

1600 SE 190th Ave, Portland OR 97233-5910 • PH. (503) 988-3043 • Fax (503) 988-3389

NOTICE OF DECISION

This notice concerns a Planning Director Decision on the land use case(s) cited and described below.

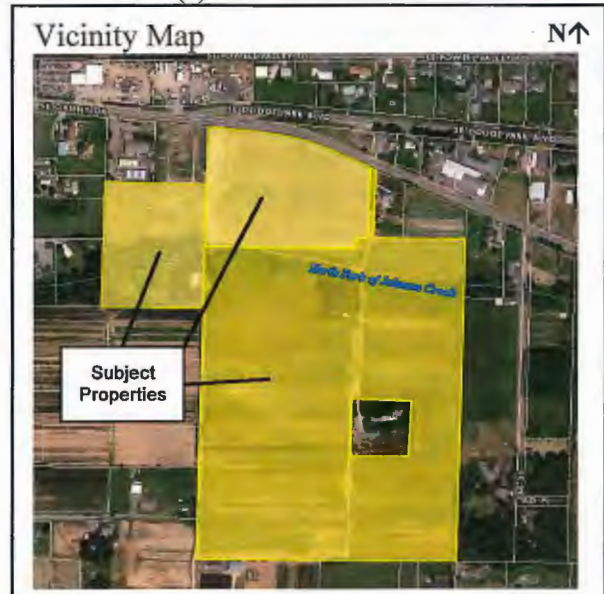
Case File: T2-2016-4737

Permit: Significant Environmental Concern

Location: Property 1 and 2: 128848 & 28600 SE Orient Drive
Tax Lot 900 & 1200, Section 19
Township 1 South, Range 4 East, W.M.
Tax Acc # R994190250 & R994191700

Property 3: No Situs Address on SE Orient Drive
Tax Lot 901, Section 19
Township 1 South, Range 4 East, W.M.
Tax Account # R994192030

Applicants: Aaron Guffey and Julie DiLeone



Owners: East Multnomah Soil & Water Conservation District, Schaeffers' Nursery

Base Zone: Property 1, 2 and 3 - Exclusive Farm Use (EFU)
Property 3 - Orient Rural Center Residential (OR)

Overlays: Significant Environmental Concern for Wildlife Habitat (SEC-h)
Significant Environmental Concern for Water Resources (SEC-wr)

Summary: The applicant is proposing to decommission an existing culvert and 1000 feet of gravel road, and replace two culverts within the stream buffer of the North Fork of Johnson Creek. Additionally, a single-family dwelling will be converted into a farm office.

Decision: Approved with Conditions

Unless appealed, this decision is effective July 27, at 4:00 PM.

Issued by:

By: 
Rithy Khut, Planner

For: Michael Cerbone, AICP
Planning Director

Date: Wednesday, July 13, 2017.

Opportunity to Review the Record: A copy of the Planning Director Decision, and all evidence submitted associated with this application, is available for inspection, at no cost, at the Land Use Planning office during normal business hours. Copies of all documents may be purchased at the rate of 30-cents per page. The Planning Director Decision contains the findings and conclusions upon which the decision is based, along with any conditions of approval. For further information on this case, contact Rithy Khut, Staff Planner at 503-988-0176.

Opportunity to Appeal: This decision may be appealed within 14 days of the date it was rendered, pursuant to the provisions of MCC 37.0640. An appeal requires a \$250.00 fee and must state the specific legal grounds on which it is based. To obtain appeal forms or information on the procedure, contact the Land Use Planning offices at 1600 SE 190th Avenue (Phone: 503-988-3043). This decision cannot be appealed to the Land Use Board of Appeals until all local appeals are exhausted.

This decision is final at the close of the appeal period, unless appealed. The deadline for filing an appeal is Wednesday, July 27, 2016 at 4:00 pm.

Applicable Approval Criteria: Multnomah County Code (MCC): MCC 37.0560 Code Compliance and Applications, MCC 36.0005 Definitions – Lot of Record, MCC 36.2820(D) Allowed Uses, MCC 36.2660 Dimensional Requirements, MCC 36.2870 Lot of Record, MCC 36.3420(D) Allowed Uses, MCC 36.3455 Dimensional Standards and Development Requirements, MCC 36.4550 General Requirements for Approval in Areas Designated as SEC-wr or SEC-h, MCC 36.4555 Criteria for Approval of SEC-wr Permit – Water Resources

Multnomah County Road Rules (MCRR): MCRR 4.200 Number

Copies of the referenced Multnomah County Code (MCC) and Multnomah County Road Rules (MCRR) sections can be obtained by contacting our office at 503-988-3043 or by visiting our website at <https://multco.us/landuse/> or <https://multco.us/transportation-planning/>

Scope of Approval

1. Approval of this land use permit is based on the submitted written narrative(s) and plan(s). No work shall occur under this permit other than that which is specified within these documents. It shall be the responsibility of the property owner(s) to comply with these documents and the limitations of approval described herein.
2. **This land use permit expires two years from the date the decision is final pursuant to MCC 37.0690(A) as applicable. The property owner may request to extend the timeframe within which this permit is valid, as provided under MCC 37.0695, as applicable. The request for a permit extension must be submitted prior to the expiration of the approval period.**

Conditions of Approval

The conditions listed are necessary to ensure that approval criteria for this land use permit are satisfied. Where a condition relates to a specific approval criterion, the code citation for that criterion follows in parenthesis.

Note: Once this decision is final, application for building permits may be made with the City of Gresham. When ready to have building permits signed off, the applicant shall call the Staff Planner,

Rithy Khut at (503) 988-0176 for an appointment for review and approval of the conditions and to sign the building permit plans. Please note, Multnomah County must review and sign off the building permits before the applicant submits building plans to the City of Gresham. Three (3) sets each of the site plan and building plans are needed for building permit sign off. At the time of building permit review, a fee will be collected. In addition, an erosion control inspection fee may be required.

1. Within three months of this decision becoming final, the property owner shall apply for and receive access permits from Multnomah County Transportation for both existing driveways (accessing both parcels) since no access permits are on record. The access form is available online at: <https://multco.us/roads/road-and-bridge-permit-applications> (the top link). For more information, contact our ROW Permits office at 503-988-3582 or ROW.permits@multco.us. [MCRR 4.200]
2. Staging of equipment or vehicles shall occur no closer than 150 feet from the stream or water body. [MCC 36.4555(B)(3)]
3. Any equipment or vehicle working in-stream shall be inspected daily prior to entering the water body to ensure there are no leaks or hazardous materials present. [MCC 34.4550(A)]
4. Nuisance plants listed in MCC 36.4550(C) shall be removed from the development area and are prohibited from being planted. [MCC 36.4550(C) and MCC 36.4555(D)(6)]
5. Vegetation planted as part of the habitat restoration and enhancement shall be native plants, as proposed in the narrative and Figure 3 Planting Plan. [36.5555(D)(6)]
6. Prior to work commencing, and through the duration of the project, the Water Resource Area shall be flagged, fenced or otherwise marked and shall remain undisturbed except as otherwise allowed by this district. Such markings shall be maintained until construction is complete. [MCC 36.4555(D)(7)].
7. Following completion of work, all disturbed soils will be seeded and mulched to prevent erosion and sedimentation in the channel. The site will then be revegetated with native plants and species, as proposed on the Figure 3 Planting Plan. [MCC 36.4555(B)]

Notice to Mortgagee, Lien Holder, Vendor, or Seller:

ORS Chapter 215 requires that if you receive this notice it must be promptly forwarded to the purchaser.

Findings of Fact

FINDINGS: Written findings are contained herein. The Multnomah County Code (MCC) criteria and Comprehensive Plan Policies are in **bold** font. Staff analysis and comments are identified as ‘**Staff:**’ and address the applicable criteria. Staff comments may include a conclusionary statement in *italic*.

1.00 Project Description:

Staff: The applicant is seeking approval for the decommissioning and replacement of culverts within the stream buffer of the North Fork of Johnson Creek. The project will decommission one culvert, 1,000 linear feet of gravel road and replace two existing undersized culverts to improve fish passage. One of the undersized culverts will be replaced with a bridge and the other will be replaced with a larger culvert. The project will occur in the Exclusive Farm Use and the Orient Rural Center Residential (OR) zoning districts. Additionally, the project is located in the Significant Environmental Concern for Water Resources (SEC-wr) overlay subdistrict zone. The project sites are located south of Orient Drive in the West of Sandy Rural Area.

2.00 Property Description & History (if needed):

Staff: The proposed project is located on three properties. Property 1 and Property 2 are owned by the East Multnomah Soil and Water Conservation District (EMSWCD) and Property 3 is owned by the Schaeffers’ Nursery. Property 1 is 49.85 acres and has various farm building and multiple greenhouses that are leased to tenant farmers. Property 2 has one dwelling and an old barn that is slated for removal. EMSWCD purchased both Property 1 and Property 2 in 2012 and both properties are currently in farm use. Property 3 has been owned by Schaeffers’ Nursery since 2011 and in 2013 was approved for a Category 1 Land Division (Land use cases T3-2013-2918) which will result in 10 subdivision lots.

3.00 Code Compliance:

37.0560 CODE COMPLIANCE AND APPLICATIONS.

Except as provided in subsection (A), the County shall not make a land use decision approving development, including land divisions and property line adjustments, or issue a building permit for any property that is not in full compliance with all applicable provisions of the Multnomah County Land Use Code and/or any permit approvals previously issued by the County.

(A) A permit or other approval, including building permit applications, may be authorized if:

- (1) It results in the property coming into full compliance with all applicable provisions of the Multnomah County Code. This includes sequencing of permits or other approvals as part of a voluntary compliance agreement; or**
- (2) It is necessary to protect public safety; or**
- (3) It is for work related to and within a valid easement over, on or under an affected property.**

Staff: There are no known code compliance issues associated with the property and as such the County has the authority to issue this land use decision.

This criterion is met.

4.00 Lot of Record:

36.0005 LOT OF RECORD

Lot of Record – Subject to additional provisions within each Zoning District, a Lot of Record is a parcel, lot, or a group thereof that, when created or reconfigured, (a) satisfied all applicable zoning laws and (b) satisfied all applicable land division laws, or (c) complies with the criteria for the creation of new lots or parcels described in MCC 36.7785. Those laws shall include all required zoning and land division review procedures, decisions, and conditions of approval.

(a) "Satisfied all applicable zoning laws" shall mean: the parcel, lot, or group thereof was created and, if applicable, reconfigured in full compliance with all zoning minimum lot size, dimensional standards, and access requirements.

(b) "Satisfied all applicable land division laws" shall mean the parcel or lot was created:

- 1. By a subdivision plat under the applicable subdivision requirements in effect at the time; or**
- 2. By a deed, or a sales contract dated and signed by the parties to the transaction, that was recorded with the Recording Section of the public office responsible for public records prior to October 19, 1978; or**
- 3. By a deed, or a sales contract dated and signed by the parties to the transaction, that was in recordable form prior to October 19, 1978; or**
- 4. By partitioning land under the applicable land partitioning requirements in effect on or after October 19, 1978; and**
- 5. "Satisfied all applicable land division laws" shall also mean that any subsequent boundary reconfiguration completed on or after December 28, 1993 was approved under the property line adjustment provisions of the land division code. (See Date of Creation and Existence for the effect of property line adjustments on qualifying a Lot of Record for the siting of a dwelling in the EFU and CFU districts.)**

(c) Separate Lots of Record shall be recognized and may be partitioned congruent with an "acknowledged unincorporated community" boundary which intersects a Lot of Record.

- 1. Partitioning of the Lot of Record along the boundary shall require review and approval under the provisions of the land division part of this Chapter, but not be subject to the minimum area and access requirements of this district.**
- 2. An "acknowledged unincorporated community boundary" is one that has been established pursuant to OAR Chapter 660, Division 22.**

*** * ***

36.2870 LOT OF RECORD.

(A) In addition to the Lot of Record definition standards in MCC 36.0005, for the purposes of this district the significant dates and ordinances for verifying zoning compliance may include, but are not limited to, the following:

- (1) July 10, 1958, SR zone applied;
- (2) July 10, 1958, F-2 zone applied;
- (3) December 9, 1975, F-2 minimum lot size increased, Ord. 115 & 116;
- (4) October 6, 1977, MUA-20 zone applied, Ord. 148 & 149;
- (5) October 13, 1983, zone change from EFU to MUA-20 for some properties, Ord. 395;
- (6) May 16, 2002, Lot of Record section amended, Ord. 982.

(B) A Lot of Record which has less than the minimum lot size for new parcels or lots, less than the front lot line minimums required, or which does not meet the access requirement of MCC 36.2885, may be occupied by any allowed use, review use or conditional use when in compliance with the other requirements of this district.

(C) Except as otherwise provided by MCC 36.2860, 36.2875, and 36.4300 through 36.4360, no sale or conveyance of any portion of a lot, other than for a public purpose, shall leave a structure on the remainder of the lot with less than minimum lot or yard requirements or result in a lot with less than the area or width requirements of this district.

(D) The following shall not be deemed to be a lot of record:

- (1) An area of land described as a tax lot solely for assessment and taxation purposes;
- (2) An area of land created by the foreclosure of a security interest.
- (3) An area of land created by court decree.

Staff: The findings below demonstrate that each property is a lot of record:

Property 1 Tax lot 1100: The County reviewed and approved a Property Line Adjustment (T2-2011-1959) in 2011 authorizing the adjustment of Tax lot 900 and Tax lot 1100. That decision determined that subject parcels are Lots of Record

Property 2 Tax lot 1200: There has been no review of Taxlot 1200. A Contract for Sale (Book 907, Page 1116) recorded on January 22, 1973 (Exhibit B.7) describes the subject property. The contract was in recordable form and contains the same legal description as the 2012 deed. Therefore, the property was first created in 1973. In 1973, the property was zoned Suburban Residential (SR) (Exhibit B.8) which required a 40,000 square foot minimum lot size and public access. The property 7.82 acres and the contract stipulated an easement for the purposes of ingress and egress from the subject property to Orient Drive. Therefore, the property met all those requirements. Considering the facts above, Property 3, also known as Tax lot 1200, is a Lot of Record.

Property 3, Tax lot 901: The County reviewed and approved a Property Line Adjustment (T2-2011-1959) in 2011 authorizing the adjustment of Tax lot 900 and Tax lot 1100. That decision determined that subject parcel is a Lot of Record

This criterion is met.

5.00 Exclusive Farm Use Criteria:

§ 36.2620 ALLOWED USES.

(B) Buildings other than dwellings customarily provided in conjunction with farm use.

Staff: The applicant/property owner has provided information to convert a mobile home permitted in 1981 into a farm office to be utilized by the tenant/incubator farmers. *This criterion is met.*

(K) Creation of, restoration or enhancement of wetlands.

Staff: The applicant and property owner have applied for a permit to improve fish passage and enhance riparian and wetland areas through the decommissioning of a culvert, replacement of two existing culverts and removal of a gravel access road that runs parallel to the North Fork of Johnson Creek. *This criterion is met.*

§ 36.2660 DIMENSIONAL REQUIREMENTS.

(A) Except as provided in MCC 36.2675, the minimum lot size for new parcels shall be 80 acres in the EFU district.

(B) That portion of a street which would accrue to an adjacent lot if the street were vacated shall be included in calculating the size of such lot.

Staff: The proposal does not include any land divisions so minimum lot size and calculation of lot size is not applicable. *These criteria are met.*

(C) Minimum Yard Dimensions - Feet

Front	Side	Street Side	Rear
30	10	30	30

Maximum Structure Height - 35 feet

Minimum Front Lot Line Length - 50 feet.

Staff: The proposed replacement culvert on Parcel 1 is below grade therefore does not need to meet setback requirements. The Front Lot Line on Parcel 1 is 32.34 feet, which is below the 50-foot minimum. Land use case #T2-2011-1959 approved a property line adjustment and the property conforms to MCC 36.7895 - Lots and Parcels, that regulates the design of lots and parcels.

The proposed bridge structure on Parcel 2 is approximately 60 feet from the side property line and more than 30 feet from the rear property line. The Farm Office is approximate 20 feet from the side property line and over 100 feet from the rear property line.

Both the culvert and bridge are at or below grade and the Farm Office was previously reviewed for height requirements in 1981. *This criterion is met.*

(D) The minimum yard requirement shall be increased where the yard abuts a street having insufficient right-of-way width to serve the area. The county Road Official shall determine the necessary right-of-way widths based upon the county "Design and Construction Manual" and

the Planning Director shall determine any additional yard requirements in consultation with the Road Official.

Staff: The project has yet to be permitted by Multnomah County Transportation Division. To ensure that review is completed, conditions of approval will be required. *As conditioned, this criterion is met.*

(E) Structures such as barns, silos, windmills, antennae, chimneys or similar structures may exceed the height requirement if located at least 30 feet from any property line.

Staff: The bridge and culvert that are the subject of this review will both be established below the grade of existing development, therefore the standard is met. *This criterion is met.*

(F) On-site sewage disposal, storm water/drainage control, water systems unless these services are provided by public or community source, shall be provided on the lot.

(1) Sewage and stormwater disposal systems for existing development may be off-site in easement areas reserved for that purpose.

(2) Stormwater/drainage control systems are required for new impervious surfaces. The system shall be adequate to ensure that the rate of runoff from the lot for the 10 year 24-hour storm event is no greater than that before the development.

Staff: Neither structure require on-site sewage disposal. There are no proposed impervious surfaces, however, the applicant/owners have submitted a permit application for grading and erosion control (T1-2016-4739), which addresses possible stormwater and drainage control systems. *This criterion is met.*

(G) Grading and erosion control measures sufficient to ensure that visible or measurable erosion does not leave the site shall be maintained during development. A grading and erosion control permit shall be obtained for development that is subject to MCC Chapter 29.

Staff: The applicant/owners have submitted a permit application for grading and erosion control (T1-2016-4739), which addresses possible grading and erosion control measures needed for the project. *This criterion is met.*

(H) Agricultural structures and equine facilities such as barns, stables, silos, farm equipment sheds, greenhouses or similar structures that do not exceed the maximum height requirement may have a reduced minimum rear yard of less than 30 feet, to a minimum of 10 feet, if:

(1) The structure is located at least 60 feet from any existing dwelling, other than the dwelling(s) on the same tract, where the rear property line is also the rear property line of the adjacent tract, or

(2) The structure is located at least 40 feet from any existing dwelling, other than the dwelling(s) on the same tract, where the rear property line is also the side property line of the adjacent tract.

(3) Placement of an agricultural related structure under these provisions in (H) do not change the minimum yard requirements for future dwellings on adjacent property.

Staff: No new agricultural structures are proposed, therefore this criteria is not applicable. *This criterion is met.*

6.00 Orient Rural Center Residential Criteria:

§ 36.3420 ALLOWED USES.

(D) Public and private conservation areas and structures for the protection of water, soil, open space, forest and wildlife resources.

Staff: The applicant and property owner have applied for a permit to improve fish passage and enhance riparian and wetland areas. The portion of the project on Parcel 3 within the Orient Rural Center Residential is the removal of gravel access road that runs parallel to the North Fork Johnson Creek. The removal of the gravel access road and associated riparian and wetland activities will provide for the protection of water, soil, and wildlife resources. *This criterion is met.*

§ 36.3455 DIMENSIONAL STANDARDS AND DEVELOPMENT REQUIREMENTS.

All development proposed in this district shall comply with the applicable provisions of this section.

(A) Except as provided in MCC 36.3460, 36.3470, and 36.3475, and 36.4300 through 4360, the minimum lot size shall be one acre.

Staff: The proposal does not include any land divisions so minimum lot size is not applicable. The Front Lot Line on Parcel 1 is 32.34 feet, which is below the 50-foot minimum. Land use case #T2-2011-1959 approved a property line adjustment and the property conforms to MCC 36.7895 - Lots and Parcels, that regulates the design of lots and parcels. *This criterion is met.*

(B) Minimum Yard Dimensions - Feet

Front	Side	Street Side	Rear
30	10	30	30

Maximum Structure Height - 35 feet

Minimum Front Lot Line Length - 50 feet.

Staff: The portion of the proposal within this zoning district does not include any structures so is not applicable. *This criterion is met.*

(C) The minimum yard requirement shall be increased where the yard abuts a street having insufficient right-of-way width to serve the area. The county Road Official shall determine the necessary right-of-way widths based upon the county "Design and Construction Manual" and the Planning Director shall determine any additional yard requirements in consultation with the Road Official.

Staff: The project has yet to be permitted by Multnomah County Transportation Division. To ensure that review is completed, a condition of approval will be required. *As conditioned, this criterion is met.*

(D) Structures such as barns, silos, windmills, antennae, chimneys, or similar structures may exceed the height requirement if located at least 30 feet from any property line.

Staff: The portion of the proposal within this zoning district does not include any structures so is not applicable. *This criterion is met.*

(E) On-site sewage disposal, storm water/drainage control, water systems unless these services are provided by public or community.

Staff: The portion of the proposal within this zoning district does not include any structures that require on-site sewage disposal nor are there any proposed impervious surfaces. However, the applicant/owners have submitted a permit application for grading and erosion control (T1-2016-4739), which addresses possible stormwater and drainage control systems. *This criterion is met.*

7.00 Significant Environmental Concern Permit

§ 36.4550 GENERAL REQUIREMENTS FOR APPROVAL IN AREAS DESIGNATED AS SEC-WR OR SEC-H.

The requirements in this section shall be satisfied for development in the SEC-wr and SEC-h areas in addition to the provisions of 36.4555 or 36.4560 as applicable.

(A) Areas of erosion or potential erosion shall be protected from loss by appropriate means. Appropriate means shall be based on current Best Management Practices and may include restriction on timing of soil disturbing activities.

Applicant: Construction activities will only occur during in-water work windows specified by ODFW. Following construction, all disturbed soils will be seeded and mulched to prevent erosion and sedimentation in the channel. Standard Best Management Practices will be applied on slopes including erosion control fabric, sediment fences, and coir rolls. Dewatering and temporary fish relocation will occur prior to removal of the culverts and construction of the bridge and culvert and consist of a coffer dam, isolation nets, and either a gravity flow diversion or pump system. Following construction, EMSWCD will revegetate the site with native riparian and upland species, where appropriate, including revegetation of the farm access road that is being decommissioned. EMSWCD has direct experience at the site removing non-native species and planting native species throughout the property and project area and has already restored multiple acres of riparian habitat along the portion of North Fork Johnson Creek that flows through the Headwater Farms property. See the 100% engineering design drawings in Attachment A for details on erosion control measures and BMP's.

Staff: The applicant's narrative discussed the Best Management Practices that will be implemented through the project. This includes conducting construction only during ODFW's in-water work window and installing erosion control fabric, sediment fences and coir rolls. Additionally, the applicant/owner will revegetate the site following construction. The listed practices will prevent potential erosion during and after the project. *This criterion is met.*

(B) Outdoor lighting shall be of a fixture type and shall be placed in a location so that it does not shine directly into undeveloped water resource or habitat areas. Where illumination of a water resource or habitat area is unavoidable, it shall be minimized through use of a hooded fixture type and location. The location and illumination area of lighting needed for security of utility facilities shall not be limited by this provision.

Staff: No lighting is proposed for this project. *This criterion is met.*

(C) The following nuisance plants, in addition to the nuisance plants defined in 36.4510, shall not be used as landscape plantings within the SEC-wr and SEC-h Overlay Zone:

Table 1 - Nuisance Plant List

Common Name	Scientific
Lesser celandine	<i>Chelidonium majus</i>
Canada Thistle	<i>Cirsium arvense</i>
Common Thistle	<i>Cirsium vulgare</i>
Western Clematis	<i>Clematis ligusticifolia</i>
Traveler's Joy	<i>Clematis vitalba</i>
Poison hemlock	<i>Conium maculatum</i>
Field Morning-glory	<i>Convolvulus arvensis</i>
Night-blooming Morning-glory	<i>Convolvulus nyctagineus</i>
Lady's nightcap	<i>Convolvulus seppium</i>
Pampas grass	<i>Cortaderia selloana</i>
Hawthorn, except native species	<i>Crataegus sp. except C. douglasii</i>
Scotch broom	<i>Cytisus scoparius</i>
Queen Ann's Lace	<i>Daucus carota</i>
South American Waterweed	<i>Elodea densa</i>
Common Horsetail	<i>Equisetum arvense</i>
Giant Horsetail	<i>Equisetum telemateia</i>
Crane's Bill	<i>Erodium cicutarium</i>
Robert Geranium	<i>Geranium roberianum</i>
English Ivy	<i>Hedera helix</i>
St. John's Wort	<i>Hypericum perforatum</i>
English Holly	<i>Ilex aquafolium</i>
Golden Chain Tree	<i>Laburnum watereri</i>
Duckweed, Water Lentil	<i>Lemna minor</i>

Common Name	Scientific
Fall Dandelion	<i>Loentodon autumnalis</i>
Purple Loosestrife	<i>Lythrum salicaria</i>
Eurasian Watermilfoil	<i>Myriophyllum spicatum</i>
Reed Canary grass	<i>Phalaris arundinacea</i>
Annual Bluegrass	<i>Poa annua</i>
Swamp Smartweed	<i>Polygonum coccineum</i>
Climbing Binaweed	<i>Polygonum convolvulus</i>
Giant Knotweed	<i>Polygonum sachalinense</i>
English, Portugese Laurel	<i>Prunus laurocerasus</i>
Poison Oak	<i>Rhus diversiloba</i>
Himalayan Blackberry	<i>Rubusdiscolor</i>
Evergreen Blackberry	<i>Rubus laciniatus</i>
Tansy Ragwort	<i>Senecio jacobaea</i>
Blue Bindweed	<i>Solanum dulcamara</i>
Garden Nightshade	<i>Solanum nigrum</i>
Hairy Nightshade	<i>Solanum sarrachoides</i>
Common Dandelion	<i>Taraxacum officinale</i>
Common Bladderwort	<i>Ultricularia vulgaris</i>
Stinging Nettle	<i>Urtica dioica</i>
Periwinkle (large leaf)	<i>Vinca major</i>
Periwinkle (small leaf)	<i>Vinca minor</i>
Spiny Cocklebur	<i>Xanthium spinosum</i>
Bamboo sp.	<i>various genera</i>

Applicant: Nuisance plant will be removed as part of construction and the site will be reseeded and replanted with the plant lists shown in the 100% Design Drawings, Attachment A and Figure 3.

Staff: Nuisance plant removal and replanting in the development area shall match Attachment A and Figure 3 (Exhibit A.8 and A.9) and shall be a condition of approval. *As conditioned, this criterion is met.*

§ 36.4555 CRITERIA FOR APPROVAL OF SEC-WR PERMIT -WATER RESOURCE

Except for the exempt uses listed in MCC 36.4520 and the existing uses pursuant to 36.4525, no development shall be allowed within a Water Resource Area unless the provisions of section (A) or (B) or (C) below are satisfied. An application shall not be approved unless it contains the site analysis information required in 36.4540(A) and (C), and meets the general requirements in 36.4550.

(B) Alternatives Analysis - Development proposed within a Water Resource Area may be allowed if there is no alternative, when the other requirements of this district including the Development Standards of (D) and the provisions for Mitigation in (E) are met. The applicant shall prepare an alternatives analysis which demonstrates that:

(1) No practicable alternatives to the re-requested development exist that will not disturb the Water Resource Area; and

Applicant: The primary purpose of the project is to improve the existing crossings to improve fish passage potential and to reconnect the floodplain. Consequently, there is no alternative to implementing the project within the designated Water Resource Area. The following design criteria were used when considering the project alternatives for each crossing:

- Meet fish passage criteria set by Oregon Department of Fish and Wildlife (ODFW) and National Oceanic and Atmospheric Administration (NOAA) that are applicable to stream-road crossings:
 - Channel width equal to at least 1.5 times the active channel width.
 - Use of the stream simulation method. See Attachment D: Design Memorandum for more information.
 - No vertical jumps
- Remove redundant creek crossings at Headwaters Farms while maintaining a looped access from SW Orient Road.
- Maintain existing utilities
- Minimize impact to the channel and floodplain
- Provide conveyance up to the 100-year recurrence interval storm event, with freeboard.

Considering the project purpose and design criteria, the work is required to occur in the Water Resource Area, meaning there are no practicable alternatives that will not temporarily disturb the Water Resources Area.

Staff: The project includes restoration of segments of the North Fork of Johnson Creek, therefore the project is dependent on the water resource that is protected by the SEC-wr overlay zone subdistrict. There are no practical alternatives in the replacement and removal of culverts. *This criterion is met.*

(2) Development in the Water Resource Area has been limited to the area necessary to allow for the proposed use;

Applicant: The limits of disturbance will be minimized to the extent possible. Materials will be staged along the existing gravel road to be decommissioned to limit disturbance to new areas and the site will be isolated and dewatered prior to construction. Environmentally Sensitive Area (ESA) fencing will be installed prior to construction to bound work to the limits of disturbance shown on the 100% Design Drawings, Attachment A. Erosion and sediment control measures, including slope protection fabric and sediment fencing will be installed prior to construction to prevent erosion and sediment from affecting areas outside of the limits of disturbance. All disturbed area will be seeded, mulched, and replanted with native species (Figure 3).

Staff: The applicant states that the disturbance will be minimized to the extent possible. The site plans indicate that the development is limited to those areas that need to be improved from a habitat and floodplain perspective. Those areas include the surrounding riparian habitat closest to the inadequately sized culverts. The assessment performed by Waterways Consulting indicates that a majority of the site is in good condition, as defined by Multnomah County Code. The proposed work within the stream and along the corridor will improve fish habitat as well as flood capacity. Therefore, the proposed

development is limited to those areas necessary for the fish habitat improvement and enhancement. *This criterion is met.*

(3) Development shall occur as far as practically possible from the stream; and

Applicant: All impacts in the in the Water Resource Area are construction-related and will be restored to an equal or better condition. In addition, a total of 70 feet of channel will be daylighted at the West and Middle crossings with adjacent floodplain restoration, increasing the functional value of the active channel and adjacent floodplain wetland.

Staff: The project meets the intent and purpose of the SEC-wr code by enhancing the environmental characteristics of the resource. The removal of one culvert and reconstruction of two other culverts cannot be done outside the stream, therefore it is as far as practically possible from the stream. *This criterion is met.*

(4) The Water Resource Area can be re-stored to an equal or better condition; or

Staff: The applicant's narrative discussed that a total of 70 feet of channel will be daylighted at the West and Middle crossings with adjacent floodplain restoration, increasing the functional value of the active channel and adjacent floodplain and wetland. This would result in better conditions for the water resource area. Additionally, the added native planting will also result in better conditions on the property. *This criterion is met.*

(5) Any net loss on the property of resource area, function and/or value can be mitigated.

Staff: The applicant's narrative, plans and figures show that any loss of the resource area will be temporary due to the restoration of the creek and replanting of native plants. Therefore there will not be any permanent loss of resource area or function and thus no mitigation is necessary. *This criterion is met.*

(D) Development Standards- Development within the Water Resource Area shall comply with the following standards:

(1) Development of trails, rest points, viewpoints, and other facilities for the enjoyment of the resource must be done in such a manner so as to minimize impacts on the natural resource while allowing for the enjoyment of the natural resource.

Staff: No facilities, such as those mentioned in the criterion are proposed for this project. *This criterion is met.*

(2) Development in areas of dense standing trees shall be designed to minimize the numbers of trees to be cut. No more than 50 percent of mature standing trees (of 6-inch DBH greater) shall be removed without a one-for-one replacement with comparable species. The site plan for the proposed activity shall identify all mature standing trees by type, size, and location, which are proposed for removal, and the location and type of replacement trees.

Applicant: The project was designed to minimize impacts to standing trees. All trees proposed for removal are shown in Attachment A: 100% Design Drawings. Four trees above 6" DBH are proposed for removal as part of the West Crossing design, and no trees above 6" DBH are proposed for removal for the Middle Culvert removal or the East Culvert design. The minimum bare root seedling numbers proposed in the planting in Figure 3 are well over the one-for-one replacement requirements.

Staff: The applicant's narrative and figures show that any loss of trees will be replaced. The West Bridge Plan (Exhibit A.9, Page C-4) shows that four trees that will be removed. The Planting Plan (Exhibit A.8) indicates that 50 Oregon ash and 75 western red cedar will be planted, greatly exceeding the 1-to-1 minimum replacement requirement. The replanting in the development area shall match Planting Plan and shall be a condition of approval. *As conditioned, this criterion is met.*

(3) Areas of standing trees, shrubs, and natural vegetation will remain connected or contiguous, particularly along natural drainage courses, so as to provide a transition between the proposed development and the natural resource, to provide food, water, and cover for wildlife, and to protect the visual amenity values of the natural resource.

Applicant: This design aims to improve connectivity along the North Johnson Creek corridor by replacing two undersized culverts with crossings that meet ODFW fish passage design standards and complete decommissioning of a crossing to improve channel-floodplain interactions. Decommissioning, seeding, and mulching of an existing gravel road will create a more contiguous area of standing trees, shrubs, and natural vegetation within the Water Resource area.

Staff: The area of the project has been determined to be in "good" condition, which includes 50% tree canopy and 100% native cover (Exhibit A.10). At the completion of the project and continuing into the winter months, the applicant has indicated that they will revegetate and restore the impacted areas resulting in an improved natural corridor with additional native shrubs and trees. No permanent impacts to the corridor are proposed. Therefore a condition that replanting shall occur pursuant to the Planting Plan provided by the applicant shown in Exhibit A.8 is required. *As conditioned, this criterion is met.*

(4) The Water Resource Area shall be re-stored to "good condition" and maintained in accordance with the mitigation plan pursuant to (E) below and the specifications in Table 2.

Staff: The area of development is currently in "good" condition and will remain so after the installation of a new culvert, new bridge and decommission of the third culvert. The proposed Planting Plan (Exhibit A.8) will ensure at a minimum the "good" condition of the corridor is maintained. *This criterion is met.*

(5) To the extent practicable, existing vegetation shall be protected and left in place. Work areas shall be carefully located and marked to reduce potential damage to the Water Resource Area. Trees in the Water Resource Area shall not be used as anchors for stabilizing construction equipment.

Applicant: The disturbance of existing vegetation will be minimized to the extent possible. Materials will be staged along the existing gravel road to be decommissioned. Environmentally Sensitive Area (ESA) fencing will be installed prior to construction to bound work to the limits of disturbance shown on the 100% Design Drawings, Attachment A. This will clearly mark the work area and prevent damage to vegetation outside the limits of disturbance. Trees within the area of disturbance that are to be protected will be clearly marked during construction.

Staff: Environmentally Sensitive Area fencing will be installed to clearly mark the work area. The clear delineation of the work area will protect existing vegetation to the most practicable extent possible. The applicants proposed construction staging, discussed above, will minimize impacts associated with the proposed improvements to the greatest extent practical. *This criterion is met.*

(6) Where existing vegetation has been removed, or the original land contours disturbed, the site shall be revegetated, and the vegetation shall be established as soon as practicable. Nuisance plants, as identified in Table 1, may be removed at any time. Interim erosion control measures such as mulching shall be used to avoid erosion on bare areas. Nuisance plants shall be replaced with non-nuisance plants by the next growing season.

Staff: The applicant's narrative, plans and figures state that new native vegetation will be planted throughout the project site and that nuisance plants will be removed. The grading and erosion control plan demonstrates that erosion will be minimized or avoided. *This criterion is met.*

(7) Prior to construction, the Water Resource Area shall be flagged, fenced or otherwise marked and shall remain undisturbed except as otherwise allowed by this district. Such markings shall be maintained until construction is complete.

Staff: The applicant's narrative, plans and figures show that the equipment will be contained within the work areas that will be clearly marked with fencing. This requirement will be ensured through a condition of approval. *As conditioned, this criterion is met.*

(8) Stormwater quantity control and quality control facilities:

(a) Stormwater management shall be conducted in a manner that does not increase the flow of stormwater to the stream above pre-development levels.

(b) The stormwater quantity control and quality control facility may only encroach a maximum of 25 feet into the outside boundary of the Water Resource Area of a primary water feature; and

(c) The area of encroachment must be replaced by adding an area equal in size and with similar functions and values to the Water Resource Area on the subject property.

Applicant: No additional impervious surface is being created by the project. There will be a net decrease in disturbed areas following construction due to decommissioning of the Middle Crossing and the road that runs along the north side of the creek. In addition, revegetating the riparian corridor and floodplain is expected to have a positive effect on stormwater quality and quantity. See Attachment A: 100% Design Drawings for stormwater control during construction and Figure 3 for the revegetation plan

Staff: The bridge structure replacing the culvert will not result in new impervious surface being created, thus no stormwater facilities are proposed or required. As such, the revegetating and restoration of the stream should return the stream to pre-development levels. *This criterion is met.*

(E) Mitigation - Mitigation shall be required to offset the impacts of development within the SEC-wr. This section establishes how mitigation can occur.

(1) Mitigation Sequence. Mitigation includes avoiding, minimizing or compensating for adverse impacts to regulated natural resource areas.

(a) When a proposed use or development activity could cause adverse impacts to a natural resource area, the preferred sequence of mitigation as defined in 1. through 5. below shall be followed unless the applicant demonstrates that an overriding public benefit would warrant an exception to this preferred sequence.

1. Avoiding the impact altogether by not taking a certain action or parts of actions on that portion of the site which contains the regulated natural resource area;

2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
3. Compensating for the impact by repairing, rehabilitating, or restoring the affected environment;
4. Compensating for the impact by replacing, enhancing or providing substitute resources or environments on-site.
5. Compensating for the impact by replacing, enhancing or providing substitute resources or environments off-site.

(b) When evaluating potential impacts to the natural resource, the County may consider whether there is an overriding public benefit, given:

1. The extent of the public need for the proposed development ;
2. The functional values of the Water Resource Area that may be affected by the proposed development;
3. The extent and permanence of the adverse effects of the development on the Water Resource Area, either directly or indirectly;
4. The cumulative adverse effects of past activities on the Water Resource Area, either directly or indirectly; and
5. The uniqueness or scarcity of the Water Resource Area that may be affected.

(2) **Compensatory Mitigation: General Requirements.** As a condition of any permit or other approval allowing development which results in the loss or degradation of regulated natural resource areas, or as an enforcement action, compensatory mitigation shall be required to offset impacts resulting from the actions of the applicant or violator.

(a) Any person who alters or proposes to alter regulated natural resource areas shall restore or create natural resource areas equivalent to or larger than those altered in order to compensate for resource losses.

(b) The following ratios apply to the creation or restoration of natural resource areas. The first number specifies the amount of natural resource area to be created and the second specifies the amount of natural resource area to be altered or lost.

Creation (off-site)	2:1
Restoration (off-site)	1.5:1
Creation (on-site)	1.5:1
(Restoration (on-site)	1:1

(c) Only marginal or degraded water resource areas as described in Table 2 may be the subject of a restoration project proposed as part of a Mitigation Plan.

(d) Highest priority sites for mitigation are marginal or degraded corridors that are closest to a natural drainage, and areas which will increase contiguous areas of standing trees, shrubs, and natural vegetation along drainages.

(e) The off-site mitigation shall be as close to the development as is practicable above the confluence of the next downstream tributary, or if this is not practicable, within the watershed where the development will take place or as otherwise specified by the County.

(f) Compensation shall be completed prior to initiation of development where possible.

(g) In order to ensure that on-site mitigation areas are established and maintained, the property owner shall record the mitigation plan approval in the deed records of Multnomah County. In order to ensure that off-site mitigation areas will be protected in perpetuity, the owner shall cause a deed restriction to be placed on the property where the mitigation is required. The deed restriction shall be irrevocable unless a statement of release is signed by an authorized representative of Multnomah County.

(3) Mitigation Plan Standards - Natural re-source mitigation plans shall contain the following information:

(a) A description of adverse impacts that could be caused as a result of development.

(b) An explanation of how adverse impacts to resource areas will be avoided, minimized, and/or mitigated.

(c) A list of all responsible parties including, but not limited to, the owner, applicant, contractor or other persons responsible for work on the development site.

(d) A map drawn to scale, showing where the specific mitigation activities will occur.

(e) An implementation schedule, including timeline for construction, mitigation, mitigation maintenance, monitoring, reporting and a contingency plan. All in-stream work in fish-bearing streams must be done in accordance with the Oregon Department of Fish and Wildlife in-stream timing schedule.

Staff: As described in previous findings, the applicant's narrative, plans and figures indicate that the site has been analyzed by licensed biologists and technical experts and mitigation strategies have been created that are specific to this project. The proposed project is in an area that has been determined to be in "good condition" (Exhibit A.10) and the project will restore and enhance the condition of the site after development occurs. The restoration and enhancement includes the planting of trees and other native species, removal of nuisance plants and the decommissioning of an inadequately sized culvert. The project also improves fish habitat through the replacement of two culverts that currently block fish migration. As such, the Planting Plan is sufficient to meet the mitigation requirements to off-set any impacts of the project. As a condition, the planting plan shall be followed. *As conditioned, this criterion is met.*

8.00 Transportation Standards

MCRR 4.200 Number:

Reducing the number of existing and proposed access points on Arterials and Collectors and improving traffic flow and safety on all County roads will be the primary consideration when reviewing access proposals for approval. One driveway access per property will be the standard for approval. Double frontage lots will be limited to access from the lower classification street. Shared access may be required in situations where spacing standards cannot be met or where there is a benefit to the transportation system.

Staff: The subject property is served by two driveway(s). Property 1 is served by access to Orient Drive. Property 2 is served by access along an easement via 28500 SE Orient Drive. The County has no access permits on record. To ensure that Multnomah County Road Rules are met, the applicant will need to obtain access permits. *As conditioned, this criterion is met.*

7.00 Conclusion

Based on the findings and other information provided above, the applicant has carried the burden necessary for the Significant Environmental Concern Permit for Water Resources to decommission an existing culvert and 1000 linear feet of gravel road within the stream buffer of the North Fork of Johnson Creek, in addition to replacing two culverts and converting a dwelling into a farm office in the Exclusive Farm Use and Orient Rural Center Residential zone. This approval is subject to the conditions of approval established in this report.

8.00 Exhibits

‘A’ Applicant’s Exhibits

‘B’ Staff Exhibits

‘C’ Procedural Exhibits

Exhibits with a “*” after the exhibit # have been included as part of the mailed decision. All other exhibits are available for review in Case File T2-2016-4737 at the Land Use Planning office.

Exhibit #	# of Pages	Description of Exhibit	Date Received / Submitted
A.1	1	General application form	01/29/2016
A.2	3	Pre-file conference summary notes	01/29/2016
A.3	2	Cover and table of contents	01/29/2016
A.4	13	Narrative	01/29/2016
A.5	9	Lot of record cover sheet (1 page) a. Statutory warranty deed – instrument 2012-059552 (3 pages) b. Statutory warranty deed – instrument 2012-059555 (5 pages)	01/29/2016
A.6	9	Grading and erosion control cover sheet and work sheet	01/29/2016
A.7	2	Flood development permit cover sheet and type 1 application form	01/29/2016
A.8	4	Figures (1 page) a. Project site overview – figure 1 (1 page) b. Significant environmental concern for water resources overlay zone map – figure 2 (1 page) c. Planting plan – figure 3 (1 page)	01/29/2016
A.9* (pages C2,4,5,7, 8,10,11, 12)	15	100% design drawings cover sheet – attachment a (1 page) a. Cover – C1 (1 page) b. Site access and road demolition plan – C2 (1 page) c. West culvert existing conditions – C3 (1 page) d. West bridge plan and creek profile – C4 (1 page) e. West bridge profile – C5 (1 page) f. Middle culvert existing conditions – C6 (1 page) g. Middle culvert removal plan and profile – C7 (1 page) h. Middle culvert sections – C8 (1 page) i. East culvert existing conditions – C9 (1 page) j. East culvert plan and profile – C10 (1 page) k. East road profile – C11 (1 page) l. Diversion and erosion and sediment control plan – C12 (1 page)	01/29/2016

		m. Details – C13 (1 page) n. Notes – C14 (1 page)	
A.10	5	Attachment b cover sheet (1 page) a. Report of riparian vegetation condition in the Headwaters Farm Dianna Pope Natural Area (4 pages)	01/29/2016
A.11	25	Geotechnical engineering report headwaters culvert replacement (25 pages)	01/29/2016
A.12	11	Design memorandum	01/29/2016
A.13	4	Supplemental application material in response to incomplete letter	03/28/2016
A.14	1	Letter authorizing East Multnomah Soil and Water Conservation District to do work on the Schaeffers' Nursery Property	05/02/2016
'B'	#	Staff Exhibits	Date
B.1	3	A&T Property Information for 1S4E19 - 00900	01/29/2016
B.2	2	A&T Property Information for 1S4E19 - 01200	01/29/2016
B.3	2	A&T Property Information for 1S4E19 - 00901	07/12/2016
B.4	1	A&T Tax Map with 1S4E19 -0900 and -00901 Highlighted	07/12/2016
B.5	1	A&T Tax Map with 1S4E19 -01200 Highlighted	07/12/2016
B.6	2	Parcel Record – Cartographic Unit for 1S4E19BC -01200	05/11/2016
B.7	4	Contract of Sale from Book 907, Page 1166	05/11/2016
B.8	1	Zoning Map from 1966	05/11/2016
'C'	#	Administration & Procedures	Date
C.1	3	Incomplete Letter	02/26/2016
C.2	1	Applicant's Acceptance of 180 Day Clock	03/23/2016
C.3	1	Complete Letter (Day 1)	04/28/2016
C.4	3	Opportunity to Comment	05/02/2016
C.5	6	Corrected Opportunity to Comment	05/06/2016



SITE ACCESS AND ROAD DEMOLITION PLAN
SCALE: 1" = 100'

- NOTES:**
1. ROAD DECOMMISSIONING SHALL INCLUDE SCARIFYING THE EXISTING SURFACE TO A DEPTH OF ONE FOOT, FOLLOWED BY SEEDING AND MULCHING. ROADS TO BE DECOMMISSIONED MAY BE USED FOR SITE ACCESS PRIOR TO DECOMMISSIONING.
 2. RECENT BUILDING CONSTRUCTION NOT REFLECTED ON AERIAL IMAGE.

ACCESS AND STAGING AREA NOTES

1. 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.
2. MAINTAIN PUBLIC ACCESS TO THE EAST OR WEST CROSSING AT ALL TIMES DURING CONSTRUCTION. CONSTRUCTION WITHIN THE ROADWAY OF THE EAST AND WEST CROSSINGS SIMULTANEOUSLY IS NOT ALLOWED.
3. UTILIZE ONLY THE APPROVED ACCESS POINTS, AS SHOWN ON THE DRAWINGS. MATERIALS SHALL BE STOCKPILED WITHIN AN EXISTING FLAT AND PREVIOUSLY DISTURBED AREA.

4. ACCESS PLAN IS SCHEMATIC. CONTRACTOR SHALL SUBMIT A SITE ACCESS PLAN FOR APPROVAL BY THE ENGINEER.
5. THE DOWNSLOPE PERIMETER OF STAGING OR STOCKPILE AREAS SHALL BE CONTAINED WITH SILT FENCE.
6. ALL EQUIPMENT AND MATERIALS SHALL BE STORED, MAINTAINED AND REFUELED IN A DESIGNATED PORTION OF THE STAGING AREA.
7. ACCESS ROUTES SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS AT THE CONCLUSION OF WORK, UNLESS STATED OTHERWISE IN THE DRAWINGS, TO THE SATISFACTION OF THE OWNER.
8. SEED AND MULCH ALL AREAS OF ROAD DECOMMISSIONING WITH 100% STERILE WHEAT/WHEATGRASS HYBRID (E.G. REGREEN, AVAILABLE FROM RAIVER SEEDS, 800.828.8873) OR EQUIVALENT TO BE APPROVED BY THE ENGINEER.

LEGEND

- PROPERTY BOUNDARY (APPROX.)
- SITE ACCESS ON EXISTING GRAVEL ROAD
- NEW GRAVEL ACCESS ROAD
- EXISTING GRAVEL ROAD DECOMMISSIONING
- EQUIPMENT STAGING AND RE-FUELING AREA
- EXISTING BUILDING

RECEIVED
JAN 29 2016
BY:



WATERWAYS
CONSULTING INC.
1020 SW TAYLOR STREET, SUITE 300
PORTLAND, OR 97205
PHONE: 503.447.6647
WWW.WATERWAYS.COM

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 1/15/18
BY: M.W.W.

PREPARED AT THE REQUEST OF:
**EAST MULTNOMAH SOIL
AND WATER CONSERVATION
DISTRICT**

**SITE ACCESS
AND ROAD
DEMOLITION
PLAN**

**HEADWATERS PROJECT
100% DESIGN SUBMITAL**

DESIGNED BY: J.M.B.
DRAWN BY: J.M.B.
CHECKED BY: M.W.W.
DATE: 01/15/18
JOB NO.: 14-056

BAR IS ONE INCH ON
ORIGINAL DRAWING.
ADJUST SCALES FOR
REDUCED PLOTS

C2 **2**
14

KEY NOTES:

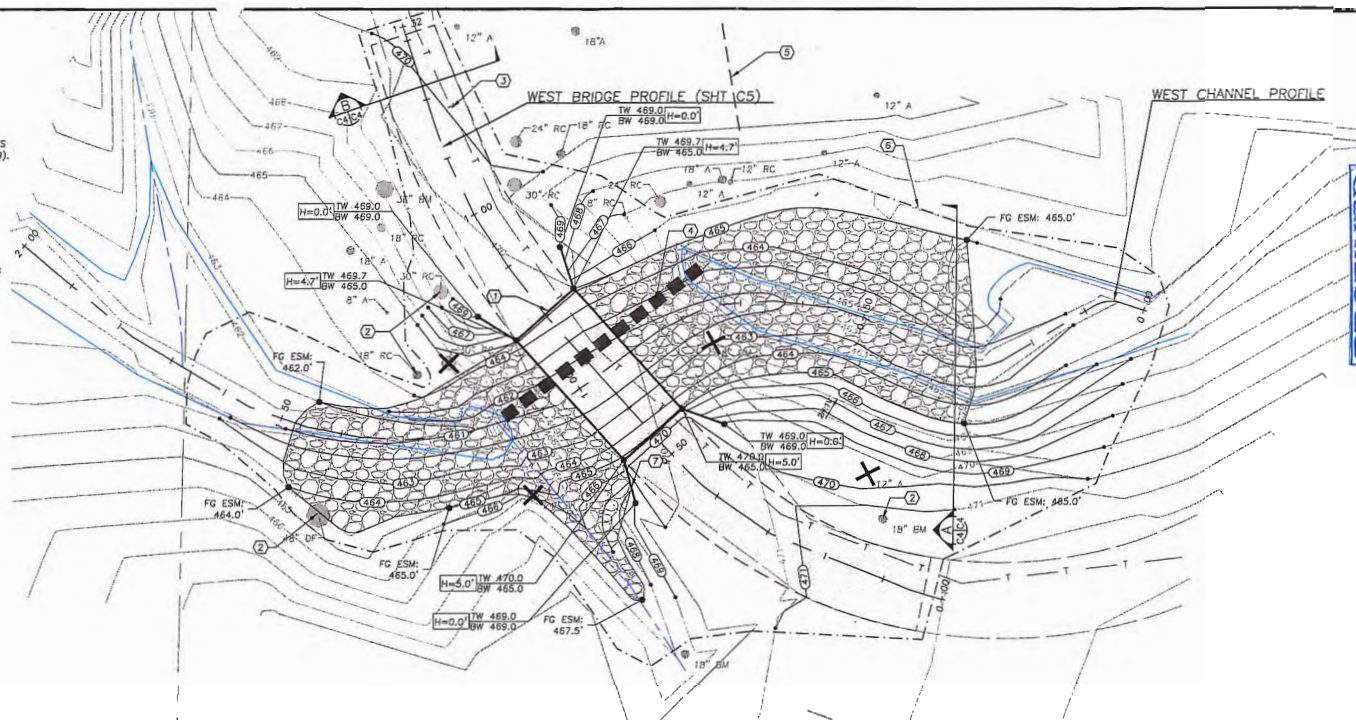
1. INSTALL 12.5'-WIDE X 28' LONG PRE-CAST CONCRETE BRIDGE ON CONCRETE ABUTMENTS PER STRUCTURAL DRAWINGS BY OTHERS.
2. PROTECT EXISTING TREE.
3. APPROXIMATE LOCATION OF (E) UNDERGROUND TELECOMMUNICATIONS UTILITY. COORDINATE RELOCATION OF THE EXISTING TELECOMMUNICATIONS LINE WITH FRONTIER COMMUNICATIONS (TELEPHONE NO. 503-565-9209).
4. DEMOLISH AND REMOVE 40 LINEAR FEET OF EXISTING 30 INCH METAL CULVERT PIPE.
5. PROTECT EXISTING 6 INCH HDPE DRAIN.
6. APPROXIMATE LIMITS OF DISTURBANCE.
7. CONCRETE WING WALLS (TYP.).
8. STOCKPILE MATERIAL FOR WEST BRIDGE CONSTRUCTION ALONG EXISTING GRAVEL ROAD TO BE DECOMMISSIONED. DECOMMISSION ROAD FOLLOWING MASS GRADING AND BRIDGE CONSTRUCTION PER SHEET C2.

NOTES:

1. UTILITY LOCATION SHOWN IS APPROXIMATE. CONTRACTOR TO VERIFY ALIGNMENT AND DEPTH OF EXISTING UTILITY PRIOR TO CONSTRUCTION.
2. WING WALL ELEVATIONS AND HEIGHTS SHOWN ON THIS SHEET ARE DEFINED AS FOLLOWS: SEE STRUCTURAL DRAWINGS FOR FOOTING REQUIREMENTS.
H = VERTICAL DISTANCE FROM TW TO BW, IN FEET.
BW = ELEVATION IN FEET AT THE BASE OF THE FINISHED GRADE SURFACE.
TW = ELEVATION AT THE TOP OF THE WING WALL.

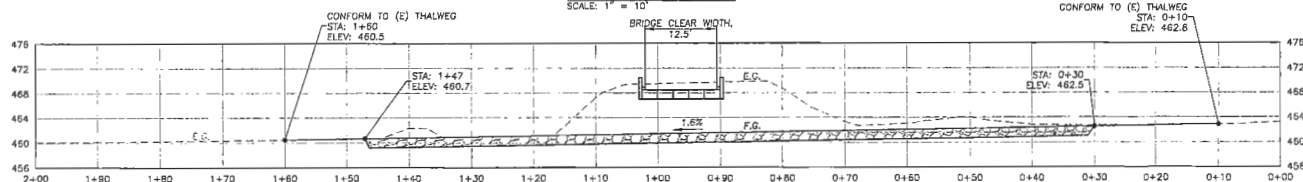
LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING ORDINARY HIGH WATER
- PROPERTY BOUNDARY (APPROX.)
- EXISTING PHONE UTILITY
- LIMITS OF DISTURBANCE
- EXISTING CULVERT
- EXISTING TREE
- TREE TO BE REMOVED
- ENGINEERED STREAMBED MATERIAL



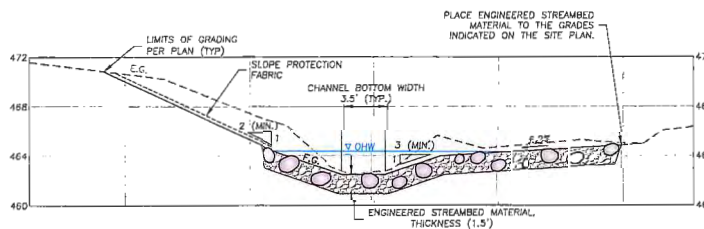
WEST BRIDGE PLAN

SCALE: 1" = 10'



WEST CHANNEL PROFILE

SCALE: 1" = 10'



TYPICAL UPSTREAM CHANNEL SECTION AT STA 0+32 - WEST

SCALE: 1" = 5'

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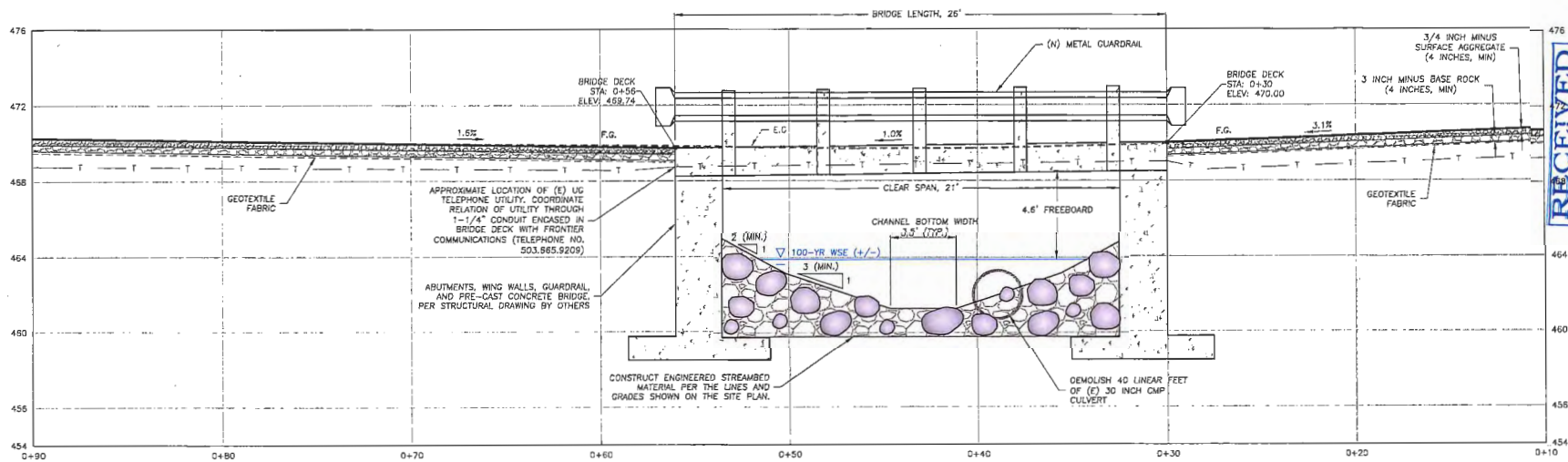
WEST BRIDGE
PLAN AND
CREEK PROFILE

HEADWATERS PROJECT
100% DESIGN SUBMITTAL

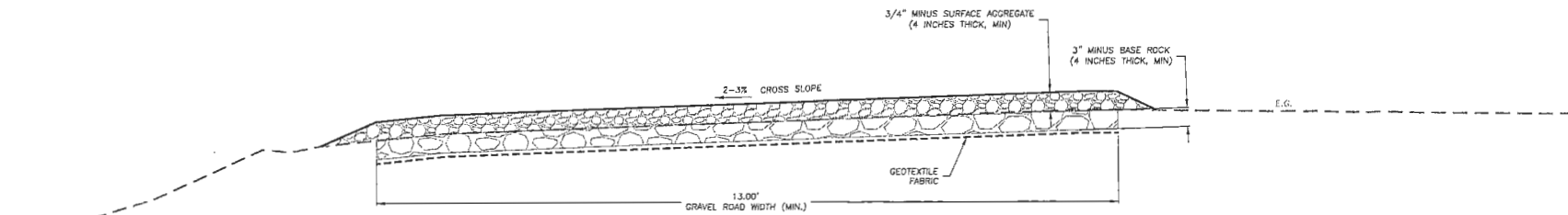
DESIGNED BY: J.M.B.
DRAWN BY: J.M.B.
CHECKED BY: M.W.W.
DATE: 01/15/16
JOB NO.: 14-066

BAR IS ONE INCH ON
ORIGINAL DRAWING.
ADJUST SCALES FOR
REDUCED PLOTS

C4 4 OF 14



WEST BRIDGE PROFILE
SCALE: 1" = 3'



TYPICAL ROAD SECTION
SCALE: 1" = 1'

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BY:

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EAST MULTNOMAH SOIL AND WATER CONSERVATION DISTRICT

DATE: _____

DESIGNED BY: J.M.B.

DRAWN BY: J.M.B.

CHECKED BY: M.W.W.

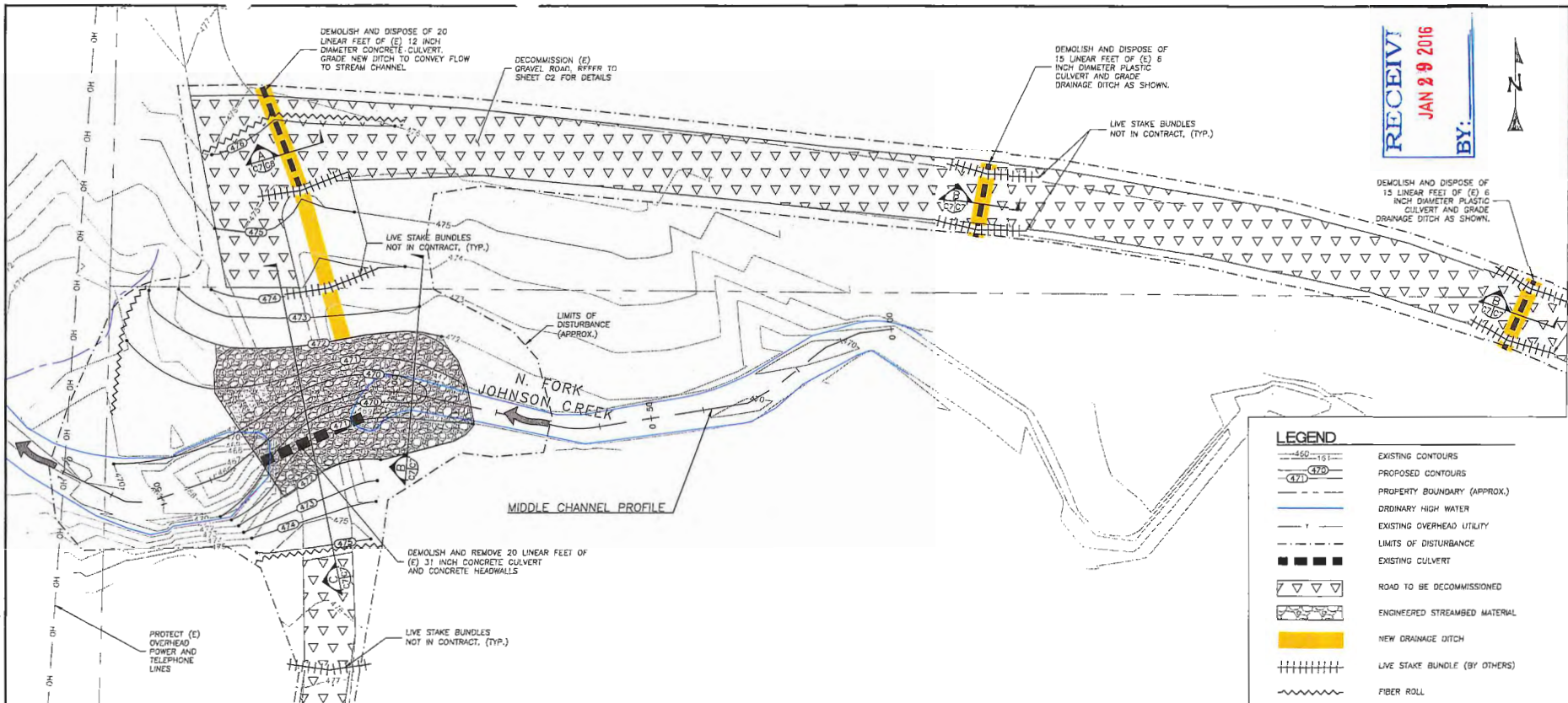
DATE: 01/15/16

JOB NO.: 14-056

HEADWATERS PROJECT 100% DESIGN SUBMITTAL

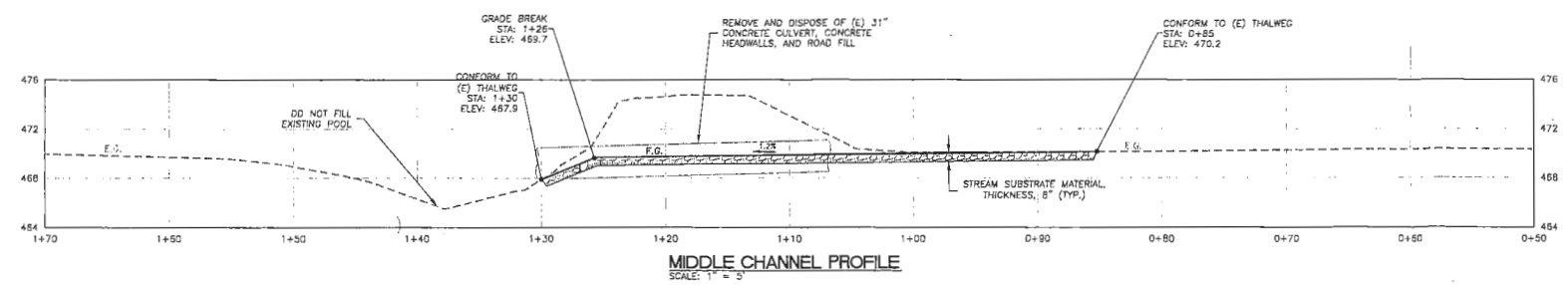
C5

5 OF 14



- LEGEND**
- EXISTING CONTOURS
 - PROPOSED CONTOURS
 - PROPERTY BOUNDARY (APPROX.)
 - ORDINARY HIGH WATER
 - EXISTING OVERHEAD UTILITY
 - LIMITS OF DISTURBANCE
 - EXISTING CULVERT
 - ROAD TO BE DECOMMISSIONED
 - ENGINEERED STREAMBED MATERIAL
 - NEW DRAINAGE DITCH
 - LIVE STAKE BUNDLE (BY OTHERS)
 - FIBER ROLL

MIDDLE CULVERT REMOVAL PLAN
SCALE: 1" = 10'



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BY:



WATERWAYS CONSULTING INC.
1000 SW TAYLOR STREET, SUITE 300
PORTLAND, OREGON 97205
TEL: (503) 227-2070 FAX: (503) 227-6647
WWW.WATERWAYS.COM

PRELIMINARY
DATE: 6/23/2016
NOT FOR CONSTRUCTION

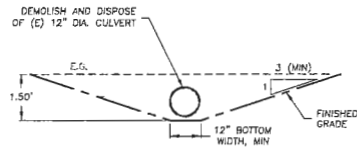
PREPARED AT THE REQUEST OF:
EAST MULTNOMAH SOIL AND WATER CONSERVATION DISTRICT

MIDDLE CULVERT REMOVAL PLAN AND PROFILE

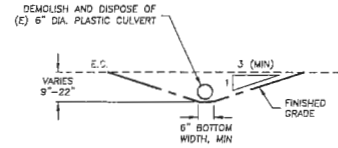
HEADWATERS PROJECT 100% DESIGN SUBMITTAL

DESIGNED BY: J.M.B.
DRAWN BY: J.M.B.
CHECKED BY: M.W.W.
DATE: 01/15/16
JOB NO.: 14-066

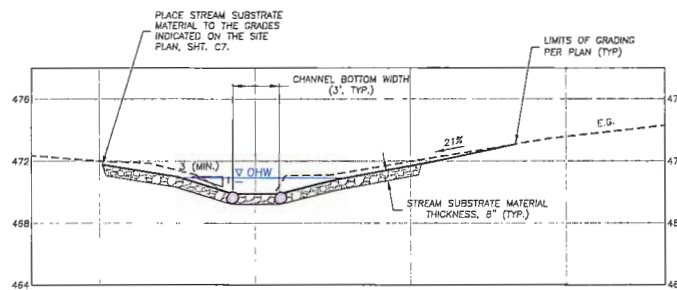
BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS.
0 1" 1"



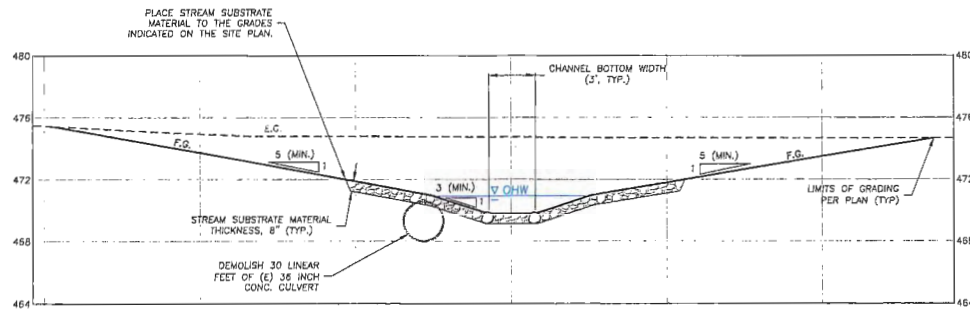
12 INCH CULVERT REMOVAL TYPICAL SECTION
SCALE: 1" = 2'



6 INCH CULVERT REMOVAL TYPICAL SECTION
SCALE: 1" = 2'



TYPICAL UPSTREAM CHANNEL SECTION STA 0+97
SCALE: 1" = 4'



TYPICAL CHANNEL SECTION AT STA 1+17
SCALE: 1" = 4'

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JAN 9 2018
BY:

WATERWAYS
CONSULTING INC.
1000 SW TAYLOR STREET, SUITE 280
PH: (303) 527-8979 / FAX: (303) 527-6847
WWW.WATERWAYS.COM

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 01/15/16
EXP. DATE: 6/30/2016

PREPARED AT THE REQUEST OF:
EAST MULTNOMAH SOIL
AND WATER CONSERVATION
DISTRICT

MIDDLE
CULVERT
SECTIONS

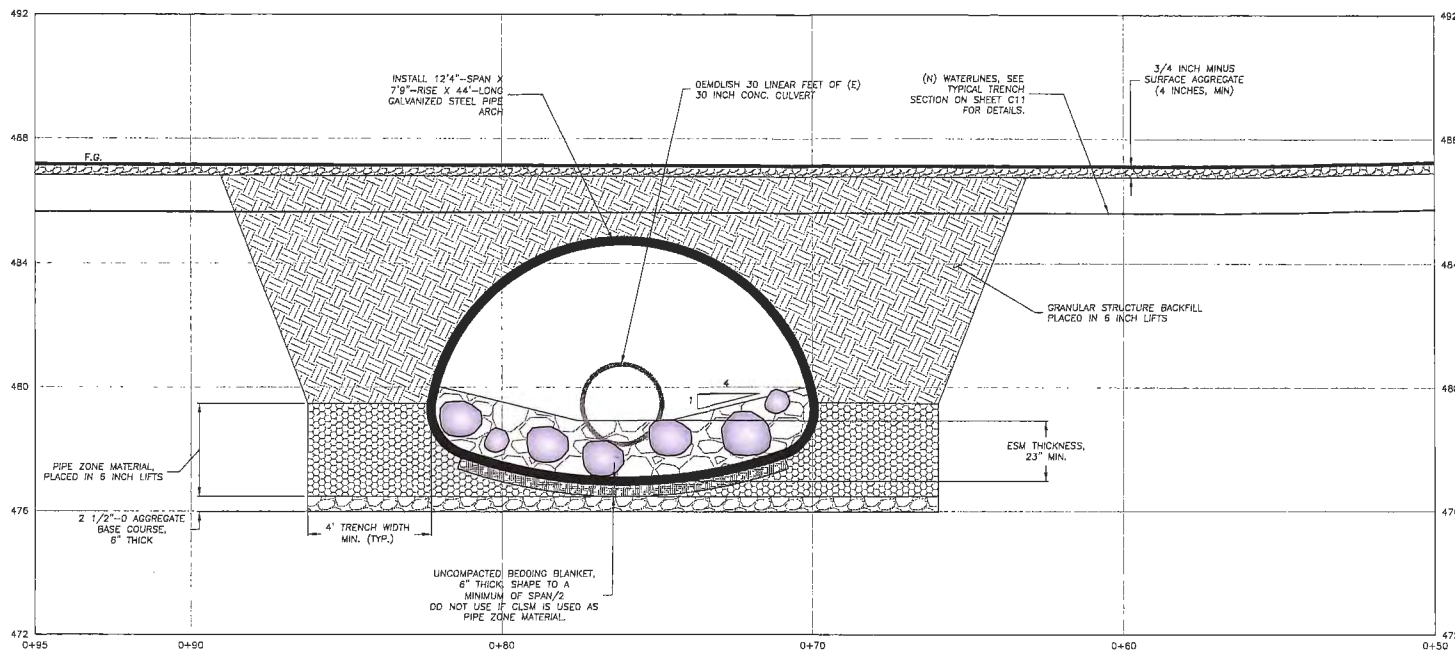
HEADWATERS PROJECT
100% DESIGN SUBMITTAL

DESIGNED BY: J.M.B.
DRAWN BY: J.M.B.
CHECKED BY: A.W.W.
DATE: 01/15/16
JOB NO.: 14-066

BAR IS ONE INCH ON
ORIGINAL DRAWING.
ADJUST SCALES FOR
REDUCED PLOTS

C8
8
OF
14

RECEIVED
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BY:

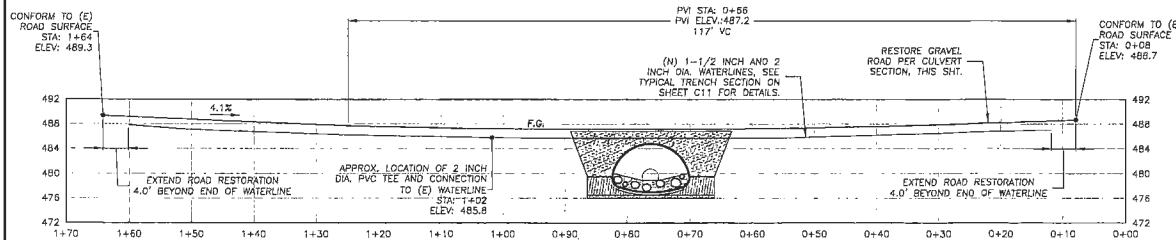


EAST ROAD PROFILE STA 0+50 TO 0+95
SCALE: 1" = 2'

C10(C11)

CULVERT INSTALLATION NOTES:

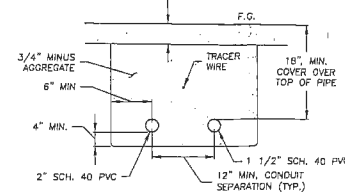
1. INSTALL CULVERT PER MANUFACTURER'S SPECIFICATIONS.
2. INSTALL CONCRETE CUT-OFF WALL AS SHOWN ON THE DRAWINGS, SHEET C10. FURNISH COMMERCIAL GRADE CONCRETE PER SECTION 09440 OF THE STATE STANDARDS.
3. A SHEET PILE CUT-OFF WALL PER MANUFACTURER'S INSTRUCTIONS MAY BE SUBSTITUTED AT THE APPROVAL OF THE ENGINEER.
4. USE OF CLSM AS PIPE ZONE MATERIAL MAY BE SUBSTITUTED FOR GRANULAR PIPE ZONE MATERIAL AT THE APPROVAL OF THE ENGINEER. TRENCH WIDTH MAY BE REDUCED TO A MINIMUM OF 12 INCHES ON EACH SIDE OF THE PIPE WITH USE OF CLSM.



EAST ROAD PROFILE
SCALE: 1" = 2'

C10(C11)

RESTORE ROAD SURFACE AS SHOWN ON THE DRAWINGS
3/4" MINUS SURFACE AGGREGATE (4 INCHES THICK, MIN)



TYPICAL TRENCH SECTION
SCALE: 1" = 1'

C10(C11)

UTILITY NOTES:

1. UTILITY LOCATION SHOWN IS APPROXIMATE. CONTRACTOR TO VERIFY ALIGNMENT AND DEPTH OF EXISTING UTILITY PRIOR TO CONSTRUCTION.
2. INSTALL UTILITIES WITH A MINIMUM COVER OF 18 INCHES OVER THE TOP OF PIPE.
3. INSTALL TEMPORARY WATERLINE OF EQUIVALENT CAPACITY TO EXISTING LINE AT ALTERNATE ALIGNMENT WITHIN THE DESIGNED LIMITS OF DISTURBANCE.
4. TEMPORARY WATERLINE SHALL BE INSTALLED TO PROVIDE CONTINUOUS WATER SERVICE DURING THE CONSTRUCTION PERIOD, WITH NO PERIOD OF INTERRUPTION TO SERVICE OF GREATER THAN 4 HOURS.

WATERWAYS CONSULTING INC.
1020 NW TAYLOR STREET, SUITE 300
PH: (503) 227-2879 / FAX: (503) 227-6847
WWW.WATERWAYS.COM

PRELIMINARY
DATE
NOT FOR CONSTRUCTION
EXPIRES: 6/30/2016

PREPARED AT THE REQUEST OF:
EAST MULTNOMAH SOIL AND WATER CONSERVATION DISTRICT

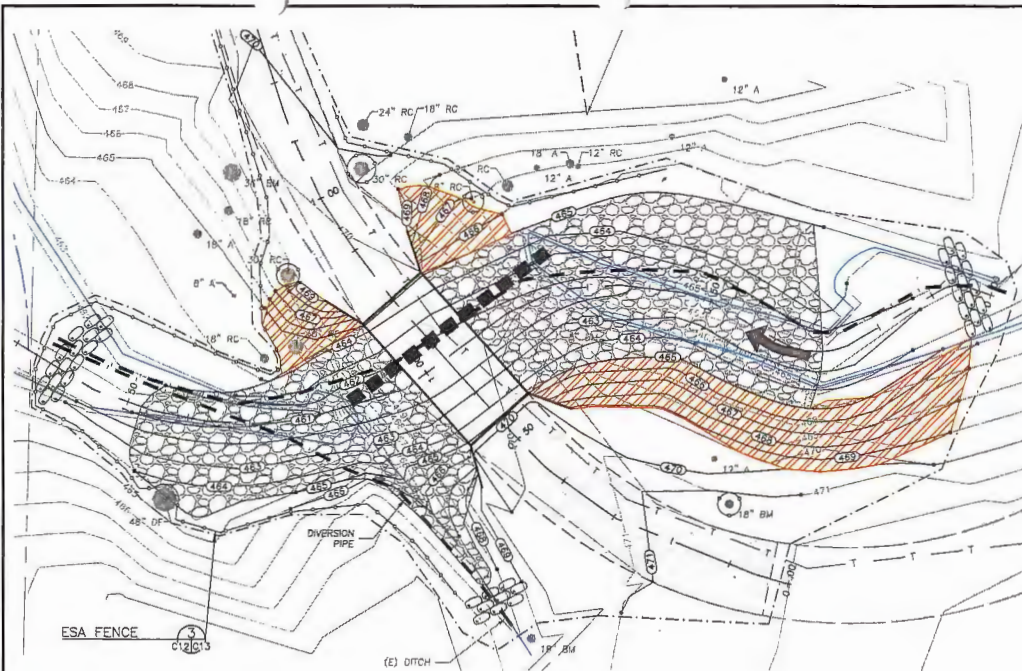
EAST ROAD PROFILE

HEADWATERS PROJECT
100% DESIGN SUBMITTAL

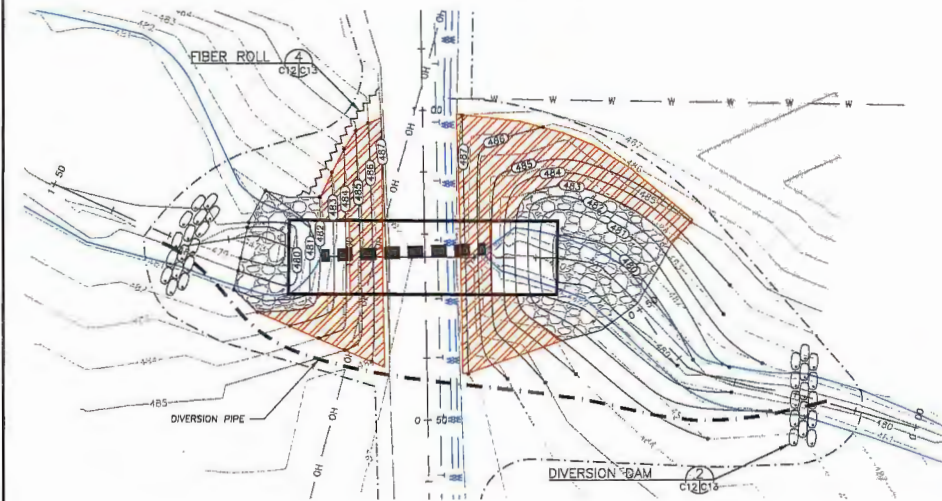
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0 1" = 1"

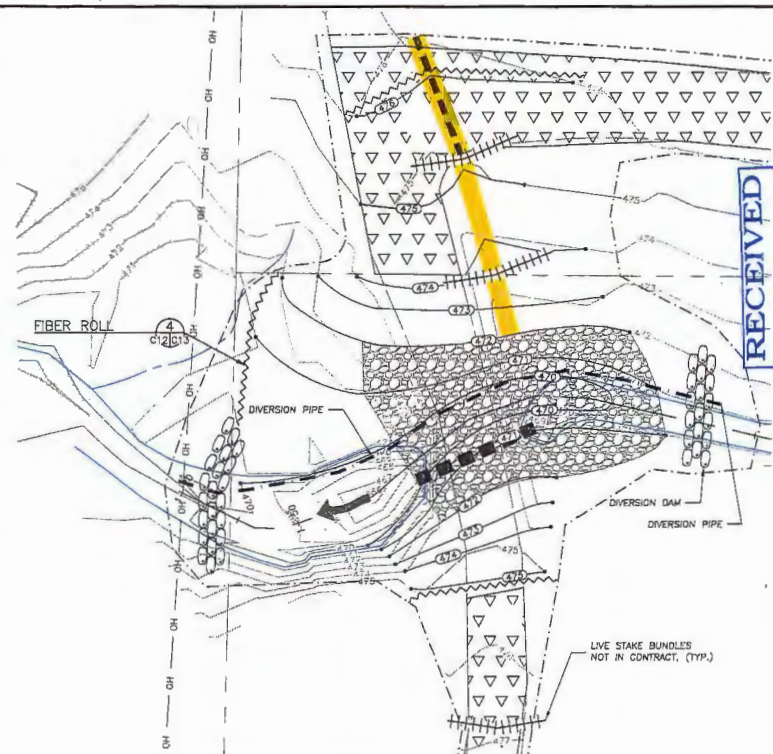
C11 11 OF 14



WEST BRIDGE PLAN
SCALE: 1" = 10'



EAST CULVERT PLAN
SCALE: 1" = 10'



MIDDLE CULVERT DECOMMISSIONING PLAN
SCALE: 1" = 10'

LEGEND

	EXISTING CONTOURS
	PROPOSED CONTOURS
	PROPERTY BOUNDARY (APPROX.)
	EXISTING EDGE OF GRAVEL ROAD
	EXISTING WATER LINE
	ORDINARY HIGH WATER (OHW)
	NEW WATER LINE
	EXISTING UNDERGROUND TELEPHONE LINE
	LIMITS OF DISTURBANCE
	ESA FENCE
	FIBER ROLL
	EXISTING CULVERT
	LIVE STAKE BUNDLE (BY OTHERS)
	EXISTING ROAD TO BE DECOMMISSIONED
	ENGINEERED STREAMBED MATERIAL
	SLOPE PROTECTION FABRIC

NOTES:

- SEED AND MULCH ALL DISTURBED AREAS, INCLUDING ROAD DECOMMISSIONING SHOWN ON SHEET 02, WITH 100% STERILE WHEAT/WHEATGRASS HYBRID (E.G. REDFERN, AVAILABLE FROM RAINIER SEEDS, 800.828.8873) OR EQUIVALENT TO BE APPROVED BY THE ENGINEER.
- NATIVE SEEDING AND PLANTING NOT IN CONTRACT.

SLOPE PROTECTION FABRIC NOTES:

- SLOPE PROTECTION FABRIC SHALL BE "BELTON INDUSTRIES, GEODOR 700", OR APPROVED EQUAL.
- GROUND ANCHORING DEVICES SHALL CONSIST OF 10" LONG METAL STAPLES. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE LENGTHS GREATER THAN 10" MAY BE NECESSARY TO PROPERLY ANCHOR SLOPE PROTECTION FABRIC.
- SECURE UPSLOPE EDGE OF SLOPE PROTECTION FABRIC INTO A 6" X 6" TRENCH WITH A ROW OF GROUND ANCHORING DEVICES SPACED APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF SLOPE PROTECTION FABRIC'S BACK OVER SEED AND COMPACTED SOIL. SECURE SLOPE PROTECTION FABRIC OVER COMPACTED SOIL WITH A ROW OF GROUND ANCHORING DEVICES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE SLOPE PROTECTION FABRIC.
- UNROLL SLOPE PROTECTION FABRIC DOWNSLOPE, CONSECUTIVE ROLLS SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN 18" OVERLAP. WHEN MORE THAN ONE ROLL WIDTH IS REQUIRED, CONSECUTIVE ROLLS SHALL BE SPICED END OVER END IN THE DOWNSTREAM DIRECTION WITH AN 18" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE SLOPE PROTECTION FABRIC'S LENGTH.
- SECURE SLOPE PROTECTION FABRIC TO SLOPE WITH GROUND ANCHORING DEVICES AT 2' ON-CENTER SPACING. ADDITIONAL STAPLES SHALL BE INSTALLED, AS NECESSARY, TO ENSURE CONSISTENT CONTACT WITH THE GROUND SURFACE.
- ALL SLOPE PROTECTION FABRIC EDGES SHALL BE INSTALLED IN A 6" X 6" TRENCH WITH A ROW OF GROUND ANCHORING DEVICES SPACED APPROXIMATELY 12" APART AS DESCRIBED ABOVE.

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JAN 29 2016

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PREPARED AT THE REQUEST OF:
**EAST MULTNOMAH SOIL
AND WATER CONSERVATION
DISTRICT**

**DIVERSION AND
EROSION AND
SEDIMENT
CONTROL PLAN**

**HEADWATERS PROJECT
100% DESIGN SUBMITTAL**

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C12 12 OF 14