

PLOT DATE. <i>SEE STAMP DATE</i>	
DESIGNED	<i>QUENTIN CHALMERS, PE</i>
DRAWN	<i>MARY E. MOORE</i>
APPROVED	<i>HOLLI HEAVRIN, PE</i>
PROJECT MANAGER	
SHEET	OF
<i>1</i> / <i>C1.01</i>	<b>54</b>
PROJECT NUMBER	
<b>24019</b>	

[illegible]

11/15/24



CITY STANDARD NOTES:

THE FOLLOWING CITY OF CLE ELUM (COCE) STANDARD NOTES SHALL APPLY UNLESS THEY ARE IN CONFLICT WITH PROVISIONS IN THE APPROVED DEVELOPMENT AGREEMENT (DA) IN WHICH CASE THE DA SHALL GOVERN. A STRIKE THROUGH HAS BEEN ADDED TO NOTES THAT ARE IN CONFLICT WITH THE DA.

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS, THE LATEST EDITION OF STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION PREPARED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, AND THE WASHINGTON STATE CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION, THE CITY OF CLE ELUM DEVELOPMENT STANDARDS, REFERENCED CODES AND ORGANIZATIONS, AND THESE SPECIAL PROVISIONS.
- CONSTRUCTION HOURS WITHIN THE UGA SHALL BE LIMITED TO 7:00 AM TO 7:00 PM, MONDAY THROUGH SATURDAY. SUNDAY CONSTRUCTION SHALL BE ON AN EMERGENCY BASIS ONLY AND SHALL BE APPROVED BY THE CITY. EQUIPMENT SERVICING AND MAINTENANCE TIMES WILL BE UNRESTRICTED.
- THE DEVELOPER'S CONTRACTOR SHALL GIVE A MINIMUM OF TEN (10) DAYS PRIOR NOTICE TO THE PUBLIC WORKS DIRECTOR OF THE START OF ANY CONSTRUCTION ACTIVITIES.
- BEFORE THE DEVELOPER'S CONTRACTOR COMMENCES ANY WORK, HE SHALL BE REQUIRED TO ATTEND A PRECONSTRUCTION CONFERENCE WITH THE DEPARTMENT OF PUBLIC WORKS, THE CITY'S ENGINEER, AND UTILITY COMPANIES AS DETERMINED BY THE CITY OF CLE ELUM. THE PURPOSE OF THE MEETING IS TO DISCUSS THE SCHEDULING, METHOD OF CONSTRUCTION, RESPONSIBILITIES, CONCERNS OF OTHER UTILITIES, AND OTHER PERTINENT PROJECT CONDITIONS. THE CONTRACTOR WILL SUBMIT HIS INSURANCE AND CONSTRUCTION SCHEDULE AT OR PRIOR TO THIS MEETING. SEE SPECIAL PROVISION 1-08.3 FOR CONSTRUCTION SCHEDULE SUBMITTAL REQUIREMENTS.
- THE DEVELOPER SHALL MAINTAIN A NEATLY MARKED, FULL-SIZED SET OF RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL NEW CONSTRUCTION OF THE PUBLIC FACILITIES.
- WATER SUPPLY: WATER FOR USE ON THE PROJECT MAY BE OBTAINED/PURCHASED FROM THE CITY OF CLE ELUM AND THE CONTRACTOR SHALL ARRANGE FOR AND CONVEY THE WATER FROM THE NEAREST CONVENIENT HYDRANT OR OTHER SOURCE AT HIS OWN EXPENSE. THE HYDRANTS SHALL BE USED IN ACCORDANCE WITH THE CITY OF CLE ELUM WATER DEPARTMENT REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND PAYING FOR ALL MATERIAL TESTING REQUIRED BY THESE CONTRACT DOCUMENTS. ALL TESTING SERVICES SHALL BE PERFORMED BY AN INDEPENDENT, CERTIFIED TESTING FIRM AND/OR LABORATORY MEETING THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL SUBMIT INFORMATION RELATING TO THE QUALIFICATIONS OF THE PROPOSED TESTING FIRM TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE PRECONSTRUCTION CONFERENCE. SEE SPECIAL PROVISION 1-05.18 FOR REQUIRED TEST TYPES AND FREQUENCIES.
- LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING FACILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION OBTAINED WITHOUT UNCOVERING, MEASURING, OR OTHER VERIFICATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE THE PRESENCE AND LOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL CALL FOR FIELD LOCATION NOT LESS THAN TWO NOR MORE THAN TEN BUSINESS DAYS BEFORE THE SCHEDULED DATE FOR COMMENCEMENT OF EXCAVATION WHICH MAY AFFECT UNDERGROUND UTILITY FACILITIES, UNLESS OTHERWISE AGREED UPON BY THE PARTIES INVOLVED.

WATER STANDARD NOTES:

ALL EXTENSIONS TO THE CITY OF CLE ELUM'S DOMESTIC WATER SYSTEM SHALL CONFORM TO THE DESIGN STANDARDS OF THE CITY OF CLE ELUM AND THE STATE DEPARTMENT OF HEALTH AS FOLLOWS:

- ALL NEW LOTS AND DEVELOPMENTS SHALL BE SERVED BY A PUBLIC WATER SUPPLY LINE MAINTAINED BY THE CITY OF CLE ELUM AND LOCATED ADJACENT TO THE LOT OR DEVELOPMENT SITE. THE WATER SUPPLY LINE SHALL BE CAPABLE OF PROVIDING SUFFICIENT FLOW AND PRESSURE TO SATISFY THE FIRE FLOW AND DOMESTIC SERVICE REQUIREMENTS OF THE PROPOSED LOTS AND DEVELOPMENT REQUIREMENTS.
- WATER LINES SHALL BE EXTENDED BY THE OWNER OR DEVELOPER TO THE POINT WHERE THE ADJOINING PROPERTY OWNER'S RESPONSIBILITY FOR FURTHER EXTENSION BEGINS. THIS TYPICALLY REQUIRES AN EXTENSION ACROSS THE ENTIRE FRONTAGE OF THE PROPERTY TO THE PROPERTY LINE OF THE ADJOINING OWNER. IN SOME CASES, IT WILL REQUIRE DEDICATION OF AN EASEMENT AND A LINE EXTENSION ACROSS THE PROPERTY OR EXTENSION ACROSS TWO OR MORE SIDES OF THE DEVELOPING PROPERTY. EXTENSIONS WILL BE CONSISTENT WITH AND IMPLEMENT THE CITY'S ADOPTED WATER COMPREHENSIVE PLAN.
- ALL NEW PUBLIC DOMESTIC WATER MAINS SHALL BE A MINIMUM DIAMETER OF 8-INCH. FIRE HYDRANT RUNS LESS THAN 50 FEET FROM THE WATER MAIN TO THE FIRE HYDRANT SHALL BE A MINIMUM OF 6-INCH. LARGER PUBLIC WATER MAINS MAY BE REQUIRED DEPENDING UPON FIRE FLOW REQUIREMENTS AS DETERMINED BY THE CITY FIRE CHIEF AND CITY BUILDING OFFICIAL.
- WATER MAIN OVERSIZING, ABOVE THAT REQUIRED FOR THE PARTICULAR DEVELOPMENT BEING SUBMITTED, MAY BE REQUIRED BY THE CITY OF CLE ELUM TO BE INSTALLED FOR FUTURE EXTENSION. THE COST OF THE MATERIALS ONLY FOR THE OVERSIZING SHALL BE REIMBURSED TO THE DEVELOPER BY THE CITY. THE DEVELOPER SHALL SUBMIT ACTUAL MATERIAL INVOICES SHOWING THE ACTUAL COST OF THE MATERIALS FURNISHED AND THE COST OF THE SAME MATERIALS OF THE SIZE REQUIRED FOR THE DEVELOPMENT.
- THE DEVELOPER SHALL BE RESPONSIBLE FOR PRESSURE REDUCING VALVE STATIONS IN AREAS OF EXCESSIVE PRESSURE.
- EIGHT-INCH DEAD-END WATER MAIN OVER 1,500 FEET IN LENGTH WILL ONLY BE ALLOWED WHERE FUTURE LOOPING VIA PUBLIC RIGHT OF WAY CAN BE ASSURED. DEAD-END MAINS EXCEEDING 1,500 FEET IN LENGTH WILL BE AT LEAST 10-INCH DIAMETER PIPE WHERE LOOPING IS NOT PRACTICAL OR IS UNLIKELY TO OCCUR IN THE FUTURE.
- MAXIMUM VALVE SPACING IN PUBLIC WATER MAINS WILL BE 1,200 LINEAR FEET. VALVES WILL BE FURNISHED AND INSTALLED ON ALL LEGS OF NEW WATER MAIN INTERSECTIONS.
- ALL NEW WATER METERS SHALL BE A MINIMUM OF 3/4-INCH AND SHALL BE FURNISHED AND INSTALLED BY THE CITY OF CLE ELUM. IF MORE THAN 10 METERS ARE REQUIRED, THEY SHALL BE FURNISHED AND INSTALLED BY THE DEVELOPER TO CITY OF CLE ELUM STANDARDS.
- ONLY ONE METER SHALL BE SERVED FROM EACH MAIN TAP. WATER AND SEWER SERVICE LINES MAY NOT BE LAID IN THE SAME TRENCH EXCEPT AS PROVIDED IN SECTION 1008 OF THE UNIFORM PLUMBING CODE (UPC) AND WITH WRITTEN APPROVAL OF THE CITY OF CLE ELUM BUILDING INSPECTOR.
- MINIMUM TWO-INCH AIR AND VACUUM RELEASE VALVES SHALL BE FURNISHED AND INSTALLED AT HIGH POINTS IN THE SYSTEM.
- FIRE HYDRANTS SHALL BE SPACED NO GREATER THAN EVERY 300 FEET. ADDITIONAL HYDRANTS MAY BE REQUIRED TO PROTECT STRUCTURES AS DETERMINED BY THE CITY FIRE CHIEF. ADDITIONAL FIRE HYDRANTS REQUIRED ON A SITE MAY REQUIRE A LOOPED, ON-SITE FIRE HYDRANT MAIN. EASEMENTS WILL BE PROVIDED FOR ALL ON-SITE, PUBLIC, LOOPED WATER MAINS.
- ALL IRRIGATION SERVICES SHALL BE INSTALLED WITH A STATE APPROVED, DOUBLE CHECK VALVE ASSEMBLY. WATER AND SEWER MAINS SHALL BE SEPARATED IN ACCORDANCE WITH SECTION C1-9.1 OF THE LATEST EDITION OF THE CRITERIA FOR SEWAGE WORKS DESIGN BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY.
- THE DESIGN OF WATER MAINS AND APPURTENANCES IS SUBJECT TO REVIEW AND APPROVAL BY THE CITY OF CLE ELUM DIRECTOR OF PUBLIC WORKS. THE DIRECTOR OF PUBLIC WORKS MAY, AT HIS DISCRETION, ADJUST THESE STANDARDS AS NECESSARY TO FACILITATE INSTALLATION OF WATER LINES AND APPURTENANCES FOR THE HEALTH, SAFETY, AND PROTECTION OF THE GENERAL PUBLIC.
- ALL DOUBLE DETECTOR CHECK VALVE ASSEMBLIES SHALL CONFORM TO CITY OF CLE ELUM STANDARDS. INITIAL AND ANNUAL TESTING WILL BE REQUIRED.

SEWER STANDARD NOTES:

ALL EXTENSIONS TO THE SEWER SYSTEM SHALL CONFORM TO THE DESIGN STANDARDS OF THE CITY OF CLE ELUM AND THE WASHINGTON STATE DEPARTMENT OF ECOLOGY AS FOLLOWS:

- ALL NEW LOTS AND DEVELOPMENTS SHALL BE SERVED BY A PUBLIC SANITARY SEWER LINE ADJACENT TO THE LOT OR DEVELOPMENT SITE.
- SEWER LINES SHALL BE EXTENDED BY THE OWNER OR DEVELOPER TO THE POINT WHERE THE ADJOINING PROPERTY OWNER'S RESPONSIBILITY FOR FURTHER EXTENSION BEGINS. THIS TYPICALLY REQUIRES AN EXTENSION ACROSS THE ENTIRE FRONTAGE OF THE PROPERTY TO THE PROPERTY LINE OF THE ADJOINING OWNER. IN SOME CASES, IT WILL REQUIRE DEDICATION OF AN EASEMENT AND A LINE EXTENSION ACROSS THE PROPERTY OR EXTENSION ACROSS TWO OR MORE SIDE OF THE DEVELOPING PROPERTY. EXTENSIONS WILL BE CONSISTENT WITH AND IMPLEMENT THE CITY'S ADOPTED SEWER COMPREHENSIVE PLAN.
- SEWER LINES SHALL BE LOCATED IN STREETS TO SERVE ABUTTING PROPERTIES. WHEN NECESSARY, SEWER LINES MAY BE LOCATED WITHIN PUBLIC EASEMENTS. LINES LOCATED IN STREETS WILL BE OFFSET FROM THE STREET CENTERLINE AND NOT LOCATED WITHIN VEHICLE WHEEL PATH. SEWER LINES LOCATED IN EASEMENTS SHALL GENERALLY BE LOCATED IN THE CENTER OF THE EASEMENT, BUT MAY, WITH THE APPROVAL OF THE DIRECTOR OF PUBLIC WORKS, BE OFFSET TO ACCOMMODATE THE INSTALLATION OF OTHER UTILITIES OR TO SATISFY SPECIAL CIRCUMSTANCES.
- THE MINIMUM SIZE FOR PUBLIC SEWER MAINS IS EIGHT (8) INCHES IN DIAMETER. THE DEVELOPER'S SEWER SYSTEM MUST PROVIDE CAPACITY FOR THE PROPOSED DEVELOPMENT. BUT MUST ALSO PROVIDE CAPACITY FOR FUTURE EXTENSIONS.
- SEWER LINES SHALL BE TERMINATED WITH A MANHOLE. IN SPECIAL CIRCUMSTANCES, A FLUSH-END (CLEAN-OUT) MAY BE INSTALLED ON THE END OF A SEWER MAIN EXTENSION, PROVIDED THE END IS NO FURTHER THAN 150 FEET FROM THE LAST MANHOLE AND THE SEWER MAIN LINE AND GRADE WILL PERMIT FURTHER EXTENSION.
- MANHOLES SHALL BE INSTALLED AT INTERVALS OF NO GREATER THAN 400 FEET AND AT ALL VERTICAL AND HORIZONTAL ANGLE POINTS IN THE SEWER MAIN. EACH BUILDING CONTAINING SANITARY SEWER FACILITIES SHALL BE SERVED BY A SEPARATE PRIVATE SIDE SEWER LINE. BRANCHED SIDE SEWERS SERVING MULTIPLE BUILDINGS AND PROPERTIES SHALL NOT BE PERMITTED. SIDE SEWERS SERVING MULTI-UNIT BUILDINGS ARE PERMITTED.
- SIDE SEWERS SHALL BE INSTALLED IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE (UPC) AND SUBJECT TO REVIEW AND APPROVAL BY THE CITY OF CLE ELUM BUILDING INSPECTOR. WATER AND SEWER LINES SHALL NOT BE LAID IN THE SAME TRENCH, EXCEPT AS PROVIDED IN SECTION 1008 OF THE UPC AND WITH WRITTEN APPROVAL OF THE CITY OF CLE ELUM BUILDING INSPECTOR.
- SEWER LINES SHALL BE DESIGNED FOR GRAVITY FLOW OPERATION. LIFT STATIONS AND FORCE MAINS SHALL BE LIMITED TO THOSE LOCATIONS AND CIRCUMSTANCES WHERE THEY ARE CONSISTENT WITH THE COMPREHENSIVE SEWER PLAN AND ARE THE ONLY VIABLE SOLUTION TO SERVE THE PROPOSED DEVELOPMENT AND OTHER PROPERTIES IN THE VICINITY. LIFT STATIONS AND FORCE MAINS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WASHINGTON.
- THE DESIGN OF SEWER MAINS AND APPURTENANCES IS SUBJECT TO REVIEW AND APPROVAL BY THE CITY OF CLE ELUM DIRECTOR OF PUBLIC WORKS. THE DIRECTOR OF PUBLIC WORKS MAY, AT HIS DISCRETION, ADJUST THESE STANDARDS AS NECESSARY TO FACILITATE INSTALLATION OF SEWER LINES AND APPURTENANCES FOR THE HEALTH, SAFETY, AND PROTECTION OF THE GENERAL PUBLIC.

STORM STANDARD NOTES:

ALL CITY OF CLE ELUM STORM SEWER IMPROVEMENTS SHALL CONFORM TO THE FOLLOWING DESIGN STANDARDS OF THE CITY:

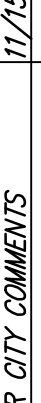
- STORM RUNOFF OCCURRING ON ALL NEW LOTS AND DEVELOPMENTS (PRIVATE PROPERTY) SHALL BE RETAINED AND DISPOSED OF ONSITE. NO STORM RUNOFF WILL BE ALLOWED TO ENTER PUBLIC PROPERTY OR PUBLIC STORM DRAINAGE SYSTEM.
- STORM DRAINAGE FACILITIES SHOWN ON THESE PLANS, INCLUDING BIORETENTION AREAS AND INFILTRATION FACILITIES WILL BE OWNED AND MAINTAINED BY THE CITY OF CLE ELUM.
- STORM RUNOFF FOR NEW PUBLIC STREETS SHALL BE DESIGNED AND CONSTRUCTED AS REQUIRED TO THE POINT WHERE THE ADJOINING PROPERTY OWNER'S RESPONSIBILITY FOR FURTHER EXTENSION BEGINS. THIS TYPICALLY REQUIRES AN EXTENSION ACROSS THE ENTIRE FRONTAGE OF THE PROPERTY TO THE PROPERTY LINE OF THE ADJOINING OWNER.
- ALL STORM SEWER DESIGNS FOR NEW PUBLIC STREETS SHALL BE BASED UPON AN ENGINEERING ANALYSIS WHICH TAKES INTO ACCOUNT TOTAL DRAINAGE AREAS, RUNOFF RATES, PIPE AND INLET CAPACITIES, AND ANY OTHER FACTORS PERTINENT TO THE DESIGN.
- ALL NEW STORM DRAINAGE FACILITIES, PUBLIC OR PRIVATE, SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WASHINGTON. COMPLETE STORM WATER RUNOFF AND DRAINAGE FACILITIES SIZING CALCULATIONS SHALL BE SUBMITTED TO THE CITY OF CLE ELUM FOR REVIEW AND COMMENT.
- STORM SEWER FACILITIES AND PIPELINES SHALL BE DESIGNED TO MEET A MINIMUM 10-YEAR STORM\* CRITERIA. SMALL PRIVATE DEVELOPMENTS MAY BE DESIGNED TO ACCOMMODATE 1-INCH OF PRECIPITATION OVER THE ON-SITE IMPERVIOUS SURFACES. SMALL DEVELOPMENTS ARE DEFINED TO BE 20,000 SF OR LESS OF IMPERVIOUS SURFACE AREA. IMPERVIOUS SURFACES MUST BE CLEARLY NOTED AND SHOWN ON THE PROJECT SITE PLAN. \*THIS DEVELOPMENT HAS BEEN DESIGNED TO FULLY INFILTRATE THE 25 YEAR STORM.
- ALL STORM WATER FACILITIES SHALL HAVE OIL AND SILT SEPARATION.
- INLET SPACING SHALL BE DESIGNED IN ACCORDANCE WITH THE WSDOT HYDRAULICS MANUAL, CHAPTER 5. GENERALLY, INLET SPACING SHALL NOT EXCEED 300 FEET. THERE SHALL BE INSTALLED A MANHOLE OR TYPE II CATCH BASIN AT THE INTERSECTION OF TWO COLLECTOR STORM SEWERS. A COLLECTOR STORM SEWER IS A SEWER SERVICING MORE THAN ONE CATCH BASIN.

STREET STANDARD NOTES:

ALL NEW STREET CONSTRUCTION MUST CONFORM TO THESE DESIGN STANDARDS OF THE CITY OF CLE ELUM AND THE CLE ELUM MUNICIPAL CODE:

- THE MAXIMUM LENGTH OF A CUL-DE-SAC STREET SHALL BE 600 FEET MEASURED ALONG THE STREET CENTERLINE FROM THE NEAREST STREET INTERSECTION TO THE CENTER OF THE CUL-DE-SAC.
- CEMENT CONCRETE BARRIER CURB SHALL BE INSTALLED ALONG ALL NEW STREETS, ROLLED CURB MAY BE PERMITTED ALONG CERTAIN RESIDENTIAL STREETS AS DETERMINED BY THE CITY PUBLIC WORKS DIRECTOR. IF ROLLED CURB IS ALLOWED, BARRIER CURB MUST BE INSTALLED AROUND ALL NEW RADII. NEW SIDEWALKS BEHIND ROLLED CURB SHALL BE A MINIMUM OF 6 INCHES THICK.
- SIDEWALKS SHALL BE CONSTRUCTED ON BOTH SIDES OF ALL NEW STREETS. IF THE DEVELOPER BELIEVES THERE ARE SPECIAL CIRCUMSTANCES WHEREBY THE CONSTRUCTION OF SIDEWALK ON ONE SIDE SHOULD BE DEFERRED, HE MAY MAKE A WRITTEN REQUEST TO THE CITY PUBLIC WORKS DIRECTOR.
- NEW STREET LIGHTING SHALL BE DESIGNED TO PROVIDE REQUIRED LEVELS OF LIGHTING BASED UPON STREET CLASSIFICATION AND LOCATION AS DETERMINED BY THE CITY OF CLE ELUM. AT A MINIMUM, A STREET LIGHT SHALL BE INSTALLED AT EACH STREET INTERSECTION, AT MID BLOCK, NO MORE THAN THREE HUNDRED (300) FEET APART, AND AT ENDS OF CUL-DE-SACS. STREETLIGHTS SHALL MEET THE DESIGN AND PLACEMENT REQUIREMENTS OF THESE STANDARDS AND THE CITY PUBLIC WORKS DIRECTOR. ALL ELECTRICAL PANELS WILL BE DESIGNED TO CITY OF CLE ELUM STANDARDS.



PLOT DATE SEE STAMP DATE		DESIGNED QUENTIM CHALMERS, PE		DRAWN MARY E. MOORE		APPROVED HOLLI HEAVRIN, PE		PROJECT MANAGER	
2		C1.02		54		OF			
24019									
GENERAL NOTES				BULLFROG FLATS - PHASE S-1					
BULLFROG FLATS, LLC				18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052					
CORE DESIGN				CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING					
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877									
NO.		7		REVISED PER CITY COMMENTS		REVISIONS		DATE	
								11/19/24	





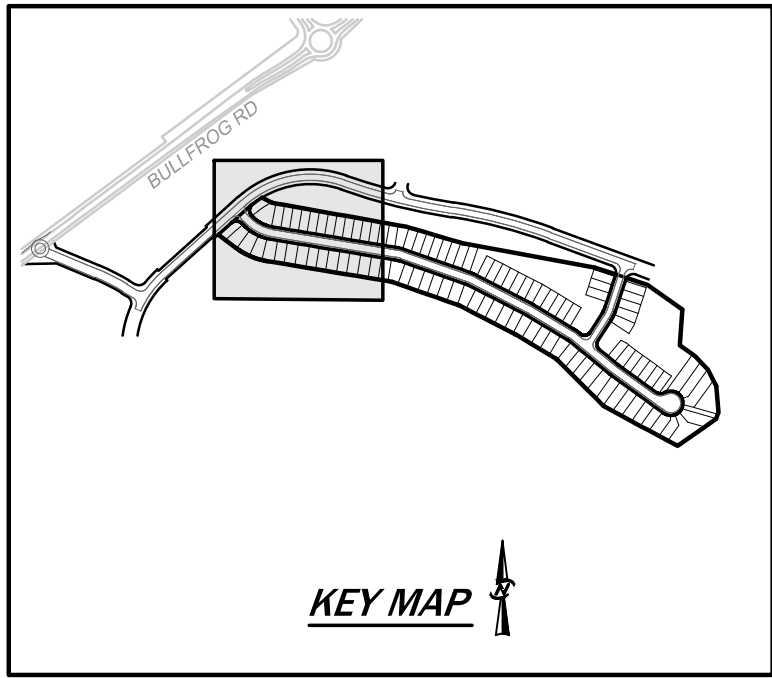
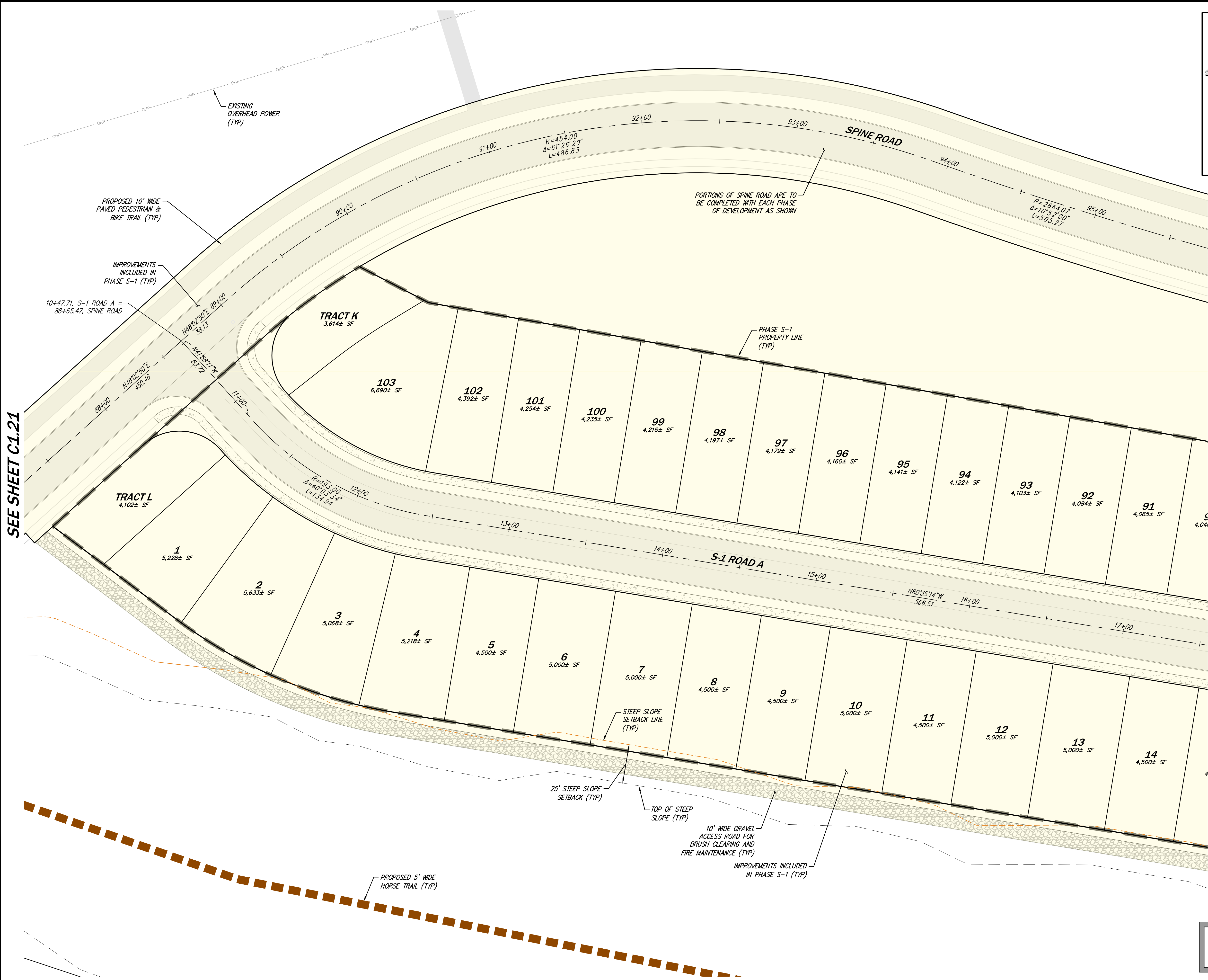












SCALE: 1" = 30'

SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TRAVEL LANE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PROPOSED 5' WIDE HORSE TRAIL
- PHASE S-1 PROPERTY LINE
- 10' WIDE GRAVEL FIRE ACCESS ROAD
- IMPROVEMENTS INCLUDED IN PHASE S-1

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SEE SHEET C1.21

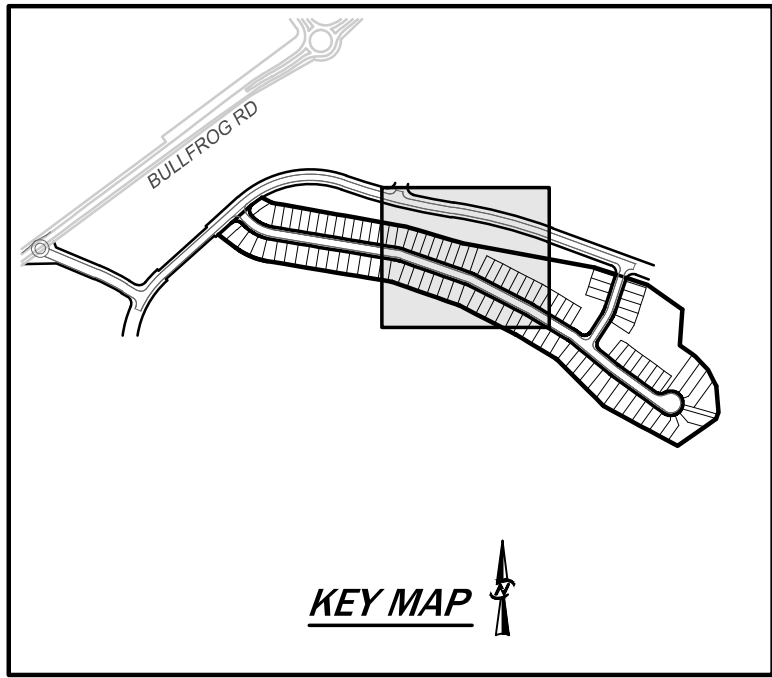
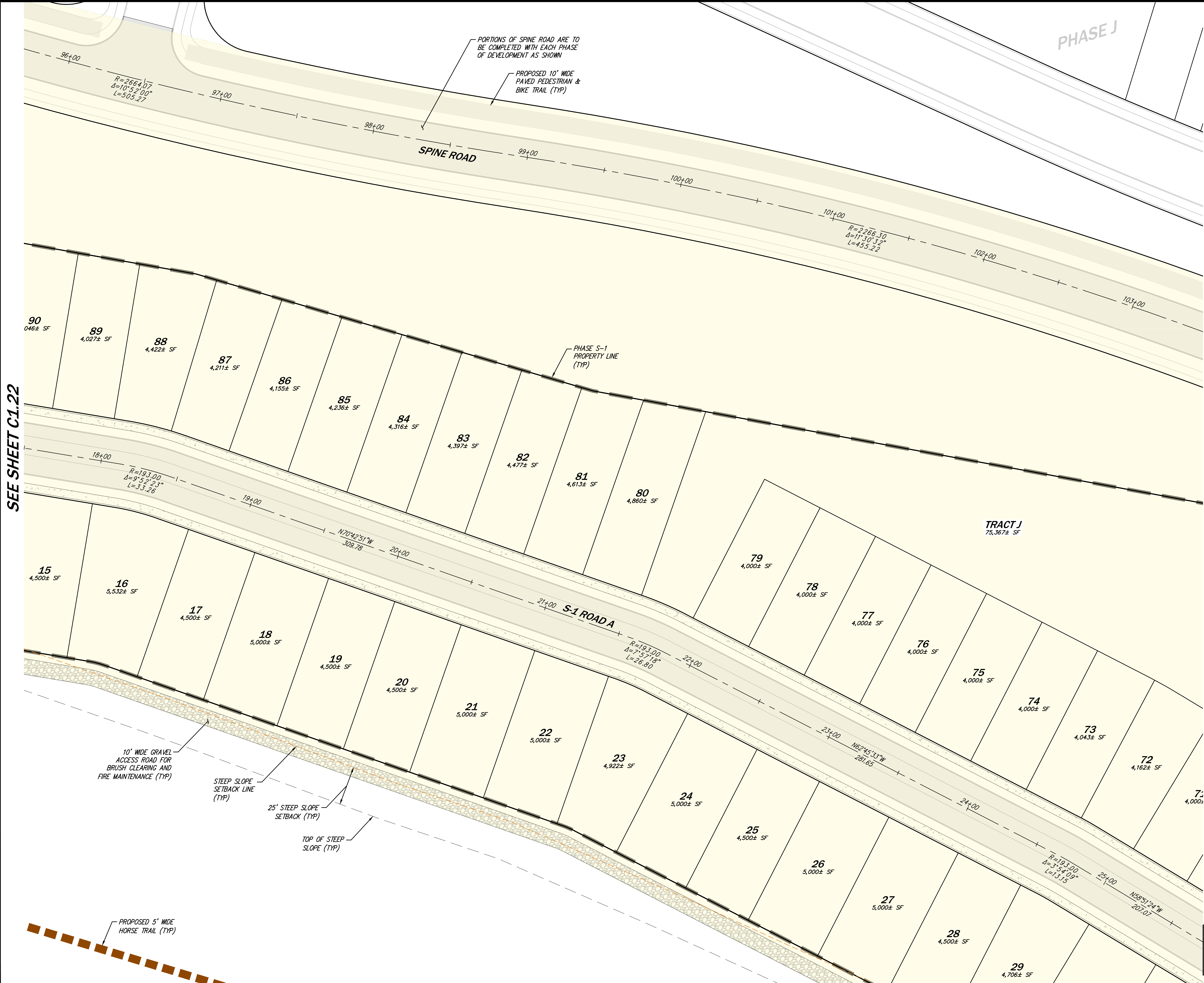


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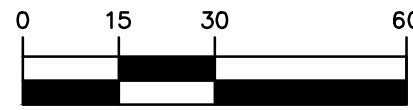
NO. 7		REVISED PER CITY COMMENTS	DATE 11/19/24
REVISIONS			
DESIGNED		QUENTIN CHALMERS, PE	
DRAWN		MARY E. MOORE	
APPROVED		HOLLI HEAVRIN, PE	
PROJECT MANAGER			
HORIZONTAL CONTROL PLAN 2			
BULLFROG FLATS - PHASE S-1			
BULLFROG FLATS, LLC			
18300 REDMOND WAY, SUITE 120			
REDMOND, WA 98052			
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877			
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CORE DESIGN			
11/19/24			



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- IMPROVEMENTS INCLUDED IN PHASE S-1

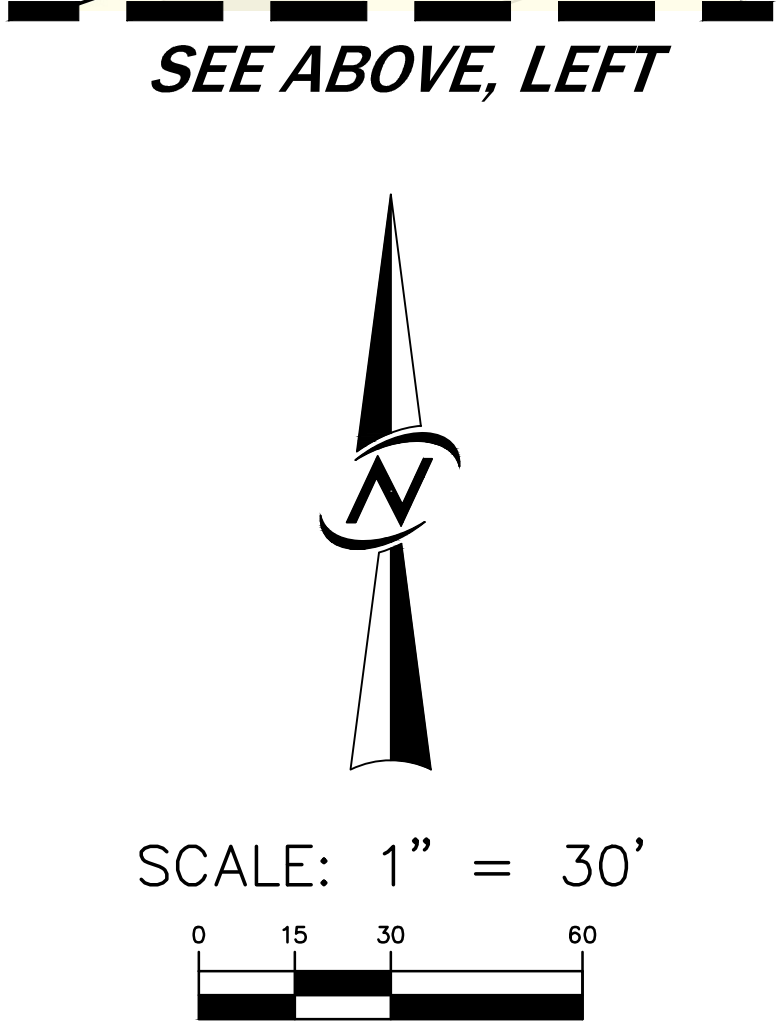
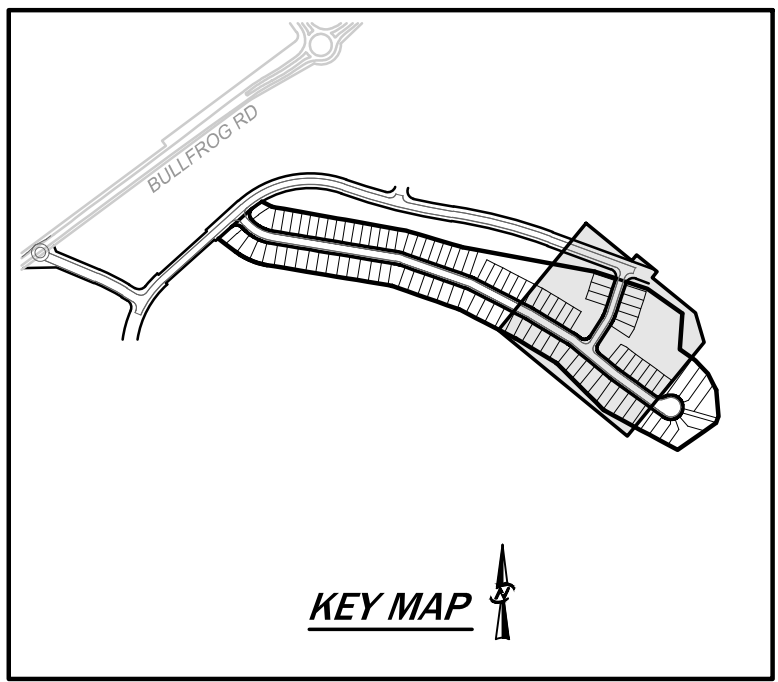


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DATE 11/19/24		NO. 7		REVISIONS REVISED PER CITY COMMENTS	
DESIGNED QUENTIN CHALLMERS, PE		DRAWN MARY E. MOORE		APPROVED HOLLI HEAVRIN, PE	
PROJECT NUMBER 24019		SHEET 7		OF 54	
PROJECT HORIZONTAL CONTROL PLAN 3 BULLFROG FLATS - PHASE S-1		PROJECT MANAGER HOLLI HEAVRIN, PE		PROJECT BULLFROG FLATS, LLC 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052	
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING		CORE DESIGN		12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877	
11/15/2024 11:42 AM J. [2024 24019] [ENGINEERING] [PRELIMINARY] [SHEETS] [PHASE 1 (S1)] [24019 C1.21.DWG]		11/19/24		11/19/24	



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- IMPROVEMENTS INCLUDED IN PHASE S-1

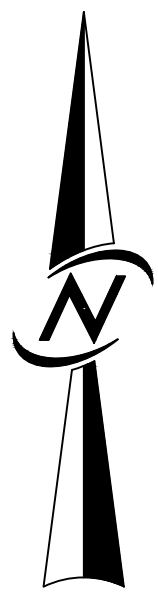
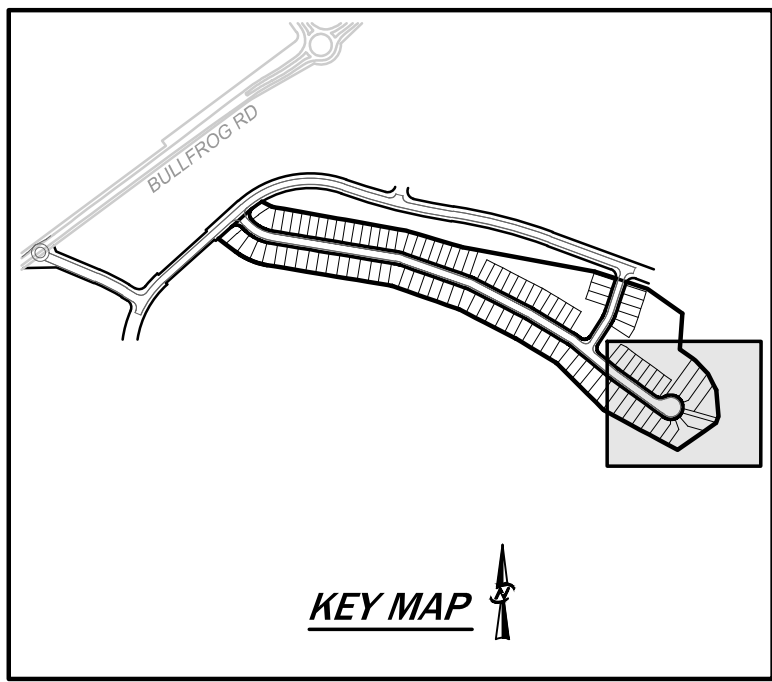
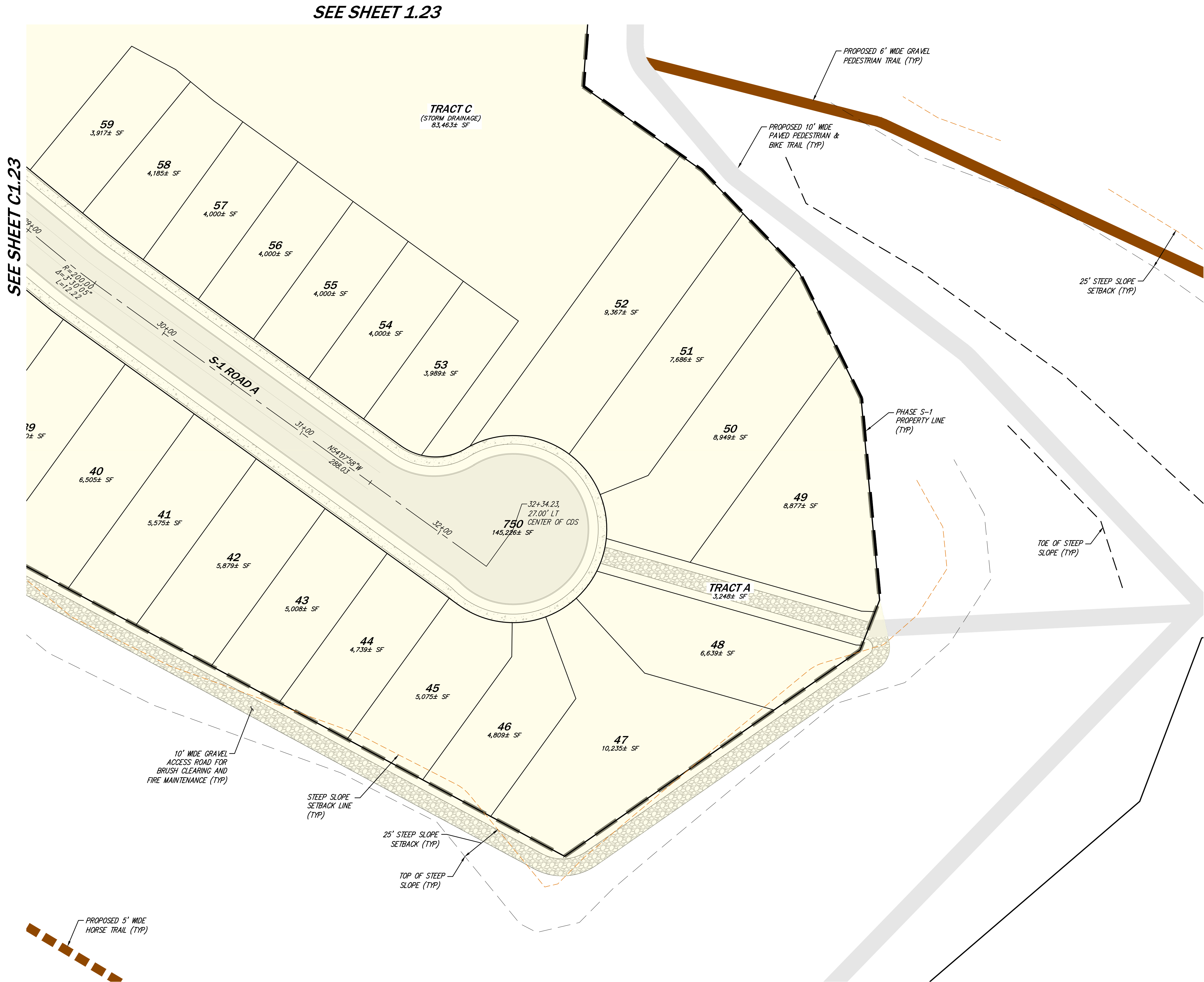


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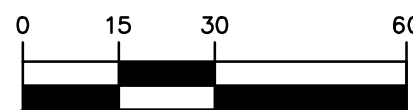
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APPROVED	HOLLIE HEAVRIN, PE
PROJECT MANAGER	HOLLIE HEAVRIN, PE
CIVIL ENGINEERING	LANDSCAPE ARCHITECTURE
PLANNING	SURVEYING
CORE DESIGN	
12100 NE 195th St, Suite 300, Bothell, Washington 98011	425.885.7877
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SCALE: 1" = 30'



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PROJECT MANAGER		HOLLI HEAVRIN, PE	
SHEET 9		OF 54	
PROJECT NUMBER		24019	

**HORIZONTAL CONTROL PLAN 5**  
**BULLFROG FLATS - PHASE S-1**  
**BULLFROG FLATS, LLC**  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

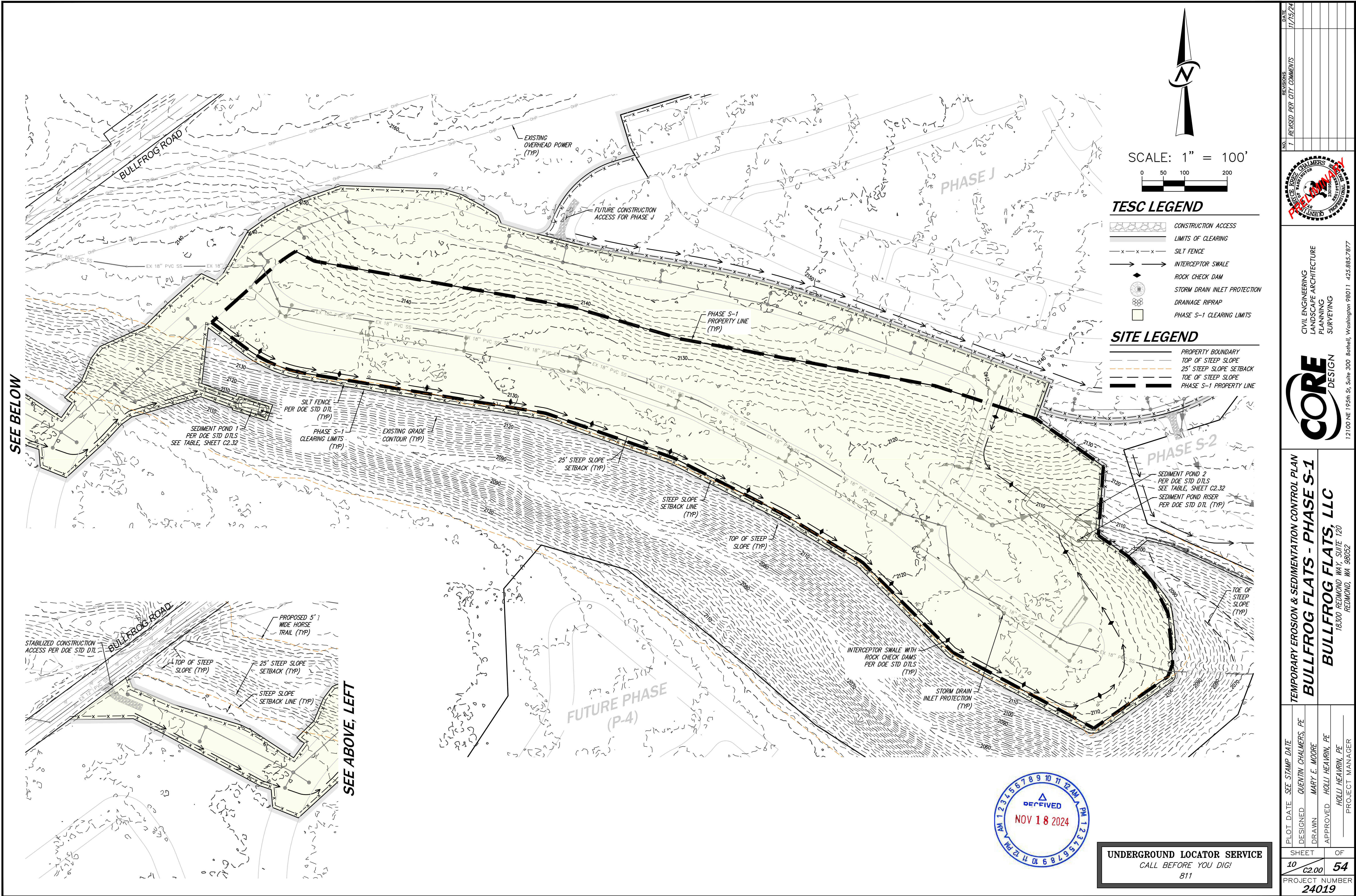
CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
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DESIGN

**CORE**

12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877

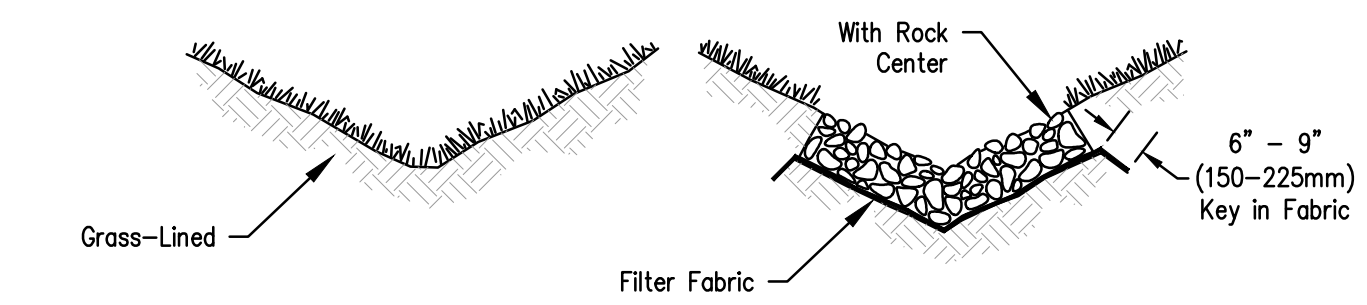


11/15/2024 11:44 AM J:\2024\24019\ENGINEERING\PRELIMINARY\PHASE 1 (S1)\24019 C2.00.DWG

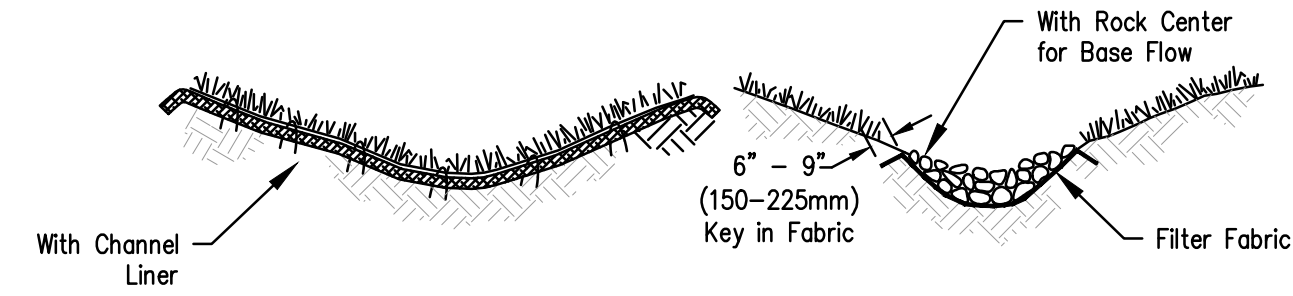




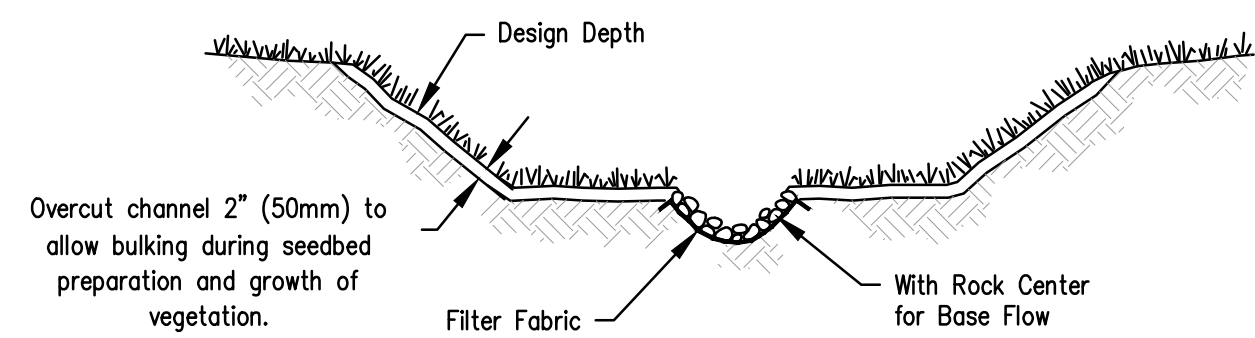
Typical V-Shaped Channel Cross-Section



Typical Parabolic Channel Cross-Section



Typical Trapezoidal Channel Cross-Section



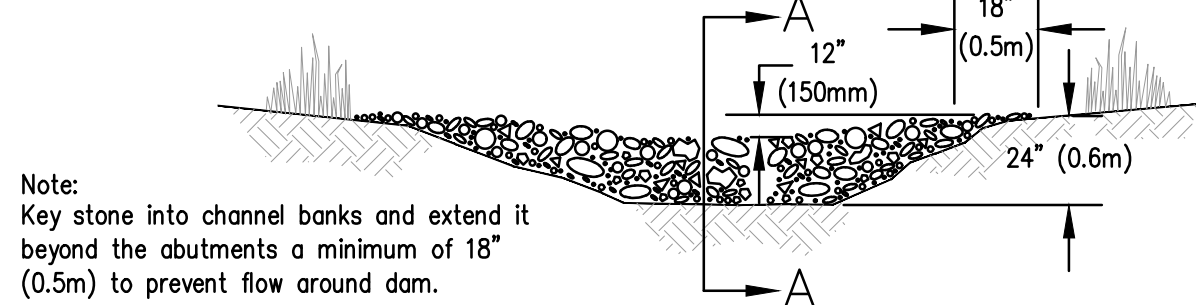
NOT TO SCALE



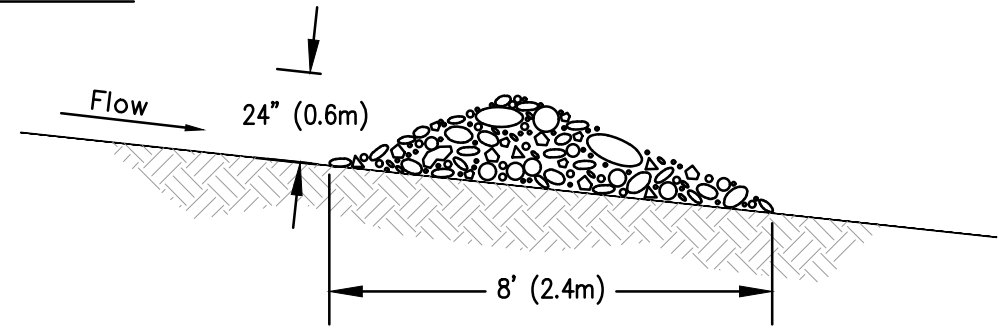
Typical Grass-Lined Channels

Revised June 2016

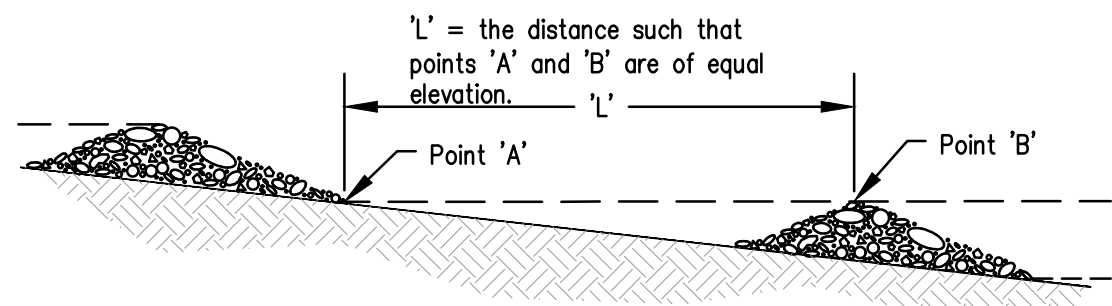
View Looking Upstream



Section A-A



Spacing Between Check Dams

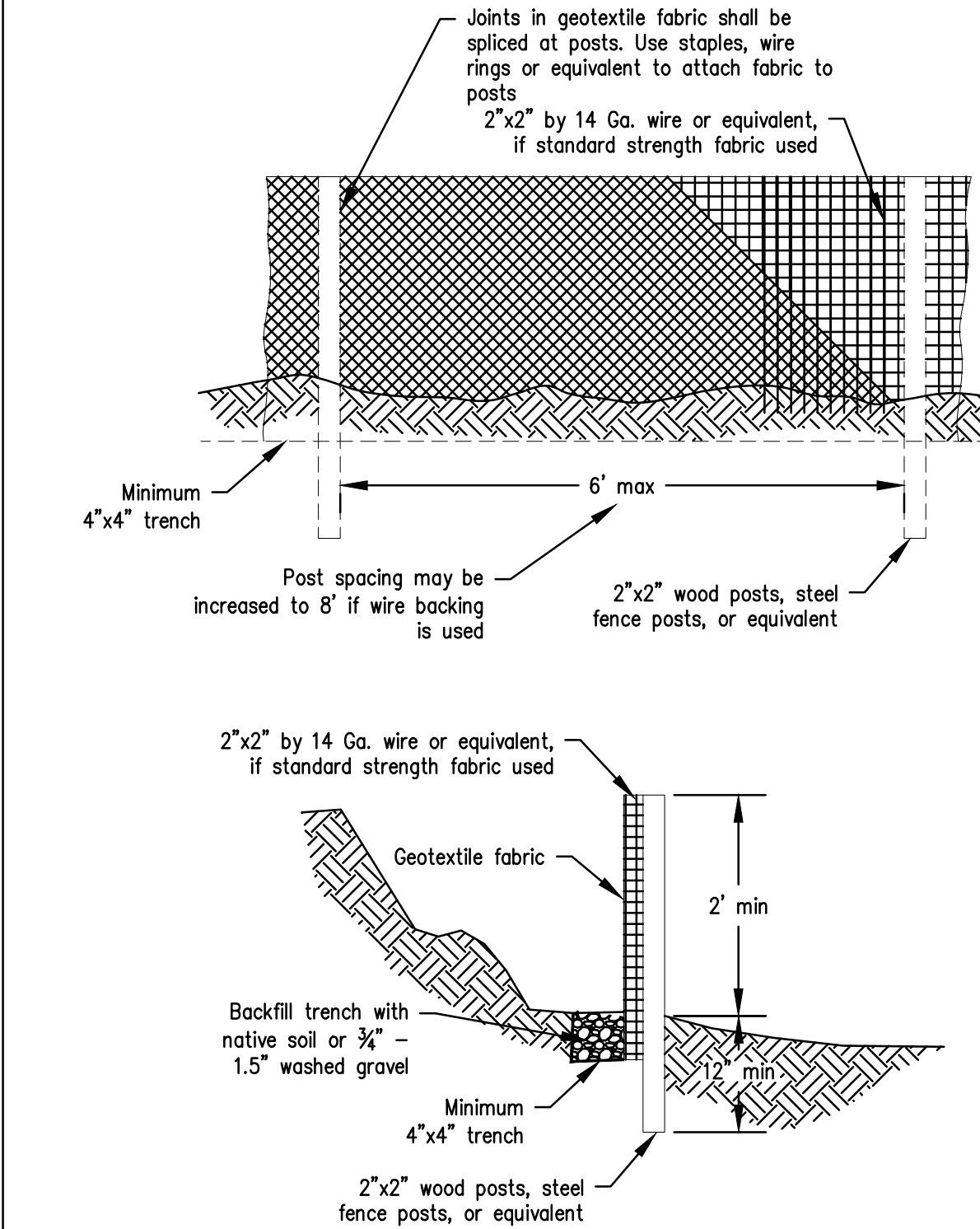


NOT TO SCALE



Rock Check Dam

Revised June 2016

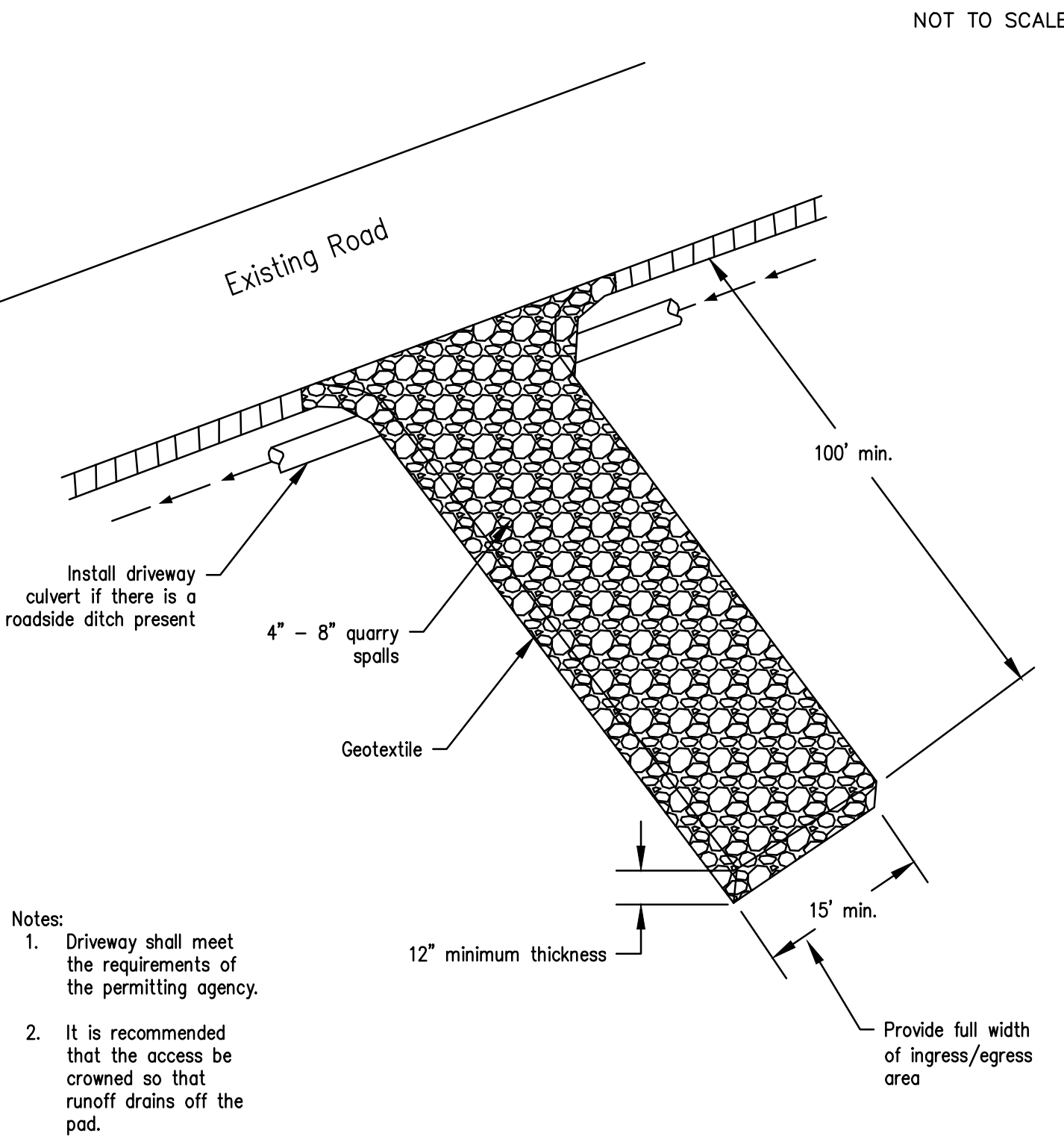


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Silt Fence

Revised July 2017

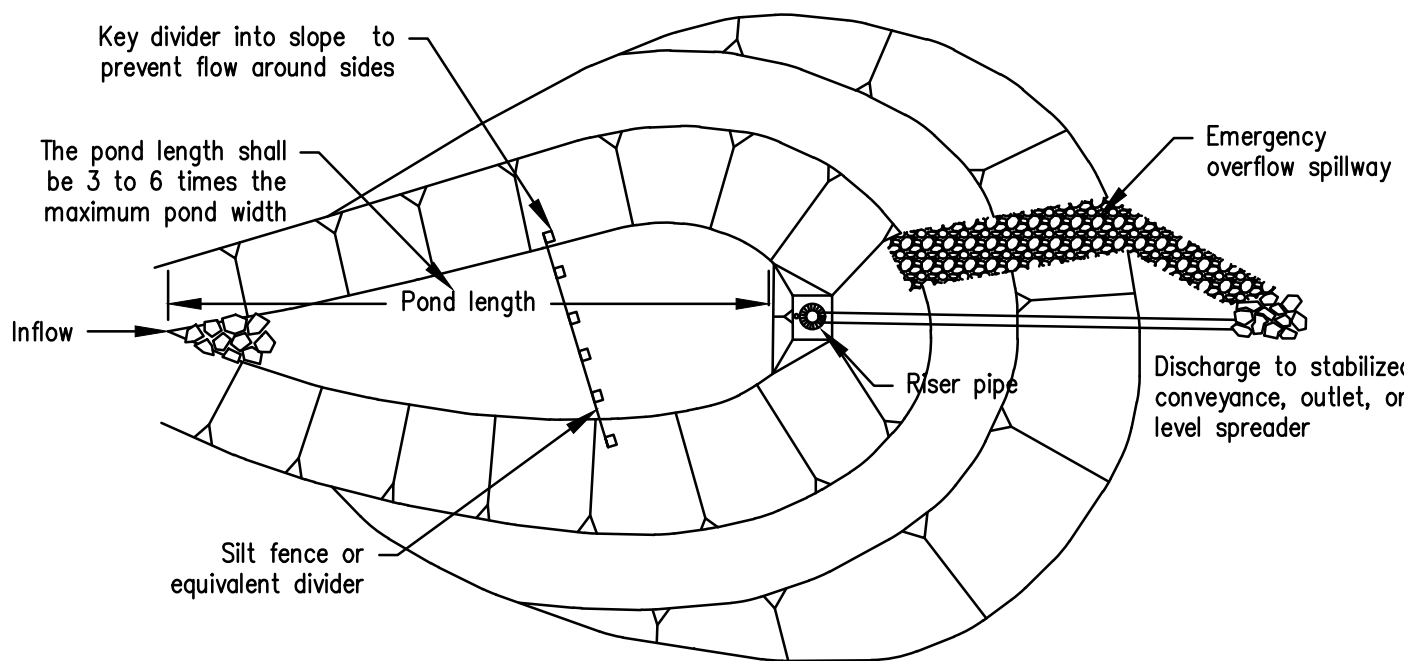


NOT TO SCALE



Stabilized Construction Access

Revised June 2018

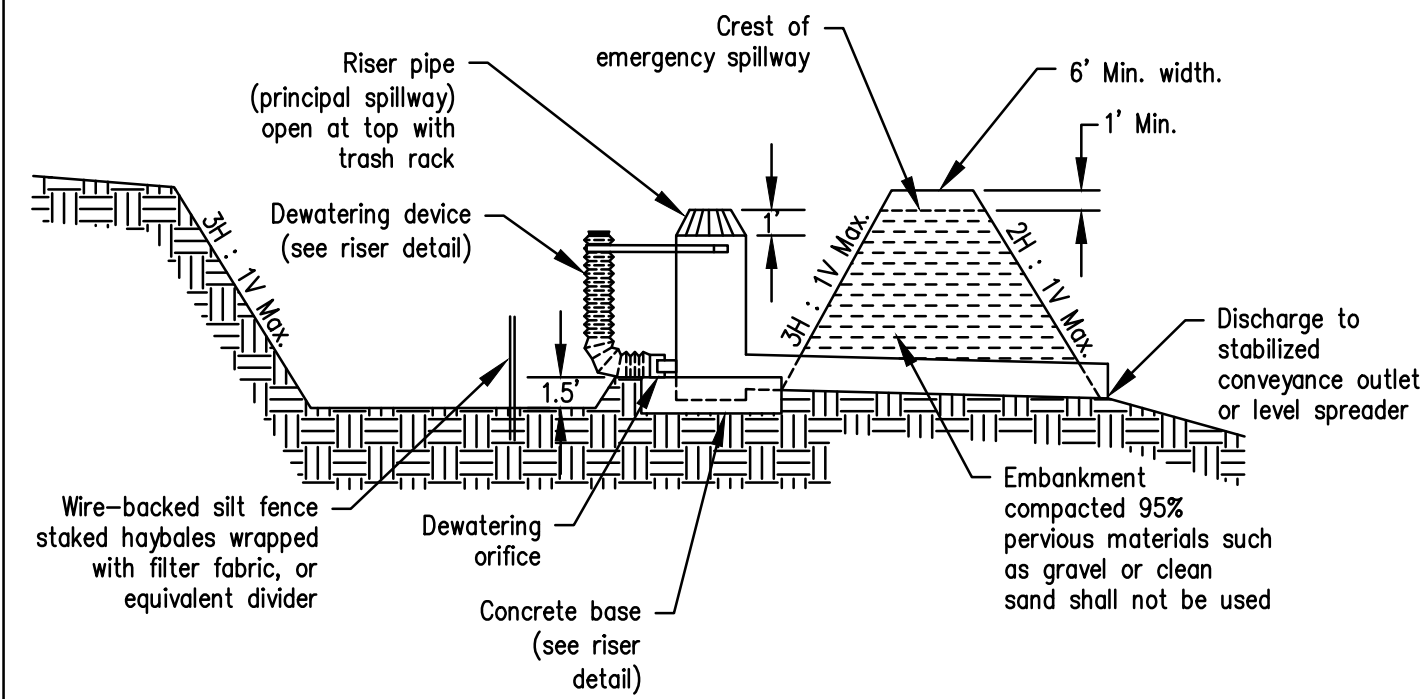


NOT TO SCALE



Sediment Pond Plan View

Revised June 2016



NOT TO SCALE



Sediment Pond Cross Section

Revised June 2016



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TEMPORARY EROSION & SEDIMENTATION CONTROL DETAILS 1  
**BULLFROG FLATS - PHASE S-1**  
**BULLFROG FLATS, LLC**  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

PLOT DATE: SEE STAMP DATE  
DESIGNED: QUENTIN CHALLMERS, PE  
DRAWN: MARY E. MOORE  
APPROVED: HOLLI HEAVRIN, PE  
PROJECT MANAGER: HOLLI HEAVRIN, PE

SHEET 11 OF 54  
PROJECT NUMBER 24019

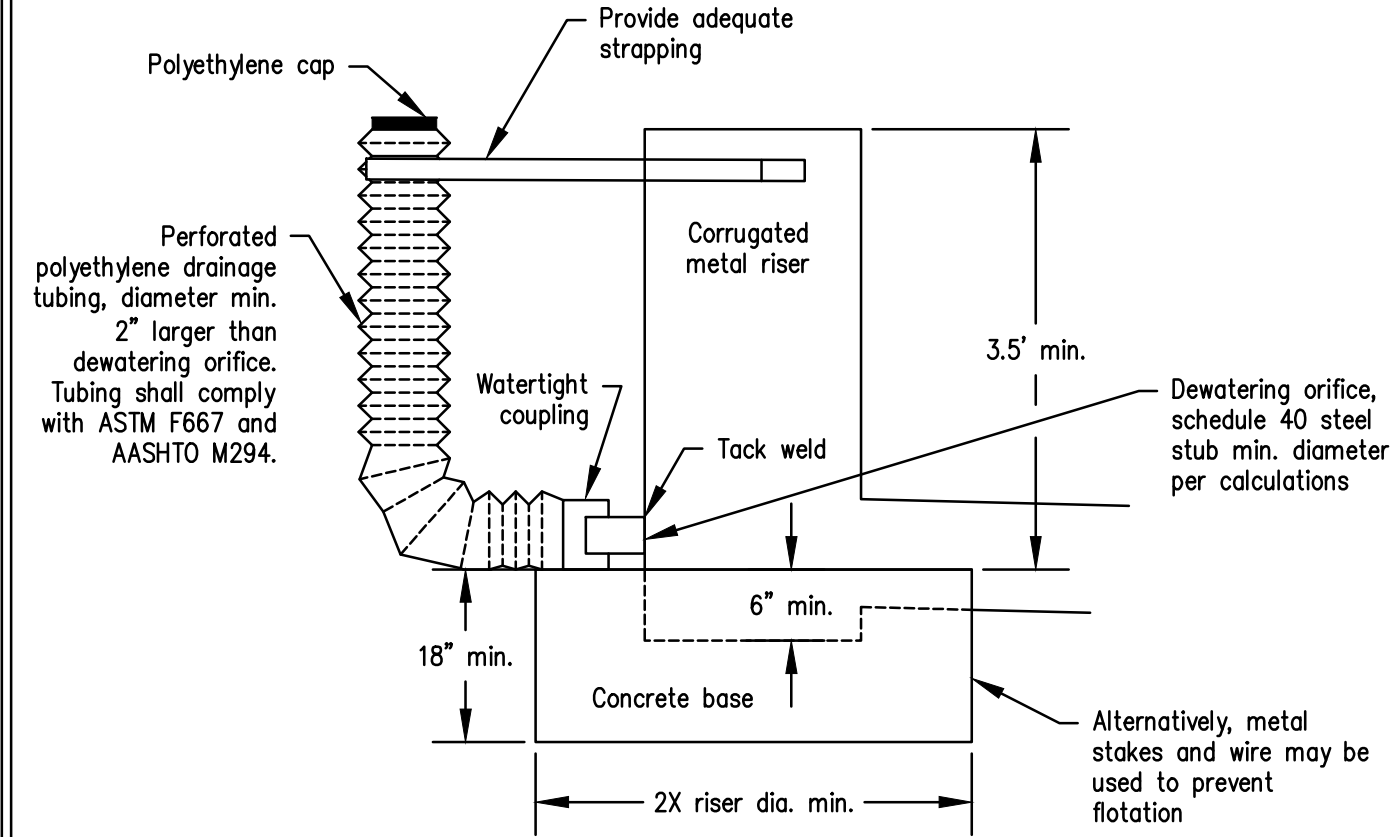


CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING  
**CORE DESIGN**  
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877

NO.	REVISIONS	DATE
1	REVISED PER CITY COMMENTS	11/19/24



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NOT TO SCALE



Sediment Pond Riser Detail

Revised June 2016

BMP C241: Sediment Pond 1 Properties	
Impervious Tributary Area	1.88 ac
Pervious Tributary Area	0.00 ac
2-yr 24 hr Storm Precip.	1.74 in
10-yr 24 hr Storm Precip.	2.90 in
100-yr 24 hr Storm Precip.	4.64 in
2-yr 24 hr Flow Rate	0.73 cfs
10-yr 24 hr Flow Rate	1.27 cfs
100-yr 24 hr Flow Rate	2.06 cfs
Riser Diameter	12 in
Dewatering Orifice Diameter	1.75 in
Emergency Overflow Spillway Length	6.0'
Required Pond Surface Area	1,521 sf
Approx. Dimension at W.S. (L x W)	68' x 23'
Riser Depth	3.5'
Freeboard	1.0'

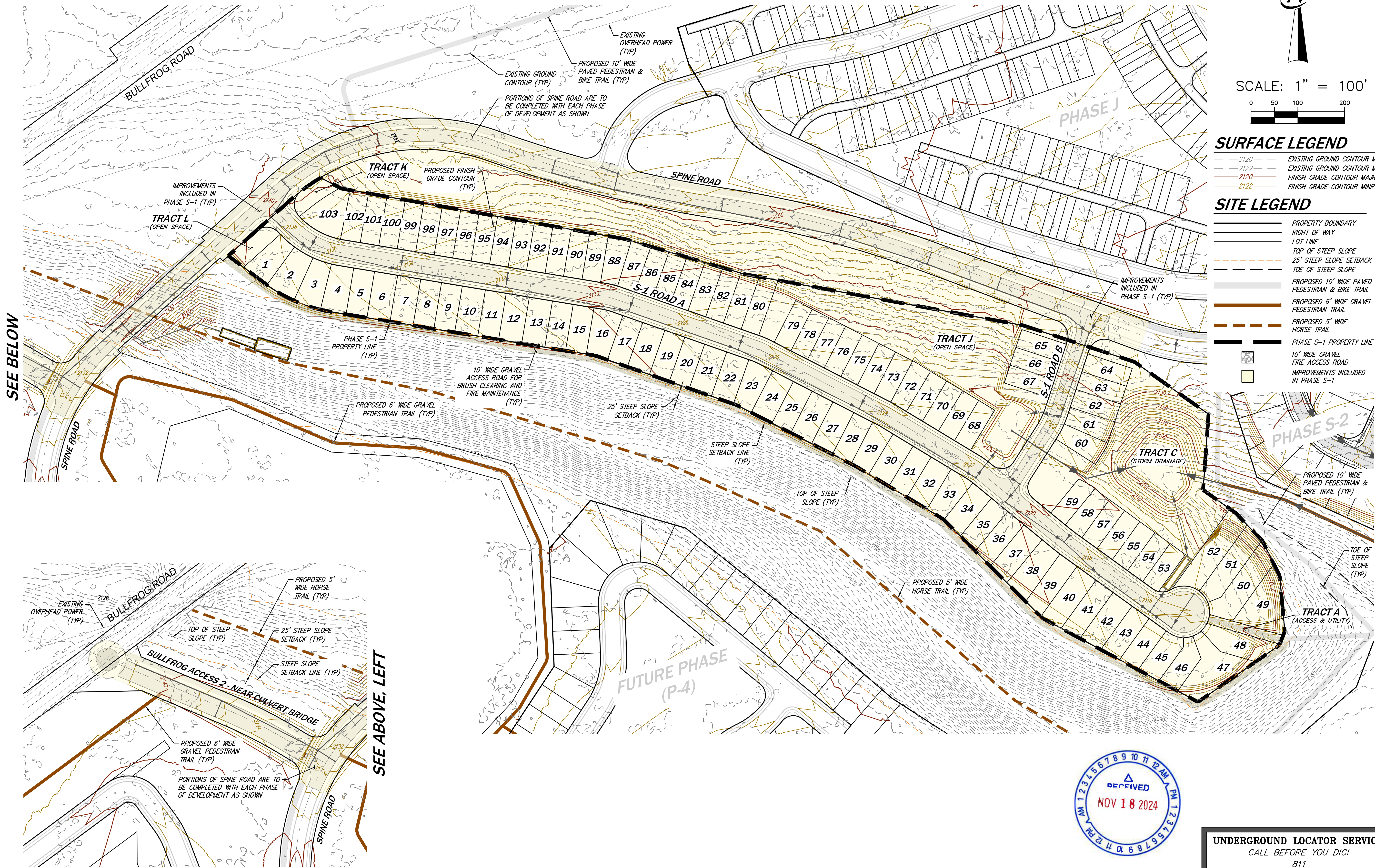
BMP C241: Sediment Pond 2 Properties	
Impervious Tributary Area	6.61 ac
Pervious Tributary Area	0.00 ac
2-yr 24 hr Storm Precip.	1.74 in
10-yr 24 hr Storm Precip.	2.90 in
100-yr 24 hr Storm Precip.	4.64 in
2-yr 24 hr Flow Rate	2.57 cfs
10-yr 24 hr Flow Rate	4.45 cfs
100-yr 24 hr Flow Rate	7.24 cfs
Riser Diameter	18 in
Dewatering Orifice Diameter	3.00 in
Emergency Overflow Spillway Length	6.0'
Required Pond Surface Area	5,354 sf
Approx. Dimension at W.S. (L x W)	127' x 43'
Riser Depth	3.5'
Freeboard	1.0'



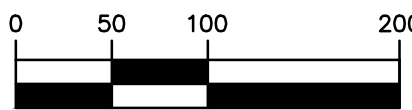
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PLOT DATE SEE STAMP DATE		DESIGNED QUENTIN CHALMERS, PE	
DRAWN MARY E. MOORE		APPROVED HOLLI HEAVRIN, PE	
PROJECT MANAGER		PROJECT MANAGER	
SHEET 12		OF 54	
PROJECT NUMBER 24019			
TEMPORARY EROSION & SEDIMENTATION CONTROL DETAILS 2			
BULLFROG FLATS - PHASE S-1			
BULLFROG FLATS, LLC			
18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052			
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING DESIGN			
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877			
NO. 7			
REVISED PER CITY COMMENTS			
DATE 11/19/24			





SCALE: 1" = 100'



**SURFACE LEGEND**

- 2120 — EXISTING GROUND CONTOUR MAJR
- 2122 — EXISTING GROUND CONTOUR MINR
- 2120 — FINISH GRADE CONTOUR MAJR
- 2122 — FINISH GRADE CONTOUR MINR

**SITE LEGEND**

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PROPOSED 5' WIDE HORSE TRAIL
- PHASE S-1 PROPERTY LINE
- 10' WIDE GRAVEL FIRE ACCESS ROAD
- IMPROVEMENTS INCLUDED IN PHASE S-1

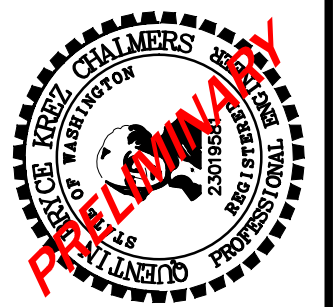
SEE BELOW

SEE ABOVE, LEFT



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NO.	REVISIONS	DATE
7	REVISED PER CITY COMMENTS	11/19/24



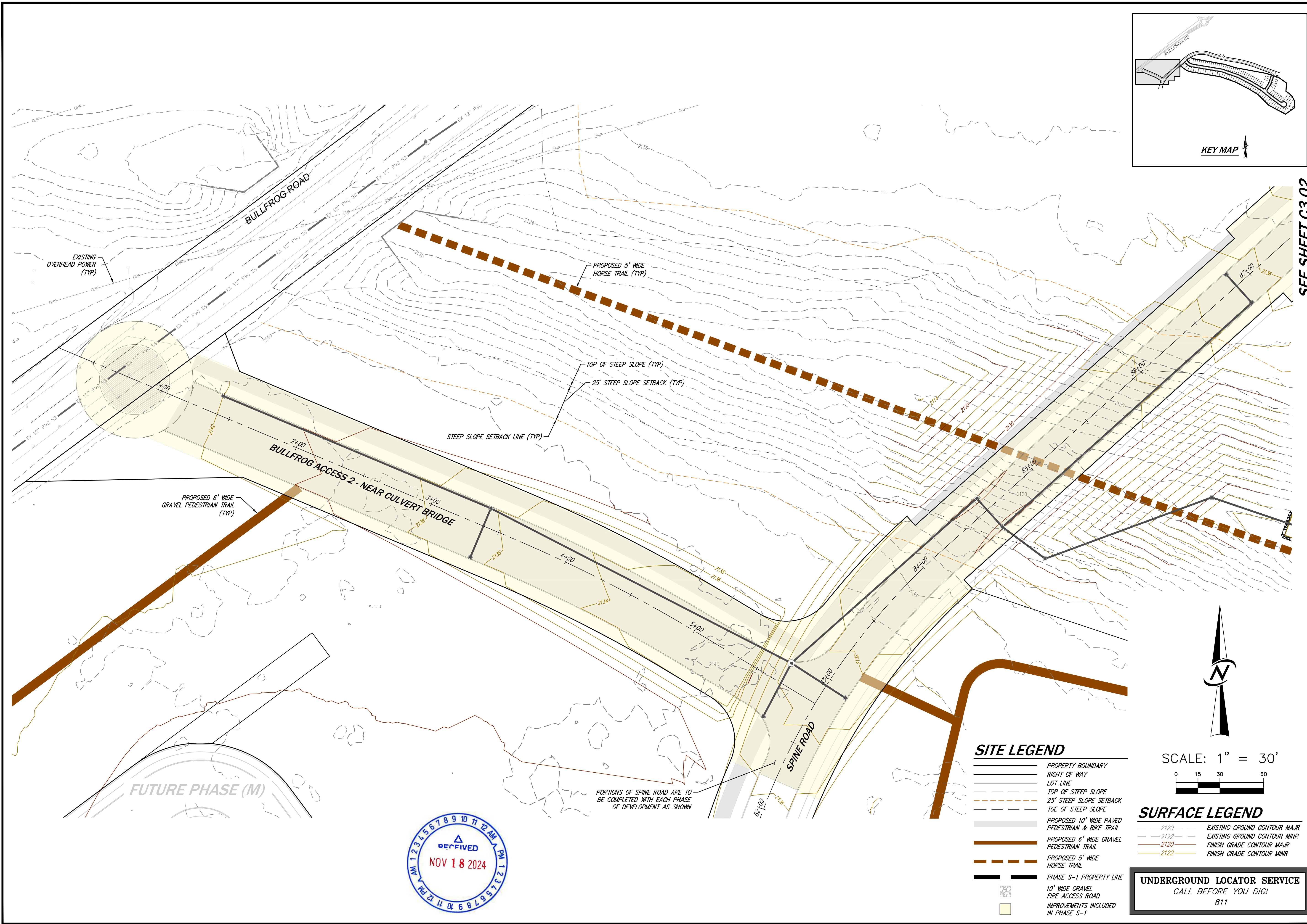
CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING  
**CORE DESIGN**  
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877

**COMPOSITE GRADING PLAN**  
**BULLFROG FLATS - PHASE S-1**  
**BULLFROG FLATS, LLC**  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

PLOT DATE	SEE STAMP DATE
DESIGNED	QUENTIN CHALMERS, PE
DRAWN	MARY E. MOORE
APPROVED	HOLLI HEAVRIN, PE
	HOLLI HEAVRIN, PE
	PROJECT MANAGER
SHEET	OF
13	54
PROJECT NUMBER	24019



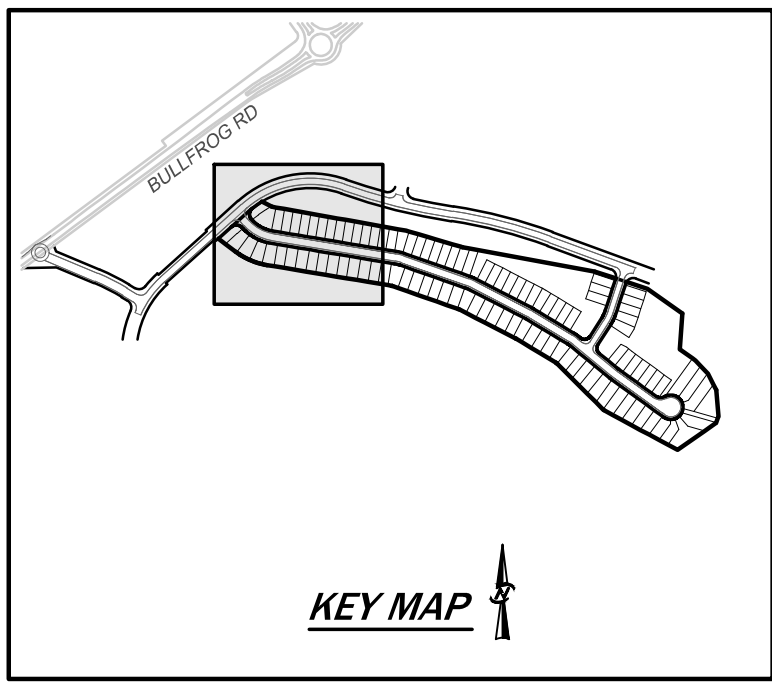
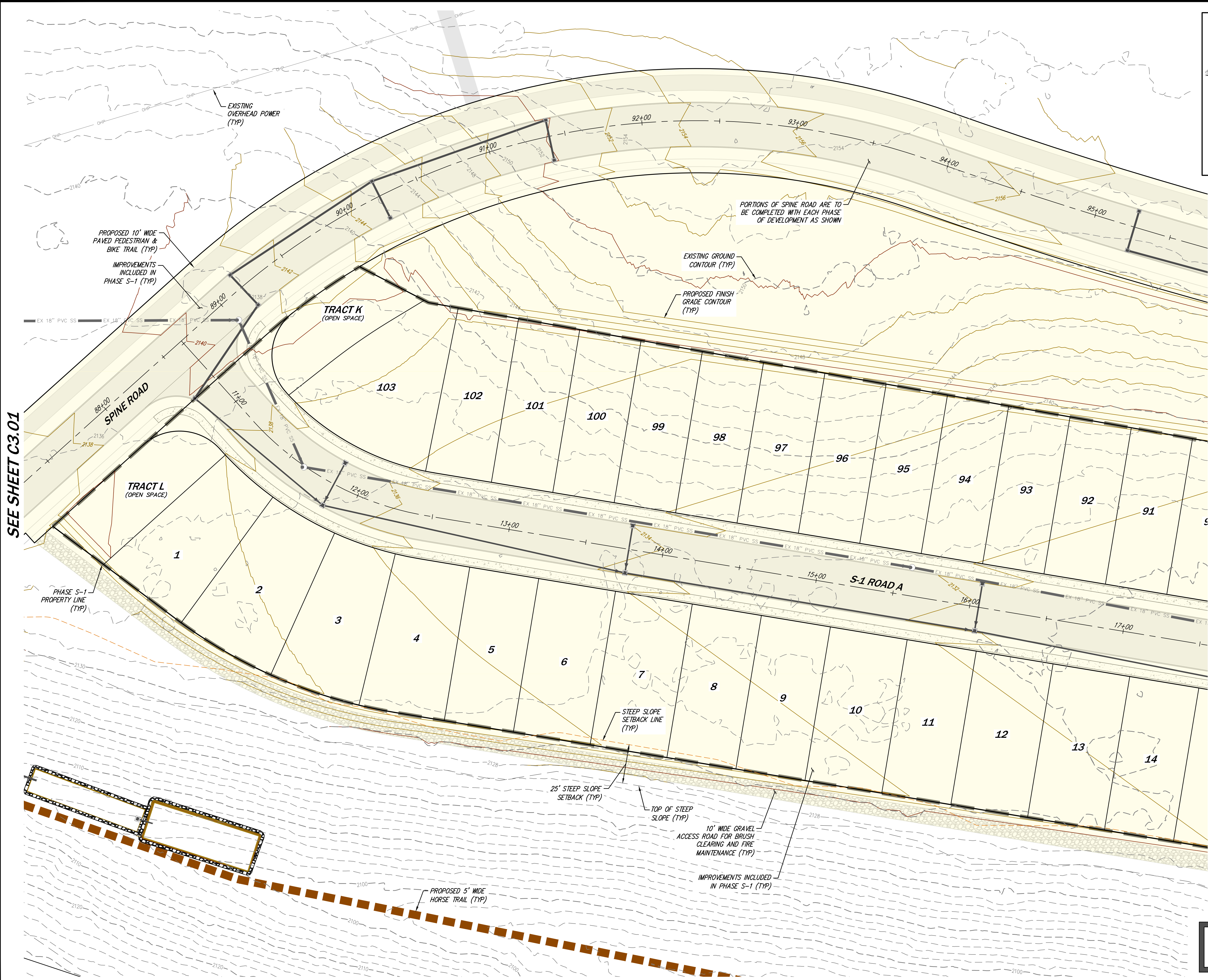
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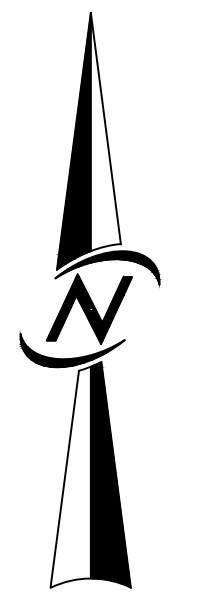
SEE SHEET C3.02

PLOT DATE: 11/15/2024		DESIGNED: QUENTIN CHALLMERS, PE	DATE: 11/19/24
SHEET 14		DRAWN: MARY E. MOORE	REVISIONS
OF 54		APPROVED: HOLLI HEAVRIN, PE	NO. 7
PROJECT NUMBER 24019		PROJECT MANAGER: HOLLI HEAVRIN, PE	REVISED PER CITY COMMENTS
GRADING PLAN 1		CIVIL ENGINEERING	
BULLFROG FLATS - PHASE S-1		LANDSCAPE ARCHITECTURE	
BULLFROG FLATS, LLC		PLANNING	
18300 REDMOND WAY, SUITE 120		SURVEYING	
REDMOND, WA 98052		11/19/24	
		12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877	
		CORE DESIGN	
		SEAL: QUENTIN CHALLMERS, PE, LICENSE NO. 2019086	
		SEAL: MARY E. MOORE, PE, LICENSE NO. 2019086	
		SEAL: HOLLI HEAVRIN, PE, LICENSE NO. 2019086	

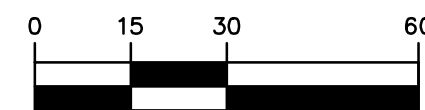




KEY MAP



SCALE: 1" = 30'



### SURFACE LEGEND

- 2120 EXISTING GROUND CONTOUR MAJR
- 2122 EXISTING GROUND CONTOUR MINR
- 2120 FINISH GRADE CONTOUR MAJR
- 2122 FINISH GRADE CONTOUR MINR

### SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PROPOSED 5' WIDE HORSE TRAIL
- PHASE S-1 PROPERTY LINE
- 10' WIDE GRAVEL FIRE ACCESS ROAD
- IMPROVEMENTS INCLUDED IN PHASE S-1



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NO.	7	REVISED PER CITY COMMENTS	DATE	11/19/24
REVISIONS				
DESIGNED	QUENTIN CHALLMERS, PE			
DRAWN	MARY E. MOORE			
APPROVED	HOLLI HEAVRIN, PE			
PROJECT MANAGER	HOLLI HEAVRIN, PE			
SHEET	15	OF	54	
PROJECT NUMBER	24019			
GRADING PLAN 2 BULLFROG FLATS - PHASE S-1 BULLFROG FLATS, LLC 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052				
CORE DESIGN CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING 12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877				
11/19/24				

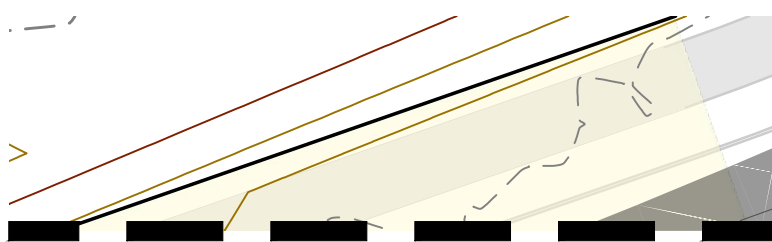
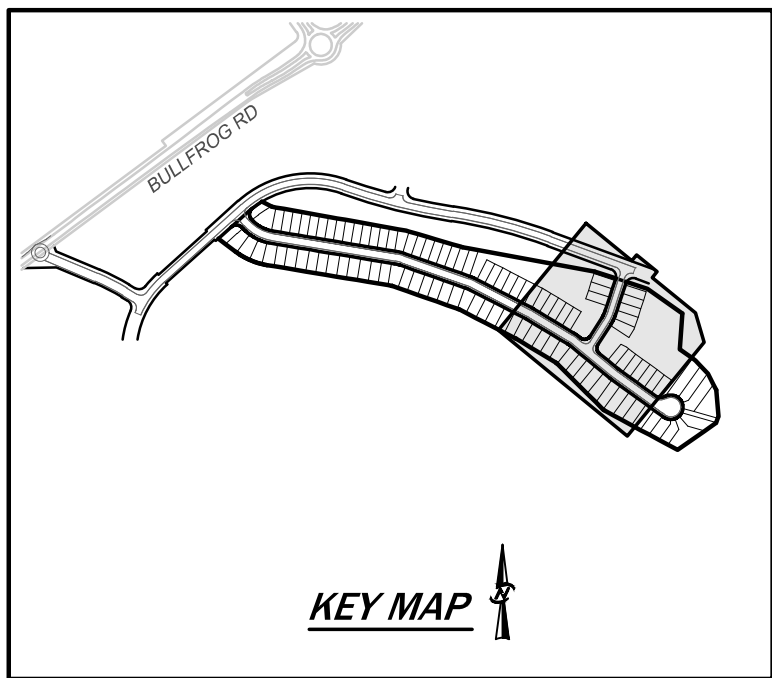
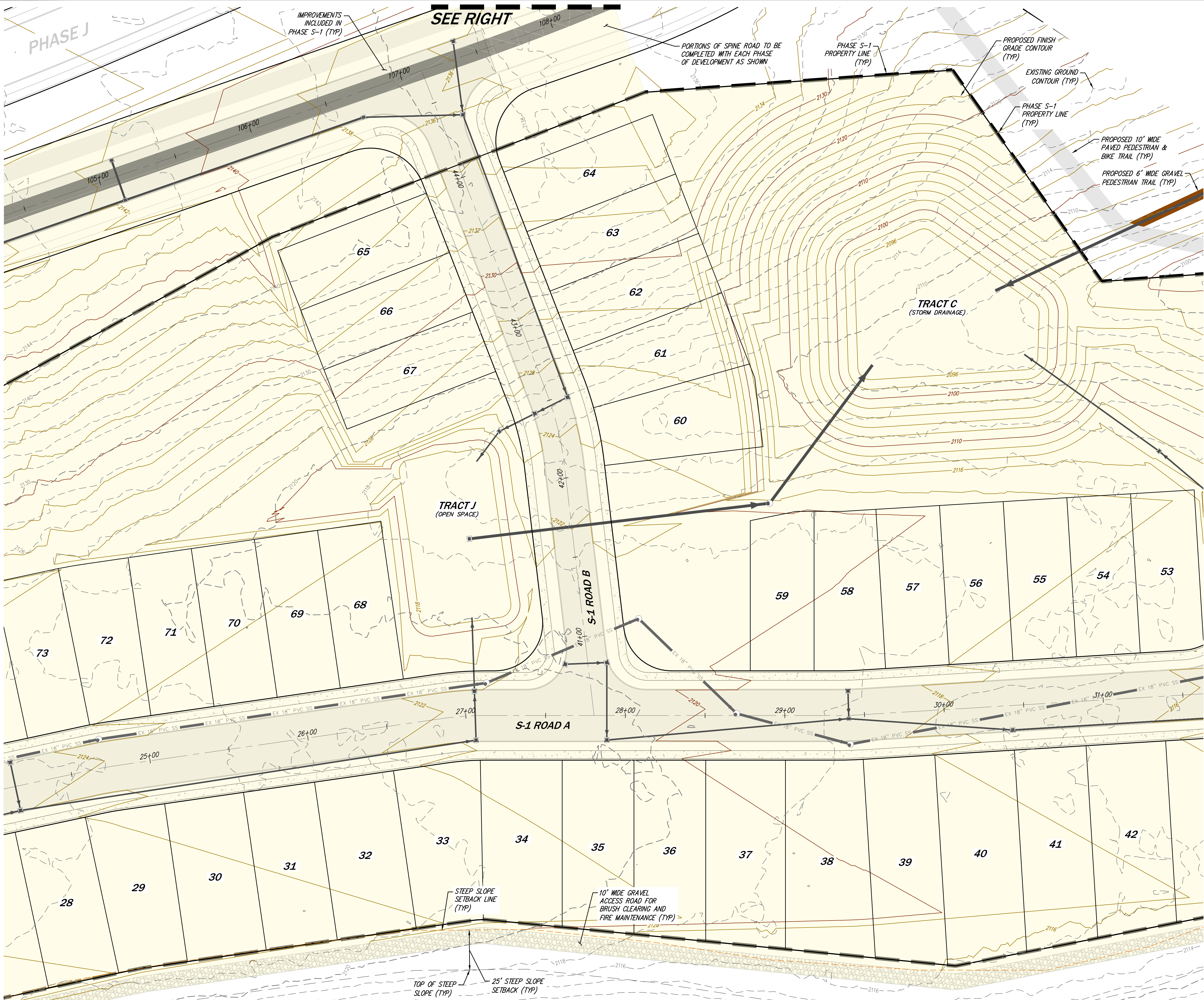




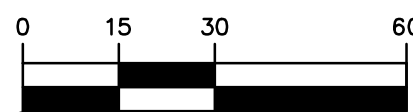


11/15/2024 11:47 AM J. [2024] [2019] [ENGINEERING] [PRELIMINARY] SHEETS PHASE 1 (S1) [24019] CLODING

SEE SHEET C3.03



SCALE: 1" = 30'



### SURFACE LEGEND

- 2120 EXISTING GROUND CONTOUR MAJR
- 2122 EXISTING GROUND CONTOUR MINR
- 2120 FINISH GRADE CONTOUR MAJR
- 2122 FINISH GRADE CONTOUR MINR

### SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PROPOSED 5' WIDE HORSE TRAIL
- PHASE S-1 PROPERTY LINE
- 10' WIDE GRAVEL FIRE ACCESS ROAD
- IMPROVEMENTS INCLUDED IN PHASE S-1



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NO.	REVISIONS	DATE
7	REVISED PER CITY COMMENTS	11/19/24



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**CORE DESIGN**  
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**GRADING PLAN 4**  
**BULLFROG FLATS - PHASE S-1**  
**BULLFROG FLATS, LLC**  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

PLOT DATE	SEE STAMP DATE	DESIGNED	DRAWN	APPROVED	PROJECT MANAGER
		QUENTIN CHALMERS, PE	MARY E. MOORE	HOLLI HEAVRIN, PE	HOLLI HEAVRIN, PE
SHEET	OF	17	54		
PROJECT NUMBER		24019			



This topographic map illustrates a property layout with lots numbered 39 through 59. The map includes several key features and annotations:

- Tracts:**
  - TRACT C (STORM DRAINAGE):** Located in the upper left portion of the map.
  - TRACT A (ACCESS & UTILITY):** Located in the lower right portion of the map.
- Proposed Trails:**
  - PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL (TYP):** Shown as a thick brown line along the top right boundary.
  - PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL (TYP):** Shown as a dashed brown line along the top right boundary.
  - PROPOSED 5' WIDE HORSE TRAIL (TYP):** Shown as a dashed brown line along the bottom left boundary.
- Setbacks and Slopes:**
  - 25' STEEP SLOPE SETBACK (TYP):** Indicated by a dashed line and label in the upper right.
  - TOE OF STEEP SLOPE (TYP):** Indicated by a dashed line and label in the middle right.
  - TOP OF STEEP SLOPE (TYP):** Indicated by a dashed line and label in the lower right.
  - STEEP SLOPE SETBACK LINE (TYP):** Indicated by a dashed line and label in the lower left.
- Access Road:**
  - 10' WIDE GRAVEL ACCESS ROAD FOR BRUSH CLEARING AND FIRE MAINTENANCE (TYP):** Shown as a dashed brown line along the bottom left boundary.
- Phase S-1 Property Line:** Labeled as **PHASE S-1 PROPERTY LINE (TYP)** near the center right.
- Proposed Finish Grade Contour:** Labeled as **PROPOSED FINISH GRADE CONTOUR (TYP)** near the center right.
- Existing Ground Contour:** Labeled as **EXISTING GROUND CONTOUR (TYP)** near the center right.
- S-1 ROAD A:** A road segment labeled **S-1 ROAD A** is shown in the center, with a width of **32'-00"** indicated.
- Drainage Features:** Several **EX 18" PVC SS** (existing 18-inch PVC storm sewer) lines are shown with arrows indicating flow direction.
- Topography:** The map features numerous contour lines representing elevation, with labels such as 2060, 2070, 2080, 2090, 2100, 2110, 2120, 2130, 2140, 2150, 2160, 2170, 2180, 2190, 2200, 2210, 2220, 2230, 2240, 2250, 2260, 2270, 2280, 2290, 2300, 2310, 2320, 2330, 2340, 2350, 2360, 2370, 2380, 2390, 2400, 2410, 2420, 2430, 2440, 2450, 2460, 2470, 2480, 2490, 2500, 2510, 2520, 2530, 2540, 2550, 2560, 2570, 2580, 2590, 2600, 2610, 2620, 2630, 2640, 2650, 2660, 2670, 2680, 2690, 2700, 2710, 2720, 2730, 2740, 2750, 2760, 2770, 2780, 2790, 2800, 2810, 2820, 2830, 2840, 2850, 2860, 2870, 2880, 2890, 2900, 2910, 2920, 2930, 2940, 2950, 2960, 2970, 2980, 2990, 3000, 3010, 3020, 3030, 3040, 3050, 3060, 3070, 3080, 3090, 3100, 3110, 3120, 3130, 3140, 3150, 3160, 3170, 3180, 3190, 3200, 3210, 3220, 3230, 3240, 3250, 3260, 3270, 3280, 3290, 3300, 3310, 3320, 3330, 3340, 3350, 3360, 3370, 3380, 3390, 3400, 3410, 3420, 3430, 3440, 3450, 3460, 3470, 3480, 3490, 3500, 3510, 3520, 3530, 3540, 3550, 3560, 3570, 3580, 3590, 3600, 3610, 3620, 3630, 3640, 3650, 3660, 3670, 3680, 3690, 3700, 3710, 3720, 3730, 3740, 3750, 3760, 3770, 3780, 3790, 3800, 3810, 3820, 3830, 3840, 3850, 3860, 3870, 3880, 3890, 3900, 3910, 3920, 3930, 3940, 3950, 3960, 3970, 3980, 3990, 4000, 4010, 4020, 4030, 4040, 4050, 4060, 4070, 4080, 4090, 4100, 4110, 4120, 4130, 4140, 4150, 4160, 4170, 4180, 4190, 4200, 4210, 4220, 4230, 4240, 4250, 4260, 4270, 4280, 4290, 4300, 4310, 4320, 4330, 4340, 4350, 4360, 4370, 4380, 4390, 4400, 4410, 4420, 4430, 4440, 4450, 4460, 4470, 4480, 4490, 4500, 4510, 4520, 4530, 4540, 4550, 4560, 4570, 4580, 4590, 4600, 4610, 4620, 4630, 4640, 4650, 4660, 4670, 4680, 4690, 4700, 4710, 4720, 4730, 4740, 4750, 4760, 4770, 4780, 4790, 4800, 4810, 4820, 4830, 4840, 4850, 4860, 4870, 4880, 4890, 4900, 4910, 4920, 4930, 4940, 4950, 4960, 4970, 4980, 4990, 5000, 5010, 5020, 5030, 5040, 5050, 5060, 5070, 5080, 5090, 5100, 5110, 5120, 5130, 5140, 5150, 5160, 5170, 5180, 5190, 5200, 5210, 5220, 5230, 5240, 5250, 5260, 5270, 5280, 5290, 5300, 5310, 5320, 5330, 5340, 5350, 5360, 5370, 5380, 5390, 5400, 5410, 5420, 5430, 5440, 5450, 5460, 5470, 5480, 5490, 5500, 5510, 5520, 5530, 5540, 5550, 5560, 5570, 5580, 5590, 5600, 5610, 5620, 5630, 5640, 5650, 5660, 5670, 5680, 5690, 5700, 5710, 5720, 5730, 5740, 5750, 5760, 5770, 5780, 5790, 5800, 5810, 5820, 5830, 5840, 5850, 5860, 5870, 5880, 5890, 5900, 5910, 5920, 5930, 5940, 5950, 5960, 5970, 5980, 5990, 6000, 6010, 6020, 6030, 6040, 6050, 6060, 6070, 6080, 6090, 6100, 6110, 6120, 6130, 6140, 6150, 6160, 6170, 6180, 6190, 6200, 6210, 6220, 6230, 6240, 6250, 6260, 6270, 6280, 6290, 6300, 6310, 6320, 6330, 6340, 6350, 6360, 6370, 6380, 6390, 6400, 6410, 6420, 6430, 6440, 6450, 6460, 6470, 6480, 6490, 6500, 6510, 6520, 6530, 6540, 6550, 6560, 6570, 6580, 6590, 6600, 6610, 6620, 6630, 6640, 6650, 6660, 6670, 6680, 6690, 6700, 6710, 6720, 6730, 6740, 6750, 6760, 6770, 6780, 6790, 6800, 6810, 6820, 6830, 6840, 6850, 6860, 6870, 6880, 6890, 6900, 6910, 6920, 6930, 6940, 6950, 6960, 6970, 6980, 6990, 7000, 7010, 7020, 7030, 7040, 7050, 7060, 7070, 7080, 7090, 7100, 7110, 7120, 7130, 7140, 7150, 7160, 7170, 7180, 7190, 7200, 7210, 7220, 7230, 7240, 7250, 7260, 7270, 7280, 7290, 7300, 7310, 7320, 7330, 7340, 7350, 7360, 7370, 7380, 7390, 7400, 7410, 7420, 7430, 7440, 7450, 7460, 7470, 7480, 7490, 7500, 7510, 7520, 7530, 7540, 7550, 7560, 7570, 7580, 7590,



— — 2120 — — EXISTING GROUND CONTOUR MAJR  
— — 2122 — — EXISTING GROUND CONTOUR MINR  
— — 2120 — — FINISH GRADE CONTOUR MAJR  
— — 2122 — — FINISH GRADE CONTOUR MINR

PROPERTY BOUNDARY  
RIGHT OF WAY  
LOT LINE  
TOP OF STEEP SLOPE  
25' STEEP SLOPE SETBACK  
TOE OF STEEP SLOPE  
PROPOSED 10' WIDE PAVED  
PEDESTRIAN & BIKE TRAIL  
PROPOSED 6' WIDE GRAVEL  
PEDESTRIAN TRAIL  
PROPOSED 5' WIDE  
HORSE TRAIL  
PHASE S-1 PROPERTY LINE  
10' WIDE GRAVEL  
FIRE ACCESS ROAD  
IMPROVEMENTS INCLUDED  
IN PHASE S-1



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LANDSCAPE ARCHITECTURE  
PLANNING  
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***GRADING PLAN 5***  
***BULLFROG FLATS - PHASE S-1***

***BULLFROG FLATS, LLC***  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

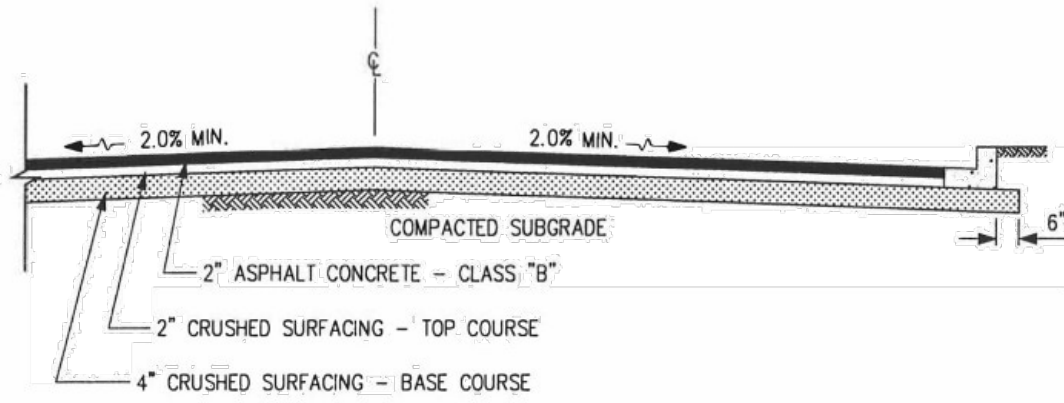
DESIGNED	QUENTIN CHALMERS, PE
DRAWN	MARY E. MOORE
APPROVED	HOLLI HEAVRIN, PE
	HOLLI HEAVRIN, PE
	PROJECT MANAGER

SHEET	OF
18 C3.05	54
PROJECT NUMBER 24019	

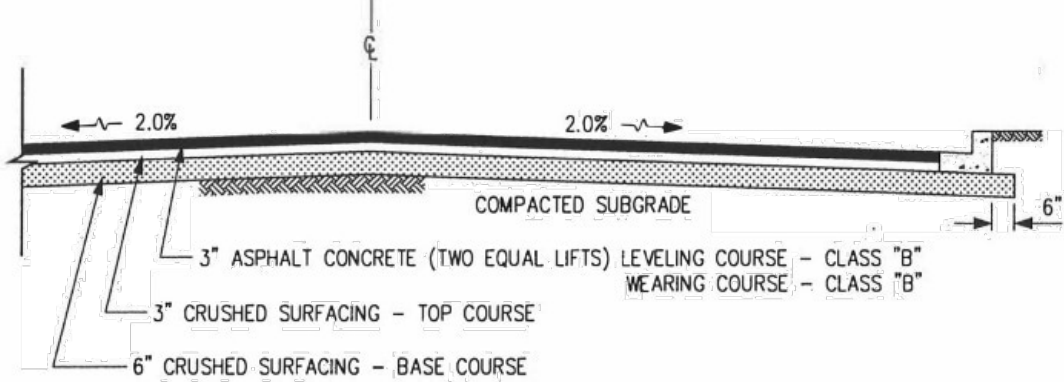
11/15/24

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RESIDENTIAL ROADWAY SECTION



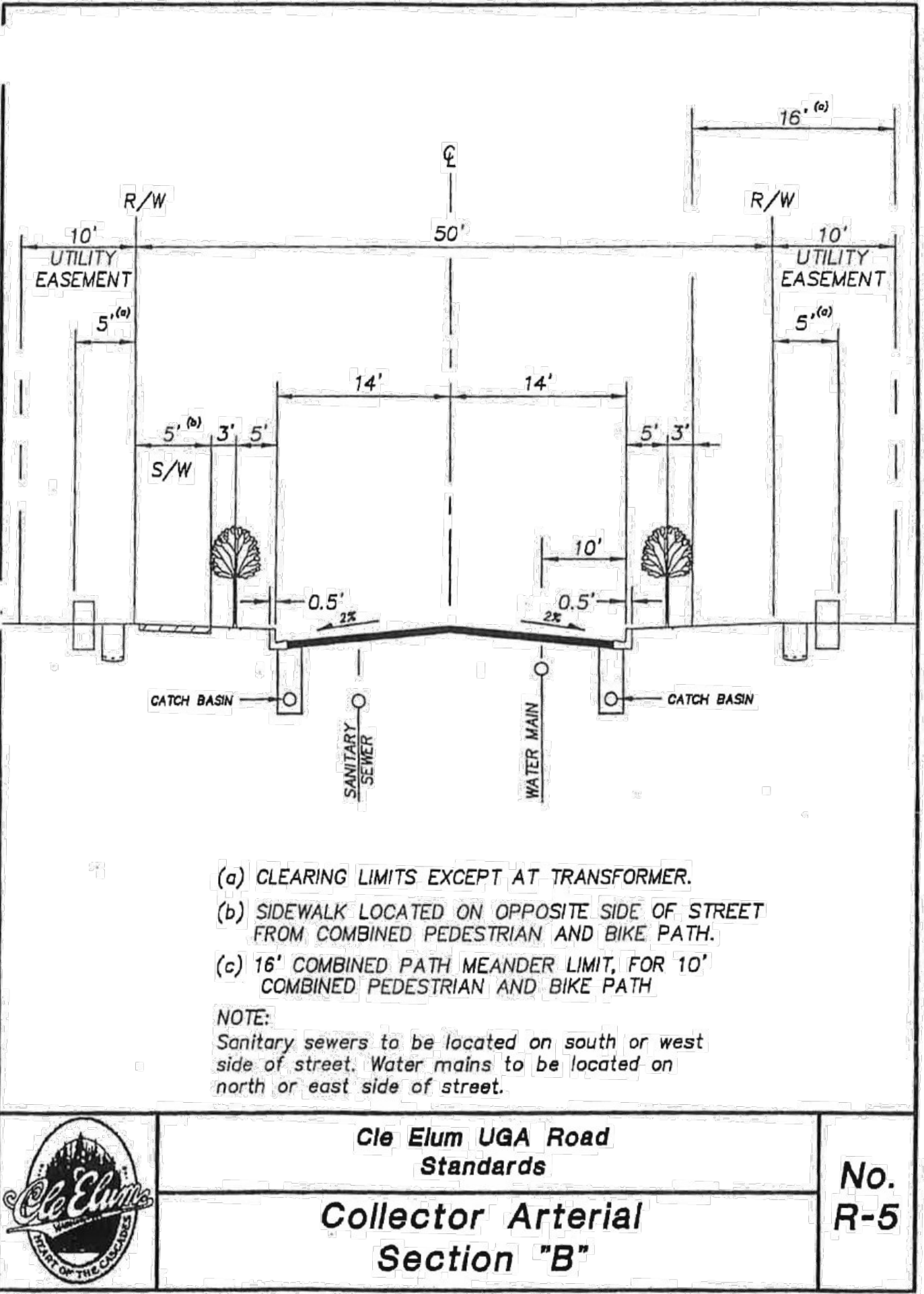
ARTERIAL ROADWAY SECTION

PAVING NOTES:  
1. ALL THICKNESSES ARE COMPACTED DEPTHS.  
2. CONTRACTOR WILL BE REQUIRED TO  
PAVE NEW ROADWAY IN TWO (2) PASSES.

NOTE:  
ONLY THE LATEST DETAIL, AS APPROVED BY  
THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

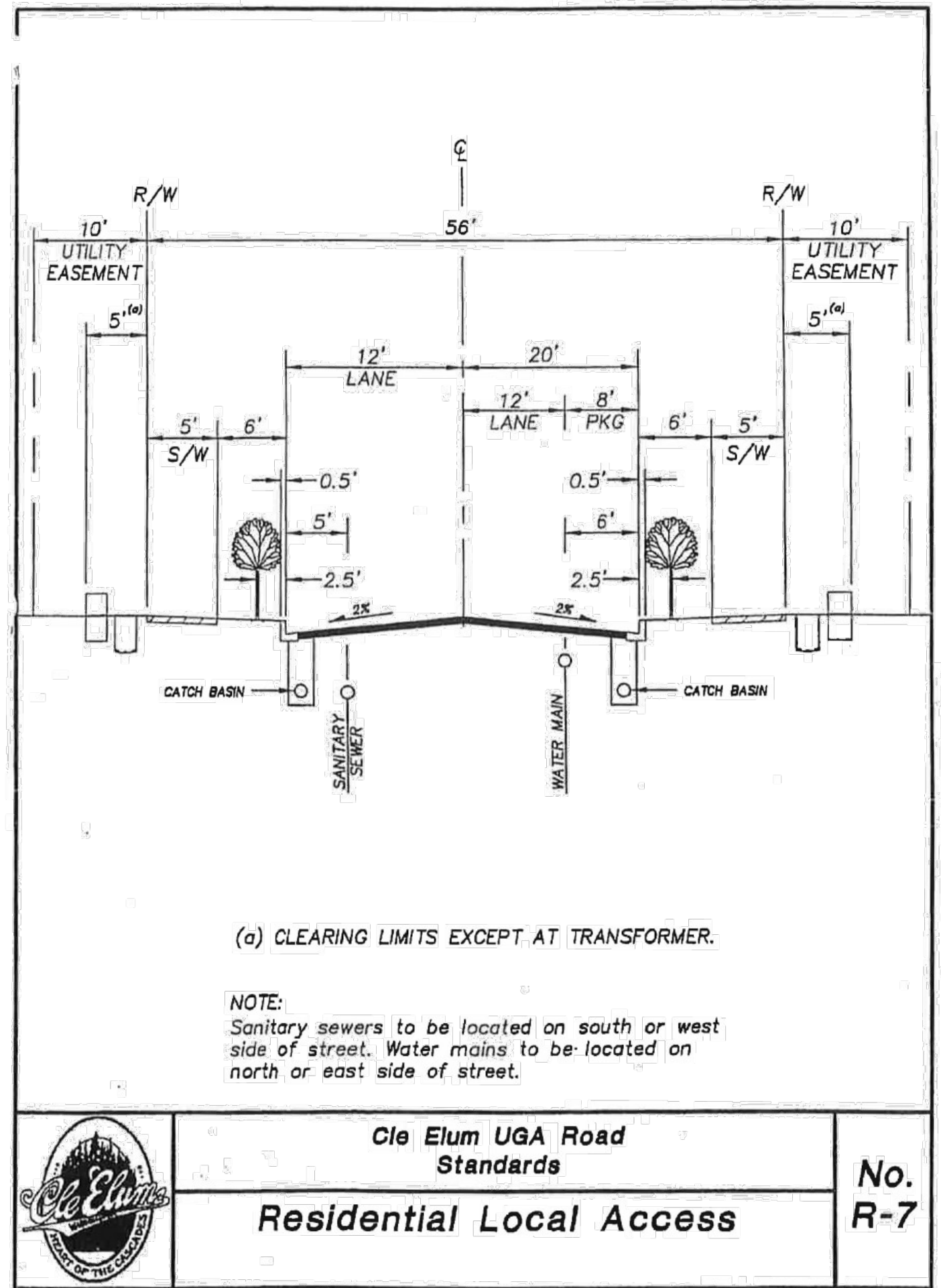
ORIG.	3-1-02		
Revision	Date	Description	Appr

ROADWAY SECTIONS	CITY OF CLE ELUM-STANDARD DETAIL	ST-1
------------------	----------------------------------	------




(a) CLEARING LIMITS EXCEPT AT TRANSFORMER.  
(b) SIDEWALK LOCATED ON OPPOSITE SIDE OF STREET  
FROM COMBINED PEDESTRIAN AND BIKE PATH.  
(c) 16' COMBINED PATH MEANDER LIMIT, FOR 10'  
COMBINED PEDESTRIAN AND BIKE PATH  
NOTE:  
Sanitary sewers to be located on south or west  
side of street. Water mains to be located on  
north or east side of street.

	Cle Elum UGA Road Standards Collector Arterial Section "B"	No. R-5
---	---	------------





(a) CLEARING LIMITS EXCEPT AT TRANSFORMER.  
NOTE:  
Sanitary sewers to be located on south or west  
side of street. Water mains to be located on  
north or east side of street.

	Cle Elum UGA Road Standards Residential Local Access	No. R-7
---	--	------------



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PLOT DATE DESIGNED DRAWN APPROVED	SEE STAMP DATE QUENTIN CHALMERS, PE MARY E. MOORE HOLLI HEAVRIN, PE	SHEET 19	OF 54	PROJECT NUMBER 24019	ROADWAY DETAILS BULLFROG FLATS - PHASE S-1 BULLFROG FLATS, LLC 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052	 CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING 12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877		NO.	7	REVISED PER CITY COMMENTS	DATE	11/19/24
								REVISIONS				



Technical drawing of a bent plate with the following dimensions and features:

- Top horizontal edge: 5 1/2"
- Left vertical edge: 12"
- Bottom horizontal edge: 18"
- Right vertical edge: 6"
- Top-left corner: 1/2" R
- Top edge (near left): 2"
- Top edge (near right): 1" R
- Inner corner: 1" BATTER
- Inner corner: 1" R
- Bottom-left corner: 6 1/2"
- Bottom-right corner: 1/2" R
- Bottom edge (near right): 1"

NOTE:  
ONLY THE LATEST DETAIL, AS APPROVED BY  
THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

ORIG.	3-1-02		
Revision	Date	Description	Appr

CITY OF CLEVELAND-STANDARD DETAIL

ST-2

5" MIN. LANDING OR RISE RAMP

RAMP TEXTURE

4" WIDE SMOOTH TROWEL FINISH

75% MAX.

3/8" EXPANSION JOINT

4" MIN.

NO LIP

NOTES: CURB RAMPS WILL NOT BE POURED INTEGRAL WITH SIDEWALK OR CURB & GUTTER, AND SHALL BE ISOLATED BY EXPANSION JOINT MATERIAL ON ALL SIDES BUT NOT AT THE END OF RAMP ADJACENT TO THE CURB.

NOTE:  
ONLY THE LATEST DETAIL, AS APPROVED BY  
THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

ORIG.	3-1-02		
Revision	Date	Description	Appr

CITY OF CLEVELAND—STANDARD DETAIL

ST-3

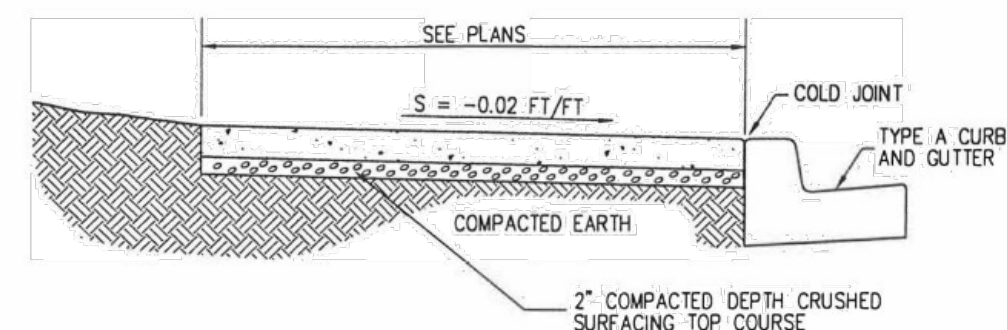


Diagram illustrating the cross-section of a curb and gutter assembly. The diagram shows the following components and labels:

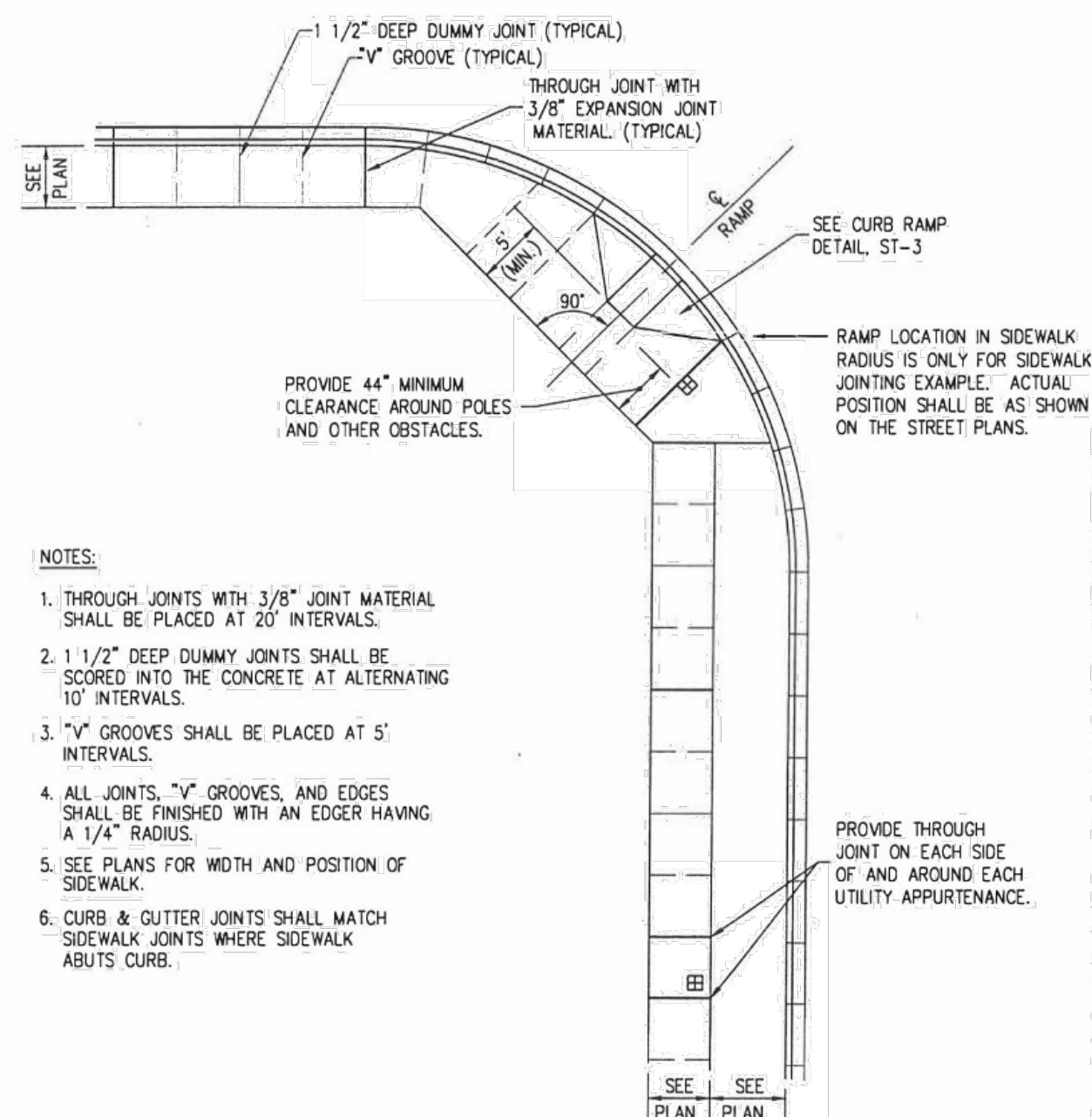
- DROP BACK OF SIDEWALK GRADE AT DRIVEWAY TO MAINTAIN 2% MAX. SIDEWALK CROSS SLOPE**: Indicated by a dashed line and arrows pointing to the slope of the sidewalk.
- SURFACING**: Points to the top layer of the driveway.
- SIDEWALK BEYOND**: Points to the area of the sidewalk extending from the driveway.
- COLD JOINT**: Points to the vertical joint in the concrete curb.
- TYPE D CURB AND GUTTER**: Points to the curb structure.
- S = -0.02 FT/FT**: Slope indicator for the sidewalk.
- COMPACTED EARTH**: Points to the base layer of the driveway.
- 2" COMPACTED DEPTH CRUSHED SURFACING TOP COURSE**: Points to the top layer of the driveway.

NOTE:  
ONLY THE LATEST DETAIL, AS APPROVED BY  
THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

ORIG.	3-1-02		
Revision	Date	Description	Appr

CITY OF CLE ELUM-STANDARD DETAIL

ST-4

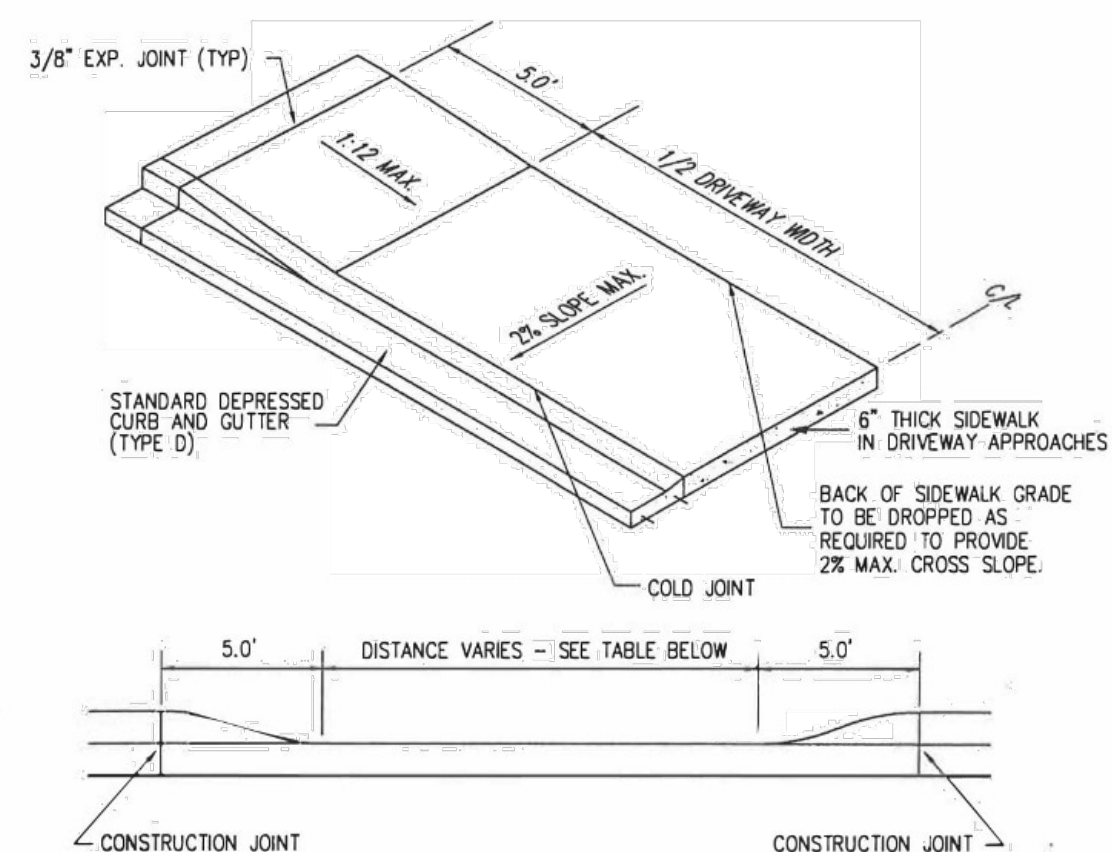


NOTE:  
ONLY THE LATEST DETAIL, AS APPROVED BY  
THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

ORIG.	3-1-02		
Revision	Date	Description	Appr

CITY OF CLEVELAND—STANDARD DETAIL

ST-5



RESIDENTIAL DRIVEWAYS - 20' MAXIMUM WIDTH

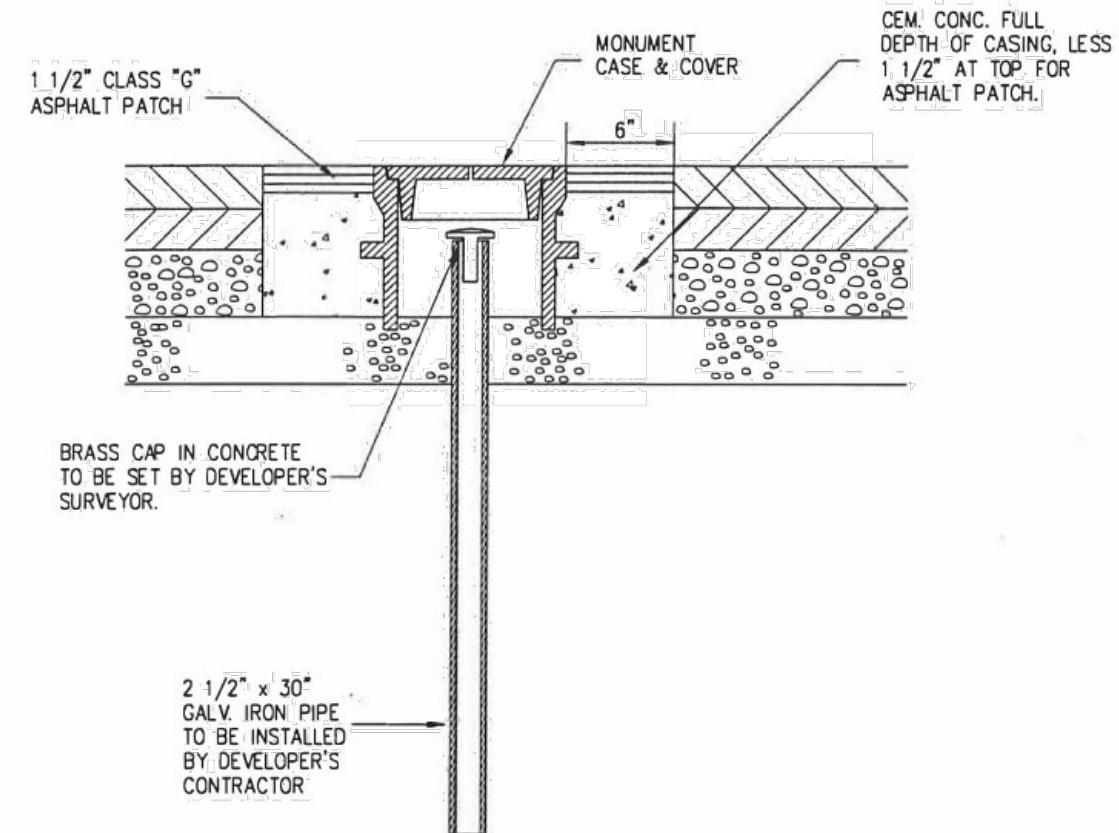
COMMERCIAL APPROACHES WITH RADIUS CURB RETURNS SHALL BE REVIEWED AND APPROVED BY THE PUBLIC WORKS DIRECTOR ON A CASE BY CASE BASIS.

NOTE:  
ONLY THE LATEST DETAIL, AS APPROVED BY  
THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

ORIG.	3-1-02		
Revision	Date	Description	Appr

CITY OF CLEVELAND-STANDARD DETAIL

ST-E



NOTES:

1. TOP OF MONUMENT SHALL BE BETWEEN 6" AND 12" BELOW FINISH GRADE
2. MONUMENT, MONUMENT CASE AND COVER TO BE PLACED AFTER FINAL LIFT OF ASPHALT.

NOTE:  
ONLY THE LATEST DETAIL, AS APPROVED BY  
THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

ORIG.	3-1-02		
Revision	Date	Description	Appr

CITY OF CLEVELAND—STANDARD DETAIL

ST-9



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**GRADING DETAILS**  
**BULLFROG FLATS - PHASE S-1**  
**BULLFROG FLATS, LLC**  
18300 REDMOND WAY, SUITE 120

SHEET		OF	
20	C3.32	54	
PROJECT NUMBER			
24019			

PLOT DATE	SEE STAMP DATE
DESIGNED	QUENTIN CHALMERS, PE
DRAWN	MARY E. MOORE
APPROVED	HOLLI HEAVRIN, PE
	HOLLI HEAVRIN, PE
	PROJECT MANAGER

CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING

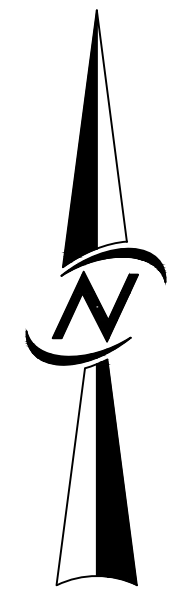
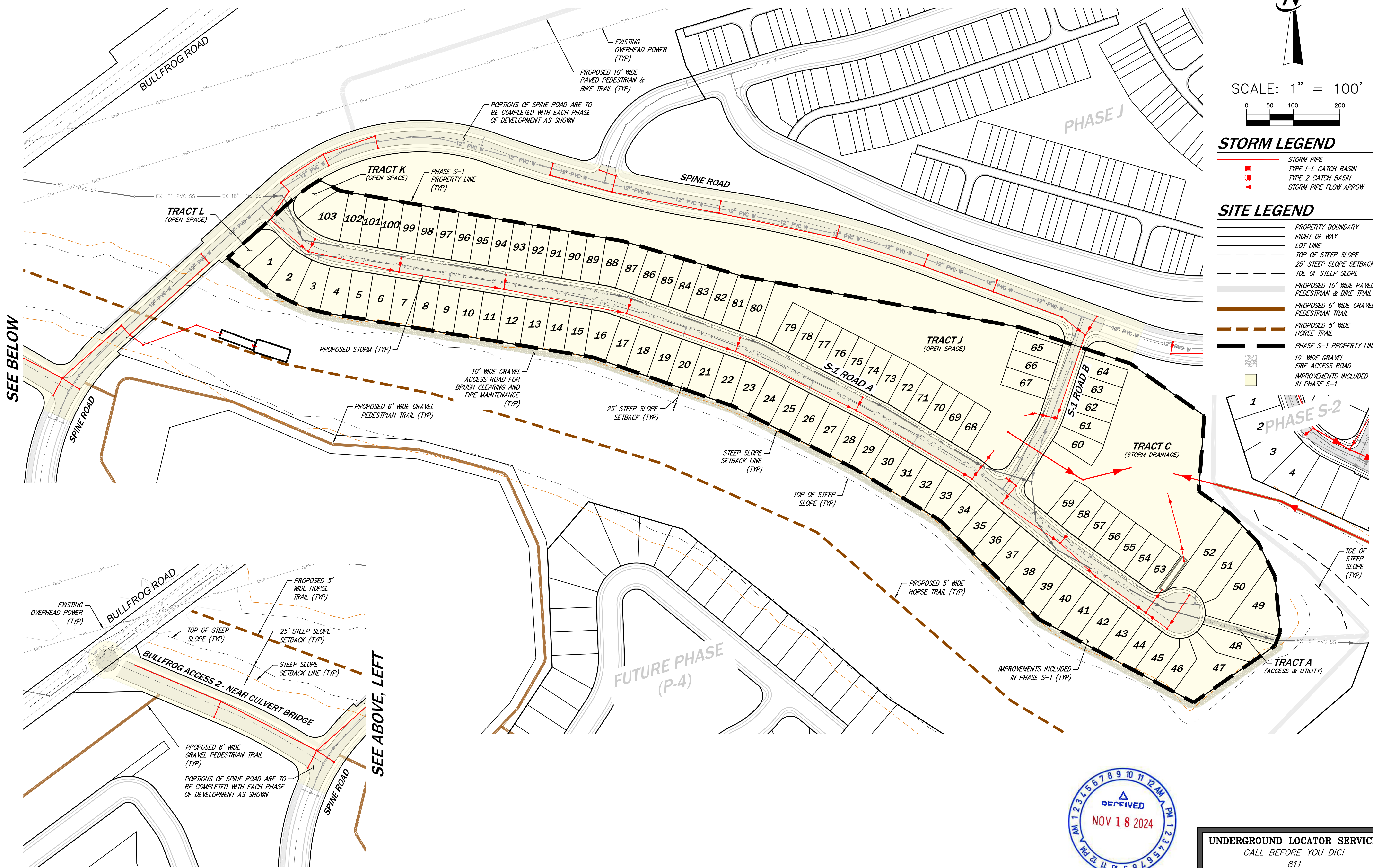


2100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877

11/15/24

NO.	REVISIONS	DATE
1	REFLECTED PER CITY COMPLETION	11/15/04





SCALE: 1" = 100'

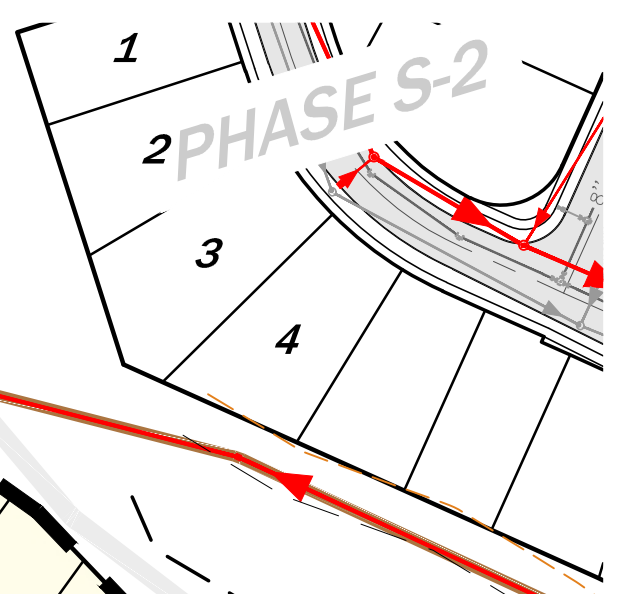
0 50 100 200

STORM LEGEND

- STORM PIPE
- TYPE 1-L CATCH BASIN
- TYPE 2 CATCH BASIN
- STORM PIPE FLOW ARROW

SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PROPOSED 5' WIDE HORSE TRAIL
- PHASE S-1 PROPERTY LINE
- 10' WIDE GRAVEL FIRE ACCESS ROAD
- IMPROVEMENTS INCLUDED IN PHASE S-1



UNDERGROUND LOCATOR SERVICE  
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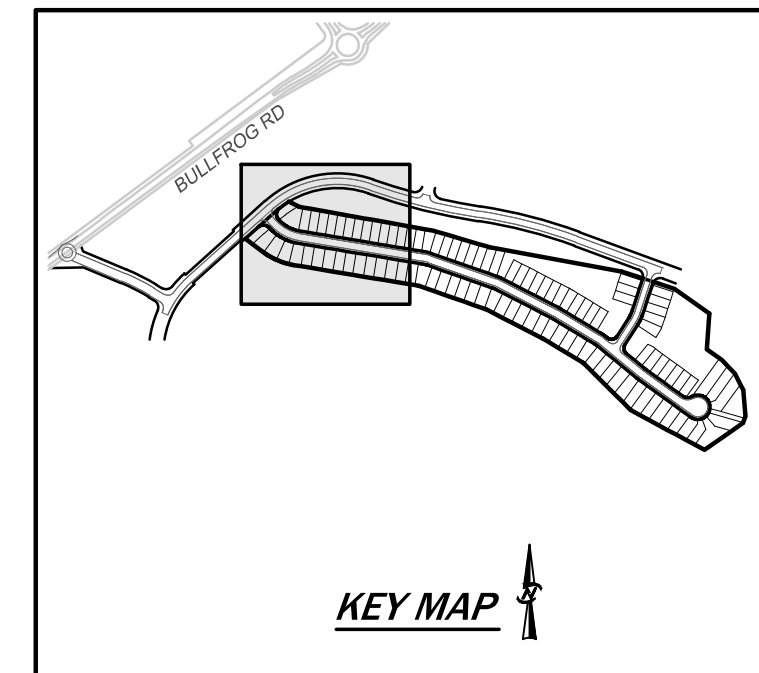
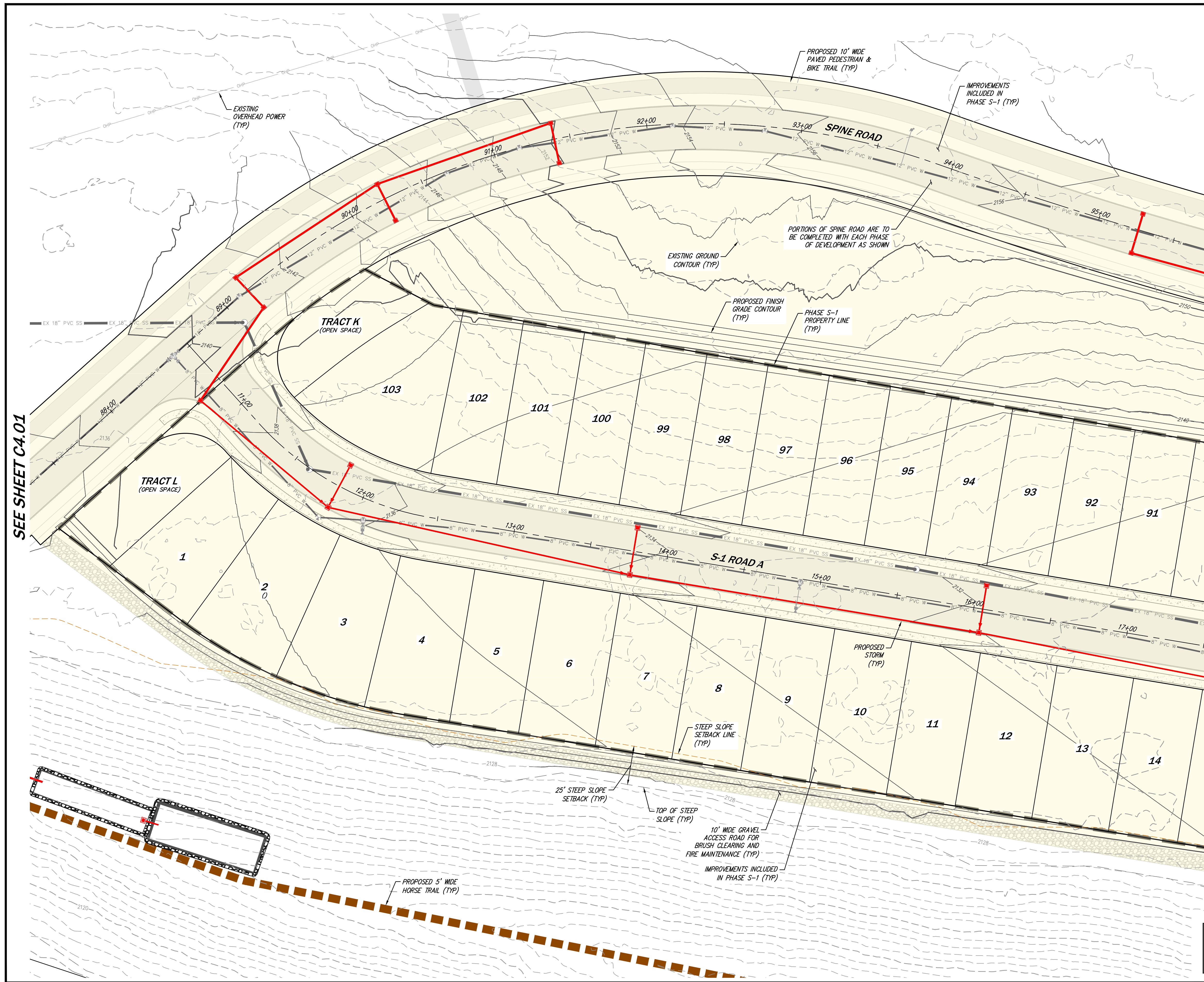
DATE 11/19/24	
REVISIONS 7 REVISED PER CITY COMMENTS	
NO. 7	
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING	
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877	
COMPOSITE STORM DRAINAGE PLAN BULLFROG FLATS - PHASE S-1	
BULLFROG FLATS, LLC 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052	
PLOT DATE 11/15/24	SEE STAMP DATE
DESIGNED QUENTIN CHALMERS, PE	
DRAWN MARY E. MOORE	
APPROVED HOLLI HEAVRIN, PE	
PROJECT MANAGER HOLLI HEAVRIN, PE	
SHEET 21	OF 54
PROJECT NUMBER 24019	

11/15/2024 11:49 AM J:\2024\24019\ENGINEERING\PRELIMINARY\24019 PHASE 1 (S1)\24019 C4.00.DWG

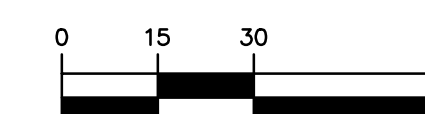











SCALE: 1" = 30'



## ***STORM LEGEND***

-  STORM PIPE  
 TYPE 1-L CATCH BASIN  
 TYPE 2 CATCH BASIN  
 STORM PIPE FLOW ARROW

### ***SITE LEGEND***

- 
- PROPERTY BOUNDARY  
 RIGHT OF WAY  
 LOT LINE  
 TOP OF STEEP SLOPE  
 25' STEEP SLOPE SETBACK  
 TOE OF STEEP SLOPE  
 PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL  
 PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL  
 PROPOSED 5' WIDE HORSE TRAIL  
 PHASE S-1 PROPERTY LINE  
 10' WIDE GRAVEL FIRE ACCESS ROAD  
 IMPROVEMENTS INCLUDED IN PHASE S-3

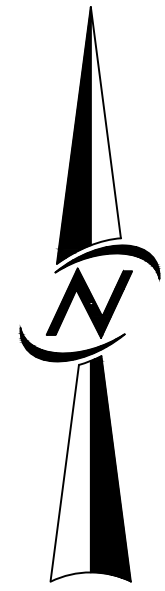
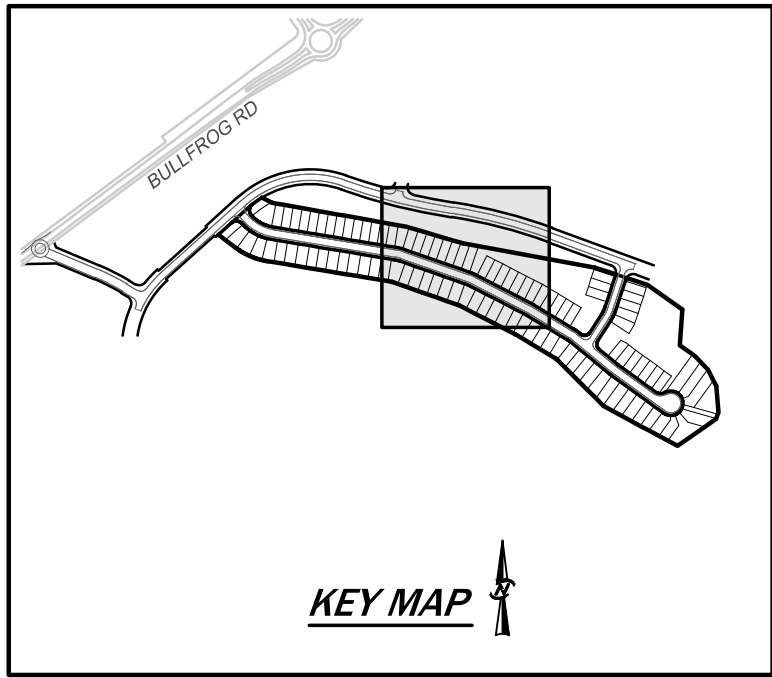
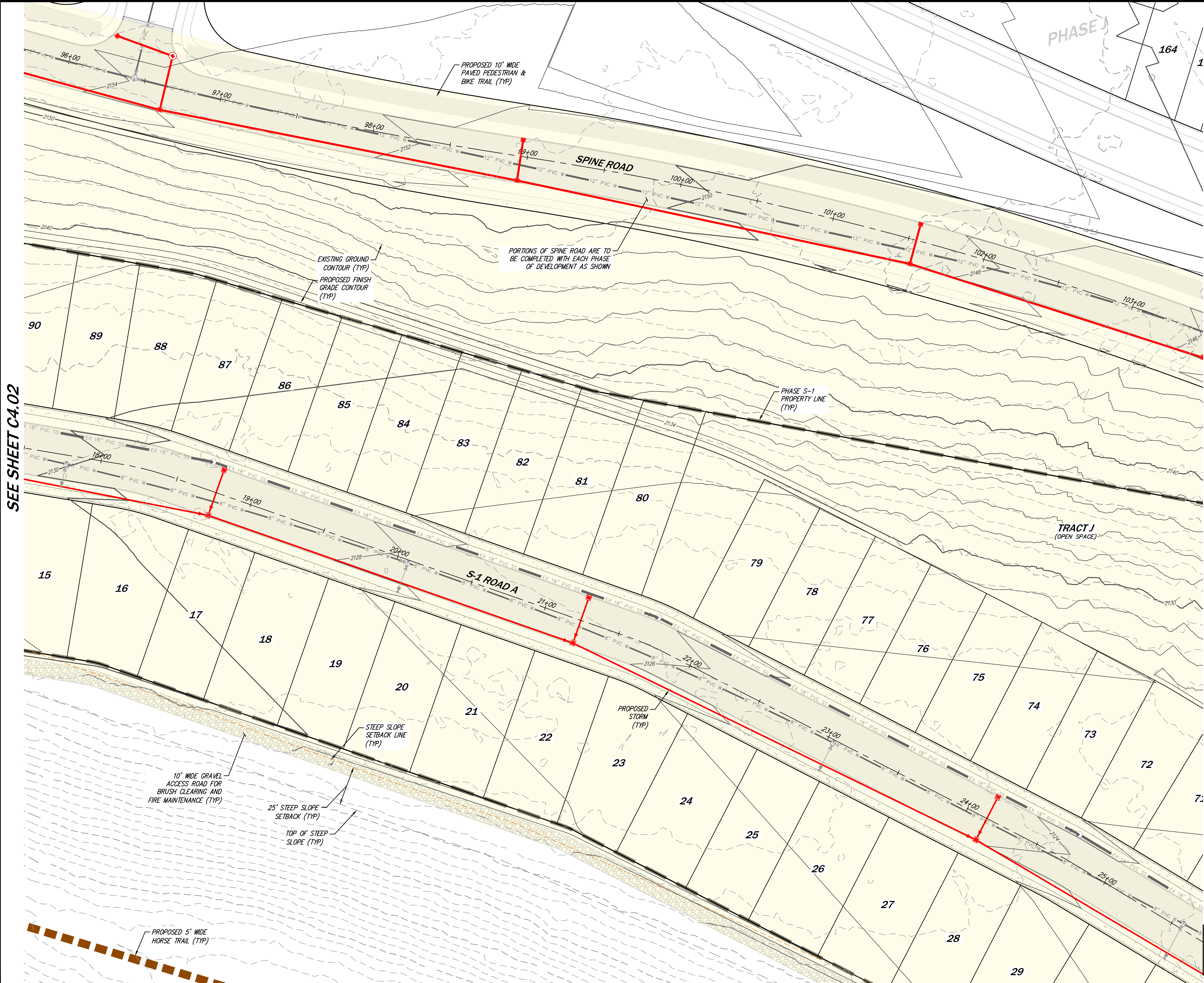


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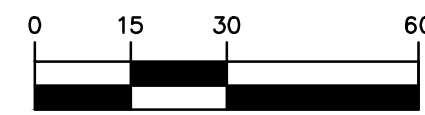
[illegible]



SEE SHEET C4.02



SCALE: 1" = 30'



#### STORM LEGEND

- STORM PIPE
- TYPE 1-L CATCH BASIN
- TYPE 2 CATCH BASIN
- STORM PIPE FLOW ARROW

#### SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PROPOSED 5' WIDE HORSE TRAIL
- PHASE S-1 PROPERTY LINE
- 10' WIDE GRAVEL FIRE ACCESS ROAD
- IMPROVEMENTS INCLUDED IN PHASE S-1



UNDERGROUND LOCATOR SERVICE  
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NO.	REVISIONS	DATE
1	REVISED PER CITY COMMENTS	11/19/24



CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING



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STORM DRAINAGE PLAN 3  
BULLFROG FLATS - PHASE S-1

BULLFROG FLATS, LLC

18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

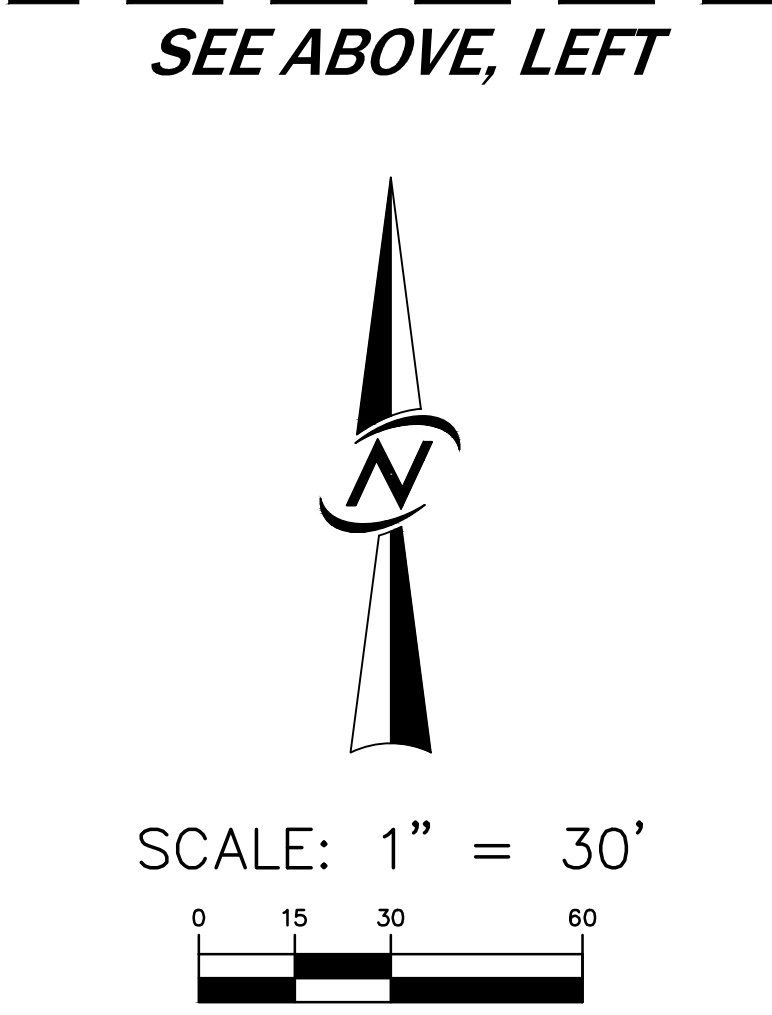
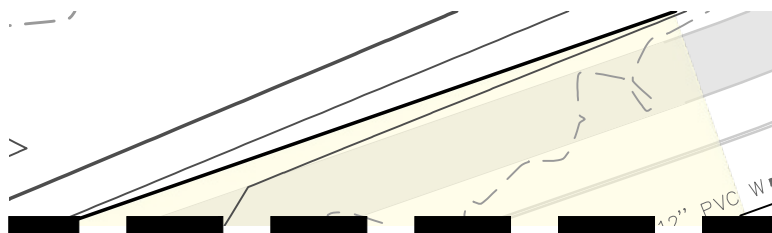
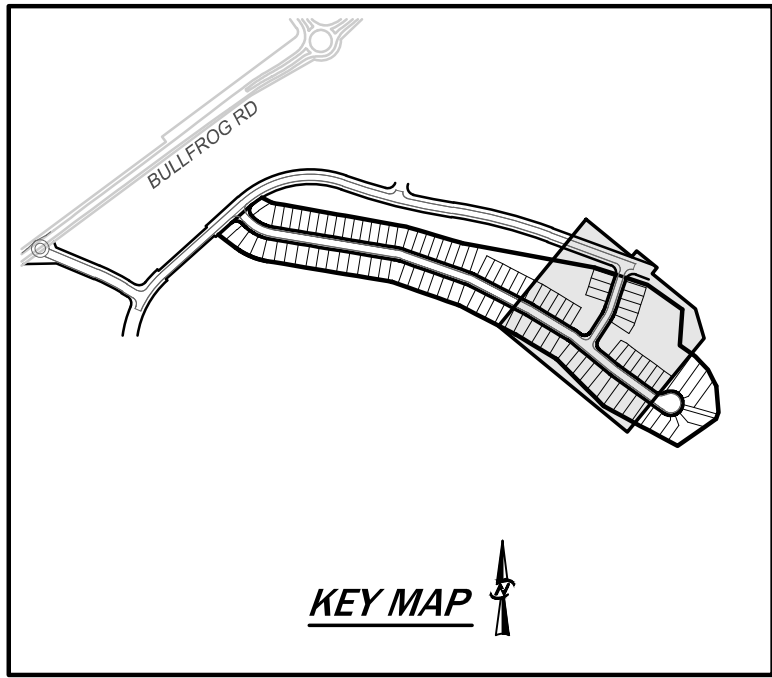
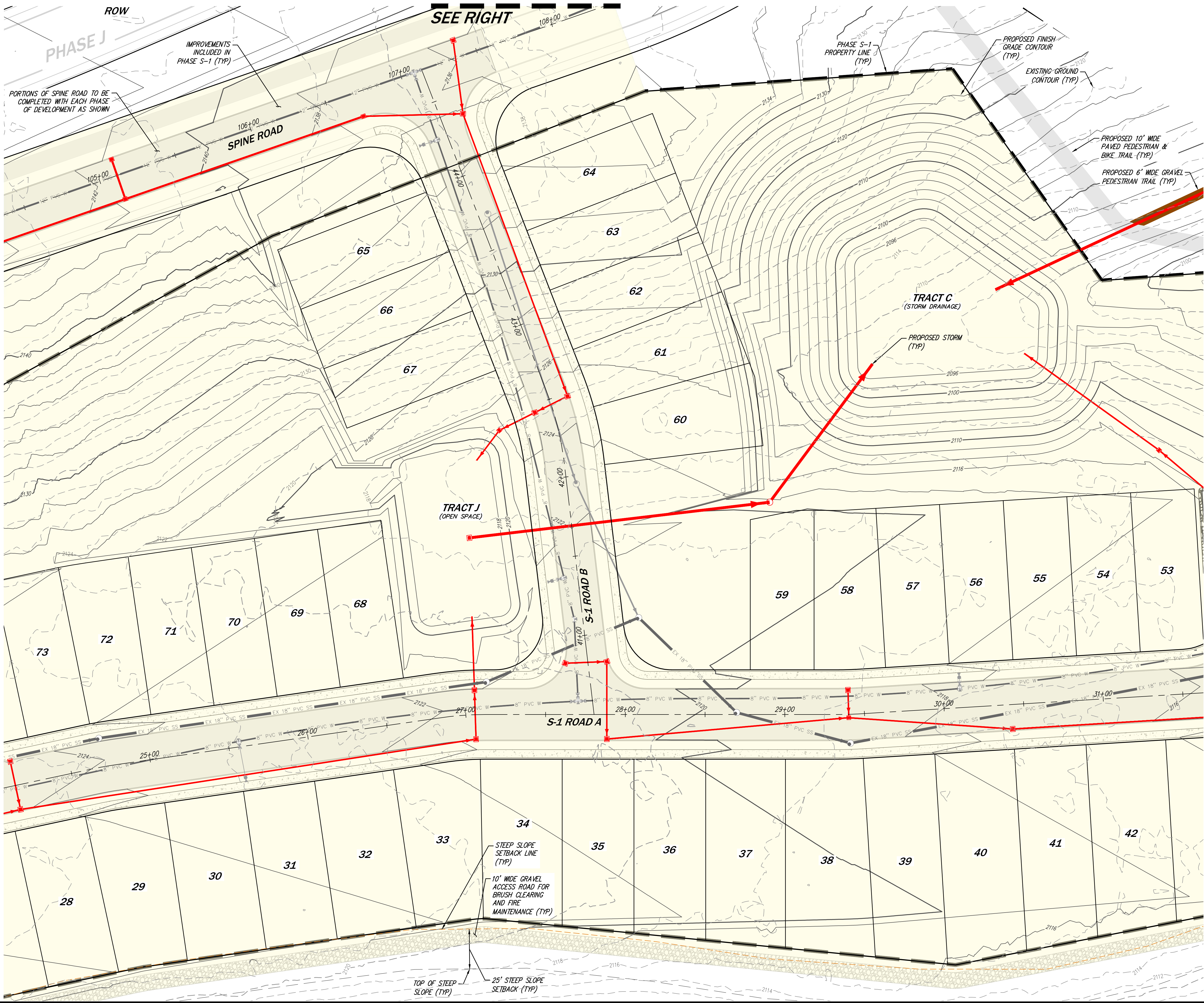
PLOT DATE	SEE STAMP DATE
DESIGNED	QUENTIN CHALMERS, PE
DRAWN	MARY E. MOORE
APPROVED	HOLLI HEAVRIN, PE
	HOLLI HEAVRIN, PE
	PROJECT MANAGER

SHEET	OF
24	54
C4.03	
PROJECT NUMBER	24019



11/15/2024 11:51 AM J. 2024 (24019) (ENGINEERING) (PRELIMINARY) SHEETS (PHASE 1 (S1) 24019 C4.04.DWG

SEE SHEET C4.03



- STORM LEGEND**
- STORM PIPE
  - TYPE I-L CATCH BASIN
  - TYPE 2 CATCH BASIN
  - STORM PIPE FLOW ARROW

- SITE LEGEND**
- PROPERTY BOUNDARY
  - RIGHT OF WAY
  - LOT LINE
  - TOP OF STEEP SLOPE
  - 25' STEEP SLOPE SETBACK
  - TOE OF STEEP SLOPE
  - PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
  - PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
  - PROPOSED 5' WIDE HORSE TRAIL
  - PHASE S-1 PROPERTY LINE
  - 10' WIDE GRAVEL FIRE ACCESS ROAD
  - IMPROVEMENTS INCLUDED IN PHASE S-1



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NO.	REVISIONS	DATE
1	REVISED PER CITY COMMENTS	11/19/24



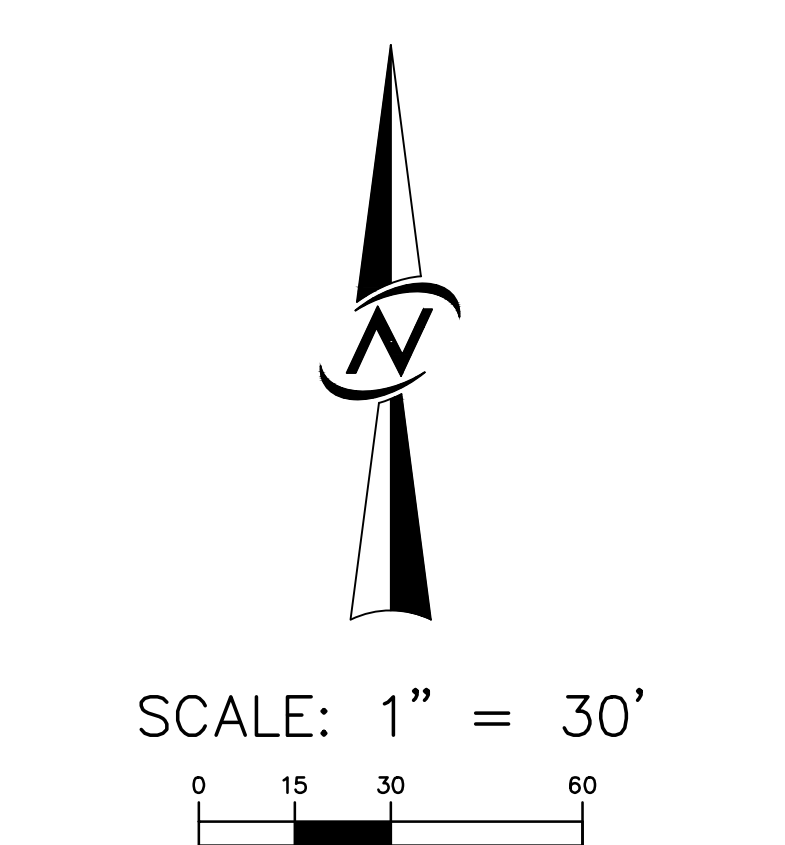
CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING  
**CORE DESIGN**  
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877




**STORM DRAINAGE PLAN 4**  
**BULLFROG FLATS - PHASE S-1**  
**BULLFROG FLATS, LLC**  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052








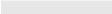








PLOT	DATE	SEE STAMP	DATE
DESIGNED	QUENTIN CHALMERS, PE		
DRAWN	MARY E. MOORE		
APPROVED	HOLLI HEAVRIN, PE		
	HOLLI HEAVRIN, PE		
	PROJECT MANAGER		
SHEET	25	OF	54
PROJECT NUMBER	24019		



This topographic map illustrates the proposed infrastructure for Tract A (Access & Utility). The map features a central area labeled "TRACT A (ACCESS & UTILITY)" with a circular feature labeled "S-1 ROAD". The terrain is characterized by numerous contour lines indicating elevation, with labels such as 2060, 2070, 2080, 2090, 2100, 2110, 2112, 2104, 2106, 2108, 2110, 2112, 2114, 2116, 2118, 2120, 2122, 2124, 2126, 2128, 2130, 2132, 2134, 2136, 2138, 2140, 2142, 2144, 2146, 2148, 2150, 2152, 2154, 2156, 2158, 2160, 2162, 2164, 2166, 2168, 2170, 2172, 2174, 2176, 2178, 2180, 2182, 2184, 2186, 2188, 2190, 2192, 2194, 2196, 2198, 2200, 2202, 2204, 2206, 2208, 2210, 2212, 2214, 2216, 2218, 2220, 2222, 2224, 2226, 2228, 2230, 2232, 2234, 2236, 2238, 2240, 2242, 2244, 2246, 2248, 2250, 2252, 2254, 2256, 2258, 2260, 2262, 2264, 2266, 2268, 2270, 2272, 2274, 2276, 2278, 2280, 2282, 2284, 2286, 2288, 2290, 2292, 2294, 2296, 2298, 2300, 2302, 2304, 2306, 2308, 2310, 2312, 2314, 2316, 2318, 2320, 2322, 2324, 2326, 2328, 2330, 2332, 2334, 2336, 2338, 2340, 2342, 2344, 2346, 2348, 2350, 2352, 2354, 2356, 2358, 2360, 2362, 2364, 2366, 2368, 2370, 2372, 2374, 2376, 2378, 2380, 2382, 2384, 2386, 2388, 2390, 2392, 2394, 2396, 2398, 2400, 2402, 2404, 2406, 2408, 2410, 2412, 2414, 2416, 2418, 2420, 2422, 2424, 2426, 2428, 2430, 2432, 2434, 2436, 2438, 2440, 2442, 2444, 2446, 2448, 2450, 2452, 2454, 2456, 2458, 2460, 2462, 2464, 2466, 2468, 2470, 2472, 2474, 2476, 2478, 2480, 2482, 2484, 2486, 2488, 2490, 2492, 2494, 2496, 2498, 2500, 2502, 2504, 2506, 2508, 2510, 2512, 2514, 2516, 2518, 2520, 2522, 2524, 2526, 2528, 2530, 2532, 2534, 2536, 2538, 2540, 2542, 2544, 2546, 2548, 2550, 2552, 2554, 2556, 2558, 2560, 2562, 2564, 2566, 2568, 2570, 2572, 2574, 2576, 2578, 2580, 2582, 2584, 2586, 2588, 2590, 2592, 2594, 2596, 2598, 2600, 2602, 2604, 2606, 2608, 2610, 2612, 2614, 2616, 2618, 2620, 2622, 2624, 2626, 2628, 2630, 2632, 2634, 2636, 2638, 2640, 2642, 2644, 2646, 2648, 2650, 2652, 2654, 2656, 2658, 2660, 2662, 2664, 2666, 2668, 2670, 2672, 2674, 2676, 2678, 2680, 2682, 2684, 2686, 2688, 2690, 2692, 2694, 2696, 2698, 2700, 2702, 2704, 2706, 2708, 2710, 2712, 2714, 2716, 2718, 2720, 2722, 2724, 2726, 2728, 2730, 2732, 2734, 2736, 2738, 2740, 2742, 2744, 2746, 2748, 2750, 2752, 2754, 2756, 2758, 2760, 2762, 2764, 2766, 2768, 2770, 2772, 2774, 2776, 2778, 2780, 2782, 2784, 2786, 2788, 2790, 2792, 2794, 2796, 2798, 2800, 2802, 2804, 2806, 2808, 2810, 2812, 2814, 2816, 2818, 2820, 2822, 2824, 2826, 2828, 2830, 2832, 2834, 2836, 2838, 2840, 2842, 2844, 2846, 2848, 2850, 2852, 2854, 2856, 2858, 2860, 2862, 2864, 2866, 2868, 2870, 2872, 2874, 2876, 2878, 2880, 2882, 2884, 2886, 2888, 2890, 2892, 2894, 2896, 2898, 2900, 2902, 2904, 2906, 2908, 2910, 2912, 2914, 2916, 2918, 2920, 2922, 2924, 2926, 2928, 2930, 2932, 2934, 2936, 2938, 2940, 2942, 2944, 2946, 2948, 2950, 2952, 2954, 2956, 2958, 2960, 2962, 2964, 2966, 2968, 2970, 2972, 2974, 2976, 2978, 2980, 2982, 2984, 2986, 2988, 2990, 2992, 2994, 2996, 2998, 3000, 3002, 3004, 3006, 3008, 3010, 3012, 3014, 3016, 3018, 3020, 3022, 3024, 3026, 3028, 3030, 3032, 3034, 3036, 3038, 3040, 3042, 3044, 3046, 3048, 3050, 3052, 3054, 3056, 3058, 3060, 3062, 3064, 3066, 3068, 3070, 3072, 3074, 3076, 3078, 3080, 3082, 3084, 3086, 3088, 3090, 3092, 3094, 3096, 3098, 3100, 3102, 3104, 3106, 3108, 3110, 3112, 3114, 3116, 3118, 3120, 3122, 3124, 3126, 3128, 3130, 3132, 3134, 3136, 3138, 3140, 3142, 3144, 3146, 3148, 3150, 3152, 3154, 3156, 3158, 3160, 3162, 3164, 3166, 3168, 3170, 3172, 3174, 3176, 3178, 3180, 3182, 3184, 3186, 3188, 3190, 3192, 3194, 3196, 3198, 3200, 3202, 3204, 3206, 3208, 3210, 3212, 3214, 3216, 3218, 3220, 3222, 3224, 3226, 3228, 3230, 3232, 3234, 3236, 3238, 3240, 3242, 3244, 3246, 3248, 3250, 3252, 3254, 3256, 3258, 3260, 3262, 3264, 3266, 3268, 3270, 3272, 3274, 3276, 3278, 3280, 3282, 3284, 3286, 3288, 3290, 3292, 3294, 3296, 3298, 3300, 3302, 3304, 3306, 3308, 3310, 3312, 3314, 3316, 3318, 3320, 3322, 3324, 3326, 3328, 3330, 3332, 3334, 3336, 3338, 3340, 3342, 3344, 3346, 3348, 3350, 3352, 3354, 3356, 3358, 3360, 3362, 3364, 3366, 3368, 3370, 3372, 3374, 3376, 3378, 3380, 3382, 3384, 3386, 3388, 3390, 3392, 3394, 3396, 3398, 3400, 3402, 3404, 3406, 3408, 3410, 3412, 3414, 3416, 3418, 3420, 3422, 342



 *STORM PIPE*  
 *TYPE 1-L CATCH BASIN*  
 *TYPE 2 CATCH BASIN*  
 *STORM PIPE FLOW ARROW*

 PROPERTY BOUNDARY  
 RIGHT OF WAY  
 LOT LINE  
 TOP OF STEEP SLOPE  
 25' STEEP SLOPE SETBACK  
 TOE OF STEEP SLOPE  
 PROPOSED 10' WIDE PAVED  
 PEDESTRIAN & BIKE TRAIL  
 PROPOSED 6' WIDE GRAVEL  
 PEDESTRIAN TRAIL  
 PROPOSED 5' WIDE  
 HORSE TRAIL  
 PHASE S-1 PROPERTY LINE  
 10' WIDE GRAVEL  
 FIRE ACCESS ROAD  
 IMPROVEMENTS INCLUDED  
 IN PHASE S-1



**UNDERGROUND LOCATOR SERVICE**  
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PLOT DATE SEE STAMP DATE		SHEET 26 OF 54		PROJECT NUMBER 24019	
DESIGNED QUENTIN CHALMERS, PE		C4.05			
DRAWN MARY E. MOORE					
APPROVED HOLLI HEAVRIN, PE					
PROJECT MANAGER					

**STORM DRAINAGE PLAN 5**

**BULLFROG FLATS - PHASE S-1**

**BULLFROG FLATS, LLC**

18300 REDMOND WA, SUITE 120  
REDMOND, WA 98052

**CIVIL ENGINEERING**

**LANDSCAPE ARCHITECTURE**

**PLANNING**

**SURVEYING**

12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877

**CIVIL ENGINEERING**

**LANDSCAPE ARCHITECTURE**

**PLANNING**

**SURVEYING**

**NO.**

**REVISIONS**

**DATE**

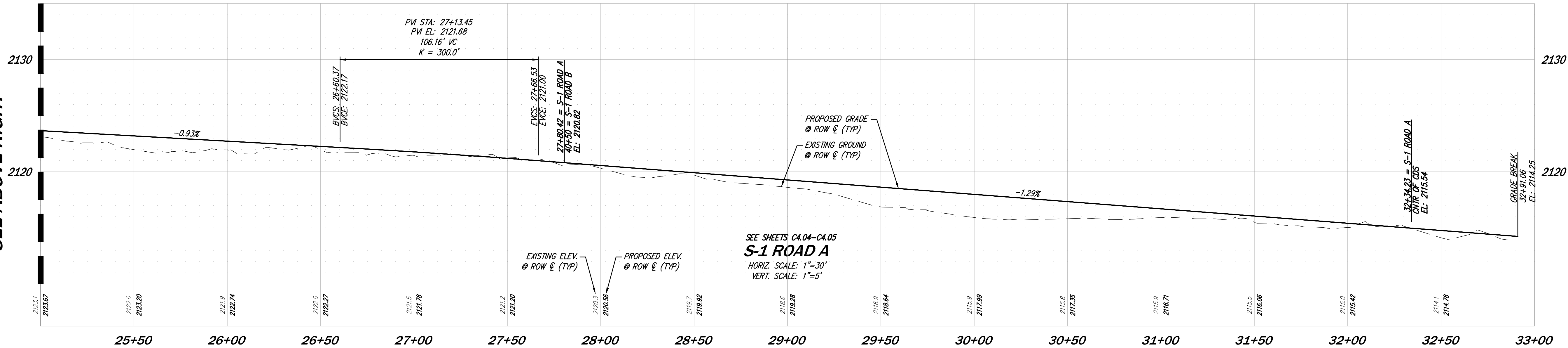
1	REVISED PER CITY COMMENTS	11/15/24

PENDING

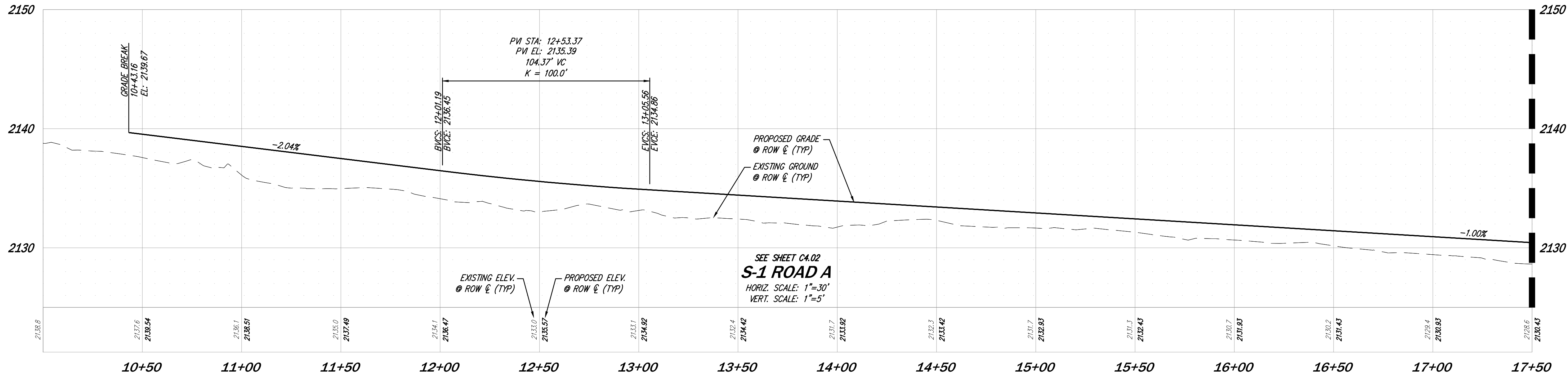
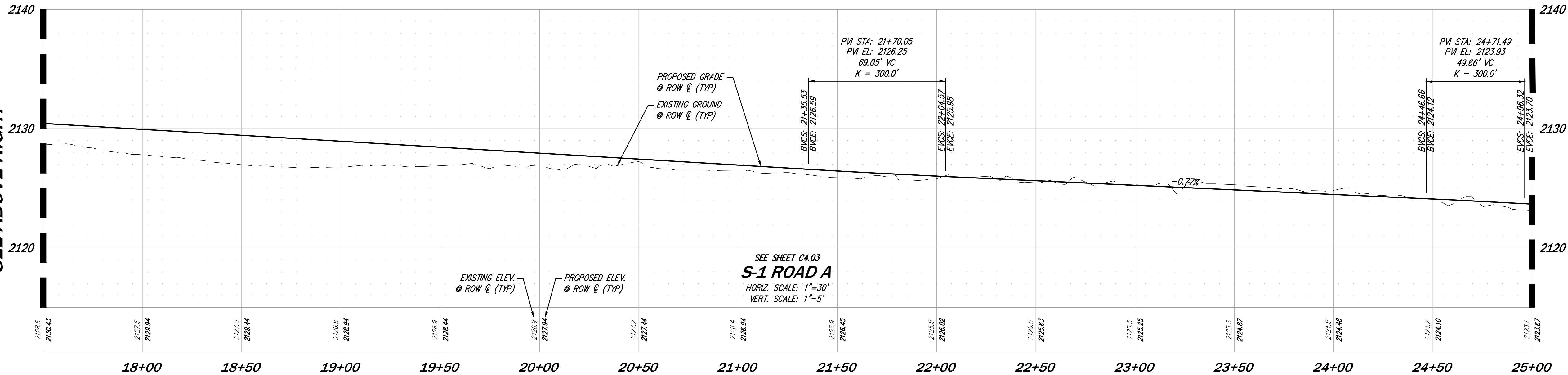


11/15/2024 11:53 AM J:\2024\24019\ENGINEERING\PRELIMINARY\SHEETS\PHASE 1 (S1)\24019 C4.21.DWG

MATCHLINE 25+00,  
SEE ABOVE RIGHT



MATCHLINE 17+50,  
SEE ABOVE RIGHT



MATCHLINE 25+00,  
SEE BELOW LEFT

MATCHLINE 17+50,  
SEE BELOW LEFT

UNDERGROUND LOCATOR SERVICE  
CALL BEFORE YOU DIG!  
811



PLOT DATE: SEE STAMP DATE	
DESIGNED: QUENTIN CHALMERS, PE	
DRAWN: MARY E. MOORE	
APPROVED: HOLLI HEAVRIN, PE	
PROJECT MANAGER: HOLLI HEAVRIN, PE	
SHEET 27	OF 54
PROJECT NUMBER 24019	

ROAD PROFILES  
BULLFROG FLATS - PHASE S-1  
BULLFROG FLATS, LLC  
18300 REDMOND WA Y, SUITE 120  
REDMOND, WA 98052

CORE DESIGN  
CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING  
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877



NO. 7		REVISIONS	DATE
REVISED PER CITY COMMENTS			11/19/24

11/15/24



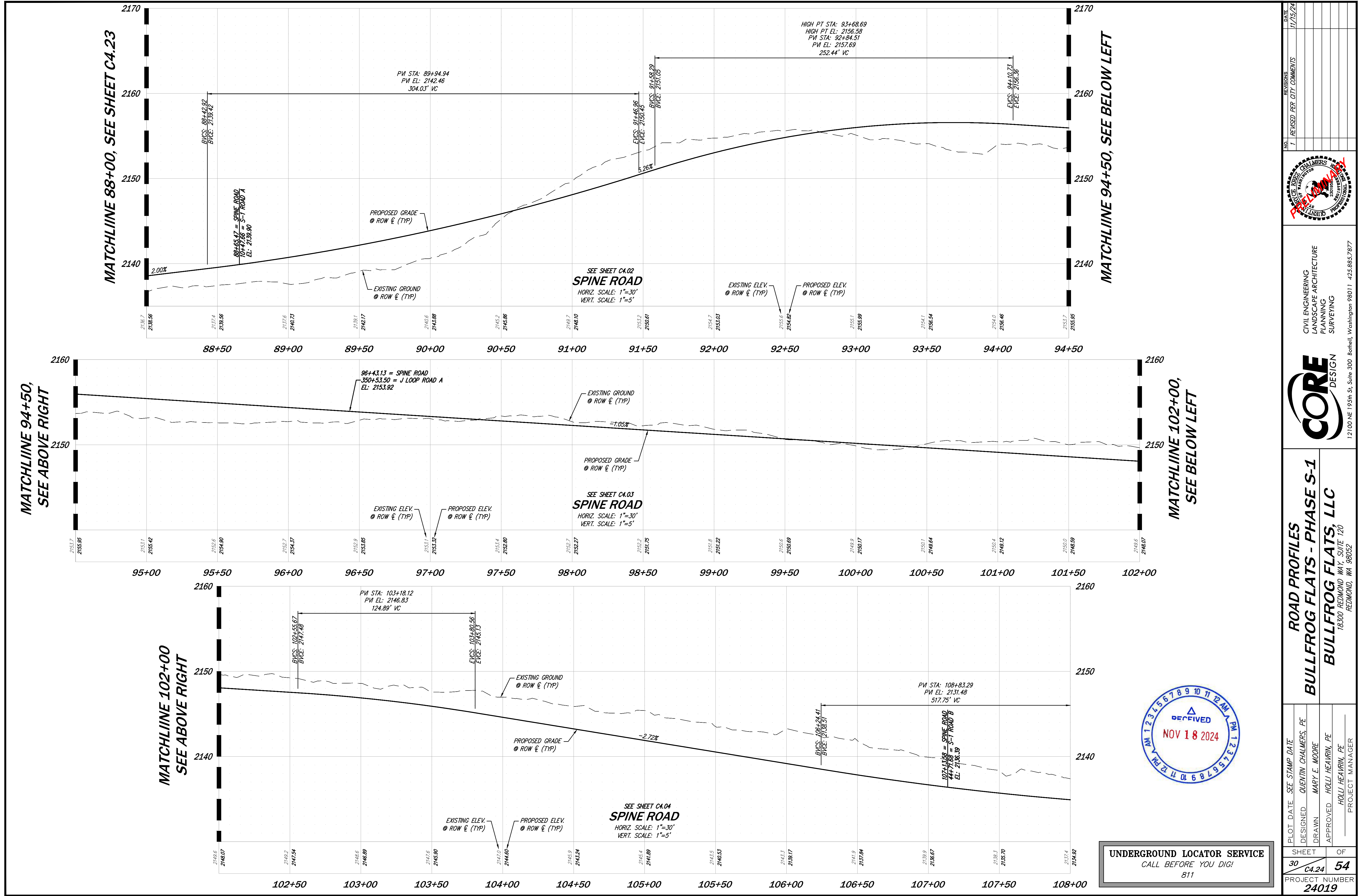








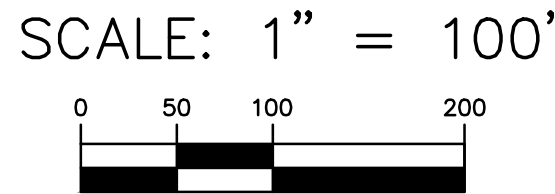
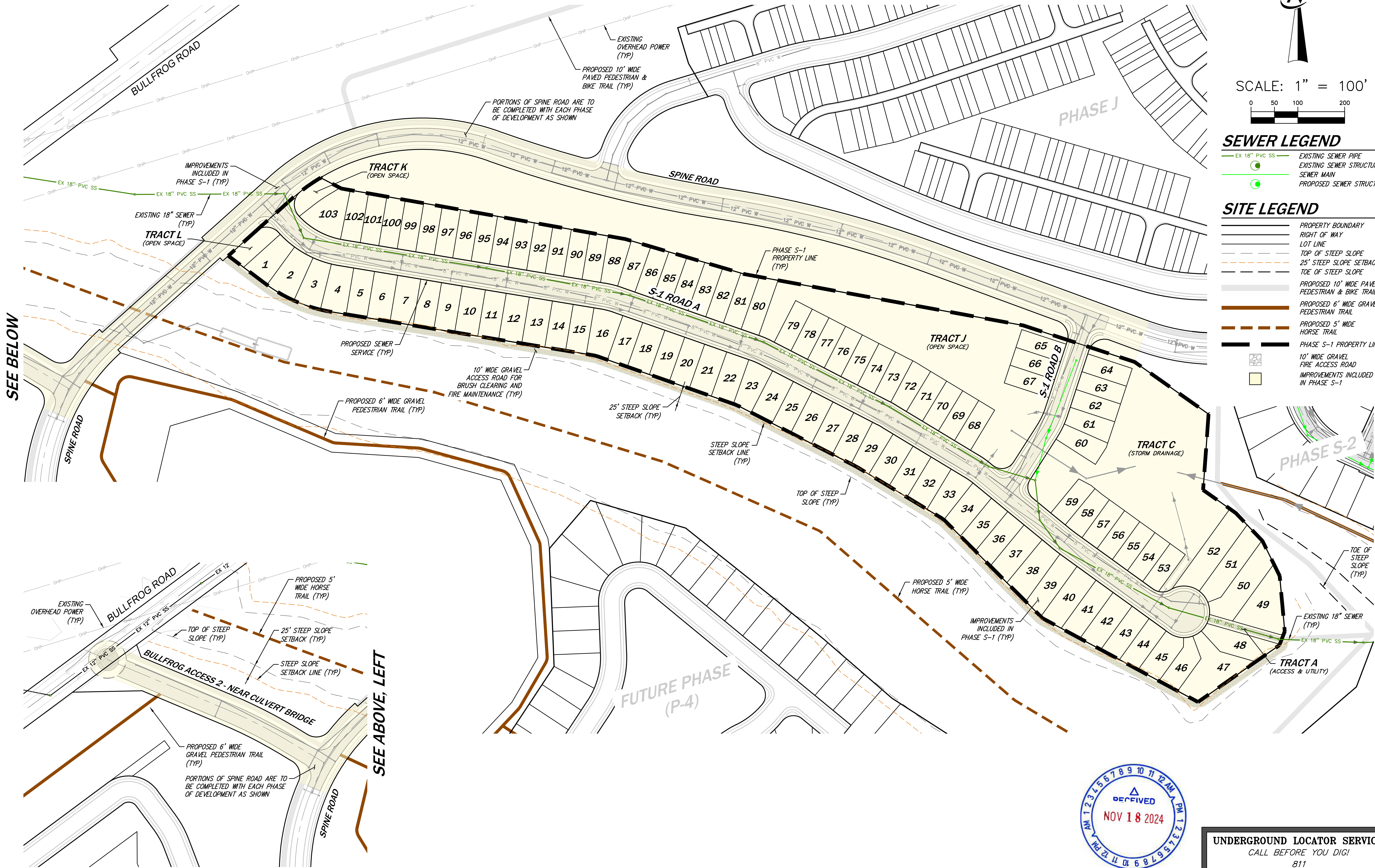
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SEWER LEGEND

- EX 18" PVC SS
- EXISTING SEWER PIPE
- EXISTING SEWER STRUCTURE
- SEWER MAIN
- PROPOSED SEWER STRUCTURE

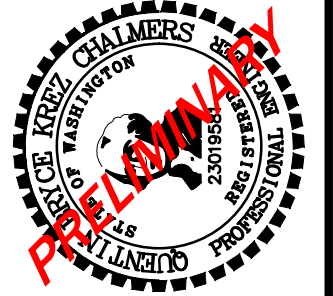
SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PROPOSED 5' WIDE HORSE TRAIL
- PHASE S-1 PROPERTY LINE
- 10' WIDE GRAVEL FIRE ACCESS ROAD
- IMPROVEMENTS INCLUDED IN PHASE S-1



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NO.	REVISIONS	DATE
7	REVISED PER CITY COMMENTS	11/19/24



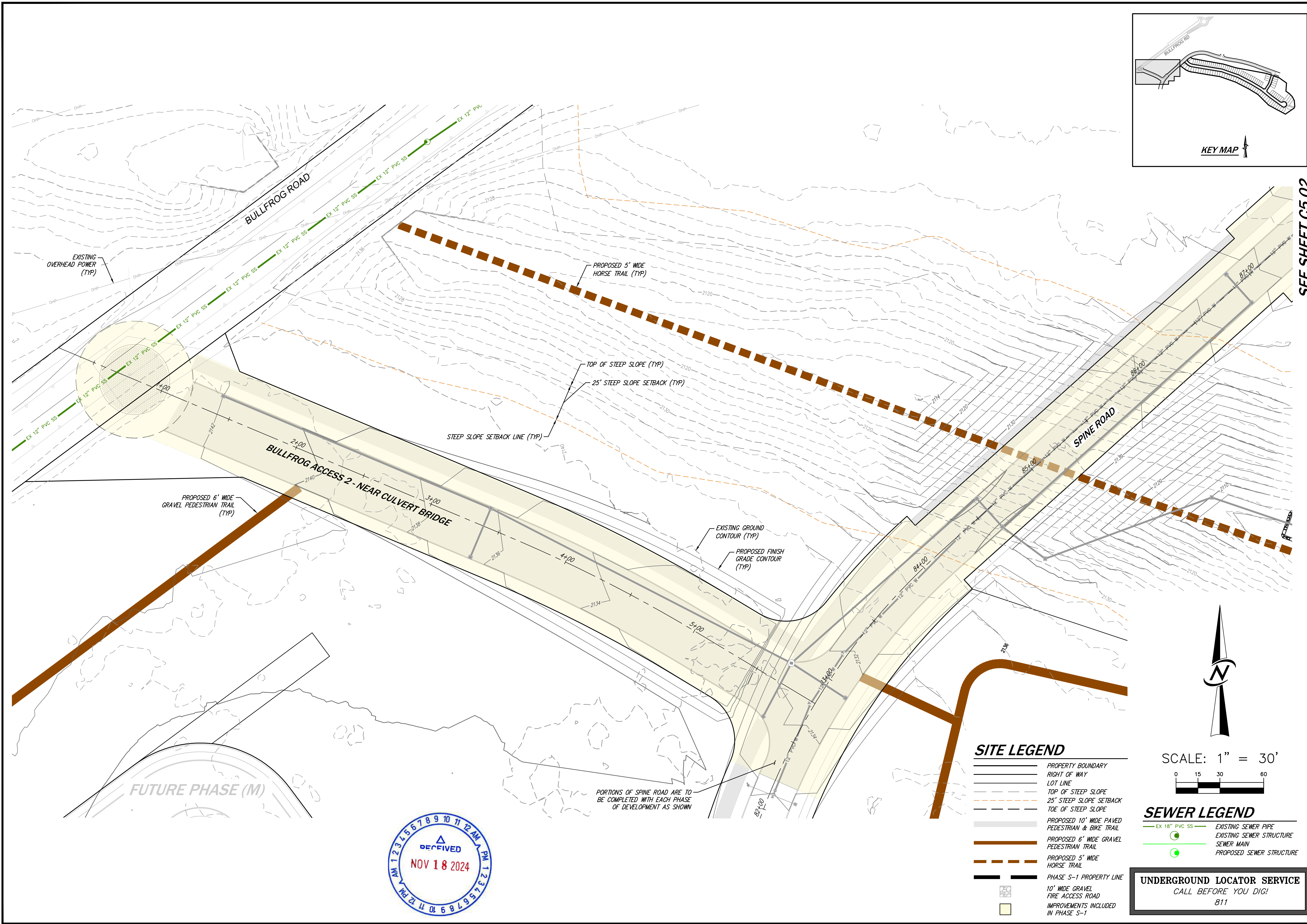
CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING  
**CORE DESIGN**  
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877

COMPOSITE SEWER PLAN  
BULLFROG FLATS - PHASE S-1  
**BULLFROG FLATS, LLC**  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

PLOT DATE	SEE STAMP DATE	DESIGNED	QUENTIN CHALMERS, PE
DRAWN	MARY E. MOORE	APPROVED	HOLLI HEAVRIN, PE
PROJECT MANAGER	HOLLI HEAVRIN, PE		
SHEET	OF		
32	54		
PROJECT NUMBER	24019		



11/15/2024 11:56 AM J:\2024\24019\ENGINEERING\PRELIMINARY\SHEETS\PHASE 1 (S1)\24019\_C5.01.DWG



**SITE LEGEND**

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PROPOSED 5' WIDE HORSE TRAIL
- PHASE S-1 PROPERTY LINE
- 10' WIDE GRAVEL FIRE ACCESS ROAD
- IMPROVEMENTS INCLUDED IN PHASE S-1

**SEWER LEGEND**

- EX 18" PVC SS
- EXISTING SEWER PIPE
- EXISTING SEWER STRUCTURE
- SEWER MAIN
- PROPOSED SEWER STRUCTURE

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SEE SHEET C5.02

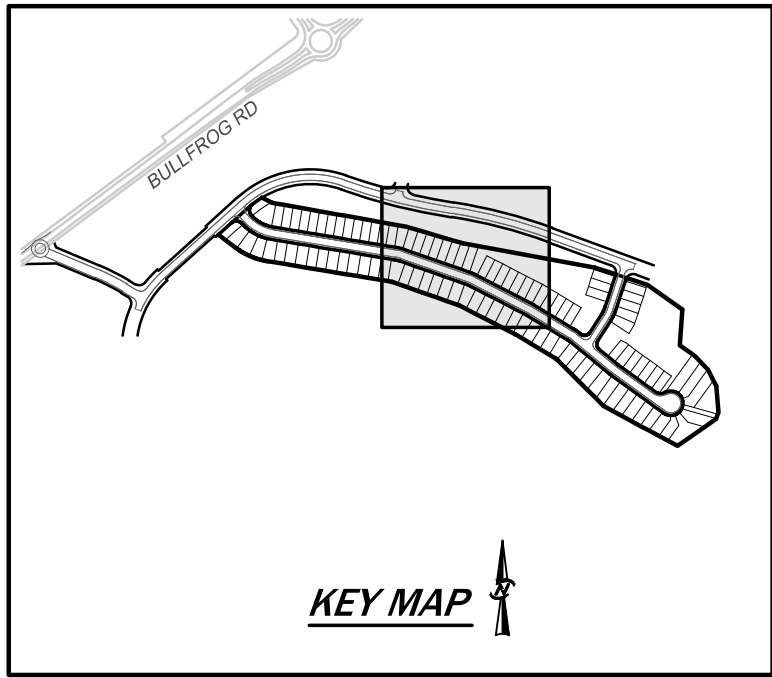
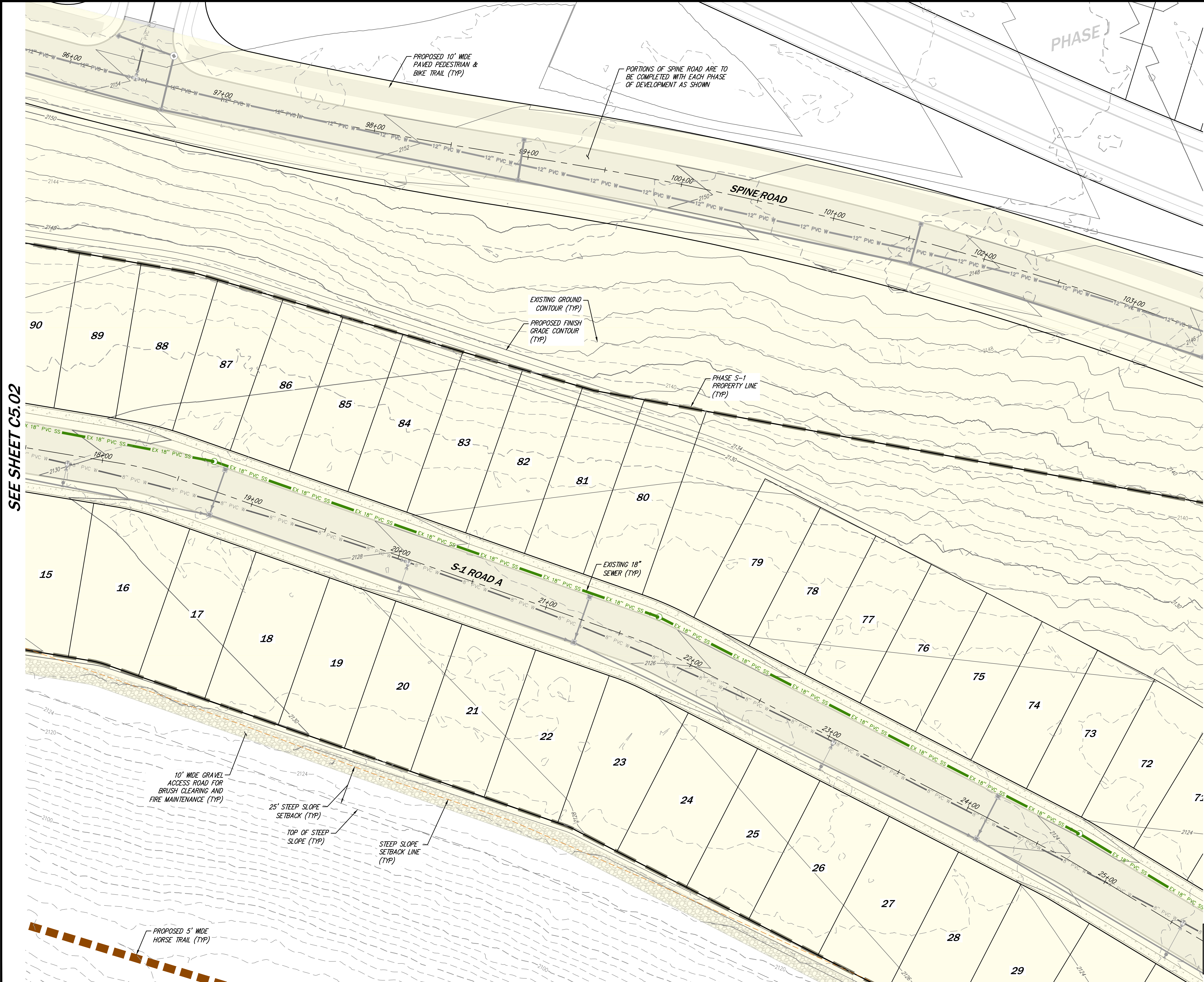
PLOT DATE: 11/15/2024		SEE STAMP DATE	NOV 18 2024	
DESIGNED	QUENTIN CHALMERS, PE	DRAWN	MARY E. MOORE	APPROVED
PROJECT NUMBER 24019		SHEET 33 OF 54		OF 54
PROJECT MANAGER		HOLLI HEAVRIN, PE		PROJECT MANAGER
SANITARY SEWER PLAN 1		BULLFROG FLATS - PHASE S-1		DATE 11/19/24
BULLFROG FLATS, LLC		18300 REDMOND WAY, SUITE 120		REVISIONS
REDMOND, WA 98052		12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877		NO. 7
CORE DESIGN		CIVIL ENGINEERING		REVISED PER CITY COMMENTS
LANDSCAPE ARCHITECTURE		PLANNING		
SURVEYING		DESIGN		
11/15/24		11/19/24		







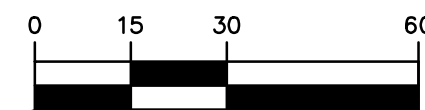
SEE SHEET C5.02



KEY MAP



SCALE: 1" = 30'



SEWER LEGEND

- EX 18" PVC SS EXISTING SEWER PIPE
- EXISTING SEWER STRUCTURE
- SEWER MAIN
- PROPOSED SEWER STRUCTURE

SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PROPOSED 5' WIDE HORSE TRAIL
- PHASE S-1 PROPERTY LINE
- 10' WIDE GRAVEL FIRE ACCESS ROAD
- IMPROVEMENTS INCLUDED IN PHASE S-1



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NO. 7		REVISIONS	DATE
7		REVISED PER CITY COMMENTS	11/19/24
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING			
<b>CORE DESIGN</b>			
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877			
PLOT DATE		SEE STAMP DATE	
DESIGNED		QUENTIN CHALMERS, PE	
DRAWN		MARY E. MOORE	
APPROVED		HOLLI HEAVRIN, PE	
		HOLLI HEAVRIN, PE	
		PROJECT MANAGER	
SHEET		OF	
35		C5.03	54
PROJECT NUMBER 24019			

SANITARY SEWER PLAN 3  
BULLFROG FLATS - PHASE S-1

BULLFROG FLATS, LLC  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

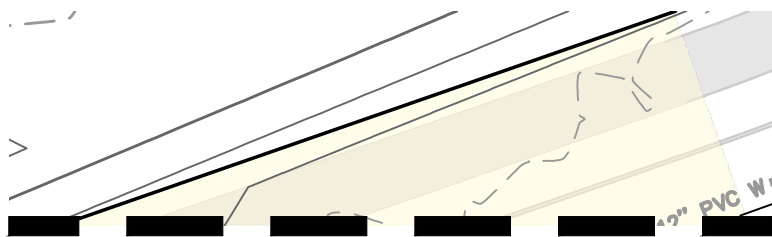
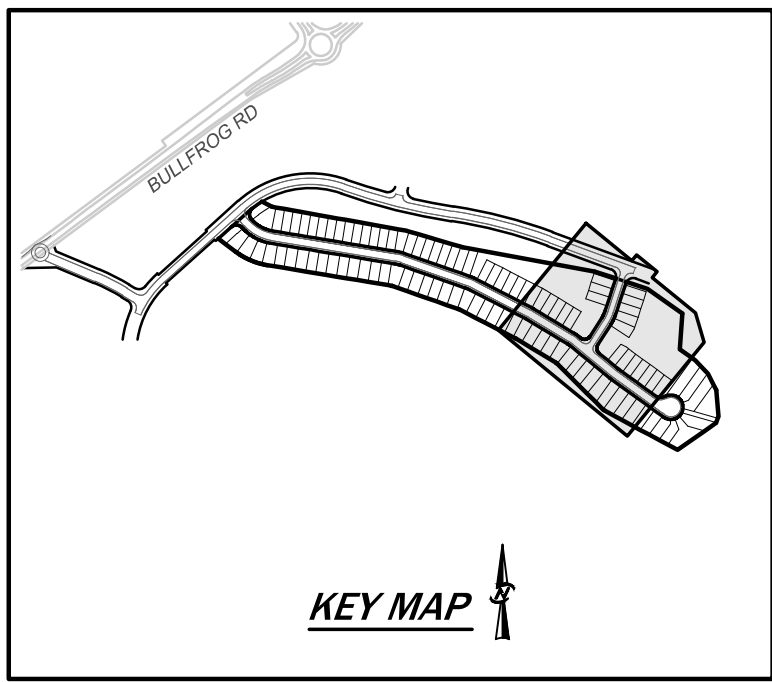
11/19/24

11/19/2024 12:56 PM J. 12024 124019 (ENGINEERING) PRELIMINARY SHEETS PHASE 1 (S1) 24019 C5.03.DWG

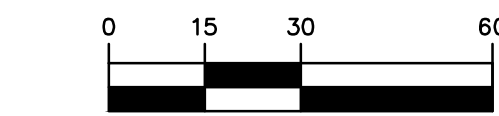


11/15/2024 11:57 AM J. [2024] [2019] [ENGINEERING] [PRELIMINARY] SHEETS (PHASE 1 (S1)) [24019] C5.04.DWG

SEE SHEET C5.03



SCALE: 1" = 30'



SEWER LEGEND

- EX 18" PVC SS EXISTING SEWER PIPE
- EXISTING SEWER STRUCTURE
- SEWER MAIN
- PROPOSED SEWER STRUCTURE

SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PROPOSED 5' WIDE HORSE TRAIL
- PHASE S-1 PROPERTY LINE
- 10' WIDE GRAVEL FIRE ACCESS ROAD
- IMPROVEMENTS INCLUDED IN PHASE S-1

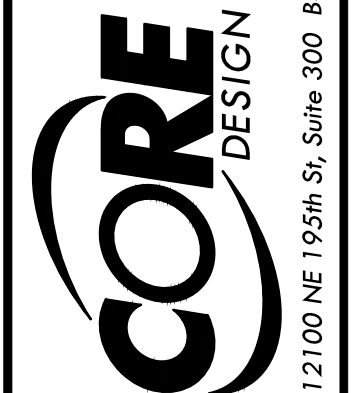


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NO.	REVISIONS	DATE
7	REVISED PER CITY COMMENTS	11/19/24



CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING



SANITARY SEWER PLAN 4  
BULLFROG FLATS - PHASE S-1  
BULLFROG FLATS, LLC  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

PLOT DATE	SEE STAMP DATE	DESIGNED	QUENTIN CHALMERS, PE
		DRAWN	MARY E. MOORE
		APPROVED	HOLLI HEAVRIN, PE
			HOLLI HEAVRIN, PE
			PROJECT MANAGER

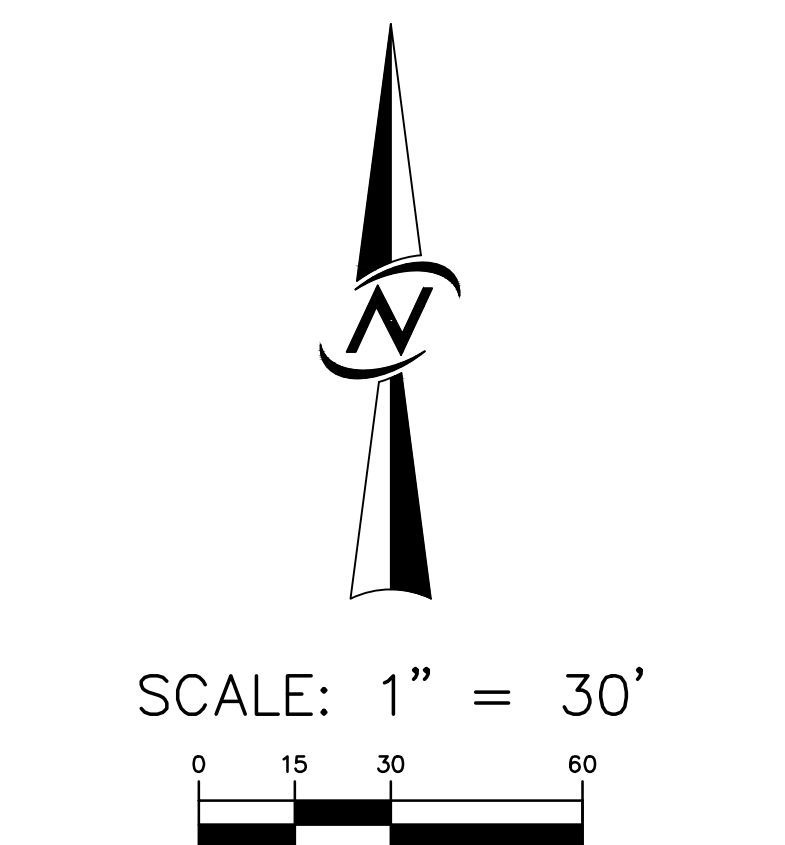
SHEET	OF
36	54
C5.04	
PROJECT NUMBER	24019

11/19/24





12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877






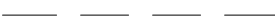


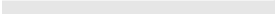






This topographic site plan illustrates the proposed infrastructure for Tract A (Access & Utility). The plan features a central proposed S-1 Road, shown as a thick green line, which runs diagonally across the site. Along this road, several existing 18-inch PVC sewer lines (EX 18" PVC SS) are indicated. The site is bounded by a Phase S-1 Property Line (TYP), shown as a dashed line. Various setbacks and trails are also shown, including a proposed 10' wide paved pedestrian & bike trail (TYP) along the top right, a proposed 6' wide gravel pedestrian trail (TYP) along the right side, and a proposed 5' wide horse trail (TYP) along the bottom left. The plan includes contour lines representing the existing ground (TYP) and a proposed finish grade contour (TYP). A 25' steep slope setback (TYP) is shown along the bottom and right edges, with the toe of the steep slope (TYP) indicated. The site is divided into numbered lots (40-59) and includes labels for Tract C (Storm Drainage) and Tract A (Access & Utility). Other features include a 10' wide gravel access road for brush clearing and fire maintenance (TYP) along the bottom left, and a steep slope setback line (TYP) along the bottom left. The plan also shows existing 18-inch PVC sewer lines (EX 18" PVC SS) running horizontally across the bottom right. The topographic plan includes contour lines and various setbacks and trails.



# SEWER LEGEND

	EXISTING SEWER PIPE
	EXISTING SEWER STRUCTURE
	SEWER MAIN
	PROPOSED SEWER STRUCTURE

## SITE LEGEND

	PROPERTY BOUNDARY
	RIGHT OF WAY
	LOT LINE
	TOP OF STEEP SLOPE
	25' STEEP SLOPE SETBACK
	TOE OF STEEP SLOPE
	PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
	PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
	PROPOSED 5' WIDE HORSE TRAIL
	PHASE S-1 PROPERTY LINE
	10' WIDE GRAVEL FIRE ACCESS ROAD
	IMPROVEMENTS INCLUDED IN PHASE S-1
	



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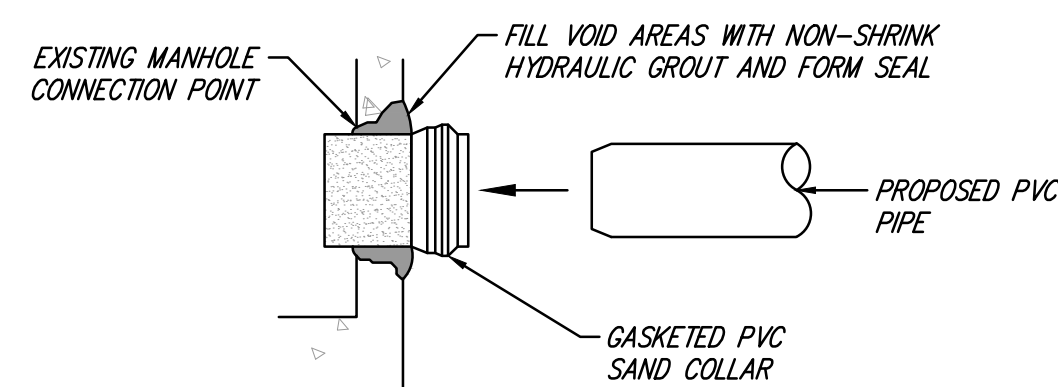
PLOT DATE	SEE STAMP DATE
DESIGNED	QUENTIN CHALMERS, PE
DRAWN	MARY E. MOORE
APPROVED	HOLLI HEARIN, PE
	HOLLI HEARIN, PE
	PROJECT MANAGER
SHEET <b>37</b>	OF <b>54</b>
<b>C5.05</b>	
PROJECT NUMBER <b>24019</b>	
<b>SANITARY SEWER PLAN 5</b> <b>BULLFROG FLATS - PHASE S-1</b> <hr/> <b>BULLFROG FLATS, LLC</b> 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052	
<p style="text-align: center;">CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING</p> <p style="text-align: right;">12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877</p>	
<div style="float: left; width: 60%;">           NO. REVISIONS PER CITY COMMENTS         </div> <div style="float: right; width: 35%; text-align: right;">DATE 11/15/24</div> <div style="clear: both;"></div> <div style="margin-top: 10px;"> <span style="color: red; font-weight: bold; transform: rotate(-45deg); position: absolute; top: -20px; left: 50%; opacity: 0.5;">PENDING REVIEW</span> </div>	



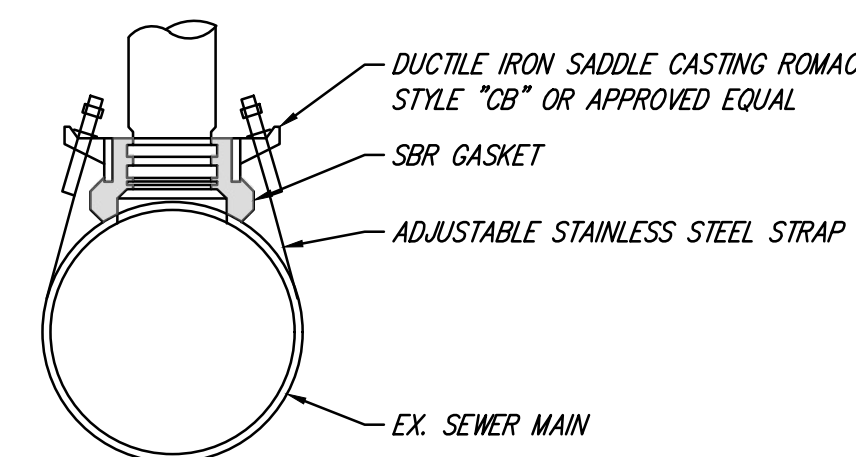




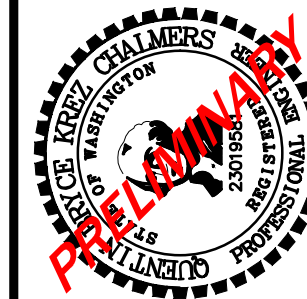
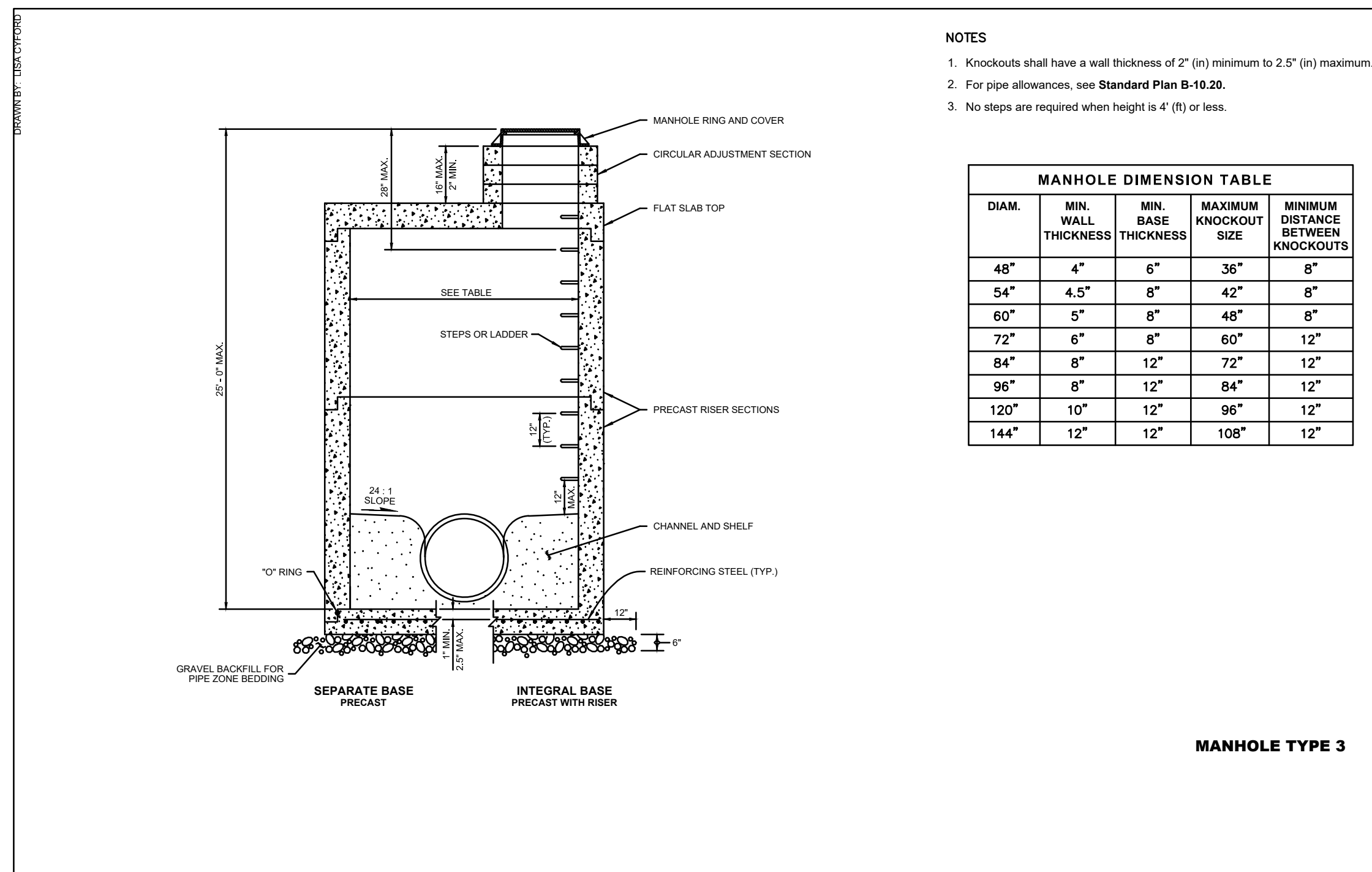
11/15/2024 11:58 AM J: 2024\24019\ENGINEERING\PRELIMINARY\SHEETS\PHASE 1 (S1)\24019\_C5.31.DWG



**CONNECTION TO EX. SEWER MANHOLE**



***SIDE SEWER CONNECTION TO EX. SEWER MAIN***



**SANITARY SEWER DETAILS**  
**BULLFROG FLATS - PHASE S-1**  
**BULLFROG FLATS, LLC**  
18500 REDMOND WAY, SUITE 120

SHEET		OF
39	C5.32	54
PROJECT NUMBER		
24019		

PLOT DATE *SEE STAMP DATE*  
 DESIGNED *QUENTIN CHALMERS, PE*  
 DRAWN *MARY E. MOORE*  
 APPROVED *HOLLI HEAVRIN, PE*  
 \_\_\_\_\_  
*HOLLI HEAVRIN, PE*

10/1/2019

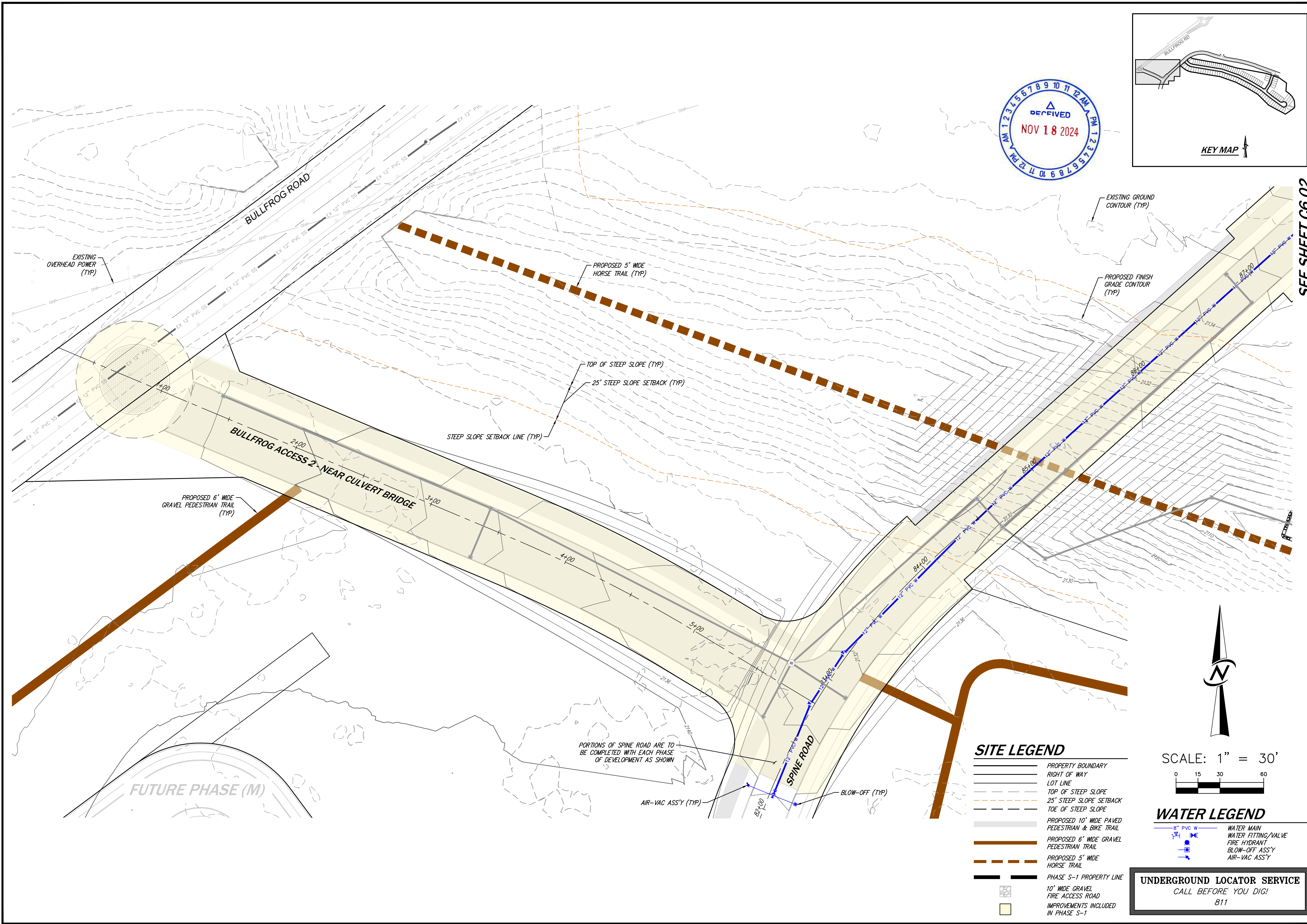
**UNDERGROUND LOCATOR SERVICE**  
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811







11/15/2024 12:55 PM J. 12024 24019 (ENGINEERING) PRELIMINARY SHEETS PHASE 1 (S1) 24019 06.01.DWG



SEE SHEET C6.02

### SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PROPOSED 5' WIDE HORSE TRAIL
- PHASE S-1 PROPERTY LINE
- 10' WIDE GRAVEL FIRE ACCESS ROAD
- IMPROVEMENTS INCLUDED IN PHASE S-1

### WATER LEGEND

- 8" PVC W
- WATER MAIN
- WATER FITTING/VALVE
- FIRE HYDRANT
- BLOW-OFF ASS'Y
- AIR-VAC ASS'Y

UNDERGROUND LOCATOR SERVICE

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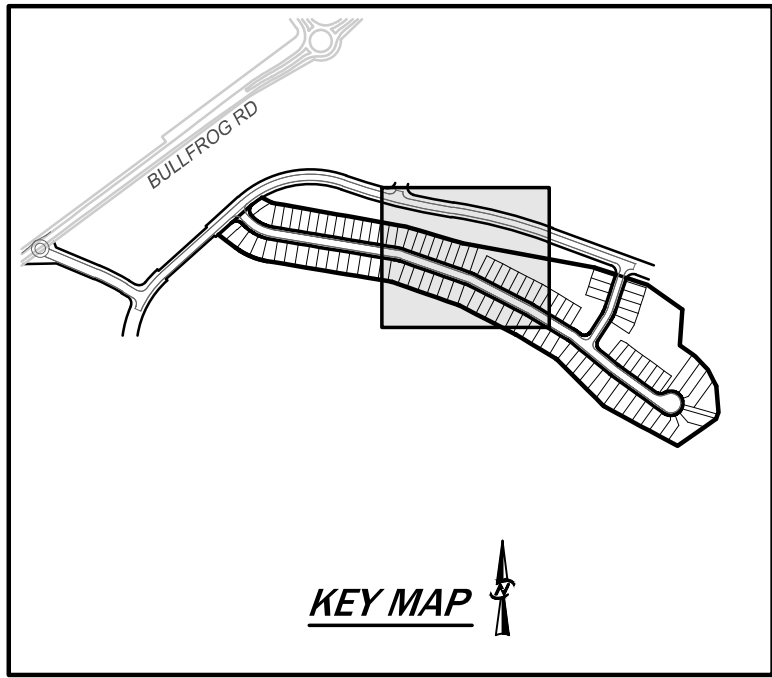
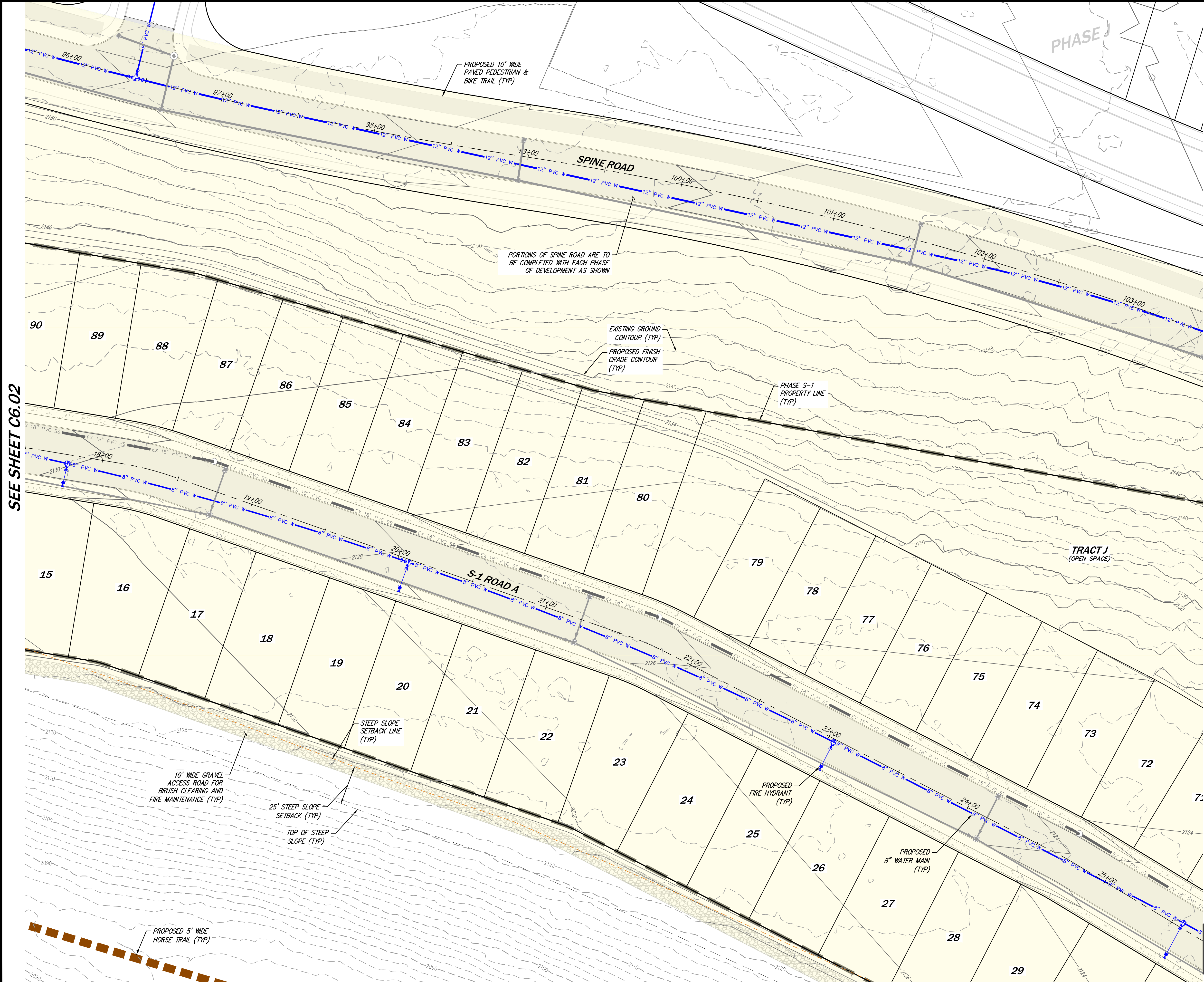
NO.	7	REVISED PER CITY COMMENTS	DATE	11/19/24
REVISIONS				
DESIGNED	QUENTIN CHALLMERS, PE			
DRAWN	MARY E. MOORE			
APPROVED	HOLLI HEAVRIN, PE			
PROJECT MANAGER	HOLLI HEAVRIN, PE			
SHEET	41	OF	54	
PROJECT NUMBER	24019			
WATER PLAN 1 BULLFROG FLATS - PHASE S-1 BULLFROG FLATS, LLC 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052				
CORE DESIGN CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING 12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877				
11/19/24				







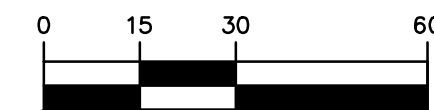
SEE SHEET C6.02



KEY MAP



SCALE: 1" = 30'



WATER LEGEND

- 8" PVC W WATER MAIN
- Water Fitting/Valve
- Fire Hydrant
- Blow-off Ass'y
- Air-Vac Ass'y

SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PROPOSED 5' WIDE HORSE TRAIL
- PHASE S-1 PROPERTY LINE
- 10' WIDE GRAVEL FIRE ACCESS ROAD
- IMPROVEMENTS INCLUDED IN PHASE S-1



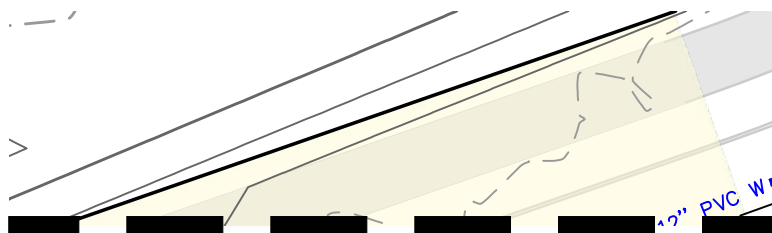
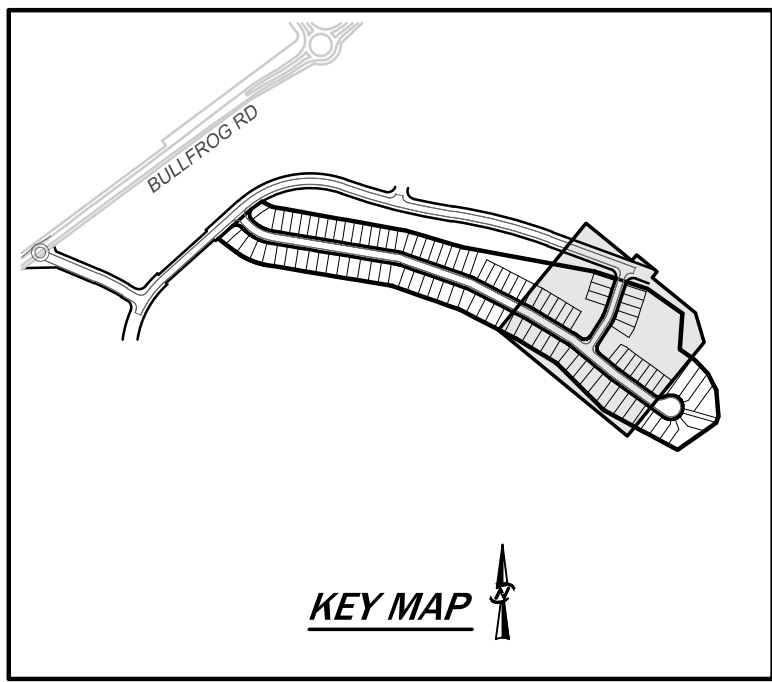
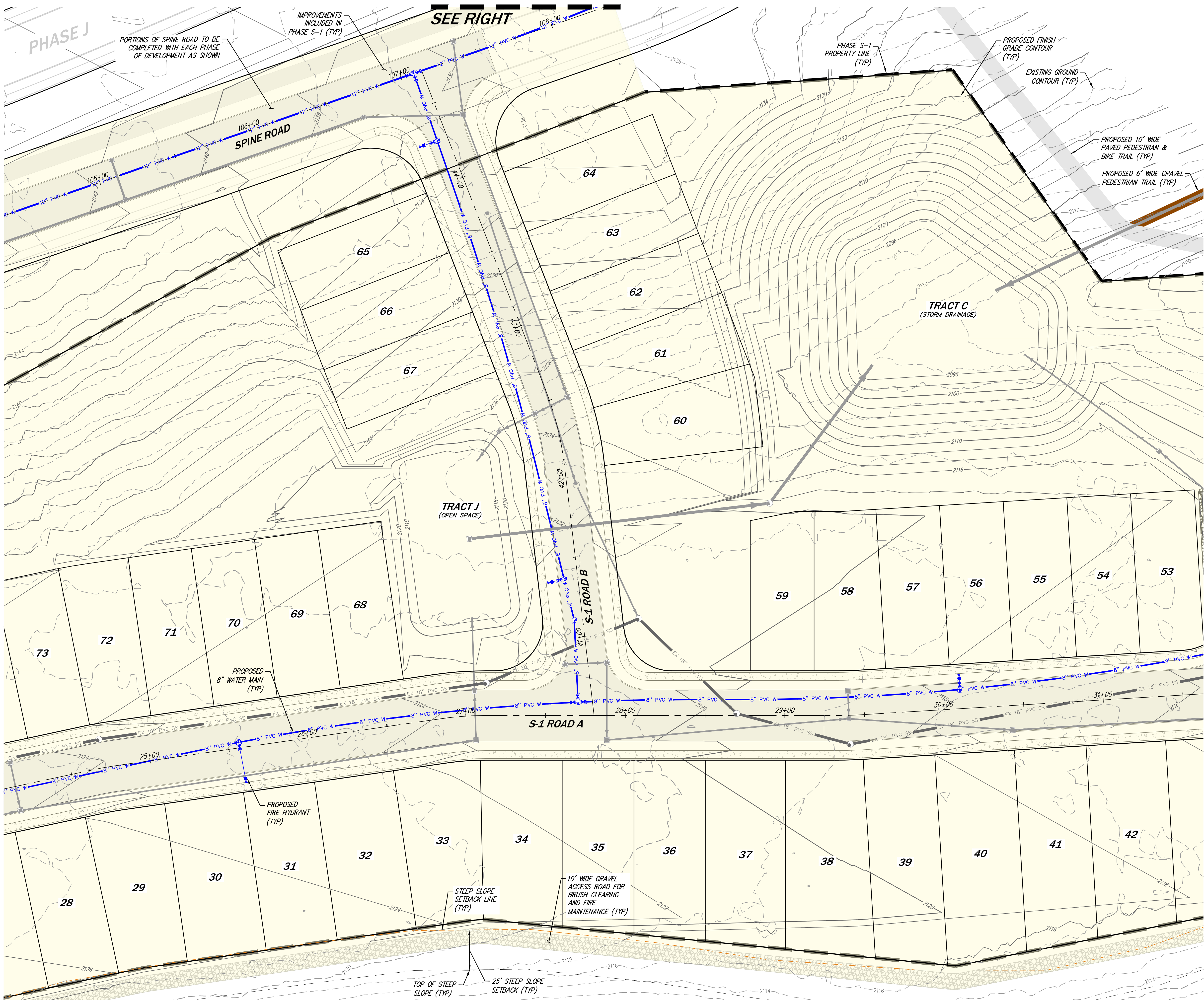
UNDERGROUND LOCATOR SERVICE  
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PLOT DATE		SEE STAMP DATE	SHEET		OF	PROJECT NUMBER					
DESIGNED		QUENTIN CHALMERS, PE	43		C6.03	24019					
DRAWN		MARY E. MOORE									
APPROVED		HOLLI HEAVRIN, PE									
		HOLLI HEAVRIN, PE									
		PROJECT MANAGER									
<div><div><div><div><div>QUENTIN CHALMERS</div><div>PE</div><div>18208</div><div>STATE OF WASHINGTON</div></div><div><div>11/19/24</div><div>11/19/24</div></div></div><div><div>CORE</div><div>DESIGN</div></div></div><div>CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING</div><div>12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877</div></div>							NO.		REVISIONS		DATE
1		REVISED PER CITY COMMENTS		11/15/24							

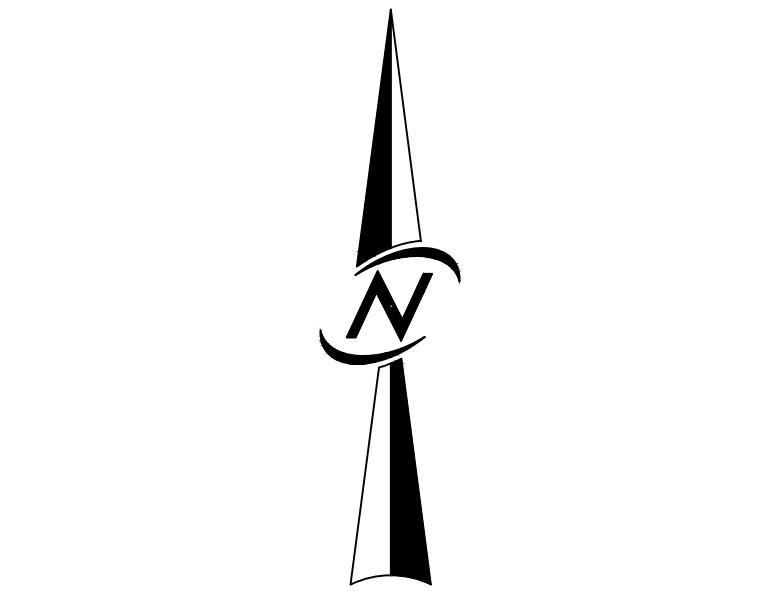


11/15/2024 12:01 PM J. [2024 24019 (ENGINEERING) PRELIMINARY SHEETS] PHASE 1 (S1) 24019 C6.04.DWG

SEE SHEET C6.03



SEE ABOVE, LEFT



SCALE: 1" = 30'

**WATER LEGEND**  
8" PVC W WATER MAIN  
WATER FITTING/VALVE  
FIRE HYDRANT  
BLOW-OFF ASS'Y  
AIR-VAC ASS'Y

**SITE LEGEND**  
PROPERTY BOUNDARY  
RIGHT OF WAY  
LOT LINE  
TOP OF STEEP SLOPE  
25' STEEP SLOPE SETBACK  
TOE OF STEEP SLOPE  
PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL  
PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL  
PROPOSED 5' WIDE HORSE TRAIL  
PHASE S-1 PROPERTY LINE  
10' WIDE GRAVEL FIRE ACCESS ROAD  
IMPROVEMENTS INCLUDED IN PHASE S-1



**UNDERGROUND LOCATOR SERVICE**  
CALL BEFORE YOU DIG!  
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NO.	REVISIONS	DATE
1	REVISED PER CITY COMMENTS	11/19/24



CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING  
**CORE DESIGN**  
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877

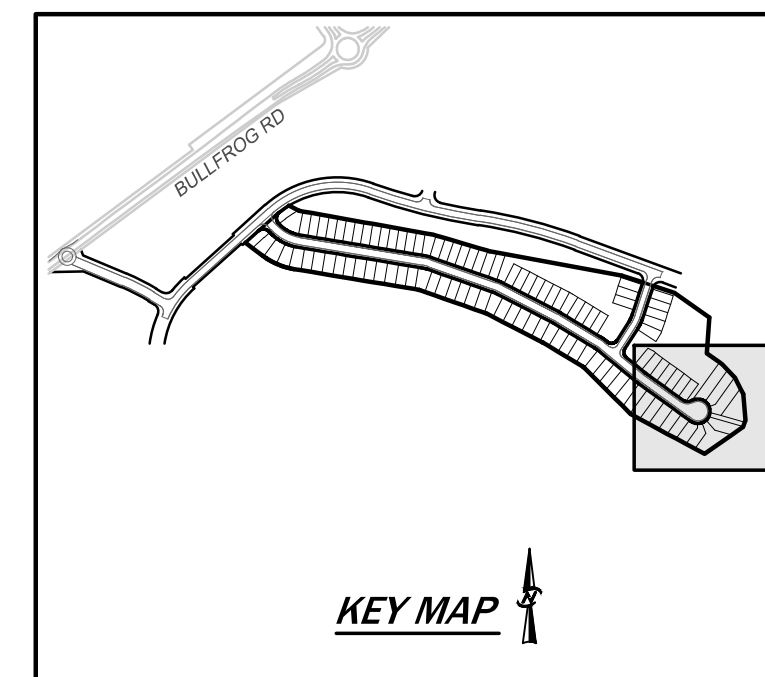
**WATER PLAN 4**  
**BULLFROG FLATS - PHASE S-1**  
**BULLFROG FLATS, LLC**  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

PLOT	DATE	SEE STAMP	DATE
DESIGNED	QUENTIN CHALMERS, PE		
DRAWN	MARY E. MOORE		
APPROVED	HOLLI HEAVRIN, PE		
	HOLLI HEAVRIN, PE		
	PROJECT MANAGER		

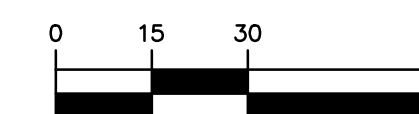
SHEET	OF
44	54

PROJECT NUMBER
24019

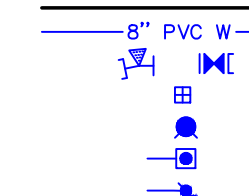




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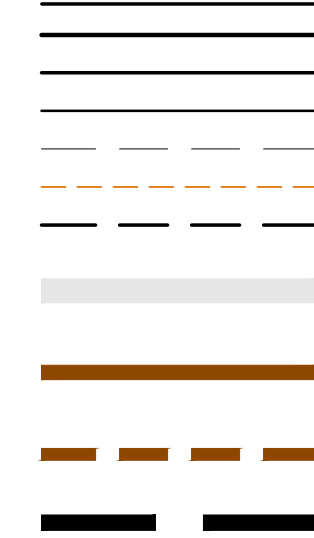


## ***WATER LEGEND***



WATER MAIN  
WATER FITTING/VALVE  
WATER METER  
FIRE HYDRANT  
BLOW-OFF ASS'Y  
AIR-VAC ASS'Y

### ***SITE LEGEND***



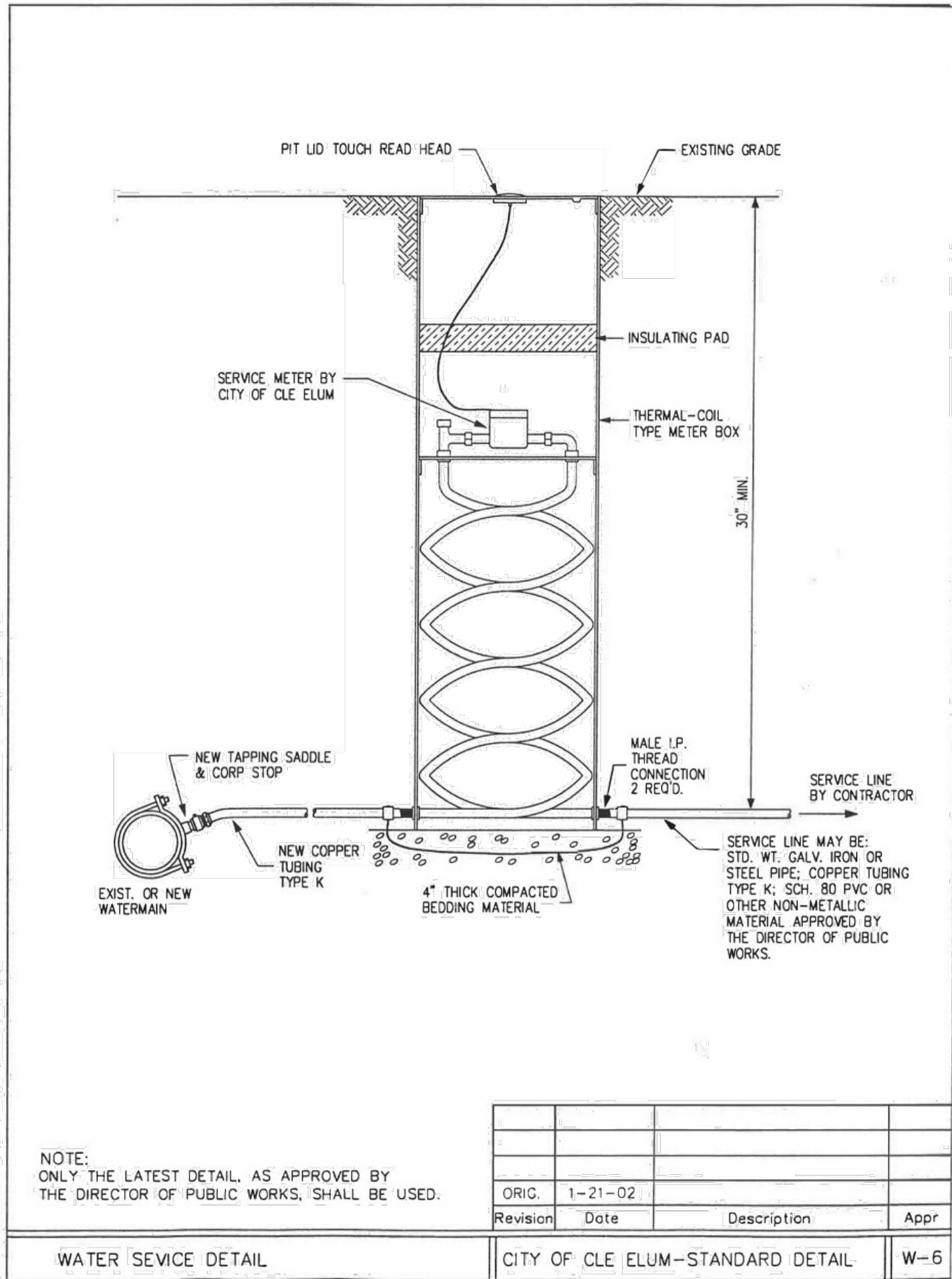
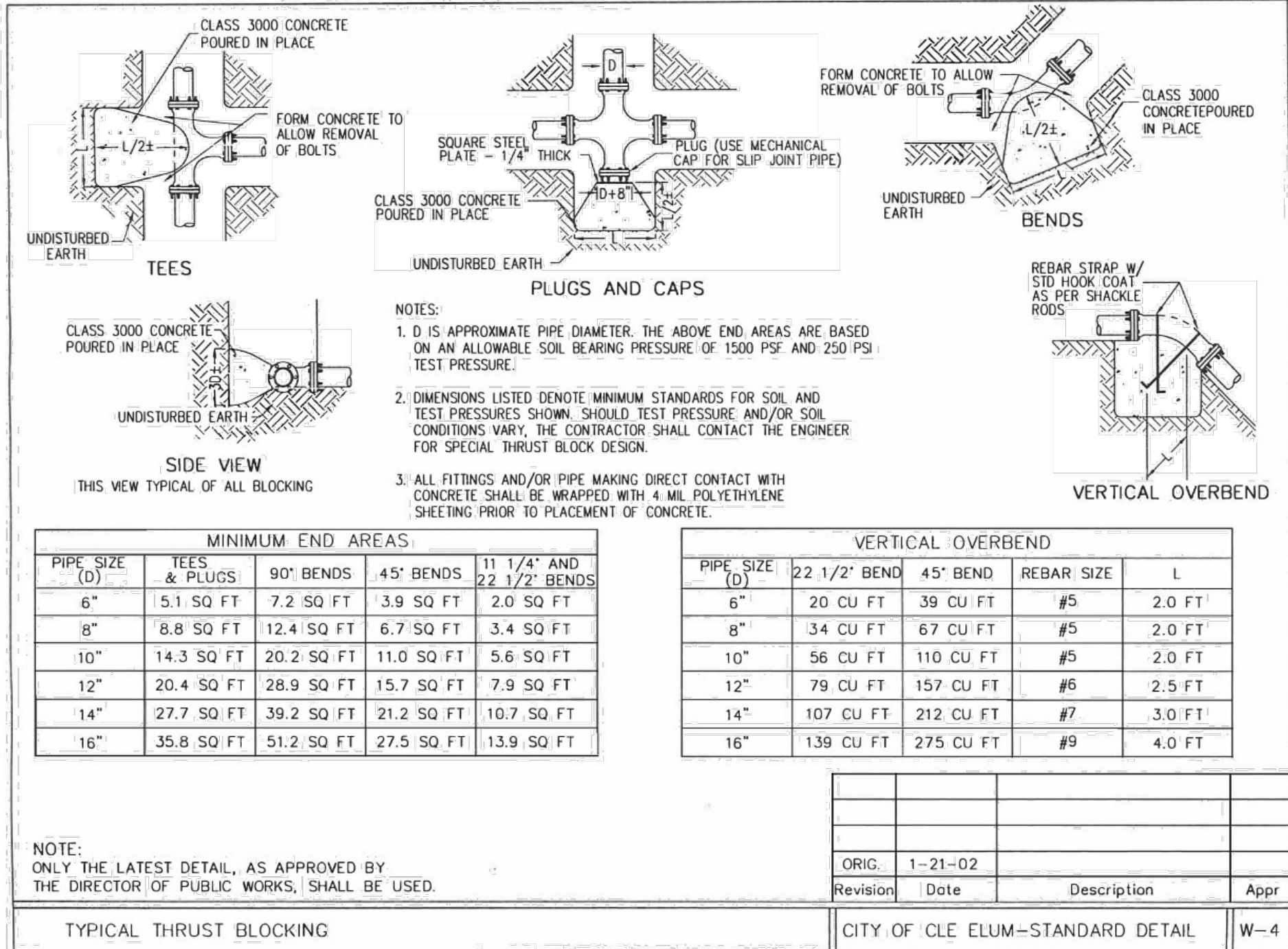
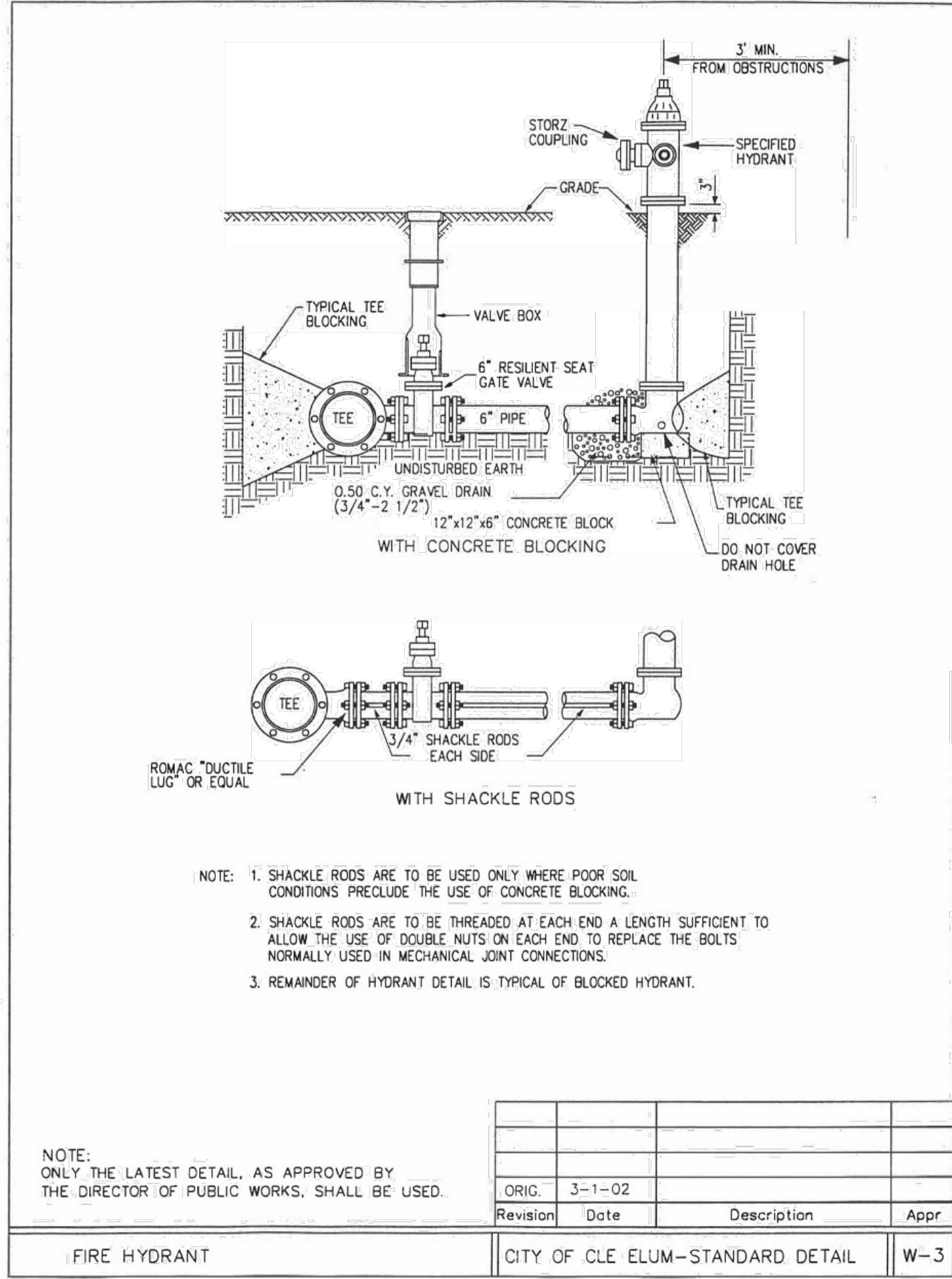
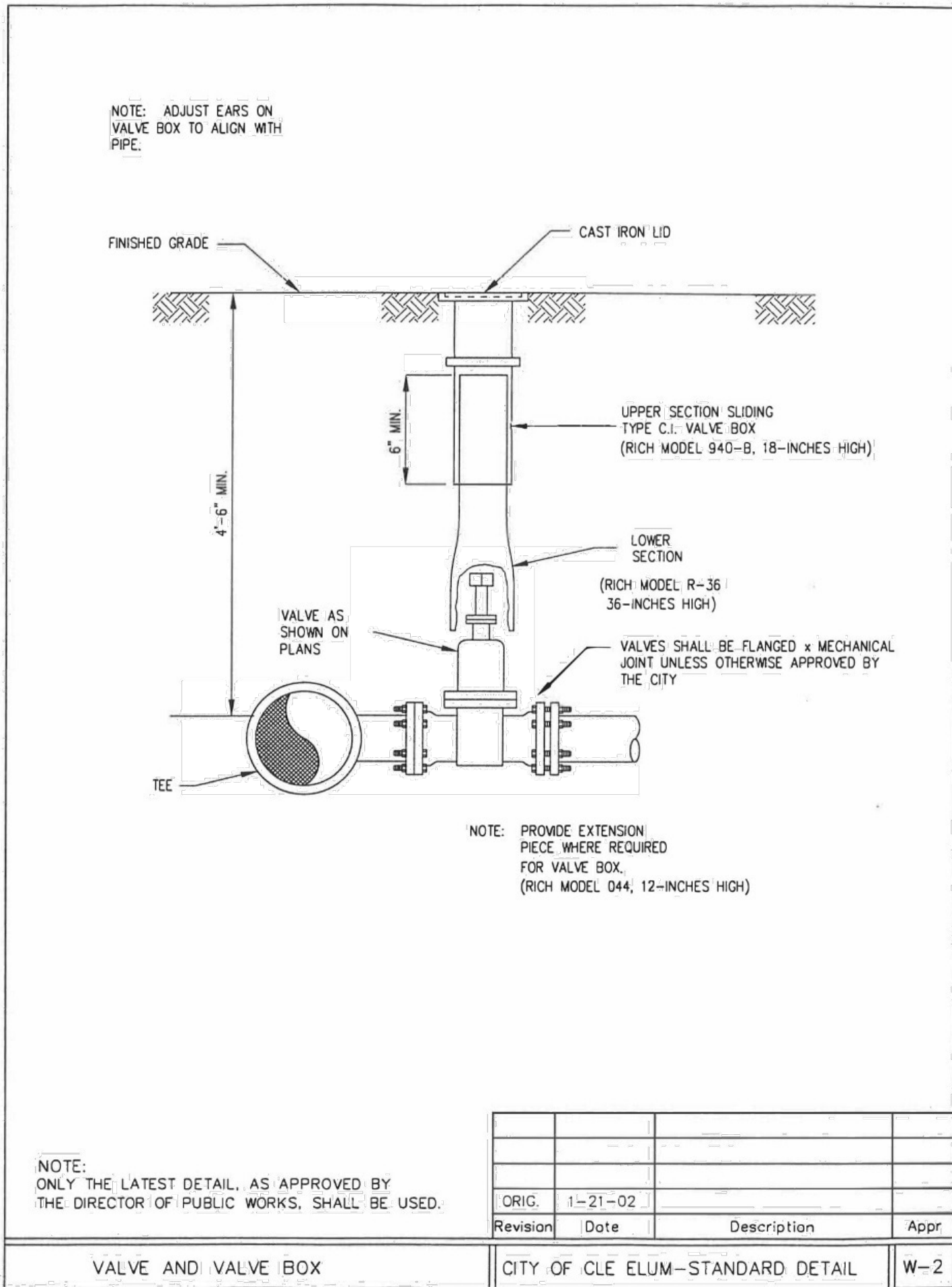
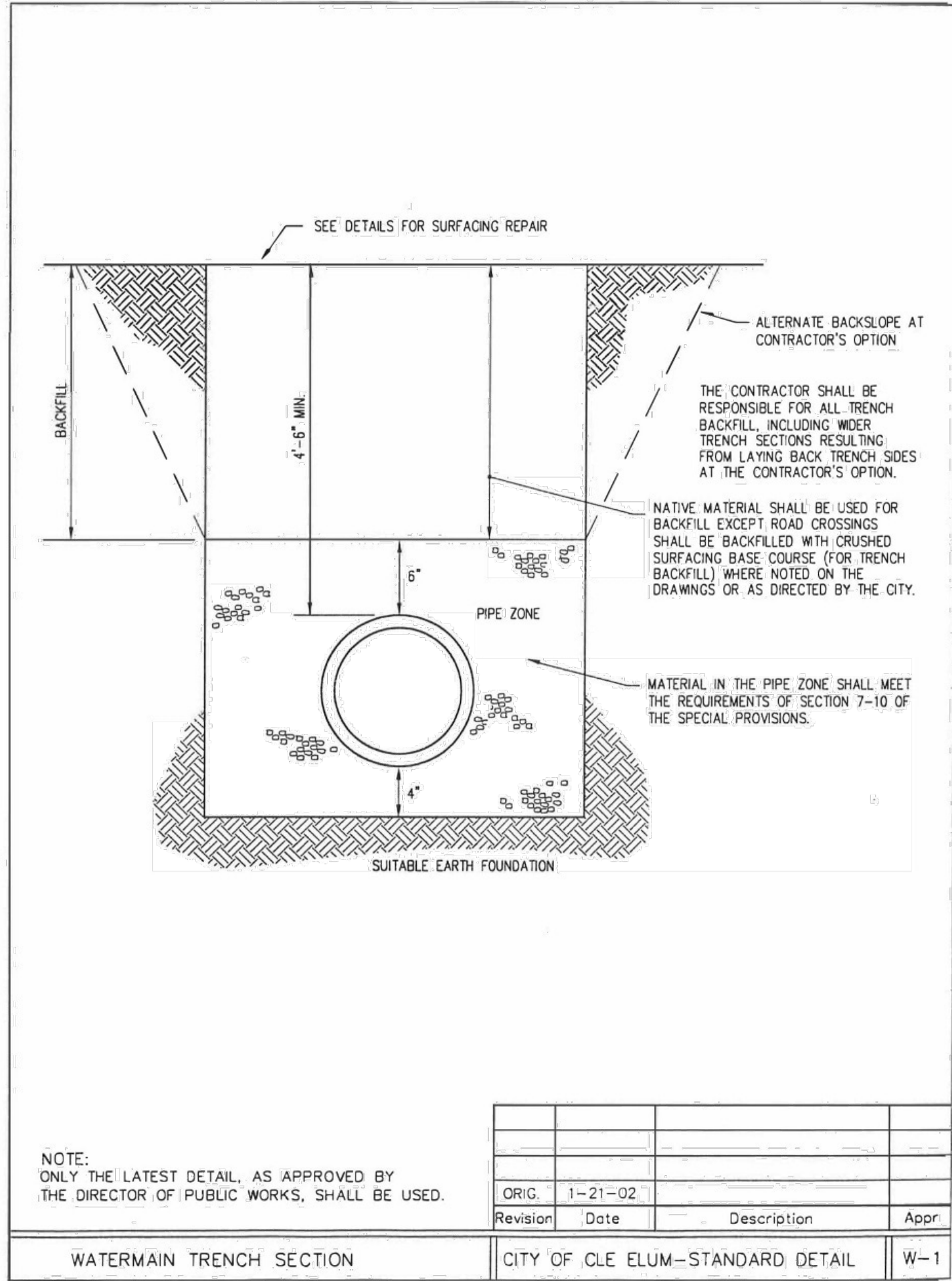
- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PROPOSED 5' WIDE HORSE TRAIL
- PHASE S-1 PROPERTY LINE
- 10' WIDE GRAVEL FIRE ACCESS ROAD
- IMPROVEMENTS INCLUDED IN PHASE S-1



**UNDERGROUND LOCATOR SERVICE**  
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[illegible]





NO.	REVISIONS	DATE
7	REVISED PER CITY COMMENTS	11/19/24

CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING

**CORE DESIGN**

12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877

**WATER DETAILS**  
**BULLFROG FLATS - PHASE S-1**  
**BULLFROG FLATS, LLC**  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

PLOT DATE	SEE STAMP DATE	DESIGNED	QUENTIN CHALMERS, PE
		DRAWN	MARY E. MOORE
		APPROVED	HOLLI HEAVRIN, PE
			HOLLI HEAVRIN, PE
			PROJECT MANAGER

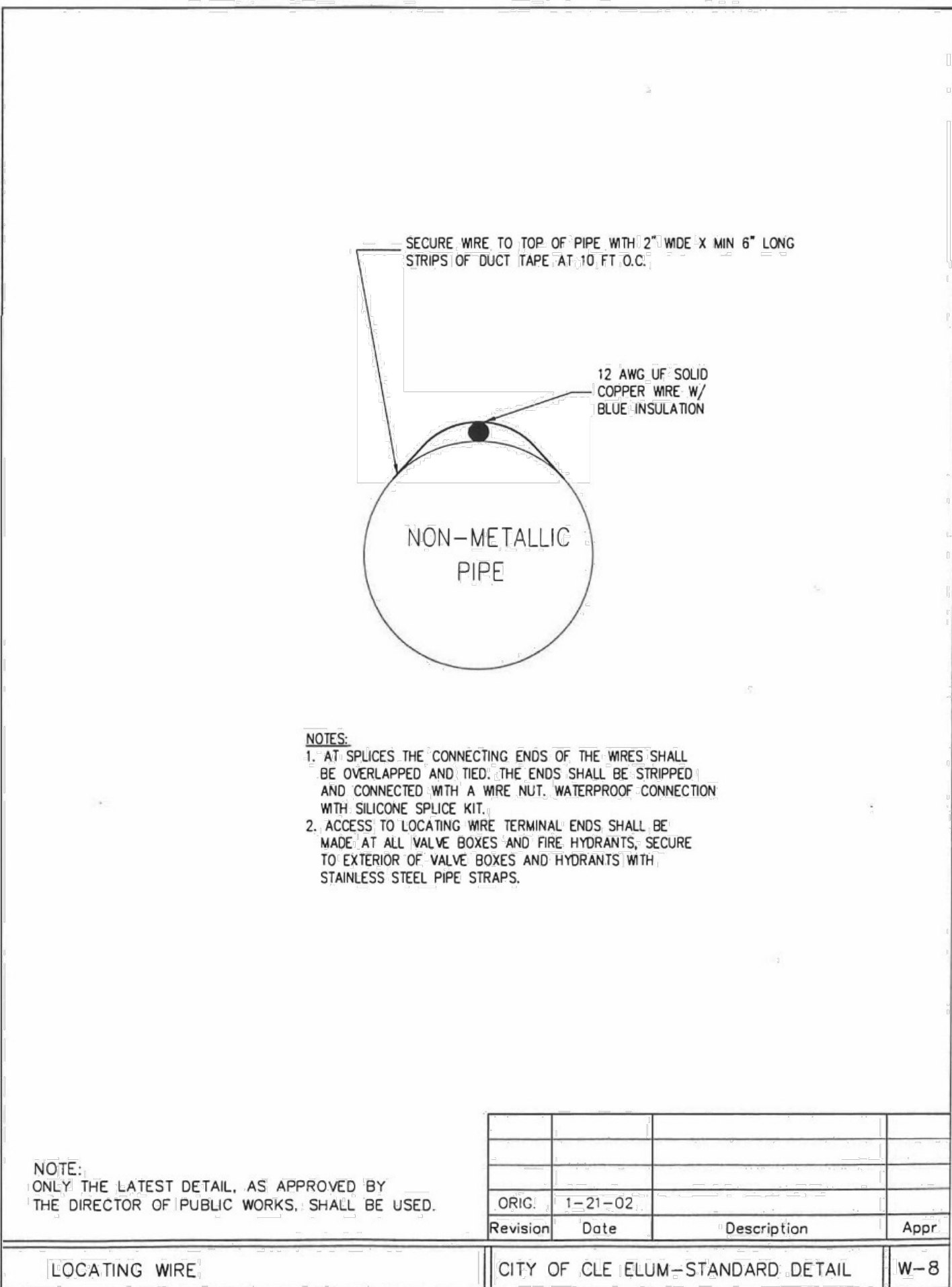
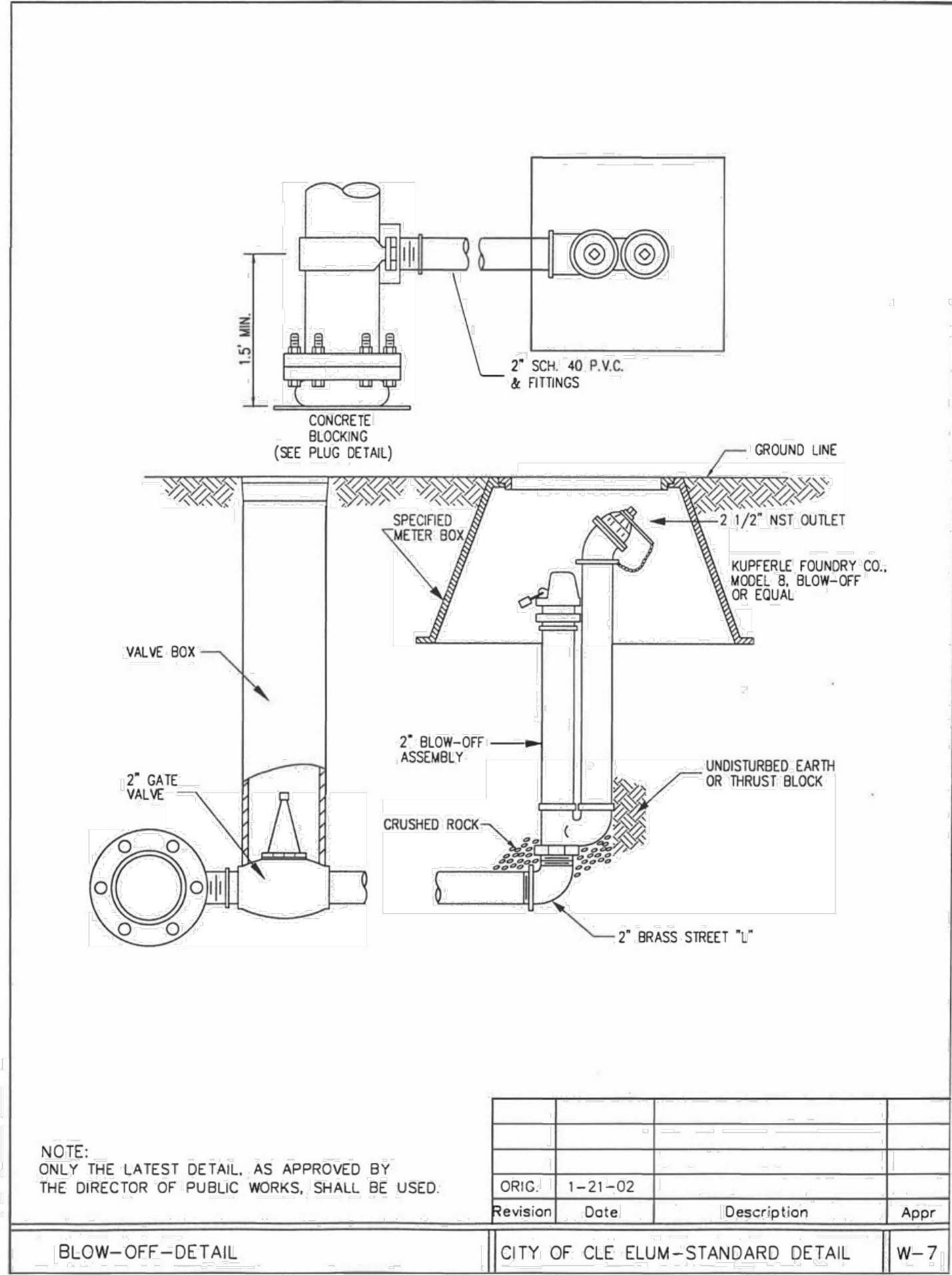
SHEET	OF
46	54

PROJECT NUMBER  
**24019**

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11/15/2024 11:54 AM J:\2024\24019\ENGINEERING\PRELIMINARY\SHEETS\PHASE 1 (ST)\24019\_C6.32.DWG

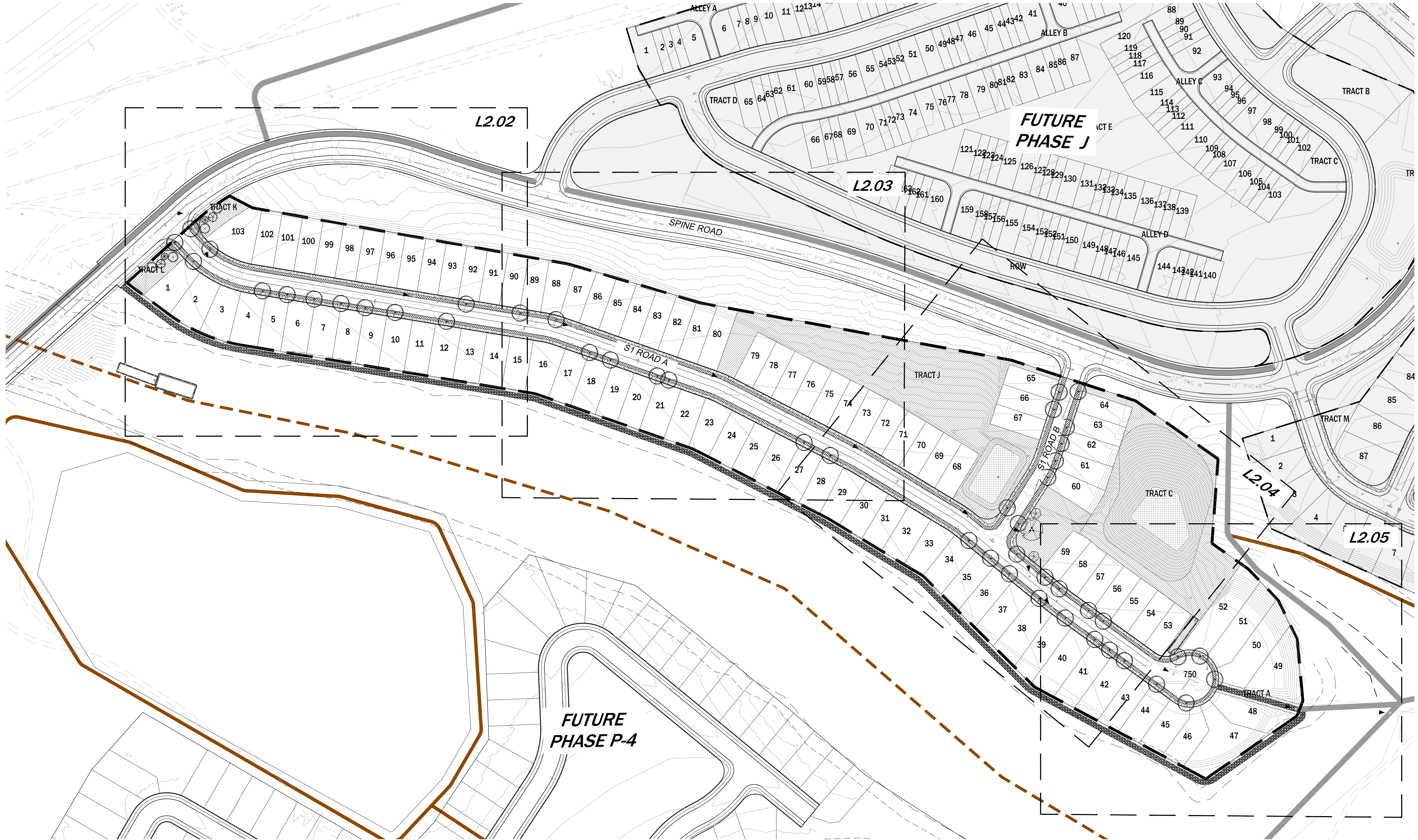


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PLOT DATE SEE STAMP DATE		DESIGNED	QUENTIN CHALMERS, PE
DRAWN		MARY E. MOORE	
APPROVED		HOLLI HEAVRIN, PE	
		HOLLI HEAVRIN, PE	
		PROJECT MANAGER	
SHEET		OF	
47		54	
PROJECT NUMBER		24019	
WATER DETAILS		BULLFROG FLATS - PHASE S-1	
BULLFROG FLATS, LLC		18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052	
CORE DESIGN		CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING	
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877		11/15/24	
NO. 7		REVISIONS	DATE
		REVISED PER CITY COMMENTS	11/19/24

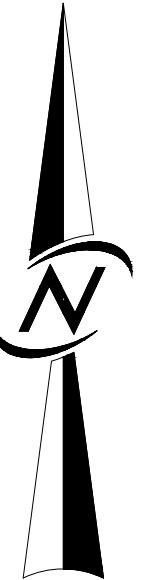
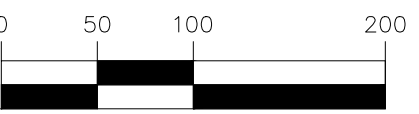




PHASE S1 COMPOSITE PRELIMINARY LANDSCAPE PLAN

SCALE 1" = 100'

SCALE: 1" = 100'

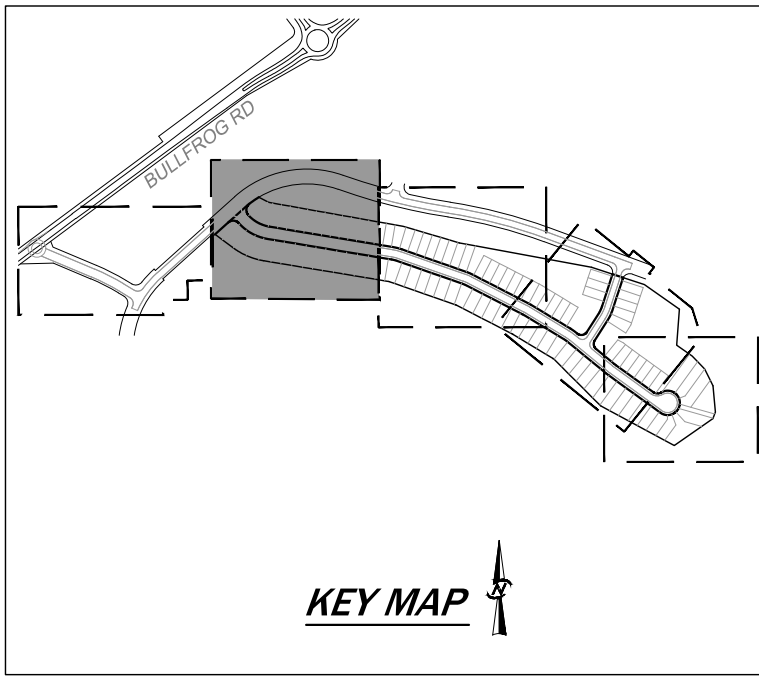
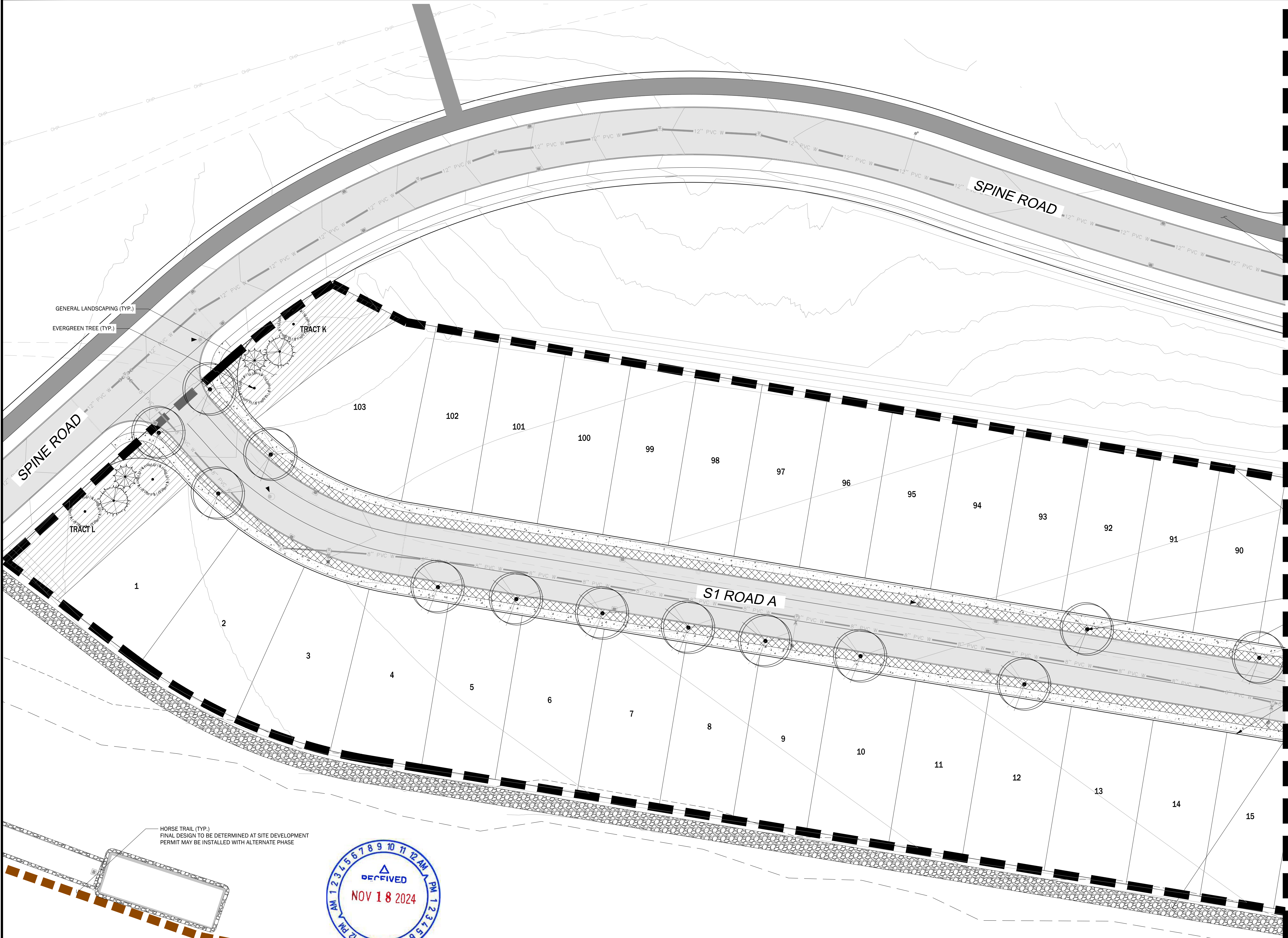


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DATE: 11/15/24	
REVISIONS: 1 REVISED PER CITY COMMENTS	
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING	
12100 NE 19th St, Suite 300, Bothell, Washington 98011 425-885-7877	
COMPOSITE LANDSCAPE PLAN BULLFROG FLATS - PHASE S-1	
BULLFROG FLATS, LLC 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052	
PLOT DATE: SEE STAMP DATE	DESIGNED: DANNY VILLAGRANA
DRAWN: MARK S. LEES	APPROVED: LINDSEY B. SOLORIO, P.L.A.
PROJECT MANAGER: HOLLI HEAVRIN, PE	
SHEET 48	OF 54
PROJECT NUMBER 24019	



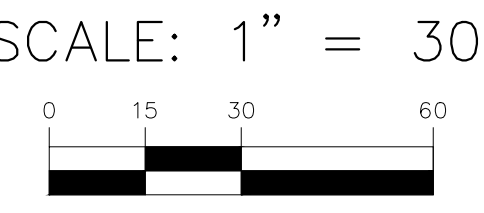
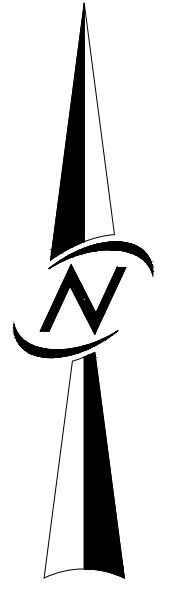


PAVED PATHWAY (TYP.)  
FINAL DESIGN TO BE DETERMINED AT SITE DEVELOPMENT  
PERMIT MAY BE INSTALLED WITH ALTERNATE PHASE

SITE LEGEND

- GENERAL LANDSCAPING
- ZONE 1 DETENTION LANDSCAPING
- ZONE 2 DETENTION LANDSCAPING
- GROUND COVER (SEE SHEET L2.06)

- PROPERTY LINE (TYP.)
- STREET TREE (TYP.)
- GROUND COVER (TYP.)
- R.O.W. (TYP.)
- GRAVEL FIRE ACCESS WAY (TYP.)  
FINAL DESIGN TO BE DETERMINED AT SITE DEVELOPMENT  
PERMIT MAY BE INSTALLED WITH ALTERNATE PHASE



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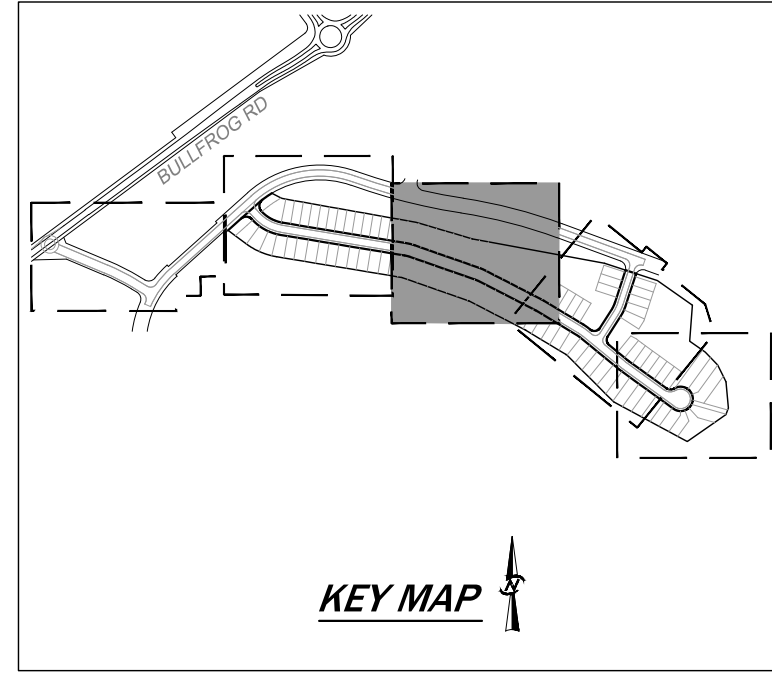
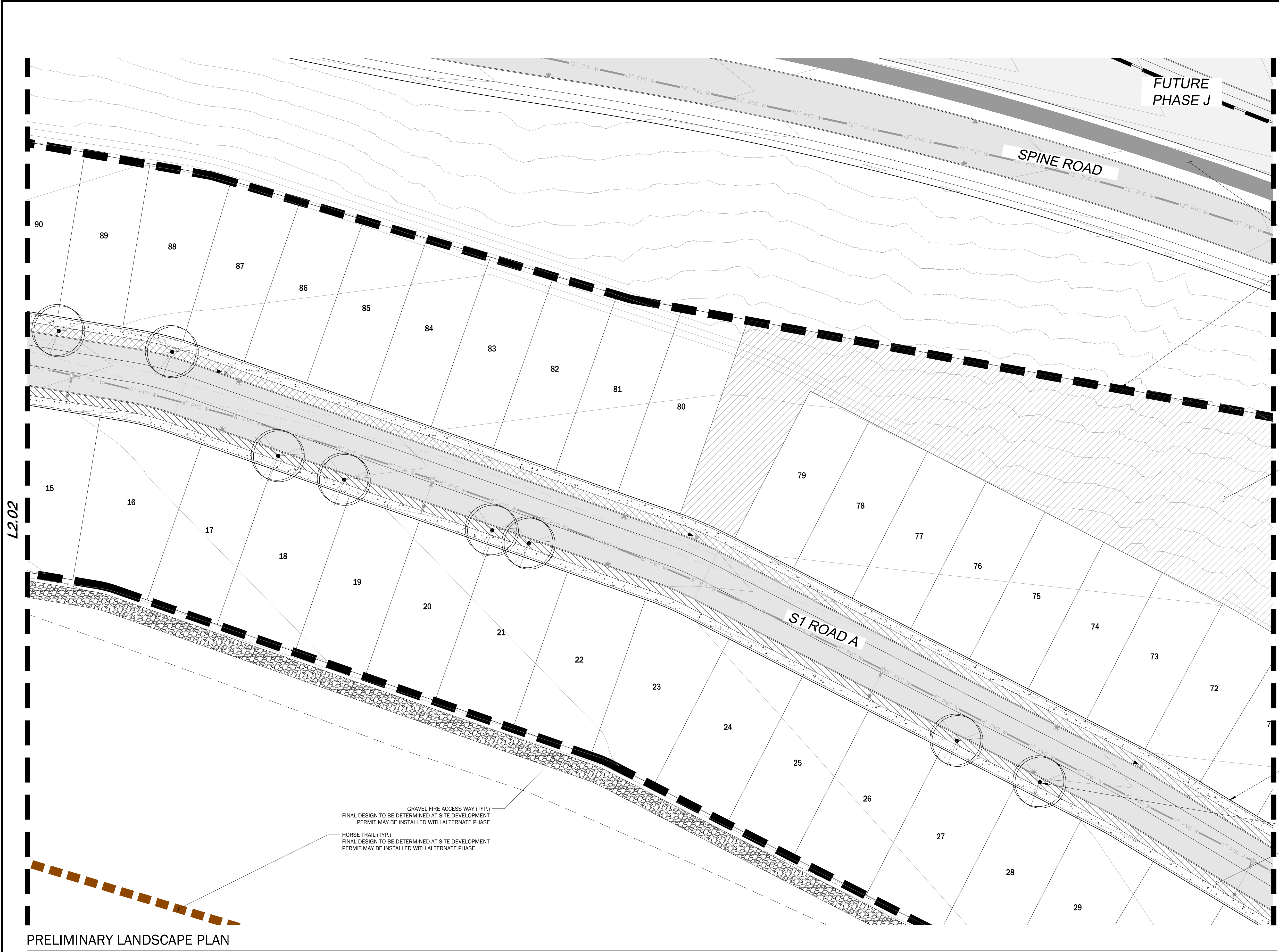
PRELIMINARY LANDSCAPE PLAN

SCALE 1" = 30'



NO. 1		DATE 11/15/24	
REVISIONS		REVISED PER CITY COMMENTS	
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING			
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425-885-7877			
PRELIMINARY LANDSCAPE PLAN BULLFROG FLATS - PHASE S-1		BULLFROG FLATS, LLC 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052	
PLOT DATE: SEE STAMP DATE	DESIGNED: DANNY VILLAGRANA	APPROVED: LINDSEY B. SOLORIO, P.L.A.	
DRAWN: MARK S. LEES	HOLLI HEAVRIN, PE PROJECT MANAGER		
SHEET 49		OF 54	
PROJECT NUMBER 24019			





PAVED PATHWAY (TYP.)  
FINAL DESIGN TO BE DETERMINED AT SITE DEVELOPMENT  
PERMIT MAY BE INSTALLED WITH ALTERNATE PHASE

PROPERTY LINE (TYP.)

### SITE LEGEND

- GENERAL LANDSCAPING
- ZONE 1 DETENTION LANDSCAPING
- ZONE 2 DETENTION LANDSCAPING
- GROUNDCOVER (SEE SHEET L2.06)

GENERAL LANDSCAPING (TYP.)

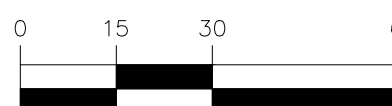


R.O.W. (TYP.)

STREET TREE (TYP.)

GROUNDCOVER (TYP.)

SCALE: 1" = 30'



### PRELIMINARY LANDSCAPE PLAN

SCALE 1" = 30'

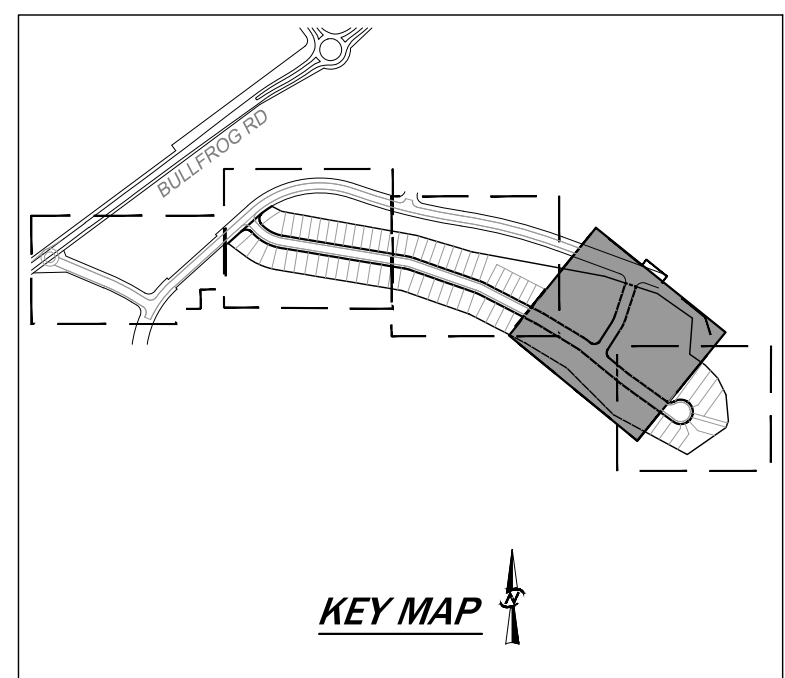
GRAVEL FIRE ACCESS WAY (TYP.)  
FINAL DESIGN TO BE DETERMINED AT SITE DEVELOPMENT  
PERMIT MAY BE INSTALLED WITH ALTERNATE PHASE

HORSE TRAIL (TYP.)  
FINAL DESIGN TO BE DETERMINED AT SITE DEVELOPMENT  
PERMIT MAY BE INSTALLED WITH ALTERNATE PHASE

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NO. 1		DATE 11/15/24	
REVISIONS		REVISED PER CITY COMMENTS	
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING			
<b>CORE DESIGN</b>			
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425-885-7877			
<b>PRELIMINARY LANDSCAPE PLAN</b>		<b>BULLFROG FLATS - PHASE S-1</b>	
<b>BULLFROG FLATS, LLC</b>		18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052	
PLOT DATE: SEE STAMP DATE		DESIGNED: DANNY VILLAGRANA	
DRAWN: MARK S. LEES		APPROVED: LINDSEY B. SOLORIO, P.L.A.	
PROJECT MANAGER: HOLLI HEAVIN, PE		SHEET 50 OF 54	
PROJECT NUMBER 24019			





PROPERTY LINE (TYP.)

PAVED PATHWAY (TYP.)  
FINAL DESIGN TO BE DETERMINED AT SITE DEVELOPMENT PERMIT MAY BE INSTALLED WITH ALTERNATE PHASE

ZONE 1 DETENTION LANDSCAPING (TYP.)

ZONE 2 DETENTION LANDSCAPING (TYP.)

GENERAL LANDSCAPING (TYP.)

**SITE LEGEND**

[Pattern]	GENERAL LANDSCAPING
[Pattern]	ZONE 1 DETENTION LANDSCAPING
[Pattern]	ZONE 2 DETENTION LANDSCAPING
[Pattern]	GROUNDCOVER (SEE SHEET L2.06)

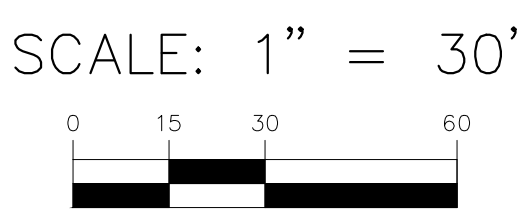
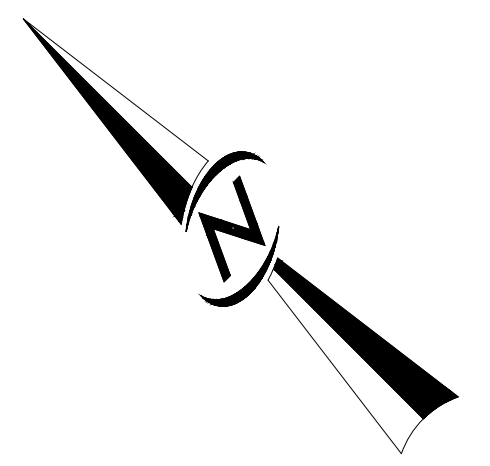
DECIDUOUS TREE (TYP.)

R.O.W. (TYP.)

STREET TREE (TYP.)

GROUNDCOVER (TYP.)

GRAVEL FIRE ACCESS WAY (TYP.)  
FINAL DESIGN TO BE DETERMINED AT SITE DEVELOPMENT PERMIT MAY BE INSTALLED WITH ALTERNATE PHASE



PRELIMINARY LANDSCAPE PLAN

SCALE 1" = 30'

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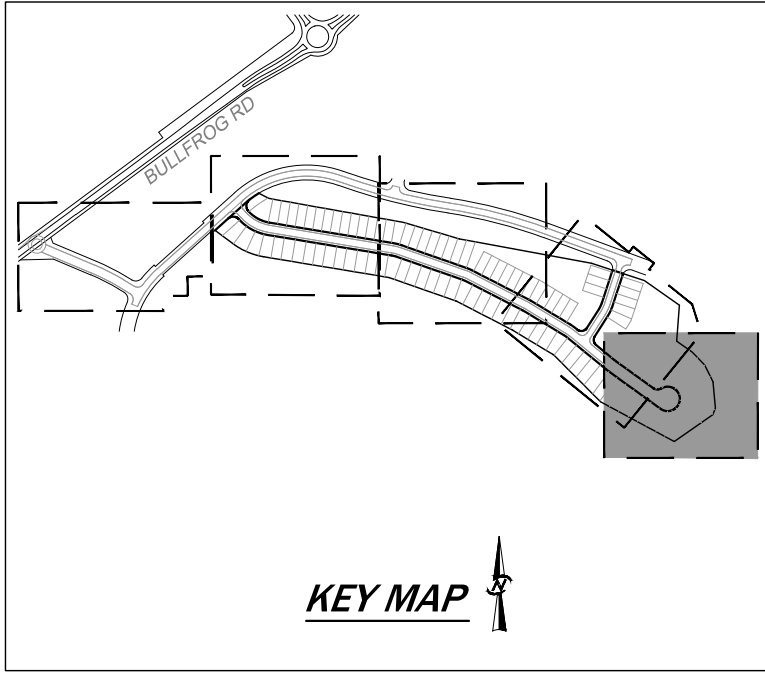
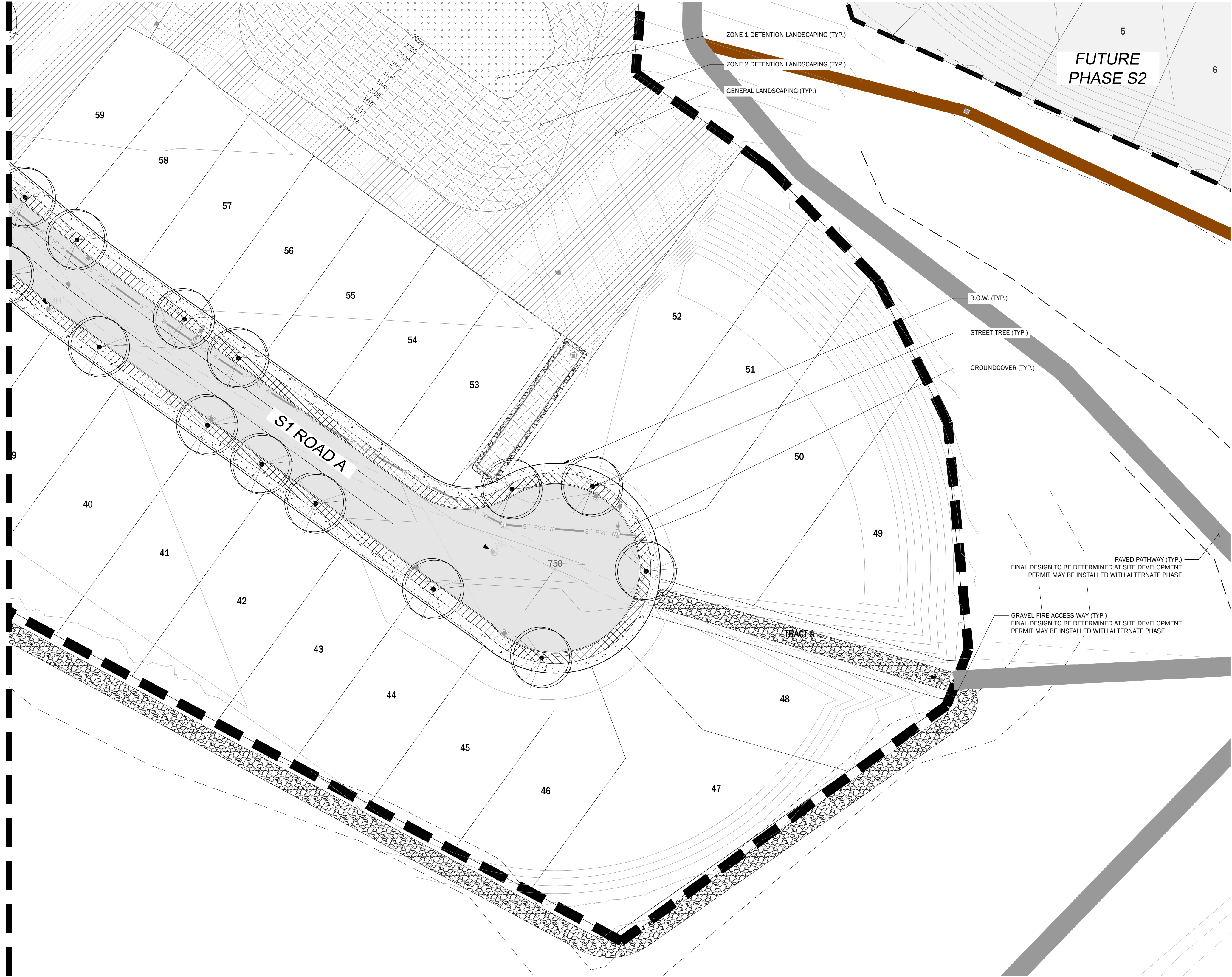
NO. 1		DATE 11/15/24	
REVISIONS		REVISED PER CITY COMMENTS	
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING			
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425-885-7877			
PRELIMINARY LANDSCAPE PLAN BULLFROG FLATS - PHASE S-1		BULLFROG FLATS, LLC 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052	
PLOT DATE: SEE STAMP DATE	DESIGNED: DANNY VILLAGRANA	APPROVED: LINDSEY B. SOLORIO, P.L.A.	
DRAWN: MARK S. LEES	PROJECT MANAGER: HOLLI HEAVRIN, PE		
SHEET 51 OF 54		PROJECT NUMBER 24019	



L2.04

PRELIMINARY LANDSCAPE PLAN

SCALE 1" = 30'

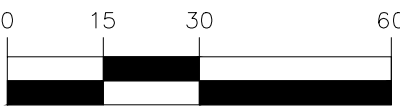


SITE LEGEND

- GENERAL LANDSCAPING
- ZONE 1 DETENTION LANDSCAPING
- ZONE 2 DETENTION LANDSCAPING
- GROUNDCOVER (SEE SHEET L2.06)



SCALE: 1" = 30'



UNDERGROUND LOCATOR SERVICE








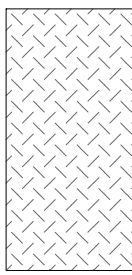
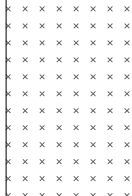

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NO.		REVISIONS		DATE	
1		REVISED PER CITY COMMENTS		11/15/24	
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING					
CORE DESIGN					
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425-885-7877					
PRELIMINARY LANDSCAPE PLAN					
BULLFROG FLATS - PHASE S-1					
BULLFROG FLATS, LLC					
18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052					
PLOT DATE: SEE STAMP DATE		DESIGNED: DANNY VILLAGRANA		APPROVED: LINDSEY B. SOLORIO, P.L.A.	
DRAWN: MARK S. LEES				HOLLI HEAVRIN, PE	
				PROJECT MANAGER	
SHEET		OF			
52		L2.05		54	
PROJECT NUMBER 24019					



PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
	4	ABIES GRANDIS	GRAND FIR	6" HT. MIN.
	1	ACER MACROPHYLLUM	BIG LEAF MAPLE	2" CAL. MIN. AND 12' HT. MIN.
	2	CORNUS NUTTALLII	PACIFIC DOGWOOD	2" CAL. MIN. AND 12' HT. MIN.
	2	PINUS CONTORTA	SHORE PINE	6" HT. MIN.
	2	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	6" HT. MIN.
STREET TREES				
	47	GLEDITSIA TRIACANTHOS F. INERMIS DROUGHT TOLERANT	THORNLESS HONEY LOCUST	2" CAL. MIN. AND 12' HT. MIN.
SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE
SHRUB AREAS				
	110,587 SF	GENERAL LANDSCAPING GENERAL LANDSCAPING LOCATED 30' NEAR BUILDING SETBACKS TO CONSIST OF NON-TO LOW-FLAMMABLE PLANTINGS. ARBUTUS UNEDO "COMPACTA" DROUGHT TOLERANT GAULTHERIA SHALLON DROUGHT TOLERANT HOLODISCUS DISCOLOR DROUGHT TOLERANT ACER MACROPHYLLUM LAWN FERN MIX 75% POLYSTICHUM MUNITUM 25% BLECHNUM SPICANT DROUGHT TOLERANT NATIVE POLLINATOR MEADOW SEED MIX ANNUAL WILDFLOWERS 29% PERENNIAL WILDFLOWERS 47% GRASSES 24%	DWARF STRAWBERRY TREE SALAL OCEAN-SPRAY BIG LEAF MAPLE	2 GAL./24" HT. MIN. 2 GAL./24" HT. MIN. 2 GAL./24" HT. MIN. 5 GAL./24" HT. MIN. 5 GAL./24" HT. MIN.
	41,052 SF	ZONE 2 DETENTION LANDSCAPING ARTEMISIA FRIGIDA DROUGHT TOLERANT CHAMAEBATARIA MILLEFOLIUM CORNUS SERICEA PAXISTIMA MYRSINITES PHILADELPHUS LEWISII FRAGARIA CHILOENSIS ZONE 2 NATIVE GRASS SEED MIX	FRINGED WORMWOOD FERNBUSH RED TWIG DOGWOOD OREGON BOXWOOD WILD MOCK ORANGE BEACH STRAWBERRY	2 GAL./24" HT. MIN. 2 GAL./24" HT. MIN. 2 GAL./24" HT. MIN. 2 GAL./24" HT. MIN. 4" POT HYDROSEED
	14,423 SF	ZONE 1 DETENTION LANDSCAPING MAHONIA NERVOSA DROUGHT TOLERANT PHYSOCARPUS MALVACEUS DROUGHT TOLERANT SPIRAEA DOUGLASII ZONE 1 NATIVE GRASS SEED MIX	OREGON GRAPE MALLOW NINEBARK WESTERN SPIREA	2 GAL./24" HT. MIN. 2 GAL./24" HT. MIN. 2 GAL./24" HT. MIN.
GROUND COVERS				
	30,001 SF	ARCTOSTAPHYLOS UVA-URSI DROUGHT TOLERANT	KINNIKINNICK	4" POT

GENERAL NOTES

- THE LANDSCAPE CONTRACTOR MUST BE LICENSED AND OR BONDED. CONTRACTOR MUST BE EXPERIENCED IN LANDSCAPE WORK OF THE BEST TRADE PRACTICES AND HAVE THE NECESSARY EQUIPMENT AND PERSONNEL TO PERFORM WORK.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HER/HIMSELF WITH THE SITE AND ALL OTHER SITE IMPROVEMENTS PRIOR TO THE START OF LANDSCAPE WORK.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND USE CAUTION WHILE EXCAVATING IN ORDER TO AVOID DISTURBING ANY EXISTING UTILITIES. THE LANDSCAPE CONTRACTOR WILL PROMPTLY NOTIFY THE GENERAL CONTRACTOR AND OWNER OF ANY CONFLICTS. IN THE EVENT OBSTRUCTIONS ARE ENCOUNTERED DURING PLANTING ACTIVITIES, ALTERNATIVE LOCATIONS MAY BE SELECTED BY THE OWNER'S REPRESENTATIVE.
- THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL WORK RELATED TO OTHER TRADES AS REQUIRED.
- THE LANDSCAPE CONTRACTOR SHALL PROVIDE ALL PLANTS OF THE CORRECT SIZE, SPECIES VARIETY, QUANTITY AND QUALITY AS SPECIFIED ON PLANT SCHEDULE AND SYMBOLS ON LANDSCAPE PLAN. IF UNAVAILABLE, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY AND PROVIDE THE NAMES AND TELEPHONE NUMBERS OF THREE NURSERY SUPPLIERS OR PLANT BROKERS THAT HAVE BEEN CONTACTED. SUBSTITUTIONS SHALL ONLY BE MADE UPON THE APPROVAL OF THE OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT.
- ALL PLANT MATERIAL SHALL BE INSPECTED AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO PLANTING. ALL PLANT MATERIAL SHALL CONFORM TO THE LATEST EDITION OF AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (ANSI Z60.1).
- THE LANDSCAPE CONTRACTOR SHALL DELIVER, MAINTAIN AND WATER PLANT MATERIAL UNTIL OWNERS FINAL ACCEPTANCE IS RECEIVED.
- THE LANDSCAPE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ALL PROPERTY, INCLUDING PAVEMENT, WALKWAYS, CURBS, FENCING, STRUCTURES, ETC. DURING CONSTRUCTION.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING INFORMED OF ALL EXISTING CODES, LAWS AND ORDINANCES RELATING TO THE WORK REQUIRED ON SITE, AND SHALL COMPLY ACCORDINGLY.
- THE LANDSCAPE CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ASSURE PROPER SUBGRADES ARE MET.
- THE LANDSCAPE CONTRACTOR SHALL SUBMIT THREE REPRESENTATIVE SOIL SAMPLES TO THE OWNER'S REPRESENTATIVE FOR TESTING BY AN APPROVED SOIL TESTING LABORATORY. AMENDMENTS SHALL BE ADDED TO THE SOIL MIX AS RECOMMENDED BY SOIL TESTING LAB.
- THE LANDSCAPE CONTRACTOR SHALL RAKE PREPARED AREAS AND REMOVE ANY ROCK OR DEBRIS OVER 1". ALL LAWN AREAS SHALL BE ROLLED TO PROVIDE A FIRM, SMOOTH SURFACE FREE OF DIVOTS OR MOUNDS.
- THE LANDSCAPE CONTRACTOR SHALL PROVIDE A 2" DEEP LAYER OF MULCH IN ALL PLANTING BEDS.
- MULCH SHALL BE 100% NATURAL FIR OR HEMLOCK, FINE GROUND, OF UNIFORM COLOR, FREE FROM DYES, WEED SEEDS, SAWDUST & SCRAP LUMBER FIBER, TRASH, INORGANIC MATERIAL OR ANY OTHER COMPOUND DETRIMENTAL TO PLANT GROWTH.
- FERTILIZER SHALL BE A COMPLETE, BALANCED COMMERCIAL BRAND WITH COMPLETE CHEMICAL ANALYSIS SHOWN ON AN UNOPENED CONTAINER WHEN DELIVERED. FERTILIZER SHALL BE APPLIED AT RATES CONSISTENT WITH THE MANUFACTURER'S RECOMMENDATIONS AND SOIL TESTING LAB'S RECOMMENDATIONS.
- WORK AREAS TO BE KEPT NEAT AND ORDERLY AND FREE OF DEBRIS AND RUBBISH AT ALL TIMES DURING PROGRESS OF WORK. RAKE BEDS NEATLY TO AN EVEN FINE GRADE AROUND ALL PLANTS. ALL PAVED AREAS ARE TO BE CLEANED BY BROOM AND/OR WASHED AFTER EACH DAY'S WORK OR MORE FREQUENTLY AS REQUIRED. ALL PLANTING AREAS AND ADJACENT PAVED AREAS SHALL BE LEFT IN A NEAT AND CLEAN CONDITION UPON COMPLETION OF JOB.
- IF A DISCREPANCY EXISTS BETWEEN THE PLANT QUANTITIES ON THE PLANT SCHEDULE AND THOSE SHOWN ON THE PLAN THE QUANTITIES ON THE PLAN SHALL GOVERN.
- PROPOSALS FOR PLANT SUBSTITUTIONS, LOCATION ADJUSTMENTS, SOIL AMENDMENTS OR ANY VARIATIONS FROM THE APPROVED PLANS SHALL REQUIRE PRIOR APPROVAL BY THE CITY OF GLENN PLANNING.
- SOILS LOCATED IN PLANTING AREAS THAT HAVE BEEN COMPACTED TO A DENSITY GREATER THAN THAT PENETRABLE WITH A HAND SHOVEL (APPROX. 85%), SHALL BE LOOSENEED TO INCREASE AERATION FOR A MINIMUM DEPTH OF 18 INCHES FOR THE ENTIRE AREA OF THE COMPACTED SOILS UTILIZED FOR LANDSCAPE PURPOSES. IMPORTED TOPSOIL SHALL BE INCORPORATED INTO LOOSENEED SUB GRADE TO A MINIMUM DEPTH OF 6". VERIFICATION OF THE NEED FOR ADDITIONAL SOIL AMENDMENTS WILL BE MADE AT THIS TIME. RECOMMENDED AMENDMENTS SHALL BE APPLIED PRIOR TO PLANTING.
- DRAINAGE: CONTRACTOR SHALL NOTIFY THE OWNER OF ANY LOW POINTS OR FORESEEN POOR DRAINING AREAS EXISTING ON-SITE AND PROVIDE CORRECTIVE DRAINAGE PLANS PRIOR TO COMMENCING LANDSCAPE WORK. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE IN ALL FINISHED LANDSCAPE AREAS THAT ARE PART OF THIS SCOPE OF WORK. ALL POSITIVE DRAINAGE FROM LANDSCAPE AREAS SHALL BE DISCHARGED APPROPRIATELY AND SHALL NOT CREATE DRAINAGE PROBLEMS OFF-SITE OR IN OTHER AREAS OF THE PROJECT. FINISHED LANDSCAPE AREAS WITH PONDING WATER OR OTHER POOR DRAINAGE CONDITIONS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- OWNER SHALL APPROVE PLANT MATERIAL & PLANTING BED LOCATION PRIOR TO INSTALLATION. ALLOW 24 HOURS MINIMUM NOTIFICATION FOR INSPECTION REQUEST. PLANT MATERIAL THAT HAS BEEN APPROVED FOR INSTALLATION SHALL BE PLANTED WITHIN 24 HOURS. INSTALLATION SHALL NOT BE CONDUCTED UNDER ADVERSE WEATHER CONDITIONS WITHOUT PRIOR APPROVAL OF THE RESPONSIBLE OFFICIAL. PLANT MATERIAL THAT CANNOT BE PLANTED WITHIN ONE DAY FOLLOWING ARRIVAL SHALL BE HELED-IN, KEPT MOIST AND PROTECTED AT ALL TIMES FROM EXTREME WEATHER CONDITIONS. PLANTS SHALL BE STORED AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- TREE PITS SHALL BE A MINIMUM OF TWO TIMES (2X) THE DIAMETER OF THE TREE'S ROOT MASS. ADDITIONAL AERATION MAY BE REQUIRED AS DIRECTED BY THE RESPONSIBLE OFFICIAL. ADD WATER TUBES TO THE TREE PLANTINGS IN PAVED AREAS.
- STREET TREES SHALL BE SYMMETRICAL AND UNIFORM IN APPEARANCE, SIZE AND STRUCTURE.
- STREET TREE AND SHRUB INSTALLATIONS SHALL CONFORM TO THE FOLLOWING GENERAL GUIDELINES:  
A.) TREES SHALL NOT BE PLANTED IN LOCATIONS THAT COULD LEAD TO ROOTS DAMAGING SIDEWALKS OR CURBING, OR IN ANY OTHER LOCATION THAT MAY CAUSE A SAFETY CONCERN.
- PLANT MATERIALS SHALL BE GUARANTEED FOR A PERIOD OF TWO YEARS. PLANT MATERIAL THAT HAS LOST MORE THAN 30 PERCENT OF ITS NORMAL FOLIAGE SHALL BE REPLACED AT CONTRACTOR'S EXPENSE AS DIRECTED BY THE RESPONSIBLE OFFICIAL.
- ALL TREE STAKES TO BE REMOVED AFTER A PERIOD OF TWO YEARS.
- ALL SLOPES STEEPER THAN 3:1 SHALL BE PROTECTED WITH EROSION CONTROL FABRIC INSTALLED PER MANUFACTURER'S SPECIFICATIONS OR OTHER APPROVED EROSION CONTROL METHOD.
- ALL SOIL IN LANDSCAPED AREAS SHALL BE AMENDED PER 2012 C.O.R. STANDARD DRAWING 632.



NO. 1

REVISIONS

DATE 11/15/24

REVISED PER CITY COMMENTS

STATE OF WASHINGTON

REGISTERED PROFESSIONAL

LANDSCAPE ARCHITECT

NO. 18169P-04 / 11/15/2024

CIVIL ENGINEERING

LANDSCAPE ARCHITECTURE

PLANNING

SURVEYING

CORE DESIGN

12100 NE 195th St, Suite 300 Bothell, Washington 98011 425-885-7877

LANDSCAPE SCHEDULE & NOTES

BULLFROG FLATS - PHASE S-1

BULLFROG FLATS, LLC

18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052

PLOT DATE: SEE STAMP DATE

DESIGNED: DANNY VILLAGRANA

DRAWN: MARK S. LEES

APPROVED: LINDSEY B. SOLORIO, P.L.A.

HOLLI HEAVRIN, PE

PROJECT MANAGER

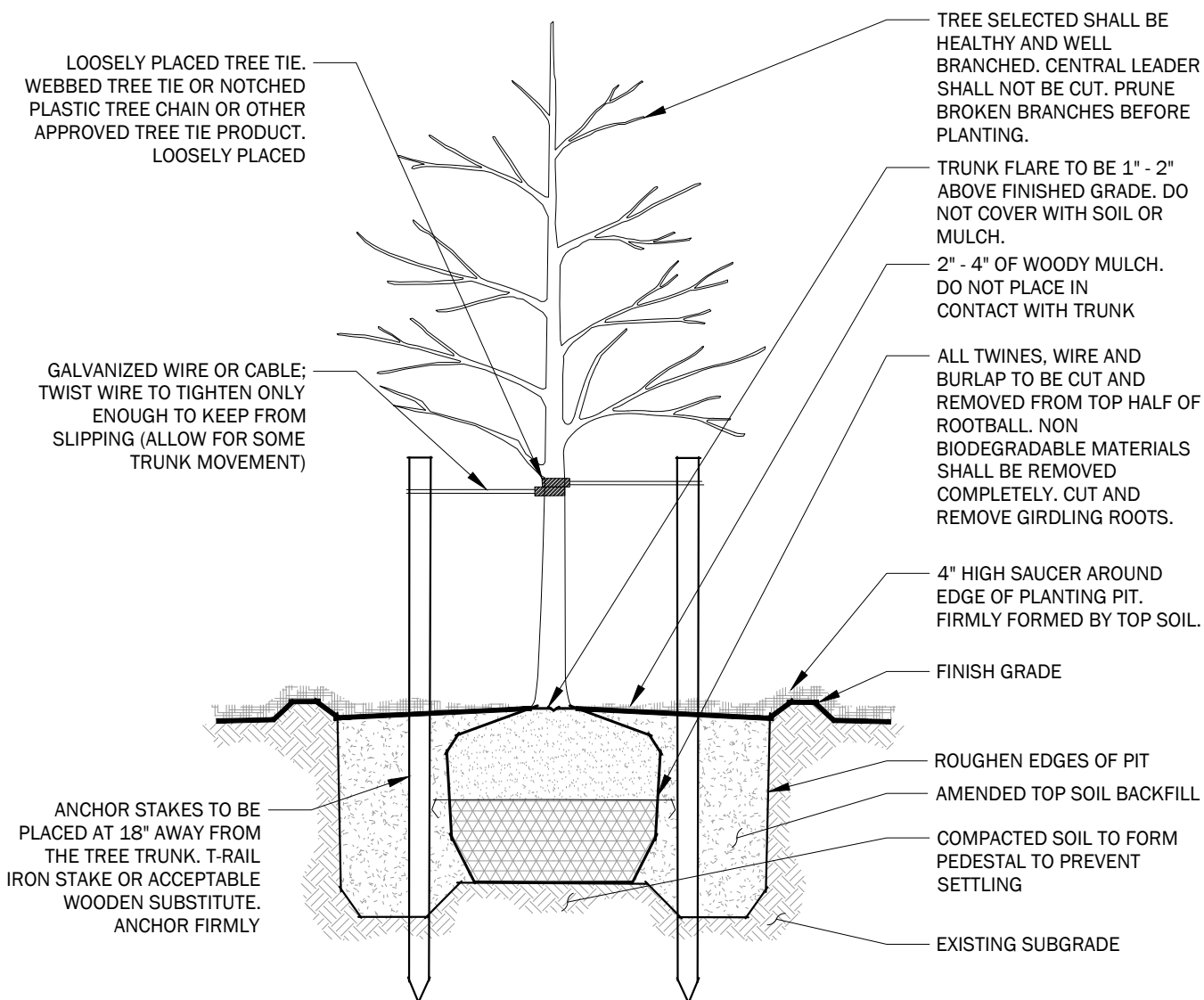
SHEET 53

OF 54

PROJECT NUMBER 24019

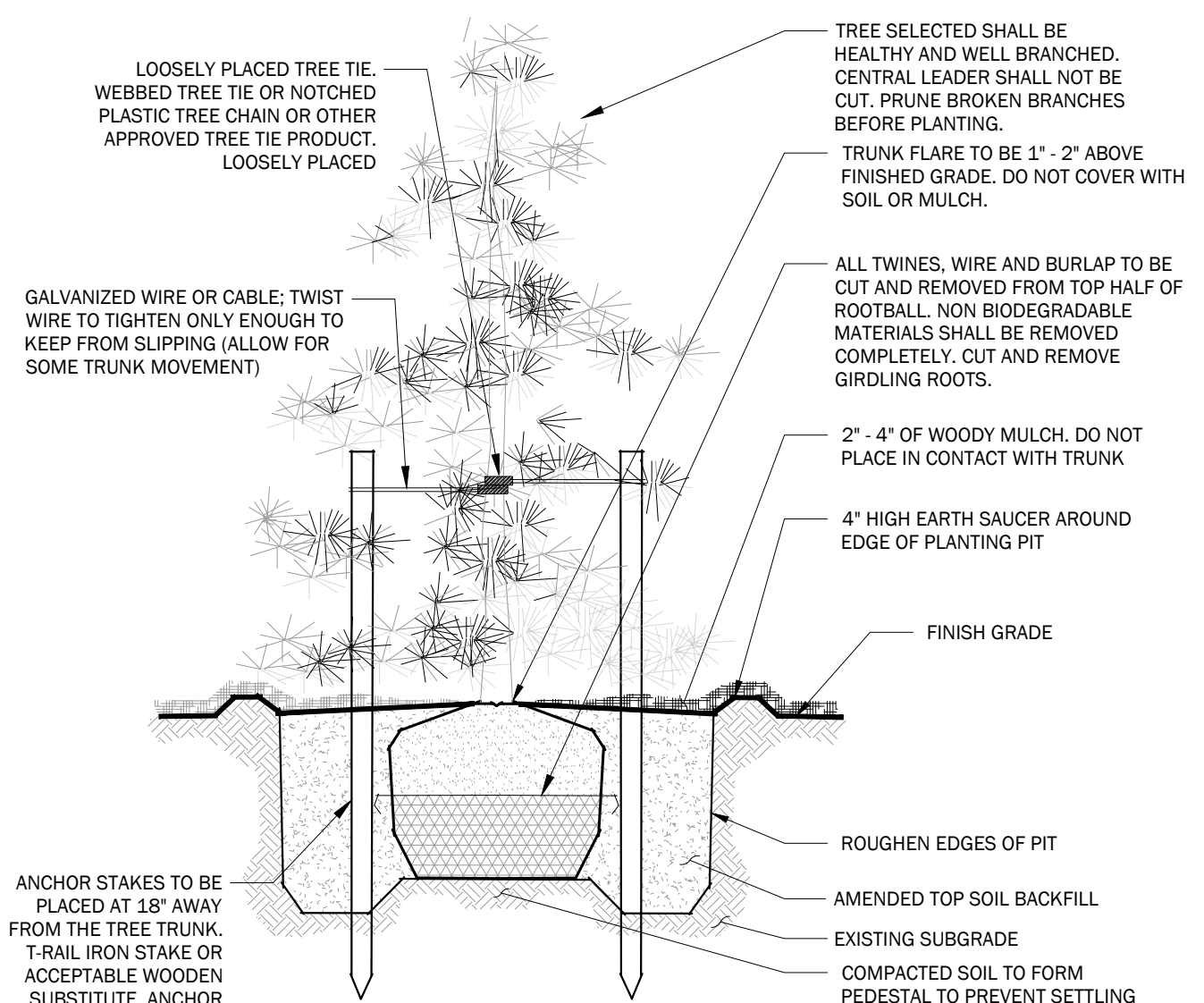
UNDERGROUND LOCATOR SERVICE  
CALL BEFORE YOU DIG!  
811





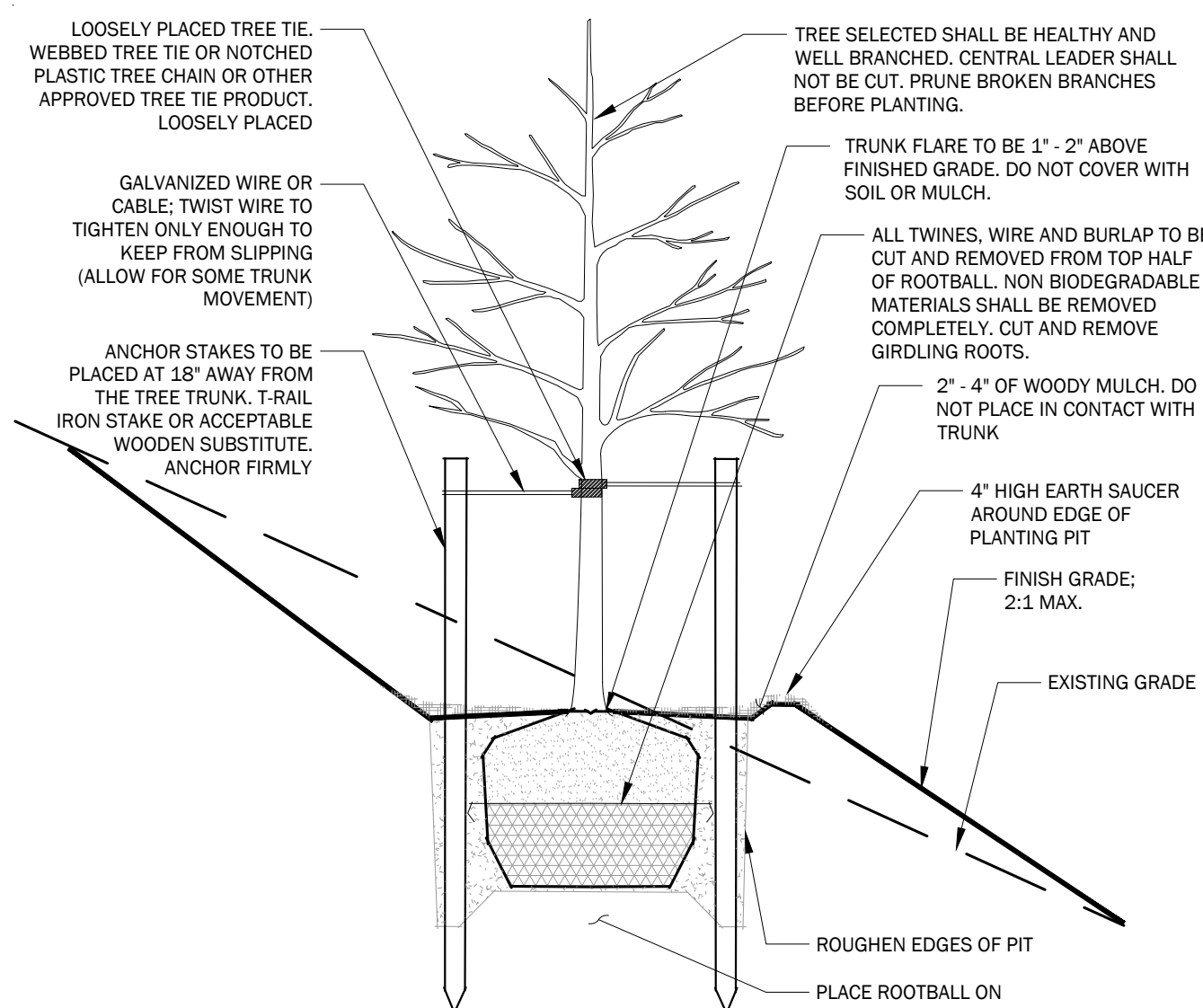
PLANTING DECIDUOUS TREE

NOT TO SCALE



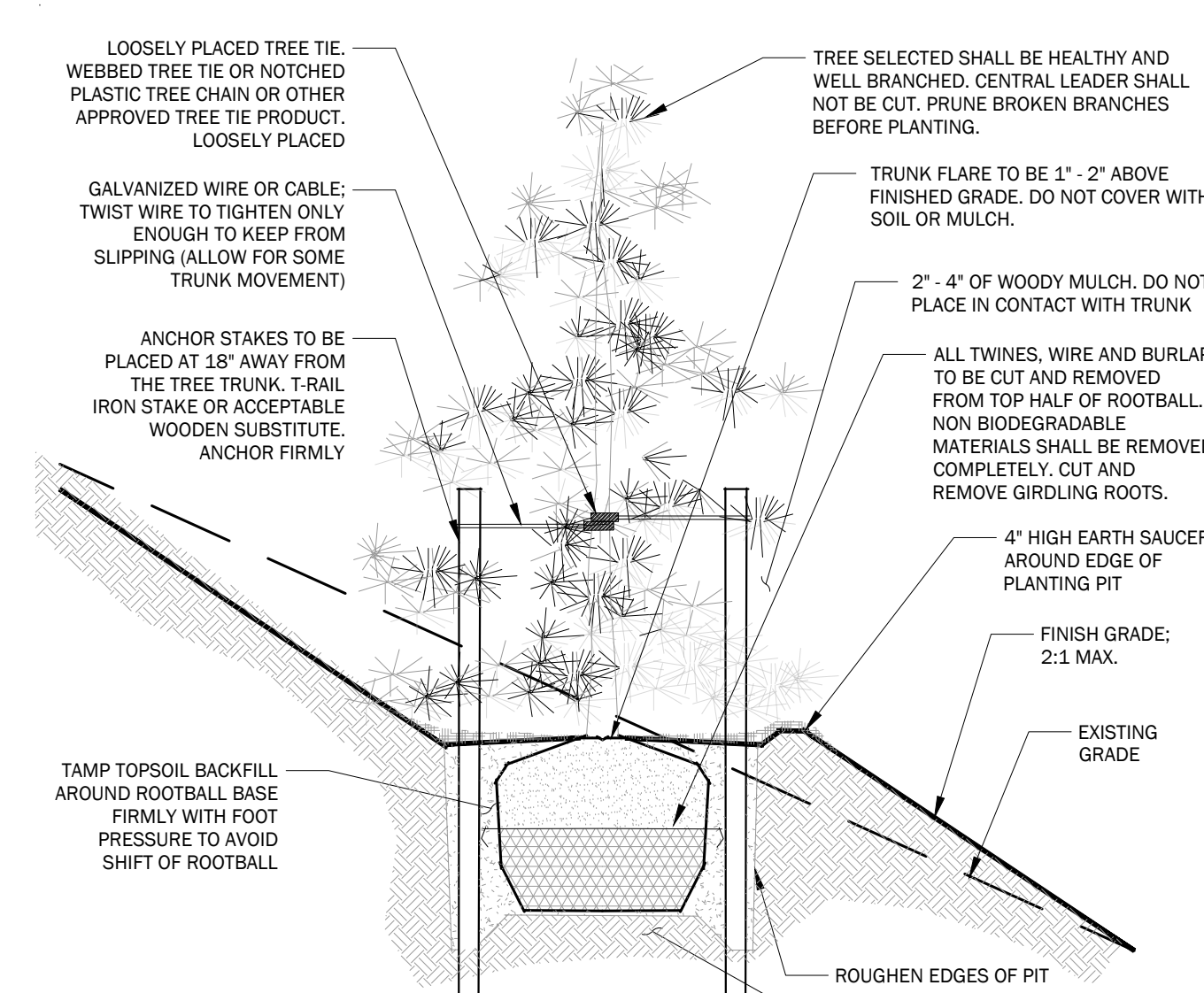
PLANTING CONIFER TREE

NOT TO SCALE



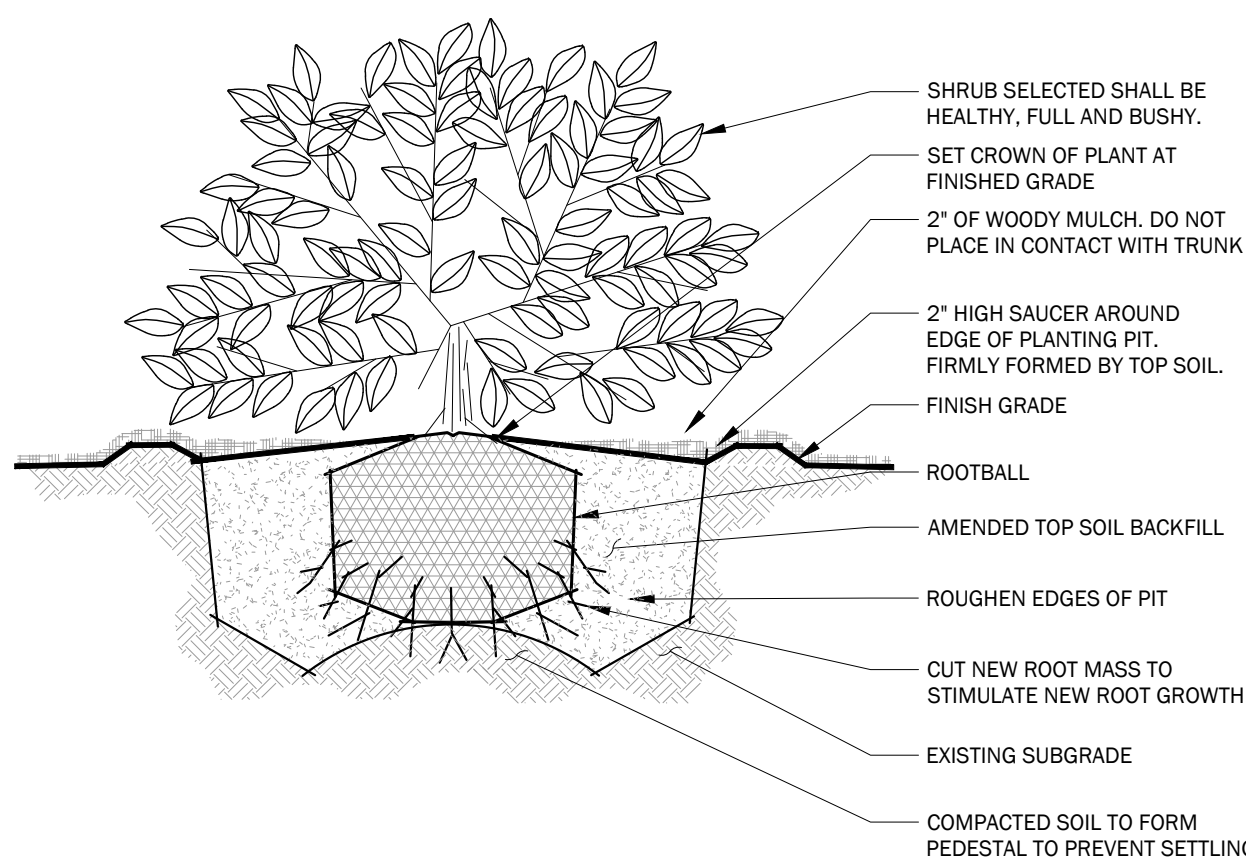
PLANTING DECIDUOUS TREE ON SLOPE

NOT TO SCALE



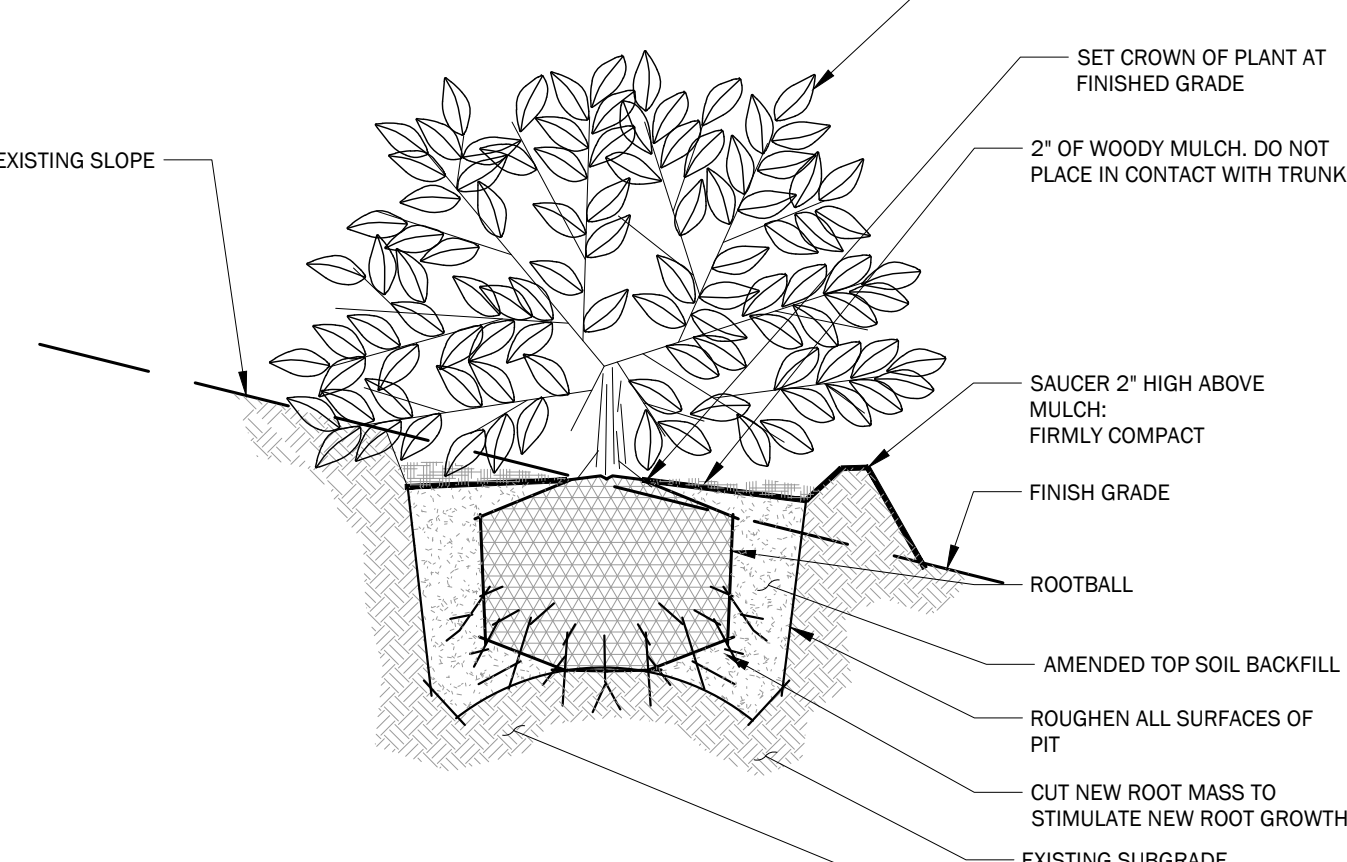
PLANTING CONIFER TREE ON SLOPE

NOT TO SCALE



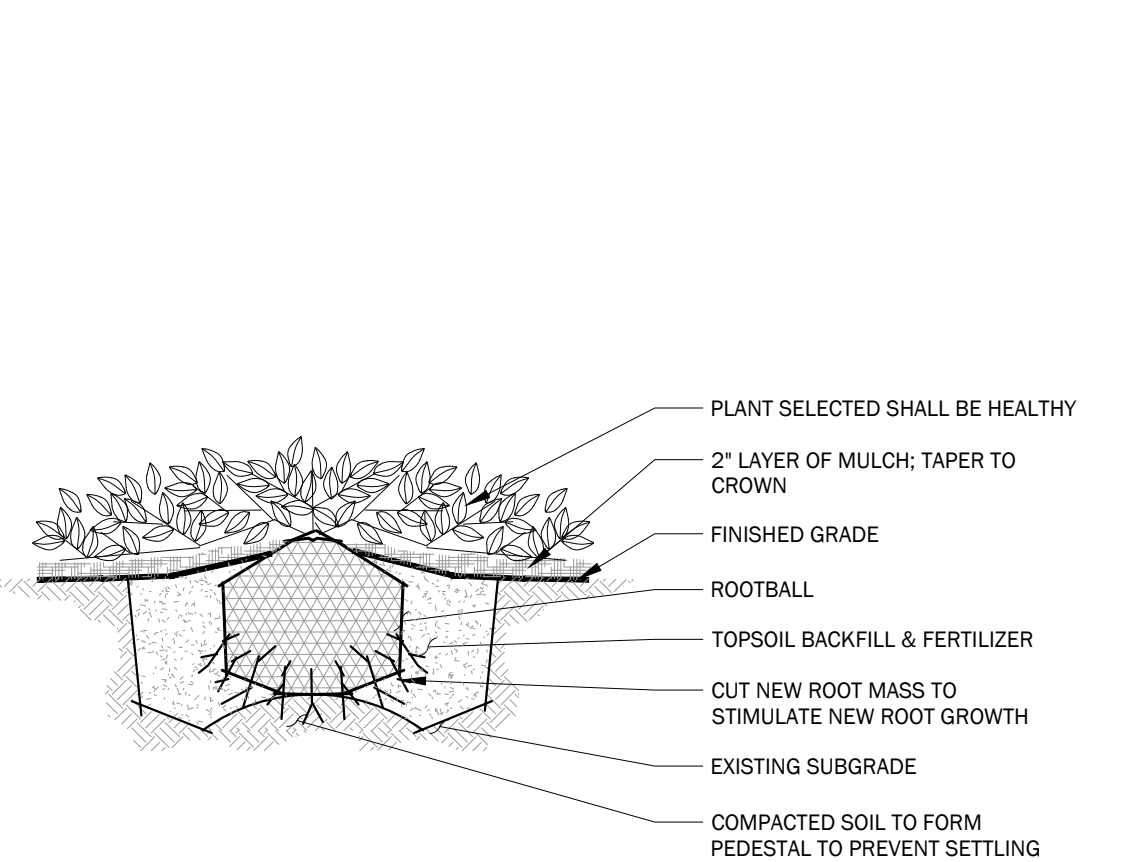
PLANTING SHRUB

NOT TO SCALE



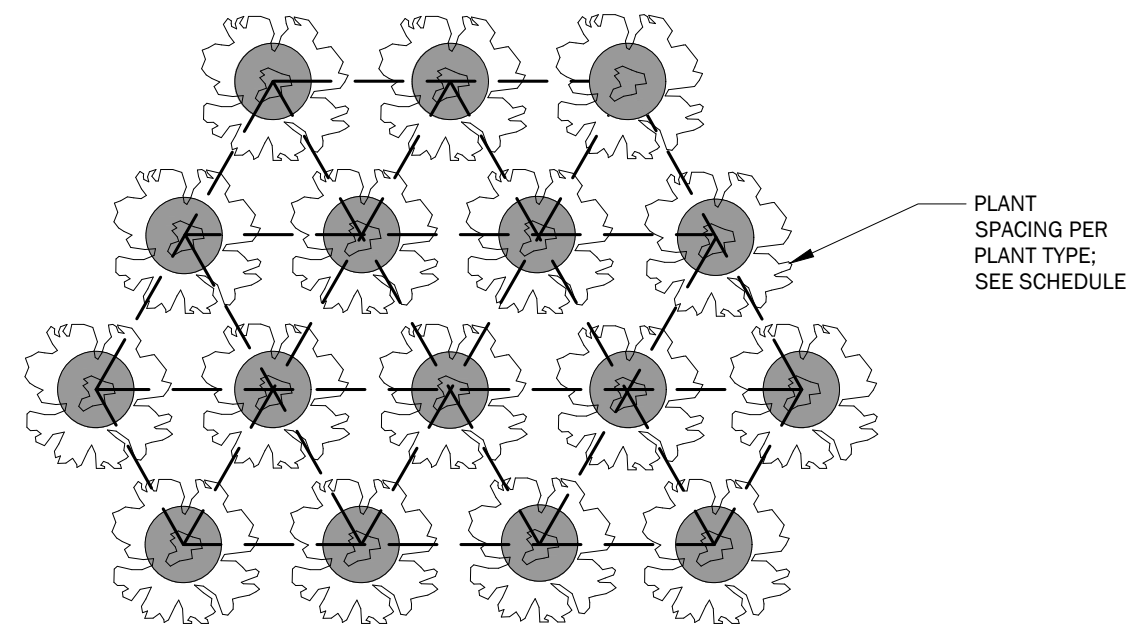
PLANTING SHRUB ON SLOPE

NOT TO SCALE



PLANTING GROUNDCOVER

NOT TO SCALE

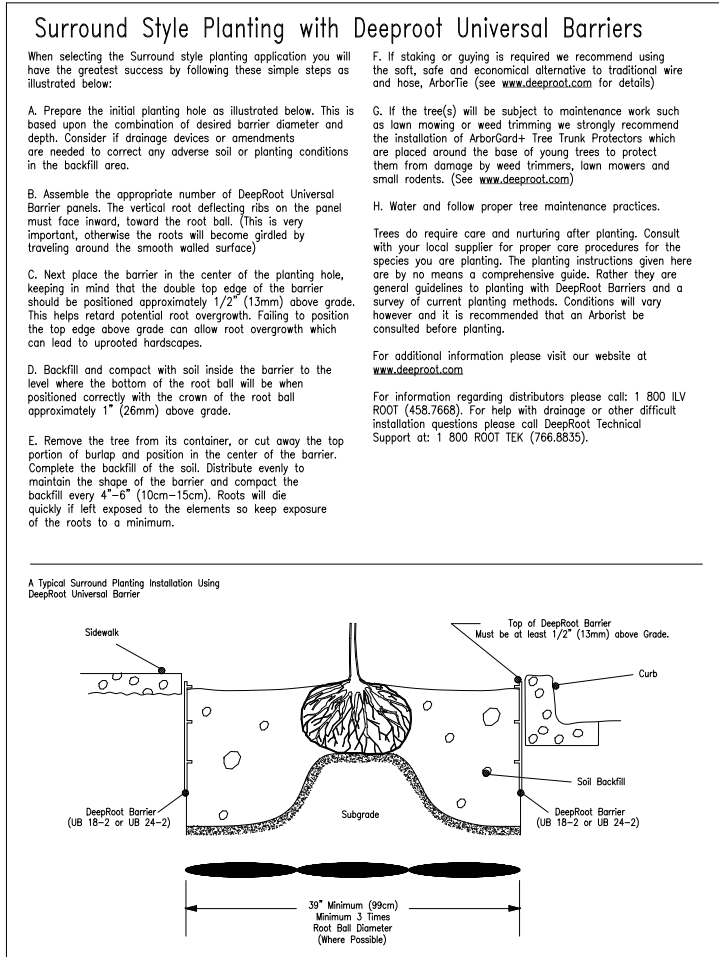


NOTE:  
TO AVOID LANDSCAPE INTRUSION INTO PATHS, THE FOLLOWING PLANTING SPACING OFF-SETS FROM EDGE OF ALL PATHS, DRIVES, ACCESS ROUTES, ETC. SHALL BE MET:

GROUND COVER: 18"  
SMALL SHRUBS (UNDER 3' TALL): 30"  
MEDIUM SHRUBS (FROM 3' TALL TO 6'): 42"  
LARGE SHRUBS (OVER 6' TALL): 48"

PLANT SPACING

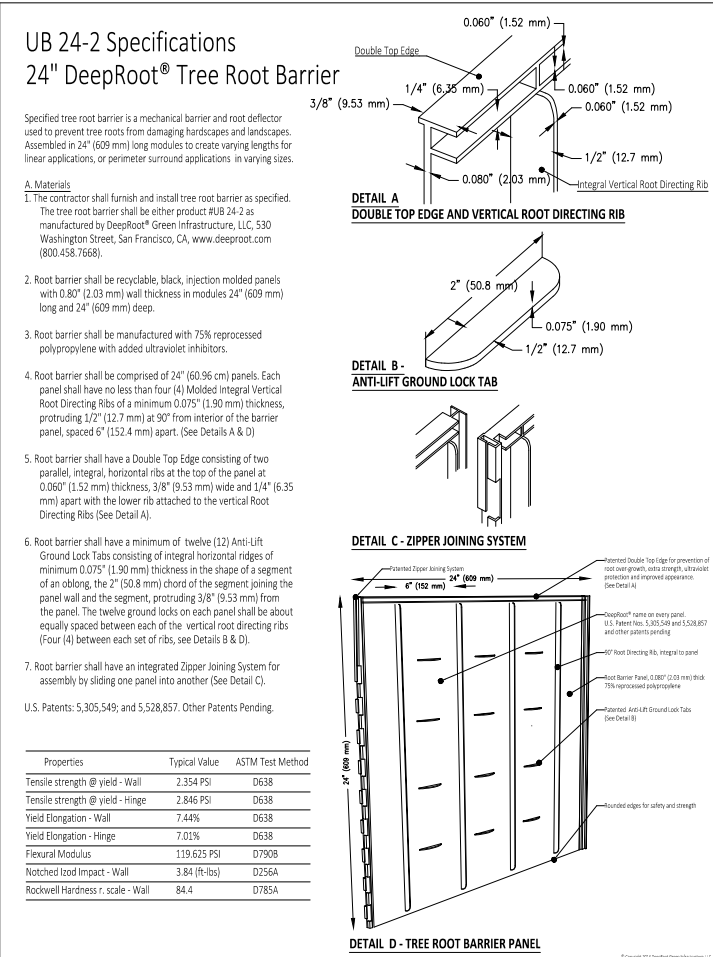
NOT TO SCALE



ROOT BARRIER (DEEPROOT UNIVERSAL BARRIER OR SIMILAR)

NOT TO SCALE

SOURCE:  
DEEPROOT



UNDERGROUND LOCATOR SERVICE

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