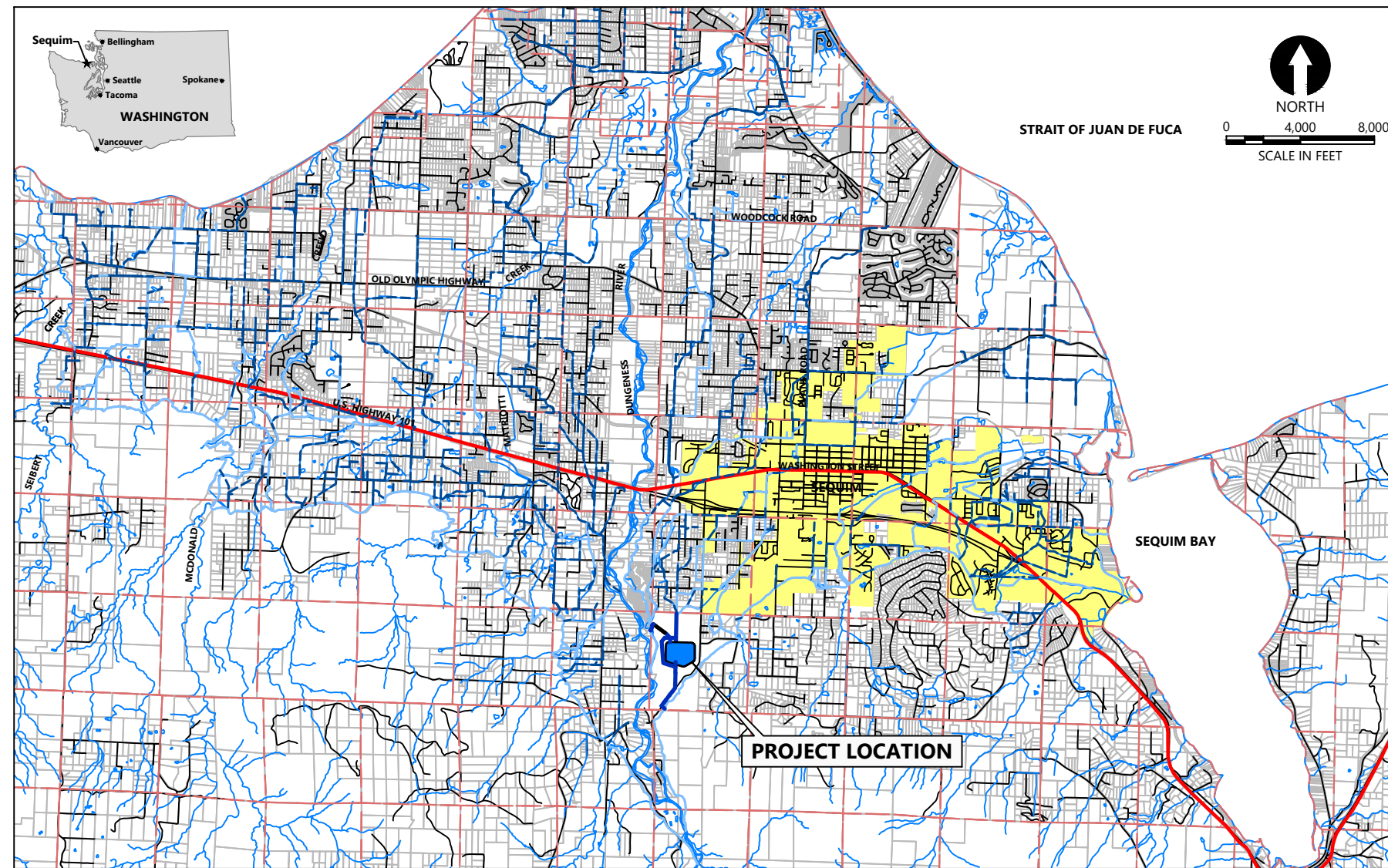


30% DESIGN DUNGENESS OFF-CHANNEL RESERVOIR

CLALLAM COUNTY

DRAWING INDEX		
SHT #	DWG #	TITLE
1	G01	COVER SHEET
2	G02	GENERAL NOTES, ABBREVIATIONS, AND LEGENDS
3	G03	OVERALL SITE PLAN AND DRAWING INDEX
4	T01	TEMPORARY ACCESS AND STAGING PLAN
5	C01	RESERVOIR SITE PLAN
6	C02	RESERVOIR GRADING PLAN (NORTHWEST)
7	C03	RESERVOIR GRADING PLAN (NORTHEAST)
8	C04	RESERVOIR GRADING PLAN (SOUTHEAST)
9	C05	RESERVOIR GRADING PLAN (SOUTHWEST)
10	C06	RESERVOIR SECTIONS
11	C07	RESERVOIR SECTIONS
12	C08	RESERVOIR INLET PIPELINE PLAN AND PROFILE
13	C09	RESERVOIR INLET PIPELINE PLAN AND PROFILE
14	C10	RESERVOIR INLET PIPELINE PLAN AND PROFILE
15	C11	RESERVOIR OUTLET PIPELINE PLAN AND PROFILE
16	C12	RESERVOIR OUTLET PIPELINE PLAN AND PROFILE
17	C13	RESERVOIR BYPASS PIPELINE PLAN AND PROFILE
18	C14	RESERVOIR BYPASS PIPELINE PLAN AND PROFILE
19	C15	RESERVOIR BYPASS PIPELINE PLAN AND PROFILE
20	C16	RESERVOIR INTAKE FACILITY UPGRADES
21	C17	RESERVOIR INLET FLOW CONTROL STRUCTURE PLAN AND SECTIONS
22	C18	RESERVOIR INLET STRUCTURE PLAN AND SECTIONS
23	C19	RESERVOIR OUTLET STRUCTURE PLAN AND SECTIONS
24	C20	RESERVOIR SPILLWAY PLAN AND PROFILE
25	C21	RESERVOIR SPILLWAY PLAN AND PROFILE
26	C22	RESERVOIR SPILLWAY STRUCTURE PLAN AND SECTIONS



LOCATION MAP

PROJECT DATA

LOCATION: CLALLAM COUNTY PARCEL 04036210000
SECTION 36, TOWNSHIP 30N, RANGE 04W

PROJECT ENGINEER: DAVID RICE, P.E.
ANCHOR QEA, LLC
1201 3RD AVENUE, SUITE 2600
SEATTLE, WA 98101
(206) 219-5902

GEOTECHNICAL ENGINEER: STAN BOYLE, PHD, PE, D.GE, M.ASCE
SHANNON & WILSON
PO BOX 300303
400 N 34TH STREET, SUITE 100
SEATTLE, WA 98103
PHONE: (206) 632-8020

PROJECT ADMINISTRATOR/ CONTRACTING AGENCY: CAROL L. CREASEY, RESERVOIR PROJECT MANAGER/HYDROGEOLOGIST
CLALLAM COUNTY
223 E. 4TH STREET, SUITE 6
PORT ANGELES, WA 98362
(360) 417-2424

EARTHWORK

TOTAL CUT VOLUME	1,243,501 CY
TOTAL FILL VOLUME	642,529 CY
TOTAL AREA OF DISTURBANCE	118 AC

SURVEY INFORMATION

HORIZONTAL DATUM FOR THIS SURVEY IS NAD 1983(11), WASHINGTON STATE PLANE NORTH ZONE COORDINATE SYSTEM, U.S. SURVEY FEET. THE HORIZONTAL DATUM IS BASED ON PUBLISHED INFORMATION FROM WSDOT, POINT DESIGNATIONS PETE AND FS0506.

POINT DESIGNATION PETE
NORTHING: 387953.181
EASTING: 1073114.596

POINT DESIGNATION FS0506
NORTHING: 399609.345
EASTING: 1077813.458

VERTICAL DATUM IS NAVD88 BASED ON PUBLISHED INFORMATION FROM WSDOT, POINT DESIGNATION PETE

POINT DESIGNATION
ELEVATION: 457.443

THE GEOTECHNICAL ENGINEER CONSENTS THAT THESE PLANS ARE IN ACCORDANCE TO THE DRAFT PHASE 1 GEOTECHNICAL DATA REPORT, DUNGENESS OFF-CHANNEL RESERVOIR AND DRAFT PHASE 1 CONCEPTUAL GEOTECHNICAL ENGINEERING REPORT AND DUNGENESS OFF-CHANNEL RESERVOIR BY SHANNON & WILSON DATED NOVEMBER 2021.

SIGNATURE _____ DATE _____

30% DESIGN: NOT FOR CONSTRUCTION



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
DRAWN BY: T. GRIGA
CHECKED BY: D. RICE
APPROVED BY: R. MONTGOMERY
SCALE: AS NOTED
DATE: MARCH 2022

DUNGENESS OFF-CHANNEL RESERVOIR

COVER SHEET

G01

SHEET # 1 OF 26

GENERAL CONSTRUCTION NOTES:

- CONTRACT DOCUMENTS REFER TO THESE DRAWINGS, THE PROJECT SPECIFICATIONS, AND THE BIDDING DOCUMENTS, AND THE CONSTRUCTION CONTRACT.
- EXCEPT AS OTHERWISE NOTED HEREIN, ALL MATERIAL AND WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, THE WSDOT/APWA "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION" (2021 EDITION), OTHER APPLICABLE STANDARDS, AND ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- THE CONTRACTOR SHALL HAVE COPIES OF THE APPROVED CONTRACT DOCUMENTS AND THE WSDOT/APWA "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION" (2021 EDITION) ON THE JOBSITE AT ALL TIMES.
- THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO CONSTRUCTION AND SHALL BE RESPONSIBLE FOR VERIFYING FIELD CONDITIONS AND DIMENSIONS, AND CONFIRMING THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THESE CONTRACT DOCUMENTS. ANY DISCREPANCIES BETWEEN THE EXISTING FIELD CONDITIONS AND DIMENSIONS SHOWN ON THE CONTRACT DOCUMENTS AND THOSE OBSERVED BY THE CONTRACTOR SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND THE PROJECT ADMINISTRATOR PRIOR TO PROCEEDING WITH CONSTRUCTION.
- A PRE-CONSTRUCTION MEETING BETWEEN THE OWNER, THE PROJECT ADMINISTRATOR AND THE ENGINEER SHALL BE REQUIRED PRIOR TO ANY ON-SITE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING RIGHT-OF-WAY PERMITS FROM CLALLAM COUNTY PRIOR TO PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL SUBMIT RIGHT-OF-WAY USE PERMIT APPLICATIONS AND PAY ALL APPLICABLE FEES.
- THE CONTRACTOR SHALL RECEIVE, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WITH ANY WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
- ALL WORK SHALL BE IN CONFORMANCE WITH EXISTING LABOR LAWS, SAFETY REQUIREMENTS, AND OTHER REGULATIONS, AS REQUIRED BY CLALLAM COUNTY, THE STATE OF WASHINGTON, AND THE FEDERAL GOVERNMENT. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND IS NOT LIMITED TO NORMAL WORKING HOURS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THIS CONTRACT.
- ALL MATERIALS SHALL BE NEW AND UNDAMAGED UNLESS OTHERWISE APPROVED BY THE CONTRACTING OFFICER AND HIS ENGINEER. THE SAME MANUFACTURER OF EACH ITEM SHALL BE USED THROUGHOUT THE WORK UNLESS OTHERWISE APPROVED BY THE OWNER'S REPRESENTATIVE.
- ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL NOT EXCAVATE OR DISTURB BEYOND THE CLEARING LIMITS SHOWN ON THE DRAWINGS UNLESS OTHERWISE APPROVED BY THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL MAKE ALL NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, ROADWAYS, DRAINAGE WAYS, CULVERTS, AND VEGETATION UNTIL SUCH ITEMS ARE TO BE DISTURBED OR REMOVED AS INDICATED ON THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF PROPERTY IN AND AROUND THE PROJECT AREA. UNLESS OTHERWISE NOTED ON THESE DRAWINGS, ITEMS SUCH AS MAILBOXES, CULVERTS, LAWN ORNAMENTS, FENCING, DRIVEWAYS, IRRIGATION BOXES, ETC., THAT ARE AFFECTED BY CONSTRUCTION ACTIVITIES SHALL BE REPAIRED OR REPLACED FOLLOWING CONSTRUCTION.
- RUBBISH, DEBRIS, AND GARBAGE SHALL BE REMOVED FROM THE JOB SITE PRIOR TO ACCEPTANCE AND DISPOSED OF LEGALLY. SEE THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- DISTURBED AREAS SHALL BE GRADED SMOOTH AND PROTECTED AND/OR REVEGETATED AS INDICATED IN THE SPECIFICATIONS.
- THE NOTES, DETAILS AND SPECIFICATIONS ON THE CONTRACT DOCUMENTS SHALL TAKE PRECEDENCE OVER THESE GENERAL NOTES.
- DIMENSION CALL-OUTS SHALL TAKE PRECEDENCE OVER SCALES SHOWN ON THE DRAWINGS.
- THE CONTRACTOR SHALL MAINTAIN HAND DRAWN REDLINES, FIELD NOTES AND PHOTOGRAPHS ("FIELD DOCUMENTATION") OF ALL IMPROVEMENTS AS THE WORK PROGRESSES. THE CONTRACTOR'S FIELD DOCUMENTATION SHALL BE MAINTAINED ON-SITE AND SHALL BE AVAILABLE FOR REVIEW BY THE OWNER AND THE ENGINEER AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE FIELD DOCUMENTATION TO THE ENGINEER FOR PREPARATION OF CERTIFIED RECORD DRAWINGS PRIOR TO PROJECT ACCEPTANCE.

PIPELINE CONSTRUCTION NOTES:

- PIPE SHALL BE BUTT-FUSED HDPE, UNLESS OTHERWISE INDICATED ON THE DRAWINGS. IF NO PRESSURE RATING IS SHOWN ON THE DRAWINGS, PIPE SHALL HAVE A MINIMUM PRESSURE RATING OF 80 PSI. SEE THE SPECIFICATIONS FOR ADDITIONAL DETAILS.
- FITTINGS SHALL BE HDPE SDR 26, BUTT-FUSED JOINT TYPE, AND SHALL HAVE A PRESSURE RATING EQUAL TO OR GREATER THAN THAT OF THE ADJACENT PIPE. SEE THE SPECIFICATIONS FOR ADDITIONAL DETAILS.
- THE CONTRACTOR SHALL INSTALL PIPE TO MATCH THE ALIGNMENT AND GRADES SHOWN ON THE PLAN AND PROFILE DRAWINGS. THE CONTRACTOR SHALL FURNISH FITTINGS OR DEFLECT THE PIPE AS ALLOWED BY THE MANUFACTURER TO MATCH THE ALIGNMENT AND GRADES SHOWN.
- MINIMUM COVER FOR ALL PIPE SHALL BE THIRTY-SIX INCHES (36") FROM TOP OF PIPE TO FINISH GRADE UNLESS OTHERWISE SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER. THE MAXIMUM COVER OVER THE PIPE SHALL BE AS ALLOWED BY THE PIPE MANUFACTURER FOR THE INTENDED USE.
- PIPELINES ARE DESIGNED TO OPERATE UNDER PRESSURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTRAINING PIPE AND FITTINGS AGAINST ALL UNRESOLVED HYDROSTATIC FORCES. PROVIDE THRUST BLOCKING, AS SHOWN ON THE DRAWINGS. WHERE ADEQUATE BEARING AREA AGAINST UNDISTURBED SOIL IS NOT AVAILABLE FOR THRUST BLOCKING, THE CONTRACTOR SHALL PROVIDE RESTRAINED JOINT FITTINGS. RESTRAINED JOINT FITTINGS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. NEW IRRIGATION PIPE SHALL BE PRESSURE TESTED IN ACCORDANCE WITH SECTION 7-09.3(23) OF THE WSDOT "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION" (2021 EDITION).
- PRIOR TO BEGINNING THE WORK SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE CONDITION AND INVERT ELEVATIONS OF EACH EXISTING CULVERT SHOWN ON THE DRAWINGS TO REMAIN WHERE THE PROPOSED PIPELINE WILL BE INSTALLED THROUGH THE CULVERT. THE CONTRACTOR SHALL CONFIRM THAT PIPE CAN BE INSTALLED IN EACH EXISTING CULVERT AS INDICATED ON THE DRAWINGS. IF THE CONTRACTOR IDENTIFIES A CONDITION OR CONFLICT THAT WILL PREVENT THE PROPOSED PIPE FROM BEING INSTALLED IN THE EXISTING CULVERT, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING WITH CONSTRUCTION.

LOCATION OF EXISTING UTILITIES:

- THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE, AND HAVE NOT BEEN FIELD VERIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT THE UTILITY LOCATION REQUEST CENTER (ONE-CALL CENTER) AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE THE SCHEDULED DATE FOR EARTHWORK OR TRENCHING THAT MAY IMPACT EXISTING UTILITIES.
- THE SIZE, LOCATION, AND TYPE OF UNDERGROUND UTILITIES EXPOSED OR MODIFIED BY THE CONTRACTOR SHALL BE ACCURATELY NOTED AND PLACED ON THE CONTRACTOR'S AS-BUILT DRAWINGS. SEE GENERAL CONSTRUCTION NOTE 19 FOR ADDITIONAL REQUIREMENTS RELATED TO THE CONTRACTOR'S AS-BUILT DRAWINGS AND FIELD DOCUMENTATION.

SURVEY AND BASEMAP INFORMATION:

TOPOGRAPHIC SURVEY OF EXISTING DITCH AND LATERAL ALIGNMENTS COMPLETED IN MAY AND JUNE 2021 BY PARAMETRICS, INCORPORATED. ADDITIONAL CONTOURS FROM SURVEY WITHIN EXTENTS SHOWN AND FROM PUGET SOUND LIDAR CONSORTIUM (PSLC) DATA OUTSIDE EXTENTS OF SURVEY. ADDITIONAL BASEMAP INFORMATION FROM CLALLAM COUNTY GIS DATA. AERIAL PHOTOGRAPHY: BING MAPS

HORIZONTAL DATUM FOR THIS SURVEY IS NAD 1983(11), WASHINGTON STATE PLANE NORTH ZONE COORDINATE SYSTEM, U.S. SURVEY FEET. THE HORIZONTAL DATUM IS BASED ON PUBLISHED INFORMATION FROM WSDOT, POINT DESIGNATIONS PETE AND FS0506.

POINT DESIGNATION PETE
NORTHING: 387953.181
EASTING: 1073114.596

POINT DESIGNATION FS0506
NORTHING: 399609.345
EASTING: 1077813.458

VERTICAL DATUM IS NAVD88 BASED ON PUBLISHED INFORMATION FROM WSDOT, POINT DESIGNATION PETE

POINT DESIGNATION
ELEVATION: 457.443

GRADING AND EARTHWORK GENERAL NOTES:

- THE CONTRACTOR SHALL LIMIT DISTURBANCE OF THE EXISTING SURFACE TO THE LIMITS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL FLAG OR MARK THE CLEARING AND DISTURBANCE LIMITS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL CLEAR AND GRUB WITHIN THE MARKED CLEARING LIMITS, AS NEEDED FOR RESERVOIR EXCAVATION, PIPELINE CONSTRUCTION, AND STAGING AND PROCESSING OF MATERIALS FOR THE PROJECT IN ACCORDANCE WITH SECTION 2-01 OF THE STANDARD SPECIFICATIONS. DISPOSAL OF CLEARED MATERIAL SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTING ORGANIZATION'S REPRESENTATIVE SHALL APPROVE THE DISPOSAL METHOD. DISPOSAL SHALL BE IN ACCORDANCE WITH APPLICABLE PERMITS AND STATE AND LOCAL REGULATIONS.
- ALL EXPOSED OR EXCAVATED SLOPES STEEPER THAN 3:1 MUST BE STABILIZED WITH JUTE MAT OR OTHER APPROVED STABILIZATION WITHIN 24 HOURS OF EXPOSURE.
- EXPOSED SOIL MUST BE COVERED WITHIN 5 DAYS OF EXPOSURE DURING THE DRY SEASON (APRIL 1 THROUGH SEPTEMBER 30), AND WITHIN 48 HOURS OF EXPOSURE DURING THE WET SEASON (OCTOBER 1 THROUGH MARCH 31).
- FOR ADDITIONAL TESC REQUIREMENTS, SEE THE TESC PLANS, THE SPECIFICATIONS, AND THE APPROVED CONSTRUCTION SWPPP.
- COMPACTION OF SOILS PLACED FOR THE PROJECT SHALL BE AS SHOWN ON THE DRAWINGS OR AS REQUIRED BY THE SPECIFICATIONS. WHERE NOT SHOWN OR SPECIFIED, EMBANKMENT SOILS AND SOILS SUPPORTING STRUCTURES OR TRAFFIC SHALL BE COMPACTED TO AT LEAST 95% MAXIMUM DRY DENSITY, AS DETERMINED BY A MODIFIED PROCTOR TEST. ALL OTHER SOILS SHALL BE COMPACTED TO AT LEAST 90% OF MAXIMUM DRY DENSITY.
- WHERE REQUIRED BY THE CONTRACTING ORGANIZATION'S REPRESENTATIVE OR THE GEOTECHNICAL ENGINEER, UNSUITABLE SUBGRADE MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE ON-SITE EMBANKMENT FILL OR OTHER MATERIAL DESIGNATED BY THE CONTRACTING ORGANIZATION'S REPRESENTATIVE PRIOR TO COMPACTION AND FINAL GRADING.
- THE CONTRACTOR SHALL DEWATER OR OTHERWISE DRAIN ALL EXCAVATIONS TO A MINIMUM OF 1 FOOT BELOW SUBGRADE ELEVATION PRIOR TO PLACING AND COMPACTING BACKFILL. DEWATERING AND DISPOSAL OF WATER SHALL COMPLY WITH STATE AND LOCAL REGULATIONS AND APPLICABLE PERMITS REQUIREMENTS. DWATERING WATER SHALL BE DISPERSED ON SITE.
- A LICENSED GEOTECHNICAL ENGINEER SHALL SUPERVISE PLACEMENT OF ALL EMBANKMENT AND FILL MATERIAL AND SHALL WITNESS ALL ON-SITE GEOTECHNICAL TESTING.
- CONSTRUCTION RECORDS OF SOIL ACTIVITIES AND COMPACTION TESTING SHALL BE TRANSMITTED TO THE CONTRACTING AGENCY ON A WEEKLY BASIS. ALL TEST RESULTS SHALL INCLUDE A MAP INDICATING THE TEST LOCATION.
- FOR ADDITIONAL GRADING AND EARTHWORK REQUIREMENTS, SEE THE SPECIFICATIONS.
- GRADING SHALL BE DONE UNDER THE SUPERVISION OF A LICENSED GEOTECHNICAL ENGINEER IN CONFORMANCE WITH THE RECOMMENDATIONS OF THE DRAFT PHASE 1 GEOTECHNICAL DATA REPORT, DUNGENESS OFF-CHANNEL RESERVOIR AND DRAFT PHASE 1 CONCEPTUAL GEOTECHNICAL ENGINEERING REPORT AND DUNGENESS OFF-CHANNEL RESERVOIR BY SHANNON & WILSON DATED NOVEMBER 2021. THIS REPORT IS PART OF THESE PLANS.

TOPOGRAPHIC SURVEY GENERAL NOTES:

- THIS MAP CORRECTLY REPRESENTS CONDITIONS AND FEATURES EXISTING AT THE TIME OF THIS SURVEY IN OCTOBER, 2021.
- CONVENTIONAL AND GPS SURVEY EQUIPMENT WAS USED IN THE PERFORMANCE OF THIS SURVEY. ALL EQUIPMENT IS MAINTAINED IN CONFORMANCE WITH CURRENT STATE STATUTE.
- THIS SURVEY WAS PREPARED BY FIELD TRAVERSE AS PER WAC 332-130-090, PART C. RELATIVE ACCURACY EXCEEDS 1 FOOT IN TEN THOUSAND.
- ALL SURFACE FEATURES AND INVERT STRUCTURE ELEVATION SHOWN HEREON WERE FIELD LOCATED AND MEASURED BY PARAMETRIX FOR THIS SURVEY. UNDERGROUND UTILITY LINES ARE BASED UPON A COMBINATION OF SURFACE FEATURE MEASUREMENTS AND ONSITE UNDERGROUND UTILITY MARKINGS PERFORMED BY OTHERS.
- THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.

ABBREVIATIONS:

'	FEET, MINUTES
"	INCHES, SECONDS
°	DEGREES
APWA	AMERICAN PUBLIC WORKS ASSOCIATION
AWWA	AMERICAN WATER WORKS ASSOCIATION
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
CFS	CUBIC FEET PER SECOND
CONC	CONCRETE
CY	CUBIC YARDS
D.I	DUCTILE IRON
DIA	DIAMETER
DWG	DRAWING
E	EAST, EASTING
ELEV	ELEVATION
EX	EXISTING
FG	FINISHED GRADE
FL	FLOW LINE, FLANGE, FLANGED
FPS	FEET PER SECOND
FT	FEET
GALV	GALVANIZED
GPM	GALLONS PER MINUTE
GV	GATE VALVE
HPDE	HIGH-DENSITY POLYETHYLENE
I.D.	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCHES
L	LENGTH
LF	LINEAR FEET
MAX	MAXIMUM
MIN	MINIMUM
MJ	MECHANICAL JOINT
N	NORTH, NORTHING
NAD	NORTH AMERICAN DATUM
NGVD	NATIONAL GEODETIC VERTICAL DATUM
NO., #	NUMBER
NTS	NOT TO SCALE
O.C.	ON CENTERS
O.D.	OUTSIDE DIAMETER
P	POWER
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
P.E.	PROFESSIONAL ENGINEER
R, RAD	RADIUS
REINF	REINFORCED, REINFORCEMENT
ROW	RIGHT OF WAY
S	SLOPE, SANITARY SEWER, SOUTH
SCH	SCHEDULE
STA	STATION
SY	SQUARE YARD
T	TELEPHONE
TYP	TYPICAL
W	WEST, WATER
W/	WITH
WSDOE	WASHINGTON STATE DEPARTMENT OF ECOLOGY
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
WSEL	WATER SURFACE ELEVATION
WWT	WASHINGTON WATER TRUST

PARAMETRIX CONTROL TABLE

POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
3002	389371.36	1075574.86	459.42	SET MAG NAIL
3003	393414.30	1076311.40	399.63	SET HUB & TACK
3006	393014.30	1076293.87	407.50	SET HUB & TACK
3015	394275.38	1076395.40	382.28	SET HUB & MAG
3016	389296.14	1075516.70	459.55	SET HUB & TACK
3017	390127.03	1076140.96	444.54	SET HUB & TACK
3118	390269.15	1076248.33	442.22	SET HUB & TACK
3119	389212.86	1075589.65	464.08	SET HUB & TACK
3120	389148.27	1075682.01	488.84	SET NAIL
3121	389111.68	1075659.20	489.63	SET HUB & TACK
3122	389123.44	1075681.64	486.43	SET HUB & TACK

30% DESIGN: NOT FOR CONSTRUCTION

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE"
ONE INCH AT FULL SIZE IF NOT ONE INCH SCALE ACCORDINGLY

K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-Cover.dwg G02
Mar 14, 2022 12:39pm Tgr3pa



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

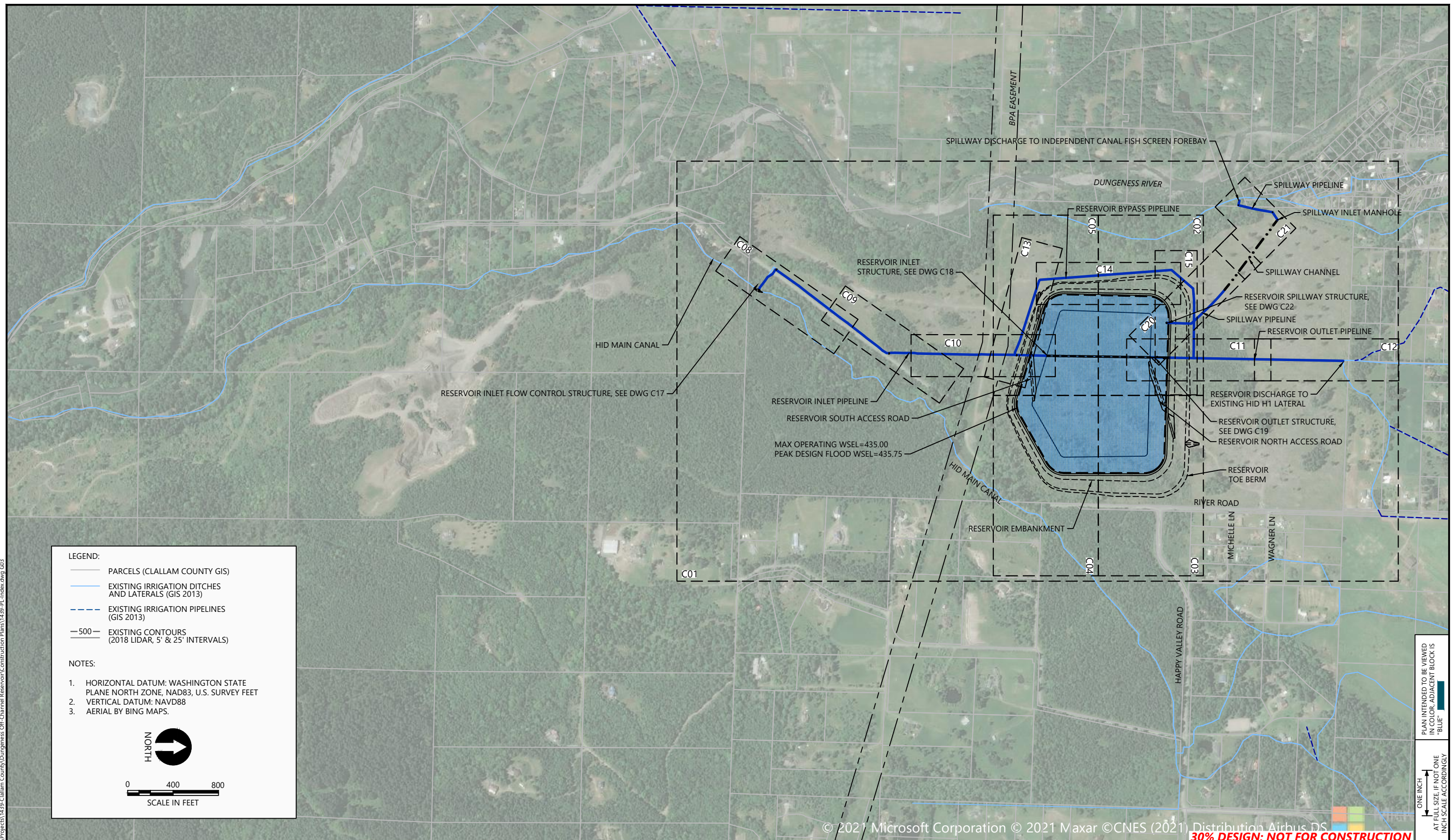
DUNGENESS OFF-CHANNEL RESERVOIR

GENERAL NOTES, ABBREVIATIONS, AND LEGENDS

G02

SHEET # 2 OF 26

K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-index.dwg G03



LEGEND:

- PARCELS (CLALLAM COUNTY GIS)
- EXISTING IRRIGATION DITCHES AND LATERALS (GIS 2013)
- EXISTING IRRIGATION PIPELINES (GIS 2013)
- 500- EXISTING CONTOURS (2018 LIDAR, 5' & 25' INTERVALS)

NOTES:

1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83, U.S. SURVEY FEET
2. VERTICAL DATUM: NAVD88
3. AERIAL BY BING MAPS.

NORTH

0 400 800
SCALE IN FEET

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE"
 ONE INCH AT FULL SIZE IF NOT ONE INCH SCALE ACCORDINGLY

© 2021 Microsoft Corporation © 2021 Maxar © CNES (2021) Distribution Airbus DS
30% DESIGN: NOT FOR CONSTRUCTION



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

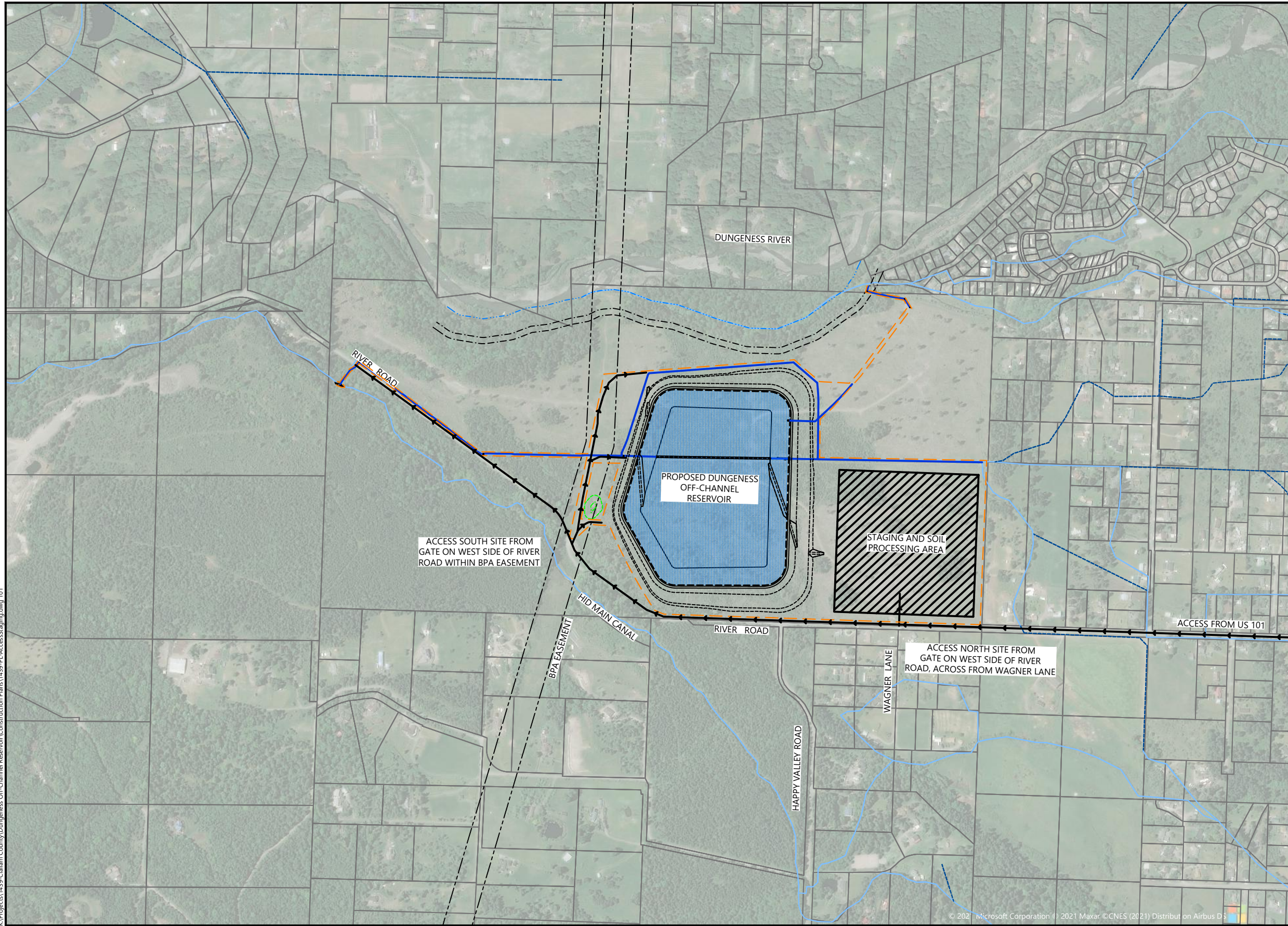
DUNGENESS OFF-CHANNEL RESERVOIR

OVERALL SITE PLAN AND DRAWING INDEX

G03

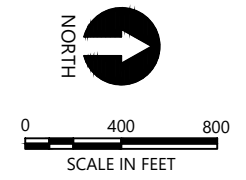
SHEET # **3** OF **26**

K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-AccessStaging.dwg T01
Mar 14, 2022 12:40pm Tgriga



- LEGEND:**
- PARCELS (CLALLAM COUNTY GIS)
 - EXISTING IRRIGATION DITCHES AND LATERALS (GIS 2021)
 - BPA EASEMENT
 - CLASS IV WETLAND
 - 50' WETLAND BUFFER
 - DUNGENESS RIVER OHWM
 - 150' TYPE 1 STREAM BUFFER
 - 200' SHORELINE ZONE
 - PROPOSED IRRIGATION PIPELINES
 - TEMPORARY ACCESS ROUTE
 - POTENTIAL STAGING AREAS
 - CLEARING LIMITS
 - PROPOSED CLALLAM COUNTY OWNED PARCELS

- NOTES:**
1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83), U.S. SURVEY FEET
 2. AERIAL: BING MAPS
 3. THE CONTRACTOR SHALL ARRANGE FOR STAGING MATERIALS AND EQUIPMENT NEAR THE SITE IN ACCORDANCE WITH THE SPECIFICATIONS.



30% DESIGN: NOT FOR CONSTRUCTION

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" INCH SCALE ACCORDINGLY



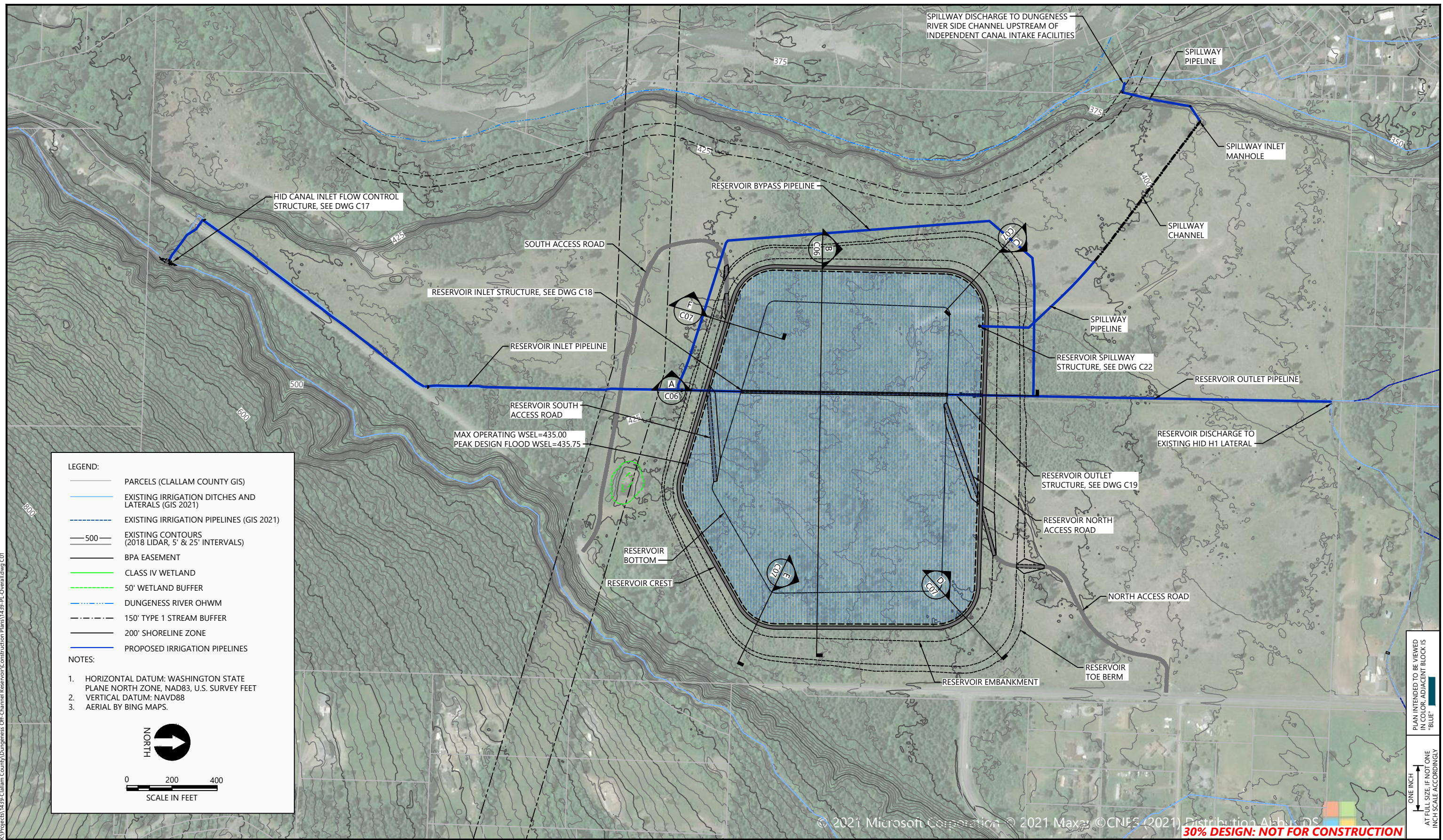
REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

DUNGENESS OFF-CHANNEL RESERVOIR
TEMPORARY ACCESS AND STAGING PLAN

T01
 SHEET # **4** OF **26**

K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-Overall.dwg C01
Mar 14, 2022 12:41pm tgrisa



LEGEND:

- PARCELS (CLALLAM COUNTY GIS)
- EXISTING IRRIGATION DITCHES AND LATERALS (GIS 2021)
- EXISTING IRRIGATION PIPELINES (GIS 2021)
- EXISTING CONTOURS (2018 LIDAR, 5' & 25' INTERVALS)
- BPA EASEMENT
- CLASS IV WETLAND
- 50' WETLAND BUFFER
- DUNGENESS RIVER OHWM
- 150' TYPE 1 STREAM BUFFER
- 200' SHORELINE ZONE
- PROPOSED IRRIGATION PIPELINES

NOTES:

1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83, U.S. SURVEY FEET
2. VERTICAL DATUM: NAVD88
3. AERIAL BY BING MAPS.

N
↑

0 200 400
SCALE IN FEET

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" SCALE ACCORDINGLY

© 2021 Microsoft Corporation © 2021 Maxx © CNE5 (2021) Distribution Analysis DS
30% DESIGN: NOT FOR CONSTRUCTION



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

DUNGENESS OFF-CHANNEL RESERVOIR

RESERVOIR SITE PLAN

C01

SHEET # 5 OF 26


K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-Reservoir Grading.dwg C02
 Mar 14, 2022 12:42pm Tgriga

LEGEND:

- 300— EXISTING CONTOURS (2018 LIDAR, 2' & 10' INTERVALS)
- 300— PROPOSED CONTOURS (1' & 5' INTERVALS)
- PROPOSED BREAKLINE
- PROPOSED IRRIGATION PIPELINES

NOTES:

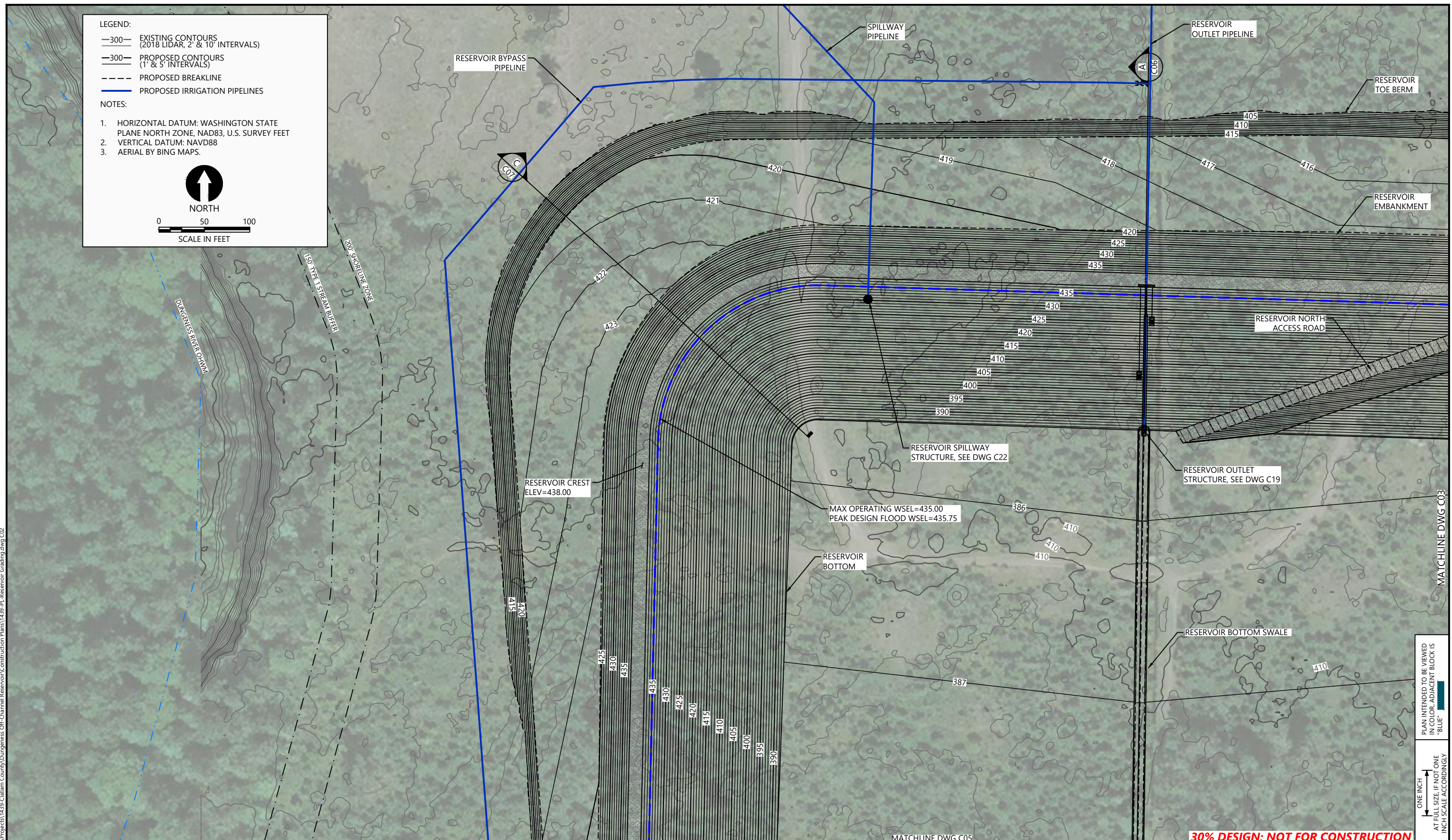
1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83, U.S. SURVEY FEET
2. VERTICAL DATUM: NAVD88
3. AERIAL BY BING MAPS.



NORTH

0 50 100

SCALE IN FEET



PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE"
 ONE INCH AT FULL SIZE IF NOT ONE INCH SCALE ACCORDINGLY

30% DESIGN: NOT FOR CONSTRUCTION



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

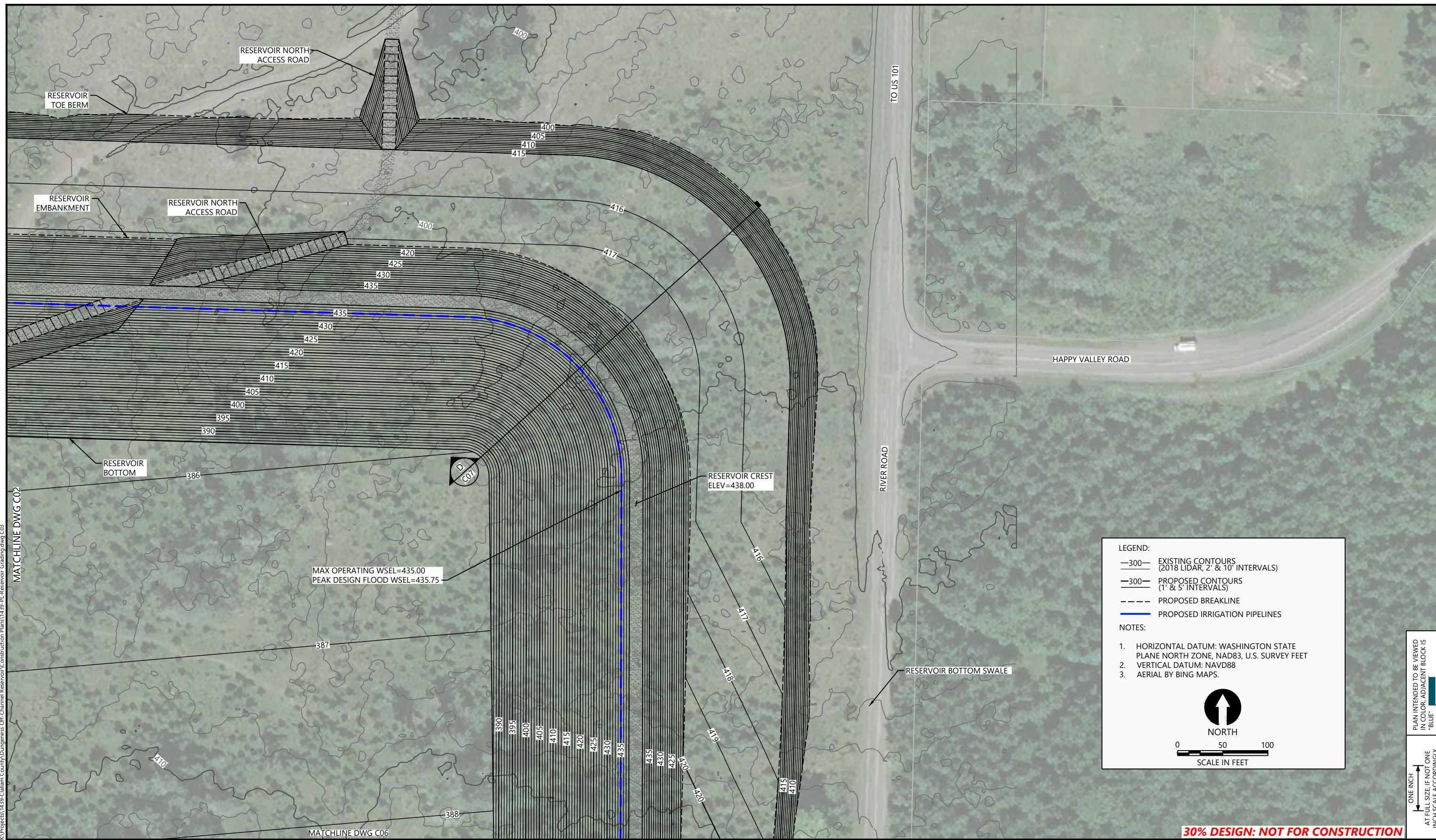
DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

DUNGENESS OFF-CHANNEL RESERVOIR
RESERVOIR GRADING PLAN (NORTHWEST)

C02

SHEET # **6** OF **26**

K:\Projects\1439-Clellan County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-Reservoir Grading.dwg C03
Mar 14, 2022 12:42pm tgriga



LEGEND:

- EXISTING CONTOURS (2018 LIDAR, 2' & 10' INTERVALS)
- PROPOSED CONTOURS (1' & 5' INTERVALS)
- PROPOSED BREAKLINE
- PROPOSED IRRIGATION PIPELINES

NOTES:

- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83, U.S. SURVEY FEET
- VERTICAL DATUM: NAVD88
- AERIAL BY BING MAPS.

NORTH

0 50 100
SCALE IN FEET

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" INCH SCALE ACCORDINGLY

30% DESIGN: NOT FOR CONSTRUCTION



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

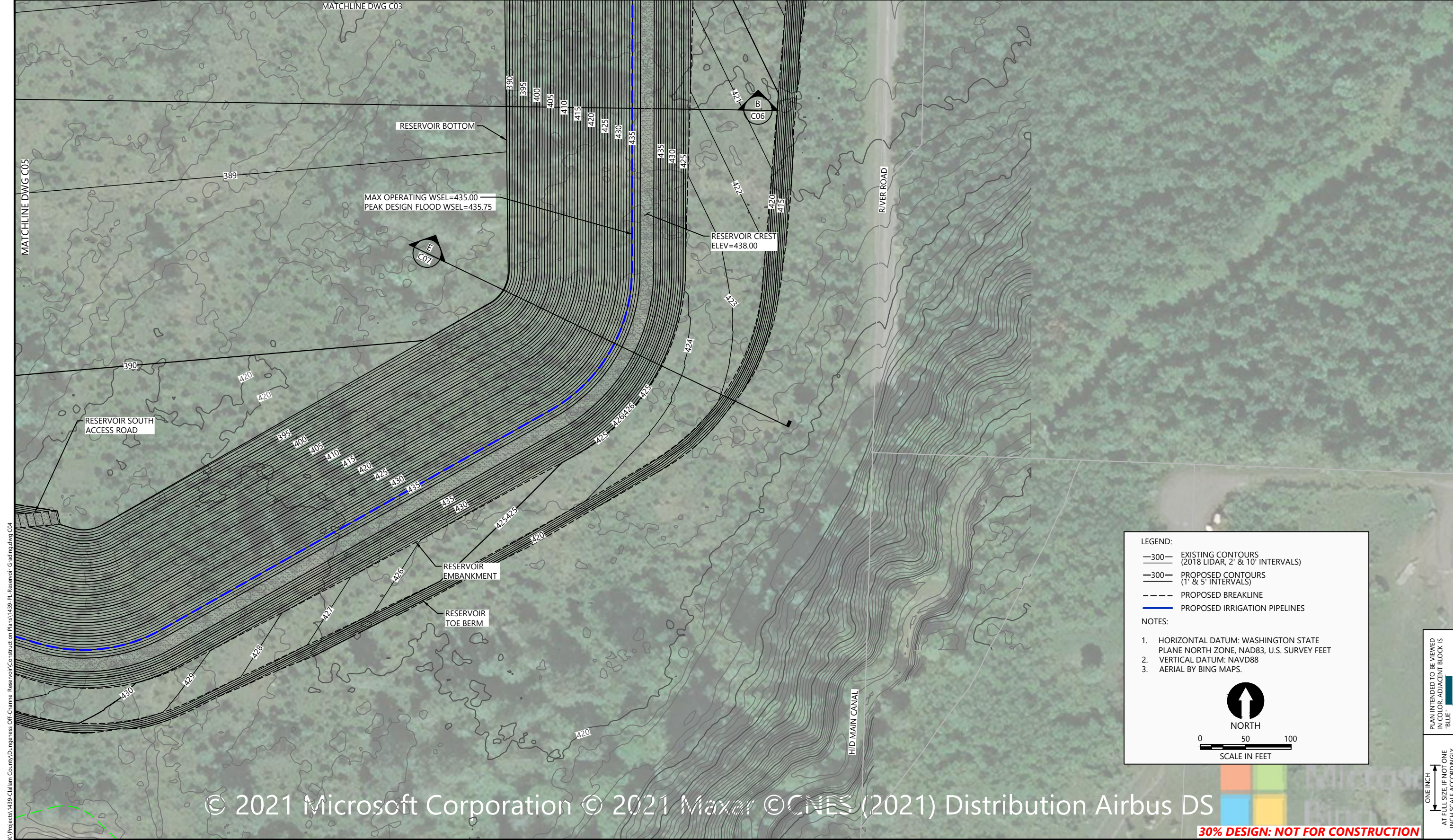
DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

DUNGENESS OFF-CHANNEL RESERVOIR

RESERVOIR GRADING PLAN (NORTHEAST)

C03

SHEET # **7** OF **26**



LEGEND:

- EXISTING CONTOURS (2018 LIDAR, 2' & 10' INTERVALS)
- PROPOSED CONTOURS (1' & 5' INTERVALS)
- PROPOSED BREAKLINE
- PROPOSED IRRIGATION PIPELINES

NOTES:

1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83, U.S. SURVEY FEET
2. VERTICAL DATUM: NAVD88
3. AERIAL BY BING MAPS.

NORTH
 0 50 100
 SCALE IN FEET

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" INCH SCALE ACCORDINGLY.



30% DESIGN: NOT FOR CONSTRUCTION

K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-Reservoir Grading.dwg C04
 Mar 14, 2022 12:43pm tgriga

© 2021 Microsoft Corporation © 2021 Maxar © CNES (2021) Distribution Airbus DS



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

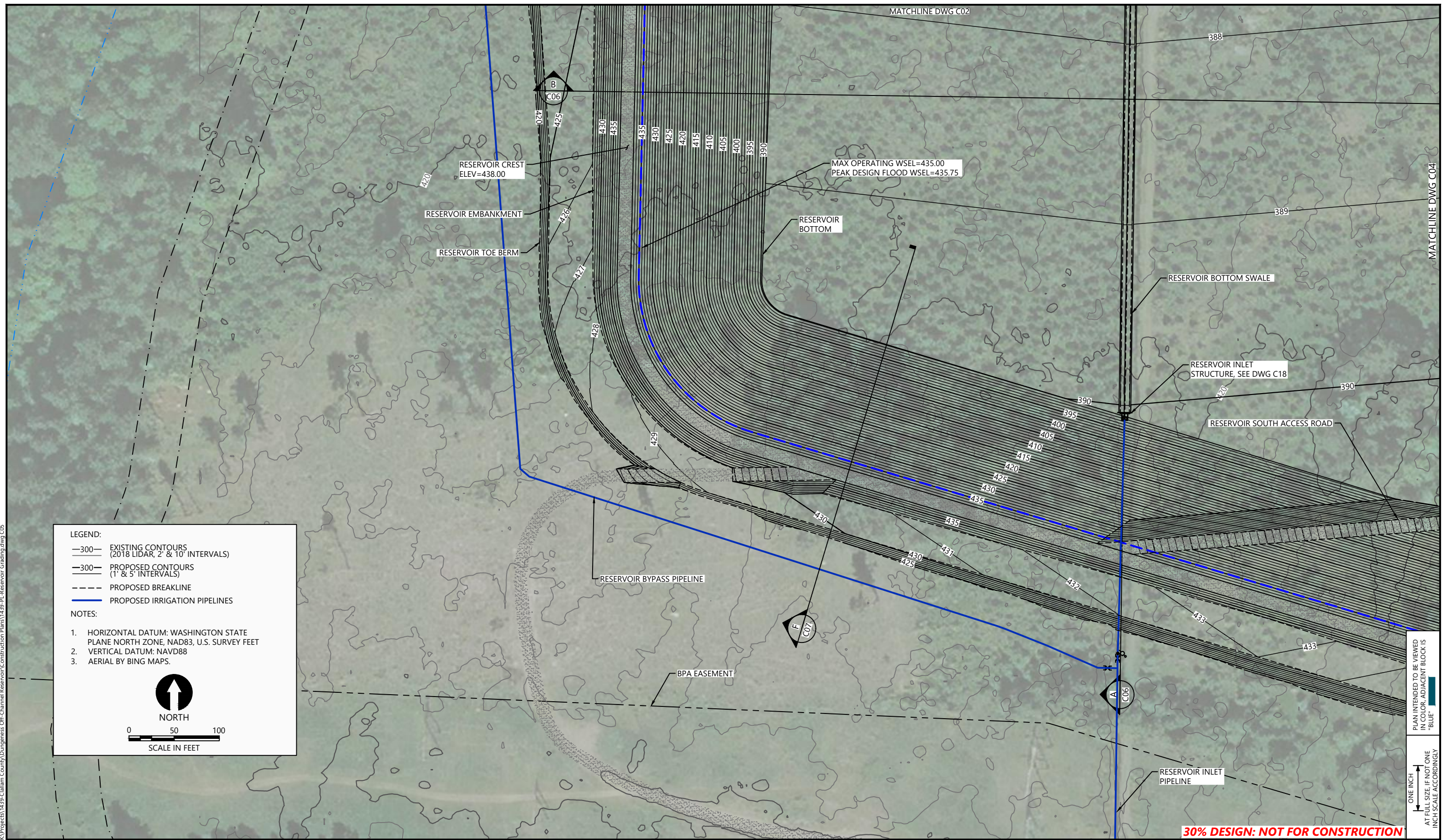
DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

DUNGENESS OFF-CHANNEL RESERVOIR
RESERVOIR GRADING PLAN (SOUTHEAST)

C04

SHEET # 8 OF 26

K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-Reservoir Grading.dwg C05
Mar 14, 2022 12:43pm Tgriga




LEGEND:

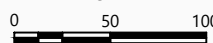
- 300— EXISTING CONTOURS (2018 LIDAR, 2' & 10' INTERVALS)
- 300— PROPOSED CONTOURS (1' & 5' INTERVALS)
- PROPOSED BREAKLINE
- PROPOSED IRRIGATION PIPELINES

NOTES:

1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83, U.S. SURVEY FEET
2. VERTICAL DATUM: NAVD88
3. AERIAL BY BING MAPS.



NORTH



SCALE IN FEET

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" SCALE ACCORDINGLY

30% DESIGN: NOT FOR CONSTRUCTION



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

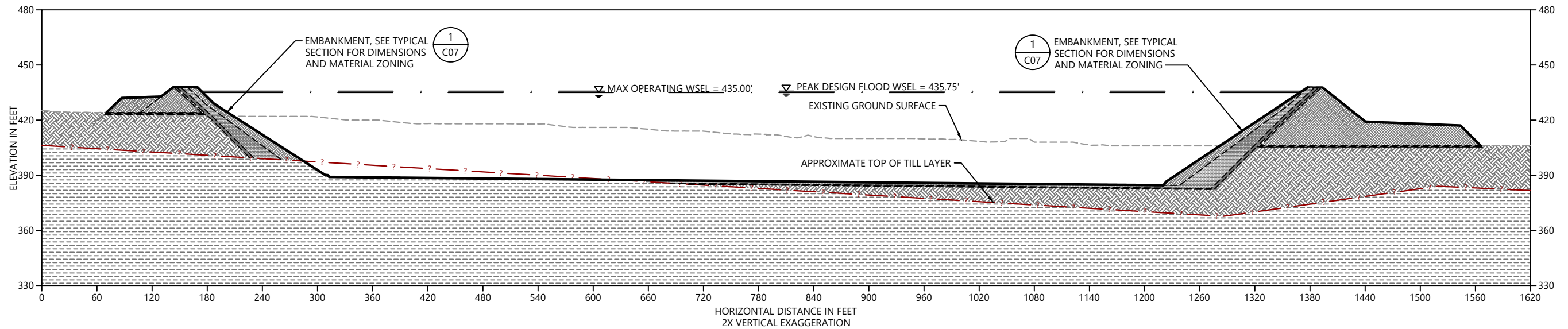
DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

DUNGENESS OFF-CHANNEL RESERVOIR

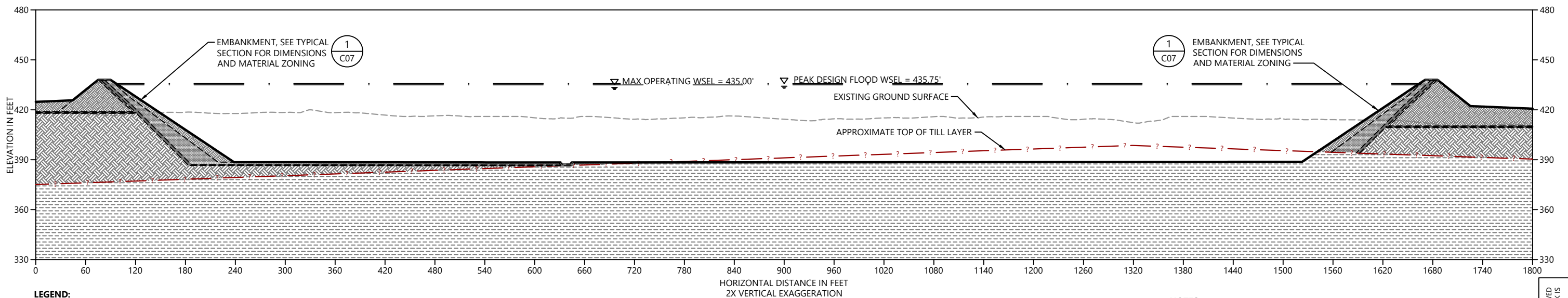
RESERVOIR GRADING PLAN (SOUTHWEST)

C05

SHEET # **9** OF **26**



A SECTION
 HORIZONTAL SCALE: 1" = 60'
 VERTICAL SCALE: 1" = 30'
 (SECTION CUT N-S, LOOKING W)



B SECTION
 HORIZONTAL SCALE: 1" = 60'
 VERTICAL SCALE: 1" = 30'
 (SECTION CUT E-W, LOOKING N)

- LEGEND:**
- EXISTING ALLUVIUM
 - EXISTING GLACIAL TILL
 - FILTER SAND - IMPORTED OR PROCESSED FROM EXCAVATED MATERIALS
 - CUTOFF/LINER MATERIAL - PROCESS FROM EXCAVATED NATIVE TILL
 - DRAIN ROCK - PROCESSED FROM EXCAVATED ALLUVIUM
 - CRUSHED ROCK - PROCESSED FROM EXCAVATED ALLUVIUM
 - EMBANKMENT FILL - PROCESSED FROM EXCAVATED ALLUVIUM

NOTES:

1. THE EXTERIOR SLOPE OF THE EMBANKMENT IS SHOWN AS 2.5H:1V ON THE GRADING PLANS AND SECTIONS, BUT MAY BE INCREASED TO 3H:1V OR MORE TO MATCH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING REPORT.
2. THE INTERIOR SLOPE OF THE EMBANKMENT IS SHOWN AS 3H:1V ON THE GRADING PLANS AND SECTION, BUT MAY BE INCREASED TO MATCH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING REPORT.
3. THE WIDTH OF THE TILL CUTOFF IN THE EMBANKMENT SHALL BE 5 FEET MINIMUM PERPENDICULAR TO THE EDGES OF THE TILL LAYER FROM THE TOP OF THE EMBANKMENT DOWN TO A DISTANCE OF 20 FEET BELOW THE TO OF THE EMBANKMENT. THE WIDTH SHALL INCREASE BELOW A DISTANCE OF 20 FEET FROM THE TOP OF THE EMBANKMENT TO 25% OF THE DISTANCE BELOW THE TOP OF THE EMBANKMENT.
4. THE DIMENSIONS, CONFIGURATION, AND LAYERING OF THE EMBANKMENTS SHOWN IS PRELIMINARY AND MAY CHANGE AS ADDITIONAL GEOTECHNICAL INFORMATION AND ANALYSIS IS DEVELOPED DURING DETAILED DESIGN.

30% DESIGN: NOT FOR CONSTRUCTION

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" ONE INCH AT FULL SIZE. IF NOT ONE INCH SCALE ACCORDINGLY.

K:\Projects\1439-Culliam County\Design\Off-Channel Reservoir\Construction Plans\1439-PL-Reservoir Grading.dwg C06 Mar 14, 2022 12:43pm Tgriga



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

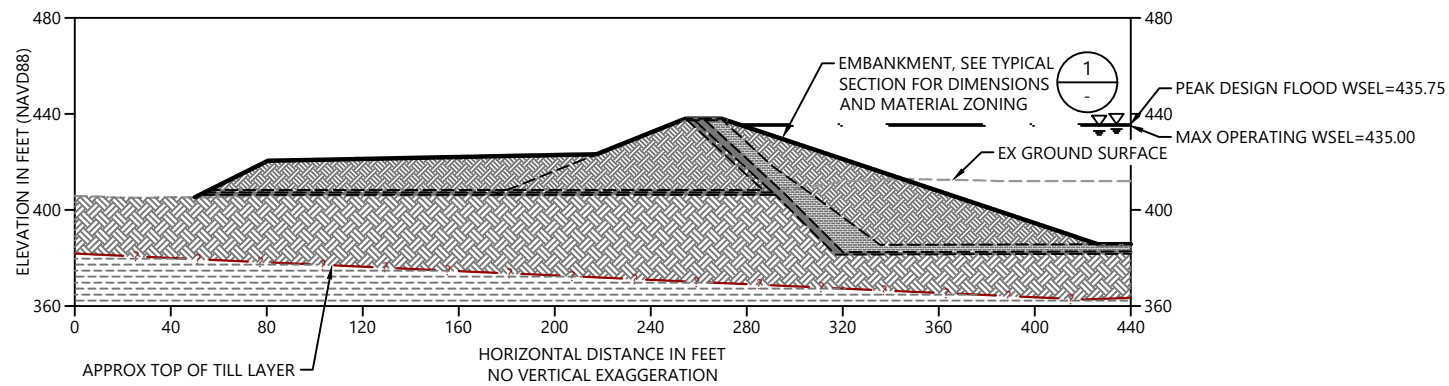
DUNGENESS OFF-CHANNEL RESERVOIR

RESERVOIR SECTIONS

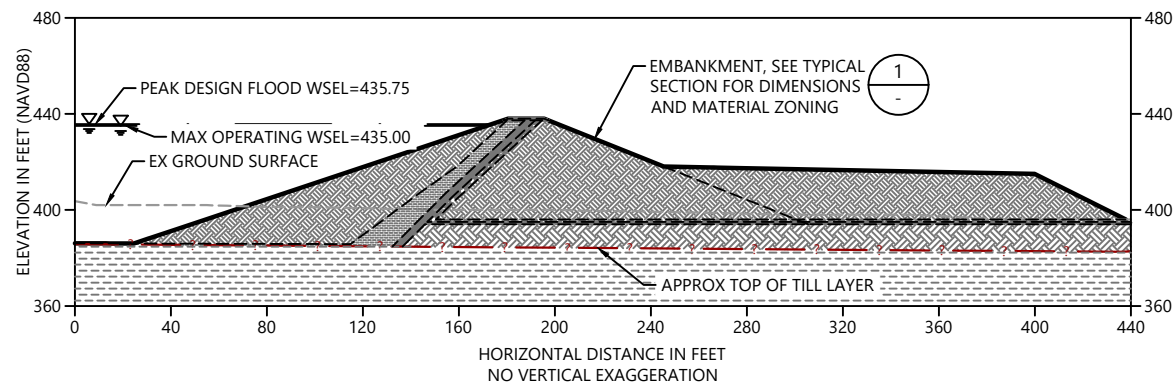
C06

SHEET # **10** OF **26**

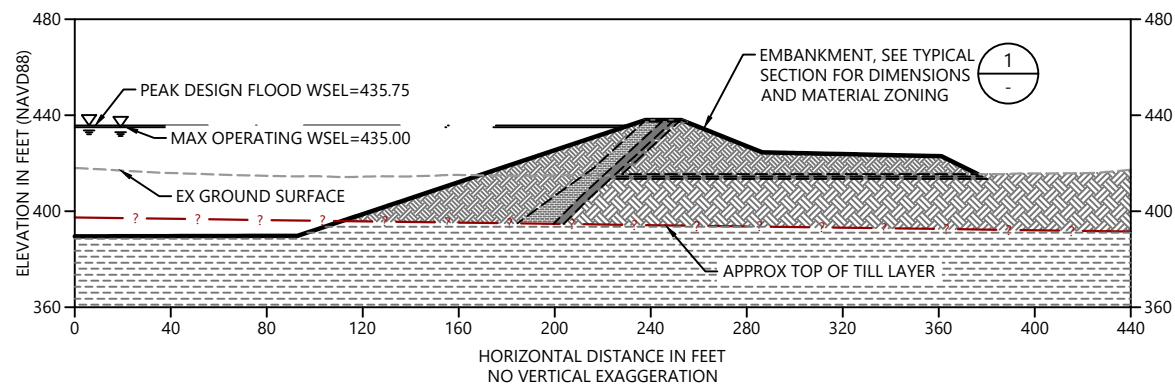
K:\Projects\1439-Clallam County\Design\Off-Channel Reservoir\Construction Plans\1439-PL-Reservoir Grading.dwg C07



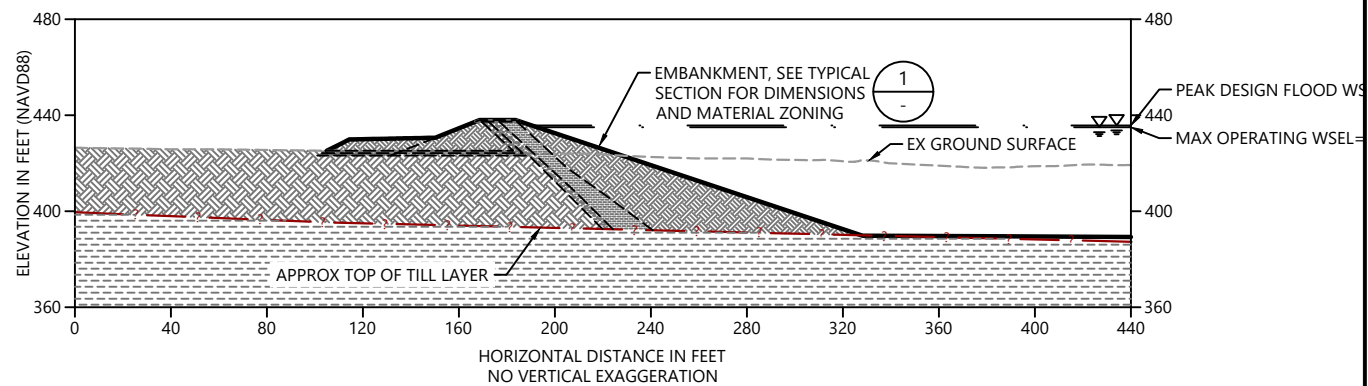
C SECTION
SCALE: 1" = 40'



D SECTION
SCALE: 1" = 40'



E SECTION
SCALE: 1" = 40'

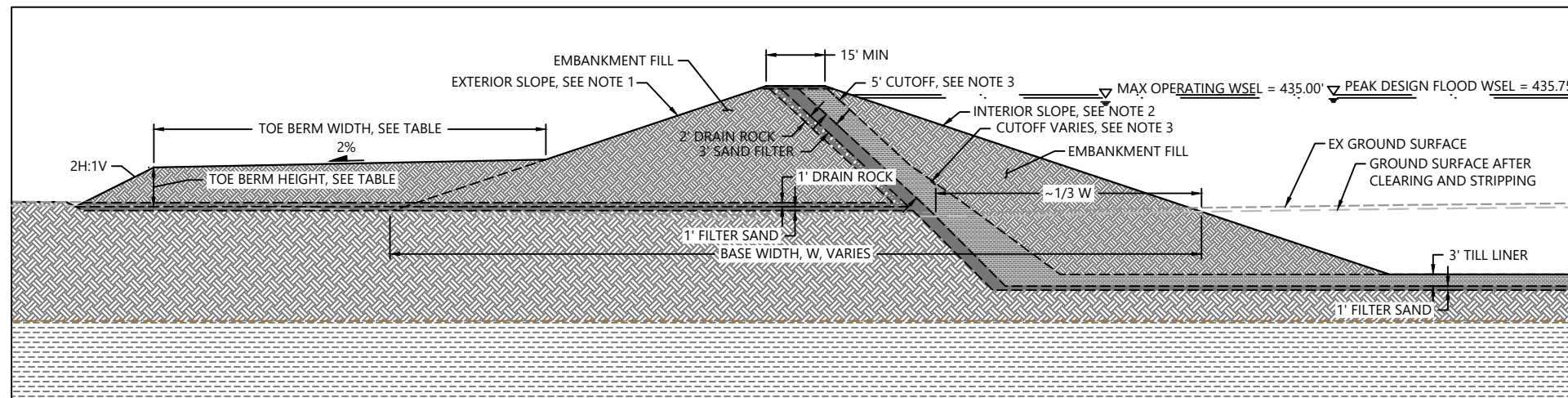


F SECTION
SCALE: 1" = 40'

TOE BERM DIMENSIONS		
EMBANKMENT HEIGHT (FT)	TOE BERM WIDTH (FT)	TO BERM HEIGHT (FT)
10	30	5
15	40	5
20	50	7
25	80	9
30	100	10
35	100	12

LEGEND:

- EXISTING ALLUVIUM
- EXISTING GLACIAL TILL
- FILTER SAND - IMPORTED OR PROCESSED FROM EXCAVATED MATERIALS
- CUTOFF/LINER MATERIAL - PROCESS FROM EXCAVATED NATIVE TILL
- DRAIN ROCK - PROCESSED FROM EXCAVATED ALLUVIUM
- CRUSHED ROCK - PROCESSED FROM EXCAVATED ALLUVIUM
- EMBANKMENT FILL - PROCESSED FROM EXCAVATED ALLUVIUM



1 TYPICAL EMBANKMENT SECTION
SCALE: NOT TO SCALE

NOTES:

1. THE EXTERIOR SLOPE OF THE EMBANKMENT IS SHOWN AS 2.5H:1V ON THE GRADING PLANS AND SECTIONS, BUT MAY BE INCREASED TO 3H:1V OR MORE TO MATCH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING REPORT.
2. THE INTERIOR SLOPE OF THE EMBANKMENT IS SHOWN AS 3H:1V ON THE GRADING PLANS AND SECTION, BUT MAY BE INCREASED TO MATCH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING REPORT.
3. THE WIDTH OF THE TILL CUTOFF IN THE EMBANKMENT SHALL BE 5 FEET MINIMUM PERPENDICULAR TO THE EDGES OF THE TILL LAYER FROM THE TOP OF THE EMBANKMENT DOWN TO A DISTANCE OF 20 FEET BELOW THE TO OF THE EMBANKMENT. THE WIDTH SHALL INCREASE BELOW A DISTANCE OF 20 FEET FROM THE TOP OF THE EMBANKMENT TO 25% OF THE DISTANCE BELOW THE TOP OF THE EMBANKMENT.
4. THIS DIMENSIONS, CONFIGURATION, AND LAYERING OF THE EMBANKMENTS SHOWN IS PRELIMINARY AND MAY CHANGE AS ADDITIONAL GEOTECHNICAL INFORMATION AND ANALYSIS IS DEVELOPED DURING DETAILED DESIGN.

30% DESIGN: NOT FOR CONSTRUCTION

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" INCH SCALE ACCORDINGLY



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

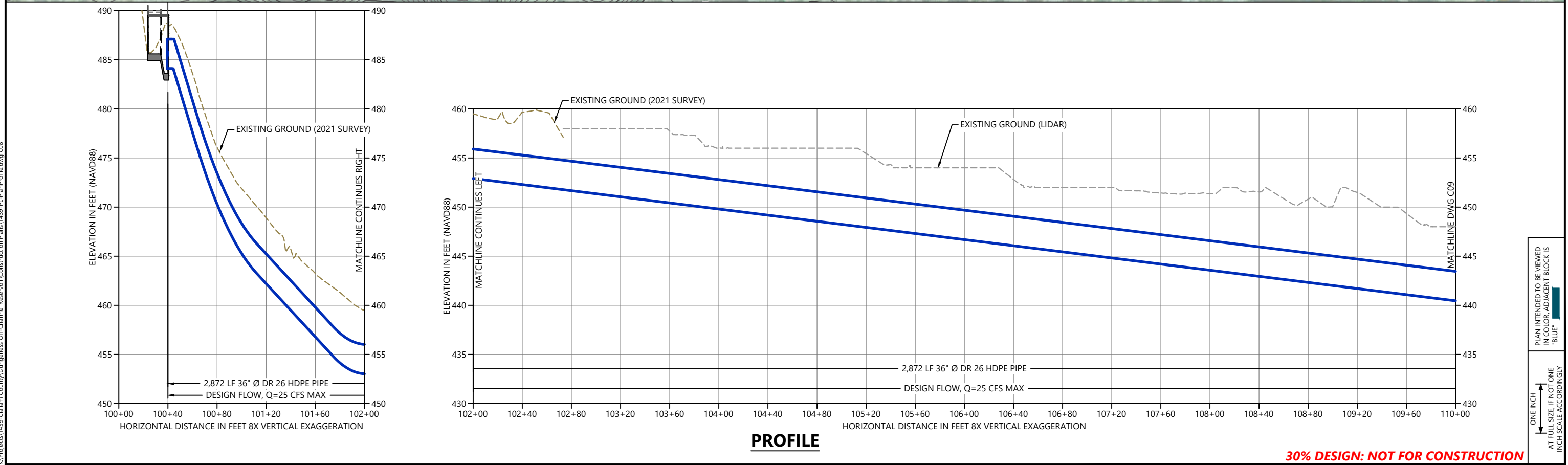
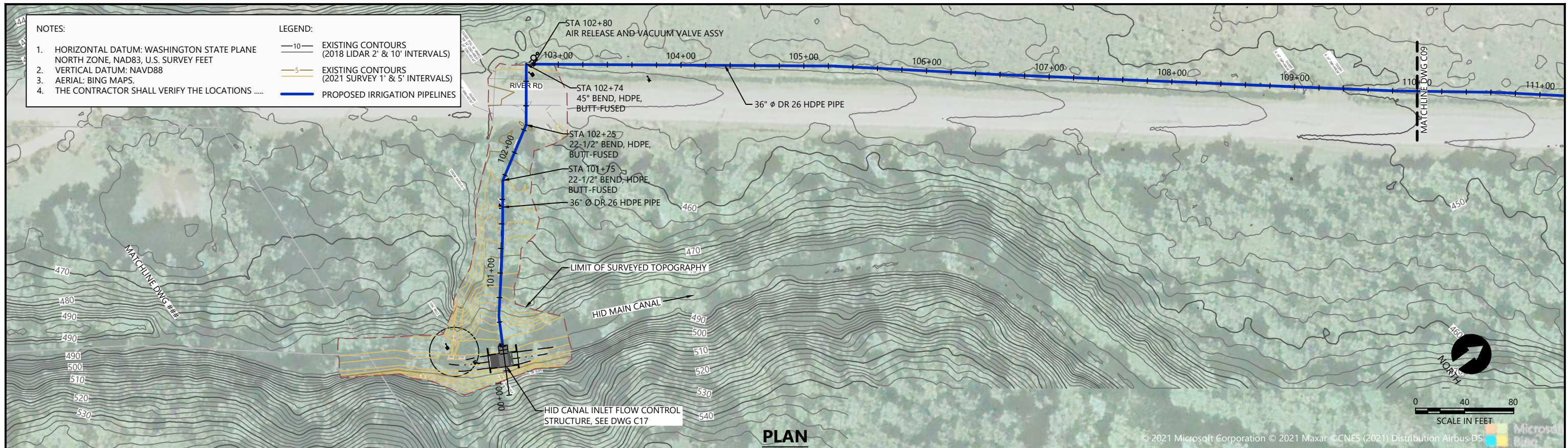
DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

DUNGENESS OFF-CHANNEL RESERVOIR

RESERVOIR SECTIONS

C07

 SHEET # **11** OF **26**



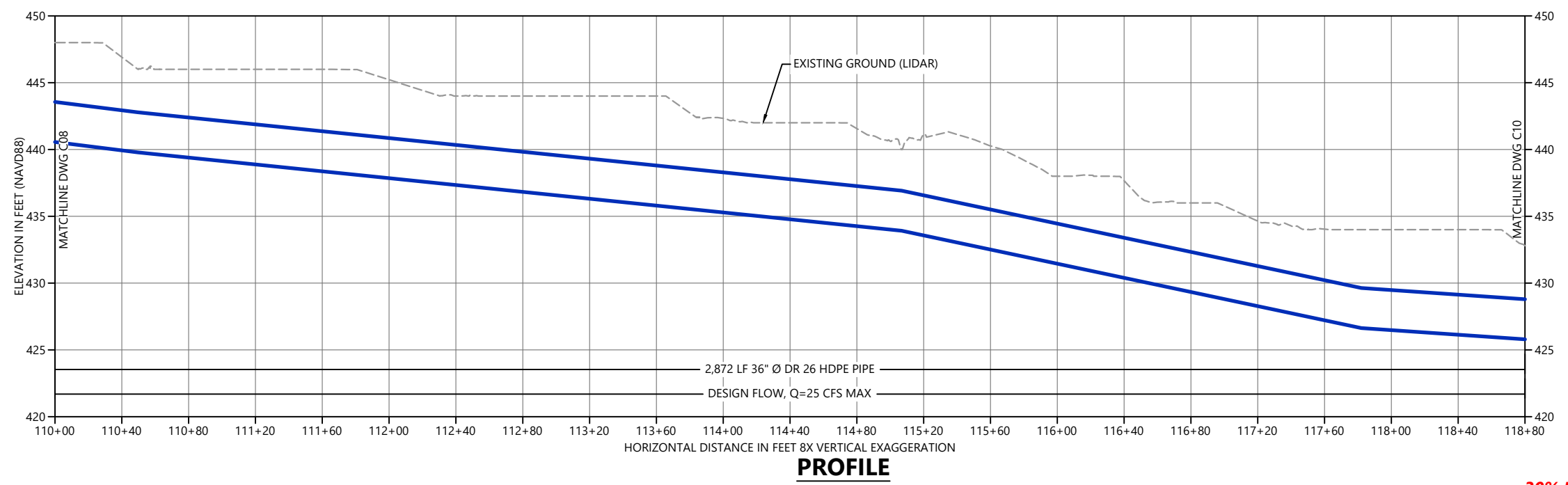
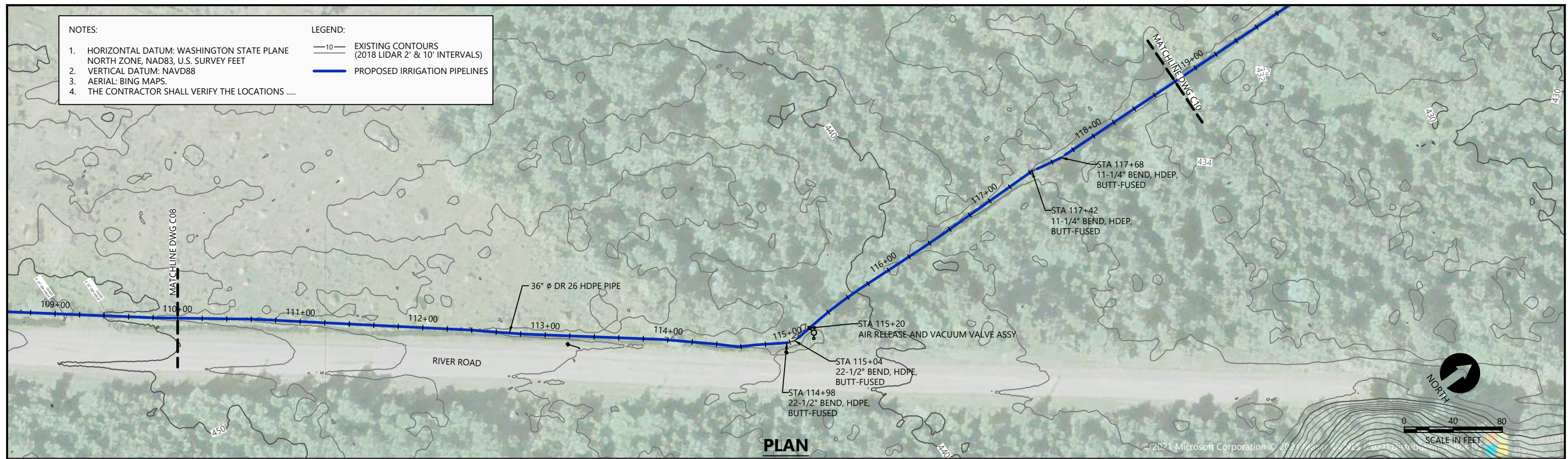
K:\Projects\1439-Culliam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-PlanProfile.dwg C08 Mar 14, 2022 12:44pm Tgriga

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" ONE INCH AT FULL SIZE IF NOT ONE INCH SCALE ACCORDINGLY

30% DESIGN: NOT FOR CONSTRUCTION

		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="5">REVISIONS</th> </tr> <tr> <th>REV</th> <th>DATE</th> <th>BY</th> <th>APP'D</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		REVISIONS					REV	DATE	BY	APP'D	DESCRIPTION																					DESIGNED BY: <u>G. HART</u> DRAWN BY: <u>T. GRIGA</u> CHECKED BY: <u>D. RICE</u> APPROVED BY: <u>R. MONTGOMERY</u> SCALE: <u>AS NOTED</u> DATE: <u>MARCH 2022</u>	DUNGENESS OFF-CHANNEL RESERVOIR RESERVOIR INLET PIPELINE PLAN AND PROFILE	C08 SHEET # 12 OF 26
		REVISIONS																																		
REV	DATE	BY	APP'D	DESCRIPTION																																
				30% DESIGN: NOT FOR CONSTRUCTION																																

- NOTES:
- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83, U.S. SURVEY FEET
 - VERTICAL DATUM: NAVD88
 - AERIAL: BING MAPS.
 - THE CONTRACTOR SHALL VERIFY THE LOCATIONS
- LEGEND:
- EXISTING CONTOURS (2018 LIDAR 2' & 10' INTERVALS)
 - PROPOSED IRRIGATION PIPELINES



K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-PlanProfile.dwg C09

30% DESIGN: NOT FOR CONSTRUCTION



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

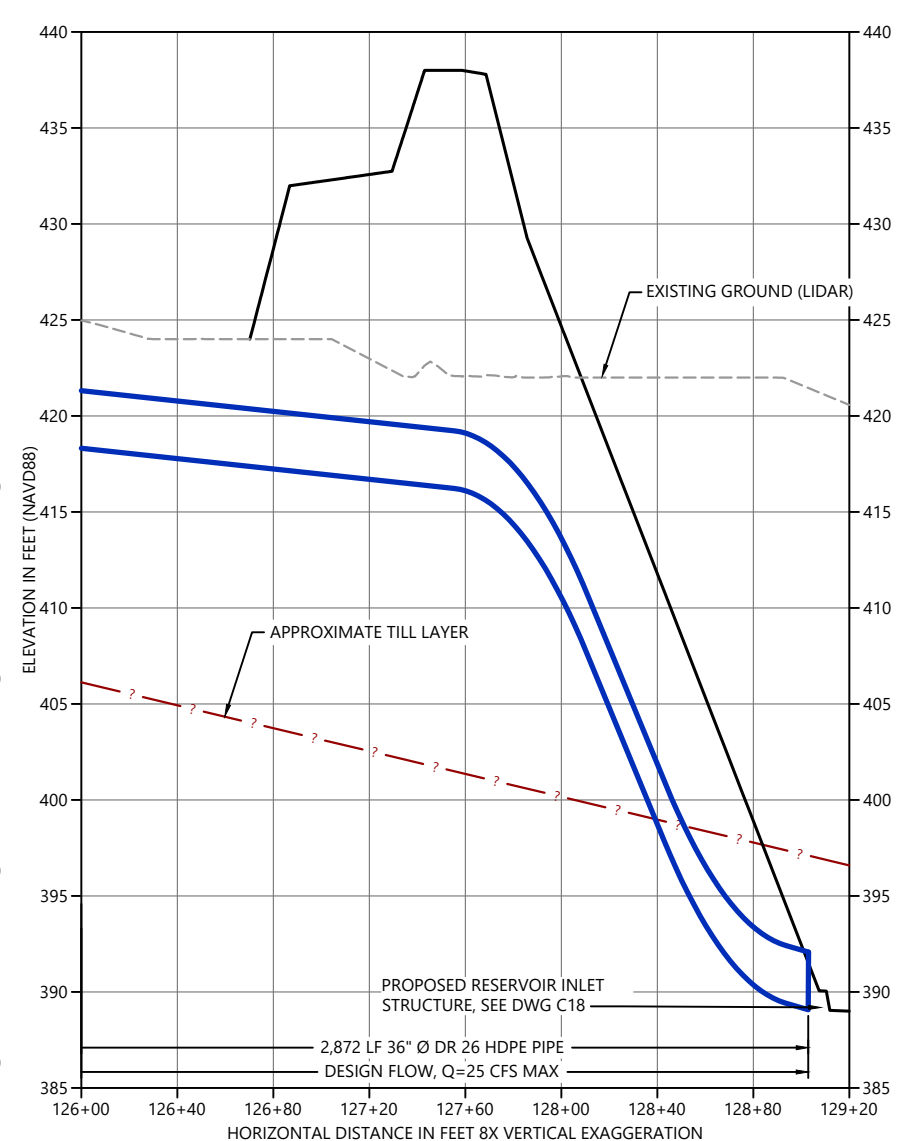
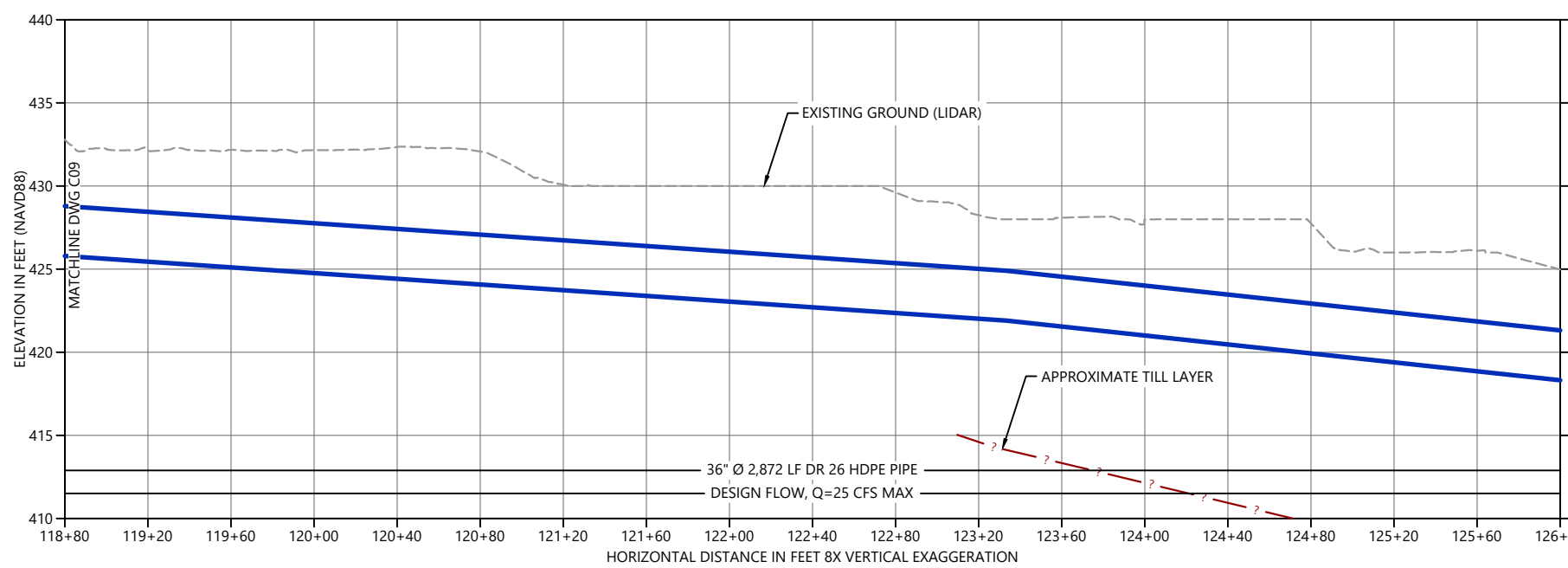
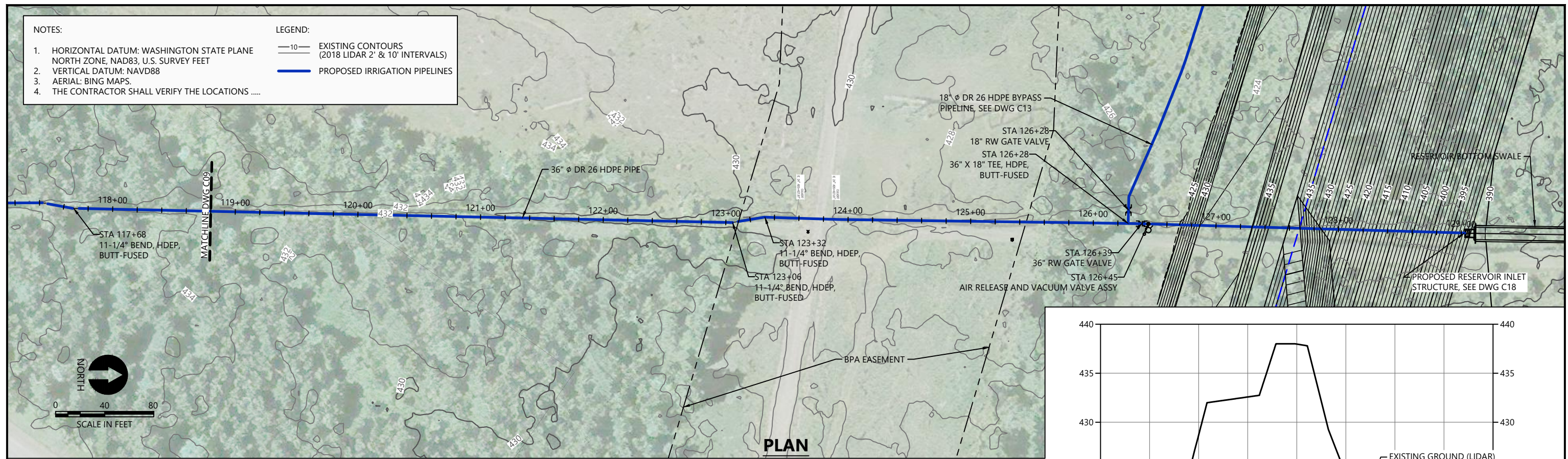
DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

DUNGENESS OFF-CHANNEL RESERVOIR
RESERVOIR INLET PIPELINE
PLAN AND PROFILE

C09
 SHEET # **13** OF **26**

PLAN INTENDED TO BE VIEWED
 IN COLOR. ADJACENT BLOCK IS
 "BLUE"
 ONE INCH
 AT FULL SIZE IF NOT ONE
 INCH SCALE ACCORDINGLY

- NOTES:
- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83, U.S. SURVEY FEET
 - VERTICAL DATUM: NAVD88
 - AERIAL: BING MAPS.
 - THE CONTRACTOR SHALL VERIFY THE LOCATIONS
- LEGEND:
- EXISTING CONTOURS (2018 LIDAR 2' & 10' INTERVALS)
 - PROPOSED IRRIGATION PIPELINES



30% DESIGN: NOT FOR CONSTRUCTION

K:\Projects\1439-Culliam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-PlanProfile.dwg C10



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

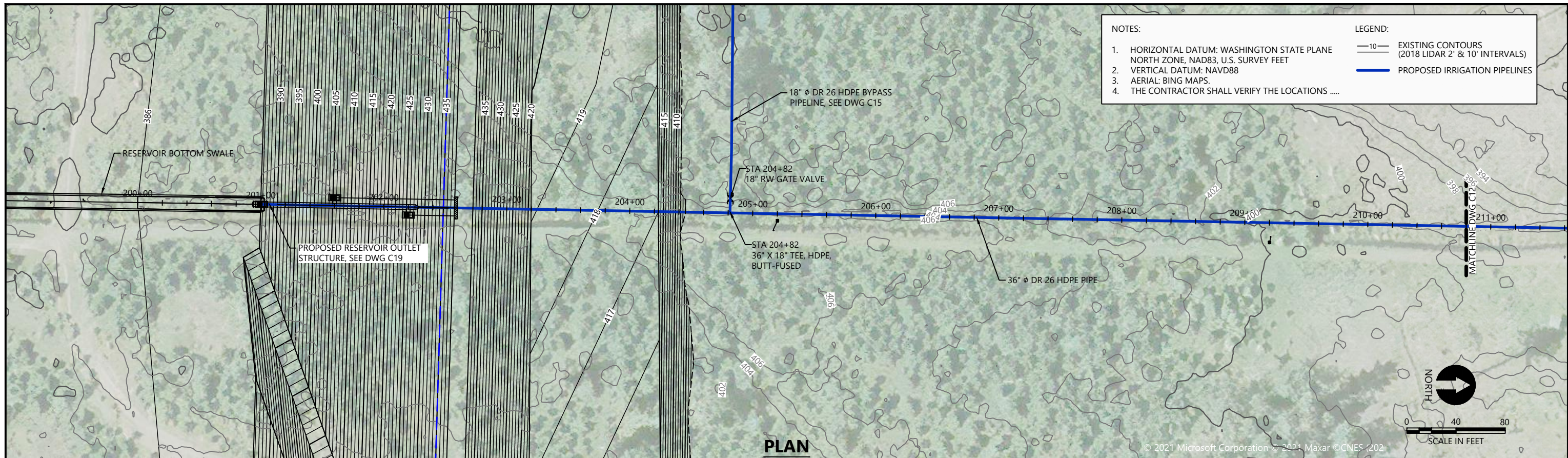
DUNGENESS OFF-CHANNEL RESERVOIR

**RESERVOIR INLET PIPELINE
PLAN AND PROFILE**

C10

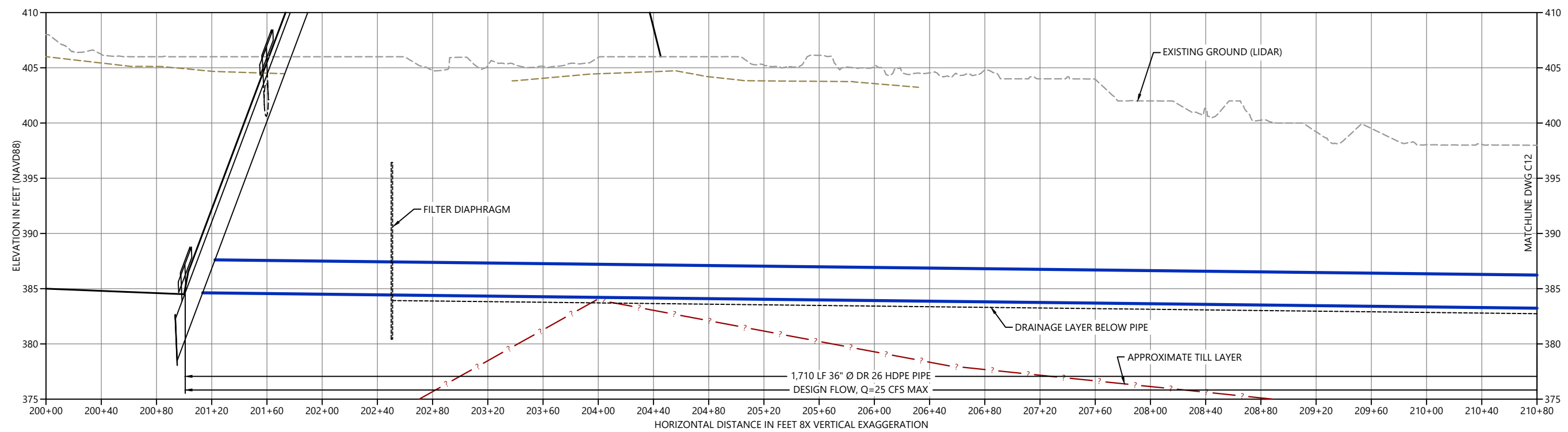
SHEET # **14** OF **26**

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" INCH SCALE ACCORDINGLY



- NOTES:**
- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83, U.S. SURVEY FEET
 - VERTICAL DATUM: NAVD88
 - AERIAL: BING MAPS.
 - THE CONTRACTOR SHALL VERIFY THE LOCATIONS
- LEGEND:**
- 10— EXISTING CONTOURS (2018 LIDAR 2' & 10' INTERVALS)
 - PROPOSED IRRIGATION PIPELINES

PLAN



PROFILE

30% DESIGN: NOT FOR CONSTRUCTION

K:\Projects\1439-Culliam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-PlanProfile.dwg C11



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

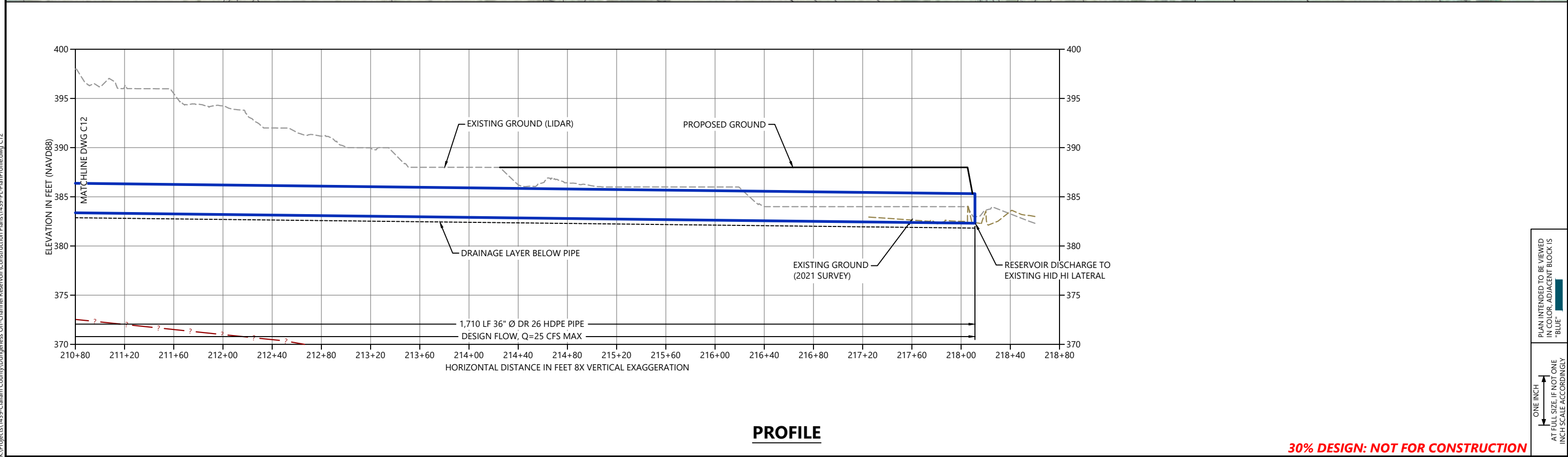
DUNGENESS OFF-CHANNEL RESERVOIR

RESERVOIR OUTLET PIPELINE
PLAN AND PROFILE

C11

SHEET # **15** OF **26**

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" INCH SCALE ACCORDINGLY



PROFILE

30% DESIGN: NOT FOR CONSTRUCTION

K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-PlanProfile.dwg C12



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

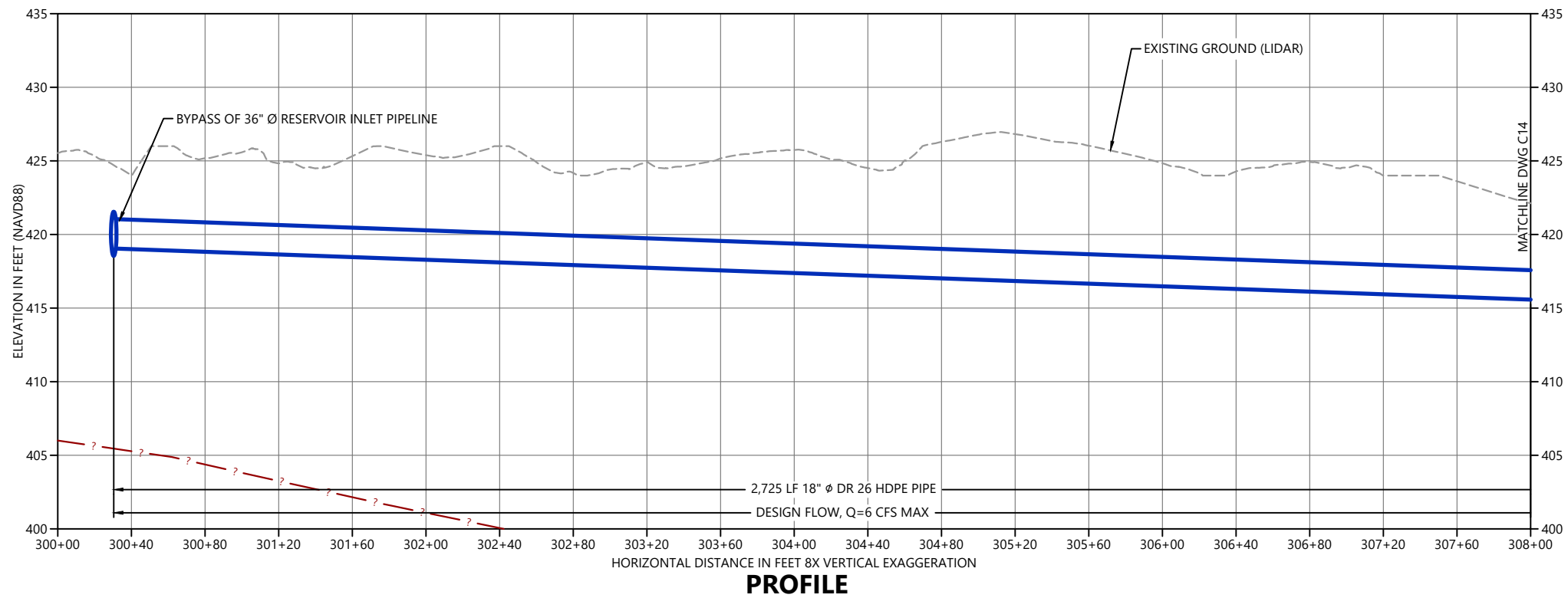
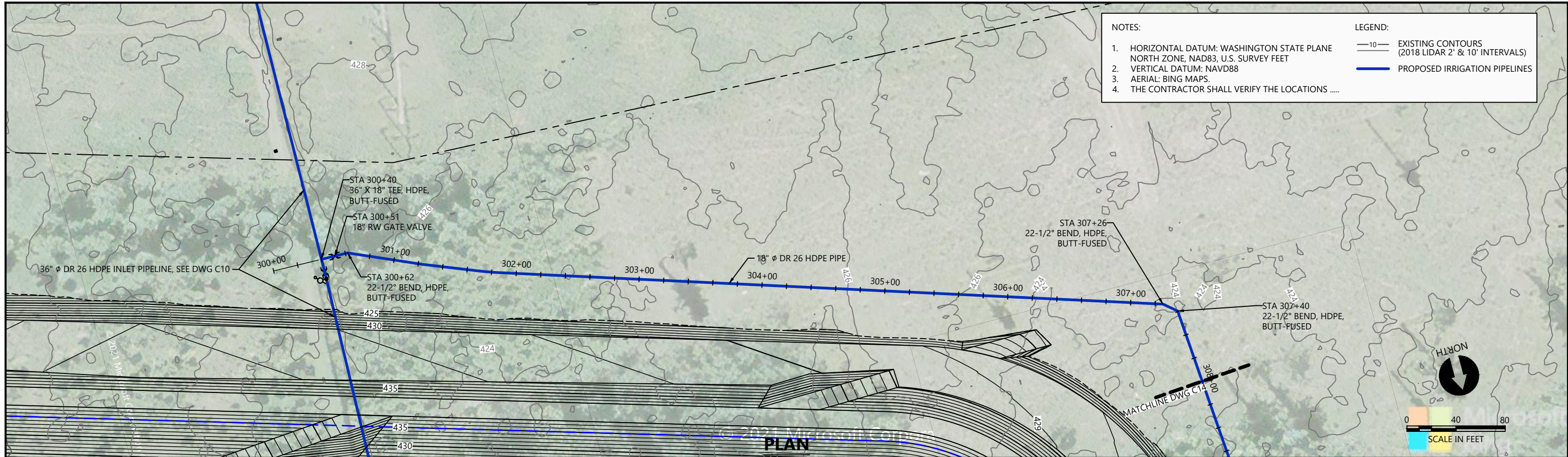
DUNGENESS OFF-CHANNEL RESERVOIR

**RESERVOIR OUTLET PIPELINE
PLAN AND PROFILE**

C12

SHEET # **16** OF **26**

PLAN INTENDED TO BE VIEWED
IN COLOR. ADJACENT BLOCK IS
"BLUE"
ONE INCH
AT FULL SIZE IF NOT ONE
INCH SCALE ACCORDINGLY



30% DESIGN: NOT FOR CONSTRUCTION

K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-PlanProfile.dwg C13



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

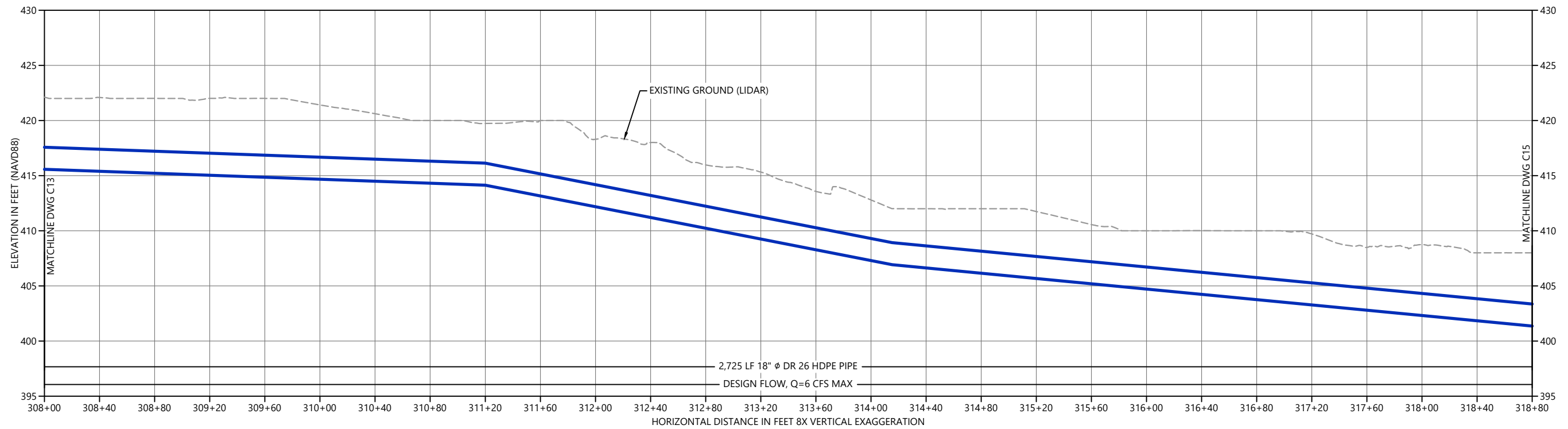
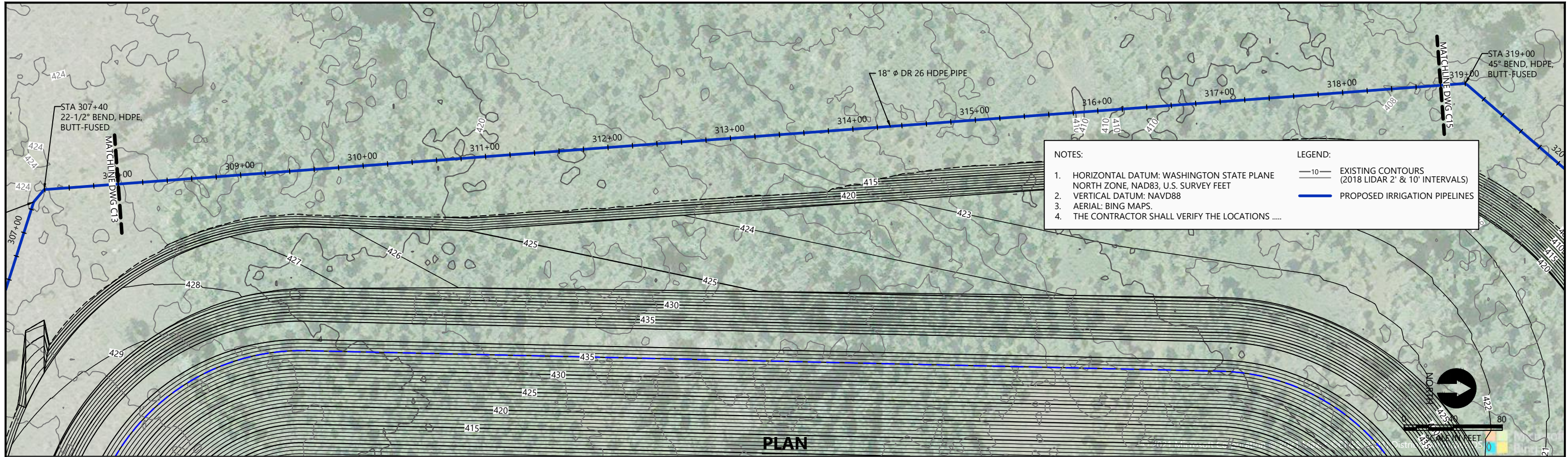
DUNGENESS OFF-CHANNEL RESERVOIR

**RESERVOIR BYPASS PIPELINE
PLAN AND PROFILE**

C13

SHEET # 17 OF 26

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" SCALE ACCORDINGLY



30% DESIGN: NOT FOR CONSTRUCTION

K:\Projects\1439-Culliam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-PlanProfile.dwg C14



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART

DRAWN BY: T. GRIGA

CHECKED BY: D. RICE

APPROVED BY: R. MONTGOMERY

SCALE: AS NOTED

DATE: MARCH 2022

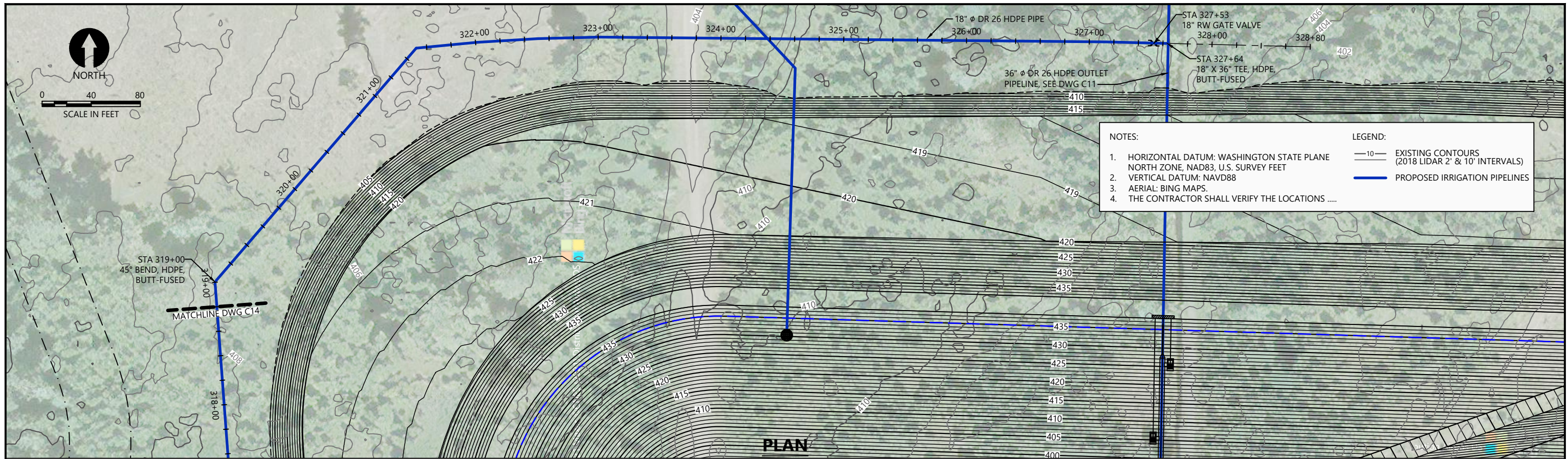
DUNGENESS OFF-CHANNEL RESERVOIR

**RESERVOIR BYPASS PIPELINE
PLAN AND PROFILE**

C14

SHEET # **18** OF **26**

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" INCH SCALE ACCORDINGLY

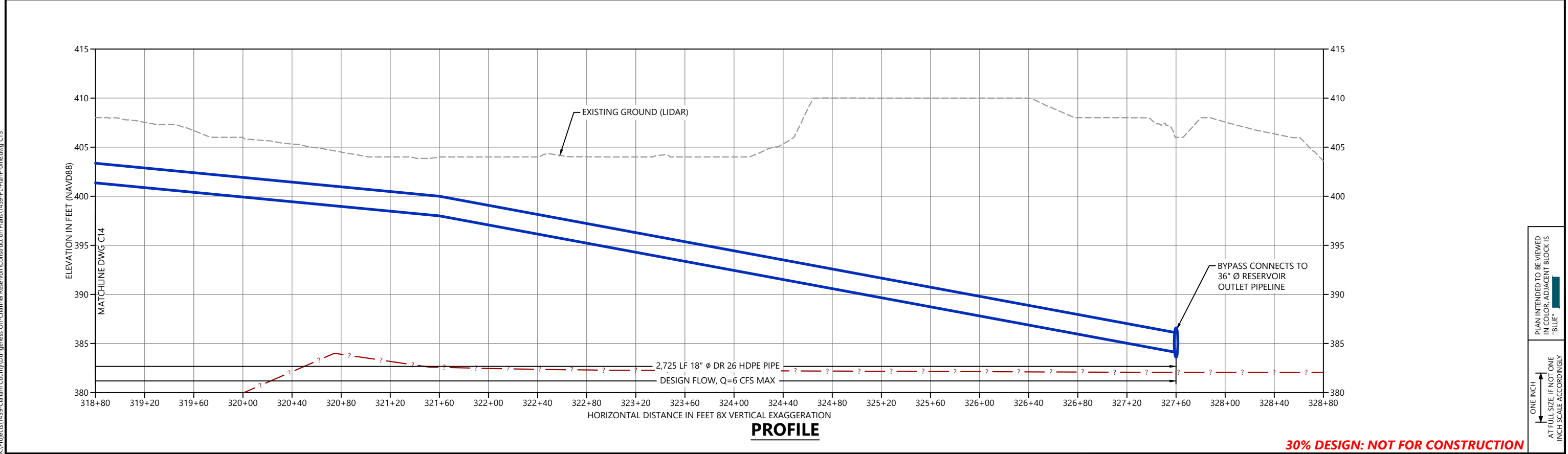


NOTES:

- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83, U.S. SURVEY FEET
- VERTICAL DATUM: NAVD88
- AERIAL: BING MAPS.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS

LEGEND:

- 10— EXISTING CONTOURS (2018 LIDAR 2' & 10' INTERVALS)
- PROPOSED IRRIGATION PIPELINES



PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE"
 ONE INCH AT FULL SIZE IF NOT ONE INCH SCALE ACCORDINGLY

30% DESIGN: NOT FOR CONSTRUCTION

K:\Projects\1439-Culliam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-PlanProfile.dwg C15 Mar 14, 2022 12:49pm Tgriga



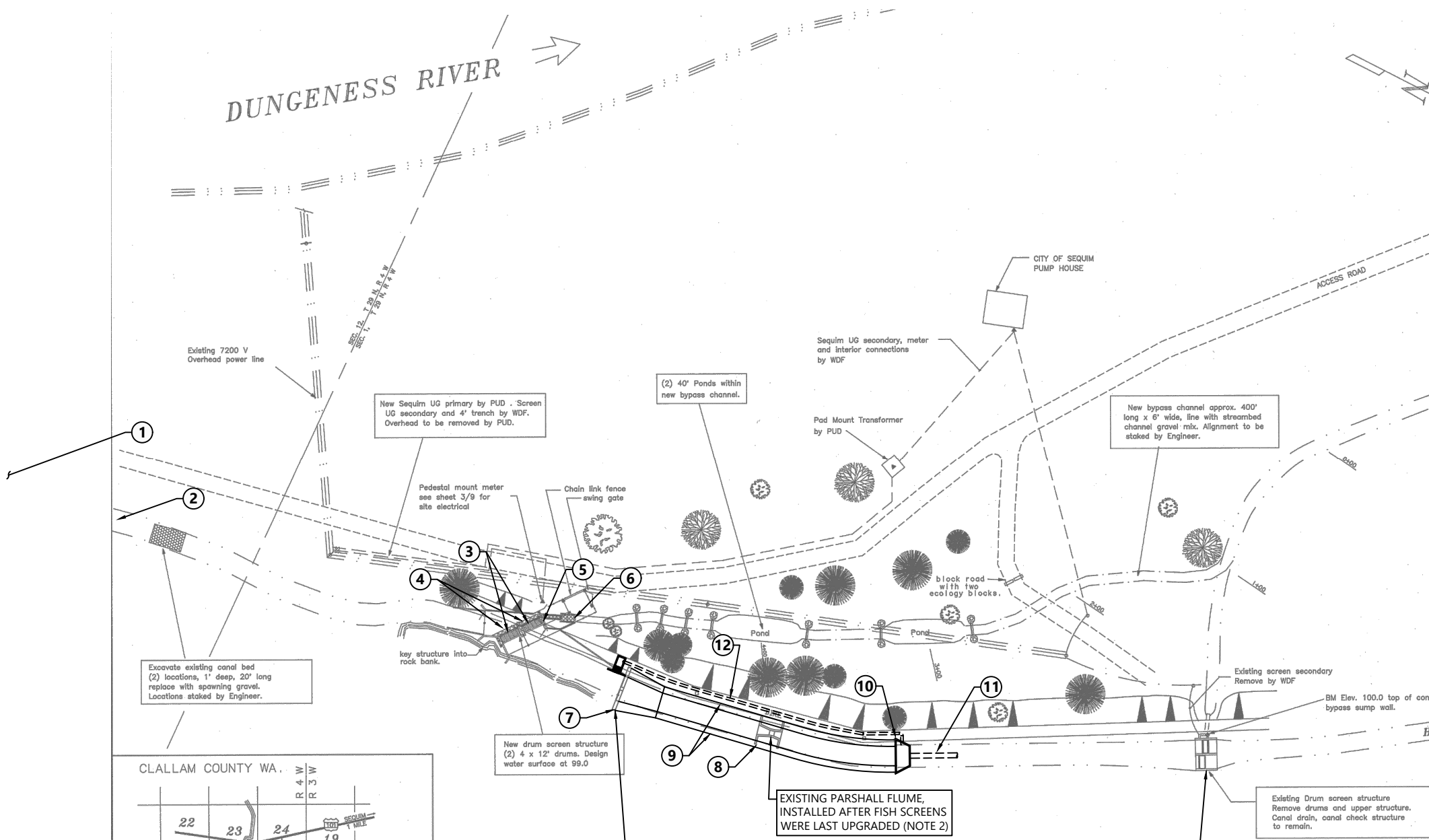
REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

DUNGENESS OFF-CHANNEL RESERVOIR
RESERVOIR BYPASS PIPELINE
PLAN AND PROFILE

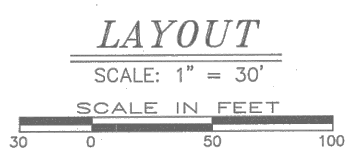
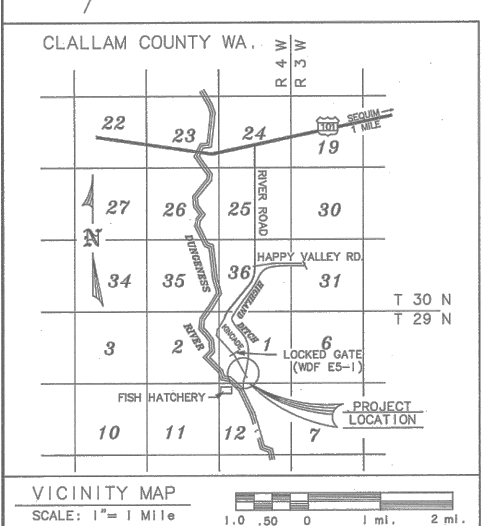
C15
 SHEET # **19** OF **26**

DUNGENESS RIVER



- NOTES:
- SOURCE OF BACKGROUND - WASHINGTON DEPARTMENT OF FISH AND WILDLIFE (WDFW) DRAWINGS FOR SCREEN UPGRADES INSTALLED IN 1994.
 - A PARSHALL FLUME WAS INSTALLED AFTER THE WDFW SCREEN UPGRADES IN 1994 AND IS OPERATED AND MAINTAINED BY THE WASHINGTON DEPARTMENT OF ECOLOGY.

- LEGEND:
- HID INTAKE STRUCTURE/HEAD GATE (APPROXIMATELY 1/4-MILE UPSTREAM):**
- IMPROVE SIDE CHANNEL ON DUNGENESS RIVER, REFURBISH HEADGATE STRUCTURE, INSTALL AUTOMATED HEADGATES, INSTALL TRASH RACK, INSTALL FLUME FOR FLOW MEASUREMENT
 - IMPROVE DIVERSION CANAL TO MAINTAIN FLOWS
- FISH SCREEN AND FISH BYPASS IMPROVEMENTS:**
- COORDINATE WITH WDFW TO REPLACE WIRE MESH ON SCREENS WITH PERFORATED STAINLESS STEEL
 - INSTALL WATER JET SPRAY SYSTEM IN FRONT OF SCREEN TO PREVENT SEDIMENT ACCUMULATION
 - PAINT GANTRY CRANE ABOVE FISH SCREENS
 - AUTOMATE FISH BYPASS GATE
 - UPGRADE AND AUTOMATE EXISTING STOP LOG AND GATE CONTROLS DOWNSTREAM OF SCREEN
 - RELOCATE EXISTING PARSHALL FLUME TO UPSTREAM DIVERSION CHANNEL (SEE ITEM 1) TO ACCOMMODATE SETTLING BASIN
- SETTLING BASIN AND RELATED IMPROVEMENTS:**
- SETTLING BASIN, RESHAPE AND LINE APPROXIMATELY 150 LF OF EXISTING CANAL WITH CONCRETE OVER GEOMEMBRANE LINER
 - INSTALL A REINFORCED CONCRETE CONTROL STRUCTURE AT THE DOWNSTREAM END OF THE SETTLING BASIN WITH STOP LOGS OR AN ADJUSTABLE WEIR AT THE OUTLET OF THE SETTLING BASIN
 - INSTALL A 36-INCH ϕ HDPE PIPE SEGMENT IN THE CANAL DOWNSTREAM OF THE SETTLING BASIN AND INSTALL A FLOW METER IN THE PIPE
 - INSTALL AN 18-INCH ϕ HDPE BYPASS PIPE TO CONVEY FLOWS AROUND SETTLING BASIN, WHEN NEEDED FOR CLEANING AND MAINTENANCE



REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
 DRAWN BY: T. GRICA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

STATE OF WASHINGTON
 DEPARTMENT OF FISHERIES
 HABITAT MANAGEMENT DIVISION

DUNGENESS RIVER
 HIGHLAND DITCH SCREEN
 SITE PLAN

DESIGN BY: K. BATES
 DRAWN BY: B. GOWEN
 APPROVED: [Signature]
 DATE: 1-19-94
 EXPIRES: 1-25-94
 SCALE: NOTED
 18HIL001
 SHEET 1 of 9

30% DESIGN: NOT FOR CONSTRUCTION

K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-Structures.dwg C16
 Mar 14, 2022 12:49pm tgrisa



REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
 DRAWN BY: T. GRICA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

DUNGENESS OFF-CHANNEL RESERVOIR

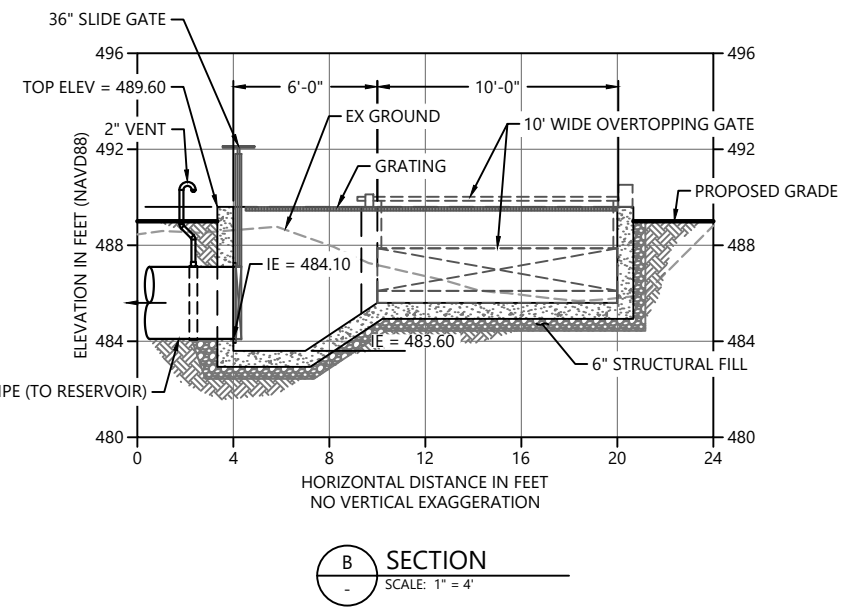
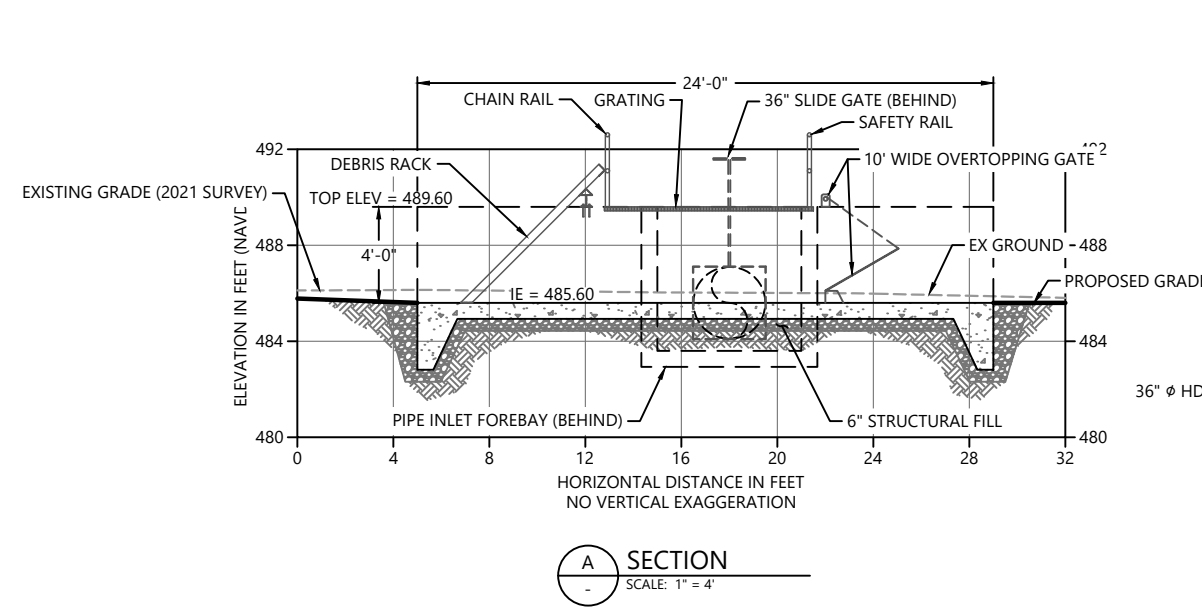
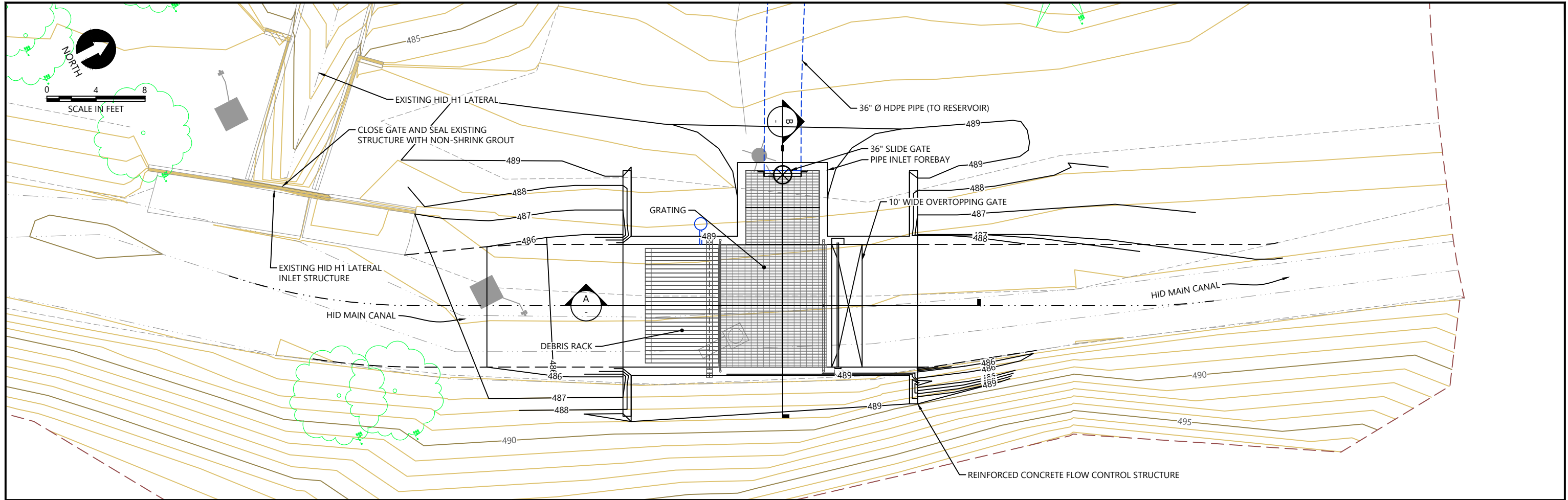
RESERVOIR INTAKE FACILITY UPGRADES

C16

SHEET # 20 OF 26

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" INCH SCALE ACCORDINGLY

Mar 14, 2022 1:50pm tgriga K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-Structures.dwg C17



PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" INCH SCALE ACCORDINGLY

30% DESIGN: NOT FOR CONSTRUCTION



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

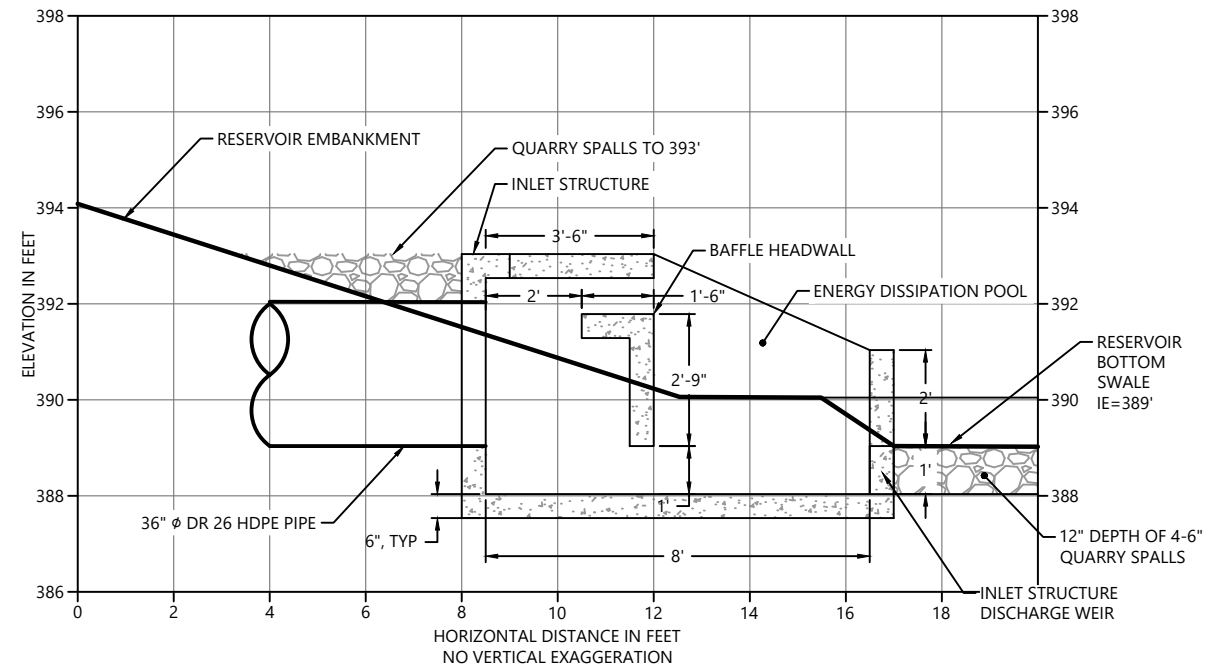
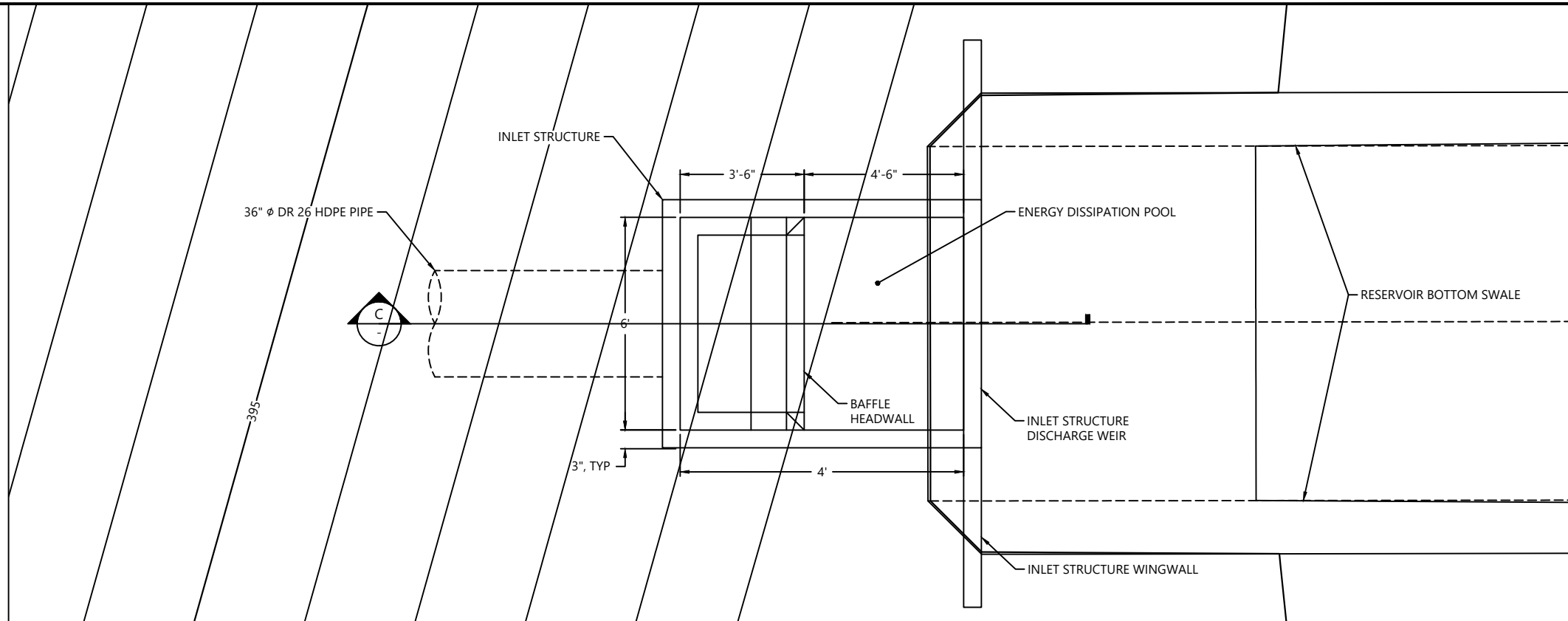
DUNGENESS OFF-CHANNEL RESERVOIR

RESERVOIR INLET FLOW CONTROL STRUCTURE PLAN AND SECTIONS

C17

SHEET # **21** OF **26**

K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-Structures.dwg C18
Mar 14, 2022 12:50pm Tgriga



C SECTION
SCALE: 1" = 2'

30% DESIGN: NOT FOR CONSTRUCTION



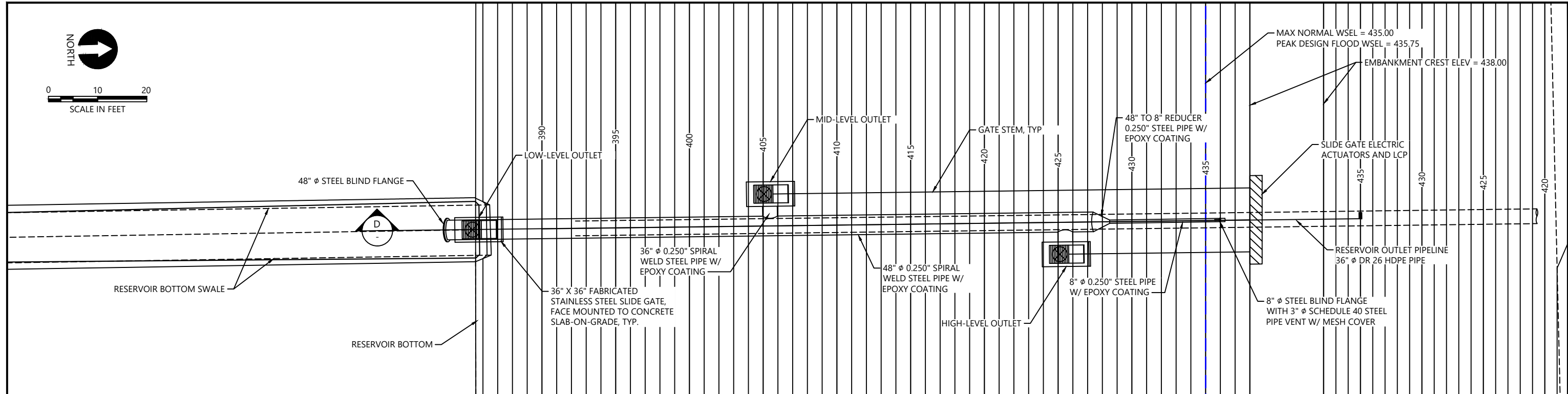
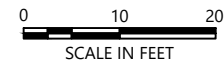
REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

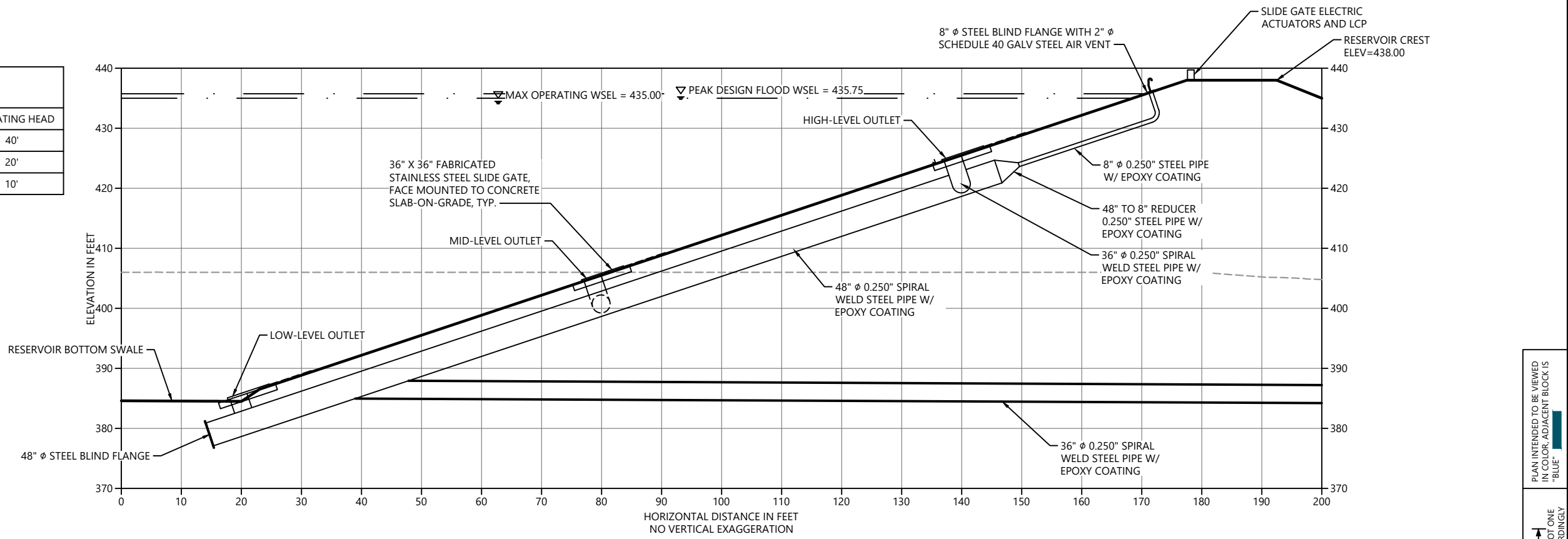
DUNGENESS OFF-CHANNEL RESERVOIR
RESERVOIR INLET STRUCTURE
PLAN AND SECTIONS

C18
 SHEET # **22** OF **26**

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" INCH SCALE ACCORDINGLY



GATE SCHEDULE				
GATE	SIZE	MATL	SEATING HEAD	UNSEATING HEAD
LOW	36" X 36"	STAINLESS	54'	40'
MID	36" X 36"	STAINLESS	34'	20'
HIGH	36" X 36"	STAINLESS	14'	10'



D SECTION
SCALE: 1" = 10'

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" INCH SCALE ACCORDINGLY

30% DESIGN: NOT FOR CONSTRUCTION

K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-Structures.dwg C19 Mar 14, 2022 1:50pm tgriga



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

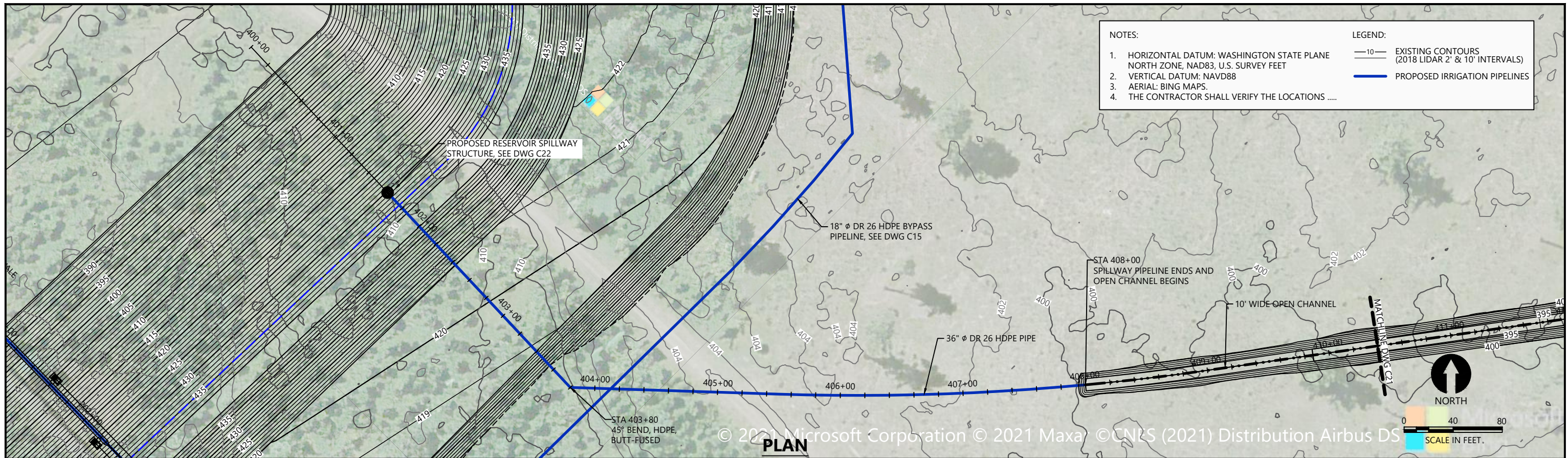
DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

DUNGENESS OFF-CHANNEL RESERVOIR

RESERVOIR OUTLET STRUCTURE PLAN AND SECTIONS

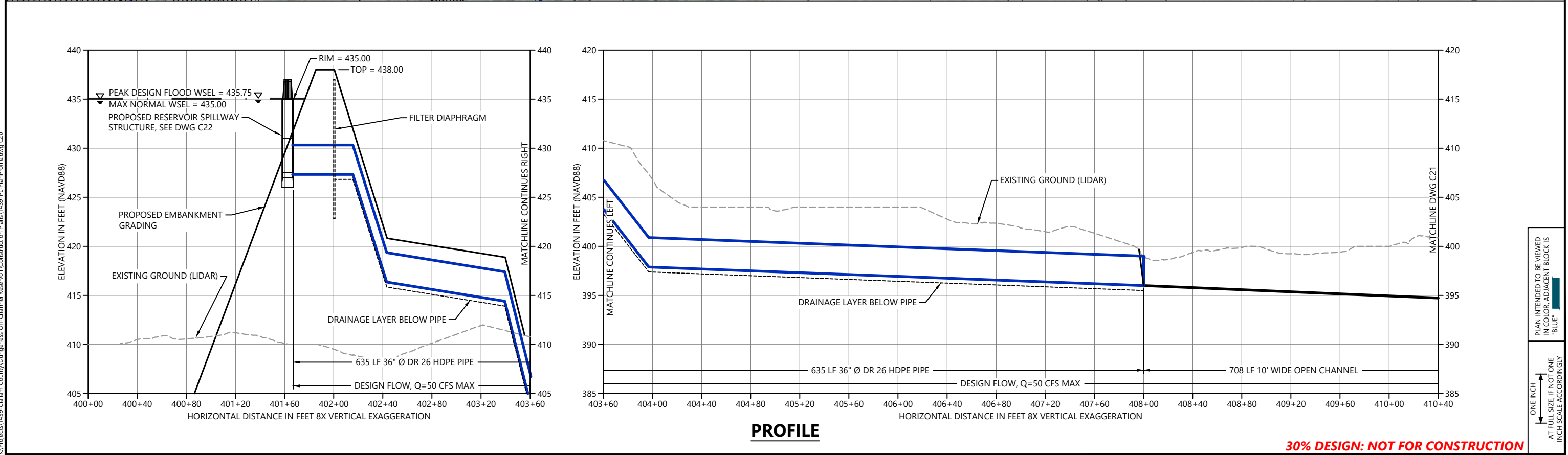
C19

SHEET # **23** OF **26**



- NOTES:
- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83, U.S. SURVEY FEET
 - VERTICAL DATUM: NAVD88
 - AERIAL: BING MAPS
 - THE CONTRACTOR SHALL VERIFY THE LOCATIONS
- LEGEND:
- EXISTING CONTOURS (2018 LIDAR 2' & 10' INTERVALS)
 - PROPOSED IRRIGATION PIPELINES

© 2021 Microsoft Corporation © 2021 Maxar © CNLS (2021) Distribution Airbus DS



PROFILE

30% DESIGN: NOT FOR CONSTRUCTION

K:\Projects\1439-Culliam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-PlanProfile.dwg C20



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

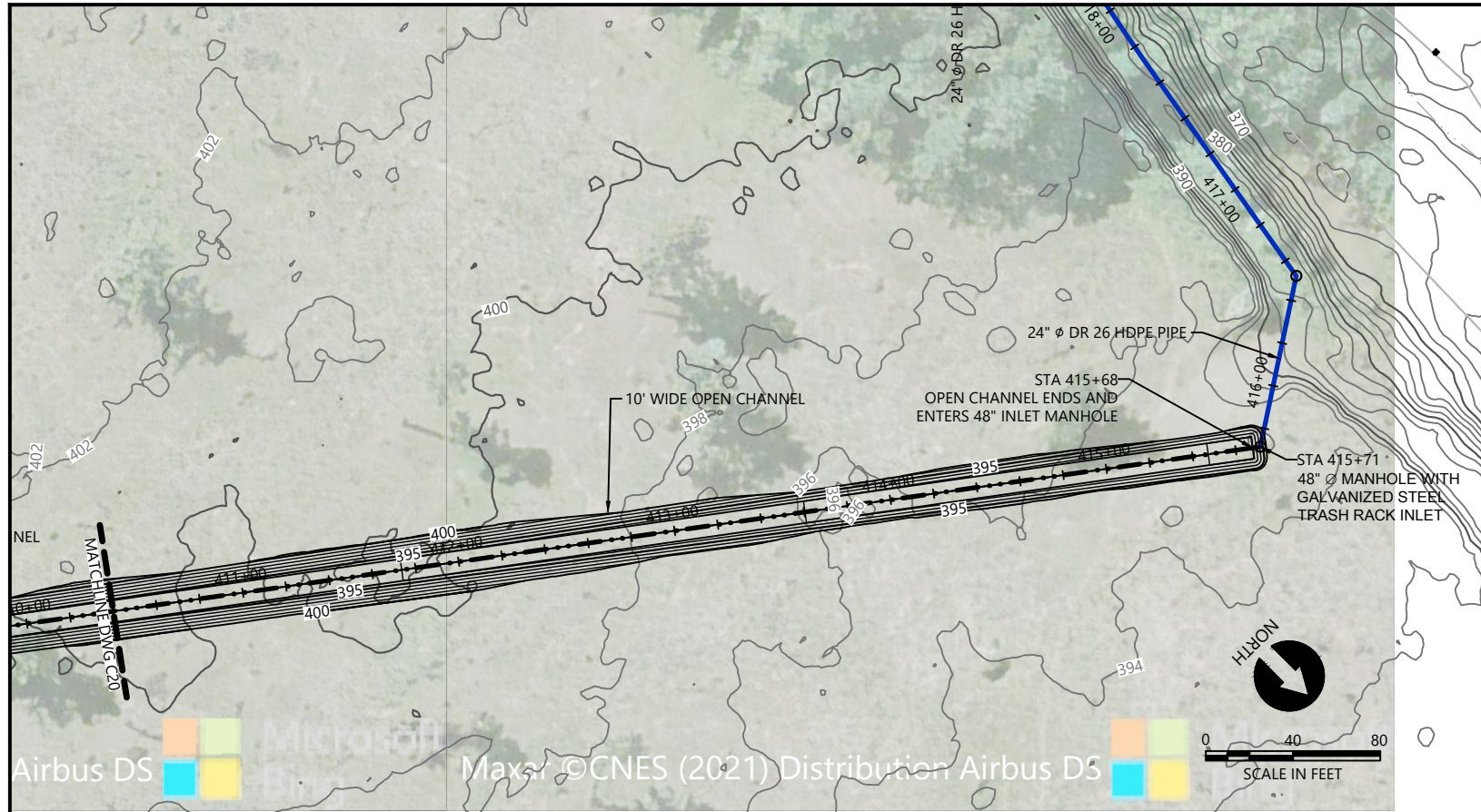
DUNGENESS OFF-CHANNEL RESERVOIR

RESERVOIR SPILLWAY PLAN AND PROFILE

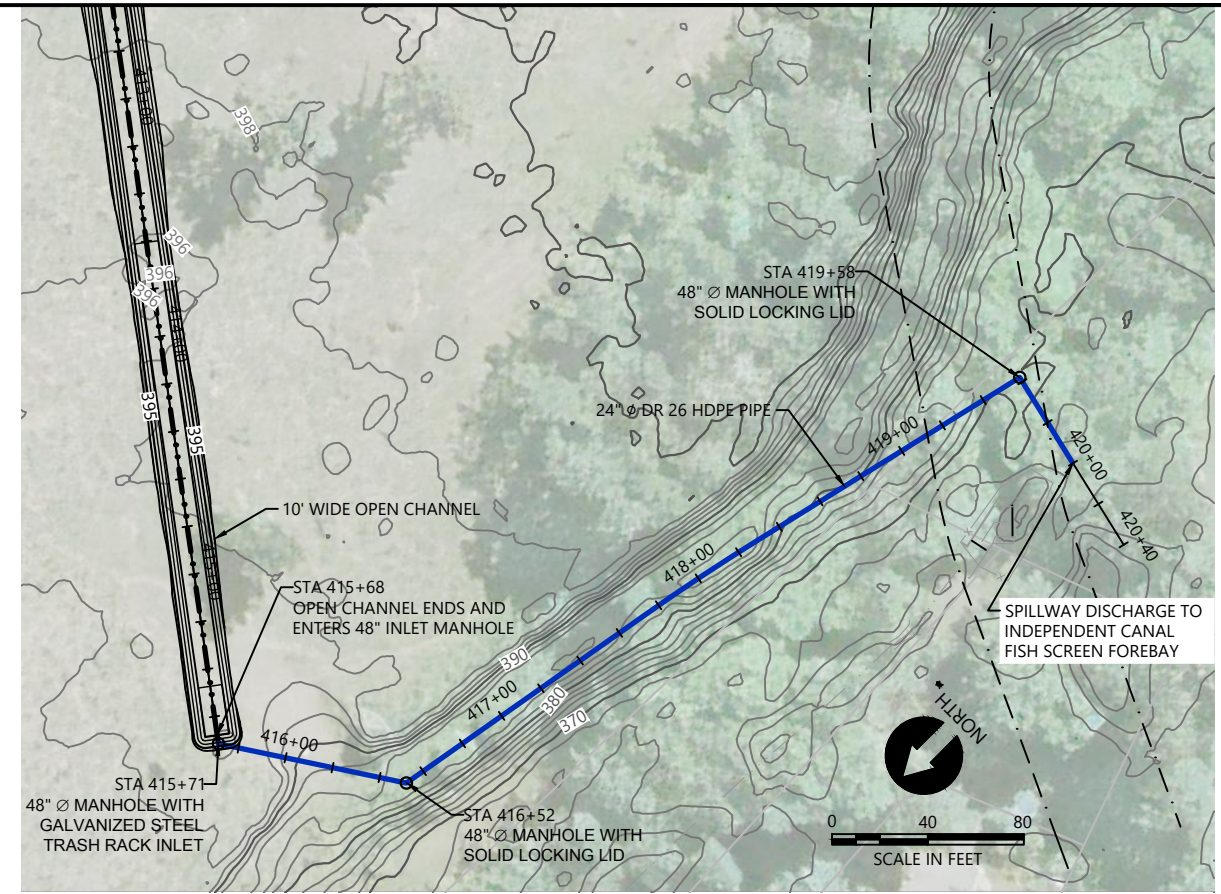
C20

SHEET # **24** OF **26**

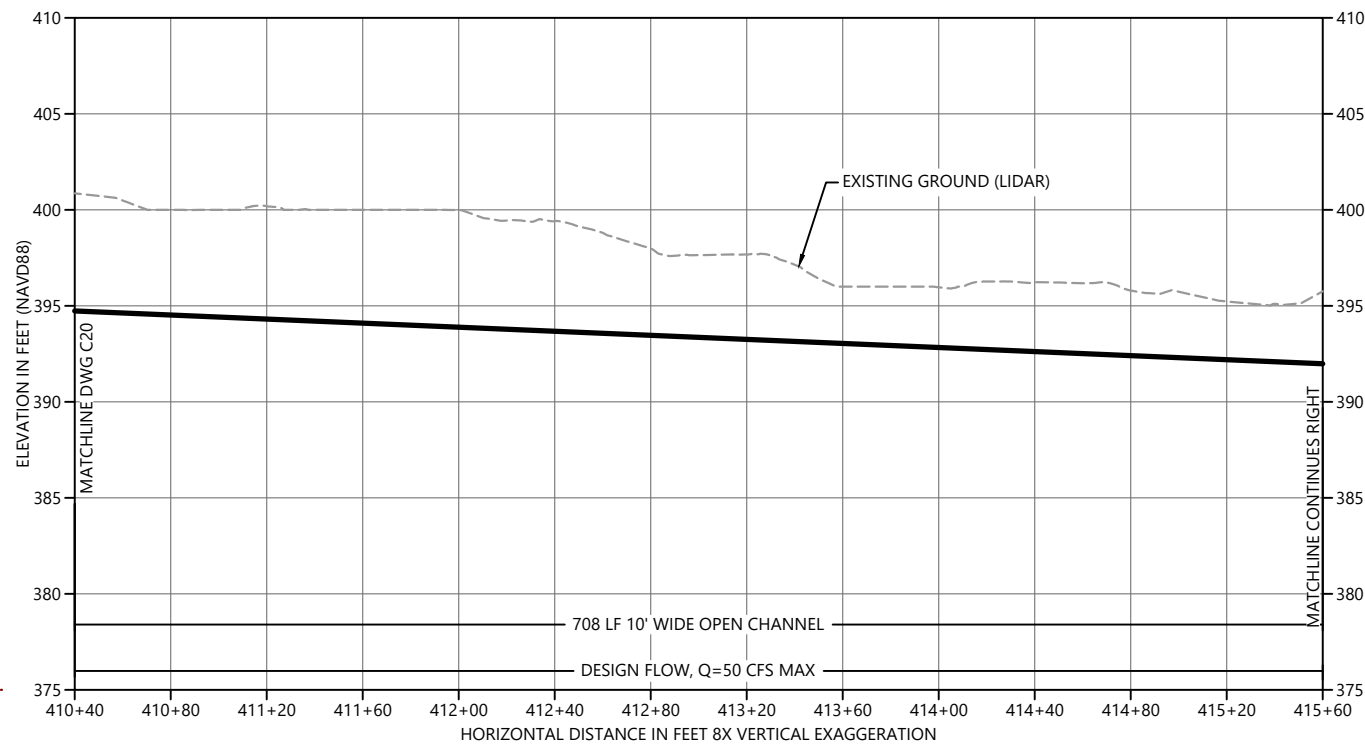
PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" INCH SCALE ACCORDINGLY



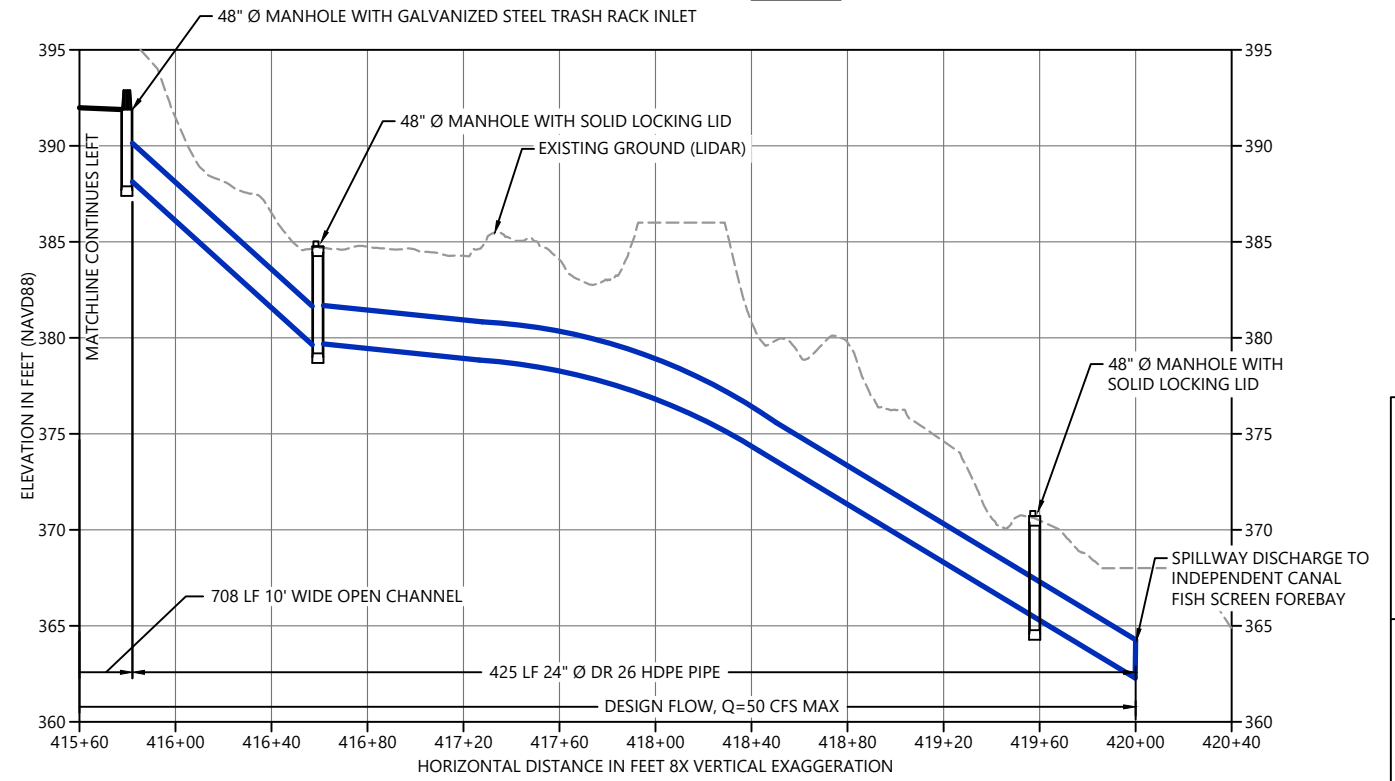
PLAN



PLAN



PROFILE



30% DESIGN: NOT FOR CONSTRUCTION

K:\Projects\1439-Calamian County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-PlanProfile.dwg C21

Mar 14, 2022 1:52pm Tgriga



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
 DRAWN BY: T. GRIGA
 CHECKED BY: D. RICE
 APPROVED BY: R. MONTGOMERY
 SCALE: AS NOTED
 DATE: MARCH 2022

DUNGENESS OFF-CHANNEL RESERVOIR

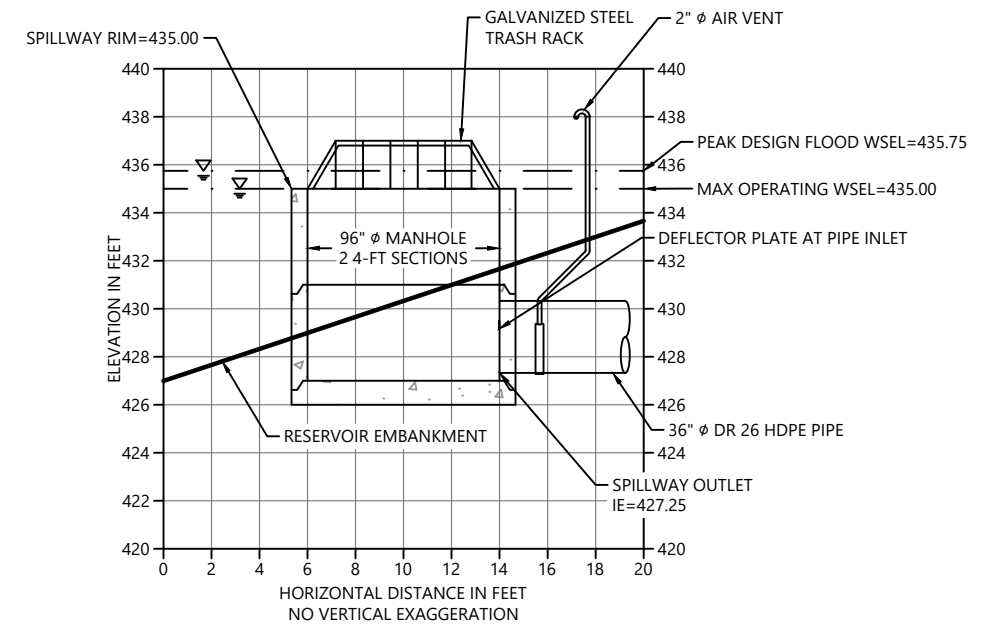
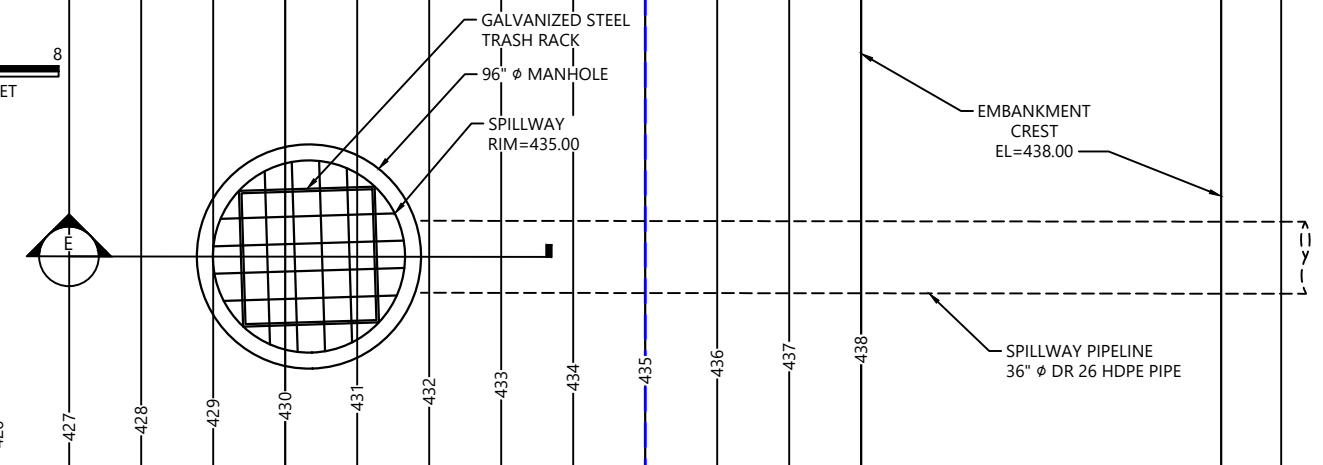
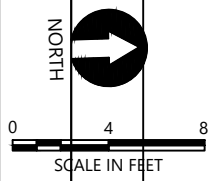
RESERVOIR SPILLWAY PLAN AND PROFILE

C21

SHEET # **25** OF **26**

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE" INCH SCALE ACCORDINGLY

K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\Construction Plans\1439-PL-Structures.dwg C22
Mar 14, 2022 1:25:30pm Tgriga



E SECTION
SCALE: 1" = 4'

ONE INCH
AT FULL SIZE IF NOT ONE
INCH SCALE ACCORDINGLY
PLAN INTENDED TO BE VIEWED
IN COLOR. ADJACENT BLOCK IS
"BLUE"

30% DESIGN: NOT FOR CONSTRUCTION



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: G. HART
DRAWN BY: T. GRIGA
CHECKED BY: D. RICE
APPROVED BY: R. MONTGOMERY
SCALE: AS NOTED
DATE: MARCH 2022

DUNGENESS OFF-CHANNEL RESERVOIR

**RESERVOIR SPILLWAY STRUCTURE
PLAN AND SECTIONS**

C22

SHEET # **26** OF **26**