Proposed 13-Unit Apartment
For
Taher Merchant Inc.

2500 Haley Street, Bakersfield, CA 93305

APN# 126-081-15

Contractor Responsibility

Section 1704.4 of the California Building Code requires each contractor responsible for the construciton of a main wind- or seismic- force resisting sysem, designated seismic system or a wind or seismic-force resisting component listed in the statement of special inspections (prepared by the registered design professional in responsible charge) to submit a statement of responsibility to the building official and the owner prior to the commencement of work on the system or component. It has been determined that special inspections are required for this project. The special inspector(s) shall be approved by the building official per CBC 1704.2.1.

I, ______________________________, hereby acknowledge that I am aware of the special inspection requirements contained within the statement of special inspections. I am the contractor responsible for construction of the project described in these plans scope of work.

I further acknowledge that I will exercise control to obtain conformance with the construction documents approved by the building official. The procedure I will use for exercising control as well as the method, frequency, and distribution of reports, are outlined as follows:

Special inspection of the lateral resisting system by Stephen D. Miller (RCE 55892) prior to inspection by the building official. Coordination of subcontractors in order to assure compliance with the requirements of the plans an applicable building codes.

Copyright Agreement

Special Inspections

1705.6 Soils. Special inspections and tests of existing site soil conditions, fill placement and load-bearing requirements shall be performed in accordance with this section and Table 1705.6. The approved geotechnical report and the construction documents prepared by the registered design professionals shall be used to determine compliance. During fill placement, the special inspector shall verify that proper materials and procedures are used in accordance with the provisions of the approved geotechnical report.

Exception: Where Section 1803 does not require reporting of materials and procedures for fill placement, the special inspector shall verify that the in-place dry density of the compacted fill is not less than 90 percent of the maximum dry density at optimum moisture content determined in accordance with ASTM D1557.

1705.6.1 Soil fill. [OSHPD 1R, 2 & 5] All fills used to support the foundations of any building or structure shall be continuously inspected by the geotechnical engineer or his or her qualified representative. It shall be the responsibility of the geotechnical engineer to verify that fills meet the requirements of the approved construction documents and to coordinate all fill inspection and testing during construction involving such fills. The duties of the geotechnical engineer or his or her qualified representative shall include, but need not be limited to, the inspection of cleared areas and benches prepared to receive fill; inspection of the removal of all unsuitable soils and other materials; the approval of soils to be used as fill material; the inspection of placement and compaction of fill materials; the testing of the completed fills; and the inspection or review of geotechnical drainage devices, buttress fills or other similar protective measures in accordance with the approved construction documents. A verified report shall be submitted by the geotechnical engineer as required by the California Administrative Code. The report shall indicate that all tests and inspections required by the approved construction documents were completed and whether the tested materials and/or inspected work meet the requirements of the approved construction documents.

TABLE 1705.6
REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	—	X
2. Verify excavations are extended to proper depth and have reached proper material.	—	X
3. Perform classification and testing of compacted fill materials.	—	X
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	X	—
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	—	X

Grading Notes

1. All grading shall conform with Appendix J - California Building Code and standards pertaining thereof and preliminary soils report by The Dirt Guys dated July 10, 2020.
2. The design engineer shall exercise sufficient supervisor control during grading and construction to insure compliance with the plans, soils report, specifications, and code within his purview.
3. Grading work will be supervised as engineered grading in accordance with Appendix J of the California Building Code.
4. Surface drainage to be one (1%) percent minimum to approved drainage facilities except as waived by the Building Official.
5. Civil Engineer, Geotechnical Engineer and Building Official will be notified forty eight (48) hours prior to placing of any fill material.
6. All fill to be compacted to a minimum of ninety (90%) percent maximum density as determined by approved method per Section 3305 of the current California Building Code and certified by tests and report from soils engineer.
7. Fill material shall be placed in layers not exceeding six (6) inches in compacted thickness and compacted at optimum moisture content by an approved method.
8. All fill areas to be cleared of all vegetation and other unsuitable material for a structure fill and the area scarified to a depth of six (6) inches.
9. Faces of all cut and fill slopes to be shall be planted with a ground cover indigenous to the area and maintained against erosion.
10. All cut and/or fill slope shall not be steeper than two (2) horizontal to one (1) vertical.
11. Berms or drainage devices are required at top of all fill slopes.
12. Diverter terraces (Swales) with three (3) three feet minimum width and one (1) foot minimum depth are required at top of cut and fill slopes when existing terrain slopes toward top of cut.
13. Fill areas sloping steeper than five to one (5:1) shall be keyed and benched to support fill.
14. All fill slopes shall not cut within twelve (12) feet horizontally of the top of existing and/or planned slopes.
15. All slopes in excess of three (3) feet minimum width and one (1) foot minimum depth are required at top of cut slopes when existing terrain slopes toward top of cut.

Design Parameters

Project Area - 20,163 s.f. (0.46 acres)
Disturbed Area - 20,163 s.f. (0.46 acres)

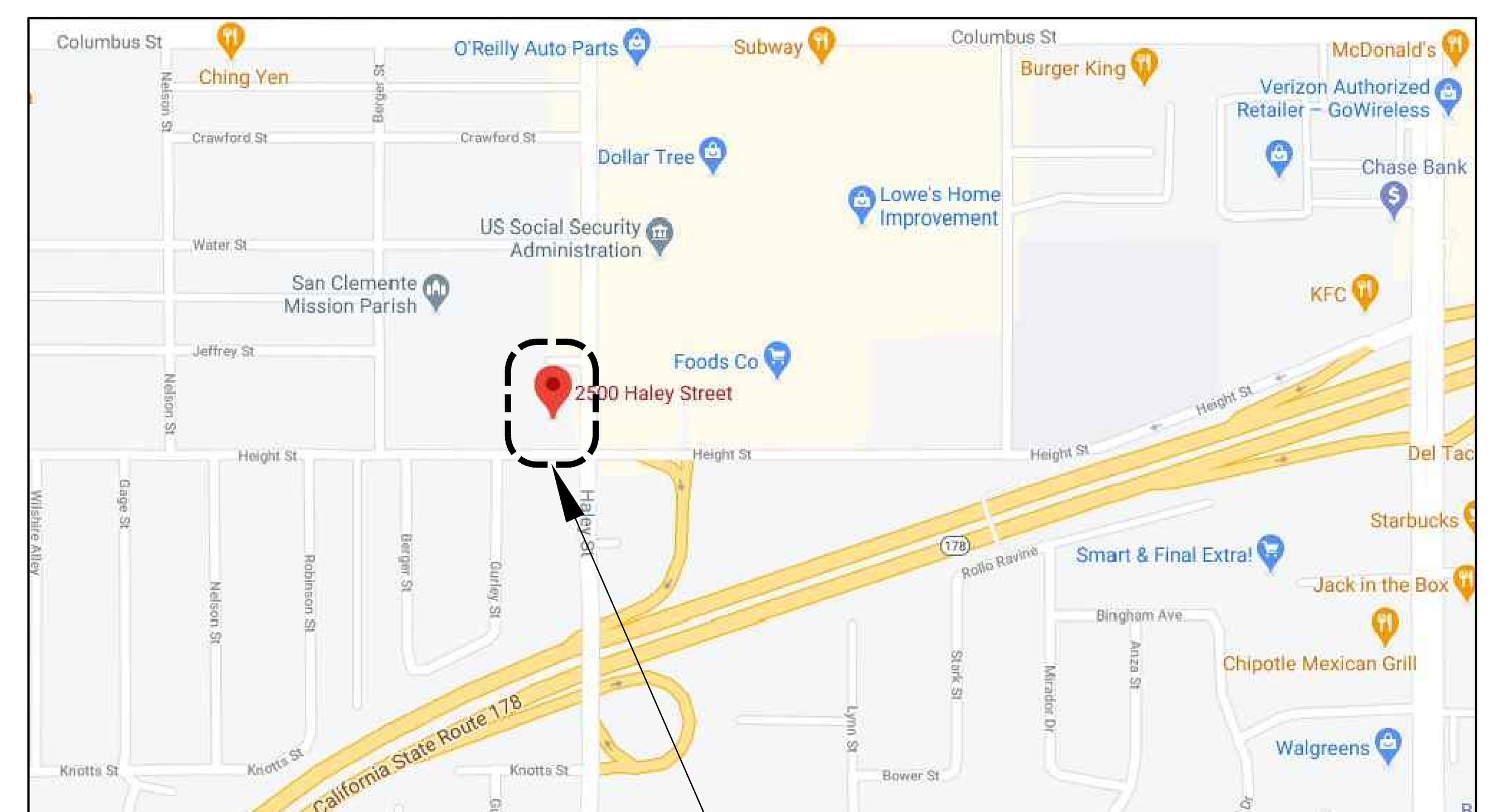
Cut - 413 c.y
Fill - 163 c.y
Overex - 1,723 c.y.
Import - 0 c.y.
Export - 0 c.y.

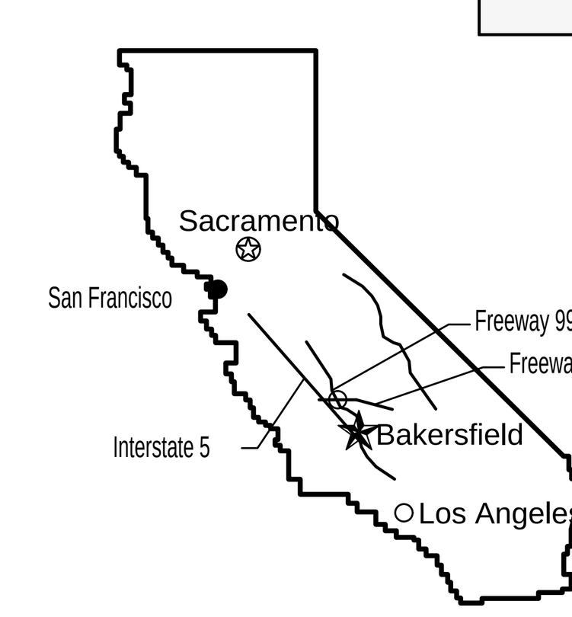
$$\frac{\text{Cut + Overex + Import}}{\text{Fill + Overex + Export}} = \frac{413 + 1723 + 0}{163 + 1723 + 0} = \frac{2136}{1886} = 1.13$$

Basis of Bearing

The Bearing of South 89°24'21" East for the Centerline of Haley Street.

Vicinity Map





Project Location

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CWS Engineering Inc.
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Justin T. Miller
President
Stephen D. Miller
Vice President / Civil Engineer

Proposed 13-Unit Apartment
For
Taher Merchant Inc.
2500 Haley Street, Bakersfield, CA 93305

APN# 126-081-15

DATE July 6, 2023

REGISTERED PROFESSIONAL ENGINEER
STEPHEN MILLER
No. C55892
CIVIL
STATE OF CALIFORNIA

C001
Title Sheet

SHEET 1 OF 7

JOB NO. 145-20001

FILE 145-20001_grading_201112.dwg

Sitework

1. Projects which disturb less than one acre of soil and are not part of a large common plan of development which in total disturbs one acre or more, shall manage storm water drainage during construction in accordance with the California Green Building Code.
2. Address identification. New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be a minimum of 4 inches (102 mm) high with a minimum stroke width of 1/2 inch (12.7 mm). Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building address cannot be viewed from the public way, a monument, pole or other approved sign or means shall be used to identify the structure. Address identification shall be maintained.
3. Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection that does not create a hazard. Lots shall be graded to drain surface water away from foundation walls. The grade shall fall not fewer than 6 inches (152 mm) within the first 10 feet (3048 mm).
   Exception: Where lot lines, walls, slopes or other physical barriers prohibit 6 inches (152 mm) of fall within 10 feet (3048 mm), drains or swales shall be constructed to ensure drainage away from the structure. Impervious surfaces within 10 feet (3048 mm) of the building foundation shall be sloped not less than 2 percent away from the building.
4. Parking for tenants to be assigned parking in conformance with 1109A.4.
5. When assigned parking is provided, designated accessible parking for the dwelling unit shall be provided on request of residents with disabilities on the same terms and with the full range of choices (e.g., off-street parking, carport or garage) that are available for other residents.

Site - Legend

- Proposed Building
- 4" Concrete flatwork
- AC Paving (min 2" AC over 4" CL II AB)
- Landscaped Area
- Accessible Path of Travel
- (e) Power pole
- Water meter
- (e) Water valve
- (e) Traffic light
- Sewer manhole cover
- (e) Water valve
- (e) Traffic light
- (e) Fire hydrant
- 6" CMU Partition wall
- Direction of vehicular travel

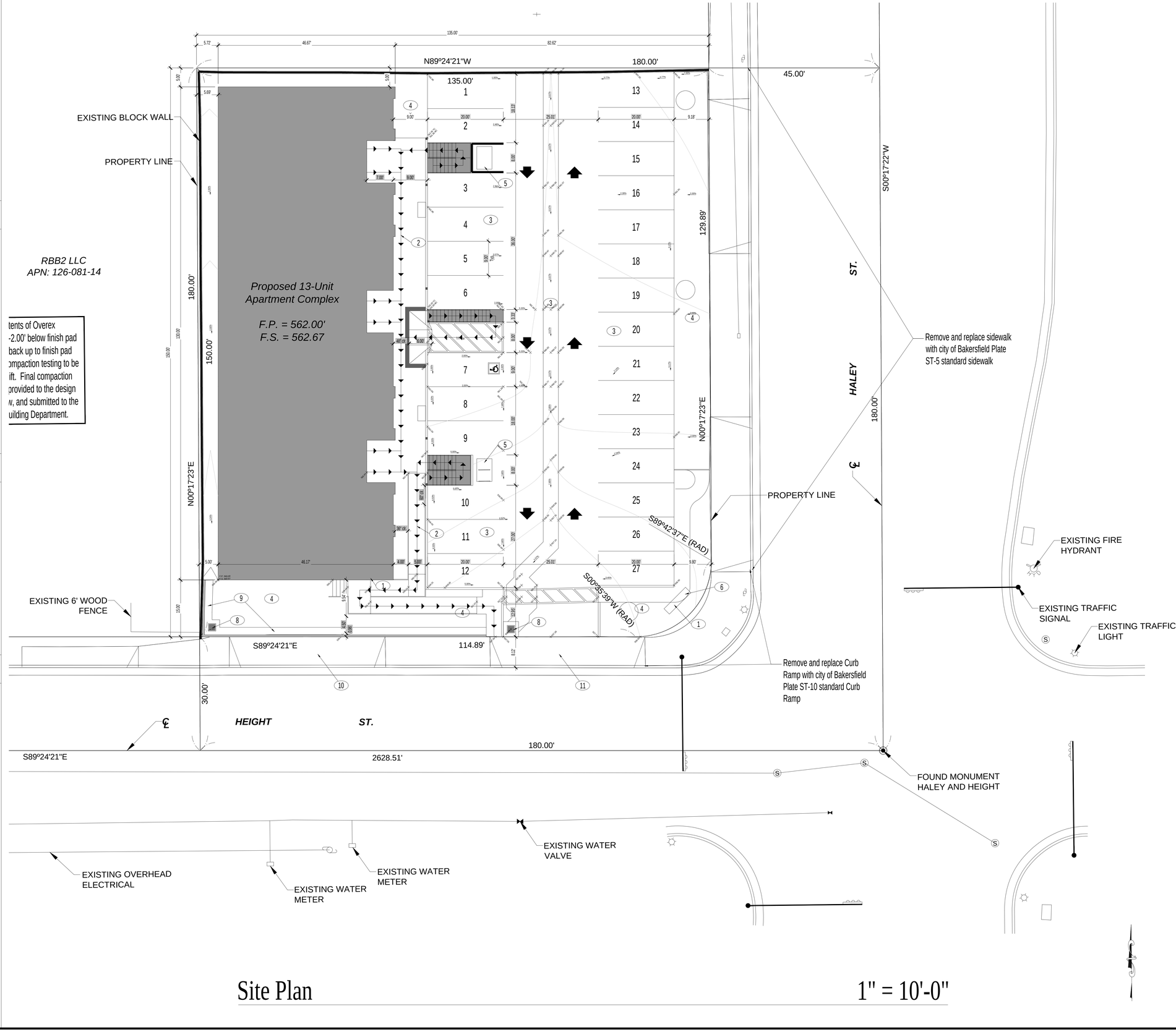
Site - Keynotes

1. Building Address - See C101, note 2 for additional information.
2. Accessible Route of Travel
3. AC Paving (min 2" AC over 4" CL II AB)
4. Landscaped Area
5. Proposed Trash Enclosure
6. Apartment complex signage
7. 4'-0" Wide V-Gutter
8. Drain inlet (See sheet C102 for additional information)
9. Curb Gutter
10. Drive approach to be removed and replaced with Standard curb, gutter and sidewalk.
11. New Drive approach to be installed.

Site - Statistics

Existing & Proposed Zoning -	C2-PD	
Existing Use -	Vacant	
Proposed Use -	13-Unit Apartment Building	
Acreage -	0.46 Acre	
Proposed Building -		
Height -	(2) Story -	30'-3" high
Ground Floor -	Apartments -	5768 s.f.
	Porch / Stairway -	819 s.f.
Upper Floor -	Apartments -	5717 s.f.
	Porch / Stairway -	819 s.f.
Lot Coverage -	6,587 s.f. (32.67%)	
Landscape Area -	3,334 s.f. (16.54%)	
Parking Spaces Required -	26 - Standard 1 - Van accessible Handicapped 27 - Total	
Parking Spaces Provided -	26 - Standard 1 - Van accessible Handicapped 27 - Total	
Sewage Disposal -	Public Sewer	
Water Supply -	Public Water - California Water Service	
Drainage -	Directed to street, to storm-water system	

(This will NOT BE a phased development)



Site Plan

1" = 10'-0"

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APN# 126-081-15

DATE
July 6, 2023

REGISTERED PROFESSIONAL ENGINEER
STEPHEN MILLER
No. C55892
CIVIL
STATE OF CALIFORNIA

C101
Site Plan

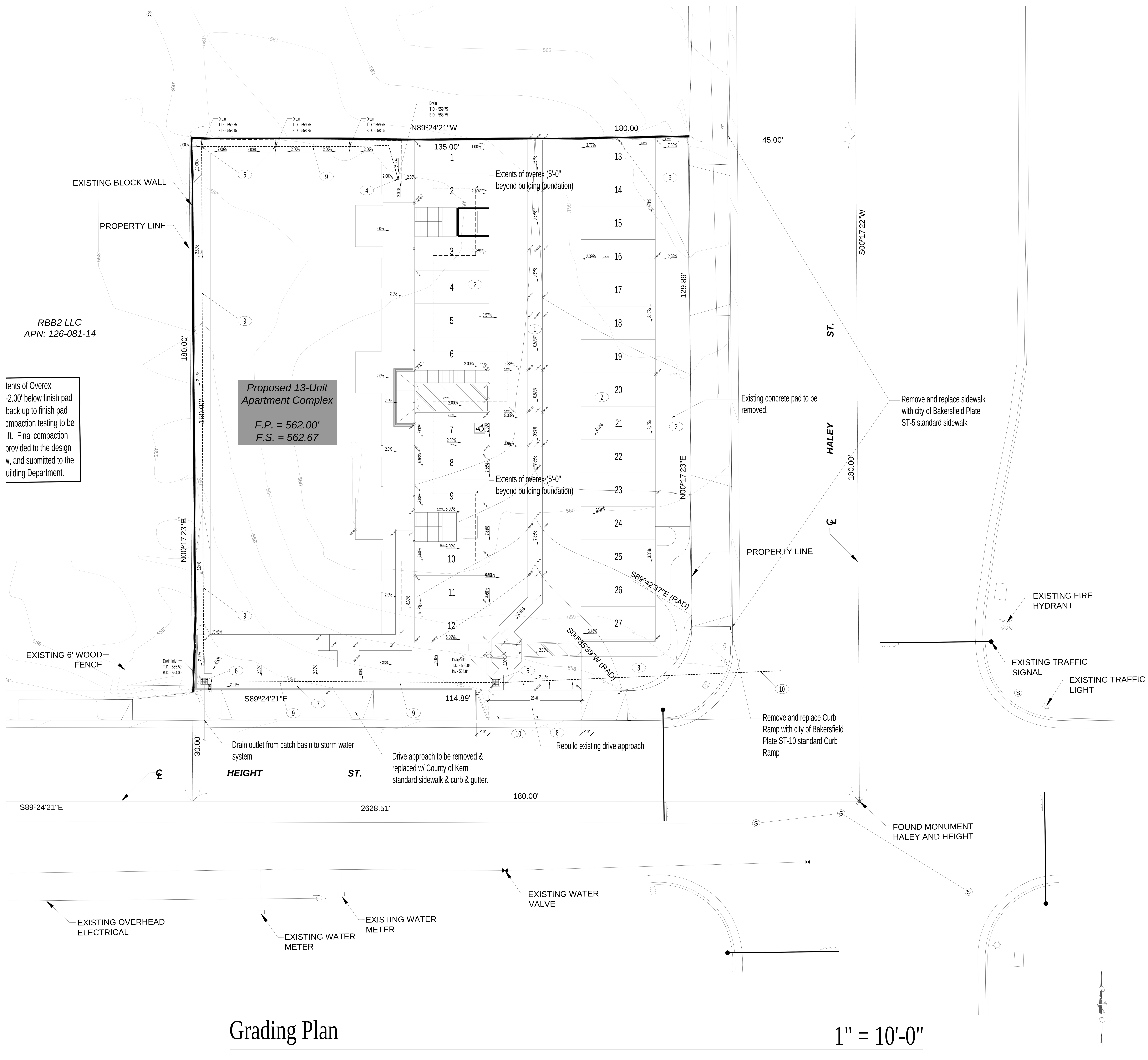
SHEET 2 OF 7

JOB NO. 145-20001

FILE 145-20001_grading_201112.dwg

Site - Keynotes

1. 4'-0" Wide Concrete V Gutter per County of Kern Standards
2. AC Paving (min 2" AC over 4" CL II AB)
3. Landscaped Area
4. Drain inlet (See detail 2, sheet C502 for additional information)
5. Drain inlet (See detail 3, sheet C502 for additional information)
6. Jensen Precast Catch Basin (See sheet C502 for additional information). Provide an approved debris filter for catch basins. Catch Basins to provide a minimum 24" deep catch sump below drain outlet. Contractor to provide maintenance schedule and agreement prior to final.
7. Curb Gutter
8. New Drive approach to be installed
9. 8" Stormwater Piping
10. 18" RCP to City of Bakersfield Stormwater system (Connection to existing storwater system per Plate D-16 sheet C502)



Grading Plan

1" = 10'-0"

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DATE July 6, 2023

REGISTERED PROFESSIONAL ENGINEER
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No. C55892
CIVIL
STATE OF CALIFORNIA

C102
Grading Plan

SHEET 3 OF 7

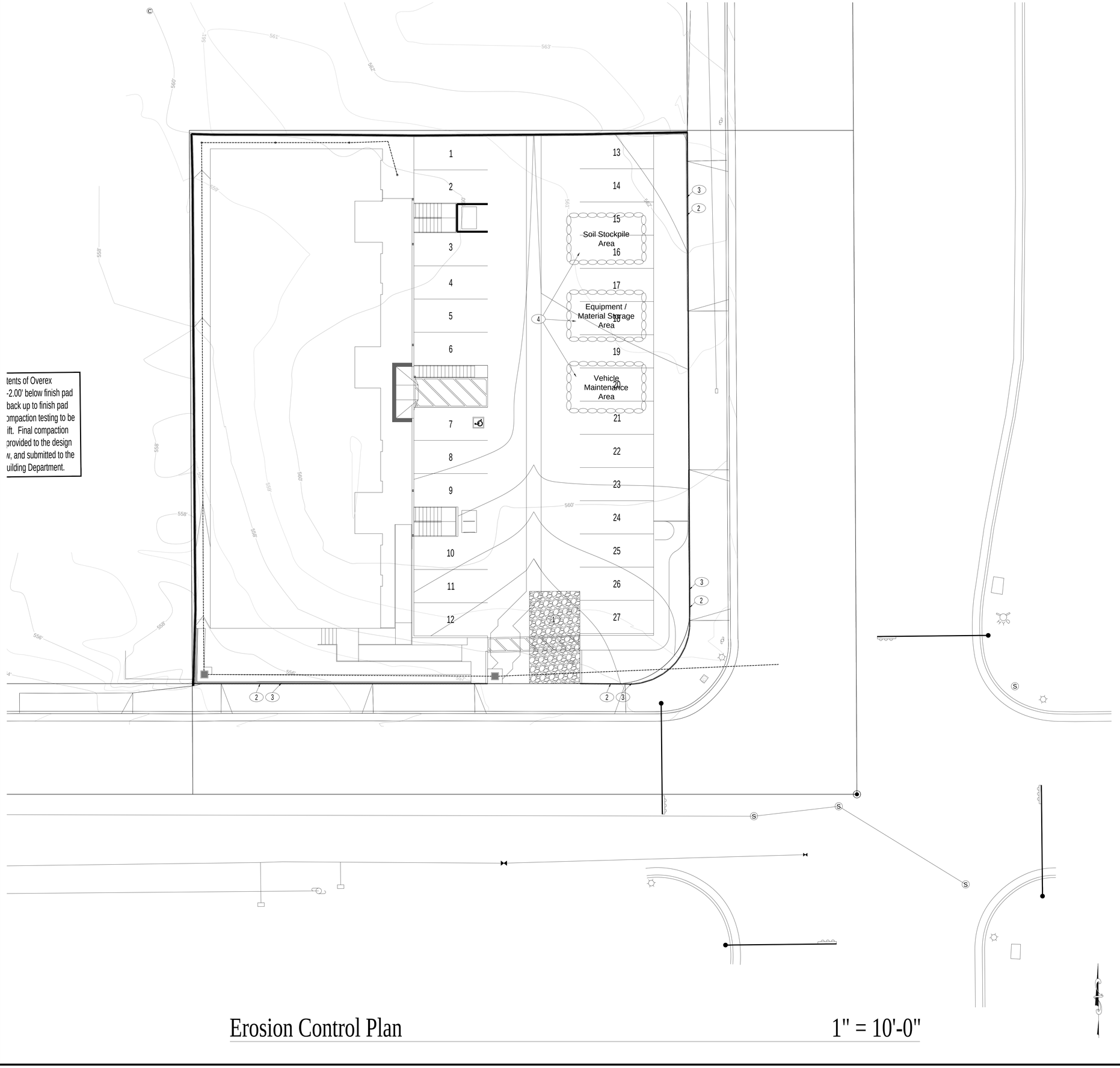
JOB NO. 145-20001

FILE 145-20001_grading_201112.dwg

Keynotes

1. Gravel drive approach per TC-1 this page.
2. Straw Wattles
3. Dirt Berm
4. 2 layers of sand backs surrounding protected areas as shown.

tents of Overex
-2.00' below finish pad
back up to finish pad
ompaction testing to be
ift. Final compaction
provided to the design
w, and submitted to the
uilding Department.



Erosion Control Plan

1" = 10'-0"

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STEPHEN MILLER
No. C55892
CIVIL
STATE OF CALIFORNIA

C103
Erosion Control Plan

SHEET	OF
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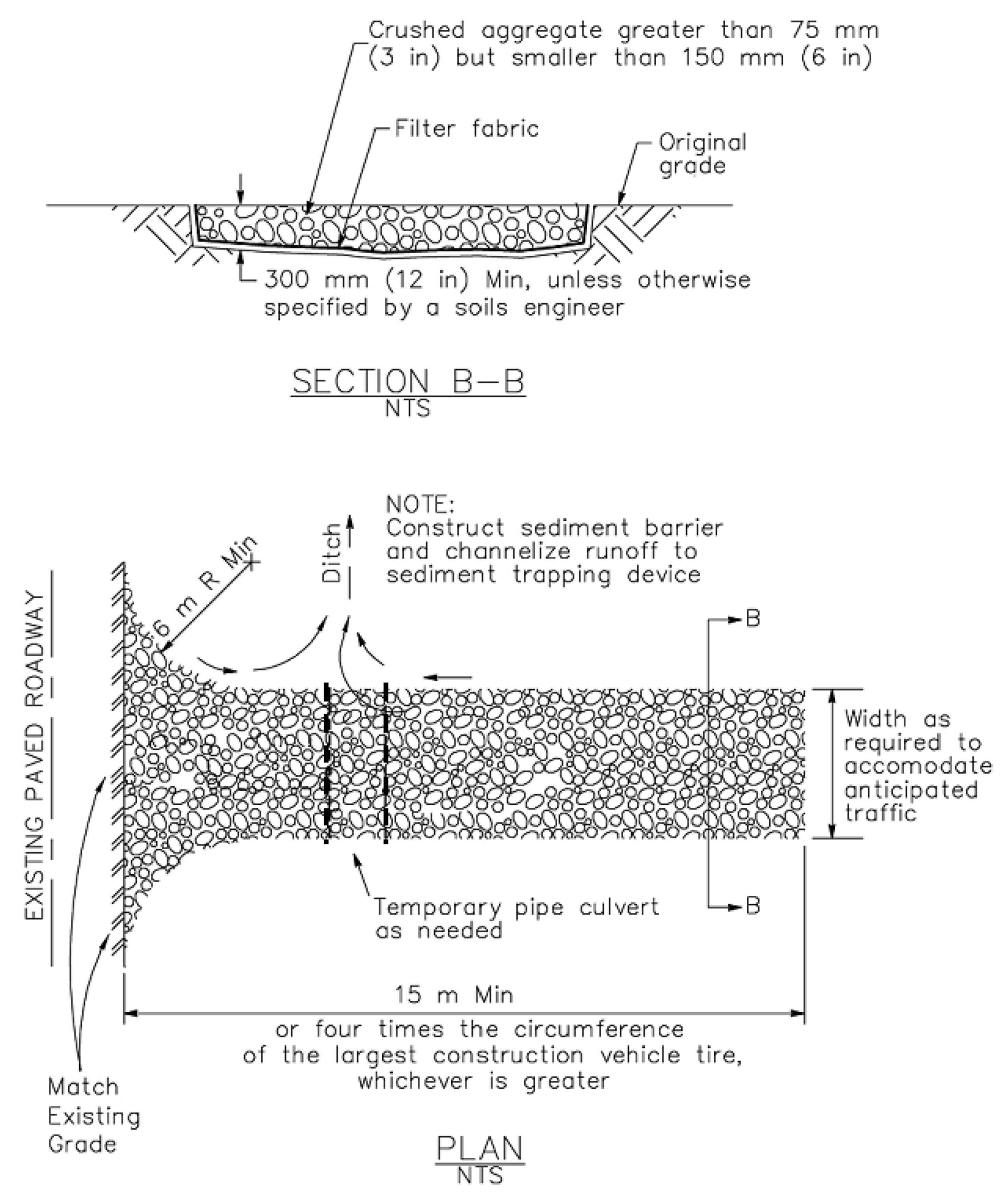
JOB NO. 145-20001

FILE 145-20001_grading_201112.dwg

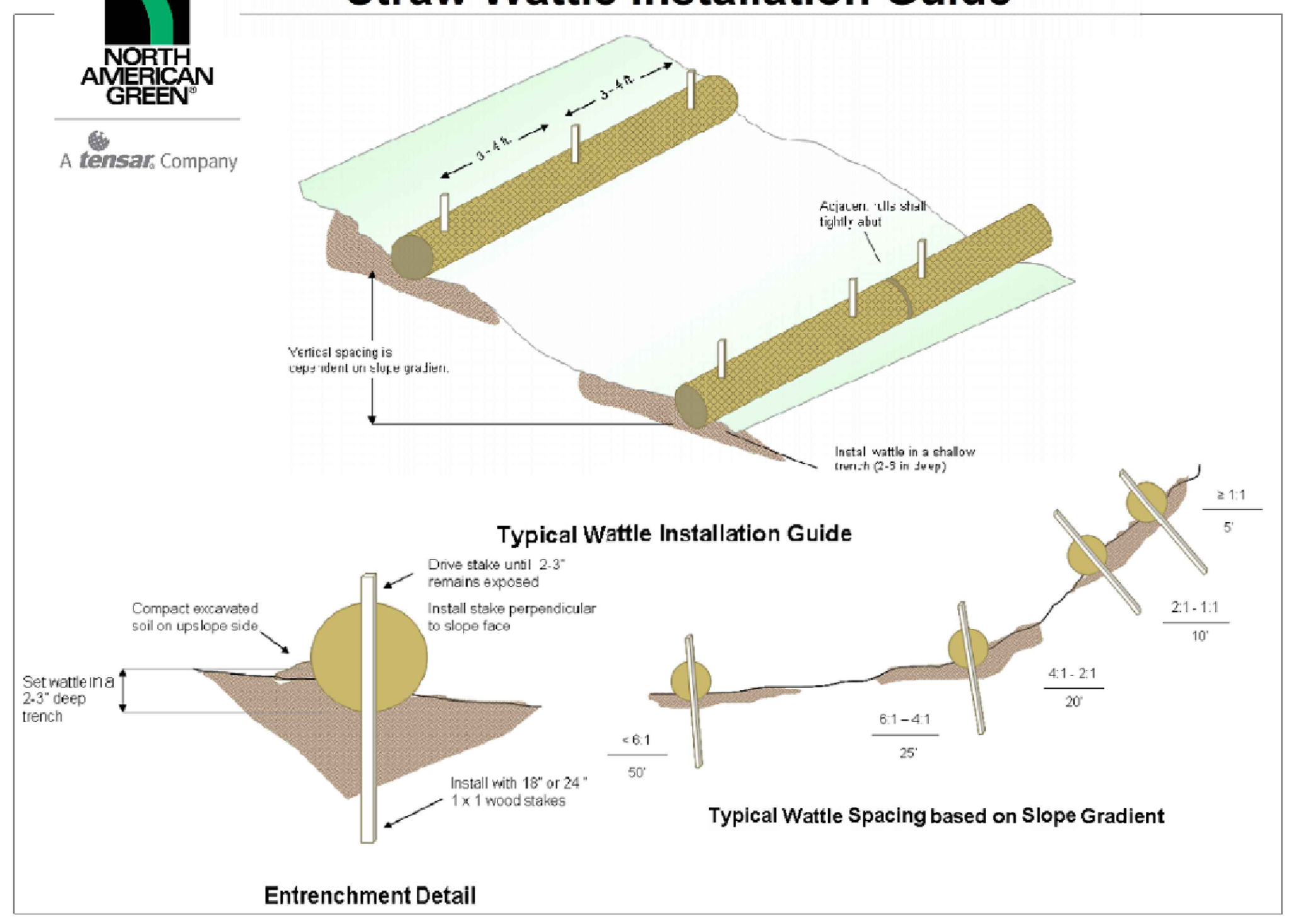
Stabilized Construction Entrance/Exit TC-1



Stabilized Contraction Entrance/Exit (Type 1)

Straw Wattle Installation Guide

NORTH AMERICAN GREEN
A tensar Company



1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2-3" (5-7.5 CM) DEEP X 9" (22.9 CM) WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
3. SECURE THE WATTLE WITH 18-24" (45.7-61 CM) STAKES EVERY 3-4' (0.9 - 1.2 M) AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 2-3" (5-7.5 CM) OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO SLOPE FACE.

North American Green Straw Wattles are a Best Management Practice (BMP) that offers an effective and economical alternative to silt fence and straw bales for sediment control and storm water runoff.

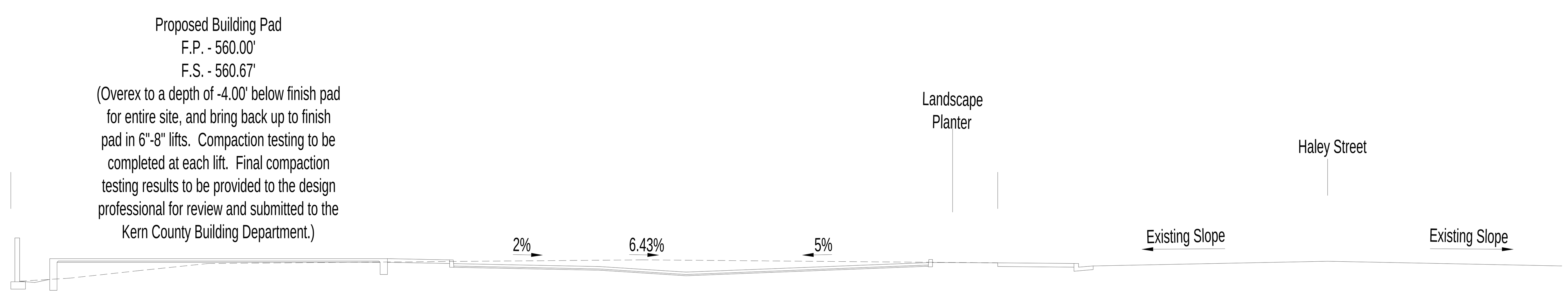
Guidelines are provided to assist in design, installation, and structure spacing. The guidelines may require modification due to variation in soil type, rainfall intensity or duration, and amount of runoff affecting the application site.

To maximize sediment containment with the Straw Wattle, place the initial structure at the top/crest of the slope if significant runoff is expected from above. If no runoff from above is expected, the initial Straw Wattle can be installed at the appropriate distance downhill from the top/crest of the slope. The final structure should be installed at or just beyond the bottom/toe of the slope. Wattles should be installed perpendicular to the primary direction of overland flow.

Straw Wattles are a temporary sediment control device and are not intended to replace rolled erosion control products (RECPs) or hydraulic erosion control products (HECPs). If vegetation is desired for permanent erosion control, North American Green recommends that RECPs or HECPs be used to provide effective immediate erosion control until vegetation is established. Straw Wattles may be used in conjunction with blankets, mats, and mulches as supplemental sediment and runoff control for these applications. Like all sediment control devices, the effectiveness of the Straw Wattle is dependent on storage capacity.

For additional installation assistance, please contact North American Green's Technical Services Department at 1 -800-772-2040

5401 St. Wendel – Cynthiana Road, Poseyville, IN 47633
1-800-772-2040 www.nagreen.com Rev. 1/2011



Grading Sections

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REGISTERED PROFESSIONAL ENGINEER
STEPHEN MILLER
No. C55892
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C301
Site Sections

SHEET 5 OF 7

JOB NO. 145-20001

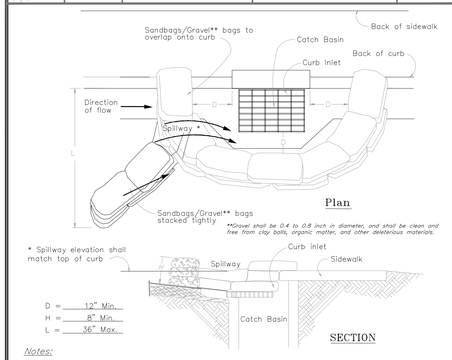
FILE 145-20001_grading_201112.dwg

BEST MANAGEMENT PRACTICES (BMP's)

General Notes

1. *Best Management Practices (BMP's) contained herein reflect the minimum requirements. Alternate methods providing equal or greater protection may be utilized. For in depth information on BMP's refer to the California Storm Water BMP Handbooks, available at www.cabmphandbooks.com, California Department of Transportation Construction Site BMP Fact Sheets at www.dot.ca.gov/hq/construc/stormwater/factsheets.htm, and/or USEPA BMP Fact sheet @ http://cfpub.epa.gov/npdes/stormwater.*
2. *All construction activity shall be performed in accordance with a Stormwater Pollution Prevention Plan (SWPPP) developed and implemented in compliance with the requirements of the National Pollutant Discharge Elimination System (NPDES) Construction General Permit Order No. 2009-009-DWQ and as amended by Order No. 2010-0014-DWQ.*
3. *The SWPPP shall:*
   a. *Identify potential pollutant sources and include the design and placement of BMP's to effectively prohibit the entry of pollutants from the construction site onto the street and/or into a storm drain system during construction.*
   b. *Be kept on site and amended to reflect changing conditions throughout the course of construction.*
   c. *Be kept up to date. Any additional updates requested by agency representative are to be made immediately.*
4. *Non-Stormwater discharges are prohibited from entering any storm drain system and/or street.*
5. *Discharges of pumped ground water require a discharge permit from the State of California Regional Water Quality Control Board (RWQCB).*
6. *Pollutants shall be removed from stormwater discharges to the Maximum Extent Practicable (MEP) through design & implementation of the SWPPP.*
7. *A standby crew for emergency work shall be available at all times during the wet weather season, which is typically Oct 1 through May 30. Necessary materials shall be available on site and stockpiled at convenient locations to facilitate rapid construction of emergency devices when rain is imminent.*
8. *Portable sanitary facilities shall be located on relatively level ground away from traffic areas, drainage courses, and storm drain inlets.*
9. *Employees, subcontractors and suppliers shall be educated on all BMP's including concrete waste storage and disposal procedures.*
10. *Sediment control practices shall effectively prevent a net increase of sediment load in stormwater discharge.*

A CATCH BASIN/INLET PROTECTION



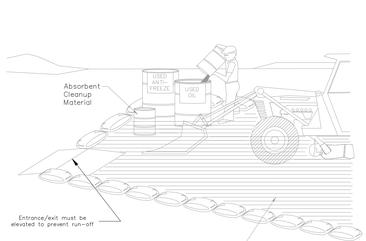
Notes:

1. *Catch Basin/Inlet protection shall be installed wherever there is a potential of stormwater or non-stormwater being discharged into it.*
2. *Inlet protection is required along with other pollution prevention measures such as; erosion control, soil stabilization, and measures to prevent tracking onto paved surfaces.*
3. *Modify inlet protection as needed to avoid creating traffic hazards.*
4. *Include inlet protection measures at hillside v-ditches and misc. drainage swales.*
5. *Inlet protection shall be inspected and accumulated sediments removed. Sediment shall be disposed of properly and in a manner that assures that the sediment does not enter the storm drain system*
6. *Damaged bags shall be replaced immediately.*
7. *Additional sandbag sediment traps shall be placed at intervals as indicated on site plan.*

Revisions Date	Desc	DATE: 06/16/2003
1/01	UPDATE	DESIGNED BY: KH
		DRAWN BY: BH
		CHECKED BY: CF

DEVELOPMENT STANDARD | NPDES BMP SEDIMENT AND EROSION CONTROL | PLATE NO. BMP 1

B EQUIPMENT MAINTENANCE AREAS



Notes:

1. *Leaking vehicles and equipment shall not be allowed onsite. Equipment and vehicles shall be inspected frequently for leaks and shall be repaired immediately. Clean up spills and leaks promptly with absorbent materials; do not flush with water.*
2. *Vehicles and equipment shall be maintained, and repaired onsite only in designated areas. Prevent run-on and run-off from designated areas. Containment devices shall be provided and areas shall be covered if necessary.*
3. *Designate onsite vehicle and equipment maintenance areas, away from storm drain inlets and watercourses.*
4. *Always use secondary containment, such as a drain pan or drop cloth, to catch spills and leaks when removing or changing fluids.*
5. *Legally dispose of used oils, fluids, lubricants, and batteries.*
6. *Provide spill containment dikes or secondary containment around stored oil, fuel, and chemical drums.*
7. *Maintain an adequate supply of absorbent spill cleanup materials in designated area.*
8. *It is the contractors responsibility to regularly inspect the vehicle and equipment maintenance area(s).*

Revisions Date	Desc	DATE: 06/16/2003
1/12	UPDATE	DESIGNED BY: KH
		DRAWN BY: BH
		CHECKED BY: CF

DEVELOPMENT STANDARD | NPDES BMP SEDIMENT AND EROSION CONTROL | PLATE NO. BMP B

C STABILIZED CONSTRUCTION ENTRANCE/EXIT

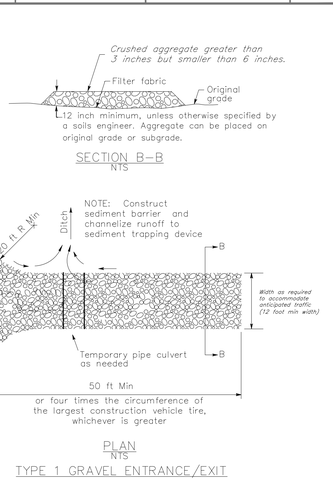
Notes:

1. *Sediments and other materials shall not be tracked from the site by vehicle traffic. The construction entrance roadways shall be stabilized so as to prevent sediments from being deposited into the public roads. Sediment deposited on the roadway must be swept up immediately and may not be washed down by rain or other means into the storm drain system. See Type 1 and Type 2 details.*
2. *Stabilized construction entrance shall be:*
   a. *Located at any point where traffic will be entering or leaving a construction site to or from a public right of way, street, alley, and sidewalk or parking area.*
   b. *A series of steel plates with "rumble strips", and/or min >3" to <6" crushed aggregate with length, width & thickness as needed to adequately prevent any tracking onto paved surfaces.*
3. *Adding a wash rack with a sediment trap large enough to collect all wash water can greatly improve efficiency.*
4. *All vehicles accessing the construction site shall utilize the stabilized construction entrance sites.*
   a. *Remove all sediment deposited on paved roadways immediately.*
   b. *Sweep paved areas that receive construction traffic whenever sediment becomes visible.*
   c. *Pavement washing with water is prohibited, if it results in a discharge to the storm drain system.*

Revisions Date	Desc	DATE: 06/16/2003
1/01	UPDATE	DESIGNED BY: KH
		DRAWN BY: BH
		CHECKED BY: CF

DEVELOPMENT STANDARD | NPDES BMP SEDIMENT AND EROSION CONTROL | PLATE NO. BMP C

C-1 STABILIZED CONSTRUCTION ENTRANCE/EXIT

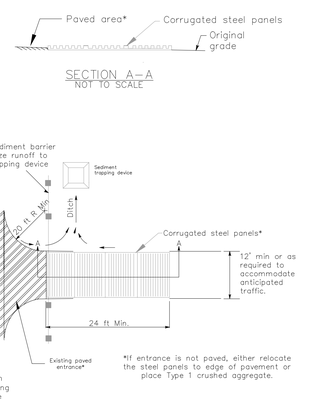


TYPE 1 GRAVEL ENTRANCE/EXIT

Revisions Date	Desc	DATE: 03/19/23
1/12	UPDATE	DESIGNED BY: KH
		DRAWN BY: BH
		CHECKED BY: CF

DEVELOPMENT STANDARD | NPDES BMP SEDIMENT AND EROSION CONTROL | PLATE NO. BMP C-1

C-2 STABILIZED CONSTRUCTION ENTRANCE/EXIT



TYPE 2 ALTERNATIVE ENTRANCE/EXIT

use of corrugated steel plates, shaker plates, rumble plates, etc.

Revisions Date	Desc	DATE: 03/19/23
1/12	UPDATE	DESIGNED BY: KH
		DRAWN BY: BH
		CHECKED BY: CF

DEVELOPMENT STANDARD | NPDES BMP SEDIMENT AND EROSION CONTROL | PLATE NO. BMP C-2

D EROSION CONTROL

Straw Mulch *Hydroseeding*

Hydraulic Mulch *Geotextiles, Mats, Plastic Covers and Erosion Control Blankets*

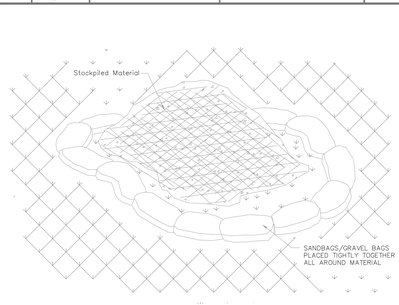
Notes:

1. *Soil/Slope stabilization practices shall be designed to preserve existing vegetation where feasible and to revegetate open areas as soon as feasible after grading. These control practices shall include temporary seeding, permanent seeding, mulching, sod stabilization, vegetative buffer strips, protection of trees, or other soil stabilization practices.*
2. *Soil stabilization shall be implemented on all inactive disturbed areas from October 1 thru May 30 and on all disturbed areas during a rain event or potential rain.*
3. *Stabilization practices shall control/prevent erosion from the forces of wind and water.*
4. *Stabilization practices shall be implemented in conjunction with sediment trapping/filtering practices and practices to reduce the tracking of sediment onto paved roads.*
5. *When using straw mulching, the minimum application shall be 2 tons/acre. Mulch must be anchored immediately to minimize loss by wind or water.*
6. *When using hydroseeding/mulching, the minimum, application of wood fiber shall be 1,500 lbs/acre, that does not contain more than 50 percent newsprint.*
7. *For seeding recommendations, contact: USDA, Natural Resources Conservation Service at 5000 California Avenue, Bakersfield, CA 93309-0725. Phone: (661) 336-0967.*
8. *When using hydraulic mulch, the application shall be between 1 to 2 tons per acre.*
9. *Geotextiles, mats, plastic covers and erosion control blankets should be considered when disturbed soils may be particularly difficult to stabilize.*
10. *For geotextiles, mats, and erosion control blankets, installation should be in accordance with manufactures recommendations. Typically overlap of geotextiles/mats edges is 2 to 3 in. and stapled every 6 in. When blankets are to be spliced, place blankets end-over-end (shingle style) with 6 in. overlap and staple through overlapped area, approximately 12 in. apart.*

Revisions Date	Desc	DATE: 06/16/2003
1/01	UPDATE	DESIGNED BY: KH
		DRAWN BY: BH
		CHECKED BY: CF

DEVELOPMENT STANDARD | NPDES BMP SEDIMENT AND EROSION CONTROL | PLATE NO. BMP D

E MATERIAL STORAGE



Notes:

Stockpile management procedures and practices are designed to reduce or eliminate air and storm water pollution from stockpiles of soil, and paving materials such as portland cement concrete (PCC) rubble, asphalt concrete (AC), asphalt concrete rubble, aggregate base, aggregate subbase or pre-mixed aggregate, asphalt binder (i.e. cold mix) and pressure treated wood.

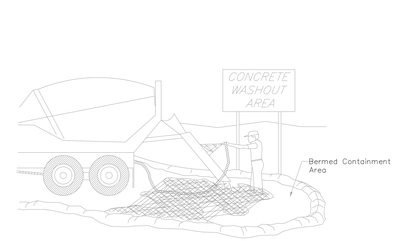
Notes:

1. *Protection of stockpiles is a year-round requirement.*
2. *Locate stockpiles a minimum of 50 feet away from concentrated flows of storm water, drainage courses, and drain inlets.*
3. *Implement wind erosion/transport control practices as appropriate.*
4. *All stockpiles shall be covered, stabilized, or protected with a temporary linear barrier (i.e. sandbags, etc.) prior to the onset of precipitation.*

Revisions Date	Desc	DATE: 06/16/2003
1/12	UPDATES	DESIGNED BY: KH
		DRAWN BY: BH
		CHECKED BY: CF

DEVELOPMENT STANDARD | NPDES BMP SEDIMENT AND EROSION CONTROL | PLATE NO. BMP E

F CONCRETE WASTE MANAGEMENT



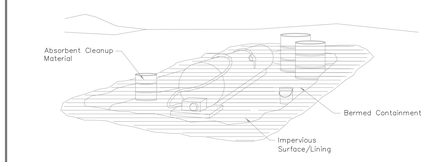
Notes:

1. *Excess and waste concrete shall not be washed into the street or into a drainage system.*
2. *For washout of concrete and mortar products, a designated containment facility of sufficient capacity to retain liquid and solid waste shall be provided on site and disposed of properly off site.*
3. *Slurry from concrete and asphalt saw cutting shall be vacuumed or contained, dried, picked up and disposed of properly.*

Revisions Date	Desc	DATE: 06/16/2003
1/12	UPDATES	DESIGNED BY: KH
		DRAWN BY: BH
		CHECKED BY: CF

DEVELOPMENT STANDARD | NPDES BMP SEDIMENT AND EROSION CONTROL | PLATE NO. BMP F

G VEHICLE/ EQUIPMENT FUELING



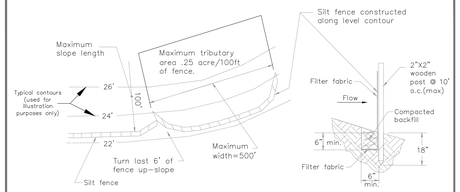
Notes:

1. *Fueling shall be performed in a designated area, away from drainage courses.*
2. *Absorbent cleanup material shall be on site and used immediately in the event of a spill.*
3. *Drip pans or absorbent pads shall be used during vehicle and equipment fueling, unless the fueling is performed over an impermeable surface in a dedicated fueling area.*
4. *Dedicated fueling areas shall be protected from storm water run-on and runoff, and shall be located at least 50 feet from downstream drainage facilities and watercourses. Fueling must be performed on level-grade areas.*
5. *Protect fueling areas with berms and/or dikes to prevent run-on, runoff, and to contain spills.*

Revisions Date	Desc	DATE: 06/16/2003
1/01	UPDATE	DESIGNED BY: KH
		DRAWN BY: BH
		CHECKED BY: CF

DEVELOPMENT STANDARD | NPDES BMP SEDIMENT AND EROSION CONTROL | PLATE NO. BMP G

H SILT FENCE



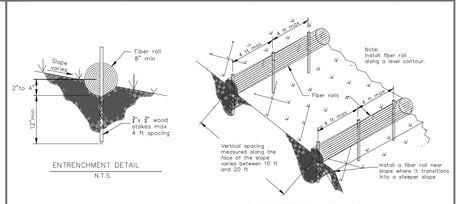
Notes:

1. *Construct the silt fence along a level contour.*
2. *Silt fences shall remain in place until the disturbed area is permanently stabilized.*
3. *Provide sufficient room for runoff to pond behind the fence and allow sediment removal equipment to pass between the silt fence and toe of slope or other obstructions. About 1200 sq. ft. of ponding area shall be provided for every acre draining to the fence.*
4. *Turn the ends of the filter fence uphill to prevent stormwater from flowing around the fence.*
5. *Leave an undisturbed or stabilized area immediately downslope from the fence.*
6. *Do not place in live stream or intermittently flowing channels.*
7. *When standard filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy-duty (0.6 inch) wire staples at least 1.75 inches long, tie wires or hog rings.*
8. *Filter fabric shall be woven polypropylene geotextile with a minimum width of 36 inches and a minimum tensile strength of 100 lb force.*
9. *Wood stakes shall be commercial quality lumber no less than 2 inch by 2 inch. Wood stakes shall be driven to a depth of no less than 18 inches from surface.*

Revisions Date	Desc	DATE: 06/16/2003
1/01	UPDATE	DESIGNED BY: KH
		DRAWN BY: BH
		CHECKED BY: CF

DEVELOPMENT STANDARD | NPDES BMP SEDIMENT AND EROSION CONTROL | PLATE NO. BMP H

I FIBER ROLL



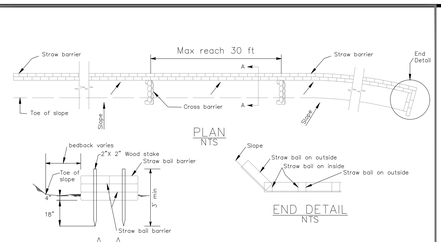
Notes:

1. *Place along the toe, top, face, and at grade breaks of exposed and erodible slopes.*
2. *Place on the down-slope of exposed soil areas.*
3. *Place around temporary stockpiles.*
4. *Place along the perimeter of a project.*
5. *Slopes greater than 1:5 may require the use of 20 inch diameter fiber rolls at the top of slopes.*
6. *Fiber rolls shall be either prefabricated or rolled tubes of erosion control blankets with a minimum 8 inch diameter.*
7. *Slopes 1:4 or flatter require fiber rolls to be placed no more than 20 feet apart.*
8. *Slopes 1:4 to 1:2 require fiber rolls to be placed no more than 15 feet apart.*
9. *Slopes 1:2 or greater require fiber rolls to be placed no more than 10 feet apart.*
10. *Fiber rolls shall be placed in a 2 to 4 inch deep trench.*
11. *Wooden commercial grade stakes, ¾" x ¾" shall be used to secure the fiber roll to the ground surface. Stakes shall be a minimum length of 24 inches and driven a minimum of 12 inches.*
12. *A single-stake installation requires the stakes to be placed no more than 2 feet apart.*
13. *If more than one fiber roll is placed in a row, the rolls shall be overlapped, not abutted, a minimum of 1 foot.*

Revisions Date	Desc	DATE: 03/19/2012
1/13	UPDATE	DESIGNED BY: KH
		DRAWN BY: BH
		CHECKED BY: CF

DEVELOPMENT STANDARD | NPDES BMP SEDIMENT AND EROSION CONTROL | PLATE NO. BMP I

J STRAW BALE BARRIER



A straw bale barrier is a temporary linear sediment barrier consisting of straw bales, designed to intercept and slow sediment laden sheet flow runoff. Straw bale barriers allow sediment to settle from runoff before water leaves the construction site.

Notes:

1. *Place along the perimeter of a site, streams and channels, and/or around stockpiles.*
2. *Place below the toe of exposed and erodible slopes.*
3. *Place down slope of exposed soil areas.*
4. *Place parallel to roadway to keep sediment off paved areas.*
5. *Do not use for drain inlet protection or in areas of concentrated flows.*
6. *Straw bale to be a minimum of 14 inches wide, 18 inches in height and 36 inches in length.*
7. *Shall be composed entirely of vegetative material, except for the binding material.*
8. *Bale bindings shall be either steel wire, nylon or polypropylene string placed horizontally.*
9. *Commercial quality lumber shall be used for 2 inch by 2 inch wood stakes of adequate length.*
10. *Limit the drainage area upstream of the barrier to 0.25ac/100 ft.*
11. *Limit the slope length draining to the straw bale barrier to 100ft.*
12. *Slopes of 2% or flatter are preferred.*
13. *If slope exceeds 10%, the length of the slope upstream of the barrier must be less than 50 ft.*
14. *Install straw barrier along a level contour, in a trench and tightly abut adjacent bales.*
15. *Last straw bale on end needs to be turned up slope.*
16. *Inspect straw bale barriers before and after each rain event.*
17. *Inspect straw bale barriers for sediment accumulations and remove sediment when depth reaches one third the barrier height.*
18. *Replace or repair damaged bales as needed.*

Revisions Date	Desc	DATE: 03/19/2012
		DESIGNED BY: KH
		DRAWN BY: BH
		CHECKED BY: CF

DEVELOPMENT STANDARD | NPDES BMP SEDIMENT AND EROSION CONTROL | PLATE NO. BMP J

#	Revision	Date
1		
2		
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4		
5		
6		

CWS Engineering Inc.
Residential · Commercial · New Construction · Additions / Remodels
11000 Brimhall Rd. E-B5
Bakersfield, California 93312
(661) 477-4833
Chris@cwsengineer.com
Stephen D. Miller
Vice President / Civil Engineer
Justin T. Miller
President

Proposed 13-Unit Apartment
For
Taher Merchant Inc.
2500 Haley Street, Bakersfield, CA 93305

APN# 126-081-15

DATE: July 6, 2023

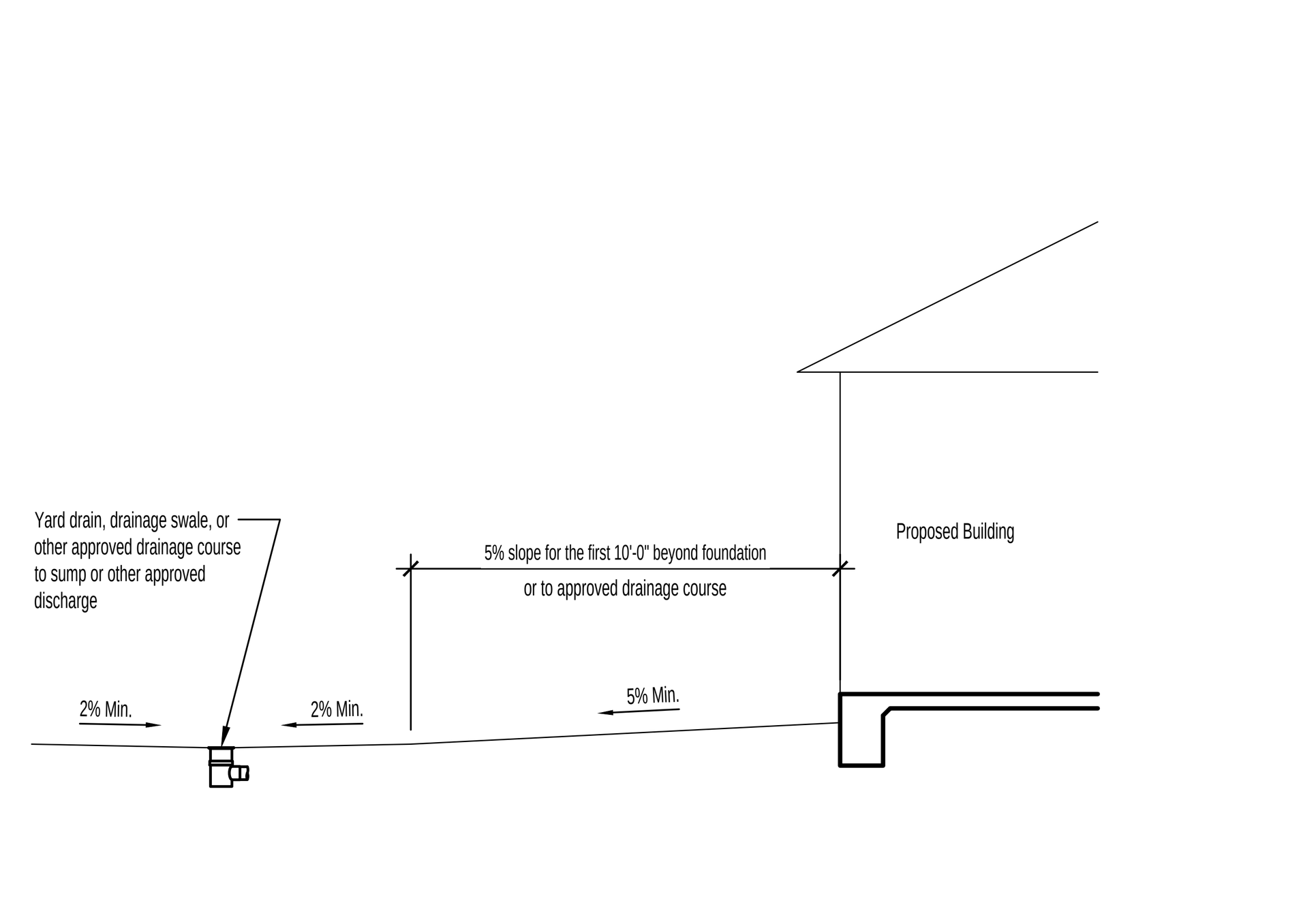
REGISTERED PROFESSIONAL ENGINEER
STEPHEN MILLER
No. C55892
CIVIL
STATE OF CALIFORNIA

C501
Site Details

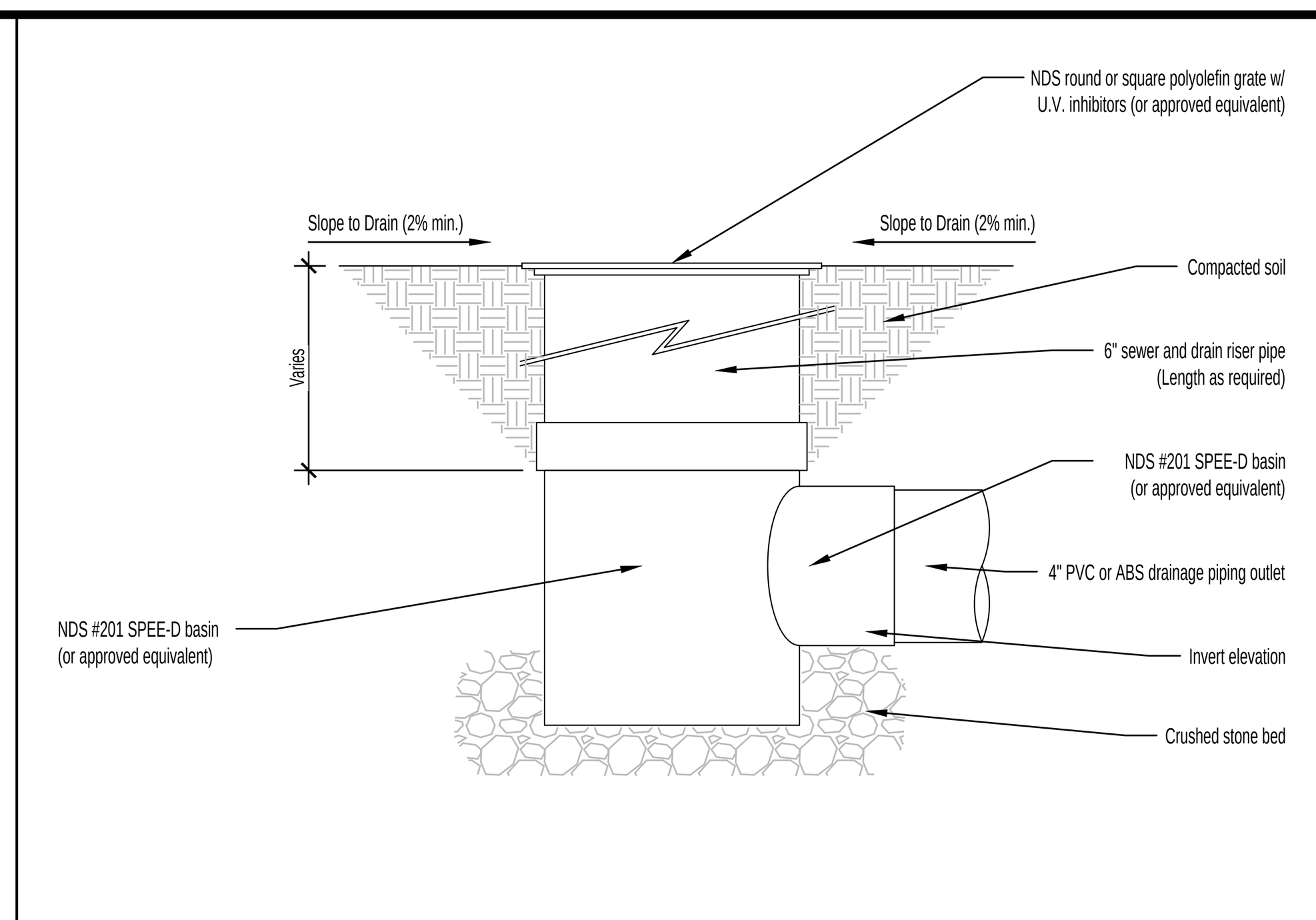
SHEET 6 OF 7

JOB NO. 145-20001

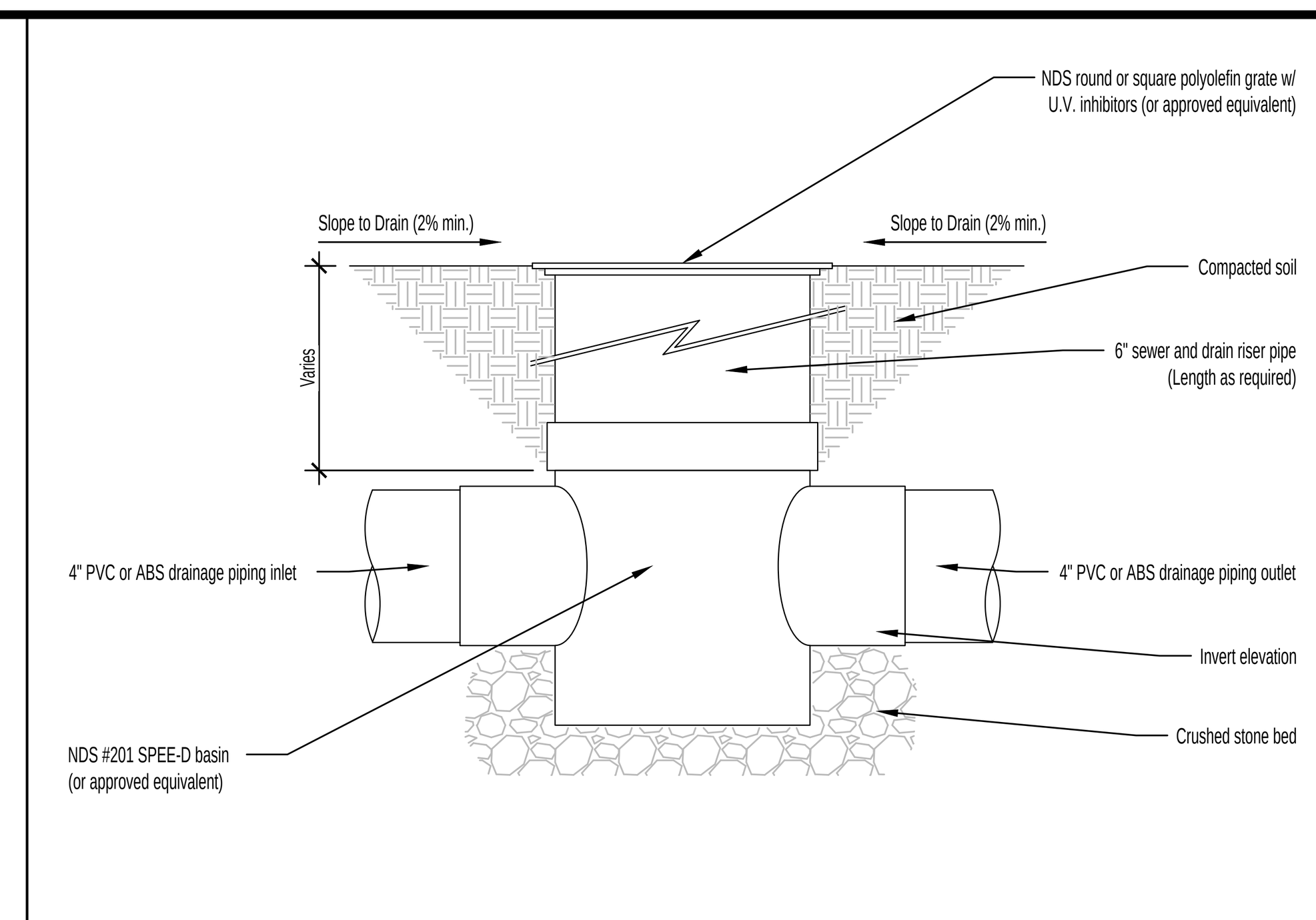
FILE 145-20001_grading_201112.dwg



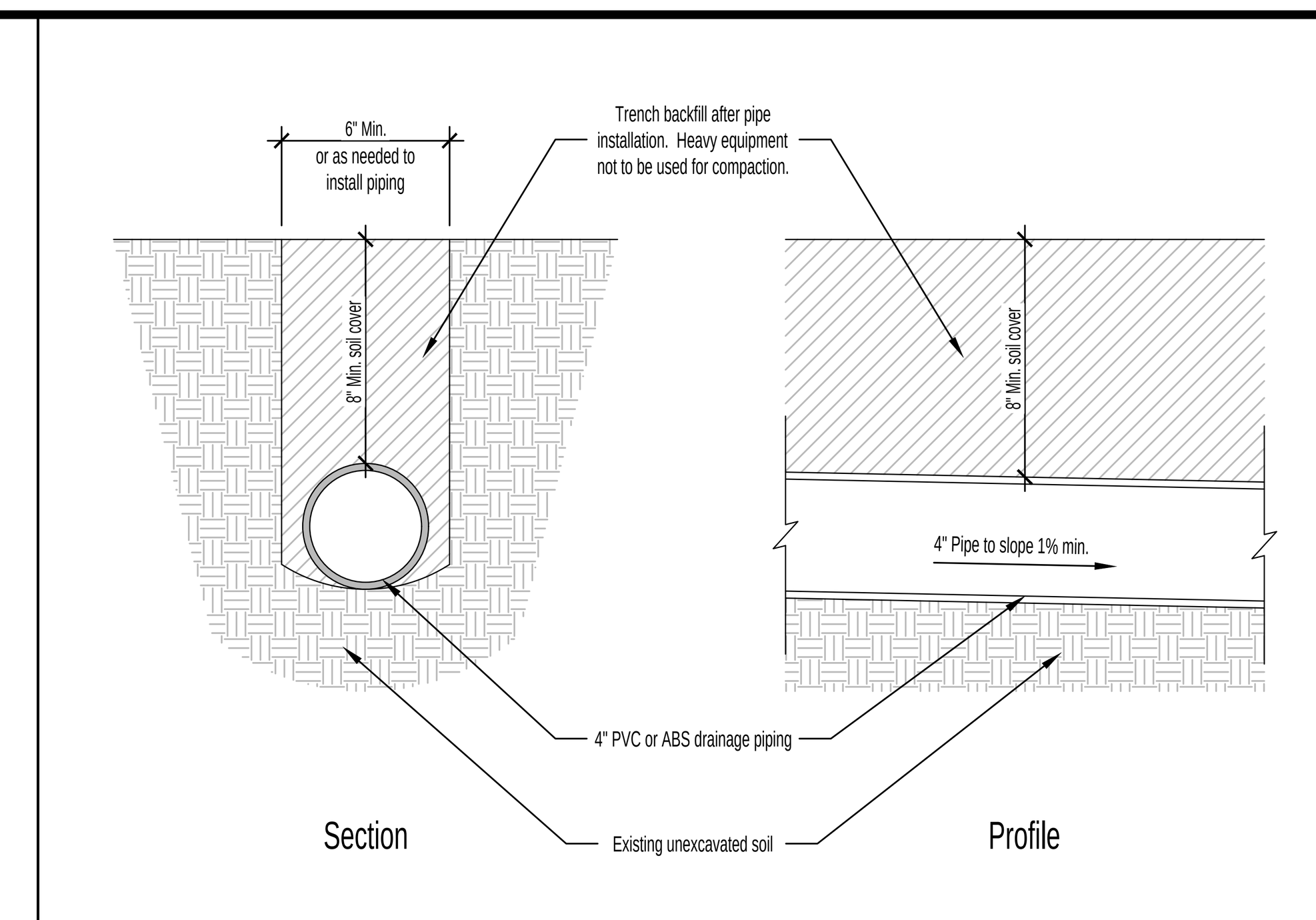
1 Typical Site Drainage 1/4"



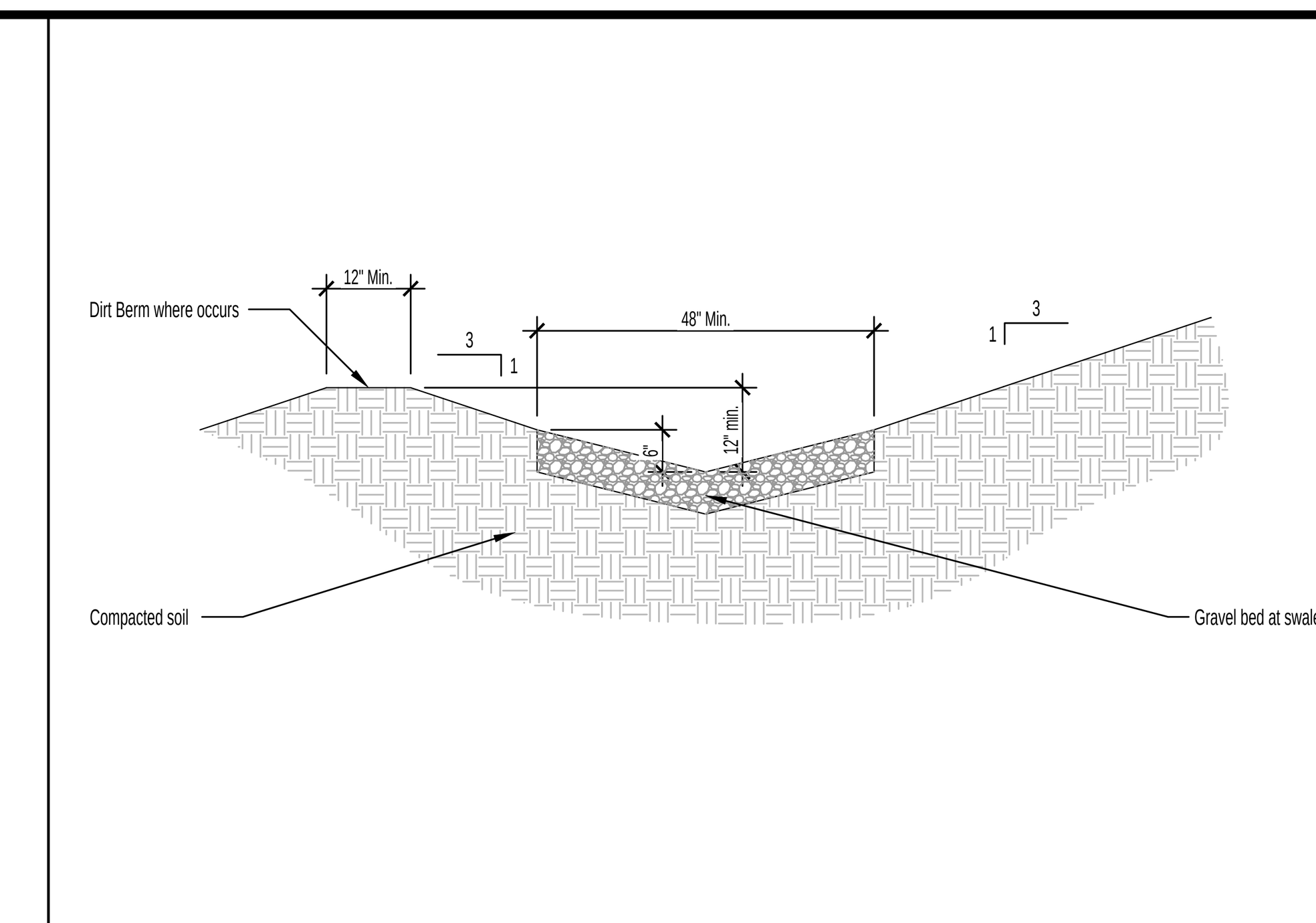
2 Yard Drainage Basin (Single outlet) N.T.S.



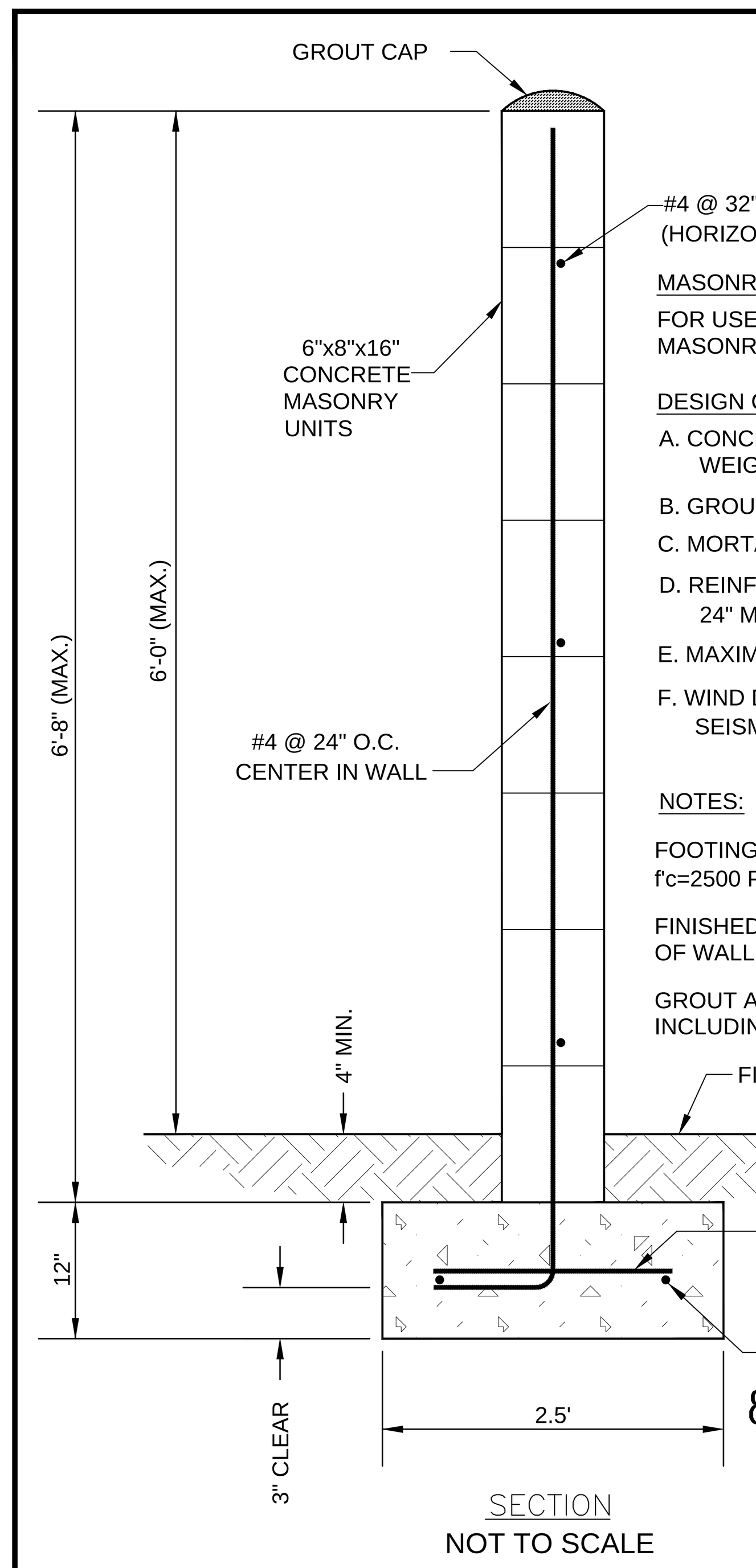
3 Yard Drainage Basin (Tee with Single outlet) N.T.S.



4 Yard Drain Piping 2"



5 Drainage Swale 1/2"



MASONRY NON-BEARING WALL

FOR USE IN SUBDIVISIONS REQUIRING A SIX FOOT MASONRY WALL.

DESIGN CRITERIA

A. CONCRETE MASONRY UNIT GRADE N, MEDIUM WEIGHT CONFORMS TO ASTM C90, f'm=1500 PSI
B. GROUT TO BE 2,000 PSI @ 28 DAYS
C. MORTAR TO BE 1,800 PSI @ 28 DAYS
D. REINFORCING STEEL=GRADE 40. PROVIDE 24" MINIMUM LAP.
E. MAXIMUM SOIL BEARING PRESSURE=1500 PSF.
F. WIND DESIGN 85 MPH, EXPOSURE "C" AND SEISMIC DESIGN CATEGORY D OR E.

NOTES:

FOOTING TO BE CLASS "3" CONCRETE. f'c=2500 PSI

FINISHED GRADE DIFFERENCE ON EACH SIDE OF WALL NOT TO EXCEED SIX INCHES.

GROUT ALL CELLS CONTAINING REINFORCEMENT, INCLUDING HORIZONTAL BOND BEAMS.

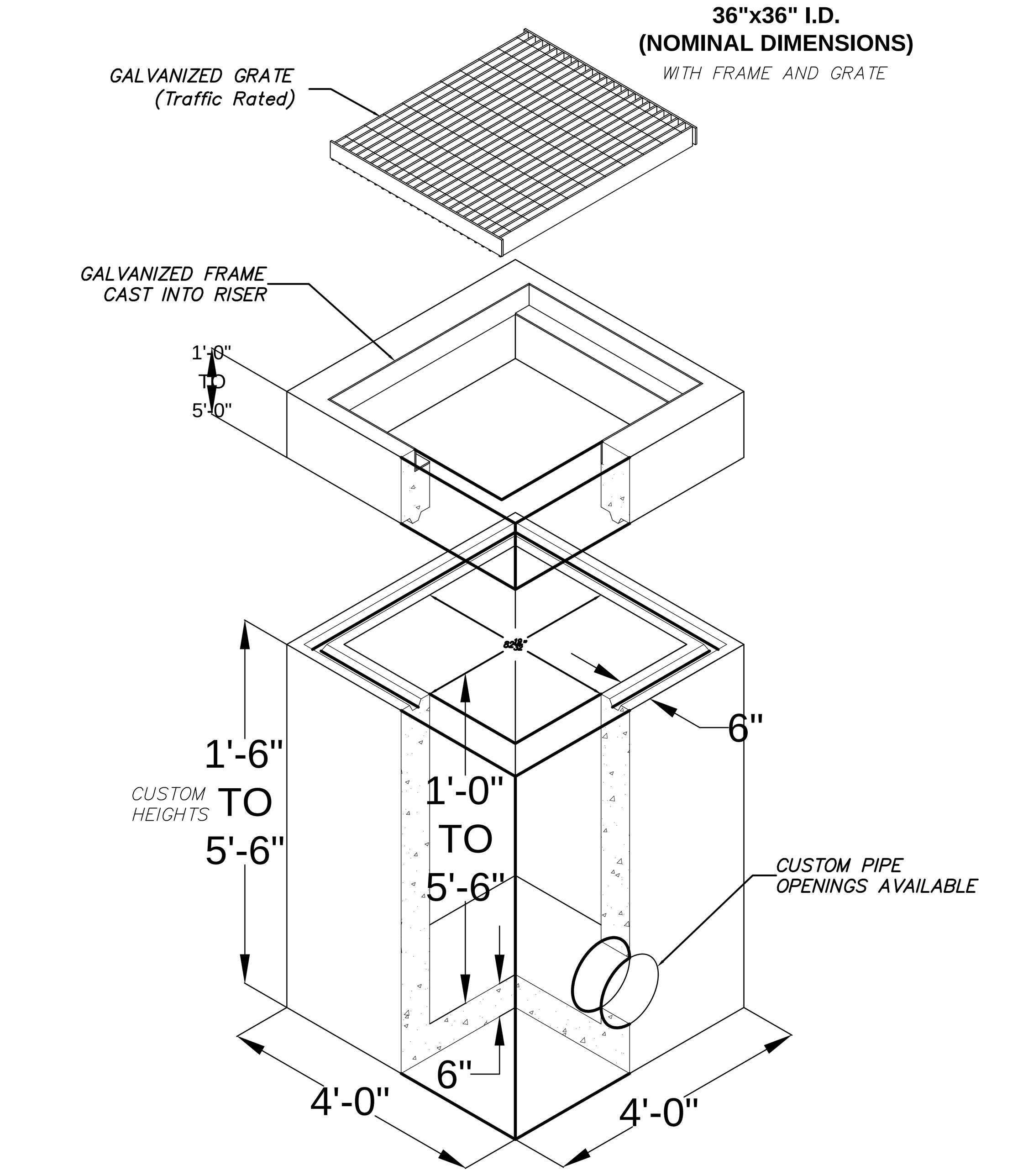
SECTION
NOT TO SCALE

85 MPH WIND SPEED
EXPOSURE C
(3-SECOND GUST)
FLAT TERRAIN

Revisions	DATE: 6-15-1995	COUNTY OF KERN STATE OF CALIFORNIA	MASONRY NON BEARING WALL	PLATE NO.
Date Desc. 4/08 REVISED	DESIGNED BY: A.A.	DEVELOPMENT STANDARD		R-77
	DRAWN BY: D.M.			
	CHECKED BY: G.F.			

102

DROP INLET
36"x36" I.D.
(NOMINAL DIMENSIONS)
WITH FRAME AND GRATE



FOR COMPLETE DESIGN AND PRODUCT INFORMATION CONTACT JENSEN PRECAST.

2/1/08
DI36x36_3636FG_FF_A.dwg
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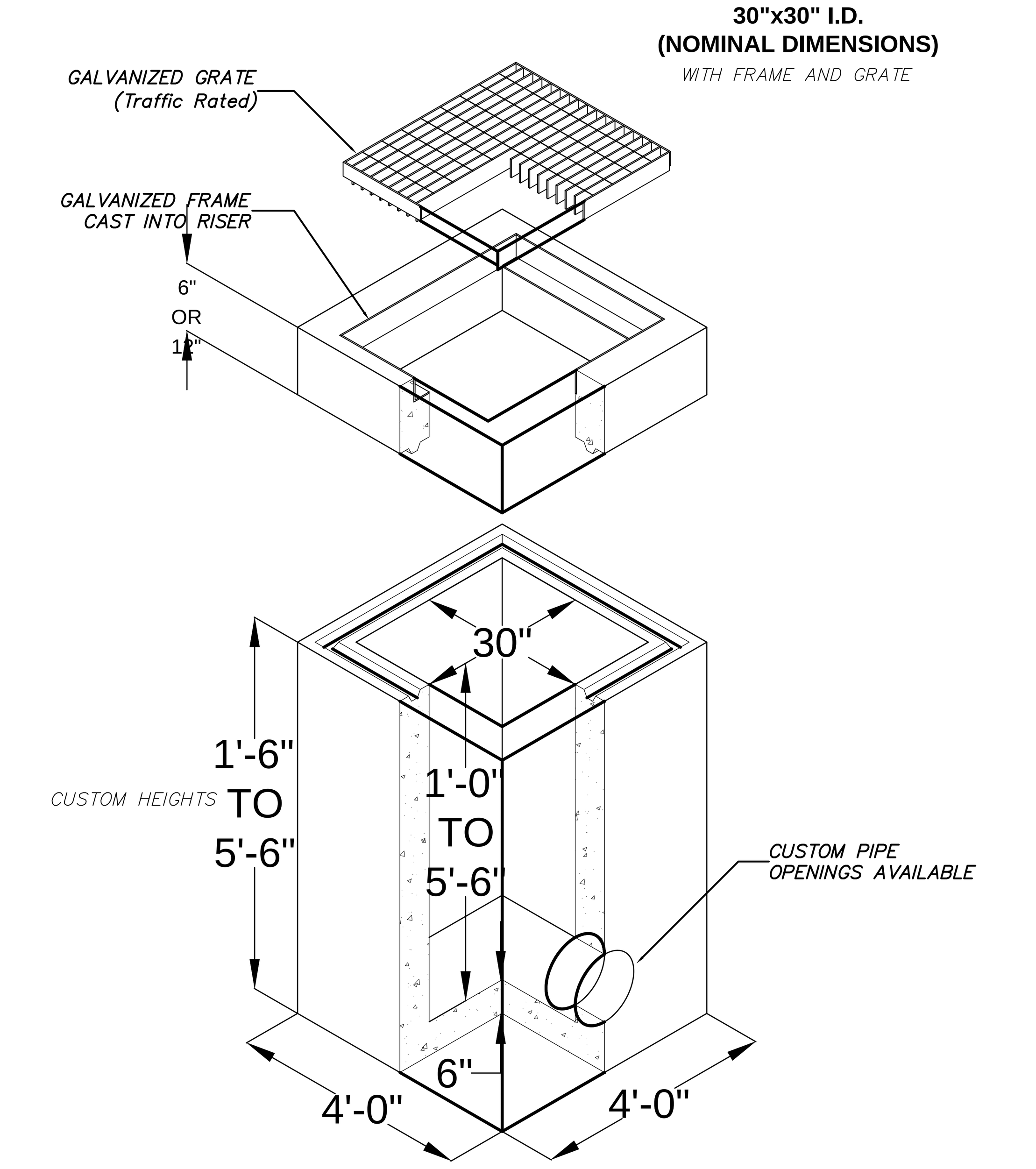
Jensen Precast reserves the right to make changes to product design and/or dimensions without notice. Please contact Jensen Precast whenever necessary for confirmation or advice on product design.

JENSEN PRECAST

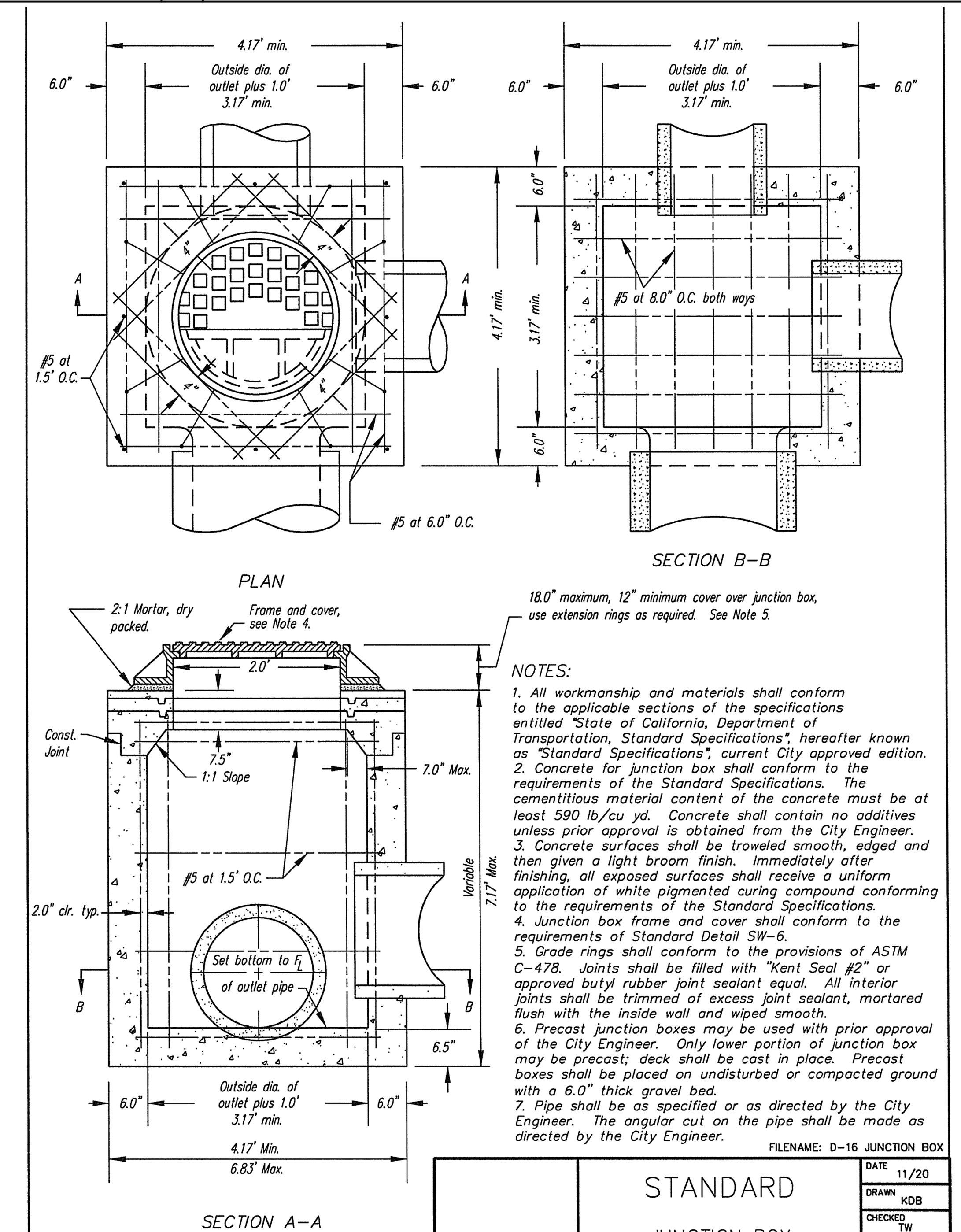
DROP INLET
30"x30" I.D.
(NOMINAL DIMENSIONS)
WITH FRAME AND GRATE



FOR COMPLETE DESIGN AND PRODUCT INFORMATION CONTACT JENSEN PRECAST.

Jensen Precast reserves the right to make changes to product design and/or dimensions without notice. Please contact Jensen Precast whenever necessary for confirmation or advice on product design.

JENSEN PRECAST



NOTES:

1. All workmanship and materials shall conform to the applicable sections of the specifications entitled "State of California, Department of Transportation, Standard Specifications", hereafter known as "Standard Specifications", current City approved edition.
2. Concrete for junction box shall conform to the requirements of the Standard Specifications. The cementitious material content of the concrete must be at least 590 lb/cu yd. Concrete shall contain no additives unless prior approval is obtained from the City Engineer.
3. Concrete surfaces shall be troweled smooth, edged and then given a light broom finish. Immediately after finishing, all exposed surfaces shall receive a uniform application of white pigmented curing compound conforming to the requirements of the Standard Specifications.
4. Junction box frame and cover shall conform to the requirements of Standard Detail SW-6.
5. Grade rings shall conform to the provisions of ASTM C-478. Joints shall be filled with "Kent Seal #2" or approved butyl rubber joint sealant equal. All interior joints shall be trimmed of excess joint sealant, mortared flush with the inside wall and wiped smooth.
6. Precast junction boxes may be used with prior approval of the City Engineer. Only lower portion of junction box may be precast; deck shall be cast in place. Precast boxes shall be placed on undisturbed or compacted ground with a 6.0" thick gravel bed.
7. Pipe shall be as specified or as directed by the City Engineer. The angular cut on the pipe shall be made as directed by the City Engineer.

FILENAME: D-16 JUNCTION BOX

APPROVED	STANDARD JUNCTION BOX	DATE 11/20
		DRAWN KDB
		CHECKED TW
		SCALE N.T.S.
CITY ENGINEER	CITY OF BAKERSFIELD CALIFORNIA — PUBLIC WORKS DEPARTMENT	SHEET NO. D-16

#	Revision	Date
1		
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6		

CWS Engineering Inc.
Residential · Commercial · New Construction · Additions / Remodels
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Bakersfield, California 93312
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Justin T. Miller, President
Stephen D. Miller, Vice President / Civil Engineer

Proposed 13-Unit Apartment
For
Taher Merchant Inc.
2500 Haley Street, Bakersfield, CA 93305
****
APN# 126-081-15

DATE July 6, 2023

REGISTERED PROFESSIONAL ENGINEER — STEPHEN MILLER — No. C55892 — CIVIL — STATE OF CALIFORNIA

C502
Site Details

SHEET 7 OF 7

JOB NO. 145-20001

FILE 145-20001_grading_201112.dwg