

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
TS1	Title Sheet
NT1-2	Erosion Control Notes & Specifications
PL1-4	Site Plans
EC1	Erosion Control Plans

Key Line Construction

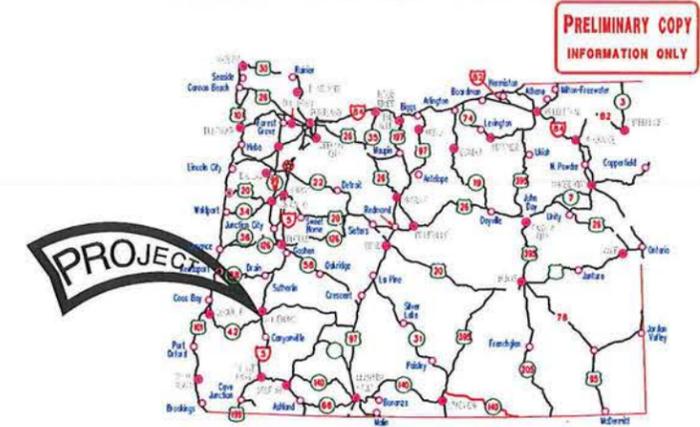
PO Box 518 Myrtle Point, OR 97458

PLANS FOR PROPOSED PROJECT

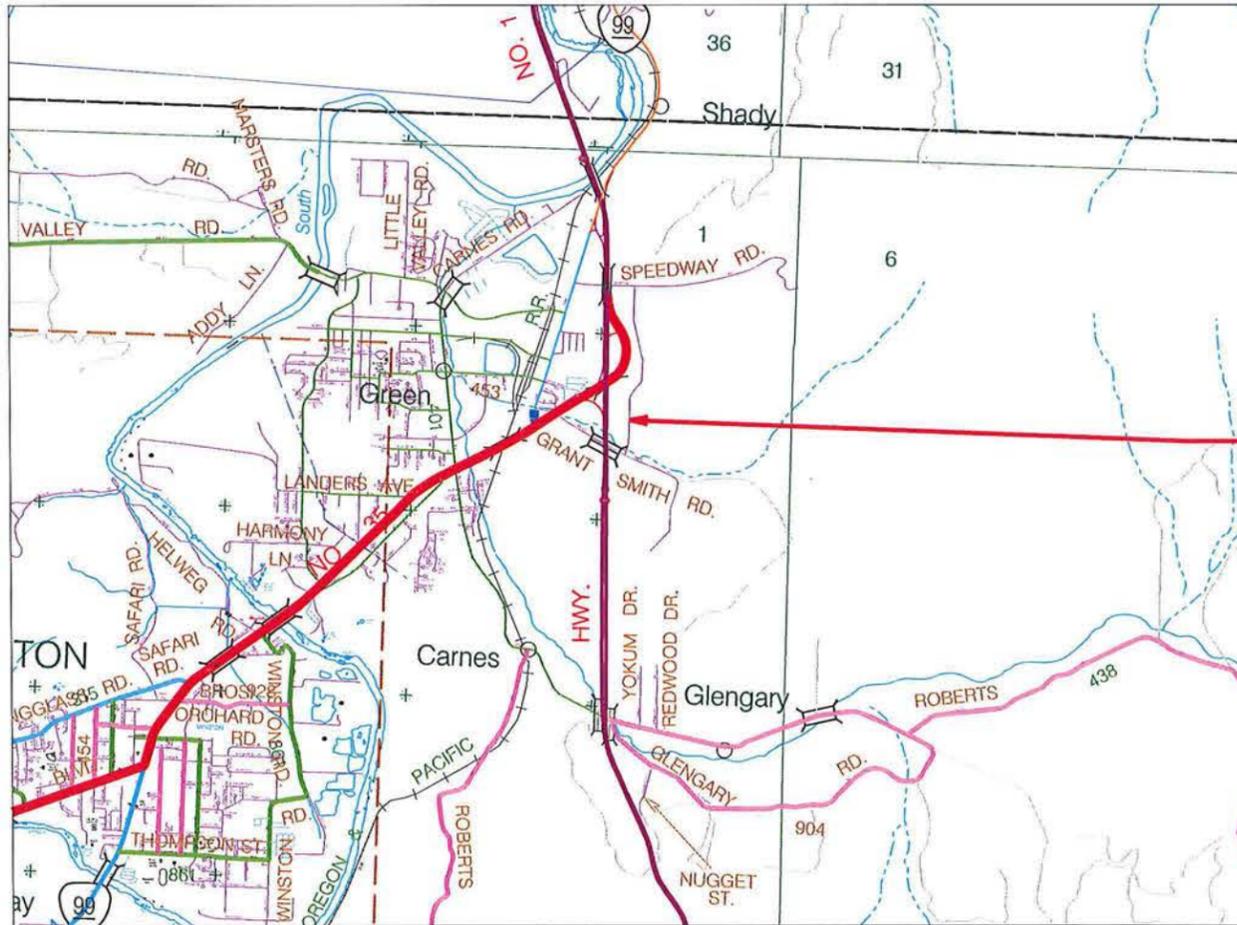
Oak Creek Industrial Park: 201 Ingram Drive Roseburg, OR, 97470

DOUGLAS COUNTY OREGON

March 2016



ATTENTION:
Oregon Law Requires You To Follow Rules Adopted By The Oregon Utility Notification Center. Those Rules Are Set Forth In OAR 952-001-0010 Through OAR 952-001-0090. You May Obtain Copies Of The Rules By Calling The Center. (Note: The Telephone Number For The Oregon Utility Center Is (503) 232-1987.)



PROJECT LOCATIONS

OAK CREEK INDUSTRIAL PARK

201 INGRAM DRIVE ROSEBURG, OR, 97470



HEBERLY ENGINEERING Civil, Survey, Engineering, Creative Solutions 1228 Wolf Hollow Dr. Independence, OR 97351 531-531-4811 WWW.HEBERLYENGINEERING.COM	
OAK CREEK INDUSTRIAL PARK 201 Ingram Drive Roseburg, OR - 97470 DOUGLAS COUNTY OREGON	
Designed by - Adam H Drafted by - Adam H	
TITLE SHEET	TS1

DEVELOPER:
Key Line Construction Inc.
P.O. Box 518
Myrtle Point, OR 97458
Contact: Tank Parrish
Phone: 541-218-5854

ENGINEER:
HEBERLY ENGINEERING
1298 Wolf Valley Dr.
Umpqua, OR, 97486
Contact: Adam Heberly PE
Phone 541-391-4813

Inspector: Adam Heberly PE
Phone 541-391-4813
ODOT Inspection Certifications: #40253 EC

NARRATIVE DESCRIPTIONS
Existing Site Conditions: Mildly Sloped or Flat Field
The owner will initially develop the site as a gated and fenced gravel parking lot.
In time, we will add office and shop buildings.

Developed Condition: To develop office/shop/parking facilities for Applicants construction company 1 1/2 Key Line Construction, Inc.

ESTIMATED START DATES
Clearing & Grading: App. May 1
Haul & Place Base Rock: App. July 1/ TBD
Final Soil Stabilization: Fall 2016, or as needed per general notes
Total Dist. Area: 4.9 AC, 213,444 SF
Total Site Area: 5.0 AC, 217,800 SF

SITE SOIL CLASSIFICATION:
4BC-Curtin clay, 3 to 12 percent slopes

RECEIVING WATER BODY
Nearest: North Fork Roberts Creek

SITE INSPECTION FREQUENCY

SITE CONDITION	MINIMUM FREQUENCY
1 Active Period	Daily when stormwater runoff, including runoff from snow melt is occurring. At least once every two (2) weeks regardless of whether storm water runoff is occurring.
2 Prior to the site becoming inactive or in anticipation of site inaccessibility.	Once to ensure that erosion and sediment control measures are in working order.
3 Inactive periods greater than fourteen (14) consecutive calendar days.	Once every two (2) weeks.
4 Periods during which the site is inaccessible due to inclement weather.	If practical, inspections must occur daily at a relevant and accessible discharge point or down stream location.

Native Grass Seed Mixture For Maintenance Use:

Klamath Mountain Eco-region

Elevation Range: 600-1,200 Meters (2,000 m peaks); Moisture Range: 60-120+ cm/year

Species	Native (Y/N)	Noxious (Y/N)	Wildlife Value (Cover/Forage)	Mature Height (cm)	Life Cycle	# Pure Live Seeds/m ²	Seeding Rate grams/ha	Seeding Rate Lbs/ac.
<i>Festuca occidentalis</i> (Western Fescue)	Y	N	C	30-40	P	25	315	0.28 (11.0 oz.)
<i>Festuca rubra</i> (Red Fescue)	Y	N	C	30-60	P	100	1,050	0.94 (37.0 oz.)
<i>Festuca ovina</i> (Sheep Fescue)	Y	N	C	30-60	P	50	496	0.40 (15.3 oz.)
<i>Poa sandbergii</i> (Sandberg Bluegrass)	Y	N	C	30-60	P	75	533	0.48 (18.8 oz.)
<i>Sitatton hystrix</i> (Squirrel-tail Grass)	Y	N	-	30-60	P	75	2,370	2.11 (83.6 oz.)
<i>Elymus glaucus</i> (Wild Blueberry)	Y	N	C/F	60+	P	100	3,786	3.40 (133.5 oz.)
<i>Bromus carinatus</i> (California Brome)	Y	N	C	30-60+	P	75	5,320	4.75 (187 oz.)
						500 Seeds/m ² Coverage	13,810 Grams PLS/ha	12.3 Lbs. PLS/ac.

Native grass use for species is consistent with Hitchcock and Cronquist 1973 and for more seed in seed catalogues.

Recommended Seeding Rate: 13.8 Kg/ha (12.3 lbs/acre)

Suggested Site Preparation and Application:

- On grades greater than 40% may be applied in combination with SOIL-GUARDTM or cellulose mulch with tackifier then apply @200% of recommended seeding rate. Use of fertilizer is not recommended with this mixture.

Temporary Seeding Dates:

West of the Cascades - Year Round

East of the Cascades - October 1 through April 30

Within temporary seeding dates, use temporary seeding to temporarily stabilize disturbed soils and slopes not at finished grade, which will be exposed for 2 months or longer before being re-disturbed. Areas not requiring temporary seeding or temporary mulching include embankment sub-grade or areas where pavement will be placed.

Permanent Seeding Dates:

West of the Cascades - August 1 through September 15 and February 1 through April 30

East of the Cascades - October 1 through January 31

Permanent seeding work done outside the permanent seeding dates in conjunction with permanent mulching to stabilize exposed soils completed to finished grade shall be considered temporary until three weeks into the next permanent seeding date. At that time the seeding will be considered permanent if an acceptable stand of grass, providing a uniform coverage at 70% density of the surrounding existing grass areas, is achieved. If early germination occurred and the grass died, or an acceptable stand of grass is not achieved, re-seed the area according to the permanent seeding requirements.

Compatible Temporary* Erosion Control

Cellulose fiber with tackifier applied with hydro-seeder.

[See back for map](#)

PART II: BMPs WITH ESC IMPLEMENTATION SCHEDULE FORM
The following schedule and practices (BMPs), if appropriate for the site, are required in the ESCP. Submission of all ESCP revisions to HQ are not required. ESCP revisions must be submitted in 10 days for specific conditions. See 1200-C permit (Schedule A 12.c.ii).

BMPs	YEAR 2016												
	Month	1	2	3	4	5	6	7	8	9	10	11	12
Bushes													
Revetment													
Check Dams													
Compust Berm													
Compust Blankets													
Compust Sods													
Concrete Truck Washout													
Construction Entrance													
Designating re-entrance location, substrate, & sampling plan (required)													
Designing Swales													
Earth Dams (Stabilized)													
Energy Dissipaters													
Erosion Control Blankets & Mats (rigidly type)													
Erosion Control													
Filter Protection													
Mulches (Specify Type)													
Mulch/Straw/ES-Defenses													
Natural Buffer Zone													
Change timing (protecting sensitive preserved area)													
Stall Diversion													
Permeant Seeding and Planting													
Hydro Seeding													
Hydro Seeding													
Preserve Existing Vegetation													
Sediment Fencing													
Sediment Barrier													
Sediment Trap													
Seeding													
Soil Lockdown													
Stream Drains (with Protection)													
Stream Drains (with other protection)													
Temporary Diversion Dikes													
Temporary or Permanent Sedimentation Basins													
Temporary Seeding and Planting													
Transect System (to A-M plan required)													
Unsealed roads graded on other BMP on the road													
Vegetative Filter Strips													

Rev 12/25/15
By: [Signature]
Page 4 of 7



HEBERLY ENGINEERING
Creative Solutions
4928 Wolf Valley Dr. Umpqua, OR 97458
www.heberlyengineering.com

OAK CREEK INDUSTRIAL PARK
201 Ingram Drive Roseburg, OR 97470
DOUGLAS COUNTY OREGON

Designed by - Adam H
Drafted by - Adam H

EROSION CONTROL NOTES

Sheet No. NT1

General Notes:

- SCOPE: The General Notes and typical details are general and apply to the entire project unless otherwise specified to the contrary.
- APPLICABLE SPECIFICATIONS AND CODES: Construction shall conform to the Oregon Standard Specification for Construction, 2008 by Oregon Department of Transportation (ODOT) and American Public Works Association (APWA).
- ALTERNATIVE DESIGN: The systems and details shown on the drawings are the priority design. Alternative systems and details may be considered if the Contractor submits plans with substantiating data, and if the alternative plans are accepted by the owner's Engineer. Details and substantiating data shall be complete prior to consideration.
- DIMENSIONS AND SURVEYING: The location and dimensions on the plans shall be verified by the Contractor prior to construction; this is a Contractor surveying project. Field verify all existing construction, dimensions, and conditions.
- COORDINATION WITH UTILITIES:
 - The location and description of utilities shown are approximate. Not all utilities have been shown.
 - The contractor shall comply with all requirements of ORS 757.571. The Contractor shall notify each of the underground utilities at least 48 business day hours prior to excavating or potholing. All utilities crossings shall be scheduled as necessary prior to excavating or boring to allow the Contractor to prevent grade of alignment conflicts.
 - Provisions shall be made by the Contractor to keep all existing utilities in service and protect them during construction.
 - Utilities, or interfering portions of utilities, that are abandoned in place shall be removed by the Contractor to the extent necessary to accomplish the work the contractor shall plug the remaining exposed ends of exposed utilities prior to backfilling.
 - Contractor shall schedule work with activities to be performed by utilities.
- PUBLIC RIGHT OF WAY PERMITS
 - Contractor responsible for obtaining all required permits for working in Public Right of Ways (OOT, CITY, COUNTY).
- COORDINATION WITH RESIDENCES
 - Contractor shall coordinate with local residences for interruption of sewer service. Provide residences with 24 hour notice prior to disruption of service. At no time shall a residence have their sewer service interrupted for any extended period. Work for the day or week will not end until all residences have been reconnected to sewer service.
- EXCAVATIONS
 - Protect open excavations during non-working hours with metal plates or other approved methods.
- SHOP DRAWINGS
 - Submit shop drawings for precast manholes to the engineer prior to casting the base.
- TESTING
 - Test all piping and manholes in accordance with the specifications.

EROSION CONTROL NOTES:

- Hold a pre-construction meeting of project construction personnel that includes the inspector to discuss erosion and sediment control measures and construction limits. (Schedule A.8.c.i.(3))
- All inspections must be made in accordance with DEQ 1200-C permit requirements. (Schedule A.12.b and Schedule B.1)
- Inspection logs must be kept in accordance with DEQs 1200-C permit requirements. (Schedule B.1.c and B.2)
- Retain a copy of the ESCP and all revisions on site and make it available on request to DEQ, Agent, or the local municipality. During inactive periods of greater than seven (7) consecutive calendar days, the above records must be retained by the permit registrant but do not need to be at the construction site. (Schedule B.2.c)
- All permit registrants must implement the ESCP. Failure to implement any of the control measures or practices described in the ESCP is a violation of the permit. (Schedule A.8.a)
- The ESCP must be accurate and reflect site conditions. (Schedule A.12.c.i)
- Submission of all ESCP revisions is not required. Submittal of the ESCP revisions is only under specific conditions. Submit all necessary revision to DEQ or Agent within 10 days. (Schedule A.12.c.iv. and v)
- Phase clearing and grading to the maximum extent practical to prevent exposed inactive areas from becoming a source of erosion. (Schedule A.7.a.ii)
- Identify, mark, and protect (by construction fencing or other means) critical riparian areas and vegetation including important trees and associated rooting zones, and vegetation areas to be preserved. Identify vegetative buffer zones between the site and sensitive areas (e.g., wetlands), and other areas to be preserved, especially in perimeter areas. (Schedule A.8.c.i.(1) and (2))
- Preserve existing vegetation when practical and re-vegetate open areas. Re-vegetate open areas when practicable before and after grading or construction. Identify the type of vegetative seed mix used. (Schedule A.7.a.v)
- Maintain and delineate any existing natural buffer within the 50-foot of waters of the state. (Schedule A.7.b.i. and (2)(a)(b))
- Install perimeter sediment control, including storm drain inlet protection as well as all sediment basins, traps, and barriers prior to land disturbance. (Schedule A.8.c.i.(5))
- Control both peak flow rates and total stormwater volume, to minimize erosion at outlets and downstream channels and streambanks. (Schedule A.7.c)
- Control sediment as needed along the site perimeter and at all operational internal storm drain inlets at all times during construction, both internally and at the site boundary. (Schedule A.7.d.i)
- Establish concrete truck and other concrete equipment washout areas before beginning concrete work. (Schedule A.8.c.i.(6))
- Apply temporary and/or permanent soil stabilization measures immediately on all disturbed areas as grading progresses. Temporary or permanent stabilizations measures are not required for areas that are intended to be left unvegetated, such as dirt access roads or utility pole pads. (Schedule A.8.c.ii.(3))
- Establish material and waste storage areas, and other non-stormwater controls. (Schedule A.8.c.i.(7))
- Prevent tracking of sediment onto public or private roads using BMPs such as: construction entrance, graveled (or paved) exits and parking areas, gravel all unpaved roads located onsite, or use an exit tire wash. These BMPs must be in place prior to land-disturbing activities. (Schedule A.7.d.ii and A.8.c.i.(4))
- When trucking saturated soils from the site, either use water-tight trucks or drain loads on site. (Schedule A.7.d.ii.(5))
- Control prohibited discharges from leaving the construction site, i.e., concrete wash-out, wastewater from cleanout of stucco, paint and curing compounds. (Schedule A.6)
- Use BMPs to prevent or minimize stormwater exposure to pollutants from spills; vehicle and equipment fueling, maintenance, and storage; other cleaning and maintenance activities; and waste handling activities. These pollutants include fuel, hydraulic fluid, and other oils from vehicles and machinery, as well as debris, fertilizer, pesticides and herbicides, paints, solvents, curing compounds and adhesives from construction operations. (Schedule A.7.e.i.(2))
- Implement the following BMPs when applicable: written spill prevention and response procedures, employee training on spill prevention and proper disposal procedures, spill kits in all vehicles, regular maintenance schedule for vehicles and machinery, material delivery and storage controls, training and signage, and covered storage areas for waste and supplies. (Schedule A.7.e.iii.)
- Use water, soil-binding agent or other dust control technique as needed to avoid wind-blown soil. (Schedule A.7.a.iv)
- The application rate of fertilizers used to reestablish vegetation must follow manufacturers recommendations to minimize nutrient releases to surface waters. Exercise caution when using time-release fertilizers within any waterway riparian zone. (Schedule A.9.b.iii)
- If an active treatment system (for example, electro-coagulation, flocculation, filtration, etc.) for sediment or other pollutant removal is employed, submit an operation and maintenance plan (including system schematic, location of system, location of inlet, location of discharge, discharge dispersion device design, and a sampling plan and frequency) before operating the treatment system. Obtain plan approval before operating the treatment system. Operate and maintain the treatment system according to manufacturer's specifications. (Schedule A.9.d)
- Temporarily stabilize soils at the end of the shift before holidays and weekends, if needed. The registrant is responsible for ensuring that soils are stable during rain events at all times of the year. (Schedule A.7.b)
- As needed based on weather conditions, at the end of each workday soil stockpiles must be stabilized or covered, or other BMPs must be implemented to prevent discharges to surface waters or conveyance systems leading to surface waters. (Schedule A.7.e.ii.(2))
- Construction activities must avoid or minimize excavation and bare ground activities during wet weather. (Schedule A.7.a.i)
- Sediment fence: remove trapped sediment before it reaches one third of the above ground fence height and before fence removal. (Schedule A.9.c.i)
- Other sediment barriers (such as biobags): remove sediment before it reaches two inches depth above ground height and before BMP removal. (Schedule A.9.c.i)
- Catch basins: clean before retention capacity has been reduced by fifty percent. Sediment basins and sediment traps: remove trapped sediments before design capacity has been reduced by fifty percent and at completion of project. (Schedule A.9.c.iii & iv)
- Within 24 hours, significant sediment that has left the construction site, must be remediated. Investigate the cause of the sediment release and implement steps to prevent a recurrence of the discharge within the same 24 hours. Any in-stream clean-up of sediment shall be performed according to the Oregon Division of State Lands required timeframe. (Schedule A.9.b.i)
- The intentional washing of sediment into storm sewers or drainage ways must not occur. Vacuuming or dry sweeping and material pickup must be used to cleanup released sediments. (Schedule A.9.b.ii)
- The entire site must be temporarily stabilized using vegetation or a heavy mulch layer, temporary seeding, or other method should all construction activities cease for 30 days or more. (Schedule A.7.f.i)
- Provide temporary stabilization for that portion of the site where construction activities cease for 14 days or more with a covering of blown straw and a tackifier, loose straw, or an adequate covering of compost mulch until work resumes on that portion of the site. (Schedule A.7.f.ii)
- Do not remove temporary sediment control practices until permanent vegetation or other cover of exposed areas is established. Once construction is complete and the site is stabilized, all temporary erosion controls and retained soils must be removed and disposed of properly, unless doing so conflicts with local requirements. (Schedule A.8.c.iii(1) and D.3.c.ii and iii)

EC LEGEND

- Fill slope
- Cut slope
- Inlet protection
- Sediment fence
- Orange plastic fence (no work area)
- ▨ Sediment barrier, straw wattle
- ▩ Biofilter bags
- ▧ Construction entrance
- ~ Flow direction

UTILITIES LEGEND

- POWER POLE
- LIGHT POLE
- TELEPHONE POLE
- ANCHOR
- BURIED ELECTRIC CABLE
- OVERHEAD ELECTRIC CABLE
- ELECTRIC MANHOLE
- TELEPHONE PEDESTAL
- BURIED TELEPHONE CABLE
- OVERHEAD TELEPHONE CABLE
- TELEPHONE MANHOLE
- SANITARY SEWER
- WATER LINE
- WATER CLEANOUT
- WATER VALVE
- FIRE HYDRANT
- WATER METER
- GAS LINE
- GAS METER
- GAS VALVE
- BURIED CABLE TELEVISION
- OVERHEAD CABLE TELEVISION



HEBERLY ENGINEERING
Creative Solutions
1238 N.W. Valley Dr., Roseburg, OR 97470
www.heberlyengineering.com

OAK CREEK INDUSTRIAL PARK
201 Ingram Drive Roseburg, OR 97470
DOUGLAS COUNTY OREGON

Designed by - Adam H
Drafted by - Adam H

GENERAL EROSION CONTROL NOTES

SHEET NT2

PRELIMINARY COPY
INFORMATION ONLY

INTERSTATE 5
(1-5)

Tax Lot:xxx
5 AC

WETLAND MITIGATION SITE
4.6 AC

WETLAND B
0.08 AC

WETLAND A
7.88 AC

WETLAND D
0.01 AC

DETENTION
FILTRATION
POND

WETLAND C
DELINEATION 2004
0.02 AC

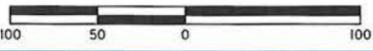
WETLAND C
DELINEATION 20011
0.1 AC

INGRAM DRIVE # 396

Ingram Industries Inc
Tax Lot:200
22.59 AC

INGRAM BOOK COMPANY

Note: 1) Existing contours 1' interval
2) Contour data obtained from DC public works
same data as shown in Jones and Stocks
delineation exhibit dated May 27, 2006.
3) Wetland C Amended 2011



HEBERLY ENGINEERING
Consulting Engineers, Creative Solutions
1221 Wolf Valley Dr., Unquah, OH 51466 541-331-4111
www.heberly-engineering.com

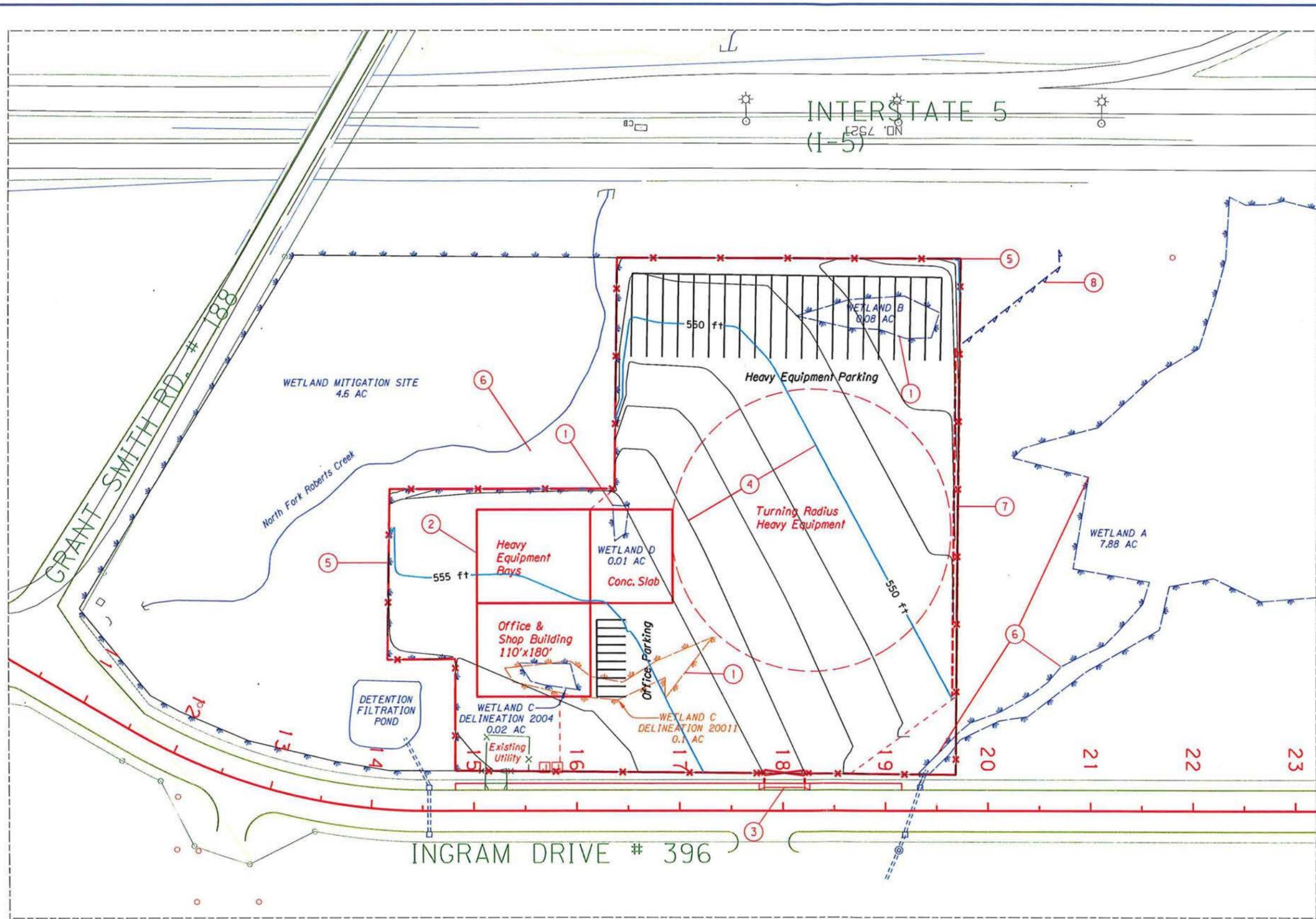
OAK CREEK INDUSTRIAL PARK
201 Ingram Drive Roseburg, OR 97410
DOUGLAS COUNTY OREGON

Designed by - Adam H
Drafted by - Adam H

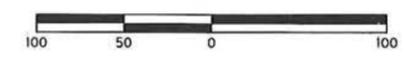
SITE PLAN-EXISTING CONTOURS
PL1

PRELIMINARY COPY
INFORMATION ONLY

- 1) Wetlands B,C and D will be impacted
- 2) Conceptual building footprint & conc. slab
- 3) Existing entrance to be upgraded to current std width sidewalk and driveway approach
- 4) Some minor grading will be needed to flatten site, so approximately 12" of base rock can be placed with geotextile fabric. Fill slopes are approximately 1:3 or flatter
- 5) Construct 6' fence around perimeter
- 6) Avoid existing wetlands, see erosion control plans for silt fence and orange fence placement.
- 7) Construct 4' flat bottom ditch, L=700' @1%-1.5% slope for storm water runoff filtration. For planting details see sht. xxx
- 8) Projected difused flow from 4' flat bottom ditch. Flow to be naturally filtered by existing grasses and other.



Note:
1) Proposed Contours 1' Interval (top baserock)
2) Intent of plans are for Joint Army Corp. & DSL Permit plans to be finalized before const.



HEBERLY ENGINEERING
Civil, Survey, Engineering, Creative Solutions
428 Half Valley Dr. Medford, OR 97504 541-331-1813
WWW.HEBERLYENGINEERING.COM

OAK CREEK INDUSTRIAL PARK
77.412 AC
201 Ingram Drive Medford, OR 97504
DOUGLAS COUNTY OREGON

Designed by - Adam H
Drafted by - Adam H

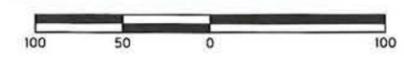
SITE PLAN-PROPOSED CONTOURS **SHEET NO. PL2**

PRELIMINARY COPY
INFORMATION ONLY



- ① Wetlands B,C and D will be impacted
- ② Conceptual building footprint & conc. slab
- ③ Existing entrance to be upgraded to current std width sidewalk and driveway approach
- ④ Some minor grading will be needed to flatten site, so approximately 12" of base rock can be placed with geotextile fabric. Fill slopes are approximately 1:3 or flatter
- ⑤ Construct 6' fence around perimeter
- ⑥ Avoid existing wetlands, see erosion control plans for silt fence and orange fence placement.
- ⑦ Construct 4' flat bottom ditch, L=700' @ 1%-1.5% slope for storm water runoff filtration. For planting details see sht. xxx
- ⑧ Projected diffused flow from 4' flat bottom ditch. Flow to be naturally filtered by existing grasses and other existing vegetation.

Note:
1) Proposed Contours 1' Interval (top baserock)
2) Intent of plans are for Joint Army Corp. & DSL Permit plans to be finalized before const.



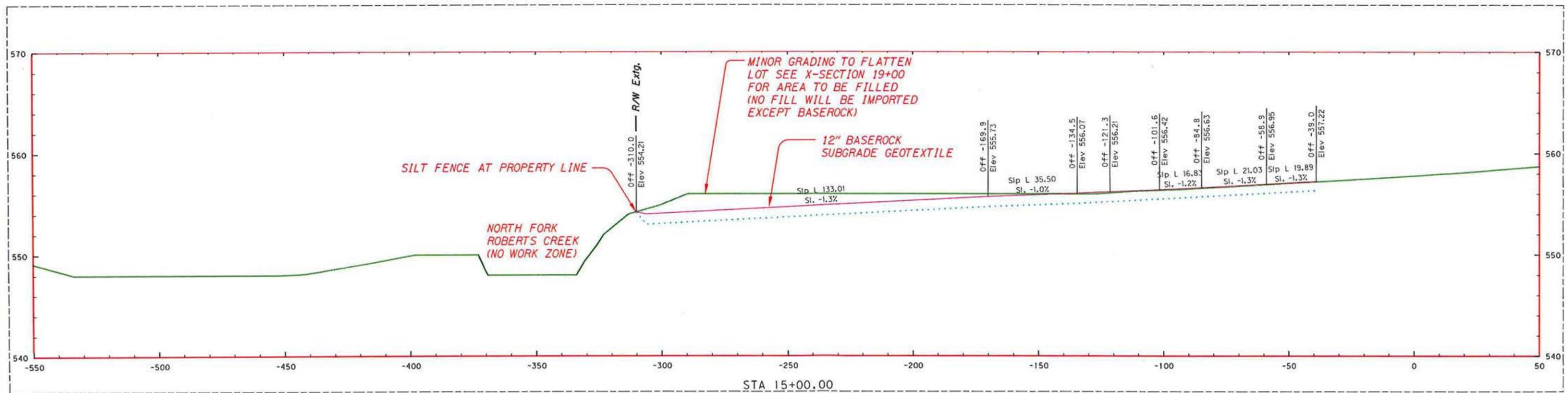
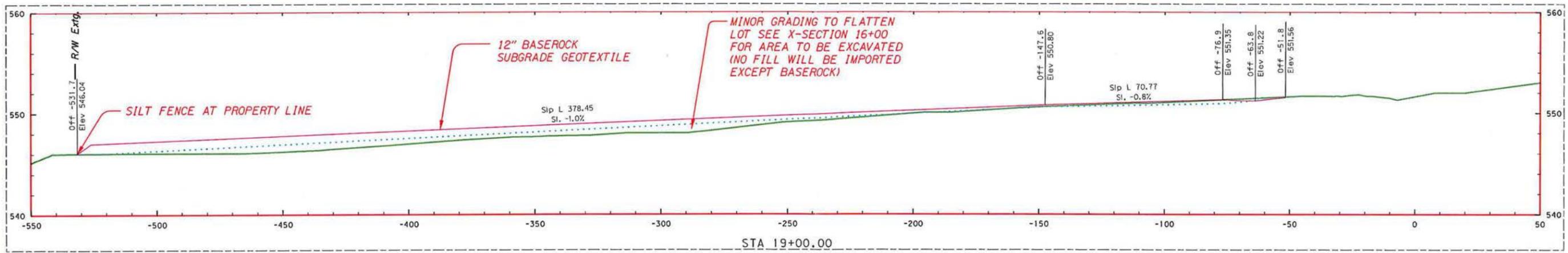
HEBERLY ENGINEERING
Creative Solutions
1228 Hill Valley Dr. Medford, OR 97504
www.heberlyengineering.com

OAK CREEK INDUSTRIAL PARK
201 Ingram Drive Roseburg, OR 97470
DOUGLAS COUNTY OREGON

Designed by - Adam H
Drafted by - Adam H

SITE PLAN-PROPOSED CONTOURS
PL2

PRELIMINARY COPY
INFORMATION ONLY



Note:
 1) STATIONING PER EXISTING COUNTY RD. STATIONING. SEE PLAN SHTS FOR EXACT LOCATION.
 2) X-SECTION VERT EXAGGERATION X4.
 3) BASEROCK WILL BE ONLY IMPORTED MATERIAL.



HEBERLY ENGINEERING Corporation 1228 Half Valley Dr. Medford, OR 97506 541-331-4811 www.heberlyengineering.com	
OAK CREEK INDUSTRIAL PARK 201 Ingram Drive Roseburg, OR 97410 DOUGLAS COUNTY OREGON	
Designed by - Adam H Drafted by - Adam H	
CROSSSECTIONS	SHEET NO PL3

PRELIMINARY COPY
INFORMATION ONLY

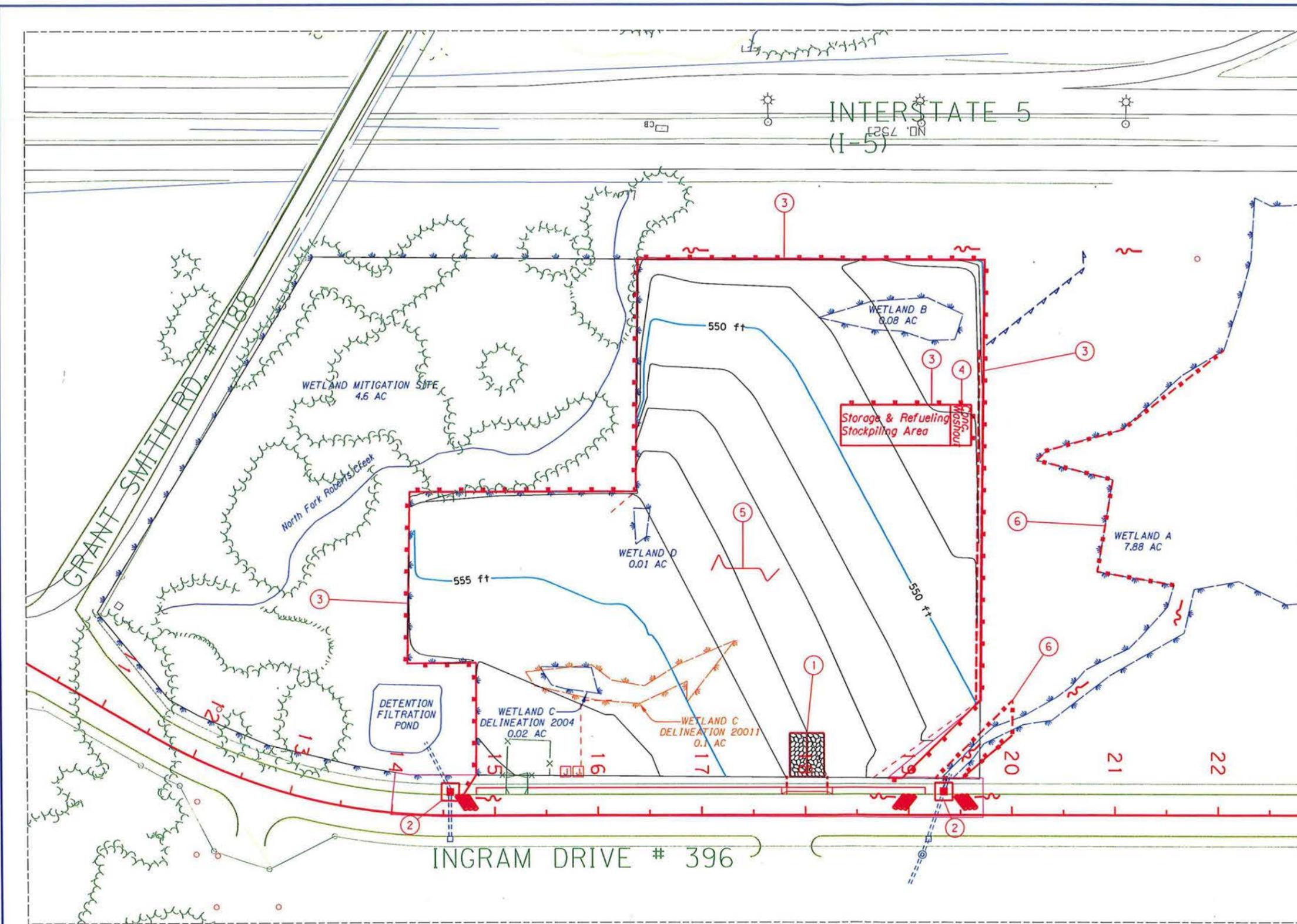
- ① Const. aggregate construction entrance -1
(See drg. no. RD1000)
- ② Const. inlet protection, Type 4, Orange -2
(See drg. no. RD1015)
- ③ Const. unsupported sediment fence - 1,800'
(See drg. no. RD1040)
- ④ Const. Concrete truck wash out - 1
Move as appropriate for construction activities
(See drg. no. RD1070)
- ⑤ After aggregate base and grading is performed
Seed all exposed soil prior to Fall per general notes
Seed mix : ODOT Klamath Mountain Range(KM)
or Coastal Range (CR) or approved equal
- ⑥ Inst. Orange plastic (no work zone) fence
Use T post and zip ties or approved equal

LEGEND

- Fill slope
- Cut slope
- Inlet protection
- Sediment fence
- - - Orange plastic fence (no work area)
- ▨ Sediment barrier, straw wattle
- ▩ Biofilter bags
- ▧ Construction entrance
- ~ Flow direction

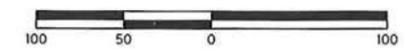
STANDARD DRAWINGS

- RD1000 Construction Entrances
- RD1005 Check Dams Type 1, 3 and 4
- RD1006 Check Dams Type 2 and 6
- RD1010 Inlet Protection Type 2, 3, 6 and 7
- RD1015 Inlet Protection Type 4
- RD1030 Sediment Barrier Type 2, 3 and 4
- RD1031 Temporary Barrier (Aggregate or Brush)
- RD1032 Sediment Barrier Type 8
- RD1033 Compost Filter Berm Sediment Barrier Type 9
- RD1040 Sediment Fence
- RD1045 Temporary Slope Drain With Energy Dissipator
- RD1050 Temporary Scour Basin
- RD1055 Slope and Channel Matting
- RD1060 Tire Wash Facility Type 1 and 2
- RD1065 Temporary Sediment Trap
- RD1070 Concrete Truck Washout



Note: Areas bounded by temporary orange fence denote protected no work areas such as trees, wetlands, cultural resources, etc.

Note:
1) Proposed Contours 1' Interval
2) Intent of plans are for Joint Army Corp. & DSL Permit plans to be finalized before const.



HEBERLY ENGINEERING
Civil/Structural Engineering, Creative Solutions
1723 Half Valley Dr., Roseburg, OR 97470
503.538.1433
www.heberlyengineering.com

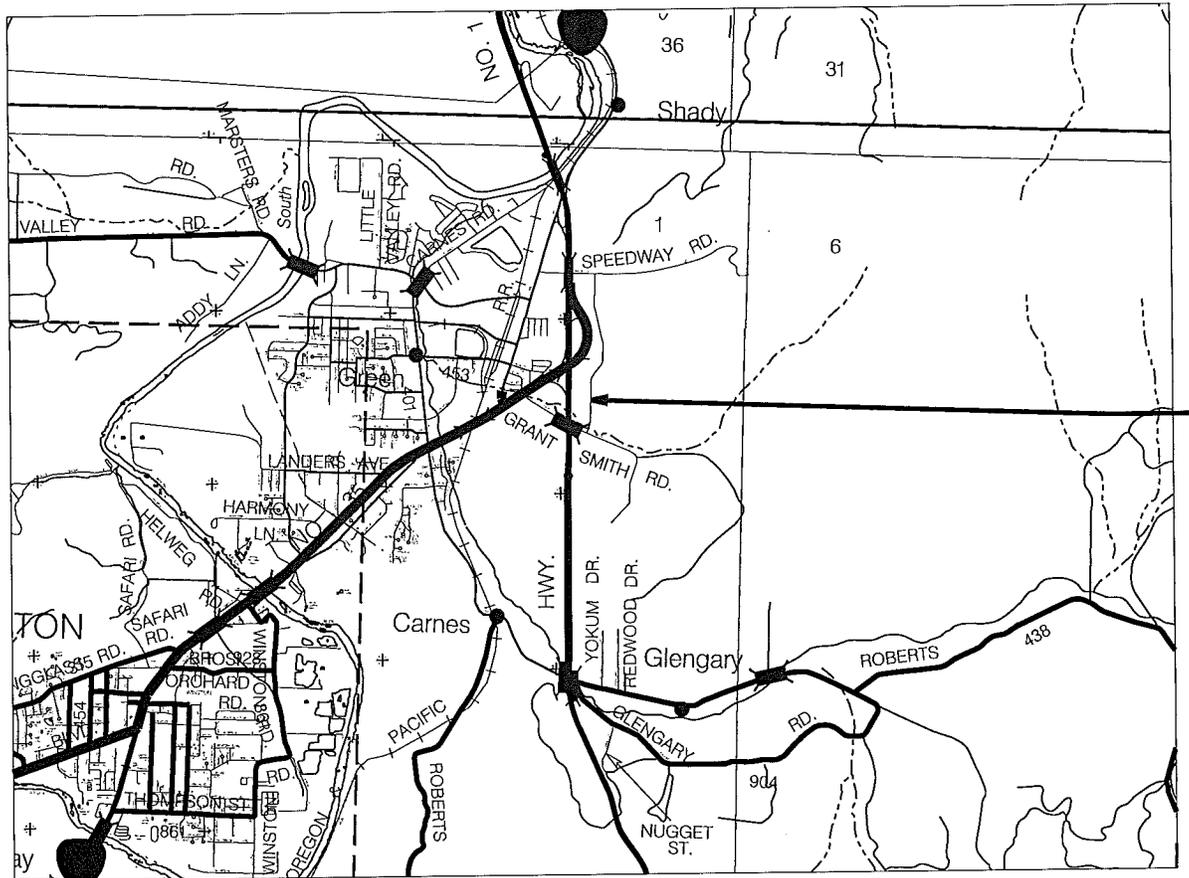
OAK CREEK INDUSTRIAL PARK
201 Ingram Drive, Roseburg, OR 97470
DOUGLAS COUNTY, OREGON

Designed by - Adam H
Drafted by - Adam H

EROSION CONTROL PLANS PL4

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
TS1	Title Sheet
SW1-2	Storm Water Plan Details & Specifications
PL 1-3	Site Plans
EC1-3	Erosion Control Plans, Notes & Specifications

Key Lin
 PO Box 518 M
 PLANS FC
Oak Creek
201 Ingram Drive
 DOUGLAS



ne Construction

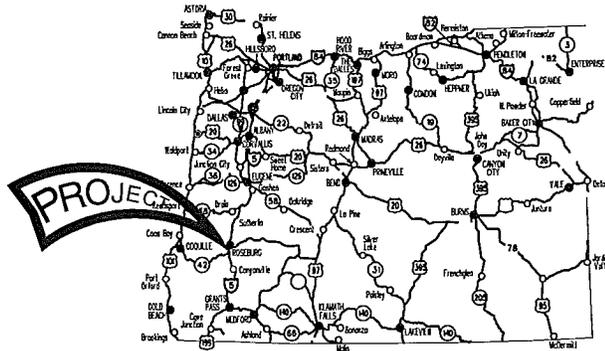
Myrtle Point, OR 97458

OR PROPOSED PROJECT

**Oak Creek Industrial Park:
201 Ingram Drive, Roseburg, OR, 97470**

COUNTY OREGON

May 2016

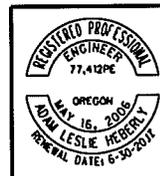


ATTENTION:
Oregon Law Requires You To Follow Rules Adopted By The Oregon Utility Notification Center. Those Rules Are Set Forth In OAR 952-001-0010 Through OAR 952-001-0090. You May Obtain Copies Of The Rules By Calling The Center. (Note: The Telephone Number For The Oregon Utility Center Is (503) 232-1987.)

PROJECT LOCATIONS

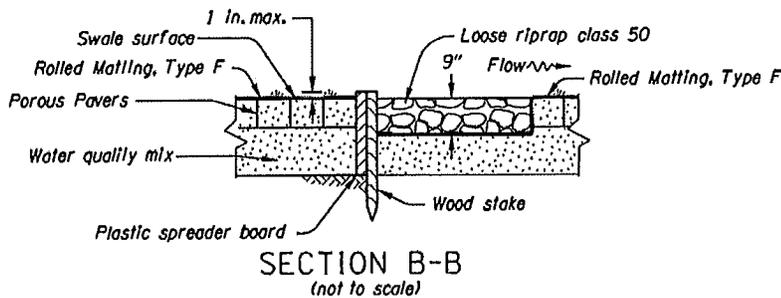
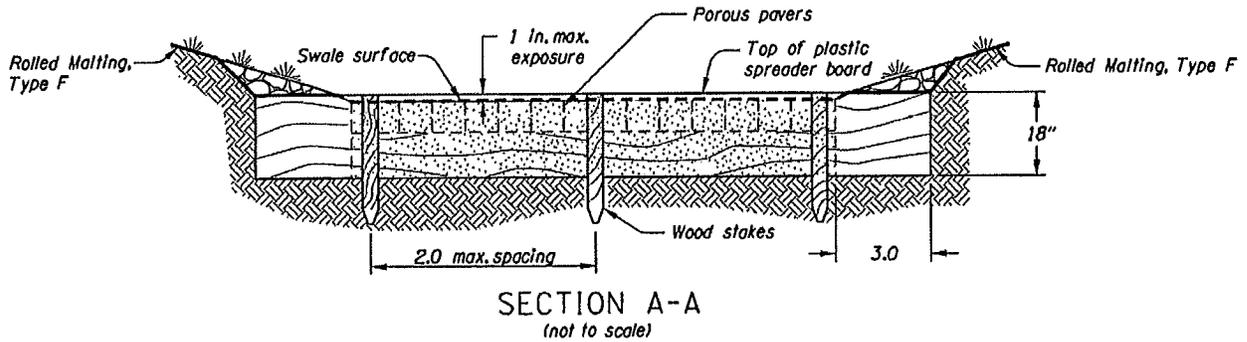
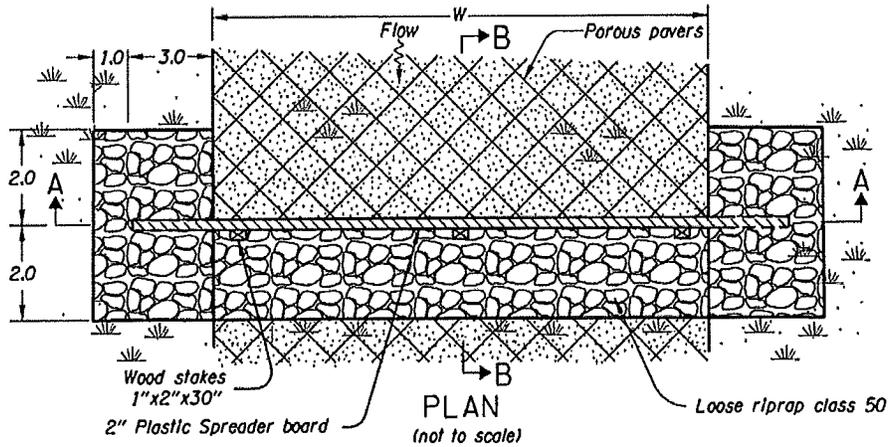
- OAK CREEK INDUSTRIAL PARK

201 INGRAM DRIVE ROSEBURG, OR, 97470

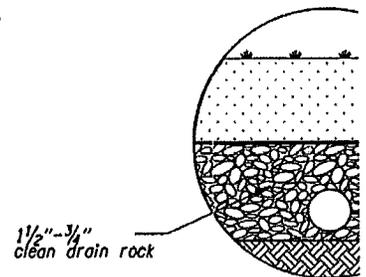


HEBERLY ENGINEERING Custom Service Engineering, Creative Solutions 1228 Half Valley Dr, Umatilla, OR, 97466 541-331-4813 WWW.HEBERLYENGINEERING.COM	
OAK CREEK INDUSTRIAL PARK 201 Ingram Drive Roseburg, OR, 97470 DOUGLAS COUNTY OREGON	
Designed by - Adam H Drafted by - Adam H	
TITLE SHEET	SHEET NO. TS1

WATER QUALITY
(BIOFILTR)



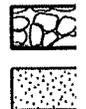
PLASTIC BOARD FLOW SPREADER DETAIL



DETAIL
Not to scale

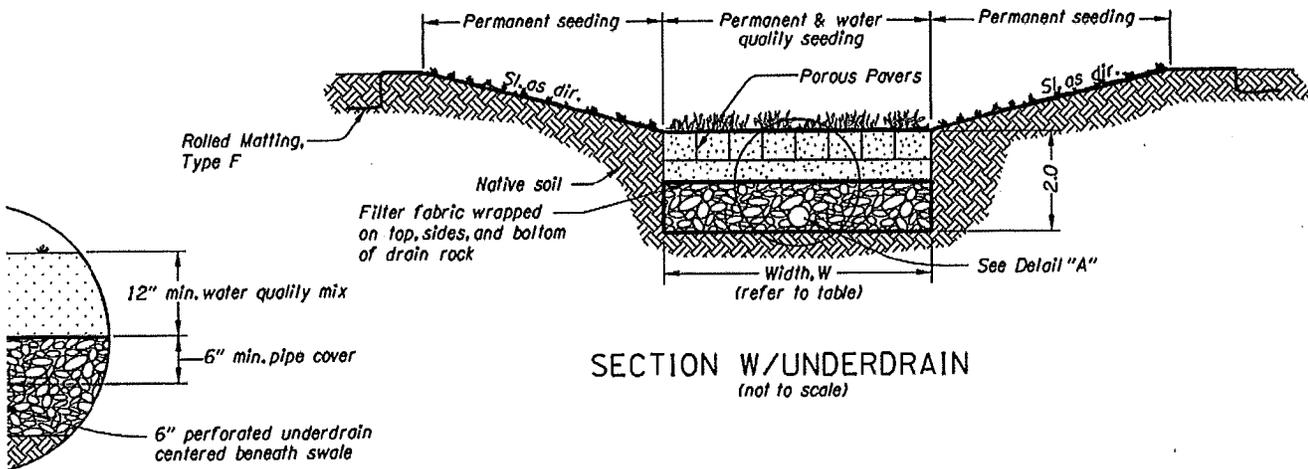
NOTES:

1. Construct spreader board level.
2. Extend spreader board a minimum of 3 feet into side slopes.
3. Reinforce side slopes at flow spreader locally with 1 1/2"-3/4" granular drain backfill material.
4. Fasten wood stakes to spreader board with 2 1/2" galvanized wood screws every 3" (minimum).
5. Place plastic board flow spreader at beginning of biofiltration swale.
6. Install matting according to RD1055. Omit check slots.
7. Install Type S2 markers at beginning and end of biofiltration swale. See sheet GJ-2 for details.
8. Begin 6" underdrain pipe 12" downstream of plastic flow spreader.



Note: All dimensions

TY SWALE DETAILS
(ATION SWALE)



SECTION W/UNDERDRAIN
(not to scale)

"A"

1/8"

1 1/2" - 3/4" Granular Drain Backfill Material

Water quality mix

Dimensions are in feet unless otherwise noted.

Note: Std. Detail courtesy of ODOT



HEBERLY ENGINEERING Common Sense Engineering, Creative Solutions 1238 Wolf Valley Dr., Unquie, OR, 97486 541-391-4813 WWW.HEBERLYENGINEERING.COM	
OAK CREEK INDUSTRIAL PARK 201 Ingram Drive Roseburg, OR, 97410 DOUGLAS COUNTY OREGON	
Designed by - Adam H Drafted by - Adam H	
WATER QUALITY SWALE DETAIL	SHEET NO. SW1

SECTION 01030 - SEEDING

Comply with Section 01030 of the Standard Specifications modified as follows:

01030.13(f) Types of Seed Mixes - Add the following to the end of this subsection:

Provide the following seed mix formulas:

Water Quality Mix (Seeding):

Botanical Name (Common Name) (lb/acre)	PLS * Amount (lb/acre)	(% Purity x % Germination) = (minimum) (minimum)
<i>Glyceria occidentalis</i> (Western Mannagrass)	4	
<i>Deschampsia cespitosa</i> (Tufted Hair Grass)	6	
<i>Beckmannia syzigachne</i> (Slough Grass)	6	
<i>Juncus tenuis</i> (Poverty Rush)	5	
<i>Carex densa</i> (Dense Sedge)	5	
<i>Asclepias speciosa</i> (Showy Milkweed)	3	
<i>Camassia quamash</i> (Common camas)	3	
<i>Mimulus guttatus</i> (Yellow monkey flower)	3	

*** Oregon Certified Seed**

Lawn Seeding:

Name Amount	PLS * (lb/acre)	(% Purity x % Germination)= (minimum) (minimum) (lb/acre)
Fine Fescue**	20	
Perennial Ryegrass**	20	
Kentucky Bluegrass**	20	
Colonial Bentgrass**	20	

**** Acceptable varieties (All of these varieties are trademarked):**

Fine Fescues:

Creeping Red Fescue: Fortress, Ensyva
Chewings Fescue: Banner, Highlight, Koket, and Jamestown. Pennlawn and Cascade are acceptable only in Eastern Oregon.

Perennial Ryegrass:

Citation, Derby, Diplomat, Manhattan, Omega, Pennfine, Regal, and Yorktown II. Only Manhattan and Pennfine are acceptable east of the Cascades.

Kentucky Bluegrass:

Adelphi, Baron, Ben-Sun, Birka, Bonnieblue, Fyking, Galaxy, Glade, Majestic, Merion, Monopoly, Primo, Sydsport, and Victa.

Colonial Bentgrass:

Highland, Astoria, Exeter, and Holfior.

SECTION 01012 - STORMWATER CONTROL, WATER QUAL SWALE

Section 01012, which is not a Standard Specification, is in Project by Special Provision.

Description

01012.00 Scope - This work consists of furnishing and quality biofiltration swale as shown.

Materials

01012.10 Materials - Furnish material meeting the follow

Concrete	00440
Drainage Geotextile, Type 1, Certification Level B	00842.10
Facility Field Markers	00430.11
Granular Drain Backfill Material	00470.11
Manholes, Catch Basins, and Inlets	00390.11
Riprap	00445.11
Riprap Geotextile, Type 1, Certification Level B	00430.10
Storm Sewer Pipe	
Subsurface Drain Pipe	

01012.11 Porous Pavers - Furnish medium porous paver

01012.12 Water Quality Mixture - Furnish medium comp requirements of Section 03020. Furnish soil meeting the requirements:

Sieve Size	Percent Passing (by Weight)
No. 4	100
No. 10	95 - 100
No. 40	40 - 60
No. 100	10 - 25
No. 200	5 - 10

Sample soil according to AASHTO T 2, Determine sieve and AASHTO T 27 and AASHTO T 11.

Blend the medium compost and soil so that the mixture:

Is composed of between 20 percent medium compost material and between 75 percent and 80 , Has a pH between 5.5 and 8.0. Does not have clumps greater than 3 direction.

01012.13 Plastic Board - Furnish plastic board meeting requirements:

Is HDPE or LDPE consisting of 75 recycled content, of which 50 percent is consumer material. Does not contain paper, foil, or wood. Smooth and free of splinters. Includes an ultra-violet inhibitor. Is consistent in color from piece to Contains no more than 3 percent air

01012.14 Stone Embankment Material - Furnish stone em meeting the requirements of 00330.16 except:

Provide a maximum size between 9 No large rock fragments are allowed.

Construction

01012.40 General - Construct water quality biofiltration s shown. Perform excavation, fine grading, and placement wor facility area is dry and only from the top of the swale or excavated material in the facility area. Scarify the subsail a inches deep. After scarification, place the water quality mix inch lifts. Compact each lift with a water filled landscape i

WATER QUALITY BIOFILTRATION

included for this

01012.40 General - Construct water quality facility as shown. Perform swale excavation and fine grading work only when the biofiltration swale area is dry and only from the top of the swale area. Do not stockpile excavated material in the biofiltration swale area.

installing a water

(a) Scarify - Scarify the subsoil area a minimum 12 inches deep.

(b) Laying Pipe - Lay the pipe according to Section 00445. Place pipe with perforations down.

grading requirements:

(c) Joining Pipe - Fasten pipes together with coupling fittings or bands as specified for the type of pipe used. Cap the upstream end of the pipe.

02320

(d) Inspection and Repair - Place the water quality mix only after all the pipe is laid, joined, and inspected. Remove and reinstall or replace all pipe that is out of alignment, has settled, or is damaged at no additional cost to the Agency.

02320

(e) Placement of Water Quality Mixture - Place the water quality mixture in maximum 12 inch lifts. Compact each lift with a water filled landscape roller.

01012.41 Facility Field Markers - Install field markers as shown and according to Section 00842.

requirements from the QPL.

Maintenance

cost meeting the following gradation

01012.70 Cleaning - If a stormwater control facility is used for erosion and sediment control, remove all accumulated sediment and debris before completing the facility.

Measurement

01012.80 Measurement - No measurement of quantities will be made for work performed under this Section.

Payment

analysis according to

01012.90 Payment - The accepted quantities of work performed under this Section will be paid for at the Contract lump sum amount for the item "Water Quality Swale, West", Water Quality Swale, North.

Payment will be payment in full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

and 25 percent percent soil material.

inches in any

the following

percent overall

piece, voids.

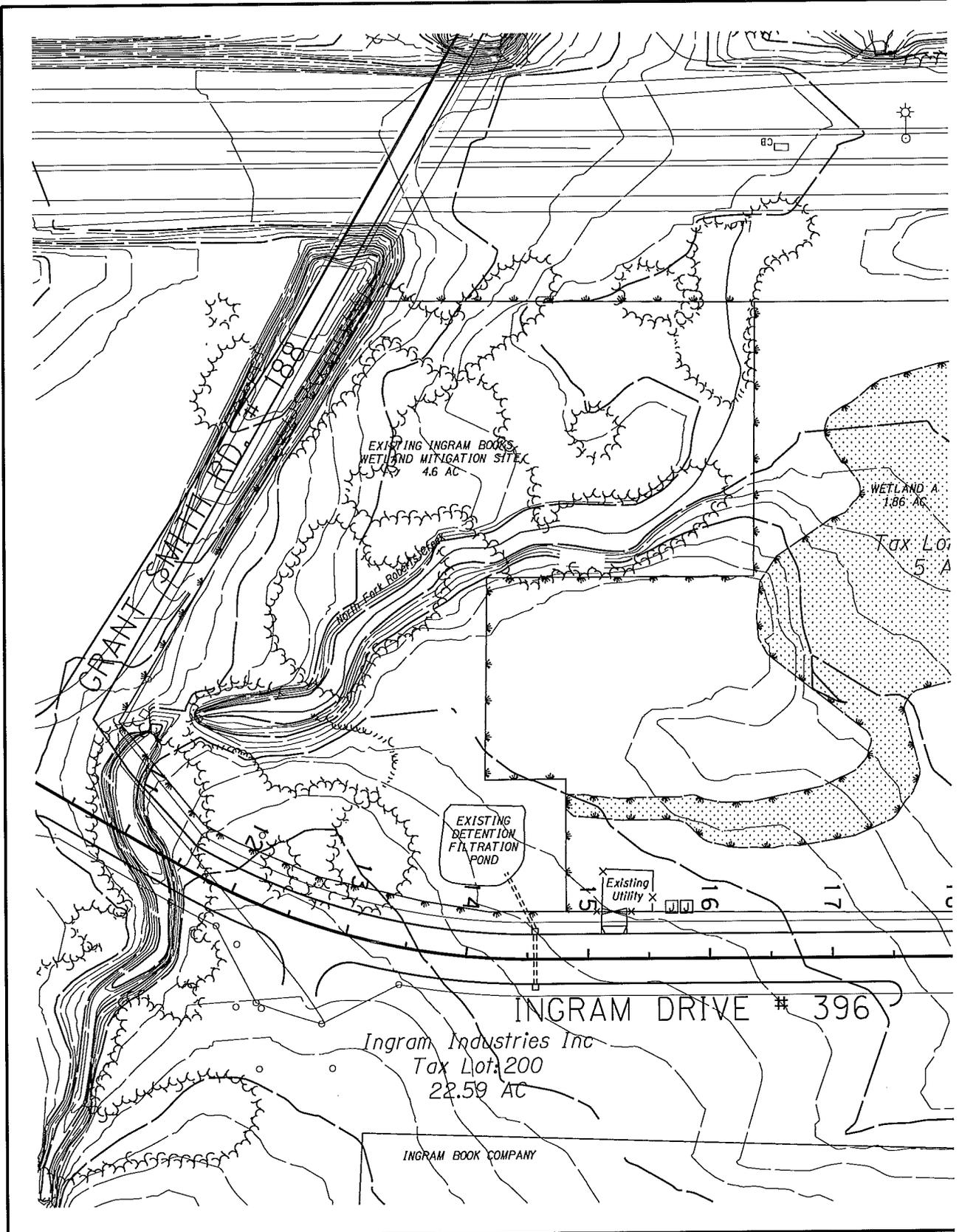
bankment material

inches and 3 inches.

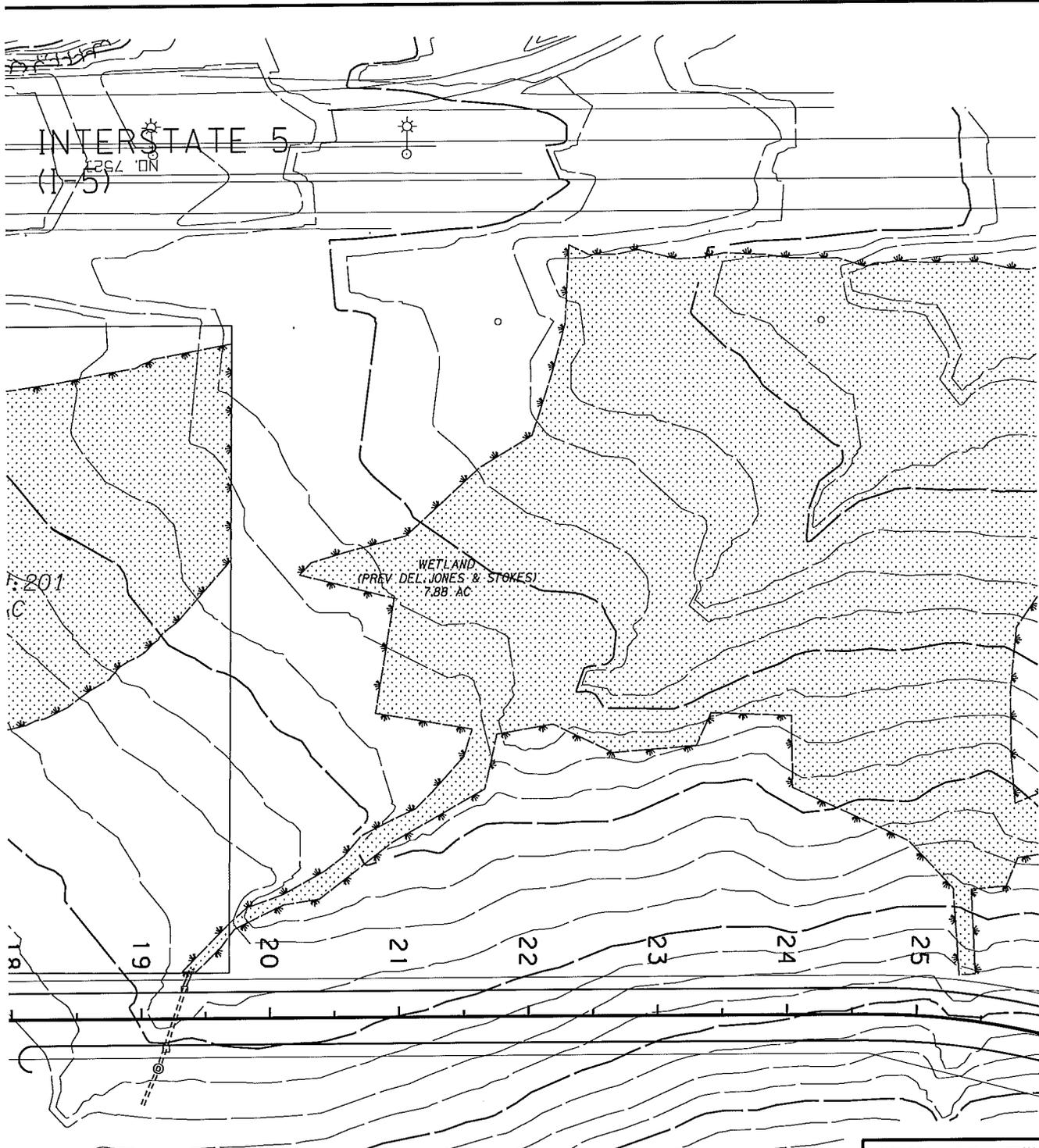
swale facility as shown. Perform swale excavation and fine grading work only when the biofiltration swale area is dry and only from the top of the swale area. Do not stockpile excavated material in the biofiltration swale area.



HEBERLY ENGINEERING Common Sense Engineering. Creative Solutions 1298 Wolf Valley Dr., Unquon, OR, 97486 541-391-4813 WWW.HEBERLYENGINEERING.COM	
OAK CREEK INDUSTRIAL PARK 201 Ingram Drive Roseburg, OR, 97410 DOUGLAS COUNTY OREGON	
Designed by - Adam H Drafted by - Adam H	
WATER QUALITY SWALE NOTES	SHEET NO. SW2

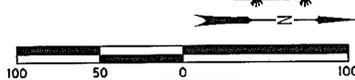


D:\Adam\Engineering Projects\2016\Parrash Ingram Dr 5 ac\Plans\Rogue Line Plan Sht_1.dgn :: Title Details 5/6



Note: 1) Existing contours 1' interval
 2) Contour data obtained from DC public works same data as shown in Jones and Stocks delineation exhibit dated May 27, 2006.

Wetland shown thus: 



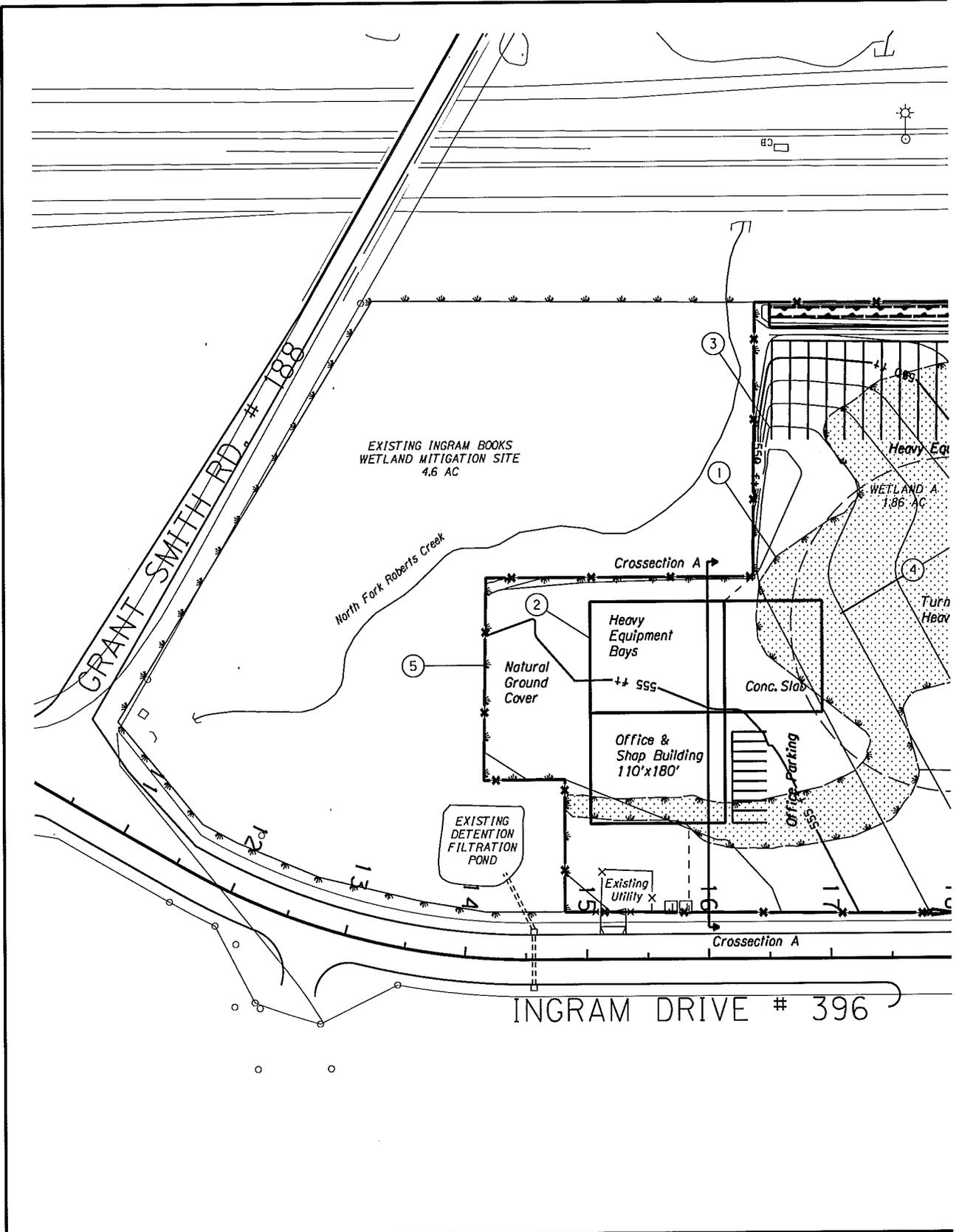
HEBERLY ENGINEERING
 Custom Service Engineering Creative Solutions
 1238 Wolf Valley Dr, Umpqua, OR, 97486 541-391-4813
 www.heberlyengineering.com

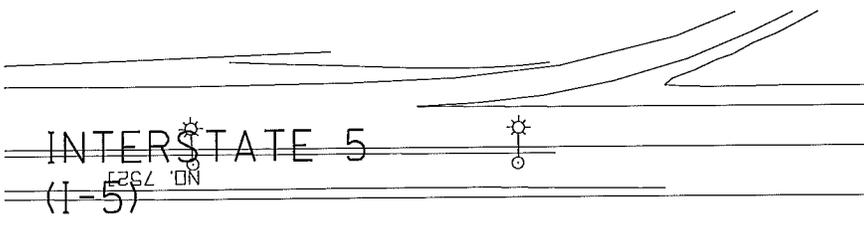
OAK CREEK INDUSTRIAL PARK
 201 Ingram Drive Roseburg, OR , 97410
 DOUGLAS COUNTY OREGON

Designed by - Adam H
 Drafted by - Adam H

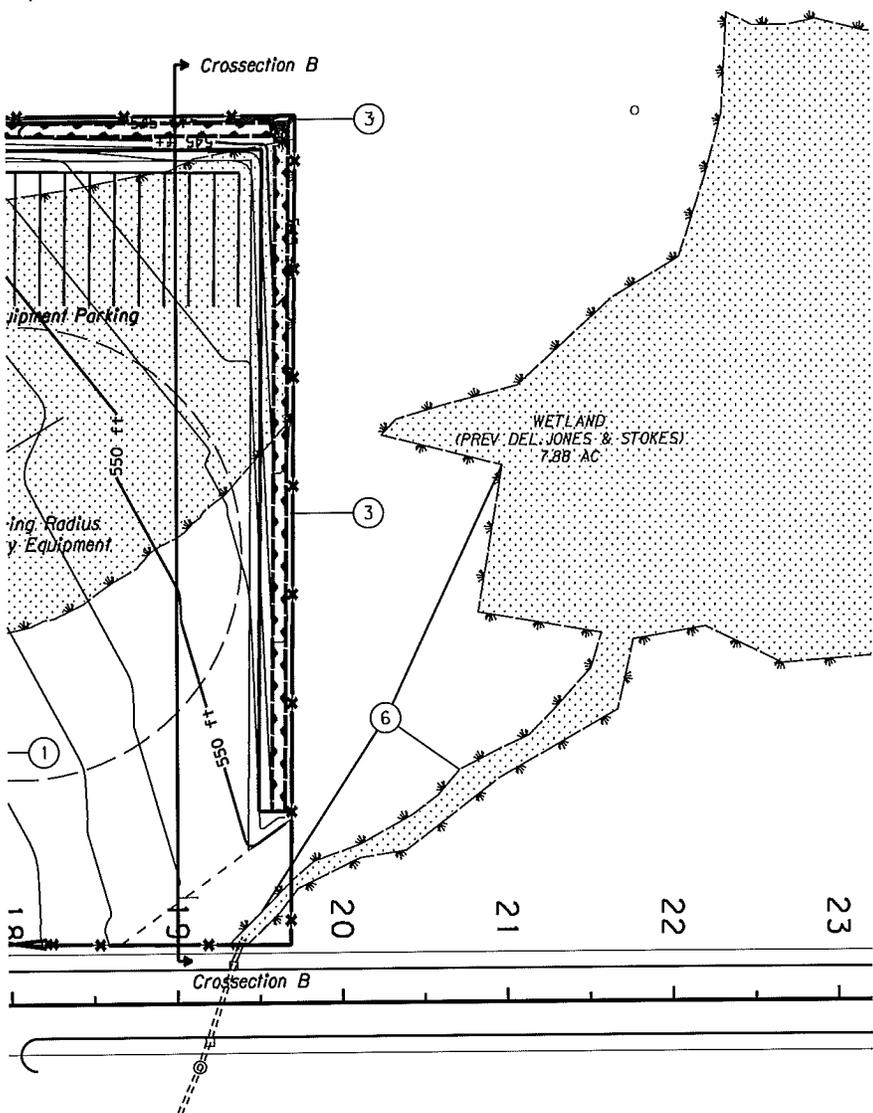
SITE PLAN-EXISTING CONTOURS

SHEET NO. PL1





- ① Impacted Wetlands A=1.86 AC
- ② Conceptual building footprint & conc. slab
- ③ Construct 8' wide Water Quality Swale
North bioswale= 420', S1=1%, Depth=2', 1:4 slopes
West bioswale= 315', S1=1%, Depth=2', 1:4 slopes
Const. rip rap energy dissipater
For const. & planting details see sht. SW1-2
- ④ Some minor grading will be needed to
flatten site, so approximately 12"
of base rock can be placed with geotextile fabric
Fill slopes are approximately 1:3 or flatter
- ⑤ Construct 6' fence around perimeter
- ⑥ Avoid existing wetlands, see erosion control
plans for silt fence and orange fence
placement.

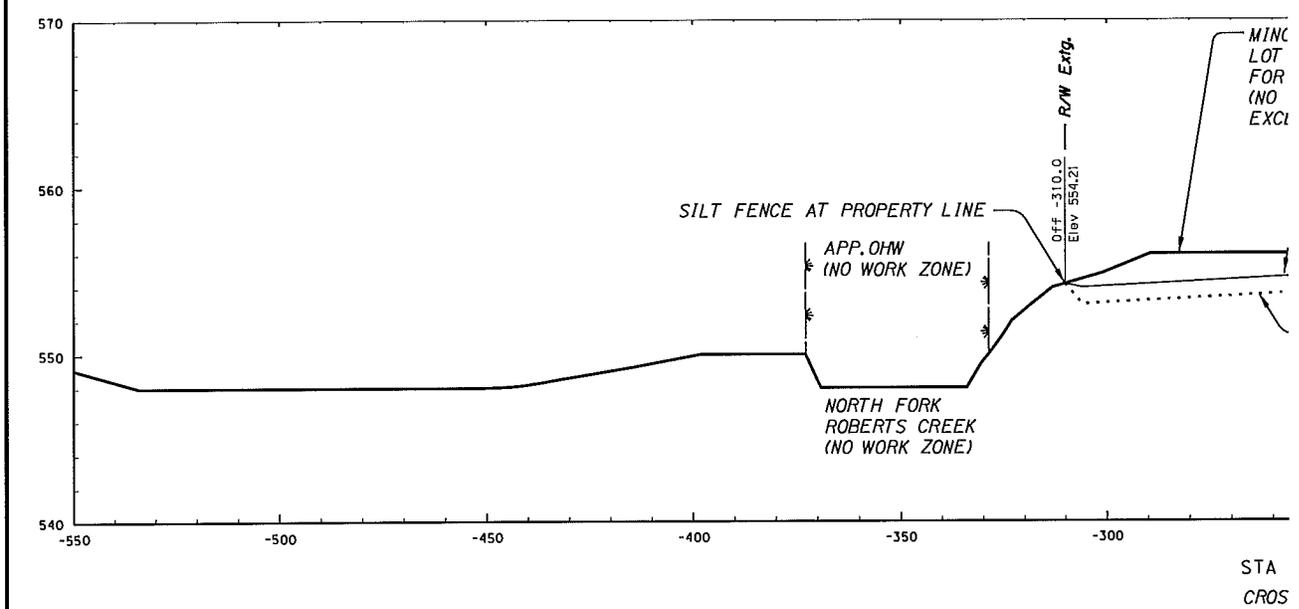
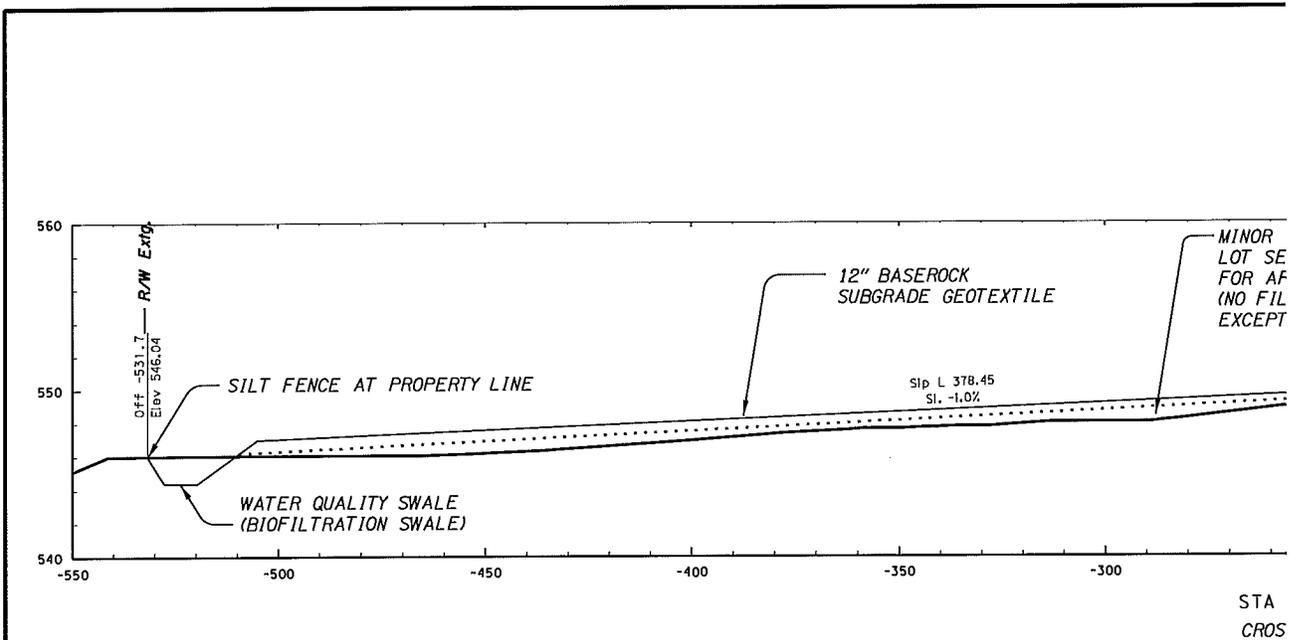


Note:
 1) Proposed Contours 1' Interval (top baserock)
 2) Intent of plans are for Joint
 Army Corp. & DSL Permit
 plans to be finalized before const.

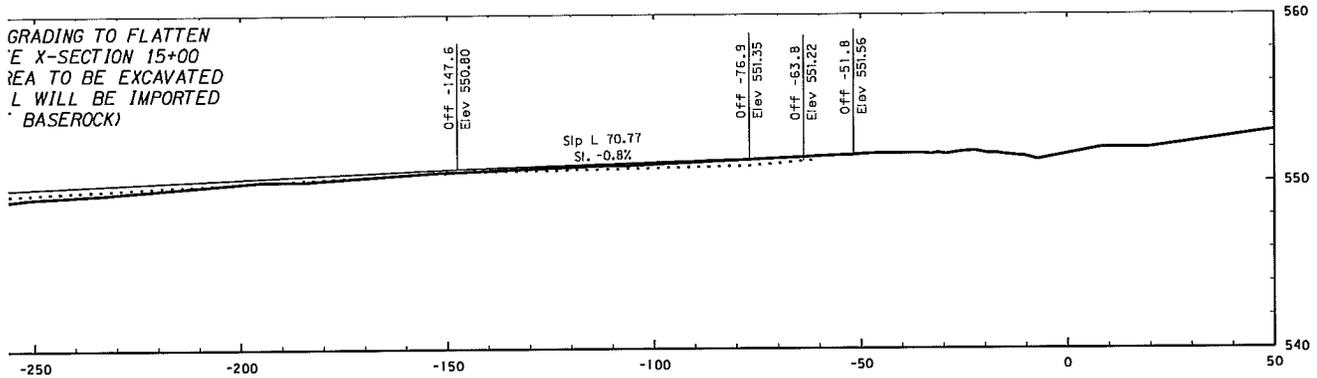
Wetland shown thus:



HEBERLY ENGINEERING <small>Conson - Samsa Engineering, Creative Solutions 1238 Red Valley Dr., Umatilla, OR, 97486 541-391-4813 WWW.HEBERLYENGINEERING.COM</small>	
OAK CREEK INDUSTRIAL PARK <small>201 Ingram Drive Roseburg, OR - 97410 DOUGLAS COUNTY OREGON</small>	
<small>Designed by - Adam H Drafted by - Adam H</small>	
SITE PLAN-PROPOSED CONTOURS	SHEET NO. PL2

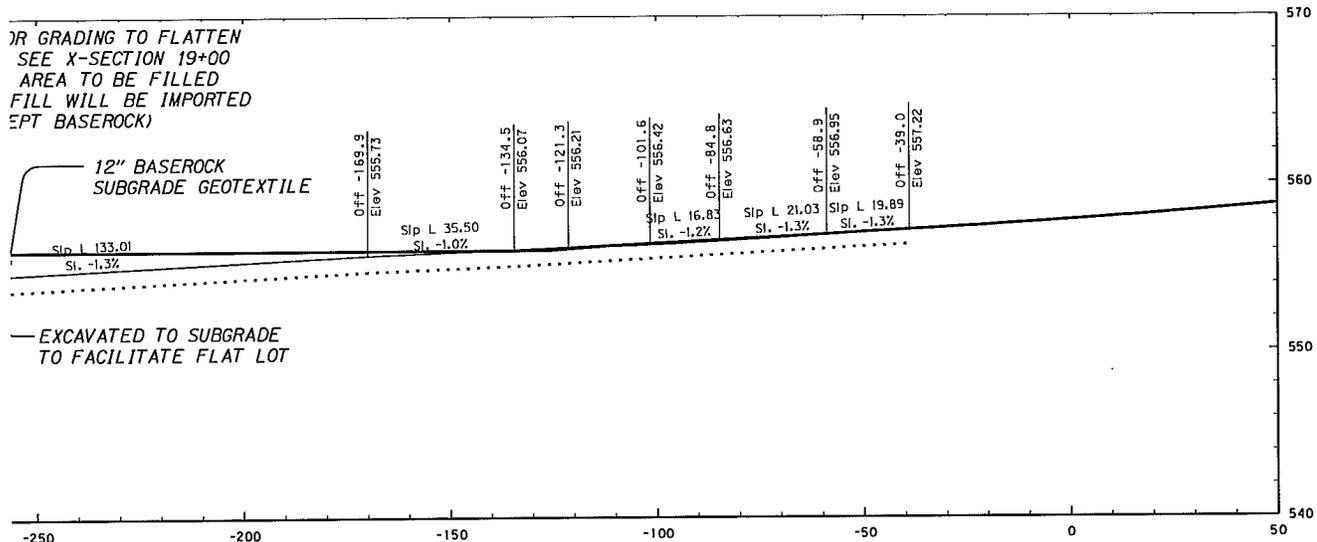


GRADING TO FLATTEN
 X-SECTION 15+00
 AREA TO BE EXCAVATED
 FILL WILL BE IMPORTED
 (EXCEPT BASEROCK)



15+00.00
 SECTION B

OR GRADING TO FLATTEN
 SEE X-SECTION 19+00
 AREA TO BE FILLED
 FILL WILL BE IMPORTED
 (EXCEPT BASEROCK)



EXCAVATED TO SUBGRADE
 TO FACILITATE FLAT LOT

19+00.00
 SECTION A

- Note:
- 1) STATIONING PER EXISTING COUNTY RD. STATIONING, SEE PLAN SHTS FOR EXACT LOCATION.
 - 2) X-SECTION VERT EXAGGERATION X4.
 - 3) BASEROCK WILL BE ONLY IMPORTED MATERIAL.



HEBERLY ENGINEERING
 Custom Service Engineering, Creative Solutions
 1238 Wolf Valley Dr., Umpqua, OR, 97486 541-391-4413
 WWW.HEBERLYENGINEERING.COM

OAK CREEK INDUSTRIAL PARK
 201 Ingram Drive Roseburg, OR, 97410
 DOUGLAS COUNTY OREGON

Designed by - Adam H
 Drafted by - Adam H

CROSSSECTIONS

SHEET NO.
PL3

Native Grass Seed Mixture For Maintenance Use:
Klamath Mountain Eco-region
 Elevation Range: 600-1,200 Meters (2,000 m peaks); Moisture Range: 60-120+ cm/year

Species	Native (Y/N)	Noxious (Y/N)	Wildlife Value (Cover/Forage)	Mature Height (cm)	Life Cycle	# Pure Live Seeds/m ²	Seeding Rate grams/ha	Seeding Rate Lbs/ac.
<i>Festuca occidentalis</i> (Western Fescue)	Y	N	C	30-40	P	25	315	0.28 (11.0 oz)
<i>Festuca rubra</i> (Red Fescue)	Y	N	C	30-60	P	100	1,050	0.94 (37.0 oz)
<i>Festuca ovina</i> (Sheep Fescue)	Y	N	C	30-60	P	50	436	0.40 (15.3 oz)
<i>Poa sandbergii</i> (Sandberg Bluegrass)	Y	N	C	30-60	P	75	533	0.48 (18.8 oz)
<i>Stipa hystrix</i> (Spiral-tail Grass)	Y	N	~	30-60	P	75	2,370	2.11 (83.6 oz)
<i>Elymus glaucus</i> (Wild Bluegrass)	Y	N	OT	60+	P	100	3,786	3.40 (133.5 oz)
<i>Bromus carinatus</i> (California Brome)	Y	N	C	30-60+	P	75	5,320	4.75 (187 oz)
						500 Seeds/m ² Coverage	13,810 Grams PLS/ha	12.3 Lbs. PLS/ac.

Note: Native use for species is consistent with Hitchcock and Cronquist 1973 and/or name used in seed catalogs.

Recommended Seeding Rate: 13.8 Kg/ha (12.3 lbs/acre)

Suggested Site Preparation and Application:

- On grades greater than 40% may be applied in combination with SOIL-GUARDSM or cellulose mulch with tackifier then apply @ 200% of recommended seeding rate. Use of fertilizer is not recommended with this mixture.

Temporary Seeding Dates:

West of the Cascades - Year Round
 East of the Cascades - October 1 through April 30
 Within temporary seeding dates, use temporary seeding to temporarily stabilize disturbed soils and slopes not at finished grade, which will be exposed for 2 months or longer before being re-disturbed. Areas not requiring temporary seeding or temporary mulching include environment sub-grade or areas where pavement will be placed.

Permanent Seeding Dates:

West of the Cascades - August 1 through September 15 and February 1 through April 30
 East of the Cascades - October 1 through January 31
 Permanent seeding work done outside the permanent seeding dates in conjunction with permanent mulching to stabilize exposed soils completed to finished grade shall be considered temporary until three weeks into the next permanent seeding date. At that time the seeding will be considered permanent if an acceptable stand of grass, providing a uniform coverage of 70% density of the surrounding existing grass areas, is achieved. If early germination occurred and the grass died, or an acceptable stand of grass is not achieved, re-seed the area according to the permanent seeding requirements.

Compatible Temporary* Erosion Control

Cellulose fiber with tackifier applied with hydro-seeder.

See back for map

PART II: BMPs WITH EROSION IMPLEMENTATION SCHEDULE FORM

ing controls and practices (BMPs), if appropriate for the site, are required under EPC. Subsequent to 2015, Practices 1 through 12 are required EPC revisions to the 10 days for specific conditions. See 12010 permits (USDA/AS-12) for details.

BMPs	YEAR 2018												
	MONITOR	1	2	3	4	5	6	7	8	9	10	11	12
1. Erosion Control													
2. Sedimentation Control													
3. Stormwater Management													
4. Erosion Control													
5. Sedimentation Control													
6. Stormwater Management													
7. Erosion Control													
8. Sedimentation Control													
9. Stormwater Management													
10. Erosion Control													
11. Sedimentation Control													
12. Stormwater Management													

HEBERLY ENGINEERING
 Common Sense Engineering, Creative Solutions
 1223 Half Valley Dr. Unadilla, OR, 97456 541-331-4015
 WWW.HEBERLYENGINEERING.COM

OAK CREEK INDUSTRIAL PARK
 201 Ingram Drive Roseburg, OR, 97470
 DOUGLAS COUNTY OREGON

Designed by - Adam H
 Drafted by - Adam H

EROSION CONTROL NOTES
 FOR DEQ 1200 C PERMIT

SHEET NO. ECI



General Notes:

1. SCOPE: The General Notes and typical details are general and apply to the entire project unless otherwise specified to the contrary.
2. APPLICABLE SPECIFICATIONS AND CODES :Construction shall conform to the Oregon Standard Specification for Construction, 2008 by OR (ODOT) and American Public Works Association (APWA).
3. ALTERNATIVE DESIGN: The systems and details shown on the drawings are the priority design. Alternative systems and details may be considered if the contractor submits plans with substantiating data, and if the alternative plans are accepted by the owner's Engineer. Details and substantiating data shall be to consideration.
4. DIMENSIONS AND SURVEYING: The location and dimensions on the plans shall be verified by the Contractor prior to construction; this is a Cor Field verify all existing construction, dimensions, and conditions.
5. COORDINATION WITH UTILITIES:
 - A. The location and description of utilities shown are approximate. Not all utilities have been shown.
 - B. The contractor shall comply with all requirements of ORS 757.571. The Contractor shall notify each of the underground utilities at least 48 business days prior to excavating or potholing. All utility crossings shall be scheduled as necessary prior to excavating or boring to allow the Contractor to resolve alignment conflicts.
 - C. Provisions shall be made by the Contractor to keep all existing utilities in service and protect them during construction.
 - D. Utilities, or interfering portions of utilities, that are abandoned in place shall be removed by the Contractor to the extent necessary to accomplish the contractor shall plug the remaining exposed ends of exposed utilities prior to backfilling.
 - E. Contractor shall schedule work with activities to be performed by utilities.
6. PUBLIC RIGHT OF WAY PERMITS
 - A. Contractor responsible for obtaining all required permits for working in Public Right of Way (ODOT, CITY, COUNTY).
7. COORDINATION WITH RESIDENCES
 - A. Contractor shall coordinate with local residences for interruption of sewer service. Provide residences with 24 hour notice prior to disruption of service. At no time shall a residence have their sewer service interrupted for any extended period. Work for the day or week will not end until all residences are satisfied.
8. EXCAVATIONS
 - A. Protect open excavations during non-working hours with metal plates or other approved methods.
9. SHOP DRAWINGS
 - A. Submit shop drawings for precast manholes to the engineer prior to casting the base.
10. TESTING
 - A. Test all piping and manholes in accordance with the specifications.

EROSION CONTROL NOTES:

1. Hold a pre-construction meeting of project construction personnel that includes the inspector to discuss erosion and sediment control measures.
2. All inspections must be made in accordance with DEQ 1200-C permit requirements. (Schedule A.12.b and Schedule B.1)
3. Inspection logs must be kept in accordance with DEQs 1200-C permit requirements. (Schedule B.1.c and B.2)
4. Retain a copy of the ESCP and all revisions on site and make it available on request to DEQ, Agent, or the local municipality.
5. During inactive periods of greater than seven (7) consecutive calendar days, the above records must be retained by the permit registrant but do not have to be submitted to DEQ.
6. All permit registrants must implement the ESCP. Failure to implement any of the control measures or practices described in the ESCP is a violation.
7. The ESCP must be accurate and reflect site conditions. (Schedule A.12.c.i)
8. Submission of all ESCP revisions is not required. Submission of the ESCP revisions is only under specific conditions. Submit all necessary revisions with supporting data.
9. Phase clearing and grading to the maximum extent practical to prevent exposed inactive areas from becoming a source of erosion. (Schedule A.7.a.i)
10. Identify, mark, and protect (by construction fencing or other means) critical riparian areas and vegetation including important trees and associated sensitive areas (e.g., wetlands), and other areas to be preserved, especially in perimeter areas. (Schedule A.8.c.i.(1) and (2))
11. Preserve existing vegetation when practical and re-vegetate open areas when practicable before and after grading or other site work. (Schedule A.7.a.i)
12. Maintain and delineate any existing natural buffer within the 50-foot-of waters of the state. (Schedule A.7.b.i and (2)(a)(b))
13. Install perimeter sediment control, including storm drain inlet protection as well as all sediment basins, traps, and barriers prior to land disturbance. (Schedule A.7.c.i)
14. Control both peak flow rates and total stormwater volume, to minimize erosion at outlets and downstream channels and streambanks. (Schedule A.7.c.i)
15. Control sediment as needed along the site perimeter and at all operational internal storm drain inlets at all times during construction, both internal and external. (Schedule A.7.c.i)
16. Establish concrete truck and other concrete equipment washout areas before beginning concrete work. (Schedule A.8.c.i.(6))
17. Apply temporary and/or permanent soil stabilization measures immediately on all disturbed areas as grading progresses. Temporary or permanent stabilizations measures are not required for areas that are intended to be left unvegetated, such as dirt access roads or parking areas. (Schedule A.8.c.i.(7))
18. Establish material and waste storage areas, and other non-stormwater controls. (Schedule A.8.c.i.(7))
19. Prevent tracking of sediment onto public or private roads using BMPs such as: construction entrance, graveled (or paved) exits and parking areas. (Schedule A.7.d.ii and A.8.c.i.(4))
20. When trucking saturated soils from the site, either use water-tight trucks or drain loads on site. (Schedule A.7.d.ii.(5))
21. Control prohibited discharges from leaving the construction site, i.e., concrete wash-out, wastewater from cleanout of stucco, paint and curing compounds, etc. (Schedule A.7.e.i)
22. Use BMPs to prevent or minimize stormwater exposure to pollutants from spills; vehicle and equipment fueling, maintenance, and storage; other discharges from vehicles and machinery, as well as debris, fertilizer, pesticides and herbicides, paints, solvents, curing compounds and adhesives from construction activities. (Schedule A.7.e.iii)
23. Implement the following BMPs when applicable: written spill prevention and response procedures, employee training on spill prevention and prevention of material delivery and storage controls, training and signage, and covered storage areas for waste and supplies. (Schedule A.7.e.iii)
24. Use water, soil-binding agent or other dust control technique as needed to avoid wind-blown soil. (Schedule A.7.a.iv)
25. The application rate of fertilizers used to reestablish vegetation must follow manufacturers recommendations to minimize nutrient releases to water. (Schedule A.7.f.i)
26. If an active treatment system (for example, electro-coagulation, flocculation, filtration, etc.) for sediment or other pollutant removal is employed, the system must be designed to prevent discharge dispersion device design, and a sampling plan and frequency) before operating the treatment system. Obtain plan approval before operation. (Schedule A.7.f.ii)
27. Temporarily stabilize soils at the end of the shift before holidays and weekends, if needed. The registrant is responsible for ensuring that soil stabilization measures are in place. (Schedule A.7.f.iii)
28. As needed based on weather conditions, at the end of each workday soil stockpiles must be stabilized or covered, or other BMPs must be implemented. (Schedule A.7.f.iii)
29. Construction activities must avoid or minimize excavation and bare ground activities during wet weather. (Schedule A.7.a.i)
30. Sediment fence: remove trapped sediment before it reaches one third of the above ground fence height and before fence removal. (Schedule A.7.f.iv)
31. Other sediment barriers (such as biobags): remove sediment before it reaches two inches depth above ground height and before BMP removal. (Schedule A.7.f.iv)
32. Catch basins: clean before retention capacity has been reduced by fifty percent. Sediment basins and sediment traps: remove trapped sediment before it reaches one third of the above ground height and before fence removal. (Schedule A.7.f.v)
33. Within 24 hours, significant sediment that has left the construction site, must be remediated. Investigate the cause of the sediment release and implement steps to prevent a recurrence of the discharge within the same 24 hours. Any in-stream clean-up of sediment must be completed within 24 hours. (Schedule A.7.f.vi)
34. The intentional washing of sediment into storm sewers or drainage ways must not occur. Vacuuming or dry sweeping and material pickup must be completed within 24 hours. (Schedule A.7.f.vii)
35. The entire site must be temporarily stabilized using vegetation or a heavy mulch layer, temporary seeding, or other method should all construction activities cease for 14 days or more with a covering of blow applied. (Schedule A.7.f.viii)
36. Provide temporary stabilization for that portion of the site where construction activities cease for 14 days or more with a covering of blow applied until work resumes on that portion of the site. (Schedule A.7.f.ii)
37. Do not remove temporary sediment control practices until permanent vegetation or other cover of exposed areas is established. Once construction is complete and the site is stabilized, all temporary erosion controls and retained soils must be removed and disposed of properly. (Schedule A.7.f.iii)

Oregon Department of Transportation

to be completed if the Contractor
will be complete prior

for contractor surveying project.

essential day hours
to prevent grade

through the work

of sewer service.
if sewers have been reconnected to sewer service.

EC LEGEND

- Fill slope
- Cut slope
- Inlet protection
- Sediment fence
- - - - - Orange plastic fence (no work area)
- ▨ Sediment barrier, straw wattle
- ▩ Biofilter bags
- ▧ Construction entrance
- ~ Flow direction

UTILITIES LEGEND

- POWER POLE
- LIGHT POLE
- TELEPHONE POLE
- ANCHOR
- BURIED ELECTRIC CABLE
- OVERHEAD ELECTRIC CABLE
- ELECTRIC MANHOLE
- TELEPHONE PEDESTAL
- BURIED TELEPHONE CABLE
- OVERHEAD TELEPHONE CABLE
- TELEPHONE MANHOLE
- SANITARY SEWER
- WATER LINE
- WATER CLEANOUT
- WATER VALVE
- FIRE HYDRANT
- WATER METER
- GAS LINE
- GAS METER
- GAS VALVE
- BURIED CABLE TELEVISION
- OVERHEAD CABLE TELEVISION

as and construction limits. (Schedule A.8.c.i.(3))

that need to be at the construction site. (Schedule B.2.c)
location of the permit. (Schedule A 8.a)

on to DEQ or Agent within 10 days. (Schedule A.12.c.iv. and v)
A.7.a.iii)
affected rooting zones, and vegetation areas to be preserved. Identify vegetative buffer zones between the site and

for construction. Identify the type of vegetative seed mix used. (Schedule A.7.a.v)

distance. (Schedule A.8.c.i.(5))
A.7.c)
normally and at the site boundary. (Schedule A.7.d.i)

utility pole pads. (Schedule A.8.c.ii.(3))

stones, gravel all unpaved roads located onsite, or use an exit tire wash. These BMPs must be in place prior to land- disturbing activities.

oil compounds. (Schedule A.6)
cleaning and maintenance activities, and waste handling activities. These pollutants include fuel, hydraulic fluid, and other oils
operation operations. (Schedule A.7.e.i.(2))
oper disposal procedures, spill kits in all vehicles, regular maintenance schedule for vehicles and machinery,

to surface waters. Exercise caution when using time-release fertilizers within any waterway riparian zone. (Schedule A.9.b.iii)
submit an operation and maintenance plan (including system schematic, location of system, location of inlet, location of discharge,
operating the treatment system. Operate and maintain the treatment system according to manufacturer's specifications. (Schedule A.9.d)
flows are stable during rain events at all times of the year. (Schedule A 7.b)
implemented to prevent discharges to surface waters or conveyance systems leading to surface waters. (Schedule A 7.e.ii.(2))

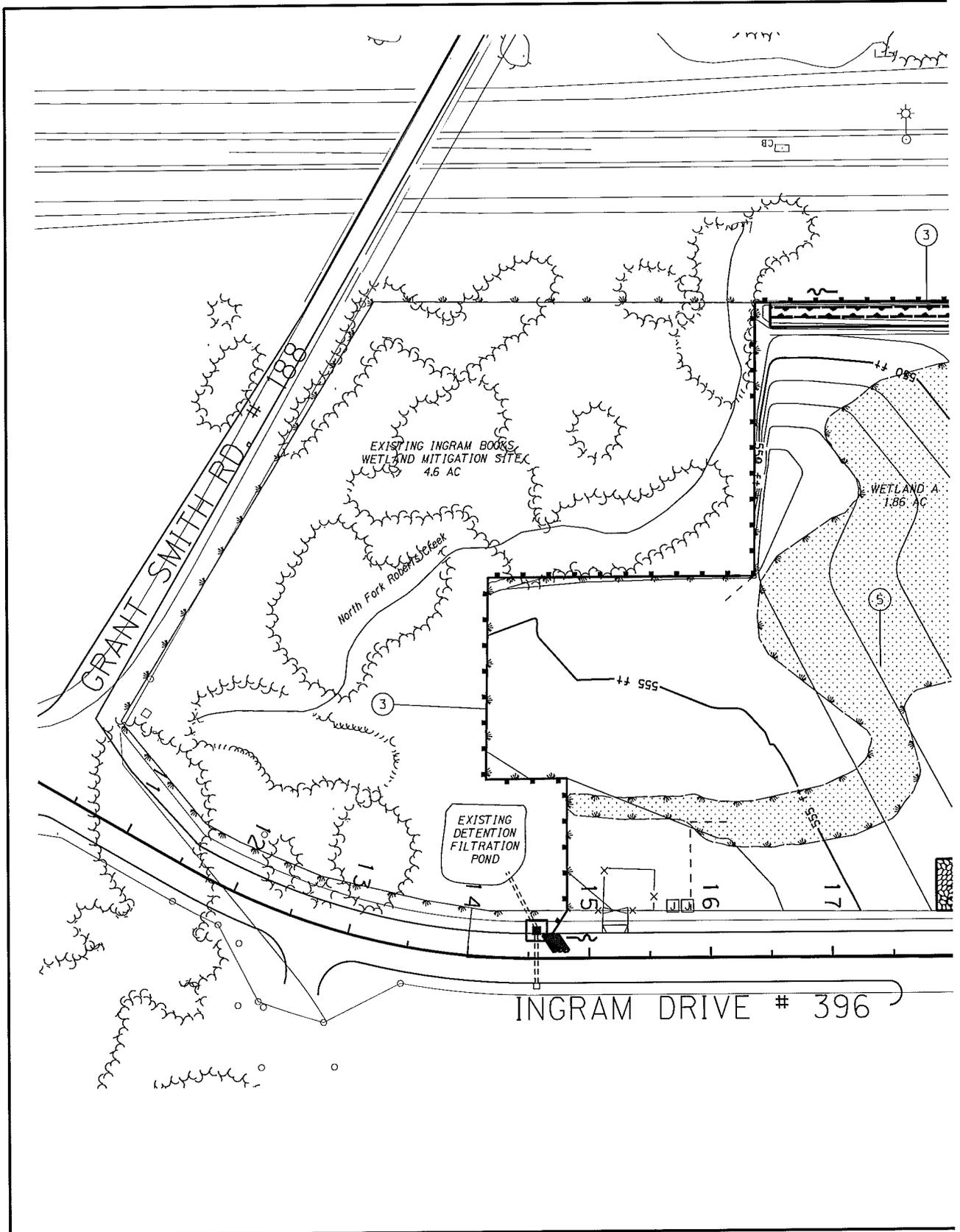
3.c.i)
Schedule A.9.c.i)
flows before design capacity has been reduced by fifty percent and at completion of project. (Schedule A.9.c.iii & iv)

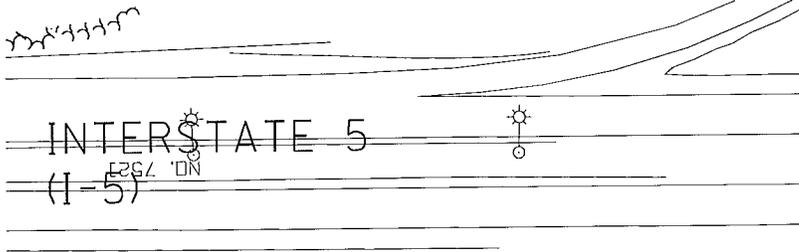
shall be performed according to the Oregon Division of State Lands required timeframe. (Schedule A.9.b.i)
shall be used to cleanup released sediments. (Schedule A.9.b.ii)
operations activities cease for 30 days or more. (Schedule A.7.f.i)
use straw and a tackifier, loose straw, or an adequate covering of compost mulch

comply, unless doing so conflicts with local requirements. (Schedule A.8.c.iii(1) and D.3.c.ii and iii)



HEBERLY ENGINEERING Common Sense Engineering, Creative Solutions 12518 Wolf Valley Dr., Damascus, OR 97458 541-331-4313 www.heberlyengineering.com	
OAK CREEK INDUSTRIAL PARK 201 Ingram Drive Roseburg, OR 97470 DOUGLAS COUNTY OREGON	
Designed by - Adam H Drafted by - Adam H	
GEN & EROSION CONTROL NOTES FOR DEQ 1200 C PERMIT	SHEET NO. EC2





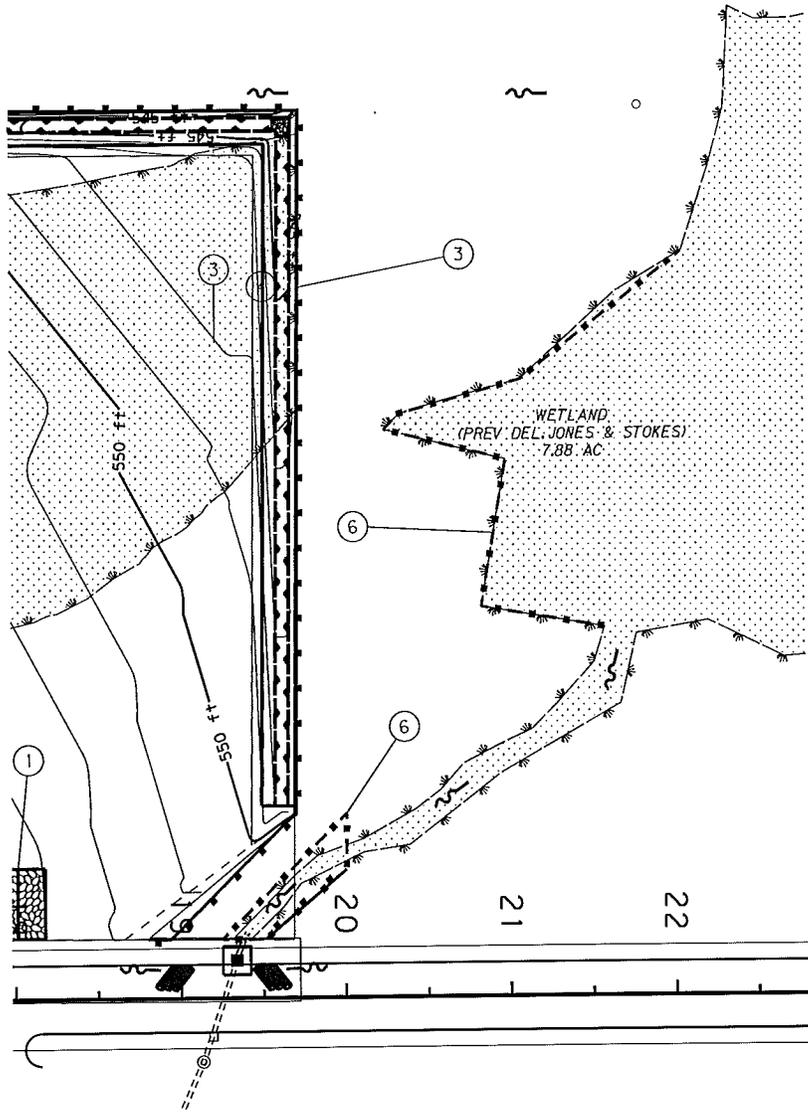
- ① Const. aggregate construction entrance - 1
(See drg. no. RD1000)
- ② Const. inlet protection, Type 4, Orange - 2
(See drg. no. RD1015)
- ③ Const. unsupported sediment fence - 1,800'
(See drg. no. RD1040)
- ④ Const. Concrete truck wash out - 1
Move as appropriate for construction activities
(See drg. no. RD1070)
- ⑤ After aggregate base and grading is performed
Seed all exposed soil prior to Fall per general notes
Seed mix : ODOT Klamath Mountain Range(KM)
or Coastal Range (CR) or approved equal
- ⑥ Inst. Orange plastic (no work zone) fence
Use T post and zip ties or approved equal

LEGEND

- Fill slope
- Cut slope
- Inlet protection
- Sediment fence
- - - - Orange plastic fence (no work area)
- ▨ Sediment barrier, straw wattle
- ▩ Biofilter bags
- ▧ Construction entrance
- ~ Flow direction

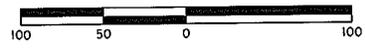
STANDARD DRAWINGS

- RD1000 Construction Entrances
- RD1005 Check Dams Type 1, 3 and 4
- RD1006 Check Dams Type 2 and 6
- RD1010 Inlet Protection Type 2, 3, 6 and 7
- RD1015 Inlet Protection Type 4
- RD1030 Sediment Barrier Type 2, 3 and 4
- RD1031 Temporary Barrier (Aggregate or Brush)
- RD1032 Sediment Barrier Type 8
- RD1033 Compost Filter Berm Sediment Barrier Type 9
- RD1040 Sediment Fence
- RD1045 Temporary Slope Drain With Energy Dissipator
- RD1050 Temporary Scour Basin
- RD1055 Slope and Channel Matting
- RD1060 Tire Wash Facility Type 1 and 2
- RD1065 Temporary Sediment Trap
- RD1070 Concrete Truck Washout



Note: Areas bounded by temporary orange fence denote protected no work areas such as trees, wetlands, cultural resources, etc.

Note:
1) Proposed Countours 1' Interval
2) Intent of plans are for Joint Army Corp. & DSL Permit plans to be finalized before const.



HEBERLY ENGINEERING Common Sense Engineering, Creative Solutions 1236 Wolf Valley Dr., Impasson, OR 97146 541-338-4313 WA # HEBERLYENGI-HEBERLY.COM	
OAK CREEK INDUSTRIAL PARK 201 Ingram Drive Roseburg, OR , 97410 DOUGLAS COUNTY OREGON	
Designed by - Adam H Drafted by - Adam H	
EROSION CONTROL PLANS FOR DEQ 1200 C PERMIT	SHEET NO. EC3