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Seattle District



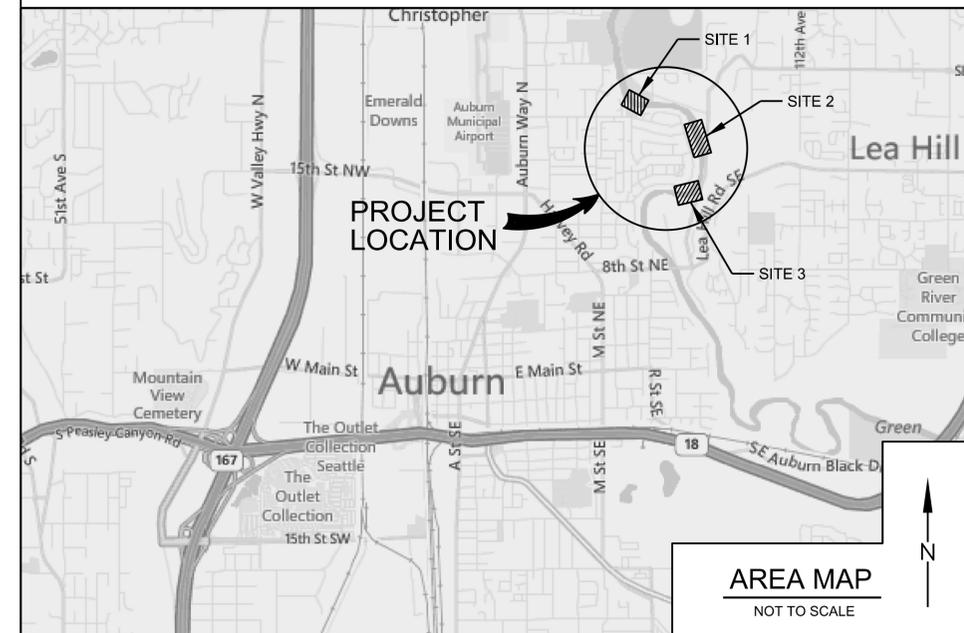
US Army Corps  
of Engineers®  
Seattle District

# PL 84-99 LEVEE REHABILITATION DYKSTRA, GREEN RIVER

## AUBURN, WASHINGTON

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FY15 GRN-01-14

SAFETY PAYS

Date: 17 APRIL 2014

File No.: E-12-7-236

Submitted by: GUY L. GREEN, P.E.  
Chief, Design Branch

Submitted by: LEAH WICKSTROM, P.E.  
Project Manager

Submitted by: U.S. ARMY CORPS OF ENGINEERS  
SEATTLE DISTRICT  
SEATTLE, WASHINGTON

Prepared by: JENNIFER L. WEST, P.E.  
Chief, Civil Section

SHEET IDENTIFICATION  
**G-001**  
SHEET 1 OF 19

IF SHEET MEASURES LESS THAN 22" X 34" IT IS  
A REDUCED PRINT. REDUCE SCALE ACCORDINGLY.

DESIGN FILE: I:\AEC\Designs\FY15\_PN448194\_GRDK\Con\_Docs\CAD\_Sheets\General\PN448192\_GRDK-G-001\CVR.dgn  
DATE AND TIME PLOTTED: 3/9/2016

# CIVIL NOTES

## LINETYPES

	20	EXISTING CONTOURS
	20	PROPOSED CONTOURS
		CONSTRUCTION LIMITS

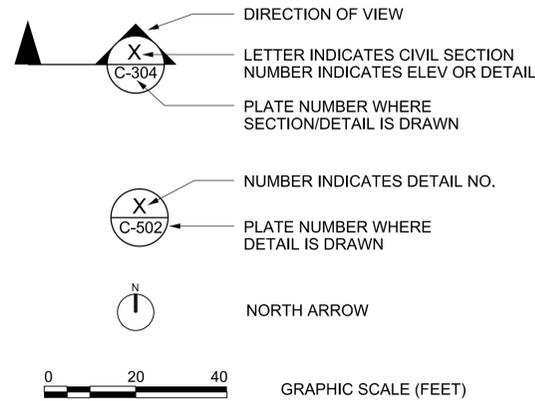
## LEGEND

	SLOPE ARROWS
	SPOT ELEVATION
	TREE/ TREES
	CONSTRUCTION ACCESS/ STAGING
	LEVEE FILL
	TOP SOIL
	2" - 4" QUARRY SPALLS
	1" MINUS GRAVEL
	CLASS III RIP RAP
	3' LIVE WILLOW STAKES

## ABBREVIATIONS

CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
EL	ELEVATION
FH	FIRE HYDRANT
GNV	GENERIC NATIVE VEGETATION
H	HORIZONTAL
MH	MANHOLE
N	NORTH
NAVD	NORTH AMERICAN VERTICAL DATUM
NTS	NOT TO SCALE
OC	ON CENTER
OHW	ORDINARY HIGH WATER
PI	POINT INTERCEPT
POB	POINT OF BEGINNING
POE	POINT OF ENDING
SPEC	SPECIFICATION
STA	STATION
TYP	TYPICAL
V	VERTICAL
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

## DRAFTING



## SURVEY/DATUM

MAPPING COMPILED FROM FEBRUARY 2006 AERIAL PHOTOS. MAPPING BY 3Di WEST FOR KING COUNTYDNR AND PARKS.

MAP SCALE 1"=100', CONTOUR INTERVAL: 2 FOOT.

HORIZONTAL DATUM: NAD83/91 (HARN) WA STATE PLANE NORTH ZONE (FEET).

VERTICAL DATUM: NAVD 88.

MAP HAS NOT BEEN COMPREHENSIVELY VERIFIED BY FIELD CHECKS.

## UTILITIES CONTACT INFORMATION

COMPANY	PHONE
CALL-BEFORE-YOU-DIG	(800) 424-5555
PUGET SOUND ENERGY	(425) 392-6412
CITY OF TUKWILA	(206) 433-0179

## LEVEE CONSTRUCTION NOTES

- CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD BEFORE STARTING WORK AND SHALL IMMEDIATELY NOTIFY THE CORPS OF ENGINEERS OF ANY DISCREPANCIES WITH RESPECT TO THE PLANS.
- BEFORE EXCAVATION OR TRENCHING, CONTRACTOR SHALL SUBMIT A UTILITY LOCATE REQUEST (CALL BEFORE YOU DIG) THROUGH THE STATE OF WASHINGTON UTILITY NOTIFICATION CENTER IN ACCORDANCE WITH STATE OF WASHINGTON LAW: CHAPTER 19.122 RCW - UNDERGROUND UTILITIES. NO EXCAVATION MAY BEGIN UNTIL THE TIME STATED ON THE LOCATE TICKET. THE ONE-CALL PHONE NUMBER FOR UTILITY LOCATES IS: 1-800-424-5555.
- ANY DAMAGE TO EXISTING SUBSURFACE OR SURFACE FACILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
- THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES AND IMPROVEMENTS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UTILITIES AND IMPROVEMENTS PRIOR TO EXCAVATION TO AVOID DAMAGE. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING AND PRESERVING THE INTEGRITY OF EXISTING SITE UTILITIES DURING CONSTRUCTION.
- ALL DISTANCES SHOWN ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATION SHALL BE INTERPRETED TO REFER TO HORIZONTALLY AND VERTICALLY PROJECTED PLANES, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULL RESTORATION OF ALL EXISTING FEATURES DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION, UNLESS OTHERWISE INDICATED BY THE CONSTRUCTION DOCUMENTS.
- CLEARING AND GRUBBING, STAGING AREAS AND CONSRUCTION ACCESS RAMP
  - ESTABLISH CONSTRUCTION STAGING AREAS, AS SHOWN ON PLANS.
  - INSTALL TEMPORARY EROSION CONTROL MEASURES FOR PHASES OF WORK TO BE CONDUCTED. WORKING AS CONSTRUCTION ADVANCES, CONTINUE TO INSTALL SILT FENCING ALONG FULL LENGTH OF DISTURBED AREAS OF THE PROJECT SITE. INSTALL EROSION CONTROL MEASURES AS NEEDED TO PREVENT THE DISCHARGE OR ACCUMULATION OF SEDIMENT INTO THE RIVER, ADJACENT SWALES, CATCH BASINS AND STORM DRAINS AND OFF-SITE. ACCUMULATION OF SEDIMENT IN ADJACENT SWALES OR STORM DRAINS WILL BE MONITORED DAILY AND CLEANED TO ENSURE CONTINUED SERVICE THROUGHOUT CONSTRUCTION.
  - CLEAR AND GRUB PROJECT SITE. DISPOSE OF VEGETATION AND OTHER UNSUITABLE MATERIALS IN AN APPROVED AND PERMITTED OFF-SITE LOCATION.
- RESTORATION AND TEMPORARY CONSTRUCTION WORK AREAS
  - RESTORE ASPHALT ON ALL DISTURBED AREAS, INCLUDING TEMPORARY CONSTRUCTION ACCESS AND WORK AREAS.
  - HYDROSEED ALL DISTURBED SITE AREAS PRIOR TO END OF CONSTRUCTION.
  - RESTORE TEMPORARY WORK AREAS TO PRE-CONSTRUCTION CONDITION. REPLACE ANY DAMAGED CURBS, PAINT STRIPES, ETC. IN KIND.
  - RESTORE ACCESS ROAD CONDITIONS AND FEATURES (FENCING, GATES, ETC...) TO PRE-CONSTRUCTION CONDITIONS.
- CONSTRUCTION
  - ALL IN-WATER PROJECT WORK SHALL BE COMPLETED DURING THE FISH WINDOW: SEE SPECIFICATION 01 14 00 FOR FISH WINDOW.
  - THE LIMITS OF THE STAGING AREA WILL BE DELINEATED IN THE FIELD BEFORE THE START OF CONSTRUCTION. FOLLOWING CONSTRUCTION, CONSTRUCTION MATERIALS WILL BE REMOVED AND ANY DISTURBED BARE SOIL IN ANY UNPAVED PORTION OF THE STAGING AREA WILL BE HYDROSEEDDED.
  - HEAVY EQUIPMENT WILL OPERATE EITHER FROM THE TOP OF BANK OR FROM A MID-SLOPE BENCH WELL ABOVE THE WATERLINE. THE EXCAVATOR BUCKET WILL ENTER THE WATER ONLY TO EXCAVATE MATERIAL TO ALLOW PLACEMENT OF ROCK AND FOR PLACEMENT OF ROCK.
  - ALL GAS AND OIL CONTAINERS FOR SMALL EQUIPMENT SHALL BE SAFELY AND SECURELY STORED IN UTILITY VEHICLES.
  - ALL WORK AREAS SHALL BE FENCED OFF WITH TEMPORARY FENCING PRIOR TO START OF CONSTRUCTION. NO GROUND DISTURBANCE OR OTHER CONSTRUCTION ACTIVITY SHALL TAKE PLACE OUTSIDE OF FENCING.
  - NO NATURALLY OCCURRING MATERIAL (LOGS, STUMPS, OR BRANCHES) SHALL BE REMOVED FROM THE RIVER AT ANY TIME. SHIFTING OF MATERIAL AS NEEDED FOR CONSTRUCTION SHALL BE APPROVED BY THE COR.
  - SEE SPECIFICATION 01 57 20 WATER QUALITY STANDARDS FOR TURBIDITY SAMPLING REQUIREMENTS.
- EROSION CONTROL AND VEGETATION
  - VEGETATION TO BE PRESERVED AND CLEARING LIMITS WILL BE FLAGGED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION BY THE PROJECT ENGINEER OR THE PROJECT ECOLOGIST.
  - EROSION CONTROL HYDROSEED MIX WILL BE USED TO ESTABLISH INITIAL GROUND COVER ON ALL DISTURBED AREAS, USING WASHINGTON STATE DEPARTMENT OF TRANSPORTATION HYDROSEED MIX.

NOT ALL UTILITIES ARE SHOWN ON THE PLANS, CALL 2 WORKING DAYS BEFORE YOU DIG 1-800-424-5555



DATE	DESCRIPTION	MARK	DATE	APPR.

DESIGNED BY: KAYO	DATE: 7/4/2015
DRAWN BY: KAYO	FILE NUMBER: E-12-7-236
CHECKED BY: WICKSTROM	PLOT DATE: 3/9/2016
DATE: 3/9/2016	FILE NAME: PN448194_GRPK_C-001
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FY15 GREEN RIVER LEVEE REHABILITATION  
DYKSTRA LEVEE  
AUBURN, WA

LEGEND, ABBREVIATIONS AND GENERAL NOTES

SHEET IDENTIFICATION  
**C-001**  
SHEET 2 OF 19

D  
C  
B  
A

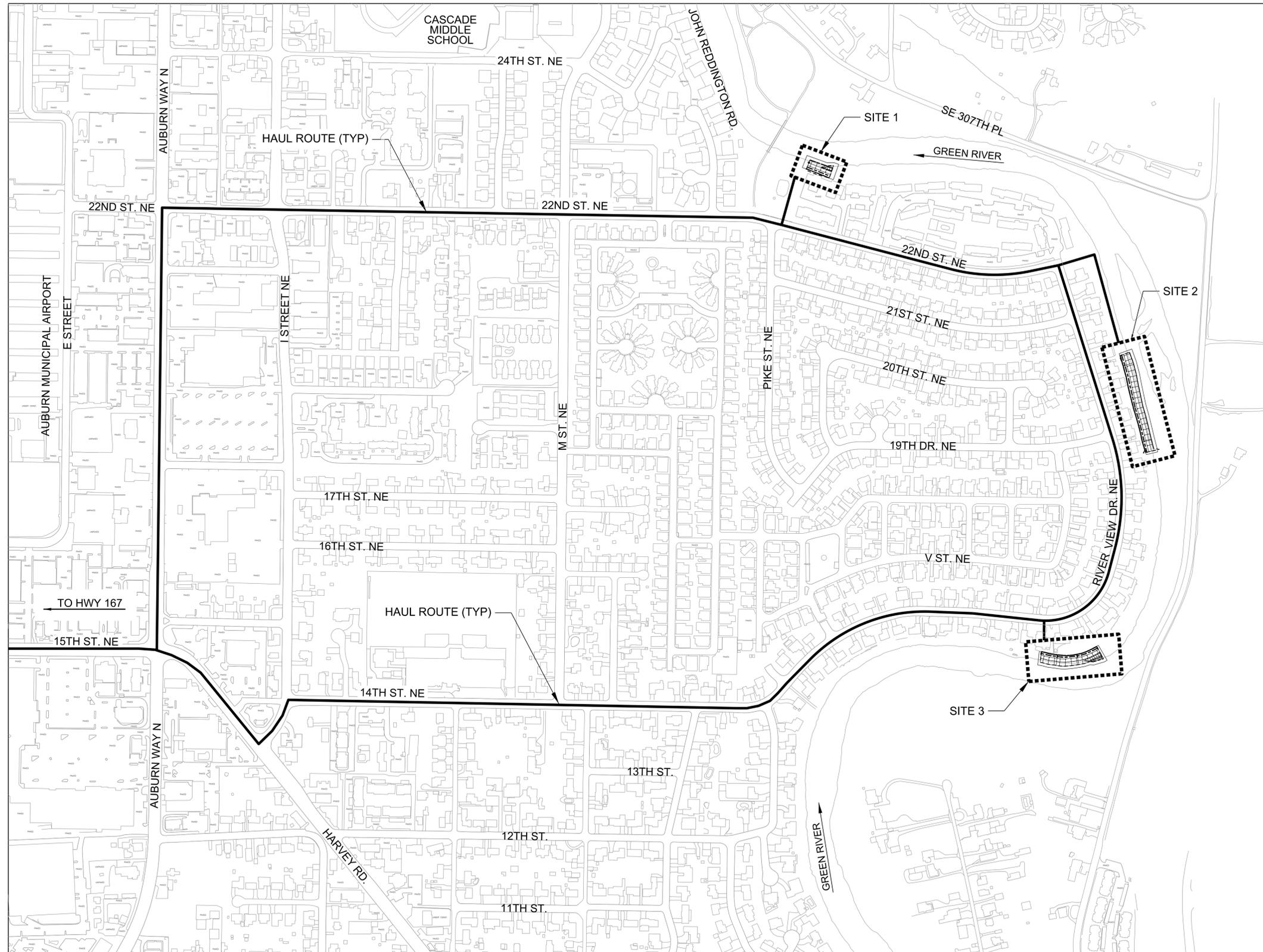
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2

3

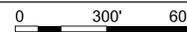
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5



**HAUL ROUTE**

SCALE: 1" = 300'



**NOTES:**

1. FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES, SEE SHEET C-001.
2. MAPPING COMPILED FROM FEBRUARY 2006 AERIAL PHOTOS. MAPPING BY 3DI WEST FOR KING COUNTY DNR AND PARKS. MAP SCALE 1"=100'. CONTOUR INTERVAL: 2 FOOT. HORIZONTAL DATUM: NAD83/91 (HARN) WA STATE PLANE NORTH ZONE (FEET). VERTICAL DATUM: NAVD 88. MAP HAS NOT BEEN COMPREHENSIVELY VERIFIED BY FIELD CHECKS.
3. ALL REAL ESTATE REQUIREMENTS AND UTILITY RELOCATIONS NECESSARY FOR PROJECT CONSTRUCTION SHALL BE OBTAINED/PERFORMED BY KING COUNTY FLOOD CONTROL DISTRICT PRIOR TO CONSTRUCTION.



MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: PEEL BY: SUBMITTED BY:	DATE: 7/APRIL/2015
FILE NUMBER: E-12-7-236	DESIGNED BY: KATO
FILE NAME: PN48194_GRPK_C002	DESIGNED BY: WICKSTROM
FILE NAME: PN48194_GRPK_C002	DESIGNED BY: WICKSTROM

FY15 GREEN RIVER LEVEE REHABILITATION  
DYKSTRA LEVEE  
AUBURN, WA  
HAUL ROUTE

SHEET IDENTIFICATION  
**C-002**  
SHEET 3 OF 19



















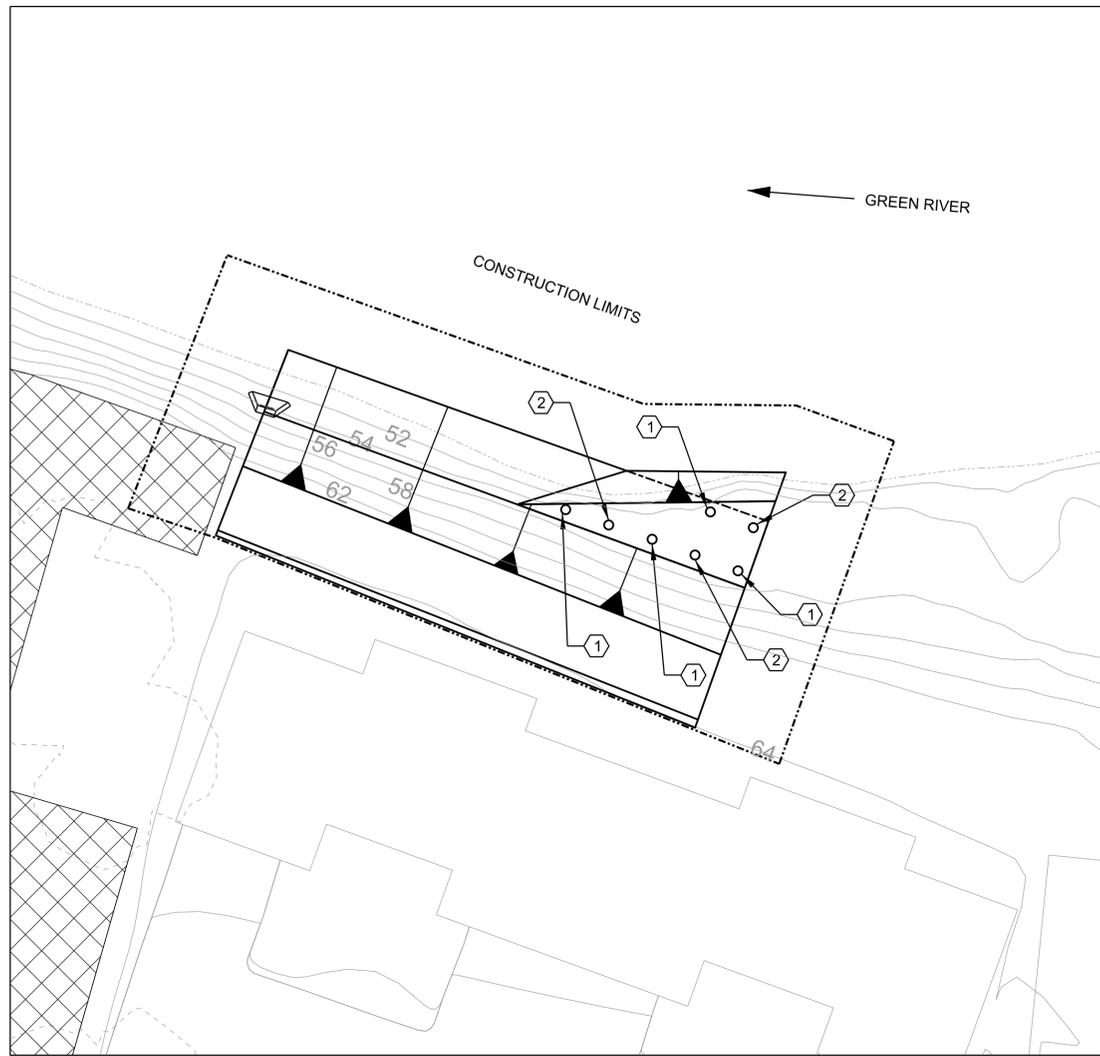




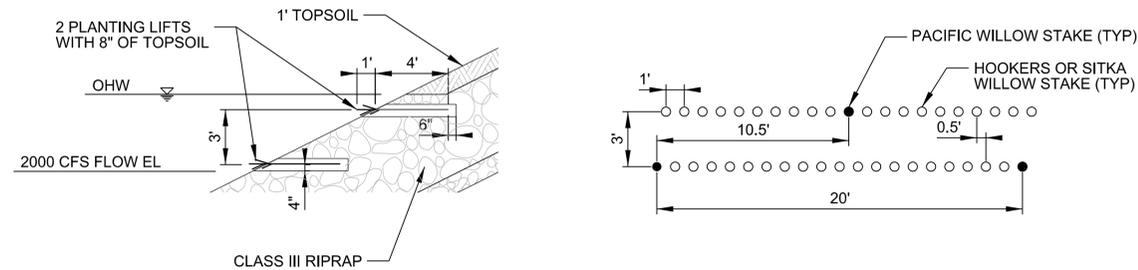




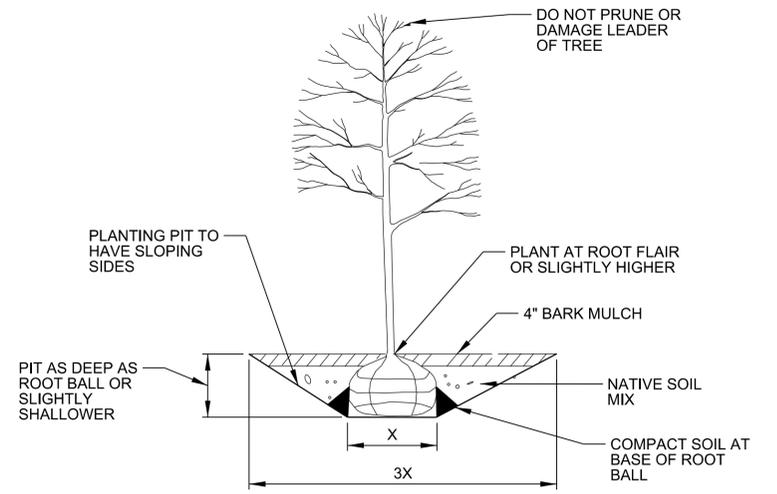




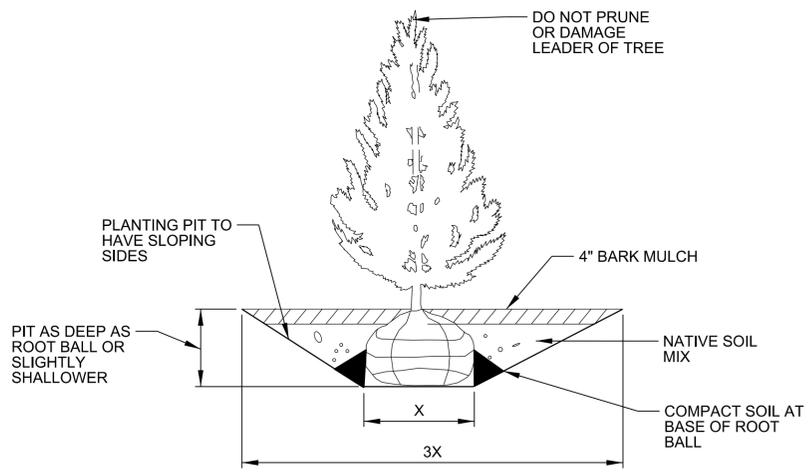
**1 DYKSTRA LEVEE LANDSCAPE PLAN SITE 1**  
 SCALE: 1" = 20'  
 0 20' 40'



**1 PLANTING LIFTS**  
 1" = 5'  
 0 5' 10'



**2 DECIDUOUS TREE PLANTING**  
 L-101 NOT TO SCALE



**3 EVERGREEN TREE PLANTING**  
 L-101 NOT TO SCALE

- PLANTING NOTES.**
- FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES, SEE SHEET C-001.
  - PLANT MATERIAL SHALL BE HEALTHY, DISEASE FREE AND IN A VIGOROUS GROWING STATE UPON DELIVERY TO SITE. PLANT MATERIAL FAILING TO MEET THESE CRITERIA SHALL BE REJECTED.
  - CONTAINER PLANTS SHALL HAVE GROWN THEREIN A MINIMUM OF 6 MONTHS AND A MAXIMUM OF 2 YEARS, WITH ROOTS FILLING THE CONTAINERS, BUT NOT SHOWING EVIDENCE OF BEING OR HAVING ROOT BOUND.
  - 4" OF BARK MULCH WILL BE PLACED AFTER PLANTING.
  - TREES SHALL BE WATERED-IN AT THE TIME OF PLANTING.
  - CONTRACTOR SHALL ENSURE 100% SURVIVAL OF ALL TREES DURING THE FIRST YEAR AND AT THE POINT OF ONE YEAR AFTER INITIAL PLANTING.
  - PLANTING OF CONTAINER STOCK SHALL BE ACCOMPLISHED DURING THE PERIOD 1 SEPTEMBER THROUGH 30 MARCH.
  - STAKES SHALL BE CUT WHILE DORMANT AND 5' IN LENGTH WITH AN ANGLE CUT (45 DEGREES) BASAL END OF 0.5" TO 1.5" IN DIAMETER AND PERPENDICULAR CUT JUST ABOVE A NODE (BUD) AT THE TOP.
  - STAKES WILL BE STRIPPED OF ALL STEMS AND LEAVES TAKING CARE TO MINIMIZE SCARRING OR BRUISING.
  - STAKES WILL BE INSTALLED ALONG THE LEVEE SLOPE WITH 1' OF EACH STAKE EMBEDDED INTO THE SLOPE WITH AT LEAST TWO LATERAL BUDS ABOVE GROUND AFTER PLANTING.
  - PLANT STAKES ALONG 12" CENTERS USING TRIANGULAR SPACING TO FORM TWO ROWS ALONG THE BANK.
  - LIGHTLY SCARIFY ROOTBALL TO LOOSEN ROOTS PRIOR TO PLANTING.
  - FEATHER MULCH TO MAINTAIN 6" CLEARANCE BETWEEN MULCH AND STEM OF SHRUB.
  - NO RECYCLED ORGANIC MULCH IN BIORRETENTION AREAS. KEEP MULCH AWAY FROM FOLIAGE.

- IRRIGATION NOTES.**
- THE CONTRACTOR SHALL DESIGN AND PROVIDE AN IRRIGATION SYSTEM ABLE TO PROVIDE SUPPLEMENTAL WATER WEEKLY TO ALL INSTALLED SHRUBS AND TREES WHENEVER THE PRECEDING WEEKS RAINFALL TOTAL DOES NOT EXCEED 1" BETWEEN MAY 1 AND SEPTEMBER 30, AND AT OTHER TIMES AS CLIMATIC CONDITIONS REQUIRE. IRRIGATION SYSTEM SHALL CONSIST OF GRAVITY-FED CISTERNS AND A BUBBLER-IRRIGATION SYSTEM THAT CAN BE REFILLED QUICKLY TO MINIMIZE IMPACTS TO TRAIL USERS. CISTERN SIZE SHALL BE OPTIMIZED FOR THE SUPPLY TRUCK, SECURED TO PREVENT MOVEMENT BY WIND OR VANDALS, AND SHALL DELIVER A MINIMUM OF 1-GALLON OF WATER TO EACH PLANT PER FILLING. THE CISTERN MAY BE FILLED AS MANY TIMES DURING EACH WATERING AS NECESSARY TO PROVIDE ALL PLANTS WITH SUFFICIENT WATER TO MAINTAIN A HEALTHY, VIGOROUS CONDITION. CISTERN AND IRRIGATION LINES SHALL BE LOCATED ON THE WATERWARD SIDE OF THE ASPHALT TRAIL AND SHOULD NOT ENCROACH ON THE TRAIL. IRRIGATION SYSTEM SHOULD BE DESIGN FOR A LIFE SPAN OF 5 YEARS.
  - THE CONTRACTOR SHALL SUBMIT AN IRRIGATION PLAN FOR GOVERNMENT APPROVAL PRIOR TO INSTALLATION OF THE SYSTEM.

TREE / SHRUB TABLE					
NO.	NAME	NAME	MAX. HEIGHT	TYPE	NO. OF TREES/SHRUB
①	COTTON WOOD	POPULUS BALSAMIFERA	100'	1 GALLON	4
②	SPRUCE	PICEA SITCHENSIS	200'	1 GALLON	3



DATE	DESCRIPTION	APPR.	DATE	APPR.

DESIGNED BY:	DESIGNED BY:	DATE:	FILE NUMBER:
U.S. ARMY CORPS OF ENGINEERS	U.S. ARMY CORPS OF ENGINEERS	7/7/2015	E-12-7-236
SEATTLE DISTRICT	SEATTLE DISTRICT		
SEATTLE, WASHINGTON	SEATTLE, WASHINGTON		
DESIGNED BY:	DESIGNED BY:	DATE:	FILE NUMBER:
FILED BY:	FILED BY:		
WICKSTROM	WICKSTROM		
3/9/2016	3/9/2016		
ANSI D	ANSI D		
PN48194	PN48194		

FY15 GREEN RIVER LEVEE REHABILITATION  
 DYKSTRA LEVEE  
 AUBURN, WA  
 LANDSCAPE PLAN  
 SITE 1

SHEET IDENTIFICATION  
**L-101**  
 SHEET 18 OF 19

