

SECTION 00650

CONSTRUCTION SITE STORM WATER POLICY

PART I – GENERAL

1.1 SUMMARY

- A. Mendocino County Ordinance No. 4313 STORM WATER RUNOFF POLLUTION PREVENTION PROCEDURE (Mendocino County Code Chapter 16.30 et.seq.) requires any person performing construction and grading work anywhere in the county shall implement appropriate Best Management Practices (BMP) to prevent the discharge of construction waste, debris, sediment or contaminants from construction materials, tools and equipment from entering the storm drainage system or natural waterways (off-site).
- B. By commencing work in this contract, the contractor agrees to comply with Mendocino County Code Section 16.30.140 Inspection and monitoring. The County may enter the worksite whenever necessary to perform inspections related to the Storm Water Runoff Pollution Prevention Procedures for the project including inspection of BMP's and records relating to storm water plan compliance.

1.2 SUBMITTALS

- A. Prior to beginning construction activities, submit construction site Best Management Practice (BMP) Plans and Specifications prepared by a Qualified Storm Water Developer (QSD) or the Contractor referencing Mendocino County Building and Planning Services Documents attached below:
 - 1. Small Construction Site Storm Water Erosion and Sediment Control Plan Template
- B. Submittal shall include a project specific BMP plan for all areas of soil disturbance and possible contamination source generated by the project. Attach copies of the relevant current BMP fact sheets from the California Storm Water BMP Handbook Portal planned to address each potential source of contamination generated by the project.
- C. A County approved BMP plan is required prior to beginning work on the project.

Part 2 – PRODUCTS

2.1 MATERIALS

- A. Provide Materials in Compliance with Approve BMP fact sheets in appropriate quantities to mitigate possible runoff, sedimentation and/or contamination in accordance with the approved BMP plan.

Part 3 – EXECUTION

3.1 PREPARATION

- A. Prepare BMP schedule to identify dates when BMP's will be installed.

- B. Ensure that BMP Materials are on site in the event of an untimely rain event and prior to October 15th.
- C. Identify and mark Storm Drain Inlets and drainage features leading to storm drains or natural waterways.
- D. Identify and provide instruction and training to on site personnel responsible for installation and management of BMP's.

3.2 INSTALLATION

- A. Complete BMP installation Prior to October 1st or prior to ground disturbance activities between October 1st and April 15th, and call the project manager for an inspection of the installed BMP plan. Do not start grading activities without BMP's in place.
- B. Comply with installation guidelines included with BMP fact sheets and suitable to site conditions.
- C. Remove Contamination and Sediment BMP's after sources of sedimentation, or contamination have been removed from the site or final soil stabilization is complete. Do not remove Erosion Control BMP's until permanent Erosion Control features are established unless directed by the County.

3.3 INSPECTION

- A. It is the responsibility of the Contractor to provide regular inspection of BMP's throughout the rainy season. Maintain and replace all BMP's in accordance with the approved BMP plan.
- B. Prior to significant rain events, inspect installed BMP's to ensure all potential sources of contamination, sedimentation or erosion are protected by approved BMP's.
- C. During significant rain events verify that installed BMP's are adequate to the flows on the project site.
- D. Record inspection findings as required by approved BMP plan.
- E. Maintain Inspection records and a copy of the approved BMP plan on the project site for inspection by County and NCWRCB.
- F. Failure of the Contractor to comply with the requirements of these specifications and the provisions of the approved Storm Water pollution Prevention Plan or BMP plan may result in work stoppage, a written citation, monetary fine or any combination thereof.

END OF SECTION



Construction Site Storm Water Runoff Control Information

Introduction

Mendocino County Ordinance No. 4313 STORM WATER RUNOFF POLLUTION PREVENTION PROCEDURE (Mendocino County Code Chapter 16.30 et.seq.) requires any person performing construction and grading work anywhere in the county shall implement appropriate Best Management Practices (BMP) to prevent the discharge of construction waste, debris or contaminants from construction materials, tools and equipment from entering the storm drainage system (off-site).

I. Owner, Applicant, Contractor Responsibility to Comply

Failure of owner, applicant or contractor to comply with the approved Building Permit storm water pollution prevention plans, erosion and sediment control specifications, plans and permits, may result in work stoppage, a written citation, monetary fine or any combination thereof.

II. Inspection and Enforcement Authority

By commencing work allowed in this building permit, the owner, applicant, contractor agrees to comply with Mendocino County Code Section 16.30.140 Inspection and Monitoring: "Whenever necessary to make an inspection to enforce any provision of [Storm water Runoff Pollution Prevention] or whenever the County has cause to believe that there exists, or potentially exists, in or upon any premises any condition which constitutes a violation of [Storm water Runoff Pollution Prevention] the County may enter such premises at all reasonable times to inspect the same and to inspect and copy records related to storm water compliance."

III. Pre-Construction and On-going Responsibility of Owner, Applicant, and Contractor to Implement, Plans, Permits and Best Management Practices (BMPs)

Prior to ground disturbance, the owner, applicant, or his/her contractor shall inform all individuals, who will take part in the construction process, the responsibility to implement plans, permits and BMPs to prevent discharges from construction activities from the construction site.

IV. Inspection Records Available at the Construction Site

During any building permit inspection by the County Inspector from October 15 to April 1 for any project operating under coverage of a State Construction General Permit (SWPPP) and under the authority of a County approved Building Permit OR under the authority of a County approved Building Permit the Owner/Applicant/Contractor shall have inspection records available at the construction site and available for review by the County Inspector upon the request of the County Inspector.

V. Construction Site Self-Inspection for BMP Compliance

1. For an applicant who submitted evidence of compliance with the State Construction General Permit (CGP) SWPPP, you are required to comply with the CGP inspection requirements.
2. For non-State CGP projects, the applicant is responsible for inspecting, maintaining, and replacing at all times BMPs in accordance with the County approved Building Permit.

VI. County Code Best Management Practices For Construction and Grading Work

1. As soon as possible, the owner, applicant and/or his/her contractor shall install and implement site-specific effective construction site storm water runoff control BMPs pursuant to the approved building permit plans and specifications or approved SWPPP.
2. Pursuant to Mendocino County Code Section 16.30.70
"Any person performing construction or grading work anywhere in the County shall implement appropriate Best Management Practices to prevent the discharge of construction waste, debris or contaminants from construction materials, tools and equipment from entering the storm drainage system. Best Management Practices as appropriate for each project, shall include, but not be limited to the use of the following:"
 1. Scheduling construction activity
 2. Preservation of natural features, vegetation and soil
 3. Drainage swales or lined ditches to control storm water flow
 4. Mulching or hydroseeding to stabilize disturbed soils
 5. Erosion control to protect soils
 6. Protection of storm drain inlets (gravel bags or catch basin inserts)
 7. Perimeter sediment control (perimeter silt fence, fiber rolls)
 8. Sediment trap or sediment basin to retain sediment on site
 9. Stabilized construction exists
 10. Wind erosion control
 11. Other soil loss BMP acceptable to the County
 12. Material handling and waste management
 13. Building material stockpile management
 14. Management of washout areas (concrete, paints, stucco, etc.)
 15. Control of vehicle/equipment fueling to contractor's staging area
 16. Vehicle and equipment cleaning performed off-site
 17. Spill prevention and control
 18. Other housekeeping BMP acceptable to the county.



MS4 Area New and Post Construction Storm Water Runoff Control Checklist

Instructions

Mendocino County Ordinance No. 4313 STORM WATER RUNOFF POLLUTION PREVENTION PROCEDURE (Mendocino County Code Chapter 16.30 et. seq.) requires any person performing construction and grading work anywhere in the County shall implement appropriate Best Management Practices (BMP) to prevent the discharge of construction waste, debris or contaminants from construction materials, tools and equipment from entering the storm drainage system (off-site). It also allows the County to adopt requirements identifying appropriate BMPs to control the volume, rate, and potential pollutant load of storm water runoff from new development and redevelopment projects as may be appropriate to minimize the generation, transport and discharge of pollutants and as required by the County's NPDES MS4 General Permit. The County may incorporate these requirements into land use entitlements and construction or building-related permits to be issued for new development or redevelopment.

The following checklist is to be completed by you (the applicant) to determine which plans and specifications for storm water runoff control are required as part of a Building Permit Application to the County of Mendocino Building Division of the Department of Planning and Building Services.

I. Construction Project Information (Completed by Applicant)

Physical Address Site Location County Public Health - 1120 S. Dora Street	City Ukiah, CA	Assessor Parcel Number (APN)
Anticipated Construction Start date ____/____/____	Site-work construction completion ____/____/____	
Circle and/or list all applicable permits directly associated with grading activity, not limited to the following: -State Construction General Permit (CGP), -State 401 Water Quality Certification, -U.S. Army Corps 404 permit, -California Fish and Wildlife 1600		
A.) Is the construction site part of a larger common plan of development or sale? YES NO UNKNOWN (circle one)		
B.) Name of larger common plan/project (if applicable): _____		

II. Checklist (Completed by Applicant)

A.) Total area of soil disturbing activity (definition below) _____ sq. ft. or _____ acres	If project disturbs 1 acre or more of soil then provide the State Construction General Permit Waste Discharge Identification Number: _____
B.) Total area of new or replaced impervious surface _____ sq. ft.	If project creates or replaces 2,500 sq. ft. or more of impervious surface, submit a Storm Water Control Plan in compliance with the LID Manual.

Definition of Impervious Surface - A surface covering or pavement of a developed parcel of land that prevents the land's natural ability to absorb and infiltrate rainfall/storm water. Impervious surfaces include, but are not limited to: roof tops, walkways, patios, driveways, parking lots, storage areas, impervious concrete and asphalt, and any other continuous watertight pavement or covering. Landscaped soil and pervious pavement, including pavers with pervious openings and seams, underlain with pervious soil or pervious storage material, such as a gravel layer sufficient to hold the specified volume of rainfall runoff, are not impervious surfaces.

Definition of Soil Disturbing Activities - Any construction or demolition activity, including, but not limited to: clearing of vegetation, grading, grubbing, disturbance to the ground such as stripping of top soils, soil compaction, excavation, and stockpiling or any other activity that results in a land disturbance that changes the physical condition of land forms, soils, vegetation, and hydrology.

Does the storm water runoff from the construction site discharge to (check all that apply):

Remain on-site/indirectly to waters of U.S.

County Storm Drain System

City of Ukiah

Directly to waters of the U.S. (e.g. river, lake, creek, stream, bay, ocean) Name the body of water: _____

Please indicate the distance from construction activity to nearest watercourse: 650 ft. Doolan Creek

III. Construction Site Storm Water Pollution Prevention Plan Submittal Requirement (Completed by Applicant)

A. If your project is covered under the State Water Resources Control Board General Permit (CGP), attach a copy of the submitted Storm Water Pollution Prevention Plan (SWPPP) including the Notice of Intent (NOI) and WDID Number. Please note CGP projects within the MS4 areas are exempt from CGP post construction requirements provided a certification is submitted. See the State Water Board's Stormwater Multi-Application, Reporting and Tracking System (SMARTS) to submit exemption certification information. (<https://smarts.waterboards.ca.gov>)

B. If a CGP is not required, your project shall submit, as part of your Building Permit Application, construction site BMPs plans and specifications prepared by a Qualified Storm Water Developer (QSD) **OR** applicant/owner/contractor prepared BMP plans and specifications referencing BMP information obtained from the County Department of Planning and Building Services and/or the California Storm Water Quality Association BMP Handbook. If an Encroachment permit is required from DOT, submission of the Water Pollution Control Plan from the encroachment permit may be used as a substitute provided it covers all proposed construction activities and locations.

IV. Certification (Completed by Applicant)

Printed Name

Contractor:

Signature

V. For Official Use Only

Permit Number

Submittal Date

Received by

For Official Use Only:
Attach Construction Site
Storm Water Runoff
Control Applicant
Checklist Here:

Small Construction Site Storm Water Erosion and Sedimentation Control Plan Template

Construction Site Project Name: Public Health Accessible Employee Entrance

Physical Site Address: 1120 S. Dora St., Ukiah, CA

Instructions

To help you develop your construction project Erosion and Sedimentation Control Plan (ESCP), the County of Mendocino has created this ESCP Template. The template is designed to help you develop an ESCP for a construction or grading project that will have less than one-acre of disturbed soil and is not be subject to the State Water Resources Control Board Construction General Permit.

Using the ESCP Template

Each section of the ESCP Template includes "instructions" and space for your project and site information. You should read the instructions for each section before you complete that section.

A. Nature of the Construction Activity

Instructions

Provide a general description of the nature of the construction activities at your project (Example: Construction of 10 x 30 deck; 120 square foot addition to an existing home; new 16 x 24 garage and driveway). This information is addition to the information you provided within your building permit application and in the "Construction Site Storm Water Runoff Control Application Checklist, section III."

1. General Description of Project: Remove and replace approximately 1,000 sf of asphalt and concrete paving to install accessible parking and path of travel to building entrance.

2. If your project involves grading, list all applicable permits and attach to this document: Grading/Building permit included with this application

3. Site Plan Requirement – Select one of the following:

- ☒ A site plan showing BMPs is included with the construction plans and is attached to this document.
- ☐ BMPs are shown on the site plan included as Page 4 of this document.

B. Construction Site Best Management Practices

Instructions

Select from the following checklist, the appropriate Best Management Practices (BMPs) for your project. Information about the BMPs can be found on the BMP Fact Sheets that are located at the end of this section as Exhibit A. The BMP Fact Sheets are educational materials containing product information, technical data, and "how-to, do-it-yourself" advice for using BMPs before, during and after construction.

Best Management Practices:
Select all that apply:

1. Scheduling Construction Activity

- ☐ Avoid rainy season from October 1 through April 1. Use mulching or hydroseeding to stabilize disturbed soils.
- ☐ Plan your construction work to have your BMPs installed before construction. Have all rainy season BMPs installed prior to October 1. Provide enough time before rainfall begins to stabilize the soil with vegetation or physical means or to install sediment trapping devices.

Small Construction Site Storm Water Erosion and Sedimentation Control Plan Template

Best Management Practices, continued from previous page.
Select all that apply:

2. Preservation of Natural Features, vegetation and soil

- ☐ Existing vegetation outside the construction area will be preserved on the site and protected.
- ☐ Construction activity will avoid activity under the drip line of remaining trees.
- ☐ Vegetation to be preserved within the construction area will be protected with temporary fencing.
- ☐ Retain protective measures until all construction activity is complete to avoid damage during site cleanup.

3. Drainage swales or lined ditches to control storm water flow

- ☐ Earthen dike(s) and drainage swale(s) will be constructed, see BMP EC-9.
- ☐ Velocity Dissipation Devices will be installed at the outlets of culverts, conduits or channels to prevent erosion, see BMP EC-10.

4. Mulching or hydroseeding to stabilize disturbed soils

- ☐ Mulch, such as wood fiber, will be applied to protect exposed soil from erosion from raindrop impact or wind.
- ☐ Seeding will be used with mulching (i.e. straw mulch).

5. Erosion control to protect soils

- ☐ Matting of natural materials, geotextiles, or plastic cover, will be used to cover the soil surface to reduce erosion from rainfall impact, see BMP EC-7

6. Protection of storm drain inlets

- ☐ Every storm drain inlet receiving sediment-laden runoff will be protected with at least one type of inlet protection, such as a gravel bag barrier, block and gravel filter, excavated drop inlet sediment trap, or filter fabric fence, see BMP SE-10

7. Perimeter sediment control

- ☐ Slit fence will be installed on a level contour to trap sediment-laden runoff from disturbed areas to promote sedimentation behind the fence, see BMP SE-1.
- ☐ Fiber rolls will be placed along the perimeter of the project to provide for the removal of sediment from runoff, see BMP SE-5.
- ☐ A sandbag barrier will be placed on a level contour to intercept sheet flow and pond runoff to allow sediment to settle out, see BMP SE-8.
- ☐ Straw bales will be placed end-to-end on a level contour to intercept sheet flow to pond runoff to allow sediment to settle out, see BMP SE-9

8. Sediment trap or sediment basin to retain sediment on site

- ☐ A temporary sediment basin will be constructed and maintained until the site is permanently protected against erosion or until a permanent detention basin is constructed, see SE-2.
- ☐ A temporary sediment trap will be formed and maintained until the site is permanently protected from erosion by using vegetation and/or structures, see SE-3.
- ☐ A temporary check dam of rock, gravel bags, sandbags, fiber rolls, will be placed across a swale or drainage ditch to reduce the velocity of water, to promote sedimentation and for reducing erosion, see SE-4.

9. Stabilized construction exits

- ☐ A Stabilized Construction Exit, a driveway aggregate (e.g. gravel) underlain with filter cloth, will be located where traffic will be entering or leaving the construction site to or from a public right of way, street, alley, sidewalk, or parking area, see TC-1.
- ☐ Tire washing will be used with a Stabilized Construction Exit, see TC-3

Small Construction Site Storm Water Erosion and Sedimentation Control Plan Template

Best Management Practices, continued from previous page.
Select all that apply:

10. Wind erosion control

- ☐ Apply water, dust palliatives, gravel, temporary vegetation, or mulching to prevent or alleviate dust.

11. Other soil loss BMP acceptable to the County

- ☐ _____
- ☐ _____

12. Material handling and waste management

- ☐ Applicant will comply with Mendocino County Construction Demolition and Recycling requirements.
- ☐ Follow all federal, state, and local regulations that apply to the use, handling, or disposal of hazardous materials, pesticides and herbicides, and fertilizers.
- ☐ Store pesticides, herbicides, and fertilizers in a dry covered area, and follow the recommended application rates and methods.
- ☐ Designate a waste collection area and use containers with lids so that they can be covered with lids.

13. Building material stockpile management

- ☐ Use plastic sheeting or tarps to keep materials (sand, compost, cement, etc) covered during periods of rain.

14. Management of washout areas (concrete, paints, stucco, etc.)

- ☐ Designate concrete, paint and stucco washout areas. Collect and retain concrete, paints and stucco washout water or chemicals and solids in leak proof containers so that it does not reach the soil surface and then migrate to surface water or into the ground water.

15. Control of vehicle/equipment fueling to contractor's staging area

- ☐ Store and use petroleum products in dry covered areas and perform vehicle fueling in areas having materials and equipment available to contain and clean up any spills that may occur.

16. Vehicle and equipment cleaning performed off-site

- ☐ Use detergents only as recommended and limit their use at the construction site. Wash vehicles and equipment where detergent laden wash water will not enter into the storm drain system or will be directed into the sanitary sewer so that it can be treated at the wastewater treatment plant.

17. Spill prevention and control

- ☐ Check equipment, hydraulic lines, and containers for leaks and corrosion.
- ☐ Maintain a spill-kit with absorbent materials. Clean up spills immediately. For hazardous materials, follow cleanup instructions on the package.

18. Other housekeeping BMP acceptable to the county

- ☐ _____
- ☐ _____

SECTION 01010
SUMMARY OF WORK

PART 1 - GENERAL

1.1 SUMMARY

- A. The General Provisions and Section 11010 – Summary of Work apply to the Work of all Sections.
- B. Contractor is hereby specifically directed to notify and apprise all subcontractors and other parties engaged in the Work as to the Contents of the General Provisions and this section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work shall be performed at a Project site located at the Mendocino County Public Health and Mental Health Building, located at 1120 S. Dora Street, Ukiah, County of Mendocino.
- B. The Work of this Contract comprises construction of ADA accessible parking, ramps, walks and automatic operating door as per attached plans and per the Scope of Work below:

Scope of Work:

- 1. Work shall include but is not limited to, the following, and all appurtenant work required under the Contract Documents.
 - a) Protection of existing utilities
 - b) Submission and Implementation of Construction Site Storm Water Management Plan
 - c) Demolition and Removal of (E) site improvements
 - d) Installation of compliant ADA parking stalls
 - e) Installation of compliant ADA walks ramps and landings
 - f) Installation of automatic door operator and access control card readers
- 2. Additional requirements of all parties to the Contract are included in the Request for Bids and General Provisions.
- 3. The Contractor shall be responsible for public safety and security within all work areas. Provide and maintain construction fencing or other means to secure work areas under construction. Provide and maintain separation barrier inside the building to prevent unauthorized access to the construction area from the building.
- 4. Contractor shall provide all labor, equipment, and materials that are required to provide a complete properly operating and safe site. The extent of the work as indicated on the Drawings and as described in the Specifications shall include all that may be reasonably inferred to be required for proper execution or installation of work and for complete systems.
- 5. Should the General Provisions or Contract Documents contradict themselves, Contractor shall provide the more stringent or higher quality or quantity unless otherwise accepted by County.
- 6. The Drawings represent a fully compliant ADA non-public entrance and shall be recognized as diagrammatic in nature and not completely descriptive of all requirements for construction. Whatever work may be specified, and not drawn, or drawn and not specified, is to be executed as fully as if described in both these ways; and should any workmanship or material be necessary which is not either directly or indirectly noted in these specifications, or shown on the Drawings, but is nevertheless necessary for the purpose of properly meeting ADA requirements or otherwise carrying out the obvious intention thereof, Contractor is to understand the same to be implied, and is to provide for the same in its bid, as fully as if it were particularly described or delineated.

1.3 TYPE OF CONTRACT

- A. Contractor shall construct the Work under a single fixed-price Lump Sum Contract on the County's Standard form Contract. Standard Form Contract shall be available for review.

1.4 USE OF PREMISES

- A. Area available for Contractor's use for work and storage, if any, is limited to the area designated on the Drawings.
- B. The Entrance will be closed for the duration of the project; however the drive and parking areas will remain open for employee parking, maintenance and emergency access. Coordinate temporary closure of parking or access with County Representative in accordance with paragraph 1.5 Coordination below.
- C. Fire Department Access: Contractor's use of premises shall not limit required Fire Department access.

1.5 COORDINATION

- A. Contractor shall be responsible for all project coordination.
- B. Contractor shall coordinate with the County representative on a daily basis the progress of the work affecting county use areas in the building and parking areas. Contractor shall identify work phases that require the closure of specific areas and the durations required in each area. Coordinate the progress in each location with the County representative on a daily basis. Provide and regularly update signage and construction barriers to clearly define active work areas and protect the public and county employees in the building. Do not begin work in occupied areas without confirmation that county staff has been advised.
- B. Contractor shall coordinate schedules, submittals, and work of the various trades to ensure efficient and orderly sequence of installation of construction. Contractor shall coordinate the work among the Specifications and Drawings. Work shown on any drawing or specification is required by the Contract irrespective of the trade subdivision. Contractor shall require each trade subcontractor to review all other subdivisions of the documents for related work and shall coordinate the subcontracts accordingly.
- C. Contractor shall coordinate matching finish, texture, color, etc. for the new work on existing components in the Project.
- D. Contractor shall coordinate completion and clean-up Work in various locations to minimize the hazards and disruptions to county operations.

1.6 EXAMINATION

- A. General: Contractor is responsible for inspection of the existing site conditions prior to bidding and shall include in the Contract all modifications to the site or building to complete the work shown, including all cutting, patching or relocating of existing services or features required. Such modifications shall be included in the bid.

1.7 UNFORESEEN SITE CONDITIONS

- A. Pursuant to Section 7104 of the California Public Contract Code, if any of the following conditions, hereinafter called hidden conditions, are encountered at the site, then Contractor shall promptly, before such conditions are disturbed and in no event later than three (3) days after discovery, notify County in writing using the "Hidden Conditions Report" attached to this Document:
 - 1. Material that Contractor believes may be hazardous waste material, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or a Class III disposal site in accordance with provisions of existing law.

2. Subsurface or latent physical conditions at the site or in the building differing materially from those represented in the Contract Documents.
 3. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents or conditions that could be observed by examination of the site and the Reference Documents.
- B. Conditions that are not unforeseen, hidden, unknown or differing site and building conditions include but are not limited to, the following.
1. All that is indicated in or reasonably interpreted from the Contract Documents.
 2. All that is indicated in or reasonably interpreted from the Reference Documents specified in Section 011000, "Summary of Work".
 3. All that could be seen on site and that could be observed.
 4. Conditions that are materially similar or characteristically the same.
 5. Conditions where the location of the building component is in the proximity where indicated in or reasonably interpreted from the Contract Documents or Reference Documents.
- C. County will promptly investigate the conditions reported which appear to be unforeseen conditions.
1. If County determines that the reported conditions are inherent in work or of the character provided for in the Contract Documents or observed by examination of the site and Reference Documents, or that the condition is not hidden, unforeseen or materially different, Contractor shall execute the Work at no additional cost to County.
 2. If County determines that the conditions are hidden or differing conditions and that they will materially cause a decrease or increase in Contractor's cost of any portion of the work, a Contingency Allowance Modification will be issued for compensation of such portion of the work as provided for in the Section 012100 Allowances.
 3. If County determines that the conditions are hidden or differing conditions and that they will materially affect the performance time, Contractor, upon submitting a written request, will be granted an extension of time subject to the provisions of the General Conditions.
 - a. Time extensions or contract costs will not be granted for delays that could be or could have been avoided by Contractor redirecting his forces and equipment to perform other work on the Contract.
- D. Should Contractor disagree with County's determination, Contractor shall submit a Request for Change (RFC) to County that the condition is not indicated in or reasonably interpreted from the Contract Documents, and that the condition is not similar in character to the material that could have been observed by examination of the site and Reference Drawings, but that the condition is materially different and the condition is unforeseen and unknown.
1. Contractor shall submit proof with written explanation, drawings, photographs, material and labor cost breakdowns, and other relevant data to show the condition.
 2. County will review Contractor's submission and make a determination. Contractor shall not file for claim or RFC before County makes the determination.

3. In the event of continued disagreement, Contractor shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all work to be performed under the Contract.
4. Contractor shall retain any and all rights provided either by the Contract or by law which pertain to the resolution of RFC and protests between the contracting parties.

1.8 CHANGES IN THE WORK

- A. The County may order changes in the work, in which event the Contract sum shall be adjusted by one or more, or a combination of, the following methods:
 1. Unit bid prices previously approved or as may be agreed upon.
 2. An agreed lump sum substantiated by Contractor, itemizing labor, material, equipment, overhead, profit, bond, etc.
 3. By ordering Contractor to proceed with work and keep correct account with vouchers the actual cost of:
 - a. Labor, including foreman;
 - b. Materials entering permanently into the work;
 - c. The ownership or rental cost of construction plant and equipment during the time of use on the extra work;
 - d. Power and consumable supplies for the operation of power equipment;
 - e. Insurance;
 - f. Social Security and old age and employment contribution.
- B. To the cost under (2) and (3), there may be added a fixed fee to be agreed upon but not to exceed fifteen percent (15%) for the estimated cost of the work. The fee shall be compensation to cover the cost of administrative overhead, and profit.
- C. On changes which involve a credit to the County, no allowances for overhead need be figured.

PART 2 - PRODUCTS
NOT USED

PART 3 - EXECUTION
NOT USED

END OF SECTION

SECTION 02200

EARTHWORK AND GRADING

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section describes the requirements for excavation, backfilling, grading, and other related items of altering or modifying the configuration of the existing soils at the Project site.
- B. Related Sections: The completion of the work described in this Section may require work in or coordination with other Sections of these Specifications. Contractor and Subcontractor shall be responsible for identifying and including all related work in other Sections of these Specifications and/or Drawings necessary for a complete installation of the work described in this Section. These related Sections include but are not limited to the following:
 - 1. Drawings and general provisions of the Contract, included in the Request for Bids, apply to this Section.
 - 2. Section 02500 – Concrete Paving.
 - 3. Section 02512 - Asphalt Concrete.

1.2 REFERENCE STANDARDS

- A. Applicable requirements of the Uniform Building Code;
- B. Cal/OSHA, State Administrative Code, Title 8, Industrial Relations, Chapter 4, Subchapter 4, "Construction Safety Orders;"
- C. State of California, Business and Transportation Agency, Department of Transportation's "Standard Specifications," 2010 Edition (CSS).
- D. The standards and ordinances of state and local governing ordinances, including County of Mendocino Ordinance No. 4313 Storm Water Runoff Pollution Prevention Procedure.

1.3 DEFINITIONS

- A. *Excavation*: Excavation consists of the removal of material encountered to subgrade elevations and the reuse or disposal of materials removed.
- B. *Subgrade*: The uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.
- C. *Import*: Soil material obtained off-site when sufficient approved soil material is not available from excavations.
- D. *Base course*: The layer between the subgrade and wearing surface in a paving system.
- E. *Capillary Moisture Break*: Course of washed granular material supporting slab-on-grade placed to break upward capillary movement of pore water.

- F. *Unauthorized Excavation*: Unauthorized excavation consists of removing materials beyond indicated subgrade elevations or dimensions without direction by the Construction Manager. Unauthorized excavation, as well as remedial work directed by the Construction Manager, shall be at Contractor's expense.
- G. *Structures*: Buildings, footings, foundations, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below ground surfaces.
- H. *Utilities*: Utilities include underground pipes, conduits, ducts and cables as well as underground services within building lines.
- I. *Caltrans Standard Specifications*: State of California Department of Transportation Standard Specifications.

1.4 QUALITY ASSURANCE

- A. The Contract Documents cover preparation of existing surfaces to receive Asphalt and Cement Paving, the type of soil suitable for use in fills, the control of compaction, and the methods of testing compacted fills. It shall be Contractor's responsibility to place, spread, water, and compact the fill. Deviations from the Contract Documents will be permitted only upon written authorization from the County's Representative and inclusion in an approved Change Order.

1.5 SUBMITTALS

- A. Submit completed Construction Site Storm Water Checklist and Construction Site Best Management Plan (BMP) and specifications to County Representative for County of Mendocino Building Department Approval and issuance of final project permit. See Specifications Section 00650 – Construction Site Storm Water Policy.

1.6 JOB CONDITIONS

- A. Should uncharted or incorrectly charted piping or other utilities be encountered during excavation, consult with the Construction Manager immediately for directions as to procedure to be followed. Cooperate with County and utility companies in keeping respective services and facilities in operation.
- B. Do not interrupt existing utilities serving facilities occupied and used by County or others except when permitted in writing by Construction Manager, and then only after acceptable temporary utility services have been provided.
- C. Protection of Persons and Property: Barricade all open excavations occurring as part of this Work. Protect all existing adjacent structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by the earthwork operations required.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Fill Material: Provide approved import soil materials from off-site when sufficient approved soil materials are not available from excavations.
 - 1. Common Fill: Common fill placed at the site shall be free of deleterious matter and contain no rocks or hard fragments larger than 4" in maximum dimension.

2. Select Fill: In addition to meeting the requirements of common fill, select fill shall have a low to nonexpansion potential, which for this site is defined as having a liquid limit less than 35 and a plasticity index less than 12. Select fill shall be predominantly granular with less than 30% passing the No. 200 sieve.
 3. Backfill and Fill Materials: Common and Select Fill.
- B. Drainage Material:
1. Class 2 Permeable Material in conformance with Caltrans Standard Specifications Sec. 68-1.025; or
 2. Washed crushed aggregate conforming to ASTM D448 No. 67 wrapped in filter fabric conforming to the requirements of Caltrans Standard Specifications Sec. 88-1.03.
- C. Base Material: Class 2 Aggregate Base, 100% virgin material, in conformance with Caltrans Standard Specifications Sec. 26-1.02B.
- D. Bedding Material: Clean uniform gravel with 100% passing a 1" sieve, not more than 5% passing a No. 200 sieve, and a uniformity coefficient less than 5.
- E. Capillary Moisture Break: Washed, evenly graded mixture of crushed aggregate conforming to ASTM D 448 Standard Aggregate No. 67.

PART 3 – EXECUTION

3.1 GENERAL

- A. The placement of controlled fill shall include all clearing and grubbing, removal of existing unsatisfactory material, preparation of the areas to be filled, spreading and compaction of fill in the areas to be filled, and all other work necessary to complete the grading of the filled area.

3.2 PROTECTION

- A. Existing Utilities: Do not interrupt existing utilities facilities occupied by County or others except when permitted in writing.
- B. Protect all existing improvements from damage per the requirements of Caltrans Standard Specifications Sec. 7-1.11, "Preservation of Property."
- C. Protect newly graded areas from traffic and erosion. Keep work areas free of trash and debris.
- D. Install and maintain all Construction Site Storm Water BMP's so as to protect natural waterways from sediment and other contamination from the project site.

3.3 PREPARATION

- A. Examine the areas and conditions under which Work of this Section is to be performed and notify the Construction Manager, of all conditions detrimental to the timely completion of the Work. Do not proceed with the Work of this Section until all unsatisfactory conditions have been corrected.

3.4 DEMOLITION AND STRIPPING

- A. Demolish all walks, curbs, paving and vegetation required for new work. Carefully separate walks from building and site structures to remain.
- B. Saw cut edges of existing paving and concrete to remain to provide a clean surface for new work.

- C. Remove all waste material, including unacceptable excavated material, trash and debris, from the Project site, and dispose of at a legally designated refuse site.

3.5 EXCAVATION

- A. General: Carry all excavations to the lines and grades indicated on the Drawings.
- B. Excavation for Asphalt and Cement Paving: Excavate for new work to the depths required for elevations indicated for paving sections shown, and of sufficient width to permit construction and removal of forms.

3.6 ROUGH GRADING

- A. Rough grade new paving areas to appropriate elevations below grades shown to permit paving sections indicated. Reserve topsoil for finish grading as required. Remove any impediments within 24" of any concrete work. Make allowance for base, paving, or topsoil thickness.

3.7 FINISH GRADING

- A. Grade with uniform slope between points where elevations are shown, with smooth transition to existing finish grades, unless otherwise indicated or directed. Round off abrupt changes in slope. Slope ground away from walls and walkways, use reserved topsoil at the final 3" of disturbed areas, all debris, rocks and such shall be removed. Provide mulch at all exposed soils upon completion of finish grading.

3.8 PROTECTION OF WORK

- A. Provide positive drainage and prevent ponding of water. Control surface water to avoid damage to adjoining properties or to finished work on the site. Take required remedial measures to prevent erosion of freshly graded areas and until such time as permanent drainage and erosion control features have been installed.

3.9 AREA RESTORATION AND CLEAN-UP

- A. At the conclusion of the Work, all earth areas shall be raked free of debris and left with a uniform, finely graded surface. Where topsoil is called for, all finish grades shall be held 1" below the level of adjacent paved areas and a minimum of 6" below finish floor line, unless otherwise shown.
- B. Restore the work area disturbed by construction activities and repair any damage caused to existing facilities to its original condition or better. Re-plant and re-vegetate in disturbed areas as necessary.
- C. Remove all temporary utilities, drainage facilities, temporary fencing, waste materials including trash and debris, surplus soil materials and other site development facilities provided by Contractor following completion of the Work. Legally dispose of surplus soil and waste materials off County's property.
- D. Obtain written documentation of acceptance and a release from all affected property owners that the areas have been satisfactorily restored, and that any damaged utilities have been repaired to original or better condition.

END OF SECTION

SECTION 02500
CONCRETE PAVING

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section describes the requirements for providing concrete paving, including accessibility ramps and walks.
- B. Related Sections: The completion of the work described in this Section may require work in or coordination with other Sections of these Specifications. Contractor and Subcontractor shall be responsible for identifying and including all related work in other Sections of these Specifications and/or drawings necessary for a complete installation of the work described in this Section. These related Sections include but are not limited to the following:
 - 1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
 - 2. Section 02100 - Site Preparation.
 - 3. Section 07920 - Sealants and Caulking.

1.2 SUBMITTALS

- A. Product Data: Furnish for proprietary materials and items, including reinforcement and forming accessories, admixtures, joint systems, curing compounds, and other materials requested by Architect.
- B. Design Mixes: Furnish for each class of concrete.
- C. Laboratory Test Reports: Submit evaluation of concrete materials and mix design tests.

1.3 QUALITY ASSURANCE

- A. Concrete Standards: Comply with provisions of the following standards except where more stringent requirements are specified:
 - 1. ACI 301, "Specifications for Structural Concrete for Buildings".
 - 2. ACI 318, "Building Code Requirements for Reinforced Concrete".
 - 3. CRSI, "Manual of Standard Practice".
- B. Concrete Manufacturer: Complying with ASTM C94 requirements for production facilities and equipment.
- C. Concrete Testing Service: Engage an independent testing agency to perform materials evaluation tests and to design concrete mixes.

1.4 JOB CONDITIONS

- A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for construction activities.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Forms: Steel, wood, or other suitable material of size and strength to resist movement during concrete placement and to retain alignment until removal.
 - 1. Use straight forms, free of distortion and defects.
 - 2. Use flexible spring steel forms or laminated boards to form radius bends as required.
 - 3. Coat with a non-staining form release agent that will not discolor or deface concrete.
- B. Concrete Reinforcement:
 - 1. Reinforcing Bars and Tie Bars: ASTM A615, Grade 40, deformed.
 - 2. Welded Wire Mesh: Welded plain cold-drawn steel wire fabric, ASTM A185. Furnish in flat sheets.
 - 3. Joint Dowel Bars: Plain steel bars, ASTM A615, Grade 40. Cut bars true to length with ends square and free of burrs.
 - 4. Supports and Reinforcement: Chairs, spacers, dowel bar supports and other devices for spacing, supporting, and fastening reinforcing bars, welded wire fabric, and dowels in place. Use wire bar-type supports complying with CRSI specifications.
- C. Concrete:
 - 1. Portland Cement: ASTM C150, Type I.
 - 2. Fly Ash: ASTM C618, Type F.
 - 3. Normal-Weight Aggregates: ASTM C33, Class 4, and as follows. Provide aggregates from a single source.
 - a. Maximum Aggregate Size: 3/4".
 - b. Do not use fine or coarse aggregates that contain substances that cause spalling.
 - c. Local aggregates not complying with ASTM C33 that have been shown to produce concrete of adequate strength and durability may be used when acceptable to Architect.
- D. Water: Potable.
- E. Admixtures:
 - 1. Air-Entraining Admixture: ASTM C260.
- F. Curing Materials:
 - 1. Absorptive Cover: Burlap cloth made from jute or kenaf.
 - 2. Moisture-Retaining Cover: Waterproof paper of polyethylene film.

3. Clear Waterborne Membrane-Forming Curing Compound: ASTM C309, Type I, Class B.
 4. Evaporation Control: Monomolecular film-forming compound applied to exposed concrete slab surfaces for temporary protection from rapid moisture loss.
- G. Related Materials:
1. Bonding Agent: Acrylic or styrene butadiene.
 2. Epoxy Adhesive: ASTM C881, two-component material suitable for dry or damp surfaces. Provide material, type, grade, and class to suit requirements.

2.2 CONCRETE MIX

- A. Prepare design mixes for each type and strength of normal-weight concrete by either laboratory trial batch or field experience methods as specified in ACI 301. For the trial batch method, use a qualified independent Testing Agency for preparing and reporting proposed mix designs.
- B. Proportion mixes according to ACI 211.1 and ACI 301 to provide normal weight concrete with the following properties:
1. Compressive Strength at 28 Days: 2,500 psi.
 2. Maximum Water-Cement Ratio at Point of Placement: 0.50.
 3. Slump Limit at Point of Placement: 3".
 4. Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having an air content of 6% plus or minus 1-1/2%.
 5. Adjustment to Concrete Mixes: Mix design adjustments may be requested by Contractor when characteristics of materials, project conditions, weather, test results, or circumstances warrant.

2.3 CONCRETE MIXING

- A. Ready-Mixed Concrete: Comply with ASTM C94.
1. When air temperature is between 85° F and 90° F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes. When air temperature is above 90° F, reduce mixing and delivery time to 60 minutes.

PART 3 – EXECUTION

3.1 SURFACE PREPARATION

- A. Proof-roll prepared subgrade surface to check for unstable areas and required additional compaction.
- B. Remove loose material from compacted subgrade immediately before placing concrete.
- C. Do not begin paving work until unsatisfactory conditions have been corrected.

3.2 FORM CONSTRUCTION

- A. Set forms to required grades and lines, rigidly braced and secured.
 - 1. Install sufficient quantity to allow continuous progress of work and so that forms can remain in place at least 24 hours after concrete placement.
 - 2. Check completed formwork for grade and alignment to following tolerances:
 - a. Top of forms not more than 1/8" in 10'.
 - b. Vertical face on longitudinal axis, not more than 1/4" in 10'.
 - 3. Clean forms after each use, and coat with form release agent as required.

3.3 REINFORCEMENT

- A. General: Comply with CRSI recommended practice for "Placing Reinforcing Bars" for placing and supporting reinforcement.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.
- C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.
- D. Install welded wire fabric in lengths as long as possible. Lap adjoining pieces at least one full mesh and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.

3.4 JOINTS

- A. General: Construct contraction, construction, and isolation joints true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to the centerline unless otherwise indicated.
- B. Contraction Joints: Provide weakened-plane contraction joints, sectioning concrete into areas indicated. Construct contraction joints for a depth equal to at least 1/4 of the concrete thickness. Form in fresh concrete by grooving and finishing each edge of joint with a radiused jointer tool.
- C. Construction Joints: Set construction joints at side and end terminations of paving and at locations where paving operations are stopped for more than ½-hour, unless paving terminates at isolation joints.
 - 1. Provide preformed galvanized steel or plastic keyway-section forms or bulkhead forms with keys. Embed keys at least 1-½" into concrete.
 - 2. Continue reinforcement across construction joints.
 - 3. Use bonding agent on existing concrete surfaces that will be joined with fresh concrete.
- D. Isolation Joints: Form isolation joints of preformed joint filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, walks, other fixed objects, and where indicated.
 - 1. Extend joint fillers full width and depth of joint, not less than ½" or more than 1" below finished surface where joint sealant is indicated. Place top of joint filler flush with finished concrete surface when no joint sealant is required.
 - 2. Protect top edge of joint filler during concrete placement with a metal, plastic, or other temporary preformed cap.

3.5 CONCRETE PLACEMENT

- A. Inspection: Before placing concrete, inspect and complete formwork installation, reinforcing steel, and items to be embedded or cast-in.
- B. Moisten subgrade if required to provide a uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until they are at required finish elevations and alignment.
- C. Comply with requirements of ACI 304R for measuring, mixing, transporting, and placing concrete.
- D. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
- E. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
- F. Consolidate concrete by mechanical vibrating equipment supplemented by hand-spading, rodding, or tamping. Use equipment and procedures to consolidate concrete complying with ACI 309R.
 - 1. Consolidate concrete along face of forms and adjacent to transverse joints with internal vibrator. Keep vibrator away from joint assemblies, reinforcement and side forms.
 - 2. Use only square-faced shovels for hand-spreading and consolidation. Carefully consolidate to avoid dislocating reinforcing, dowels and joints.
- G. Screed paved surfaces with a straightedge and strike off. Use bull floats or darbies to form a smooth surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces prior to beginning finishing operations.
- H. Cold-Weather Placement: Comply with ACI 306R. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
- I. Hot-Weather Placement: Place concrete complying with ACI 305R when hot weather conditions exist.

3.6 CONCRETE FINISHING

- A. Float Finish: Begin floating when bleed water sheen has disappeared and the concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats, or by hand-floating if area is small or inaccessible to power units. Finish surfaces to true planes within a tolerance of 1/4" in 10'. Cut down high spots and fill low spots. Refloat surface immediately to a uniform granular surface.
- B. Final Finish: Provide a medium-to-fine textured broom finish by drawing a soft bristle broom across concrete surface perpendicular to line of traffic to provide a uniform fine line texture finish.
- C. Final Tooling: Tool edges of paving and joints formed in fresh concrete with a jointing tool to a radius of 1/4". Repeat tooling of edges and joints after applying surface finishes. Eliminate tool marks on concrete surfaces.

3.7 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with the recommendations of ACI 306R for cold weather protection and ACI 305R for hot weather protection during curing.
- B. Evaporation Control: In hot, dry, and windy weather, protect concrete from rapid moisture loss before and during finishing operations with an evaporation-control material. Apply in accordance with manufacturer's instructions after screeding and bull floating, but before floating.
- C. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- D. Curing Methods: Cure concrete by moisture curing, moisture-retaining-cover curing, curing compound, or a combination.
 - 1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with water, a continuous water-fog spray, or absorptive cover kept continuously wet.
 - 2. Moisture-Retaining Cover: Cover concrete with moisture-retaining cover with side and end laps sealed.
 - 3. Curing Compound: Apply in accordance with manufacturer's instructions. Recoat areas subjected to rainfall within three hours after initial application.

3.8 FIELD QUALITY CONTROL TESTING

- A. County will employ an independent Testing Laboratory to sample materials, perform tests, and submit reports during concrete placement.

3.9 REPAIRS AND PROTECTION

- A. Repair or replace broken or defective concrete, as directed by Architect.
- B. Protect concrete from damage until acceptance of work. Prohibit traffic for at least 14 days after placement.
 - 1. When construction traffic is permitted, remove surface stains and spillage of materials as they occur.
 - 2. Sweep concrete pavement and wash free of stains, discolorations, dirt and other foreign material prior to final inspection.

END OF SECTION

SECTION 02512

ASPHALT PAVING

PART 1 – GENERAL

1.1 SUMMARY

- A. The extent of the asphalt concrete paving work, including depths of the pavement section, are shown on the Drawings. This Section describes:
 - 1. Asphalt concrete surface.
 - 2. Fog seal coat.
- B. Related Sections: The completion of the work described in this Section may require work in or coordination with other Sections of these Specifications. Contractor and Subcontractor shall be responsible for identifying and including all related work in other Sections of these Specifications and/or Drawings necessary for a complete installation of the work described in this Section. These related Sections include but are not limited to the following:
 - 1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
 - 2. Section 02200 - Earthwork and Grading.
 - 3. Section 02520 - Site Portland Cement Concrete.
 - 4. Section 02721 - Aggregate Base Course.

1.2 REFERENCE STANDARDS

- A. State of California, Business and Transportation Agency, Department of Transportation's "Standard Specifications," 1999 Edition (CSS), except that all measurements in metric shall be converted to English units.
- B. County of Mendocino Standard Specifications.

1.3 SUBMITTALS

- A. Mix Design: Submit mix designs for asphaltic concrete standard mix design proven in actual performance.
- B. Certificates:
 - 1. Submit certificates of compliance from the supplier for bituminous materials for paint binder, asphaltic concrete, and seal coat.
 - 2. Submit weighmaster's certificates or certified delivery tickets for each truck load of asphaltic material delivered to the Project site.
- C. Submittal procedure and quantities are specified in Division 1.

1.4 PROJECT CONDITIONS

- A. Prior to placing asphalt concrete, or base fill material, all underground utilities and drainage systems shall be installed, backfill completed and the utility installations have satisfactorily passed acceptance tests.

- B. Environmental Requirements: Do not place asphaltic concrete when atmospheric temperature is below 50°F or when weather conditions are unsuitable to material being placed.
- C. Existing Conditions: Protect improvements adjacent to the operations. Repair damage caused by employees or equipment. Cover building and other surfaces with paper or other protection, where required.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Binder: Emulsified asphalt diluted with water, CSS Section 94, Type SS1.
- B. Asphaltic Concrete: CSS Section 39.2, Type B using Type B aggregate with 1/2" maximum, medium grading or such other grading as shown on the Drawings, and steam refined paving asphalt meeting requirements for AR 4000 of CSS Section 92.
- C. Seal Coat: CSS Section 37-1, Fog Type using SS1 asphaltic emulsion.

2.2 STORING, PROPORTIONS AND MIXING

- A. Asphalt concrete materials shall be stored, proportioned and mixed in accordance with CSS Section 39.3.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive asphaltic concrete and verify following:
 - 1. That related work such as drainage structures, grates, frames, and adjacent paving have been set at proper elevations or that conditions will permit adjustment to proper elevations.
 - 2. Absence of wet receiving surfaces or other conditions that adversely affect execution of this work.
- B. Do not start work until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Do not proceed until subgrade has been inspected and approved by the owner.
- B. Notify the Project Manager 48 hours in advance of performing paving work.

3.3 INSTALLATION

- A. Paint Binder: Supply at rate of 0.05 to 0.10 gallon per square yard to all vertical surfaces of curbs, gutters, and construction joints in surfacing against which additional material is to be placed in accordance with CSS Section 394.02.
- B. Asphaltic Concrete:
 - 1. Spread and compact in accordance with CSS Section 39-5, to thickness noted.

2. Provide smooth side and water-resistant surfaces, true within tolerances specified and free of birdbaths.
 3. Bring asphaltic concrete to edges of concrete, adjacent paving, and header boards; do not overlap these items.
 4. Roll surfaces longitudinally; cross rolling will be required where space permits.
- D. Existing Asphaltic Concrete Paving:
1. Repair damage caused by construction operations and restore to condition prior to construction.
 2. Restoration may be accomplished by patching defects, resurfacing, completely replacing, or a combination of these measures.
 3. Measures taken shall be adequate for work of restoration required and shall be subject to Architect's approval.
- E. Seal Coat: Apply fog seal coat in accordance with CSS Section 37 to all existing and new asphaltic concrete paving.
1. Mask adjoining surfaces and areas, and take all other necessary precautions as required to prevent over-spray and splatter of the seal coat material on the adjacent surfaces or areas. In the event the precautions taken are not adequate, clean all traces of over-spray and splatter from all surfaces, to the satisfaction of the Project Manager.
- F. Bituminous concrete paving shall show no evidence of cracking, uneven settlement or improper drainage, improper drainage or untoward junctions with adjoining or existing asphaltic concrete surfaces. Correct work displaying such conditions under Contractor's warranty of all work.
- G. Finish surface shall be true to established elevations within 1/4" in 10' as measured from a 10' straightedge in any direction.

3.4 FIELD QUALITY CONTROL

- A. Before seal coating, flood the paved areas with water to check drainage and surface irregularities. Replace, or overlay high and low spots in an acceptable manner and water test the paving again after corrections have been made.
- B. Replace or repair deficient and damaged asphalt paving.
- C. All paving shall drain properly before being accepted. There shall be no variation greater than $\pm 1/4$ " from a 10' straight-edge, except at grade changes.

3.5 PROTECTION

- A. Permit no surface traffic until surface has cooled sufficiently to resist damage.

END OF SECTION

SECTION 02580

PAVEMENT MARKING

PART 1 – GENERAL

1.1 SUMMARY

- A. Work Included:
 - 1. Materials and application of pavement, traffic and symbol markings.

1.2 REFERENCE STANDARDS

- A. State of California, Business and Transportation Agency, Department of Transportation's "Standard Specifications", 2010 Edition.

1.3 SUBMITTALS

- A. Manufacturer's literature describing products.
- B. Shop Drawings: Show complete layout and location of markings.
- C. Sample of paint when non-slip additive is applied.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Traffic Marking and Symbol Paint: Synthetic rubber type; white color Fuller-O'Brien Corp. 382-12; Glidden Co., Sinclair Paint Co., or approved equal.
- B. Handicapped Symbol Background Paint: Blue color. Glidden Co. "Glid-Guard Lifemaster Finish No. 5200 Series, Color 1/M79 ", or approved equal.

PART 3 – EXECUTION

3.1 INSPECTION

- A. Examine receiving surfaces and verify that surfaces are proper for installation.
- B. Do not start work until unsatisfactory conditions have been corrected.

3.2 APPLICATION

- A. When shown on Drawings, remove existing pavement markings by carefully sandblasting marking material from pavement surface, taking care not to leave "ghosts" of original layout.
- B. Apply marking paint in accordance with approved manufacturer's recommendations.
- C. Assure dense coverage such that color and texture of substrate is not visible.
- D. Parking Stripes: Paint 4" wide unless otherwise noted.

E. Symbol Marking: Paint as shown on Drawings.

3.3 CLEANING

A. Upon completion of work, remove surplus materials and rubbish, and clean off spilled or splattered paint resulting from this work.

3.4 PROTECTION

A. Permit no surface traffic until pavement and symbol markings have dried thoroughly.

END OF SECTION

SECTION 02700
SITE IMPROVEMENTS

PART 1 – GENERAL

1.1 DOCUMENTS

The General Conditions, Supplementary Conditions, and applicable portions of Division 1 of the Specifications are part of this Section.

1.2 SCOPE

Furnish and install items specified herein and locate where indicated on the Drawings. This shall include fences, signs, landscaping structures and appurtenances.

PART 2 – PRODUCTS

2.1 PARKING SIGN POSTS

Sign posts shall be hot dip galvanized 2" o.d. weighing 2.72 pounds per lineal foot.
Sign posts shall include hot dip galvanized rounded post cap, sized to fit.

PART 3 – EXECUTION

3.1 POST INSTALLATION

Install posts 30 inches into 8-inch diameter piers, 36 inches deep.

3.2 CLEAN UP

Remove all debris resulting from the work of this Section.

END OF SECTION

SECTION 08712

AUTOMATIC DOOR CONTROLS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Scan Card activated automatic door controls.

1.3 REFERENCES

- A. UL 94 – Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances.
- B. UL 1054 – Standard for Special-Use Switches.

1.5 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Manufacturer regularly engaged, for minimum 10 years, in manufacture of automatic door activation equipment.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage: Store materials in clean, dry area indoors in accordance with manufacturer's instructions.
- C. Handling: Protect materials and finish during handling and installation to prevent damage.

1.7 WARRANTY

- A. Warranty Period: 18 months.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. County Standard: IDENTIV uTrust TS Migration Reader 8110. Interface with existing Hirsch Access Control System. No Substitutions.

2.2 AUTOMATIC DOOR CONTROLS

- A. Scan Card activated automatic door controls: 8110 TS Migration Reader.
- B. Authorized dealer for IDENTIV (Hirsch) Access Control System: Blakeslee Telecom, 14 West Third St., Santa Rosa, CA 95402. Phone: 707-545-6393.



uTrust TS Reader Family

Mullion, Wall Mount, and Keypad

- **ONE READER, ALL MAJOR CREDENTIALS**
Configurations to support all major formats, from legacy proximity to secure credentials
- **HIGHLY SECURE**
Multiple layers of security based on a certified hardware security element
- **COMMUNICATION FLEXIBILITY**
Provides Wiegand and RS-485 communications for interoperability with most systems
- **INTEROPERABILITY BASED ON OPEN STANDARDS**
Based on strong security without compromising interoperability

Solid Performance Merges with High Security

Identiv's uTrust TS Reader Family is designed to offer system integrators and users robust performance and maximum flexibility. uTrust TS Readers work with system changes and alterations, such as expansion, corporate mergers, or simply the desire to expand and increase a facility's security. From corporate campuses or universities to complex environments, uTrust TS fully supports entire populations of access control users.

In addition to supporting proximity and smart cards, uTrust TS offers compatibility with PLAID, an open standards-based mutual authentication process to access secure card data. Authentication ensures that information is transferred only after the system has determined that both parties in the system are trustworthy and has validated that the data can be transferred securely. PLAID provides a significant enhancement to privacy.

Highly Secure

uTrust TS Readers were designed for security from the start, built around the most advanced EAL 5+ certified Secure Access Module (SAM). All keys are securely managed and stored in SAM; all configurations and updates are signed and validated to preserve security.

Interoperability

The uTrust TS Reader architecture is based upon secure open standards, enabling communication with other platforms, devices, and credentials..

Keypad

For projects that require strong two-factor authentication, Identiv offers the uTrust TS Keypad Reader. The weatherproof design provides complete key area illumination for evening use and vandal-resistant metal keycaps for extra-long life. The PIN pad supports the most popular data structures to the controller.

Specifications

	TS ADVANCED READER	TS MIGRATION READER	TS PROXIMITY READER	TS PROXIMITY READER	TS ADVANCED READER	TS MIGRATION READER	TS MIGRATION KEYPAD
MODEL NUMBER	8000	8010	8020	8120	8100	8110	8210
MOUNTING	Mullion			Wall Mount			Keypad
CARRIER FREQUENCIES	13.56 MHz	125 kHz/13.56 MHz	125 kHz	125 kHz	13.56 MHz	125 kHz/13.56 MHz	125 kHz/13.56 MHz
OUTPUT	Wiegand or RS-485 (2 wire)						
CURRENT CONSUMPTION @ 12 V	100 mA Average 133mA Peak			97 mA Average 114mA Peak			110mA Average 155mA Peak
POWER SUPPLY	5 to 16 VDC						6 to 16 VDC
PRODUCT WEIGHT	141 g (4.97 oz) ±5%			290 g (10.23 oz) ±5%			310 g (10.93 oz) ±5%
DIMENSIONS	11.8 x 4.3 x 2.8 cm (4.6 x 1.7 x 1.1 in)			11.8 x 7.8 x 2.8 cm (4.6 x 3.1 x 1.1 in)			11.8 x 7.8 x 2.8 cm (4.6 x 3.1 x 1.1 in)
COLOR	Black						
HOUSING MATERIAL	UL94 Polycarbonate						
OPERATING TEMPERATURE	-35° to 66°C (-31° to 149°F)						
STORAGE TEMPERATURE	-35° to 85° C (-31° to 185°F)						
OPERATING HUMIDITY	5 to 95% relative humidity (non-condensing)						
CONNECTION	Pigtail or Terminal Strip						Terminal Strip
STATUS INDICATOR	RGB LED, Buzzer						
FIRMWARE UPGRADE VIA	RS-485						
CABLE DISTANCE	Wiegand 152 m/500 ft (22 AWG wire), RS-485 1200 m**/4000 ft** (24 AWG shielded twisted pair)						
LOW FREQUENCY CARD COMPATIBILITY (125 KHZ)	N/A	HID®, Indala®, Casi Rusco®, AWID, Farpointe®, others		HID®, Indala®, Casi Rusco®, AWID, Farpointe®, others	N/A	HID®, Indala®, Casi Rusco®, AWID, Farpointe®, others	
HIGH FREQUENCY CARD COMPATIBILITY (13.56 MHZ)	uTrust, PIV, PIV-I, CAC, TWIC, MIFARE Classic, DESFire EV1, PLAID [AS 5185-2010], ISO15693 UID, ISO14443A/B UID						
READ RANGE	High Frequency (13.56 MHz) Java Cards: Up to 4 cm/1.6 in MIFARE Classic: Up to 6 cm/2.4 in DESFire EV1: Up to 6 cm/2.4 in Low Frequency (125 kHz): Up to 7 cm (2.8 in)						
CERTIFICATIONS	FCC, UL 294, CE, IC, C-Tick, RoHS2, REACH, GSA						

Technical data is subject to change without notice.

* Please reference complete part number list for terminal strip/pigtail model number.

** Tested in lab conditions up to 115 Kbaud.

Identiv, Inc. (NASDAQ: INVE) is the leading global player in physical security and secure identification. Identiv's products, software, systems, and services address the markets for physical and logical access control and a wide range of RFID-enabled applications. Customers in the government, enterprise, consumer, education, healthcare, and transportation sectors rely on Identiv's access and identification solutions. Identiv's mission is to secure the connected physical world: from perimeter to desktop access, and from the world of physical things to the Internet of Everything.

Identiv has offices worldwide. Addresses and phone numbers are listed at identiv.com/contact. For more information, visit identiv.com or email sales@identiv.com.

Technical data is subject to change without notice.

Copyright © 2016 Identiv, Inc. | All rights reserved. This document is Identiv public information.

Revision/Date of Release: 2016-08-01

identiv.com

2.3 BOLLARD

- A. 6"x 6" x 42" Tall Clear Anodized Aluminum Bollard. Surface mount with concealed mounting base, prepped for Ingress'r ADA switch with removable cap. WIKK SQ8-BPS SM-INGR CLEAR or equal.
- B. 6"x 6" x 42" Tall Powder Coated Tube Steel Bollard with welded top cap.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to receive Migration Reader.
- B. Notify Architect of conditions that would adversely affect installation or subsequent use.
- C. Do not begin installation until unacceptable conditions are corrected.

3.2 INSTALLATION

- A. Installation of county standard access control devices shall be by authorized installers in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Install scan card activated automatic door controls level and plumb.
- C. Install scan card activated automatic door controls at mounting height 36 inches above finished floor.
- D. Mount scan card activated automatic door controls securely in place to supports with fasteners supplied by manufacturer.
- E. Connect switch in accordance with manufacturer's instructions.

3.3 BOLLARD INSTALLATION

- A. Install Aluminum Bollard per manufacturer's instructions.
- B. Install Tube Steel Bollard with 24" embedment in a 12" diameter by 30" concrete footing.

3.3 PROTECTION

- A. Protect installed scan card activated automatic door controls to ensure that, except for normal weathering, door controls will be without damage or deterioration at time of Substantial Completion.

END OF SECTION

SECTION 08713
AUTOMATIC DOOR OPERATORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Low-energy door operators for swinging doors.
- B. Related Sections:
 - 1. Automatic door controls in Section 087120.

1.3 DEFINITIONS

- A. AAADM: American Association of Automatic Door Manufacturers.
- B. Activation Device: A device that, when actuated, sends an electrical signal to the door operator to open the door.
- C. Safety Device: A control that prevents a door from opening or closing.
- D. For automatic door terminology, see BHMA A156.19 for definitions of terms.

1.4 COORDINATION

- A. Coordinate hardware for doors with operators to ensure proper size, thickness, hand, function, and finish.
- B. Electrical System Roughing-in: Coordinate layout and installation of automatic door operators with connections to power supplies.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for automatic door operators.
 - 2. Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.

B. Shop Drawings: For automatic door operators.

1. Include plans, elevations, sections, hardware mounting heights, and attachment details.
2. Indicate dimensions, weights, loads, and required clearances, method of field assembly, components, and location and size of each field connection.
3. Indicate locations of activation and safety devices.
4. Include diagrams for power, signal, and control wiring.

1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For automatic door operators, safety devices, and control systems, to include in maintenance manuals.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: An authorized representative who is trained and certified by manufacturer for installation and maintenance of units required for this Project.

1.8 WARRANTY

- A. Warranty: Manufacturer agrees to repair or replace components of automatic door operators that fail in materials or workmanship within standard one year warranty period.
1. Failures include, but are not limited to, the following:
 - a. Faulty or sporadic operation of automatic door operator, including controls.
 - b. Deterioration of metals, metal finishes, and other materials beyond normal weathering or use.
 2. Warranty Period: One year from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide NABCO ENTRANCES, INC.; Nabco/Gyro Tech, GT710 Single Outswing or comparable product by one of the following:
1. Besam Entrance Solutions; Subsidiary of ASSA ABLOY Entrance Systems.
 2. Horton Automatics; a division of Overhead Door Corporation.
 3. Motion Access, LLC; automatic entrance solutions
 4. LCN Closers; an Ingersoll-Rand company.
 5. Stanley Access Technologies, LLC; Div. of Stanley Security Solutions.
- B. Source Limitations: Obtain automatic door operators, including activation and safety devices, from single source from single manufacturer.

2.2 AUTOMATIC DOOR OPERATORS, GENERAL

- A. General: Provide operators of size recommended by manufacturer for door size, weight, and movement; for condition of exposure; and for long-term, maintenance-free operation under normal traffic load for occupancy type indicated; and according to UL 325. Coordinate operator mechanisms with door operation, hinges, and activation and safety devices.
- B. Electromechanical Operating System: Self-contained unit powered by permanent-magnet dc motor; with closing speed controlled mechanically by gear train and dynamically by braking action of electric motor, connections for power and activation- and safety-device wiring, and manual operation including spring closing when power is off.
- C. Cover for Surface-Mounted Operators: Fabricated from 0.125-inch- thick extruded or formed aluminum continuous over full width of operator-controlled door opening.
- D. Brackets and Reinforcements: Fabricated from aluminum with non-staining, nonferrous shims for aligning system components.
- E. Electrical Components, Devices, and Accessories: Listed and labeled, by a qualified testing agency, and marked for intended location and application.

2.3 LOW-ENERGY DOOR OPERATORS

- A. Standard: BHMA A156.19.
- B. Performance Requirements:
 - 1. Opening Force if Power Fails: Not more than 15 lbf required to release latch if provided, not more than 30 lbf required to manually set door in motion, and not more than 15 lbf required to fully open door.
 - 2. Entrapment-Prevention Force: Not more than 15 lbf required preventing stopped door from closing or opening.
- C. Configuration: Operator to control pair of swinging doors.
 - 1. Traffic Pattern: Dual swing.
 - 2. Mounting: Surface.
- D. Operation: Power opening and spring closing with dynamic or hydraulic breaking. Provide time delay for door to remain open before initiating closing cycle as required by BHMA A156.19. When not in automatic mode, door operator shall function as manual door closer, with or without electrical power.
- E. Operating System: Electrohydraulic.
- F. Features:
 - 1. Adjustable opening and closing speed.
 - 2. Adjustable opening force.
 - 3. Adjustable back-check.
 - 4. Adjustable hold-open time from zero to 30 seconds.
 - 5. Opening obstruction detection.
- G. Activation Device: Push-plate switches on each side of door to activate door operator.

H. Exposed Finish: Class II, color anodic finish.

1. Color: Dark bronze matching existing door color.

2.4 MATERIALS

A. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.

1. Extrusions: ASTM B 221.
2. Sheet: ASTM B 209.

B. Stainless-Steel Sheet: ASTM A 240/A 240M or ASTM A 666, Type 304, stretcher-leveled standard of flatness, in manufacturer's standard thickness.

C. Fasteners and Accessories: Corrosion-resistant, non-staining, non-bleeding fasteners and accessories compatible with adjacent materials.

2.5 CONTROLS

A. Touch-activated automatic door controls as specified in Section 087120.

2.6 FABRICATION

A. Factory fabricated automatic door operators to comply with indicated standards.

B. Form aluminum shapes before finishing.

C. Fabricate exterior components to drain condensation and water passing joints within operator enclosure to the exterior.

D. Use concealed fasteners to greatest extent possible. Where exposed fasteners are required, use countersunk Phillips flat-head machine screws, finished to match operator.

2.7 ACCESSORIES

A. Signage: As required by cited BHMA standard for type of door and its operation.

1. Application Process: Decals.
2. Provide sign materials with instructions for field application when operators are installed.

2.8 GENERAL FINISH REQUIREMENTS

A. Protect mechanical finishes on exposed surfaces from damage by applying strippable, temporary protective covering before shipping.

B. Apply organic and anodic finishes to formed metal after fabrication unless otherwise indicated.

C. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within range of approved Samples and are assembled or installed to minimize contrast.

2.9 ALUMINUM FINISHES

- A. Clear Anodic Finish: AAMA 611, AA-M12C22A31, Class II, 0.010 mm or thicker.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances, door and frame preparation and reinforcements, and other conditions affecting performance of automatic door operators.
- B. Examine roughing-in for electrical systems to verify actual locations of power connections before automatic door operator installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Install automatic door operators according to manufacturer's written instructions and cited BHMA standard for type of door operation and direction of pedestrian travel, including signage, controls, wiring, remote power units if any, and connection to building's power supply.
 - 1. Do not install damaged components. Fit joints to produce hairline joints free of burrs and distortion.
 - 2. Install operators true in alignment with established lines and door geometry without warp or rack. Anchor securely in place.
- B. Controls: Install activation and safety devices according to manufacturer's written instructions and cited BHMA standard for operator type and direction of pedestrian travel.
- C. Signage: Apply on both sides of each door as required by cited BHMA standard for type of door operator and direction of pedestrian travel.

3.3 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:
 - 1. Test and inspect each automatic door operator installation, using AAADM inspection forms, to determine compliance of installed systems with applicable BHMA standards.
- B. Prepare test and inspection reports.

3.4 ADJUSTING

- A. Adjust automatic door operators to function smoothly, and lubricate as recommended by manufacturer; comply with requirements of applicable BHMA standards.
 - 1. Adjust operators on exterior doors for a weather tight closure.

- B. After completing installation of automatic door operators, inspect exposed finishes on doors and operators. Repair damaged finish to match original finish.
- C. Readjust automatic door operators and controls after repeated operation of completed installation equivalent to three days' use by normal traffic (100 to 300 cycles).
- D. Occupancy Adjustment: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting system to suit actual occupied conditions. Provide up to two visits to Project during other-than-normal occupancy hours for this purpose.

3.5 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain automatic door operators.

END OF SECTION 087113