

VICINITY MAP
NOT TO SCALE

OWNER
29FTW LLC
1837 SOUTH ROCKWOOD
SPOKANE, WA 99203
CONTACT: JORDAN PISCOPO
PH:

CIVIL ENGINEER
AHBL INC
601 W MAIN AVENUE, SUITE 305
SPOKANE, WA 99201
CONTACT: ERICK FITZPATRICK, PE
PH: (509) 252-5019

BASIS OF BEARING
NAD 1983/11
WASHINGTON STATE PLANE NORTH PROJECTION, BASED
ON GPS OBSERVATIONS USING WSRN AND GEOID 2012A.
UNITS OF MEASUREMENT ARE U.S. SURVEY FEET.

VERTICAL DATUM
NAVD 1988 VERTICAL DATUM ON ORTHOMETRICALLY
CORRECTED GPS OBSERVATIONS USING WSRN AND
GEOID 2012A.

SITE ADDRESS
713/717 E 29TH AVE
SPOKANE, WA 99203

PARCEL NO.
35294.1815/35294.1814

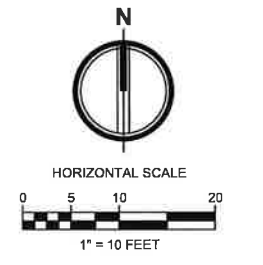
UTILITIES
WATER: CITY OF SPOKANE
SEWER: CITY OF SPOKANE
TELEPHONE: CENTURY LINK
POWER: AVISTA
GAS: AVISTA
ONE CALL: 811

LEGEND

EXISTING		PROPOSED
●	MONUMENT	●
△	SET NAIL AND WASHER	
○	BOLLARD	
□	MAIL BOX	
⊥	SIGN	⊥
○	SANITARY SEWER MANHOLE	●
○	SANITARY SEWER CLEANOUT	○
□	STORM CATCH BASIN	■
⊙	STORM MANHOLE	⊙
○	ROOF DRAIN	
○	DRYWELL	⊙
⊙	POWER TRANSFORMER	
⊥	GUY WIRE	
⊥	UTILITY POWER POLE	
⊥	ELECTRICAL VAULT	
⊥	LUMINAIRE	⊥
⊙	COMMUNICATIONS MANHOLE	
⊙	FIRE HYDRANT	⊙
⊙	IRRIGATION CONTROL VALVE	⊙
⊙	WATER METER	⊙
⊙	WATER VALVE	⊙
---	STORM LINE	---
---	SANITARY SEWER LINE	---
---	GAS LINE	---
---	ELECTRICAL LINE	---
---	COMMUNICATIONS LINE	---
---	WATER LINE	---
▭	CONCRETE	▭
▭	ASPHALT	▭
---	CONTOUR MAJOR INTERVAL	---
---	CONTOUR MINOR INTERVAL	---

CIVIL SHEET INDEX

SHEET NUMBER	SHEET TITLE
C000	COVER & INDEX
C001	GENERAL NOTES
C002	TOPOGRAPHIC SURVEY
C100	TESC & DEMOLITION PLAN
C101	TESC & DEMOLITION DETAILS
C200	SITE PLAN
C201	SITE DETAILS
C300	GRADING & DRAINAGE PLAN
C301	GRADING & DRAINAGE DETAILS
C400	UTILITY PLAN
C401	UTILITY DETAILS



CIVIL ENGINEER
AHBL ENGINEERING
601 WEST MAIN AVENUE - SUITE 305

LANDSCAPE ARCHITECT
AHBL ENGINEERING
601 WEST MAIN AVENUE - SUITE 305

STRUCTURAL ENGINEER
DCI ENGINEERS
707 W 2ND AVENUE

M/E/P ENGINEER
EMERALD CITY ENGINEERS
21705 HWY 99

OLSONPROJECTS

29TH LOFTS
713 & 717 E. 29TH AVE. - SPOKANE, WASHINGTON 99201

COVER

C000

NO PART OF THIS DOCUMENT MAY BE REPRODUCED IN ANY FORM INCLUDING PHOTOCOPY, RECORDING OR ANY INFORMATION RETRIEVABLE AND STORAGE SYSTEM, WITHOUT PERMISSION IN WRITING FROM SANDIS.

LEGAL DESCRIPTION:

ADJUSTMENT A (ADDRESSED AS 717 E. 29TH AVE.)

THAT PORTION OF BLOCK 8 OF THE FINAL PLAT OF COOK'S 4TH ADDITION AS RECORDED IN VOLUME "D" OF PLATS, PAGE 73, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

ALL OF LOT 6 AND THE WEST HALF OF LOT 7, BLOCK 8 OF SAID PLAT;

EXCEPT THAT PORTION OF SAID LOT 6 DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID LOT 6; THENCE N00°05'40"E ALONG THE WEST LINE OF SAID LOT 6 A DISTANCE OF 103.74 FEET; THENCE N89°56'53"E A DISTANCE OF 3.24 FEET; THENCE S00°03'07"E A DISTANCE OF 23.64 FEET; THENCE N89°57'48"E A DISTANCE OF 12.17 FEET; THENCE S00°02'12"E A DISTANCE OF 80.15 FEET TO THE SOUTH LINE OF SAID LOT; THENCE N89°53'10"W A DISTANCE OF 15.65 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH THAT PORTION OF LOT "C" OF SAID BLOCK 8 DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID LOT 6 OF SAID BLOCK; THENCE N00°05'40"E ALONG THE WEST LINE OF SAID LOT, A DISTANCE OF 103.74 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING N00°05'40"E A DISTANCE OF 38.26 FEET; THENCE N89°56'53"E A DISTANCE OF 1.00 FEET TO THE POINT OF BEGINNING.

ADJUSTMENT A (ADDRESSED AS 713 E. 29TH AVE.)

THAT PORTION OF BLOCK 8 OF THE FINAL PLAT OF COOK'S 4TH ADDITION AS RECORDED IN VOLUME "D" OF PLATS, PAGE 73, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE EAST 40 FEET OF LOT "C"; BLOCK 8 OF SAID PLAT;

EXCEPT THAT PORTION OF LOT "C" OF SAID BLOCK 8 DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF LOT 6; THENCE N00°05'40"E ALONG THE WEST LINE OF SAID LOT A DISTANCE OF 103.74 FEET; THENCE N89°56'53"E A DISTANCE OF 3.24 FEET; THENCE S00°03'07"E A DISTANCE OF 23.64 FEET; THENCE N89°57'48"E A DISTANCE OF 12.17 FEET; THENCE S00°02'12"E A DISTANCE OF 80.15 FEET TO THE SOUTH LINE OF SAID LOT; THENCE N89°53'10"W A DISTANCE OF 16.65 FEET TO THE POINT OF BEGINNING.

THE PROPERTY DESCRIBED AND SHOWN HEREON IS THE SAME AS THE PROPERTY DESCRIBED IN THE CERTIFICATE OF BOUNDARY LINE ADJUSTMENT RECORDED JUNE 5, 2022 RECORDING NO. 6927528 OF THE SPOKANE COUNTY RECORDS.

TOPOGRAPHIC SURVEY NOTES:

1. THIS SURVEY WAS PREPARED FOR THE PURPOSE OF ARCHITECTURAL AND CIVIL ENGINEERING DESIGN.
 2. THE CONTOURS SHOWN HEREON WERE DERIVED FROM DIRECT FIELD OBSERVATIONS.
 3. THE CONTOUR INTERVAL FOR THIS SURVEY IS 1 FOOT.
 4. THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE NSPS STANDARDS FOR TOPOGRAPHIC SURVEYS (APPROVED MARCH 12, 2002).
- THIS SURVEY WAS PREPARED BY A FIELD SURVEY AND SUPPLEMENTED BY PHOTOGRAMMETRIC MAPPING PROCESSES, UTILIZING AERIAL PHOTOGRAPHY DATED MAY 10, 2022. THE PHOTOGRAMMETRIC MAPPING EXCEEDS THE NATIONAL MAP ACCURACY STANDARDS.
5. THE BOUNDARY INFORMATION SHOWN ON THIS SURVEY IS BASED UPON A FIELD SURVEY. MONUMENTS WERE FOUND AND USED THAT ARE NOT SHOWN ON THIS SURVEY IN ADDITION TO THOSE SHOWN. THE BOUNDARY SHOWN HEREON WAS ESTABLISHED BY HOLDING FOUND MONUMENTS PER THE GORDON LAND SURVEYING & DEVELOPMENT RECORD OF SURVEY BOUNDARY LINE ADJUSTMENT RECORDED JUNE 5, 2020, RECORDED IN BOOK 180 OF SURVEYS AT PAGE 62, SPOKANE COUNTY RECORDS.
 6. UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON PLANS AND RECORDS PROVIDED BY AMSTA UTILITIES, THE CITY OF SPOKANE AND UTILITY LOCATION MARKINGS TOGETHER WITH THE OBSERVED SURFACE FEATURES.
 7. GROSS LAND AREA 14,199 SQUARE FEET OR 0.326 ACRES, MORE OR LESS.
 8. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. NO EFFORT WAS MADE TO SHOW EASEMENTS AND ENCUMBRANCES.

BASIS OF BEARINGS:

WASHINGTON COORDINATE SYSTEM OF 1983, NORTH ZONE, AS DETERMINED BY GNSS RTK MEASUREMENTS RECEIVING CORRECTIONS FROM THE WASHINGTON STATE REFERENCE NETWORK (NAD83-2011, EPOCH 2010.00). BEARINGS SHOWN ARE GRID BEARINGS; DIMENSIONS SHOWN ARE SCALED TO REPRESENT TRUE GROUND LENGTH.

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AS OBSERVED FROM THE WASHINGTON STATE REFERENCE NETWORK USING GNSS RTK MEASUREMENTS.

SITE BENCHMARK:

RAILROAD SPIKE IN POWER POLE LOCATED NEAR THE NORTHWESTERLY CORNER OF THE SUBJECT PROPERTY

ELEVATION=2327.60 FEET (NAVD 88)

UNDERGROUND UTILITY NOTE:

THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS TOPOGRAPHIC SURVEY ARE APPROXIMATE AND WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, THE ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES WHICH MAY BE ENCOUNTERED, BUT WHICH ARE NOT SHOWN ON THIS SURVEY.

MONUMENT PRESERVATION NOTICE:

IF AT ANY TIME A SURVEY MONUMENT WILL BE DESTROYED OR COVERED DURING CONSTRUCTION PHASE OF THE PROJECT, IT MUST BE PERPETUATED IN ACCORDANCE WITH STATE LAW.

PURSUANT TO THE SURVEY RECORDING ACT CHAPTER 58.09 RCW, CONTROLLING MONUMENTS SHALL BE LOCATED AND REFERENCED BY OR UNDER THE DIRECTION OF A LICENSED LAND SURVEYOR. UPON COMPLETION OF CONSTRUCTION, THESE MONUMENTS WILL HAVE TO BE RESET IN THE SURFACE OF THE NEW CONSTRUCTION IN ORDER TO PERPETUATE THEIR LOCATION. A CORNER RECORD OR A RECORD OF SURVEY SHALL BE FILED TO DOCUMENT THE REFERENCED MONUMENTS PRIOR TO CONSTRUCTION AND THEIR NEW POSITION AND CHARACTER AFTER THEY HAVE BEEN RESET.

SURVEYORS STATEMENT:












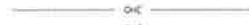

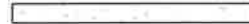






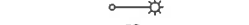
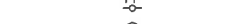










THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION AT THE REQUEST OF JORDAN PISCOPO IN APRIL, 2022.

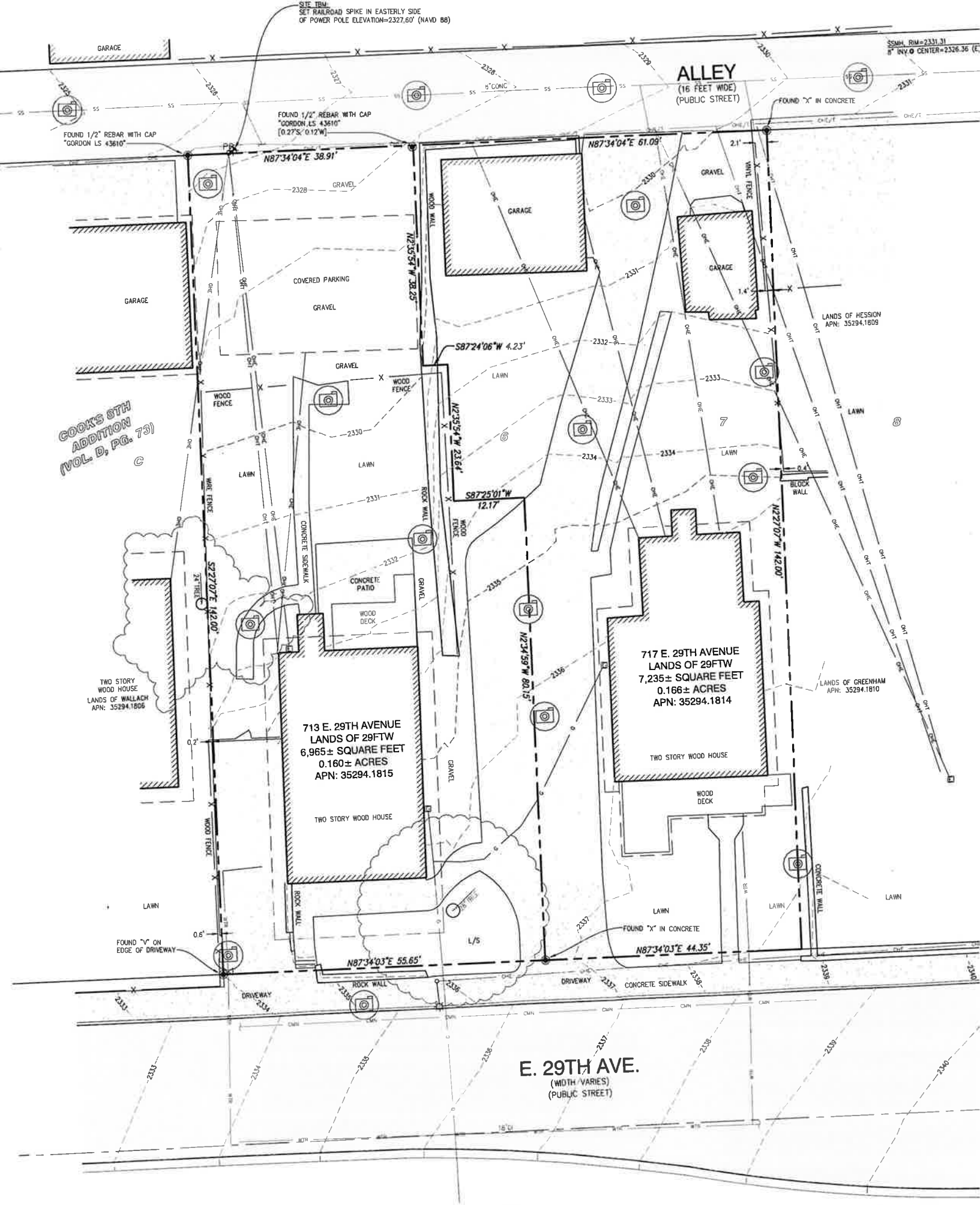
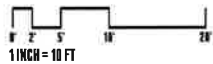
BY: 
KELLY S. JOHNSON, P.L.S.
WASHINGTON REG. NO. 48759
EXPIRES MARCH 30, 2023
KJOHNSON@SANDIS.NET



5/16/2022
DATE

LEGEND

-  BUILDING FOOTPRINT
-  BUILDING OVERHANG
-  CURB LINE
-  RETAINING / SCREENING WALL, HEIGHT AS INDICATED
-  CONTOURS
-  TIE LINE
-  PROPERTY LINE
-  LOT LINE
-  CENTER LINE
-  FLOW LINE
-  FENCE LINE AS INDICATED
-  SANITARY SEWER LINE
-  WATER LINE
-  NATURAL GAS LINE
-  UNDERGROUND ELECTRIC LINE
-  OVERHEAD ELECTRIC LINE
-  OVERHEAD ELECTRIC UTILITY LINE
-  COMMUNICATION LINE
-  CONCRETE SURFACE
-  PAVEMENT SURFACE
-  FOUND SURVEY MONUMENT
-  SANITARY SEWER MANHOLE
-  ELECTRIC METER
-  WATER VALVE
-  GAS METER
-  HARDSCAPE ELECTRIC LIGHT
-  ELECTROLER WITH MAST ARM
-  POWER POLE
-  MISCELLANEOUS MANHOLE
-  LANDSCAPING
-  360 PHOTO LINK
-  TREE WITH DRIPLINE, SIZE AS INDICATED



DATE: 05-16-2022
SCALE: 1"=10'
DRAWN BY: D.A.
CHECKED BY: L.H.

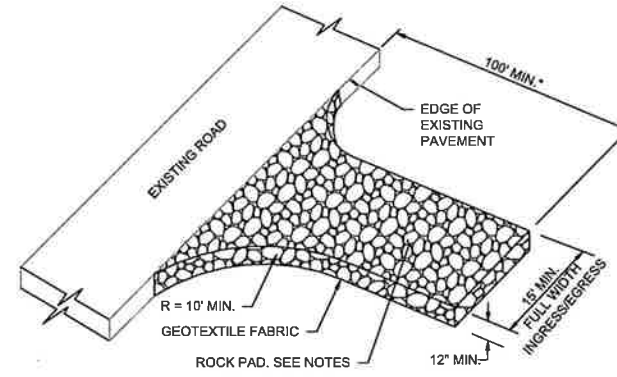
No.	REVISION	DATE	BY

713 & 717 E. 29TH AVENUE

TOPOGRAPHIC SURVEY

SILT FENCE NOTES

- SILT FENCE SHALL BE PURCHASED IN A CONTINUOUS ROLL AND CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY FASTENED AT BOTH ENDS TO POST.
- POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 30 INCHES).
- A TRENCH SHALL BE EXCAVATED APPROXIMATELY 8 INCHES WIDE AND 12 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER. THIS TRENCH SHALL BE BACKFILLED WITH WASHED GRAVEL.
- WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 4 INCHES AND SHALL NOT EXTEND MORE THAN 24 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO FENCE, AND 20 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 24 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
- SILT FENCES SHALL NOT BE REMOVED BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
- SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- SILT FENCES WILL BE INSTALLED PARALLEL TO SLOPE CONTOURS.
- CONTRIBUTING LENGTH TO FENCE WILL NOT BE GREATER THAN 100 FEET.
- DO NOT INSTALL BELOW AN OUTLET PIPE OR WEIR.
- INSTALL DOWNSLOPE OF EXPOSED AREAS.
- DO NOT DRIVE OVER OR FILL OVER SILT FENCES.



NOTES:

*CAN BE REDUCED TO 50' FOR SITES LESS THAN 1 ACRE OF DISTURBED SOILS.

CE CONSTRUCTION ENTRANCE

NOT TO SCALE

HYDROSEEDING NOTES

- HYDROSEEDING SHALL BE APPLIED IN ACCORDANCE WITH THE ESC STANDARD PLAN NOTES ON THIS SHEET.

- HYDROSEEDING TO BE THE FOLLOWING MIXTURE:

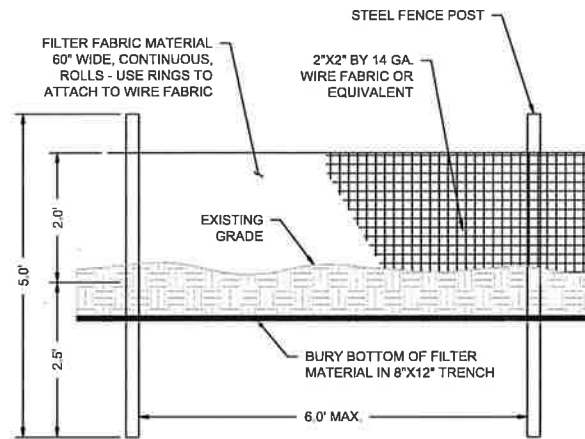
COMMON NAME	SEEDING RATES (LBS/AC)		
	A	B	C
WINTER OR SPRING WHEAT (I)	80		
SPRING BARLEY (I)		80	
REGREEN* OR TRITICALE			50
ANNUAL RYEGRASS (I)			

*STERILE WHEAT x WHEATGRASS HYBRID
(N) = NATIVE PLANT SPECIES
(I) = INTRODUCED, NON-NATIVE PLANT SPECIES

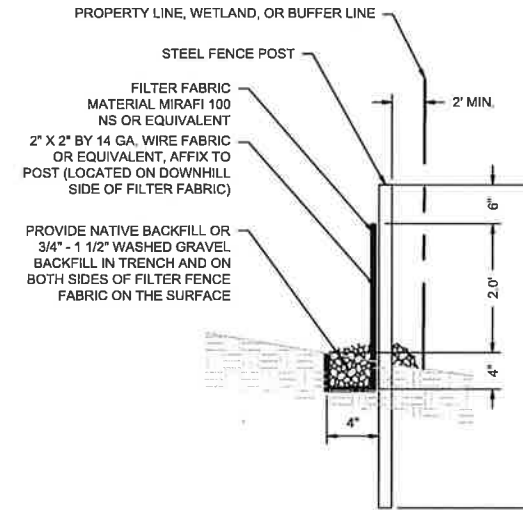
- 500 LBS/ACRE 10-20-20 FERTILIZER, 1500 LBS/ACRE WOOD FIBER CELLULOSE WITH 3 SOIL BINDER OR TACKING AGENT TO BE APPLIED WITH SEED MIXTURE.
- SEED BEDS PLANTED BETWEEN MAY 1 AND AUGUST 31 WILL REQUIRE IRRIGATION AND OTHER MAINTENANCE AS NECESSARY TO FOSTER AND PROTECT THE ROOT STRUCTURE.
- FOR SEED BEDS PLANTED BETWEEN OCTOBER 31 AND APRIL 30, ARMORING OF THE SEED BED WILL BE NECESSARY. (E.G., GEOTEXTILES, JUTE MAT, CLEAR PLASTIC COVERING.)
- BEFORE SEEDING, INSTALL NEEDED SURFACE RUNOFF CONTROL MEASURES SUCH AS GRADIENT TERRACES, INTERCEPTOR DIKES, SWALES, LEVEL SPREADERS AND SEDIMENT BASINS.
- THE SEEDBED SHALL BE FIRM WITH A FAIRLY FINE SURFACE, FOLLOWING SURFACE ROUGHENING. PERFORM ALL OPERATIONS ACROSS OR AT RIGHT ANGLES TO THE SLOPE.
- FERTILIZERS ARE TO BE USED ACCORDING TO SUPPLIERS RECOMMENDATIONS. AMOUNTS USED SHOULD BE MINIMIZED, ESPECIALLY ADJACENT TO WATER BODIES AND WETLANDS.
- SEED SHALL NOT BE USED IN AREAS SUBJECT TO WEAR BY CONSTRUCTION TRAFFIC.

CONSTRUCTION ENTRANCE NOTES

- MATERIAL SHALL BE 4 INCH TO 8 INCH QUARRY SPALLS AND MAY BE TOP-DRESSED WITH 1 INCH TO 3 INCH ROCK. (WSDOT STANDARD SPECIFICATIONS, SECTION 8-15.)
- THE ROCK PAD SHALL BE AT LEAST 12 INCHES THICK AND 50 FEET LONG. WIDTH SHALL BE THE FULL WIDTH OF THE VEHICLE INGRESS AND EGRESS AREA.
- ADDITIONAL ROCK SHALL BE ADDED PERIODICALLY TO MAINTAIN PROPER FUNCTION OF THE PAD.
- PAVED ROADS SHALL BE KEPT FREE OF SEDIMENT TRACKED FROM THE PROJECT SITE. SEDIMENT TRACKED ONTO ADJACENT PAVED SURFACES SHALL BE REMOVED DAILY BY SWEEPING. WASHING TO SEDIMENT FROM ROAD SURFACE WILL NOT BE ALLOWED.
- A TRUCK WHEEL WASH MAY BE REQUIRED TO BE INSTALLED AT ANY TIME UPON COUNTY'S REQUEST.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DUST CONTROL PER COUNTY REQUIREMENTS.



FRONT VIEW



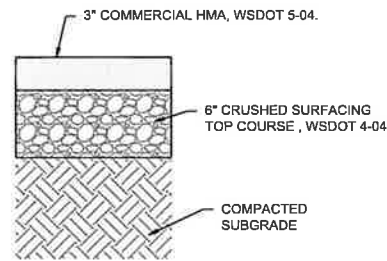
SIDE VIEW

SF SILT FENCE

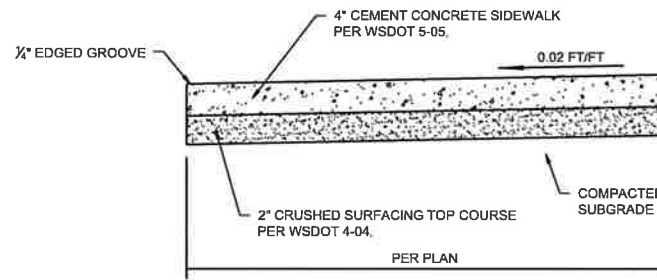
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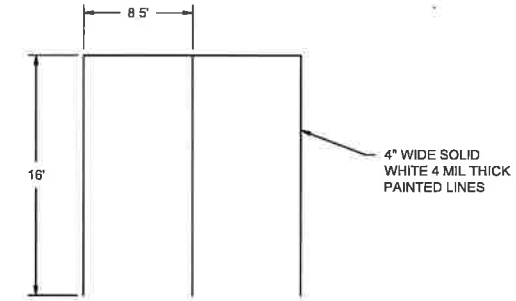
ow what's below.
Call before you dig.



STANDARD DUTY



- NOTES:**
1. CEMENT CONCRETE SHALL BE CLASS 3000 AIR ENTRAINED.
 2. COMPACTION FOR CONCRETE WALKS TO BE 95% MAXIMUM DENSITY.
 3. EXPANSION JOINTS CONSISTING OF 3/8" BY 4" PREMOULDED JOINT MATERIAL SHALL BE PLACED AT 15 FOOT INTERVALS. 1/4" EDGE GROOVE SHALL BE PROVIDED AT JOINT EDGES.



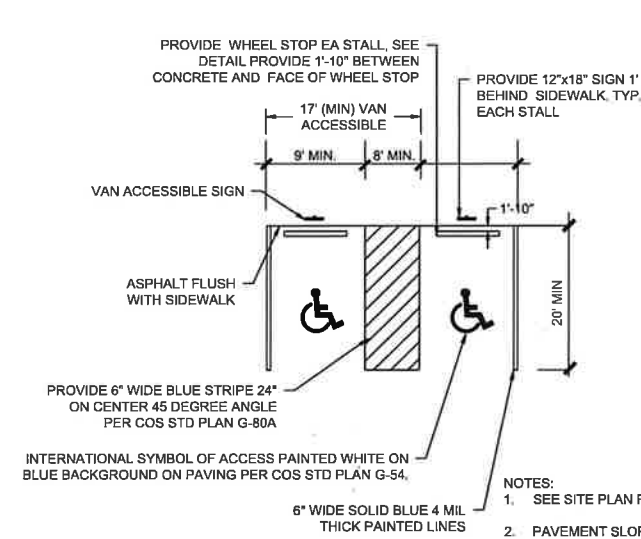
NOTES

1. DEPTHS ARE COMPACTED THICKNESS.
2. REFER TO GEOTECHNICAL REPORT FOR PAVEMENT RECOMMENDATIONS.
3. COMPACT SUBGRADE AND CRUSHED SURFACING PER THE GEOTECHNICAL REPORT'S RECOMMENDATIONS.

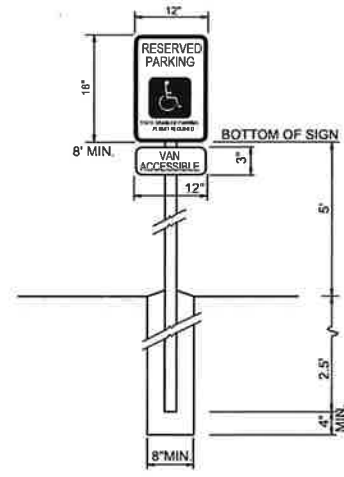
1 HMA SECTION
NOT TO SCALE

2 SIDEWALK CONCRETE SECTION
NOT TO SCALE

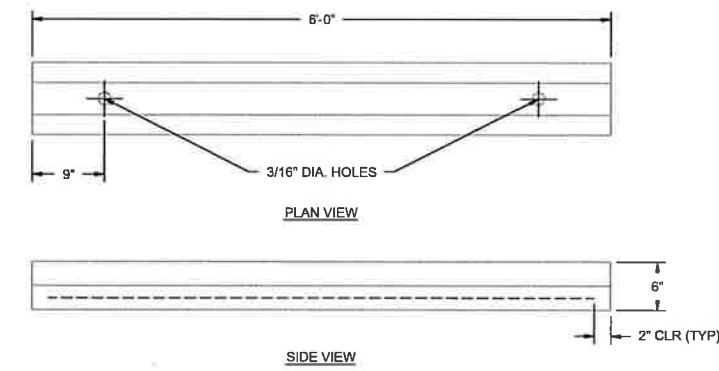
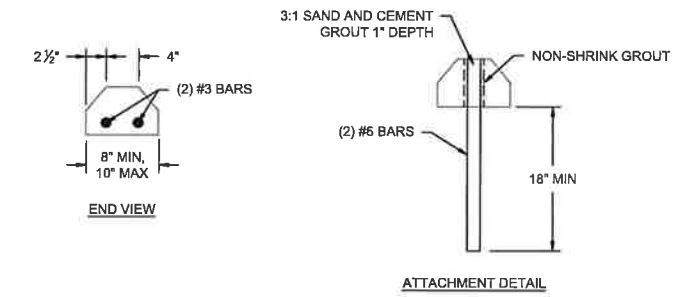
3 STANDARD PARKING STALL
NOT TO SCALE



- NOTES:**
1. SEE SITE PLAN FOR PARKING SPACE LOCATIONS.
 2. PAVEMENT SLOPES SHALL NOT EXCEED 2% IN ANY DIRECTION WITHIN BARRIER FREE PARKING SPACES.
 3. MARKINGS TO COMPLY WITH IBC 1101.26 AND WASHINGTON ADMINISTRATIVE CODE AMENDMENTS.
 4. ALL BARRIER FREE STALLS MUST ADHERE TO COS STD PLANS G-54 AND G-80A.



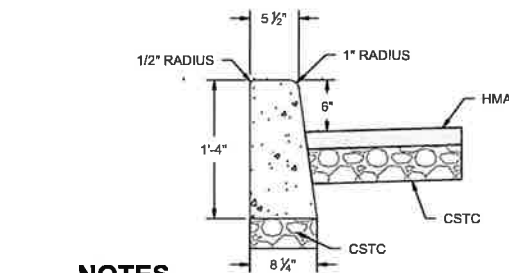
4 BARRIER FREE PARKING STALL
NOT TO SCALE



NOTES

1. REFER TO PLAN FOR LOCATION OF WHEEL STOPS.
2. OFFSET REQUIRED BETWEEN CURB AND WHEEL STOP IS 1'-10".
3. WHEEL STOPS SHALL BE FLOW THROUGH TYPE.

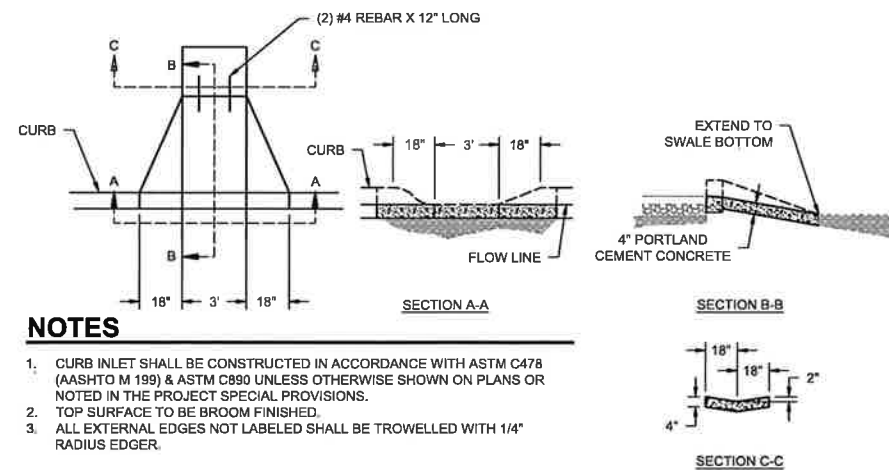
7 WHEEL STOP
NOT TO SCALE



NOTES

1. CURBS SHALL BE TACK COATED WITH AN ASPHALT EMULSION PRIOR TO PLACEMENT OF CONCRETE.
2. CEMENT CONCRETE PER WSDOT 5-05 & 8-04.

5 VERTICAL CURB
NOT TO SCALE



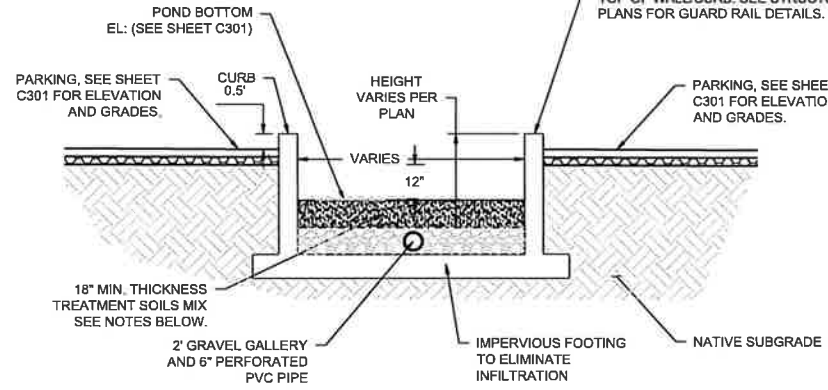
NOTES

1. CURB INLET SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M 199) & ASTM C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE PROJECT SPECIAL PROVISIONS.
2. TOP SURFACE TO BE BROOM FINISHED.
3. ALL EXTERNAL EDGES NOT LABELED SHALL BE TROWELLED WITH 1/4" RADIUS EDGER.

6 CURB INLET
NOT TO SCALE



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Call before you dig.

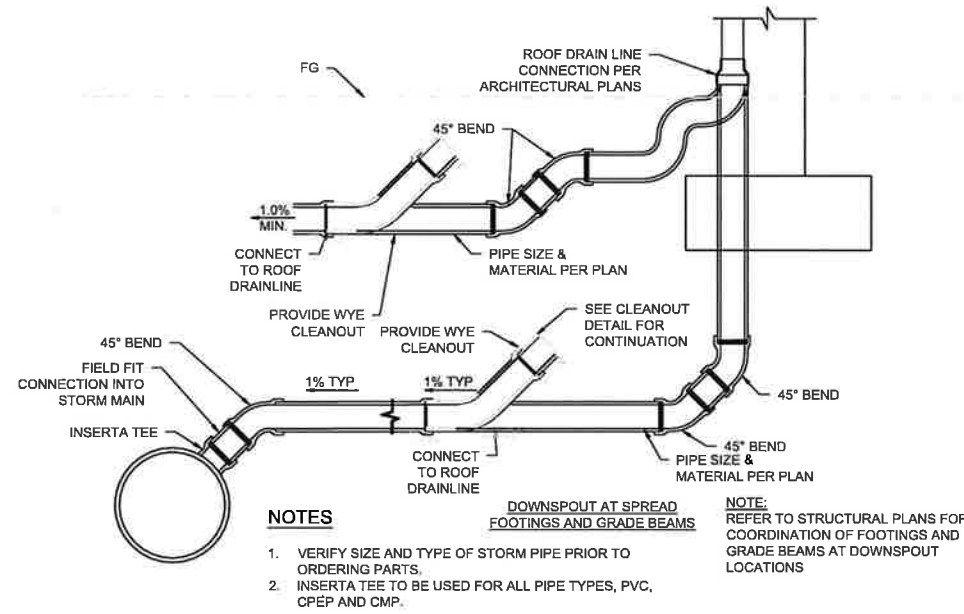


NOTES

1. REFER TO LANDSCAPE PLANS FOR PLANTING DETAILS. SLOPE SHALL NOT EXCEED 3:1 FOR THE BOTTOM 12" (VERTICAL) OF THE POND.
2. THE TREATMENT ZONE SHALL MEET THE MINIMUM REQUIREMENTS OF THE EASTERN WASHINGTON LOW IMPACT DEVELOPMENT GUIDANCE MANUAL 4.4.4.2.
 - 2.1. SOIL SHALL CONSIST OF A THOROUGHLY BLENDED MIX OF 40% COMPOST AND 60% MINERAL AGGREGATE.
 - 2.2. COMPOST CATION EXCHANGE CAPACITY (CEC) SHALL BE EQUAL TO OR GREATER THAN 5 MILLIEQUIVALENTS PER 100 GRAMS OF DRY SOIL.
 - 2.3. MINERAL AGGREGATE SHALL BE WELL-GRADED SAND PER ASTM 2487-11.
 - 2.4. COEFFICIENT OF UNIFORMITY, CU = D60/D10 SHALL BE EQUAL TO OR GREATER THAN 4.
 - 2.5. COEFFICIENT OF CURVE, CC = (D30)²/(D60*D10), SHALL BE GREATER THAN 1 AND LESS THAN OR EQUAL TO 3.
- 2.6. MINERAL AGGREGATE GRADATION PER TABLE 4.4.2 OF THE EASTERN WASHINGTON LOW IMPACT DEVELOPMENT GUIDANCE MANUAL.
- 2.7. ORGANIC MATTER CONTENT OF AT LEAST 8% BY WEIGHT.
3. IN INFILTRATION POND AREAS, SCARIFY AND COMPACT TOP 12 INCHES OF SUBGRADE TO A MINIMUM OF 75 PERCENT AND MAXIMUM 85 PERCENT PRIOR TO PLACING TOPSOIL.
4. ORGANIC MATTER, CEC TESTING SHALL BE PERFORMED TO A MINIMUM DEPTH OF 6" FROM POND BOTTOMS. ONE TEST PER EACH POND OF 1,500 SQUARE FEET OR LESS AND ONE TEST PER EACH ADDITIONAL 2,000 SQUARE FEET IS REQUIRED.
5. DO NOT COMPACT MATERIALS UNDER BIO-INFILTRATION AREAS. AVOID CONSTRUCTION EQUIPMENT TRAVEL IN TREATMENT FACILITY AREAS.

1 BIO-RETENTION POND

NOT TO SCALE



NOTES

1. VERIFY SIZE AND TYPE OF STORM PIPE PRIOR TO ORDERING PARTS.
2. INSERTA TEE TO BE USED FOR ALL PIPE TYPES, PVC, CPEP AND CMP.

2 ROOF DRAIN DOWNSPOUT CONNECTION

NOT TO SCALE



ow what's below.
Call before you dig.

CIVIL ENGINEER
AHBL ENGINEERING
601 WEST MAIN AVENUE - SUITE 305
SPokane, WA 99201

LANDSCAPE ARCHITECT
AHBL ENGINEERING
601 WEST MAIN AVENUE - SUITE 305
SPokane, WA 99201

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707 W 2ND AVENUE
SPokane, WA 99201

M/E/P ENGINEER
EMERALD CITY ENGINEERS
21705 HWY 99
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OLSONPROJECTS

29TH LOFTS
713 & 717 E. 29TH AVE. - SPOKANE, WASHINGTON 99201

GRADING & DRAINAGE

02



01 EXTERIOR BUILDING ELEVATION - NORTH
SCALE 1/8" = 1'-0"



02 EXTERIOR BUILDING ELEVATION - EAST
SCALE 1/8" = 1'-0"



03 EXTERIOR BUILDING ELEVATION - SOUTH
SCALE 1/8" = 1'-0"



04 EXTERIOR BUILDING ELEVATION - WEST
SCALE 1/8" = 1'-0"

CIVIL ENGINEER
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