

COUNTY OF SANTA CLARA
General Construction Specifications

General Conditions

- All construction work shall be performed in accordance with the soils and/or geotechnical report prepared by _____ and dated _____ this report is supplemented by: 1) these plans and specifications, 2) the County of Santa Clara standard details. 3) the County of Santa Clara standard specs. 4) State of California standard details. 5) State of California standard specifications. In the event of conflict the former shall take precedence over the latter. The performance and completion of all work must be to the satisfaction of the county.
- Developer is responsible for installation of the improvements shown on these plans and he or his successor property owners are responsible for their continued maintenance.
- Developer shall be responsible for correction of any errors or omissions in these plans. The county shall be authorized to require discontinuance of any work and such correction and modification of plans as may be necessary to comply with county standards or conditions of development approval.
- Developer shall obtain encroachment permits from the Santa Clara Valley Water District and California department of transportation where needed. Copies of these permits shall be kept at the job site for review by the county's inspector.
- Developer shall remove or trim all trees to provide an unobstructed fifteen (15) foot vertical clearance for roadway area.
- This plan authorizes the removal of only those trees with trunk diameters greater than 12 inches measured 4.5 feet above the ground that are shown to be removed unless an amended plan is approved or a separate tree removal permit is obtained from the planning office. It is the contractor's responsibility to ensure that removal of additional trees has been permitted.
- Developer shall provide adequate dust control as required by the county inspector.
- All persons must comply with section 4442 of the public resources code and section 13005 of the health and safety code relating to the use of spark arresters.
- Upon discovering or unearthing any burial site as evidenced by human skeletal remains or artifacts, the person making such discovery shall immediately notify the county coroner at (408) 454-2520 and land development engineering office at (408) 299-5770. No further disturbance of the site may be made except as authorized by the land development office in accord with provisions of this ordinance (county ordinance code section b6-18).
- These plans are for the work described in the scope of work only. A separate permit will be required for the septic line construction.
- Any deviation from these approved plans shall be re-approved in writing by the county engineer prior to construction.

Construction Staking

- The developer's engineer is responsible for the initial placement and replacement of construction grade stakes. The stakes are to be adequately identified, located, stabilized, etc. For the convenience of contractors. Lateral offset of stakes set for curbs and gutters shall not exceed 2 1/2 feet from back of curb.
- Any property line stakes or road monuments disturbed during construction shall be replaced by developer's engineer and licensed land surveyor.
- Property line staking must be performed by the project engineer or land surveyor to establish or re-establish the project boundary and shall be inspected by the county inspector prior to the beginning of the work.
- Proper construction stakes shall be set in the field by the project engineer or land surveyor and verified by the county inspector prior to the commencement of grading.

Construction Inspection

- Contractor shall notify permit planning office, Santa Clara county prior to commencing work and for final inspection of work and site.
- The county requires a minimum of 24 hours advance notice for general inspection, 48 hours for asphalt concrete inspection.
- Inspection by Santa Clara county shall be limited to inspection of materials and processes of construction to observe their compliance with plans & specifications but does not include responsibility for the superintendent of construction, site conditions, equipment or personnel. Contractor shall notify the county land development inspector at phone (408) 299-6868 at least 24 hours prior to commencing work and for final inspection of work and site.
- Developer and/or his authorized representative must submit written request for final inspection and acceptance. Said request shall be directed to the inspection office noted on the permit form.
- The contractor shall provide to the county construction inspector with pad elevation and location certificates, prepared by the project engineer or land surveyor, prior to commencement of the building foundation.

Site Preparation (Clearing and Grubbing)

- Existing trees authorized for removal, roots, and foreign material in areas to be improved will be removed to an authorized disposal site as follows:
 - to a minimum depth of two feet below the finished grade of proposed roadways (either private or to be dedicated to public use)
 - from areas affected by the proposed grading except where noted on the plans.
- It shall be the responsibility of the developer to move or relocate utility poles and other obstructions in the way of construction.

Utility Location, Trenching & Backfill

- Contractor shall notify USA (underground service alert) at 1-800-277-2600 a minimum of 24 hours before beginning underground work for verification of the location of underground utilities.
- Accurate verification as to size, location, and depth of existing underground conduits or facilities shall be the individual contractor's responsibility. Plan locations are approximate and for general information only.
- All underground installations shall be in place and the trench backfilled and compacted before placing aggregate base material or surface structures. Surfacing may be done if the utility company concerned indicates by letter that it will bore. Unless specifically authorized by the county, gas and water mains shall be installed outside the paved areas.
- Trench backfill in existing pavement areas shall be sand material in accordance with the applicable provisions of the state specifications. The structural section for trench replacement shall consist of not less than 12 inches of approved aggregate base material compacted to a relative compaction of at least 95% and 4 inches of hot asphalt concrete placed in two lifts. Trench restoration for higher type pavements shall be made in kind or as directed by the county.
- Trench backfill in new construction areas shall be sand material compacted to a relative compaction of at least 90%. The requirement for select material may be waived by county if the native soil is suitable for use as trench backfill but the compaction requirements will not be thereby waived.
- Backfill and trench restoration requirements shall apply as minimum standards to all underground facilities installed by other firms or public agencies.

Retaining Walls

- Reinforced concrete and concrete masonry unit retaining walls shall have foundation and reinforcement inspected by the county engineering inspector and engineer of record prior to pouring the foundation and forming the wall.
- Segmental block retaining walls shall have foundation and reinforcement inspected by the county engineering inspector.

Grading

- Excavated material shall be placed in the fill areas designated or shall be hauled away from the site to a county approved disposal site. Where fill material is to be placed on natural ground, it shall be stripped of all vegetation. To achieve a proper bond with the fill material, the surface of the ground shall be scarified to depth of 6" before fill is placed. Where natural ground is steeper than 5:1, it shall be benched and the fill keyed in to achieve stability. Where new fill is to be placed on existing fill the existing fill shall be removed until material compacted to 90% relative compaction is exposed. Then the new fill material shall be placed as per these construction notes. Fill material shall be placed in uniform lifts not exceeding 6" in uncompacted thickness. Before compaction begins, the fill shall be brought to a water content that will permit proper compaction by either 1) aerating the fill if it is too wet or moistening the fill with water if it is too dry. Each lift shall be thoroughly mixed before compaction to ensure a uniform distribution of moisture.
- Excess cut material shall not be spread or stockpiled on the site.
- Surplus earth fill material shall be placed in a single (8" max) thick layer compacted to withstand weathering in the area(s) delineated on the plan.
- No organic material shall be placed in any fill. No trees shall be removed outside of cut, fill or roadway areas.
- The upper 6" of subgrade below driveway access road or parking area shall be compacted to 95% of maximum density.
- Maximum cut slope shall be 2 horizontal to 1 vertical. Maximum fill slope shall be 2 horizontal to 1 vertical.

Preliminary On-Site Earthwork Quantities

	Cut	Fill	Max Cut	Max Fill	Disturbed Area
Building Pad - 5' **	207 cy	35 cy	0.86'	1.19'	22,620 SF
Site Grading	0 cy	6 cy	-	-	-
Retention/Retention Pond	126 cy	0 cy	2.89'	0.00'	2,376 SF
Total	126 cy	6 cy	-	-	24,996 SF

** not included in totals as quantities within 5' of building is included in building permit

- Note: fill volumes include 10% shrinkage. Excess material shall be off hauled to a county approved dump site.
- Notify soils engineer two (2) days prior to commencement of any grading work to coordinate the work in the field.
 - All materials for fill should be approved by the soils engineer before it is brought to the site.
 - The upper 6" of the subgrade soil shall be scarified, moisture conditioned and compacted to a minimum relative compaction of 95%.
 - All aggregate base material shall be compacted to a minimum 95% relative compaction.
 - The geotechnical plan review letter must be reviewed and approved by the county geologist prior to final approval by the county engineer for building occupancy.
 - The project geotechnical engineer shall perform compaction testing and present the results to the county engineering inspector prior to the construction of any paved area.
 - Grading work between October 15th and April 15th is at the discretion of the Santa Clara county grading official.
 - Total disturbed area for the project _____ SF.
 - WDID No. _____
 - The inspector may verify that a valid notice of intent (NOI) has been issued by the state and that a current and up to date storm water pollution prevention plan (SWPPP) is available on site.

Tree Protection

- For all trees to be retained with a canopy in the development area or interfaces with the limits of grading for all proposed development on site, the trees shall be protected by the placement of rigid tree protective fencing, consistent with the county integrated landscape guidelines, and include the following:
 - Fencing shall be placed along the outside edge of the dripline of the tree or grove of trees.
 - The fencing shall be maintained throughout the site construction period and shall be inspected periodically for damage and proper function.
 - Fencing shall be repaired, as necessary, to provide a physical barrier from construction activities.
- Signage stating, "warning- this fencing shall not be removed without permission from the Santa Clara county planning office (408) 299-5770. County of Santa Clara tree protection measures may be found at http://www.SocPlanning.Gov." shall be placed on the tree protective fencing until final occupancy.
- Prior to commencement of any construction activity, tree protective fencing shall be securely in place and inspected by the land development engineering inspector.
- See existing tree protection details for more information.

Access Roads and Driveways

- Driveway locations shall be as shown on the improvement plans with centerline stationing. The minimum concrete thickness shall be 6 inches throughout (with a maximum approach slope of 1 1/4 inches per foot).
- All driveway or common access road sections in excess of 15 longitudinal slope must be paved with a minimum 2-inch asphalt lift or full depth concrete lift prior to any combustible framing.
- The owner and prime contractor are responsible for maintaining project site access and neighborhood access for emergency vehicles and local residents.
- Roadways designated as not county maintained roads as shown on the plan will not be eligible for county maintenance until the roadways are improved (at no cost to the county) to the public maintenance road standards approved by the board of supervisors and in effect at such time that the roadways are considered for acceptance into the county's road system.
- All work in the county road right-of-way requires an encroachment permit from the roads and airports department. Each individual activity requires a separate permit - I.E. Cable, electrical, gas, sewer, water, retaining walls, driveway approaches, fences, landscaping, tree removal, storm drainage improvements, etc.

Street Lighting

- Pacific gas & electric electroler service fee shall be paid by the developer and/or his authorized representative.

Sanitary Sewer

- The sanitary sewer and water utilities shown on these plans are not part of this grading permit and are shown for reference only.
- All materials and methods of construction of sanitary sewers shall conform to the specifications of the jurisdiction involved. Inspection of sanitary sewer work shall be done by said jurisdiction.

Portland Cement Concrete

- Concrete used for structural purposes shall be class "a" (6 sack per cubic yard) as specified in the state standard specifications. Concrete placed must develop a minimum strength factor of 2800 psi in a seven-day period. The concrete mix design shall be under the continual control of the county inspector.

Air Quality, Landscaping and Erosion Control

- Water all active construction areas at least twice daily.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites. The use of dry powder sweeping is prohibited.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets. The use of dry powder sweeping is prohibited.
- All construction vehicles, equipment and delivery trucks shall have a maximum idling time of 5 minutes (as required by the California airborne toxic control measure title 13, section 2485 of California code of regulations (CCR)). Engines shall be shut off if construction requires longer idling time unless necessary for proper operation of the vehicle.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a sign that is at least 32 square feet minimum 2 inches letter height visible near the entrance of construction site that identifies the following requirements. Obtain encroachment permit for sign from roads department or other applicable agency if required.
 - 15 miles per hour (mph) speed limit
 - 5 minutes maximum idling time of vehicles
- Telephone number to contact the bay area air quality management district regarding dust complaints. Note phone number of the bay area air quality management district air pollution complaint hotline of 1-800-334-6367
- All fill slopes shall be compacted and left in a smooth and firm condition capable of withstanding weathering.
- All exposed disturbed areas shall be seeded with broome seed spread at the rate of 5 lb. Per 1000 square feet (or approved equal). Seeding and watering shall be maintained as required to ensure growth.
- All ditches shall be lined per county standard sdb.
- All storm drainage structures shall be installed with effective entrance & outfall erosion controls e.g. Sacked concrete rip-rap. Energy dissipaters shall be installed at all ditch outfalls. Where outfalls are not into an existing creek or water course, runoff shall be released to sheet flow.
- Prior to grading completion and release of the bond, all graded areas shall be reseeded in conformance with the county grading ordinance to minimize the visual impacts of the grade slopes and reduce the potential for erosion of the subject site.
- Permanent landscaping shown on the attached landscape plan must be installed and field approved by the county planning office prior to final approval by the county engineer, and final occupancy release by the building inspection office.
- The owner shall prepare and present a winterization report to the county inspector for review prior to October 15th of every year.
- The owner, contractor, and any person performing construction activities shall install and maintain construction best management practices (BMPs) on the project site and within the Santa Clara county road right-of-way throughout the duration of the construction and until the establishment of permanent stabilization and sediment control to prevent the discharge of pollutants including sediment, construction materials, excavated materials, and waste into the Santa Clara county right-of-way, storm sewer waterways, roadway infrastructure. BMPs shall include, but not be limited to the following:
 - Prevention of pollutants in storm water discharges from the construction site and the contractor's material and equipment laydown / staging areas.
 - Prevention of tracking of mud, dirt, and construction materials onto the public road right-of-way.
 - Prevention of discharge of water run-off during dry and wet weather conditions onto the public road right-of-way.
- The owner, contractor, and any person performing construction activities shall ensure that all temporary construction facilities, including but not limited to construction materials, deliveries, hazardous and non-hazardous material storage, equipment, tools, portable toilets, concrete washout, garbage containers, laydown yards, secondary containment areas, etc. Are located outside the Santa Clara county road right-of-way.
- Erosion control plan is a guide and shall be amended as necessary to prevent erosion and illicit discharges on a year around basis, depending on the season, weather, and field conditions. Erosion control measures in addition to those noted in the permitted plans may be necessary. Failure to install site specific and situationally appropriate erosion control measures may result in violations, fines, and a stoppage of work.

Storm Drainage and Stormwater Management

- Developer is responsible for all necessary drainage facilities whether shown on the plans or not and he or his successor property owners are responsible for the adequacy and continued maintenance of these facilities in a manner which will preclude any hazard to life, health, or damage to adjoining property, consistent with NPDES permit cas612008 / order no. R2-2009-0047 and NPDES permit cas000004 / order no. 2013-0001-dwq. Drop inlets shall be county standard type 5 unless otherwise noted on the plans. The developer's engineer shall be responsible for the proper location of drop inlets. Where street profile grade exceeds 6% drop inlets shall be set at 50o angle curb line to accept water or as shown on the plans.
- Where culverts are installed the developer shall be responsible for grading the outlet ditch to drain to an existing swale or to an open area for sheet flow.
- Upon installation of driveway connections, property owners shall provide for the uninterrupted flow of water in roadside ditches.
- The county shall inspect underground drainage improvements and stormwater management features prior to backfill.

As-Built Plans Statement

This is a true copy of the as-built plans. There (_____) were (_____) were not) minor field changes - marked with the symbol (*). There (_____) were not) plan revisions indicating significant changes reviewed by the county engineer and marked with the symbol Δ.

Date _____ Signature _____

Note: this statement is to be signed by the person authorized by the county engineer to perform the inspection work. A reproducible copy of the as-built plans must be furnished to the county engineer after construction.

Geotechnical Engineer Observation

- A construction observation letter from the responsible geotechnical engineer and engineering geologist detailing construction observations and certifying that the work was done in accordance with the recommendations in the geotechnical and geologic reports shall be submitted prior to the grading completion and release of the bond.

Engineer:

William J. McClintock, RCE 24893
MH Engineering
16075 Vineyard Blvd.
Morgan Hill, CA 95037
408.779.7381
billm@mhengineering.com

Project Information:

APN: 830-03-037
Present Use: Agricultural/Commercial
Proposed Use: Agricultural/Commercial
Present Zoning: RR-5Ac-sr
Proposed Zoning: RR-5Ac-sr
Sanitary Sewer: On-Site System
Gas and Electric: P&E
Water: Existing Well
Telephone: Verizon
Existing Improvements: As Shown
Area: 7.78 ac
Topo: Field Topo

Benchmark: Elevations shown on this plan are based upon the top of the monument box located north of the existing driveway approach in Lena Avenue.
Elevation= 202.16' (assumed)

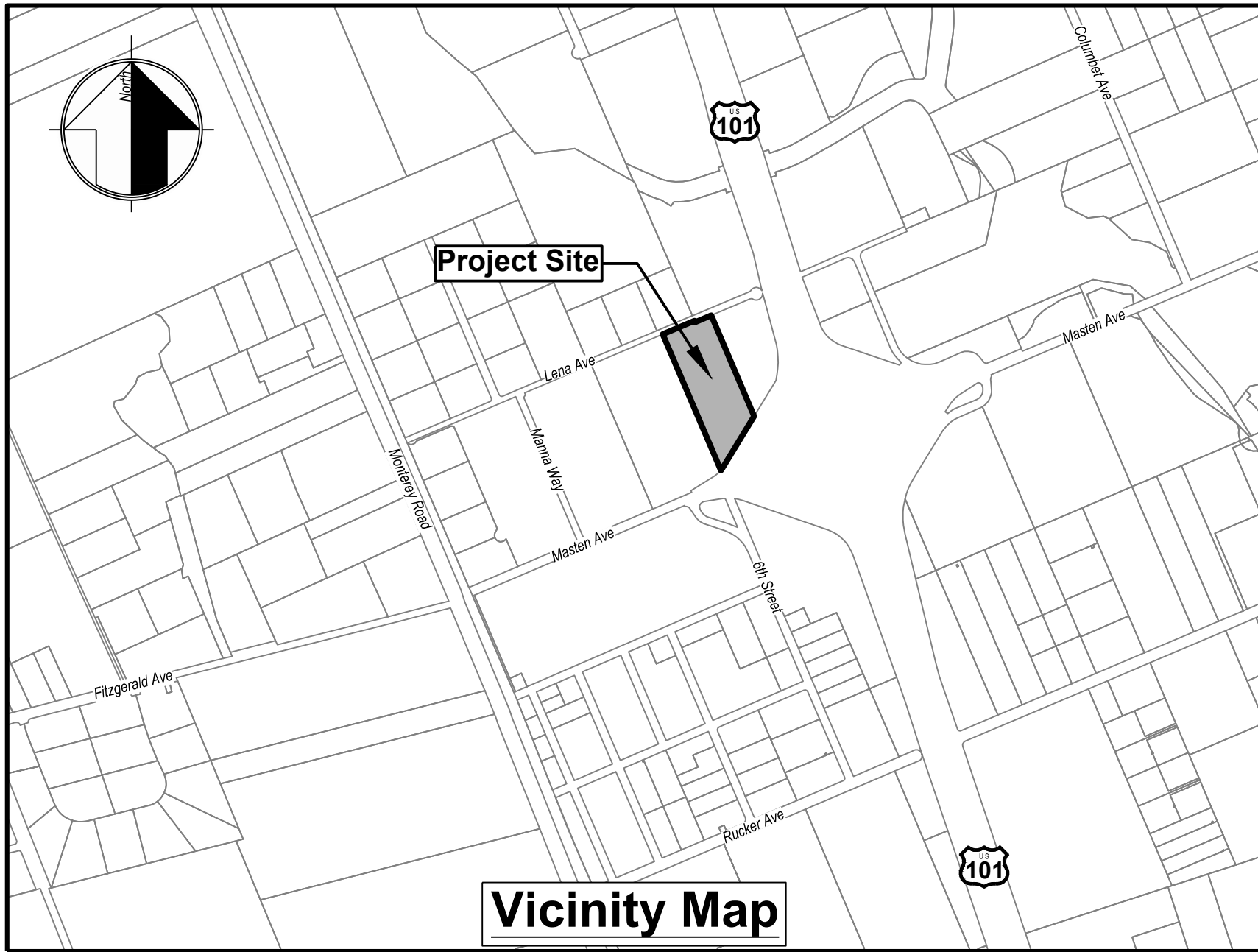
Flood Zone: The project property lies wholly in Zone D: Areas in which flood hazards are undetermined, but possible per FEMA FIRM 08085C0629H, effective May 18, 2009.

Underground Utility Note: Observed surface evidence of utility lines including facilities, appurtenances and markings were used in depicting the location of underground utilities shown on these plans. However, lacking excavation, the exact location and depth of underground features cannot be accurately, completely and reliably depicted. Where additional or more detailed information is required, the client is advised that excavation may be necessary.

Topography Note: Topography shown from field surveys conducted by MH engineering in November of 2019.

Boundary Note: Property lines shown on this plan are based on record data and boundary monumentation measured to date.

Drainage Plans
IronOx
450 Lena Avenue



Survey Monument Preservation

- The landowner / contractor must protect and ensure the perpetuation of survey monuments affected by construction activities.
- Prior to the start of construction, the contractor shall locate, stake, and flag or otherwise identify with paint or other markings all permanent survey monuments of record and any unrecorded monuments that are discovered that are within 50 feet of the construction activity.
- The landowner, contractor and/or any person performing construction activities that will or may disturb an existing monument, corner stake, or any other permanent surveyed monument shall cause to have a licensed land surveyor or civil engineer, authorized to practice surveying, ensure that a corner record and/or record of survey are filed with the county surveyor's office prior to disturbing said monuments and reset permanent monument(s) in the surface of the new construction or set a witness monument(s) to perpetuate the location if any permanent monument could be destroyed, damaged, covered, disturbed, or otherwise obliterated. The licensed land surveyor or civil engineer shall file a corner record or record of survey with county surveyor prior to final acceptance of the project by the land development engineering inspector.

Existing tree protection details

- Prior to the commencement of any grading, tree protective fencing shall be in place in accordance with the tree preservation plan and inspected by a certified arborist. The arborist shall monitor construction activity to ensure that the tree protection measures are implemented and adhered to during construction. This condition shall be incorporated into the grading plans.
- Fence shall be minimum 5 feet tall constructed of sturdy material (chain-link or equivalent strength/ durability).
- Fence shall be supported by vertical posts driven 2 feet (min) into the ground and spaced not more than 10 feet apart.
- Tree fencing shall be maintained throughout the site during the construction period, inspected periodically for damage and proper function, repaired as necessary to provide a physical barrier from construction activities, and remain in place until the final inspection.
- A sign that includes the words, "Warning: This fence shall not be removed without the expressed permission of the Santa Clara county planning office," shall be securely attached to the fence in a visually prominent location.

Engineer's statement

I hereby state that these plans are in compliance with adopted county standards, the approved tentative map (or plan) and conditions of approval pertaining thereto dated File(s) No. _____

Date _____ R.C.E. No. _____ Signature _____

Expiration Date _____

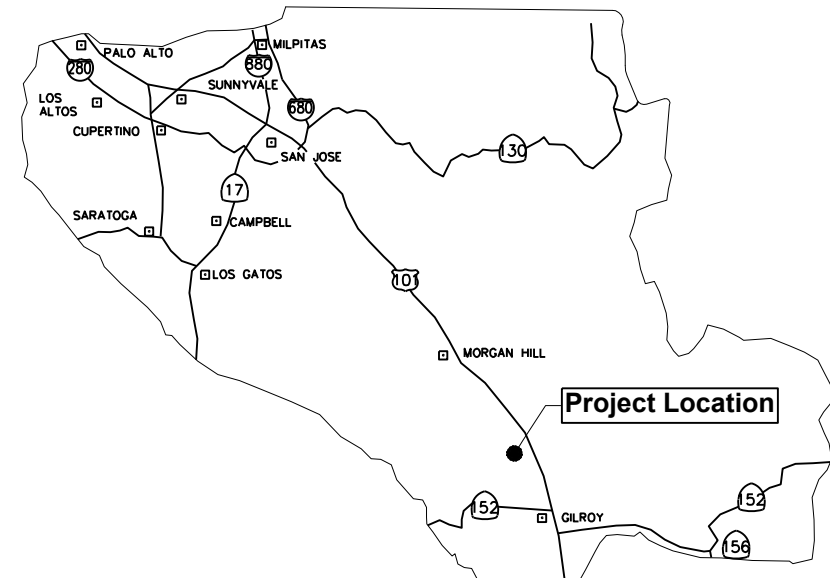
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FOR PLANCHHECK ONLY

REGISTERED PROFESSIONAL ENGINEER
WILLIAM J. MCCLINTOCK
No. 24893
EXP. 12-31-2021
FOR PLANCHHECK ONLY
signature that is provided upon approval

County Engineer's Note

Issuance of a permit authorizing construction does not release the developer, permittee of engineer from responsibility for the correction of errors or omissions contained in the plans. If, during the course of construction, the public interest requires a modification of (or departure from) the specifications of the plans, the county shall have the authority to require the suspension of work, and the necessary modification or departure and to specify the manner in which the same is to be made.

Date _____ Christopher L. Freitas _____ R.C.E. No. 42107 _____ Signature _____ Expiration Date: 3/31/20



County Location Map

Scope of Work

- Concrete walkway to proposed greenhouse expansion
- Construction of a vegetated swale and retention/detention pond
- Erosion Control

Abbreviations

AC	Asphalt Concrete	HP	High Point
BC	Beginning of Curve	INV	Invert
BVC	Beginning of Vertical Curve	JP	Joint Pole
BW	Back of Walk	LP	Low Point
CL	Centerline	Max	Maximum
CL DW	Centerline Driveway	Min	Minimum
CMP	Corrugated Metal Pipe	NG	Natural Ground
CO	Clean Out	PB	Pull Box
DI	Drop Inlet	PL	Property Line
DIP	Ductile Iron Pipe	PSE	Public Service Easement
DWY	Driveway	PSDE	Private Storm Drain Easement
EC	End of Curve	PVI	Point of Vertical Intersection
EG	Existing Ground	PUE	Public Utility Easement
ELCT	Electroler	RCP	Reinforced Concrete Pipe
EP	Edge of Pavement	R/W	Right of Way
ER	End of Return	SDMH	Storm Drain Manhole
EVC	End of Vertical Curve	SSMH	Sanitary Sewer Manhole
EX, EXST	Existing	Std	Standard
FF	Finish Floor	SW	Sidewalk
FG	Finish Grade	TBM	Temporary Benchmark
FL	Flowline	TC	Top of Curb
GB	Grade Break	TYP	Typical

Legend

Proposed	Description	Existing
-----	Project Property Boundary	-----
-----	Property Line	-----
-----	Centerline	-----
-----	Easement, as noted	-----
SD	Storm Drain	(SD)
SS	Sanitary Sewer	(SS)
W	Water Main	(W)
IRR	Irrigation Line	(IRR)
F	Fire Service	(F)
G	Gas Main	(G)
E	Underground Electric	(E)
OH	Overhead Electric	(OH)
T	Telephone	(T)
OH	Overhead Telephone	(OH)
JT	Joint Trench	(JT)
-----	Chainlink Fence	-----
-----	Wood Fence	-----
-----	Street Barricade	-----
-----	Benchmark	-----
-----	Monument, Type as shown	-----
-----	Section	-----
-----	Swale	-----
-----	Slope	(2.1%)
SS	Sanitary Sewer Manhole	SS
-----	Fire Hydrant	-----
-----	Utility Pole	-----
-----	Electroler	-----
-----	AC Pavement	-----
-----	AB Areas	-----
-----	PCC walks/driveways	-----
-----	Structures	-----
-----	Fire Truck Turnaround Area	-----

** existing features are labeled in *italics* and parenthesis, typical

Sheet Index

#	Sheet
1	Cover Sheet & Notes
2	Existing Topography
3	Drainage Plan
4	Erosion Control Plan
5	Stormwater Control Plan
SCCBMP-1	Santa Clara County BMP Sheet 1
SCCBMP-2	Santa Clara County BMP Sheet 2

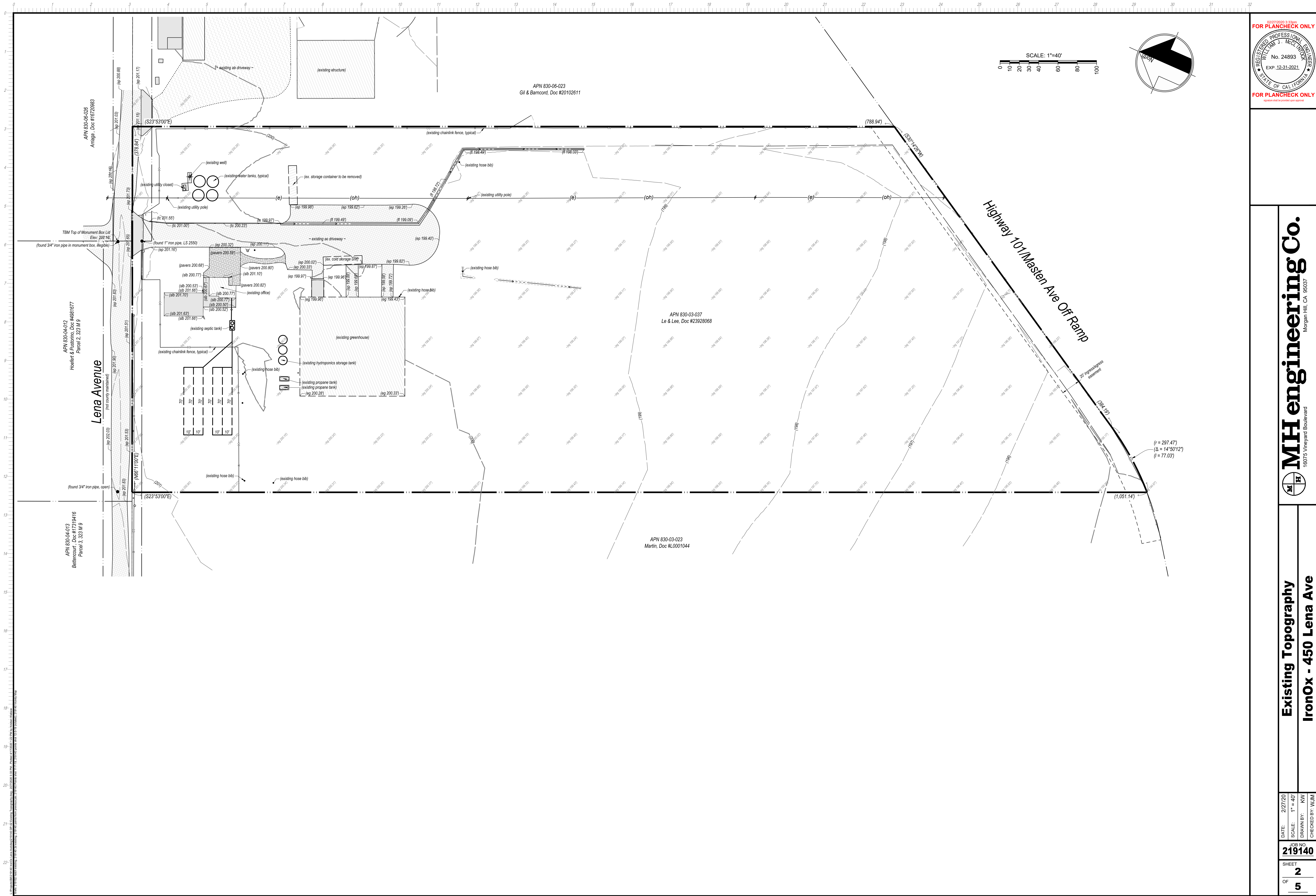
MH engineering Co.
16075 Vineyard Blvd.
Morgan Hill, CA 95037
408.779.7381
allena@mhengineering.com

Revision 1	Date	APN	830-28-068	Sheet	1
Revision 2	Date	Co. File	----	of	5

APPLICANT: IronOx

ROAD: Lena Ave

COUNTY FILE NO.: ----



FOR PLANCHHECK ONLY

REGISTERED PROFESSIONAL ENGINEER

WILLIAM J. MCCLINTOCK

No. 24893

EXP. 12-31-2021

STATE OF CALIFORNIA

FOR PLANCHHECK ONLY

signature and seal required per approval

1

M

H

MH engineering Co.

16075 Vineyard Boulevard
Morgan Hill, CA 95037

Existing Topography

IronOx - 450 Lena Ave

DATE: 2/27/20

SCALE: 1" = 40'

DRAWN BY: KVM

CHECKED BY: WJM

JOB NO.

219140

SHEET

2

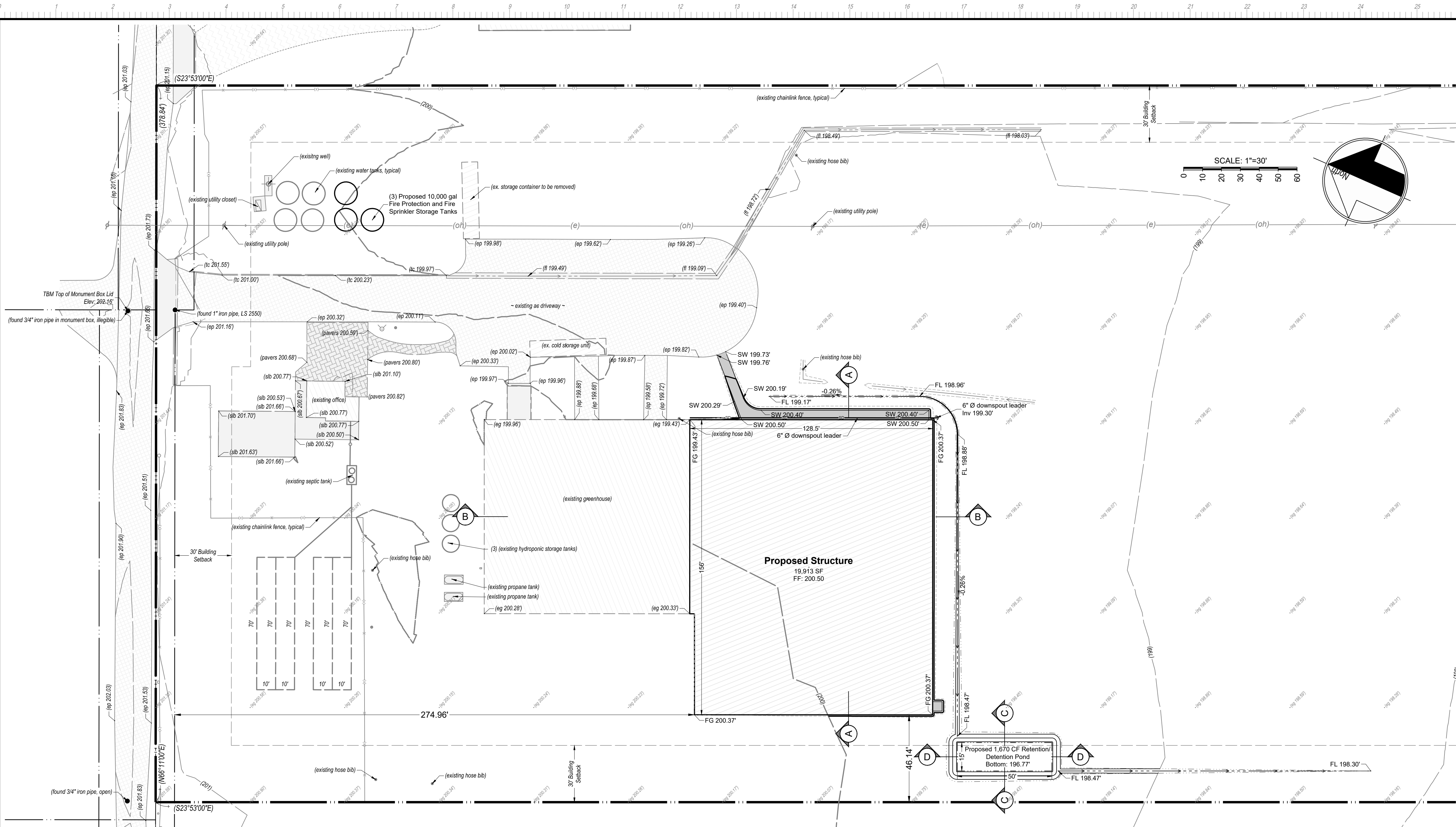
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APPLICANT: IronOx

ROAD: Lena Ave

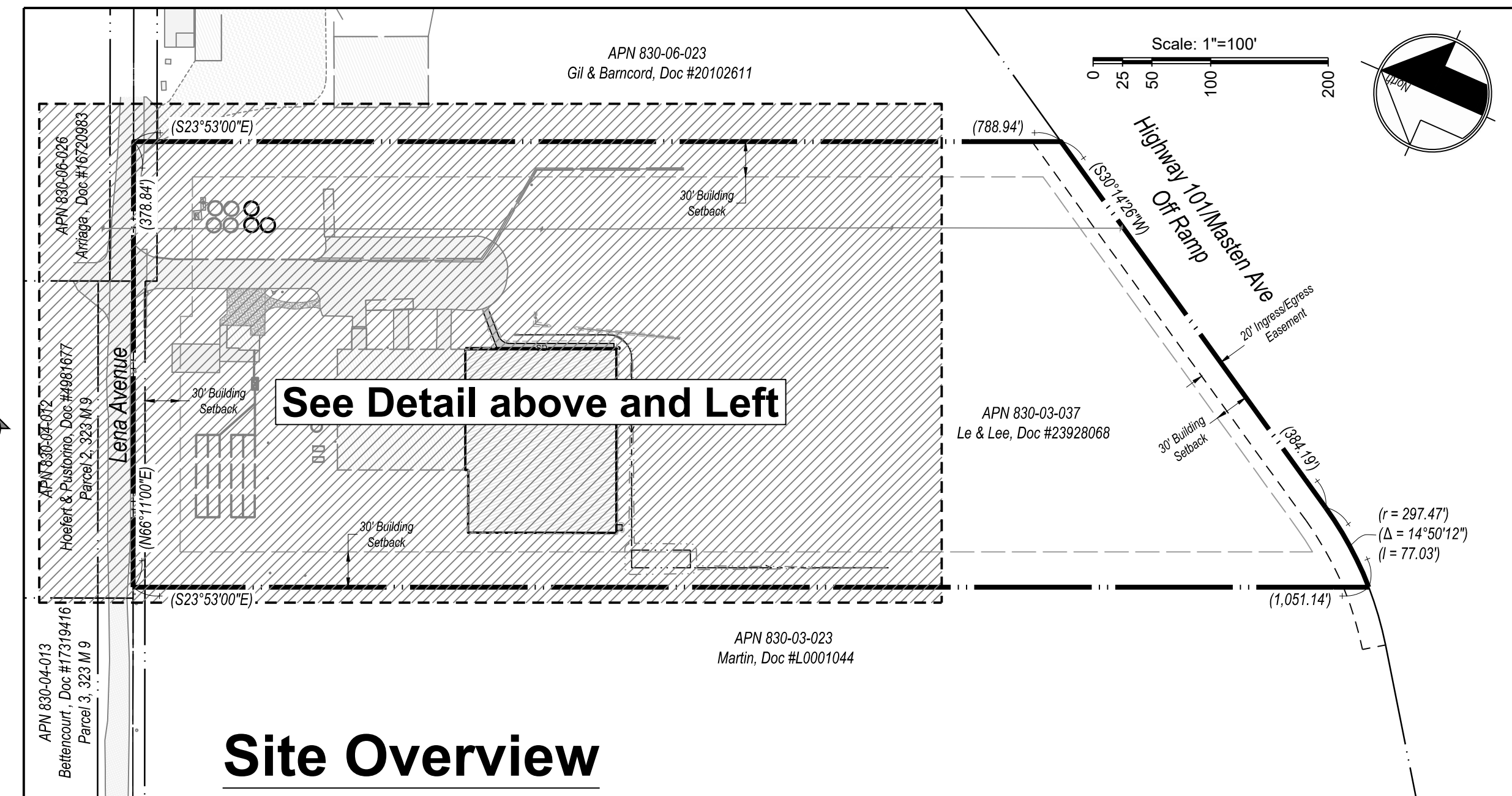
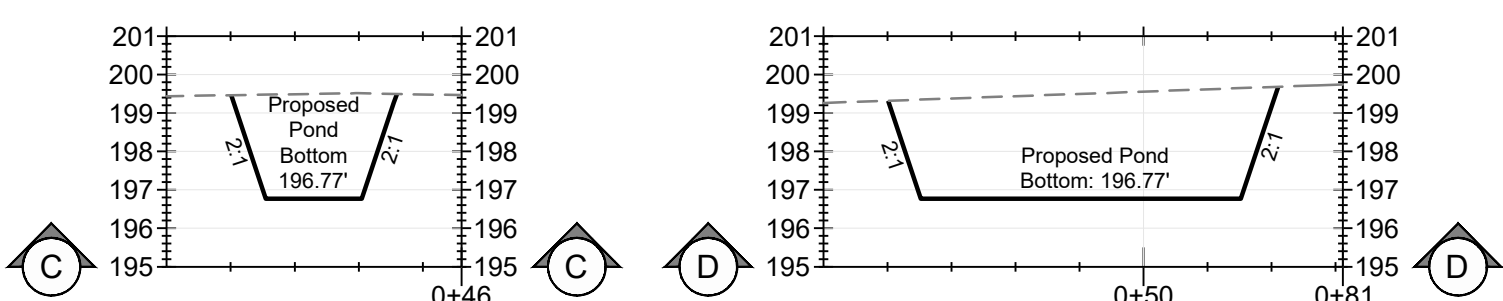
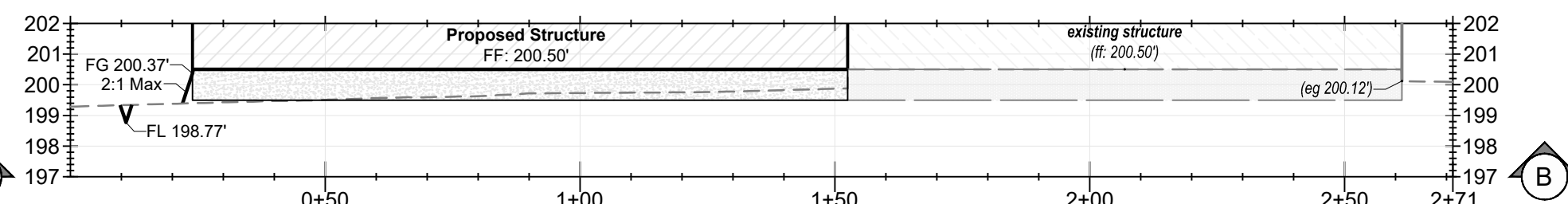
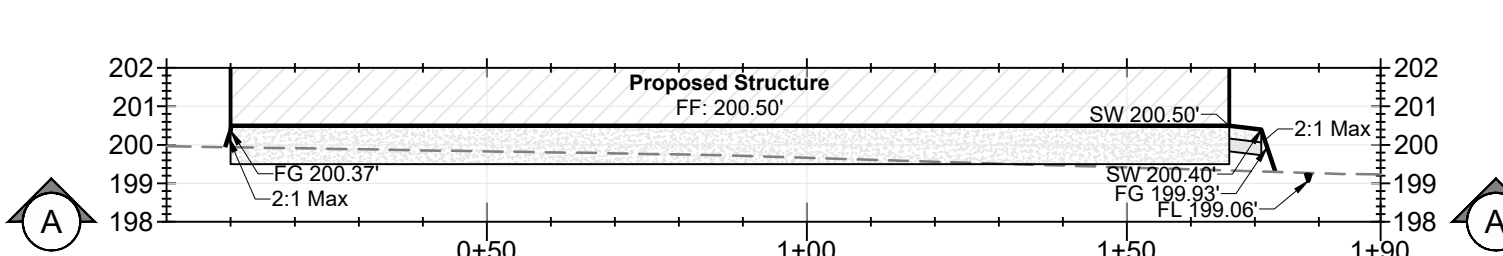
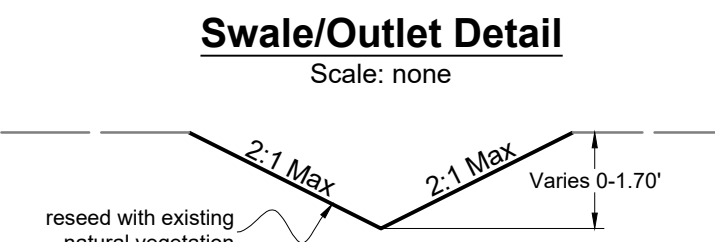
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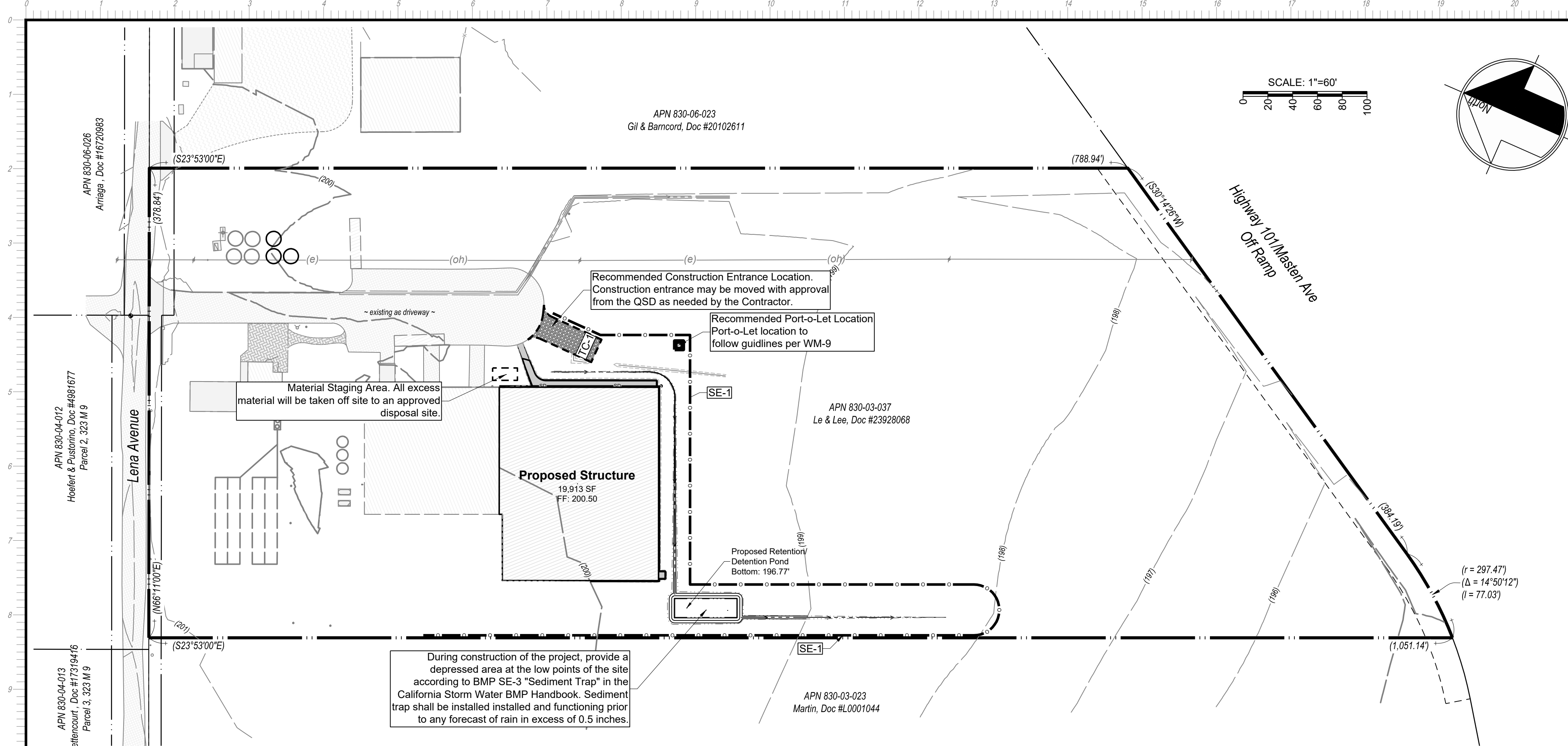


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Total	126 cy	6 cy	-	-	24,995 SF

** not included in totals as quantities within 5' of building is included in building permit

Pervious vs Impervious Areas		
	Pre-Development	Post-Development
Total Site	172,360 SF	
Buildings	12,355 SF	32,268 SF
AC Areas	13,492 SF	13,492 SF
Pavement/Landings/PCC Driveway	4,816 SF	5,498 SF
Other Pervious Areas	141,697 SF	121,103 SF
Total Impervious Areas	30,662 SF	51,257 SF
Total Pervious Areas	141,697 SF	121,103 SF





- BMPs required by construction phase**
- Mass Grading / Clearing & Grubbing phase
- SE-1 Silt fence around perimeter of disturbed areas
 - TC-1 Stabilized construction entrance @ entry/exit points to paved roads
 - SE-5 Fiber Rolls around temporary stockpiles
 - SE-6 Gravel bags at ends of gutters at project limits
 - SE-10 Storm drain inlet protection at inlets in project vicinity
 - EC-4 Hydroseeded disturbed areas upon completion of grading in areas that are not subject to further disturbance
- Underground Utilities phase
- SE-1 Silt fence around perimeter of project site
 - SE-5 Fiber Rolls around temporary stockpiles/trench spoils
 - SE-6 Gravel bags at ends of gutters at project limits
 - SE-10 Storm drain inlet protection at inlets in project vicinity and installed inlets
 - TC-1 Stabilized construction entrance @ entry/exit points to paved roads
- Vertical Construction phase
- SE-1 Silt fence around perimeter of project site
 - SE-5 Fiber Rolls around stockpiles and at back of sidewalks once installed
 - SE-6 Gravel bags at ends of gutters at project limits
 - SE-10 Storm drain inlet protection at inlets in project vicinity and at any installed inlets
 - TC-1 Stabilized construction entrance @ entry/exit points to paved roads
 - EC-4 Hydroseeded disturbed areas that are not subject to further disturbance.
- Stabilization phase
- SE-1 Silt fence around perimeter to remain in place until final landscaping is established
 - SE-5 Fiber Rolls to remain in place until final landscaping is complete
 - SE-6 Gravel bags to remain in place until final landscaping is established
 - SE-10 Storm drain inlet protection to remain in place until final landscaping is established
 - EC-4 Hydroseed all non-landscaped disturbed areas in project vicinity

- General Notes:**
- Best management practices (BMPs) for this project shall be in substantial compliance at all times with the storm water pollution prevention plan (SWPPP) prepared for the project in accordance with the state water resources control board (SWRCB) order no. 2008-2009-DWQ National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002. This permit requires that the SWPPP be kept up to date to reflect the changing site conditions and the SWPPP be kept up to date to reflect the changing site conditions and the SWPPP is to be available on site at all times for review by state and local inspectors.
 - The erosion control measures are to be operable during the rainy season September 15 to April 15. By September 15, grading, installation of storm drainage and erosion control facilities will need to be completed with erosion control planting established by that time. No grading shall occur between October 1 and April 15 unless authorized by the County Engineer.
 - Standard drop inlet, underground drainage pipe and appurtenances shall be constructed prior to winterization and will remain as permanent tract improvements.
 - Changes to this erosion and sediment control plan shall be made to meet field conditions only with the approval of or at the direction of the County Engineer. During the rainy season, all paved areas shall be kept clear of earth material and debris. The site shall be maintained so as to minimize sediment laden runoff to any storm drainage system.
 - This plan covers only the first winter following grading. Plans are to be resubmitted for County approval prior to September 1 of each subsequent year until the tract improvements are accepted by the County.
 - Seed and mulch are to be placed on all disturbed slopes steeper than 2% and higher than 3 feet, on all cut and fill slopes within or adjacent to all public rights of way and as directed by the County. Seed placed between May and September shall be irrigated as necessary to establish growth by October 1.
 - Stabilized entrance shall be installed per detail TC-1&TC-3 of SWPPP manual prior to grading activities.
 - Drain inlets shall be protected per details SE-10 of SWPPP manual prior to grading activities or as soon as practical.
 - Sediment control BMPs shall be installed prior to grading activities or as soon as practical, and maintained year round.

County of Santa Clara Construction Stormwater Control Plan (CSCP) Notes:

- The contractor shall comply with all Santa Clara County Standards, and is advised that the County has adopted the California Storm Water Quality Association (CASQA) Handbook for Construction as its Storm Water best management practices (BMP) standards. The BMPs contained within the County standards are minimum requirements. The contractor shall comply with all BMPs as directed by the County of Santa Clara, including but not limited to BMPs for sediment control, tracking control, waste management and materials pollution control, non-storm water management control, and erosion control. Examples of BMPs that are required include but are not limited to:
 - SE-10 storm drain inlet protection
 - SE-7 Street sweeping and vacuuming
 - WM-5 solid waste management
 - WM-9 sanitary/septic waste management
 - WM-10 concrete waste management
- Portable sanitary facilities shall have secondary containment, and be located on relatively level ground away from traffic areas and storm drain inlets.
- The contractor shall notify the County 48 hours in advance of the start of construction to request inspection of storm water BMPs. All storm water BMPs shall be in place prior to the start of construction, and maintained throughout the duration of the project.
- The interim CSCP is considered a "living document" which may be subject to change from time to time in order to facilitate construction. All requested changes must be approved by the County of Santa Clara prior to installation.
- The contractor shall inspect all storm water BMPs regularly to assure they are functioning properly. If a BMP fails, the contractor shall make repairs immediately and clean all portions of storm drain systems that may have been contaminated by failure of BMP to the satisfaction of the County of Santa Clara.

Construction Stormwater BMP Control Plan (CSCP)

- Applicable permits directly associated with grading activity:
 - Construction General Permit CCRWQCB: WQID#
 - 401 Water Quality Certification: not applicable
 - USACE 404 permit: not applicable
 - CDFW 1600 agreement: not applicable
- Permits shall be issued by County prior to commencement of construction, (these plans be approved first)
- SWPPP submitted and approved to SMARTS system and provided to County of Santa Clara 8/18/2015.
- Project Information:
 - Owner/Developer: John & Shaneen Monaco
195 Mast Street, Suite 100
Morgan Hill, CA 95037
 - Project LRP:
- Project QSD/QSP:
- Basic Site Information:
 - Location: Maple Ave., San Martin, CA 95020
 - APN 825-18-007
 - Status: Vacant disced field
 - Size: 10.88 acres
 - Disturbed Area: 10.88 acres
- SWPPP Risk Level: Risk Level 2
- Start Date: _____ Complete Grading: _____ Project Complete Date: _____
- BMP descriptions/maintenance/inspections: as shown on this sheet.
- Drainage Calculations in report by MH engineering part of County project file. Soil loss calculations included in the SWPPP file with SMARTS
- Cost Estimate of implementing and maintaining BMPs:

Legend

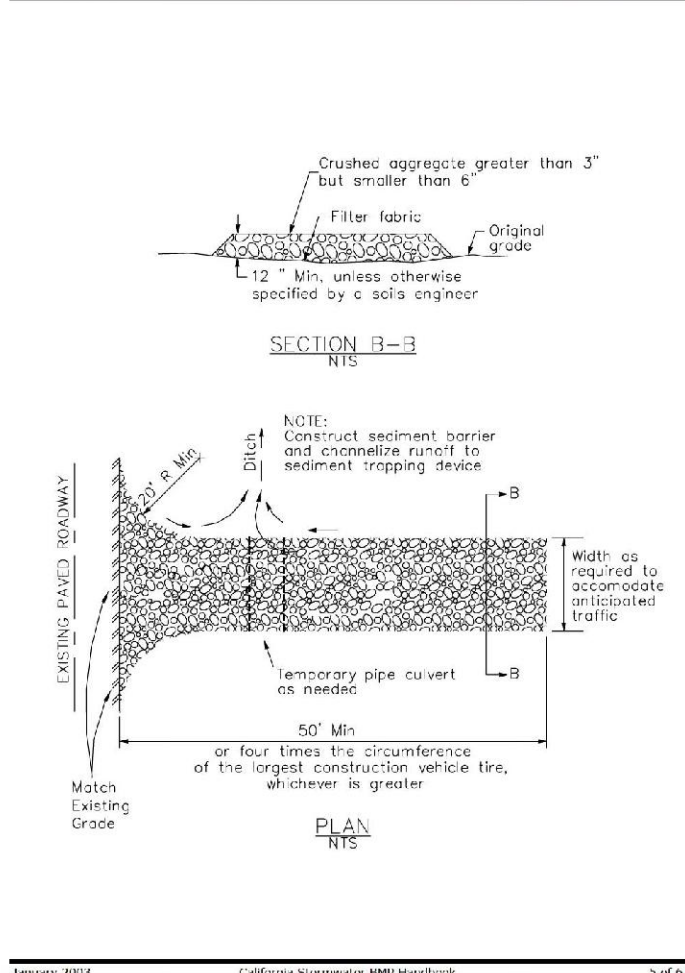
- SE-1 Silt fence
- SE-5 Fiber Rolls
- SE-6 Gravel Bag Berm
- SE-10 Storm drain inlet protection
- TC-1 Stabilized construction entrance
- EC-4 Re-seed disturbed areas

Note 1: All concrete washout shall be done at supplier. If concrete washout is required on-site, all concrete washout areas shall conform with California State BMP WM-8.

Note 2: No hazardous material anticipated for this project. If hazardous materials are used, notify engineer, Santa Clara County Land Development Engineering Department, and comply to California Stormwater Quality Association Stormwater Best Management Practice Handbook.

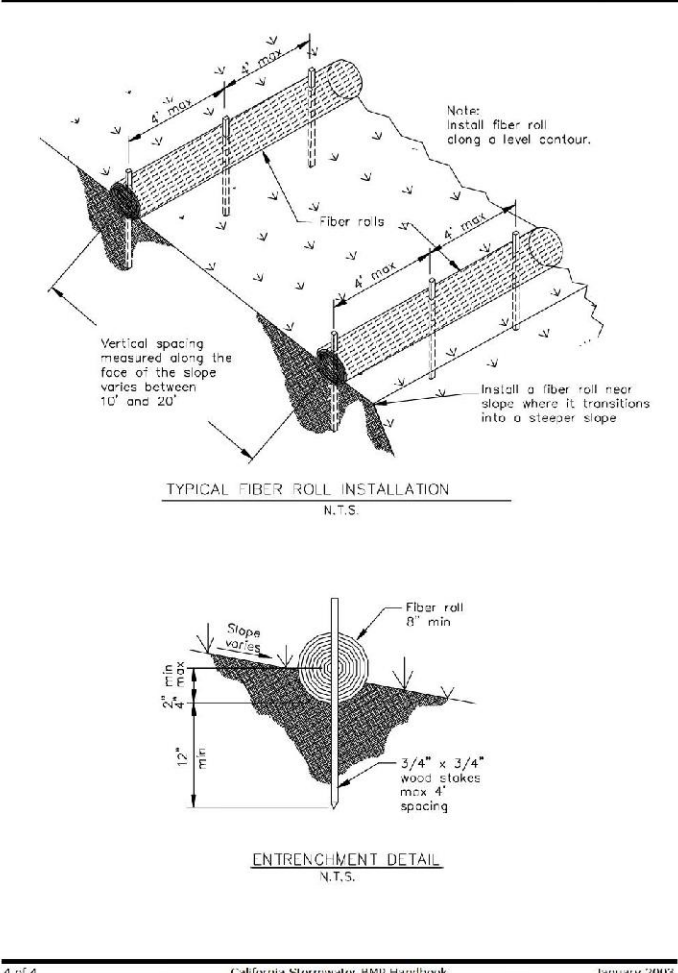
Note 3: All construction parking is anticipated to remain within the disturbed area.

Stabilized Construction Entrance/Exit TC-1



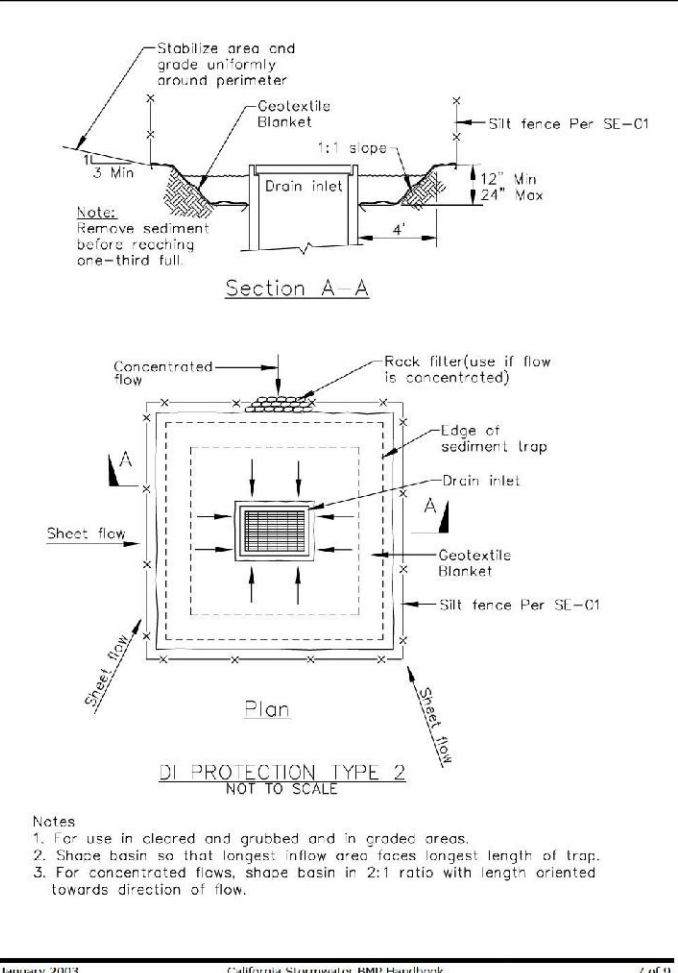
- Notes: TC-1 Stabilized Construction Entrance/Exit Inspection and Maintenance**
- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMPs are under way, inspect weekly during the rainy season and at two-week intervals in the non-rainy season to verify continued BMP implementation.
 - Inspect local roads adjacent to the site daily. Sweep or vacuum to remove visible accumulated sediment.
 - Remove aggregate, separate and dispose of sediment if construction entrance/exit is clogged with sediment.
 - Keep all temporary roadway ditches clear.
 - Check for damage and repair as needed.
 - Replace gravel material when surface voids are visible.
 - Remove all sediment deposited on paved roadways within 24 hours.
 - Remove gravel and filter fabric at completion of construction

SE-5 Fiber Rolls



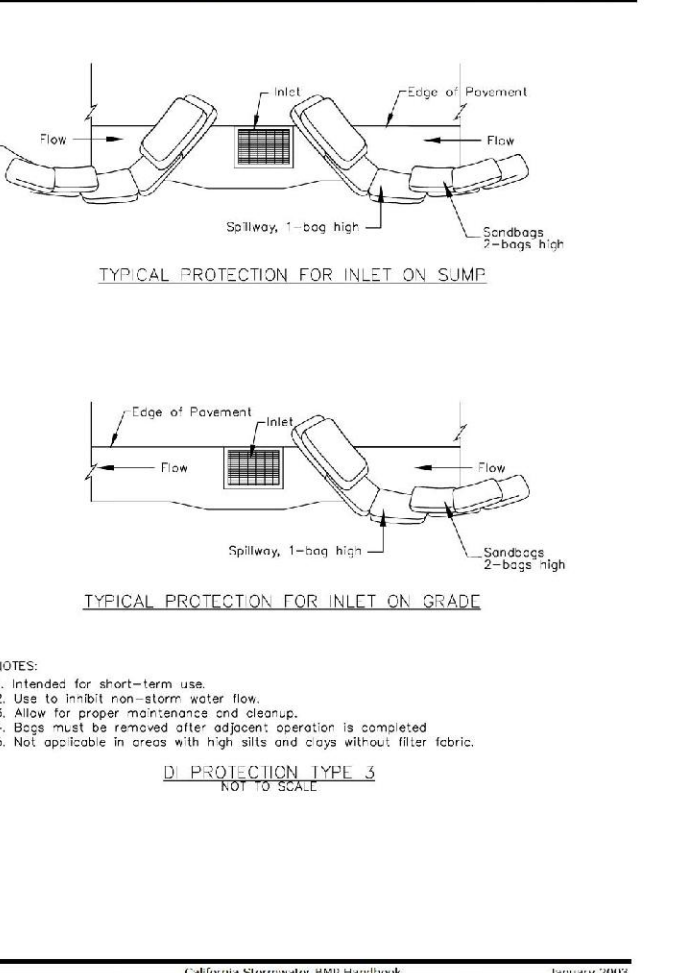
- Notes: SE-5 Fiber Rolls Installation**
- Locate fiber rolls on level contours spaced as follows:
 - Slope inclination of 4:1 (H:V) or flatter: Fiber rolls should be placed at a maximum interval of 20 ft.
 - Slope inclination between 4:1 and 2:1 (H:V): Fiber rolls should be placed at a maximum interval of 15 ft. (a closer spacing is more effective).
 - Slope inclination 2:1 (H:V) or greater: Fiber rolls should be placed at a maximum interval of 10 ft. (a closer spacing is more effective).
 - Turn the ends of the fiber roll up slope to prevent runoff from going around the roll.
 - Stake fiber rolls into a 2 to 4 in. deep trench with a width equal to the diameter of the fiber roll.
 - Drive stakes at the end of each fiber roll and spaced 4 ft maximum on center.
 - Use wood stakes with a nominal classification of 0.75 by 0.75 in. and minimum length of 24 in.
 - If more than one fiber roll is placed in a row, the rolls should be overlapped, not abutted.
 - Inspection and Maintenance**
 - Inspect BMPs prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season.
 - Repair or replace split, torn, unraveling, or slumping fiber rolls.
 - If the fiber roll is used as a sediment capture device, or as an erosion control device to maintain sheet flows, sediment that accumulates in the BMP must be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when sediment accumulation reaches one-half the designated sediment storage depth, usually one-half the distance between the top of the fiber roll and the adjacent ground surface. Sediment removed during maintenance may be incorporated into earthwork on the site of disposal at an appropriate location.
 - If fiber rolls are used for erosion control, such as in a mini check dam, sediment removal should not be required as long as the system continues to control the grade. Sediment control BMPs will likely be required in conjunction with this type of application.

Storm Drain Inlet Protection SE-10

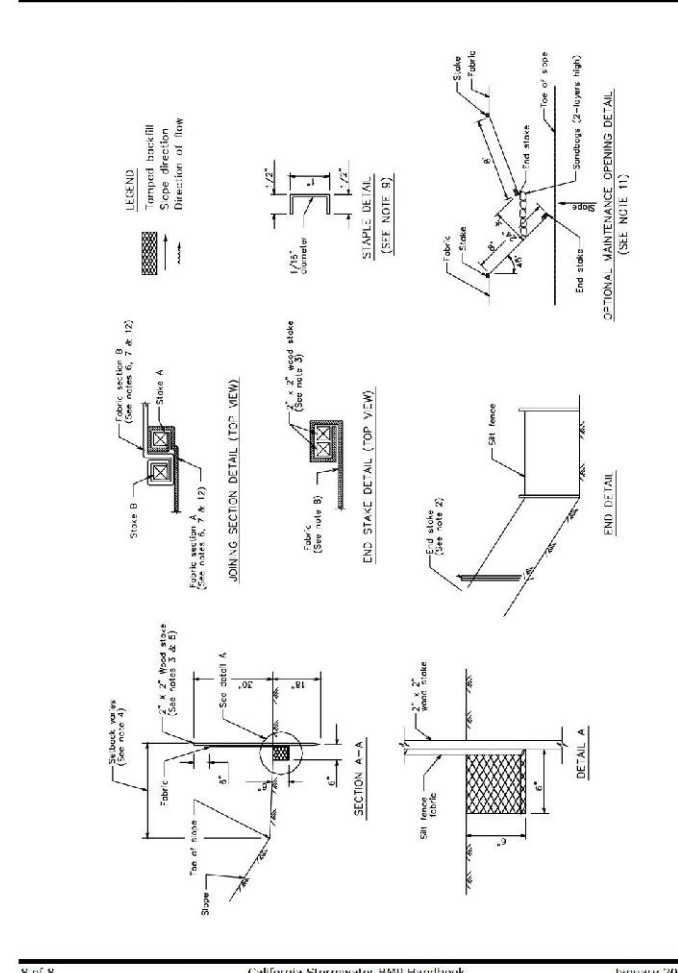


- Notes: SE-10 Storm Drain Inlet Protection Installation**
- DI Protection Type 2 - Excavated Drop Inlet Sediment Trap** - The excavated drop inlet sediment trap (Type 2) is shown in the attached figures. Install filter fabric fence in accordance with DI Protection Type 1. Size excavated trap to provide a minimum storage capacity calculated at the rate 67 yd³/acre of drainage area.
 - Inspection and Maintenance**
 - Inspect BMPs prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season.
 - Filter Fabric Fences: If the fabric becomes clogged, torn, or degraded, it should be replaced. Make sure the stakes are securely driven in the ground and are in good shape (i.e., not bent, cracked, or splintered), and are reasonably perpendicular to the ground). Replace damaged stakes.
 - Gravel Filters: If the gravel becomes clogged with sediment, it must be carefully removed from the inlet and either cleaned or replaced. Since cleaning gravel at a construction site may be difficult, consider using the sediment-laden stone as fill material and put fresh stone around the inlet. Inspect bags for holes, gashears, and snags, and replace bags as needed. Check gravel bags for proper arrangement and displacement.
 - Sediment that accumulates in the BMP must be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height. Sediment removed during maintenance may be incorporated into earthwork on the site or disposed at an appropriate location.
 - Remove storm drain inlet protection once the drainage area is stabilized.
 - Clean and regrade area around the inlet and clean the inside of the storm drain inlet as it must be free of sediment and debris at the time of final inspection.

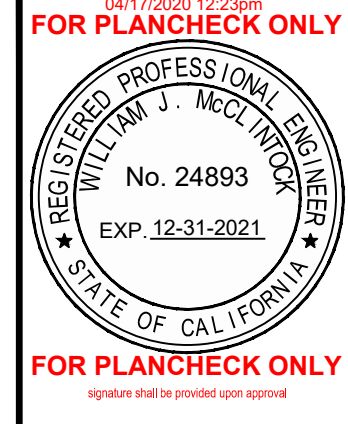
SE-10 Storm Drain Inlet Protection



SE-1 Silt Fence



- Notes: SE-1 Silt Fence Installation Guidelines**
- Silt fences are to be constructed on a level contour. Sufficient area should exist behind the fence for ponding to occur without flooding or overtopping the fence.
 - A trench should be excavated approximately 6 in. wide and 6 in. deep along the line the proposed silt fence.
 - Bottom of the silt fence should be keyed-in a minimum of 12 in.
 - Posts should be spaced a maximum of 6 ft apart and driven securely into the ground a minimum of 18 in. or 12 in. below the bottom of the trench.
 - When standard strength filter fabric is used, a plastic or wire mesh support fence should be fastened securely to the upslope side of posts using heavy-duty wire staples at least 1 in. long. The mesh should extend into the barrier. When extra-strength filter fabric and closer post spacing are used, the mesh support fence may be eliminated. Filter fabric should be purchased in a long roll, then cut to the length of the barrier. When joints are necessary, filter cloth should be spliced together only at a support post, with a minimum 6 in. overlap and both ends securely fastened to the post.
 - The trench should be backfilled with compacted native material.
 - Construct silt fences with a setback of at least 3 ft from the toe of a slope. Where a silt fence is determined to be not practicable due to specific site conditions, the silt fence may be constructed at the toe of the slope, but should be constructed as far from the toe of the slope as practicable. Silt fences close to the toe of the slope will be less effective and difficult to maintain.
 - Inspection and Maintenance**
 - Inspect BMPs prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season.
 - Repair undercut silt fences.
 - Repair or replace split, torn, slumping, or weathered fabric. The lifespan of silt fence fabric is generally 5 to 8 months.
 - Silt fences that are damaged and become unsuitable for the intended purpose should be removed from the site of work, disposed of, and replaced with new silt fence barriers.
 - Sediment that accumulates in the BMP must be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height. Sediment removed during maintenance may be incorporated into earthwork on the site or disposed at an appropriate location.
 - Silt fences should be left in place until the upstream area is permanently stabilized. Until then, the silt fence must be inspected and maintained.
 - Holes, depressions, or other ground disturbance caused by the removal of the silt fences should be backfilled and repaired.



MH engineering Co.
16075 Vineyard Boulevard
Morgan Hill, CA 95037

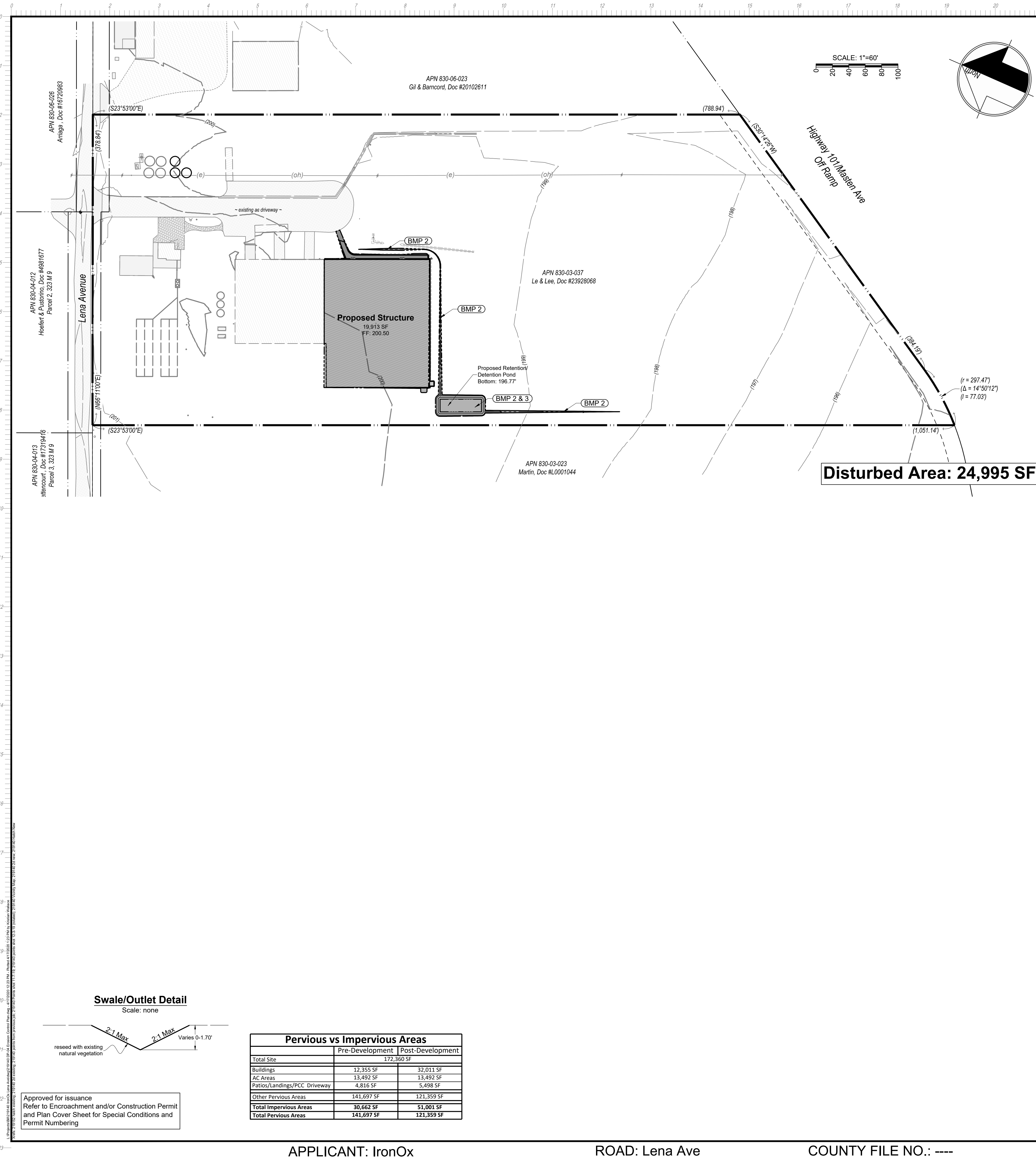
Erosion Control Plan
IronOx - 450 Lena Ave

DATE: 2/27/20
SCALE: AS SHOWN
DRAWN BY: KVM
CHECKED BY: WJM
JOB NO: 219140
SHEET 4 OF 5

APPLICANT: IronOx

ROAD: Lena Ave

COUNTY FILE NO.: ----



BMP - 1. Site Housekeeping

- Objective:
 - 1.1 to reduce impacts from storm water runoff by developing and implementing good housekeeping practices.
- General Housekeeping:
 - 2.1 Keep parking areas, material storage and staging areas clean and orderly.
 - 2.2 Establish a daily checklist to confirm cleanliness and adherence to proper storage and security. Where feasible, individual employees should be assigned specific inspection responsibilities and given the authority to remedy any problems found.
 - 2.3 Provide an adequate number of trash and recycling receptacles.
 - 2.4 Post "No Littering" signs and enforce anti-littering laws.
 - 2.5 Dispose of wash water properly. Wash water shall not be allowed to flow to the storm drain system.
 - 2.6 Sediment and sweeping debris shall be properly disposed.
- Mechanical Sweeping:
 - 3.1 Mechanical sweeping shall be performed on a scheduled basis. The frequency of mechanical sweeping shall be based on visual observation of waste accumulation.
 - 3.2 Mechanical sweeping equipment shall only be used by personnel trained in using mechanical sweeping equipment.
 - 3.3 Mechanical sweeping of all outside equipment staging areas, materials storage areas and parking areas will be performed at least once prior to the onset of the wet season (September 15th).
 - 3.4 Mechanical sweeping will be coordinated with maintenance activities or other storm water treatment measures located on the site (i.e. stormceptors, CDS units, drain inlet filters).
 - 3.5 Dispose of debris properly.
- Manual Sweeping:
 - 4.1 Manual sweeping will be used in areas where mechanical sweeping cannot be effectively implemented.
 - 4.2 Manual sweeping will be coordinated with maintenance activities on other storm water treatment measures located on the site.
 - 4.3 Dispose of debris properly.
- Surface Cleaning:
 - 5.1 Surface cleaning shall be used in areas where heavy oil deposits are encountered.
 - 5.2 Dry cleaning methods (e.g. application of absorbent followed by sweeping and vacuuming) shall be employed first to prevent the discharge of pollutants to the storm drain system.
 - 5.3 If wet cleaning is required to effectively remove pollutants, all wash water shall be collected and disposed to landscape or the sanitary sewer, as appropriate. If discharge to the sanitary sewer is necessary, prior approval from County of Santa Clara is required.
- Vector Control:
 - 6.1 Ensure that there are no areas of standing water on site. Areas of standing water shall be drained or cleared as soon as they are located.
 - 6.2 Vector Control District: The Santa Clara County Vector Control District (SCVCD) will be contacted as needed for assistance should any mosquito issues arise. Mosquito larvicides should be applied only when absolutely necessary as indicated by the SCVCD, and then only by a licensed professional or contractor. The contact information for SCVCD follows:
- Pesticide Reduction Plan and Measures:
 - 7.1 Objectives: To reduce or eliminate the use of chemicals necessary to prevent pests of the landscape and to reduce the potential for pesticides to runoff the landscape.
 - 7.2 Employ non-chemical controls (biological, physical and cultural controls) before using chemicals to treat a pest problem.
 - 7.3 Use geotextiles and apply 2-4 inches of mulch to exposed soils to prevent weed growth.
 - 7.4 Replace problem plants with locally adapted, pest resistant plants. Do not plant invasive species.
 - 7.5 Prune plants properly and at the appropriate time of year.
 - 7.6 Limit fertilizer use unless soil testing indicates a deficiency. Slow-release or organic fertilizer is preferable.
 - 7.7 Provide adequate irrigation for landscape plants. Do not over water.
 - 7.8 Sweep up spilled fertilizer and pesticides. Do not wash away or bury such spills.
 - 7.9 If chemical controls are necessary, use least-toxic pesticide first. Avoid the use of broad-spectrum pesticides.
 - 7.10 Do not over apply pesticide. Spray only where the infestation exists. Follow the manufacturer's instructions for mixing and applying materials.
 - 7.11 Only licensed, trained pesticide applicators shall apply pesticides.
 - 7.12 Apply pesticides at the appropriate time to maximize their effectiveness and minimize the likelihood of discharging pesticides into runoff. With the exception of pre-emergent pesticides, avoid application if rain is expected.
 - 7.13 Unwanted/Unusual pesticides shall be disposed as hazardous waste.
 - 7.14 Correspondence: Correspondence regarding operations, inspections and maintenance of the storm water treatment measures shall be provided to the County Engineer as required and according to the schedule outlined in this SWRMP.

NOTE: Best Management Practices delineated in this Operations & Maintenance Agreement are minimum requirements. More stringent requirements may apply to specific projects as environmental mitigation measures under the California Environmental Quality Act, and/or as conditions of approval for a development project (such as a map, a planned district, a zoning administrative permit, a conditional use permit or other permit or project approval by the County).

BMP - 2 Vegetated (Bio) Swale Maintenance Plan

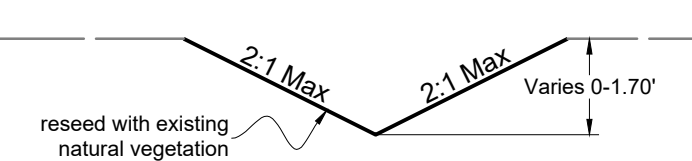
- Objectives:
 - 1.1. The maintenance objectives for vegetated swale systems include keeping up the efficiency of the channel and maintaining a dense, healthy grass (or plant) cover.
- Inspection Schedule:
 - 2.1. Visual inspections shall be conducted monthly, particularly after heavy runoff, to ensure normal functioning of swale (i.e. no pooling, or blockage)
 - 2.2. Detailed inspections shall be conducted at least twice annually with inspections occurring (1) at the end of the wet season (May 1st) to schedule summer maintenance, (2) before major fall (September 15th) runoff in preparation for winter, and (3) after periods of heavy runoff. The objective of detailed inspections is to identify erosion, damage to vegetation, grass or plant height, debris, litter, areas of sediment accumulation, and pool/standing water. If any issues exist, activities as outlined in Section 3, Maintenance Activities will be conducted.
 - 2.3 Inspection reports due to Public Works: May 1st and September 15th*
- Inspection certification by a qualified R.C.E. due to Public Works: September 30*
- Maintenance Activities:
 - 3.1. Routine or preventative maintenance refers to procedures that are performed on a regular basis to keep the swale aesthetic and in proper working order. Routine maintenance includes debris removal, silt and sediment removal, and clearing of vegetation around flow control devices to prevent clogging. Routine maintenance also includes the maintenance of a healthy vegetative cover. Dead turf or other unhealthy vegetative areas will need to be replaced after being discovered.
 - 3.1.1. Erosion: Areas of erosion and slope failure shall be repaired and reseeded (or sodded) as soon as possible. Eroded areas near the inlet or outlet may also need to be lined with riprap, which will be determined on a case by case basis.
 - 3.1.2. Damage to vegetation: If the channel develops ruts or holes, it shall be repaired utilizing a suitable soil that is properly tamped and seeded. The grass cover should be thick. If it is not, it shall be reseed as necessary. If possible, flow will be redirected until new grass is firmly established to avoid deterioration. If invasive species and/or weeds develop, promptly remove to avoid disruption to original vegetation.
 - 3.1.3. Grass or plant height: Mow as required by plant variety to maintain at least 4-6" grass height or to suppress weeds and woody vegetation. Litter must be removed prior to mowing. During the growing season mow as indicated by species to promote growth and pollutant uptake. Remove cuttings and dispose/compost. Species in the swale include: Red Fescue.
 - 3.1.4. Debris / Litter: Remove all litter or debris within swale and prior to mowing and as inspections warrant. Keep swale free of debris.
 - 3.1.5. Areas of sediment accumulation: Remove sediment by hand with a flat-bottomed shovel whenever sediment covers vegetation or begins to reduce swale capacity. Maintain clean curb cuts to avoid soil and vegetation buildup. Sediment accumulating near culverts and in channels should be removed when it builds up to 75 mm (3 in.) at any spot, or covers vegetation. If inlet flow spreaders and/or under drains installed, keep all inlet flow spreaders even and free of debris. If cobbles or other similar flow spreaders are used, ensure that cobbles do not become embedded in sediment. Remove any debris in under drains that could cause clogging. (At least two times per year)
 - 3.1.6. Pools and standing water: Observe soil at the bottom of the swale for uniform percolation throughout. If portions of the swale do not drain within 5 days after the end of a storm, the soil shall be filled and replaced. Remove any debris or accumulation of sediment.
 - 3.1.7. Irrigation: Water plants in swales during dry conditions. Confirm that irrigation is adequate and not excessive.
 - 3.1.8. Pesticides and Fertilizers: Application of pesticides and fertilizers shall be minimal. Biological, physical, and cultural controls shall be used prior to pesticide and fertilizer use.
 - 3.2 Non-routine or corrective maintenance refers to any rehabilitative activity that is not performed on a regular basis. This includes flow control structure replacement or the major replacement and clearing of aquatic vegetation. Non-routine maintenance will be completed as needed.
- Vector Control:
 - 4.1. Objective: To prevent conditions within swales that attract and/or promote the growth of disease vectors, including but not limited to mosquitoes, rodents, and flies.
- Maintenance Activities for Vector Control:
 - 4.2.1. Inspections: Regular inspections will determine if swales have pools of standing water or debris accumulation. Inspections will be conducted prior to the rainy season, after major storm events, and at least once during the dry season to ascertain that standing water drains from the swale within 5 days.
 - 4.2.2. Holes in ground: Abate potential vectors by filling holes in the ground in and around the swale and by ensuring that there are no areas where water stands longer than 5 days following a storm.
 - 4.2.3. Other maintenance activities: If any obstructions develop (e.g. debris accumulation, invasive vegetation, clogging of outlets and/or under drains) within the swale, appropriate maintenance activities shall be implemented to correct the obstruction. Refer to Section 3 for details on specific maintenance activities.
- Vector Control District: The Santa Clara County Vector Control District (SCVCD) will be contacted as needed for assistance should any mosquito issues arise. Mosquito larvicides should be applied only when absolutely necessary as indicated by the SCVCD, and then only by a licensed professional or contractor.

BMP - 3 Detention Pond/Filtration Basin/ Inlet & Outlet - Maintenance

- Detention Pond/Filtration Basin Inlet & Outlet - Maintenance Protocols (monthly minimum)Drainage System FeaturePotential DefectConditions When Maintenance Is NeededRequired Maintenance and Expected ResultsGeneral Trash and Debris: Any trash and debris which exceeds five cubic feet per 1,000 square feet (this is about equal to the amount of trash it would take to fill up one standard size garbage can). In general, there should be no visual evidence of dumping.
 - 5.1. Remove trash and debris.Poisonous Vegetation and Noxious Weeds: Any poisonous or nuisance vegetation which may constitute a hazard. Evidence of noxious weeds as defined by State or local regulations.Remove poisonous or nuisance vegetation. Remove noxious weeds. Comply with State or local eradication policies.Contaminants and Pollution: Any evidence of oil, gasoline, contaminants or other pollutants beyond typical levels. For major spills coordinate removal/cleanup with the County. No evidence contaminants or pollutants present.
 - 5.2. Rodent Holes: Any evidence of rodent holes on berm, or any evidence of water piping through berm via rodent holes.Rodents eliminated and berm repaired.
 - 5.3. Insects: Insects such as wasps and hornets create problems or pose danger.Insects destroyed or removed from site.
 - 5.4. Apply insecticides in compliance with state and federal requirements.
- Tree Growth and Hazard Trees:
 - 6.1. Tree growth does not allow maintenance access or interferes with maintenance activity. Hazard trees such as dead, diseased, or dying trees are identified.
 - 6.2. Remove or trim problem trees.
 - 6.3. Remove hazard Trees
 - 6.4. Side Slopes of Pond Erosion Eroded damage over two inches deep. Any erosion observed on a compacted berm embankment.
 - 6.5. Stabilize slopes using appropriate permanent erosion control measures. If erosion is occurring on compacted berms a Licensed Civil Engineer should be consulted to resolve source of erosion.
 - 6.6 Grass/Vegetation Grass exceeds 12 inches in height or vegetation growth becomes excessive.Mow grass or trim vegetation.Poor vegetation coverage: If bare areas are large (generally greater than 10 inches wide) prepare soil and reseed. For smaller bare areas, over seed or plant plugs of grass as needed at eight inch intervals.
- Detention Pond/Filtration Basin (Continued)Drainage System FeaturePotential DefectConditions When Maintenance Is NeededRequired Maintenance and Expected ResultsStorage AreaSedimentAccumulated sediment that exceeds 10% of the designed pond depth unless otherwise specified or affects inlet or outlet of the facility.Remove sediment to restore designed pond shape and depth; reseed pond if necessary to control erosion.
 - 9.1. If (Applicable) Liner is visible and has more than three 1/4 inch holes in it, Repair or replace liner. Fully cover liner.
- Pond Berms (Dikes) Settlement:
 - 10.1. Any part of berm which has settled four inches lower than the design elevation.Repair berm to the design elevation. Settling can be an indication of more severe problems with the berm or outlet works. A licensed Civil Engineer should be consulted to determine the source of the settlement. Soil Piping
 - 10.2. Discernable water flow through pond berm. Ongoing erosion with potential for erosion to continue. (It is recommended that a Civil engineer is consulted to inspect and evaluate condition of the berm and recommend repair procedure.Repair soil piping damage and repair berm to eliminate soil piping condition.
- Tree Growth:
 - 11.1. Tree growth on emergency spillways creates blockage problems and may cause failure of the berm due to uncontrolled overtopping. Tree growth on berms over four feet in height may lead to piping through the berm which could lead to failure of the berm.Remove Trees. If root system is small (base less than four inches) the root system may be left in place. Otherwise the roots should be removed and the berm restored. A licensed Civil Engineer should be consulted for proper berm/spillway restoration.
- Erosion:
 - 12.1. Eroded damage over two inches deep.Stabilize slopes using appropriate permanent erosion control measures.Any erosion observed on a compacted berm embankment. If erosion is occurring on compacted berms a licensed Civil Engineer should be consulted to resolve source of erosion.

Swale/Outlet Detail

Scale: none



Approved for issuance
Refer to Encroachment and/or Construction Permit
and Plan Cover Sheet for Special Conditions and
Permit Numbering

Pervious vs Impervious Areas			
	Pre-Development	Post-Development	
Total Site	172,360 SF		
Buildings	12,355 SF	32,011 SF	
AC Areas	13,492 SF	13,492 SF	
Patios/Landings/PCC Driveway	4,816 SF	5,498 SF	
Other Pervious Areas	141,697 SF	121,359 SF	
Total Impervious Areas	30,662 SF	51,001 SF	
Total Pervious Areas	141,697 SF	121,359 SF	

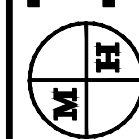
APPLICANT: IronOx

ROAD: Lena Ave

COUNTY FILE NO.: ----



MH engineering Co.
Morgan Hill, CA 95037
16075 Vineyard Boulevard



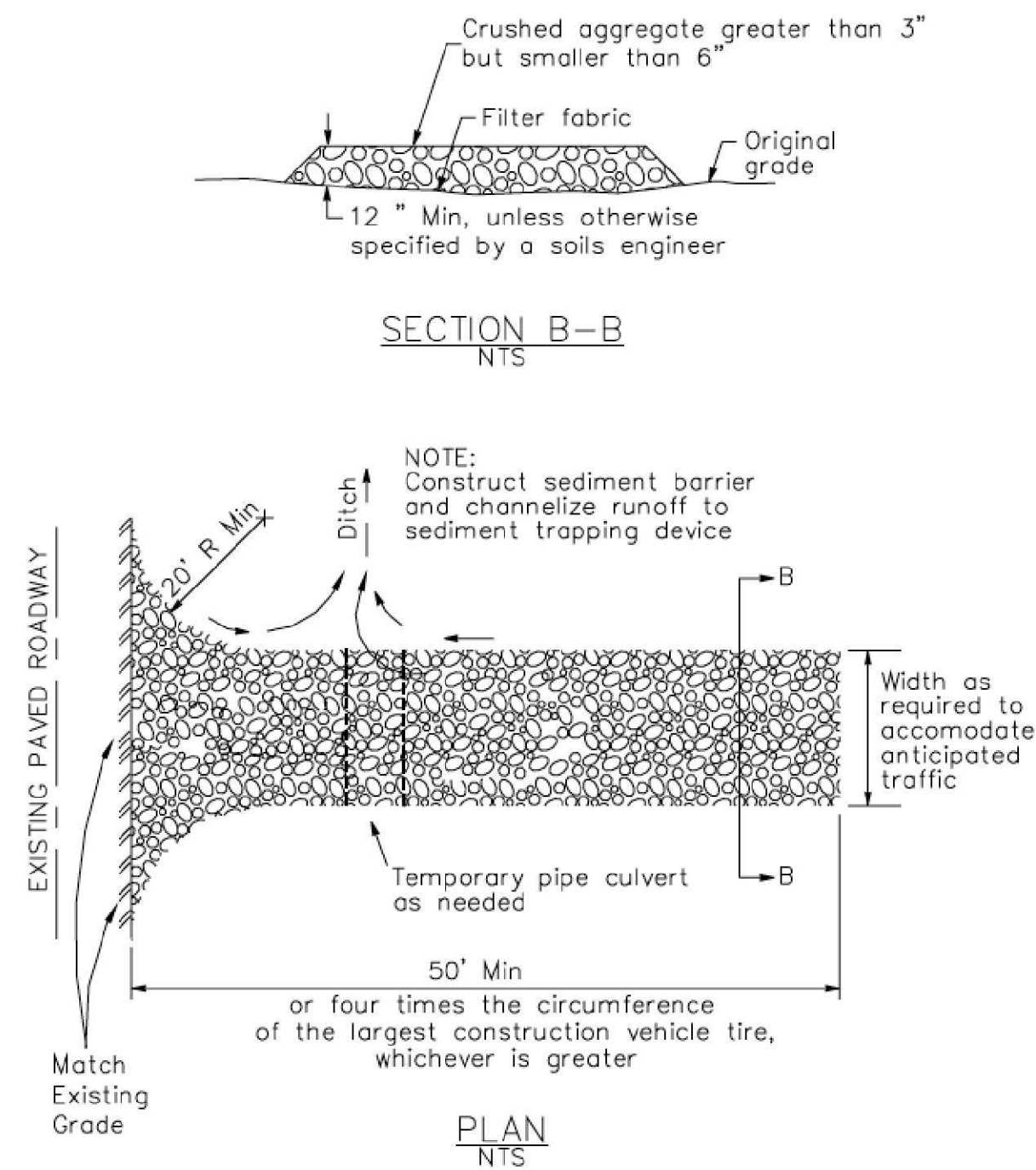
Stormwater Control Plan
IronOx - 450 Lena Ave

DATE: 2/27/20
SCALE: As Shown
DRAWN BY: KVM
CHECKED BY: WJM
JOB NO: 219140
SHEET 5 OF 5

3

Stabilized Construction Entrance/Exit

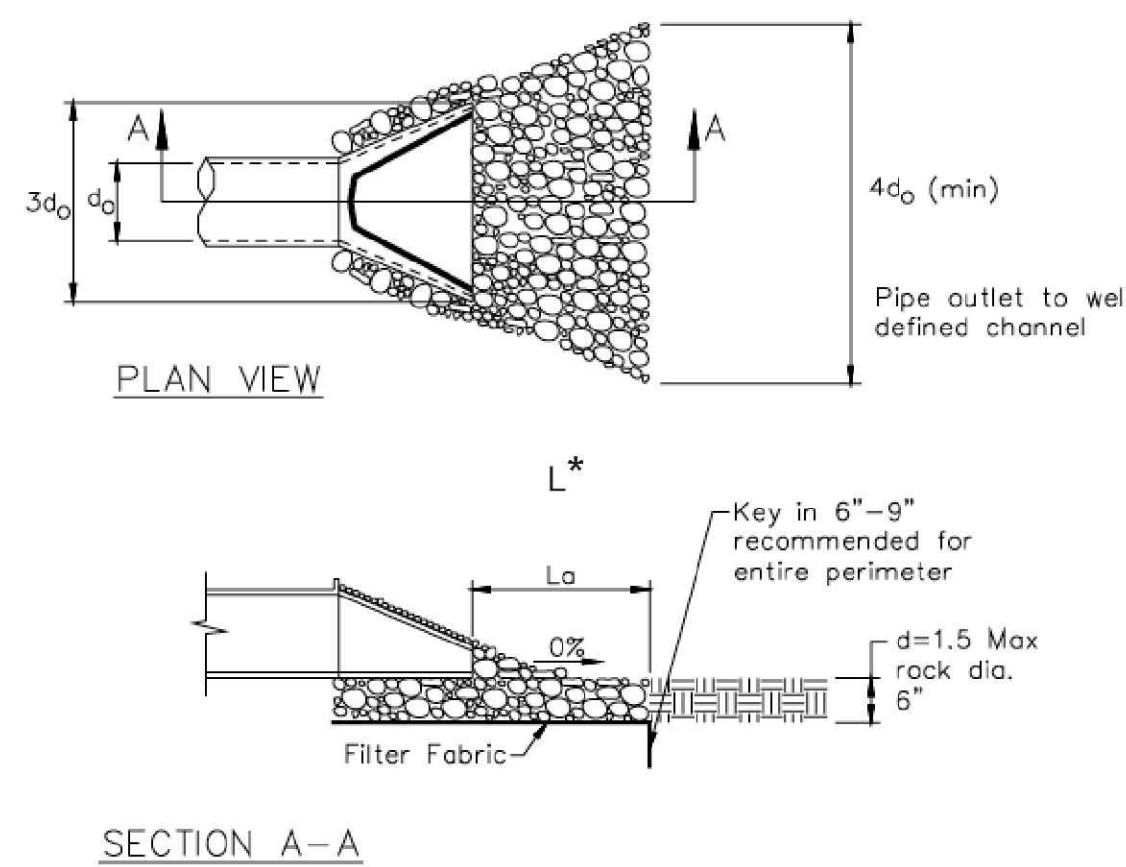
CASQA Detail TC-1



4

Velocity Dissipation Devices

CASQA Detail EC-10



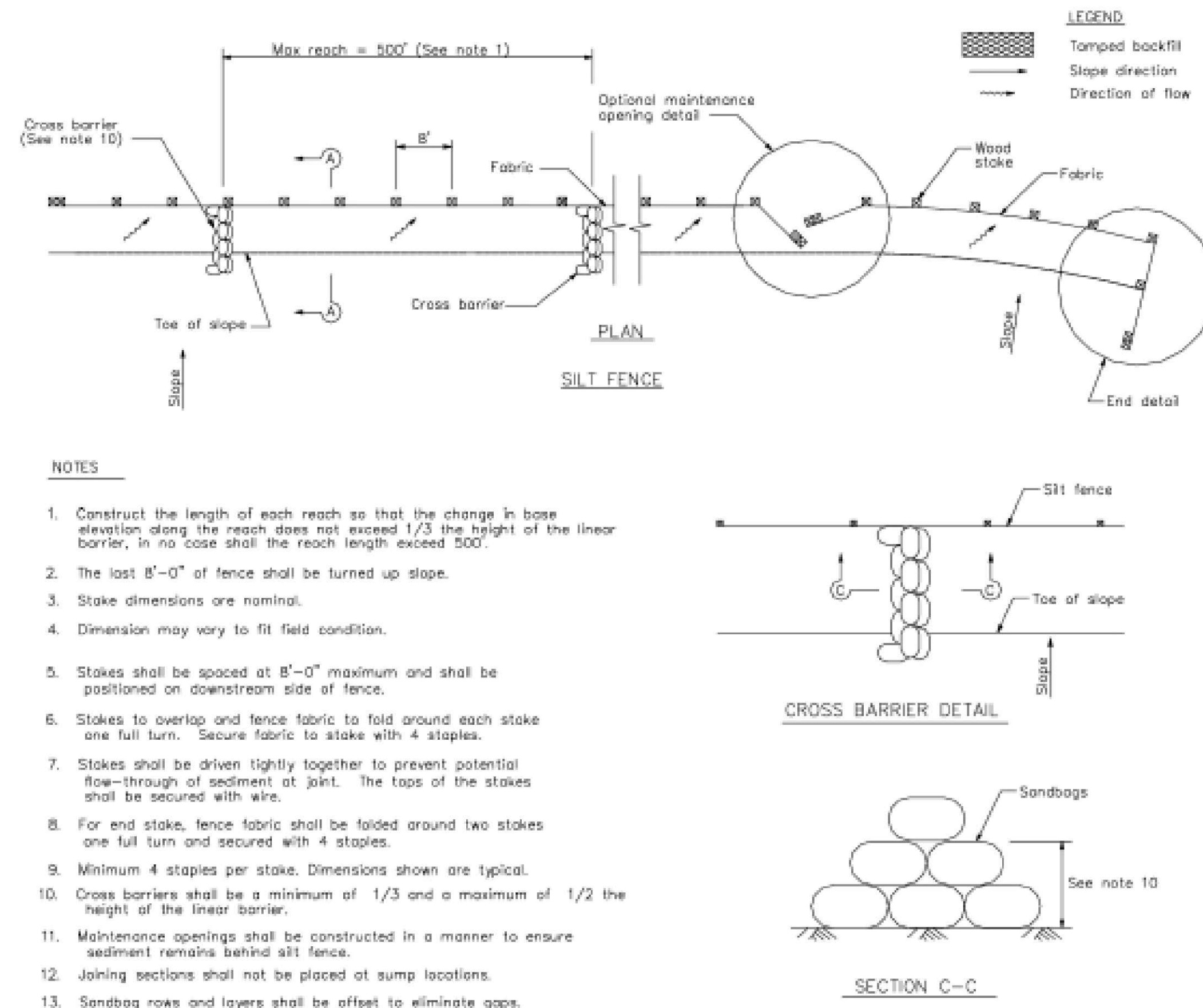
* Length per ABAG Design Standards

Source for Graphics: California Stormwater BMP Handbook, California Stormwater Quality Association, January 2003.
Available from www.cabmphandbooks.com.

1

Silt Fence

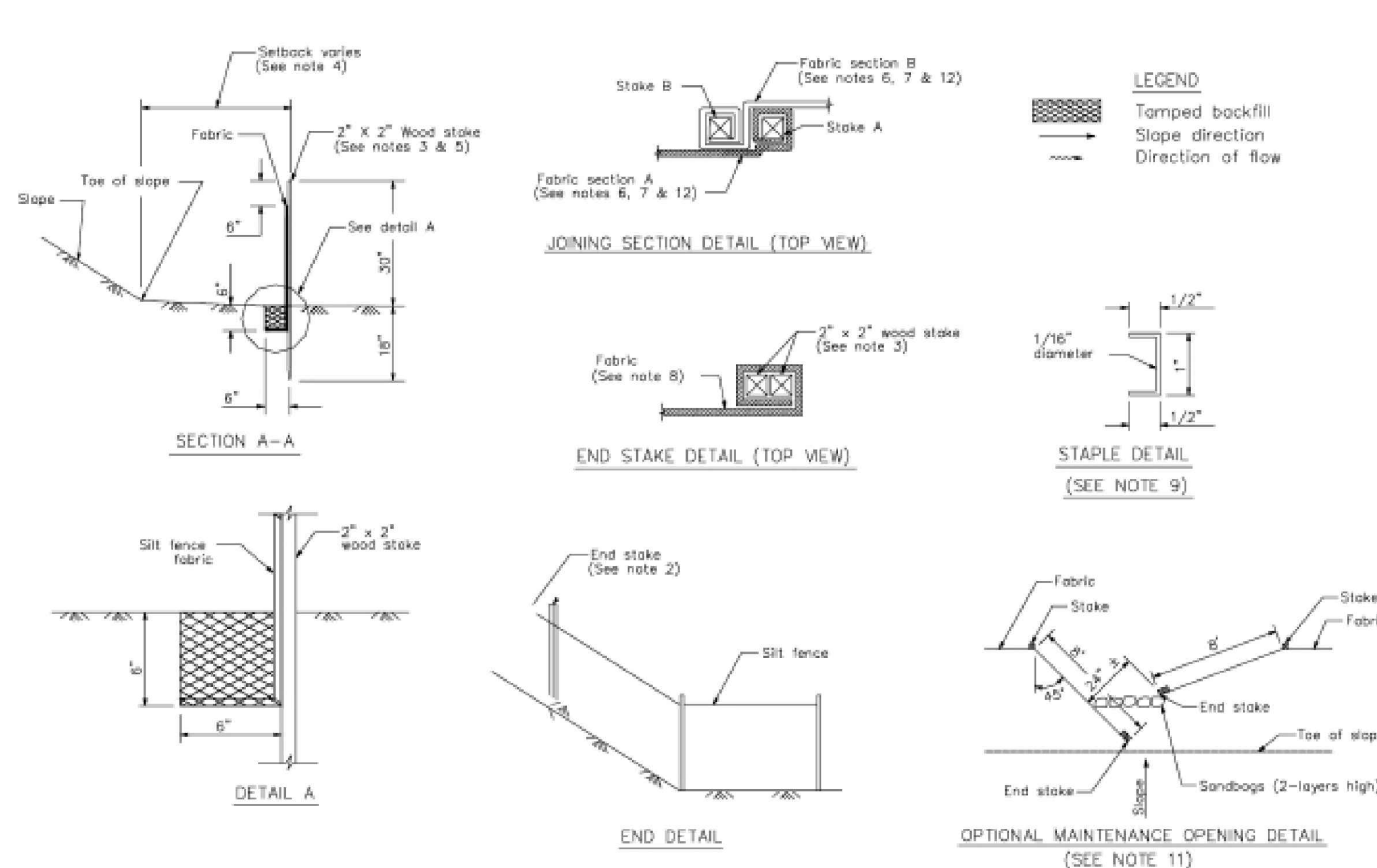
CASQA Detail SE-1



2

Silt Fence

CASQA Detail SE-1

**STANDARD BEST MANAGEMENT PRACTICE NOTES**

- Solid and Demolition Waste Management:** Provide designated waste collection areas and containers on site away from streets, gutters, storm drains, and waterways, and arrange for regular disposal. Waste containers must be watertight and covered at all times except when waste is deposited. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C3) or latest.
- Hazardous Waste Management:** Provide proper handling and disposal of hazardous wastes by a licensed hazardous waste material hauler. Hazardous wastes shall be stored and properly labeled in sealed containers constructed of suitable materials. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-5 to C-6) or latest.
- Spill Prevention and Control:** Provide proper storage areas for liquid and solid materials, including chemicals and hazardous substances, away from streets, gutters, storm drains, and waterways. Spill control materials must be kept on site where readily accessible. Spills must be cleaned up immediately and contaminated soil disposed properly. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-7 to C-8, C-13 to C-14) or latest.
- Vehicle and Construction Equipment Service and Storage:** An area shall be designated for the maintenance, where on-site maintenance is required, and storage of equipment that is protected from stormwater run-on and runoff. Measures shall be provided to capture any waste oils, lubricants, or other potential pollutants and these wastes shall be properly disposed of off site. Fueling and major maintenance/repair, and washing shall be conducted off-site whenever feasible. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C9) or latest.
- Material Delivery, Handling and Storage:** In general, materials should not be stockpiled on site. Where temporary stockpiles are necessary and approved by the County, they shall be covered with secured plastic sheeting or tarp and located in designated areas near construction entrances and away from drainage paths and waterways. Barriers shall be provided around storage areas where materials are potentially in contact with runoff. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-11 to C-12) or latest.
- Handling and Disposal of Concrete and Cement:** When concrete trucks and equipment are washed on-site, concrete wastewater shall be contained in designated containers or in a temporary lined and watertight pit where wasted concrete can harden for later removal. If possible have concrete contractor remove concrete wash water from site. In no case shall fresh concrete be washed into the road right-of-way. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-15 to C-16) or latest.
- Pavement Construction Management:** Prevent or reduce the discharge of pollutants from paving operations, using measures to prevent run-on and runoff pollution and properly disposing of wastes. Avoid paving in the wet season and reschedule paving when rain is in the forecast. Residue from saw-cutting shall be vacuumed for proper disposal. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-17 to C-18) or latest.
- Contaminated Soil and Water Management:** Inspections to identify contaminated soils should occur prior to construction and at regular intervals during construction. Remediating contaminated soil should occur promptly after identification and be specific to the contaminant identified, which may include hazardous waste removal. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-19 to C-20) or latest.
- Sanitary/Septic Water Management:** Temporary sanitary facilities should be located away from drainage paths, waterways, and traffic areas. Only licensed sanitary and septic waste haulers should be used. Secondary containment should be provided for all sanitary facilities. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C-21) or latest.
- Inspection & Maintenance:** Areas of material and equipment storage sites and temporary sanitary facilities must be inspected weekly. Problem areas shall be identified and appropriate additional and/or alternative control measures implemented immediately, within 24 hours of the problem being identified.

STANDARD EROSION CONTROL NOTES

- Sediment Control Management:**

Tracking Prevention & Clean Up: Activities shall be organized and measures taken as needed to prevent or minimize tracking of soil onto the public street system. A gravel or proprietary device construction entrance/exit is required for all sites. Clean up of tracked material shall be provided by means of a street sweeper prior to an approaching rain event, or at least once at the end of each workday that material is tracked, or, more frequently as determined by the County Inspector. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages B-31 to B-33) or latest.

Storm Drain Inlet and Catch Basin Inlet Protection: All inlets within the vicinity of the project and within the project limits shall be protected with gravel bags placed around inlets or other inlet protection. At locations where exposed soils are present, staked fiber rolls or staked silt fences can be used. Inlet filters are not allowed due to clogging and subsequent flooding. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages B-49 to B-51) or latest.

Storm Water Runoff: No storm water runoff shall be allowed to drain in to the existing and/or proposed underground storm drain system or other above ground watercourses until appropriate erosion control measures are fully installed.

Dust Control: The contractor shall provide dust control in graded areas as required by providing wet suppression or chemical stabilization of exposed soils, providing for rapid clean up of sediments deposited on paved roads, furnishing construction road entrances and vehicle wash down areas, and limiting the amount of areas disturbed by clearing and earth moving operations by scheduling these activities in phases.

Stockpiling: Excavated soils shall not be placed in streets or on paved areas. Borrow and temporary stockpiles shall be protected with appropriate erosion control measures (tarps, straw bales, silt fences, etc.) to ensure silt does not leave the site or enter the storm drain system or neighboring watercourse.
- Erosion Control:** During the rainy season, all disturbed areas must include an effective combination of erosion and sediment control. It is required that temporary erosion control measures are applied to all disturbed soil areas prior to a rain event. During the non-rainy season, erosion control measures must be applied sufficient to control wind erosion at the site.
- Inspection & Maintenance:** Disturbed areas of the Project's site, locations where vehicles enter or exit the site, and all erosion and sediment controls that are identified as part of the Erosion Control Plans must be inspected by the Contractor before, during, and after storm events, and at least weekly during seasonal wet periods. Problem areas shall be identified and appropriate additional and/or alternative control measures implemented immediately, within 24 hours of the problem being identified.
- Project Completion:** Prior to project completion and signoff by the County Inspector, all disturbed areas shall be reseeded, planted, or landscaped to minimize the potential for erosion on the subject site.
- It shall be the Owner's/Contractor's responsibility to maintain control of the entire construction operation and to keep the entire site in compliance with the erosion control plan.
- Erosion and sediment control best management practices shall be operable year round or until vegetation is fully established on landscaped surfaces.

Project Information

Santa Clara County BMP Sheet 1

IronOx - 450 Lena Ave

Best Management Practices and Erosion Control Details Sheet 1

County of Santa Clara

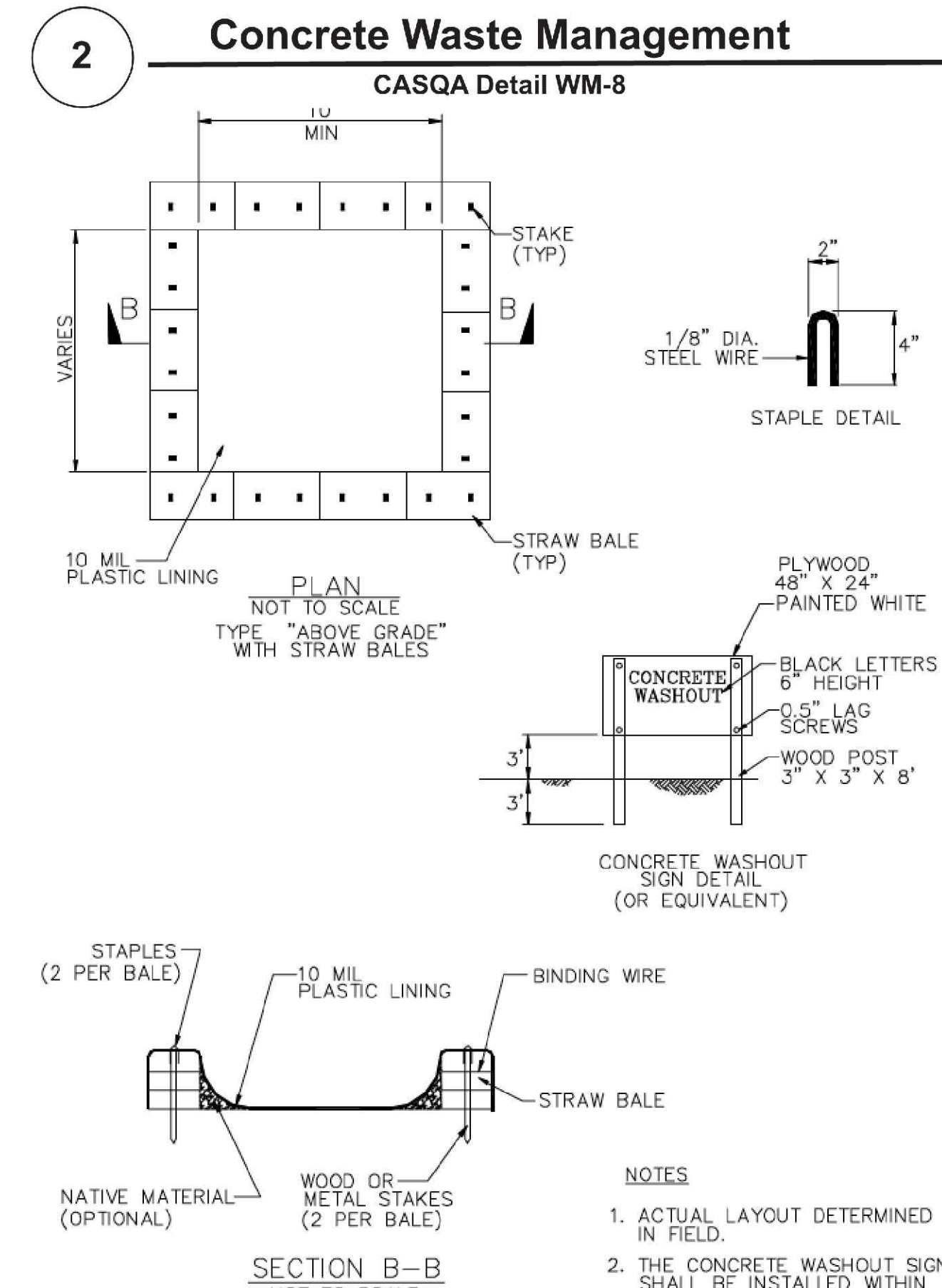
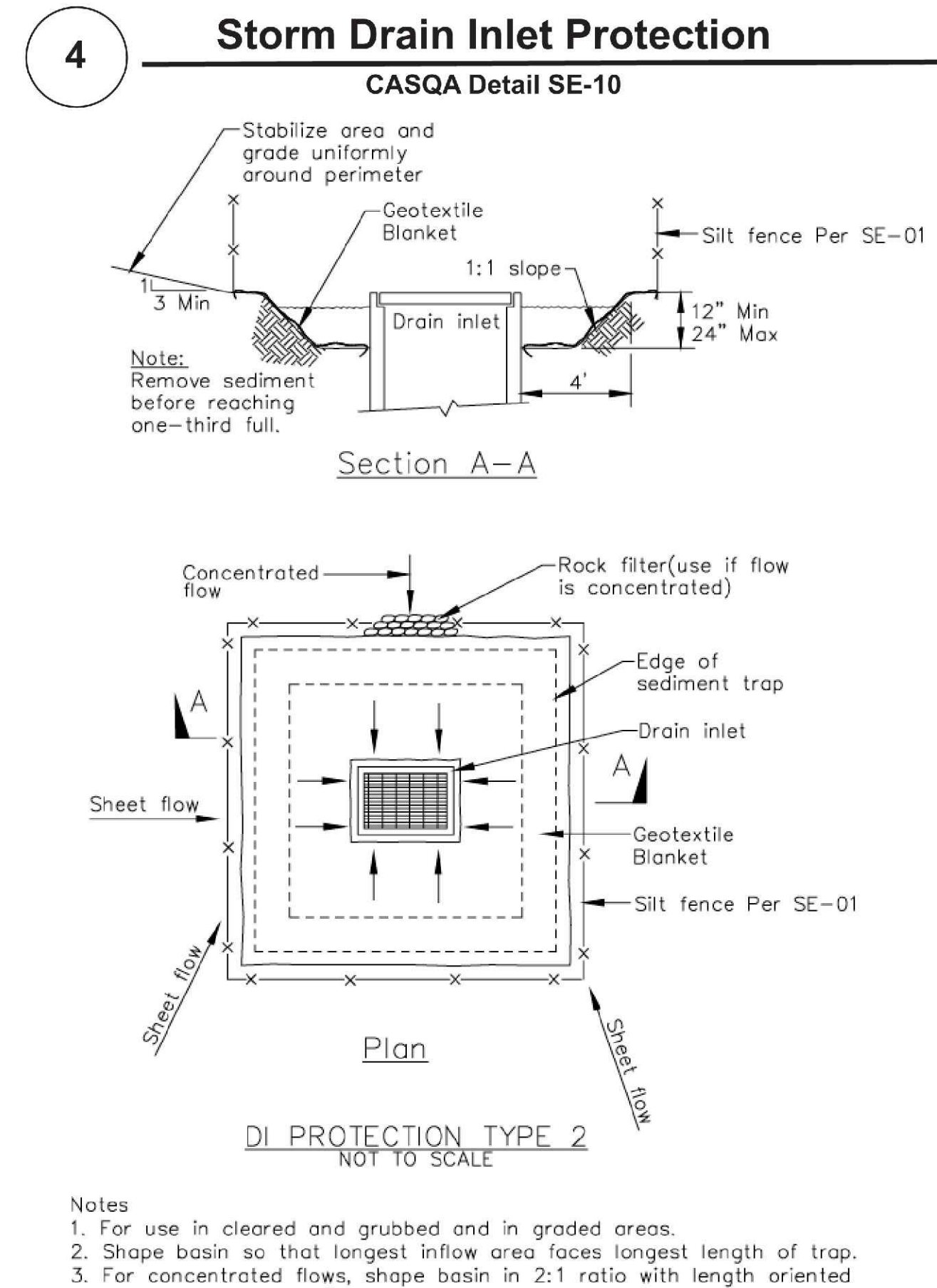
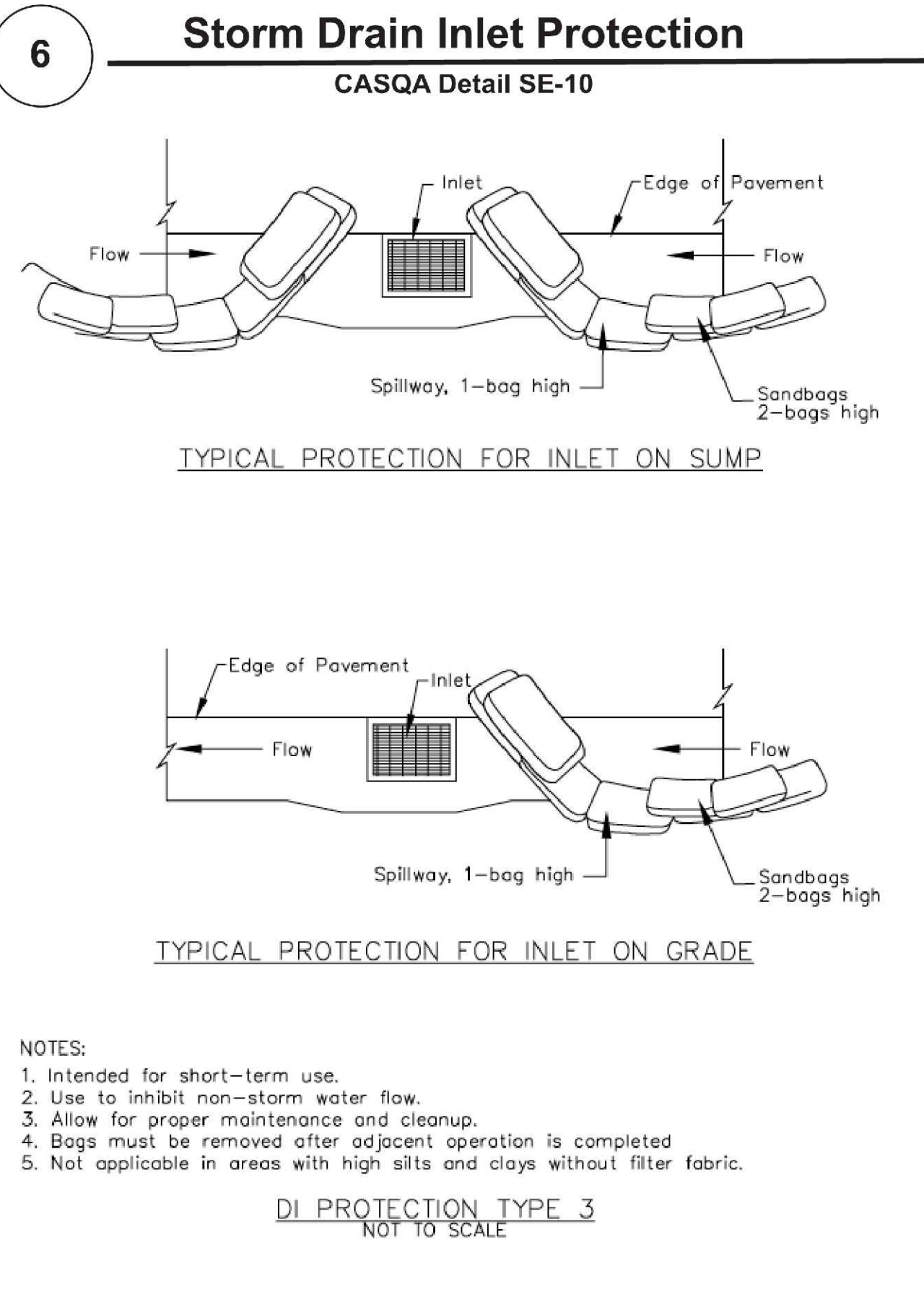
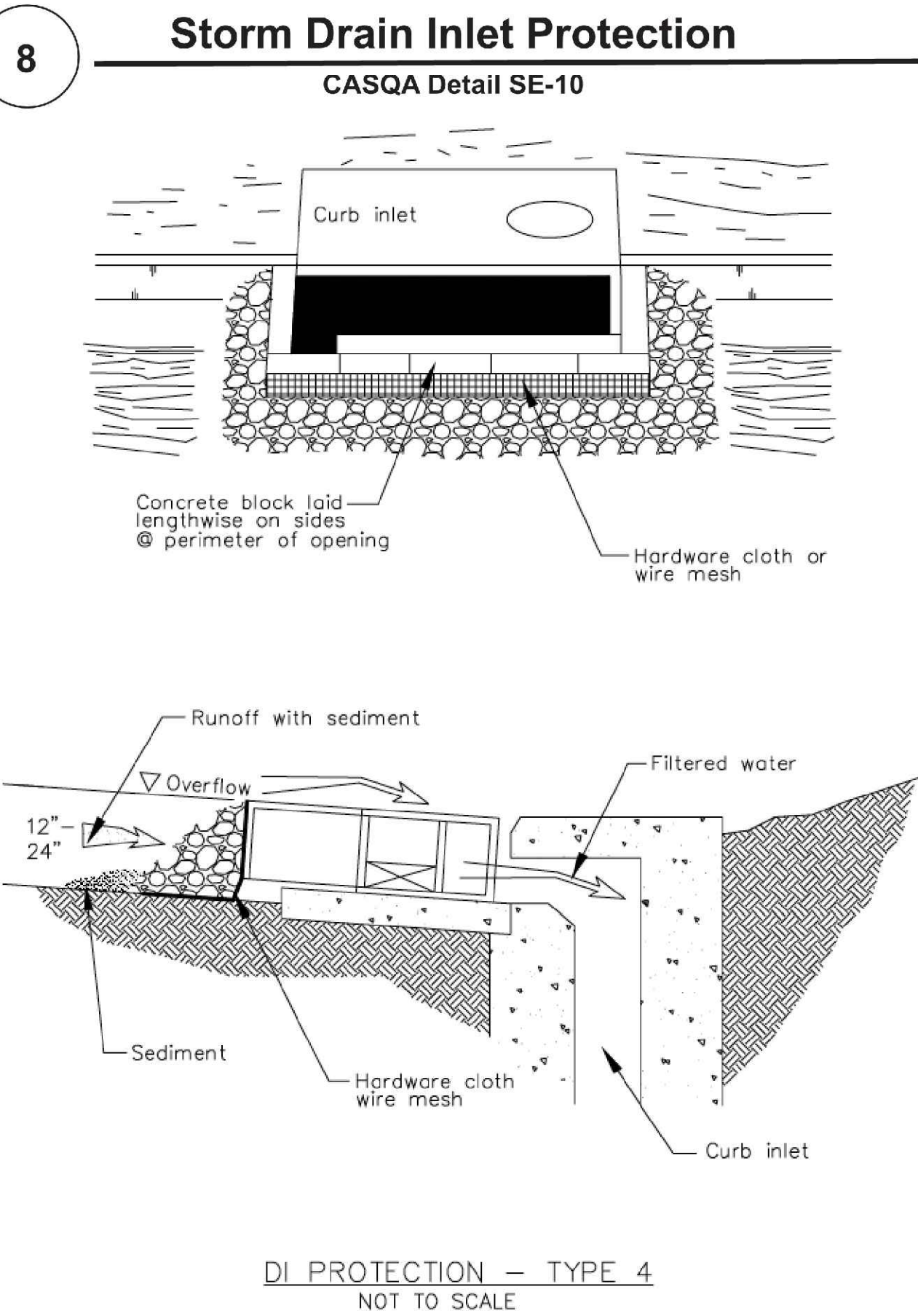
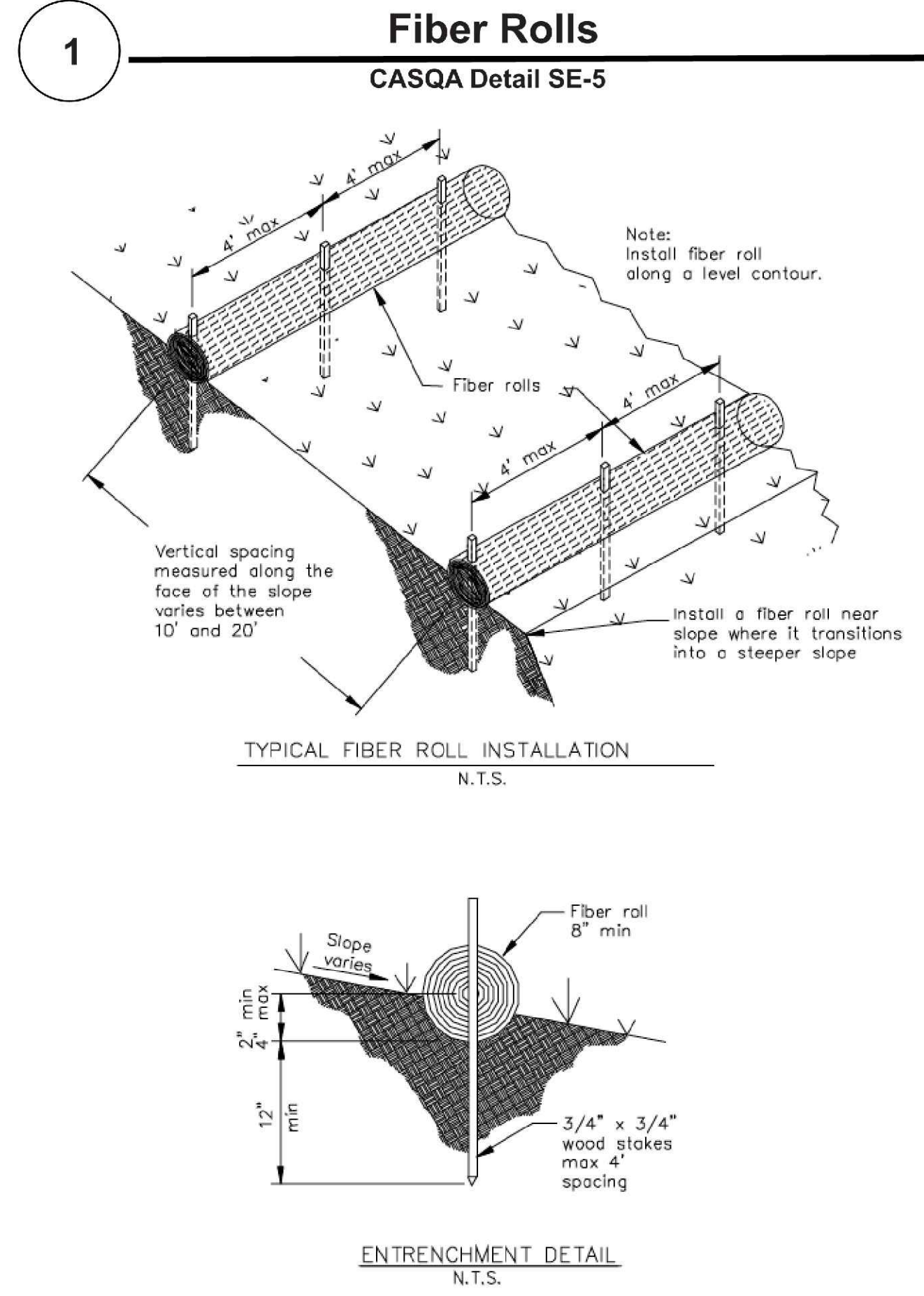
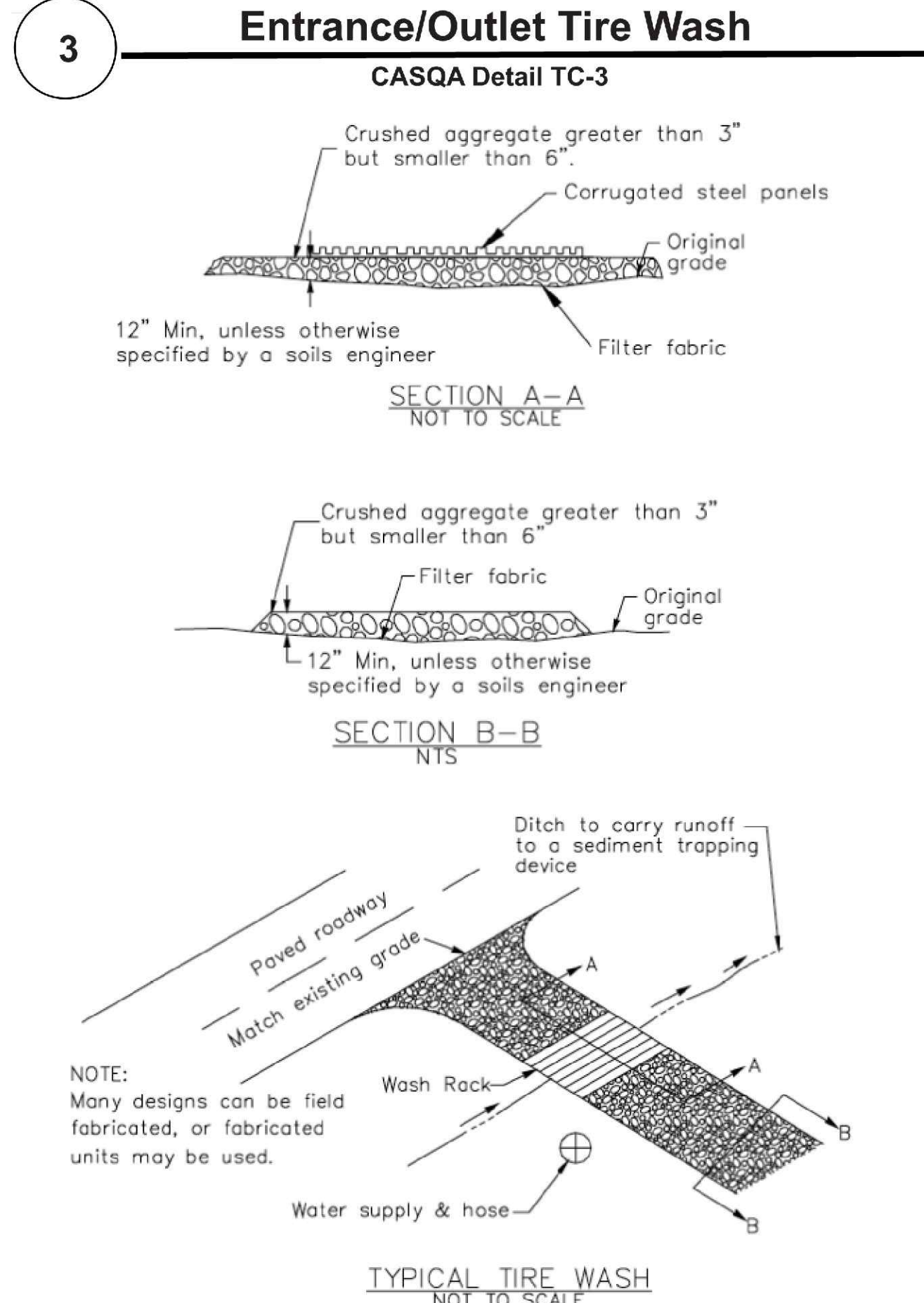
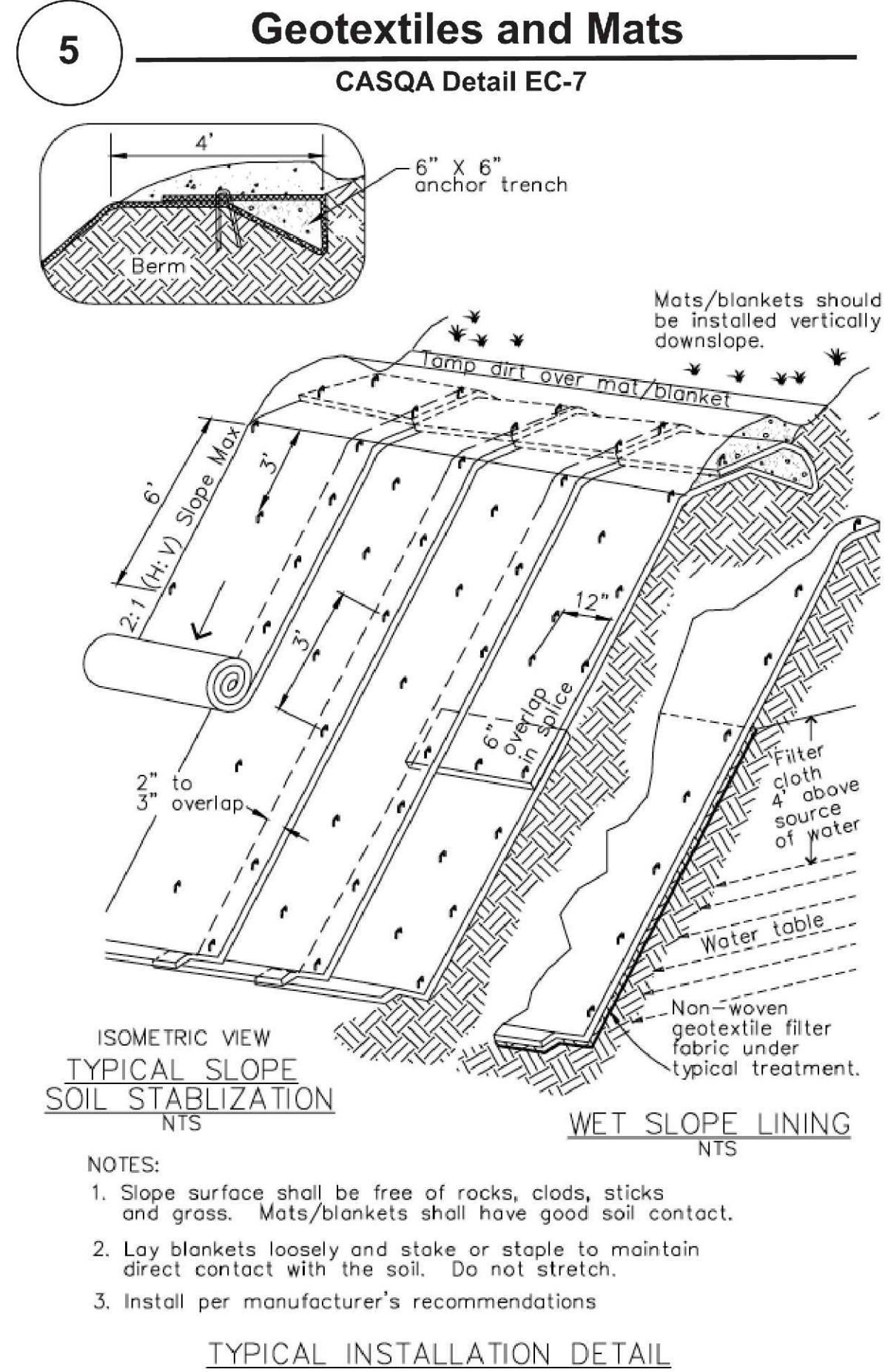
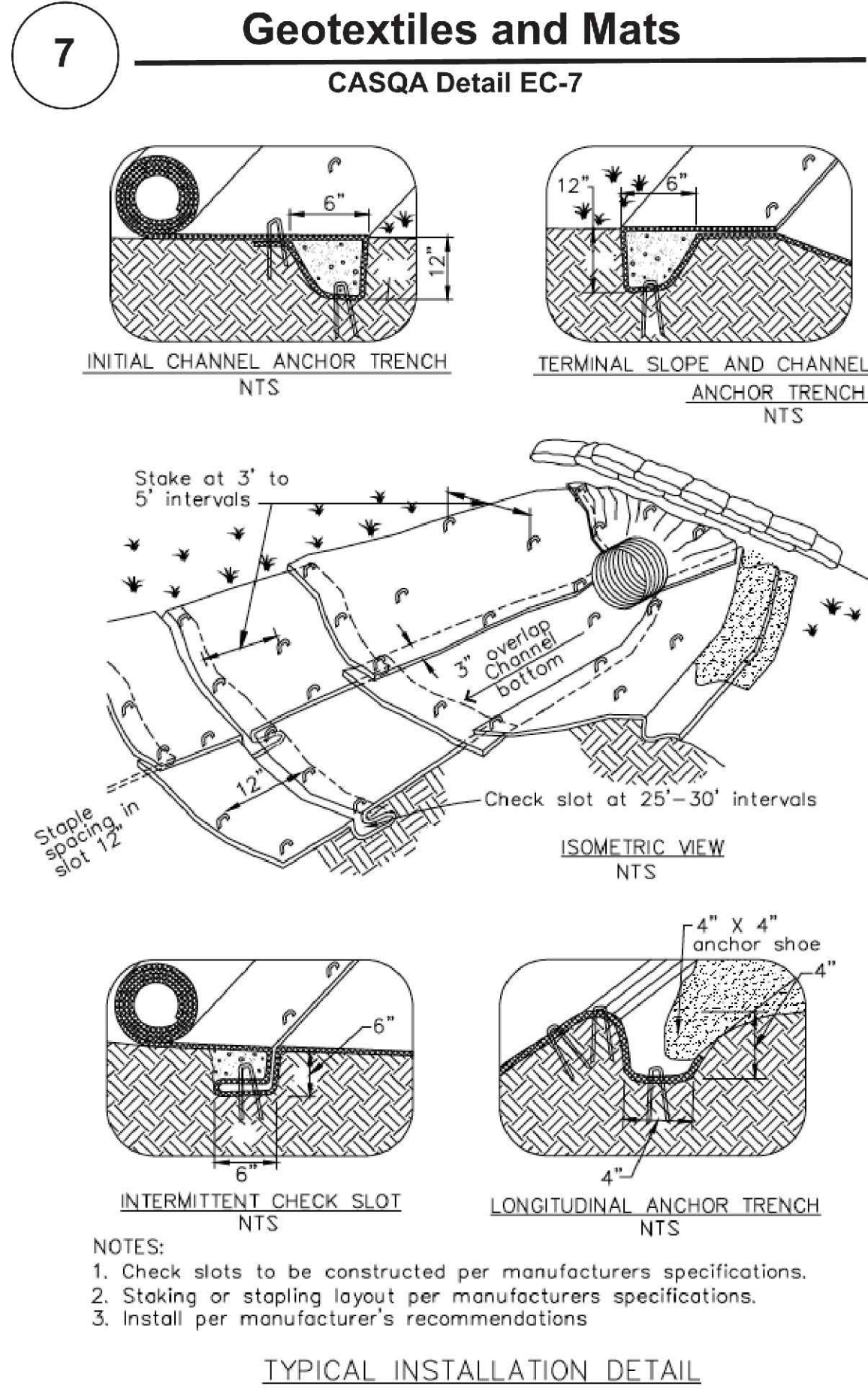
APPLICANT: IronOx

ROAD: Lena Ave

COUNTY FILE NO.: ---



BMP-1



Source for Graphics: California Stormwater BMP Handbook, California Stormwater Quality Association, January 2003.
Available from www.cabmphandbooks.com.

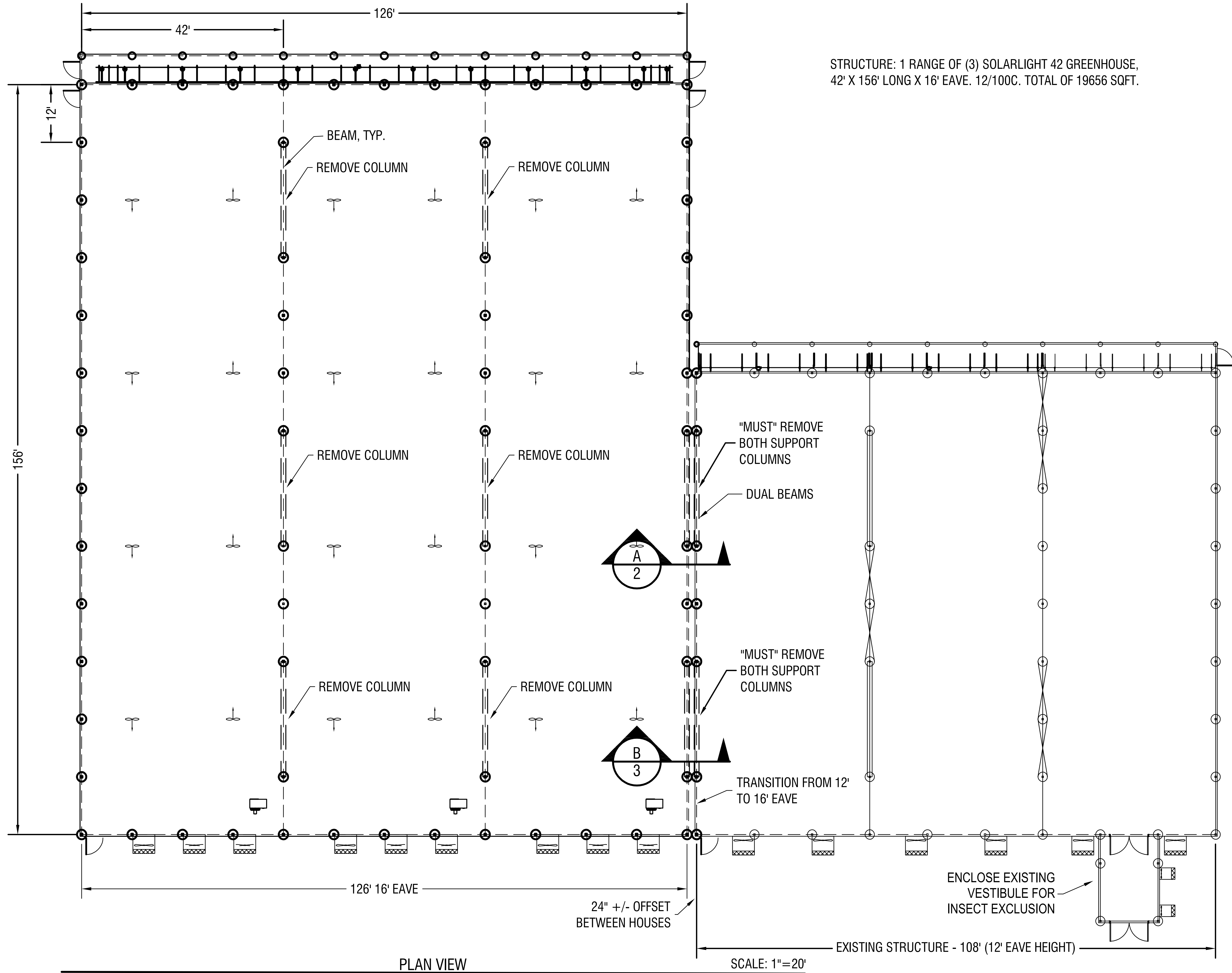
Best Management Practices and Erosion Control Details Sheet 2

County of Santa Clara

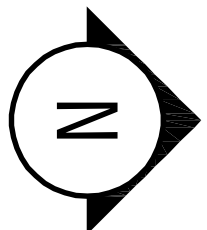


BMP-2

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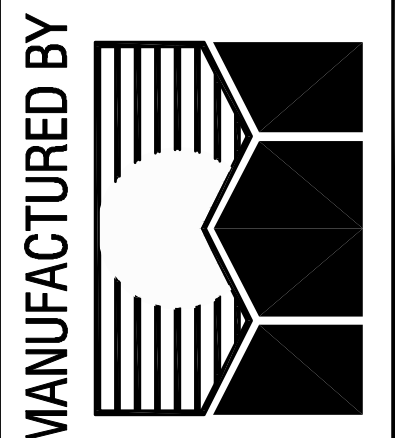
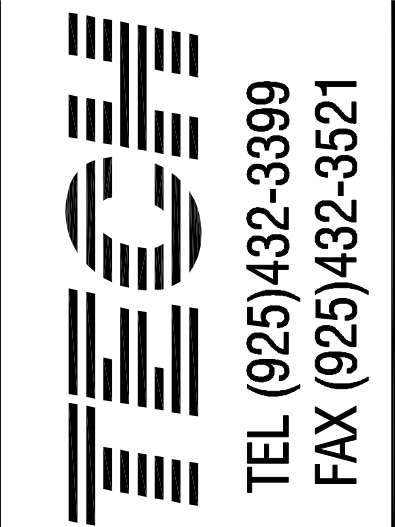


STRUCTURE: 1 RANGE OF (3) SOLARLIGHT 42 GREENHOUSE,
42' X 156' LONG X 16' EAVE. 12/100C. TOTAL OF 19656 SQFT.



REVISIONS:

A 3/4/20 ALP
Move add on house to
24" away from existing
B 03/13/20 JTR
ADDED ELEVATIONS
C 03/16/20 JTR
PROJECT REVISION



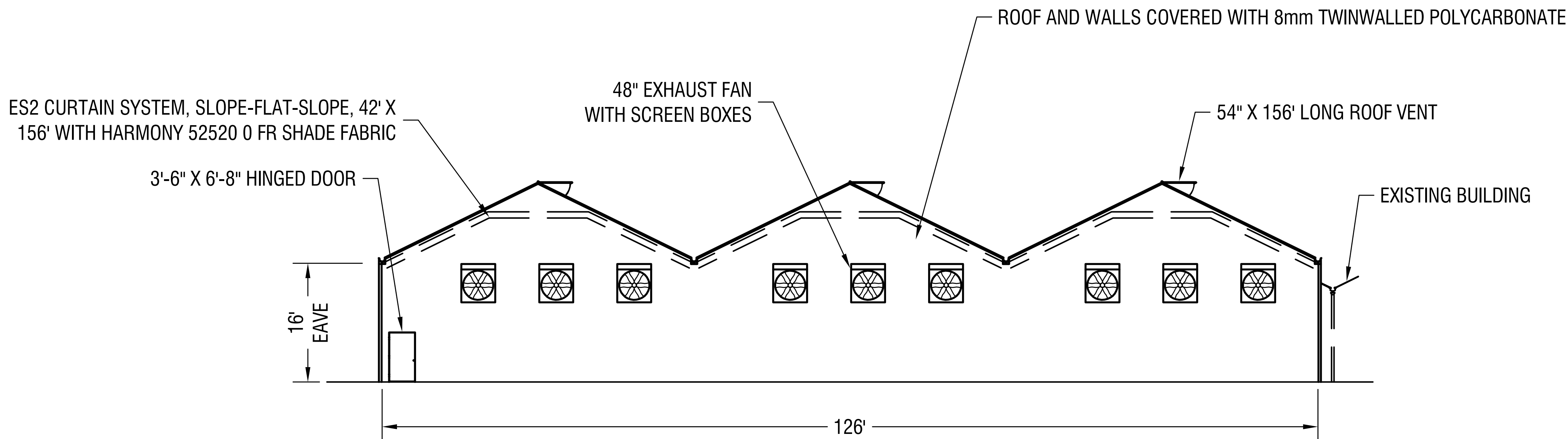
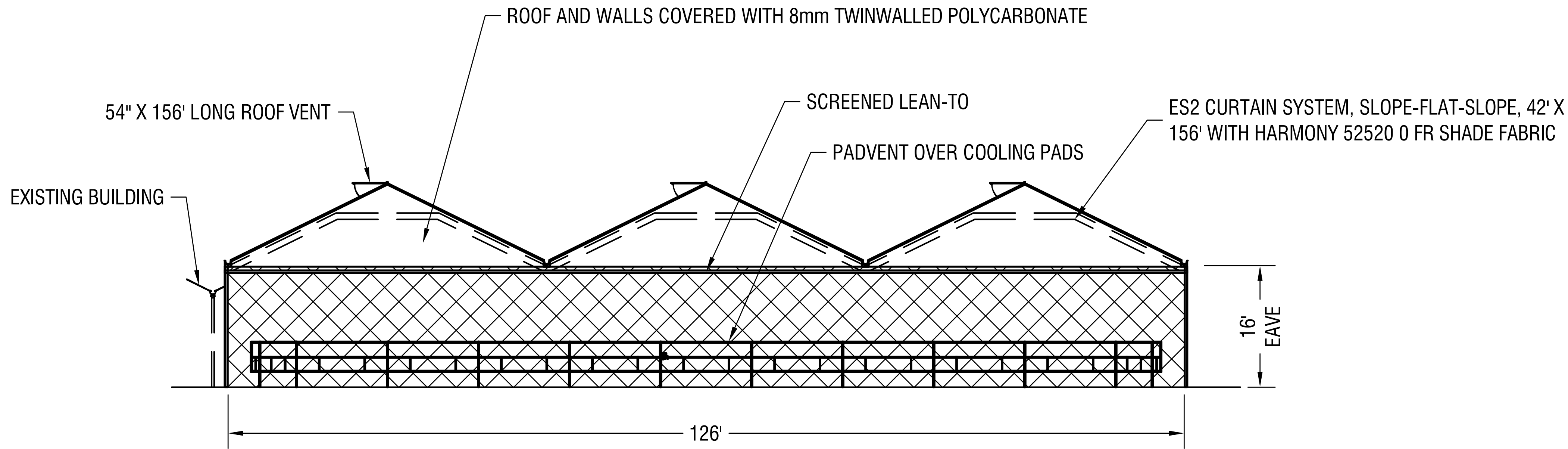
MANUFACTURED BY
AGRA
2131 PIEDMONT WAY
PITTSBURG CA 94565

IRON OX
GILROY, CA
PLAN VIEW

DATE:
09/08/2017
JOB NO.
13211
DRAWN BY:
JTR

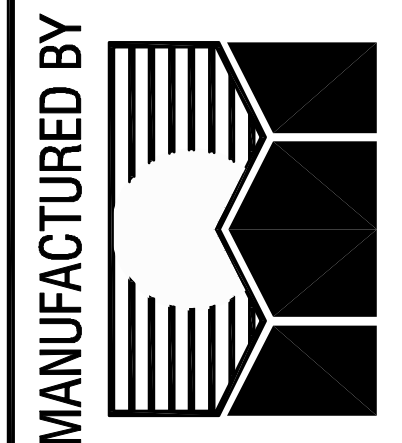
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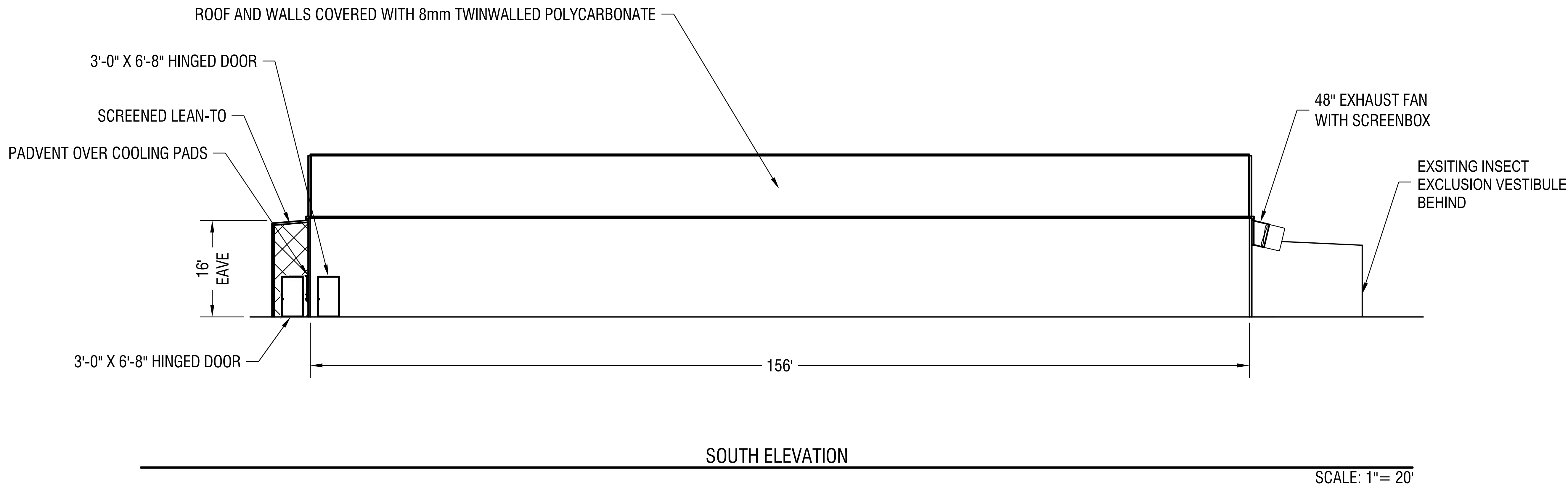
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PITTSBURG CA 94565

IRON OX
GILROY, CA
ELEVATION VIEW

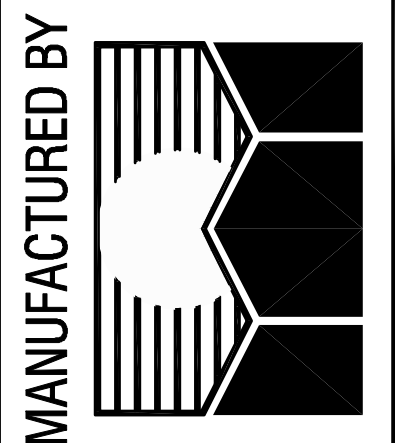
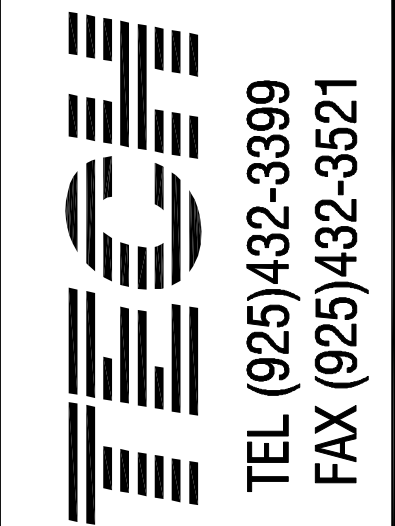
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IRON OX
GILROY, CA
ELEVATION VIEW

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