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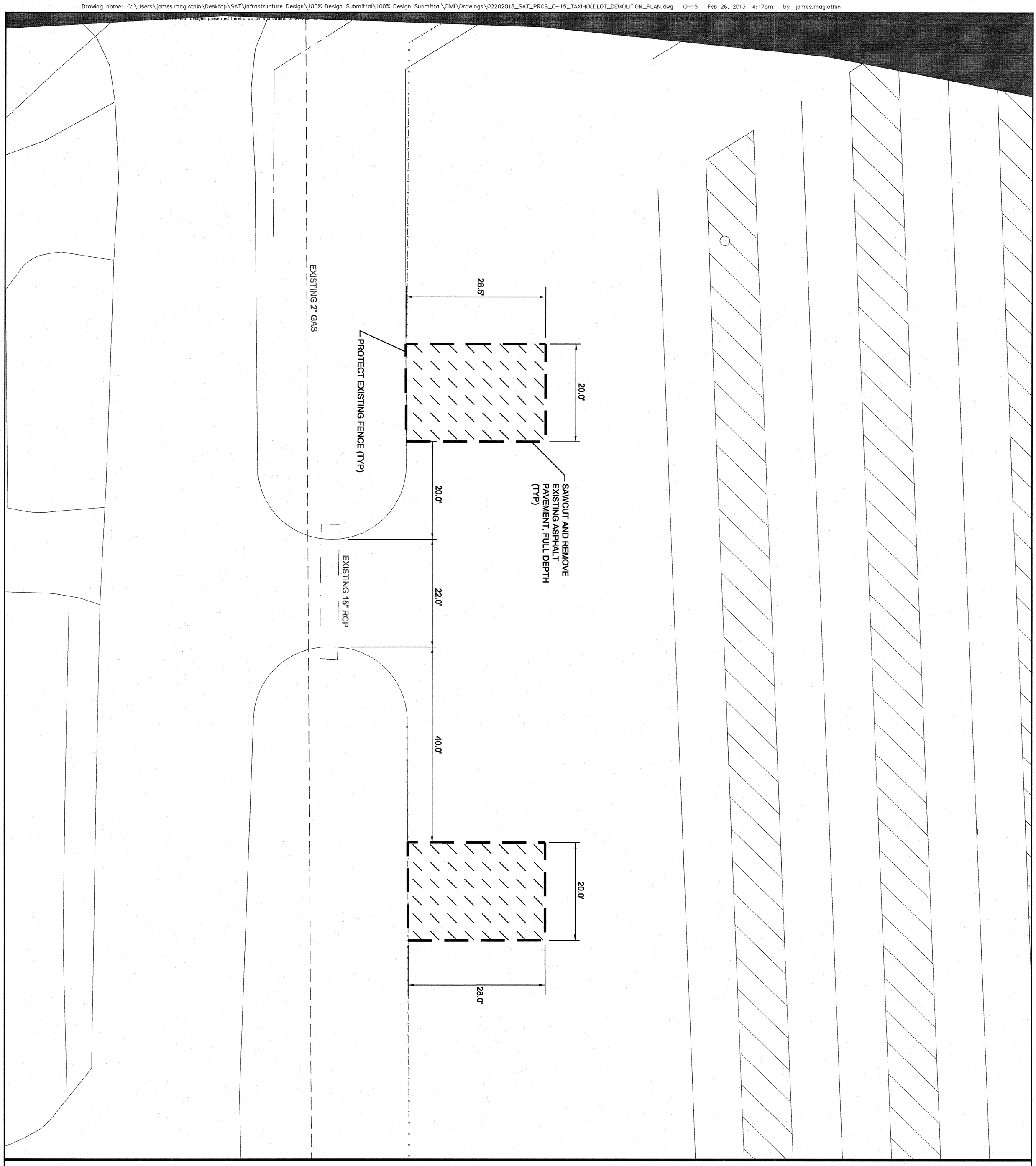

LEGEND

COMM EXISTING CONDUIT (AS NOTED)

TRAFFIC FLOW DIRECTION

GRAPHIC SCALE 10' (0, 10', 20')

N

BID SET

STATE OF TEXAS
JAMES E. MAGLOTHIN
99297
LICENSED PROFESSIONAL ENGINEER
2-26-2013

PROJECT TITLE

AIRPORT PARKING GARAGE AND SURFACE LOT IMPROVEMENTS (PRCS)

PREPARED FOR: SAN ANTONIO INTERNATIONAL AIRPORT
9800 AIRPORT BLVD.
SAN ANTONIO, TX 78216

SAN ANTONIO AIRPORT SYSTEM

TAXI HOLD LOT DEMOLITION PLAN

PREPARED BY
Kimley-Horn and Associates, Inc.
601 NW Loop 410, Suite 350
San Antonio, Texas 78216-5595
Tel: (210) 541-9166
Fax: (210) 541-8699

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CHECKED BY	JEM

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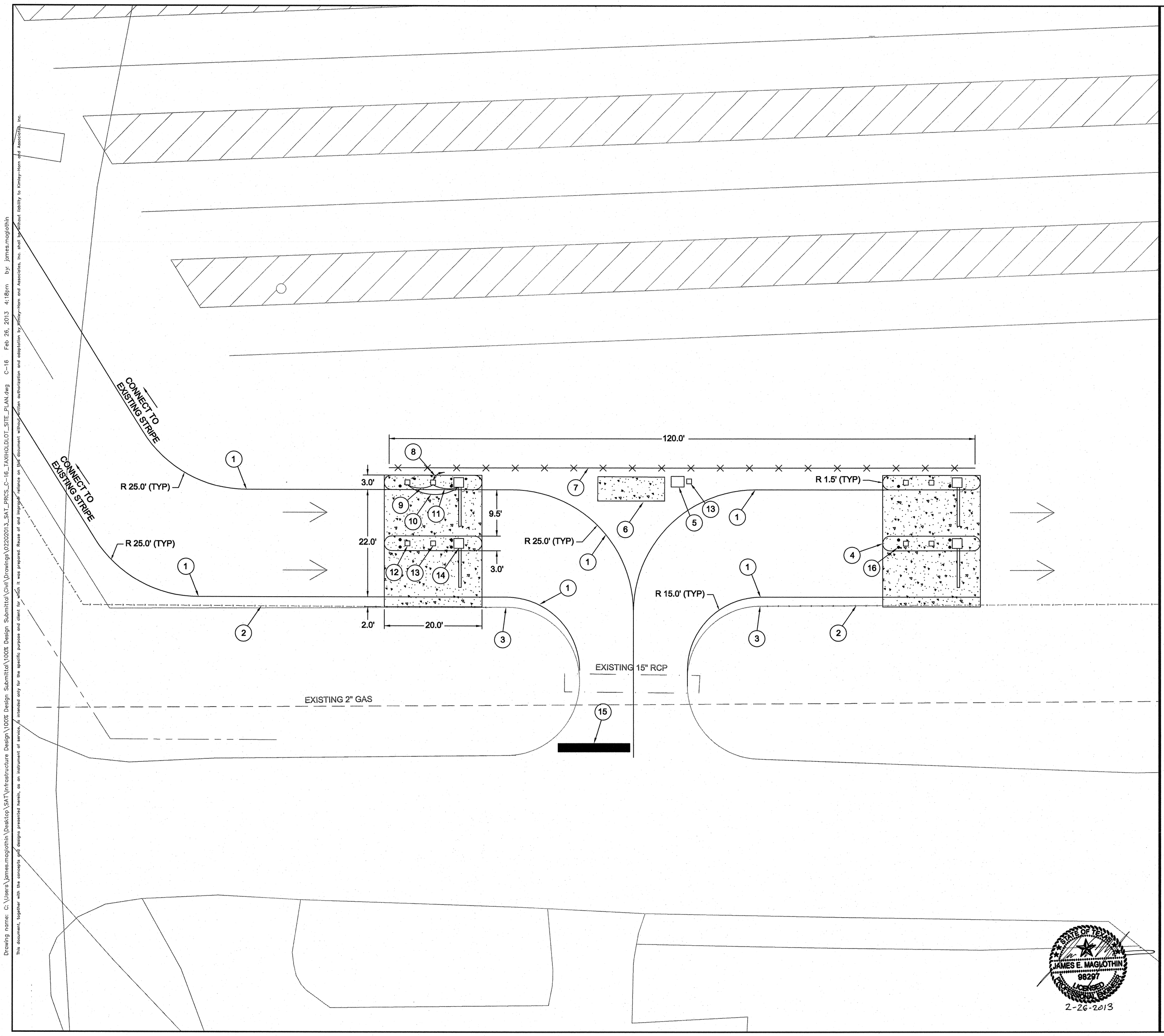
DATE FEBRUARY 2013

PROJECT NO. 33-00196

SHEET NUMBER C-15



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N

0 10' 20'
GRAPHIC SCALE 10'

LEGEND

TRAFFIC FLOW DIRECTION

GENERAL NOTES

1. CONTRACTOR SHALL PROVIDE TRAFFIC MAINTENANCE PLAN IN ACCORDANCE WITH CITY OF SAN ANTONIO STANDARDS, PRIOR TO COMMENCING WORK, FOR SAN ANTONIO AIRPORT SYSTEM APPROVAL. CONTRACTOR SHALL PHASE WORK TO NOT INHIBIT TAXI OPERATIONS THROUGHOUT CONSTRUCTION.
2. PRCS EQUIPMENT DIMENSIONS ARE TO THE CENTERLINE OF THE EQUIPMENT COMPONENTS.
3. COORDINATE EXACT CONDUIT STUB UP LOCATION WITH PRCS CONTRACTOR PRIOR TO POURING CONCRETE.
4. STUB UP DESIGNATED CONDUITS AT NEW EQUIPMENT LOCATION DIMENSIONED ON THIS SHEET, OFFSET 14" BACK FROM EDGE OF CONCRETE ISLAND SUCH THAT CONDUITS WILL STUB UP INTO THE BASE OF THE EQUIPMENT. ALL EQUIPMENT BY PRCS CONTRACTOR.

SHEET NOTES

1. 4" WHITE PAINT STRIPE
2. EXISTING CHAIN LINK FENCE TO REMAIN
3. EXISTING EDGE OF PAVEMENT
4. NEW 6" CONCRETE ISLAND (TYP). SEE DETAIL A SHEET C-20. PLACE BOLLARDS AS SHOWN. REFER TO DETAIL D SHEET C-08 FOR EQUIPMENT LOCATION DIMENSIONS.
5. NEW COMMUNICATION IDF ENCLOSURE, BY FIBER OPTIC CONTRACTOR. COORDINATE TRENCHING AND CONDUIT INSTALLATION WITH FIBER OPTIC CONTRACTOR.
6. NEW CONCRETE PEDESTAL FOR TAXI CALL DYNAMIC SIGN. STUB UP CONDUITS IN CENTER OF PEDESTAL. COORDINATE WITH PRCS CONTRACTOR FOR EXACT DIMENSIONS AND CONDUIT STUB UP LOCATIONS.
7. NEW 4' CHAIN LINK FENCE. MATCH STYLE OF EXISTING FENCE.
8. INSTALL TWO 1" CONDUITS FROM HANDHOLE TO NEW COMMUNICATIONS IDF (TYPICAL FOR ALL ISLANDS).
9. INSTALL TWO $\frac{3}{4}$" CONDUITS FROM HANDHOLE TO NEW PROXIMITY CARD READER PEDESTAL (TYPICAL FOR ALL ISLANDS).
10. INSTALL TWO $\frac{3}{4}$" CONDUITS FROM NEW BARRIER GATE TO NEW PROXIMITY CARD READER PEDESTAL (TYPICAL FOR ALL ISLANDS).
11. INSTALL TWO $\frac{3}{4}$" CONDUITS FROM HANDHOLE TO NEW BARRIER GATE (TYPICAL FOR ALL ISLANDS).
12. NEW PROXIMITY CARD READER AND PEDESTAL, BY PRCS CONTRACTOR
13. NEW 12" X 12" QUAZITE HANDHOLE
14. NEW BARRIER GATE, BY PRCS CONTRACTOR. INSTALL $\frac{3}{4}$" CONDUIT FROM BARRIER GATE STUB UP LOCATION TO THE BASE OF THE ISLAND CURB FACE FOR ROUTING LOOP LEADS. CUT $\frac{3}{4}$" CONDUIT FLUSH WITH CURB FACE. LOOP LEADS BY PRCS CONTRACTOR.
15. 11' X 8' PAINT STRIPE
16. NEW TYPE A BOLLARD. SEE DETAIL D SHEET C-20.

STATE OF TEXAS
JAMES E. MAGLOTHIN
98297
LICENSED
PROFESSIONAL ENGINEER
2-26-2013

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TAXI HOLD LOT SITE PLAN

SAN ANTONIO AIRPORT SYSTEM

PROJECT TITLE
AIRPORT PARKING GARAGE AND SURFACE LOT IMPROVEMENTS (PRCS)

PREPARED FOR: SAN ANTONIO INTERNATIONAL AIRPORT
9800 AIRPORT BLVD.
SAN ANTONIO, TX 78216

DATE
FEBRUARY 2013

PROJECT NO.
33-00196

SHEET NUMBER
C-16

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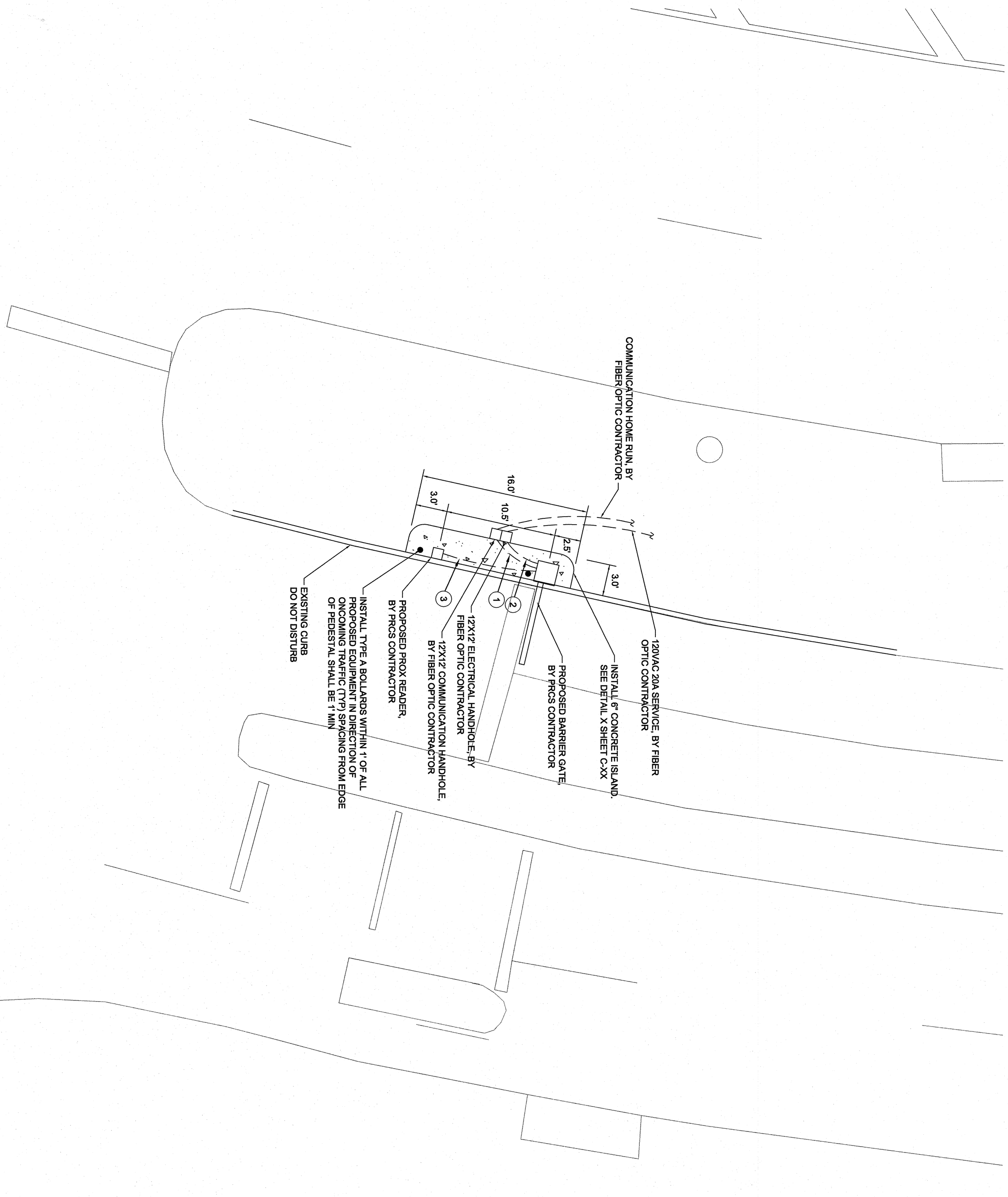

LEGEND

COMM ——— EXISTING CONDUIT (AS NOTED)

KEYED NOTES

1. INSTALL TWO 1" CONDUITS WITH LABELED PULL STRINGS BETWEEN COMMUNICATION HANDHOLE AND BARRIER GATE.
2. INSTALL ONE 3/4" CONDUIT WITH LABELED PULL STRING BETWEEN ELECTRICAL HANDHOLE AND BARRIER GATE.
3. INSTALL TWO 3/4" CONDUITS BETWEEN BARRIER GATE AND PROXIMITY CARD READER.

GRAPHIC SCALE 5' (0, 5', 10')

N

STATE OF TEXAS
JAMES E. MAGLOTHIN
98297
LICENSED PROFESSIONAL ENGINEER
2-26-2013

BID SET

PROJECT TITLE

AIRPORT PARKING GARAGE AND SURFACE LOT IMPROVEMENTS (PRCS)

PREPARED FOR: SAN ANTONIO INTERNATIONAL AIRPORT
9800 AIRPORT BLVD.
SAN ANTONIO, TX 78216

SAN ANTONIO AIRPORT SYSTEM

TERMINAL TAXI LANE SITE PLAN

PREPARED BY
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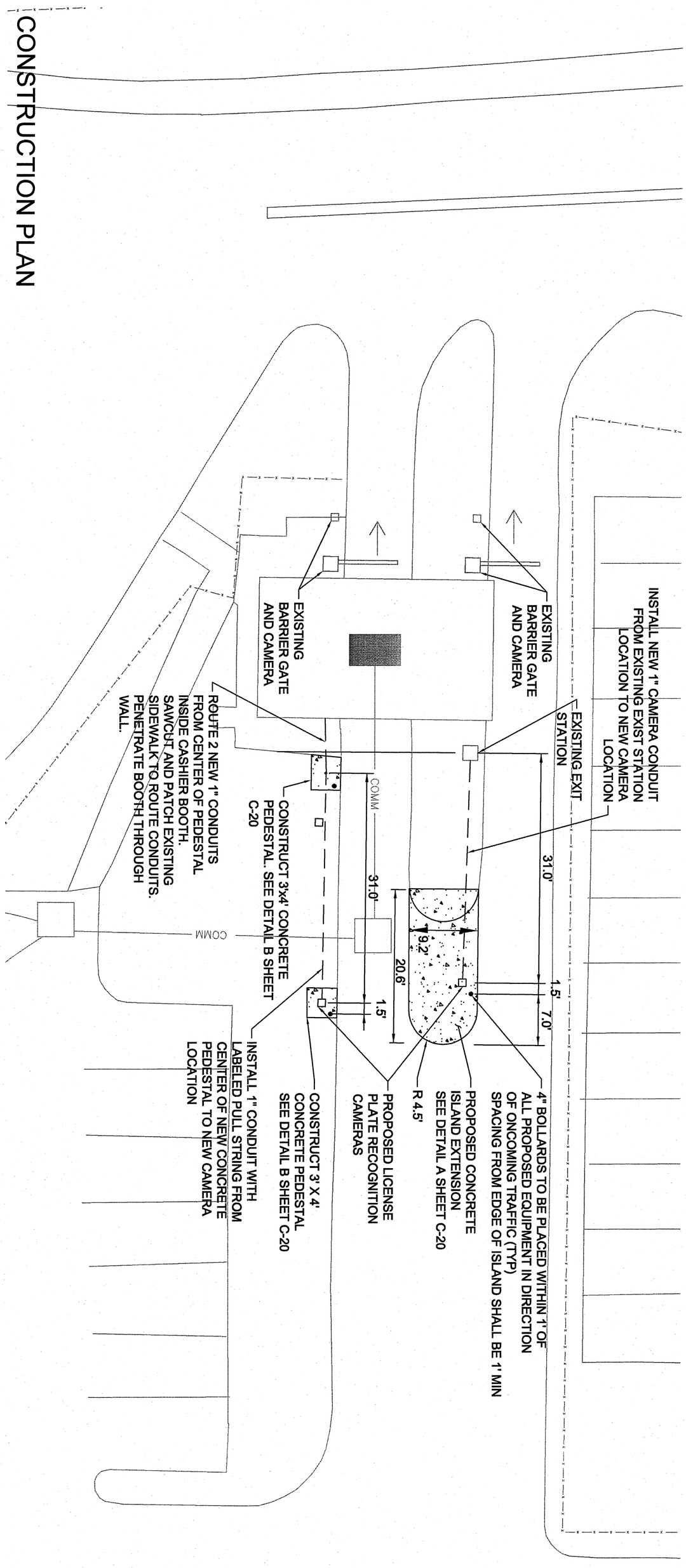
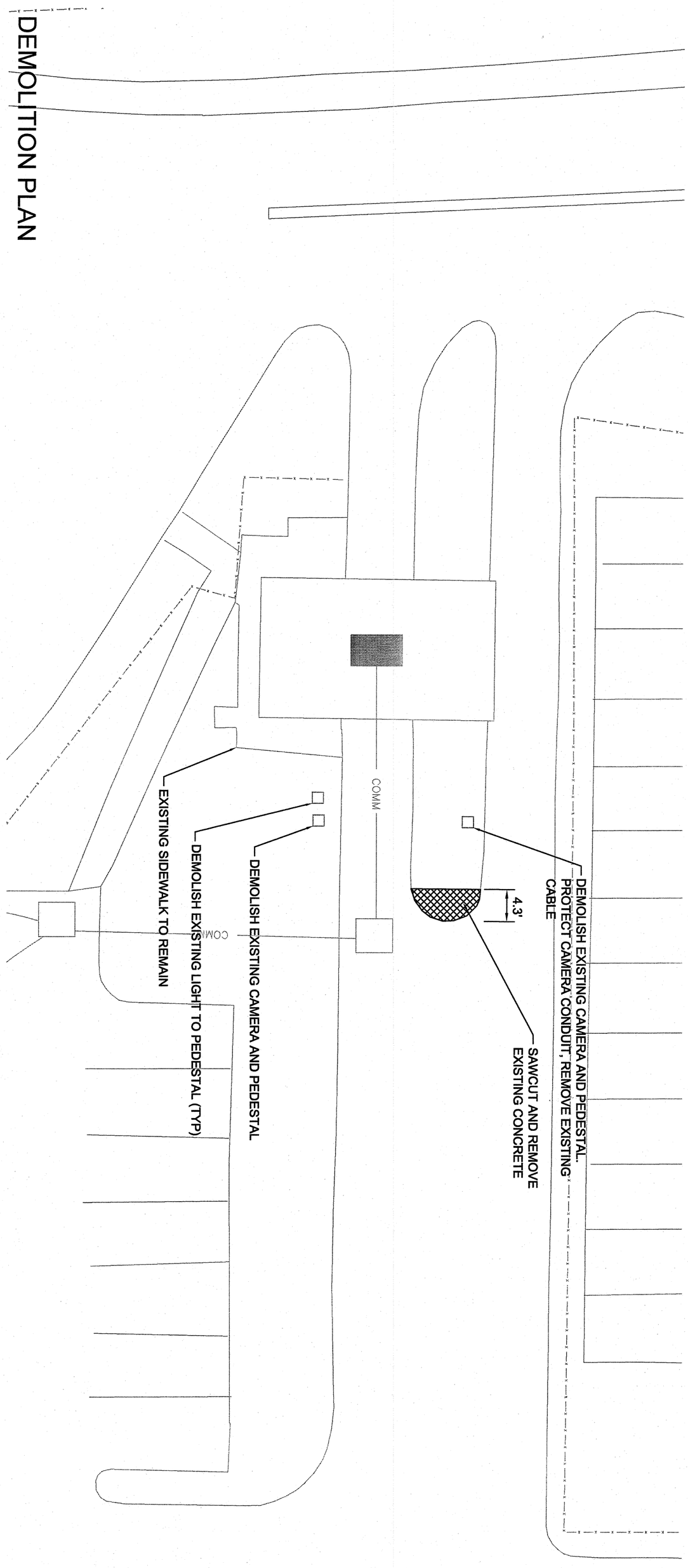
CONSTRUCTION PLAN



DEMOLITION PLAN



LEGEND

EXISTING CONDUIT (AS NOTED)

COMM

TRAFFIC FLOW DIRECTION

GRAPHIC SCALE 10' (0, 10', 20')

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STATE OF TEXAS — JAMES E. MAGLOTHIN — 98297 — LICENSED PROFESSIONAL ENGINEER — 2-26-2013

SHEET NUMBER	C-18
PROJECT NO.	33-00196
DATE	FEBRUARY 2013

PROJECT TITLE

AIRPORT PARKING GARAGE AND SURFACE LOT IMPROVEMENTS (PRCS)

PREPARED FOR: SAN ANTONIO INTERNATIONAL AIRPORT
9800 AIRPORT BLVD.
SAN ANTONIO, TX 78216

SAN ANTONIO AIRPORT SYSTEM

ECONOMY LOT DEMOLITION AND SITE PLAN

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SCALE	1"=20'
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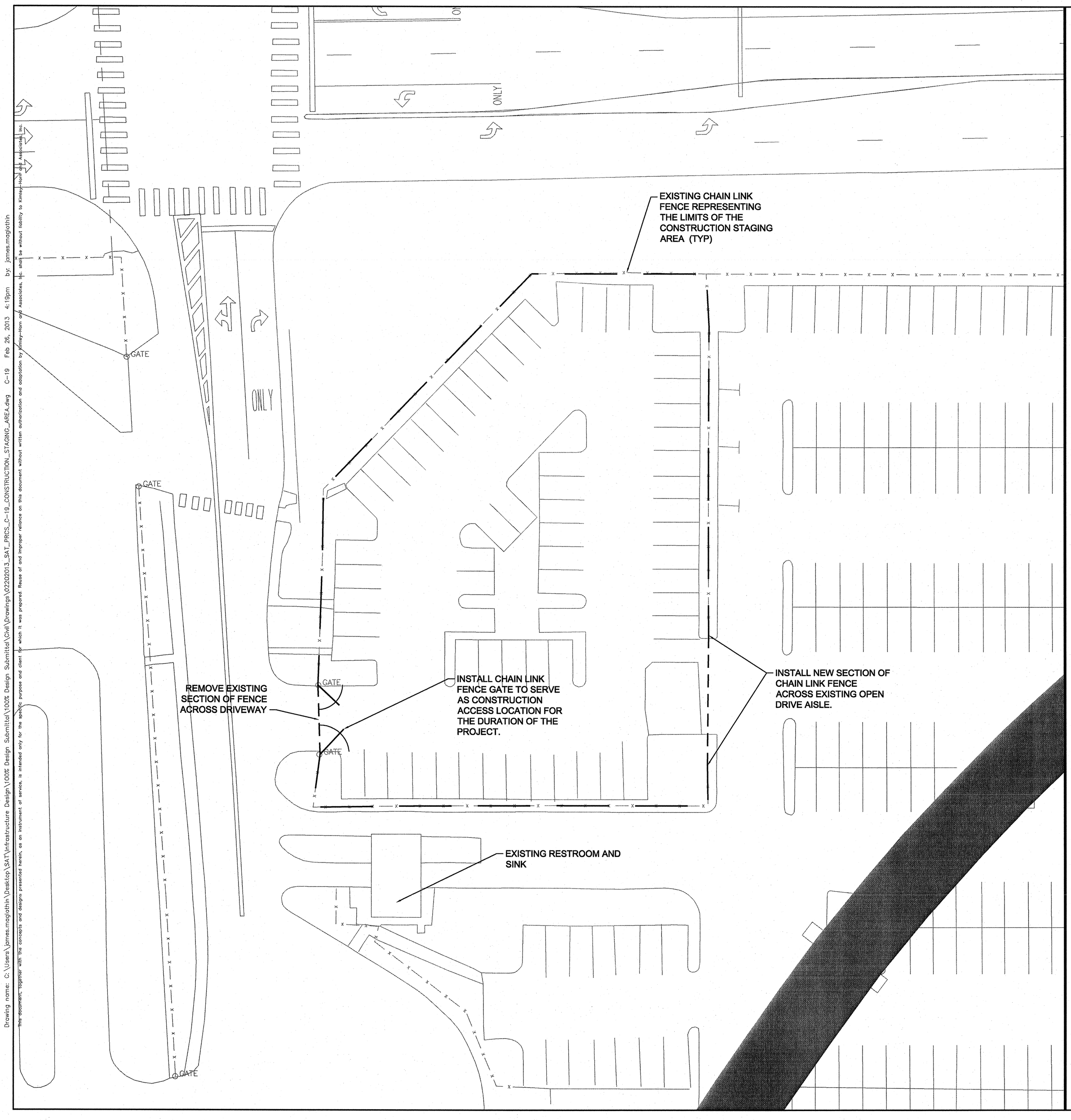
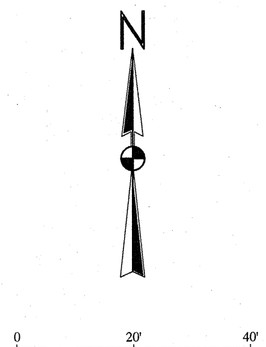
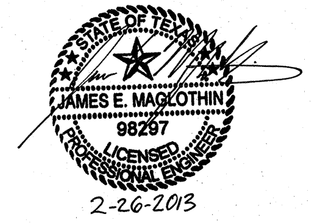




LAY-DOWN AND STAGING AREA INSTRUCTIONS FOR CONTRACTORS

1. CONTRACTOR SHALL READ THE AVIATION DEPARTMENT'S STORM WATER POLLUTION PREVENTION PLAN (SWP3). THE SWP3 APPLIES TO ALL CONSTRUCTION PROJECTS ON THE AIRPORT AS ALMOST EVERY SITE AT THE AIRPORT IS NEAR A STORM WATER DRAIN.
2. CONTRACTOR SHALL STORE PAINTS, MATERIALS AND CHEMICALS IN ACCORDANCE WITH THE AIRPORT'S INDUSTRIAL STORM WATER POLLUTION PREVENTION PLAN.
3. CONTRACTOR SHALL COLLECT AND PROPERLY DISPOSE OF ALL PAINT AND CONCRETE WASHOUT WASTEWATER AND SOLID WASTE USING A PORTABLE WASHOUT CONTAINER, PROVIDED BY THE CONTRACTOR, TO BE LOCATED IN THE LAY-DOWN AND STAGING AREA.
4. UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR USE OUTDOOR STORM DRAINS TO DUMP ANY LIQUIDS OR SOLIDS. ONLY CLEAN WATER MAY ENTER THE STORM DRAINS.
5. UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR HOSE OFF THE STAGING AREA INTO THE STORM INLETS. CONTRACTOR SHALL USE DRY CLEANUP METHODS SUCH AS ABSORBENTS, BROOMS AND SWEEPERS.
6. UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR WASH VEHICLES OR EQUIPMENT AT THE STAGING AREA. ANY SUCH ACTIVITIES SHALL OCCUR OUTSIDE THE LIMITS OF THE PROJECT.
7. CONTRACTOR SHALL BE ALLOWED ACCESS TO THE EXISTING RESTROOM AND SINK LOCATED AT THE ECONOMY LOT CASHIER BOOTH FOR DISPOSAL OF SOAPY WASH WATER AND TO USE THE RESTROOM. UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR DISPOSE OF SOLVENTS OR PAINTS DOWN THE SANITARY DRAINS. RESTROOM SHALL BE KEPT CLEAN AND SANITARY AT ALL TIMES. CONTRACTOR SHALL PERFORM WEEKLY JANITORIAL SERVICES IN THE RESTROOM FOR THE ENTIRETY OF THE PROJECT.
8. SHOULD THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS STORE FUEL, PAINT, OR OTHER HAZARDOUS MATERIAL AT THE LAY-DOWN AND STAGING AREA, THE CONTRACTOR SHALL PERFORM AND PAY THE COSTS FOR SOIL AND/OR WATER TESTING (LABORATORY TESTING) BEFORE USE OF THE SITE, UPON EXIT FROM THE SITE AND ANY SITE REMEDIATION THAT MAY BE NECESSARY, AS DIRECTED BY THE OWNER.
9. PRIOR TO OCCUPYING AND UPON VACATING THE LAY-DOWN AND STAGING AREA, THE CONTRACTOR SHALL SUBMIT TO THE OWNER A MINIMUM OF 10 PHOTOGRAPHS DOCUMENTING THE INITIAL AND FINAL CONDITIONS OF THE LAY-DOWN AND STAGING AREA. THE PHOTOGRAPHS MUST HAVE AN ELECTRONIC DATE STAMP. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE 5 PROGRESS PHOTOGRAPHS OF THE AREA WITH EACH PAYMENT APPLICATION.
10. THE CONTRACTOR SHALL PROVIDE TWO WEEKS WRITTEN NOTICE TO THE OWNER PRIOR TO VACATING THE LAY-DOWN AND STAGING AREA.
11. THE CONTRACTOR SHALL PROVIDE APPROPRIATELY SIZED SPILL KITS FOR THE LAY-DOWN AND STAGING AREA.
12. THE CONTRACTOR SHALL PROVIDE STORM WATER TRAINING TO ALL CONSTRUCTION MANAGERS AND WORKERS AT SAFETY MEETINGS.
13. THE CONTRACTOR SHALL PROVIDE GARBAGE OR WASTE DISPOSAL SERVICES FOR ALL CONSTRUCTION WASTE AND DEBRIS. CONTRACTOR SHALL NOT PUT PROJECT WASTE INTO AVIATION DEPARTMENT TRASH CANS, DUMPSTERS, SANITARY DRAINS OR STORM DRAINS.
14. CONTRACTOR SHALL READ THE AIRPORT'S SOIL MANAGEMENT PLAN, RELATED TO EXCAVATION AND THE RECYCLING OR STOCKPILING OF SOIL.
15. THE CONTRACTOR SHALL USE SILT FENCES TO CONTAIN STOCKPILES.
16. THE CONTRACTOR SHALL USE DRIP PANS AND ABSORBENTS TO CATCH DRIPS FROM VEHICLES AND EQUIPMENT. CONTRACTOR SHALL NOT ALLOW DRIP PANS TO FILL WITH WATER. CONTRACTOR SHALL NOT ALLOW LOOSE ABSORBENT TO BE WASHED INTO THE STORM DRAINS AS IT CONTAINS CHEMICALS AND OTHER POLLUTANTS.
17. VIOLATION OF THESE INSTRUCTIONS SHALL BE CAUSE TO WITHHOLD APPROVAL OF ANY OUTSTANDING CONTRACTOR PAYMENT APPLICATION, INCLUDING FINAL RELEASE OF THE CONTRACTOR'S RETAINAGE, UNTIL UNSATISFACTORY CONDITIONS RESULTING FROM THE VIOLATION HAS BEEN RESOLVED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.



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LAY-DOWN AND STAGING AREA

SAN ANTONIO AIRPORT SYSTEM

PROJECT TITLE
AIRPORT PARKING GARAGE AND SURFACE LOT IMPROVEMENTS (PRCS)
PREPARED FOR: SAN ANTONIO INTERNATIONAL AIRPORT
9800 AIRPORT BLVD.
SAN ANTONIO, TX 78216

DATE
FEBRUARY 2013

PROJECT NO.
33-00196

SHEET NUMBER
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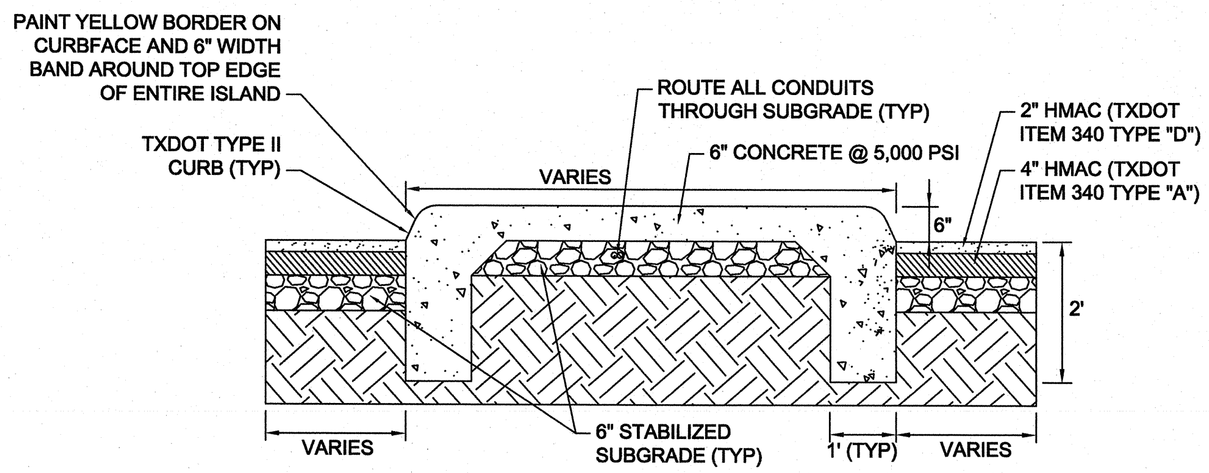
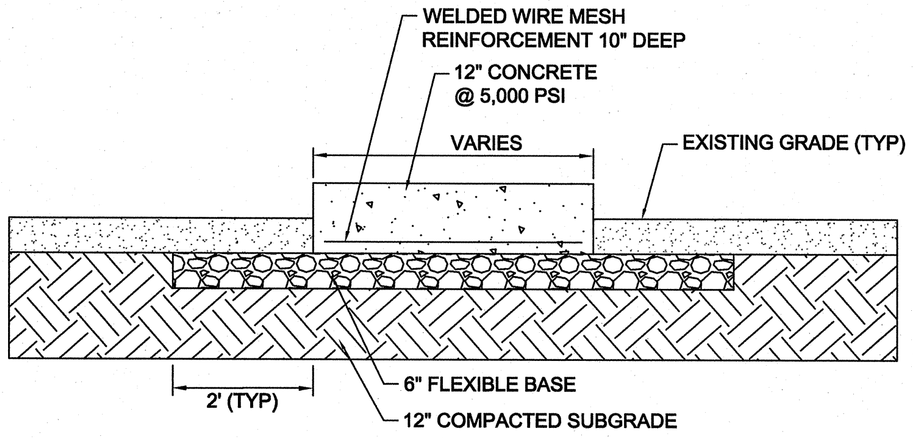
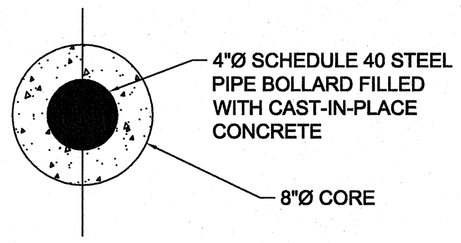


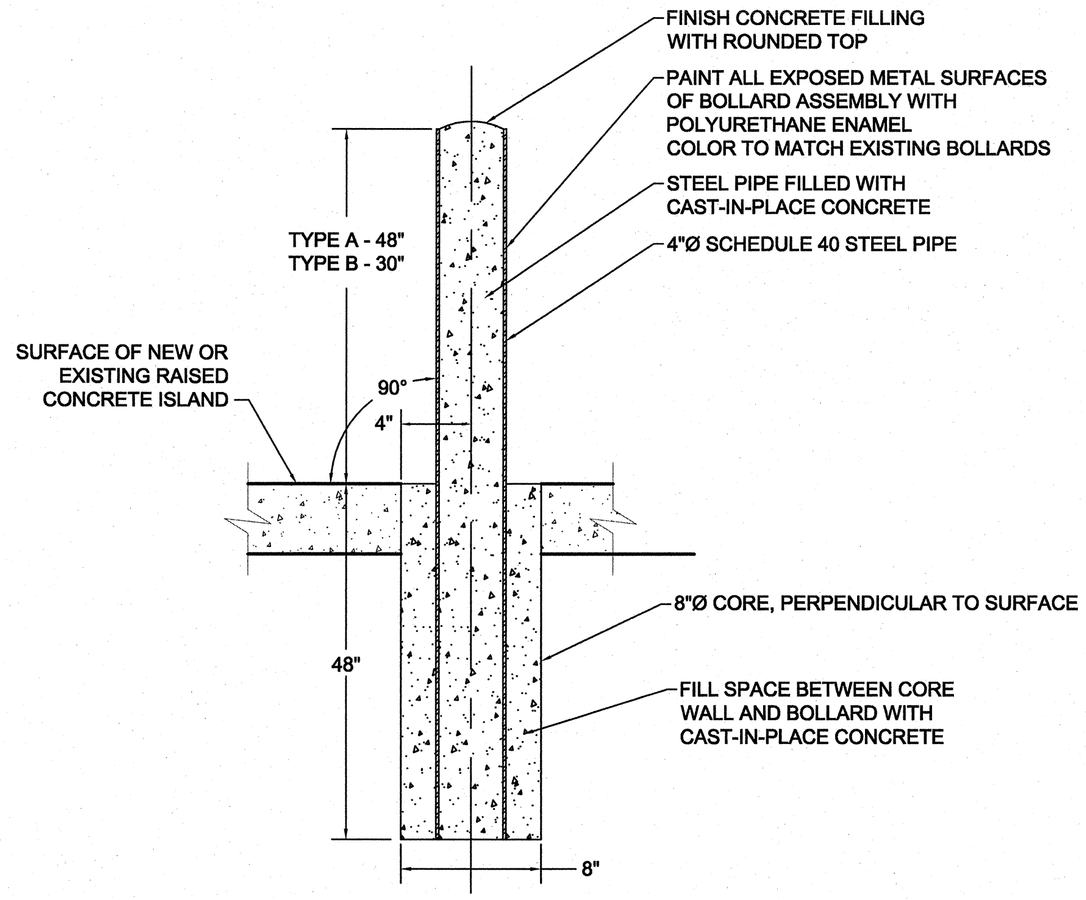
A / C-20 CONCRETE ISLAND/CONCRETE ISLAND EXTENSION DETAIL
NOT TO SCALE



B / C-20 CONCRETE PEDESTAL DETAIL
NOT TO SCALE



PLAN VIEW

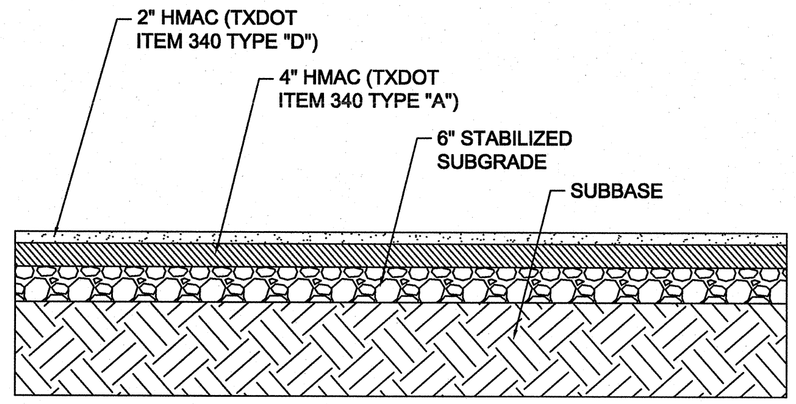


SECTION VIEW

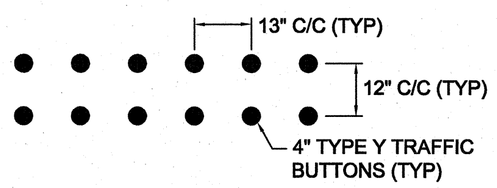
D / C-20 E / C-20 TYPE A & B BOLLARD DETAIL
NOT TO SCALE

NOTES:

1. THE STEEL PIPE SHALL BE CUT SQUARE ON BOTH ENDS TO THE LENGTH SHOWN ON THE PLANS.
2. PAINT SHALL BE A HIGH DURABILITY, IMPACT RESISTANT, POLYURETHANE ENAMEL SUITABLE FOR USE ON EXTERIOR STEEL SURFACES. PAINT MATERIAL SHALL MEET ALL APPLICABLE ENVIRONMENTAL REGULATIONS. PAINT COLOR SHALL MATCH THE PAINT COLOR ON EXISTING BOLLARDS.
3. STEEL PIPE SHALL BE UNGALVANIZED, SEEMLESS, ASTM SCHEDULE 40, CARBON STEEL PIPE IN 4-INCH NOMINAL PIPE SIZE (NPS) AS CALLED FOR ON THE PLANS.



C / C-20 ASPHALT PAVEMENT DETAIL
NOT TO SCALE



NOTE: DIMENSIONS APPROXIMATE. CONTRACTOR SHALL MATCH EXISTING COLOR WITHIN EACH PARKING STRUCTURE.

F / C-20 TYPE Y TRAFFIC BUTTON DETAIL
NOT TO SCALE

STATE OF TEXAS
JAMES E. MAGHOTHIN
98287
LICENSED PROFESSIONAL ENGINEER
2-26-2013

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CIVIL DETAILS

SAN ANTONIO AIRPORT SYSTEM

PROJECT TITLE
AIRPORT PARKING GARAGE AND SURFACE LOT IMPROVEMENTS (PRCS)
PREPARED FOR: SAN ANTONIO INTERNATIONAL AIRPORT
9800 AIRPORT BLVD.
SAN ANTONIO, TX 78216

DATE: FEBRUARY 2013
PROJECT NO.: 33-00196
SHEET NUMBER: C-20

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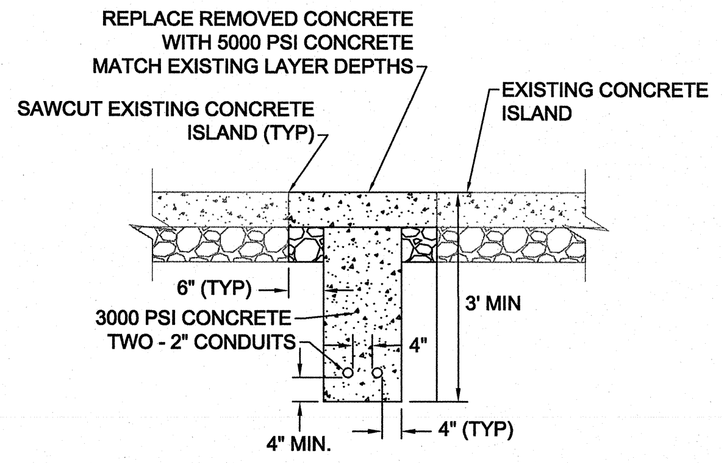

A / C-21 TRENCHING DETAIL - CONCRETE ISLAND
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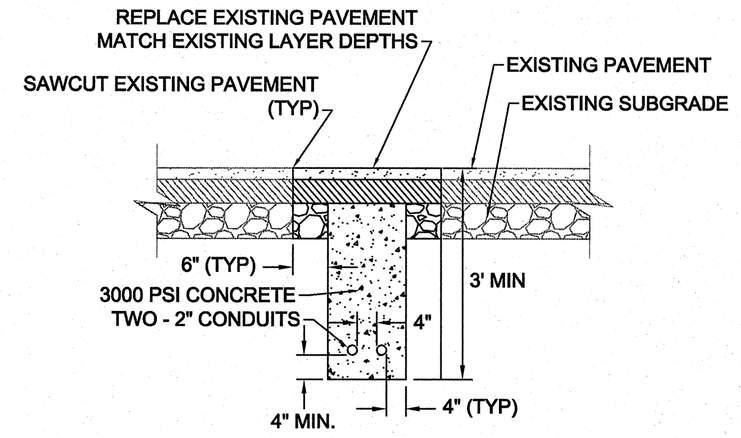

B / C-21 TRENCHING DETAIL - ASHPAHLT PAVEMENT
NOT TO SCALE

STATE OF TEXAS
JAMES E. MAGLOTHIN
99297
LICENSED
PROFESSIONAL ENGINEER
2-26-2013

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CONDUIT DETAILS

SAN ANTONIO AIRPORT SYSTEM

PROJECT TITLE
AIRPORT PARKING GARAGE AND
SURFACE LOT IMPROVEMENTS (PRCS)

PREPARED FOR: SAN ANTONIO INTERNATIONAL AIRPORT
9800 AIRPORT BLVD.
SAN ANTONIO, TX 78216

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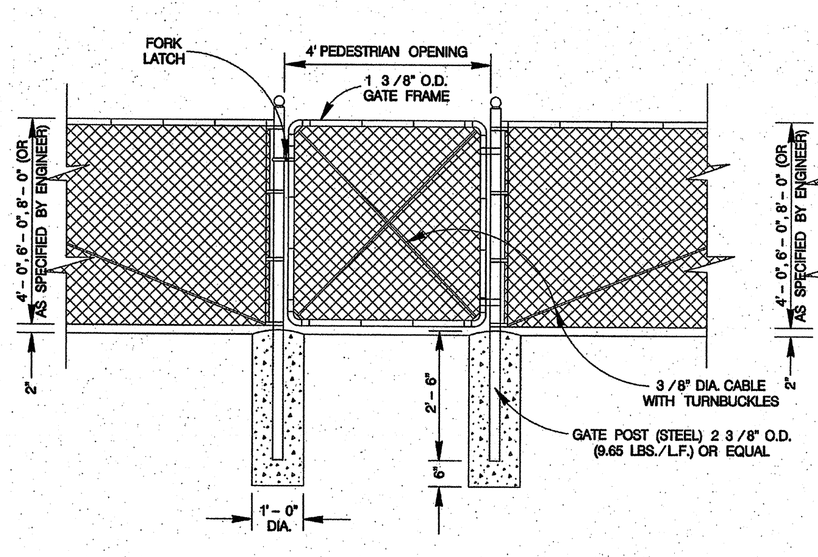
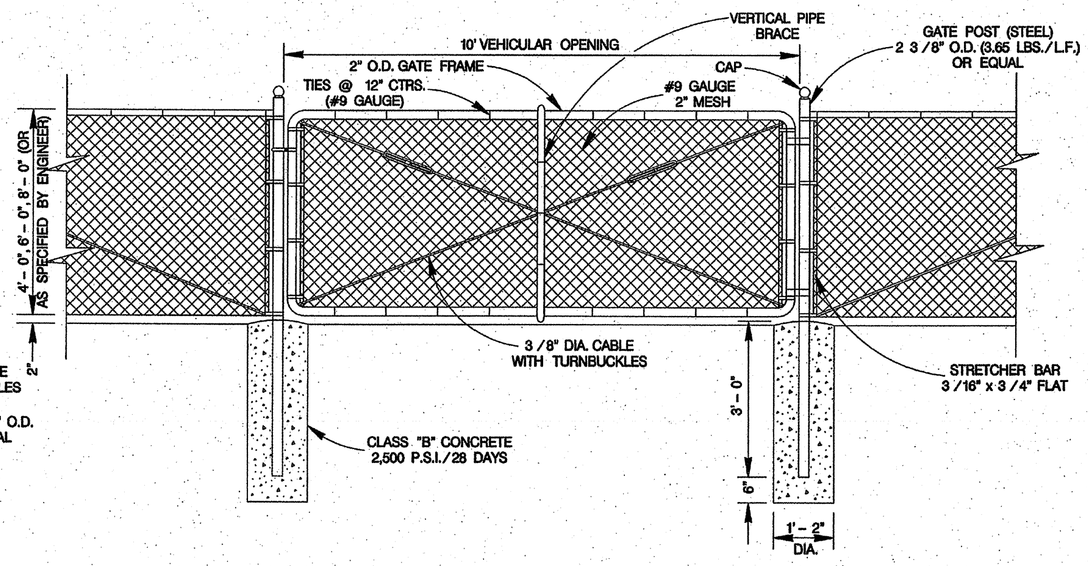


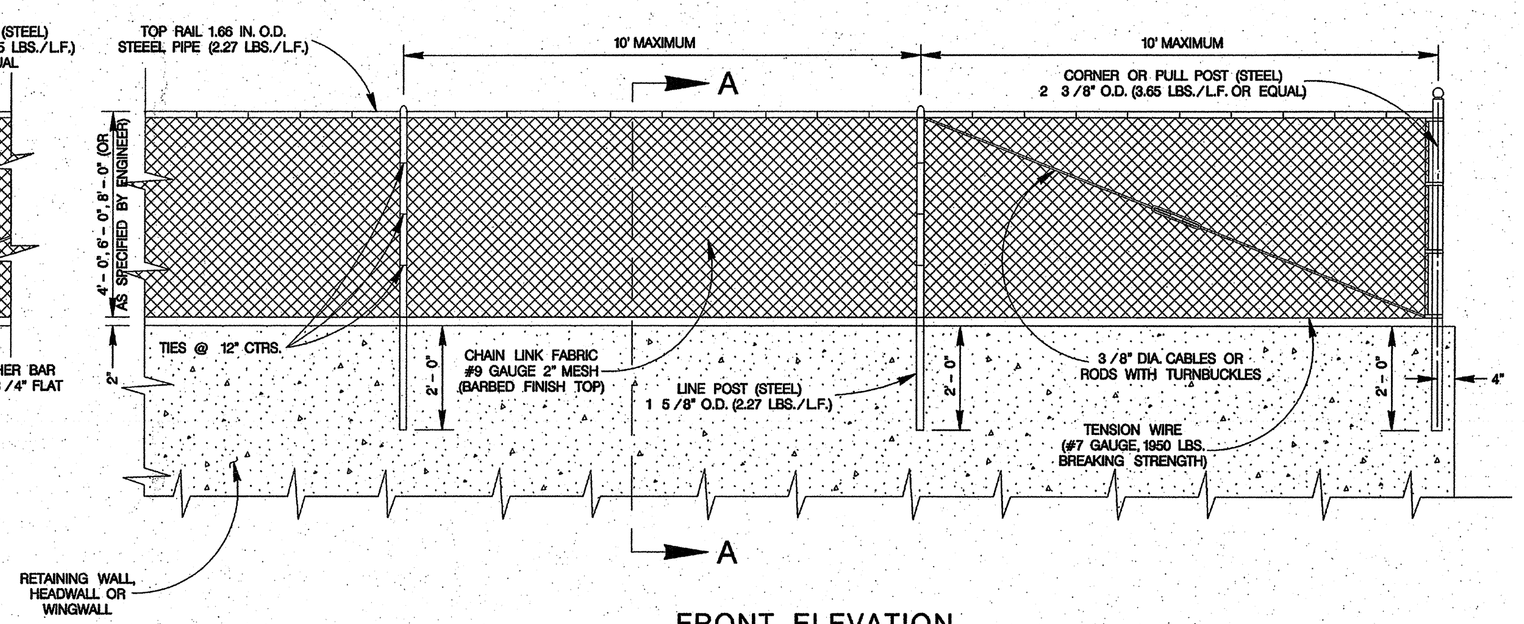
PEDESTRIAN GATE

ITEM 507.4
SCALE : 1" = 4'



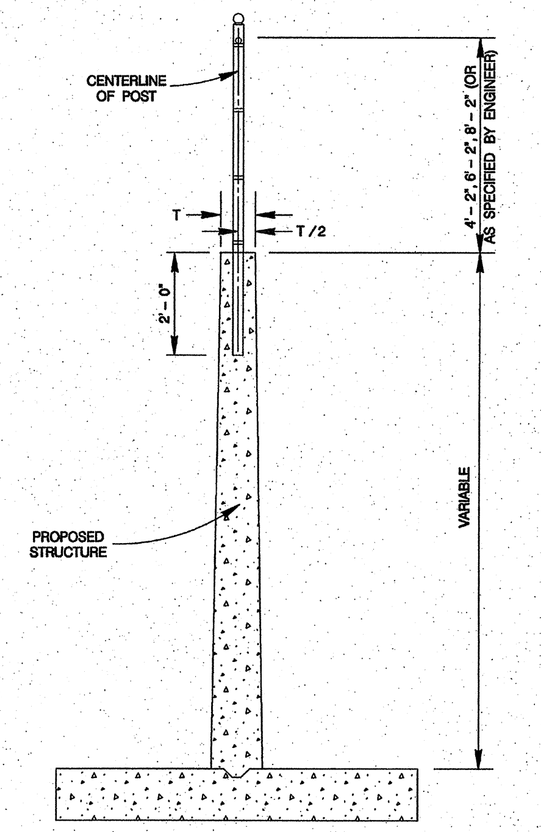
VEHICULAR GATE

ITEM 507.5
SCALE : 1" = 4'



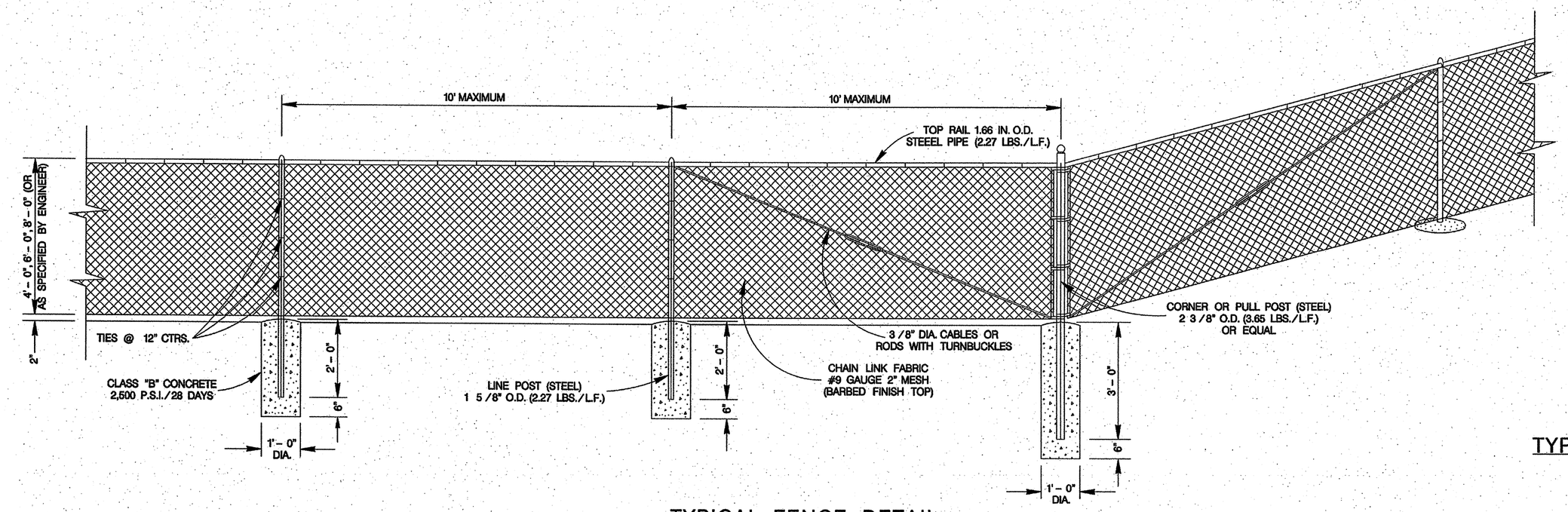
FRONT ELEVATION

SCALE : 1" = 4'



SECTION VIEW "A-A"

SCALE : 1" = 4'



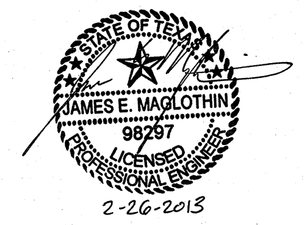
TYPICAL FENCE DETAIL

SCALE : 1" = 4'

TYPICAL FOR FENCING IN RETAINING WALLS, HEADWALLS & WINGWALLS

GENERAL NOTES

1. ALL CONCRETE FOOTINGS SHALL BE CROWNED A MINIMUM OF 1" ABOVE THE EXISTING GROUND, WHERE FOOTINGS ARE REQUIRED ONLY.
2. FENCING SHALL BE LOCATED IN RETAINING WALLS, HEADWALLS & WINGWALLS AT LOCATIONS SHOWN ON THE PLANS.
3. CORNER OR PULL POSTS WILL BE REQUIRED AT ALL END POINTS AND ANGLE POINTS.
4. CONCRETE FOR SEPARATE POST FOOTINGS SHALL BE IN ACCORDANCE WITH ITEM 300-B CLASS B CONCRETE.
5. PAYMENT SHALL BE MADE AS SPECIFIED IN ITEM NO. 507 "CHAIN LINK WIRE FENCE OF CITY OF SAN ANTONIO" STANDARD SPECIFICATIONS FOR CONSTRUCTION.



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SCALE NO SCALE
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DESIGNED BY PAC
CHECKED BY JEM

PREPARED BY

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CHAIN LINK FENCE DETAILS

SAN ANTONIO AIRPORT SYSTEM

PROJECT TITLE
AIRPORT PARKING GARAGE AND SURFACE LOT IMPROVEMENTS (PRCS)

PREPARED FOR: SAN ANTONIO INTERNATIONAL AIRPORT
9800 AIRPORT BLVD.
SAN ANTONIO, TX 78216

DATE
FEBRUARY 2013

PROJECT NO.
33-00196

SHEET NUMBER
C-22

Drawing name: C:\Users\james.maglothin\Desktop\S&T\Infrastructure Design\100% Design Submittal\100% Design Submittal\Civil\Drawings\02202013_SAT_PRCS_C-22_CHAIN_LINK_FENCE_DETAILS.dwg C-22 Feb 26, 2013 4:41pm by: james.maglothin

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TRAFFIC NOTES

TRENCHING / EXCAVATING

The following notes shall apply to excavations of trenches or pits that are located in the pavement or are within six (6) feet of the edge of roadway:

1.) Trench walls shall not be closer than three (3) feet from the edge of the traveled way at any stage of construction.

2.) Traffic control devices shall be in place before starting any excavation.

3.) Trenches or pits will not be permitted to be bridged by steel plates and open to traffic unless they are temporarily backfilled to finished street grade.

4.) For pits or trenches along or in a roadway that are going to be left open over night that are zero to fifty (0 – 50) feet in length, the following applies. GUARD RAIL OR CONCRETE BARRIER SHALL BE USED.

5.) For pits or trenches along or in roadway that are going to be left open over night and are longer than 50 feet in length. CONCRETE BARRIERS MUST BE USED.

6.) Plastic construction fencing shall be required for any trench or pit left open over night.

7.) When using any guardrail or concrete barrier, protected end must be used as per the TEXAS–M.U.T.C.D.

8.) For vertical drop–offs greater than two (2) feet along roadway, low profile concrete with appropriate end protection must be installed.

9.) All concrete barriers placed on City R.O.W shall be low profile. No high profile barriers will be allowed.

REFLECTIVE SHEETING

The reflectorized white and reflectorized orange stripes for channelizing devices such as barricade drums and vertical panels shall be constructed of reflective sheeting meeting the color and retro–reflectivity requirements of high intensity, unless otherwise specified in the plans.

MAINTENANCE

1.) All traffic signs shall be kept in proper position, clean and legible at all times. Damaged barricades, signs, and other traffic control devices shall be replaced without undue delay.

2.) To ensure adequate maintenance, a suitable schedule for inspection, cleaning, and replacement of barricades, lights, and signs shall be established.

3.) Special attention and necessary action shall be taken to see that weeds, trees, shrubbery and construction materials do not obscure the face of any sign or barricades.

TRAINING

Each person whose actions affect maintenance and construction zone safety, from the upper–level management personnel through construction and maintenance field personnel, should receive training appropriate to the job decision each individual is required to make. Only those individuals who are qualified by means of adequate training in safe traffic control practices and have a basic understanding of the principles established by applicable standards and regulations, including those of the TEXAS M.U.T.C.D. should supervise the selection, placement, and maintenance of traffic control devices in maintenance and construction areas.

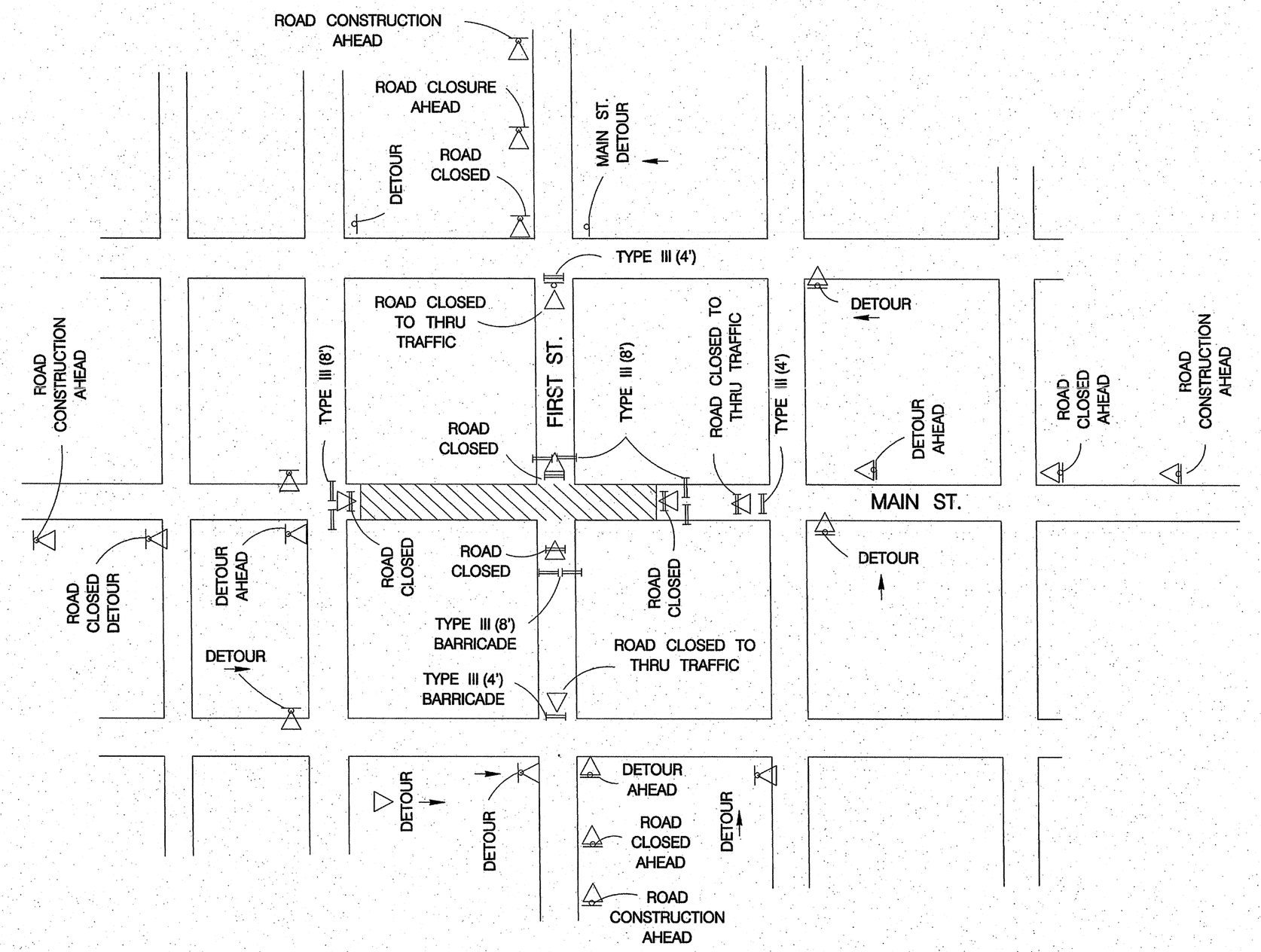
SPECIAL EVENTS BARRICADING

All Type I, (8') barricades used for special events (Dome, Runs, Walks, Parades etc.) shall be a minimum of 42" high and 96" wide. Any necessary signs will require proper sign stands.

USE OF CITY R.O.W.

The City of San Antonio reserves the right to allow contracting and barricading sub–contractors to use the City's R.O.W. The City also reserves the right to advise contractors and barricading sub–contractors to remove stored or unused traffic control devices from the City of San Antonio R.O.W. It is the barricading sub–contractor's responsibility to remove any traffic control device from City's R.O.W. when instructed to do so by a City representative.

CLOSURE DIAGRAMS



TYPICAL INTERSECTING STREET CLOSURE FOR TWO LANE STREETS

NOTE:
ALL SIGNS WILL BE MOUNTED ON SIGN SUPPORTS ONLY

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STATE OF TEXAS
JAMES E. MAGLOTHIN
98697
LICENSED
PROFESSIONAL ENGINEER
2-26-2013

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SCALE: NO SCALE
DRAWN BY: SCB
DESIGNED BY: PAC
CHECKED BY: JEM

PREPARED BY
Kimley-Horn and Associates, Inc.
601 NW Loop 410, Suite 350
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Fax: (210) 541-8699
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BARRICADE AND CONSTRUCTION STANDARDS 1

SAN ANTONIO AIRPORT SYSTEM

PROJECT TITLE
AIRPORT PARKING GARAGE AND SURFACE LOT IMPROVEMENTS (PRCS)

PREPARED FOR: SAN ANTONIO INTERNATIONAL AIRPORT
9800 AIRPORT BLVD.
SAN ANTONIO, TX 78216

DATE
FEBRUARY 2013

PROJECT NO.
33–00196

SHEET NUMBER
C-23

Drawing name: C:\Users\james.maglothin\Desktop\SAT\Infrastructure Design\100% Design Submittal\100% Design Submittal\Civil\Drawings\02202013_SAT_PRCS_C-23_BARRICADE_STANDARDS_1.dwg C-23 Feb 26, 2013 4:41pm by: james.maglothin
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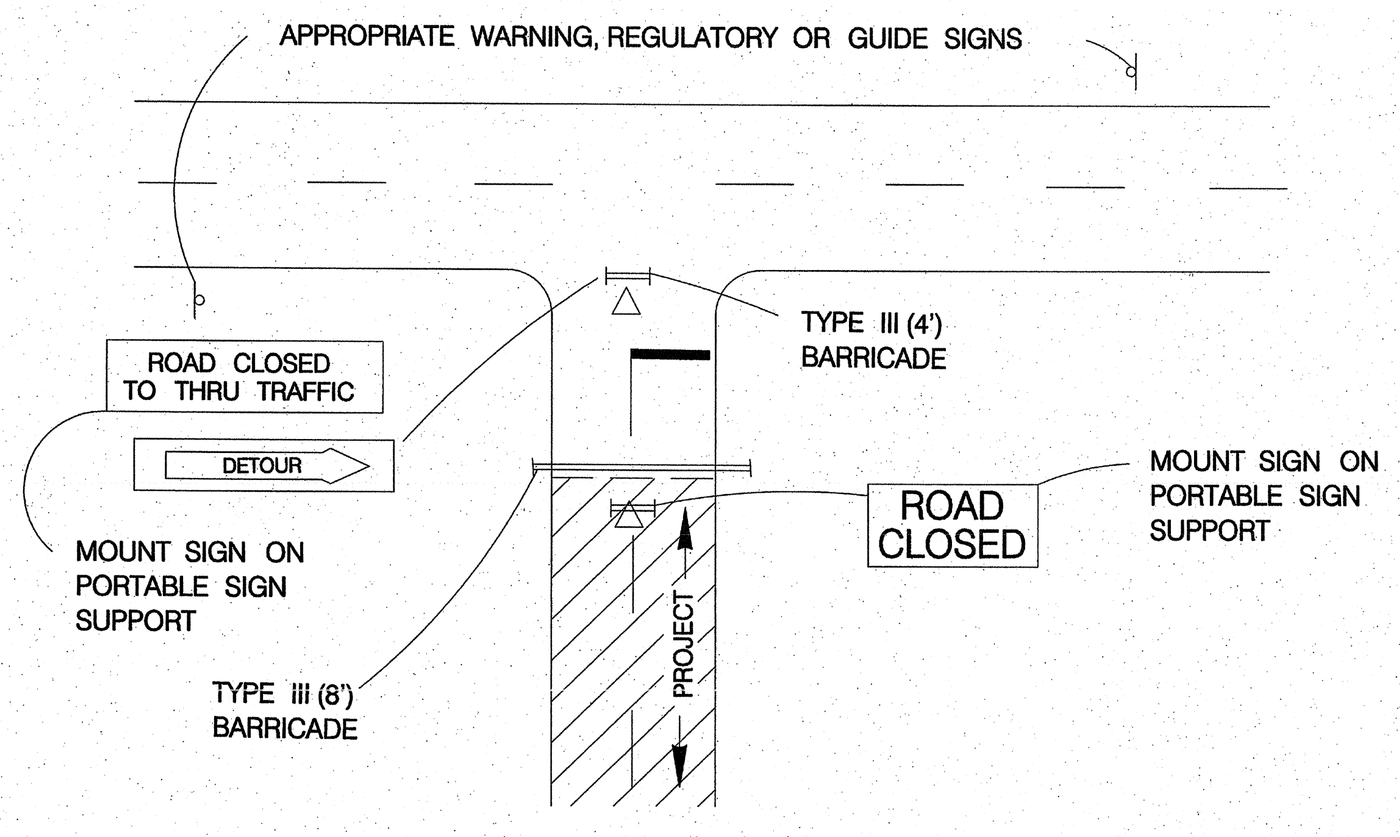
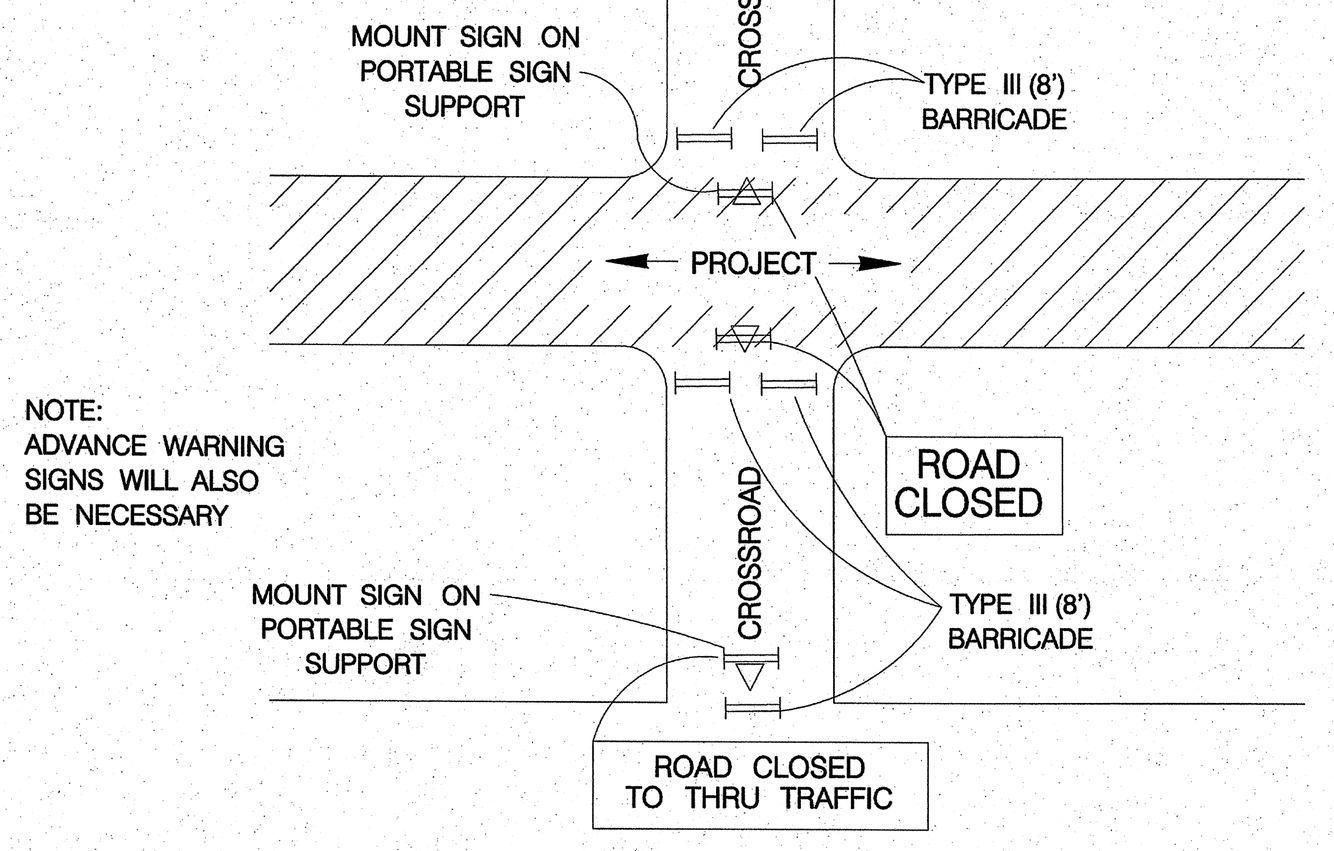


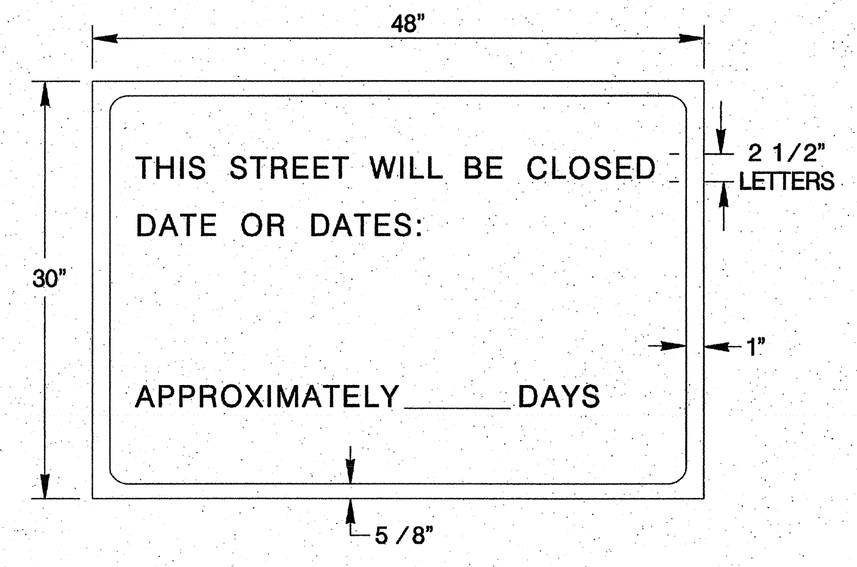
PROJECT LIMITS FOR CLOSED ROADWAY

BARRICADES SHALL BE ERECTED COMPLETELY ACROSS ROADWAY. CHANNELIZING DEVICES MAY BE DRUMS, VERTICAL PANELS OR CONES AS SPECIFIED IN THE PLANS

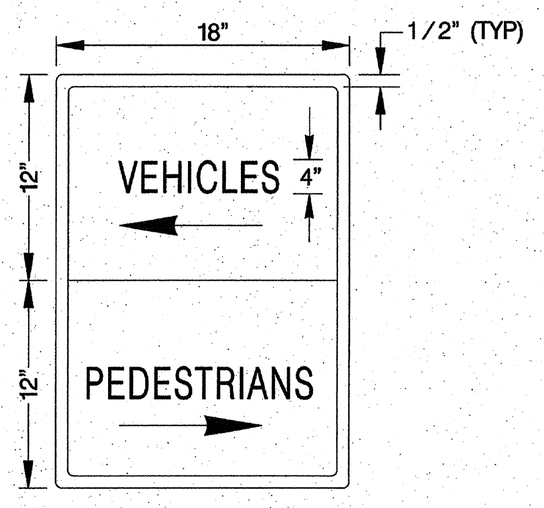


NOTE:
ADVANCE WARNING SIGNS WILL ALSO BE NECESSARY

CROSS STREET SIGNING AND BARRICADING TOTALLY CLOSED

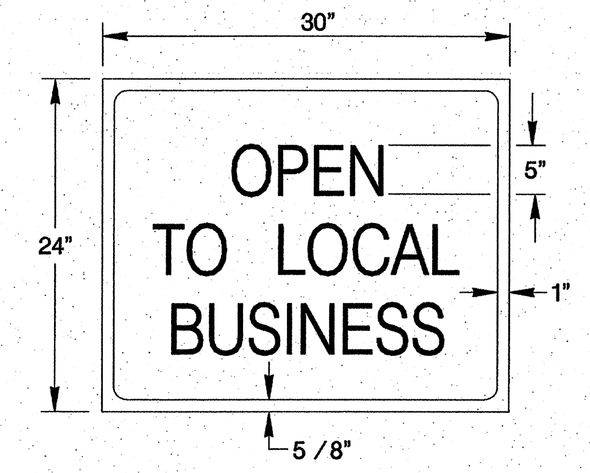


LETTERS– BLACK
BORDER– BLACK
BACKGROUND– ORANGE



LETTERS– BLACK
BORDER– BLACK
BACKGROUND– ORANGE
SPACING–3 SIGNS PER BLOCK

DIRECTION OF ARROWS ARE REVERSIBLE



LETTERS– WHITE
BORDER– WHITE
BACKGROUND– BLUE REFLECTIVE

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STATE OF TEXAS
JAMES E. MAGLOTHIN
98267
LICENSED PROFESSIONAL ENGINEER
2-26-2013

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DRAWN BY SCB
DESIGNED BY PAC
CHECKED BY JEM

PREPARED BY
Kimley-Horn and Associates, Inc.
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BARRICADE AND CONSTRUCTION STANDARDS 2

SAN ANTONIO AIRPORT SYSTEM

PROJECT TITLE
AIRPORT PARKING GARAGE AND SURFACE LOT IMPROVEMENTS (PRCS)

PREPARED FOR: SAN ANTONIO INTERNATIONAL AIRPORT
9800 AIRPORT BLVD.
SAN ANTONIO, TX 78216

DATE
FEBRUARY 2013

PROJECT NO.
33–00196

SHEET NUMBER
C-24

Drawing name: C:\Users\jmaglothin\Desktop\SAT\Infrastructure Design\100% Design Submittal\100% Design Submittal\Civil\Drawings\02202013_SAT_PRCS_C-24_BARRICADE_STANDARDS_2.dwg C-24 Feb 26, 2013 4:20pm by: jamesmaglothin
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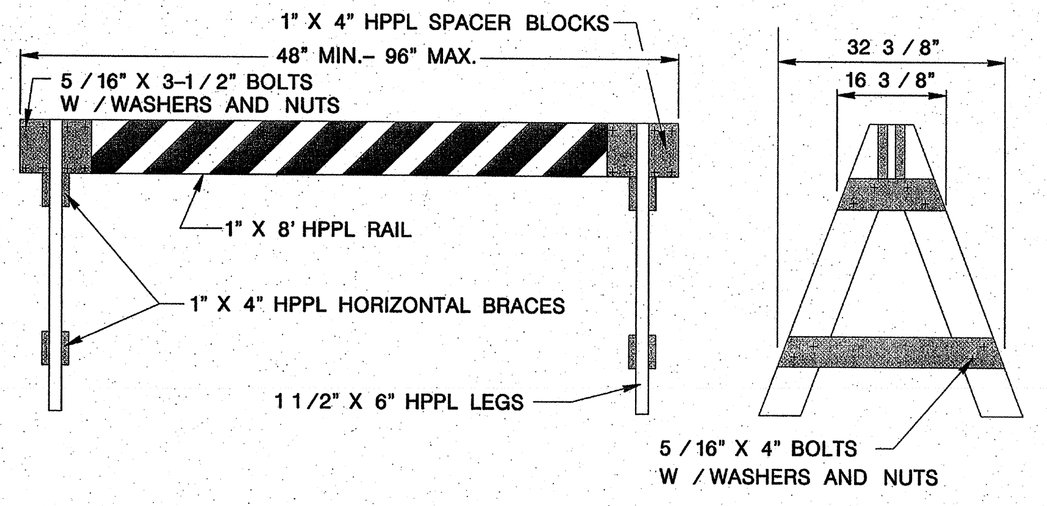
TYPE I BARRICADE



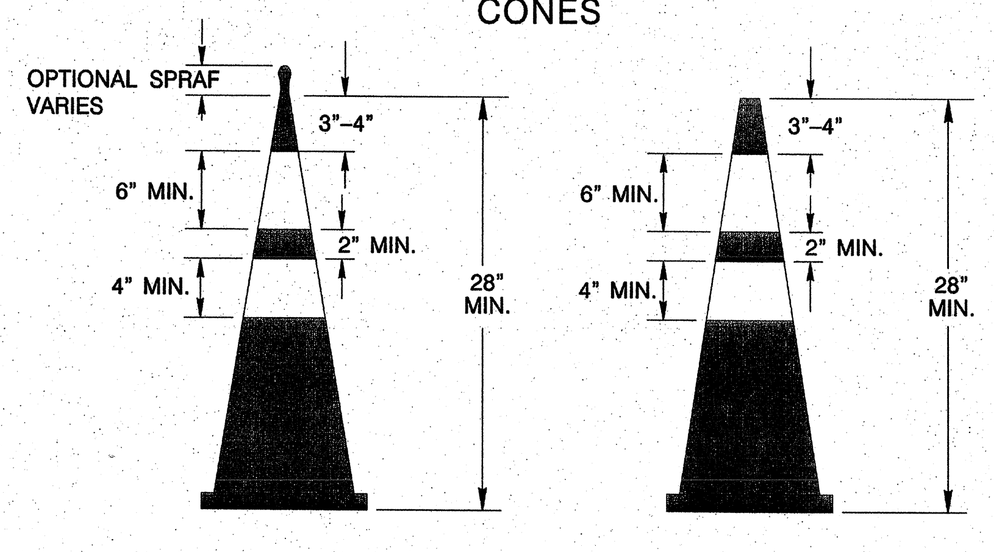
1.) Only the following Type I barricade shall be used in the City of San Antonio Right–Of–Way:
   - A. 1" x 8" plastic rail with 2" x 6" wooden legs.
   - B. 1" x 8" wooden rail with plastic legs.
   - C. 1" x 8" wooden rail with 2" x 6" wood legs.
   - D. No screws allowed for assembly of A–legs or rail.
   - E. Warning lights will be used as directed by the Traffic Engineer.
   - F. All Type I (4') barricades will be a minimum of 36" high and 60" wide. (For Construction Use Only)
   - G. All Type I (8') barricades with wooden legs shall be 2" X 6" wood only.
   - H. All Type I (4') barricades with wooden legs shall be 1" X 8" wood only.

2.) Type I Barricades shall not be used for partial and total street closures in construction work zones. Only Type III barricades shall be used for this purpose.

3.) Warning lights shall not be mounted on Type I barricades.

(See TxDOT BC–03 Sheets for specific construction information)

CONES

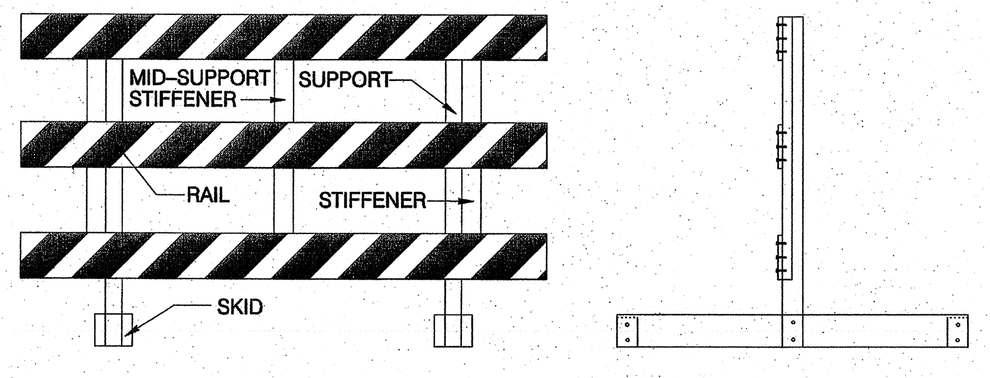


1.) Base for 28" high cones must weigh at least 9.5 lbs.

2.) Night time cones must have reflective collars.

(See TxDOT BC–03 Sheets for specific construction information)

Type III BARRICADE



1.) Only the following Type III barricade shall be used in the City of San Antonio Right–Of–Way.
   - A. Hollow polyvinyl or fiberglass tubing post with 1" X 8" wooden rails.
   - B. Hollow polyvinyl or fiberglass tubing post with plastic rails.
   - C. Skids must be wood or solid plastic only.
   - D. Warning lights shall not be mounted on Type III barricades.

(See TxDOT BC–03 Sheets for specific construction information)

TEMPORARY MARKINGS

1.) Solid double yellow painted lines shall be installed for temporary division of traffic or construction duration longer than five (5) days, with repainting to occur once monthly or at the discretion of the Traffic Engineer. (All cost of upkeep will be at the contractor's expense.)

2.) Solid double yellow tabs, or V/P panels shall be installed for temporary division of traffic for construction duration less than five (5) days, with re–tabbing to occur at the discretion of the Traffic Engineer.
NAILS SHALL NOT BE USED TO FIX TABS TO CEMENT OR BASE (All cost of upkeep will be at the contractor's expense.)

(See TxDOT BC–03 Sheets for specific construction information.)

TEMPORARY CONCRETE BARRIER

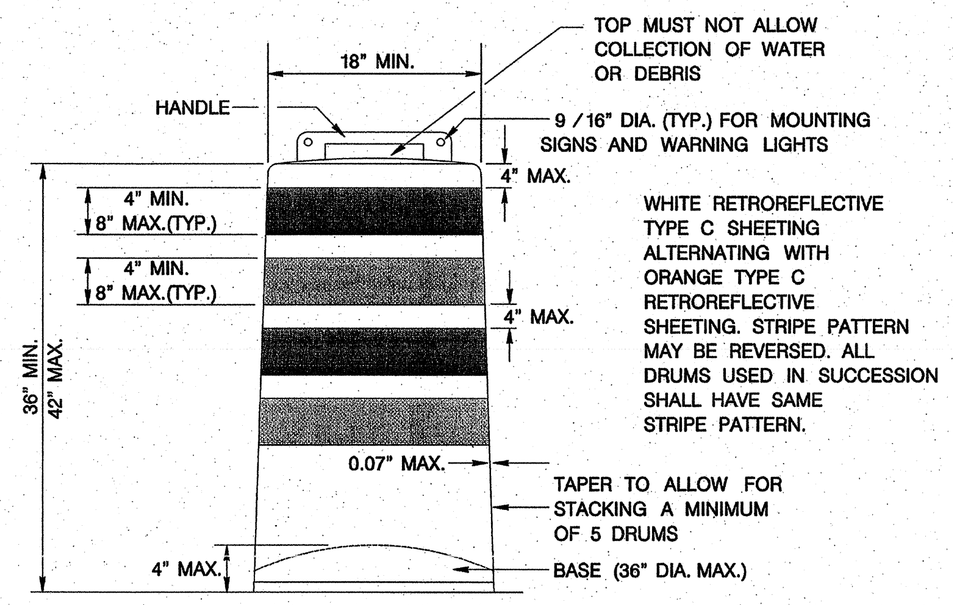
1.) All concrete barriers placed on City R.O.W. shall be low profile.

2.) No high profile barriers will be allowed.

3.) Reflectors will be required on each concrete barrier.

(See TxDOT BC–03 Sheets for specific construction information)

PLASTIC DRUMS



1.) Drums and all related items shall comply with the requirements of the current version of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).

2.) Drums, bases, and related materials shall exhibit good workmanship and shall be free from objectionable marks or defects that would adversely affect their appearance or serviceability.

3.) The Engineer/Inspector shall provide written notice to the Contractor regarding the replacement of drums or other traffic control devices. The Contractor shall have a maximum of 24 hours to replace any plastic drums or other traffic control devices identified for replacement by the Engineer/Inspector. The replacement device must be an approved device.

4.) Each drum must have a 40 lb. rubber or plastic snap on.

5.) No signs larger than 18" X 24" will be allowed to be mounted on plastic drums.

6.) No warning lights will be allowed to be mounted on plastic barrels.

7.) In lieu of a warning light, a yellow reflector will be acceptable.

(See TxDOT BC–03 Sheets for specific construction information)

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STATE OF TEXAS
JAMES E. MAGLOTHIN
98297
LICENSED
PROFESSIONAL ENGINEER
2-26-2013

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PREPARED BY
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BARRICADE AND CONSTRUCTION STANDARDS 3

SAN ANTONIO AIRPORT SYSTEM

PROJECT TITLE
AIRPORT PARKING GARAGE AND SURFACE LOT IMPROVEMENTS (PRCS)

PREPARED FOR: SAN ANTONIO INTERNATIONAL AIRPORT
9800 AIRPORT BLVD.
SAN ANTONIO, TX 78216

DATE
FEBRUARY 2013

PROJECT NO.
33–00196

SHEET NUMBER
C-25

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SIGNS

1.) A maximum of two signs can be mounted on any one Long / Intermediate Term Stationary Portable Sign Support.

2.) 48" X 48" signs shall be mounted separately on the Long / Intermediate Term Stationary Portable Sign Support.

3.) For Short Term Stationary Portable Sign Support the distance from the bottom of the vinyl sign to the exiting ground must be one (1) foot.

4.) Long / Intermediate Term Stationary Portable Signs must be made of wood or plastic only.

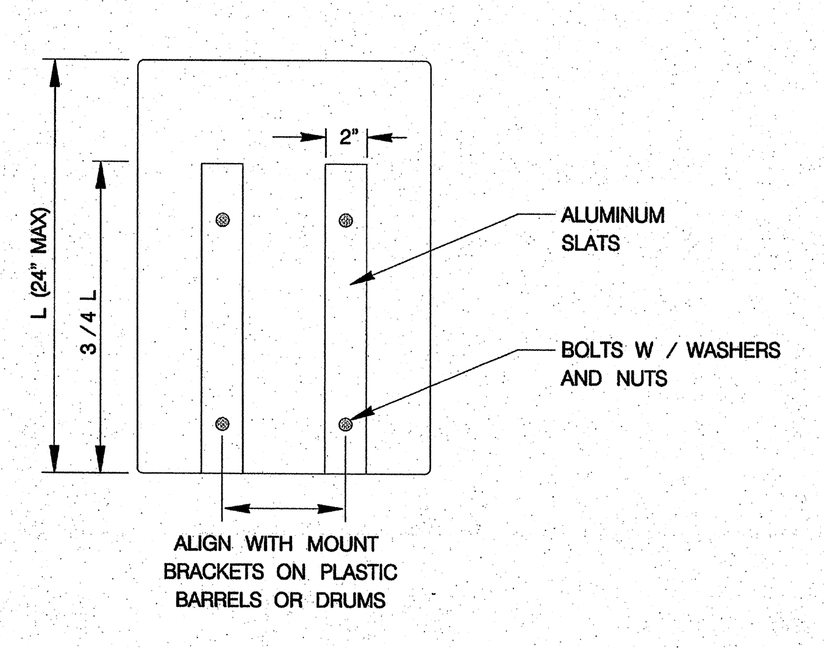
5.) No signs shall be mounted to any Type I, Type III, or folding barricades.

6.) Signs shall be mounted only on TxDOT approved sign supports.

7.) Detour signs will be mounted on single "D" legs w / 7' clearance from the bottom of the sign.

8.) WORK DURATION TERMINOLOGY
Long Term Stationary = occupies a location 3 or more days.
Intermediate–Term Stationary = occupies a location for overnight to 3 days.
Short Term Stationary = daylight work that occupies a location from 1 to 12 hours.
Short Duration = occupies a location up to 1 hour.

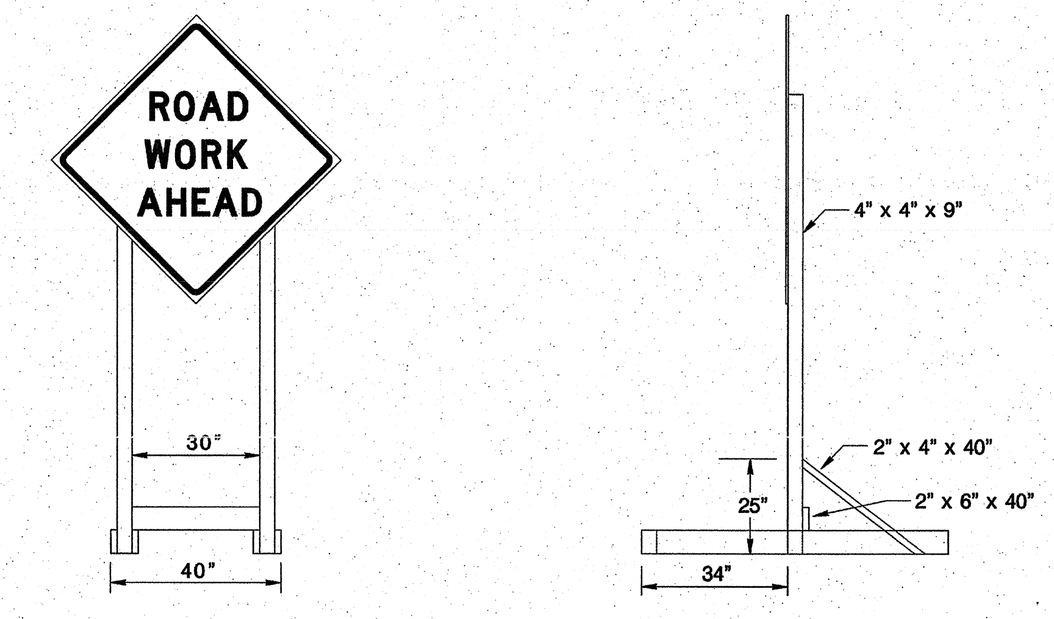
9.) Signs shall adhere to the following requirements:
- Signs placed on plastic barrels or drums shall be made of ABS plastic or plywood.
- Signs placed on skids shall be made of plywood or aluminum.
- Aluminum signs shall have a minimum thickness of 0.08".
- Plywood signs shall have a minimum thickness of 1 / 2".
- ABS Plastic signs shall have a minimum thickness of 0.13".
  Plastic signs cannot exceed 18" by 24" in size and shall be reinforced with 2" wide, 0.08" thick aluminum slats, as depicted below:



- No other material shall be accepted without the express written approval of the Traffic Engineer.

(See TxDOT BC–03 Sheets for specific construction information.)

LONG TERM / INTERMEDIATE TERM SIGN SUPPORT



1.) 48" X48" signs must be mounted independently.

2.) A maximum of two signs can be mounted on any one long term / intermediate sign support.

3.) Sand bag all sign supports.

4.) Distance from the bottom of the sign to the existing ground shall be 7'.

5.) Distance from the header barricade rail to the face of the sign panel shall be 2' min. and 10' max.

6.) Steel tripods shall not be allowed.

(See TxDOT BC–03 Sheets for specific construction information)

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STATE OF TEXAS
JAMES E. MAGLOTHIN
98287
LICENSED
PROFESSIONAL ENGINEER
2-26-2013

BID SET

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SCALE NO SCALE
DRAWN BY SCB
DESIGNED BY PAC
CHECKED BY JEM

PREPARED BY
Kimley-Horn and Associates, Inc.
601 NW Loop 410, Suite 350
San Antonio, Texas 78216-5595
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BARRICADE AND CONSTRUCTION STANDARDS 4

SAN ANTONIO AIRPORT SYSTEM

PROJECT TITLE
AIRPORT PARKING GARAGE AND SURFACE LOT IMPROVEMENTS (PRCS)

PREPARED FOR: SAN ANTONIO INTERNATIONAL AIRPORT
9800 AIRPORT BLVD.
SAN ANTONIO, TX 78216

DATE
FEBRUARY 2013

PROJECT NO.
33–00196

SHEET NUMBER
C-26

Drawing name: C:\Users\james.maglothin\Desktop\SAT\Infrastructure Design\100% Design Submittal\100% Design Submittal\Civil\Drawings\02202013_SAT_PRCS_C-26_BARRICADE_STANDARDS_4.dwg C-26 Feb 26, 2013 4:20pm by: james.maglothin
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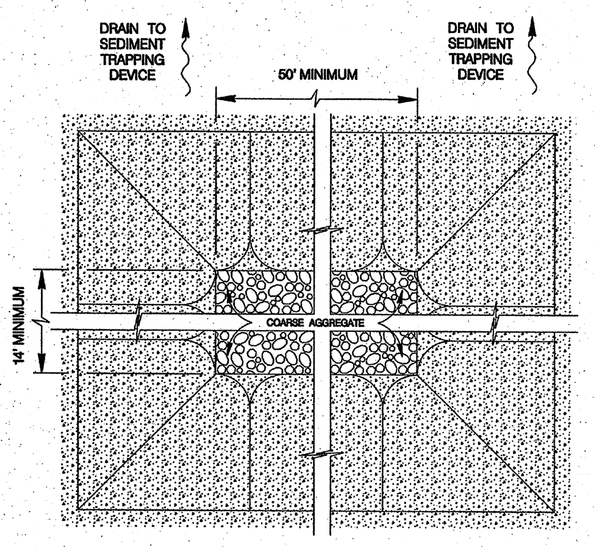
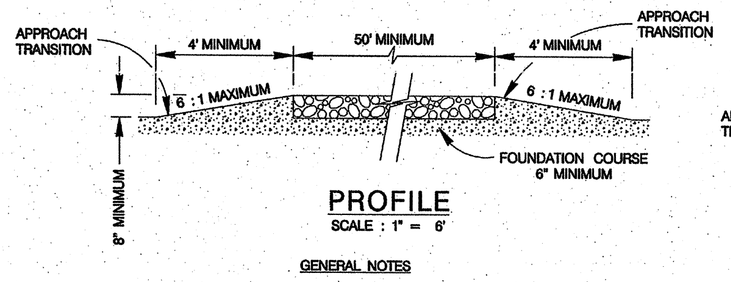


PLAN
SCALE : 1" = 6'

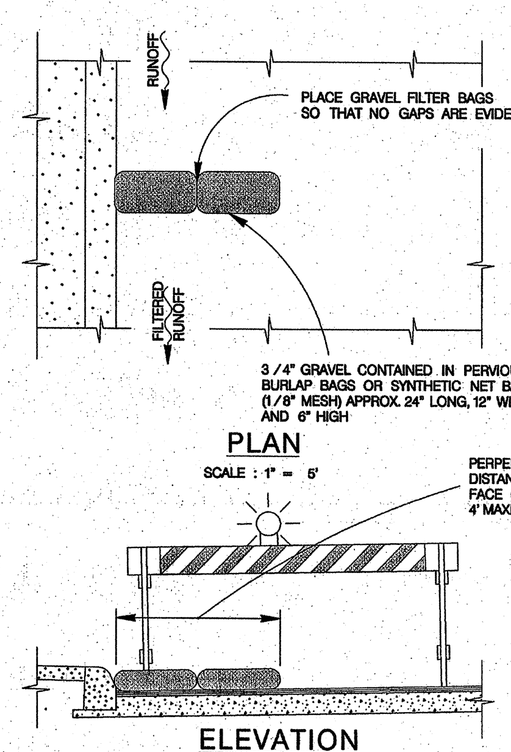


PROFILE
SCALE : 1" = 6'

GENERAL NOTES

1. THE LENGTH OF THE TYPE 1 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE COARSE AGGREGATE SHOULD BE OPEN GRADED WITH A SIZE OF 4" TO 8".
3. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6 :1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
4. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT – TYPE 1

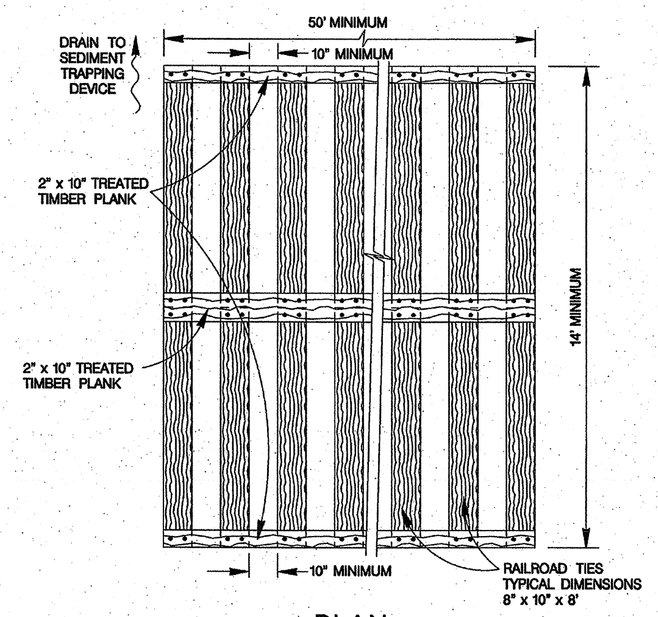


PLAN
SCALE : 1" = 5'

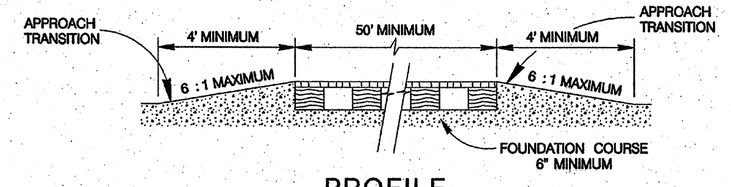
ELEVATION
SCALE : 1" = 5'

NOTE:
STRADDLE GRAVEL FILTER BAGS WITH TYPE 1 BARRICADES MOUNTED WITH TYPE "A" FLASHING WARNING LIGHT. SEE BARRICADE CONSTRUCTION SIGN DETAILS. PLACE FLASHING LIGHTS AWAY FROM GUTTER, FLUSH WITH OUTSIDE EDGE OF BAG CONFIGURATION.

GRAVEL FILTER BAGS



PLAN
SCALE : 1" = 6'

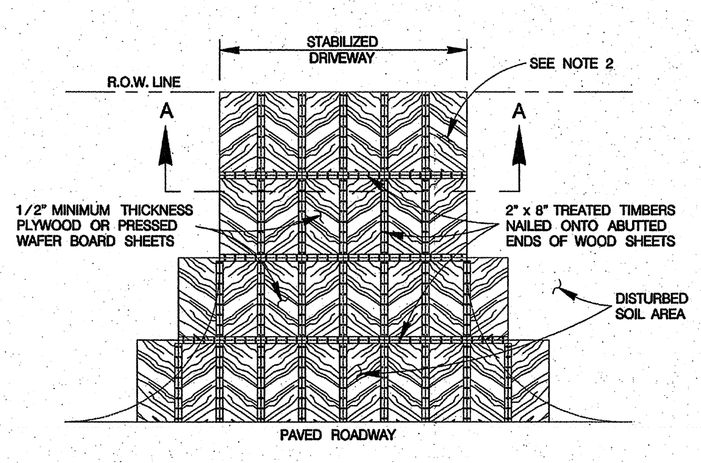


PROFILE
SCALE : 1" = 6'

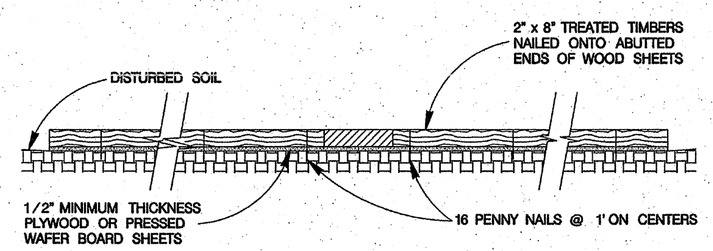
GENERAL NOTES

1. THE LENGTH OF THE TYPE 2 CONSTRUCTION EXIT SHALL BE AS IND(CATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE TREATED TIMBER PLANKS SHALL BE ATTACHED TO THE RAILROAD TIES WITH 1/2" x 6" MIN. LAG BOLTS. OTHER FASTENERS MAY BE USED AS APPROVED BY THE ENGINEER.
3. THE TREATED TIMBER PLANKS SHALL BE #2 GRADE MIN., AND SHOULD BE FREE FROM LARGE AND LOOSE KNOTS.
4. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6 :1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
6. THE CONSTRUCTION EXIT SHOULD BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
7. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT – TYPE 2



PLAN
SCALE : 1" = 20'

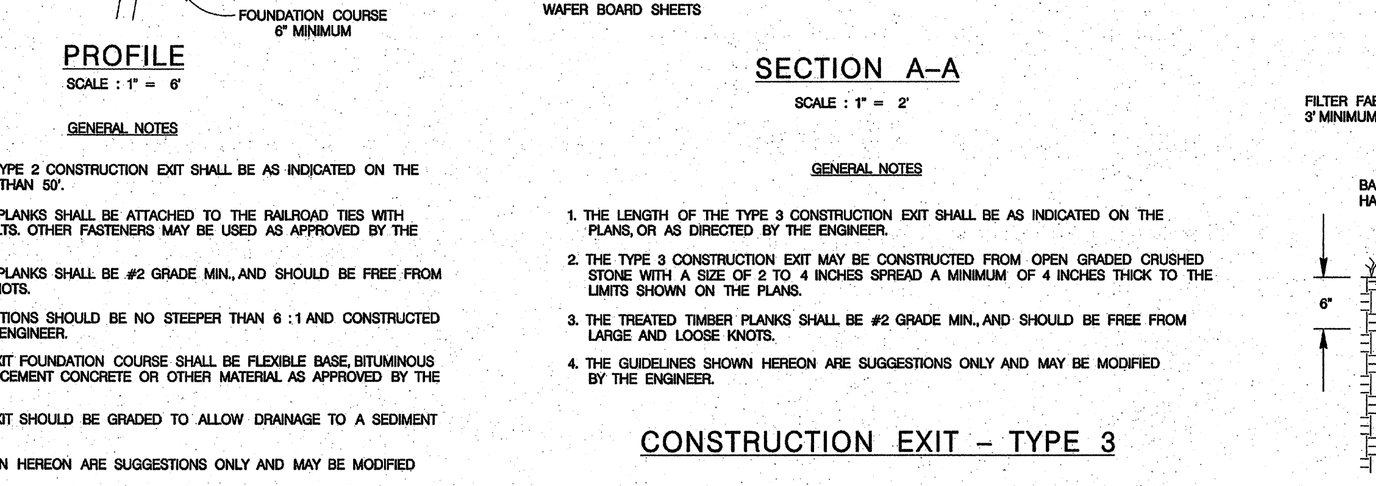


SECTION A–A
SCALE : 1" = 2'

GENERAL NOTES

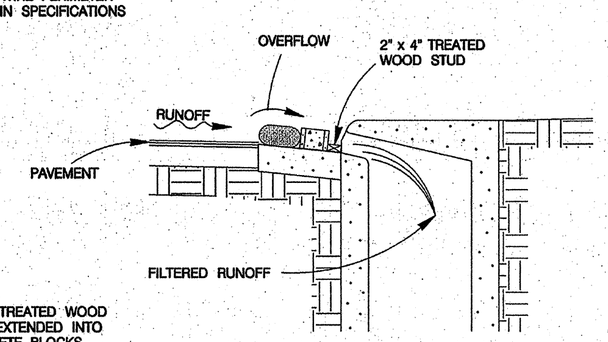
1. THE LENGTH OF THE TYPE 3 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
2. THE TYPE 3 CONSTRUCTION EXIT MAY BE CONSTRUCTED FROM OPEN GRADED CRUSHED STONE WITH A SIZE OF 2 TO 4 INCHES SPREAD A MINIMUM OF 4 INCHES THICK TO THE LIMITS SHOWN ON THE PLANS.
3. THE TREATED TIMBER PLANKS SHALL BE #2 GRADE MIN., AND SHOULD BE FREE FROM LARGE AND LOOSE KNOTS.
4. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT – TYPE 3



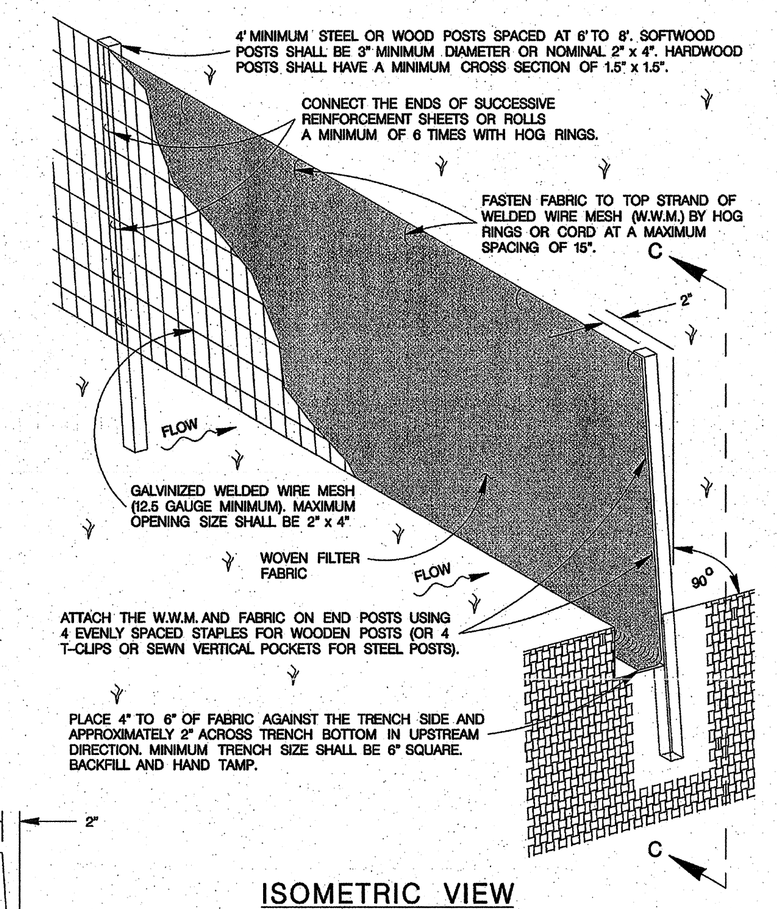
PLAN
SCALE : 1" = 5'

NOTE:
GRAVEL FILTERS CAN BE USED ON PAVEMENT OR BARE GROUND.

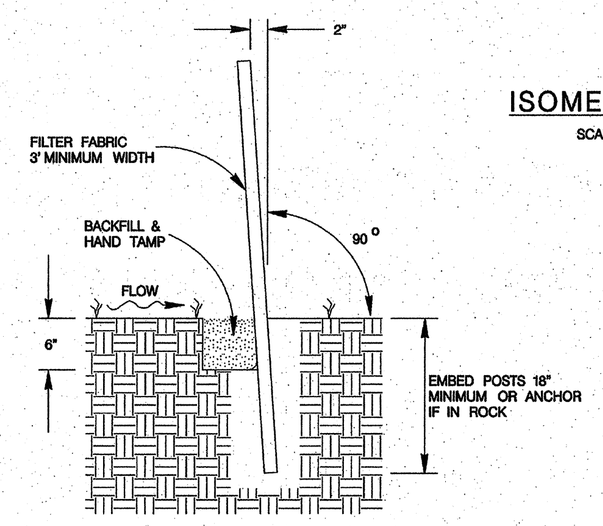


SECTION G–G
SCALE : 1" = 5'

CURB INLET GRAVEL FILTER



ISOMETRIC VIEW
SCALE : 1" = 2'



SECTION C–C
SCALE : 1" = 2'

SEDIMENT CONTROL FENCE USAGE GUIDELINES

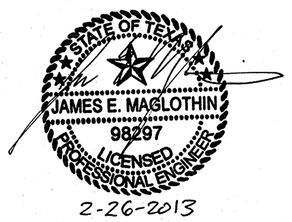
A SEDIMENT CONTROL FENCE MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUN-OFF. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED.

SEDIMENT CONTROL FENCE SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 100 GPM /FT SQUARED. SEDIMENT CONTROL FENCE IS NOT RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA LARGER THAN 2 ACRES.

GENERAL NOTES

1. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

TEMPORARY SEDIMENT CONTROL FENCE



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DESIGNED BY PAC
CHECKED BY JEM

PREPARED BY
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PROJECT TITLE
AIRPORT PARKING GARAGE AND SURFACE LOT IMPROVEMENTS (PRCS)
PREPARED FOR: SAN ANTONIO INTERNATIONAL AIRPORT
9800 AIRPORT BLVD.
SAN ANTONIO, TX 78216

DATE
FEBRUARY 2013
PROJECT NO.
33–00196
SHEET NUMBER
C-27

Drawing name: C:\Users\james.maglothin\Desktop\SAT\Infrastructure Design\100% Design Submittal\100% Design Submittal\Civil\Drawings\02202013_SAT_PRCS_C-27_EROSION_CONTROL_DETAILS_1.dwg C-27 Feb 26, 2013 4:21pm by: james.maglothin
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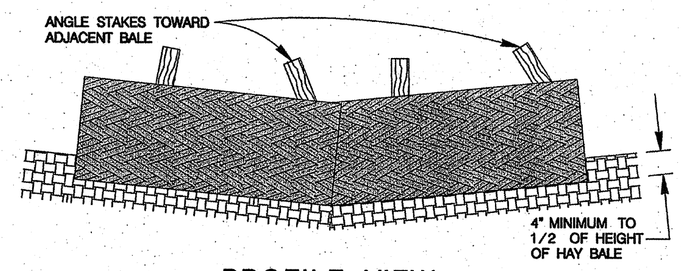
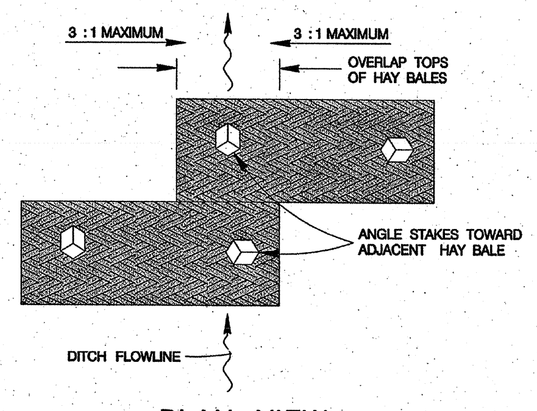


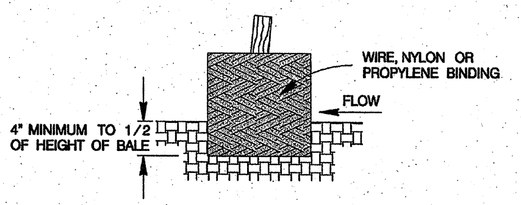
PROFILE VIEW

SCALE : 1" = 2'



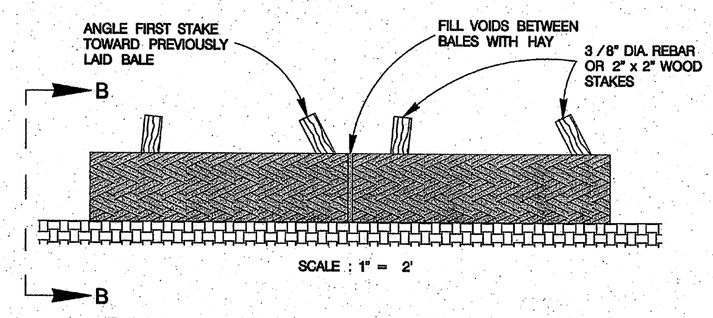
PLAN VIEW

SCALE : 1" = 2'



SECTION B–B

SCALE : 1" = 2'



SCALE : 1" = 2'

BALED HAY USAGE GUIDELINES

A BAILED HAY INSTALLATION MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF. A TWO YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED. THE INSTALLATION SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 5 GPM /FT SQUARED OF CROSS SECTIONAL AREA. BALED HAY MAY BE USED AT THE FOLLOWING LOCATIONS:

1. WHERE THE RUNOFF APPROACHING THE BALED HAY FLOWS OVER DISTURBED SOIL FOR LESS THAN 100'. IF THE SLOPE OF THE DISTURBED SOIL EXCEEDS 10 %, THE LENGTH OF SLOPE UPSTREAM OF THE BAILED HAY SHOULD BE LESS THAN 50'.
2. WHERE THE INSTALLATION WILL BE REQUIRED FOR LESS THAN 3 MONTHS.
3. WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 1/2 ACRE.

FOR BALED HAY INSTALLATIONS IN SMALL DITCHES, THE FOLLOWING ADDITIONAL CONDITIONAL CONSIDERATIONS APPLY:

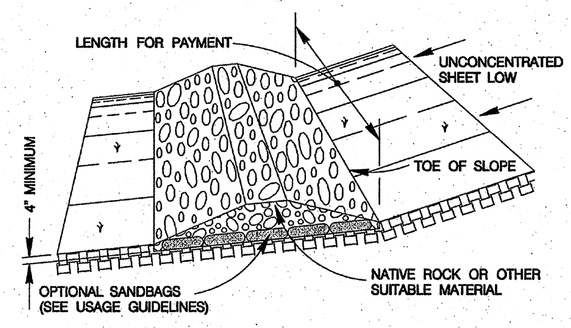
1. THE DITCH SIDESLOPES SHOULD BE GRADED AS FLAT AS POSSIBLE TO MAXIMIZE THE DRAINAGE FLOW RATE THRU THE HAY.
2. THE DITCH SHOULD BE GRADED LARGE ENOUGH TO CONTAIN THE OVERLAPPING DRAINAGE WHEN SEDIMENT HAS FILLED TO THE TOP OF THE BAILED HAY.

BALES SHOULD BE REPLACED USUALLY EVERY 2 MONTHS OR MORE OFTEN DURING WET WEATHER WHEN LOSS OF STRUCTURAL INTERGRITY IS ACCELERATED.

GENERAL NOTES

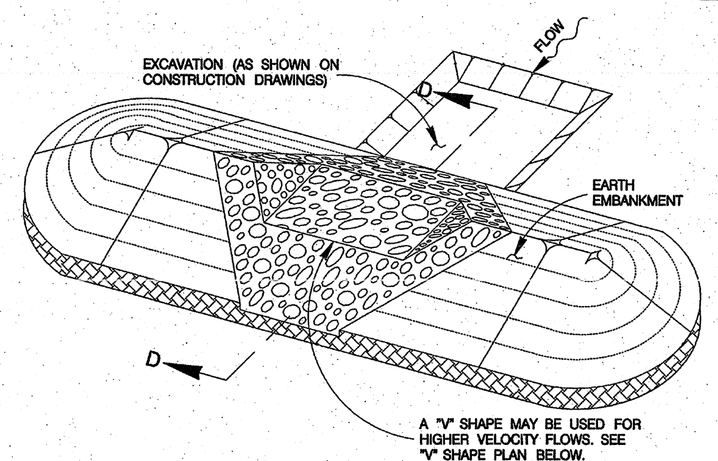
1. HAY BALES SHALL BE A MINIMUM OF 30" IN LENGTH AND WEIGH A MINIMUM OF 50 LBS.
2. HAY BALES SHALL BE BOUND BY EITHER WIRE OR NYLON OR POLYPROPYLENE STRING. THE BALES SHALL BE COMPOSED ENTIRELY OF VEGETABLE MATTER.
3. HAY BALES SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4" AND, WHERE POSSIBLE, ONE-HALF THE HEIGHT OF THE BALE.
4. HAY BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES. THE BALES SHALL BE PLACED WITH BINDINGS PARALLEL TO THE GROUND.
5. HAY BALES SHALL BE SECURELY ANCHORED IN PLACE WITH 3 /8" DIA. REBAR OR 2" x 2" WOOD STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE SHALL BE ANGLED TOWARDS THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

BALED HAY FOR EROSION CONTROL



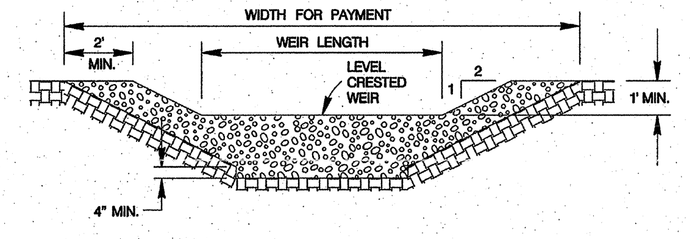
TYPE 1 FILTER DAM AT TOE OF SLOPE

SCALE : 1" = 10'



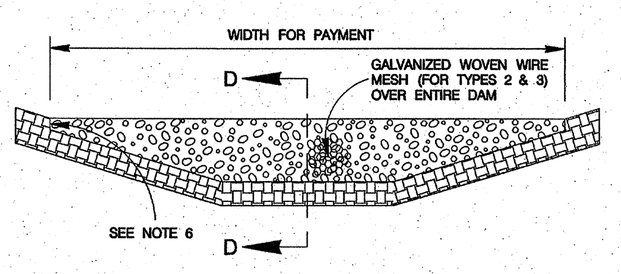
TYPE 1 & 2 FILTER DAM AT SEDIMENT TRAP

SCALE : 1" = 10'



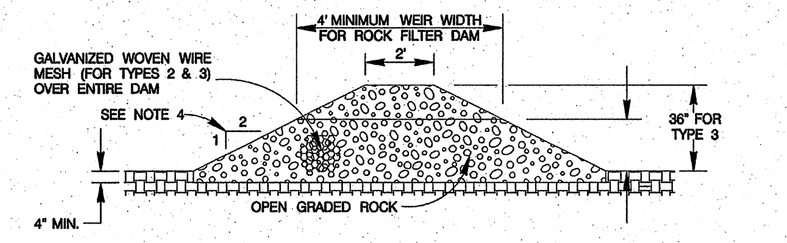
PROFILE OF TYPE 1 & 2 FILTER DAM AT SEDIMENT TRAP

SCALE : 1" = 6'



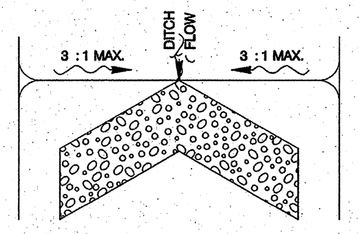
TYPE 1, 2 & 3 FILTER DAM AT CHANNEL SECTIONS

SCALE : 1" = 6'



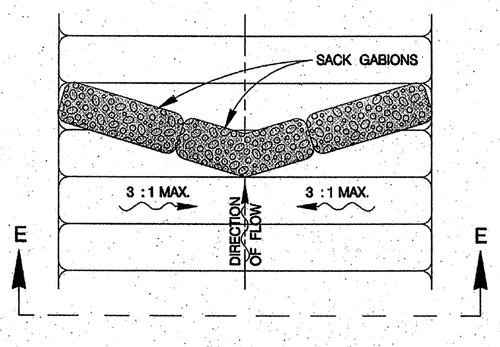
SECTION D–D

SCALE : 1" = 6'



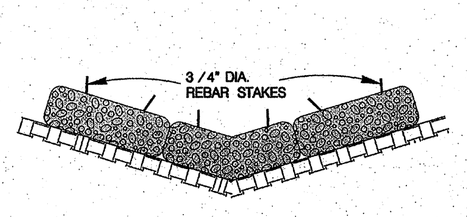
"V" SHAPE PLAN VIEW

NOT TO SCALE



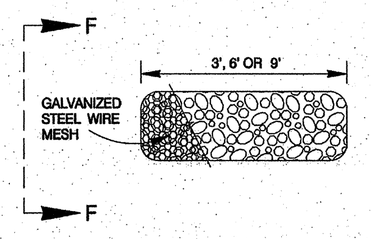
PLAN VIEW

SCALE : 1" = 10'



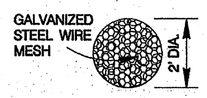
SECTION E–E

SCALE : 1" = 10'



TYPE 4 SACK GABION DETAIL

SCALE : 1" = 6'



SECTION F–F

SCALE : 1" = 6'

TYPE 4 FILTER DAM AT DITCHES & SMALLER CHANNELS PLAN VIEW

ROCK FILTER DAMS

ROCK FILTER DAM USAGE GUIDELINES

ROCK FILTER DAMS SHOULD BE CONSTRUCTED DOWNSTREAM FROM DISTURBED AREAS TO INTERCEPT SEDIMENT FROM OVERLOAD RUNOFF AND /OR CONCENTRATED FLOW. THE DAMS SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 60 GPM /FT SQUARED OF CROSS SECTIONAL AREA.. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE.

TYPE 1 (18" HIGH WITH NO WIRE MESH) :

TYPE 1 MAY BE USED AT THE TOE OF SLOPES, AROUND INLETS, IN SMALL DITCHES AND AT DIKE OR SWALE OUTLETS. THIS TYPE OF DAM IS RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA OF 5 ACRES OR LESS. TYPE 1 MAY NOT BE USED IN CONCENTRATED HIGH VELOCITY FLOWS (APPROXIMATELY 8 FT./SEC. OR MORE) IN WHICH AGGREGATE WASH OUT MAY OCCUR. SANDBAGS MAY BE USED AT THE EMBEDDED FOUNDATION (4" DEEP MIN.) FOR BETTER FILTERING EFFICIENCY OF LOW FLOWS IF CALLED FOR ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

TYPE 2 (18" HIGH WITH WIRE MESH) :

TYPE 2 MAY BE USED IN DITCHES AND AT DIKE OR SWALE OUTLETS.

TYPE 3 (36" HIGH WITH WIRE MESH) :

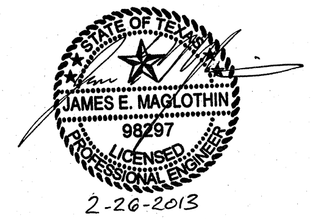
TYPE 3 MAY BE USED IN STREAM FLOW AND SHOULD BE SECURED TO THE STREAM BED.

TYPE 4 (SACK GABIONS) :

TYPE 4 MAY BE USED IN DITCHES AND SMALLER CHANNELS TO FORM AN EROSION CONTROL DAM.

GENERAL NOTES

1. IF SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, FILTER DAMS SHOULD BE PLACED NEAR THE TOE OF SLOPES WHERE EROSION IS ANTICIPATED, UPSTREAM AND / OR DOWNSTREAM AT DRAINAGE STRUCTURES, AND IN ROADWAY DITCHES AND CHANNELS TO COLLECT SEDIMENT.
2. MATERIALS (AGGREGATE, WIRE MESH, SANDBAGS, ETC.) SHALL BE AS INDICATED BY THE SPECIFICATION FOR ROCK FILTER DAMS FOR EROSION AND SEDIMENTATION CONTROL.
3. THE ROCK FILTER DAM DIMENSIONS SHALL BE AS INDICATED ON THE STORM WATER POLLUTION PREVENTION PLANS.
4. SIDE SLOPES SHOULD BE 2 :1 OR FLATTER. DAMS WITHIN THE SAFETY ZONE SHALL HAVE SIDE SLOPES OF 6 :1 OR FLATTER.
5. MAINTAIN A MINIMUM OF 1' BETWEEN TOP OF ROCK FILTER DAM WEIR AND TOP OF EMBANKMENT FOR FILTER DAMS AT SEDIMENT TRAPS.
6. FILTER DAMS SHOULD BE EMBEDDED A MINIMUM OF 4" INTO THE EXISTING GROUND.
7. THE SEDIMENT TRAP FOR PONDING OF SEDIMENT LADEN RUNOFF SHALL BE OF THE DIMENSIONS SHOWN ON THE PLANS.
8. ROCK FILTER DAM TYPES 2 & 3 SHALL BE SECURED WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1" DIAMETER HEXAGONAL OPENINGS. THE AGGREGATE SHALL BE PLACED ON THE MESH TO THE HEIGHT AND SLOPES SPECIFIED. THE MESH SHALL BE FOLDED AT THE UPSTREAM SIDE OVER THE AGGREGATE AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS. IN STREAM USE, THE MESH SHOULD BE SECURED OR STAKED TO THE STREAM BED PRIOR TO AGGREGATE PLACEMENT.
9. SACK GABIONS SHOULD BE STAKED DOWN WITH 3 /4" DIA. REBAR STAKES.
10. FLOW OUTLET SHOULD BE ONTO A STABILIZED AREA (VEGETATION, ROCK, ETC.).
11. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.



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SCALE: NO SCALE
DRAWN BY: SCB
DESIGNED BY: PAC
CHECKED BY: JEM

PREPARED BY

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TEMPORARY EROSION CONTROL DETAILS 2

SAN ANTONIO AIRPORT SYSTEM

PROJECT TITLE

AIRPORT PARKING GARAGE AND SURFACE LOT IMPROVEMENTS (PRCS)

PREPARED FOR: SAN ANTONIO INTERNATIONAL AIRPORT
9800 AIRPORT BLVD.
SAN ANTONIO, TX 78216

DATE
FEBRUARY 2013

PROJECT NO.
33–00196

SHEET NUMBER
C-28

BID SET

Drawing name: C:\Users\James.maglothin\Desktop\SAT\Infrastructure Design\100% Design Submittal\100% Design Submittal\Civil\Drawings\02202013_SAT_PRCS_C-28_EROSION_CONTROL_DETAILS_2.dwg C-28 Feb 26, 2013 4:21pm by: James.maglothin
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