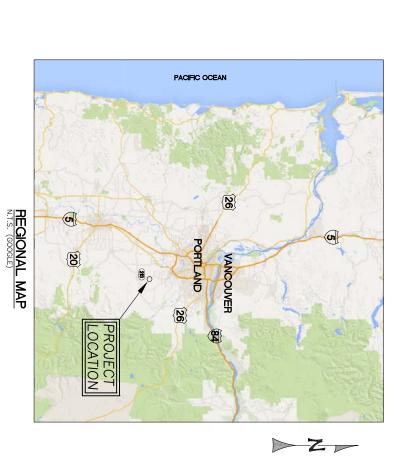
BANK STABILIZATION PROJECT 100% DESIGN SUBMITTAL MILK CREEK







SHEET INDEX COVER SHEET

- EXISTING CONDITIONS SITE PLAN SECTIONS
- LOG STRUCTURE DETAILS, DIVERSION AND EROSION CONTROL

GENERAL NOTES

- TOPOGRAPHIC MAPPING WAS PERFORMED
- GROUND SURVEY (EXISTING CONTOURS):
 WATERWAYS CONSULTING, INC.
 1020 SW TAYLOR ST. SUITE 380
 PORTLAND, OR 97205
 SURVEY DATE: JULY 22-24, 2015.

- BASIS OF BEARINGS: BASIS OF BEARINGS BETWEEN POINTS #1001 AND #1002 IS \$3"33"58.23"W, AS SHOWN ON SHT. C2. BASIS OF BEARINGS: GPS TIES TO NAD83 OREGON STATE PLANE, NORTH USING THE OREGON REAL-TIME GLOBAL POSITIONING SYSTEM NETWORK (ORGN)
- IDAR DATA (EXISTING CONTOURS BY OTHERS):
- CLACKAMAS SOIL AND WATER CONSERVATION DISTRICT SURVEY DATE: 2007

- ELEVATION DATUM: GPS TIES TO NAVD88 USING THE OREGON REAL-TIME GLOBAL POSITIONING SYSTEM NETWORK (ORGN).
- ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE 2015 EDITION OF THE OREGON STANDARD SPECIFICATIONS, (HEREAFTER REFERRED TO AS "STANDARD SPECIFICATIONS"). 6. THIS IS NOT A BOUNDARY SURVEY. PROPERTY LINES SHOWN HEREON ARE APPROXIMATE.

CONTOUR INTERVAL IS ONE FOOT. ELEVATIONS AND DISTANCES SHOWN ARE IN DECIMAL FEET.

ABBREVIATIONS

ONCRETE UBIC YARDS IAMETER

NOT IN CONTRACT
NOT TO SCALE
ON CENTER
ELATIVE COMPACTION
ROCK SLOPE PROTECTION
SPIKE RISTING GROUND LEVATION RAINAGE INLET RAINAGE INCET

UNKNOWN WATER SURFACE ELEVATION YEAR

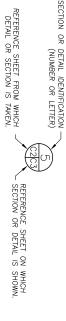
BE DETERMINED JARE FOOT

OREGON ASH ALDER UNKNOWN SPECIES

WORK SHALL CONSIST OF LAYING BACK THE BANK, INSTALLING TOE PROTECTION BOULDERS, LOSS WITH ROOTWADS, AND TWO LARGE WOOD STRUCTURES TO IMPROVE BANK STABILITY AND PROVIDE HABITAT FEATURES.

PROJECT DESCRIPTION
THESE DRAWINGS PROVIDE 100% DESIGN LEVEL DETAILS FOR THE STABILIZATION OF A PORTION OF BANK ON MILK CREEK.

SECTION AND DE CONVENTION



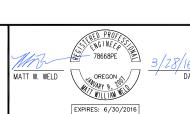
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MILK CREEK BANK STABILIZATION PROJECT 100% DESIGN SUBMITTAL

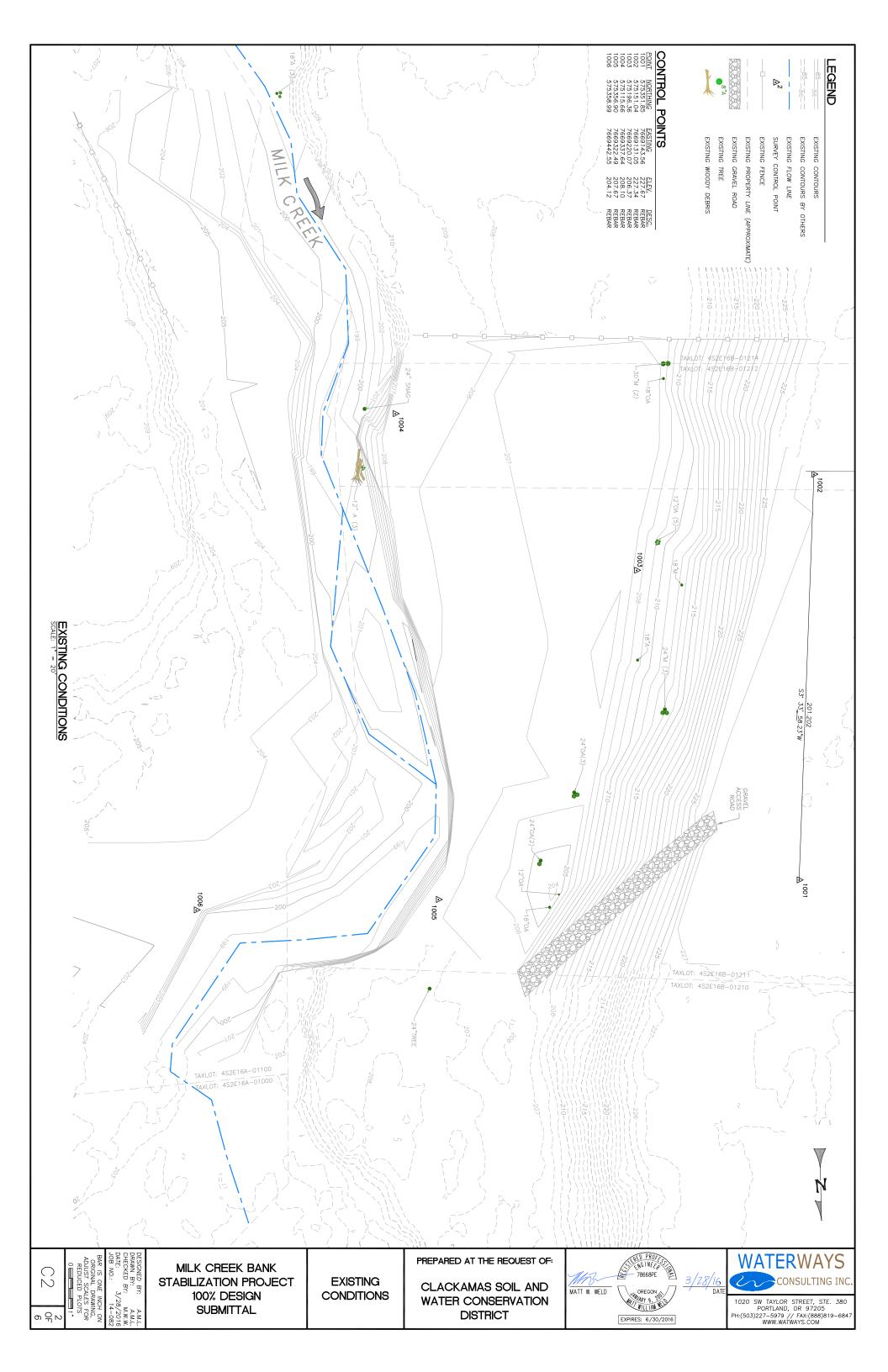
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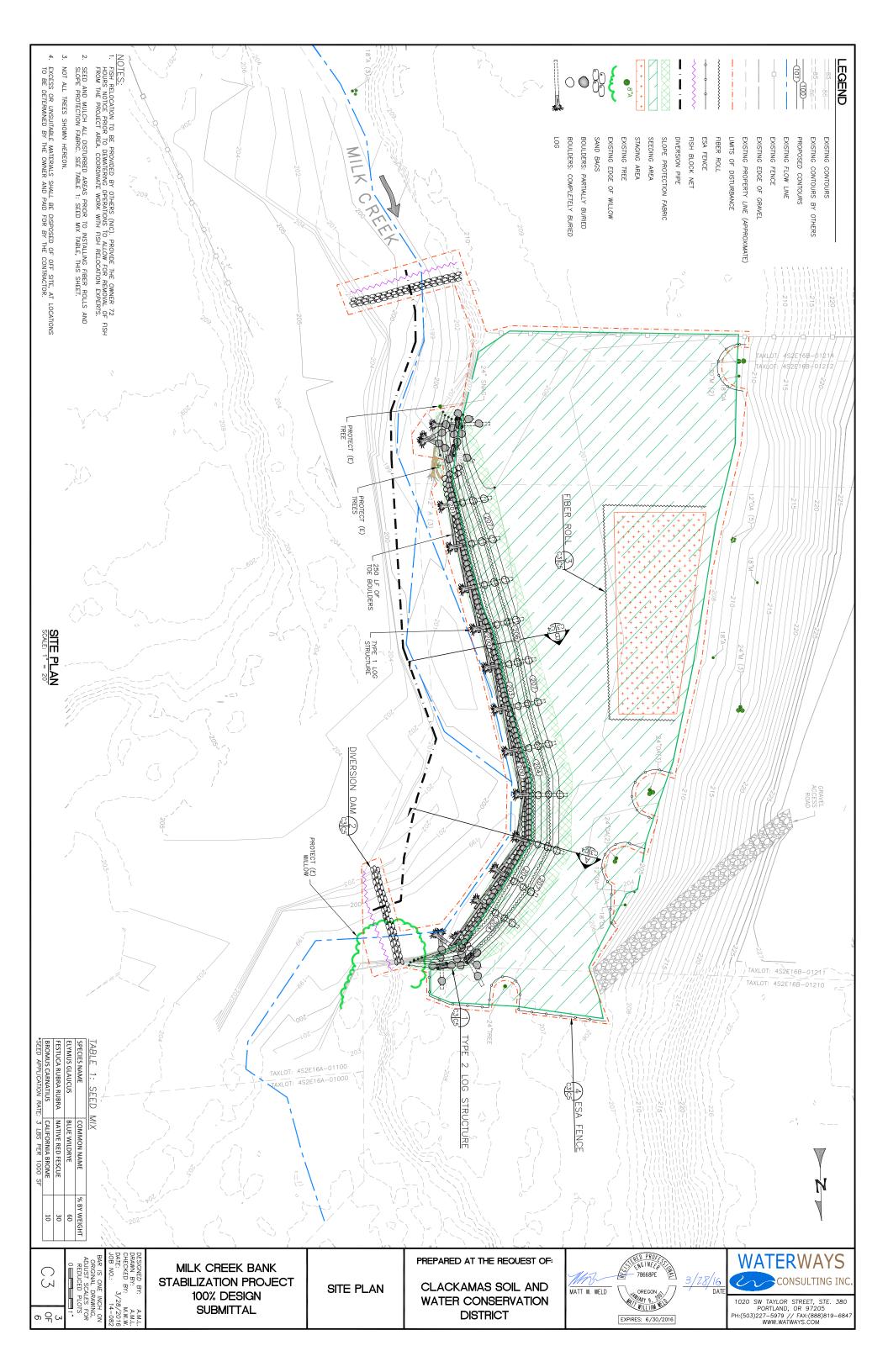
PREPARED AT THE REQUEST OF:

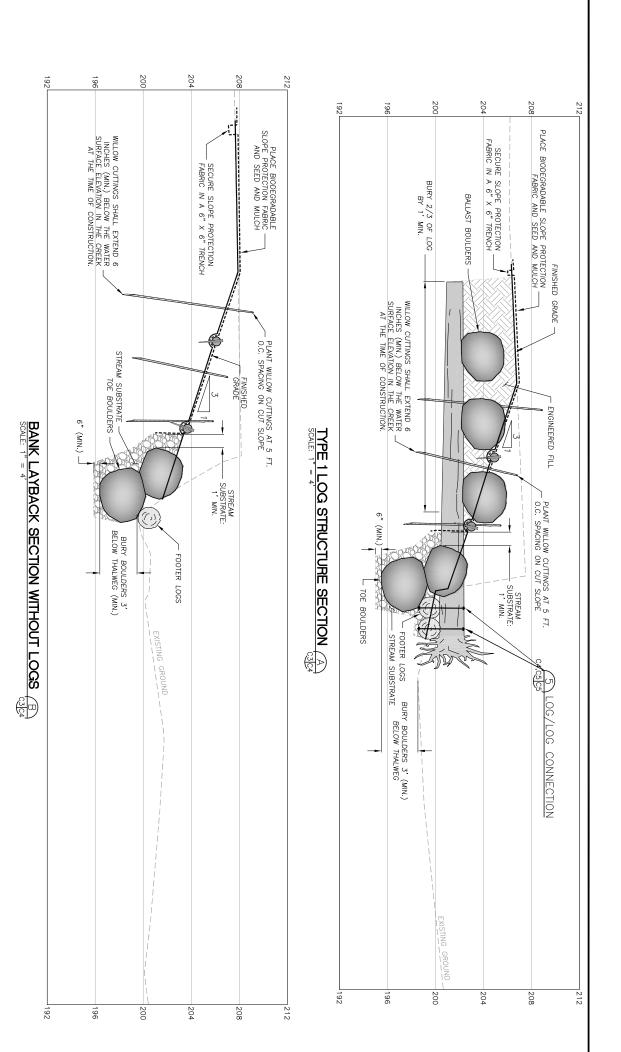
CLACKAMAS SOIL AND WATER CONSERVATION DISTRICT











LOG STRUCTURE NOTES

LOG STRUCTURE DESIGNS ARE SHOWN CONCEPTUALLY DUE TO THE INHERENT VARIABILITY OF THE MATERAL PROPERTIES. THE DESIGN REQUIRES THAT THE ENGINEER WILL OBSSERVE CONSTRUCTION OF THE LOG STRUCTURES TO ENSURE THE INTENT OF THE DESIGN IS MET. OBSERVATIONS MUST INCLUDE LOG AND BOULDER SELECTION, PLACEMENT, AND BACKFILLING. ANY LOG STRUCTURES CONSTRUCTED WITHOUT THE ENGINEER PRESENT ON—SITE MAY RESULT IN REJECTION OF THE WORK BY THE ENGINEER.

2. LOGS: LOGS SHALL BE DOUGLAS FIR, CEDAR, HEMLOCK, OR SPRUCE SOUND AND FREE OF SIGNIFICANT DECAY. MATERIALS FOR USE IN THE STRUCTURES SHALL MEET THE FOLLOWING SIZE CRITERIA:

LOG STRUCTURE TYPE 1

ITEM	CIAMPIEX	LENGIT	TOTAL COUNT
LOG WITH ROOTWAD	18"-24" (MIN. 12" AT ANY POINT)	25-30'	11
LOG WITHOUT ROOTWAD	12"-18" (MIN. 12" AT ANY POINT)	25'-30'	10
ITEM DIAMETER BALLAST BOULDERS 3.5'-4.5' TOE BOULDERS 3.5'-4.5'	AMOUNT COUNT: 33 LENGTH: 250 LINEAR FEET		
LOG STRUCTURE TYP	LOG STRUCTURE TYPE 2 (TWO TYPE 2 STUCTURES)	URES)	
ITEM	DIAMETER	LENGTH	TOTAL COUNT
LOG WITH ROOTWAD	18"-24" (MIN. 12" AT ANY POINT)	25'-30'	ō
PILE LOG	12"-18" (MIN. 12" AT ANY POINT)	15'-20'	00

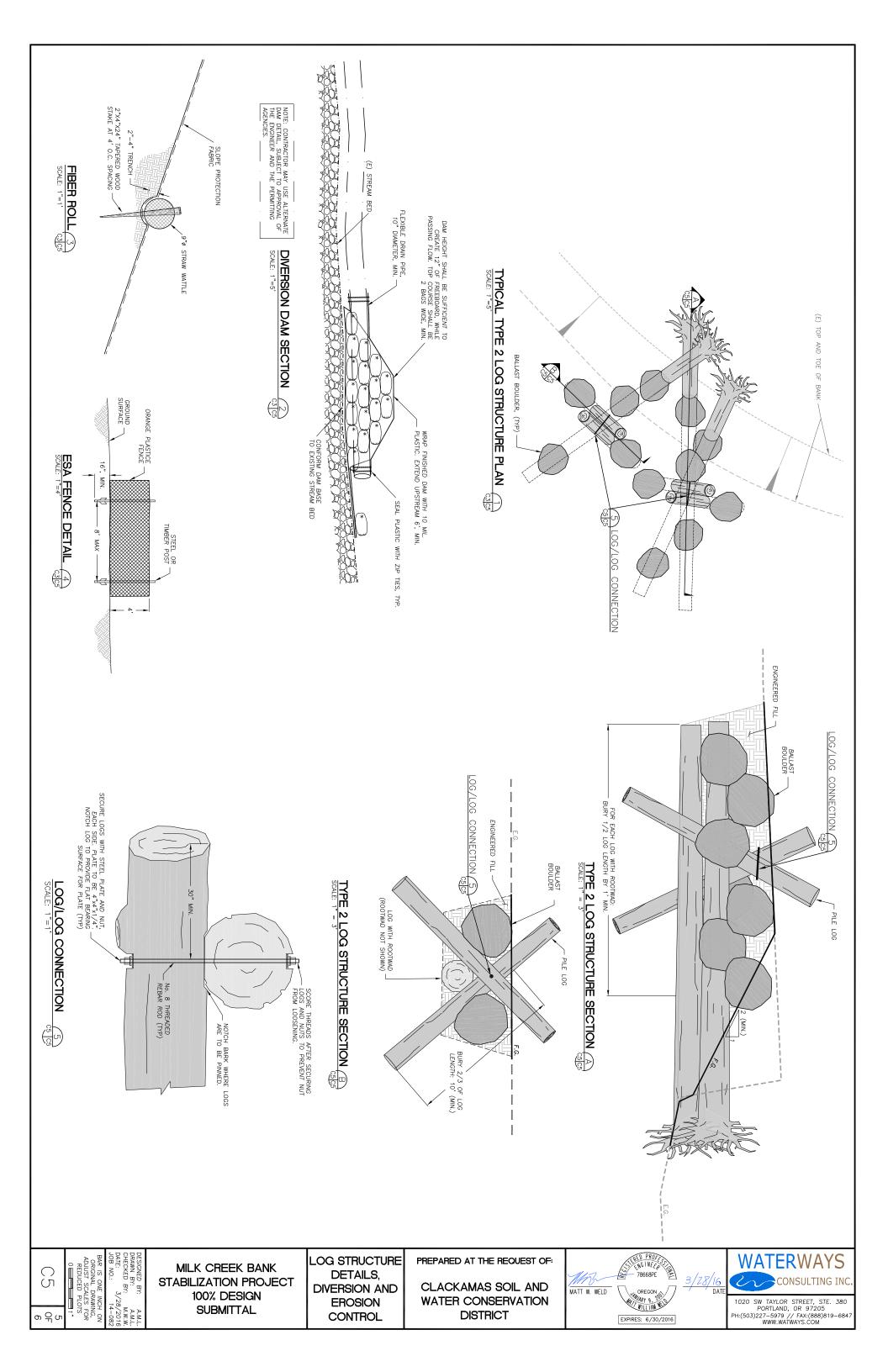
BALLAST BOULDERS

24

MILK CREEK BANK STABILIZATION PROJE 100% DESIGN SUBMITTAL	







- ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE CURRENT EDITION OF THE OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION, ISSUED BY THE OREGON DEPARTMENT OF TRANSPORTATION (HEREAFTER REFERRED TO "STANDARD SPECIFICATIONS"). AS
- NOTIFY THE ENGINEER AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. THE ENGINEER OR A DESIGNATED REPRESENTATIVE SHALL OBSERVE CONSTRUCTION PROCESS, AS NECESSARY TO ENSURE PROPER INSTALLATION PROCEDURES.
- C B CALL OREGON UTILITY NOTIFICATION CENTER (811 OR 800-332-2344) TO LOCATE ALL UNDERGROUND UTILITY LINES PRIOR COMMENCING CONSTRUCTION.
- PRIOR TO BEGINNING WORK, CONTACT ALL UTILITIES COMPANIES WITH REGARD TO WORKING OVER, UNDER, OR AROUND EXISTING FACILITIES AND TO OBJAIN INFORMATION REGARDING RESTRICTIONS THAT ARE REQUIRED TO PREVENT DAMAGE TO THE FACILITIES. EXISTING UTILITY LOCATIONS SHOWN ARE COMPILED FROM INFORMATION SUPPLIED BY THE APPROPRIATE UTILITY AGENCIES AND FROM FIELD MEASUREMENTS TO ABOVE GROUND FAUTURES READLY VISIBLE AT THE TIME OF SURVEY. LOCATIONS SHOWN ARE APPROVIMATE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE LOCATION WILL REVEAL THE DIMENSIONS, SIZES, MATERIALS, LOCATIONS, AND DEPTH OF UNDERGROUND UTILITIES.

 THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE LOCATION AND/OR PROTECTION OF ALL EXISTING AND PROPOSED PIPING, UTILITIES, TRAFFIC SIGNAL EQUIPMENT (BOTH ABOVE GROUND AND BELOW GROUND), STRUCTURES, AND ALL OTHER EXISTING IMPROVEMENTS THROUGHOUT CONSTRUCTION OR CONSTRUCTION, DISCOVER OR VERIFY THE ACTUAL DIMENSIONS, SIZES, MATERIALS, LOCATIONS, AND ELEVATIONS OF ALL EXISTING UTILITIES AND POTHOLE THOSE AREAS WHERE POTENTIAL CONFUCTS ARE LIKELY OR DATA IS OTHERWISE INCOMPLETE.

 TAKE APPROPRIATE MEASURES TO PROTECT EXISTING UTILITIES DURING CONSTRUCTION.

 UPON LEARNING OF THE EXISTENCE AND/OR LOCATIONS OF ANY UNDERGROUND FACILITIES ON SHOWN OR SHOWN INACCURATELY ON THE DAYS OR NOT PROPERLY MARKED BY THE UTILITY OWNER, IMMEDIATELY NOTIFY THE UTILITY OWNER AND THE CONTOURNED FOR THE CONSTRUCTION OF THE PROJECT FACILITIES WILL BE PERFORMED BY THE UTILITY COMPANY, UNLESS OTHERWISE NOTIED.
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- IF DISCREPANCIES ARE DISCOVERED BETWEEN THE CONDITIONS EXISTING IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWINGS, NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE FULLY INFORMED OF AND TO COMPLY WITH ALL LAWS, ORDINANCES, CODES, REQUIREMENTS AND STANDARDS WHICH IN ANY MANNER AFFECT THE COURSE OF CONSTRUCTION OF THIS PROJECT, THOSE ENGAGED OR EMPLOYED IN THE CONSTRUCTION AND THE MATERIALS USED IN THE CONSTRUCTION.
- 6 ANY TESTS, INSPECTIONS, SPECIAL OR OTHERWISE, THAT ARE REQUIRED BY THE BUILDING CODES, LOCAL BUILDING DEPARTMENTS, OR THESE PLANS, SHALL BE DONE BY AN INDEPENDENT INSPECTION COMPANY. JOB SITE VISITS BY THE ENGINEER DO NOT CONSTITUTE AN OFFICIAL INSPECTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE REQUIRED TESTS AND INSPECTIONS ARE PERFORMED.
- PROJECT SCHEDULE: PRIOR TO COMMENCEMENT OF WORK, SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL A DETAILED CONSTRUCTION SCHEDULE. DO NOT BEGIN ANY CONSTRUCTION WORK WITH. THE PROJECT SCHEDULE AND WORK PLAY IS APPROVED BY THE ENGINEER. ALL CONSTRUCTION SHALL BE CLOSSLY COORDINATED WITH THE ENGINEER SO THAT THE QUALITY OF WORK CAN BE CHECKED FOR APPROVAL. PURSUE WORK IN A CONTINUOUS AND DILIGENT MANNER TO ENSURE A TIMELY COMPLETION OF THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN, PERMITTING, INSTALLATION, AND MAINTENANCE OF ANY AND ALL TRAFFIC CONTROL MEASURES DEEMED NECESSARY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL SAFETY DURING CONSTRUCTION. ALL WORK SHALL CONFORM TO PERTINENT SAFETY REGULATIONS AND CODES. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR FURNISHING, INSTALLING, AND MAINTANING ALL WARNING SIGNS AND DEVICES NECESSARY TO SAFEGUARD THE GENERAL PUBLIC AND THE WORK, AND PROVIDE FOR THE PROPER AND SAFE ROUTING OF VEHICULAR AND PEDESTRAN TRAFFIC DURING THE PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR COMPLANCE WITH ALL APPLICABLE PROVISIONS OF OSHA IN THE CONSTRUCTION PRACTICES FOR ALL EMPLOYEES DIRECTLY ENGAGED IN THE CONSTRUCTION OF THIS PROJECT.
- CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSBILLY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTION LIABILITY ARSING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL. NEITHER THE PROFESSIONAL ACTIVITIES OF CONSULTANT NOR THE PRESENCE OF CONSULTANT OR HIS OR HER EMPLOYEES OR SUB-CONSULTANTS AT A CONSTRUCTION WITE SHALL RELIEVE THE CONTRACTOR AND ITS SUBCONTRACTORS OF THEIR RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, ETCHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINITENDING OR CORDINATION ALL PORTIONS OF THE WORK OF CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND APPLICABLE HEALTH OR SAFETY REQUIREMENTS OF ANY REGULATORY ASENCY OR OF STATE LAW.
- MANTAIN A CURRENT, COMPLETE, AND ACCURATE RECORD OF ALL AS—BULT DEVATIONS FROM THE CONSTRUCTION AS SHOWN ON THESE DRAWINGS AND SPECIFICATIONS, FOR THE PURPOSE OF PROVIDING THE ENGINEER OF RECORD WITH A BASIS FOR THE PREPARATION OF RECORD DRAWINGS.
- MAINTAIN THE SITE IN A NEAT AND ORDERLY MANNER THROUGHOUT THE CONSTRUCTION PROCESS. STORE ALL MATERIALS WITHIN APPROVED STAGING AREAS.
- 14. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING AND LAYOUT, UNLESS OTHERWISE SPECIFIED. PROVIDE, AT CONTRACTOR'S SOLE EXPENSE, ALL MATERIALS, LABOR AND EQUIPMENT REQUIRED TO COMPLY WITH ALL APPLICABLE PERMIT CONDITIONS AND REQUIREMENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND PRESERVATION OF ALL SURVEY MONUMENTS OR PROPERTY CORNERS. DISTURBED MONUMENTS SHALL BE RESTORED BACK TO THEIR ORIGINAL LOCATION AND SHALL BE CERTIFIED BY A REGISTERED CIVIL ENGINEER OR LAND SURVEYOR AT THE SOLE EXPENSE OF THE CONTRACTOR.
- . TREE DIMENSIONS: TRUNK DIAMETERS SHOWN REPRESENT DIAMETER AT BREAST HEIGHT (DBH), MEASURED IN INCHES. DBH IS MEASURED 4.5 FT ABOVE GROUND FOR SINGLE TRUNKS AND TRUNKS HAIT SPLIT INTO SEVERAL STEMS CLOSE TO THE GROUND. THE DBH FOR TREES THAT SPLIT INTO SEVERAL STEMS CLOSE TO THE GROUND. THE SUM SPLIT INTO SEVERAL STEMS CLOSE TO THE GROUND MAY BE CONSOLUDATED INTO A SINGLE DBH BY TAKING THE SOUARE ROOT OF THE SUM OF ALL SQUARED STEM DBH'S, UNLESS OTHERWISE NOTED. WHERE TREES FORK NEAR BREAST HEIGHT, TRUNK DIAMETER IS MEASURED AT THE NARROWEST PART OF THE MAIN STEM BELOW THE FORK. FOR TREES ON A SLOPE, BREAST HEIGHT IS REFERENCED FROM THE UPPER SIDE OF THE SLOPE. FOR LEANING TREES, BREAST HEIGHT IS MEASURED ON THE SLOPE. FOR LEANING TREES, BREAST HEIGHT IS MEASURED ON THE SLOPE. FOR LEANING TREES, BREAST HEIGHT IS MEASURED ON THE SLOPE. FOR LEANING TREES, BREAST HEIGHT IS MEASURED ON THE SLOPE. FOR LEANING TREES, BREAST HEIGHT IS MEASURED ON THE SLOPE. FOR LEANING TREES WITH DBH LESS THAN 8" ARE TYPICALLY NOT SHOWN.
- TREE SPECIES ARE IDENTIFIED WHEN KNOWN. HOWEVER, FINAL DETERMINATION SHOULD BE MADE BY A QUALIFIED BOTANIST. REFER TO THE LEGEND FOR TREE SPECIES SYMBOLS.
- TREE TRUNK DIMENSIONS MAY BE SHOWN OUT-OF-SCALE FOR PLOTTING CLARITY. CAUTION SHOULD BE USED IN DESIGNING NEAR TREE TRUNKS, THERE ARE LIMITATIONS ON FIELD ACCURACY, DRAFTING ACCURACY, MEDIUM STRETCH AS WELL AS THE "SPREAD" OR "LEANING" OF TREUKS. REQUEST ADDITIONAL TOPOGRAPHIC DETAIL WHERE CLOSE TOLERANCES ARE ANTICIPATED. INDIVIDUAL TREES ARE NOT TYPICALLY LOCATED WITHIN DRIPLINE CANOPY AREAS SHOWN.
- WILLOWS TO BE REMOVED SHALL BE TRIMMED, TRANSPLANTED, AND UTILIZED AS WILLOW STAKES.
- IS REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF 3N OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO AND NOT BE LIMITED TO NORMAL WORKING HOURS.

EARTHWORK NOTES

- ALL GRADING SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF THE CLACKAMAS COUNTY GRADING ORDINANCE.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND MAKE INTERPRETATIONS WITH REGARD TO MATERIALS, METHODS AND EQUIPMENT NECESSARY PERFORM THE WORK REQUIRED FOR THIS PROJECT. SP OWN

NET OFF-HAUL VOLUME = 475 CY

THE ABOVE QUANTITIES ARE APPROXIMATE IN-PLACE VOLUMES CALCULATED AS THE DIFFERENCE BETWEEN EXISTING GROUND AND THE PROPOSED FINISH GRADE, PREPARED FOR PERMITTING PURPOSES ONLY. EXISTING GROUND IS DEFINED BY THE TOPOGRAPHIC CONTOURS AND/OR SPOTELEVATIONS ON THE PLAN. PROPOSED FINISH GRADE IS DEFINED AS THE DESIGN SURFACE ELEVATION OF WORK TO BE CONSTRUCTED. THE QUANTITIES HAVE NOT BEEN FACTORED TO INCLUDE ALLOWANCES FOR BULKING, CLEARING AND GRUBBING, SUBSIDENCE, SHRINKAGE, OVER EXCAMPTION, AND RECOMPACTION, UNDERGROUND UTILITY AND SUBSITRUCTURE SPOILS AND CONSTRUCTION METHODS.

THE CONTRACTOR SHALL PERFORM AN INDEPENDENT EARTHWORK ESTIMATE FOR THE PURPOSE OF PREPARING BID PRICES FOR EARTHWORK. THE BID PRICE SHALL INCLUDE COSTS FOR ANY NECESSARY IMPORT AND PLACEMENT OF EARTH MATERIALS OR THE EXPORT AND PROPER DISPOSAL OF EXCESS OR UNSUITABLE EARTH MATERIALS.

- PRIOR TO COMMENCING WORK, ALL AREAS TO REMAIN UNDISTURBED SHALL BE ADEQUATELY PROTECTED WITH TEMPORARY FENCING.
- DO NOT DISTRURB AREAS OUTSIDE OF THE DESIGNATED LIMITS OF DISTURBANCE, UNLESS AUTHORIZED IN WRITING BY THE ENGINEER. ALL WORK ASSOCIATED WITH RESTORATION AND REVIGERATION OF DISTURBANCE, AS OUTSIDE THE DESIGNATED LIMITS OF DISTURBANCE, AS SHOWN ON THE DRAWINGS, SHALL BE BORN SOLELY BY THE CONTRACTOR.
- ALL EXCESS SOILS SHALL BE REMOVED TO AN APPROVED DUMP SITE OR DISPOSED AT A LOCATION TO BE APPROVED BY THE ENGINEER, IN A MANNER THAT WILL NOT EROSION.

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- CLEARNIC AND GRUBBING, SUBGRADE PREPARATION AND EARTHWORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 00330 OF THE ODOT STANDARD SPECIFICATIONS, THESE DRAWINGS, AND THE TECHNICAL SPECIFICATIONS.
- PRIOR TO STARTING WORK ON THE PROJECT, THE CONTRACTOR SHALL SUBMIT FOR ACCEPTANCE BY THE ENGINEER A HAZARDOUS MATERIALS CONTROLS AND SPILL PREVENTION PLAN. THE PLAN SHALL INCLUDE PROVISIONS FOR PREVENTING HAZARDOUS MATERIALS FROM CONTAMINATING SOIL OR ENTERING WATER COURSES, AND SHALL ESTABLISH A SPILL PREVENTION AND COUNTERMEASURE PLAN.
- FINE GRADING ELEVATIONS AND SLOPES NOT SHOWN SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD TO OBTAIN DRAINAGE IN THE DIRECTION INDICATED. ALL FINAL GRADING SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.

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- FILL MATERIAL SHALL BE SPREAD IN LIFTS OF APPROXIMATELY 8 INCHES, MOISTENED OR DRIED TO NEAR OPTIMUM MOISTURE CONTENT AND RECOMPACTED. THE MATERIALS FOR ENGINEERED FILL SHALL BE APPROVED BY A REGISTERED ONL. ENGINEER, ANY IMPORTED MATERIALS MUST BE APPROVED BEFORE BEING BROUGHT TO THE SITE. THE MATERIALS USED SHALL BE FREE OF ORGANIC MATTER AND OTHER DELETERIOUS MATERIALS.
- ALL CONTACT SURFACES BETWEEN ORIGINAL GROUND AND RECOMPACTED FILL SHALL BE EITHER HORIZONTAL OR VERTICAL. ALL ORGANIC MATERIAL SHALL BE REMOVED AND THE REMAINING SURFACE SCARFIED TO A DEPTH OF AT LEAST 12 INCHES, UNLESS DEEPER EXCAVATION IS REQUIRED BY THE ENGINEER.

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ACCESS AND STAGING AREA NOTES 1. UTILIZE ONLY THE APPROVED ACCESS DOMES TO STATE OF THE PROVED ACCESS DOMES TO THE PROV

- UTILIZE ONLY THE APPROVED ACCESS POINTS, AS SHOWN ON THE DRAWINGS. STOCKPILED WITHIN AN EXISTING FLAT AND PREVIOUSLY DISTURBED AREA. MATERIALS SHALL BΕ
- ACCESS PLAN IS SCHEMATIC. CONTRACTOR SHALL SUBMIT A SITE ACCESS PLAN FOR APPROVAL BY $^{4\cdot}$ THE ENGINEER.
- ALL EQUIPMENT AND MATERIALS SHALL BE STORED, MAINTAINED AND REFUELED IN A DESIGNATED PORTION OF THE STAGING AREA.

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EROSION CONTROL NOTES

- PRIOR TO COMMENCING WORK, AREAS TO REMAIN UNDISTURBED SHALL BE PROTECTED WITH ESA FENOING, AS SHOWN ON THE DRAWINGS. ADDITIONAL FENCING MAY BE REQUIRED AT THE DIRECTION OF THE ENGINEER.
- CONTRACTOR SHALL UTILIZE ONLY THE APPROVED ACCESS POINTS FOR TRANSPORT OF MATERIALS AND EQUIPMENT.
- BETWEEN SEPTEMBER 30TH AND AT ALL TIMES. DURING CONSTRU JULY 15TH, EXPOSED SOIL SHALL JCTION, SUCH PROTECTION MAY COI ILY 15TH, EXPOSED SOIL SHALL BE PROTECTED FROM EROSION TION, SUCH PROTECTION MAY CONSIST OF MULCHING AMD/ENTON, SUCH PROTECTION MAY CONSIST OF MULCHING AMD/ENTON, SUCH PROJECT, SLOPES SHALL BE PERMANENTLY PROTECTED FROM EROSION.
- A STANDBY CREW FOR EMERGENC'SEASON (SEPTEMBER 30TH THROU AND STOCKPILED AT CONVENIENT Y WORK SHALL BE AVAILABLE AT ALL TIMES DURING THE RAINY GH JULY 15TH). NECESSARY MATERIALS SHALL BE AVAILABLE LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY
- CONSTRUCT TEMPORARY EROSION DIRECTED BY THE ENGINEER TO CAND/OR TRENCHING OPERATIONS. CONTROL MEASURES AS SHOWN ON THIS PLAN AND/OR AS CONTROL DRAINAGE WHICH HAS BEEN AFFECTED BY GRADING
- THE CONTRACTOR SHALL INCORPOR PROCESS TO ELIMINATE EXCESSIVE RATE ADEQUATE DRAINAGE PROCEDURES DURING THE CONSTRUCTION PONDING AND EROSION.
- CONSTRUCT AND MAINTAIN EROSION MATERIALS TO MILK CREEK FROM CONSTRUCTION AREAS. N CONTROL MEASURES TO PREVENT THE DISCHARGE OF EARTHEN DISTURBED AREAS UNDER CONSTRUCTION AND FROM COMPLETED
- INSTALL ALL PROTECTIVE DEVICES AT THE END OF EACH WORK DAY WHEN THE FIVE-DAY RAIN PROBABILITY EQUALS OR EXCEEDS 50 PERCENT AS DETERMINED FROM THE NATIONAL WEATHER SERVICE FORECAST OFFICE: WWW.SRH.NOAA.GOV.
- THE EROSION CONTROL DEVICES ON REQUIRED. EROSION CONTROL DEVICE REQUIRED DEPENDING ON THE ACTU-N THIS PLAN ARE A SCHEMATIC REPRESENTATION OF WHAT MAY BE VICES MAY BE RELOCATED, DELETED, OR ADDITIONAL ITEMS MAY BE TUAL SOIL CONDITIONS ENCOUNTERED, AT THE DISCRETION OF THE
- THE CONTRACTOR SHALL MONITOR THEM IN ORDER TO PREVENT PRO THE CONTRACTOR IS RESPONSIBLE MODIFY THOSE DEVICES AS SITE PR THE EROSION CONTROL DEVICES DURING STORMS STEEDS OF ANY ONGOING EROSION. TO KEEP IN FORCE ALL EROSION CONTROL DEVICES AND TO ROGRESS DICTATES. AND MODIFY

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- THE CONTRACTOR IS RESPONSIBLE STREET. FOR CLEANING ANY EROSION OR DEBRIS SPILLING ONTO A PUBLIC
- 13. THE CONTRACTOR SHALL CONTACT AS DESIGNED REQUIRES ANY SUBS THE ENGINEER IN THE EVENT THAT THE EROSION CONTROL PLANTIAL REVISIONS.

DUST CONTROL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUOUS DUST CONTROL, THROUGHOUT THE CONSTRUCTION, IN ACCORDANCE WITH THE PERMIT CONDITIONS OF APPROVAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REGULAR CLEANING OF ALL MUD, DIRT, DEBRIS, ETC., FROM ANY AND ALL ADJACENT ROADS AND SIDEWALKS, AT LEAST ONCE EVERY 24 HOURS WHEN OPERATIONS ARE OCCURRING.
- ALL DISTURBED AREAS, INCLUDING UNPAVED ACCESS ROADS OR STORAGE PILES, NOT BEING ACTIVELY UTILIZED FOR CONSTRUCTION PURPOSES, SHALL BE EFFECTIVELY STABILIZED OF DUST EMISSIONS USING WATER, CHEMICAL STABILIZER/SUPPRESSANT, OR VEGETATIVE GROUND COVER.
- ALL GROUND-DISTURBING ACTIVITIES (E.G., CLEARING, GRUBBING, SCRAPING, AND EXCAVATION) SHALL BE EFFECTIVELY CONTROLLED OF FUGITIVE DUST EMISSIONS UTILIZING APPLICATION OF WATER OR BY PRE-SOAKING.
- ALL MATERIALS TRANSPORTED OFFSITE SHALL BE COVERED OR EFFECTIVELY WETTED TO LIMIT EMISSIONS.
- FOLLOWING THE ADDITION OF MATER OF OUTDOOR STORAGE PILES, SAID EMISSIONS UTILIZING SUFFICIENT W ATERIALS TO, OR THE SAID PILES SHALL BE E WATER OR CHEMICAL REMOVAL OF MATERIALS I EFFECTIVELY STABILIZED C . STABILIZER/SUPPRESANT. OF FUGITIVE SURFACES DUST
- ONSITE VEHICLE SPEED ON UNPAVED SURFACES SHALL BE LIMITED TO 15 MPH
- DISTURBED AREAS SHALL BE SEEDED PRIOR TO OCTOBER 15TH OR EARLIER AS REQUIRED APPLICABLE PERMIT CONDITIONS. В

PREPARED AT THE REQUEST OF:

DISTRICT

CLACKAMAS SOIL AND





WATERWAYS 1020 SW TAYLOR STREET, STE. 380 PORTLAND, OR 97205 PH:(503)227–5979 // FAX:(888)819–6847 WWW.WATWAYS.COM

MILK CREEK BANK STABILIZATION PROJECT 100% DESIGN SUBMITTAL

DESIGNED DRAWN BY: CHECKED E

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R IS ONE INCH ON DRIGINAL DRAWING, DJUST SCALES FOR REDUCED PLOTS

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NOTES

WATER CONSERVATION