CITY OF MARSHFIELD

STREET AND UTILITY RECONSTRUCTION
CLEVELAND STREET, DOEGE STREET TO CENTRAL AVENUE &
PINE AVENUE, BLODGETT STREET TO CLEVELAND STREET

SANITARY SEWER RECONSTRUCTION
OAK AVENUE, BLODGETT STREET TO CLEVELAND STREET &
CHESTNUT AVENUE, BLODGETT STREET TO CLEVELAND STREET

CONTRACT 2020-01

PLAN NO. 3653

PROJECT NO.	
312241	STREET
312242	WATER MAIN SERVICES
316777	STORM WATER
352144	SANITARY SEWER MAIN & SERVICES

MARSHFIELD

The City in the Center

CONTRACT 2020-01

City Contact:
Thomas R. Turchi, P.E.
City Engineer
City of Marshfield
207 West 6th Street
Marshfield, WI 54449
Email: tom@ci.marshfield.wi.us
Web Site: www.ci.marshfield.wi.us
Phone: (715) 486-2034

THIS PAGE INTENTIONALLY LEFT BLANK

INDEX
SPECIAL PROVISIONS
CONTRACT 2020-01

OFFICIAL NOTICE TO BIDDERS 5

INFORMATION FOR BIDDING AND EXECUTION OF CONTRACT 7

SPECIAL CONDITIONS 11

PERMITS AND APPROVALS 41

TRUCK ROUTE MAP 43

CERTIFICATE OF INSURANCE 45

CONTRACT 2020-01 47

PERFORMANCE AND PAYMENT BOND 53

PROPOSAL FOR CONTRACT 2020-01 55

PROPOSAL GUARANTEE 61

FULL AND COMPLETE LIST OF SUBCONTRACTORS AND EQUIPMENT SUPPLIERS (TO BE USED FOR THIS PROJECT) 63

PLANS AND DETAILS 65

THIS PAGE INTENTIONALLY LEFT BLANK

OFFICIAL NOTICE TO BIDDERS

CITY OF MARSHFIELD

2020 STREET & UTILITY RECONSTRUCTION PROJECT No.s: 312241, 312242, 3166777 & 352144

CONTRACT 2020-01

Notice is given that the Board of Public Works will receive bids until 4:00 PM; Wednesday, March 4th, 2020; this project is valued about $1,100,000.

The QuestCDN eBidDoc Number for this project is: 6688035

Bids will then be reviewed, tabulated, and submitted to the Board of Public Works on Monday, March 16th, 2020 for consideration and recommendation to the Common Council at their regular meeting on Tuesday, March 24th, 2020 for Award of Contract. This contract will have Local Roads Improvement Program (LRIP) funding.

ESTIMATE OF PRINCIPAL ITEMS

1.	Road Construction, Asphalt Pavement (by others) with Curb & Gutter	2,200 Linear Feet
2.	8" PVC Sanitary Sewer Main	2,200 Linear Feet
3.	16" DIP Water Main	1,300 Linear Feet
4.	Concrete Curb & Gutter	2,200 Linear Feet
5.	4" & 6" Concrete Sidewalk	23,000 Square Feet

Bid Security in an amount equal to five percent (5%) of the total amount of the bid shall be submitted with each bid and made out in the name of the City of Marshfield, Wisconsin, as a guarantee that, if the bid is accepted, the Bidder will execute and file the proper Contract and Performance Bond within twenty (20) days after award of the bid. Upon the execution of the Contract by the City, the Security will be released.

No Proposal may be withdrawn by the Bidder for a period of thirty (30) days following the date of the bid opening, within which time the Contract will be awarded by the Common Council.

Bidding documents can be downloaded at www.questcdn.com under Login using QuestCDN #6688035 for a non-refundable charge of $50.00. Contact QuestCDN.com at 952-233-1632 or info@questcdn.com for assistance in membership registration, downloading this digital project information and vBid Online Bid Submittal. To submit a vBid online bid (which is required for this project) you must download the project document file from QuestCDN which will add you to the plan holders list and gain you access to vBid Online Bidding.

Bidders must be prequalified with the City of Marshfield, Board of Public Works to qualify to bid. Prospective bidders must be on the planholders list will through QuestCDN for bids to be accepted. Any and all addenda will also be posted to the QuestCDN web site. No planholders list will be faxed.

Documents can be viewed on the city web site: www.ci.marshfield.wi.us under Departments » Public Works » Engineering.

The City of Marshfield, Wisconsin reserves the right to accept or reject any or all proposals, including, but not limited to, any or all proposals which are not responsive, to waive informalities in the bidding procedure and to award the Contract to the Bidder whom, in the opinion of said City, will be most advantageous to said City.

Letting of this Contract is subject to applicable provisions of the Wisconsin Statutes.

BOARD OF PUBLIC WORKS
MARSHFIELD, WISCONSIN
Daniel G. Knoeck, Secretary

PUBLISH: News Herald – February 8th & 15th, 2020 – LEGAL

THIS PAGE INTENTIONALLY LEFT BLANK

INFORMATION FOR BIDDING AND EXCUTION OF CONTRACT

1. INFORMATION AVAILABLE VIA 'QUESTCDN'

Complete digital project bidding documents are available at www.questcdn.com. You may download the digital plan documents for $50.00 by inputting Quest project **#6688035** on the website's Project Search page. Please contact QuestCDN.com at 952-233-1632 or info@questcdn.com for assistance in free membership registration, downloading, and working with this digital project information. Bidding documents may be examined at the offices of City of Marshfield, Engineering Division, 207 West 6th Street, Marshfield, WI 54449. A current plan holder's list and bid tabulation will be available on the QuestCDN.com website after bids are opened.

To be eligible to be an authorized plan holder you must register with QuestCDN as noted above. No bids/proposals will be accepted except through QuestCDN.

2. WAGE SCALE

The Contractor, and all subcontractors, shall comply with current State of Wisconsin Minimum Wage Law(s), Chapter 104 of the Wisconsin Statutes.

3. PREPARATION OF PROPOSAL

The Bidder shall submit his Proposal on the form as available via QuestCDN. The Proposal shall be executed properly and unit prices shall be offered for all items indicated on the Proposal Form.

In case of conflict between the Unit Price and the corresponding extended amount, the Unit Price shall govern.

All writing shall be with ink or typewriter except the signature, which shall be written with ink.

A Proposal submitted by an individual shall be signed/authorized by the Bidder or by a duly authorized agent. A Proposal submitted by a partnership shall be signed/authorized by a member or by a duly authorized agent thereof. A Proposal submitted by a corporation shall be signed/authorized by an authorized officer or duly authorized agent of such corporation, and the Proposal shall show the name of the state under the laws of which said corporation was chartered. The required signature/authorization shall, in all cases, appear in the space provided therefore on the Proposal.

4. SUBCONTRACTING

The Contractor will be permitted to sublet a portion of the Contract, but shall perform with his own organization, work amounting to at least 30 percent of the original Contract amount.

If the Contractor shall sublet any part of this Contract, the Contractor shall be as fully responsible to the Owner for the acts and omissions of his Subcontractor and of the persons either directly or indirectly employed by his Subcontractor as he is by acts or omissions of persons directly employed by himself. All Subcontractors, if any, shall be listed in the spaces provided on the Proposal Form and said list shall not be added to or altered without the written consent of the Owner.

5. FORMS TO BE INCLUDED AS THE 'BID'

Forms to be completed/executed by the Bidder as the 'Bid' include the following:

- **Proposal**
- **Proposal Guarantee**
- **Full and Complete List of Subcontractors and Suppliers**

Failure to complete these forms may result in having your bid be considered non-responsive.

Note: Form/sections to be executed by the successful low bidder as the 'Contract' includes the Certificate of Insurance, Performance and Payment Bond, and Contract.

6. PROPOSAL GUARANTEE

No Proposal will be considered unless accompanied by a bid bond in the amount, and payable to, the party as designated in the advertisement.

If alternate bids are invited and submitted, the Proposal Guarantee shall cover the amount of the highest alternate.

7. QUANTITIES

The estimated quantities of work as shown on the plans or in the contract documents have been compiled for the purpose of comparing proposals and are believed to be reasonably accurate. The Owner reserves the right to increase quantities, decrease quantities, delete items of work or order extra work as discussed in the Standard Specifications (Section 1.2).

8. INTENT OF PLANS AND SPECIFICATIONS

The direct intent of the Plans and Specifications is to provide for the construction, execution, and completion of every detail of a complete work or improvement which the Contractor undertakes to do in full compliance with the Plans, Specifications, Special Provisions, and all other Contract requirements. The Contractor shall perform all items of work covered and stipulated in the Proposal, including altered and/or extra work, all in accordance with the lines, grades, sections, and dimensions given, and shall furnish, unless otherwise provided in the Contract, all materials, implements, machinery, equipment, tools, supplies, and transportation and labor necessary for the prosecution and completion of the work.

9. SUBMITTAL OF PROPOSALS

Bids shall only be submitted through QuestCDN VirtuBid (vBid), online electronic bidding service, as described previously within this section.

10. WITHDRAWAL OF PROPOSALS

A Bidder may withdraw his Proposal, provided the request in writing is in the hands of the officer conducting the letting, by the time set for opening Proposals and that such request for withdrawal is not contingent on the result of bids read on other projects. Such Proposal will be returned to the Bidder unopened.

11. REVIEW OF PROPOSALS

Proposals submitted via QuestCDN vBid will be reviewed by the City Engineer to ensure that:

- All required forms have been submitted;
- All forms have been completed;
- Documentation does not warrant rejection;
- Bidder is not subject to disqualification.

Bids, including Proposal, unit prices, total amounts, etc. will be available via QuestCDN following said review. Requests for copies of this information via email, mail, or hardcopy may not be available for 7 business days.

Upon successful submission and review of proposals, bids will be tabulated and submitted to the governing body(s) at the time(s) and place(s) indicated in the Official Notice to Bidders (advertisement). Bidders and/or their authorized agents are invited to be present at the public meeting(s).

12. REJECTION OF PROPOSALS

Proposals may be rejected if they show any alterations, additions, or amendments not called for; conditional or alternate bid unless called for; incomplete bids; or irregularities of any kind.

13. DISQUALIFICATION OF BIDDERS

Any one or more of the following causes may be considered as sufficient for rejection of the bid or bids and disqualification of the Bidder from further bidding for such period of time as determined by the Owner:

More than one Proposal for the same work from an individual, partnership, or corporation under the same or different names.

Evidence of collusion among the Bidders.

Lack of responsibility as shown by past work for the Owner, judged from the standpoint of workmanship and progress.

Noncompliance with terms of previous Contracts.

Uncompleted work which, in the judgment of the Owner, might hinder or prevent prompt completion of additional work if awarded.

14. CONSIDERATION OF PROPOSALS

The Proposals received will be compared on the basis of summation of products of the items or work listed and the Contract unit prices offered. In case of discrepancy between the gross sum shown in the Proposal and that obtained by adding the products of the quantities of work for unit prices, the unit prices shall govern and any errors found in said projects shall be corrected. In awarding the Contract, the Owner may, in addition to considering the amount stated in the Proposal, take into consideration the responsibility of the various Bidders as determined from any investigation which it may elect to make.

The right is reserved to reject any or all Proposals, to waive technicalities, to re-advertise for Proposals, or to proceed to do the work otherwise, if, in the judgment of the Owner, the best interest of the City will be promoted thereby.

15. AWARDING OF THE CONTRACT

The Contract shall be deemed to have been awarded when notice in writing is forwarded by the City Engineer pursuant to actions of the Board of Public Works and/or Common Council.

16. EXECUTION OF CONTRACT

Executed and complete Contracts shall be presented to the Owner within ten (10) calendar days after the date of the Notice of Award of the Contract. The Contract shall be executed by the Bidder/Contractor and the Contractor's bond(s) shall be executed by the Principal and Surety.

The Contractor shall submit insurance documents along with the executed Contract. Insurance documents shall include a Certificate of Insurance which clearly indicates compliance with the Contractor Liability Insurance Requirements as specified in the City's Standard Specifications (Section 1.1.9). In addition to the Certificate of Insurance, the Contractor shall submit a complete copy of the appropriate endorsements(s), such as but not limited to the endorsement which names the City of Marshfield as an Additional Insured.

Submission of improperly executed documents, or incomplete documents (such as failing to submit the Certificate of Insurance and /or endorsements) will delay final execution of the Contract by the Owner, and possibly the start of construction, however the schedule for completion of the project(s) will not be adjusted.

Final execution of the Contract by the Owner will occur after the Owner's attorney has reviewed the documents. The Owner and attorney shall be allowed a reasonable amount of time to complete their review/execution of the Contract (three working days minimum).

No Contract shall be considered binding upon the Owner until final execution of the Contract by the Owner.

17. FAILURE TO EXECUTE CONTRACT

Failure on the part of the successful Bidder to execute a Contract and an acceptable Contractor's bond within ten (10) days after the date of notice of the awarding of the Contract will be considered as just cause for the annulment of the awarding and the forfeiture of the Proposal Guarantee to the Owner as payment of liquidated damages sustained as a result of such failure.

CONTRACT 2020-01
SPECIAL CONDITIONS
INDEX

Article No.	Standard Specification Chapter	Item/Article Name
1.	1	Project Scope
2.	1	Prosecution and Progress
3.	1	Staging of Construction
4.	1	Construction Vehicle Access
5.	1	Notification by Contractor
6.	1	Storage of Materials or Equipment
7.	1	Utilities
8.	1	Obstacles and/or Services to Maintain
9.	1	Construction Staking
10.	1	Public Information Meetings
11.	1	Project Sign(s) Required
12.	1	Sales and Use Tax Exemption
13.	2	Terrace and Private Trees
14.	3	Caution – Do Not Damage Existing Utilities to Remain
15.	3	Removal and Disposition of Existing Materials
16.	4	Compaction
17.	6	Maintain Existing Storm Sewer and Drainage
18.	6	Salvage Existing Culvert Pipes
19.	10	Removal of Existing Storm Sewer Pipe and Structures
20.	10	Remove and Relay 42-Inch RCP Storm Sewer
21.	10	Removal and/or Abandonment of Existing Water Main
22.	10	Remove Water Valve Box
23.	10	Existing Fire Hydrants
24.	10	Removal of Existing Sanitary Sewer Laterals
25.	11/17	Concrete and Concrete Flatwork
26.	12	Fine Grading (for Asphalt) by Others
27.	12	Asphalt Pavement by Others
28.	13	Pedestrian Curb and Gutter
29.	15	Curb Ramp and Landing Slopes – Layout and Confirmation
30.	15	Detectable Warning Field
31.	16	Restoration of Turf Surfaces (Finished Terraces)
32.	18	Erosion Controls
33.	19	Staged Construction (Water Main)
34.	19	Lead Water Services
35.	19	Temporary Water
36.	19/20	Private Sanitary Lateral and/or Water Service Replacements
37.	20	Existing PVC Sanitary Sewer and Groundwater
38.	20	Trench Plugs/Clay Dams
39.	20	Existing PVC Sanitary Laterals (to Remain)
40.	20	Sanitary Sewer Reconstruction with Road Removal/Replacement
41.	20	Connect Manhole to Existing Lined Sanitary Sewer
42.	20	Reconstruct Existing Sanitary Manhole #D41
43.	20	Concrete Cradle
44.	20	Pipe Underdrain for Sanitary Trench
45.	24	Traffic Control
46.	25	Remove and Salvage Block Retaining Wall

THIS PAGE INTENTIONALLY LEFT BLANK

SPECIAL CONDITIONS

1. PROJECT SCOPE

Contract 2020-01 includes work at the following locations, as described below:

Street Reconstruction of Cleveland Street, Doege Street to Central Avenue
Reconstruction of this existing street will include: Replacement of most sanitary sewer, storm sewer and water main facilities, along with street improvements including a drained subbase, concrete curb and gutter/sidewalks/driveway approaches and asphalt pavement by others.

Cleveland Street will be closed for this reconstruction, in accordance with the staging of construction plan.

Street Reconstruction of Pine Avenue, Blodgett Street to Cleveland Street
Reconstruction of this existing ditched street will include: Replacement of sanitary sewer, water main, and installation of storm sewer, along with street improvements including a drained subbase, concrete curb and gutter/sidewalks/driveway approaches and asphalt pavement by others.

Pine Avenue will be closed for this reconstruction, in accordance with the staging of construction plan.

Sanitary Sewer Reconstruction on Oak Avenue, Blodgett Street to Cleveland Street; and
Sanitary Sewer Reconstruction on Chestnut Avenue, Blodgett Street to Cleveland Street
These projects include reconstruction of the existing trunk-line sanitary sewer within the street right-of-way. The work requires removal of the asphalt overlay surface and base concrete pavement; reconstruction of sanitary sewer mains and laterals; and restoration of concrete base pavement and other surfaces. New or replacement of asphalt overlay surfaces shall be done by others (as discussed elsewhere in these special conditions) immediately following completion of the Contractor's construction.

Streets will be closed to thru traffic for construction of these projects, in accordance with the staging of construction plan, however, pedestrian access must be maintained to residential properties and sidewalks at all times.

Note: For these projects, the bid item for the trunkline sewer, "Sanitary Sewer, 8-Inch PVC (With Road Removal/Replacement)" shall include removal and replacement of the street surface (excluding new asphalt pavement), as specified within these Special Conditions and indicated on the Plans – "Mainline Sewer Roadway Typical Section." The longitudinal limits for pavement removal/replacement as required for the trunkline sewer replacement shall be as shown on the typical section(s), as a minimum, however if additional room/width is required for contractor's work operations/equipment, then the saw cut location(s) can be adjusted (if in conformance with the City's Street Repair Standards, included in plans, and approved by the City Engineer).

All sanitary sewer reconstruction on this contract will require removal of the existing sanitary sewer.

2. PROSECUTION AND PROGRESS

Perform the work under this construction contract as indicated on the plans and details, and execute the work as specified in these Special Provisions, the City of Marshfield 2020 Standard Specifications

for Public Works Construction; and if so referenced, the State of Wisconsin Department of Transportation Standard Specifications for Highway and Structure Construction, Current Edition, and/or the Standard Specifications for Sewer and Water Construction in Wisconsin, Sixth Edition with Addendum No. Two.

The Contractor shall provide a detailed schedule of construction operations (7 days prior to the preconstruction conference). All completion dates and/or completion periods shall include all work, by contractor and others. Time allotments of calendar days shall be consecutive calendar days, including weekends and holidays, without interruption or suspension of accrued time.

Contractor will not be allowed to work on any project on the following Federal and/or local holidays:
May 25, 2020 – Memorial Day
May 29, 2020 – Dairyfest (No work on Chestnut Avenue after 3:00 PM)
July 3, 2020 – Independence Day
September 7, 2020 – Labor Day

The Contractor's schedule will comply with the following:

A. Cleveland Street Reconstruction, Doege Street to Central Avenue
Anticipated Start of Construction: May 11, 2020.
Final Completion: Before October 17, 2020, however no property owner or resident shall be without driveway access due to construction for more than 50 days.
Penalty: $850 per calendar day.

B. Pine Avenue Reconstruction, Blodgett to Cleveland
Final Completion: Within 40 calendar days of commencement.
Penalty: $250 per calendar day.

C. Oak Avenue Sanitary Sewer Reconstruction, Blodgett Street to Cleveland Street
Final Completion: Within 25 calendar days of commencement.
Penalty: $100 per calendar day.

D. Chestnut Avenue Sanitary Sewer Reconstruction, Blodgett Street to Cleveland Street
Final Completion: Within 25 calendar days of commencement.
Penalty: $100 per calendar day.

3. STAGING OF CONSTRUCTION

Pedestrian Accommodations: Accommodate pedestrian traffic as much as possible throughout the duration of the construction project. Pedestrian access can be maintained by utilizing existing sidewalks, proposed gravel (sidewalk base), or temporary surfaces such as boardwalks, planking, tread plates or gravel (graded, compacted and maintained) to provide a smooth, free draining and walkable surface. Volumes/quantities of temporary gravel will not be measured for payment. Traffic control devices shall be used to mark inaccessible sidewalk locations as specified elsewhere. Use/install safety fence to delineate walkways and protect pedestrians.

Accelerated Construction Schedule: The contract staging and interim completion deadlines may require higher than normal production of materials, installation and work efforts, possibly requiring multiple or concurrent controlling operations.

Confined Work Zone(s): Special staging/operations may be necessary to confine construction operations (such as but not limited to excavation, trenching, backfilling, spoil storage, etc.) within the existing right-of-ways. Private properties may be available for use; however it is the Contractor's responsibility to make said arrangements/agreements. Contractor shall inform the City of properties whose owner(s) have agreed with Contractor for said use, however, the City Engineer hereby assumes no responsibility/liability regarding said arrangements/agreements.

Construction Noise/Work Hours: Contractor shall restrict work hours and comply with City of Marshfield Noise Ordinances for the allowable hours of operation from 7:00 AM to 7:00 PM, Monday through Friday.

Staging/Coordination/Access Requirements: The contractor shall provide 24-hour contact information for the Contractor or its representatives to the Wood County Sheriff's Department and local City of Marshfield emergency services with the current telephone number(s) in the event a safety hazard develops. Access for emergency vehicles shall be accounted for at all times during construction.

All projects under this contract shall be staged to comply with the following staging rules:

- Maintain at least one driveway (and street) access for the St. John the Baptist Catholic Church and Primary School parking lot at all times.
- Walnut Avenue shall not be closed (at Cleveland Street) concurrent with closure of Chestnut Avenue.
- Sanitary Sewer Reconstruction on Oak Avenue (Blodgett Street to Cleveland Street) must be completed before installation of new sanitary sewer main on Cleveland Street from Spruce Avenue to Oak Avenue.
- Oak Avenue and/or Pine Avenue shall not be closed concurrent with the closure of Cleveland Street, Doege Street to Spruce Avenue.
- The intersections of Oak Avenue & Blodgett Street and Pine Avenue & Blodgett Street shall not be closed concurrently.

The contractor shall review these rules and the context of the project to determine his Staging Plan and Construction Schedule. A preliminary Staging Plan as estimated by the City Engineer may include:

Stage 1: *Cleveland Street, Chestnut Avenue to Central Avenue; and Chestnut Avenue, Blodgett Street to Cleveland Street, including the intersection of Chestnut Avenue and Cleveland Street:*

All underground work and surface restoration shall be completed before re-opening this stage, except pavement markings.

Vehicular access crossing Cleveland Street at the alley between Chestnut Avenue and Central Avenue shall be maintained throughout construction of this stage. When access cannot be accommodated due to construction (storm sewer work, pouring concrete curb & gutter/driveway/etc.), Contractor shall notify waste collection services (Advanced Disposal, Waste Management, etc.) prior to said alley closure to make other arrangements for waste & recycling collections. All work and materials as needed to provide said access shall be considered incidental to construction.

Coordinate with:

- St. John the Baptist Catholic Church
- St. John the Baptist Catholic Primary School (last day of school in spring is May 31st, first day of school in fall is August 24th)
- T-Bones Bar & Grill

- Property owner at 309 N. Chestnut Avenue regarding the proposed water service for this residence (presently served via Cleveland Street (STA 26+99 RT), however the proposed water service will enter the property via Chestnut Avenue.
- City's asphalt pavement contractor regarding fine grading and placement of mainline pavement, asphalt patch, and miscellaneous asphalt.
- City of Marshfield – Public Works – Street Division for installation of street signs.

Stage 2: *Oak Avenue, Blodgett Street to Cleveland Street (not including the intersection of Oak Avenue and Cleveland Street)*

All underground work and surface restoration shall be completed before re-opening this stage, except pavement markings.

Coordinate with:
- The Neighborhood Bar
- City's asphalt pavement contractor regarding placement of asphalt patch.

Stage 3: *Pine Avenue, Blodgett Street to Cleveland Street*

All underground work and surface restoration shall be completed before re-opening this stage, except pavement markings.

Coordinate with:
- City's asphalt pavement contractor regarding fine grading and placement of asphalt pavement.
- City of Marshfield – Public Works – Street Division for installation of street signs.

Stage 4: *Cleveland Street, Spruce Avenue to Chestnut Avenue*

All underground work and surface restoration shall be completed before re-opening this stage, except pavement markings.

Coordinate with:
- United States Postal Service regarding delivery of mail to relocated/temporary mailboxes.
- St. John the Baptist Catholic Church
- St. John the Baptist Catholic Primary School (Last day of school in spring is May 31st, first day of school in fall is August 24th)
- Marshfield Utilities Water Department regarding temporary water for 406 N Spruce Avenue. MU will install a curb stop and box on the existing water service line, within the Spruce Avenue Right-of-Way in front of this house.
- City's asphalt pavement contractor regarding fine grading and placement of mainline pavement and miscellaneous asphalt
- City of Marshfield – Public Works – Street Division for concrete pavement joint sealing on Walnut Avenue; and installation of street signs

Stage 5: *Cleveland Street, Doege Street to Spruce Avenue*

All underground work and surface restoration shall be completed before re-opening this stage, except pavement markings.

Bicycle and pedestrian access crossing Cleveland Street at Oak Avenue shall be maintained throughout construction of this stage. Access may alternate between the east crossing and the west crossing (requires proper advanced warning signage).

Coordinate with:

- United States Postal Service regarding delivery of mail to relocated/temporary mailboxes.
- Resident at 405 W Cleveland is disabled and receives 'Meals on Wheels.' Additional assistance is required for said meal delivery, trash collection, etc.
- Resident at 406 W Cleveland regarding removal and salvage of the block retaining wall.
- Resident at 608 W Cleveland has an autistic child that is terrified of loud noises.
- Marshfield Utilities - Water Department regarding draining of the 500,000 gallon elevated storage tank. Contractor shall provide MU notice at least two-weeks prior to any water main work (or outage) in this area.
- City's asphalt pavement contractor regarding fine grading and placement of mainline pavement and miscellaneous asphalt
- City of Marshfield – Public Works – Street Division for concrete pavement joint sealing on Cleveland Street (near Doege Street); and installation of street signs

4. CONSTRUCTION VEHICLE ACCESS

Trucks hauling materials to or from each project site shall utilize only truck route streets that are indicated on the City of Marshfield Truck Route Map (included with these Special Provisions), unless other routes are approved by the City Engineer via the City's Overweight Permit process.

Construction vehicles (such as tractors, loaders, etc.) shall also comply with these requirements. Construction vehicles traveling from one portion of the project to another are not allowed to travel on non-truck route streets, unpermitted (overweight) streets nor any other public or private driveways/entrances/parking lots/etc.; and if construction vehicles utilize these roadways, the Contractor may be subjected to fines, in addition to costs for repairs to said damaged surfaces (per judgment of the City Engineer).

5. NOTIFICATION BY CONTRACTOR

The Contractor shall notify the agencies listed below if road closures or changes in access can be expected to occur. The notice shall be distributed via fax at least 48-hours prior to closing a roadway or changing access. All notices shall briefly summarize the current status of work and access, and discuss progress or changes which are expected to occur within the next two weeks. The notice shall be signed by the Contractor's agent who prepared it and include contact information (with phone numbers) where notified agencies can call to ask questions.

Agencies to be notified include:

AGENCY	FAX NUMBER
City of Marshfield – Public Works, Engineering Division	715.384.7631
City of Marshfield – Public Works, Street Division	715.486.2081
City of Marshfield – Police Department	715.384.0823
City of Marshfield – Fire Department	715.384.8868
Marshfield Clinic Hospital EMS	715.389.4040
Marshfield Clinic	715.387.3999
US Post Office, Marshfield	715.387.1649

Wood County – Sheriff's Department	715.421.8775
Wood County – Sheriff's Department – Marshfield Annex	715.384.4602
Wood County Highway Department	715.421.8808
Wood County Dispatch	715.421.8504
Marshfield Bus Service	715.387.0766
Marshfield Public Transit	715.384.6550
Advanced Disposal Services	715.384.3445
Waste Management	866.877.3790

The Contractor shall notify all occupied properties (commercial and residential, including renters) abutting and within 100' of construction limits of the start of construction at least three calendar days prior to the beginning of said work.

6. STORAGE OF MATERIALS OR EQUIPMENT

The Contractor may be allowed to utilize existing roadways and/or right of ways within the construction limits of each project, to temporarily store materials and equipment if approved in writing by the City Engineer. Each material pile, stack, etc. or piece of equipment shall be located alongside of the traveled way and protected through the use of reflectorized drums with Type A flashers visible from all directions of travel.

The Contractor shall not utilize property beyond the right of way (private lands), parcels upon which the City of Marshfield has acquired easement rights, or any City-owned parks/parking lots/etc. unless the Contractor obtains written permission for use from the property owner(s). Contractor shall inform the City Engineer of said permission/agreements; however, the City Engineer hereby assumes no responsibility/liability regarding said arrangements/agreements.

Disturbed areas outside of the construction limits and/or slope intercepts and utilized for storage or access shall be protected with erosion controls and restored to the satisfaction of the Engineer upon completion of the project. All work regarding said storage, including but not limited to erosion controls and restoration, shall be considered incidental to construction.

7. UTILITIES

A. General

There are underground and overhead utility facilities located with project limits. The Contractor shall coordinate his construction activities with a call to Digger's Hotline as required per State Statute. The Contractor is encouraged to contact utility/facility owners to obtain current information on the status of an existing utility facility or any utility relocation work.

Prior to and concurrent with construction, utility companies may be upgrading and/or relocating facilities. Existing facilities are shown on the plans and are based upon information provided by utility companies. The Contractor shall coordinate all work with utility companies as pertinent to the Contractor's schedule of operation for the project. No damages or claims shall be made against the City due to delays by various utilities.

Utility work may be allowed to occur beyond staged construction limits, as approved by the City Engineer.

Utilities which are not specifically noted herein to be replaced shall therefore be assumed to remain in place, without disruption to service.

Utility Line Openings (ULO's), as specified in Section 4.1.6 of the Standard Specifications, may be required on the plans at locations of potential conflict as identified during the design. These ULO's will be paid for if specifically listed in the unit price schedule. The Contractor shall perform ULO's per plan and additional ULO's if desired or necessary to maintain production rates, at Contractor's costs (additional ULO's are considered incidental and will not be measured/paid for; nor will the quantity of the ULO bid item be increased unless specifically approved for payment by the City Engineer). Contractor shall comply with the requirements of Section 4.1.6 if ULO's are measured/paid for or incidental, required on the plans or additional work by Contractor.

It is possible that potential conflicts may be discovered during construction. The Contractor and Utility owner are ultimately responsible for discovery and resolution of all conflicts.

The Contractor shall exercise extreme care when working near existing utility facilities and shall utilize special equipment and/or work procedures to protect these facilities. The Contractor shall be responsible for all costs resulting from any damage to said facilities and shall repair or replace said facilities to the satisfaction of the utility owner.

All costs associated with the discovery of utility facilities and/or conflicts along with protecting utility facilities, including but not limited to: utilization of special equipment and/or work procedures; loss of production; special protection devices such as sheeting, shoring, piling, timbers or supports; temporary removal and reinstallation; additional labor or equipment; repair/replacement of utility facilities any down time or delay; all coordination associated with utilities, and all material, labor, equipment, tools and incidentals necessary to complete the work, shall be incidental to construction.

Utility companies known to have facilities within the project area(s) include:

- City of Marshfield – Sanitary Sewer
- City of Marshfield – Storm Sewer
- Marshfield Utilities (MU) – Water
- Marshfield Utilities (MU) – Electric and Street Lighting
- Frontier Communications – Telephone
- Charter Communications – Cable
- WE Energies – Natural Gas

B. Sanitary Sewer

The City of Marshfield has existing sanitary sewer mains and laterals that are located within construction limits of projects as indicated in the plans. Most mains and laterals will be replaced as part of this project. The exact location of existing sanitary laterals is unknown, however, the Contractor shall be responsible to locate, protect and repair (if disturbed) existing mains and laterals (to remain) as necessary.

C. Storm Sewer

The City of Marshfield has existing storm sewer mains, leads and laterals that are located within construction limits of projects as indicated on the plans. Most storm sewer facilities may be replaced as part of this project. The exact location of existing storm mains, laterals and insulation is unknown, however, the Contractor shall be responsible to locate, protect and repair (if disturbed) existing mains and laterals (to remain) as necessary.

D. Water Main

Marshfield Utilities (MU) – Water Department has existing water mains, valves, hydrants, leads, hydrant valves and service laterals that are located within the construction limits of projects as indicated on the plans. Most water mains and services will be replaced as part of this project.

E. Electric

Marshfield Utilities (MU) – Electric Department has facilities within construction limits, however, MU does not anticipate rebuilding of overhead or underground facilities throughout the project. Some poles may need to be held during utility construction. The Contractor shall coordinate with MU to resolve conflicts and allow ample time and space for MU to adjust, reconstruct and/or relocate facilities.

Many of Marshfield Utilities power poles on Cleveland Street will require adjustment due to proposed changes (sidewalk/ramp locations, grade changes, etc.). MU intends to adjust said poles when needed, thus Contractor shall closely coordinate with MU during grading operations (after roadway base is placed).

Marshfield Utilities intends to completely rebuild existing overhead facilities on Pine Avenue, Blodgett Street to Cleveland Street. MU's rebuild work is estimated to require 2 weeks to complete. Contractor shall coordinate with MU for timely rebuilding of these overhead facilities. It is assumed Contractor and MU can co-occupy the work site for a portion of this construction. MU will require that the base for the new street be placed so they can access the site for said rebuild.

F. Telephone

Frontier Communications has existing underground and overhead facilities within construction limits. Overhead lines may include primary cable and services, supported on poles owned by Frontier and/or attached to poles owned by others (MU). Major adjustment/rebuilding of Frontier's facilities is not anticipated, however, the Contractor shall allow additional time for adjustment of power poles with telephone facilities attached.

Existing telephone facilities that may require adjustment and/or relocation on this project include:

- Existing underground lines crossing Cleveland Street at Oak Avenue (possible conflicts with storm sewer).
- Existing overhead facilities (lines, poles, anchors, etc.) on poles owned/maintained by Frontier Communications.

G. Cable

Charter Communications has existing underground and overhead lines within construction limits. Overhead lines include primary cable and services, supported on poles owned by Frontier and/or Marshfield Utilities. Major adjustment/rebuilding of Charter's facilities is not anticipated.

H. Natural Gas

WE Energies has underground facilities within the project limits. Existing gas facilities may be in conflict with proposed storm sewer, pipe underdrain, conduits and/or grading for road or sidewalk base(s). We-Energies (WE) intends to install new underground facilities (mains and

services) within and beyond the limits of all projects on this contract. Existing facilities (mains and services) will be abandoned in place by WE. WE will likely be able to and allowed to install new underground lines prior to Contractor's start date and beyond Contractor's staging limitations. A plan of WE's proposed facilities will be provided to the Contractor when available. The Contractor shall coordinate with WE Energies regarding the discovery and resolution of any conflicts and shall allow ample time and space for the natural gas utility owner to construct, adjust, reconstruct and/or relocate facilities, as necessary.

8. OBSTACLES AND/OR SERVICES TO MAINTAIN

A. General

It is understood that the Contractor, by careful examination, is satisfied as to the nature and location of the obstacles to be encountered, requirements as dictated by the utility/obstacle owner, character of the equipment and facilities needed for prosecution of the project. All work associated with "Obstacles" shall be considered incidental to the project(s), unless specifically discussed or listed for payment elsewhere.

B. Utilities

Gas, power, cable TV and/or telephone poles, guys, pedestals or other utility items encountered as construction progresses, may require temporary removal, relocation and/or replacement. All costs associated with the temporary relocations, removal and reconnection of utility facilities will be at the Contractor's expense and no additional payment will be made for said work. Permanent removal of utility facilities shall be the responsibility of the utility Owners. The Contractor shall work with the utilities on the scheduling of any temporary or permanent relocation.

C. Sanitary Sewer Mains and Service Laterals

The Contractor will be required to keep a supply of materials on site to repair damaged sewer mains or laterals encountered during the construction. The materials include but are not limited to PVC sewer pipe, Fernco adapters, repair couplings, wyes, tees, etc. Failure to have adequate and proper materials on hand for timely repairs will not be grounds for any additional payments. Any damage to sanitary laterals, located or not located, shall be the responsibility of the Contractor.

Note: Fernco connectors are not allowed on PVC to PVC connections.

D. Street Signs (City)

Where necessary for construction within construction limits, the Contractor shall carefully remove existing street signs (and posts) and carefully haul to the City of Marshfield - Public Works – Street Division Sign Shop (101 South Oak Avenue). These signs include street names, stop, speed limit, etc. Temporary signs required for traffic flow shall be installed and maintained by the Contractor.

E. Miscellaneous Signs

Where necessary for construction, the Contractor shall remove, adjust and/or relocate (temporary or permanent) existing miscellaneous signs not owned by the City of Marshfield such

that each sign is visible to intended parties/motorists. Upon completion of work in the immediate area of each sign, the existing miscellaneous sign shall be adjusted, moved and/or reinstalled to its original or proposed location. Removal and/or adjustment of signs shall be considered incidental to construction.

F. Mail Boxes

Where necessary for construction, existing roadside mailboxes within the Right-of-Way shall be carefully removed, temporarily stored and then reinstalled by the Contractor.
Roadside mailboxes are present at the following locations:

115 W. Cleveland Street	215/215A W. Cleveland Street
201/201A W. Cleveland Street	600/600A W. Cleveland Street
205 W. Cleveland Street	604 W. Cleveland Street
207 W. Cleveland Street	606 W. Cleveland Street
209 W. Cleveland Street	608 W. Cleveland Street
211/211A W. Cleveland Street	612 W. Cleveland Street
213 W. Cleveland Street	313 S. Chestnut Avenue

Contractor shall provide temporary mailboxes during construction for all existing roadside mailboxes while street access is not possible. Temporary mailbox facilities shall be:

- Secure, stable, and weatherproof. Latched doors are required.
- Ganged at easily accessible locations for residents and postal carriers. At least three locations of temporary mailboxes are necessary.
- Set/installed per USPS requirements.

Existing mailboxes shall be reinstalled near their original locations such that each mailbox is accessible by the mail carrier (height to be 42” to 46” from street surface (gutter pan) to bottom of mailbox, front of mailbox to be 3” to 6” behind the face of the curb or shoulder point). Note: All requirements for mail boxes shall also apply to newspaper boxes and any other delivery receptacle.

All work under this section, including but not limited to all removal, relocation, storing, reinstallation, replacement, temporary facilities, etc. shall be considered incidental to construction.

G. Waste and Recycling Collection/Containers

The Contractor shall coordinate with waste and recycling companies such that there is no interruption of these pickup services. Temporary provisions may include dumpsters at convenient locations and/or carts at alternate sites. The Contractor shall carry/move waste/recyclable materials from properties inaccessible for curbside pickup due to construction to temporary pickup facilities/locations for residents that are not able to do so.

Note: The normal pick-up day for all streets of this contract is Monday’s.

H. Lawn Ornaments, Address Signs, Fence, Landscape Timbers/Borders, Etc.

Where necessary, these items will be carefully removed and salvaged for the Owner, or where necessary, stored, relocated and/or reinstalled by the Contractor. Installation and restoration will be “of kind” to the complete satisfaction of the Owner. Upon completion, these items shall be relocated to their original location or an approved location. This work shall be considered incidental to construction.

I. Bollards, Protective Barriers, Retaining Walls, Etc.

The Contractor shall not disturb bollards or other protective barriers including retaining walls that are not designated for removal. Use extreme care when removing and replacing surfaces adjacent to these barriers. Protect said devices from any damage including damage from new concrete or asphalt materials (including sprays, splatter, etc.). This work shall be considered incidental to construction.

9. CONSTRUCTION STAKING

The City of Marshfield shall provide construction staking as described in the City's Standard Specifications (Section 1.4.3). The Contractor shall coordinate staking requirements with the City and provide at least 72 hours' notice when requesting staking.

The Contractor shall provide any additional staking as necessary for construction of the projects.

10. PUBLIC INFORMATION MEETINGS

The Contractor will be required to attend Public Information Meetings (as required by Standard Specification 1.3.26) prior to the start of construction of each major construction stage for the project. The initial meeting(s) will be held prior to the start of construction and a second meeting(s) may be held at a later date if deemed necessary by the Engineer. At these Public Information Meetings the Contractor shall present the construction schedule, discuss access and answer questions from concerned residents.

11. PROJECT SIGN(S) REQUIRED

A project sign is required for each project in accordance with City Standard Specification Section 1.3.29. Installation, maintenance and removal thereafter of the project sign shall be considered incidental to construction.

12. SALES AND USE TAX EXEMPTION

Per recently enacted legislation (State Statutes 77.54(9M), Wisconsin Administrative Code Tax Rule 11.11, 2015 Senate Bill 227, 2015 Wisconsin Act 126), the Contractor (and all subcontractors and suppliers) are exempt from paying sales and use taxes of the State of Wisconsin and of cities and counties thereof on eligible materials, equipment and components to be incorporated into the work.

Eligible materials, equipment and components include the following categories of work:

- Storm Sewer, as specified under Sections 6 through 10 of the City's Standard Specifications. Storm Sewer pay items are also identified on the Proposal and Contract (i.e. unit price schedules) by Item Number; 6-XXX, 7-XXX, 8-XXX, 9-XXX and 10-XXX.
- Water Supply, as specified under Sections 10 and 19 of the City's Standard Specifications. Water Supply pay items are also identified on the Proposal and Contract (i.e. unit price schedules) by Item Number; 10-XXX and 19-XXX.

- Sanitary Sewer, as specified under Sections 8 through 10 and 20 of the City's Standard Specifications. Sanitary Sewer pay items are also identified on the Proposal and Contract (i.e. unit price schedules) by Item Number; 8-XXX, 9-XXX, 10-XXX and 20-XXX.

Eligible Pay Items:

- 6-XXX Storm Sewer
- 7-XXX Storm Structures
- 8-XXX Manhole, Catch Basin, Area Drain and Inlet Covers
- 9-XXX Adjustment and Reconstruction of Manholes, Catch Basins, Area Drains and Inlets
- 10-XXX Removing and Abandoning Structures and Pipes
- 19-XXX Water Main and Services
- 20-XXX Sanitary Sewer and Manholes

Said sales and use taxes shall not be included in the Contractor's material cost/unit price for eligible items. This tax exemption does not apply to:

- Construction tools, machinery and equipment.
- Other 'property' purchased by or leased by the Contractor.
- Materials, equipment and components not incorporated into the work.
- Materials, equipment and components which are not described or listed as eligible categories or items.

The City of Marshfield will furnish certificates of tax exemption to Contractor for use in the purchase of tax exempt eligible items to be incorporated into the work upon request.

13. TERRACE AND PRIVATE TREES

There are many trees of various species, size and age located within construction limits. The City and property owners are very concerned about the welfare of these trees. The Contractor shall be required to exercise extreme care when working near the trees so as not to damage roots, branches, limbs, trunk, bark, etc. No trees shall be removed without prior written authorization by the City Engineer.

Terrace and/or private trees which are removed without approval or severely damaged due to careless construction operations may result in the assessment of damages or reduction of payment to the Contractor, intended to compensate the City or the property owner through the City, for the loss of said tree. If a tree is damaged or injured, it shall be repaired immediately including but not limited to cutting/trimming roots, branches and limbs. (Make all cuts immediately above the bark ridge and branch collar to leave the ridge and collar intact for healing.) Bark on tree trunks shall be repaired through application of an asphalt-based wound dressing or wrapped with a 2-ply waterproofed crepe tree wrapping paper laminated with a layer of pliable asphaltic material secured with biodegradable tape. All work shall be in accordance with acceptable forestry practices and approved by the City Forester or Engineer.

Grading and finished terrace work may require blending/rounding of the finished grade around trees. Turf surfaces shall be shaped to match the tree trunk and properly cover roots ultimately resulting in an easily maintainable/mowable turf surface.

14. CAUTION – DO NOT DAMAGE EXISTING UTILITIES TO REMAIN

The Contractor is hereby notified that there are existing municipal and private utilities that are to remain lying beneath existing surfaces that are designated to be removed. Some of these existing utilities are shallow and may be exposed during construction.
The Contractor shall be careful not to damage these utilities during pavement breaking/removal, excavation, etc. and will be responsible for damage and repairs to said facilities.

15. REMOVAL AND DISPOSITION OF EXISTING MATERIALS

Materials designated to be removed (and salvaged for future use by the City) shall be removed, segregated and hauled by the Contractor to the City of Marshfield Public Works – Street Division Material Storage yards at either 2600 South Vine Avenue, or the 'Old Landfill' (east side of Lincoln Avenue at Airport Road) and deposited in the appropriate stockpile. The City shall be responsible for maintaining all materials stockpiles. The Contractor shall be responsible for disposal of existing materials at an alternate site if storage space at city sites is exhausted. Removal (and salvage) shall be in accordance with the Special Conditions and the City's Standard Specifications for Public Works Construction. When disposing materials at alternative or private sites, the Contractor is responsible for all legal and monetary obligations; for obtaining permits; and for compliance with all permit conditions, laws, rules and ordinances. All unsuitable materials and materials not specifically discussed herein or the City's Standard Specifications shall be disposed of by the Contractor (incidental to construction).

A. Asphalt surfaces (including asphalt overlay, approaches, driveways, etc.) shall be deposited at the City's Vine Avenue materials storage yard (paid per Remove Asphalt Surface per S.Y).

B. Concrete, rock and boulders shall be deposited at the City's Vine Avenue materials storage yard (paid per removal specifications per square yard or lineal foot).

C. Surplus topsoil (suitable materials, may include sod, relatively free of contaminants/debris) shall be deposited at the 'Old Landfill' site (incidental to construction).

D. Excavation – excavated fill materials shall be used on the project site in accordance with the grading plan. Unsuitable materials or surplus excavation shall be disposed of by the Contractor. Disposal of surplus excavation materials shall be considered incidental to construction. It is hereby recognized that disposal of unsuitable surplus excavation as described herein is the Contractor's responsibility, independent of City oversight or control, however, the Contractor shall provide documentation that demonstrates the disposal site property owner(s) are satisfied that the Contractor has fulfilled his obligation(s) to said property owner(s).

16. COMPACTION

All disturbed, placed, imported (bedding, cover and/or backfill) or exposed soil or aggregate material shall be compacted in accordance with Section 4 of the Standard Specifications. Wet soil shall be removed/replaced or processed such that moisture/water content facilitates compaction to comply with density requirements.

Special compaction equipment will be required throughout the project. Use equipment which accomplishes compaction goals without damaging buildings and foundations abutting the project.

17. MAINTAIN EXISTING STORM SEWER AND DRAINAGE

The Contractor shall maintain drainage and a functioning storm sewer system throughout construction (as required by Standard Specification Section 1.3.24). Where the existing storm sewer pipe or structures are removed for replacement or to accommodate other work such as installation or removal of sanitary sewers, water main, storm sewers, other underground utilities and/or service lines, temporary pipes and/or structures of sufficient capacity shall be installed by the contractor. Temporary facilities shall include soil-tight connections and shall not allow debris/materials into downstream sewers. Maintaining existing storm sewers and drainage, including temporary facilities, shall be considered incidental to construction of the project.

18. SALVAGE EXISTING CULVERT PIPES

Existing driveway and roadway culvert pipes shall be salvaged and/or disposed of in accordance with Section 6 of the Standard Specifications.

Because existing ditched streets are being reconstructed to curb & gutter streets, most culvert pipes will not be reinstalled. Roadway culverts including SICPP, concrete and metal (in good condition) materials shall be salvaged by the Contractor and delivered to the City Garage, however roadway culverts in poor condition shall be removed and disposed of by the Contractor. Driveway (and carriage walk) culverts shall be salvaged by the Contractor for each property owner, and if the pipe is not wanted by said property owner then the Contractor shall dispose of said culvert pipe(s).

Salvage and/or disposal of existing culvert pipes shall be considered incidental to construction of the project.

19. REMOVAL OF EXISTING STORM SEWER PIPE AND STRUCTURES

Where required on the plans or Special Provisions, existing storm sewer pipes and structures shall be removed in accordance with the plans and standard specifications (Section 10) however the measurement and payment for this work shall be modified as discussed below. Existing pipes shall be protected; saw cut at the removal limits; or carefully removed at/from an existing structure to remain, to allow installation of proposed storm facilities (incidental to construction).

Removal of existing storm sewer mains on this project is required and will be considered incidental to construction of new storm sewers (per the Standard Specifications) unless specifically listed on the plans and Unit Price Schedule.

“Remove Catch Basin and Connecting Pipes”, including area drains, shall be measured per Each and this work shall include removal of the upstream and downstream pipes, ditch leads, etc. This item shall only be measured/paid for when no proposed structure is required to replace an existing structure. Where a proposed structure is required near an existing structure the removal of said structure and connecting pipes shall be considered incidental to construction in accordance with Section 10.4 of the Standard Specifications.

20. REMOVE AND RELAY 42-INCH RCP STORM SEWER

A portion of the existing storm sewer on Spruce Avenue shall be removed in conjunction with the removal and replacement of existing Storm Manhole #17 on the plans (ID SAA09), and to allow

removal/replacement of sanitary sewer and water main on Cleveland Street and installation of a new storm manhole on Spruce Avenue (#18 on the plans). The existing storm sewer pipe is 42-Inch Reinforced Concrete Pipe, class III, installed in 2011.

The Contractor shall excavate and carefully remove said existing storm sewer pipe without damaging the pipe and ends/joints. Clean all salvaged pipe (remove sediment) and prepare joints for re-use. Contractor shall be required to replace salvaged pipe made unusable by Contractor's operations. Salvaged pipe can be stored on site within the work zone or on Spruce Avenue south of Cleveland Street if adequately consolidated and protected with appropriate traffic controls (flashers required).

While the existing storm sewer pipe is out of service, the Contractor shall provide temporary storm sewer in its place equivalent to the existing 42-Inch RCP, capable of carrying expected storm sewer flows and preventing property damage potentially caused by flooding. Short segments of open channel may be allowed if approved by the City Engineer, however these channels must be protected from erosion by utilizing non-erodible materials and barriers.

The following value is provided for Contractor's use in sizing a temporary pipe: $Q_{10\text{-year}}$ = 80 cfs

Reinstall and relay salvaged pipe as required for installation of new storm sewer pipe, shall be in accordance with plan details and the Standard Specifications. Provide and place new foundation/bedding and cover materials, along with new joint seal materials.

Remove and Relay 42-Inch RCP Storm Sewer as described herein, shall be measured per lineal foot of re-laid storm sewer pipe, in accordance with Section 6.4.1 of the Standard Specifications. Payment will be made at the contract unit price and shall constitute full compensation for the work including but not limited to all excavation, removal, salvage, storing, cleaning, preparation, moving, protecting, replacement (if damaged), installation, temporary provisions, backfilling, special compaction, loading, hauling and disposal of waste, along with all materials, labor, tools, equipment and incidentals necessary to complete the work.

21. REMOVAL AND/OR ABANDONMENT OF EXISTING WATER MAIN

Removal and/or abandonment of existing water main along with all work and materials shall be in accordance with this Special Condition, Section 10 of the Standard Specifications, and as directed/required by the City Engineer.

Where proposed water mains are shown to replace existing water mains and the proposed water main is within 5-feet of the existing main, then removal of the existing water main is required and shall be considered incidental to installation of the proposed water main.

Removal of the existing 12-Inch Sand-Cast Iron Water Main is required from STA 12+28 to STA 22+14 (existing water main on Walnut Avenue), and this removal shall be measured and paid for [Remove 12-Inch Water Main (STA 12+28 to STA 22+15), 987 LF], in accordance with Section 10 of the Standard Specifications.

Existing Water Main shall be allowed to be abandoned and remain in-place at the locations listed below:

STA 7+71 to STA 11+78, 6-Inch Sand Cast Iron
STA 7+71 to STA 12+28, 12-Inch Sand Cast Iron

If these existing water mains are found to be at locations and/or depths which are not as indicated on the plans, the City Engineer will review the as-found location/depth and determine if/where said existing water main(s) shall warrant removal.

Where existing water main(s) are abandoned in-place as discussed above, and said water main(s) are impacted by any of the conditions listed below, a portion of said existing abandoned water main pipe(s) shall be cut, removed and a bulkhead (or cap) installed on the open pipe remaining.

A. Disconnection of existing water main at a proposed connection of new water main or at the limits of water main removal.

B. Crossing of existing water main for proposed sanitary sewer lateral and/or water service lines (multiple locations). A singular joint/shared crossing is required unless these lines are required to be more than 10-feet apart.

C. Crossing of existing water main for proposed storm sewer (main, connecting pipe, structure, etc.) which is in conflict with said existing water main.

D. Crossing of existing water main for proposed storm sanitary sewer main (at Oak Avenue, STA 10+42).

The length of existing water main pipe removed shall extend at least 18-Inches beyond the outside edge of a proposed pipe or more if needed to properly accomplish the crossing and backfill/compact. If the existing water main pipe is damaged by Contractor's operations then additional removal shall be required and said additional removal shall be considered incidental to construction.

Cutting, removal and installation of a bulkhead (or cap) on an existing water main as described above shall be measured and paid for as Bulkhead Existing Water Main, per size (6-Inch and/or 12-Inch) per Each. All work and materials shall be in accordance with plan details and Section 10 of the Standard Specifications. Payment shall be made at the contract unit price and shall constitute full compensation for the work including but not limited to all excavation, exploration, exposing, cutting, removal, backfilling, compaction, and disposal of waste, along with all materials, labor, tools, equipment, down time and incidentals necessary to complete the work.

22. REMOVE WATER VALVE BOX

Remove existing water valve boxes on abandoned water mains at the locations shown on the plans or as directed by the City Engineer. Contractor shall remove the entire box but do not disturb the valve or pipe. Remove Water Valve Box shall comply with Section 10 of the Standard Specifications (backfill with suitable native materials and compact per Section 4 of the Standard Specifications). Payment shall be per Each water valve box removed.

23. EXISTING FIRE HYDRANTS

A. Remove Fire Hydrant Package

As shown on the plans and listed in the quantities, existing fire hydrants shall be removed. Payment shall be per Each hydrant package removed, which shall include removal of the fire hydrant, valve, valve box, and lead pipe to the existing main.

B. Salvage Fire Hydrant Package

The existing fire hydrant at STA 19P+89LT as shown on the plans and listed in the quantities, shall be salvaged for Marshfield Utilities – Water Department. Payment shall be per Each hydrant package salvaged, which shall include salvage of the fire hydrant, valve, valve box and lead pipe to the existing water main. Contractor shall deliver salvaged materials to the storage yard of Marshfield Utilities located at 2000 S. Central Avenue. Contractor shall coordinate this delivery with a staff member at the Marshfield Utilities – Water Department.

24. REMOVAL OF EXISTING SANITARY SEWER LATERALS

Removal of existing sanitary sewer lateral pipes shall be in accordance with Section 10 of the Standard Specifications. Said removal is incidental where new pipe/structure installation is required. There may be sewer laterals presently connected to existing sanitary sewer mains which are designated to be replaced as part of this project. The Engineer and Contractor shall determine the status of each said lateral found and if determined to be 'dead' the lateral shall be removed. Removal of said laterals shall comply with and be measured/paid for in accordance with Section 10 of the Standard Specifications.

Where said laterals are found to continue beyond the right-of-way or project limits, said pipe shall be bulkheaded in accordance with Section 10 of the Standard Specifications (construction, measurement, payment, etc.).

25. CONCRETE AND CONCRETE FLATWORK

All concrete pavement patches, curb and gutter, driveways and sidewalks are intended to be quality, long-life, durable concrete surfaces, with concrete supplied from an automatic batching or ready-mix plant and placed via fixed-formed or slip-formed methods.

Monitoring and control of water and the water-to-cementitious material ratio is essential. Quality control and management of materials, aggregate piles, trucks and equipment, by skilled operators is necessary for the success of this project.

Mix Design requirements (in addition to the Standard Specifications, Section 11A (e) shall include:

- The water-to-cementitious material ratio shall not exceed 0.40 (W/Cm≤0.40).
- The concrete mix shall utilize fly ash as a replacement for Portland cement (replacement ratio in pounds of 1:1) at 20% minimum replacement, and up to 30% if approved by the City Engineer.
- Use of a mid-range water reducing admixture is necessary to attain workability without exceeding the W/Cm limit. Hand work/manual fixed-form methods may necessitate use of a 7-bag mix, however mixes with a cement content above 7-bag will not be allowed.

Note: These requirements apply to all concrete used on the project, regardless of the type/use or method of placement.

Batch tickets will be required with every load delivered to the jobsite so that the Contractor/Foreman and Engineer can verify the W/Cm ratio. Tickets shall clearly indicate the W/Cm ratio, or indicate the individual weights (in pounds) of mix water, aggregate free moisture, cement, and fly ash such that the W/Cm ratio can be quickly determined in the field. If possible, indicate the amount of water that can be added on-the-job on each batch ticket.

The concrete producer shall conduct frequent moisture testing of the aggregates at the plant/ stockpile location. Immediately prior to each day's pour, determine the fine and coarse aggregate moisture content(s). During each pour (unless measured/monitored automatically by the plant), determine fine aggregate moisture content at half-hour intervals (one test every one-half hour) or every-other truck load, whichever interval is longer. Utilize moisture content test results to adjust the batch weights such that the targeted W/Cm ratio is maintained and not exceeded.

Please notify and remind all ready-mix truck drivers that:

- **All wash water shall be removed from the truck / drum prior to loading.**
- No water shall be added to the mix in transit.

The Contractor is responsible for testing of concrete in accordance with Section 11 of the Standard Specifications (Section 3.8 of the WCPA Specification). Compressive strength test cylinders must include caps and shall be labeled as follows:

City of Marshfield Contract 2020-01 Cylinder No._____
Plan No. 3653 Project No._____
Date Cast _____ Test Age: Opening 7-day 28-day
Type: Pavement Curb & Gutter Driveway Curb Ramp Sidewalk Other
Sample Location:_____
Field Test - Slump ____" Air ____% Temp ____°F By_____

Contractor and the concrete pavement subcontractor shall hold a pre-pour meeting arranged by the Engineer, at least one week prior to each substantial pour.

All (exposed) concrete surfaces shall be properly spray-cured, using a WisDOT approved batch of **TK Tri-Kote 26 White** (white pigment required) curing compound.

All (exposed) concrete pavement joints shall be sealed by others.

Base Concrete Pavement shall comply with all requirements for (exposed) Concrete Pavement except:

- Final Surface Texture requirements shall not apply to base concrete pavement patches. A rough finish is allowed but surface shall not vary by more than ½-Inch.
- Curing shall be accomplished by the Impervious Sheeting Method (not spray cured).
- Longitudinal and transverse joints are required (to match existing jointing) but will not be sealed.

Comply with all other requirements for concrete pavement per Sections 11 and 17 of the Standard Specifications.

Project Summary:

- Walnut Avenue patch (north of Cleveland Street) = 8-Inch Concrete Pavement (no Dowel Bar Baskets).
- Cleveland Street patch (west end, near Doege Street) = 8-Inch Concrete Pavement (no Dowel Bar Baskets).
- Oak Avenue base patch (south of Cleveland Street) = 8-Inch Base Concrete Pavement (and Dowel Bar Baskets).

- Chestnut Avenue base patch (south of Cleveland Street) = 8-Inch Base Concrete Pavement (and Dowel Bar Baskets).
- All concrete base and pavement patches: Wet-set tie bars are incidental to construction. Drilled tie bars, drilled dowel bars, and dowel bar baskets will be measured for payment.

26. FINE GRADING (FOR ASPHALT) BY OTHERS

The City, via a private contractor under the City of Marshfield's current Asphalt Pavement contract, shall be responsible for preparation of the aggregate base foundation for Asphaltic paving through fine grading and shaping operations. The aggregate base shall be shaped to plan grade, elevation, crown, transverse slope and cross-section using the stakes provided by the Engineer, in conjunction with auto grading/slope equipment as necessary.

Fine Grading for side road approaches, driveways, aprons, etc. will be considered as work by the Contractor and incidental to construction.

The Contractor shall coordinate with the City's asphalt contractor to accomplish fine grading in a timely matter with a minimal number of mobilizations. Failure to coordinate this work or otherwise complete it in a timely manner will not be considered as grounds for warranting a contract time extension. All work by the Contractor in regards to this work shall be considered incidental to construction.

Gravel (Base Aggregate Dense) shall be measured and paid for under the pertinent contract items. Maintenance and repair of the shaped/prepared aggregate base shall be the Contractor's responsibility and is incidental to the pertinent contract items for base aggregates.

27. ASPHALT PAVEMENT BY OTHERS

Asphalt pavement for mainline streets, side roads, patches, driveways, aprons, parking lots, flumes, etc., is not included under this contract but will be done by others (a private contractor under the City of Marshfield's current Asphalt Pavement Contract). The Contractor shall coordinate with the City's asphalt contractor to accomplish asphalt paving/patching in a timely matter with a minimal number of mobilizations. Failure to coordinate this work or otherwise complete it in a timely manner will not be considered as grounds for warranting a contract time extension. All work by the Contractor in regards to this work shall be considered incidental to construction.

28. PEDESTRIAN CURB AND GUTTER

At select locations as shown on the plans (southeast corner of Cleveland Street & Chestnut Avenue), special concrete 'Pedestrian Curb and Gutter' is required. Pedestrian Curb and Gutter shall be constructed in accordance with plan details, in conformance with the Standard Specifications, except that the width of the curb head or gutter pan will be allowed to increase in width up to a maximum of 6-Inches (in addition to width's shown on said details). Pedestrian Curb and Gutter shall be formed (front, back, and face) however the portion of the curb head abutting a retaining wall shall be poured up to/against said wall (form extended below wall, if applicable, to remain in place).

Pedestrian Curb and Gutter will be measured and paid for per Lineal Foot in accordance with Section 13 of the Standard Specifications.

Excavation and Base Aggregate shall be measured and paid for separately, in accordance with the Standard Specifications.

29. CURB RAMP AND LANDING SLOPES – LAYOUT AND CONFIRMATION

As required via Section 15 of the Standard Specifications, curb ramps, landings and sidewalks shall be constructed to comply with accessibility requirements (ADA/ADAAG), in accordance with the plan details. The design of curb ramps/landings at street/sidewalk intersections is typically controlled by a critical curb ramp (edge) slope (i.e. the steepest ramp slope allowed but less than or equal to 7.0%). The City Engineer will provide information to the Contractor's forming/layout foreman indicating the location of the controlling ramp slope (edge).

Prior to final setting of forms for curb ramps/landings, the Contractor shall confirm/verify/measure actual slopes with the City Engineer, using a direct-reading accurate digital 4-foot hand level capable of displaying slopes in percentage units. The City Engineer must approve the layout is in conformance with the plans, details and specifications, prior to the Contractor's ordering of concrete.

30. DETECTABLE WARNING FIELD

The Contractor shall be responsible for providing and installing Detectable Warning Field (DWF) materials at curb ramps, as required per project plans and specifications. DWF's shall be cast iron panels as manufactured by Neenah Foundry Co. Various sizes of DWF 'Quick Connect Plates' may be needed for the various curb ramps. Installation shall comply with pertinent plans, details and the Standard Specifications.

The Contractor shall mask and protect the DWF surface from concrete splatter and curing compound spray. Finish the surface of the abutting concrete to be flush with the DWF panel, without edging around the panel(s) and no jointing around or to the panels.

Detectable Warning Field shall be measured per Square Foot of DWF, assembled and successfully installed. Payment shall be considered full compensation for providing DWF panels, protecting, assembly, installation, disposal of waste and clean-up, along with all mobilization, labor, tools, equipment and incidentals necessary to complete the work.

31. RESTORATION OF TURF SURFACES (FINISHED TERRACES)

Turf surfaces shall be restored in accordance with the plans, typical sections, the City's Standard Specifications and these Special Conditions. Topsoil processing, preparation and seed mixture shall comply with the following requirements:

- Restore to a well-groomed lawn condition using imported processed topsoil. Seed using City Seed Mix (2020) at 5 lbs. /1000 SF. Cultipack before and after seeding to develop a firm seed bed and insure good seed-soil contact. This work shall be paid for at the Contract Unit Price for Finished Terraces – City Seed Mix (2020), per square yard, based upon the plan quantities (without measurements).

32. EROSION CONTROLS

Contractor is responsible for any and all sediment leaving the project site, whether conveyed by water, wind, or vehicles. To comply with storm water permits and/or protect waters or wetlands, the Contractor is required to install erosion controls (per the City's Standard specifications, Section 18) prior to the start of construction/excavation and as soon as possible at newly constructed areas. Construction plans may include an Erosion Control plan, however, this plan cannot be considered inclusive for all situations and stages. This plan typically indicates the controls that will be measured and paid for by the City of Marshfield, while additional controls such as tracking pads, sweeping and additional inlet protection on haul routes, and other measures will be the Contractors responsibility (thus incidental to construction).

Plan details and specifications not only require timely installation, but also proper installation of approved materials. The Contractor is also responsible for maintenance of all erosion controls throughout the duration of the project.

Contractor shall install erosion controls such as Inlet Protection, pipe or ditch checks, etc. on all existing and proposed drainage structures within project limits and beyond if so indicated on the Erosion Control plans. Install Inlet Protection, type 'A', concurrent with (pavement) removals. Where existing structures are to remain (casting to remain, adjustment required) Inlet Protection shall be measured and paid for, per Each, as a single unit, for the existing structure and the adjusted structure (not paid separately).

The City Engineer reserves the right to deduct 50% or more of the contract unit prices for erosion controls due to the Contractor's use of deficient materials, improper installation, untimely installation and/or lack of maintenance of any or all erosion controls. The City Engineer also reserves the right to remedy (all of the above) utilizing City forces or others, with the cost of said remedy(s) either billed to the Contractor or deducted from final payment.

33. STAGED CONSTRUCTION (WATER MAIN)

Any plugs and/or caps necessary to complete the staged construction shall be considered incidental to the installation of the water main. Marshfield Utilities will provide a temporary hydrant for the contractor to install if a long dead end has to be created during the staged construction process. Installation of this hydrant if necessary shall also be deemed incidental to the construction of the water main.

34. LEAD WATER SERVICES

No water service lines will be connected to a service line containing lead without the direct authorization of the Water Utility Manager at Marshfield Utilities. The contractor shall coordinate with all property owner(s) to allow for the replacement and/or connection of these services.

35. TEMPORARY WATER

Contractor shall provide a temporary water system as necessary to coincide with the Staging Plan and the Contractor's construction schedule. Contractor shall be responsible to coordinate with the affected water customers to establish appropriate times that service can be disrupted during the temporary water connection and the service reinstatement.

For Stage 5 of the Cleveland Street Reconstruction Project, Marshfield Utilities – Water Department will drain the 500,000 gallon elevated storage tank at 607 W. Cleveland Street. This tank will be taken out of service for said stage 5, thus a temporary water connection is not required.

No temporary water service lines will be allowed to connect to a service line containing lead without the direct authorization of the Water Utility Manager at Marshfield Utilities. If the service line is found to contain lead, Marshfield Utilities is to be notified promptly and the temporary water service shall be connected by means of an outside hose bib.

Payment for the Temporary Water System shall be single Lump Sum and a percentage of this Lump Sum will be paid upon completion of all residences being connected to the new water main, per Stage of construction.

36. PRIVATE SANITARY LATERAL AND/OR WATER SERVICE REPLACEMENTS

The City has encouraged property owners abutting these projects to replace private sanitary laterals and/or water service lines, if warranted, in conjunction with the construction of this project. The Contractor shall coordinate with each private property owner's plumber such that the sewer lateral and/or water service can be replaced on the private property, through the foundation wall of the building if possible (without the need for connector outside the building, or interruption of service). This may require extensive scheduling, coordination, staging, delays, downtime or other inconvenience to the Contractor. The City will assist if necessary to minimize said inconvenience as much as possible.

All cost associated with or contributing to these staging and coordination issues discussed herein, implied or otherwise shall be considered incidental to construction. This shall include but not be limited to maintaining services, temporary connections (and removal thereafter), repeating or overlapping work or operations, loss of production, downtime and delay, as well as all additional measures not included in other pay item work, along with all materials, labor, equipment, and incidentals necessary to complete the work.

37. EXISTING PVC SANITARY SEWERS AND GROUNDWATER

The Contractor is hereby informed that existing PVC sanitary sewers within/abutting/adjacent to proposed sanitary sewer projects were typically bedded/covered with clean stone and usually release groundwater when exposed. Existing PVC sanitary sewer trenches upstream of proposed projects therefore have the potential to convey sizeable volumes of trench water. The Contractor shall plan for handling of said water, prior to beginning excavation. This trench water can be pumped to the storm sewer if said water remains clean (free of sediment, dissolved solids, contamination, etc.)

38. TRENCH PLUGS/CLAY DAMS

The Contractor shall be required to install Trench Plugs/Clay Dams in lieu of normal bedding and cover materials at locations shown on the plans, noted within the Standard Specifications and these Special Conditions. Locations for Trench Plugs/Clay Dams shall include:

- Sanitary Sewer Mains – at approximately 20' upstream of manholes, or as shown on the plans.
- At Sanitary Sewer Laterals, where shown on the plans.

Trench Plugs shall be constructed using suitable native clay material, placed in layers not exceeding 8-inches when loose, compacted by hand (using vibrator rammer/tamping plate, etc.), extending 6 lineal feet along the pipe and full width of the trench, in lieu of bedding/cover materials. Trench Plug/Clay Dam material shall be placed around the pipe(s) without voids and without damaging the pipe.

All work associated with Trench Plugs/Clay Dams, including materials, placing, compacting, downtime/delay/loss of production, along with all labor, tools and equipment shall be considered incidental to construction and will not be measured/paid for separately.

39. EXISTING PVC SANITARY LATERALS (TO REMAIN)

The Contractor is hereby notified that there are existing sanitary sewer laterals consisting of PVC pipe materials at the following locations:

STA 7+95 RT, 608 W. Cleveland Street
STA 12+74 LT, 507 W. Cleveland Street
STA 15+23 LT, 413 W. Cleveland Street
STA 16+28 RT, 406 W. Cleveland Street
STA 16+63 RT, 404 W. Cleveland Street
STA 19+35 LT, 309 W. Cleveland Street
STA 22+81 LT, 215 W. Cleveland Street
STA 24+17 LT, 209 W. Cleveland Street
STA 27+58 LT, 111 W. Cleveland Street
STA 28+75 RT, 104 W Cleveland Street
STA 29+21 RT, 316 N. Central Avenue
STA 21P+35 RT, 305 N. Pine Avenue
STA 22P+65 LT (on Pine Avenue), 500 W. Cleveland Street
STA 22P+69 RT (on Pine Avenue), 412 W. Cleveland Street
STA 50CH+98 RT (on Chestnut Avenue), 115 W. Blodgett Street (garage)

These existing PVC sanitary laterals are intended to remain and will not be replaced unless required by the City Engineer (such as for insufficient depth/cover, etc.).

Contractor will encounter existing PVC sanitary laterals for various construction excavation operations, such as but not limited to installation of proposed utilities (sanitary sewer, water main, storm sewer, etc.) or removal of existing utilities. When/where encountered, Contractor shall locate, expose (by hand) and work around said existing PVC laterals so that said lines remain in place, undamaged. Alternatively, Contractor may instead remove said existing PVC lateral for ease of said utility installation/removal operations, however the PVC lateral shall be repaired in accordance with this Special Condition and Section 20 of the Standard Specifications, to the satisfaction of the City Engineer. Note: New PVC pipe and gasketed repair sleeves are required.

If the existing PVC sanitary lateral is hit or dug-through prior to locating and exposing then the lateral shall be televised before repairs are made. All damaged PVC pipe and/or fittings, joints, connections, etc., shall be removed and replaced.

Special backfill and compaction is required for all existing PVC laterals impacted via these Contractor operations.

All costs for work and materials as described herein, along with all downtime, labor, tools, equipment and disposal of waste regarding existing PVC sanitary sewer laterals shall be considered incidental to the utility facilities being installed or removed as the case may be. Note: If an existing PVC sanitary

lateral is connected to an existing sanitary sewer main, that is being replaced/reconstructed under this contract then a length of replacement PVC lateral shall be measured and paid for (as Sanitary Sewer Lateral 6-Inch PVC) however said length shall not exceed 4-feet (per lateral).

40. SANITARY SEWER RECONSTRUCTION WITH ROAD REMOVAL/REPLACEMENT

Sanitary sewer reconstruction on Oak Avenue and Chestnut Avenue shall be in accordance with this Special Condition however all pertinent details, Standard Specifications and other Special Conditions shall also apply.

For these projects, the bid item for the trunkline sewer, "Sanitary Sewer, {per size} PVC (With Road Removal/Replacement)" shall include removal and replacement of the street surface and base, as specified within these Special Conditions and indicated on the Plans – "Mainline Sewer Roadway Typical Sections". The longitudinal limits for pavement removal/replacement as required for the trunkline sewer replacement as shown on the typical section(s), can be adjusted if additional room/width is required for contractor's work operations/equipment (the saw cut location(s) can be adjusted if in conformance with the Typical Section and the City's Street Repair Standards, included in plans, and approved by the City Engineer). A narrow trench is desired to minimize street impacts and reduce cost.

Reconstruction of the sanitary sewer trunkline(s) shall be include work/items listed below which shall be considered incidental to construction of the new trunkline sewer main and said work/items will not be measured/paid for separately:

- Removal of existing asphalt surface and base concrete pavement, removed separately (width of base along and parallel to said trunkline, as indicated on the plans and/or typical sections).
- Removal of existing sanitary sewer pipe and manholes.
- All excavation, including base, trench, unsuitable soils, etc.
- Installation of new trunkline sanitary sewer pipe (per Typical Trench Section/details).
- Installation of Base Aggregate Dense 1-1/4" (width of disturbed area per Typical Section).
- Disposal of surplus and/or unsuitable excavation material.
- Replacement of the base concrete with 8-Inch thick Concrete Pavement (per Section 17 of the Standard Specifications), including all wet-set tie bars.

All non-PVC sanitary laterals shall also be replaced on these projects from the main to a point beyond the curb, as close to the sidewalk as possible without undermining said sidewalk, measured and paid for per lineal foot in accordance with the Standard Specifications. The additional asphalt, concrete and aggregate base removal and replacement (excluding asphalt) work will be measured and paid for separately, beyond the longitudinal saw cut for the trunkline sewer main, in accordance with pertinent bid items and the Standard Specifications.

Related work items to be measured and paid for in accordance with the Standard Specifications and as listed in the Unit Price Schedule include:

- Lateral Connections (8" x 6" PVC Wyes), per Each.
- Manholes, per vertical Foot.
- Manhole Covers, per Each.
- Chimney Seals, per Each.
- Sawing (concrete) pavement full depth, per lineal Foot.
- Drilled Dowel Bars, per Each.
- Drilled Tie Bars, per Each.
- Dowel Bar Baskets, per Lineal Feet.

Sanitary lateral connection to existing lateral pipes, including the following items, shall be considered incidental to construction and will not be measured for payment (in accordance with the Standard Specifications):

- 6" PVC to 4" PVC adaptor.
- Fernco connector for PVC to existing non-PVC lateral pipe.
- Gasketed PVC sleeve for connecting PVC to existing PVC pipe.

41. CONNECT MANHOLE TO EXISTING LINED SANITARY SEWER

This work will consist of connecting a new sanitary sewer manhole to an existing lined (cured-in-place thermoset resin) sanitary sewer pipe without the use of an adaptor or cutting the liner pipe. The precast concrete manhole pipe connections/rubber boots shall be size appropriately for the existing sewer pipe liner. The manhole rubber boot shall be sized such that the boot is connected to the exterior/outside diameter of the CIPP liner.

Use materials such as sealant and concrete (encasement) as shown on plan details.

This work requires careful removal of the existing manhole (without damaging the existing lined sewer main) and thereafter the sewer host pipe from the liner, prepare the liner surface and edges, use an appropriately-sized flexible manhole boot and block/support/encase exposed liner pipe, as required and shown on plan details.

Connect Manhole to Existing Lined Sanitary Sewer shall be measured as a unit, per Each connection to a lined sewer and paid for at the contract unit price. Payment is full compensation for all work described herein and on plan details including, but not limited to, excavation, removal, cleaning, preparation, installation and disposal of waste; and for furnishing all materials, labor, tools, equipment, and incidentals necessary to complete the work.

42. RECONSTRUCT EXISTING SANITARY MANHOLE #D41

Existing sanitary manhole #D41 is a 48-inch precast concrete structure to remain. The Contractor shall reconstruct this manhole as follows:

- Remove and salvage existing manhole cover (and deliver to City Garage).
- Remove and dispose of existing adjusting rings.
- Remove and salvage existing precast concrete cone section, and prep for reuse.
- Remove and salvage existing precast concrete 4' riser section (and deliver to City's storage yard).
- Provide and install a new 2'-8" precast concrete riser section.
- Reinstall salvaged precast concrete cone section.
- Install new adjusting rings and adjust to proposed grade.
- Install new manhole cover (measured and paid for separately).

Reconstruction of this manhole shall comply with all details and standard specifications for new manholes, including joint sealing (butyl gaskets, external warp, mastic, etc.).

Reconstruct Existing Sanitary Manhole #D41, as described herein shall be measured as a single Lump Sum unit. Payment will be made at the contract unit price and shall constitute full compensation for the work, including but not limited to excavation, removal, salvaging, preparation, reworking,

reinstallation, adjustment, backfilling and special compaction, loading, hauling, delivering and disposal of waste, along with all materials, labor, tools, equipment and incidentals necessary to complete the work.

43. CONCRETE CRADLE

Where indicated on the Plans or required by the Engineer, construct a Concrete Cradle where large storm sewers cross sanitary sewers with minimal clearance between the sewer pipes. Concrete Cradles shall be constructed as shown on the Concrete Cradle Detail. Concrete Cradles will be measured per each successfully installed. Payment at the contract unit price shall be considered full compensation for all excavation, forming, materials (concrete, reinforcement, insulation, grout, etc.), installation staging/downtime/delay, and disposal of waste along with all labor, tools, equipment and incidentals necessary to complete this work.

44. PIPE UNDERDRAIN FOR SANITARY TRENCH

The Contractor shall be required to install underdrain from the sanitary trench to the storm sewer per plan details, at locations as shown on the plans. This work will include installation of 4" CPP (perforated) with sock and end cap laid within the sanitary trench envelope, 4" bend, 4" CP (non-perforated) from the bend to the storm sewer structure, connecting to an existing or proposed structure and installing a rodent guard.

Pipe Underdrain for Sanitary Trench shall be measured per Each successfully installed. Payment shall be considered full compensation for all materials, hauling, excavation, backfill, compacting, connecting, sealing, disposal of waste and clean up, along with all mobilization, labor, tools, equipment and incidentals necessary to complete the work.

45. TRAFFIC CONTROL

All work zone traffic control signing for construction of each project stage shall be the Contractor's responsibility and shall be in accordance with Section 24 of the Standard Specifications and project plans.

Project locations to be closed for construction/reconstruction, as indicted in these Special Provisions (Article 1 – Project Scope) shall be signed as 'Road Closed', with advance warning signs required for all mainline approaches. If said mainline closure effectively closes a side road (including alleys, commercial entrances, etc.) then each said side road access shall also be signed as 'Road Closed' with advance warning signs.

Advance warning signs shall include a post-mounted 'Road Work Ahead' sign and two 'Road Closed to Thru Traffic' signs mounted on Type III barricades (each of these barricades shall include 2 flashers).

Projects which are required to be open to traffic at the end of each working day shall be signed as described above; however, the 'Road Closed' sign at the construction limits shall be removed or covered when said road is open. Contractor shall place additional traffic control/warning signs as appropriate.

Projects which are required to be open to traffic at all times (live traffic) shall be appropriately signed in accordance with the MUTCD (Part 6/Work Zones), such as but not limited to lane closures, shoulder/parking lane work, one-lane road, etc.

Traffic control devices shall be used to mark inaccessible sidewalk and path locations, including advance warnings.
Traffic control devices such as drums with flashers shall be utilized to delineate temporary access routes as indicated on the traffic control plan, warranted per staging of construction and as required by the City Engineer.

Traffic controls shall be adjusted/revamped to fit each stage of construction. The traffic control subcontractor/responsible party shall review traffic controls at each stage change with the City Engineer prior to commencement of construction/removals of the new stage.
Provide and maintain traffic control devices located where described herein, shown on the plans or as directed by the City Engineer, to maintain a safe work zone throughout the contract duration. Relocate as required to accommodate changing work operations. When not in use, place devices away from traffic outside of paved and gravel shoulder surfaces. Lay signs and supports flat on the grade with uprights oriented parallel to and downstream from traffic. Do not stack devices or equipment. Promptly remove temporary devices from within the project limits when said devices will not be used within 14 consecutive calendar days, and/or within 5 business days of substantial completion unless the City Engineer allows otherwise.

46. REMOVE AND SALVAGE BLOCK RETAINING WALL

The existing block retaining wall at 406 W Cleveland encroaches into the Right-of-Way and is in conflict with proposed sidewalk. The Contractor shall carefully remove and salvage the block wall along with any salvageable backfill material. The block wall shall be dismantled by hand and stacked on pallets (provided by the Contractor), and shall be placed on said property beyond the project limits where directed by the property owner. Coordinate with the property owner to confirm the schedule, limits of block wall removal, limits of excavation, storage location for salvaged blocks, etc.

The Contractor shall also be required to excavate behind the proposed sidewalk for reinstallation of the salvaged block retaining wall by the property owner. Said excavation is included in the volume of excavation (paid per Cubic Yard) as determined by the City Engineer and included in the Unit Price Schedule.

Remove and Salvage Block Retaining Wall as described herein, shall be measured per Lump Sum. Payment will be made at the contract unit price and shall constitute full compensation for the work including but not limited to coordination, removal, salvage, storing and excavation, along with all materials, labor, tools, equipment and incidentals necessary to complete the work.

THIS PAGE INTENTIONALLY LEFT BLANK

PERMITS AND APPROVALS

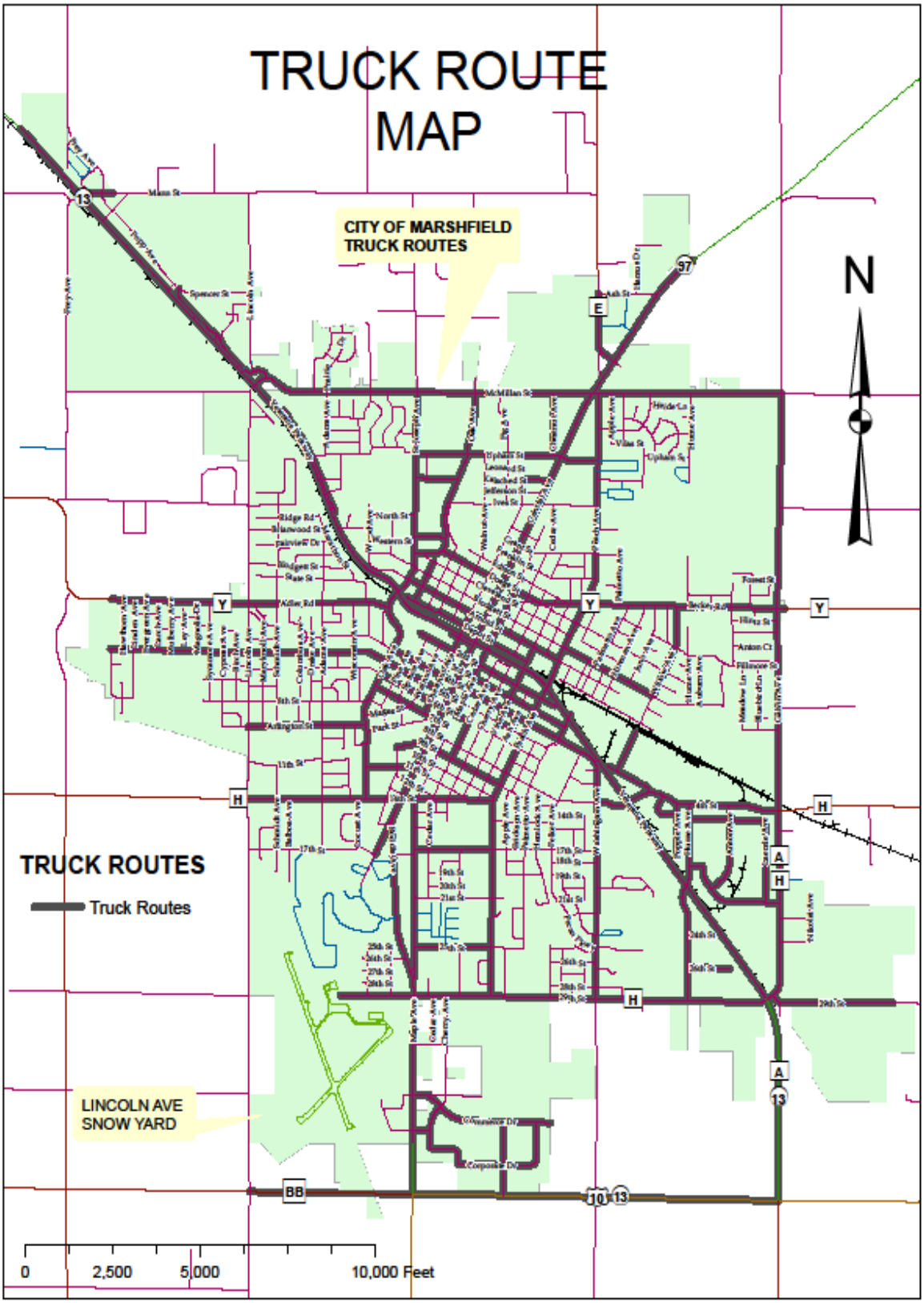
Portions of the proposed work on this project will require permits, licenses and/or approvals from various agencies. Said documents are included with these Special Provisions if available, or will be provided to the Contractor when available. These documents include:

Wisconsin Department of Natural Resources – Storm Water Permit (NR216)
Wisconsin Department of Natural Resources – Sewerage System Improvement
Wisconsin Department of Natural Resources – Water System Improvement
Wisconsin Historical Society – Permission to Disturb Uncatalogued Human Burial Site

Contractors should note that if discrepancies are found between the plans and specifications and said permits, licenses and/or approvals, the permits, licenses and/or approvals will govern.

It will be understood that all Contractors must fully comply with all provisions of these permits as if the Contractor were the applicant of said permit.

THIS PAGE INTENTIONALLY LEFT BLANK


TRUCK ROUTE MAP
CITY OF MARSHFIELD TRUCK ROUTES
N
TRUCK ROUTES
Truck Routes
LINCOLN AVE SNOW YARD
0
2,500
5,000
10,000 Feet

THIS PAGE INTENTIONALLY LEFT BLANK

ATTACH CERTIFICATE OF INSURANCE HERE

INCLUDE ALL ENDORSEMENTS FOR ADDITIONAL INSURED(S)

THIS PAGE INTENTIONALLY LEFT BLANK

CONTRACT 2020-01
CITY OF MARSHFIELD

STREET AND UTILITY RECONSTRUCTION
CLEVELAND STREET, DOEGE STREET TO CENTRAL AVENUE &
PINE AVENUE, BLODGETT STREET TO CLEVELAND STREET

SANITARY SEWER RECONSTRUCTION
OAK AVENUE, BLODGETT STREET TO CLEVELAND STREET &
CHESTNUT AVENUE, BLODGETT STREET TO CLEVELAND STREET

PLAN NO. 3653

PROJECT NO.

312241 STREET
312242 WATER MAIN SERVICES
316777 STORM WATER
352144 SANITARY SEWER MAIN & SERVICES

This agreement made this _____ day of_____, 2020 by and between _____ hereinafter called the **'CONTRACTOR'** and the City of Marshfield, Wisconsin, hereinafter called the **'OWNER',** WITNESSETH,

That the Contractor and the Owner, for the consideration hereinafter stated, agree as follows:

Article I, Scope of Work: The Contractor shall perform everything required to be performed and shall provide and furnish all labor, materials, tools, equipment and plant which may be required, either expendable or permanent, also all utility and transportation services, all in strict accordance with the Plans, Specifications, and Contract Documents prepared by the City Engineer, sometimes referred to as the Engineer, which Plans and Specifications are made a part of this Contract, and in strict compliance with the Proposal and other Contract Documents herein mentioned which are also a part of this Contract; and the other documents constituting a part hereof.

Article II, The Contract Consideration of Prices:

All of which payments are to be made in accordance with the General Conditions and Specifications.

Item No.	Item Description	Unit	Unit Price
2-1	CLEARING	ID	$
2-2	GRUBBING	ID	$
3-1	REMOVE CONCRETE PAVEMENT	SY	$
3-2	REMOVE CURB & GUTTER	LF	$
3-3	REMOVE CONCRETE DRIVEWAYS AND SIDEWALK	SY	$
3-4	REMOVE ASPHALT SURFACE	SY	$
3-5	SAW CONCRETE PAVEMENT - FULL DEPTH	LF	$
3-6	SAW CONCRETE DRIVEWAYS AND SIDEWALKS	LF	$
3-7	SAW ASPHALTIC SURFACE	LF	$
4-1	EXCAVATION	CY	$
4-2	EXCAVATION BELOW SUBGRADE	CY	$

4-3	BORROW	CY	$
5-1	BASE AGGREGATE DENSE 3/4 INCH, IN-PLACE	CY	$
5-2	BASE AGGREGATE DENSE 1-1/4 INCH, IN-PLACE	CY	$
5-3	SCREENED BREAKER-RUN STONE, IN-PLACE	CY	$
5-4	DISINTEGRATED GRANITE SURFACE, IN-PLACE	CY	$
5-5	GEOTEXTILE FABRIC, TYPE SAS	SY	$
6-1	STORM SEWER 12" RCP - CLASS III	LF	$
6-2	STORM SEWER 12" RCP - CLASS IV	LF	$
6-3	STORM SEWER 15" RCP - CLASS III	LF	$
6-4	STORM SEWER 15" RCP - CLASS IV	LF	$
6-5	STORM SEWER 18" RCP - CLASS III	LF	$
6-6	STORM SEWER 24" RCP - CLASS III	LF	$
6-7	REMOVE & RELAY STORM SEWER 42" RCP	LF	$
6-8	STORM SEWER 4" CPP DRAIN TILE WITH SOCK	LF	$
6-9	STORM SEWER 6" SICPPP PIPE UNDERDRAIN - WRAPPED TRENCH	LF	$
6-10	DITCH LEAD WITH DRAIN TILE 12" SICPP	LF	$
6-11	DITCH LEAD WITH DRAIN TILE 18" SICPP	LF	$
6-12	CONCRETE COLLAR (12" RCP TO 12" VIT)	EA	$
6-13	CONNECT TO EXISTING STRUCTURE (12" RCP TO INLET - CORE HOLE)	EA	$
6-14	INSERT-TEE CONNECTION (4" CPP TO 12" RCP)	EA	$
6-15	AEW, STEEL, FOR 12" SICPP	EA	$
6-16	AEW, STEEL, FOR 18" SICPP	EA	$
7-1	CB TYPE 2	EA	$
7-2	CB TYPE 4	EA	$
7-3	MH TYPE 1 STM	VF	$
7-4	MH TYPE 3 STM	VF	$
8-1	CB COVER - TYPE C	EA	$
8-2	CB COVER - TYPE D	EA	$
8-3	CB COVER - TYPE H	EA	$
8-4	CB COVER - TYPE H-S	EA	$
8-5	CB COVER - TYPE U	EA	$
8-6	MH COVER - TYPE J	EA	$
8-7	MH COVER - TYPE JM	EA	$
9-1	ADJUST STM MH	EA	$
10-1	REMOVE SANITARY LATERAL	LF	$
10-2	BULKHEAD ABANDONED WATER MAIN, 6"	EA	$
10-3	BULKHEAD ABANDONED WATER MAIN, 12"	EA	$
10-4	REMOVE WATER MAIN, 12" (STA. 12+28 TO 22+15)	LF	$
10-5	REMOVE WATER VALVE BOX	EA	$
10-6	REMOVE FIRE HYDRANT PACKAGE	EA	$

10-7	SALVAGE FIRE HYDRANT PACKAGE	EA	$
10-8	REMOVE CATCH BASIN AND CONNECTING PIPES	EA	$
11-1	CONCRETE PAVEMENT - 8"	SY	$
11-2	BASE CONCRETE PAVEMENT - 8"	SY	$
11-3	CONCRETE DRIVEWAYS - 6" REINFORCED	SY	$
11-4	CONCRETE DRIVEWAYS - 8" REINFORCED	SY	$
13-1	CONCRETE CURB & GUTTER - 30" TYPE A	LF	$
13-2	CONCRETE CURB & GUTTER - 30" TYPE D	LF	$
13-3	CONCRETE CURB & GUTTER - PEDESTRIAN	LF	$
15-1	CONCRETE SIDEWALK - 4"	SF	$
15-2	CONCRETE SIDEWALK - 6" REINFORCED	SF	$
15-3	CONCRETE SIDEWALK - 8" REINFORCED	SF	$
15-4	DETECTABLE WARNING FIELD	SF	$
16-1	FINISHED TERRACES - CITY SEED MIX (2020)	SY	$
17-1	DRILLED TIE BARS	EA	$
17-2	DRILLED DOWEL BARS	EA	$
17-3	DOWEL BAR BASKETS	LF	$
18-1	CULVERT PIPE CHECK	EA	$
18-2	TEMPORARY DITCH CHECK	EA	$
18-3	INLET PROTECTION TYPE A	EA	$
18-4	INLET PROTECTION TYPE B	EA	$
18-5	INLET PROTECTION TYPE C	EA	$
18-6	STREET SWEEPING (PER STAGE)	EA	$
19-1	WATER MAIN, 16" D.I.	LF	$
19-2	WATER MAIN, 12" D.I.	LF	$
19-3	WATER MAIN, 8" D.I.	LF	$
19-4	WATER MAIN, 6" D.I.	LF	$
19-5	WATER MAIN, 4" D.I.	LF	$
19-6	VALVE W/VALVE BOX, 16"	EA	$
19-7	VALVE W/VALVE BOX, 12"	EA	$
19-8	VALVE W/VALVE BOX, 8"	EA	$
19-9	VALVE W/VALVE BOX, 6"	EA	$
19-10	CROSS, 16"	EA	$
19-11	CROSS, 12" X 8"	EA	$
19-12	TEE, 16" X 6"	EA	$
19-13	TEE, 12" X 12"	EA	$
19-14	TEE, 12" X 6"	EA	$
19-15	TEE, 8" X 6"	EA	$
19-16	REDUCER, 16" X 12"	EA	$

19-17	REDUCER, 8" X 6"	EA	$
19-18	REDUCER, 8" X 4"	EA	$
19-19	45 D BEND, 16"	EA	$
19-20	45 D BEND, 12"	EA	$
19-21	45 D BEND, 6"	EA	$
19-22	45 D BEND, 4"	EA	$
19-23	SLEEVE, MJ, 16"	EA	$
19-24	SLEEVE, MJ, 12"	EA	$
19-25	SLEEVE, MJ, 6"	EA	$
19-26	SLEEVE, MJ, 4"	EA	$
19-27	HYDRANT 8’ BURY	EA	$
19-28	HYDRANT 8.5’ BURY	EA	$
19-29	HYDRANT 9’ BURY	EA	$
19-30	TAP & CORPORATION STOP, 1"	EA	$
19-31	CURB STOP W/BOX, 1"	EA	$
19-32	WATER SERVICE, 1" COPPER	LF	$
19-33	TAP & CORPORATION STOP, 1-1/2"	EA	$
19-34	CURB STOP W/BOX, 1-1/2"	EA	$
19-35	WATER SERVICE, 1-1/2" COPPER	LF	$
19-36	CURB BOX FROST SLEEVE	EA	$
19-37	TEMPORARY WATER	LS	$
20-1	SANITARY SEWER - 8" PVC	LF	$
20-2	SANITARY SEWER LATERAL - 6" PVC	LF	$
20-3	WYE, 8"x6" PVC	EA	$
20-4	CONNECT TO PVC SANITARY SEWER VIA COUPLER - 8"	EA	$
20-5	CONNECT TO LINED SANITARY SEWER - 8"	EA	$
20-6	CONNECT TO LINED SANITARY SEWER - 10"	EA	$
20-7	CONNECT MH TO EXISTING LINED SANITARY SEWER	EA	$
20-8	RECONSTRUCT SANITARY MH D41	LS	$
20-9	MH TYPE 1 SAN	VF	$
20-10	CHIMNEY SEAL, EXTERNAL	EA	$
20-11	SANITARY SEWER RECONSTRUCTION (8-INCH) WITH ROAD REMOVAL/REPLACEMENT	LF	$
20-12	SANITARY SEWER RECONSTRUCTION (10-INCH) WITH ROAD REMOVAL/REPLACEMENT	LF	$
20-13	PIPE UNDERDRAIN FOR SANITARY TRENCH	EA	$
20-14	CONCRETE CRADLE	EA	$
24-1	TRAFFIC CONTROL	LS	$
25-1	REMOVE AND SALVAGE BLOCK RETAINING WALL	LS	$
25-2	POLYSTYRENE INSULATION BOARD - 2" (AASHTO M230 / 40 PSI MIN)	SF	$

25-3	PAVEMENT MARKING 4-INCH YELLOW EPOXY	LF	$
25-4	PAVEMENT MARKING 6-INCH WHITE EPOXY	LF	$
25-5	PAVEMENT MARKING 12-INCH WHITE EPOXY	LF	$
25-6	PAVEMENT MARKING CURB HEAD YELLOW EPOXY	LF	$
25-7	PAVEMENT MARKING SHARED LANE EPOXY	EA	$

Article III, Component Parts of This Contract: This Contract consists of the following component parts, all of which are as fully a part of this Contract as if herein set forth verbatim and if not attached, as if hereto attached.

1. Official Notice to Bidders
2. Information for Bidding and Execution of Contract
3. Special Conditions
4. Standard Specifications for Public Works Construction (City of Marshfield)
5. Permits and Approvals
6. Plans and Drawings
7. Wage Rate Schedule
8. Proposal for Contract
9. This Instrument, Contract
10. Field Orders

In the event that any provision in any of the above component parts of this Contract conflicts with any provision in any other component part or parts, the Contractor shall in writing request a clarification of such conflict by the Engineer, and his clarification of such conflict, approved by the Owner's Board of Public Works, shall be final and binding upon the parties hereto.

Article IV, Guarantee: The Contractor agrees and guarantees that the equipment, materials, and workmanship supplied by him shall be free from all defects and strictly in accordance with the Plans and Specifications herein above referred to and accepted by the Owner; and for a period of twelve (12) months after completion of the Contract, in case of any cracks, settlement, leaks or other defects in work constructed by the Contractor, the Contractor agrees to promptly repair the same upon notification by the Owner, using materials meeting the requirements of the Specification, and in case the Contractor shall fail to make such repairs or cause the same to be made within thirty (30) days of the above mentioned notification, the Contractor agrees to pay upon demand the cost of thereof to the Owner after completion of such repairs, and the Contractor further agrees and guarantees to pay for all labor, material and equipment used in or about the construction covered by this Contract which may become a lien or claim against the Owner.

Article V, Locus of Contract: It is agreed that this Contract, regardless of where executed, shall be subject to and governed by the Law of the State of Wisconsin and shall for all purposes be deemed and regarded to be a Contract entered into the State of Wisconsin.

In Witness Whereof, the parties have caused this instrument to be executed in three (3) original counterparts on the day and year hereinbefore stated.

_____
Contractor

_____
Address

_____
City, State, Zip

_____ BY: _____

_____ _____
Title

Attest: CITY OF MARSHFIELD ("OWNER")

_____ _____
Bob McManus, Mayor

_____ _____
Deb M. Hall, City Clerk

All of the Contract Documents have been examined as to form and are approved.

_____, 2020 _____
Harold C. Wolfgram, City Attorney

Provision is made to pay the liability that will accrue under this Contract.

_____, 2020 _____
Ron Aumann, Finance Director

PERFORMANCE AND PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, that we, _____

_____ as Principal,

and _____ as Surety, are held

and firmly bound unto the City of Marshfield, Wisconsin hereinafter called the Owner, in the penal sum of

_____ Dollars, lawful money of the United

States, for the payment of which sum well and truly made, we bind ourselves, our heirs, executors,

administrators, successors and assigns, jointly and severally, firmly by these presents.

The condition of this obligation is that whereas the Principal has executed and attached a

contract dated _____, 20 _____, for the construction of

_____

_____;

Now therefore, if said attached contract is executed on behalf of the Owner, the Principal shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the proposal, contract and other contract documents as accepted and any and all duly authorized extensions or modifications of said contract documents that may hereafter be made, shall pay to each and every person or party entitled thereto all the claims for work or labor performed or material furnished, including premiums for Worker's Compensation Insurance, for or in or about or under such contract as provided in Section 102 and 779 of the Wisconsin Statutes, and any such authorized extension or modification thereof, then this obligation is to be void; otherwise to remain in full force and effect.

And the said Surety, for value received, hereby stipulates and agrees that no change, alteration or addition to the terms of the contract or the work to be performed thereunder or the contract documents accompanying the same shall in any way effect its obligations under this bond, and it does hereby waive notice of any such change, alteration or addition to the terms of the contract, to the work or to the contract documents.

In witness whereof, the above bounden parties have executed this instrument in three original counterparts under their several seals this _____ day of _____, 20 _____ The name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representatives, pursuant to authority of its governing body.

In the presence of:

_____ _____SEAL
Individual Principal

_____ _____
Address Business Address

_____ _____
Individual Principal

_____ _____
Business Address

Attest: _____
Corporate Principal

_____
Business Address

_____ BY: _____
(Type) CORPORATE SEAL

Attest: _____
Corporate Surety

_____
Business Address

_____ BY: _____
(Type) CORPORATE SEAL

Approved this _____ day of _____, 20 ___

_____
Deb M. Hall, City Clerk

_____
Bob McManus, Mayor

_____
Ron Aumann, Finance Director

PROPOSAL FOR CONTRACT 2020-01
CITY OF MARSHFIELD

STREET AND UTILITY RECONSTRUCTION
CLEVELAND STREET, DOEGE STREET TO CENTRAL AVENUE &
PINE AVENUE, BLODGETT STREET TO CLEVELAND STREET

SANITARY SEWER RECONSTRUCTION
OAK AVENUE, BLODGETT STREET TO CLEVELAND STREET &
CHESTNUT AVENUE, BLODGETT STREET TO CLEVELAND STREET

PLAN NO. 3653

PROJECT NO.

312241	STREET
312242	WATER MAIN SERVICES
316777	STORM WATER
352144	SANITARY SEWER MAIN & SERVICES

BIDS RECEIVED ON QUEST CDN UNTIL 4:00 PM **DATE: March 04, 2020**

This Proposal, submitted by the undersigned bidder to the City of Marshfield, Wisconsin in accordance with the Notice to Bidders, to furnish and deliver all materials, and to do and perform all work for the above named projects, in accordance with the applicable Specifications, Plans and Special Provisions for the work.

The undersigned bidder, if awarded the Contract, agrees to begin the work no later than ten (10) days after the date of written notification from the City Engineer to do so, and to complete the same in accordance with the Specifications and Special Provisions.

The undersigned bidder, submitting this proposal, hereby declares and agrees to be bound, and to perform the work in accordance with all the terms, conditions and requirements of the within and foregoing proposal, the Contract, the Specifications, the Special Provisions and the Plans.

The bidder declares that he has carefully examined the project site(s), the Proposal, Specifications and Contract form for the work contemplated, and it is assumed that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished, and as to the requirements of the Specifications, Plans, Special Provisions and Contract. It is mutually agreed that submission of a Proposal shall be considered conclusive evidence that the bidder has made such examination.

The bidder declares that he understands the estimate of quantities in the attached schedule is approximate only and that the actual quantities may be greater or less in accordance with the Specifications.

The bidder agrees to perform the said work for and in consideration of the payment of the amount becoming due on account of work performed, according to the Unit Prices bid in the following schedule, and to accept such amounts in full payment for such work.

The bidder declares that only the persons, firm or corporation herein named have an interest in this Proposal and that the same is submitted without collusion with any person, firm or corporation.

The bidder declares that if he is awarded the Contract, he will execute the Contract agreement and begin and complete the work within the time named herein and he will file a good and sufficient contract bond in the sum of the total amount of the Contract to guarantee the successful execution of the work and will comply with the requirements of Chapter 102 of the Wisconsin Statutes, dealing with Workers Compensation.

The bidder declares that if he is awarded the Contract, he will comply with the requirements relative to the maximum daily and weekly hours of labor and the minimum wage rates set for the various occupations or classifications of labor.

Item No.	Item Description	Quantity	Unit	Unit Price	Cost
2-1	CLEARING	14	ID	$	$
2-2	GRUBBING	317	ID	$	$
3-1	REMOVE CONCRETE PAVEMENT	3827	SY	$	$
3-2	REMOVE CURB & GUTTER	1921	LF	$	$
3-3	REMOVE CONCRETE DRIVEWAYS AND SIDEWALK	2804	SY	$	$
3-4	REMOVE ASPHALT SURFACE	6898	SY	$	$
3-5	SAW CONCRETE PAVEMENT - FULL DEPTH	1954	LF	$	$
3-6	SAW CONCRETE DRIVEWAYS AND SIDEWALKS	515	LF	$	$
3-7	SAW ASPHALTIC SURFACE	259	LF	$	$
4-1	EXCAVATION	9971	CY	$	$
4-2	EXCAVATION BELOW SUBGRADE	500	CY	$	$
4-3	BORROW	500	CY	$	$
5-1	BASE AGGREGATE DENSE 3/4 INCH, IN-PLACE	21	CY	$	$
5-2	BASE AGGREGATE DENSE 1-1/4 INCH, IN-PLACE	3419	CY	$	$
5-3	SCREENED BREAKER-RUN STONE, IN-PLACE	3969	CY	$	$
5-4	DISINTEGRATED GRANITE SURFACE, IN-PLACE	13	CY	$	$
5-5	GEOTEXTILE FABRIC, TYPE SAS	12089	SY	$	$
6-1	STORM SEWER 12" RCP - CLASS III	1436	LF	$	$
6-2	STORM SEWER 12" RCP - CLASS IV	299	LF	$	$
6-3	STORM SEWER 15" RCP - CLASS III	266	LF	$	$
6-4	STORM SEWER 15" RCP - CLASS IV	62	LF	$	$
6-5	STORM SEWER 18" RCP - CLASS III	94	LF	$	$
6-6	STORM SEWER 24" RCP - CLASS III	46	LF	$	$
6-7	REMOVE & RELAY STORM SEWER 42" RCP	76	LF	$	$
6-8	STORM SEWER 4" CPP DRAIN TILE WITH SOCK	52	LF	$	$
6-9	STORM SEWER 6" SICPPP PIPE UNDERDRAIN - WRAPPED TRENCH	5276	LF	$	$
6-10	DITCH LEAD WITH DRAIN TILE 12" SICPP	9	LF	$	$
6-11	DITCH LEAD WITH DRAIN TILE 18" SICPP	20	LF	$	$
6-12	CONCRETE COLLAR (12" RCP TO 12" VIT)	1	EA	$	$
6-13	CONNECT TO EXISTING STRUCTURE (12" RCP TO INLET - CORE HOLE)	1	EA	$	$
6-14	INSERT-TEE CONNECTION (4" CPP TO 12" RCP)	1	EA	$	$
6-15	AEW, STEEL, FOR 12" SICPP	1	EA	$	$
6-16	AEW, STEEL, FOR 18" SICPP	1	EA	$	$
7-1	CB TYPE 2	42	EA	$	$
7-2	CB TYPE 4	1	EA	$	$

7-3	MH TYPE 1 STM	61.3	VF	$	$
7-4	MH TYPE 3 STM	14.9	VF	$	$
8-1	CB COVER - TYPE C	1	EA	$	$
8-2	CB COVER - TYPE D	1	EA	$	$
8-3	CB COVER - TYPE H	32	EA	$	$
8-4	CB COVER - TYPE H-S	8	EA	$	$
8-5	CB COVER - TYPE U	1	EA	$	$
8-6	MH COVER - TYPE J	14	EA	$	$
8-7	MH COVER - TYPE JM	9	EA	$	$
9-1	ADJUST STM MH	1	EA	$	$
10-1	REMOVE SANITARY LATERAL	102	LF	$	$
10-2	BULKHEAD ABANDONED WATER MAIN, 6"	10	EA	$	$
10-3	BULKHEAD ABANDONED WATER MAIN, 12"	10	EA	$	$
10-4	REMOVE WATER MAIN, 12" (STA. 12+28 TO 22+15)	987	LF	$	$
10-5	REMOVE WATER VALVE BOX	3	EA	$	$
10-6	REMOVE FIRE HYDRANT PACKAGE	4	EA	$	$
10-7	SALVAGE FIRE HYDRANT PACKAGE	1	EA	$	$
10-8	REMOVE CATCH BASIN AND CONNECTING PIPES	7	EA	$	$
11-1	CONCRETE PAVEMENT - 8"	106	SY	$	$
11-2	BASE CONCRETE PAVEMENT - 8"	126	SY	$	$
11-3	CONCRETE DRIVEWAYS - 6" REINFORCED	891	SY	$	$
11-4	CONCRETE DRIVEWAYS - 8" REINFORCED	94	SY	$	$
13-1	CONCRETE CURB & GUTTER - 30" TYPE A	141	LF	$	$
13-2	CONCRETE CURB & GUTTER - 30" TYPE D	4976	LF	$	$
13-3	CONCRETE CURB & GUTTER - PEDESTRIAN	33	LF	$	$
15-1	CONCRETE SIDEWALK - 4"	17135	SF	$	$
15-2	CONCRETE SIDEWALK - 6" REINFORCED	5881	SF	$	$
15-3	CONCRETE SIDEWALK - 8" REINFORCED	503	SF	$	$
15-4	DETECTABLE WARNING FIELD	480	SF	$	$
16-1	FINISHED TERRACES - CITY SEED MIX (2020)	4976	SY	$	$
17-1	DRILLED TIE BARS	460	EA	$	$
17-2	DRILLED DOWEL BARS	125	EA	$	$
17-3	DOWEL BAR BASKETS	186	LF	$	$
18-1	CULVERT PIPE CHECK	17	EA	$	$
18-2	TEMPORARY DITCH CHECK	4	EA	$	$
18-3	INLET PROTECTION TYPE A	7	EA	$	$
18-4	INLET PROTECTION TYPE B	16	EA	$	$
18-5	INLET PROTECTION TYPE C	73	EA	$	$
18-6	STREET SWEEPING (PER STAGE)	10	EA	$	$
19-1	WATER MAIN, 16" D.I.	795	LF	$	$

19-2	WATER MAIN, 12" D.I.	1495	LF	$	$
19-3	WATER MAIN, 8" D.I.	419	LF	$	$
19-4	WATER MAIN, 6" D.I.	66	LF	$	$
19-5	WATER MAIN, 4" D.I.	3	LF	$	$
19-6	VALVE W/VALVE BOX, 16"	2	EA	$	$
19-7	VALVE W/VALVE BOX, 12"	6	EA	$	$
19-8	VALVE W/VALVE BOX, 8"	3	EA	$	$
19-9	VALVE W/VALVE BOX, 6"	5	EA	$	$
19-10	CROSS, 16"	1	EA	$	$
19-11	CROSS, 12" X 8"	1	EA	$	$
19-12	TEE, 16" X 6"	1	EA	$	$
19-13	TEE, 12" X 12"	1	EA	$	$
19-14	TEE, 12" X 6"	3	EA	$	$
19-15	TEE, 8" X 6"	1	EA	$	$
19-16	REDUCER, 16" X 12"	2	EA	$	$
19-17	REDUCER, 8" X 6"	1	EA	$	$
19-18	REDUCER, 8" X 4"	1	EA	$	$
19-19	45 D BEND, 16"	4	EA	$	$
19-20	45 D BEND, 12"	6	EA	$	$
19-21	45 D BEND, 6"	2	EA	$	$
19-22	45 D BEND, 4"	2	EA	$	$
19-23	SLEEVE, MJ, 16"	1	EA	$	$
19-24	SLEEVE, MJ, 12"	1	EA	$	$
19-25	SLEEVE, MJ, 6"	2	EA	$	$
19-26	SLEEVE, MJ, 4"	1	EA	$	$
19-27	HYDRANT 8’ BURY	1	EA	$	$
19-28	HYDRANT 8.5’ BURY	3	EA	$	$
19-29	HYDRANT 9’ BURY	1	EA	$	$
19-30	TAP & CORPORATION STOP, 1"	55	EA	$	$
19-31	CURB STOP W/BOX, 1"	53	EA	$	$
19-32	WATER SERVICE, 1" COPPER	1978	LF	$	$
19-33	TAP & CORPORATION STOP, 1-1/2"	1	EA	$	$
19-34	CURB STOP W/BOX, 1-1/2"	1	EA	$	$
19-35	WATER SERVICE, 1-1/2" COPPER	21	LF	$	$
19-36	CURB BOX FROST SLEEVE	5	EA	$	$
19-37	TEMPORARY WATER	1	LS	$	$
20-1	SANITARY SEWER - 8" PVC	2561	LF	$	$
20-2	SANITARY SEWER LATERAL - 6" PVC	1396	LF	$	$
20-3	WYE, 8"x6" PVC	56	EA	$	$
20-4	CONNECT TO PVC SANITARY SEWER VIA COUPLER - 8"	2	EA	$	$

20-5	CONNECT TO LINED SANITARY SEWER - 8"	2	EA	$	$
20-6	CONNECT TO LINED SANITARY SEWER - 10"	1	EA	$	$
20-7	CONNECT MH TO EXISTING LINED SANITARY SEWER	1	EA	$	$
20-8	RECONSTRUCT SANITARY MH D41	1	LS	$	$
20-9	MH TYPE 1 SAN	54.1	VF	$	$
20-10	CHIMNEY SEAL, EXTERNAL	3	EA	$	$
20-11	SANITARY SEWER RECONSTRUCTION (8-INCH) WITH ROAD REMOVAL/REPLACEMENT	591	LF	$	$
20-12	SANITARY SEWER RECONSTRUCTION (10-INCH) WITH ROAD REMOVAL/REPLACEMENT	26	LF	$	$
20-13	PIPE UNDERDRAIN FOR SANITARY TRENCH	5	EA	$	$
20-14	CONCRETE CRADLE	1	EA	$	$
24-1	TRAFFIC CONTROL	1	LS	$	$
25-1	REMOVE AND SALVAGE BLOCK RETAINING WALL	1	LS	$	$
25-2	POLYSTYRENE INSULATION BOARD - 2" (AASHTO M230 / 40 PSI MIN)	2622	SF	$	$
25-3	PAVEMENT MARKING 4-INCH YELLOW EPOXY	898	LF	$	$
25-4	PAVEMENT MARKING 6-INCH WHITE EPOXY	1704	LF	$	$
25-5	PAVEMENT MARKING 12-INCH WHITE EPOXY	650	LF	$	$
25-6	PAVEMENT MARKING CURB HEAD YELLOW EPOXY	882	LF	$	$
25-7	PAVEMENT MARKING SHARED LANE EPOXY	3	EA	$	$
			TOTAL AMOUNT BID	$	

CONTRACTOR

DATE: _____

WE _____ (NAME OF BIDDER) have examined the bidding documents and the following Addenda (receipt of which is hereby acknowledged)

ADDENDUM NO. DATE

_____ _____

_____ _____

_____ _____

I hereby certify that all the statements herein are made on behalf of _____

_____

(Name of Corporation, Partnership or Person submitting bid) a Corporation organized and existing under

the laws of the State of _____;

a Partnership consisting of _____;

an Individual trading as _____;

of the City of _____ State of _____

that I have examined and carefully prepared this Proposal from the Plans and Specifications and have checked the same in detail before submitting this Proposal; that I have full authority to make such statements and submit this Proposal in its (their) behalf; and that the statements are true and correct.

_____
Company

_____
Address

Subscribed and sworn to before me
this _____ day of _____,
20_____.

_____
Notary Public

My Commission expires _____

_____

BY: _____
Authorized Signature

_____
Title

_____
Telephone Number

Bidders should not add any conditions or qualifying statements to this Proposal, as otherwise the Proposal may be declared irregular as not being responsive to the advertisement.

PLACEHOLDER FOR PROPOSAL GUARANTEE

THIS PAGE INTENTIONALLY LEFT BLANK

FULL AND COMPLETE LIST OF
SUBCONTRACTORS AND EQUIPMENT SUPPLIERS
TO BE USED FOR THIS PROJECT

NOTE: This list cannot be altered after submission without written consent of the OWNER.

Pursuant to Section 66.0901(7), Wisconsin Statutes, the Bidder, as part of this Proposal, submits this full and complete list of all the Subcontractors and the class or work to be performed by each, including equipment suppliers to be used for this project.

The Contractor will be permitted to sublet a portion of the Contract, but shall perform with his own organization work amounting to at least 30 percent of the original contract amount.

If the Contractor shall sublet any part of this Contract, the Contractor shall be as fully responsible to the owner for the acts and omissions of his Subcontractor and of the persons either directly or indirectly employed by his Subcontractor as he is by acts or omissions of persons directly employed by himself. All Subcontractors, if any, shall be listed in the spaces provided on the Proposal Form and said list shall not be added to or altered without the written consent of the Owner.

When a Subcontractor and the class of work to be performed is not listed, it shall be considered that the Bidder will perform the work himself.

Subcontractor's Name, Address, and Phone Number	Work to be Performed

Supplier's Name, Address, and Phone Number	Equipment to be Supplied

I hereby certify that the use of the name(s) of the above Subcontractor(s) was with the knowledge and consent of the said Subcontractor(s).

_____
Signature of Bidder

THIS PAGE INTENTIONALLY LEFT BLANK

PROJECT NUMBER	SHEET NO.

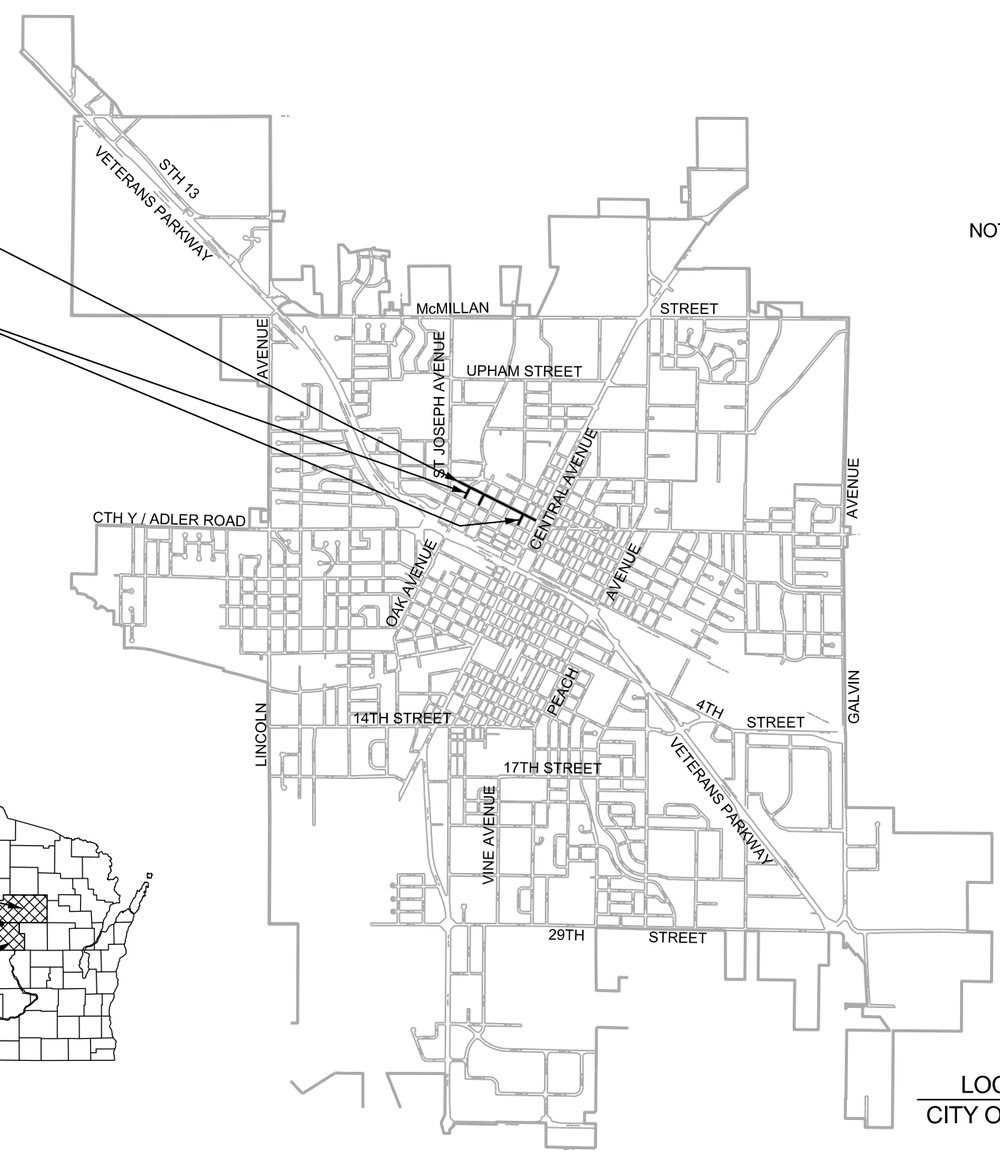
CITY OF MARSHFIELD
CONTRACT 2020-01

PLAN NO. 3653
PROJECT NOS. - 312241, 312242, 316777

STREET RECONSTRUCTION
CLEVELAND STREET, DOEGE STREET TO CENTRAL AVENUE
PINE AVENUE, BLODGETT STREET TO CLEVELAND STREET

PLAN NO. 3653
PROJECT NO. - 352144

SANITARY SEWER RECONSTRUCTION
OAK AVENUE, BLODGETT STREET TO CLEVELAND STREET
CHESTNUT AVENUE, BLODGETT STREET TO CLEVELAND STREET

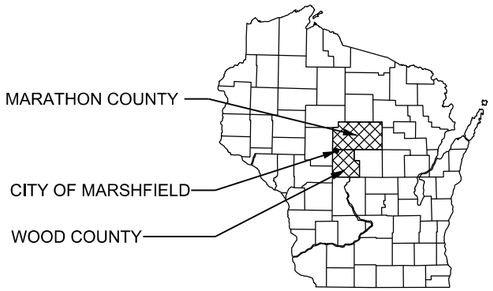


NOT TO SCALE

LOCATION MAP
CITY OF MARSHFIELD

INDEX OF SHEETS

SHEET NO.	1	TITLE SHEET
SHEET NO.	2	LEGEND AND GENERAL NOTES
SHEET NO.	3 - 4	TYPICAL SECTIONS
SHEET NO.	5 - 21	CONSTRUCTION DETAILS
SHEET NO.	22 - 25	MQ - MISCELLANEOUS QUANTITIES
SHEET NO.	26 - 27	EW - EARTHWORK QUANTITIES
SHEET NO.	28 - 29	EC - EROSION CONTROL
SHEET NO.	30 - 33	TC - TRAFFIC CONTROL
SHEET NO.	34 - 46	PP - PLAN AND PROFILE, STORM SEWER
SHEET NO.	47 - 50	SW - SIDEWALK GRADING
SHEET NO.	51 - 56	ID - INTERSECTION DETAILS / CURB RAMP LAYOUT
SHEET NO.	57 - 87	XS - CROSS SECTIONS



PLOTTED ON: 2/20/2020 3:18:19 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\TitlePage.dgn

PROJECT NUMBER	SHEET NO.

LEGEND

- EXIST. CONC. SIDEWALK OR DRIVE
- REMOVE AND REPLACE SIDEWALK
- PROPOSED SIDEWALK CONSTRUCTION
- FUTURE SIDEWALK CONSTRUCTION
- EXISTING CB OR INLET
- NEW CB OR INLET
- EXISTING CURB & GUTTER
- NEW CURB & GUTTER
- CONC. SIDEWALK, DRIVEWAY, PAVEMENT REMOVAL
- CONSTRUCT OR REPLACE ASPHALTIC SURFACE
- CONSTRUCT OR REPLACE GRAVEL SURFACE
- CONST. CONC. DRIVEWAY
- BENCHMARK
- GAS VALVE
- WATER VALVE
- CURB STOP
- POWER POLE
- TELEPHONE POLE
- LIGHT POLE
- HYDRANT
- POLE GUY LINE
- NEW YARD INLET
- EXISTING M.H.
- BULKHEAD
- NEW M.H.
- TREE
- REMOVE TREE
- BUSH
- JOINT SPACING AT INTERSECTION
- EXISTING SAN SEWER
- PROPOSED SAN SEWER
- TEL. PEDESTAL
- UNDERGROUND TEL. CABLE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- PROPOSED UNDERDRAIN
- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- EXISTING GAS MAIN
- UNDERGROUND ELECTRIC CABLE
- UNDERGROUND CABLE TV
- COMBUSTIBLE FLUIDS (UNDER PRESSURE)
- DOWEL BASKETS
- STORM SEWER LABELS
- SANITARY SEWER LABELS
- WATER MAIN LABELS
- REMOVAL LABELS
- EROSION CONTROL INLET PROTECTION
- EROSION CONTROL DITCH CHECK
- EROSION CONTROL CULVERT PIPE DITCH CHECK

OFFICE CONTACTS

DAN KNOECK, P.E. - DIRECTOR OF PUBLIC WORKS
TOM TURCHI, P.E. - CITY ENGINEER
TIM CASSIDY, P.E. - ASSISTANT CITY ENGINEER
JOSH MAURITZ, P.E. - CIVIL ENGINEER II
JAMES PERTON - CIVIL ENGINEER I
LANCE OLDHAM - ENGINEERING TECHNICIAN II
SHAWN MILLER - ENGINEERING TECHNICIAN II

CITY OF MARSHFIELD
207 W 6TH STREET
MARSHFIELD, WI 54449-0727
(715) 486-2034
FAX (715) 384-7631

GENERAL NOTES

ALL NEW DRIVEWAY ENTRANCES ARE TO BE CONSTRUCTED OF CONCRETE BETWEEN THE CURB AND SIDEWALK.

ALL INTERSECTION RADII ARE 15' TO FACE OF CURB UNLESS OTHERWISE NOTED.

ALL PROPERTY MARKERS AND BLOCK CORNERS SHALL BE PRESERVED.

THE EXACT LOCATION OF THE DRIVEWAY ENTRANCES TO BE DETERMINED IN THE FIELD BY THE ENGINEER. REPLACE ALL DRIVEWAYS IN KIND.

ALL CULVERTS IN EXISTING DRIVEWAYS SHALL BE CAREFULLY REMOVED TO AVOID DAMAGE AND SHALL BE PLACED ON THE TERRACE OF THE OWNER FOR DISPOSAL BY THE OWNER. IF, AFTER 10 DAYS NOTICE BY THE ENGINEER, THE OWNER DOES NOT CLAIM SUCH SALVAGED MATERIALS, THEY SHALL BE DISPOSED OF BY THE CONTRACTOR

TRANSVERSE JOINTS SHOWN ON THE PLANS MAY BE REVISED WITH APPROVAL BY THE ENGINEER.

LOCATION OF CURB RAMPS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

NO TREES ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

EBS IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS, BUT IS MEASURED AND PAID FOR AS UNCLASSIFIED EXCAVATION. THE LOCATION FOR EBS WILL BE DETERMINED BY THE ENGINEER.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

ABBREVIATIONS

AH	AHEAD
ASPH	ASPHALTIC
BK	BACK
BM	BENCHMARK
C&G	CURB & GUTTER
CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CP	CULVERT PIPE
CPDC	CULVERT PIPE DITCH CHECK
CSCP	CORRUGATED STEEL CULVERT PIPE
CY	CUBIC YARD
D	DEGREE OF CURVE / DEPTH
△	CENTRAL ANGLE OR DELTA
DIA	DIAMETER
DISCH	DISCHARGE
E	EAST
EBS	EXCAVATION BELOW SUBGRADE
ELEV	ELEVATION
EXIST	EXISTING
GV	GAS VALVE
HYD	HYDRANT
LF	LINEAL FOOT
MH	MANHOLE
N	NORTH
NO	NUMBER
PC	POINT OF CURVATURE
PCC	PORTLAND CEMENT CONCRETE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENCY
PU	PIPE UNDERDRAIN
PUU	PIPE UNDERDRAIN, UNPERFORATED
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
R	RADIUS / RANGE
R/W	RIGHT OF WAY
RCCP	REINFORCED CONCRETE CULVERT PIPE
RCCPP	REINFORCED CONCRETE CULVERT PIPE - PERFORATED
RCHEP	REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE
RCP	REINFORCED CONCRETE PIPE
RCPSS	REINFORCED CONCRETE PIPE STORM SEWER
REQD	REQUIRED
RL	REFERENCE LINE
RR	RAILROAD
RT	RIGHT
S	SOUTH
SAN	SANITARY SEWER
SDG	SPECIAL DITCH GRADE
SF	SQUARE FOOT
SICPP	SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE
SICPPP	SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE - PERFORATED
SPECS	SPECIFICATIONS
SS	STORM SEWER
STA	STATION
STH	STATE TRUNK HIGHWAY
SWG	SPECIAL WALK GRADE
SY	SQUARE YARD
T	TOWN
TAN	TANGENT
TC	TOP OF CURB
TEL	TELEPHONE
TSE	TOP OF STRUCTURE ELEVATION
ULO	UTILITY LINE OPENING
VC	VERTICAL CURVE
VF	VERTICAL FOOT
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
W	WEST
WV	WATER VALVE

UTILITIES

CITY OF MARSHFIELD - STREET DIVISION
407 W 2ND ST
MARSHFIELD WI 54449
ATTN: KRIS HAWLEY
(715) 384-3606

CITY OF MARSHFIELD - WASTEWATER UTILITY
3411 S GALVIN AVE
MARSHFIELD WI 54449
ATTN: SAM WARP
(715) 486-2005

MARSHFIELD UTILITIES
2000 S RODDIS AVE
PO BOX 670
MARSHFIELD WI 54449-0670
ATTN: JOHN RICHMOND (WATER)
ATTN: TONY NELSON (ELECTRIC)
(715) 387-1195

CONSTRUCTION CONTACTS:
(WATER) ERICK BOON
CELL: (715) 937-8302

(ELECTRIC) DERREK CAFLISCH
CELL: (715) 305-3814

CHARTER COMMUNICATIONS
508 N CENTRAL AVE #103
MARSHFIELD WI 54449
ATTN: JESSE GRUNY
(715) 748-5071-OFFICE
(715) 651-5605-CELL

FRONTIER COMMUNICATIONS
521 4TH ST
WAUSAU WI 54403-4869
ATTN: TOM LOCKE
(715) 847-1550

WE ENERGIES
1921 8TH ST SOUTH
PO BOX 789
WISCONSIN RAPIDS WI 54494-0789
ATTN: CRAIG R. KNAUF, P.E.
(715) 421-7267-OFFICE
(715) 213-1954-CELL
(800) 261-5325 - GAS LEAK / EMERGENCY

AGENCIES

EMERGENCY - FIRE, RESCUE, AMBULANCE, POLICE
DIAL 911

MARSHFIELD FIRE DEPARTMENT
412 E 4TH ST
MARSHFIELD WI 54449
(715) 384-3118 NON-EMERGENCY

MARSHFIELD POLICE DEPARTMENT
110 W 1ST ST
MARSHFIELD WI 54449
(715) 384-3113 NON-EMERGENCY

ADVANCED DISPOSAL SERVICES
501 S HUME AVE
MARSHFIELD WI 54449
(715) 387-6275

UNITED STATES POST OFFICE
202 S CHESTNUT AVE
MARSHFIELD WI 54449
(715) 384-2198

WOOD COUNTY - HIGHWAY DEPARTMENT
555 17TH AVE N
WISCONSIN RAPIDS WI 54495
(715) 421-8875

WOOD COUNTY - SHERIFF'S DEPARTMENT
630 S CENTRAL AVE
MARSHFIELD WI 54449
(715) 384-5345 NON-EMERGENCY

WASTE MANAGEMENT
(888) 960-0008

TO OBTAIN LOCATION OF
PARTICIPANTS' UNDERGROUND
FACILITIES BEFORE YOU
DIG IN WISCONSIN

DIGGERS HOTLINE

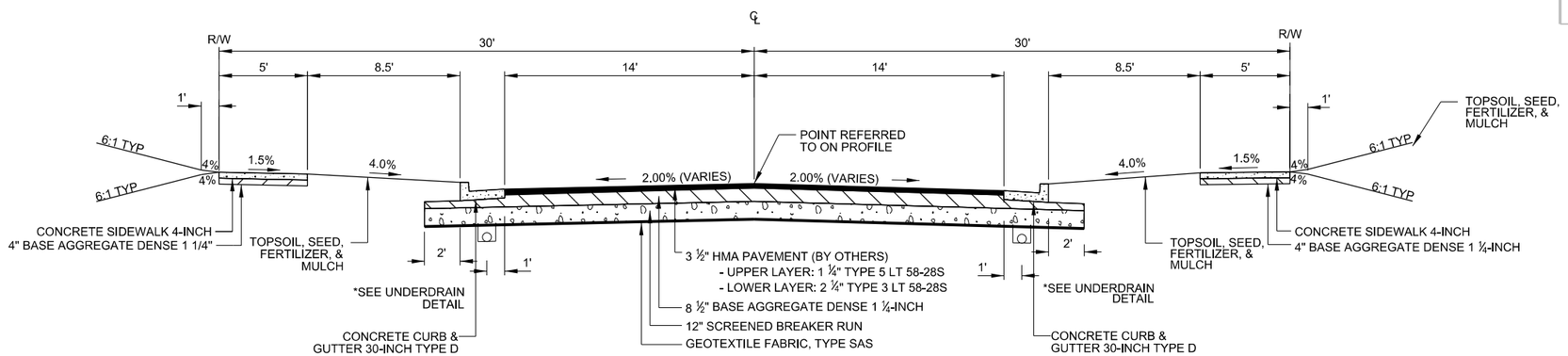
Toll Free (800) 242-8511
Milwaukee Area (414) 259-1181
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

WISCONSIN STATUTE 182.0175 (1974)
REQUIRES MINIMUM OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE.

PLOTTED ON: 2/20/2020 3:18:20 PM

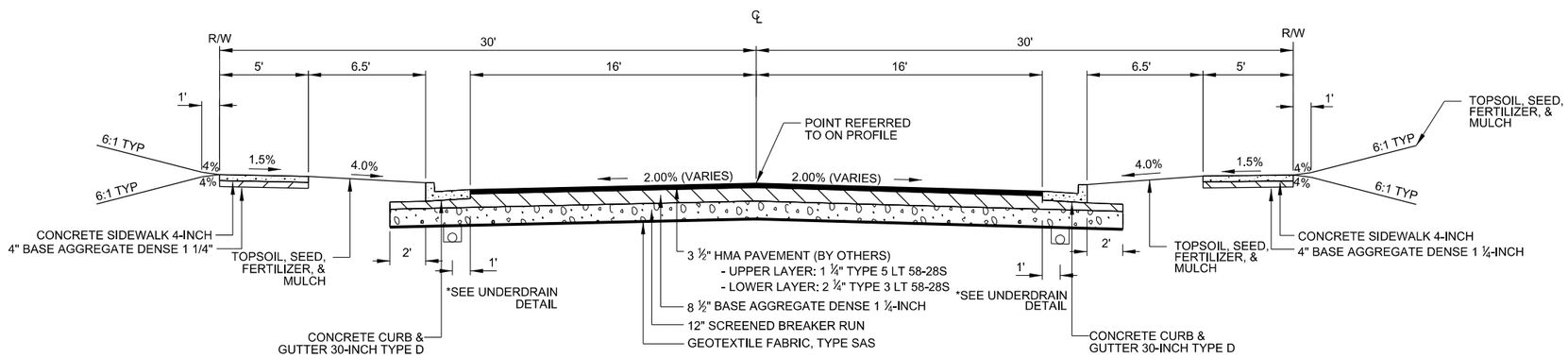
FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\TitlePage.dgn

PROJECT NUMBER	SHEET NO.



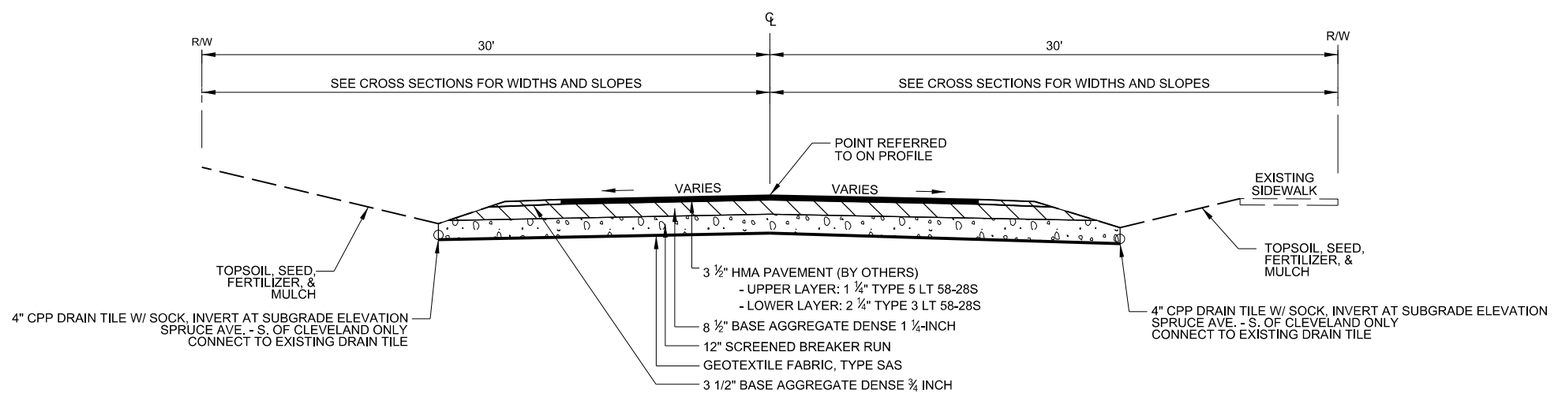
TYPICAL SECTION

PINE AVENUE
STA. 20P+00 TO 23P+07
CLEVELAND STREET
STA. 7+80 TO 25+37



TYPICAL SECTION

CLEVELAND STREET
STA. 25+87 TO 30+00



TYPICAL SECTION

SPRUCE AVENUE &
PINE AVENUE - NORTH OF CLEVELAND

PROJ. NO.

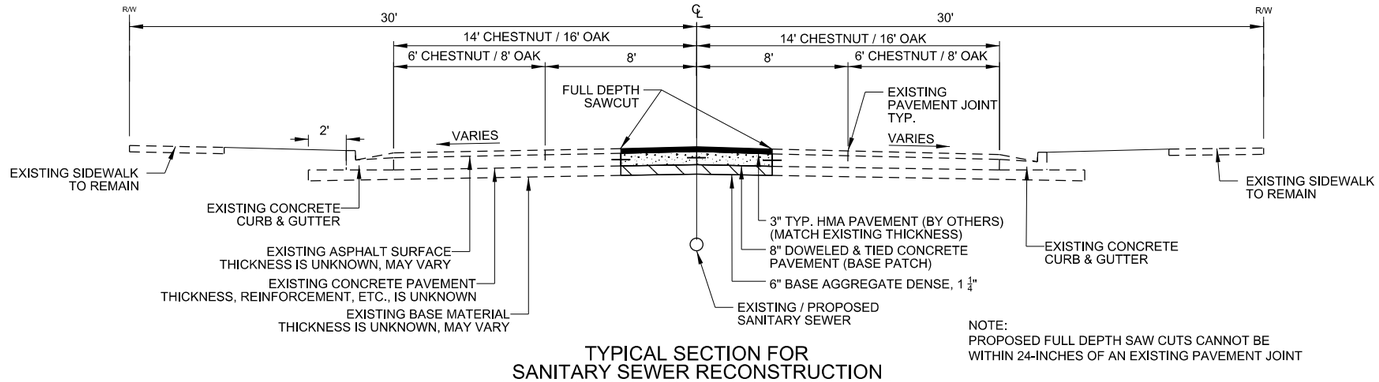
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION
CITY OF MARSHFIELD, WISCONSIN

TYPICAL SECTIONS

PLOTTED ON: 2/20/2020 3:18:20 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\TypicalSections.dgn

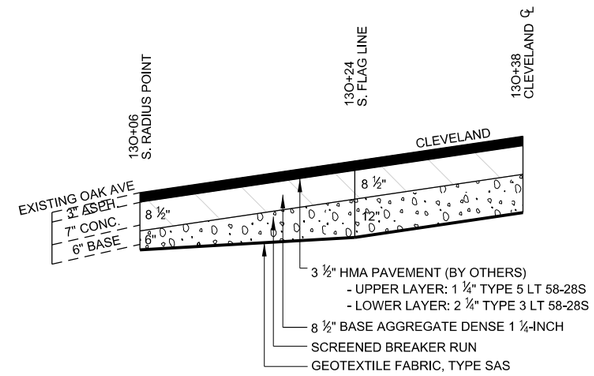
PROJECT NUMBER	SHEET NO.



NOTE:
PROPOSED FULL DEPTH SAW CUTS CANNOT BE WITHIN 24-INCHES OF AN EXISTING PAVEMENT JOINT

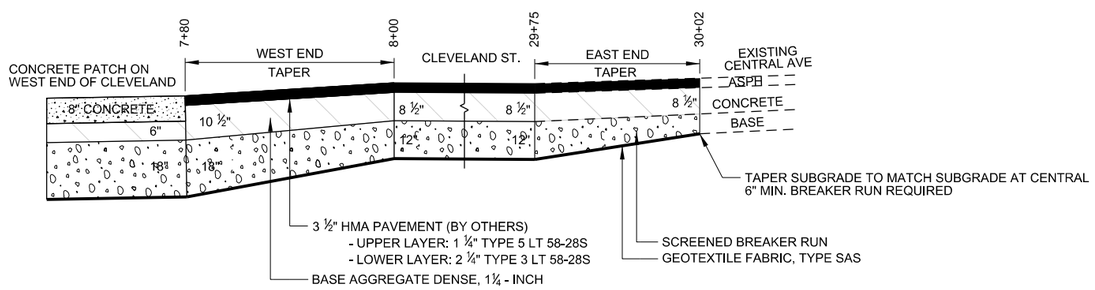
TYPICAL SECTION FOR SANITARY SEWER RECONSTRUCTION WITH ROAD REMOVAL & REPLACEMENT

OAK AVENUE, BLODGETT STREET TO CLEVELAND STREET
CHESTNUT AVENUE, BLODGETT STREET TO CLEVELAND STREET



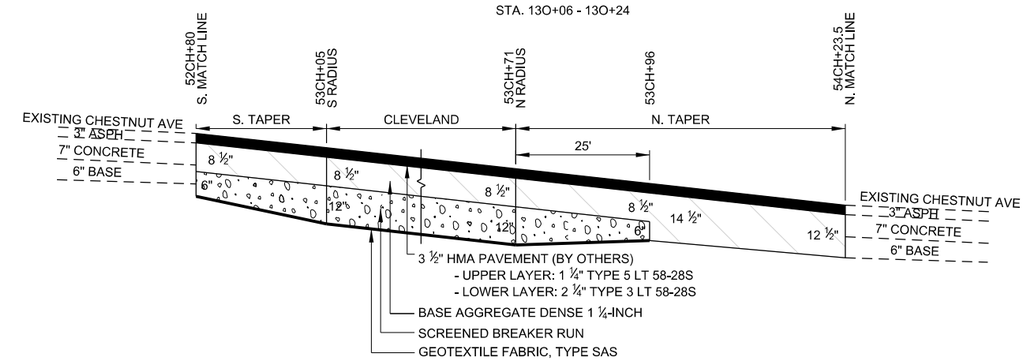
SPECIAL SUBGRADE DETAIL AT OAK & CLEVELAND

STA. 13O+06 - 13O+24



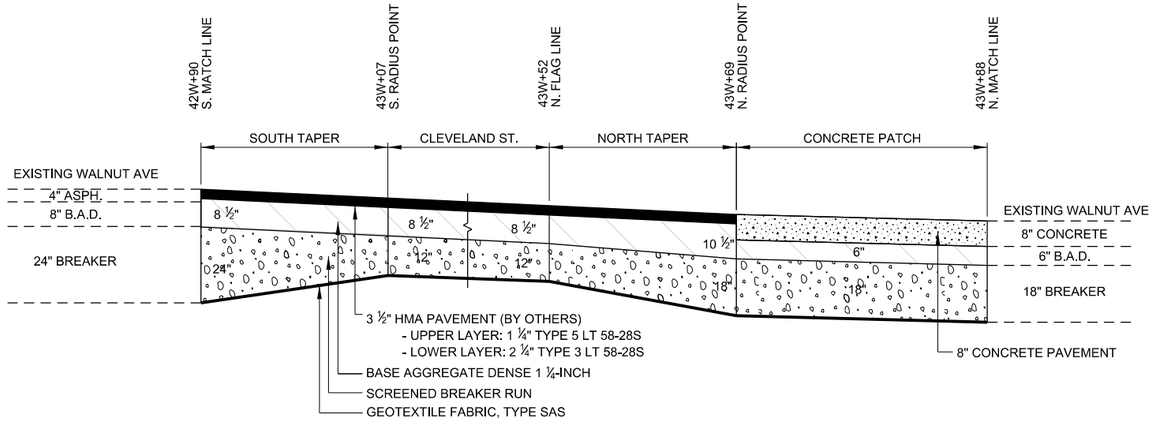
SPECIAL SUBGRADE DETAIL AT WEST & EAST END OF CLEVELAND STREET

STA. 7+80 - 8+00 & 29+75 - 30+02



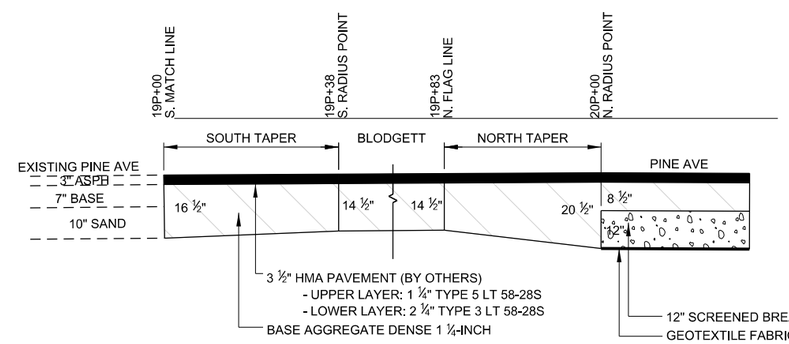
SPECIAL SUBGRADE DETAIL AT CHESTNUT & CLEVELAND

STA. 52CH+80 - 54CH+23.5



SPECIAL SUBGRADE DETAIL AT WALNUT & CLEVELAND

STA. 42W+90 - 43W+88



SPECIAL SUBGRADE DETAIL AT BLODGETT & PINE

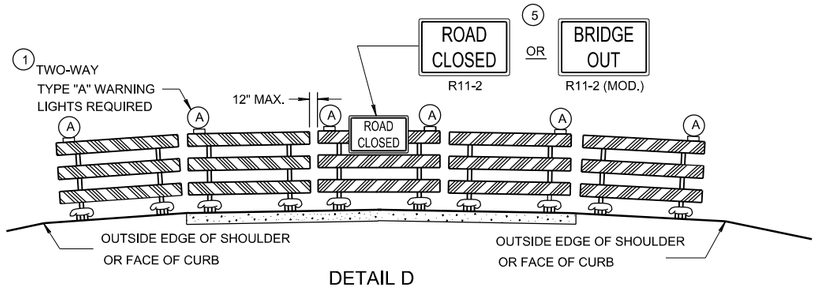
STA. 19P+00 - 20P+00

PROJ. NO.
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION CITY OF MARSHFIELD, WISCONSIN
TYPICAL SECTIONS

PLOTTED ON: 2/20/2020 3:18:21 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\TypicalSections.dgn

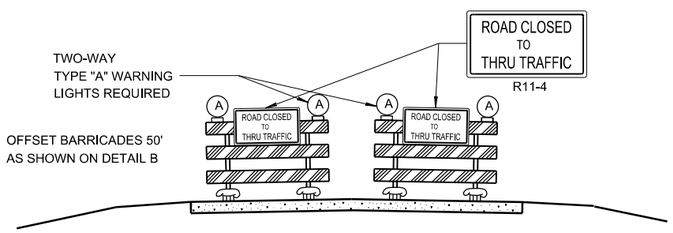
PROJECT NUMBER	SHEET NO.



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX OR COUNTY XX OR XX — M1-4, M1-5A, M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- MO5-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

PROJ. NO.

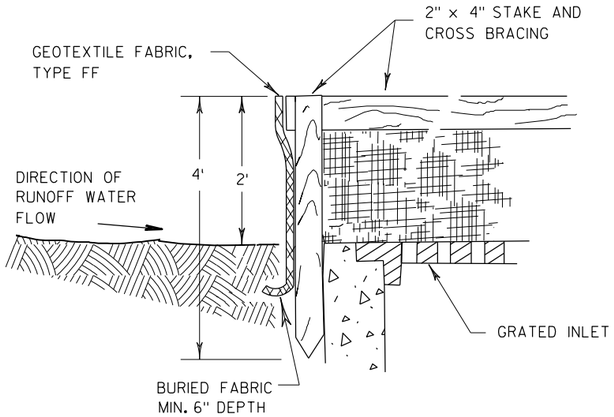
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION
CITY OF MARSHFIELD, WISCONSIN

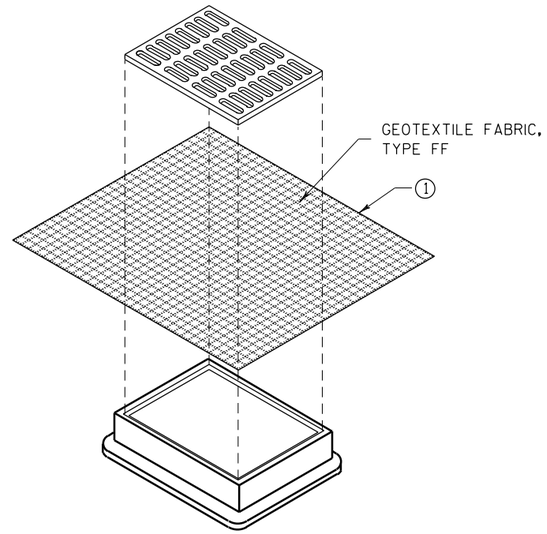
BARRICADES AND SIGNS
FOR
MAINLINE CLOSURES DETAIL
~~(WISDOT SDD 15C 2-6B)~~

PLOTTED ON: 2/20/2020 3:18:22 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\WISDOT_Barricades_Signs_Detail_S15C2-6B.dgn

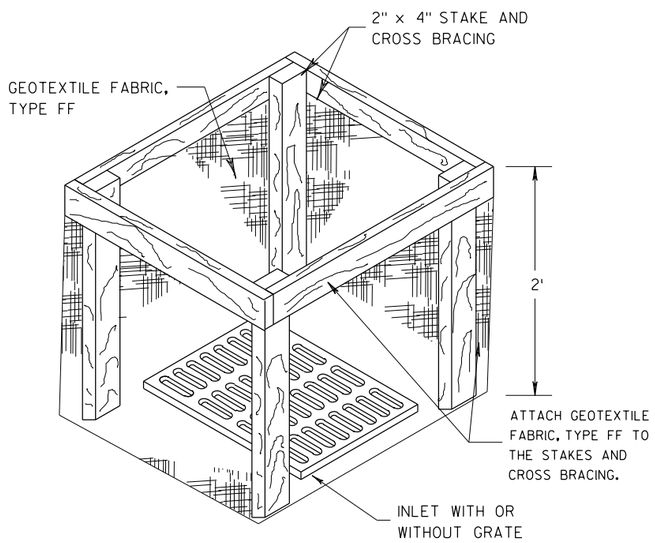
PROJECT NUMBER	SHEET NO.



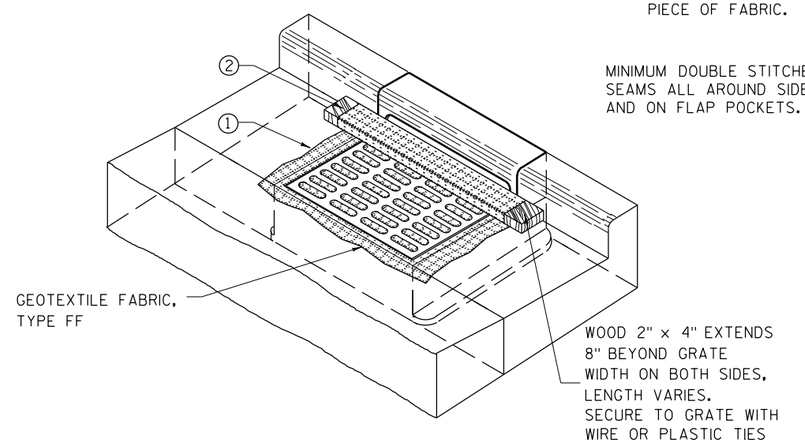


INLET PROTECTION, TYPE B (WITHOUT CURB BOX)

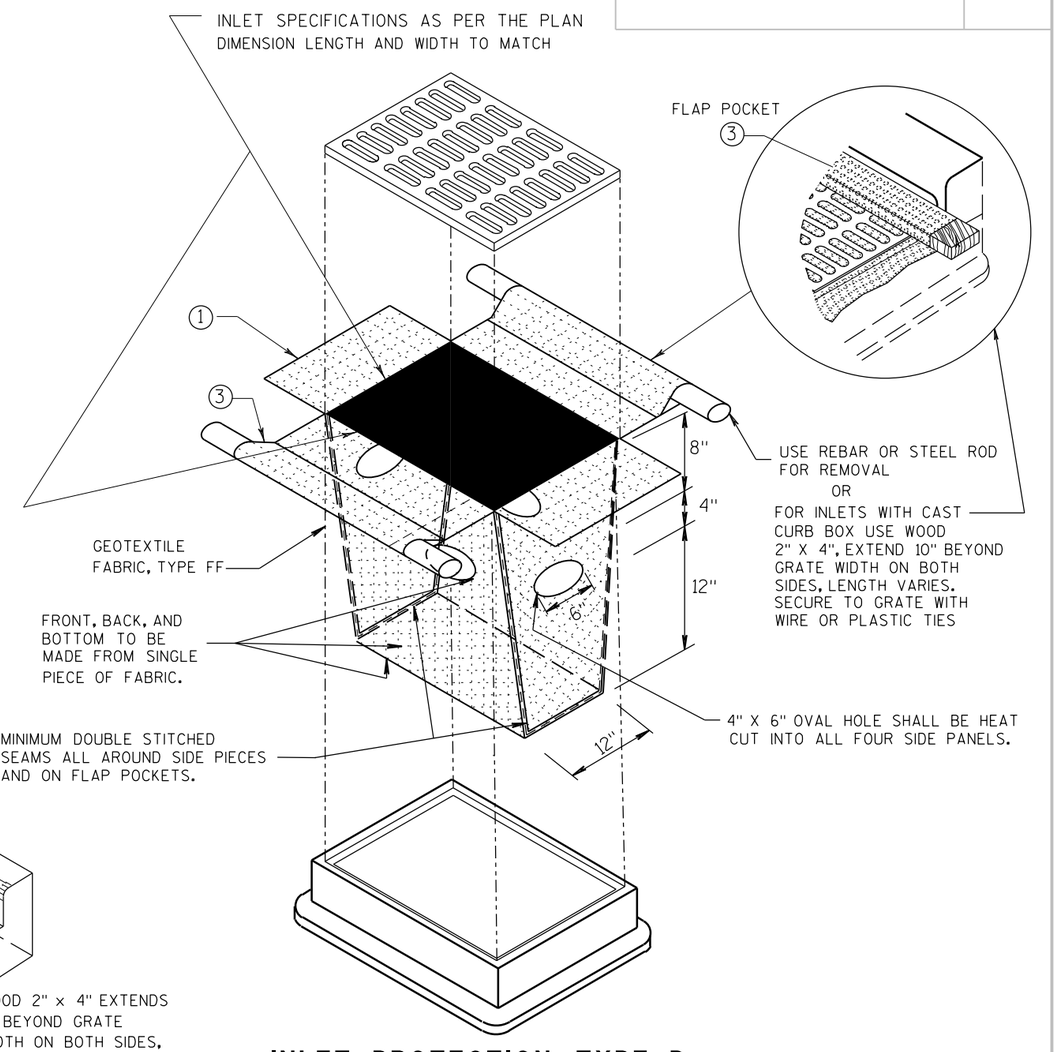
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE A



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE 2)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

1 FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

2 FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

3 FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

PROJ. NO.

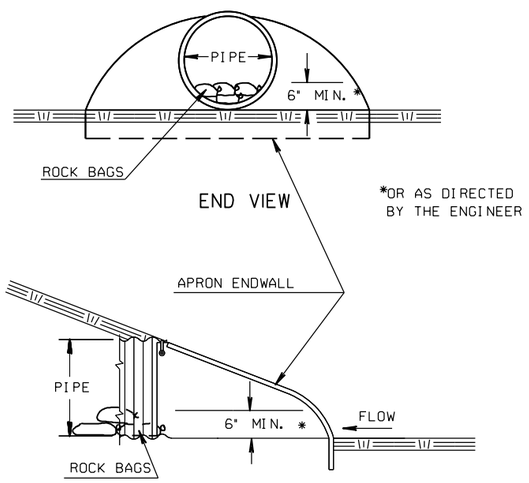
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION
CITY OF MARSHFIELD, WISCONSIN

INLET PROTECTION DETAIL
TYPE A, B, C, AND D
(WISDOT SDD 8E 10-2)

PROJECT NUMBER	SHEET NO.

GENERAL NOTES

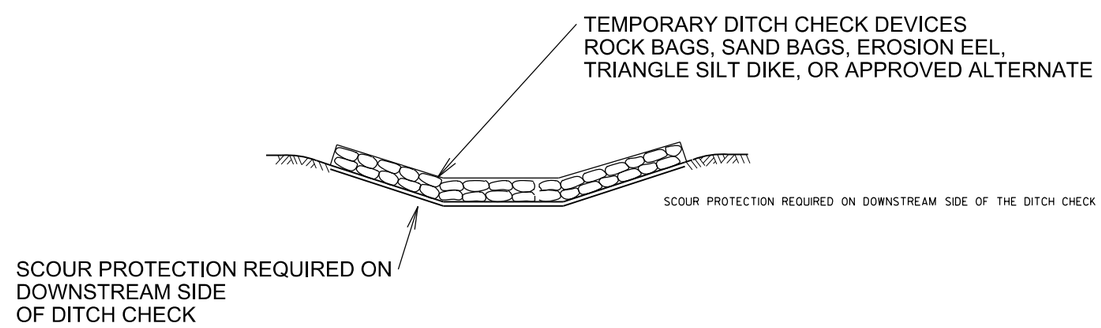
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



CULVERT PIPE CHECK

GENERAL NOTES

MANUFACTURED DEVICES SHALL BE INSTALLED AND ANCHORED PER THE MANUFACTURES RECOMMENDATIONS



TEMPORARY DITCH CHECK DETAIL

PROJ. NO.
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION CITY OF MARSHFIELD, WISCONSIN
TYPICAL INSTALLATIONS OF CULVERT PIPE CHECKS, AND RIPRAP

PLOTTED ON: 2/20/2020 3:18:23 PM

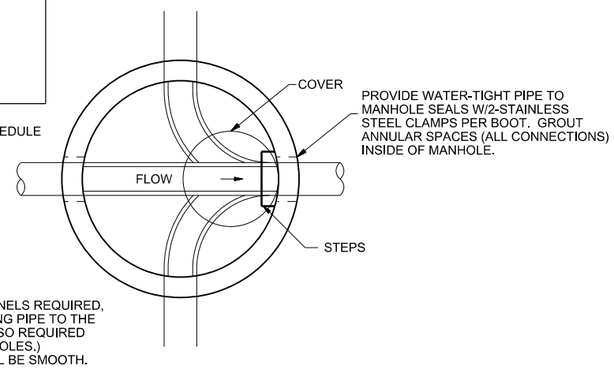
FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\WISDOT_ErosionBales_DitchChecks.dgn

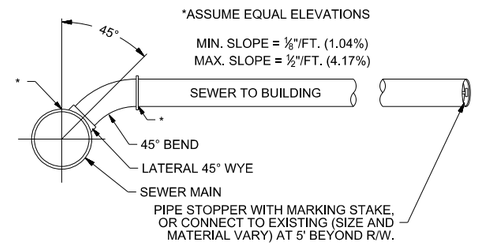
PROJECT NUMBER	SHEET NO.

SPECIFICATIONS:

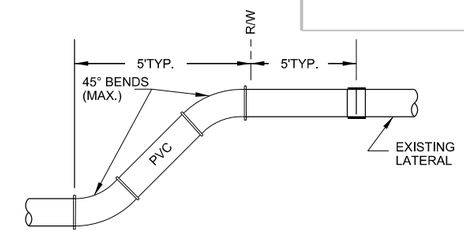
- MANUFACTURED TO CURRENT ASTM C-478 SPECIFICATIONS
- CONCRETE STRENGTH - 4000 PSI
- STEEL DESIGN IN ACCORDANCE WITH ASTM C-478 0.12 SQ. IN./FT.
- ALL REINFORCING IS DESIGNED FOR MIN. 1" COVER
- STEP - STEEL, PLASTIC COATED 16" ON CENTER
- MONOLITHIC BASE WITH INLET AND OUTLET OPENING AS REQUIRED
- 48" DIAMETER MANHOLE WILL ACCOMMODATE A 24" DIAMETER PIPE PASSING STRAIGHT THROUGH.
- 48" DIAMETER-5" WALL 890 LBS./FT.

NOTE: ALL STRUCTURES AND COMPONENTS SHALL BE LABELED BY THE MANUFACTURER IN ACCORDANCE WITH PLAN/SCHEDULE IDENTIFICATION

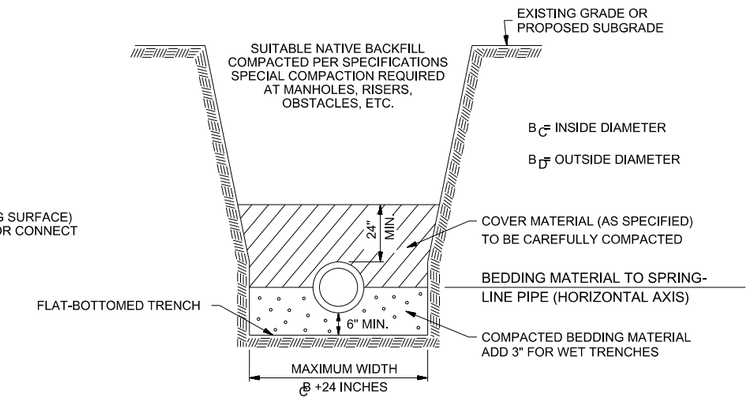




LATERAL DETAIL TYPE A



DROP CONNECTION TO EXISTING LATERAL



NOTES:

BEDDING AND COVER MATERIAL: CRUSHED STONE CHIPS MEETING THE FOLLOWING GRADING REQUIREMENTS.

SIEVE SIZE	PERCENTAGE PASSING BY WEIGHT
½"	100
⅜"	90 TO 100
NO. 8	0 TO 15
NO. 30	0 TO 3

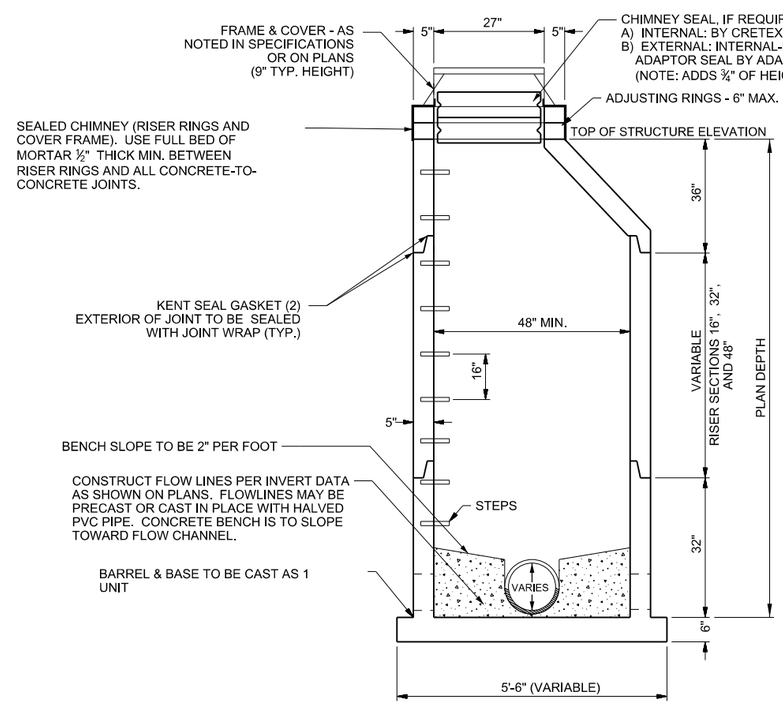
TRENCH WIDTH: THE MAXIMUM TRENCH WIDTH AT THE TOP OF THE PIPE SHALL BE B_C +24 INCHES.

SPECIAL COMPACTION REQUIRED AT MANHOLES, RISERS, ETC.

TYPICAL TRENCH SECTION SANITARY SEWER CONSTRUCTION

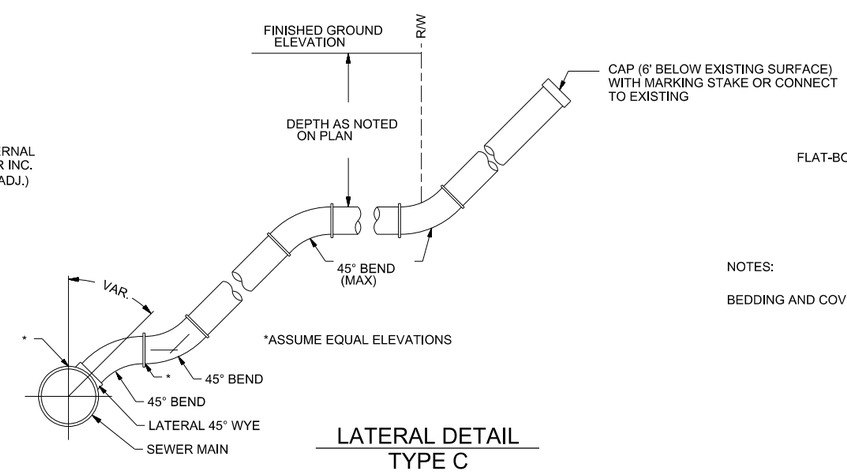
GRAVITY MAINS, LATERALS AND FORCE MAINS

AT APPROX. 20' UPSTREAM OF MANHOLES, INSTALL APPROVED NATIVE MATERIAL (CLAY TRENCH PLUG) TO FULL TRENCH DEPTH, 6' ALONG PIPE, ACROSS FULL TRENCH WIDTH,IN LEU OF BEDDING AND COVER MATERIAL.



PRE-CAST CONCRETE SANITARY MANHOLE, TYPE 1 DETAIL

NOTE: LENGTH OF SANITARY SEWER MAINS = MANHOLE CENTER TO MANHOLE CENTER.
PIPE SLOPE CALCULATED FROM INSIDE MANHOLE WALL TO INSIDE MANHOLE WALL.
INVERT ELEVATION IS AT INSIDE MANHOLE WALL.
PAY DEPTH IS FROM BOTTOM OF CASTING TO LOWEST INVERT.

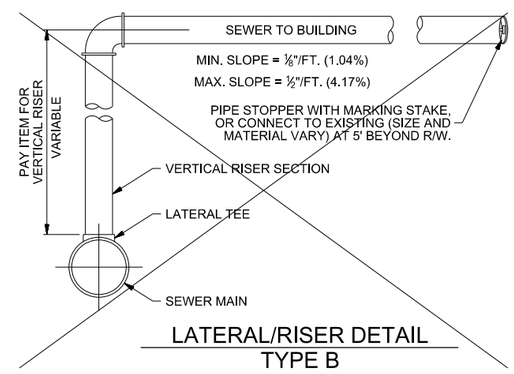


LATERAL DETAIL TYPE C

NOTES: MAINTAIN 30" HORIZONTAL CLEARANCE WHERE SANITARY SEWER LATERALS PARALLEL WATER SERVICES.

USE COVER MATERIAL AS BACKFILL FOR VERTICAL RISER

FERNCO CONNECTOR IF EXISTING LATERAL IS NOT PVC.
GASKETED COUPLING IF EXISTING LATERAL IS PVC.



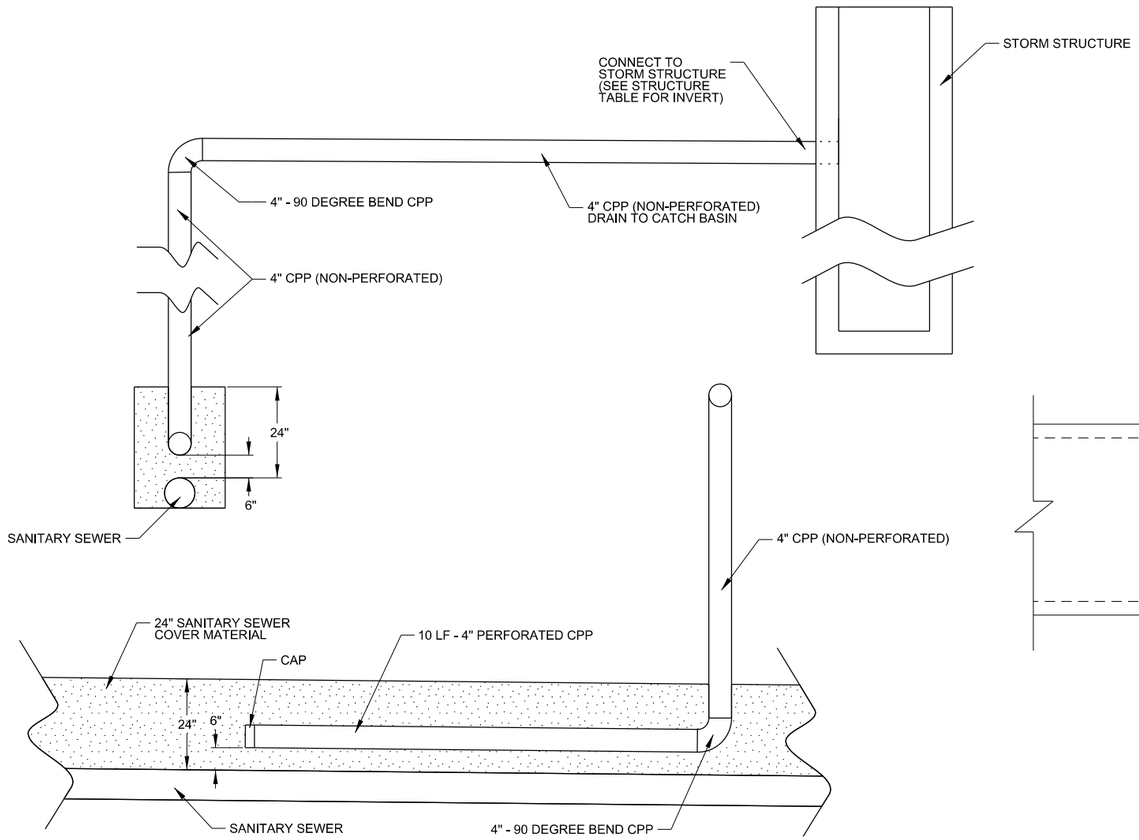
LATERAL/RISER DETAIL TYPE B

PROJ. NO.
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION
CITY OF MARSHFIELD, WISCONSIN
SANITARY SEWER DETAILS

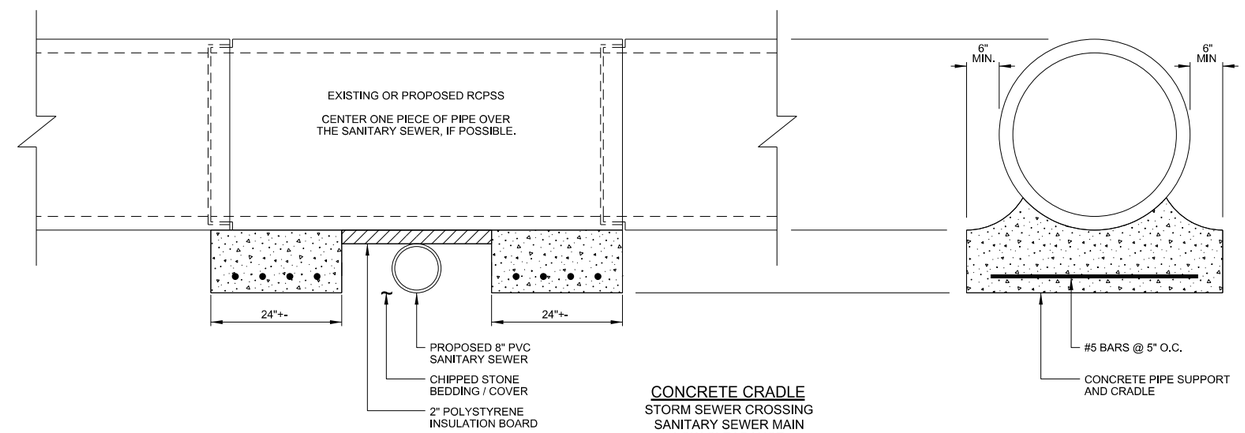
PLOTTED ON: 2/20/2020 3:18:24 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\Sanitary_Sewer_Details.dgn

PROJECT NUMBER	SHEET NO.



SANITARY SEWER - PIPE UNDERDRAIN



CONCRETE CRADLE
STORM SEWER CROSSING
SANITARY SEWER MAIN
LOW CLEARANCE

HAND EXCAVATE TO TOP OF SANITARY SEWER
HAND EXCAVATE SIDES / BOTTOM OF CONCRETE PIPE SUPPORT / CRADLE
CONCRETE TO BE CURED PRIOR TO PLACEMENT OF RCP
USE NON SHRINK GROUT BETWEEN RCP & CONCRETE CRADLE

PROJ. NO.

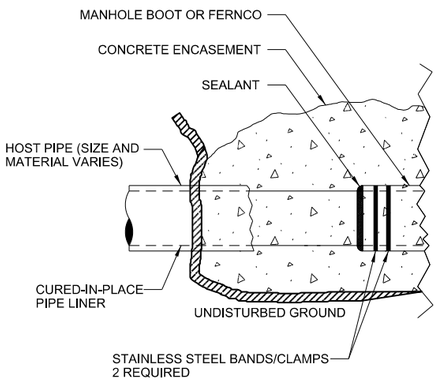
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION
CITY OF MARSHFIELD, WISCONSIN

SANITARY SEWER DETAILS

PLOTTED ON: 2/20/2020 3:18:25 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\Sanitary_Sewer_Details.dgn

PROJECT NUMBER	SHEET NO.



ELEVATION/PROFILE VIEW

CONNECT TO EXISTING LINED SANITARY SEWER MAIN (MANHOLE OR FERNCO)

WORK REQUIRED

CAREFULLY REMOVE THE HOST PIPE FROM THE LINER PIPE. EXPOSE LINER PIPE TO AT LEAST 18-INCHES FROM THE MANHOLE BOOT OR FERNCO. REMOVE ENTIRE CIRCUMFERENCE OF HOST PIPE (ALL AROUND THE PIPE). DO NOT DAMAGE/MAR/CUT LINER PIPE.

REMOVE IRREGULARITIES IN/ON THE SURFACE OF THE LINER PIPE NEAR THE CONNECTION. THIS SURFACE SHALL BE SMOOTH SUCH THAT A LEAK- FREE SEAL CAN BE ACCOMPLISHED.

INSTALL THE MANHOLE BOOT/FERNCO ONTO THE LINER PIPE. APPLY SEALANT TO THE EXTERIOR OF THE BOOT OR FERNCO JOINT CONNECTION. FASTEN BOOT/FERNCO TO LINER USING 2 STAINLESS STEEL TYPE CLAMPS.

BLOCK/SUPPORT PIPE TO STABILIZE AND ACHIEVE PROPER SLOPE.

FOR FERNCO INSTALLATIONS, FLOWLINES SHALL BE ALIGNED, WITHOUT OFFSET BETWEEN THE LINER AND PVC PIPES. REMOVE SHARP EDGES ON THE INSIDE OF THE UPSTREAM PIPE AND BEVEL (1/4") THE INSIDE EDGES OF THE DOWNSTREAM PIPE.

ENCASE THE MANHOLE BOOT/FERNCO, EXPOSED LINER PIPE AND AT LEAST 6-INCHES OF HOST PIPE IN CONCRETE. THICKNESS OF CONCRETE SHALL BE 6-INCHES MINIMUM, AND SHALL COMPLETELY ENCASE THE LENGTH AND CIRCUMFERENCE. EXTEND CONCRETE ENCASEMENT TO COVER DEFECTS IN THE HOST PIPE (CRACKS, ETC.). CONCRETE SHALL BE PLACED AGAINST UNDISTURBED GROUND UNDER ALL EXPOSED MAIN/HOST PIPE AND SHALL COMPLETELY FILL THE VOID UNDER SAID EXISTING MAIN.

VOIDS ALONGSIDE OF THE CONCRETE ENCASED MAINLINE PIPE SHALL BE FILLED USING CHIPPED STONE BEDDING/COVER MATERIAL (APPROVED FOR SANITARY SEWERS). COVER THE REMAINDER OF EXCAVATION WITH SAID STONE MATERIAL TO A POINT 2-FEET ABOVE THE CONCRETE ENCASEMENT.

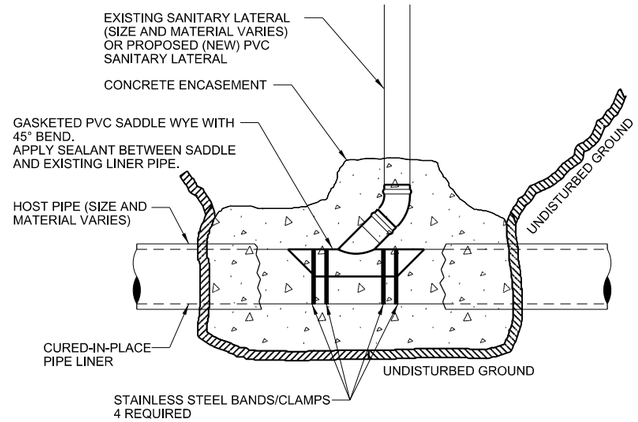
WATERTIGHT CONNECTIONS WILL BE VERIFIED BY INSPECTION AND/OR TELEVISING BY THE CITY. LEAKING OR OFFSET CONNECTIONS SHALL BE REMEDIED BY THE CONTRACTOR (INCIDENTAL). LEAKS SHALL BE ELIMINATED BY PRESSURE GROUTING FROM WITHIN THE MAIN. THE ENGINEER SHALL APPROVE THE MATERIALS/SUBCONTRACTOR FOR SAID REMEDY PRIOR TO USE.

MATERIALS

FERNCO'S (FLEXIBLE PLUMBING ADAPTORS) SHALL BE AS MANUFACTURED BY FERNCO INC. PART NO.S LISTED BELOW ARE PROVIDED FOR INFORMATION ONLY (CONTRACTOR SHALL VERIFY THE SIZE/OUTSIDE DIAMETER OF THE EXISTING CIPP LINER PIPE AS THIS DIMENSION MAY VARY). CONFIRM PART NO.S WITH MANUFACTURER PRIOR TO ORDERING (810/503-9000).
- 8" LINER TO 8" PVC: #1006-68 (2-PIECE ADAPTOR SET, 8' PVC TO 6" CONC. W/REDUCING DONUT)
- 10" LINER TO 10" PVC: #1056-1010 ADAPTOR, AND #10.60-9.65 R REDUCING DONUT
- 12" LINER TO 12" PVC: #1056-1212 ADAPTOR, AND #12.75-11.80 R REDUCING DONUT
- 15" LINER TO 15" PVC: #1056-1515 ADAPTOR. (REDUCING DONUT NOT REQUIRED)

SEALANT TO BE "PTI-707 ARCHITECTURAL SEALANT" AS MANUFACTURED BY H.B. FULLER CO., OR DAP BUTYL-FLEX RUBBER GUTTER AND FLASHING SEALANT, OR APPROVED EQUAL.

CONCRETE TO BE A QUALITY MIX, FROM A READY MIX PLANT OR PROPERLY MIXED ON-SITE (3/8" MINUS AGGREGATE IS ACCEPTABLE). MIX MUST BE 6-BAG/GRADE A AS A MINIMUM AND CAPABLE OF ACHIEVING 4,000 PSI STRENGTH. SLUMP SHALL NOT EXCEED 3-INCH.



ELEVATION/PROFILE VIEW

SADDLE WYE INSTALLED ON EXISTING LINED SANITARY SEWER MAIN

WORK REQUIRED

CAREFULLY REMOVE THE HOST PIPE FROM THE LINER PIPE. EXPOSE LINER PIPE TO AT LEAST 6-INCHES FROM THE SADDLE AND CLAMPS. REMOVE ENTIRE CIRCUMFERENCE OF HOST PIPE (ALL AROUND THE PIPE). DO NOT DAMAGE/MAR LINER PIPE.

MARK PROPOSED HOLE FOR NEW SADDLE ON THE LINER PIPE, CENTERED ON EXISTING HOLE/DIMPLE (EXISTING LATERAL). PROPOSED HOLE SHALL BE THE SAME SIZE AND SHAPE AS THE HOLE IN THE SADDLE.

REMOVE IRREGULARITIES IN/ON THE SURFACE OF THE LINER NEAR THE SADDLE. THIS SURFACE SHALL BE SMOOTH SUCH THAT A LEAK-FREE SEAL TO THE SADDLE CAN BE ACCOMPLISHED.

SAW HOLE IN LINER PIPE USING HOLE/JIG SAW. HOLE MUST BE CLEANLY SAWED. FILE THE HOLE AND ALL EDGES AROUND THE HOLE.

INSTALL SADDLE WYE ONTO THE LINER PIPE. THE HOLE IN THE SADDLE SHALL BE ALIGNED WITH THE HOLE IN PIPE. APPLY ENTIRE TUBE OF SEALANT TO SADDLE/LINER CONNECTION. FASTEN SADDLE TO LINER USING 4 STAINLESS STEEL TYPE CLAMPS. WIPE AWAY ALL EXCESS SEALANT FROM THE INSIDE OF THE SADDLE WYE AND LINER PIPE.

ENCASE THE SADDLE, EXPOSED LINER PIPE AND AT LEAST 6-INCHES OF HOST PIPE IN CONCRETE. THICKNESS OF CONCRETE SHALL BE 6-INCHES MINIMUM, AND SHALL COMPLETELY ENCASE THE BRANCH OF THE WYE AND THE 45° BEND, FOR EITHER HORIZONTAL RUNS OR VERTICAL RISERS. EXTEND CONCRETE ENCASEMENT TO COVER DEFECTS IN THE HOST PIPE (CRACKS, ETC.). CONCRETE SHALL BE PLACED AGAINST UNDISTURBED GROUND UNDER ALL EXPOSED MAIN/HOST PIPE AND SHALL COMPLETELY FILL THE VOID UNDER SAID EXISTING MAIN.

VOIDS ALONGSIDE OF THE CONCRETE ENCASED MAINLINE PIPE SHALL BE FILLED USING CHIPPED STONE BEDDING/COVER MATERIAL (APPROVED FOR SANITARY SEWERS). COVER THE REMAINDER OF EXCAVATION WITH SAID STONE MATERIAL TO A POINT 2-FEET ABOVE THE CONCRETE ENCASEMENT.

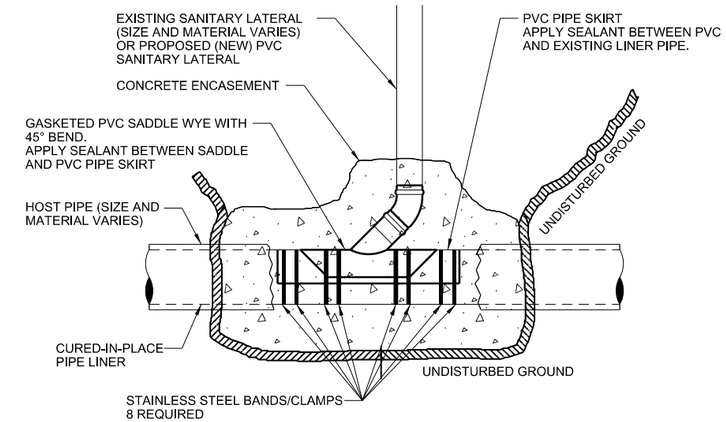
WATER-TIGHT CONNECTIONS WILL BE VERIFIED BY MAINLINE TELEVISING BY THE CITY. LEAKING CONNECTIONS SHALL BE REMEDIED BY THE CONTRACTOR (INCIDENTAL). LEAKS SHALL BE ELIMINATED BY PRESSURE GROUTING FROM WITHIN THE MAIN. THE ENGINEER SHALL APPROVE THE MATERIALS/SUBCONTRACTOR FOR SAID REMEDY PRIOR TO USE.

MATERIALS

SADDLE WYES SHALL BE AS MANUFACTURED BY GPK PRODUCTS, INC., OR APPROVED EQUAL; AND SHALL INCLUDE GASKETED BRANCH, GASKETED SKIRT W/STRAPS, 4-INCH OR 6-INCH X NOMINAL DIAMETER OF THE MAIN.

SEALANT TO BE "PTI-707 ARCHITECTURAL SEALANT" AS MANUFACTURED BY H.B. FULLER CO., OR DAP BUTYL-FLEX RUBBER GUTTER AND FLASHING SEALANT, OR APPROVED EQUAL. (ONE STANDARD 14 0Z CAULK GUN TYPE TUBE IS REQUIRED FOR EACH SADDLE)

CONCRETE TO BE A QUALITY MIX, FROM A READY MIX PLANT OR PROPERLY MIXED ON-SITE (3/8" MINUS AGGREGATE IS ACCEPTABLE). MIX MUST BE 6-BAG/GRADE A AS A MINIMUM AND CAPABLE OF ACHIEVING 4,000 PSI STRENGTH. SLUMP SHALL NOT EXCEED 3-INCH.



ELEVATION/PROFILE VIEW

PVC PIPE SKIRT FOR OVERSIZED LINER HOLE REPAIR OR ABANDON CUT OUT EXISTING LINED SANITARY SEWER MAIN

OVERSIZED HOLE REPAIR

IF THE EXISTING CUT-OUT HOLE IN THE LINER IS TOO LARGE (SADDLE WYE GASKET DOES NOT SURROUND HOLE / CONTACT LINER FOR FULL CIRCUMFERENCE) THEN DO THE FOLLOWING:

HOLE MUST BE CLEANLY SAWED. FILE THE HOLE AND ALL EDGES AROUND THE HOLE.

CUT / FABRICATE PVC PIPE SKIRT AS SHOWN. PVC PIPE SKIRT MUST BE 12 INCHES LONGER (TOTAL) THAN THE SADDLE WYE SKIRT, AND CIRCUMFERENTIALLY 1-INCH MORE THAN HALF PIPE.

PVC PIPE SKIRT SHALL BE FABRICATED FROM SDR 35 SEWER PIPE (PER ASTM D-3034)

SEAL PVC PIPE SKIRT USING FULL TUBE OF SEALANT.

SECURE PVC PIPE SKIRT USING (4) STAINLESS STEEL BANDS/CLAMPS ((2) AT EACH END, AS SHOWN)

INSTALL SADDLE WYE AS SHOWN / DISCUSSED HEREIN.

ABANDON CUT-OUT

TO SEAL OR ABANDON A LATERAL CONNECTED TO A LINER, DO ALL WORK AS LISTED ABOVE (FOR SADDLE WYE, OVERSIZE HOLE REPAIR, ETC) EXCEPT:

LENGTH OF PVC PIPE SKIRT SHALL BE 12-INCHES LONGER THAN THE PREPARED HOLE.

DO NOT CUT A HOLE IN THE PVC PIPE SKIRT.

USE (4) STAINLESS STEEL BANDS / CLAMPS EQUALLY SPACED.

ENCASE (CONCRETE), COVER, BACKFILL / COMPACT AS DESCRIBED.

PROJ. NO.
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION CITY OF MARSHFIELD, WISCONSIN
SANITARY SEWER DETAILS

PLOTTED ON: 2/20/2020 3:18:25 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\Sanitary_Sewer_wLiner_Details.dgn

PROJECT NUMBER	SHEET NO.

NOTES: EXISTING WATER SYSTEM AND PROPOSED ISOLATION GATE VALVES SHALL ONLY BE OPERATED BY MARSHFIELD UTILITIES.

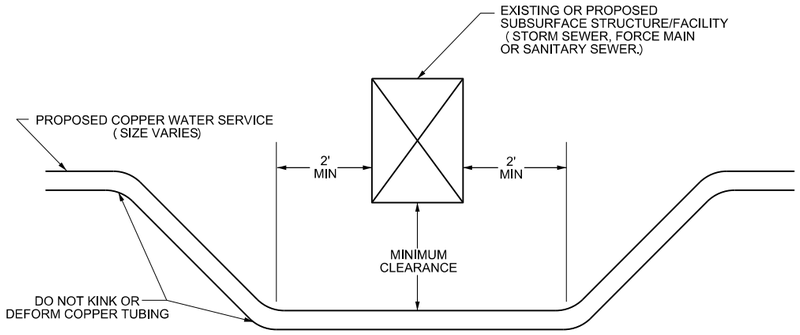
CONTRACTOR TO PROVIDE A CONTINUOUS SUPPLY OF SAFE WATER TO AFFECTED PROPERTIES, WHEN APPLICABLE.

ALL PIPE, VALVES, FITTINGS AND HYDRANTS TO BE POLYWRAPPED.

CONDUCTIVITY PROVISIONS SUCH AS STRAPS OR CABLES ARE REQUIRED FOR ALL JOINTS INCLUDING PIPE, VALVES, FITTINGS AND SLEEVES. CONDUCTIVITY TESTING WILL BE REQUIRED.

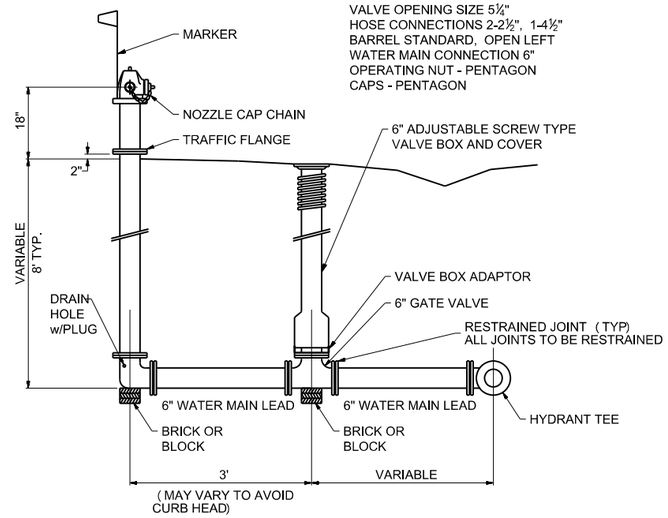
HYDROSTATIC TEST PRESSURE FOR WATER PIPE SHALL BE 150 PSI.

SPECIAL COMPACTION IS REQUIRED AT HYDRANTS, VALVE BOXES, CURB BOXES, AND OTHER RISERS.

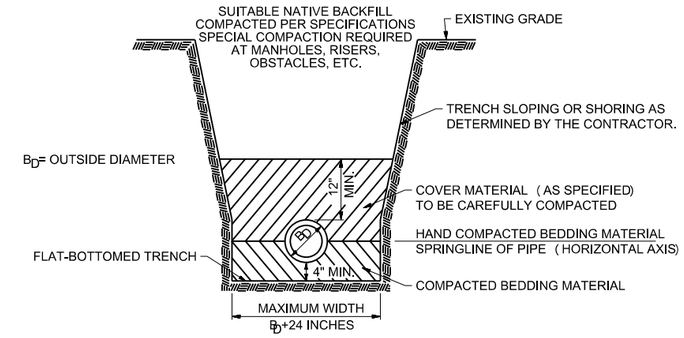


MINIMUM CLEARANCE SHALL BE 12" FOR EXISTING FACILITIES TO REMAIN AND 18" FOR PROPOSED FACILITIES.

WATER SERVICE OFFSET



TYPICAL HYDRANT, HYDRANT LEAD, AND GATE VALVE INSTALLATION

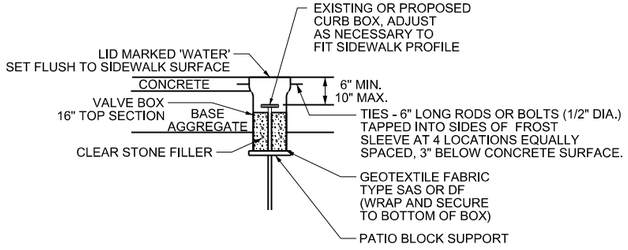


NOTES:

BEDDING AND COVER MATERIAL: MATERIAL SHALL BE BANK-RUN SAND, CRUSHED BANK RUN GRAVEL, OR OTHER APPROVED MATERIAL CONFORMING SUBSTANTIALLY TO THE FOLLOWING GRADING REQUIREMENTS.

SIEVE SIZE	PERCENTAGE PASSING BY WEIGHT
1 "	100
¾"	85 TO 100
NO. 40	15 TO 35
NO. 200	2 TO 10

TYPICAL TRENCH SECTION WATER MAIN AND WATER SERVICE CONSTRUCTION



CURB BOX FROST SLEEVE

JOINT RESTRAINT SHALL BE REQUIRED. ACCEPTABLE MATERIALS INCLUDE ¾" THREADED RODS (2) W/RETAINER GLANDS, RESTRAINING PIPE JOINT GASKETS, OR RESTRAINING MECHANICAL JOINT GLANDS (MEGA LUGS, ETC.) .

LENGTH OF PIPELINE TO BE RESTRAINED SHALL BE AS FOLLOWS:

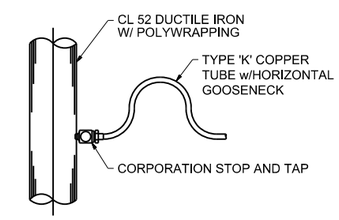
RUN OF TEE
ALL SIZES = 10 LF EACH SIDE OF BRANCH

BRANCH OF TEE:
6" & 8" PIPE = 35 LF
10" PIPE = 45 LF
12" PIPE = 55 LF
16" PIPE = 65 LF

BENDS:
6" & 8" PIPE = 25 LF EACH SIDE OF FITTING
10" PIPE = 35 LF EACH SIDE OF FITTING
12" PIPE = 45 LF EACH SIDE OF FITTING
16" PIPE = 55 LF EACH SIDE OF FITTING

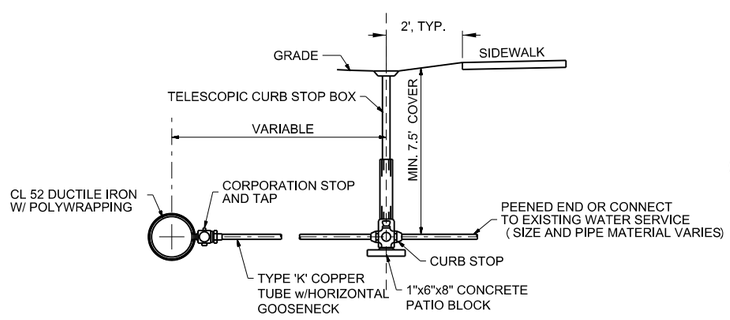
DEAD ENDS:
6" & 8" PIPE = 35 LF
10" PIPE = 45 LF
12" PIPE = 55 LF
16" PIPE = 65 LF

NOTE: MJ OFFSET FITTINGS MAY BE USED IF APPROVED BY THE ENGINEER.



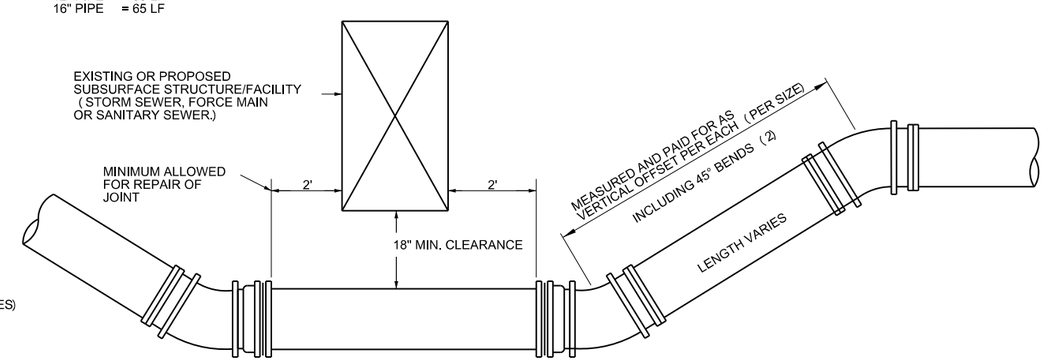
TYPICAL WATER SERVICE CONNECTION

PLAN VIEW



TYPICAL WATER SERVICE CONNECTION

PROFILE VIEW



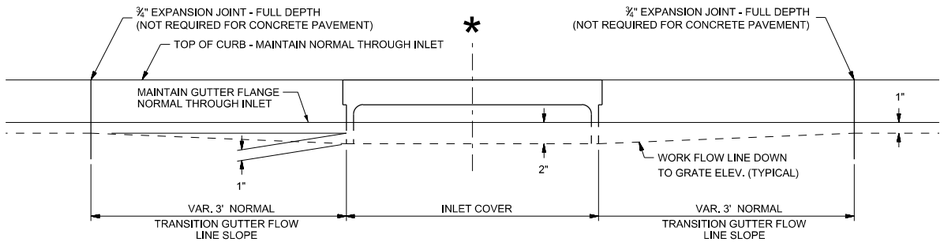
WATER MAIN OR HYDRANT LEAD VERTICAL OFFSET

PROJ. NO.
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION
CITY OF MARSHFIELD, WISCONSIN
WATER DETAILS

PLOTTED ON: 2/20/2020 3:18:26 PM

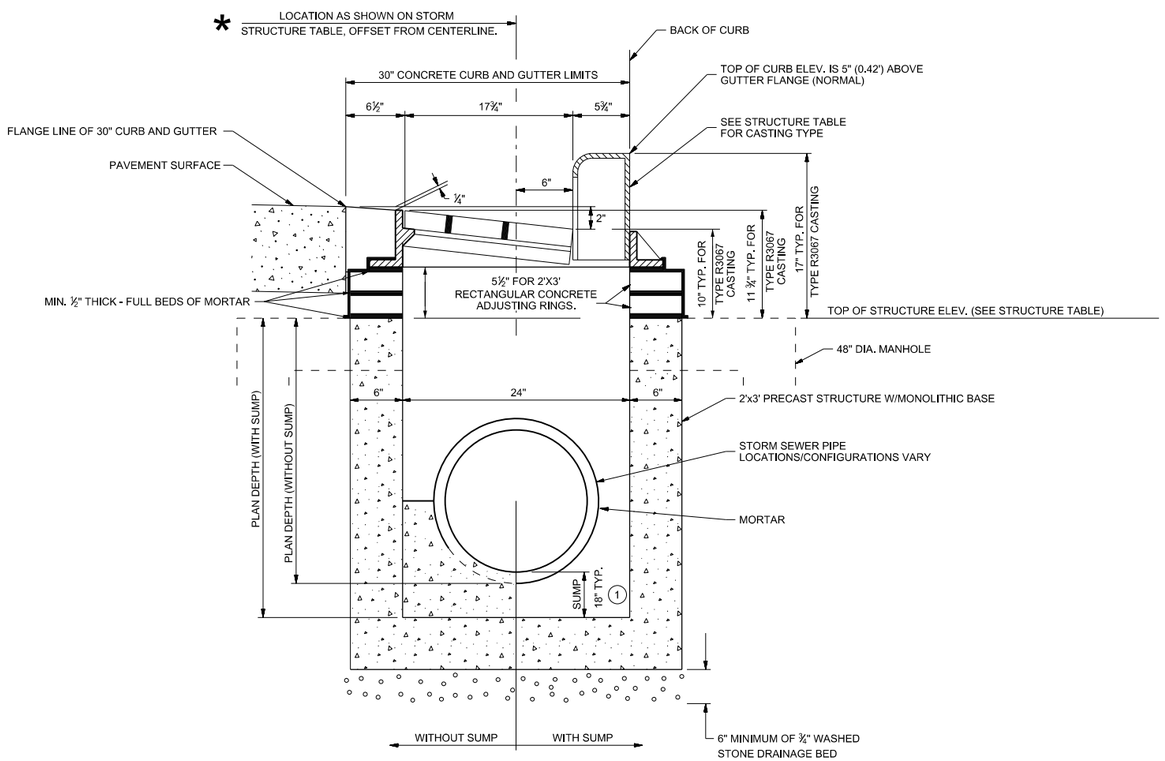
FILE NAME: F:\Home\PW\CAD\FILES\3000__Streets\3653\Details\Water__Details.dgn

PROJECT NUMBER	SHEET NO.



ELEVATION VIEW

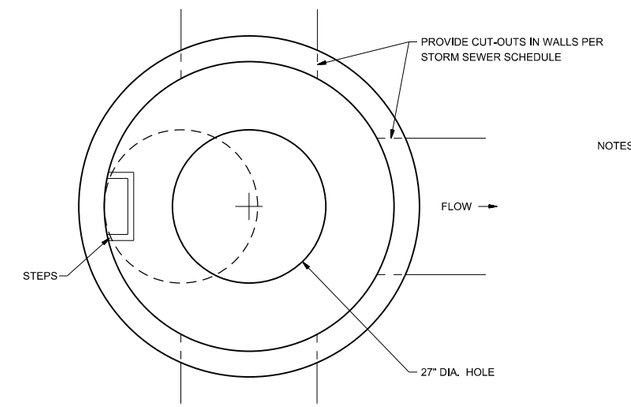
* CATCH BASIN HORIZONTAL LOCATIONS ARE REFERENCED TO THE CENTER OF THE REAR INSIDE WALL OF THE BOX.



TYPE 2 RECTANGULAR CATCH BASIN

NOTES:

1. STRUCTURES WITHOUT SUMPS SHALL INCLUDE A POURED CONCRETE FLOWLINE WITH BENCHES EXTENDING TO THE SPRINGLINE OF EACH CONNECTING PIPE



STRUCTURE SPECIFICATIONS:

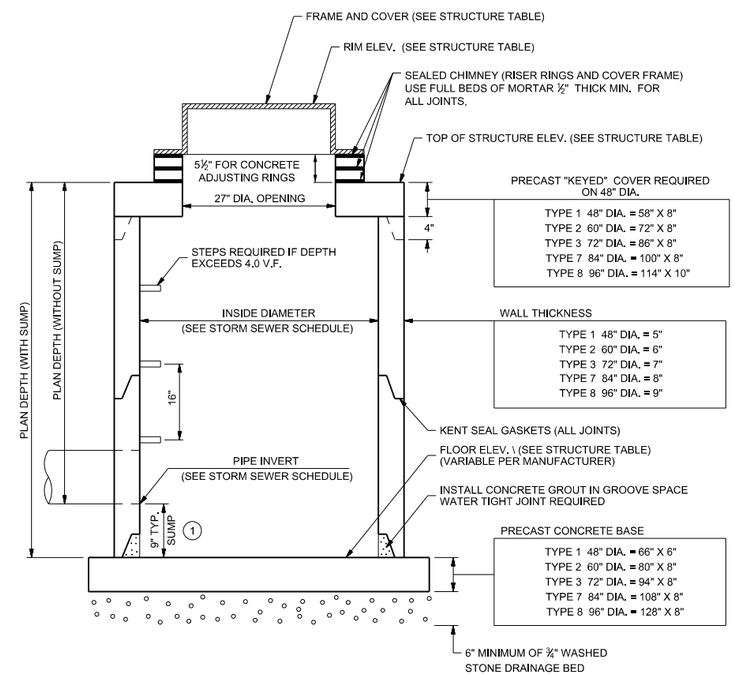
- MANUFACTURED TO A.S.T.M. C-478 AND AASHTO M199 SPECIFICATIONS
- CONCRETE STRENGTH - 4000 P.S.I.
- STEEL DESIGN IN ACCORDANCE WITH A.S.T.M. C-478 0.12 SQ. IN./FT.
- ALL REINFORCING IS DESIGNED FOR MIN. 2" COVER
- MONOLITHIC BASE WITH INLET AND OUTLET OPENING AS REQUIRED

NOTES: STEPS REQUIRED IN MANHOLES IF DEPTH EXCEEDS 4.0 V.F.

MANHOLES WITH STEPS REQUIRE ECCENTRIC 27" DIA. HOLE FOR ACCESS TO STEPS. ECCENTRIC CONE SECTIONS MAY BE USED INSTEAD OF FLAT COVER W/ECCENTRIC ACCESS HOLE IF STRUCTURE DEPTH EXCEEDS 9.0 V.F.

ALL STRUCTURES AND COMPONENTS SHALL BE LABELED BY THE MANUFACTURER IN ACCORDANCE WITH PLAN/SCHEDULE IDENTIFICATION

WHEN STRUCTURES ARE PAID PER VERTICAL FOOT, PAY DEPTH SHALL BE MEASURED FROM THE BOTTOM OF THE CASTING TO: THE SUMP FLOOR; OR THE LOWEST PIPE O.D. (INVERT PLUS WALL THICKNESS).

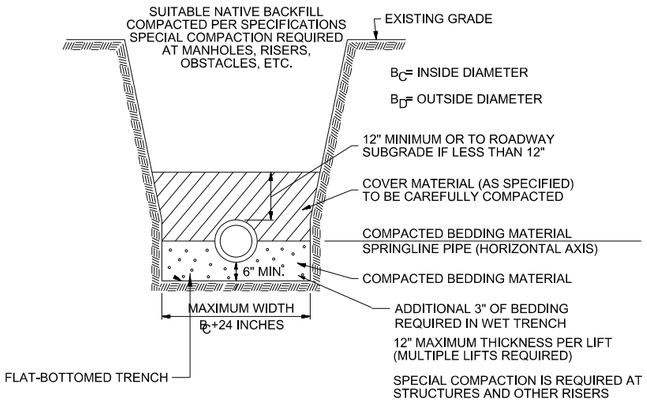


TYPICAL MANHOLE - REINFORCED PRECAST CONCRETE

PROJ. NO.
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION
CITY OF MARSHFIELD, WISCONSIN
STORM SEWER DETAILS

PLOTTED ON: 2/20/2020 3:18:27 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\Storm_Sewer_Details.dgn



TYPICAL TRENCH SECTION

STORM SEWER CONSTRUCTION

RCP STORM SEWER CONSTRUCTION

MATERIALS AND INSTALLATION SHALL COMPLY WITH THE TYPICAL TRENCH SECTION. BEDDING AND COVER MATERIAL SHALL BE AS FOLLOWS:

BEDDING & COVER MATERIAL

SCREENED SAND OR BANK RUN GRAVEL MEETING THE FOLLOWING GRADING REQUIREMENTS SHALL BE USED.

SIEVE SIZE	PERCENTAGE PASSING BY WEIGHT
1"	100
¾"	85 TO 100
NO. 40	15 TO 35
NO. 200	2 TO 10

SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE, (SICPP) STORM SEWER

MATERIALS AND INSTALLATION SHALL COMPLY WITH THE TYPICAL TRENCH SECTION. BEDDING AND COVER MATERIAL SHALL BE AS FOLLOWS:

FOR SEWER PIPE 18 INCHES IN DIAMETER OR LESS, CRUSHED STONE CHIPS MEETING THE FOLLOWING GRADING REQUIREMENTS SHALL BE USED.

SIEVE SIZES	PERCENTAGE PASSING BY WEIGHT
½ INCH	100%
⅜ INCH	90 - 100
NO. 8	0 - 15
NO. 30	0 - 3

FOR PIPE LARGER THAN 18 INCHES IN DIAMETER CRUSHED STONE CHIPS BEDDING MEETING THE FOLLOWING GRADING REQUIREMENTS SHALL BE USED.

SIEVE SIZES	PERCENTAGE PASSING BY WEIGHT
1 INCH	100%
¾ INCH	90 - 100
⅜ INCH	20 - 55
NO. 4	0 - 10
NO. 8	0 - 5

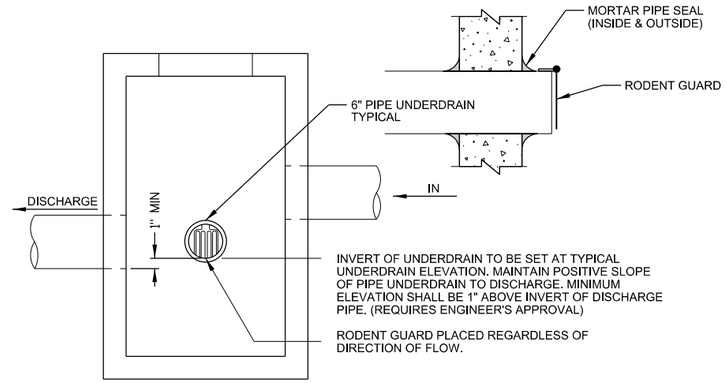
SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE, PERFORATED (SICPPP) STORM SEWER, WRAPPED TRENCH

MATERIALS AND INSTALLATION SHALL COMPLY WITH THE TYPICAL TRENCH SECTION. BEDDING AND COVER MATERIAL SHALL BE AS FOLLOWS:

WELL GRADED CRUSHED STONE CHIPS MEETING THE REQUIREMENTS OF CRUSHED STONE CHIPS OF SICPP. (NOTED ABOVE)
SICPPP SHALL BE INSTALLED WITHIN A TRENCH WRAPPED WITH GEOTEXTILE FABRIC, TYPE DF SCHEDULE A, SIMILIAR TO PIPE UNDERDRAIL DETAIL

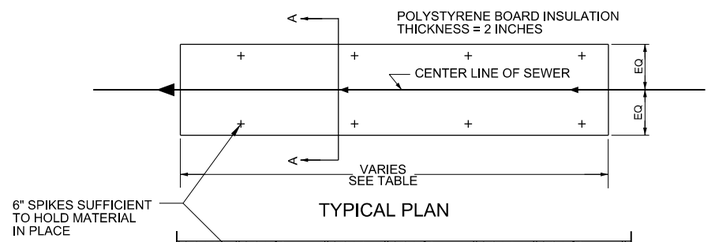
PVC STORM SEWER

MATERIALS AND INSTALLATION SHALL COMPLY WITH THE TYPICAL TRENCH SECTION FOR RCP STORM SEWER CONSTRUCTION, EXCEPT BEDDING AND COVER MATERIAL SHALL BE WELL GRADED CRUSHED BASE AGGREGATE DENSE 3/4-INCH.

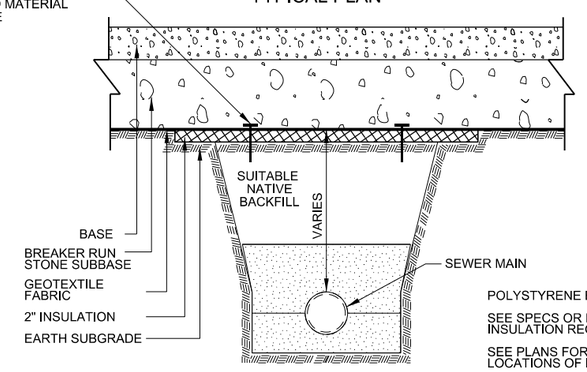


PIPE UNDERDRAIN CONNECTION DETAIL

TYPICAL FOR CATCH BASIN OR MANHOLE



TYPICAL PLAN



VIEW A - A

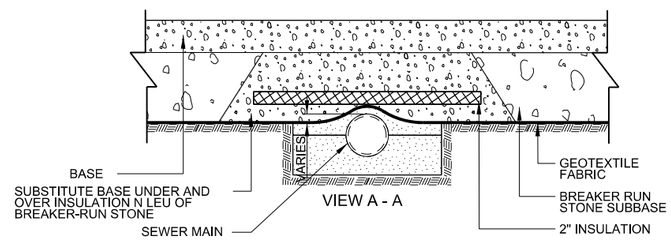
INSULATION NOTCHED INTO SUBGRADE

POLYSTYRENE BOARD INSULATION THICKNESS = 2 INCHES

SEE SPECS OR BID ITEM NAME FOR TYPE/CLASS OF INSULATION REQUIRED

SEE PLANS FOR EXACT DIMENSIONS OF THE DIFFERENT LOCATIONS OF INSULATION.

NO ADJUSTMENTS MADE FOR QUANTITIES OF EARTHWORK, SUBBASE OR BASE MATERIAL, AND BASE IS NCIDENTAL TO SEWER INSULATION.



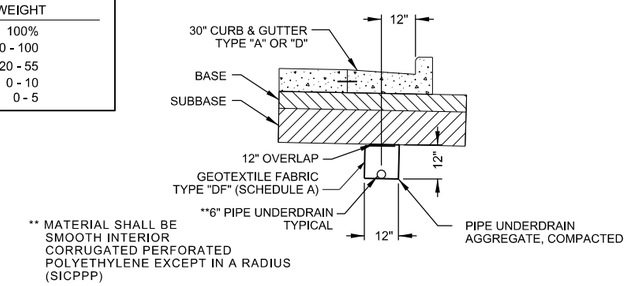
VIEW A - A

INSULATION WITHIN BREAKER-RUN STONE SUBBASE

SEWER INSULATION

PIPE UNDERDRAIN AGGREGATE SHALL BE CLEAN STONE AGGREGATE MEETING THE FOLLOWING GRADATION.

SIEVE SIZES	PERCENTAGE PASSING BY WEIGHT
1 INCH	100%
¾ INCH	90 - 100
⅜ INCH	20 - 55
NO. 4	0 - 10
NO. 8	0 - 5

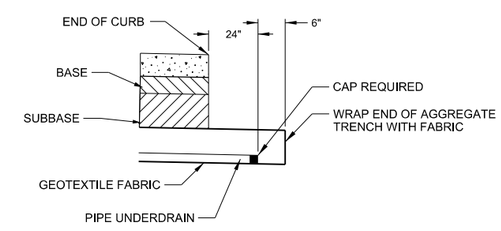


GENERAL NOTES:

1. UNDERDRAIN SHALL BE CONNECTED TO INLETS AS SHOWN REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS. RODENT SCREEN IS REQUIRED AT EACH UNDERDRAIN CONNECTION.

2. UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROAD UNLESS SHOWN OR NOTED OTHERWISE ON THE PLAN SHEETS.

PIPE UNDERDRAIN DETAIL



PIPE UNDERDRAIN DETAIL AT END OF CURB & GUTTER

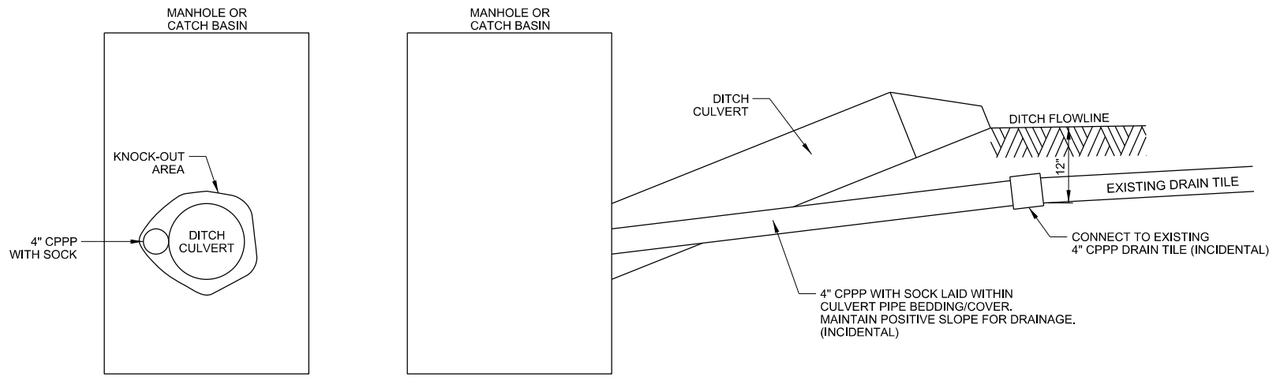
PROJECT NUMBER	SHEET NO.

PROJ. NO.

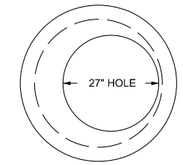
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION
CITY OF MARSHFIELD, WISCONSIN

STORM SEWER DETAILS

PROJECT NUMBER	SHEET NO.

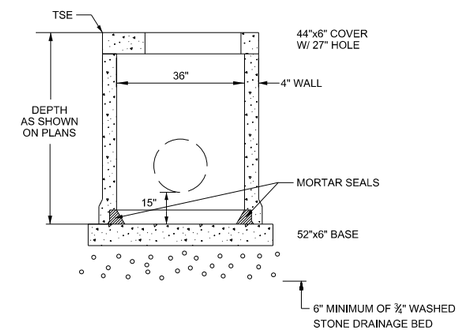


DITCH LEAD
WITH DRAIN TILE



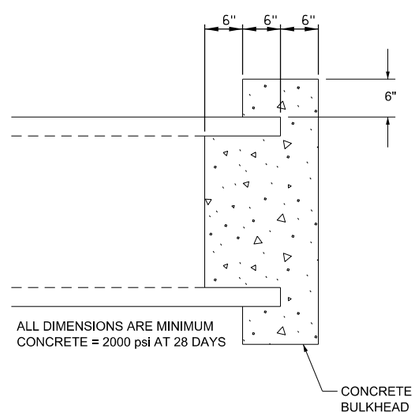
PLAN VIEW

NOTE: SEE STORM MANHOLE DETAILS
FOR ADJUSTMENT OF CASTING

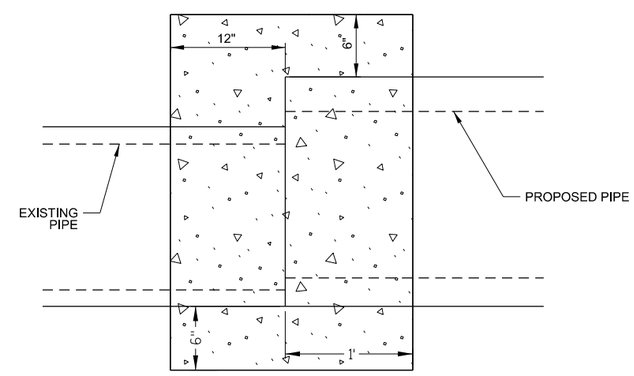


PROFILE VIEW

CATCH BASIN TYPE 4
PRECAST REINFORCED CONCRETE



BULKHEADING DETAIL



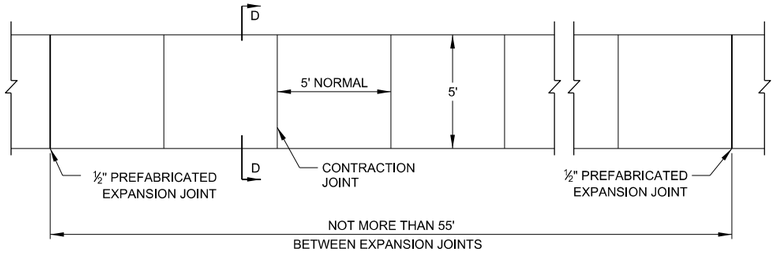
CONCRETE COLLAR DETAIL

PROJ. NO.
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION
CITY OF MARSHFIELD, WISCONSIN
STORM SEWER DETAILS

PLOTTED ON: 2/20/2020 3:18:29 PM

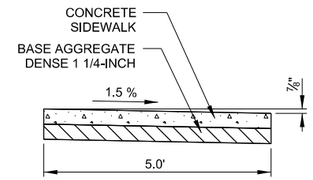
FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\Storm_Sewer_Details.dgn

PROJECT NUMBER	SHEET NO.



STANDARD 5' SIDEWALK

TYPICAL SIDEWALK SECTION:
5" CONCRETE SIDEWALK OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH
6" CONCRETE SIDEWALK OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
8" CONCRETE SIDEWALK OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH



SECTION D-D

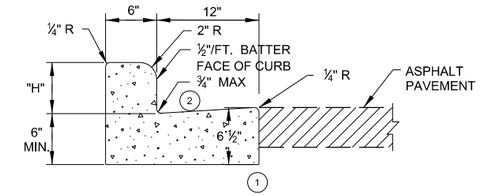
SIDEWALK CROSS SLOPE

GENERAL NOTES:

DRIVEWAY SLOPES: DESIRABLE MAXIMUM

11% UP AWAY FROM SIDEWALK (SAG)
8% DOWN AWAY FROM SIDEWALK (CREST)

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

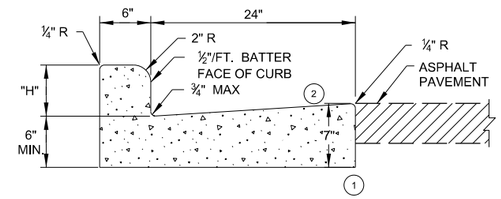


18" CURB & GUTTER, TYPE D

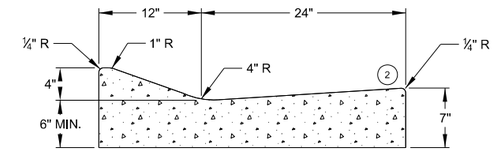
NOTES

"H" = 8" MAX., 3½" MIN. & SHALL BE 6" UNLESS OTHERWISE SHOWN ON THE PLANS

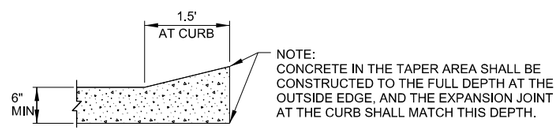
1. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED THE MINIMUM GUTTER THICKNESS IS MAINTAINED.
2. THE TRANSVERSE SLOPE OF THE GUTTER PAN SHALL BE ½"/FT (4.0%) UNLESS SHOWN OTHERWISE ON THE PLANS.



30" CURB & GUTTER, TYPE D



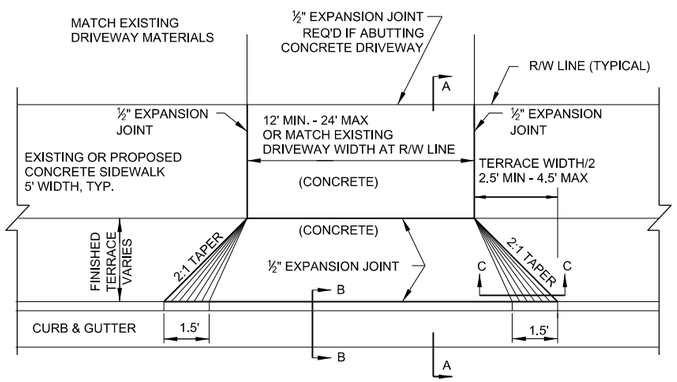
36" CURB & GUTTER, TYPE HM



NOTE:
CONCRETE IN THE TAPER AREA SHALL BE CONSTRUCTED TO THE FULL DEPTH AT THE OUTSIDE EDGE, AND THE EXPANSION JOINT AT THE CURB SHALL MATCH THIS DEPTH.

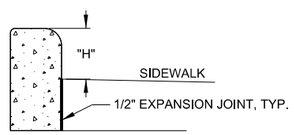
SECTION C-C

DRIVEWAY APPROACH TAPER

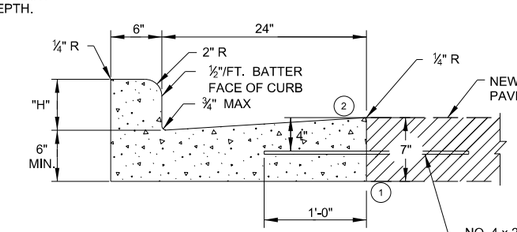


ENTRANCE DETAIL (PE'S & CE'S)
CURB & GUTTER WITH CONCRETE SIDEWALK

NOTE: THE EXACT LOCATION & WIDTHS OF ENTRANCES TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

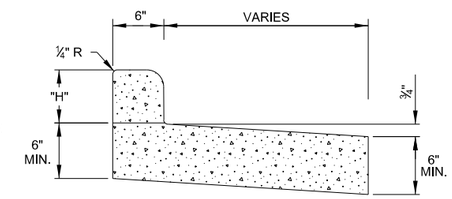


PEDESTRIAN CURB



30" CURB & GUTTER, TYPE A

NO. 4 x 2'-0" EPOXY COATED PAVEMENT TIES SPACED 3' C.-C. IF ADJACENT PAVEMENT IS CONCRETE AND TIE BAR IS SET IN WET CONCRETE (BOTH ENDS OF TIE BAR)

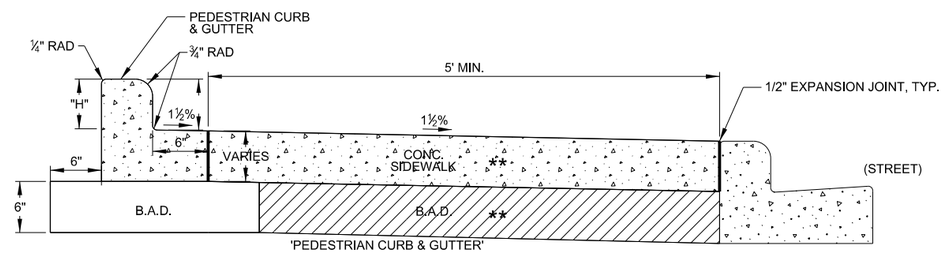


REJECT CURB & GUTTER

** MINIMUM DRIVEWAY TYPICAL SECTIONS

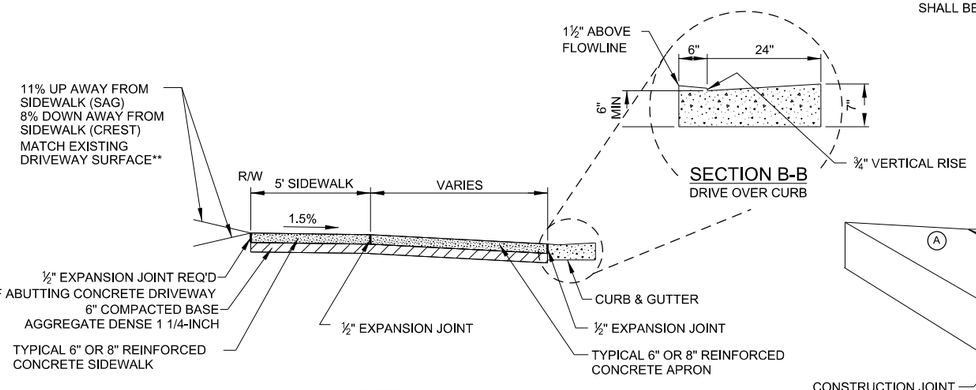
GRAVEL DRIVEWAYS: 6" BASE AGGREGATE DENSE 3/4-INCH
MILLINGS DRIVEWAYS: 3" ASPHALT MILLINGS OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
ASPHALT DRIVEWAYS: 3 ½" HMA OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
CONCRETE DRIVEWAYS: 6" OR 8" CONCRETE OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH

- CONTRACTION JOINTS TO BE SPACED 5' TYP.
- AT BUILDING CORNERS ALIGN CONTRACTION JOINTS WITH EACH FACE OF THE BUILDING.
- THE EXPOSED FACE OF PEDESTRIAN CURB SHALL BE VERTICAL.



** THICKNESS OF CONCRETE SIDEWALK AND BASE VARIES - SEE PLANS AND DETAILS

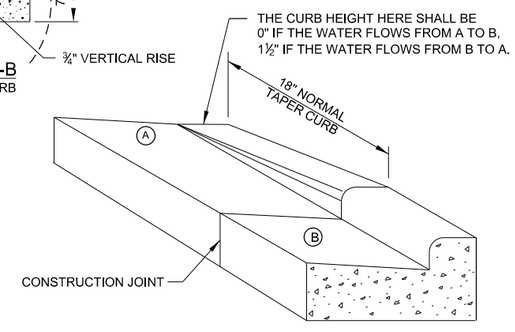
PEDESTRIAN CURB & GUTTER



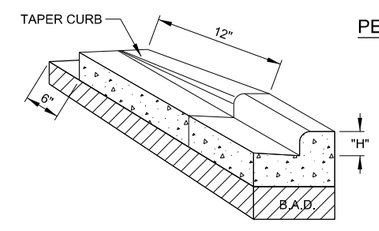
SECTION B-B

DRIVE OVER CURB

SECTION A-A



DETAIL OF CURB & GUTTER TERMINI



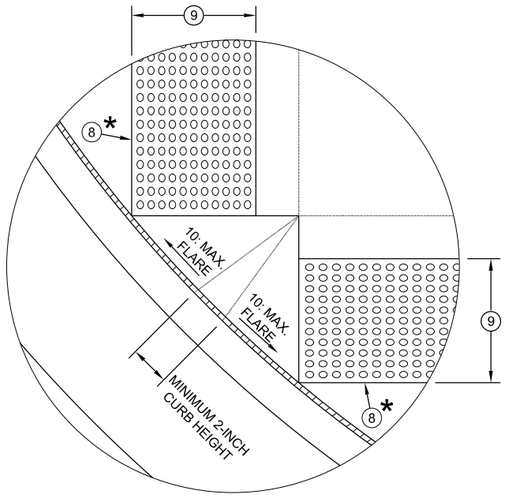
'PEDESTRIAN CURB' AND/OR CURB & GUTTER TERMINI

PROJ. NO.
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION CITY OF MARSHFIELD, WISCONSIN
CONCRETE ENTRANCE CONCRETE CURB & GUTTER DETAILS

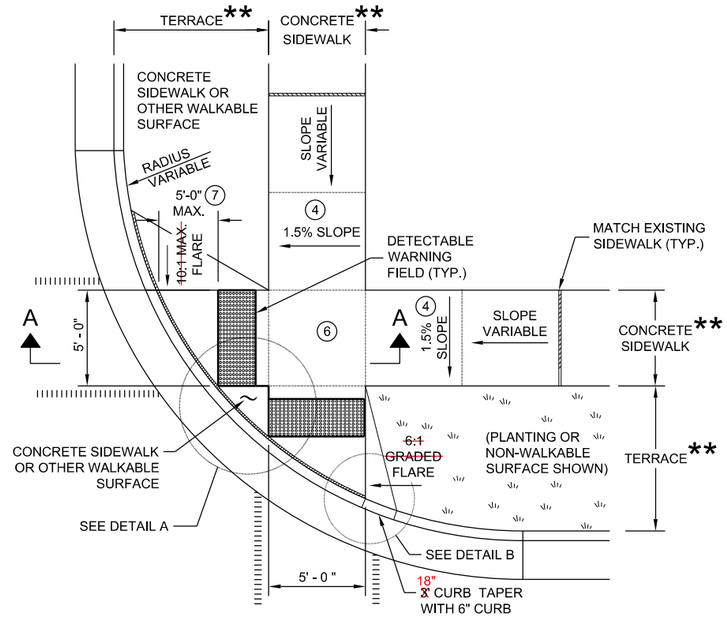
PLOTTED ON: 2/20/2020 3:18:29 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\Concrete_Details.dgn

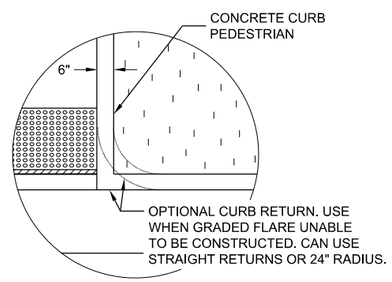
PROJECT NUMBER	SHEET NO.



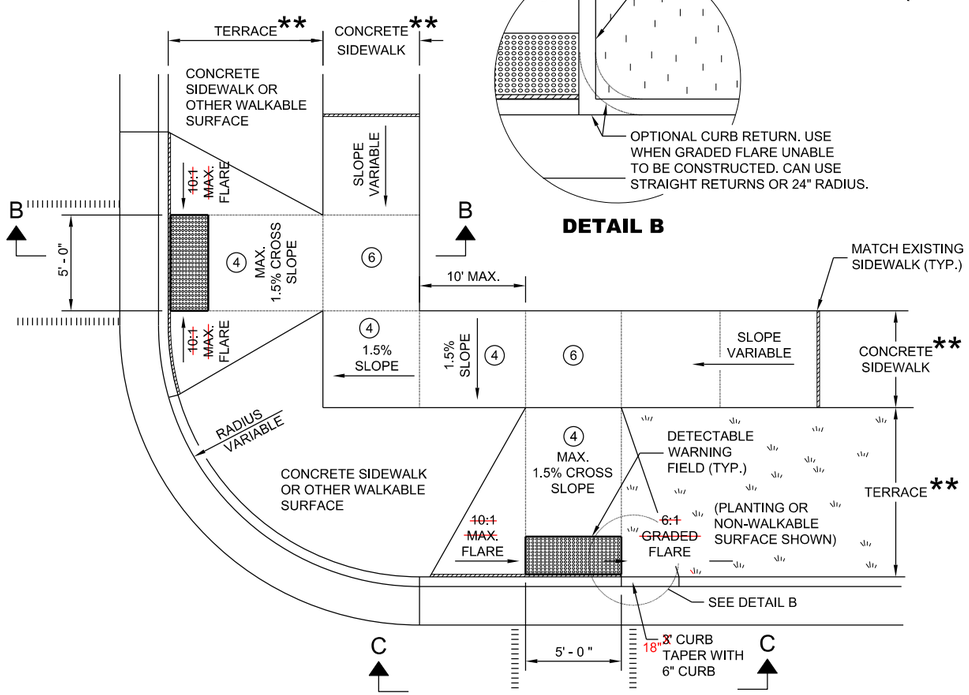
DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)



DETAIL B



PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

2. GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

3. AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

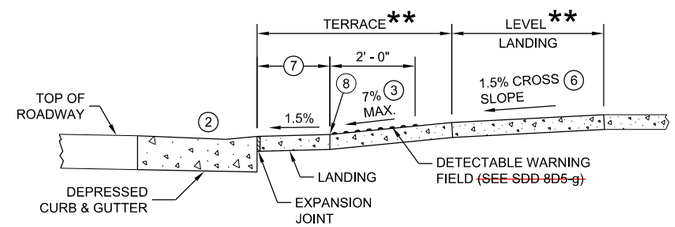
4. ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

6. PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

7. WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

8. PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

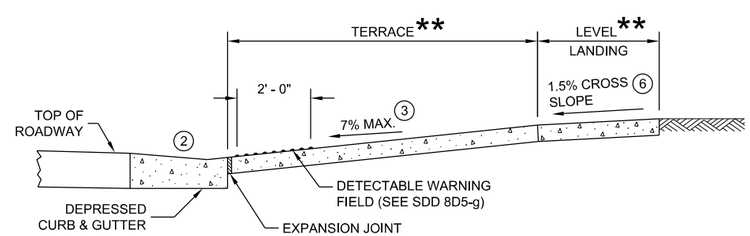
9. WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



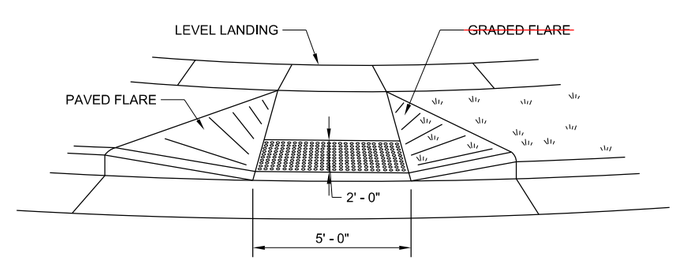
SECTION A - A FOR TYPE 2

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

PROJ. NO.

DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION
CITY OF MARSHFIELD, WISCONSIN

CURB RAMP
TYPE 2
~~SDD 08D05-20b~~

PLOTTED ON: 2/20/2020 3:18:30 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\Concrete_Details.dgn

PROJECT NUMBER	SHEET NO.

CITY OF MARSHFIELD
STANDARDS FOR REPAIR OF STREET PAVEMENTS

I. All Pavement Repairs

- All work and materials shall comply with the City of Marshfield Standard Specifications for Public Works Construction (current year edition, available on the City web site, http://ci.marshfield.wi.us/public works/files/spec.pdf), Concrete/Pavement Repair and Replacement detail drawings, and these standards; and shall be the responsibility of the prime contractor or permittee.
- Backfill material shall be suitable native material (typically clay) compacted in lifts.
- Pavement, base and subbase materials shall be replaced in-kind. Match existing thicknesses of base and pavement if the existing thicknesses exceed the minimum thicknesses as detailed for asphalt or concrete pavements.
- Roadway underdrains, if encountered shall be repaired in-kind (including pipe, fabric, media, etc.).
- Longitudinal joints shall be parallel to the centerline of the travelled way, but shall not be located in a wheel path. Transverse joints shall be perpendicular to longitudinal joints. Skewed joints will only be allowed if approved by the City Engineer.
- All repaired surface areas shall be flush with existing pavements and provide a smooth ride along with proper drainage. Repair areas that do not satisfy these requirements shall be removed and replaced.
- Seal all new joints within the repair area, and perimeter joints between the repair area and existing pavement. Reseal existing joints beyond the repair area if disturbed by construction. Completely fill the joint with hot-pour elastic sealant.
- Re-establish all pavement markings removed within the repair area, and beyond if disturbed by construction. Pavement markings shall be repainted in-kind (i.e. existing epoxy/preformed plastic/latex pavement markings shall be replaced with new epoxy/preformed plastic/latex pavement markings).
- Roadway shoulders shall be restored if within the repair area or disturbed by construction. Shouldering material shall be replaced in-kind (i.e. paved asphalt/recycled asphalt millings/gravel shall be replaced with paved asphalt/recycled asphalt millings/gravel).

II. Concrete Pavement

A. Sawing

- Saw existing concrete pavement, full depth.
- Minimize over-sawing into adjacent pavements/panels. Do not oversaw beyond the repair area unless the saw blade is within an existing joint.
- If existing pavement is 5 years old or less, then saw/remove full panel(s), existing joint to existing joint.
- If existing pavement is 6 years old or older, then saw as follows:
  - Provide 6′ minimum distance between an existing joint or crack and the proposed saw cut for the repair area.
  - Repair area shall be at least 6′ for both longitudinal and transverse directions.
  - Rule of thumb: Don't take anything less than 6′ and don't leave anything less than 6′.
  - Saw to remove defective or spalling (existing) joints.

B. Chipped Joints

- Minimize the possibility for joints or sawed edges to become chipped or damaged through utilization of secondary saw cuts and careful removal (excavation, backfilling, grading) procedures.
- Chips 1″or less horizontally shall be repaired unless the existing street pavement joints are spalled/widened to this degree.
- Chips between 1″and 2″horizontally may be repaired if existing street pavement joints are spalled/widened to this degree. If, in the opinion of the City Engineer, repairing the chip would be detrimental to the street as compared to the general condition of said street pavement, then re-saw the joint/edge, for the entire length (‘Boxing-out’ around the chip is not allowed).
- Chips larger than 2″horizontally will require re-sawing the joint/edge for the entire length.
- Joints/sawed edges with multiple chips will typically require re-sawing the joint/edge for the entire length.
- Use VersaSpeed as manufactured by the Euclid Chemical Company for repairing chipped concrete. Follow the manufacturer’s installation directions for use.
- Note: Resawing may substantially increase the size of the repair, as necessary to comply with the saw cut location requirements.

C. Minimum Thicknesses

- Gravel base shall not be less than 6″, compacted.
- Concrete pavement shall not be less than 8″.

D. Dowel Bars

- All transverse joints shall be doweled, unless the thickness of the existing concrete is less than 7″, thence tie bars shall be installed.
- Dowel bars shall be 1-1/4″x 18″, Epoxy Coated Steel.
- When drilled into existing pavement, drill 1-3/8″x 9″holes, spaced 15″on-center, and anchored with an epoxy.
- When set into new pavement, use baskets with bars spaced 12″on-center.

E. Tie Bars

- All longitudinal joints shall be reinforced with pavement ties.
- When drilled into existing pavement, drill (1/8″larger than bar) 6″deep and use No. 6 Epoxy Coated Rebar, 12″long, spaced 30″ on-center, and anchored with an epoxy.
- When set into new pavement, use No. 4 Epoxy Coated Rebar, 24″long, spaced 30″ on-center.

F. Ready Mix Concrete

- Concrete mix shall be from an approved ready mix concrete supplier.
- Design of the mix shall comply with current City of Marshfield Standard Specifications for Public Works Construction, Section 10, and modifications thereof. Air entrainment and Type II cement are required.
- Use of 9-bag or Special High Early Strength mixes is not allowed.
- Use of chloride or accelerating admixtures to increase early strength development or decrease set time is not allowed.
- Preparation, forming, handling, placing, finishing, curing and protecting shall comply with the City’s Standard Specifications. Curing compound shall be Tri-Kote 26, or approved equal, and shall be spray applied.
- Open to traffic after concrete has attained 3000 psi compressive strength as verified through cylinder testing (arterial and collector streets) or equivalent curing days for other locations.

III. Asphalt Pavement

- Asphalt pavement may be sawed before or after excavation, however, the edge(s) of existing asphalt pavement bounding the repair area must be vertical and undamaged when permanent repairs are made.
- Minimum thicknesses for asphalt pavement repairs shall be not less than 9″of gravel (compacted) and not less than 3″ of asphalt.
- Asphalt repair patches for locations within the travelled way of collector and arterial streets; and all other streets of which the surface is 5 years old or less, shall be at least 10′ wide (transverse dimension) and 10′ long as a minimum (allows placement of asphalt by a paver).
- Hot mix asphalt for streets, alleys, driveways, etc. shall be placed and compacted in lifts.
- Damage to existing pavement beyond the excavation must be repaired as part of the patch. Damage may include cracking, separation, lifted mat, scratches, gouges, imprints, etc.
- Asphalt surface treatments such as chip seal treatment, slag seal treatment, coat tar or asphalt emulsion sealant, etc. shall be restored where disturbed by construction.

IV. Asphalt Overlaid on Concrete Base

- Remove all broken, damaged or unsound concrete. Full depth sawing of the concrete pavement is not required.
- Transverse joint reinforcement: Use drilled tie bars, No. 6 x 12″, spaced 12″on-center.
- Longitudinal joint reinforcement: Use drilled tie bars, No. 6 x 12″, spaced 30″on-center.
- If brick pavers are found underlying the asphalt surface, then remove all loose bricks and pour concrete base against remaining stable bricks (reinforcement or ties not required).
- All other requirements for Concrete Pavement shall apply.
- Saw and remove asphalt beyond the base concrete repair area.
- Location of asphalt joints shall comply with requirements for asphalt pavement.
- All other requirements for Asphalt Pavement shall apply.
- Note: Curb and gutter repair shall be done such that the pan will be overlaid with asphalt, however, the curb head shall remain exposed (including depressed curb head through driveways).

V. Subsurface Utility Excavation (SUE)/Potholing

- Use air (vacuum) within pavement structure. Use air or water (jetting) in other R/W areas beyond the pavement structure.
- Full depth core saw existing pavement, 12″diameter round, typical. Remove and save the 'core'.
- Provide/use a temporary protective steel ring to protect the edge of the opening. Provide/use a temporary round plate (with skirt) to protect opening if subjected to traffic prior to pavement repair.
- Match existing thicknesses of bedding/cover, base and surface materials.
- If suitable for reuse, reinstall the 'core' in the opening at the original alignment/orientation, using approved non-shrink grout placed into the opening and forced to the surface (filling annular space) upon placement/reinsertion of the 'core'.
- If the 'core' cannot be reused, then concrete repairs shall comply with all requirements for concrete pavement except as discussed herein. The joint of the new concrete patch shall be tied to existing concrete using #4 Epoxy Coated Rebar, 8″ long, space 120° apart. Clean the vertical surface of existing concrete and prepare using a bonding agent. Concrete shall be ready mix or an approved high quality, air entrained bagged mixture. Finish, cure and protect as required for Concrete Pavement.
- Asphalt repairs shall comply with all requirements for Asphalt Pavement except as discussed herein. The joint of the new asphalt patch shall be adhered/tacked to the existing asphalt. Asphalt material shall be Hot Mix Asphalt or an approved mixture such as Quikrete Commercial Grade High Performance Blacktop Repair.

{End of Standards}

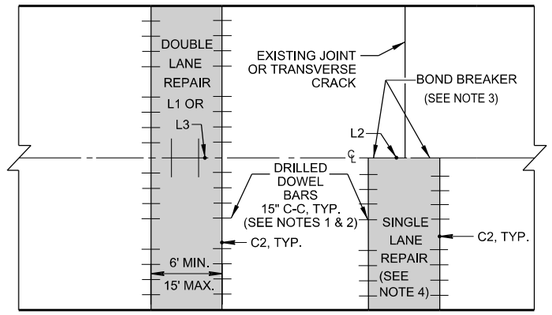
Rev. 1/14

PROJ. NO.
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION CITY OF MARSHFIELD, WISCONSIN
CONCRETE /PAVEMENT REPAIR & REPLACEMENT (STREET REPAIR STANDARDS) SHEET 1 OF 3

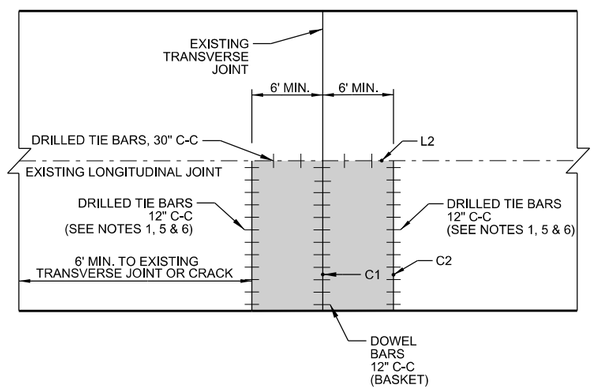
PLOTTED ON: 2/20/2020 3:18:31 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\Street_Repair_Standards.dgn

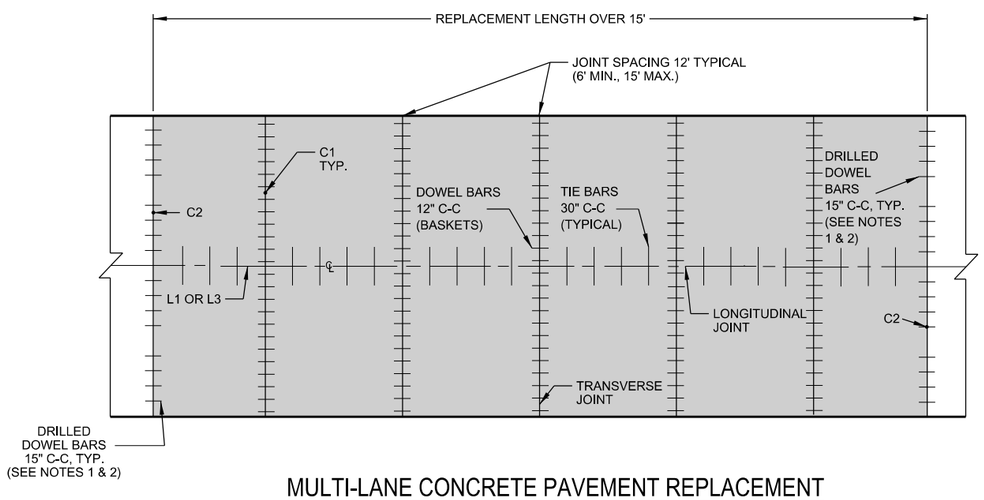
PROJECT NUMBER	SHEET NO.



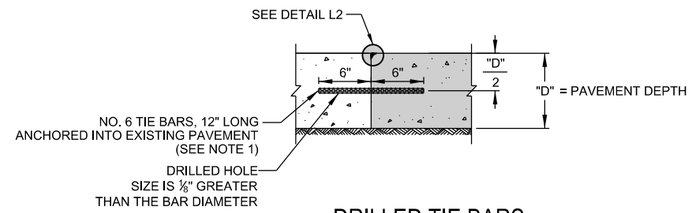
CONCRETE PAVEMENT JOINT REPAIR/REPLACEMENT



SINGLE LANE CONCRETE PAVEMENT REPAIR

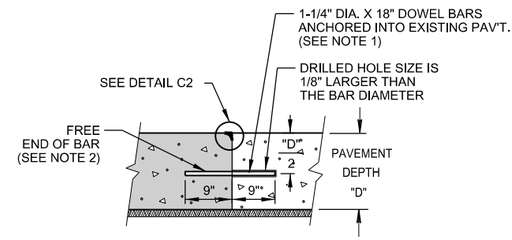


MULTI-LANE CONCRETE PAVEMENT REPLACEMENT



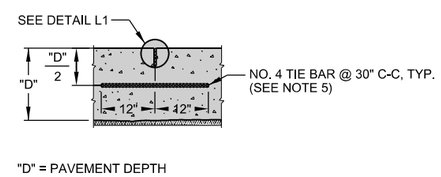
DRILLED TIE BARS

(DRILLED INTO EXISTING CONCRETE PAVEMENT)



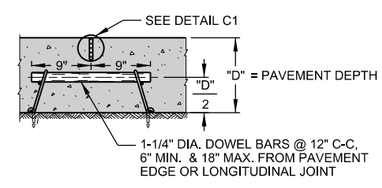
DRILLED DOWEL BARS

(DRILLED INTO EXISTING CONCRETE PAVEMENT)



LONGITUDINAL/TIED JOINT

(WITHIN NEW PAVEMENT/PATCH)



TRANSVERSE/DOWELED JOINT

(WITHIN NEW PAVEMENT/PATCH)

GENERAL NOTES

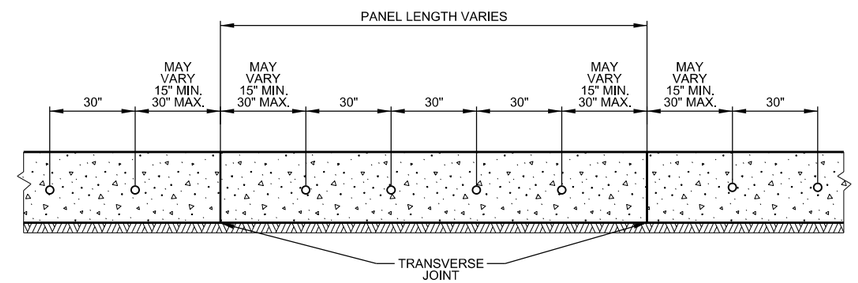
DO NOT OVERSAW BEYOND THE REPAIR AREA UNLESS THE SAW BLADE IS WITHIN AN EXISTING JOINT.

DOWEL BARS SHALL BE INSTALLED PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE PAVEMENT REPAIRS OF EXISTING NON DOWELED CONCRETE PAVEMENTS SHALL BE DOWELED.

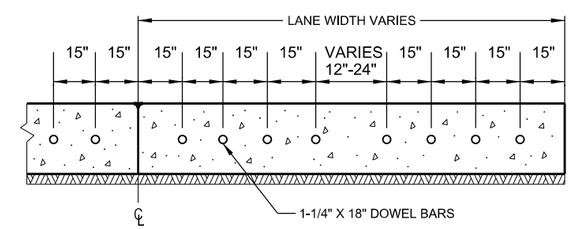
ALL NEW AND EXISTING JOINTS SHALL BE FILLED/SEALED.

1. ANCHOR DOWEL AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
2. APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
3. USE AN ENGINEER-APPROVED BOND BREAKER (0.5MM FREE STANDING PLASTIC SHEETING, RELEASE AGENT, CURING COMPOUND, 30LB TAR PAPER, ETC.) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.
4. SINGLE LANE JOINT REPAIR PATCH WITH OFFSET TRANSVERSE JOINT NOT ALLOWED FOR REPAIR OF UTILITY CUTS.
5. PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.
6. RESTRICT THE POTENTIAL FOR JOINT MOVEMENT WHEN INTRODUCING NEW TRANSVERSE JOINTS THAT DO NOT EXTEND ACROSS THE ENTIRE WIDTH OF PAVEMENT.
7. DRILLED TIE BARS ARE REQUIRED WHERE LONGITUDINAL EDGES OF THE REPAIR/REPLACEMENT AREAS ABUT CONCRETE CURB & GUTTER OR PAVEMENT.



TIE BAR SPACING

(DRILLED INTO EXISTING PAVEMENT OR PLACED WITHIN NEW PAVEMENT/PATCH)



DRILLED DOWEL BAR SPACING

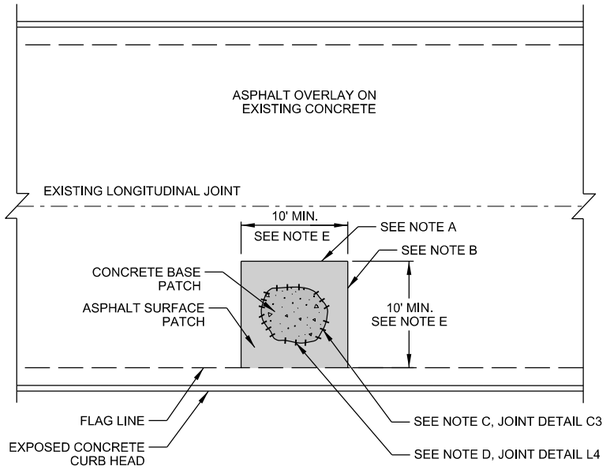
(DRILLED INTO EXISTING PAVEMENT)

PROJ. NO.
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION CITY OF MARSHFIELD, WISCONSIN CONCRETE PAVEMENT REPAIR & REPLACEMENT (STREET REPAIR STANDARDS) SHEET 2 OF 3

PLOTTED ON: 2/20/2020 3:18:33 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\Street_Repair_Standards.dgn

PROJECT NUMBER	SHEET NO.



ASPHALT OVERLAY ON CONCRETE BASE (REPAIR)

NOTES:

A. LONGITUDINAL JOINTS SHALL BE AT THE ℄ OR PARALLEL WITH THE ℄ AT THE MIDDLE OR EDGE OF THE LANE/TRAVELED WAY. LONGITUDINAL JOINTS SHALL NOT BE AT A WHEEL PATH.

B. TRANSVERSE JOINTS SHALL BE ALIGNED WITH OR AT LEAST 6' FROM AN EXISTING TRANSVERSE JOINT OR CRACK.

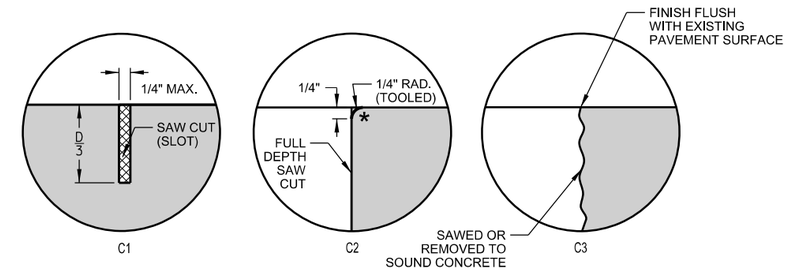
C. TRANSVERSE JOINT REINFORCEMENT SHALL BE DRILLED TIE BARS (NO. 6x12" SPACED 12" C-C, SEE SHEET 2/3)

D. LONGITUDINAL JOINT REINFORCEMENT SHALL BE DRILLED TIE BARS (NO. 6x12" SPACED 30" C-C, SEE SHEET 2/3)

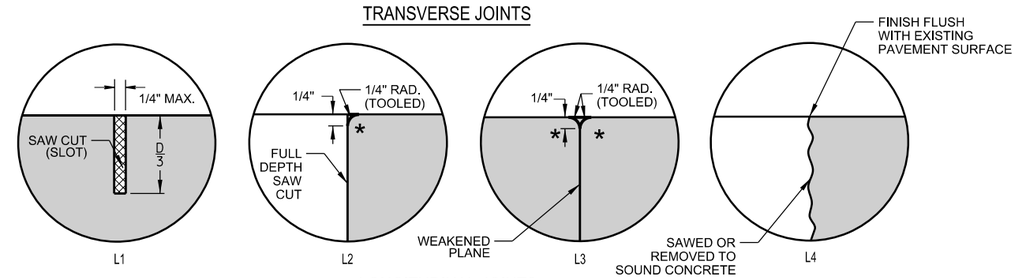
E. MINIMUM DIMENSIONS FOR ASPHALT REPAIRS AS SHOWN SHALL BE REQUIRED ON COLLECTOR AND ARTERIAL STREETS; AND RESIDENTIAL STREETS WITH ASPHALT SURFACE AGE OF 5 YEARS OR LESS.

HOT-POUR ELASTIC SEALANT REQUIRED

* TROWEL/EDGE NEW CONCRETE TO CREATE A RESERVOIR FOR JOINT SEALANT

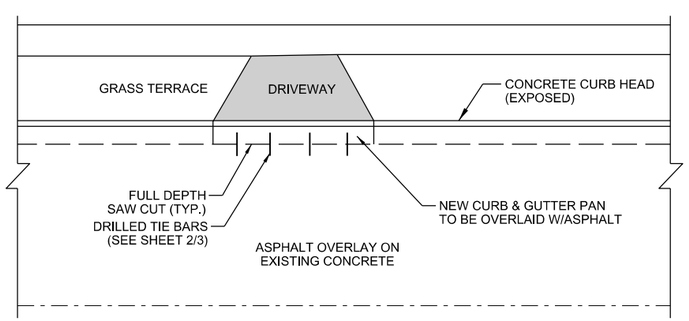


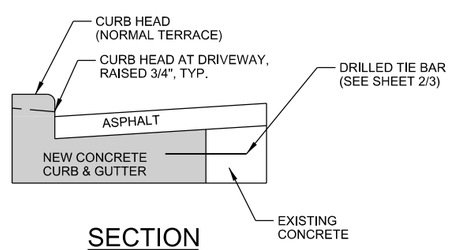
TRANSVERSE JOINTS



LONGITUDINAL JOINTS

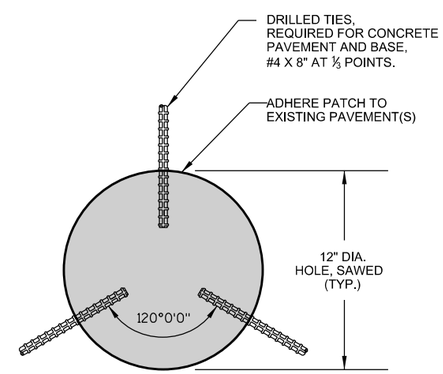
CONCRETE PAVEMENT JOINT DETAILS





SECTION

NEW CURB & GUTTER
ASPHALT OVERLAY



CURB & GUTTER ON ASPHALT OVERLAID CONCRETE PAVEMENT

NOTES:

CURB OPENINGS FOR NEW DRIVEWAYS MAY BE CONSTRUCTED BY SAWING OFF THE CURB HEAD (IF PROFESSIONALLY DONE BY TRAINED PERSONNEL USING PROPER EQUIPMENT) IN LIEU OF REMOVAL AND REPLACEMENT.

NEW CONCRETE CURB & GUTTER PAN SHALL NOT BE EXPOSED UNLESS APPROVED BY THE CITY ENGINEER.

S.U.E./POTHOLE REPAIR

(CONCRETE PAVEMENT/BASE)

PROJ. NO.

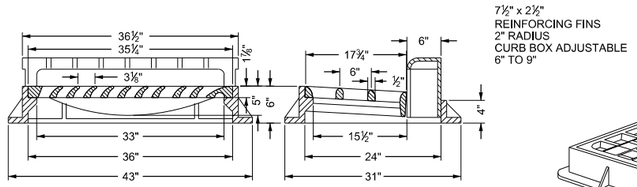
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION
CITY OF MARSHFIELD, WISCONSIN

CONCRETE PAVEMENT JOINT DETAILS & ASPHALT OVERLAY/ POTHOLE REPAIRS (STREET REPAIR STANDARDS)
SHEET 3 OF 3

PLOTTED ON: 2/20/2020 3:18:33 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\Street_Repair_Standards.dgn

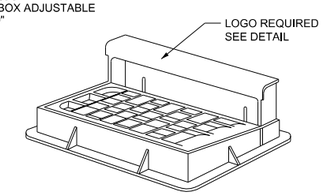
PROJECT NUMBER	SHEET NO.



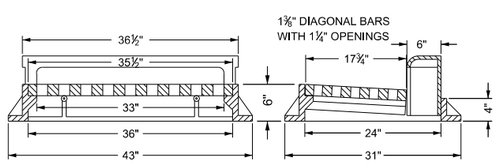
SIMILAR TO NEENAH FDY.
CO. CAT. NO. R-3067
WITH TYPE L GRATE

NOTE: GRATE SHALL BE ORIENTED TO THE DIRECTION OF FLOW. (GRATES ARE MANUFACTURED TO BE REVERSIBLE)

CATCH BASIN COVER-TYPE "H"

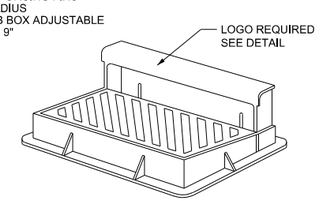


(GRATE TYPE "L")

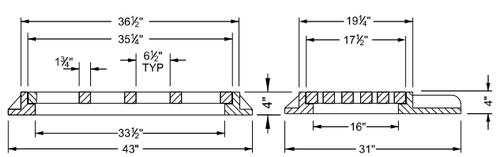


SIMILAR TO NEENAH FDY.
CO. CAT. NO. R-3067
WITH TYPE R GRATE

CATCH BASIN COVER-TYPE "H-S"



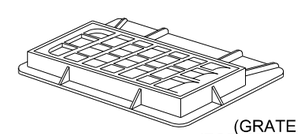
(GRATE TYPE "R")



SIMILAR TO NEENAH FDY.
CO. CAT. NO. R-3067-C
WITH TYPE L GRATE ("E")
OR TYPE C GRATE ("E-S")

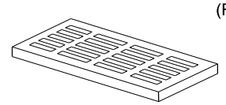
NOTE: GRATE SHALL BE ORIENTED TO THE DIRECTION OF FLOW. (GRATES ARE MANUFACTURED TO BE REVERSIBLE SHALL BE FURNISHED)

CATCH BASIN COVER-TYPE "E" AND "E-S"

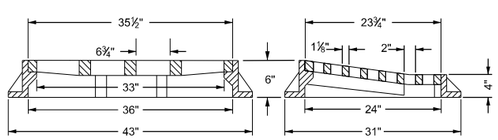


(GRATE TYPE "L")
(FOR CB COVER TYPE "E")

REVERSIBLE - ORIENTED TO THE DIRECTION OF FLOW

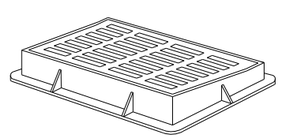


(GRATE TYPE "C")
(FOR CB COVER TYPE "E-S")

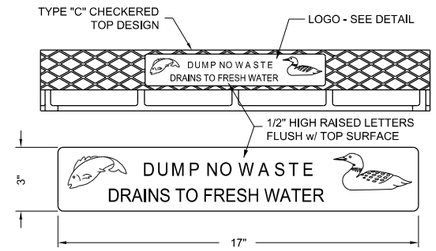


SIMILAR TO NEENAH FDY.
CO. CAT. NO. R-3290-A
WITH TYPE C GRATE

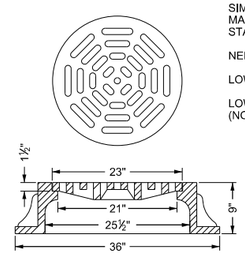
CATCH BASIN COVER-TYPE "D"



(GRATE TYPE "C")



LOGO DETAIL



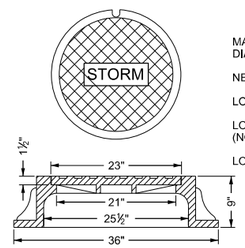
SIMILAR TO NEENAH
MANHOLE LID WITH TYPE "D"
STANDARD FLAT DESIGN

NEENAH NO. R-2050

LOW PROFILE DESIGNATED "C-LP"

LOW PROFILE FRAME - NEENAH NO. R-1689
(NON-ROCKING)

MANHOLE OR CATCH BASIN COVER-TYPE "C"



MANHOLE LID WITH TYPE C
DIAMOND TOP DESIGN

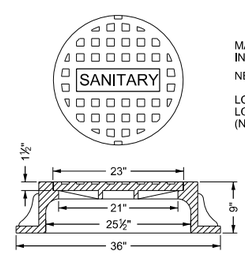
NEENAH NO. R-1550-A

LOW PROFILE DESIGNATED "J-LP"

LOW PROFILE FRAME - NEENAH NO. R-1689
(NON-ROCKING)

LOGO / LETTERING REQUIRED

MANHOLE COVER-TYPE "J"



MANHOLE LID WITH TYPE B
INDENTED TOP DESIGN

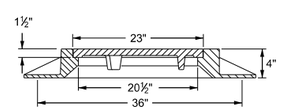
NEENAH NO. R-1550-A

LOW PROFILE DESIGNATED "JM-LP"
LOW PROFILE FRAME - NEENAH NO. R-1689
(NON-ROCKING)

NOTE: TYPE "JM" IS SELF SEALING, NOT NON-ROCKING STYLE. LID HAS CONCEALED PICKHOLES WITH A T-SEAL GASKET AND MACHINED BEARING.

LOGO / LETTERING REQUIRED

MANHOLE COVER-TYPE "JM"



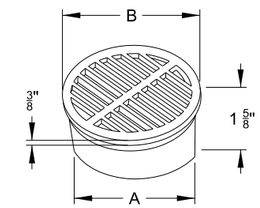
MANHOLE OR CATCH BASIN COVER FRAME-TYPE "XX-LP"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING

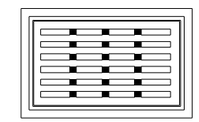


INLET COVER-TYPE "K"

TYPE K GRATES				
TYPE	SIZE	MATERIAL	A	B
12K	12"	DUCTILE IRON	11.47"	15.7"
15K	15"	DUCTILE IRON	14.225"	19.45"
18K	18"	DUCTILE IRON	17.33"	23.5"

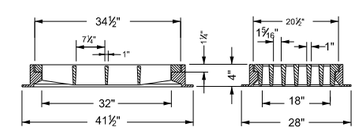
NOTE:
4.5' WIDE SOD STRIP REQUIRED AROUND INLET
IF LOCATED IN GRASSED AREA.

SIMILAR TO HARCO PEDESTRIAN DROP-IN GRATE

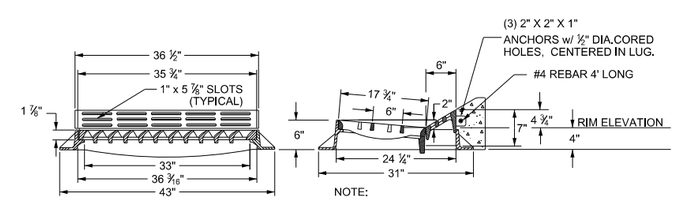


SIMILAR TO NEENAH FDY.
CO. CAT. NO. R-3577

(GRATE TYPE "D")



CATCH BASIN COVER-TYPE "U"



NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
SEE CATCH BASIN AND INLET COVER TYPE "HS"
NOTED AS TYPE HM-S ON STRUCTURE TABLE

CATCH BASIN COVER-TYPE "HM"

PROJ. NO.

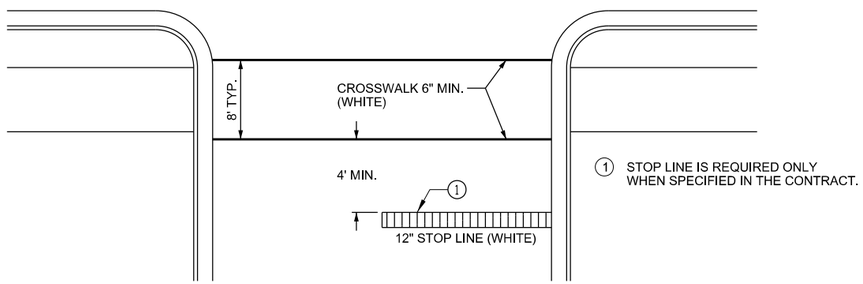
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION
CITY OF MARSHFIELD, WISCONSIN

CASTING
DETAILS

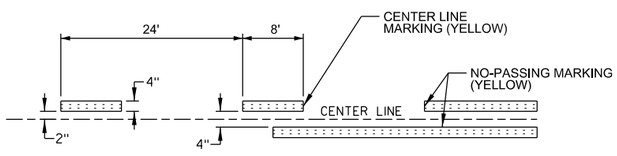
PLOTTED ON: 2/20/2020 3:18:34 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\Casting_Details.dgn

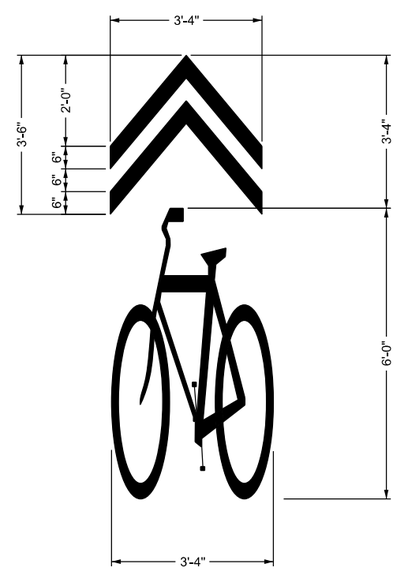
PROJECT NUMBER	SHEET NO.



STOP LINE AND CROSSWALK DETAIL



CENTERLINE MARKING DETAIL-STREET

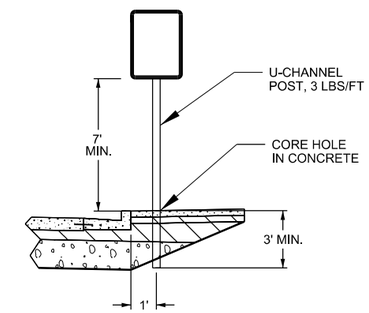


BIKE SYMBOL FOR SHARED LANE

GENERAL NOTES

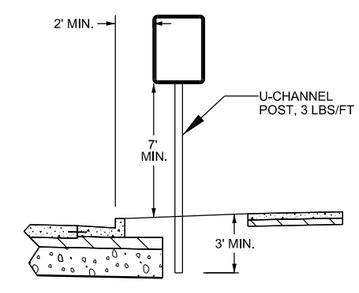
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

ALL LETTERS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED.



NOTE: SEE TYPICAL SECTIONS
FOR UNDERLYING MATERIALS

SIGN PLACEMENT DETAIL
NO TERRACE



SIGN PLACEMENT DETAIL
TERRACED AREA

PROJ. NO.
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION CITY OF MARSHFIELD, WISCONSIN
PAVEMENT MARKING MAINLINE, CROSSWALKS, AND STOP BARS

PLOTTED ON: 2/20/2020 3:18:35 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\Details\Pavement_Marking_Details.dgn

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

SANITARY SEWER

** PAID FOR AS "SANITARY SEWER RECONSTRUCTION WITH ROAD REMOVAL/REPLACEMENT"

NO.	WWTP NO.	STATION	LOCATION	TYPE	DIS. EL.	T.S. EL.	RIM EL.	DEPTH	DISCHARGE PIPE SIZE	DISCHARGE PIPE LENGTH	DISCHARGE PIPE SLOPE (%)	CHIMNEY SEAL	REMARKS
101		8+07	1' LT	CONNECTION	1292.62				8" PVC	235 LF	0.32%		CONNECT TO EXISTING 8" PVC AT UPSTREAM END.
102	D55	10+42	CL	SAN MH 1-JM	1291.73	1299.68	1300.89	8.0'	8" PVC	369 LF	1.55%		337 LF **
102E		10+42	CL	SANITARY SEWER	1292.55				8" PVC	412 LF	1.61%		
103	D54	14+54	CL	SAN MH 1-JM	1285.81	1293.55	1294.76	7.7'	8" PVC	342 LF	3.92%		CONNECT TO EXISTING SANITARY MANHOLE BOOT (INCIDENTAL).
103S		14+54	CL	SANITARY SEWER	1286.56				8" PVC	369 LF	0.50%		
104	D41	17+96	1' RT	RECONSTRUCT MH-JM		1280.04	1281.19		-	-	-		SALVAGE CONE, SALVAGE 4'-0" RISER, INSTALL 2'-8" RISER, REINSTALL CONE, INSTALL NEW TYPE JM CASTING.
105		21+74	CL	CONNECTION					8" PVC	378 LF	1.89%		CONNECT TO EXISTING SANITARY MANHOLE BOOT AT D41 (INCIDENTAL).
106	D42	22+07	1' LT	ADJUST MH-JM		1287.08	1287.96		-	-	-		INSTALL NEW TYPE JM CASTING.
107	E13	22+75	CL	SAN MH 1-JM	1279.10	1285.49	1286.70	6.4'	8" PVC	343 LF	4.19%		
108	E11	26+18	CL	SAN MH 1-JM	1263.36	1272.37	1273.58	9.0'	8" PVC	364 LF	0.68%		
109		29+82	1' LT	CONNECTION	1260.91								CONNECT TO EXISTING 8" PVC SANITARY SEWER BELL (INCIDENTAL).
110	D47	9O+69.4	CL	SAN MH 1-JM	1285.93	1291.75	1292.96	5.8'	10" PVC	26 LF **	0.30%	EXTERNAL	CONNECT TO EXISTING 10" VIT-LINED SANITARY SANITARY SEWER.
110W		9O+69.4	2' LT	CONNECTION					8" PVC	-	-		CONNECT MH TO EXISTING 8" PVC SANITARY SANITARY SEWER (INCIDENTAL).
110E		9O+69.4	CL	SANITARY SEWER	1286.43				8" PVC	14 LF **	2.61%		CONNECT TO EXISTING 8" VIT-LINED SANITARY SANITARY SEWER.
111	D46	19P+69	CL	SAN MH 1-JM	1284.58	1290.66	1291.87	6.1'	8" PVC	28 LF	0.40%	EXTERNAL	CONNECT TO EXISTING 8" VIT-LINED SANITARY SANITARY SEWER.
111W		19P+69	2' LT	CONNECTION					8" VIT-LINED				CONNECT MH TO EXISTING 8" VIT-LINED SANITARY SEWER.
112	E12	50CH+40	CL	SAN MH 1-JM	1282.85	1290.70	1291.91	7.9'	8" PVC	298 LF	6.58%	EXTERNAL	240 LF **

SANITARY LATERALS

STATION	LOCATION	ADDRESS	6" PVC LF	8"X6" PVC WYE (EA)	REMARKS
8+61	35' RT	606 W CLEVELAND ST	36	1	
9+14	35' RT	604 W CLEVELAND ST	35	1	
11+59	35' RT	510 W CLEVELAND ST	35	1	
12+30	35' RT	508 W CLEVELAND ST	35	1	
12+74	4' LT	507 W CLEVELAND ST	4	1	.
12+83	35' RT	506 W CLEVELAND ST	35	1	
13+02	4' RT	504 W CLEVELAND ST	4	1	
13+04	35' LT	505 W CLEVELAND ST	35	1	
14+04	35' LT	501 W CLEVELAND ST	35	1	
15+23	4' LT	413 W CLEVELAND ST	4	1	CONNECT TO EXISTING 4" PVC LATERAL.
15+88	35' RT	408 W CLEVELAND ST	35	1	
15+95	35' LT	407 W CLEVELAND ST	35	1	
16+28	4' RT	406 W CLEVELAND ST	4	1	
16+63	4' RT	404 W CLEVELAND ST	4	1	
16+82	35' LT	405 W CLEVELAND ST	35	1	
17+56	35' RT	400 W CLEVELAND ST	35	1	
18+43	35' RT	314 W CLEVELAND ST	35	1	
19+20	35' RT	310 W CLEVELAND ST	35	1	
19+35	4' LT	309 W CLEVELAND ST	4	1	
19+85	35' RT	308 W CLEVELAND ST	35	1	
20+03	35' RT	306 W CLEVELAND ST	35	1	
20+24	35' LT	307 W CLEVELAND ST	35	1	
20+68	35' LT	305 W CLEVELAND ST	35	1	
20+84	35' RT	304 W CLEVELAND ST	35	1	
21+04	35' RT	302 W CLEVELAND ST	35	1	
21+22	35' LT	303 W CLEVELAND ST	35	1	
21+50	35' RT	300 W CLEVELAND ST	35	1	
21+53	35' LT	301 W CLEVELAND ST	35	1	
22+81	4' LT	215 W CLEVELAND ST	4	1	
23+17	35' LT	213 W CLEVELAND ST	35	1	
23+67	35' LT	211 W CLEVELAND ST	35	1	
24+17	4' LT	209 W CLEVELAND ST	4	1	
24+26	21' RT	201 W BLODGETT ST	21	1	RECONNECT IN TRENCH IF PVC.
24+46	35' LT	207 W CLEVELAND ST	35	1	
24+69	35' LT	205 W CLEVELAND ST	35	1	
25+86	35' LT	201 W CLEVELAND ST	35	1	
26+81	35' LT	115 W CLEVELAND ST	35	1	
26+87	22' RT	313 N CHESTNUT AVE	22	1	
27+47	22' RT	110 W CLEVELAND ST	22	1	CAP AND MARK END OF LATERAL.
27+58	4' LT	111 W CLEVELAND ST	4	1	
28+75	22' RT	104 W CLEVELAND ST	22	1	CONNECT TO EXISTING PVC RISER IF LATERAL IS PVC TO BEYOND CURB.
29+21	3' RT	316 N CENTRAL AVE	4	1	CONNECT TO EXISTING 4" PVC LATERAL.
			-	-	
12O+28	23' RT	514 W CLEVELAND ST	25	1	
12O+29	21' LT	308 N OAK AVE	21	1	
12O+30	21' LT	600 W CLEVELAND ST	22	1	
			-	-	
20P+36	33' RT	415 W BLODGETT ST	33	1	
20P+68	35' LT	501 W BLODGETT ST	35	1	
21P+35	4' RT	305 N PINE AVE	4	1	
21P+64	35' RT	309 N PINE AVE	35	1	
22P+04	35' LT	308 N PINE AVE	35	1	
22P+65	4' LT	500 W CLEVELAND ST	4	1	
22P+68	4' RT	412 W CLEVELAND ST	4	1	
			-	-	
50CH+46	22' RT	115 W BLODGETT ST	22	1	
50CH+73	20' LT	201 W BLODGETT ST	20	1	
50CH+98	4' RT	115 W BLODGETT ST	4	1	GARAGE
52CH+30	22' RT	309 N CHESTNUT AVE	24	1	
PROJECT TOTAL			1,396	56	

CLEARING

STATION	LOCATION	I.D.	REMARKS
21P+49	LT	14	
PROJECT TOTAL		14	

GRUBBING

STATION	LOCATION	I.D.	REMARKS
11+45	LT	36	
15+11	LT	24	
15+30	LT	24	
15+49	LT	24	
15+82	LT	36	
16+66	LT	22	
16+96	LT	24	
17+51	LT	24	
19P+89	LT	24	
20P+35	LT	24	
21P+49	LT	14	
23P+78	RT	26	
23P+96	RT	15	
PROJECT TOTAL		317	

REMOVE SANITARY LATERAL

STATION	LOCATION	4"-6" LF	REMARKS
12+35 - 12+48	26' RT - 5' RT	25	
20P+41 - 20P+62	28' RT - 5' RT	31	
22P+23 - 22P+62	5' RT - 28' RT	46	
PROJECT TOTAL		102	SANITARY LATERAL REMOVALS NOT LISTED IN THIS TABLE SHALL BE CONSIDERED INCIDENTAL.

PLOTTED ON: 2/20/2020 3:18:36 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_MQ_201.dgn

PROJECT NUMBER	SHEET NO.
312242	

REVISED 04/24/2020 - HYDRANT AND WATER SERVICE

PLOTTED ON: 4/24/2020 12:40:50 PM

PROPOSED WATER MAIN

NO.	FROM STATION	FROM LOCATION	TO STATION	TO LOCATION	16" DI LF	12" DI LF	8" DI LF	6" DI LF	6" DI HYDRANT LEAD LF	4" DI LF
1	7+71	5'RT	7+91	10'LT		24				
2	7+91	10'LT	8+29	10'LT		38				
3	8+29	10'LT	8+34	10'LT		5				
4	8+34	10'LT	8+34	17.5'LT		7.5				
5	8+34	10'LT	8+39	10'LT		5				
5	8+39	10'LT	10+85	10'LT		246				
6	10+85	10'LT	10+85	20'LT					10	
6	10+85	10'LT	14+12	10'LT		327				
7	14+12	10'LT	14+12	22'LT					12	
7	14+12	10'LT	14+44	10'LT		32				
8	14+44	10'LT	17+54	10'LT		310				
9	19P+86	10'LT	19P+92	8'LT				6		
9	19P+92	8'LT	20P+10	8'LT			19			
9A	20P+10	8'LT	23P+48	10'LT			338			
9A	20P+10	8'LT	20P+10	22'LT					14	
10	14+44	10'LT	14+44	72'LT			62			
10	14+44	72'LT	14+44	75'LT						3
11	17+54	10'LT	17+54	22'LT					12	
11	17+54	10'LT	22+08	10'LT		454				
12	22+08	10'LT	22+15	10'LT	7					
13	22+15	10'LT	26+53	10'LT	438					
13	22+15	10'LT	22+15	3'LT	7					
13A	22+15	43'RT	22+15	3'LT		46				
14	22+15	10'LT	22+15	21'LT	11					
15	26+53	10'LT	26+53	23' LT					13	
15	26+53	10'LT	29+85	9.5'LT	332					
	PROJECT TOTAL				795	1455	419	6	61	3

REMOVE WATER MAIN

FROM STATION	FROM LOCATION	TO STATION	TO LOCATION	12" REMOVAL LF
12+28	7'LT	22+15	8'LT	987
			TOTALS	987

BULK HEAD ABANDONED WATER MAIN

STATION	LOCATION	12" BULKHEAD	6" BULKHEAD
7+77	5'RT	1	
8+58	3'RT	1	
8+58	10'RT		1
8+62	5'RT	1	
8+62	10'RT		1
9+10	7'RT	1	
9+10	11'RT		1
9+16	7'RT	1	
9+16	11'RT		1
10+23	12'RT		1
10+37	10'RT	1	
10+37	12'RT		1
10+46	10'RT	1	
10+46	12'RT		1
11+57	9'RT	1	
11+57	12'RT		1
11+61	9'RT	1	
11+61	12'RT		1
11+78	4'RT		1
12+27	7'RT	1	
	TOTALS	10	10

FIRE HYDRANT REMOVAL/SALVAGE

STATION	LOCATION	FIRE HYDRANT REMOVAL EA	FIRE HYDRANT SALVAGE EA
10+23	35'RT	1	
14+30	22'LT	1	
17+68	22'LT	1	
25+98	32'LT	1	
19P+89	13'LT		1
	TOTALS	4	1

VALVE BOX REMOVAL

STATION	LOCATION	VALVE BOX REMOVAL EA
7+71	6'RT	1
8+30	6'RT	1
8+36	6'RT	1
	TOTALS	3

PROPOSED WATER SERVICES

ADDRESS		STATION	LOCATION	TAP & CORP, 1" EACH	CURB STOP & BOX, 1" EACH	COPPER, 1" LF	TAP & CORP, 1-1/2" EACH	CURB STOP & BOX, 1-1/2" EACH	COPPER, 1-1/2" LF	CURB BOX FROST SLEEVE EACH BOX	TEMPORARY WATER L.S.
608	W. Cleveland	7+91	21'RT	1	1	43.5					
606	W. Cleveland	8+36	21'RT	1	1	43.5					
604	W. Cleveland	9+12	21'RT	1	1	41				1	
600	W. Cleveland	9+87	21'LT	1	1	41					
308	N. Oak	120+24	21'RT	1	1	144					
514	W. Cleveland	10+80	21'RT	1	1	41					
510	W. Cleveland	11+59	21'RT	1	1	41					
508	W. Cleveland	12+36	21'RT	1	1	41					
507	W. Cleveland	12+73	21'LT	1	1	21					
506	W. Cleveland	12+84	21'RT	1	1	41				1	
504	W. Cleveland	13+03	21'RT	1	1	41				1	
505	W. Cleveland	13+04	21'LT	1	1	21					
501	W. Cleveland	14+03	21'LT	1	1	21					
413	W. Cleveland	15+15	21'LT	1	1	11					
408	W. Cleveland	15+83	21'RT	1	1	41					
407	W. Cleveland	15+95	21'LT	1	1	21					
406	W. Cleveland	16+28	21'RT	1	1	41					
404	W. Cleveland	16+63	21'RT	1	1	41					
405	W. Cleveland	16+70	21'LT	1	1	21					
401	W. Cleveland	17+37	22'LT	1	1	11					
400	W. Cleveland	17+65	21'RT	1	1	41					
406	N. Spruce	17+85	76'LT	1		66					
314	W. Cleveland	18+41	21'RT	1	1	41					
315	W. Cleveland	18+79	21'LT	1	1	21					
310	W. Cleveland	19+19	21'RT	1	1	41					
309	W. Cleveland	19+33	21'LT	1	1	21					
308	W. Cleveland	19+85	21'RT	1	1	41					
306	W. Cleveland	20+04	21'RT	1	1	41					
307	W. Cleveland	20+25	21'LT	1	1	21				1	
305	W. Cleveland	20+60	21'LT	1	1	21					
304	W. Cleveland	20+87	21'RT	1	1	41					
302	W. Cleveland	20+92	21'RT	1	1	41					
303	W. Cleveland	21+24	21'LT	1	1	21				1	
300	W. Cleveland	21+48	21'RT	1	1	41					
301	W. Cleveland	21+49	21'LT	1	1	21					
215	W. Cleveland	22+70	21'LT	1	1	11					
213	W. Cleveland	23+23	21'LT	1	1	21					
211	W. Cleveland	23+67	21'LT	1	1	21					
209	W. Cleveland	24+14	21'LT	1	1	21					
207	W. Cleveland	24+43	21'LT	1	1	21					
205	W. Cleveland	24+70	21'LT	1	1	21					
201	W. Cleveland	25+87	21'LT	1	1	21					
309	N. Chestnut	26+43	127'RT	1	1	163					
115	W. Cleveland	26+84	21'LT	1	1	21					
313	W. Cleveland	26+86	21'RT	1	1	41					
110	W. Cleveland	27+49	21'RT	1	1	41					
111	W. Cleveland	27+59	21'LT				1	1	21		
104	W. Cleveland	28+64	21'RT	1	1	41					
316	N. Central	29+26	21'RT	1	1	31					
415	W. Blodgett	20P+35	21'RT	1	1	39					
501	W. Blodgett	20P+77	24'LT	1	1	23					
305	N. Pine	21P+34	21'RT	1	1	39					
309	N. Pine	21P+70	21'RT	1	1	39					
308	M. Pine	22P+10	24'LT	1	1	23					
500	N. Cleveland	22P+67	24'LT	1	1	23					
412	W. Cleveland	22P+74	21'RT	1		29					
		7+91 TO 29+88	VARIES								1
PROJECT TOTAL				55	53	1978	1	1	21	5	1

REVISED 04/24/2020 - HYDRANT AND WATER SERVICE

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_MQ_201.dgn

3653-MQ2

PROJECT NUMBER	SHEET NO.
312242	

REVISED 04/24/2020 - HYDRANT AND WATER SERVICE

PLOTTED ON: 4/24/2020 12:40:52 PM

PROPOSED VALVES, FITTINGS, AND HYDRANTS

NO	STATION	LOCATION	VALVE & BOX 16" EACH	VALVE & BOX 12" EACH	VALVE & BOX 8" EACH	VALVE & BOX 6" EACH	CROSS 16" EACH	CROSS 12" X 8" EACH	TEE 16" X 6" EACH	TEE 12" X 12" EACH	TEE 12" X 6" EACH	TEE 8" X 6" EACH	REDUCER 16" X 12" EACH	REDUCER 8" X 6" EACH	REDUCER 8" x 4" EACH	45 D BEND 16" EACH	45 D BEND 12" EACH	45 D BEND 4" EACH	45 D BEND 6" EACH	SLEEVE, MJ 16" EACH	SLEEVE, MJ 12" EACH	SLEEVE, MJ 6" EACH	SLEEVE, MJ 4" EACH	FIRE HYDRANT 8' BURY EACH	FIRE HYDRANT 8.5' BURY EACH	FIRE HYDRANT 9' BURY EACH	FIN. GR. ELEV.	REMARKS
1	7+71	5'RT															1											CONNECT TO EXISTING 12" D.I.P. WATER MAIN
2	7+91	10'LT															1											
3	8+29	10'LT		1																								
3	8+34	10'LT								1																		
4	8+34	13'LT															1											LOWER FOR 7.5' BURY
4	8+34	15'LT															1											TO LOWER FOR 7.5' BURY
4	8+34	17.5'LT																			1							CONNECT TO EXISTING 12" D.I.P. WATER MAIN
5	8+39	10'LT		1																								
6	10+85	10'LT									1																	
6	10+85	17'LT				1																						
6	10+85	20'LT																								1	1300.53	
7	14+09	10'LT		1																								
7	14+12	10'LT									1																	
7	14+12	20'LT				1																						
7	14+12	23'LT																						1			1295.73	
8	14+44	10'LT						1																				
8	14+44	7'LT			1																							
8	14+44	13'LT			1																							
9	19P+86	10'LT																				1						
9	19P+88	10'LT																	1									
9	19P+91	8'LT																	1									
9	19P+92	8'LT												1								1						
9A	20P+07	8'LT			1																							
9A	20P+10	8'LT										1																
9A	20P+10	20'LT				1																						
9A	20P+10	22'LT																							1		1292.10	
10	14+44	72'LT													1													
10	14+44	73'LT																1										LOWER FOR 7.5' BURY
10	14+44	74'LT																1										LOWER FOR 7.5' BURY
10	14+44	75'LT																					1					
11	17+51	10'LT		1																								
11	17+54	10'LT									1																	
11	17+54	20'LT				1																						
11	17+54	23'LT																							1		1282.06	
12	22+04	10'LT		1																								
12	22+08	10'LT											1															
13	22+15	10'LT					1																					
13	22+15	3'LT											1															
13	22+15	2.5'RT		1																								
13A	22+15	37'RT															1											
13A	22+15	43'RT															1											
14	22+15	14'LT	1																									
14	22+15	18'LT														1												
14	22+15	21'LT														1												
15	26+50	10'LT	1																									
15	26+53	10'LT							1																			
15	26+53	20'LT				1																						
15	26+53	23' LT																							1		1272.39	
16	29+81	9.5'LT														1												LOWER FOR 7.5' BURY
16	29+85	9.5'LT														1												LOWER FOR 7.5' BURY
16	29+85	9.5LT																		1								
	PROJECT TOTAL		2	6	3	5	1	1	1	1	3	1	2	1	1	4	6	2	2	1	1	2	1	1	3	1		

REVISED 04/24/2020 - HYDRANT AND WATER SERVICE

REVISED 03/29/2020 - STM AT OAK AVENUE

PLOTTED ON: 3/29/2020 1:50:57 PM

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

STORM SEWER

NO.	STATION	LOCATION	TYPE	DIS. EL.	T.S. EL.	RIM EL.	DEPTH	DISCHARGE PIPE SIZE	DISCHARGE PIPE LENGTH	DISCHARGE PIPE SLOPE (%)	DISCHARGE PIPE DOWNST. INV.	INLET PROTECTION	REMARKS
1	9+67	15.5' LT	CB 2-H	1296.25	1299.26	1300.09	4.5	12" RCP - IV	19 LF	0.50%		TYPE C	P.U. INV. ELEV. = 1297.26
2	9+89	15.5' LT	CB 2-H-S	1296.15	1299.17	1300.00	4.5	12" RCP - IV	65 LF	0.50%		TYPE C	P.U. INV. ELEV. = 1297.17
3	10+54	35' LT	EXISTING MH										
4	9+89	15.5' RT	CB 2-H	1296.30	1299.03	1299.86	4.2	12" RCP - IV	29 LF	0.50%		TYPE C	P.U. INV. ELEV. = 1297.03
5	11+05	15.5' LT	CB 2-H	1296.09	1298.58	1299.41	4.0	12" RCP - IV	51 LF	0.50%		TYPE C	CONNECT TO EXISTING INLET. CORE HOLE REQUIRED.
6	12+65	15.5' RT	CB 2-H	1291.77	1296.27	1297.10	6.0	12" RCP	48 LF	1.18%		TYPE C	P.U. INV. ELEV. = 1264.27
7	13+16	15.5' RT	CB 2-H	1291.20	1295.70	1296.53	6.0	12" RCP	68 LF	0.89%		TYPE C	P.U. INV. ELEV. = 1293.70
8	13+87	15.5' RT	CB 2-H	1290.60	1295.10	1295.93	6.0	12" RCP	30 LF	3.07%		TYPE C	P.U. INV. ELEV. = 1293.10
9	14+20	15.5' RT	CB 2-H	1289.68	1294.73	1295.56	6.6	12" RCP	41 LF	1.00%		TYPE C	P.U. INV. ELEV. = 1292.73
10	14+20	15.5' LT	CB 2-H	1289.82	1294.32	1295.15	6.0	12" RCP	29 LF	0.50%		TYPE C	P.U. INV. ELEV. = 1292.32
11	14+64	10' RT	STM MH 1-J	1289.17	1293.48	1294.69	4.5	12" RCP	152 LF	3.61%			
12	16+20	10' RT	STM MH 1-J	1283.51	1287.85	1289.06	4.5	12" RCP	136 LF	4.60%			
13	16+20	15.5' RT	CB 2-H	1283.76	1288.26	1289.09	6.0	12" RCP	3 LF	3.00%		TYPE C	P.U. INV. ELEV. = 1286.26
14	17+60	10' RT	STM MH 1-J	1277.14	1281.46	1282.67	4.5	12" RCP	22 LF	3.00%			
15	17+60	15.5' RT	CB 2-H	1277.33	1281.82	1282.65	6.0	12" RCP	3 LF	3.00%		TYPE C	P.U. INV. ELEV. = 1279.82
16	17+60	15.5' LT	CB 2-H	1276.26	1280.98	1281.81	6.2	12" RCP	37 LF	3.35%		TYPE C	P.U. INV. ELEV. = 1278.98
17	18+01.4	19.3' LT	STM MH 3-J	1273.16	1279.29	1280.50	6.5	36" RCP					CONNECT MH TO EXISTING 36" RCP (INCIDENTAL).
18	32S+75	7.1' RT	STM MH 3-J	1274.21	1281.39	1282.60	7.6	42" RCP	76 LF	0.53%			CONNECT MH TO EXISTING 42" RCP S (INCIDENTAL). SALVAGE & RELAY 42" RCP STORM SEWER N.
19	32S+75	15.5' LT	DITCH LEAD	1280.97				18" SICPP	20 LF	20.00%		CPDC	18" AEW REQUIRED.
20	32S+75	18.4' RT	DITCH LEAD	1280.36				12" SICPP	9 LF	39.50%		CPDC	12" AEW REQUIRED.
21	18+34	15.5' LT	CB 2-H	1274.17	1279.02	1279.85	6.4	18" RCP	28 LF	0.50%		TYPE C	P.U. INV. ELEV. = 1277.02
22	18+66.5	15.5' LT	CB 2-H-S	1274.32	1278.82	1279.65	6.0	18" RCP	30 LF	0.50%		TYPE A, C	P.U. INV. ELEV. = 1276.82
23	18+90	15.5' LT	CB 2-D	1274.42	1278.92	1279.75	6.0	12" RCP	21 LF	0.50%		TYPE C	P.U. INV. ELEV. = 1276.92
24	18+66.5	15.5' RT	CB 2-H-S	1275.67	1279.66	1280.49	5.5	12" RCP - IV	29 LF	0.50%		TYPE A, C	P.U. INV. ELEV. = 1277.66
25	18+90	15.5' RT	CB 2-H	1275.77	1279.76	1280.59	5.5	12" RCP - IV	21 LF	0.50%		TYPE C	P.U. INV. ELEV. = 1277.76
26	19+72	15.5' RT	CB 2-H	1277.04	1281.54	1282.37	6.0	12" RCP - IV	79 LF	1.60%		TYPE C	P.U. INV. ELEV. = 1279.54
27	21+88.5	33.5' RT	CB 2-H	1283.28	1287.78	1288.61	6.0	12" RCP	34 LF	0.50%		TYPE C	P.U. INV. ELEV. = 1285.78
28	22+24	33.5' RT	CB 2-H	1283.12	1287.78	1288.61	6.2	12" RCP	20 LF	1.94%		TYPE C	P.U. INV. ELEV. = 1285.78. CONNECT TO EXISTING 8" PVC E (INCIDENTAL).
29	22+24	10' RT	STM MH 1-J	1282.63	1287.01	1288.23	4.6	12" RCP	206 LF	4.19%			
30	24+34	10' RT	STM MH 1-J	1273.74	1278.33	1279.54	4.8	12" RCP	147 LF	4.20%			
31	24+33.9	15.7' RT	CB 2-H	1274.08	1278.67	1279.50	6.1	12" RCP	3 LF	3.39%		TYPE C	CONNECT CB TO EXISTING 12" RCP AND 2-6" PVC (INCIDENTAL). P.U. INV. ELEV. = 1276.70
32	25+65	16.6' LT	CB 2-H	1268.48	1272.98	1273.81	6.0	12" RCP	17 LF	2.56%		TYPE C	P.U. INV. ELEV. = 1270.98
33	25+85	17.4' LT	CB 2-H	1268.05	1272.55	1273.38	6.0	12" RCP	24 LF	1.96%		TYPE C	P.U. INV. ELEV. = 1270.55
34	25+85	10' RT	STM MH 1-J	1267.32	1273.30	1274.51	6.2	15" RCP	44 LF	2.41%			
35	25+83.6	17.4' RT	CB 2-H-S	1269.25	1273.75	1274.58	6.0	12" RCP	5 LF	5.00%		TYPE A, C	CONNECT CB TO EXISTING 12" RCP (INCIDENTAL). P.U. INV. ELEV. = 1271.75
36	25+65	16.6' RT	CB 2-H	1269.45	1273.95	1274.78	6.0	12" RCP	16 LF	1.26%		TYPE C	P.U. INV. ELEV. = 1271.95
37	26+33	10' RT	STM MH 1-J	1265.51	1272.51	1273.72	7.3	24" RCP	46 LF	3.00%			CONNECT TO EXISTING MANHOLE (INCIDENTAL).
38	53CH+04	11' RT	STM MH 1-J	1269.11	1273.78	1274.99	4.8	12" RCP	20 LF	12.80%			CONNECT MH TO EXISTING 12" RCP (INCIDENTAL).
39	53CH+03.5	15.5' LT	CB 2-H	1269.87	1274.37	1275.20	6.0	12" RCP	24 LF	2.16%		TYPE C	P.U. INV. ELEV. = 1272.37
40	53CH+04	16' RT	CH 2-H	1269.47	1273.97	1274.80	6.0	12" RCP	2 LF	5.38%		TYPE C	P.U. INV. ELEV. = 1271.97
41	26+40	39.5' LT	ADJUST MH-J			1271.68							INSTALL NEW TYPE J CASTING.
42	28+32	10' RT	STM MH 1-J	1266.29	1270.77	1271.98	4.7	15" RCP	195 LF	0.35%			
43	28+32	17.5 RT	CB 2-H	1266.67	1271.17	1272.00	6.0	12" RCP	5 LF	2.98%		TYPE C	P.U. INV. ELEV. = 1269.17
44	28+32	36.5' RT	CB 2-U	1267.31	1272.02	1272.81	6.2	12" RCP	16 LF	3.85%		TYPE B	P.U. INV. ELEV. = 1267.81. INSTALL 1 LF 12" SICPP WITH CAP TO SOUTH.
45	29+36	17.5' LT	CB 2-H	1267.36	1269.58	1270.41	3.7	12" RCP - IV	26 LF	0.35%		TYPE C	P.U. INV. ELEV. = 1267.58
46	29+65.5	17.5' LT	CB 2-H-S	1267.27	1269.45	1270.28	3.7	15" RCP - IV	29 LF	0.35%		TYPE A, C	
47	29+97	17.7' LT	CB 2-H	1267.17	1269.54	1270.37	3.9	15" RCP - IV	33 LF	0.75%		TYPE C	
48	29+97	17.3' RT	CB 2-H-S	1266.92	1270.42	1271.25	5.0	12" RCP				TYPE A, C	CONNECT CB TO EXISTING 12" RCP (INCIDENTAL). P.U. INV. ELEV. = 1268.42
49	29+65.5	17.5' RT	CB 2-H	1267.06	1270.54	1271.37	5.0	12" RCP - IV	29 LF	0.50%		TYPE C	P.U. INV. ELEV. = 1268.54
50	19P+07	6' RT	CONC. COLLAR	1282.57				12" VIT					CONNECT 12" RCP TO EXISTING 12" VIT. VIA CONCRETE COLLAR.
51	19P+60	5.6' RT	STM MH 1-J	1282.74	1290.49	1291.70	7.9	12" RCP	51 LF	0.34%			
52	19P+56	34' RT	CB 2-H	1282.92	1289.88	1290.71	8.5	18" RCP	36 LF	0.50%		TYPE C	P.U. INV. ELEV. = 1287.88
53	19P+84.5	34' LT	CB 2-H	1283.19	1290.63	1291.46	8.9	15" RCP	27 LF	1.00%		TYPE C	P.U. INV. ELEV. = 1288.63
54	20P+04	15.5' LT	CB 2-H-S	1285.77	1290.43	1291.26	6.2	12" RCP	26 LF	1.75%		TYPE A, C	P.U. INV. ELEV. = 1288.43
55	20P+38	15.5' LT	CB 2-H	1285.98	1290.49	1291.32	6.0	12" RCP	31 LF	0.70%		TYPE C	P.U. INV. ELEV. = 1288.49
56	20P+72.5	15.5' LT	CB 2-H	1286.64	1290.62	1291.45	5.5	12" RCP	31 LF	0.70%		TYPE C	P.U. INV. ELEV. = 1288.62
57	21P+49	15.5' LT	CB 2-H	1287.01	1291.23	1292.06	5.7	12" RCP	74 LF	0.50%		TYPE C	P.U. INV. ELEV. = 1289.23
58	21P+49	35' LT	CB 4-C	1287.09	1290.86	1292.07	6.0	12" RCP	17 LF	0.50%		TYPE B	P.U. INV. ELEV. = 1289.07. 15" SUMP REQUIRED. INSTALL 10 LF 6" SICPPP UNDERDRAIN WITH CAP TO WEST.
59	20P+04	15.5' RT	CB 2-H	1283.53	1290.54	1291.37	8.5	12" RCP	42 LF	1.89%		TYPE C	P.U. INV. ELEV. = 1288.54
60	20P+42	15.5' RT	CB 2-H-S	1285.81	1290.31	1291.14	6.0	12" RCP	35 LF	0.50%		TYPE A, C	P.U. INV. ELEV. = 1288.31

POLYSTYRENE INSULATION BOARD

NO.	STATION	LOCATION	TYPE	REMARKS	
A	9+69 - 9+88	15.5' LT	INSULATION	2" THICK - 6' WIDE	109 SF
B	9+91 - 10+10	15.5' LT - 18.5' LT	INSULATION	2" THICK - 6' WIDE	58 SF
C	9+89	14' LT - 14' RT	INSULATION	2" THICK - 6' WIDE	166 SF
D	NOT USED				
E	18+66.5	14' LT - 14' RT	INSULATION	2" THICK - 6' WIDE	169 SF
F	18+68 - 18+88	15.5' RT	INSULATION	2" THICK - 4' WIDE	78 SF
G	18+92 - 19+70	15.5' RT	INSULATION	2" THICK - 4' WIDE	313 SF
H	29+38 - 29+64	17.5' LT	INSULATION	2" THICK - 8' WIDE	205 SF
I	29+67 - 29+95	17.5' LT	INSULATION	2" THICK - 8' WIDE	216 SF
J	29+97	16' LT - 16' RT	INSULATION	2" THICK - 8' WIDE	258 SF
K	29+67 - 29+95	17.5' RT	INSULATION	2" THICK - 6' WIDE	163 SF
L	20P+40 - 20P+71	15.5' LT	INSULATION	2" THICK - 6' WIDE	184 SF
M	20P+74 - 21P+47	15.5' LT	INSULATION	2" THICK - 6' WIDE	436 SF
PROJECT TOTAL					2355 SF

REMOVE STORM SEWER STRUCTURES

STATION	LOCATION	REMOVE CATCH BASIN AND CONNECTING PIPES EA	REMARKS
17+76	18' RT	1	
18+14	18' RT	1	
28+32	35' RT	1	
19P+52	15' LT	1	
19P+55	21' RT	1	
19P+85	21' RT	1	
19P+86	16' LT	1	
PROJECT TOTAL		7	

REVISED 03/29/2020 - STM AT OAK AVENUE

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_MQ_201.dgn

PROJECT NUMBER	SHEET NO.
312241	

EARTHWORK COMPUTATIONS - CLEVELAND STREET

Station	Area (SF) Cut	Area (SF) Fill	Incremental Volume (CY) Cut	Incremental Volume (CY) Fill	Cumulative Volume (CY) Cut	Cumulative Volume (CY) Fill	Mass Haul
7+80.00	102.7	4.3	0.0	0.0	0	0	0
8+00.00	83.0	6.0	68.8	3.8	69	4	65
8+12.19	92.4	4.2	39.6	2.3	108	6	102
8+25.00	101.3	4.6	46.0	2.1	154	8	146
8+50.00	103.6	5.6	94.9	4.7	249	13	236
8+75.00	109.1	5.0	98.5	4.9	348	18	330
9+00.00	118.1	4.7	105.1	4.5	453	22	431
9+18.27	143.7	2.9	88.6	2.6	542	25	517
9+25.00	141.3	3.5	35.5	0.8	577	26	551
9+50.00	130.8	4.8	126.0	3.9	703	30	673
9+75.00	111.3	7.8	112.1	5.9	815	36	780
10+00.00	98.3	7.8	97.1	7.3	912	43	869
10+19.35	110.2	3.9	74.7	4.2	987	47	940
10+25.00	118.0	1.3	23.9	0.5	1011	48	963
10+42.00	110.9	3.9	72.1	1.6	1083	49	1034
10+50.00	105.8	5.0	32.1	1.3	1115	50	1065
10+75.00	95.8	4.0	93.3	4.2	1208	55	1154
11+00.00	107.9	4.7	94.3	4.0	1303	59	1244
11+25.00	123.4	3.9	107.1	4.0	1410	63	1347
11+50.00	117.0	6.2	111.3	4.7	1521	67	1454
11+75.00	110.4	6.4	105.3	5.8	1626	73	1553
12+00.00	107.1	6.3	100.7	5.9	1727	79	1648
12+19.44	115.2	4.0	80.0	3.7	1807	83	1724
12+25.00	114.4	3.9	23.6	0.8	1831	84	1747
12+43.51	116.9	4.7	79.3	2.9	1910	86	1824
12+50.00	114.4	5.4	27.8	1.2	1938	88	1850
12+75.00	112.2	5.8	104.9	5.2	2043	93	1950
12+86.12	125.0	3.0	48.8	1.8	2091	95	1997
13+00.00	118.8	4.3	62.7	1.9	2154	97	2058
13+25.00	116.6	3.5	109.0	3.6	2263	100	2163
13+32.62	119.4	3.0	33.3	0.9	2296	101	2195
13+50.00	109.1	5.2	73.6	2.6	2370	104	2266
13+56.70	110.9	4.7	27.3	1.2	2397	105	2293
13+68.75	111.0	7.0	49.5	2.6	2447	107	2339
13+75.00	111.7	7.5	25.8	1.7	2473	109	2364
14+00.00	102.3	10.3	99.1	8.2	2572	117	2454
14+25.00	130.6	3.8	107.8	6.6	2680	124	2556
14+50.00	193.8	0.0	150.2	1.8	2830	126	2704
14+54.00	198.2	0.0	29.0	0.0	2859	126	2733
14+75.00	161.2	5.4	139.8	2.1	2999	128	2871
15+00.00	116.7	5.3	128.6	5.0	3127	133	2994
15+25.00	105.7	5.3	103.0	4.9	3230	138	3092
15+50.00	104.1	5.2	97.1	4.9	3327	143	3185
15+69.43	112.2	4.0	77.8	3.3	3405	146	3259
15+75.00	112.5	3.9	23.2	0.8	3428	147	3282
16+00.00	108.5	3.8	102.3	3.6	3531	150	3380
16+25.00	94.7	7.2	94.1	5.1	3625	155	3469
16+40.91	105.5	3.4	59.0	3.1	3684	159	3525
16+50.00	100.1	8.3	34.6	2.0	3718	161	3558
16+75.00	96.9	5.0	91.2	6.1	3809	167	3643
17+00.00	96.1	5.5	89.4	4.8	3899	171	3727
17+12.26	110.6	3.9	46.9	2.1	3946	174	3772
17+25.00	96.6	6.3	48.9	2.4	3995	176	3819
17+50.00	105.8	6.3	93.7	5.8	4088	182	3907
17+75.00	142.3	3.0	114.9	4.3	4203	186	4017
17+94.00	195.6	0.0	118.9	1.1	4322	187	4135
18+00.00	197.4	0.0	43.7	0.0	4366	187	4179
18+25.00	138.3	4.1	155.4	1.9	4521	189	4332
18+50.00	125.6	5.8	122.2	4.6	4643	194	4450
18+75.00	132.2	4.5	119.4	4.8	4763	198	4564
18+93.52	145.2	3.8	95.1	2.9	4858	201	4657
19+00.00	144.9	3.9	34.8	0.9	4893	202	4691
19+25.00	127.4	5.6	126.1	4.4	5019	207	4812
19+50.00	133.7	3.5	120.9	4.2	5140	211	4929
19+56.32	124.3	5.6	30.2	1.1	5170	212	4958
19+75.00	101.6	13.2	78.1	6.5	5248	218	5030
19+94.10	112.5	11.2	75.7	8.6	5324	227	5097
20+00.00	111.8	10.8	24.5	2.4	5348	229	5119
20+25.00	111.1	6.3	103.2	7.9	5451	237	5214
20+34.75	120.0	4.8	41.7	2.0	5493	239	5254
20+50.00	129.5	4.5	70.5	2.7	5564	242	5322
20+75.00	117.5	3.7	114.3	3.8	5678	246	5432
21+00.00	107.0	6.1	103.9	4.5	5782	250	5532
21+25.00	114.8	3.1	102.7	4.3	5885	255	5630
21+29.19	112.7	3.5	17.7	0.5	5902	255	5647
21+50.00	91.0	9.1	78.5	4.8	5981	260	5721
21+75.00	90.4	4.3	84.0	6.2	6065	266	5799
22+00.00	147.6	0.0	110.2	2.0	6175	268	5907
22+06.00	152.0	0.0	33.3	0.0	6208	268	5940
22+25.00	139.3	1.5	102.5	0.5	6311	269	6042
22+50.00	95.5	4.3	108.7	2.7	6419	271	6148
22+75.00	84.6	4.5	83.4	4.1	6503	275	6227
22+87.29	75.8	1.4	36.5	1.4	6539	277	6263

EARTHWORK COMPUTATIONS - CLEVELAND STREET

Station	Area (SF) Cut	Area (SF) Fill	Incremental Volume (CY) Cut	Incremental Volume (CY) Fill	Cumulative Volume (CY) Cut	Cumulative Volume (CY) Fill	Mass Haul
23+00.00	74.1	2.1	35.3	0.8	6575	278	6297
23+25.00	72.5	2.8	67.9	2.2	6643	280	6363
23+31.92	74.1	1.4	18.8	0.5	6661	280	6381
23+50.00	73.0	2.3	49.2	1.2	6711	282	6429
23+75.00	74.2	1.8	68.1	1.9	6779	283	6495
23+80.91	74.3	1.6	16.3	0.4	6795	284	6511
24+00.00	72.8	2.3	52.0	1.4	6847	285	6562
24+10.49	72.5	2.1	28.2	0.9	6875	286	6589
24+25.00	71.9	2.1	38.8	1.1	6914	287	6627
24+50.00	71.4	1.8	66.4	1.8	6980	289	6691
24+55.76	70.9	2.2	15.2	0.4	6996	289	6706
24+75.00	69.6	2.5	50.1	1.7	7046	291	6755
25+00.00	67.4	2.3	63.4	2.2	7109	293	6816
25+25.00	65.4	8.4	61.5	4.9	7171	298	6872
25+37.00	74.6	7.0	31.1	3.4	7202	302	6900
25+50.00	75.7	5.6	36.2	3.0	7238	305	6933
25+75.00	79.7	4.3	71.9	4.6	7310	309	7001
26+00.00	124.7	4.3	94.6	4.0	7404	313	7091
26+18.00	131.0	0.0	85.2	1.4	7490	315	7175
26+25.00	127.8	0.0	33.5	0.0	7523	315	7208
26+50.00	82.4	5.3	97.3	2.5	7620	317	7303
26+75.00	80.9	5.3	75.6	4.9	7696	322	7374
27+00.00	88.5	4.7	78.4	4.6	7774	327	7448
27+25.00	95.4	4.5	85.1	4.3	7859	331	7529
27+50.00	96.7	4.5	88.9	4.2	7948	335	7613
27+75.00	95.7	4.4	89.1	4.1	8037	339	7698
28+00.00	96.2	4.4	88.8	4.1	8126	343	7783
28+25.00	95.5	3.1	88.7	3.5	8215	347	7868
28+31.38	104.9	3.3	23.7	0.8	8239	348	7891
28+50.00	96.4	3.8	69.4	2.4	8308	350	7958
28+75.00	93.5	4.3	87.9	3.8	8396	354	8042
29+00.00	91.0	3.9	85.4	3.8	8481	358	8124
29+16.06	94.0	3.7	55.0	2.3	8536	360	8176
29+25.00	92.6	4.5	30.9	1.4	8567	361	8206
29+50.00	95.4	4.2	87.0	4.0	8654	365	8289
29+75.00	94.0	4.2	87.7	3.9	8742	369	8373
30+00.00	66.1	4.2	74.1	3.9	8816	373	8443
30+02.00	55.0	0.0	4.5	0.2	8821	373	8447

EARTHWORK COMPUTATIONS - PINE AVENUE

Station	Area (SF) Cut	Area (SF) Fill	Incremental Volume (CY) Cut	Incremental Volume (CY) Fill	Cumulative Volume (CY) Cut	Cumulative Volume (CY) Fill	Mass Haul
South of Cleveland Street							
19+00.00	56.5	0.2	0.0	0.0	0	0	0
19+25.00	49.8	0.7	49.2	0.4	49	0	49
19+38.00	47.5	8.4	23.4	2.2	73	3	70
19+58.25	90.0	0.0	51.6	3.1	124	6	119
19+70.00	102.6	0.0	41.9	0.0	166	6	160
19+83.13	103.8	0.0	50.2	0.0	216	6	211
20+00.00	99.1	4.6	63.4	1.4	280	7	273
20+25.00	113.8	6.3	98.6	5.0	378	12	366
20+50.00	131.2	3.9	113.5	4.7	492	17	475
20+61.68	134.5	4.3	57.5	1.8	549	19	531
20+75.00	131.6	5.1	65.7	2.3	615	21	594
20+94.55	134.5	4.3	96.3	3.4	711	24	687
21+00.00	131.0	4.3	26.8	0.9	738	25	713
21+18.88	130.0	5.0	91.3	3.3	829	29	801
21+25.00	128.1	4.5	29.3	1.1	859	30	829
21+46.55	127.6	4.3	102.1	3.5	961	33	928
21+50.00	135.8	4.1	16.8	0.5	978	34	944
21+66.04	121.1	4.0	76.3	2.4	1054	36	1018
21+75.00	116.5	4.8	39.4	1.4	1093	37	1056
22+00.00	108.8	5.4	104.3	4.7	1198	42	1156
22+08.92	110.1	5.3	36.2	1.8	1234	44	1190
22+25.00	99.4	8.9	62.4	4.2	1296	48	1248
22+43.81	103.1	5.9	70.5	5.2	1367	53	1313
22+50.00	101.5	6.1	23.5	1.4	1390	55	1336
22+75.00	95.3	10.4	91.1	7.6	1481	62	1419
23+00.00	108.9	5.3	94.6	7.3	1576	70	1506
23+06.95	118.3	4.1	29.2	1.2	1605	71	1534
North of Cleveland Street							
23+71.05	132.6	0.0	0.0	0.0	1605	71	1534
23+75.00	121.5	0.0	18.6	0.0	1624	71	1553
24+00.00	70.9	0.0	89.1	0.0	1713	71	1642
24+15.00	49.9	0.0	33.6	0.0	1746	71	1676

PLOTTED ON: 2/20/2020 3:18:47 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_EW_201.dgn

PROJECT NUMBER	SHEET NO.
312241	

EARTHWORK COMPUTATIONS - SPRUCE AVENUE

Station	Area (SF) Cut	Area (SF) Fill	Incremental Volume (CY) Cut	Incremental Volume (CY) Fill	Cumulative Volume (CY) Cut	Cumulative Volume (CY) Fill	Mass Haul
South of Cleveland Street							
32+48.00	58.6	0.5	0.0	0.0	0	0	0
32+50.00	59.3	0.5	4.4	0.0	4	0	4
32+75.00	67.2	0.4	58.6	0.4	63	0	63
33+00.00	82.8	0.6	69.4	0.5	132	1	132
33+04.95	92.0	0.0	16.0	0.1	148	1	147
North of Cleveland Street							
33+71.05	128.8	0.0	0.4	0.0	149	1	148
33+75.00	119.4	0.0	18.2	0.0	167	1	166
34+00.00	77.4	0.4	91.1	0.2	258	1	257
34+14.00	57.7	0.9	35.0	0.4	293	2	292

EARTHWORK COMPUTATIONS -WALNUT AVENUE

Station	Area (SF) Cut	Area (SF) Fill	Incremental Volume (CY) Cut	Incremental Volume (CY) Fill	Cumulative Volume (CY) Cut	Cumulative Volume (CY) Fill	Mass Haul
South of Cleveland Street							
42+90.00	135.2	5.9	0.0	0.0	0	0	0
43+00.00	120.7	3.8	47.4	1.8	47	2	46
43+06.95	111.0	3.7	29.8	1.0	77	3	74
North of Cleveland Street							
43+69.05	122.3	4.2	0.0	0.0	77	3	74
43+75.00	113.8	5.3	26.0	1.0	103	4	99
43+88.00	105.4	6.0	52.8	2.7	156	7	150

EARTHWORK COMPUTATIONS - CHESTNUT AVENUE

Station	Area (SF) Cut	Area (SF) Fill	Incremental Volume (CY) Cut	Incremental Volume (CY) Fill	Cumulative Volume (CY) Cut	Cumulative Volume (CY) Fill	Mass Haul
South of Cleveland Street							
52+69.16	3.3	0.6	0.0	0.0	0	0	0
52+75.00	4.5	0.2	0.8	0.1	1	0	1
52+80.02	64.3	4.8	6.4	0.5	7	1	7
53+00.00	82.5	4.1	54.3	3.3	62	4	58
53+04.98	85.7	3.8	15.5	0.7	77	5	72
North of Cleveland Street							
53+71.02	79.3	9.2	0.0	0.0	77	5	72
53+75.00	76.9	7.6	11.5	1.2	89	6	83
54+00.00	55.5	5.1	61.3	5.9	150	12	138
54+23.50	51.1	5.1	46.4	4.5	196	16	180

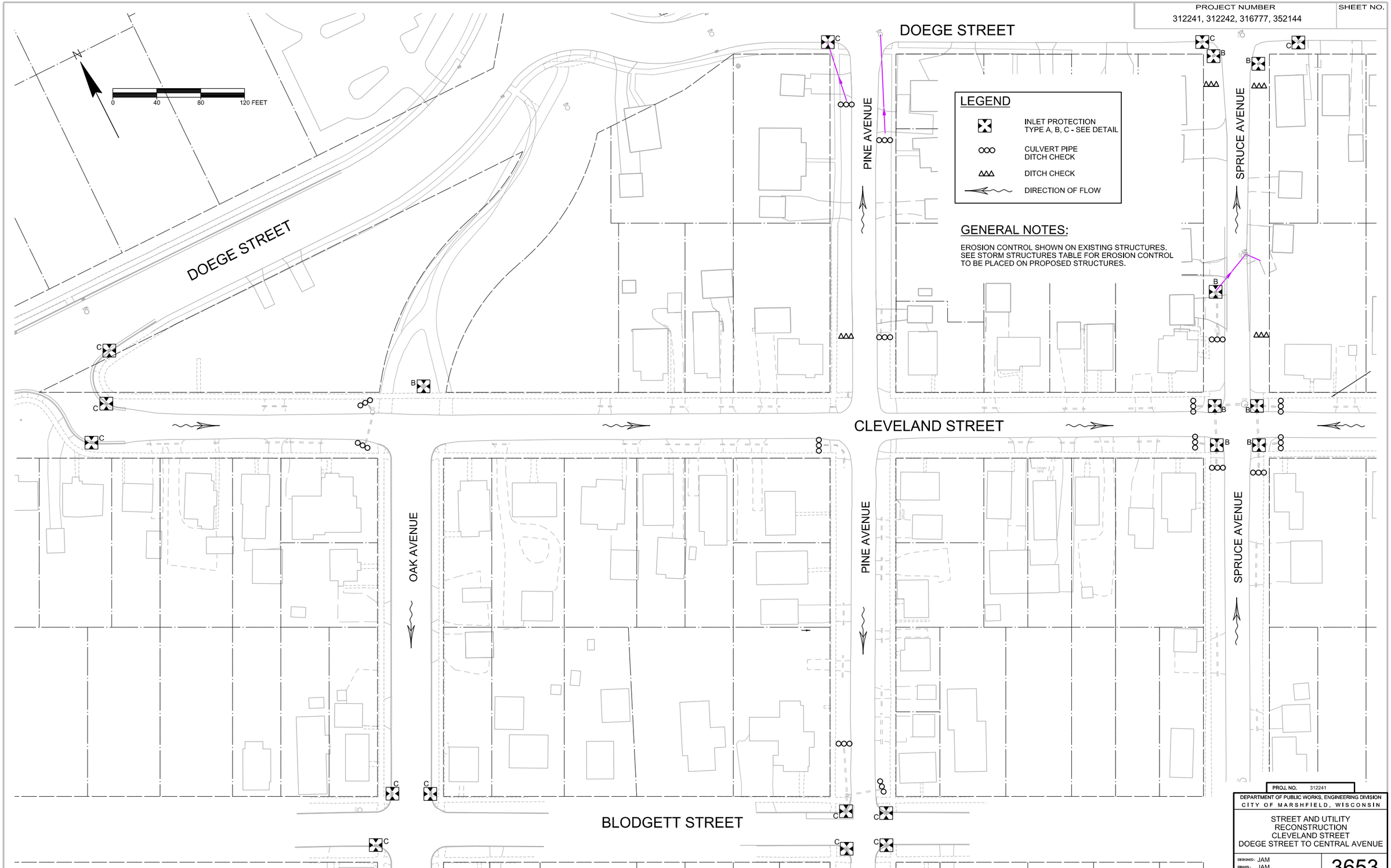
EARTHWORK COMPUTATIONS SUMMARY

Location	Cut (CY)	Fill (CY)	Excavation Total (CY)	Mass Haul (CY)
Cleveland Street	8821	373	9194	8447
Pine Avenue	1746	71	1817	1676
Spruce Avenue	293	2	295	292
Walnut Avenue	156	7	163	150
Chestnut Avenue	196	16	212	180
SUBTOTALS:	11212	468	11681	10744
Deductions:				
Concrete Curb and Gutter Removal	-101			
7" Concrete Pavement Removal	-717			
6" Concrete Driveway Removal	-52			
4" Concrete Sidewalk Removal	-277			
3" Asphalt Surface Removal	-563			
TOTALS:	**9502**	**468**	**9971**	**9034**

PLOTTED ON: 2/20/2020 3:18:49 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_EW_201.dgn

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	



PLOTTED ON: 2/20/2020 3:18:53 PM

PROJ. NO. 312241

DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION
CITY OF MARSHFIELD, WISCONSIN

STREET AND UTILITY
RECONSTRUCTION
CLEVELAND STREET
DOEGE STREET TO CENTRAL AVENUE

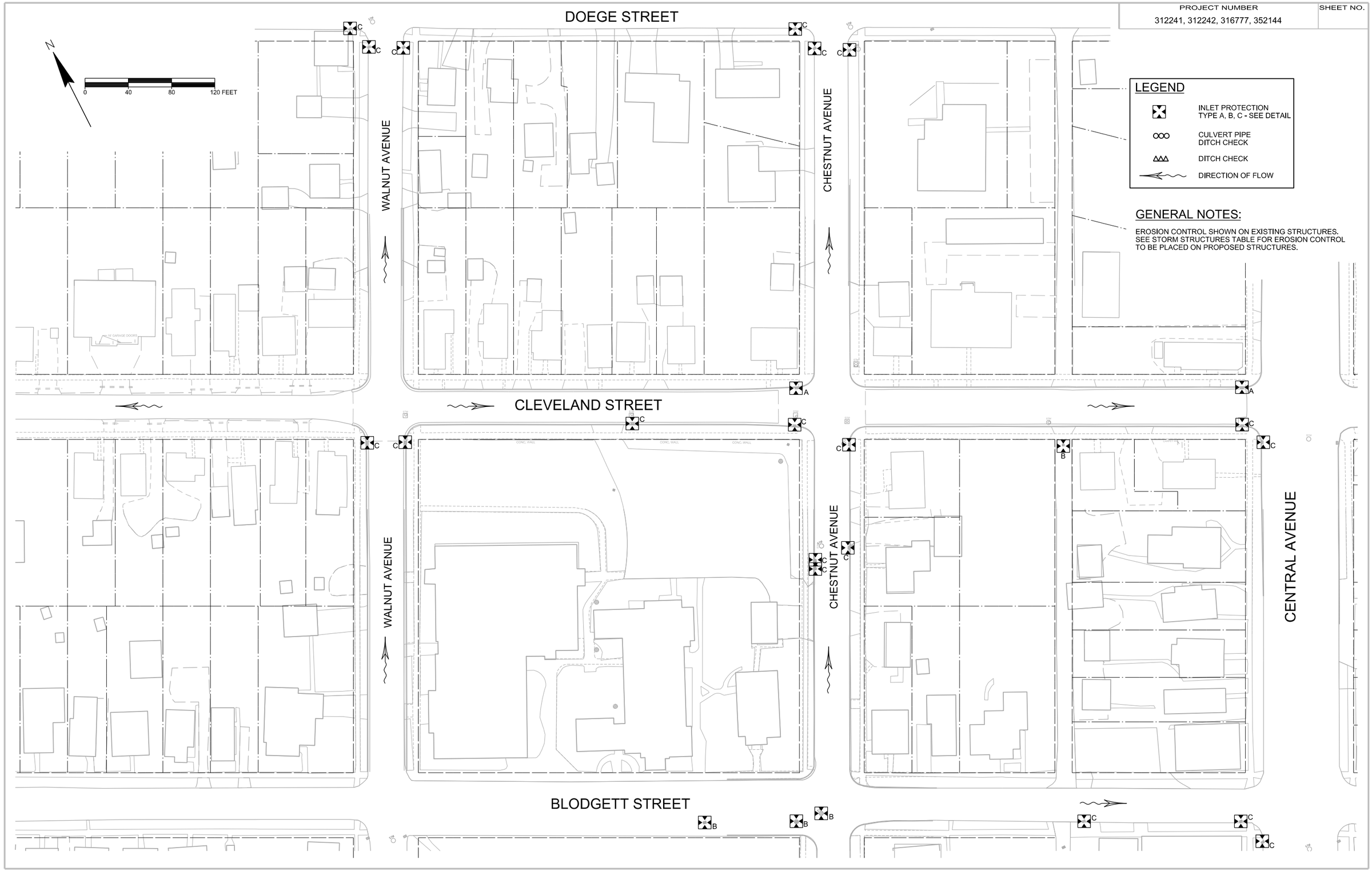
DESIGNED - JAM
DRAWN - JAM
DATE - 02/21/2020

3653

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_EC_501.dgn

3653 - EC1

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	



PLOTTED ON: 2/20/2020 3:18:55 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_EC_502.dgn

3653 - EC2

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

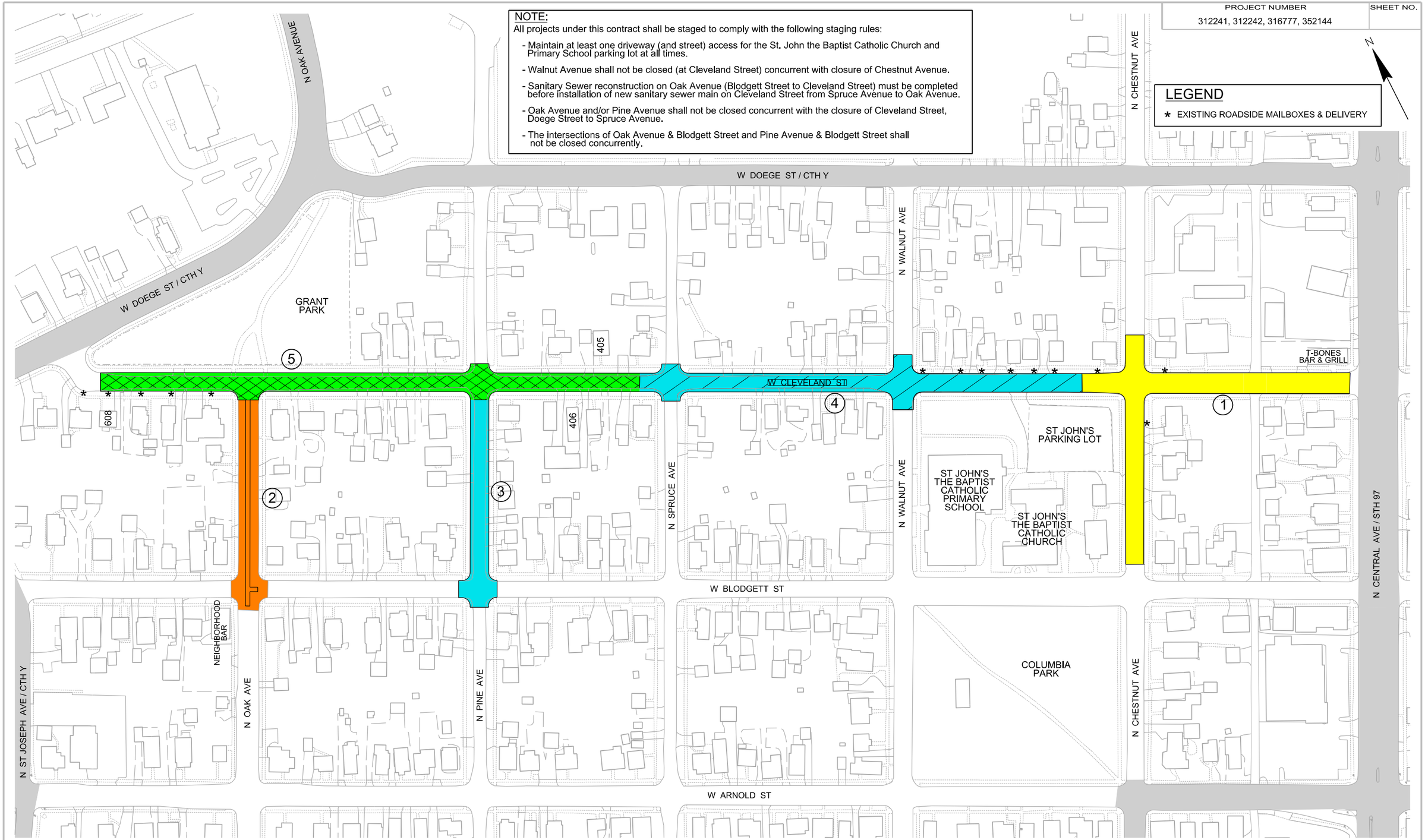
NOTE:

All projects under this contract shall be staged to comply with the following staging rules:

- Maintain at least one driveway (and street) access for the St. John the Baptist Catholic Church and Primary School parking lot at all times.
- Walnut Avenue shall not be closed (at Cleveland Street) concurrent with closure of Chestnut Avenue.
- Sanitary Sewer reconstruction on Oak Avenue (Blodgett Street to Cleveland Street) must be completed before installation of new sanitary sewer main on Cleveland Street from Spruce Avenue to Oak Avenue.
- Oak Avenue and/or Pine Avenue shall not be closed concurrent with the closure of Cleveland Street, Doege Street to Spruce Avenue.
- The intersections of Oak Avenue & Blodgett Street and Pine Avenue & Blodgett Street shall not be closed concurrently.

LEGEND

* EXISTING ROADSIDE MAILBOXES & DELIVERY



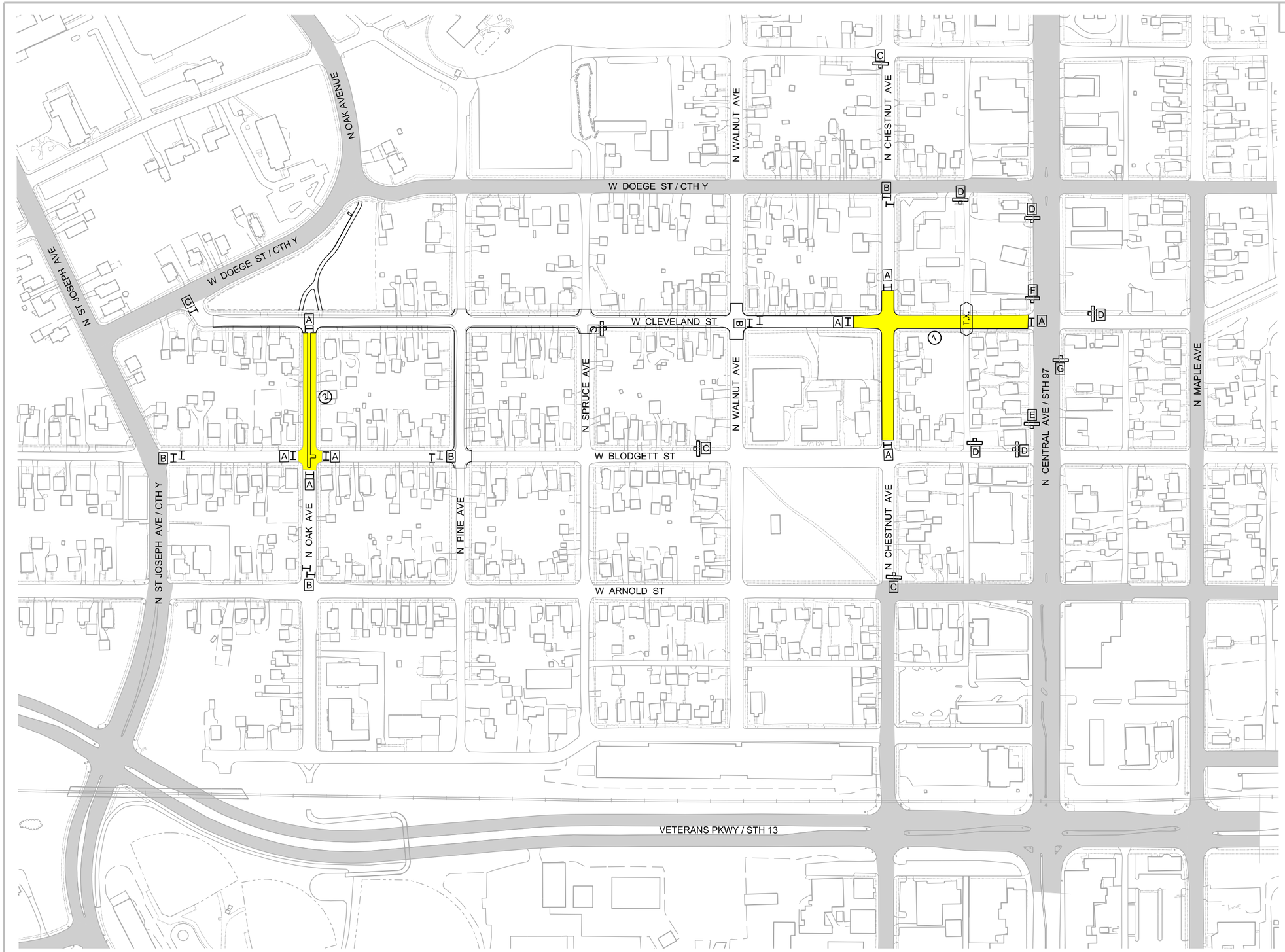
STAGING - CONTRACT 2020-01

PLOTTED ON: 2/20/2020 3:18:58 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_TC_501a.dgn

3653-TC1a

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	



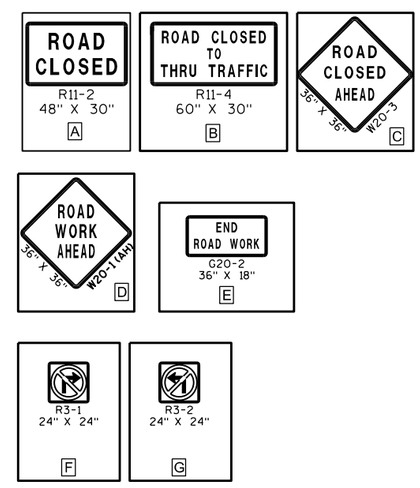
N

NOTE:

SIDEWALK CLOSURE SIGNS REQUIRED AT EVERY BLOCK / CORNER, WHEN SIDEWALKS ARE INACCESSIBLE.

LEGEND

- TRUCK ROUTE
- SIGN ON POST OR TYPE II BARRICADE
- TYPE III BARRICADE W/ FLASHER
- T.X. TEMPORARY CROSSING



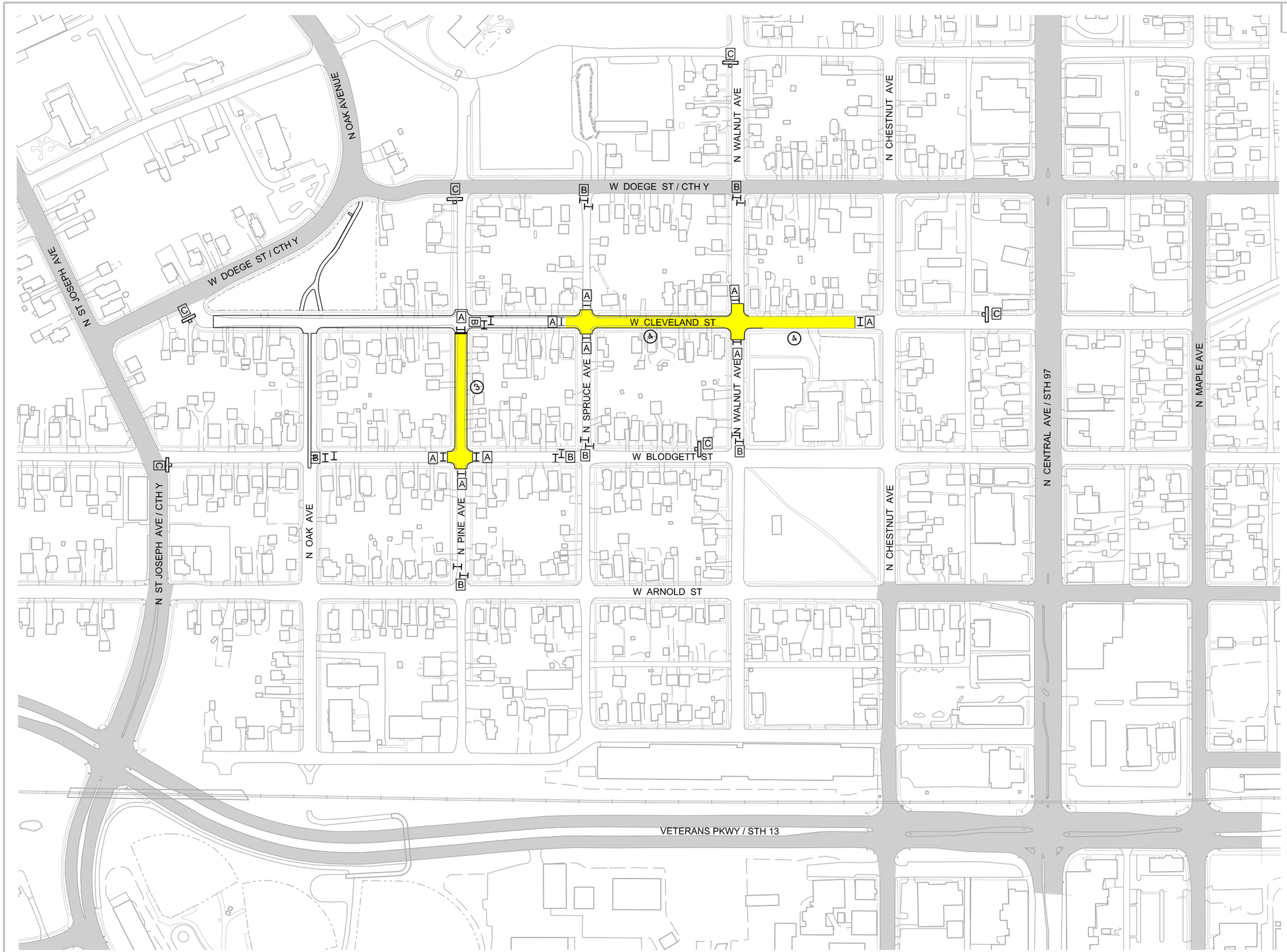
STAGES 1 AND / OR 2

TRAFFIC CONTROL - CONTRACT 2020-01

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_TC_501.dgn

3653-TC1

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	



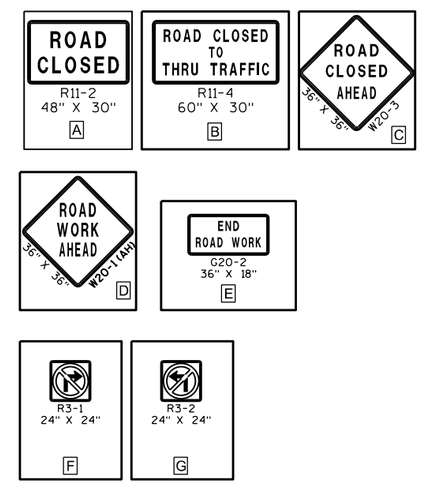
N

NOTE:

SIDEWALK CLOSURE SIGNS REQUIRED AT EVERY BLOCK / CORNER, WHEN SIDEWALKS ARE INACCESSIBLE.

LEGEND

- TRUCK ROUTE
- SIGN ON POST OR TYPE II BARRICADE
- TYPE III BARRICADE W/ FLASHER
- T.X. TEMPORARY CROSSING



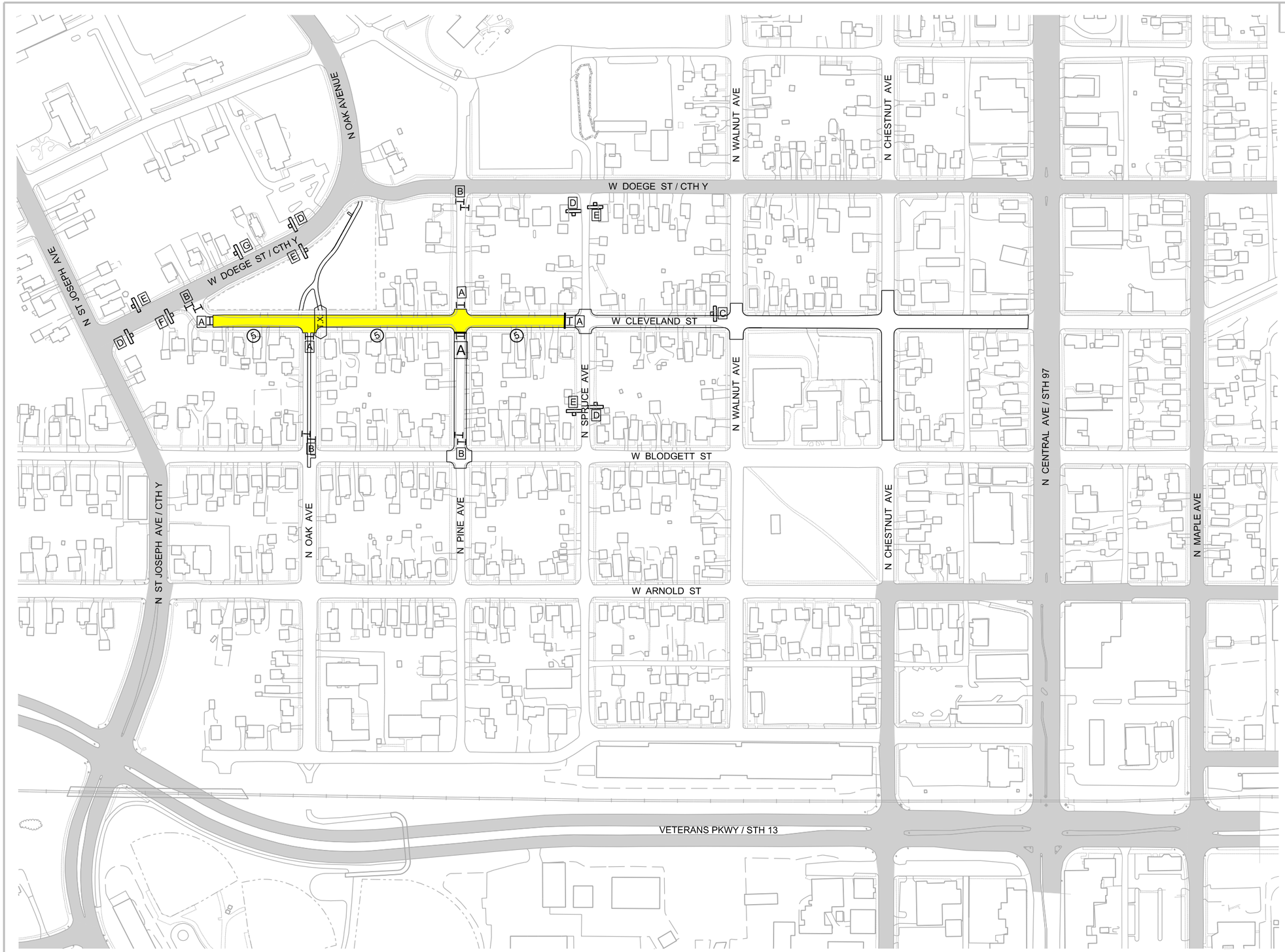
STAGES 3 AND / OR 4

TRAFFIC CONTROL - CONTRACT 2020-01

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_TC_502.dgn

3653-TC2

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	



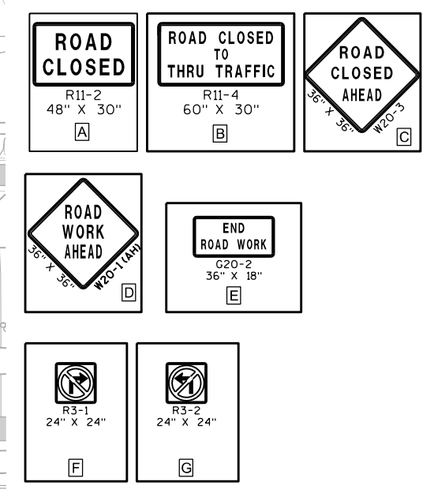
N

NOTE:

SIDEWALK CLOSURE SIGNS REQUIRED AT EVERY BLOCK / CORNER, WHEN SIDEWALKS ARE INACCESSIBLE.

LEGEND

- TRUCK ROUTE
- SIGN ON POST OR TYPE II BARRICADE
- TYPE III BARRICADE W/ FLASHER
- T.X. TEMPORARY CROSSING



STAGE 5

TRAFFIC CONTROL - CONTRACT 2020-01

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_TC_503.dgn

3653-TC3

REVISED 03/29/2020 - STM AT OAK AVENUE

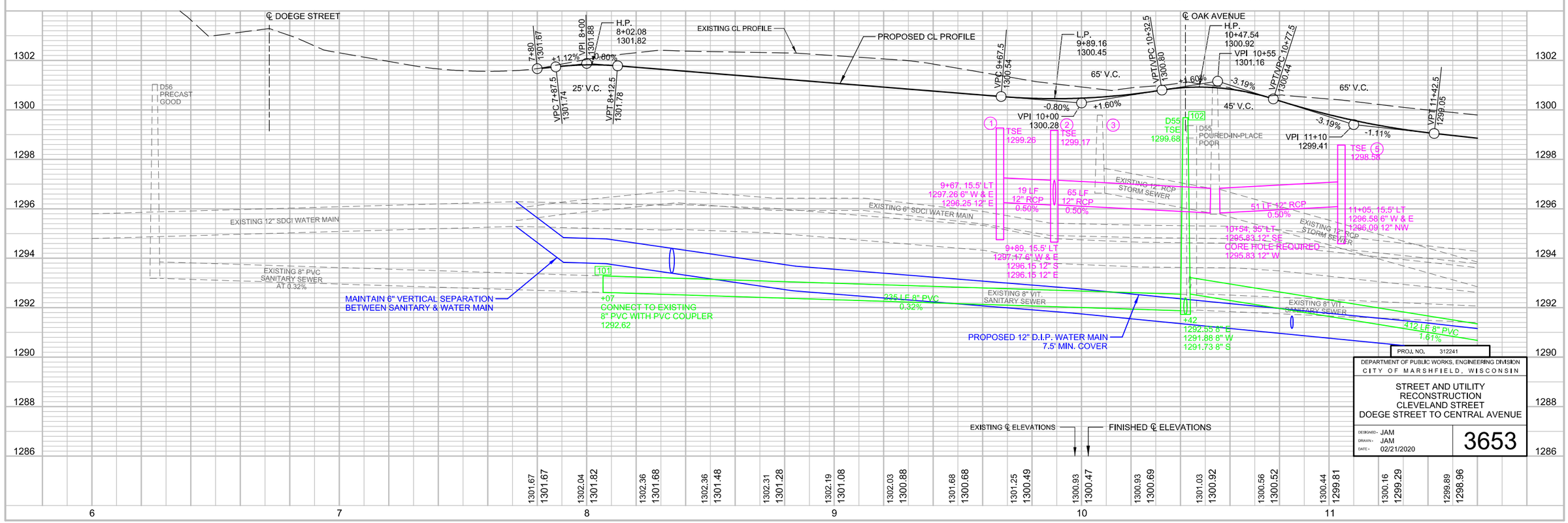
PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

BM 740	1304.41	HYD S OF GRANT WATER TOWER
BM 274	1303.73	HYD SW CORNER OF OAK AND CLEVELAND
CP 2	1302.44	MAG NAIL IN N SIDEWALK ACROSS FROM #608 W CLEVELAND ST
CP 3	1301.07	MAG NAIL IN SIDEWALK N SIDE OF CLEVELAND AT OAK

LEGEND
- SICPPP UNDERDRAIN, 6" TYP.
- UNDERDRAIN CONNECTION TO NEW STRUCTURE OR EXISTING HOLE
- END CAP REQUIRED

CURVE CL1 DATA
P.I. STA. = 7+53.31(A)
D = 150° 46' 42.12"
DELTA = 63° 39' 37.66" (LT)
T = 23.59
L = 42.22
R = 38.00
P.C. STA. = 7+29.72
P.T. STA. = 7+71.94
S.E. = N.C.

BEGIN PROJECT STA. 7+80
PCSTA. 7+29.72
PTSTA. 7+71.94
DOEGE STREET
CLEVELAND STREET
OAK AVENUE
MATCH LINE STA. 11+60
SLOPE INTERCEPT, TYP.
SEED OVER GRAVEL
STA. 10+42 = STA. 13O+38
CORE HOLE REQUIRED
CLAY DAM
REMOVE EXISTING VALVE BOX (X3)
REPLACE S/W STARTING AT 8+50
+10 END TAPER
SWG TO 8+50
27' SWG TO 11+00
EXISTING WATER SERVICE
ABANDONED
0357 CITY OF MARSHFIELD 601 W CLEVELAND ST
2 F.O. (1-24 COUNT, AND 1 MAY BE EMPTY)
3 COPPER (18-18, 100 PAIR, 100 PAIR)
1519 JANE M. ADAMSKI 309 N SAINT JOSEPH AVE
0365 MEGAN SHIMOTA 614 W CLEVELAND ST
0366 SHADIS C. WENDI 612 W CLEVELAND ST 66' FRONT
0367 JOHN P. LEHNHERR SANDRA L. LEHNHERR 608 W CLEVELAND ST 44' FRONT
0369 NATHAN J. HASS 606 W CLEVELAND ST 66' FRONT
0370 JORDAN T. MCLEAN 604 W CLEVELAND ST 44' FRONT
0371 JEAN M. SCHEUER 600 W CLEVELAND ST 77' FRONT 11' SIDE (REV. FR.)
0379 DALE R. LEWER LINDA M. LEWER 514 W CLEVELAND ST 44' FRONT
0379A HENRICHS PROPERTIES LLC 510 W CLEVELAND ST 66' FRONT



PROJ. NO. 312241

DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION
CITY OF MARSHFIELD, WISCONSIN

STREET AND UTILITY RECONSTRUCTION
CLEVELAND STREET
DOEGE STREET TO CENTRAL AVENUE

DESIGNED - JAM
DRAWN - JAM
DATE - 02/21/2020

3653

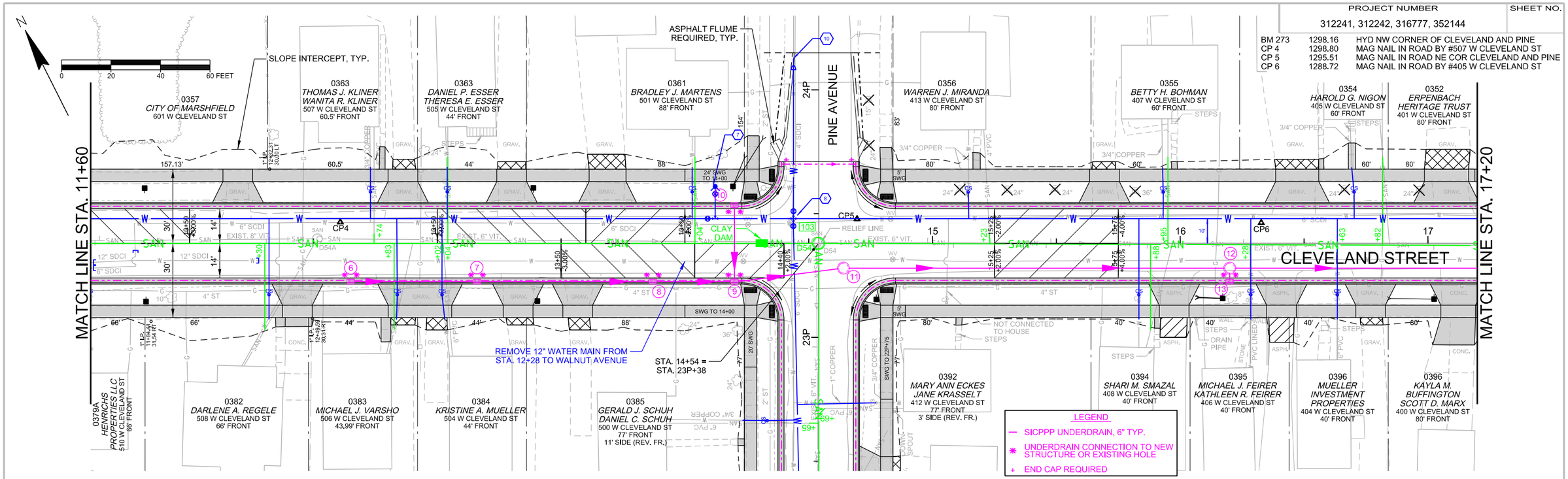
PLOTTED ON: 3/29/2020 1:51:04 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_501.dgn

REVISED 03/29/2020 - STM AT OAK AVENUE

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

BM 273	1298.16	HYD NW CORNER OF CLEVELAND AND PINE
CP 4	1298.80	MAG NAIL IN ROAD BY #507 W CLEVELAND ST
CP 5	1295.51	MAG NAIL IN ROAD NE COR CLEVELAND AND PINE
CP 6	1288.72	MAG NAIL IN ROAD BY #405 W CLEVELAND ST



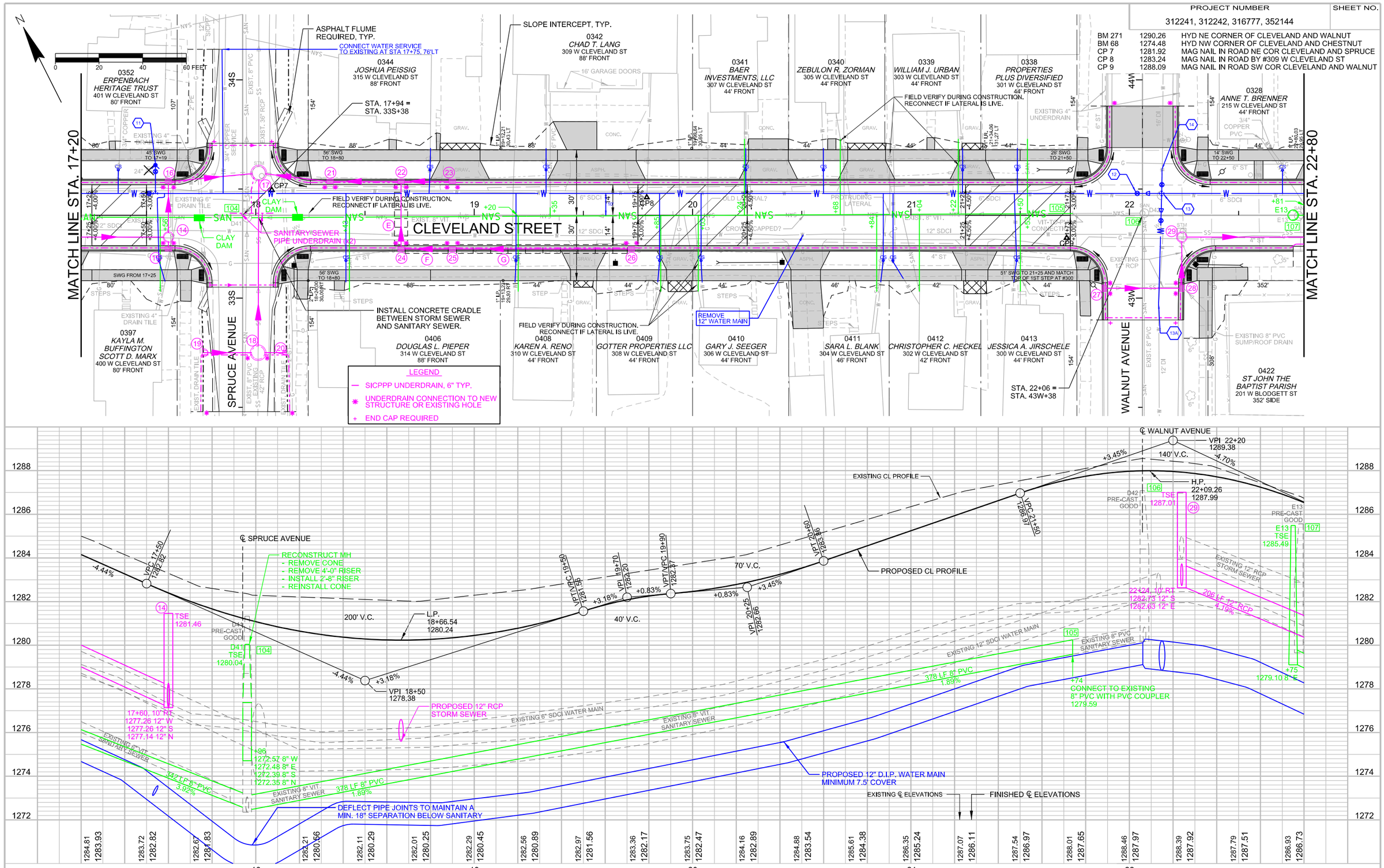
PLOTTED ON: 2/20/2020 3:19:09 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_502.dgn

3653-PP2

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

BM 271	1290.26	HYD NE CORNER OF CLEVELAND AND WALNUT
BM 68	1274.48	HYD NW CORNER OF CLEVELAND AND CHESTNUT
CP 7	1281.92	MAG NAIL IN ROAD NE COR CLEVELAND AND SPRUCE
CP 8	1283.24	MAG NAIL IN ROAD BY #309 W CLEVELAND ST
CP 9	1288.09	MAG NAIL IN ROAD SW COR CLEVELAND AND WALNUT



PLOTTED ON: 2/20/2020 3:19:11 PM

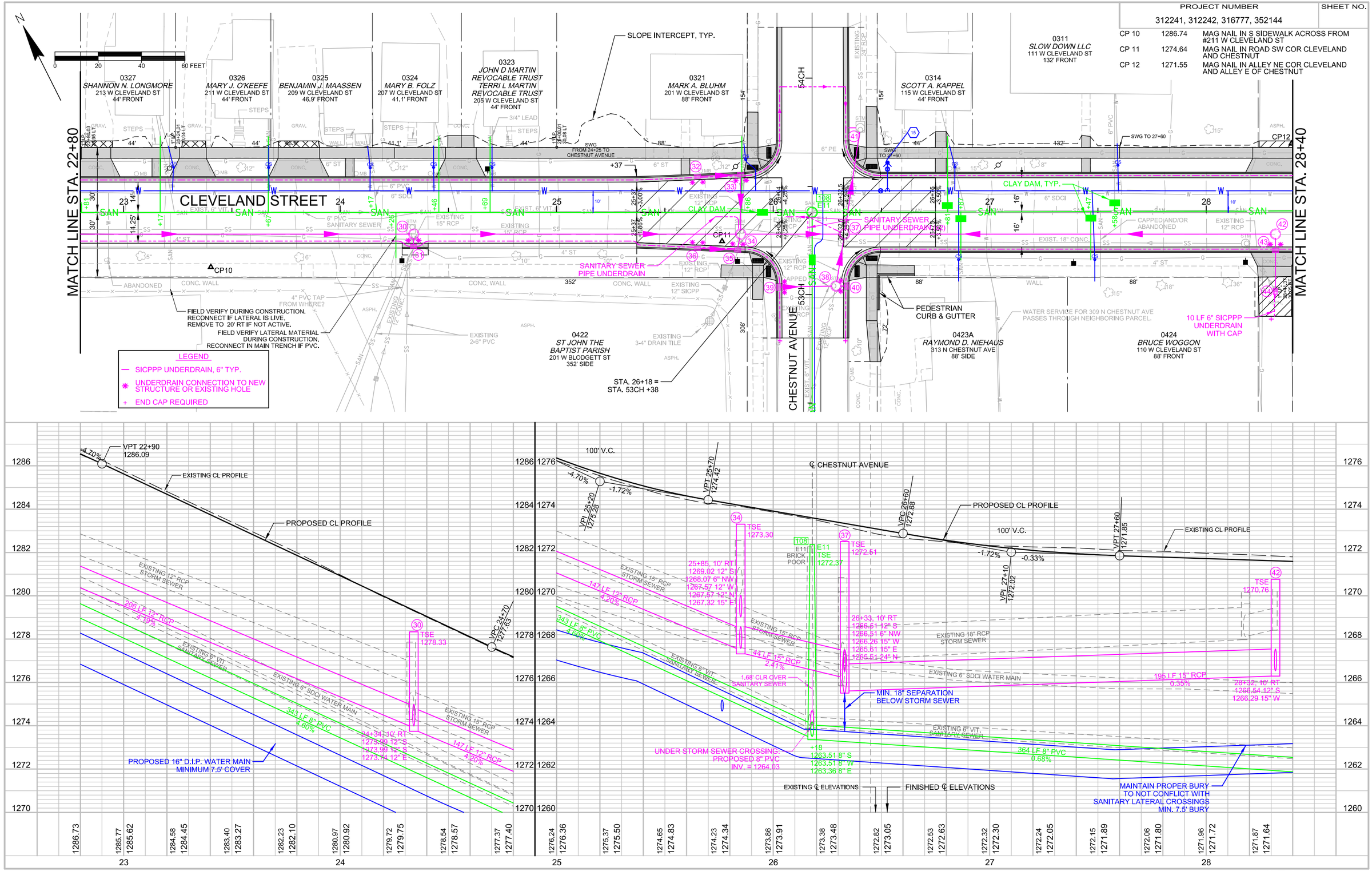
FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_503.dgn

3653-PP3

REVISED 04/24/2020 - HYDRANT AND WATER SERVICE

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

CP 10	1286.74	MAG NAIL IN S SIDEWALK ACROSS FROM #211 W CLEVELAND ST
CP 11	1274.64	MAG NAIL IN ROAD SW COR CLEVELAND AND CHESTNUT
CP 12	1271.55	MAG NAIL IN ALLEY NE COR CLEVELAND AND ALLEY E OF CHESTNUT



PLOTTED ON: 4/24/2020 12:40:56 PM

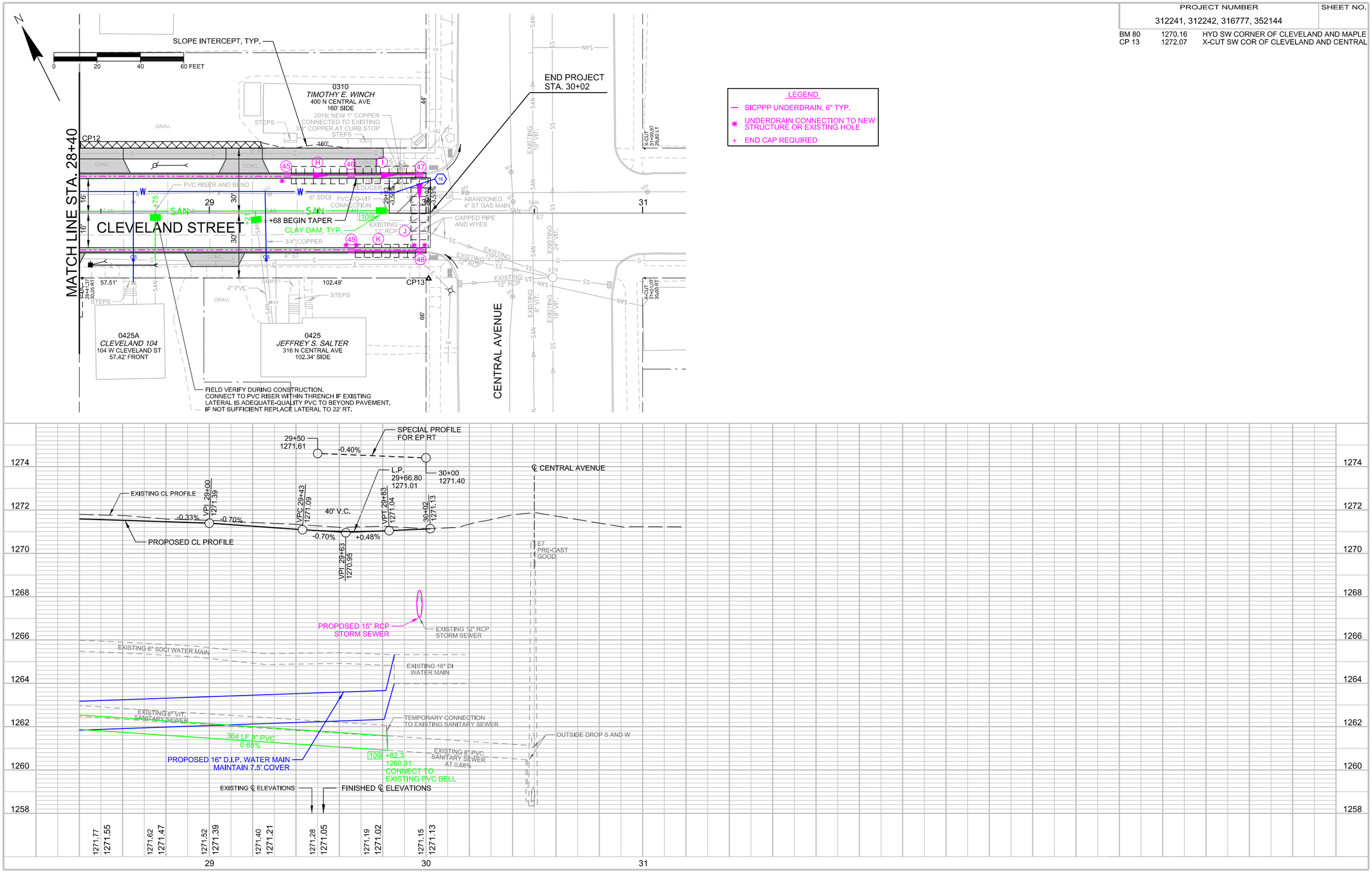
FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_504.dgn

3653-PP4

REVISED 04/24/2020 - HYDRANT AND WATER SERVICE

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

BM 80	1270.16	HYD SW CORNER OF CLEVELAND AND MAPLE
CP 13	1272.07	X-CUT SW COR OF CLEVELAND AND CENTRAL



PLOTTED ON: 2/20/2020 3:19:16 PM

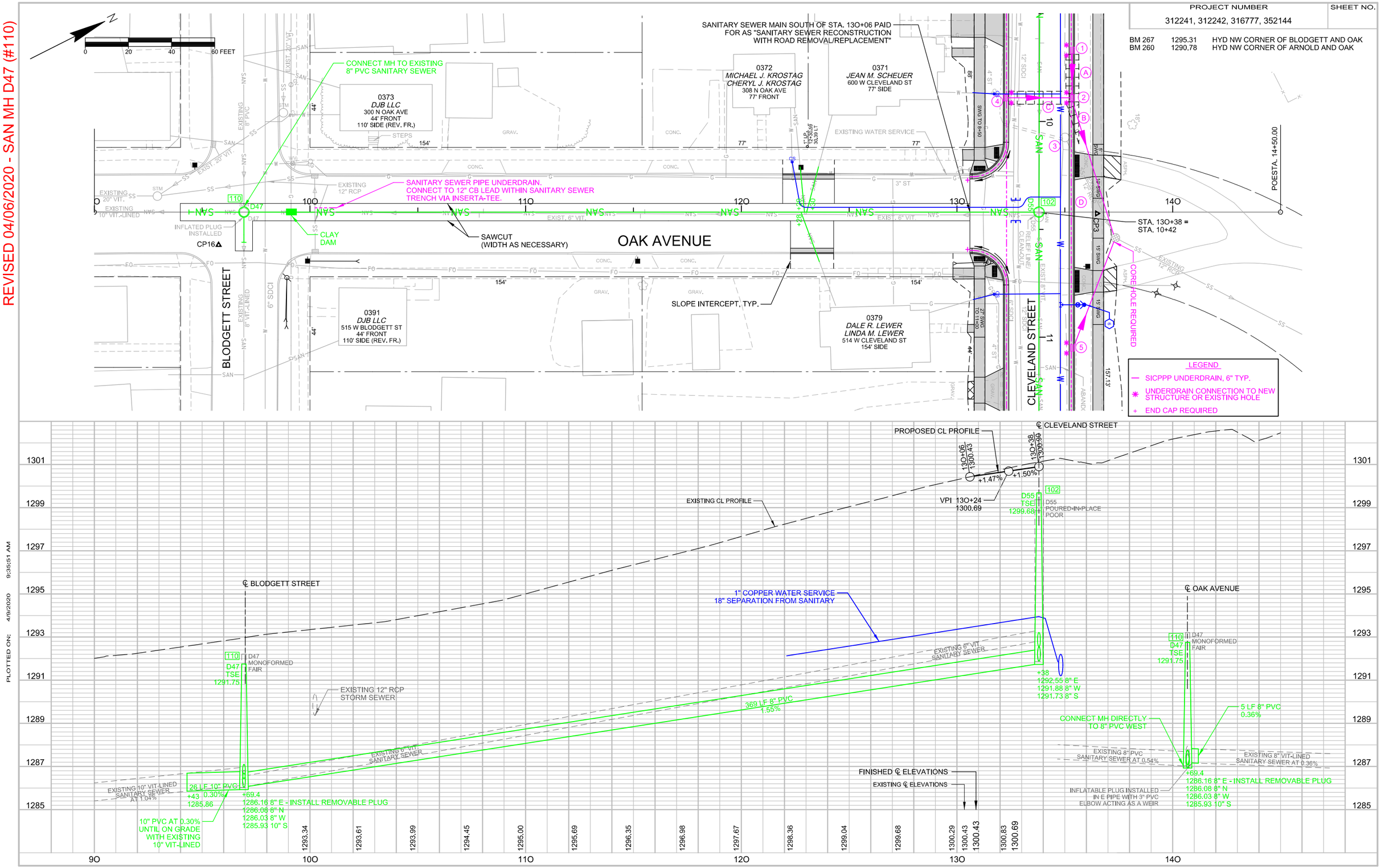
FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_505.dgn

3653-PP5

REVISED 04/06/2020 - SAN MH D47 (#110)

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

BM 267 1295.31 HYD NW CORNER OF BLODGETT AND OAK
BM 260 1290.78 HYD NW CORNER OF ARNOLD AND OAK



PLOTTED ON: 4/9/2020 9:35:51 AM

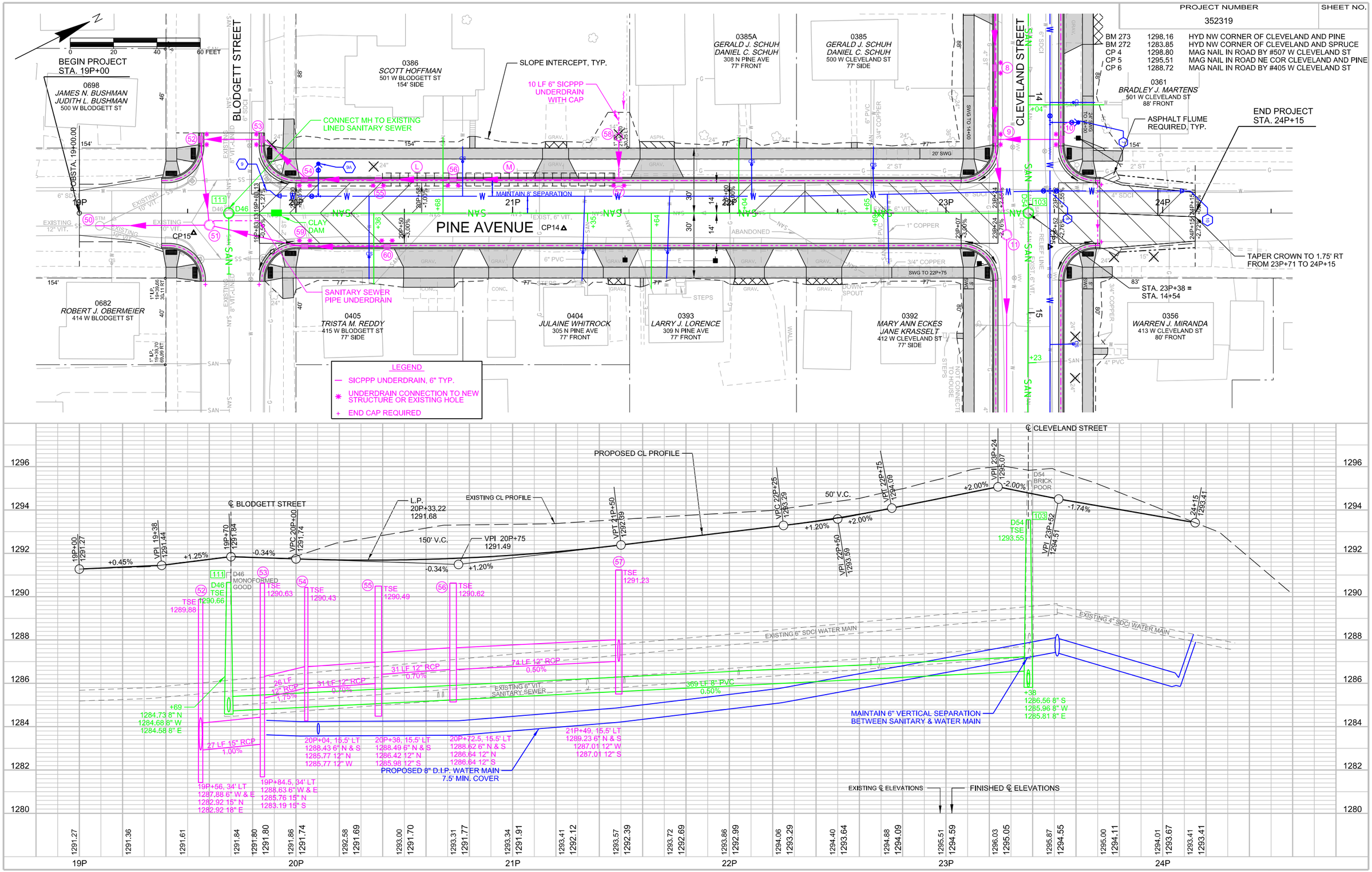
FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_506.dgn

3653-PP6

REVISED 04/06/2020 - SAN MH D47 (#110)

PROJECT NUMBER	SHEET NO.
352319	

BM 273	1298.16	HYD NW CORNER OF CLEVELAND AND PINE
BM 272	1283.85	HYD NW CORNER OF CLEVELAND AND SPRUCE
CP 4	1298.80	MAG NAIL IN ROAD BY #507 W CLEVELAND ST
CP 5	1295.51	MAG NAIL IN ROAD NE COR CLEVELAND AND PINE
CP 6	1288.72	MAG NAIL IN ROAD BY #405 W CLEVELAND ST



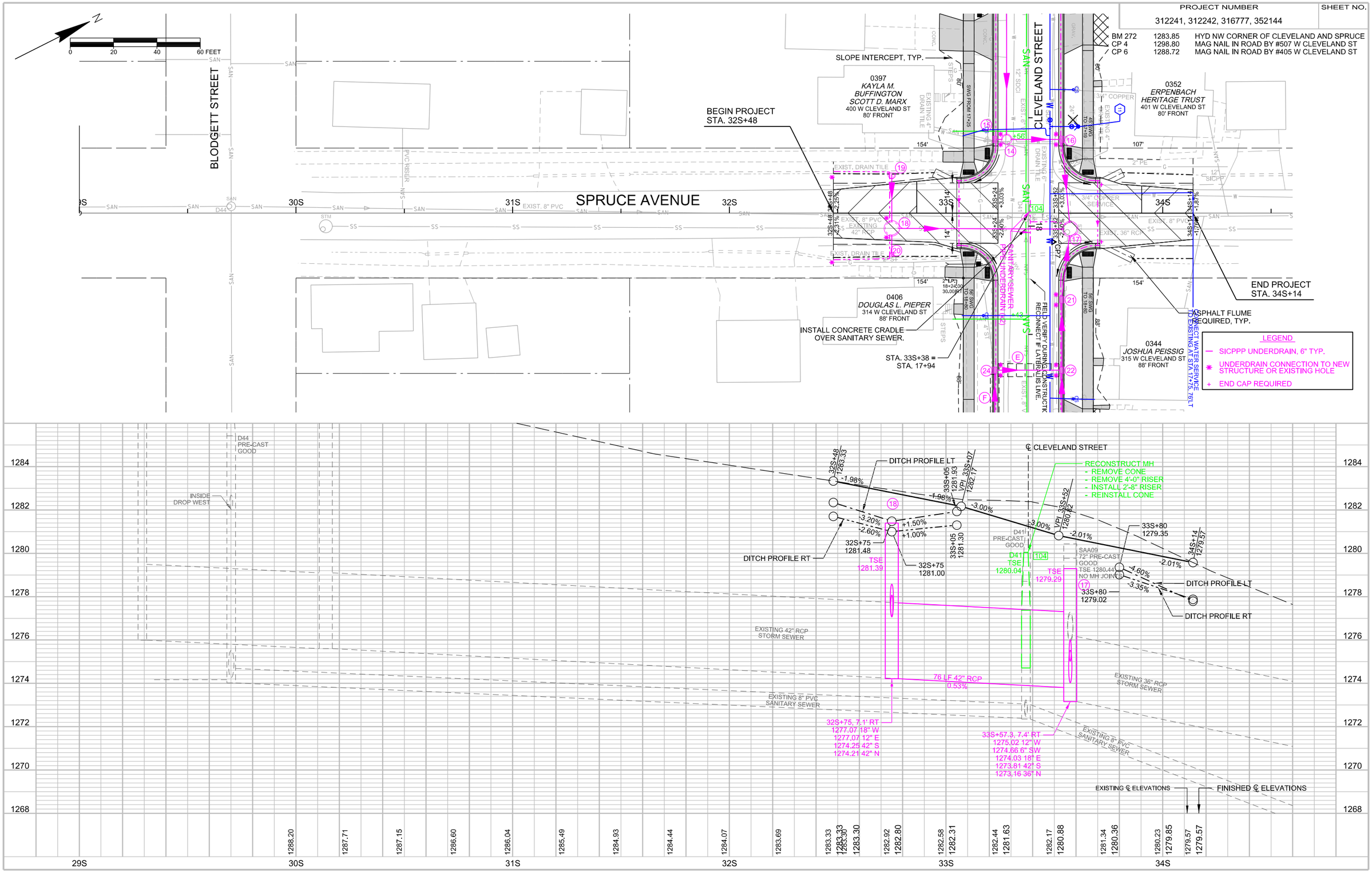
PLOTTED ON: 2/20/2020 3:19:20 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_507.dgn

3653-PP7

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

BM 272	1283.85	HYD NW CORNER OF CLEVELAND AND SPRUCE
CP 4	1298.80	MAG NAIL IN ROAD BY #507 W CLEVELAND ST
CP 6	1288.72	MAG NAIL IN ROAD BY #405 W CLEVELAND ST



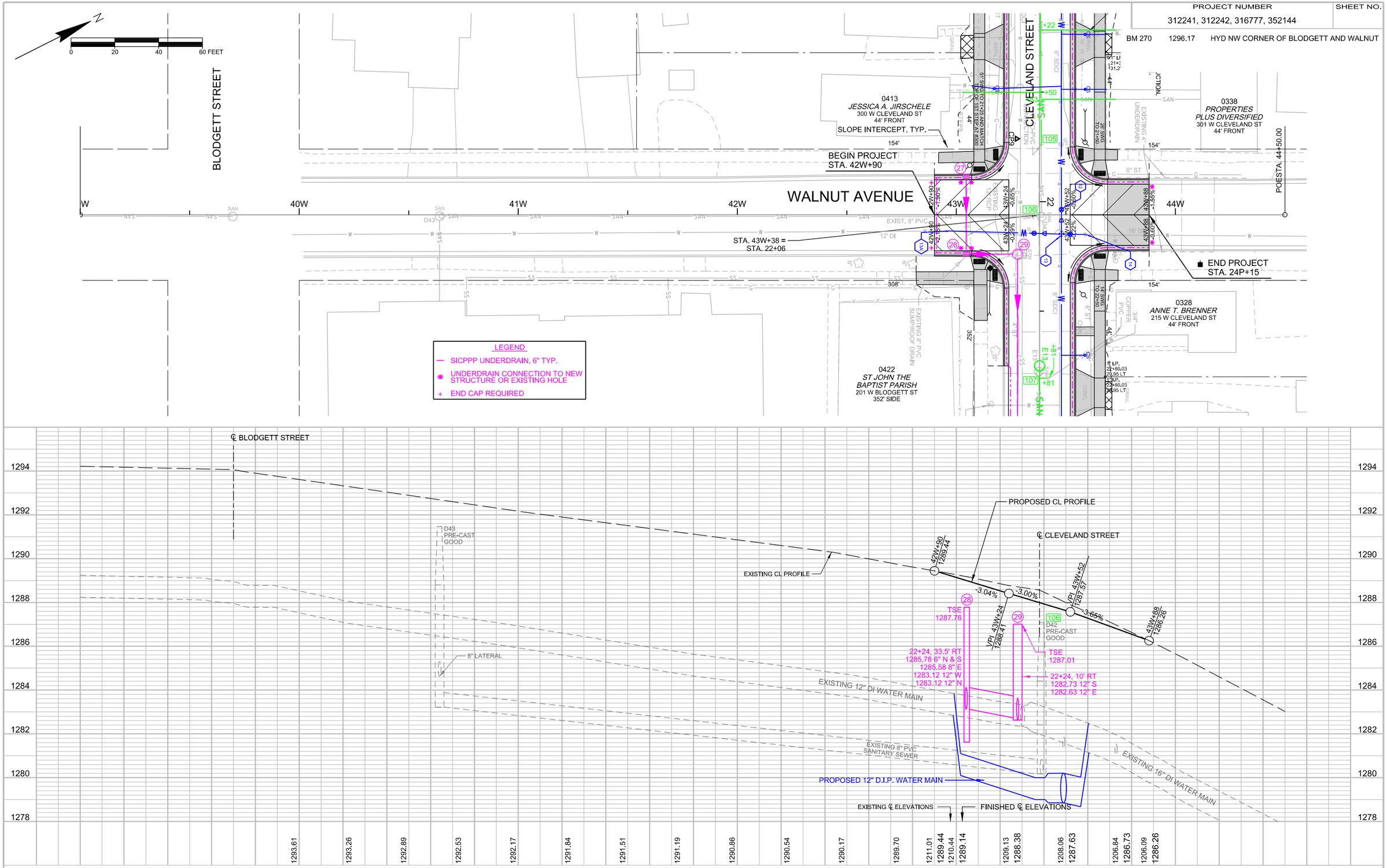
PLOTTED ON: 2/20/2020 3:19:22 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_508.dgn

3653-PP8

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

BM 270 1296.17 HYD NW CORNER OF BLODGETT AND WALNUT



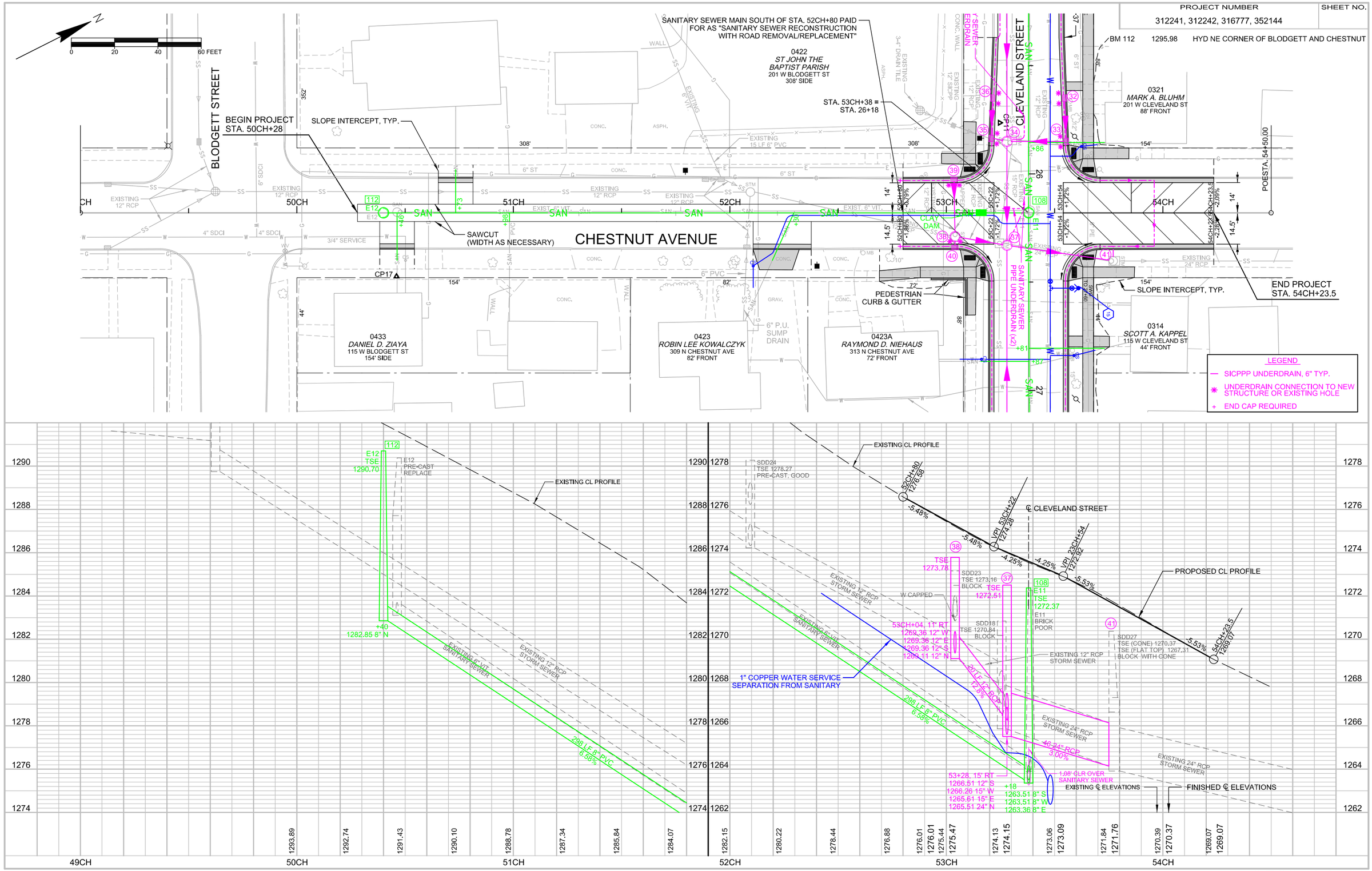
FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_509.dgn

PLOTTED ON: 2/20/2020 3:19:25 PM

3653-PP9

REVISED 04/24/2020 - HYDRANT AND WATER SERVICE

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	



PLOTTED ON: 4/24/2020 12:40:58 PM

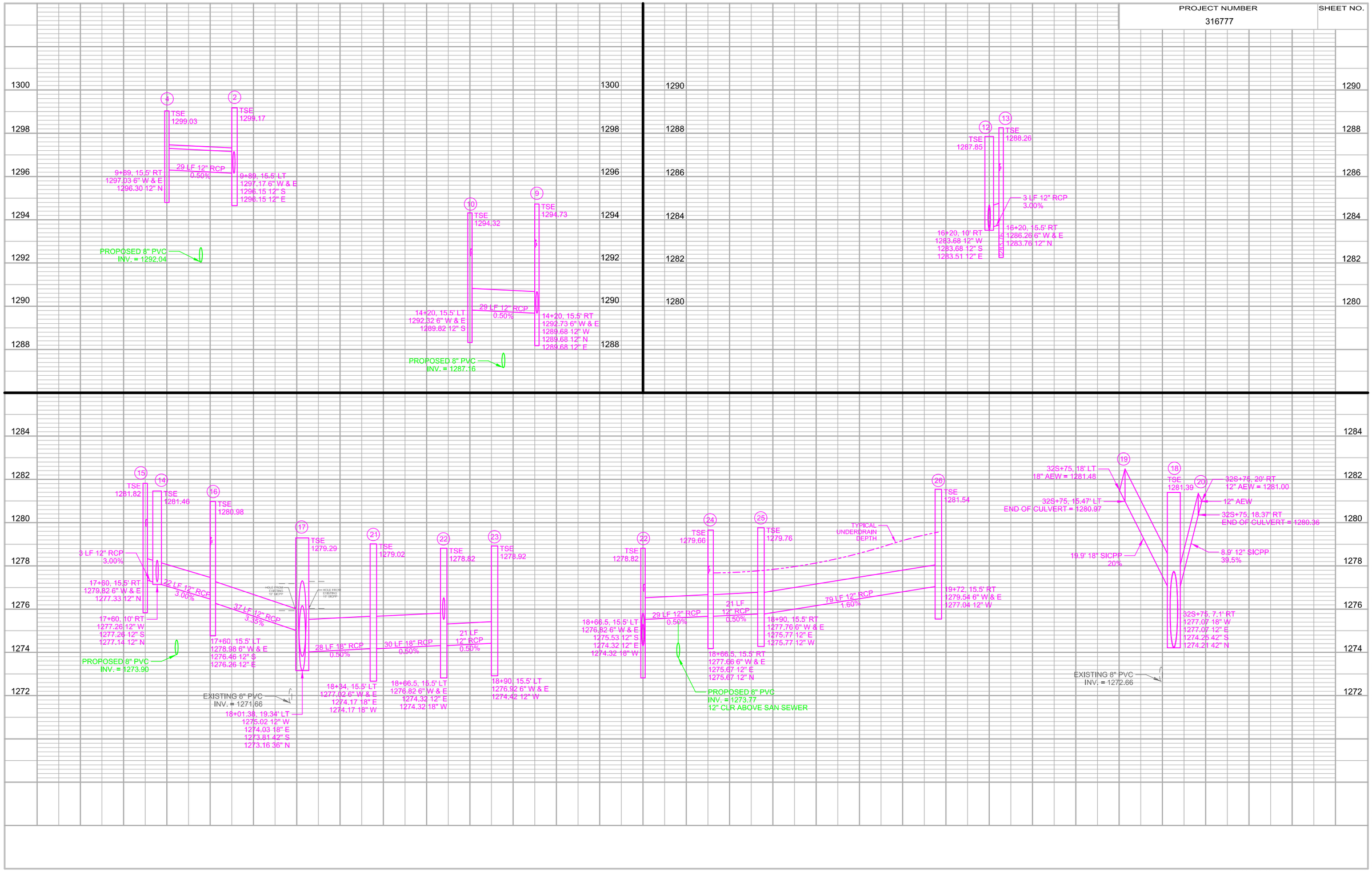
FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_510.dgn

3563-PP10

REVISED 04/24/2020 - HYDRANT AND WATER SERVICE

REVISED 03/29/2020 - STM AT OAK AVENUE

PROJECT NUMBER	SHEET NO.
316777	



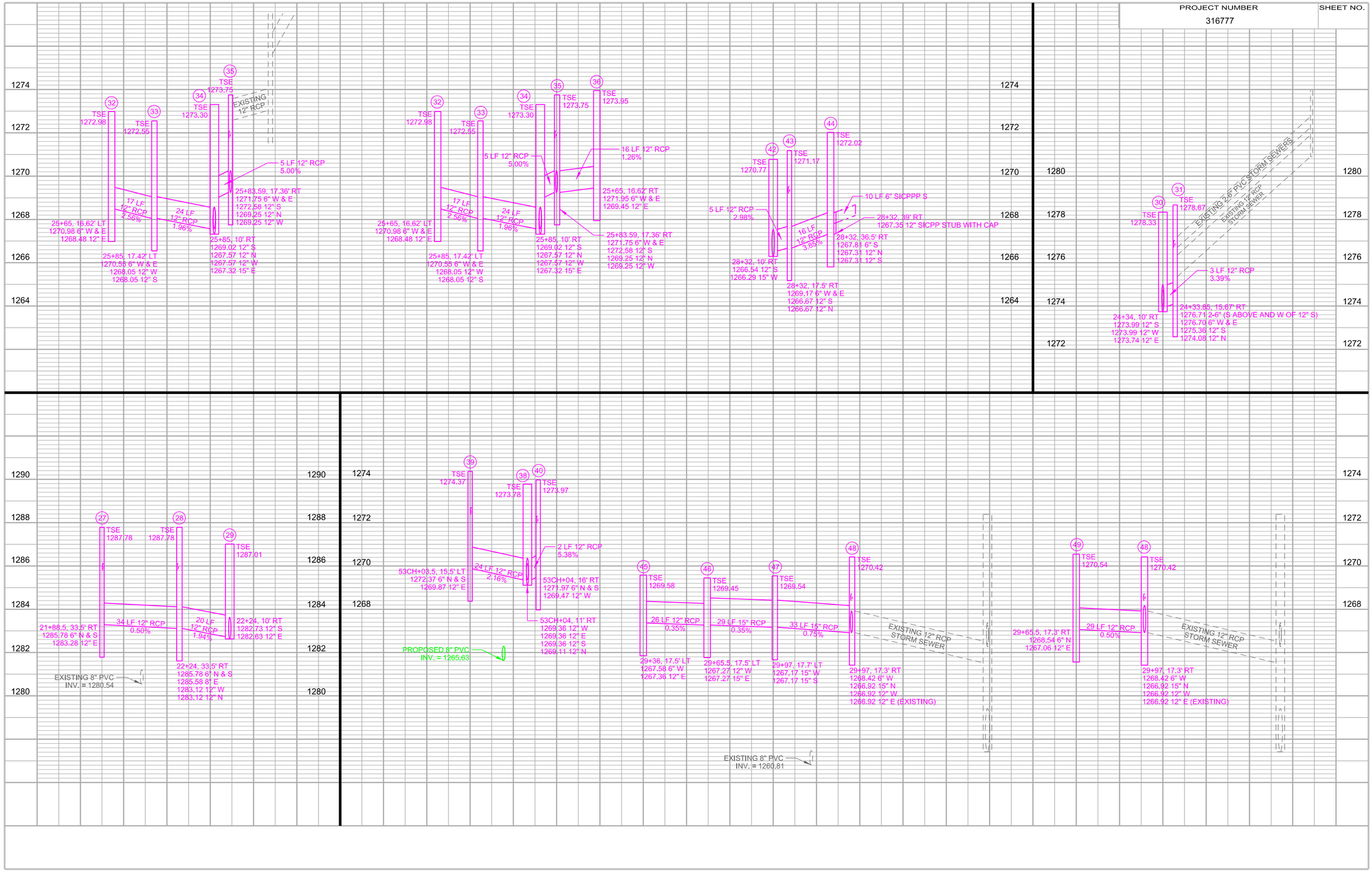
PLOTTED ON: 3/29/2020 1:51:06 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_511-513_StmProf.dgn

3653-PP11

REVISED 03/29/2020 - STM AT OAK AVENUE

PROJECT NUMBER	SHEET NO.
316777	

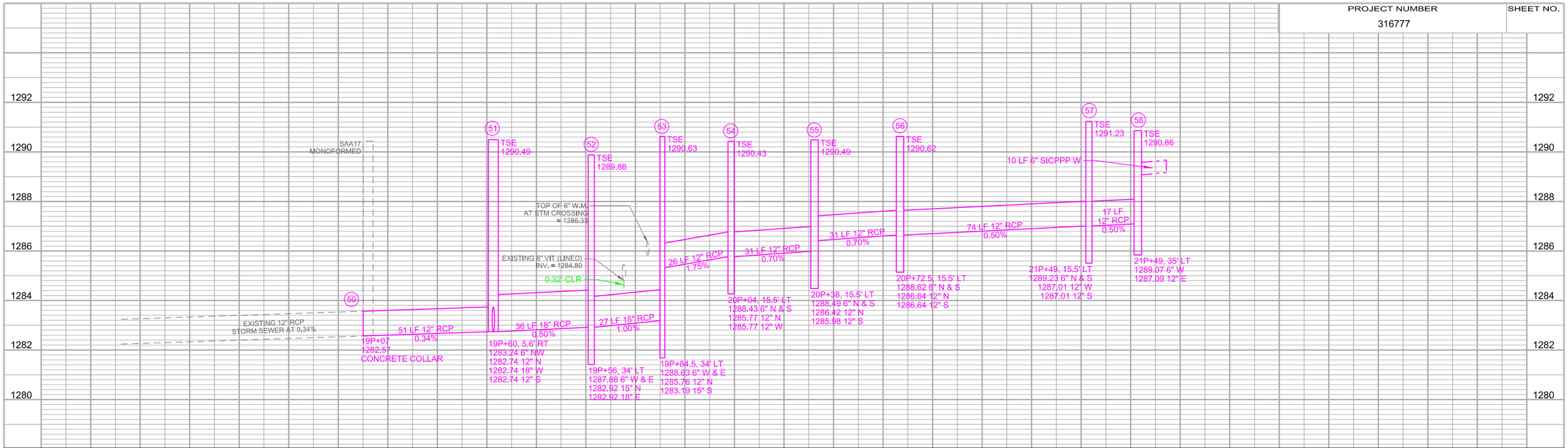


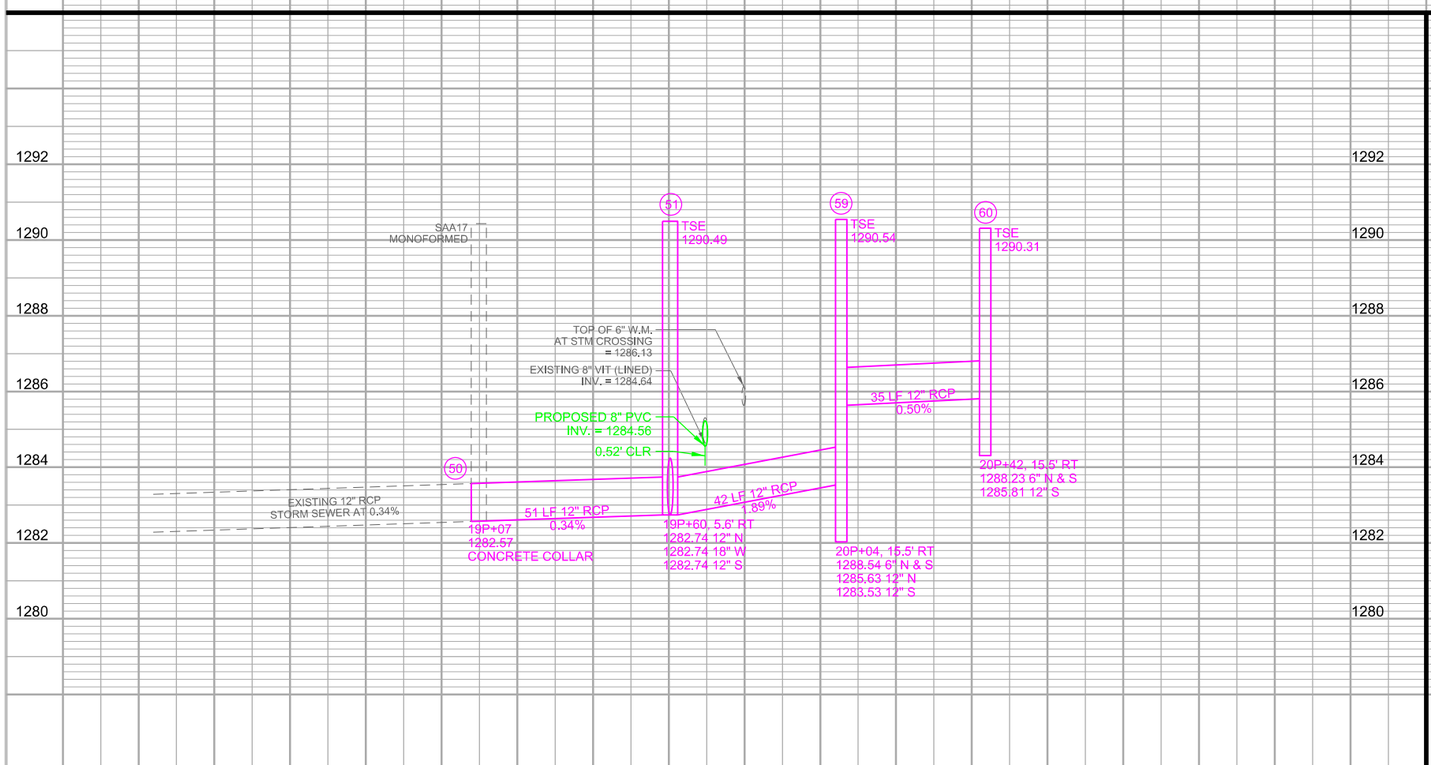
PLOTTED ON: 2/20/2020 3:19:29 PM

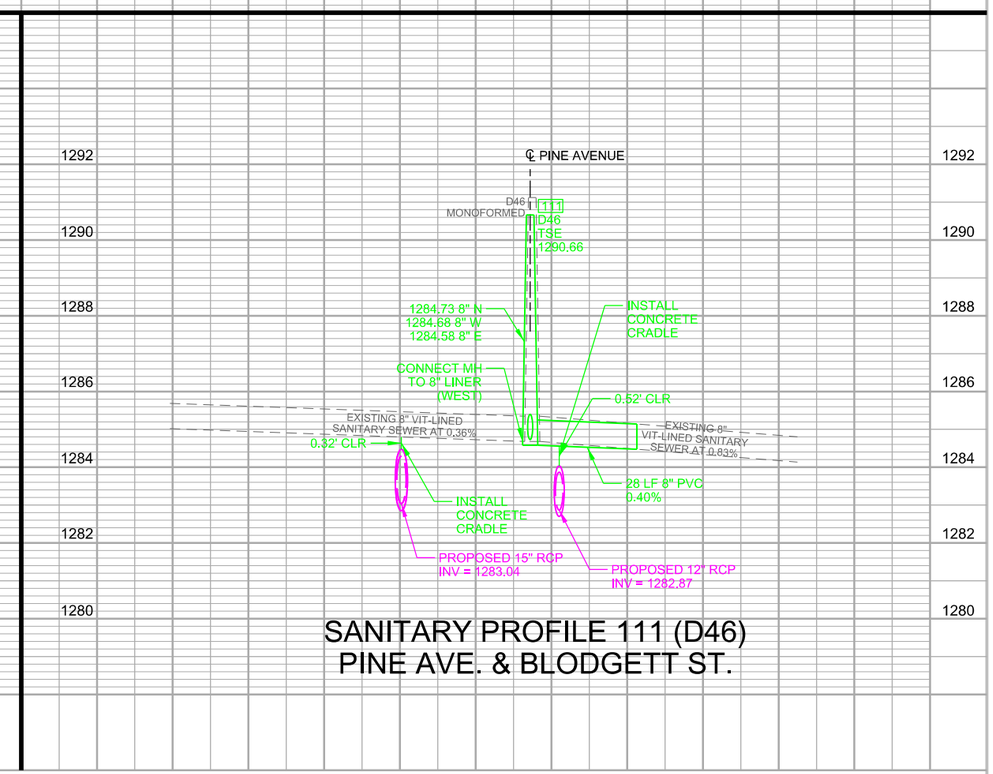
FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_511-513_StmProf.dgn

3653-PP12

PROJECT NUMBER	SHEET NO.
316777	







SANITARY PROFILE 111 (D46)
PINE AVE. & BLODGETT ST.

PLOTTED ON: 2/20/2020 3:19:30 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_511-513_StmProf.dgn

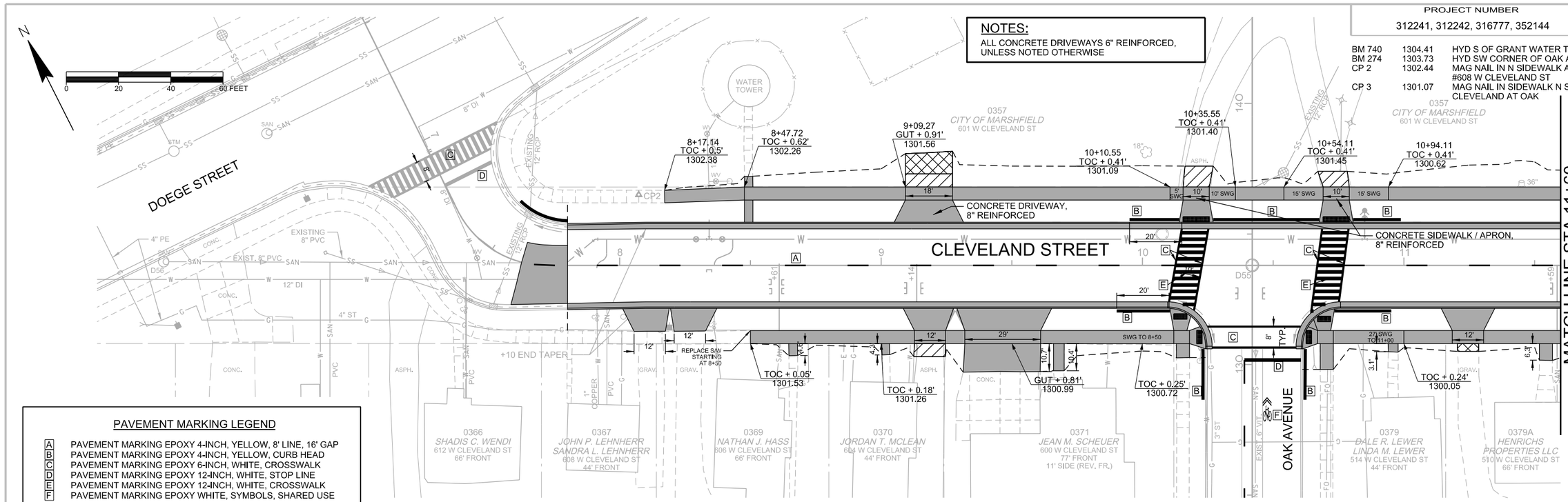
3653-PP13

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

NOTES:

ALL CONCRETE DRIVEWAYS 6" REINFORCED, UNLESS NOTED OTHERWISE

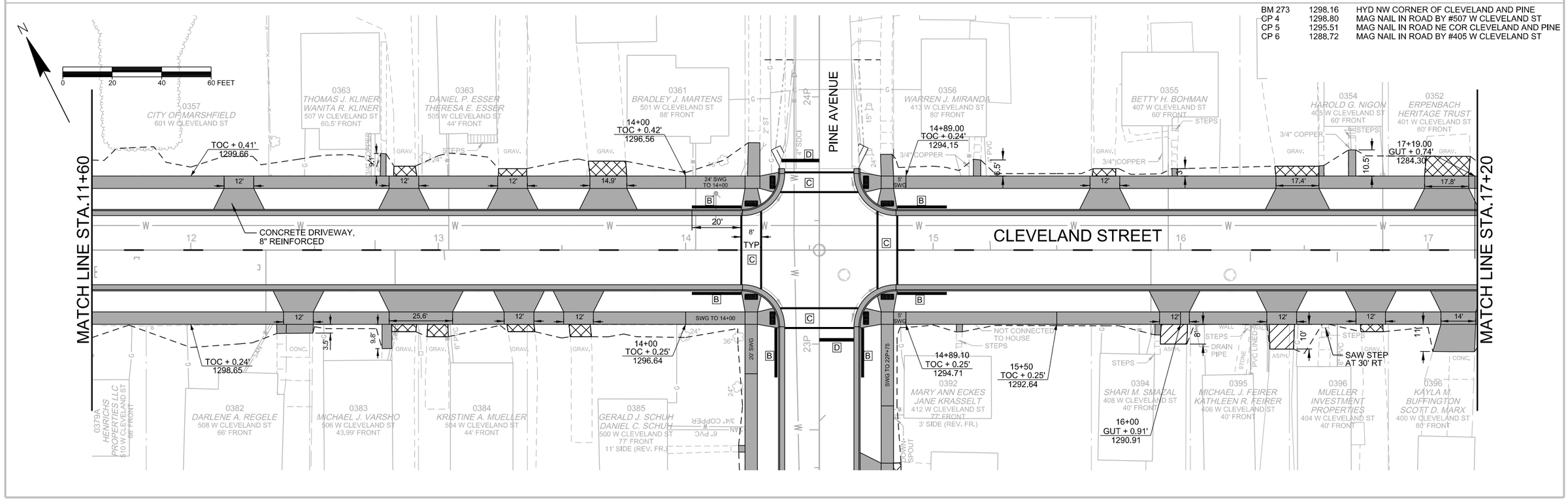
BM 740	1304.41	HYD S OF GRANT WATER TOWER
BM 274	1303.73	HYD SW CORNER OF OAK AND CLEVELAND
CP 2	1302.44	MAG NAIL IN N SIDEWALK ACROSS FROM #608 W CLEVELAND ST
CP 3	1301.07	MAG NAIL IN SIDEWALK N SIDE OF CLEVELAND AT OAK



PAVEMENT MARKING LEGEND

A	PAVEMENT MARKING EPOXY 4-INCH, YELLOW, 8' LINE, 16' GAP
B	PAVEMENT MARKING EPOXY 4-INCH, YELLOW, CURB HEAD
C	PAVEMENT MARKING EPOXY 6-INCH, WHITE, CROSSWALK
D	PAVEMENT MARKING EPOXY 12-INCH, WHITE, STOP LINE
E	PAVEMENT MARKING EPOXY 12-INCH, WHITE, CROSSWALK
F	PAVEMENT MARKING EPOXY WHITE, SYMBOLS, SHARED USE

BM 273	1298.16	HYD NW CORNER OF CLEVELAND AND PINE
CP 4	1298.80	MAG NAIL IN ROAD BY #507 W CLEVELAND ST
CP 5	1295.51	MAG NAIL IN ROAD NE COR CLEVELAND AND PINE
CP 6	1288.72	MAG NAIL IN ROAD BY #405 W CLEVELAND ST



PLOTTED ON: 2/20/2020 3:19:32 PM

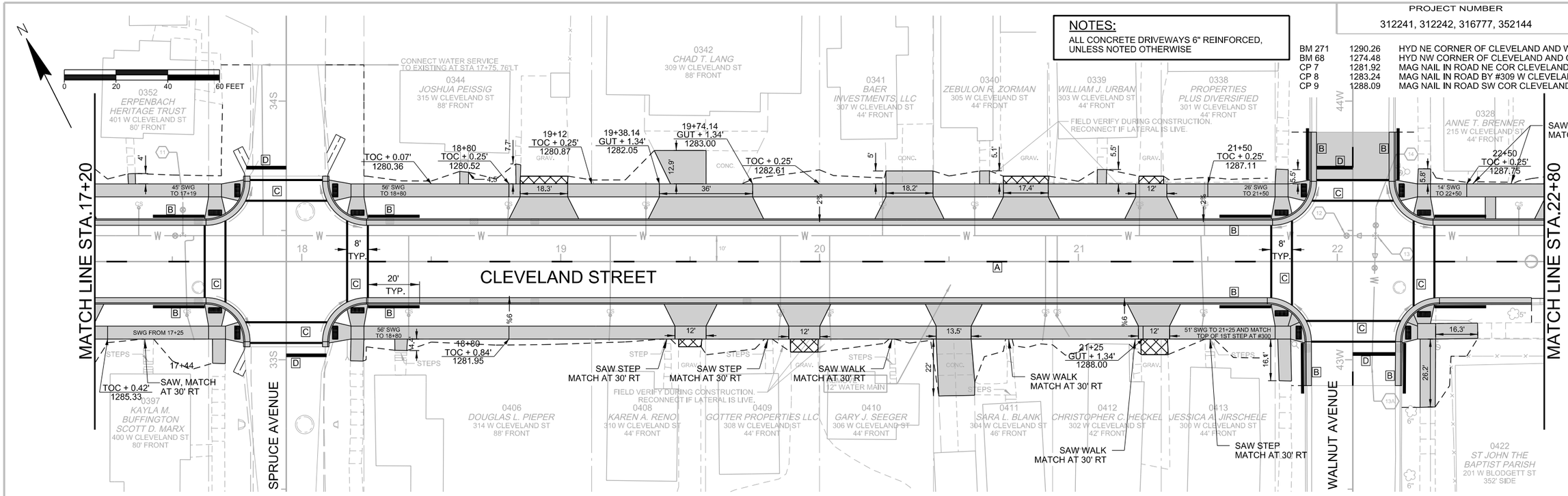
FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_SW_501.dgn

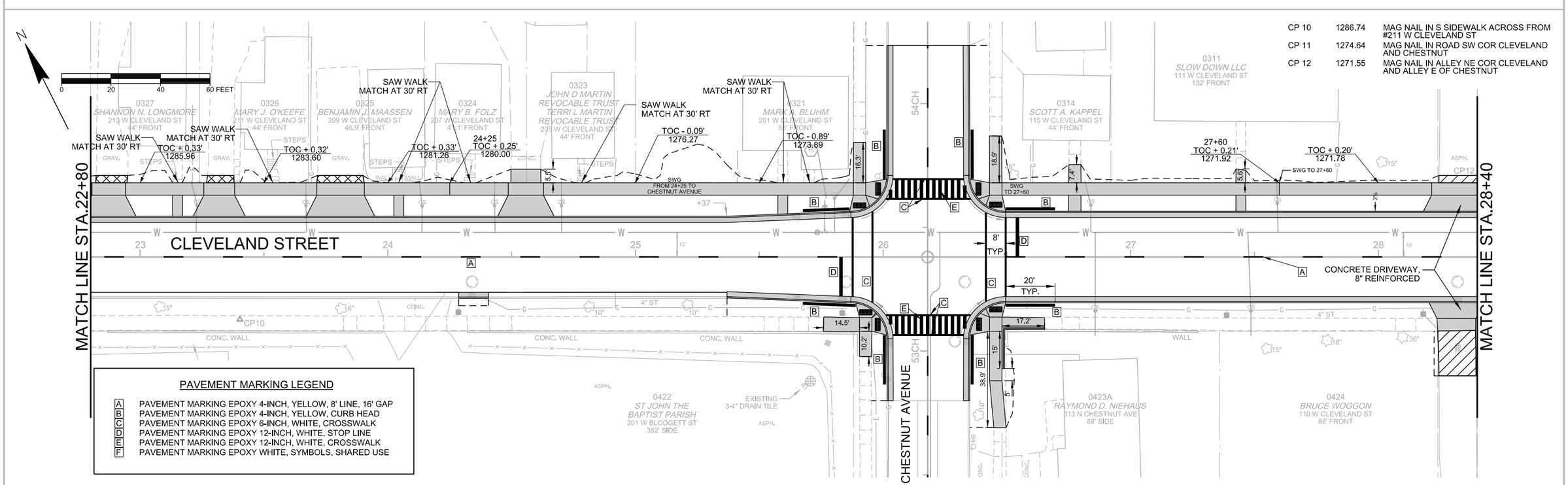
3653-SW1

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

NOTES:
ALL CONCRETE DRIVEWAYS 6" REINFORCED, UNLESS NOTED OTHERWISE

BM 271	1290.26	HYD NE CORNER OF CLEVELAND AND WALNUT
BM 68	1274.48	HYD NW CORNER OF CLEVELAND AND CHESTNUT
CP 7	1281.92	MAG NAIL IN ROAD NE COR CLEVELAND AND SPRUCE
CP 8	1283.24	MAG NAIL IN ROAD BY #309 W CLEVELAND ST
CP 9	1288.09	MAG NAIL IN ROAD SW COR CLEVELAND AND WALNUT





CP 10	1286.74	MAG NAIL IN S SIDEWALK ACROSS FROM #211 W CLEVELAND ST
CP 11	1274.64	MAG NAIL IN ROAD SW COR CLEVELAND AND CHESTNUT
CP 12	1271.55	MAG NAIL IN ALLEY NE COR CLEVELAND AND ALLEY E OF CHESTNUT

PAVEMENT MARKING LEGEND

- A PAVEMENT MARKING EPOXY 4-INCH, YELLOW, 8' LINE, 16' GAP
- B PAVEMENT MARKING EPOXY 4-INCH, YELLOW, CURB HEAD
- C PAVEMENT MARKING EPOXY 6-INCH, WHITE, CROSSWALK
- D PAVEMENT MARKING EPOXY 12-INCH, WHITE, STOP LINE
- E PAVEMENT MARKING EPOXY 12-INCH, WHITE, CROSSWALK
- F PAVEMENT MARKING EPOXY WHITE, SYMBOLS, SHARED USE

PLOTTED ON: 2/20/2020 3:19:34 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_SW_502.dgn

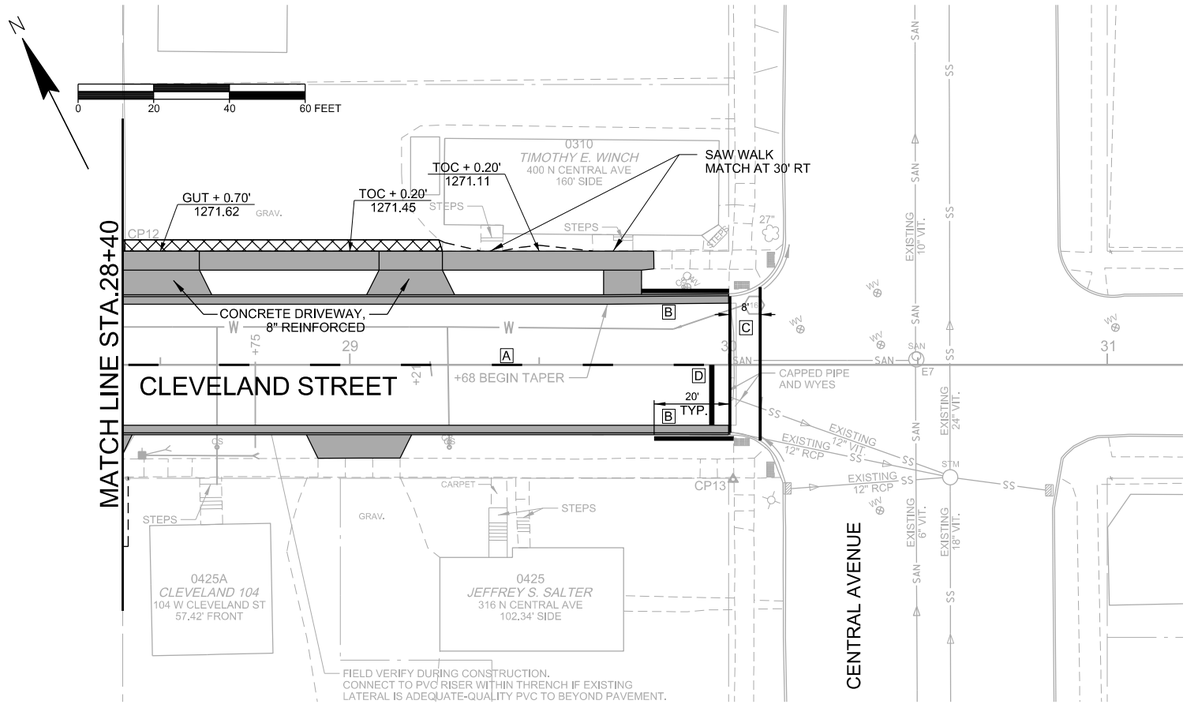
3653-SW2

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

BM 80	1270.16	HYD SW CORNER OF CLEVELAND AND MAPLE
CP 13	1272.07	X-CUT SW COR OF CLEVELAND AND CENTRAL

NOTES:

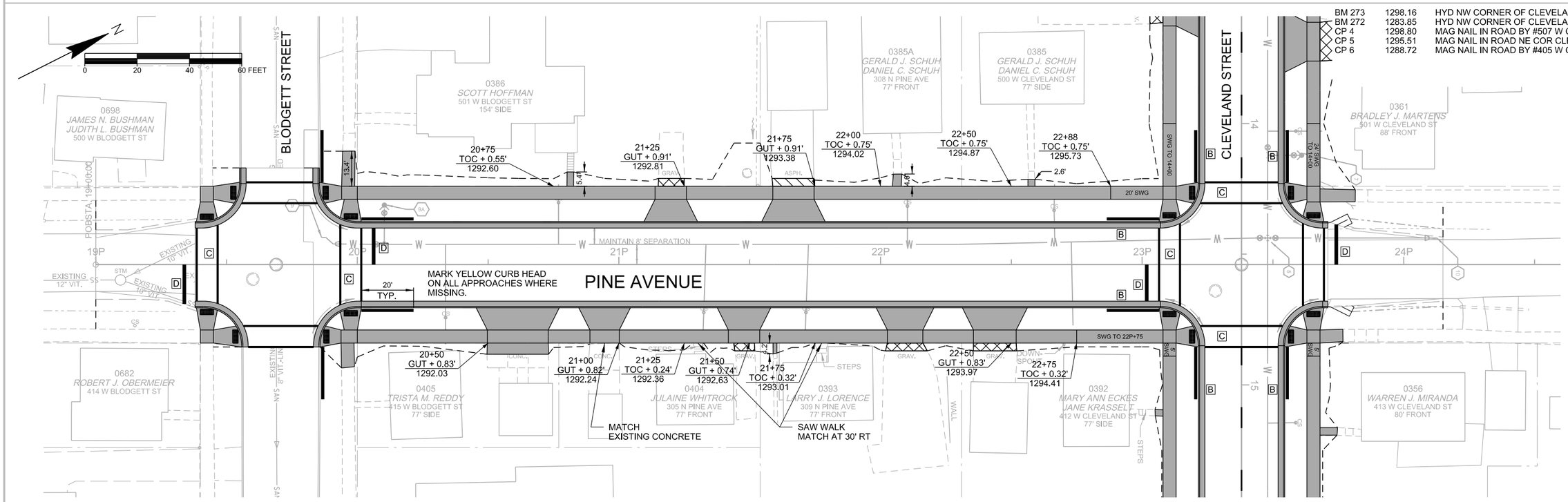
ALL CONCRETE DRIVEWAYS 6" REINFORCED, UNLESS NOTED OTHERWISE



PAVEMENT MARKING LEGEND

A	PAVEMENT MARKING EPOXY 4-INCH, YELLOW, 8' LINE, 16' GAP
B	PAVEMENT MARKING EPOXY 4-INCH, YELLOW, CURB HEAD
C	PAVEMENT MARKING EPOXY 6-INCH, WHITE, CROSSWALK
D	PAVEMENT MARKING EPOXY 12-INCH, WHITE, STOP LINE
E	PAVEMENT MARKING EPOXY 12-INCH, WHITE, CROSSWALK
F	PAVEMENT MARKING EPOXY WHITE, SYMBOLS, SHARED USE

BM 273	1298.16	HYD NW CORNER OF CLEVELAND AND PINE
BM 272	1283.85	HYD NW CORNER OF CLEVELAND AND SPRUCE
CP 4	1298.80	MAG NAIL IN ROAD BY #507 W CLEVELAND ST
CP 5	1295.51	MAG NAIL IN ROAD NE COR CLEVELAND AND PINE
CP 6	1288.72	MAG NAIL IN ROAD BY #405 W CLEVELAND ST



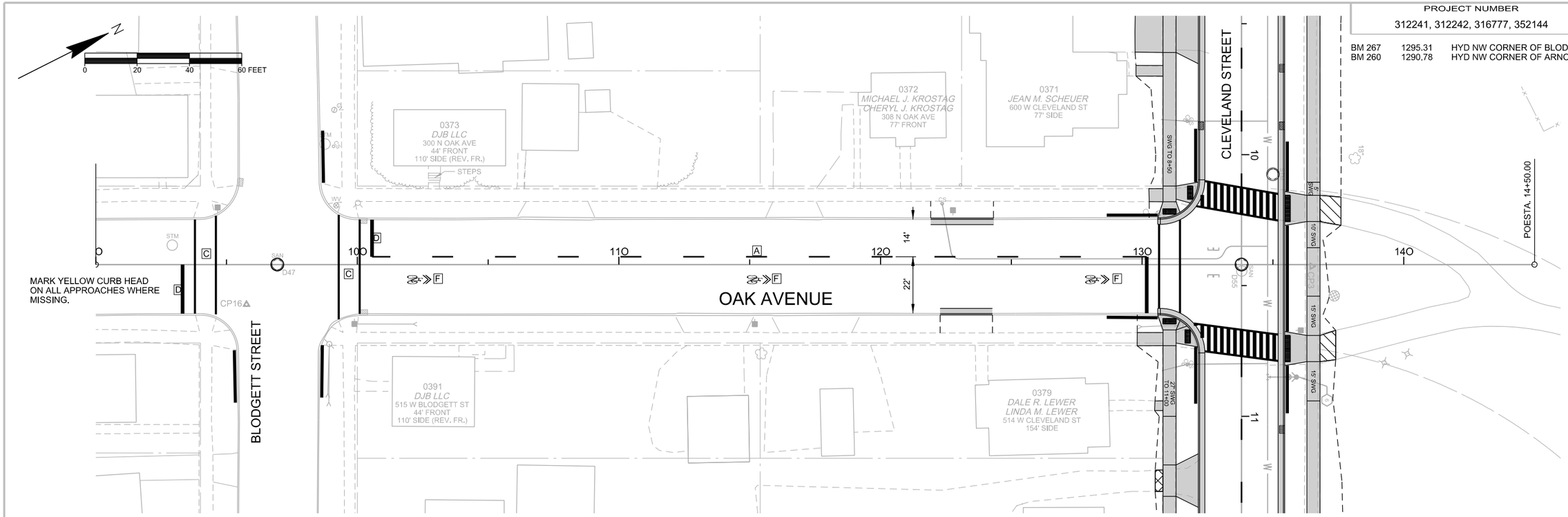
PLOTTED ON: 2/20/2020 3:19:37 PM

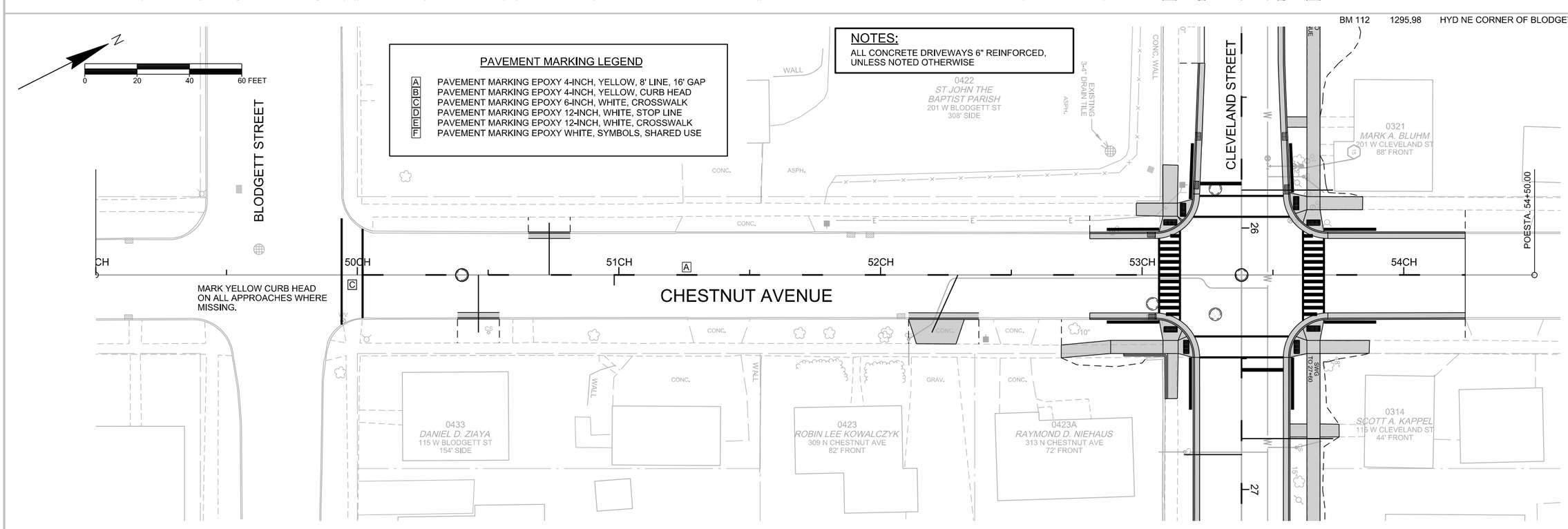
FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_SW_503.dgn

3653-SW3

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

BM 267 1295.31 HYD NW CORNER OF BLODGETT AND OAK
BM 260 1290.78 HYD NW CORNER OF ARNOLD AND OAK





PLOTTED ON: 2/20/2020 3:19:39 PM

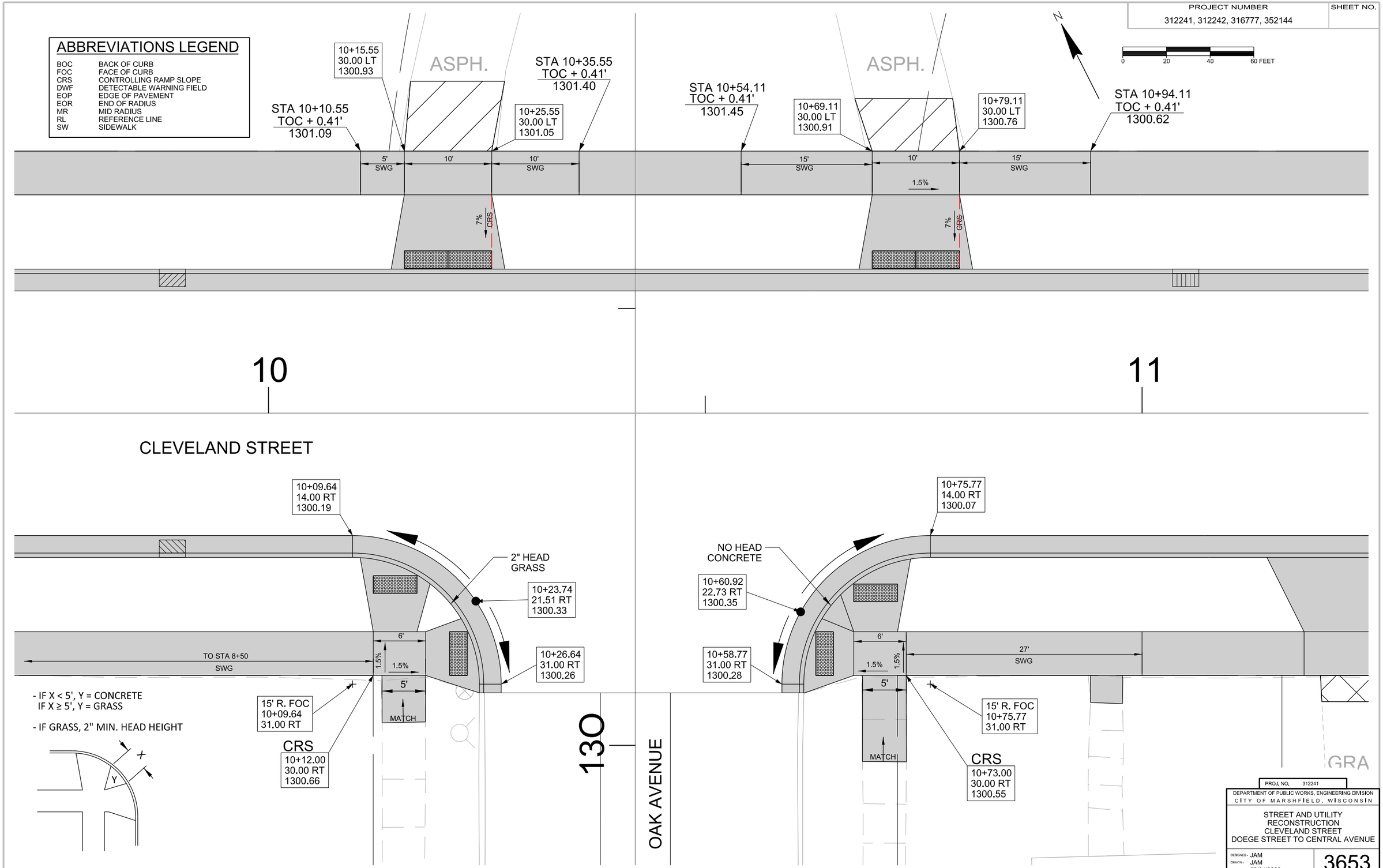
FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_SW_504.dgn

3653-SW4

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

ABBREVIATIONS LEGEND

BOC	BACK OF CURB
FOC	FACE OF CURB
CRS	CONTROLLING RAMP SLOPE
DWF	DETECTABLE WARNING FIELD
EOP	EDGE OF PAVEMENT
EOR	END OF RADIUS
MR	MID RADIUS
RL	REFERENCE LINE
SW	SIDEWALK



PROJ. NO. 312241

DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION
CITY OF MARSHFIELD, WISCONSIN

STREET AND UTILITY
RECONSTRUCTION
CLEVELAND STREET
DOEGE STREET TO CENTRAL AVENUE

DESIGNED - JAM
DRAWN - JAM
DATE - 02/21/2020

3653

3653-ID1

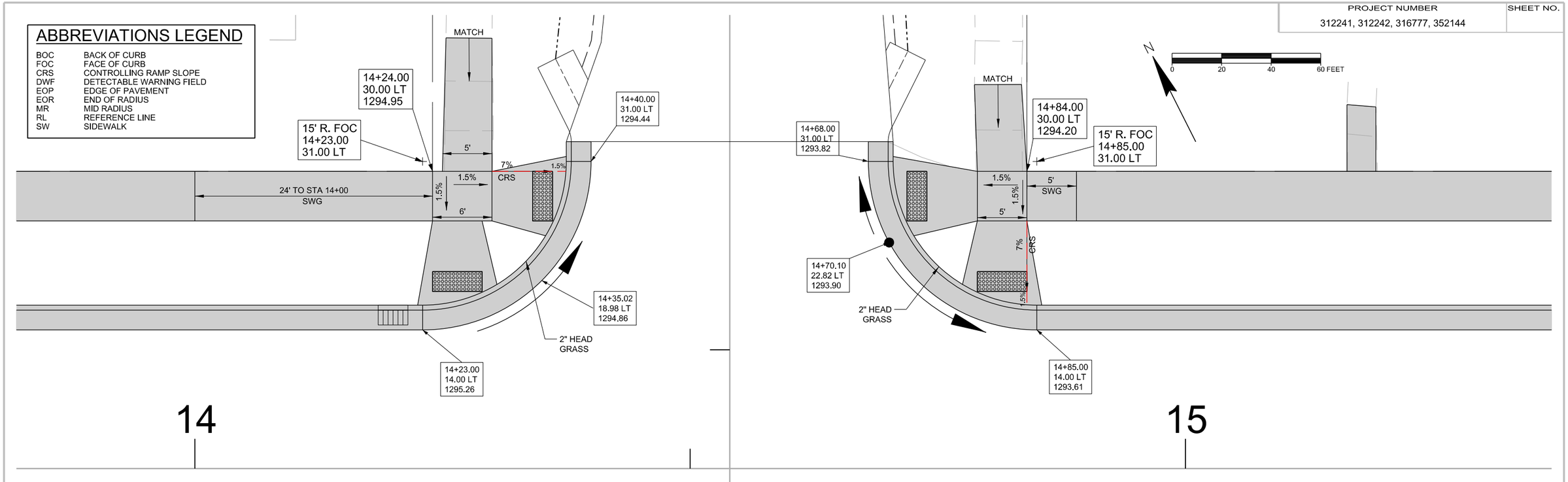
PLOTTED ON: 2/20/2020 3:19:41 PM

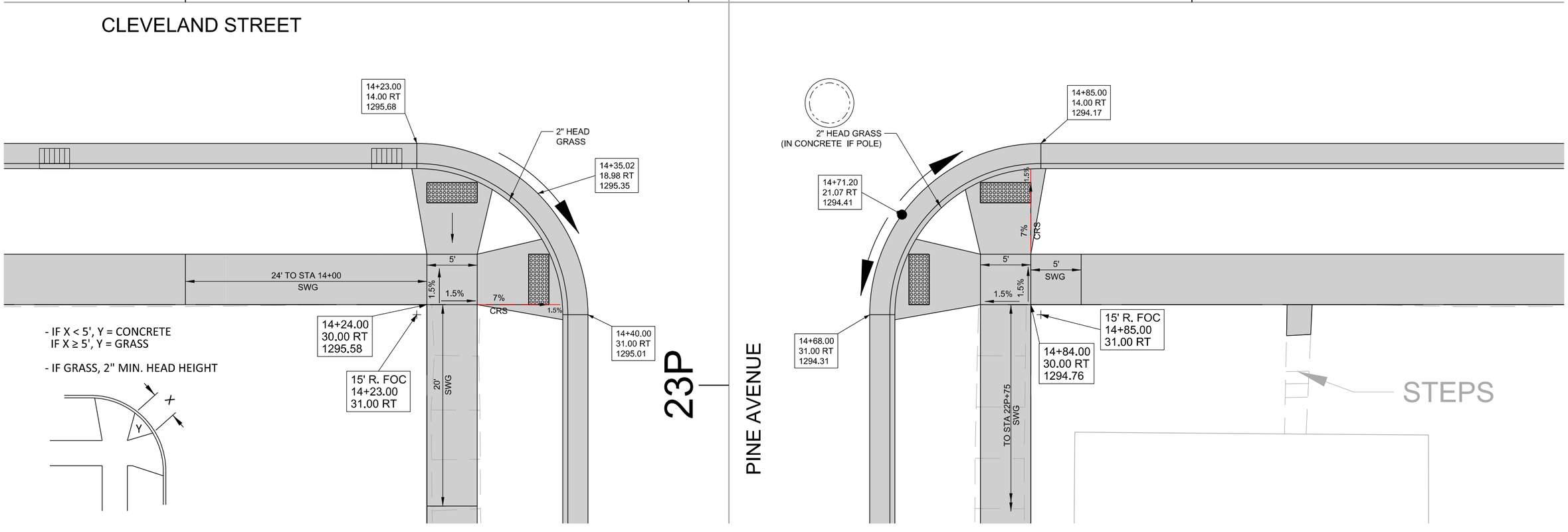
FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_ID_501_10.dgn

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

ABBREVIATIONS LEGEND

BOC	BACK OF CURB
FOC	FACE OF CURB
CRS	CONTROLLING RAMP SLOPE
DWF	DETECTABLE WARNING FIELD
EOP	EDGE OF PAVEMENT
EOR	END OF RADIUS
MR	MID RADIUS
RL	REFERENCE LINE
SW	SIDEWALK





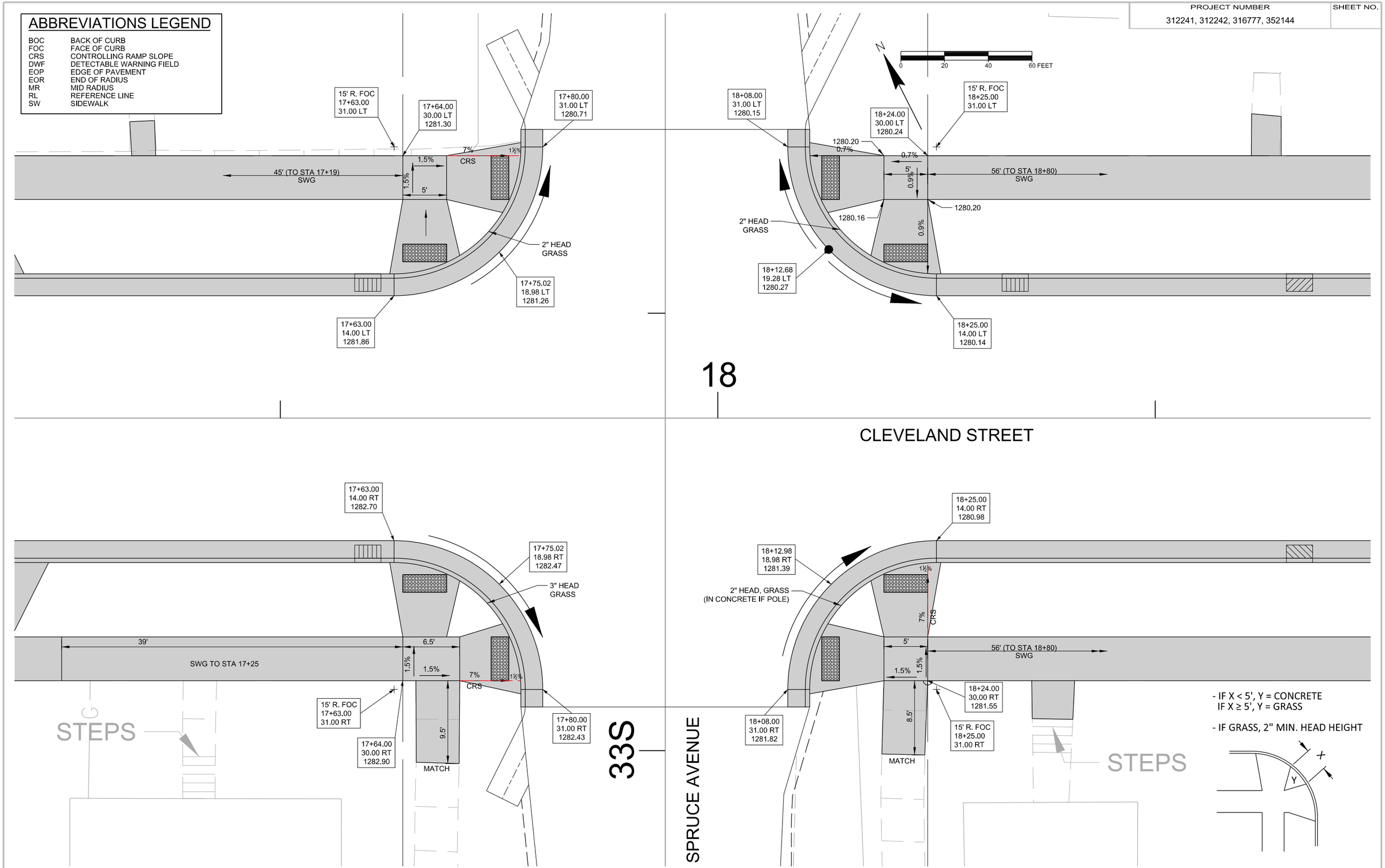
PLOTTED ON: 2/20/2020 3:19:43 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_ID_502_10.dgn

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

ABBREVIATIONS LEGEND

BOC	BACK OF CURB
FOC	FACE OF CURB
CRS	CONTROLLING RAMP SLOPE
DWF	DETECTABLE WARNING FIELD
EOP	EDGE OF PAVEMENT
EOR	END OF RADIUS
MR	MID RADIUS
RL	REFERENCE LINE
SW	SIDEWALK

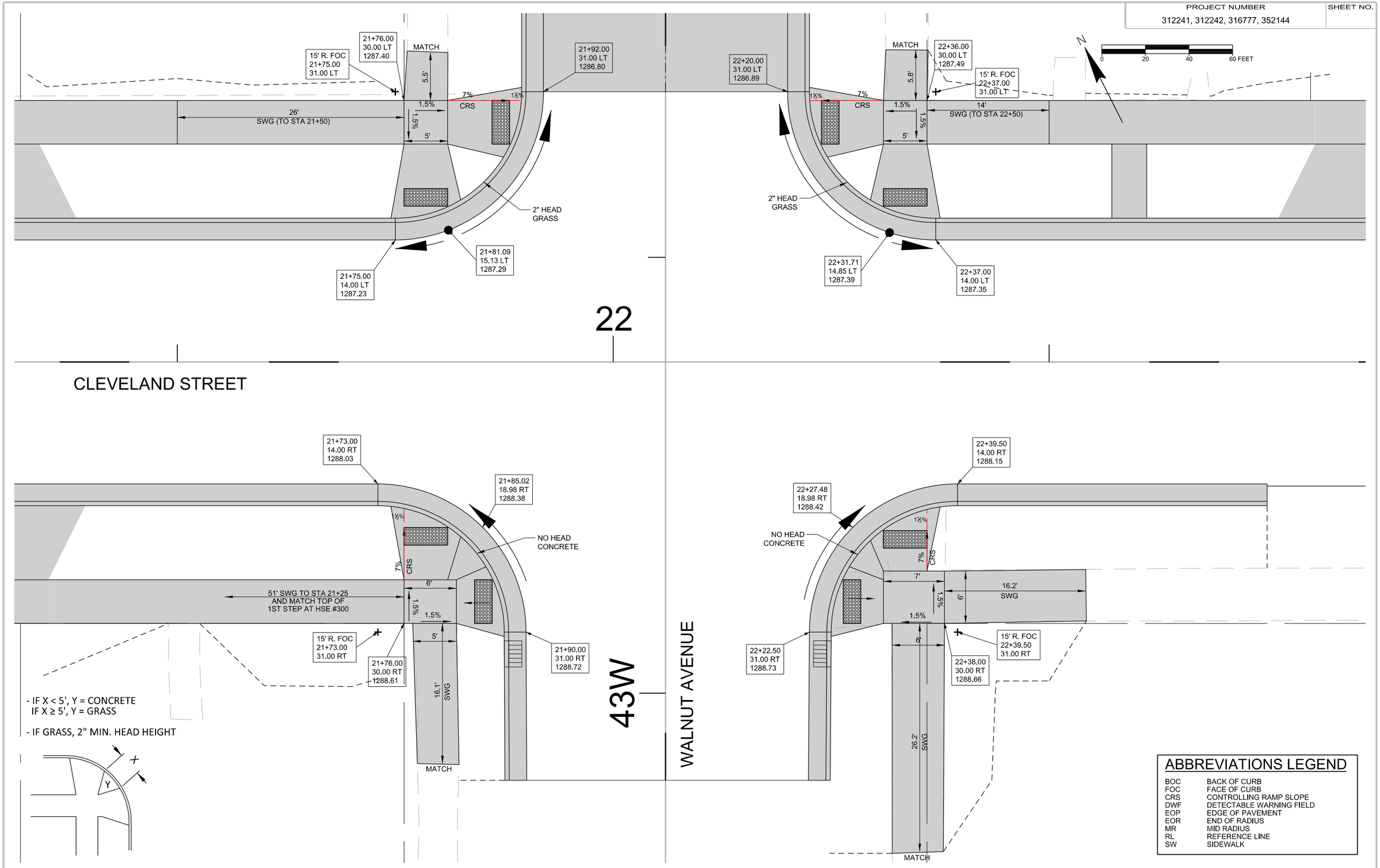


PLOTTED ON: 2/20/2020 3:19:46 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_ID_503_10.dgn

3653-ID3

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	



ABBREVIATIONS LEGEND

BOC	BACK OF CURB
FOC	FACE OF CURB
CRS	CONTROLLING RAMP SLOPE
DWF	DETECTABLE WARNING FIELD
EOP	EDGE OF PAVEMENT
EOR	END OF RADIUS
MR	MID RADIUS
RL	REFERENCE LINE
SW	SIDEWALK

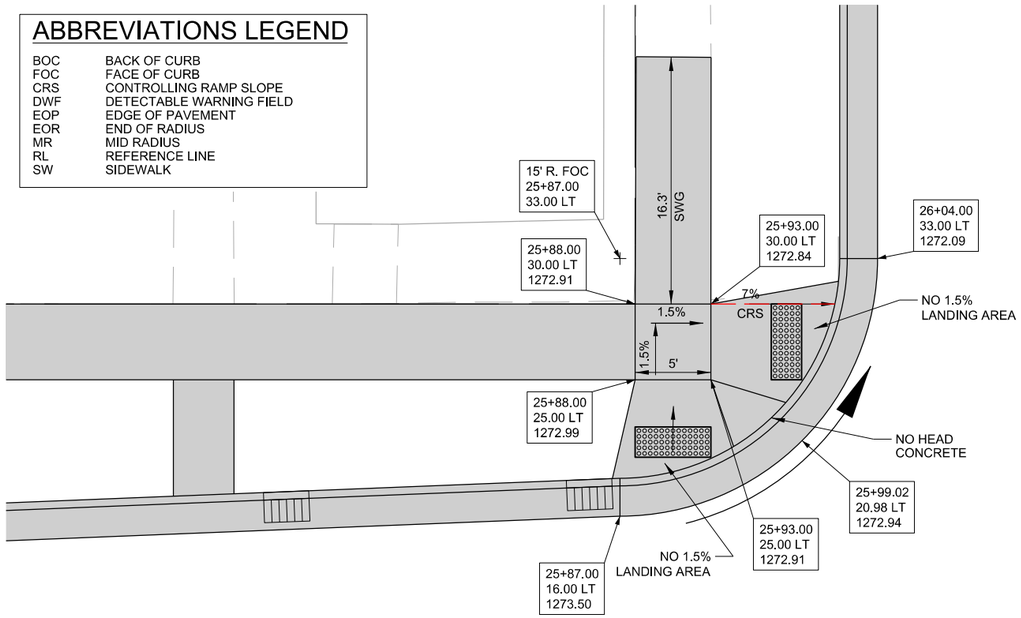
PLOTTED ON: 2/20/2020 3:19:48 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_ID_504_10.dgn

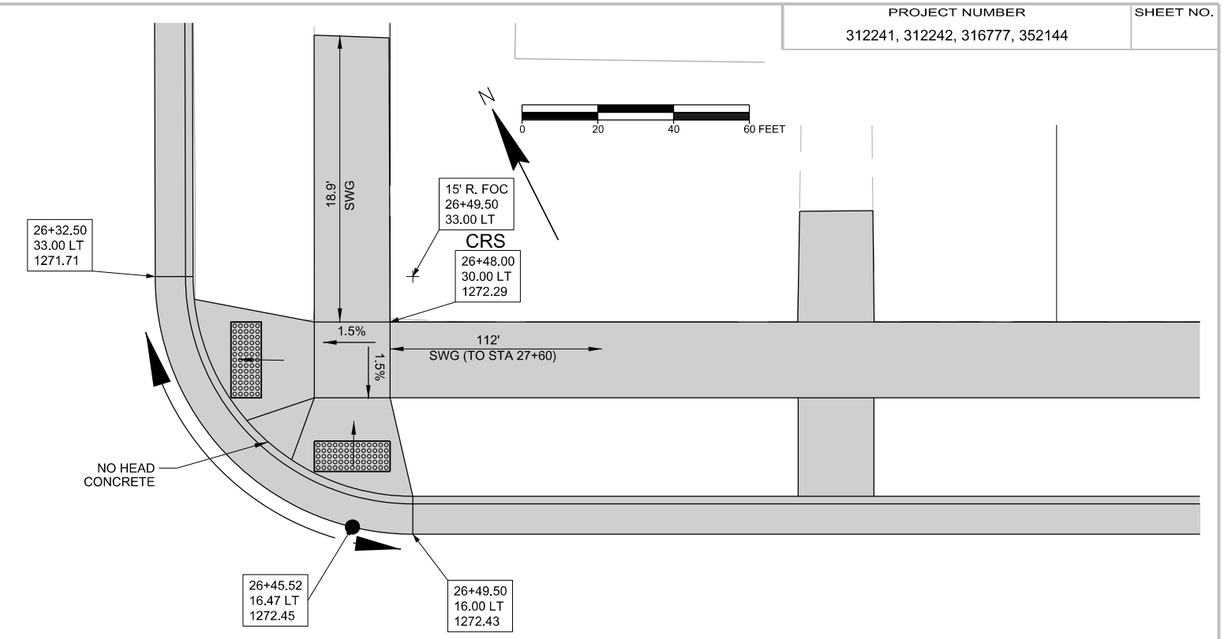
PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

ABBREVIATIONS LEGEND

BOC	BACK OF CURB
FOC	FACE OF CURB
CRS	CONTROLLING RAMP SLOPE
DWF	DETECTABLE WARNING FIELD
EOP	EDGE OF PAVEMENT
EOR	END OF RADIUS
MR	MID RADIUS
RL	REFERENCE LINE
SW	SIDEWALK

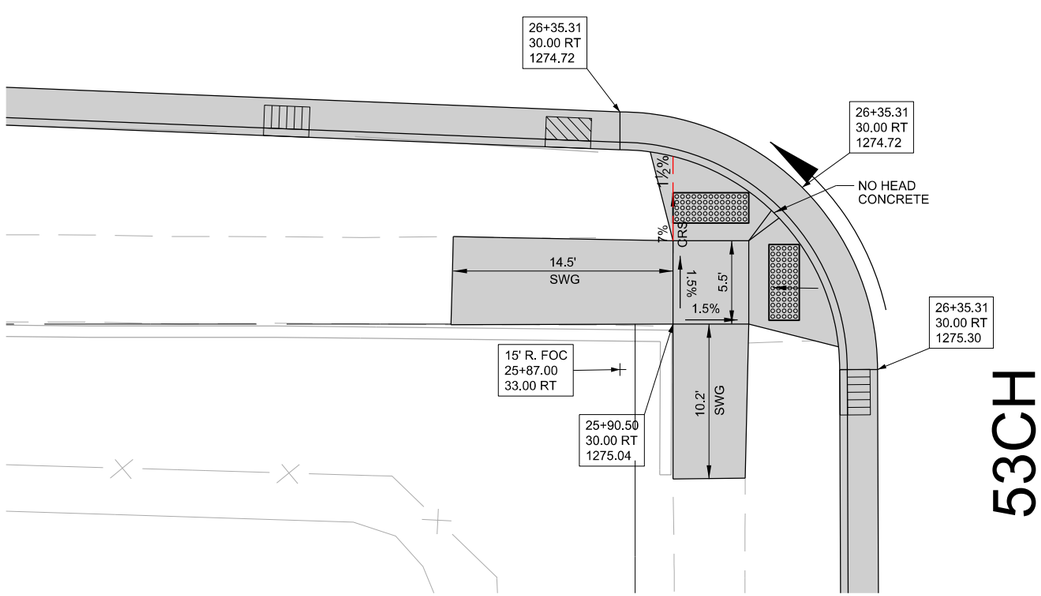


26



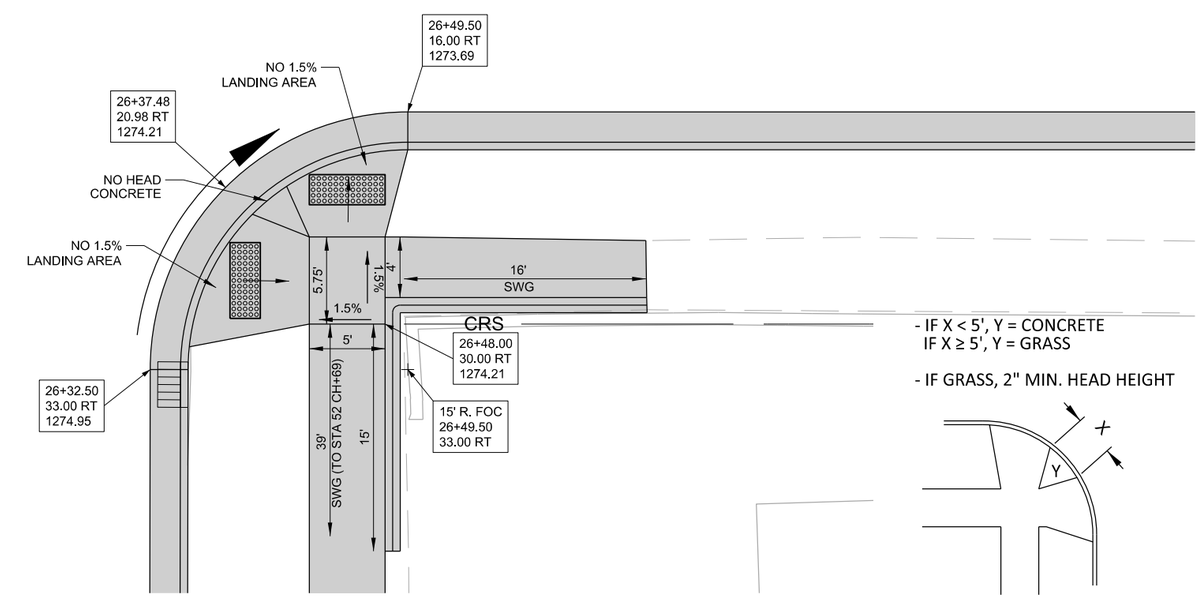
27

CLEVELAND STREET



53CH

CHESTNUT AVENUE



- IF X < 5', Y = CONCRETE
  IF X ≥ 5', Y = GRASS

- IF GRASS, 2" MIN. HEAD HEIGHT

PLOTTED ON: 2/20/2020 3:19:50 PM

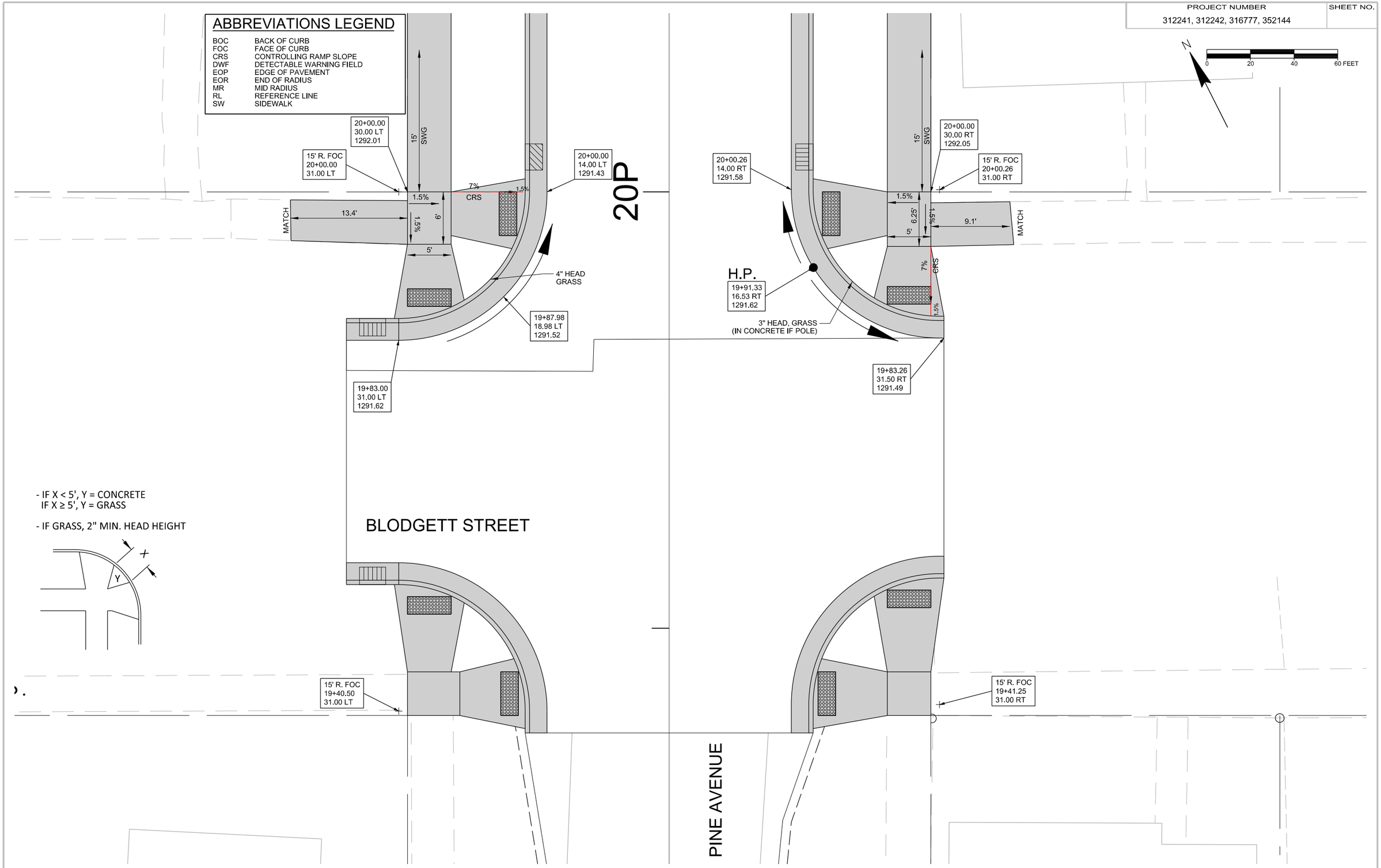
FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_ID_505_10.dgn

3653-ID5

PROJECT NUMBER	SHEET NO.
312241, 312242, 316777, 352144	

ABBREVIATIONS LEGEND

BOC	BACK OF CURB
FOC	FACE OF CURB
CRS	CONTROLLING RAMP SLOPE
DWF	DETECTABLE WARNING FIELD
EOP	EDGE OF PAVEMENT
EOR	END OF RADIUS
MR	MID RADIUS
RL	REFERENCE LINE
SW	SIDEWALK

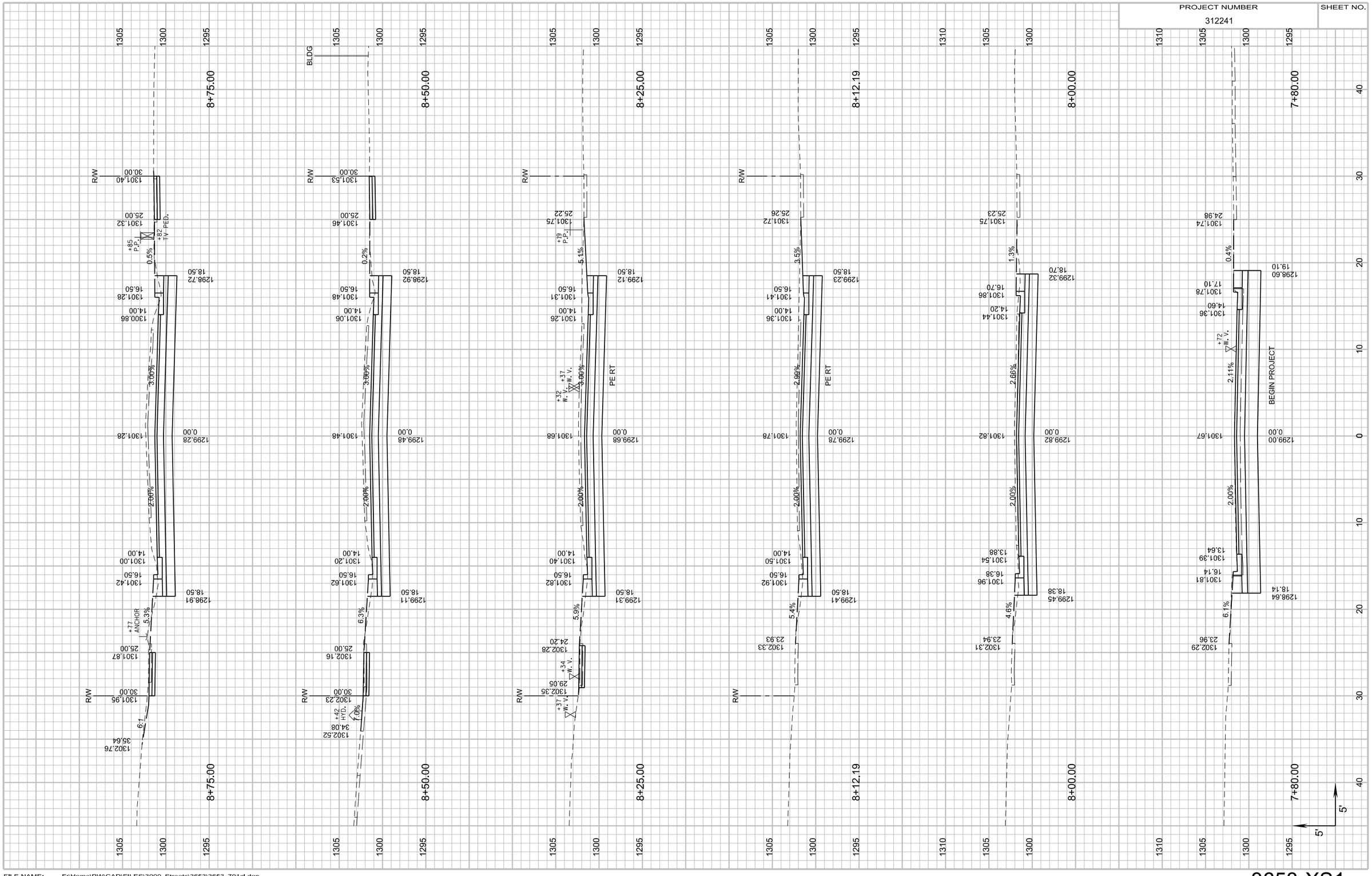


PLOTTED ON: 2/20/2020 3:19:52 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_ID_506_10.dgn

3653-ID6

PROJECT NUMBER	SHEET NO.
312241	



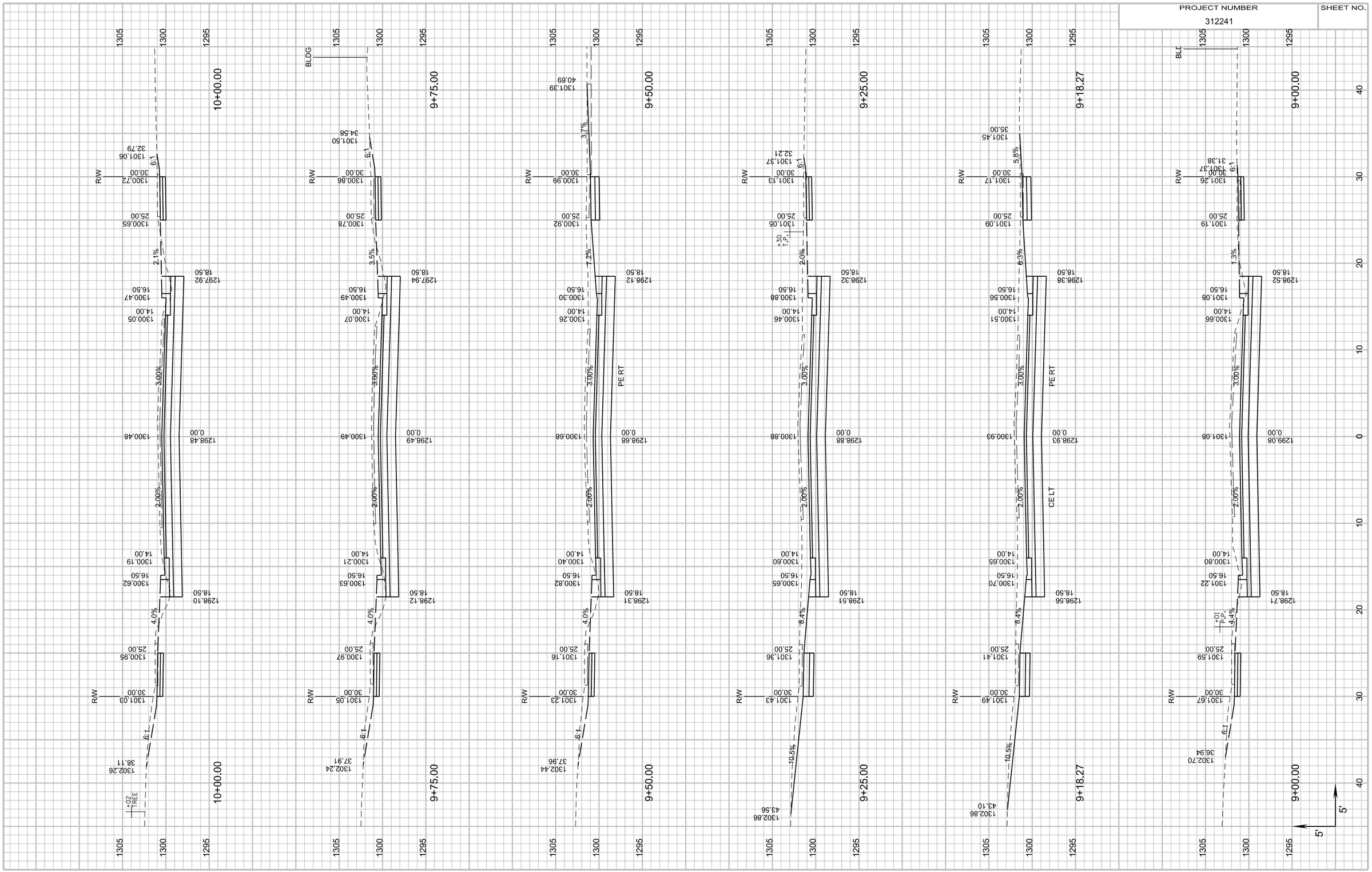
PLOTTED ON: 2/20/2020 3:19:54 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701d.dgn

CLEVELAND STREET STA. 7+80.00 TO STA. 8+75.00

3653-XS1

PROJECT NUMBER	SHEET NO.
312241	



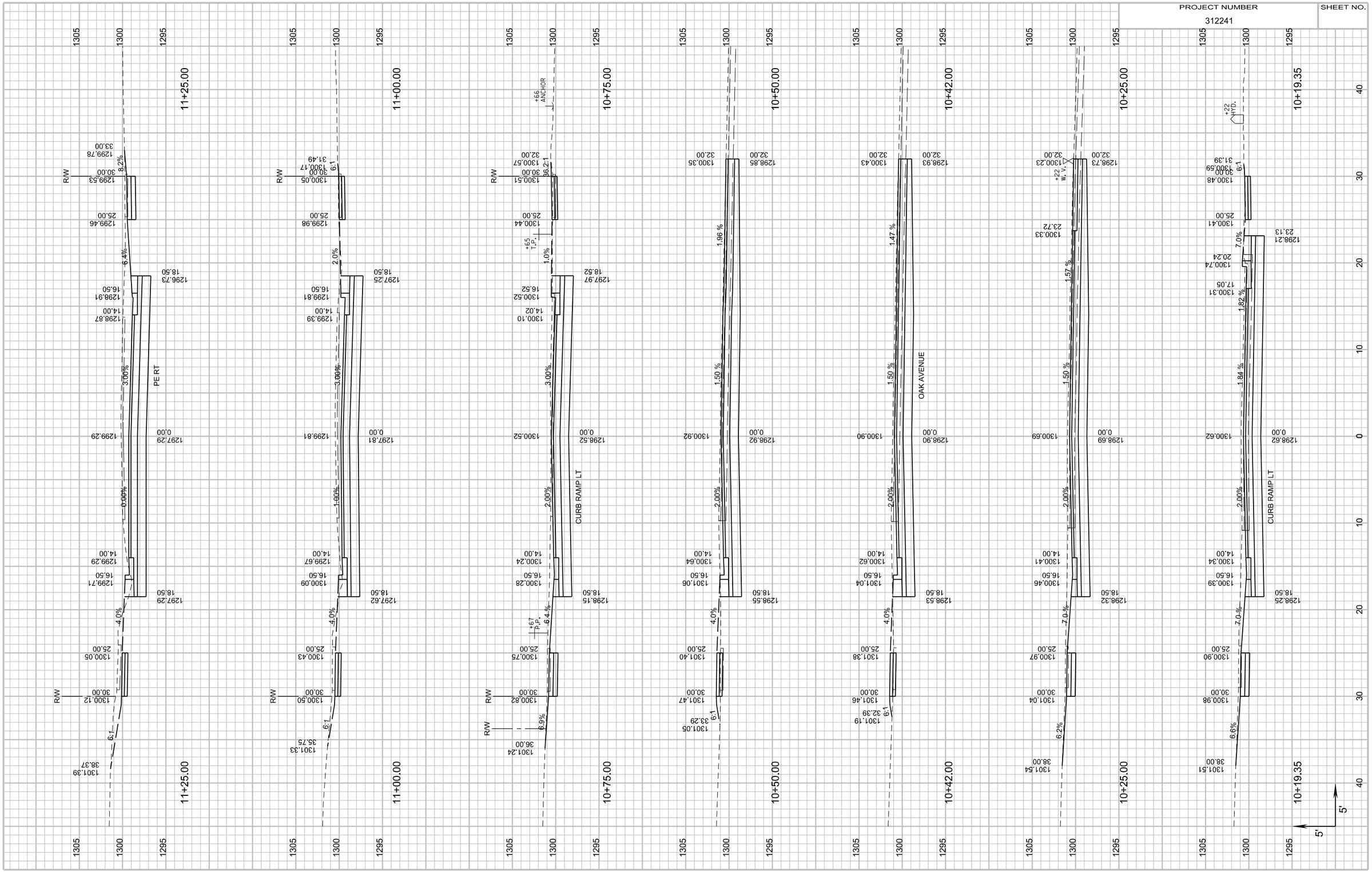
PLOTTED ON: 2/20/2020 3:19:55 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701cl.dgn

CLEVELAND STREET STA. 9+00.00 TO STA. 10+00.00

3653-XS2

PROJECT NUMBER	SHEET NO.
312241	



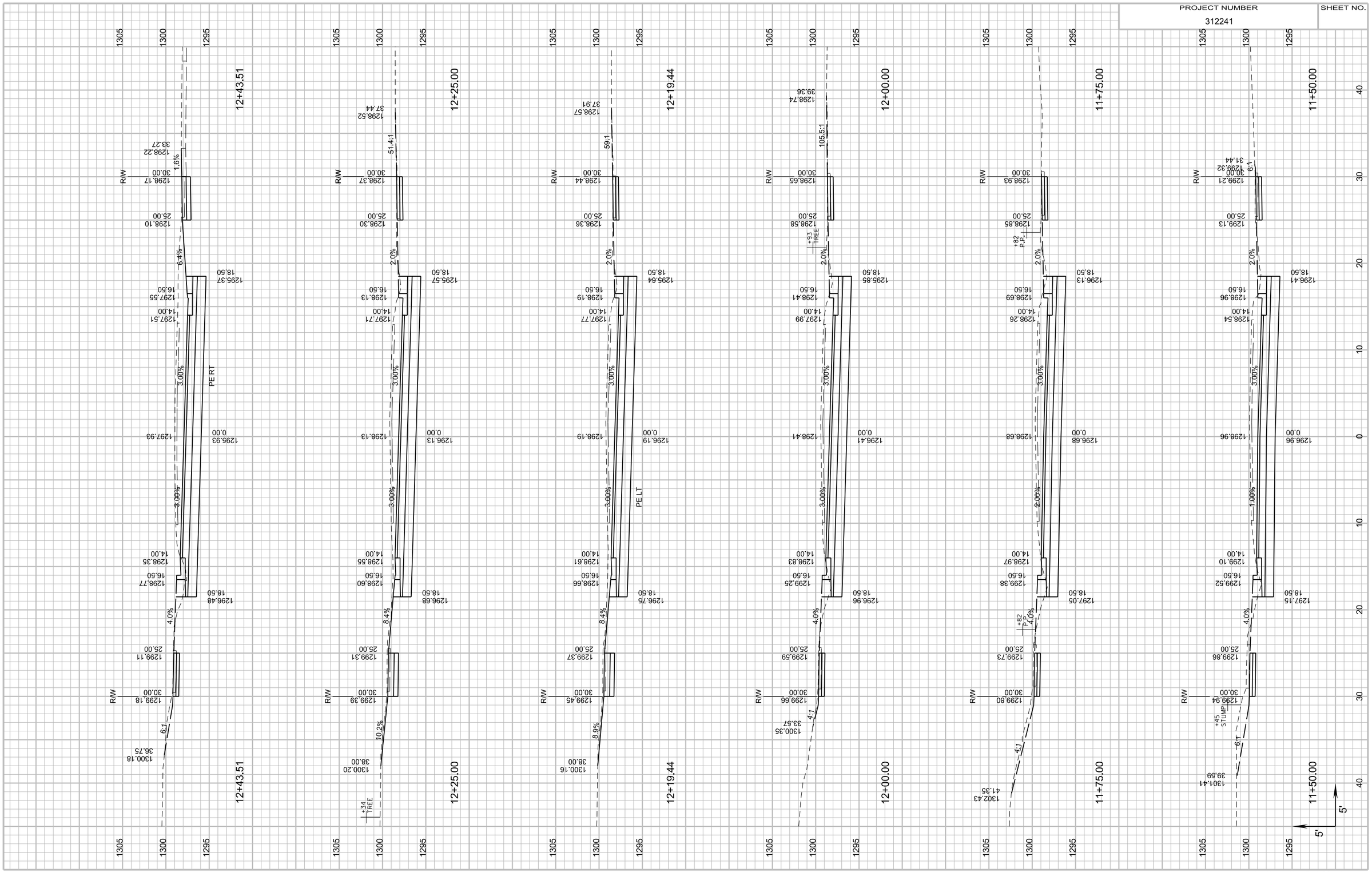
CLEVELAND STREET STA. 10+19.35 TO STA. 11+25.00

PLOTTED ON: 2/20/2020 3:19:56 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701d.dgn

3653-XS3

PROJECT NUMBER	SHEET NO.
312241	



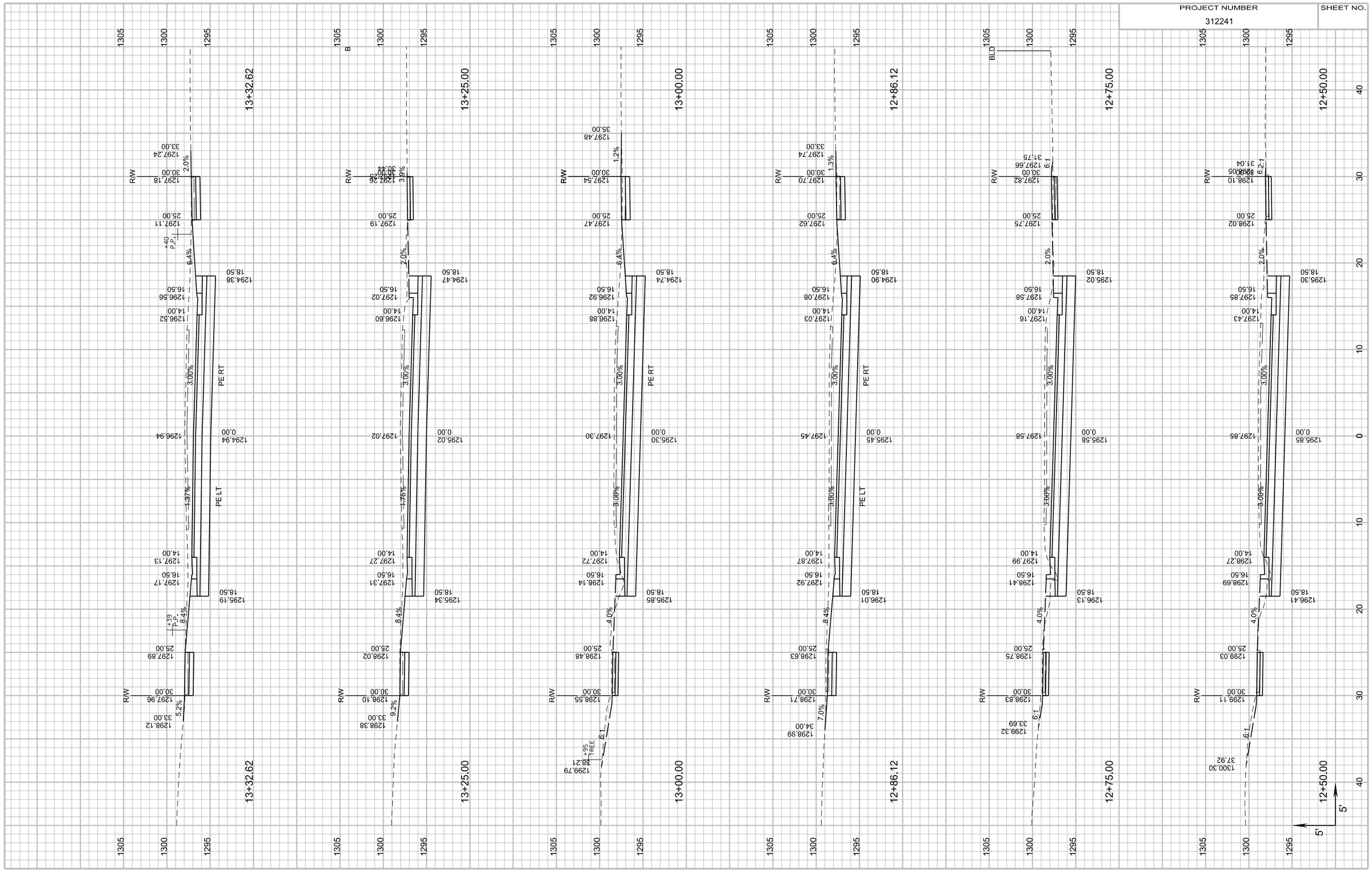
CLEVELAND STREET STA. 11+50.00 TO STA. 12+43.51

PLOTTED ON: 2/20/2020 3:19:57 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701d.dgn

3653-XS4

PROJECT NUMBER	SHEET NO.
312241	



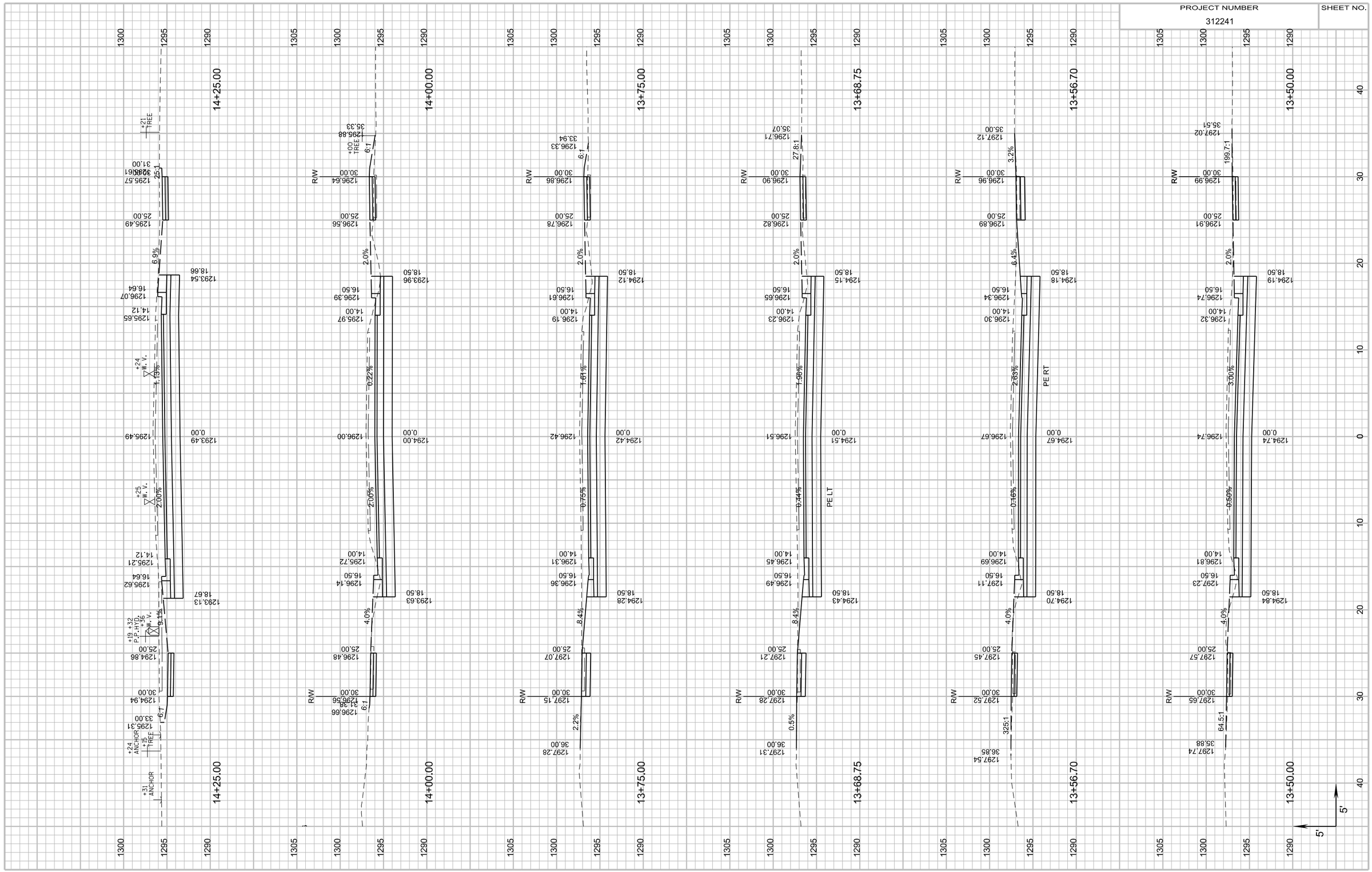
PLOTTED ON: 2/20/2020 3:19:58 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701d.dgn

CLEVELAND STREET STA. 12+50.00 TO STA. 13+32.62

3653-XS5

PROJECT NUMBER	SHEET NO.
312241	



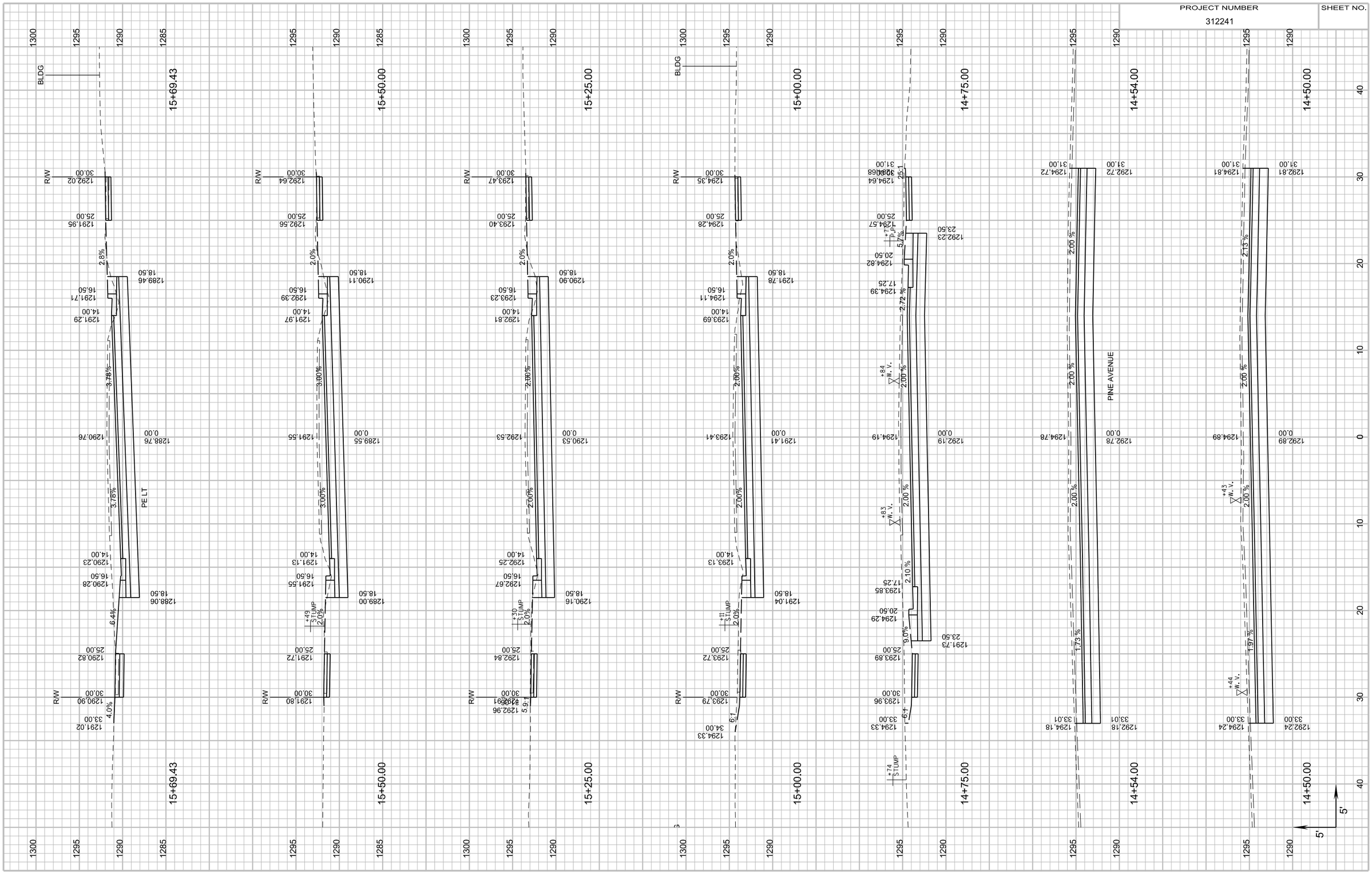
PLOTTED ON: 2/20/2020 3:19:59 PM

CLEVELAND STREET STA. 13+50.00 TO STA. 14+25.00

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701d.dgn

3653-XS6

PROJECT NUMBER	SHEET NO.
312241	

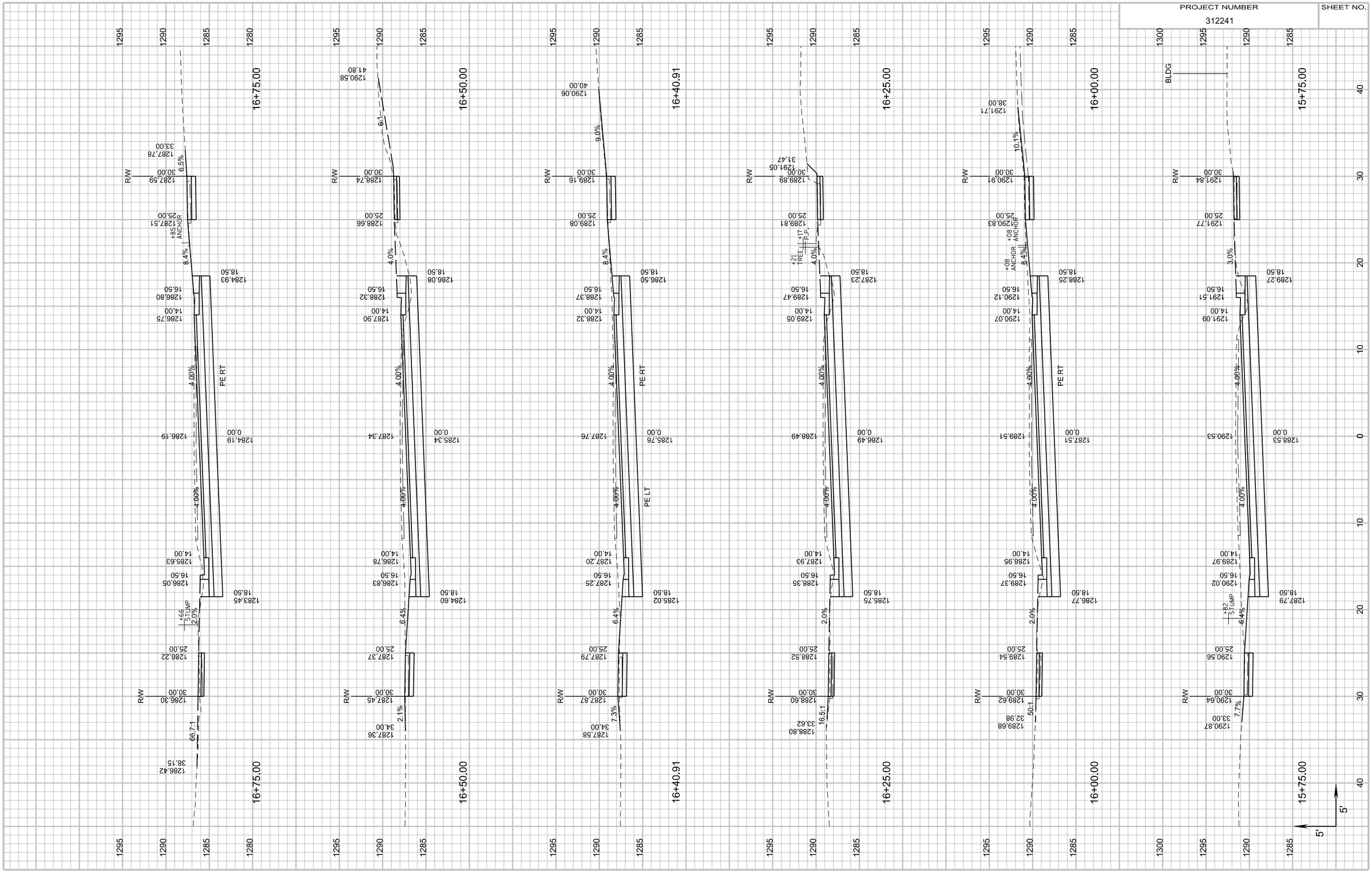


PLOTTED ON: 2/20/2020 3:20:01 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701d.dgn

3653-XS7

PROJECT NUMBER	SHEET NO.
312241	



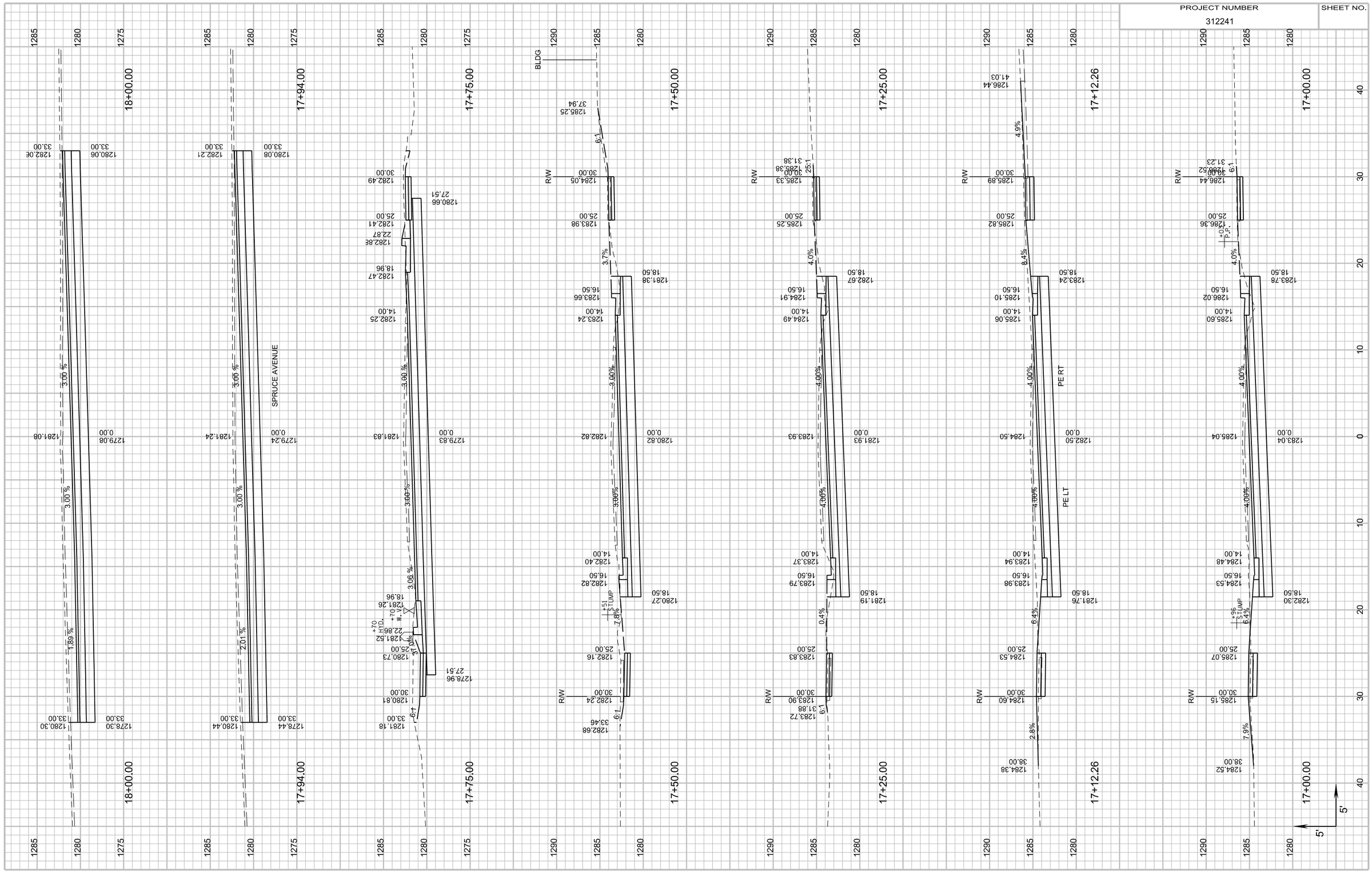
PLOTTED ON: 2/20/2020 3:20:02 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701d.dgn

CLEVELAND STREET STA. 15+75.00 TO STA. 16+75.00

3653-XS8

PROJECT NUMBER	SHEET NO.
312241	



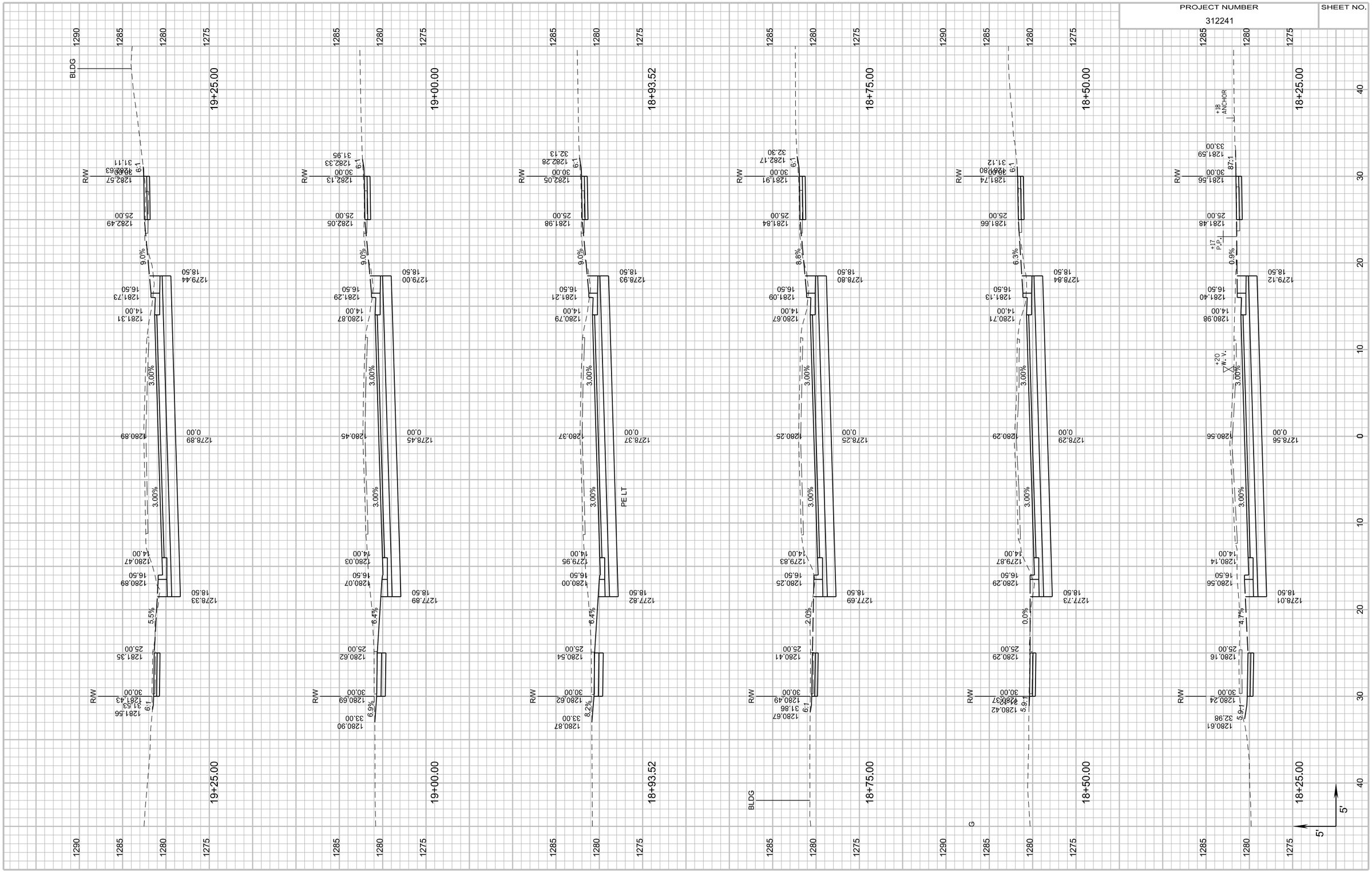
PLOTTED ON: 2/20/2020 3:20:03 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701d.dgn

CLEVELAND STREET STA. 17+00.00 TO STA. 18+00.00

3653-XS9

PROJECT NUMBER	SHEET NO.
312241	



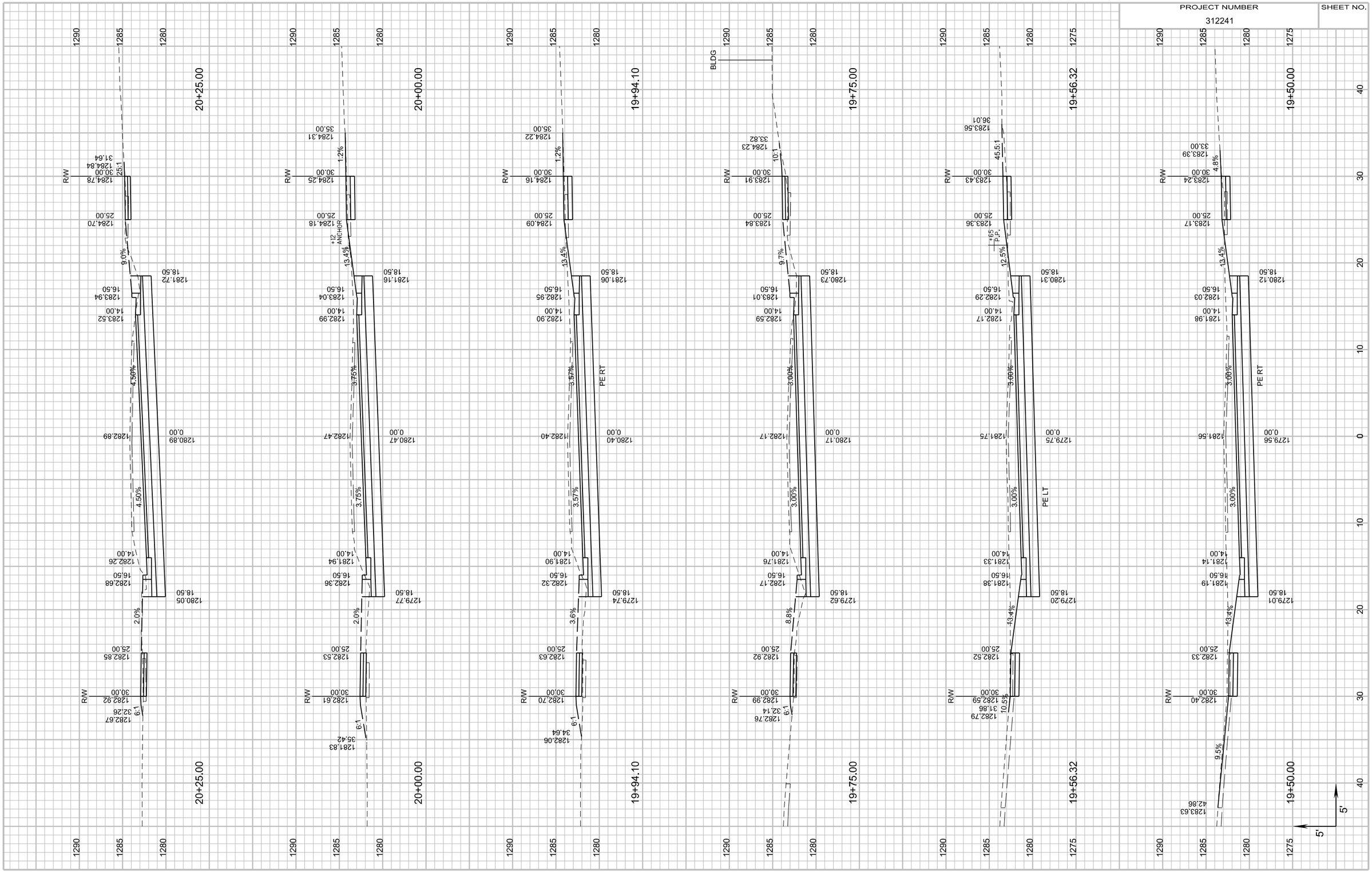
PLOTTED ON: 2/20/2020 3:20:04 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701cl.dgn

CLEVELAND STREET STA. 18+25.00 TO STA. 19+25.00

3653-XS10

PROJECT NUMBER	SHEET NO.
312241	



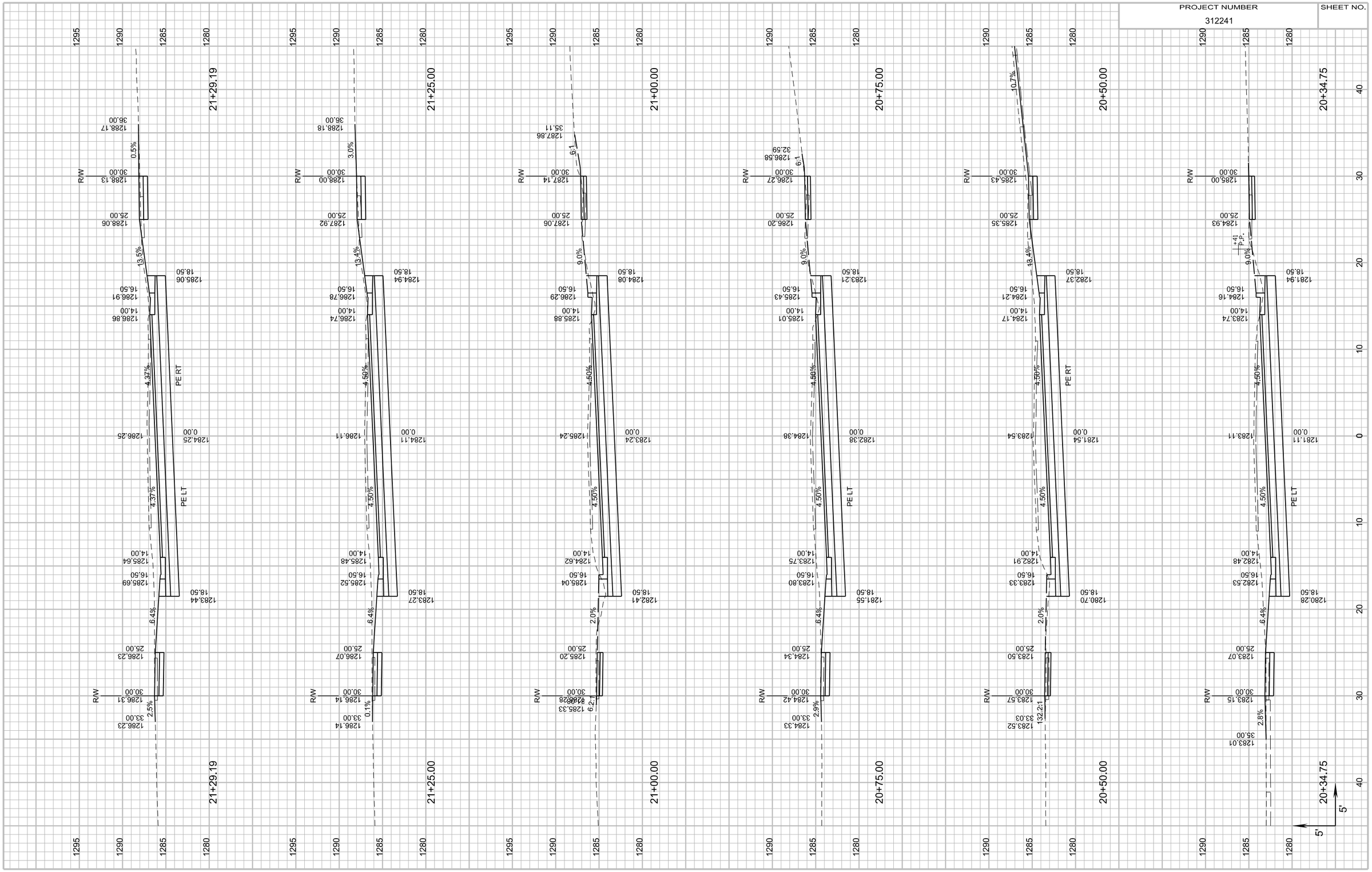
PLOTTED ON: 2/20/2020 3:20:05 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701d.dgn

CLEVELAND STREET STA. 19+50.00 TO STA. 20+25.00

3653-XS11

PROJECT NUMBER	SHEET NO.
312241	



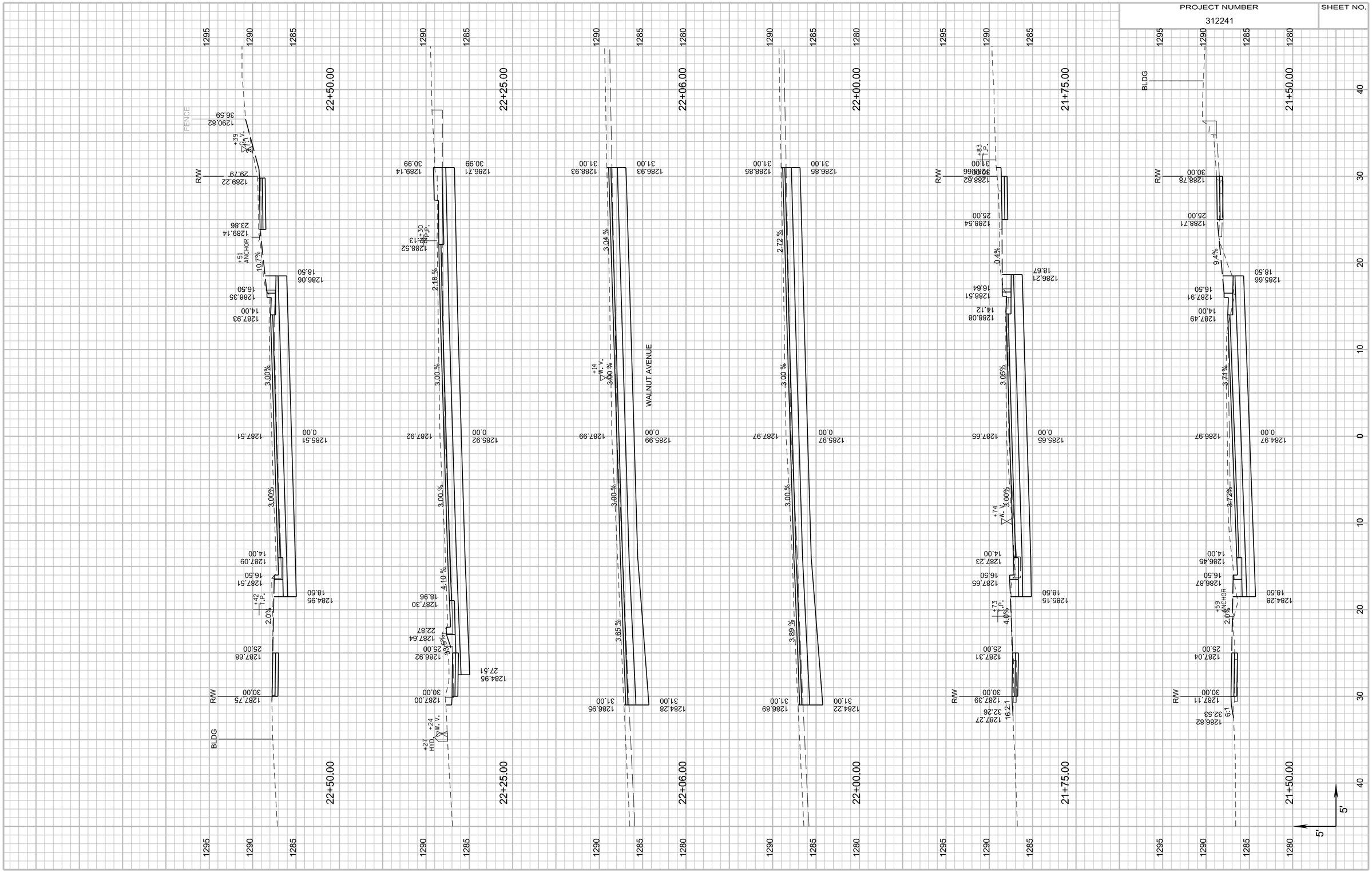
PLOTTED ON: 2/20/2020 3:20:06 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701d.dgn

CLEVELAND STREET STA. 20+34.75 TO STA. 21+29.19

3653-XS12

PROJECT NUMBER	SHEET NO.
312241	



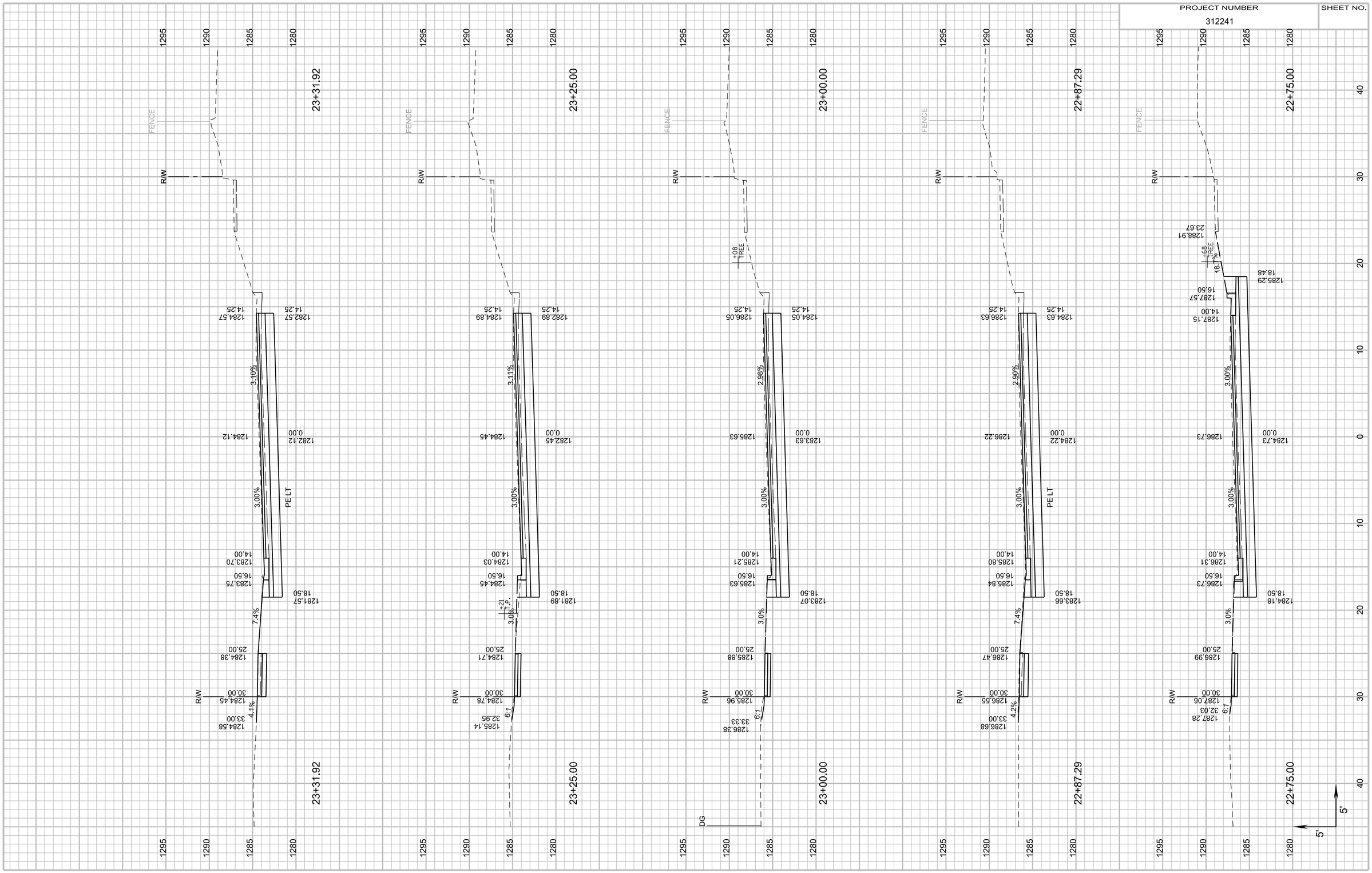
PLOTTED ON: 2/20/2020 3:20:07 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701d.dgn

CLEVELAND STREET STA. 21+50.00 TO STA. 22+50.00

3653-XS13

PROJECT NUMBER	SHEET NO.
312241	



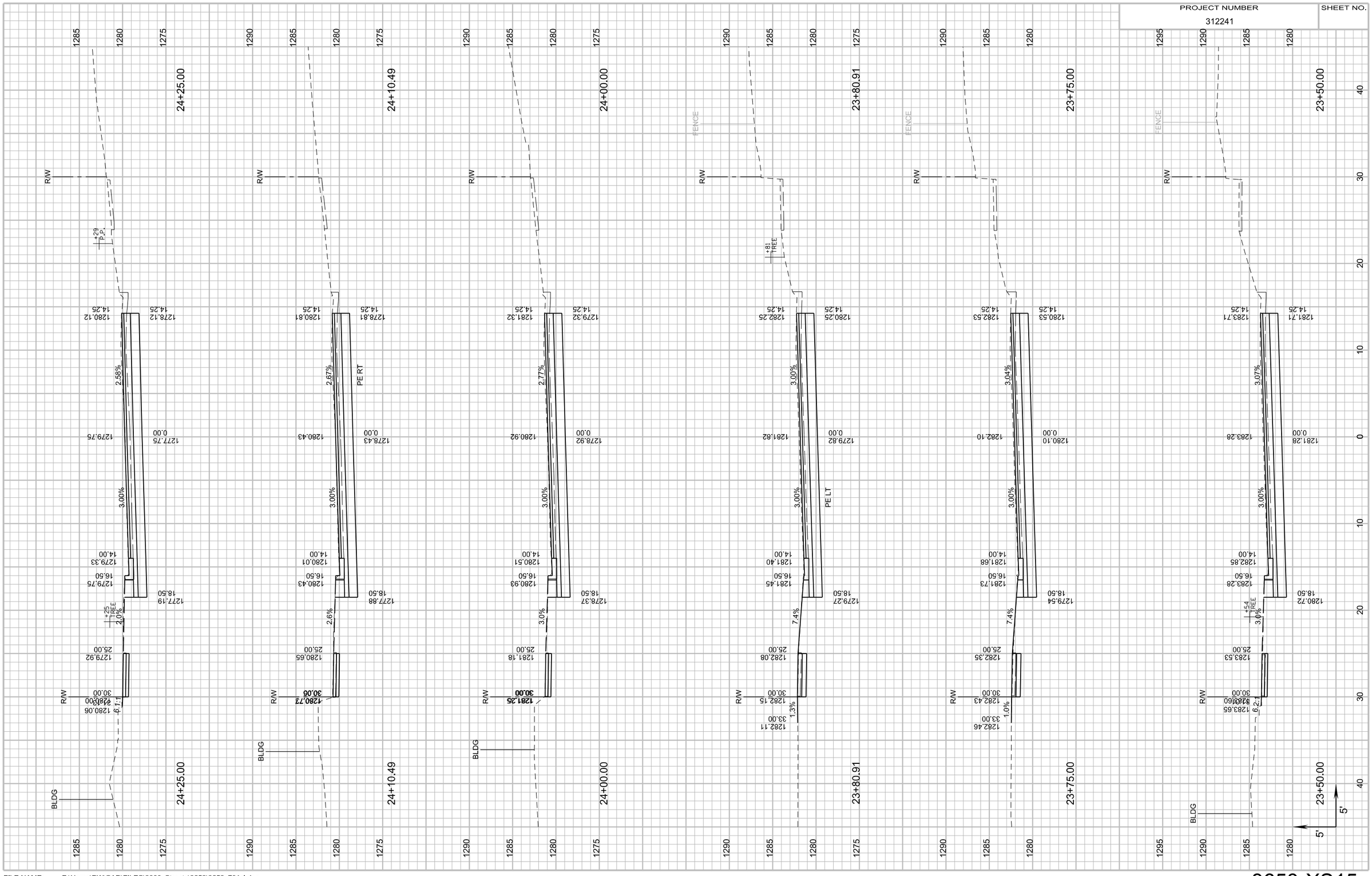
PLOTTED ON: 2/20/2020 3:20:08 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701d.dgn

CLEVELAND STREET STA. 22+75.00 TO STA. 23+31.92

3653-XS14

PROJECT NUMBER	SHEET NO.
312241	



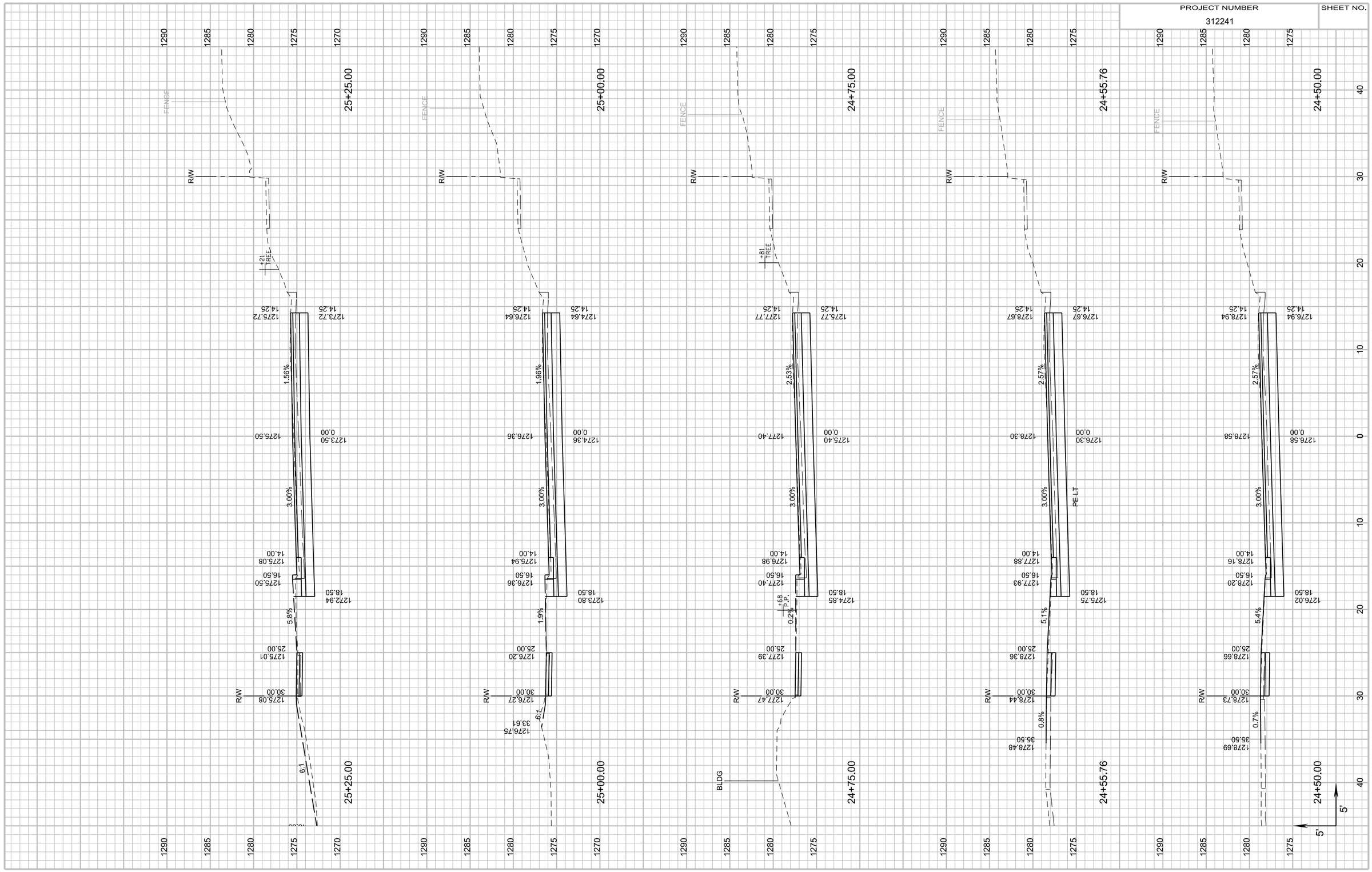
PLOTTED ON: 2/20/2020 3:20:09 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701d.dgn

CLEVELAND STREET STA. 23+50.00 TO STA. 24+25.00

3653-XS15

PROJECT NUMBER	SHEET NO.
312241	



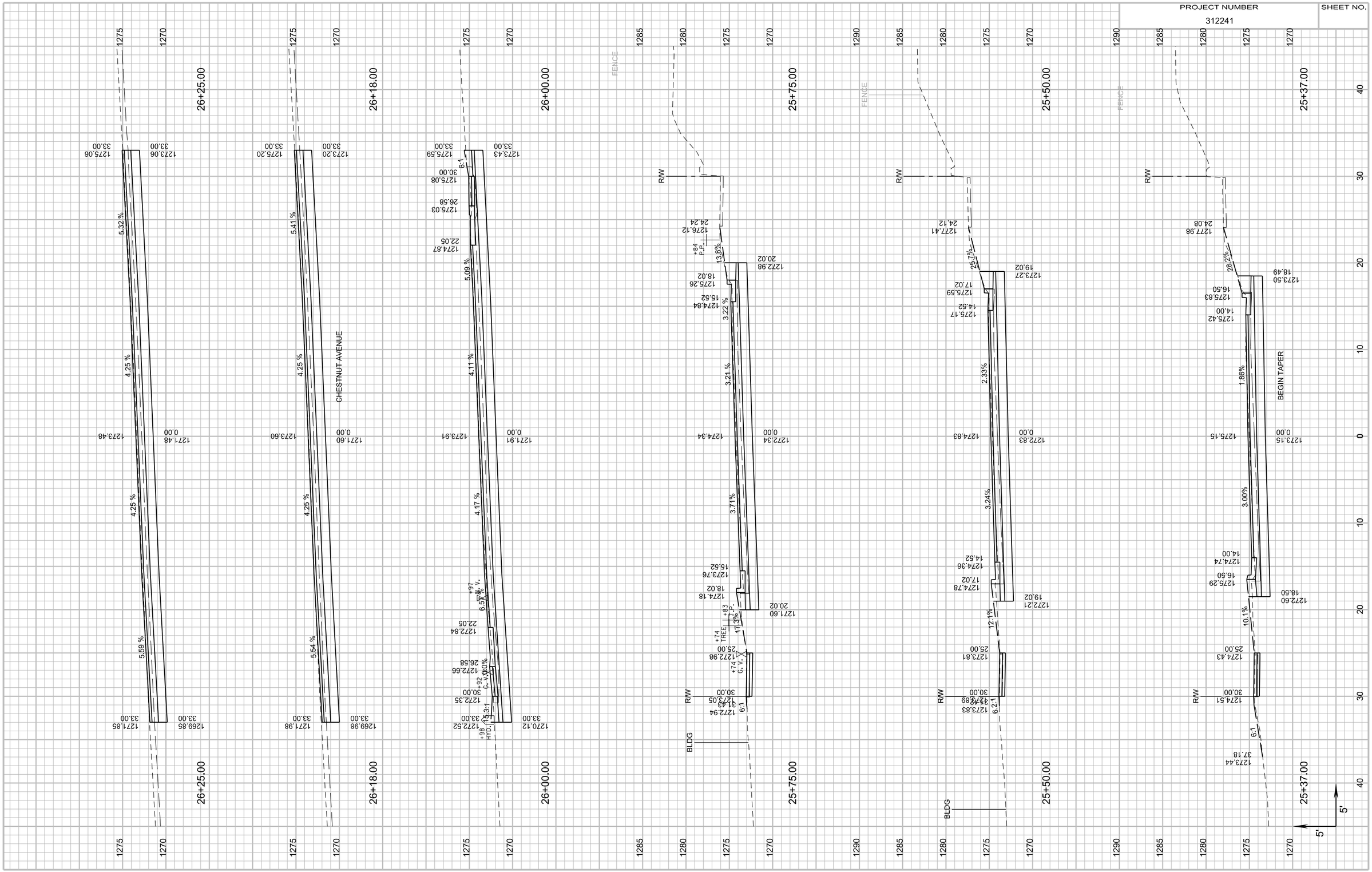
PLOTTED ON: 2/20/2020 3:20:10 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701d.dgn

CLEVELAND STREET STA. 24+50.00 TO STA. 25+25.00

3653-XS16

PROJECT NUMBER	SHEET NO.
312241	



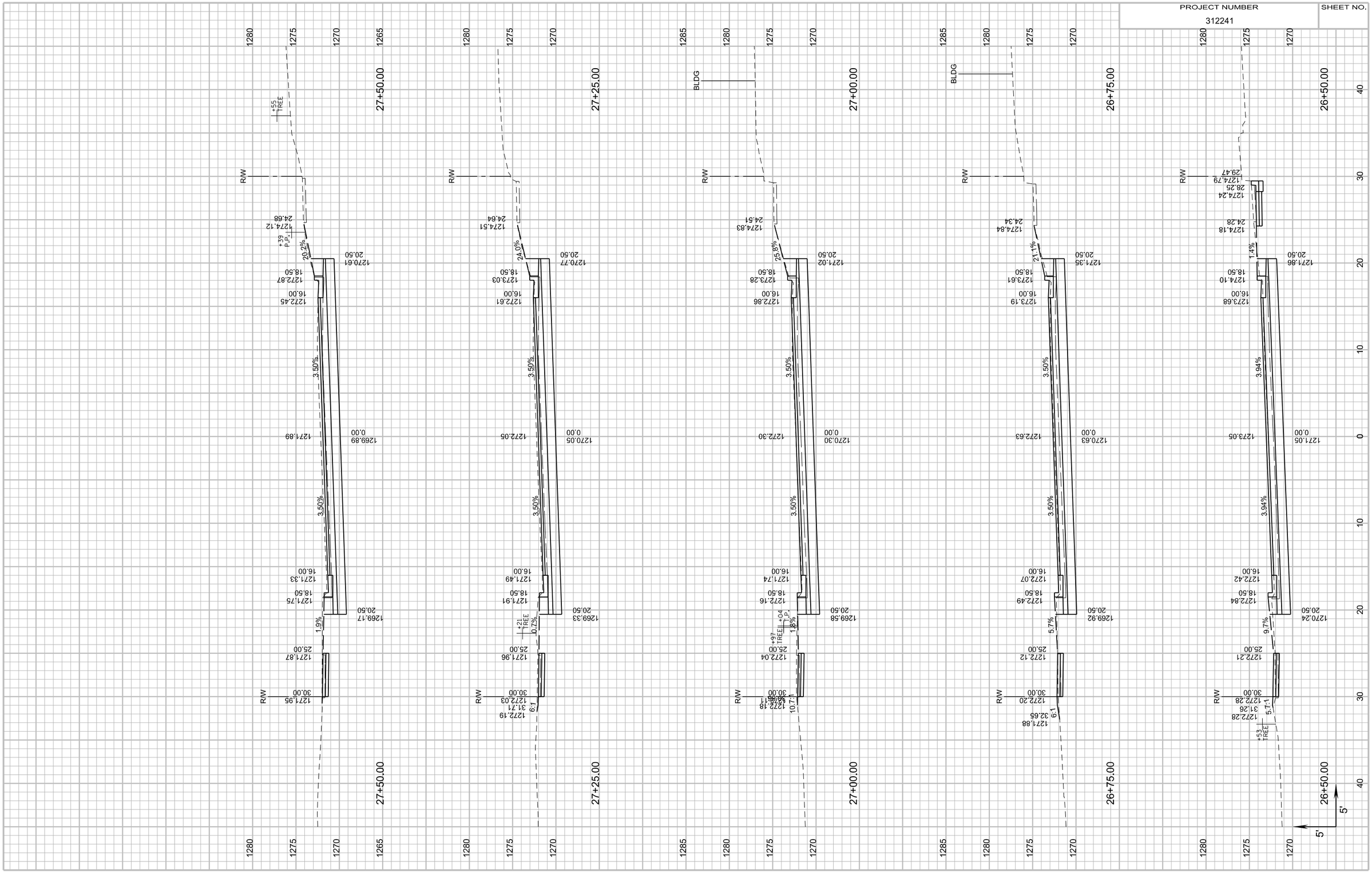
PLOTTED ON: 2/20/2020 3:20:11 PM

CLEVELAND STREET STA. 25+37.00 TO STA. 26+25.00

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701d.dgn

3653-XS17

PROJECT NUMBER	SHEET NO.
312241	



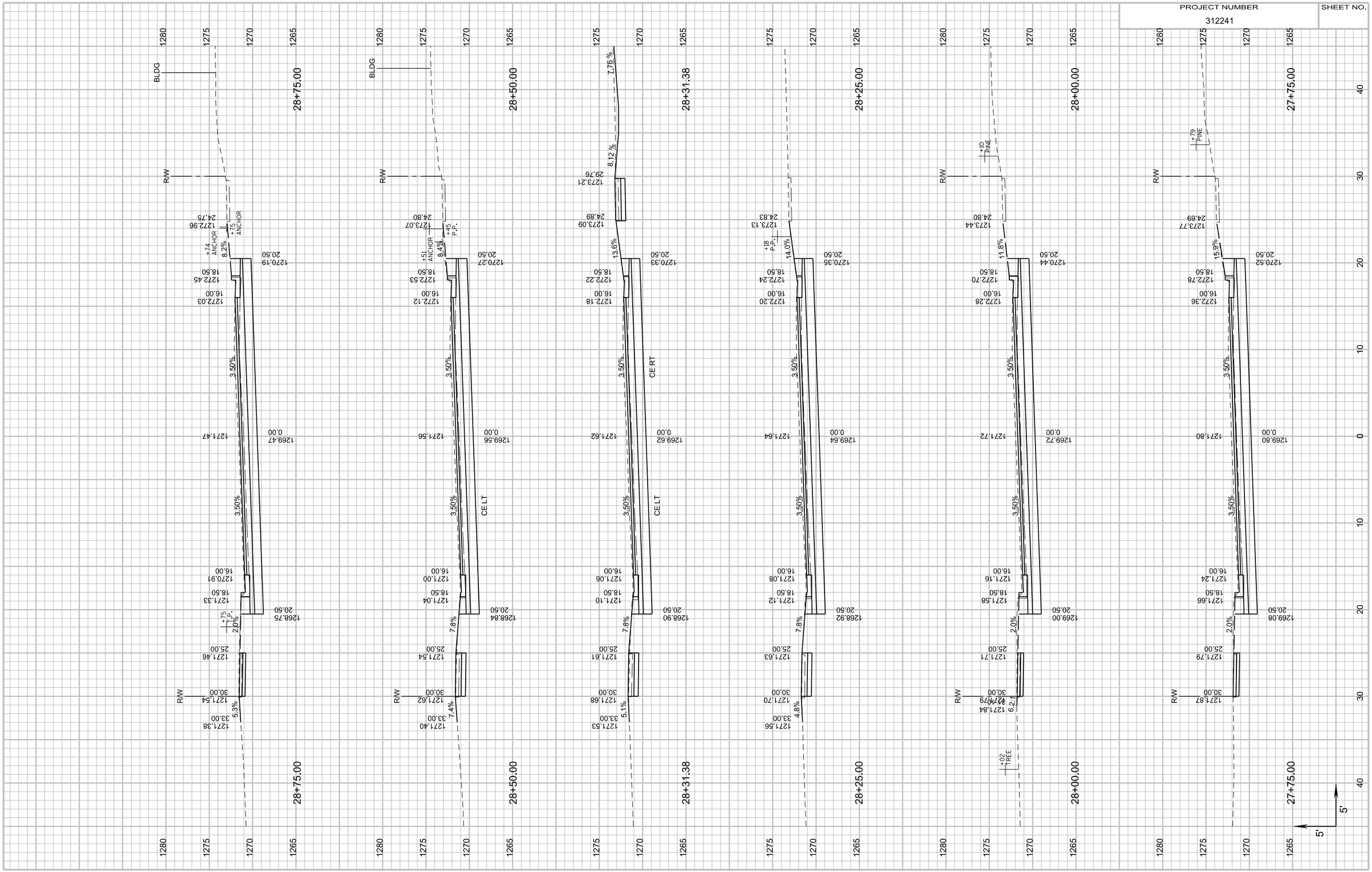
PLOTTED ON: 2/20/2020 3:20:13 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701d.dgn

CLEVELAND STREET STA. 26+50.00 TO STA. 27+50.00

3653-XS18

PROJECT NUMBER	SHEET NO.
312241	



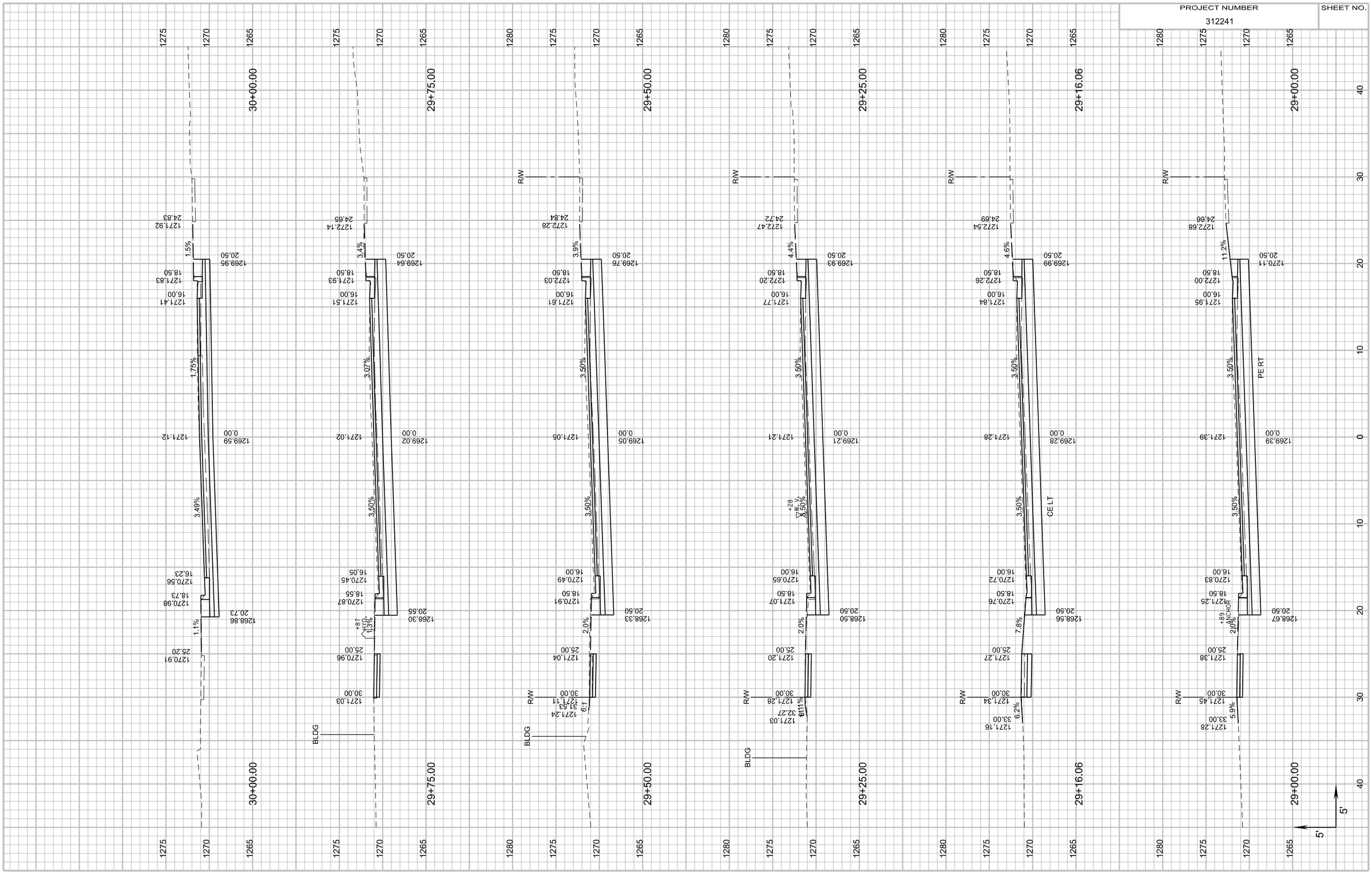
PLOTTED ON: 2/20/2020 3:20:14 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701cl.dgn

CLEVELAND STREET STA. 27+75.00 TO STA. 28+75.00

3653-XS19

PROJECT NUMBER	SHEET NO.
312241	



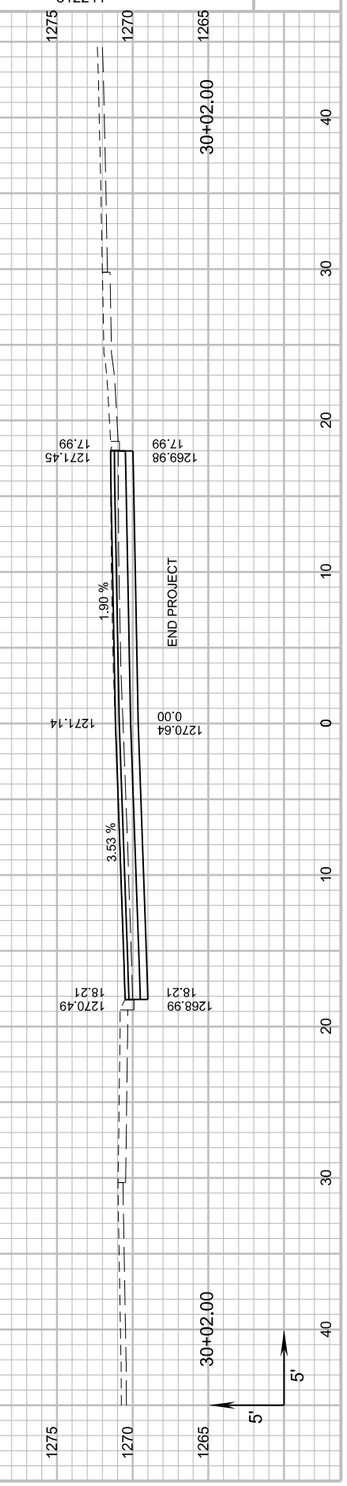
PLOTTED ON: 2/20/2020 3:20:15 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701cl.dgn

CLEVELAND STREET STA. 29+00.00 TO STA. 30+00.00

3653-XS20

PROJECT NUMBER	SHEET NO.
312241	



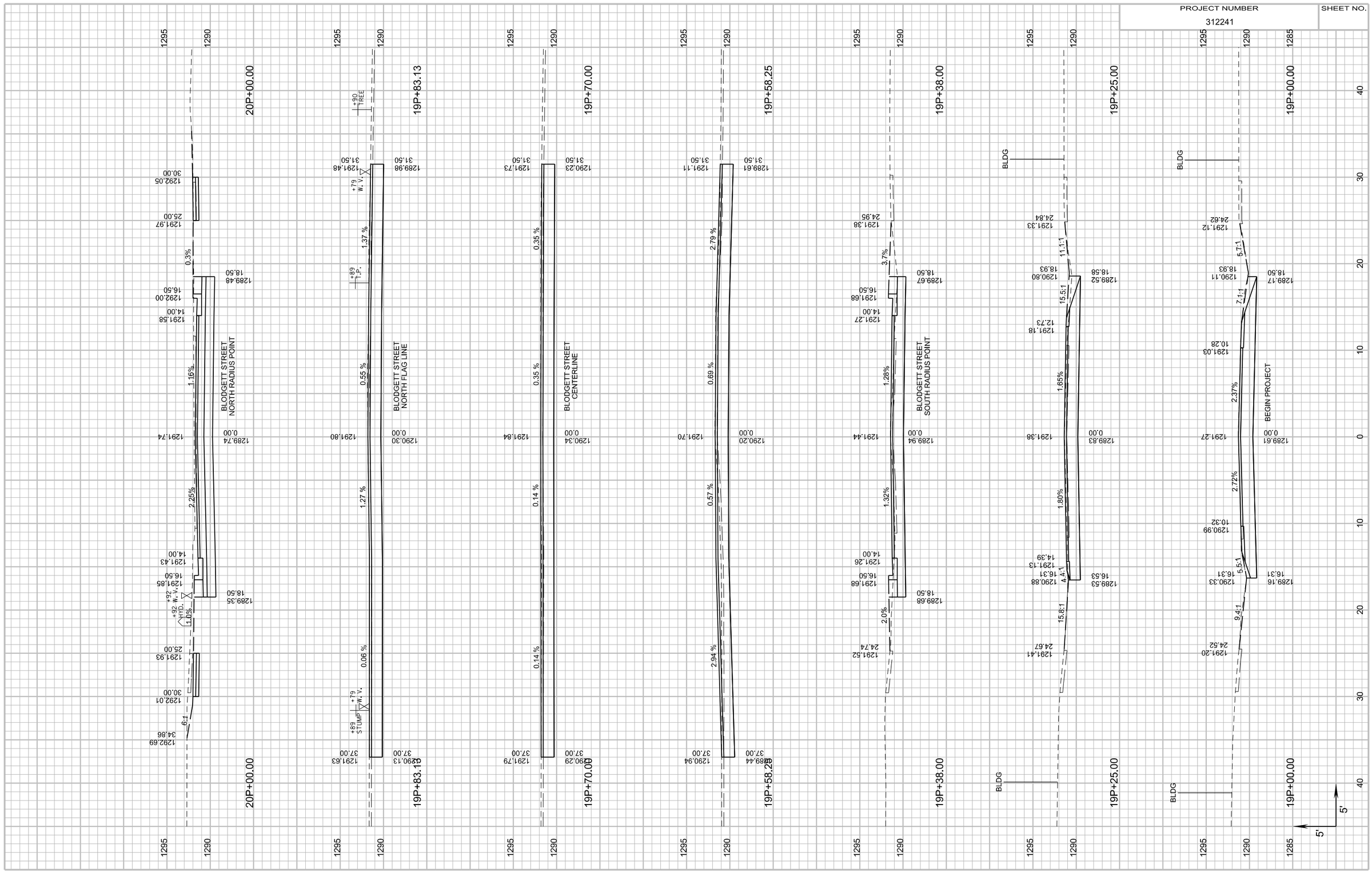
PLOTTED ON: 2/20/2020 3:20:16 PM

CLEVELAND STREET STA. 30+02.00 TO STA. 30+02.00

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701cl.dgn

3653-XS21

PROJECT NUMBER	SHEET NO.
312241	



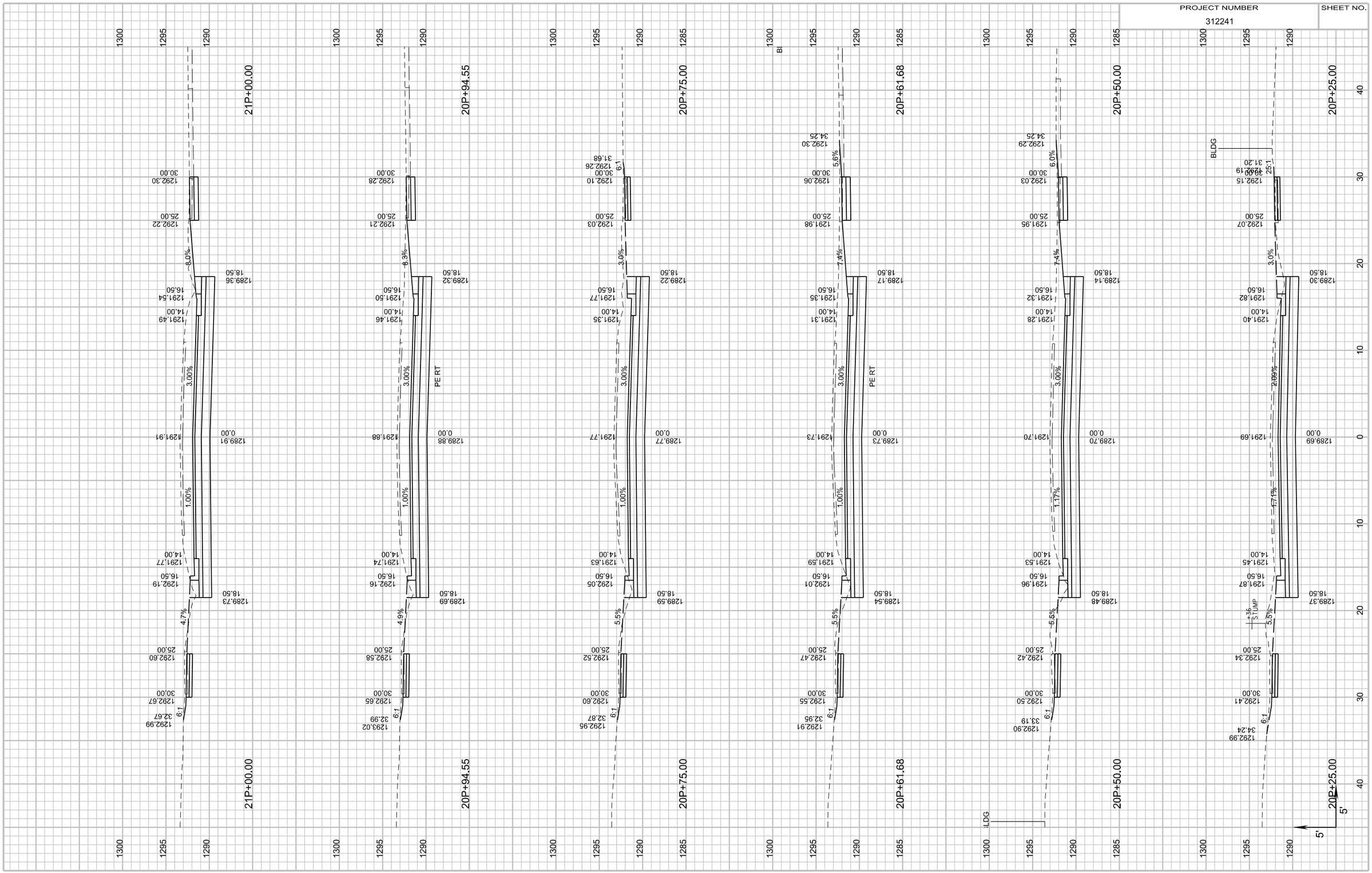
PLOTTED ON: 2/20/2020 3:20:17 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701p.dgn

PINE AVENUE STA. 19P+00.00 TO STA. 20P+00.00

3653-XS22

PROJECT NUMBER	SHEET NO.
312241	



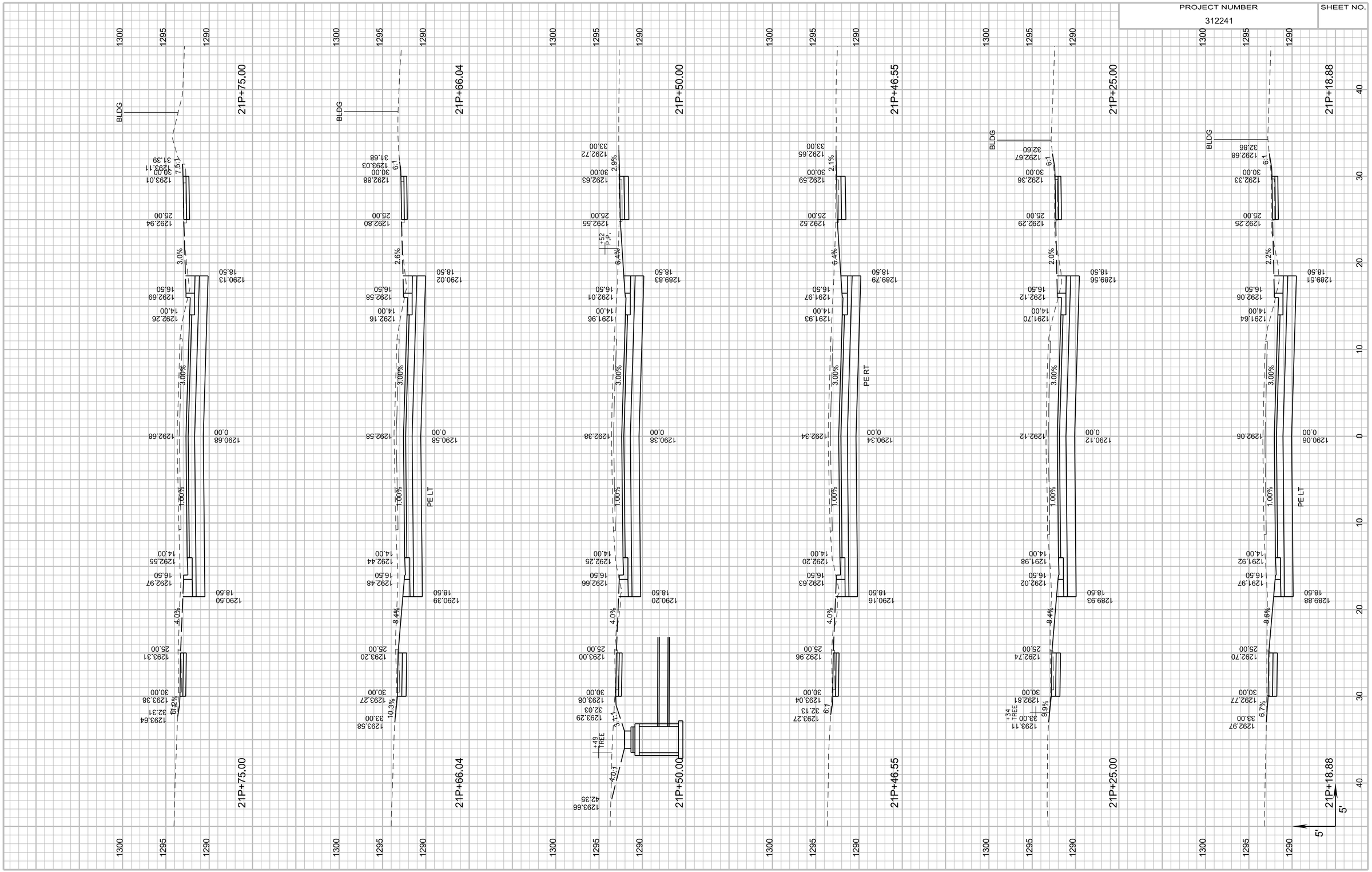
PLOTTED ON: 2/20/2020 3:20:18 PM

PINE AVENUE STA. 20P+25.00 TO STA. 21P+00.00

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701p.dgn

3653-XS23

PROJECT NUMBER	SHEET NO.
312241	



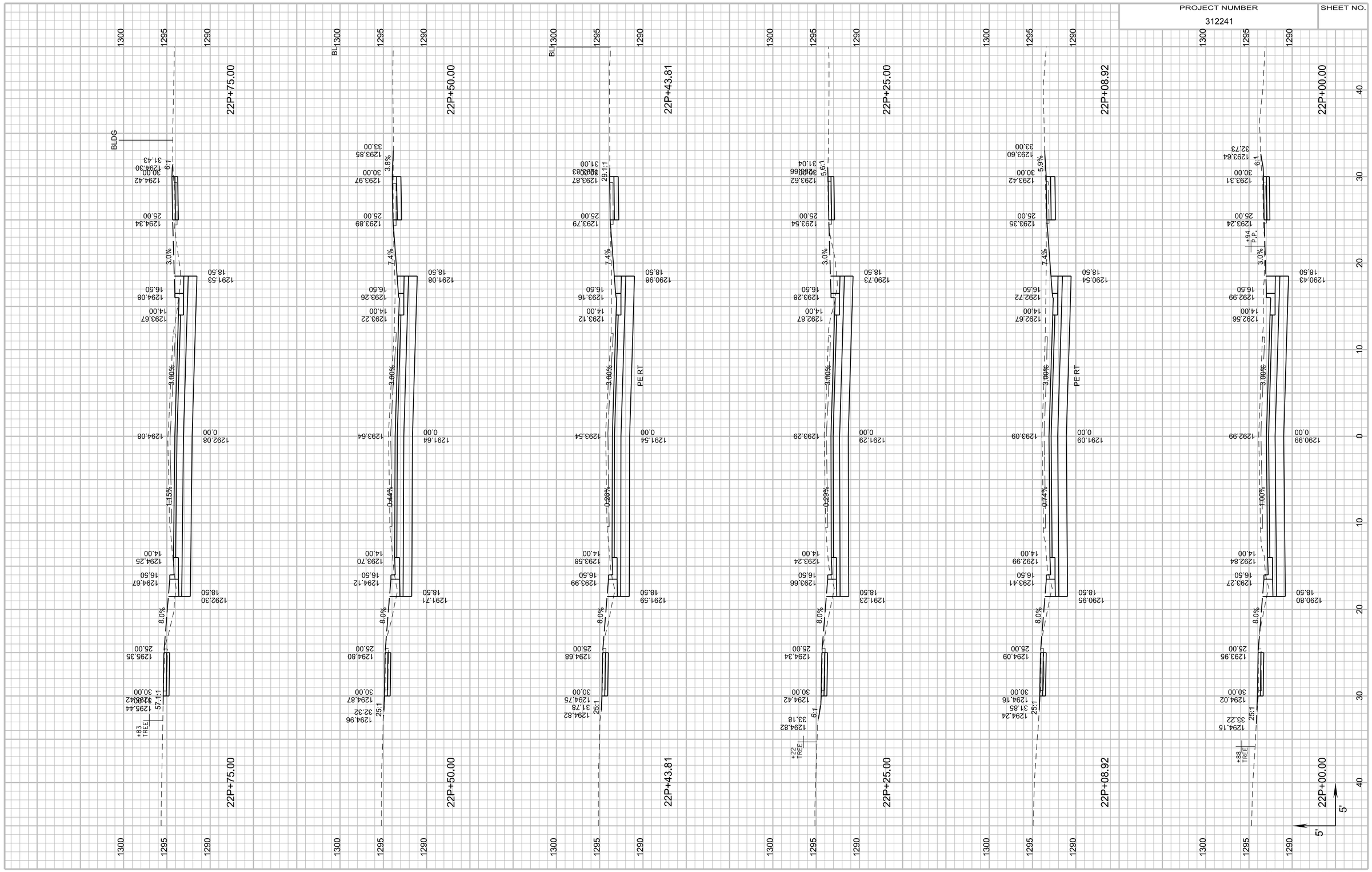
PINE AVENUE STA. 21P+18.88 TO STA. 21P+75.00

PLOTTED ON: 2/20/2020 3:20:19 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701p.dgn

3653-XS24

PROJECT NUMBER	SHEET NO.
312241	



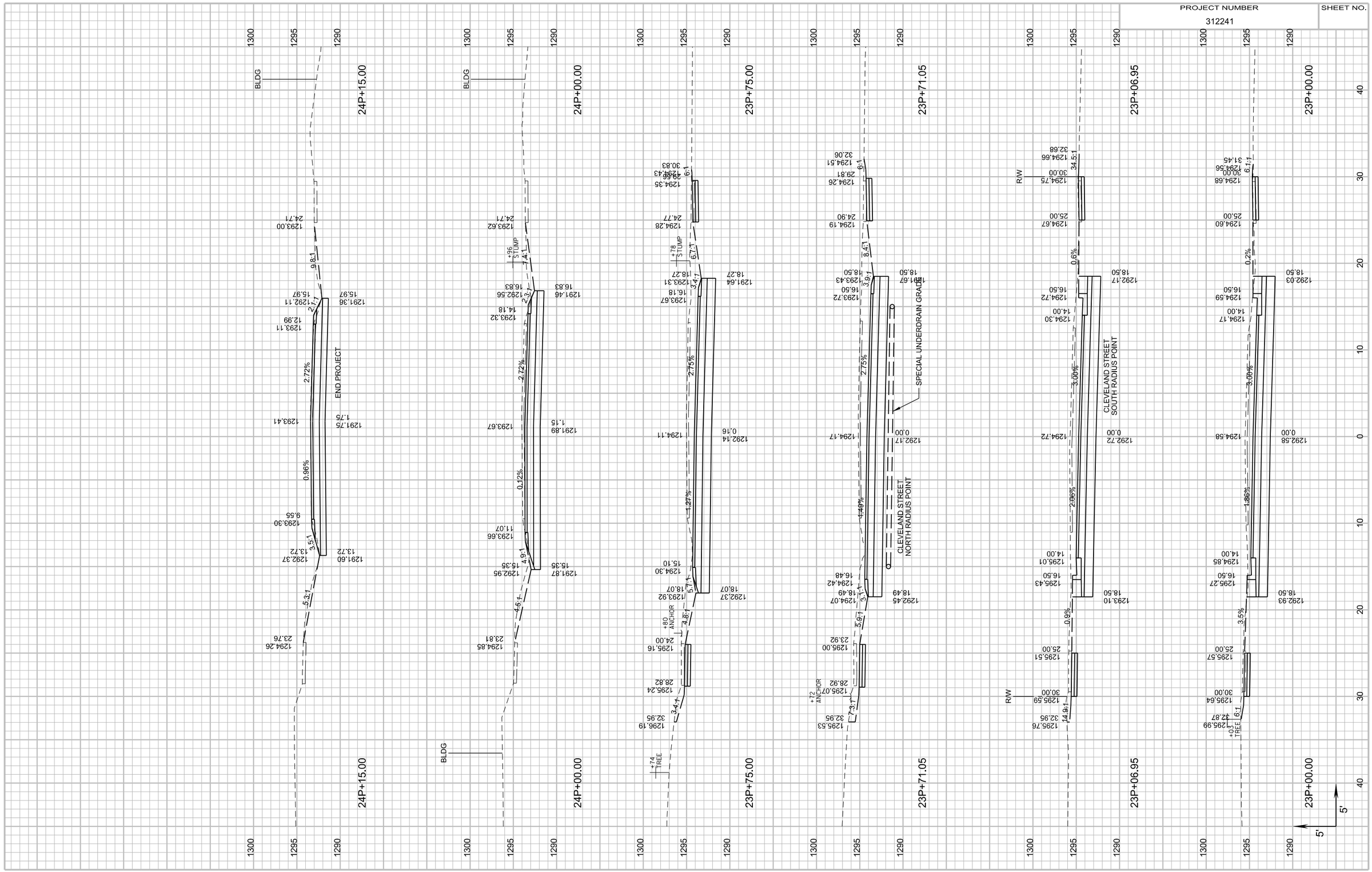
PINE AVENUE STA. 22P+00.00 TO STA. 22P+75.00

PLOTTED ON: 2/20/2020 3:20:20 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701p.dgn

3653-XS25

PROJECT NUMBER	SHEET NO.
312241	



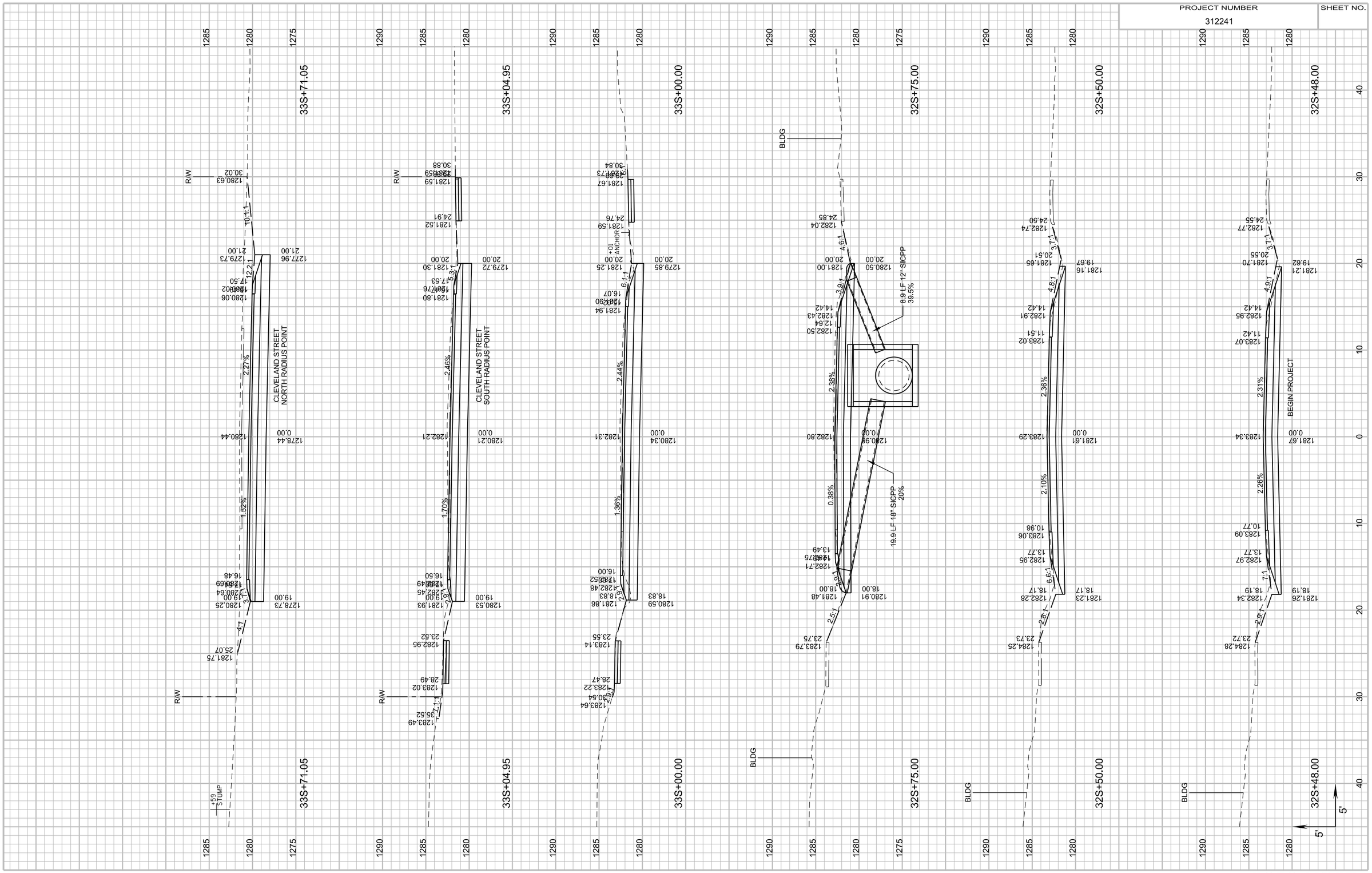
PLOTTED ON: 2/20/2020 3:20:21 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701p.dgn

PINE AVENUE STA. 23P+00.00 TO STA. 24P+15.00

3653-XS26

PROJECT NUMBER	SHEET NO.
312241	



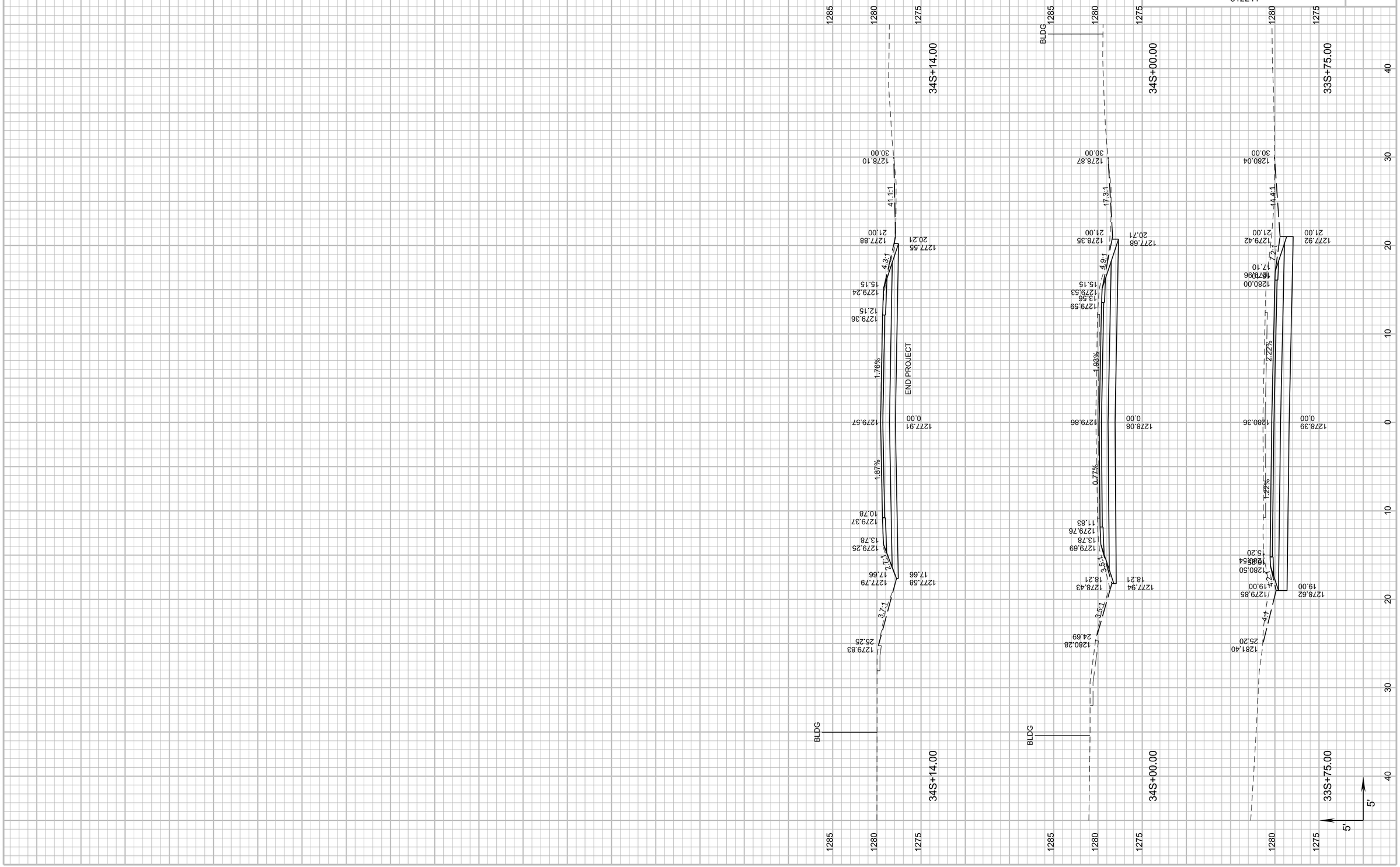
PLOTTED ON: 2/20/2020 3:20:22 PM

SPRUCE AVENUE STA. 32S+48.00 TO STA. 33S+71.05

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701s.dgn

3653-XS27

PROJECT NUMBER	SHEET NO.
312241	



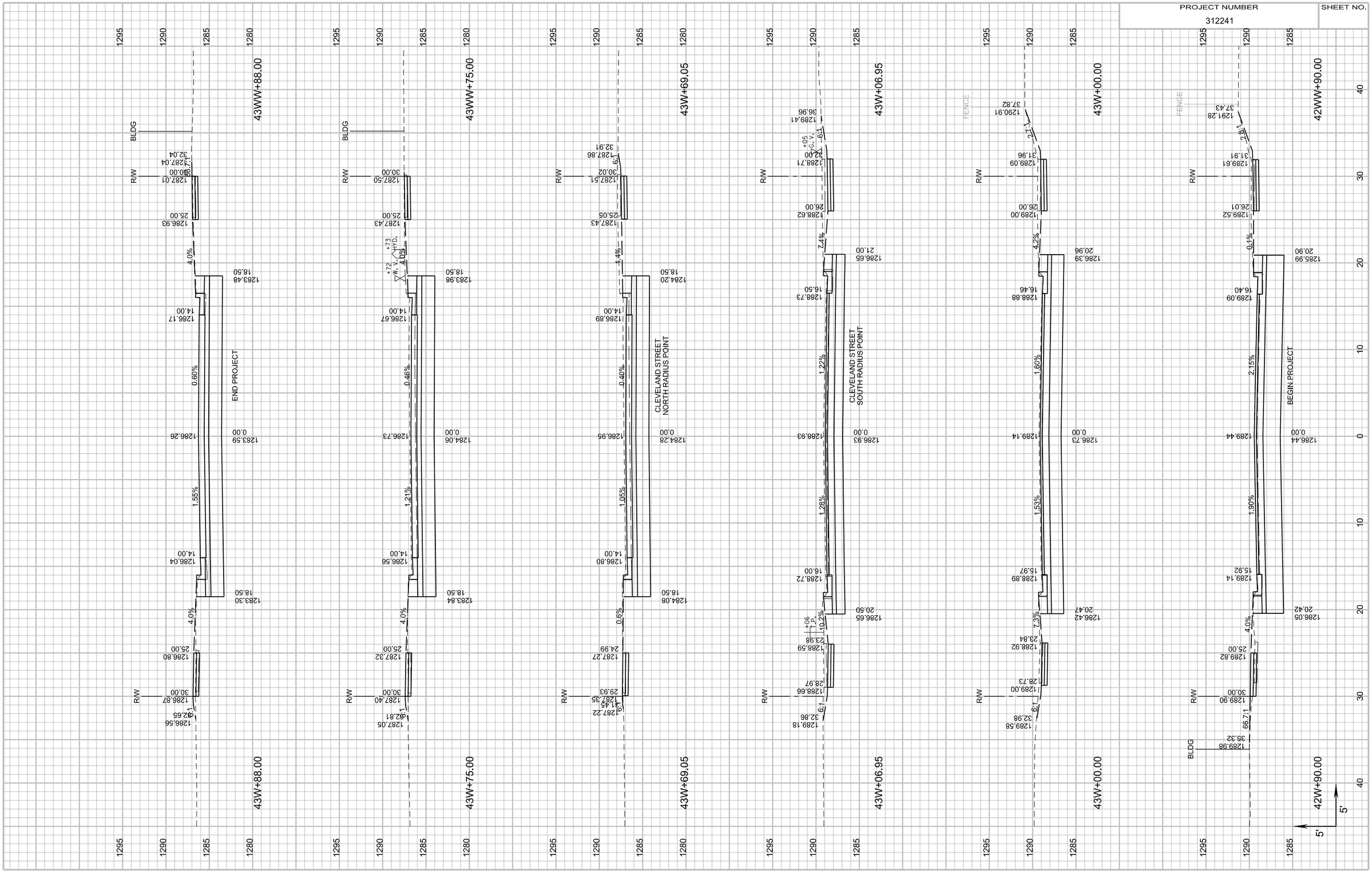
SPRUCE AVENUE STA. 33S+75.00 TO STA. 34S+14.00

PLOTTED ON: 2/20/2020 3:20:23 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701s.dgn

3653-XS28

PROJECT NUMBER	SHEET NO.
312241	



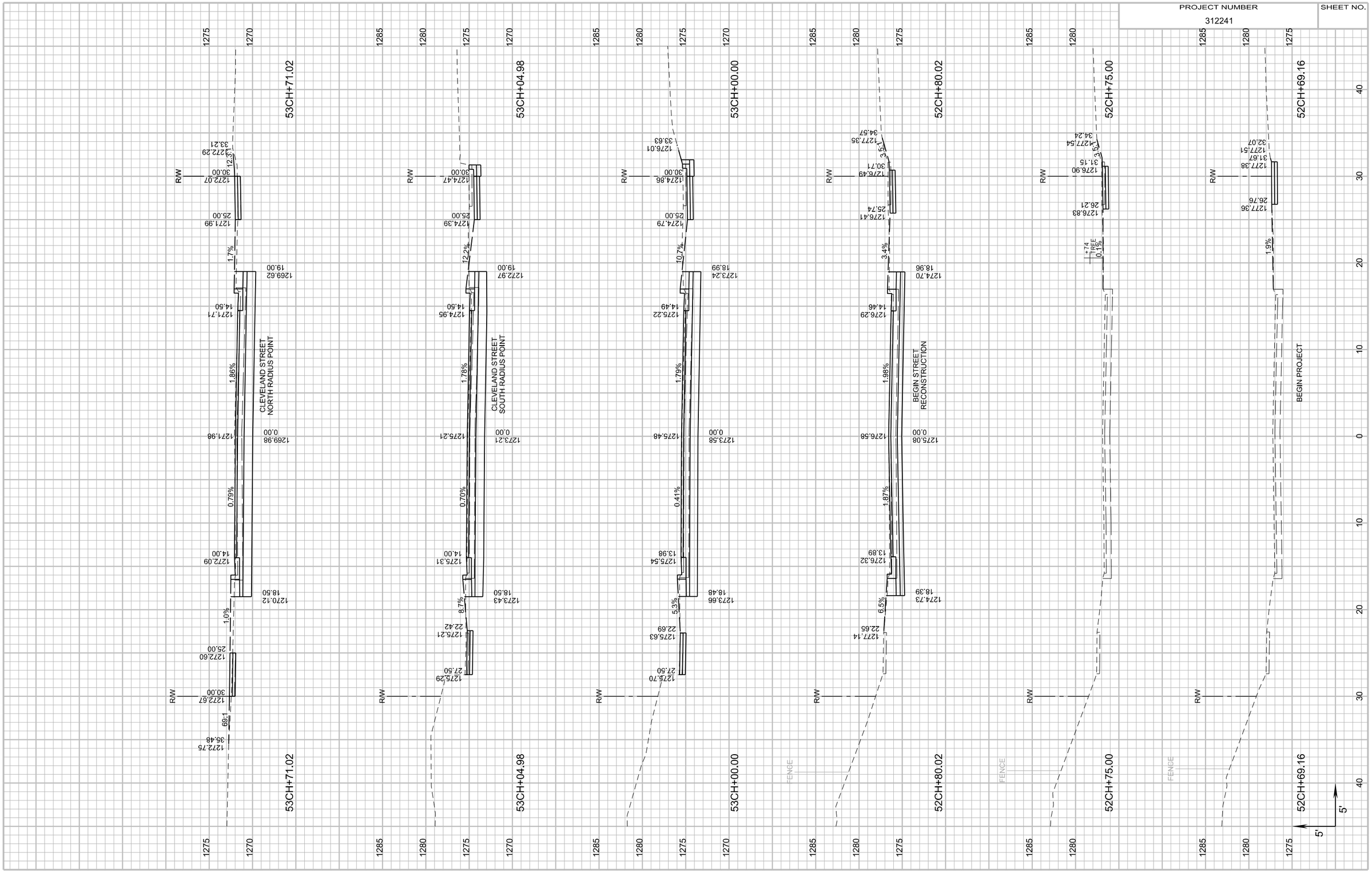
PLOTTED ON: 2/20/2020 3:20:24 PM

WALNUT AVENUE STA. 42W+90.00 TO STA. 43W+88.00

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701w.dgn

3653-XS29

PROJECT NUMBER	SHEET NO.
312241	



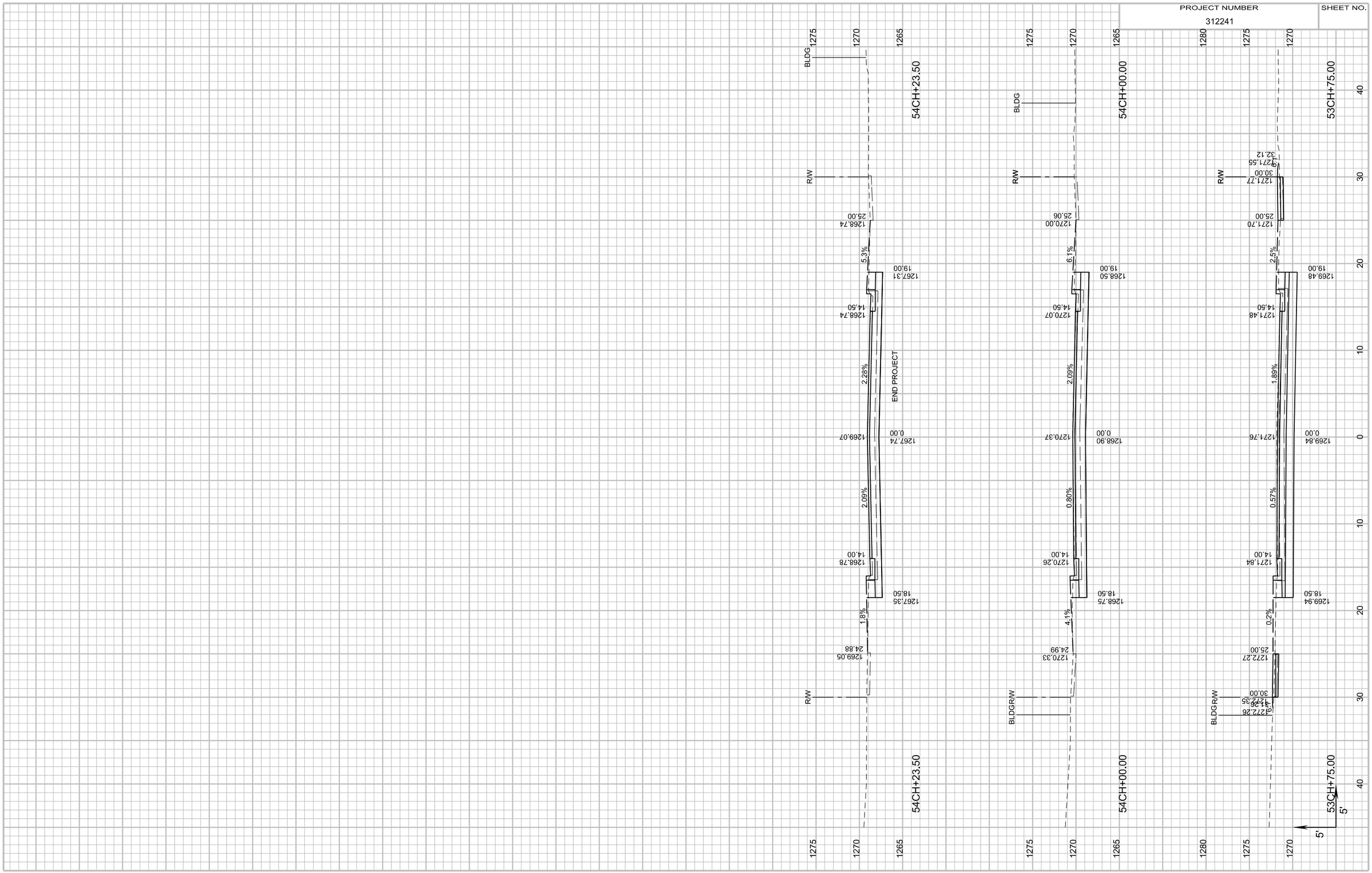
PLOTTED ON: 2/20/2020 3:20:25 PM

CHESTNUT AVENUE STA. 52CH+69.16 TO STA. 53CH+71.02

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701ch.dgn

3653-XS30

PROJECT NUMBER	SHEET NO.
312241	



PLOTTED ON: 2/20/2020 3:20:26 PM

FILE NAME: F:\Home\PW\CAD\FILES\3000_Streets\3653\3653_701ch.dgn

CHESTNUT AVENUE STA. 53CH+75.00 TO STA. 54CH+23.50

3653-XS31