Chevron U.S.A. Products Company
2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500
Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

Operations

February 9, 1993

Ms. Susan Hugo
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Re: Former Chevron Service Station No. 9-3864
5101 Telegraph Avenue, Oakland, California

Dear Ms. Hugo :

Enclosed is a conceptual design of a remediation system that Chevron would like Alameda County Department of Environmental Health to approve for this site.

The system will consist of an extraction well and treatment system. If it is determine that more than one extraction well is necessary, additional extraction wells will be installed. At this time only one well is anticipated. The treatment system will probably be activated carbon. However, if liquid hydrocarbon is encountered which is unlikely, there are provisions for an oil / water separator. Pump size and type as well as any other specifications such as extraction well construction and carbon size which are not stated in the drawings or in the scope of work will be site specific.

Please note that Sheet 1 is used to describe the system. It is not meant to show the location of the system because the location will depend on the future improvements of the property.

For additional information, please refer to the enclosed scope of work and drawings. If you have any questions or comments, please feel free to call me at (510) 842-8752.

Sincerely,

Chevron U.S.A. Products Co.

Kenneth Kan
Site Assessment and Remediation Engineer

LKAN/MacFile 9-3864R14

Enclosure

cc: Mr. Richard Hiett, RWQCB-San Francisco Bay Area
2101 Webster Street, Suite 500, Oakland, CA 94612

Dr. Ravi Arulananthum, Alameda County Health Care Services
80 Swan Way, Room 200, Oakland, CA 94621

Ms. Bette Owen, Chevron U.S.A. Products Co.

Weiss Associates
Environmental and Geologic Services
5500 Shellmound Street, Emeryville, CA 94608-2411
Fax: 510-547-5043 Phone: 510-547-5420

SCOPE OF WORK

REMEDIATION SYSTEM CONSTRUCTION

CONTRACTOR SHALL:

1. Obtain building permit from the City of_____ Building department. Weiss Associates (WA) will supply all necessary information and pay all permit fees. Submit copy of approved permits to WA. Obtain a business license from the City of_____.

2. Coordinate inspections with building department, fire department and other required inspectors.

3. Minimize impact on _____ by adjusting the construction schedule to satisfy _____ and covering open trenches with steel plates. All areas of on-site storage of equipment or materials shall be coordinated with _____.

4. Perform construction as specified in attached Sheets 1 through 3 and described below.

5. Supply and install a 30 amp, 1 phase, 230V breaker inside stations existing panel. Pull three #10 wires from existing panel inside station to control panel (panel supplied by WA) inside equipment enclosure, refer to Sheets 1 and 2. Remove and replace materials in existing A-E-T conduit and replace power to existing lighting at air and water service port, see Sheet 1. Supply and install a Watt-Hour meter inside enclosure, refer to Sheet 2.

6. Install 4" Sch 40 steel removable guard posts filled with concrete 4' above grade and 2' below grade in concrete by equipment enclosure as shown on Sheets 1 and 2.

7. Modify well head as specified. Install 17" x 30" H-20 loading Christy box around MW-B. Install 4" Sch 40 PVC piping and terminate within well head box.

8. Prepare for trenching by locating utilities and product lines from station drawings, and coordinating line locating service and Underground Service Alert. Hand excavate around utilities. Place piping above or beneath existing underground lines.

9. Layout trenches as specified in the attached Sheets. Actual placement of conduits and piping to be determined in the field and approved by WA.

10. Supply and install materials as specified:

    a) Electrical: 1" Sch 40 rigid non-metallic conduit from air and water service port to control panel in equipment enclosure per attached Sheets. Install 0.25 inch pull line in each conduit without wire already inside. Install electrical conduit from electrical distribution panel (supplied by WA) to treatment equipment shown on Sheet 2. All piping risers installed from 18" below grade to above grade shall be Sch 40 steel.

    b) Water: 4" Sch 40 PVC piping from well head to equipment enclosure. Piping to slope at least 1/16" per foot from well head to equipment enclosure. 2" Sch 40 PVC from equipment enclosure to existing 6" storm drain within planter area. Piping shall be Sch.

80 PVC when buried depth is less than 18 inches. All containment piping bends shall be DWV long sweep type or electrical conduit type. One 0.25 inch pull line shall be installed in 4" conduit from well MW-B to equipment enclosure. Prior to backfilling, perform a low pressure air test of 15 psig for 15 minutes minimum on all piping.

c) For pipe test, the Contractor shall furnish and install temporary caps, plugs, thrust blocks and other necessary materials needed to hold pressures on tested lines.

11. Back fill, compact to 90% minimum relative compaction, and patch trenches as specified in attached Sheets. All asphalt paving shall be in accordance with Caltrans section 39. All concrete shall be restored with concrete to its original line and grade and finish to match.

12. Concrete, asphalt, trench spoils and debris shall not be stockpiled on-site and must be hauled off-site to an approved disposal facility. Contractor shall supply receipt from the disposal facility. The WA project manager shall be informed immediately if gasoline or chemical odors are detected during the excavation activities. Excavated materials suspected of containing gasoline or other chemicals shall be stored on-site completely covered with polyethylene plastic sheeting. The Contractor will not be responsible for testing and disposing of soils containing gasoline or other chemicals.

13. Terminate and cap conduits and piping to a height of 24 inches within corner of fence enclosure as shown on Sheet 2. Contractor shall install flexible water-tight electrical conduit from electrical distribution panel to treatment equipment's electrical connection. WA and Chevron will provide and install treatment equipment in a timely manner.

14. Install 6" high concrete berm along the southern end of equipment enclosure, as shown on the attached Sheets. Contractor shall connect berm with existing asphalt curbing to provide for secondary containment area within equipment enclosure. Install a water resistant epoxy coating or approved equal for use with liquids containing gasoline and stoddard solvent.

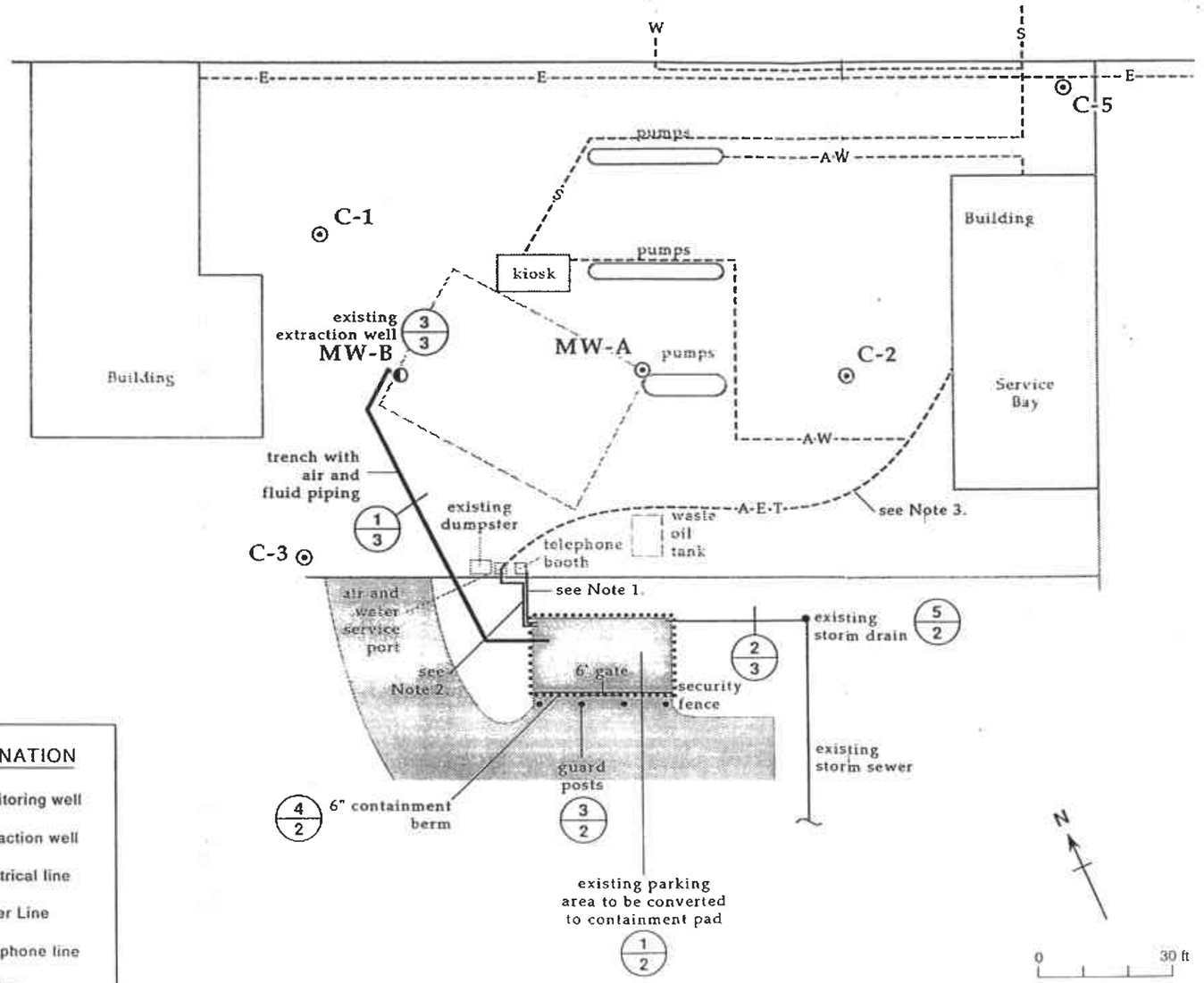
15. Install 6' tall brown or grey plastic-slatted chain link fence as shown on Sheets 1 and 2. The fence dimensions are approximately 16' wide by 28' long. A 6' lockable swing gate is provided for equipment enclosure access.

16. Install electrical system as shown. The electrical wiring shall meet the National Electrical Code (NEC) Class 1, Group D, Division 2 explosion-proof requirements for classified hazardous locations. All electrical materials and installation shall conform to Articles 500, 501, 504, and 514 of the National Electric Code.

17. Install 1/2" galvanized steel conduit for telephone service and wooden mounting block within fenced area as shown on Sheet 1. Pacific Bell will use conduit to provide telephone service.

18. Install 2" Sch 40 PVC discharge line as shown on Sheets 1 and 2. Connect to existing Storm drain with a 6"x6"x2" PVC WYE or approved equal.

19. Install an inspection port within equipment enclosure as shown on Sheet 2. Terminate with cap inside equipment enclosure 8" above existing surface.



Notes:

1. Install 1/2" galvanized steel conduit from telephone booth to inside equipment enclosure.
2. Electrical conduit to be placed according to local and state codes. Refer to item 10a. of the construction scope of work.
3. Refer to item 5. of the construction scope of work.

EXPLANATION

- ⊙ Monitoring well
- ◐ Extraction well
- --E-- Electrical line
- --W-- Water Line
- --T-- Telephone line
- --A-- Air line
- --S-- Sewer line

Base map from Western Geologic Resources, Inc

	BY	DATE	REV.	DESCRIPTION	DATE	APP'D
DRAWN	SE	4/6/92				
DESIGNED						
CHECKED						
APPROVED						

PROJ. NO. 4-525

GROUND WATER REMEDIATION SYSTEM

TREATMENT SYSTEM
PLAN VIEW

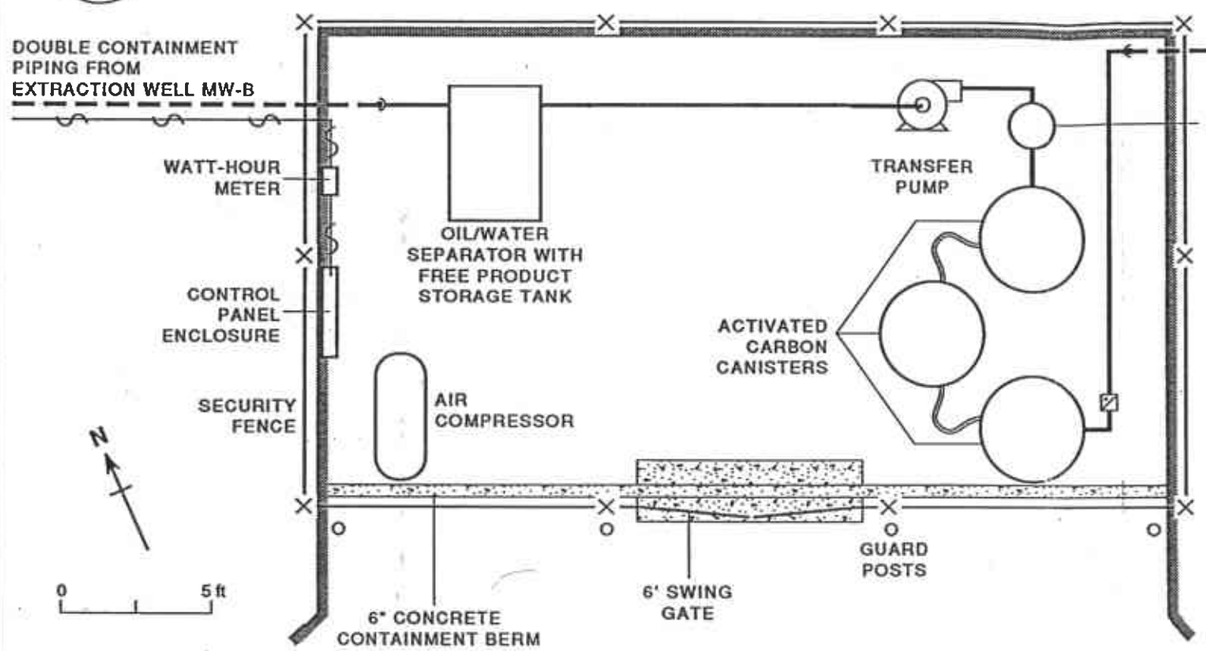
Chevron Service Station

SHEET NO. 1 OF 3 SHEETS

6/10/92

WEISS ASSOCIATES

1/2 PLAN VIEW

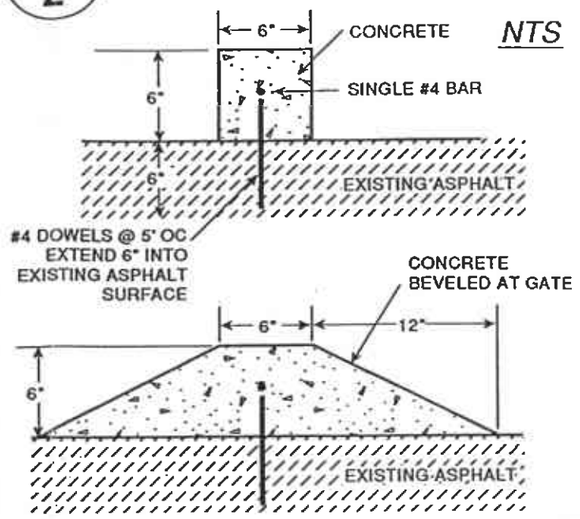


Notes:
1. Install electrical conduit to components per city standard

EXPLANATION

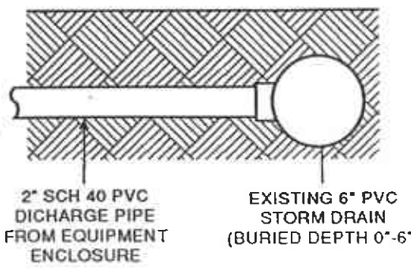
- 2" SCH 40 PVC check valve
- 2" watertight flex hose
- Above grade piping
- Below grade piping
- Electrical line
- Existing asphalt curbing

4/2 BERM DETAIL

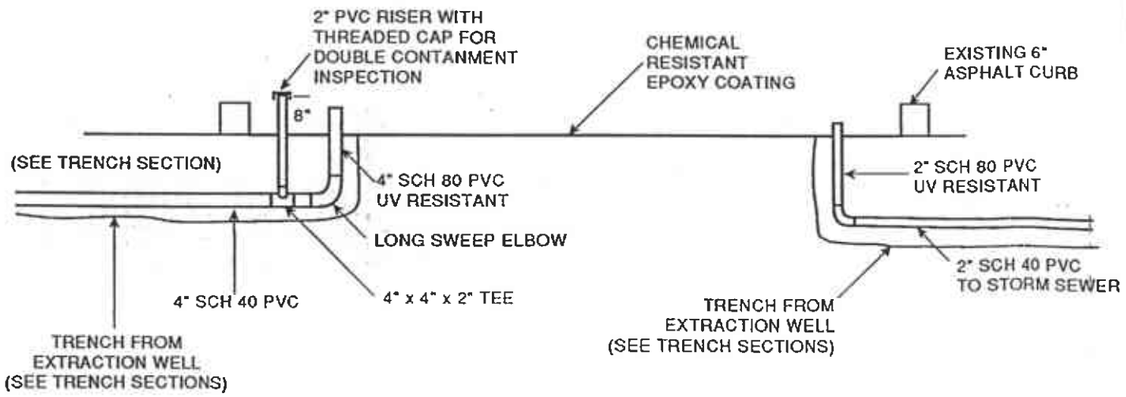


5/2 STORM DRAIN CONNECTION

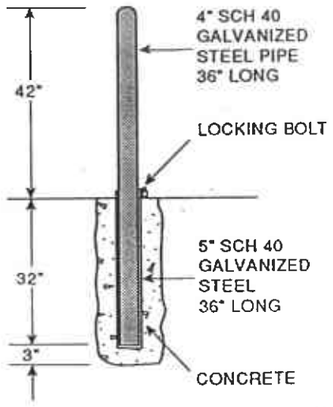
NTS



2/2 SIDE VIEW NOT TO SCALE



3/2 GUARD POST NTS



	BY	DATE	REV.	DESCRIPTION	DATE	APP'D
DRAWN						
DESIGNED	MW	7/2/92				
CHECKED						
APPROVED	EB	7/2/92				

PROJ. NO. 4-525

GROUND WATER REMEDIATION SYSTEM

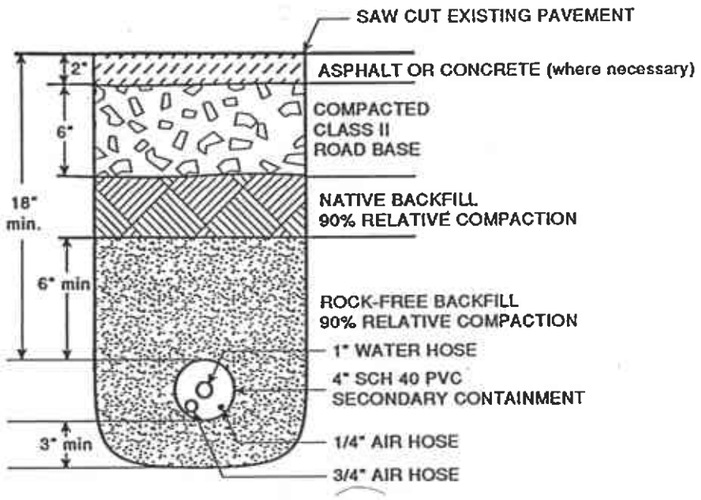
CONTAINMENT PAD DETAIL

Chevron Service Station

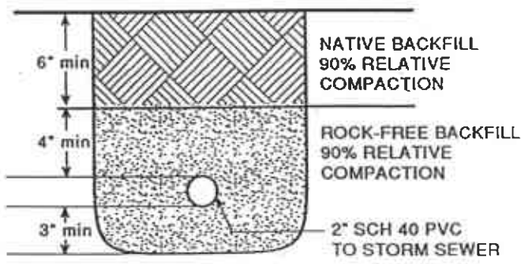
SHEET NO. 2 OF 3 SHEETS

7/2/92

1/3 TRENCH FROM EXTRACTION WELL TO TREATMENT SYSTEM



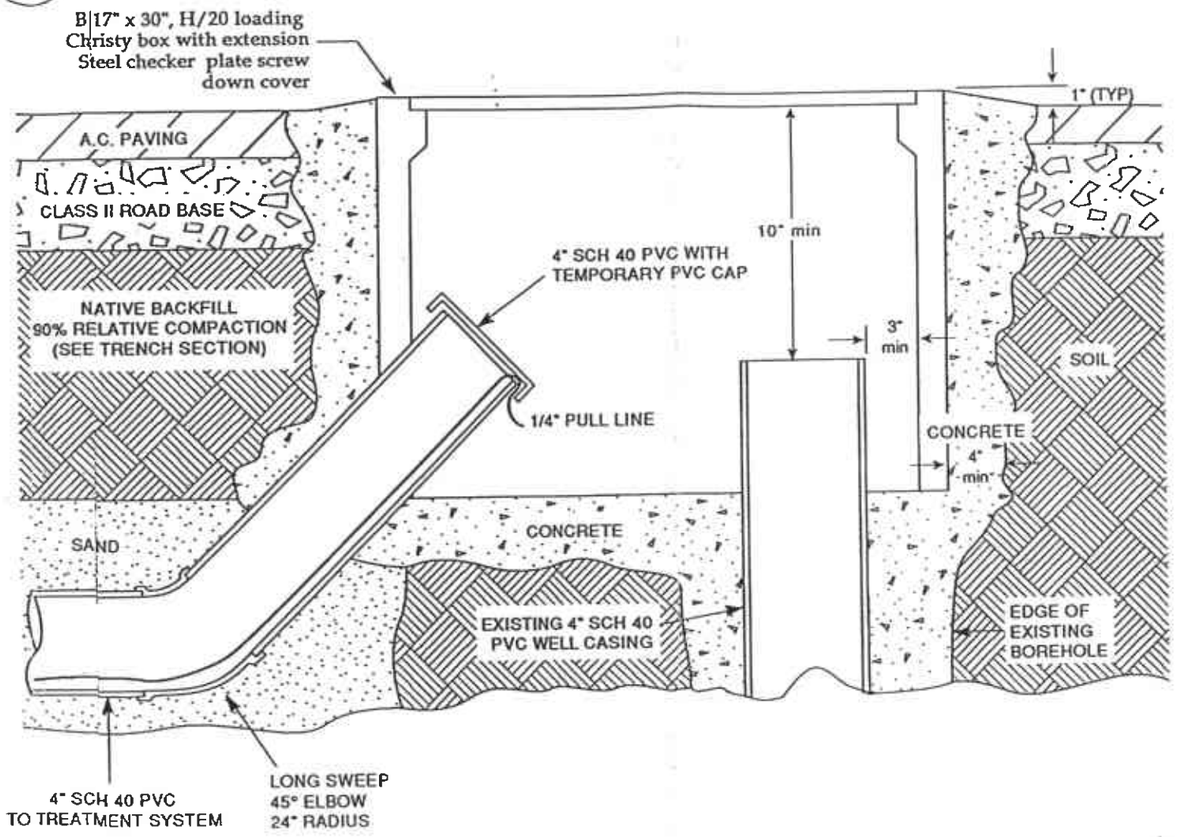
2/3 TRENCH FROM TREATMENT SYSTEM TO STORM DRAIN



Notes:

1. Rock free backfill (sand, pea gravel or native soil containing not more than occasional rounded rocks less than 0.25" diameter) must be provided from a level of 3" below to 6" above all pipes in the trench.
2. Backfill and compaction shall meet State and City requirements.

3/3 WELL HEAD COMPLETION DETAIL



NOT TO SCALE

	BY	DATE	REV.	DESCRIPTION	DATE	APP'D
DRAWN						
DESIGNED	JMW	7/2/92				
CHECKED						
APPROVED	CS	7/2/92				

PROJ. NO. 4-525

GROUND WATER REMEDIATION SYSTEM
TRENCH SECTIONS AND WELL HEAD COMPLETION DETAIL
Chevron Service Station

SHEET NO 3 OF 3 SHEETS