STORMWATER AND EROSION CONTROL CONSTRUCTION AND MAINTENANCE SCHEDULE

January 8th, 2020

Sleyster Shop

NEW CONSTRUCTION

Construction Start Dates:

Start Date: Winter, 2020 Completion Target Date: Summer, 2020

RESPONSIBLE PARTY TO INSURE IMPLEMENTATION OF STORMWATER & EROSION CONTROL MAINTENANCE PLAN AS NOTED:

Owner/Contractor: Dave Sleyster

Mailing Address: 11950 W. Pine St. Sandpoint, ID 83860

Phone: 1(208) 255-6597

Email: davesleyster@gmail.com

PROJECT LOCATION:

Parcel #: RPP36400020040A OwnerS: dave and tina sleyster Properties Llc Subdivision Name: Triangle Commercial Park Acres: 1.25 Legal Description : 11-57N-2W BLK 2 LOT 4



Inspections are to be scheduled as directed in this document. All documentation on scheduled inspections, times of inspections, maintenance completed, remedial actions taken to make repairs, and any modification or reconstruction of the storm system is to be submitted to the City of Ponderay Planning Department for review. Documentation of all maintenance completed shall be submitted to the Planning Department, as required.

STORMWATER AND EROSION CONTROL STRUCTURES CONSTRUCTION AND RE-SEEDING SCHEDULE

Temporary erosion control structures to be installed prior to any construction, site grading or excavation.

Permanent erosion control structures and re-seeding of all areas disturbed by construction, excavation, material transport and storage to be finished by the completion of the construction project.

GIAs to be seeded with grass as soon as permanent construction of GIA is complete. When building construction is complete, re-seed and/or repair GIA structures as needed to function as per stormwater plans and to insure complete grass coverage of entire GIA.

TEMPORARY EROSION CONTROL STRUCTURES

Contractor/Owner shall install and maintain all temporary sediment and erosion control components to prevent mud and sediment from leaving the construction site.

All structures must be inspected after each rainfall, inspection must include any structure used to trap sediment and these must be cleaned out as necessary to maintain functional sediment control.

All material spilled, washed or tracked into public roadways shall be removed within 24 hours.

The erosion control structures listed in this document, and shown on the erosion control plan, shall be installed prior to any soil disturbance. If construction activity requires that any structure/s be relocated temporarily, or for the duration of construction, the structure/s shall be immediately replaced, or repositioned in such a way that no sediment may leave the site. Erosion control structures shall include the following methods, as per plan, and are to be maintained as follows:



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ROUGHED IN PERMANENT SWALE AND GRASSY INFILTRATION AREAS (GIA)

Mulched and/or seeded with grass.

Required Maintenance to be done weekly and after any rainfall or storm event:

- Add additional stone armor or mulch as needed
- Remove any debris clogging swale
- Repair any washed out or eroded areas

Chemicals should not be applied near swale or GIA

STRAW WATTLES OR SILT FENCING

Required Maintenance to be done weekly and after any rainfall or storm event:

- Re-position, replace, or add additional wattles or silt fencing as needed to control sediment
- Remove any debris, silt or mud accumulation
- Repair any washed out or eroded areas and reinforce with additional wattles or fencing, mulch, or geotextile fabric



PERMANENT STORMWATER MANAGEMENT STRUCTURES

Maintenance Schedule

Structure	Maintenance Interval	Approximate Dates Weather Dependent	Additional Maintenance Notes
Swales and GIA Areas	Semi-Annually	By May 1 and Nov 1	Add additional rock armor as needed
Conveyance Inlets and Outlets	Monthly or as needed	First of each month or needed interval	As snow allows in above freezing conditions
Catch Basins, Pipes or Cleanouts	Every 1-3 Years	By May 1	Monitor May 1 and Nov 1 of first year to determine needed cleanout interval

SWALES AND GRASSY INFILTRATION AREAS (GIA)

Required Maintenance:

- Shrub trimming and weeding as needed in or near swales throughout the summer months.
- Periodic sediment cleanout (spring and late fall).

Chemicals should not be applied to swale or GIA ANY CONSTRUCTED CONVEYANCE STRUCTURES

- Check inlets and outlets for clogging (monthly).
- Clean inlets and outlets as necessary during monthly inspections.
- Remove sediment if accumulation reaches 6 inches or if re-suspension is observed.
- Inspect conveyance structures to verify that the outlet is not damaged (annually).



ANY INSTALLED CATCH BASINS, PIPES OR CLEANOUTS

- All catch basins, pipes and/or cleanouts shall be checked for debris (seasonally every 3 months).
- Typical cleaning (once every 3 to 5 years).

Catch basins, pipes and cleanouts to be monitored monthly after construction is completed for one year to determine how often cleaning will be required.

- Inspect for damaged or missing block and mortar or cracked plastic (annually).
- Remove sediment when accumulation reaches six inches is observed, or pipe flow is reduced.
- Measure accumulation (every 3-5 years).

SNOW STORAGE AREAS

• Remove sediment, debris and maintain proper slope in snow storage areas for positive snow melt drainage.







	SITE PLAN KEY
1	PROPOSED SHOP BUILDING ON LOT #1 4800 SF FOOTPRINT 5376 SF ROOF AREA
2	PROPOSED GRAVEL DRIVE & PARKING 14,934 SF ON LOT #1 AND 9,289 SF ON LOT #2
3	TRIANGLE ROAD ACCESS
	BUILDING CETBACK LINE

- BUILDING SETBACK LINE 4
- PROPOSED SEPTIC PUMP STATION (5)

- EXISTING 6' HIGH CHAIN LINK FEHCE AROUND PERIMETER OF PROPERTY LINE (16) (17) EXISTING 6' HIGH CHAIN LINK 23'3" WIDE APPROACH GATES
- (18) EXISTING HOLLY SHRUB HEDGE
- (19) EXISTING CONCRETE WALKWAY 681 SF
- (2) EXISTING CONCRETE PAD 882 SF
- (21) INLET TO GIA



22	EXISTING SEPTIC PUMP STATION
23	OUTLET FROM GIA
24)	EXISTING TREES TO REMAIN (REMOVE 5 AND LEAVE ONE SOUTH OF EXISTING BUILDING)
25	ROOFLIHE
26	LIGHTED SIGN WITH MASONRY MONUMENT BASE 6' X 4' SIGN. BOTTOM OF SIGN 6' FROM GRADE
27)	CATCH BASIN
28	DRAIN PIPE
29	SILT FEHCE OR STRAW WATTLES
30	SHOW STORAGE
31	EXISTING ELECTRIC EASMENT
32	STORMWATER OVERFLOW EASMENT
33	CONSTRUCTION ENTRY





SITE DATA FOR EROSION CONTROL ALL SQUARE FOOT TOTALS ARE APPROXIMATE 54,300 SF 1.25 ACRES TOTAL AREA 31.800 SF LOT 1 LOT 2 22.500 SF 45,792.8 SF TOTAL OPEN AREA: 26.424 SF LOT 1

TOTAL BUILDING AREA: LOT 1 LOT 2

LOT 2

8,507.2 SF 5.376 SE 3.1312 SF

19.368.8 SF

PROPOSED MAXIMUM DEPTH OF EXCAVATION: 3' TO 8' FOR BUILDING FOUNDATIONS 4' TO 6' FOR UTILITY CONSTRUCTION

EROSIOH CONTROL HOTES

1. ALL SITE WORK UNTIL PROJECT IS COMPLETE SHALL COMPLY WITH CITY OF POHDERAY CURRENT REVISED CODE.

2. ALL SITE WORK SHALL COMPLY WITH BMP - BEST MANAGEMENT PRACTICES WITH ALL GRADES, DRAHAGE DITCHES, CONVEYANCE SWALES AND DRAINPIPES SET AT A 2% MINIMUM SLOPE, WHERE POSSIBLE, TO INSURE POSITIVE FLOW OF WATER FOR ALL EROSION CONTROL COMPONENTS IDUE TO THE MINIMAL ELEVATION DIFFERENCES ON THIS SITE IT IS NECESSARY TO GRADE SOME SLOPES LESS THAN 2%). 3. MAHPATORY INSPECTIONS AND REPORTS OF EROSION CONTROL PLANS

COMPLETED BY THE GENERAL CONTRACTOR OR AS REQUIRED BY CITY OF POHDERAY STORMWATER MAHAGEMENT CODE. 4. CONTRACTOR SHALL PROVIDE A GRAVEL CONSTRUCTION ENTRANCE WASH TO

PREVENT THE TRACKING OF DEDRIS ONTO PAVED BONNER COUNTY ACCESS ROADS. 5. CONTRACTOR SHALL MULCH DISTURBED SOIL, OR USE OTHER BMP METHODS TO PREVENT WATER AND WIND EROSION.

6. CONTRACTOR SHALL INSTALL EROSION AND STABILIZATION CONTROL METHODS AS SHOWH OH EROSIOH PLAH, AND AS REQUIRED, TO PREVENT EROSION OF MATERIALS

7. ALL SOIL AND WASTE MATERIAL, NOT USED IN NEW CONSTRUCTION, SHALL BE REMOVED FROM THE SITE IN COVERED TRUCKS OR DUMPSTERS THAT WILL CONTAIN ALL PUST CREATED BY TRANSPORTATION.

8. CONSTRUCTION MATERIALS SHALL BE STORED SO THAT THEY WILL NOT EROPE WHILE STORED ON THE SITE. FINE GRAINED MATERIALS SHALL BE COVERED TO PREVENT EROSION FROM WIND.

9. DUST OCCURRING DURING CONSTRUCTION, AND FOR GRAVEL PARKING AND DRIVE AREAS WHEN SITE BUSINESSES ARE OPERATING, TO BE MITIGATED WITH SPRAY APPLICATION OF WATER OR PUST PALLIATIVE VIA WATER TRUCK OR SPRINKLERS. 10. STRAW WATTLES SHALL BE STATE CERTIFIED WEED FREE.

11. CONSTRUCTION AND EXCAVATION MAY TAKE PLACE IN PHASES. ALL AREAS WITH SITE DISTURBING CONSTRUCTION ACTIVITIES REQUIRE PERIMETER SEDIMENT CONTROLS SUCH AS STRAW WATTLES OR SILT FEHCING. THESE MAY BE REMOVED ONLY AFTER SITE VEGETATION BECOMES ESTABLISHED ENOUGH TO PREVENT EROSION.

EROSION CONTROL COMPONENTS

EROSIOH CONTROL METHOPS SHALL INCLUPE AS NECESSARY, BUT ARE NOT LIMITED TO:

(A) ROUGHED IN PERMANENT GIA BASING AS SHOWN ON STORMWATER AND EROSION CONTROL PLANG #7 (SHEET S-2 AND S-4) AND DETAIL #5 (SHEET S-4). INLETS FOR SWALES AND PRAIN PIPES TO BE ROCK ARMORED WITH 3" + STONE.

GRASSY CONVEYANCE SWALES AND DRAINAGE DITCHES #15 (SHEET S-2 AND B)

-4) AND DETAIL #6 (SHEET S-3 FOR ARCH D AND S-5 FOR 11" X 17"). © FOOTING PRAINS WILL HEEP A SUMP PUMP IF UTILIZED ON THIS SITE. THERE IS NOT APEQUATE ELEVATION DROP FOR GRAVITY DRAMAGE.

CATCH BASIN #27 (SHEET S-2 AND S-4) AND DETAIL #4 (SHEET S-3).

(E) SILT FEHGING LOCATED AND INSTALLED AS SHOWN ON EROSION PLAN #29

(GHEET S-2) AND DETAIL #2 SHEET S-3. STRAW WATTLES MAY DE SUBSTITUTED FOR GILT FEHCING ON THIS MINIMALLY SLOPED SITE. (F) STRAW WATTLES LOCATED AND INSTALLED AS SHOWN ON EROSION PLAN #29

(SHEET S-2) AND DETAIL #1 SHEET S-3.

(G) COHSTRUCTION ENTRY TO BE LOCATED ON HORTH PROPERTY LINE EXISTING WESTERH EHTRY AS SHOWH OH EROSIOH PLAH #33 (SHEET S-2) AND DETAIL #3

SHEET S-3. (H) PRESERVE AND CLEAR OUT EXISTING CULVERTS AT BOTH NORTH ENTRIES.

EROSION CONTROL MAINTENANCE NOTES

CONTRACTOR SHALL:

1. INSTALL SEDIMENT CONTROL COMPONENTS PRIOR TO SOIL DISTURBANCE. 2. MAINTAIN ALL SEPIMENT AND EROSION CONTROL COMPONENTS IN FUNCTIONAL COMPITION IN ORDER TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE FOR THE PURATION OF THE PROJECT.

3. REPLACE GRAVEL MATERIAL WHEN SURFACE VOIDS ARE VISIBLE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN OUT AS HECESSARY.

4. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR









STORMWATER MANAGEMENT NOTES 1. ALL SITE WORK SHALL COMPLY WITH CURRENT CITY OF PONDERAY STORMWATER ORDHANCES. 2. ALL SITE WORK WILL COMPLY WITH DMP-DEST MANAGEMENT PRACTICES. 3. MANDATORY INSPECTIONS AND REPORTS OF STORMWATER MANAGEMENT PLANS COMPLETED BY THE GENERAL CONTRACTOR/OWNER AS REQUIRED BY CITY OF PONDERAY STORMWATER ORDHANCES.

C PONDERAY STORTWATER ADPLANCES. <u>STORTWATER PROJECT SUMMARY</u> 1 STORTWATER WILL BE COLLECTED ON SITE WITH PERMANENT STORTWATER STRUCTURES. 2 SITE, DRIVES, PARKING AREAS AND ROOF WATER TO BE DIRECTED VIA 21 SLOPE WHERE POSSIBLE, SITE IS FARLY LEVEL) GRADE TOWARD CONVEYANCE DITCHES AND SWALES THAT FLOW INTO GIA DASHS SIZED FOR A 25 YEAR STORT EVENT. 3 ALL SITE AREAS TO BE GRADED AWAY FROM ALL DULDINGS. 4 SWALES TO BE UPLILY GRADED (AT A THE MAXIMUM SLOPE POSSIBLE GIVEN SITE ONSTRAINTS) BETWEEN PESIGNATED HIGH AND LOW ELEVATIONS. 5 ALL OUTLETS TO BE ARRORDED WITH STORE WITH A MINIMUM PLATETER OF 3'. 6 OVERFLOW FROM GIA AREAS TO BE DIRECTED TO EXISTING GITY OF PONDERAY DRAINAGE DITCH ADJACHT TO THE SOUTH SIDE OF TRANSLE DRIVE. 7. MINOR MODIFICATIONS MAY BE MADE TO STORTWATER AND EROSION CONTROL FLATS AS REQUIRED DY THELD CONTINUENT FOR DRIVE. 7. MINOR MODIFICATIONS MAY APPLY TO THE OUTLER OF DODERAY FOR PERIOSION CONTROL FLATS AS REQUIRED DY THELD CONTINUENT FOR DEDISCIPLING FOR PERSIONAL ON BUILDING CONTRACTOR MAY APPLY TO THE OUTLER OF DODERAY FOR PERIOSION CONTROL FLATS AS REQUIRED DY THELD CONTINUENT TO PRODUCE TO ANALER AND EROSION CONTROL FLATS AS REQUIRED DY TO THE DAT THE OWNER, DEDISCH PROPESSIONAL ON MAKE MINOR MODIFICATIONS TO THE PLAN. THE ORIGINAL FLAN STORAGE AND CONVEYANCE CAPAGITES MUST BE MET WITH THE MODIFIED PLAN.

SITE DATA FOR STORMWATER MANAGEMENT ** ALL SQUARE FOOT TOTALS ARE APPROXIMATE**

IOTAL AREA;	54,300°5F 1.25 ACRES			
LOT 1	31,800 SF			
LOT 2	22,500 SF			
MPERVIOUS AREAS:				
TOTAL BUILPING ROOF AREA	8.507.2 SF			
LOT 1	5.376 SF			
LOT 2	3,131.2 SF			
TOTAL GRAVEL DRIVE AND PARKING AREA	24,222.17 SF			
LOT 1	14,933.65 SF			
LOT 2	9,288.52 SF			
TOTAL UNCOVERED CONCRETE AND WALKWAY AREA	1,626.92 SF			
LOT 1	240 SF			
LOT 2	1,563 SF			
IOTAL MPERVIOUS	34,532.37 SF			
LOT 1	20,549.65 SF			
LOT 2	13,982.72 SF			
TOTAL PERVIOUS AREAS:				
VEGETATED, SWALE AND GIA AREAS:	19,767.63 SF			
LOT 1	11,250.35 SF			
LOT 2	8,517.28 SF			
STORAGE CAPACITY CALCULATIONS TWENTY FIVE YEAR STORM EVENT CALCULATIONS:				
IMPERVIOUS AREAS 34,532.	37 SF			
TOTAL: (34,532.37 SF) <u>1ª X 24 HR</u> = <u>6,906.47 CF</u> STORMW 12ª	ATER/24 HR PERIOD			

LOT +1: (20,549,65 SF) <u>1' X 24 HR</u> = 4.109.93 CF) STORMWATER/24 HR PERIOD

LOT #2: (13,982.72 SF) <u>1" X 24 HR</u> = [2,796.54 CF] STORMWATER/24 HR PERIOD 12"

STORAGE CAPACITY

LOT #1 GIA #1A = 334.89 SF AT 8" AVERAGE DEPTH = 224.38 CF STORAGE 212.94 SF AT 4" AVERAGE DEPTH = 70.27 CF STORAGE

GIA #2A = 3,691.75 SF AT 8" AVERAGE DEPTH = 2,473.08 CF STORAGE 430.19 SF AT 4" AVERAGE DEPTH = 141.96 CF STORAGE GIA #3A = 780.83 SF AT 4" AVERAGE DEPTH = 257.67 CF STORAGE

GIA #4A =1890 SF AT 6" AVERAGE DEPTH = 945 CF STORAGE

TOTAL STORAGE CAPACITY = 4,112.37 CF THIS MEETS 25 YEAR STORM EVENT STORAGE CAPACITY REQUIREMENTS

LOI+2 GIA +10 = 203.11 SF AT 8' AVERAGE DEPTH = 136.08 CF STORAGE 131.26 SF AT 4' AVERAGE DEPTH = 43.32 CF STORAGE

GIA #20 = 2,778.90 SF AT 0" AVERAGE PEPTH = 1,861.92 CF STORAGE 285.76 SF AT 4" AVERAGE PEPTH = 94.30 CF STORAGE

GIA #30 = 624.27 SF AT 8" AVERAGE PEPTH = 418.26 CF STORAGE 158.43 SF AT 4" AVERAGE PEPTH = 52.28 CF STORAGE

GIA #40 =170.52 SF AT 6" AVERAGE DEPTH = 85.26 CF STORAGE GIA #50 =214 SF AT 6" AVERAGE DEPTH = 107 CF STORAGE

TOTAL STORAGE CAPACITY = 2,799.93 CF THIS MEETS 25 YEAR STORM EVENT STORAGE CAPACITY REQUIREMENTS

EIRST 1/2" RAINFALL CALCULATIONS IMPERVIOUS AREA BE TO TREATED ONSITE = 34,532.37 SF

34,532.37 SF (.042 FT) = 1,450.36 CF STORMWATER

STORMWATER CALQUATIONS CONCLUSION TWENTY FIVE YEAR STORM EVENT REQUREMENTS EXCEEP FIRST ONE HALF INCH RAINFALL STORAGE REQUREMENTS. USE TWENTY FIVE YEAR STORM EVENT CALQULATIONS TO SIZE STORAGE CAPACITY.







