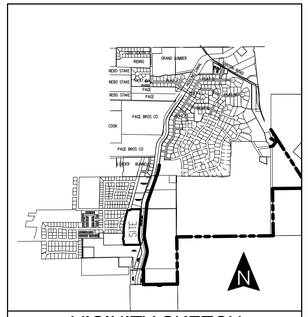
BOR Drawing Number:

27-418-60041-MF-1

KEN R. BERG, P.E.
DRAWN

JEREMY FOWLER, P.E.
ACCEPTED

418 (PROVO, UT) 2023-11-08



VICINITY SKETCH

1" = 1000'

CONSTRUCTION NOTES

ALL CONSTRUCTION TO CONFORM TO PAYSON CITY OR APWA STADARD DETAILS

ABBREVIATION KEY

BOW	BACK OF SIDEWALK
CB	CATCH BASIN
EOA	EDGE OF ASPHALT
FL	FLOWLINE
FF	FINISHED FLOOR ELEVATION
HP	HIGH POINT
LP	LOW POINT
RIM	MANHOLE RIM OR CATCH BASIN GRATE
TBC	TOP BACK OF CURB

SHEET INDEX

CONTACT LIST

CIVIL ENGINEER
BERG CIVIL ENGINEERING (801) 492-1277

GEOTECHNICAL ENGINEER

DEVELOPMENT

PAYSON VIEW ESTATES PHASE 4

DEVELOPER

PATTERSON HOMES
www.phutah.com

11038 N. Highland Blvd Suite 100
Highland, UT 84003
(801) 642-0119

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

BERG CIVIL ENGINEERING
1018 N. Deer Crest Lane
Alpine Ut, 84004
office (801) 492-1277
cell (801) 616-1677

REVISIONS

NO.	DATE	DESCRIPTION
1		
2		
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SEAL

STATE OF UTAH
KENNETH R. BERG
343602
01/16/2024
PROFESSIONAL ENGINEER

ACTION	DATE
PRELIM	01/16/2024

PROJECT

PAYSON VIEW ESTATES PHASE 4

DESCRIPTION

PRELIMINARY PLANS

SHEET NAME	SHEET NUMBER
COVER	C0

DEVELOPMENT

PAYSON VIEW ESTATES PHASE 4

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11038 N. Highland Blvd Suite 100
Highland, UT 84003
(801) 642-0119

0 20 40 80 120
SCALE: 1"= 40'

berg
CIVIL ENGINEERING
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office (801) 492-1277
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5			SERIAL NO. 343602
6			DATE: 01/16/2024
7			

ACTION	DATE
PRELIM	01/16/2024

PROJECT

PAYSON VIEW ESTATES PHASE 4

DESCRIPTION

PRELIMINARY PLANS

SHEET NAME	SHEET NUMBER
LAYOUT	C1

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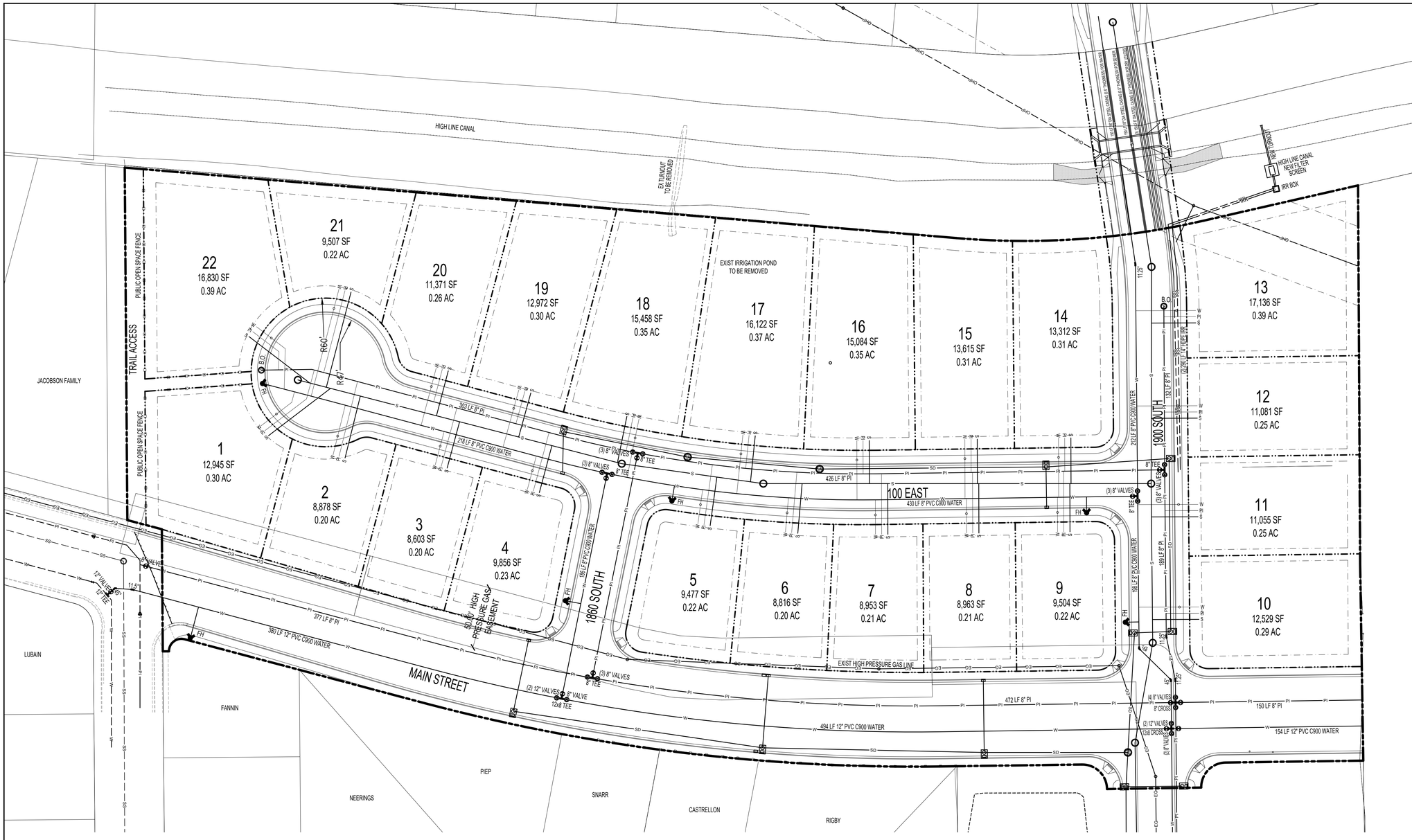

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PAYSON VIEW ESTATES PHASE 4

DESCRIPTION

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SHEET NAME	SHEET NUMBER
WATER	C2.1

CONSTRUCTION NOTES

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PAYSON VIEW ESTATES PHASE 4

DESCRIPTION

PRELIMINARY PLANS

SHEET NAME	SHEET NUMBER
SEWER	C2.2

CONSTRUCTION NOTES

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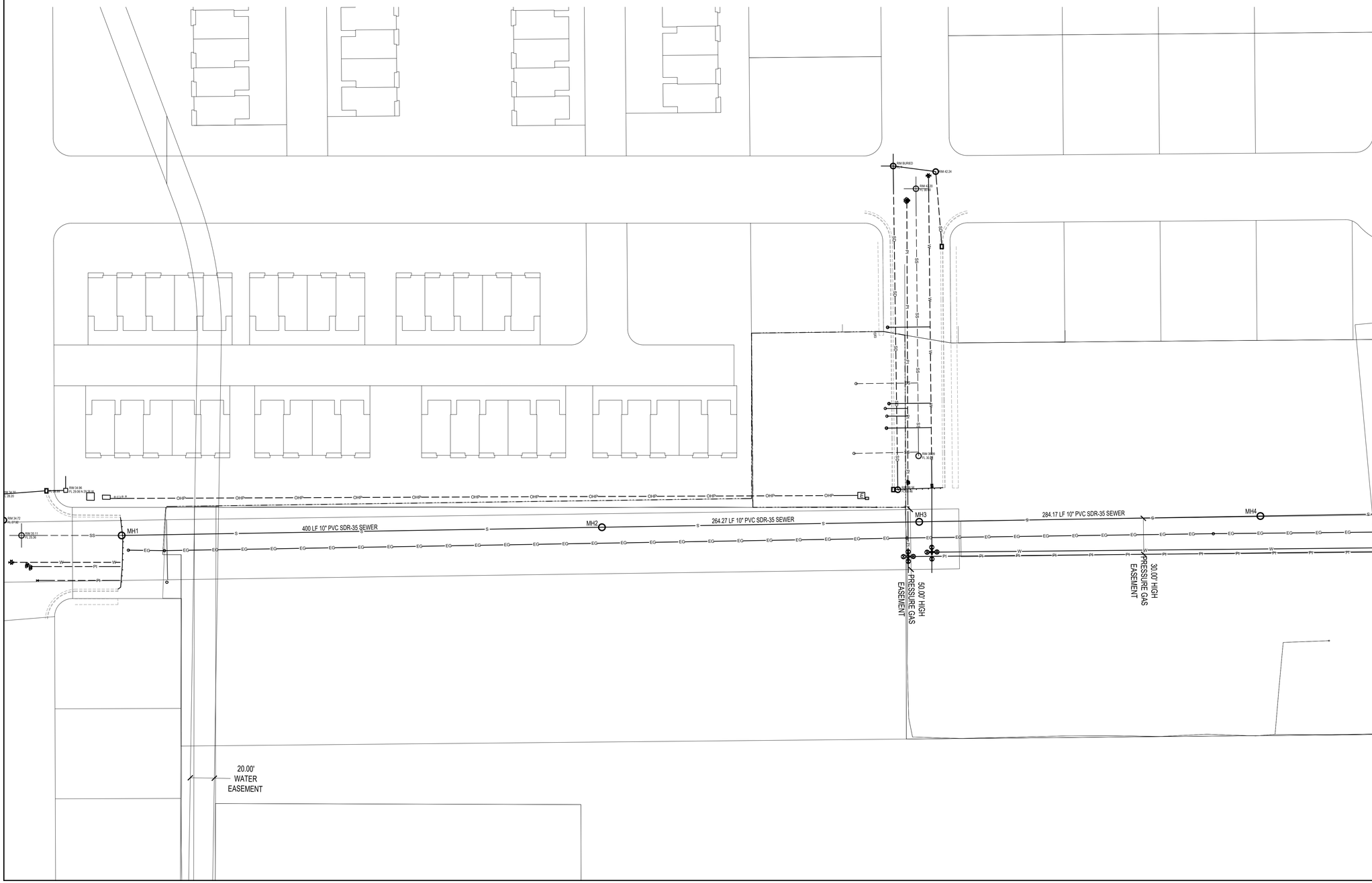

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DESCRIPTION

PRELIMINARY PLANS

SHEET NAME	SHEET NUMBER
SEWER	C2.3

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PAYSON VIEW ESTATES PHASE 4

DESCRIPTION

PRELIMINARY PLANS

SHEET NAME	SHEET NUMBER
POWER	C2.4

NO PARKING FIRE LANE

ALL CUL-DE-SAC'S ARE REQUIRED TO BE RED CURBED AND SIGNED "NO PARKING FIRE LANE"

CONSTRUCTION NOTES

NO TRAFFIC CALMING DEVICES TO BE INSTALLED

FIRE FLOW TO MEET CITY STANDARDS OF 2000 GPM

CODE ANALYSIS

ZONE =	R-1-9 & R-1-12
TYPE OF BUILDING =	SINGLE FAMILY
TYPE OF OCCUPANCY =	R-3
FIRE SPRINKLED =	NO
TYPE OF CONSTRUCTION =	V-B
BUILDING HEIGHT =	28

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PAYSON VIEW ESTATES PHASE 4

DESCRIPTION

PRELIMINARY PLANS

SHEET NAME	SHEET NUMBER
FIRE	C2.5

RETENTION POND NOTES

1. RETENTION POND DESIGNED WITH THE CAPACITY TO CONTROL THE 100 YEAR-24 HOUR STORM EVENT
2. POND SIDE SLOPES OF 5:1
3. 1 FOOT FREEBOARD PROVIDED.
4. NO DISCHARGE INTO HIGH LINE CANAL IS ALLOWED.

LOT DRAINAGE

ALL LOTS TO CONTROL RUNOFF ON EACH LOT. NO LOT TO LOT DRAINAGE IS ALLOWED.

ALL LOTS REQUIRED TO HAVE FULL LANDSCAPE PRIOR TO OCCUPANCY.

CONSTRUCTION NOTES

ALL CONSTRUCTION TO CONFORM TO PAYSON CITY OR APWA STADARD DETAILS

A STORM WATER MANAGEMENT PLAN WILL BE REQUIRED PRIOR TO CONSTRUCTION

DRAINAGE CALCULATIONS

REFER TO SHEET C3.2 FOR STORM DRAINAGE CALCULATIONS FOR TEMPORARY POND

SURVEY CONTROL

SITE BENCHMARK
EAST QUARTER CORNER OF SEC 20,T9S, R2E, SLB&M
B.M. ELEVATION = 4836.30

BASIS OF BEARING
N 89°35'10" E BETWEEN THE NORTHWEST AND NORTH QUARTER CORNERS OF SECTION 21,T9S, R2E, SLB&M

DEVELOPMENT

PAYSON VIEW ESTATES PHASE 4

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ACTION	DATE
PRELIM	01/16/2024

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PAYSON VIEW ESTATES PHASE 4

DESCRIPTION

PRELIMINARY PLANS

SHEET NAME	SHEET NUMBER
GRADE	C3.1

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B.M. ELEVATION = 4836.30

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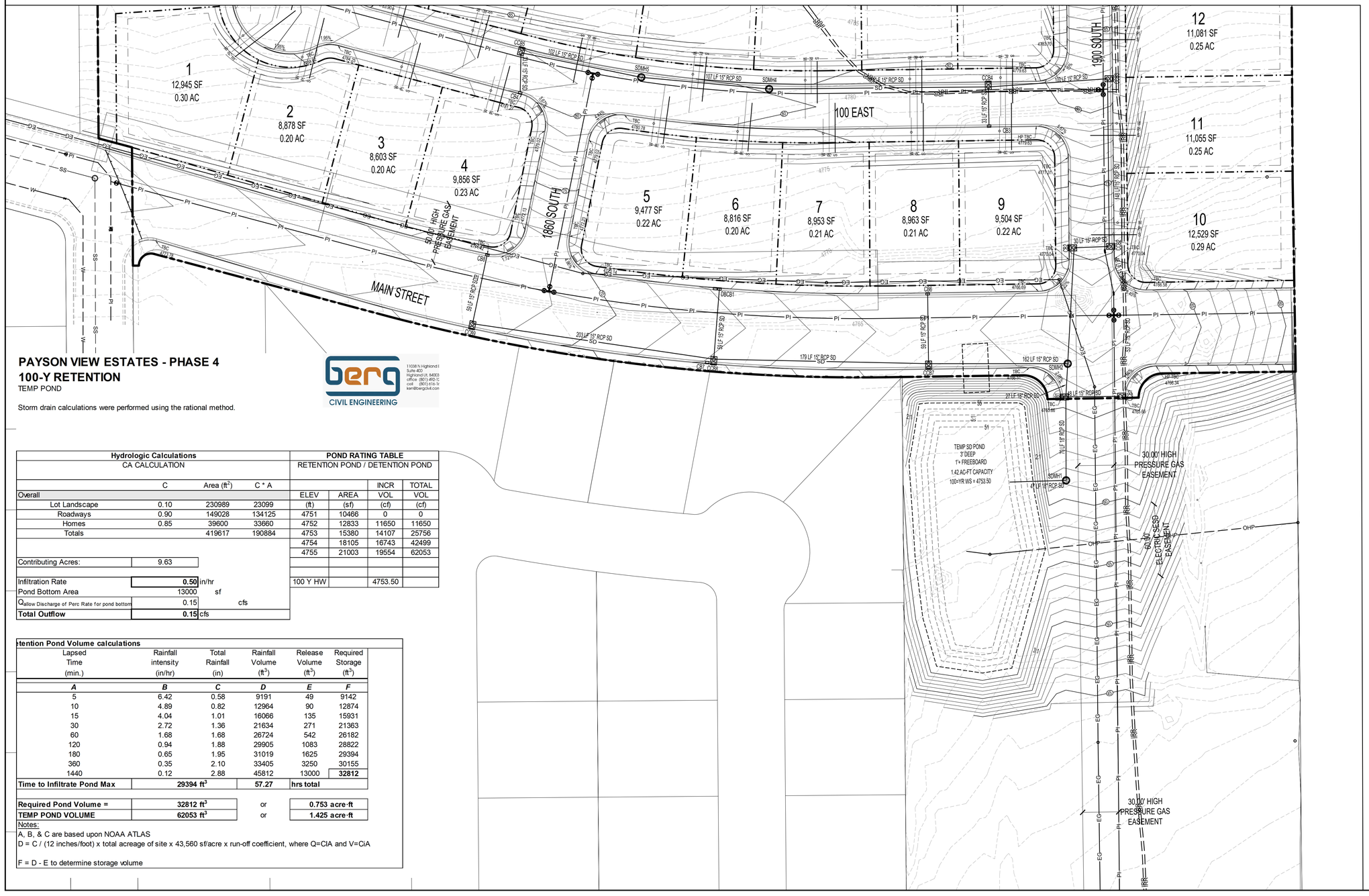

PAYSON VIEW ESTATES - PHASE 4
100-Y RETENTION
TEMP POND

Storm drain calculations were performed using the rational method.

Berg CIVIL ENGINEERING
11038 N Highland Blvd Suite 400
Highland UT, 84003
office (801) 492-1277
cell (801) 616-1677
kent@bergcivil.com

Hydrologic Calculations			
CA CALCULATION			
	C	Area (ft^2)	C * A
Overall			
Lot Landscape	0.10	230989	23099
Roadways	0.90	149028	134125
Homes	0.85	39600	33660
Totals		419617	190884
Contributing Acres:	9.63		
Infiltration Rate	**0.50**	in/hr	
Pond Bottom Area	13000	sf	
$Q_{allow\ Discharge\ of\ Perc\ Rate\ for\ pond\ bottom}$	0.15	cfs	
Total Outflow	**0.15**	cfs	

POND RATING TABLE			
RETENTION POND / DETENTION POND			
		INCR	TOTAL
ELEV	AREA	VOL	VOL
(ft)	(sf)	(cf)	(cf)
4751	10466	0	0
4752	12833	11650	11650
4753	15380	14107	25756
4754	18105	16743	42499
4755	21003	19554	62053
100 Y HW		4753.50	

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	9191	49	9142
10	4.89	0.82	12964	90	12874
15	4.04	1.01	16066	135	15931
30	2.72	1.36	21634	271	21363
60	1.68	1.68	26724	542	26182
120	0.94	1.88	29905	1083	28822
180	0.65	1.95	31019	1625	29394
360	0.35	2.10	33405	3250	30155
1440	0.12	2.88	45812	13000	**32812**
Time to Infiltrate Pond Max	**29394 ft^3**		**57.27**	**hrs total**	

Required Pond Volume =	**32812 ft^3**	or	**0.753 acre·ft**
TEMP POND VOLUME	**62053 ft^3**	or	**1.425 acre·ft**

Notes:
A, B, & C are based upon NOAA ATLAS
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

F = D - E to determine storage volume

DEVELOPMENT

PAYSON VIEW ESTATES PHASE 4

DEVELOPER

PATTERSON HOMES
www.phutah.com

11038 N. Highland Blvd Suite 100
Highland, UT 84003
(801) 642-0119

0 20 40 80 120
SCALE: 1"= 40'

Berg CIVIL ENGINEERING
1018 N. Deer Crest Lane
Alpine UT, 84004
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SEAL
STATE OF UTAH
KENT R. BERG
343602
PROFESSIONAL ENGINEER
01/16/2024

ACTION	DATE
PRELIM	01/16/2024

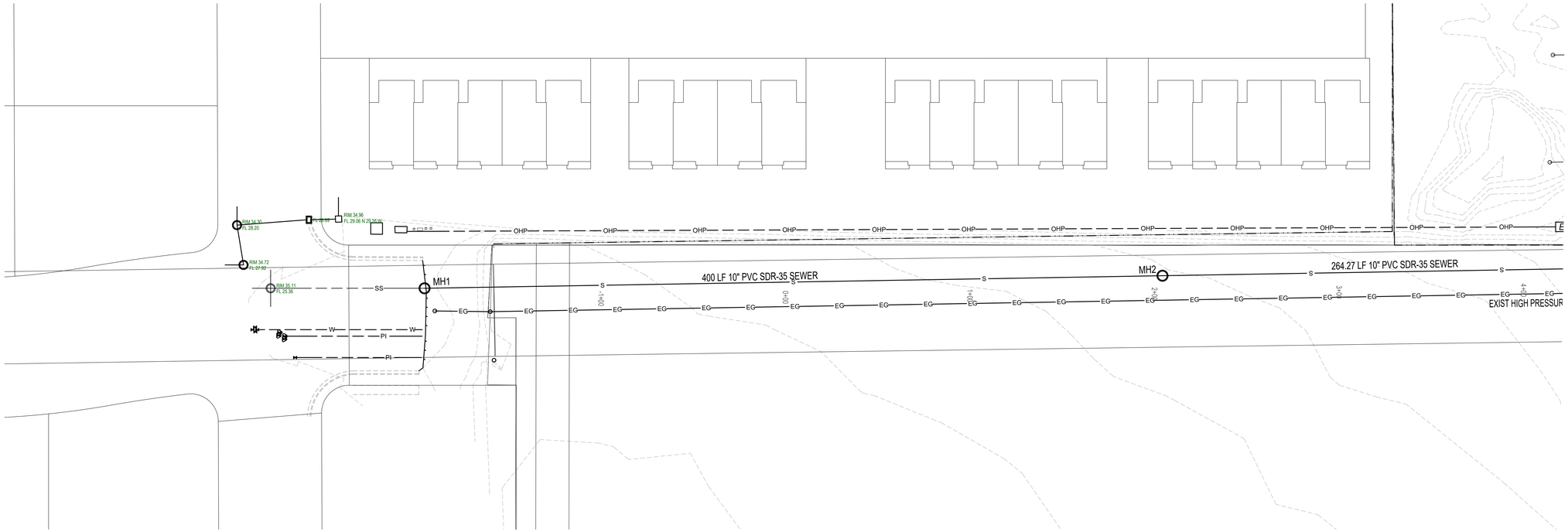
PROJECT

PAYSON VIEW ESTATES PHASE 4

DESCRIPTION

PRELIMINARY PLANS

SHEET NAME	SHEET NUMBER
GRADE	C3.2



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A STORM WATER MANAGEMENT PLAN WILL BE REQUIRED PRIOR TO CONSTRUCTION

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REFER TO SHEET C3.2 FOR STORM DRAINAGE CALCULATIONS FOR TEMPORARY POND

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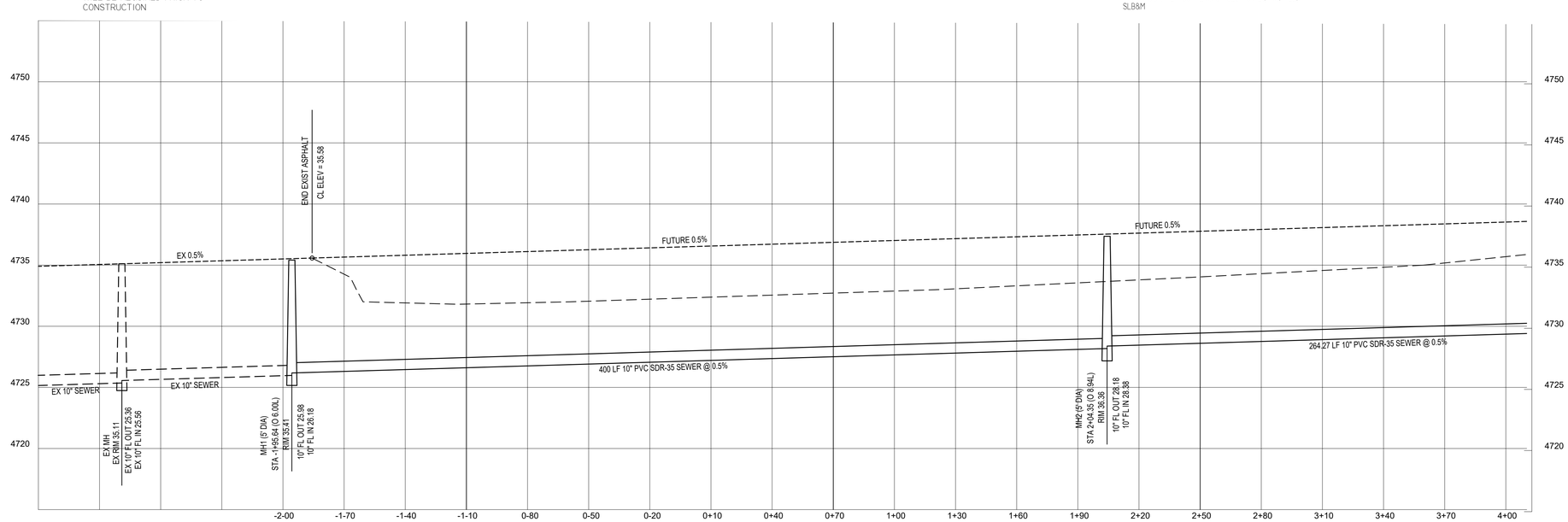

HORIZONTAL SCALE: 1" = 30'

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PAYSON VIEW ESTATES PHASE 4

DESCRIPTION

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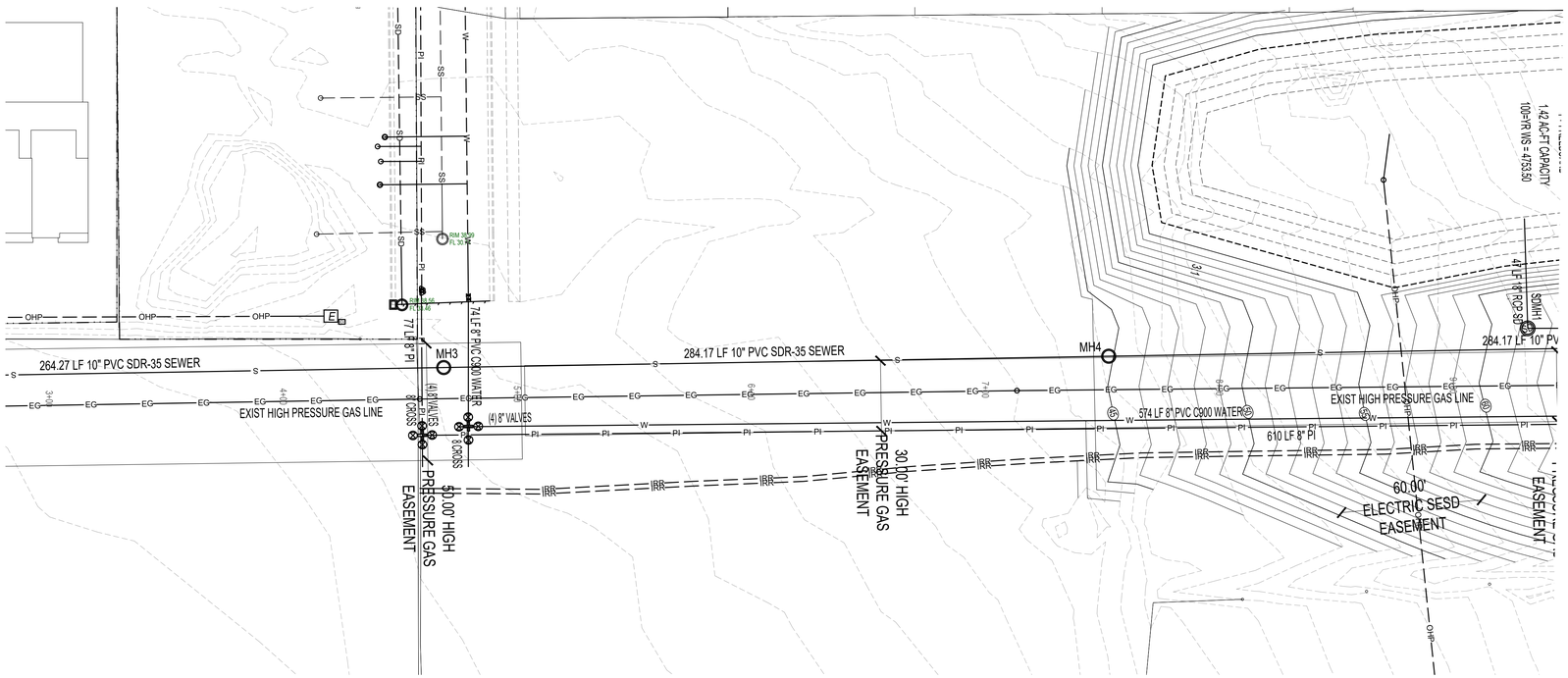
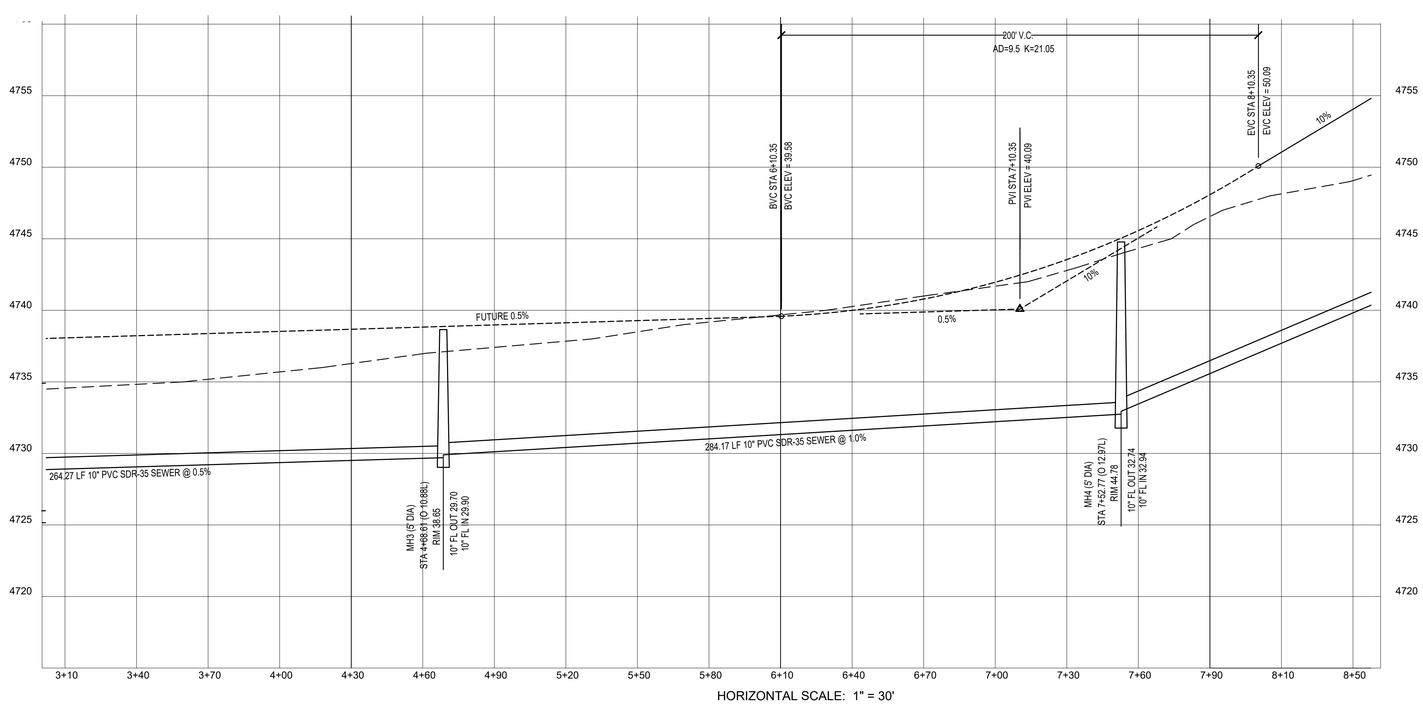
SHEET NAME	SHEET NUMBER
1900 S	C4.1





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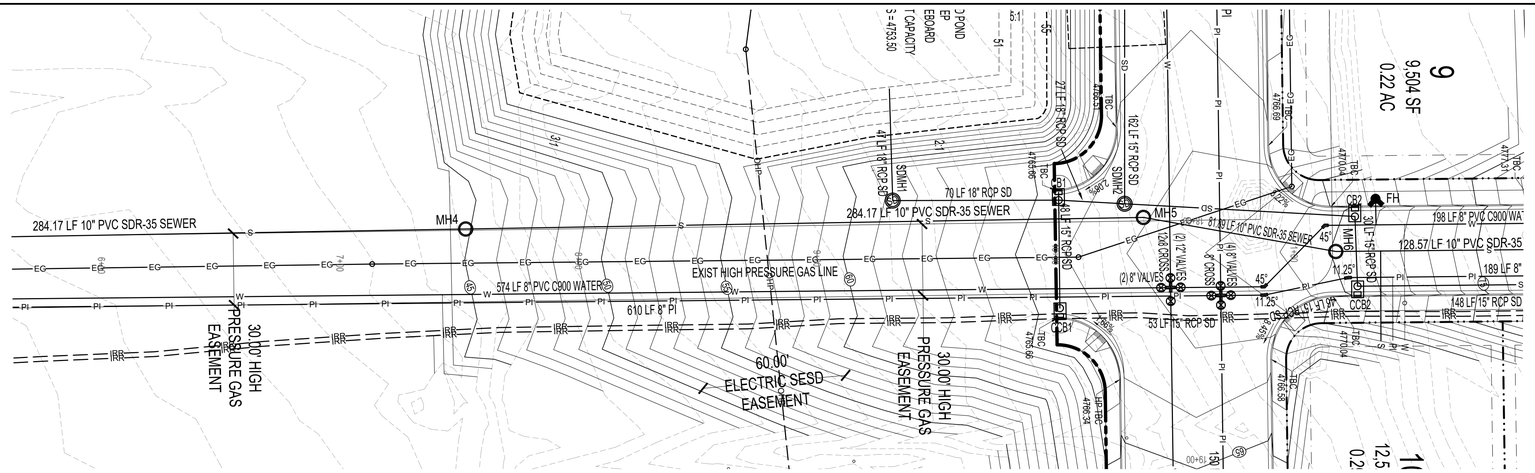

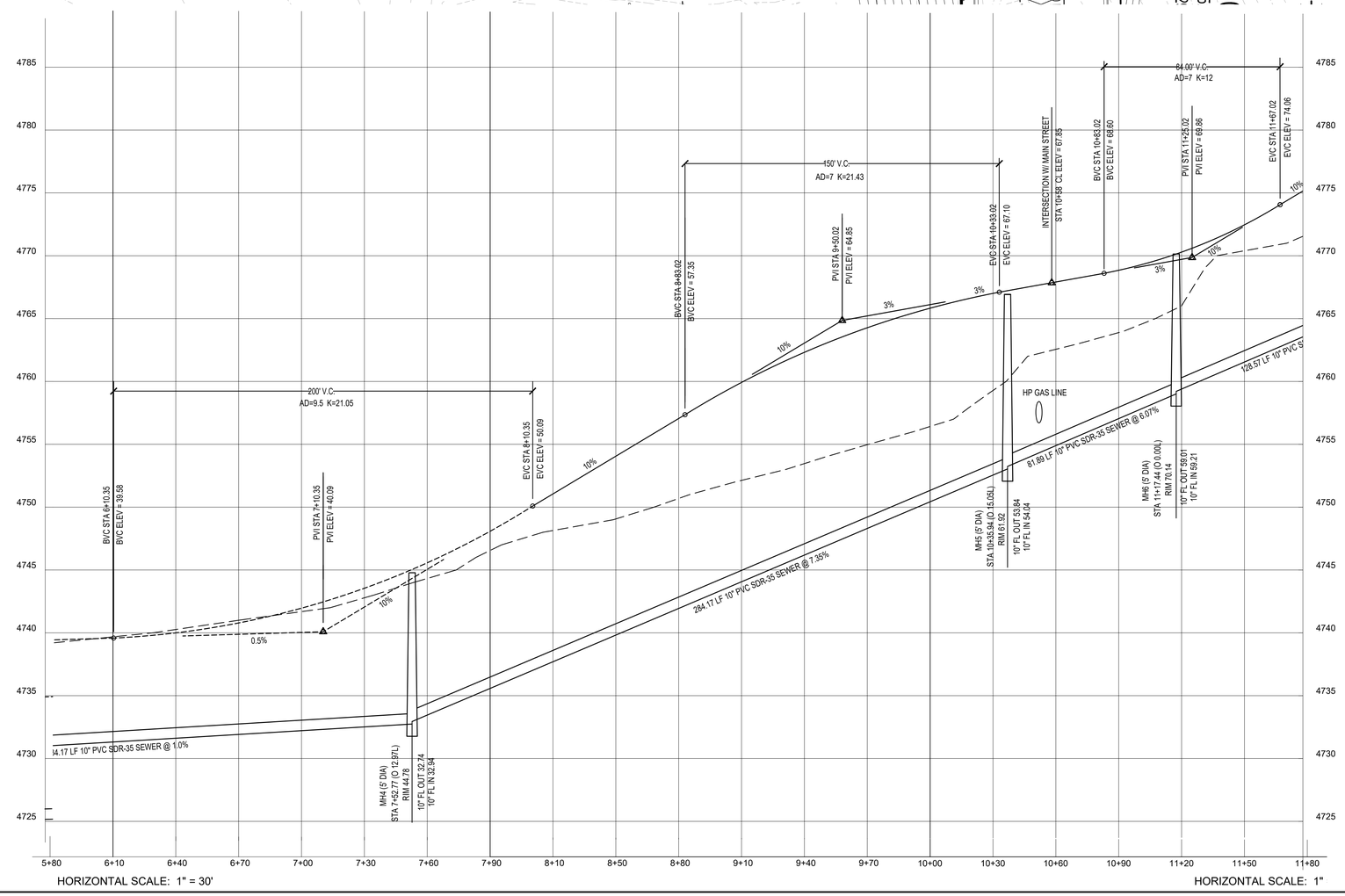

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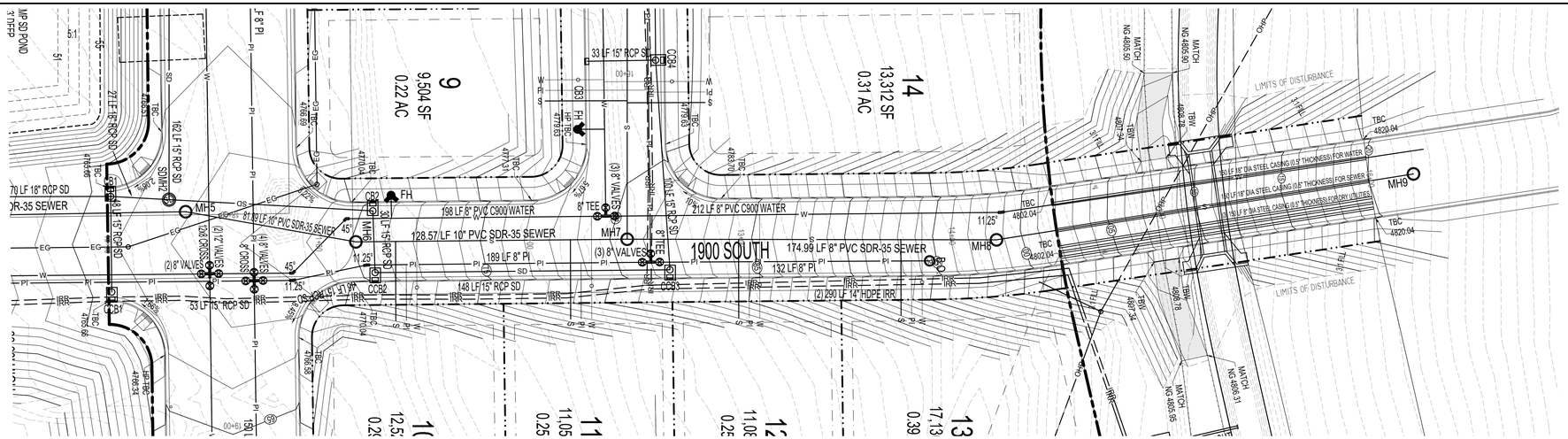

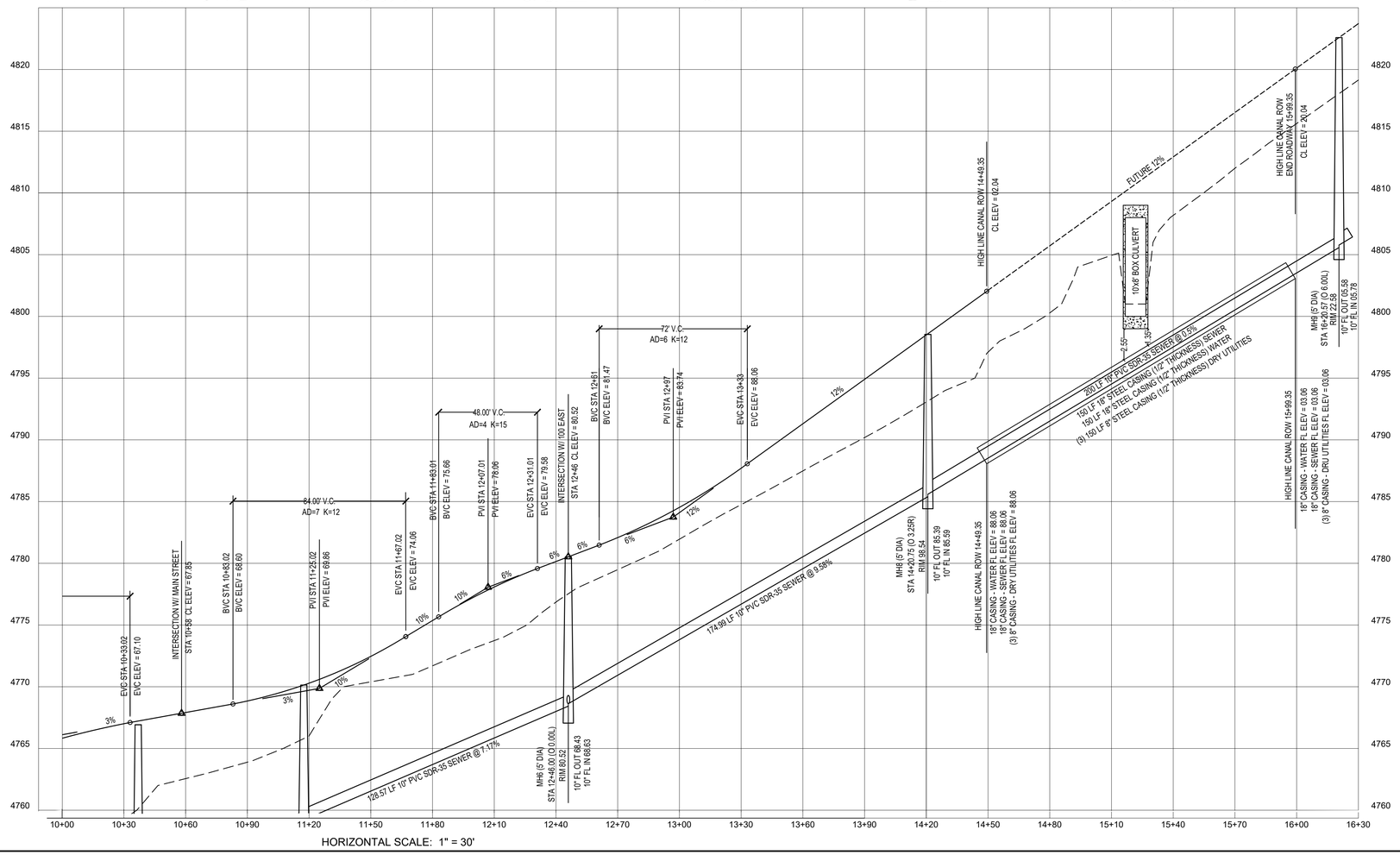

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B.M. ELEVATION = 4836.30

BASIS OF BEARING
N 89°35'10" E BETWEEN THE NORTHWEST AND NORTH QUARTER CORNERS OF SECTION 21,T9S, R2E, SLB&M

DISTURBED AREA

TOTAL AREA OF DISTURBANCE WITHIN THE CANAL RIGHT-OF-WAY = 0.36 AC

BOR Drawing Number:
27-418-60044-MF-1

KEN R. BERG, P.E.
DRAWN

JEREMY FOWLER, P.E.
ACCEPTED

418 (PROVO, UT) 2023-11-08

DEVELOPMENT

PAYSON VIEW ESTATES PHASE 4

DEVELOPER

PATTERSON HOMES
www.phutah.com

11038 N. Highland Blvd Suite 100
Highland, UT 84003
(801) 642-0119

N

0 15 30 60 90
SCALE: 1"= 30'

berg CIVIL ENGINEERING
1018 N. Deer Crest Lane
Alpine UT, 84004
office (801) 492-1277
cell (801) 616-1677

REVISIONS

NO.	DATE	DESCRIPTION
1		
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SEAL
STATE OF UTAH
KEN R. BERG
343602
01/16/2024
PROFESSIONAL ENGINEER

ACTION	DATE
PRELIM	01/16/2024

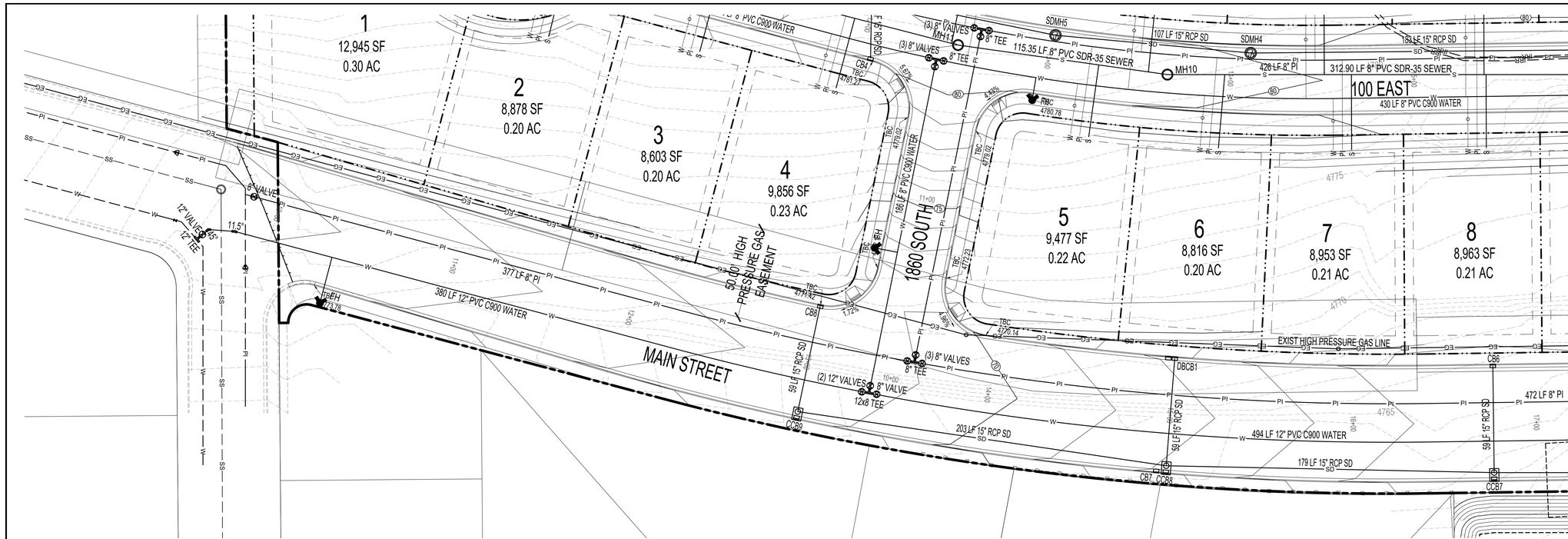
PROJECT

PAYSON VIEW ESTATES PHASE 4

DESCRIPTION

PRELIMINARY PLANS

SHEET NAME	SHEET NUMBER
1900 S	C4.4



CONSTRUCTION NOTES

ALL CONSTRUCTION TO CONFORM TO PAYSON CITY OR APWA STADARD DETAILS

A STORM WATER MANAGEMENT PLAN WILL BE REQUIRED PRIOR TO CONSTRUCTION

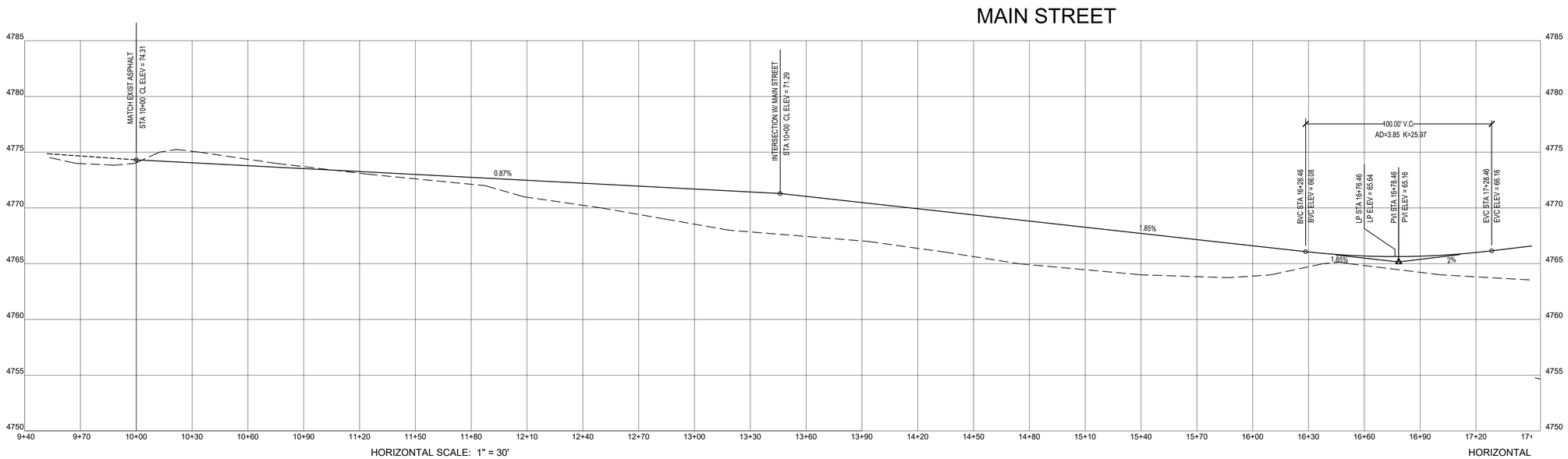
DRAINAGE CALCULATIONS

REFER TO SHEET C3.2 FOR STORM DRAINAGE CALCULATIONS FOR TEMPORARY POND

SURVEY CONTROL

SITE BENCHMARK
EAST QUARTER CORNER OF SEC 20,T9S, R2E, SLB&M
B.M. ELEVATION = 4836.30

BASIS OF BEARING
N 89°35'10" E BETWEEN THE NORTHWEST AND NORTH QUARTER CORNERS OF SECTION 21,T9S, R2E, SLB&M



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SEAL

STATE OF UTAH
R. BERG
343602
01/16/2024
PROFESSIONAL ENGINEER

ACTION	DATE
PRELIM	01/16/2024

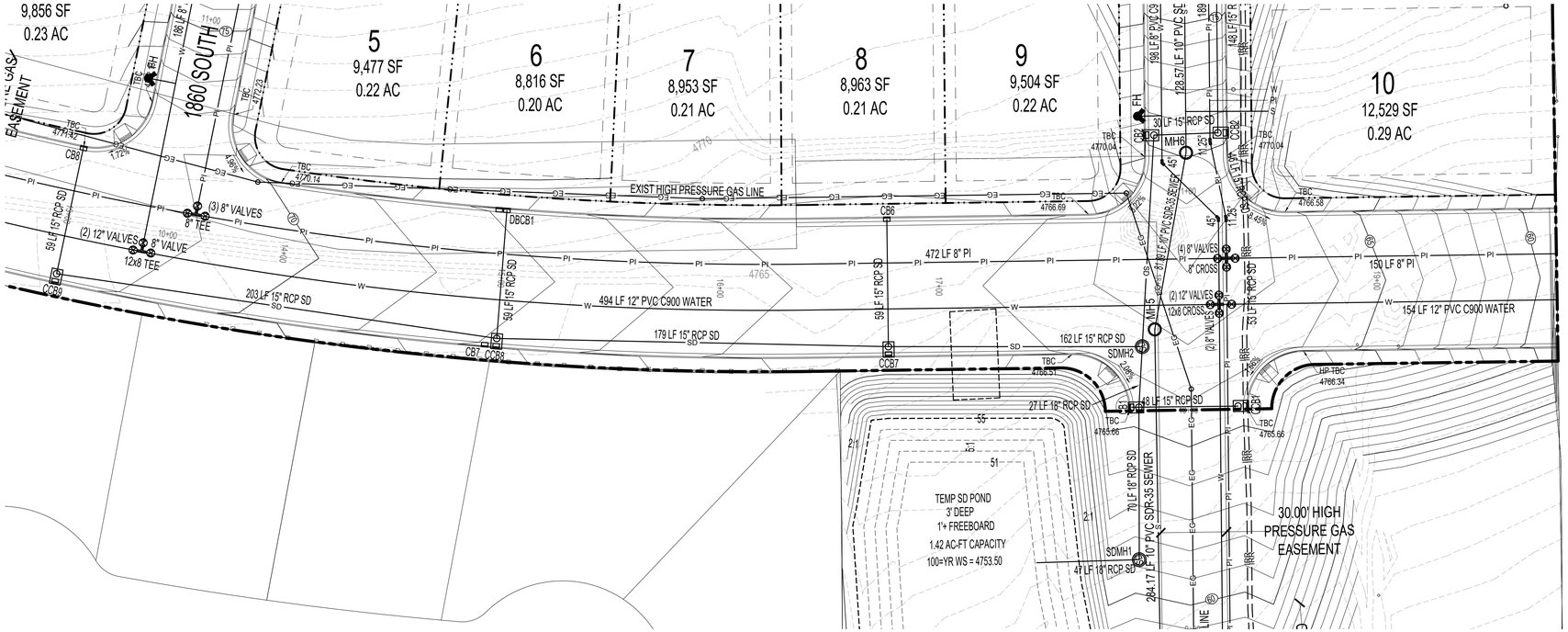
PROJECT

PAYSON VIEW ESTATES PHASE 4

DESCRIPTION

PRELIMINARY PLANS

SHEET NAME	SHEET NUMBER
MAIN	C5.1



CONSTRUCTION NOTES

ALL CONSTRUCTION TO CONFORM TO PAYSON CITY OR APWA STADARD DETAILS

A STORM WATER MANAGEMENT PLAN WILL BE REQUIRED PRIOR TO CONSTRUCTION

DRAINAGE CALCULATIONS

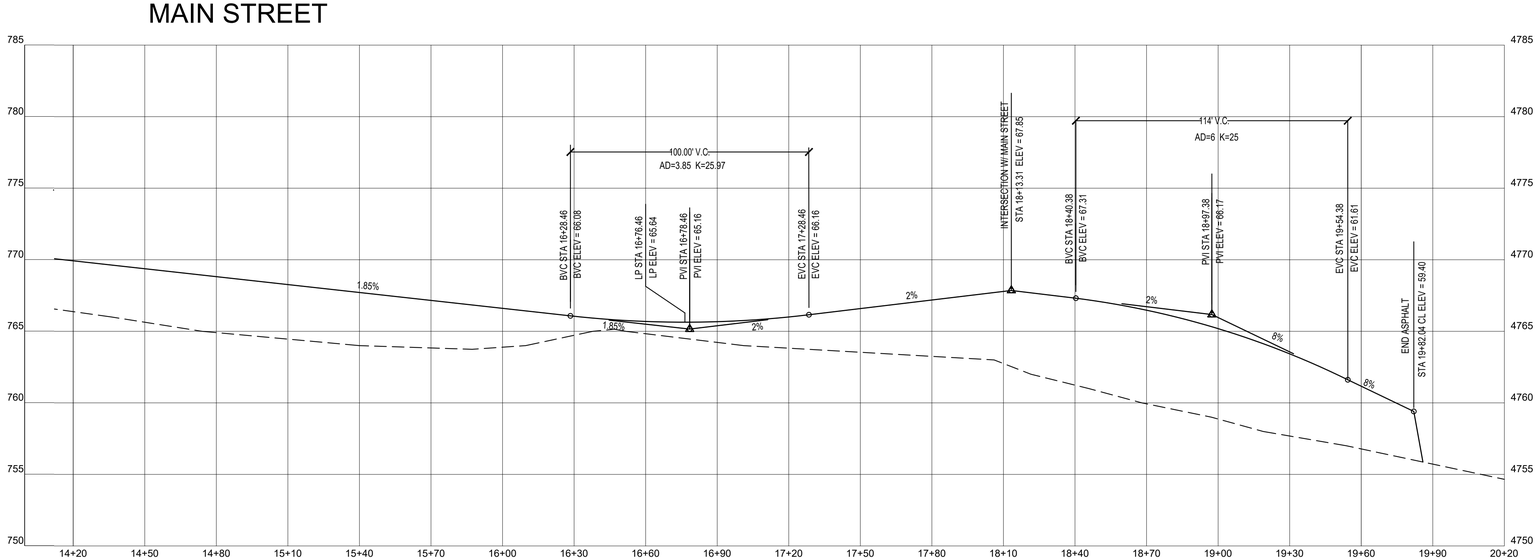
REFER TO SHEET C3.2 FOR STORM DRAINAGE CALCULATIONS FOR TEMPORARY POND

SURVEY CONTROL

SITE BENCHMARK
EAST QUARTER CORNER OF SEC 20,T9S, R2E, SLB&M
B.M. ELEVATION = 4836.30

BASIS OF BEARING
N 89°35'10" E BETWEEN THE NORTHWEST AND NORTH QUARTER CORNERS OF SECTION 21,T9S, R2E, SLB&M

MAIN STREET



HORIZONTAL SCALE: 1" = 30'

DEVELOPMENT

PAYSON VIEW ESTATES PHASE 4

DEVELOPER

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11038 N. Highland Blvd Suite 100
Highland, UT 84003
(801) 642-0119

0 15 30 60 90
SCALE: 1"= 30'

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SEAL
STATE OF UTAH
R. BERG
343602
01/16/2024
PROFESSIONAL ENGINEER

ACTION	DATE
PRELIM	01/16/2024

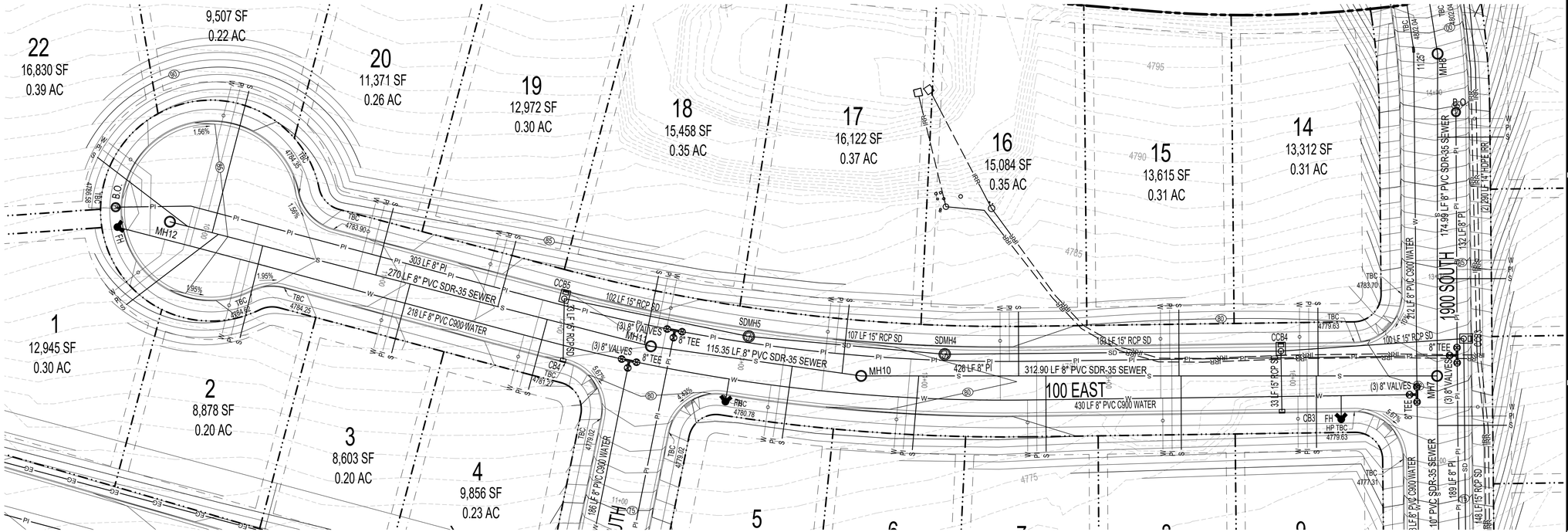
PROJECT

PAYSON VIEW ESTATES PHASE 4

DESCRIPTION

PRELIMINARY PLANS

SHEET NAME	SHEET NUMBER
MAIN	C5.2



CONSTRUCTION NOTES

ALL CONSTRUCTION TO CONFORM TO PAYSON CITY OR APWA STADARD DETAILS

A STORM WATER MANAGEMENT PLAN WILL BE REQUIRED PRIOR TO CONSTRUCTION

DRAINAGE CALCULATIONS

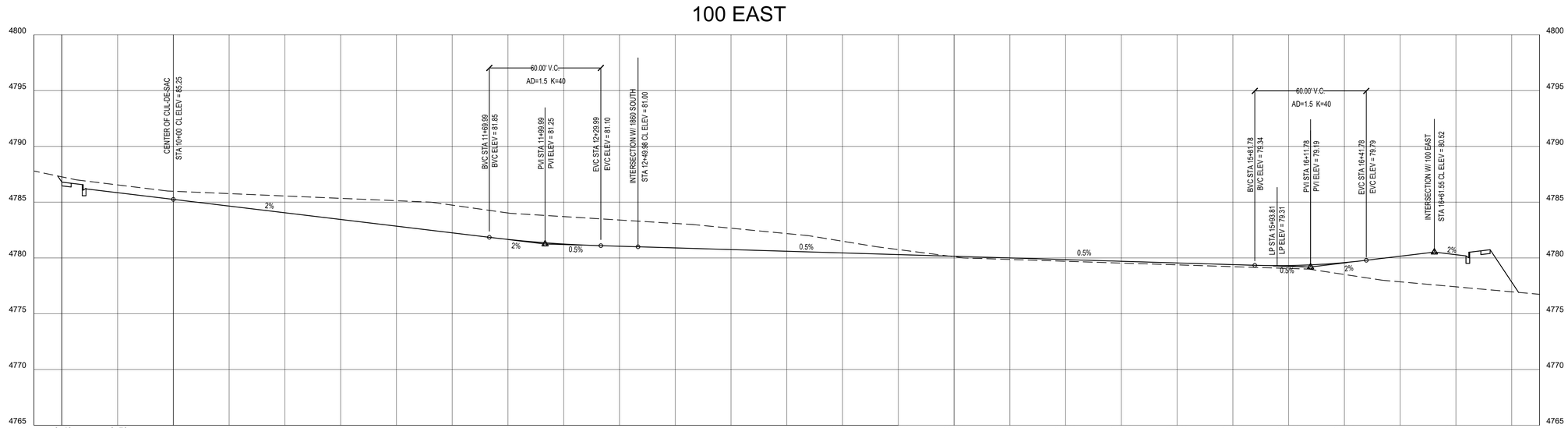
REFER TO SHEET C3.2 FOR STORM DRAINAGE CALCULATIONS FOR TEMPORARY POND

SURVEY CONTROL

SITE BENCHMARK
EAST QUARTER CORNER OF SEC 20,T9S, R2E, SLB&M
B.M. ELEVATION = 4836.30

BASIS OF BEARING
N 89°35'10" E BETWEEN THE NORTHWEST AND NORTH QUARTER CORNERS OF SECTION 21,T9S, R2E, SLB&M

100 EAST



HORIZONTAL SCALE: 1" = 30'

HORIZONTAL SCALE: 1" = 30'

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SEAL
STATE OF UTAH
R. BERG
343602
PROFESSIONAL ENGINEER
01/16/2024

ACTION	DATE
PRELIM	01/16/2024

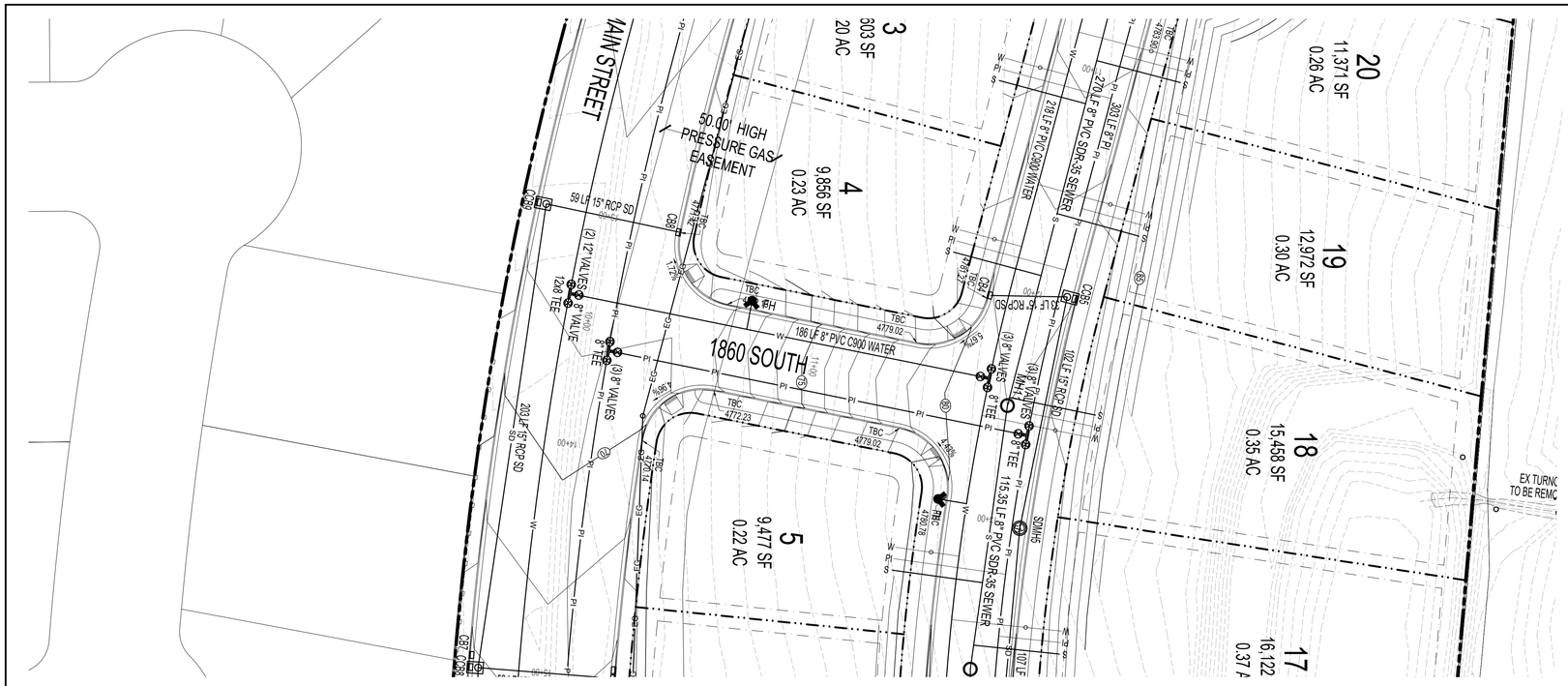
PROJECT

PAYSON VIEW ESTATES PHASE 4

DESCRIPTION

PRELIMINARY PLANS

SHEET NAME	SHEET NUMBER
100 E	C6.1



CONSTRUCTION NOTES

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B.M. ELEVATION = 4836.30

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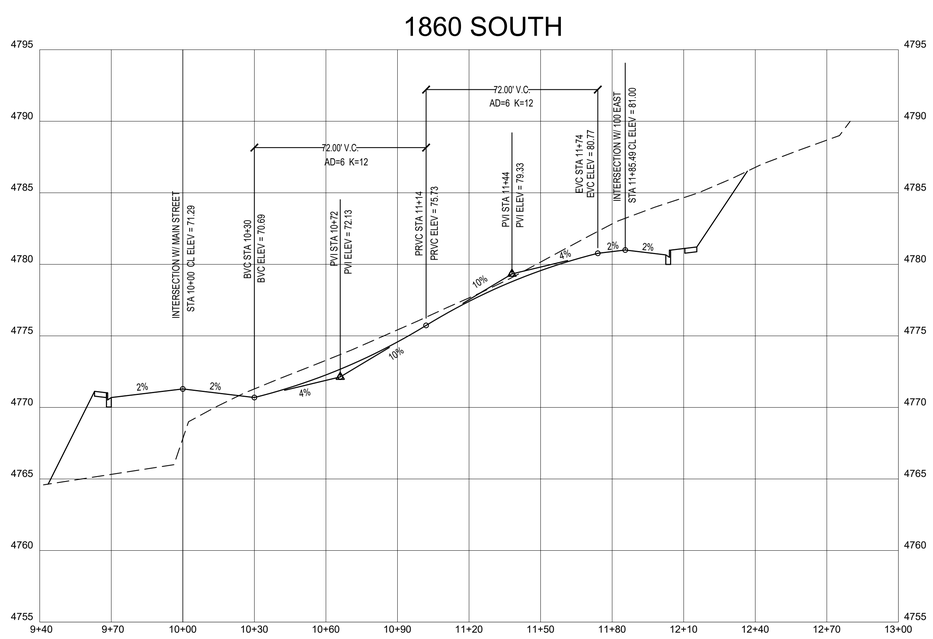

DEVELOPMENT

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SCALE: 1"= 30'

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SEAL

STATE OF UTAH
R. BERG
343602
01/16/2024
PROFESSIONAL ENGINEER

ACTION	DATE
PRELIM	01/16/2024

PROJECT

PAYSON VIEW ESTATES PHASE 4

DESCRIPTION

PRELIMINARY PLANS

SHEET NAME	SHEET NUMBER
1860 S	C7.1

C:\USERS\RAN\INTERNAL - BERG CIVIL ENGINEERING\DATA\ CIVIL\12272\1x1 - PVE PHASE 4\12272PV1 PLAN.DWG - 1:27:08AM, 01/16/2024

UTILITY DISCLAIMER

The locations, materials, slopes, flow line, rim elevations, and sizes of the existing underground or overhead utilities are shown as accurately as possible, but due to the age of the infrastructure and reporting errors the sizes and locations of the utilities shown on the Payson City GIS map are approximate and should not be used for design purposes. The owner and contractor of a development project are responsible for contacting Blue Stakes to locate all the existing utilities and performing pot holes to field verify the sizes, materials, and depths of the existing utilities prior to construction and ordering the correct materials to prevent errors in design sizes, materials, slopes, flow lines, and rim elevation shown on the GIS map. Failure to verify the sizes and ordering the building the wrong sized pipe or structure is the responsibility of the owner or contractor.

The engineering design of an open channel, pipe system, storm drainage detention/retention system, etc. should include hydraulics and hydrology calculations. Failure to comply with these requirements constitute Unprofessional Conduct under the Utah State Division of Professional Licensing rules and regulations.

INSPECTION, TESTING AND QUALITY CONTROL

a. All construction work involving the installation of improvements in Payson City shall be subject to City inspections and testing as outlined in the quality control section of each specification.

b. Request for inspection:

i. Request for inspections shall be made to the Public Works Secretary by the person responsible for the construction.

ii. Notice shall be given forty-eight (48) hours in advance of the work starting.

iii. Any work shall be inspected prior to being backfilled or covered.

c. Construction completion inspection:

i. A final inspection shall be made by the Public Works Director, or a designee upon receipt of a request by the owner after all the construction work is completed.

ii. Any faulty or defective work shall be corrected by the persons responsible for the work within a period of thirty (30) days from the date of the City Engineer's Inspection Report defining the faulty or defective work.

d. Quality Control Testing:

i. Material testing shall be conducted by an independent laboratory, approved by the Public Works Director, at the owner's expense. Material testing and inspection fees must be paid in full before requesting a pre- construction meeting.

ii. All testing shall comply with the current ASTM, AASHTO, AWWA or Public Drinking Water Regulation standards and shall meet the minimum testing requirements as outlined in the specifications.

iii. Personnel performing test shall have the appropriate certifications to perform such tests.

iv. The cost of any and all re-testing required to bring materials into specification shall be borne by the owner.

v. The time and locations of all test shall be approved by the Public Works Director's office.

vi. If determined necessary by the Public Works Director or a designee, additional material testing can be required.

e. Test report:

i. Written test results will be required for review by the Public Works Director after each portion of the work (i.e. pipeline construction, earthwork, curb, gutter and sidewalk, roadway construction, etc.)

AS-BUILT DRAWINGS

a. Before final inspection, the Contractor shall provide a complete set of as-built drawings that includes all items specified on the construction drawings.

b. The as-built drawings shall show all improvement dimensions as constructed in the field.

c. The as-built drawings shall be submitted on a flash drive saved on AutoCAD and Adobe Acrobat format.

e. No bond retainer shall be released until as-built drawings are received by the Public Works Director.

GUARANTEE OF WORK

a. The Owner shall warrant and guarantee that the improvements provided for hereunder, and every part thereof, will remain in good condition for a period of one (1) year after the date of the acceptance of the project by the City. Payson City Standard Detail PB 1 illustrates the process for posting performance guarantee bonds.

b. The Owner shall make all the necessary repairs and maintain the improvements and every part thereof in good condition during the specified time at no cost to the City.

c. The guarantee hereby stipulated shall extend to and include, but shall not be limited to:

i. Road base.

ii. Asphalt or concrete pavement.

iii. All pipes.

iv. Pipe joints.

v. Valves.

vi. Manholes.

vii. Backfill

viii. Curb

ix. Gutters

x. Sidewalks

xi. Striping and signage.

d. Whenever, in the judgment of the Public Works Director, said work shall be in need of repair, maintenance, or reconstruction, written notice shall be served upon the Owner and thereupon the Owner shall undertake and complete such repairs in a timely manner.

e. If the Owner fails to do so within thirty (30) days from the date of the service of such notice, the Public Works Director shall have such repairs made and the cost of such repairs shall be paid by the Owner including any additional expenses incurred by the City.

TRAFFIC CONTROL AND ROAD CLOSURES

a. The Contractor shall provide and maintain all necessary signs and barricades needed for traffic control according to the MUTCD guidelines, latest edition.

b. All necessary precautions shall be taken to protect the work and to safeguard the public.

c. Street road closures shall be approved by the City Engineer or his designee.

d. Sidewalk closures shall include a walkable path for people with disabilities.

SURVEY MONUMENTS

a. Standard survey control monuments shall be installed in all streets to be dedicated for public use.

UPDES STORMWATER PERMIT

a. A UPDES (Utah Pollutant Discharge Elimination System) Permit from the State of Utah is required for all projects that disturb greater than 1 acre or are less than one (1) acre and part of common plan of development or sale that is greater than 1 acre.

BUILDING PERMITS

a. No building permit shall be issued for a subdivision until:

i. Road base is placed, graded, compacted, and approved on the entire road surface.

ii. Curb and gutter is in place.

iii. Street signs are installed.

iv. All underground utilities are in place, accepted, and functional.

v. Fire hydrants are installed and in full operation.

vi. It is reasonable to expect the subdivision improvements to be completed prior to the occupancy of the buildings.

CERTIFICATE OF OCCUPANCY

a. A developer shall not sell any portion of an approved development without informing the prospective buyer or builder that occupancy may not be obtained until all permanent improvements are installed and approved by the City.

PRE CONSTRUCTION MEETING

a. All work completed in the right of way shall use a qualified contractor.

i. Contractor shall be licensed in accordance with state laws.

ii. The City may refuse a contractor from public works construction for any of the following reasons from the past 5 years:

1. Failure to pay suppliers or subcontractors on previous work.
2. Poor communication.
3. Threatening or intimidating communications.
4. Willful and deceptive efforts to perform defective or substandard work.
5. Defective or substandard work on previous projects.
6. Unethical acts.

iii. Contractor shall have proper insurance.

1. Liability: One million dollars ($1,000,000) per person, two million dollars ($2,000,000) per event.
2. Workers Compensation Insurance.

b. A preconstruction meeting is required on all development or public works construction projects.

c. Verify the following:

i. Land Disturbance Permit has been issued

ii. Storm Water Pollution Prevention Plan is approved and UPDES NOI has been issued.

iii. Other necessary permits have been obtained.

iv. Conveyance of water rights to Payson City has been completed.

v. Payment of inspection and material testing fees has been completed.

vi. Payson Fire Department Review approval letter signed.

vii. When applicable, developer agreements are signed and executed.

viii. When applicable, final plat application is approved.

ix. When applicable, performance guarantee bond has been posted.

d. Attendance is required by contractor project manager, site supervisor(s), design engineer, consultants, significant subcontractors, significant suppliers, Public Works Director, Development Engineer, and City Inspectors.

e. Discuss the following topics:

i. Site supervisors and 24-hour contacts.

ii. Compliance with OSHA guidelines.

iii. Coordination.

iv. Schedule.

v. Required material testing submittals.

vi. Geotechnical issues.

vii. Survey issues.

viii. Coordination of inspections.

ix. Specifications & standards.

x. Request for partial and final bond releases.

IMPROVEMENTS SEQUENCE

a. City improvements shall be installed in the following sequence, unless otherwise directed by the Public Works Director:

1. Rough grading
2. Sanitary Sewer
3. Culinary Water
4. Pressurized Irrigation
5. Storm Sewer
6. Dry Utilities (In Public Right Of Way)
7. Sub Base
8. Curb and Gutter
9. Road Base
10. Asphalt
11. Dry Utilities (In Easements)
12. Sidewalks and Trails
13. Manholes and Valve Collars
14. Survey Monument
15. Street Signs
16. Street Lights
17. Clean Up

b. Contractors and Developers shall ensure that all the improvement items previous to paving the road are installed, inspected, surveyed, and approved by the City Inspector.

c. No road cut permits will be issued on new City streets for five (5) years from the date the street was accepted by the City.

DEVELOPMENT

PAYSON VIEW ESTATES PHASE 4

DEVELOPER

PATTERSON HOMES
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REVISIONS		
NO.	DATE	DESCRIPTION
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SEAL

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. 343602
DATE: 01/16/2024

ACTION	DATE
PRELIM	01/16/2024

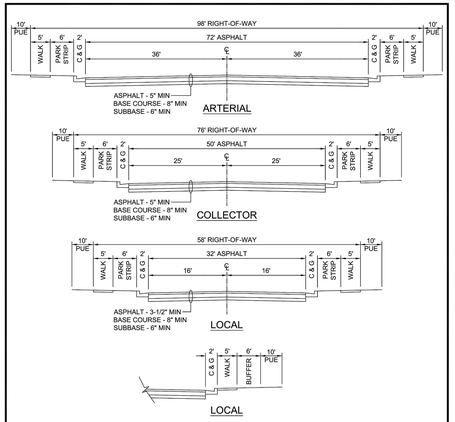
PROJECT

PAYSON VIEW ESTATES PHASE 4

DESCRIPTION

PRELIMINARY PLANS

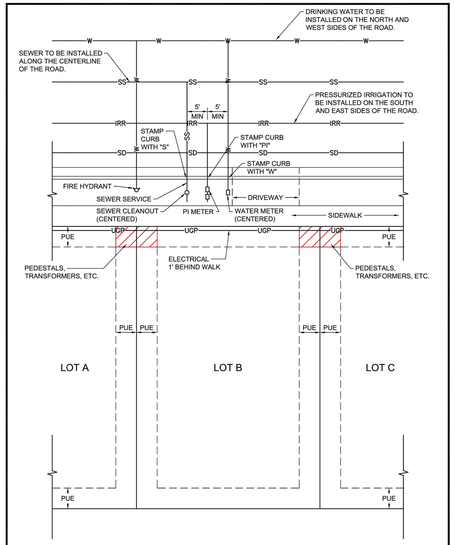
SHEET NAME	SHEET NUMBER
NOTES	GN1



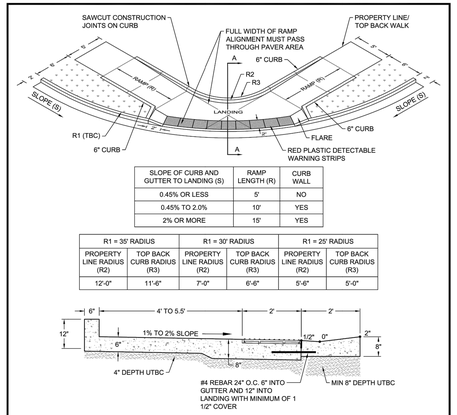
NOTE: A 5' SIDEWALK ADJACENT TO THE CURB IS ONLY ALLOWED IN HISTORIC AREAS WHERE THE MAJORITY OF THE BLOCK HAS MONOLITHIC CURB AND SIDEWALK. THIS CONFIGURATION REQUIRES APPROVAL OF THE CITY ENGINEER.

NOTES:
1. THE TYPICAL SECTION IS A 5' SIDEWALK WITH A 6' PARK STRIP. A 5' SIDEWALK ADJACENT TO THE CURB IS ONLY ALLOWED IN HISTORIC AREAS AT THE DISCRETION OF THE CITY ENGINEER.
2. SEE SHEET 4 OF THIS DETAIL FOR STANDARD UTILITY PLACEMENT.
3. TOTAL ASPHALT THICKNESS, 3-1/2" OR 5" AT CONSTRUCTION. PAYSON CITY WILL PERFORM THE SLURRY SEAL AFTER 90% OF THE HOMES HAVE BEEN BUILT OR AFTER THE 1-YEAR WARRANTY PERIOD IS OVER. THE COST OF THE SLURRY SEAL IS PAID AT THE TIME OF BONDING.
4. REFER TO THE LATEST REVISION OF THE ADOPTED TRANSPORTATION MASTER PLAN FOR STRIPING WIDTHS OF THE ROADS.
5. SOME ROADS MAY REQUIRE AN ADDITIONAL 5' OF RIGHT-OF-WAY ON ONE SIDE AND A 10' TRAIL IN LIEU OF A 5' SIDEWALK. REFER TO THE PAYSON CITY TRAILS MASTER PLAN FOR LOCATION OF TRAIL ROUTES.

PAYSON UTAH SEPTEMBER 2023	STANDARD STREET CROSS SECTIONS TYPICAL CITY OWNED STREETS	STANDARD PLAN ST-1	SHEET 1 OF 4



PAYSON UTAH SEPTEMBER 2023	STANDARD PLOT PLAN	STANDARD PLAN ST-2	SHEET 1 OF 1



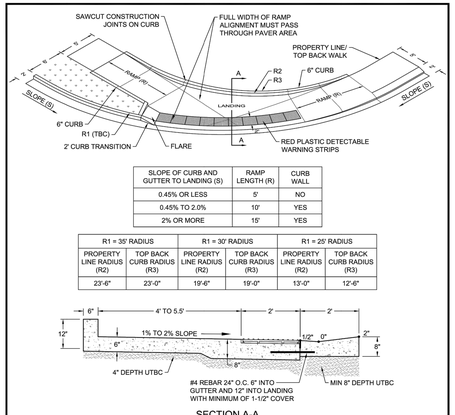
SLOPE OF CURB AND GUTTER TO LANDING (S)	RAMP LENGTH (R)	CURB WALL
0.45% OR LESS	5'	NO
0.45% TO 2.0%	10'	YES
2% OR MORE	15'	YES

R1 = 35' RADIUS		R1 = 30' RADIUS		R1 = 25' RADIUS	
PROPERTY LINE RADIUS (R2)	TOP BACK CURB RADIUS (R3)	PROPERTY LINE RADIUS (R2)	TOP BACK CURB RADIUS (R3)	PROPERTY LINE RADIUS (R2)	TOP BACK CURB RADIUS (R3)
12'-0"	11'-6"	7'-0"	6'-6"	5'-6"	5'-0"

SECTION A-A

NOTES:
1. CONTRACTOR SHALL INSTALL DETECTABLE WARNING PLATES ACCORDING TO THE STANDARDS FOR PLASTIC DETECTABLE WARNING PLATES AND MATCH PATTERN IN THIS DRAWING. RADIAL PLATES SHALL BE A PLASTIC RED COLORED PLATE AND SHALL BE ACCORDING TO THE CORRECT TBC RADIUS.
2. THE MAXIMUM SLOPE OF A STREET WITHIN 25' OF THE BEGINNING OF RADIUS IS 5.5%. VARIATION TO THE SLOPE MUST BE APPROVED BY THE CITY ENGINEER.
3. THE SLOPE OF THE FLOWLINE OF GUTTER THROUGH A PEDESTRIAN RAMP SHALL BE 2.0% OR LESS OR APPROVED BY CITY ENGINEER.
4. CURB AND GUTTER SLOPE (S) AND RAMP LENGTHS (R) SHALL BE CLEARLY LABELED AND DRAWN ON ALL PLANS, SEE TABLE FOR (R2) AND (R3).
5. RAMPS SHALL NOT EXCEED A 1:12 SLOPE.
6. STANDARD PEDESTRIAN RAMPS HAVE BEEN DESIGNED FOR NEW CONSTRUCTION. REPLACEMENT OF EXISTING PEDESTRIAN RAMPS SHALL BE DESIGNED AND STAMPED BY A PROFESSIONAL ENGINEER AND APPROVED BY THE CITY ENGINEER OR HIS/HER DESIGNEE.
7. COLD WEATHER CONCRETE MIX AND INSTALLATION PER APWA STANDARDS AND SPECIFICATIONS REQUIRED OCTOBER 1 THRU MARCH 31, OR AS REQUIRED BY THE PUBLIC WORKS DIRECTOR OR DESIGNEE.

PAYSON UTAH SEPTEMBER 2023	CORNER PEDESTRIAN RAMP SIDEWALKS WITH PLANTERS	STANDARD PLAN ST-3	SHEET 1 OF 4



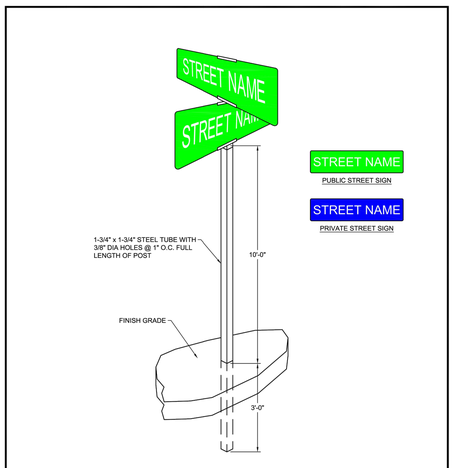
SLOPE OF CURB AND GUTTER TO LANDING (S)	RAMP LENGTH (R)	CURB WALL
0.45% OR LESS	5'	NO
0.45% TO 2.0%	10'	YES
2% OR MORE	15'	YES

R1 = 35' RADIUS		R1 = 30' RADIUS		R1 = 25' RADIUS	
PROPERTY LINE RADIUS (R2)	TOP BACK CURB RADIUS (R3)	PROPERTY LINE RADIUS (R2)	TOP BACK CURB RADIUS (R3)	PROPERTY LINE RADIUS (R2)	TOP BACK CURB RADIUS (R3)
23'-6"	23'-0"	19'-6"	19'-0"	13'-0"	12'-6"

SECTION A-A

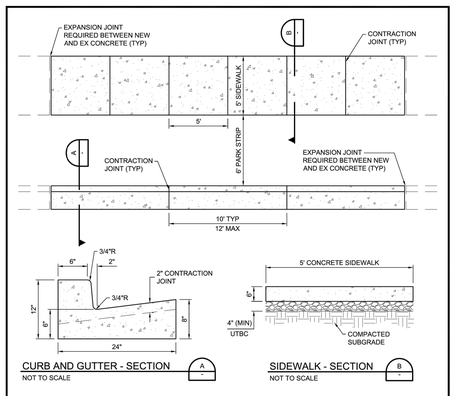
NOTES:
1. CONTRACTOR SHALL INSTALL DETECTABLE WARNING PLATES ACCORDING TO THE STANDARDS FOR PLASTIC DETECTABLE WARNING PLATES AND MATCH PATTERN IN THIS DRAWING. RADIAL PLATES SHALL BE A PLASTIC RED COLORED PLATE AND SHALL BE ACCORDING TO THE CORRECT TBC RADIUS.
2. THE MAXIMUM SLOPE OF A STREET WITHIN 25' OF THE BEGINNING OF RADIUS IS 5.5%. VARIATION TO THE SLOPE MUST BE APPROVED BY THE CITY ENGINEER.
3. THE SLOPE OF THE FLOWLINE OF GUTTER THROUGH A PEDESTRIAN RAMP SHALL BE 2.0% OR LESS OR APPROVED BY CITY ENGINEER.
4. CURB AND GUTTER SLOPE (S) AND RAMP LENGTHS (R) SHALL BE CLEARLY LABELED AND DRAWN ON ALL PLANS, SEE TABLE FOR (R2) AND (R3).
5. RAMPS SHALL NOT EXCEED A 1:12 SLOPE.
6. STANDARD PEDESTRIAN RAMPS HAVE BEEN DESIGNED FOR NEW CONSTRUCTION. REPLACEMENT OF EXISTING PEDESTRIAN RAMPS SHALL BE DESIGNED AND STAMPED BY A PROFESSIONAL ENGINEER AND APPROVED BY THE CITY ENGINEER OR HIS/HER DESIGNEE.
7. COLD WEATHER CONCRETE MIX AND INSTALLATION PER APWA STANDARDS AND SPECIFICATIONS REQUIRED OCTOBER 1 THRU MARCH 31, OR AS REQUIRED BY THE PUBLIC WORKS DIRECTOR OR DESIGNEE.

PAYSON UTAH SEPTEMBER 2023	CORNER PEDESTRIAN RAMP MONOLITHIC SIDEWALK CONVERTING TO SIDEWALK WITH PLANTER	STANDARD PLAN ST-3	SHEET 2 OF 4



NOTES:
1. STREET NAME SIGN TO BE 9" ALUMINUM SIGN, DOUBLE SIDED WITH HIGH INTENSITY PRISMATIC SHEETING AND 6" UPPER CASE STREET NAME LETTERING.
2. PROOFS TO BE APPROVED BY PAYSON CITY PUBLIC WORKS PRIOR TO MANUFACTURING.
3. PUBLIC STREET SIGN TO BE GREEN BACKGROUND WITH WHITE LETTERING.
4. PRIVATE STREET SIGN TO BE BLUE BACKGROUND WITH WHITE LETTERING.
5. NO CITY LOGO REQUIRED ON STREET NAME SIGN.
6. ALL BOLTS, NUTS, WASHERS, AND ACCESSORIES TO BE STAINLESS OR GALVANIZED STEEL.

PAYSON UTAH SEPTEMBER 2023	STREET NAME SIGN AND POST DETAIL	STANDARD PLAN ST-5	SHEET 1 OF 1

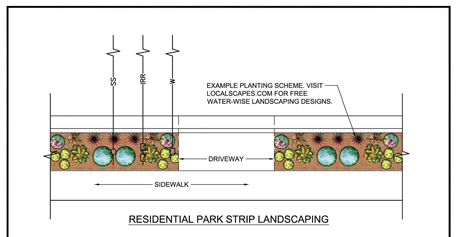


CURB AND GUTTER - SECTION (A) NOT TO SCALE

SIDEWALK - SECTION (B) NOT TO SCALE

NOTES:
1. UNTREATED BASE COURSE (UTBC)
   a. MATERIAL PER APWA SECTION 32 11 23. GRAVEL IS NOT ACCEPTABLE AS A BASE COURSE.
   b. INSTALL PER APWA SECTION 32 05 10. 6" MIN THICKNESS UNDER CURB AND GUTTER, 4" MIN UNDER SIDEWALK.
   c. COMPACT TO 95% OR GREATER MODIFIED PROCTOR DENSITY PER APWA SECTION 31 23 26.
2. CONCRETE
   a. USE ONLY 4000 PSI (MIN) CONCRETE FROM A UTAH STATE APPROVED BATCH PLANT. SUBMIT BATCH TICKET WITH INSTALLATION. SMALL BATCH CONCRETE OR CONCRETE FROM ANY SOURCE OTHER THAN A UTAH STATE APPROVED BATCH PLANT IS NOT ACCEPTABLE AND WILL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
   b. INSTALL CONCRETE PER APWA SECTION 03 30 10.
   c. CONTRACTION JOINTS TO BE VERTICAL, 1/8" WIDE, 2" DEEP.
   d. INSTALL 1/2" THICK TYPE F1 FULL DEPTH EXPANSION JOINT PER APWA SECTION 32 13 73 WHERE REQUIRED.
   e. PROVIDE 1/2" RADIUS EDGES UNLESS NOTED OTHERWISE.
   f. BROOM FINISH AND APPLY CURING AGENT.
3. CONCRETE CURING AGENT TO BE CLEAR MEMBRANE FORMING COMPOUND WITH FUGITIVE DYE (TYPE ID CLASS A) PER APWA SECTION 03 39 00.

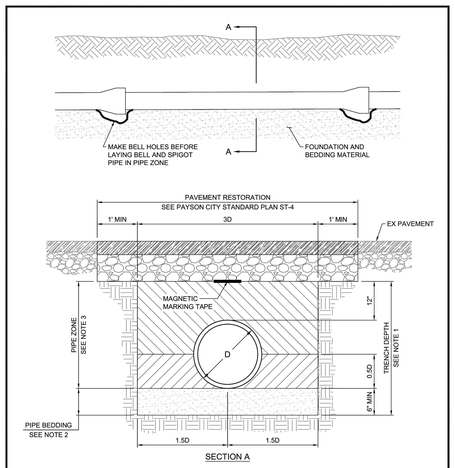
PAYSON UTAH SEPTEMBER 2023	CURB, GUTTER, AND SIDEWALK DETAIL	STANDARD PLAN ST-7	SHEET 1 OF 2



RESIDENTIAL PARK STRIP LANDSCAPING

NOTES:
1. WATER-WISE LANDSCAPING REQUIRED FOR ALL NEW DEVELOPMENT.
2. THE TYPICAL SECTION IS A 5' SIDEWALK WITH A 6' PARK STRIP.
3. ROCK OR BARK MULCH REQUIRED FOR GROUND COVER.
4. MULCH TO MEET PAYSON CITY DESIGN STANDARDS.
5. PROVIDE A MINIMUM OF 2 DIFFERING MULCH STYLES/COLORS.
6. GRAVEL IS NOT AN ACCEPTABLE GROUND COVER.
7. ANY BOULDERS UTILIZED SHOULD MEASURE 24" TO 48" IN DIAMETER ALONG THE SMALLEST AXIS.
8. PROVIDE 12 GAUGE STEEL OR CONCRETE CURB EDGING.
9. LAWN IS NOT PERMITTED IN A PARK STRIP LESS THAN 8' WIDE.
10. SPRAY STYLE SPRINKLER HEADS NOT PERMITTED IN PARK STRIP LESS THAN 8' WIDE.
11. UTILIZE NATIVE, DROUGHT TOLERANT PLANTS IRRIGATED WITH A DRIP SPRINKLER SYSTEM.
12. PLANTING SHOWN ABOVE IS AN EXAMPLE, NOT THE REQUIRED PLANTING SCHEME. CHOSEN PLANTING SCHEME REQUIRES APPROVAL FROM PAYSON CITY PLANNING.
13. VISIT LOCALSCAPES.COM FOR FREE WATER-WISE PLANTING DESIGNS AND PRODUCTS.
14. THE MINIMUM DRIVEWAY CUT IS 18'. STANDARD RESIDENTIAL DRIVEWAY CUT IS 24'. MAXIMUM CURB CUT IS 40'.
14. 10' (MIN) HORIZONTAL SEPARATION REQUIRED BETWEEN CULINARY WATER AND SEWER LATERAL.
15. REFER TO PAYSON CITY ORDINANCES FOR ADDITIONAL LANDSCAPING REQUIREMENTS.
16. PLANTING MATERIALS MUST BE PLACED TO AVOID CONFLICT WITH STREET LIGHTING AND MAINTAIN CLEAR VIEW AREAS.

PAYSON UTAH SEPTEMBER 2023	TYPICAL PARK STRIP LANDSCAPING RESIDENTIAL	STANDARD PLAN ST-11	SHEET 1 OF 2



SECTION A

NOTES:
1. IF DEPTH OF TRENCH IS GREATER THAN 4-FT AND SHORES OR TRENCH SUPPORTS ARE NOT USED, SLOPES ARE REQUIRED PER OSHA REGULATIONS. REFER TO APWA PLAN 381 FOR ADDITIONAL INFORMATION.
2. PIPE BEDDING: UNTREATED BASE COURSE PER APWA SECTION 32 11 23. INSTALL PER APWA SECTION 33 05 20.
3. PIPE ZONE BACKFILL: A-1-A OR NATIVE MATERIAL (UPON APPROVAL) PER APWA SECTION 31 05 13. MATERIAL MUST MEET APWA STANDARD FOR GRANULAR BORROW, COMPACT TO 96% DENSITY PER ASTM D-1557. CONTRACTOR MUST SUBMIT GRADATION AND PROCTOR DENSITY DATA OF NATIVE MATERIAL TO BE CONSIDERED FOR BACKFILL. ALL NATIVE MATERIAL TO BE USED AS FILL MUST HAVE ALL ORGANIC MATERIAL, RUBBISH, DEBRIS, AND OTHER OBJECTIONABLE MATERIALS REMOVED.

PAYSON UTAH SEPTEMBER 2023	STORM AND SANITARY SEWER PIPE TRENCH	STANDARD PLAN SD-2	SHEET 1 OF 1

DEVELOPMENT

PAYSON VIEW ESTATES PHASE 4

DEVELOPER

PATTERSON HOMES
www.phutah.com
11038 N. Highland Blvd Suite 100
Highland, UT 84003
(801) 642-0119

berg CIVIL ENGINEERING
1018 N. Deer Crest Lane
Alpine Ut, 84004
office (801) 492-1277
cell (801) 616-1677

REVISIONS

NO	DATE	DESCRIPTION
1		
2		
3		
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5		
6		
7		

SEAL: STATE OF UTAH, R. BERG, REGISTERED PROFESSIONAL ENGINEER, 343602, 01/16/2024

ACTION	DATE
PRELIM	01/16/2024

PROJECT

PAYSON VIEW ESTATES PHASE 4

DESCRIPTION

PRELIMINARY PLANS

SHEET NAME	SHEET NUMBER
DETAILS	DTL 1

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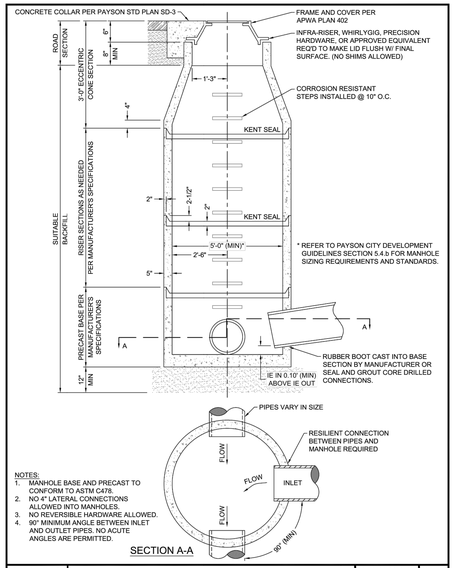
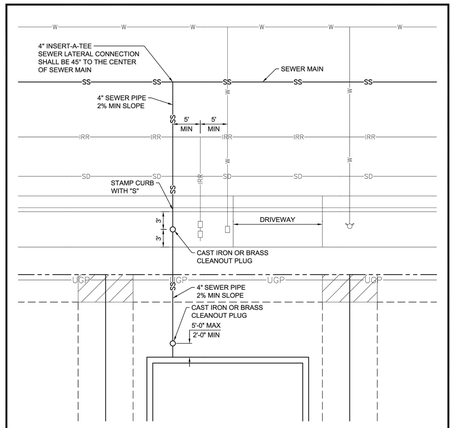


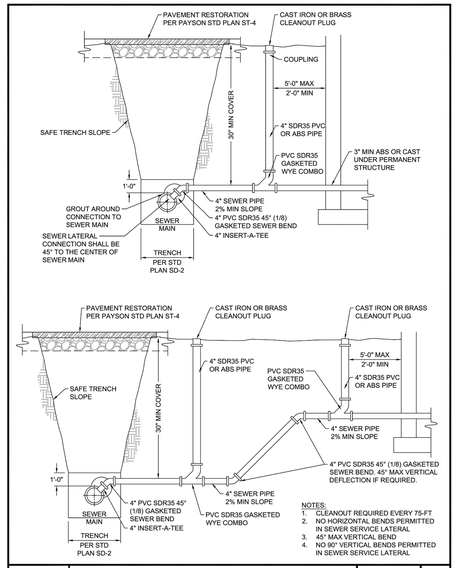
NOTES:
1. MANHOLE BASE AND PRECAST TO CONFORM TO ASTM C478.
2. NO 4" LATERAL CONNECTIONS ALLOWED INTO MANHOLES.
3. NO REVERSIBLE HARDWARE ALLOWED.
4. 90° MINIMUM ANGLE BETWEEN INLET AND OUTLET PIPES. NO ACUTE ANGLES ARE PERMITTED.

PAYSON UTAH SEPTEMBER 2023	PRECAST SANITARY SEWER MANHOLE	STANDARD PLAN SS-1	SHEET 1 OF 2



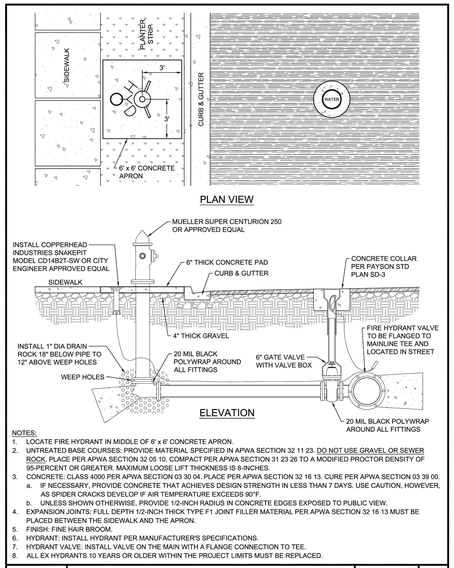
NOTES:
1. CLEANOUT REQUIRED EVERY 100-FT
2. NO HORIZONTAL BENDS PERMITTED IN SEWER SERVICE LATERAL
3. 45° MAX VERTICAL BEND
4. NO 90° VERTICAL BENDS PERMITTED IN SEWER SERVICE LATERAL

PAYSON UTAH SEPTEMBER 2023	RESIDENTIAL SEWER LATERAL CONNECTION	STANDARD PLAN SS-4	SHEET 1 OF 2



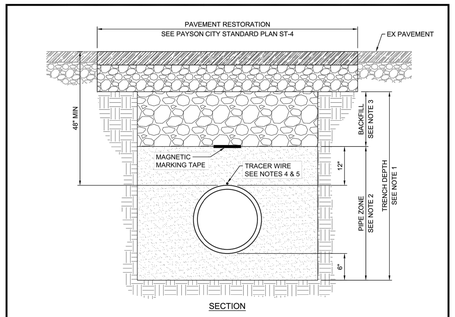
NOTES:
1. CLEANOUT REQUIRED EVERY 75-FT
2. NO HORIZONTAL BENDS PERMITTED IN SEWER SERVICE LATERAL
3. 45° MAX VERTICAL BEND
4. NO 90° VERTICAL BENDS PERMITTED IN SEWER SERVICE LATERAL

PAYSON UTAH SEPTEMBER 2023	RESIDENTIAL SEWER LATERAL CONNECTION	STANDARD PLAN SS-4	SHEET 2 OF 2



NOTES:
1. LOCATE FIRE HYDRANT IN MIDDLE OF 6' x 6' CONCRETE APRON.
2. UNTREATED BASE COURSES: PROVIDE MATERIAL SPECIFIED IN APWA SECTION 32 11 23. DO NOT USE GRAVEL OR SEWER ROCK. PLACE PER APWA SECTION 32 05 10. COMPACT PER APWA SECTION 31 23 26 TO A MODIFIED PROCTOR DENSITY OF 95-PERCENT OR GREATER. MAXIMUM LOOSE LIFT THICKNESS IS 8-INCHES.
3. CONCRETE: CLASS 4000 PER APWA SECTION 03 30 04. PLACE PER APWA SECTION 32 16 13. CURE PER APWA SECTION 03 39 00.
   a. IF NECESSARY, PROVIDE CONCRETE THAT ACHIEVES DESIGN STRENGTH IN LESS THAN 7 DAYS. USE CAUTION, HOWEVER, AS SPIDER CRACKS DEVELOP IF AIR TEMPERATURE EXCEEDS 90°F.
   b. UNLESS SHOWN OTHERWISE, PROVIDE 1/2-INCH RADIUS IN CONCRETE EDGES EXPOSED TO PUBLIC VIEW.
4. EXPANSION JOINTS: FULL DEPTH 1/2-INCH THICK TYPE F1 JOINT FILLER MATERIAL PER APWA SECTION 32 16 13 MUST BE PLACED BETWEEN THE SIDEWALK AND THE APRON.
5. FINISH: FINE HAIR BROOM.
6. HYDRANT: INSTALL HYDRANT PER MANUFACTURER'S SPECIFICATIONS.
7. HYDRANT VALVE: INSTALL VALVE ON THE MAIN WITH A FLANGE CONNECTION TO TEE.
8. ALL EX HYDRANTS 10 YEARS OR OLDER WITHIN THE PROJECT LIMITS MUST BE REPLACED.

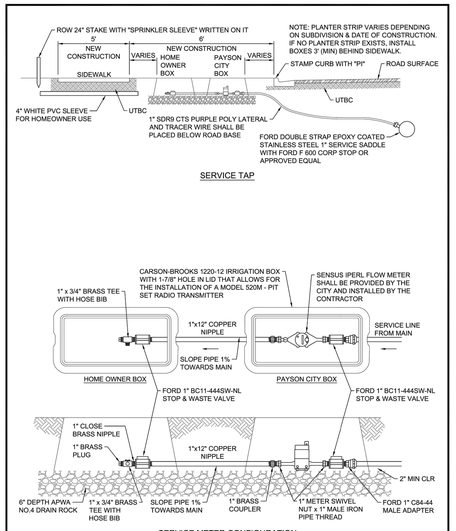
PAYSON UTAH SEPTEMBER 2023	FIRE HYDRANT LOCATION AND 6' x 6' APRON	STANDARD PLAN W-1	SHEET 1 OF 1



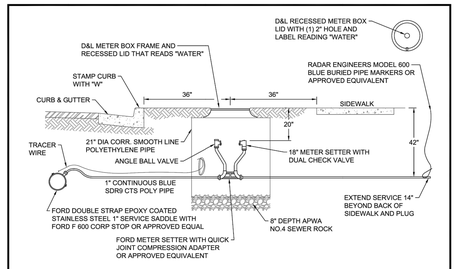
NOTES:
1. IF DEPTH OF TRENCH IS GREATER THAN 4-FT AND SHORES OR TRENCH SUPPORTS ARE NOT USED, SLOPES ARE REQUIRED PER OSHA REGULATIONS. REFER TO APWA PLAN 381 FOR ADDITIONAL INFORMATION.
2. PIPE ZONE: SAND (TYPE IV MATERIAL) PER APWA SECTION 31 05 13. COMPACT TO 92% DENSITY PER ASTM D-1557.
3. BACKFILL: A-1-A OR NATIVE MATERIAL (UPON APPROVAL) PER APWA SECTION 31 05 13. MATERIAL MUST MEET APWA STANDARD FOR GRANULAR BORROW. COMPACT TO 96% DENSITY PER ASTM D-1557. CONTRACTOR MUST SUBMIT GRADATION AND PROCTOR DENSITY DATA OF NATIVE MATERIAL TO BE CONSIDERED FOR BACKFILL. ALL NATIVE MATERIAL TO BE USED AS FILL MUST HAVE ALL ORGANIC MATERIAL, RUBBISH, DEBRIS, AND OTHER OBJECTIONABLE MATERIALS REMOVED.
4. USE 12 GAUGE (MIN) SINGLE STRAND COATED TRACER WIRE. AVOID SPLICING CONNECTION OF TRACER WIRE IF POSSIBLE. WHEN SPLICING IS NEEDED USE GREASE FILLED NUT AND WRAP WITH TAPE. TAPE TRACER WIRE TO PIPE BELLS. CONTINUITY TO BE TESTED AND APPROVED PRIOR TO FINAL ACCEPTANCE.
5. TRACER WIRE AT VALVES SHALL BE BROUGHT NEAR SURFACE ON THE OUTSIDE OF VALVE BOX. NOTCH A HOLE ON THE UPPER SLEEVE AND FEED TRACER WIRE INTO VALVE BOX.

WATER LINE INSTALLATION:
6. HOT TAPS ARE NOT PERMITTED WITHOUT WRITTEN APPROVAL FROM THE CITY ENGINEER.
7. NOTIFY PAYSON CITY PUBLIC WORKS 48 HOURS PRIOR TO MAKING CONNECTION TO ANY EXISTING WATER LINES. SHUT DOWN NOTICES TO ALL AFFECTED CONNECTIONS MUST BE SENT A MINIMUM OF 48 HOURS BEFORE SHUT DOWN. SHUT DOWN MAY NOT LAST FOR MORE THAN 12 HOURS.
8. INSTALL VALVES ON EACH LEG OF A MAIN LINE JUNCTION. USE FLANGED CONNECTIONS FOR VALVES ON NEW FITTINGS. WHEN CONNECTING TO AN EXISTING FITTING, USE MECHANICAL JOINTS AND SET NEW VALVE 5-FT FROM EXISTING FITTING. JOINT RESTRAINTS (EBAA MEGALUG OR APPROVED EQUAL) ARE REQUIRED ON ALL MECHANICAL JOINT CONNECTIONS.
9. REQUIRED VALVE SPACING IS ONE BLOCK OR 20 SERVICE CONNECTIONS, WHICHEVER IS LESS.

PAYSON UTAH SEPTEMBER 2023	WATER MAIN PIPE TRENCH	STANDARD PLAN W-2	SHEET 1 OF 1

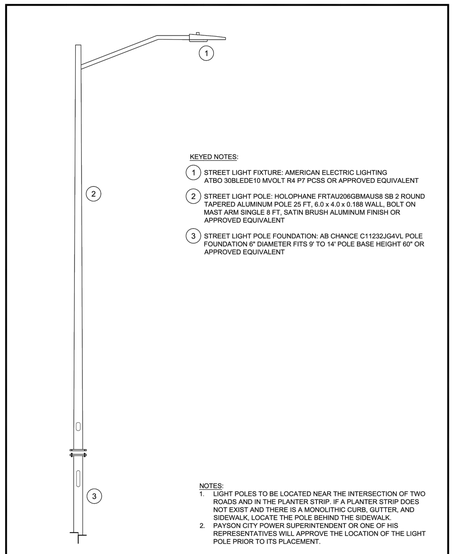


PAYSON UTAH SEPTEMBER 2023	1" PRESSURIZED IRRIGATION METER AND SERVICE	STANDARD PLAN W-3	SHEET 1 OF 2



NOTES:
1. ALL MATERIALS TO BE BRASS AND SDR9 CTS POLY.
2. INSPECTION REQUIRED PRIOR TO BACKFILLING.
3. INSTALL ALL BACKFILL IN LIFTS NOT EXCEEDING 6" AFTER COMPACTION. COMPACT EACH LIFT TO AN AVERAGE DRY DENSITY OF 96% OF OPTIMUM WITH NO DENSITY TEST RESULT LESS THAN 92% OF OPTIMUM.
4. PLACE TAPS A MINIMUM OF 24" APART. USE A TAPPING TOOL WHICH IS SIZED CORRESPONDING TO THE SIZE OF THE SERVICE LINE TO BE INSTALLED. NO TAPS WITHIN 24" OF END OF PIPE.
5. A DOUBLE STRAP EPOXY COATED STAINLESS STEEL SERVICE SADDLE CLAMP AND TEFLON TAPE IS REQUIRED ON ALL TAPS.
6. INSTALL SERVICE LINE 12" BELOW FROST LINE OR 42" MINIMUM.
7. STANDARD SERVICE SIZE IS 1".
8. STAINLESS STEEL LINER INSERTS REQUIRED INSIDE OF TUBING AT COMPRESSION FITTINGS.
9. ALL FITTINGS SHALL BE COMPATIBLE WITH SERVICE SIZE.
10. 3' MINIMUM OFFSET FROM DRIVEWAYS. **DO NOT ENCLOSE METER BOX IN CONCRETE.**

PAYSON UTAH SEPTEMBER 2023	1" DRINKING WATER METER AND SERVICE	STANDARD PLAN W-5	SHEET 1 OF 1



KEYED NOTES:
1. STREET LIGHT FIXTURE: AMERICAN ELECTRIC LIGHTING ATBO 30BLEDE10 MVOLT R4 P7 PCSS OR APPROVED EQUIVALENT
2. STREET LIGHT POLE: HOLOPHANE FRTAU206GBMAUS8 SB 2 ROUND TAPERED ALUMINUM POLE 25 FT, 6.0 x 4.0 x 0.188 WALL, BOLT ON MAST ARM SINGLE 8 FT, SATIN BRUSH ALUMINUM FINISH OR APPROVED EQUIVALENT
3. STREET LIGHT POLE FOUNDATION: AB CHANCE C11232JG4VL POLE FOUNDATION 6" DIAMETER FITS 9' TO 14' POLE BASE HEIGHT 60" OR APPROVED EQUIVALENT

NOTES:
1. LIGHT POLES TO BE LOCATED NEAR THE INTERSECTION OF TWO ROADS AND IN THE PLANTER STRIP. IF A PLANTER STRIP DOES NOT EXIST AND THERE IS A MONOLITHIC CURB, GUTTER, AND SIDEWALK, LOCATE THE POLE BEHIND THE SIDEWALK.
2. PAYSON CITY POWER SUPERINTENDENT OR ONE OF HIS REPRESENTATIVES WILL APPROVE THE LOCATION OF THE LIGHT POLE PRIOR TO ITS PLACEMENT.

PAYSON UTAH SEPTEMBER 2023	STREET LIGHT POLE AND BASE DETAIL	STANDARD PLAN P-8	SHEET 1 OF 1

DEVELOPMENT

PAYSON VIEW ESTATES PHASE 4

DEVELOPER

PATTERSON HOMES
www.phutah.com
11038 N. Highland Blvd Suite 100
Highland, UT 84003
(801) 642-0119

Berg CIVIL ENGINEERING
1018 N. Deer Crest Lane
Alpine Ut, 84004
office (801) 492-1277
cell (801) 616-1677

REVISIONS

NO.	DATE	DESCRIPTION
1		
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7		

SEAL

STATE OF UTAH — JASON R. BERG — 343602 — 01/16/2024 — PROFESSIONAL ENGINEER

ACTION	DATE
PRELIM	01/16/2024

PROJECT

PAYSON VIEW ESTATES PHASE 4

DESCRIPTION

PRELIMINARY PLANS

SHEET NAME	SHEET NUMBER
DETAILS	DTL2

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