

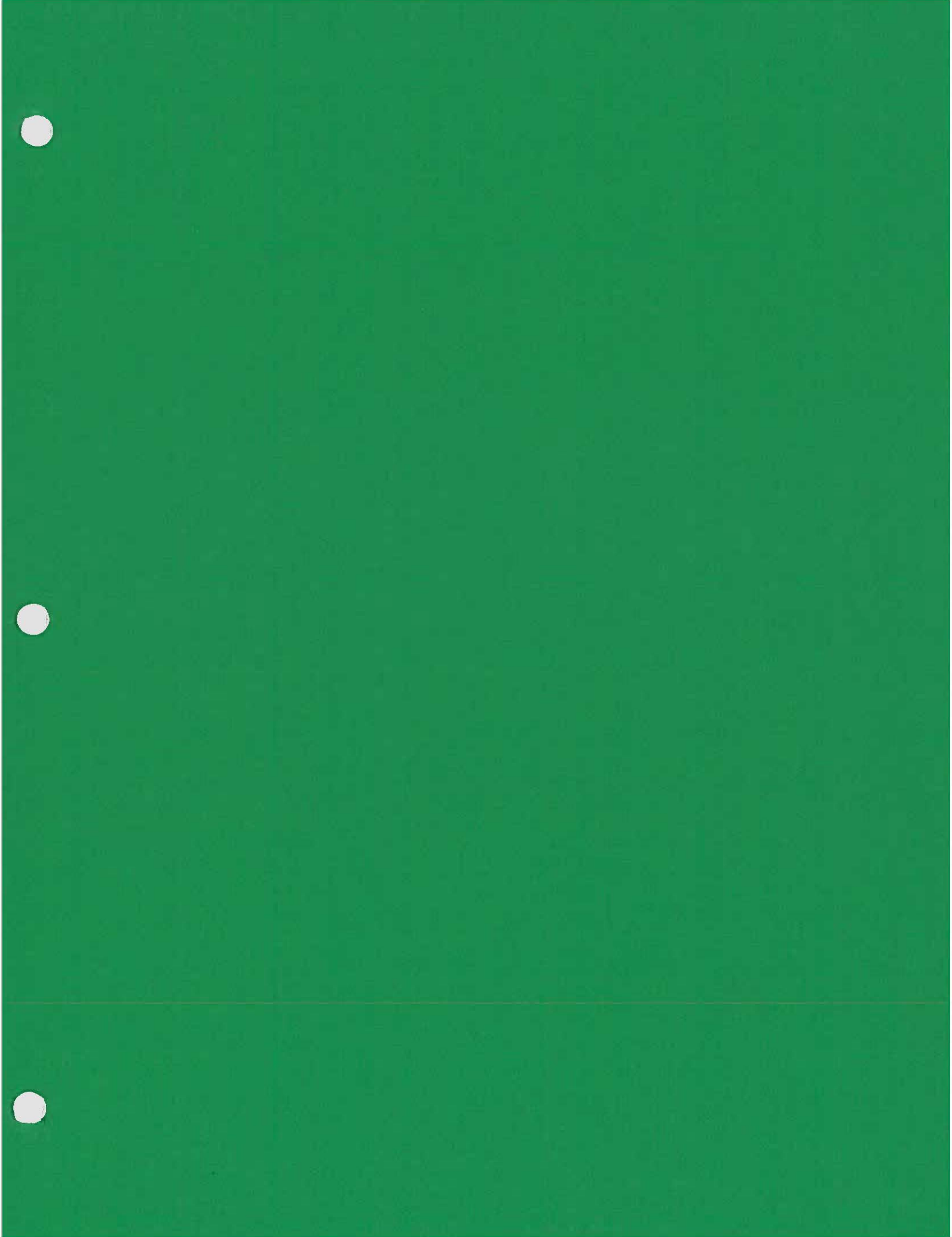
2012

CITY OF GOLD BAR

DESIGN AND CONSTRUCTION

STANDARDS AND SPECIFICATIONS

ORDINANCE #638



ORDINANCE NO. _638__

**AN ORDINANCE OF THE CITY OF GOLD BAR, WASHINGTON
AMENDING GBMC 15.04.095 IN ORDER TO UPDATE THE LIST
OF DESIGN AND CONSTRUCTION STANDARDS ADOPTED BY THE
PUBLIC WORKS DIRECTOR, INCLUDING THE ADDITION OF THE
MOST CURRENT EDITION OF THE INTERNATIONAL BUILDING
CODE, AND FIXING A TIME WHEN THE SAME SHALL BECOME EFFECTIVE.**

WHEREAS, GBMC 15.04.095 authorizes the public works director to adopt nationally and professionally recognized design and construction standards, and

WHEREAS, GBMC 15.04.095 contains a list updated periodically of the codes adopted by the public works director, and

WHEREAS, the list of standards adopted by the public works director has not been updated since 2003, and

WHEREAS, the public works director would also like to include the International Building Code, NOW, THEREFORE,

THE CITY COUNCIL OF THE CITY OF GOLD BAR, WASHINGTON, DO ORDAIN AS
FOLLOWS:

Section 1. GBMC 15.04.095(A) is hereby amended to provide as follows:

15.04.095 Construction and development standards.

- A. The public works director shall administratively adopt design and construction standards that shall apply to all new construction or reconstruction. At a minimum, the public works director shall adopt the following standards, such standards as with all standards adopted by the public works director to be construed as part of the Bold Bar Municipal Code as if set forth in full:

1. Recommended Guidelines for Subdivision Streets, published by the Institute of Traffic Engineers;
2. The most current Design Manual, published by the Ecology Stormwater Management Manual For Western Washington;
3. The most current Design Manual, published by the Washington State Department of Transportation;
4. The latest edition of Standard Specifications for Road, Bridges and Municipal Construction, published by the Washington State Department of Transportation, including the APWA Supplements thereto, which shall apply to all development within the City;
5. The latest edition of Standard Specifications for Municipal Public Works Construction, published by the American Public Works Association;
6. The most current edition of AWWA Standards, published by the American Water Works Association;
7. The most current edition of the City of Gold Bar Design, Construction and Specifications Manual;
8. The most current edition of the City of Gold Bar Cross-Connection Program;
9. The latest edition of the Manual on Uniform Traffic Control Devices;
10. The most current edition of the International Building Code, published by the International Building Code Council, Inc.

Section 2. Severability. If any section, sentence, clause or phase of this ordinance should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause or phrase of this ordinance.

Section 3. Effective Date. This ordinance or a summary thereof consisting of the title shall be published in the official newspaper of the City, and shall take effect and be in full force five (5) days after publication.

PASSED, by the City Council of the City of Gold Bar this _____ day of

_____, 2012

APPROVED:

Joe Beavers, Mayor

ATTEST/AUTHENTICATED:

Denise Beaston, Utility Clerk

APPROVED AS TO FORM:
OFFICE OF THE CITY ATTORNEY:

BY: _____
Anne Marie Soto, City Attorney

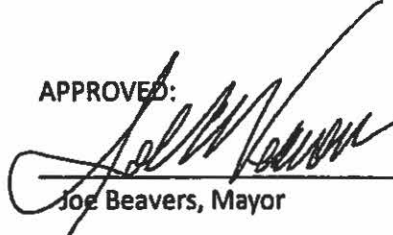
INTRODUCED: October 16, 2012
FIRST READING: November 20, 2012
SECOND READING: December 18, 2012
APPROVED: _____
PUBLISHED: _____

ORD 638

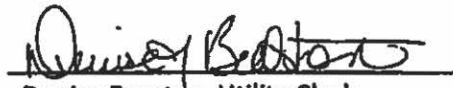
the title shall be published in the official newspaper of the City, and shall take effect and be in full force five (5) days after publication.

PASSED, by the City Council of the City of Gold Bar this 18th day of December, 2012


APPROVED:


Joe Beavers, Mayor

ATTEST/AUTHENTICATED:


Denise Beaton, Utility Clerk

APPROVED AS TO FORM:
OFFICE OF THE CITY ATTORNEY:

BY: 
Ann Marie Soto, City Attorney

INTRODUCED: October 16, 2012
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APPROVED: December 18, 2012
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**DESIGN AND CONSTRUCTION STANDARDS
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SECTION 5

WATER DISTRIBUTION

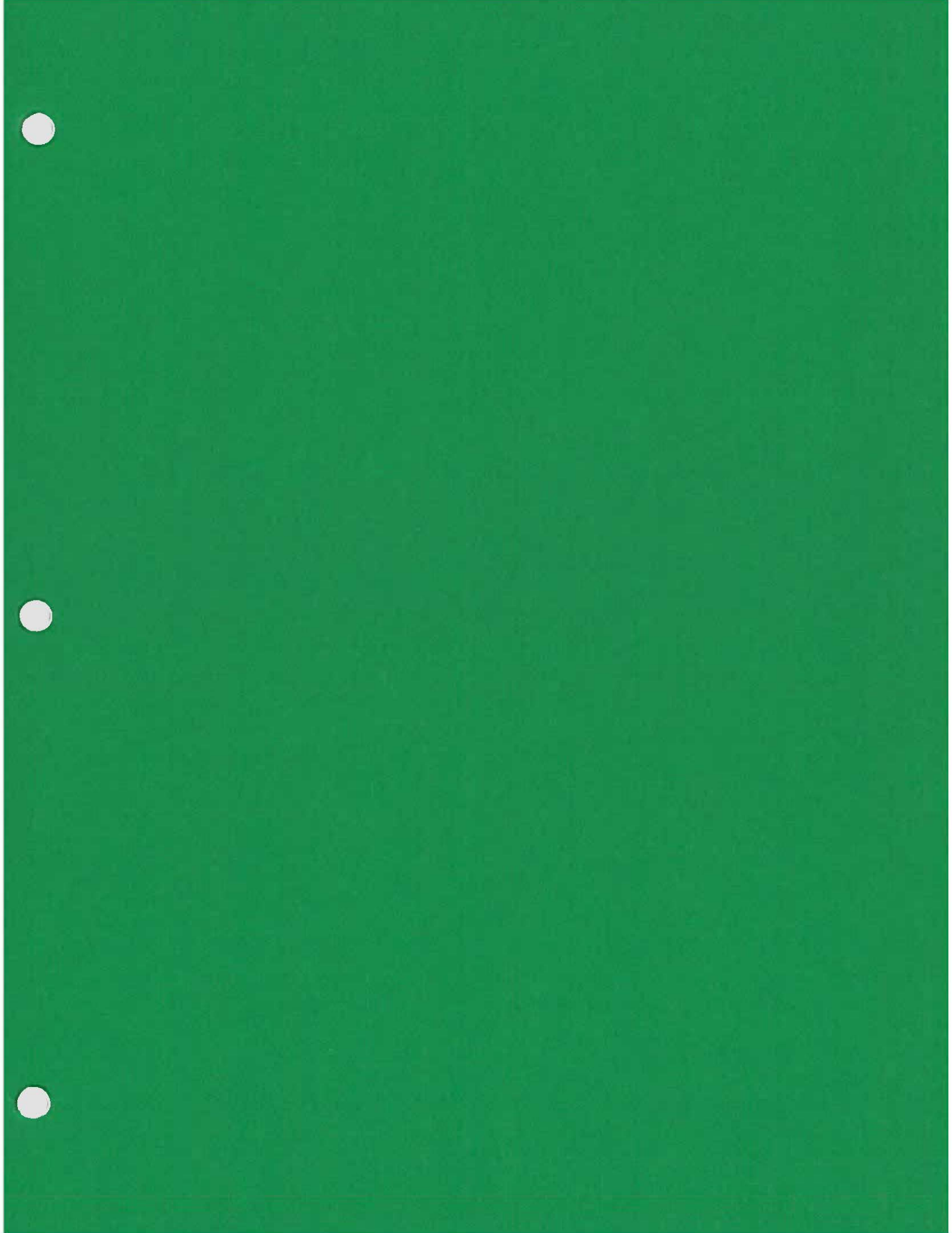
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DESIGN & CONSTRUCTION STANDARDS AND SPECIFICATIONS

SECTION 1

GENERAL CONSIDERATIONS

1-1 STANDARDS

These City of Gold Bar Design and Construction Standards and Specifications, hereinafter referred to as the "Standards", shall apply whenever any public or private work is performed within the street rights-of-way of the City of Gold Bar including work performed by private parties at their own expense under authority granted by ordinance of the City Council or permit process. Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced separately by the Washington State Department of Transportation (WSDOT) or jointly by WSDOT and the Washington State Chapter of the American Public Workers Association (APWA).

- A. WSDOT/APWA Standard Specifications for Road, Bridge and Municipal Construction, hereinafter referred to as the "WSDOT/APWA Standard Specifications".
- B. WSDOT/APWA Standard Plans for Road, Bridge and Municipal Construction, hereinafter referred to as "WSDOT/APWA Standard Plans".

When there is a conflict between two or more standards, the most stringent standard shall apply to all development and construction activities within the jurisdiction of the city.

1-2 REFERENCES

These Standards are intended to be consistent with the most currently adopted provisions of the following:

- A. Gold Bar City Codes
- B. State of Washington Shoreline Management Act
- C. State and National Environmental Policy Acts
- D. City Design Standards
- E. Uniform Building Code
- F. Uniform Electrical Code
- G. Uniform Plumbing Code
- H. Uniform Mechanical Code
- I. Uniform Fire Code
- J. WSDOT Design Manual
- K. WSDOT Traffic Manual
- L. WSDOT Utilities Manual
- M. WSDOT Construction Manual
- N. AWWA Standards
- O. Manual on Uniform Traffic Control Devices (MUTCD)
- P. Gold Bar Shoreline Master Program
- Q. Puget Sound Basin Stormwater Management Manual

1-3 AS-BUILT DRAWINGS

GENERAL CONSIDERATIONS

Prior to the acceptance of the work, the developer/contractor shall furnish the public works director one neatly and legibly marked set of reproducible mylar drawings of significant permanent items showing any and all changes in the final locations of all items of work including, but not limited to curb and gutter, storm drain lines, water lines, sewer lines, catch basins, manholes, fire hydrants, valves, new and existing utilities and all other miscellaneous items included in the work. Marking of the drawings shall represent all changes, vertical and horizontal, and be done at the time the material and equipment is installed.

As-built drawings shall be required whether for private or public construction in accordance with the following:

Private Development

- A. Plats - Final plat approval shall be withheld until after the as-builts have been submitted and approved.
- B. Commercial - Final approval and installation of water meters will be withheld until the as-builts have been submitted and approved.

Public Construction

As-built drawings shall be considered an item on the contractor's punch list. Until all items on the punch list are completed, the project will not be sent to the City Council for approval. Final acceptance will be withheld until the as-built drawings are submitted and approved.

1-4 CITY PERFORMED WORK

When work is to be performed by the city, the city will provide all the material required for the said work. The cost for the material and the work performed shall be at the developer's expense. Any requests for city work should be scheduled at least one week in advance.

1-5 CONTROL OF NOISE

Under the City's Noise Ordinance, 8.16.050, construction related noise has limitations during the hours before 7 a.m. and after 9 p.m. on weekdays, and 8 a.m. to 9 p.m. on weekends and state recognized holidays. Due to citizen concerns about construction noise in neighborhoods, and given the city's intent to limit the occurrence of public disturbance noise, construction sites will be monitored and violators are subject to fines.

Construction contractors are responsible for notifying subcontractors of the city's noise regulations.

1-6 GUARANTEES

Performance and warranty guarantees will be required for all public works improvements or work within the public right-of-way. Work to be performed by any state agency or unit of local government shall be exempt from providing guarantees based on Chapter 35A.21.250 R.C.W.

Acceptable methods of guarantees will be as follows:

- A. Bond

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- B. Cash Deposit
- C. Letter of Credit

Standard documents as approved by the city for the above items are available from the Clerk Treasurers Department.

1-6.1 PERFORMANCE

Performance guarantees for deferred improvements will be required for all improvements located in the public rights-of-way and as required by city ordinance as detailed on the approved plans and as noted in the following summary:

<u>Street/Alley</u>	<u>Drainage (private)</u>	<u>Utilities (public)</u>
125% of estimated cost; construct improvements prior to building permit issuance; for a plat construct all improvements prior to final plat approval.	For properties one acre or more with drainage abatement facilities, 125% of estimated cost.	125% of estimated cost; construct improvements prior to occupancy; for a plat construct prior to final plat approval.

The initial guarantee and subsequent extensions as approved will be limited to one year increments. If time extensions are approved, the guarantee amount shall be revised to reflect inflation and/or other cost impacts.

The developer shall provide an estimate, prepared by a licensed engineer, of the improvements based on the approved plans. The estimate shall be itemized by description, quantities and costs. The submitted data will be reviewed by public works for adequacy of quantities and comprehensiveness of estimates. The estimate shall be reviewed to reflect the city's cost to complete the improvements.

1-6.2 WARRANTY

Warranty guarantees will be required at the time of final acceptance of the public improvements and/or improvements required by city ordinance. The guarantee amount will be 25% of the documented final cost of the improvements. The warranty guarantee is required prior to release of the performance guarantee. Methods of posting warranty guarantee shall be the same as for performance guarantee and shall be for the lengths of time as listed below:

<u>Street/Alley</u>	<u>Drainage (private)</u>	<u>Utilities (public)</u>
One Year	Two Years (will be extended for 1 year if city elects to assume maintenance.)	One Year

1-7 PERMITS

A public works permit is required for all work within the public right-of-way and city utility easements, and for all sewer, water, and drainage improvements, including clearing, fill and excavation (as defined in Section 2), parking lot construction and/or paving on private property.

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The approved applicants copy of the public works permit, together with a set of plans approved by the Public Works Department shall be available on the job site whenever work is being done on any portion of the project.

Any questions regarding information about permits and the approved prices should be directed to the customer service counter located at 107 5th Street, Gold Bar (360) 793-1101.

1-8 LEGAL RELATIONS AND RESPONSIBILITIES

The contractor at all times shall comply with all Federal and State laws, local laws and ordinances, and any regulations which in any manner affect the project.

The contractor shall release, indemnify and promise to defend and hold harmless the city, its officers, employees and agents from and against any and all liability, loss, damage, expense, actions and claims, including costs and reasonable attorneys fees incurred by the city in defense thereof, asserting or arising directly or indirectly on account of any violation of laws, ordinances or regulations whether such violations are by the contractor, his subcontractors, his employees, or his agents.

1-9 MODIFICATIONS OF STANDARDS

Modifications from these Standards may be granted by the public works director upon evidence that such modifications are in the public interest, that they are based upon sound engineering judgment, and that requirements for safety, function, appearance, and maintainability are fully met. Desired modifications must be approved prior to construction.

1-10 PLAN REVIEW

The Public Works Department has established basic standards for improvement plans so plan checking can be processed efficiently. See each section for specific requirements over and above the following standards. Plans must meet these standards before they will be accepted. Requirements for plans will be divided into two general categories.

- A. Minor Projects: Work not requiring public right-of-way improvements. For example, small site projects such as a new house or duplex, garage addition, house addition or remodel.
- B. Major Projects: Work involving street improvements, drainage, water and sewer improvements. Plans for major projects must be drawn by a registered civil engineer licensed by the State of Washington.

1-10.1 FORMAT AND REQUIRED DATA

- A. All public works plans for street improvements and utility systems shall be prepared in a mylar plan/profile format either with sheets printed in half plan and half profile or with separate sheets for plan view and profile views. Sheets shall be standard size 36"X24"
- B. Plans shall be prepared with all utilities, connections, extensions, both new and existing, shown in plan/profile detail. For example, on the sanitary sewer sets, the water and storm drains shall be shown with the sanitary sewer portions being heavily highlighted. Other utilities are also to be shown in plan/profile views where connections/crossings occur.

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- C. Whenever possible, use notes detailing and specifying city standard numbers for common items such as catch basins, restrictors, fire hydrant assemblies, water meters, etc.
- D. Show the existing channelization of all streets that front the proposed development. Show all curb cuts on both the adjacent properties and the properties across the streets that front on the proposed development.
- E. Show complete data for curb radii, utility locations (new and existing), curb elevations, street stationing, street widths, existing adjacent improvements, elevations of existing street improvements, and utilities, etc.
- F. All elevations and grades on public works plans shall be to the 1988 N.A.V.D. (North American Vertical Datum).
- G. A summary of quantities for all work within the public right-of-way or in easements granted to the city shall be listed on the title sheet or on the first sheet of all plans or sets of plans. The following list can be used as a guideline for the items to be listed but is to be supplemented as necessary for a particular project:

1. Asphalt Concrete Pavement (Roadway)	S.Y.
2. Cement Concrete Pavement (Roadway)	S.Y.
3. Asphalt Concrete Pavement (Alley)	S.Y.
4. Cement Concrete Pavement (Alley)	S.Y.
5. Cement Concrete Curb & Gutter-Type "A-1"	L.F.
6. Cement Concrete Sidewalk	S.F.
7. Cement Concrete Driveway Approaches	S.F.
8. Ductile Iron Water Main (Size)	L.F.
9. Gate Valves (Size)	EA.
10. Butterfly Valves (Size)	EA.
11. Concrete or PVC Sewer Main (Size)	L.F.
12. Concrete or PVC Side Sewer (Size)	L.F.
13. Sewer Manholes (Type)	EA.
14. Concrete or PVC Storm Drain Pipe (Size)	L.F.
15. Catch Basins (Type)	EA.
16. Traffic Regulatory Signs (Type)	EA.
17. Street Name Signs	EA.
18. Fire Hydrant Assemblies	EA.
19. Water Main Blow-Offs	EA.
20. Water Services	EA.

- H. A "Driveway Schedule" which lists all of the driveways, both residential and commercial, being constructed and shall include the following information pertaining to each driveway, in tabular form:
 - 1. Location of driveway
 - 2. Surface type
 - 3. Width
 - 4. Profile grade (may require separate sketch)
 - 5. Length

1-10.2 REQUIRED DRAWINGS

The following plans for public works improvements and utilities shall be prepared:

- A. Erosion Control & Grading Plan.
- B. Street Improvements.*
- C. Storm Drain or Drainage Plan (Drainage & Street Plans may be combined together).*
- D. Sanitary Sewer Plan.*

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- E. Water System Plan.*
- F. Landscaping Plan.
- G. Parking Plan

* A separate cross section plan sheet is required for all new street construction and utility installation.

For most minor projects, all the above required sheets may be condensed into one plan sheet. If an extension or either a sewer main, water main, or storm drain main is required, a separate sheet will be required for that work.

1-10.3 SCALE OF DRAWINGS

All plans are to be drawn utilizing an engineer's scale.

The acceptable scale for public works improvement plans shall be 1"=50' for plan view (horizontal) and 1"=5' for profile view (vertical.)

1-10.4 SIZE OF DRAWINGS

- A. Minor Projects: Plans must be drawn or printed on paper that is relatively heavy, such as blueprint quality or standard drafting paper. Plans drawn on tissue paper, poster board or cardboard will not be accepted. The minimum acceptable size is to be 8-1/2"x14", with the maximum acceptable size being 24"x36".
- B. Major Projects: Plans must be 24"X36" in size with mylars.

1-11 PROTECTION OF PROPERTY AND UTILITIES

1-11.1 PROPERTY

The contractor shall protect and preserve from damage, interference and destruction all private and public property on or in the vicinity of the work. If such property is damaged or destroyed or its use interfered with by the contractor or his agents, it shall be restored immediately to its former condition by the contractor at his expense and such interference terminated. The use of adjacent or alternate property requires written permission from the property owner.

1-11.2 UTILITIES

The contractor shall protect from damage private and public utilities, including telephone and telegraph lines, power lines, sewer and water lines, railroad tracks and appurtenances, highway lighting and signal systems, and similar facilities. Before beginning any excavation, the contractor shall provide notice of commencement to all owners of underground facilities through the one number locator service, phone number 1-800-424-5555, if available; if not the contractor shall give notice to all individual utility owners. Such notice shall not be less than 2 nor more than 10 business days before the scheduled date of excavation.

1-12 SITE MAINTENANCE

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The developer and contractor shall schedule and control the work so as to prevent all hazards to public safety, health and welfare.

Streets shall be kept free of dirt and debris on a continuous basis.

Pedestrian facilities shall be kept free of obstruction, and continuity shall be maintained at all times unless otherwise approved by the Public Works Department.

On existing streets, two way traffic shall be maintained at all times unless detour plans have been approved in advance by the public works director.

Pedestrian and vehicular access to occupied buildings shall be maintained at all times except where approval from the building owner and public works department has been obtained.

1-13 TRAFFIC CONTROL

1-13.1 GENERAL

Traffic control for all projects shall comply with Chapter 6 of MUTCD. The contractor shall be responsible to furnish and maintain all required labor and materials as needed to the satisfaction of the public works director.

The contractor shall conduct his or her operations as to offer the least possible obstruction and inconvenience to the public, and the contractor shall have under construction no greater length or amount of work than can be prosecuted properly with regard to the rights of the public. The contractor shall not open up sections of the work and leave them unfinished, but he shall finish the work as he goes insofar as practicable.

Unless otherwise approved in writing by the public works director, all public traffic shall be permitted to pass through the work with as little inconvenience and delay as possible. The contractor shall keep existing roads and streets adjacent to or within the limits of the project open to and maintained in a good and safe condition for traffic at all times. The contractor shall remove any deposits or debris and shall repair any damage resulting from his operations. Construction shall be conducted so as to cause as little inconvenience as possible to abutting property owners. Convenient access to driveways, houses and buildings along the line of work shall be maintained. Alternate access utilizing private property requires written approval by the property owner. It shall be the responsibility of the contractor to obtain the access approval.

1-13.2 DETOURS AND ROAD CLOSURES

Approval must be received from the public works director for all detours and road closures. A formal traffic control plan complying with the MUTCD manual shall be submitted to public works for review and approval by the traffic engineer prior to any work proceeding.

The contractor shall be responsible in notifying all affected parties of detours and road closures. Notification shall include police, fire, post office, public transit, school / transportation and public works.

Roadways shall be posted of at least 48 hours prior to the time of closures.

1-13.3 FLAGGERS, BARRICADES AND SIGNS

Flagger(s), barricades, signs shall conform to the Standards established in the latest edition of the "Manual on Uniform Traffic Control Devices" (MUTCD). Should the contractor deviate from these Standard Plans, he or

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she should prepare a signing plan showing the necessary construction signing, barricades and flagger(s) required for the project and submit the plan(s) to the public works for approval by the public works director in advance of the time the signing and barricades will be required. All equipment and materials required for traffic control shall be furnished, installed and maintained by the contractor to the satisfaction of the public works director.

1-14 CONTROL AND INSPECTION

1-14.1 GENERAL

Work performed in construction or improvements within the city, whether by a private developer, a city contractor or city forces, shall be done in accordance with the approved plans and specifications and to the satisfaction of the public works director.

No work may be started until such plans are approved. Any revision to such plans shall be approved by the public works director prior to performing the work.

The public works director will have authority to enforce these Standards as well as other referenced or pertinent specifications and will appoint project engineers, assistants and inspectors as necessary to inspect the work for compliance.

1-14.2 MATERIALS SAMPLING & TESTING

1-14.2(1) DEVELOPMENTS

It shall be the responsibility of the developer to provide test reports certified by a professional engineer licensed in the State of Washington to verify compliance of materials used in the project. Sampling and/or testing shall be at a frequency and magnitude determined by the public works director or designated representative. Copies of all test reports shall be furnished to the public works director. All costs incurred for testing or sampling, as required, shall be the responsibility of the developer.

1-14.2(2) CITY FORCES & CITY CONTRACTORS

Construction work performed by city forces and city contractors shall be inspected by city inspectors. Sampling and testing shall be performed by city inspectors or by a professional laboratory unless otherwise specified in the contract document.

1-14.2(3) NOTIFICATION OF INSPECTION

The developer shall notify the city of inspection needs in a timely manner. In general, a minimum of 24 hours advance notice will be required. Failure to notify in time may oblige the city to arrange appropriate sampling and testing after-the-fact, with certification by a qualified private testing laboratory. Costs of such testing and certification shall be borne by the developer.

1-15 ASBESTOS CONTROL

GENERAL CONSIDERATIONS

Asbestos containing material (ACM) may be encountered during a construction project in the form of asbestos cement pipe, pipe insulation, or as insulation in a structure that is being demolished. It can be found in pipe for water and sewer mains, electrical conduits, drainage pipe, and vent pipes, etc. Normal breakage and crushing of the material can cause an asbestos fiber release which presents a serious respiratory hazard. It is imperative that asbestos fiber release be controlled. Citations, by regulatory agencies, for an asbestos fiber release carry substantial fines.

Only employees certified by the State of Washington as a Certified Asbestos Worker may work on ACM during construction, demolition, repair, maintenance, renovation, salvage, or disposal of ACM.

The contractor shall have all asbestos removed from the site and property disposed of by a State licensed asbestos contractor in accordance with the practices specified by the State of Washington Department of Ecology, the Snohomish County Solid Waste Division and all other pertinent State and Federal Regulations. See WAC 296-62-077.

1-16 LANDSCAPING

The development of landscaping and erosion control is to conform to the basic concepts and principles set forth in the City of Gold Bar Zoning Code. Landscaping shall be required on all projects to provide visual orientation for traffic safety; to create physical delineation of parking areas and to furnish definition and scale of the entire complex by interval plantings and to insure the preservation of land values by creating an environmental quality which compliments the objectives of the respective land uses in any zone. A copy of the Zoning Code is available for review at Gold Bar City Hall, 416 Orchard Ave..

1-17 FENCING

All fences permanently or temporarily installed upon public and/or private property shall comply with these standards, the Uniform Building Code, and GBMC 15.06 (Fence Regulations). See STD No. 335 and STD No. 336 for vision and setback requirements.

DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS

SECTION 2

SMALL PARCEL EROSION, SEDIMENT CONTROL AND LAND ALTERATIONS

2-1 GENERAL

This section of the Standards covers erosion and sediment control for small parcels, where land alteration activities will disturb less than one acre of land. Projects which will disturb one acre of land or more must refer to the Puget Sound Basin Stormwater Management Manual for large parcel erosion and sediment control requirements.

Land alteration activities are those activities which are commonly referred to as clearing (the act of vegetation removal from the land surface, often referred to as land clearing); grubbing (the act of root vegetation removal from beneath the surface of the earth, usually in conjunction with clearing); excavation (the mechanical removal of earth material); filling (deposition of earth material placed by artificial means); grading (excavation of filling or combination thereof); and stockpiling (temporary deposition of earth material placed by artificial means).

2-1.1 PERMIT REQUIREMENTS

Land alteration activities which exceed the exempt limits set forth in following table shall be required to obtain a Clearing/Grading Permit from the City of Gold Bar prior to construction activities;

<u>Activity</u>	<u>Maximum Exempt Limits</u>
Clearing/Grubbing *	2,500 square feet *
Excavation/Grading **	12 inches of depth **
Filling/Stockpiling **	50 cubic yards **
Tree Removal	6 trees over 6" in diameter

* Note: All land alteration activities adjacent to a sensitive area are subject to a permit.

** Note: Excavation and/or stockpiling of soils related to septic soil & site review such as percolation test pits are exempt from a grading/clearing permit, but may require SEPA review based upon threshold exempt levels.

2-2 SMALL PARCEL EROSION AND SEDIMENT CONTROL

2-2.1 SMALL PARCEL EROSION AND SEDIMENT CONTROL PLANS (SPESCP)

SMALL PARCEL EROSION, SEDIMENT CONTROL AND LAND ALTERATIONS

A SPESCP illustrates the Best Management Practices (BMPs) and strategies for controlling erosion and sediment on a small parcel during construction. The applicant developing a small parcel shall submit two copies of a site improvement and drainage plan on 8 1/2" by 14" paper showing the following:

- Name, address, and phone number of owner or contact person.
- North arrow, lot number and plat, address, date, and street name fronting structure.
- Footprint of all proposed structures, any existing structures on the site, location and quantities of fill material to be used and type of material.
- Location of any environmentally sensitive areas (as identified in the City of Gold Bar's Sensitive Areas Ordinance) on or immediately adjacent to the site, including streams, wetlands, steep slopes, and their required buffers.
- Arrows or topographical contours showing the slope of the site.
- Methods to convey runoff away from the proposed structures and construction activity.
- Proposed location and erosion protection of excavated basement soil stockpiles (if applicable).
- Methods to stabilize disturbed areas of the site and to protect adjacent properties and/or streets from sediment and stormwater runoff (these methods may include plastic covering, mulching, seeding, planting, sodding, vegetative buffer strips, vegetative and/or bark mulch berms, sediment barriers or filter fences, and dikes).
- A construction vehicle access (limited to one route, whenever possible) using 2"-4" rock applied to the driveway area, with truck traffic restricted to this one route.
- A proposal for maintenance or reconstruction of the vehicle access.
- A note calling for periodic street cleaning to remove any sediment tracked off the site.
- A note calling for routine inspection and maintenance of all installed erosion and sediment control BMPs, especially after storms.
- A note indicating that bare and/or disturbed soils shall remain uncovered and/or unstabilized for no more than 2 days from October 1 through April 30, and for no more than 7 days from May 1 through September 30.

2-2.2 SMALL PARCEL BMPs

2-2.2(1) BMP ES.10 Planned Clearing and Grading

Clearing and grading of the site should be planned properly. It is important to clear only the areas needed, thus keeping exposed areas to a minimum. Clearing should be phased so that only those areas that are actively being worked are uncovered. Clearing limits shall be flagged in the lot or area prior to the initiation of clearing.

Sensitive and/or critical areas shall be clearly delineated and marked prior to any clearing or grading activities being conducted.

SMALL PARCEL EROSION, SEDIMENT CONTROL AND LAND ALTERATIONS

2-2.2(2) BMP ES.20 Excavated Basement Soil

Excavated basement soil should be located a reasonable distance behind the curb, right-of-way, easements, adjacent property, or utility structures. This practice will prevent erosion from infiltrating into utilities or adjacent property. Soil piles shall be covered until the soil is either used or removed. Piles shall be situated and/or protected so that sediment does not erode into the street or adjoining yards.

2-2.2(3) BMP ES.30 Backfilling

Basement walls should be backfilled as soon as possible and the lot rough graded. This practice will eliminate large soil mounds which are highly erodible and prepares the lot for temporary cover, which will further reduce erosion potential.

2-2.2(4) BMP ES.40 Removal of Excess Soil

Excess soil should be removed from the site as soon as possible after backfilling. This practice will eliminate any sediment loss from surplus fill.

2-2.2(5) BMP ES.50 Management of Soil Banks

If a lot has a soil bank higher than the curb, the bank should be located several feet behind the curb and a shallow trench should be excavated between the bank and the curb. This practice will help prevent any eroded sediment from entering the street.

2-2.2(6) BMP ES.60 Construction Road Access

2" to 4" rock shall be applied to the driveway area and vehicle traffic restricted to this one route. Driveway paving can be installed directly over the gravel. This measure will help prevent soil from adhering to tires and stop soil from washing into the street. This construction access requires periodic inspection and maintenance including washing, top-dressing with additional stone, reworking and compaction.

2-2.2(7) BMP ES.70 Soil Stabilization

Soil stabilization measures protect soil from the erosive forces of raindrop impact and flowing water. Acceptable measures include establishing vegetation by sodding or seeding, mulching with two tons of straw per acre or approved equal, plastic or other impervious covering staked to the ground or anchored with rocks or sandbags, and the early application of gravel base on areas to be paved. Horizontal tracking is a successful method when used in conjunction with one of the above measures.

SMALL PARCEL EROSION, SEDIMENT CONTROL AND LAND ALTERATIONS

2-2.2(8) BMP ES.80 Street Cleaning

Periodic street cleaning shall be provided to remove any sediment that may have been tracked out. Sediment should be removed by shoveling or sweeping and carefully removed to a suitable disposal area where it will not be re-eroded.

2-3 GENERAL

Types of Land Alteration: Land alteration activities are those activities which are commonly referred to as clearing (the act of vegetation removal from the land surface, often referred to as land clearing); grubbing (the act of root vegetation removal from beneath the surface of the earth, usually in conjunction with clearing); excavation (the mechanical removal of earth material, including test pits); filling (disposition of earth material placed by artificial means); grading (excavation or filling or combination thereof) and stockpiling (temporary disposition of earth material placed by artificial means).

All land alteration activities within the City of Gold Bar shall conform to the requirements of the Gold Bar City Codes, Sensitive Areas Ordinance, Puget Sound Basin Stormwater Management Manual, City of Gold Bar Shorelines Master Program, State and Federal guidelines and these standards.

The Public Works Director shall determine whether or not erosion and sedimentation control measures are to be constructed and operational prior to initiation of clearing and grubbing operations. Conditions to be used in making this determination will include but not be limited to time of year, topography, erosion potential, proximity to sensitive areas, seasonal conditions, etc. Erosion and sedimentation control materials must be available on-site at all times and must be able to be installed immediately upon notification from the City.

Clearing permits will not be issued for projects that are in SEPA review.

2-4 EROSION/SEDIMENTATION CONTROL REQUIREMENTS

2-4.1 GUIDELINES

For sites not located in a critical drainage area, but are areas that are highly susceptible to erosion, adequate erosion control during clearing and grading operations can normally be obtained by providing a temporary siltation/sedimentation pond with interceptor ditches and reseeded the disturbed soils. Such areas are identified as: steep slopes or bare slopes, potential slides, flood plains, stream banks, waterways and areas adjacent to waterways, silt bars, wetlands, bogs, marches, poorly drained areas and which are

SMALL PARCEL EROSION, SEDIMENT CONTROL AND LAND ALTERATIONS

less than one acre in size. After clearing and grading operations are completed and the storm drainage system installed, the sedimentation pond and interceptor ditches may be abandoned provided sediment traps are provided around all storm drain inlets and there is not a possibility of sediment laden water crossing property lines.

For sites not located in critical drainage area, but larger than one acre, erosion control requirements may also include sedimentation ponds, check dams, filter fabric fence, jute matting or plastic sheeting, and a temporary construction entrance.

Developments located on steep slopes (25% or greater) shall require, in addition to the normal requirements for a comparably sized development on a slope less than 25%, the following: gradient terraces, immediate hydroseeding and mulching, phasing of construction so as to minimize the amount of exposed soils at any given time and seasonal limitation restrictions. See Section 2-2.3 for additional requirements. Depending upon soil and slope conditions, the proximity to a waterway and the size of the site, additional requirements may include flexible down drains, filter fabric fences, jute matting or other approved means to secure seed and mulch in place, temporary level spreaders and stabilized channels to convey off-site runoff through or around site.

Development adjacent to waterways shall require, in addition to the normal requirements for a comparable sized development not adjacent to a waterway: a vegetative buffer between the waterway and the development and seasonal limitation restrictions. See Section 2-2.3 for additional requirements. Any work within the waterway will require a hydraulics permit from the Department of Fisheries and/or Game. The city may make additional requirements, including but not limited to temporary bypass culverts or channels.

The exact combination of required erosion control measures will be clarified during the SEPA review process.

The following table generally summarizes erosion control requirements:

	<u>Small Sites</u>	<u>Large Sites</u>	<u>Steep Slopes</u>	<u>Adj. to Waterway</u>	<u>In Waterway</u>
Silt Fence	*	*	*	*	*
Sedimentation Pond	*	*	*	*	*
Interceptor Swale	*	*	*	*	*
Check Dam		*	*	*	*
Gradient Terrace			*		
Catch Basin Sock	*	*			

See Section 2-4.2 for details on the above requirements

2-4.2 METHODS OF CONTROL

SMALL PARCEL EROSION, SEDIMENT CONTROL AND LAND ALTERATIONS

The types of controls as noted in this section and the related Standard Plans for Erosion and Sedimentation Facilities are a minimum requirement and, in certain conditions, may require much more extensive facilities. Erosion control facilities shall be periodically inspected and maintained by the developer or contractor to ensure continued intended operation.

2-4.2(1) CHECK DAMS AND BERMS

Check dams and/or berms shall be incorporated into erosion control facilities as required.

Straw bales (staked in place) may be used as energy dissipating drop structures, flow direction control structures and/or dams to create ponding. See Standard Plan No. 203 or 206.

Rock berms can be used for all uses stated for straw bales and may be used as filtering devices. Earth berms may be used to control flow direction and prevent silt-laden water from discharging into adjacent properties and/or the public rights-of-way.

2-4.2(2) CUT-OFF TRENCHES

Cut-off trenches are recommended to dissipate drainage into the natural on-site vegetation.

2-4.2(3) FILTERING DEVICES

Filtering devices, such as filter fabric fences, shall be used to filter runoff prior to discharge from site. See Standard Plan Nos. 205A and 205B. Approved filter fabrics are Celanese fiber, polyvinyl chloride woven cloth, reinforced chlorosulfonated polyethylene cloth, chlorinated polyethylene woven cloth, such as Mirafi 100X, Tyvar 3401, Stablenka 100, or approved equal. Catch basin socks shall be installed on all existing or new catch basins during all construction.

2-4.2(4) FLEXIBLE DOWN DRAINS

Flexible down drains may be utilized as temporary structures to protect open slopes and shall be constructed of flared end sections connected by plastic sheet tubing, heavy duty fabric, or non-perforated corrugated plastic pipe. See Standard Plan No. 209. Appropriate sediment control devices shall be utilized at all down drain outlets.

2-4.2(5) GRADIENT TERRACE

SMALL PARCEL EROSION, SEDIMENT CONTROL AND LAND ALTERATIONS

A gradient terrace is an earth embankment or ridge designed so that the top of the constructed ridge is lower at any point than the design elevation of the water surface at the outlet under design flow and is installed so as to intercept surface runoff and convey it to a stable outlet at a non-erosive velocity. Gradient terraces may be useful both as a temporary and/or a permanent erosion control measure. See Standard Plan No. 210A.

2-4.2(6) INTERCEPTOR DITCHES

Interceptor ditches are constructed to channel water away from unprotected slopes or erodible soils, or convey silt laden water to sedimentation facilities.

If the location of the ditch may result in erosion of the ditch itself, stabilization of the ditch may be required. Rip rap, temporary sodding, or a combination of filter fabric and rip rap are methods of ditch stabilization that may be required to prevent erosion. See Standard Plan No. 210B.

2-4.2(7) ROADWAY AND PARKING LOT CONSTRUCTION CONTROL

In addition to those erosion control methods above, the additional erosion control measures below may be necessary to protect the installed storm drainage system and/or downstream systems and shall be utilized in such combination as is necessary to achieve the requirements of these Standards. Erosion control facilities shall be periodically inspected and maintenance performed in order to ensure their proper functioning.

2-4.2(7)(A) SEDIMENT TRAPS

Sediment traps are structures of limited capacity designed to create a temporary siltation pond filter around storm drain inlets or at points where silt laden stormwater is discharged. Periodic maintenance by the contractor or developer is crucial to the proper functioning of sediment traps. Examples of typical sediment trap installations are found in Standard Plan Nos. 211, 212 and 213. Placement of filter fabric under the grate of a catch basin is not an acceptable method of inlet protection.

2-4.2(7)(B) INTERCEPTOR DIKES

Interceptor dikes are temporary berms of compacted soil or gravel constructed across disturbed construction areas. Interceptor dikes shall be designed and constructed so as to reduce erosion by intercepting stormwater and diverting it to stabilized outlets such as siltation/sedimentation ponds or areas of well established vegetation.

2-4.2(8) TEMPORARY CONSTRUCTION ENTRANCE

SMALL PARCEL EROSION, SEDIMENT CONTROL AND LAND ALTERATIONS

A temporary construction entrance is a rock stabilized temporary entrance pad and shall be constructed at points where traffic will be entering or leaving a construction site from or onto public right-of-way. The pad shall be of sufficient length and width to eliminate transportation of mud and sediment from the construction area onto the public right-of-way by motor vehicles or by runoff, but under no circumstance shall it be less wide than the ingress/egress at the right-of-way nor less than 50 feet long. The stabilized construction entrance shall be a minimum thickness of 8 inches and constructed of material approved by the public works director, such as 4"X8" quarry rock. The entrance shall be maintained to the satisfaction of the public works inspector. See Standard Plan No. 208. When site conditions are such that the temporary entrance pad fails to perform as required, all vehicles exiting the site shall have their tires and wheels cleaned by sweeping, brushing, or washing prior to entering public right-of-way. All washing shall be done on an area draining to an approved erosion control facility. The contractor is responsible to ensure proper working conditions of the temporary construction entrance.

2-4.2(9) TEMPORARY SOIL STABILIZATION MEASURES

Soil stabilization measures protect soil from the erosive forces of raindrop impact and flowing water. Acceptable measures include establishing vegetation by sodding or seeding, mulching with 2 tons of straw per acre or approved equal, plastic or other impervious covering staked to the ground or anchored with rocks or sandbags, and the early application of gravel base on areas to be paved.

The most appropriate measure should be chosen given the time of the year and the site conditions. Seeding alone is acceptable only on flat areas and slopes less than 25%, and only during the periods from March 1 to May 15 and August 15 to October 1 or as otherwise required or approved. Mulch may need to be held in place by utility mesh or netting.

2-4.2(10) TEMPORARY SILTATION/SEDIMENTATION PONDS

Temporary siltation/sedimentation ponds shall be required of all land alteration operations in order to detain runoff waters and trap sediment from erodible areas thus protecting properties, drainage ways and streams below the installation from damage by excessive sedimentation and debris disposition. The dam or barrier forming the pond shall be located to provide for maximum volume capacity for trapping sediment behind the structure as well as for greatest ease of clean out. The temporary pond requirement may be waived, at the discretion of the city engineer, for small areas of land disturbance where potential damage is minimal and pond construction impractical as long as runoff from all such areas is filtered prior to discharge from the site.

Temporary siltation/sedimentation ponds are basins created by construction of a barrier or by excavation or by a combination of both.

Interior surfaces of the sedimentation pond shall be stabilized where required to prevent erosion of the pond bottom and/or sides.

SMALL PARCEL EROSION, SEDIMENT CONTROL AND LAND ALTERATIONS

Interior sides of the pond shall be no steeper than 3 feet horizontal to 1 foot vertical.

Siltation/sedimentation ponds shall provide a minimum of 2 feet of dead storage below the outflow elevation and will be sized to provide a minimum of 1 cubic foot of live storage per 100 square feet of channel area.

A stabilized access will be provided to the siltation/sedimentation pond for sediment removal and other maintenance.

2-4.3 SEASONAL LIMITATIONS

Land alteration operations are restricted to seasonal limitations. The restrictions are site specific and are based on, but not limited to, steepness of slopes on site, distance from sediment/erosion sensitive areas, soil type, etc. Contact the city's public works director for site specific seasonal limitations.

In addition, these operations shall be governed by the following seasonal limitations:

- A. No fill material shall be placed, spread, or rolled while either the fill material or the site surface is frozen or thawing, or during other unfavorable conditions.
- B. All land alteration work is subject to stoppage by the Public Works Director or his designee due to heavy rain.
- C. When land alteration activities are interrupted by heavy rain, operations shall not be resumed until the Public Works Department determines that erosion control facilities are operating satisfactorily.
- D. Underground utilities and foundation installation are allowed with seasonal limitations under the following conditions:
 - 1. All trenches shall be covered or filled by the end of the day.
 - 2. If unavoidable circumstances result in the inability to close a trench, all open areas and side spoils are covered with plastic sheeting that is staked in place and anchored by rocks, sand bags, tires, or by other approved methods at the end of the day.
 - 3. Discharge from de-watering of utility trenches or foundation areas is directed to the nearest sedimentation pond, or to a specially created sump area, in a non-erosive fashion. Large quantities of silt in the discharge water may result in the de-watering activity being stopped by the city inspector until the source of the sediment is identified and attempts made to minimize the quantity in the discharge.
 - 4. Utility corridors are re-stabilized by temporary soil stabilization measure immediately following the completion of utility work or if earth is to be left exposed for 7 days or more on flat ground or 3 days or more on slopes greater than 25%.
 - 5. Water is prevented from entering foundation work areas from surface runoff by creating small compacted earth berms around the perimeter of the building site to divert runoff away from the working area. The berms shall be covered to prevent erosion.

SMALL PARCEL EROSION, SEDIMENT CONTROL AND LAND ALTERATIONS

- E. In general, removal of existing vegetation within the buffer zone of any wetland or perennial stream will not be allowed. If allowed, disturbed area shall be revegetated within 7 days of completion of project or 30 days from beginning work within the stream area, whichever results in restoration of the area within the shortest time frame.
- F. Permits from agencies other than the city may be required for work within or adjacent to environmentally sensitive areas. It is the responsibility of those ordering such work to ensure that all required permits are secured prior to beginning operations and to see that all regulations are complied with during operations.

2-4.4 TEMPORARY EROSION/SEDIMENT CONTROL PLANS

A temporary erosion/sedimentation plan is required for the following land alteration activities:

- A. Disturbances to areas greater than 2,500 square feet.
- B. On slopes 25% or greater.
- C. Where cut and/or fill slopes 25% or greater will be created by the proposed work.
- D. Where work done may impact on environmentally sensitive areas (stream, wetland, etc.).

The plan shall clearly indicate the construction sequence for establishment of all erosion control work both temporary and permanent and shall be on a separate sheet.

Emergency management plans are to be submitted for all clearing and grading permit applications. To include at a minimum:

- A. Name, address, and 24 hour telephone number(s) for the person(s) responsible for regular observation and repair or replacement of all erosion and sedimentation control measure.
- B. Schedule for regular inspection, maintenance and replacement of erosion and sedimentation control measures.
- C. Location and inventory of materials required to be stockpiled on the site for emergency repair of the approved erosion and sedimentation control system.
- D. Contingency plans in case of failure of the erosion and sedimentation control system, including how individual erosion control measures would be accessed during undesirable site conditions.

2-4.4(1) REQUIRED NOTES ON PLANS

The following are the minimum notes required on all Temporary Erosion/Sedimentation Control Plans:

- A. The temporary erosion control system shall be installed and inspected by the Public Works Inspector prior to all other construction.
- B. Where possible natural vegetation will be maintained for silt control.

SMALL PARCEL EROSION, SEDIMENT CONTROL AND LAND ALTERATIONS

- C. As construction progresses and seasonal conditions dictate, the erosion control facilities shall be maintained and/or altered as required by the Public Work Director to ensure continuing erosion/sedimentation control.
- D. Temporary siltation ponds and all temporary siltation controls shall be maintained in a satisfactory condition until such time that clearing and/or construction is completed, permanent drainage facilities are operational, and the potential for erosion has passed.
- E. All disturbed land areas that will be left for 30 days or more during the periods of March 1 to May 15 and August 15 to October 1 shall be immediately seeded with a mix and by a method approved by the Public Works Department and maintained until seed germination is assured. In addition to seeding, slopes of 25% or greater will be mulched with 2 tons of straw per acre, or with an approved equal. During the rest of the year, temporary soil stabilization must be applied immediately to disturbed areas that will be left exposed for 7 days or more, and immediately to slopes greater than 25% that will be left exposed for 3 days or more.
- F. Approval of this plan does not constitute an approval of design, size, nor location of pipes, restrictors, or detention facilities; but is an approval of grading and sedimentation control plan only.
- G. The public right-of-way shall be kept clean. Tracking of mud and debris from the site will not be allowed. Failure to comply with this condition will result in all work on the site being stopped.

2-5 VEGETATION

2-5.1 PRESERVATION OF EXISTING VEGETATION

Preservation of existing vegetation in order to control erosion and to preserve an area's character and quality of the environment shall be considered during the Land Alteration design review process. All excavation in the proximity of trees and shrubs shall be kept outside the drip line of said trees and shrubs, unless otherwise approved by the public works director. The following vegetation must be preserved:

- A. Healthy trees over 60 feet in height, which can remain healthy in the proposed surrounding environment.
- B. The overstory, vegetation over 10 feet in height, particularly where it forms a continuous canopy.
- C. All vegetation, particularly brush from 1 to 4 feet in height, understory 4 feet to 10 feet in height and overstory within any erosion prone area. Vegetative restoration may be substituted for preservation where preservation is not practical and where such restoration can be achieved

SMALL PARCEL EROSION, SEDIMENT CONTROL AND LAND ALTERATIONS

without significant detrimental effect on the environment.

- D. Vegetation on the site perimeter, which may serve as a screen to or from adjoining property or roadways. Enhancement of such screening vegetation should also be considered.
- E. Vegetation providing shade for and protecting against silt disposition in streams and watercourses, particularly where those streams and watercourses are known to support fish life or are directly tributary to known fish streams.

2-5.2 RESTORATION

Areas disturbed by construction activity, which are not to be covered by permanent impervious surfaces shall be landscaped or reseeded at the earliest possible time, not to exceed 15 days after final grade is reached during the allowable construction period. During the rest of the year, landscaping or reseeded is required within 7 days of reaching final grade.

If wet weather prohibits reseeded or landscaping during the given period, temporary soil stabilization measures must be used until conditions are suitable for permanent measures.

When the area to be seeded is hard, compacted, or crusted, the top layer of soil shall be loosened by disking, raking, or other acceptable means before seeding.

Although the specifications for seed, fertilizer and mulch will depend upon the slope, soil conditions, and the planned use of the site, the following is an example which will usually be considered adequate:

SEED MIXTURE

The seed mixtures and rate of application shall be as follows:

<u>Seed Mix #1 (Highway Mix)</u>		<u>Seed Mix #2 (Lawn Seed Mix) (Beds & Planting Strips)</u>	
<u>Kind and Variety of Seed in Mixture</u>	<u>Percent by Weight</u>	<u>Kind and Variety of Seed in Mixture</u>	<u>Percent by Weight</u>
Colonial Bentgrass (Highlands or Astoria)	10%	Red Creeping Fescue	45%
Red Fescue (Illahee Rainier or Pennlawn)	40%	Chewings Fescue	30%
Perennial Rye	40%	Kentucky Bluegrass	15%
White Dutch Clover	10%	Highland Colonial Bentgrass	10%

SMALL PARCEL EROSION, SEDIMENT CONTROL AND LAND ALTERATIONS

The rate of application shall be 4 pounds per 1,000 square feet. No noxious weeds will be permitted. The seed mixture shall be no less than 98% pure, and shall have a minimum germination rate of 90%. All seed shall be protected to insure germination. Reseeding shall be required upon request by the Public Works Director.

FERTILIZER

Fertilizer shall be a standard commercial grade of organic or inorganic fertilizer of the kind of quality specified herein. It may be separate or in a mixture containing the percentage of total nitrogen, available phosphoric acid and water-soluble potash in the amount specified. All fertilizers shall be furnished in standard unopened containers with weight, name of plant nutrients and manufacturer's guaranteed statement of analysis clearly marked, all in accordance with State and Federal laws.

Acceptable commercial fertilizer may be supplied in one of the following forms:

- A. A dry free-flowing granular fertilizer suitable for application by agricultural fertilizer spreader.
- B. A soluble fertilizer ground to a fineness that will permit complete suspension of insoluble particles in water, suitable for application by power sprayer.
- C. Granular or pellet fertilizer, suitable for application by blower equipment.
- D. A non-volatile liquid fertilizer.

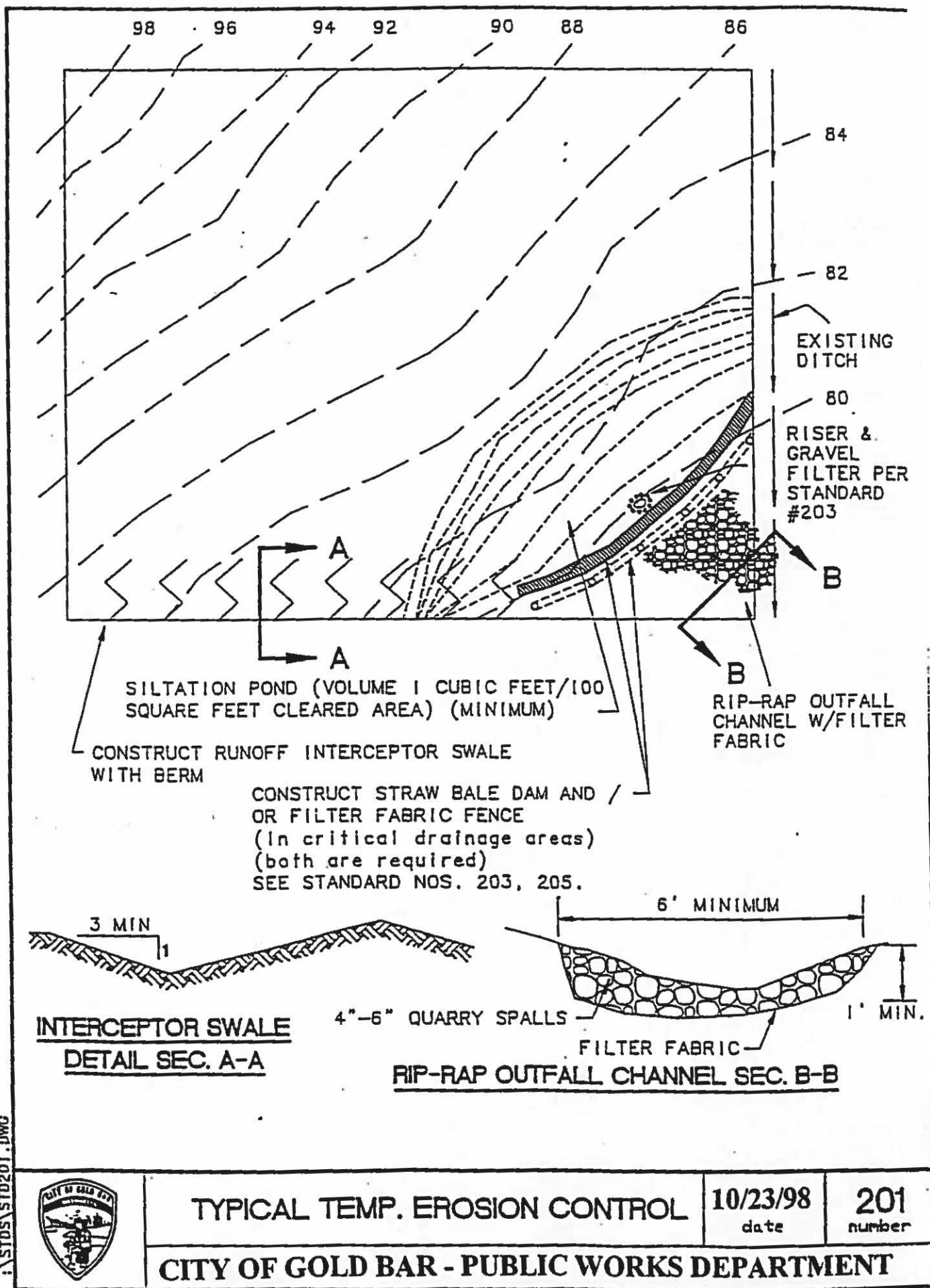
Fertilizer shall be standard commercial grade of formulation. Fifty percent of the nitrogen shall be derived from 38% ureaformaldehyde and applied at the rate of 12 pounds per 1,000 square feet.

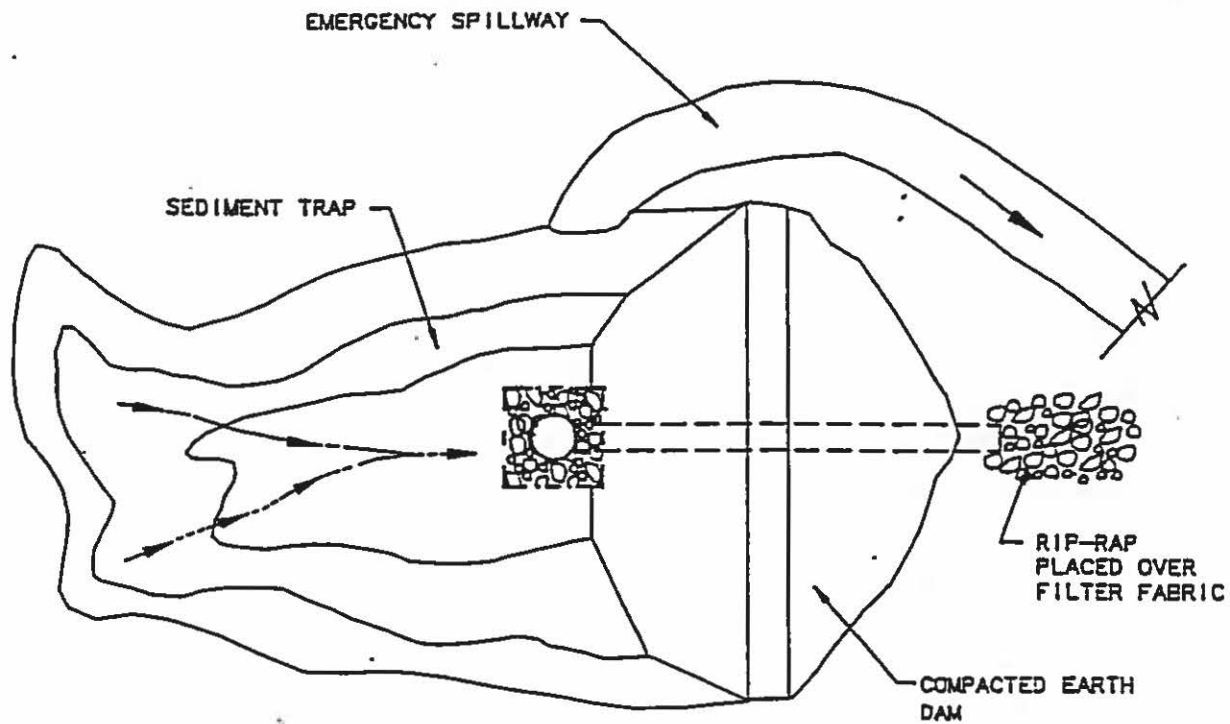
MULCH

Wood cellulose fiber mulch shall be specially processed wood fiber containing no growth or germination inhibiting factors and shall be dyed a suitable color to facilitate inspection of the placement of the material. It shall be manufactured in such a manner that after addition and agitation in slurry tanks with water, the fibers in the material will become uniformly suspended to form a homogenous slurry. When hydraulically sprayed on the ground, the material shall allow the absorption and percolation of moisture.

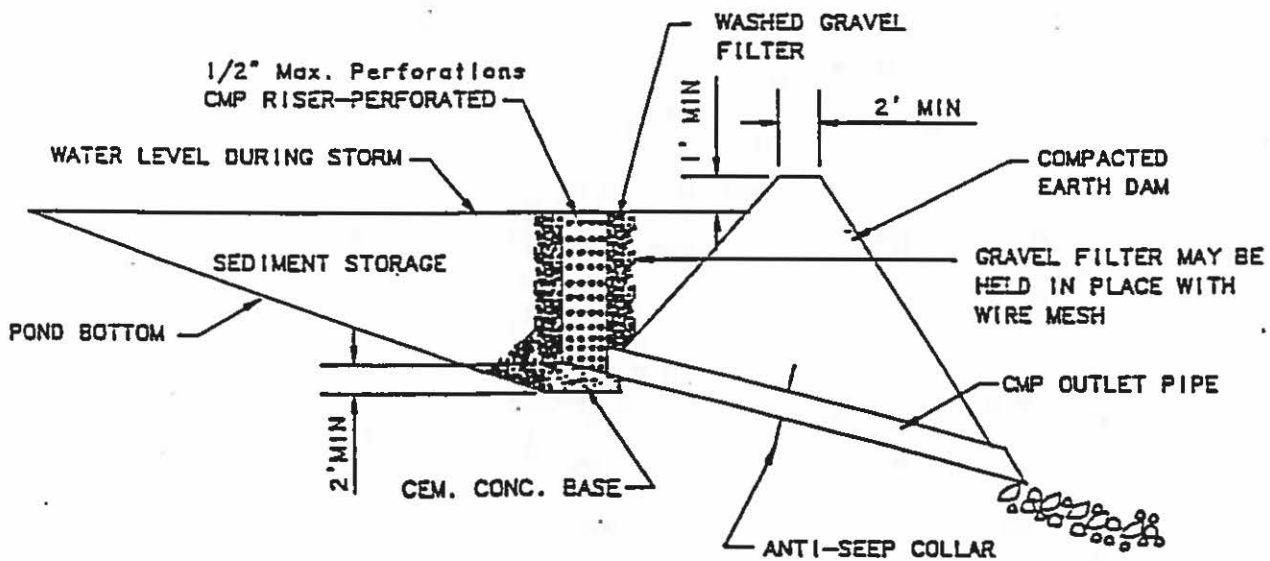
Each package of the cellulose fiber shall be marked by the manufacturer to show the air dry weight content.

Wood cellulose fiber shall be applied at the rate of 60 pounds per 1,000 square feet.





PLAN



PROFILE

NOTES:

1. LENGTH OF BASIN MUST BE AT LEAST 3 TIMES THE WIDTH.
2. ALL INLETS AT THE UPSTREAM END OF THE BASIN.

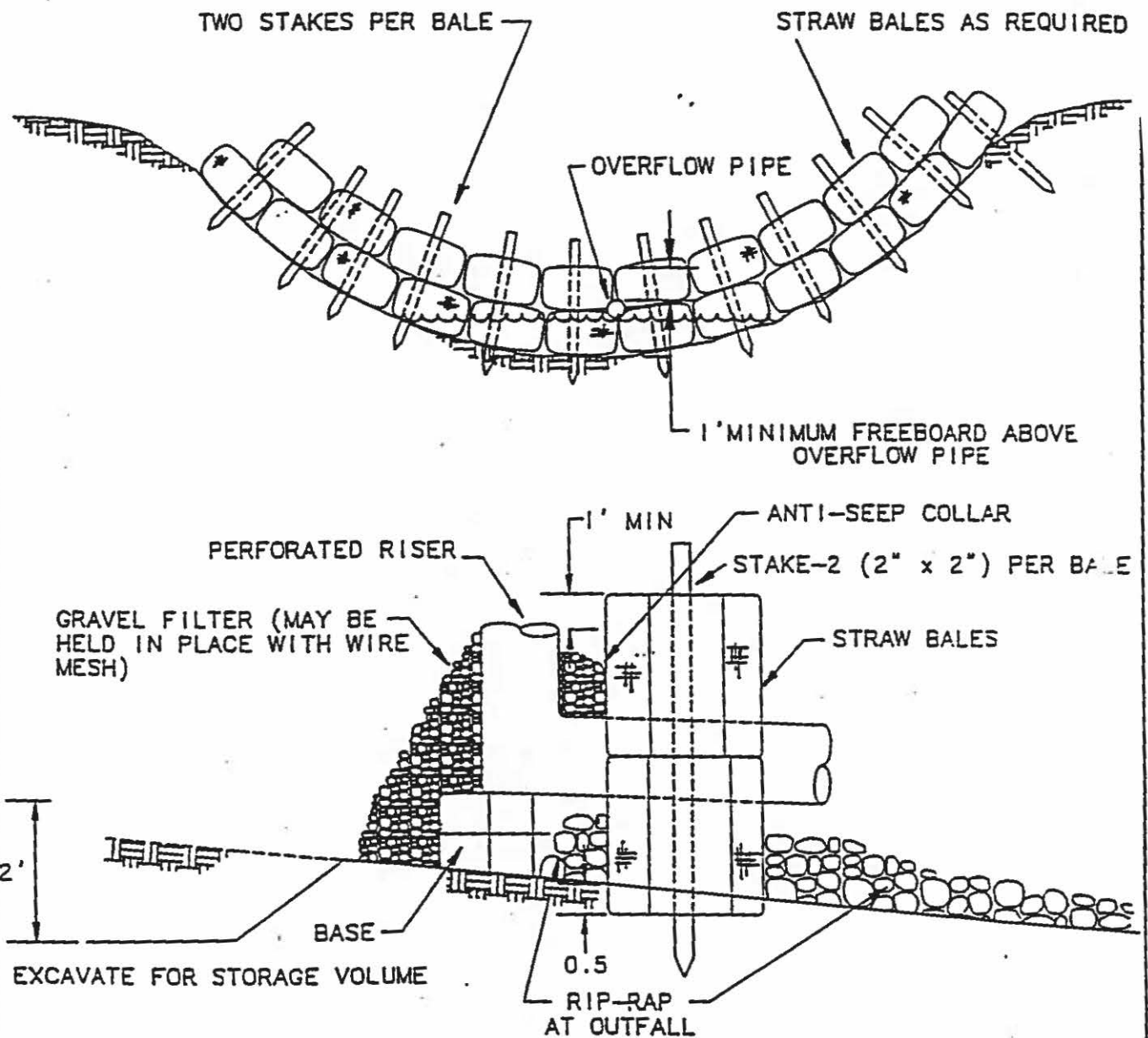


TYPICAL SEDIMENT BASIN

10/23/98
date

202
number

CITY OF GOLD BAR - PUBLIC WORKS DEPARTMENT



NOTES

1. 2 FEET OF DEAD STORAGE (FROM EXCAVATED LEVEL TO PIPE INVERT) IS REQUIRED.
2. "KEY" BALES INTO GROUND A MIN. OF 0.5'.
3. GUNNY SACKS FILLED UP WITH PEA GRAVEL MAY BE REQUIRED IN FRONT OF STRAW BALES.
4. OMIT PIPE, RISER, AND BASE WHEN USED AS DROP STRUCTURE OR CHECK DAM.

I:\STD5\STD203.DWG



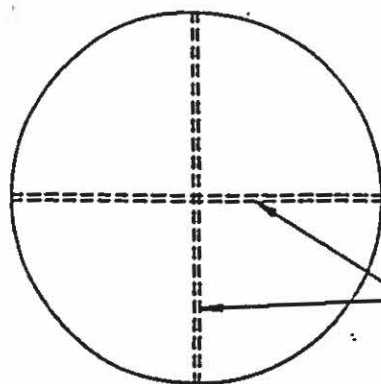
STRAW BALE DAM FOR SILTATION / SEDIMENTATION POND

10/23/98
date

203
number

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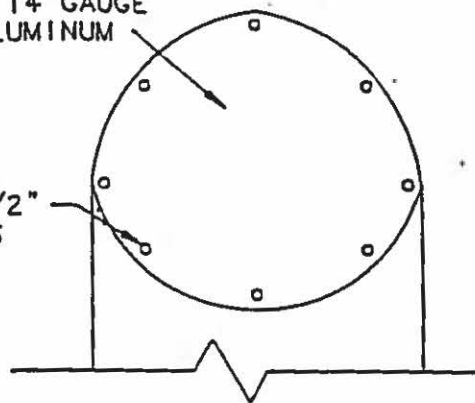
TOP STEEL PLATE OR 14 GAUGE
CORR. STEEL OR ALUMINUM



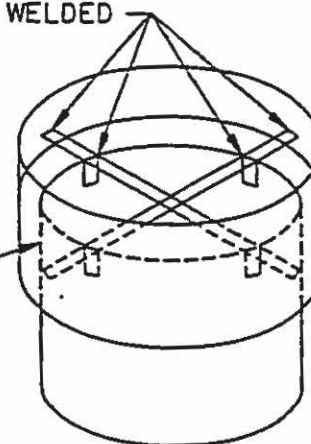
REINFORCING
BAR (#6 MIN.)

PLAN

8- 1 1/2"
HOLES



WELDED

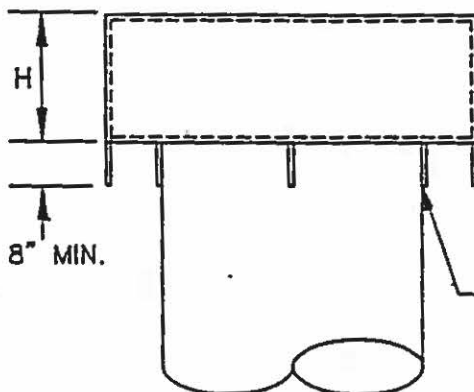


CYLINDER

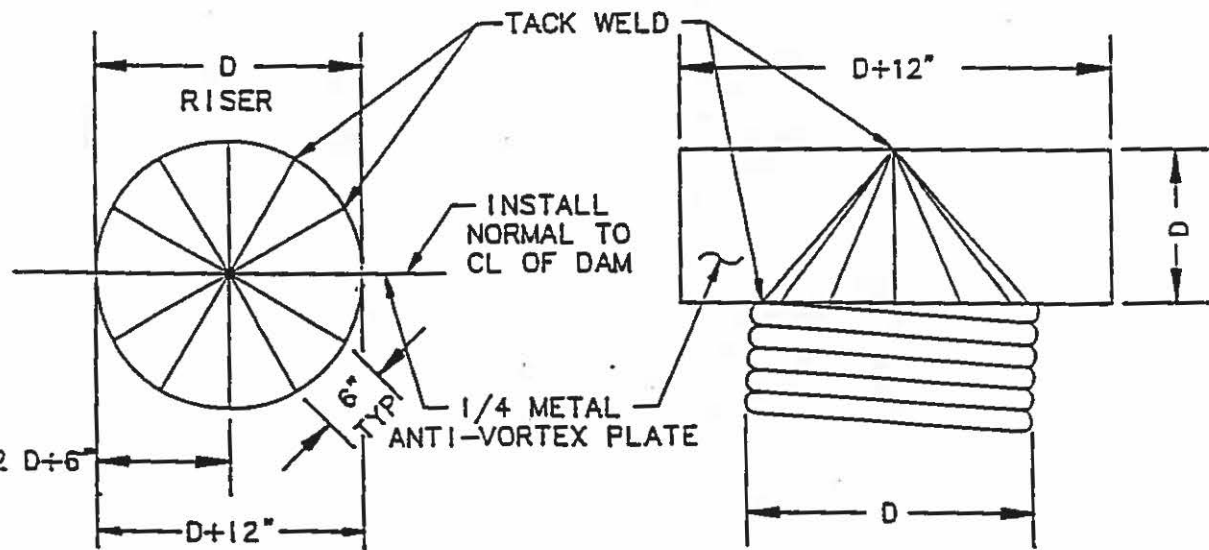
SPOT WELD
6" O.C.
ALL AROUND

CAPS TO BE WELDED
BOLTED OR BANDED

ELEVATION



8" MIN.



PLAN

SECTION

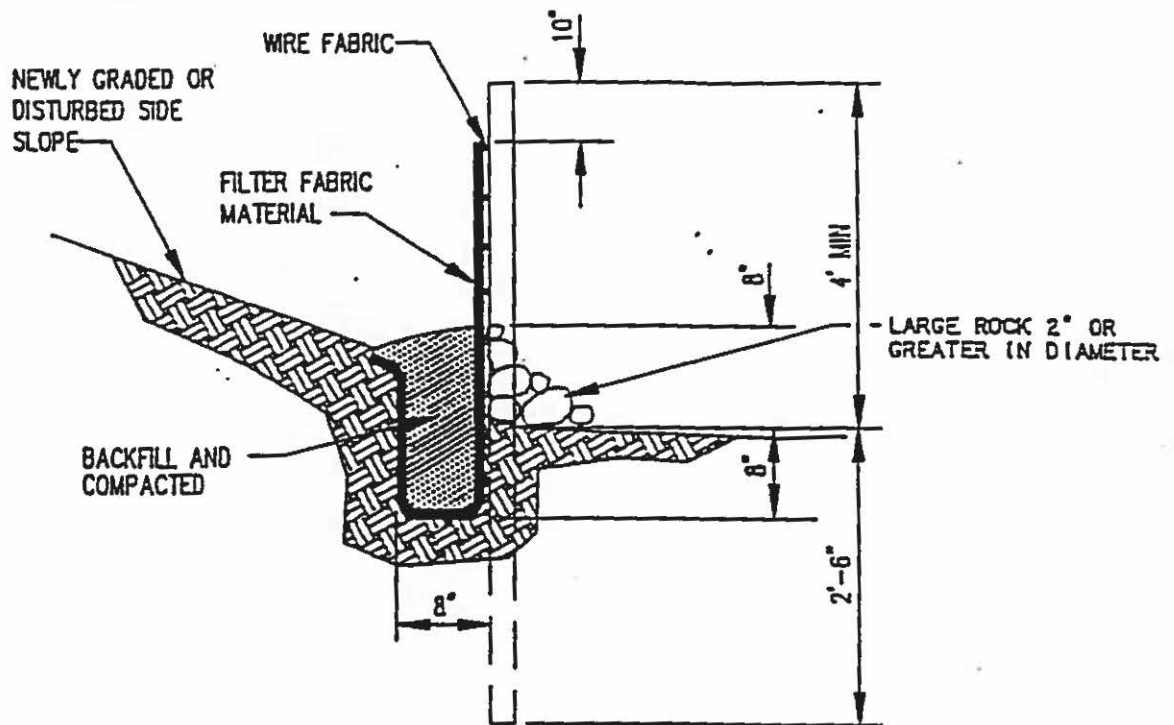


ANTI-VORTEX DEVICE

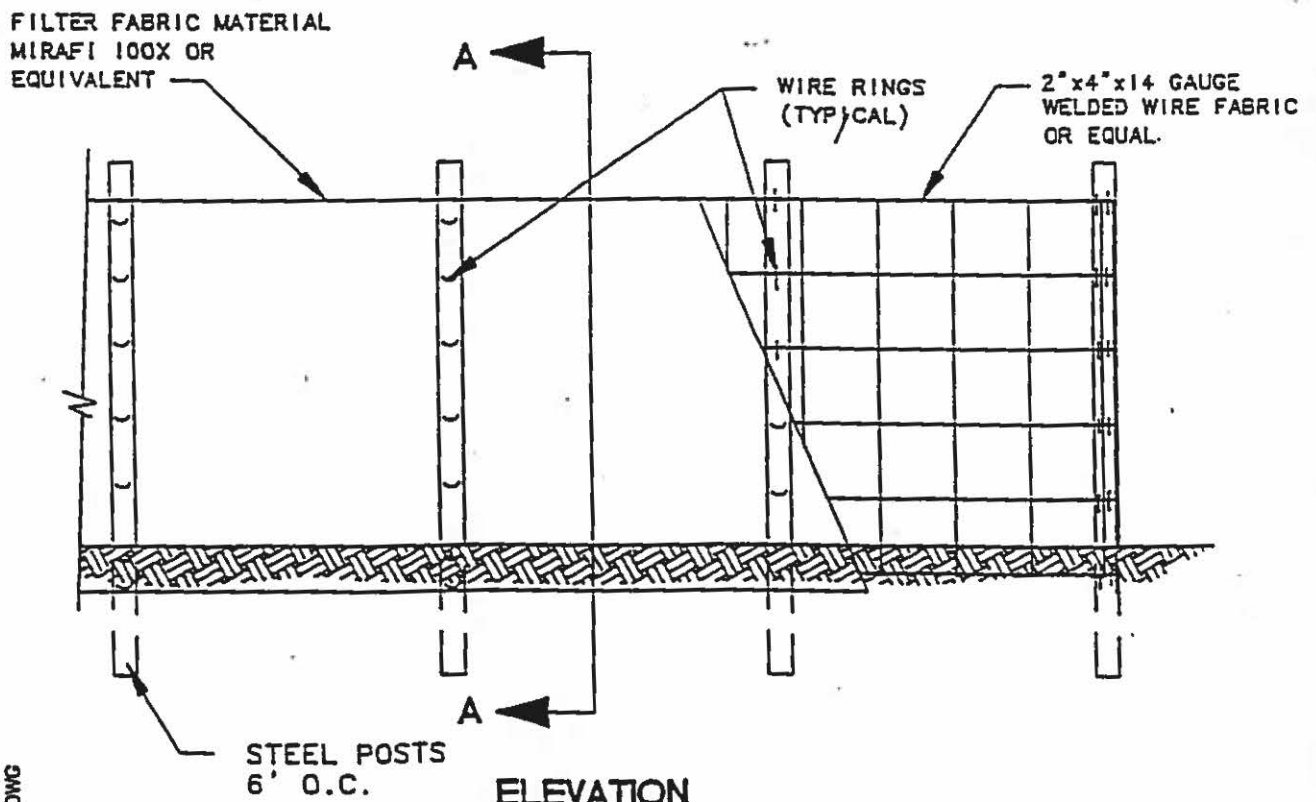
10/23/98
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204
number

CITY OF GOLD BAR - PUBLIC WORKS DEPARTMENT



SECTION A-A



205A.DWG

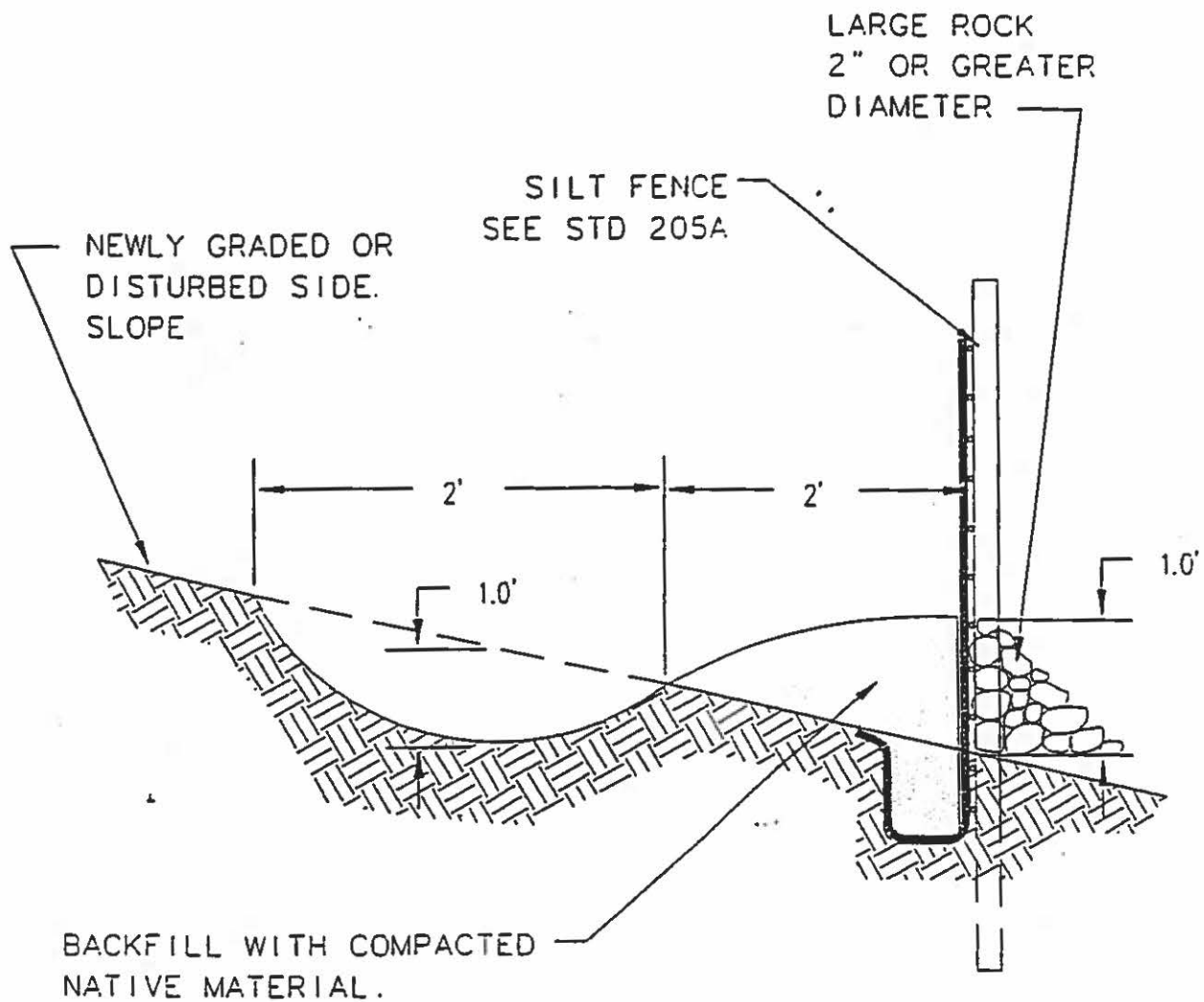


SILT FENCE

10/23/98
date

205A
number

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NOTE:

INSTALL THE SILT FENCE FIRST, PER STD #205A. AFTER THE SILT FENCE HAS BEEN INSTALLED, CONSTRUCT BERM AND TRENCH.

205B.DWG
ASIT

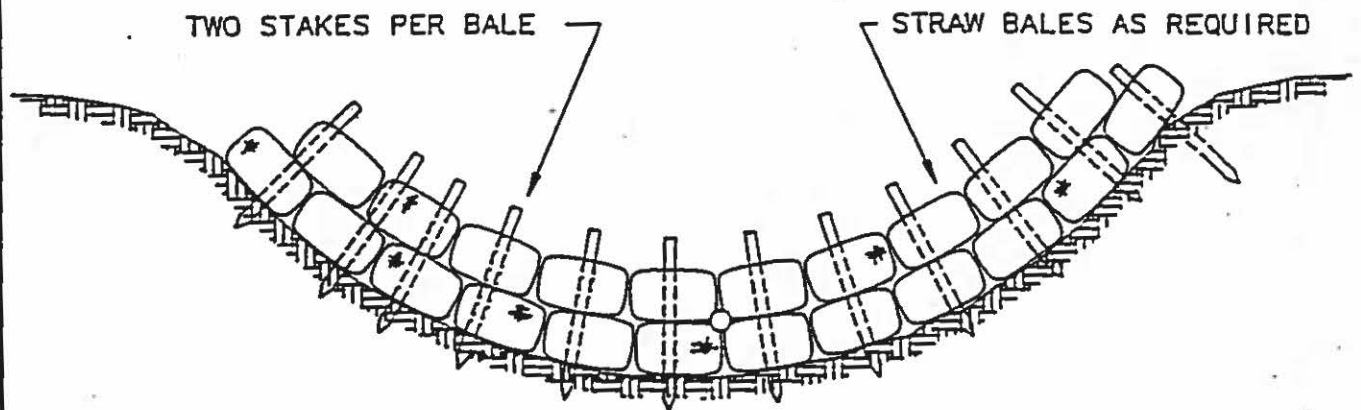


SILT FENCE WITH BERM AND TRENCH

10/23/98
date

205B
number

CITY OF GOLD BAR - PUBLIC WORKS DEPARTMENT



NOTES

1. WHERE POSSIBLE, MAINTAIN NATURAL VEGETATION FOR SILT CONTROL.
2. TEMPORARY SILTATION AND DETENTION PONDS TO BE CONSTRUCTED BY PLACING STRAW BALES OR FILTER FABRIC FENCES ACROSS SWALES OR EXCAVATION SILTATION PONDS UTILIZING FILTER SYSTEM PRIOR TO DISCHARGE. PONDS SHALL BE CONSTRUCTED SO AS TO PROVIDE ONE CUBIC FOOT OF SETTLING POND PER 100 SQUARE FEET OF CLEARED AREA TRIBUTARY TO POND.
3. ALL TEMPORARY SILTATION AND DETENTION PONDS SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED AND THE PERMANENT DRAINAGE FACILITIES ARE OPERATIONAL.
4. RETURN SILTATION CONTROL AREAS TO ORIGINAL GROUND CONDITIONS.
5. RIP-RAP BASE (BOTH SIDES) OF BALES OR OUTFALL CHANNEL FOR EROSION CONTROL, AS REQUIRED.
6. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL OF DESIGN, SIZE NOR LOCATION OF PIPES, RESTRICTORS, CHANNELS OR RETENTION FACILITIES; BUT IS AN APPROVAL OF TEMPORARY SEDIMENTATION CONTROL PLAN ONLY.

I:\STD\STD206.DWG

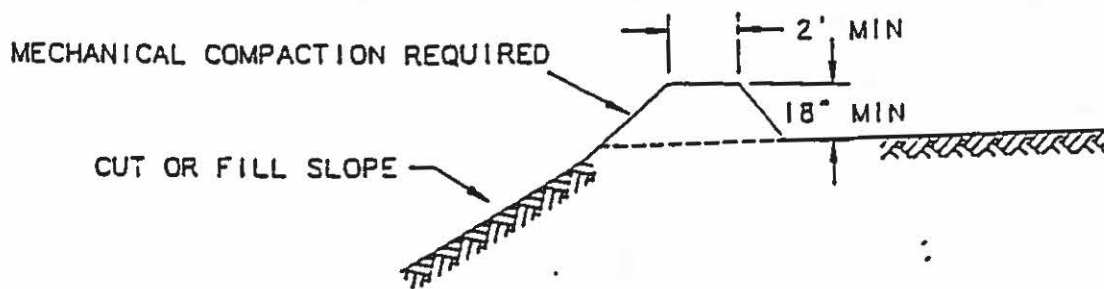


STRAW BALE DAM

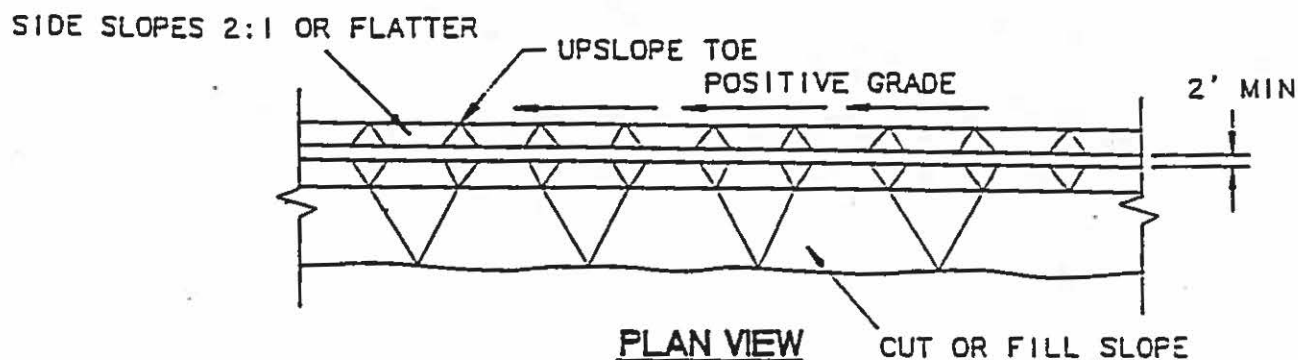
10/23/98
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206
number

CITY OF GOLD BAR - PUBLIC WORKS DEPARTMENT

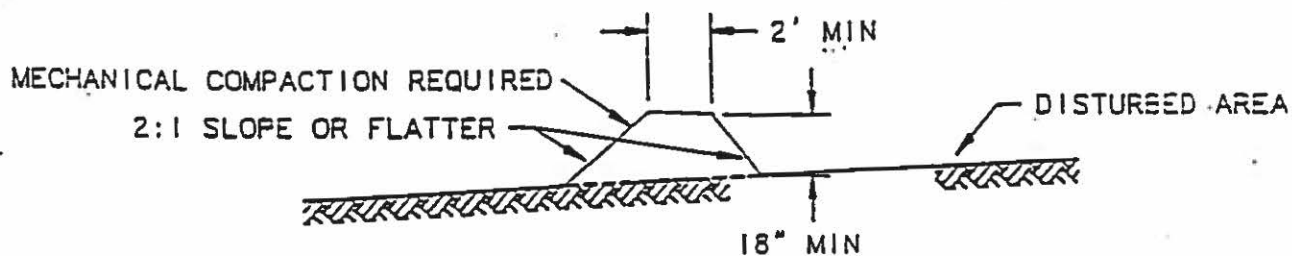


CROSS SECTION

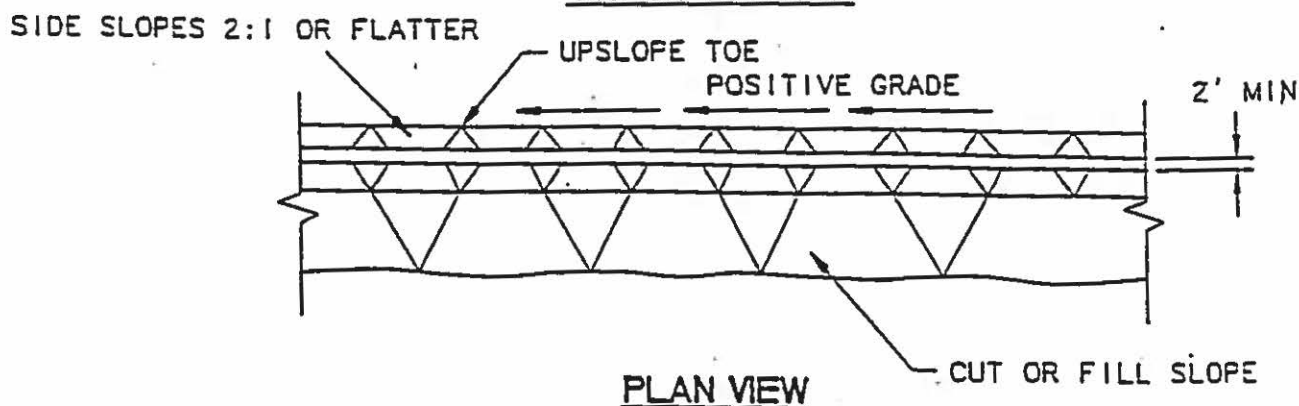


PLAN VIEW

TEMPORARY DIVERSION DIKE



CROSS SECTION



PLAN VIEW

TEMPORARY PERIMETER DIKE

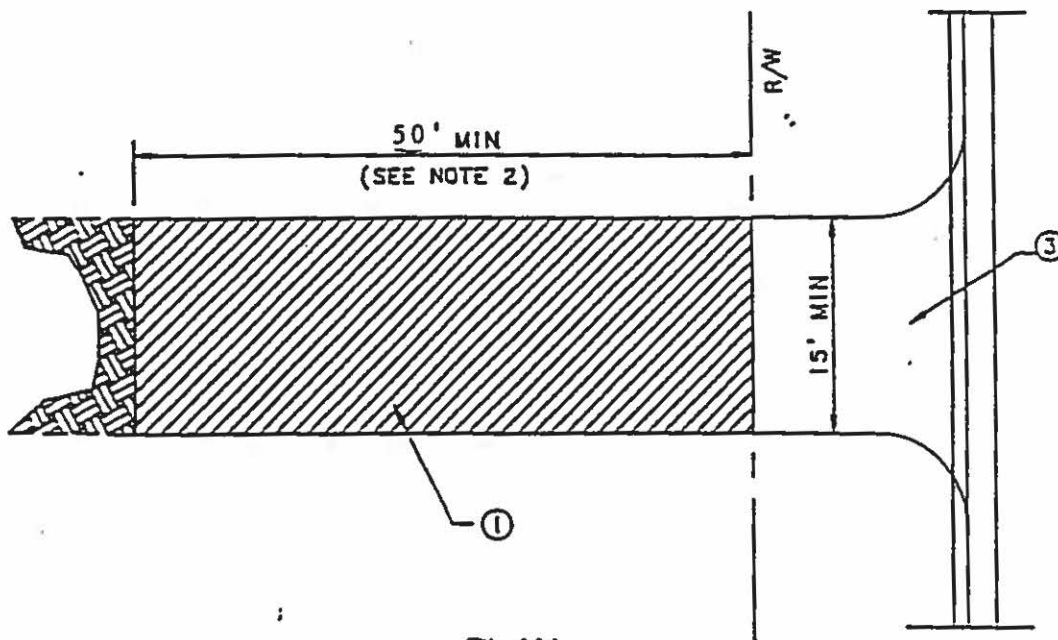


TEMPORARY DIVERSION
AND PERIMETER DIKE

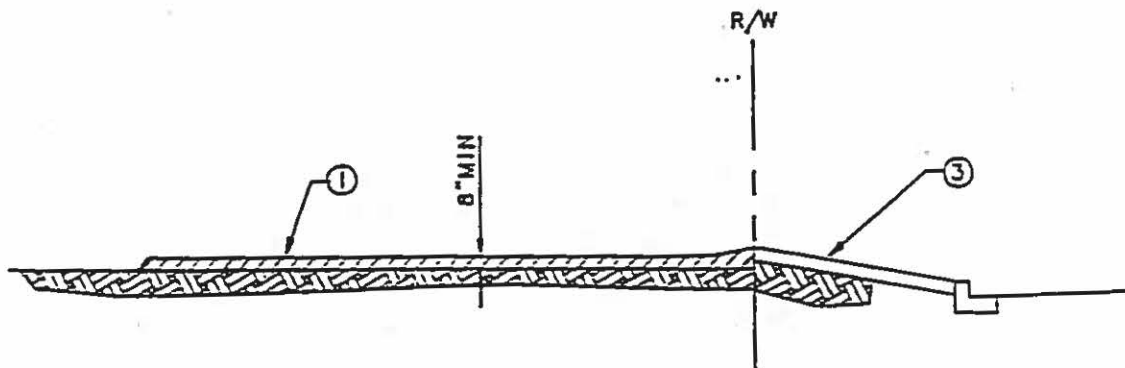
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207
number

CITY OF GOLD BAR - PUBLIC WORKS DEPARTMENT



PLAN



SECTION

NOTES:

- ① QUARRY SPALLS AS SPECIFIED IN SECTION 9-13.6 OF THE WSDOT/APWA STANDARD SPECIFICATIONS.
- ② THE 50' MINIMUM LENGTH SHALL BE LENGTHENED AS NECESSARY TO ENSURE MATERIAL IS NOT TRACKED INTO THE PUBLIC RIGHT-OF-WAY. ALTERNATE CONSTRUCTION ENTRANCES WILL BE ALLOWED WITH APPROVAL OF THE CITY ENGINEER ON A CASE BY CASE BASIS, WHERE PHYSICAL SITE CONDITIONS AND SIZE DICTATE
- ③ EXISTING DRIVEWAY RAMP, OR SITE ACCESS ROAD 15' WIDE MIN. MATERIAL MUST BE EQUAL TO OR BETTER THAN SPECIFIED IN NOTE 1.

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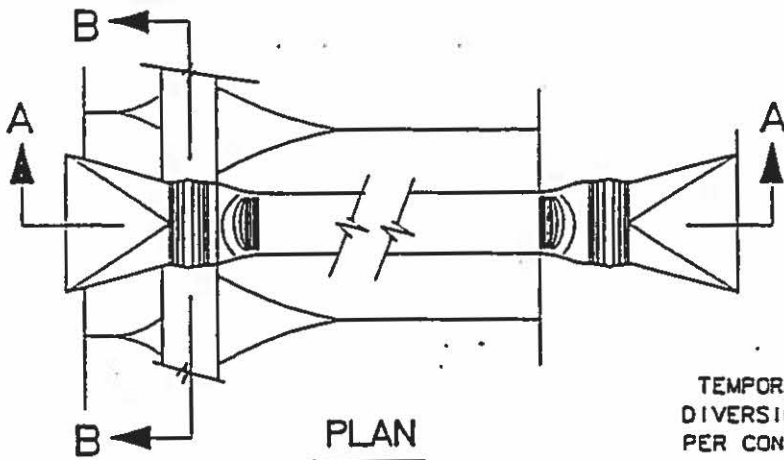


TEMPORARY CONSTRUCTION ENTRANCE

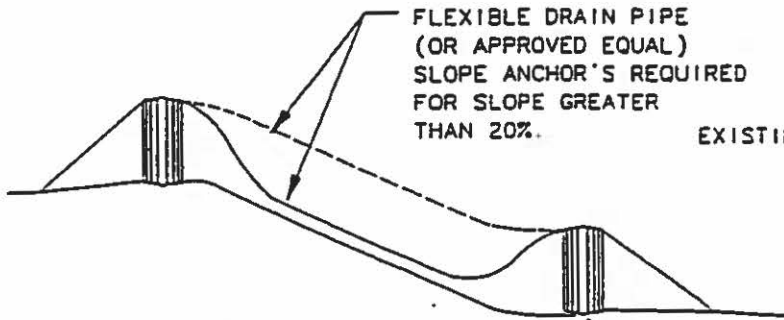
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date

208
number

CITY OF GOLD BAR - PUBLIC WORKS DEPARTMENT



PLAN

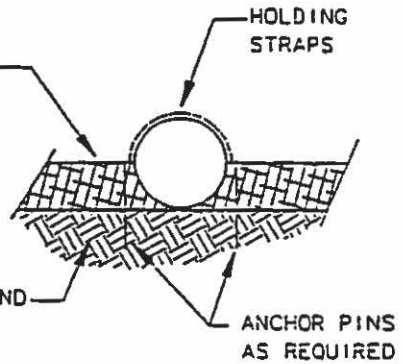


SECTION A-A

TEMPORARY DIVERSION
STRUCTURE PER PLANS

EXISTING OR
GRADED SLOPE

TEMPORARY WATER
DIVERSION SYSTEM
PER CONSTRUCTION
PLANS



SECTION B-B

STANDARD METAL OR
HIGH DENSITY POLYETHYLENE
END SECTION WITH HOLDING
STRAPS AND ANCHOR PINS
(TYP TOP AND BOTTOM)

1209.DWG



TEMPORARY DOWNDRAIN STRUCTURE

10/23/98
date

209
number

CITY OF GOLD BAR - PUBLIC WORKS DEPARTMENT