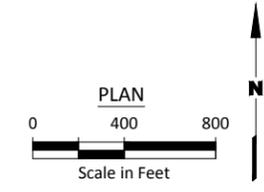
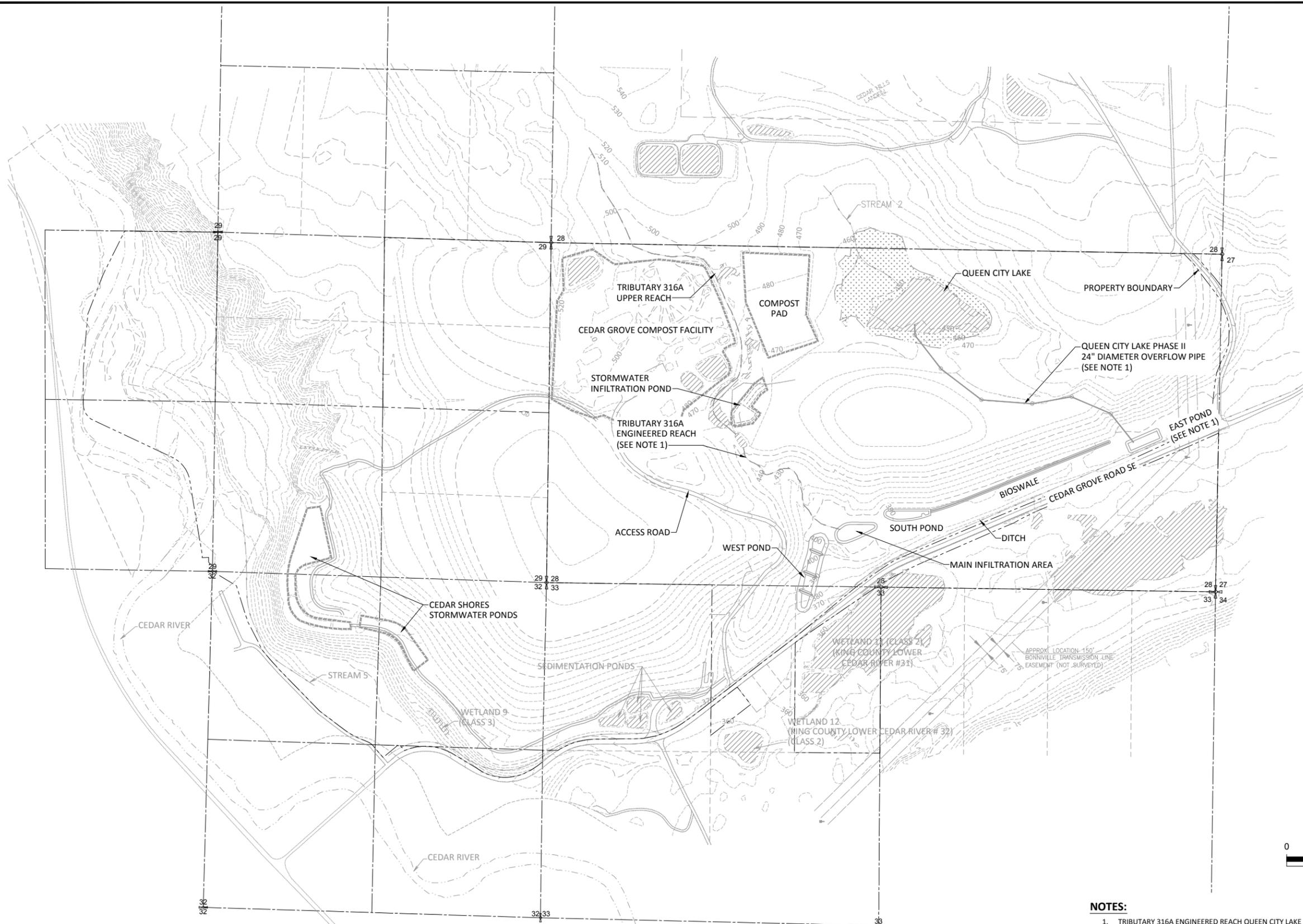


LANDAU ASSOCIATES, INC. | G:\PROJECTS\992002\0505051\PHIII\REFILL\PLAN\SETUP\PHI CONDITIONS PLAN.DWG | 1/6/2018



- NOTES:**
1. TRIBUTARY 316A ENGINEERED REACH QUEEN CITY LAKE OVERFLOW PIPE AND EAST POND ARE TO BE MODIFIED PER THIS PHASE III REFILL PERMIT PLAN SET.

KING COUNTY DDES APPROVAL	
Review Engineer	Date
Senior Engineer	Date
Wally Archuketa, P.E. DEVELOPMENT ENGINEER	Date

<p>LANDAU ASSOCIATES 130 2ND AVENUE S EDMONDS, WASHINGTON 98020</p>	
DESIGNED BY: E. ZICK DRAWN BY: M. VILLEUX CHECKED BY: K. WIKEN DATE SURVEYED: K. SALTANOVITZ SURVEYED BY:	ESZ MDV KMW KWS STATUS:
PROJECT NO. 992002.050 DATE 04/10/2018 SHEET 2 OF 13	

**QUEEN CITY FARMS
PHASE III REFILL
MAPLE VALLEY, WASHINGTON**

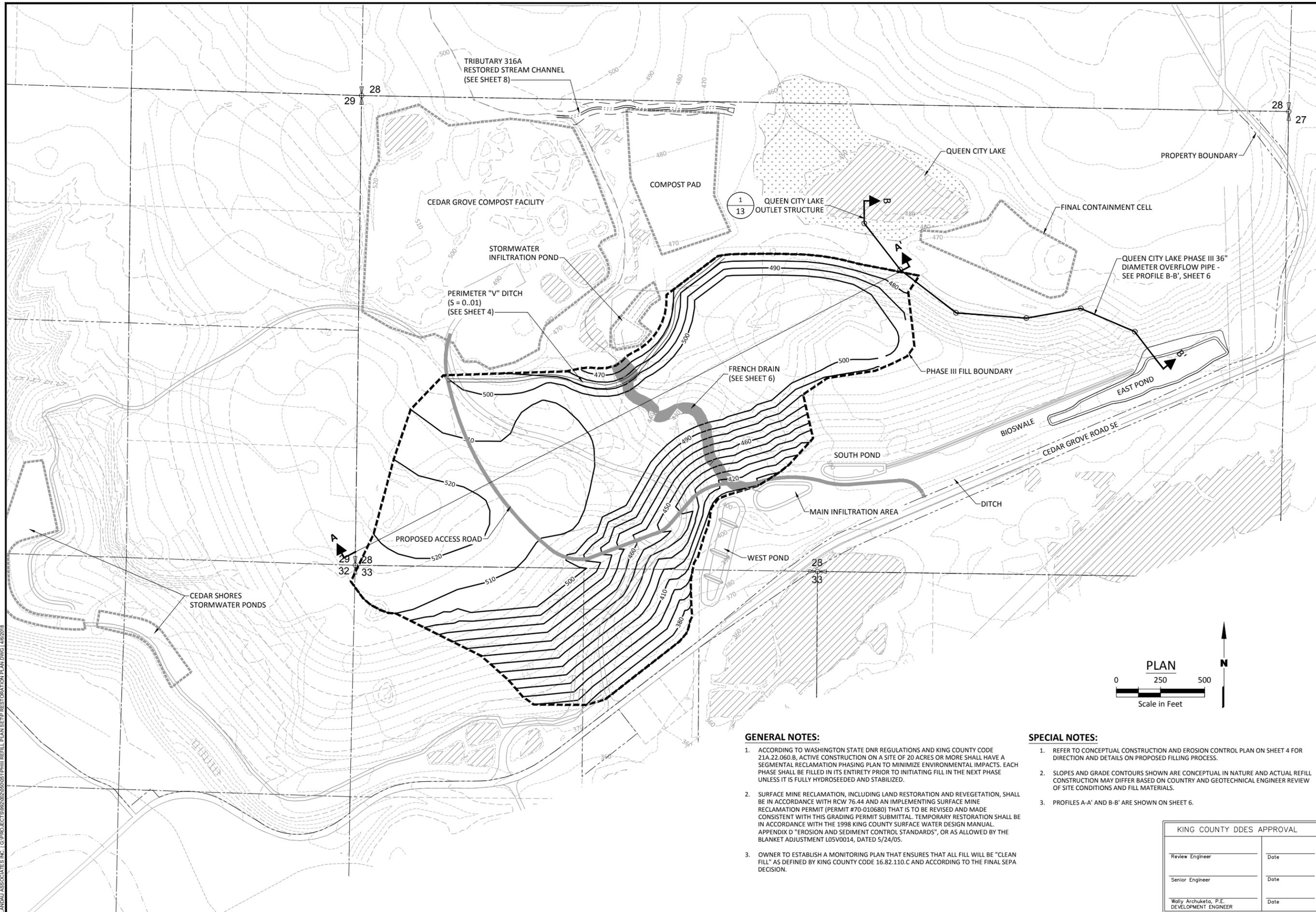
PHASE II PERMITTED CONDITIONS PLAN

DDES FILE NUMBERS:
 Activity Number: _____
 Project Number: _____
 Development No: _____



ERIC WEBER Project Coordinator (253) 284-4878 Phone

LANDAU ASSOCIATES, INC. (G:\PROJECTS\9202\050505\PHIII\REFILL\PLAN\SETUP\RESTORATION PLAN.DWG 14/8/2018)



GENERAL NOTES:

1. ACCORDING TO WASHINGTON STATE DNR REGULATIONS AND KING COUNTY CODE 21A.22.060.B, ACTIVE CONSTRUCTION ON A SITE OF 20 ACRES OR MORE SHALL HAVE A SEGMENTAL RECLAMATION PHASING PLAN TO MINIMIZE ENVIRONMENTAL IMPACTS. EACH PHASE SHALL BE FILLED IN ITS ENTIRETY PRIOR TO INITIATING FILL IN THE NEXT PHASE UNLESS IT IS FULLY HYDROSEEDED AND STABILIZED.
2. SURFACE MINE RECLAMATION, INCLUDING LAND RESTORATION AND REVEGETATION, SHALL BE IN ACCORDANCE WITH RCW 76.44 AND AN IMPLEMENTING SURFACE MINE RECLAMATION PERMIT (PERMIT #70-010680) THAT IS TO BE REVISED AND MADE CONSISTENT WITH THIS GRADING PERMIT SUBMITTAL. TEMPORARY RESTORATION SHALL BE IN ACCORDANCE WITH THE 1998 KING COUNTY SURFACE WATER DESIGN MANUAL. APPENDIX D "EROSION AND SEDIMENT CONTROL STANDARDS", OR AS ALLOWED BY THE BLANKET ADJUSTMENT L05V0014, DATED 5/24/05.
3. OWNER TO ESTABLISH A MONITORING PLAN THAT ENSURES THAT ALL FILL WILL BE "CLEAN FILL" AS DEFINED BY KING COUNTY CODE 16.82.110.C AND ACCORDING TO THE FINAL SEPA DECISION.

SPECIAL NOTES:

1. REFER TO CONCEPTUAL CONSTRUCTION AND EROSION CONTROL PLAN ON SHEET 4 FOR DIRECTION AND DETAILS ON PROPOSED FILLING PROCESS.
2. SLOPES AND GRADE CONTOURS SHOWN ARE CONCEPTUAL IN NATURE AND ACTUAL REFILL CONSTRUCTION MAY DIFFER BASED ON COUNTRY AND GEOTECHNICAL ENGINEER REVIEW OF SITE CONDITIONS AND FILL MATERIALS.
3. PROFILES A-A' AND B-B' ARE SHOWN ON SHEET 6.

KING COUNTY DDES APPROVAL	
Review Engineer	Date
Senior Engineer	Date
Wally Archuketa, P.E. DEVELOPMENT ENGINEER	Date

LANDAU ASSOCIATES
130 2ND AVENUE S
EDMONDS, WASHINGTON 98020
ERIC WEBER (253) 284-4878
Project Coordinator Phone

ESZ	E. ZICK
MDV	M. VILLEUX
KWV	K. WIKEN
KWS	K. SALTANOVITZ
DATE SURVEYED:	
SURVEYED BY:	
STATUS:	ISSUED FOR PERMIT REVIEW

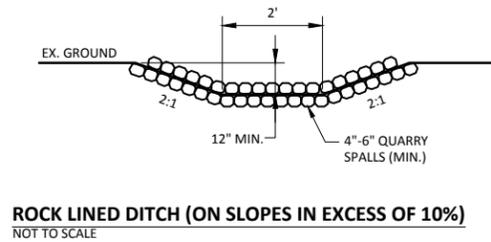
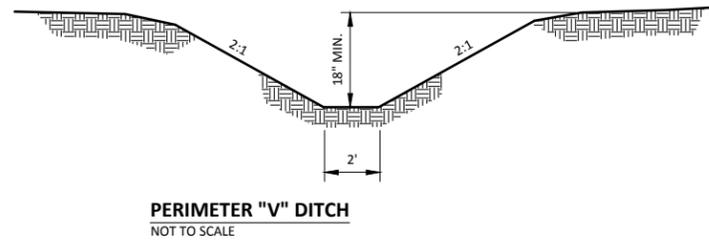
**QUEEN CITY FARMS
PHASE III REFILL
MAPLE VALLEY, WASHINGTON
REFILL AND ENVIRONMENTAL
RESTORATION PLAN**

DDES FILE NUMBERS:
Activity Number: _____
Project Number: _____
Development No: _____



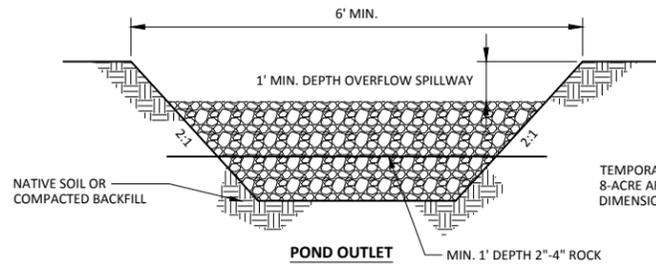
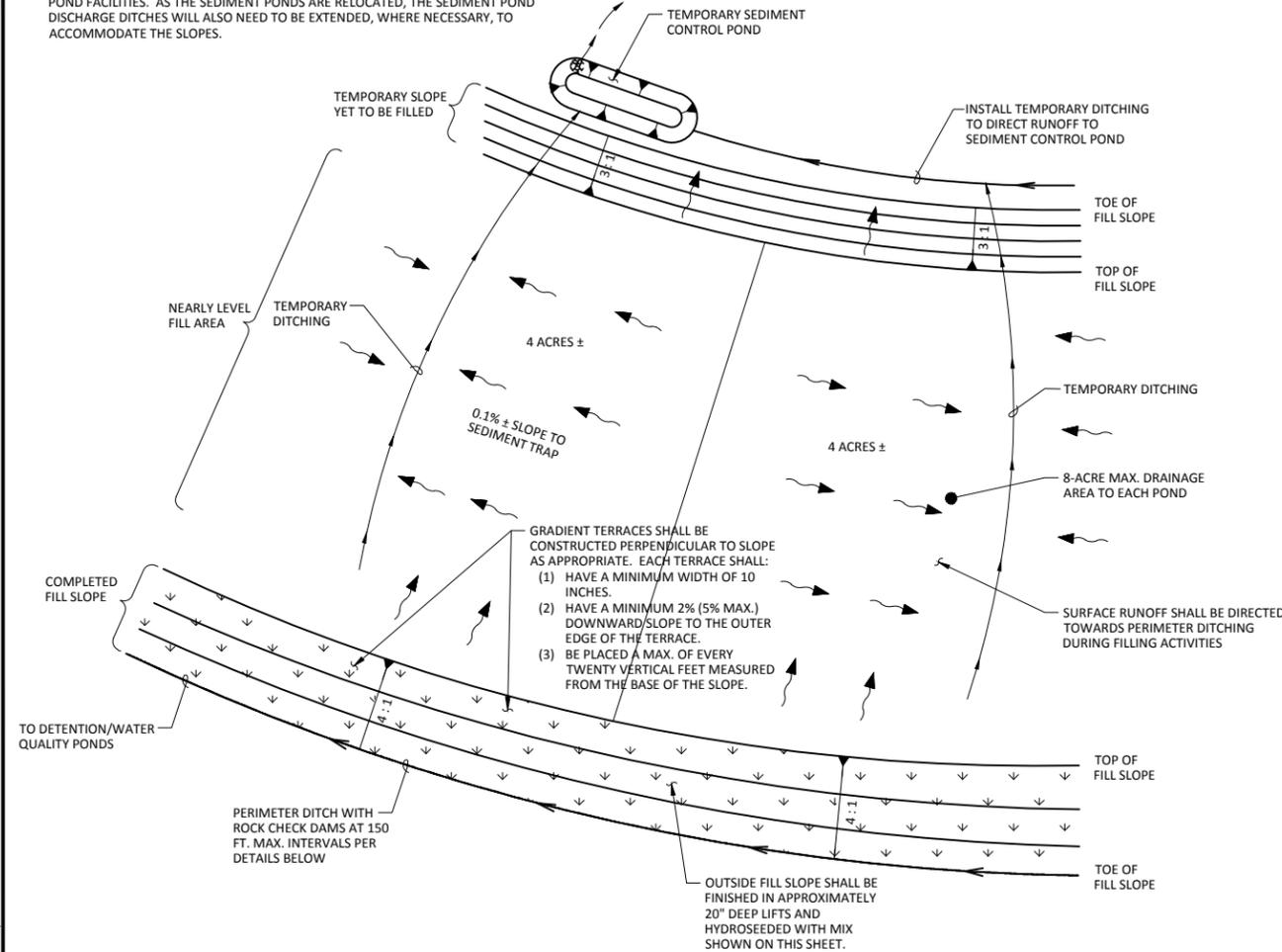
STRATEGY DETAIL NOTES:

1. A TEMPORARY SEDIMENT POND SHALL BE PROVIDED TO ACCOMMODATE UP TO AN APPROXIMATELY 8-ACRE PORTION OF THE PHASE AS SHOWN ON THE TYPICAL CONCEPTUAL STRATEGY DETAIL BELOW.
2. EACH 8-ACRE PORTION OF FILL SHALL BE CONSTRUCTED TO DIRECT RUNOFF TO PERIMETER DITCHES THAT, IN TURN, ROUTE RUNOFF TO THE SEDIMENT POND FACILITIES.
3. EROSION RILLS MAY FORM NATURALLY IN EACH 8-ACRE SUBBASIN. IF EROSION SOILS DELIVERED TO THE SEDIMENT POND EXCEED THE POND'S CAPACITY, THEN THE POND SHALL BE CLEANED OUT OR REPLACED AND THE EROSION RILLS STABILIZED BY ADDING GRAVEL WITHIN THE RILLS.
4. AS FILL PROCEEDS TO HIGHER FILL LAYERS, THE SEDIMENT PONDS MAY NEED TO BE FILLED OVER AND RELOCATED TO ACCOMMODATE THE CHANGING GRADES.
5. WHERE TEMPORARY SEDIMENT POND DISCHARGE DITCHES HAVE PROFILES EXCEEDING 10%, THE DITCHES SHALL BE ROCK-LINED. ALL POND DISCHARGE DITCHES IN EACH PHASE SHALL DISCHARGE INTO A PERIMETER COLLECTION DITCH WITH ROCK CHECK DAMS THAT, IN TURN, SHALL DISCHARGE INTO THE STORMWATER DETENTION AND WATER QUALITY POND FACILITIES. AS THE SEDIMENT PONDS ARE RELOCATED, THE SEDIMENT POND DISCHARGE DITCHES WILL ALSO NEED TO BE EXTENDED, WHERE NECESSARY, TO ACCOMMODATE THE SLOPES.



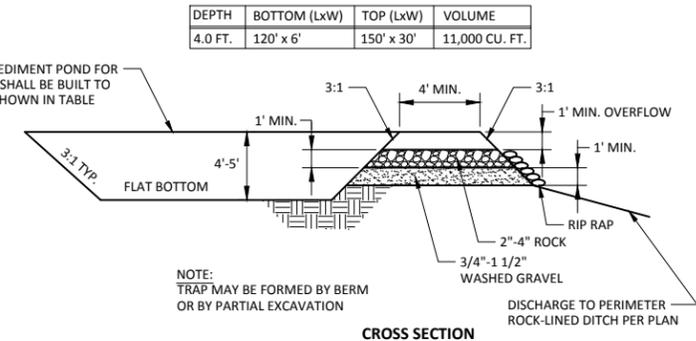
SILT FENCE MAINTENANCE STANDARDS:

1. ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.
2. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT TRAP OR POND.
3. IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.
4. SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT IS 6 INCHES HIGH.
5. IF THE FILTER FABRIC (GEOTEXTILE) HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

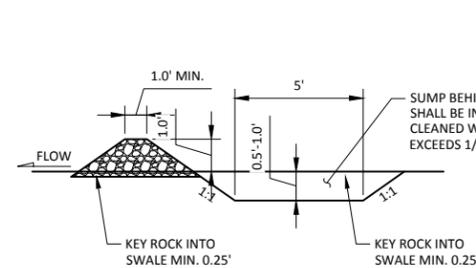


MAINTENANCE STANDARDS:

1. SEDIMENT SHALL BE REMOVED FROM THE POND WHEN IT REACHES 2 FEET IN DEPTH.
2. ANY DAMAGE TO THE POND EMBANKMENTS OR SLOPES SHALL BE REPAIRED.



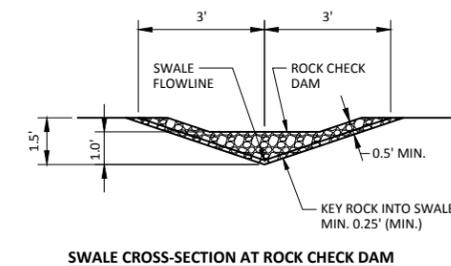
TEMPORARY SEDIMENT POND DETAIL NOT TO SCALE



ROCK CHECK DAM DETAILS NOT TO SCALE

NOTE: ROCK SHALL BE 4" MINUS QUARRY ROCK

SWALE SLOPE	CHECK DAM SPACING
0% - 5%	150'
5% - 10%	100'
> 10%	50'



CONCEPTUAL 8 ACRE EXAMPLE TEMPORARY GRADING BASIN EROSION CONTROL AND HYDROSEEDING STRATEGY DETAIL NOT TO SCALE

SEED MIXTURE NOTES:

PERFORM ALL CULTURAL OPERATIONS ACROSS OR AT RIGHT ANGLES TO THE SLOPES (CONTOURED). THE SEEDBED SHOULD BE FIRM WITH A FAIRLY FINE SURFACE AFTER ROUGHENING.

FERTILIZATION - AS PER SUPPLIER'S RECOMMENDATIONS. DEVELOPMENTS ADJACENT TO WATER BODIES MUST USE NON-PHOSPHOROUS FERTILIZER.

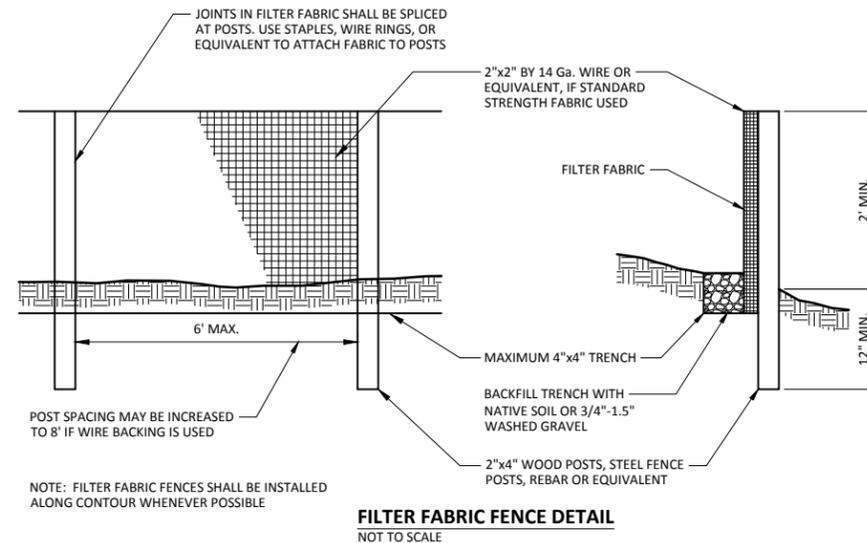
SEEDING - APPLY MIXTURE TO THE GROUND SURFACE AT A RATE OF 45 LBS/ACRE, WITH MULCH ADDED.

HYDROSEED MIX SPECIFICATIONS:

HYDROSEED APPLICATION MIX:	PROPORTIONS BY WEIGHT
RED ALDER	25%
RED FESCUE	40%
COLONIAL BENTGRASS	15%
WHITE CLOVER	20%

MULCH STANDARDS AND SPECIFICATIONS:

MULCH MATERIAL	QUALITY STANDARDS	APPLICATION RATES
STRAW	AIR-DRIED; FREE FROM UNDESIRABLE SEED AND COARSE MATERIAL	2"-3" THICK; 2-3 BALES PER 1000 SF OR 2-3 TONS PER ACRE
WOOD FIBER CELLULOSE	NO GROWTH INHIBITING FACTORS	APPROX. 25-30 LBS PER 1000 SF OR 1000-1500 LBS PER ACRE
COMPOST	NO VISIBLE WATER OR DUST DURING HANDLING. MUST BE PURCHASED FROM SUPPLIER WITH SOLID WASTE HANDLING PERMIT.	2" THICK MIN.; APPROX. 100 TONS PER ACRE (APPROX. 800 LBS PER YARD)
CHIPPED SITE VEGETATION	AVERAGE SIZE SHALL BE SEVERAL INCHES	2" MINIMUM THICKNESS



KING COUNTY DDES APPROVAL

Review Engineer	Date
Senior Engineer	Date
Wally Archuketa, P.E. DEVELOPMENT ENGINEER	Date

LANDAU ASSOCIATES
130 2ND AVENUE S.
EDMONDS, WASHINGTON 98020
ERIC WEBER (253) 284-4878
Project Coordinator

ESZ E. ZICK
MDV M. VILLEUX
KWW K. WIKEN
KWS K. SALTANOVITZ
DATE SURVEYED:
STATUS:
ISSUED FOR PERMIT REVIEW

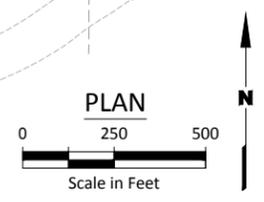
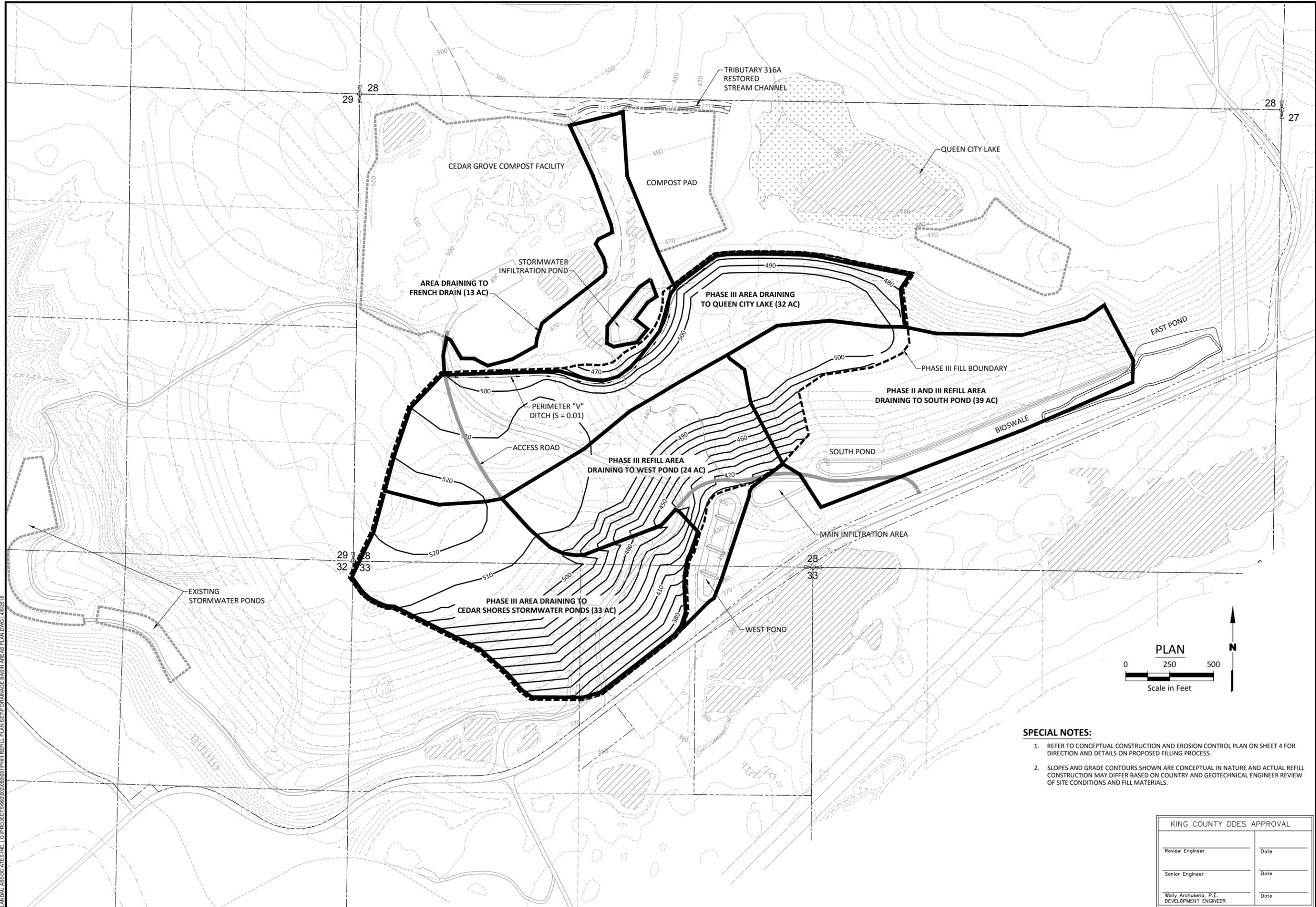
QUEEN CITY FARMS
PHASE III REFILL
MAPLE VALLEY, WASHINGTON
CONCEPTUAL FILL CONSTRUCTION &
EROSION CONTROL DETAILS

DDES FILE NUMBERS:
Activity Number:
Project Number:
Development No.:



PROJECT NO. 992002.050
DATE 04/10/2018

LANDAU ASSOCIATES, INC. (G:\PROJECTS\992002\0501\PHIII\REFILL\PLAN SET\REFILL\DRAINAGE BASIN AREAS PLAN DWG 14/02/2018



- SPECIAL NOTES:**
- REFER TO CONCEPTUAL CONSTRUCTION AND EROSION CONTROL PLAN ON SHEET 4 FOR DIRECTION AND DETAILS ON PROPOSED FILLING PROCESS.
 - SLOPES AND GRADE CONTOURS SHOWN ARE CONCEPTUAL IN NATURE AND ACTUAL REFILL CONSTRUCTION MAY DIFFER BASED ON COUNTRY AND GEOTECHNICAL ENGINEER REVIEW OF SITE CONDITIONS AND FILL MATERIALS.

KING COUNTY DDES APPROVAL	
Review Engineer _____	Date _____
Senior Engineer _____	Date _____
Wally Archuketa, P.E. DEVELOPMENT ENGINEER	Date _____

<p>LANDAU ASSOCIATES 130 2ND AVENUE S EDMONDS, WASHINGTON 98020</p>	
DESIGNED BY: E. ZICK DRAWN BY: M. VEILLEUX CHECKED BY: K. WIKEN APPROVED BY: K. SALTANOVITZ DATE SURVEYED: _____ SURVEYED BY: _____ STATUS: ISSUED FOR PERMIT REVIEW	ESZ MDV KWW KWS _____ _____ _____

**QUEEN CITY FARMS
PHASE III REFILL
MAPLE VALLEY, WASHINGTON**

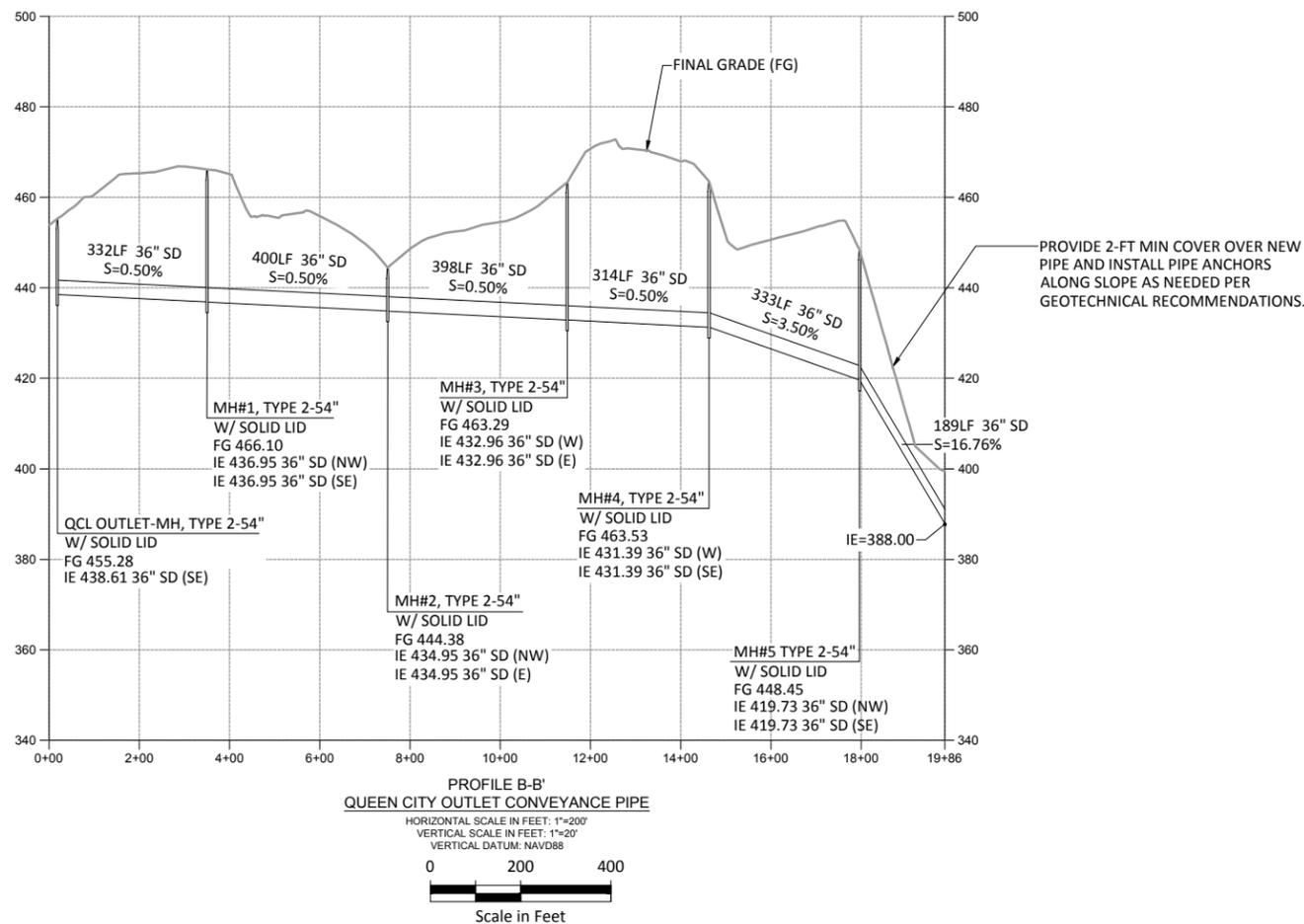
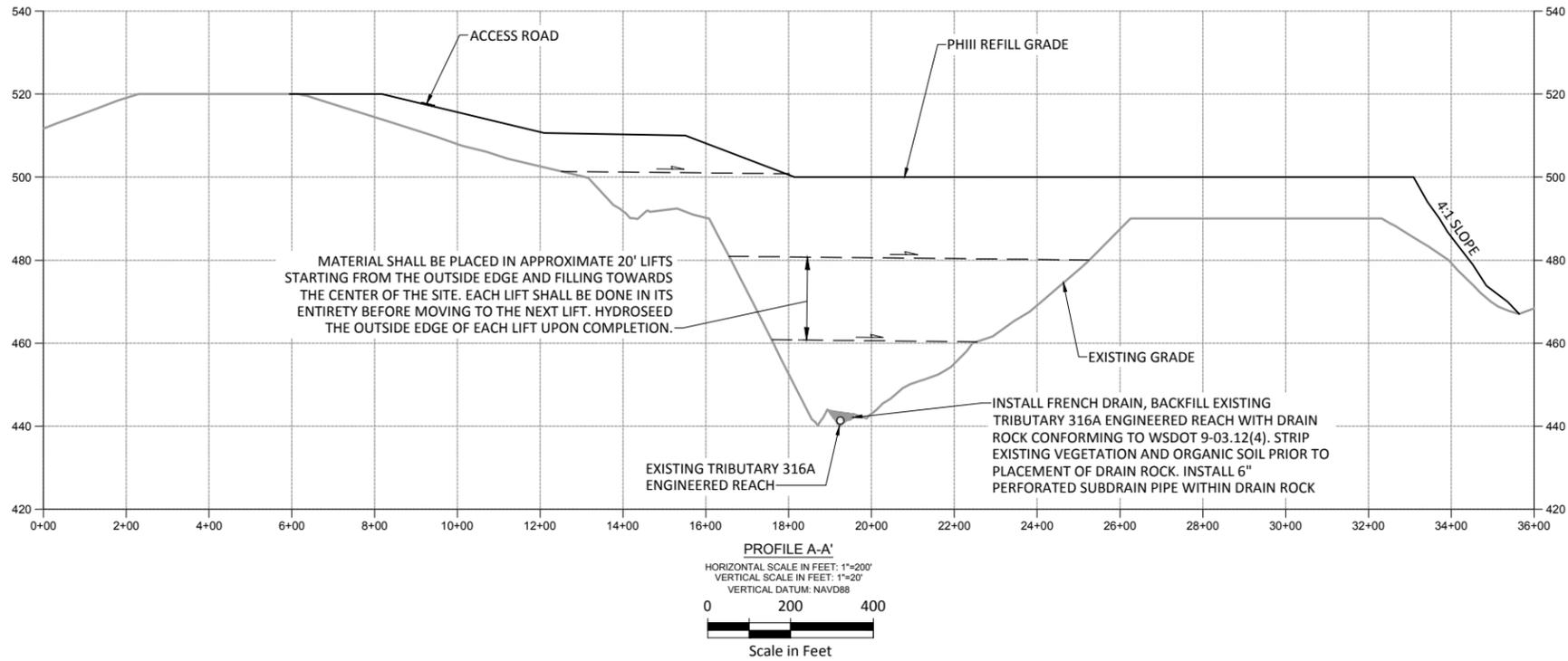
DRAINAGE BASIN AREAS PLAN

DDES FILE NUMBERS:
 Activity Number: _____
 Project Number: _____
 Development No: _____



PROJECT NO. 992002.050
 DATE 04/10/2018
 Sheet 5 of 13

ERIC WEBER (253) 284-4878
 Project Coordinator Phone



FILL CONSTRUCTION SEQUENCE:

1. ENSURE THAT A PRECONSTRUCTION MEETING HAS BEEN HELD PRIOR TO FILLING.
2. INSTALL THE TEMPORARY SEDIMENT CONTROL PONDS AS NEEDED PER RECOMMENDATIONS ON SHEET 4.
3. CONSTRUCT TO ACCOMMODATE FUTURE DRAINAGE FROM NEW 36-INCH CONVEYANCE PIPE.
4. CONSTRUCT QUEEN CITY LAKE OUTLET AND BYPASS PIPING AS SEEN ON SHEET 13.
5. REMOVE EXISTING QUEEN CITY LAKE OUTLET ONLY AFTER NEW 36-INCH CONVEYANCE PIPE HAS RECEIVED FINAL APPROVAL FROM THE KING COUNTY INSPECTOR.
6. PROCEED WITH FILLING IN LIFTS NO MORE THAN 20 FEET IN DEPTH. ANY LIFT THAT COMPLETES THE PROPOSED GRADES, AS SHOWN ON THE DESIGN PLANS, SHALL BE HYDROSEED UPON COMPLETION. UTILIZE THE HYDROSEED MIX AS OUTLINED ON SHEET 4. EACH 20-FOOT LIFT SHALL BE COMPACTED WITH THE ON-SITE EQUIPMENT UTILIZED FOR FILLING ACTIVITIES.
7. CLEAN AND MAINTAIN THE PERIMETER COLLECTION DITCHES ON A REGULAR BASIS, AND WHEN SEDIMENT BUILDUP EXCEEDS 1 FOOT IN DEPTH.
8. CONTINUE TO MAINTAIN AND CLEAN THE POND FACILITIES ON A SEMI-ANNUAL BASIS TO ENSURE SEDIMENT BUILDUP DOES NOT ENTER INTO NATURAL INFILTRATION AREA.
9. ANY AREAS THAT REMAIN TO BE FILLED BUT LEFT UNTOUCHED FOR MORE THAN 1 YEAR SHALL BE HYDROSEED UNTIL FURTHER FILLING ACTIVITIES OCCUR.

KING COUNTY DDES APPROVAL

Review Engineer	Date
Senior Engineer	Date
Wally Archuketa, P.E. DEVELOPMENT ENGINEER	Date

LANDAU ASSOCIATES
 130 2ND AVENUE S
 EDMONDS, WASHINGTON 98020
 ERIC WEBER (253) 284-4878
 Project Coordinator Phone

ESZ	MDV	KWV	KWS
DRAWN BY: E. ZICK	DESIGNED BY: M. VILLEUX	REVIEWED BY: K. WIKEN	APPROVED BY: K. SALTANOVITZ
DATE SURVEYED:			
STATUS:			
ISSUED FOR PERMIT REVIEW			

**QUEEN CITY FARMS
 PHASE III REFILL
 MAPLE VALLEY, WASHINGTON**

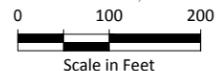
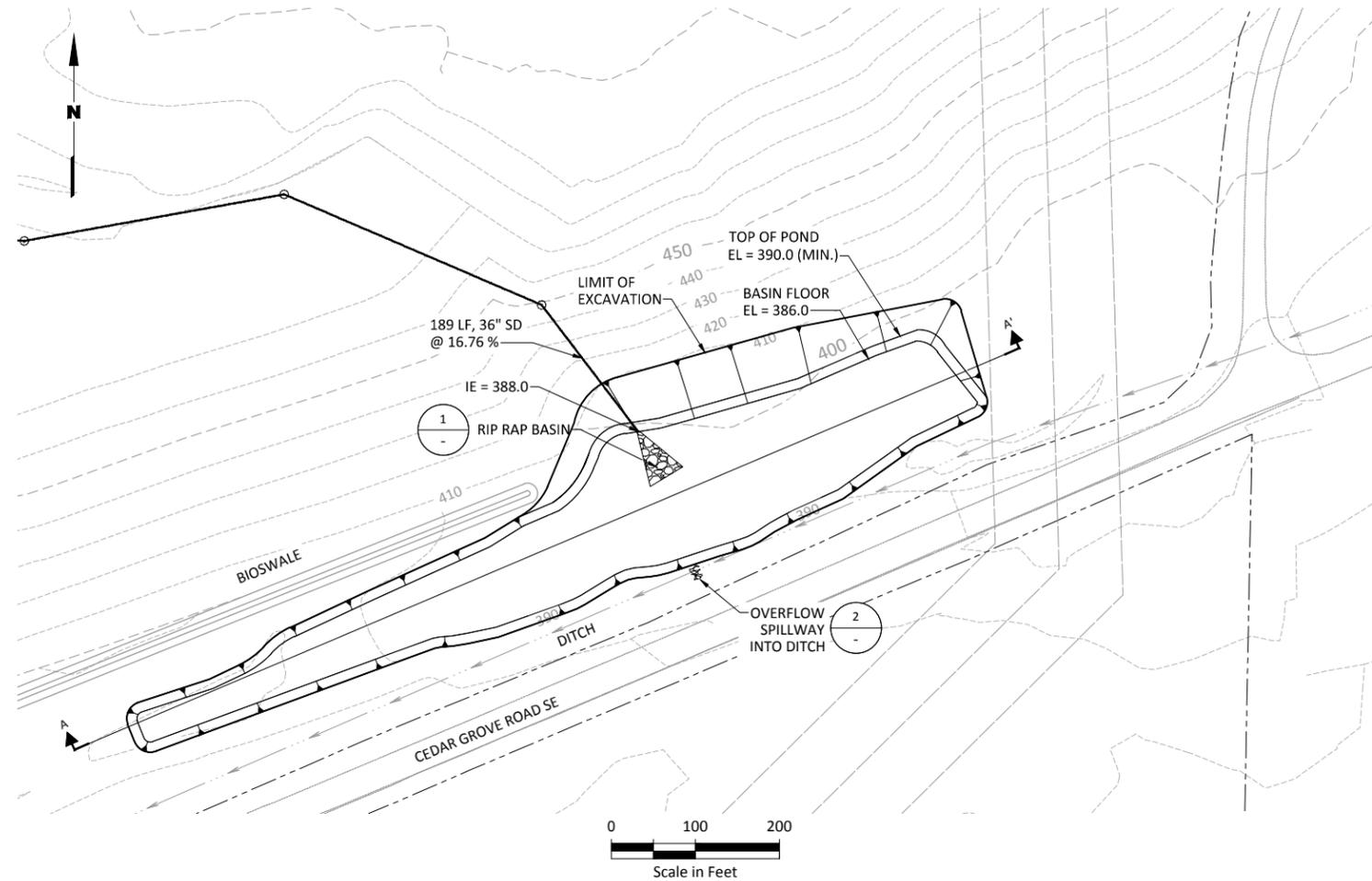
PHASE III RESTORATION PLAN SECTIONS

DDES FILE NUMBERS:
 Activity Number: _____
 Project Number: _____
 Development No: _____



PROJECT NO. 992002.050
 DATE 04/10/2018
 Sheet 6 of 13

LANDAU ASSOCIATES, INC. | G:\PROJECTS\992002\050501\PHIII REFILL PLAN SET\PHIII PROFILES.DWG 14/02/2018

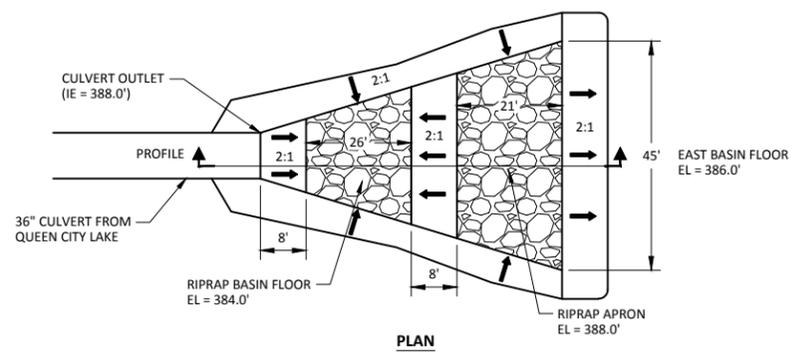


STORMWATER STANDARDS

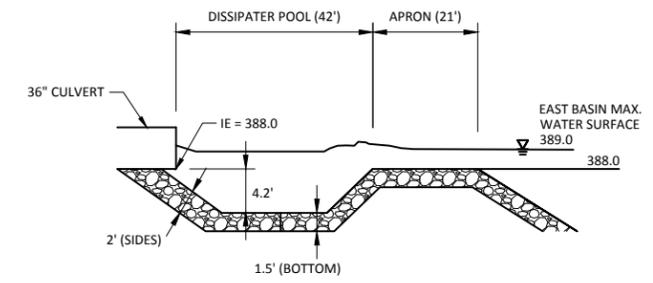
INFILTRATION POND
 INFILTRATION RATE: 20 IN/HR
 TOP OF POND = 390.00
 MAX WATER SURFACE = 389.00
 BOTTOM OF POND = 386.00
 POND BOTTOM AREA = 100,400 SF
 POND BOTTOM AREA REQUIRED = 78,500 SF
 VOLUME PROVIDED = 457,100 CF

INFILTRATION FACILITY NOTE:

THE REQUIREMENTS FOR DRAINAGE FACILITY CONSTRUCTION AND OPERATION ARE SPECIFIED BY KING COUNTY CODE 9.04.09C AND THE PUBLIC RULE FOR RETENTION/DETENTION FACILITIES: IN OPERATION REQUIREMENTS. INFILTRATION FACILITIES MUST BE FIELD TESTED TO VERIFY THE DESIGN RATE OF SOIL INFILTRATIONS. THIS TESTING MUST BE COMPLETE AND APPROVED BY KING COUNTY PRIOR TO THE CONSTRUCTION OF ANY IMPROVEMENTS AND/OR BUILDING ON THE SITE. CONTACT THE LAND USE SITE DEVELOPMENT SERVICES SECTION TO DETERMINE THE APPROPRIATE TEST METHOD FOR THE DRAINAGE FACILITY.

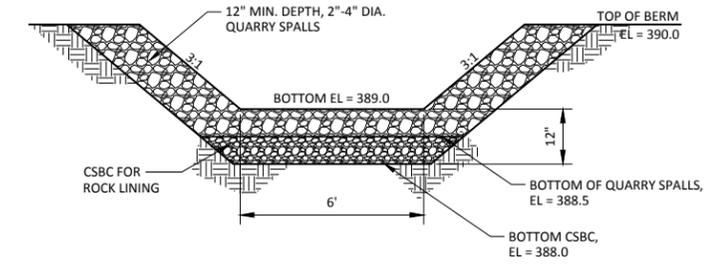
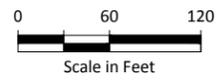
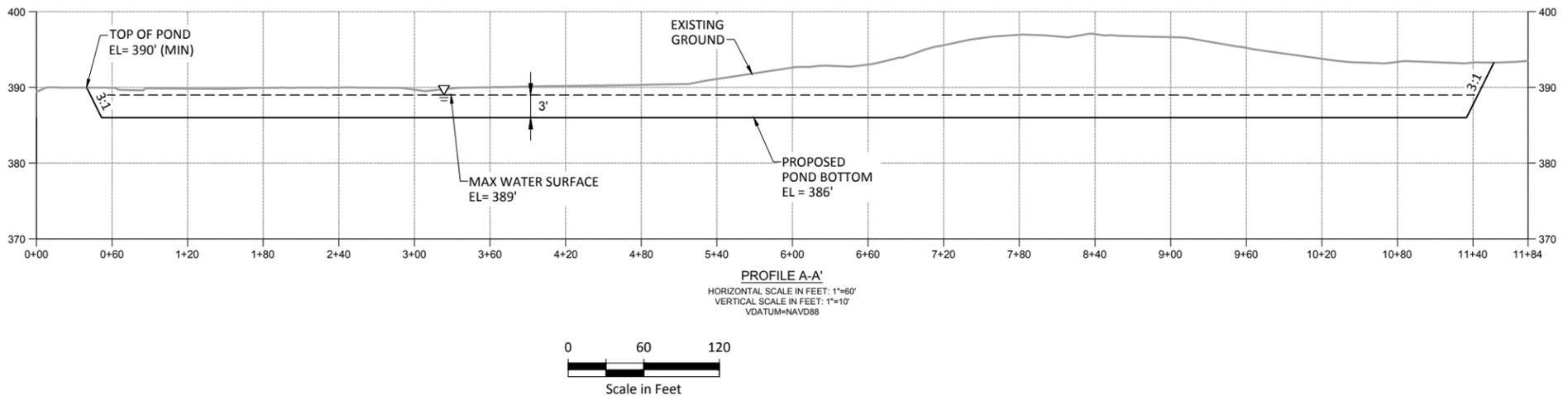


PLAN



PROFILE

1 RIP RAP BASIN
NOT TO SCALE



2 OVERFLOW SPILLWAY DETAIL
NOT TO SCALE

KING COUNTY DDES APPROVAL	
Review Engineer _____	Date _____
Senior Engineer _____	Date _____
Wally Archuketa, P.E. DEVELOPMENT ENGINEER	Date _____

LANDAU ASSOCIATES
 130 2ND AVENUE S
 EDMONDS, WASHINGTON 98020
 ERIC WEBER (253) 284-4878
 Project Coordinator

ESZ	MDV	KWV	KMS
DRAFTED BY: E. ZICK	DESIGNED BY: M. VEILLEUX	REVIEWED BY: K. WIKEN	APPROVED BY: K. SALTANOVITZ
DATE SURVEYED: _____			
SURVEYED BY: _____			
STATUS: _____			
ISSUED FOR PERMIT REVIEW			

**QUEEN CITY FARMS
 PHASE III REFILL
 MAPLE VALLEY, WASHINGTON**
**EAST RETENTION POND
 MODIFICATIONS**

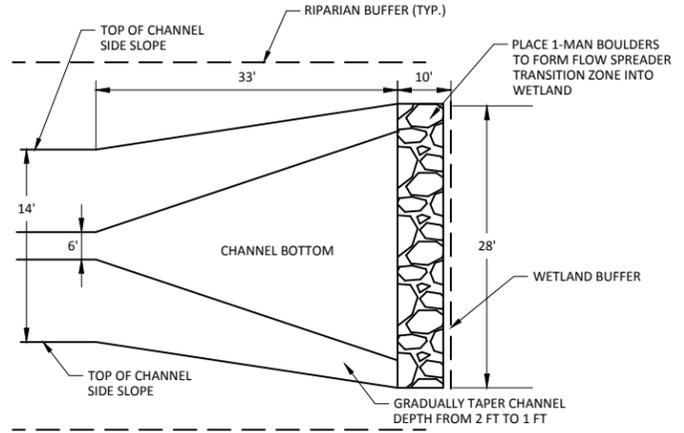
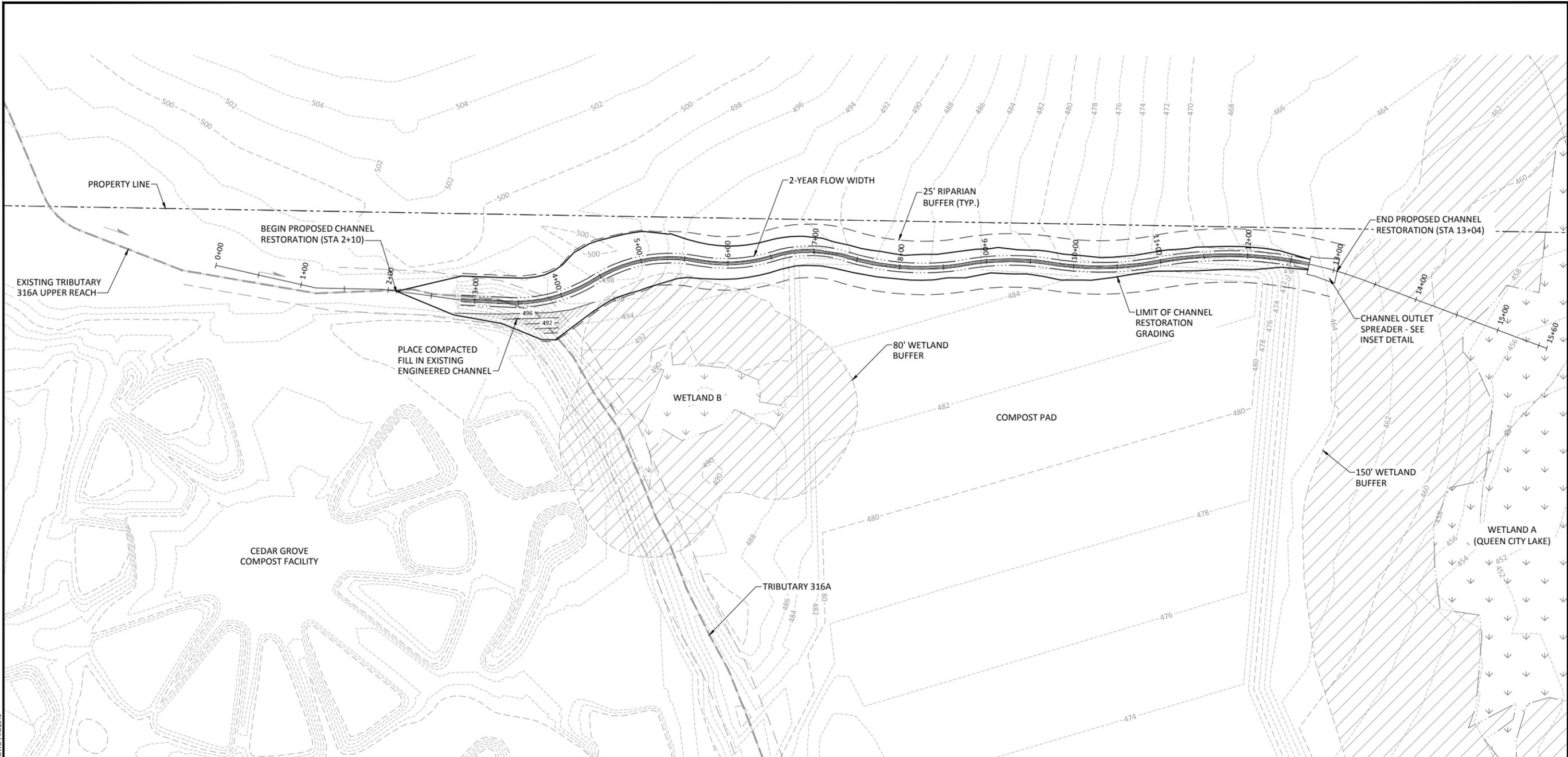
DDES FILE NUMBERS:
 Activity Number: _____
 Project Number: _____
 Development No: _____



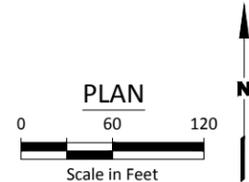
PROJECT NO. 992002.050
 DATE 04/10/2018

LANDAU ASSOCIATES, INC. | G:\PROJECTS\992002\050501\PHIII REFILL PLAN SET\EP EAST POND MODIFICATIONS.DWG | 4/8/2018

LANDAU ASSOCIATES, INC. | G:\PROJECTS\99202\050505\1PH\REFILL PLAN SET\P5 STREAM ALIGNMENT MANUAL DWG 14/8/2018



1 CHANNEL OUTLET SPREADER DETAIL
9 NOT TO SCALE



KING COUNTY DDES APPROVAL	
Review Engineer _____	Date _____
Senior Engineer _____	Date _____
Wally Archuketa, P.E. DEVELOPMENT ENGINEER	Date _____

130 2ND AVENUE S EDMONDS, WASHINGTON 98020	
ERIC WEBER Project Coordinator	(253) 284-4878 Phone
DESIGNED BY: E. ZICK DRAWN BY: M. VILLEUX REVIEWED BY: K. WIKEN APPROVED BY: K. SALTANOVITZ DATE SURVEYED: _____ SURVEYED BY: _____ STATUS: ISSUED FOR PERMIT REVIEW	ESZ MDV KWW KWS

**QUEEN CITY FARMS
 PHASE III REFILL
 MAPLE VALLEY, WASHINGTON**

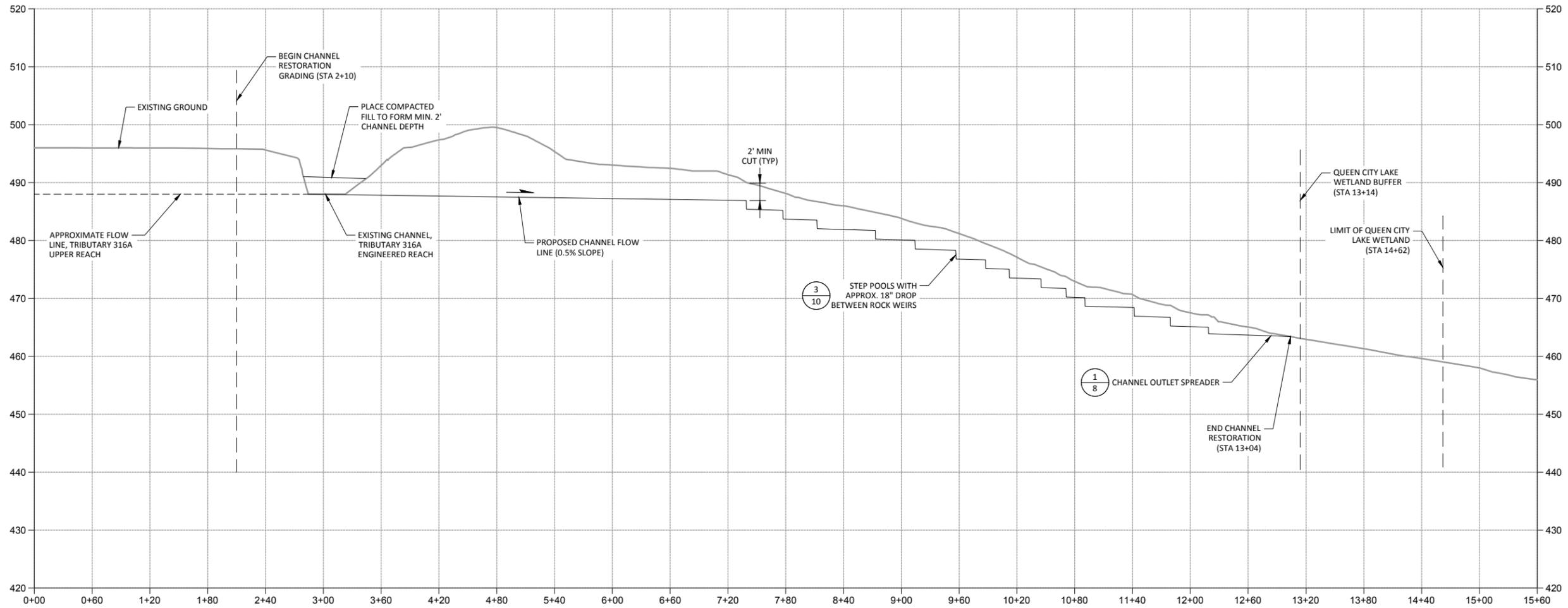
**PROPOSED STREAM CHANNEL
 RESTORATION - ALIGNMENT**

DDES FILE NUMBERS:
 Activity Number: _____
 Project Number: _____
 Development No: _____



PROJECT NO.
 992002.050
 DATE
 04/10/2018
 Sheet 8 of 13

LANDAU ASSOCIATES, INC. | G:\PROJECTS\992002\0505051\PHIII\REFILL\PLAN\SETUP\STREAM\PROFILE_VZ.DWG | 4/8/2018



PROPOSED STREAM CHANNEL PROFILE

HORIZONTAL SCALE IN FEET: 1"=60'
 VERTICAL SCALE IN FEET: 1"=10'
 VERT. DATUM= NAVD88



LANDAU ASSOCIATES
 130 2ND AVENUE S
 EDMONDS, WASHINGTON 98020
 ERIC WEBER
 Project Coordinator
 (253) 284-4878
 Phone

ESZ	MDV	KWV	KWS
DRAFTED BY: E. ZICK	DESIGNED BY: M. VILLEUX	REVIEWED BY: K. WIKEN	APPROVED BY: K. SALTANOVITZ
DATE SURVEYED:			
SURVEYED BY:			
STATUS:			
ISSUED FOR PERMIT REVIEW			

**QUEEN CITY FARMS
 PHASE III REFILL
 MAPLE VALLEY, WASHINGTON**

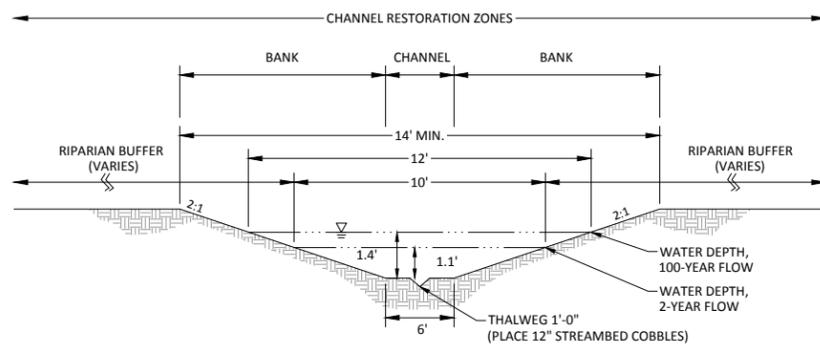
**PROPOSED STREAM CHANNEL
 RESTORATION - PROFILE**

DDES FILE NUMBERS:
 Activity Number: _____
 Project Number: _____
 Development No: _____



KING COUNTY DDES APPROVAL	
Review Engineer _____	Date _____
Senior Engineer _____	Date _____
Wally Archuketa, P.E. DEVELOPMENT ENGINEER	Date _____

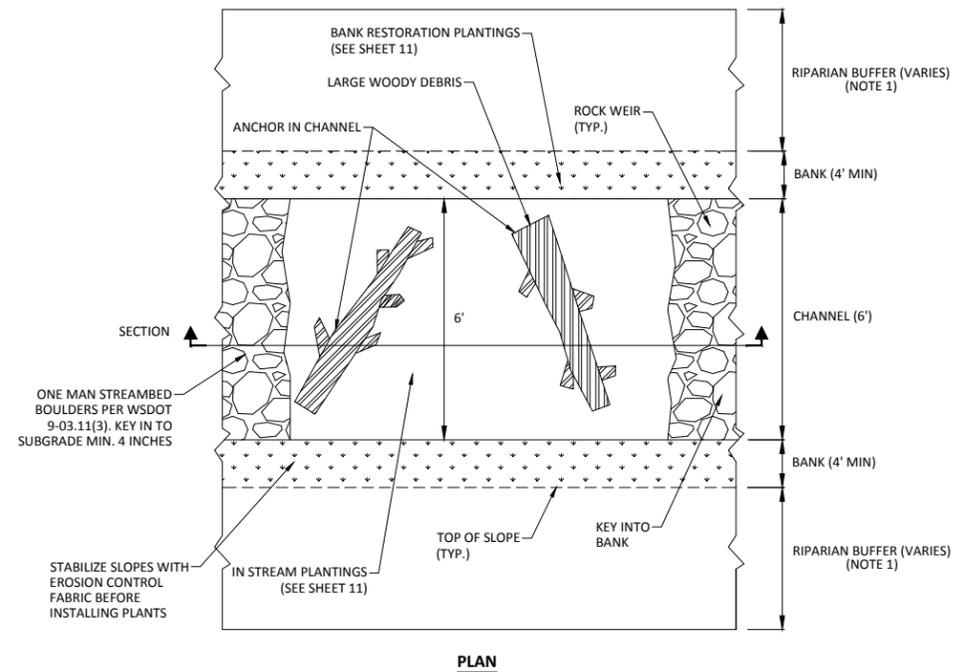
PROJECT NO.
992002.050
 DATE
04/10/2018
 Sheet 9 of 13



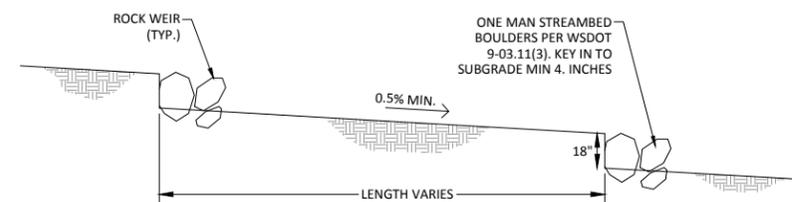
NOTES:

- 1. RESTORATION ZONE PLANT RECOMMENDATIONS SHOWN ON SHEET 11.

TYPICAL RESTORED STREAM CHANNEL SECTION
NOT TO SCALE



PLAN



SECTION

NOTES:

- 1. INSTALL HIGH VISIBILITY FENCE AND SIGNAGE ALONG OUTER EDGE OF BUFFER TO PROTECT NEWLY PLANTED AREA.

DETAIL - ROCK WEIRS
NOT TO SCALE

KING COUNTY DDES APPROVAL	
Review Engineer _____	Date _____
Senior Engineer _____	Date _____
Wally Archuketa, P.E. DEVELOPMENT ENGINEER	Date _____

LANDAU ASSOCIATES
130 2ND AVENUE S
EDMONDS, WASHINGTON 98020
ERIC WEBER
Project Coordinator
(253) 284-4878
Phone

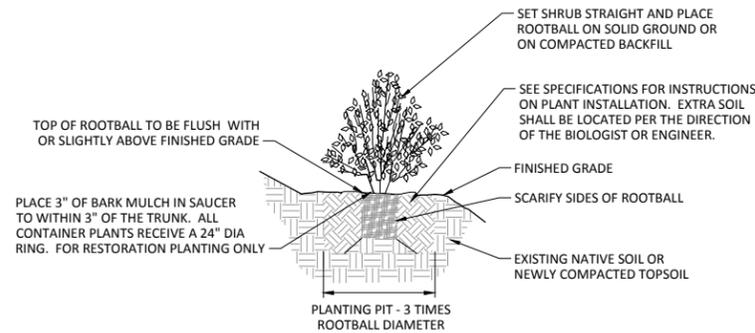
ESZ	MDV	KWV	KWS
DRAFTED BY: E. ZICK	DESIGNED BY: M. VILLEUX	REVIEWED BY: K. WIKEN	APPROVED BY: K. SALTANOVITZ
DATE SURVEYED:	SURVEYED BY:	STATUS:	ISSUED FOR PERMIT REVIEW

**QUEEN CITY FARMS
PHASE III REFILL
MAPLE VALLEY, WASHINGTON**
**PROPOSED STREAM CHANNEL
RESTORATION - SECTIONS**

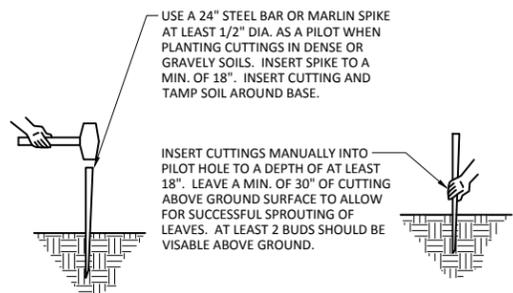
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Activity Number: _____
Project Number: _____
Development No: _____



PROJECT NO.
992002.050
DATE
04/10/2018



1 CONTAINER PLANTING DETAIL
NOT TO SCALE

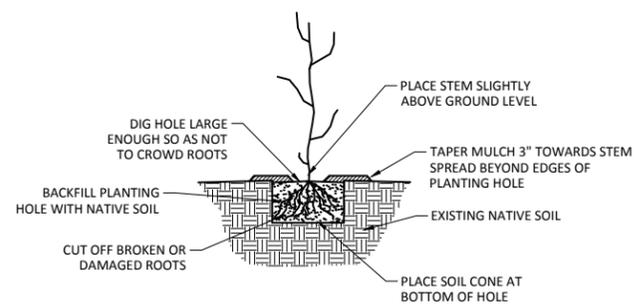


2 PLUG PLANTING DETAIL
NOT TO SCALE

NOTES:

- CUTTINGS SHALL BE SPECIES AS NOTED IN THE PLANT SCHEDULE.
- CUTTINGS SHALL BE AT LEAST 1/2" DIA. AND 5' (MIN.) IN LENGTH.
- CUTTINGS MUST BE ALIVE WITH SIDE BRANCHES CLEARLY REMOVED AND BARK INTACT. CUTTINGS SHALL BE PLANTED WITHIN 24 HOURS OF CUTTING.
- THE BUTT ENDS SHOULD BE CLEANLY CUT AT AN ANGLE FOR EASY INSERTION INTO THE SOIL. THE TOP SHOULD BE CUT SQUARE OR BLUNT.
- CUTTINGS MUST BE FRESH AND KEPT MOIST AFTER CUTTING. THEY SHOULD BE PRUNED AND INSTALLED THE SAME DAY.
- DIP BOTTOM OF CUTTING IN A PLANT ROOTING HORMONE PRIOR TO INSERTION INTO THE SOIL.

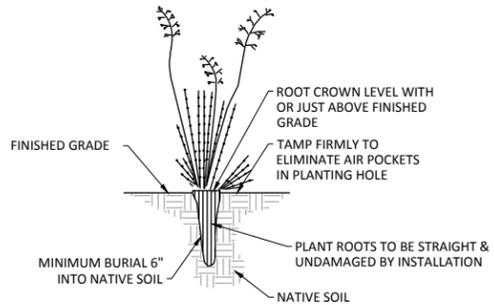
4 LIVE STAKES
NOT TO SCALE



NOTES:

- KEEP ROOTS MOIST AT ALL TIMES BEFORE AND DURING PLANTING.
- INSTALL PLANTS WITHIN 2-DAYS OF RECEIPT OF BARE ROOT STOCK.
- SOAK ROOTS IN TEPID WATER FOR 30-60 MINUTES PRIOR TO INSTALLATION.
- DIG HOLE TWICE THE DIAMETER OF THE ROOT SPREAD.
- LEAVE CONE OF UNDISTURBED NATIVE SOIL IN CENTER OF HOLE, SPREADING ROOTS OVER CONE.
- INSTALL CROWN SLIGHTLY HIGHER THAN FINISHED GRADE TO ALLOW FOR POTENTIAL SETTLEMENT WITH ROOTS SPREADING DOWNWARD OVER SOIL CONE.
- TAPER MULCH (2-3") TOWARDS BUT NOT TOUCHING CROWN.

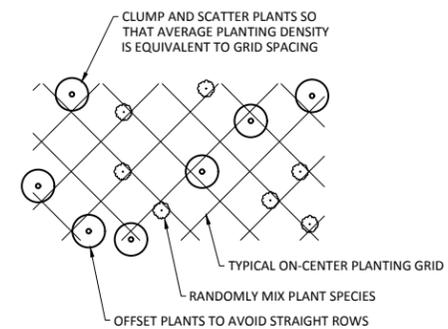
5 BARE ROOT
NOT TO SCALE



NOTES:

- LEAVES & ROOT CROWN TO REMAIN UNDAMAGED DURING PLANTING.
- CREATE PLANTING HOLE BY DRIVING STEEL SPIKE INTO SOIL & WORKING SPIKE TO WIDEN SOIL.
- PLANT AFTER FALL RAINS HAVE DAMPENED SOIL UNLESS DIRECTED OTHERWISE.
- KEEP PLUGS MOIST AND COVERED AT ALL TIMES PRIOR TO PLANTING.
- MAKE A HOLE TO ACCOMMODATE PLUG; V-SHAPED FURROW APPROXIMATELY 12 INCHES DEEP.
- PLACE PLUG INTO THE HOLE ENSURING THE PLUG IS TO THE BOTTOM OF THE HOLE.
- BACKFILL WITH NATIVE SOIL USING 2 TO 3 INCHES OF MULCH OVER PLUG HOLD.
- THE TOP OF PLUG SOIL SHALL BE SLIGHTLY BELOW GRADE.
- CREATE HOLE FOR THE NEXT PLUG, USING THE SPECIFIED SPACING (1 FOOT ON-CENTER).
- REPEAT INSTALLATION PROCEDURE.
- PLANT IN ROWS CONTINUING IN A STRAIGHT LINE TO THE END OF THE PLANTING AREA. STAGGER THE SPECIFIED SPACING FOR THE NEXT ROW MAINTAINING ON CENTER SPACING AND CONTINUE PLANTING. STAGGER PLUGS AS SHOWN BELOW:

2 PLUG PLANTING DETAIL
NOT TO SCALE



NOTES:

- ON-CENTER (O.C.) PLANT SPACING IS AN AVERAGE. PLANTS SHOULD BE SPACED IN A NATURAL PATTERN, WHICH SOMETIMES INCLUDES CLUSTERING SPECIES BASED ON TOPOGRAPHY AND ADJACENT LANDSCAPE. FINAL LOCATIONS SHALL BE APPROVED BY A BIOLOGIST.
- ALL SPECIFICATIONS FOR PLANT MATERIALS SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION.
- THE BIOLOGIST SHALL INSPECT AND APPROVE THE PLANT MATERIAL AT THE JOB SITE FOR PLANT HEALTH, SIZE, AND SPECIES PRIOR TO PLANTING.

3 RANDOM PLANTING DETAIL
NOT TO SCALE

RESTORATION PLANT RECOMMENDATIONS

RESTORATION ZONES	COMMON NAME	SCIENTIFIC NAME	MINIMUM SPACING (O.C. FT)	FORM	MAX HEIGHT (FT)	LIGHT NEEDS ¹	SITE PLACEMENT ²	COMMENTS
CHANNEL								
	PACIFIC WILLOW	<i>Salix lucida</i>	1	5' STAKES	36	HA	SS	INSTALL THESE RECOMMENDED PLANTS WITHIN GRADED STREAM CHANNEL AT EDGE OF STREAMBANK.
	SITKA WILLOW	<i>Salix sitchensis</i>	1	5' STAKES	25	HA	WE,SS,WB	INSTALL SLOUGH SEDGE IN CLUMPS OF 4 PLANTS WITH 1 FT ON-CENTER SPACING THROUGHOUT GRADED STREAM CHANNEL AREAS ONLY.
	SLOUGH SEDGE	<i>Carex obnupta</i>	1	PLUGS	4.5	ST	SS	
BANK								
	BLACK COTTONWOOD	<i>Populus trichocarpa</i>	10	1-GAL	200	HA	WE,WB,SS	INSTALL THESE RECOMMENDED PLANTS ACCORDING TO THEIR SITE PLACEMENT NEEDS. WETTER EDGE
	CASCARA	<i>Rhamnus purshiana</i>	10	1-GAL	25	HA	WE,WB	INDICATES INSTALLING PLANT CLOSER TO EDGE OF GRADED STREAM CHANNEL. DRIER BUFFER INDICATES
	BLACK TWINBERRY	<i>Lonicera involucrata</i>	4	1-GAL	10	SI-ST	WE,WB	INSTALLING PLANT HIGHER UP ON STREAMBANK AWAY FROM GRADED
	SALMONBERRY	<i>Rubus spectabilis</i>	4	BARE ROOT	15	HA	WE,WB	STREAM CHANNEL.
	RED-OSIER DOGWOOD	<i>Cornus sericea</i>	4	BARE ROOT	20	SI-ST	WE,WB	
	NOOTKA ROSE	<i>Rosa nutkana</i>	4	BARE ROOT	10	SI-ST	WE,WB	
	RED ALDER	<i>Alnus rubra</i>	4	BARE ROOT	80	SI-ST	WB,WE,SS	
	PACIFIC NINEBARK	<i>Cornus sericea</i>	4	1-GAL	13	ST	DB	
RIPARIAN BUFFER								
	BIGLEAF MAPLE	<i>Acer macrophyllum</i>	10	1-GAL	100	ST	DB	INSTALL THESE RECOMMENDED
	PAPER BIRCH	<i>Betula papyrifera</i>	10	1-GAL	230	ST	WE,SS	PLANTS ACCORDING TO THEIR SITE
	OCEAN SPRAY	<i>Holodiscus discolor</i>	4	1-GAL	10	SI-ST	DB	PLACEMENT NEEDS. ALL PLANTS
	SERVICEBERRY	<i>Amelanchier alnifolia</i>	4	1-GAL	35	SI-ST	WE,WB	SHOULD BE ADAPTABLE TO DRIER
	COMMON SNOWBERRY	<i>Symphoricarpos albus</i>	4	1-GAL	6	SI-ST	DB	BUFFER CONDITIONS. PLANTS MAY
	RED-FLOWERING CURRENT	<i>Ribes sanguineum</i>	4	1-GAL	13	SI-ST	DB	NEED SUPPLEMENTAL WATERING
	WOOD ROSE	<i>Rosa gymnocarpa</i>	4	1-GAL	7	ST	DB	DURING FIRST YEAR FOLLOWING
	RED ELDERBERRY	<i>Sambucus racemosa</i>	4	1-GAL	20	HA	WB,DB	INSTALLATION.
	INDIAN PLUM	<i>Oemlaria cerasiformis</i>	4	BARE ROOT	15	HA	WE,WB,DB	

NATIVE HYDROSEED MIX:

SCIENTIFIC NAME	COMMON NAME	PROPORTIONS BY WEIGHT
<i>Alopecurus geniculatus</i>	WATER FOXTAIL	15%
<i>Agrostis stolonifera</i>	SPREADING BENTGRASS	15%
<i>Glyceria grandis</i>	REED MANAGRASS	15%
<i>Deschampsia cespitosa</i>	TUFTED HAIRGRASS	15%
<i>Eleocharis palustris</i>	CREEPING SPIKE RUSH	10%
<i>Juncus tenuis</i>	SLENDER RUSH	10%
<i>Scirpus microcarpus</i>	SMALL-FRUITED BULL RUSH	10%
<i>Carex obnupta</i>	SLOUGH SEDGE	10%

¹LIGHT NEEDS:

- SI = SHADE INTOLERANT
- ST = SHADE TOLERANT
- SD = SHADE DEPENDENT
- HA = HIGHLY ADAPTABLE

²SITE PLACEMENT:

- DB = DRIER BUFFER
- WB = WETTER BUFFER
- WE = WETTER EDGE
- SS = SATURATED SOILS

NOTES:

- PLANT FORMS ARE APPROXIMATE AND WILL BE BASED ON AVAILABILITY FROM SUPPLIER AT TIME OF INSTALLATION.
- PLANT SPECIES SUBSTITUTIONS FROM RESTORATION ZONES WILL BE APPROVED BY WETLAND BIOLOGIST PRIOR TO ORDERING PLANT STOCK.

LANDAU ASSOCIATES
130 2ND AVENUE S.
EDMONDS, WASHINGTON 98020
ERIC WEBER (253) 284-4878
Project Coordinator Phone

DESIGNED BY: E. ZICK	MDV
DESIGNED BY: M. VILLEUX	KWV
REVIEWED BY: K. WIKEN	KWS
APPROVED BY: K. SALTANOVITZ	
DATE SURVEYED:	
SURVEYED BY:	
STATUS:	
ISSUED FOR PERMIT REVIEW	

**QUEEN CITY FARMS
PHASE III REFILL
MAPLE VALLEY, WASHINGTON
WETLAND PLANTING PLAN**

DDES FILE NUMBERS:
Activity Number: _____
Project Number: _____
Development No: _____



KING COUNTY DDES APPROVAL

Review Engineer	Date
Senior Engineer	Date
Wally Archuketa, P.E. DEVELOPMENT ENGINEER	Date

LANDAU ASSOCIATES INC. | G:\PROJECTS\992002\050501PHIII\REFILL\PLAN SETUP\WETLAND PLANTING PLAN.DWG | 4/8/2018

GENERAL NOTES:

- ALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH PERMIT CONDITIONS, THE KING COUNTY CODE (KCC), THE KING COUNTY ROAD DESIGN AND CONSTRUCTION STANDARDS (KCRDCS), WASHINGTON STATE DOT (WSDOT) STANDARD SPECIFICATIONS AND THE CONDITIONS OF PRELIMINARY APPROVAL. IT SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT AND THE PROFESSIONAL CIVIL ENGINEER TO CORRECT ANY ERROR, OMISSION, OR VARIATION FROM THE ABOVE REQUIREMENTS FOUND IN THESE PLANS. ALL CORRECTIONS SHALL BE AT NO ADDITIONAL COST OR LIABILITY TO KING COUNTY.
- THE DESIGN ELEMENTS WITHIN THESE PLANS HAVE BEEN REVIEWED ACCORDING TO THE KING COUNTY DEPARTMENT OF PERMITTING AND ENVIRONMENTAL REVIEW (DPER) ENGINEERING REVIEW CHECKLIST. SOME ELEMENTS MAY HAVE BEEN OVERLOOKED OR MISSED BY THE DPER PLAN REVIEWER. ANY VARIANCE FROM ADOPTED STANDARDS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY KING COUNTY PRIOR TO CONSTRUCTION.
- APPROVAL OF THIS ROAD, GRADING, PARKING AND DRAINAGE PLAN DOES NOT CONSTITUTE AN APPROVAL OF ANY OTHER CONSTRUCTION (E.G. DOMESTIC WATER CONVEYANCE, SEWER CONVEYANCE, GAS, ELECTRICAL, ETC.)
- BEFORE ANY CONSTRUCTION OR DEVELOPMENT ACTIVITY, A PRECONSTRUCTION MEETING MUST BE HELD BETWEEN THE DPER'S DEVELOPMENT INSPECTOR, THE APPLICANT, AND THE APPLICANT'S CONSTRUCTION REPRESENTATIVE.
- A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- GRADING ACTIVITIES (SITE ALTERATION) ARE LIMITED TO THE HOURS OF 7 A.M. TO 7 P.M. MONDAY THROUGH SATURDAY AND 10 A.M. TO 5 P.M. ON SUNDAY, UNLESS OTHERWISE APPROVED WITH A WRITTEN DECISION BY THE REVIEWING AGENCY.
- IT SHALL BE THE APPLICANT'S/CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL CONSTRUCTION EASEMENTS NECESSARY BEFORE INITIATING OFF-SITE WORK. EASEMENTS REQUIRE REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
- FRANCHISED UTILITIES OR OTHER INSTALLATIONS THAT ARE NOT SHOWN ON THESE APPROVED PLANS SHALL NOT BE CONSTRUCTED UNLESS AN APPROVED SET OF PLANS THAT MEET ALL REQUIREMENTS OF KCRDCS CHAPTER 8 ARE SUBMITTED TO THE DPER'S DEVELOPMENT INSPECTOR THREE DAYS PRIOR TO CONSTRUCTION.
- DATUM SHALL BE NAVD88 UNLESS OTHERWISE APPROVED BY DPER.
- DEWATERING SYSTEM (UNDERDRAIN) CONSTRUCTION SHALL BE WITHIN A RIGHT-OF-WAY OR APPROPRIATE DRAINAGE EASEMENT, BUT NOT UNDERNEATH THE ROADWAY SECTION. ALL UNDERDRAIN SYSTEMS MUST BE CONSTRUCTED IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS.
- ALL UTILITY TRENCHES AND ROADWAY SUBGRADE SHALL BE BACKFILLED AND COMPACTED TO 95 PERCENT MAXIMUM DENSITY PER WSDOT STANDARD SPECIFICATIONS 2-03.3(14)D, METHOD C.
- OPEN CUTTING OF EXISTING ROADWAYS FOR NON-FRANCHISED UTILITY OR STORM WORK IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY DPER AND NOTED ON THESE APPROVED PLANS. ANY OPEN CUT SHALL BE RESTORED IN ACCORDANCE WITH KCRDCS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. MANUAL OR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL APPLY. WORK IN RIGHT-OF-WAY IS NOT AUTHORIZED UNTIL A TRAFFIC CONTROL PLAN IS APPROVED BY KING COUNTY.

DRAINAGE NOTES:

- PROOF OF LIABILITY INSURANCE SHALL BE SUBMITTED TO DPER PRIOR TO THE CONSTRUCTION OF THE DRAINAGE FACILITIES, PREFERABLY AT THE PRECONSTRUCTION MEETING.
- ALL PIPE AND APPURTENANCES SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN ACCORDANCE WITH WSDOT SPECIFICATIONS. THIS SHALL INCLUDE LEVELING AND COMPACTING THE TRENCH BOTTOM, THE TOP OF THE FOUNDATION MATERIAL, AND ANY REQUIRED PIPE BEDDING, TO A UNIFORM GRADE SO THAT THE ENTIRE PIPE IS SUPPORTED BY A UNIFORMLY DENSE UNYIELDING BASE.
- STEEL PIPE SHALL BE ALUMINIZED, OR GALVANIZED WITH ASPHALT TREATMENT #1 OR BETTER INSIDE AND OUTSIDE.
- ALL DRAINAGE STRUCTURES, SUCH AS CATCH BASINS AND MANHOLES, NOT LOCATED WITHIN A TRAVELED ROADWAY OR SIDEWALK, SHALL HAVE SOLID LOCKING LIDS. ALL DRAINAGE STRUCTURES ASSOCIATED WITH A PERMANENT RETENTION/DETENTION FACILITY SHALL HAVE SOLID LOCKING LIDS.
- ALL CATCH BASIN GRATES SHALL CONFORM TO KCRDCS, WHICH INCLUDES THE STAMPING "OUTFALL TO STREAM, DUMP NO POLLUTANTS" AND "PROPERTY OF KING COUNTY", EXCEPT THAT PRIVATE DRAINAGE SYSTEMS SHALL NOT HAVE THE WORDS "PROPERTY OF KING COUNTY".
- ALL DRIVEWAY CULVERTS LOCATED WITHIN KING COUNTY RIGHT-OF-WAY SHALL BE OF SUFFICIENT LENGTH TO PROVIDE A MINIMUM 3:1 SLOPE FROM THE EDGE OF THE DRIVEWAY TO THE BOTTOM OF THE DITCH. CULVERTS SHALL HAVE BEVELED END SECTIONS TO MATCH THE SIDE SLOPE PER KCRDCS.
- ROCK FOR EROSION PROTECTION OF ROADWAY DITCHES, WHERE REQUIRED, MUST BE OF SOUND QUARRY ROCK, PLACED TO A DEPTH OF 1 FOOT, AND MUST MEET THE FOLLOWING SPECIFICATIONS: 4"-8"/40%-70% PASSING; 2"- 4" ROCK/30%-40% PASSING; AND -2" ROCK/10%-20% PASSING. INSTALLATION SHALL BE IN ACCORDANCE WITH KCRDCS.
- DRAINAGE OUTLETS (STUB-OUTS) SHALL BE PROVIDED FOR EACH INDIVIDUAL LOT, EXCEPT FOR THOSE LOTS APPROVED FOR INFILTRATION BY KING COUNTY. STUB-OUTS SHALL CONFORM TO THE FOLLOWING:
 - EACH OUTLET SHALL BE SUITABLY LOCATED AT THE LOWEST ELEVATION ON THE LOT, SO AS TO SERVICE ALL FUTURE ROOF DOWNSPOUTS AND FOOTING DRAINS, DRIVEWAYS, YARD DRAINS, AND ANY OTHER SURFACE OR SUBSURFACE DRAINS NECESSARY TO RENDER THE LOTS SUITABLE FOR THEIR INTENDED USE. EACH OUTLET SHALL HAVE FREE-FLOWING, POSITIVE DRAINAGE TO AN APPROVED STORMWATER CONVEYANCE SYSTEM OR TO AN APPROVED OUTFALL LOCATION.
 - OUTLETS ON EACH LOT SHALL BE LOCATED WITH A FIVE-FOOT-HIGH, 2" X 4" STAKE MARKED "STORM" OR "DRAIN". THE STUB-OUT SHALL EXTEND ABOVE SURFACE LEVEL, BE VISIBLE, AND BE SECURED TO THE STAKE.
 - PIPE MATERIAL SHALL CONFORM TO UNDERDRAIN SPECIFICATIONS DESCRIBED IN KCRDCS AND, IF NON-METALLIC, THE PIPE SHALL CONTAIN WIRE OR OTHER ACCEPTABLE DETECTION.
 - DRAINAGE EASEMENTS ARE REQUIRED FOR DRAINAGE SYSTEMS DESIGNED TO CONVEY FLOWS THROUGH INDIVIDUAL LOTS.
 - THE APPLICANT/CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE LOCATIONS OF ALL STUB-OUT CONVEYANCE LINES WITH RESPECT TO THE UTILITIES (E.G. POWER, GAS, TELEPHONE, TELEVISION).
 - ALL INDIVIDUAL STUB-OUTS SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE LOT HOME OWNER.
- ALL DISTURBED PERVIOUS AREAS (COMPACTED, GRADED, LANDSCAPED, ETC.) OF THE DEVELOPMENT SITE MUST DEMONSTRATE ONE OF THE FOLLOWING, IN ACCORDANCE WITH KCC AND THE LOW IMPACT DEVELOPMENT (LID) COMPONENTS OF THE APPROVED SITE PLAN: THE EXISTING DUFF LAYER SHALL BE STAGED AND REDISTRIBUTED TO MAINTAIN THE MOISTURE CAPACITY OF THE SOIL, OR; AMENDED SOIL SHALL BE ADDED TO MAINTAIN THE MOISTURE CAPACITY.
- SEASONAL CLEARING IS LIMITED BETWEEN OCTOBER 1 AND APRIL 30 INCLUSIVE, UNLESS OTHERWISE APPROVED WITH A WRITTEN DECISION BY THE REVIEWING AGENCY.
- IMPROVEMENTS AND/OR BUILDINGS SHALL NOT BE INSTALLED UNTIL DRAINAGE FACILITIES ARE "IN OPERATION", (KCC 9.04).

EROSION AND SEDIMENTATION CONTROL NOTES:

- APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.)
- THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY SURVEY TAPE OR FENCING, IF REQUIRED, PRIOR TO CONSTRUCTION (KING COUNTY SWDM APPENDIX D). DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS OR WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN AND TRACK OUT TO ROAD RIGHT OF WAY DOES NOT OCCUR FOR THE DURATION OF THE PROJECT.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, FLOW CONTROL BMP LOCATIONS (EXISTING AND PROPOSED), AND ADJACENT PROPERTIES IS MINIMIZED.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL COVER MEASURES, ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, PERIMETER PROTECTION ETC.).
- THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES.
- ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC COVER METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
- ANY AREA NEEDING ESC MEASURES, NOT REQUIRING IMMEDIATE ATTENTION, SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH (MORE FREQUENTLY AS REQUIRED BY THE DPER SITE INSPECTOR) OR WITHIN 24 HOURS FOLLOWING A STORM EVENT.
- AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE PERMANENT FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE ROUGH GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY. FLOW CONTROL BMP FACILITY AREAS (EXISTING OR PROPOSED) SHALL NOT BE USED AS TEMPORARY FACILITIES AND SHALL BE PROTECTED FROM SEDIMENTATION AND INTRUSION.
- COVER MEASURES WILL BE APPLIED IN CONFORMANCE WITH APPENDIX D OF THE KING COUNTY SURFACE WATER DESIGN MANUAL.
- PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON. A SKETCH MAP OF THOSE AREAS TO BE SEEDED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE DPER INSPECTOR FOR REVIEW.

STRUCTURAL NOTES:

- THESE PLANS ARE APPROVED FOR STANDARD ROAD AND DRAINAGE IMPROVEMENTS ONLY. PLANS FOR STRUCTURES SUCH AS BRIDGES, VAULTS, AND RETAINING WALLS REQUIRE A SEPARATE REVIEW AND APPROVAL BY DPER PRIOR TO CONSTRUCTION (KCC 16.04. 16.70, 14.20).
- ROCKERIES ARE CONSIDERED TO BE A METHOD OF BANK STABILIZATION AND EROSION CONTROL. ROCKERIES SHALL NOT BE CONSTRUCTED TO SERVE AS RETAINING WALLS. ALL ROCKERIES IN COUNTY ROAD RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH KCRDCS. ROCKERIES OUTSIDE OF ROAD RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE.

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LANDAU ASSOCIATES

130 2ND AVENUE S
EDMONDS, WASHINGTON 98020

ERIC WEBER (253) 284-4878
Project Coordinator Phone

ESZ	MDY	KWV	KWS
DESIGNED BY: E. ZICK	DESIGNED BY: M. VILLEUX	REVIEWED BY: K. WIKEN	APPROVED BY: K. SALTANOVITZ
DATE SURVEYED:		STATUS:	
ISSUED FOR PERMIT REVIEW			

**QUEEN CITY FARMS
PHASE III REFILL
MAPLE VALLEY, WASHINGTON**

NOTES

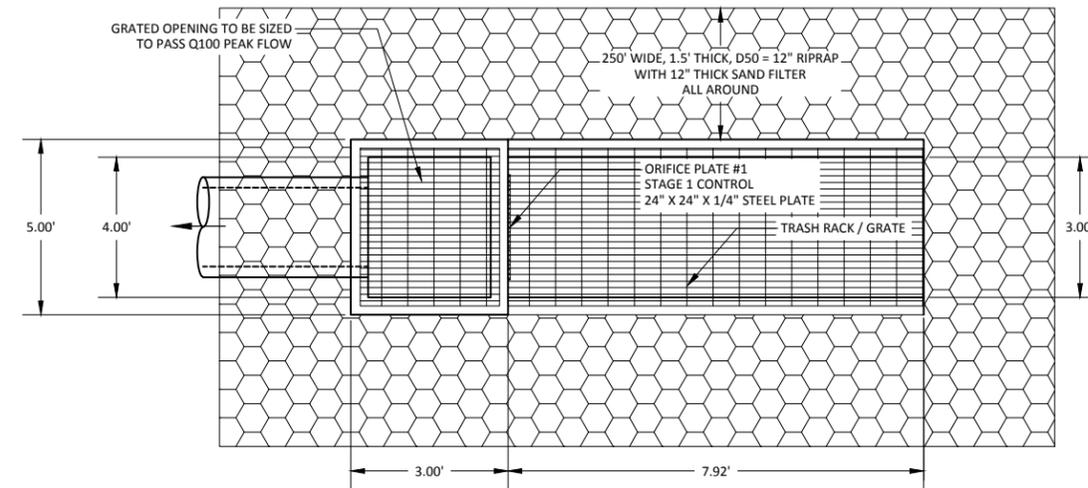
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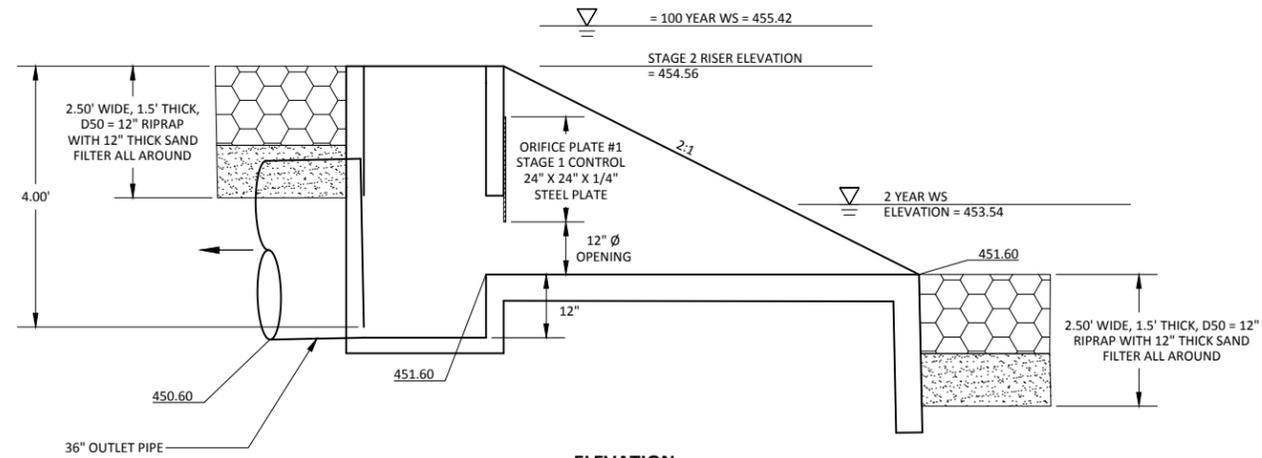
KING COUNTY DDES APPROVAL	
Review Engineer _____	Date _____
Senior Engineer _____	Date _____
Wally Archuketa, P.E. DEVELOPMENT ENGINEER	Date _____

PROJECT NO. 992002.050
DATE 04/10/2018

LANDAU ASSOCIATES, INC. | G:\PROJECTS\992002\050505\PHIII\REFILL\PLAN\SETUP\OUTLET STRUCTURE.DWG | 4/6/2018



PLAN VIEW



ELEVATION

1 QUEEN CITY LAKE OUTLET STRUCTURE
3 NOT TO SCALE

NOTES:

1. THE OUTLET STRUCTURE SHOWN WAS DESIGNED USING ANTICIPATED UPSTREAM CONDITIONS TO ESTIMATE FUTURE HYDROLOGIC RUNOFF VOLUMES AND PEAK FLOWS. A GROUND INFILTRATION RATE WAS ALSO USED IN THIS OUTLET STRUCTURE STAGE, STORAGE, DISCHARGE, AND INFILTRATION CALCULATIONS. LANDAU ASSOCIATES MAKES NO GUARANTEE IN THE ESTIMATED RAINFALL INTENSITIES AND RESULTING PERFORMANCE OF THIS STRUCTURE. MODIFICATION OF THE ORIFICE PLATE IS RECOMMENDED SHOULD CONDITIONS WARRANT.
2. THE ORIFICE PLATE IS TO BE ATTACHED IN SUCH A MANNER THAT RE-SIZING AND RE-ATTACHMENT OF A MODIFIED PLATE IS POSSIBLE.
3. STRUCTURAL DESIGN FOR ALL WALLS, BY OTHERS.
4. CONTRACTOR SHALL FOLLOW RECOMMENDATIONS AND SPECIFICATIONS OF THE SOILS ENGINEER.
5. GRATE OPENINGS FOR THE TOP OF THE STRUCTURE AND THE OUTLET PIPE ARE TO BE SIZED TO PASS 1.2 TIMES THE 100 YEAR PEAK OUTLET FLOW.
6. A 60-INCH DIAMETER TYPE 2 MANHOLE WITH BEEHIVE GRATE MAY BE USED IN PLACE OF THE OUTLET STRUCTURE SHOWN.

LANDAU ASSOCIATES
 130 2ND AVENUE S.
 EDMONDS, WASHINGTON 98020
ERIC WEBER (253) 284-4878
 Project Coordinator Phone

ESZ	DESIGNED BY: E. ZICK
MDV	DESIGNED BY: M. VILLEUX
KWV	REVIEWED BY: K. WIKEN
KWS	APPROVED BY: K. SALTANOVITZ
	DATE SURVEYED:
	SURVEYED BY:
	STATUS:
	ISSUED FOR PERMIT REVIEW

**QUEEN CITY FARMS
 PHASE III REFILL
 MAPLE VALLEY, WASHINGTON**
QUEEN CITY LAKE OUTLET STRUCTURE

DDES FILE NUMBERS:
 Activity Number: _____
 Project Number: _____
 Development No: _____



KING COUNTY DDES APPROVAL	
Review Engineer _____	Date _____
Senior Engineer _____	Date _____
Wally Archuketa, P.E. DEVELOPMENT ENGINEER	Date _____

PROJECT NO. 992002.050
 DATE 04/10/2018