(2)(B). IF CONFLICTS EXIST THEY SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY.
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N

S

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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WATER PLAN

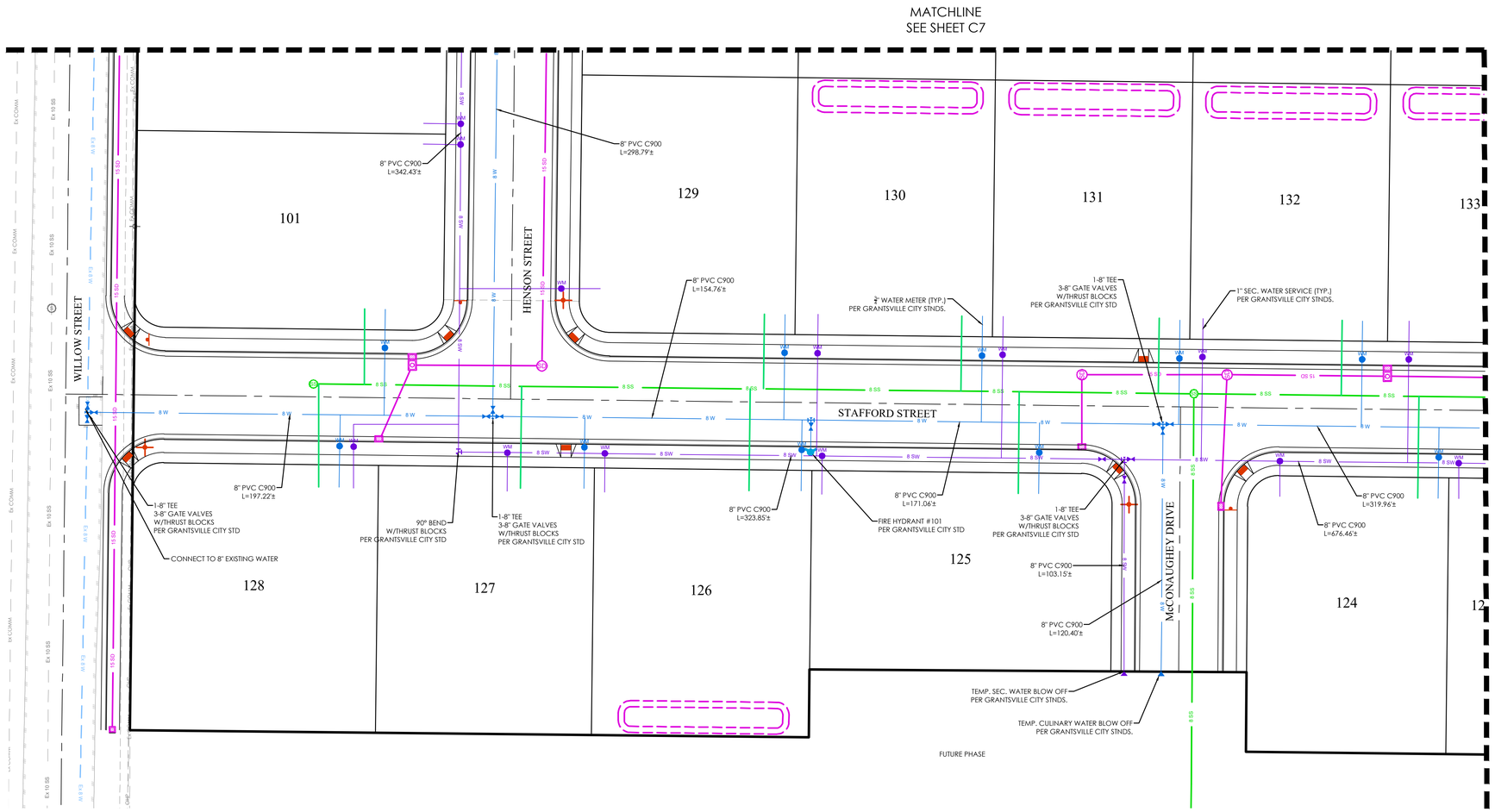
REVISION BLOCK

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WATER PLAN

Scale:	1"=30'	Drawn:	DCJ
Date:	09/14/22	Job #:	21-0377
Sheet:	C7.1		

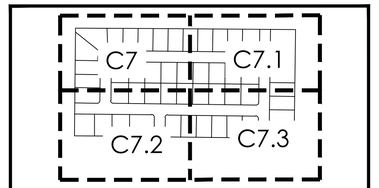
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LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
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- WATER BLOW-OFF
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- STREET MONUMENT (TO BE SET)
- EXIST. STREET MONUMENT
- EXIST. SD INLET & MH
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION

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KEY MAP

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GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
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GRANTSVILLE, UT
WATER PLAN

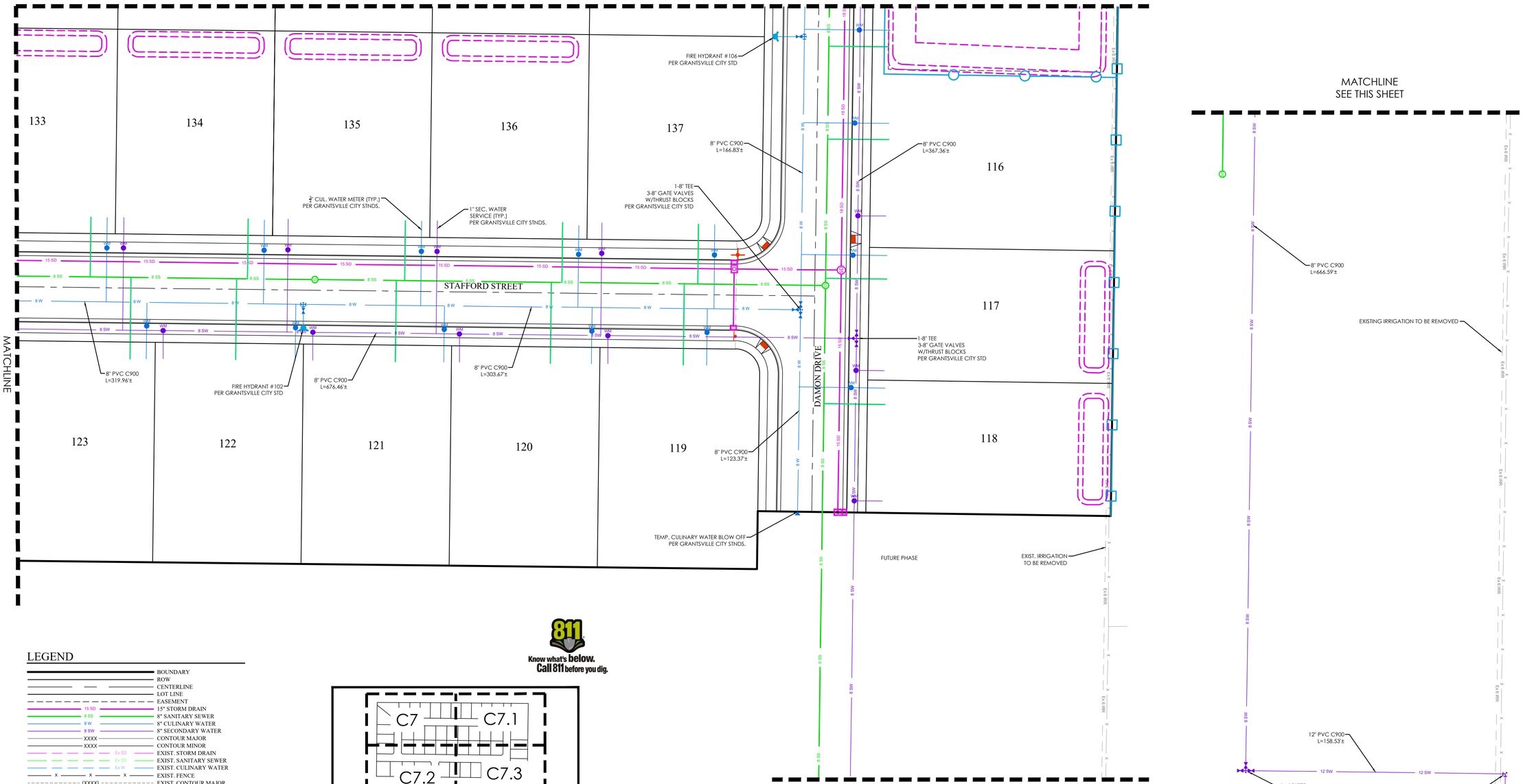
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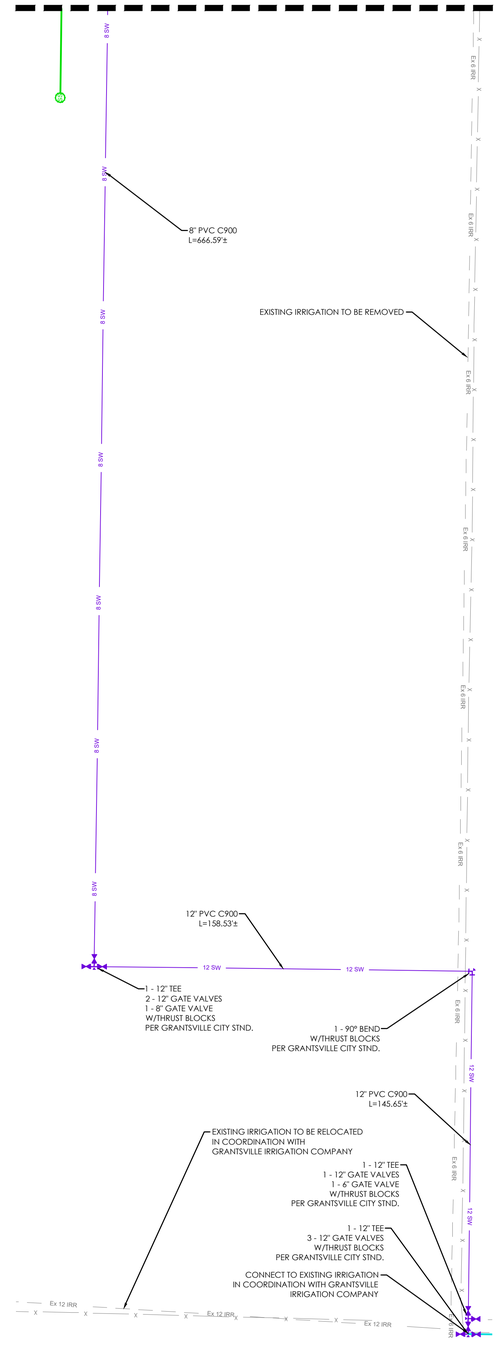
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WATER PLAN

Scale:	1"=30'	Drawn:	DCJ
Date:	09/14/22	Job #:	21-0377
Sheet:	C7.2		

Z:_2021\21-0377 GTM - Durfee Street\design 21-0377\dwg\sheets\Final\Phase 1 Finish\C7.2 WATER PLAN.dwg

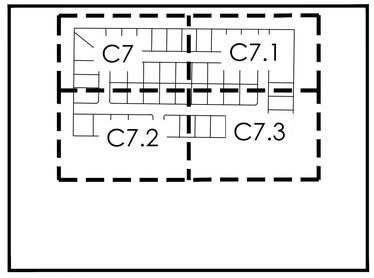




LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
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- SEWER MANHOLE
- 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
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
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- SPOT ELEVATION

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KEY MAP

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GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
WATER PLAN

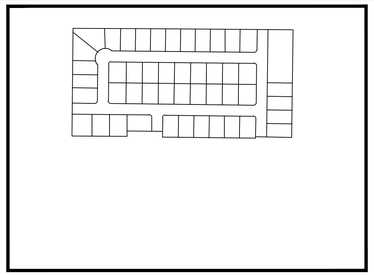
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WATER PLAN

Scale:	1"=30'	Drawn:	DCJ
Date:	09/14/22	Job #:	21-0377
Sheet:	C7.3		

Z:_2021\21-0377 GTM - Durfee Street\design 21-0377\dwg\sheets\Final Phase 1 Final\C7.3 WATER PLAN.dwg



KEY MAP

N

S

811 Know what's below. Call 811 before you dig.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

EROSION CONTROL LEGEND

- CONSTRUCTION ENTRANCE
- MATERIALS STORAGE
- FUEL TANKS
- CONCRETE WASHOUT
- TRASH BIN
- PORTABLE TOILET

EROSION CONTROL LEGEND

- CONSTRUCTION TRAILER
- INLET PROTECTION
- SURFACE WATERS
- OUTFALL
- SILT FENCE
- CUTBACK CURB
- FIBER ROLL

DURFEE STREET

BRODERICK WAY

STAFFORD STREET

WILLOW STREET

HENSON STREET

McCONAUGHEY DRIVE

DAMON DRIVE

101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146

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9/14/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
EROSION CONTROL PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
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EROSION CONTROL PLAN

Scale:	1"=50'	Drawn:	DCJ
Date:	09/14/22	Job #:	21-0377
Sheet:	C8		

Z:_2021\21-0377 GTM - Durfee Street\design 21-0377.dwg\sheets\Final\Phase 1 Final\C8 - EROSION CONTROL PLAN.dwg

N

S

Know what's below. Call 811 before you dig.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15 SD — 15" STORM DRAIN
- 8 SS — 8" SANITARY SEWER
- 8 W — 8" CULINARY WATER
- 8 SW — 8" SECONDARY WATER
- XXXX — CONTOUR MAJOR
- XXXX — CONTOUR MINOR
- Ex SD — EXIST. STORM DRAIN
- Ex SS — EXIST. SANITARY SEWER
- Ex W — EXIST. CULINARY WATER
- X — EXIST. FENCE
- [XXXX] — EXIST. CONTOUR MAJOR
- [XXXX] — EXIST. CONTOUR MINOR

LEGEND

- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- 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
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- o XXXX.XX — SPOT ELEVATION

CROSSWALK STRIPING (TYP)
STOP BAR (TYP)
ROAD STRIPING (TYP)
DURFEE STREET
ADA RAMP #118 PER APWA 235.2
SITE TRIANGLE (TYP)
STOP SIGN #107 TO BE RELOCATED FROM EXIST. LOCATION PER GRANTSVILLE CITY STND.
STOP BAR (TYP)
ADA RAMP #113 PER APWA 235.2
SITE TRIANGLE (TYP)
ADA RAMP #112 PER APWA 235.2
STREET SIGN #101 PER GRANTSVILLE CITY STD
ADA RAMP #109 PER APWA 235.2
SITE TRIANGLE (TYP)
STOP SIGN #105 W/CROSS TRAFFIC DOES NOT STOP SIGN PER MUTCD R1-1, W4-4P
STOP BAR (TYP)
ADA RAMP #101 PER APWA 235.2
SITE TRIANGLE (TYP)
STREET SIGN #102 PER GRANTSVILLE CITY STD
BRODERICK WAY
WILLOW STREET
ADA RAMP #114 PER APWA 235.2
SITE TRIANGLE (TYP)
STREET SIGN #103 PER GRANTSVILLE CITY STD
STOP BAR (TYP)
STOP SIGN #101 W/CROSS TRAFFIC DOES NOT STOP SIGN PER MUTCD R1-1, W4-4P
ADA RAMP #102 PER APWA 235.2
SITE TRIANGLE (TYP)
DAMON DRIVE
ADA RAMP #111 PER APWA 235.2
STOP BAR (TYP)
STOP SIGN #106 W/CROSS TRAFFIC DOES NOT STOP SIGN PER MUTCD R1-1, W4-4P
STOP SIGN #102 W/CROSS TRAFFIC DOES NOT STOP SIGN PER MUTCD R1-1, W4-4P
SITE TRIANGLE (TYP)
STOP BAR (TYP)
SITE TRIANGLE (TYP)
ADA RAMP #103 PER APWA 235.2
HENSON STREET
STREET SIGN #104 PER GRANTSVILLE CITY STD
SITE TRIANGLE (TYP)
ADA RAMP #104 PER APWA 235.2
ADA RAMP #116 PER APWA 235.2
ADA RAMP #107 PER APWA 235.2
SITE TRIANGLE (TYP)
STREET SIGN #107 PER GRANTSVILLE CITY STD
ADA RAMP #117 PER APWA 235.2
STAFFORD STREET
STREET SIGN #105 PER GRANTSVILLE CITY STD
SITE TRIANGLE (TYP)
ADA RAMP #110 PER APWA 235.2
ADA RAMP #115 PER APWA 235.2
ADA RAMP #105 PER APWA 235.2
SITE TRIANGLE (TYP)
STREET SIGN #106 PER GRANTSVILLE CITY STD
McCONAUGHEY DRIVE
ADA RAMP #106 PER APWA 235.2
STOP SIGN #103 W/CROSS TRAFFIC DOES NOT STOP SIGN PER MUTCD R1-1, W4-4P
SITE TRIANGLE (TYP)
STOP BAR (TYP)
STOP BAR (TYP)
STOP SIGN #104 W/CROSS TRAFFIC DOES NOT STOP SIGN PER MUTCD R1-1, W4-4P
SITE TRIANGLE (TYP)
ADA RAMP #108 PER APWA 235.2

102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146

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MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
OVERALL SIGNAGE & STRIPING PLAN

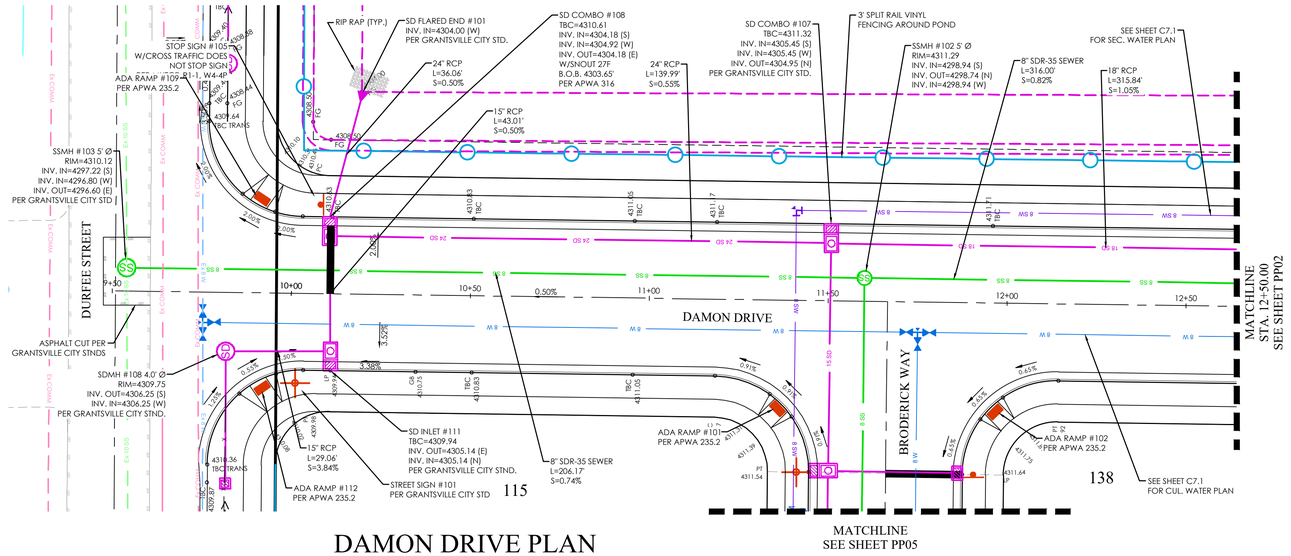
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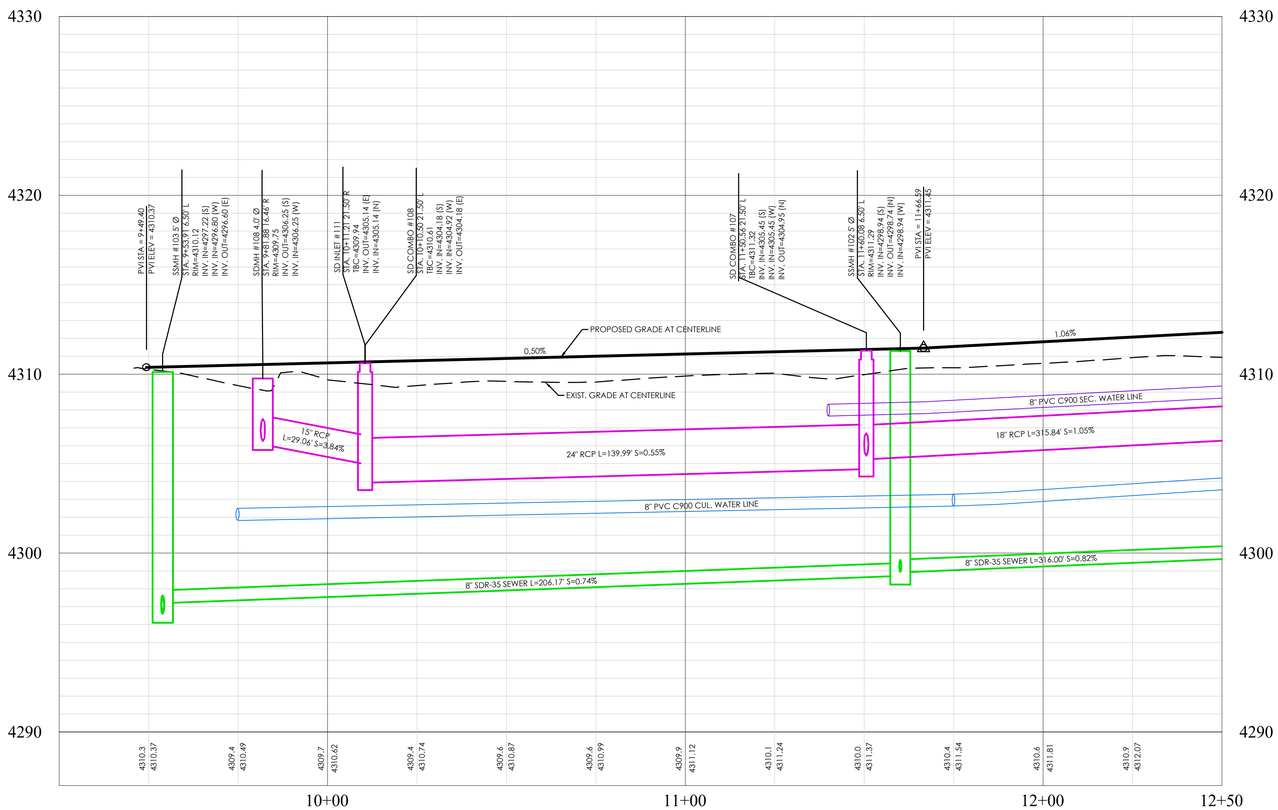
OVERALL SIGNAGE & STRIPING PLAN

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Sheet:	C9		

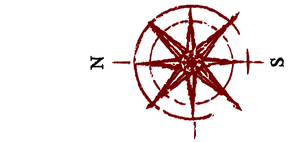
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DAMON DRIVE PLAN



DAMON DRIVE PROFILE



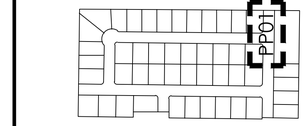
GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

LEGEND

	BOUNDARY
	ROW
	CENTERLINE
	LOT LINE
	EASEMENT
15 SD	15" STORM DRAIN
8 SS	8" SANITARY SEWER
8 W	8" CULINARY WATER
8 SW	8" SECONDARY WATER
XXXX	CONTOUR MAJOR
XXXX	CONTOUR MINOR
Ex SD	EXIST. STORM DRAIN
Ex SS	EXIST. SANITARY SEWER
Ex W	EXIST. CULINARY WATER
x x x	EXIST. FENCE
(XXXX)	EXIST. CONTOUR MAJOR
(XXXX)	EXIST. CONTOUR MINOR
	SIGN
	STREET LIGHT
	SD MH, INLET, AND COMBO
	SEWER MANHOLE
	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
	EXIST. SEWER MH
	EXIST. VALVE, TEE, & BEND
	EXIST. FIRE HYDRANT
o XXXX.XX	SPOT ELEVATION



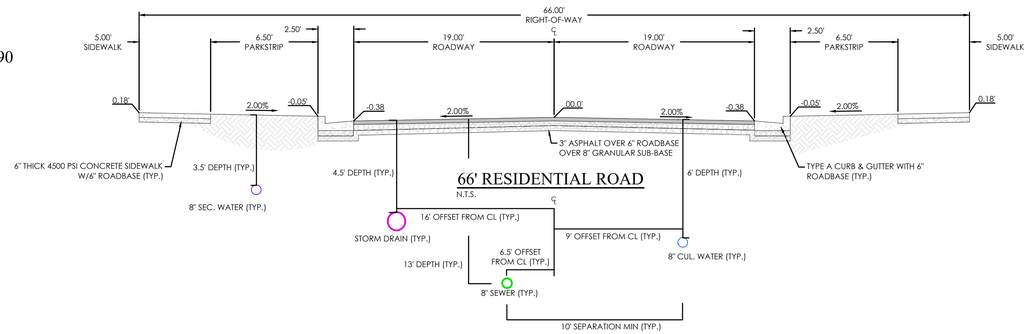
KEY MAP
N.T.S

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811 Know what's below. Call 811 before you dig.

BENCHMARK

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



66' RESIDENTIAL ROAD
N.T.S.

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LICENSED PROFESSIONAL ENGINEER
No. 8028850-2202
THOMAS M. ROMNEY
9/14/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
DAMON DRIVE

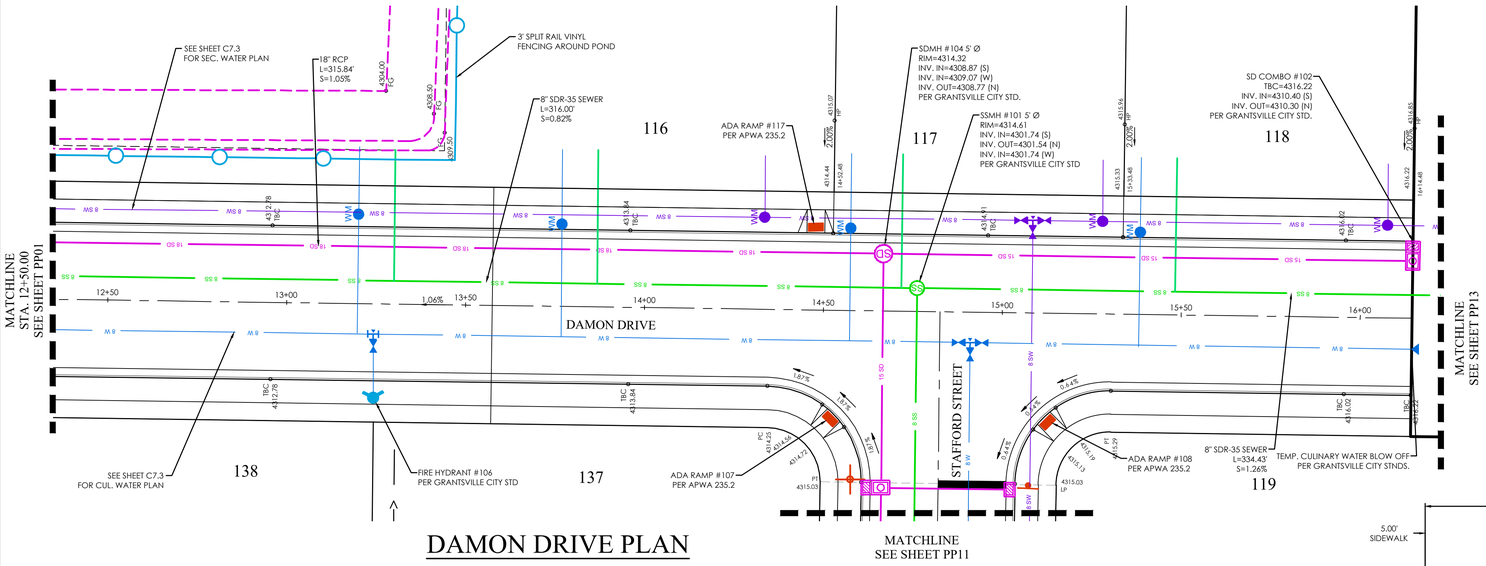
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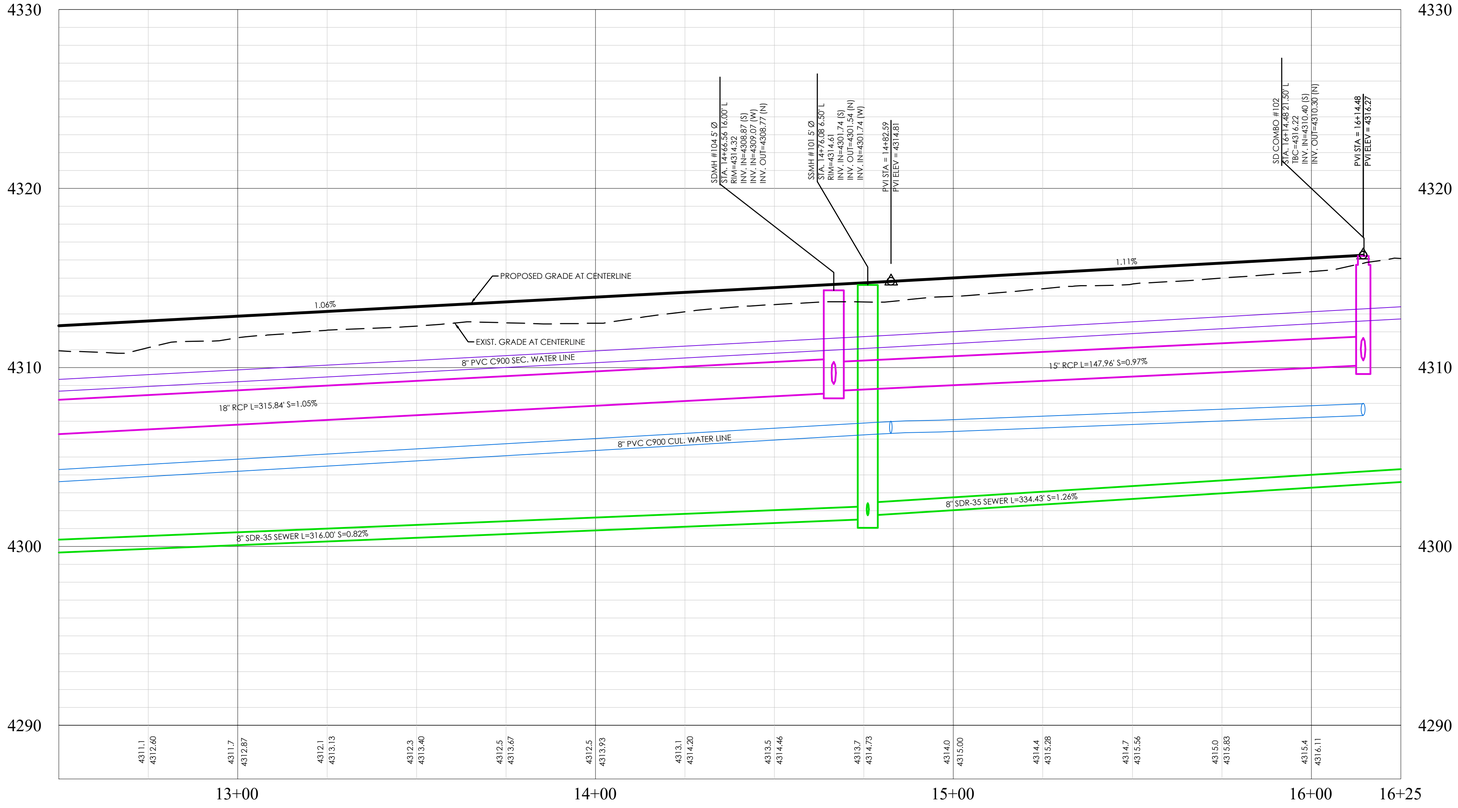
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Date: 09/14/22 | Job #: 21-0377
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DAMON DRIVE PLAN

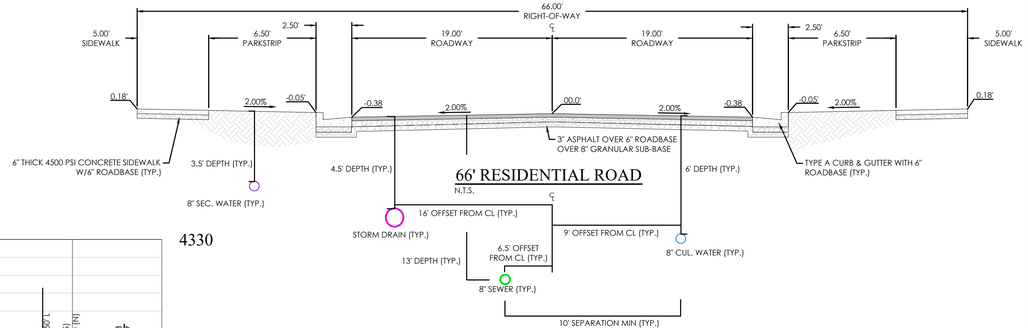
MATCHLINE
SEE SHEET PP11



DAMON DRIVE PROFILE

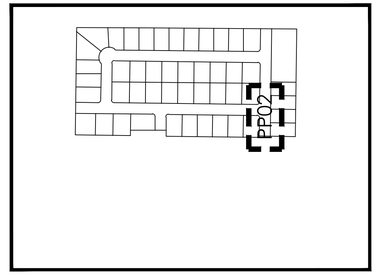
LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
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66' RESIDENTIAL ROAD

N.T.S.



KEY MAP
N.T.S

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BENCHMARK

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

N S

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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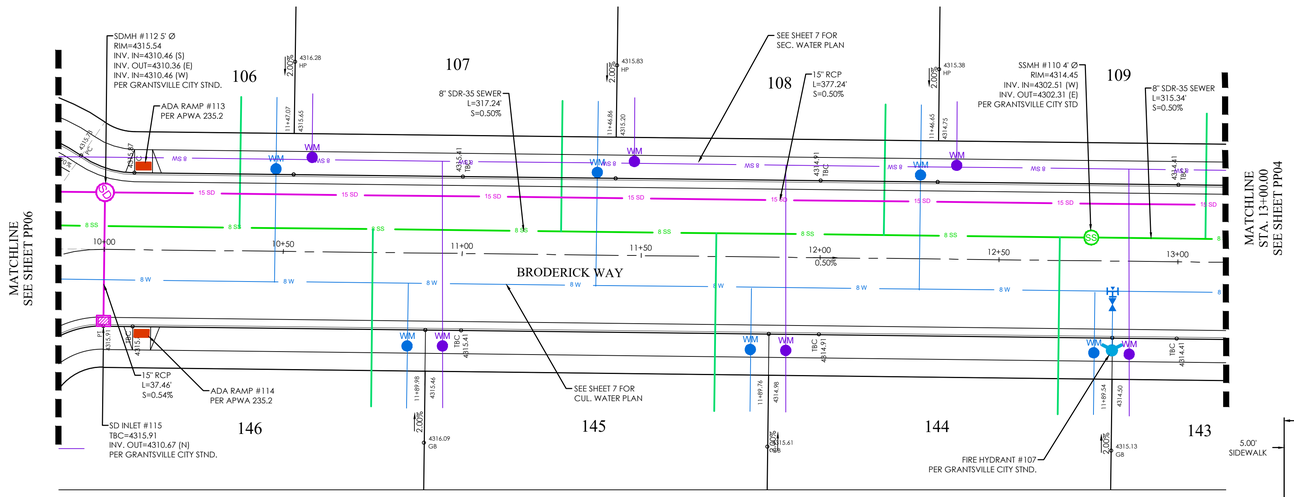
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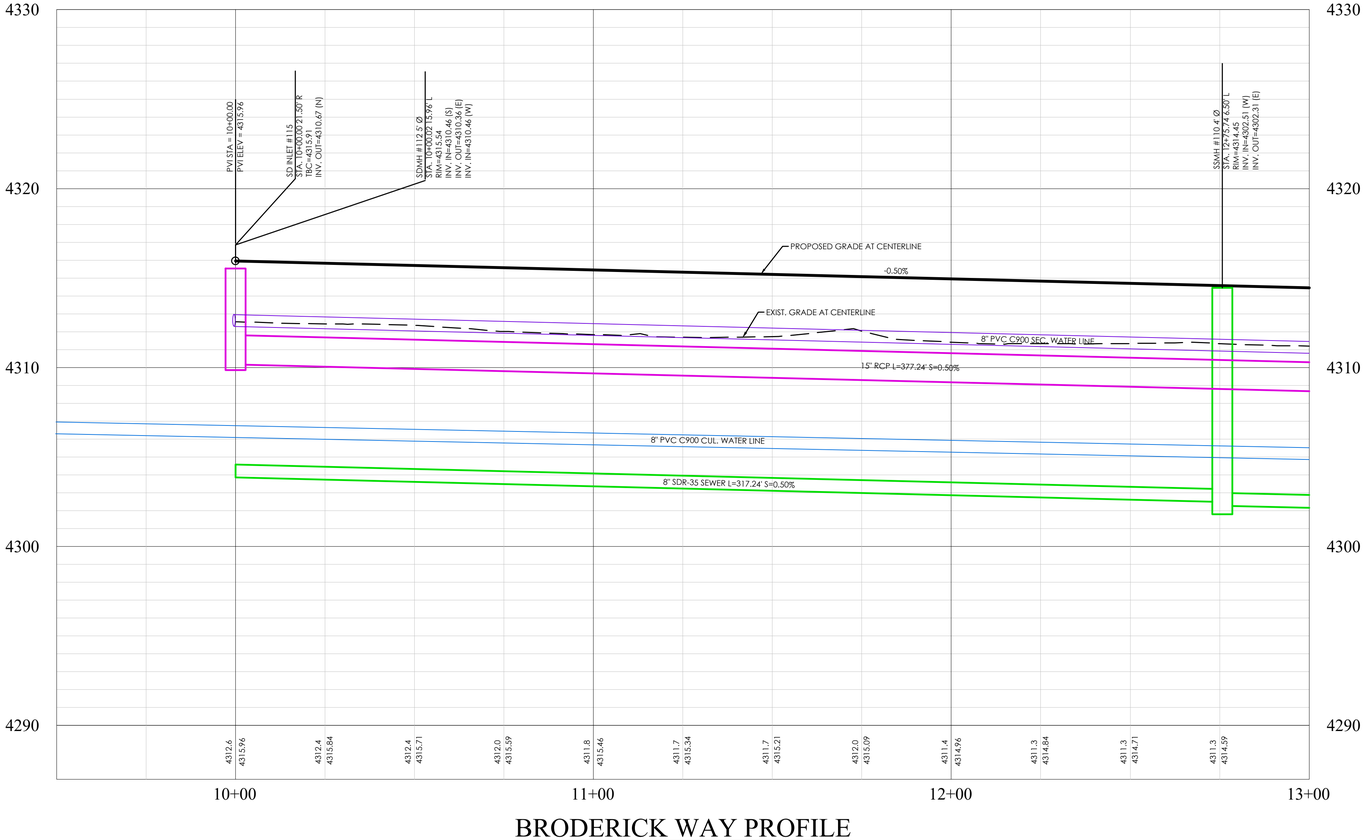
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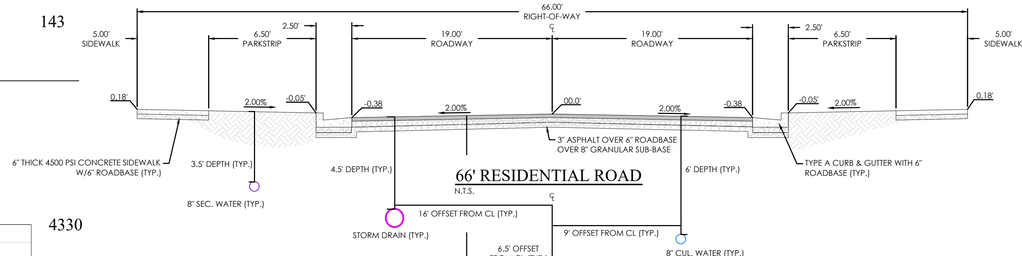
BRODERICK WAY PLAN



BRODERICK WAY PROFILE

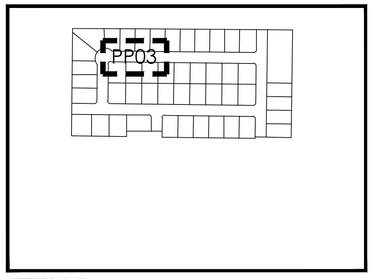
LEGEND

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- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
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KEY MAP
N.T.S

BENCHMARK

NORTHEAST CORNER OF SECTION 05
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SALT LAKE BASE AND MERIDIAN
ELEV: 4309.08'
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GRAPHIC SCALE

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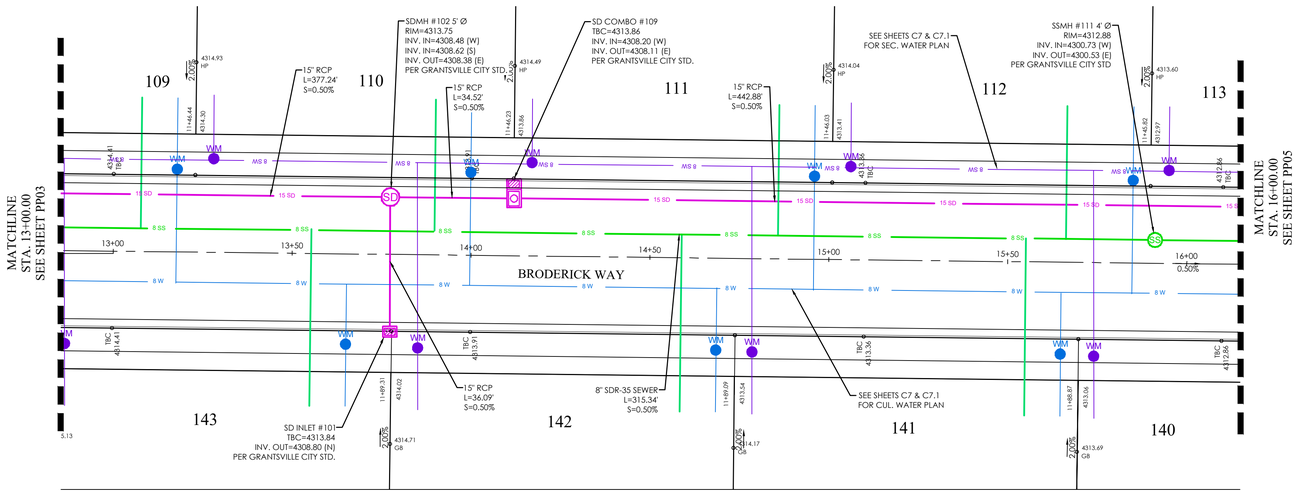
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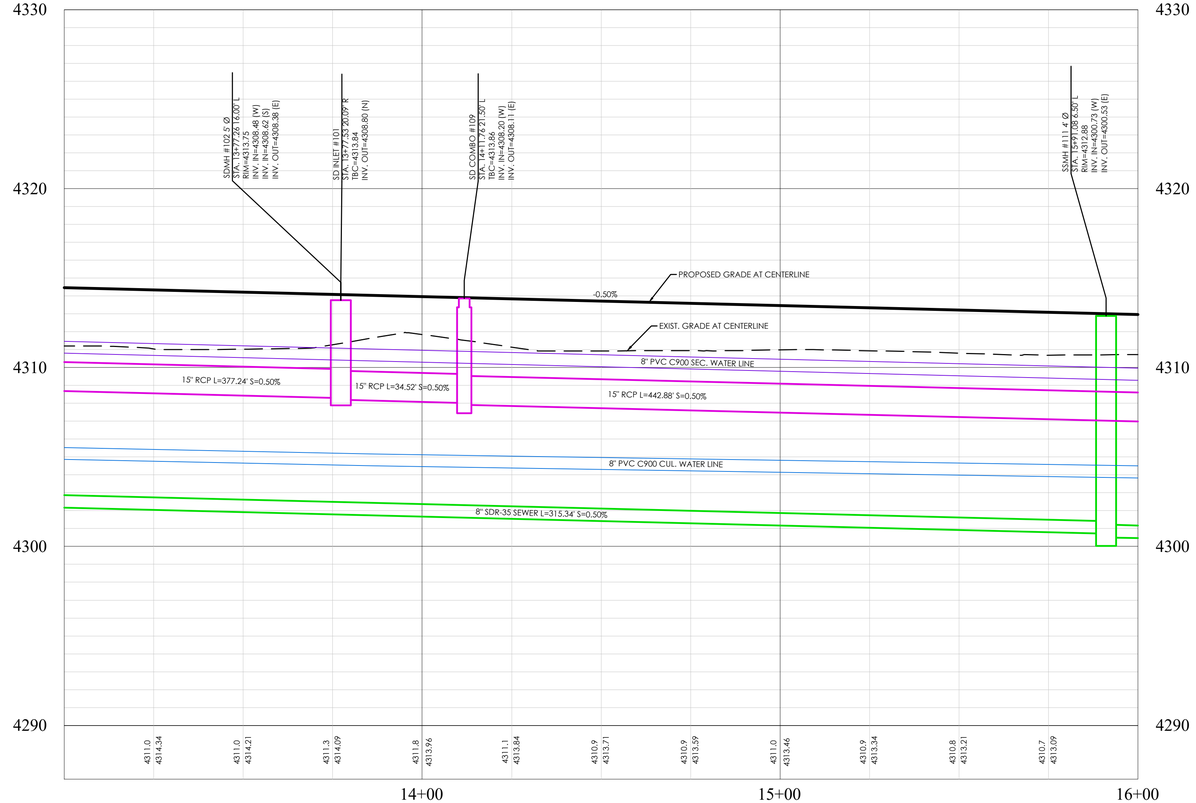
BRODERICK WAY

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Date: 09/14/22 | Job #: 21-0377
Sheet: PP03

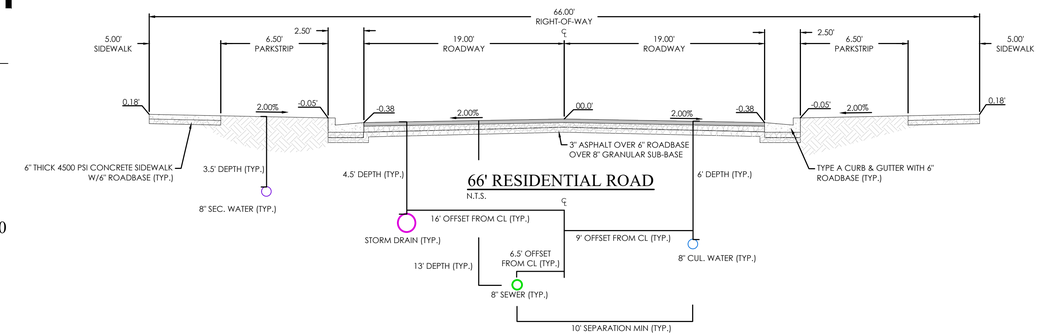
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BRODERICK WAY PLAN



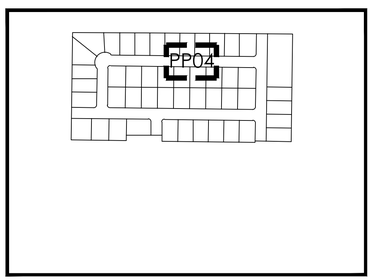
BRODERICK WAY PROFILE



66' RESIDENTIAL ROAD
N.T.S.

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- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
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N
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GRAPHIC SCALE
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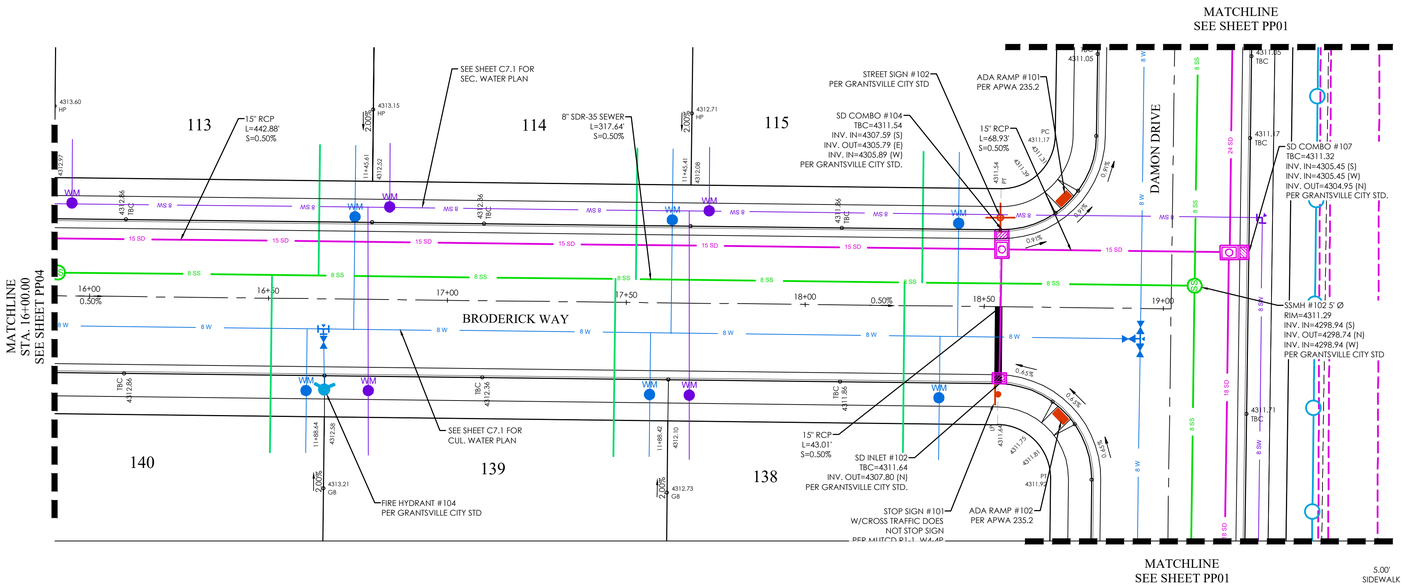
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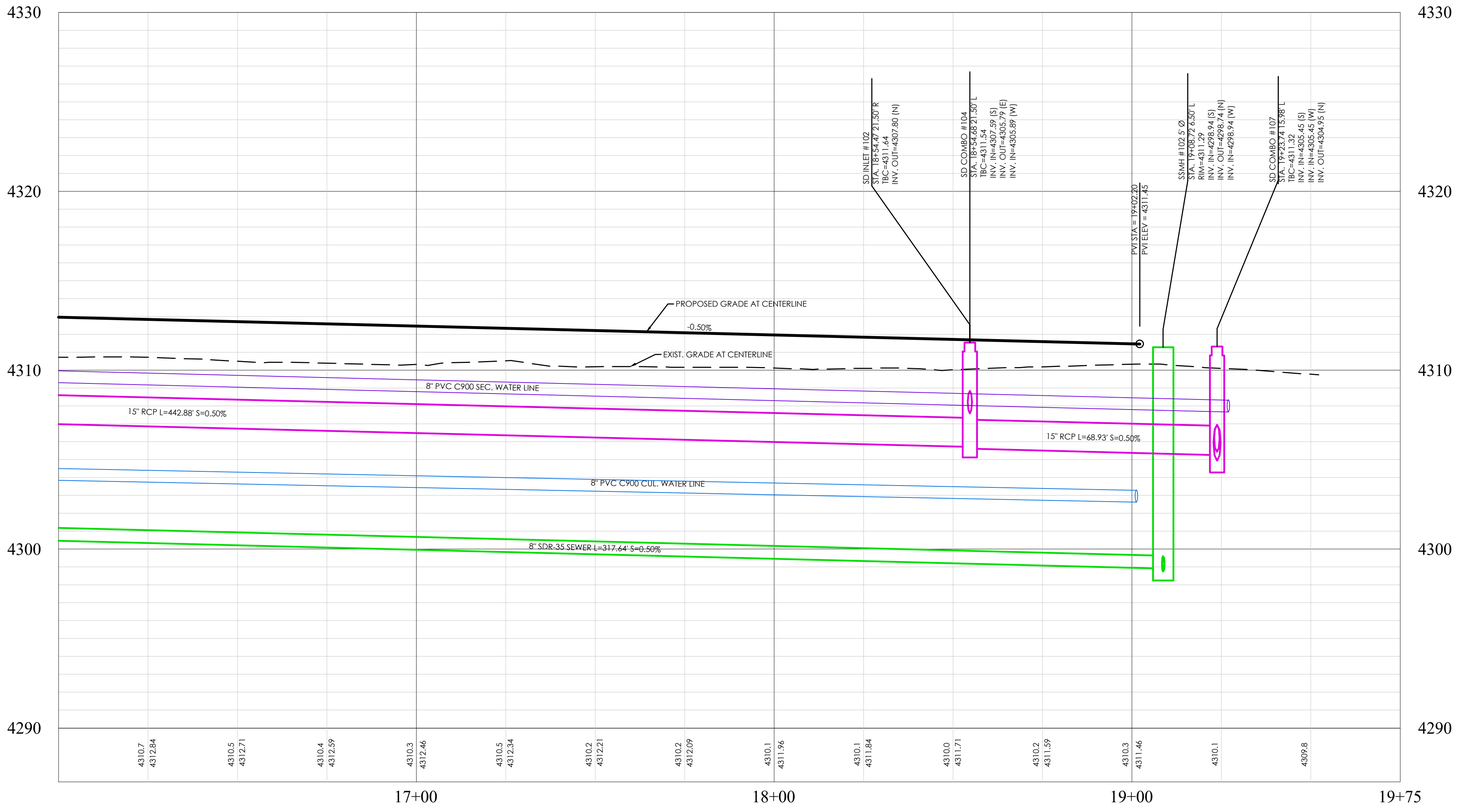
BRODERICK WAY

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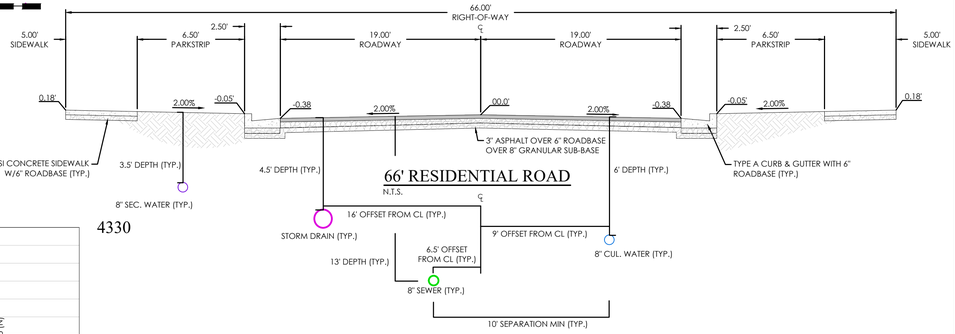
BRODERICK WAY PLAN



BRODERICK WAY PROFILE

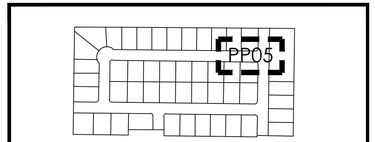
LEGEND

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- ROW
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66' RESIDENTIAL ROAD

N.T.S.



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GRAPHIC SCALE

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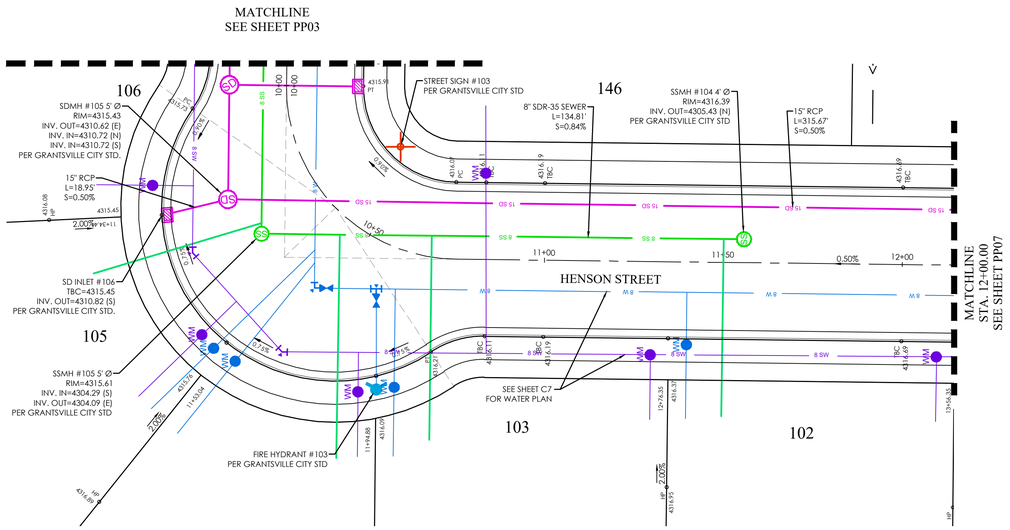
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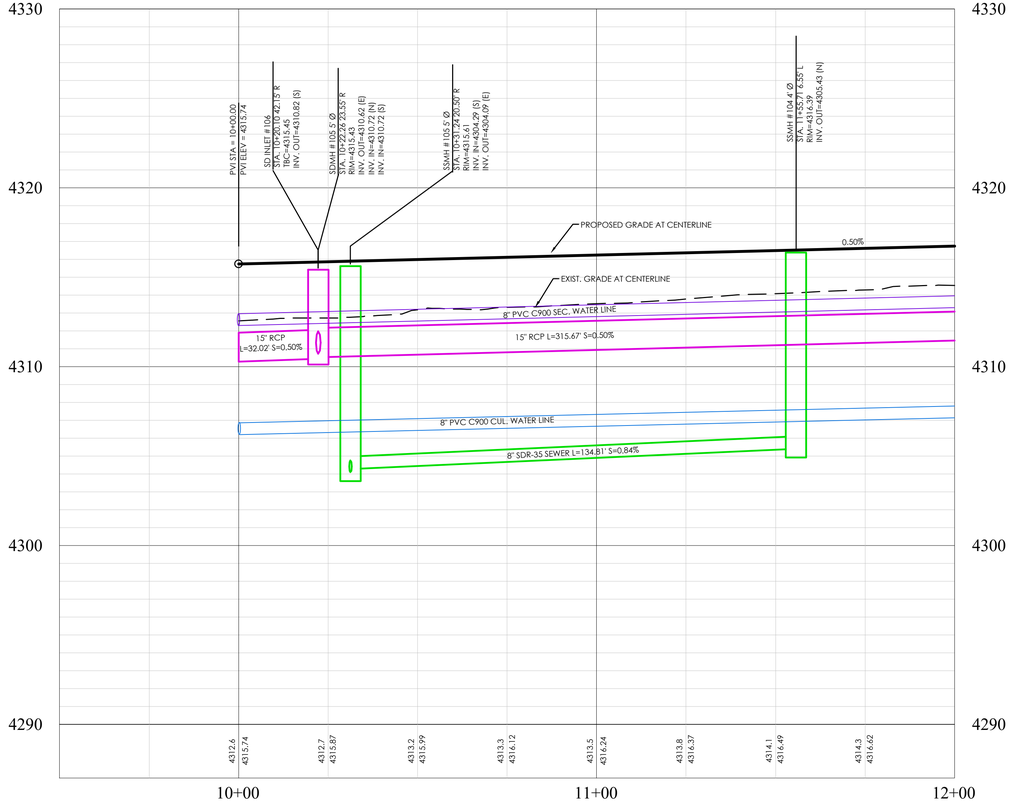
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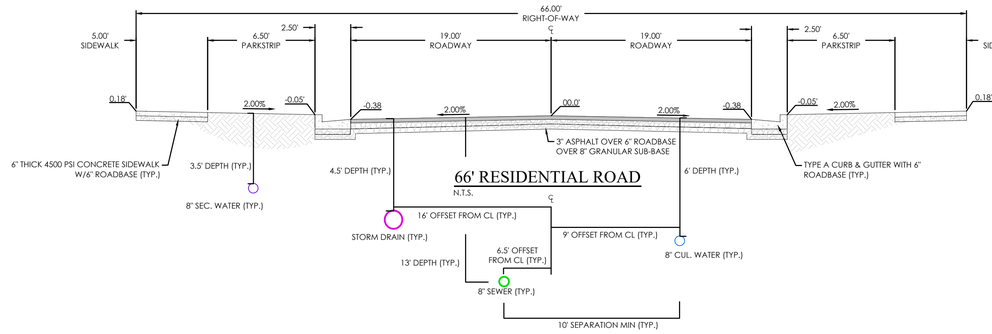
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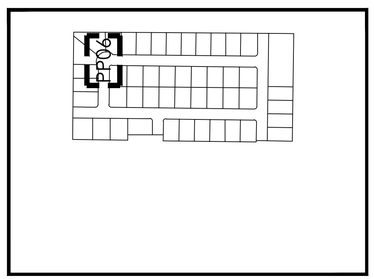


HENSON STREET PLAN



HENSON STREET PROFILE





KEY MAP
N.T.S

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
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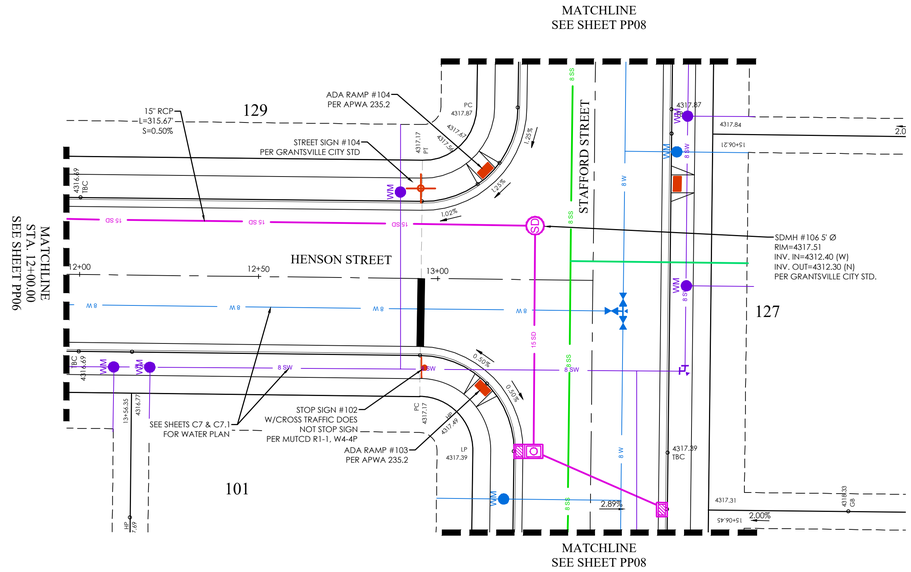
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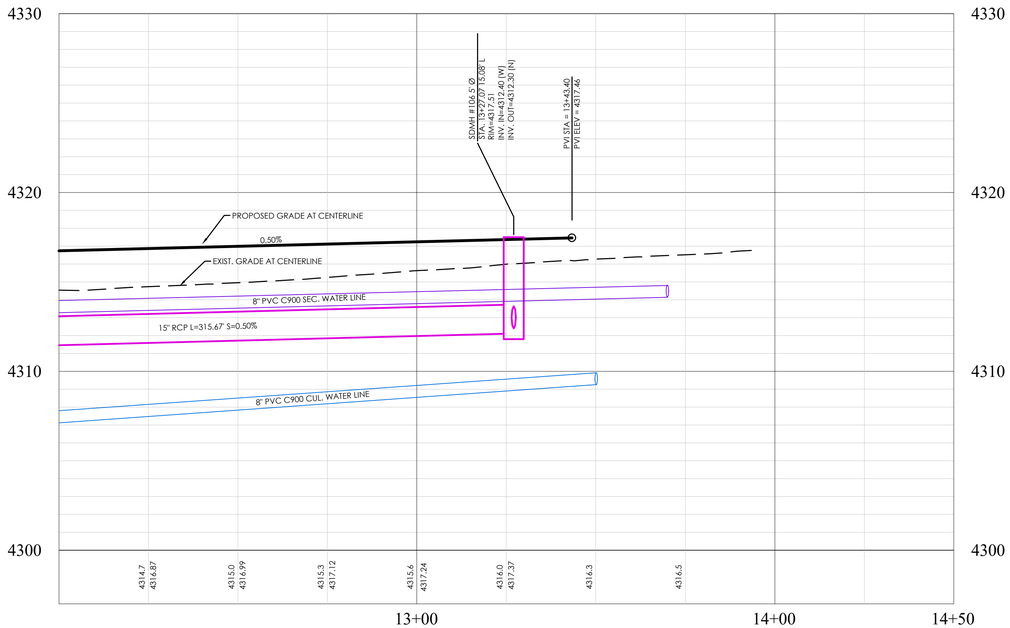
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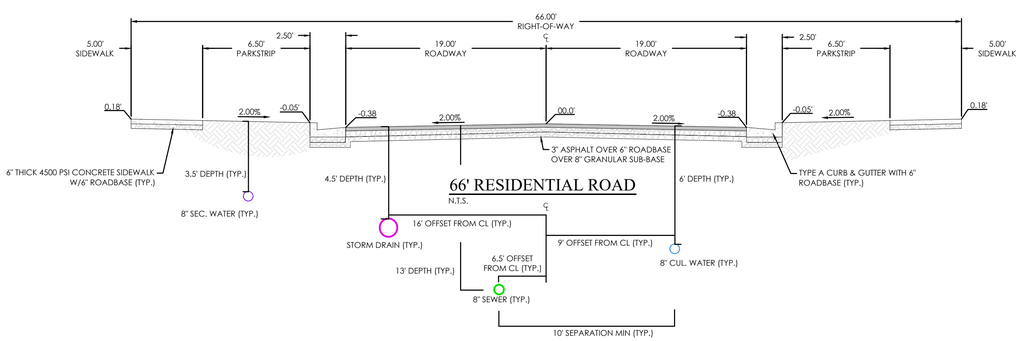
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HENSON STREET PLAN



HENSON STREET PROFILE



KEY MAP
N.T.S

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15 SD — 15" STORM DRAIN
- 8 SS — 8" SANITARY SEWER
- 8 W — 8" CULINARY WATER
- 8 SW — 8" SECONDARY WATER
- XXXX — CONTOUR MAJOR
- XXXX — CONTOUR MINOR
- Ex SD — EXIST. STORM DRAIN
- Ex SS — EXIST. SANITARY SEWER
- Ex W — EXIST. CULINARY WATER
- EXIST. FENCE
- (XXXX) — EXIST. CONTOUR MAJOR
- (XXXX) — EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- 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
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- o XXXX.XX — SPOT ELEVATION

NOTES:

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2. PROVIDE 12" SUMPS ON ALL STORM WATER MANHOLES AND BOXES
3. ALL WATER SERVICES TO BE LOOPED UNDER THE STORM DRAIN WHERE EVER CONFLICTS OCCUR.
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BENCHMARK

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

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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No. 8028850-2202
THOMAS M. ROMNEY
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
HENSON STREET

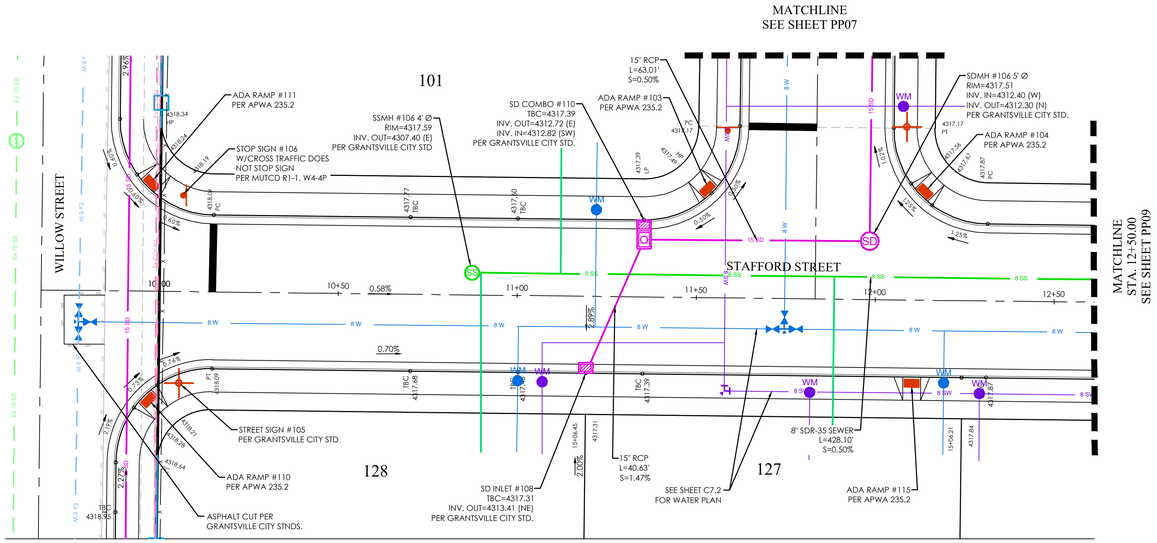
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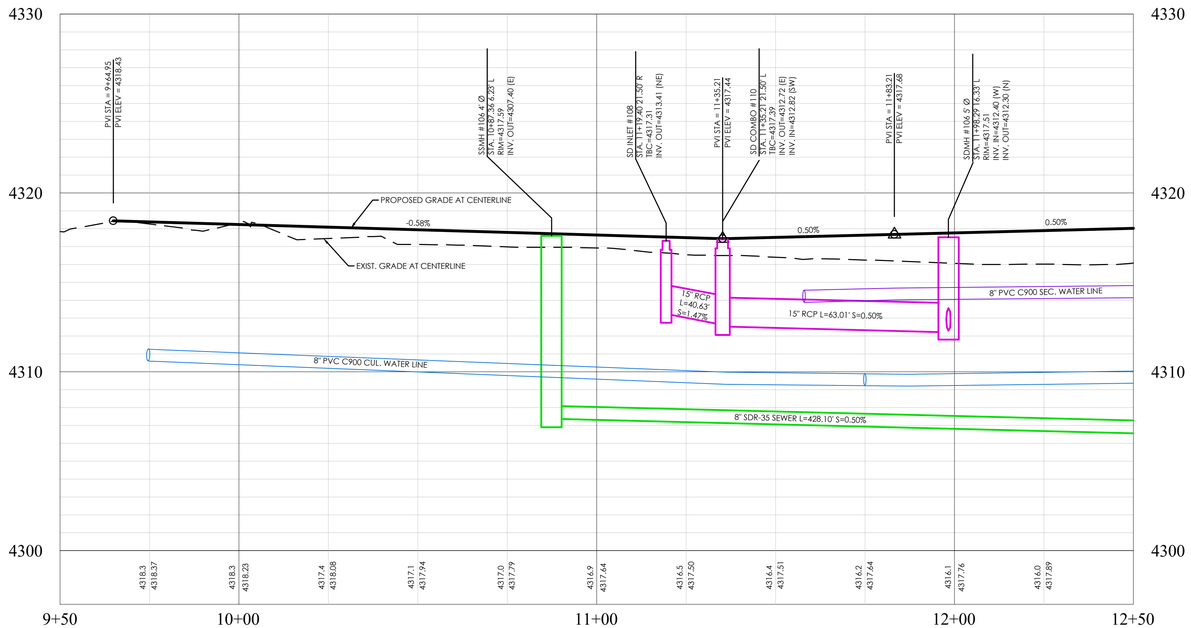
HENSON STREET

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Sheet: PP07

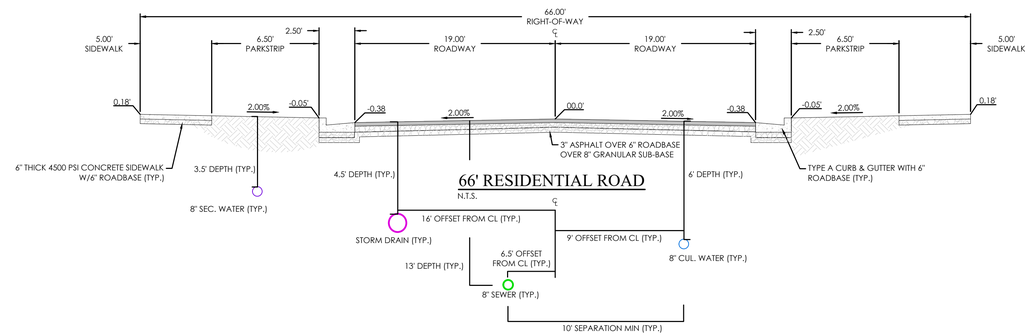
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STAFFORD STREET PLAN

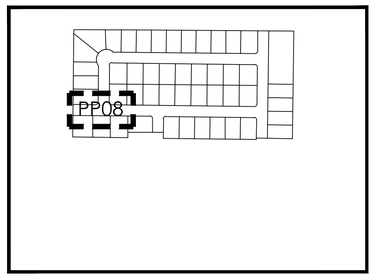


STAFFORD STREET PROFILE



LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- 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
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION



KEY MAP
N.T.S

NOTES:

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GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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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THOMAS M. ROMNEY
9/14/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
STAFFORD STREET

REVISION BLOCK

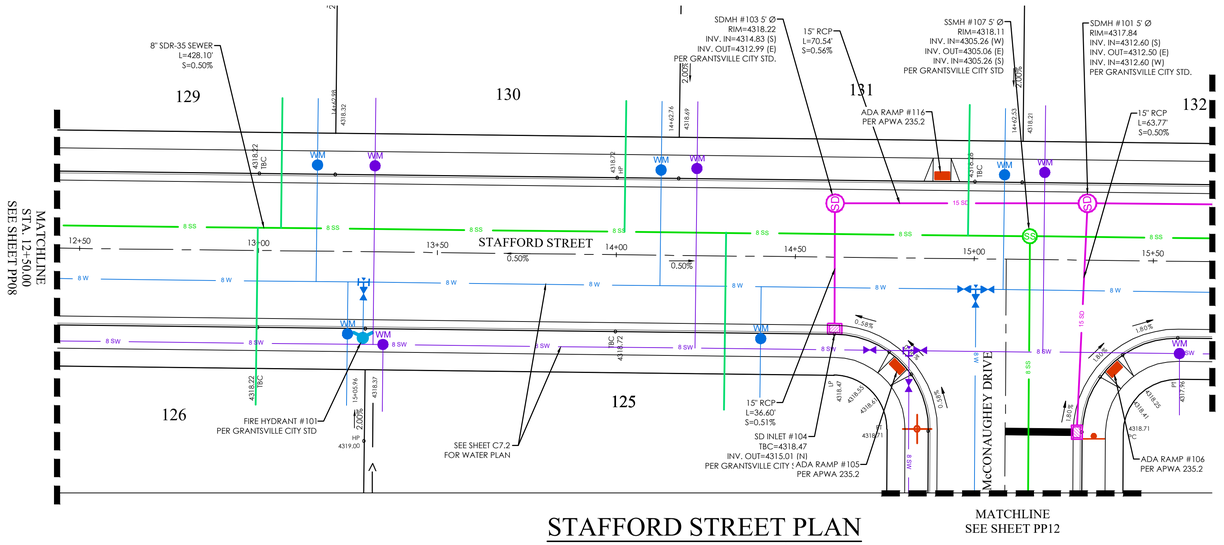
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STAFFORD STREET

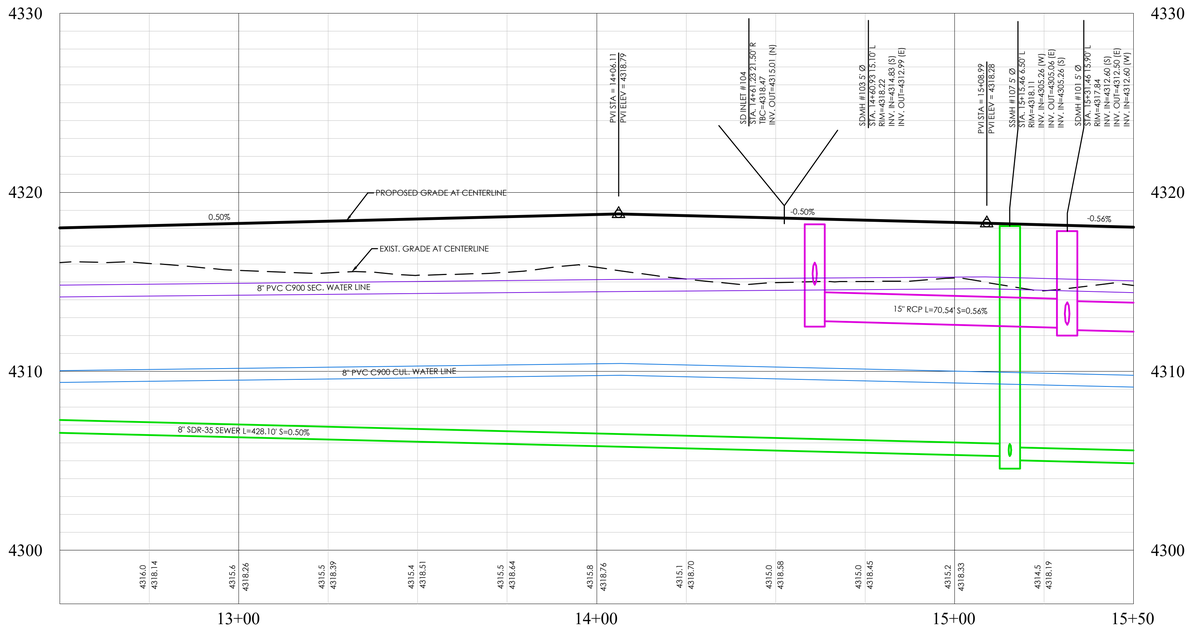
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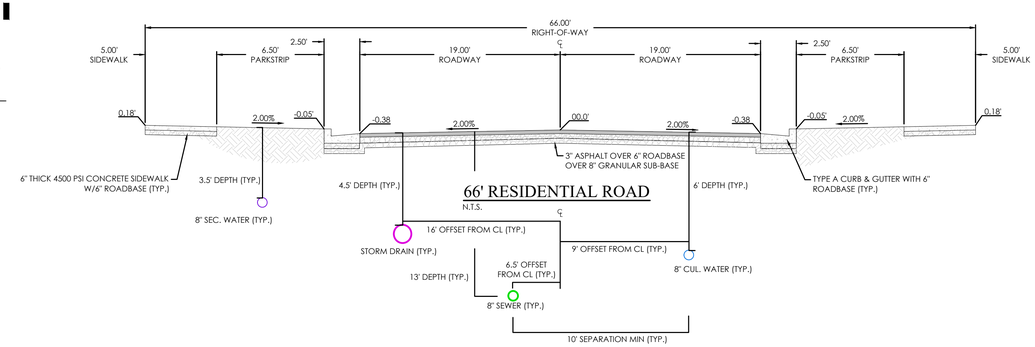
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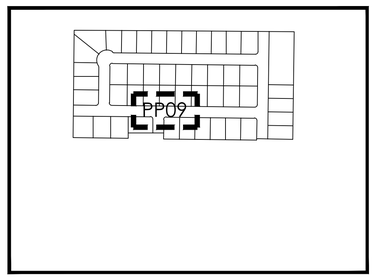


STAFFORD STREET PLAN



STAFFORD STREET PROFILE





KEY MAP
N.T.S

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- CONTOUR MINOR
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- EXIST. SANITARY SEWER
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GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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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GRANTSVILLE, UT
STAFFORD STREET

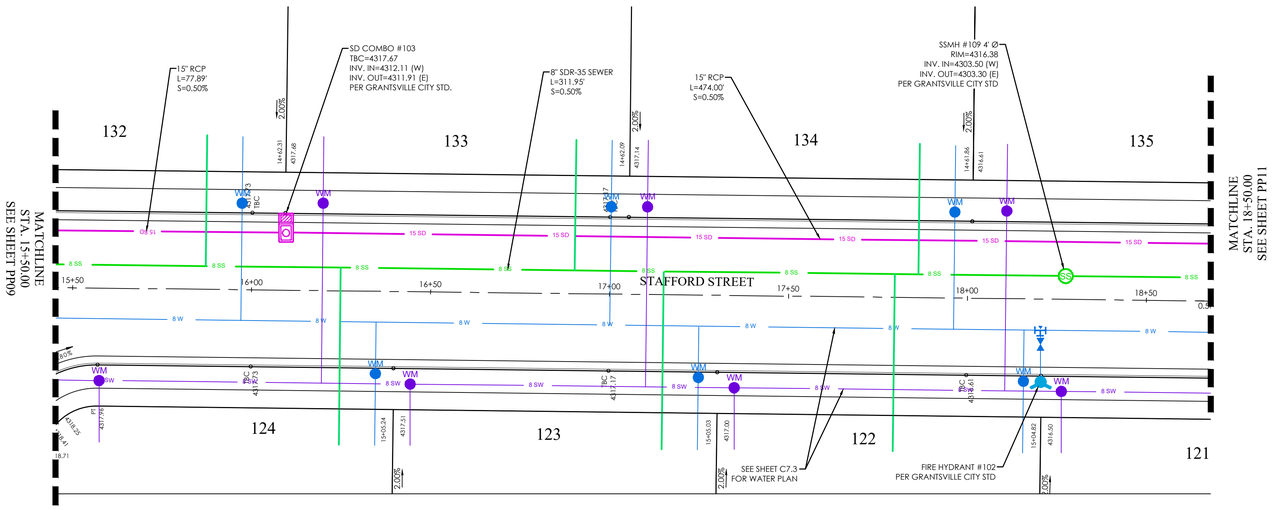
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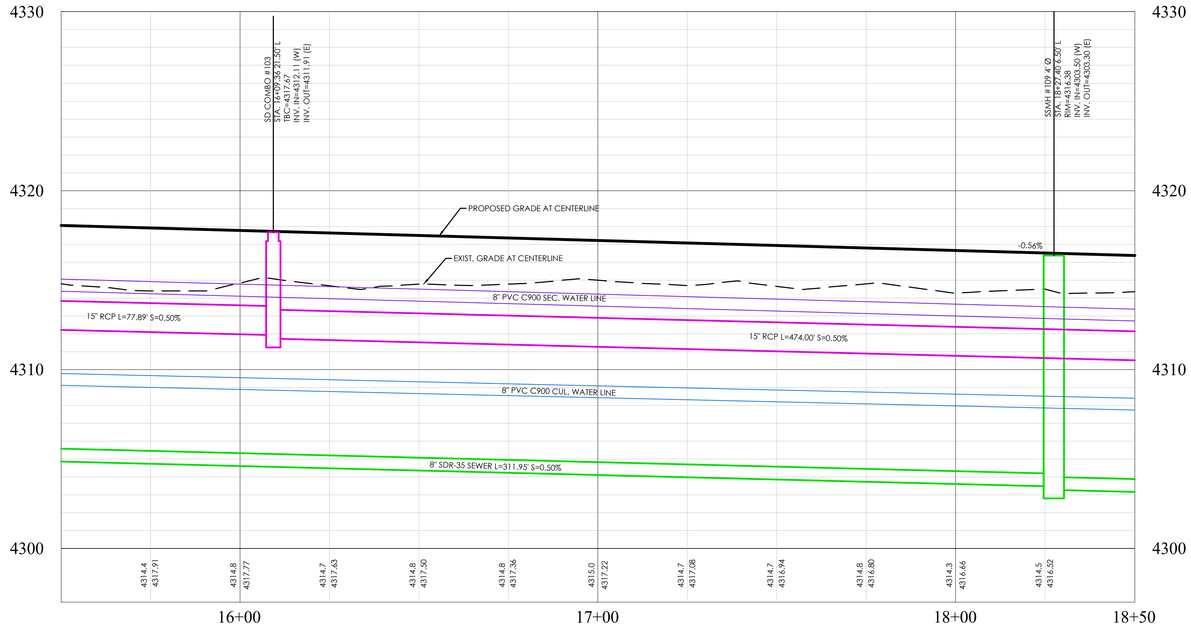
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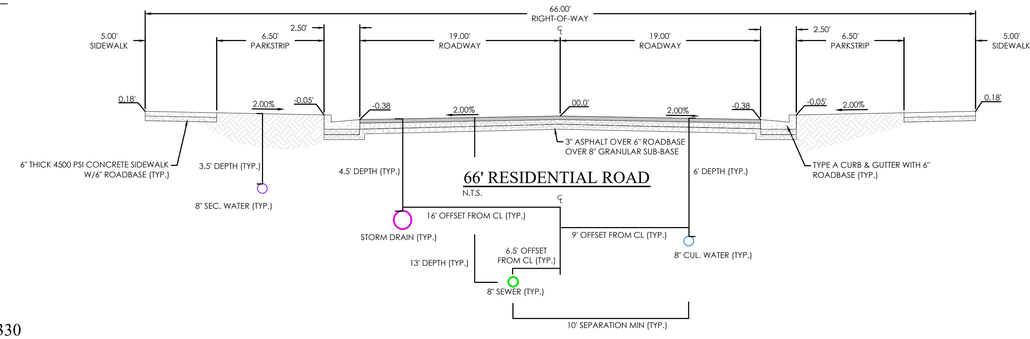
STAFFORD STREET PLAN

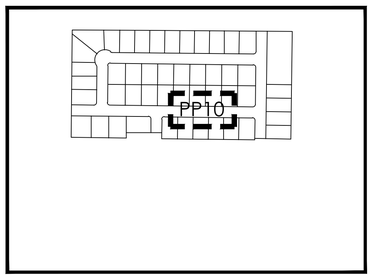


STAFFORD STREET PROFILE

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
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- o XXXX.XX SPOT ELEVATION





KEY MAP
N.T.S

NOTES:

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BENCHMARK

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

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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7/14/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
STAFFORD STREET

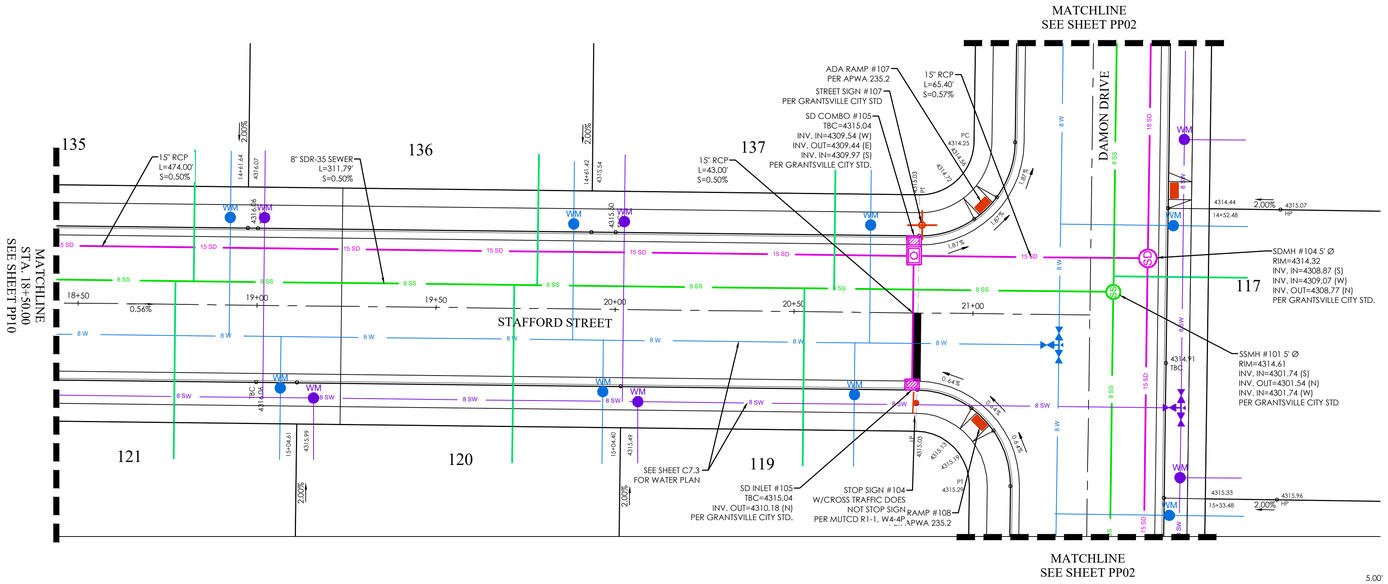
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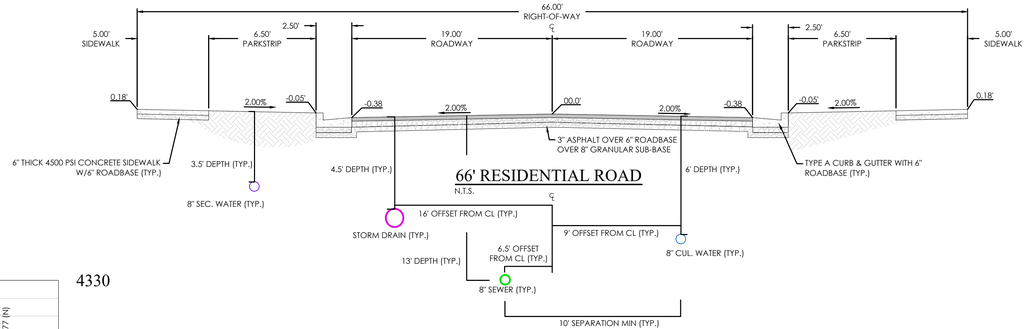
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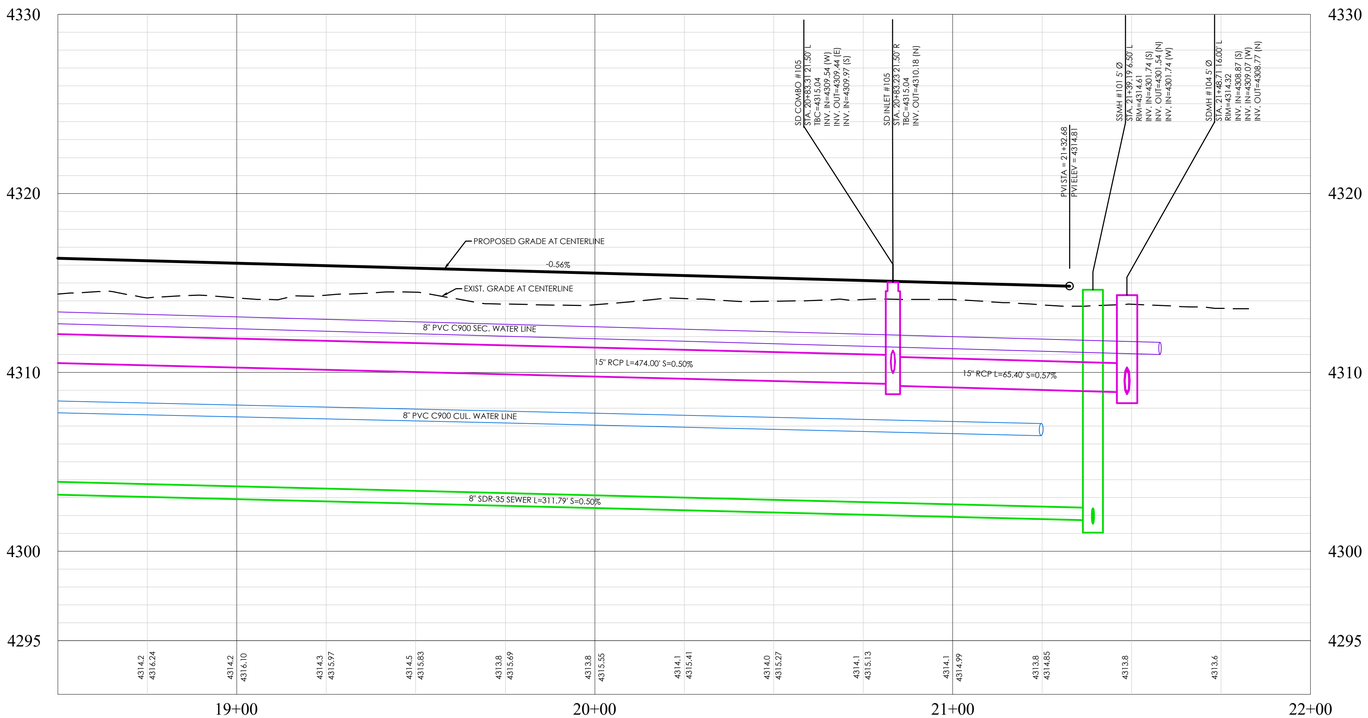
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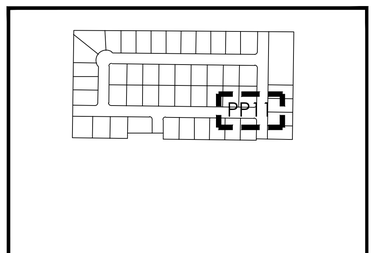


STAFFORD STREET PLAN





STAFFORD STREET PROFILE



KEY MAP
N.T.S

NOTES:
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BENCHMARK

NORTHEAST CORNER OF SECTION 05
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SALT LAKE BASE AND MERIDIAN
ELEV: 4309.08'
DATUM:NAVD88

GRAPHIC SCALE
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(IN FEET)
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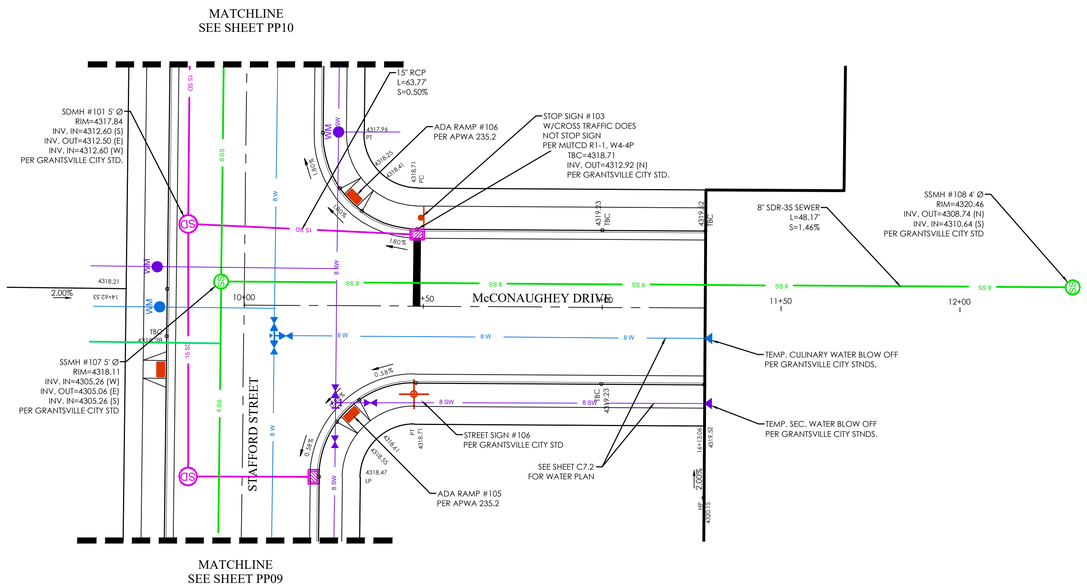
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MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
STAFFORD STREET

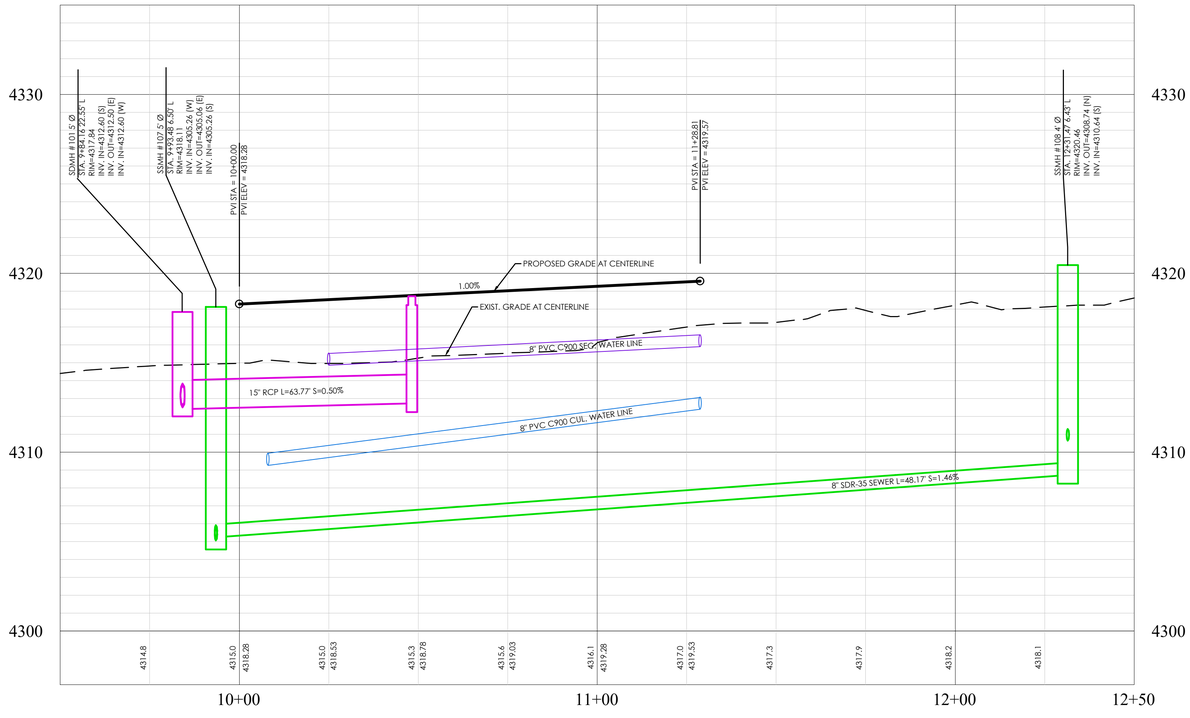
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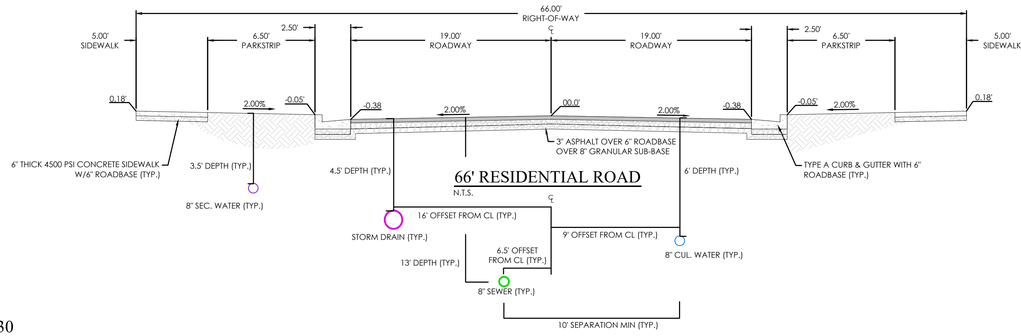
MCCONAUGHEY DRIVE PLAN

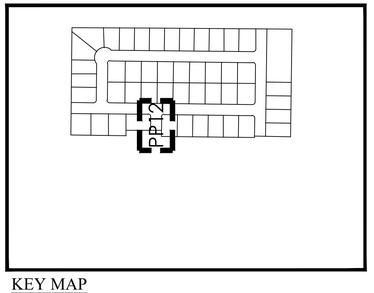


McCONAUGHEY DRIVE PROFILE

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
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- EXIST. STREET MONUMENT
- EXIST. SD INLET & MH
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION





KEY MAP
N.T.S

NOTES:
1. CONTRACTOR TO ENSURE THAT THERE IS ADEQUATE SEPARATION BETWEEN WATER LATERALS AND SEWER MAIN. IF CONFLICTS EXIST THEY SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY.
2. PROVIDE 12" SUMPS ON ALL STORM WATER MANHOLES AND BOXES
3. ALL WATER SERVICES TO BE LOOPED UNDER THE STORM DRAIN WHERE EVER CONFLICTS OCCUR.
4. AFTER REMOVING TOP SOIL, ALL FILL IN THE ROADWAY AREA TO BE A-1-A MATERIAL OR AS APPROVED BY THE GEOTECHNICAL REPORT AND COMPACTION TO BE INSPECTED UP TO THE ELEVATION OF THE ROAD SUB-GRADE.

BENCHMARK

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

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

Know what's below. Call 811 before you dig.

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No. 8028850-2202
THOMAS M. ROMNEY
9/14/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
McCONAUGHEY DRIVE

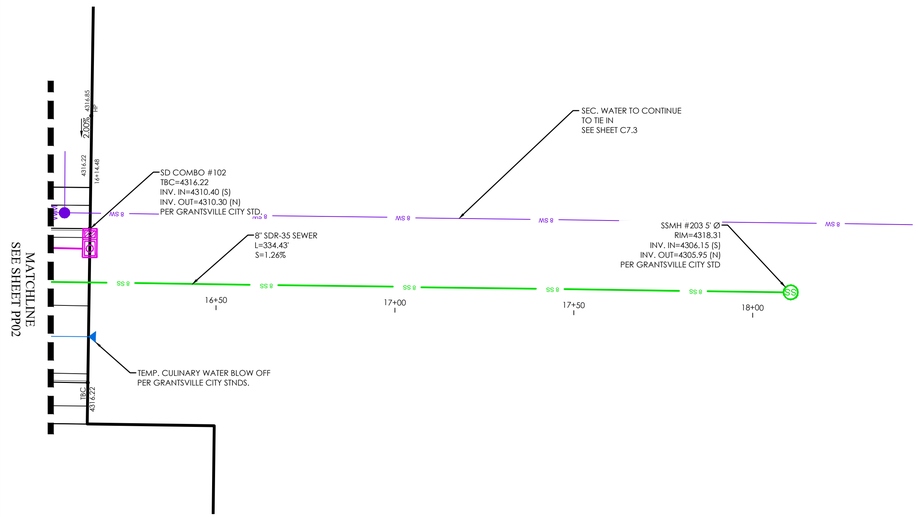
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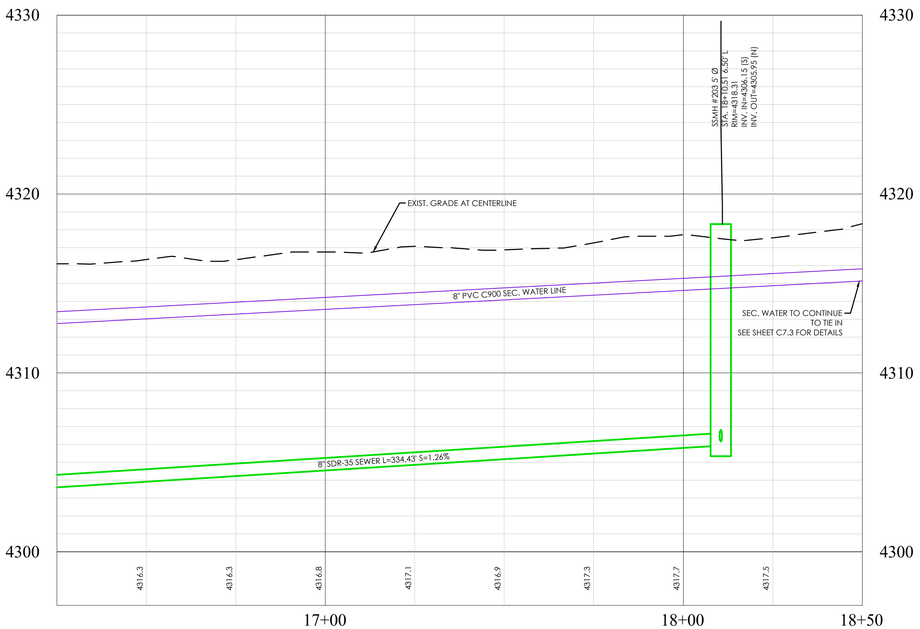
MCCONAUGHEY DRIVE

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Date:	09/14/22	Job #:	21-0377
Sheet:	PP12		

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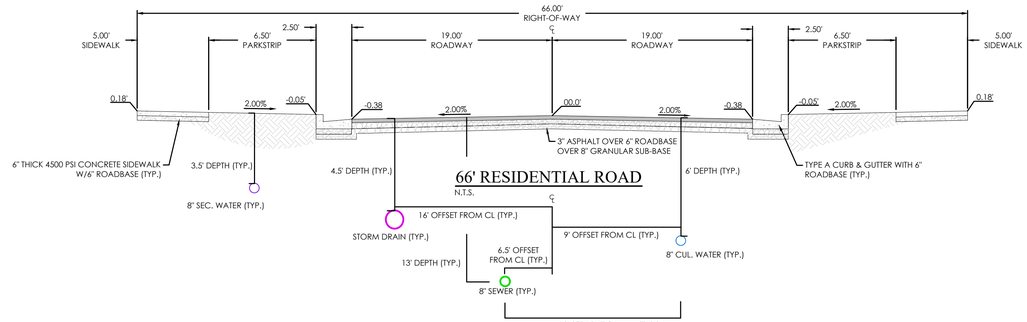
DAMON DRIVE OFFSITE PLAN



DAMON DRIVE PROFILE

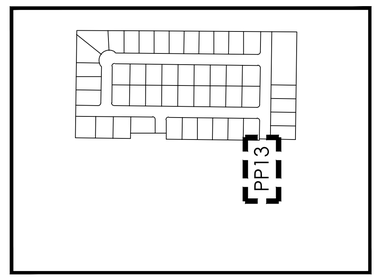
LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
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- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- CULINARY VALVE, TEE & BEND
- SECONDARY VALVE, TEE & BEND
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- EXIST. FIRE HYDRANT
- SPOT ELEVATION



NOTES:

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2. PROVIDE 12" SUMPS ON ALL STORM WATER MANHOLES AND BOXES
3. ALL WATER SERVICES TO BE LOOPED UNDER THE STORM DRAIN WHERE EVER CONFLICTS OCCUR.



KEY MAP
N.T.S

BENCHMARK

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

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
DAMON DRIVE OFFSITE SEWER

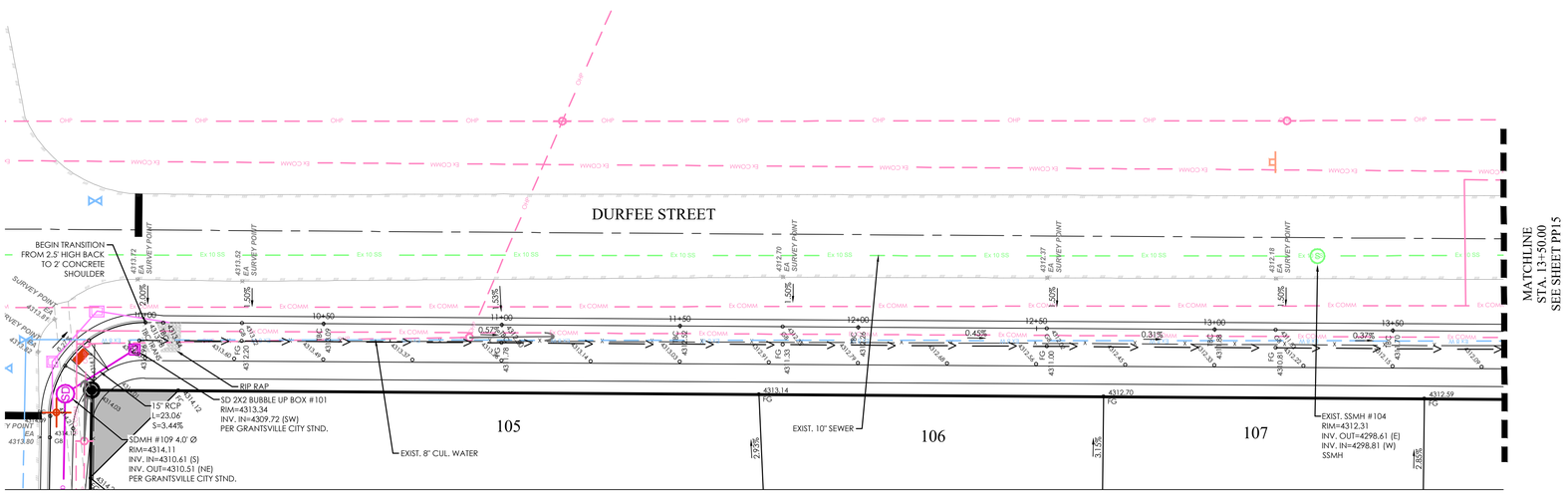
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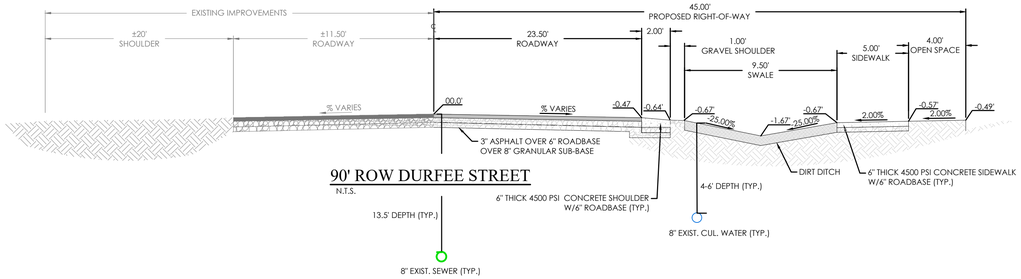
DAMON DRIVE OFFSITE SEWER

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Date:	09/14/22	Job #:	21-0377
Sheet:	PP13		

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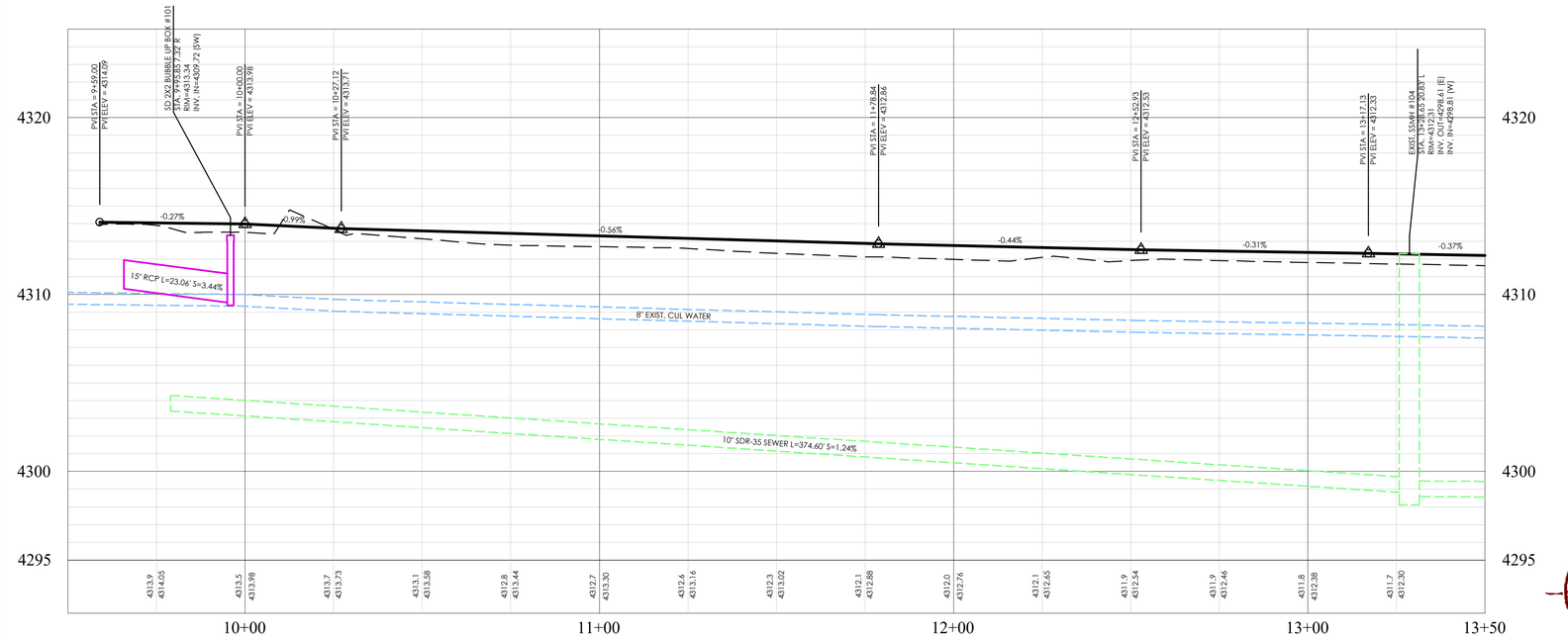


DURFEE STREET TBC PLAN



90' ROW DURFEE STREET

N.T.S.



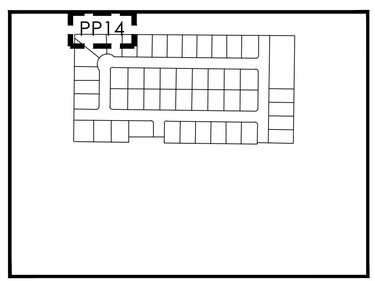
DURFEE STREET TBC PROFILE

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- 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
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KEY MAP
N.T.S

BENCHMARK

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

N

S

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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9/14/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
DURFEE STREET TBC

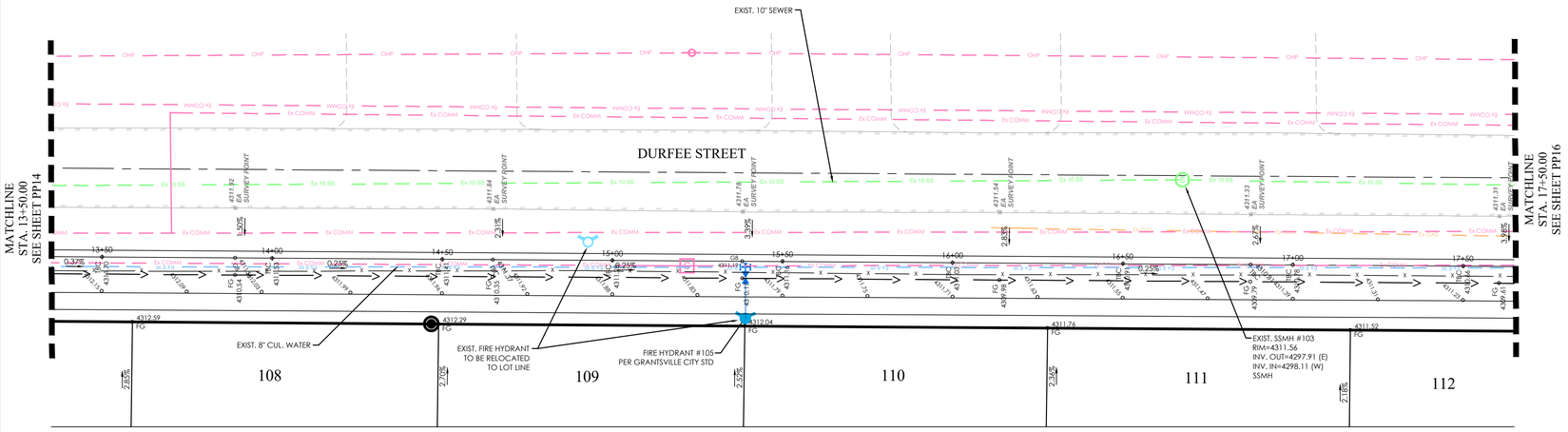
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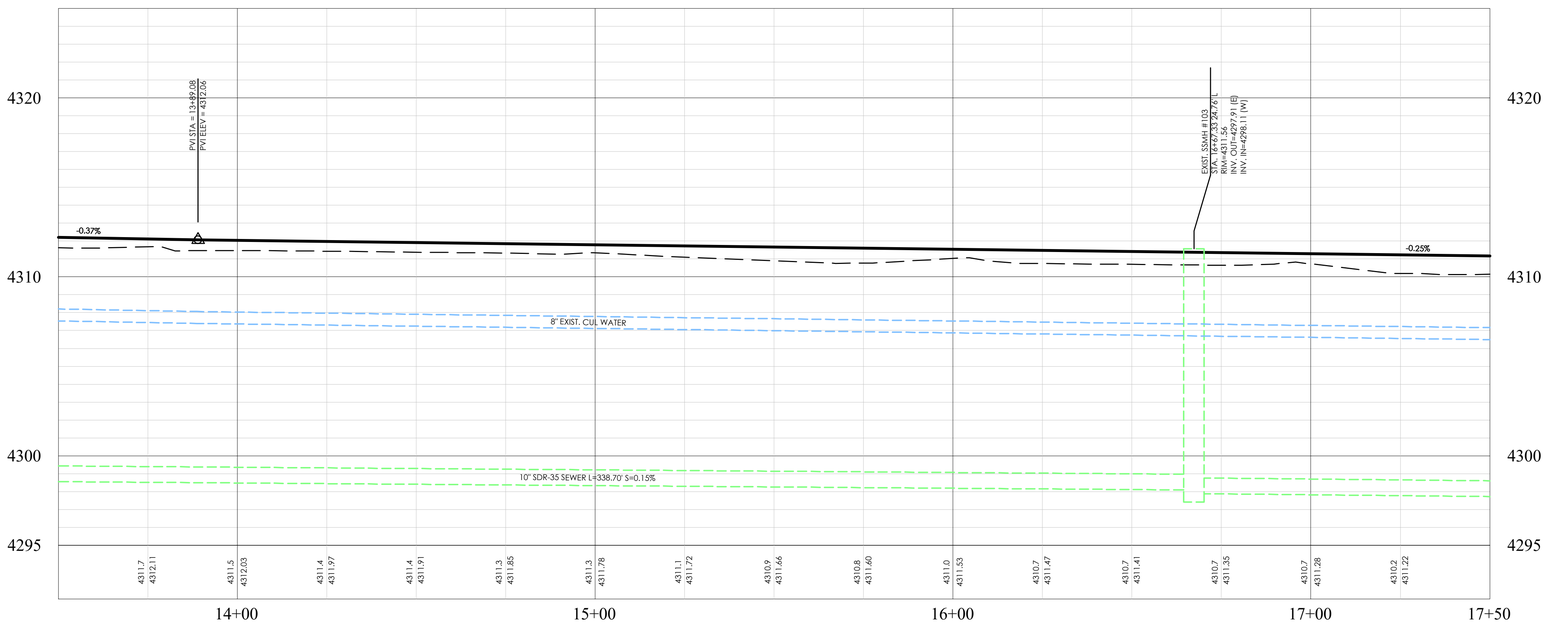
DURFEE STREET TBC

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Sheet:	PP14		

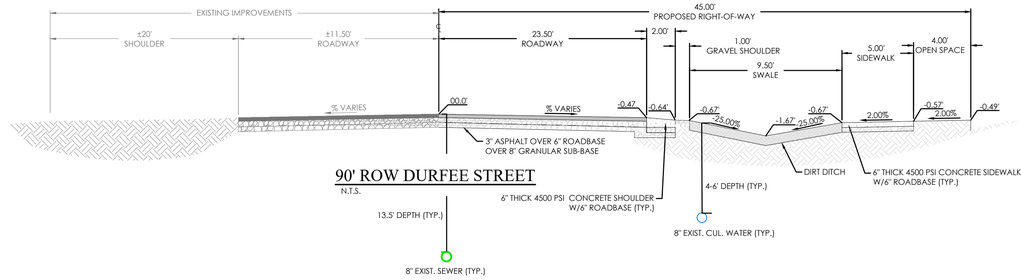
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DURFEE STREET TBC PLAN



DURFEE STREET TBC PROFILE

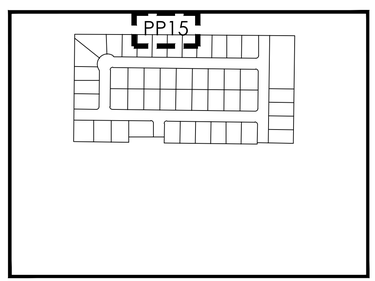


90' ROW DURFEE STREET

N.T.S.

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KEY MAP
N.T.S



BENCHMARK

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

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

Know what's below. Call 811 before you dig.

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN (15 SD)
- 8" SANITARY SEWER (8 SS)
- 8" CULINARY WATER (8 W)
- 8" SECONDARY WATER (8 SW)
- CONTOUR MAJOR (XXXX)
- CONTOUR MINOR (XXXX)
- EXIST. STORM DRAIN (Ex SD)
- EXIST. SANITARY SEWER (Ex SS)
- EXIST. CULINARY WATER (Ex W)
- EXIST. FENCE
- EXIST. CONTOUR MAJOR (XXXX)
- EXIST. CONTOUR MINOR (XXXX)
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- CULINARY VALVE, TEE & BEND
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- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- o XXXX.XX SPOT ELEVATION

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STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
DURFEE STREET TBC

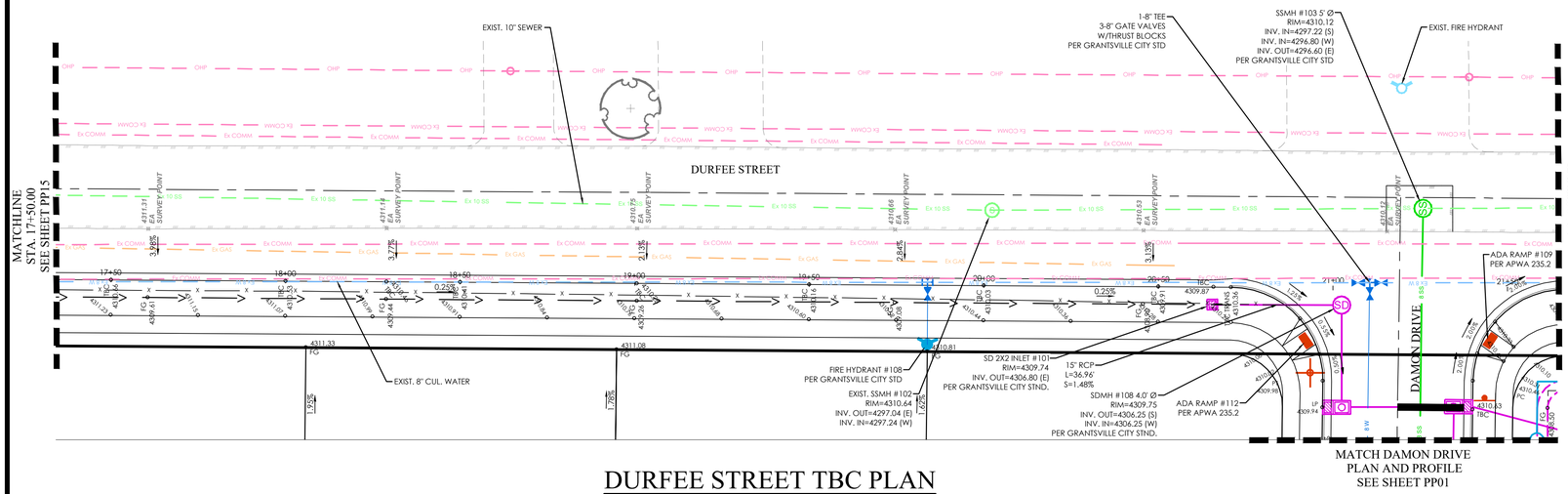
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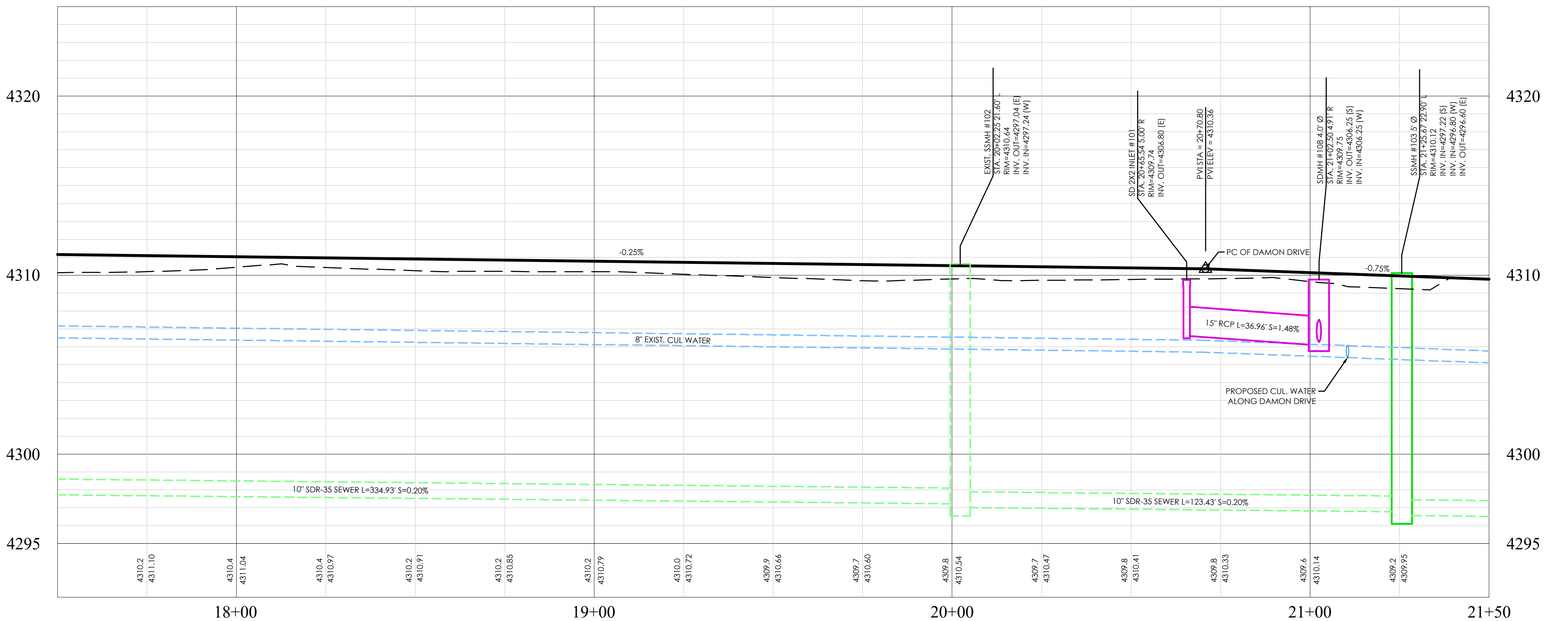
DURFEE STREET TBC

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Date: 09/14/22 | Job #: 21-0377
Sheet: PP15

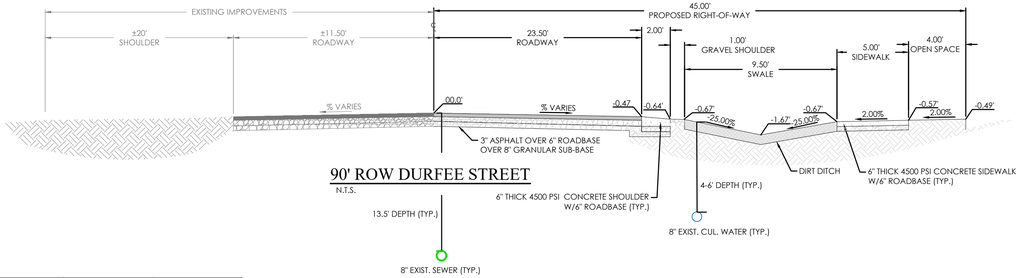
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DURFEE STREET TBC PLAN



DURFEE STREET TBC PROFILE

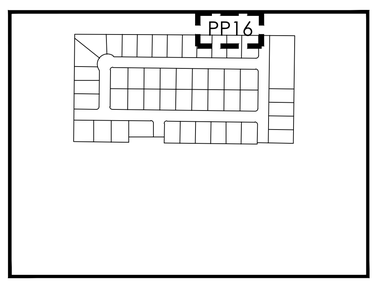


90' ROW DURFEE STREET

N.T.S.

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KEY MAP
N.T.S

N
S

BENCHMARK

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

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- 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
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GRANTSVILLE, UT
DURFEE STREET TBC

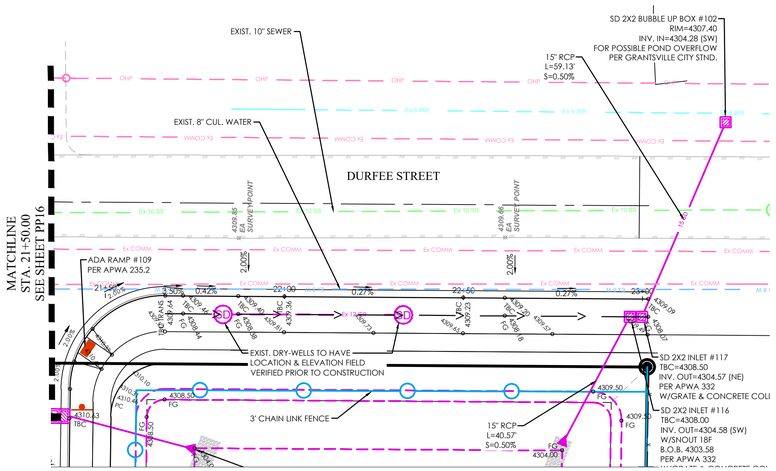
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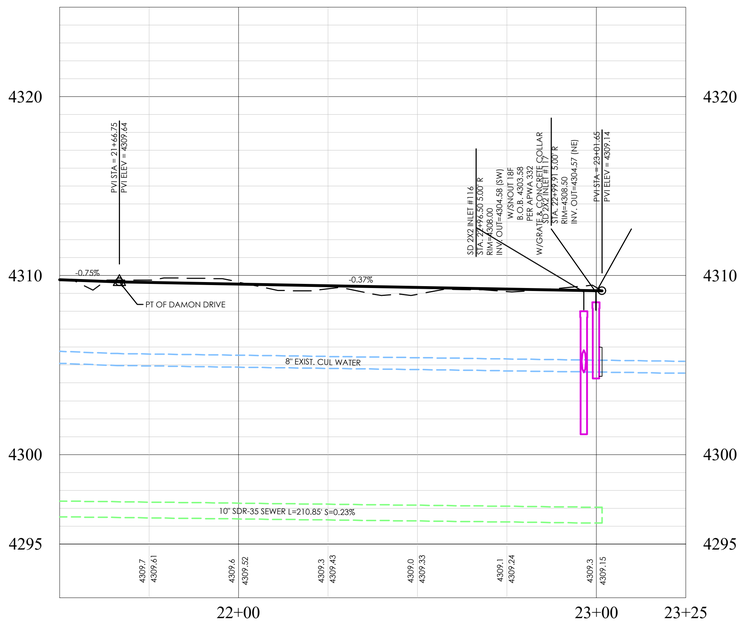
DURFEE STREET TBC

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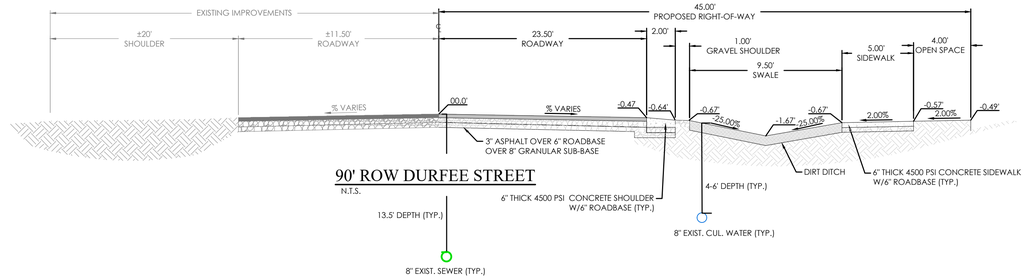
DURFEE STREET TBC PLAN



DURFEE STREET TBC PROFILE

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
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- CULINARY VALVE, TEE & BEND
- SECONDARY VALVE, TEE & BEND
- WATER BLOW-OFF
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- o XXXX.XX SPOT ELEVATION

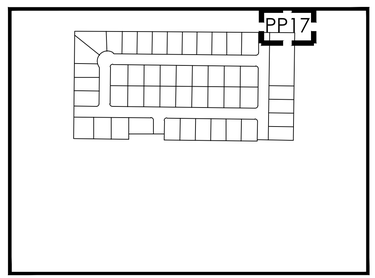


90' ROW DURFEE STREET

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KEY MAP
N.T.S



BENCHMARK

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SALT LAKE BASE AND MERIDIAN
ELEV: 4309.08'
DATUM:NAVD88

GRAPHIC SCALE



(IN FEET)
1 inch = 20 ft.

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GRANTSVILLE, UT
DURFEE STREET TBC

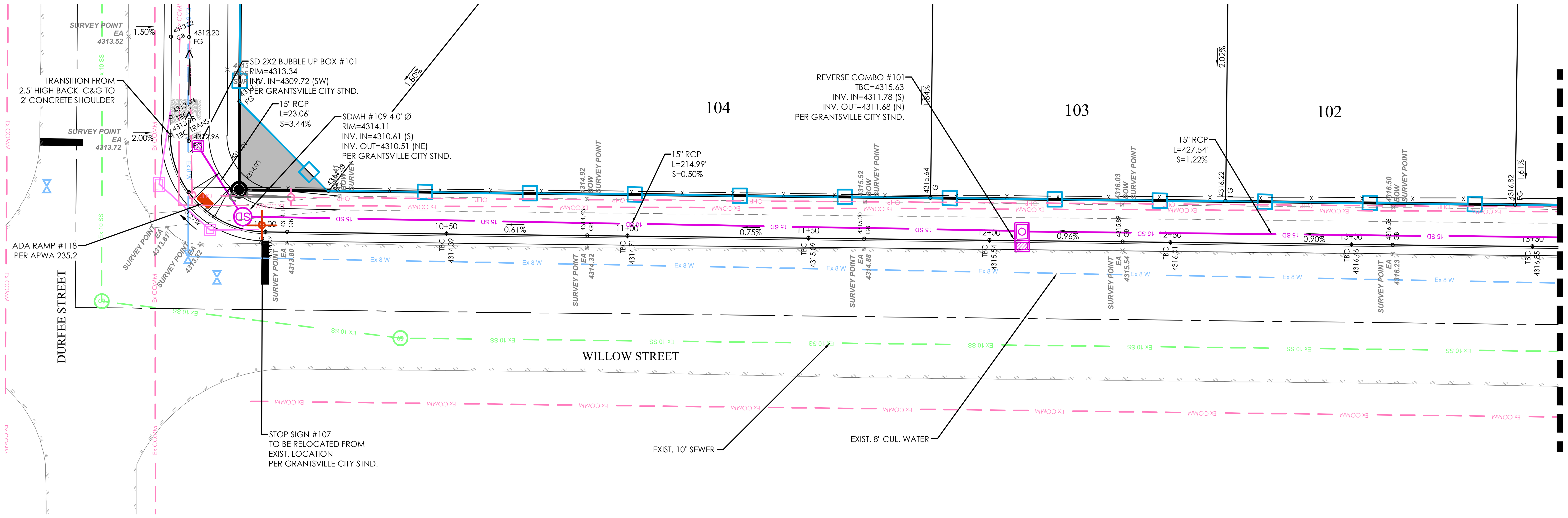
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DURFEE STREET TBC

Scale: 1"=20' | Drawn: DCJ
Date: 09/14/22 | Job #: 21-0377
Sheet: PP17

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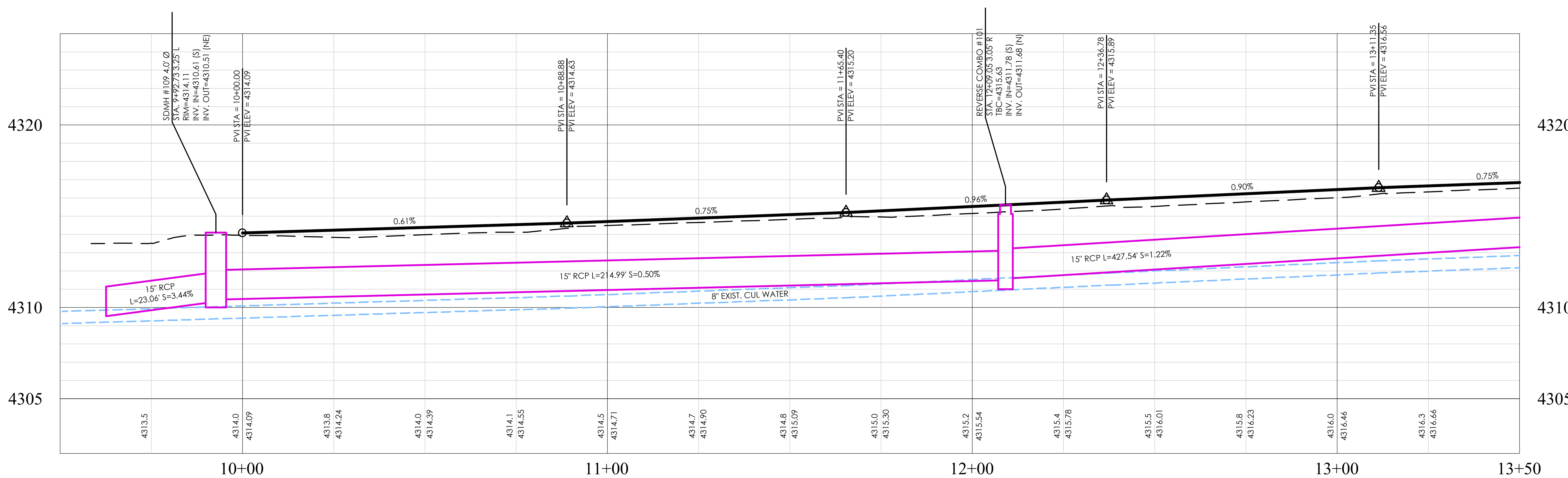


WILLOW STREET TBC PLAN



GRAPHIC SCALE

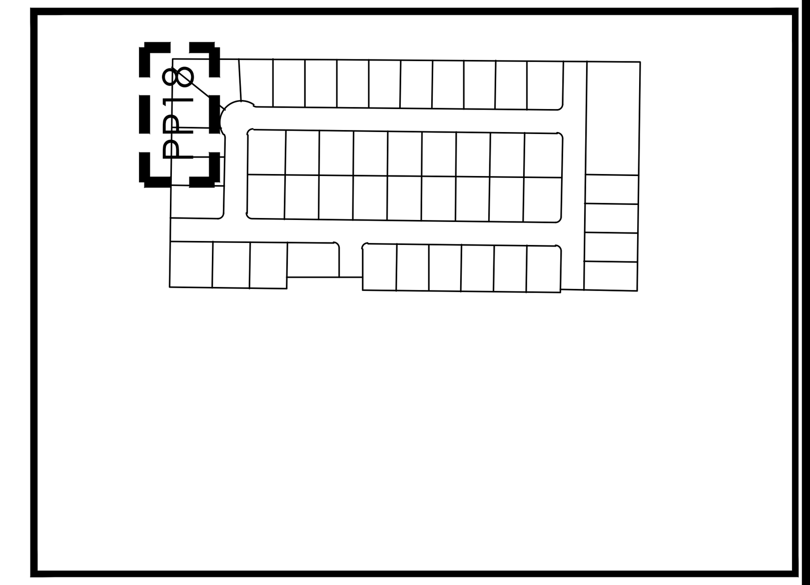
(IN FEET)
1 inch = 20 ft.



WILLOW STREET TBC PROFILE

LEGEND

Symbol	Description
	BOUNDARY
	ROW
	CENTERLINE
	LOT LINE
	EASEMENT
15 SD	15" STORM DRAIN
8 SS	8" SANITARY SEWER
8 W	8" CULINARY WATER
8 SW	8" SECONDARY WATER
XXXX	CONTOUR MAJOR
XXXX	CONTOUR MINOR
Ex SD	EXIST. STORM DRAIN
Ex SS	EXIST. SANITARY SEWER
Ex W	EXIST. CULINARY WATER
x	EXIST. FENCE
(XXXX)	EXIST. CONTOUR MAJOR
(XXXX)	EXIST. CONTOUR MINOR
	SIGN
	STREET LIGHT
	SD MH, INLET, AND COMBO
	SEWER MANHOLE
	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
	EXIST. SEWER MH
	EXIST. VALVE, TEE, & BEND
	EXIST. FIRE HYDRANT
o XXXX.XX	SPOT ELEVATION

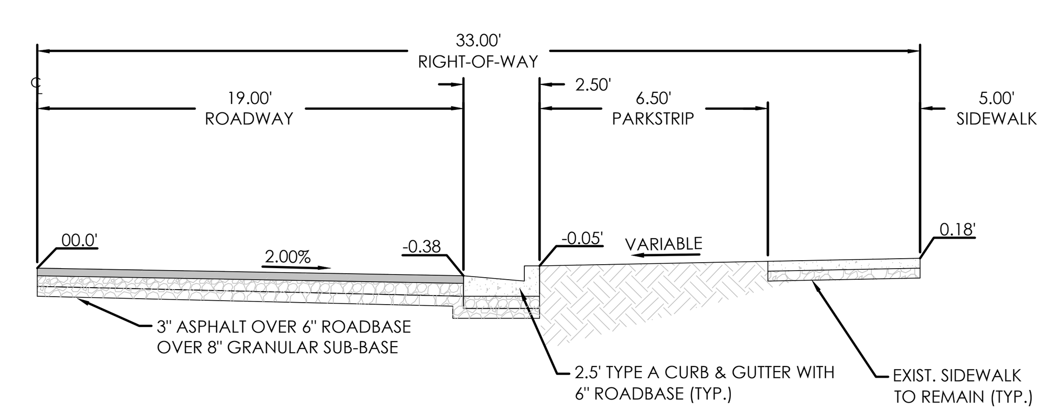


KEY MAP
N.T.S

NOTES:
1. CONTRACTOR TO ENSURE THAT THERE IS ADEQUATE SEPARATION BETWEEN WATER LATERALS AND SEWER MAIN. IF CONFLICTS EXIST THEY SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY.
2. PROVIDE 12" SUMPS ON ALL STORM WATER MANHOLES AND BOXES
3. ALL WATER SERVICES TO BE LOOPED UNDER THE STORM DRAIN WHERE EVER CONFLICTS OCCUR.

Know what's below. Call 811 before you dig.

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



66' ROW WILLOW STREET (HALF WIDTH)
N.T.S.

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LICENSED PROFESSIONAL ENGINEER
No. 8028950-2202
THOMAS M. ROMNEY
09/14/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
WILLOW STREET TBC

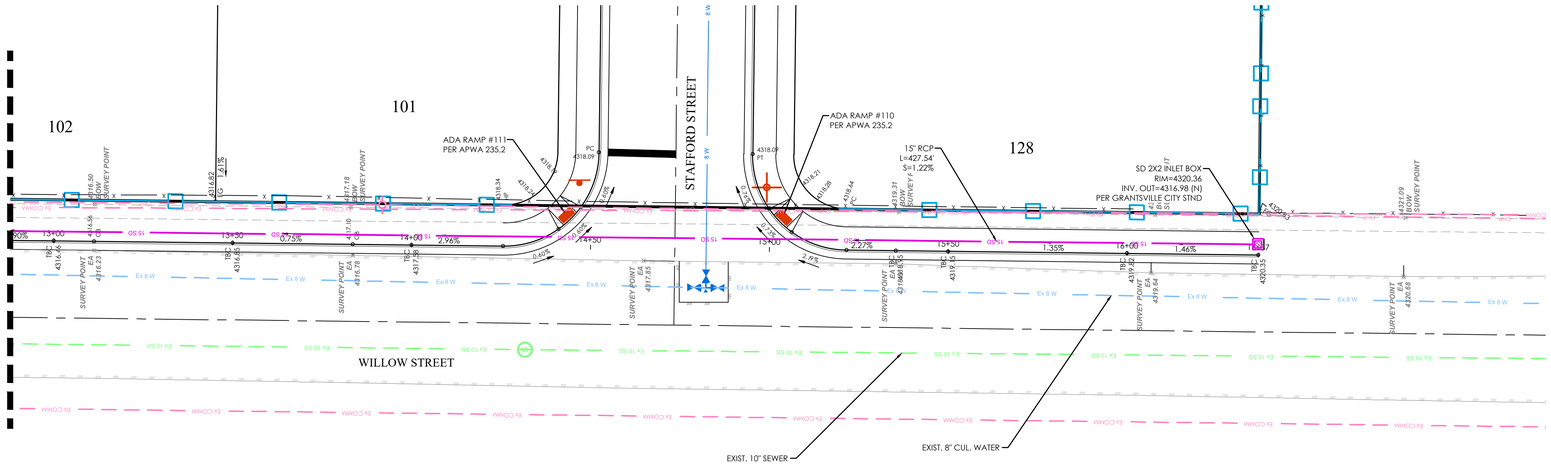
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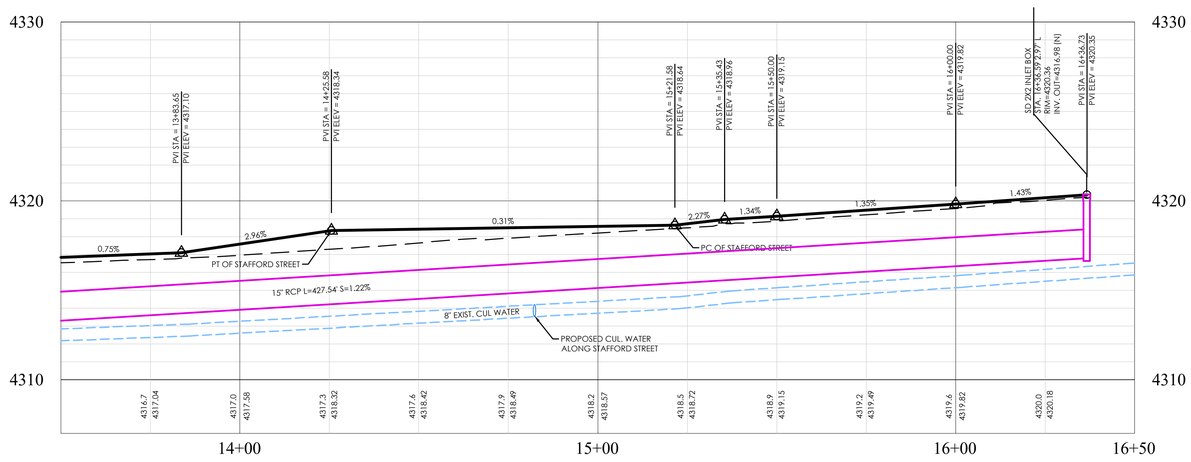
WILLOW STREET TBC

Scale:	1"=20'	Drawn:	DCJ
Date:	09/14/22	Job #:	21-0377
Sheet:	PP18		

Z:_2021\21-0377 GTM - Durfee Street\design 21-0377\dwg\sheets\Final\Phase 1 Final\PP18 WILLOW STREET TBC.dwg



WILLOW STREET TBC PLAN



WILLOW STREET TBC PROFILE

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15 SD — 15" STORM DRAIN
- 8 SS — 8" SANITARY SEWER
- 8 W — 8" CULINARY WATER
- 8 SW — 8" SECONDARY WATER
- XXXX — CONTOUR MAJOR
- XXXX — CONTOUR MINOR
- Ex SD — EXIST. STORM DRAIN
- Ex SS — EXIST. SANITARY SEWER
- Ex W — EXIST. CULINARY WATER
- EXIST. FENCE
- [XXXX] — EXIST. CONTOUR MAJOR
- [XXXX] — EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- 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
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- o XXXX.XX — SPOT ELEVATION

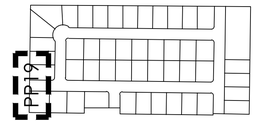
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GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.



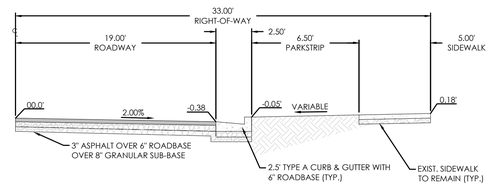
KEY MAP
N.T.S

NOTES:
1. CONTRACTOR TO ENSURE THAT THERE IS ADEQUATE SEPARATION BETWEEN WATER LATERALS AND SEWER MAIN. IF CONFLICTS EXIST THEY SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY.
2. PROVIDE 12" SUMPS ON ALL STORM WATER MANHOLES AND BOXES
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BENCHMARK

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



66' ROW WILLOW STREET (HALF WIDTH)
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REVISION BLOCK

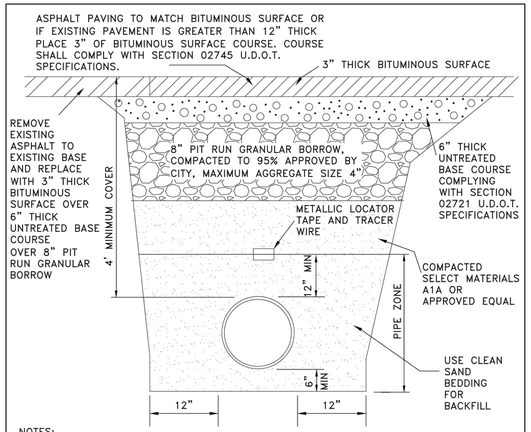
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WILLOW STREET TBC

Scale: 1"=20' | Drawn: DCJ
Date: 09/14/22 | Job #: 21-0377
Sheet: PP19

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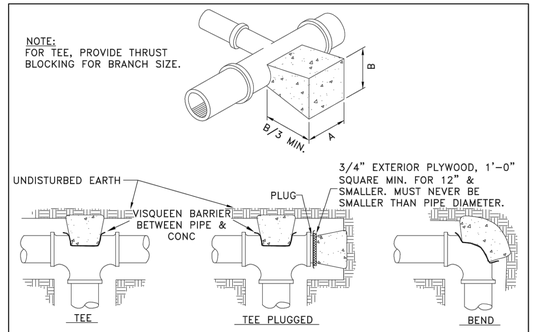
NOTE:
1. ALL SURFACE CONCRETE TO BE 4500 PSI.
2. SIDEWALK SHALL BE 6" THICK ON 6" OF COMPACTED BASEROCK



NOTES:
1. PIPES & FITTINGS SHALL BE LEAD FREE.
2. ASBESTOS CEMENT PIPE SHALL NOT BE ALLOWED.
3. WATER MAINS & SEWER LINES SHALL NOT BE INSTALLED IN THE SAME TRENCH.
4. ALL PIPES, FITTINGS & APPURTENANCES SHALL BE NSF-61 CERTIFIED.
5. ALL NEW OR REPLACED WATER LINES SHALL BE FLUSHED & DISINFECTED PER AWWA STANDARD C651 LATEST EDITION.
6. MATERIAL THICKNESS MAY CHANGE AS DIRECTED BY THE CITY ENGINEER BASED UPON FINDINGS AND RECOMMENDATIONS IN GEOTECHNICAL REPORT.
7. FOR WATER METERS NOT CONNECTED TO FIRE HYDRANTS, THE MINIMUM LINE SIZE SHALL BE 4" IN DIAMETER, UNLESS THEY SERVE PICNIC SITES, PARKS, SEMI-DEVELOPED CAMPS, PRIMITIVE CAMPS, OR ROADWAY REST-STOPS. MINIMUM WATER MAIN SIZE SERVICING A FIRE HYDRANT LATERAL SHALL BE 8 INCHES IN DIAMETER UNLESS A HYDRAULIC ANALYSIS INDICATES THAT REQUIRED FLOW AND PRESSURES CAN BE MAINTAINED BY 6" LINES. [UAC R309-550-5(4)].
8. ALL TYPES OF INSTALLED PIPE SHALL BE PRESSURE TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA C600 (LATEST EDITION).
9. UNDER NO CIRCUMSTANCES SHALL THE PIPE OR ACCESSORIES BE DROPPED INTO THE TRENCH.

LOCATED IN SURFACED ROAD REV. 01-22

GRANTSVILLE CITY
UTILITY TRENCH FOR WATER MAIN

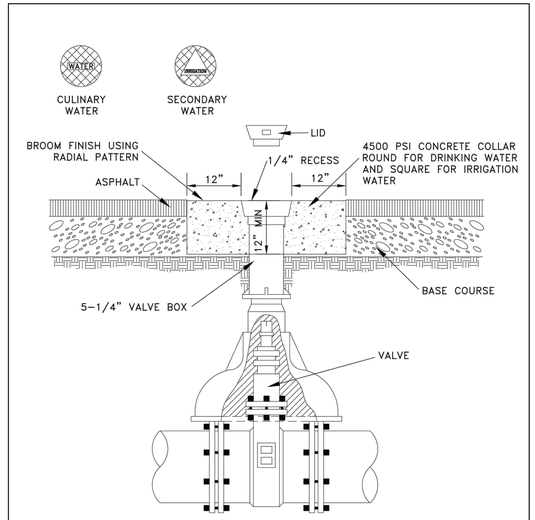


DIMENSIONS FOR THRUST BLOCKING

FITTING SIZES	TEES & PLUGS A	TEES & PLUGS B	90° BENDS A	90° BENDS B	45° BENDS & "Y"S A	45° BENDS & "Y"S B	22 1/2° BENDS A	22 1/2° BENDS B
4"	1'-6"	1'-6"	1'-6"	1'-9"	1'-3"	0'-6"	1'-0"	0'-6"
6"	2'-0"	1'-0"	2'-0"	2'-0"	1'-3"	1'-6"	1'-0"	1'-5"
8"	2'-0"	1'-6	2'-3"	2'-3"	1'-8"	1'-8"	1'-0"	1'-3"
10"	2'-6"	2'-3"	2'-9"	2'-10"	2'-3"	1'-10"	1'-3"	2'-0"
12"	3'-0"	2'-9"	3'-6"	3'-3"	2'-6"	2'-4"	2'-0"	1'-6"
14"	3'-5"	3'-0"	4'-0"	3'-8"	3'-6"	2'-4"	2'-0"	2'-3"
16"	4'-0"	3'-6"	5'-0"	4'-0"	3'-6"	3'-0"	2'-6"	2'-3"
18"	4'-0"	4'-3"	6'-0"	4'-0"	4'-0"	3'-3"	2'-9"	2'-6"
20"	5'-0"	4'-3"	6'-0"	5'-0"	4'-3"	4'-0"	3'-0"	2'-9"
24"	6'-0"	5'-3"	8'-0"	5'-6"	6'-0"	4'-0"	4'-0"	3'-0"

NOTES:
1. THIS TABLE IS BASED ON 200 P.S.I. MAIN PRESSURE AND 2000 P.S.F. SOIL BEARING PRESSURE. ADJUST BEARING AREAS IN ACCORDANCE WITH SOIL CONDITIONS AND PRESSURES ENCOUNTERED.
2. USE POLYETHYLENE ENCASEMENT BETWEEN CONCRETE AND PIPE.
3. REFER TO CONCRETE STANDARD SPECIFICATIONS.
4. THE "THRUST BLOCKING DETAILS" IN NO WAY LIMITS THE LOCATION OR SIZE OF ADDITIONAL BLOCKING WHEN SO WARRANTED OR REQUIRED BY THE ENGINEER.
5. THRUST BLOCKS NEED TO BE INSPECTED BY CITY PRIOR TO BACKFILL.

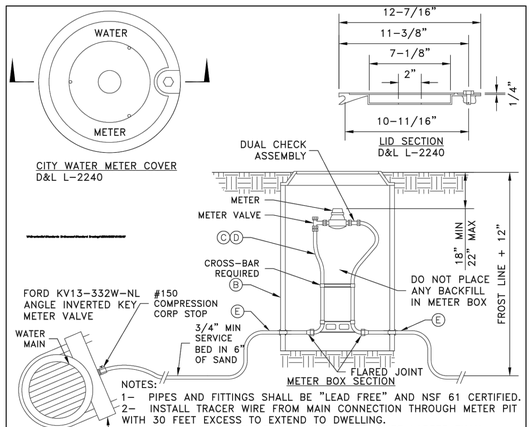
GRANTSVILLE CITY
THRUST BLOCK DETAIL



NOTES:
1. RAISE VALVE BOX AND PLACE CONCRETE COLLAR AFTER PAVING OPERATION IS COMPLETED.
2. ALL PIPES, FITTINGS & APPURTENANCES SHALL BE NSF-61 CERTIFIED.
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



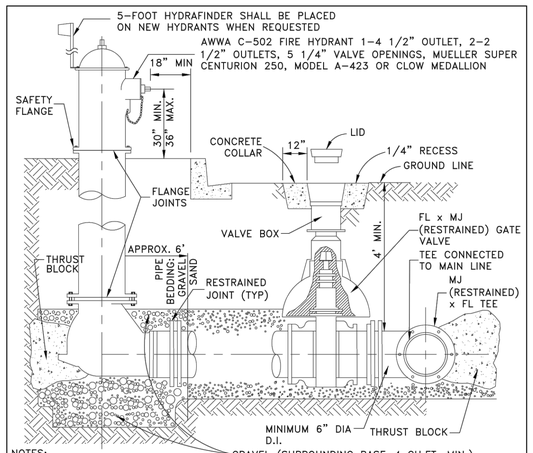
NOTES:
1- PIPES AND FITTINGS SHALL BE "LEAD FREE" AND NSF 61 CERTIFIED.
2- INSTALL TRACER WIRE FROM MAIN CONNECTION THROUGH METER PIT WITH 30 FEET EXCESS TO EXTEND TO DWELLING.
3- SERVICE CONNECTIONS AND METER ASSEMBLIES LARGER THAN 1-INCH NEED TO COMPLY WITH THE LATEST APWA STANDARD DETAILS.
4- INSTALL SERVICE LATERALS AND METERS WITHIN 5 FEET OF LOT LINES ONE ON EACH SIDE OF COMMON LOT LINE (ALTERNATE WITH SECONDARY WATER).
5- STAMP OR PIN GUTTER LIP AND TOP OF CURB WITH A "W" IN TWO PLACES, NEAR CURB LIP AND TOP OF CURB.

LEGEND

No	*	ITEM	DESCRIPTION
(A)		FRAME AND COVER	CAST IRON COVER (GRASS) DUCTILE IRON COVER (DRIVEWAY)
(B)		METER BOX (21" DIAMETER) (30" TO 36" DEEP)	WHITE CORRUGATED PE
(C)		3/4" METER YOKE	DUAL CHECK ASSEMBLY REQUIRED
(D)		1" METER YOKE	OPTIONAL BACKFLOW PROTECTION PER AGENCY REQUIREMENTS
(E)		3/4" AND 1" SERVICE LINE	HDPE IPS SDR 11

REV 01-22

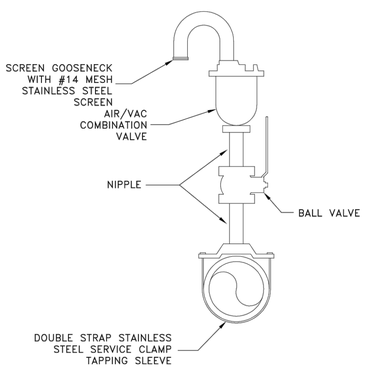
GRANTSVILLE CITY
SERVICE CONNECTION & METER ASSEMBLY



NOTES:
1. ALL FIRE HYDRANTS SHALL BE LOCATED AS SHOWN ON THE PLANS.
2. ALL FIRE HYDRANTS WILL STAND PLUMB WITH THE PUMPER NOZZLE FACING THE STREET.
3. THE VALVE WILL BE LOCATED AS APPROVED BY CITY. PIPE MATERIAL SHALL BE DUCTILE.
4. FOR DETAILED INFORMATION SEE SPECIFICATIONS.
5. RESTRAIN ALL JOINTS FROM MAIN TO FIRE HYDRANT.
6. CONCRETE VALVE COLLAR SHALL BE BROOM FINISHED IN RADIAL PATTERN.
7. ALL NEW OR REPLACED WATER LINES SHALL BE FLUSHED & DISINFECTED PER AWWA STANDARD C651 LATEST EDITION.
8. PROVIDE 3-FOOT CLEAR SPACE AROUND THE CIRCUMFERENCE OF FIRE HYDRANTS (IFC 507.5.5)
9. HYDRANT DRAINS SHALL NOT BE CONNECTED TO, OR LOCATED WITHIN, 10 FEET OF SANITARY SEWERS. WHERE POSSIBLE, HYDRANT DRAINS SHALL NOT BE LOCATED WITHIN 10 FEET OF STORM DRAINS. [UAC R309-550-6(5)(a)]
10. MINIMUM WATER MAIN SIZE SERVICING A FIRE HYDRANT LATERAL SHALL BE 8 INCHES IN DIAMETER UNLESS A HYDRAULIC ANALYSIS INDICATES THAT REQUIRED FLOW AND PRESSURES CAN BE MAINTAINED BY 6" LINES. [UAC R309-550-5(4)]

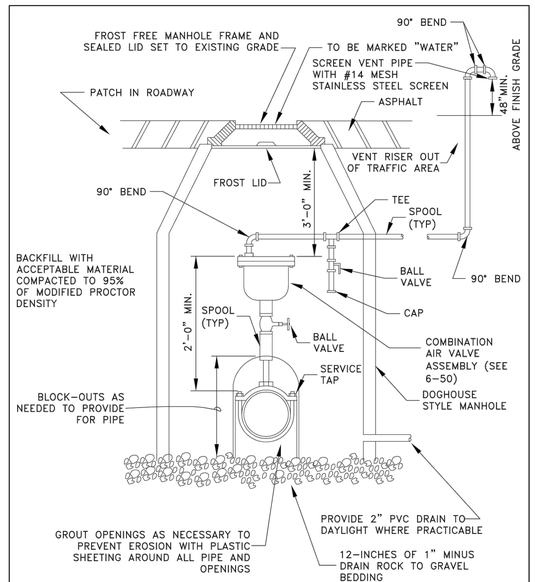
REV. 05-22

GRANTSVILLE CITY
FIRE HYDRANT ASSEMBLY



NOTES:
1- ALL PIPES, FITTINGS & APPURTENANCES SHALL BE NSF-61 CERTIFIED.

GRANTSVILLE CITY
COMBINATION AIR RELEASE VALVE



NOTE:
1- ALTERNATELY, THE OPEN END OF THE PIPE MAY BE EXTENDED TO AS LITTLE AS 1 FOOT ABOVE THE TOP OF THE PIPE IF THE VALVE CHAMBER IS NOT SUBJECT TO FLOODING, OR IF IT MEETS THE REQUIREMENTS OF UAC R309-550-6(7).

GRANTSVILLE CITY
AIR RELEASE VALVE MANHOLE DETAIL

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DETAILS

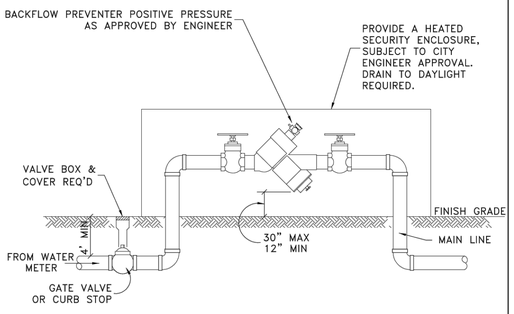
REVISION BLOCK

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DETAILS

Scale: N/A | Drawn: DCJ
Date: 09/14/22 | Job #: 21-0377
Sheet: D1

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NOTES:

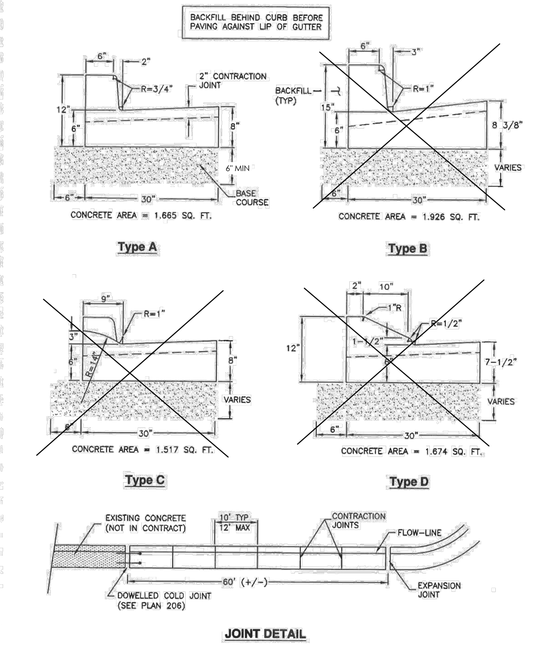
1. ALL PIPES, FITTING & APPURTENANCES SHALL BE NSF-61 CERTIFIED.
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GRANTSVILLE CITY
TYPICAL BACKFLOW PREVENTER INSTALLATION

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**
   A. Base Course Placement: APWA Section 32 05 10. Thickness is 6-inches if flow-line 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.

205.1



Curb and gutter

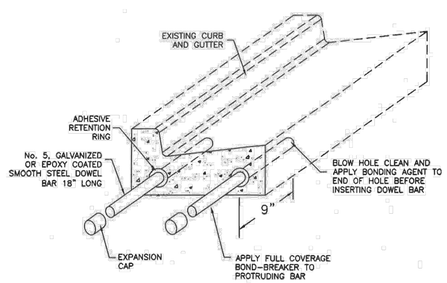
Plan 205.1 December 2008

NOTE:
1. ALL SURFACE CONCRETE TO BE 4500 PSI.

Curb and gutter connection

1. **GENERAL**
   A. Connect new curb and gutter to existing curb and gutter that has not been placed by CONTRACTOR.
2. **PRODUCTS**
   A. Reinforcement: Galvanized or epoxy coated, 60 ksi yield grade steel, ASTM A615.
   B. Adhesive: Epoxy adhesive grout, APWA Section 03 61 00.
   C. Bond Breaker: Paraffin wax, lithium grease, or other semi-solid, inert lubricant.
   D. Expansion Cap: Plastic, with bar movement allowance of 1/2-inch.
3. **EXECUTION**
   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.
   B. Clean holes and dowel bars of dirt, dust and particles. Ensure coating on bars have no surface defects.
   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 into the hole.
   D. Insert dowels with at least one full turning motion and if necessary, place a grout retention disk on the dowel after insertion to contain adhesive.
   E. Apply complete coverage of bond-breaker on the protruding end of each dowel.
   F. Install expansion caps on protruding dowel bar ends.

206



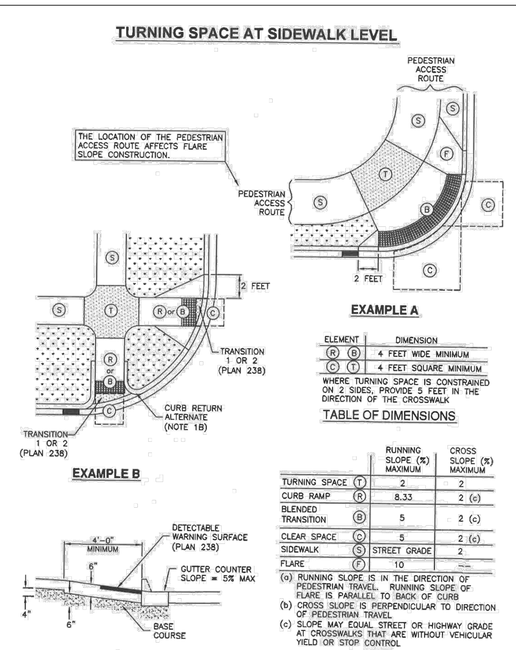
Curb and gutter connection

Plan 206 June 2009

Corner curb cut assembly

1. **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 that contrasts with adjacent walking surface, either light-on-dark or dark-on-light. 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.
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 the back of curb.
      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 concrete flatwork.
      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.

235.1



Corner curb cut assembly

Plan 235.1 September 2011

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LICENSED PROFESSIONAL ENGINEER
No. 8028850-2202
THOMAS M. ROMNEY
9/14/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION
GRANTSVILLE, UT
DETAILS

REVISION BLOCK

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Date:	09/14/22	Job #:	21-0377
Sheet:	D2		

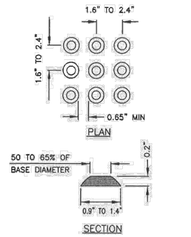
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Detectable warning surface

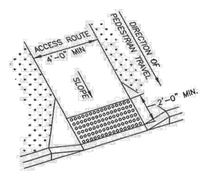
1. **GENERAL**
   - A. Detectable warnings consist of a surface of truncated domes aligned in a square or radial grid pattern with dome size, dome spacing, contrast and panel size as indicated.
   - C. Definitions and supplemental requirements are specified in APWA Section 32 16 14.

2. **PRODUCTS**
   - A. Pavers:
     1) Concrete, APWA Section 32 14 13.
     2) Brick and Mortar, APWA Section 32 14 16.
   - B. Tile: Unless indicated elsewhere, selection is by CONTRACTOR as allowed by ENGINEER.
   - C. Ribbed Composite Panel: Unless indicated elsewhere, selection is by CONTRACTOR as allowed by ENGINEER.
   - D. Bedding Sand, Joint Sand, Geotextile: APWA Section 32 14 13.

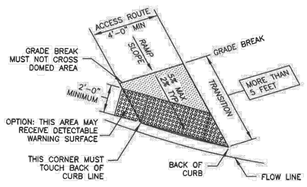
3. **EXECUTION**
   - A. Layout:
     1) Joints Between Units: 3/16 inch maximum or manufacturer's recommendation.
     2) Flares: Do not install detectable warning units on flared surfaces.
     3) Alignment: Where a ramp, turning space, or blended transition provides access to the street continuously around a corner, align the vertical rows of truncated domes to be perpendicular or radial to the grade break between the ramp and the street for a 4 feet minimum width for each crosswalk served.
     4) Transition 1 or 2: Selection is by ENGINEER unless indicated elsewhere.
     5) At Rail Crossings: The edge of the detectable warning surface nearest the rail crossing is 6 feet minimum and 15 feet maximum from the centerline of the nearest rail.
   - B. Paver Installation: APWA Section 32 14 13. If paver must be cut, minimum paver cut length is 3/4 paver, or 1/2 paver length providing the adjacent paver is also reduced no more than 1/2 its original length. Do not cut pavers longitudinally. Remove domes that were cut.
   - C. Tile Installation: Install according to manufacturer's recommendations. Remove domes that were cut.
   - D. Ribbed Composite Panel Installation: Install according to manufacturer's recommendation. Remove domes that were cut. Seal cuts to prevent water intrusion.



TRUNCATED DOME DETAIL

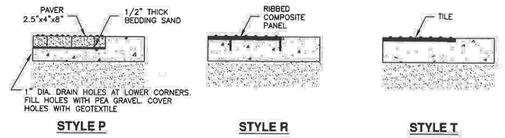


PERPENDICULAR ASSEMBLY



TRANSITION 2

NON-PERPENDICULAR ASSEMBLY



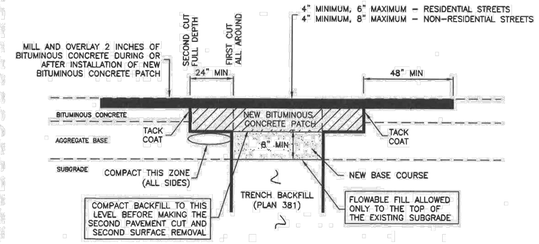
STYLE P **STYLE R** **STYLE T**

Bituminous pavement T-patch

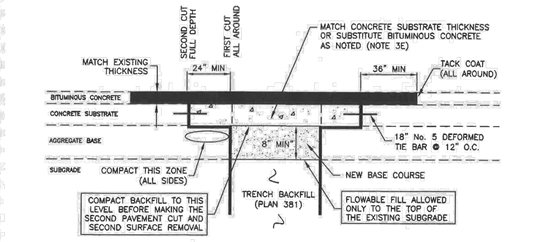
1. **GENERAL**
   - A. Vertical cuts in bituminous pavement may be done by saw or pavement zipping. If cuts greater than 6 inches are necessary to prevent pavement "break off" consult ENGINEER for directions on handling addtional costs.
   - B. Repair a T-patch restoration if any of the following conditions occur prior to final payment or at the end of the one year correction period.
     1) Pavement surface distortion exceeds 1/4-inch deviation in 10 feet. Repair option - plane off surface distortions. coat planed surface with a cationic or anionic mulsion that complies with APWA Section 32 12 03..
     2) Separation appears at a connection to an existing pavement or any Street Fixture. Repair option - blow separation clean and apply joint sealant, Plan 265.
     3) Cracks at least 1-foot long and 1/4-inch wide occur more often than 1 in 10 square feet. Repair option - blow clean and apply crack seal, Plan 265.
     4) Pavement raveling is greater than 1 square foot per 100 square feet. Repair option - Mill and inlay, APWA Sections 32 01 16.71 and 32 12 05.

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. 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.
   - C. Reinforcement. No. 5, galvanized or epoxy coated, deformed, 60 ksi yield grade steel, ASTM A615.
   - D. Concrete: Class 4500 APWA Section 03 30 04.
   - E. Tack Coat: APWA Section 32 12 13.13.
   - F. Bituminous Concrete. APWA Section 32 12 05.
     1) Warm Weather Patch: PG64-22-DM-1/2, unless indicated otherwise.
     2) Cold Weather Patch: Modified MC-250-FM-1 as indicated in APWA Section 33 05 25.

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. Flowable Fill: Cure to initial set before placing aggregate base or bituminous pavement. Use in excavations that are too narrow to receive compaction equipment.
   - C. Tack Coat. Clean all horizontal and vertical surfaces. Apply full coverage all surfaces.
   - D. Pavement Placement: Follow APWA Section 32 12 16.13. Unless indicated otherwise, lift thickness is 3-inches minimum after compaction. Compact to 94 percent of ASTM D2041 (Rice density) plus or minus 2 percent.
   - E. Bituminous Concrete Substitution: If bituminous concrete is substituted for Portland cement concrete substrate, omit rebar and provide 1.25 inches of bituminous concrete for each 1 inch of Portland cement concrete. Follow paragraph E requirements.
   - F. Reinforcement. Required if thickness of existing Portland-cement concrete substrate is 6-inches or greater. Not required if 1) less than 6-inches thick, 2) if existing concrete is deteriorating, 3) if excavation is less than 3 feet square, or 4) if bituminous pavement is substituted for Portland-cement concrete substrate.
   - G. Concrete Substrate. Cure to initial set before placing new bituminous concrete patch.



BITUMINOUS CONCRETE RESTORATION



COMPOSITE RESTORATION

30" Frame and cover

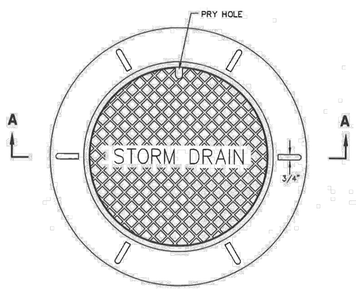
1. **GENERAL**
   - A. The frame and cover fits.
     1) Cleanout box type B in Plan 331, and
     2) Precast manhole in Plan 341.

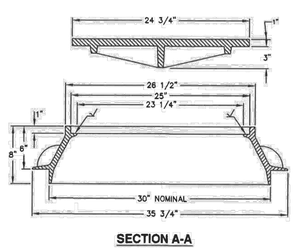
2. **PRODUCTS**
   - A. Castings: Grey iron class 35 minimum, ASTM A48.
     1) Coated with asphalt based paint or better (except on machined surfaces).
     2) Cast the heat number on the frame and cover.
     3) Give the frame and cover a machine finish so the cover will not rock.
     4) √ designates a machine finished surface.
     5) Cast the words "STORM DRAIN" on the cover in upper case flush with the surface finish.

3. **EXECUTION**
   - 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.

NOTE:
1. ALL CONCRETE TO BE 4500 PSI.

TYPE A





SECTION A-A

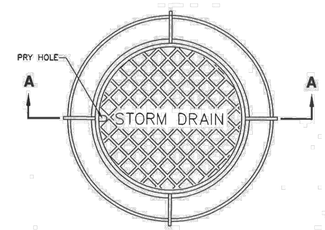
30" Frame and cover

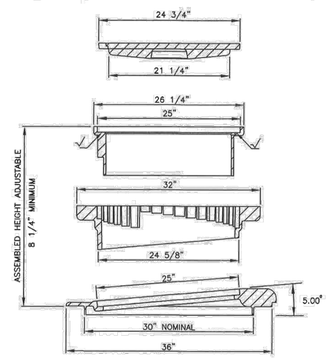
1. **GENERAL**
   - A. The frame and cover fits.
     1) Cleanout box type B in Plan 331, and
     2) Precast manhole in Plan 341.

2. **PRODUCTS**
   - A. Castings: Grey iron class 35 minimum, ASTM A48.
     1) Coated with asphalt based paint or better (except on machined surfaces).
     2) Cast the heat number on the frame and cover.
     3) Give the frame and cover a machine finish so the cover will not rock.
     4) √ designates a machine finished surface.
     5) Cast the words "STORM DRAIN" on the cover in upper case flush with the surface finish.

3. **EXECUTION**
   - 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.

TYPE B





SECTION A-A

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REVISION BLOCK

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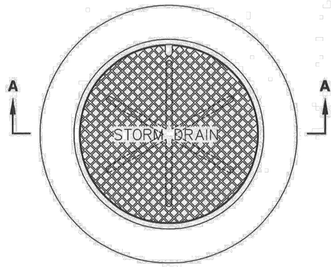
44" Frame and cover

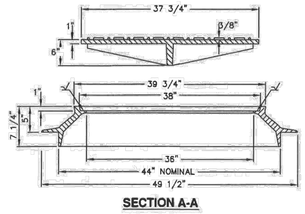
1. **GENERAL**
   A. The frame and cover fits.
      1) Cleanout box type B in Plan 331, and
      2) Precast manhole in Plan 341.

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.
      3) √ designates a machine-finished surface.
      4) Cast the words "STORM DRAIN" on the cover in upper case flush with the surface finish.

3. **EXECUTION**
   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.

NOTE:
1. ALL CONCRETE TO BE 4500 PSI.





SECTION A-A

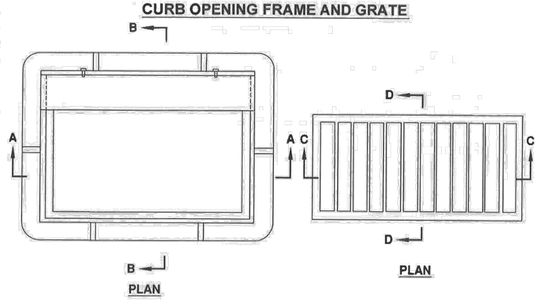
35 1/2" Grate and frame

1. **GENERAL**
   A. The grate and frame fits concrete boxes in Plan 315.

2. **PRODUCTS**
   A. Castings: Grey iron class 35 minimum per ASTM A48, coated with asphalt based paint or better.
   B. Bolts, Nuts, Washers, Accessories: Stainless steel, APWA Section 05 05 23.

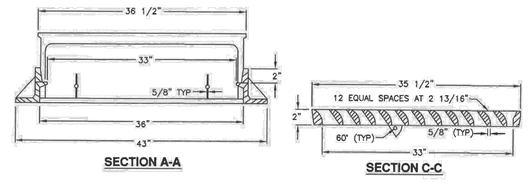
3. **EXECUTION** (Not used)

CURB OPENING FRAME AND GRATE



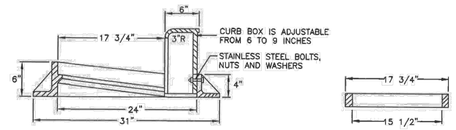
PLAN

PLAN



SECTION A-A

SECTION C-C



SECTION B-B

SECTION D-D

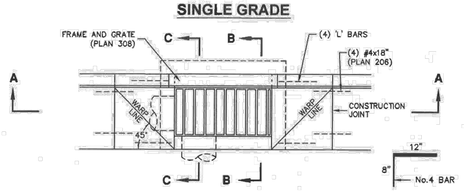
Catch basin

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 box.

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. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615.

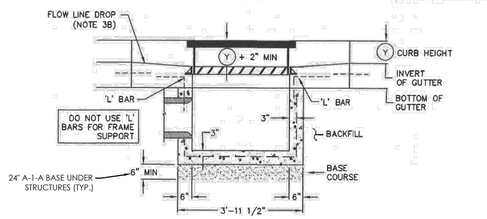
3. **EXECUTION**
   A. Base Course Placement: APWA Section 32 11 23. Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   B. Curb Face Opening: Make opening at least 4-inches high. Provide at least a 2-inch drop between the "warp line" in the gutter flow-line and the top of the grate at the curb face opening.
   C. Concrete Placement: APWA Section 03 30 10. Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   D. Backfill: Place backfill against the basin wall. 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.

SINGLE GRADE

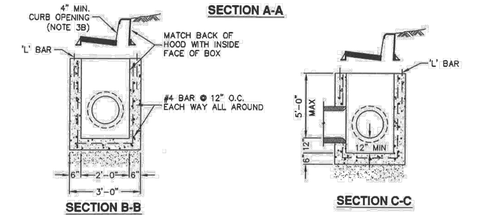


PLAN

"L" BAR DETAIL



SECTION A-A



SECTION B-B

SECTION C-C

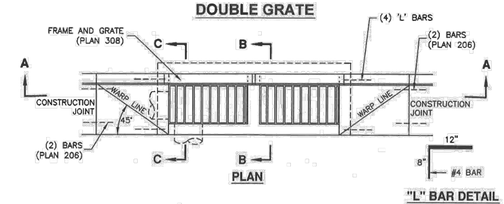
Catch basin

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 box.

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. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615.

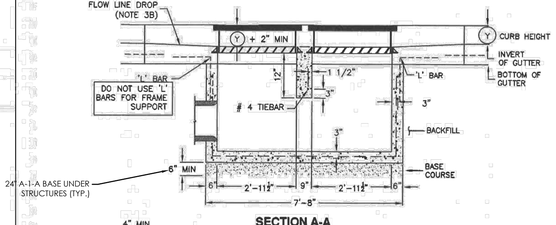
3. **EXECUTION**
   A. Base Course Placement: APWA Section 32 11 23. Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   B. Curb Face Opening: Make opening at least 4-inches high. Provide at least a 2-inch drop between the "warp line" in the gutter flow-line and the top of the grate at the curb face opening.
   C. Concrete Placement: APWA Section 03 30 10. Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   D. Backfill: Place backfill against the basin wall. 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.

DOUBLE GRATE

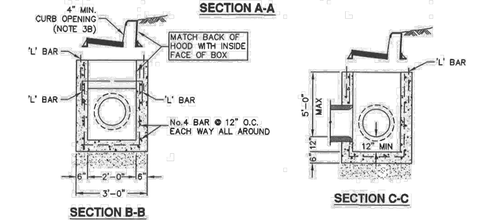


PLAN

"L" BAR DETAIL



SECTION A-A



SECTION B-B

SECTION C-C

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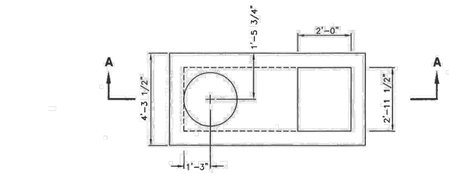
Combination catch basin and cleanout box

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 box.

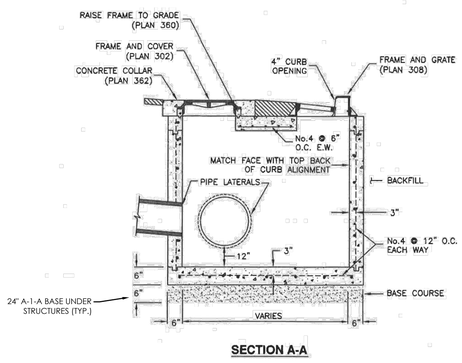
2. **PRODUCTS**
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   C. Concrete: Class 4500 APWA Section 03 30 04.
   D. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615.
   E. Ladder Rungs: Plastic, or plastic coated steel typically 8-inches wide.

3. **EXECUTION**
   A. 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.
   B. Curb Face Opening: Make opening at least 4-inches high. Provide at least a 2-inch drop between the "begin warp" line in the gutter flow-line and the top of the grate at the curb face opening.
   C. Ladder Rungs: Provide rungs in boxes over 6 feet deep. When measured from the floor of the box, place bottom rung the greater distance of 4 feet from the floor of the box or 1 foot above the top of the pipe. Place top rung within 3 feet of bottom of box ceiling.
   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.

NOTE:
1. ALL CONCRETE TO BE 4500 PSI.



PLAN



SECTION A-A

Precast 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 pipe under 12" diameter.
      2) Diameter is 5-feet: For pipe 12" and larger, or when 3 or more drain pipes intersect the manhole.
   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 grade.
   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.

CAST IN PLACE BASE

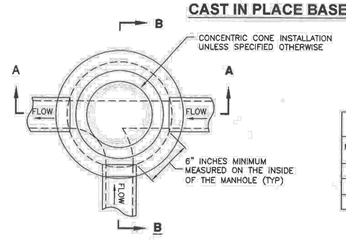
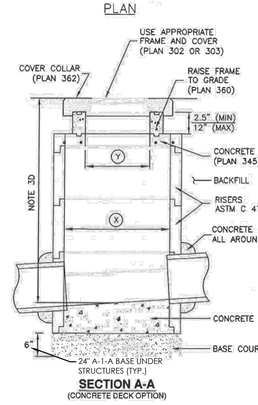
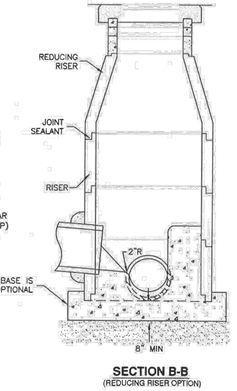


TABLE OF DIMENSIONS	
MANHOLE STYLE	DIMENSION
A	(X) =48" (Y) =30"
B	(X) =60" (Y) =44"
C	(X) =60" (Y) =30"

PLAN



SECTION A-A
(CONCRETE DECK OPTION)



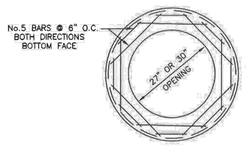
SECTION B-B
(REDUCING RISER OPTION)

Concrete deck

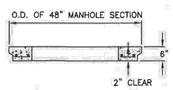
1. **GENERAL**
   A. Deck is made for round manhole riser grade rings.

2. **PRODUCTS**
   A. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615.
   B. Concrete: Class 4500 APWA Section 03 40 00

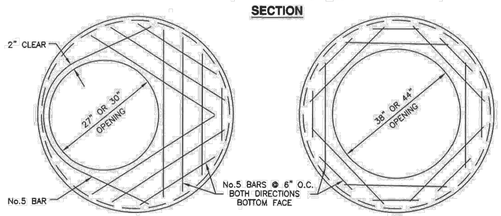
3. **EXECUTION**
   A. Reinforcement: Placement APWA Section 03 20 00.
   B. Concrete Placement: APWA Section 03 30 10. Apply a curing agent.



48" DECK PLAN

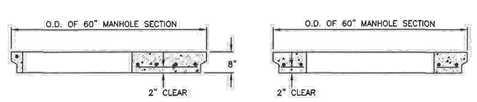


SECTION



60" DECK PLAN

60" DECK PLAN



SECTION

SECTION

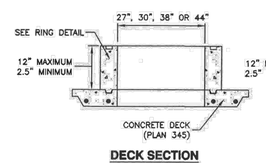
Raise frame to grade

1. **GENERAL**
   A. Grade rings are used in non-pressurized applications to adjust frame to grade.

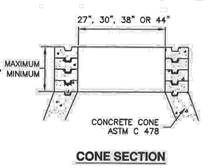
2. **PRODUCTS**
   A. Concrete: Class 4500 APWA Section 03 30 04.
   B. Reinforcement: Deformed, 60 ksi yield grade hoop steel, ASTM A615.
      1) 2 1/2" High Rings: Provide two 1/4" diameter steel hoops tied with No. 14 AWS gage wire, 8" on center.
      2) 6" and 8" High Rings: Provide four 1/4" diameter steel hoops, tied with No. 14 AWS gage wire, 8" on center.
   C. Gasket: Rubber-based, compressible.

3. **EXECUTION**
   A. Ring Manufacture:
      1) Fabrication, APWA Section 03 30 10.
      2) Cure, APWA Section 03 39 00.
   B. Field Installation: Seat rings with a compressible gasket.

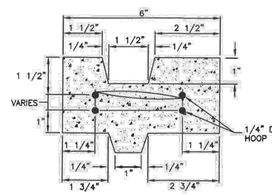
GRADE RING



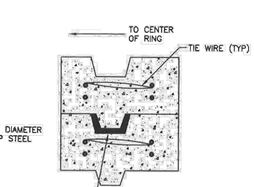
DECK SECTION



CONE SECTION



RING DETAIL



GASKET DETAIL

FOCUS ENGINEERING AND SURVEYING, LLC
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9/14/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION
GRANTSVILLE, UT
DETAILS

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
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DETAILS

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Date:	09/14/22	Job #:	21-0377
Sheet:	D5		

Z:_2021\21-0377 GTM - Duffes Street\design 21-0377\dwg\sheet\Final\Phase 1 Finish\D5 - Details.dwg

Raise frame to grade

1. **GENERAL**
   A. The plastic form is used to keep concrete in the annular space when fabricating cover collars for storm drain manholes, sanitary sewer manholes or other utilities.

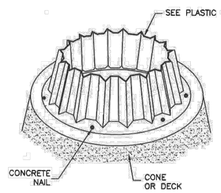
2. **PRODUCTS**
   A. Concrete Nails: CONTRACTOR's choice.

3. **EXECUTION**
   A. Adjust plastic form height so that the top of the manhole frame and cover matches longitudinal slope and cross slope of the pavement surface, and cover is 1/2-inch lower than the pavement surface.

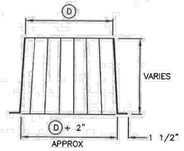
NOTE:
1. ALL CONCRETE TO BE 4500 PSI.

360.2

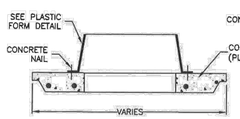
PLASTIC FORM



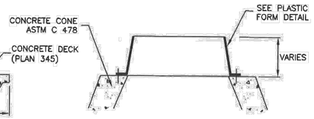
PLASTIC FORM OBLIQUE



PLASTIC FORM DETAIL



DECK SECTION



CONE SECTION

APWA Utah Chapter

Raise frame to grade

Plan 360.2 January 2010

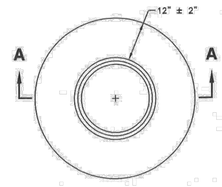
Cover collar for storm drains

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

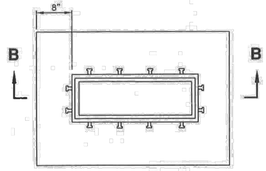
2. **PRODUCTS**
   A. Concrete: Class 4500 APWA Section 03 30 04.
   B. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

3. **EXECUTION**
   A. Pavement Preparation: Provide a neat vertical and concentric joint between concrete and existing bituminous concrete surfaces. Clean edges of all dirt, oil, and loose debris.
   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.

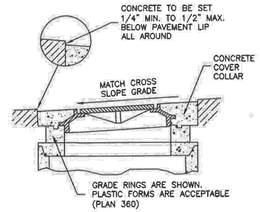
362



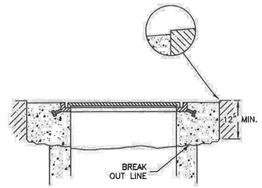
PLAN
(ROUND FRAME)



PLAN
(RECTANGULAR FRAME)



SECTION A-A



SECTION B-B

APWA Utah Chapter

Cover collar for storm drains

Plan 362 December 2010

Trench backfill

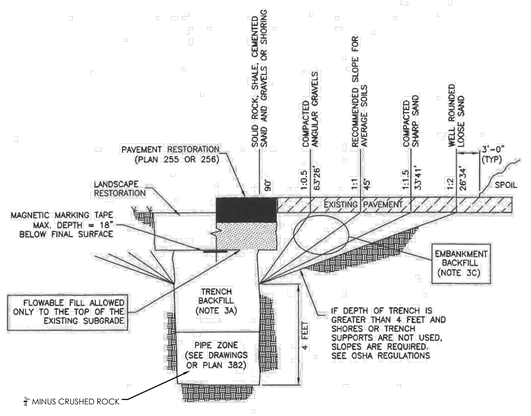
1. **GENERAL**
   A. The drawing applies to backfilling a trench (and embankment) above the pipe zone.

2. **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 the pipe zone.
      1) DO NOT USE sewer rock, pea gravel, or recycled RAP aggregate as trench backfill.
      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 26.
      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. .

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NARRATIVE: 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.



SEWER AND STORM DRAIN

APWA Utah Chapter

Trench backfill

Plan 381 July 2016

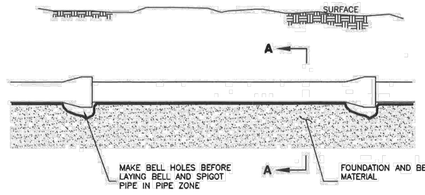
Pipe zone backfill

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.

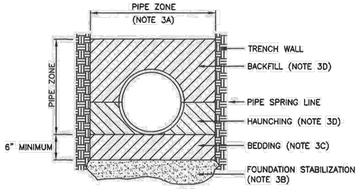
2. **PRODUCTS**
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   C. Concrete: APWA Section 03 30 04.
   D. Flowable Fill: Target is 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 manufacturer.
      2) Maximum lift thickness is 8-inches.
      3) Bedding immediately under the pipe should not be compacted, but loosely placed.
      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.
   D. 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 percent 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 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.

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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 GRAVITY-FLOW APPLICATIONS"

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.

APWA Utah Chapter

Pipe zone backfill

Plan 382 January 2011

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DETAILS

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
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DETAILS

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Date:	09/14/22	Job #:	21-0377
Sheet:	D6		

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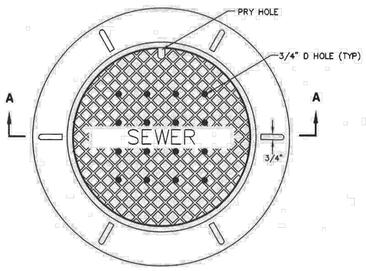
30" Frame and cover

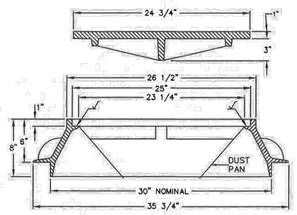
1. **GENERAL**
   A. The frame and cover fits the manhole in Plan 411.

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.
      3) √ designates machined surface.
      4) Cast the words "SEWER" on the cover in upper case flush with the surface finish.

3. **EXECUTION**
   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.

NOTE:
1. ALL CONCRETE TO BE 4500 PSI.





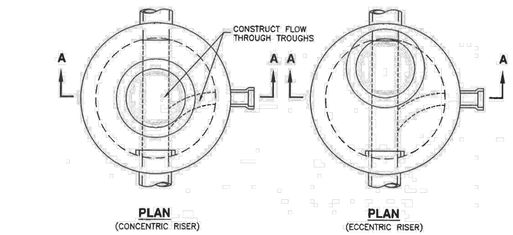
SECTION A-A

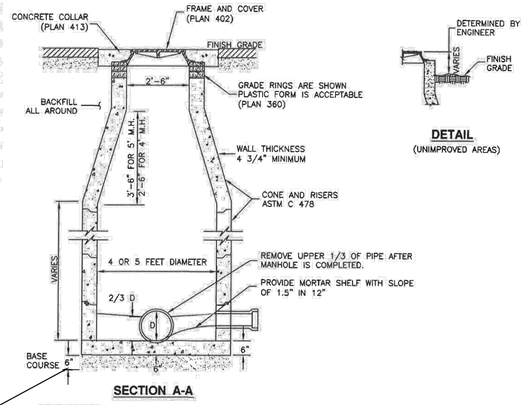
Sanitary sewer manhole

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 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. 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.
   I. 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.





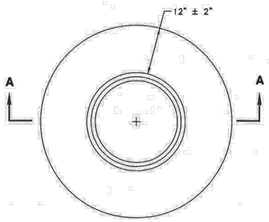
SECTION A-A

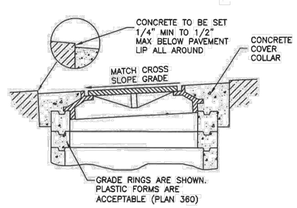
Cover collar for sanitary sewer manhole

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 pavment surface. Clean edges of all dirt, oil, and loose debris.
   B. Concrete Placement: Fill the annular space around the frame and cover casting with concrete. Apply a broom finish. Apply a curing agent.





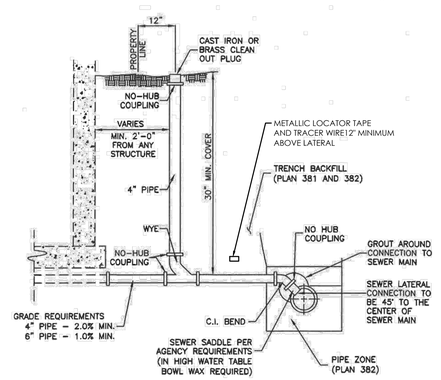
SECTION A-A

Sewer lateral connection

1. **GENERAL**
   A. Before installation, secure acceptance by ENGINEER for all pipe, fittings, and couplings to be used.
   B. Before backfilling, secure inspection of installation by ENGINEER. Give at least 24 hours notice.
   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.

3. **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 connection.
   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.



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MATTHEWS MEADOWS SUBDIVISION
GRANTSVILLE, UT
DETAILS

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
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DETAILS

Scale:	N/A	Drawn:	DCJ
Date:	09/14/22	Job #:	21-0377
Sheet:			

D7

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INSTALLATION SPECIFICATION

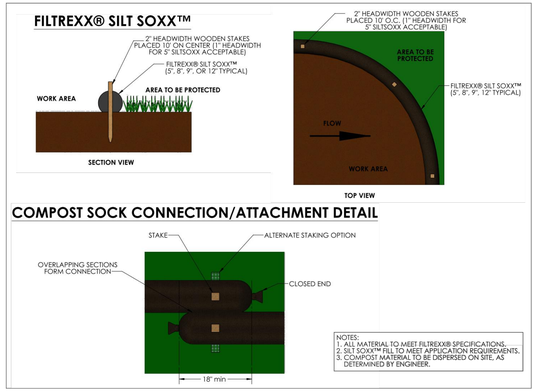
PERIMETER CONTROL - Compost Filter Sock

INSTALLATION

1. 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" high.
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 the Soxx.
7. Do not drag Soxx across rough surfaces. If dragging across a rough surface is necessary, place a barrier such as plastic or a tarp under Soxx to prevent tearing.
8. Loose compost may be backfilled along the upslope side of the perimeter control, filling the seam between the soil surface and the device, improving filtration and sediment retention.
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 specify seed requirements.

MAINTENANCE & DISPOSAL

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.



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

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INSTALLATION SPECIFICATION

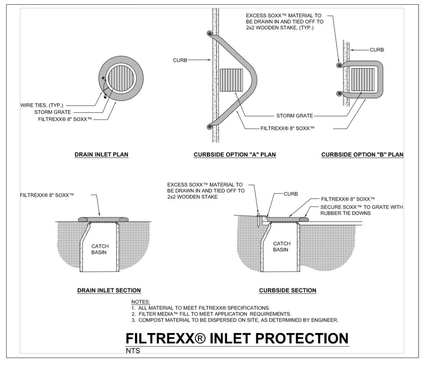
INLET PROTECTION - Compost Filter Sock

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 of the inlet protection may be acceptable in order to keep the area from flooding.
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 grates, a spacer is required in order to keep the inlet protection away from the drain opening. This spacer should be cinder 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 protection.
7. 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.

MAINTENANCE & DISPOSAL

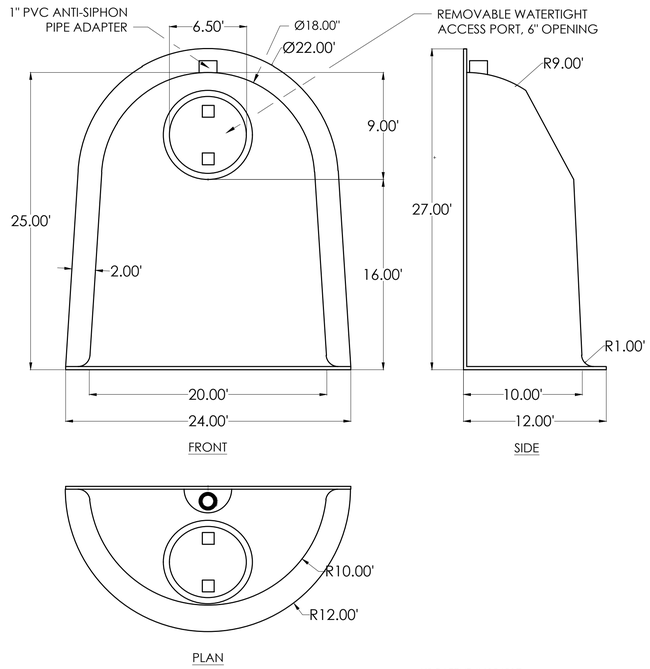
1. The Contractor shall remove sediment at the base of the upslope side of the inlet protection when accumulation has reached 1/2 of the effective height of the inlet protection, or as directed by the Engineer. Alternatively, for drain inlet protection, a new Soxx may be placed on top of the original increasing the sediment storage capacity without soil disturbance.
2. Inlet protection shall be maintained until disturbed area above 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 determined by the Engineer.



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

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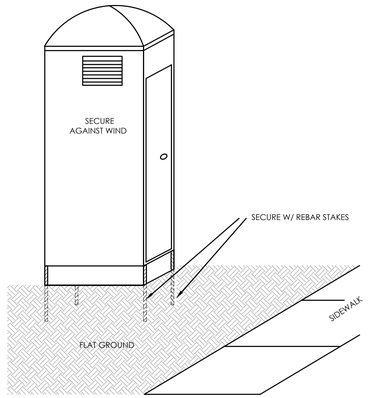
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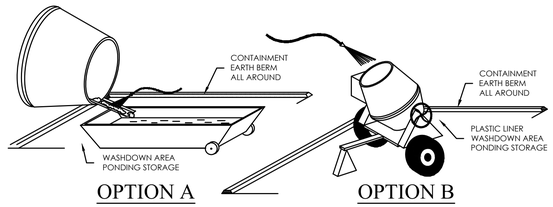
US PATENT #6126817ADDITIONAL PATENTS PENDING

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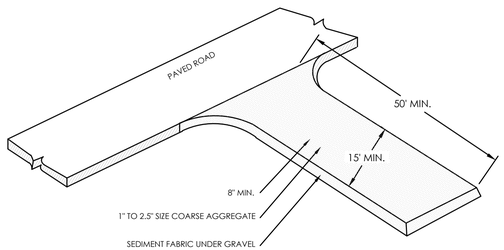
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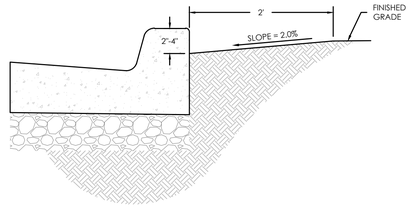
PORTABLE TOILET
NTS



CONCRETE WASTE MANAGEMENT
NTS



STABILIZED CONSTRUCTION ENTRANCE
NTS



CURB SEDIMENTATION TRAP
NTS

NOTE:
1. ALL CONCRETE TO BE 4500 PSI.

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DETAILS

REVISION BLOCK

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DETAILS

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Date: 09/14/22	Job #: 21-0377
Sheet: D8	

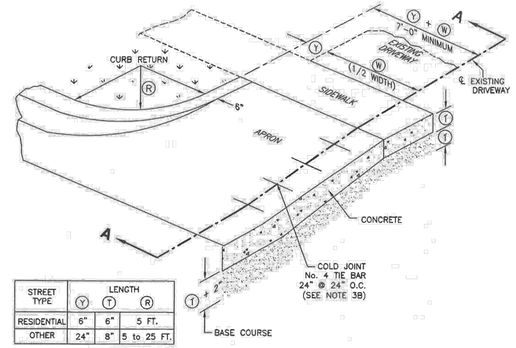
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Open driveway approach

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. Field Changes to Slope Requirements:
     1) Grades may have a 6 percent change in slope over a 11 feet wheel base run for both crest or sag vertical curves.
     2) Where heavy truck use and fire truck access applies, or to improve design speed, design grades should be cut in half.
     3) Specific uses or site conditions may require profile design submittal for review and acceptance.
   - C. Additional requirements are specified in APWA Section 32 16 13.

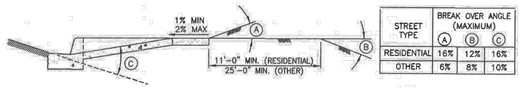
2. **PRODUCTS**
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73..
   - C. Concrete: Class 4500 APWA Section 03 30 04. If necessary, 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. Reinforcement: Galvanized or epoxy coated, deformed, 60 ksi yield grade steel, ASTM A615.
   - E. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

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. Reinforcement: Not required if driveway apron is constructed without a cold joint.
   - C. Concrete Placement: APWA Section 03 30 10.
     1) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface.
     2) Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Maximum length to width ratio for non-square panels is 1.5 to 1. Maximum panel length (in feet) is 1.5 times the slab thickness (in inches).
     3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   - D. 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.



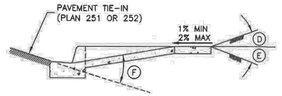
STREET TYPE	LENGTH (Y)	(T)	(R)
RESIDENTIAL	6"	6"	5 FT.
OTHER	24"	8"	5 to 25 FT.

OBLIQUE



STREET TYPE	BREAK OVER ANGLE (MAXIMUM) (A)	(B)	(C)
RESIDENTIAL	16%	12%	16%
OTHER	6%	8%	10%

SECTION A-A - APPROACH REQUIRING SERVICE TRUCK ACCESS



STREET TYPE	BREAK OVER ANGLE (MAXIMUM) (D)	(E)	(F)
RESIDENTIAL	16%	12%	16%
OTHER	6%	8%	10%

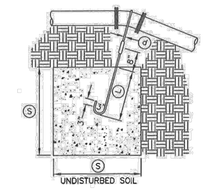
SECTION A-A - TYPICAL DRIVEWAY APPROACH

Tie-down thrust restraints

1. **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.

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 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.

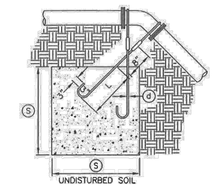
3. **EXECUTION**
   - A. Pour concrete against undisturbed soil. Concrete must be allowed to cure in thrust restraints for 5 days before pressurizing water lines or have additional approved thrust restraints installed before pressurizing the water line.
   - B. Pipe Joints: Do not cover with concrete. Leave completely accessible.
   - C. Grease: Apply grease to all buried metal surfaces. Wrap with polyethylene sheet and tape wrap.
   - 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

TABLE OF DIMENSIONS

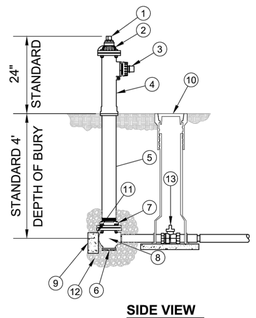
PIPE SIZE NOMINAL DIAMETER – INCH	VERTICAL BEND IN DEGREES	CONCRETE BLOCKING IN CUBIC FEET	(S) SIDE OF CUBE – FEET	(d) DIAMETER OF SHANK OR REBAR RODS – INCH	(L) DEPTH OF ROD CONCRETE – FEET
4"	11 1/4°	8	2.0	5/8"	1.5
	22 1/2°	15.6	2.5	5/8"	2.0
6"	11 1/4°	15.6	2.5	5/8"	2.0
	22 1/2°	34.3	3.25	5/8"	2.0
8"	11 1/4°	27	3.0	5/8"	2.0
	22 1/2°	64	4.0	5/8"	2.0
12"	11 1/4°	64	4.0	5/8"	2.0
	22 1/2°	125	5.0	3/4"	3.0
16"	11 1/4°	107	4.25	7/8"	3.0
	22 1/2°	216	6.0	7/8"	3.0
20"	11 1/4°	138	5.17	1"	3.5
	22 1/2°	334	6.94	1"	4.0
24"	11 1/4°	240	6.22	1"	4.0
	22 1/2°	476	7.81	1"	4.0
30"	11 1/4°	369	7.17	1"	4.0
	22 1/2°	733	9.02	1"	4.0



TYPE B RESTRAINT
FOR 45° VERTICAL BENDS

TABLE OF DIMENSIONS

PIPE SIZE NOMINAL DIAMETER – INCH	VERTICAL BEND IN DEGREES	CONCRETE BLOCKING IN CUBIC FEET	(S) SIDE OF CUBE – FEET	(d) DIAMETER OF SHANK OR REBAR RODS – INCH	(L) DEPTH OF ROD CONCRETE – FEET
4"	45°	1	3.0	5/8"	2.0
6"		2.37	4.0	5/8"	2.5
8"		3.97	4.75	5/8"	3.0
				5/8"	
12"		9.04	6.25	5/8"	4.0
				5/8"	
16"		17.24	7.75	3/4"	4.0
				3/4"	
20"		26.52	92.17	3/4"	4.0
				3/4"	
24"		37.82	10.07	3/4"	4.0
				3/4"	
30"		58.26	11.63	3/4"	4.0
				3/4"	



SIDE VIEW
SCALE: NTS

GENERAL NOTES:

1. #2 ECLIPSE POST HYDRANT SHALL BE SELF-DRAINING, NON-FREEZING, COMPRESSION TYPE WITH 2-3/16" MAIN VALVE OPENING. INLET CONNECTION SHALL BE 2" FIP. OUTLET SHALL BE 2 1/2". STANDARD DEPTH OF BURY IS 4'.
2. ALL WATER FLOW SHALL PASS THRU A 3-1/2" FBE COATED STEEL PIPE AND CAST IRON TOP STOCK WATERWAY.
3. ALL WORKING PARTS SHALL BE SERVICEABLE FROM ABOVE GROUND WITH NO DIGGING OR REPLACEMENT NEEDED.
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 FOUNDRY, ST. LOUIS MO. 63102.

ITEM	ITEM / DESCRIPTION	NOTES
1	OPERATING SCREW	
2	TOP CAP	
3	SIDE CAP	
4	TOP STOCK	
5	3-1/2" FBE COATED STEEL PIPE	
6	DRAIN HOLE	
7	COUPLING	
8	INLET VALVE BODY	
9	UNDISTURBED EARTH	
10	VALVE BOX	
11	THRUST BLOCK	
12	CRUSHED ROCK	
13	HYDRANT SHUT-OFF VALVE	

REV.	DATE	APPR.	DESCRIPTION

SCALE: -

GRANTSVILLE — INCORPORATED 1867 —

GRANTSVILLE CITY

ABOVE GRADE 2" BLOW-OFF INSTALLATION

SHEET 6-56

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

FOCUS©
ENGINEERING AND SURVEYING, LLC
6949 S. HIGH TECH DRIVE SUITE 200
MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

LICENSED PROFESSIONAL ENGINEER
No. 8028850-2202
THOMAS M. ROMNEY
9/14/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION
GRANTSVILLE, UT
DETAILS

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
2	----	----
3	----	----
4	----	----
5	----	----
6	----	----

DETAILS

Scale: N/A | Drawn: DCJ
Date: 09/14/22 | Job #: 21-0377
Sheet: D9

Z:_2021\21-0377 GTM - Duffee Street\design 21-0377\dwg\sheets\final\Phase 1 Final\D9- Details.dwg

GRANTSVILLE CITY GENERAL NOTES

1. 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.

3. 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.

5. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.

6. CURB, GUTTER, AND SIDEWALK, FOUND TO BE UNACCEPTABLE PER CITY STANDARDS AND APWA SHALL BE REMOVED AND REPLACED.

7. 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 REQUIRED.

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.

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 THROUGH FRIDAY 7:00 AM TO 4:00 PM

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 OR DESIGNEE.

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 DIRECTOR.

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.

7. 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 ACHIEVE COLOR. VINYL EC FILM IS NOT ACCEPTED.

10. ALL NEW ROUNDABOUTS, CROSSWALKS, STOP BARS AND LEGENDS SHALL BE INSTALLED WITH PAINT AND GLASS BEAD.

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 VOIDS.

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 EXCAVATION.

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 0.1 + TO 0.1 -.

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 CONDITION.

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.

5. 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 INSPECTION.

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 FOR WATER SERVICE.

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 VAULTS.

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 INSTALLED.

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ENGINEERING AND SURVEYING, LLC
6949 S. HIGH TECH DRIVE SUITE 200
MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

LICENSED PROFESSIONAL ENGINEER
No. 8028950-2202
THOMAS M. ROMNEY
09/14/22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
NOTES

REVISION BLOCK

#	DATE	DESCRIPTION
1	-----	-----
2	-----	-----
3	-----	-----
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5	-----	-----
6	-----	-----

NOTES

Scale: N/A	Drawn: DCJ
Date: 09/14/22	Job #: 21-0377
Sheet: D10	

Z:_2021\21-0377 GTM - Durfee Street\design 21-0377\dwg\sheets\Final\Phase 1 Final\D1 NOTES.dwg

GRANTSVILLE CITY
PRE-CONSTRUCTION NOTES

CHAIN OF COMMUNICATION

- FIRST CONTACT: BRAD PACE PUBLIC WORKS INSPECTOR
- 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 CHRISTY MONTIERTH IN PUBLIC WORKS.
  THE CITY IS FINE WITH THE MATERIALS THAT HAVE PREVIOUSLY BEEN USED.

SEWER

- 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.
- NATIVE SOILS MAY BE USED ABOVE THE PIPE ZONE IF THEY ARE SUITABLE TO THE CITY AND CAN MEET COMPACTION REQUIREMENTS (BLENDING MAY BE REQUIRED).
- OFFSET TEES FOR SEWER LATERALS; GASKET TYPE.
- COMPACTION - 95% IN ROADS, 90% OFF-ROAD (ASTM D-1557, MODIFIED PROCTOR)
- 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:

- 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 CLEAR.
- 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 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.
- NATIVE SOILS MAY BE USED ABOVE THE PIPE ZONE IF THEY ARE SUITABLE TO THE CITY AND CAN MEET COMPACTION REQUIREMENTS (BLENDING MAY BE REQUIRED)
- 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).
- USE 150# CORP STOPS.
- 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 ALLOWED.
- 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 TEST.

  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 N-12-WT
- 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
  - 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.
- THE CITY WILL SHARE INSPECTION REPORTS WITH THE CONTRACTOR.
- 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.
- CLOSE TRENCHES AT NIGHT.
- SECURE OPEN TRENCHES AND PLUG LINES.

SECURITY

- SECURE CONSTRUCTION EQUIPMENT WHEN NOT IN USE.

SANITATION

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

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 CHANGES. DOCUMENT CHANGES.

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:

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

END

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www.focusutah.com

LICENSED PROFESSIONAL ENGINEER
No. 8028850-2202
THOMAS M. ROMNEY
11-4-22
STATE OF UTAH

MATTHEWS MEADOWS SUBDIVISION PHASE 1
GRANTSVILLE, UT
PRE-CON NOTES

REVISION BLOCK

#	DATE	DESCRIPTION
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PRE-CON NOTES

Scale: N/A	Drawn: DCJ
Date: 09/14/22	Job #: 21-0377
Sheet: D11	

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AGENDA ITEM #7

Consideration of Resolution 2022-68 declaring certain property owned by Grantsville City as surplus and authorizing its disposal

GRANTSVILLE CITY
RESOLUTION NO. 2022-68

A RESOLUTION DECLARING CERTAIN PROPERTY OWNED BY GRANTSVILLE CITY AS SURPLUS AND AUTHORIZING DISPOSAL

WHEREAS, Grantsville City has the right and title to certain property for which it has no further use; and

WHEREAS, in accordance with State regulations, the City now seeks to dispose of said property pursuant to its policies and procedures; and

WHEREAS, the Grantsville City Council hereby determines that it is in the best interest of the City to authorize the property to be disposed.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF GRANTSVILLE CITY, STATE OF UTAH, AS FOLLOWS:

Section 1. Surplus. The Grantsville City Council hereby declares the property listed on "Exhibit A" as surplus and authorizes the City to dispose of said property via public auction, or any other legal means it deems necessary.

Section 2. Severability Clause. If any part or provision of this Resolution is held invalid or unenforceable, such invalidity or unenforceability shall not affect any other portion of this Resolution and all provisions, clauses and words of this Resolution shall be severable.

ADOPTED AND PASSED BY THE CITY COUNCIL OF GRANTSVILLE CITY, THIS 2nd DAY OF NOVEMBER, 2022.

BY ORDER OF THE

GRANTSVILLE CITY COUNCIL

_____
By Mayor Neil Critchlow

ATTEST

_____
Braydee Baugh, City Recorder

GRANTSVILLE
- FINANCE -

Memo

To: Council Members

From: Sherrie Broadbent

Date: October 26, 2022

Re: Vehicle Surplus - 2017 Ford Escape Vin # 1FMCU9GD7HUA04139

We are requesting the 2017 Ford Escape be declared surplus and auctioned. It is currently not able to run without repairs. This vehicle was being used by the City Engineer. We had already put $1,793.62 in repairs into it when we were told the engine was warped and would need to be replaced. This repair will be around $8,500. They could not give us an exact quote; it may be missing additional engine pieces. The vehicle has previously had the transfer case repaired.

This vehicle has a value of approx. $11,500.00 if it were repaired in fair condition. Due to the issues it has had in the past and the cost to repair it, we are recommending it be declared surplus and auctioned off in its current state. If the Council would like to approve the repairs we could use the vehicle for staff to take to trainings.

My Car's Value

2017 Ford Escape SE Sport Utility 4D 4.0 ★ (513 Ratings)

VIN: **1FMCU9GD7HUA04139**

Edit options Write a review

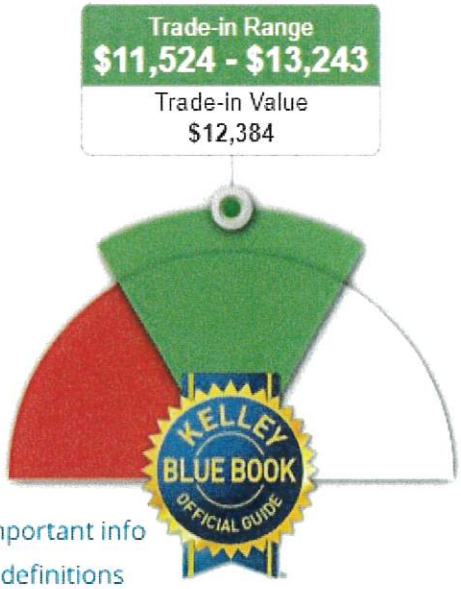
Recalls: **2 Recalls Found**
Is my car affected? →

Repair Estimator: **See Pricing**
What's a fair price? →

Options Next Steps

1 Your Options

Instant Cash Offer **Trade-in** Private Party Donate Your Car



ⓘ Important info & definitions

Instant Cash Offer

Instant Cash Offer Advantages

- Get your Instant Cash Offer online
- Redeem it at a Participating Dealer
- Get cash for your car or trade it in today

Get Offer

Factors That Impact Value

Check that yours are correct below.

Condition: Fair

Mileage: **60,370** ZIP Code: **84029**

S W ROSS AUTOMOTIVE INC

6 EAST MAIN ST
UT 84029 435-884-3390

Estimate

Date	Estimate #
9/14/2022	613

Name / Address
GRANTSVILLE, CITY [redacted]

Vehicle Info
17 ESCAPE 1.5L T

Qty	Item	Description	Price Each	Total
1	ENGINE	FORD DEALERSHIP - MID OCTOBER AVAILABLE, 3 YEAR UNLIMITED WARRANTY	4,795.00	4,795.00T
25	HOUR LABOR		120.00	3,000.00T
	SHOP SUPPLIES	SHOP SUPPLIES	5.00%	150.00T
1	PARTS	INSTALL KIT	142.10	142.10T
1	POWER STEERI...	ADDED POWER STEERING FLUID	11.95	11.95T
1	LOF GAS	CHANGED OIL (UP TO 5 QUARTS) AND FILTER. TOPPED OFF FLUIDS. LUBED FRONT END.	57.45	57.45T
2	COOLANT	ADDED COOLANT	16.95	33.90T
1	EVAC AND C123...	COMPLETED A/C EVAC AND CHARGE PER 1 POUND	234.95	234.95T

Subtotal	$8,425.35
Sales Tax (6.9%)	$581.35
Total	$9,006.70

Repair Order

ROSS AUTOMOTIVE

6 EAST MAIN STGRANTSVILLE
UT 84029 435-884-3390

Date	Invoice #
9/6/2022	12256

Bill To
GRANTSVILLE CITY [redacted]

MILES	VIN	YEAR/ MAKE	MODEL
	HUA04139	17 FORD	ESCAPE

Quantity	Item Code	Description	Price Each	Amount
		[redacted]		
1	PARTS	WATER PUMP	92.336	92.34T
1	PARTS	TIMING BELT	91.64	91.64T
1	PARTS	BOLT	120.00	120.00T
1	PARTS	DRIVE BELT	59.131	59.13T
2	COOLANT	ADDED COOLANT	16.95	33.90T
9	HOUR LABOR		120.00	1,080.00T
	SHOP SUPPLIES	SHOP SUPPLIES	5.00%	54.00T
2	PARTS	CRANKSHAFT POSITION SENSORS BM5Z6B288A	34.62	69.24T
1	PARTS	CONTROL VALVE SOLENOID CN1Z6M280E	42.40	42.40T
1	PARTS	CONTROL VALVE SOLENOID CN1Z6M280F	35.20	35.20T
		Sales Tax	6.90%	115.77

WE APPRECIATE YOUR BUSINESS!
PLEASE REMEMBER ALL WHEELS MUST BE RE-TORQUED AFTER 20 MILES.

Total $1,793.62

ALL PARTS SUPPLIED BY CUSTOMER(S) ARE NOT UNDER WARRANTY WITH ROSS AUTOMOTIVE AND ARE NOT LIABLE FOR ANY DAMAGE DUE TO SUPPLIED PART MALFUNCTION. THANK YOU FOR UNDERSTANDING AND CHOOSING ROSS AUTOMOTIVE!


CERT


670B





AGENDA ITEM #8

Consideration of Resolution 2022-69 approving the Development Agreement for Baker's Almost Acre Single Lot Development

GRANTSVILLE CITY
RESOLUTION NUMBER 2022-69

A RESOLUTION APPROVING A DEVELOPMENT AGREEMENT FOR THE BAKER'S ALMOST ACRE SUBDIVISION

WHEREAS, Grantsville City hereby determines that it will be in the best interest of the City to allow development of the subject property in accordance with a Development Agreement between the parties; and

WHEREAS, a Development Agreement will allow defined construction of public infrastructure by the Developer on the Property; and

WHEREAS, the City Council hereby finds this action is in the best interest of the public's health, safety and general welfare.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF GRANTSVILLE CITY, STATE OF UTAH, AS FOLLOWS:

Section 1. Development Agreement. The City of Grantsville approves the Development Agreement provided in Exhibit A, otherwise known as the Development Agreement for the Baker's Almost Acre Subdivision.

Section 2. Severability Clause. If any part or provision of this Resolution is held invalid or unenforceable, such invalidity or unenforceability shall not affect any other portion of this Resolution and all provisions, clauses and words of this Resolution shall be severable.

ADOPTED AND PASSED BY THE CITY COUNCIL OF GRANTSVILLE CITY, THIS 2nd DAY OF NOVEMBER, 2022.

BY ORDER OF THE

_____
By Mayor Neil Critchlow

ATTEST

_____
Braydee Baugh, City Recorder

MEMORANDUM

DATE: October 27, 2022

TO: Braydee Baugh, City Recorder

FROM: Cavett Eaton, Planning & Zoning Administrator

RE: **ZONING ITEMS UP FOR CONSIDERATION AT COUNCIL MEETING TO BE HELD NOVEMBER 2, 2022**

City Council Agenda Items #: Consideration of Resolution 2022-69 approving the Development Agreement for Baker Almost Acre.

The Planning Commission recommended approval this item on October 27 2022, with little discussion and the motion is at the end of the discussion:

Discussion:
Chris Baker had identified a few typos. Brett said he would correct them and have it ready for the Council.

Commission Member Gary Pinkham made a motion to recommend approval of the Development Agreement for Baker Almost Acre with the correction supplied by Brett. Commission Member Jamie Topham seconded the motion. All voted in favor and the motion carried unanimously

- End of Memorandum-

WHEN RECORDED, RETURN TO:

Brett Coombs, Esq.
Grantsville City Attorney
429 East Main Street
Grantsville City, Utah 84029

GRANTSVILLE CITY
MASTER DEVELOPMENT AGREEMENT
FOR
BAKER'S ALMOST ACRE SUBDIVISION

THIS MASTER DEVELOPMENT Agreement ("**Agreement**") is made and entered as of the _____ day of _____, 2022, by and between Grantsville City, a municipal corporation of the State of Utah ("**City**") and Christopher Baker, an Individual, operating in the State of Utah ("**Developer**").

RECITALS

A. The capitalized terms used in this Agreement and in these Recitals are defined in Section 1.2, below.

B. Developer owns and is developing the Property as a residential subdivision. Developer and the City desire that the Property be developed in a unified and consistent fashion pursuant to the Preliminary Plat and Final Plat. The Parties desire to enter into this Agreement to specify the rights and responsibilities of the Developer to develop the Property as expressed in this Agreement and the rights and responsibilities of the City to allow and regulate such development pursuant to the requirements of this Agreement.

C. The Parties understand and intend that this Agreement is a "development agreement" within the meaning of, and entered into pursuant to the terms of Utah Code Ann. §10-9a-101 (2005) *et seq*. This Agreement conforms with the intent of the City's General Plan and the Zoning.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the City and Developer hereby agree to the following, incorporating by reference the prior recitals as if fully set forth herein:

TERMS

1. **Definitions.** As used in this Agreement, the words and phrases specified below shall have the following meanings:

1.1. **Agreement** means this Master Development Agreement including all of its Exhibits and Addenda, including Addenda added after this Agreement is executed.
1.2. **Applicant** means a person or entity submitting a Development Application.
1.3. **Buildout** means the completion of all of the development in each phase of the entire Project in accordance with this Agreement.
1.4. **City** means Grantsville City, a political subdivision of the State of Utah.
1.5. **City's Future Laws** means the ordinances, policies, standards, and procedures which may be in effect as of a particular time in the future when a Development Application is submitted for a part of the Project and which may or may not be applicable to the Development Application depending upon the provisions of this Agreement.
1.6. **Council** means the elected City Council of the City.
1.7. **Default** means a breach of this Agreement as specified herein.
1.8. **Developer** means Christopher and Sorine Baker and their successors/assignees as permitted by this Agreement.
1.9. **Development** means the development of any portion of the Property pursuant to an approved Development Application.
1.10. **Development Application** means an application to the City for development of a portion of the Project or any other permit, certificate or other authorization from the City required for development of the Project.
1.11. **Final Plat** means the recordable map or other graphical representation of land prepared in accordance with Utah Code Ann. § 10-9a-603 (2019), and approved by the City, subdividing any portion of the Project.
1.12. **GLUDMC** means the Grantsville Land Use and Development Code.
1.13. **LUDMA** means the Land Use, Development, and Management Act, Utah Code Ann. § 10-9a-101 (2005), *et seq*.
1.14. **Maximum Residential Units** means the development on the Property of Baker's Almost Acre Subdivision, one (1) Residential Dwelling Unit.
1.15. **Notice** means any notice to or from any Party to this Agreement that is either required or permitted to be given to another party.
1.16. **Party/Parties** means, in the singular, Developer or the City; in the plural Developer and the City.
1.17. **Final Plat** means the final plat for the development of the Project, which has been approved by the City and which is attached as Exhibit "B."
1.18. **Project** means the residential subdivision to be constructed on the Property pursuant to this Agreement with the associated Public Infrastructure and private facilities, and all of the other aspects approved as part of this Agreement.
1.19. **Property** means the real property owned by and to be developed by Developer more fully described in **Exhibit A**.
1.20. **Public Infrastructure** means those elements of infrastructure that are planned to be dedicated to the City or other public entities as a condition of the approval of a Development Application.
1.21. **Residential Dwelling Unit** means a structure or portion thereof designed and intended for use as attached residences as illustrated on the Final Plan.
1.22. **Zoning** means the R-1-12 zoning of the Property.

2. **Development of the Project.**

2.1. **Compliance with the Final Plat and this Agreement.** Development of the Project shall be in accordance with LUDMA, GLUDMC, the City's Future Laws (to the extent they are applicable as specified in this Agreement), the Final Plat and this Agreement.

2.2. **Maximum Residential Units.** At Buildout, Developer shall be entitled to have developed the Maximum Residential Units of the type and in the general location as shown on the Final Plat.

3. **Vested Rights.**

3.1. **Vested Rights Granted by Approval of this Agreement.** To the maximum extent permissible under the laws of Utah and the United States and at equity, the Parties intend that this Agreement grants to Developer all rights to develop the Project in fulfillment of this Agreement, LUDMA, GLUDMC, the Zoning of the Property, and the Final Plat except as specifically provided herein. The Parties specifically intend that this Agreement grant to Developer the "vested rights" identified herein as that term is construed in Utah's common law and pursuant to Utah Code Ann. § 10-9a-509 (2019).

3.2. **Exceptions.** The vested rights and the restrictions on the applicability of the City's Future Laws to the Project as specified in Section 3.1 are subject to the following exceptions:

3.2.1. Developer Agreement. The City's Future Laws or other regulations to which the Developer agrees in writing;

3.2.2. State and Federal Compliance. The City's Future Laws or other regulations which are generally applicable to all properties in the City and which are required to comply with State and Federal laws and regulations affecting the Project;

3.2.3. Codes. Any City's Future Laws that are updates or amendments to existing building, fire, plumbing, mechanical, electrical, dangerous buildings, drainage, or similar construction or safety related codes, such as the International Building Code, the APWA Specifications, AAHSTO Standards, the Manual of Uniform Traffic Control Devices or similar standards that are generated by a nationally or statewide recognized construction/safety organization, or by the State or Federal governments and are required to meet legitimate concerns related to public health, safety or welfare;

3.2.4. Taxes. Taxes, or modifications thereto, so long as such taxes are lawfully imposed and charged uniformly by the City to all properties, applications, persons and entities similarly situated; or,

3.2.5. Fees. Changes to the amounts of fees for the processing of Development Applications that are generally applicable to all development within the City (or a portion of the City as specified in the lawfully adopted fee schedule) and which are adopted pursuant to State law.

3.2.6. Impact Fees. Impact Fees or modifications thereto which are lawfully adopted, and imposed by the City pursuant to Utah Code Ann. Section 11-36a-101 (2011) *et seq*.

3.2.7. Planning and Zoning Modification. Changes by the City to its planning principles and design standards as permitted by Local, State or Federal law.

3.2.8. Compelling, Countervailing Interest. Laws, rules or regulations that the City's land use authority finds, on the record, are necessary to avoid jeopardizing a compelling, countervailing public interest pursuant to Utah Code Ann. § 10-9a-509(1)(a)(i) (2020).

4. **Term of Agreement.** Unless earlier terminated as provided for herein, the term of this Agreement shall be until January 31, 2027. If Developer has not been declared to be currently in

Default as of January 31, 2027 then this Agreement shall be automatically extended until January 31, 2032. This Agreement shall also terminate automatically at Buildout.

5. **Addenda** Addendum No. 1 contains the provisions of this Agreement that are specific to the development of the Project. If there is a conflict between this Agreement and Addendum No. 1 or any future addenda, then Addendum No. 1 and the future addenda shall control.

6. **Public Infrastructure.**

6.1. **Construction by Developer.** Developer, at Developer's cost and expense, shall have the right and the obligation to construct or cause to be constructed and install all Public Infrastructure reasonably and lawfully required as a condition of approval of this Development Application pursuant to GLUDMC. Such construction must meet all applicable standards and requirements and must be approved by the City's Engineer and Public Works Director.

6.2. **Responsibility Before Acceptance.** Developer shall be responsible for all Public Infrastructure covered by this Agreement until final inspection of the same has been performed by the City, and a final acceptance and release has been issued by the City. The City shall not, nor shall any officer or employee thereof, be liable or responsible for any accident, loss or damage happening or occurring to the Public Infrastructure, nor shall any officer or employee thereof, be liable for any persons or property injured by reason of said Public Infrastructure; all of such liabilities shall be assumed by the Developer.

6.3. **Warranty.** Developer shall repair any defect in the design, workmanship or materials in all Public Infrastructure which becomes evident during a period of one year following the acceptance of the improvements by the City Council or its designee (Durability Testing Period). If during the Durability Testing Period, any Public Infrastructure shows unusual depreciation, or if it becomes evident that required work was not done, or that the material or workmanship used does not comply with accepted standards, said condition shall, within a reasonable time, be corrected.

6.4. **Timing of Completion of Public Infrastructure.** In accordance with the diligence requirements for the various types of approvals as described in the GLUDMC, construction of the required Public Infrastructure for each phase shall be completed within one year after the City Council grants final plat approval for that phase and prior to recordation of the mylar for that phase. Upon a showing of good and sufficient cause by Developer the City shall, in accordance with the provisions of GLUDMC, extend the time of performance if requested prior to expiration of the completion date.

6.5. **Bonding.** In connection with any Development Application, Developer shall provide bonds or other development security, including warranty bonds, to the extent required by GLUDMC, unless otherwise provided by Utah Code § 10-9a-101, *et seq*. (2005), as amended. The Applicant shall provide such bonds or security in a form acceptable to the City or as specified in GLUDMC. Partial releases of any such required security shall be made as work progresses based on GLUDMC.

6.6. **City Completion.** The Developer agrees that in the event he does not: (a) complete all improvements within the time period specified under 6.4 above, or secure an extension of said completion date, (b) construct said improvements in accordance with City standards and as set forth in 6.1 above, or (c) pay all claimants for material and labor used in the construction of said improvements, the City shall be entitled to declare the developer(s) in default, request and receive the funds held by the guarantor as surety and utilize the monies obtained to install or cause to be installed any uncompleted improvements and/or to pay any outstanding claims, as applicable. Provided however, that the City shall not be responsible for any work beyond the amount of funds so provided. Any funds remaining after completion of the improvements shall be returned to the Guarantor. The Developer further agrees to be personally liable for any cost of improvements above the amount made available under the terms of this agreement.

7. **Upsizing/Reimbursements to Developer.**

7.1. **Upsizing.** The City shall not require Developer to "upsize" any future Public Infrastructure (i.e., to construct the infrastructure to a size larger than required to service the Project) unless financial arrangements reasonably acceptable to Developer are made to compensate Developer for the incremental or additive costs of such upsizing to the extent required by law.

8. **Default.**

8.1. **Notice.** If Developer or the City fails to perform their respective obligations hereunder or to comply with the terms hereof, the Party believing that a Default has occurred shall provide Notice to the other Party.

8.2. **Contents of the Notice of Default**. The Notice of Default shall:

8.2.1. Specific Claim. Specify the claimed event of Default;

8.2.2. Applicable Provisions. Identify with particularity the provisions of any applicable law, rule, regulation or provision of this Agreement that is claimed to be in Default; and

8.2.3. Optional Cure. If the City chooses, in its discretion, it may propose a method and time for curing the Default which shall be of no less than thirty (30) days duration, if weather conditions permit.

8.3. **Remedies.** Upon the occurrence of any Default, and after notice as required above, then the parties may have the following remedies:

8.3.1. Law and Equity. All rights and remedies available at law and in equity, including, but not limited to, injunctive relief and/or specific performance.

8.3.2. Security. The right to draw on any security posted or provided in connection with the Project and relating to remedying of the particular Default.

8.3.3. Future Approvals. The right to withhold all further reviews, approvals, licenses, building permits and/or other permits for development of the Project in the case of a default by Developer until the Default has been cured.

8.4. **Public Meeting.** Before any remedy in Section 8.3 may be imposed by the City the party allegedly in Default shall be afforded the right to attend a public meeting before the City Council and address the City Council regarding the claimed Default.

8.5. **Default of Assignee.** A default of any obligations expressly assumed by an assignee shall not be deemed a default of Developer.

8.6. **Limitation on Recovery for Default – No Damages against the City.** Anything in

this Agreement notwithstanding, Developer shall not be entitled to any claim for any monetary damages as a result of any breach of this Agreement and Developer waives any claims thereto. The sole remedy available to Developer and any assignee shall be that of specific performance.

9. **Notices.** All notices required or permitted under this Agreement shall, in addition to any other means of transmission, be given in writing by certified mail and regular mail to the following address:

To the Developer:

Christopher Baker

To the City:

Grantsville City
Attn: City Manager
429 East Main Street
Grantsville, Utah 84029

10. **Dispute Resolution.** Any disputes subject to mediation shall be resolved pursuant to Addendum No. 2.

11. **Incorporation of Recitals and Exhibits.** The Recitals and Exhibits "A" - "B" are hereby incorporated into this Agreement.

12. **Headings.** The captions used in this Agreement are for convenience only and a not intended to be substantive provisions or evidences of intent.

13. **No Third-Party Rights/No Joint Venture.** This Agreement does not create a joint venture relationship, partnership or agency relationship between the City, or Developer. Except as specifically set forth herein, the parties do not intend this Agreement to create any third-party beneficiary rights.

14. **Assignability.** The rights and responsibilities of Master Developer under this Agreement may be assigned in whole or in part, respectively, by Developer with the consent of the City as provided herein.

14.1. **Sale of Lots.** Developer's selling or conveying lots in any approved subdivision shall not be deemed to be an assignment.

14.2. **Related Entity.** Developer's transfer of all or any part of the Property to any entity "related" to Developer (as defined by regulations of the Internal Revenue Service in Section 165), Developer's entry into a joint venture for the development of the Project or Developer's pledging of part or all of the Project as security for financing shall also not be deemed to be an assignment. Developer shall give the City Notice of any event specified in this sub-section within ten (10) days after the event has occurred. Such Notice shall include providing the City with all necessary contact information for the newly responsible party.

14.3. **Process for Assignment.** Developer shall give Notice to the City of any proposed

assignment and provide such information regarding the proposed assignee that the City may reasonably request in making the evaluation permitted under this Section. Such Notice shall include providing the City with all necessary contact information for the proposed assignee. Unless the City objects in writing within twenty (20) business days of notice, the City shall be deemed to have approved of and consented to the assignment. The City shall not unreasonably withhold consent.

14.4. **Partial Assignment.** If any proposed assignment is for less than all of Master Developer's rights and responsibilities then the assignee shall be responsible for the performance of each of the obligations contained in this MDA to which the assignee succeeds. Upon any such approved partial assignment Master Developer shall not be released from any future obligations as to those obligations which are assigned but shall remain jointly and severally liable with assignee(s) to perform all obligations under the terms of this Agreement which are specified to be performed by Developer.

14.5. **Complete Assignment.** Developer may request the written consent of the City of an assignment of Developer's complete interest in this Agreement, which consent shall not be unreasonably withheld. In such cases, the proposed assignee shall have the qualifications and financial responsibility necessary and adequate, as required by the City, to fulfill all obligations undertaken in this Agreement by Developer. The City shall be entitled to review and consider the ability of the proposed assignee to perform, including financial ability, past performance and experience. After review, if the City gives its written consent to the assignment, Developer shall be released from its obligations under this Agreement for that portion of the Property for which such assignment is approved.

15. **No Waiver.** Failure of any Party hereto to exercise any right hereunder shall not be deemed a waiver of any such right and shall not affect the right of such party to exercise at some future date any such right or any other right it may have.

16. **Severability.** If any provision of this Agreement is held by a court of competent jurisdiction to be invalid for any reason, the Parties consider and intend that this Agreement shall be deemed amended to the extent necessary to make it consistent with such decision and the balance of this Agreement shall remain in full force and affect.

17. **Force Majeure.** Any prevention, delay or stoppage of the performance of any obligation under this Agreement which is due to strikes, labor disputes, inability to obtain labor, materials, equipment or reasonable substitutes therefor; acts of nature, governmental restrictions, regulations or controls, judicial orders, enemy or hostile government actions, wars, civil commotions, fires or other casualties or other causes beyond the reasonable control of the Party obligated to perform hereunder shall excuse performance of the obligation by that Party for a period equal to the duration of that prevention, delay or stoppage.

18. **Time is of the Essence.** Time is of the essence to this Agreement and every right or responsibility shall be performed within the times specified.

19. **Appointment of Representatives.** To further the commitment of the Parties to cooperate in the implementation of this Agreement, the City and Developer each shall designate and appoint a representative to act as a liaison between the City and its various departments and the Developer. The initial representative for the City shall be the City Manager. The initial representative for Developer shall be Christopher Baker. The Parties may change their designated representatives by Notice. The representatives shall be available at all reasonable times to discuss and review the performance of the Parties to this Agreement and the development of the Project.

20. **Applicable Law.** This Agreement is entered into in Tooele County in the State of Utah and shall be construed in accordance with the laws of the State of Utah irrespective of Utah's choice of law rules.

21. **Venue.** Any action to enforce this Agreement shall be brought only in the Third District Court, Tooele County in and for the State of Utah.

22. **Entire Agreement.** This Agreement, and all Exhibits thereto, documents referenced herein, is the entire agreement between the Parties and may not be amended or modified except either as provided herein or by a subsequent written amendment signed by all Parties.

23. **Mutual Drafting.** Each Party has participated in negotiating and drafting this Agreement and therefore no provision of this Agreement shall be construed for or against any Party based on which Party drafted any particular portion of this Agreement.

24. **No Relationship.** Nothing in this Agreement shall be construed to create any partnership, joint venture or fiduciary relationship between the parties.

25. **Amendment**. This Agreement may be amended only in writing signed by the parties hereto.

26. **Recordation and Running with the Land.** This Agreement shall be recorded in the chain of title for the Project. This Agreement shall be deemed to run with the land.

27. **Priority**. This Agreement shall be recorded against the Property senior to any respective covenants and any debt security instruments encumbering the Property.

28. **Authority.** The Parties to this Agreement each warrant that they have all of the necessary authority to execute this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement by and through their respective, duly authorized representatives as of the day and year first herein above written.

DEVELOPER CHRISTOPHER BAKER	GRANTSVILLE CITY
_____	_____
_____	By: Jesse Wilson Its: City Manager
_____	
Approved as to form and legality:	Attest:
_____ City Attorney	_____ City Recorder

CITY ACKNOWLEDGMENT

STATE OF UTAH)
:ss.
COUNTY OF TOOELE)

On the _____ day of_____, 2022 personally appeared before me Jesse Wilson who being by me duly sworn, did say that he is the City Manager of Grantsville City, a political subdivision of the State of Utah, and that said instrument was signed in behalf of the City by authority of its City Council and said City Manager acknowledged to me that the City executed the same.

_____
NOTARY PUBLIC

My Commission Expires: _____

Residing at: _____

DEVELOPER ACKNOWLEDGMENT

STATE OF UTAH)
:ss.
COUNTY OF _____)

On the _____ day of _____, 20__, personally appeared before me _____, who being by me duly sworn, did say that he/she is the of _____, a Utah limited liability company and that the foregoing instrument was duly authorized by the company at a lawful meeting held by authority of its operating agreement and signed in behalf of said company.

_____

NOTARY PUBLIC

My Commission Expires: _____

Residing at: _____

TABLE OF EXHIBITS

Exhibit “A”	Legal Description of Property
Exhibit “B”	Final Plat
Addendum No. 1	Specific Project Terms
Addendum No. 2	Dispute Resolution Procedures

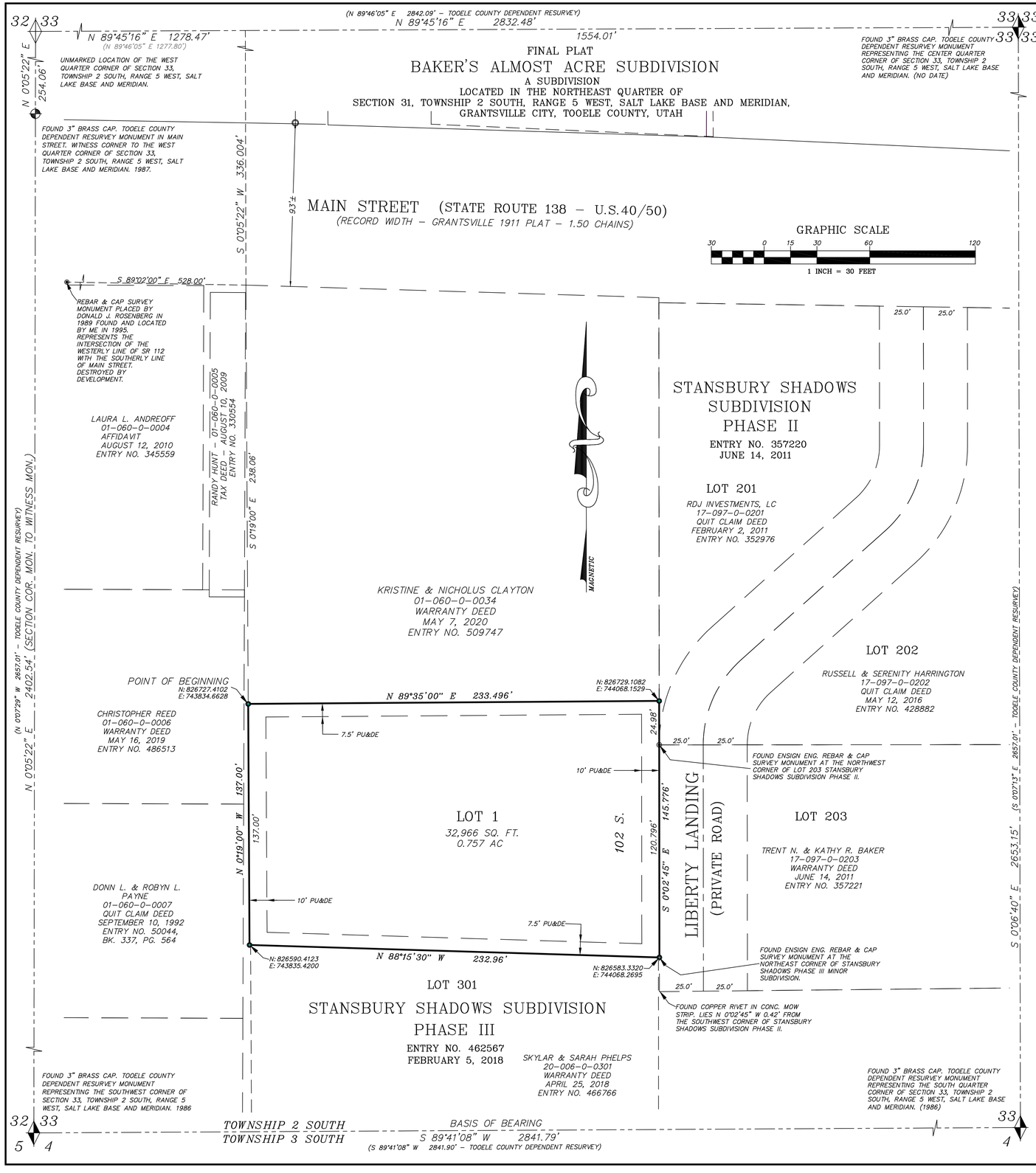
Exhibit “A”
Legal Description of Property

Parcel contains: 39,966 square feet, or 0.757 acres.

A PARCEL OF LAND LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 2 SOUTH, RANGE 5 WEST, SALT LAKE BASE AND MERIDIAN IN THE CITY OF GRANTSVILLE, TOOELE COUNTY, UTAH DESCRIBED BY SURVEY AS FOLLOWS: BEGINNING AT A POINT ON THE WESTERLY BOUNDARY OF THE ALAN NORTON MINOR SUBDIVISION, AN UNRECORDED SUBDIVISION OF GRANTSVILLE CITY, WHICH POINT LIES NORTH 89°45'16" EAST 1278.47 FEET (RECORD = NORTH 89°46'05" EAST 1277.80 FEET) ALONG THE CENTER SECTION LINE AND SOUTH 0°05'22" WEST 336.004 FEET (RECORD = SOUTH 0°07'29" EAST 336.90 FEET), AND SOUTH 0°19'00" EAST 238.06 FEET FROM THE UNMARKED LOCATION OF THE WEST QUARTER CORNER OF SECTION 33, TOWNSHIP 2 SOUTH, RANGE 5 WEST, SALT LAKE BASE AND MERIDIAN, SAID UNMARKED WEST QUARTER CORNER OF SECTION 33 LIES NORTH 0°05'22" EAST 254.06 FEET FROM A TOOELE COUNTY DEPENDENT RESURVEY WITNESS MONUMENT IN MAIN STREET, SAID WITNESS MONUMENT LIES NORTH 0°05'22" EAST 2402.54 FEET FROM A TOOELE COUNTY DEPENDENT RESURVEY MONUMENT REPRESENTING THE SOUTHWEST CORNER OF SAID SECTION 33 (BASIS OF BEARING FOR THIS DESCRIPTION IS NORTH 89° 41'08" EAST 2841.79 FEET ALONG THE SOUTH LINE OF SAID SECTION 33 AS DEFINED BY TOOELE COUNTY DEPENDENT RESURVEY MONUMENTS REPRESENTING THE SOUTHWEST CORNER AND SOUTH QUARTER CORNER OF SAID SECTION 33.), SAID POINT OF BEGINNING ALSO LIES S 89°02'00" E 528.00 FEET AND SOUTH 0°19'00" EAST 238.06 FEET FROM THE INTERSECTION OF THE EASTERLY RIGHT-OF-WAY LINE OF SR 112 WITH THE SOUTHERLY RIGHT-OF-WAY LINE OF MAIN STREET AS MARKED BY DONALD J. ROSENBERG IN 1989; THENCE NORTH 89°35'00" EAST 233.496 FEET TO INTERSECT THE WESTERLY BOUNDARY OF STANSBURY SHADOWS SUBDIVISION PHASE II, RECORDED JUNE 14, 2011 AS ENTRY NO. 357220 IN THE OFFICE OF THE TOOELE COUNTY RECORDER; THENCE ALONG SAID WESTERLY BOUNDARY OF SAID STANSBURY SHADOWS SUBDIVISION PHASE II; THENCE SOUTH 0°02'45" EAST 145.776 FEET TO A REBAR & CAP SURVEY MONUMENT PLACED BY ENSIGN ENGINEERING MARKING THE NORTHEAST CORNER OF STANSBURY SHADOWS PHASE III MINOR SUBDIVISION, RECORDED FEBRUARY 5, 2018 AS ENTRY NO. 462567 IN THE OFFICE OF SAID TOOELE COUNTY RECORDER; THENCE ALONG THE NORTHERLY BOUNDARY OF SAID STANSBURY SHADOWS PHASE 111 MINOR SUBDIVISION AND BEYOND, NORTH 88° 15'30" WEST 232.96 FEET, MORE OR LESS, TO A REBAR & CAP SURVEY MONUMENT PLACED BY NOLAN C. HATHCOCK AT AN EXISTING FENCE CORNER (RECORD ALAN NORTON MINOR SUBDIVISION = NORTH 87°59' WEST 231.84 FEET, RECORD STANSBURY SHADOWS PHASE IN MINOR SUBDIVISION = N 88°15'30" W); THENCE ALONG AN EXISTING FENCE LINE MARKING THE WESTERLY BOUNDARY OF SAID ALAN NORTON MINOR SUBDIVISION, NORTH 0°19'00" WEST 137.00 FEET TO THE POINT OF BEGINNING. OUT OF 1-60-28 FOR 2019 YEAR. 11

THE ABOVE-DESCRIBED PARCEL OF LAND CONTAINS APPROXIMATELY 32,966 SQUARE FEET IN AREA OR 0.757 ACRES.

Exhibit “B”
Final Plat



OWNER'S DEDICATION
CONSENT TO RECORD

Know all men by these presents that the undersigned are the owners of the hereon described tract of land and hereby causes the same to be divided into one lot, together with easements as set forth, hereafter to be known as:

BAKER'S ALMOST ACRE SUBDIVISION

The undersigned owners hereby convey to Grantsville City and to any and all public utility companies providing service to the hereon described tract a perpetual, non-exclusive easement over the public utility and drainage easements shown on this plat, the same to be used for drainage and the installation, maintenance and operation of public utility service lines and facilities.

In witness whereof the owners have hereunto set their hands this _____ *day of* _____, *A.D. 202___.*

ATM INVESTMENTS, LLC

_____
Christopher Neal Baker

_____
Sorine Kae Baker

ACKNOWLEDGMENT

STATE OF UTAH

County of _____ } s.s.

On the _____ *day of* _____, *A.D. 202___, personally appeared before me, the undersigned Notary Public, in and for said County of* _____ *in the State of Utah, Christopher Neal Baker and Sorine Kae Baker, the signers of the above Owner's Dedication, who duly acknowledged to me that they signed it freely and voluntarily and for the uses and purposes therein mentioned.*

MY COMMISSION EXPIRES: _____

NOTARY PUBLIC: _____

RESIDING IN: _____

NOTES

1. *A 7.5' Public Utility & Drainage Easement is hereby created parallel with the side lot lines in this subdivision. A 10' Public Utility & Drainage Easement is hereby created parallel with the front and rear lot lines in this minor subdivision unless otherwise noted hereon.*

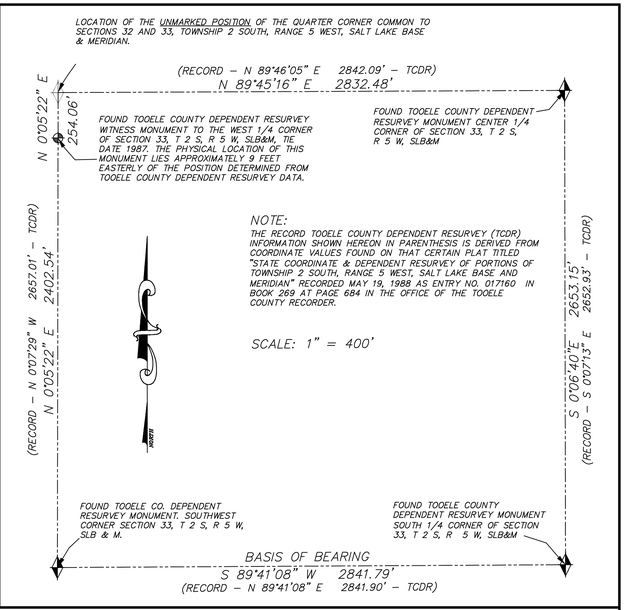
2. *Coordinate values shown hereon are based upon Tooele County Dependent Resurvey data.*

3. *5/8" rebar with yellow plastic caps have been set as indicated by the legend shown hereon, as well as one copper rivet witnessing the southeast corner of Lot 1 as noted hereon. No additional offset pins will be set in the curb or sidewalk.*

LEGEND

- *FOUND TOOELE COUNTY DEPENDENT RESURVEY MONUMENT*
- *UNMARKED LOCATION OF CORNER POSITION DETERMINED BY THE TOOELE COUNTY DEPENDENT RESURVEY*
- *FOUND TOOELE COUNTY DEPENDENT RESURVEY WITNESS MONUMENT*
- *SET 5/8" x 24" REBAR WITH YELLOW PLASTIC CAP MARKED "HATHCOCK – LS 166346" (UNLESS OTHERWISE NOTED HEREON)*

PU&DE — *PUBLIC UTILITY & DRAINAGE EASEMENT*



SURVEYOR'S CERTIFICATE

I, Nolan C. Hathcock, do hereby certify that I am a Professional Land Surveyor, and that I hold License No. 166346, in accordance with Title 58, Chapter 22, of the Professional Engineers and Land Surveyors Act; I further certify that by authority of the owners I have completed a survey of the property described on this plat in accordance with Section 17-23-17, have verified all measurements, and have hereon represented said tract of land as one legal lot, together with easements, hereafter to be known as

BAKER'S ALMOST ACRE SUBDIVISION

and that the same has been correctly surveyed and monumented on the ground as shown on this plat.

BOUNDARY DESCRIPTION

A parcel of land located in the Southwest Quarter of Section 33, Township 2 South, Range 5 West, Salt Lake Base and Meridian in the city of Grantsville, Tooele County, Utah described by survey as follows:

Beginning at a point on the westerly boundary of the Alan Norton Minor Subdivision, an unrecorded subdivision of Grantsville City, which point lies North 89°45'16" East 1278.47 feet (record = North 89°46'05" East 1277.80 feet) along the center section line and South 0°05'22" West 336.004 feet (record = South 0°07'29" East 336.90 feet), and South 0°19'00" East 238.06 feet from the unmarked location of the West Quarter Corner of Section 33, Township 2 South, Range 5 West, Salt Lake Base and Meridian, said unmarked West Quarter Corner of Section 33 lies North 0°05'22" East 254.06 feet from a Tooele County Dependent Resurvey witness monument in Main Street, said witness monument lies North 0°05'22" East 2402.54 feet from a Tooele County Dependent Resurvey monument representing the Southwest Corner of said Section 33 (Basis of Bearing for this description is North 89°41'08" East 2841.79 feet along the south line of said Section 33 as defined by Tooele County Dependent Resurvey monuments representing the Southwest Corner and South Quarter Corner of said Section 33,), said Point of Beginning also lies S 89°02'00" E 528.00 feet and South 0°19'00" East 238.06 feet from the intersection of the easterly right-of-way line of SR 112 with the southerly right-of-way line of Main Street as marked by Donald J. Rosenberg in 1989; thence North 89°35'00" East 233.496 feet to intersect the westerly boundary of STANSBURY SHADOWS SUBDIVISION PHASE II, recorded June 14, 2011 as Entry No. 357220 in the office of the Tooele County Recorder; thence along said westerly boundary of said STANSBURY SHADOWS SUBDIVISION PHASE II; thence South 0°02'45" East 145.776 feet to a rebar & cap survey monument placed by Ensign Engineering marking the northeast corner of STANSBURY SHADOWS PHASE III MINOR SUBDIVISION, recorded February 5, 2018 as Entry No. 462567 in the office of said Tooele County Recorder; thence along the northerly boundary of said STANSBURY SHADOWS PHASE III MINOR SUBDIVISION and beyond, North 88°15'30" West 232.96 feet, more or less, to a rebar & cap survey monument placed by Nolan C. Hathcock at an existing fence corner (record Alan Norton Minor Subdivision = North 87°59' West 231.84 feet, record Stansbury Shadows Phase III Minor Subdivision = N 88°15'30" W); thence along an existing fence line marking the westerly boundary of said Alan Norton Minor Subdivision, North 0°19'00" West 137.00 feet to the Point of Beginning.

The above-described parcel of land contains approximately 32,966 square feet in area or 0.757 acres, one lot.

REGISTERED LAND SURVEYOR
Nolan C. Hathcock
NO. 166346
NOLAN C. HATHCOCK
8/10/2022
STATE OF UTAH

FINAL PLAT

BAKER'S ALMOST ACRE SUBDIVISION

A SUBDIVISION
LOCATED IN THE NORTHEAST QUARTER OF
SECTION 31, TOWNSHIP 2 SOUTH, RANGE 5 WEST, SALT LAKE BASE AND MERIDIAN
GRANTSVILLE CITY, TOOELE COUNTY, UTAH

OWNER/DEVELOPER

CHRISTOPHER NEAL BAKER & SORINE KAE BAKER
WARRANTY DEED
ENRTY NO. 501306
RECORDED JAN. 10, 2020
01-060-0-0035

PREPARED BY:	GRANTSVILLE CITY ENGINEER	GRANTSVILLE CITY PUBLIC WORKS
NOLAN C. HATHCOCK PROFESSIONAL LAND SURVEYOR UTAH LICENSE NO. 166346 9592 STORNOWAY CIRCLE SOUTH JORDAN, UTAH 84009 PHONE: 801-557-5398	*APPROVED THIS _____ DAY OF _____, 202___ BY THE GRANTSVILLE CITY ENGINEER.* *CITY ENGINEER OR DESIGNEE*	*APPROVED THIS _____ DAY OF _____, 202___ BY THE GRANTSVILLE CITY PUBLIC WORKS DIRECTOR.* *PUBLIC WORKS DIRECTOR OR DESIGNEE*
GRANTSVILLE CITY ATTORNEY	TOOELE COUNTY TREASURER	GRANTSVILLE CITY FIRE MARSHALL
APPROVED THIS _____ DAY OF _____, 202___ BY THE GRANTSVILLE CITY ATTORNEY. *GRANTSVILLE CITY ATTORNEY*	*APPROVED THIS _____ DAY OF _____, 202___ BY THE TOOELE COUNTY TREASURER* *TOOELE COUNTY TREASURER*	*APPROVED THIS _____ DAY OF _____, 202___ BY THE GRANTSVILLE CITY FIRE MARSHALL.* *GRANTSVILLE CITY FIRE MARSHALL*
TOOELE COUNTY SURVEY DEPT.	GRANTSVILLE CITY MAYOR	
APPROVED THIS _____ DAY OF _____, 202___ BY THE TOOELE COUNTY SURVEY DEPARTMENT. RECORD OF SURVEY, FILE NO. 2018-0043-01 *DIRECTOR, TOOELE COUNTY SURVEY DEPT.*	*PRESENTED TO THE GRANTSVILLE CITY COUNCIL THIS _____ DAY OF _____, 202___, AT WHICH TIME IT WAS ACCEPTED AND APPROVED.* *MAYOR* *ATTEST: CITY RECORDER*	*RECORDED #* _____ *STATE OF UTAH, COUNTY OF TOOELE, RECORDED AND FILED AT THE REQUEST OF:* _____ *DATE:* _____ *TIME* _____ *FEE $* _____ *TOOELE COUNTY RECORDER*

SPRINGFIELD ESTATES SUBDIVISION
ADDENDUM NO.1

TERMS

1. **Definitions.** The capitalized terms used in this Addendum No. 1 shall have the meanings set forth in the MDA unless otherwise specified herein.

2. **Modifications to GLUDMC and Other City Standards.** The City has agreed to the following exceptions to the GLUDMC and Grantsville City Construction Standards and Specifications:
   a. Liberty Landing is a completely finished street that has not been constructed to the City standards. The City Council has waived the requirements for improvements as the City has no intention to upgrade the street.
   b. The property does not front a sanitary sewer and is over 300 feet away from a sanitary sewer, therefore Baker's Almost Acre is not required to tie into the sanitary sewer.
   c. With the exceptions noted, the Development otherwise complies with GLUDMA and other City Standards.

3. **Offsite Improvements:**
   a. No offsite improvements required.

4. **Open Space:**
   a. No open space is required.

5. **Construction Coordination:**
   a. The Developer shall provide the City 48 hours' notice to coordinate with the City prior to working on or around existing City water and sewer infrastructure.
   b. All connections to City water and sewer infrastructure shall be inspected by the City prior to back-filling.
   c. The Developer shall request inspections at least 48 hours prior to the day the Contractor desires the inspection to occur.
   d. The Developer shall request disinfection testing at least 48 hours prior to the day the Contractor desires the testing to occur.

Addendum No. 2
(Dispute Resolution)

1. **Meet and Confer.** The City and Developer/Applicant shall meet within fifteen (15) business days of any dispute under this Agreement to resolve the dispute.

2. **Mediation.**

2.1. Disputes Subject to Mediation. All disputes shall be mediated.

2.2. Mediation Process. If the City and Developer/Applicant are unable to resolve a disagreement subject to mediation, the Parties shall attempt within ten (10) business days to appoint a mutually acceptable mediator with knowledge of the legal issue in dispute. If the Parties are unable to agree on a single acceptable mediator they shall each, within ten (10) business days, appoint their own representative. These two representatives shall, between them, choose the single mediator. Developer/Applicant shall pay the fees of the chosen mediator. The chosen mediator shall within fifteen (15) business days from selection, or such other time as is reasonable under the circumstances, review the positions of the Parties regarding the mediation issue and promptly attempt to mediate the issue between the Parties. If the Parties are unable to reach an agreement, the Parties shall request that the mediator notify the Parties in writing of the resolution that the mediator deems appropriate. The mediator's opinion shall not be binding on the Parties.

AGENDA ITEM #9

Consideration of Resolution 2022-70 approving the Development Agreement for Provident Business Park

GRANTSVILLE CITY
RESOLUTION NUMBER 2022-70

A RESOLUTION APPROVING A DEVELOPMENT AGREEMENT FOR THE PROVIDENT BUSINESS PARK

WHEREAS, Grantsville City hereby determines that it will be in the best interest of the City to allow development of the subject property in accordance with a Development Agreement between the parties; and

WHEREAS, a Development Agreement will allow defined construction of public infrastructure by the Developer on the Property; and

WHEREAS, the City Council hereby finds this action is in the best interest of the public's health, safety and general welfare.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF GRANTSVILLE CITY, STATE OF UTAH, AS FOLLOWS:

Section 1. Development Agreement. The City of Grantsville approves the Development Agreement provided in Exhibit A, otherwise known as the Development Agreement for the Provident Business Park.

Section 2. Severability Clause. If any part or provision of this Resolution is held invalid or unenforceable, such invalidity or unenforceability shall not affect any other portion of this Resolution and all provisions, clauses and words of this Resolution shall be severable.

ADOPTED AND PASSED BY THE CITY COUNCIL OF GRANTSVILLE CITY, THIS 2nd DAY OF NOVEMBER, 2022.

BY ORDER OF THE

_____
By Mayor Neil Critchlow

ATTEST

_____
Braydee Baugh, City Recorder

MEMORANDUM

DATE: October 27, 2022

TO: Braydee Baugh, City Recorder

FROM: Cavett Eaton, Planning & Zoning Administrator

RE: **ZONING ITEMS UP FOR CONSIDERATION AT COUNCIL MEETING TO BE HELD NOVEMBER 2, 2022**

City Council Agenda Items #9: Consideration of Resolution 2022-70 approving the Development Agreement for Provident Business Park.

The Planning Commission recommended approval this item on October 27 2022, with little discussion and the motion is at the end of the discussion:

Discussion:

Brett – This is a business development. There are a few changes from a residential development. It can be done in phase but can be done all as one depending on what the developer needs.

Gary – we talked about the storm drainage under the highway.
Jesse – All indications is that it is plugged and has been for a number of years.

Commission Member Gary Pinkham made a motion to recommend approval of the Development Agreement for Provident Business Park. Commission Member Jamie Topham seconded the motion. All voted in favor and the motion carried unanimously

- End of Memorandum-

WHEN RECORDED, RETURN TO:

Brett Coombs, Esq.
Grantsville City Attorney
429 East Main Street
Grantsville City, Utah 84029

GRANTSVILLE CITY
MASTER DEVELOPMENT AGREEMENT
FOR
PROVIDENT BUSINESS PARK

THIS MASTER DEVELOPMENT Agreement ("**Agreement**") is made and entered as of the _____ day of _____, 2022, by and between Grantsville City, a municipal corporation of the State of Utah ("**City**") and Shannon Fowles, an individual residing in the State of Utah ("**Developer**")(collectively the "**Parties**").

RECITALS

A. The capitalized terms used in this Agreement and in these Recitals are defined in Section 1.2, below.

B. Developer owns and is developing the Property as a commercial business park. Developer and the City desire that the Property be developed in a unified and consistent fashion pursuant to the Preliminary Plat and Final Plat. The Parties desire to enter into this Agreement to specify the rights and responsibilities of the Developer to develop the Property as expressed in this Agreement and the rights and responsibilities of the City to allow and regulate such development pursuant to the requirements of this Agreement.

C. The Parties understand and intend that this Agreement is a "development agreement" within the meaning of, and entered into pursuant to the terms of Utah Code Ann. §10-9a-101 (2005) *et seq*. This Agreement conforms with the intent of the City's General Plan and Zoning Map.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the City and Developer hereby agree to the following, incorporating by reference the prior recitals as if fully set forth herein:

TERMS

1. **Definitions.** As used in this Agreement, the words and phrases specified below shall have the following meanings:

1.1. **Agreement** means this Master Development Agreement including all of its Exhibits and Addenda, including Addenda added after this Agreement is executed.
1.2. **Applicant** means a person or entity submitting a Development Application.
1.3. **Buildout** means the completion of all of the development in each phase of the entire Project in accordance with this Agreement.
1.4. **City** means Grantsville City, a political subdivision of the State of Utah.
1.5. **City's Future Laws** means the ordinances, policies, standards, and procedures which may be in effect as of a particular time in the future when a Development Application is submitted for a part of the Project and which may or may not be applicable to the Development Application depending upon the provisions of this Agreement.
1.6. **Council** means the elected City Council of the City.
1.7. **Default** means a breach of this Agreement as specified herein.
1.8. **Developer** means Shannon Fowles and his successors/assignees as permitted by this Agreement.
1.9. **Development** means the development of any portion of the Property pursuant to an approved Development Application.
1.10. **Development Application** means an application to the City for development of any portion of the Project or any other permit, certificate or other authorization from the City required for development of the Project.
1.11. **Final Plat** means the recordable map or other graphical representation of land prepared in accordance with Utah Code Ann. § 10-9a-603 (2019), and approved by the City, subdividing any portion of the Project, which attached as Exhibit "B".
1.12. **GLUDMC** means the Grantsville Land Use and Development Code.
1.13. **LUDMA** means the Land Use, Development, and Management Act, Utah Code Ann. § 10-9a-101 (2005), *et seq*.
1.14. **Maximum Commercial Units** means the development on the Property of Provident Business Park, eleven (11) Commercial or Business Units.
1.15. **Notice** means any notice to or from any Party to this Agreement that is either required or permitted to be given to another party.
1.16. **Party/Parties** means, in the singular, Developer or the City; in the plural Developer and the City.
1.17. **Project** means the business park to be constructed on the Property, in phases or at one time, pursuant to this Agreement with the associated Public Infrastructure and private facilities, and all of the other aspects approved as part of this Agreement.
1.18. **Property** means the real property owned by and to be developed by Developer more fully described in **Exhibit A**.
1.19. **Public Infrastructure** means those elements of infrastructure that are planned to be dedicated to the City or other public entities as a condition of the approval of a Development Application.
1.20. **Commercial Unit** means a structure or portion thereof designed and intended for use as a business or other commercial enterpise as illustrated on the Final Plan.
1.21. **Zoning** means the M-D zoning of the Property.

2. **Development of the Project.**

2.1. **Compliance with the Final Plat and this Agreement.** Development of the Project shall be in accordance with LUDMA, GLUDMC, the City's Future Laws (to the extent they are applicable as specified in this Agreement), the Final Plat and this Agreement.

2.2. **Maximum Commercial Units.** At Buildout, Developer shall be entitled to have developed the Maximum Commercial Units of the type and in the general location as shown on the Final Plat.

3. **Vested Rights.**

3.1. **Vested Rights Granted by Approval of this Agreement.** To the maximum extent permissible under the laws of Utah and the United States and at equity, the Parties intend that this Agreement grants to Developer all rights to develop the Project in fulfillment of this Agreement, LUDMA, GLUDMC, the Zoning of the Property, and the Final Plat except as specifically provided herein. The Parties specifically intend that this Agreement grant to Developer the "vested rights" identified herein as that term is construed in Utah's common law and pursuant to Utah Code Ann. § 10-9a-509 (2019).

3.2. **Exceptions.** The vested rights and the restrictions on the applicability of the City's Future Laws to the Project as specified in Section 3.1 are subject to the following exceptions:

3.2.1. Developer Agreement. The City's Future Laws or other regulations to which the Developer agrees in writing;

3.2.2. State and Federal Compliance. The City's Future Laws or other regulations which are generally applicable to all properties in the City and which are required to comply with State and Federal laws and regulations affecting the Project;

3.2.3. Codes. Any City's Future Laws that are updates or amendments to existing building, fire, plumbing, mechanical, electrical, dangerous buildings, drainage, or similar construction or safety related codes, such as the International Building Code, the APWA Specifications, AAHSTO Standards, the Manual of Uniform Traffic Control Devices or similar standards that are generated by a nationally or statewide recognized construction/safety organization, or by the State or Federal governments and are required to meet legitimate concerns related to public health, safety or welfare;

3.2.4. Taxes. Taxes, or modifications thereto, so long as such taxes are lawfully imposed and charged uniformly by the City to all properties, applications, persons and entities similarly situated; or,

3.2.5. Fees. Changes to the amounts of fees for the processing of Development Applications that are generally applicable to all development within the City (or a portion of the City as specified in the lawfully adopted fee schedule) and which are adopted pursuant to State law.

3.2.6. Impact Fees. Impact Fees or modifications thereto which are lawfully adopted, and imposed by the City pursuant to Utah Code Ann. Section 11-36a-101 (2011) *et seq*.

3.2.7. Planning and Zoning Modification. Changes by the City to its planning principles and design standards as permitted by Local, State or Federal law.

3.2.8. Compelling, Countervailing Interest. Laws, rules or regulations that the City's land use authority finds, on the record, are necessary to avoid jeopardizing a compelling, countervailing public interest pursuant to Utah Code Ann. § 10-9a-509(1)(a)(i) (2020).

4. **Term of Agreement.** Unless earlier terminated as provided for herein, the term of this Agreement shall be until January 31, 2027. If Developer has not been declared to be currently in

Default as of January 31, 2027 then this Agreement shall be automatically extended until January 31, 2032. This Agreement shall also terminate automatically at Buildout.

5. **Addenda** Addendum No. 1 contains the provisions of this Agreement that are specific to the development of the Project. If the project is developed in phases, any future phase of the Project may require an added addendum. If there is a conflict between this Agreement and Addendum No. 1 or any future addenda, then Addendum No. 1 and the future addenda shall control.

6. **Public Infrastructure.**

6.1. **Construction by Developer.** Developer, at Developer's cost and expense, shall have the right and the obligation to construct or cause to be constructed and install all Public Infrastructure reasonably and lawfully required as a condition of approval of this Development Application pursuant to GLUDMC. Such construction must meet all applicable standards and requirements and must be approved by the City's Engineer and Public Works Director.

6.2. **Responsibility Before Acceptance.** Developer shall be responsible for all Public Infrastructure covered by this Agreement until final inspection of the same has been performed by the City, and a final acceptance and release has been issued by the City. The City shall not, nor shall any officer or employee thereof, be liable or responsible for any accident, loss or damage happening or occurring to the Public Infrastructure, nor shall any officer or employee thereof, be liable for any persons or property injured by reason of said Public Infrastructure; all of such liabilities shall be assumed by the Developer.

6.3. **Warranty.** Developer shall repair any defect in the design, workmanship or materials in all Public Infrastructure which becomes evident during a period of one year following the acceptance of the improvements by the City Council or its designee (Durability Testing Period). If during the Durability Testing Period, any Public Infrastructure shows unusual depreciation, or if it becomes evident that required work was not done, or that the material or workmanship used does not comply with accepted standards, said condition shall, within a reasonable time, be corrected.

6.4. **Timing of Completion of Public Infrastructure.** In accordance with the diligence requirements for the various types of approvals as described in the GLUDMC, construction of the required Public Infrastructure for each phase shall be completed within one year after the City Council grants final plat approval for that phase and prior to recordation of the mylar for that phase. Upon a showing of good and sufficient cause by Developer the City shall, in accordance with the provisions of GLUDMC, extend the time of performance if requested prior to expiration of the completion date.

6.5. **Bonding.** In connection with any Development Application, Developer shall provide bonds or other development security, including warranty bonds, to the extent required by GLUDMC, unless otherwise provided by Utah Code § 10-9a-101, *et seq*. (2005), as amended. The Applicant shall provide such bonds or security in a form acceptable to the City or as specified in GLUDMC. Partial releases of any such required security shall be made as work progresses based on GLUDMC.

6.6. **City Completion.** The Developer agrees that in the event he does not: (a) complete all improvements within the time period specified under 6.4 above, or secure an extension of said completion date, (b) construct said improvements in accordance with City standards and as set forth in 6.1 above, or (c) pay all claimants for material and labor used in the construction of said improvements, the City shall be entitled to declare the developer(s) in default, request and receive the funds held by the guarantor as surety and utilize the monies obtained to install or cause to be installed any uncompleted improvements and/or to pay any outstanding claims, as applicable. Provided however, that the City shall not be responsible for any work beyond the amount of funds so provided. Any funds remaining after completion of the improvements shall be returned to the Guarantor. The Developer further agrees to be personally liable for any cost of improvements above the amount made available under the terms of this agreement.

7. **Upsizing/Reimbursements to Developer.**

7.1. **Upsizing.** The City shall not require Developer to "upsize" any future Public Infrastructure (i.e., to construct the infrastructure to a size larger than required to service the Project) unless financial arrangements reasonably acceptable to Developer are made to compensate Developer for the incremental or additive costs of such upsizing to the extent required by law.

8. **Default.**

8.1. **Notice.** If Developer or the City fails to perform their respective obligations hereunder or to comply with the terms hereof, the Party believing that a Default has occurred shall provide Notice to the other Party.

8.2. **Contents of the Notice of Default**. The Notice of Default shall:

8.2.1. Specific Claim. Specify the claimed event of Default;

8.2.2. Applicable Provisions. Identify with particularity the provisions of any applicable law, rule, regulation or provision of this Agreement that is claimed to be in Default; and

8.2.3. Optional Cure. If the City chooses, in its discretion, it may propose a method and time for curing the Default which shall be of no less than thirty (30) days duration, if weather conditions permit.

8.3. **Remedies.** Upon the occurrence of any Default, and after notice as required above, then the parties may have the following remedies:

8.3.1. Law and Equity. All rights and remedies available at law and in equity, including, but not limited to, injunctive relief and/or specific performance.

8.3.2. Security. The right to draw on any security posted or provided in connection with the Project and relating to remedying of the particular Default.

8.3.3. Future Approvals. The right to withhold all further reviews, approvals, licenses, building permits and/or other permits for development of the Project in the case of a default by Developer until the Default has been cured.

8.4. **Public Meeting.** Before any remedy in Section 8.3 may be imposed by the City, the party allegedly in Default shall be afforded the right to attend a public meeting before the City Council and address the City Council regarding the claimed Default.

8.5. **Default of Assignee.** A default of any obligations expressly assumed by an assignee shall not be deemed a default of Developer.

8.6. **Limitation on Recovery for Default – No Damages against the City.** Anything in

this Agreement notwithstanding, Developer shall not be entitled to any claim for any monetary damages as a result of any breach of this Agreement and Developer waives any claims thereto. The sole remedy available to Developer and any assignee shall be that of specific performance.

9. **Notices.** All notices required or permitted under this Agreement shall, in addition to any other means of transmission, be given in writing by certified mail and regular mail to the following address:

To the Developer:

Shannon Fowles
200 North SR-138
Grantsville, Utah 84029
shannonfowles@gmail.com

To the City:

Grantsville City
Attn: City Manager
429 East Main Street
Grantsville, Utah 84029

10. **Dispute Resolution.** Any disputes subject to mediation shall be resolved pursuant to Addendum No. 2.

11. **Incorporation of Recitals and Exhibits.** The Recitals and Exhibits "A" - "B" are hereby incorporated into this Agreement.

12. **Headings.** The captions used in this Agreement are for convenience only and a not intended to be substantive provisions or evidences of intent.

13. **No Third-Party Rights/No Joint Venture.** This Agreement does not create a joint venture relationship, partnership or agency relationship between the City, or Developer. Except as specifically set forth herein, the parties do not intend this Agreement to create any third-party beneficiary rights.

14. **Assignability.** The rights and responsibilities of Master Developer under this Agreement may be assigned in whole or in part, respectively, by Developer with the consent of the City as provided herein.

14.1. **Sale of Lots.** Developer's selling or conveying lots in any approved subdivision shall not be deemed to be an assignment.

14.2. **Related Entity.** Developer's transfer of all or any part of the Property to any entity "related" to Developer (as defined by regulations of the Internal Revenue Service in Section 165), Developer's entry into a joint venture for the development of the Project or Developer's pledging of part or all of the Project as security for financing shall also not be deemed to be an assignment. Developer shall give the City Notice of any event specified in this sub-section within ten (10) days after the event has occurred. Such Notice shall include providing the City with all necessary contact information for the newly responsible party.

14.3. **Process for Assignment.** Developer shall give Notice to the City of any proposed

assignment and provide such information regarding the proposed assignee that the City may reasonably request in making the evaluation permitted under this Section. Such Notice shall include providing the City with all necessary contact information for the proposed assignee. Unless the City objects in writing within twenty (20) business days of notice, the City shall be deemed to have approved of and consented to the assignment. The City shall not unreasonably withhold consent.

14.4. **Partial Assignment.** If any proposed assignment is for less than all of Master Developer's rights and responsibilities then the assignee shall be responsible for the performance of each of the obligations contained in this MDA to which the assignee succeeds. Upon any such approved partial assignment Master Developer shall not be released from any future obligations as to those obligations which are assigned but shall remain jointly and severally liable with assignee(s) to perform all obligations under the terms of this Agreement which are specified to be performed by Developer.

14.5. **Complete Assignment.** Developer may request the written consent of the City of an assignment of Developer's complete interest in this Agreement, which consent shall not be unreasonably withheld. In such cases, the proposed assignee shall have the qualifications and financial responsibility necessary and adequate, as required by the City, to fulfill all obligations undertaken in this Agreement by Developer. The City shall be entitled to review and consider the ability of the proposed assignee to perform, including financial ability, past performance and experience. After review, if the City gives its written consent to the assignment, Developer shall be released from its obligations under this Agreement for that portion of the Property for which such assignment is approved.

15. **No Waiver.** Failure of any Party hereto to exercise any right hereunder shall not be deemed a waiver of any such right and shall not affect the right of such party to exercise at some future date any such right or any other right it may have.

16. **Severability.** If any provision of this Agreement is held by a court of competent jurisdiction to be invalid for any reason, the Parties consider and intend that this Agreement shall be deemed amended to the extent necessary to make it consistent with such decision and the balance of this Agreement shall remain in full force and affect.

17. **Force Majeure.** Any prevention, delay or stoppage of the performance of any obligation under this Agreement which is due to strikes, labor disputes, inability to obtain labor, materials, equipment or reasonable substitutes therefor; acts of nature, governmental restrictions, regulations or controls, judicial orders, enemy or hostile government actions, wars, civil commotions, fires or other casualties or other causes beyond the reasonable control of the Party obligated to perform hereunder shall excuse performance of the obligation by that Party for a period equal to the duration of that prevention, delay or stoppage.

18. **Time is of the Essence.** Time is of the essence to this Agreement and every right or responsibility shall be performed within the times specified.

19. **Appointment of Representatives.** To further the commitment of the Parties to cooperate in the implementation of this Agreement, the City and Developer each shall designate and appoint a representative to act as a liaison between the City and its various departments and the Developer. The initial representative for the City shall be the City Manager. The initial representative for Developer shall be Shannon Fowles. The Parties may change their designated representatives by Notice. The representatives shall be available at all reasonable times to discuss and review the performance of the Parties to this Agreement and the development of the Project.

20. **Applicable Law.** This Agreement is entered into in Tooele County in the State of Utah and shall be construed in accordance with the laws of the State of Utah irrespective of Utah's choice of law rules.

21. **Venue.** Any action to enforce this Agreement shall be brought only in the Third District Court, Tooele County in and for the State of Utah.

22. **Entire Agreement.** This Agreement, and all Exhibits thereto, documents referenced herein, is the entire agreement between the Parties and may not be amended or modified except either as provided herein or by a subsequent written amendment signed by all Parties.

23. **Mutual Drafting.** Each Party has participated in negotiating and drafting this Agreement and therefore no provision of this Agreement shall be construed for or against any Party based on which Party drafted any particular portion of this Agreement.

24. **No Relationship.** Nothing in this Agreement shall be construed to create any partnership, joint venture or fiduciary relationship between the parties.

25. **Amendment**. This Agreement may be amended only in writing signed by the parties hereto.

26. **Recordation and Running with the Land.** This Agreement shall be recorded in the chain of title for the Project. This Agreement shall be deemed to run with the land.

27. **Priority**. This Agreement shall be recorded against the Property senior to any respective covenants and any debt security instruments encumbering the Property.

28. **Authority.** The Parties to this Agreement each warrant that they have all of the necessary authority to execute this Agreement. Specifically, on behalf of the City, the signature of the City Manager of the City is affixed to this Agreement lawfully binding the City pursuant to Resolution No. 2022-57 adopted by the City on September 21, 2022.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement by and through their respective, duly authorized representatives as of the day and year first herein above written.

DEVELOPER SHANNON FOLWES	GRANTSVILLE CITY
_____	_____ By: Jesse Wilson Its: City Manager
Approved as to form and legality:	Attest:
_____ City Attorney	_____ City Recorder

CITY ACKNOWLEDGMENT

STATE OF UTAH)
:ss.
COUNTY OF TOOELE)

On the _____ day of_____, 2022 personally appeared before me Jesse Wilson who being by me duly sworn, did say that he is the City Manager of Grantsville City, a political subdivision of the State of Utah, and that said instrument was signed in behalf of the City by authority of its City Council and said City Manager acknowledged to me that the City executed the same.

_____
NOTARY PUBLIC

My Commission Expires: _____

Residing at: _____

DEVELOPER ACKNOWLEDGMENT

STATE OF UTAH)
:ss.
COUNTY OF _____)

On the _____ day of _____, 20__, personally appeared before me SHANNON FOWLES, who being by me duly sworn, did say that he is the Developer of the Provident Business Park in Grantsville, Utah, and proved on the basis of satisfactory evidence to the be the person whose name is subscribed to the foregoing instrument, and acknowledged he executed the same.

_____

NOTARY PUBLIC

My Commission Expires: _____

Residing at: _____

TABLE OF EXHIBITS

Exhibit “A”	Legal Description of Property
Exhibit “B”	Final Plat
Addendum No. 1	Specific Project Terms
Addendum No. 2	Dispute Resolution Procedures

Exhibit “A”
Legal Description of Property

Parcel contains: 374,229 square feet, or 8.591 acres.

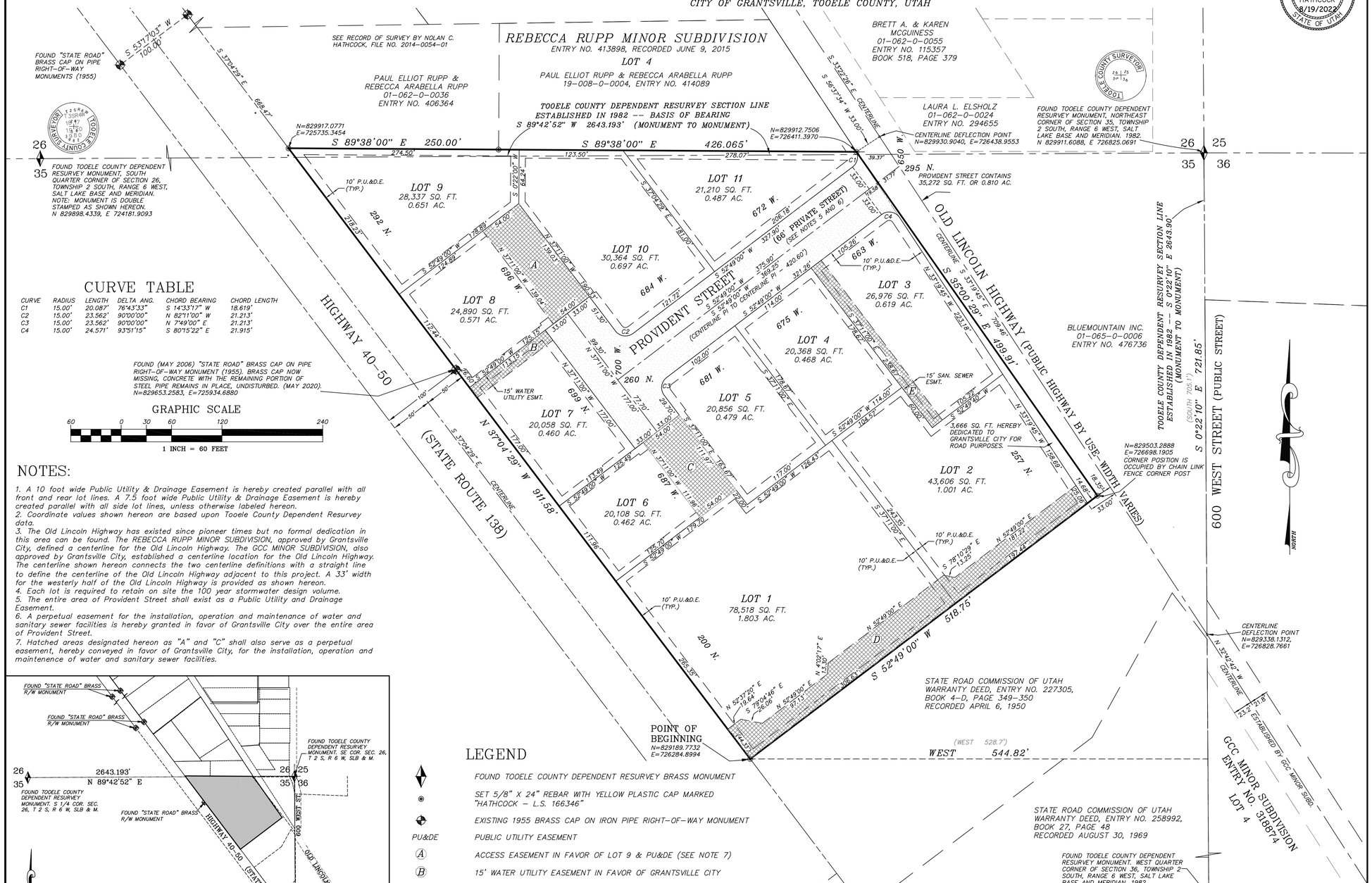
NEW SURVEY DESCRIPTION---- BEGINNING AT THE INTERSECTION OF THE NORTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROUTE 138, DEFINED BY BRASS RIGHT-OF-WAY MONUMENTS PLACED IN 1955, WITH AN OLD, WELL ESTABLISHED FENCE LINE DEFINING THE NORTHERLY BOUNDARY OF THAT PARCEL OF LAND ACQUIRED BY THE STATE ROAD COMMISSION OF UTAH BY WARRANTY DEED RECORDED APRIL 6, 1950 AS ENTRY NO.227305 IN BOOK 4-D AT PAGES 349-350 IN THE OFFICE OF SAID TOOELE COUNTY RECORDER, SAID POINT LIES SOUTH 0°22'10" EAST 721.85 FEET ALONG THE SECTION LINE ESTABLISHED BY THE TOOELE COUNTY DEPENDENT RESURVEY IN 1982 AND WEST 544.82 FEET FROM A TOOELE COUNTY DEPENDENT RESURVEY BRASS MONUMENT PLACED IN 1982, INTENDED BY SAID DEPENDENT RESURVEY TO REPRESENT THE NORTHEAST CORNER OF SECTION 35, TOWNSHIP 2 SOUTH, RANGE 6 WEST, SALT LAKE BASE AND MERIDIAN, SAID POINT OF BEGINNING, PRIOR TO THE TOOELE COUNTY DEPENDENT RESURVEY IN 1982, WAS DESCRIBED AS BEING 705.1 FEET SOUTH AND 528.7 FEET WEST FROM SAID NORTHEAST CORNER OF SECTION 35, TOWNSHIP 2 SOUTH, RANGE 6 WEST, SALT LAKE BASE AND MERIDIAN, (BASIS OF BEARING FOR THIS DESCRIPTION IS SOUTH 89°42'52" WEST 2643.193 FEET ALONG THE SECTION LINE DEFINED BY TOOELE COUNTY DEPENDENT RESURVEY MONUMENTS PLACED IN 1982 REPRESENTING THE NORTHEAST CORNER AND NORTH QUARTER CORNER OF SAID SECTION 35.); THENCE NORTH 37°04'29" WEST 911.58 FEET (RECORD DEED DESCRIPTION = SOUTH 37°39' EAST 875 FEET,RECORD 1955 STATE ROAD COMMISSION RIGHT-OF-WAY PLANS = SOUTH 37°41' EAST) ALONG SAID NORTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROUTE 138 TO AN ESTABLISHED FENCE CORNER AND THE SOUTHWEST CORNER OF THAT PARCEL OF LAND DESCRIBED IN THAT CERTAIN QUIT CLAIM DEED RECORDED AS ENTRY NO. 406364 IN THE OFFICE OF THE TOOELE COUNTY RECORDER; THENCE ALONG THE SOUTHERLY BOUNDARY OF SAID PARCEL AND AN EXISTING CHAIN LINK FENCE LINE, SOUTH 89° 38'00" EAST 250.00 FEET TO THE SOUTHWEST CORNER OF REBECCA RUPP MINOR SUBDIVISION, RECORDED AS ENTRY NO. 413898 IN THE OFFICE OF SAID TOOELE COUNTY RECORDER; THENCE ALONG THE SOUTHERLY BOUNDARY OF SAID REBECCA RUPP MINOR SUBDIVISION AND SAID EXISTING CHAIN LINK FENCE LINE, SOUTH 89° 38'00" EAST 426.065 FEET TO THE WESTERLY RIGHT-OF-WAY LINE OF THE OLD LINCOLN HIGHWAY, A PUBLIC STREET BY USE, OF VARYING WIDTH; THENCE SOUTH 35°00'29" EAST 499.91 FEET (RECORD = NORTH 37°39' WEST 478 FEET) TO AN OLD, ESTABLISHED FENCE CORNER AND THE NORTHEAST CORNER OF SAID PARCEL OF LAND ACQUIRED BY THE STATE ROAD COMMISSION OF UTAH IN 1950;THENCE ALONG THE NORTHERLY BOUNDARY OF SAID PARCEL, SOUTH 52°49'00" WEST 518.75 FEET (RECORD =NORTH 52°21' EAST 520 FEET) TO THE POINT OF BEGINNING.THE ABOVE-DESCRIBED PARCEL OF LAND CONTAINS APPROXIMATELY 374,229 SQUARE FEET IN AREA OR 8.591ACRES. OUT OF 1-65-4 FOR 2021 YEAR.

Exhibit “B”
Final Plat

FINAL PLAT

PROVIDENT BUSINESS PARK SUBDIVISION

A SUBDIVISION LOCATED IN THE NORTHEAST QUARTER OF SECTION 35 AND IN THE SOUTHEAST QUARTER OF SECTION 26, TOWNSHIP 2 SOUTH, RANGE 6 WEST, SALT LAKE BASE AND MERIDIAN CITY OF GRANTSVILLE, TOOELE COUNTY, UTAH

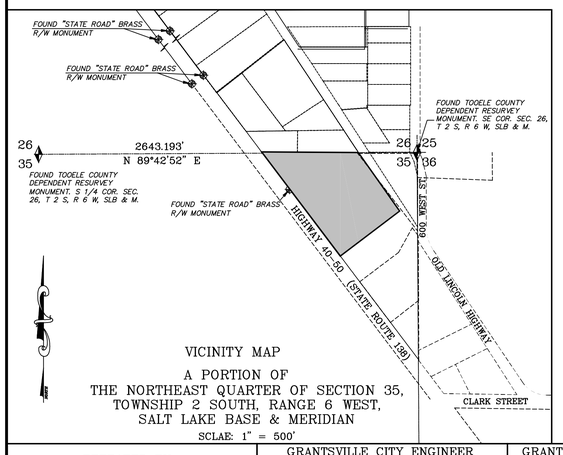


CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA ANG.	CHORD BEARING	CHORD LENGTH
C1	15.00'	20.087'	76°43'33"	S 14°33'17" W	18.619'
C2	15.00'	23.562'	90°00'00"	N 82°11'00" W	21.213'
C3	15.00'	23.562'	90°00'00"	N 7°49'00" E	21.213'
C4	15.00'	24.571'	93°51'15"	S 80°15'22" E	21.915'

NOTES:

1. A 10 foot wide Public Utility & Drainage Easement is hereby created parallel with all front and rear lot lines. A 7.5 foot wide Public Utility & Drainage Easement is hereby created parallel with all side lot lines, unless otherwise labeled hereon.
2. Coordinate values shown hereon are based upon Tooele County Dependent Resurvey data.
3. The Old Lincoln Highway has existed since pioneer times but no formal dedication in this area can be found. The REBECCA RUPP MINOR SUBDIVISION, approved by Grantsville City, defined a centerline for the Old Lincoln Highway. The GCC MINOR SUBDIVISION, also approved by Grantsville City, established a centerline location for the Old Lincoln Highway. The centerline shown hereon connects the two centerline definitions with a straight line to define the centerline of the Old Lincoln Highway adjacent to this project. A 33' width for the westerly half of the Old Lincoln Highway is provided as shown hereon.
4. Each lot is required to retain on site the 100 year stormwater design volume.
5. The entire area of Provident Street shall exist as a Public Utility and Drainage Easement.
6. A perpetual easement for the installation, operation and maintenance of water and sanitary sewer facilities is hereby granted in favor of Grantsville City over the entire area of Provident Street.
7. Hatched areas designated hereon as "A" and "C" shall also serve as a perpetual easement, hereby conveyed in favor of Grantsville City, for the installation, operation and maintenence of water and sanitary sewer facilities.



VICINITY MAP

A PORTION OF THE NORTHEAST QUARTER OF SECTION 35, TOWNSHIP 2 SOUTH, RANGE 6 WEST, SALT LAKE BASE & MERIDIAN

SCALE: 1" = 500'

LEGEND

- FOUND TOOELE COUNTY DEPENDENT RESURVEY BRASS MONUMENT
- SET 5/8" X 24" REBAR WITH YELLOW PLASTIC CAP MARKED "HATHCOCK - L.S. 166346"
- EXISTING 1955 BRASS CAP ON IRON PIPE RIGHT-OF-WAY MONUMENT
- PU&DE — PUBLIC UTILITY EASEMENT
- (A) — ACCESS EASEMENT IN FAVOR OF LOT 9 & PU&DE (SEE NOTE 7)
- (B) — 15' WATER UTILITY EASEMENT IN FAVOR OF GRANTSVILLE CITY
- (C) — ACCESS EASEMENT IN FAVOR OF LOT 1 & PU&DE (SEE NOTE 7)
- (D) — DRAINAGE EASEMENT IN FAVOR OF GRANTSVILLE CITY
- (E) — 15' SANITARY SEWER EASEMENT IN FAVOR OF LOT 2

PREPARED BY:
NOLAN C. HATHCOCK
PROFESSIONAL LAND SURVEYOR
UTAH LICENSE NO. 166346
9592 STORNOWAY CIRCLE
SOUTH JORDAN, UTAH 84095
PHONE: 801-557-5398

OWNERS OF RECORD

PARCEL NO. 01-065-0-0058

Shannon & Mandi Fowles
P.O. Box 195
Stockton, Utah 84071

WARRANTY DEED
Recorded December 23, 2019
Entry No. 500198

PLANNING COMMISSION
APPROVED THIS _____ DAY OF _____, 202__ BY THE GRANTSVILLE CITY PLANNING COMMISSION.
_____ CHAIR, GRANTSVILLE CITY PLANNINMG COMM.

SURVEYOR'S CERTIFICATE

I, Nolan C. Hathcock, do hereby certify that I am a Professional Land Surveyor, and that I hold License No. 166346, in accordance with Title 58, Chapter 22, of the Professional Engineers and Land Surveyors Act; I further certify that by authority of the owners I have completed a survey of the property described on this plat in accordance with Section 17-23-17, have verified all measurements, divided said property into lots, together with a private street and easements, hereafter to be known as

PROVIDENT BUSINESS PARK SUBDIVISION

and that the same has been or will be correctly surveyed and monumented on the ground as shown on this plat.

BOUNDARY DESCRIPTION

A parcel of land, being that same parcel of land described in that certain Warranty Deed recorded April 23, 1968 as Entry No. 283690 in Book 79 at Page 451 in the office of the Tooele County Recorder, located in the Northeast Quarter of Section 35, Township 2 South, Range 6 West, Salt Lake Base and Meridian, in the City of Grantsville, Tooele County, State of Utah described as follows:

Beginning at the intersection of the Northeasterly right-of-way line of State Route 138, defined by brass right-of-way monuments placed in 1955, with an old, well established fence line defining the northerly boundary of that parcel of land acquired by the State Road Commission of Utah by Warranty Deed recorded April 6, 1950 as Entry No. 227305 in Book 4-D at Pages 349-350 in the office of said Tooele County Recorder, said point lies South 0°22'10" East 721.85 feet along the section line established by the Tooele County Dependent Resurvey in 1982 and West 544.82 feet from a Tooele County Dependent Resurvey brass monument placed in 1982, intended by said Dependent Resurvey to represent the Northeast Corner of Section 35, Township 2 South, Range 6 West, Salt Lake Base and Meridian, said Point of Beginning, prior to the Tooele County Dependent Resurvey in 1982, was described as being 705.1 feet South and 528.7 feet West from said Northeast Corner of Section 35, Township 2 South, Range 6 West, Salt Lake Base and Meridian, (Basis of bearing for this description is South 89°42'52" West 2643.193 feet along the section line defined by Tooele County Dependent Resurvey monuments placed in 1982 representing the Northeast Corner and North Quarter Corner of said Section 35.);
thence North 37°04'29" West 911.58 feet (record deed description = South 37°39' East 875 feet, record 1955 State Road Commission right-of-way plans = South 37°41' East) along said Northeasterly right-of-way line of State Route 138 to an established fence corner and the southwest corner of that parcel of land described in that certain Quit Claim Deed recorded as Entry No. 406364 in the office of the Tooele County Recorder;
thence along the southerly boundary of said parcel and an existing chain link fence line, South 89°38'00" East 250.00 feet to the southwest corner of REBECCA RUPP MINOR SUBDIVISION, recorded as Entry No. 413898 in the office of said Tooele County Recorder;
thence along the southerly boundary of said REBECCA RUPP MINOR SUBDIVISION and said existing chain link fence line, South 89°38'00" East 426.065 feet to the westerly right-of-way line of the Old Lincoln Highway, a public street by use, of varying width;
thence South 35°00'29" East 499.91 feet (record = North 37°39' West 478 feet) to an old, established fence corner and the northeast corner of said parcel of land acquired by the State Road Commission of Utah in 1950;
thence along the northerly boundary of said parcel, South 52°49'00" West 518.75 feet (record = North 52°21' East 520 feet) to the Point of Beginning.

The above-described parcel of land contains approximately 374,229 square feet in area or 8.591 acres divided into eleven (11) lots and a private street.

OWNER'S DEDICATION AND CONSENT TO RECORD

Know all men by these presents that the undersigned are the owners of the hereon described tract of land and hereby cause the same to be divided into lots and a private street, together with easements as set forth, hereafter to be known as:

PROVIDENT BUSINESS PARK SUBDIVISION

and do hereby dedicate for the perpetual use of the public all areas, if any, shown on this plat as intended for public use.
The undersigned owners also hereby convey to Grantsville City and to any and all public utility companies providing service to the hereon described tract a perpetual, non-exclusive easement over the entire area of Provident Street and over the public utility & drainage easements shown on this plat, the same to be used for drainage and installation, maintenance and operation of public utility service lines and facilities.
The undersigned owners also hereby convey any other easements noted hereon to the parties indicated and for the uses and purposes stated.

In witness whereof the owners have hereunto set their hands this_____ day of _____ A.D., 202__.

Shannon Fowles *Mandi Fowles*

ACKNOWLEDGMENT

STATE OF UTAH } S.S.
County of _____ }

On the _____ day of _____, A.D. 202__, personally appeared before me, the undersigned Notary Public, in and for said County of in the State of Utah, Shannon Fowles and Mandi Fowles, who being by me duly sworn, did acknowledge to me that the within and forgoing Owner's Dedication was signed by them, freely and voluntarily, for the uses and purposes therein stated.

MY COMMISSION EXPIRES: _____

NOTARY PUBLIC: _____

RESIDING IN: _____

FINAL PLAT

PROVIDENT BUSINESS PARK SUBDIVISION

A SUBDIVISION LOCATED IN THE NORTHEAST QUARTER OF SECTION 35, TOWNSHIP 2 SOUTH, RANGE 6 WEST, SALT LAKE BASE AND MERIDIAN CITY OF GRANTSVILLE, TOOELE COUNTY, UTAH

PREPARED BY:
NOLAN C. HATHCOCK
PROFESSIONAL LAND SURVEYOR
UTAH LICENSE NO. 166346
9592 STORNOWAY CIRCLE
SOUTH JORDAN, UTAH 84009
PHONE: 801-557-5398

GRANTSVILLE CITY ENGINEER	GRANTSVILLE CITY PUBLIC WORKS	GRANTSVILLE CITY ATTORNEY	TOOELE COUNTY TREASURER	GRANTSVILLE CITY FIRE MARSHALL	TOOELE COUNTY SURVEY DEPT.	GRANTSVILLE CITY MAYOR/CITY COUNCIL	RECORDED # _____
APPROVED THIS _____ DAY OF _____, 202__ BY THE GRANTSVILLE CITY ENGINEER.	APPROVED THIS _____ DAY OF _____, 202__ BY THE GRANTSVILLE CITY PUBLIC WORKS DIRECTOR.	APPROVED THIS _____ DAY OF _____, 202__ BY THE GRANTSVILLE CITY ATTORNEY.	APPROVED THIS _____ DAY OF _____, 202__ BY THE TOOELE COUNTY TREASURER	APPROVED THIS _____ DAY OF _____, 202__ BY THE GRANTSVILLE CITY FIRE MARSHALL.	APPROVED THIS _____ DAY OF _____, 202__ BY THE TOOELE COUNTY SURVEY DEPARTMENT. ROS FILE NO. 2022-0088-01	PRESENTED TO THE GRANTSVILLE CITY COUNCIL THIS _____ DAY OF _____, 202__, AT WHICH TIME IT WAS ACCEPTED AND APPROVED.	STATE OF UTAH, COUNTY OF TOOELE, RECORDED AND FILED AT THE REQUEST OF: _____
_____ CITY ENGINEER OR DESIGNEE	_____ PUBLIC WORKS DIRECTOR OR DESIGNEE	_____ GRANTSVILLE CITY ATTORNEY	_____ TOOELE COUNTY TREASURER	_____ GRANTSVILLE CITY FIRE MARSHALL	_____ DIRECTOR, TOOELE COUNTY SURVEY DEPT.	_____ MAYOR ATTEST: CITY RECORDER	DATE: _____ TIME _____
							FEE $ _____ TOOELE COUNTY RECORDER

ADDENDUM NO.1

TERMS

1. **Definitions.** The capitalized terms used in this Addendum No. 1 shall have the meanings set forth in the MDA unless otherwise specified herein.

2. **Modifications to GLUDMC and Other City Standards.** The City has agreed to the following exceptions to the GLUDMC and Grantsville City Construction Standards and Specifications:
   a. Provident Street is a private street which is fully covered by a PU&DE for utility access. As the private street is a common interest of all property owners within the subdivision it shall not be sold. The private street shall be maintained by the property owners by Owners Association.
   b. As designed the Development complies with GLUDMA and other City Standards.

3. **Offsite Improvements:**
   a. A 4" sanitary sewer force main and pump station shall be constructed moving sewer flow from the east sewer manhole in Provident Street to a manhole located on Old Lincoln Highway roughly at the intersection of Old Lincoln Highway and 600 West Street. This pump system and pressure line shall be owned and maintained privately by the Owners Association until a gravity flow sanitary sewer line capable of carrying the flow of the proposed subdivision is constructed in Old Lincoln Highway. At that time the owners of the properties within Provident Business Park shall pay to connect the existing gravity sewer within the business park onto the public gravity flow sanitary sewer line in the Old Lincoln Highway right-of-way.
   b. The Developer acknowledges that there is a stormwater culvert crossing SR-138 under control of Utah Department of Transportation that at the time of execution of this Agreement is plugged and does not send flow onto the subject property. The Developers and subsequent property owners acknowledge that if the culvert is opened, stormwater flow will then enter the drainage improvements on Lots #1 and #2 and may cause flooding and property damage.
   c. The stormwater channel on Lots #1 and #2 shall be maintained by the owners of said lots.
   d. Only access points shown on the plat map shall provide direct access to Old Lincon Highway and SR 138.
   e. All access points on SR-138 require approval from Utah Department of Transportation.
   f. The stormwater basin located on Lot #3 shall be maintained by the owner of Lot #3.

4. **Open Space:**
   a. As this is a commercial development application the open space requirements do not apply.

5. **Construction Coordination:**
   a. The Developer shall provide the City 48 hours' notice to coordinate with the City prior to working on or around existing City water and sewer infrastructure.
   b. All connections to City water and sewer infrastructure shall be inspected by the City prior to back-filling.
   c. The Developer shall request inspections at least 48 hours prior to the day the Contractor desires the inspection to occur.
   d. The Developer shall request disinfection testing at least 48 hours prior to the day the Contractor desires the testing to occur.

Addendum No. 2
(Dispute Resolution)

1. **Meet and Confer.** The City and Developer/Applicant shall meet within fifteen (15) business days of any dispute under this Agreement to resolve the dispute.

2. **Mediation.**

2.1. Disputes Subject to Mediation. All disputes shall be mediated.

2.2. Mediation Process. If the City and Developer/Applicant are unable to resolve a disagreement subject to mediation, the Parties shall attempt within ten (10) business days to appoint a mutually acceptable mediator with knowledge of the legal issue in dispute. If the Parties are unable to agree on a single acceptable mediator they shall each, within ten (10) business days, appoint their own representative. These two representatives shall, between them, choose the single mediator. Developer/Applicant shall pay the fees of the chosen mediator. The chosen mediator shall within fifteen (15) business days from selection, or such other time as is reasonable under the circumstances, review the positions of the Parties regarding the mediation issue and promptly attempt to mediate the issue between the Parties. If the Parties are unable to reach an agreement, the Parties shall request that the mediator notify the Parties in writing of the resolution that the mediator deems appropriate. The mediator's opinion shall not be binding on the Parties.

AGENDA ITEM #10

Consideration or Resolution 2022-71 approving the Plat Amendment for Springfield Estates

GRANTSVILLE CITY
RESOLUTION NO. 2022-71

A RESOLUTION APPROVING THE FINAL PLAT AMENDMENT FOR THE SPRINGFIELD ESTATES SUBDIVISION FOR THE CREATION OF SIX (6) LOTS

Be it enacted and ordained by the City Council of Grantsville City, Utah as follows:

WHEREAS, Shane Watson submitted an application for a final subdivision plat amendment for the Springfield Estates Subdivision in Grantsville City, Utah for the creation of six (6) buildable lots in the R-1-12 zone;

WHEREAS, the proposed amendments of the subject property are permitted in the R-1-12 zone as indicated in the Grantsville City Land Use Management and Development Code (GLUMDC);

WHEREAS, the Grantsville City Planning and Zoning Commission reviewed the final plat amendment in a regularly scheduled public meeting for compliance with the requirements of the pertinent Grantsville City code requirements, and found that the proposed final plat amendment has met or can meet the requirements of GLUMDC;

WHEREAS, Shane Watson is required to construct certain public improvements;

WHEREAS, the Grantsville City Council hereby determines that it is in the best interest of the City to approve the final subdivision plat amendment for Shane Watson and the Springfield Estates Subdivision in Grantsville City, Utah for the creation of six (6) buildable lots in the R-1-12 zone.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF GRANTSVILLE CITY, STATE OF UTAH, AS FOLLOWS:

Section 1. Final Plat. The City of Grantsville approves the Final Plat Amendment provided in Exhibit A.

Section 2. Severability Clause. If any part or provision of this Resolution is held invalid or unenforceable, such invalidity or unenforceability shall not affect any other portion of this Resolution and all provisions, clauses and words of this Resolution shall be severable.

ADOPTED AND PASSED BY THE CITY COUNCIL OF GRANTSVILLE CITY, THIS 2nd DAY OF NOVEMBER, 2022.

BY ORDER OF THE
GRANTSVILLE CITY COUNCIL

_____
By Mayor Neil Critchlow

ATTEST

_____
Braydee Baugh, City Recorder

MEMORANDUM

DATE: October 27, 2022

TO: Braydee Baugh, City Recorder

FROM: Cavett Eaton, Planning & Zoning Administrator

RE: **ZONING ITEMS UP FOR CONSIDERATION AT COUNCIL MEETING TO BE HELD NOVEMBER 2, 2022**

City Council Agenda Items #10: Consideration of Resolution 2022-71 approving the Plat Amendment for Springfield Estates.

The Planning Commission recommended approval this item on October 27 2022, with little discussion and the motion is at the end of the discussion:

Discussion:
Shane – we want to divide Springfield so he can complete the 5 lots on Apple street. Barry – explains the details of the division. Discussion on the detail. Barry will have an updated Phase 1 map completed for the Council meeting. Dan will review it before the Council meeting.

Commission Member Gary Pinkham made a motion to recommend approval of the Plat Amendment for Springfield Estates and it go to Council with a completed and reviewed phase 1 application map. Commission Member Jamie Topham seconded the motion. All voted in favor and the motion carried unanimously

- End of Memorandum-

AGENDA ITEM #11

Discussion regarding the Final Plat for Blue Spruce Subdivision

MEMORANDUM

DATE: October 27, 2022

TO: Braydee Baugh, City Recorder

FROM: Cavett Eaton, Planning & Zoning Administrator

RE: **ZONING ITEMS UP FOR CONSIDERATION AT COUNCIL MEETING TO BE HELD NOVEMBER 2, 2022**

City Council Agenda Items # 11: Consideration of Resolution 2022- approving the Final Plat for Blue Spruce Subdivision.

The Planning Commission recommended approval this item on October 27 2022, with little discussion and the motion is at the end of the discussion:

Discussion:

Todd was present. Rick wanted to see how the dance studio worked into the whole plan. It was determined that it is not too close the road.

Commission Member Gary Pinkham made a motion to recommend approval of the Final Plat Blue Spruce. Commission Member Jamie Topham seconded the motion. All voted in favor and the motion carried unanimously

- End of Memorandum-

811 Know what's below. Call before you dig.

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

BENCHMARK

NORTH QUARTER CORNER OF SECTION 7, TOWNSHIP 3 SOUTH, RANGE 5 WEST SALT LAKE BASE AND MERIDIAN (2.5" BRASS TOOELE COUNTY SURVEY MONUMENT ON 4" PIPE, DATED 1986) ELEV = 4995.95' (USED ELEVATION) 4414.85' (TRUE ELEVATION)

BLUE SPRUCE SUBDIVISION

QUIRK STREET
GRANTSVILLE CITY, UTAH

DATE PRINTED September 2, 2022

INDEX OF DRAWINGS

1 OF 1	SUBDIVISION PLAT
C-001	GENERAL NOTES
C-002	PRECONSTRUCTION GENERAL NOTES
C-100	SITE PLAN
C-200	GRADING AND DRAINAGE PLAN
C-201	GRADING AND DRAINAGE PLAN
C-202	STORM BRIXX DESIGN
C-300	UTILITY PLAN
C-400	EROSION CONTROL PLAN
PP-1	PLAN AND PROFILE PINYON COURT
PP-2	PLAN AND PROFILE BLUE SPRUCE DRIVE
PP-3	PLAN AND PROFILE QUIRK STREET
PP-4	PLAN AND PROFILE QUIRK STREET
D-500	DETAILS
D-501	DETAILS
D-502	DETAILS

NOTICE TO CONTRACTOR

ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. ALL CONTRACTORS AND SUBCONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS OF THE U.S. DEPARTMENT OF LABOR AND THE STATE OF UTAH DEPARTMENT OF INDUSTRIAL RELATIONS CONSTRUCTION SAFETY ORDERS." THE CIVIL ENGINEER SHALL NOT BE RESPONSIBLE IN ANY WAY FOR THE CONTRACTORS AND SUBCONTRACTORS COMPLIANCE WITH SAID REGULATIONS AND ORDERS.

CONTRACTOR FURTHER AGREES TO 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 OWNER AND THE CIVIL 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 ENGINEER.

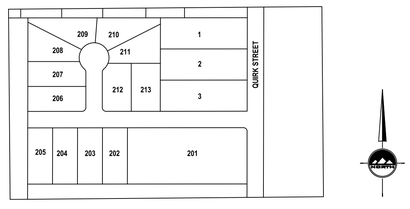
NOTICE TO DEVELOPER/ CONTRACTOR

UNAPPROVED DRAWINGS REPRESENT WORK IN PROGRESS, ARE SUBJECT TO CHANGE, AND DO NOT CONSTITUTE A FINISHED ENGINEERING PRODUCT. ANY WORK UNDERTAKEN BY DEVELOPER OR CONTRACTOR BEFORE PLANS ARE APPROVED IS UNDERTAKEN AT THE SOLE RISK OF THE DEVELOPER, INCLUDING BUT NOT LIMITED TO BIDS, ESTIMATION, FINANCING, BONDING, SITE CLEARING, GRADING, INFRASTRUCTURE CONSTRUCTION, ETC.

UTILITY DISCLAIMER

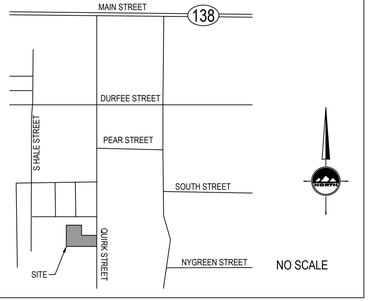
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND / OR ELEVATIONS OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

KEY MAP



NO SCALE

VICINITY MAP



NO SCALE

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO GRANTSVILLE CITY STANDARDS & SPECIFICATIONS.
2. CALL BLUE STAKES AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.
3. NORTH QUARTER CORNER OF SECTION 7, TOWNSHIP 3 SOUTH, RANGE 5 WEST, SALT LAKE BASE AND MERIDIAN (2.5" BRASS TOOELE COUNTY SURVEY MONUMENT ON 4" PIPE, DATED 1986) ELEV = 4599.95' (USED ELEVATION) 4414.85' (TRUE ELEVATION)

NOTES:
- APPROVED BY CITY COUNCIL ON: _____.
- PRE-CONSTRUCTION MEETING DATE: _____.

APPROVED FOR CONSTRUCTION ON THIS _____ DAY OF _____, 20___.

_____
GRANTSVILLE CITY PUBLIC WORKS DIRECTOR

APPROVED BY CITY ENGINEER: GRANTSVILLE CITY, UTAH FOR PUBLIC IMPROVEMENTS ONLY (SHEETS_____)

_____ _____
CITY ENGINEER DATE

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 INTEREST REQUIRES A MODIFICATION OR A DEPARTURE FROM THE CITY SPECIFICATIONS, OR THE APPROVED PLANS, THE CITY SHALL HAVE THE AUTHORITY TO REQUIRE SUCH MODIFICATION OR A DEPARTURE, AND TO SPECIFY THE MANNER WHICH THE SAME IS MADE.

ENSIGN
THE STANDARD IN ENGINEERING

TOOELE
169 N. Main Street, Unit 1
Tooele, UT. 84074
Phone: 435.843.3590

SALT LAKE CITY
Phone: 801.255.0529

LAYTON
Phone: 801.547.1100

CEDAR CITY
Phone: 435.865.1453

RICHFIELD
Phone: 435.896.2983

WWW.ENSIGNENG.COM

FOR:
ICON DEVELOPMENT, LLC
3410 NORTH MOYLE LANE
ERDA, UTAH, 84074
CONTACT:
SEAN PERKINS
PHONE: 435-850-8436

BLUE SPRUCE SUBDIVISION
FINAL
QUIRK STREET
GRANTSVILLE CITY, UTAH

REGISTERED PROFESSIONAL ENGINEER 10924116-2202 CASEY J. CHILD STATE OF UTAH
2022-09-02

NO.	DATE	REVISION	BY
1		FOR REVIEW	
2			
3			
4			
5			
6			
7			
8			

COVER

PROJECT NUMBER T1216E
PRINT DATE 2022-09-02
DRAWN BY C. CHILD
CHECKED BY J. CLEGG
PROJECT MANAGER C. CHILD

C-000

BLUE SPRUCE SUBDIVISION
FINAL PLAT

(AMENDING LOT 4 OF WHITE PINE ESTATES SUBDIVISION AMENDED)
LOCATED IN THE SOUTHWEST QUARTER
OF SECTION 6, TOWNSHIP 3 SOUTH, RANGE 5 WEST, SALT LAKE BASE
AND MERIDIAN, GRANTSVILLE CITY, TOOELE COUNTY, UTAH

KEYNOTES:

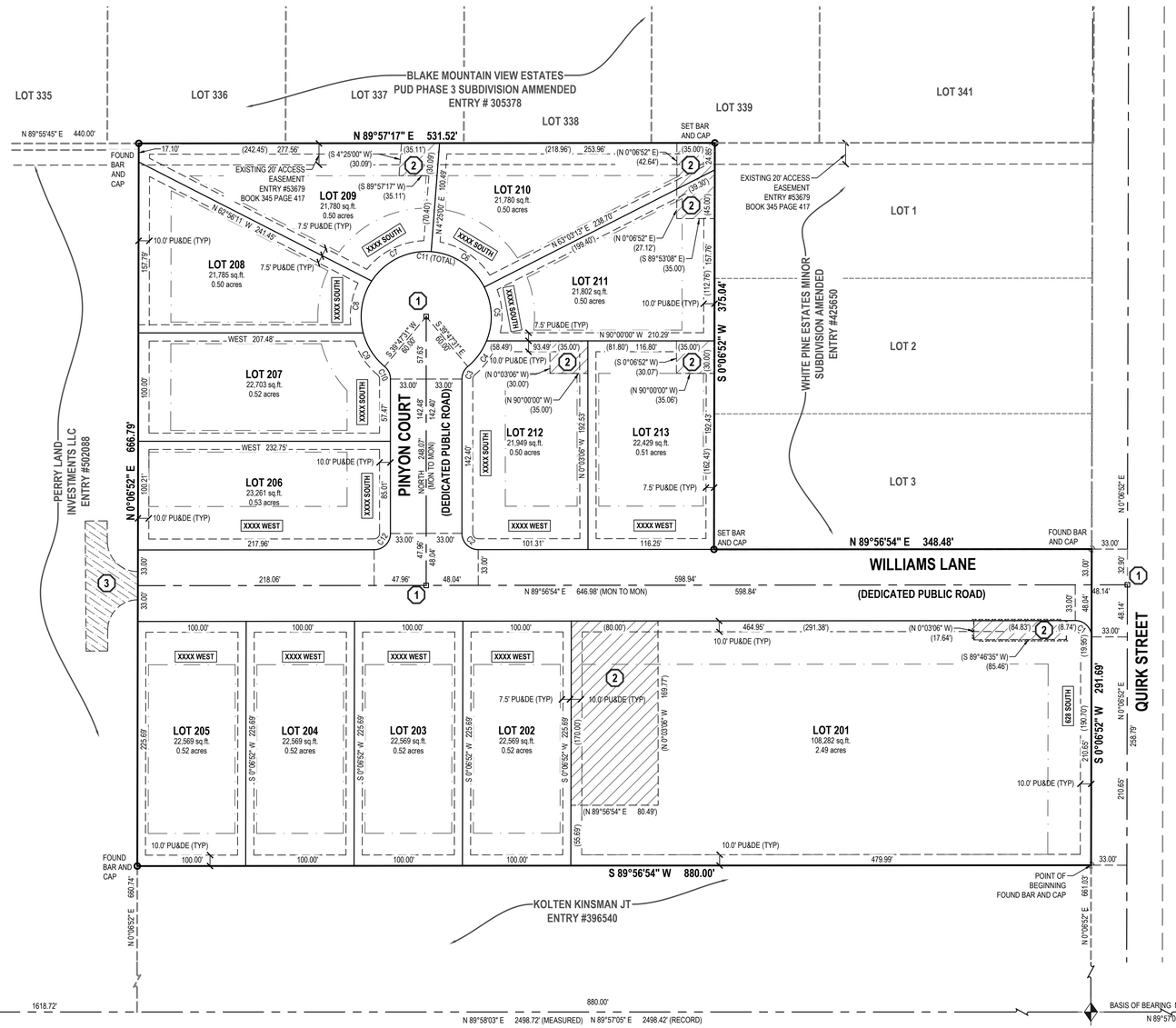
1. INSTALL STREET MONUMENT PER GRANTSVILLE CITY STANDARDS AND SPECIFICATIONS.
2. STORM DRAIN EASEMENT HEREBY DEDICATED TO GRANTSVILLE CITY TO ALLOW CITY ACCESS AND TO BE MAINTAINED BY PROPERTY OWNER TO GRANTSVILLE CITY DRAIN BASIN STANDARDS.
3. TEMPORARY TURN AROUND EASEMENT ENTRY #_____.

NOTES

1. ALL PUBLIC STREETS ARE HEREBY DEDICATED TO GRANTSVILLE CITY AS RIGHT-OF-WAY ("R.O.W.") FOR PUBLIC USE.
2. NO DRIVEWAYS SHALL BE CONSTRUCTED SO AS TO SLOPE TOWARD ANY STRUCTURES WITHOUT WRITTEN PERMISSION FROM GRANTSVILLE CITY ENGINEER.
3. 5/8" X 24" REBAR AND CAP TO BE SET AT ALL LOT CORNERS UNLESS OTHERWISE INDICATED.
4. INDIVIDUAL LOT OWNERS ARE REQUIRED TO GRADE LOTS TO PREVENT DRAINAGE ONTO NEIGHBORING PROPERTIES.

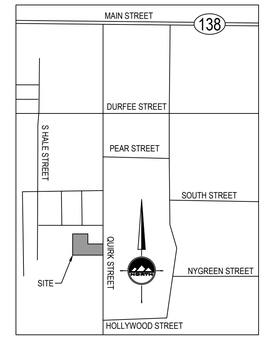
CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C1	15.00'	23.61'	90°09'58"	N44°58'07"W	21.24'
C2	15.00'	23.58'	90°03'06"	S45°01'33"E	21.22'
C3	15.00'	13.14'	50°12'29"	S25°06'15"W	12.73'
C4	60.00'	29.62'	28°16'59"	S36°04'00"W	29.32'
C5	60.00'	51.18'	48°52'17"	S2°30'39"E	49.64'
C6	60.00'	61.40'	58°38'13"	S56°15'54"E	58.76'
C7	60.00'	64.13'	61°14'29"	N63°47'45"E	61.12'
C8	60.00'	50.00'	47°45'00"	N9°18'01"E	48.57'
C9	60.00'	37.32'	35°38'00"	N32°23'29"W	36.72'
C10	15.00'	13.14'	50°12'29"	N25°06'15"W	12.73'
C11 (TOTAL)	60.00'	293.65'	280°24'59"	N90°00'00"W	76.80'
C12	15.00'	23.55'	89°56'54"	N44°58'27"E	21.20'



LEGEND

EXISTING STREET MONUMENT
PROPOSED STREET MONUMENT TO BE SET
SECTION CORNER
5/8"x24" REBAR WITH YELLOW PLASTIC CAP, OR NAIL STAMPED "ENSIGN ENG. & LAND SURV."
ENSIGN ENG. LAND SURV.
PU&DE PUBLIC UTILITY & DRAINAGE EASEMENT
BOUNDARY LINE
ADJACENT PROPERTY LINE
SECTION LINE
CENTER LINE
EASEMENT LINE
RIGHT OF WAY LINE
ADJACENT RIGHT OF WAY LINE
TANGENT LINE
DRAINAGE EASEMENT.
TEMPORARY TURN AROUND EASEMENT.



VICINITY MAP
NOT TO SCALE

HORIZONTAL GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
HORZ: 1 inch = 60 ft.

SURVEYOR'S CERTIFICATE

I, Douglas J. Kinsman , do hereby certify that I am a Professional Land Surveyor, and that I hold License No. 334575, in accordance with Title 58, Chapter 22, of the Professional Engineers and Land Surveyors Act. I further certify that by authority of the owners I have completed a survey of the property described on this SUBDIVISION plat in accordance with Section 17-23-17, have verified all measurements, and have subdivided said tract of land into lots and streets, together with easements, hereafter to be known as

BLUE SPRUCE SUBDIVISION

and that the same has been correctly surveyed and monumented on the ground as shown on this plat.

BOUNDARY DESCRIPTION

A parcel of land, situate in the Southwest Quarter of Section 6, Township 3 South, Range 5 West, Salt Lake Base and Meridian, more particularly described as follows:

All of Lot 4 of "White Pine Estates Minor SUBDIVISION Amended" as recorded March 4th, 2016, under Entry no. 425650, in the Tooele County Recorder's Office;

Parcel contains: 456,042 square feet or 10.47 acres, 13 Lots, 1 Parcel.

SEPT 1, 2022
Date
Douglas J. Kinsman
License no. 334575

PROFESSIONAL LAND SURVEYOR
No. 334575
DOUGLAS J KINSMAN
STATE OF UTAH
9-1-22

OWNER'S DEDICATION

Know all men by these present that the undersigned are the owner(s) of the hereon described tract of land and hereby cause the same to be divided into lots and streets together with easements as set forth hereafter to be known as:

BLUE SPRUCE SUBDIVISION

The undersigned owner(s) hereby dedicate to Grantsville City all those parts or portions of said tract of land on said plat designated hereon as streets, the same to be used as public thoroughfares forever. The undersigned owner(s) also hereby convey to Grantsville City and to any and all public utility companies providing service to the hereon described tract a perpetual, non-exclusive easement over the public utility and drainage easements shown on this plat, the same to be used for sewer, water lines appurtenances, fire facilities, drainage facilities and the installation, maintenance and operation of public utility service lines and facilities. The undersigned owners also hereby convey any other easements as shown and/or noted on this plat to the parties indicated and for the purposes shown hereon.

In witness whereof I / we have hereunto set my / our hand this_____day of_____A.D., 20_____.

By: ICON DEVELOPMENT, LLC
Sean Perkins, Managing Member

By:

LIMITED LIABILITY COMPANY ACKNOWLEDGMENT

STATE OF UTAH)S.S.
County of Tooele)

On the _____ day of _____ A.D., 20 _____, personally appeared before me, the undersigned Notary Public, in and for said County of _____ in the State of Utah, who after being duly sworn, acknowledged to me that He/She is the _____ of _____ a Limited Liability Company and that He/She signed the Owner's Dedication freely and voluntarily for and in behalf of said Limited Liability Company for the purposes therein mentioned and acknowledged to me that said Corporation executed the same.

MY COMMISSION EXPIRES:_____.

_____ RESIDING IN_____ COUNTY.
NOTARY PUBLIC

TOOELE COUNTY TREASURER

I HEREBY CERTIFY THAT PROPERTY TAXES DUE AND OWNING HAVE BEEN PAID IN FULL THIS _____ DAY OF _____, 20_____. FOR PARCEL NO.

TOOELE COUNTY TREASURER

CITY MAYOR APPROVAL

APPROVED THIS _____ DAY OF_____, 20_____. BY THE GRANTSVILLE CITY MAYOR.

GRANTSVILLE CITY MAYOR ATTEST: GRANTSVILLE CITY RECORDER

CITY ATTORNEY'S APPROVAL

APPROVED THIS _____ DAY OF_____, 20_____. BY THE GRANTSVILLE CITY ATTORNEY.

GRANTSVILLE CITY ATTORNEY

CITY FIRE DEPARTMENT APPROVAL

APPROVED THIS_____ DAY OF _____, 20_____. BY THE GRANTSVILLE CITY FIRE DEPT.

GRANTSVILLE CITY FIRE CHIEF

GRANTSVILLE CITY PUBLIC WORKS APPROVAL

APPROVED THIS _____ DAY OF _____, 20_____. BY THE GRANTSVILLE CITY PUBLIC WORKS.

GRANTSVILLE CITY PUBLIC WORKS DIRECTOR

PLANNING COMMISSION APPROVAL

APPROVED THIS _____ DAY OF _____, 20_____. BY THE GRANTSVILLE CITY PLANNING COMMISSION.

CHAIR, GRANTSVILLE CITY PLANNING COMMISSION

TOOELE COUNTY SURVEY DEPARTMENT

APPROVED THIS _____ DAY OF _____, 20_____. BY THE TOOELE COUNTY SURVEY DEPARTMENT.

RECORD OF SURVEY FILE #2006-0060-01

TOOELE COUNTY SURVEY DEPT. DIRECTOR

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS OFFICE HAS EXAMINED THIS PLAT AND IT IS CORRECT IN ACCORDANCE WITH INFORMATION ON FILE IN THIS OFFICE.

GRANTSVILLE CITY ENGINEER DATE

DEVELOPER
ICON DEVELOPMENT, LLC
3410 N. MOYLE LANE
ERDA, UTAH, 84074
SEAN PERKINS
435-850-8436

SHEET 1 OF 1

PROJECT NUMBER : T1216E
MANAGER : C. CHILD
DRAWN BY : C. CHILD
CHECKED BY : D. KINSMAN
DATE : 9/2/22

ENSIGN

TOOELE
169 North Main Street Unit 1
Tooele, Utah 84074
Phone: 435.843.3590
Fax: 435.578.0108
WWW.ENSIGNENG.COM

SALT LAKE CITY
Phone: 801.255.0529
LAYTON
Phone: 801.547.1100
CEDAR CITY
Phone: 435.865.1453
RICHFIELD
Phone: 435.896.2983

BLUE SPRUCE SUBDIVISION
FINAL PLAT

(AMENDING LOT 4 OF WHITE PINE ESTATES SUBDIVISION AMENDED)
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 6, TOWNSHIP 3 SOUTH, RANGE 5 WEST, SALT LAKE BASE AND MERIDIAN, GRANTSVILLE CITY, TOOELE COUNTY, UTAH

TOOELE COUNTY RECORDER

RECORDED #_____
STATE OF UTAH, COUNTY OF TOOELE, RECORDED AND FILED AT THE
REQUEST OF : _____
DATE: _____ TIME: _____
FEE$ TOOELE COUNTY RECORDER

GRANTSVILLE GENERAL NOTES

1. 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.
3. 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.
5. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.
6. CURB, GUTTER, AND SIDEWALK, FOUND TO BE UNACCEPTABLE PER CITY STANDARDS AND APWA SHALL BE REMOVED AND REPLACED.
7. 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 REQUIRED.
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.
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 THROUGH FRIDAY 7:00 AM TO 4:00 PM
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 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 EXCAVATION.
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 0.1 + TO 0.1 -.
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 CONDITION.
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 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 OR DESIGNEE.
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 DIRECTOR.
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.
7. 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 ACHIEVE COLOR. VINYL EC FILM IS NOT ACCEPTED.
10. ALL NEW ROUNDABOUTS, CROSSWALKS, STOP BARS AND LEGENDS SHALL BE INSTALLED WITH PAINT AND GLASS BEAD.
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 VOIDS.
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 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 INSPECTION.
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 FOR WATER SERVICE.
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 VAULTS.
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 INSTALLED.

GRANSTVILLE 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.
5. 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.

ABBREVIATIONS

APWA	AMERICAN PUBLIC WORKS ASSOCIATION
AR	ACCESSIBLE ROUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
BMP	BEST MANAGEMENT PRACTICES
BOS	BOTTOM OF STEP
BVC	BEGIN VERTICAL CURVE
C	CURVE
CB	CATCH BASIN
CF	CURB FACE
CO	CLEAN OUT
COMM	COMMUNICATION
CONC	CONCRETE
CONT	CONTINUOUS
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
ELEC	ELECTRICAL
ELEV	ELEVATION
EOA	EDGE OF ASPHALT
EVC	END OF VERTICAL CURVE
EW	EACH WAY
EXIST	EXISTING
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE OR FLANGE
GB	GRADE BREAK
GV	GATE VALVE
HC	HANDICAP
HP	HIGH POINT
IRR	IRRIGATION
K	RATE OF VERTICAL CURVATURE
LD	LAND DRAIN
LF	LINEAR FEET
LP	LOW POINT
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
NG	NATURAL GROUND
NO	NUMBER
OC	ON CENTER
OCEW	ON CENTER EACH WAY
OHP	OVERHEAD POWER
PC	POINT OF CURVATURE OR PRESSURE CLASS
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
PIP	PLASTIC IRRIGATION PIPE
PIV	POST INDICATOR VALVE
PRC	POINT OF REVERSE CURVATURE
PRO	PROPOSED
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
R	RADIUS
RD	ROOF DRAIN
ROW	RIGHT OF WAY
S	SLOPE
SAN SWR	SANITARY SEWER
SD	STORM DRAIN
SEC	SECONDARY
SS	SANITARY SEWER
STA	STATION
SW	SIDEWALK
SWL	SECONDARY WATER LINE
TBC	TOP BACK OF CURB
TOG	TOP OF GRATE
TOA	TOP OF ASPHALT
TOC	TOP OF CONCRETE
TOF	TOP OF FOUNDATION
TOW	TOP OF WALL
TOS	TOP OF STEP
TYP	TYPICAL
VC	VERTICAL CURVE
WIV	WALL INDICATOR VALVE
WL	WATER LINE

NOTE: MAY CONTAIN ABBREVIATIONS THAT ARE NOT USED IN THIS PLAN SET.

LEGEND

SECTION CORNER	EXISTING EDGE OF ASPHALT
EXISTING MONUMENT	PROPOSED EDGE OF ASPHALT
PROPOSED MONUMENT	EXISTING STRIPING
EXISTING REBAR AND CAP	PROPOSED STRIPING
SET ENSIGN REBAR AND CAP	EXISTING FENCE
WM EXISTING WATER METER	X PROPOSED FENCE
WM PROPOSED WATER METER	EXISTING FLOW LINE
EXISTING WATER MANHOLE	PROPOSED FLOW LINE
PROPOSED WATER MANHOLE	GRADE BREAK
W EXISTING WATER BOX	sd EXISTING STORM DRAIN LINE
WV EXISTING WATER VALVE	SD PROPOSED STORM DRAIN LINE
WV PROPOSED WATER VALVE	RD ROOF DRAIN LINE
EXISTING FIRE HYDRANT	CATCHMENTS
PROPOSED FIRE HYDRANT	HWL HIGHWATER LINE
PROPOSED FIRE DEPARTMENT CONNECTION	ss EXISTING SANITARY SEWER
SWV EXISTING SECONDARY WATER VALVE	SS PROPOSED SANITARY SEWER LINE
SWV PROPOSED SECONDARY WATER VALVE	ss PROPOSED SAN. SWR. SERVICE LINE
IRR EXISTING IRRIGATION BOX	ld EXISTING LAND DRAIN LINE
IRR EXISTING IRRIGATION VALVE	LD PROPOSED LAND DRAIN LINE
IRR PROPOSED IRRIGATION VALVE	LD PROPOSED LAND DRAIN SERVICE LINE
EXISTING SANITARY SEWER MANHOLE	w EXISTING CULINARY WATER LINE
PROPOSED SANITARY SEWER MANHOLE	W PROPOSED CULINARY WATER LINE
CO EXISTING SANITARY CLEAN OUT	w PROPOSED CULINARY WATER SERVICE LINE
EXISTING STORM DRAIN CLEAN OUT BOX	swl EXISTING SECONDARY WATER LINE
PROPOSED STORM DRAIN CLEAN OUT BOX	SWL PROPOSED SECONDARY WATER LINE
EXISTING STORM DRAIN INLET BOX	sw PROPOSED SEC. WATER SERVICE LINE
EXISTING STORM DRAIN CATCH BASIN	irr EXISTING IRRIGATION LINE
PROPOSED STORM DRAIN CATCH BASIN	IRR PROPOSED IRRIGATION LINE
EXISTING STORM DRAIN COMBO BOX	ohp EXISTING OVERHEAD POWER LINE
PROPOSED STORM DRAIN COMBO BOX	e EXISTING ELECTRICAL LINE
CO EXISTING STORM DRAIN CLEAN OUT	g EXISTING GAS LINE
EXISTING STORM DRAIN CULVERT	t EXISTING TELEPHONE LINE
PROPOSED STORM DRAIN CULVERT	AR ACCESSIBLE ROUTE
TEMPORARY SAG INLET PROTECTION	SAW CUT LINE
TEMPORARY IN-LINE INLET PROTECTION	STRAW WATTLE
RD ROOF DRAIN	TEMPORARY BERM
EXISTING ELECTRICAL MANHOLE	SF TEMPORARY SILT FENCE
E EXISTING ELECTRICAL BOX	LOD LIMITS OF DISTURBANCE
EXISTING TRANSFORMER	EXISTING GRAVEL
EXISTING UTILITY POLE	EXISTING WALL
EXISTING LIGHT	PROPOSED WALL
PROPOSED LIGHT	EXISTING CONTOURS
EXISTING GAS METER	PROPOSED 0.5' CONTOURS
EXISTING GAS MANHOLE	BUILDABLE AREA WITHIN SETBACKS
GV EXISTING GAS VALVE	PUBLIC DRAINAGE EASEMENT
EXISTING TELEPHONE MANHOLE	EXISTING ASPHALT TO BE REMOVED
EXISTING TELEPHONE BOX	PROPOSED ASPHALT
TRAFFIC EXISTING TRAFFIC SIGNAL BOX	EXISTING CURB AND GUTTER
CABLE EXISTING CABLE BOX	PROPOSED CURB AND GUTTER
EXISTING BOLLARD	PROPOSED REVERSE PAN CURB AND GUTTER
PROPOSED BOLLARD	TRANSITION TO REVERSE PAN CURB
EXISTING SIGN	TYPE D MOUNTABLE CURB AND GUTTER
PROPOSED SIGN	CONCRETE TO BE REMOVED
XXXX.XX TBC EXISTING SPOT ELEVATION	EXISTING CONCRETE
TBC XXXX.XX PROPOSED SPOT ELEVATION	PROPOSED CONCRETE
EXISTING FLOW DIRECTION	STAMPED CONCRETE
EXISTING TREE	BUILDING TO BE REMOVED
DENSE VEGETATION	EXISTING BUILDING
	PROPOSED BUILDING

NOTE: MAY CONTAIN SYMBOLS THAT ARE NOT USED IN THIS PLAN SET.

ENSIGN
THE STANDARD IN ENGINEERING

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BLUE SPRUCE SUBDIVISION FINAL

QUIRK STREET
GRANTSVILLE CITY, UTAH

REGISTERED PROFESSIONAL ENGINEER
10924116-2202
COREY J. CHILD
STATE OF UTAH
12-09-02

GENERAL NOTES

PROJECT NUMBER T1216E	PRINT DATE 2022-09-02
DRAWN BY C. CHILD	CHECKED BY J. CLEGG
PROJECT MANAGER C. CHILD	

C-001

GRANTSVILLE PRECONSTRUCTION GENERAL NOTES

CHAIN OF COMMUNICATION

- FIRST CONTACT: BRAD PACE PUBLIC WORKS INSPECTOR
- 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 CHRISTY MONTIERTH IN PUBLIC WORKS.

  THE CITY IS FINE WITH THE MATERIALS THAT HAVE PREVIOUSLY BEEN USED.

SEWER

- 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.
- NATIVE SOILS MAY BE USED ABOVE THE PIPE ZONE IF THEY ARE SUITABLE TO THE CITY AND CAN MEET COMPACTION REQUIREMENTS (BLENDING MAY BE REQUIRED).
- OFFSET TEES FOR SEWER LATERALS; GASKET TYPE.
- COMPACTION - 95% IN ROADS, 90% OFF-ROAD (ASTM D-1557, MODIFIED PROCTOR)
- 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:

- 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 SILT FENCE FIVE FEET OUT AROUND FIRE HYDRANTS AND ELECTRICAL TRANSFORMERS AFTER THEIR INSTALLATION. 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 CLEAR.
- 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 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.
- NATIVE SOILS MAY BE USED ABOVE THE PIPE ZONE IF THEY ARE SUITABLE TO THE CITY AND CAN MEET COMPACTION REQUIREMENTS (BLENDING MAY BE REQUIRED)
- 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).
- USE 150# CORP STOPS.
- 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 ALLOWED.
- 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 TEST.

  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 N-12-WT
- 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
  - 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.
- THE CITY WILL SHARE INSPECTION REPORTS WITH THE CONTRACTOR.
- 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.
- CLOSE TRENCHES AT NIGHT.
- SECURE OPEN TRENCHES AND PLUG LINES.

SECURITY

- SECURE CONSTRUCTION EQUIPMENT WHEN NOT IN USE.

SANITATION

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

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.
- BRAYDEE WILL PROVIDE 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 CHANGES. DOCUMENT CHANGES.

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 BRAYDEE BAUGH.

- PROVIDE BRAYDEE BAUGH WITH ONE 24X36 AND FOUR 11X17'S.

Name	Company Represented	Contact Information	Email
James Waltz	Grantsville City Public Works Director	435-849-1636	jwaltz@grantsvilleut.gov
Glen Millward	Grantsville City Water Dept.	435-849-3323	glenray88@hotmail.com
Markus Seat	Grantsville City Sewer and Storm Depts.	435-224-3261	mseat@grantsvilleut.gov
Brad Pace	Grantsville City Public Works Inspector	435-840-5567	bradleepace@hotmail.com
Lyle Perkins	Grantsville City Building Dept.	435-841-9388	lperkins@grantsvilleut.gov
Andy Jensen	Grantsville City Building Official	435-255-4431	ajensen@grantsvilleut.gov
Kristy Clark	Grantsville City Planning and Zoning Dept.	435-884-3411	kclark@grantsvilleut.gov
Dan England	Grantsville City City Engineer	435-884-1661	dengland@grantsvilleut.gov
Travis Daniels	Grantsville City Fire Chief	435-840-4335	firechief@grantsvilleut.gov
Shay Stark	Aqua Engineering Project Support	801-683-3731 801-520-1746	shay.stark@aquaeng.com
Christy Montierth	Grantsville City		cmontierth@grantsvilleut.gov
Jason Smith	Grantsville City Fire Marshall	801-598-7049	firemarshal@grantsvilleut.gov

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CONTACT:
SEAN PERKINS
PHONE: 435-850-8436

BLUE SPRUCE SUBDIVISION
FINAL
QUIRK STREET
GRANTSVILLE CITY, UTAH

REGISTERED PROFESSIONAL ENGINEER
10924116-2202
COREY J. CHILD
STATE OF UTAH
2-09-2022

PRECONSTRUCTION GENERAL NOTES

PROJECT NUMBER T1216E
PRINT DATE 2022-09-02
DRAWN BY C. CHILD
CHECKED BY J. CLEGG
PROJECT MANAGER C. CHILD

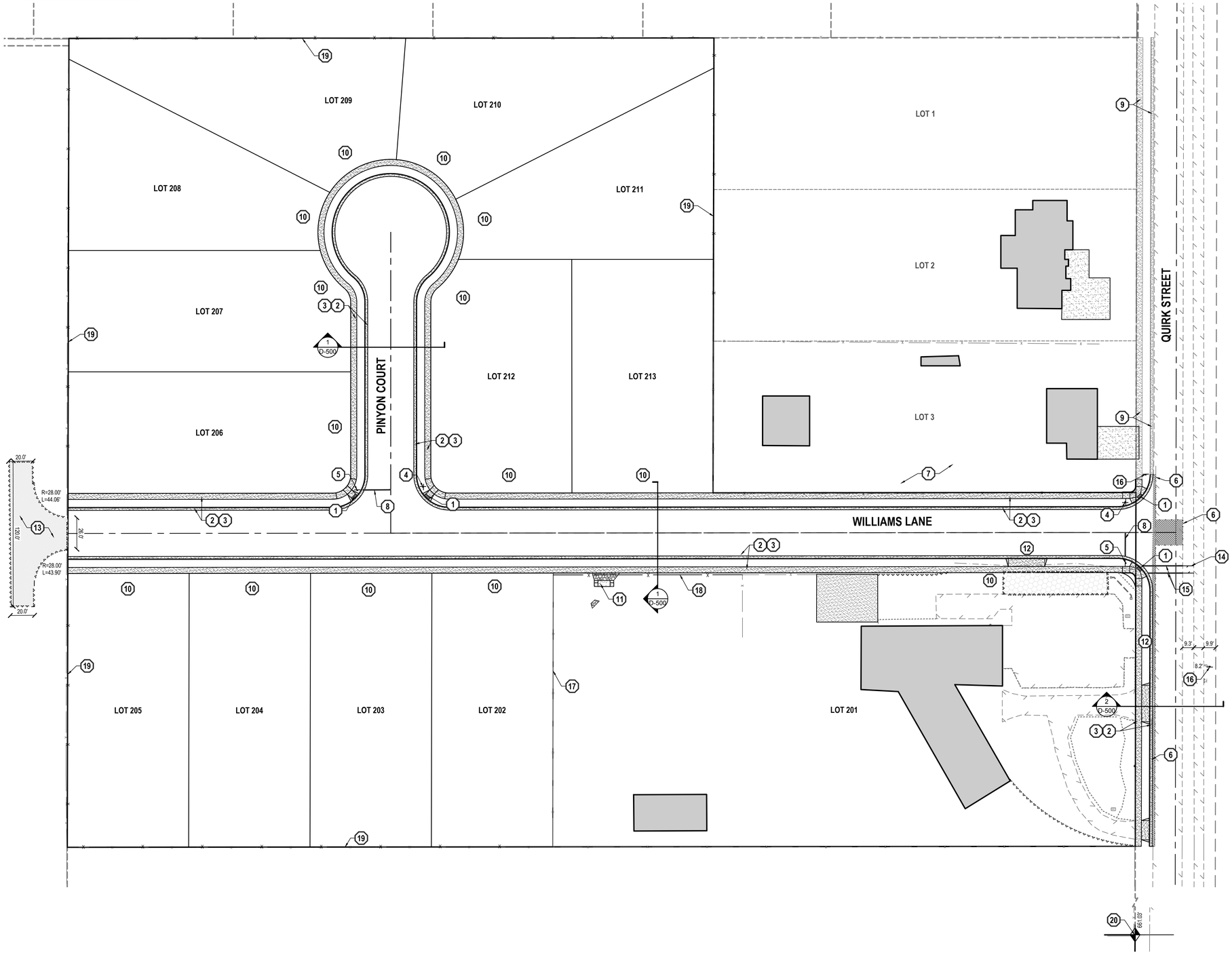
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811 Know what's below. Call before you dig.

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BENCHMARK

NORTH QUARTER CORNER OF SECTION 7, TOWNSHIP 3 SOUTH, RANGE 5 WEST SALT LAKE BASE AND MERIDIAN (2.5" BRASS TOOELE COUNTY SURVEY MONUMENT ON 4" PIPE, DATED 1986) ELEV = 4995.95' (USED ELEVATION) 4414.85' (TRUE ELEVATION)



GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
2. ALL IMPROVEMENTS MUST COMPLY WITH ADA STANDARDS AND RECOMMENDATIONS.
3. SEE LANDSCAPE/ARCHITECTURAL PLANS FOR CONCRETE MATERIAL, COLOR, FINISH, AND SCORE PATTERNS THROUGHOUT SITE.
4. ALL PAVEMENT MARKINGS SHALL CONFORM TO THE LATEST EDITION OF THE M.U.T.C.D. (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES).
5. ALL SURFACE IMPROVEMENTS DISTURBED BY CONSTRUCTION SHALL BE RESTORED OR REPLACED, INCLUDING TREES AND DECORATIVE SHRUBS, SOD, FENCES, WALLS AND STRUCTURES, WHETHER OR NOT THEY ARE SPECIFICALLY SHOWN ON THE CONTRACT DOCUMENTS.
6. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE OR ASPHALT.
7. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.
8. GRADING PERMIT MUST BE OBTAINED FROM GRANTSVILLE CITY PRIOR TO DISTURBING ANY VEGETATION OR MOVING ANY SOIL. CONTACT THE CITY ENGINEER AT 435-884-1661.
9. RIGHT-OF-WAY ENCROACHMENT PERMIT MUST BE OBTAINED FROM GRANTSVILLE CITY PRIOR TO DOING ANY WORK IN THE EXISTING RIGHT-OF-WAY, OR ON ANY STATE ROADS.

SCOPE OF WORK:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. CONSTRUCT HANDICAP ACCESS RAMP PER APWA PLAN No. 235 AND SPECIFICATIONS, WITH DETECTIBLE WARNING SURFACE PER APWA PLAN No. 238 AND SPECIFICATIONS.
2. CONSTRUCT 2.5' TYPE A CURB AND GUTTER PER APWA PLAN No. 205 AND SPECIFICATIONS. (TYP.)
3. CONSTRUCT 5.0' SIDEWALK PER APWA PLAN No. 231 AND SPECIFICATIONS. (TYP.)
4. INSTALL STREET INTERSECTION IDENTIFICATION PER GRANTSVILLE CITY STANDARDS AND SPECIFICATIONS AND MUTCD R1-1.
5. INSTALL STOP SIGN PER MUTCD R1-1 WITH W4-4P.
6. SAWCUT 2' PAST EXISTING EDGE OF EXISTING ASPHALT PAVEMENT TO PROVIDE A CLEAN EDGE FOR THE TRANSITION BETWEEN EXISTING AND PROPOSED ASPHALT PAVEMENT.
7. PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, SIGNS, ETC. (TYPICAL UNLESS OTHERWISE NOTED).
8. 12" WIDE SOLID STOP BAR PER M.U.T.C.D. STANDARD PLANS.
9. HOME OWNER AND CONTRACTOR TO CORDINATE WITH GRANTSVILLE CITY ON INSTALLING THESE IMPROVEMENTS SIMULTANIOUSLY WITH SUBDIVISION IMPROVEMENTS.
10. DRIVE WAY AND APPROACH TO BE INSTALLED BY LOT OWNER PER GRANTSVILLE CITY STANDARDS.
11. CONCRETE SPILLWAY - SEE GRADING PLAN AND DETAIL 10/D-500.
12. OWNER TO COORDINATE WITH GRANTSVILLE CITY ON EXISTING DRIVE APPROACHES. NO BUSINESS ACCESS TO QUIRK STREET
13. TEMPORARY TURNAROUND CONSTRUCTED WITH A HARD SURFACE; 10" AGGREGATE BASE 95% MOD PROCTOR ON SUITABLE NATURAL SOILS, PROPERLY PREPARED SOILS, AND/OR STRUCTURAL SITE GRADING FILL EXTENDING TO PROPERLY PREPARED/SUITABLE NATURAL SOILS; CAPABLE OF SUPPORTING THE IMPOSED LOAD OF AT LEAST 75,000 POUNDS AND COMPACTION PROCTOR TO AT LEAST 95%. TURNAROUND TO BE INSPECTED BY DEVELOPMENT INSPECTOR.
14. 3" ASPHALTIC CONCRETE PER SPECIFICATIONS, DM-1/2, PG 64-22, MAX RAP = 15% ON 8" OF UNTREATED BASE COURSE COMPACTED PER GRANTSVILLE CITY STANDARDS. ENSURE PROPER COVERAGE OVER THE STORM DRAIN CULVERT
15. 8" WIDE SOLID CROSS WALK BAR PER M.U.T.C.D. STANDARD PLANS
16. INSTALL CROSS WALK SIGN PER M.U.T.C.D. STANDARD PLANS
17. EXISTING MASONRY WALL
18. INSTALL MATCHING MASONRY FENCE WITH OPENING FOR RETENTION BASIN EMERGENCY OVERFLOW
19. 6' WHITE VINYL PERIMETER FENCE, SEE CONTRACTOR FOR ADDITIONAL INFORMATION.
20. BENCHMARK BENCHMARK - NORTH QUARTER CORNER OF SECTION 7, TOWNSHIP 3 SOUTH, RANGE 5 WEST, SALT LAKE BASE AND MERIDIAN (2.5" BRASS TOOELE COUNTY SURVEY MONUMENT ON 4" PIPE, DATED 1986) ELEV = 4599.95' (USED ELEVATION)

NOTE: MAY CONTAIN KEYNOTES THAT ARE NOT USED ON THIS SHEET.

NORTH

HORIZONTAL GRAPHIC SCALE

40 0 20 40 80

(IN FEET)
HORZ: 1 inch = 40 ft.

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CONTACT:
SEAN PERKINS
PHONE: 435-850-8436

BLUE SPRUCE SUBDIVISION
FINAL
QUIRK STREET
GRANTSVILLE CITY, UTAH

REGISTERED PROFESSIONAL ENGINEER
10924116-2202
COREY J. CHILD
STATE OF UTAH
2022-09-02

NO.	DATE	REVISION	BY
1		FOR REVIEW	
2			
3			
4			
5			
6			
7			
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SITE PLAN

PROJECT NUMBER T1216E
PRINT DATE 2022-09-02
DRAWN BY C. CHILD
CHECKED BY J. CLEGG
PROJECT MANAGER C. CHILD

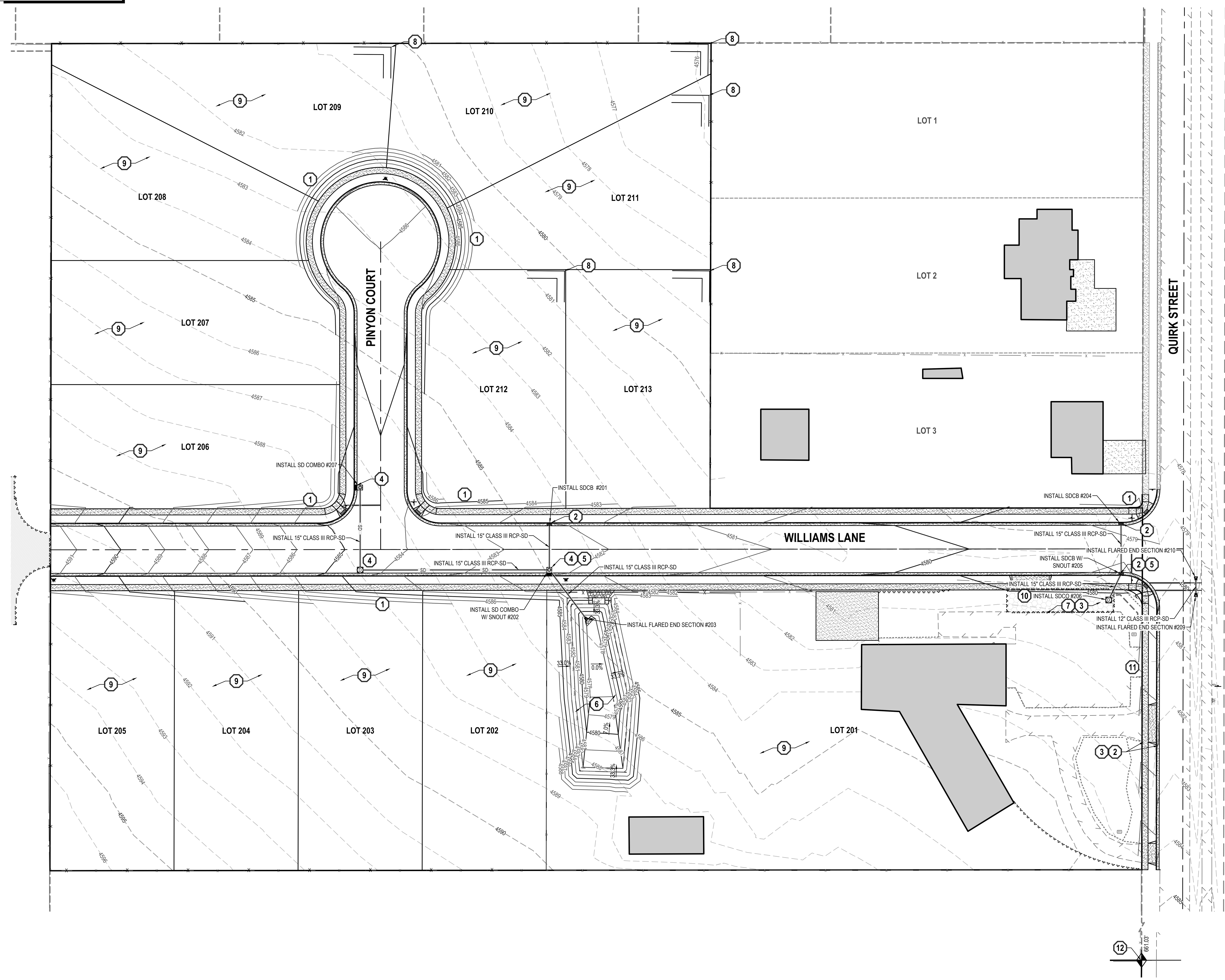
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SALT LAKE BASE AND MERIDIAN
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GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
2. ALL IMPROVEMENTS MUST COMPLY WITH ADA STANDARDS AND RECOMMENDATIONS.
3. ALL WORK SHALL COMPLY WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER POSSIBLY INCLUDING, BUT NOT LIMITED TO, REMOVAL OF UNCONSOLIDATED FILL, ORGANICS, AND DEBRIS, PLACEMENT OF SUBSURFACE DRAIN LINES AND GEOTEXTILE, AND OVEREXCAVATION OF UNSUITABLE BEARING MATERIALS AND PLACEMENT OF ACCEPTABLE FILL MATERIAL.
4. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE EXISTING SOIL CONDITIONS.
5. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY THE LOCATIONS OF EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT. THE CONTRACTOR IS TO VERIFY ALL CONNECTION POINTS WITH THE EXISTING UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO THE EXISTING UTILITIES AND UTILITY STRUCTURES THAT ARE TO REMAIN. IF CONFLICTS WITH EXISTING UTILITIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION TO DETERMINE IF ANY FIELD ADJUSTMENTS SHOULD BE MADE.
6. ALL STORM DRAIN INFRASTRUCTURE TO BE INSTALLED PER GOVERNING AGENCY OR APWA STANDARD PLANS AND SPECIFICATIONS.
7. ENSURE MINIMUM COVER OVER ALL STORM DRAIN PIPES PER MANUFACTURER'S RECOMMENDATIONS. NOTIFY ENGINEER IF MINIMUM COVER CANNOT BE ATTAINED.
8. THE CONTRACTOR SHALL ADJUST TO GRADE ALL EXISTING UTILITIES AS NEEDED PER LOCAL GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
9. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE, ASPHALT, OR STORM DRAIN STRUCTURES OR PIPES.
10. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.
11. GRADING PERMIT MUST BE OBTAINED FROM GRANTSVILLE CITY PRIOR TO DISTURBING ANY VEGETATION OR MOVING ANY SOIL. CONTACT THE CITY ENGINEER AT 435-884-1661.
12. RIGHT-OF-WAY ENCROACHMENT PERMIT MUST BE OBTAINED FROM GRANTSVILLE CITY PRIOR TO DOING ANY WORK IN THE EXISTING RIGHT-OF-WAY, OR ON ANY STATE ROADS.
13. GSH MUST BE NOTIFIED PRIOR TO THE PLACEMENT OF STRUCTURAL SITE GRADING FILLS, FLOOR SLABS, FOOTINGS, AND PAVEMENTS TO VERIFY THAT ALL LOOSE/DISTURBED SOILS AND NON-ENGINEERED FILLS HAVE BEEN COMPLETELY REMOVED.

SCOPE OF WORK:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. DAYLIGHT TO EXISTING GROUND WITH MAXIMUM 3:1 SLOPE.
2. CATCH BASIN PER CITY STANDARDS AND SPECIFICATIONS.
3. STORM BRIXX UNDERGROUND RETENTION AREA. (WE WILL BE PROVIDED WITH FINAL DESIGN)
4. COMBINATION INLET/CLEANOUT BOX PER CITY STANDARDS AND SPECIFICATIONS.
5. SNOUT 18F OR APPROVED EQUAL. CUT PIPE FLUSH WITH STRUCTURAL WALL. ENSURE PIPE/STRUCTURE INTERFACE IS SMOOTH AND FREE OF DEBRIS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS. INSTALL ON SOUTH SIDE OF STORM DRAIN BOX.
6. RETENTION BASIN I, SEE C-201 AND DETAIL 8/D-500.
7. RETENTION BASIN II, STORM BRIXX DESIGN (WE WILL BE PROVIDED WITH FINAL DESIGN)
8. BACKYARD 25' X 30' WIDE RETENTION BASIN PER DETAIL 9/D-500, MINIMUM VOLUME PER C-201 CALCULATIONS.
9. INDIVIDUAL LOT OWNERS ARE REQUIRED TO GRADE LOTS TO PREVENT DRAINAGE ONTO NEIGHBORING PROPERTIES.
10. DRIVE WAY AND APPROACH TO BE INSTALLED BY LOT OWNER PER GRANTSVILLE CITY STANDARDS.
11. OWNER TO COORDINATE WITH GRANTSVILLE CITY ON EXISTING DRIVE APPROACHES.
12. BENCHMARK BENCHMARK - NORTH QUARTER CORNER OF SECTION 7, TOWNSHIP 3 SOUTH, RANGE 5 WEST, SALT LAKE BASE AND MERIDIAN (2.5" BRASS TOOELE COUNTY SURVEY MONUMENT ON 4" PIPE, DATED 1986) ELEV = 4599.95' (USED ELEVATION)

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QUIRK STREET
GRANTSVILLE CITY, UTAH

REGISTERED PROFESSIONAL ENGINEER
10924116-2202
COREY J. CHILD
STATE OF UTAH
12-09-22

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GRADING PLAN

PROJECT NUMBER
T1216E

PRINT DATE
2022-09-02

DRAWN BY
C. CHILD

CHECKED BY
J. CLEGG

PROJECT MANAGER
C. CHILD

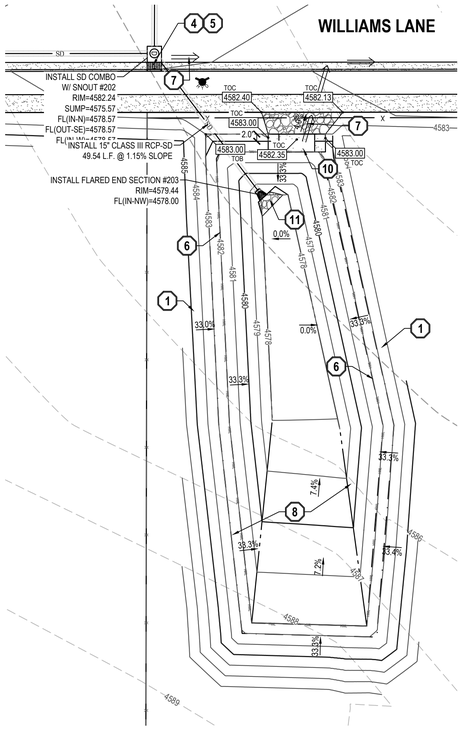
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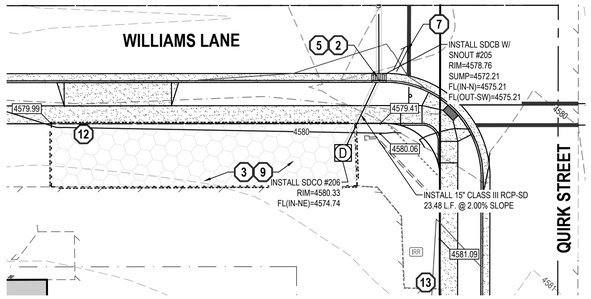
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ELEV = 4995.95' (USED ELEVATION)
4414.85' (TRUE ELEVATION)





SCOPE OF WORK:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. DAYLIGHT TO EXISTING GROUND WITH MAXIMUM 3:1 SLOPE.
2. CATCH BASIN PER CITY STANDARDS AND SPECIFICATIONS.
3. STORM BRIXX UNDERGROUND RETENTION AREA, SEE C-202 AND ACO, INC DESIGN
4. COMBINATION INLET/CLEANOUT BOX PER CITY STANDARDS AND SPECIFICATIONS.
5. SNOUT 15F OR APPROVED EQUAL. CUT PIPE FLUSH WITH STRUCTURAL WALL. ENSURE PIPE/STRUCTURE INTERFACE IS SMOOTH AND FREE OF DEBRIS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS. INSTALL ON SOUTH SIDE OF STORM DRAIN BOX.
6. HIGH-WATER ELEVATION
7. 100-YEAR FLOOD ROUTE
8. RETENTION BASIN I
   BASIN TOP OF POND = 4583.00
   SPILLWAY ELEVATION = 4582.50
   HIGH WATER ELEVATION = 4582.00
   BOTTOM OF POND = 4578.50
   VOLUME REQUIRED = 9,929 C.F.
   VOLUME PROVIDED = 10,520 C.F.
9. RETENTION BASIN II
   TOP OF UNDERGROUND RETENTION = 4975.99
   VOLUME REQUIRED = 5,846 C.F.
   VOLUME PROVIDED = 5,986 C.F.
10. CONCRETE SPILLWAY AND RIP RAP- SEE GRADING PLAN AND DETAIL 10/D-500.
11. OUTLET RIPRAP PER SHEET D-511.
12. DRIVE WAY AND APPROACH TO BE INSTALLED BY LOT OWNER PER GRANTSVILLE CITY STANDARDS.
13. OWNER TO COORDINATE WITH GRANTSVILLE CITY ON EXISTING DRIVE APPROACHES.

NOTE: MAY CONTAIN KEYNOTES THAT ARE NOT USED ON THIS SHEET.

GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
2. ALL IMPROVEMENTS MUST COMPLY WITH ADA STANDARDS AND RECOMMENDATIONS.
3. ALL WORK SHALL COMPLY WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER POSSIBLY INCLUDING, BUT NOT LIMITED TO, REMOVAL OF UNCONSOLIDATED FILL, ORGANICS, AND DEBRIS, PLACEMENT OF SUBSURFACE DRAIN LINES AND GEOTEXTILE, AND OVEREXCAVATION OF UNSUITABLE BEARING MATERIALS AND PLACEMENT OF ACCEPTABLE FILL MATERIAL.
4. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE EXISTING SOIL CONDITIONS.
5. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY THE LOCATIONS OF EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT. THE CONTRACTOR IS TO VERIFY ALL CONNECTION POINTS WITH THE EXISTING UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO THE EXISTING UTILITIES AND UTILITY STRUCTURES THAT ARE TO REMAIN. IF CONFLICTS WITH EXISTING UTILITIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION TO DETERMINE IF ANY FIELD ADJUSTMENTS SHOULD BE MADE.
6. ALL STORM DRAIN INFRASTRUCTURE TO BE INSTALLED PER GOVERNING AGENCY OR APWA STANDARD PLANS AND SPECIFICATIONS.
7. ENSURE MINIMUM COVER OVER ALL STORM DRAIN PIPES PER MANUFACTURER'S RECOMMENDATIONS. NOTIFY ENGINEER IF MINIMUM COVER CANNOT BE ATTAINED.
8. THE CONTRACTOR SHALL ADJUST TO GRADE ALL EXISTING UTILITIES AS NEEDED PER LOCAL GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
9. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE, ASPHALT, OR STORM DRAIN STRUCTURES OR PIPES.
10. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.
11. GRADING PERMIT MUST BE OBTAINED FROM GRANTSVILLE CITY PRIOR TO DISTURBING ANY VEGETATION OR MOVING ANY SOIL. CONTACT THE CITY ENGINEER AT 435-884-1661.
12. RIGHT-OF-WAY ENCROACHMENT PERMIT MUST BE OBTAINED FROM GRANTSVILLE CITY PRIOR TO DOING ANY WORK IN THE EXISTING RIGHT-OF-WAY, OR ON ANY STATE ROADS.
13. GSH MUST BE NOTIFIED PRIOR TO THE PLACEMENT OF STRUCTURAL SITE GRADING FILLS, FLOOR SLABS, FOOTINGS, AND PAVEMENTS TO VERIFY THAT ALL LOOSE/DISTURBED SOILS AND NON-ENGINEERED FILLS HAVE BEEN COMPLETELY REMOVED.



HORIZONTAL GRAPHIC SCALE

40 0 10 20 40
(IN FEET)
HORZ: 1 inch = 20 ft.

7/7/2021 Precipitation Frequency Data Server

NOAA Atlas 14, Volume 1, Version 5
Location name: Grantsville, Utah, USA*
Latitude: 40.581°, Longitude: -112.4575°
Elevation: 4394.13 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	1.44 (1.26-1.62)	1.82 (1.63-2.09)	2.53 (2.24-2.87)	3.17 (2.78-3.59)	4.15 (3.58-4.73)	5.03 (4.22-5.77)	6.06 (4.98-7.04)	7.25 (5.76-8.56)	9.12 (6.91-11.0)	10.8 (7.88-13.2)
10-min	1.09 (0.960-1.24)	1.39 (1.24-1.59)	1.92 (1.71-2.18)	2.41 (2.12-2.72)	3.16 (2.72-3.59)	3.82 (3.22-4.39)	4.61 (3.79-5.36)	5.52 (4.38-6.52)	6.94 (5.26-8.34)	8.23 (5.99-10.1)
15-min	0.904 (0.796-1.02)	1.15 (1.02-1.31)	1.59 (1.41-1.81)	1.99 (1.75-2.26)	2.61 (2.25-2.97)	3.16 (2.66-3.63)	3.81 (3.13-4.43)	4.56 (3.62-5.38)	5.73 (4.34-6.89)	6.80 (4.96-8.32)
30-min	0.608 (0.534-0.688)	0.774 (0.690-0.884)	1.07 (0.950-1.22)	1.34 (1.18-1.52)	1.76 (1.52-2.00)	2.13 (1.79-2.44)	2.57 (2.11-2.98)	3.07 (2.44-3.63)	3.86 (2.92-4.64)	4.58 (3.34-5.60)
60-min	0.376 (0.331-0.426)	0.479 (0.427-0.547)	0.662 (0.588-0.753)	0.829 (0.730-0.939)	1.09 (0.939-1.24)	1.32 (1.11-1.51)	1.59 (1.31-1.85)	1.90 (1.51-2.24)	2.39 (1.81-2.87)	2.83 (2.06-3.47)
2-hr	0.225 (0.204-0.250)	0.284 (0.258-0.319)	0.374 (0.341-0.419)	0.456 (0.411-0.509)	0.586 (0.517-0.656)	0.704 (0.606-0.794)	0.839 (0.702-0.956)	0.996 (0.808-1.16)	1.25 (0.958-1.48)	1.47 (1.09-1.78)
3-hr	0.171 (0.156-0.188)	0.212 (0.194-0.234)	0.271 (0.250-0.299)	0.322 (0.294-0.354)	0.405 (0.361-0.444)	0.475 (0.416-0.534)	0.562 (0.481-0.643)	0.665 (0.554-0.778)	0.834 (0.661-0.996)	0.988 (0.750-1.20)
6-hr	0.108 (0.100-0.117)	0.134 (0.124-0.144)	0.163 (0.152-0.176)	0.190 (0.176-0.204)	0.228 (0.209-0.246)	0.260 (0.234-0.282)	0.296 (0.262-0.324)	0.344 (0.298-0.394)	0.425 (0.357-0.505)	0.497 (0.408-0.607)
12-hr	0.067 (0.063-0.072)	0.082 (0.077-0.089)	0.100 (0.094-0.108)	0.114 (0.106-0.123)	0.134 (0.124-0.145)	0.150 (0.138-0.164)	0.167 (0.150-0.184)	0.185 (0.164-0.206)	0.222 (0.192-0.252)	0.252 (0.214-0.305)
24-hr	0.041 (0.038-0.044)	0.051 (0.047-0.055)	0.061 (0.056-0.066)	0.069 (0.064-0.074)	0.080 (0.074-0.086)	0.088 (0.081-0.095)	0.097 (0.089-0.104)	0.105 (0.096-0.114)	0.116 (0.105-0.128)	0.128 (0.112-0.154)
2-day	0.022 (0.020-0.024)	0.027 (0.025-0.029)	0.032 (0.030-0.035)	0.037 (0.034-0.040)	0.043 (0.040-0.046)	0.047 (0.044-0.051)	0.052 (0.048-0.056)	0.057 (0.052-0.061)	0.063 (0.057-0.068)	0.067 (0.061-0.078)
3-day	0.016 (0.015-0.017)	0.019 (0.018-0.021)	0.023 (0.022-0.025)	0.026 (0.024-0.028)	0.031 (0.029-0.033)	0.034 (0.031-0.037)	0.038 (0.035-0.040)	0.041 (0.038-0.044)	0.046 (0.042-0.050)	0.049 (0.045-0.055)
4-day	0.012 (0.012-0.013)	0.015 (0.014-0.017)	0.018 (0.017-0.020)	0.021 (0.020-0.023)	0.025 (0.023-0.026)	0.027 (0.025-0.029)	0.030 (0.028-0.033)	0.033 (0.030-0.036)	0.037 (0.034-0.040)	0.040 (0.036-0.044)
7-day	0.008 (0.008-0.009)	0.010 (0.009-0.011)	0.012 (0.011-0.013)	0.014 (0.013-0.015)	0.016 (0.015-0.017)	0.017 (0.016-0.019)	0.019 (0.018-0.021)	0.021 (0.019-0.022)	0.023 (0.021-0.025)	0.025 (0.022-0.027)
10-day	0.006 (0.006-0.007)	0.008 (0.007-0.008)	0.009 (0.009-0.010)	0.010 (0.010-0.011)	0.012 (0.011-0.013)	0.013 (0.012-0.014)	0.014 (0.013-0.015)	0.015 (0.014-0.017)	0.017 (0.016-0.018)	0.018 (0.016-0.019)
20-day	0.004 (0.004-0.004)	0.005 (0.005-0.005)	0.006 (0.006-0.006)	0.007 (0.006-0.007)	0.007 (0.007-0.008)	0.008 (0.008-0.009)	0.009 (0.008-0.009)	0.009 (0.009-0.010)	0.010 (0.009-0.011)	0.011 (0.010-0.011)
30-day	0.003 (0.003-0.003)	0.004 (0.004-0.004)	0.005 (0.004-0.005)	0.005 (0.005-0.006)	0.006 (0.006-0.006)	0.007 (0.006-0.007)	0.007 (0.007-0.008)	0.008 (0.007-0.008)	0.008 (0.008-0.009)	0.009 (0.008-0.009)
45-day	0.003 (0.002-0.003)	0.003 (0.003-0.003)	0.004 (0.004-0.004)	0.004 (0.004-0.004)	0.005 (0.004-0.005)	0.005 (0.005-0.005)	0.006 (0.005-0.006)	0.006 (0.005-0.006)	0.006 (0.006-0.007)	0.006 (0.006-0.007)
60-day	0.002 (0.002-0.003)	0.003 (0.003-0.003)	0.003 (0.003-0.004)	0.004 (0.004-0.004)	0.004 (0.004-0.004)	0.005 (0.004-0.005)	0.005 (0.005-0.005)	0.005 (0.005-0.005)	0.005 (0.005-0.006)	0.006 (0.005-0.006)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.
Please refer to NOAA Atlas 14 document for more information.

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https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_printpage.html?lat=40.5810&lon=-112.4575&data=intensity&units=english&series=pds 1/4

NOTE: USE LOT 213 CALCULATIONS FOR LOT 209-213

Study Summary Statistics — LOT - 213

No. of Lots	1
Roof SF/lot	2500
Drive SF/lot	1000
Total Lots Hardscape, SF	3500
Total Road Hardscape SF	0
Total Hardscape, SF	3500
Total Area, SF	22429
Landscaped Area, SF	18929
Weighted Average C	0.26

Retention Calculations (100-year storm)

Basin Tributary Area	22,429	SF
Runoff coefficient C:	0.259	
Basin Area	1,000	SF
Allowable Discharge Rate	-	cfs/acre
Total Discharge	-	cfs

Infiltration Rate per GSH Job No. 3218-002-21 — 1.667 — Factor Safety
Rate = 12 minutes per inch = 5 in/hr — rate/3

Time (min)	i (in/hr)	Cumulative Runoff to Basin (cf)	Infiltration (cf)	Required Storage (cf)
5	6.06	245	12	233
10	4.61	373	23	349
15	3.81	462	35	427
30	2.56	620	69	551
60	1.59	770	139	**631**
120	0.84	814	278	536
180	0.56	819	417	402
360	0.30	858	834	24
720	0.17	974	1,667	(693)
1440	0.10	1,124	3,334	(2,210)
		Required Retention:		631
		Provided Retention:		1,341

Study Summary Statistics — Basin I

No. of Lots	11
Roof SF/lot	2500
Drive SF/lot	720
Total Lots Hardscape, SF	35420
Total Road Hardscape SF	27776
Total Hardscape, SF	63196
Total Area, SF	257993
Landscaped Area, SF	194797
Weighted Average C	0.32

Retention Calculations (100-year storm)

Basin Tributary Area	257,993	SF
Runoff coefficient C:	0.321	
Basin Area	5,204	SF
Allowable Discharge Rate	-	cfs/acre
Total Discharge	-	cfs

Infiltration Rate per GSH Job No. 3218-002-21 — 1.667 — Factor Safety
Rate = 12 minutes per inch = 5 in/hr — rate/3

Time (min)	i (in/hr)	Cumulative Runoff to Basin (cf)	Infiltration (cf)	Required Storage (cf)
5	6.06	3,490	60	3,430
10	4.61	5,315	120	5,194
15	3.81	6,587	181	6,406
30	2.56	8,847	361	8,485
60	1.59	10,989	723	**10,266**
120	0.84	11,611	1,446	10,165
180	0.56	11,680	2,169	9,511
360	0.30	12,233	4,338	7,896
720	0.17	13,892	8,675	5,217
1440	0.10	16,034	17,350	(1,316)
		Required Retention:		10,266
		Provided Retention:		10,520

Catchment Calculations (10-year storm)

Time of Concentration: 30 min
Rainfall Intensity I: 1.34 in/hr
Mannings N 0.013

Catchment	Area (SF)	C	Flow (CFS)	Destination
1	63,243	0.321	0.631	201
2	116,225	0.321	1.159	202
3	76,675	0.321	0.765	207

Pipe Design (10-year storm)

Pipe	Tributary Basins	Surface Flow (CFS)	Upstream Pipes	Pipe Flow (CFS)	Total Flow (CFS)	Pipe Slope	Diameter (IN)	Full Flow Capacity (CFS)	% of Full-Flow Capacity
207-208	3	0.765	None	0.000	0.765	1.80%	15	8.690	8.8%
202-208	-	0.000	207-208	0.765	0.765	0.81%	15	5.829	13.1%
201-202	2	1.159	None	0.000	1.159	0.50%	15	4.580	25.3%
202-203	1	0.631	201-202, 202-208	1.923	2.554	1.15%	15	6.946	36.8%

Retention Basin Drainage Calculations (100-year storm)

Basin Tributary Area	257,993	SF
Runoff coefficient C:	0.321	
Basin Area	5,204	SF
Allowable Discharge Rate	-	cfs/acre
Total Discharge	-	cfs

Infiltration Rate per GSH Job No. 3218-002-21 — 1.667 — Factor Safety
Rate = 12 minutes per inch = 5 in/hr — rate/3

Time (min)	Time (days)	Cumulative Runoff to Basin (cf)	Infiltration (cf)	Required Storage (cf)
0	0.000	10,266	-	**10,266**
5	0.003	10,266	60	10,206
10	0.007	10,206	120	10,085
15	0.010	10,085	181	9,905
30	0.021	9,905	361	9,543
60	0.042	9,543	723	8,820
120	0.083	8,820	1,446	7,374
180	0.125	7,374	2,169	5,206
360	0.250	5,206	4,338	868
720	0.500	868	8,675	(7,807)
1440	1.00	(7,807)	17,350	(25,157)

Study Summary Statistics — Basin II

No. of Lots	2
Roof SF/lot	2500
Drive SF/lot	14214
Total Lots Hardscape, SF	33428
Total Road Hardscape SF	15478
Total Hardscape, SF	48906
Total Area, SF	69539
Landscaped Area, SF	20633
Weighted Average C	0.64

Retention Calculations (100-year storm)

Basin Tributary Area	69,539	SF
Runoff coefficient C:	0.642	
Basin Area	1,000	SF
Allowable Discharge Rate	-	cfs/acre
Total Discharge	-	cfs

Infiltration Rate per GSH Job No. 3218-002-21 — 2 — Factor Safety
Rate = 12 minutes per inch = 5 in/hr — rate/3

Time (min)	i (in/hr)	Cumulative Runoff to Basin (cf)	Infiltration (cf)	Required Storage (cf)
5	6.06	1,880	12	1,868
10	4.61	2,862	23	2,839
15	3.81	3,547	35	3,512
30	2.56	4,764	69	4,695
60	1.59	5,918	139	5,779
120	0.84	6,253	278	**5,975**
180	0.56	6,290	417	5,874
360	0.30	6,588	834	5,755
720	0.17	7,481	1,667	5,814
1440	0.10	8,635	3,334	5,301
		Required Retention:		5,975
		Provided Retention:		
		Provided Sump Retention:		5,986
		Total Retention:		5,986

ENSIGN
THE STANDARD IN ENGINEERING

TOOELE
169 N. Main Street, Unit 1
Tooele, UT. 84074
Phone: 435.843.3590

SALT LAKE CITY
Phone: 801.255.0529

LAYTON
Phone: 801.547.1100

CEDAR CITY
Phone: 435.865.1453

RICHFIELD
Phone: 435.896.2983

WWW.ENSIGNENG.COM

FOR:
ICON DEVELOPMENT, LLC
3410 NORTH MOYLE LANE
ERDA, UTAH, 84074
CONTACT:
SEAN PERKINS
PHONE: 435-850-8436

BLUE SPRUCE SUBDIVISION
FINAL
QUIRK STREET
GRANTSVILLE CITY, UTAH

REGISTERED PROFESSIONAL ENGINEER
10924116-2202
2022-09-02
COREY J. CHILD
STATE OF UTAH

NO.	DATE	REVISION	BY
1		FOR REVIEW	
2			
3			
4			
5			
6			
7			
8			

GRADING PLAN

PROJECT NUMBER T1216E
PRINT DATE 2022-09-02
DRAWN BY C. CHILD
CHECKED BY J. CLEGG
PROJECT MANAGER C. CHILD

C-201



SD

Design Number: 1220043

ACO StormBrixx System Optimizer

Project Title
Blue Spruce Subdivision

Notes / Tank Reference
SD Infiltration
1 Layer (1ft)
2 Access locations

Assumptions:



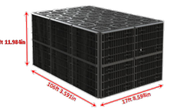
- Ground improvement may be required
- Traffic - Car park loading
- Asphalt surfacing

Invert Depth : 2 ft 11 in

Tank parameters - SD

Length	Width	Depth	Total Gross Volume
10ft 3.591in	17ft 8.598in	2ft 11.984in	5647.29ft³
			Total Net Volume
			5477.87ft³

SD tank has a void ratio of 0.97



Selected	Product Code	Product Description	Quantity
		Main Components	
✓	314090	StormBrixx SD Half Module	485 pcs.
✓	314091	StormBrixx SD Side Panel	126 pcs.
✓	314092	StormBrixx SD Top Cover	484 pcs.
✓	314093	StormBrixx SD Layer Connector	243 pcs.
	314094	StormBrixx SD Half Layer Top Cover Plate	pcs.
	314098	StormBrixx SD Half Layer Side Panel	pcs.

Selected	Product Code	Product Description	Quantity
		Access	
	138141	StormBrixx SD Remote Access Unit	pcs.
✓	314075	StormBrixx Remote Access Plate	2 pcs.
✓	314038	StormBrixx Inspection Shaft	10 pcs.
	314039	StormBrixx Inspection Shaft with Socket	pcs.
	27018	Vertical Inspection Point Connector	pcs.
		SD and HD horizontal pipe connector	
	93139	Horizontal Pipe Connector SDR35 - 4 inch (102mm) pipe	pcs.
	93140	Horizontal Pipe Connector SDR35 - 6 inch (152mm) pipe	pcs.
	93141	Horizontal Pipe Connector SDR35 - 8 inch (203mm) pipe	pcs.
	93142	Horizontal Pipe Connector SDR35 - 12 inch (305mm) pipe	pcs.
✓	93144	Horizontal Pipe Connector SDR35 - 15 inch (381mm) pipe	1 pcs.
	93145	Horizontal Pipe Connector SCH40 - 4 inch (102mm) pipe	pcs.
	93146	Horizontal Pipe Connector SCH40 - 6 inch (152mm) pipe	pcs.
	93147	Horizontal Pipe Connector SCH40 - 8 inch (203mm) pipe	pcs.
		Covers load class D 400	
✓	314043	Access Chamber Ductile Iron Cover (Load Class D400)	2 pcs.
	314053	Access Chamber Ductile Iron Vented Cover (Load Class D400)	pcs.
	314044	Inspection Point Ductile Iron Cover (Load Class D400)	pcs.
		Covers load class D 400	
		Non-woven geotextile	ft² (15ft overlap)
		GEOMEMBRANE ROLL	ft² (15ft overlap)
✓		Infiltration geotextile	5186.82 ft² (15ft overlap)
			2 rolls (4.5x100m)

Estimated Assembly Time: 3hr 59mins 53secs

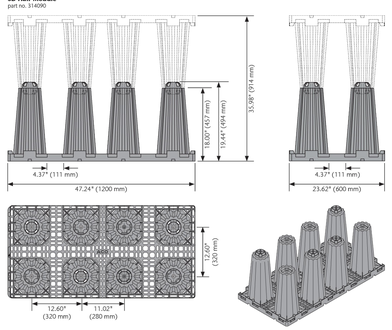
Assumptions
Assembly rate of the StormBrixx system is estimated to be 2.55 seconds per cubic foot (1.5 mins/m³) for SD and 3.4 seconds per cubic foot (2 mins/m³) for HD.

The assembly time is based on two workers, and one machinery operator lifting pallets into the hole. It does not include hole excavation, base preparation and compaction, nor laying of the geotextile membranes. It is the assembly time for building the StormBrixx tank only and does not include pipe connections.

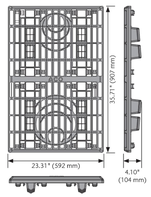
Disclaimer
Assembly times are accurate to the best of ACO Inc.'s knowledge, testing and observation. These times should be used for guidance only. Every site installation will be different and local conditions may vary. Installing contractor should determine the accuracy of installed times accordingly.

WEST SALES OFFICE
825 W BEECHCRAFT ST.
CASA GRANDE, AZ 85122
Tel. (888) 490-9552
Fax (520) 421-9899

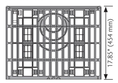
SD Half-Module
part no. 314090



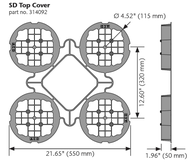
SD Side Panel
part no. 314091



SD Half-Layer Side Panel
part no. 314098

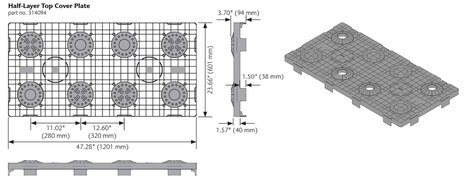


SD Top Cover
part no. 314092

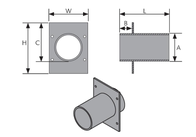


ACO Specification Information

Half-Layer Top Cover Plate
part no. 314094

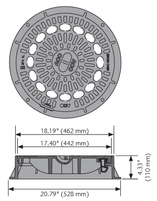


Horizontal Pipe Connector
part no.: see chart



Part No.	A in (mm)	B in (mm)	C in (mm)	H in (mm)	W in (mm)	L in (mm)
93139 SDR 35 - 4"	2.00 (51)	6.25 (158)	8.25 (209)	6.70 (170)	8.00 (203)	
93145 SCH 40 - 4"	2.00 (51)	7.47 (189)	8.29 (210)	6.70 (170)	8.00 (203)	
93140 SDR 35 - 6"	2.00 (51)	8.95 (227)	9.93 (252)	10.22 (259)	8.00 (203)	
93146 SCH 40 - 6"	2.00 (51)	9.11 (231)	9.93 (252)	10.22 (259)	8.00 (203)	
93141 SDR 35 - 8"	2.00 (51)	10.46 (265)	11.39 (289)	11.64 (295)	8.00 (203)	
93147 SCH 40 - 8"	2.00 (51)	10.57 (268)	11.39 (289)	11.64 (295)	8.00 (203)	
93142 SDR 35 - 12"	2.00 (51)	13.48 (342)	14.30 (363)	16.66 (423)	8.00 (203)	
93144 SCH 35 - 15"	2.00 (51)	17.28 (439)	19.25 (489)	19.25 (489)	8.00 (203)	

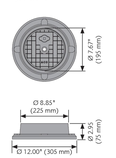
Remote Access Cover (Vented)
part no. 314053



Remote Access Cover (Non-Vented)
part no. 314043

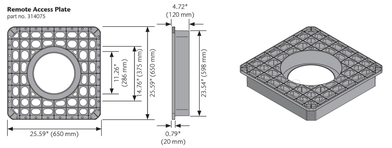


Inspection Point Cover
part no. 314044

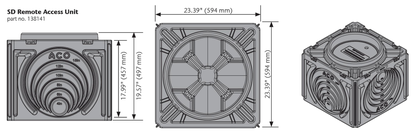


ACO Specification Information

Remote Access Plate
part no. 314075



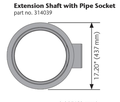
SD Remote Access Unit
part no. 138141



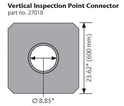
Extension Shaft
part no. 314038



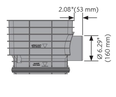
Extension Shaft with Pipe Socket
part no. 314039

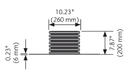


Vertical Inspection Point Connector
part no. 27018















ACO Specification Information

ACO StormBrixx SD Parts Table	Part No.	Length in (mm)	Width in (mm)	Depth in (mm)	Weight lbs (kg)
SD Half-Module	314090	47.24 (1200)	23.62 (600)	19.45 (494)	21.60 (9.80)
SD Side Panel	314091	35.71 (907)	23.31 (592)	1.57 (40)	7.20 (3.30)
SD Half-Layer Side Panel	314098	17.85 (454)	23.31 (592)	1.57 (40)	3.40 (1.54)
SD Top Cover	314092	21.65 (550)	21.65 (550)	1.96 (50)	1.60 (0.70)
Half-Layer Top Cover Plate	314094	47.25 (1200)	23.63 (600)	3.70 (94)	7.70 (3.50)
SD Remote Access Unit	138141	23.39 (594)	23.39 (594)	19.57 (497)	40.00 (18.12)
SD Layer Connector	314093	2.11 (54)	1.75 (44)	1.05 (27)	0.03 (0.02)
Remote Access Plate	314075	25.59 (650)	25.59 (650)	4.72 (120)	10.78 (4.90)
Remote Access Cover - Ductile Iron (Load Class D400)	314043	-	Ø 20.79 (528)	4.34 (110)	86.46 (39.30)
Remote Access Vented Cover - Ductile Iron (Load Class D400)	314053	-	Ø 20.79 (528)	4.34 (110)	83.60 (38.00)
Inspection Point Cover - Ductile Iron (Load Class D400)	314044	-	Ø 8.85 (225)	2.95 (75)	34.54 (15.70)
Extension Shaft	314038	-	Ø 17.21 (437)	13.78 (350)	4.84 (2.60)
Extension Shaft with Pipe Socket	314039	-	Ø 17.21 (437)	13.78 (350)	6.16 (2.80)
Vertical Inspection Point Connector	27018	-	Ø 8.85* (225)	7.87 (200)	5.52 (2.50)
Horizontal Pipe Connectors					
SDR 35 - 4"	93139		4.00* (102)		1.9 (0.87)
SCH 40 - 4"	93145		4.00* (102)		1.9 (0.87)
SDR 35 - 6"	93140		6.00* (152)		3.2 (1.49)
SCH 40 - 6"	93146	8.00 (203)	6.00* (152)	-	3.20 (1.49)
SDR 35 - 8"	93141		8.00* (203)		5.52 (2.50)
SCH 40 - 8"	93147		8.00* (203)		5.52 (2.50)
SDR 35 - 12"	93142		12.00* (305)		5.52 (2.50)
SDR 35 - 15"	93144		15.00* (381)		5.52 (2.50)

*Internal width

Specifications

General
The StormBrixx stormwater Detention*/ Infiltration*/Retention* system shall be ACO StormBrixx SD as supplied by ACO, Inc.

ACO StormBrixx SD meets AASHTO Hi-20 and HS-20 loading conditions.

Materials
The half-module shall be manufactured from polypropylene and have minimum properties as follows:
Tensile impact strength:
152 ft-lb/in² (319 kJ/m²)
Tensile strength, ultimate:
3,480 psi (23,994 kpa)
Water absorption: 0.01%
Frost proof, salt proof and fuels and oils resistant

The stormwater tank shall provide an average 97% open area†, holding up to 22.53† ft³ (0.63 m³) per module (2 half-modules assembled) and offer full access to all areas and levels for maintenance.

Geomembranes/Geotextiles
The StormBrixx stormwater system shall be wrapped in appropriate permeable geotextile or impermeable geomembrane* (supplied by others) as indicated by project design engineer.

Accessories
The StormBrixx stormwater system shall be used in conjunction with remote access unit or plate**/extension shaft**/inspection point connector**.

Installation
The StormBrixx stormwater system shall be installed in strict accordance with the manufacturer's installation instructions and recommendations.

*Choose one
**Choose none, one or more
†Configuration and use of side/top panels will marginally impact these figures

ACO, Inc.

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Toll-Free: (888) 490-9552
Fax: (520) 421-9899

Northeast Sales Office
9470 Pinecone Drive
Mentor, OH 44060
Tel: (440) 639-7230
Toll-Free: (800) 543-4764
Fax: (440) 639-7235

Southeast Sales Office
4211 Pleasant Road
Fort Mill, SC 29708
Toll-Free: (800) 543-4764
Fax: (803) 802-1063

info@acousa.com
www.acousa.com

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All reasonable care has been taken in compiling the information in this document. All recommendations and suggestions on the use of ACO products are made without guarantee since the conditions of use are beyond the control of the company. It is the customer's responsibility to ensure that each product is fit for its intended purpose and that the actual conditions of use are suitable. ACO, Inc. reserves the right to change products and specifications without notice.

ACO. creating the future of drainage

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THE STANDARD IN ENGINEERING

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LAYTON
Phone: 801.547.1100

CEDAR CITY
Phone: 435.865.1453

RICHFIELD
Phone: 435.896.2983

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ICON DEVELOPMENT, LLC
3410 NORTH MOYLE LANE
ERDA, UTAH, 84074
CONTACT:
SEAN PERKINS
PHONE: 435-850-8436

BLUE SPRUCE SUBDIVISION
FINAL
QUIRK STREET
GRANTSVILLE CITY, UTAH

REGISTERED PROFESSIONAL ENGINEER
10924116-2202
2022-09-02
COREY J. CHILD
STATE OF UTAH

STORM BRIXX DESIGN

PROJECT NUMBER	PRINT DATE
T1216E	2022-09-02
DRAWN BY	CHECKED BY
C. CHILD	J. CLEGG
PROJECT MANAGER	
C. CHILD	

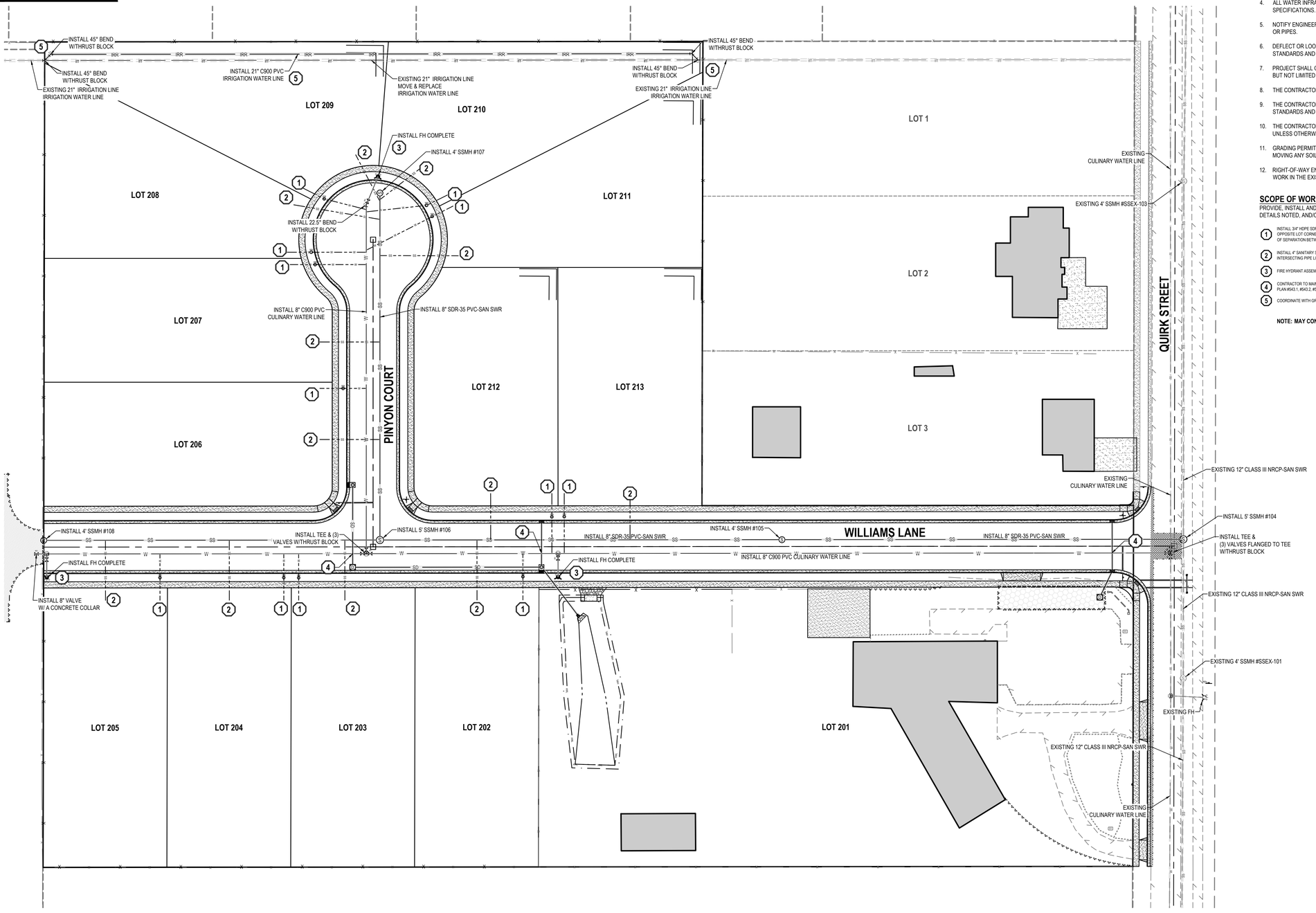
C-202

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

811 Know what's below. Call before you dig.

BENCHMARK

NORTH QUARTER CORNER OF SECTION 7,
TOWNSHIP 3 SOUTH, RANGE 5 WEST
SALT LAKE BASE AND MERIDIAN
(2.5" BRASS TOOELE COUNTY SURVEY
MONUMENT ON 4" PIPE. DATED 1986)
ELEV = 4995.95' (USED ELEVATION)
4414.85' (TRUE ELEVATION)



GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE GRANTSVILLE CITY'S STANDARDS AND SPECIFICATIONS.
2. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY THE LOCATIONS OF EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT. THE CONTRACTOR IS TO VERIFY ALL CONNECTION POINTS WITH THE EXISTING UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO THE EXISTING UTILITIES AND UTILITY STRUCTURES THAT ARE TO REMAIN. IF CONFLICTS WITH EXISTING UTILITIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION TO DETERMINE IF ANY FIELD ADJUSTMENTS SHOULD BE MADE.
3. ALL SANITARY SEWER INFRASTRUCTURE TO BE INSTALLED PER GRANTSVILLE CITY STANDARD PLANS AND SPECIFICATIONS.
4. ALL WATER INFRASTRUCTURE TO BE INSTALLED PER GRANTSVILLE CITY OR APWA STANDARD PLANS AND SPECIFICATIONS.
5. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING UTILITY STRUCTURES OR PIPES.
6. DEFLECT OR LOOP ALL WATERLINES TO AVOID CONFLICTS WITH OTHER UTILITIES PER GRANTSVILLE CITY'S STANDARDS AND SPECIFICATIONS.
7. PROJECT SHALL COMPLY WITH ALL UTAH DIVISION OF DRINKING WATER RULES AND REGULATIONS INCLUDING, BUT NOT LIMITED TO, THOSE PERTAINING TO BACKFLOW PROTECTION AND CROSS CONNECTION PREVENTION.
8. THE CONTRACTOR IS TO COORDINATE ALL UTILITIES WITH MECHANICAL/PLUMBING PLANS.
9. THE CONTRACTOR SHALL ADJUST TO GRADE ALL EXISTING UTILITIES AS NEEDED PER GRANTSVILLE CITY'S STANDARDS AND SPECIFICATIONS.
10. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC, UNLESS OTHERWISE NOTED ON THESE PLANS.
11. GRADING PERMIT MUST BE OBTAINED FROM GRANTSVILLE CITY PRIOR TO DISTURBING ANY VEGETATION OR MOVING ANY SOIL. CONTACT THE CITY ENGINEER AT 435-884-1661.
12. RIGHT-OF-WAY ENCROACHMENT PERMIT MUST BE OBTAINED FROM GRANTSVILLE CITY PRIOR TO DOING ANY WORK IN THE EXISTING RIGHT-OF-WAY, OR ON ANY STATE ROADS.

SCOPE OF WORK:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. INSTALL 3/4" HDPE SDR 9 CULINARY WATER SERVICE LATERAL AND 3/4" METER SET PER GRANTSVILLE CITY STANDARD PLAN, LOCATED APPROX. 5' FROM OPPOSITE LOT CORNER OF SECONDARY WATER SERVICE LATERAL, TO BE EXTENDED 15' FROM BACKSIDE OF SIDEWALK. CONTRACTOR TO MAINTAIN 18" OF SEPARATION BETWEEN INTERSECTING PIPE LINES PER APWA STANDARD PLAN #541, #542 AND #551. TYPICAL.
2. INSTALL 4" SANITARY SEWER SERVICE LATERAL @ 2.0% MINIMUM SLOPE PER APWA PLAN #431, CONTRACTOR TO MAINTAIN 18" OF SEPARATION BETWEEN INTERSECTING PIPE LINES. TYPICAL.
3. FIRE HYDRANT ASSEMBLY COMPLETE PER CITY STANDARDS AND SPECIFICATIONS. PAINT CURB RED 15' BOTH DIRECTIONS FROM HYDRANT.
4. CONTRACTOR TO MAINTAIN 18" OF SEPARATION BETWEEN INTERSECTING PIPE LINES. LOOP CULINARY WATER LINE PER GRANTSVILLE CITY AND APWA PLAN #543.1, #543.2, #582 STANDARDS AND SPECIFICATIONS.
5. COORDINATE WITH GRANTSVILLE IRRIGATION TO UPGRADE AND MOVE IRRIGATION LINE TO CENTER OF EXISTING EASEMENT.

NOTE: MAY CONTAIN KEYNOTES THAT ARE NOT USED ON THIS SHEET.

HORIZONTAL GRAPHIC SCALE

40 0 20 40 80

(IN FEET)
HORZ: 1 inch = 40 ft.

ENSIGN
THE STANDARD IN ENGINEERING

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LAYTON
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CEDAR CITY
Phone: 435.865.1453

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CONTACT:
SEAN PERKINS
PHONE: 435-850-8436

BLUE SPRUCE SUBDIVISION
FINAL
QUIRK STREET
GRANTSVILLE CITY, UTAH

REGISTERED PROFESSIONAL ENGINEER
10924116-2202
2022-09-02
COREY J. CHILD
STATE OF UTAH

NO.	DATE	REVISION	BY
1		FOR REVIEW	
2			
3			
4			
5			
6			
7			
8			

UTILITY PLAN

PROJECT NUMBER T1216E
PRINT DATE 2022-09-02
DRAWN BY C. CHILD
CHECKED BY J. CLEGG
PROJECT MANAGER C. CHILD

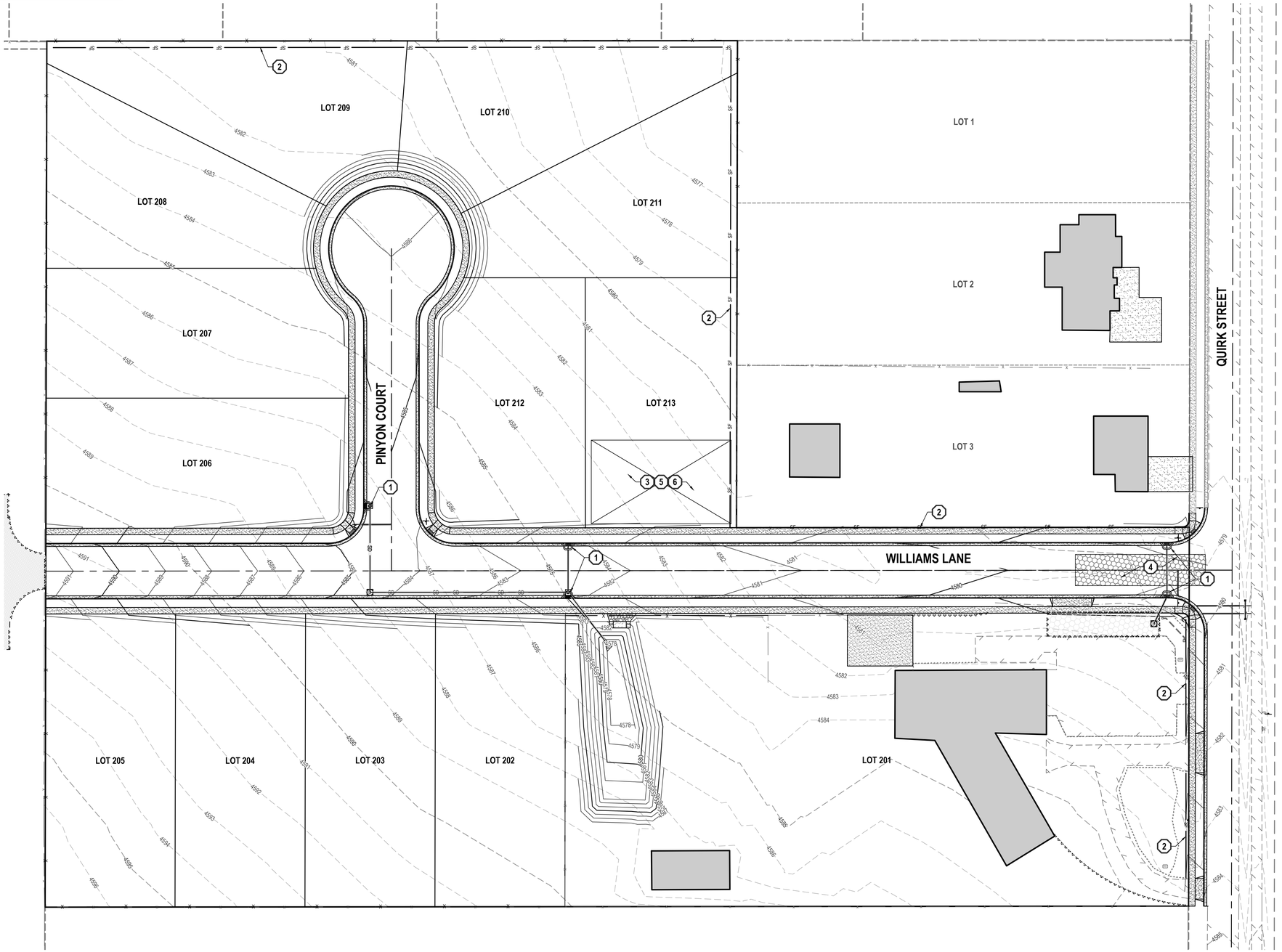
C-300

811 Know what's below. Call before you dig.

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

BENCHMARK

NORTH QUARTER CORNER OF SECTION 7, TOWNSHIP 3 SOUTH, RANGE 5 WEST SALT LAKE BASE AND MERIDIAN (2.5" BRASS TOOELE COUNTY SURVEY MONUMENT ON 4" PIPE. DATED 1986) ELEV = 4995.95' (USED ELEVATION) 4414.85' (TRUE ELEVATION)



GENERAL NOTES

1. THIS PLAN IS DESIGNED AS A FIRST APPRAISAL OF NECESSARY MEANS TO PROTECT THE WATERS OF THE STATE FROM POTENTIAL POLLUTION. IT IS THE RESPONSIBILITY OF THE OWNER/OPERATOR TO ADD WARRANTED BEST MANAGEMENT PRACTICES (BMP'S) AS NECESSARY, MODIFY THOSE SHOWN AS APPROPRIATE, AND DELETE FROM THE PROJECT THOSE FOUND TO BE UNNECESSARY. FEDERAL AND STATE LAW ALLOWS THESE UPDATES TO BE MADE BY THE OWNER/OPERATOR ONSITE AND RECORDED BY THE OWNER/OPERATOR ON THE COPY OF THE SWPPP KEPT ONSITE.
2. DISTURBED LAND SHALL BE KEPT TO A MINIMUM. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. HOWEVER, WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 21 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.
3. RESEED DISTURBED LAND WITH NATIVE GRASS MIXTURE WITHIN 14 CALENDAR DAYS OF ACHIEVEMENT OF FINISH GRADE TO STABILIZE SOILS IF LAND IS NOT TO BE RE-WORKED WITHIN 14 CALENDAR DAYS OF THE CESSATION OF CONSTRUCTION ACTIVITIES AT THAT LOCATION.
4. DETAILS SHOWN ARE TO BE EMPLOYED TO PROTECT RUNOFF AS APPROPRIATE DURING CONSTRUCTION. NOT ALL DETAILS ARE NECESSARY AT ALL PHASES OF THE PROJECT. IT SHALL BE THE RESPONSIBILITY OF THE OWNER/OPERATOR TO USE APPROPRIATE BEST MANAGEMENT PRACTICES AT THE APPROPRIATE PHASE OF CONSTRUCTION. SEE SWPPP FOR BMP IMPLEMENTATION SCHEDULE.
5. VARIOUS BEST MANAGEMENT PRACTICES HAVE BEEN SHOWN ON THE PLANS AT SUGGESTED LOCATIONS. THE CONTRACTOR MAY MOVE AND RECONFIGURE THESE BMP'S TO OTHER LOCATIONS IF PREFERRED, PROVIDED THE INTENT OF THE DESIGN IS PRESERVED.
6. NOT ALL POSSIBLE BMP'S HAVE BEEN SHOWN. THE CONTRACTOR IS RESPONSIBLE TO APPLY CORRECT MEASURES TO PREVENT THE POLLUTION OF STORM WATER PER PROJECT SWPPP.
7. A UPDES (UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM) PERMIT IS REQUIRED FOR ALL CONSTRUCTION ACTIVITIES 1 ACRE OR MORE.

SCOPE OF WORK:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. INLET PROTECTION PER DETAIL 3/D-500.
2. SILT FENCE PER DETAIL 4/D-500.
3. PORTABLE TOILET PER DETAIL 6/D-500.
4. VEHICLE WASHDOWN AND STABILIZED CONSTRUCTION ENTRANCE PER DETAIL 5/D-500.
5. SUGGESTED TEMPORARY CONSTRUCTION SITE PARKING, STAGING, DUMPSTER, AND MATERIAL STORAGE AREA.
6. SUGGESTED STOCKPILE AREA.
7. **NOTE: MAY CONTAIN KEYNOTES THAT ARE NOT USED ON THIS SHEET.**

REVISION SCHEDULE

NUMBER	DATE	AUTHOR	COMPANY REPRESENTATIVE SIGNATURE
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

HORIZONTAL GRAPHIC SCALE

40 0 20 40 80

(IN FEET)

HORZ: 1 inch = 40 ft.

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FINAL
QUIRK STREET
GRANTSVILLE CITY, UTAH

REGISTERED PROFESSIONAL ENGINEER
10924116-2202
COREY J. CHILD
STATE OF UTAH
2-09-22

NO.	DATE	REVISION	BY
1		FOR REVIEW	
2			
3			
4			
5			
6			
7			
8			

EROSION CONTROL PLAN

PROJECT NUMBER T1216E
PRINT DATE 2022-09-02
DRAWN BY C. CHILD
CHECKED BY J. CLEGG
PROJECT MANAGER C. CHILD

C-400

811 Know what's below. Call before you dig.

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

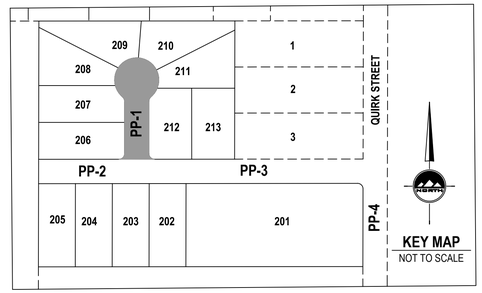
BENCHMARK

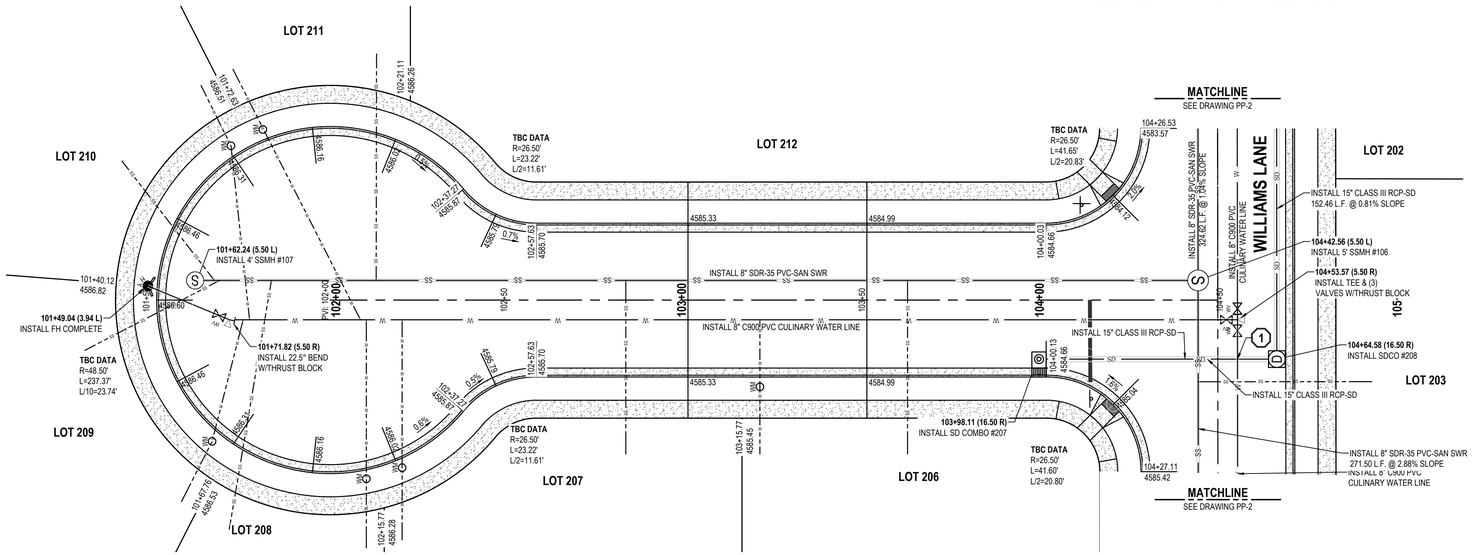
NORTH QUARTER CORNER OF SECTION 7, TOWNSHIP 3 SOUTH, RANGE 5 WEST SALT LAKE BASE AND MERIDIAN (2.5" BRASS TOOELE COUNTY SURVEY MONUMENT ON 4" PIPE, DATED 1986)
ELEV = 4995.95' (USED ELEVATION)
4414.85' (TRUE ELEVATION)

SCOPE OF WORK:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

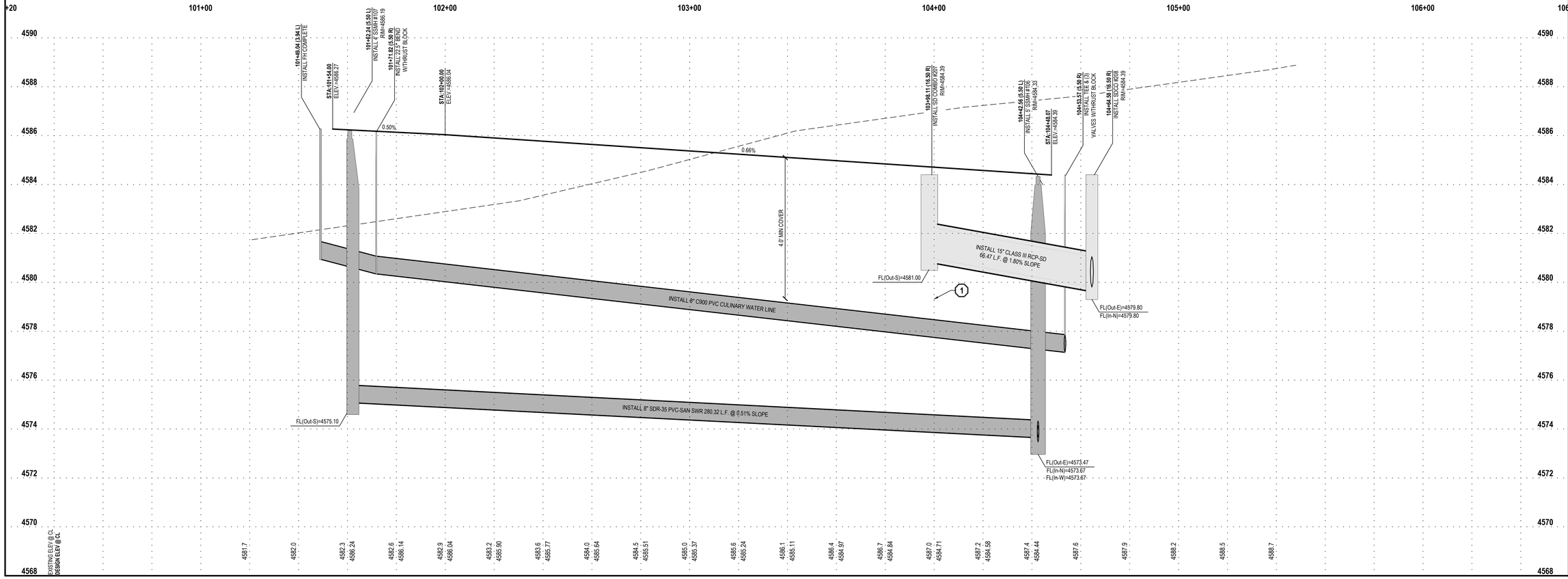
1. CONTRACTOR TO MAINTAIN 18" OF SEPARATION BETWEEN INTERSECTING PIPE LINES. LOOP CULINARY WATER LINE PER GRANTSVILLE CITY AND APWA PLAN #543.1, #543.2, #562 STANDARDS AND SPECIFICATIONS.





HORIZONTAL GRAPHIC SCALE

20 0 10 20 40
(IN FEET)
HORZ: 1 inch = 20 ft.
VERT: 1 inch = 2 ft.



ENSIGN
THE STANDARD IN ENGINEERING

TOOELE
169 N. Main Street, Unit 1
Tooele, UT. 84074
Phone: 435.843.3590

SALT LAKE CITY
Phone: 801.255.0529

LAYTON
Phone: 801.547.1100

CEDAR CITY
Phone: 435.865.1453

RICHFIELD
Phone: 435.896.2983

WWW.ENSIGNENG.COM

FOR:
ICON DEVELOPMENT, LLC
3410 NORTH MOYLE LANE
ERDA, UTAH, 84074
CONTACT:
SEAN PERKINS
PHONE: 435-850-8436

BLUE SPRUCE SUBDIVISION FINAL

QUIRK STREET
GRANTSVILLE CITY, UTAH

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10924116-2202
12-09-2020
GREY J. CHILD
STATE OF UTAH

STREET PLAN AND PROFILE

PROJECT NUMBER T1216E
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DRAWN BY C. CHILD
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PP-1

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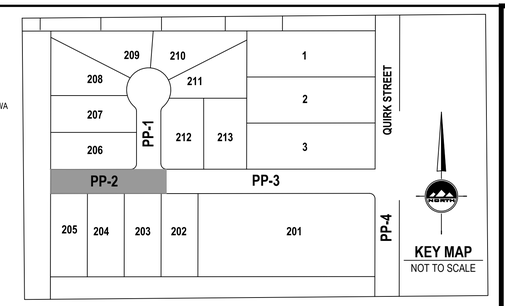
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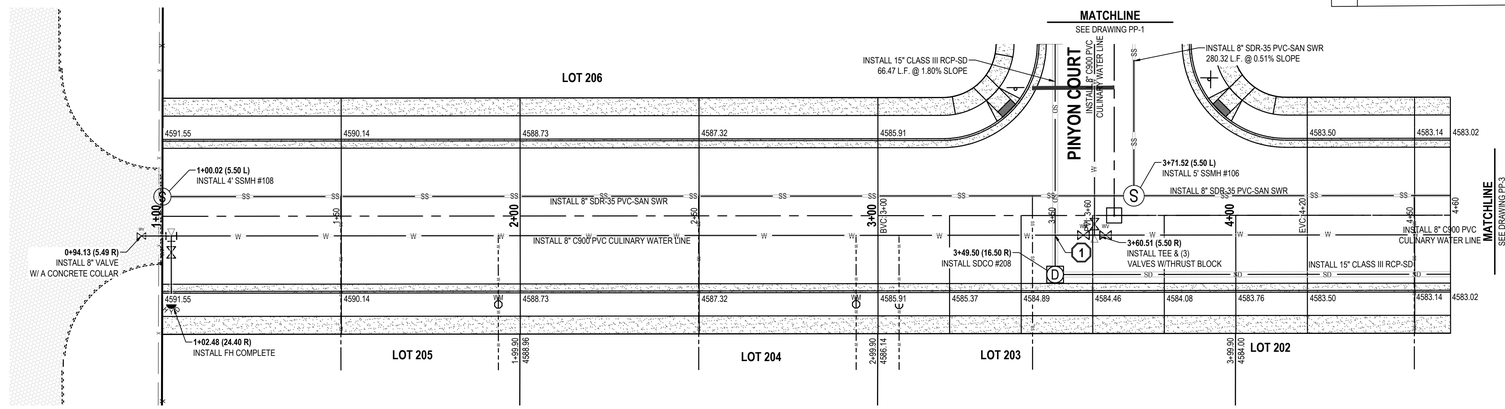
SCOPE OF WORK:

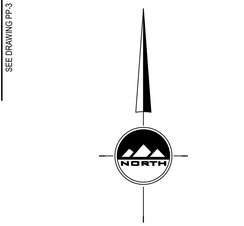
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KEY MAP
NOT TO SCALE

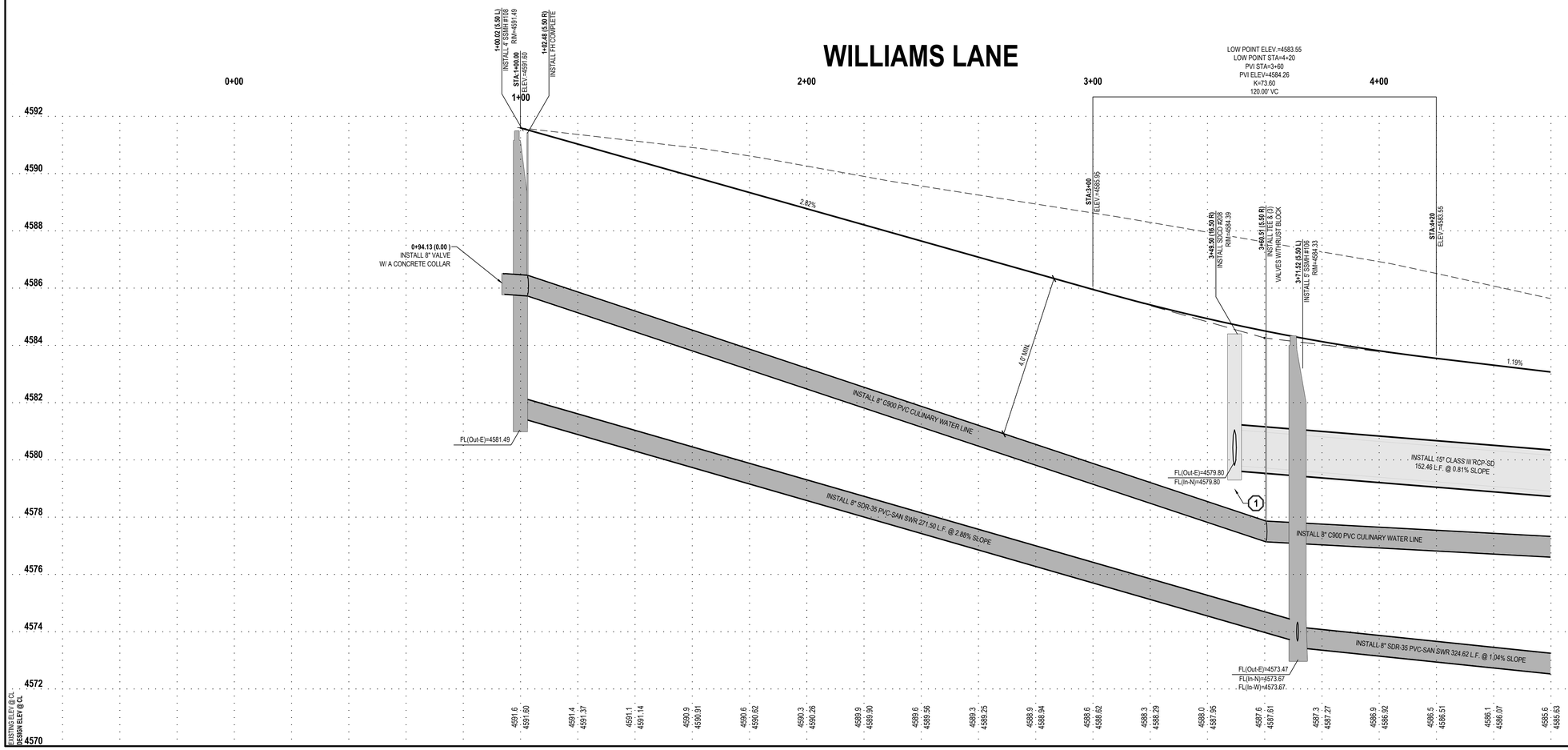




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WILLIAMS LANE



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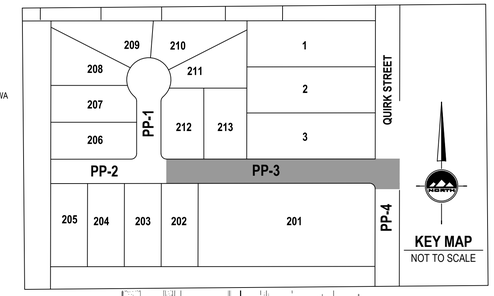
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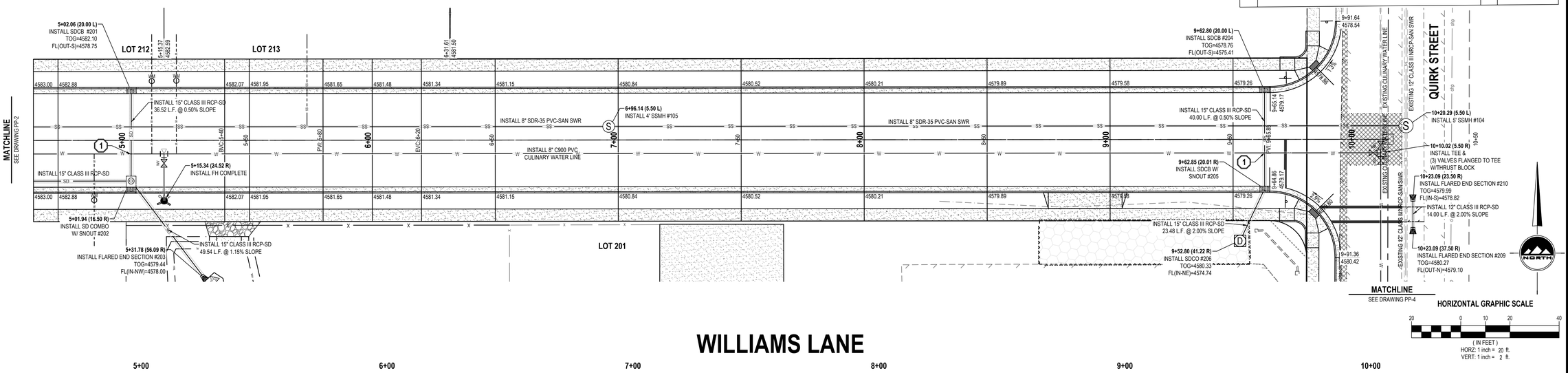
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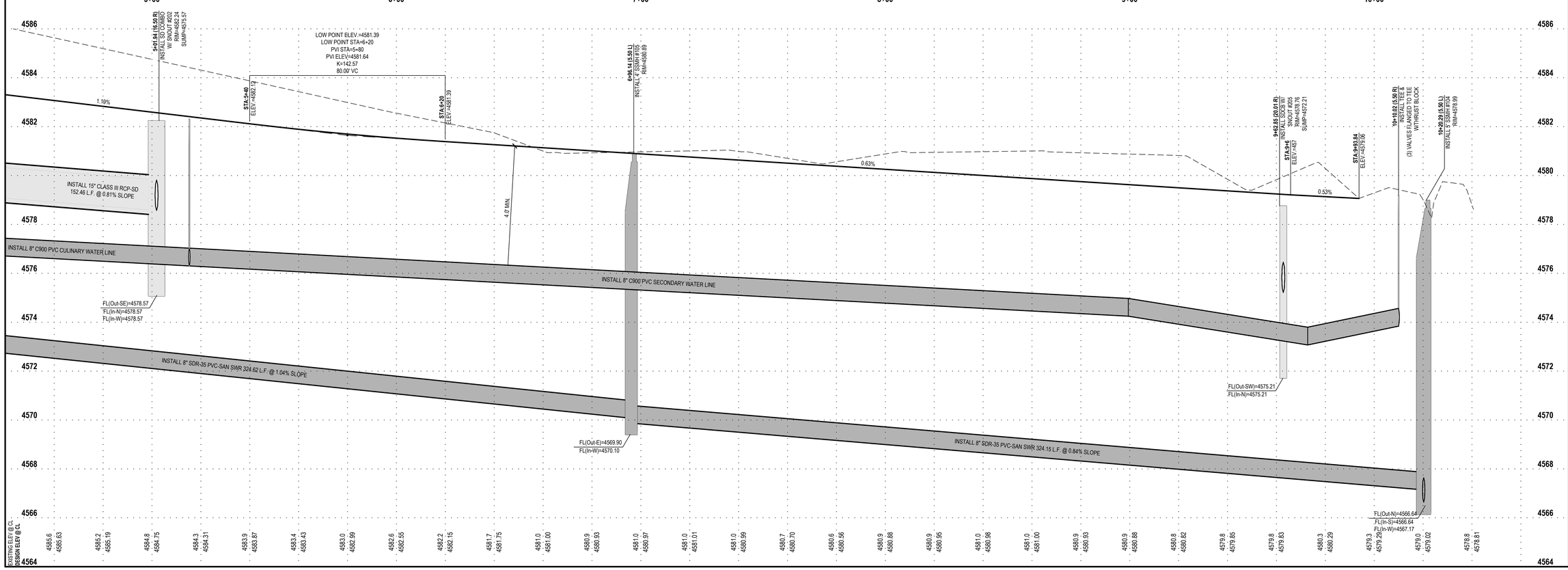
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NOT TO SCALE



WILLIAMS LANE



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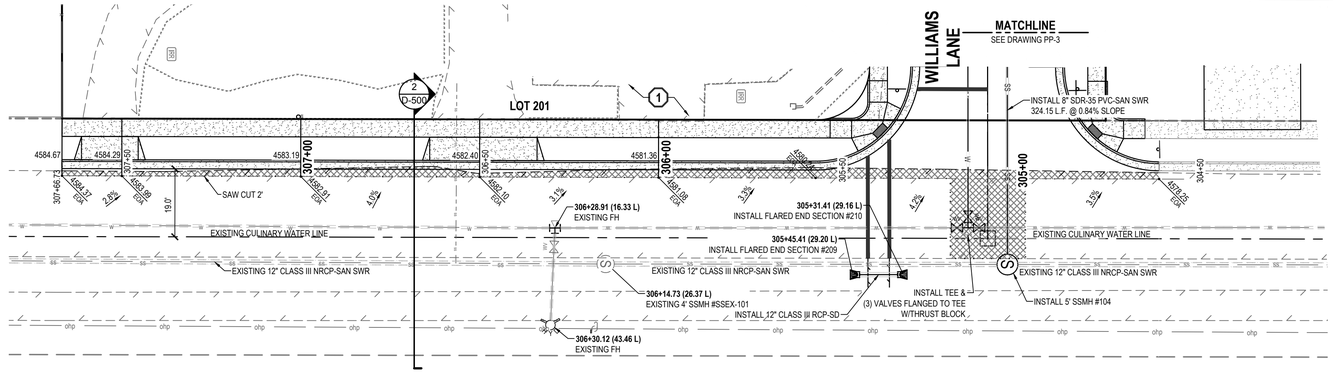
PP-3

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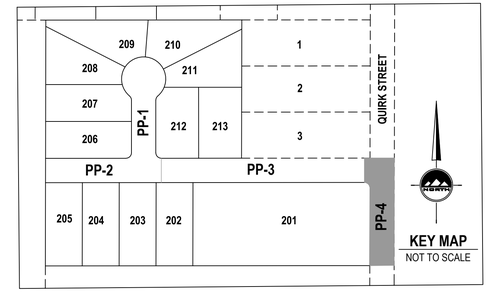
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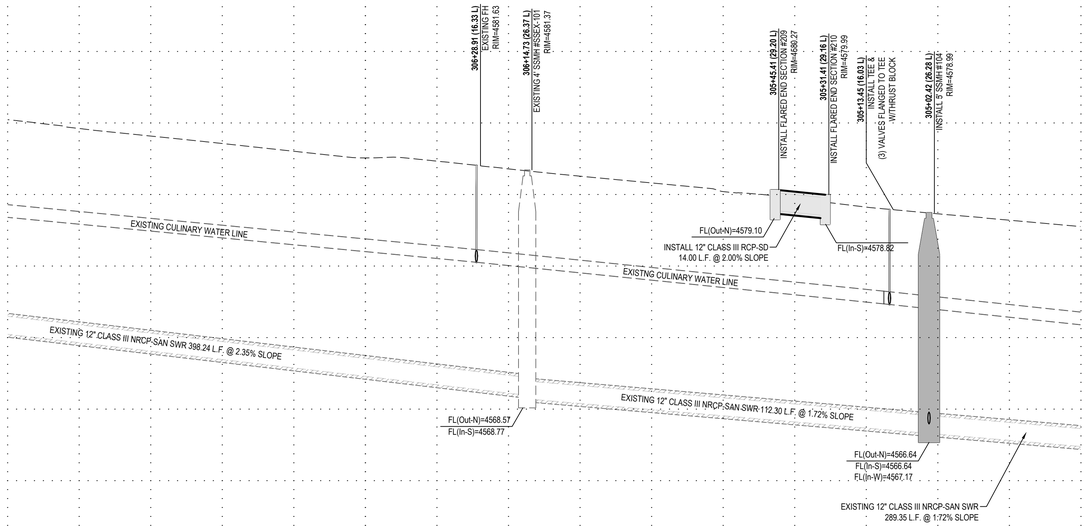
1. THIS ENTRANCE NEEDS TO BE CLOSED OFF AT THE SIDEWALK. IF IT IS NEEDED FOR PARKING TURNS THEN INSTALL BOLLARDS IN PAVEMENT TO PREVENT TRAVEL ONTO THE SIDEWALK.

NORTH

HORIZONTAL GRAPHIC SCALE

20 0 10 20 40
(IN FEET)
HORZ: 1 inch = 20 ft.
VERT: 1 inch = 2 ft.

+40 309+00 308+00 307+00 306+00 305+00 304+00 303



EXISTING ELEV @ CL
DESIGN ELEV @ CL

4584.6 4584.2 4583.7 4583.3 4582.9 4582.4 4582.0 4581.9 4581.4 4581.0 4580.6 4580.2 4579.8 4579.3 4578.9 4578.6 4578.2

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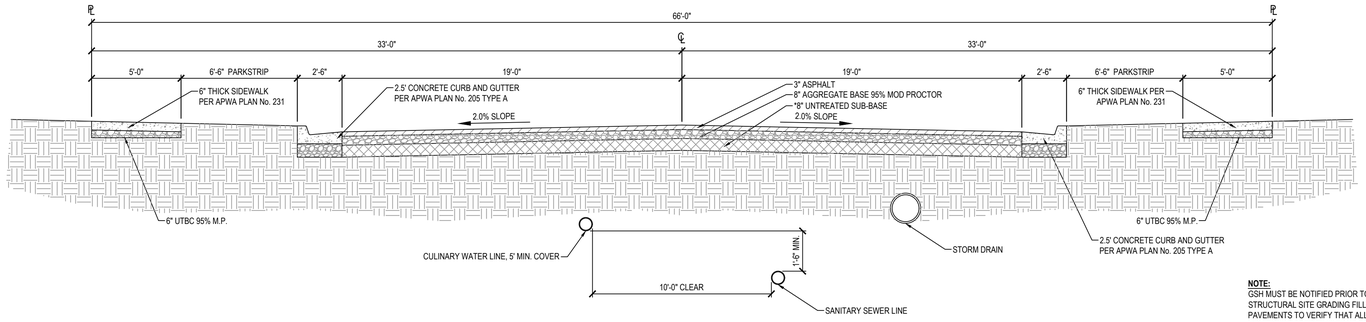
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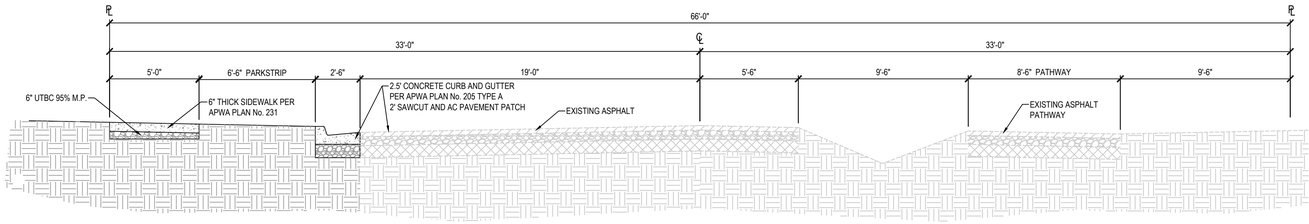
PP-4



1 TYPICAL 66 FOOT ROAD CROSS SECTION

SCALE: NONE

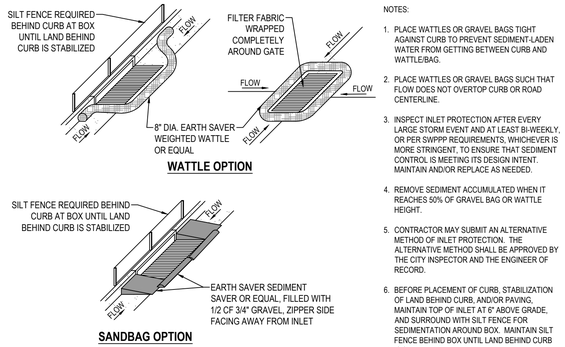
NOTE:
GSH MUST BE NOTIFIED PRIOR TO THE PLACEMENT OF STRUCTURAL SITE GRADING FILLS, FLOOR SLABS, FOOTINGS, AND PAVEMENTS TO VERIFY THAT ALL LOOSE/DISTURBED SOILS AND NON-ENGINEERED FILLS HAVE BEEN COMPLETELY REMOVED.



2 QUIRK STREET 66 FOOT ROAD CROSS SECTION

SCALE: NONE

NOTE:
GSH MUST BE NOTIFIED PRIOR TO THE PLACEMENT OF STRUCTURAL SITE GRADING FILLS, FLOOR SLABS, FOOTINGS, AND PAVEMENTS TO VERIFY THAT ALL LOOSE/DISTURBED SOILS AND NON-ENGINEERED FILLS HAVE BEEN COMPLETELY REMOVED.

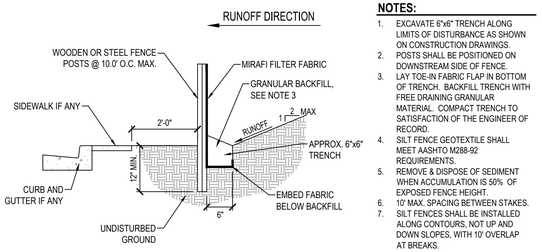


NOTES:

1. PLACE WATTLES OR GRAVEL BAGS TIGHT AGAINST CURB TO PREVENT SEDIMENT-LADEN WATER FROM GETTING BETWEEN CURB AND WATTLE/BAG.
2. PLACE WATTLES OR GRAVEL BAGS SUCH THAT FLOW DOES NOT OVERTOP CURB OR ROAD CENTERLINE.
3. INSPECT INLET PROTECTION AFTER EVERY LARGE STORM EVENT AND AT LEAST BI-WEEKLY, OR PER SWPPP REQUIREMENTS, WHICHEVER IS MORE STRINGENT, TO ENSURE THAT SEDIMENT CONTROL IS MEETING ITS DESIGN INTENT. MAINTAIN AND/OR REPLACE AS NEEDED.
4. REMOVE SEDIMENT ACCUMULATED WHEN IT REACHES 50% OF GRAVEL BAG OR WATTLE HEIGHT.
5. CONTRACTOR MAY SUBMIT AN ALTERNATIVE METHOD OF INLET PROTECTION. THE ALTERNATIVE METHOD SHALL BE APPROVED BY THE CITY INSPECTOR AND THE ENGINEER OF RECORD.
6. BEFORE PLACEMENT OF CURB, STABILIZATION OF LAND BEHIND CURB, AND/OR PAVING, MAINTAIN TOP OF INLET AT 6" ABOVE GRADE, AND SURROUND WITH SILT FENCE FOR SEDIMENTATION AROUND BOX. MAINTAIN SILT FENCE BEHIND BOX UNTIL LAND BEHIND CURB IS STABILIZED.

3 SAG INLET PROTECTION

SCALE: NONE

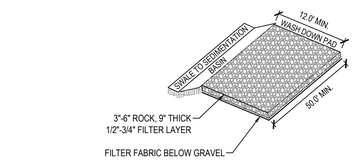


NOTES:

1. EXCAVATE 6"x6" TRENCH ALONG LIMITS OF DISTURBANCE AS SHOWN ON CONSTRUCTION DRAWINGS.
2. POSTS SHALL BE POSITIONED ON DOWNSTREAM SIDE OF FENCE.
3. LAY TOE-IN FABRIC FLAP IN BOTTOM OF TRENCH. BACKFILL TRENCH WITH FREE DRAINING GRANULAR MATERIAL. COMPACT TRENCH TO SATISFACTION OF THE ENGINEER OF RECORD.
4. SILT FENCE GEOTEXTILE SHALL MEET AASHTO M288-92 REQUIREMENTS.
5. REMOVE & DISPOSE OF SEDIMENT WHEN ACCUMULATION IS 50% OF EXPOSED FENCE HEIGHT.
6. 10' MAX. SPACING BETWEEN STAKES.
7. SILT FENCES SHALL BE INSTALLED ALONG CONTOURS, NOT UP AND DOWN SLOPES, WITH 10' OVERLAP AT BREAKS.

4 TEMPORARY SILT FENCE

SCALE: NONE

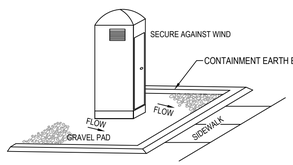


NOTE:

1. PLACE SIGN ADJACENT TO ENTRANCE " CONSTRUCTION TRAFFIC ONLY - ALL CONSTRUCTION TRAFFIC SHALL ENTER AND EXIT SITE AT THIS LOCATION"

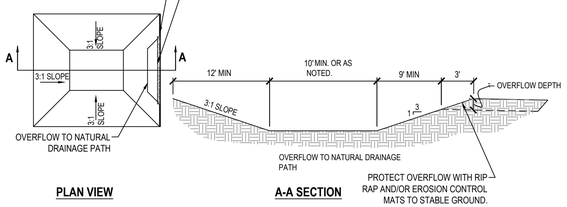
5 STABILIZED CONSTRUCTION ENTRANCE

SCALE: NONE



6 PORTABLE TOILET

SCALE: NONE

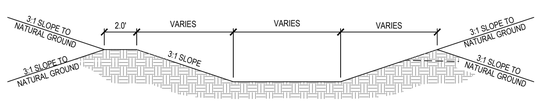


NOTES:

1. CLEAN OUT BASIN WHEN CAPACITY IS REDUCED BY HALF.
2. SIZE BASIN PER MINIMUM DIMENSIONS SHOWN, AND PER DIMENSIONS IN PLAN, WHICHEVER IS GREATER.
3. SAFETY FENCING IS REQUIRED FOR DEPTH GREATER THAN THREE FEET.
4. WHERE 2:1 RATIO OF LENGTH TO WIDTH IS NOT AVAILABLE, CONSTRUCT BERM(S) FOR BAFFLE(S) BETWEEN INLET AND OUTLET TO ACHIEVE 2:1 FLOW LENGTH RATIO.
5. WHERE TEMPORARY SEDIMENTATION WILL BE CONVERTED TO A PERMANENT DETENTION POND, PROTECT OUTLET PER DTL. L, TEMPORARY BASIN OUTLET PROTECTION.

7 TEMPORARY SEDIMENTATION BASIN

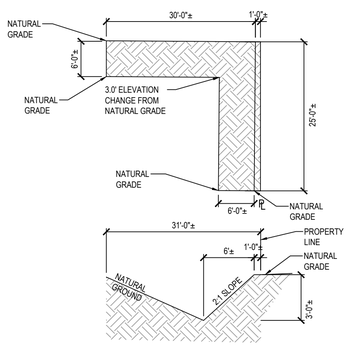
SCALE: NONE



8 RETENTION BASIN LAYOUT

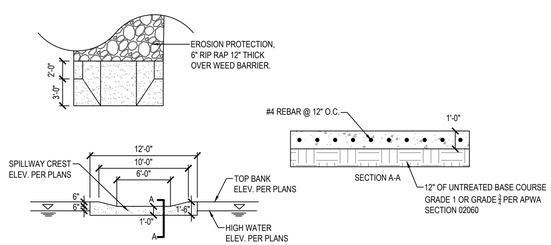
SCALE: NONE

NOTE:
ALL CONCRETE SURFACE IMPROVEMENTS SHALL BE CONSTRUCTED USING 4,500 PSI CONCRETE



9 EARTH RETENTION BERM BASIN

SCALE: NONE



10 CONCRETE SPILLWAY

SCALE: NONE

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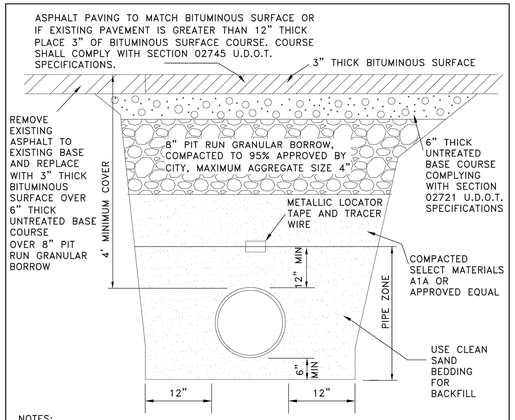
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DETAILS

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PRINT DATE 9/2/22
DRAWN BY C. CHILD
CHECKED BY J. CLEGG
PROJECT MANAGER C. CHILD

D-500

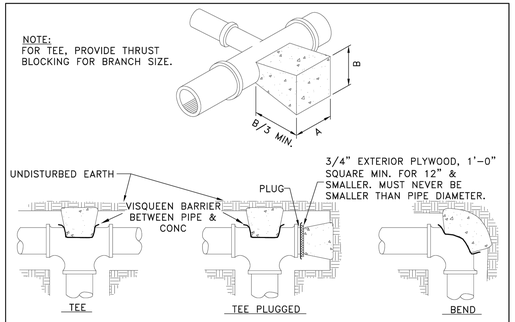


NOTES:
1. PIPES & FITTINGS SHALL BE LEAD FREE.
2. ASBESTOS CEMENT PIPE SHALL NOT BE ALLOWED.
3. WATER MAINS & SEWER LINES SHALL NOT BE INSTALLED IN THE SAME TRENCH.
4. ALL PIPES, FITTINGS & APPURTENANCES SHALL BE NSF-61 CERTIFIED.
5. ALL NEW OR REPLACED WATER LINES SHALL BE FLUSHED & DISINFECTED PER AWWA STANDARD C651 LATEST EDITION.
6. MATERIAL THICKNESS MAY CHANGE AS DIRECTED BY THE CITY ENGINEER BASED UPON FINDINGS AND RECOMMENDATIONS IN GEOTECHNICAL REPORT.
7. FOR WATER METERS NOT CONNECTED TO FIRE HYDRANTS, THE MINIMUM LINE SIZE SHALL BE 4" IN DIAMETER, UNLESS THEY SERVE PICNIC SITES, PARKS, SEMI-DEVELOPED CAMPS, PRIMITIVE CAMPS, OR ROADWAY REST-STOPS. MINIMUM WATER MAIN SIZE SERVICING A FIRE HYDRANT LATERAL SHALL BE 8 INCHES IN DIAMETER UNLESS A HYDRAULIC ANALYSIS INDICATES THAT REQUIRED FLOW AND PRESSURES CAN BE MAINTAINED BY 6" LINES. [UAC R309-550-5(4)].
8. ALL TYPES OF INSTALLED PIPE SHALL BE PRESSURE TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA C600 (LATEST EDITION).
9. UNDER NO CIRCUMSTANCES SHALL THE PIPE OR ACCESSORIES BE DROPPED INTO THE TRENCH.

LOCATED IN SURFACED ROAD

REV. 01-22

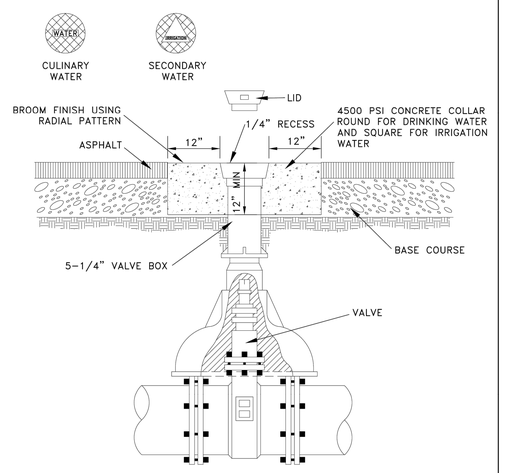
GRANTSVILLE CITY
UTILITY TRENCH FOR WATER MAIN



DIMENSIONS FOR THRUST BLOCKING								
FITTING	TEES & PLUGS		90° BENDS		45° BENDS & "Y"S		22 1/2° BENDS	
SIZES	A	B	A	B	A	B	A	B
4"	1'-6"	1'-6"	1'-6"	1'-9"	1'-3"	0'-6"	1'-0"	0'-6"
6"	2'-0"	1'-0"	2'-0"	2'-0"	1'-3"	1'-6"	1'-0"	1'-5"
8"	2'-0"	1'-6"	2'-3"	2'-3"	1'-8"	1'-8"	1'-0"	1'-3"
10"	2'-6"	2'-3"	2'-9"	2'-10"	2'-3"	1'-10"	1'-3"	2'-0"
12"	3'-0"	2'-9"	3'-6"	3'-3"	2'-6"	2'-4"	2'-0"	1'-6"
14"	3'-5"	3'-0"	4'-0"	3'-8"	3'-6"	2'-4"	2'-0"	2'-3"
16"	4'-0'	3'-6"	5'-0"	4'-0"	3'-6"	3'-0"	2'-6"	2'-3"
18"	4'-0"	4'-3"	6'-0"	4'-0"	4'-0"	3'-3"	2'-9"	2'-6"
20"	5'-0"	4'-3"	6'-0"	5'-0"	4'-3"	4'-0"	3'-0"	2'-9"
24"	6'-0"	5'-3"	8'-0"	5'-6"	6'-0"	4'-0"	4'-0"	3'-0"

NOTES:
1. THIS TABLE IS BASED ON 200 P.S.I. MAIN PRESSURE AND 2000 P.S.F. SOIL BEARING PRESSURE. ADJUST BEARING AREAS IN ACCORDANCE WITH SOIL CONDITIONS AND PRESSURES ENCOUNTERED.
2. USE POLYETHYLENE ENCASEMENT BETWEEN CONCRETE AND PIPE.
3. REFER TO CONCRETE STANDARD SPECIFICATIONS.
4. THE "THRUST BLOCKING DETAILS" IN NO WAY LIMITS THE LOCATION OR SIZE OF ADDITIONAL BLOCKING WHEN SO WARRANTED OR REQUIRED BY THE ENGINEER.
5. THRUST BLOCKS NEED TO BE INSPECTED BY CITY PRIOR TO BACKFILL.

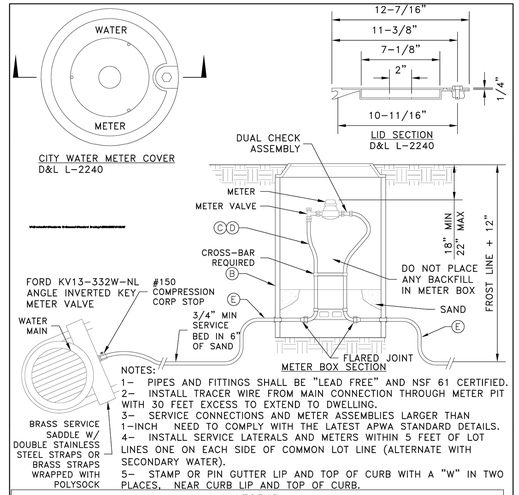
GRANTSVILLE CITY
THRUST BLOCK DETAIL



NOTES:
1. RAISE VALVE BOX AND PLACE CONCRETE COLLAR AFTER PAVING OPERATION IS COMPLETED.
2. ALL PIPES, FITTINGS & APPURTENANCES SHALL BE NSF-61 CERTIFIED.
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

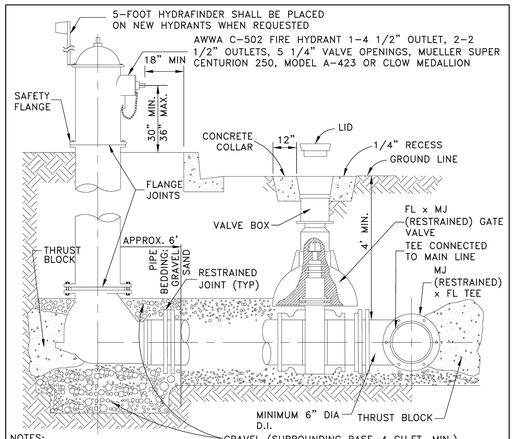


NOTES:
1- PIPES AND FITTINGS SHALL BE "LEAD FREE" AND NSF 61 CERTIFIED.
2- INSTALL TRACER WIRE FROM MAIN CONNECTION THROUGH METER PIT WITH 30 FEET EXCESS TO EXTEND TO DWELLING.
3- SERVICE CONNECTIONS AND METER ASSEMBLIES LARGER THAN 1-INCH NEED TO COMPLY WITH THE LATEST APWA STANDARD DETAILS.
4- INSTALL SERVICE LATERALS AND METERS WITHIN 5 FEET OF LOT LINES ONE ON EACH SIDE OF COMMON LOT LINE (ALTERNATE WITH SECONDARY METER).
5- STAMP OR PIN GUTTER LIP AND TOP OF CURB WITH A "W" IN TWO PLACES, NEAR CURB LIP AND TOP OF CURB.

LEGEND			
No	*	ITEM	DESCRIPTION
A		FRAME AND COVER	CAST IRON COVER (GRASS) DUCTILE IRON COVER (DRIVEWAY)
B		METER BOX (21" DIAMETER) (30" TO 36" DEEP)	WHITE CORRUGATED PE
C		3/4" METER YOKE	DUAL CHECK ASSEMBLY REQUIRED
D		1" METER YOKE	OPTIONAL BACKFLOW PROTECTION PER AGENCY REQUIREMENTS
E		3/4" AND 1" SERVICE LINE	HDPE IPS SDR 11

REV 07-22

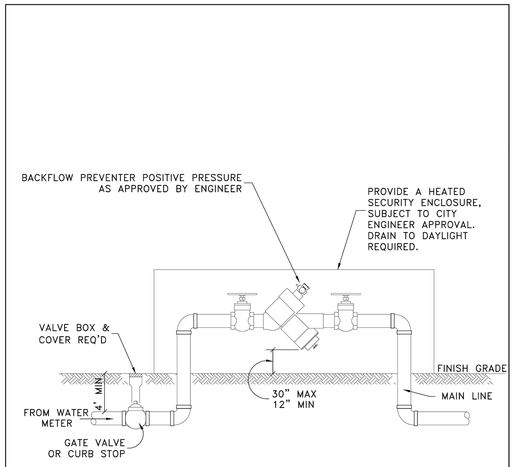
GRANTSVILLE CITY
SERVICE CONNECTION & METER ASSEMBLY



NOTES:
1. ALL FIRE HYDRANTS SHALL BE LOCATED AS SHOWN ON THE PLANS.
2. ALL FIRE HYDRANTS WILL STAND PLUMB WITH THE PUMPER NOZZLE FACING THE STREET.
3. THE VALVE WILL BE LOCATED AS APPROVED BY CITY. PIPE MATERIAL SHALL BE DUCTILE.
4. FOR DETAILED INFORMATION SEE SPECIFICATIONS.
5. RESTRAIN ALL JOINTS FROM MAIN TO FIRE HYDRANT.
6. CONCRETE VALVE COLLAR SHALL BE BROOM FINISHED IN RADIAL PATTERN.
7. ALL NEW OR REPLACED WATER LINES SHALL BE FLUSHED & DISINFECTED PER AWWA STANDARD C651 LATEST EDITION.
8. PROVIDE 3-FOOT CLEAR SPACE AROUND THE CIRCUMFERENCE OF FIRE HYDRANTS (IFC 507.5.5)
9. HYDRANT DRAINS SHALL NOT BE CONNECTED TO, OR LOCATED WITHIN, 10 FEET OF SANITARY SEWERS. WHERE POSSIBLE, HYDRANT DRAINS SHALL NOT BE LOCATED WITHIN 10 FEET OF STORM DRAINS. [UAC R309-550-6(5)(a)]
10. MINIMUM WATER MAIN SIZE SERVICING A FIRE HYDRANT LATERAL SHALL BE 8 INCHES IN DIAMETER UNLESS A HYDRAULIC ANALYSIS INDICATES THAT REQUIRED FLOW AND PRESSURES CAN BE MAINTAINED BY 6" LINES. [UAC R309-550-5(4)]

REV. 05-22

GRANTSVILLE CITY
FIRE HYDRANT ASSEMBLY



NOTES:
1. ALL PIPES, FITTING & APPURTENANCES SHALL BE NSF-61 CERTIFIED.
2. ALL NEW OR REPLACED WATER LINES SHALL BE FLUSHED & DISINFECTED PER AWWA STANDARD C651 LATEST EDITION.

GRANTSVILLE CITY
TYPICAL BACKFLOW PREVENTER INSTALLATION

GRANTSVILLE CITY STANDARDS

APWA PLAN #	GRANTSVILLE CITY CHANGES
205.1 - CURB AND GUTTER	TYPE "A" ONLY
231 - SIDEWALK	6" MIN CONCRETE THICKNESS
	6" MIN BASE COURSE
235.2 - CORNER CURB CUT ASSEMBLY	6" PPC ON 6" UBC
238 -DETECTABLE WARNING SURFACE	STYLE "T" ONLY
	YELLOW COLOR TILE
255 - BITUMINOUS PAVEMENT T-PATCH	TRENCH BACKFILL TO BE A1A MATERIAL.
292 - STREET NAME SIGNPOST	USE NEW CITY LOGO W/ STREET NAME & GRID NUMBER ON SIGN
315.1 - CATCH BASIN	24" BASE COURSE UNLESS GEOTECH SAY DIFFERENT
316 - COMBINATION CATCH BASIN AND CLEANOUT BOX	24" BASE COURSE UNLESS GEOTECH SAY DIFFERENT
341.1 - PRECAST MANHOLE	24" BASE COURSE UNLESS GEOTECH SAY DIFFERENT
341.2 - PRECAST MANHOLE	24" BASE COURSE UNLESS GEOTECH SAY DIFFERENT
381 - TRENCH BACKFILL	TRENCH BACKFILL TO BE A1A MATERIAL.
382 - PIPE ZONE BACKFILL	WATER DESIGN - REFER TO GRANTSVILLE UTILITY TRENCH FOR WATER DETAIL
	SEWER DESIGN - SHOULD BE 3/4" MINUS BEDDING CRUSHED DRAIN ROCK. PER UTAH CODE R309-550-8(2)
411 - SANITARY SEWER MANHOLE	24" BASE COURSE UNLESS GEOTECH SAY DIFFERENT

NOTE:
ALL CONCRETE SURFACE IMPROVEMENTS SHALL BE CONSTRUCTED USING 4,500 PSI CONCRETE

ENSIGN
THE STANDARD IN ENGINEERING

TOOELE
169 N. Main Street, Unit 1
Tooele, UT. 84074
Phone: 435.843.3590

SALT LAKE CITY
Phone: 801.255.0529

LAYTON
Phone: 801.547.1100

CEDAR CITY
Phone: 435.865.1453

RICHFIELD
Phone: 435.896.2983

WWW.ENSIGNENG.COM

FOR:
ICON DEVELOPMENT, LLC
3410 NORTH MOYLE LANE
ERDA, UTAH, 84074
CONTACT:
SEAN PERKINS
PHONE: 435-850-8436

BLUE SPRUCE SUBDIVISION
FINAL
QUIRK STREET
GRANTSVILLE CITY, UTAH

REGISTERED PROFESSIONAL ENGINEER
10924116-2202
12-09-22
COREY J. CHILD
STATE OF UTAH

NO.	DATE	REVISION	BY
1		FOR REVIEW	
2			
3			
4			
5			
6			
7			
8			

DETAILS

PROJECT NUMBER T1216E
PRINT DATE
DRAWN BY C. CHILD
CHECKED BY J. CLEGG
PROJECT MANAGER C. CHILD

D-501

When type of maintenance is required?

Inspect rock outlet structures after heavy rains to see if any erosion around or below the riprap has taken place or if stones have been dislodged. Immediately make all needed repairs to prevent further damage. Remove any debris that has collected on the outlet pad.

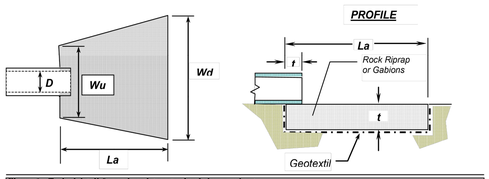


Figure 1 - Typical detail for rock outlet protection below a culvert

Culvert Size D, (inches)	Rock Size d_{50} (inches)	Apron Legnth La, (feet)	Upstream Width Wu, (feet)	Downstream Width Wd, (feet)	Thickness *t*, (inches)	Quantity (tons)
12	6	12	3	13	18	15
18	9	16	4.5	18	24	20
21	9	18	5	20	24	35
24	9	20	6	22	24	60
30	9	22	7.5	24	24	75
36	12	24	9	27	30	120
42	18	26	10.5	30	36	180
48	18	28	12	32	36	215

TABLE 1 - Rock outlet protection apron dimensions

Smallest Dimension in Inches					% of rocks small than size shown
Gadion Rock	6"d_{50}	9"d_{50}	12"d_{50}	18"d_{50}	
8	12	15	21	30	100
6	9	12	18	24	50-70
4	6	9	12	18	35-50
3	2	3	4	6	2-10

TABLE 2 - Required rock gradation

NOTE: After a fire many trees are weakened from burning around the base of the trunk. The trees can fall over or blow down without warning. Shallow rooted trees can also fall. Therefore be extremely alert when around burned trees.

Rock Outlet Protection

NRCS Natural Resources Conservation Service

Denver Federal Center
Building 56, Room 2604
PO Box 25426
Denver, Co 80225-0426

720-544-2810 - office
www.co.nrcs.usda.gov



What is rock outlet protection?

A pad or apron of heavy rock placed at the outlet end of culverts or chutes.

When is rock outlet protection used?

Rock outlet protection is installed where the energy at the outlets of culverts or chutes are sufficient to erode the receiving channel or area. This fact sheet does not apply to continuous rock linings of channels or streams. Pipes that dump water at the top of a slope, or down slopes steeper than 10 percent, or flow at rates greater than 10 feet per second require a site specific design that is beyond the scope of this fact sheet.

How is rock outlet protection installed?

Apron length: Apron length ***(La)*** shall be determined from Table 1.

Apron width: The apron width is based on the diameter of the discharge pipe, ***(D)***. The apron width will be ***3D*** at the upstream end ***(Wu)***, and the downstream width ***(Wd)*** will be equal to ***(D + La)***. The apron shall extend across the channel bottom and up side slopes for a minimum height equal to the diameter of the pipe, ***(D)***.

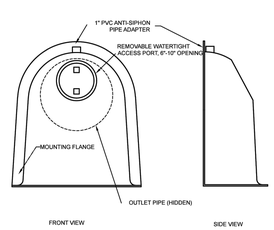
Alignment: The apron shall be located so that there are no bends in the horizontal alignment. The apron should be level over its length, and the elevation of the downstream end of the apron must be the same as the elevation of the receiving channel or adjacent ground.

Thickness: The required apron thickness is shown in Table 1.

Gabions: When a gabion mattress is used it shall be made of double twisted galvanized steel wire. Gabions shall be fabricated in such a manner that the sides, ends, and lid can be assembled at the construction site into mats a minimum of 12 inches thick.

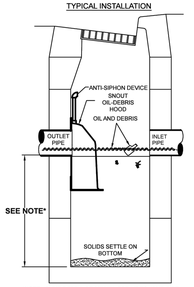
Materials: Outlet protection may be done using rock riprap or gabion mattresses to construct the apron. The rock shall consist of field stone or rough unhewn quarry stone. The stone shall be hard and angular and of a quality that will not disintegrate on exposure to water or weathering. Broken concrete may be used provided it does not have any exposed steel or reinforcing bars, and that it is broken into blocky pieces such that the largest dimension of each piece is no more than 3 times the smallest dimension. The required rock size is shown in Tables 1 and 2. In all cases a geotextile (filter fabric) shall be placed between the apron and the underlying soil to prevent soil movement into and through the riprap.

CONFIGURATION DETAIL



SNOUT OIL-WATER-DEBRIS SEPARATOR

TYPICAL INSTALLATION



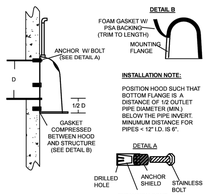
*NOTE- SUMP DEPTH OF 36" MIN. FOR UP TO 12" ID PIPE. OUTLET. FOR PIPES 15" ID AND ABOVE SUMP DEPTH OF 2.5 TO 3 TIMES PIPE ID RECOMMENDED (E.G. 9' DEEP for 24" PIPE)

NOTES:

1. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY:
   BEST MANAGEMENT PRODUCTS, INC.
   9 MATHEWS DRIVE, UNIT A1-A2.
   EAST HADDAM, CT 06423
   TOLL FREE: (800) 504-8008 OR (888) 434-0277, FAX: (877) 434-3197
   WEB SITE: www.bmpinc.com
   OR PRE-APPROVED EQUAL
2. ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
3. ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT PIPE AND ELBOW AS DRAWN. (SEE CONFIGURATION DETAIL)
4. THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION (SNOUT SIZE ALWAYS LARGER THAN PIPE SIZE).
5. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A MINIMUM DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
6. THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 12" ACCORDING TO STRUCTURE CONFIGURATION.
7. THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL AND PIPE SHALL BE FINISHED FLUSH TO WALL.
8. ALL STRUCTURE JOINTS SHALL BE WATERTIGHT.
9. THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH ¾" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
10. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT.
    INSTALLATION KIT SHALL INCLUDE:
    A. INSTALLATION INSTRUCTIONS
    B. PVC ANTI-SIPHON VENT PIPE AND ADAPTER
    C. OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
    D. 3/8" STAINLESS STEEL BOLTS
    E. ANCHOR SHIELDS

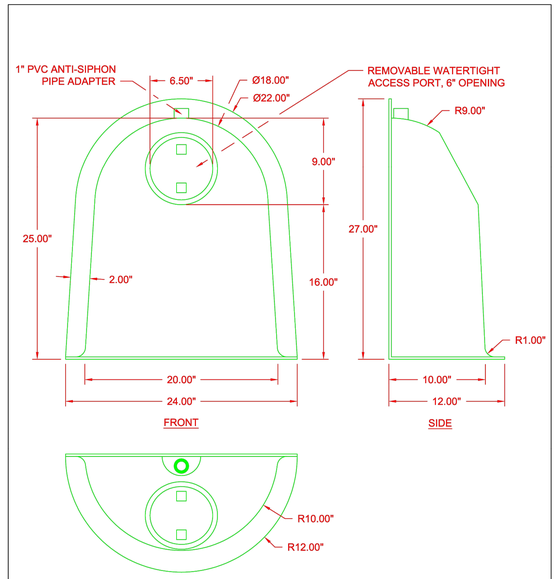
US Patent # 6126817, 7951294, 7857966, 8512556
Canada Patent # 2285146, 2690156, 2690156 others pending

INSTALLATION DETAIL



HOOD SPECIFICATION FOR CATCH BASINS AND WATER QUALITY STRUCTURES

DESCRIPTION	DATE	SCALE
OIL- DEBRIS HOOD SPECIFICATION AND INSTALLATION (TYPICAL)	09/08/18	NONE
	DRAWING NUMBER	SP-SN

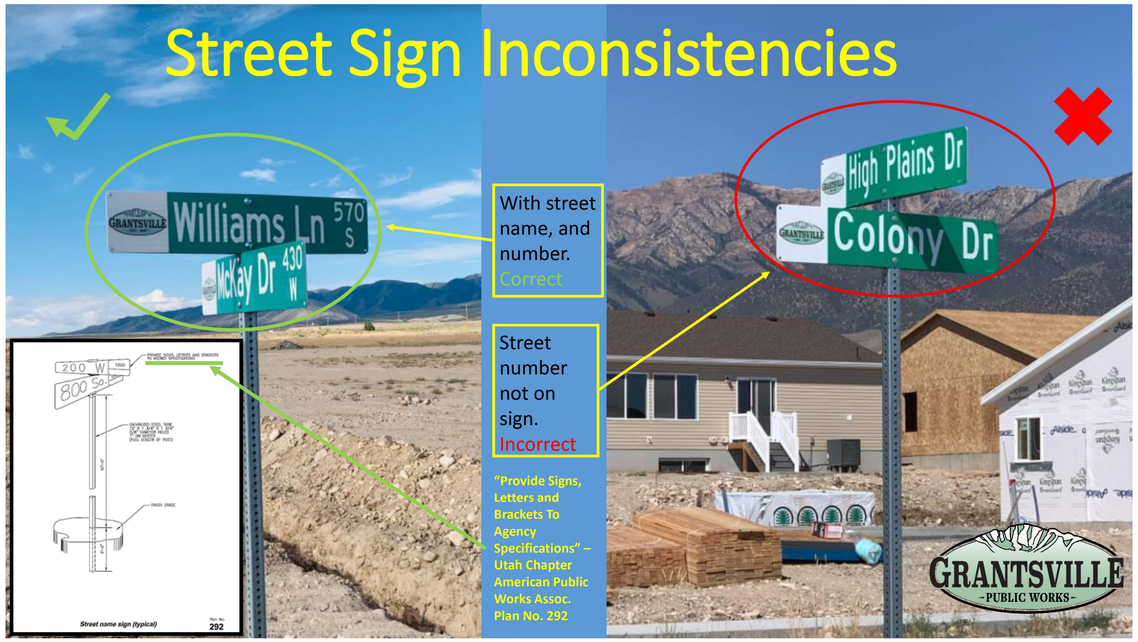


US PATENT #6126817 ADDITIONAL PATENTS PENDING

BMP, INC.
53 MT. ARCHER ROAD, LYME, CT. 06371
(800) 504-8008 FAX: (860)434-3195

DESCRIPTION	DATE	SCALE
18F SNOUT OIL & DEBRIS STOP	09/14/99	NONE
	DRAWING NUMBER	18F

Street Sign Inconsistencies



With street name, and number. Correct

Street number not on sign. Incorrect

"Provide Signs, Letters and Brackets To Agency Specifications" – Utah Chapter American Public Works Assoc. Plan No. 292

NOTE:
ALL CONCRETE SURFACE IMPROVEMENTS SHALL BE CONSTRUCTED USING 4,500 PSI CONCRETE

ENSIGN
THE STANDARD IN ENGINEERING

TOOELE
169 N. Main Street, Unit 1
Tooele, UT. 84074
Phone: 435.843.3590

SALT LAKE CITY
Phone: 801.255.0529

LAYTON
Phone: 801.547.1100

CEDAR CITY
Phone: 435.865.1453

RICHFIELD
Phone: 435.896.2983

WWW.ENSIGNENG.COM

FOR:
ICON DEVELOPMENT, LLC
3410 NORTH MOYLE LANE
ERDA, UTAH, 84074
CONTACT:
SEAN PERKINS
PHONE: 435-850-8436

BLUE SPRUCE SUBDIVISION
FINAL
QUIRK STREET
GRANTSVILLE CITY, UTAH

PROFESSIONAL ENGINEER REGISTERED 10924116-2202 12-09-09 COREY J. CHILD STATE OF UTAH

NO.	DATE	REVISION	BY
1		FOR REVIEW	
2			
3			
4			
5			
6			
7			
8			

DETAILS

PROJECT NUMBER	PRINT DATE
T121EE	
DRAWN BY	CHECKED BY
C. CHILD	J. CLEGG
PROJECT MANAGER	
C. CHILD	

D-502

AGENDA ITEM #12

Concept Plan for Sun Sage Terrace Phases 3-5

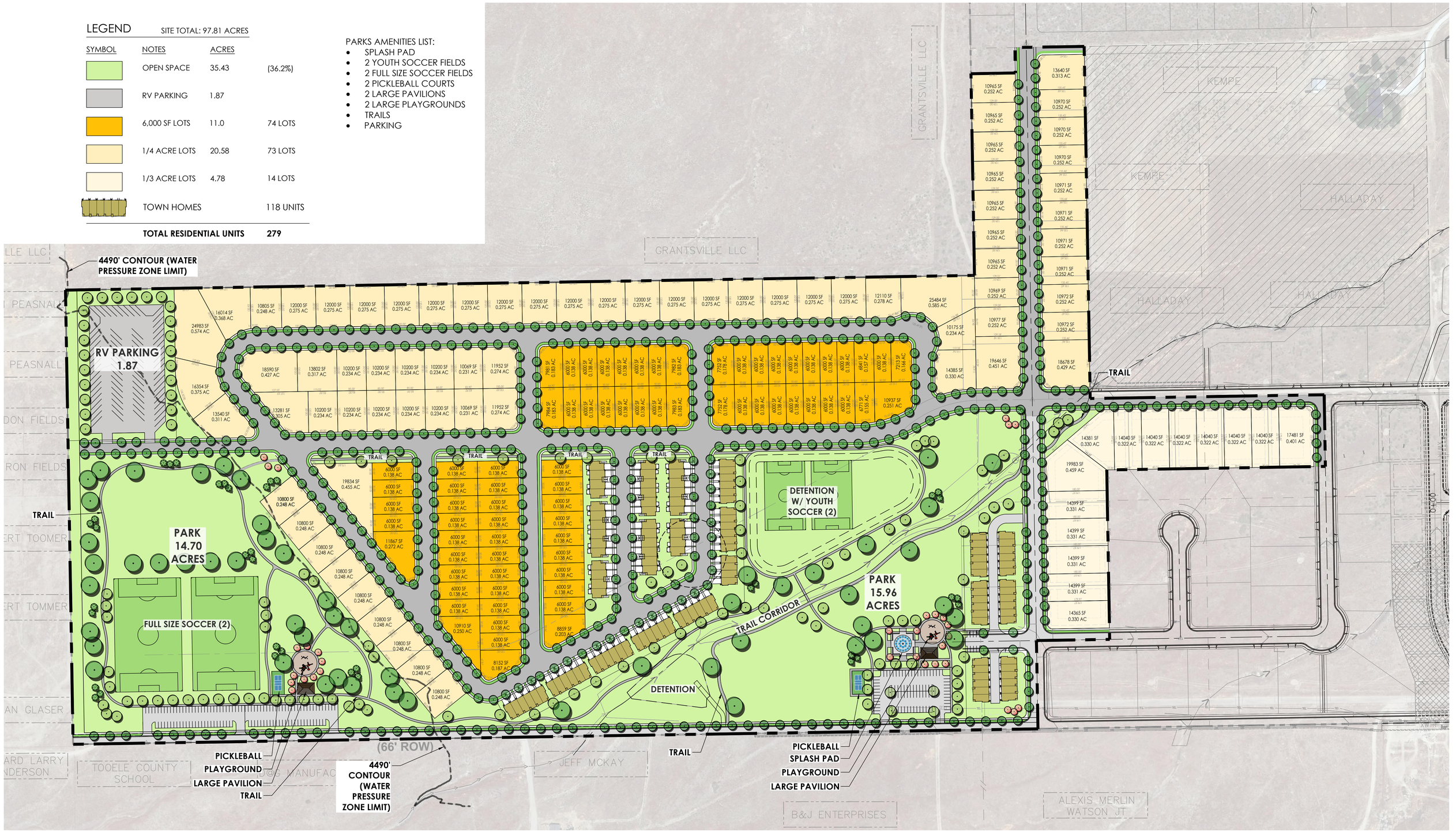
LEGEND

SITE TOTAL: 97.81 ACRES

SYMBOL	NOTES	ACRES	
	OPEN SPACE	35.43	(36.2%)
	RV PARKING	1.87	
	6,000 SF LOTS	11.0	74 LOTS
	1/4 ACRE LOTS	20.58	73 LOTS
	1/3 ACRE LOTS	4.78	14 LOTS
	TOWN HOMES		118 UNITS
	TOTAL RESIDENTIAL UNITS		**279**

PARKS AMENITIES LIST:

- SPLASH PAD
- 2 YOUTH SOCCER FIELDS
- 2 FULL SIZE SOCCER FIELDS
- 2 PICKLEBALL COURTS
- 2 LARGE PAVILIONS
- 2 LARGE PLAYGROUNDS
- TRAILS
- PARKING



Think Architecture

October 10, 2022

0 120 240 360

Sun Sage Terraces Phase 3 - 5

Grantsville, UT

AGENDA ITEM #13

Council Reports

AGENDA ITEM #14

Closed Session

AGENDA ITEM #15

Adjourn