CITY OF SAFETY HARBOR (THE CITY)

ADDENDUM '1' OF SOLICITATION IFB 2025-ENG-02
Resurfacing Projects:
Bid 'A': 9th Ave N Resurfacing and
Bid 'B': Fire Station #53 Paving Project

1. SOLICITATION NO.:	2. ADDENDUM NO:	3. EFFECTIVE DATE:	4. CAPITAL IMPROVEMENT PROJECT:
IFB-2025-ENG-02	1	August 20, 2025	RESURFACING PROJECTS: BID 'A': 9th AVE NORTH RESURFACING BID 'B': FIRE STATION #53 PAVING PROJECT

5. REVISED OFFER SUBMISSION DUE DATE AND TIME: NOT APPLICABLE
(*Note: Unless identified below, this solicitation amendment does not change the Offer Submission Date and Time.)*

6. REVISED PRE-BID/PROPOSAL CONFERENCE: NOT APPLICABLE

7. AMENDMENT OF SOLICITATION:
The Solicitation identified in Block 1, above, is hereby amended as described in Block 11, below. Except as provided herein, all other provisions of the solicitation, or as heretofore amended, remain unchanged and in full force and effect.

8. REQUIREMENT TO ACKNOWLEDGE AMENDMENT:
Offerors must acknowledge receipt of this amendment specified in the solicitation for receipt of offers by signing this amendment in Block 9, below, and returning one signed copy with Bid Submittal.

WARNING: Failure of an Offeror to acknowledge receipt of this Amendment, as described herein, may result in REJECTION OF THE OFFER.

***NOTE**: For Invitations for Bids the terms "Offer" and Offeror" shall mean "Bid" and "Bidder", respectively; and for Requests for Proposals or Quotation the terms "Bid" and "Bidder" shall mean "Offer" and "Offeror", respectively, in this solicitation and any associated exhibits.*

9. OFFEROR'S ACKNOWLEDGEMENT OF AMENDMENT:

Name & Title: _____ Signed Acknowledgment: _____
(Print/Type)

Offeror:_____ Date Acknowledged: _____/_____/_____

10. FOR FURTHER INFORMATION CALL OR EMAIL:

Name: Michelle C. Giuliani, Project Manager
Telephone: 727-724-1555 Ext. 1706
E-MAIL: mgiuliani@cityofsafetyharbor.com

11. DESCRIPTION OF AMENDMENT:

ADDENDUM '1' INCLUDES:

1. **Attachment 'A' to Schedule Bid Form 'A' – Revised- Addendum #1 -Issued 8/20/2025**
2. **Mandatory Pre-Bid Meeting Minutes with Sign-In Sheet**
3. **Division 2 Specifications**
4. **Request for Information – City Responses**
5. **9th Avenue North Record Drawings 1995**

ATTACHMENT 'A' TO SCHEDULE BID FORM 'A' – REVISED – Addendum #1 Issued 8/20/2025

9TH AVENUE NORTH RESURFACING

PAY
ITEMS:

(a)
Pay Items identified below directly correspond Item Numbers identified on the Schedule – Bid Form 'A' for 9th Avenue North Resurfacing Project.

(b) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the Work and that it has investigated and satisfied itself as to the general and local conditions which can affect the Contract Work or its cost, including, but not limited to; (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric power, roads rights of way access to the work site and other lands made available by the City for this Project; (3) uncertainties of weather, flooding patterns and water drainage, or similar physical conditions at the site; (4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed prior to and during work performance. The Contractor acknowledges that its undertaking to complete the Contract within the Contract Schedule includes an allowance for the normal number of days in which contract work may be partially or totally delayed because of weather during the season and at the location the Contract will be performed and that the Contractor shall not be entitled to excusable delays or compensation for such delays. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, access to the site, and territory surrounding the site, including all exploratory work done by the City as well as from the drawings and specifications made a part of this Contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work or for proceeding to perform the work successfully without additional expense to the City.

(c) The City assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the City. Nor does the City assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers, employees, engineers or agents before the execution of this Contract, unless that understanding or representation is expressly stated in this contract.

Notes to Contractor: Testing/Density Testing does not have a specific bid item and should be applied to the appropriate bid item. Refer to Specification Section 01410.

Reference Pinellas County Testing and Supplemental Specifications for Roadway and General Construction.

Also, if required, Geotechnical analysis should be applied to the appropriate bid item.

THE FOLLOWING ARE PAY ITEM DESCRIPTIONS FOR:

BID SCHEDULE 'A': 9TH AVENUE NORTH RESURFACING

1. MOBILIZATION / DEMOBILIZATION / MAINTENANCE OF TRAFFIC (Bid Item #1):

Work under this Contract item includes the furnishing of labor, material, tools, equipment, and services to perform those operations necessary for the movement of personnel, equipment, supplies and incidentals to and from the project site and for the establishment and removal of temporary offices, buildings, safety equipment, sanitary facilities and first aid supplies as required by the specifications, and state and local laws and regulations.
Night work is acceptable for 9th Avenue North Resurfacing.

The cost of notification to business owners and homeowners and authorities shall also be included under this Line Item. This includes, but is not limited to the following:

- Contractor shall notify owners of adjacent property and utilities when performance of the work may affect them. When it is necessary to temporarily modify access by owners or tenants to their property, or when any utility service connection must be interrupted, give notices a minimum of one (1) week in advance to enable the affected persons to provide for their needs.

- Conform notice to any applicable local ordinance, deliver in writing, and include appropriate information concerning the interruption and instruction on how to limit their inconvenience. Notices shall also include a link to the City website for project scope, schedule, and contact information for the City and contractor staff.

- Contractor shall place the notices in a conspicuous place.

- Contractor shall provide to the business owners and residents a second notice with a schedule when individual segments of the project are to be impacted.

- Contractor shall contact the business owners and residents prior to work when resurfacing, landscaping, irrigation, or any other above ground occupation is to be impacted.

- Contractor shall notify the City, utility providers, police, fire and other concerned agencies at least forty-eight (48) hours prior to disrupting traffic or closing streets or other traffic areas, or excavating near underground utilities or poles.

The cost of required permits unless otherwise stated in the Contract Documents, insurance, construction staking, erosion control, maintenance of traffic, coordination, and scheduling as necessary to the start and completion of the work shall also be included under this Line Item.

Maintenance of Traffic: This shall include preparation of Maintenance of Traffic and Pedestrian Control plans consistent with the Contractor's work schedule/plan, and coordination with City staff. It shall include the construction and maintenance of any necessary detour facilities, traffic control barriers; provision of necessary facilities for access to residences, businesses, etc. along the project; furnishing, installing and maintaining of traffic control and safety devices during construction, including placement and removal of temporary pavement markings, and signs; temporary wheelchair ramps; and temporary variable message boards, and any other special requirements for safe and expeditious movement of both vehicular and pedestrian traffic. Maintenance of Traffic shall also be per FDOT Standard Specifications for Road and Bridge Construction and FDOT Design Standards, latest edition. Contractor's Maintenance of Traffic and Pedestrian Control plans shall include quantities and durations or various equipment, materials, and activities to facilitate a reasonable accounting of the overall percentage of completeness for this Bid Item.

The cost of all other work as shown and specified that is not specifically included under other line items shall also be included under this line item.

Bid price for mobilization/demobilization and maintenance of traffic shall not exceed five percent (5) of the total base bid.

Payment for mobilization/demobilization and maintenance of traffic will be on an incremental basis in accordance to the following:

Percent of Original Contract Amount Earned	Allowable Percent of the Lump Sum Price for the Item
5	25
10	50
25	75
50	100

2. EROSION CONTROL / SOIL TRACKING PREVENTION / INLET PROTECTION (Bid Item #2):

The Contractor shall refer to FDOT Design Standards and FDOT Standard Specifications for Road and Bridge Construction, latest edition, for Prevention, Control, and Abatement of Erosion and Water Pollution, and Soil Tracking Prevention Device Detail as shown on Construction Documents. Storm Inlet protection must be in place throughout entire milling and resurfacing project. Payment shall be Lump Sum (LS).

3. INSURANCE (Bid Item #3):

Insurance as required by Exhibit 'D' Special Provisions, Contractor's Liability Insurance and Insurance Required, of the Contract Documents. Bid price for Insurance shall not exceed 3% of the total base bid. Payment shall be Lump Sum (LS).

4. PERFORMANCE AND PAYMENT BONDS (Bid Item #4):

A Performance and Payment Bond satisfactory to the City, executed by a surety company authorized to do business in the State of Florida or otherwise secured in a manner satisfactory to the City, in an amount equal to one hundred (100) percent of the Contract Price, as awarded, will be required from the Contractor insuring the faithful performance of the contract and protecting the City from suits for non-payment of debts which might be incurred by a contractor's performance for the City. Payment shall be Lump Sum (LS).

5. Video-Audio Existing Conditions (Bid Item #5):

The Contractor shall provide a Video-Audio Route Survey of existing conditions prior to start of construction. Complete coverage shall include all surface features located within the public right-of-way, easement areas and adjacent private properties within the zone of influence of construction and shall be supported by appropriate audio description made simultaneously with video coverage. Video shall be of high definition (HD) quality. Payment shall be Lump Sum (LS).

6. VARIABLE/CHANGEABLE MESSAGE BOARDS (VMB) (Bid Item #6):

This bid item shall be required for advance public notifications for work that affects traffic within streets to be milled, resurfaced, and with full depth reclamation. Variable/Changeable Message Boards (VMBs) shall be placed in advance of construction at least one (1) week prior to start and remain until work is complete. This bid item is for furnishing and installing portable Variable/Changeable Message Boards/Signs necessary for the duration of the project. Variable/Changeable Message Boards/Signs shall not be used to display information other than regulatory, warning, and guidance information related to traffic control.

Portable Variable/Changeable Message Boards/Signs shall be temporary traffic control devices with the flexibility to display a variety of messages. Each message shall consist of either one or two phases. Typically, a phase shall consist of up to three lines of eight characters per line.

When signs are used for route diversion, they should be placed far enough in advance of the diversion to allow road users ample opportunity to exit the affected roadway. The signs should be sited and aligned to ensure legibility. Multiple signs should be placed on the same side of the roadway, separated from each other at distances based on Table 6C-1 of the Manual on Uniform Traffic Control Devices (MUTCD). Variable/Changeable Message Boards/Signs should be placed on the shoulder of the roadway or, if practical, further from the traveled lane. They should be delineated with retroreflective temporary traffic control devices or when within the clear zone, shielded with a barrier or crash cushion. When Variable/Changeable Message Boards/Signs are not being used, they should be removed; if not removed, they should be shielded; or if the previous two options are not feasible, they should be delineated with retroreflective temporary traffic control devices. Payment shall be made for Each (EA) Variable/Changeable Message Boards needed for the project duration.

7. UTILITY MANHOLE RING AND COVER ADJUSTMENTS (Bid Item #7):

The Contractor shall provide all labor, equipment and ancillary material for the adjustment of utility manhole rings and covers. All manholes shall be adjusted, raised, or lowered to meet new surface. The manhole rings and covers shall be brought to finished grade. A new ring and cover shall be used if needed, reference City Detail 'SS7' on Plan Detail Sheet. All work shall be approved by the City. Payment shall be made for Each (EA) manhole ring and cover adjustment complete and acceptable to the City.

8. UTILITY VALVES ADJUSTMENTS TO FINISHED GRADE (Bid Item #8):

The Contractor shall provide all labor, equipment and ancillary material for the adjustment of utility valves. All valve boxes located within the work area shall be adjusted to meet new surface. Valve boxes that need to be replaced can be domestic or imported, labeled water or sewer, as appropriate. The valves shall be brought to finished grade. All work shall be approved by the City. Payment shall be made for Each (EA) valve complete and acceptable to the City.

9. MILL 2-1/4 INCH DEPTH (Bid Item #9):

The Contractor shall furnish all labor, equipment, and materials to mill roadways. The milling shall include but may not be limited to:

1. Milling for all lanes impacted by construction as shown on the plans.
2. Removal of excess road base, and replacing and re-compacting the road base:
   Note that this is included to account for any roadway areas with different depths of asphalt or patches of missing asphalt or areas patched due to a pothole or other disturbances.
   Contractor to stabilize and/or replace any disturbed base during milling process.
   In smaller areas an optional base group can be installed per FDOT Specification 285, attached for reference, and upon approval by the City.
3. Materials, preparation, hauling, and preparation for placing approved asphalt pavement in layers over milled area as shown in the Plans.
4. Hauling away all millings and debris out of City (Note that the City does not want any roadway milling).
5. All other ancillary materials, equipment, labor, and power required for the complete asphalt restoration of all roads disturbed or damaged by construction.

Payment shall be made for square yards (SY) of roadway milled, and if needed, road base removed and replaced and re-compacted, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

10. ASPHALTIC CONCRETE 2-1/4 INCH, SP-12.5 (Bid Item #10):

The Contractor shall furnish all labor, equipment, and materials to resurface the roadway with asphalt pavement. The asphaltic concrete shall include but may not be limited to:

1. Reference FDOT Standard Specifications Section 334, Latest Edition.
2. Density Testing required. Furnish City with results. Reference Pinellas County Testing and Supplemental Specifications for Roadway and General Construction.
3. Materials, preparation, hauling, and placing approved SP-12.5 asphalt pavement in layers over milled area as shown in the Plans;
4. All other ancillary materials, equipment, labor, and power required for the complete asphalt restoration of all roads disturbed or damaged by construction.

Payment shall be made for TONS of roadway resurfaced complete, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

11. THERMOPLASTIC STRIPING: STOP BAR, SOLID 12-INCH WHITE, INCLUDING TEMPORARY PAINT STRIPING (Bid Item #11):

The Contractor shall furnish all labor, equipment, and materials for the application of white thermoplastic 12-inch Stop Bar stripes. Temporary paint striping prior to thermoplastic striping shall be included in this bid item. The application shall conform to FDOT Standard Specification Section 711 (latest edition). Payment shall be made for linear foot (LF) of striping complete, and in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

12. THERMOPLASTIC STRIPING: STOP BAR, SOLID 24-INCH WHITE, INCLUDING TEMPORARY PAINT STRIPING (Bid Item #12):

The Contractor shall furnish all labor, equipment, and materials for the application of white thermoplastic 24-inch Stop Bar stripes. Temporary paint striping prior to thermoplastic striping shall be included in this bid item. The application shall conform to FDOT Standard Specification Section 711 (latest edition). Payment shall be made for linear foot (LF) of striping complete, and in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

13. THERMOPLASTIC MARKING: SPECIAL EMPHASIS PEDESTRIAN CROSSWALK, SOLID 12-INCH WHITE; INCLUDING TEMPORARY PAINT STRIPING (Bid Item #13):

The Contractor shall furnish all labor, equipment, and materials for the application of white thermoplastic 12-inch solid special emphasis pedestrian crosswalks. Temporary paint striping prior to thermoplastic striping shall be included in this bid item. The application shall conform to FDOT Standard Specification Section 711 (latest edition). Payment shall be made for linear foot (LF) of striping complete, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

14. THERMOPLASTIC MARKING: SPECIAL EMPHASIS PEDESTRIAN CROSSWALK, SOLID 24-INCH WHITE; INCLUDING TEMPORARY PAINT STRIPING (Bid Item #14):

The Contractor shall furnish all labor, equipment, and materials for the application of white thermoplastic 24-inch solid special emphasis pedestrian crosswalks. Temporary paint striping prior to thermoplastic striping shall be included in this bid item. The application shall conform to FDOT Standard Specification Section 711 (latest edition). Payment shall be made for linear foot (LF) of striping complete, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

15. THERMOPLASTIC STRIPING: DOUBLE YELLOW, SOLID 6-INCH (Bid Item #15):

The Contractor shall furnish all labor, equipment, and materials for the application of double yellow, solid 6-inch thermoplastic striping. Temporary paint striping prior to thermoplastic striping shall be included in this bid item. The application shall conform to FDOT Standard Specification Section 706-001 (latest edition). Payment shall be made for linear foot (LF) of striping complete, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values

16. THERMOPLASTIC STRIPING: SINGLE WHITE EDGE LINES, SOLID 6-INCH (Bid Item #16):

The Contractor shall furnish all labor, equipment, and materials for the application of single white edge lines, solid 6-inch thermoplastic striping. Temporary paint striping prior to thermoplastic striping shall be included in this bid item. The application shall conform to FDOT Standard Specification Section 706-001 (latest edition). Payment shall be made for linear foot (LF) of striping complete, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values

17. THERMOPLASTIC STRIPING: PAVEMENT MARKING TRAFFIC SEPARATOR (GORE) (Bid Item #17):

The Contractor shall furnish all labor, equipment, and materials for the application of pavement marking traffic separator (gore) thermoplastic striping. Temporary paint striping prior to thermoplastic striping shall be included in this bid item. The application shall conform to FDOT Standard Specification Section 706-001 (latest edition). Payment shall be made for linear foot (LF) of striping complete, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values

18. RETROREFLECTIVE RAISED PAVEMENT MARKERS (RPM) (Bid Item #18):

The Contractor shall furnish all labor, equipment, and materials for the installation of retroreflective raised pavement markers (RMP). The application shall conform to FDOT Standard Specification Section 706-001 (latest edition). Payment shall be made for Each (EA) RPM installed, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values

19. DEMOLITION: SAWCUT AND REMOVE CONCRETE CURB (Bid Item #19):

The Contractor shall provide all labor, equipment and materials necessary for proper removal and disposal of concrete curb as described in Plans and Details, and Specifications. Demolition shall include but may not be limited to materials and all other ancillary materials, equipment, labor, and power required for the demolition.
Payment shall be based on Units shown on corresponding Bid Schedule.

20. DEMOLITION: SAWCUT AND REMOVE CONCRETE SIDEWALK / ADA RAMP (Bid Item 20):

The Contractor shall provide all labor, equipment and materials necessary for proper removal and disposal of concrete sidewalk/ADA ramp, paving, as described in Plans and Details, and Specifications. Demolition shall include but may not be limited to materials and all other ancillary materials, equipment, labor, and power required for the demolition.
Payment shall be based on Units shown on corresponding Bid Schedule.

21. INSTALL CONCRETE ADA RAMP, 6-INCH THICK, 3,000 PSI (Bid Item #21):

The Contractor shall furnish all labor, equipment and materials to install ADA ramps. The ADA ramp installation shall include but may not be limited to:

1. Removing all sidewalk and curb impacted by construction;
2. Formwork, reinforcement, and installation per details in the Drawings of concrete ADA ramps.
3. All other ancillary materials, equipment, labor, and power required for the complete installation of all ADA Ramps.
4. All ADA Ramps must meet the ADA Standards for Accessible Design. Failure to do so would violate the American Disabilities Act and will not be accepted by the City.

Payment shall be made for the ADA ramps in place, approved and accepted by the City.
Payment shall be based on Units shown on corresponding Bid Schedule.

22. INSTALL CONCRETE SIDEWALK, 6-INCH THICK, 3,000 PSI (Bid Item #22):

    The Contractor shall provide all labor, equipment and materials necessary for proper installation of concrete sidewalk as described in Plans and Details, and Specifications. City shall inspect form boards prior to concrete pour. Installation of sidewalk shall include but may not be limited to materials, preparation/grading, formwork, reinforcement and installation of sidewalk as shown in the Plans and all other ancillary materials, equipment, labor, and power required for the sidewalk installation. Payment shall be Square Yards (SY).

23. INSTALL CONCRETE CURB, IN-KIND (Bid Item #23):

    The Contractor shall provide all labor, equipment and materials necessary for proper installation of concrete curb as described in Plans and Details, and Specifications. Installation shall include but may not be limited to materials, preparation/grading, formwork, reinforcement and installation and all other ancillary materials, equipment, labor, and power required for the sidewalk installation. Payment shall be Linear Feet (LF).

24. INSTALL YELLOW ADA DETECTABLE WARNING MAT PER FDOT INDEX 304, REFER TO HANDICAP RAMP DETAIL ON PLAN SHEETS (Bid Item #24):

    The Contractor shall furnish all labor, equipment, and materials for the application of Federal Yellow Detectable Warning Mat per City Detail 'C13'. The application shall be inspected, approved and accepted by the City prior to payment. Payment shall be made for Each (EA).

ACKNOWLEDGMENT OF ACCEPTANCE OF THIS DOCUMENT:

COMPANY NAME:

_____

NAME & TITLE OF OFFEROR'S REPRESENTATIVE:

_____

_____

SIGNATURE:_____

DATE:_____

Mandatory Pre-Bid Conference

MEETING MINUTES – in RED

Monday, August 18, 2025 - 10:00 AM

IFB-2025-ENG-02:

BID A: 9TH AVENUE NORTH RESURFACING

and

BID B: FIRE STATION #53 PAVING PROJECT

INTRODUCTION

City of Safety Harbor:

- Michelle Giuliani, Engineering Director / Project Manager
- Renee Cooper – Public Works Director
- Troy Wilcox, Civil Designer / Construction Inspection
- Joseph Caskowski, Civil Designer / Construction Inspection
- Sue Gyoung Song, Civil Designer

GENERAL

- This meeting is a Mandatory Pre-Bid – All bid offerors must attend.
- All attendees must sign-in. – REFERENCE ATTACHED SIGN-IN SHEET

CONTRACT DISCUSSION ITEMS

- Sealed Bids will be received up to 2:30 PM on Wednesday, September 3, 2025.
  City will not accept Bids after 2:30 PM. Sealed Bids will be opened by the City Clerk in the City of Safety Harbor Commission Chambers starting at 2:30 PM.
- As noted on the Bid Schedules, the Contract consists of General Lump Sum Pay Items, and Measurement & Payment items.
- Reference Bid Schedules and Bid Schedule Attachments for each project.
- Bids for this project will be awarded as one Contract. Bid must include all base bids.
- Period of performance is 100 days from notice to proceed.
- Work hours are Monday through Friday 7 AM to 6 PM. – City will allow nighttime work for 9th Ave N.
- The estimated cost for the Projects including all pay item descriptions is $900,000.

START DATE

The project must be presented to City Commission for award prior to start of construction. This project will go before the City Commission on Monday, September 15th. Notice to Proceed date is dependent on the schedule of the pre-construction meeting and the awarded Contractor's schedule.

ITEMS TO BE INCLUDED WITH BID

- Solicitation, Offer and Award Form
- Schedule Bid Form Summary
- Bid Schedules for Each Bid:
  - BID 'A': 9th Ave north Resurfacing
  - BID 'B': Fire Station #53 Paving Project
- Attachment 'A' to Schedule Bid Form for BID 'A': 9th Ave north Resurfacing
- Attachment 'B' to Schedule Bid Form for BID 'B': Fire Station #53 Paving Project
- Exhibit 'A': Representations and Certifications
- NPDES Attachment to Exhibit 'A'
- Attachment '1' to Exhibit 'C': Summary of Subcontractors
- Exhibit 'G' - Bid Bond
- Payment and Performance Bond – to be submitted by Awarded Contractor
- FDEP Notice of Intent – to be submitted by Awarded Contractor

PERMITS & LICENSES:

- As stated within the Contract: The awarded Contractor must obtain an NPDES stormwater permit and shall complete the necessary steps as described by the Florida Department of Environmental Protection (FDEP) Notice of Intent (NOI) for NPDES Generic Permit for stormwater discharge from large and small construction activities (F.A.C. Rule 62-621.300 (4)).

- Awarded Contractor and their sub-contractors are required to hold a Pinellas County Contractors License and a State License for the appropriate discipline and must also register with the City of Safety Harbor through the Building Department.

WATER USE:

Selected Contractor cannot use water directly from a City Fire Hydrant. Contractor will need to apply for a water meter through the City Finance department .

City cost to rent a hydrant meter will require a $650.00 deposit.

City Public Works staff will install and move hydrant meter at Contractor's request. Advanced notification for moving the meter of 48- hours is preferred.

Contractor must request removal of hydrant meter upon completion of use. City Finance Department will issue a final invoice. – Deposit will be credited.

ADDENDUMS AND CLARIFICATIONS:

Questions and clarification requests must be in writing and submitted by 3 PM on Tuesday, August 26, 2025.
Any final Addendums will be issued and posted by Friday, August 29, 2025.

Note that an Addendum will be issued Tuesday, 8/19, to include pre-bid meeting minutes and sign-in sheet, and Request for Information as received.

CONSTRUCTION DISCUSSION ITEMS:

1. City will not retain asphalt millings, as noted on Plan Notes. Contractor must haul and dispose all millings out of the City.
2. The selected Contractor is responsible for coordinating a staging area. The staging area will be discussed with the selected Contractor.
3. During milling and resurfacing operations, Traffic flow must be maintained at all times, do not block roadways or driveways. – Specifically, along 9th Avenue N.
4. FDOT certified MOT must be submitted in advance for City review, if a detour plan is required.
5. As described in Attachment 'A' and Attachment 'B' to the Schedule Bid Forms, Maintenance of Traffic is to be provided by the Contractor. Advanced Notification and Coordination with property owners will be the responsibility of the Contractor.
6. Erosion protection will be required at all City storm inlets, as stated in the Contract Documents. If millings or asphalt enters City storm inlets during construction process, it will be the Contractor's responsibility to clean all storm drains affected at completion of the project.
7. Contractor is responsible for restoring any damaged curbing, cleanouts, manhole rims or covers during milling and paving process. Curb repair is to be done prior to resurfacing.
8. Contractor must restore any damaged sod, landscaping, or irrigation system within Right-of-Way or on residential / commercial properties that may occur during construction operations.
9. Contractor must remove any excess pavement on concrete or sidewalks.
10. Contractor will be required to monitor track out and City will require any areas affected by track out to be cleaned up and/or repaired.
11. Paving must be done within a reasonable time frame after milling, 24 hours maximum after milling.
12. Thermoplastic striping is required for re-striping as noted on the plans. Application of Thermoplastic striping should be 14 days after final asphalt surface installed, as noted in the Contract documents and per FDOT Specification Section 711.
13. Temporary paint striping should be installed during cure time, prior to thermoplastic striping, and is included in the proper bid item.
14. Submittals/shop drawings will be required for Asphalt Mix Design and Concrete Mix Design and 6' vinyl fence for dumpster enclosure at Fire Station #53.
15. Contractor must not remove tree branches within roadway/work zone: City of Safety Harbor's Public Works Department will only trim trees that have limbs lower than 14' vertical height over work zone being paved prior to project start. The City's standard is to elevate limbs to a maximum 14' vertical height above City roadways. Coordination with Engineering staff for tree trimming will be done two (2) weeks prior to start.
16. Stop of Work for Seasonal Events: Any such events will be discussed with the selected Contractor, and special provisions will be taken if construction will take place during these events. Work should not stop during the contract period.
17. Seasonal Weather Conditions: Seasonal weather conditions should be considered and included in the planning and scheduling of all work to ensure completion of all work within the Contract Time. Contract Time extensions for abnormal weather will be granted only to the extent that the actual time lost during a particular month exceeds the Contract Time.

REVIEW CONSTRUCTION PLANS

BID 'A': 9th Avenue North Resurfacing

1. Prior to starting work on 9th Avenue North: The Advanced Variable Message Signs must be installed 7 days in advance and remain during milling and resurfacing operations. Location of Variable Message Boards must be coordinated with City staff. A Variable Message Board should be placed at Marshal Street and 9th Avenue N, and another should be placed at Main Street and 9th Avenue North.
2. Prior to work starting on 9th Avenue North, City will require a 7-day advanced notice for all residents and business notifications along 9th Avenue North. – Note: 9th Ave N at Railroad Avenue is the only access to the Brooklyn Subdivision.
3. City will allow nighttime work on 9th Avenue North. . – 9th Ave North is a heavily traveled road. Most businesses are closed during the night. There are residents along 9th Ave North on the west side of the road. Brooklyn Subdivision's only ingress/egress to the subdivision is at Railroad Ave & 9th Ave North. Public Works staff also uses Railroad Ave at 9th Ave N to access Public Works facilities on Railroad Avenue. The Whistle Stop restaurant located at 915 Main Street is open until 9 PM.
4. 9th Ave North borders CSX Right of Way at Railroad Avenue, 6th Street North, MLK Blvd, and Main Street: Work cannot enter CSX Right of Way within these intersections. Work will stop at existing seam. Reference Plans and notes.
5. Prior to starting work on 9th Avenue North: A two-week advanced notification shall be provided to Jacobson Homes, located at 600 Packard Ct. Jacobson Homes crosses 9th Avenue North several times a day to access their buildings within Packard Ct. . – Jacobson Homes is closed for two weeks in December.
6. MLK Blvd at 9th Avenue North is a school crossing location. Notification/coordination with Pinellas County School District will be required prior to starting work.
7. Paving of 9th Ave North will stop at Main Street Right of Way. Only replacement of the special emphasis crosswalks on Main Street to be done. Please reference note on 9th Avenue North Plan Sheet C-2.0.
8. Concrete sidewalk, curbing, and ADA ramps to be done at Marshal Street and 9th Avenue North prior to milling and resurfacing operations.
9. Retroreflective raised pavement markers (RPMs) to be installed along 9th Avenue North per FDOT Specifications.
10. City will not be providing core samples for 9th Avenue North. Geotechnical Analysis and core samples needed should be applied to the appropriate bid item.
11. Record Drawings are available for 9th Avenue North and will be issued with Addendum #1. . - City Facilities and Public Works buildings are located along 9th Avenue Note. There is a City Lift Station at the SE corner of the intersection of Marshall St and 9th Ave North, and the Master Lift Station is located on 9th Ave North next to Mullet Creek: These lift stations must be accessible at all times for Public Works staff.

BID 'B': Fire Station #53 Paving Project

1. Fire Station #53 is located at 3095 McMullen Booth Road, and borders McMullen Booth Road, a Pinellas County Road. Work will not enter McMullen Booth Road Right of Way. Reference all Plans and notes.
2. Staging area and phasing of work will be discussed with awarded Contractor, City staff and City Fire Chief.
3. Note that Fire Station #53 is active 24/7: Fire station staff will work with the Contractor during construction operations to move vehicles as needed. Fire Engines can access bays at the front of the building.
4. Dumpster enclosure work to be done in accordance with City Detail on Plan Sheet C-3.0.
5. Vinyl Fence required for Dumpster Enclosure: Contractor must provide a shop drawing submittal to City for review and a City Building Permit will be required for the fence installation. There will not be a permit fee since this is a City project.
6. City currently obtaining core samples and will provide Geotechnical report in an Addendum.

SITE VISIT

Site visit of project areas, if needed, immediately following meeting. – Contractors declined visit.
Some contractors mentioned that they will visit projects on their own.

Note; No Saturday work will be granted. Residents are not tolerant to Saturday construction and City Facilities and Parks are used on weekends.

Questions:

1. Is RAP (reclaimed asphalt pavement) allowed to be used?
   Response: No: Reference Specifications provided in the BID Documents.

2. Will the roadway elevations stay the same?
   Response: Yes; no need to adjust structure rims.

3. Is ¼" asphalt above curb required?
   Response: Yes, as indicated in the plan notes.

4. Will CAD drawings be available?
   Response: Yes. CAD files will be provided to awarded Contractor upon request.

MANDATORY PRE-BID CONFERENCE: 9TH AVE N RESURFACING AND FIRE STATION #53 PAVING PROJECT
IFB 2025-ENG-02

DATE: August 18, 2025 at 10 AM

PLEASE PRINT LEGIBLY

COMPANY NAME	CONTACT PERSON	ADDRESS	PHONE NUMBER	E-MAIL ADDRESS
City of Safety Harbor ✓	Michelle Giuliani, Engineering Director / Project Manager	750 Main Street, Safety Harbor, FL 34695	727.724.1555, Ext. 1706	mgiuliani@cityofsafetyharbor.com
City of Safety Harbor	✓ Troy Wilcox, Civil Designer	750 Main Street, Safety Harbor, FL 34695	727.724.1555, Ext. 1704	twilcox@cityofsafetyharbor.com
City of Safety Harbor	✓ Joseph Caskowski, Civil Designer	750 Main Street, Safety Harbor, FL 34695	727.724.1555, Ext. 1805	jcaskowski@cityofsafetyharbor.com
City of Safety Harbor	✓ Sue Gyoung Song, Civil Designer	750 Main Street, Safety Harbor, FL 34695	727.724.1555, Ext. 1803	ssong@cityofsafetyharbor.com
City of Safety Harbor	Renee Cooper, Public Works Director -N/A	1200 Railroad Avenue, Safety Harbor, FL 34695	727.724.1550, Ext.2009	rcooper@cityofsafetyharbor.com
Azzarelli	Jay Azzarelli	7825 Depot Ln. Tampa, FL 33637	813-985-9970	jay@azzpsd.com
Kearney	Frank Valente	9625 Ives Kearney Way Riverview 33578	813.966.8149	Valente@thekearneycompanies.com
Ajax Paving	J Alson Brown	7860 Professional Place Temple Terrace 33637	813-917-7547	JBrown@ajaxpaving.com
Stripe A Lot	Greg Ku	1607 N Hercules Ave Clearwater FL	815-343-4127	info@stripeamerica.com
Asphalt Icons	Justin Sandon	2301 Cameron Ave Sanford FL 32771	407-987-9092	justin@asphalticons.com
Superior Asphalt	Yasaswi Madala	3197 Premier dr Brooksville, FL 34604	941 705 7528	gwasson@superioraspharltinc.net

MANDATORY PRE-BID CONFERENCE: 9TH AVE N RESURFACING AND FIRE STATION #53 PAVING PROJECT
IFB 2025-ENG-02

DATE: August 18, 2025 at 10 AM

PLEASE PRINT LEGIBLY

COMPANY NAME	CONTACT PERSON	ADDRESS	PHONE NUMBER	E-MAIL ADDRESS
City of Safety Harbor ✓	Michelle Giuliani, Engineering Director / Project Manager	750 Main Street, Safety Harbor, FL 34695	727.724.1555, Ext. 1706	mgiuliani@cityofsafetyharbor.com
City of Safety Harbor	✓ Troy Wilcox, Civil Designer	750 Main Street, Safety Harbor, FL 34695	727.724.1555, Ext. 1704	twilcox@cityofsafetyharbor.com
City of Safety Harbor	✓ Joseph Caskowski, Civil Designer	750 Main Street, Safety Harbor, FL 34695	727.724.1555, Ext. 1805	jcaskowski@cityofsafetyharbor.com
City of Safety Harbor	✓ Sue Gyoung Song, Civil Designer	750 Main Street, Safety Harbor, FL 34695	727.724.1555, Ext. 1803	ssong@cityofsafetyharbor.com
City of Safety Harbor	Renee Cooper, Public Works Director -N/A	1200 Railroad Avenue, Safety Harbor, FL 34695	727.724.1550, Ext.2009	rcooper@cityofsafetyharbor.com
Azzarelli	Jay Azzarelli	7825 Depot Ln. Tampa, FL 33637	813-985-9970	jay@azzpsd.com
Kearney	Frank Valente	9625 Ives Kearney Way Riverview 33578	813.966.8149	Valente@thekearneycompanies.com
Ajax Paving	J Alson Brown	7860 Professional Place Temple Terrace 33637	813-917-7547	JBrown@ajaxpaving.com
Stripe A Lot	Greg Ku	1607 N Hercules Ave Clearwater FL	815-343-4127	info@stripeamerica.com
Asphalt Icons	Justin Sandon	2301 Cameron Ave Sanford FL 32771	407-987-9092	justin@asphalticons.com
Superior Asphalt	Yasaswi Madala	3197 Premier dr Brooksville, FL 34604	941 705 7528	gwasson@superioraspharltinc.net

Addendum #1

Exhibit 'F'

DIVISION '2'

TECHNICAL SPECIFICATIONS

Division 2 – Site Work Technical Specifications

02125	Silt Barriers
02276	Temporary Erosion and Sedimentation Control
02485	Surface Restoration
02521	Concrete Materials
02530	Concrete Sidewalks, Driveways, Curb and Gutter
02576	Asphalt Roadway Restoration

SECTION 02125

SILT BARRIERS

PART I – GENERAL

1.01 SCOPE OF WORK

A. The work included under this section consists of furnishing all necessary labor, equipment, tools and materials, and in performing all operations in connection with the installation of a staked silt barrier, of cloth or straw bales, or a floating silt barrier for the protection of open water, wetland systems or areas intended to remain undisturbed by adjoining work.

B. This work shall be performed in strict accordance with the requirements of all applicable sections of these specifications and in conformity with lines, grades, notes and typical sections as shown on the drawings, as directed by the Engineer or as directed by representatives of governmental agencies having permitting jurisdiction over areas to be protected.

PART II – PRODUCTS

2.01 STAKED FABRIC SILT BARRIER

A. The sediment control fabric is to be woven polypropylene meeting the following standards:

Mullen Burst Test	(ASTM D-3786)	200 psi (min.)
Grab Elongation	(ASTM D-1682)	30% (max.)
Slurry Flow Rate	(VTM-51)	0.3 gpm/sf (min.)
Retention Efficiency	(VTM-51)	75% (min.)

B. The fabric shall be provided in widths adequate to provide a barrier of a minimum of 24 inches in height and allow for 8 inches of fabric to be buried for restraint.

PART III – EXECUTION

3.01 STAKED CLOTH SILT BARRIER

A. The sediment control fabric shall be attached per the manufacturer's recommendations to the uphill or sediment producing side of the stakes. The stakes shall be spaced at 6 to 10 foot intervals. A 4" to 6" trench shall be dug along the fence line and backfilled with the bottom 8 inches of control fabric in place.

B. The ends of each unit of fence shall be connected to adjoining fence sections with a connector provided by the manufacturer or by intertwining the two end posts to overlap the fabric sufficiently to prevent sediment from escaping, as shown in the Drawings.

3.02 STAKED SYNTHETIC BALES

A. Securely bound synthetic bales may be used as a sediment barrier. The bales shall be securely bound with two strands of rope or wire. The bales shall be positioned in a 4 inch trench along the plan alignment and each bale is to be secured by driving two 2"x 2" stakes or #5 rebar through the bale and 18" to 24" into the ground. The tops of the stakes shall then be secured by a continuous wire tie.

B. Deteriorated bales shall be replaced as directed by the Engineer.

3.03 REMOVAL

A. Upon obtaining Substantial Completion, the Contractor shall be responsible for the complete removal of all silt barriers unless so directed by the Engineer. Following removal, all materials shall become the property of the Contractor.

END OF SECTION

SECTION 02276

TEMPORARY EROSION AND SEDIMENTATION CONTROL

PART I - GENERAL

1.01 SCOPE OF WORK

A. The work specified in this Section consists of designing, providing, maintaining and removing temporary erosion and sedimentation controls as necessary.

B. Temporary erosion controls include, but are not limited to, straw, hay, filter fabric, permanent vegetation, grassing, mulching, netting, watering and reseeding on-site surfaces, spoil and borrow areas and providing interceptor ditches at those locations that will ensure that erosion during construction will be either eliminated or maintained within acceptable limits as established by the Engineer, Owner and the permitting agencies.

C. Temporary sedimentation controls include, but are not limited to, silt dams, traps, barriers and appurtenances, which ensure that sedimentation will be either eliminated or maintained within acceptable limits as established by the Owner and the permitting agencies.

D. The Contractor shall provide routine re-establishment, daily maintenance of permanent and temporary erosion and sediment control measures features until the project is complete and all soil stabilized.

E. Contractor shall be required to comply with all permit conditions included as attachments to these Contract Documents and as required by these Specifications.

F. The Contractor shall use all methods and products that meet or exceed those set forth in the FDOT Standard Specifications.

1.02 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

A. Standard Building Code.

B. Environmental Resource Permit

PART II - PRODUCTS

2.01 EROSION CONTROL

A. Loaming, seeding, sodding, and mulching is specified in Section 02485.

B. Netting - fabricated of material acceptable to the Engineer.

2.02 SEDIMENTATION CONTROL

A. Bales – synthetic or clean, seed-free cereal hay type.

B. Netting - fabricated of material acceptable to the Engineer.

C. Filter stone - crushed stone conforming to Florida Department of Transportation specifications.

D. Concrete block - hollow, non-load-bearing type.

E. Concrete - exterior grade not less than one inch thick.

F. Drain pipe with sock (sedimentation control) shall be used to prevent and control soil erosion runoff and intrusion into stormwater drainage systems.

1. Drain sock products such as “ADSSock” or approved equal.

2. Sock material shall be on ultra-porous filter (synthetic wrap material) fitted snuggly over pipe. Material shall be 100 percent knitted polyester (or approved equal), equivalent opening size of 30 to 40, burst strength of 100-135 (ASTM D 3786), fiber size of 100-40 200 denier filament, 2.5 to 3.5 ounces per square yard (ASTM D 3776).

3. Approval of material is required by Owner prior to use.

4. Drain pipe with sock shall span the entire opening of the inlet.

PART III - EXECUTION

3.01 EROSION CONTROL

A. Type of erosion control barriers used shall be governed by the nature of the construction operation, Contract Documents and all applicable permits.

B. Diversion ditches or swales may be required to prevent turbid storm water runoff from being discharged to wetlands or other water bodies. It may be necessary to employ a combination of barriers, ditches and other erosion/turbidity control measures as conditions warrant.

C. Fill material stockpiles shall be protected at all times by on-site drainage controls which prevent erosion of the stockpiled material. Control of dust from such stockpiles may be required, depending upon their location and the expected length of time the stockpiles will be present. In no case shall an unstabilized stockpile remain after thirty (30) calendar days.

D. No disturbed area may be denuded for more than thirty (30) calendar days unless otherwise authorized by the City Engineer. Within sixty (60) calendar days after final grade is established on any portion of a project site, that portion of the site shall be provided with established permanent soil stabilization measures per the original site plan, whether by impervious surface or landscaping.

E. Minimum procedures for grassing are:

1. Scarify slopes to a depth of not less than 6 inches and remove large clods, rock, stumps and roots all larger than 1/2-inch in diameter and debris.

2. Sow seed within twenty-four (24) hours after the ground is scarified with either mechanical seed drills or rotary hand seeders.

3. Apply mulch loosely and to a thickness between 3/4-inch and 1-1/2 inches.

4. Apply netting over mulched areas on all sloped surfaces.

5. Roll and water seeded areas in a manner which will encourage sprouting of seeds and growing of grass. Reseed areas that exhibit unsatisfactory growth. Backfill and seed eroded areas.

3.02 SEDIMENTATION CONTROL

A. Install and maintain silt dams, traps, barriers and appurtenances, as shown on the Drawings and as described herein. Hay bales that deteriorate and filter stone that is dislodged shall be replaced.

B. Existing storm water systems shall be protected at all times to prevent sedimentation of the storm water system. Sedimentation prevention shall comply with or exceed “Best Management Practices” in accordance with the Southwest Florida Water Management District.

C. Siltation accumulations greater than the lesser of 12 inches or one-half the depth of the siltation control barrier shall be immediately removed and placed in upland areas.

D. Where pumps are to be used to remove turbid waters from the construction area, the water shall be treated to reduce turbidity to state water quality standards prior to discharge to the wetlands. Treatment methods include, for example, turbid water being pumped into grassed swales or appropriate vegetated areas (other than upland preservation areas and wetland buffers), sediment basins, or confined by an appropriate enclosure such as turbidity barriers and kept confined until its turbidity level meets state water quality standards.

E. Sediment basins and traps, perimeter berms, filter fences, berms, sediment barriers, vegetative buffers and other measures intended to trap sediment and/or prevent the transport of sediment onto adjacent properties, or into existing water bodies; must be installed, constructed, or, in the case of vegetative buffers, protected from disturbance, as a first step in the land alteration process. Such systems shall be fully operative and inspected by the City before any other disturbance of the site begins. Earthen structures including but not limited to berms, earth filters, dams or dikes shall be stabilized and protected from drainage damage or erosion within one week of installation.

F. Areas of 3 acres or more shall be required to have temporary sedimentation basins as a positive remedy against downstream siltation and will be shown and detailed on construction plans. During development, permanent detention areas may be used in place of silt basins provided they are maintained to the satisfaction of the City.

G. The Contractor shall be prohibited from discharging silt through any stormwater outfall structure during construction. When temporary sedimentation basins are used, they shall be capable at all times of containing at least one (1) cubic foot of sediment for each one hundred (100) square feet of area tributary to the basin. Such capacity shall be maintained throughout the project by regular removal of sediment from the basin.

H. Land alteration and construction shall be minimized in both permanent and intermittent waterways and the immediately adjacent buffer of 25 feet from top of bank of the waterways and the buffer area whenever possible, and barriers shall be used to prevent access. Where in channel work cannot be avoided, precautions must be taken to stabilize the work area during land alteration, development and/or construction to minimize erosion. If the channel and buffer area are disturbed during land alteration, they must be stabilized within three (3) calendar days after the in channel work is completed.

I. Silt curtains or other filter/siltation reduction devices must be installed on the downstream side of the in channel alteration activity to eliminate impacts due to increased turbidity. Wherever stream crossings are required, properly sized temporary culverts shall be provided by the contractor and removed when construction is completed. The area of the crossing shall be restored to a condition as nearly as possible equal to that which existed prior to any construction activity.

3.03 PERFORMANCE

A. Should any temporary erosion and sediment control measures employed by the Contractor fail to produce results, which comply with the requirements of the State of Florida, the Contractor shall immediately take the necessary steps to correct the deficiency at his or her own expense.

3.04 MAINTENANCE

All erosion and siltation control devices shall be checked regularly, especially after each rainfall and will be cleaned out and/or repaired as required.

3.05 COMPLIANCE

A. Failure to comply with the aforementioned requirements may result in a fine and/or more stringent enforcement procedures such as (but not limited to) issuance of a "Stop Work Order".

END OF SECTION

SECTION 02485

SURFACE RESTORATION

PART I - GENERAL

1.01 SCOPE OF WORK

A. Furnish all labor, materials, and equipment necessary to satisfactorily return all construction areas to their original conditions or better.

B. Work includes furnishing and placing sod, fertilizer, gravel, concrete, asphalt, planting, watering and maintenance until acceptance by the Owner.

C. All grassed areas disturbed by the work of this contract shall be sodded in conformance with FDOT's Standard Specifications (latest edition) unless noted herein or shown on the plans. Seeding/Hydroseeding shall not be acceptable.

1.02 QUALITY ASSURANCE

A. Requirements: It is the intent of this Specification that the Contractor is obliged to deliver a satisfactory stand of grass as specified. If necessary, the Contractor shall repeat any or all of the work, including grading, fertilizing, watering, and sodding at no additional cost to the Owner until a satisfactory stand is obtained.

B. Satisfactory Stand: For purposes of grassing, a satisfactory stand of grass is herein defined as a full lawn cover over areas to be sodded, with grass free of weeds, alive and growing, leaving no bare spots larger than 3/4 sq. yd. within a radius of 10 ft.

1.03 SUBMITTALS

A. Provide technical data as required for shop drawings on all materials or installation procedures required under this Section.

PART II - PRODUCTS

2.01 MATERIALS

A. Fertilizer

1. Fertilizer shall be a complete fertilizer, the elements of which are derived from organic sources. Fertilizer shall be a standard product complying with State and Federal fertilizer laws.

2. Percentages of nitrogen, phosphorus and potash shall by based on laboratory tests on soils outlined in Paragraph 1.03B and approved by the Engineer. For purpose of bidding, assume 6% nitrogen, 6% phosphorus and 6% potash by weight. At least 50% of the total nitrogen shall contain no less than 3% water-insoluble nitrogen.

3. Fertilizer shall be delivered to the site, mixed as specified, in the original unopened standard size bags showing weight, analysis and name of manufacturer. Containers shall bear the manufacturer's guaranteed statement of analysis, or a manufacturer's certificate of compliance covering analysis shall be furnished to the Engineer. Store fertilizer in a weatherproof place and in such a manner that it will be kept dry and its effectiveness will not be impaired.

4. Superphosphate shall be composed of finely ground phosphate rock as commonly used for agricultural purposes containing not less than 20% available phosphoric acid.

B. Sodding

1. Sod shall be Argentine Bahia or St. Augustine and must match existing sod of firm texture having a compacted growth and good root development as approved.

2. Sod shall be certified to meet Florida State Plant Board Specifications, absolutely true to varietal type, and free from weeds or other objectionable vegetation, fungus, insects and disease of any kind.

3. Before being cut and lifted the sod shall have been mowed 3 times with the final mowing not more than a week before cutting into uniform dimensions.

C. Water

It is the Contractor's responsibility to water the site, as required during sodding operations and through the maintenance period and until the work is accepted. The Contractor shall make whatever arrangements may be necessary to ensure an adequate supply of water to meet the needs for his work. The Contractor shall also furnish all necessary hose, equipment, attachments and accessories for the adequate irrigation of lawns and planted areas as may be required. Contractor shall not use water from City Fire Hydrants. Contractor can apply for a temporary water meter at City Hall.

D. Asphalt Restoration

1. Asphalt restoration along all streets shall consist two phases, placing base material such as limerock or crushed concrete over the pipe trench to match elevation of the existing asphalt pavement (phase 1) followed by milling and overlay of asphalt (phase 2). The first phase shall consist of placing and compacting sub-base, base, over the excavated pipe trench area to meet existing grade. The second phase shall consist of the Contractor removing the base material to 1.75” below grade, and placing 1.75” of SP-9.5 asphalt to the extents as shown on the drawings.

2. Areas damaged by construction activities, (i.e. non trench areas) shall be restored by milling 1.5” and resurfacing with 1.5” of SP-9.5 the full lane width of any impacted lane(s) and for a length of 25 feet from each side of the damaged area.

PART III - EXECUTION

3.01 INSTALLATION

A. Following the subgrade preparation, the Contractor shall commence work on lawns and grassed areas. Areas to be sodded shall be free from soft spots and uneven grades. Apply 20 lbs. of 12-3-6 fertilizer per 1,000 sq. ft.

B. Protection

Sodded areas shall be protected against the traffic or other use by placing warning signs or erecting barricades as necessary. Any areas damaged prior to actual acceptance by the Owner shall be repaired by the Contractor as directed by the Engineer.

3.02 LAWN BED PREPARATION

A. Areas to be sodded shall be cleared of all rough grass, weeds, and debris, and the ground brought to an even grade as approved.

B. The soil shall then be thoroughly tilled to a minimum 8-inch depth.

C. Superphosphate at a rate for bidding purposes of 5 pounds per 1,000 square foot and complete fertilizer at a rate for bidding purposes of 16 pounds per 1000 square foot shall be evenly distributed over entire area and cross-disced into a depth of 4-6 inches.

D. The areas shall then be brought to proper grade, free of sticks, stones, or other foreign matter over 1-inch in diameter of dimension. The surface shall conform to finish grade, less the thickness of sod, free of water-retaining depressions, the soil friable and of uniformly fill texture.

3.03 SOD HANDLING AND INSTALLATION

A. During delivery, prior to planting, and during the planting of the lawn areas, the sod panels at all times be protected from excessive drying and unnecessary exposure of the roots to the sun. All sod shall be stacked during construction and planting so as not to be damaged by sweating or excessive heat and moisture.

B. After completion of soil conditioning as specified above, sod panels shall be laid tightly together so as to make a solid sodded lawn area. On mounds and other slopes, the long dimension of the sod shall be laid perpendicular to the slope. Immediately following sod laying the lawn areas shall be rolled with a lawn roller customarily used for such purposes, and then thoroughly watered.

C. Bring the sod edge in a neat, clean manner to the edge of all paving and shrub areas. Top dressing with approved, clean, weed free, sand may be required at no additional cost to the Owner if deemed necessary by the Engineer.

3.04 CLEANUP

A. Soil, mulch, or similar materials spilled onto paved areas shall be removed promptly, keeping those areas as clean as possible at all times. Upon completion of sodding operations, all excess soil, stones, and debris remaining shall be removed from the construction areas.

3.05 MAINTENANCE

A. Any existing landscape items damaged or altered during construction by the Contractor shall be restored or replaced as directed by the Engineer.

B. Maintain landscape work until Owner accepts project. Watering, weeding, cultivating, restoration of grade, mowing and trimming grass, protection from insects and diseases, fertilizing and similar operations as needed to ensure normal growth and good health for live plant material shall be the responsibility of the Contractor and at no additional cost to the Owner. Sodded areas shall receive no less than 1.5 inches of water per week.

3.06 REPAIRS TO LAWN AREAS DISTURBED BY CONTRACTOR'S OPERATIONS

A. Lawn areas planted under this Contract and all lawn areas damaged by the Contractor's operation shall be repaired by proper soil preparation, fertilizing, and resodding, in accordance with these Specifications.

END OF SECTION

SECTION 02521

CONCRETE MATERIALS

PART I - GENERAL

1.01 SCOPE OF WORK

A. The work shall include the furnishing of all materials, equipment and labor required to construct all concrete work shown on the Drawings or incidental to the proper execution of the work.

B. All concrete work within the City Right of Way or CSX Right of Way shall conform to the specifications described herein.

C. All concrete work within the FDOT Right of Way shall conform to the FDOT Standard Specifications for Road and Bridge Construction, latest edition (FDOT Specifications).

1.02 SUBMITTALS

A. Prior to placing any concrete, the Contractor shall submit for the Engineer's approval, a design mix, calculated by a recognized testing laboratory, and using the approved aggregates to produce a workable mix of the desired strength, together with certified copies of seven day and twenty-eight (28) day tests of cylinders taken from concrete made according to the design mix. The mixes shall be designed to secure concrete having a minimum compressive strength at age twenty-eight (28) days as shown on the Plans or covered in other sections of these Specifications.

B. The contractor shall submit reinforcing steel shop drawings to the Engineer, for review in accordance to the General Requirements.

PART II - PRODUCTS

2.01 CEMENT

A. Portland cement shall conform to the latest revision of Federal and/or ASTM Specifications enumerated below:

1. For general concrete construction, ASTM designation C-150, Type I or Type II, or Federal Specifications SS-C-192, Type I or II.

2. For construction of sewage treatment plant and pump station structures Type II cement shall be used.

3. Slag cement shall conform to ASTM designation C-465.

4. Slag cement may be used in the maximum ratio of one part of slag cement by weight to six parts of total cement by weight, if approval by the Engineer, is obtained prior to use.

B. Concrete Bag Mix

1. Quickcrete 5000 High Early Strength Concrete Mix #1007 or Engineer approved equal.

2. Use of bag mix is strictly limited to non-structural use and Engineer designated locations only.

3. The Contractor is required to strictly adhere to the mixing and installation instructions set forth by the manufacturer.

4. Testing to be performed at Engineers discretion. Concrete not meeting design strength or not properly installed per the manufacturer is subject to removal and replacement at no additional cost to the Owner.

2.02 FINE AGGREGATE

A. Fine aggregate shall be clean, hard, strong, durable uncoated particles of natural sand known as Lake Wales, Interlachen or approved equal. The source, composition, quality and gradation of the fine aggregate shall be subject to the approval of the Engineer. Samples of the sand shall be furnished, together with certified copies of the gradation and analysis from a recognized testing laboratory.

B. All fine aggregate shall be reasonably free of lumps of clay, soft or flaky particles, salt, alkali, organic matter, loam or other extraneous substances. The weight of extraneous or deleterious substances shall not exceed the following percentages:

Loss by decantation - 3 percent
Shale -1 percent
Clay lumps - 1 percent
Coal and lignite - 1 percent
Cinders and clinkers – 0.5 percent

C. The fine aggregate shall be reasonably well graded from coarse to fine and when tested by means of laboratory sieves, shall meet the following requirements in percent of total weight:

Total Retained On	Percent Retained
No. 4 Sieve	0 - 5
No. 10 Sieve	3 - 30
No. 30 Sieve	30 - 70
No. 50 Sieve	65 - 95
No. 100 Sieve	95 - 100

Deficiencies in the percentages of the fine aggregates passing the No. 50 and No. 100 sieves may be remedied by the addition of pozzolanic or cementitious materials excepting Portland cement. Such materials must meet the approval of the Engineer.

2.03 COARSE AGGREGATE

A. Coarse aggregate shall consist of hard, tough, durable components, free from adherent coatings and vegetable matter, and shall not contain soft, friable, thin or elongated particles in quantities considered deleterious by the Engineer. Coarse aggregate shall be properly graded from fine to coarse to produce concrete of the desired strength, density, and workability. The source, composition, quality and gradation of the coarse aggregate shall be subject to the approval of the Engineer. Samples of the coarse aggregate shall be furnished together with certified copies of the gradation and analysis from a recognized testing laboratory.

B. All coarse aggregate shall be washed and shall be free from disintegrated pieces, salt, alkali, vegetable matter and adherent coatings. The total percentage of all deleterious substances shall not exceed five percent by weight. The substances designated shall not be present in excess of the following amounts:

Loss by decantation - 1 percent
Clay lumps or other soluble materials - 1/4 percent
Soft fragments - 5 percent

C. Where the cover over reinforcing is two inches or more, the maximum size of aggregate shall be one and one-half inches. Where the cover over reinforcing is less than 2-inches, the maximum size of aggregate shall be three-quarter inch. The maximum size of aggregate shall not exceed one fifth of the narrowest dimension between forms nor three quarters of the minimum clear spacing between reinforcing bars. Furnish aggregate gradations sized larger than nominal maximum size of 1.5 inch as two components. The grading of the coarse aggregate in the concrete shall be within the following limits:

	Percent Passing
Maximum size square mesh screen	97 - 100 percent
Minimum size square mesh screen	40 - 70 percent
No. 4 Sieve	0 - 6 percent

2.04 WATER

A. The water used in mixing concrete shall be fresh, clean and free from injurious amounts of oil, acid, alkali or organic matter.

B. Water from any source other than a municipal water supply shall be shown by test to comply with Florida State Road Department requirements for mixing water.

C. Reclaimed water shall not be used for mixing or curing concrete.

D. Contractor shall supply their own water at Contractor's expense.

2.05 REINFORCEMENT

A. Reinforcing bars shall conform to the requirements of the latest revision of Federal Specification QQ-S-632 and shall be as follows unless indicated otherwise on the plans:

1. Bent: Type II (deformed), Class B40
2. Straight: Type II (deformed), Class B40
3. Column Ties: Type I (plain), Class B40

B. Wire mesh, unless otherwise shown on the drawings or specified, shall be 6" x 6" No. 10 woven, or electrically welded wire fabric conforming to the requirements of ASTM designation A 185, latest revision.

C. Reinforcing steel shall be detailed, fabricated and placed according to the methods and standards recommended in the "Manual of Standard Practice for Detailing Reinforced Concrete Structures" of the American Concrete Institute.

2.06 JOINTS

A. Water Stops

1. Materials for stops shall be 1/8-inch steel plate welded into a continuous strip, or an approved alternate material.

2.07 GROUTING AND PATCHING

A. Cement for use in grouting and patching shall be non-shrinking material free of stain-causing agents and matching the adjacent concrete in appearance.

B. Bonding Agent: To be structural epoxy adhesive conforming to ASTM-C881 Type I & II, Grade 2, Class B & C with a minimum bond strength of 1900 psi.

PART III - EXECUTION

3.01 REINFORCING STEEL

A. The reinforcing fabricated to shapes and dimensions shown, shall be placed where indicated on the Drawings. Before placing, all reinforcements shall be thoroughly cleaned of rust, mill scale or coatings, which would reduce or destroy the bond.

B. Splices in reinforcing mats shall be staggered. Horizontal mats shall be supported on metal chairs with all sills or pads below subgrade. Spacers shall be provided for wall and column steel and shall be removed as the concrete is placed.

C. The concrete covering over steel reinforcement shall be as shown on the Plans.

3.02 PROPORTIONING

A. All materials, except water, shall be proportioned into the mix by weight. Water may be proportioned either by weight or volume.

B. Delivery tickets for transit mix concrete shall be furnished showing the weight of cement of each type incorporated in the batch before unloading at the placement site.

C. Precise control of the proportions and amounts of all materials will be required. Unauthorized changes in proportions, or addition of water, shall be sufficient cause for rejection of the batch. The proportions of the approved design mix may be changed only upon specific approval of the Engineer. The use of admixture to improve workability will not be approved, unless such admixture is a part of the design mix and the submitted design mix test data. Only admixture of pozzolanic, cementitious or silicious nature will be considered.

D. The amount of water used in the mix shall be kept at the minimum necessary to produce concrete of a workable consistency. Consistency shall be measured at the time of pouring by slump tests, when directed by the Engineer. The slump shall fall within the following tabulated limits:

Slump in Inches

Type of Structure	Minimum	Maximum
Massive sections, pavement and slabs on ground	1	4

Heavy slabs, beams or walls	3	5
Thin walls and columns, ordinary slabs or beams	3	6

3.03 MIXING AND PLACING

A. General

1. Concrete shall be machine-mixed in standard equipment in good condition, operated within its rated capacity. The batching plant shall be equipped with facilities for measurement of dry materials by weight, and water by weight or volume. Mixing equipment may be a portable plant (job-mix), or truck mounted (transit-mix). The use of transit-mix concrete will be limited by length of haul. Transit-mixing will be required to meet the requirements for mixing time. Batching plant and handling equipment shall be of sufficient capacity to produce and place concrete without interruption or cold joints. All equipment shall be subject to the approval of the Engineer.

B. Time

1. The minimum time for mixing each batch after all materials are in the mixer shall be one minute for 1/2 to 1 1/2 cubic yard mixers, and 1 1/2 minutes for mixers over 1 1/2 cubic yard capacity. The mixer shall revolve at a uniform speed, a minimum of twelve (12) revolutions after all materials have been placed therein.

2. Neither the speed, nor the volume capacity of the mixer, shall exceed those recommended by the manufacturer. Excessive over-mixing, requiring addition of water to preserve the consistency, will not be permitted.

C. Placing

1. Concrete shall be placed before the initial set has occurred and in no event after it has contained its water content for more than sixty (60) minutes, unless documented by the testing laboratory justifying a longer truck residence time without deleterious effect.

2. Perform an initial slump test before the addition of water at the jobsite. If the slump, as delivered, is outside the tolerance range, reject the load. If the slump is within the tolerance range, that load may be adjusted by adding water provided the addition of water does not exceed the water to cementitious materials ratio as defined by the mix design. After adjusting the slump, perform a slump test to confirm the concrete is within the slump tolerance range. Do not place concrete represented by slump test results outside the tolerance range. Water may be added only upon arrival of the concrete to the jobsite and not thereafter.

3. The concrete shall be compacted and worked in an approved manner into all corners and angles of the forms and around reinforcement and embedded fixtures in such a manner as to prevent segregation of the coarse aggregate.

4. All concrete shall be placed with the aid of mechanical vibrating equipment supplemented by hand forking or spading. Vibration shall be transmitted directly to the concrete and not through the forms. The duration of vibration at any location in the forms shall be held to the minimum necessary to produce thorough consolidation.

5. The concrete shall be placed by suitable equipment as nearly as possible to its final location and without any segregation of the aggregate. Any free vertical drop shall not exceed three feet.

6. Before depositing new concrete, on or against concrete which has set, the existing surfaces shall be cleaned of all laitance, foreign matter and loose particles, and covered with a neat cement grout. Grout for horizontal construction joints shall be of cement and fine aggregate in the same proportions as in the concrete to be placed, and shall be from one-half to one inch thick.

7. Exposed formed surfaces shall be rubbed with Carborundum brick or, otherwise dressed to produce a smooth, true surface. Interior surfaces of tanks, wet wells, etc., shall be considered as exposed to a point six inches below low water level. Special care shall be taken in dressing circular structures to obtain a true circular surface.

D. Slabs

1. No special concrete or cement mortar topping course, shall be used for slab finish, unless shown on the drawings. The slab shall be brought to a true and even finish by power or hand-floating. Unless otherwise specified, the surface shall be floated to a true, regular surface with a wood float and shall be steel-troweled to a smooth finish. Troweling shall be the minimum to obtain a smooth, dense surface and shall not be done until the mortar has hardened sufficiently to prevent excess fine material from being worked to the surface. All floor surfaces except those which are to be painted, shall immediately after troweling, be brushed lightly with a soft bristle janitor's push broom to produce a non-slip surface. The brushing shall be sufficient to mark the surface only, without appreciably disturbing the troweled finish.

3.04 FINISHING

A. Top surfaces which are not covered by forms, and which are not to be covered by additional concrete or backfill, shall be carried slightly above grade and struck off by board finish.

B. An FDOT Class 2 surface finish shall be provided on all endwalls and wingwalls (reference FDOT Standard Specification section 400-15.2.3).

3.05 CURING AND PROTECTING

A. Curing

1. All concrete shall be kept wet by covering with water, or approved water saturated covering, or by other method approved by the Engineer, which will keep all surfaces continuously wet, for a period of seven days unless otherwise directed by the Engineer.

2. Water for curing shall be clear and entirely free from any elements which might cause staining or discoloration of the concrete.

3. Where wood forms are left in place during curing, they shall be kept wet at all times to prevent opening at the joints and drying out of the concrete.

B. Weather Protection

1. No concrete shall be mixed or placed when the air temperature in the shade and away from artificial heat is as low as forty (40) degrees Fahrenheit, and falling. Concrete may be mixed and placed when the air temperature in the shade, and away from artificial heat is thirty-five (35) degrees Fahrenheit, and rising.

2. Fresh concrete shall be protected from rain, flowing water and mechanical injury and all concrete shall be protected from injurious action by the sun.

3. Do not expose concrete to the action of salt or brackish water for a period of seven days after placing the concrete. Protect the concrete during this period by keeping salt or brackish water pumped out of cofferdams.

4. Meet the temperature requirements and special measures for mixing and placing concrete in hot weather as specified in FDOT Standard Specification section 346. When the temperature of the concrete as placed exceeds 75 degrees Fahrenheit, incorporate in the concrete mix a water-reducing retarder or water reducer if allowed by FDOT Standard Specification section 346. Spray reinforcing steel and metal forms with cool fresh water just prior to placing the concrete in a method approved by the Engineer.

3.06 SAND CEMENT AND/OR SOIL CEMENT RIP-RAP

A. Where directed, the Contractor shall prepare sand cement, or if satisfactory material is available from the excavation, soil cement rip-rap.

B. The mixture shall be mixed dry at 4:1 ratio by volume of sand, or soil and Portland cement. The dry mixture shall be placed in burlap or fiberbags as required to form a basic rip-rap unit approximately eighteen (18) inches long, twelve (12) inches wide, and six (6) inches high.

C. Rip-rap shall be placed as directed to provide protection of slopes, pipe ends and bulkheads.

3.07 JOINTS

A. Water Stops

1. Water stops shall be installed at all expansion, contraction and construction joints subject to water pressure and where indicated.

B. Expansion Joints

1. Expansion joints shall be placed as indicated on the Plans. Joint material shall be installed as indicated and as directed by the Engineer.

C. Construction Joints

1. Vertical construction joints will not be allowed unless detailed in the Drawings.

2. Construction joints shall be located as shown on the Plans and/or in accordance with an approved schedule of pours.

3.08 TESTS

A. Procedures

1. Compressive strength tests shall be made by breaking standard 6-inch diameter by 12-inch high test specimens prepared, cured and broken in accordance with the American Society for Testing Materials Standard Methods, C-31 and C-39, latest revision. Four specimen test cylinders shall be taken from each concrete pour of five cubic yards or more. One additional test shall be taken from each thirty (30) cubic yards or fraction, thereof, in each pour in excess of thirty (30) cubic yards. Test specimens shall be taken from manhole bottom pours of less than five cubic yards as directed by the Engineer. Test specimens shall be taken in the presence of the Engineer. One cylinder from each pour shall be broken at seven days, the remainder at twenty-eight (28) days. Additional test cylinders may be ordered for determining the characteristics of a new design mix or changes in equipment or methods, and under adverse weather, or curing conditions.

2. Slump test shall be made in accordance with ASTM C143, latest revision and shall be made whenever directed by the Engineer.

B. Responsibility for Tests and Reports

1. The Contractor shall supply all cylinder molds, slump cones, tools and labor for preparing specimens, and shall provide clean, moist sand or burlap for curing. Cylinders shall not be shipped to the testing laboratory until the third day following preparation, and shall be protected from accidental damage at all times.

2. The test cylinders shall be tested in a recognized commercial testing laboratory.

3.09 CAUSE FOR REJECTION

A. Should the concrete fail to conform to all the requirements of this Section, the Engineer may require the Contractor to remove the defective concrete and reconstruct the Work as directed.

END OF SECTION

SECTION 02530

CONCRETE SIDEWALKS, DRIVEWAYS, CURB AND GUTTERS

PART I – GENERAL

1.01 SCOPE OF WORK

A. Contractor shall furnish all labor and materials required to restore and construct concrete sidewalks, driveways and gutters as specified herein.

B. This work shall be performed in strict accordance with the requirements of all applicable sections of these specifications and in conformity with lines, grades, notes, and typical cross sections shown on the drawings or as directed by the Engineer.

PART II – PRODUCTS

2.01 MATERIALS

A. Sidewalk shall be 3000 psi concrete, at least four feet wide, five feet wide on arterial and collector streets, and four inches thick, except at driveways. Driveway sidewalks shall be six inches thick with six inches by six inches #10 wire mesh reinforcing.

B. Replacement of concrete driveways shall be in accordance with the details as shown in the drawings. The Contractor shall be responsible for removing existing concrete driveways to the next joint and replace concrete driveways that exhibit cracks caused by construction activities.

C. Curb and curb and gutter shall consist of 3000 psi/28 day concrete.

D. Expansion joints shall be installed between the back-of-curb and concrete driveways, and between concrete driveways and sidewalks, where new concrete abuts old concrete.

PART III – EXECUTION

3.01 CURB AND GUTTER

A. Curb or curb and gutter removal, where required in the construction of this work, shall be held to a minimum. Curb and gutter material to be removed shall be carefully separated from the trench excavation material and shall be disposed of as directed. The Contractor shall replace all curb or curb and gutter which have been removed. Curb and gutter shall be removed up to the nearest regular joint on each side of the trench.

B. Curb or curb and gutter shall be replaced as soon as possible after the backfill is placed and compacted and shall duplicate in all respects the original construction. Workmanship shall be in accordance with the best standard practices for this type of work. Curb and curb and gutter shall consist of 3,000 psi/28 day concrete reinforced with bars or mesh of the same size, spacing and number as the section of curb or curb and gutter it replaces.

3.02 SIDEWALKS

A. Sidewalk removal, where required in the construction of this work, shall be held to a minimum. Sidewalk material removed shall be carefully separated from the trench

excavation material and shall be disposed of as directed. Sidewalk shall be cut at the nearest regular joint on each side of the trench.

B. The Contractor shall replace all sidewalks which are removed. Sidewalks shall be replaced as soon as practicable after the backfill is placed and compacted and shall duplicate, in all respects, the original sidewalk.

C. The Contractor shall replace all sidewalks which are damaged by the construction operation or by the heavy equipment traveling over them and shall replace them at their own expense.

D. The top surface of all sidewalks shall be given a light broom finish.

3.03 DRIVEWAYS

A. Concrete driveways that are crossed or traversed by the trenches shall be restored to the conditions existing prior to the excavation.

B. Removal shall be held to a minimum, but when necessary removal shall be made in neat sawcut lines or to the nearest joint if approved by the Engineer.

3.04 TEST

A. The quality of the concrete as to conformance to the specifications is the entire responsibility of the Contractor until it is accepted in place. When required by the County or the Engineer, the Contractor shall arrange for field testing. Field testing shall include, but may not be limited to, the following:

1. Compressive Strength Test: Compressive strength tests shall be made by breaking standard six inch diameter by twelve (12) inch high test specimens prepared, cured and broken in accordance with the American Society for Testing Materials Standard Methods C 31 and C 39, Latest Revision. Four specimen test cylinders shall be taken from each concrete pour of five cubic yards or more. One additional test shall be taken from each fifty (50) cubic yards or fraction thereof in each pour in excess of thirty (30) cubic yards. One cylinder from each pour shall be broken at seven days, the remainder at twenty-eight (28) days. Additional test cylinders may be ordered for determining the characteristics of a new design mix or changes in equipment or methods, and under adverse weather or curing conditions.

2. Slump Test: Slump test shall be made in accordance with ASTM C 143, and shall be made on each load of concrete unless directed differently by the County or Engineer.

3. Reports: Proper reports of all tests performed by the laboratory shall be prepared by the laboratory and submitted promptly to the Owner and Engineer. Such reports shall be properly labeled so as to identify the portions of the Project into which the materials are being placed, and the results of the test indicating whether or not the test met the requirements of these specifications.

3.05 CAUSE FOR REJECTION

A. Should the concrete fail to conform to all the requirements of this Section, the Engineer may require the Contractor to remove the defective concrete and reconstruct the work as directed.

END OF SECTION

SECTION 02576

ASPHALT ROADWAY RESTORATION

PART I – GENERAL

1.01 SCOPE OF WORK

A. Contractor shall furnish all labor and materials required to restore stabilized roadways and asphalt paving within the Right-of-Way.

B. Workmanship and materials shall be in accordance with Department of Transportation requirements for new pavement for roads under their jurisdiction. Any local or County Road shall be restored in accordance with permits or ordinances of the municipality having jurisdiction over such road or street. Restoration of flexible pavement shall conform to the approved permit or utility license for each road crossing.

B. Where applicable, all work shall conform to the Technical Specifications of Florida Department of Transportation "Standard Specifications for Road and Bridge Construction", latest edition (Divisions II and III) and "Roadway and Traffic Design Standards", latest edition, including any amendments thereto. The Contractor shall acquire his own copies of the Department of Transportation Standards. In the event of conflict between the Department of Transportation Standards and the Specifications listed in these documents, the Engineer shall determine which shall govern.

1.02 SUBMITTALS

A. Shop drawings for the proposed materials of construction, including an asphalt job mix formula, shall be submitted to the Engineer for approval at least two weeks prior to the application of stabilized or paved surfaces.

PART II – PRODUCTS

2.01 SUBBASE

A. Materials used should be high bearing value soil, sand-clay, ground limestone, crushed limerock, coquina, or any other material suitable for stabilization. Muck shall not be used.

2.02 BASE

A. Limerock for use as base material shall meet the requirements of Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Section 911. The limerock producer shall address each truck receipt to the Contractor and the job site. Each receipt shall show the source of the material by D.O.T. pit number. One copy of each receipt will be submitted daily to the Owner for his records.

B. Crushed concrete base material shall conform to the following gradation:

Sieve Size	Percent by Weight Passing
2"	100
1-1/2"	95-100
3/4"	65-90

3/8"	45-75
No. 4	35-60
No. 10	24-45
No. 50	5-25
No. 200	0-10

1. Material for Crushed Concrete Base shall consist only of crushed concrete and such additive materials as may be approved by the Engineer for the purpose of facilitating construction and achieving the desired characteristics of the finished in-place product. Material which shows a significant tendency toward adverse chemical or physical change on exposure to moisture will not be acceptable. The material shall be free of any ferrous metals.

2. The material shall not contain lumps, balls, or pockets of sand or clay material in size or quantity sufficient to be detrimental to the proper bonding, finishing or strength of the crushed concrete base.

3. The specific mechanical and physical properties of crushed concrete aggregate and any additive materials permitted in the construction of crushed concrete base shall be determined on the basis of test results as the work progresses.

2.03 PRIME AND TACK COATS

A. Bituminous prime coats shall be applied to previously prepared bases. Bituminous tack coats shall be placed on existing paved surfaces and between successive lifts of asphalt material.

B. The prime coat shall be cut-back asphalt Grade RC-70 or RC-250, emulsified asphalt Grades SS-I or CSS-I, or other types and grades of bituminous material specified or approved by the Engineer.

C. The tack coat shall be emulsified asphalt, Grades RS-2, SSI-I, CSS-I, SS-IH, CSS-IH, AS-60, AE-90, AE-150, or asphalt emulsion prime.

D. A cover material must be placed on the prime coat to insure that the prime coat remains intact until the surface course is placed.

PART III – EXECUTION

3.01 PAVEMENT AND BASE REMOVAL

A. Pavement removal shall be held to the minimum width consistent with good construction practice. The pavement material shall be carefully separated from other excavated materials and will not be permitted to be included in the backfill, but shall be satisfactorily disposed of by the Contractor. Base materials may be salvaged and stockpiled for reuse as stabilizer, subject to the approval of the Engineer. Reuse of salvaged base material as new base material is not permitted.

3.02 ASPHALT REMOVAL

A. All asphalt street pavement removed shall be replaced with base and surface materials which are of a quality and thickness equal to or more than the materials removed. The

edges of the paving shall be cut to neat lines beyond any settled or broken areas. Pavement shall be replaced as soon as practicable after compaction of backfill.

3.03 REPLACING STABILIZED ROADWAY

A. The Contractor shall restore cuts in all stabilized roadway surfaces using the same type and grade of material used on the existing street surface. After the pipelines and/or appurtenances have been installed and properly backfilled as herein specified, the Contractor shall bring the roadway surface to grade and ready the surface to receive the stabilization material. The stabilizing materials shall be of high-bearing value such as sand, clay, oyster shell, coquina shell, rock screening, crushed concrete or any other material which, as allowed by the agency with jurisdiction over such road and that, in the opinion of the Engineer, is suitable for stabilization.

B. The stabilizing material shall be applied in such quantities as may be necessary to bring the top six inches of the roadway surface to a bearing value as hereinafter specified and to the proper line and grade. The material shall be incorporated with the roadbed material by plowing, disking, harrowing, blading, and mixing with a rotary tiller, or any other equipment approved by the Engineer. The mixed materials shall be of uniform density throughout the width and depth of the layer being processed. After thoroughly mixing to a uniform texture, the surface shall be compacted by rolling with any type of equipment that will produce the density required. Compaction shall continue until the entire depth to be stabilized has a value determined from tests made on the 6-inch compacted thickness, of not less than the requirements set forth by the agency having jurisdiction over the road.

3.04 SUBBASE PREPARATION

A. Prior to installation of base material, the area shall be graded to within 0.2± feet, and soft, spongy or mucky material removed. Sufficient stabilizing material shall be cut in to achieve a Florida Bearing Value (FBV) in excess of 75 psi or limerock bearing ratio (LBR) greater than forty (40) pounds at a minimum density of ninety-eight (98) percent of a maximum density as defined and measured in ASSTHO T-180 (Modified Proctor), to a six inch minimum depth.

B. Density tests for subbase materials shall be taken at three hundred (300) foot intervals in a staggered pattern and around structures as required. If compaction procedures allow, testing requirements may be reduced or increased at the Engineer's discretion.

3.05 BASE COURSE CONSTRUCTION

A. General

1. The base course shall be constructed on the prepared subgrade, in accordance with the Specifications and Plans. All base material shall be placed in accordance with the lines, grades, notes, and typical cross sections shown on the Plans. Any deviation from the Plans is subject to the approval of the Engineer. Any deviations not approved by the Engineer shall be repaired to the satisfaction of the Engineer at no expense to the Owner.

2. All materials shall be compacted to a density of not less than ninety-eight (98) percent of maximum density as determined by AASHTO T 180. Density tests shall be taken at three hundred (300) foot intervals in a staggered pattern and around structures as required. Density determinations shall be made at more frequent intervals, at no extra cost, if deemed necessary by the Engineer.

3. The finished surface of the base course shall be checked with a template cut to the required crown and a fifteen foot straight edge laid parallel to the center line of the road. All irregularities greater than one-quarter inch shall be corrected to the satisfaction of the Engineer.

4. The base material shall extend at least twelve (12) inches outside the edge of the finished paved surface, unless otherwise indicated. Thickness of the base shall be measured at two hundred (200) foot intervals at various points in the cross section. Measurements shall be taken at various points on the cross section through holes not less than three inches in diameter and at locations, as specified by the Engineer. Where the compacted thickness is deficient by one-half inches or more, the Contractor shall correct the deficiency by scarifying and adding material for a distance of one hundred (100) feet in each direction from the edge of the deficient area. The required thickness, compaction and cross section will then be achieved.

C. Asphalt Base Course

1. Asphalt base courses shall be applied in accordance with FDOT Standards and Specifications, Section 234. The job mix formula approved for the Project shall be used. Any deviation from the approved mix must be submitted to the Engineer and approved before being implemented.

2. The base course material shall be placed with an approved paving machine. A motor grader may be required if a leveling course is needed. The base mix may be placed when the air temperature is at least forty (40) degrees F and rising, provided that the sub-grade is not frozen or affected by frost.

3. A paver, equipped with automatic screed control, shall be used for all machine-laid courses. The automatic joint matcher shall be used on the top course of the base after the first pass with a paving machine. All mixtures shall be laid by the stringline method, with the exception of areas adjacent to curb and gutter or other true edges. The temperature of the mix shall be between three hundred (300) degrees F and three hundred fifty (350) degrees F. Any mixture caught by rain in transit may be laid at the Contractor's own risk; if removal and replacement is required, it shall be at the expense of the Contractor. In no case shall the mixture be spread when rain is falling or when there is water on the surface to be covered. The layer thickness for asphalt concrete structure courses shall be as shown on the Drawings.

4. Compaction

   a. After the asphalt mixture has been spread to the proper lines, grades, and cross sections, compaction operations may begin. The Contractor shall establish rolling procedures and submit his sequence of compaction operations to the Engineer for approval. The equipment used may include, but is not committed to steel-wheeled rollers, pneumatic tired rollers, and vibratory rollers. Areas which are inaccessible to a roller shall be compacted by the use of hand tamps or other satisfactory means. An entire sequence of compaction operations shall be performed for each layer of applied material, density determinations shall also be made.

b. The in-place density of each course shall be determined through core samples and the nuclear backscatter method. A core sample of a representative paving section shall be taken every two hundred fifty (250) feet. Additional testing around manholes or other structures may be required. In addition to density tests via core samples, Marshall stability tests are also required. Marshall stability tests will be taken for every day of asphalt pavement production.

END OF SECTION

Addendum #1
City Responses to Request for Information

Issued: August 20, 2025

City of Safety Harbor

CAPITAL IMPROVEMENT PROJECT

Resurfacing Projects:
IFB 2025-ENG-02

The following are City of Safety Harbor's responses to request for information and clarification to:
IFB 2025-ENG-02, Resurfacing Projects:
Bid A: 9th Avenue North Resurfacing
and
Bid B: Fire Station #53 Paving Project

Question 1: What is the City's budget?

Response 1: The Budget for both projects is $900,000. This is noted in Exhibit 'B' of the Contract Documents.

Question 2: Are there any SBE/DBE/WMBE requirements?

Response 2: Reference Exhibit 'A' of the Contract Documents.

Question 3: The City specs mandate the use of an independent QC lab; please confirm.

Response 3: Please reference City specification 01410 and FDOT Section 334 included in the Contract Documents. Consideration of alternative QC test method can be discussed with awarded Contractor.

Question 4: Division II Specs are missing from the bid docs; can you provide?

Response 4: Division '2' Specifications were inadvertently left out and are included in Addendum #1.

Question 5: What is the address of the fire station?

Response 5: 3095 McMullen Booth Road, Safety Harbor, FL 34695

Question 6: How is the work at the fire station to be phased?

Response 6: There is no phased plan noted at this time. Phasing and staging will be discussed with awarded Contractor, Fire Chief Andrew Hawkins, and City staff at the Pre-Construction meeting. Note that Fire Station #53 staff will work with the Contractor during construction operations to move vehicles as needed, and Fire Engines can access bays at the front of the building.

Question 7: Regarding Pay Item #8 for the fire station: This work is usually paid per SY and the Stabilization and Base would have their own SY pay item. Please confirm that this pay item includes stabilization, base and asphalt and is paid per Ton of asphalt installed. How did you calculate the 132 tons for your quantity?

Response 7: Pay Item #8 to include stabilization, base and 3" asphalt. Reference Section on Plan Sheet C-3.0 for Fire Station 53 Details. Asphalt area is 734 SY.

Question 8: Fire Station #53 Plans: Can you also provide a bollard detail? It is missing from Sheet C-3.0.

Response 8:
Reference City Detail 'MISC1' on Plan Sheet C-3.0. The two bollards should be heavy duty type, 6-inch steel, 3-ft tall, concrete filled. City does not have a specific detail for the bollards inside the dumpster enclosure.

Question 9: Is the work at 9th & Marshall within CSX right of way?

Response 9:
There will be no work within CSX ROW. As noted on 9th Avenue North Plan Sheet C-2.0, work should stop at existing asphalt seam. These locations are at the intersection of 9th Ave N & Railroad Ave, and 9th Ave N & 6th Street North. Note that Railroad Avenue and 6th Street North, east of 9th Ave North, were paved in a previous project so are not included with this project.

Question 10: Are there pavement cores for 9th Avenue North? Not for Geotech but for informational purposes only. It would be nice to have cores for 9th Avenue North so we can verify that you have at least 2.25" of existing asphalt.

Response 10:
City will not be providing cores for 9th Ave North. As stated in the Contract Bid Schedule Attachment 'A', if required, Geotechnical Analysis should be applied to the appropriate bid item.

City Record drawings for 9th Ave North are attached for reference. Reference the section notes that indicate 2.50 inches of PC-1 asphalt. Contractor can obtain cores and must notify City when scheduling and must call 811 for utility locates prior to core sampling.

Question 11:
The bid documents and pay item schedule and find that several items don't match the written description and the bid list. Is there a revision of the bid items list and the descriptions?

Response 11:
There are separate Bid Forms and Pay Items descriptions for each project, identified as follows:
Bid Form 'A' : 9th Avenue North Resurfacing
Attachment 'A' to Schedule Bid Form 'A': 9th Avenue North Resurfacing
Bid Form 'B': Fire Station #53 Paving Project
Attachment 'B' to Schedule Bid Form 'B': Fire Station #53 Paving Project

Question 12:
Do you expect that the 2.25" milling on 9th Ave N, will reach the base or there will be asphalt?

Response 12:
City Record drawings for 9th Ave North are attached for reference. Reference the section notes that indicate 2.50 inches of PC-1 asphalt.

Reference Attachment 'A' to Schedule Bid Form 'A': If required, Geotechnical Analysis should be applied to the appropriate bid item. Contractor may choose to obtain cores and must notify City when scheduling and must call 811 for utility locates prior to core sampling. City will not be providing cores for 9th Ave North.

Question 13: If there is asphalt, will a tack coat be required?

Response 13: Tack Coating is required always. Reference Specifications.

Question 14:
Is the work on 9th Ave expected to be performed at night, if not, is there a phasing plan for daytime work?

Response 14:
City would prefer night work on 9th Avenue North, due to heavy usage of the roadway during the day.
If work is done during the daytime, a maintenance of traffic (MOT) plan and flaggers are required. Notification to businesses along 9th Avenue North would be the responsibility of the Contractor. Phasing will be discussed with awarded Contractor.

Question 15:
Can you share a budgeted cost for `A` and` B`?

Response 15:
The Budget for both projects is $900,000. This is noted in Exhibit 'B' of the Contract Documents.

Question 16:
I see in the contract documents. For Bid `A` 9th Ave North, Page 4: Item 9. MILL 1.0 INCH DEPTH (Bid Item #9)
I believe that the intent is to mill 2-1/4" and overlay with 2-1/4"

Response 16:
Yes, Attachment 'A' to Schedule Bid Form 'A': Bid Item #9 should be Mill 2-1/4 inch depth.
This error has been revised in Addendum #1, attached.

Attachment:
- 9th Avenue North Record Drawings

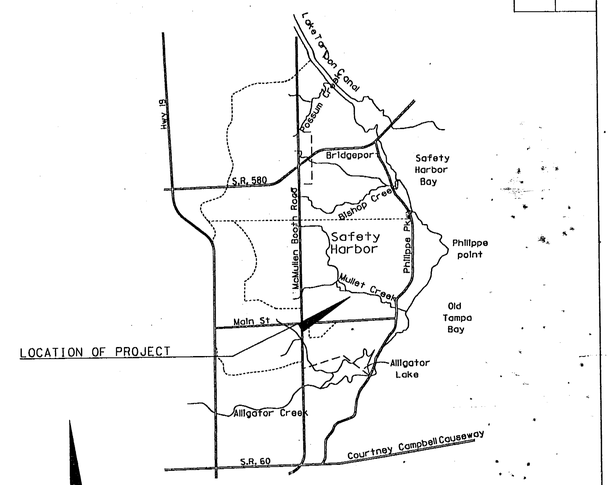
FISCAL YEAR	SHEET NO.
	1

CITY OF SAFETY HARBOR

PLANS OF PROPOSED
NINTH AVENUE NORTH
FROM MAIN ST. TO HARBOR LAKE DR.

INDEX OF ROADWAY PLANS

	SHEET DESCRIPTION
1	KEY SHEET
2	TYPICAL SECTION & REFERENCE POINTS
3	SUMMARY OF QUANTITIES
4-9	PLAN AND PROFILE SHEETS
10	DRAINAGE STRUCTURE DATA
11-12	DRAINAGE STRUCTURE DETAILS
13-14	ROADWAY SOIL SURVEY
15-21	ROADWAY CROSS SECTIONS
22-24	TRAFFIC CONTROL PLAN
25-27	SIGNING AND MARKING PLANS
28-30	WATER MAIN RELOCATION PLANS
31-32	FORCE MAIN RELOCATION PLANS



N
1000 FT

LEGEND

- EXISTING WATER VALVE
- EXISTING WATER METER
- EXISTING FIRE HYDRANT
- EXISTING POWER POLE
- EXISTING TELEPHONE POLE
- EXISTING LIGHT POLE
- EXISTING GUY WIRE
- EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE
- EXISTING GRATE INLET
- EXISTING SIGN
- EXISTING OAK TREE
- EXISTING PALM TREE
- EXISTING PINE TREE
- EXISTING OTHER TREE
- EXISTING LOCAST TREE
- EXISTING EAR TREE
- EXISTING MAPLE TREE
- EXISTING BUSH/PLANTER AREA
- EXISTING SPRINKLER HEAD
- FOUND NAIL AND TIN
- HANDICAP PARKING
- (5) BLOCK NUMBER

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS (BOOKLET DATED JANUARY, 1994).

REVISIONS:

ROADWAY PLANS ENGINEER OF RECORD

DAVID W. HOLLOWAY, P.E.

PLANS PREPARED BY :

WADE-TRIM
4919 MEMORIAL HIGHWAY
SUITE 200
TAMPA, FLORIDA 33634

PROJECT RECORD

I hereby certify that the "△" As-Builts shown hereon meet the minimum requirements of Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida statutes (Subject to any notes and notations listed or labeled hereon). NOT VALID without the signature and the original raised seal of a Florida licensed surveyor and mapper. Additions or deletions to survey maps by anyone other than the signing surveyor is prohibited without written consent of the signing surveyor.

Field Date: 08/28/96

FORESIGHT SURVEYORS, INC.
2850 Schejer Drive North, Suite 350
St. Petersburg, Florida
Phone: 813/573-4491

Michael A. Giller, PLS
Florida Surveyors' Registration No. 5107

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

GOVERNING SPECIFICATIONS: STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, DATED 1991 AND SUPPLEMENTS THERETO IF NOTED IN THE SPECIAL PROVISIONS FOR THIS PROJECT.

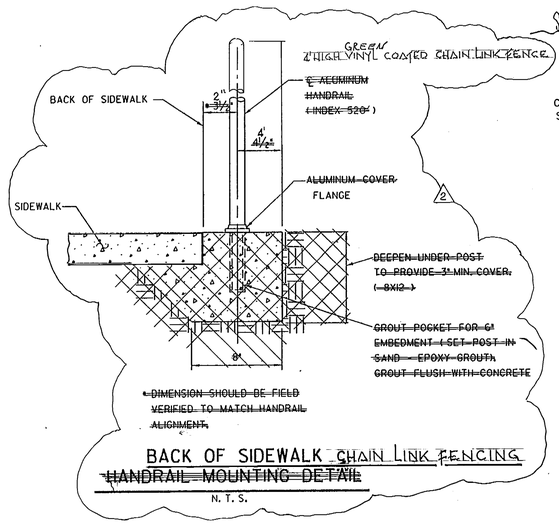
ROADWAY PLANS APPROVED BY: _____

DATE: _____ P.E. NO: _____

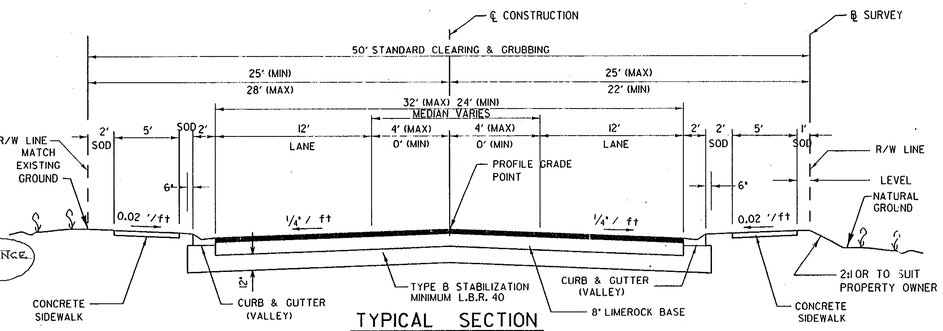
CITY ENGINEER : ROBERT H. GUNSAULLUS, P.E.

PLOT FILE: KEYSR001
DATE: Tue Jun 6 08:37:32 DESIGN FILE: p:\sen2010\keysr001.dgn

PROJECT NO.	SHEET NO.
SAH2010.01	2

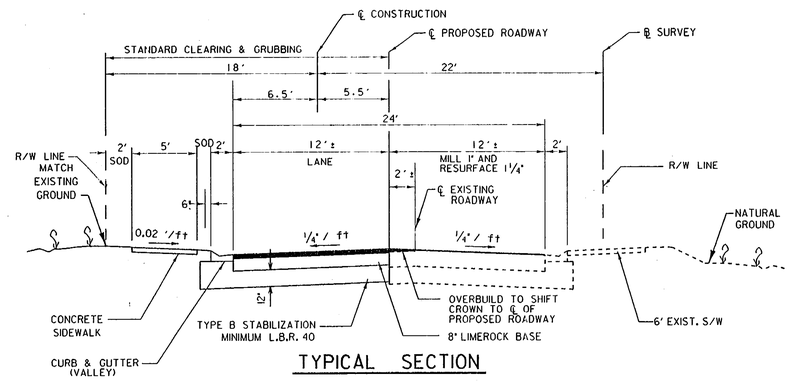


BACK OF SIDEWALK CHAIN LINK FENCING
~~HANDRAIL MOUNTING DETAIL~~
N. T. S.



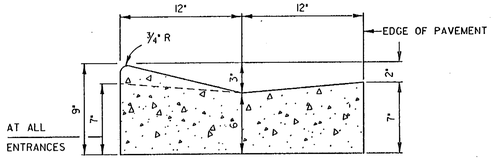
TYPICAL SECTION

STA 11+18.10 TO STA 21+30.75
STA 26+00.00 TO STA 43+00.00

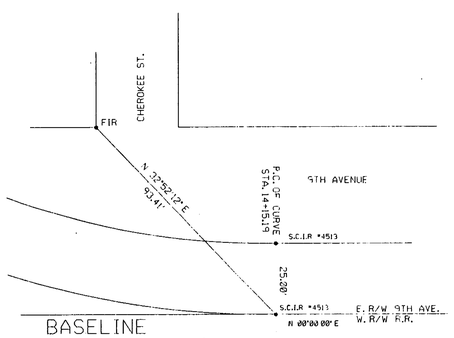


TYPICAL SECTION

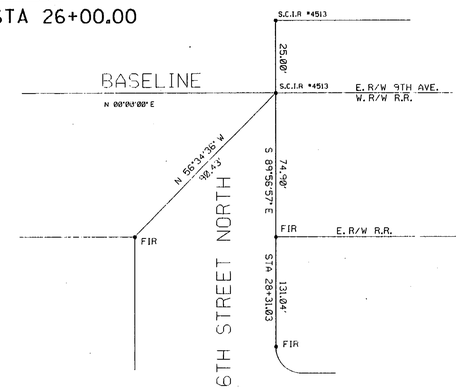
STA 21+30.75 TO STA 26+00.00



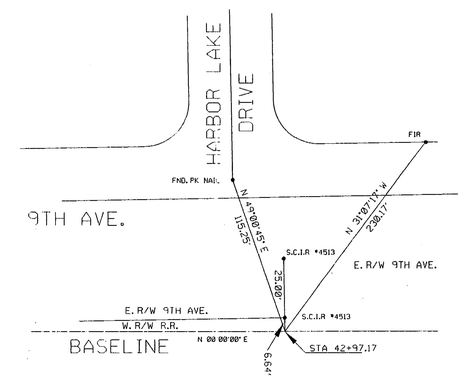
CONCRETE VALLEY CURB



BASELINE REFERENCE



BASELINE REFERENCE



BASELINE REFERENCE

TYPICAL SECTION NOTES

The construction of Ninth Avenue shall comply with the the following criteria:

The subbase shall be of good, clean, acceptable material with an LRB value of no less than 40, compacted to 98% of the maximum density determined by AASHTO T-180. A compacted thickness of twelve (12) inches is required;

The base shall be of acceptable compacted and fully primed limerock. Thickness shall be eight (8) inches. Other equivalent base coarse materials should be approved by the Public Works Director;

Stabilization shall extend six (6) inches beyond the curb;

Surface thickness shall be two and one half (2.50) inches of pc-1 asphalt to be applied in two approximately equal layers.

Pavement crown shall be one quarter (1/4) inch per foot;

Finish pavement shall be 1/4 to 1/2 inch higher than the lip of the curb and gutter;

That area from the curb to the required right of way line shall be sodded to FDOT specifications;

Test for base thickness and density shall be located no more than 500 feet apart and shall be staggered to the left, right, and on the centerline of the roadway. Test reports shall be submitted to the Public Works Director by the Engineer of Record. Where conditions are warranted, the City may require additional testing.

The construction of all sidewalks, shall comply with the following minimum criteria:

Subgrades shall be compacted to 95%;

2500 p.s.i concrete shall be required;

The concrete shall be four (4) inches thick, except that sidewalks which cross drive ways shall be six (6) inches and reinforced by 6 inch by 6 inch by 10 gauge wire mesh placed in the center of the form; (Driveway sidewalks are 3000 p.s.i.) 2

Sidewalks shall have a scored joint every five (5) linear feet and a one-half (1/2) inch expansion joint at driveway entrances, roadway connections and back of curb where applicable;

All sidewalks shall extend to the curb or pavement edge and be ramped for handicap access. The maximum slope for newly constructed curb ramps shall be 12:1;

Sidewalks shall be located at least one (1) foot from the outside edge of the required right-of-way or easement line;

Sidewalks shall be five (5) feet wide;

Sidewalks shall not have a cross slope in excess of 50:1 and a running slope not in excess of 20:1.

REVISIONS												
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	
											2 AS BUILT BY OTHERS	

	NAME	DATE		NAME	DATE
DESIGNED BY	D.W.H.	2/95	DRAWN BY	D.W.H.	2/95
CHECKED BY	W.T.I.	2/95	CHECKED BY	W.T.I.	2/95

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

APPROVED BY :

DATE :

Wade-Trim, Inc.
4919 Memorial Hwy.,
Suite 200
Tampa, Florida 33634
813-882-8366/FAX:884-5990

TYPICAL SECTION & REFERENCE POINTS

PLOT DATE: 15-MAR-1995 12:55 DESIGN FILE: /usr2/proj/sah2010/wpsr-d01.dgn PLOT FILE: TYPSCD01

CSLD #12,13 dtd 4/26/95 Item 8 Resolution 2771 (38)

PROJECT NO.	SHEET NO.
SAH2010.01	3

SUMMARY OF QUANTITIES

BID ITEM NO.	ITEM	UNIT	QUANTITY	REMARKS
101 - 1	MOBILIZATION	LS	1	
102 - 1	MAINTENANCE OF TRAFFIC	LS	1	
104 - 4	MOWING	AC	0.4	
104 - 10	HAY OR STRAW BALED	TN	5.8	
104 - 12	STAKED TURBIDITY BARRIER	LF	154	
110 - 1 - 1	CLEARING AND GRUBBING	LS	1	
110 - 4	PAVEMENT REMOVAL	SY	1984	
120 - 1	EXCAVATION REGULAR	CY	5882	
160 - 4	TYPE B STABILIZATION	SY	10906	
162 - 2	TOPSOIL	SY	6981	
210 - 2	8" LIMEROCK BASE	CY	2045	
327 - 1	MILLING OF EXISTING ASPHALT PAVEMENT (1")	SY	549	
391 - 1051	TYPE PC-1 ASPHALTIC PAVEMENT (1 1/4 ")	SY	18891	PINELLAS COUNTY BID ITEM
400 - 1 - 2	CLASS I CONCRETE CONCRETE (ENDWALLS)	CY	9.4	
400 - 1 - 15	CLASS I CONCRETE CONCRETE (MISCELLANEOUS)	CY	5	
410 - 70 - 056	6' X 5' CONCRETE BOX CULVERT	LF	36	
415 - 1 - 3	REINFORCING STEEL (ENDWALLS)	LB	600	
425 - 1 - 907	INLET TYPE A-1	EA	1	
425 - 1 - 331	INLET TYPE 3	EA	8	
425 - 1 - 341	INLET TYPE 4	EA	3	
425 - 1 - 433	INLET TYPE J-3	EA	2	
425 - 1 - 443	INLET TYPE J-4	EA	1	
425 - 1 - 713	INLET TYPE J-V	EA	2	
425 - 1 - 541	INLET DITCH BOTTOM TYPE D	EA	2	
425 - 2 - 41	MANHOLES TYPE P-7	EA	5	
425 - 2 - 43	MANHOLES TYPE P-7 (PARTIAL)	EA	1	
425 - 2 - 71	MANHOLES TYPE J-7	EA	3	
430 - 11 - 325	CONCRETE PIPE CULVERT (CLASS III) (18")	LF	699	
430 - 11 - 329	CONCRETE PIPE CULVERT (CLASS III) (24")	LF	230	
430 - 141 - 104	CONCRETE PIPE CULVERT (CLASS III) (24"x38")	LF	165	
430 - 11 - 338	CONCRETE PIPE CULVERT (CLASS III) (36")	LF	573	
430 - 11 - 340	CONCRETE PIPE CULVERT (CLASS III) (42")	LF	866	
430 - 721 - 429	24" CORRUGATED POLYETHYLENE PERFORATED PIPE WITH FILTER SOCK	LF	350	
515 - 1 - 2	HANDRAIL (ALUMINUM)	LF	30	
520 - 3	CONCRETE VALLEY CURB & GUTTER	LF	6130	
522 - 1	CONCRETE SIDEWALK, 4" THICK	SY	2295	
522 - 2	CONCRETE SIDEWALK, 6" THICK	SY	1629	
570 - 5	FERTILIZER	TN	0.3	
570 - 9	WATER FOR GRASS	MG	43	
575 - 1 - 1	SODDING (BAHIA)	SY	6981	
706 - 1 - 12	REFLECTIVE PAVEMENT MARKER (BI-DIRECTIONAL, AMBER)	EA	186	
711 - 35 - 241	SOLID TRAFFIC STRIPE, 24" WHITE THERMOPLASTIC	LF	148	
711 - 36 - 121	SOLID TRAFFIC STRIPE, 12" YELLOW THERMOPLASTIC	LF	48	
711 - 37 - 61	SOLID TRAFFIC STRIPE, 6" YELLOW THERMOPLASTIC	NM	1.35	
711 - 38 - 61	SOLID TRAFFIC STRIPE, 6" WHITE THERMOPLASTIC	NM	1.05	

NOTES:

1. The cost of Maintenance of Traffic includes all traffic control devices and temporary pavement markings required to detour and to maintain traffic for the duration of the construction period. Access must be maintained to residences, businesses, etc. along the project at all times.
2. The cost of removing and relocating existing signs is to be included in the cost of clearing and grubbing. Signs within the limits of construction and its approaches are to be removed, relocated, or to remain as directed by the Public Woks Director.
3. The Class IV Concrete and Reinforcing Steel quantities provided for the wingwall at S-16 is for estimating purposes.

9th AVE. N. Realignment
~~As Builts~~
Record Dwg 1995
32 sheets

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	F.X.H.	2/95	DRAWN BY	D.W.H.	2/95
CHECKED BY	W.T.J.	2/95	CHECKED BY	W.T.J.	2/95

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

APPROVED BY :

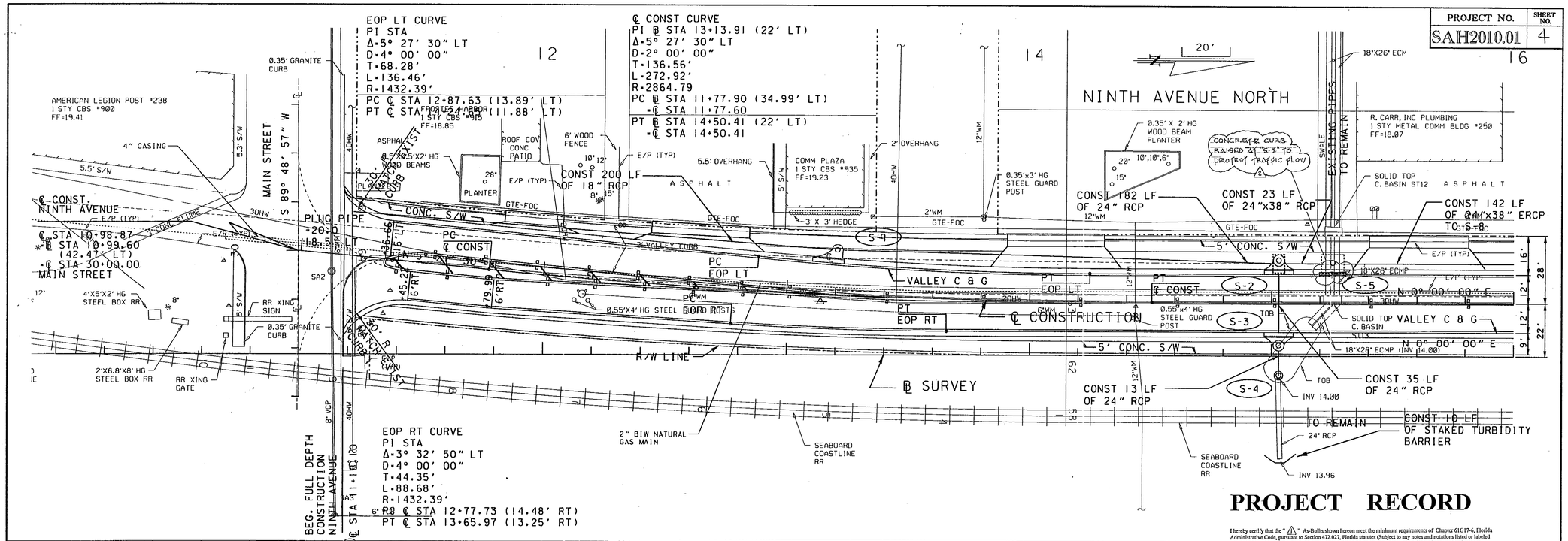
DATE :

Wade-Trim, Inc.
49th Memorial Hwy.,
Suite 200
Tampa, Florida 33634
813-882-8366/FAX884-5990

SUMMARY OF QUANTITIES

PLOT DATE: 15-MAR-1995 13:56 DESIGN FILE: /usr2/proj/sah2010/sumqr-d01.dgn PLOT FILE: SUMQR001

PROJECT NO.	SHEET NO.
SAH2010.01	4



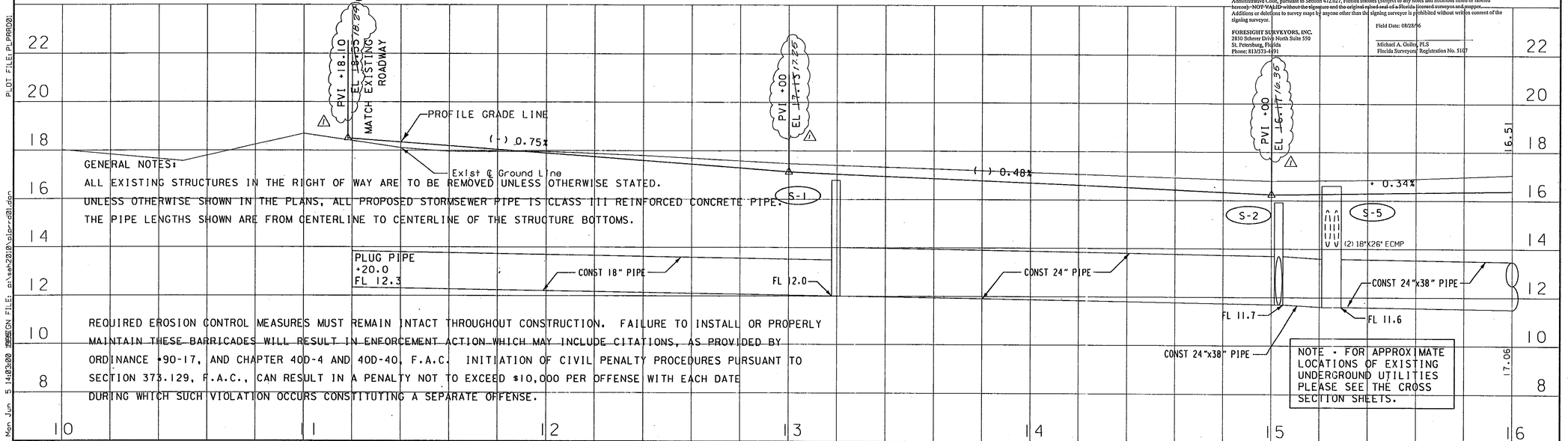
PROJECT RECORD

I hereby certify that the "△1" As-Builts shown hereon meet the minimum requirements of Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida statutes (Subject to any notes and notations listed or labeled hereon)–NOT VALID without the signature and the original raised seal of a Florida licenced surveyor and mapper. Additions or deletions to survey maps by anyone other than the signing surveyor is prohibited without written consent of the signing surveyor.

FORESIGHT SURVEYORS, INC.
2850 Scherer Drive North Suite 550
St. Petersburg, Florida
Phone: 813/573-4491

Field Date: 08/28/96

Michael A. Gulley, PLS
Florida Surveyors' Registration No. 5107



GENERAL NOTES:

ALL EXISTING STRUCTURES IN THE RIGHT OF WAY ARE TO BE REMOVED UNLESS OTHERWISE STATED.

UNLESS OTHERWISE SHOWN IN THE PLANS, ALL PROPOSED STORMSEWER PIPE IS CLASS III REINFORCED CONCRETE PIPE.

THE PIPE LENGTHS SHOWN ARE FROM CENTERLINE TO CENTERLINE OF THE STRUCTURE BOTTOMS.

REQUIRED EROSION CONTROL MEASURES MUST REMAIN INTACT THROUGHOUT CONSTRUCTION. FAILURE TO INSTALL OR PROPERLY MAINTAIN THESE BARRICADES WILL RESULT IN ENFORCEMENT ACTION WHICH MAY INCLUDE CITATIONS, AS PROVIDED BY ORDINANCE #90-17, AND CHAPTER 40D-4 AND 40D-40, F.A.C. INITIATION OF CIVIL PENALTY PROCEDURES PURSUANT TO SECTION 373.129, F.A.C., CAN RESULT IN A PENALTY NOT TO EXCEED $10,000 PER OFFENSE WITH EACH DATE DURING WHICH SUCH VIOLATION OCCURS CONSTITUTING A SEPARATE OFFENSE.

NOTE - FOR APPROXIMATE LOCATIONS OF EXISTING UNDERGROUND UTILITIES PLEASE SEE THE CROSS SECTION SHEETS.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
											△1 AS-BUILT 8/28/96
											△2 AS BUILT BY OTHERS

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.C.	2/95	DRAWN BY	W.T.J.	2/95
CHECKED BY	D.W.H.	2/95	CHECKED BY	D.W.H.	2/95

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

APPROVED BY :

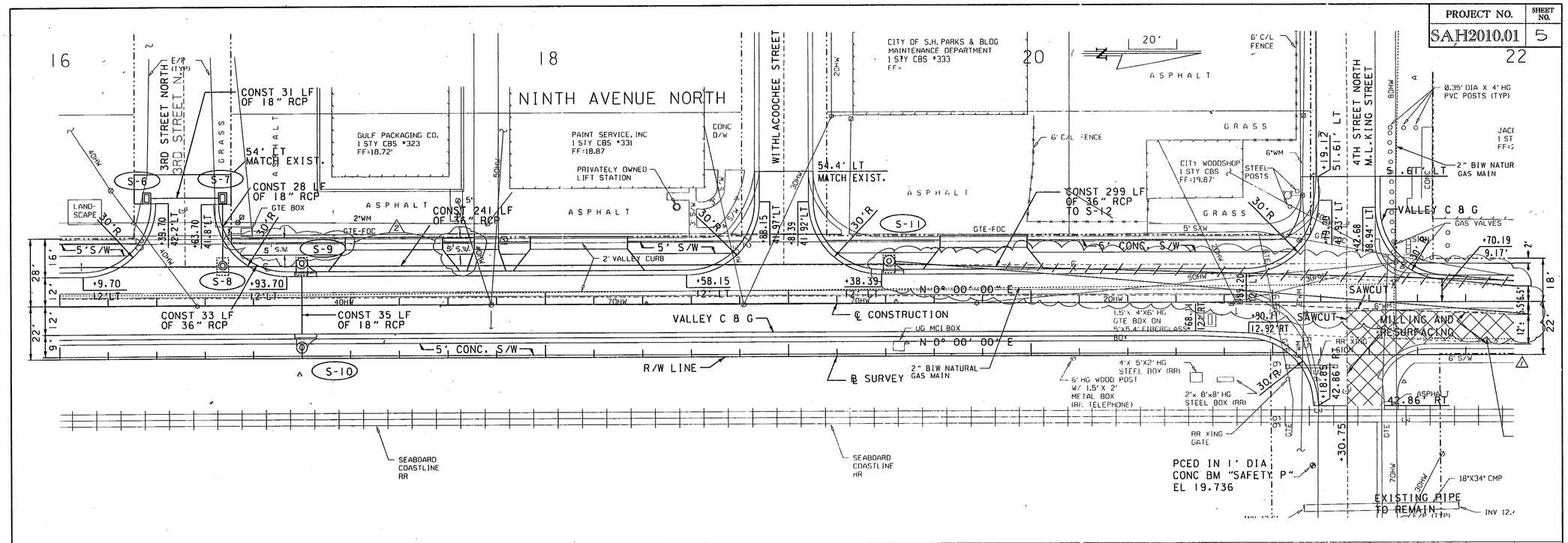
DATE :

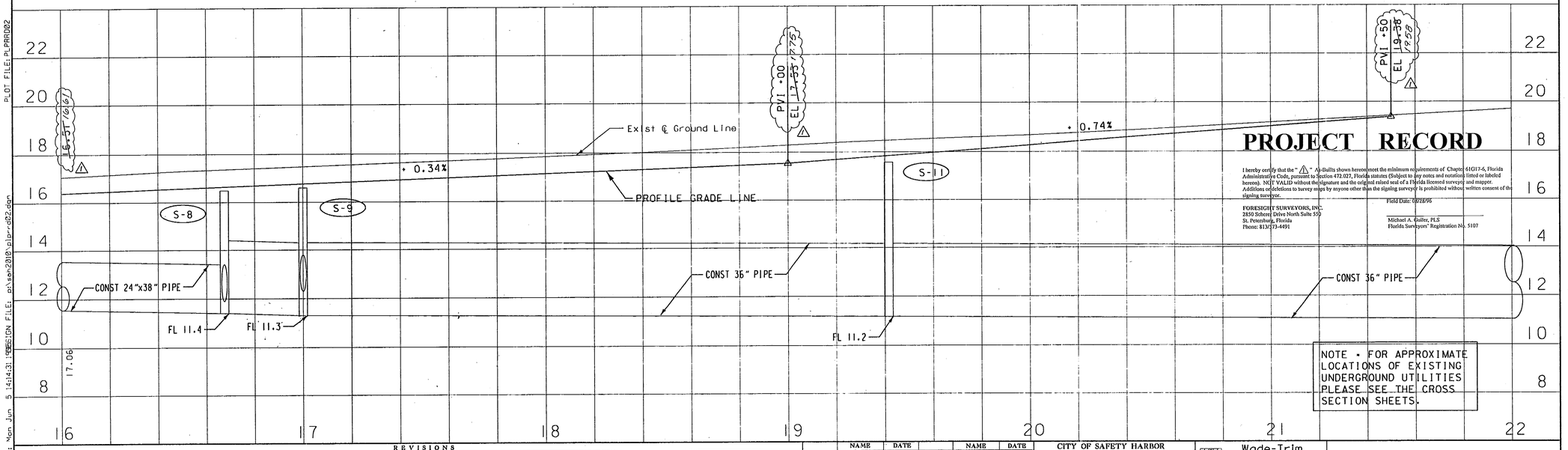
Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

PLAN / PROFILE

PLOT FILE: PLPRR01
DESIGN FILE: p:\sah2010\plprr01.dgn
PLOT DATE: Mon Jun 5 14:03:00 1995

PROJECT NO.	SHEET NO.
SAH2010.01	5





PROJECT RECORD

I hereby certify that the "△" As-Builts shown hereon meet the minimum requirements of Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida statutes (Subject to any notes and notations listed or labeled hereon). NOT VALID without the signature and the original raised seal of a Florida licensed surveyor and mapper. Additions or deletions to survey maps by anyone other than the signing surveyor is prohibited without written consent of the signing surveyor.

Field Date: 02/28/96

FORESIGHT SURVEYORS, INC.
2850 Schrer Drive North Suite 550
St. Petersburg, Florida
Phone: 813/573-4491

Michael A. Guller, PLS
Florida Surveyors' Registration No. 5107

NOTE - FOR APPROXIMATE LOCATIONS OF EXISTING UNDERGROUND UTILITIES PLEASE SEE THE CROSS SECTION SHEETS.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
4/95	DWH	ADDED GAS MAIN W/ DATE									△1 AS-BUILT 8/28/96
											△2 AS-BUILT BY ZEMERS

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.G.	7/94	DRAWN BY	W.T.I.	7/94
CHECKED BY	D.W.H.	7/94	CHECKED BY	D.W.H.	7/94

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

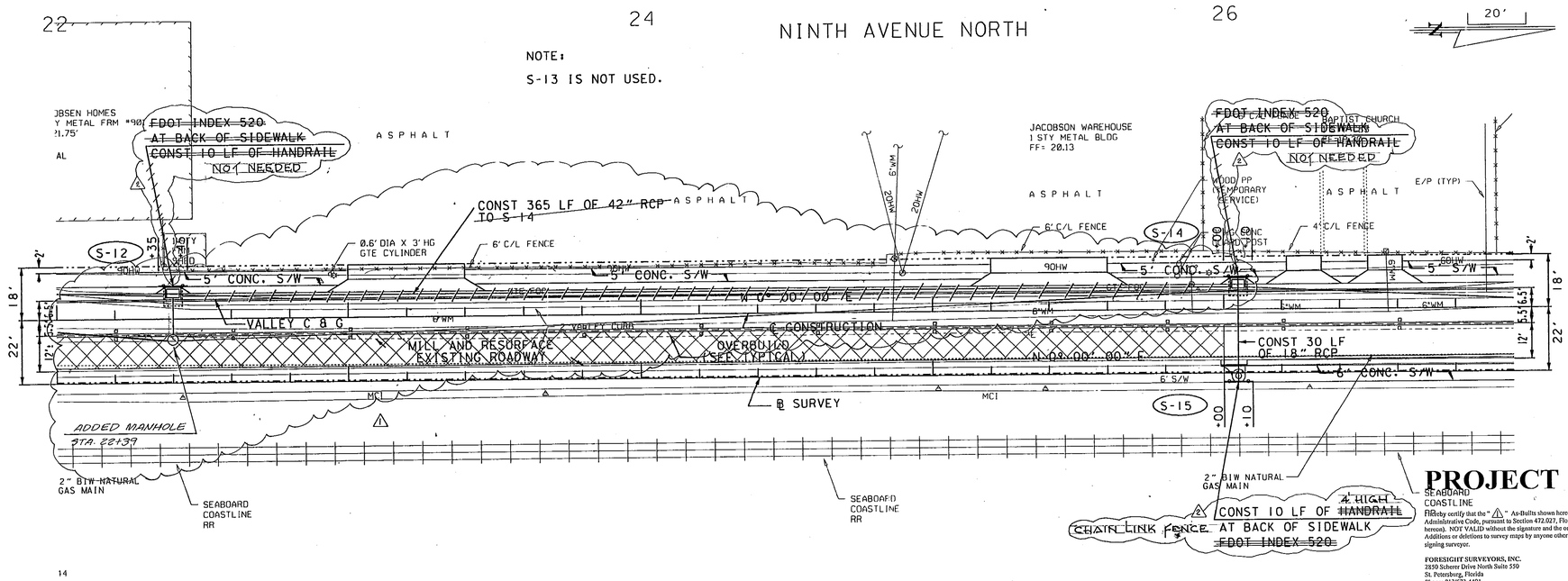
APPROVED BY :

DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

PLAN / PROFILE

PROJECT NO.	SHEET NO.
SAH2010.01	6



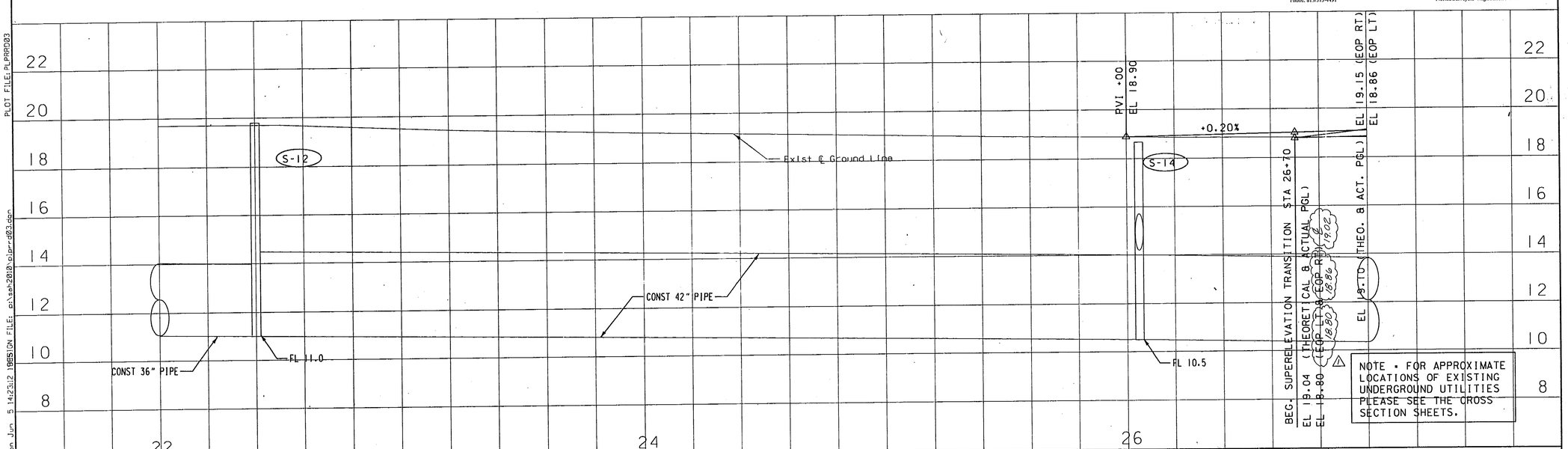
PROJECT RECORD

I hereby certify that the "△1" As-Builts shown hereon meet the minimum requirements of Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida statutes (Subject to any notes and notations listed or labeled hereon). NOT VALID without the signature and the original raised seal of a Florida licensed surveyor and mapper. Additions or deletions to survey maps by anyone other than the signing surveyor is prohibited without written consent of the signing surveyor.

Field Date: 08/28/96

FORESIGHT SURVEYORS, INC.
2850 Scherer Drive North Suite 550
St. Petersburg, Florida
Phone: 813/573-4491

Michael A. Guiler, PLS
Florida Surveyors' Registration No. 5107



PLOT FILE: PLPRR03

PLOT DATE: Mon Jun 5 14:23:2 1995 DESIGN FILE: p:\sah2010\plprr03.dgn

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
4/95	DWH	ADDED GAS MAIN W/ DATE									△1 AS-BUILT 8/28/96
											△2 AS-BUILT BY OTHERS

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.G.	2/95	DRAWN BY	W.T.I.	2/95
CHECKED BY	D.W.H.	2/95	CHECKED BY	D.W.H.	2/95

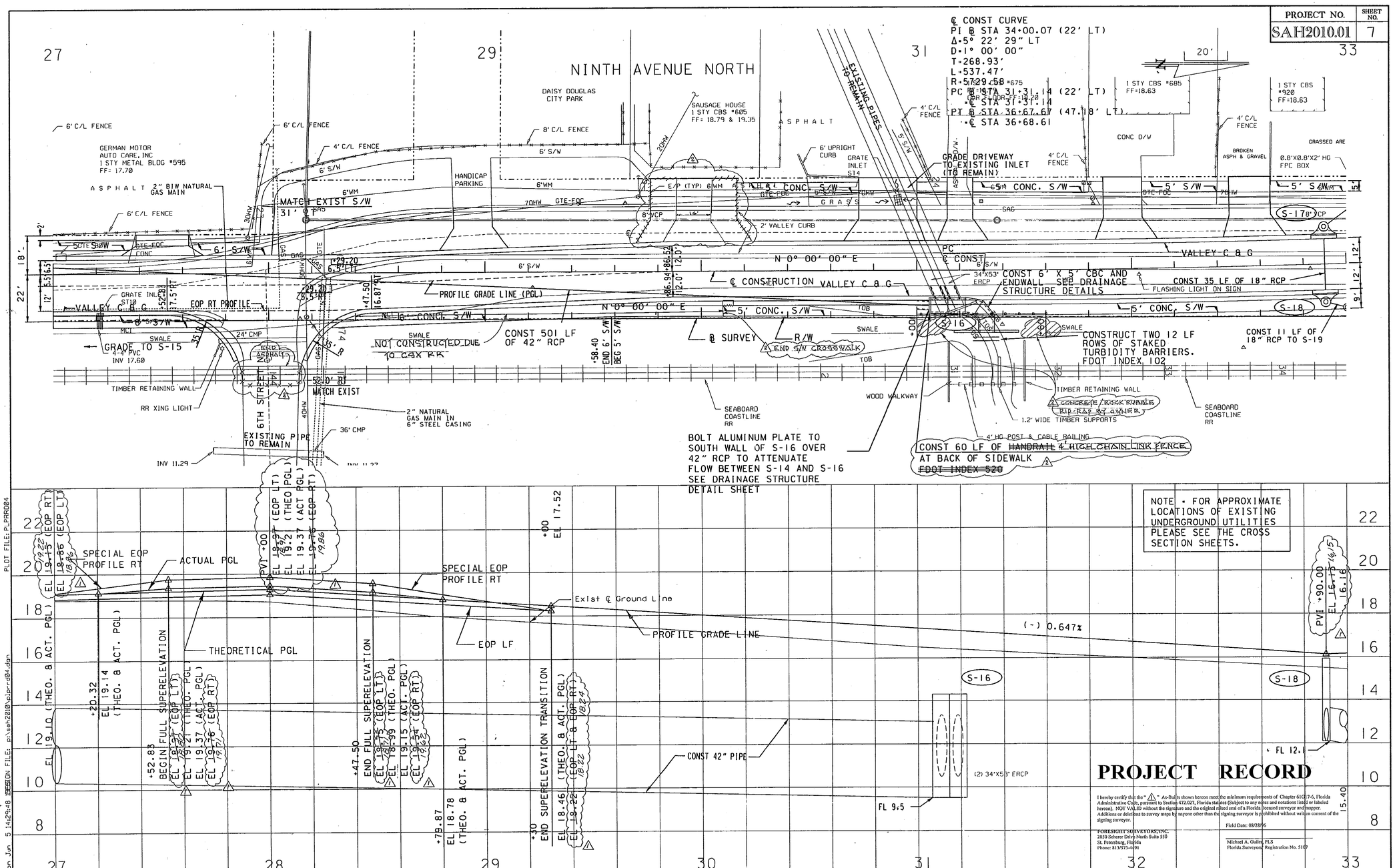
SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA
APPROVED BY :
DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

PLAN / PROFILE

PROJECT NO.	SHEET NO.
SAH2010.01	7



REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
											△1 AS-BUILT 8/28/96
											△2 AS BUILT BY OTHERS

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.C.	2/95	DRAWN BY	W.T.I.	2/95
CHECKED BY	D.W.H.	2/95	CHECKED BY	D.W.H.	2/95

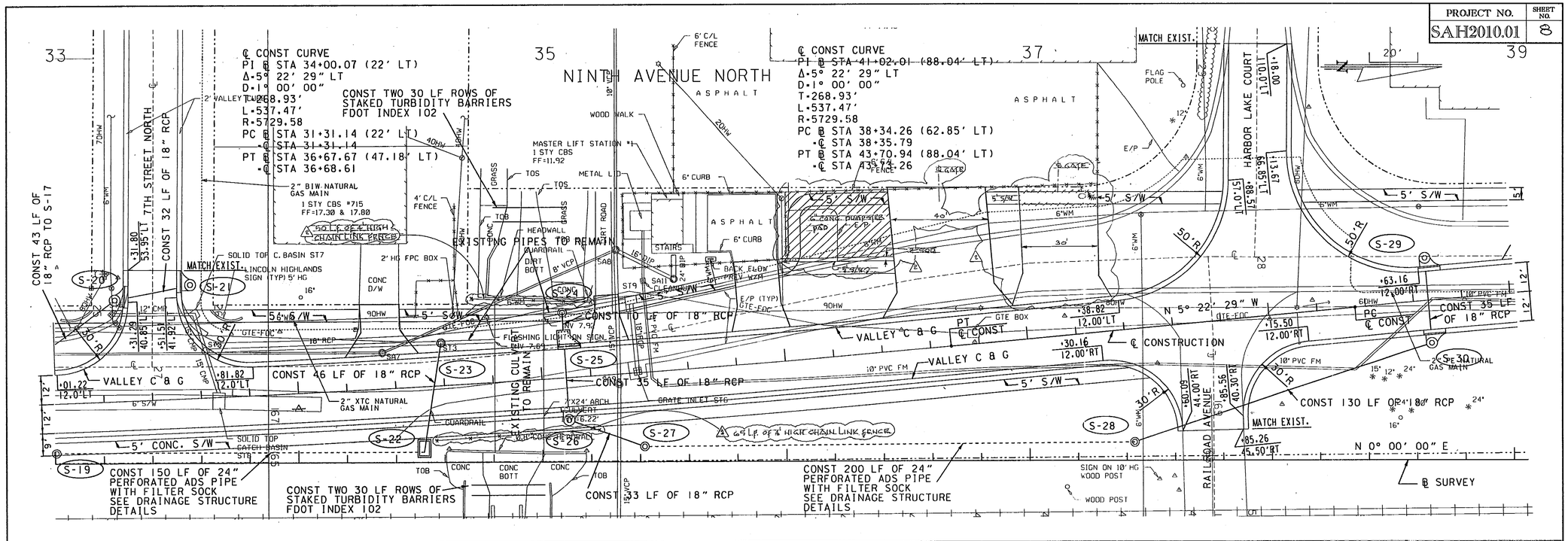
SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

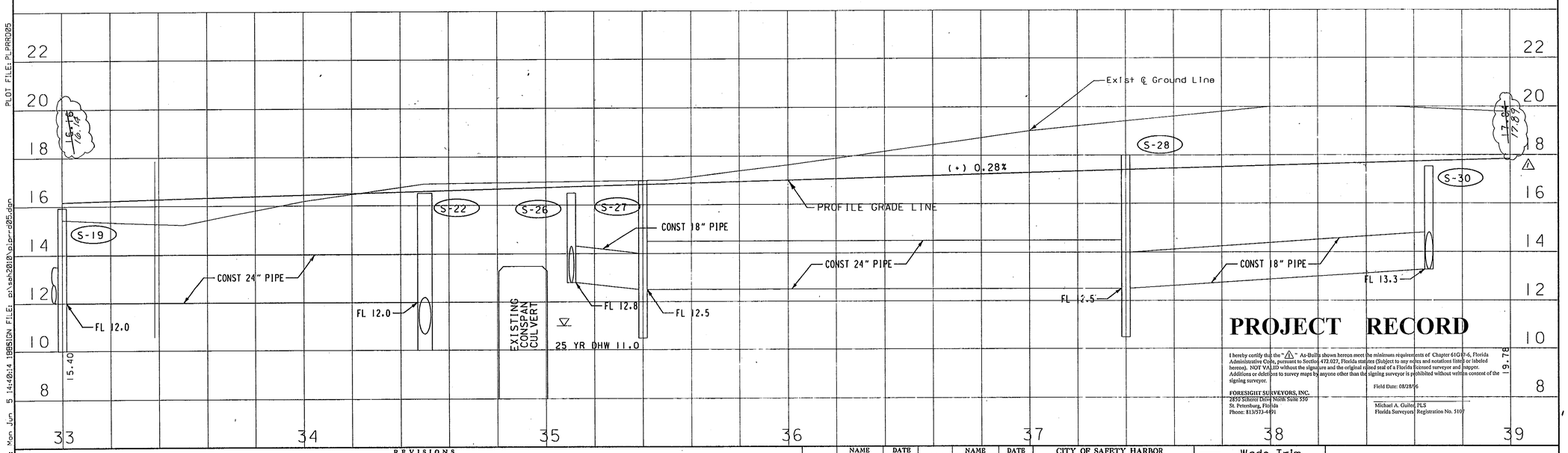
CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA
APPROVED BY :
DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

PLAN / PROFILE

PROJECT NO.	SHEET NO.
SAH2010.01	8





PROJECT RECORD

I hereby certify that the "△1" As-Built shown hereon meet the minimum requirements of Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida statutes (Subject to any notes and notations listed or labeled hereon). NOT VALID without the signature and the original raised seal of a Florida licensed surveyor and mapper. Additions or deletions to survey maps by anyone other than the signing surveyor is prohibited without written consent of the signing surveyor.

Field Date: 08/28/96

FORESIGHT SURVEYORS, INC.
2850 Scherer Drive North Suite 350
St. Petersburg, Florida
Phone: 813)573-4091

Michael A. Guiles, PLS
Florida Surveyors Registration No. 5107

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
											△1 AS-BUILT 8/28/96
											△2 AS-BUILT BY OTHERS

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.C.	7/94	DRAWN BY	W.T.J.	7/94
CHECKED BY	D.W.H.	7/94	CHECKED BY	D.W.H.	7/94

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

APPROVED BY :

DATE :

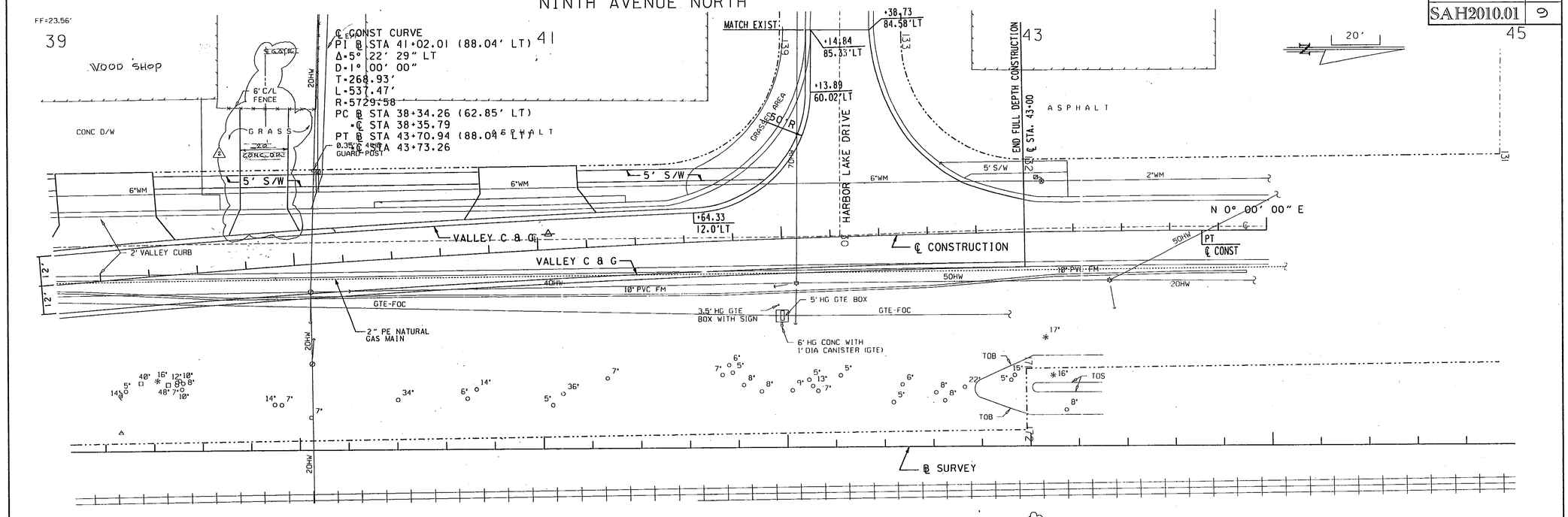
Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

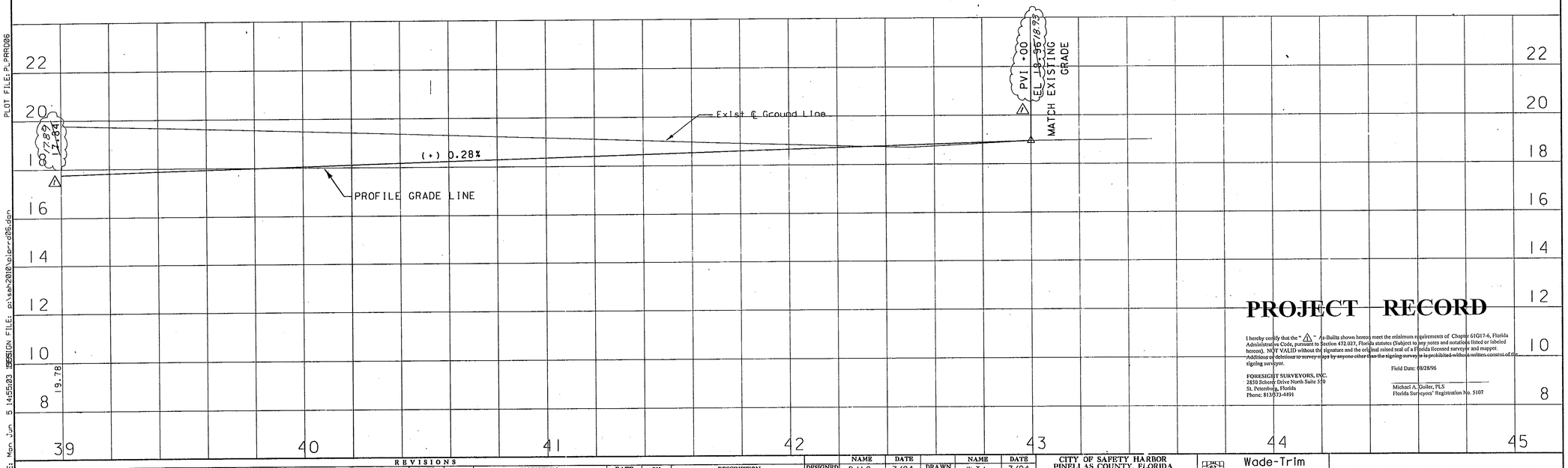
PLAN / PROFILE

PLOT FILE: PLPRR085
PLOT DATE: Mon Jun 5 14:40:14 1995 DGN FILE: p:\sah2010\plprr085.dgn

PROJECT NO.	SHEET NO.
SAH2010.01	9

NINTH AVENUE NORTH





PROJECT RECORD

I hereby certify that the "△1" As-Builts shown hereon meet the minimum requirements of Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida statutes (Subject to any notes and notations listed or labeled hereon). NOT VALID without the signature and the original raised seal of a Florida licensed surveyor and mapper. Additions or deletions to survey maps by anyone other than the signing surveyor is prohibited without written consent of the signing surveyor.

FORESCUTT SURVEYORS, INC.
2850 Schoen Drive North Suite 350
St. Petersburg, Florida
Phone: 813/573-1491

Field Date: 08/28/96

Michael A. Quilter, PLS
Florida Surveyors' Registration No. 5107

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
											△1 AS-BUILT 8/28/96
											△2 AS BUILT BY OTHERS

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.G.	7/94	DRAWN BY	W.T.J.	7/94
CHECKED BY	D.W.H.	7/94	CHECKED BY	D.W.H.	7/94

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

APPROVED BY :

DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

PLAN / PROFILE

PLOT DATE: Mon Jun 5 14:55:03 DESIGN FILE: p:\sah2010\plprr06.dgn PLOT FILE: PL-PRR006

PROJECT NO.	SHEET NO.
SAH2010.01	10

S-1
STA 13+20 (~~18.35'~~ 15.15' LT)
CONST INLET TYPE 3
FDOT INDEX NO. 210
FL ~~12.0~~ (N)
12.08 (N & S)
RIM 17.06

S-2
STA 15+03 (~~17.50'~~ 13.43' LT)
CONST INLET TYPE J4 (6'X3'6")
FDOT INDEX NO. 210
FL ~~11.7~~ (N, S&E)
11.77 (S) 11.82 (N) 11.78 (E)
RIM 17.10

S-3
STA ~~15+03~~ 15+04 (~~17.50'~~ 14.55' RT)
CONST INLET TYPE 4
FDOT INDEX NO. 210
FL ~~12.0~~ (E&W)
11.93 (W) 11.83 (E)
RIM 16.21

S-4
STA 15+03 (~~30.00'~~ 30.4' RT)
CONST MH TYPE P7 W/SUMP
FDOT INDEX NO 200, 201
EXIST FL 14.0 (E)
FL ~~11.8~~ (W) 11.57
RIM EL. ~~17.5~~ 17.85
BOTTOM OF SUMP EL. 9.8

S-5
STA ~~15+25~~ 15+27 (~~17.50'~~ 17.47' LT)
CONST MH TYPE J7 (6'x8')
FDOT INDEX NO 200, 201
EXIST FL 14.1 (W)
FL ~~11.6~~ (N&S) 11.66 (S) 11.69 (N) 13.85 (W)
RIM EL. ~~16.6~~ 16.85

S-6
STA 16+36 (~~44.50'~~ 44.1' LT)
CONST DBI TYPE D
FDOT INDEX NO 232
FL ~~12.5~~ (N) 12.45
GRATE EL ~~16.5~~ 16.43

S-7
STA ~~16+67.4~~ 16+67 (~~44.50'~~ 44.1' LT)
CONST DBI TYPE D
FDOT INDEX NO 232
FL ~~12.2~~ (S&E) 12.27 (S) 12.22 (E)
GRATE EL ~~16.5~~ 16.48

S-8
STA ~~16+67.4~~ 16+67 (~~17.50'~~ 19.32' LT)
CONST MH TYPE J7 (6'x 3'6")
FDOT INDEX NO 200, 201
FL ~~11.9~~ (W) 11.87
FL ~~11.4~~ (N&S) 11.28
RIM EL ~~16.5~~ 16.72

S-9
STA 17+00 (~~17.50'~~ 13.92' LT)
CONST INLET TYPE J3 (6'x3'6")
FDOT INDEX NO. 210
FL ~~11.3~~ (N&S) 11.12 (N&S)
FL ~~12.3~~ (E) 11.96
RIM 16.88

S-10
STA ~~17+00~~ 17+01 (~~17.50'~~ 14.13' RT)
CONST INLET TYPE 3
FDOT INDEX NO. 210
FL ~~12.6~~ (W) 12.58
RIM 16.86

S-11
STA ~~20+41.5~~ 19+42 (~~17.50'~~ 14.17' LT)
CONST INLET TYPE J3 (6'x3'6")
FDOT INDEX NO. 210
FL ~~11.2~~ (N&S) 11.09 (N) 11.17 (S)
RIM 18.00

S-12
STA 22+40 (~~11.50'~~ 8.62' LT)
CONST INLET TYPE JV (5'x5')
FDOT INDEX NO. 200, 221
FL ~~11.0 (N&S)~~ 13.83 (E)
RIM 19.55

S-13
NOT USED

S-14
STA 26+05 (~~8.37'~~ 7.54' LT)
CONST INLET TYPE JV (5'x5')
FDOT INDEX NO. 200, 221
FL ~~10.5~~ (N&S) 10.45 (N) 10.49 (S)
FL ~~14.2~~ (E) 14.17
GRATE 18.41

S-15
STA 26+05 (~~22.63'~~ 19.65' RT)
CONST INLET TYPE 1
FDOT INDEX NO. 210
FL ~~14.5~~ (W) 14.45
W/ NOTCH SEE DRAINAGE
STRUCTURE DETAILS
RIM 18.87

S-16
STA ~~31+06.49~~ 31+11 (~~16.46'~~ 16.8' RT)
CONST 6'x5' CBC AND
ENDWALL WITH ALUMINIUM
PLATE. SEE DRAINAGE
STRUCTURE DETAILS
FL ~~9.5~~ 9.33
RIM 16.09

S-17
STA 32+90 (~~17.50'~~ 14.15' LT)
CONST INLET TYPE 4
FDOT INDEX NO. 210
FL ~~12.2~~ (NW & E) 12.18 (NW)
12.17 (E)
RIM 16.16

S-18
STA 32+90 (~~17.50'~~ 14.01' RT)
CONST INLET TYPE 4
FDOT INDEX NO. 210
FL ~~12.1~~ (NE & W) 12.10 (NE)
12.19 (W)
RIM 16.26

S-19
STA ~~33+00~~ 32+95 (~~20.3'~~ 20.38' RT)
CONST MH TYPE P7 W/SUMP
FDOT INDEX NO 200, 201
FL ~~12.0~~ (SW & N) 12.02 (N) 11.99 (SW)
BOTTOM OF SUMP EL. 10.0
RIM EL ~~15.9~~ 16.27

S-20
STA ~~33+26.1~~ 33+29 (~~41.78'~~ 41.97' LT)
CONST INLET TYPE 3
FDOT INDEX NO. 210
FL ~~12.3~~ (N & SE) 12.37 (N)
12.33 (SE)
RIM 15.40

S-21
STA ~~33+56.5~~ 33+54 (~~46.88'~~ 47.0' LT)
CONST INLET TYPE 3
FDOT INDEX NO. 210
FL ~~12.4~~ (S) 12.62
RIM 15.52

S-22
STA ~~34+50.2~~ 34+49 (~~26.1'~~ 27.87' RT)
CONST MH TYPE J7 W/SUMP
(4' X 6') W/WEIR
FDOT INDEX NO 200, 201
FL ~~12.0~~ (S) 12.07
FL 10.7 (W) INACCESSIBLE
BOTTOM OF SUMP EL. 10.0
RIM EL ~~16.5~~ 16.77
SEE DRAINAGE STRUCTURE
DETAILS

S-23
STA ~~34+59.6~~ 34+60 (~~17.8'~~ 18.09' LT)
CONST PARTIAL MH TYPE P7
FDOT INDEX NO 200, 201
FL ~~10.5~~ (E) 10.52
EXIST FL ~~10.5~~ (N) 10.4
PLUG PIPE TO SOUTH
RIM EL ~~16.8~~ 16.56

S-24
STA 35+10 (~~27.00'~~ 23.76' LT)
CONST MH TYPE P7
FDOT INDEX NO 200, 201
FL ~~11.5~~ (E) 11.78 (E)
EXIST FL ~~8.8~~ (S) 8.52
RIM EL ~~17.5~~ 16.70

S-25
STA 35+10 (~~16.67'~~ 14.04' LT)
CONST INLET TYPE A-1
(4'x6') W/WEIR
SAFETY HARBOR STANDARD
FL ~~13.1~~ (E) 13.08
FL ~~12.0~~ (W) 12.10
SEE DRAINAGE STRUCTURE
DETAILS
RIM 17.00

S-26
STA ~~35+10~~ 35+11 (~~17.50'~~ 13.93' RT)
CONST INLET TYPE 3
FDOT INDEX NO. 210
FL ~~12.8~~ (N&W) 12.76 (NE)
12.69 (W)
RIM 16.82

S-27
STA ~~35+40~~ 35+39 (~~30.4'~~ 31.67' RT)
CONST MH TYPE P7 W/SUMP
FDOT INDEX NO 200, 201
FL ~~12.5~~ (N&S) 12.55 (N) 12.49 (S)
BOTTOM OF SUMP EL. 10.5
RIM EL ~~17.0~~ 17.01

S-28
STA ~~37+40~~ 37+39 (~~46.5'~~ 48.30' RT)
CONST MH TYPE P7 W/SUMP
FDOT INDEX NO 200, 201
FL ~~12.5~~ (N&S) 12.33
BOTTOM OF SUMP EL. 10.5
RIM EL ~~18.0~~ 19.26

S-29
STA ~~38+66.1~~ 38+65 (~~17.50' LT~~ 14.0' RT)
CONST INLET TYPE 3
FDOT INDEX NO. 210
FL ~~13.5~~ (E) 13.57
RIM 17.87

S-30
STA ~~38+66.1~~ 38+67 (~~17.50' RT~~ 14.10' LT)
CONST INLET TYPE 3
FDOT INDEX NO. 210
FL ~~13.3~~ (S&W) 13.32 (S)
13.39 (W)
RIM 17.82

ADDED MANHOLE
STA. 22+39 (28' RT.)
FL. 10.98 (N & S)
FL. 12.83 (W)
RIM 19.38

NOTE = TYPE 3 AND 4 CURB INLETS ARE TO BE MODIFIED FOR USE WITH VALLEY CURB AND GUTTER AND APPROPRIATE GUTTER TRANSITIONS ARE TO BE PROVIDED UP STREAM AND DOWNSTREAM OF INLETS.

PROJECT RECORD

I hereby certify that the "△" As-Builts shown hereon meet the minimum requirements of Chapter 61G17-6, Florida Administrative Code, and that the information shown hereon is based on a field survey performed by me or under my direction and supervision and is accurate and complete to the best of my knowledge and belief. This drawing is not a boundary survey and is NOT VALID without the signature and the original raised seal of a Florida licensed surveyor and mapper. Additions or deletions to survey maps by anyone other than the signing surveyor is prohibited without written consent of the signing surveyor.

Field Date: 08/28/96

Nicholas A. Gulas, P.L.S.
Florida Registration No. 5107

FOREMOST SURVEYORS, INC.
2650 Sunset Blvd North Suite 550
St. Petersburg, Florida
Phone: 813/597-9401

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
											△ AS-BUILT 8/28/96

	NAME	DATE		NAME	DATE
DESIGNED BY	D.W.H.	2/95	DRAWN BY	D.W.H.	2/95
CHECKED BY	W.T.I.	2/95	CHECKED BY	W.T.I.	2/95

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

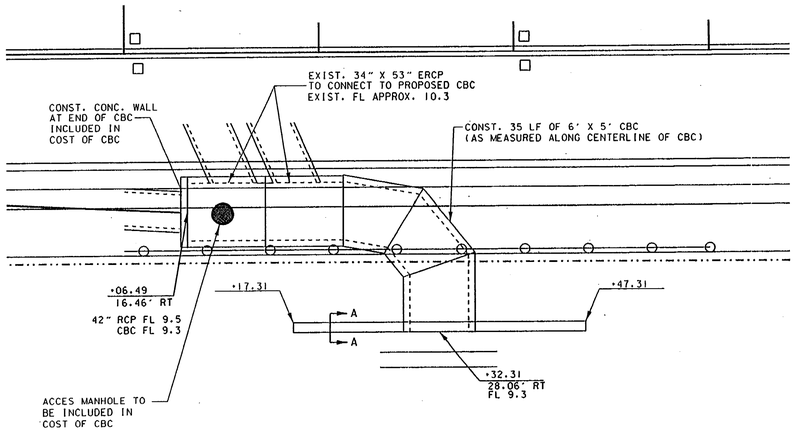
CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA
APPROVED BY :
DATE :

Wade-Trim, Inc.
4919 Memorial Hwy.,
Suite 200
Tampa, Florida 33634
813-882-8366/FAX:884-5990

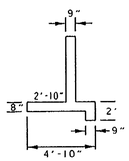
DRAINAGE STRUCTURE DATA

PLOT DATE: 15-MAR-1995 14:03 DESIGN FILE: /usr2/proj/sah2010/dr-dtr-d01.dgn PLOT FILE: dr-dtr-d01

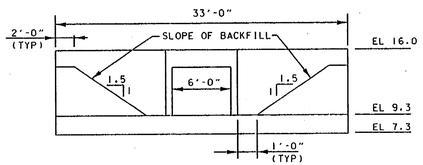
PROJECT NO.	SHEET NO.
SAH2010.01	11



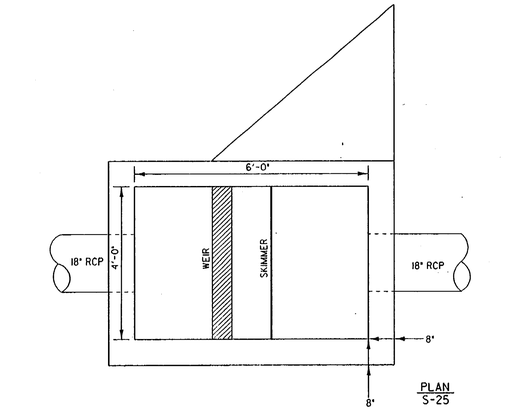
PARTIAL PLAN
S-16



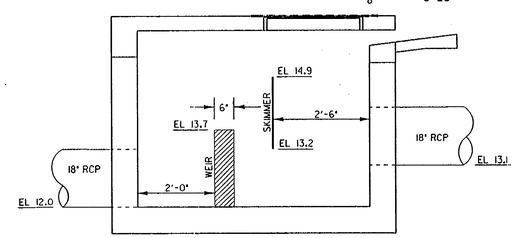
SECTION A-A



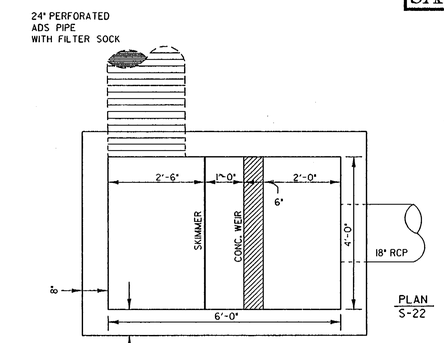
END ELEVATION
S-16



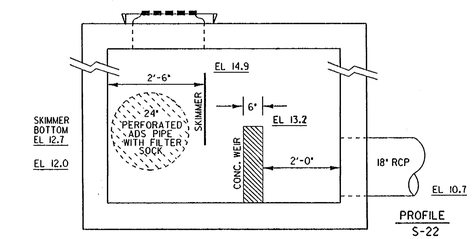
PLAN
S-25



PROFILE
S-25



PLAN
S-22



PROFILE
S-22

WINGWALL DIMENSIONS SHOWN ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR PROVIDING FINAL WINGWALL DESIGN TO BE APPROVED BY THE PUBLIC WORKS DIRECTOR.

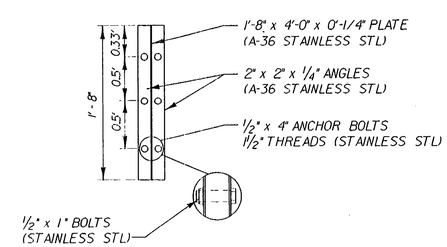
OPERATION AND MAINTENANCE GUIDELINES

THE TWO INDEPENDANT EXFILTRATION SYSTEMS ARE DESIGNED TO EXFILTRATE THE TREATMENT VOLUME WITHIN 72 HOURS. THE TOP OF THE TREATMENT IS AT THE TOP OF THE WEIRS LOCATED IN STRUCTURES S-22 AND S-25. THE TREATMENT VOLUME WILL BE COMPLETELY EXFILTRATED WHEN THE WATER SURFACE ELEVATION REACHS THE BOTTOM OF THE 24" ADS EXFILTRATION PIPES LOCATED BETWEEN S-19 AND S-22 AND BETWEEN S-27 AND S-28.

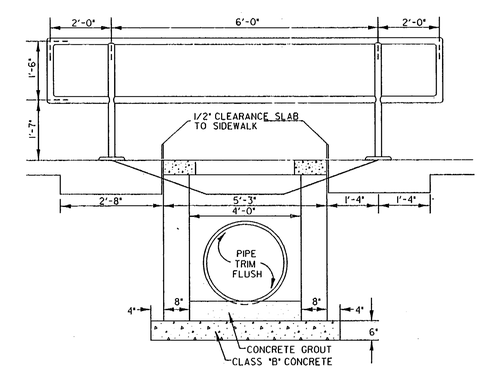
THESE SYSTEMS SHOULD BE CHECKED ON A SEMI-ANNUAL BASIS TO INSURE THAT THE TREATMENT VOLUME IS EXFILTRATING WITHIN 72 HRS. IF THE TREATMENT VOLUME IS NOT EXFILTRATING WITHIN 72 HRS THE CITY ENGINEER SHOULD BE NOTIFIED.

IN ADDITION, THE SEDIMENT SUMPS AT STRUCTURES S-4, S-19, S-22, S-25, S-27, AND S-28 SHOULD BE CHECKED ON A SEMI-ANNUAL BASIS AND CLEANED IF NECESSARY.

THE OPERATION AND MAINTENANCE ENTITY IS REQUIRED TO PROVIDE FOR THE INSPECTION OF THE EXFILTRATION SYSTEM BY A PROFESSIONAL ENGINEER TO ASSURE THAT THE SYSTEM IS PROPERLY OPERATED AND MAINTAINED. INSPECTION SHALL BE PERFORMED 18 MONTHS AFTER OPERATION IS AUTHORIZED AND EVERY 18 MONTHS THEREAFTER.



SKIMMER ANGLE DETAIL
FOR S-22 AND S-25
N.T.S.



S-15

NOTE: PCED CONC. BENCH MARK "SAFETY P" IS AT STA 21+16.6, 67.4 RT EL 19.736

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	D.W.H.	6/94	DRAWN BY	D.W.H.	6/94
CHECKED BY	W.T.I.	6/94	CHECKED BY	W.T.I.	6/94

SUPERVISED BY: DAVID W. HOLLOWAY, P.E.

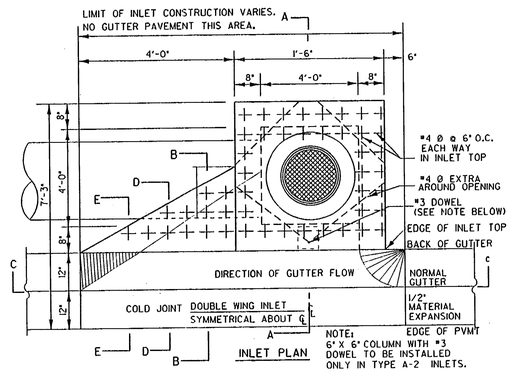
CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA
APPROVED BY:
DATE:

Wade-Trim, Inc.
4919 Memorial Hwy.,
Suite 200
Tampa, Florida 33634
813-882-8366/FAX:884-5990

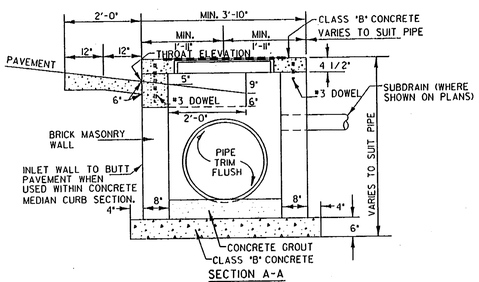
DRAINAGE STRUCTURE DETAILS

PLOT DATE: 5-MAR-1995 14:03 DESIGN FILE: /usr2/proj/sah2010/drdtrd02/drdtrd02.dgn PLOT FILE: drdtrd02

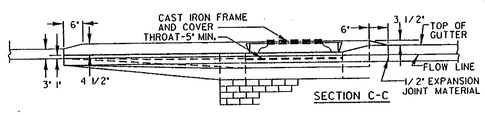
PROJECT NO.	SHEET NO.
SAH2010.01	12



INLET PLAN

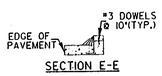


SECTION A-A

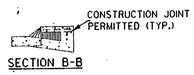


SECTION C-C

SECTION D-D

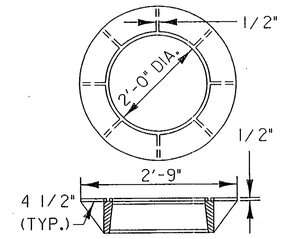


SECTION E-E

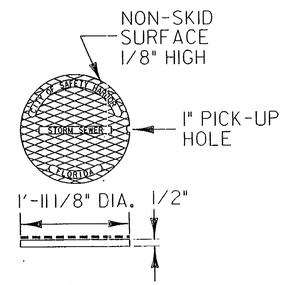


SECTION B-B

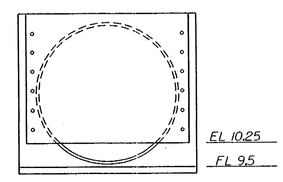
TYPE A-1 INLET DETAIL



CAST IRON FRAME
APPROX. WEIGHT=118 LBS.



CAST IRON COVER
APPROX. WEIGHT=70 LBS.



ALUMINUM PLATE DETAIL
S-16

N.T.S.

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	D.W.H.	6/94	DRAWN BY	D.W.H.	6/94
CHECKED BY	W.T.I.	6/94	CHECKED BY	W.T.I.	6/94

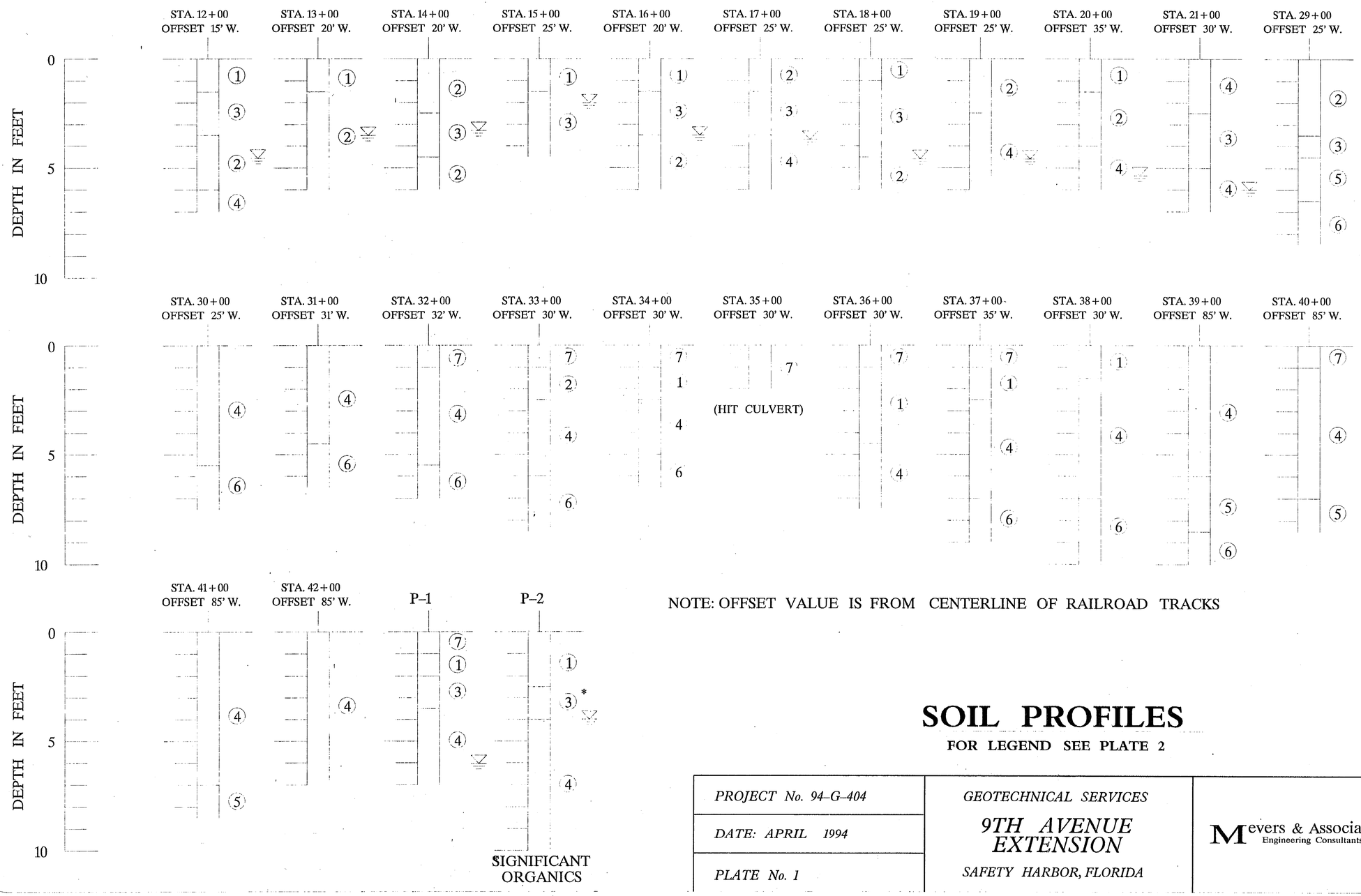
SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA
APPROVED BY :
DATE :

Wade-Trim, Inc.
4915 Memorial Hwy.,
Suite 200
Tampa, Florida 33634
813-882-8366/FAX:884-5990

DRAINAGE STRUCTURE DETAILS

PLOT DATE: 15-MAR-1995 14:04 DESIGN FILE: /usr2/proj/sah2010/dr-dtr-d03.dgn PLOT FILE: dr-dtr-d01



NOTE: OFFSET VALUE IS FROM CENTERLINE OF RAILROAD TRACKS

SOIL PROFILES

FOR LEGEND SEE PLATE 2

13

PROJECT No. 94–G–404	*GEOTECHNICAL SERVICES*	Meyers & Associates Engineering Consultants Inc.
DATE: APRIL 1994	*9TH AVENUE EXTENSION*	
PLATE No. 1	*SAFETY HARBOR, FLORIDA*	

LEGEND

1 DARK GRAY TO GRAY–BROWN FINE SAND TO SLIGHTLY SILTY FINE SAND (A–3)

2 BROWN TO LIGHT BROWN FINE TO SLIGHTLY SILTY FINE SAND (A–3)

3 DARK BROWN FINE SAND TO SLIGHTLY SILTY FINE SAND (A–2–4)

4 LIGHT GRAY TO TAN FINE SAND (A–3)

5 BROWN SLIGHTLY CLAYEY TO CLAYEY FINE SAND (A–2)

6 GRAY–BROWN SAND CLAY (A–6)

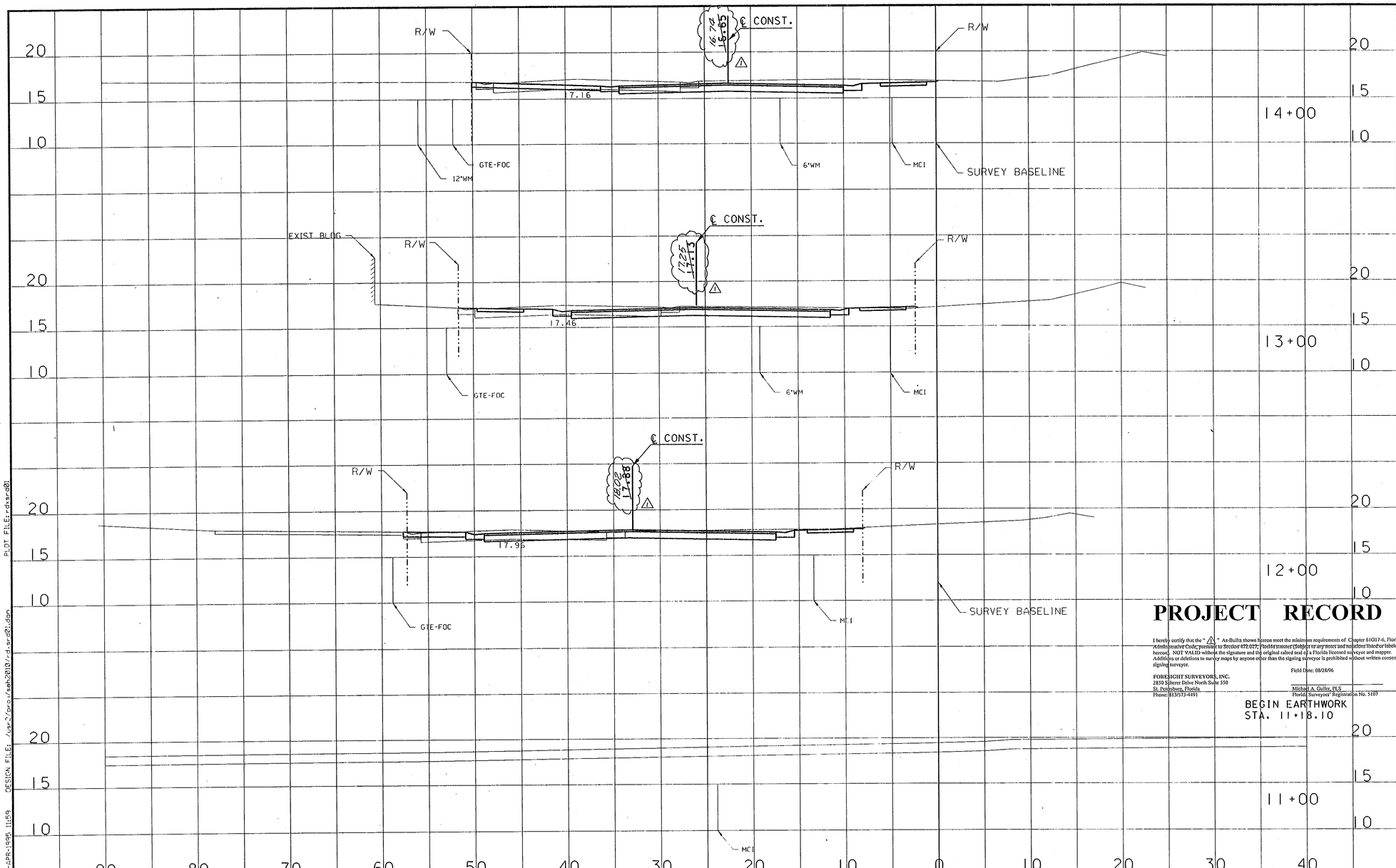
7 SHELL BASE

GROUNDWATER LEVEL, APRIL 1994

A–3 AASHTO SOIL CLASSIFICATION GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW

PROJECT No. 94–G–404	*GEOTECHNICAL SERVICES*	Meyers & Associates Inc. Engineering Consultants
DATE: APRIL 1994	*9TH AVENUE EXTENSION*	
PLATE No. 2	*SAFETY HARBOR, FLORIDA*	

PROJECT NO.	SHEET NO.
SAH2010.01	15



A-2,A-3 MATL.			
RDWY.EXC.		FILL	
A	V	A	V
70		1	
	200		4
38		1	
	137		6
36		2	
	122		7
38		2	

PROJECT RECORD

I hereby certify that the " △1 " As-Builts shown hereon meet the minimum requirements of Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes (Supplet or any notes and no other lines or labels hereon). NOT VALID without the signature and the original raised seal of a Florida licensed surveyor and mapper. Additions or deletions to survey maps by anyone other than the signing surveyor is prohibited without written consent of the signing surveyor.

Field Date: 08/28/96

FORESIGHT SURVEYORS, INC.
2850 Scherer Drive North Suite 550
St. Petersburg, Florida
Phone: 813/573-4491

Michael A. Guiler, PLS
Florida Surveyors' Registration No. 5107

PLOT DATE: 24-APR-1996 11:59 DESIGN FILE: /usr2/proj/sah2010/rdsr001.dgn PLOT FILE: rdsr001

REVISIONS												
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
											△1 AS-BUILT 8/28/96

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.G.	7/94	DRAWN BY	W.T.I.	7/94
CHECKED BY	D.W.H.	7/94	CHECKED BY	D.W.H.	7/94

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

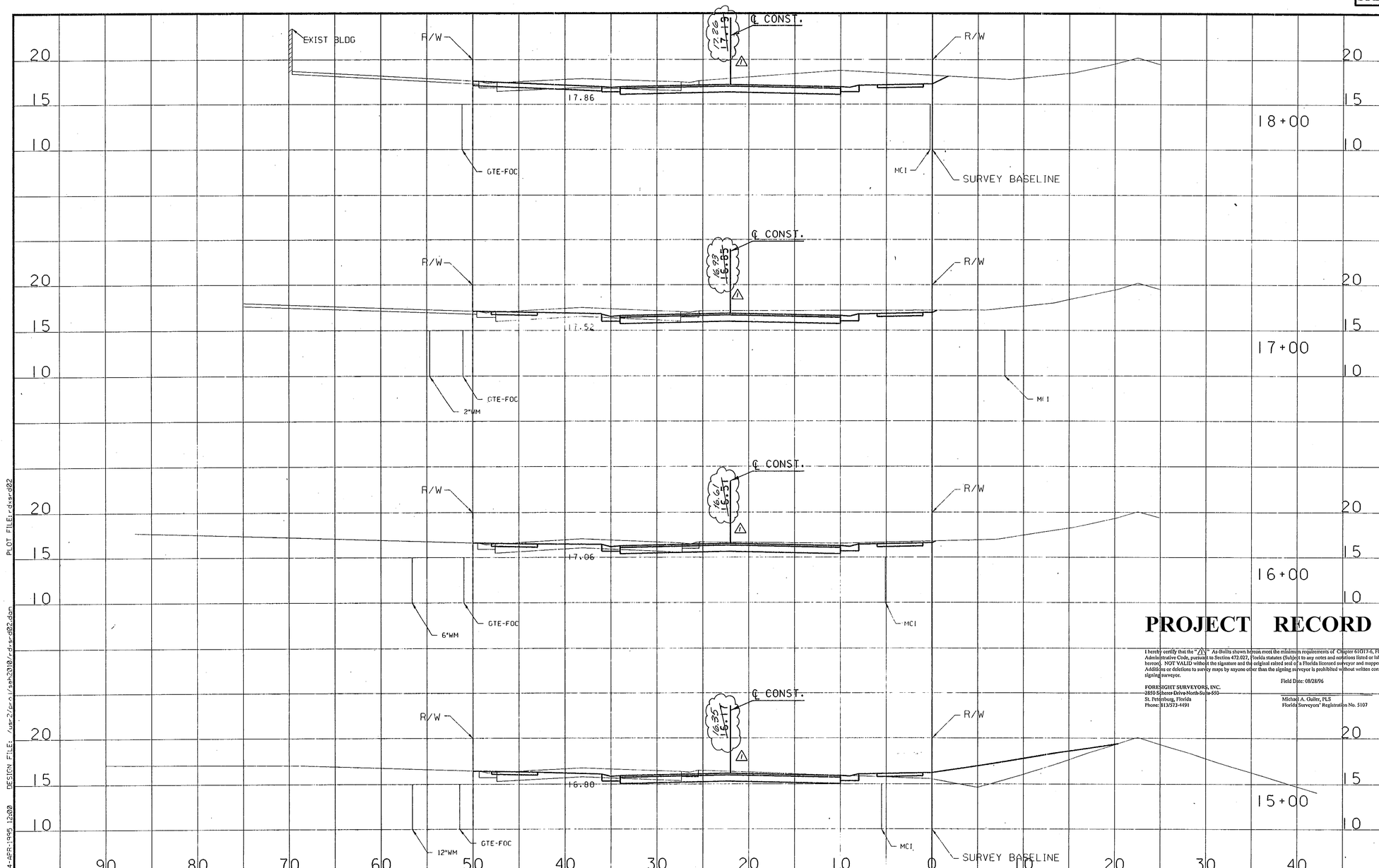
APPROVED BY :

DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

CROSS SECTIONS

PROJECT NO.	SHEET NO.
SAH2010.01	16



A-2,A-3 MATL.			
RDWY.EXC.		FILL	
A	V	A	V
68		0	
	211		2
46		1	
	157		4
39		1	
	139		57
36		30	
	196		57

PROJECT RECORD

I hereby certify that the "△1" As-Builts shown hereon meet the minimum requirements of Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida statutes (Subject to any notes and notations listed or labeled hereon). NOT VALID without the signature and the original raised seal of a Florida licensed surveyor and mapper. Additions or deletions to survey maps by anyone other than the signing surveyor is prohibited without written consent of the signing surveyor.

Field Date: 08/28/96

FORESIGHT SURVEYORS, INC.
2850 Sphere Drive North Suite 850
St. Petersburg, Florida
Phone: 813/573-4491

Michael A. Guiler, PLS
Florida Surveyors' Registration No. 5107

PLOT DATE: 04-APR-1995 12:00 DESIGN FILE: /usr2/prj/sah2010/rdsrd02 PLOT FILE: rdsrd02

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
											△1 AS-BUILT 8/28/96

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.C.	7/94	DRAWN BY	W.T.I.	7/94
CHECKED BY	D.W.H.	7/94	CHECKED BY	D.W.H.	7/94

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

APPROVED BY :

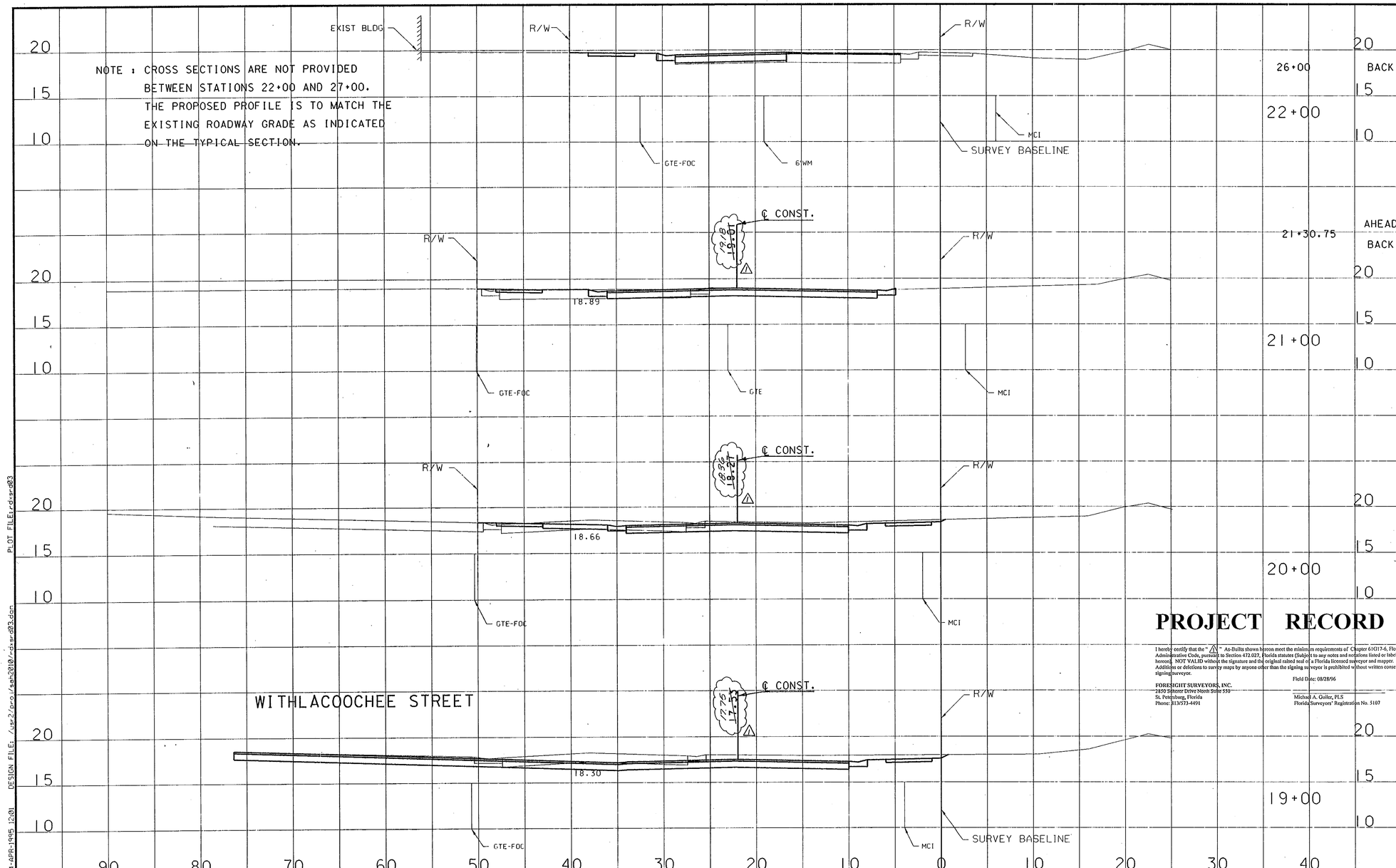
DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

CROSS SECTIONS

PROJECT NO.	SHEET NO.
SAH2010.01	17

NOTE : CROSS SECTIONS ARE NOT PROVIDED BETWEEN STATIONS 22+00 AND 27+00. THE PROPOSED PROFILE IS TO MATCH THE EXISTING ROADWAY GRADE AS INDICATED ON THE TYPICAL SECTION.



		A-2,A-3 MATL. RDWY.EXC. A	A-2,A-3 MATL. RDWY.EXC. V	A-2,A-3 MATL. FILL A	A-2,A-3 MATL. FILL V
26+00 BACK		12		8	
			163		67
22+00		10		1	
			26		3
21+30.75 AHEAD		10		1	
21+30.75 BACK		50		5	
			47		3
21+00		32		1	
			137		4
20+00		42		1	
			244		2
19+00		90		0	
			293		0

PROJECT RECORD

I hereby certify that the "△" As-Builts shown hereon meet the minimum requirements of Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida statutes (Subject to any notes and notations listed or labeled hereon). NOT VALID without the signature and the original raised seal of a Florida licensed surveyor and mapper. Additions or deletions to survey maps by anyone other than the signing surveyor is prohibited without written consent of the signing surveyor.

Field Date: 08/28/96

FORESIGHT SURVEYORS, INC.
2850 Sunset Drive North Suite 550
St. Petersburg, Florida
Phone: 813/573-4491

Michael A. Guiler, PLS
Florida Surveyors' Registration No. 5107

PLOT DATE: 04-APR-1995 12:01 DESIGN FILE: /usr2/pro/sah2010/rdser003.dgn PLOT FILE: rdser003

REVISIONS													
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
											△ AS-BUILT 8/28/96

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.C.	7/94	DRAWN BY	W.T.I.	7/94
CHECKED BY	D.W.H.	7/94	CHECKED BY	D.W.H.	7/94

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

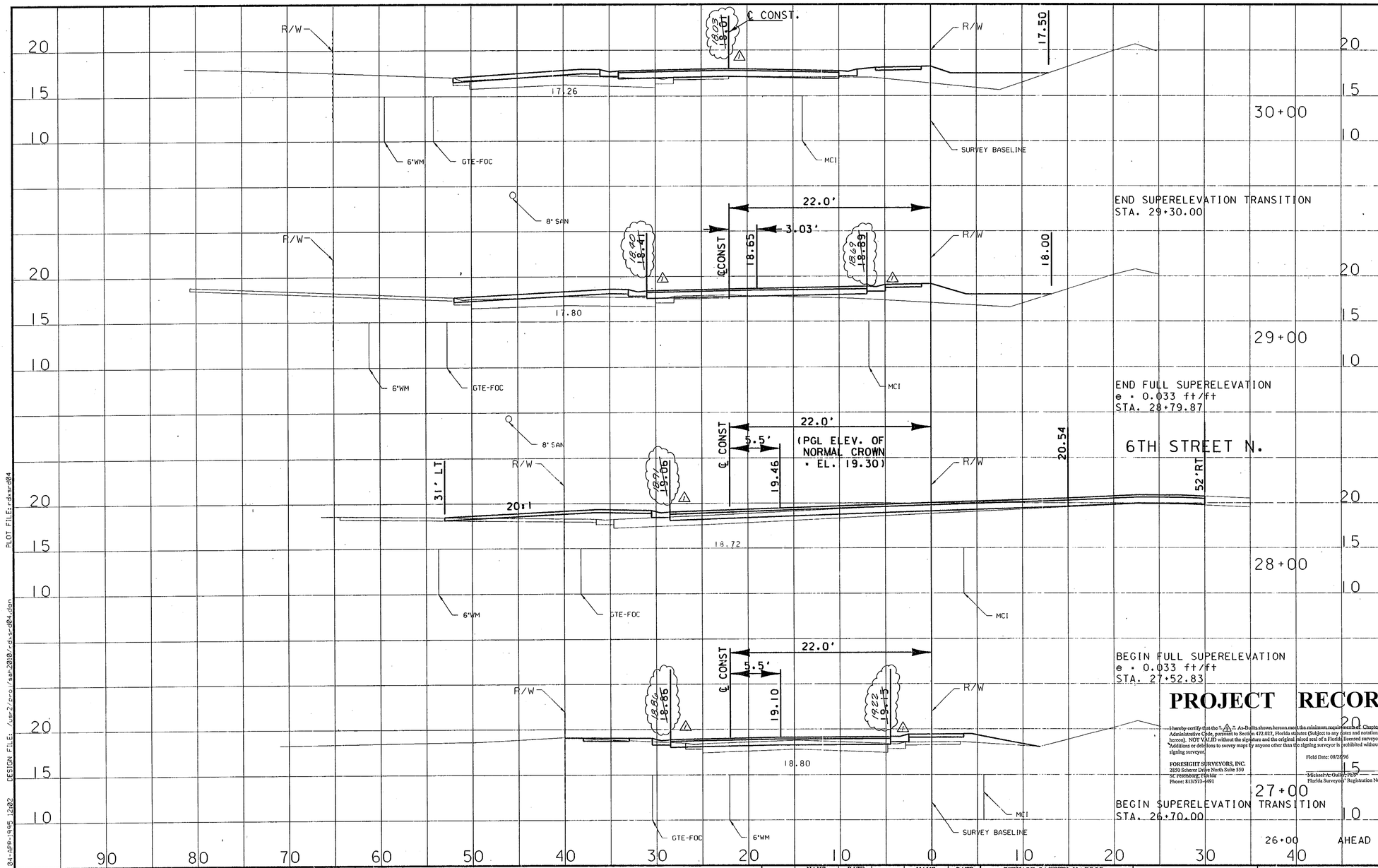
APPROVED BY :

DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

CROSS SECTIONS

PROJECT NO.	SHEET NO.
SAH2010.01	18



A-2,A-3 MATL.			
RDWY.EXC.		FILL	
A	V	A	V
9		33	
	33		130
9		37	
	98		85
44		9	
	104		32
12		8	
44		30	
12		8	

PROJECT RECORD

I hereby certify that the "△" As-Builts shown hereon meet the minimum requirements of Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida statutes (Subject to any notes and notations listed or labeled hereon). NOT VALID without the signature and the original raised seal of a Florida licensed surveyor and mapper. Additions or deletions to survey maps by anyone other than the signing surveyor is prohibited without written consent of the signing surveyor.

Field Date: 08/28/96

FORESIGHT SURVEYORS, INC.
2850 Scherer Drive North Suite 550
St. Petersburg, Florida
Phone: 813/573-1491

Michael A. Guillot, PLS
Florida Surveyor Registration No. 3127

PLOT DATE: 04-APR-1996 12:02 DESIGN FILE: /usr2/proj/sah2010/rdsxsd04.dgn PLOT FILE: rdsxsd04

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
											△ AS-BUILT 8/28/96

REVISIONS

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.G.	7/94	DRAWN BY	W.T.J.	7/94
CHECKED BY	D.W.H.	7/94	CHECKED BY	D.W.H.	7/94

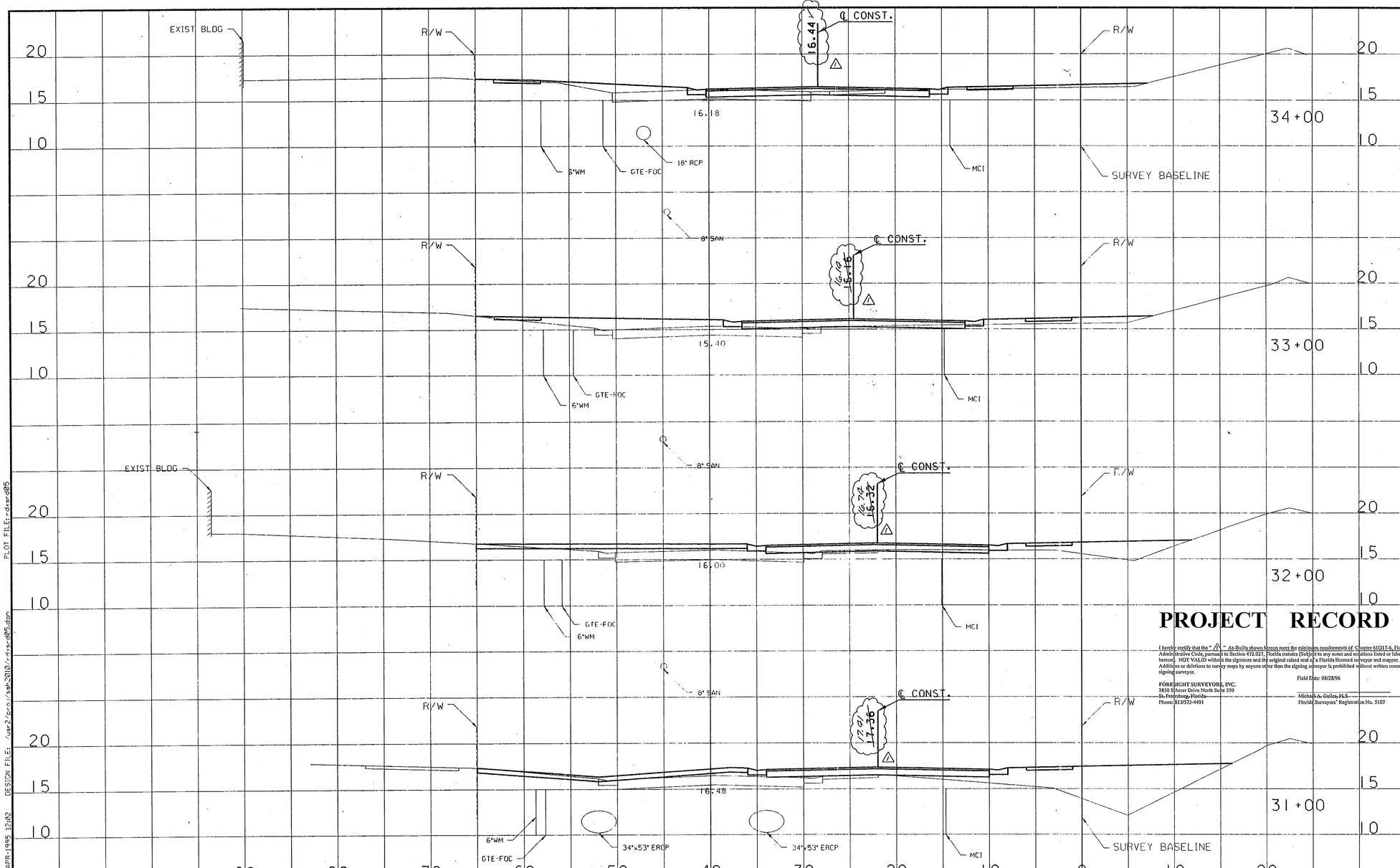
SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA
APPROVED BY :
DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

CROSS SECTIONS

PROJECT NO.	SHEET NO.
SAH2010.01	19



A-2,A-3 MATL.			
RDWY.EXC.		FILL	
A	V	A	V
17		14	
	35		83
2		31	
	22		122
10		35	
	30		222
6		85	
	28		219

PROJECT RECORD

I hereby certify that the " △ " As-Built's shown hereon meet the minimum requirements of Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida statutes (Subject to any notes and notations listed or labeled hereon). NOT VALID without the signature and the original raised seal of a Florida licensed surveyor and mapper. Additions or deletions to survey maps by anyone other than the signing surveyor is prohibited without written consent of the signing surveyor.

Field Date: 08/28/96

FORESIGHT SURVEYORS, INC.
2850 S.Shore Drive North Suite 550
St. Petersburg, Florida
Phone: 813/573-4491

Michael A. Guiley, PLS
Florida Surveyors' Registration No. 5107

PLOT DATE: 24-APR-1995 12:02 DESIGN FILE: /usr2/proj/sah2010/rdsr005.dgn PLOT FILE: rdsr005

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
					8" SAN						△ AS-BUILT 8/28/96

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.G.	7/94	DRAWN BY	W.T.I.	7/94
CHECKED BY	D.W.H.	7/94	CHECKED BY	D.W.H.	7/94

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

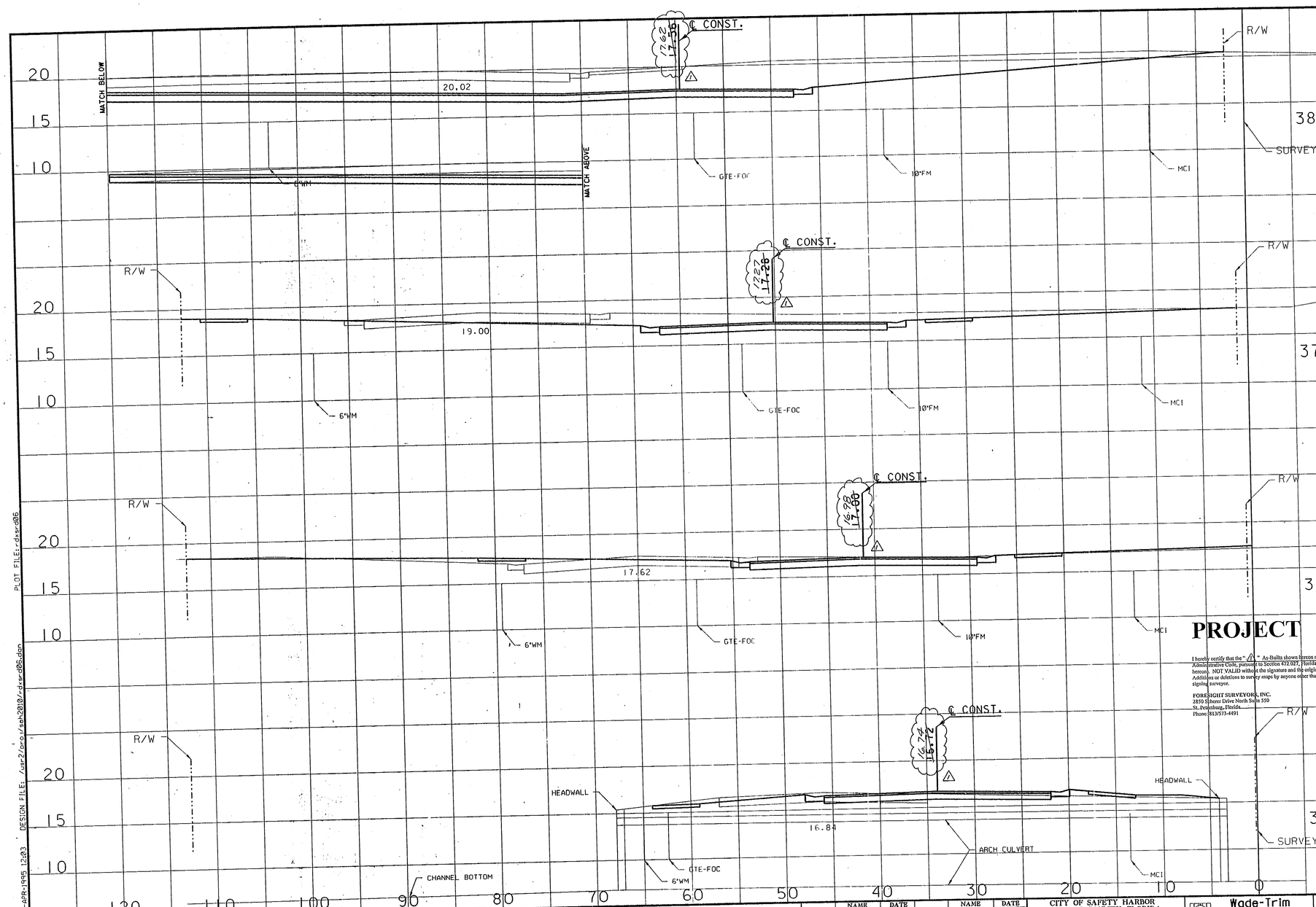
APPROVED BY :

DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

CROSS SECTIONS

PROJECT NO.	SHEET NO.
SAH2010.01	20



	A-2,A-3 MATL.			
	RDWY.EXC.		FILL	
	A	V	A	V
38+30 AHEAD	179		5	
BACK	376		0	
		418		0
38+00	376		0	
		418		0
37+70 AHEAD	376		0	
BACK	94		1	
		243		3
37+00	94		1	
		231		15
36+00	31		7	
		107		20
35+00	27		4	
		81		33

PROJECT RECORD

I hereby certify that the "△1" As-Builts shown hereon meet the minimum requirements of Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes (Subject to any notes and notations listed or labeled hereon). NOT VALID without the signature and the original raised seal of a Florida licensed surveyor and mapper. Additions or deletions to survey maps by anyone other than the signing surveyor is prohibited without written consent of the signing surveyor.

FORESIGHT SURVEYORS, INC.
2850 Scherer Drive North Suite 550
St. Petersburg, Florida
Phone: 813/573-4491

Field Date: 08/28/96

Michael A. Guiler, PLS
Florida Surveyors' Registration No. 5107

PLOT FILE: dsw-006
DESIGN FILE: /usr2/pw01/sah2010/dsw-006.dgn
PLOT DATE: 04-APR-1995 12:03

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
											△1 AS-BUILT 8/28/96

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.G.	7/94	DRAWN BY	W.T.I.	7/94
CHE'KED BY	D.W.H.	7/94	CHECKED BY	D.W.H.	7/94

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

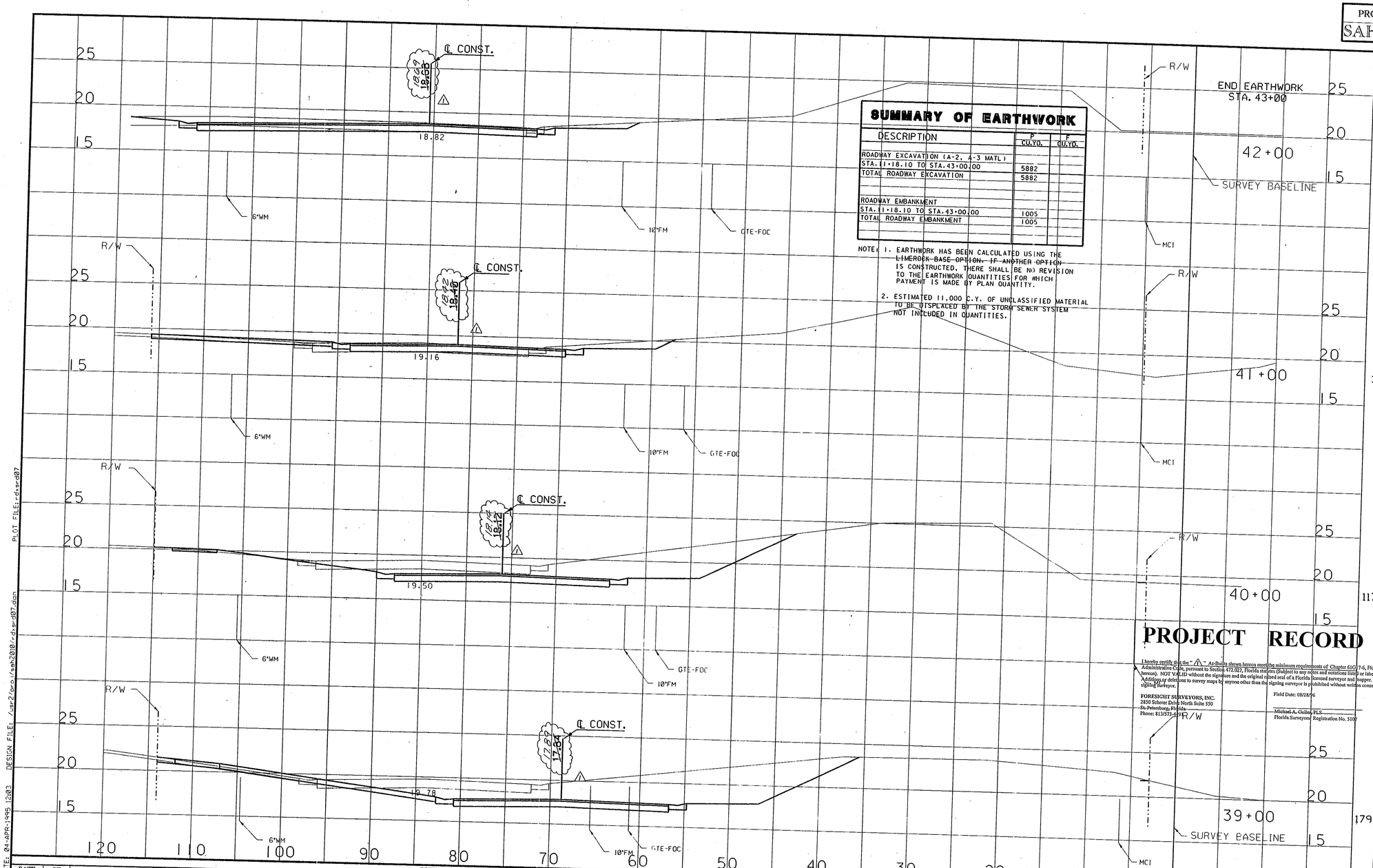
APPROVED BY :

DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

CROSS SECTIONS

PROJECT NO.	SHEET NO.
SAH2010.01	21



SUMMARY OF EARTHWORK

DESCRIPTION	F CU.YD.	F CU.YD.
ROADWAY EXCAVATION (A-2, A-3 MATL)		
STA. 11+18.10 TO STA. 43+00.00	5882	
TOTAL ROADWAY EXCAVATION	5882	
ROADWAY EMBANKMENT		
STA. 11+18.10 TO STA. 43+00.00	1005	
TOTAL ROADWAY EMBANKMENT	1005	

NOTE: 1. EARTHWORK HAS BEEN CALCULATED USING THE ~~LIMEROCK BASE OPTION. IF ANOTHER OPTION~~ IS CONSTRUCTED, THERE SHALL BE NO REVISION TO THE EARTHWORK QUANTITIES FOR WHICH PAYMENT IS MADE BY PLAN QUANTITY.

2. ESTIMATED 11,000 C.Y. OF UNCLASSIFIED MATERIAL TO BE DISPLACED BY THE STORM SEWER SYSTEM NOT INCLUDED IN QUANTITIES.

A-2, A-3 MATL.			
ROWY.EXC.		FILL	
A	V	A	V
100		0	
	376		0
103		0	
	252		15
33		8	
	278		15
117		0	
	548		9
179		5	
	464		13

PROJECT RECORD

I hereby certify that the " △1 " As-Builts shown hereon meet the minimum requirements of Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida statutes (Subject to any notes and notations listed or labeled hereon). NOT VALID without the signature and the original raised seal of a Florida licensed surveyor and mapper. Additions or deletions to survey maps by anyone other than the signing surveyor is prohibited without written consent of the signing Surveyor.

FORESIGHT SURVEYORS, INC.
2850 Scherer Drive North Suite 550
St. Petersburg, Florida
Phone: 813/573-1990

Field Date: 08/28/96

Michael A. Gullet, PLS
Florida Surveyor Registration No. 5107

PLOT DATE: 04-APR-1995 12:03 DESIGN FILE: /usr2/pro1/sah2010/rdsur007.dgn PLOT FILE: rdsur007

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
											△1 AS-BUILT 8/28/96

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.G.	7/94	DRAWN BY	W.T.J.	7/94
CHECKED BY	D.W.H.	7/94	CHECKED BY	D.W.H.	7/94

SUPERVISED BY: DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

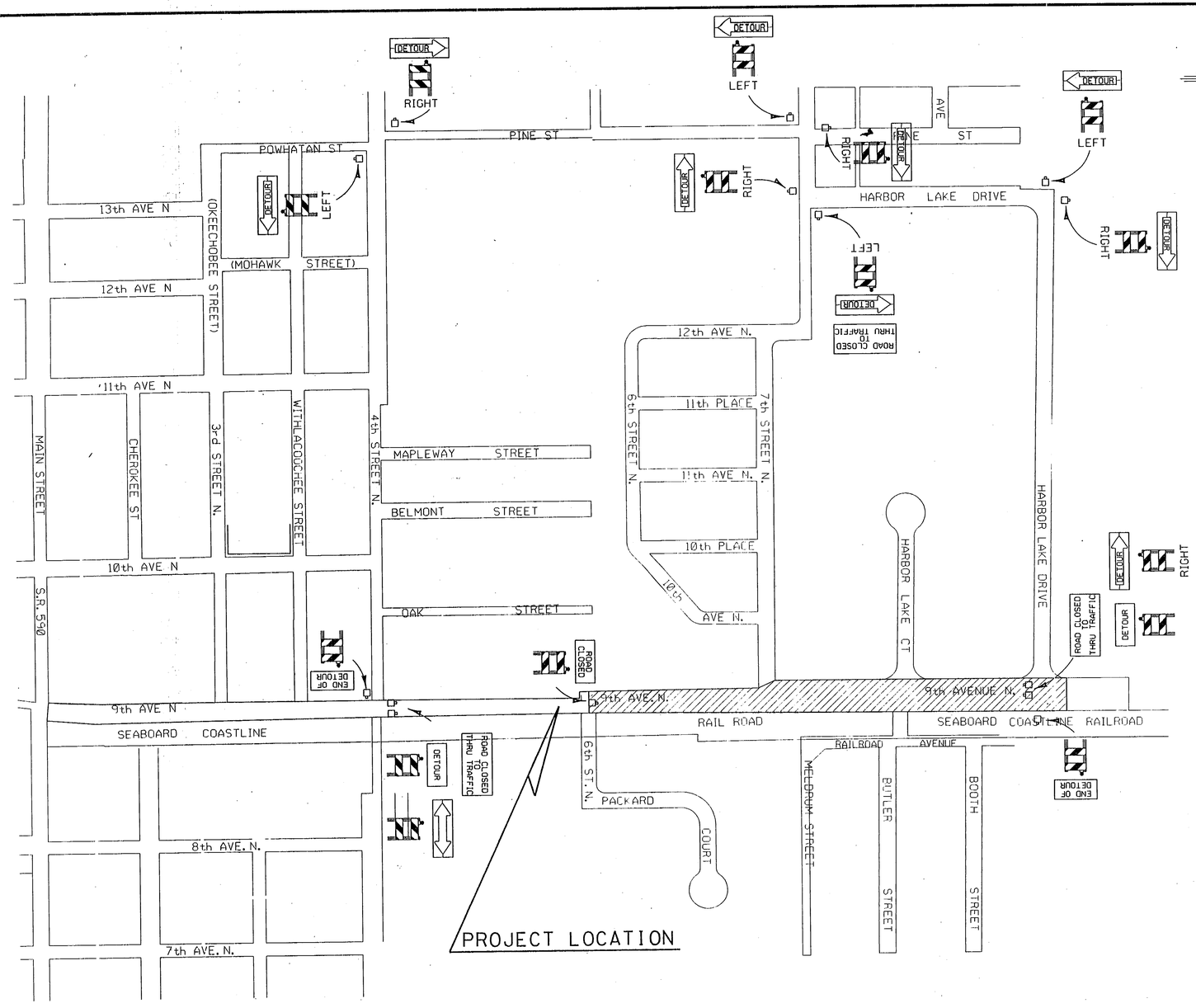
APPROVED BY:

DATE:

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

CROSS SECTIONS

PROJECT NO.	SHEET NO.
SAH2010.01	22



TRAFFIC CONTROL NOTES

THIS PROJECT SHALL BE CONSTRUCTED IN THREE SEPERATE PHASES (I,II,&III)

PHASE I SHALL BE SUBSTANTIALLY COMPLETED BEFORE COMMENCING WORK ON PHASE II.

PHASE II SHALL BE SUBSTANTIALLY COMPLETED BEFORE COMMENCING WORK ON PHASE III.

PHASE I CONSTRUCTION CONSISTS OF RECONSTRUCTING NINTH AVENUE N. FROM 6TH STREET N. TO HARBOR LAKE DRIVE.

PHASE II CONSTRUCTION CONSISTS OF RECONSTRUCTING NINTH AVENUE N. FROM 4TH STREET N. TO 6TH STREET N.

PHASE III CONSTRUCTION CONSISTS OF RECONSTRUCTING NINTH AVENUE N. FROM MAIN STREET TO 4TH STREET N.

THE CONSTRUCTION PHASES ARE INDICATED BY HATCHING ON THE 3 TRAFFIC CONTROL PLAN SHEETS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING LOCAL TRAFFIC TO AND FROM ALL THE BUSINESSES AND RESIDENCES WITHIN THE CONSTRUCTION LIMITS DURING CONSRUCTION.

THE CONTRACTOR SHALL FOLLOW THE FDOT STANDARD INDEX 600 SERIES.

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	D.W.H.	2/94	DRAWN BY	D.W.H.	2/94
CHECKED BY	W.T.I.	2/94	CHECKED BY	W.T.I.	2/94

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

APPROVED BY :

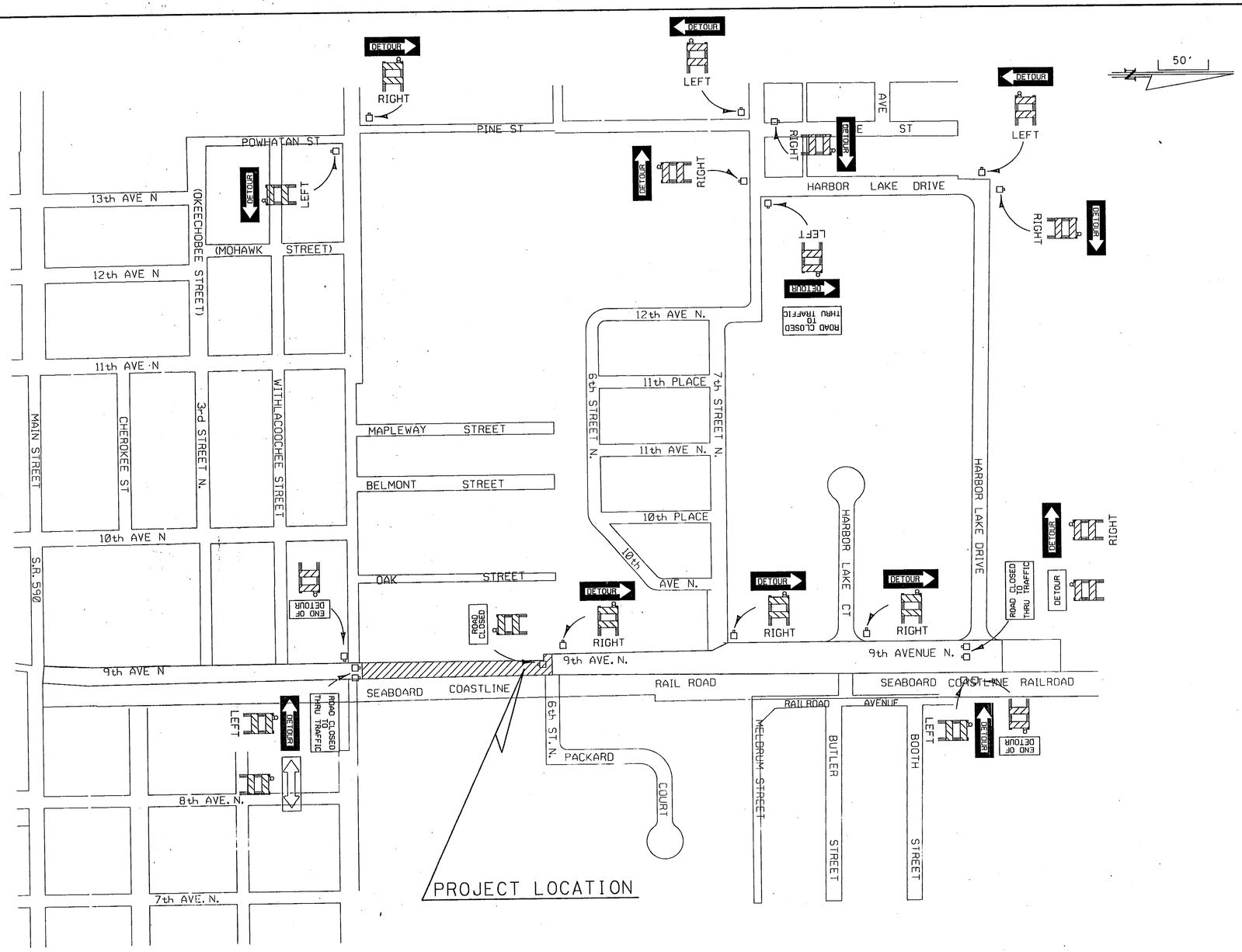
DATE :

Wade-Trim, Inc.
4919 Memorial Hwy.,
Suite 200
Tampa, Florida 33634
813-882-8366/FAX:884-5990

TRAFFIC CONTROL PLAN PHASE I

PLOT DATE: 15-MAR-1995 15:40 DESIGN FILE: /usr2/pro/sah2010/mstsr01.dgn PLOT FILE: mstsr01

PROJECT NO.	SHEET NO.
SAH2010.01	23



DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
8/18/95	DWH	REVISED DETOUR TO USE HARBOR LAKE DRIVE									

REVISIONS

	NAME	DATE		NAME	DATE
DESIGNED BY	D.W.H.	2/94	DRAWN BY	D.W.H.	2/94
CHECKED BY	W.T.I.	2/94	CHECKED BY	W.T.I.	2/94

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

APPROVED BY :

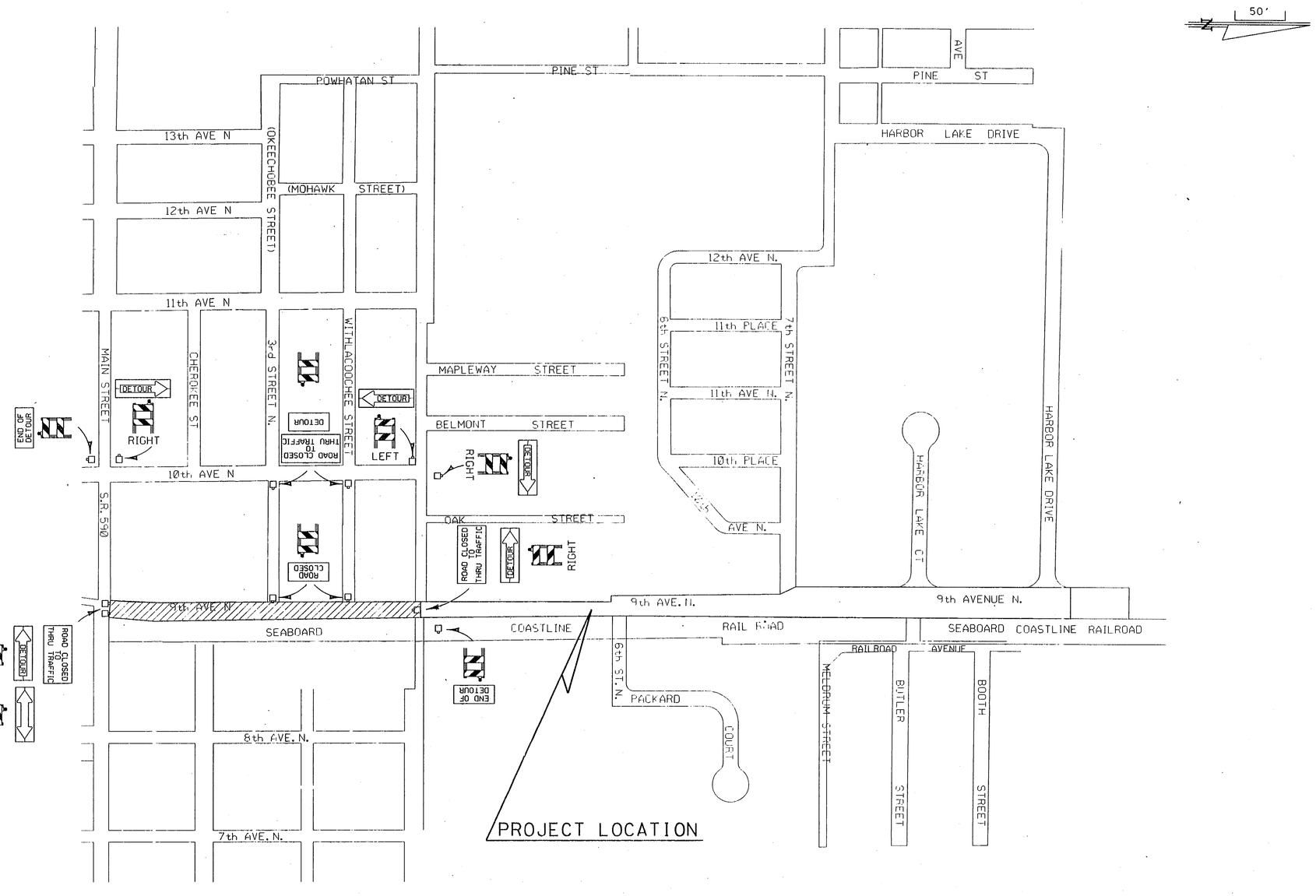
DATE :

Wade-Trim, Inc.
4919 Memorial Hwy.,
Suite 200
Tampa, Florida 33634
813-882 8362 / FAX:884-5990

TRAFFIC CONTROL PLAN
PHASE II

DATE: Fri Aug 11 16:16:32 1995 DESIGN FILE: p:\sah2010\motsr-d02.dgn PLOT FILE: MOTSR002

PROJECT NO.	SHEET NO.
SAH2010.01	24



PLOT DATE: 15-MAR-1995 15:41 DESIGN FILE: /usr2/pro/sah2010/motsr003.dgn PLOT FILE: MOTSR002

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	D.W.H.	2/94	DRAWN BY	D.W.H.	2/94
CHECKED BY	W.T.J.	2/94	CHECKED BY	W.T.J.	2/94

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

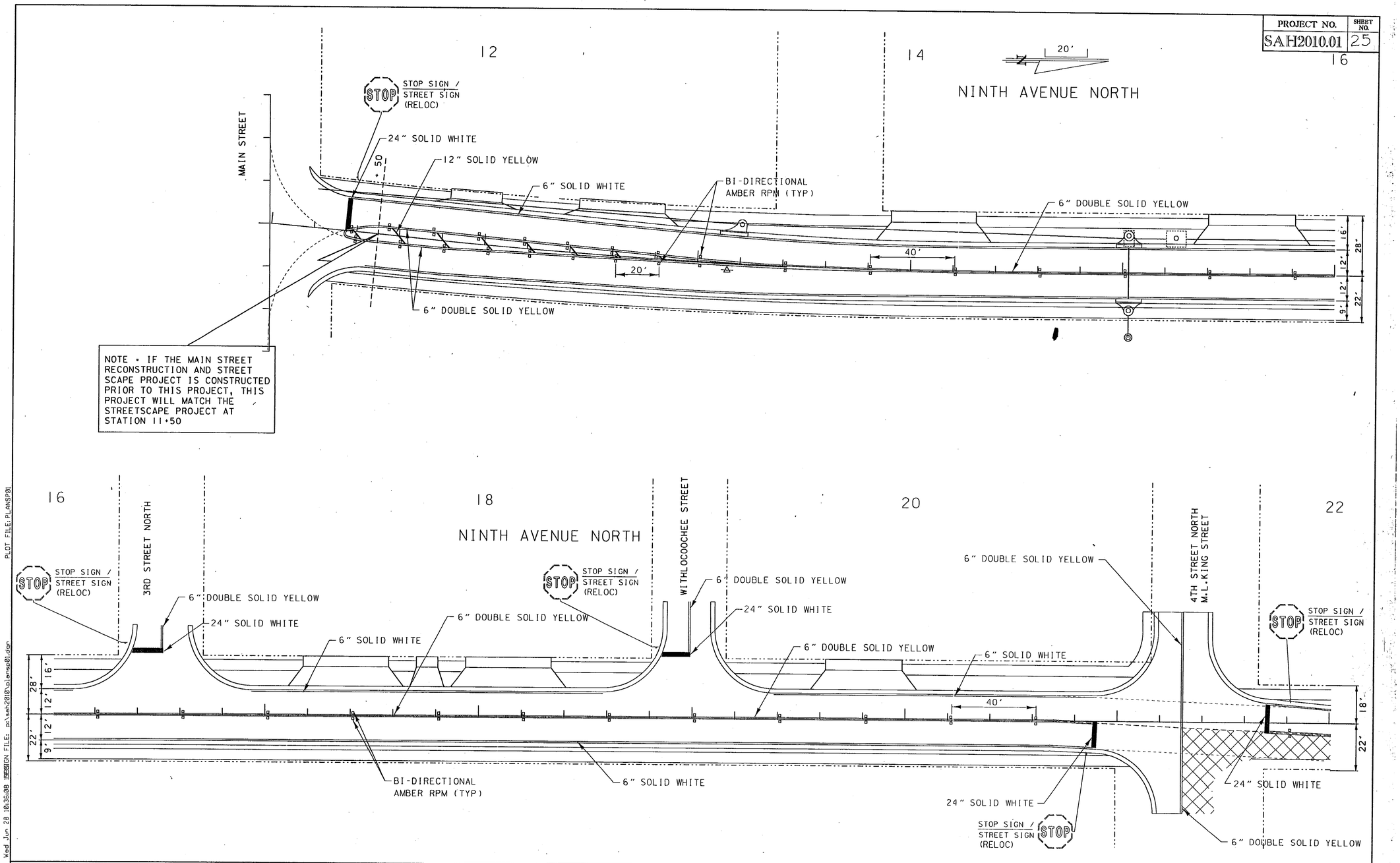
APPROVED BY :

DATE :

Wade-Trim, Inc.
4919 Memorial Hwy.,
Suite 200
Tampa, Florida 33634
813-882-8366 FAX:884-5990

TRAFFIC CONTROL PLAN
PHASE III

PROJECT NO.	SHEET NO.
SAH2010.01	25



PLOT DATE: Wed Jun 28 10:36:08 DESIGN FILE: p:\sah2010\volsap01.dgn PLOT FILE: PLANSP01

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.G.	7/94	DRAWN BY	W.T.J.	7/94
CHECKED BY	D.W.H.	7/94	CHECKED BY	D.W.H.	7/94

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

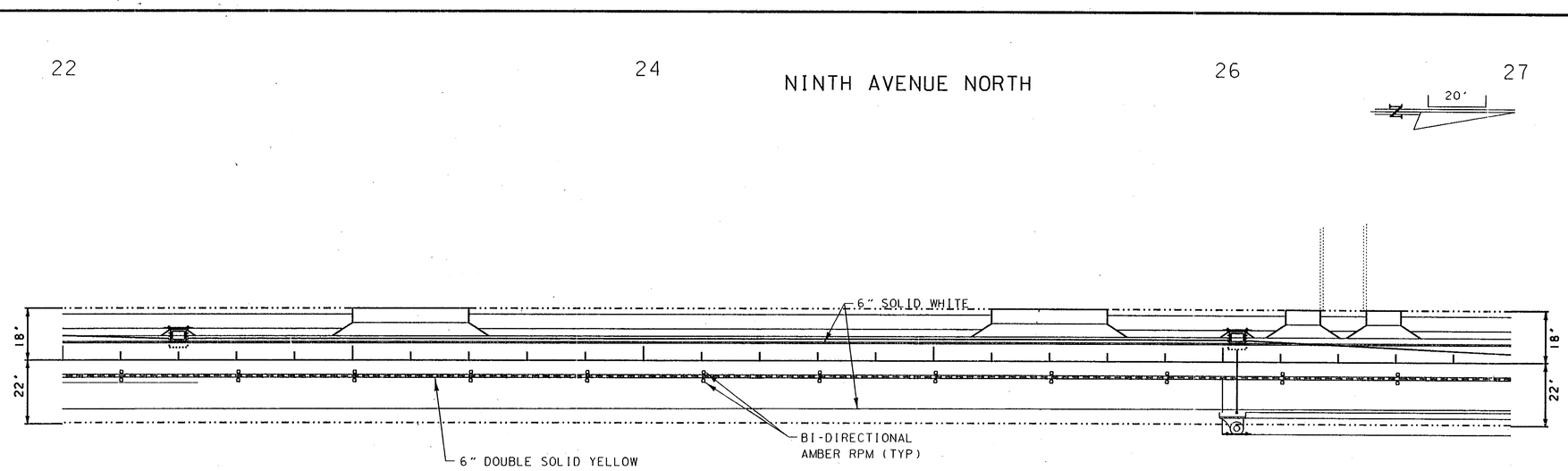
APPROVED BY :

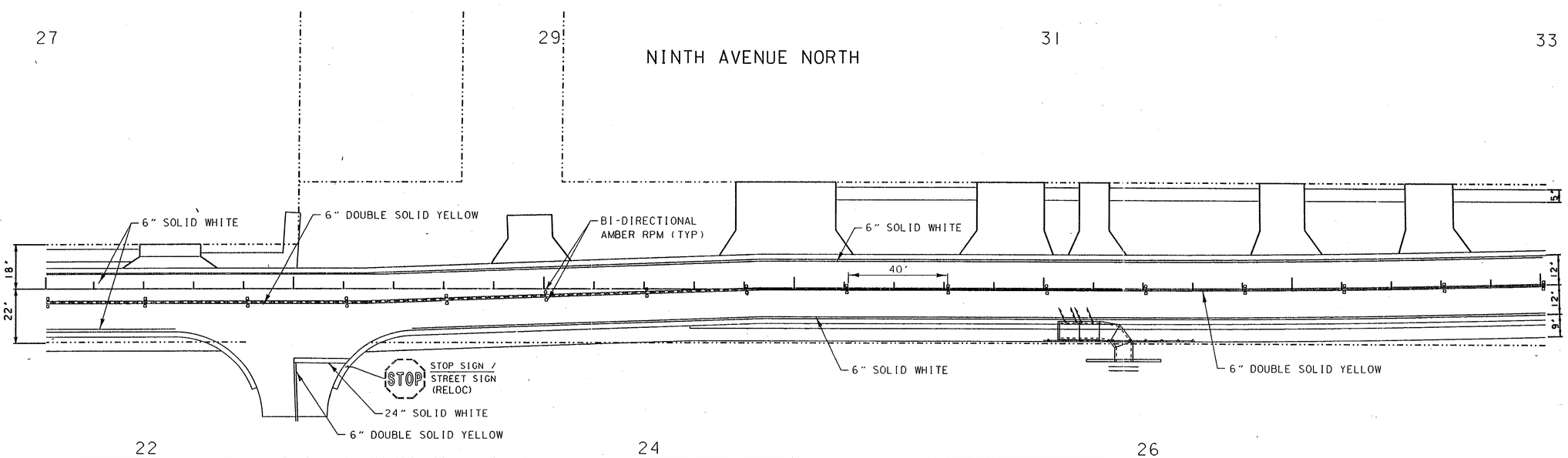
DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

SIGNING & MARKING

PROJECT NO.	SHEET NO.
SAH2010.01	26





PLOT DATE: 15-MAR-1995 15:42 DESIGN FILE: /usr2/proj/sah2010/plans02.dgn PLOT FILE: PLANSP02

REVISIONS												
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.G.	7/94	DRAWN BY	W.T.J.	7/94
CHECKED BY	D.W.H.	7/94	CHECKED BY	D.W.H.	7/94

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

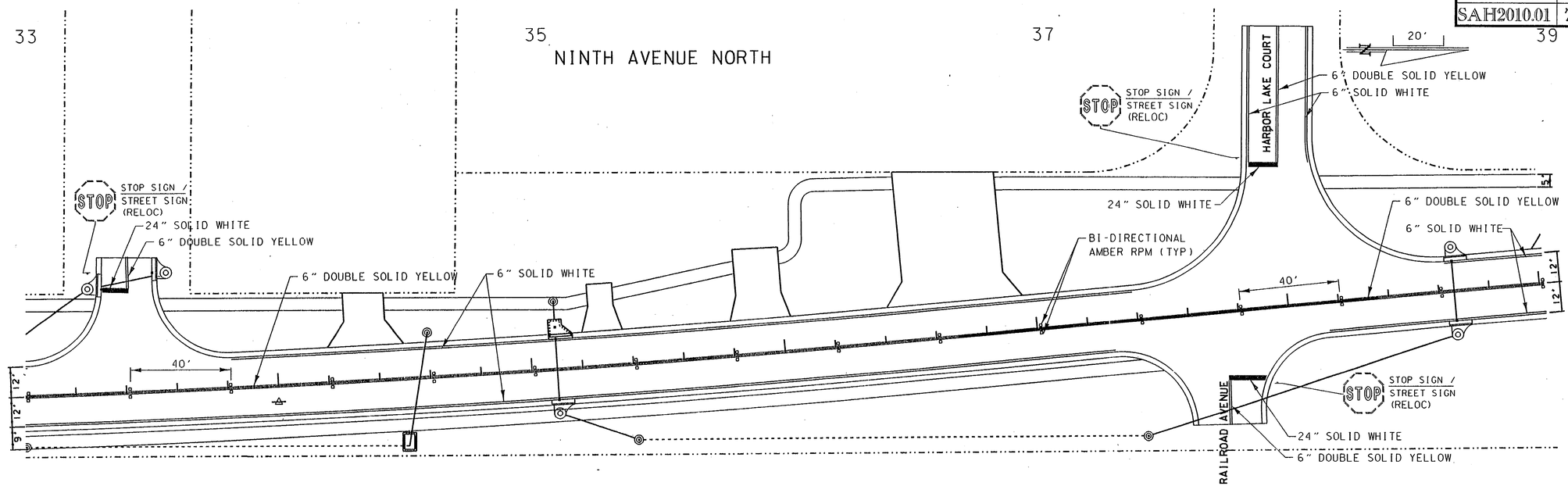
APPROVED BY :

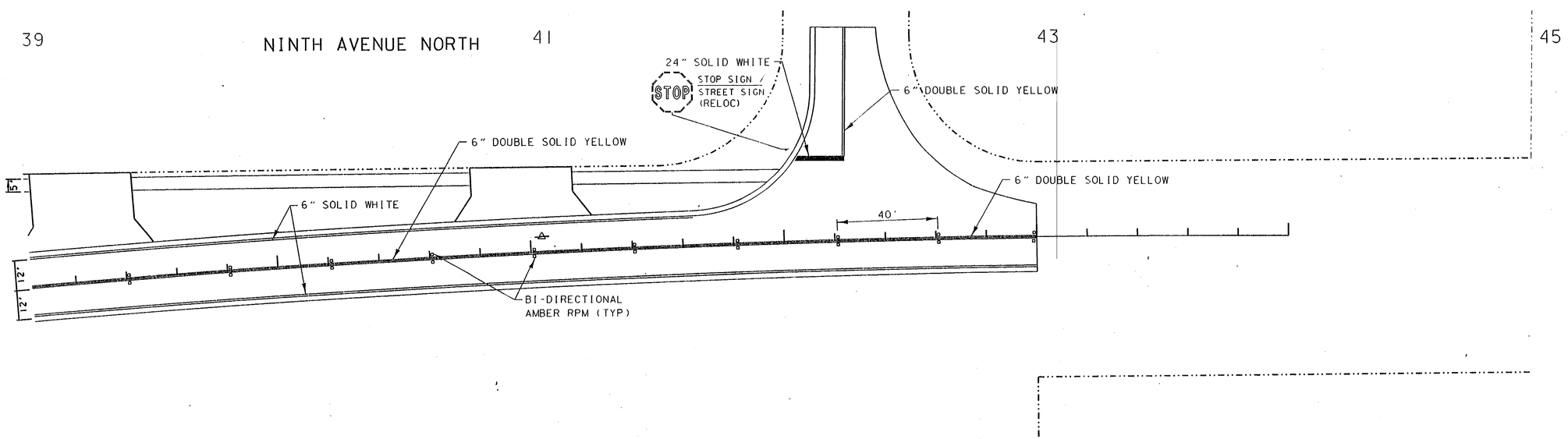
DATE :

Wade-Trim
4919 Memorial Highway,
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

SIGNING & MARKING

PROJECT NO.	SHEET NO.
SAH2010.01	27





PLOT FILE: PLANSP03

DESIGN FILE: /usr2/proj/sah2010/plans03.dgn

PLOT DATE: 15-MAR-1995 15:42

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.C.	7/94	DRAWN BY	W.T.I.	7/94
CHECKED BY	D.W.H.	7/94	CHECKED BY	D.W.H.	7/94

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

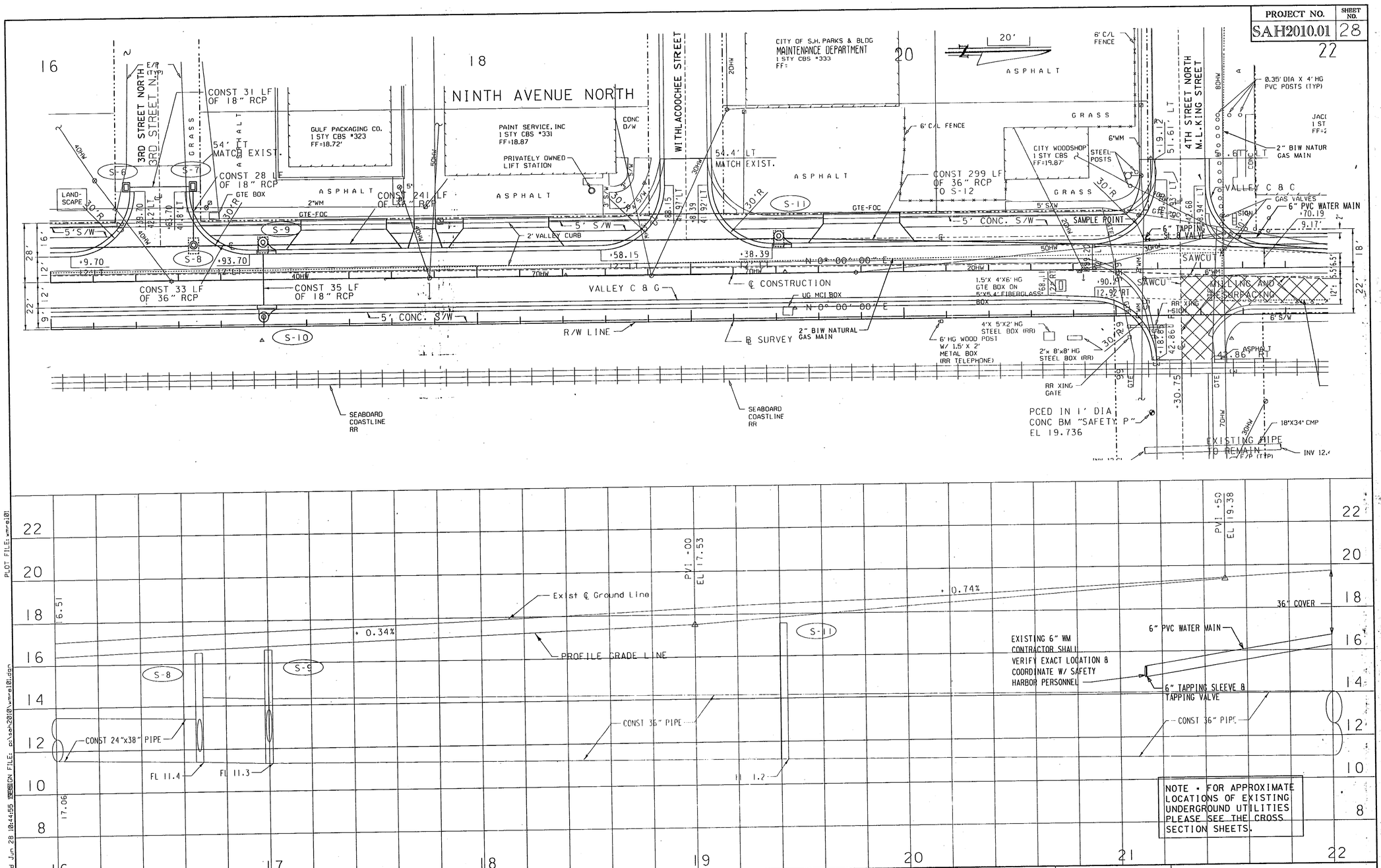
APPROVED BY :

DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

SIGNING & MARKING

PROJECT NO.	SHEET NO.
SAH2010.01	28



REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
4/25/95	KJG	ENTIRE SHEET ADDED TO CONTRACT PLAN SET									

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.C.	7/94	DRAWN BY	W.T.I.	7/94
CHECKED BY	D.W.H.	7/94	CHECKED BY	D.W.H.	7/94

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

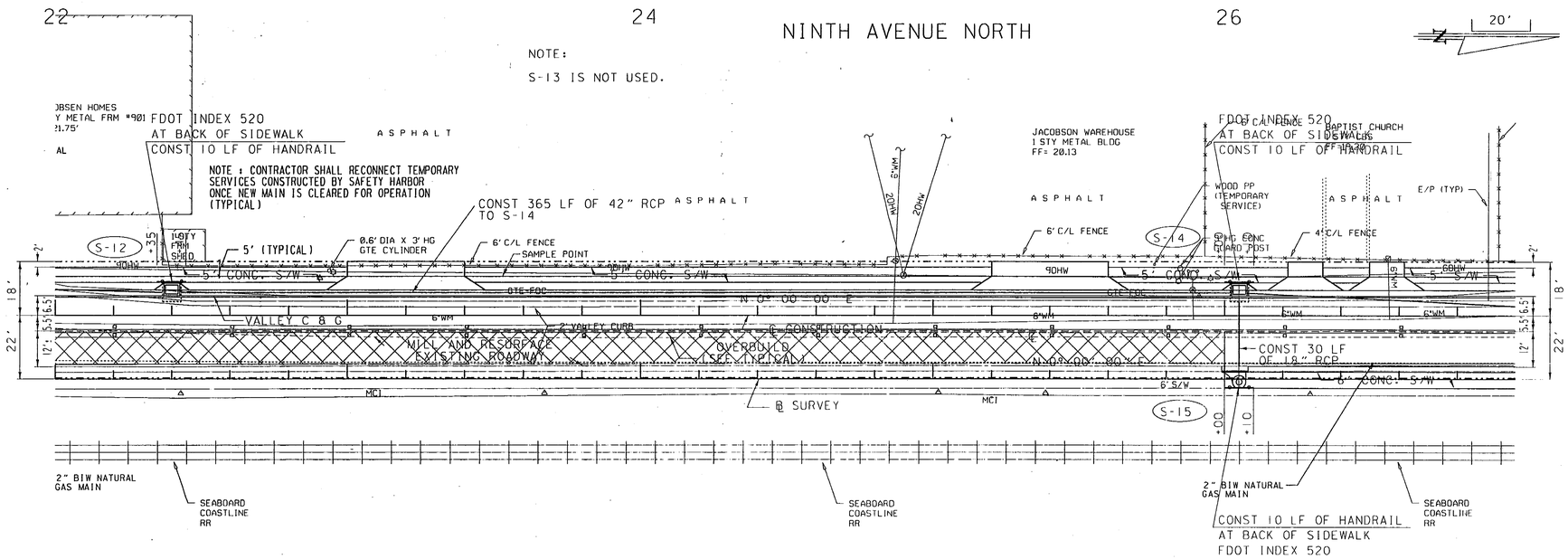
APPROVED BY :

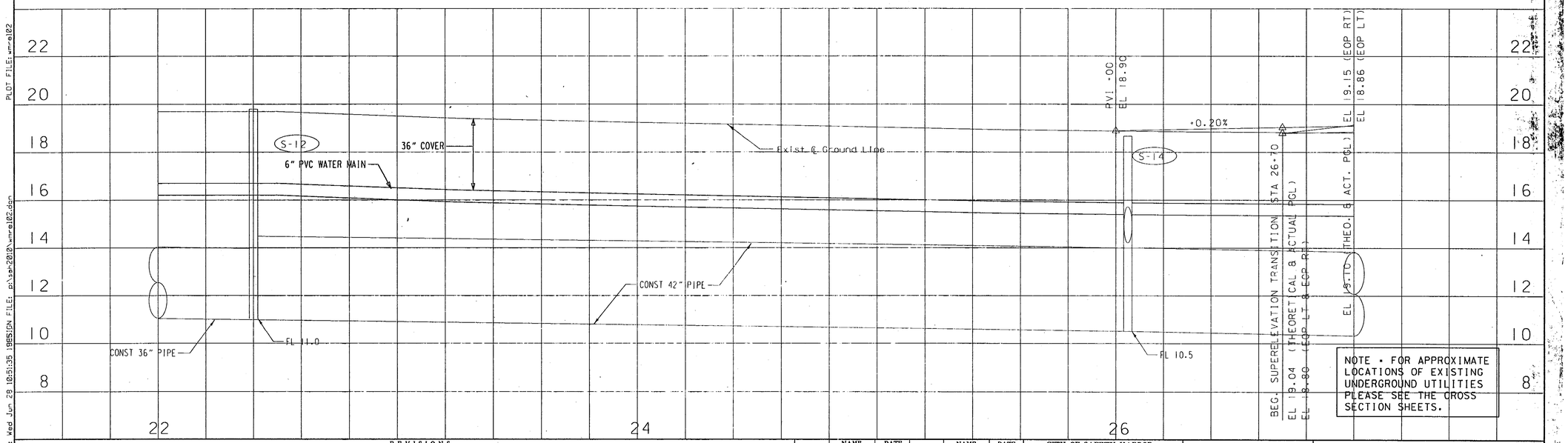
DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

WATER MAIN RELOCATION PLAN

PROJECT NO.	SHEET NO.
SAH2010.01	29





PLOT FILE: wmrel02

PLOT DATE: Wed Jun 28 10:51:35 1995 DESIGN FILE: p:\sah2010\wmrel02.dgn

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
4/25/95	KJG	ENTIRE SHEET ADDED TO CONTRACT PLAN SET									

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.G.	2/95	DRAWN BY	W.T.J.	2/95
CHECKED BY	D.W.H.	2/95	CHECKED BY	D.W.H.	2/95

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

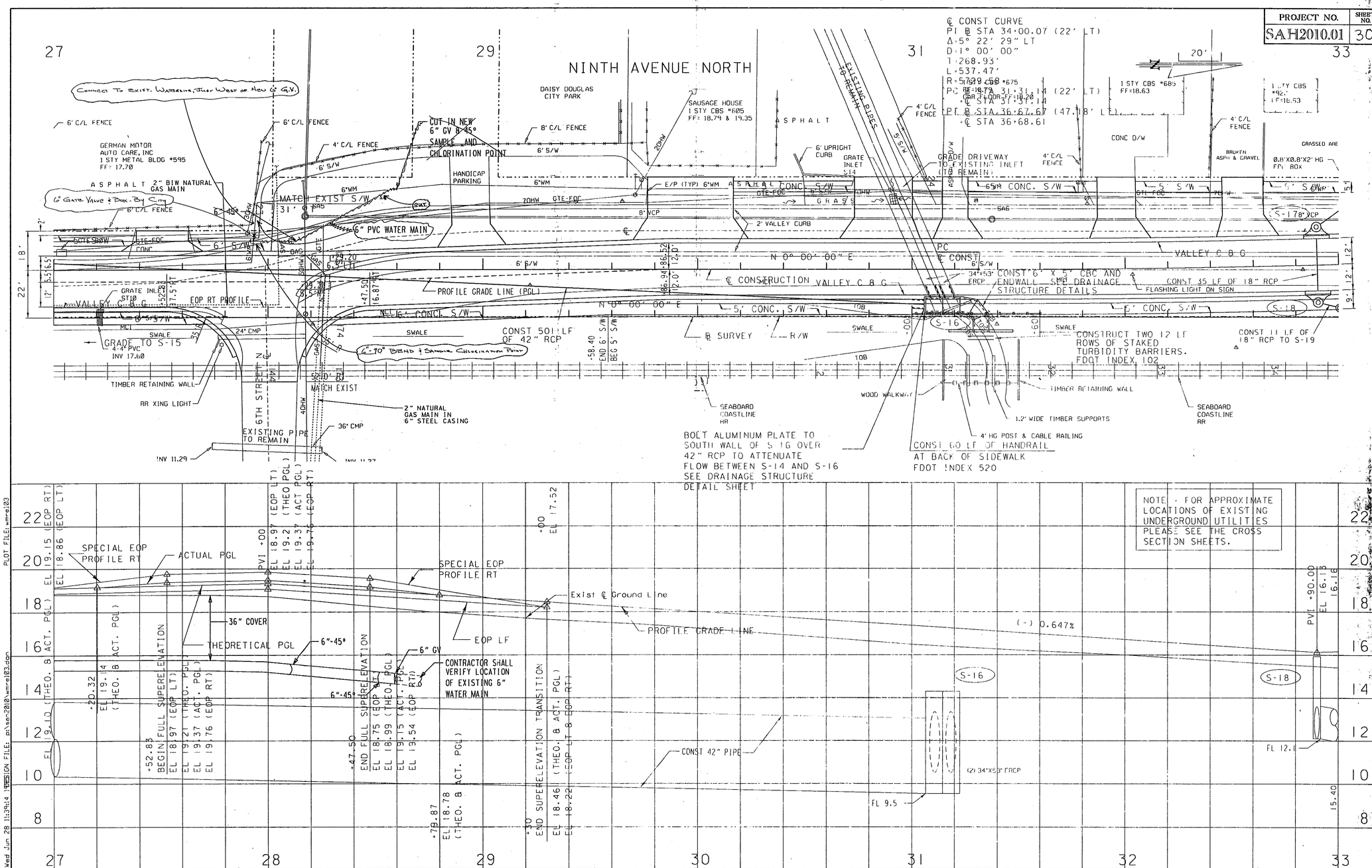
APPROVED BY :

DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

WATER MAIN RELOCATION PLAN

PROJECT NO.	SHEET NO.
SAH2010.01	30



REVISIONS													
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
4/25/95	KJG	ENTIRE SHEET ADDED TO CONTRACT PLAN SET											

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.C.	2/95	DRAWN BY	W.T.J.	2/95
CHECKED BY	D.W.H.	2/95	CHECKED BY	D.W.H.	2/95

SUPERVISED BY: DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

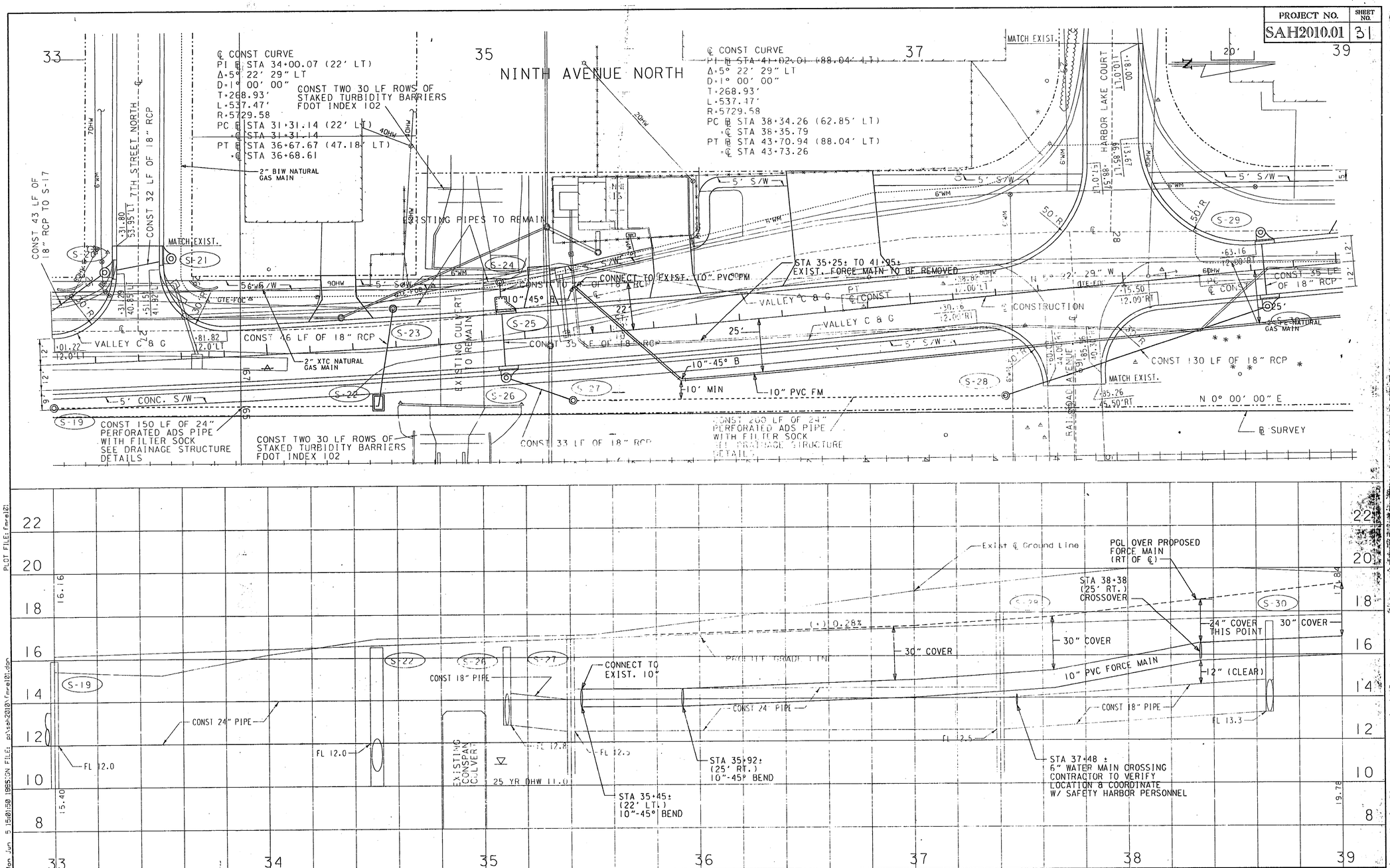
APPROVED BY:

DATE:

Wade-Trim
4915 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)887-8366 FAX: 884-5990

WATER MAIN RELOCATION PLAN

PROJECT NO.	SHEET NO.
SAH2010.01	31



PLOT DATE: Mon Jun 5 15:01:50 1995 DESIGN FILE: pw\sah2010\fmrel01.dgn PLOT FILE: fmrel01

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
4/95	DWH	ENTIRE SHEET ADDED TO CONTRACT PLAN SET									

	NAME	DATE		NAME	DATE
DESIGNED BY	H.P.M.	4/95	DRAWN BY	K.J.G.	4/95
CHECKED BY	D.W.H.	4/95	CHECKED BY	D.W.H.	4/95

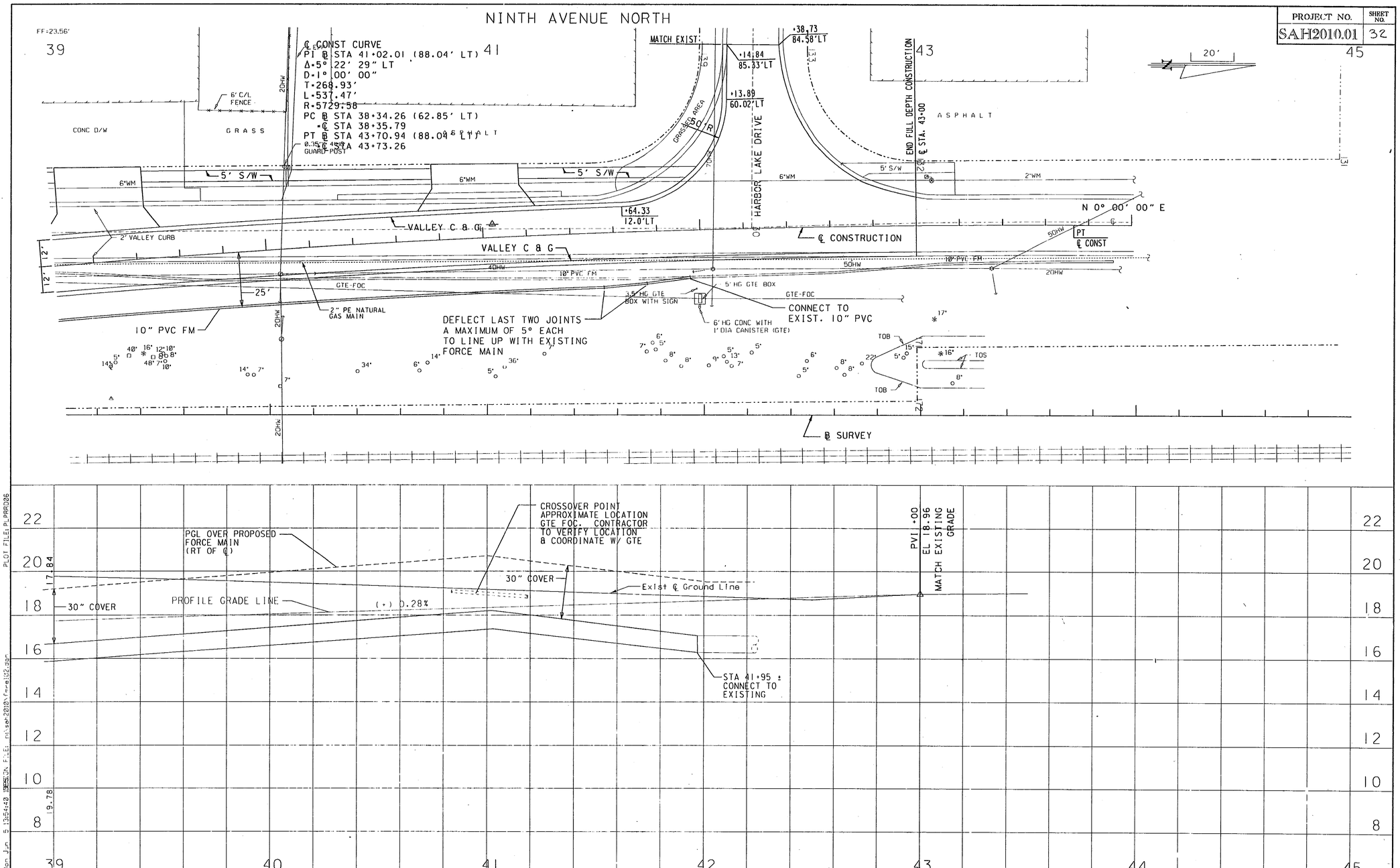
SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA
APPROVED BY :
DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

FORCE MAIN RELOCATION PLAN

PROJECT NO.	SHEET NO.
SAH2010.01	32



PLOT DATE: Mon Jun 5 13:54:40 1995 DESIGN FILE: n:\sa2010\fmain12.dgn PLOT FILE: PLBRR026

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
4/95	DWH	ENTIRE SHEET ADDED TO CONTRACT PLAN SET									

	NAME	DATE		NAME	DATE
DESIGNED BY	M.P.M.	4/95	DRAWN BY	K.J.G.	4/95
CHECKED BY	D.W.H.	4/95	CHECKED BY	D.W.H.	4/95

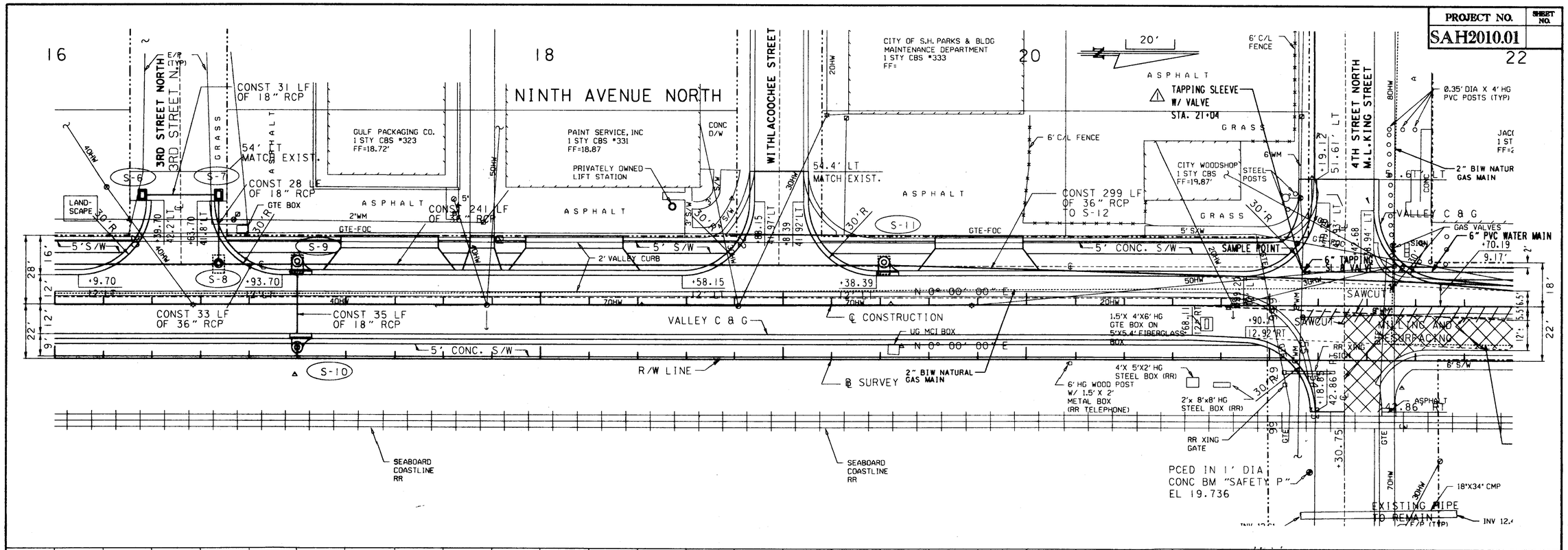
SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA
APPROVED BY :
DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

FORCE MAIN RELOCATION PLAN

PROJECT NO.	SHEET NO.
SAH2010.01	



PLOT DATE: Thu Mar 7 11:27:11 1996 DESIGN FILE: p:\sah2010\wmrel01.dgn PLOT FILE: wmrel01

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
4/25/95	KJG	ENTIRE SHEET ADDED TO CONTRACT PLAN SET			⚠ RECORD DRAWING						

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.G.	7/94	DRAWN BY	W.T.I.	7/94
CHECKED BY	D.W.H.	7/94	CHECKED BY	D.W.H.	7/94

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

APPROVED BY :

DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

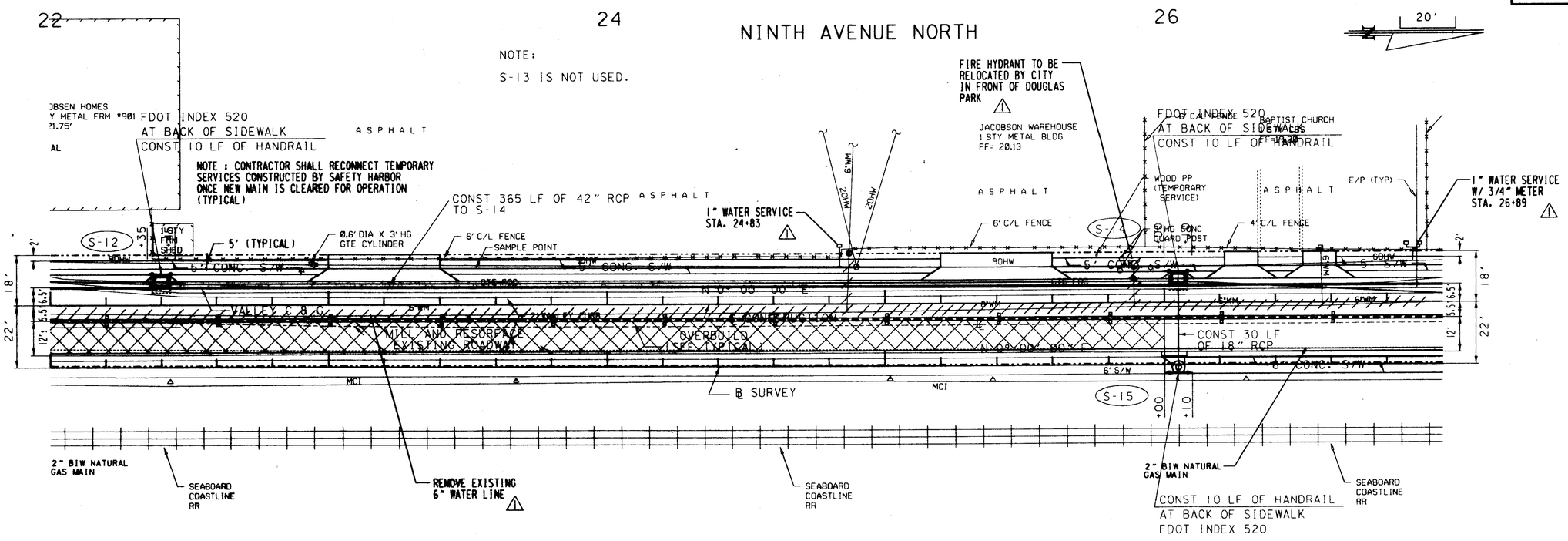
WATER MAIN RELOCATION PLAN

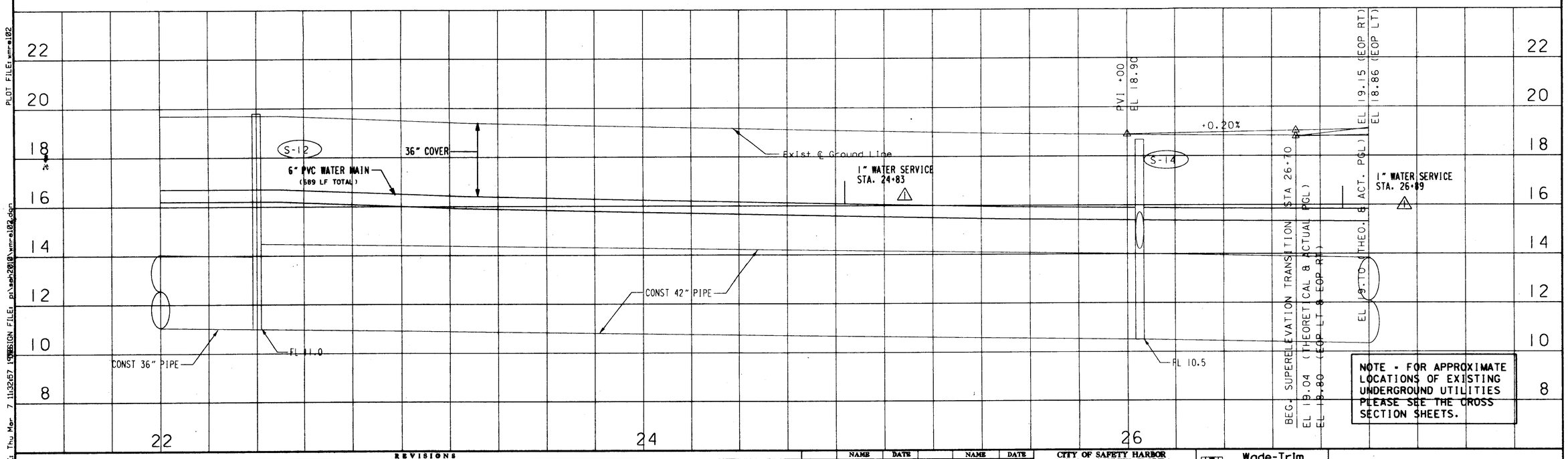
PROJECT NO.	SHEET NO.
SAH2010.01	

NINTH AVENUE NORTH

NOTE:

S-13 IS NOT USED.





PLOT DATE: Thu Mar 7 11:32:57 1996 DESIGN FILE: p:\sah2010\wmrel02.dgn PLOT FILE: wmrel02

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
4/25/96	KJG	ENTIRE SHEET ADDED TO CONTRACT PLAN SET			⚠ RECORD DRAWING						

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.G.	2/95	DRAWN BY	W.T.I.	2/95
CHECKED BY	D.W.H.	2/95	CHECKED BY	D.W.H.	2/95

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

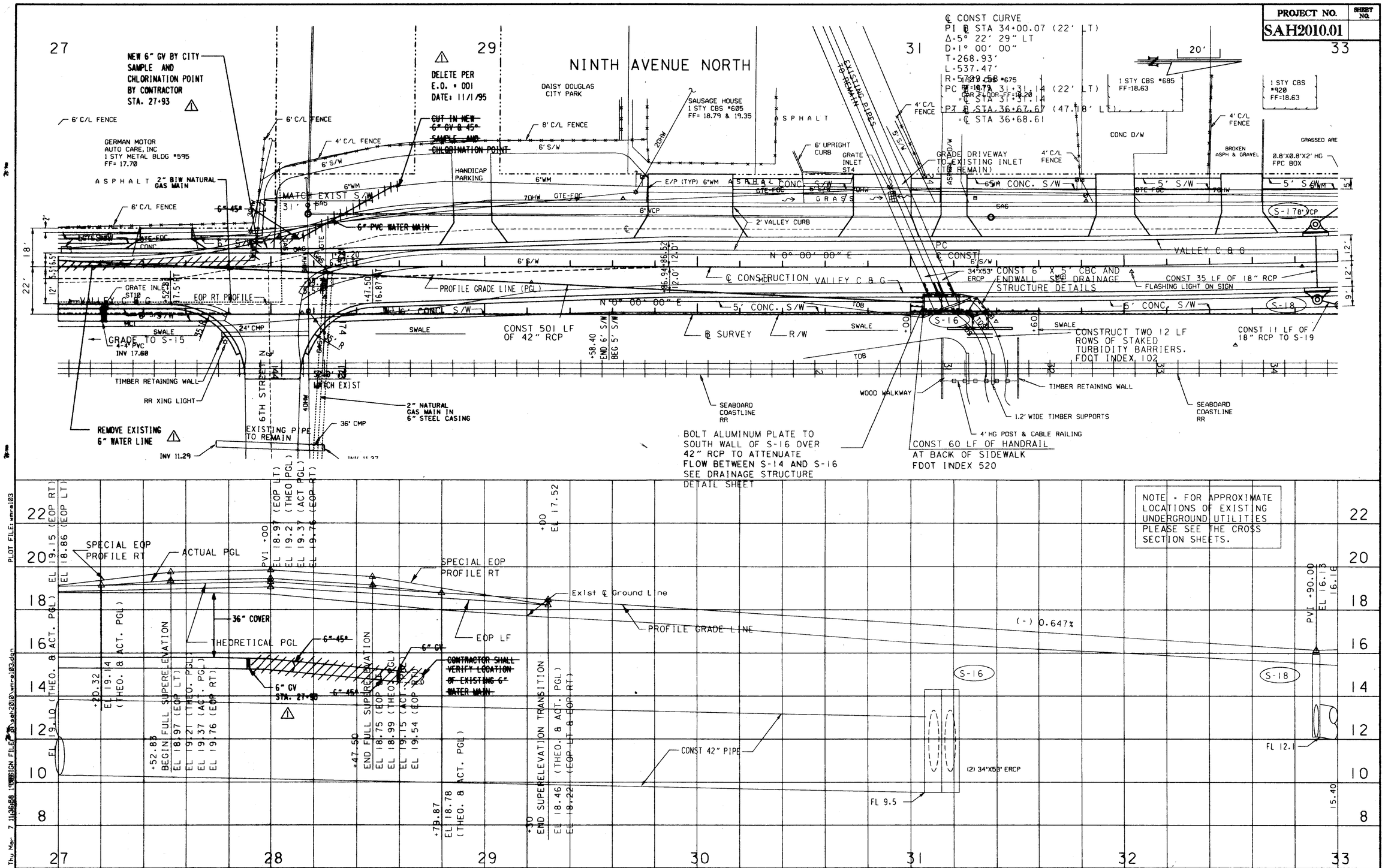
APPROVED BY :

DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

WATER MAIN RELOCATION PLAN

PROJECT NO.	SHEET NO.
SAH2010.01	



REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
4/25/95	KJG	ENTIRE SHEET ADDED TO CONTRACT PLAN SET			⚠ RECORD DRAWING						

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.G.	2/95	DRAWN BY	W.T.J.	2/95
CHECKED BY	D.W.H.	2/95	CHECKED BY	D.W.H.	2/95

SUPERVISED BY: DAVID W. HOLLOWAY, P.E.

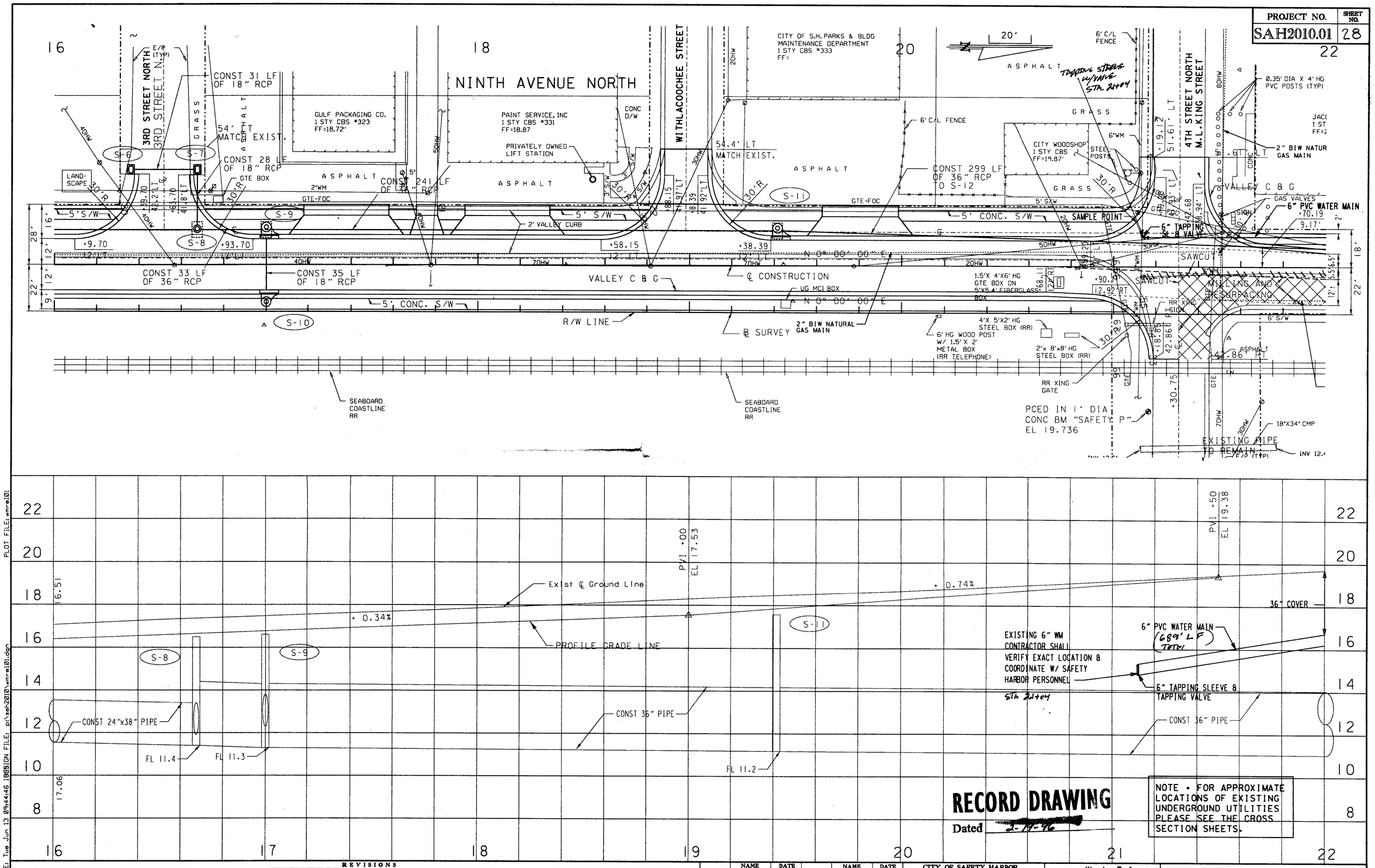
CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA
APPROVED BY:
DATE:

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

WATER MAIN RELOCATION PLAN

PLOT DATE: Thu Mar 7 11:36:08 1996 DESIGN FILE: J:\sah2010\wm-e103.dgn PLOT FILE: wm-e103

PROJECT NO.	SHEET NO.
SAH2010.01	28



RECORD DRAWING

Dated 2-19-96

NOTE - FOR APPROXIMATE LOCATIONS OF EXISTING UNDERGROUND UTILITIES PLEASE SEE THE CROSS SECTION SHEETS.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
4/25/95	KJG	ENTIRE SHEET ADDED TO CONTRACT PLAN SET									

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.G.	7/94	DRAWN BY	W.T.J.	7/94
CHECKED BY	D.W.H.	7/94	CHECKED BY	D.W.H.	7/94

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

APPROVED BY :

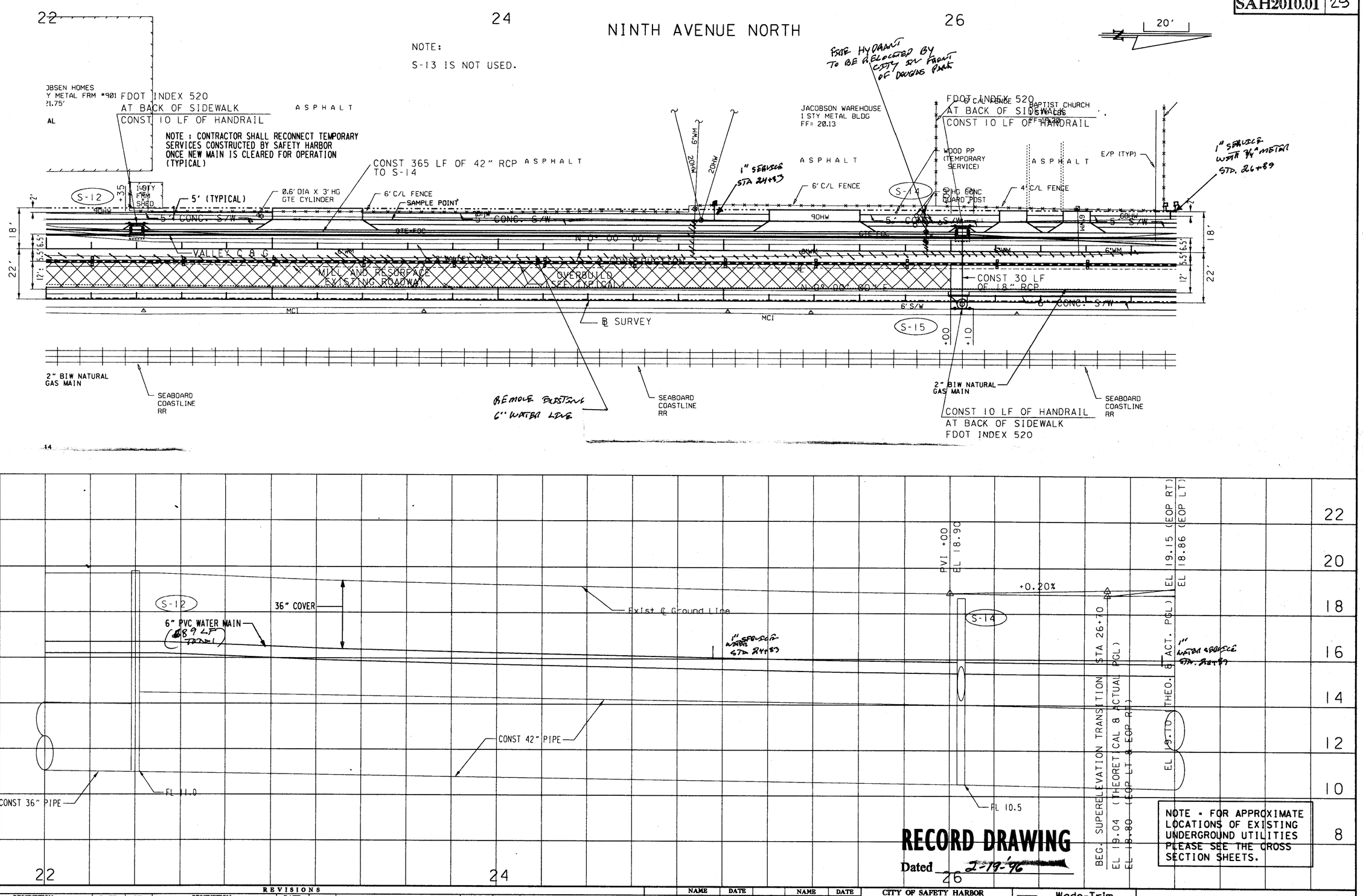
DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

WATER MAIN RELOCATION PLAN

PLOT DATE: Tue Jun 13 09:44:46 1995 DESIGN FILE: p:\sah2010\wmrel01.dgn PLOT FILE: wmrel01

PROJECT NO.	SHEET NO.
SAH2010.01	29



PLOT DATE: Tue Jun 13 09:24:17 1995 DESIGN FILE: p:\sah2010\wmrel02.dgn PLOT FILE: wmrel02

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
4/25/95	KJG	ENTIRE SHEET ADDED TO CONTRACT PLAN SET									

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.G.	2/95	DRAWN BY	W.T.I.	2/95
CHECKED BY	D.W.H.	2/95	CHECKED BY	D.W.H.	2/95

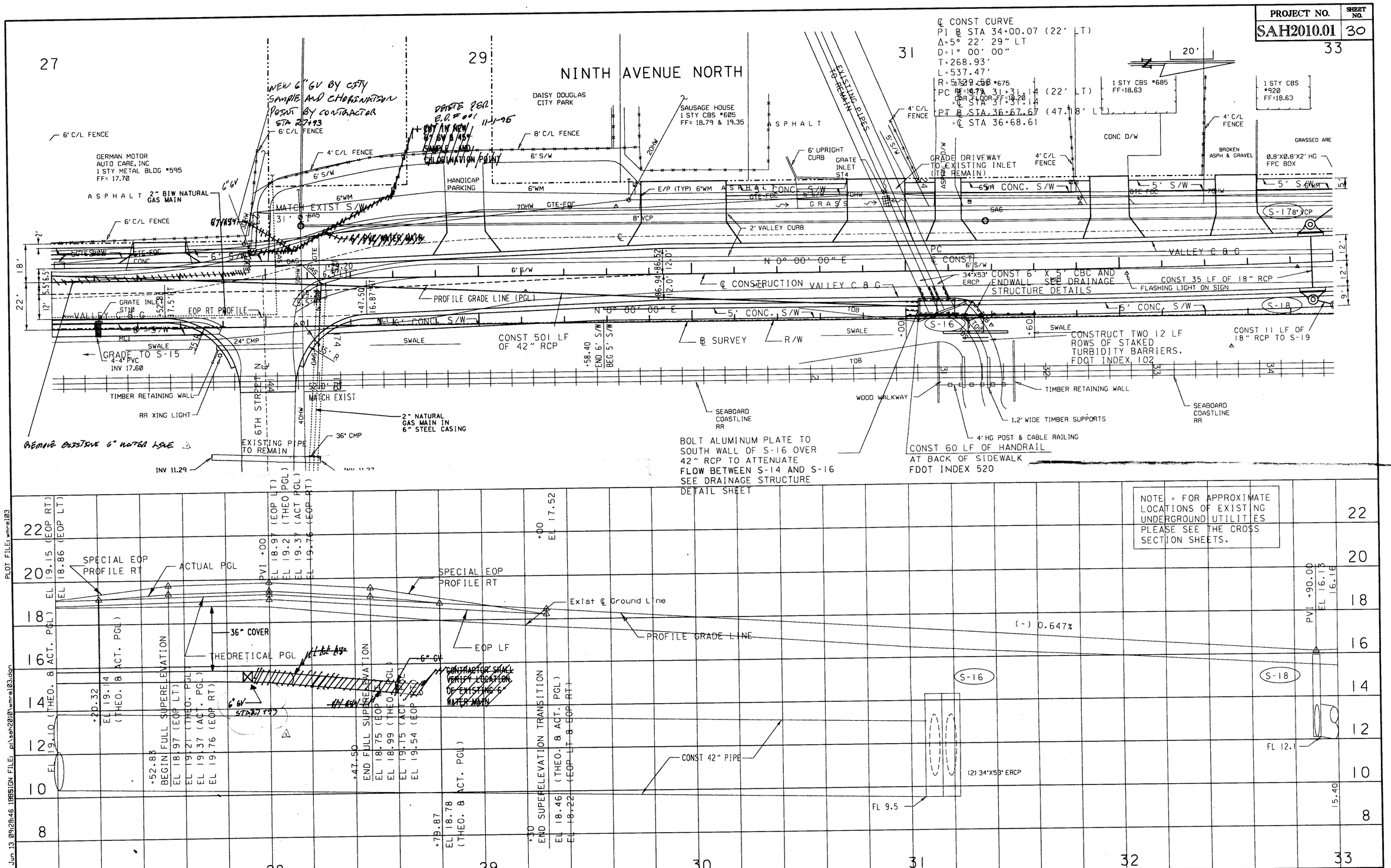
SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA
APPROVED BY :
DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

WATER MAIN RELOCATION PLAN

PROJECT NO.	SHEET NO.
SAH2010.01	30



PLOT FILE: wmrel03

PLOT DATE: Tue Jun 13 09:28:46 1995 DESIGN FILE: p:\sah2010\wmrel03.dgn

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
4/25/95	KJG	ENTIRE SHEET ADDED TO CONTRACT PLAN SET			△ RECORD DRAWING						

	NAME	DATE		NAME	DATE
DESIGNED BY	D.M.G.	2/95	DRAWN BY	W.T.J.	2/95
CHECKED BY	D.W.H.	2/95	CHECKED BY	D.W.H.	2/95

SUPERVISED BY : DAVID W. HOLLOWAY, P.E.

CITY OF SAFETY HARBOR
PINELLAS COUNTY, FLORIDA

APPROVED BY :

DATE :

Wade-Trim
4919 Memorial Highway
Suite 200
Tampa, Florida 33634
(813)882-8366 FAX: 884-5990

WATER MAIN RELOCATION PLAN