RED BRIDGE STATION AMENDMENT # 2

TO THE ADOPTED

SOUTH MEADOWS AREA SPECIFIC PLAN

Payson City

JANUARY 2016

AMENDMENT #2 JAN 2022



Prepared by blū line designs for Payson City

RED BRIDGE STATION AMENDMENT # 2

table of contents

NARRATIVE

LIST OF FIGURES

FIGURE 4.1	HIGHER EDUCATION LAND USE PLAN AMENDMENT #1
FIGURE 4.2	HIGHER EDUCATION LAND USE PLAN (AMENDED)
FIGURE 4.2-1	AREA CALCULATIONS (AMENDED)
FIGURE 4.3	TRAILS PLAN
FIGURE 4.4	TRAILS PLAN (AMENDED)
FIGURE 4.4.1	TRAILS PLAN DETAILS (AMENDED)
FIGURE 5.1	CULINARY WATER
FIGURE 5.1A	RED BRIDGE STATION AMENDMENT #2 PID WATER SYSTEM IMPROVEMENTS
FIGURE 5.2	PRESSURIZED IRRIGATION
FIGURE 5.2A	RED BRIDGE STATION AMENDMENT #2 PID PI SYSTEM IMPROVEMENTS
FIGURE 5.3	SEWER
FIGURE 5.3.1A-5.3.2A	RED BRIDGE STATION AMENDMENT #2 PID SEWER SYSTEM IMPROVEMENTS
FIGURE 5.4	STORM DRAIN
FIGURE 5.4A	RED BRIDGE STATION AMENDMENT #2 PID STORM DRAIN SYSTEM IMPROVEMENTS
FIGURE 5.5.1	ROADS ADT
FIGURE 5.5.2	ROADS
FIGURE 5.5.4	RED BRIDGE STATION AMENDMENT #2 PID ROADWAY SYSTEM IMPROVEMENTS
FIGURE 5.5.4	RED BRIDGE STATION AMENDMENT #2 PID STREET CROSS SECTIONS
FIGURE 5.5.5	RED BRIDGE STATION - TRAFFIC IMPACT STUDY

RED BRIDGE STATION AMENDMENT # 2

NARRATIVE

AS THE CITY SPONSORED 800 SOUTH ALIGNMENT STUDY COMPLETED, IT HAS BECOME APPARENT THAT AN UPDATE TO THE SOUTH MEADOWS AREA SPECIFIC PLAN IS NEEDED. THE MAIN AMENDMENT TO THE CURRENT SPECIFIC PLAN AS SHOWN IN FIGURE 4.1 "RED BRIDGE STATION AMENDMENT #1, IS THE UPDATE OF THE LAND USE PLAN AS SHOWN IN FIGURE 4.2 "RED BRIDGE STATION AMENDMENT #2 - LAND USE PLAN".

THIS AMENDMENT PROPOSES THE FOLLOWING WITHIN THE RED BRIDGE STATION DEVELOPMENT:

1. ADJUST THE BOUNDARIES OF THE MIXED USE - COMMERCIAL AREA FROM 24.85 AC TO 28.38 AC
2. ADJUST THE BOUNDARIES OF THE RESIDENTIAL HIGH DENSITY (15 DU/AC) FROM 41.30 AC TO 35.76 AC
3. SHOW THE ALIGNMENT OF 800 SOUTH AND REQUIRED OVERALL MASTER PLAN CHANGES.
4. OVERALL INCREASE IN APPROVED DENSITY FROM 1125 DU TO 1240 DU FOR RED BRIDGE STATION. THIS INCREASE IN DENSITY IS PROPOSED DUE TO THE REDESIGN OF THE PROJECT REQUIRED BY THE 800 SOUTH ALIGNMENT STUDY AND THE PROPOSED 3.07 AC THAT HAVE BEEN REMOVED FROM THE DEVELOPMENT TO PRESERVE THE 800 SOUTH RIGHT-OF-WAY. THIS INCREASE IN DENSITY IS REQUESTED TO OFFSET COSTS OF THE REDESIGN, ADDITIONAL ROADWAYS AND PARKING STRUCTURES REQUIRED BY THE NEW PROJECT LAYOUT.

THESE PROPOSED CHANGES ADJUST THE TOTAL ALLOWED DENSITY BASED UPON NET AREA OF THE DEVELOPMENT WITHIN THE RED BRIDGE STATION. THIS CHANGE TO THE SPECIFIC PLAN IS DETAILED IN FIGURE 4.2-1 "AREA CALCULATIONS ".

THE REMAINDER OF THE SUPPORTING INFORMATION IS TO ACT AS AN UPDATE TO THE SOUTH MEADOWS AREA SPECIFIC PLAN AS TO THE ADDITIONAL STUDIES, PLANS AND ENGINEERING COMPLETED FOR THE RED BRIDGE STATION DEVELOPMENT.

THE ADDITIONAL SUPPORTING INFORMATION IS AS FOLLOWS:

FIGURE 4.4 & 4.4.1 TRAILS PLAN (AMENDED) AND TRAILS DETAILS (AMENDED)
THIS PLAN INCLUDES THE ADDITIONAL TRAILS AND BIKE LANES TO SUPPORT THE MTECH CAMPUS.

THE OTHER INFORMATION WITHIN THIS AMENDMENT TO THE SPECIFIC AREA PLAN DEALS WITH THE PROPOSED UTILITY IMPROVEMENTS TO THE SOUTH MEADOWS AREA THAT ARE PROPOSED AS PART OF THE RED BRIDGE STATION DEVELOPMENT.

THESE MASTER PLANNED IMPROVEMENTS ARE TO BE FUNDED BY THE NEWLY CREATED RED BRIDGE STATION PID.

FIGURE 5.1A **PID WATER SYSTEM IMPROVEMENTS**
THIS PLAN SHOWS THE MASTER PLANNED WATER LINES AND THE ADDITIONAL CULINARY WELL NEEDED.

FIGURE 5.2A **PID PRESSURIZED IRRIGATION SYSTEM IMPROVEMENTS**
THIS PLAN SHOWS THE MASTER PLANNED PI LINES.

FIGURE 5.3A-5.3B **PID SEWER SYSTEM IMPROVEMENTS**
THIS PLAN SHOWS THE MASTER PLANNED 21" SEWER OUTFALL LINE AND OTHER PID SEWER IMPROVEMENTS.

FIGURE 5.4A **PID STORM DRAIN SYSTEM IMPROVEMENTS**
THIS PLAN SHOWS THE MASTER PLANNED STORM DRAIN AND DISCHARGE TO ENHANCE THE WETLANDS.

FIGURE 5.5.4A **PID ROADWAY SYSTEM IMPROVEMENTS**
THIS PLAN SHOWS THE MASTER PLANNED ROADWAY LOCATIONS AND STRIPING.

FIGURE 5.5.5A **PID STREET CROSS SECTIONS**
THIS PLAN SHOWS THE APPROVED STREET CROSS SECTIONS WITH TRAVEL LANES, BIKE LANES, TRAILS AND SIDEWALKS

FIGURE 4.1 ADOPTED - HIGHER EDUCATION LAND USE PLAN - RED BRIDGE AMENDMENT #1

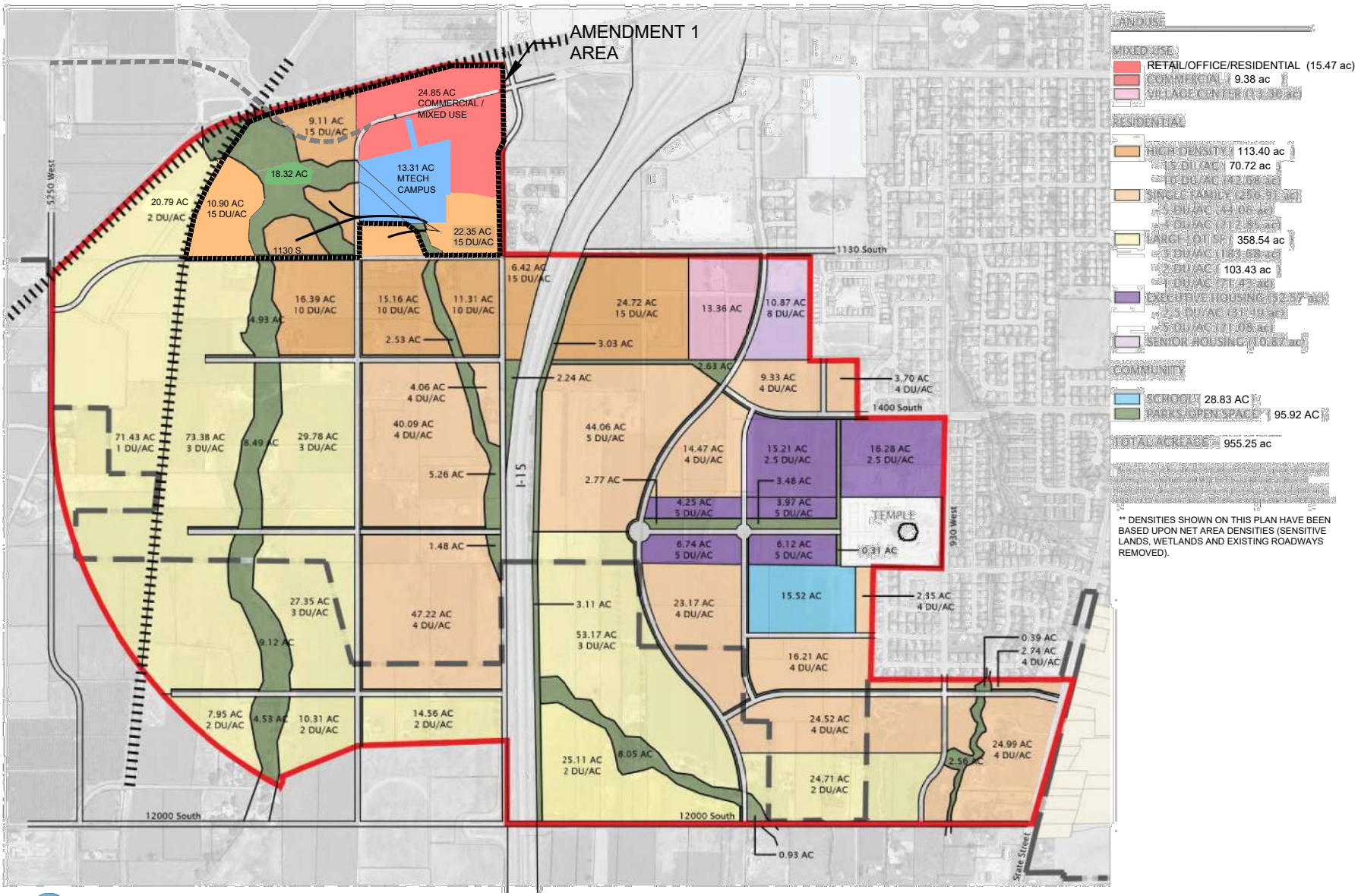


FIGURE 4.2 PROPOSED HIGHER EDUCATION LAND USE PLAN - RED BRIDGE AMENDMENT #2

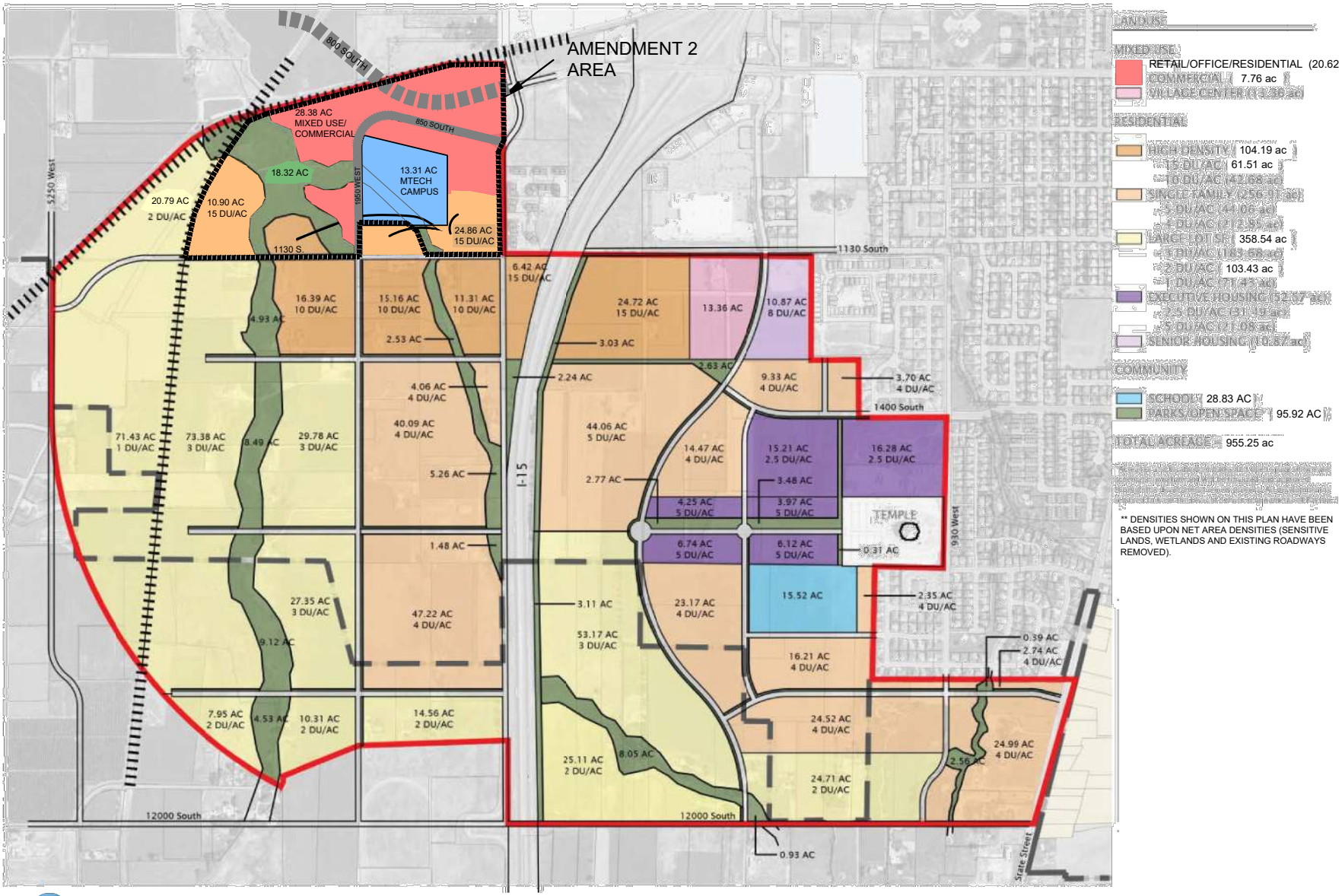


FIGURE 4.2-1 AREA CALCULATIONS

RED BRIDGE STATION AMENDMENT #2

HIGHER EDUCATION (AMENDED)

LAND USE PLAN

	FIGURE 4.1			FIGURE 4.2		
	HIGHER EDUCATION SCENARIO AMENDMENT #1			HIGHER EDUCATION SCENARIO AMENDMENT #2		
LAND USE	AREA (ac)	Density DU/AC	Max Number of Dwelling Units	AREA (ac)	Density DU/AC	Max Number of Dwelling Units
MIXED USE	24.85	MU Zone	490	28.38	MU Zone	966
800 SOUTH PARCEL				3.07	n/a	0
RESIDENTIAL - 15 DU/AC	42.36	15	635	31.7	15	274
SCHOOL	13.31	n/a	0	13.31	n/a	0
PARKS/OPEN SPACE	18.32	n/a	0	18.32	n/a	0
TOTALS	98.84		1125	94.78		1240

FIGURE 4.3 - TRAILS PLAN

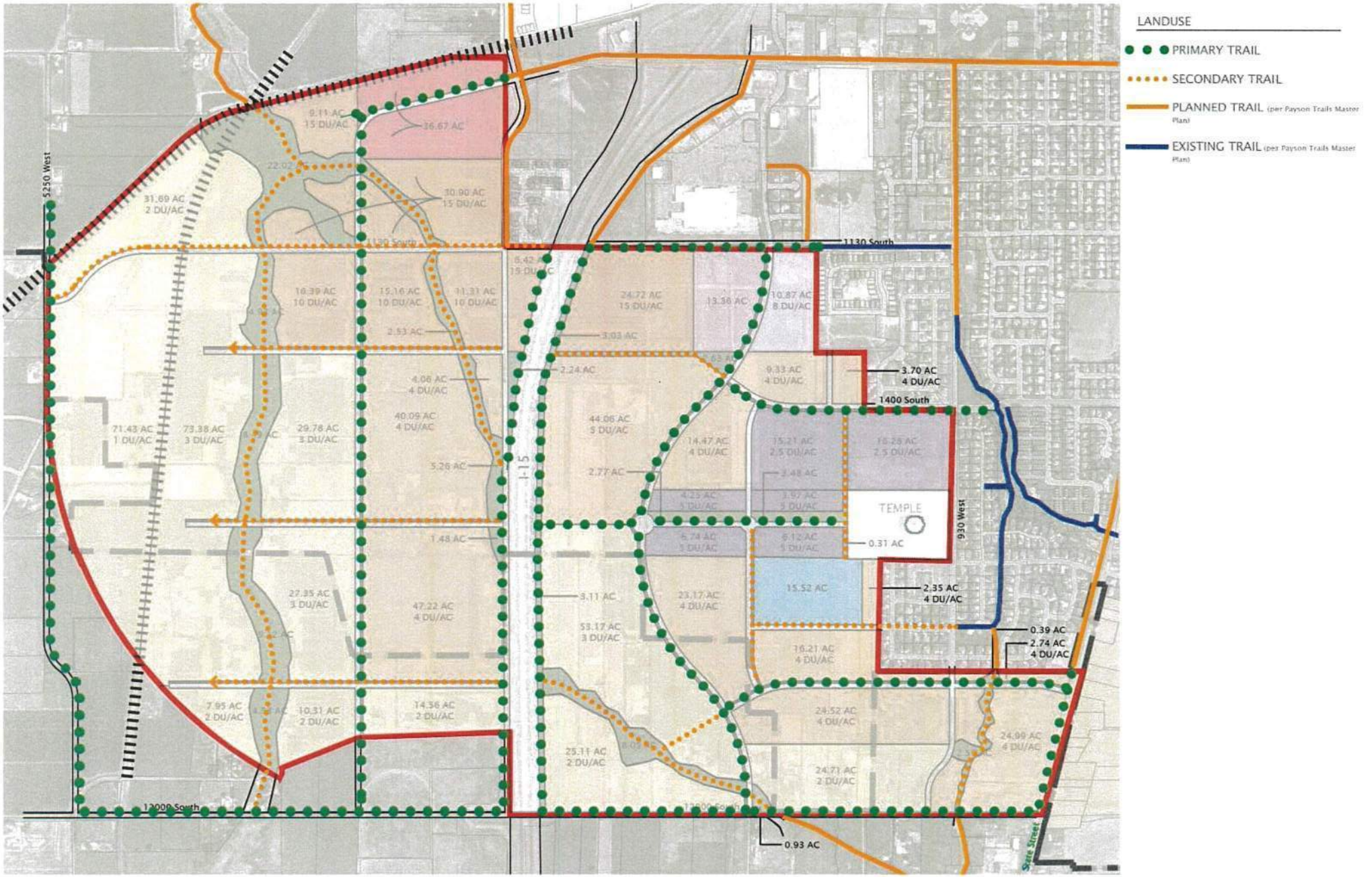


FIGURE 4.4 TRAILS PLAN (AMENDED)

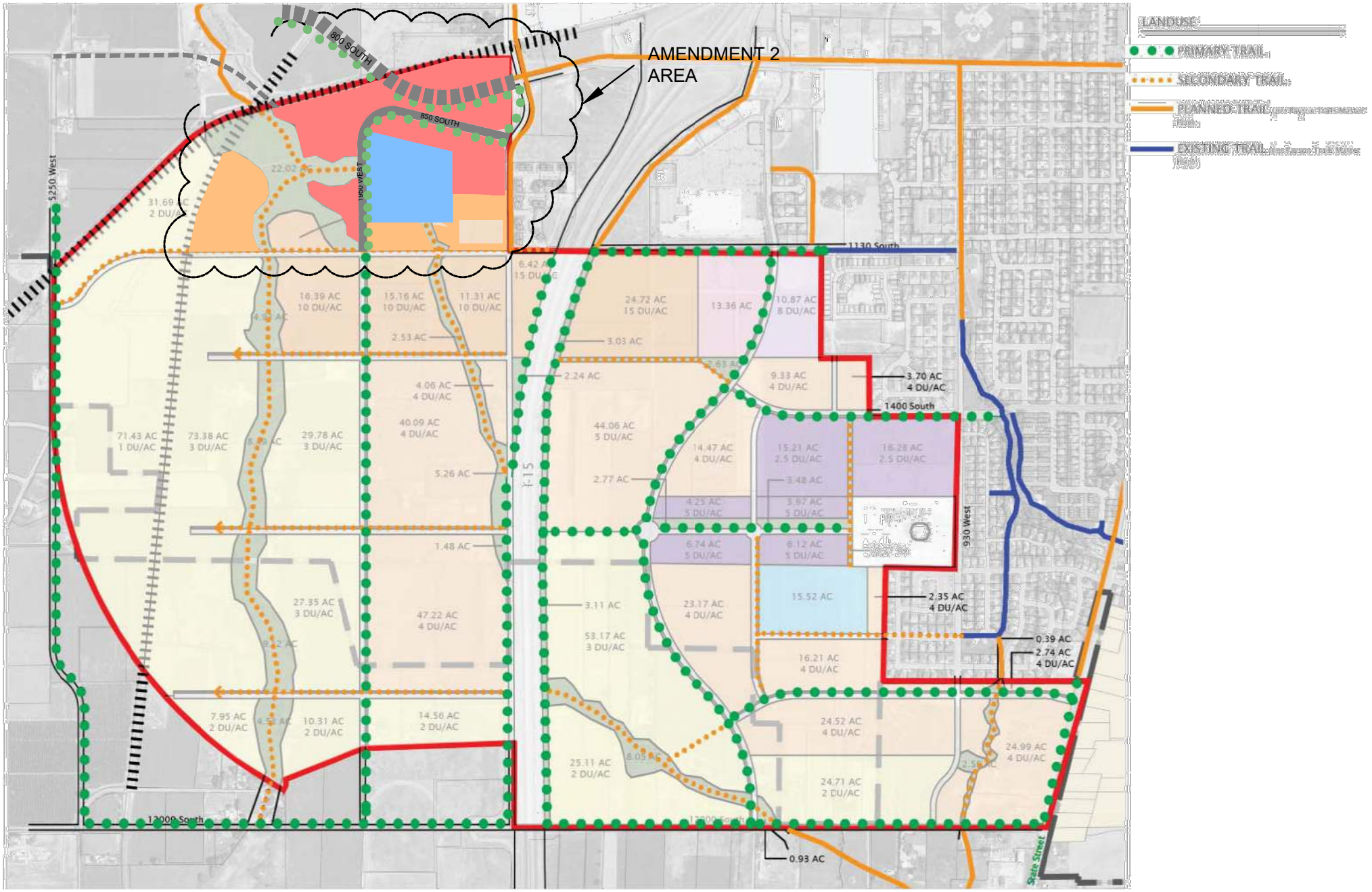
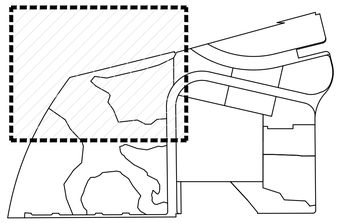


FIGURE 4.4.1 TRAILS PLAN DETAILS (AMENDED)

RED BRIDGE STATION PID SUPER PAD IMPROVEMENT DRAWINGS	C10.1
RED BRIDGE STATION PID SUPER PAD IMPROVEMENT DRAWINGS	C10.2
RED BRIDGE STATION PID SUPER PAD IMPROVEMENT DRAWINGS	C10.3
RED BRIDGE STATION PID SUPER PAD IMPROVEMENT DRAWINGS	C10.4



MAP KEY

IMPACT TABULATIONS

WETLANDS	ROADWAY IMPACTS	31,155 SF	0.72 AC
DRY CREEK	ROADWAY IMPACTS	8,397 SF	0.19 AC
	TOTAL PROJECT IMPACTS	39,552 SF	0.91 AC

Blue Stakes of UTAH 811 Bluestakes.org

WETLAND DELINEATION	
WETLAND DELINEATION FOR RED BRIDGE STATION U.S. ARMY CORPS OF ENGINEERS - VERIFICATION	SPK-2020-00619 OCTOBER 15, 2020
WETLAND DELINEATION FOR PAYSON 44 U.S. ARMY CORPS OF ENGINEERS - VERIFICATION	SPK-2020-00369 AUGUST 19,2020

STRAWBERRY HIGH LINE CANAL
29:012:0018

HANSEN
29:012:0015

LOT 8
1.54 AC
67,115 SF

LOT 13
6.49 AC
282,678 SF

PARCEL B
OPEN SPACE
16.56 AC
721,505 SF

850 SOUTH

1950 WEST

SPRING CREEK

10' ASPHALT TRAIL

8' BOARDWALK TRAIL

TINTIC RAILROAD COMPANY

IMPACT AREA #1
(WETLANDS 20,835 SF)
(WATERS U.S. 115 LF)

N

0 30 60 120 180
SCALE: 1"= 60'

DEVELOPMENT

RED BRIDGE STATION

DEVELOPER

PAYSON SOUTH MEADOWS PARTNERS, LLC
505 S. OREM BLVD
OREM, UT 84058
(801) 369-2638

berg
CIVIL ENGINEERING
11038 N Highland Blvd Suite 400
Highland Ut, 84003
office (801) 492-1277
cell (801) 616-1677

REVISIONS			SEAL
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ACTION	DATE
CONSTRUCTION DRAWINGS	01/03/2022

PROJECT

RED BRIDGE STATION

DESCRIPTION

PID
SUPER PAD IMPROVEMENT DRAWINGS

SHEET NAME	SHEET / EXHIBIT
WETLAND TRAILS	*C10.1*

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HANSEN
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MAP KEY

Blue Stakes of UTAH811
Bluestakes.org

PARCEL B
OPEN SPACE
16.56 AC
721,505 SF

10' ASPHALT TRAIL

IMPACT AREA #1
(WETLANDS 20,835 SF)
(WATERS U.S. 115 LF)

SPRING CREEK

LOT 14
2.72 AC
118,641 SF

1950 WEST

LOT 16
9.99 AC
435,067 SF

8' BOARDWALK TRAIL

LOT 15
4.09 AC
178,352 SF

10' ASPHALT TRAIL

IMPACT AREA #3
(WETLANDS 5,817 SF)

1130 SOUTH

IMPACT AREA #2
(WETLANDS 4,503 SF)
(WATERS U.S. 62 LF)

0 30 60 120 180
SCALE: 1"= 60'

DEVELOPMENT

RED BRIDGE STATION

DEVELOPER

PAYSON SOUTH MEADOWS PARTNERS, LLC
505 S. OREM BLVD
OREM, UT 84058
(801) 369-2638

CIVIL ENGINEERING
11038 N Highland Blvd Suite 400
Highland Ut, 84003
office (801) 492-1277
cell (801) 616-1677

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PROJECT

RED BRIDGE STATION

DESCRIPTION

PID
SUPER PAD IMPROVEMENT DRAWINGS

SHEET NAME	SHEET / EXHIBIT
WETLAND TRAILS	C10.2

SF

LOT 7
1.65 AC
71,740 SF

LOT 6
1.94 AC
84,615 SF

LOT 5
2.35 AC
102,558 SF

LOT 4
2.94 AC
128,249 SF

LOT 3
4.44 AC
193,552 SF

LOT 2
2.78 AC
121,173 SF

MTECH CAMPUS
LOT 1
13.35 AC
581,315 SF

LOT 14
2.72 AC
118,641 SF

PARCEL C
0.27 AC
11,651 SF

10' ASPHALT TRAIL

IMPACT AREA #1
(WETLANDS 20,835 SF)
(WATERS U.S. 115 LF)

IMPACT AREA #2
(WETLANDS 4,503 SF)
(WATERS U.S. 62 LF)

IMPACT AREA #4
(WETLANDS 8,397 SF)

SPRING CREEK

DRY CREEK

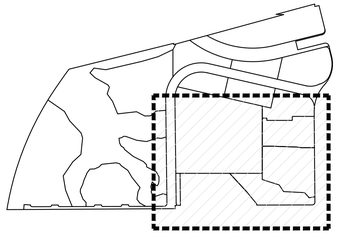
1950 WEST

1700 WEST

1130 SOUTH

THE BROWN FAMILY TRUST (ET AL)

MAP KEY



DEVELOPMENT

RED BRIDGE STATION

DEVELOPER

PAYSON SOUTH MEADOWS PARTNERS, LLC
505 S. OREM BLVD
OREM, UT 84058
(801) 369-2638

0 30 60 120 180
SCALE: 1"= 60'

CIVIL ENGINEERING
11038 N Highland Blvd Suite 400
Highland Ut, 84003
office (801) 492-1277
cell (801) 616-1677

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PROJECT

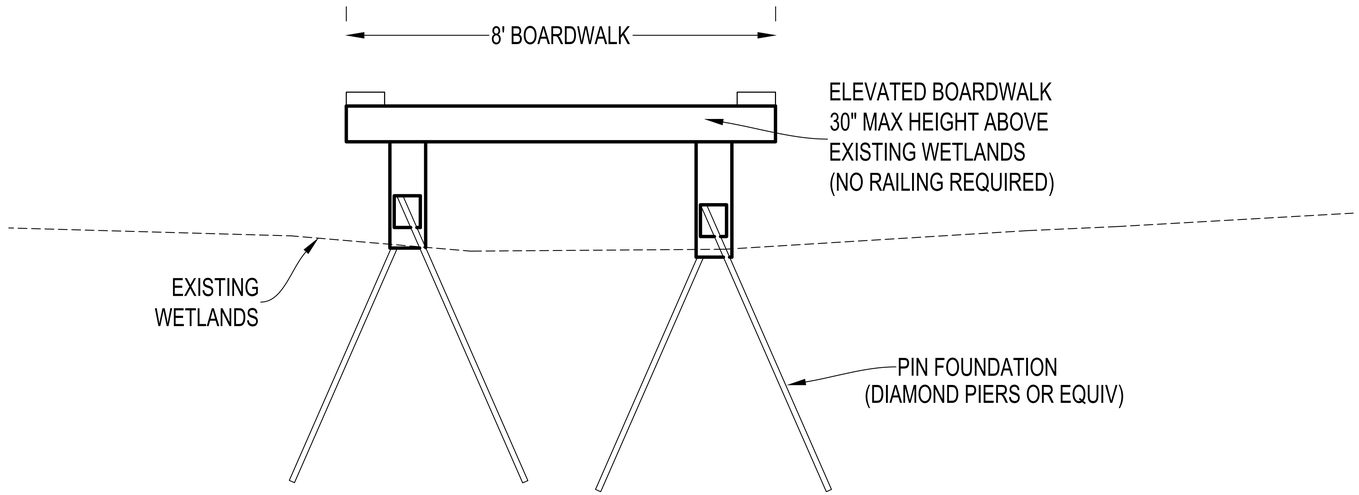
RED BRIDGE STATION

DESCRIPTION

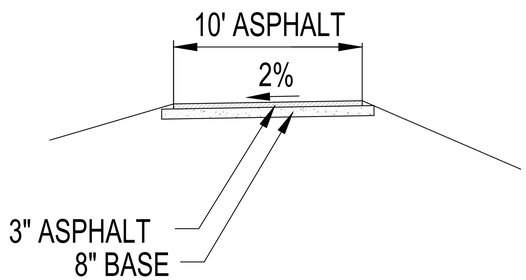
PID SUPER PAD IMPROVEMENT DRAWINGS

SHEET NAME	SHEET / EXHIBIT
WETLAND TRAILS	C10.3

BOARDWALK CROSS SECTION



10' TRAIL CROSS SECTION FOR UPLANDS



DEVELOPMENT

RED BRIDGE STATION

DEVELOPER

PAYSON SOUTH MEADOWS PARTNERS, LLC
505 S. OREM BLVD
OREM, UT 84058
(801) 369-2638

N

0 30 60 120 180
SCALE: 1"= 60'

CIVIL ENGINEERING
11038 N Highland Blvd Suite 400
Highland Ut, 84003
office (801) 492-1277
cell (801) 616-1677

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PROJECT

RED BRIDGE STATION

DESCRIPTION

PID
SUPER PAD IMPROVEMENT DRAWINGS

SHEET NAME	SHEET / EXHIBIT
TRAIL DETAILS	*C10.4*

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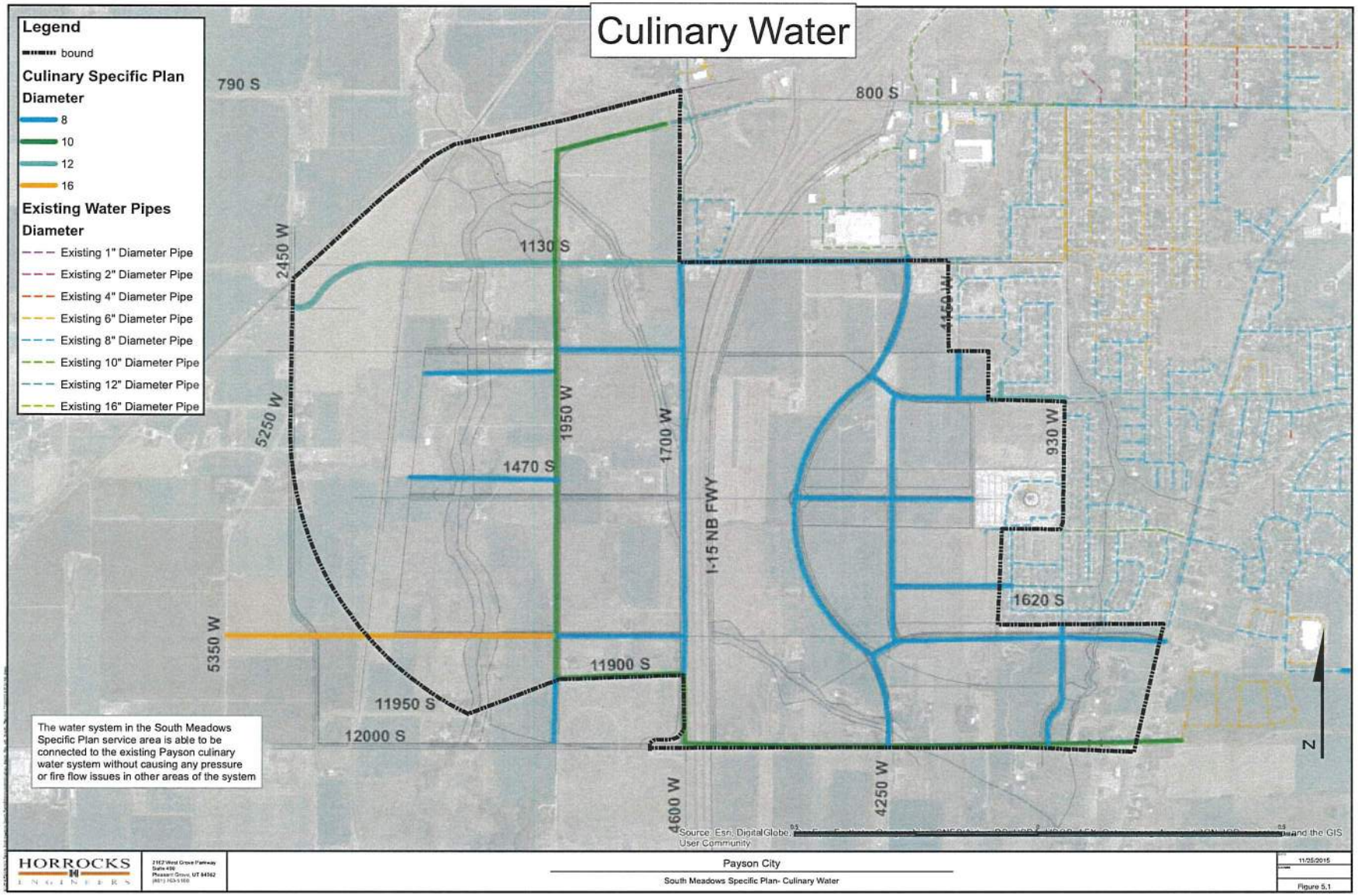

Culinary Water
Legend
bound
Culinary Specific Plan
Diameter
8
10
12
16
Existing Water Pipes
Diameter
Existing 1" Diameter Pipe
Existing 2" Diameter Pipe
Existing 4" Diameter Pipe
Existing 6" Diameter Pipe
Existing 8" Diameter Pipe
Existing 10" Diameter Pipe
Existing 12" Diameter Pipe
Existing 16" Diameter Pipe
790 S
800 S
1130 S
2450 W
5250 W
1950 W
1700 W
1150 W
930 W
1470 S
I-15 NB FWY
1620 S
5350 W
11900 S
11950 S
12000 S
4600 W
4250 W
N
The water system in the South Meadows Specific Plan service area is able to be connected to the existing Payson culinary water system without causing any pressure or fire flow issues in other areas of the system
Source: Esri, DigitalGlobe, and the GIS User Community
HORROCKS ENGINEERS
Payson City
South Meadows Specific Plan- Culinary Water
11/25/2015
Figure 5.1

FIGURE 5.1A RED BRIDGE STATION AMENDMENT #1 PID WATER SYSTEM IMPROVEMENTS

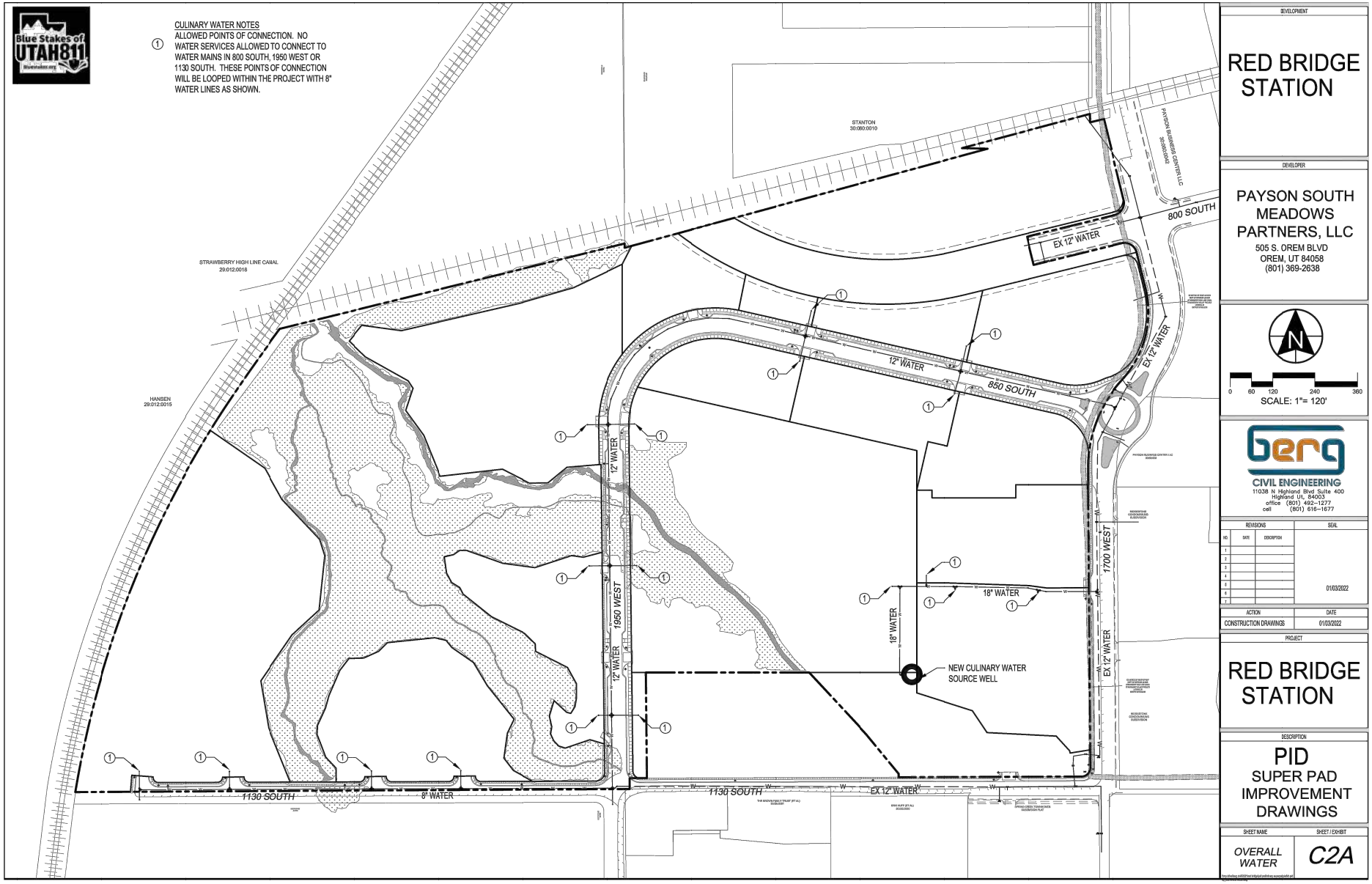


FIGURE 5.2 - PRESSURIZED IRRIGATION

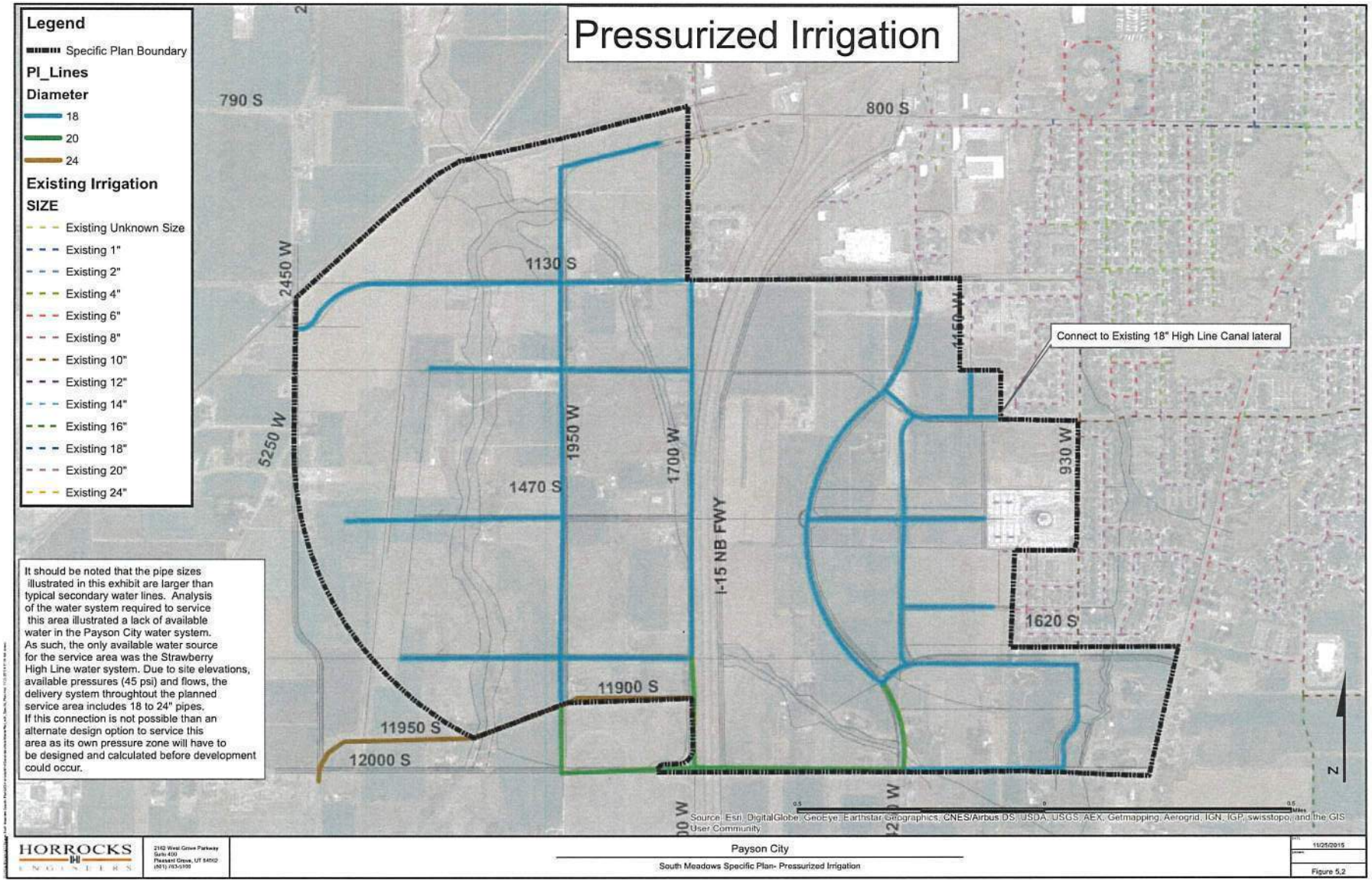
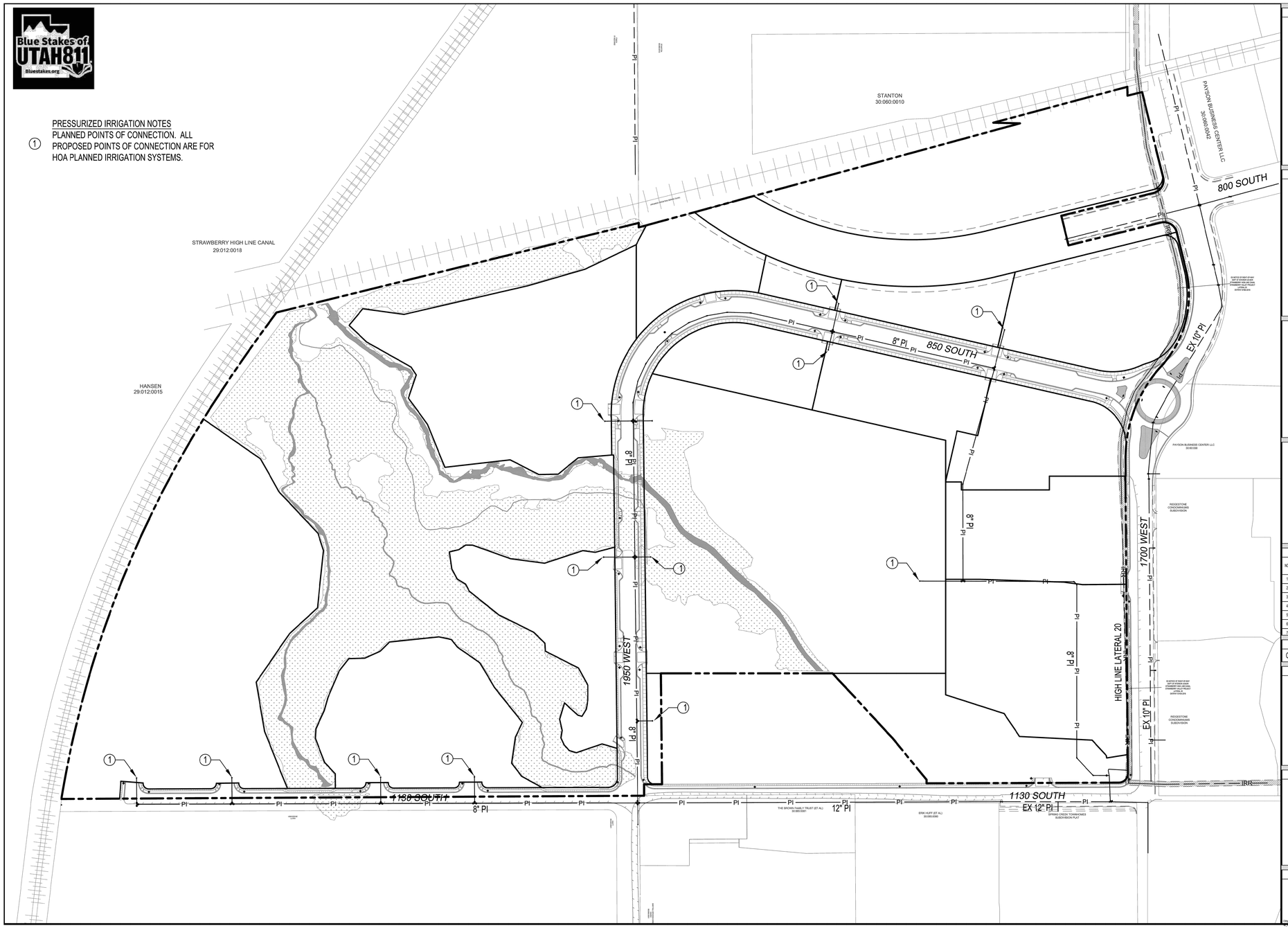


FIGURE 5.2A RED BRIDGE STATION AMENDMENT #2 - PID PRESSURIZED IRRIGATION SYSTEM IMPROVEMENTS



DEVELOPMENT

RED BRIDGE STATION

DEVELOPER

PAYSON SOUTH MEADOWS PARTNERS, LLC
505 S. OREM BLVD
OREM, UT 84058
(801) 369-2638

N

0 50 100 200 300
SCALE: 1"= 100'

berg CIVIL ENGINEERING
11038 N Highland Blvd Suite 400
Highland Ut, 84003
office (801) 492-1277
cell (801) 616-1677

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PROJECT

RED BRIDGE STATION

DESCRIPTION

PID
SUPER PAD IMPROVEMENT DRAWINGS

SHEET NAME	SHEET / EXHIBIT
OVERALL PI	C2B

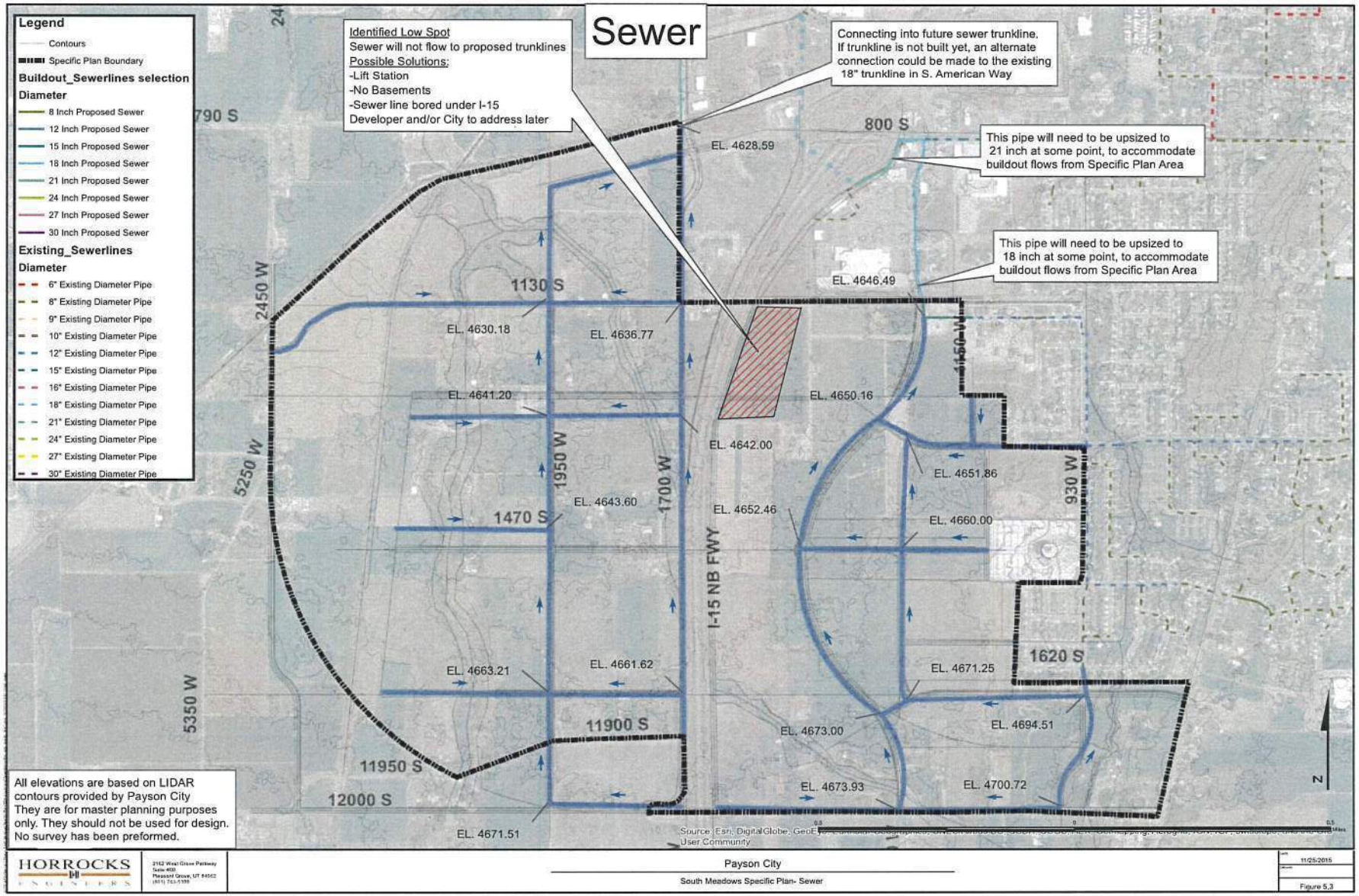

Sewer
Legend
Contours
Specific Plan Boundary
Buildout_Sewerlines selection
Diameter
8 Inch Proposed Sewer
12 Inch Proposed Sewer
15 Inch Proposed Sewer
18 Inch Proposed Sewer
21 Inch Proposed Sewer
24 Inch Proposed Sewer
27 Inch Proposed Sewer
30 Inch Proposed Sewer
Existing_Sewerlines
Diameter
6" Existing Diameter Pipe
8" Existing Diameter Pipe
9" Existing Diameter Pipe
10" Existing Diameter Pipe
12" Existing Diameter Pipe
15" Existing Diameter Pipe
16" Existing Diameter Pipe
18" Existing Diameter Pipe
21" Existing Diameter Pipe
24" Existing Diameter Pipe
27" Existing Diameter Pipe
30" Existing Diameter Pipe
Identified Low Spot
Sewer will not flow to proposed trunklines
Possible Solutions:
-Lift Station
-No Basements
-Sewer line bored under I-15
Developer and/or City to address later
Connecting into future sewer trunkline. If trunkline is not built yet, an alternate connection could be made to the existing 18" trunkline in S. American Way
This pipe will need to be upsized to 21 inch at some point, to accommodate buildout flows from Specific Plan Area
This pipe will need to be upsized to 18 inch at some point, to accommodate buildout flows from Specific Plan Area
790 S
800 S
1130 S
1470 S
1620 S
11900 S
11950 S
12000 S
2450 W
5250 W
5350 W
1950 W
1700 W
1150 W
930 W
I-15 NB FWY
EL. 4628.59
EL. 4646.49
EL. 4630.18
EL. 4636.77
EL. 4641.20
EL. 4650.16
EL. 4642.00
EL. 4651.86
EL. 4643.60
EL. 4652.46
EL. 4660.00
EL. 4663.21
EL. 4661.62
EL. 4671.25
EL. 4673.00
EL. 4694.51
EL. 4673.93
EL. 4700.72
EL. 4671.51
All elevations are based on LIDAR contours provided by Payson City They are for master planning purposes only. They should not be used for design. No survey has been preformed.
Source: Esri, DigitalGlobe, GeoE
User Community
N
HORROCKS ENGINEERS
Payson City
South Meadows Specific Plan- Sewer
11/25/2015
Figure 5.3

FIGURE 5.3.1A RED BRIDGE STATION AMENDMENT #1 - PID SEWER SYSTEM IMPROVEMENTS

EXISTING FLOW IN UTAH AVE

PEAK MEASURE FLOWRATE AT PAYSON CITY MH 543 IN FRONT OF LIBERTY SAFE HAS BEEN MEASURED AT 533 GPM OR 1.190 CFS

ADDITIONAL NUMBER OF RESIDENTS CALCULATION

21" PIPE 75% CAPACITY	4.980 CFS
EXISTING FLOWRATE	1.190 CFS
TOTAL PID SEWER CAPACITY	3.790 CFS
PID INITIAL PHASE USEAGE	1.723 CFS
REMAINING PID CAPACITY	2.067 CFS

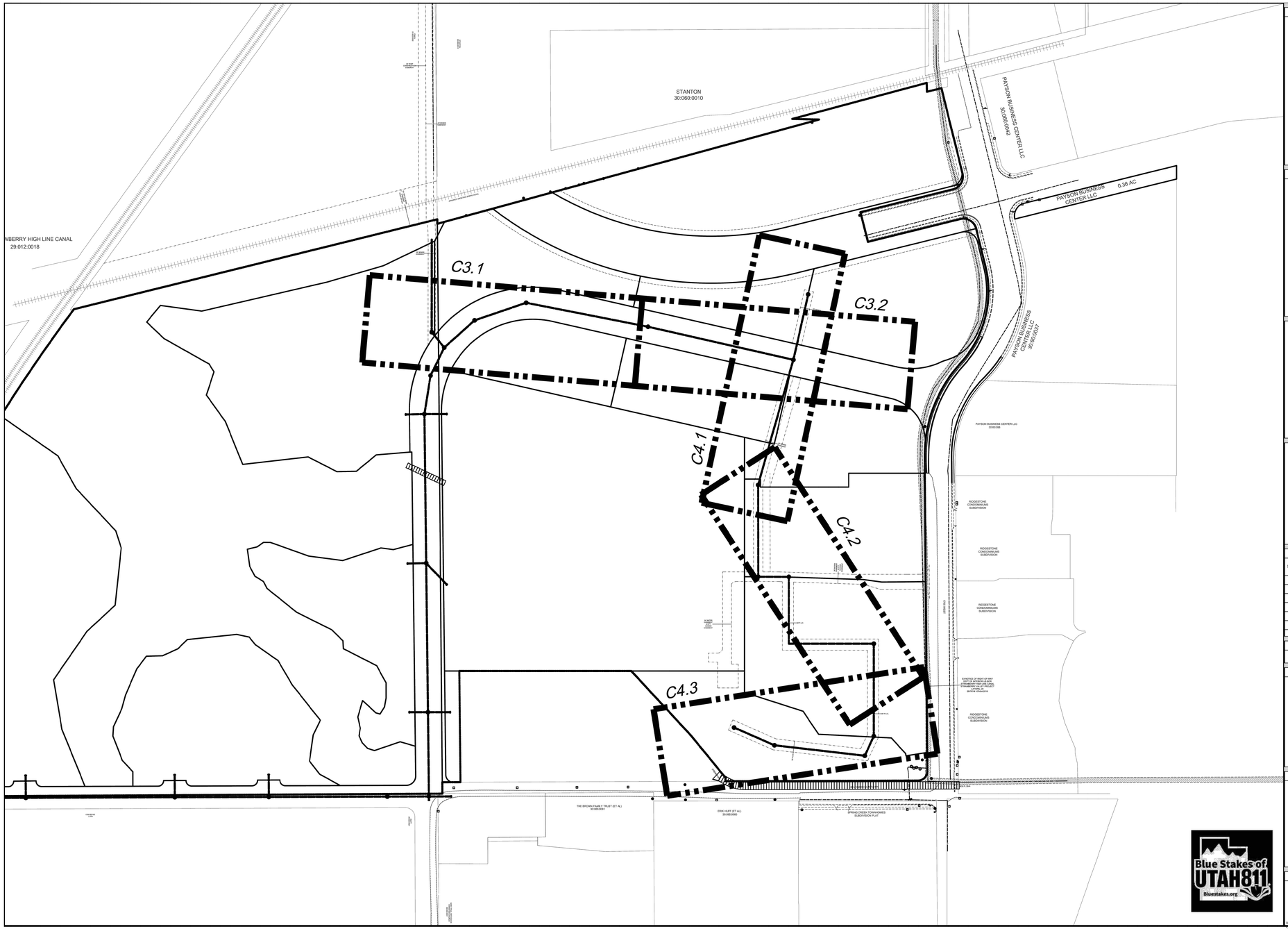
PROJECTED CAPITA WITHIN RED BRIDGE PID INITIAL PHASE

DWELLING UNITS	1240 DU
ADDITIONAL ERU'S (MTECH, HOTELS, ETC)	560 DU
5,760 PERSONS X 100 GPD X 1.93 PEAKING FACTOR	
PEAK HOUR FLOW	1.723 CFS

PROJECTED CAPITA @ 6 DU/AC WITHIN REMAINING SOUTH SERVICE AREA

6,900 PERSONS @ 3.2 ERU	2,160 DU
6,900 PERSONS X 100 GPD X 1.93 PEAKING FACTOR	
PEAK HOUR FLOW	2.064 CFS

FIGURE 5.3.2A RED BRIDGE STATION AMENDMENT #2 - PID SEWER SYSTEM IMPROVEMENTS



DEVELOPMENT

RED BRIDGE STATION

DEVELOPER

PAYSON SOUTH MEADOWS PARTNERS, LLC
505 S. OREM BLVD
OREM, UT 84058
(801) 369-2638

N

0 60 120 240 360
SCALE: 1"= 120'

berg
CIVIL ENGINEERING
11038 N Highland Blvd Suite 400
Highland Ut, 84003
office (801) 492-1277
cell (801) 616-1677

REVISIONS		
NO.	DATE	DESCRIPTION
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SEAL

STATE OF UTAH
R-Burt
REGISTERED
PROFESSIONAL ENGINEER
343602
12/21/2021
PROFESSIONAL ENGINEER

ACTION	DATE
CONSTRUCTION DRAWINGS	12/21/2021

PROJECT

RED BRIDGE STATION

DESCRIPTION

SEWER
PID #1
PHASE B

SHEET NAME	SHEET / EXHIBIT
UTILITY	C2

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FIGURE 5.3.2B RED BRIDGE STATION AMENDMENT #2 - PID SEWER SYSTEM IMPROVEMENTS

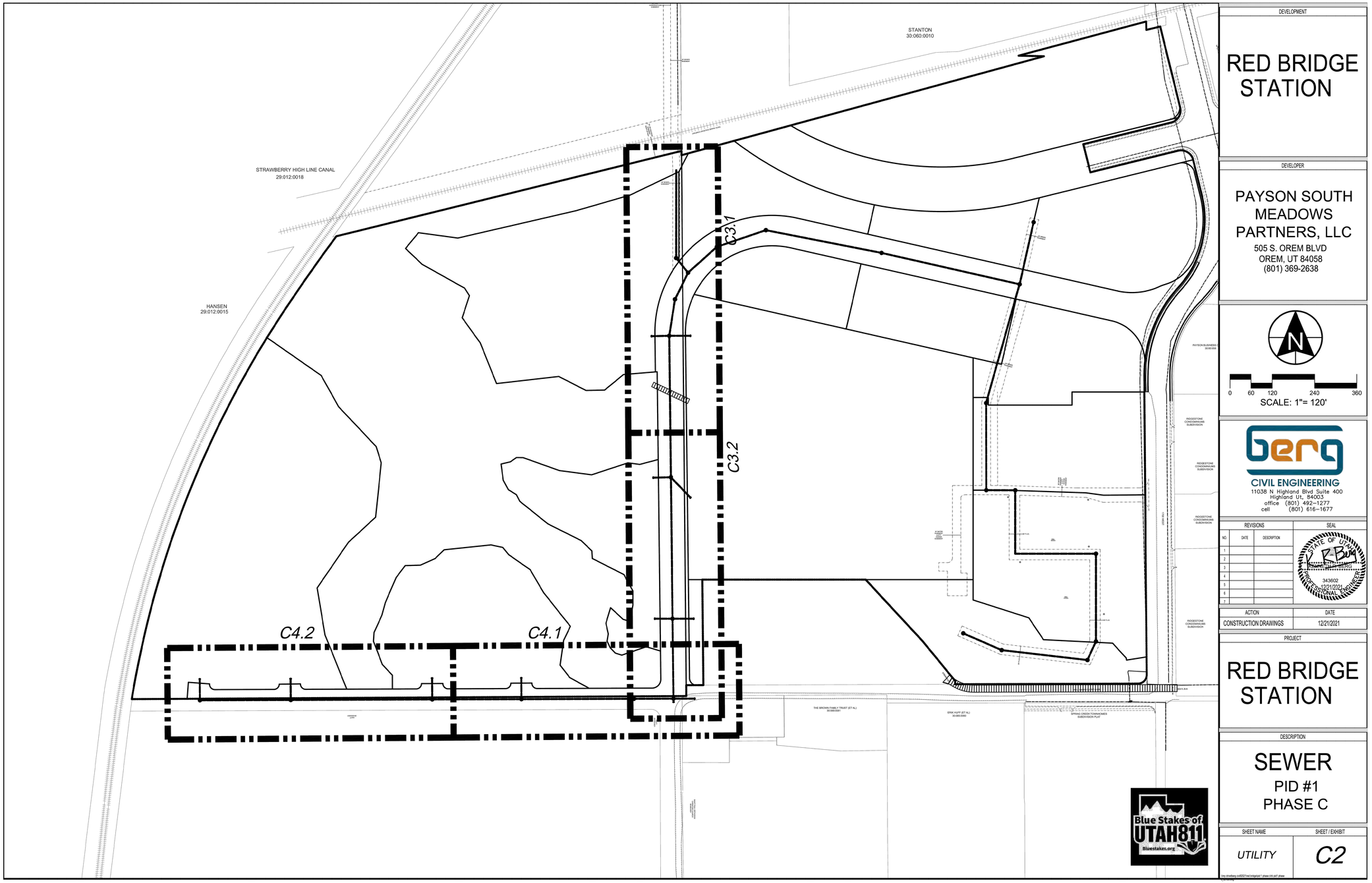


FIGURE 5.4 - STORM DRAIN

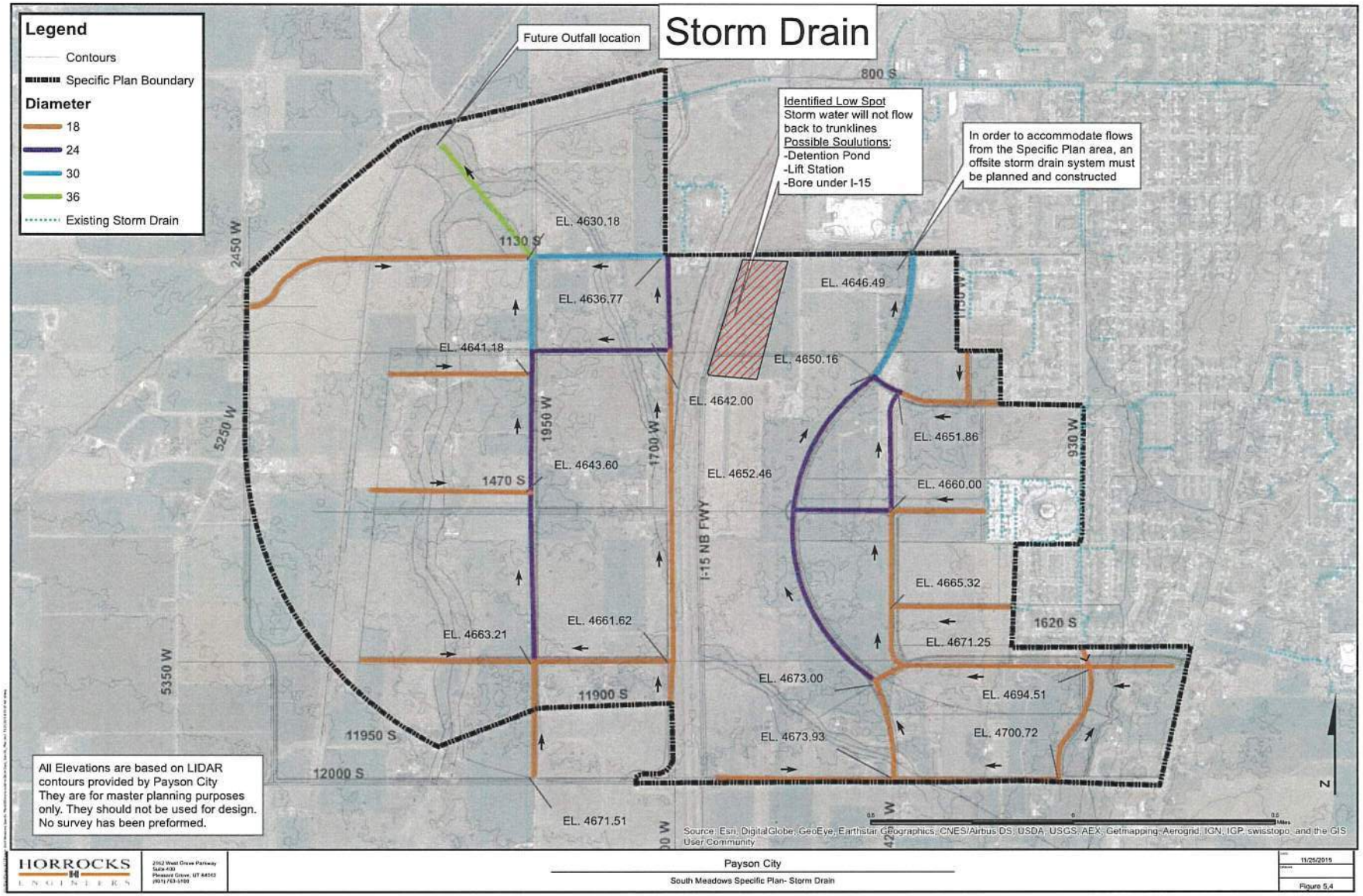


FIGURE 5.4A RED BRIDGE STATION AMENDMENT #2 - PID STORM DRAIN SYSTEM IMPROVEMENTS

RED BRIDGE
100-Y DETENTION
SUPERPAD PLAT

Storm drain calculations were performed using the rational method.

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1/3/2021

Hydrologic Calculations CA CALCULATION			
	C	Area (ft^2)	C * A
Overall			
Lot 1 - Mtech Campus	0.40	581315	232526
Lot 2 - Multifamily	0.50	121173	60587
Lot 3 - Multifamily	0.50	193552	96776
Lot 4 - Multifamily	0.60	128249	76949
Lot 5 - Mixed Use	0.65	102558	66663
Lot 6 - Mixed Use	0.65	84615	55000
Lot 7 - Mixed Use	0.65	71740	46631
Lot 8 - Mixed Use	0.65	67115	43625
Lot 9 - Commercial	0.75	19148	14361
Lot 10 - Commercial	0.75	57191	42893
Lot 11 - Commercial	0.75	138258	103694
Lot 12 - Mixed Use	0.65	237036	154073
Lot 13 - Mixed Use	0.50	282678	141339
Lot 14 - Mixed Use	0.50	118641	59321
Lot 15 - Residential	0.40	178352	71341
Lot 16 - Residential	0.40	435067	174027
Crowe Property - Multifamily	0.50	188837	94419
1130 South	0.90	97834	88051
850 South	0.90	122900	110610
1950 West	0.90	103139	92825
1700 West	0.90	63626	57263
Totals		3393024	1439804
Contributing Acres:	77.89		
Q_{allow}	0.3 cfs/acre	23.00 cfs	

Retention Pond Volume calculations					
Lapsed Time (min.)	Rainfall intensity (in/hr)	Total Rainfall (in)	Rainfall Volume (ft^3)	Release Volume (ft^3)	Required Storage (ft^3)
A	*B*	*C*	*D*	*E*	*F*
5	6.42	0.58	69327	7452	61875
10	4.89	0.82	97787	13800	83987
15	4.04	1.01	121184	20700	100484
30	2.72	1.36	163178	41400	**121778**
60	1.68	1.68	201573	82800	118773
120	0.94	1.88	225569	165600	59969
180	0.65	1.95	233968	248400	-14432
360	0.35	2.10	251966	496800	-244834
1440	0.12	2.88	345553	1987200	-1641647
Required Pond Volume =	**121778 ft^3**	or	**2.796 acre-ft**		

Notes:
A, B, & C are based upon Payson City NOAA
D = C / (12 inches/foot) x total acreage of site x 43,560 sf/acre x run-off coefficient, where Q=CIA and V=CiA
E = an allowable release rate (0.3 cfs/acre) x total acreage of site x A x 60 sec.
F = D - E to determine storage volume

RED BRIDGE
100-Y EXISTING CONDITIONS
SUPERPAD PLAT

Storm drain calculations were performed using the rational method.

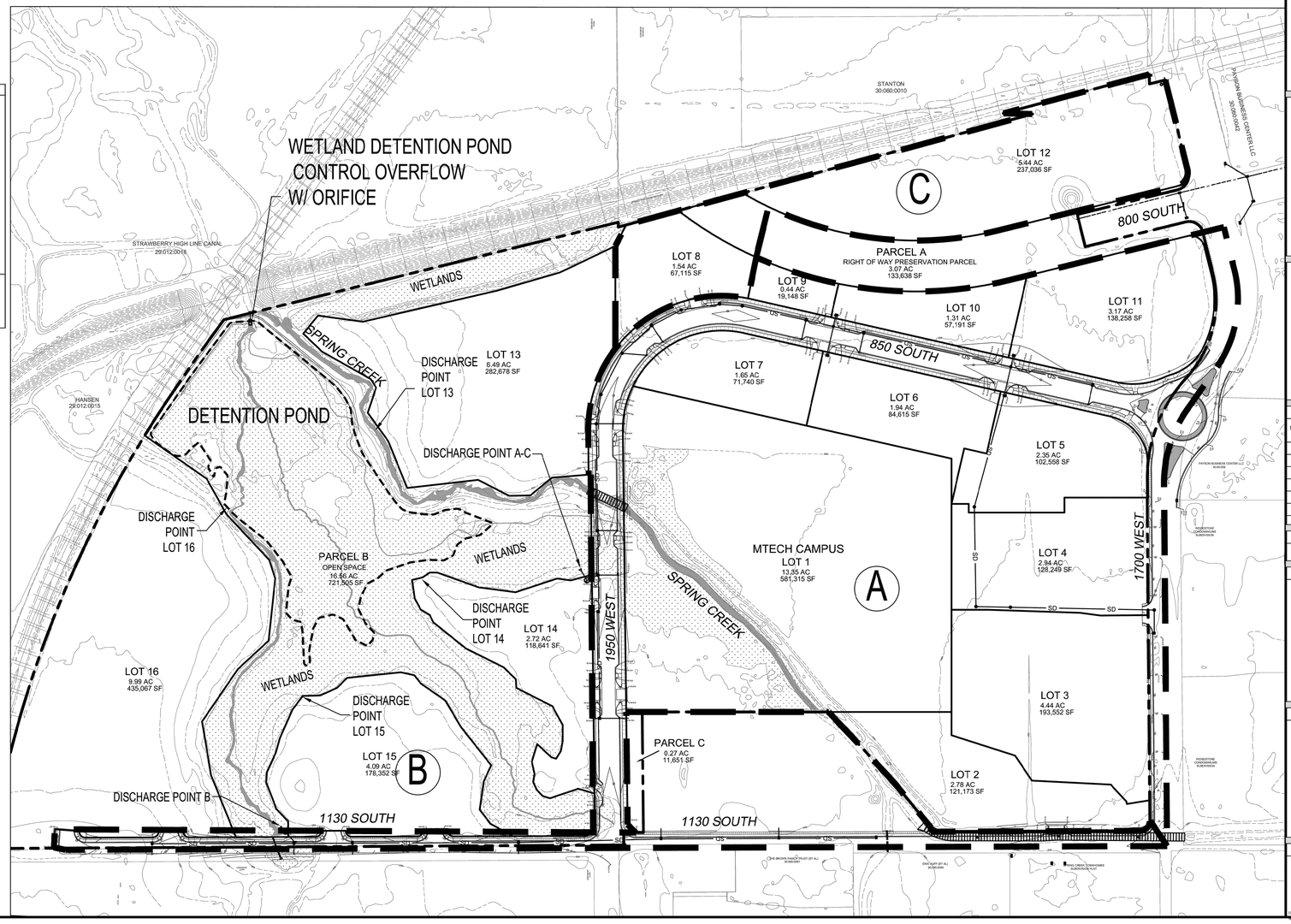
Hydrologic Calculations CA CALCULATION			
	C	Area (ft^2)	C * A
Overall			
Lot 1 - Mtech Campus	0.20	581315	116263
Lot 2 - Multifamily	0.20	121173	24235
Lot 3 - Multifamily	0.20	193552	38710
Lot 4 - Multifamily	0.20	128249	25650
Lot 5 - Mixed Use	0.20	102558	20512
Lot 6 - Mixed Use	0.20	84615	16923
Lot 7 - Mixed Use	0.20	71740	14348
Lot 8 - Mixed Use	0.20	67115	13423
Lot 9 - Commercial	0.20	19148	3830
Lot 10 - Commercial	0.20	57191	11438
Lot 11 - Commercial	0.20	138258	27652
Lot 12 - Mixed Use	0.20	237036	47407
Lot 13 - Mixed Use	0.20	282678	56536
Lot 14 - Mixed Use	0.20	118641	23728
Lot 15 - Residential	0.20	178352	35670
Lot 16 - Residential	0.20	435067	87013
Crowe Property - Multifamily	0.20	188837	37787
1130 South	0.20	97834	19567
850 South	0.20	122900	24580
1950 West	0.20	103139	20628
1700 West	0.20	63626	12725
Totals		3393024	563338
Contributing Acres:	77.89		
Peak Flow Eq Q=CiA			
Tc 20 min	1.78	in/hr	
$Q_{calculated}$	0.3 cfs/acre	23.0 cfs	
Q_{allow}	0.2 cfs/acre	15.6 cfs	

DETENTION POND RATING TABLE

POND RATING TABLE - WETLAND DETENTION				
ELEVATION	AREA sf	Incr Vol cf	VOLUME cf	af
4618	25423	0	0	0.00
4620	106365	131788	131788	3.03
4622	274340	380705	512493	11.77
High Water Mark Elevation		4619.97	121778	100-Y Vol

RETENTION POND RATING TABLE

POND RATING TABLE - WETLAND RETENTION				
ELEVATION	AREA sf	Incr Vol cf	VOLUME cf	af
4618	25423	0	0	0.00
4620	106365	131788	131788	3.03
4622	274340	380705	512493	11.77
High Water Mark Elevation		4620.56	345553	100-Y Vol



DEVELOPMENT

RED BRIDGE STATION

DEVELOPER

PAYSON SOUTH MEADOWS PARTNERS, LLC
505 S. OREM BLVD
OREM, UT 84058
(801) 369-2638

N

0 60 120 240 360
SCALE: 1"= 120'

berg CIVIL ENGINEERING
11038 N Highland Blvd Suite 400
Highland Ut, 84003
office (801) 492-1277
cell (801) 616-1677

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NO.	DATE	DESCRIPTION	THIS DOCUMENT IS INCOMPLETE AND IS RELEASED TEMPORARILY FOR INTERIM REVIEW ONLY. IT IS NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. KENNETH R. BERG P.E. SERIAL NO. 343600 DATE: 12/28/2020
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ACTION	DATE
OVERLAY	12/28/2020

PROJECT

RED BRIDGE STATION

DESCRIPTION

PID #2
IMPROVEMENT DRAWINGS

SHEET NAME	SHEET / EXHIBIT
STORM SUB AREAS	*EXA*

FIGURE 5.5.1 - ROADS

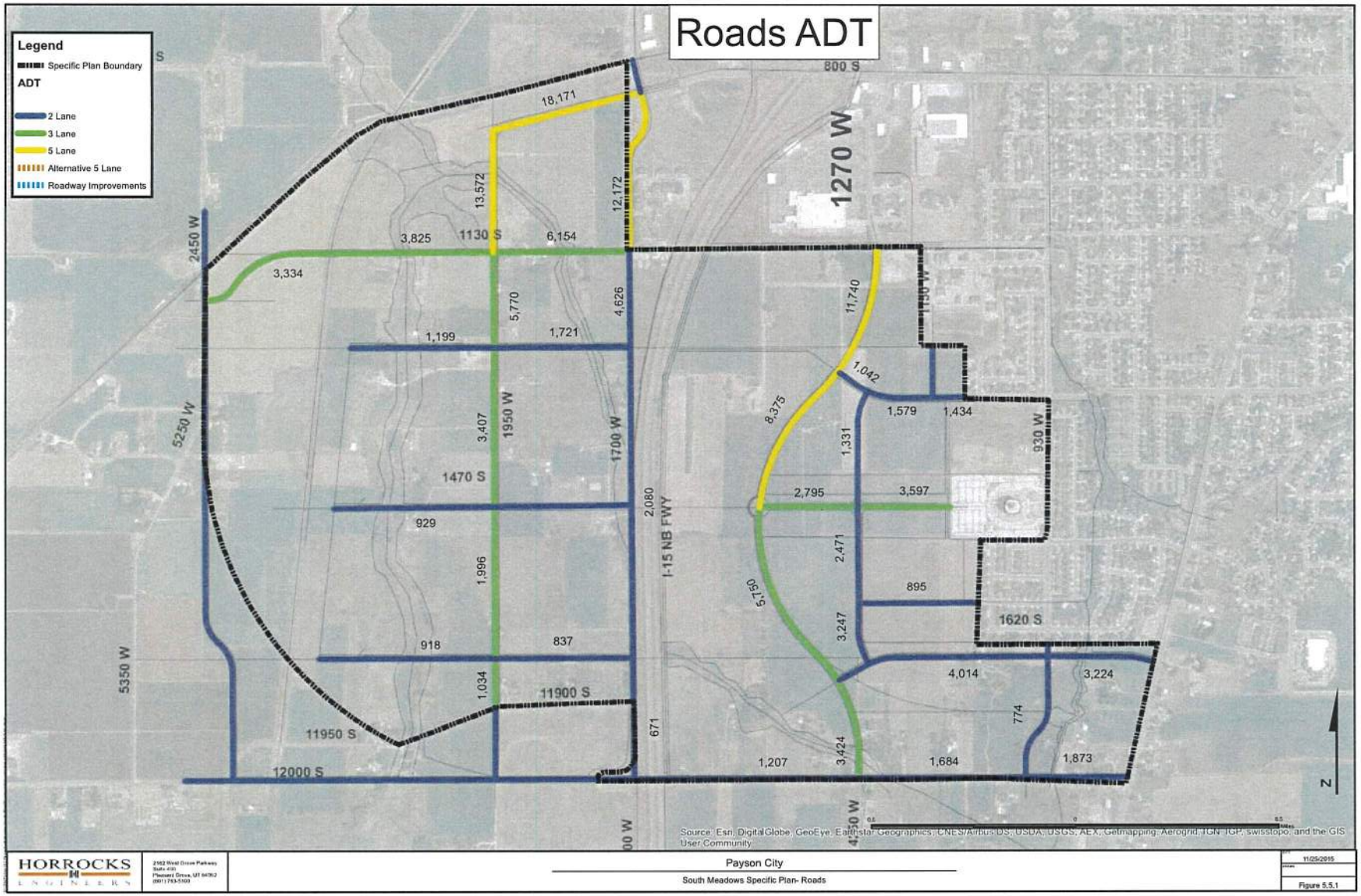


FIGURE 5.5.2 - ROADS

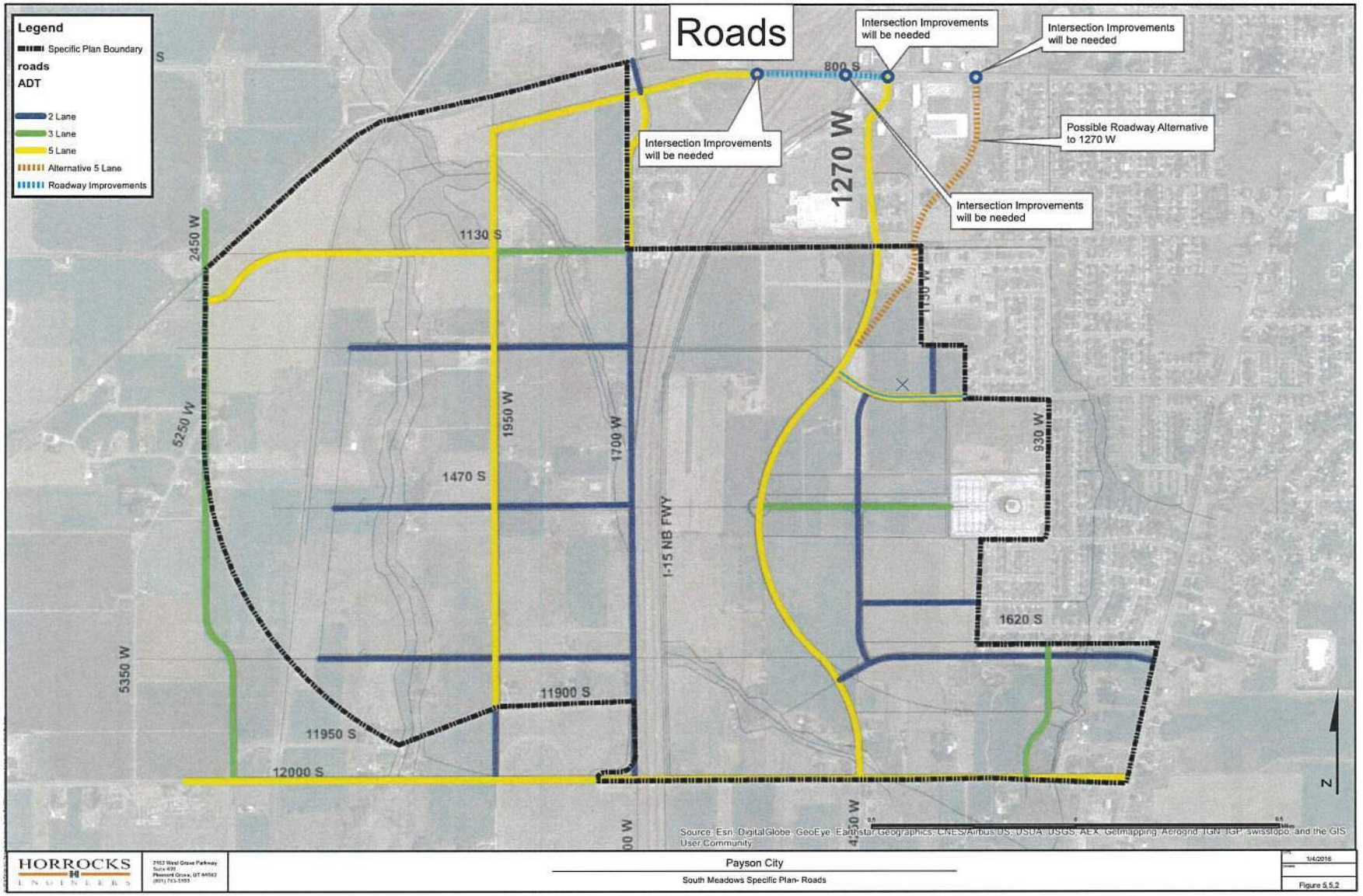


FIGURE 5.5.4A RED BRIDGE STATION AMENDMENT #2 - PID ROADWAY SYSTEM IMPROVEMENTS

RED BRIDGE STATION PID SUPER PAD IMPROVEMENT DRAWINGS	C1.1
RED BRIDGE STATION PID SUPER PAD IMPROVEMENT DRAWINGS	C1.2
RED BRIDGE STATION PID SUPER PAD IMPROVEMENT DRAWINGS	C1.3
RED BRIDGE STATION PID SUPER PAD IMPROVEMENT DRAWINGS	C1.4
RED BRIDGE STATION PID SUPER PAD IMPROVEMENT DRAWINGS	C1.5
RED BRIDGE STATION REVISED TRAFFIC STUDY	

Blue Stakes of UTAH 811
Bluestakes.org

STANTON
30:060:0010

PAYSON BUSINESS CENTER LLC
30:060:0042

STRAWBERRY HIGH LINE CANAL
29:012:0018

HANSEN
29:012:0015

LOT 12
5.44 AC
237,036 SF

LOT 8
1.54 AC
67,115 SF

PARCEL A
RIGHT OF WAY PRESERVATION PARCEL
3.07 AC
133,638 SF

LOT 9
0.44 AC
19,148 SF

LOT 10
1.31 AC
57,191 SF

LOT 11
3.17 AC
138,258 SF

850 SOUTH

LOT 13
6.49 AC
282,678 SF

LOT 7
1.65 AC
71,740 SF

LOT 6
1.94 AC
84,615 SF

LOT 5
2.35 AC
102,558 SF

PAYSON BUSINESS CENTER LLC
30:60:058

LOT 4
2.94 AC
128,249 SF

RIDGESTONE CONDOMINIUMS SUBDIVISION

PARCEL B
OPEN SPACE
16.56 AC
721,505 SF

MTECH CAMPUS
LOT 1
13.35 AC
581,315 SF

LOT 14
2.72 AC
118,641 SF

1950 WEST

1700 WEST

LOT 16
9.99 AC
435,067 SF

LOT 3
4.44 AC
193,552 SF

PARCEL C
0.27 AC
11,651 SF

LOT 15
4.09 AC
178,352 SF

LOT 2
2.78 AC
121,173 SF

1130 SOUTH

THE BROWN FAMILY TRUST (ET AL)
30:060:0081

ERIK HUFF (ET AL)
30:060:0080

SPRING CREEK TOWNHOMES SUBDIVISION PLAT

DEVELOPMENT

RED BRIDGE STATION

DEVELOPER

PAYSON SOUTH MEADOWS PARTNERS, LLC
505 S. OREM BLVD
OREM, UT 84058
(801) 369-2638

N

0 60 120 240 360
SCALE: 1"= 120'

berg
CIVIL ENGINEERING
11038 N Highland Blvd Suite 400
Highland Ut, 84003
office (801) 492-1277
cell (801) 616-1677

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NO.	DATE	DESCRIPTION	
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5			01/03/2022
6			
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ACTION	DATE
CONSTRUCTION DRAWINGS	01/03/2022

PROJECT

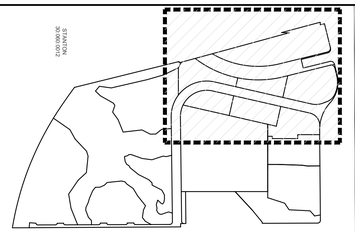
RED BRIDGE STATION

DESCRIPTION

PID
SUPER PAD IMPROVEMENT DRAWINGS

SHEET NAME	SHEET / EXHIBIT
OVERALL PLAT	*C1.1*

city drawings civil\2021\red bridge\civil preliminary superpad plat\fs.pdf
Dec 27, 2021 - 2:47:19pm



MAP KEY

STANTON
30:060:0010

LOT 12
5.44 AC
237,036 SF

PAYSON BUSINESS CENTER LLC
30:060:0042

EX 800 SOUTH

PARCEL A
RIGHT OF WAY PRESERVATION PARCEL
3.07 AC
133,638 SF

LOT 8
1.54 AC
67,115 SF

LOT 9
0.44 AC
19,148 SF

LOT 10
1.31 AC
57,191 SF

LOT 11
3.17 AC
138,258 SF

LOT 7
1.65 AC
71,740 SF

LOT 6
1.94 AC
84,615 SF

LOT 5
2.35 AC
102,558 SF

850 SOUTH

1950 WEST

1700 WEST

PAYSON BUSINESS CENTER LLC
30:60:058

EX NOTICE
DEPT OF
STRAWBERR
STRAWBERR
I
ENTR

KEY NOTES

1. 10' SIDEWALK (AS PER SHEET D0)
2. 5' SIDEWALK (AS PER SHEET D0)
3. 4' CYCLE TRACK & 2' STRIPED BUFFER (AS PER SHEET D0)
4. 2' HIGH BACK CURB (AS PER SHEET D0)
5. 6" RIBBON CURB (AS PER SHEET D0)
6. 2.5' MODIFIED CURB (MOUNTABLE) (AS PER SHEET D0)
7. 6" THICK CONCRETE ISLANDS / APRON (AS PER SHEET D0)

0 30 60 120 180
SCALE: 1"= 60'

DEVELOPMENT

RED BRIDGE STATION

DEVELOPER

PAYSON SOUTH MEADOWS PARTNERS, LLC
505 S. OREM BLVD
OREM, UT 84058
(801) 369-2638

CIVIL ENGINEERING
11038 N Highland Blvd Suite 400
Highland Ut, 84003
office (801) 492-1277
cell (801) 616-1677

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ACTION	DATE
CONSTRUCTION DRAWINGS	01/03/2022

PROJECT

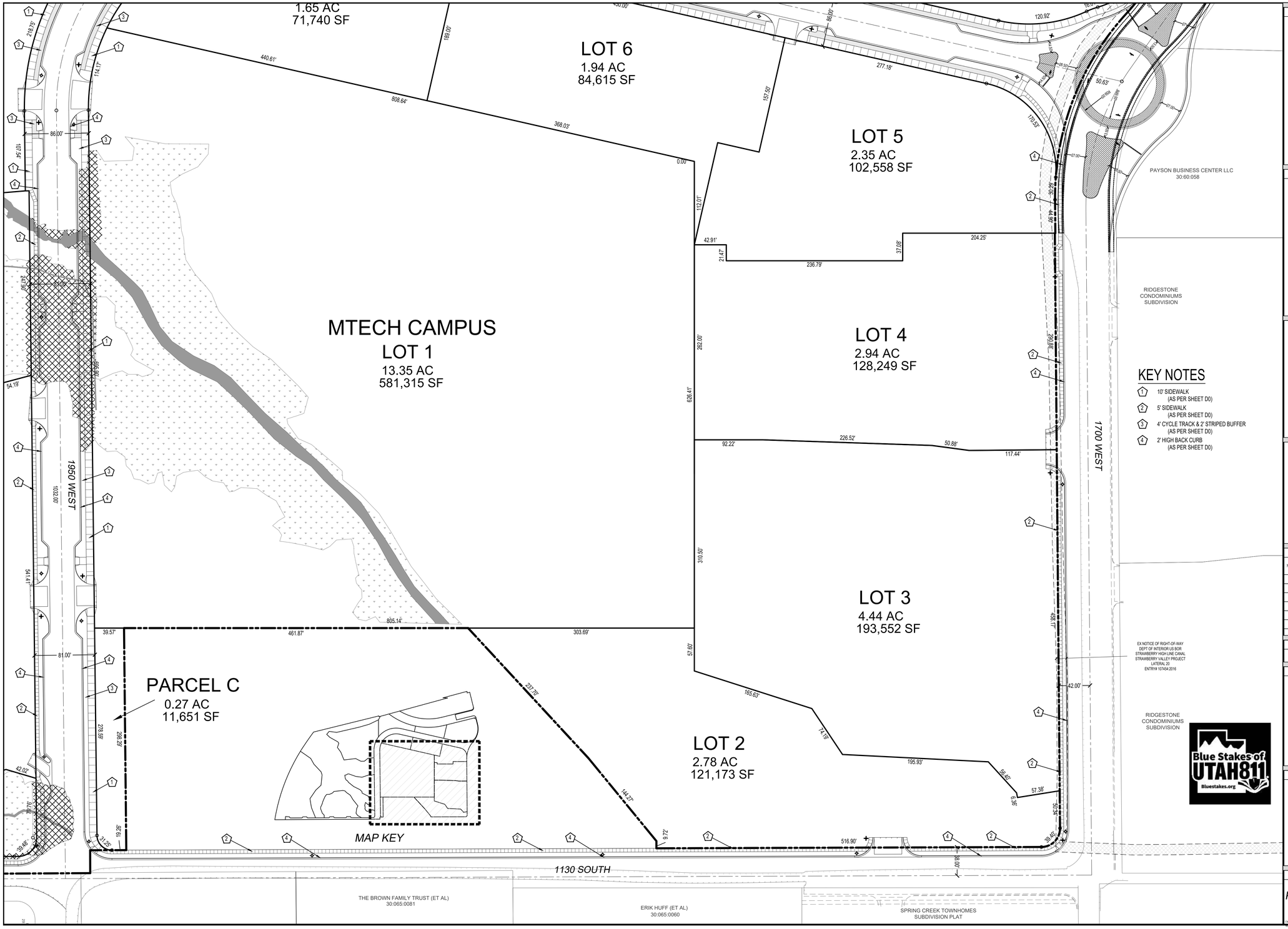
RED BRIDGE STATION

DESCRIPTION

PID
SUPER PAD IMPROVEMENT DRAWINGS

SHEET NAME	SHEET / EXHIBIT
PRELIMINARY PLAT	C1.2

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KEY NOTES

1. 10' SIDEWALK (AS PER SHEET D0)
2. 5' SIDEWALK (AS PER SHEET D0)
3. 4' CYCLE TRACK & 2' STRIPED BUFFER (AS PER SHEET D0)
4. 2' HIGH BACK CURB (AS PER SHEET D0)

0 30 60 120 180

SCALE: 1"= 60'

DEVELOPMENT

RED BRIDGE STATION

DEVELOPER

PAYSON SOUTH MEADOWS PARTNERS, LLC
505 S. OREM BLVD
OREM, UT 84058
(801) 369-2638

berg
CIVIL ENGINEERING
11038 N Highland Blvd Suite 400
Highland Ut, 84003
office (801) 492-1277
cell (801) 616-1677

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ACTION	DATE
CONSTRUCTION DRAWINGS	01/03/2022

PROJECT

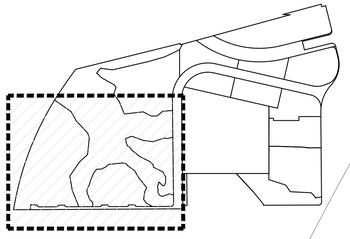
RED BRIDGE STATION

DESCRIPTION

PID
SUPER PAD IMPROVEMENT DRAWINGS

SHEET NAME	SHEET / EXHIBIT
PRELIMINARY PLAT	*C1.3*

HANSEN
29:012:0015



MAP KEY

KEY NOTES

1. 10' SIDEWALK (AS PER SHEET D0)
2. 5' SIDEWALK (AS PER SHEET D0)
3. 4' CYCLE TRACK & 2' STRIPED BUFFER (AS PER SHEET D0)
4. 2' HIGH BACK CURB (AS PER SHEET D0)

Blue Stakes of UTAH811 Bluestakes.org

PARCEL B
OPEN SPACE
16.56 AC
721,505 SF

LOT 14
2.72 AC
118,641 SF

LOT 16
9.99 AC
435,067 SF

LOT 15
4.09 AC
178,352 SF

1950 WEST

1130 SOUTH

DEVELOPMENT

RED BRIDGE STATION

DEVELOPER

PAYSON SOUTH MEADOWS PARTNERS, LLC
505 S. OREM BLVD
OREM, UT 84058
(801) 369-2638

N

0 30 60 120 180
SCALE: 1"= 60'

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11038 N Highland Blvd Suite 400
Highland Ut, 84003
office (801) 492-1277
cell (801) 616-1677

REVISIONS			SEAL
NO	DATE	DESCRIPTION	
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5			01/03/2022
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ACTION	DATE
CONSTRUCTION DRAWINGS	01/03/2022

PROJECT

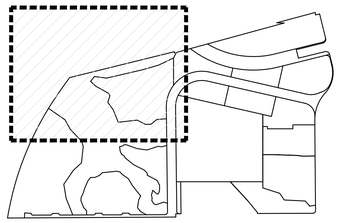
RED BRIDGE STATION

DESCRIPTION

PID
SUPER PAD IMPROVEMENT DRAWINGS

SHEET NAME	SHEET / EXHIBIT
PRELIMINARY PLAT	*C1.4*

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MAP KEY

KEY NOTES

1. 10' SIDEWALK (AS PER SHEET D0)
2. 5' SIDEWALK (AS PER SHEET D0)
3. 4' CYCLE TRACK & 2' STRIPED BUFFER (AS PER SHEET D0)
4. 2' HIGH BACK CURB (AS PER SHEET D0)

STRAWBERRY HIGH LINE CANAL
29:012:0018

HANSEN
29:012:0015

LOT 8
1.54 AC
67,115 SF

LOT 13
6.49 AC
282,678 SF

PARCEL B
OPEN SPACE
16.56 AC
721,505 SF

850 SOUTH

1950 WEST

Blue Stakes of UTAH811
Bluestakes.org

DEVELOPMENT

RED BRIDGE STATION

DEVELOPER

PAYSON SOUTH MEADOWS PARTNERS, LLC
505 S. OREM BLVD
OREM, UT 84058
(801) 369-2638

0 30 60 120 180
SCALE: 1"= 60'

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11038 N Highland Blvd Suite 400
Highland Ut, 84003
office (801) 492-1277
cell (801) 616-1677

REVISIONS			SEAL
NO.	DATE	DESCRIPTION	01/03/2022

ACTION	DATE
CONSTRUCTION DRAWINGS	01/03/2022

PROJECT

RED BRIDGE STATION

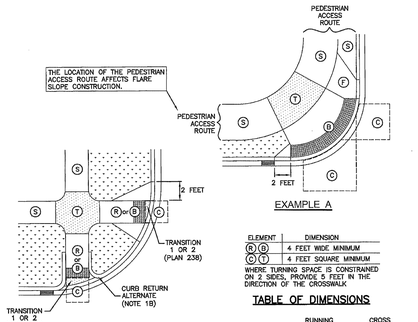
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PID
SUPER PAD IMPROVEMENT DRAWINGS

SHEET NAME	SHEET / EXHIBIT
PRELIMINARY PLAT	*C1.5*

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TURNING SPACE AT SIDEWALK LEVEL



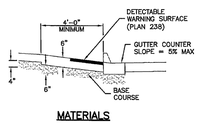
ELEMENT		DIMENSION
R	B	4 FEET WIDE MINIMUM
C	T	4 FEET SQUARE MINIMUM

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 WITHOUT VEHICULAR YIELD OR STOP CONTROL.



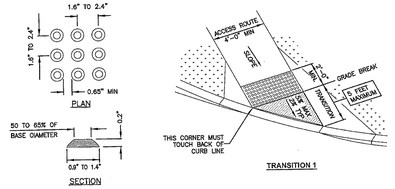
MATERIALS

SLOPE TABLE

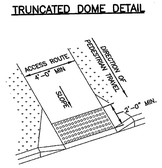
Plan
235
Sheet 1 of 4

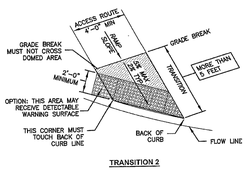
Corner curb cut assembly

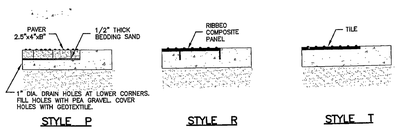
September 2011 63



TRUNCATED DOME DETAIL







Plan
238
Sheet 1 of 4

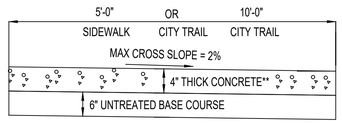
Detectable warning surface

July 2011 79

Blue Stakes of UTAH811 Bluestakes.org

SIDEWALK DETAIL

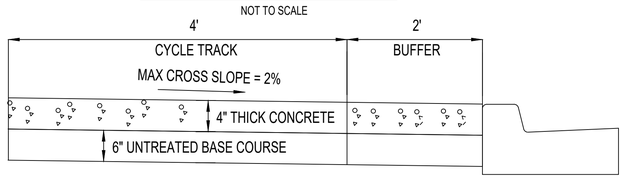
NOT TO SCALE



6" UNTREATED GRANULAR BASE
CURB & SIDEWALK
EXTENDING 6" LATERALLY IN FRONT AND BACK
COMPACT TO 95% DENSITY ASTM D 1557-78

BUFFERED BIKE LANE

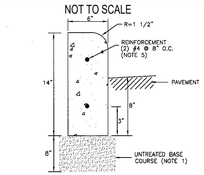
NOT TO SCALE



2' BUFFER TO BE STRIPED AS FOLLOWS: 4" wide solid white stripe on the inside line of the buffer (closest to the cycle track) and a 6" wide solid white stripe along the curb with 30 degree diagonal lines in the middle space at 20' intervals (4" wide solid white stripe).

6" RIBBON CURB FOR RAMPS / ISLANDS

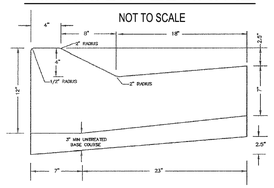
NOT TO SCALE



TYPE P

30" MODIFIED CURB

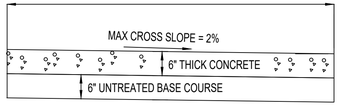
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ISLAND / APRON DETAIL

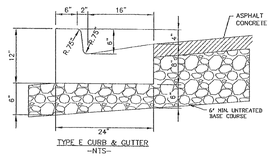
NOT TO SCALE

VARIES



24" HIGH BACK CURB

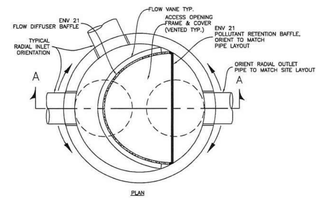
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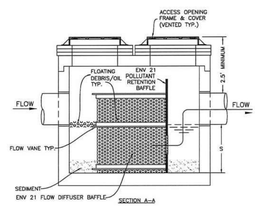


TYPE E CURB & GUTTER
-NTS-

ENVIRONMENT21 UNISCREEN WATER QUALITY TREATMENT SYSTEM

DATE: 04/25/2018
DWG. NO: Detail - UNISCREEN





TREATMENT NOTES:

1) CPS (CRITICAL PARTICLE SIZE) REPRESENTS AN ESTIMATE OF THE SMALLEST SEDIMENT PARTICLE THAT CAN BE REMOVED AT 80% EFFICIENCY.

2) STORMWATER FLOWING IN THE INLET PIPE CAN EXPERIENCE SEDIMENT STRATIFICATION THAT PROVIDES IMPROVED REMOVAL OF SEDIMENT.

3) STORMWATER FLOWING IN THE INLET PIPE CAN EXPERIENCE FLOATABLES STRATIFICATION THAT PROVIDES IMPROVED REMOVAL OF FLOATING POLLUTANTS (OILS ORGANIC DEBRIS).

UNISCREEN FLOW DIFFUSER AREA	
MODEL #	SCREEN AREA, S.F.
5SC	35
6SC	51
7SC	59
8SC	68
10SC	99
12SC	119

DESIGN FEATURES OF UNISCREEN STORMWATER TREATMENT CHAMBER

1) FLOW DIFFUSER OPEN AREA TYPICALLY 8-10 TIMES FLOW AREA OF OUTLET PIPE.
2) DESIGN STORM HEAD LOSS FOR FLOW DIFFUSER MODULE TYPICALLY LESS THAN 0.25 FT
3) INLET AND OUTLET PIPES CAN BE OFFSET TO MEET SITE CONDITIONS.
4) FLOW DIFFUSER OPENING DIMENSIONS SPECIFIED BY ENV 21.
5) FOR IMPROVED SCREENING, SPECIFY OPENING DIMENSION OF 1/8" (4500 MICRONS).
6) SITE-SPECIFIC PRODUCT DETAIL DRAWING PREPARED BY ENVIRONMENT 21 AVAILABLE.

UNISCREEN SIZING TABLE						
UNISCREEN MODEL #	D (ft.)	MAX. S (ft.)	IMPERVIOUS AREA (acres)	INLET PIPE (in.)	TREATMENT FLOW (cfs)	PEAK FLOW (cfs)
5SC	5	3.5±	0 - 4	12-18	0 - 3	7
6SC	6	3.5±	4 - 10	18-24	3 - 7	16
7SC	7	4.5±	10 - 12	24-30	7 - 10	25
8SC	8	4.5±	12 - 15	30-36	10 - 13	35
10SC	10	5.5±	15 - 20	36-42	13 - 18	48
12SC	12	5.5±	20 - 25	42-48	18 - 22	60

CALL: 1-800-809-2801

SITE SPECIFIC DATA REQUIREMENTS	
STRUCTURE ID:	
SITE WQFR (cfs)	
DESIGN STORM (yrs.)	
PEAK FLOW (cfs)	
RIM ELEVATION (ft.)	
INLET PIPE SIZE (in.)	
INLET PIPE ELEV. (ft.)	
OUTLET PIPE SIZE (in.)	
OUTLET PIPE ELEV. (ft.)	

NOTES:
1) RAINFALL INTENSITY USED FOR TREATMENT FLOW = 0.80-1.0 IN/HR
2) MAXIMUM OPERATING LOSS APPROXIMATELY 0.5 FT

MANUFACTURING NOTES:
1) DESIGN OF INTERNAL BAFFLE WALLS PROVIDED TO LICENSED MANUFACTURER BY ENVIRONMENT 21, LLC.
2) LOCATION AND SIZE OF MANHOLE OPENINGS MAY BE ADJUSTED BY LICENSED MANUFACTURER.
3) G.C. TO GROUT INLET AND OUTLET PIPES.

GENERAL NOTES:
MANHOLE DESIGN SPECIFICATIONS CONFORM TO LATEST A.S.T.M. C478 SPEC. FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS.
DESIGN LOADING: AASHTO HS20-44

PROPRIETARY INFORMATION: PATENTS PENDING - ALL RIGHTS TO ENVIRONMENT 21, LLC.

environment 21 Global Stormwater Technology

PROJECT:
DRAWN BY:
DATE:
CHK'D BY:
SCALE:

DEVELOPMENT

RED BRIDGE STATION

DEVELOPER

PAYSON SOUTH MEADOWS PARTNERS, LLC
505 S. OREM BLVD
OREM, UT 84058
(801) 369-2638

berg
CIVIL ENGINEERING
11038 N. Highland Blvd Suite 400
Highland Ut, 84003
office (801) 492-1277
cell (801) 616-1677

REVISIONS			SEAL
NO.	DATE	DESCRIPTION	
1			
2			
3			
4			
5			01/03/2022
6			
7			

ACTION	DATE
CONSTRUCTION DRAWINGS	01/03/2022

PROJECT

RED BRIDGE STATION

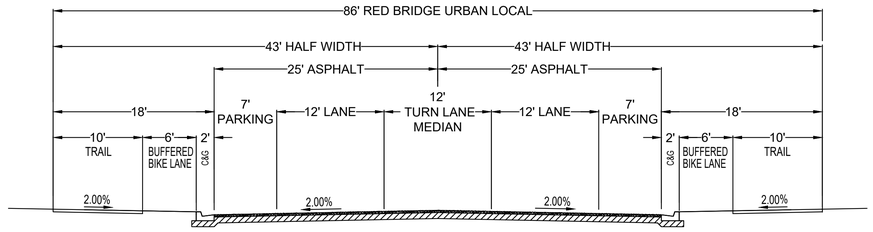
DESCRIPTION

PID
SUPER PAD IMPROVEMENT DRAWINGS

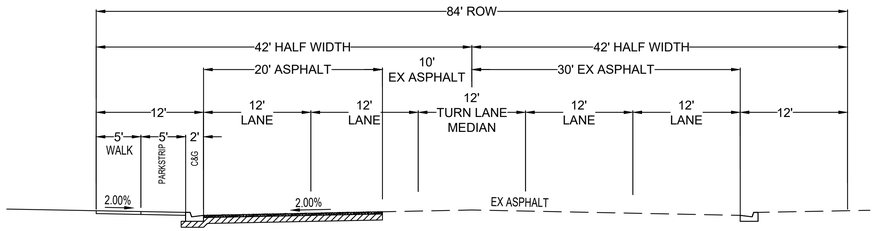
SHEET NAME	SHEET / EXHIBIT
DETAILS	*D0*

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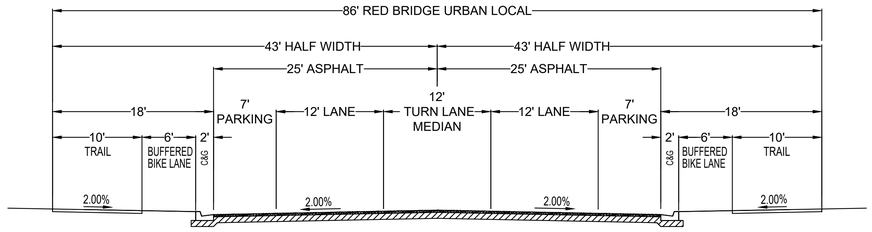
850 SOUTH
[1700 W TO 1950 W]



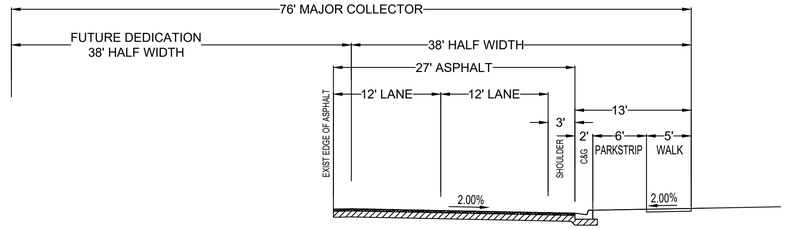
1700 WEST
[850 S TO 1130 S]



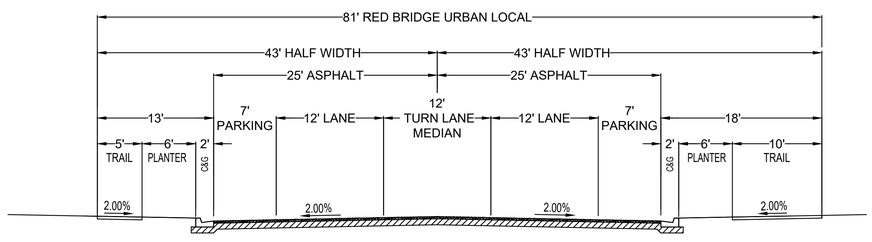
1950 WEST
STA 10+00 TO 13+60



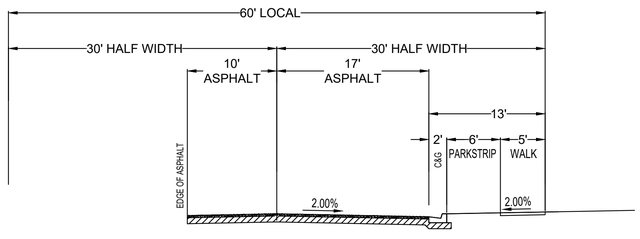
1130 SOUTH
[1700 W TO 1950 W]



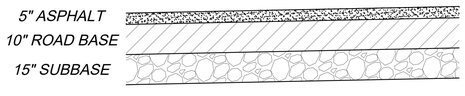
1950 WEST
STA 13+60 TO 22+84



1130 SOUTH
[1950 W TO TRACKS]



PAVEMENT SECTION



Blue Stakes of UTAH811 Bluestakes.org

I:\my drawings\red2022\red bridge\pid preliminary super\pad plat\b.mxd

DEVELOPMENT

RED BRIDGE STATION

DEVELOPER

PAYSON SOUTH MEADOWS PARTNERS, LLC
505 S. OREM BLVD
OREM, UT 84058
(801) 369-2638

berg
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REVISIONS			SEAL
NO.	DATE	DESCRIPTION	
1			
2			
3			
4			
5			01/03/2022
6			
7			

ACTION	DATE
CONSTRUCTION DRAWINGS	01/03/2022

PROJECT

RED BRIDGE STATION

DESCRIPTION

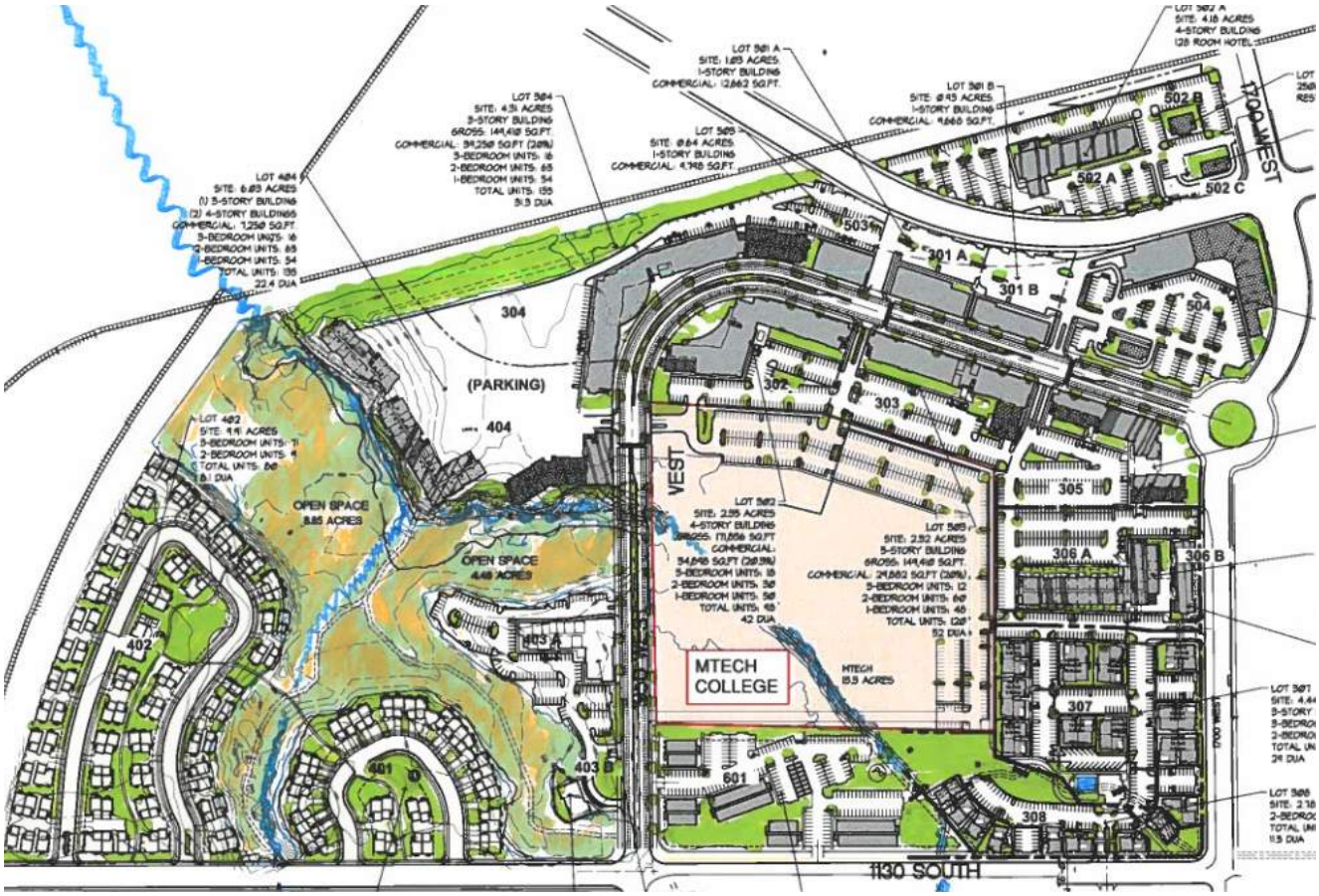
PID
SUPER PAD IMPROVEMENT DRAWINGS

SHEET NAME	SHEET / EXHIBIT
DETAILS	D1

WALL CONSULTANT GROUP

LICENSED PROFESSIONAL ENGINEER
8905056
JEREMY E
SEARLE
11/25/2021
STATE OF UTAH

Payson – Red Bridge Traffic Impact Study



Prepared by: WCG

Date: November 24, 2021

Executive Summary

This study addresses the traffic impacts associated with the proposed Red Bridge development (Project) located in Payson, Utah. The Project is generally located west of 1700 West, north of 11200 South, and bounded by the Tintic and Sharp railroad lines on the north and west sides.

The Project proposes a total of 241,698 square feet of retail, 992 apartment units, 119 townhome or twin home units, a 128 room hotel, a 2,500 square foot restaurant, a 2,500 square foot fast food restaurant with a drive thru, a 4,000 square foot reception center, and the MTECH college campus (maximum capacity of 1,500 students).

The level of service (LOS) for both morning and evening peak hours was determined for each study intersection under every scenario. The results of the analysis are summarized in ***Table ES-1*** for the AM peak hour, and ***Table ES-2*** for the PM peak hour.

Table ES-1: Level of Service Summary – AM Peak Hour

Intersection	Level of Service (sec/vehicle)[1] Worst Movement / Overall							
	Background 2021 Conditions	**Opening Day Plus Project**	**Opening Day Plus Project - Mitigated**	**Future 2026 Background**	**Future 2026 Plus Project**	**Future 2050 Background**	**Future 2050 Plus Project**	**Future 2050 Plus Project - Mitigated**
800 South / 1700 West	A (4.0) Overall	A (8.8) Overall	A (7.7) Overall	A (4.1) Overall	A (7.8) Overall	C (31.7) Overall	E (61.1) Overall	D (47.0) Overall
North Ridgestone Access / 1700 West	A (6.7) WB LT	B (11.8) WB LT	A (6.5) WB LT	A (5.5) WB LT	B (11.3) WB LT	B (11.8) WB LT	F (> 50) WB LT	C (16.4) WB LT
South Ridgestone Access / 1700 West	A (6.5) WB LT	A (8.6) EB LT	A (8.3) EB LT	A (6.8) WB LT	A (9.0) EB LT	B (10.8) WB LT	F (> 50) EB LT	B (13.8) EB LT
1130 South / 1700 West	A (4.9) EB LT	A (7.3) EB LT	A (7.0) EB LT	A (5.3) EB LT	A (7.2) EB LT	B (13.2) WB Thru	C (24.3) EB LT	A (8.0) Overall
850 South / 1700 West	-	A (4.7) Overall	A (4.0) Overall	-	A (3.9) Overall	-	B (13.2) Overall	A (5.6) Overall
1950 West / 1130 South	-	A (4.9) SB LT	A (5.1) SB LT	-	A (4.8) SB LT	-	A (5.5) SB LT	A (5.3) SB LT

Table ES-2: Level of Service Summary – PM Peak Hour								
Intersection	Level of Service (sec/vehicle)[1] Worst Movement / Overall							
	Background 2021 Conditions	**Opening Day Plus Project**	**Opening Day Plus Project - Mitigated**	**Future 2026 Background**	**Future 2026 Plus Project**	**Future 2050 Background**	**Future 2050 Plus Project**	**Future 2050 Plus Project - Mitigated**
800 South / 1700 West	A (6.4) Overall	F (> 50) Overall	B (14.3) Overall	A (7.2) Overall	B (15.3) Overall	D (53.6) Overall	E (64.0) Overall	D (52.1) Overall
North Ridgestone Access / 1700 West	A (3.6) WB RT	F (> 50) WB RR	A (4.6) WB RT	A (7.6) WB LT	B (13.1) WB LT	C (22.7) WB LT	E (36.6) WB LT	D (31.5) WB LT
South Ridgestone Access / 1700 West	A (8.3) WB LT	F (> 50) EB LT	C (16.9) EB LT	A (7.0) WB LT	C (20.8) EB LT	C (18.7) WB LT	F (> 50) EB LT	D (31.1) EB LT
1130 South / 1700 West	A (6.2) EB Thru	F (> 50) EB LT	B (13.8) EB LT	A (8.1) EB Thru	B (14.7) EB LT	C (17.8) EB LT	F (> 50) EB LT	B (10.2) Overall
850 South / 1700 West	-	E (40.1) Overall	A (9.0) Overall	-	A (9.7) Overall	-	C (16.1) Overall	B (14.6) Overall
1950 West / 1130 South	-	A (5.7) SB LT	A (6.0) SB LT	-	A (6.0) SB LT	-	A (7.4) SB LT	A (7.1) SB LT

Findings and Recommendations

WCG makes the following conclusions and recommendations:

- The existing study intersections currently operate at acceptable levels of service with minimal queuing.
- The Project will include a total of 241,698 square feet of retail, 992 apartment units, 119 townhome or twin home units, a 128 room hotel, a 2,500 square foot restaurant, a 2,500 square foot fast food restaurant with a drive thru, a 4,000 square foot reception center, and the MTECH college campus (maximum capacity of 1,500 students).
- The project is anticipated to add approximately 15,940 daily trips, 807 AM peak hour trips, and 1,345 PM peak hour trips.
- It is anticipated that the following improvements will be completed with the addition of the project:

  - A dual lane roundabout at 850 South / 1700 West
  - Frontage improvements along 1700 West, allowing for a 5-lane cross section
  - Frontage improvements along 1130 South allowing for a separate eastbound right-turn pocket at the 1130 South / 1700 West intersection
  - Frontage improvements along American Way allowing the southbound turn pockets at the 800 South / 1700 West intersection to be as long as possible before crossing the railroad tracks.

- With project traffic added, many of the study intersections are anticipated to operate at failing levels of service during the PM peak hour. Therefore, the following mitigation measures are recommended:
  - Signalize the 800 South / 1700 West intersection when signal warrants are met.
  - Construct dual left-turn lanes in the westbound direction.
  - Protected only left-turn phasing is recommended for the westbound left-turn movement, along with a right-turn overlap in the northbound direction.
  - Provide permitted protected left-turn phasing (flashing yellow arrow) for the southbound left-turn movement.
    - With these mitigation measures in place, all study intersections operate at acceptable levels of service during the AM and PM peak hours in the 2021 plus project scenario.
- The 2026 background conditions analysis showed that all study intersections are anticipated to operate at acceptable levels of service in 2026. The 800 South extension is not anticipated to be completed by 2026.
- With project traffic added in 2026 and all the previous mitigation measures implemented, all study intersections are anticipated to operate at acceptable levels of service during the AM and PM peak hours.
- It is assumed that by 2050, the extension of 800 South to 5600 West (SR-141 is completed. This project is expected to widen 800 South to a five-lane cross section. It is also assumed that the westbound left-turn movement is widened to accommodate dual left-turn lanes.
- The 2050 background scenario shows that all study intersections are anticipated to operate at acceptable levels of service, and no associated mitigation measures are recommended.
- With project traffic added, many of the study intersections are anticipated to fail in 2050. Therefore, the following mitigation measures are recommended:
  - Construct dual southbound left-turn lanes at the 800 South / 1700 West intersection.
  - Reconfigure the northbound thru lane at the 800 South / 1700 West intersection to be a shared thru / right-turn lane.
    - This should be done when queues start to extend back to the

roundabout.
    - Signalize the 1130 South / 1700 West intersection when warrants are met.
- With these mitigation measures in place, all study intersections are anticipated to operate at acceptable levels of service during the peak hours in 2050 with project traffic added.
- Due to future queue lengths from the signal, it is recommended that the planned roundabout be located a minimum of 450 – 500 feet south of the 800 South / 1700 West intersection.

Summary of Findings and Recommendations

Project Conditions Summary

- The Project will include a total of 241,698 square feet of retail, 992 apartment units, 119 townhome or twin home units, a 128 room hotel, a 2,500 square foot restaurant, a 2,500 square foot fast food restaurant with a drive thru, a 4,000 square foot reception center, and the MTECH college campus (maximum capacity of 1,500 students).
- The project is anticipated to add approximately 15,940 daily trips, 807 AM peak hour trips, and 1,345 PM peak hour trips.

2021	Background	With Project
Assumptions	Existing roadway configuration	
Findings	• All intersections operate at acceptable levels of service during both peak hours	• Mitigation measures are recommended
Mitigations	• None required	• Signalize the 800 South / 1700 West intersection when signal warrants are met. • Construct dual left-turn lanes in the westbound direction. • Protected only left-turn phasing is recommended for the westbound left-turn movement, along with a right-turn overlap in the northbound direction. • Provide permitted protected left-turn phasing (flashing yellow arrow) for the southbound left-turn movement.

2026	Background	With Project
Assumptions	The 800 South extension is <u>not</u> completed by 2026.	
Findings	• All intersections operate at acceptable levels of service during both peak hours	• All intersections operate at acceptable levels of service during both peak hours
Mitigations	• None required	• None required

2050	Background	With Project
Assumptions	The 800 South extension is completed, and 800 South is widened to a five lane cross section. It is also assumed that the westbound left-turn at the 800 South / 1700 West intersection is widened to accommodate dual left-turn lanes.	

Findings	• All intersections operate at acceptable levels of service during both peak hours	• Mitigation measures are recommended
Mitigations	• None required	• Construct dual southbound left-turn lanes at the 800 South / 1700 West intersection. • Reconfigure the northbound thru lane at the 800 South / 1700 West intersection to be a shared thru / right-turn lane. This should be done when queues start to extend back to the roundabout. • Signalize the 1130 South / 1700 West intersection when warrants are met