

CITY OF NORWALK
Norwalk City Hall
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Room 225
Norwalk, CT 06856-5125
P: 203-854-7791 / F: 203-857-0143

PUBLIC WORKS COMMITTEE of the COMMON COUNCIL

DATE: Tuesday, April 6, 2021

TIME: 7:00 P.M.

PLACE: By Video Conference and Teleconference

To allow public access, anyone may access a meeting by telephone, Zoom, and/or the City of Norwalk YouTube channel. Specific instructions and links can be found at:
norwalkct.org/meetings



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Members of the public who wish to provide "live comments" will need to register in advance and use the Zoom meeting platform. All participants will be muted upon entering the meeting. To speak, click the "raise your hand indicator" and you will be called on by the host of the meeting during the public comment section. Please find the information using the link above.



Members of the public who wish to view the meeting, but are not participating, can view a live stream on the City of Norwalk YouTube channel. This stream is delayed by approximately 20 seconds. Please find the information using the link above. The meeting recording and minutes will be posted on the City of Norwalk website within seven (7) days after the meeting.



Members of the public who wish to provide public comment are encouraged to submit those via email in advance of the meeting. For these comments to be read into the record, they should be submitted at least three hours in advance of the meeting start time. Please email Monique Cipriano at mcipriano@norwalkct.org to provide written public comment prior to the meeting.

AGENDA

Public Input

Public input (Guests at Committee meetings may speak to any item on the agenda. Comments shall be limited to no more than three (3) minutes per speaker.)

New Business

1. Approve the Minutes of the Public Works Committee Meeting of Tuesday, March 2, 2021.
2. Technical Correction of the Common Council Action of September 8, 2020, Item VII.A.6 to add accounts designated for On-Call Surveying Services. Account No. 09 18 4021 5777 C0599.

Account No. 09 10 4027 5777 C0302
09 20 4027 5777 C0302
09 21 4027 5777 C0302
09 18 4021 5777 C0021
09 19 4021 5777 C0021
09 20 4021 5777 C0021
09 19 4021 5777 C0318
09 21 4021 5777 C0318
09 06 4021 5777 C0315
09 20 4027 5777 C0643
01 40 30 5258
09 18 4021 5777 C0599

- 3a. Authorize the Mayor, Harry W. Rilling, to execute an Agreement with The Grasso Companies, LLC, for Project PM 2021-1, Pavement Management Program, for an amount not to exceed \$3,008,196.40.

Account No. 09 20 4021 5777 C0021
09 21 4021 5777 C0021
09 21 4027 5777 C0302
09 20 4021 5777 C0503
09 21 4021 5777 C0503
09 20 4021 5777 C0649
09 21 4021 5777 C0318

- 3b. Authorize the Chief of Operations and Public Works, to execute orders on Contract with The Grasso Companies, LLC, for Project PM 2021-1, Pavement Management Program, for an amount not to exceed \$300,819.64.

Account No. 09 20 4021 5777 C0021
09 21 4021 5777 C0021
09 21 4027 5777 C0302
09 20 4021 5777 C0503
09 21 4021 5777 C0503
09 20 4120 5777 C0649
09 21 4021 5777 C0318

4. Approve the revisions to the City of Norwalk Department of Public Works Standard Detail Drawings noted as Final Approved Revisions, Drawings Dated March 2021, Approved by Anthony R. Carr, P.E. #28018, C.F.M., Chief of Operations and Public Works and Vanessa N. Valadares, P.E., #28346, Principal Engineer.

5. Approve the revisions to the City of Norwalk Department of Public Works Roadway Standards Amended March 2021.
- 6a. Authorize the Mayor, Harry W. Rilling, to execute any and all documents necessary to acquire a 2,877 Sq. Ft. perpetual Turnaround Easement from Stone Realty Associates, LLC located at 27 Seir Hill Road (Tax Lot 540-80-0) as shown on the map prepared by Ryan and Faulds Land Surveyors entitled "Easement Map Depicting Turnaround Easement Prepared For Stone Realty Associates, LLC, Norwalk, Connecticut," dated November 3, 2020, at a scale of 1" = 20' on file in the Department of Public Works.
- 6b. Referral of Item 6a. to the Planning Commission for a Report and Recommended Action pursuant to Conn. Gen. Stat. §8-24.
7. Authorize the Mayor, Harry W. Rilling, to execute any and all necessary documents to Walk Bridge Program – 0301-0515NP Project, including the P.A.L., enclosed with this agenda whereby the City of Norwalk will transfer funds in the amounts of \$3,750,000.00 on May 30, 2021, \$1,875,000.00 on July 1, 2022, and \$1,875,000.00 on July 1, 2023, to fund the undergrounding of utility lines on East Ave from Fort Point Street to Olmstead Place to be performed by Conn DOT.

Account No. 09 19 4021 5777 C0471
09 20 4021 5777 C0471
09 21 4021 5777 C0471

Information / Discussion

- A. Discussion
 1. Project Status
 - a. Sediment Removal Contract Update
 - b. Dreamy Hollow Drainage System Improvements Update
- B. Tree Operations and Programming
- C. Monthly Solid Waste Report –February 2021
- D. City Carting Municipal Solid Waste (MSW) Collection Contract (4th Taxing District)
- E. City Carting Recycling Collection Contracts (Citywide)

Upcoming Projects

Adjournment

Next Meeting:

Tuesday, May 4, 2021
Public Works Committee
7:00 P.M. Location TBD

Mr. Tsiranides called to order the Public Works Committee meeting on Tuesday, March 2, 2021. He stated that the meeting is being done by video conference. He announced all of the Committee Members by name and each member responded for attendance. A quorum was present. Mr. Tsiranides gave instructions on how the public comment will be addressed. Public comments via email or zoom video conferencing. Mr. Tsiranides began the meeting with the Public Input.

PUBLIC INPUT

Public input (Guests at Committee meetings may speak to any item on the agenda. Comments shall be limited to no more than three (3) minutes per speaker.)

Mr. Tsiranides opened public input and went over the public input item on the agenda. He informed all of those signed up to speak to keep their comments to three (3) minutes or under. He asked if there was anyone that wanted to speak.

Mr. Manzi replied no. There were no inquiries from the Department of Public Works.

NEW BUSINESS

1. APPROVE THE MINUTES OF THE PUBLIC WORKS COMMITTEE MEETING OF TUESDAY, FEBRUARY 2, 2021.

There was no report on this item.

****MR. LIVINGSTON MOVED THE ITEM**

****MOTION PASSED UNANIMOUSLY**

2. AUTHORIZE THE MAYOR, HARRY W. RILLING TO ENTER INTO A SUBORDINATION AGREEMENT WITH HEAD OF THE HARBOR SOUTH, LLC PER TERMS OF THE MEMORANDUM OF ASSISTANT CORPORATION COUNSEL, DARIN I. CALLAHAN DATED FEBRUARY 26, 2021.

Attorney Callahan reported on this. He introduced Alan Webber, the CFO/Owner of the Property, Head of The Harbor South LLC, Mark Zimmerman, the Head of The Harbor's Council who is with Updike Kelly & Spacey, Anthony Carr and Vanessa Valadares, who he has been coordinating with on the issue and Environmental Counsel Ann Catino with Howard & Sage. Head of the Harbor are incurring the cost for the City's environmental counsel. Mr. Callahan asked the Committee if Head of the Harbor would be able to present what they are requesting from the City. He said he and Attorney Catino are available to answer any legal questions.

Chairman Tsiranides responded yes.

Attorney Zimmerman began by thanking the Committee for given them the opportunity to give a presentation of their request. He said their client, Head of the Harbor, has redeveloped the Smith Street Property. He said there were some environmental issues that had to be dealt with on the site. The last remaining issue they need to get is an environmental land use restriction on the property. It restricts certain portions on the property depending on what

material might have been left on site in connection with the redevelopment. He said this site has a lot of coal ash fill material that was left on the site. In connection with the remediation, Head of the Harbor requested an environmental land use restriction from DEP and with respect to the area that affects the City, there's the area where the sewer line runs. It is believed that there is contaminated material in the area of the sewer line which the DEP regulations allowed Head of Harbor to keep in place and basically it's capped. He said the environmental land use restriction that they are requesting from DEP would provide that the material beneath that cap cannot be disturbed without complying with ELUR and getting permission from DEP to do so. This is all in accordance with DEP regulations. In connection with obtaining an ELUR, anyone that has an interest in that restricted area has to ask them to agree to subordinate their interest to the requirements of the ELUR. In this case they had to go to the Head of the Harbor's lender to agree to subordinate their mortgage to the ELUR. That means if the bank were to ever take title of the property, they are agreeing by taking title they will also be subject to the restrictions in the ELUR. They also went to Eversource because they have utilities lines running through there and Eversource had to agree that if they go in there for any reason, perform maintenance and repairs on the utility line, they will comply with the requirements of the ELUR. They will have a plan in place to go in there and make those repairs, go to DEP and get permission to do so. Both, Eversource and the Bank, have already agreed and signed off on the ELUR on the subordination. That is what they are asking of the City, a subordination agreement that says if the City ever goes and makes a repair or replacement of its sewer line, they would agree to comply with requirements set forth in the ELUR. That area was all fill and it was covered. He said nothing was created by their client, it was on site when they came and they had to work around it. There have been testing in that area for contaminants and nothing has been found.

Mr. Livingston said this is because they have an easement for sewer lines.

Attorney Zimmerman replied correct.

Mr. Livingston asked if that is all it relates to and he asked if they need to do something to that sewer line, does that mean they have to comply with those restrictions from DEP.

Attorney Zimmerman responded yes. He said if you are going to disturb the area that is capped by the ELUR, you will need to come up with a plan to do so and get DEP permission to do so.

Mr. Livingston asked DPW how they feel about this request.

Mr. Carr responded that they do not have an objection to the request and have been working with the engineers at Mr. Webber's team and construction engineer. They had a virtual meeting last week with Attorney Callahan and Discala's staff. He said since they are requiring them to ultimately do without getting so much of details is to install two (2) additional sanitary sewer manholes over their laterals which are the pipes that go from the building to the main so that they will have access in the future to complete the sanitary sewer pipelining which they are currently doing throughout the City. He explained the process to the Committee.

Mr. Livingston asked if the two (2) manhole covers will minimize the need to disrupt the land.

Ms. Valadares answered correct. She said their first approach was to determine the need to access the parcel and the thought was to give the pipe the longest life line possible. They decided they needed to line that pipe which could give it another 20 to 30 years. She said they are asking them to provide the manholes that will help them line their drainage systems, their sewers whenever they want without having to dig or trench.

Mr. Livingston asked if they are lining the pipes as part of a normal process that they are doing around the City.

Ms. Valadares answered correct.

Mr. Carr said they have those segments of pipe scored and inspected and the pipe is in the next few years useful life and with the liner they will have at least between 30 and 50 years. He said that is slated for lining. WPCA and SUEZ have inspected it. He said the manholes would serve a double purpose, it will allow them and Head of the Harbor to see if there is any problems with the sanitary sewer lines so if there are any clogs or breakages, etc., they will be able to respond quicker.

Mr. Livingston asked if they would be incurring any additional costs for this.

Mr. Carr responded no.

Attorney Callahan said the subordination agreement contains provisions. He said effectively any additional costs as a result of compliance with the land use restriction are required to be assumed, under by agreement, by Head of the Harbor in effect. There is also an indemnification provision as well. He said they are following the path already paved by Eversource on this issue. He passed it on to Attorney Catino for more details on the issue.

Attorney Catino stated they are not charting new ground. Head of the Harbor is seeking a completely standard remedial method for dealing with particularly fill material and coal ash. She said it is not unusual to provide a cap over an area and restrict access to it through a land use restriction. It requires a subordination agreement where they would subordinate their interest to that of the interest of the land use restriction which is an agreement between the Connecticut Department of Energy and Environmental Protection and the developer. She said Attorney Zimmerman said they are at the final phase of the remedial activity so that they can confidently ultimately sign off on the site and the public can be protected. She said Eversource has its standard forms for subordination agreements and is appropriate to use in this instance. They have adopted it and applied to the City circumstances. She said this is a no-cost, minimal cost endeavor on the City's part in the event they do have to access anything, it would be absorbed by the Head of the Harbor and its successors.

Chairman Tsiranides asked Mr. Carr and Attorney Callahan if this was something the City should consider.

Mr. Carr responded yes, he and the City Engineer are very comfortable with the proposal.

Attorney Callahan stated that it is a very reasonable request and it's supported by the Law Department. He said Ralph Kolb from WPCA had contributed integrally to this and came up with the concept of private sewer/private manholes.

Chairman Tsiranides thanked them.

****MS. SMYTH MOVED THE ITEM**
****MOTION PASSED UNANIMOUSLY**

3. **AUTHORIZE THE MAYOR, HARRY W. RILLING TO EXECUTE THE 1ST AMENDMENT TO AN AGREEMENT BETWEEN THE CITY OF NORWALK AND VANNASSE HANGEN BRUSTLIN, INC. (VHB) FOR THE DESIGN OF ADAPTIVE TRAFFIC SIGNALS ON WEST AVENUE FOR AN AMOUNT NOT TO EXCEED \$7,000.00.**

ACCOUNT NO. 09 20 4120 5777 C0232

Mr. Yeosock reported on this. He said they have been working on the adaptive traffic signal project on upper West Avenue. They are entering the semi-final design phase. There were issues with the ADA accessibility with the ramps that they would have to make improvements on. They need to get the engineering complete for those couple of ramps so they could move forward on the project. He hopes to wrap this up in the next couple of months and advertise it.

Chairman Tsiranides asked Mr. Yeosock his thoughts on the adaptive traffic signals. He said he knows they have been implemented in South Norwalk and West Avenue but wants to know how they been working out so far as far as the traffic.

Mr. Yeosock said that they only place they are currently operational are in front of the Mall, from Garner Street up to I95. He said the rest of them are in the implementation phase. ConnDOT will be putting in a lot with the Walk Bridge Project. They have been working very well and it is kind of hard to tell because traffic hasn't been back to pre-COVID. He said it is good when you have signals that the traffic is very unpredictable.

Mr. Carr asked Mr. Yeosock to explain where the adaptive signals are installed and the several locations where the infrastructure's installed but they are not yet functional, and the reasons for that. Mr. Carr said that would be good for the Committee to understand.

Mr. Yeosock said there are five (5) signals in front of the Mall, Garner St., Reed St., Mall driveway, I95 ramp northbound and Route 7 ramp. Those are adaptive and was put in place over a year and a half ago right before the Mall opened. The rest of the adaptive signals will be on Martin Luther King and North Main Street which are part of the Walk Bridge Project and are not in place yet. They are still working on the design for those. Last year they received the accident grant for the upper portion of West Avenue and that's the part this is in the design phase right now from Matthew's Park up to Route 1 Belden Avenue and Cross Street. The next phase is East Avenue as part of the East Avenue Improvements. He said basically infrastructure works on video detection so you have to have enough cameras up to interpret the traffic and it communicates with the controllers telling them when vehicles are there.

Chairman Tsiranides stated that it is his understanding that the City plans on moving forward with this on all the main avenues.

Mr. Yeosock responded yes but it is not just the City. He said it is also a National thing. FHWA highly recommends them. He said they work very well. You may have to play with the camera angles but once you get them working they work pretty well.

Chairman Tsiranides stated even with the current situation where they have no idea how to track traffic at this point because it is hit or miss depending on who's working and who's not working. He asked Mr. Yeosock if he is still gathering data and the systems, at least trying to apprehend what's going to happen going forward.

Mr. Yeosock answered that is correct. He said it is kind of hard to project when traffic and how it will come back but it seems to be picking up now anecdotally on I-95 and everything.

****MR. KEEGAN MOVED THE ITEM
MOTION PASSED UNANIMOUSLY

4. **AUTHORIZE THE MAYOR, HARRY W. RILLING, TO EXECUTIVE AN AGREEMENT BETWEEN THE CITY OF NORWALK AND FITZGERALD & HALLIDAY, INC. (FHI) FOR THE NORWALK TRANSPORTATION MANAGEMENT PLAN FOR AN AMOUNT NOT TO EXCEED \$300,000.00.**

**ACCOUNT NO. 09 18 4021 5777 C0599
 09 21 4120 5777 C0514
 09 21 3750 5777 C0774
 09 21 3750 5777 C0775
 09 21 3750 5777 C0776**

Mr. Yeosock reported on this. He said that 10 years ago they did their first City-Wide Traffic Management Plan. It was one (1) of the first in the region. Mostly funded by the State. They redid the Roadway Design Manual. They identified many projects and obtain funding for those projects over the years. The City is continually changing and growing so it is time to revisit this plan. They are concentrating more on mobility for everyone, not only looking at designing roads for people but also the transit, sidewalks and bicycling aspects, etc. They interviewed a consultant about a month and a half ago and selected Fitzgerald & Halliday. They will be doing interactive presentation with various stakeholders and departments over the next few months to get a perspective of where Norwalk traffic is and where it needs to be. He said there is some funding from last year's capital budget for sidewalks so they are looking at funding some sidewalks in Rowayton, Hunt Street, Rowayton Avenue and George Street. Part of that scope of work they'll be looking at those projects as well.

Chairman stated he feels that is the direction they are headed in right now especially with the current climate with everything going on with COVID. More outdoor walking and possibly biking and sidewalks are going to be key. He asked Mr. Yeosock what direction he thinks the City is going in.

Mr. Yeosock replied that a lot of people are walking and looking for ways to get around. Sidewalks are important and there have been a lot of demand for them.

Mr. Livingston said he thinks this is a really good idea. He says it is important to stay on top of this throughout the City. There is a lot more walking going on.

Ms. Smyth added that she absolutely agrees that this is a great idea and the way to go.

****MR. LIVINGSTON MOVED THE ITEM**
****MOTION PASSED UNANIMOUSLY**

5. AUTHORIZE THE MAYOR, HARRY W. RILLING, TO EXECUTE THE 1ST SUPPLEMENTAL PROJECT AUTHORIZATION LETTER FOR STATE PROJECT 102-350 NORWALK RIVER VALLEY TRAIL – PHASE 2.

Mr. Yeosock reported on this. He said the bids came back for the trail and they adjusted the numbers to incorporate the bid prices and this is to tidy up the paperwork. They are looking to have a groundbreaking ceremony in the next couple of weeks for your invitation. It is an 80/20 grant, 80% Fed and 20% City.

Chairman Tsiranides stated once again going green, preserving open land. He said this is fantastic and starting to come together.

Mr. Livingston said it is a great thing and asked about the timing.

Mr. Yeosock said they are looking to start construction this month hopefully and get the clearing and grubbing done and would like to have it done by the end of the construction season.

Chairman Tsiranides asked if Wilton was on track to work with them.

Mr. Yeosock responded yes. He said they received the bids back for the piece up in Wilton which came back a little higher than they had funds for. They are working on scoping back a little of the project. The part in Norwalk may be pulled back a little bit at this phase but they are still trying to gather up some funds and grants to finish that up.

****MS. SMYTH MOVED THE ITEM**
****MOTION PASSED UNANIMOUSLY**

6. ADOPT A RESOLUTION TO AUTHORIZE THE DEPARTMENT OF TRANSPORTATION, MOBILITY AND PARKING TO APPLY FOR FUNDING UNDER THE CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM GRANT FUNDING FOR THE CITY OR ITS DESIGNEE(S) TO CONSTRUCT, OWN, OPERATE, AND MAINTAIN ALL TRAFFIC SIGNAL EQUIPMENT AND APPURTENANCES INSTALLED AS PART OF PROPOSED PROJECT NORWALK TRAFFIC SIGNAL SYSTEM UPGRADE – PHASE V. IN ADDITION, THE CITY WILL PROVIDE UP TO 20% OF THE TOTAL PROJECT

COST AS MATCHING FUNDS, FROM APPROVED CAPITAL FUNDS FOR TRAFFIC SIGNAL REPLACEMENT.

Mr. Yeosock reported on this. He said every couple of years there is a CMAQ grant advertised by the State as part of the Highway Fund. These are Congestion, Mitigation and Air Quality grants so they could go to different things, they use them to update their traffic signals. They are asking for authorization to apply for a grant but there is no guarantee that they will get but they need a resolution to apply for the grant.

Mr. Livingston asked if they would be for new or existing signals.

Mr. Yeosock answered a replacement of their older existing signals.

Chairman Tsiranides asked if the new signals last longer than the previously used ones because of the LED and everything.

Mr. Yeosock answered technology changes sometimes as well but generally you can get 25 to 30 years.

****MR. LANGELLA MOVED THE ITEM**

****MOTION PASSED UNANIMOUSLY**

INFORMATION / DISCUSSION

A. DISCUSSION

1. PROJECT STATUS

a. SEDIMENT REMOVAL CONTRACT UPDATE

Ms. Valadares reported on this. She said they are going to start their fifth location, excavating tomorrow, that is Kellee. The work itself will not take too long but they have limitations to how much they can haul so they are going to excavate about a thousand cubic yards there and they usually haul an average of 200 cubic yards a week so it will take about five (5) to six (6) weeks to complete. Once that is done, they will return to the other four (4) sites to do final grading, planting and restorations. The goal is by the end of May the project will be complete.

Chairman Tsiranides stated that they have had a couple of storms recently and a lot of rainfall, and wanted to know if all the areas that they have gone through are cleared out and if the drainage works. He said he hasn't received any complaints.

Ms. Valadares said she has not received any complaints. She said the drainage work has made a very big difference and they are starting to see the progress. She said that they received a lot of snow this year and with the two (2) warm days and the snow melting and the rain, there weren't any calls with complaints.

Chairman Tsiranides thanked them for doing such a good job.

b. DREAMY HOLLOW DRAINAGE SYSTEM IMPROVEMENTS UPDATE

Ms. Valadares reported on this. She stated that they met with Woodard & Curran last week and their whole concept design for within the length of the project is complete. They have a few conflicts with utilities and they are looking into the details. The design is moving forward. They will receive an engineering estimate by next month so they will get the budget for the design. They are still trying to get it out to bid by late June. She said they are working to get the design developed and once it begins you will start to see where the conflicts are and how to make it better. Everything is moving forward.

B. MONTHLY SOLID WASTE REPORT – DECEMBER 2020 AND JANUARY 2021

Mr. Carr reported on this. He said the MSW and Curbside tonnage is down. Curbside is only curbside pickup and MSW is everything else. Those numbers are down. The total revenue is still up 2%. He said it is trending in a good direction.

Ms. Smyth asked if all the snow they had last month contributed.

Mr. Carr responded yes. He has seen a change within the last month.

Chairman Tsiranides said that the Mayor announced that bulky pickup will start again. He asked Mr. Carr to talk about that.

Mr. Carr stated bulky pickup resumes back March 10th and they are starting with the zone, northeast part of Norwalk, the area in between Route 1 and Merritt and to the right of I95. There are four (4) zones and each zone is pickup up once a month, twice a year and then there'll be multiple pickups. The website has the schedule and a map that shows the address and the zone it correlates to. There will not be bulky collection in during the months of November to February due to possible snow.

Chairman Tsiranides stated that there was a problem of dumping in South Norwalk last week. He said it is not uncommon for that to happen in that area. He thanked Public Works for cleaning up the dumping as it is illegal. Chairman Tsiranides said that he understands that it is a difficult time for everyone but it is illegal to dump in residential areas or City owned areas and hopefully the bulky pickup will help with that issue. He asked Mr. Carr to speak more about it.

Mr. Carr said that he appreciates learning the history and the areas of where this has happened. He said they seen the correspondence regarding the illegal dumping at Springwood park. DPW Operations has cleaned the road in the back of Springwood Park behind Nathaniel Ely. It took a few hours to clean up. He said it is really challenging to catch illegal dumping. They are going to install a Deer camera in the area for security in coordination with NPD. They are also contemplating signage around the park about surveillance. They don't want to be intrusive but want to provide security for the community. They are reactive to the needs of the Community and they are doing what they can. They will be working with the Neighborhood Improvement Project with David Shockley to help schedule clean-up in that area or even potentially provide additional enforcement. They are looking at long-term solutions to address the problem.

Mr. Keegan said Bravo to Mr. Carr and his Department. He said he is very impressed on how it has been handled by them.

Mr. Carr said he appreciates that.

Chairman Tsiranides said at the end of the day it comes down to vigilant neighbors and residents paying attention and helping out. He said they do not want to police the neighborhood and put it under a spotlight and make people feel uncomfortable. It helps when the residents are involved and they heard a little more about community involvement. He hopes it helps. He said it is usually the same culprits that are responsible for unfortunately difficult times difficult measures but if they could put an end to it that would be great.

Mr. Livingston said he was impressed on how quickly they responded to this.

C. SNOW REMOVAL

Mr. Carr reported on this. He said they have done very well. He said this is everything excluding the February 18th storm. From December 1st to February 17th there were eight (8) snow events. Those events could be from ice, one inch of snow to 10 inches of snow. They have to deploy resources for any type of snow removal which could include plowing, salting or a combination of the two. The annual salt budget is \$380,000.00 and to date they have spent \$236,000.00. They have used 2,050 tons of salt. They typically use 3,000 to 5,000 a year. The winter began a bit slow this year and most of it came towards the end so they are close to that budget mark not including the February 18th storm. Their shed holds about 5,000 tons of salt. They always have a full shed practically. Mr. Torre is very good at keeping that stocked along with his staff. They have an annual budget of \$200,000 for overtime, approximately, they expended \$220,000.00 making them \$20,000.00 over before the February 18th storm. They would probably be under with salt but over with overtime. The overtime is just predictions and forecasts, the CFO and the Mayor Office are very well aware and if it comes down to it they will go back with a certain number for a special appropriation at the end to reconcile the overage.

Chairman Tsiranides thanked Mr. Carr and his staff for all their hard work.

Mr. Carr thanked the Chairman and the Committee Members for all of their support. Whenever he receives emails from residents or from them he shares them with the staff. He says that really goes a long way. It means a lot to hear the compliments and he and the staff appreciate that.

Mr. Langella thanked Mr. Carr for sending out all the comms and keeping them informed. It helps with his constituents. He said your team does an amazing job. Thank you so much.

Mr. Chairman thanked Ms. Valadares. He said that he was on Cove the other day and the area looks beautiful. After receiving all those complaints in that area with all of those drainage problems, the work came along and the residents are pleased. He said it became a bigger job than anticipated but it looks great, phone calls stop coming in. Thank you very much.

Mr. Carr and Ms. Valadares thanked the Chairman.

UPCOMING PROJECTS

ADJOURNMENT CHAIRMAN TSIRANIDES MOTIONED TO ADJOURN
MOTION PASSED UNANIMOUSLY
MEETING ADJOURNED AT 8:07P.M.

NEXT MEETING **TUESDAY, APRIL 6, 2021**
PUBLIC WORKS COMMITTEE
7:00 P.M. LOCATION TBD

09 20 4021 5777 C0021

09 19 4021 5777 C0318

09 21 4021 5777 C0318

AUTHORIZED

5b. Authorize the Chief of Operations and Public Works, to execute orders on the contract with M. Rondano, Inc. for project DRG2020-1 On-Call Drainage Improvements at Various Locations for a sum not to exceed \$95,500.00.

Account No.

09 10 4027 5777 C0302

09 20 4027 5777 C0302

09 21 4027 5777 C0302

09 18 4021 5777 C0021

09 19 4021 5777 C0021

09 20 4021 5777 C0021

09 19 4021 5777 C0318

09 21 4021 5777 C0318

AUTHORIZED

6. Authorize the Mayor, Harry W. Rilling, to execute an Agreement between the City of Norwalk and Ahneman Kirby, LLC for On-Call Surveying Services. The Agreement is for a period of one (1) year at a sum not to exceed \$120,000.00 with an option to extend for two (2) additional terms for one (1) year each.

Account No.

09 10 4027 5777 C0302

09 20 4027 5777 C0302

09 21 4027 5777 C0302

09 18 4021 5777 C0021

09 19 4021 5777 C0021

09 20 4021 5777 C0021

09 19 4021 5777 C0318

09 21 4021 5777 C0318

09 06 4021 5777 C0315

09 20 4027 5777 C0643

01 40 30 5258

AUTHORIZED

7. Authorize the Mayor, Harry W. Rilling, to execute a Maintenance Agreement between the City of Norwalk and Metropolitan Reality Associates, LLC for the maintenance of the fence installed on the existing retaining wall within the City Right-of-Way along the length of the frontage of the property located at 1 Bates Court adjacent to Dr. Martin Luther King, Jr. Drive.

AUTHORIZED

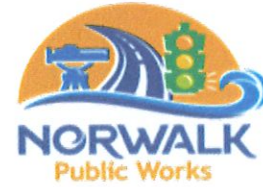
8. Authorize the Mayor Harry W. Rilling, to execute the Gift Letter in order to demonstrate formal acceptance of the gift of the Fence from the Lockwood Mathews Mansion Museum.

AUTHORIZED

B. HEALTH AND PUBLIC SAFETY COMMITTEE

1a. Authorize the Mayor, Harry W. Rilling, to execute any and all documents necessary to apply for and accept grant funds from the Department of Justice under the FY2020 Edward Byrne Memorial Justice Assistance Grant, in the amount of \$33,741.00.

AUTHORIZED



MEMORANDUM

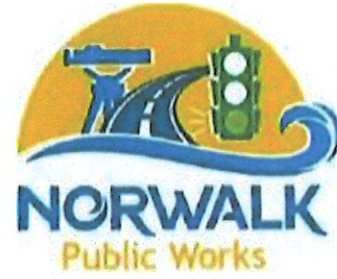
TO: Anthony Carr, P.E. – Chief of Operations & Public Works
FROM: Drew Berndlmaier, P.E. – Senior Engineer
CC: Vanessa Valadares, P.E. – Principal Engineer
REF: Public Works Committee Agenda Item – Pavement Management Contract
DATE: March 31, 2021

I would like to request that the following items be included on the agenda for the April 2021 Public Works Committee meeting.

- 1a. Authorize the Mayor, Harry W. Rilling, to execute an Agreement with The Grasso Companies, LLC, for Project PM 2021-1, Pavement Management Program, for an amount not to exceed \$3,008,196.40.
- 1b. Authorize the Chief of Operations and Public Works to execute Orders on Contract with The Grasso Companies, LLC, for Project PM 2021-1, Pavement Management Program, for a sum not to exceed \$300,819.64.

Account #'s:

09 20 4021 5777 C0021
09 21 4021 5777 C0021
09 21 4021 5777 C0302
09 20 4021 5777 C0503
09 21 4021 5777 C0503
09 20 4120 5777 C0649
09 21 4021 5777 C0318



Bid Sheet

Project: PM 2021-1 PAVEMENT MANAGEMENT PROGRAM

BID OPENING: TUESDAY
MARCH 30, 2021
2:00 PM

<u>Bidder</u>	<u>Bid Amount</u>	<u>Bid Bond</u>
B&W Paving & Landscaping, LLC 70 Foster Rd Waterford, CT 06385	\$3,772,028.80	15% Aspen American Insurance Company
Deering Construction, Inc. 20 Sheehan Ave Norwalk, CT 06854	\$3,158,865.50	15% Travelers Casualty & Surety Co of America
FGB Construction Company 158 Bouton Street Norwalk, CT 06854	\$3,793,568.90	15% Westfield Insurance Company
The Grasso Companies, LLC 485 Pepper Street Monroe, CT 06468	\$3,008,196.40 (apparent low bidder)	15% Argonaut Insurance Company

Project Number : PM2021-1

Project Name : PAVEMENT MANAGEMENT PROGRAM

Items		Description	Quantity	Apparent Low Bidder		Second Bidder		Third Bidder		Engineering's Estima	
				Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
0202503A		REMOVAL OF CONCRETE CURBING	16,800	\$1.00	\$16,800.00	\$4.65	\$78,120.00	\$6.00	\$100,800.00	\$6.00	\$100,800.00
0406453A		BITUMINOUS CONCRETE 2" OVERLAY FULL LANE (40 LF TO 200 LF) (0.5")	24	\$120.00	\$2,880.00	\$175.00	\$4,200.00	\$189.00	\$4,536.00	\$200.00	\$4,800.00
0406998A		DENSITY ADJUSTMENT	1	\$17,000.00	\$17,000.00	\$17,000.00	\$17,000.00	\$17,000.00	\$17,000.00	\$17,000.00	\$17,000.00
0406999A		ASPHALT ADJUSTMENT COST	1	\$78,000.00	\$78,000.00	\$78,000.00	\$78,000.00	\$78,000.00	\$78,000.00	\$78,000.00	\$78,000.00
0407010A		SPEED BUMPS	530	\$2.00	\$1,060.00	\$2.25	\$1,192.50	\$8.00	\$4,240.00	\$12.00	\$6,360.00
0815001		BITUMINOUS CONCRETE LIP CURBING	10,000	\$5.00	\$50,000.00	\$4.25	\$42,500.00	\$8.00	\$80,000.00	\$4.00	\$40,000.00
0910004		METAL BEAM RAIL (TYPE R-B)	50	\$25.00	\$1,250.00	\$45.00	\$2,250.00	\$65.00	\$3,250.00	\$75.00	\$3,750.00
0921021A		RELAY PRECAST CONCRETE PAVER SIDEWALK AND DRIVEWAY	100	\$20.00	\$2,000.00	\$20.00	\$2,000.00	\$14.00	\$1,400.00	\$30.00	\$3,000.00
0922001A		BITUMINOUS CONCRETE SIDEWALK	2,520	\$35.00	\$88,200.00	\$38.00	\$95,760.00	\$50.00	\$126,000.00	\$36.00	\$90,720.00
0922502A		BITUMINOUS CONCRETE DRIVEWAY OVERLAY	100	\$150.00	\$15,000.00	\$175.00	\$17,500.00	\$165.00	\$16,500.00	\$175.00	\$17,500.00
0924007A		HANDICAP RAMPS (ADA COMPLIANT)	270	\$30.00	\$8,100.00	\$25.00	\$6,750.00	\$32.00	\$8,640.00	\$35.00	\$9,450.00
0944003A		FURNISHING AND PLACING TOPSOIL	8,000	\$6.35	\$50,800.00	\$6.00	\$48,000.00	\$8.00	\$64,000.00	\$10.00	\$80,000.00
0950003A		TURF ESTABLISHMENT (LAWN)	8,000	\$1.00	\$8,000.00	\$1.00	\$8,000.00	\$2.00	\$16,000.00	\$1.50	\$12,000.00
0980003A		PROJECT SURVEY AND STAKEOUT	1	\$3,500.00	\$3,500.00	\$3,500.00	\$3,500.00	\$3,500.00	\$3,500.00	\$3,500.00	\$3,500.00
1008215A		2" RIGID METAL CONDUIT - UNDER ROADWAY	210	\$14.00	\$2,940.00	\$35.00	\$7,350.00	\$100.00	\$21,000.00	\$62.00	\$13,020.00
1008217A		3" RIGID METAL CONDUIT - UNDER ROADWAY	80	\$16.00	\$1,280.00	\$40.00	\$3,200.00	\$100.00	\$8,000.00	\$65.00	\$5,200.00
1010011A		CONCRETE HANDHOLE - TYPE I	4	\$500.00	\$2,000.00	\$500.00	\$2,000.00	\$2,300.00	\$9,200.00	\$500.00	\$2,000.00
1111051A		LOOP VEHICLE DETECTOR	200	\$15.10	\$3,020.00	\$17.75	\$3,550.00	\$14.00	\$2,800.00	\$40.00	\$8,000.00
1111451		LOOP DETECTOR SAW CUT	200	\$15.10	\$3,020.00	\$17.75	\$3,550.00	\$2.00	\$400.00	\$15.00	\$3,000.00
1210101		4" WHITE EPOXY RESIN PAVEMENT MARKINGS	29,000	\$0.40	\$11,600.00	\$0.40	\$11,600.00	\$0.42	\$12,180.00	\$0.50	\$14,500.00
1210103		4" DOUBLE YELLOW EPOXY RESIN PAVEMENT MARKINGS	18,700	\$0.80	\$14,960.00	\$0.80	\$14,960.00	\$0.42	\$7,854.00	\$0.85	\$15,895.00
1210105		EPOXY RESIN PAVEMENT MARKINGS - SYMBOLS AND LEGENDS	1,400	\$4.25	\$5,950.00	\$4.25	\$5,950.00	\$4.00	\$5,600.00	\$4.00	\$5,600.00
1210106		12" WHITE EPOXY RESIN PAVEMENT MARKINGS	164	\$3.85	\$631.40	\$4.00	\$656.00	\$1.20	\$196.80	\$4.00	\$656.00
0205003A		TRENCH EXCAVATION (0' - 10' DEEP)	250	\$50.00	\$12,500.00	\$1.00	\$250.00	\$50.00	\$12,500.00	\$35.00	\$8,750.00
1210124		24" WHITE EPOXY RESIN PAVEMENT MARKINGS	1,500	\$7.25	\$10,875.00	\$7.50	\$11,250.00	\$2.50	\$3,750.00	\$8.00	\$12,000.00
1302060A		RESET GATE BOXES	400	\$50.00	\$20,000.00	\$45.00	\$18,000.00	\$100.00	\$40,000.00	\$55.00	\$22,000.00
0205001A		TRENCH EXCAVATION (0' - 4' DEEP)	400	\$30.00	\$12,000.00	\$1.00	\$400.00	\$40.00	\$16,000.00	\$30.00	\$12,000.00
0812000A		EXTRUDED CONCRETE CURB	15,500	\$6.50	\$100,750.00	\$7.25	\$112,375.00	\$9.00	\$139,500.00	\$7.00	\$108,500.00
0813015A		5" X 16" GRANITE STONE CURBING (STRAIGHT)	40	\$50.00	\$2,000.00	\$100.00	\$4,000.00	\$90.00	\$3,600.00	\$50.00	\$2,000.00

Project Number : PM2021-1

Project Name : PAVEMENT MANAGEMENT PROGRAM

Items		Description	Quantity	Apparent Low Bidder		Second Bidder		Third Bidder		Engineering's Estima	
				Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
0304002		PROCESSED AGGREGATE BASE	500	\$5.00	\$2,500.00	\$25.00	\$12,500.00	\$50.00	\$25,000.00	\$30.00	\$15,000.00
0202452A		TEST PIT	10	\$500.00	\$5,000.00	\$500.00	\$5,000.00	\$600.00	\$6,000.00	\$1,000.00	\$10,000.00
0202504A		REMOVAL OF BITUMINOUS CONCRETE CURBING	8,200	\$1.00	\$8,200.00	\$1.20	\$9,840.00	\$3.00	\$24,600.00	\$2.50	\$20,500.00
0403876A		10" RECLAMATION - ASPHALT GRAVEL BASE	22,420	\$6.00	\$134,520.00	\$4.60	\$103,132.00	\$1.30	\$29,146.00	\$6.50	\$145,730.00
0406171A		HMA SUPERPAVE 0.5" (12.5) LEVEL 2	7,300	\$100.50	\$733,650.00	\$95.10	\$694,230.00	\$102.00	\$744,600.00	\$97.00	\$708,100.00
0406202A		ROAD ENCROACHMENT PERMANENT PAVEMENT REPAIR (MINOR ARTERIAL) MIN BID - SEE SPECIAL NOTES	90	\$75.00	\$6,750.00	\$135.00	\$12,150.00	\$45.00	\$4,050.00	\$106.00	\$9,540.00
0406172A		HMA SUPERPAVE 0.375" (9.5) LEVEL 2	8,000	\$106.20	\$849,600.00	\$99.20	\$793,600.00	\$106.00	\$848,000.00	\$101.00	\$808,000.00
0406201A		ROAD ENCROACHMENT PERMANENT PAVEMENT REPAIR (MAJOR ARTERIAL) MIN BID - SEE SPECIAL NOTES	10	\$100.00	\$1,000.00	\$200.00	\$2,000.00	\$110.00	\$1,100.00	\$150.00	\$1,500.00
0406203A		ROAD ENCROACHMENT PERMANENT PAVEMENT REPAIR (COLLECTOR) MIN BID - SEE SPECIAL NOTES	400	\$65.00	\$26,000.00	\$125.00	\$50,000.00	\$90.00	\$36,000.00	\$90.00	\$36,000.00
0406204A		ROAD ENCROACHMENT PERMANENT PAVEMENT REPAIR (LOCAL) MIN BID - SEE SPECIAL NOTES	4,000	\$45.00	\$180,000.00	\$63.50	\$254,000.00	\$54.00	\$216,000.00	\$65.00	\$260,000.00
0406267A		BITUMINOUS CONCRETE MILLING (0" - 4")	120,000	\$2.10	\$252,000.00	\$2.55	\$306,000.00	\$3.00	\$360,000.00	\$2.35	\$282,000.00
0406279A		MILL FULL LANE 1.5" (40 LF TO 200 LF)	200	\$2.30	\$460.00	\$36.00	\$7,200.00	\$3.00	\$600.00	\$10.00	\$2,000.00
0751712		8" UNDERDRAIN	300	\$30.00	\$9,000.00	\$46.00	\$13,800.00	\$44.00	\$13,200.00	\$65.00	\$19,500.00
0811001A		CONCRETE CURBING	800	\$38.75	\$31,000.00	\$38.00	\$30,400.00	\$56.00	\$44,800.00	\$35.00	\$28,000.00
0811007A		CONCRETE CURBING (<45 LF PER MOB.)	45	\$50.00	\$2,250.00	\$40.00	\$1,800.00	\$100.00	\$4,500.00	\$40.00	\$1,800.00
0911923		R-B END ANCHORAGE- TYPE 2	2	\$1,500.00	\$3,000.00	\$1,700.00	\$3,400.00	\$1,900.00	\$3,800.00	\$1,500.00	\$3,000.00
0912504		REMOVE METAL BEAM RAIL	50	\$5.00	\$250.00	\$10.00	\$500.00	\$10.00	\$500.00	\$7.00	\$350.00
0921001A		CONCRETE SIDEWALK	3,000	\$8.00	\$24,000.00	\$9.00	\$27,000.00	\$18.00	\$54,000.00	\$12.00	\$36,000.00
0921004A		CONCRETE SIDEWALK (<110 SF PER MOB.)	110	\$20.00	\$2,200.00	\$15.00	\$1,650.00	\$50.00	\$5,500.00	\$20.00	\$2,200.00
0921010A		CONCRETE DRIVEWAY RAMP (<90 SF PER MOB.)	90	\$20.00	\$1,800.00	\$15.00	\$1,350.00	\$50.00	\$4,500.00	\$21.00	\$1,890.00
0921011A		CONCRETE DRIVEWAY RAMP	500	\$13.00	\$6,500.00	\$10.60	\$5,300.00	\$25.00	\$12,500.00	\$16.00	\$8,000.00
0921014A		PRECAST CONCRETE PAVER SIDEWALK AND DRIVEWAY	100	\$20.00	\$2,000.00	\$20.00	\$2,000.00	\$25.00	\$2,500.00	\$45.00	\$4,500.00
0209001		FORMATION OF SUBGRADE	2,250	\$2.00	\$4,500.00	\$2.30	\$5,175.00	\$3.00	\$6,750.00	\$3.00	\$6,750.00
0406280A		MILL FULL LANE 1.5" (> 200 LF)	500	\$2.30	\$1,150.00	\$20.00	\$10,000.00	\$3.00	\$1,500.00	\$3.50	\$1,750.00
0406451A		BITUMINOUS CONCRETE 1.5" OVERLAY FULL LANE (40 LF TO 200 LF)	20	\$175.00	\$3,500.00	\$175.00	\$3,500.00	\$189.00	\$3,780.00	\$200.00	\$4,000.00
0406452A		BITUMINOUS CONCRETE 1.5" OVERLAY FULL LANE (> 200 LF)	44	\$150.00	\$6,600.00	\$175.00	\$7,700.00	\$189.00	\$8,316.00	\$150.00	\$6,600.00

Project Number : PM2021-1

Project Name : PAVEMENT MANAGEMENT PROGRAM

Items	Description	Quantity	Apparent Low Bidder		Second Bidder		Third Bidder		Engineering's Estima	
			Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
0406454A	BITUMINOUS CONCRETE 2" OVERLAY FULL LANE (>200 LF)	60	\$120.00	\$7,200.00	\$175.00	\$10,500.00	\$189.00	\$11,340.00	\$150.00	\$9,000.00
0507001A	TYPE "C" CATCH BASIN	15	\$430.00	\$6,450.00	\$3,450.00	\$51,750.00	\$3,500.00	\$52,500.00	\$4,500.00	\$67,500.00
0507042A	RESET CATCH BASIN	60	\$1,000.00	\$60,000.00	\$500.00	\$30,000.00	\$3,500.00	\$210,000.00	\$500.00	\$30,000.00
0507792A	RECONSTRUCT CATCH BASIN	20	\$250.00	\$5,000.00	\$250.00	\$5,000.00	\$2,700.00	\$54,000.00	\$300.00	\$6,000.00
0507829	CONVERT MANHOLE TO TYPE "C" CATCH BASIN	5	\$1,000.00	\$5,000.00	\$1,165.00	\$5,825.00	\$3,500.00	\$17,500.00	\$3,000.00	\$15,000.00
0507105A	CONNECTION TO EXISTING MANHOLE, CATCH BASIN OR DRYWELL	25	\$500.00	\$12,500.00	\$250.00	\$6,250.00	\$100.00	\$2,500.00	\$600.00	\$15,000.00
0507781	RESET MANHOLE	50	\$600.00	\$30,000.00	\$500.00	\$25,000.00	\$700.00	\$35,000.00	\$500.00	\$25,000.00
0507831	CONVERT CATCH BASIN TO MANHOLE	5	\$400.00	\$2,000.00	\$1,400.00	\$7,000.00	\$3,500.00	\$17,500.00	\$3,000.00	\$15,000.00
0651001A	BEDDING MATERIAL	200	\$20.00	\$4,000.00	\$40.00	\$8,000.00	\$45.00	\$9,000.00	\$40.00	\$8,000.00
0651656	12" CORRUGATED P.E. PIPE (SMOOTH INTERIOR)	300	\$50.00	\$15,000.00	\$50.00	\$15,000.00	\$100.00	\$30,000.00	\$70.00	\$21,000.00
0651657	15" CORRUGATED P.E. PIPE (SMOOTH INTERIOR)	200	\$55.00	\$11,000.00	\$55.00	\$11,000.00	\$100.00	\$20,000.00	\$85.00	\$17,000.00
0651743	6" POLYVINYL CHLORIDE, SDR 35 STORM DRAINAGE PIPE	100	\$15.00	\$1,500.00	\$44.50	\$4,450.00	\$100.00	\$10,000.00	\$65.00	\$6,500.00
0202000	EARTH EXCAVATION	1,000	\$5.00	\$5,000.00	\$12.00	\$12,000.00	\$35.00	\$35,000.00	\$14.00	\$14,000.00
			\$3,008,196.40		\$3,158,865.50		\$3,772,028.80		\$3,371,711.00	

Apparent Low Bidder : THE GRASSO COMPANIES

Second Bidder : DEERING CONSTRUCTION

Third Bidder : B&W Paving & Landscaping, LLC



CITY OF NORWALK
Paul L. Sotnik, P.E.
Senior Civil Engineer
psotnik@norwalkct.org
P: 203-854-7891 / F: 203-857-0143
Norwalk City Hall
125 East Avenue, P.O. Box 5125
Norwalk, CT 06856-5125

MEMORANDUM

TO: Anthony R. Carr, P.E., CFM - Chief of Operations and Public Works

FROM: Paul L. Sotnik, P.E. - Senior Civil Engineer 

CC: Vanessa Valadares, P.E. - Principal Engineer

REF: City of Norwalk Department of Public Works
Standard Detail Drawing Revisions

DATE: March 24, 2021

The Engineering Division of the Department of Public Works has been working to make updates to the City of Norwalk Standard Detail Drawings. As you are aware, these Details Drawings are used as the basis for the design and construction of the City's Infrastructure Projects as well as the Permitting requirements for contractors doing construction work within the City Right-of-Way. Now that the revisions to the drawings have been completed and approved by both you and the Principal Engineer, Vanessa Valadares, P.E., I would like to request that the following Item be included on the agenda for the April 6, 2021 meeting of the Public Works Committee of the Common Council for approval.

- 1.) Approve the revisions to the City of Norwalk Department of Public Works Standard Detail Drawings noted as Final Approved Revisions, Drawings Dated March 2021, Approved By Anthony R. Carr, P.E. #28018, C.F.M., Chief of Operations and Public Works and Vanessa N. Valadares, P.E. #28346, Principal Engineer.

In addition, the Engineering Division has also made several updates to the City of Norwalk Department of Public Works Roadway Standards related to the Number and Width of Traffic and Auxiliary Lanes for Major and Minor Arterial Streets. Therefore, I would like to request that the following Item also be included on the agenda for the April 6, 2021 meeting of the Public Works Committee of the Common Council for approval.

- 2.) Approve the revisions to the City of Norwalk Department of Public Works Roadway Standards Amended March 2021.

I have attached a complete package of the Standard Details and the Roadway

Standards for your use. The revised section of the Roadway Standards has been highlighted in yellow. Once officially approved, they will both be distributed to all internal Staff and posted to the City website for use by the general public.

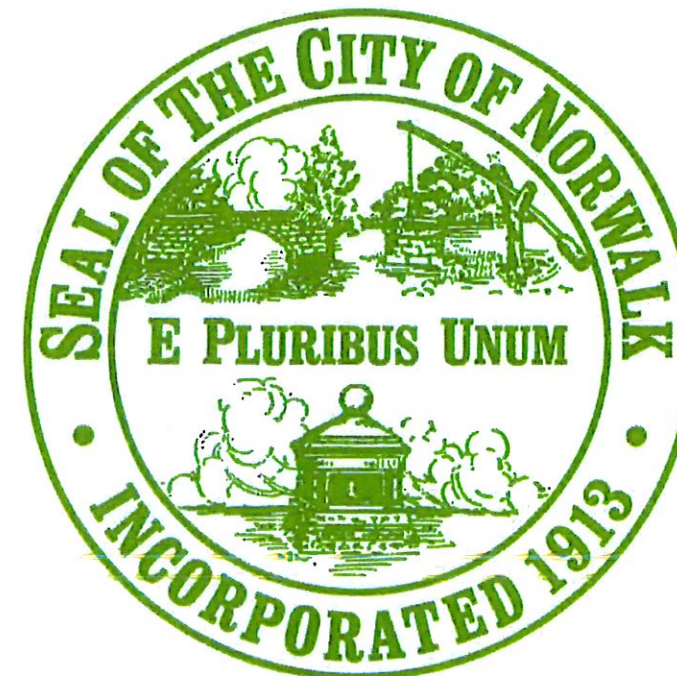
If you have any questions, please do not hesitate to contact me.

City of Norwalk

Department of Public Works

Standard Detail Drawings

Drawing Name	Dwg. #	Rev. Date	Rev. #
<u>Sanitary Sewer</u>	<u>1</u>	<u>3/12/2021</u>	<u>8</u>
<u>Sanitary Sewer Lateral, Marker, Clean out & Chimney</u>	<u>2</u>	<u>2/19/19</u>	<u>4</u>
<u>Sanitary Gravity Sewer Wye & Tee Saddle Repair Coupling, Core and Tee Connection</u>	<u>3</u>	<u>11/1/10</u>	<u>1</u>
<u>Storm Drains</u>	<u>4</u>	<u>3/12/2021</u>	<u>9</u>
<u>Storm Manholes & Manhole Frame</u>	<u>5</u>	<u>2/4/09</u>	<u>1</u>
<u>Type "C", "CL" & "C-M" CB Tops "NO DUMPING" Detail, Granite Curb Inlet, Standard CB, Shallow CB</u>	<u>6</u>	<u>3/6/17</u>	<u>5</u>
<u>Type "C" & "CL" Double CB Tops Type II Type "C" Double CB Top Type I</u>	<u>7</u>	<u>3/6/17</u>	<u>5</u>
<u>Driveway Aprons, Curb Ramps, Roadway Section & Sidewalk</u>	<u>8</u>	<u>1/7/2021</u>	<u>7</u>
<u>Curb Details, Belgium Block in Driveways</u>	<u>9</u>	<u>12/17/20</u>	<u>7</u>
<u>PreCast Conc. Paver Sidewalk, Conc. Paver Crosswalk (SONO T.O.D.)</u>	<u>10a</u>	<u>12/15/20</u>	<u>1</u>
<u>Stamped Conc. Paver Sidewalk, Inlaid Thermoplastic Crosswalk (East Wall Street)</u>	<u>10b</u>	<u>12/15/20</u>	<u>1</u>
<u>PreCast Conc. Paver Sidewalk, Pervious Conc. Walk, Conc. Paver Crosswalk (Cedar street)</u>	<u>10c</u>	<u>12/15/20</u>	<u>1</u>
<u>PreCast Conc. Paver Sidewalk, Pervious Conc. Walk, Conc. Paver Crosswalk (East Avenue T.O.D.)</u>	<u>10d</u>	<u>2/2021</u>	<u>1</u>
<u>Precast Concrete Paver & Granite Curb in Crosswalk and Raised Crosswalk</u>	<u>11</u>	<u>12/15/20</u>	<u>1</u>
<u>Historic Lights, Light Poles & Foundations</u>	<u>12</u>	<u>1/18/17</u>	<u>1</u>
<u>Erosion & Sedimentation Control</u>	<u>13</u>	<u>3/2/17</u>	<u>2</u>
<u>Meter Post & Breakaway Channel Post Installation</u>	<u>14</u>	<u>4/23/19</u>	<u>3</u>
<u>Sign Placement & Retroreflective Strip Details</u>	<u>15</u>	<u>4/23/19</u>	<u>1</u>
<u>Special Details and Pavement Markings for Two-Way Highways (CTDOT based)</u>	<u>16</u>	<u>12/17/20</u>	<u>1</u>
<u>Special Pavement Marking Details and Bicycle Lane & Shared Bicycle Lane Signage</u>	<u>17</u>	<u>12/17/20</u>	<u>1</u>
<u>STATE OF CONNECTICUT date created 7/13 Sidewalk Ramps Sheets 1 - 4</u>	<u>18 - 21</u>	<u>1/18/17</u>	<u>1</u>



**FINAL APPROVED REVISIONS
DRAWINGS DATED - MARCH, 2021**

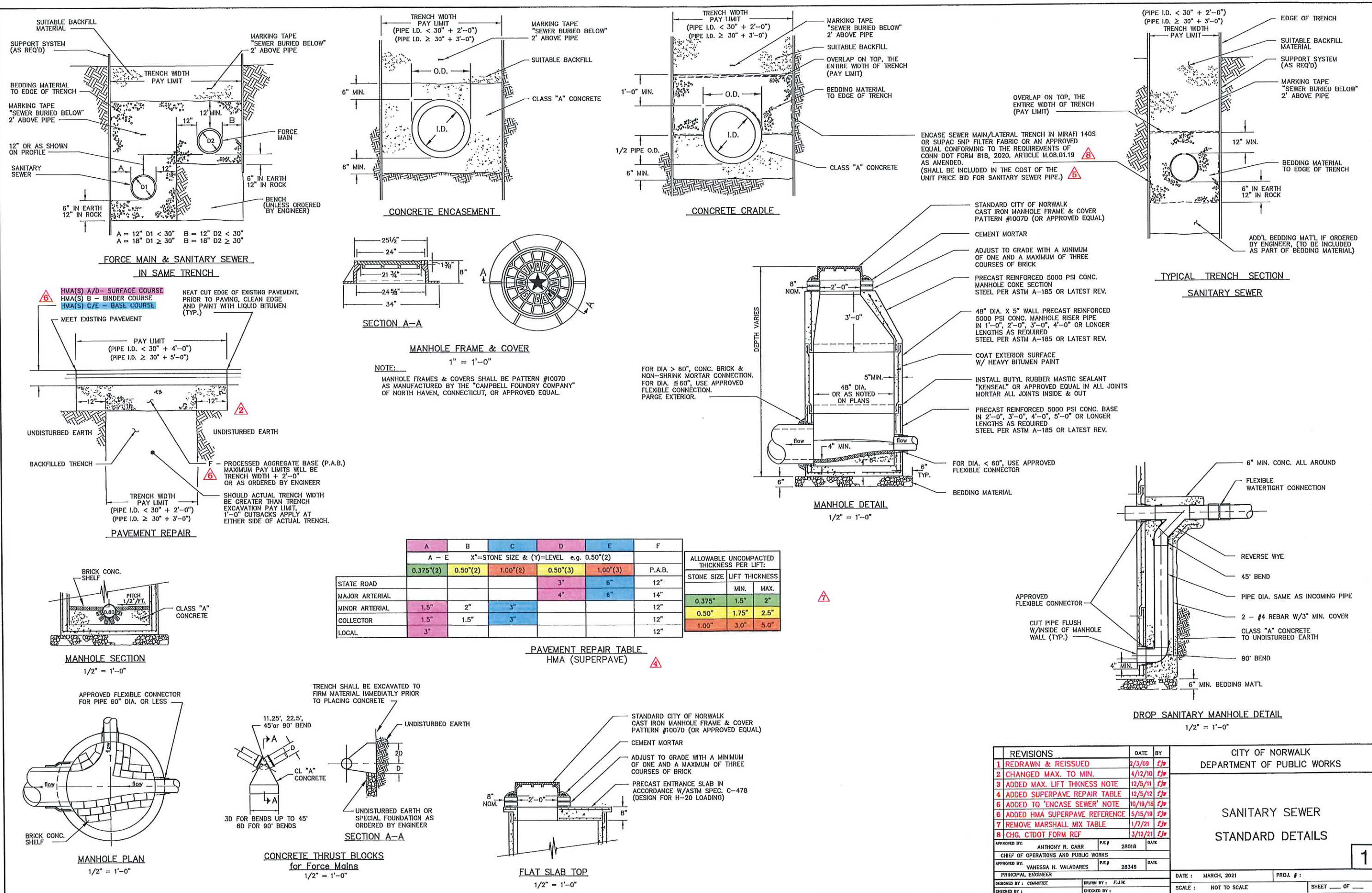
APPROVED BY:

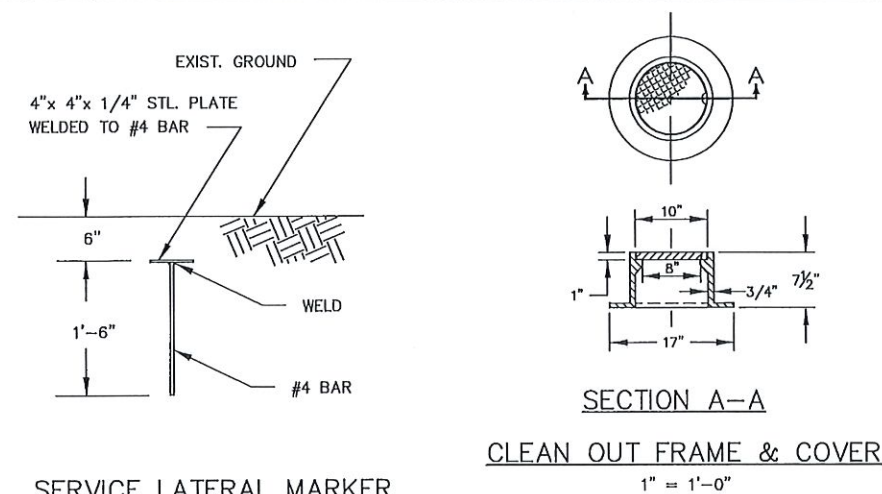
ANTHONY R. CARR, P.E. #28018, C.F.M.
Chief of Operations and Public Works

VANESSA N. VALADARES, P.E. #28346
Principal Engineer

**Revisions Included
in this Reissue Set
Supersede All
Drawing Sheets
Dated Prior to
MARCH, 2021**

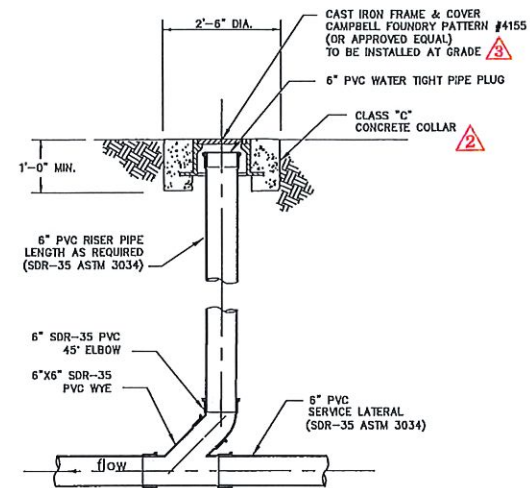




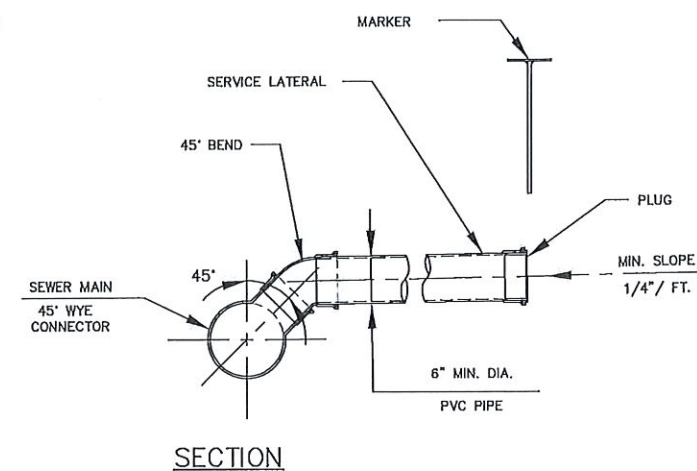


SERVICE LATERAL MARKER
DETAIL

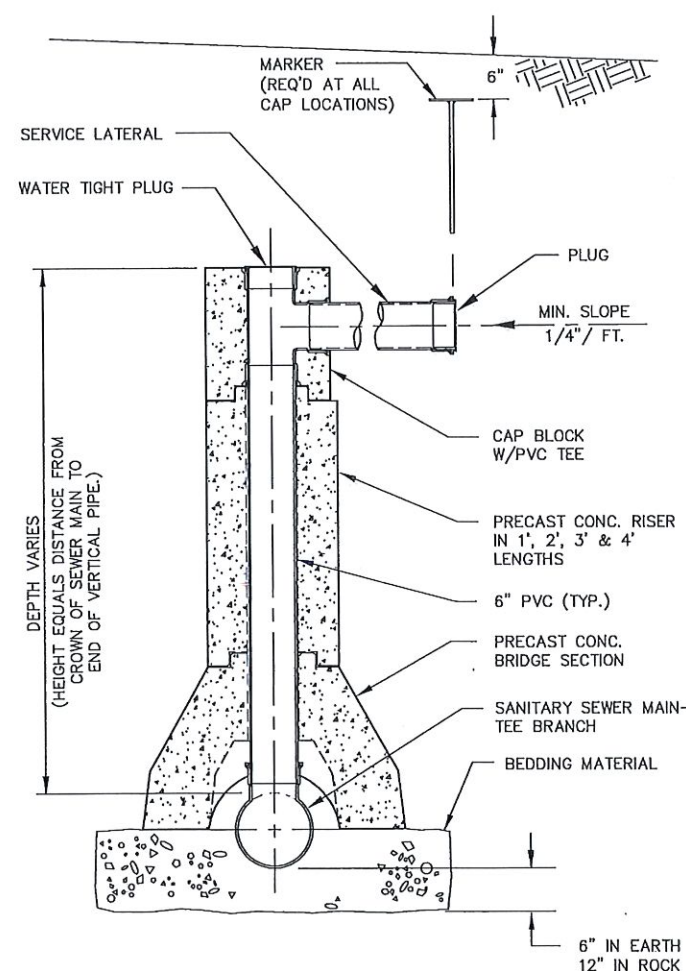
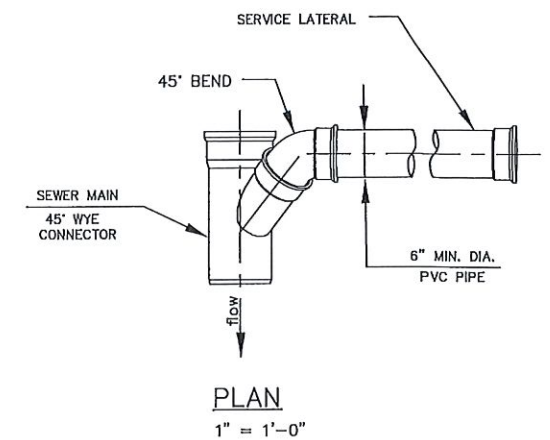
NOTE:
CLEAN OUT FRAMES & COVERS SHALL BE PATTERN #4155
AS MANUFACTURED BY THE "CAMPBELL FOUNDRY COMPANY"
OF NORTH HAVEN, CONNECTICUT, OR APPROVED EQUAL.



CLEAN OUT
DETAIL
NTS

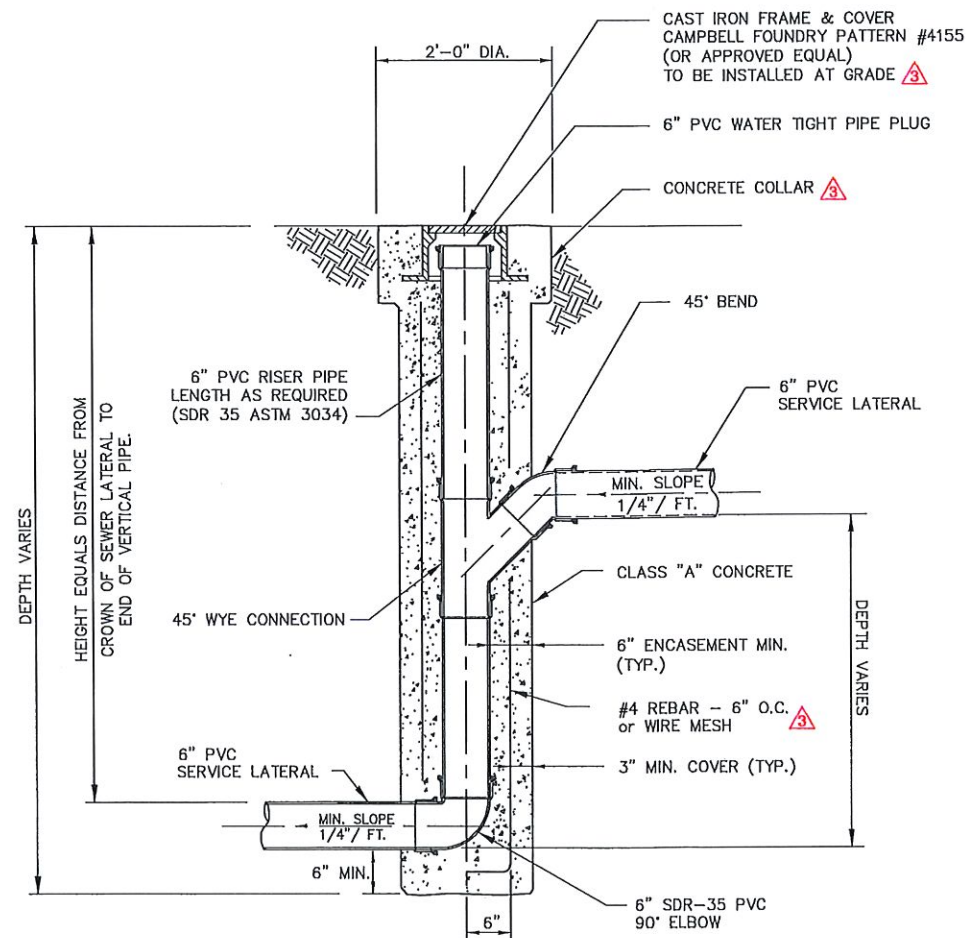


STANDARD SERVICE LATERAL CONNECTION



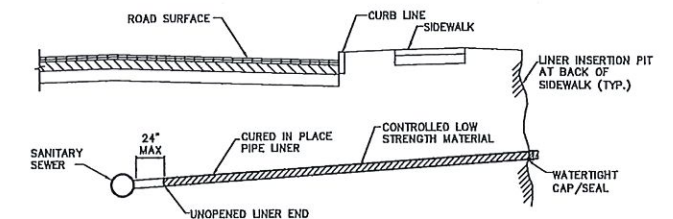
PRECAST CONCRETE SERVICE CHIMNEY

DETAIL
1" = 1'-0"



DROP CHIMNEY FOR LATERAL
(CAST IN PLACE)

DETAIL
1" = 1'-0"



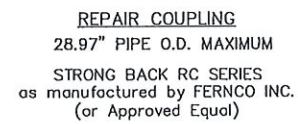
NOTES:

1. INSERT LINER BEGINNING AT INSERTION PIT OR CLEANOUT, AND ENDING 24" FROM SANITARY SEWER MAIN OR CLOSER. LINER END SHALL REMAIN UNOPENED TO PROVIDE A WATERTIGHT SEAL.
2. FILL SEWER LATERAL WITH CONTROLLED LOW STRENGTH MATERIAL AS INDICATED.
3. SEAL LINER AT INSERTION END WITH MALE ADAPTER AND CAP OR AS APPROVED BY THE CITY REPRESENTATIVE IN THE FIELD.
4. BACKFILL AS REQUIRED.

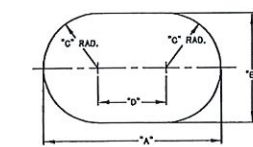
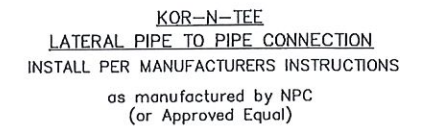
PLUGGING SEWER LATERAL
TRENCHLESS METHOD
NTS

NOTE:
FOR CLEAN OUT OR CAST-IN-PLACE DROP CHIMNEY SET BELOW GRADE,
NO CONCRETE COLLAR OR CAST IRON FRAME AND COVER ARE NEEDED.

REVISIONS	DATE	BY	CITY OF NORWALK DEPARTMENT OF PUBLIC WORKS	
1 REDRAWN & REISSUED	2/3/09	fjh	SANITARY SEWER LATERAL, MARKER CLEAN OUT & CHIMNEY STANDARD DETAILS	
2 ADDED CONC. CLASS TO CLEAN OUT COLLAR	9/16/10	fjh		
3 ADDED OR WIRE MESH TO DESC. AND NOTE FOR CLEAN OUT OR CAST-IN-PLACE DROP CHIMNEY	1/8/15	fjh		
4 ADDED TRENCHLESS SEWER LATERAL PLUG	2/19/19	fjh		
APPROVED BY: ANTHONY R. CARR	P.E.# 28018	DATE	DATE: MARCH, 2021	
CHIEF OF OPERATIONS AND PUBLIC WORKS			PROJ. #:	
APPROVED BY: VANESSA N. VALADARES	P.E.# 28346	DATE	SCALE: NOT TO SCALE	
PRINCIPAL ENGINEER OF DESIGN			SHEET ____ OF ____	
DESIGNED BY: COMMITTEE	DRAWN BY: F.J.W.	CHECKED BY:		



* FOR INLET PIPE DIAMETERS >10.75"
SUBMIT SHOP DRAWINGS OF FITTINGS FOR APPROVAL.



* (8" DIA. SEWER MAIN MIN.)

Template Supplied with
each Wye Saddle

SECTION _____ Type "E" Model "H"
SEALTITE WYE GRAVITY SEWER SADDLE
GASKETED BELL-SDR 35 PVC
as manufactured by The General Engineering Company
(or Approved Equal)

NOTE:

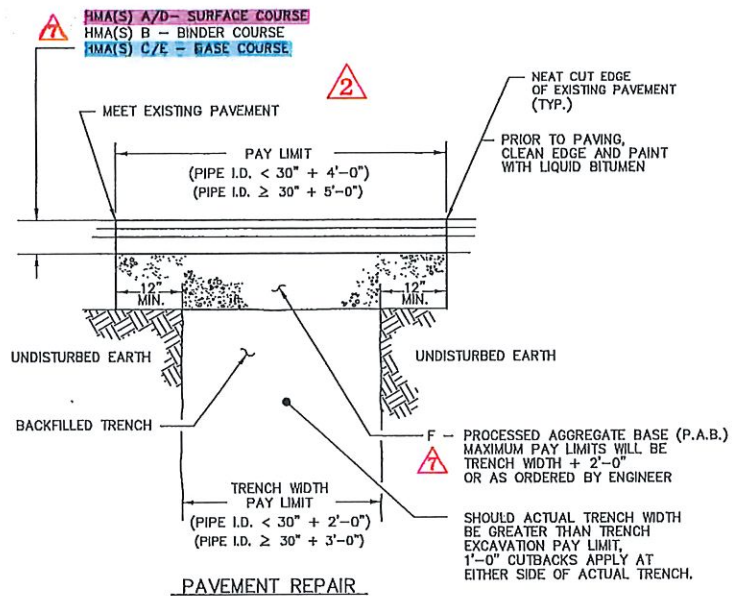
- 1.) THESE EXAMPLES ARE NOT TO BE CONSIDERED ALL-INCLUSIVE, BUT RATHER AS GUIDES TO CITY ACCEPTED PRACTICES.
- 2.) ALL PIPE OPENINGS TO BE MADE BY CORE DRILL. NO IMPACT TOOLS ARE PERMITTED.

Type "F" Model "H"
SEALTITE TEE GRAVITY SEWER SADDLE
GASKETED BELL—SDR 35 PVC
(with Alignment Flange)
as manufactured by The General Engineering Company
(or Approved Equal)
6.275" min.—30" max. O.D. MAINS

CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

SANITARY GRAVITY SEWER
WYE & TEE SADDLE
REPAIR COUPLING
CORE AND TEE CONNECTION
STANDARD DETAILS

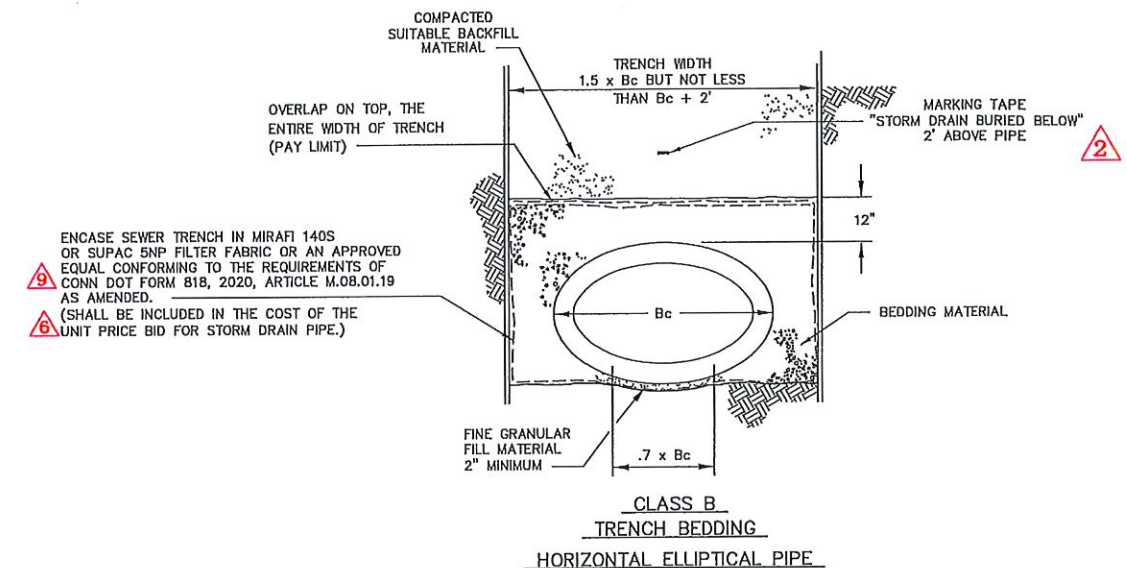
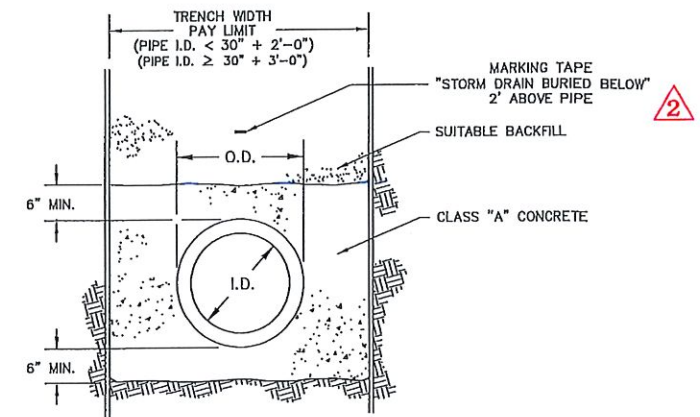
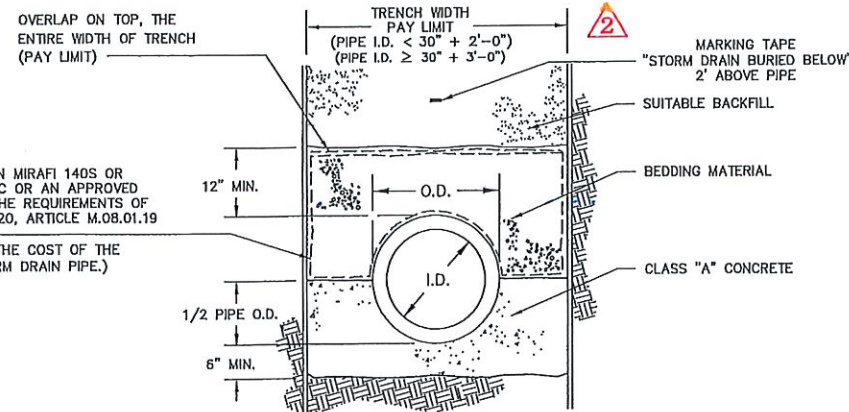
DATE : MARCH, 2021	PROJ. # :
SCALE : NOT TO SCALE	SHEET ____ OF ____



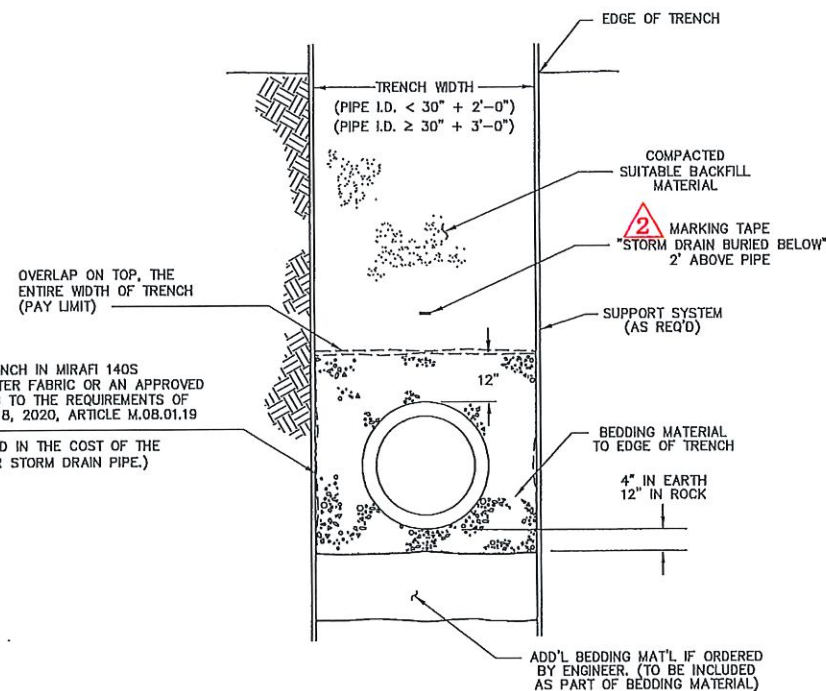
	A	B	C	D	E	F
	A - E X"=STONE SIZE & (Y)=LEVEL e.g. 0.50"(2)					P.A.B.
	0.375"(2)	0.50"(2)	1.00"(2)	0.50"(3)	1.00"(3)	
STATE ROAD				3"	6"	12"
MAJOR ARTERIAL				4"	6"	14"
MINOR ARTERIAL	1.5"	2"	3"			12"
COLLECTOR	1.5"	1.5"	3"			12"
LOCAL	3"					12"

PAVEMENT REPAIR TABLE
HMA (SUPERPAVE)

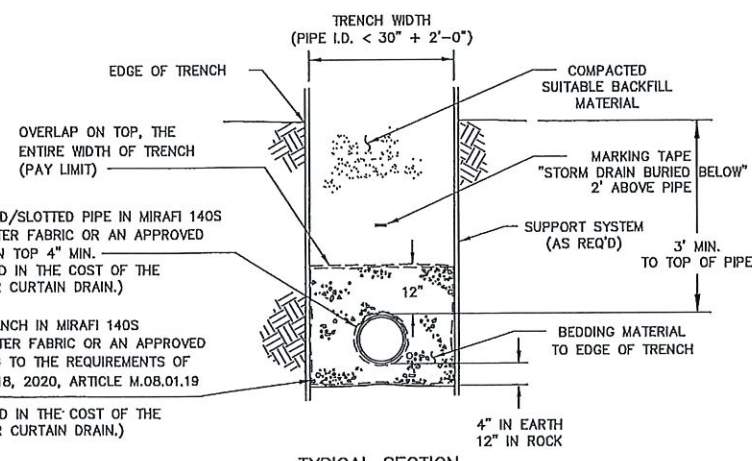
ALLOWABLE UNCOMPACTED THICKNESS PER LIFT:		
STONE SIZE	LIFT THICKNESS	
	MIN.	MAX.
0.375"	1.5"	2"
0.50"	1.75"	2.5"
1.00"	3.0"	5.0"



ENCASE SEWER TRENCH IN MIRAFI 140S OR SUPAC SNP FILTER FABRIC OR AN APPROVED EQUAL CONFORMING TO THE REQUIREMENTS OF CONN DOT FORM 818, 2020, ARTICLE M.08.01.19 AS AMENDED.
(SHALL BE INCLUDED IN THE COST OF THE UNIT PRICE BID FOR STORM DRAIN PIPE.)

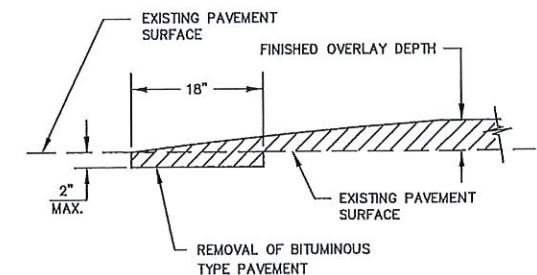


ENCASE SEWER TRENCH IN MIRAFI 140S OR SUPAC SNP FILTER FABRIC OR AN APPROVED EQUAL CONFORMING TO THE REQUIREMENTS OF CONN DOT FORM 818, 2020, ARTICLE M.08.01.19 AS AMENDED.
(SHALL BE INCLUDED IN THE COST OF THE UNIT PRICE BID FOR STORM DRAIN PIPE.)



ENCASE PERFORATED/SLOTTED PIPE IN MIRAFI 140S OR SUPAC SNP FILTER FABRIC OR AN APPROVED EQUAL OVERLAP ON TOP 4" MIN.
(SHALL BE INCLUDED IN THE COST OF THE UNIT PRICE BID FOR CURTAIN DRAIN.)

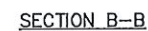
ENCASE SEWER TRENCH IN MIRAFI 140S OR SUPAC SNP FILTER FABRIC OR AN APPROVED EQUAL CONFORMING TO THE REQUIREMENTS OF CONN DOT FORM 818, 2020, ARTICLE M.08.01.19 AS AMENDED.
(SHALL BE INCLUDED IN THE COST OF THE UNIT PRICE BID FOR CURTAIN DRAIN.)



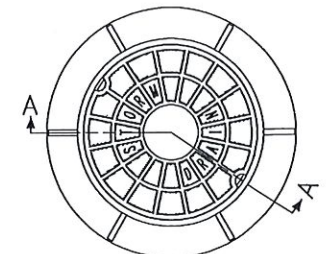
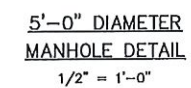
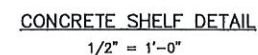
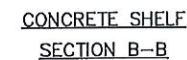
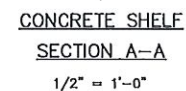
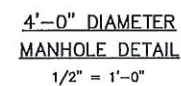
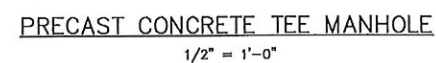
NOTE:
MAXIMUM PAY WIDTH FOR BEDDING MATERIAL & TRENCH EXCAVATION IS I.D. + 2'-0" FOR I.D. LESS THAN 30", I.D. + 3'-0" FOR EQUAL TO OR GREATER 30".

REVISIONS		DATE	BY
1	REDRAWN & REISSUED	2/4/09	tlw
2	MODIFIED PAVEMENT REPAIR DESC. & MARKING TAPE LABEL	4/12/10	tlw
3	CURTAIN DRAIN SECTION	9/21/10	tlw
4	ADDED MAX. LIFT THKNESS NOTE	12/5/11	tlw
5	ADDED SUPERPAVE TABLE	12/5/12	tlw
6	ADDED TO 'ENCASE SEWER' NOTES	10/19/16	tlw
7	ADDED HMA SUPERPAVE REFERENCE	5/16/19	tlw
8	REMOVE MARSHALL MIX TABLE	1/7/21	tlw
9	CHG. CTDOT FORM REF.	3/12/21	tlw
APPROVED BY: ANTHONY R. CARR		P.E.# 28018	DATE
CHIEF OF OPERATIONS AND PUBLIC WORKS			
APPROVED BY: VANESSA N. VALADARES		P.E.# 28346	DATE
PRINCIPAL ENGINEER			
DESIGNED BY: COM/ITD		DRAWN BY: F.J.W.	
CHECKED BY:		CHECKED BY:	

CITY OF NORWALK DEPARTMENT OF PUBLIC WORKS	
STORM DRAINS	
STANDARD DETAILS	
DATE: MARCH, 2021	PROJ. #:
SCALE: N.T.S.	SHEET ____ OF ____



FLAT SLAB TOP
1/2" = 1'-0"

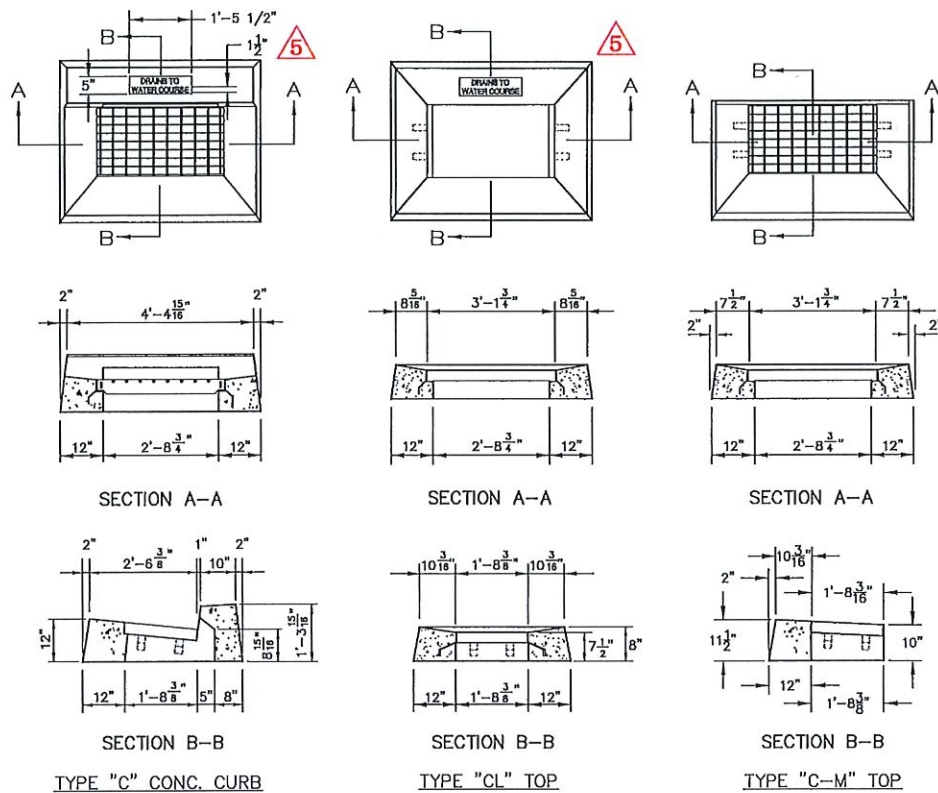


MANHOLE FRAME & COVER
1" = 1'-0"

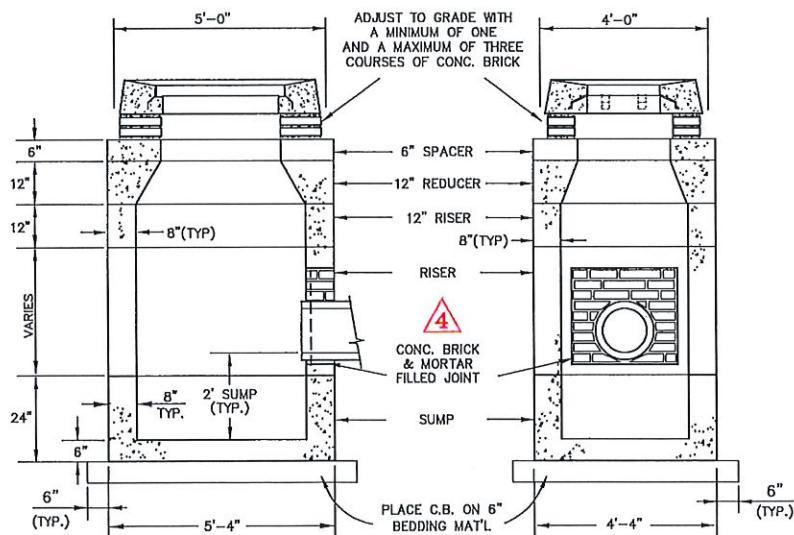
NOTE:

MANHOLE FRAMES & COVERS SHALL BE PATTERN #1007D
AS MANUFACTURED BY THE "CAMPELL FOUNDRY COMPANY"
OF NORTH HAVEN, CONNECTICUT, OR APPROVED EQUAL.

REVISIONS		DATE	BY	CITY OF NORWALK DEPARTMENT OF PUBLIC WORKS
1	REDRAWN & REISSUED	2/4/09	fjr	
APPROVED BY: ANTHONY R. CARR		P.E.# 28018	DATE	STORM MANHOLES AND MANHOLE FRAME STANDARD DETAILS
CHIEF OF OPERATIONS AND PUBLIC WORKS				
APPROVED BY: VANESSA N. VALADARES		P.E.# 28346	DATE	
PRINCIPAL ENGINEER OF DESIGN				
DESIGNED BY: COMMITTEE				
DRAWN BY: F.J.W.		DATE: MARCH, 2021		PROJ # : SCALE : NOT TO SCALE
CHECKED BY :		SHEET ____ OF ____		



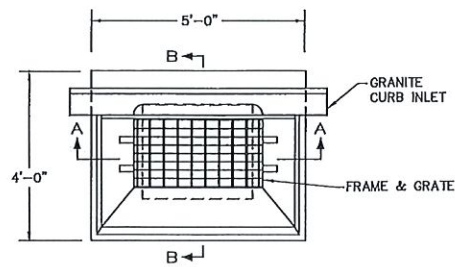
NOTE: ALL STEEL GRATES AND FRAMES TO BE GALVANIZED IN CONFORMANCE WITH FORM 816 ARTICLE M.06.03.



NOTES: 1. ALL CATCH BASIN COMPONENTS TO BE PRE-CAST REINFORCED CONCRETE, ABLE TO WITHSTAND THE APPLIED EARTH LOADS WITH AN HS-20 TRUCK LOAD. ALL JOINTS ARE TO BE MORTARED. CATCH BASIN SHALL CONFORM TO ASTM C478. 2. KNOCK OUTS ARE TO BE APPLIED ONLY AS REQ'D TO ACCOMMODATE PIPES LOCATED PER PROJECT DESIGN.

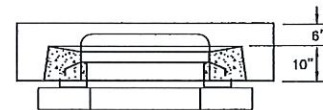
STANDARD CATCH BASIN DETAIL

NOTE: TYPE 'CL' CATCH BASIN TOP SHOWN. SEE CATCH BASIN TOP DETAILS (ABOVE) FOR OTHER CB TOP STYLES.

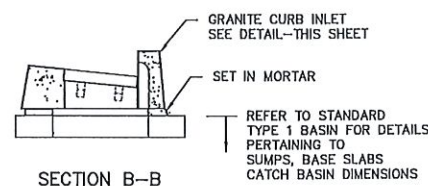


GRANITE CURB CATCH BASIN

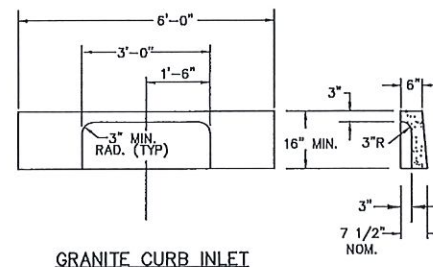
NOTE: TO BE USED IN ALL AREAS WHERE GRANITE CURB IS USED



SECTION A-A



SECTION B-B



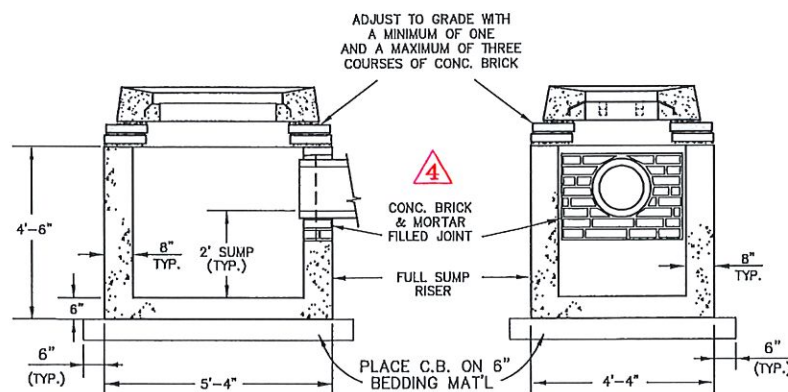
GRANITE CURB INLET



TYPE 'A' GALVANIZED STEEL GRATE PER CTDOT STD SHT. HW-507_08



NOTES:
1. ALL C.B.'S CONSTRUCTED, MODIFIED OR REPLACED SHALL HAVE "DRAINS TO WATER COURSE" CAST INTO THE CATCH BASIN TOP. THIS IS A NO PAY ITEM TO BE INCLUDED IN C.B. COSTS.
2. THE WORDS "DRAINS TO WATER COURSE" SHALL BE CAST INTO THE CATCH BASIN TOP USING 1 1/2" LETTERS.



NOTES: 1. ALL CATCH BASIN COMPONENTS TO BE PRE-CAST REINFORCED CONCRETE, ABLE TO WITHSTAND THE APPLIED EARTH LOADS WITH AN HS-20 TRUCK LOAD. ALL JOINTS ARE TO BE MORTARED. CATCH BASIN SHALL CONFORM TO ASTM C478. 2. KNOCK OUTS ARE TO BE APPLIED ONLY AS REQ'D TO ACCOMMODATE PIPES LOCATED PER PROJECT DESIGN.

SHALLOW CATCH BASIN DETAIL

NOTE: TYPE 'CL' CATCH BASIN TOP SHOWN. SEE CATCH BASIN TOP DETAILS (ABOVE) FOR OTHER CB TOP STYLES.

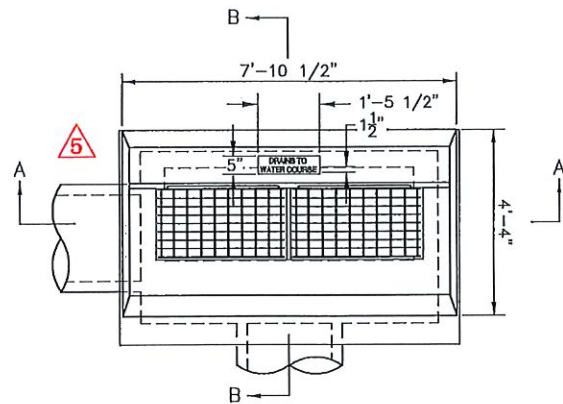
CATCH BASIN FILTER INSERT NOTES

- USE FILTER INSERTS WHERE SHOWN ON DESIGN PLANS OR AS REQUIRED BY D.P.W. ENGINEERING. FILTER USED SHALL BE FROM D.P.W. APPROVED SUPPLIERS LIST:
"ULTRA-URBAN FILTER W/SMART SPONGE FILTER MEDIA"
-ABTECH INDUSTRIES, SCOTTSDALE, AZ, 1-800-543-8999
"TRANSCO ENVIROSAFE MODULAR STORMWATER CATCH BASIN FILTER"
-TRANSCO INDUSTRIES, NEW ROCHELLE, NY, 1-914-636-1000
OR OTHER APPROVED FILTER.
- ALLOW 24" MINIMUM CLEARANCE BETWEEN BOTTOM OF GRATE AND TOP OF PIPE INLET OR OUTLET.
- INSTALL AND MAINTAIN ACCORDING TO MANUFACTURERS RECOMMENDATIONS.

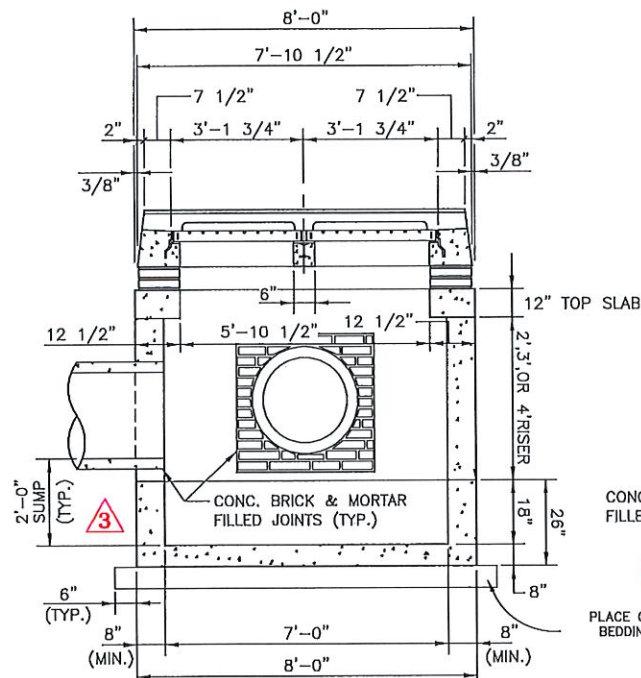
REVISIONS	DATE	BY
1 REDRAWN & REISSUED	4/28/09	FJW
2 REV FILTER INSERT NOTE	8/13/09	FJW
3 MODIFIED CATCH BASIN GRATE	1/25/11	FJW
4 MOD. CATCH BASIN WALL THICKNESS, DESC. & KNOCKOUT NOTE	12/6/12	FJW
5 NEW CB W/"DRAINS TO WATER COURSE" NOTE & NEW CB GRATE DESC.	3/6/17	FJW
APPROVED BY: ANTHONY R. CARR	P.E.# 28018	DATE
CHIEF OF OPERATIONS AND PUBLIC WORKS		
APPROVED BY: VANESSA N. VALADARES	P.E.# 28346	DATE
PRINCIPAL ENGINEER OF DESIGN		
DESIGNED BY: COMATITE	DRAWN BY: F.J.W.	
CHECKED BY:	CHECKED BY:	

CITY OF NORWALK DEPARTMENT OF PUBLIC WORKS
TYPE "C" TYPE "CL" TYPE "C-M" CATCH BASIN TOPS "DRAINS TO WATER COURSE" DETAIL GRANITE CURB INLET CATCH BASIN STANDARD CATCH BASIN SHALLOW CATCH BASIN
STANDARD DETAILS

6



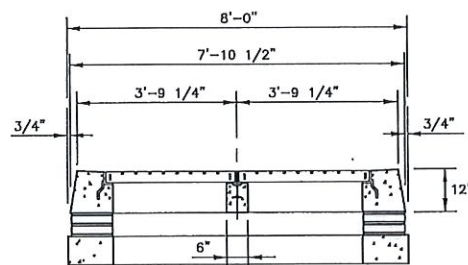
PLAN



SECTION A-A

TYPE "C" CATCH BASIN DOUBLEGRATE - TYPE II

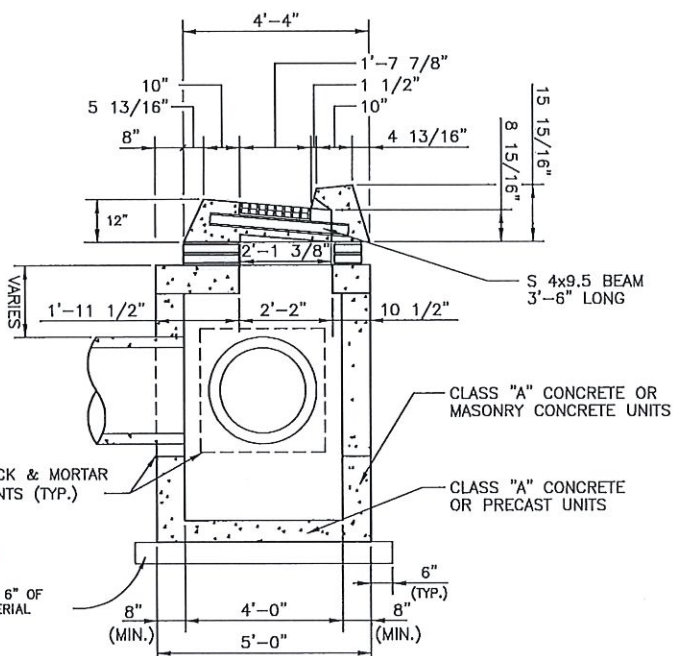
N.T.S.



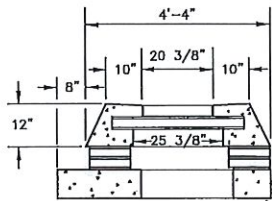
SECTION A-A

TYPE "CL" CATCH BASIN DOUBLEGRATE - TYPE II

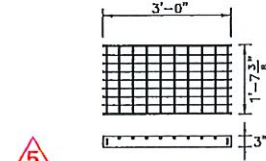
N.T.S.



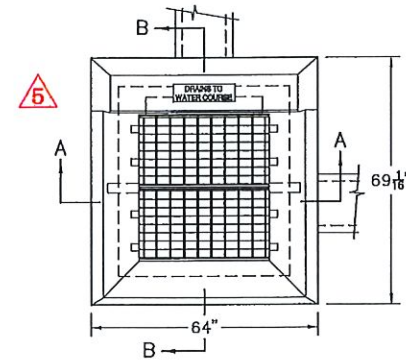
SECTION B-B



SECTION B-B



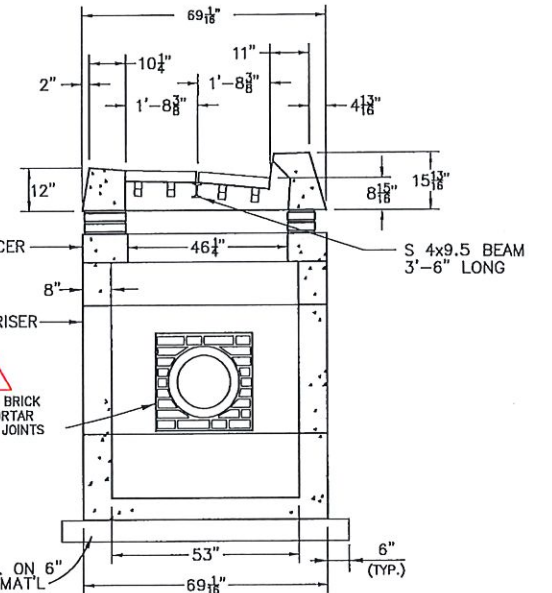
TYPE 'A' GALVANIZED STEEL GRATE
PER CTDOT STD SHT. HW-507_08



SECTION A-A

TYPE "C" CATCH BASIN DOUBLEGRATE - TYPE I

N.T.S.



SECTION B-B

N.T.S.

- NOTES:
1. ALL C.B.'S CONSTRUCTED, MODIFIED OR REPLACED SHALL HAVE "DRAINS TO WATER COURSE" CAST INTO THE CATCH BASIN TOP. THIS IS A NO PAY ITEM TO BE INCLUDED IN C.B. COSTS.
 2. THE WORDS "DRAINS TO WATER COURSE" SHALL BE CAST INTO THE CATCH BASIN TOP USING 1 1/2" LETTERS.

CATCH BASIN FILTER INSERT NOTES

- 1.) USE FILTER INSERTS WHERE SHOWN ON DESIGN PLANS OR AS REQUIRED BY D.P.W. ENGINEERING. FILTER USED SHALL BE FROM D.P.W. APPROVED SUPPLIERS LIST:
"ULTRA-URBAN FILTER W/SMART SPONGE FILTER MEDIA"
-ABTECH INDUSTRIES, SCOTTSDALE, AZ, 1-800-543-8999
"TRANSPO ENVIROSAFE MODULAR STORMWATER CATCH BASIN FILTER"
-TRANSPO INDUSTRIES, NEW ROCHELLE, NY, 1-914-636-1000
OR OTHER APPROVED FILTER.
- 2.) ALLOW 24" MINIMUM CLEARANCE BETWEEN BOTTOM OF GRATE AND TOP OF PIPE INLET OR OUTLET.
- 3.) INSTALL AND MAINTAIN ACCORDING TO MANUFACTURERS RECOMMENDATIONS.

NOTES:

- 1.) ALL PRECAST TOPS AND FRAMES SHALL BE ADJUSTED TO GRADE WITH A MINIMUM OF ONE AND A MAXIMUM OF THREE COURSES OF CONCRETE BRICK.
- 2.) ALL CATCH BASIN FRAMES AND GRATES, TOP SLABS, RISERS, SUMPS, AND BASE SLABS SHALL BE PRECAST REINFORCED CONCRETE AS MANUFACTURED BY CONNECTICUT PRECAST CORP. OR APPROVED EQUAL.
- 3.) ALL STEEL GRATES AND FRAMES TO BE GALVANIZED IN CONFORMANCE WITH FORM 816 ARTICLE M.06.03.
- 4.) ALL JOINTS SHALL BE MORTARED.
- 5.) KNOCK OUTS ARE TO BE APPLIED ONLY AS REQ'D TO ACCOMMODATE PIPES LOCATED PER PROJECT DESIGN.

REVISIONS	DATE	BY
1 REDRAWN & REISSUED	4/28/09	fjr
2 REV FILTER INSERT NOTE	8/13/09	fjr
3 MODIFIED SUMP DIMENSION	1/14/10	fjr
4 MOD. CB WALL/BASE THKNESS	12/7/12	fjr
MODIFIED NOTES 1-5		
5 NEW CB W/"DRAINS TO WATER COURSE" NOTE & NEW CB GRATE DESC.	3/8/17	fjr

CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

TYPE "C" & TYPE "CL"
DOUBLE GRATE CATCH BASINS
TYPE II

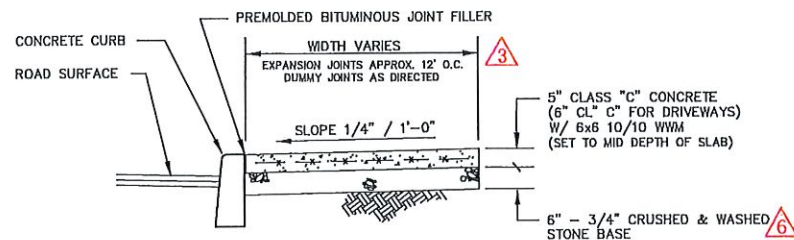
TYPE "C"
DOUBLE GRATE CATCH BASIN
TYPE I

STANDARD DETAILS

7

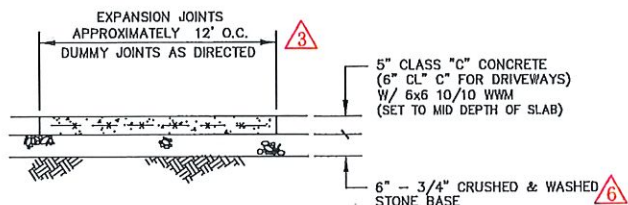
APPROVED BY: ANTHONY R. CARR	P.E.# 28018	DATE
CHIEF OF OPERATIONS AND PUBLIC WORKS		
APPROVED BY: VANESSA N. VALADARES	P.E.# 28346	DATE
PRINCIPAL ENGINEER OF DESIGN		
DESIGNED BY: COMMITTEE	DRAWN BY: F.J.W.	
CHECKED BY:	CHECKED BY:	

DATE: MARCH, 2021	DPW PROJ.:
SCALE: NOT TO SCALE	SHEET ____ OF ____

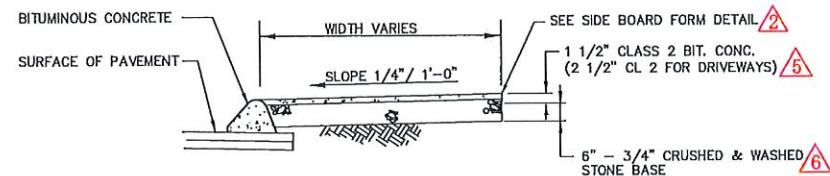


CROSS SECTION

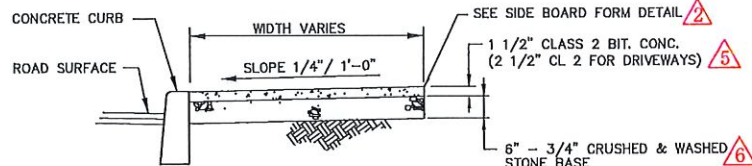
CONCRETE DRIVEWAY
(CONCRETE DRIVEWAY)
N.T.S.



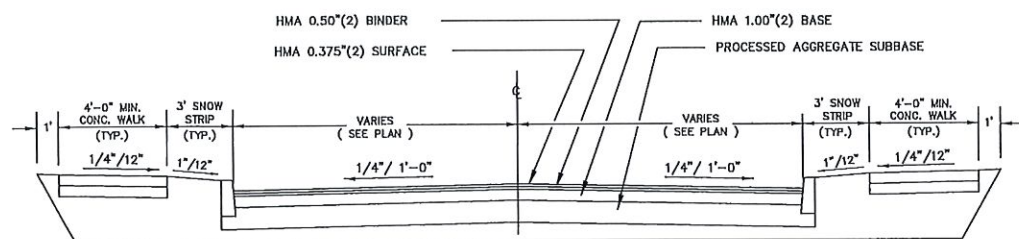
LONGITUDINAL SECTION



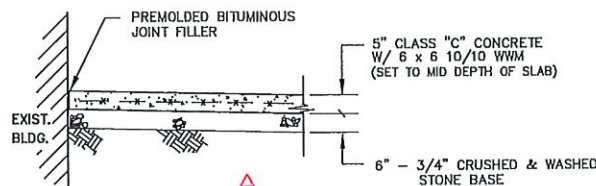
BITUMINOUS CONCRETE DRIVEWAY
BITUMINOUS CONC. LIP CURBING
N.T.S.



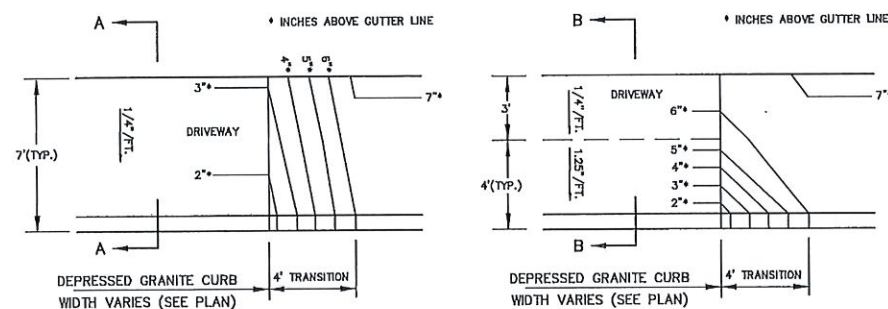
BITUMINOUS CONCRETE DRIVEWAY
CONC. CURBING
N.T.S.



TYPICAL SUPERPAVE ROADWAY SECTION
(WHERE SNOW STRIP INCLUDED)
N.T.S.

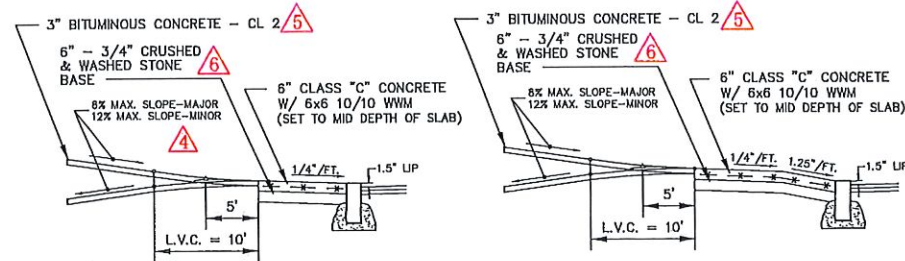


TYPICAL CONSTRUCTION JOINT
BETWEEN PROPOSED SIDEWALK & EXIST. BUILDING



PLAN

PLAN

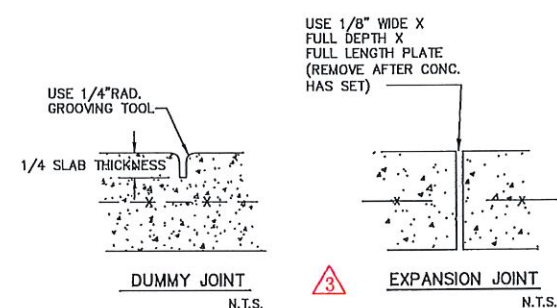


SECTION A-A
TYPE 'A' DRIVE
N.T.S.

SECTION B-B
TYPE 'B' DRIVE
N.T.S.

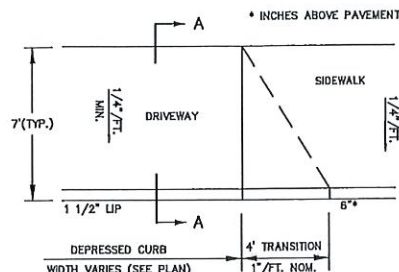
CONCRETE DRIVEWAY RAMP
W/ GRANITE CURB

(TYPE 'A' OR 'B' TO SUIT FIELD CONDITIONS)

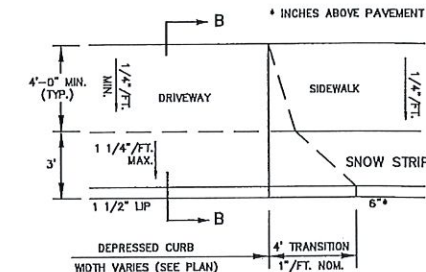


DUMMY JOINT
N.T.S.

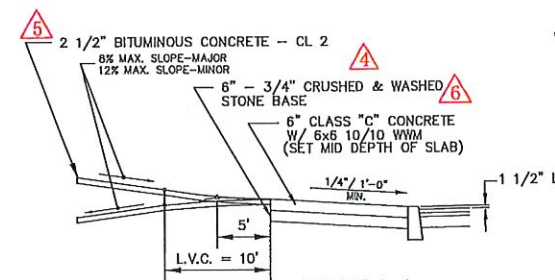
EXPANSION JOINT
N.T.S.



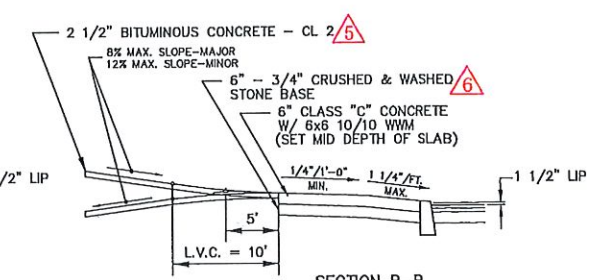
PLAN



PLAN

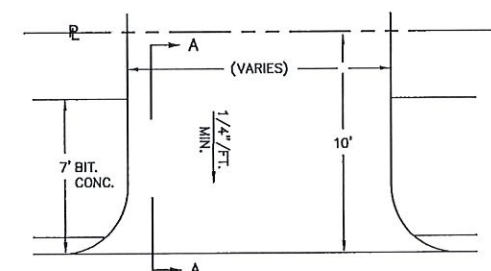


SECTION A-A
TYPE 'A' DRIVE
(WITHOUT SNOW STRIP)
N.T.S.

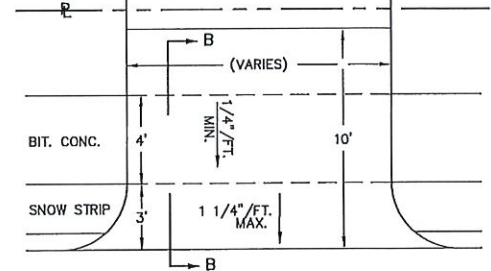


SECTION B-B
TYPE 'B' DRIVE
(WITH SNOW STRIP)
N.T.S.

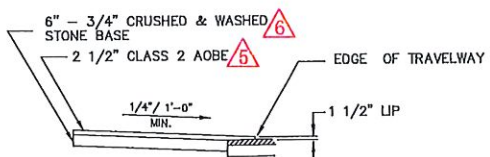
CONCRETE APRON
W/ CONC. CURBING



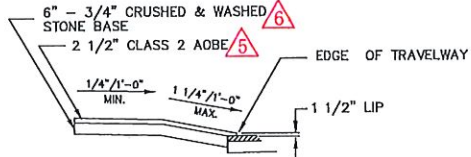
PLAN



PLAN



SECTION A-A
TYPE 'A' DRIVE
N.T.S.



SECTION B-B
TYPE 'B' DRIVE
N.T.S.

BITUMINOUS CONCRETE APRON
BIT. LIP CONC. CURBING

REVISIONS	DATE	BY
1 REDRAWN & REISSUED	4/13/09	
2 ADDED SIDE BOARD FORM	8/10/09	fjr
3 ADDED CONC. SIDEWALK JOINT DETAILS	10/8/10	fjr
4 REVISED TO MAJOR/MINOR SLOPE	11/4/10	fjr
5 REVISED TO CLASS 2 BIT CONC. ONLY	10/21/16	fjr
6 MODIFIED TO INCLUDE HMA AND TO CHG PROCESS TO 3/4" STONE	5/17/19	fjr
7 REMOVED GEN. NOTES FOR SIDEWALK RAMPS, ADD TYP. CONST. JT. BETWEEN WALK & BLDG		
ADD CONC. STRENGTH NOTE	1/7/21	fjr

APPROVED BY: ANTHONY R. CARR	P.E.# 28018	DATE
CHIEF OF OPERATIONS AND PUBLIC WORKS		
APPROVED BY: VANESSA N. VALADARES	P.E.# 28346	DATE
PRINCIPAL ENGINEER		
DESIGNED BY: COMMITTEE	DRAWN BY: F.A.W.	
CHECKED BY:	CHECKED BY:	

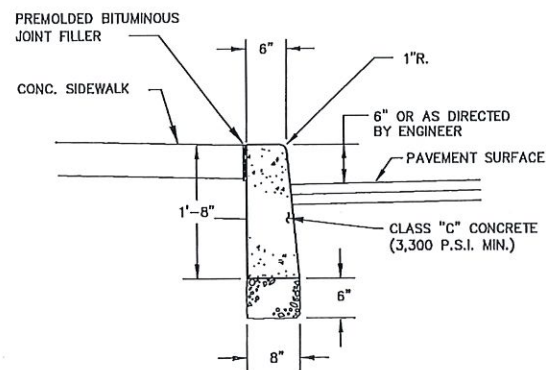
CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

DRIVEWAY APRONS
CURB RAMPS
ROADWAY SECTION
& SIDEWALK

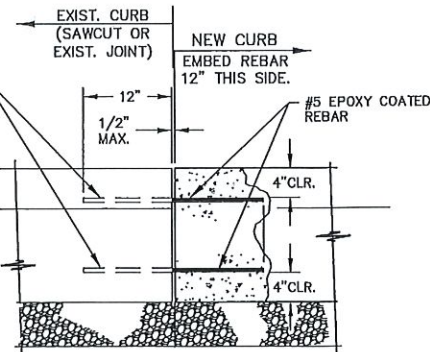
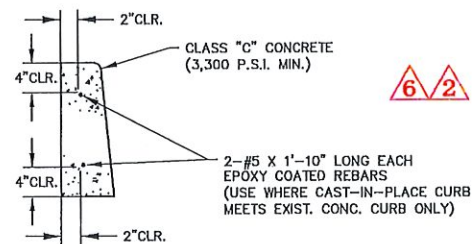
STANDARD DETAILS

8

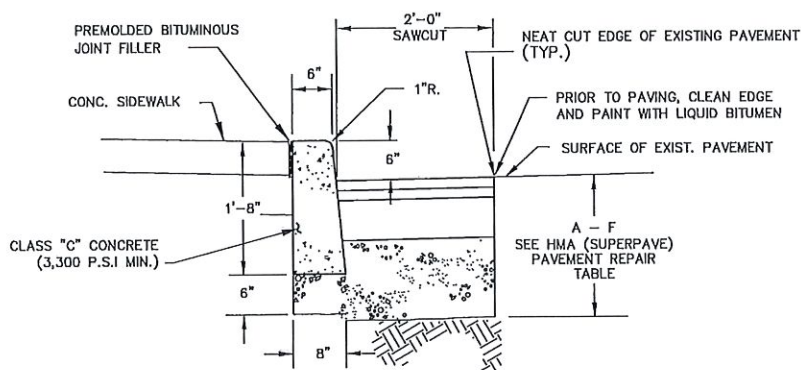
NOTE:
1.) CLASS "C" MIN. 3300 PSI AT 28 DAYS
or CLASS "F" MIN. 4400 PSI AT 28 DAYS.



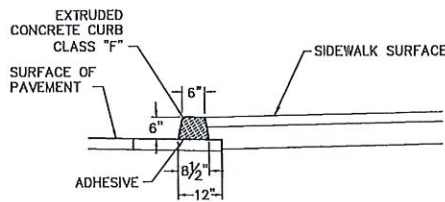
CAST-IN-PLACE CONCRETE CURB
EXPANSION JOINTS @ APPROX. 12'-0" O.C. (TYP.)



CONCRETE CURB
USE REBAR WHERE CAST-IN-PLACE CURB MEETS EXISTING CURB AT SAWCUT OR EXIST. JOINT



CAST-IN-PLACE CONCRETE CURB
EXPANSION JOINTS @ APPROX. 12'-0" O.C. (TYP.)
(EXISTING PAVEMENT)
NOT IN ROAD RECONSTRUCTION AREA

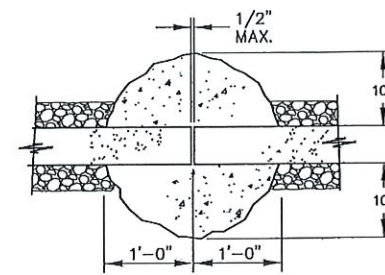


EXTRUDED CONCRETE CURB

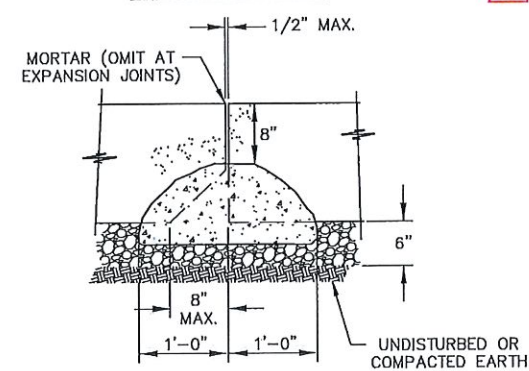
	A	B	C	D	E	F
	A - E X"=STONE SIZE & (Y)=LEVEL e.g. 0.50"(2)					P.A.B.
	0.375"(2)	0.50"(2)	1.00"(2)	0.50"(3)	1.00"(3)	
STATE ROAD				3"	6"	12"
MAJOR ARTERIAL				4"	6"	14"
MINOR ARTERIAL	1.5"	2"	3"			12"
COLLECTOR	1.5"	1.5"	3"			12"
LOCAL	3"					12"

PAVEMENT REPAIR TABLE
HMA (SUPERPAVE)

5

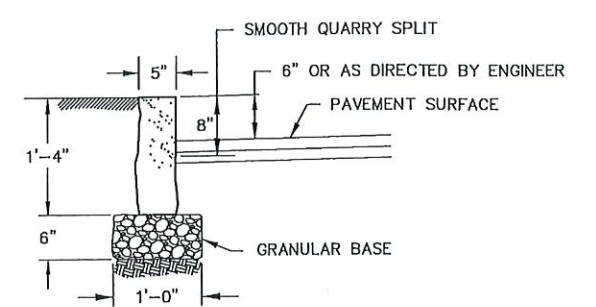


PLAN @ JOINT

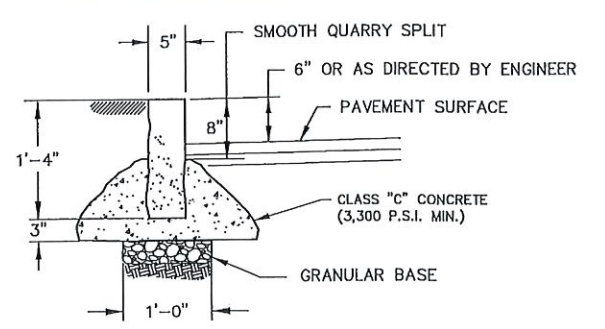


ELEVATION @ JOINT

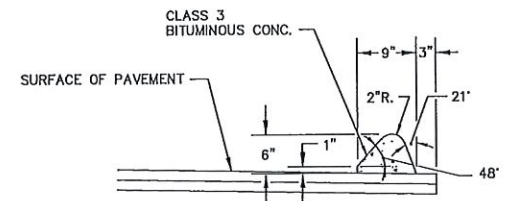
GRANITE & PRECAST CONCRETE CURB
JOINT TREATMENT
(GRANITE CURB SHOWN)
EXPANSION JOINTS @ APPROX. 50'-0" O.C. (TYP.)



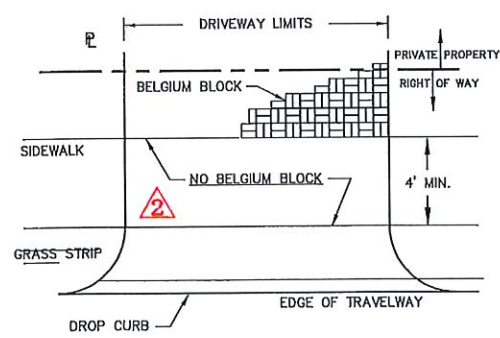
NON-JOINT SECTION



SECTION @ JOINT

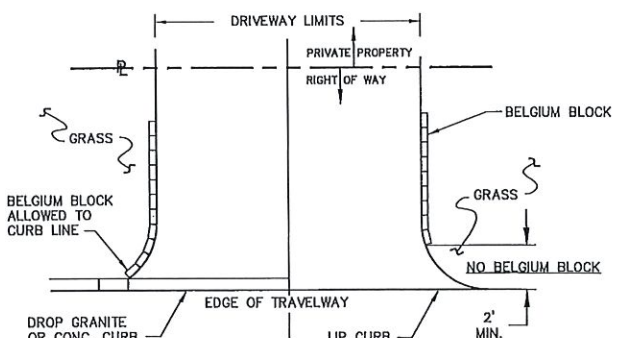


BITUMINOUS CONCRETE
LIP CURBING



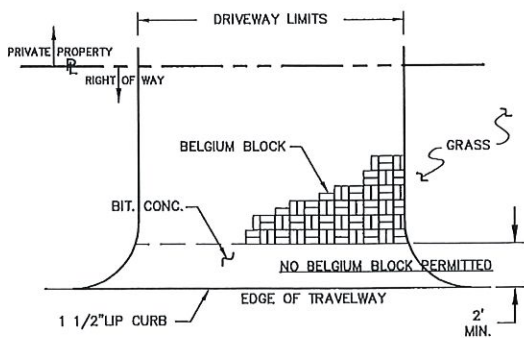
PLAN
N.T.S.

CONCRETE OR BITUMINOUS CONC. DRIVE APRON
W/ BELGIUM BLOCK
W/ CONCRETE, BIT. CONC., OR GRANITE CURB
W/ SIDEWALK



PLAN
N.T.S.

BELGIUM BLOCK
DRIVEWAY EDGING
NO SIDEWALK



PLAN
N.T.S.

BIT. CONC. DRIVE APRON
W/ BELGIUM BLOCK
NO SIDEWALK OR CURB
BIT. CONC. LIP FOR DRIVEWAY

THE CITY TAKES NO RESPONSIBILITY FOR ANY DAMAGE TO BELGIUM BLOCK INSTALLED WITHIN ROAD RIGHT OF WAY.

REVISIONS	DATE	BY
1 REDRAWN & REISSUED	4/8/09	fjr
2 ADDED BELGIUM BLOCK EDGING PLAN & REBAR @ C.I.P. CONC. CURB	9/17/10	fjr
3 ADDED MAX. LIFT THKNSS NOTE	12/5/11	fjr
4 MODIFIED CURB JOINT TREATMENT & RELABELED CONC. CURB TO CAST-IN PLACE	10/12/12	fjr
5 ADDED SUPERPAVE TABLE	12/5/12	fjr
6 ADDED CLASS 'C' NOTE TO CONC. CURB	2/19/19	fjr
7 MODIFIED #10 NOTE, REMOVED MARSHALL MIX TABLE, ADDED EXTRUDED CONC. CURB		
ADDED MIN. CONC. STRENGTH	12/17/20	fjr

CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

CURB DETAILS
BELGIUM BLOCKS
IN DRIVEWAYS

STANDARD DETAILS

9

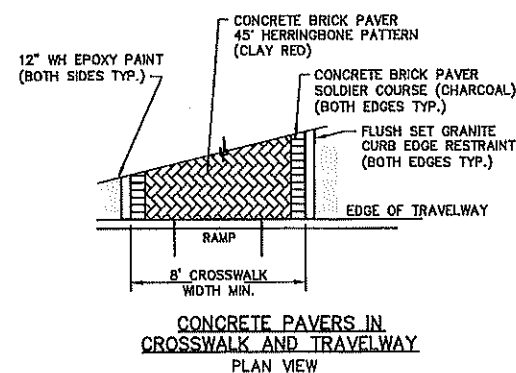
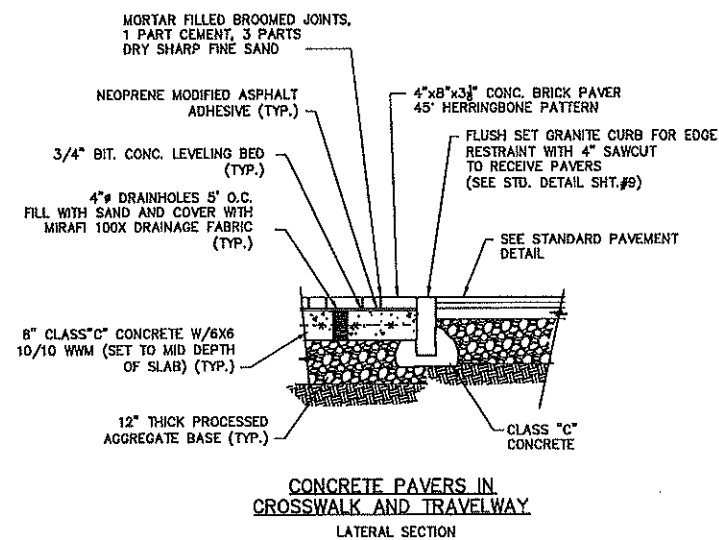
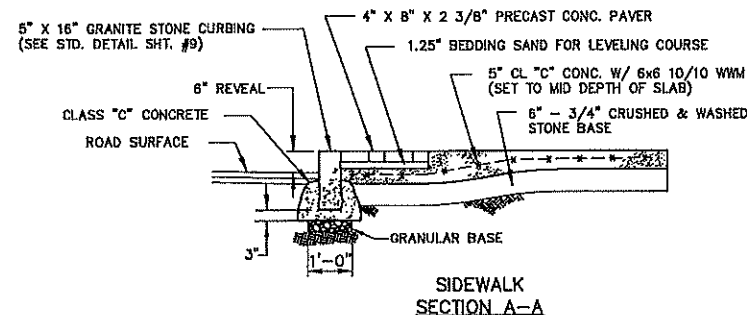
DATE: MARCH, 2021	DPW PROJ.:
SCALE: N.T.S.	SHEET ____ OF ____

CONCRETE NOTE:
CLASS 'C' MIN. 3300 PSI AT 28 DAYS
or CLASS 'F' MIN. 4400 PSI AT 28 DAYS.

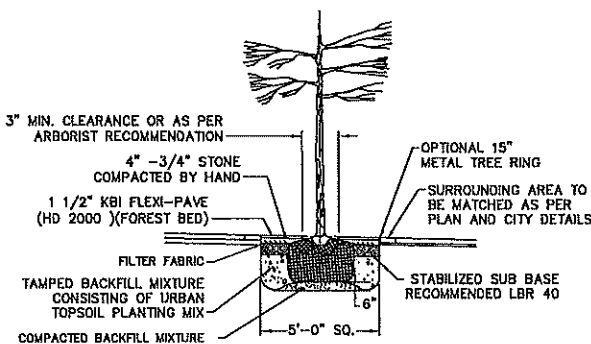
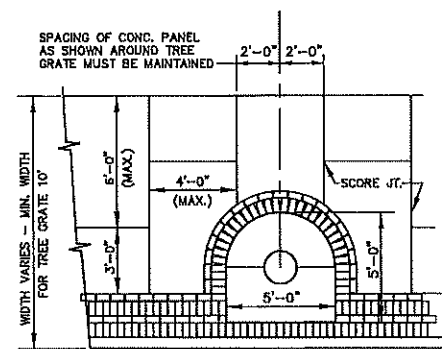
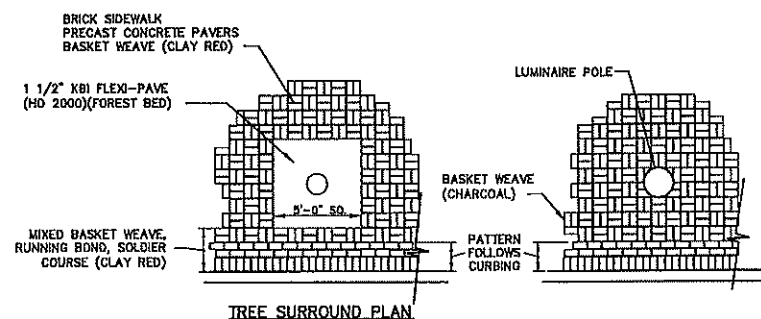
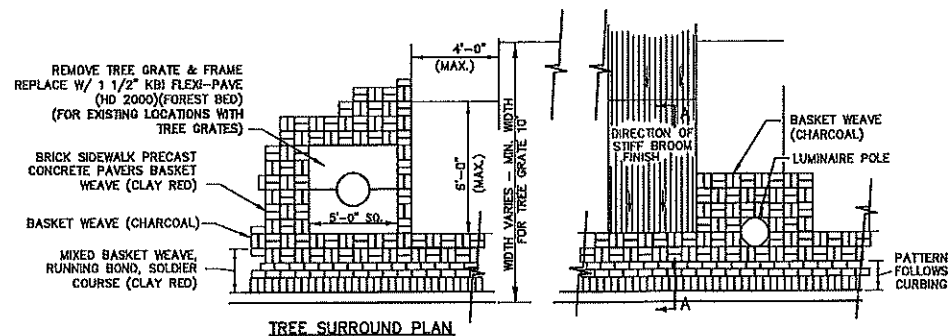
SEE "STANDARD DETAIL DRAWINGS":
#8 - DRIVEWAY APRONS, CURB RAMPS,
ROADWAY SECTION & SIDEWALK

#10(X) - PAVERS IN SIDEWALKS & CROSSWALKS
(X)= a, b, c or d. "Location dependent."

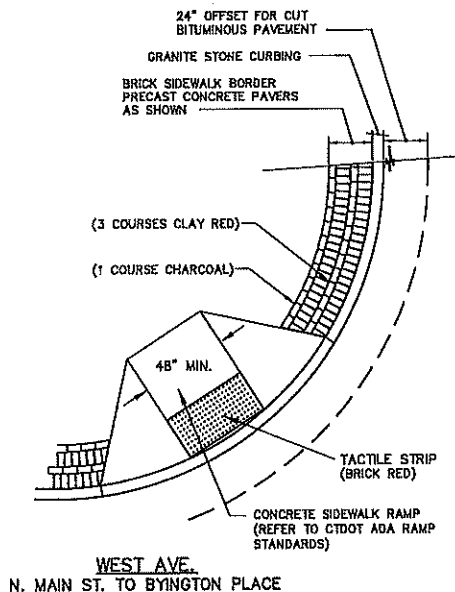
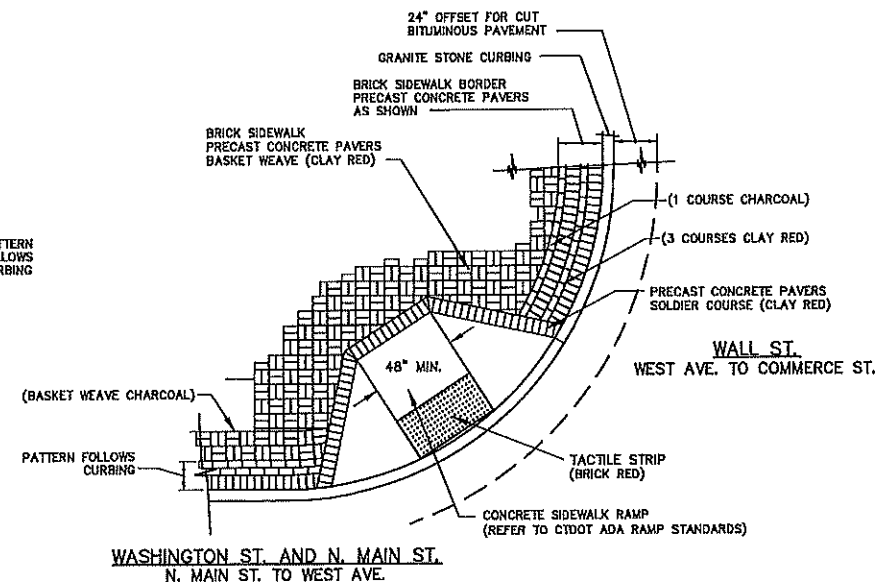
FOR DRIVEWAY AND SIDEWALK
CONSTRUCTION DETAILS



NOTE:
THIS CROSSWALK DETAIL SHALL BE APPLIED TO ALL NEW BRICK PAVEMENT INSTALLATIONS EXCEPT WHERE SPECIAL WAIVER IS GRANTED BY THE CHIEF OF OPERATIONS AND PUBLIC WORKS FOR THE CITY OF NORWALK.



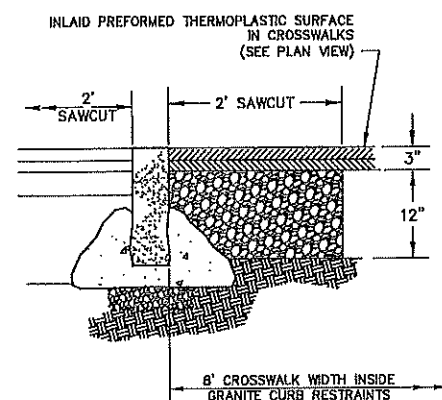
NOTE:
1. DO NOT CUT OR LOOSEN BURLAP BALL.
2. REMOVE PLASTIC WRAP, TAGS AND WIRE.



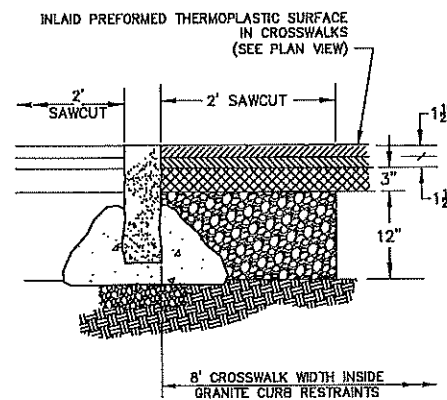
CONCRETE NOTE:
CLASS "C" MIN. 3300 PSI AT 28 DAYS
OR CLASS "F" MIN. 4400 PSI AT 28 DAYS.

REVISIONS				CITY OF NORWALK	
NO.	DESCRIPTION	DATE	BY	DEPARTMENT OF PUBLIC WORKS	
1	REDRAWN AND REISSUED	12/20	FJW		
				STANDARD DETAILS	
				PRECAST CONCRETE PAVERS AT BORDERS, SIDEWALKS AND RAMPS	
				CONCRETE PAVEMENT CROSSWALK	
				SONO T.O.D.	
				10a	
				DATE: MARCH, 2021	
				PROJ. #:	
				SCALE: NOT TO SCALE	
				SHEET OF	

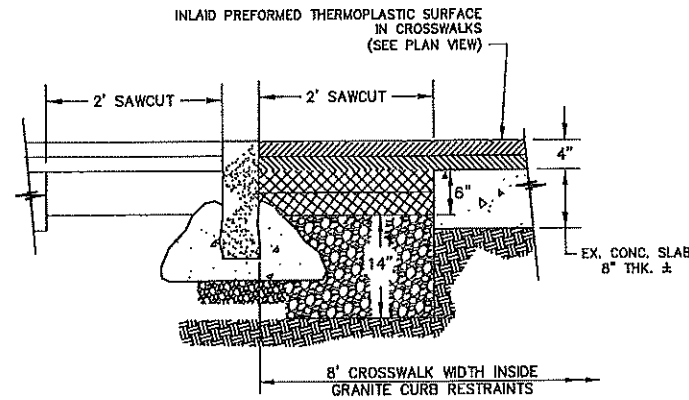
NOTES:
1) THESE BRICK SIDEWALK PATTERNS SHALL BE APPLIED TO ALL NEW BRICK WORK IN SIDEWALKS EXCEPT WHERE SPECIAL WAIVERS ARE GRANTED BY THE CHIEF OF OPERATIONS AND PUBLIC WORKS FOR THE CITY OF NORWALK.
2) FOR ALL NEW OR REPLACEMENT CONSTRUCTION INVOLVING TREES WITHIN THE CITY RIGHT-OF WAY, METAL TREE GRATES SHOULD BE REMOVED AND DELIVERED TO THE CITY OF NORWALK OPERATIONS CENTER, OR DISPOSED OF AS INSTRUCTED BY THE CHIEF OF OPERATIONS AND PUBLIC WORKS, AND REPLACED WITH KBI FLEXI-PAVE AS INSTRUCTED ON THE KBI FLEXI-PAVE TREE SURROUND STANDARD DETAIL.



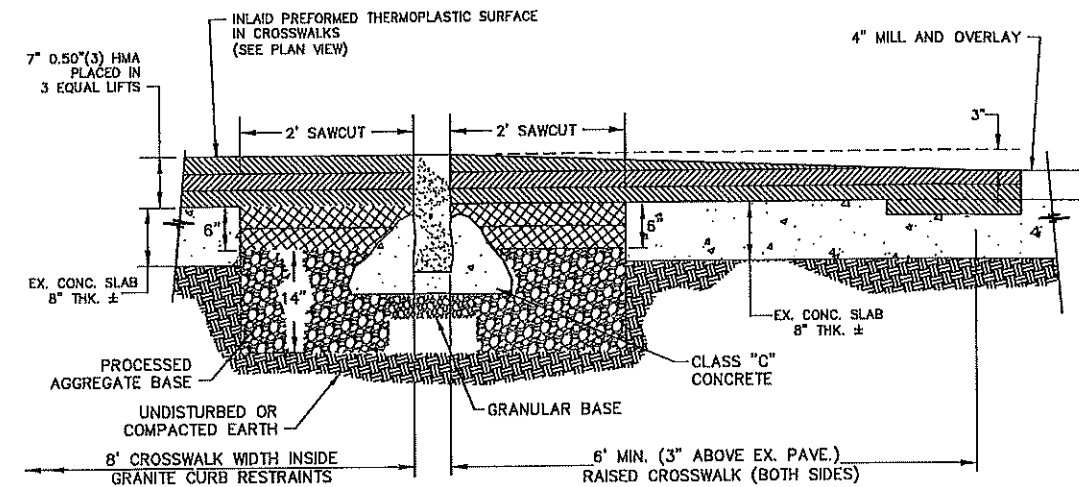
SECTION
AT LOCAL ROAD



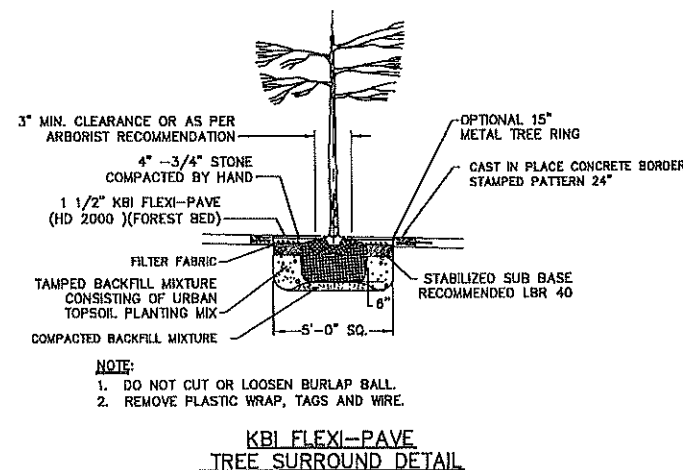
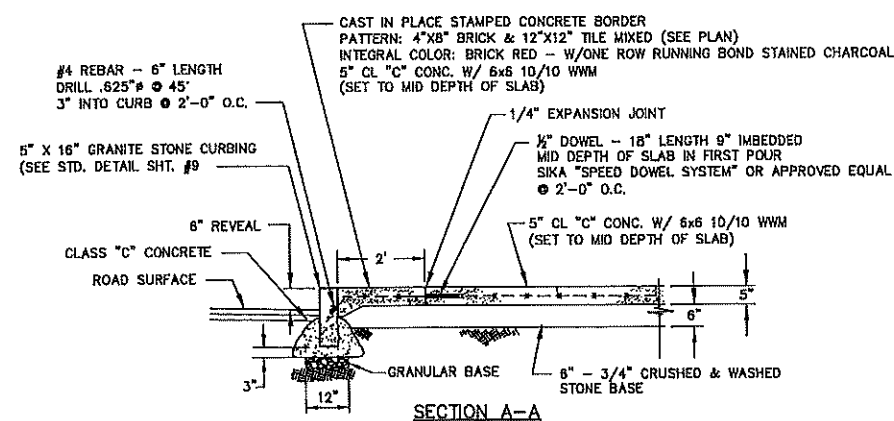
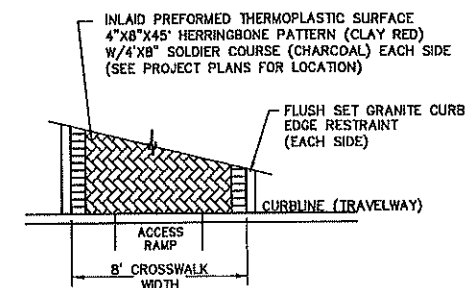
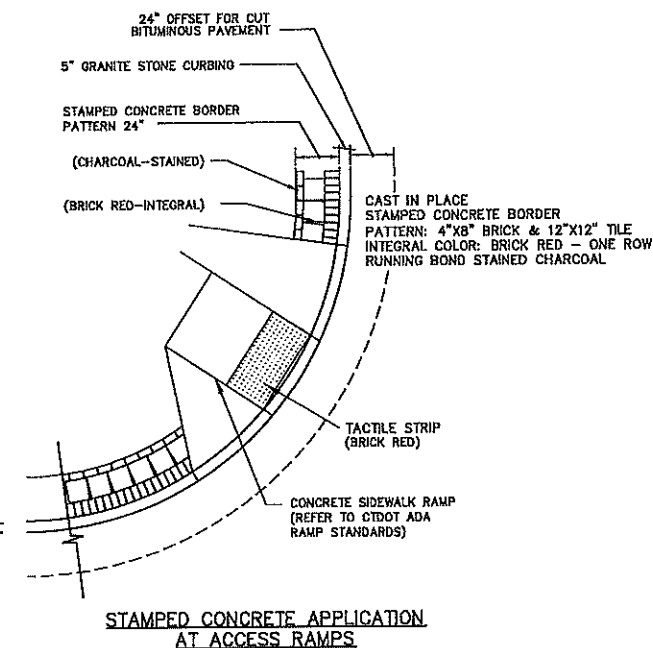
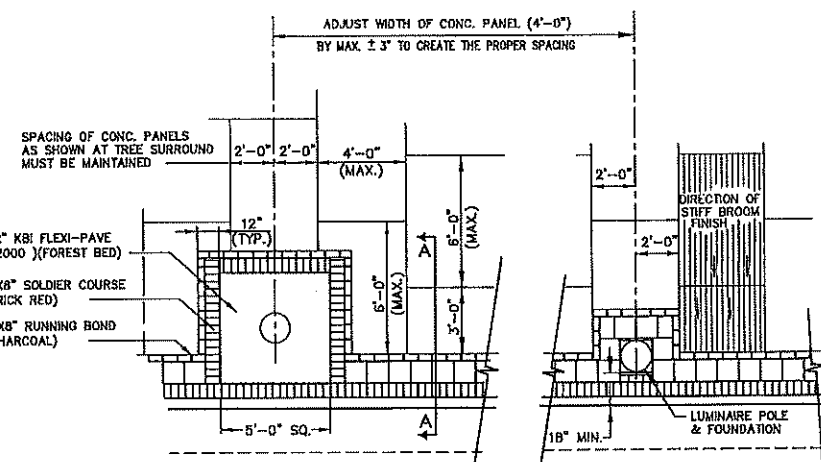
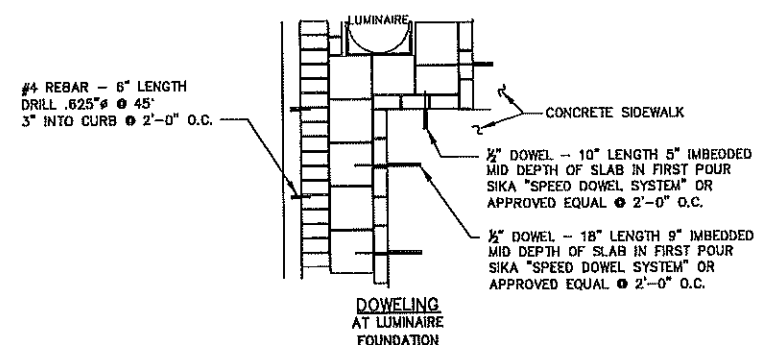
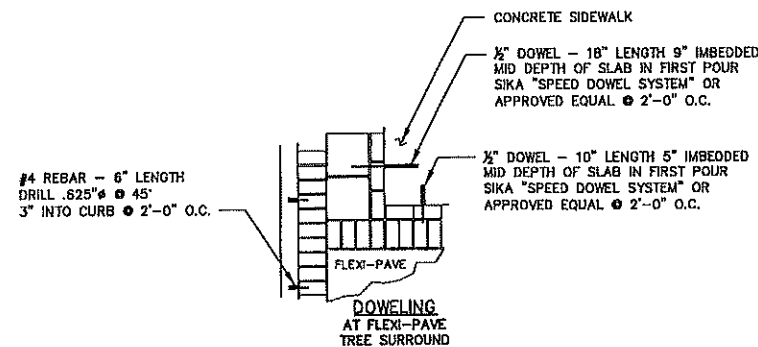
SECTION
AT COLLECTOR ROAD



SECTION
AT MAJOR ARTERIAL ROAD
INLAID THERMOPLASTIC SURFACE AND GRANITE CURB
AT GRADE LEVEL CROSSWALKS
ON EAST WALL ST. & MAIN ST.
(SEE NOTE 1)



SECTION
AT MAJOR ARTERIAL ROAD
INLAID THERMOPLASTIC SURFACE AND GRANITE CURB
IN RAISED CROSSWALK
ON EAST WALL ST.
(SEE NOTE 1)

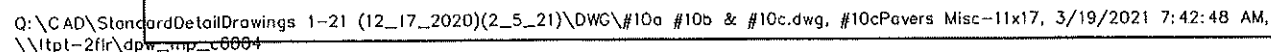


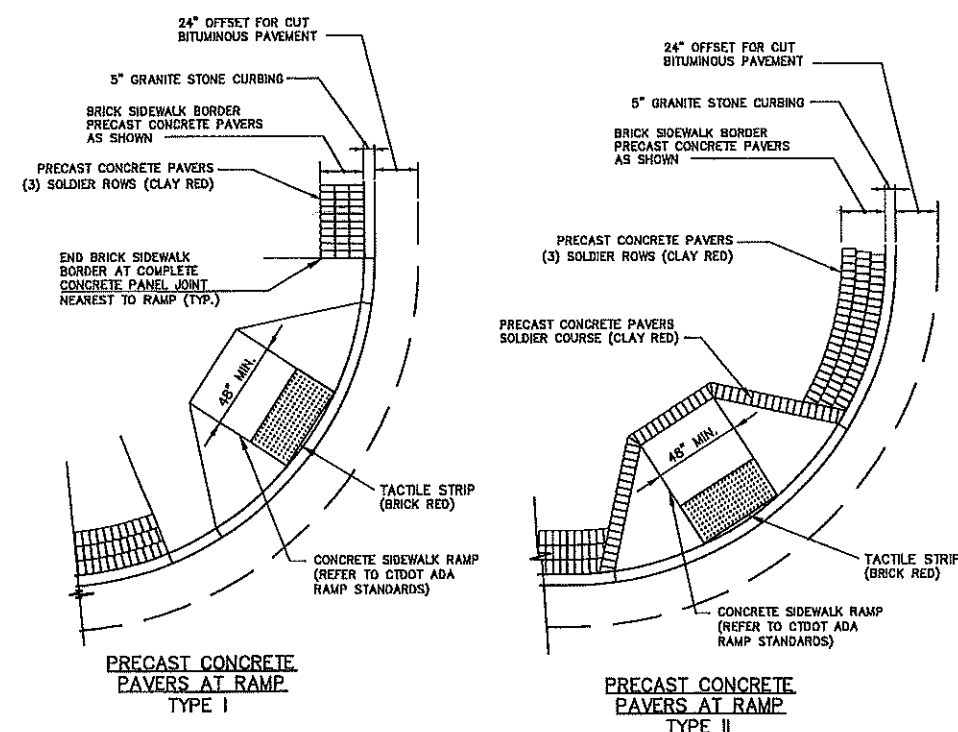
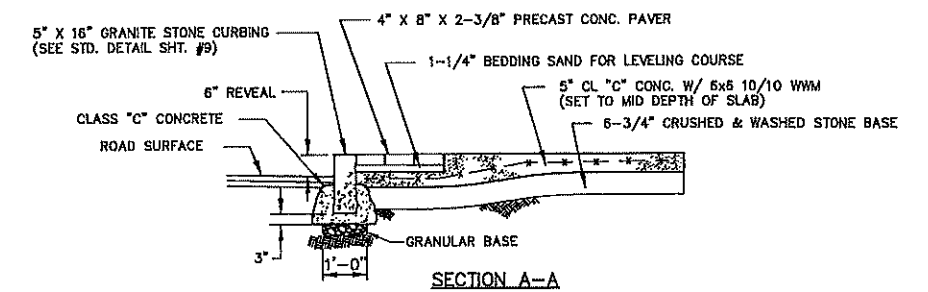
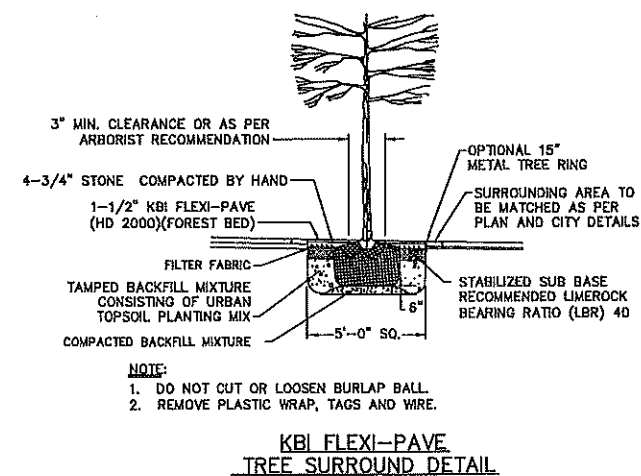
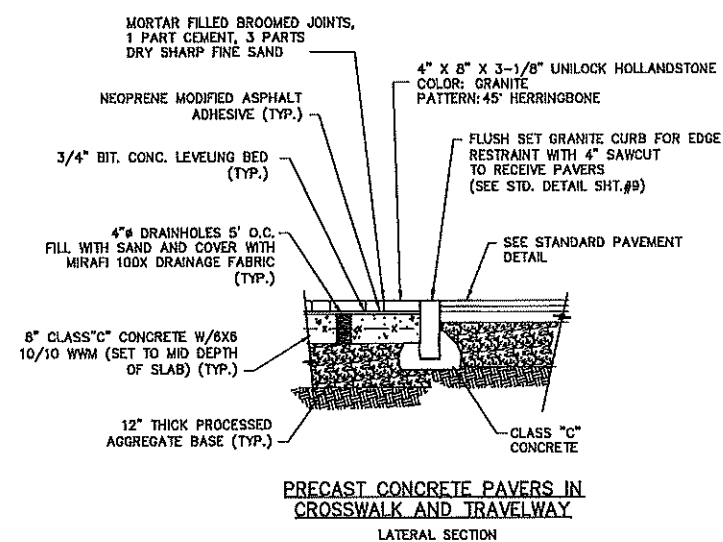
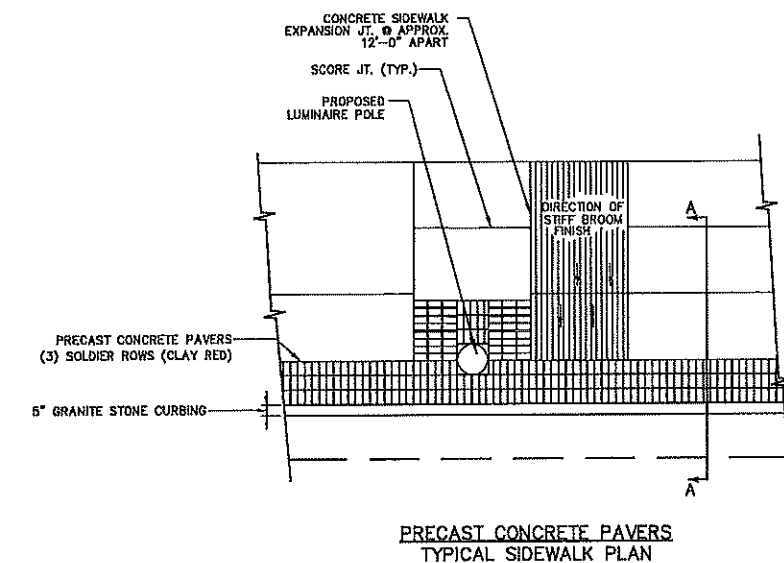
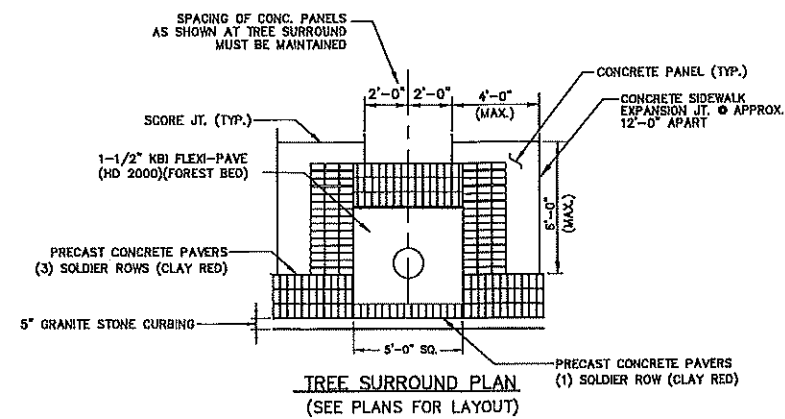
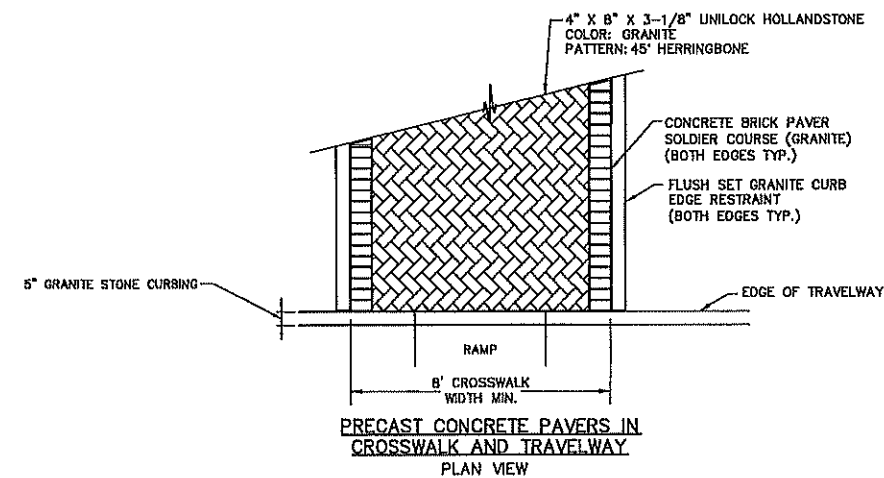
NOTE 1:
SEE CITY STANDARD DETAILS SHEET #9 FOR
PAVEMENT REPAIR TABLE AND GRANITE CURB JOINT TREATMENT.

CONCRETE NOTE:
CLASS "C" MIN. 3300 PSI AT 28 DAYS
or CLASS "F" MIN. 4400 PSI AT 28 DAYS.

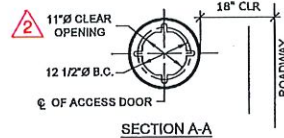
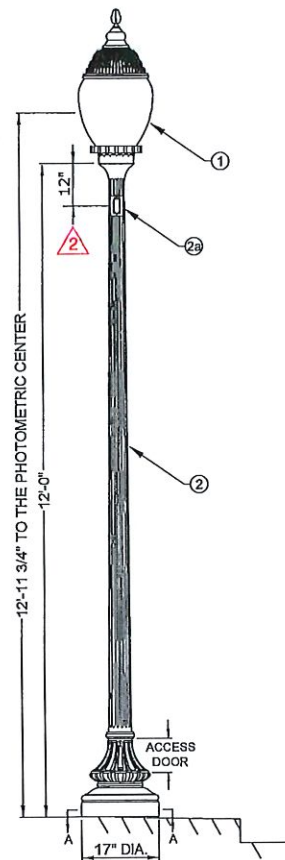
REVISIONS		DATE	BY
1	REDRAWN AND REISSUED	12/20	ffw
APPROVED BY: ANTHONY R. CARR		P.E.# 28018	DATE
CHIEF OF OPERATIONS AND PUBLIC WORKS			
APPROVED BY: VANESSA N. VALADARES		P.E.# 28346	DATE
PRINCIPAL ENGINEER OF DESIGN			
DESIGNED BY: COWI/ATL		DRAWN BY: F.J.W	
CHECKED BY:		CHECKED BY:	

CITY OF NORWALK DEPARTMENT OF PUBLIC WORKS	
STAMPED CONCRETE PATTERNS AT ACCESS RAMPS, TREE SURROUND AND LUMINAIRE FOUNDATION	
INLAID PREFORMED THERMOPLASTIC SURFACE & GRANITE CURB IN CROSSWALKS	
EAST WALL STREET FROM MAIN ST TO SMITH ST	
10b	
DATE: MARCH, 2021	PROJ. # :
SCALE: NOT TO SCALE	SHEET ____ OF ____





REVISIONS		DATE	BY	CITY OF NORWALK DEPARTMENT OF PUBLIC WORKS
1	ORIGINAL ISSUE	2/2021		
APPROVED BY: ANTHONY R. CARR		P.E.# 28018	DATE	PRECAST CONCRETE PAVERS AT SIDEWALK, CROSSWALK & RAMPS (TYPES I & II)
CHIEF OF OPERATIONS AND PUBLIC WORKS				
APPROVED BY VANESSA N. VALADARES		P.E.# 28346	DATE	
PRINCIPAL ENGINEER OF DESIGN				
DESIGNED BY: J.P.X.				
CHECKED BY:				
EAST NORWALK VILLAGE STANDARDS				10d
DATE: MARCH, 2021 PROJ. # :				
SCALE : NOT TO SCALE				SHEET ____ OF ____



CARE MUST BE TAKEN WHEN INSTALLING ANCHOR BASES TO ENSURE CORRECT ORIENTATION OF DOOR WITH RESPECT TO EDGE OF ROADWAY

1 LUMINAIRE SPECIFICATIONS

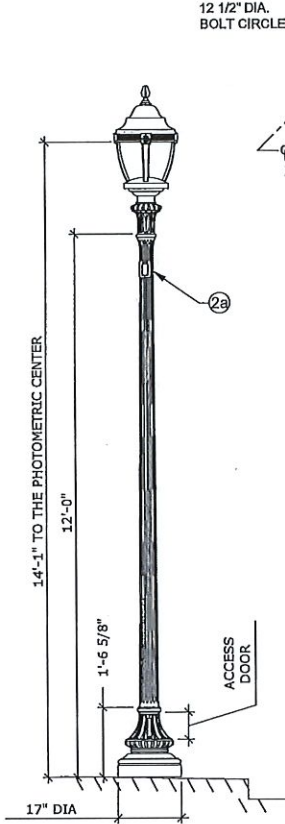
CATALOG NO. ALMVLL-LE080-EVX-2G2-45-CR3-PS11-FPA-CB
STYLE: VILLA LED
HEIGHT: 34 1/8"
WIDTH: 16 1/2" DIAMETER
MATERIAL: CAST ALUMINUM ALLOY A.S.I.
356, PER A.S.T.M. B26-95
GLOBE: STIPPLED POLYCARBONATE
FINISH: PRIME PAINT THEN FINISH SHERWIN WILLIAMS ACROLON - CLASSIC BLACK
LAMPING: 80 WATT LED SYSTEM
COLOR TEMPERATURE: 4500K (NEUTRAL WHITE)
VOLTAGE: ELECTRONIC 120-277V
DISTRIBUTION: TYPE III REFRACTIVE OPTICS (ASYMMETRIC DISTRIBUTION)

2 LAMP POST SPECIFICATIONS

CATALOG NO. DPSWSH-17-12.00-TN7.00/0.75-GFWI-VL-CB
STYLE: WASHINGTON 12P WITH VILLA TOP
HEIGHT: 12'-0"
PHOTOMETRIC CENTER: 12'-11 3/4"
BASE: 17" DIAMETER
MATERIAL: ONE PIECE, HEAVY WALL CAST DUCTILE IRON PER A536-84 GRADE 65-45-12
FINISH: PRIME PAINT THEN FINISH SHERWIN WILLIAMS ACROLON - CLASSIC BLACK
ACCESS DOOR: LOCATED IN BASE SECURED WITH TAMPER PROOF HEX SOCKET SECURITY MACHINE SCREWS
GROUND STUD PROVISIONS: DRILL AND TAP INSIDE WALL OF BASE OPPOSITE ACCESS DOOR TO ACCOMMODATE A 1/4"-20 GROUND STUD (STUD SUPPLIED BY OTHERS)
ANCHOR BOLTS: (4) 3/4" DIA. X 24" LONG + 3" HOOK (FULLY GALVANIZED WITH 1 GALVANIZED NUT AND 1 GALVANIZED WASHER PER BOLT)
BOLT PROJECTION: 3" REQUIRED
TENON: 7" DIA. X 3/4" HIGH (TO ACCEPT LUMINAIRE)

2a OPTION

GFCI RECEPTACLE WITH WEATHERPROOF COVER (WEATHERPROOF WHILE IN USE) LOCKABLE COVER SEE BASE PLAN DETAIL FOR ORIENTATION INFORMATION



PEDESTRIAN LIGHT & POLE
BY SPRING CITY
OR APPROVED EQUAL

WAYPOINTS

BASE PLAN DETAIL - NTS

CARE MUST BE TAKEN WHEN INSTALLING ANCHOR BASES TO ENSURE CORRECT ORIENTATION OF DOOR WITH RESPECT TO EDGE OF ROADWAY

1 LUMINAIRE SPECIFICATIONS

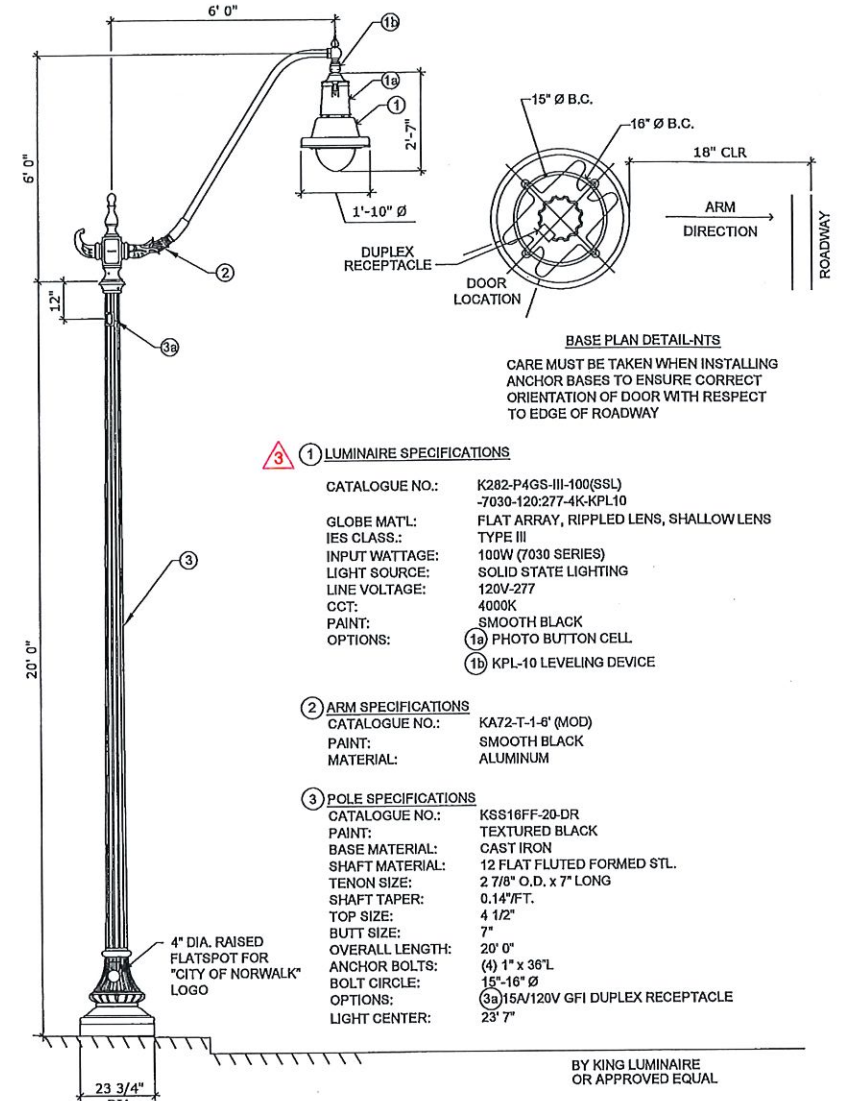
CATALOG NO. ALMAGS-LE080/EVX/X2-45-CR3
STYLE: -TPLO-FPA-CB
HEIGHT: AUGUSTA WITH 110 ALUMINUM FINIAL
WIDTH: 3'-3"
MATERIAL: 1'-6" DIAMETER
FINISH: CAST ALUMINUM ALLOY ANSI 356 PER A.S.T.M. B26-95
GLOBE: PRIME PAINT THEN FINISH SHERWIN WILLIAMS ACROLON - CLASSIC BLACK
LAMPING: TEMPERED CLEAR FLAT GLASS PANEL
VOLTAGE: 80 WATT LED
OPTICS: ELECTRONIC WIRED AT 120-277 VOLTS
DISTRIBUTION: CROSSFIRE REFRACTIVE
COLOR TEMP: TYPE III (ASYMMETRIC) 4500K (NEUTRAL WHITE)

2 LAMP POST SPECIFICATIONS

CATALOG NO. DPSWSH-17-12.00-TN3.50/3.00
STYLE: -323/1NW-GFWI-DC-CB
HEIGHT: WASHINGTON 12P WITH DC TOP
PHOTOMETRIC CENTER: 12'-0"
BASE: 14'-1"
MATERIAL: 17" DIAMETER
FINISH: CAST DUCTILE IRON PER A536-84 GRADE 65-45-12
ACCESS DOOR: PRIME PAINT THEN FINISH SHERWIN WILLIAMS ACROLON - CLASSIC BLACK
GROUND STUD PROVISIONS: LOCATED IN BASE SECURED WITH TAMPER PROOF HEX SOCKET SECURITY MACHINE SCREWS
ANCHOR BOLTS: DRILL AND TAP INSIDE WALL OF BASE OPPOSITE ACCESS DOOR TO ACCOMMODATE A 1/4"-20 GROUND STUD (STUD SUPPLIED BY OTHERS)
BOLT PROJECTION: (4) 3/4" DIA. X 24" LONG + 3" HOOK (FULLY GALVANIZED WITH 1 NUT AND 1 WASHER PER BOLT)
TENON: 3" REQUIRED
3 1/2" DIA. X 3" HIGH (TO ACCEPT LUMINAIRE)

2a OPTION

GFCI RECEPTACLE WITH WEATHERPROOF COVER (WEATHERPROOF WHILE IN USE) SEE BASE PLAN DETAIL FOR ORIENTATION INFORMATION



ROADWAY PENDENT LIGHT
BY KING LUMINAIRE
OR APPROVED EQUAL

1 LUMINAIRE SPECIFICATIONS

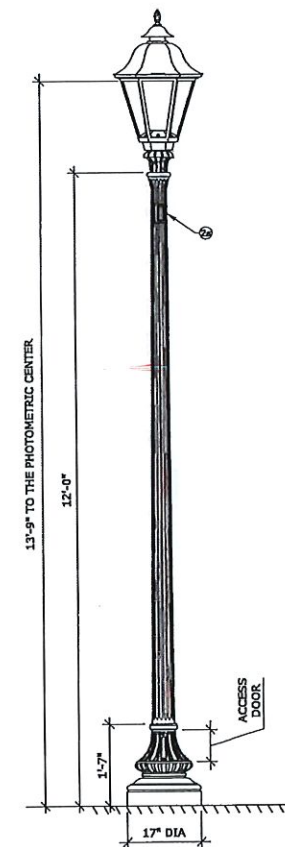
CATALOGUE NO.: K282-P4GS-III-100(SSL)
GLOBE MAT'L: -7030-120-277-4K-KPL10
IES CLASS.: FLAT ARRAY, RIPPLED LENS, SHALLOW LENS
TYPE III
INPUT WATTAGE: 100W (7030 SERIES)
LIGHT SOURCE: SOLID STATE LIGHTING
LINE VOLTAGE: 120V-277
CCT: 4000K
PAINT: SMOOTH BLACK
OPTIONS: (1a) PHOTO BUTTON CELL
(1b) KPL-10 LEVELING DEVICE

2 ARM SPECIFICATIONS

CATALOGUE NO.: KA72-T-1-6" (MOD)
PAINT: SMOOTH BLACK
MATERIAL: ALUMINUM

3 POLE SPECIFICATIONS

CATALOGUE NO.: K8S16FF-20-DR
PAINT: TEXTURED BLACK
BASE MATERIAL: CAST IRON
SHAFT MATERIAL: 12 FLAT FLUTED FORMED STL.
TENON SIZE: 2 7/8" O.D. x 7" LONG
SHAFT TAPER: 0.14"/FT.
TOP SIZE: 4 1/2"
BUTT SIZE: 7"
OVERALL LENGTH: 20' 0"
ANCHOR BOLTS: (4) 1" x 36"
BOLT CIRCLE: 15"-16" Ø
OPTIONS: (3a) 15A/120V GFI DUPLEX RECEPTACLE
LIGHT CENTER: 23' 7"



1 LUMINAIRE SPECIFICATIONS

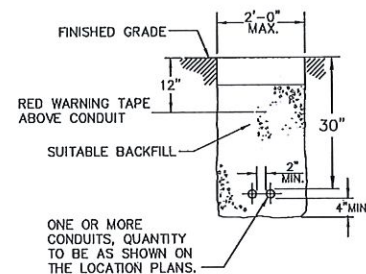
CATALOG NO. ALMYRK-M2-LE100-EVX-2F2-45-CR3-TPLO-FBR-CU
STYLE: YORKTOWN (M2) LED LUMINAIRE WITH OPEN CAGE
HEIGHT: 37"
WIDTH: 25 1/2" HEXAGONAL
MATERIAL: CAST ALUMINUM ALLOY ANSI 356 PER A.S.T.M. B26-95
FINISH: PRIME PAINT THEN FINISH SHERWIN WILLIAMS ACROLON - CLASSIC BLACK
GLOBE: FLAT TEMPERED GLASS
LAMPING: 100 WATT LED
VOLTAGE: ELECTRONIC WIRED AT 120-277
NUM. OF BOARDS: 2
DISTRIBUTION: TYPE III (ASYMMETRIC)
COLOR TEMP: 4500K (NEUTRAL WHITE)

2 LAMP POST SPECIFICATIONS

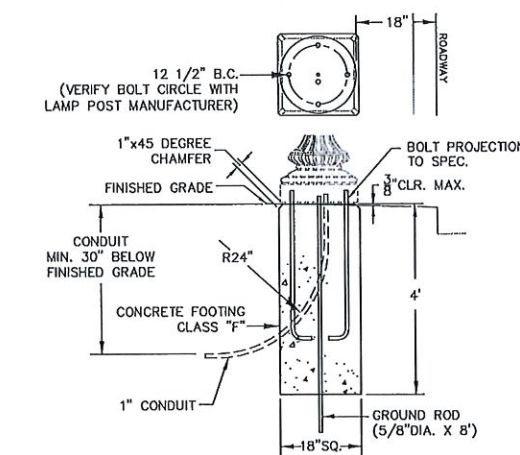
CATALOG NO. DPSWSH-17-12.00-TN4.00/3.00
STYLE: -F8-BP-323/1NW-CB
HEIGHT: WASHINGTON 12P
PHOTOMETRIC CENTER: 12'-0"
BASE: 14'-0 7/16"
MATERIAL: 17" DIAMETER
FINISH: CAST DUCTILE IRON PER A536-84 GRADE 65-45-12
ACCESS DOOR: PRIME PAINT THEN FINISH SHERWIN WILLIAMS ACROLON - CLASSIC BLACK
GROUND STUD PROVISIONS: LOCATED IN BASE SECURED WITH TAMPER PROOF HEX SOCKET SECURITY MACHINE SCREWS
ANCHOR BOLTS: DRILL AND TAP INSIDE WALL OF BASE OPPOSITE ACCESS DOOR TO ACCOMMODATE A 1/4"-20 GROUND STUD (STUD SUPPLIED BY OTHERS)
BOLT PROJECTION: (4) 3/4" DIA. X 24" LONG + 3" HOOK (FULLY GALVANIZED WITH 1 NUT AND 1 WASHER PER BOLT)
TENON: 3" REQUIRED
4" DIA. X 3" HIGH
OPTIONS: (2a) 15A/120V GFI DUPLEX RECEPTACLE

BASE PLAN DETAIL-NTS

CARE MUST BE TAKEN WHEN INSTALLING ANCHOR BASES TO ENSURE CORRECT ORIENTATION OF DOOR WITH RESPECT TO EDGE OF ROADWAY

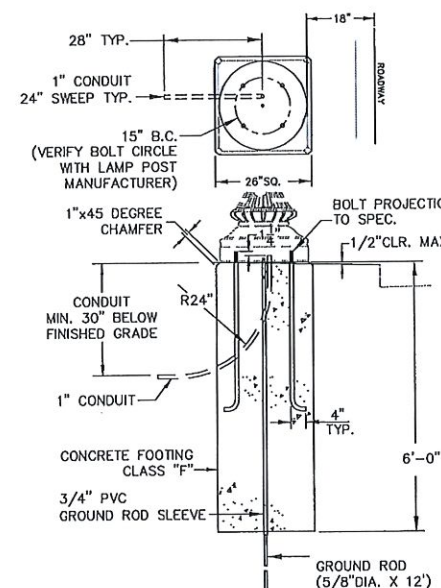


R.M.C. IN TRENCH
OR UNDER ROADWAY



NOTE: INSTALL LIGHT FIXTURE PER MANUFACTURER'S RECOMMENDATIONS

FOUNDATION DETAIL
PEDESTRIAN LIGHT POLE
IN BRICK PAVERS



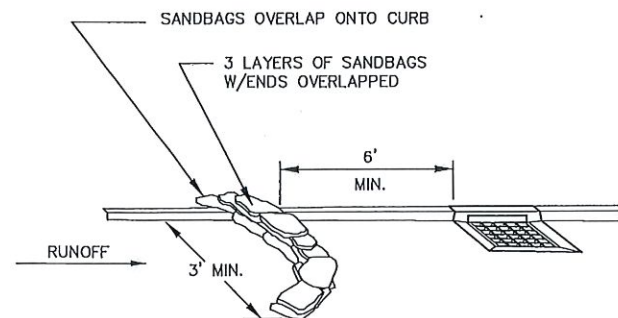
26" X 26" X 6' PRECAST CONCRETE TYPE 1
STANDARD ROADWAY PENDENT LIGHT FOUNDATION

TYPE 1 FOUNDATION DESIGN NOTES:

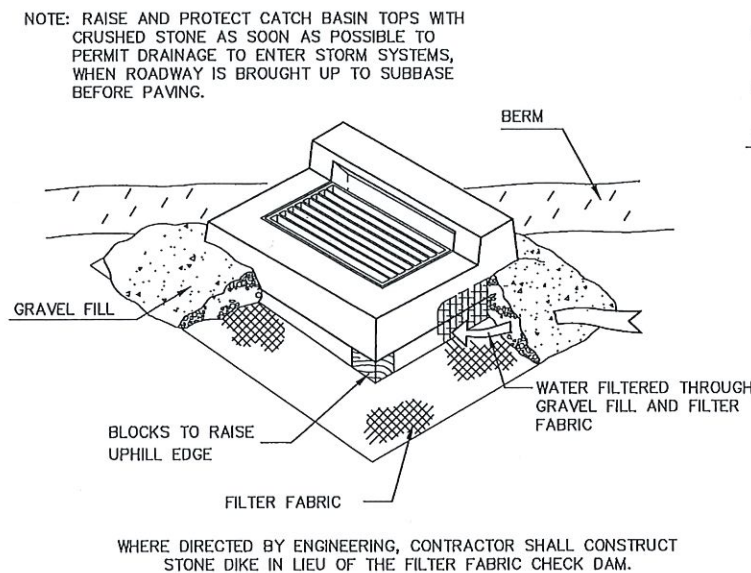
- USE 1" X 40" ANCHOR BOLTS MADE FROM STEEL PER ASTM-1987E1, ROLLED THREADS PREFERRED, 4" THREAD, RIGHT ANGLE LEG, W/ 1" GALVANIZED HEX NUT AND A ROUND FLAT GALVANIZED WASHER. THREADED END TO BE GALVANIZED A MIN. OF 6".
- CONCRETE AND CONCRETE DESIGN SHALL BE IN ACCORDANCE WITH ACI CODE 318-1986.
- MANUFACTURER'S ID AND MO/YR WHEN MANUFACTURED SHALL BE LEGIBLY IN/ON CONCRETE WITHIN 3" OF THE TOP.
- CONDUIT SWEEP (MATERIAL AND RADIUS) TO BE APPROVED BY THE CITY OF NORWALK.
- USE #8 CU FOR GROUND ROD JUMPER.
- USE CLASS "F", 4400 PSI CONCRETE.

REVISIONS	DATE	BY
1 ORIGINAL ISSUE	1/18/17	fjw
2 REV. LUMINAIRE AND LAMP POST		
3 SPECS. PER SPRING CITY UPDATES	9/17/20	fjw
4 ADDED EAST NORWALK VILLAGE DISTRICT LIGHT & POLE, AND PEDESTRIAN LIGHT & POLE LOCATION LABELS.		
5 CHANGED LUMINAIRE SPECIFICATION FOR 100W INPUT.	2/2021	fjw

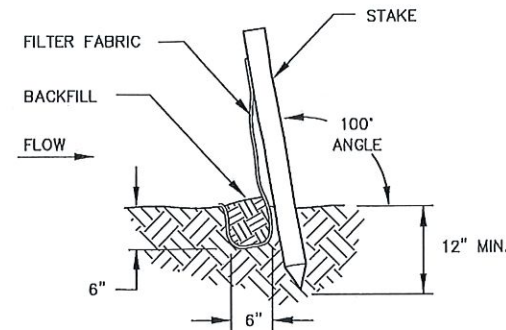
CITY OF NORWALK DEPARTMENT OF PUBLIC WORKS	
HISTORIC LIGHTS, LIGHT POLES, LIGHT POLE FOUNDATIONS & CONDUIT TRENCHING	
STANDARD DETAILS	
APPROVED BY: ANTHONY R. CARR CHIEF OF OPERATIONS AND PUBLIC WORKS	DATE: MARCH, 2021
APPROVED BY: VANESSA N. VALADARES PRINCIPAL ENGINEER	DPW PROJ. :
DESIGNED BY: COMMITTEE CHECKED BY:	SCALE: NOT TO SCALE
	SHEET ____ OF ____



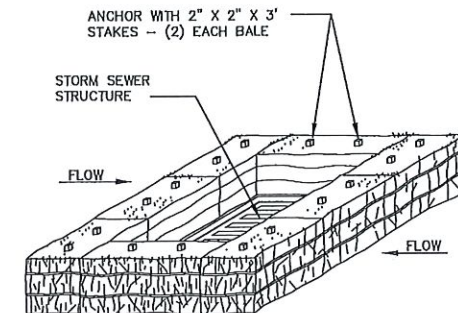
SAND BAG CURB INLET SEDIMENT BARRIER
EROSION AND SEDIMENT CONTROL
INSTALLATION DETAIL
 N.T.S.



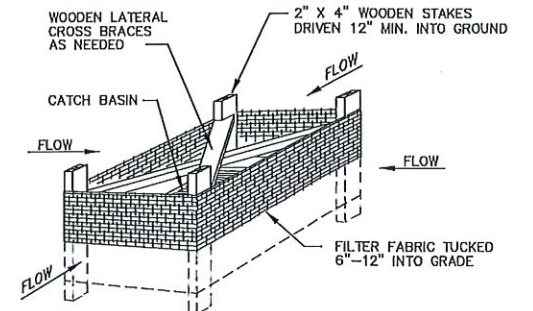
WHERE DIRECTED BY ENGINEERING, CONTRACTOR SHALL CONSTRUCT STONE DIKE IN LIEU OF THE FILTER FABRIC CHECK DAM.



- SILT FENCE INSTALLATION DETAIL**
 N.T.S.
- A) MINIMUM LENGTH OF SILT FENCE IS 15 LF.
 - B) MAXIMUM POST SPACING IS 10 LF.
 - C) JOINTS ONLY AT SUPPORT POST WITH MINIMUM 6" OVERLAP, SECURELY SEALED.
 - D) SEDIMENTATION DEPOSITS SHALL BE REMOVED WHEN IT REACHES 1/2 THE HEIGHT OF THE SILT FENCE.
 - E) SILT FENCE SHALL NOT BE USED IN A WATER COURSE.
 - F) UPON ESTABLISHMENT OF GROUND COVER ON DISTURBED AREAS AND WHEN DIRECTED BY THE ENGINEER, FENCE WILL BE REMOVED AND ANY SEDIMENTATION WILL BE THINLY SPREAD UPON EXISTING GROUND COVER.



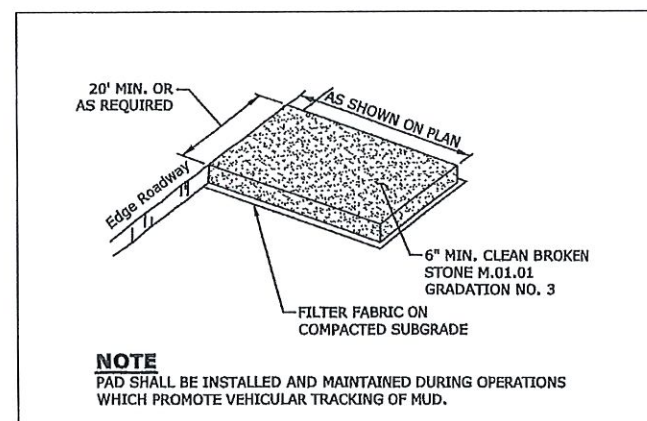
HAY BALE INSTALLATION
AT CATCH BASIN



SILT FENCE INSTALLATION
AT CATCH BASIN

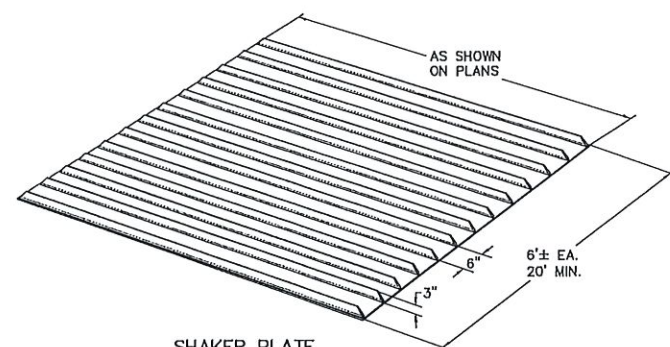
CATCH BASIN IN A DEPRESSION

SEDIMENTATION CONTROL SYSTEM
FOR CATCH BASIN
 N.T.S.



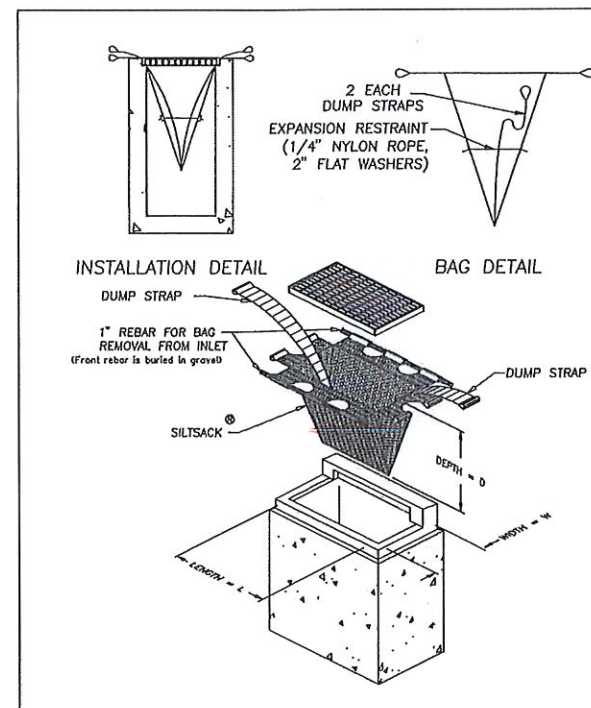
NOTE
 PAD SHALL BE INSTALLED AND MAINTAINED DURING OPERATIONS WHICH PROMOTE VEHICULAR TRACKING OF MUD.

ANTI-TRACKING PAD
 N.T.S.

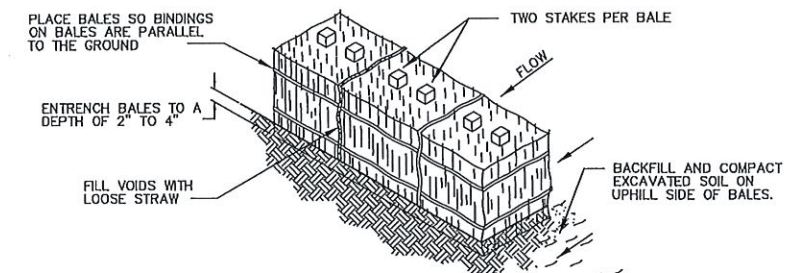


SHAKER PLATE
 N.T.S.

NOTE: PLATE MAY BE PLACED ON EXISTING PAVED SURFACE AT ENTRANCE/EXIT OF CONSTRUCTION SITE TO REDUCE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS.



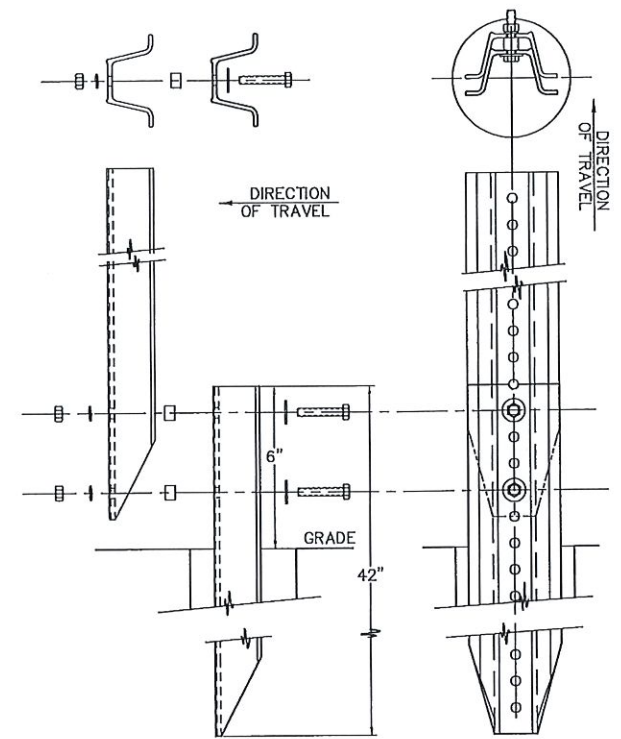
INLET SEDIMENT CONTROL DEVICE
(SILT SACK)
 N.T.S.



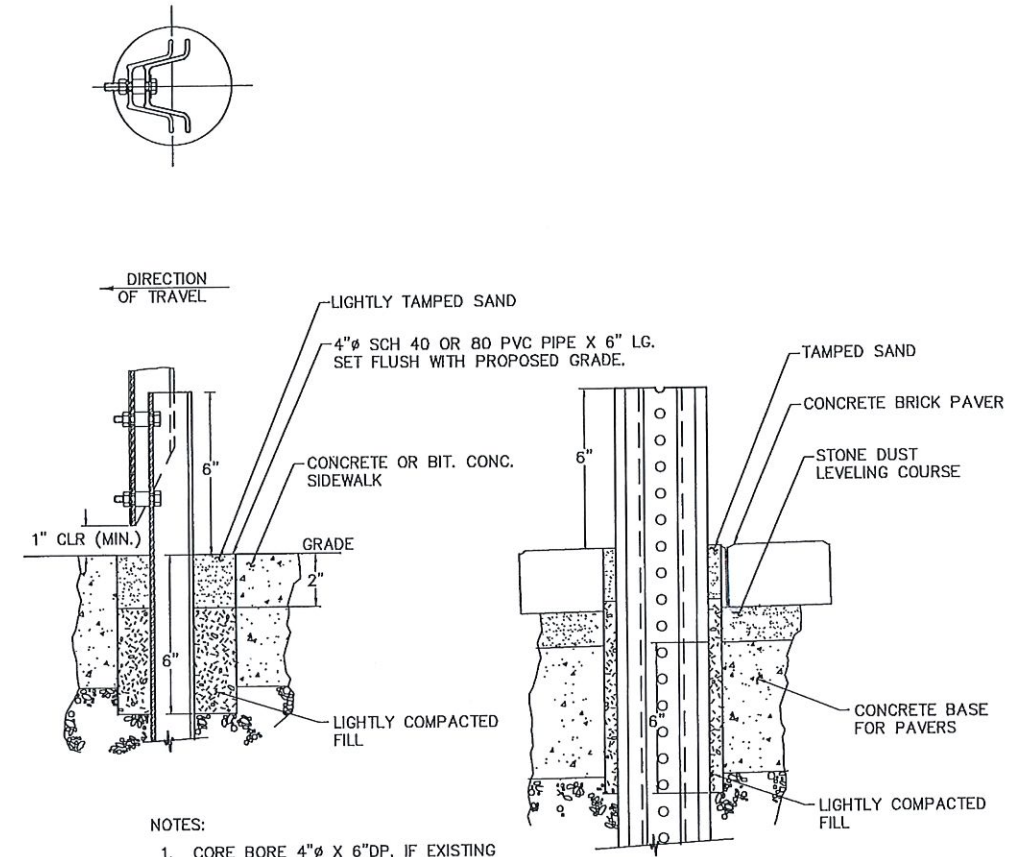
HAY BALE INSTALLATION
 N.T.S.

- A) IDEALLY, BALES SHOULD BE ENTRENCHED 2 TO 4 INCHES AND TIGHTLY BUTTED TOGETHER. BALES CAN BE SUCCESSFULLY PLACED WITHOUT A TRENCH IF GOOD GROUND CONTACT IS MADE. REMOVE HEAVY BRUSH AND FILL ALL VOIDS WITH LOOSE STRAW.
- B) BALES SHALL BE ONLY USED AS A TEMPORARY BARRIER AND FOR NO LONGER THAN 60 DAYS. THEY SHALL NOT BE USED ON A JOB ADJACENT TO A RESIDENTIAL NEIGHBORHOOD, RESIDENCES OR ADJACENT TO OR IN A WATERCOURSE.
- C) WHEN SEDIMENTATION DEPOSITS REACH WITHIN 3" OF THE TOP OF BALES, REMOVE SEDIMENTATION OR ADD ADDITIONAL BALES ON SEDIMENTATION DIRECTLY BEHIND FIRST ROW OF BALES AS DIRECTED BY ENGINEER.
- D) UPON ESTABLISHMENT OF GROUND COVER ON DISTURBED AREAS AND WHEN DIRECTED BY ENGINEER, HAY BALES WILL BE REMOVED AND USED AS MULCH. ANY SEDIMENTATION WILL BE THINLY SPREAD UPON ESTABLISHED GROUND COVER.

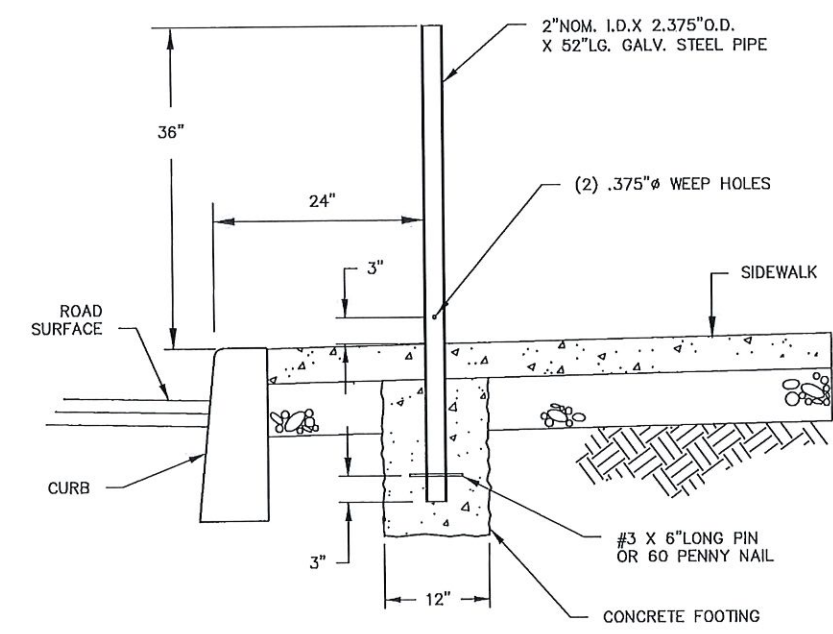
REVISIONS			DATE	BY
1	REDRAWN & REISSUED		2/3/09	fjw
2	ADDED ANTI-TRACKING PAD & SHAKER PLATE		3/2/17	fjw
APPROVED BY: ANTHONY R. CARR			P.E.# 28018	DATE
CHIEF OF OPERATIONS AND PUBLIC WORKS				
APPROVED BY: VANESSA N. VALADARES			P.E.# 28346	DATE
PRINCIPAL ENGINEER				
DESIGNED BY: COAMITEE			DRAWN BY: F.J.W.	
CHECKED BY:			CHECKED BY:	
CITY OF NORWALK DEPARTMENT OF PUBLIC WORKS				
EROSION & SEDIMENTATION CONTROL				
STANDARD DETAILS				13
DATE: MARCH, 2021				PROJ. #:
SCALE: N.T.S.				SHEET ____ OF ____



BREAKAWAY CHANNEL POST
IN SIDEWALK INSTALLATION
NTS



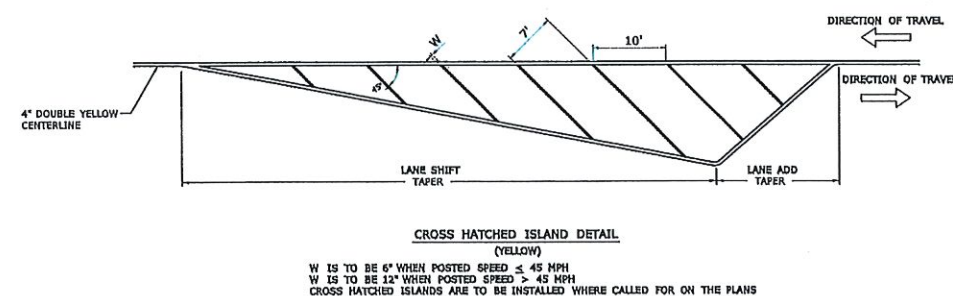
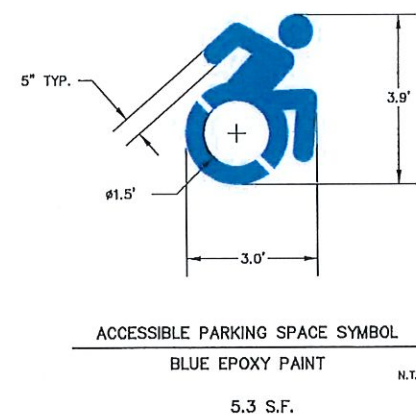
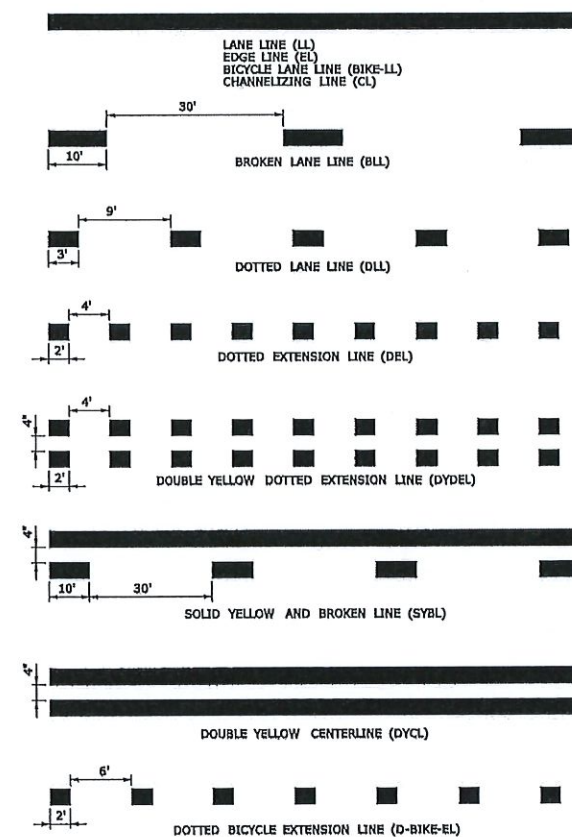
- NOTES:
1. CORE BORE 4"Ø X 6"DP. IF EXISTING BRICK, CONC., OR BIT. CONC.
 2. MATERIALS TO MEET CTDOT FORM 816 SPECIFICATIONS AS SUPPLEMENTED.



TYPICAL METER POST INSTALLATION
N.T.S.

REVISIONS		DATE	BY
1	ORIGINAL ISSUE	12/7/11	fjw
2	ADDED METER POST INSTALLATION	4/23/19	fjw

CITY OF NORWALK DEPARTMENT OF PUBLIC WORKS	
TYPICAL METER POST AND BREAKAWAY CHANNEL POST INSTALLATION STANDARD DETAILS	
APPROVED BY: ANTHONY R. CARR P.E.# 28018 DATE	DATE : MARCH, 2021 PROJ. # :
APPROVED BY: VANESSA N. VALADARES P.E.# 28346 DATE	SCALE : AS NOTED SHEET ____ OF ____
DESIGNED BY : COMMITTEE CHECKED BY :	DRAWN BY : F.J.W. CHECKED BY :



NOTES:

GENERAL:

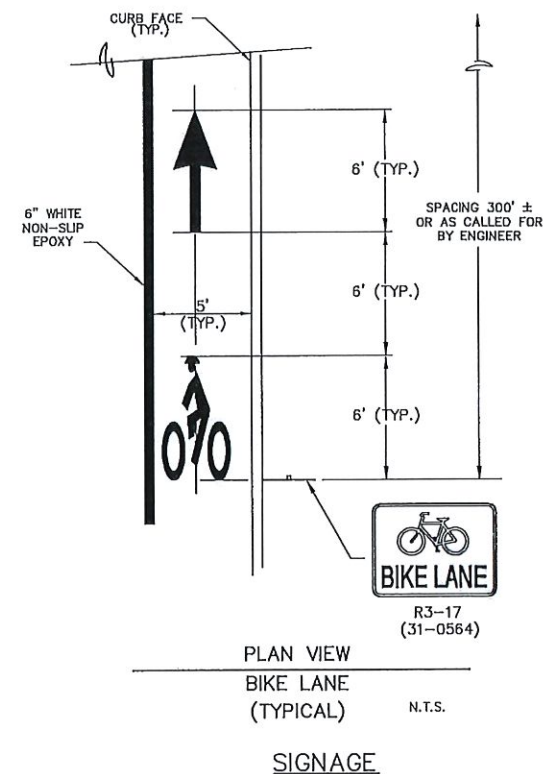
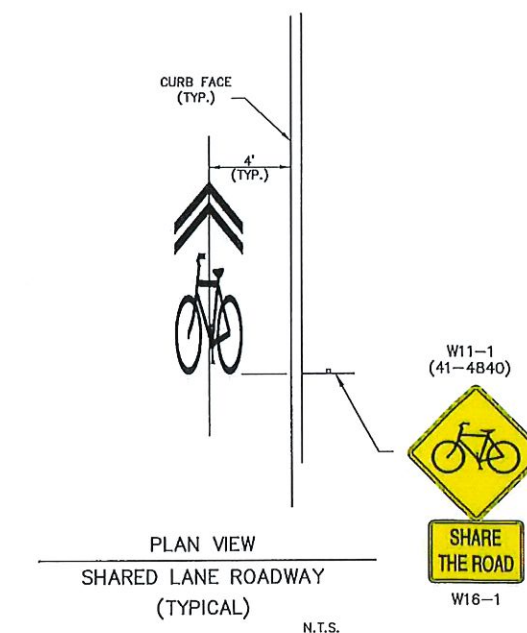
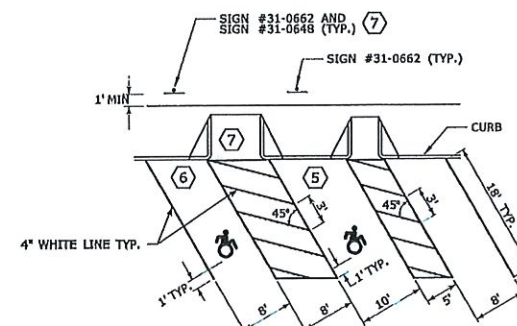
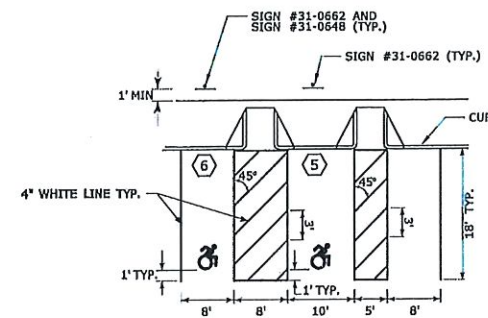
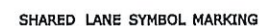
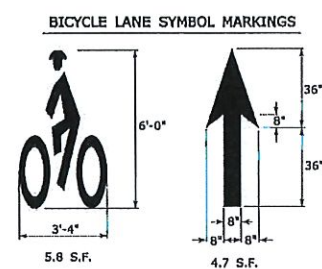
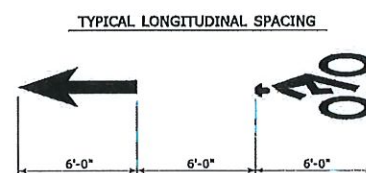
1. AREA OF PAVEMENT MARKING SYMBOLS AS INDICATED IS APPROXIMATE.
2. REFER TO STANDARD SHEET TR-1210.04 FOR PAVEMENT MARKING LINE DETAILS.

RAILROAD GRADE CROSSINGS:

3. RAILROAD MARKINGS SHALL BE WHITE.
4. ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS THE APPROACH LANES AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

PARKING STALLS:

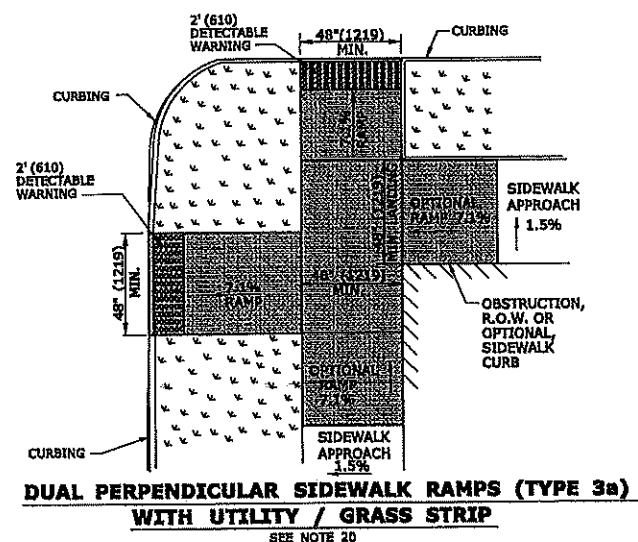
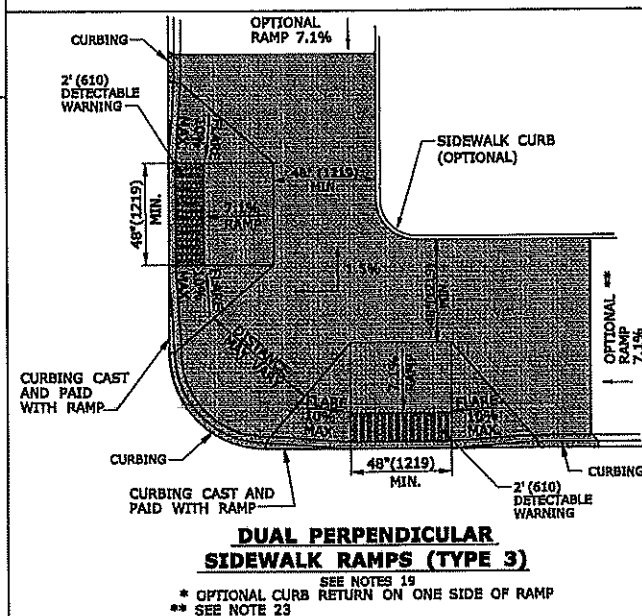
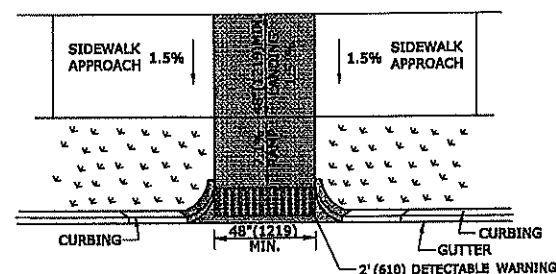
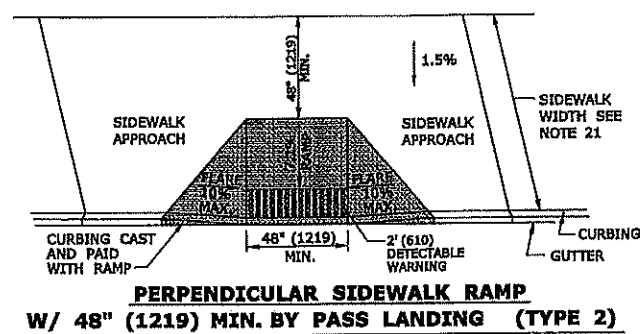
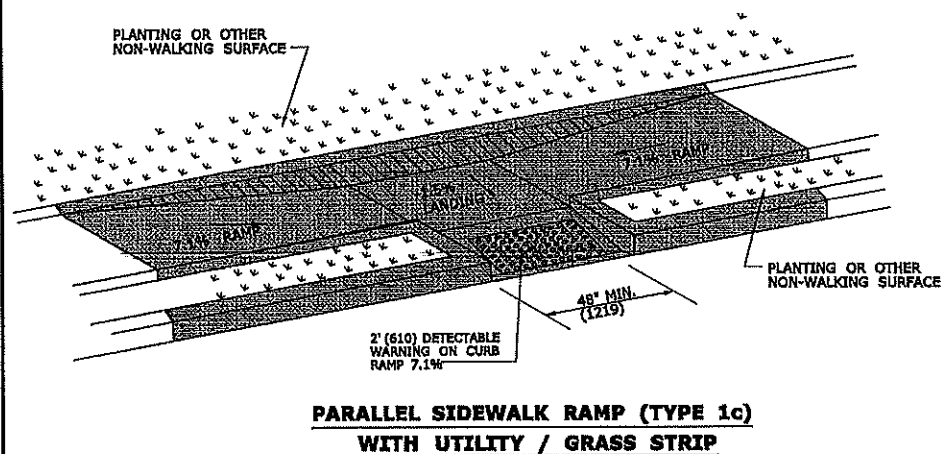
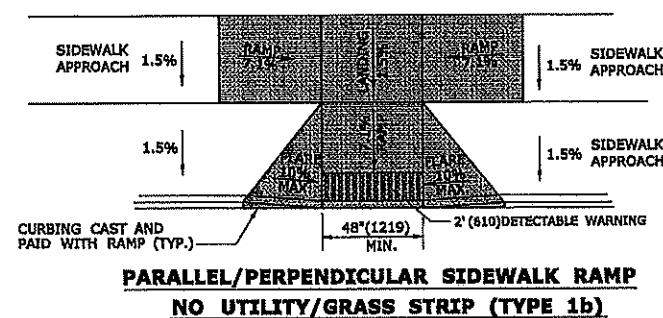
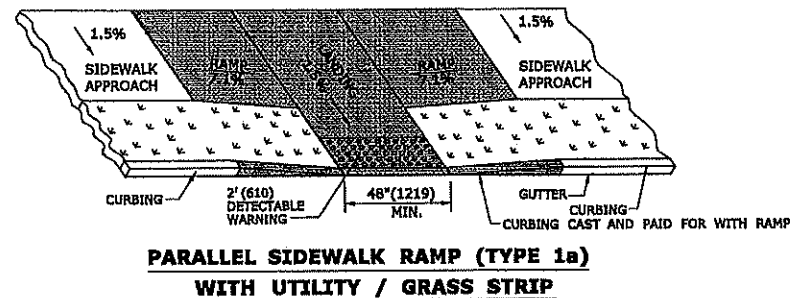
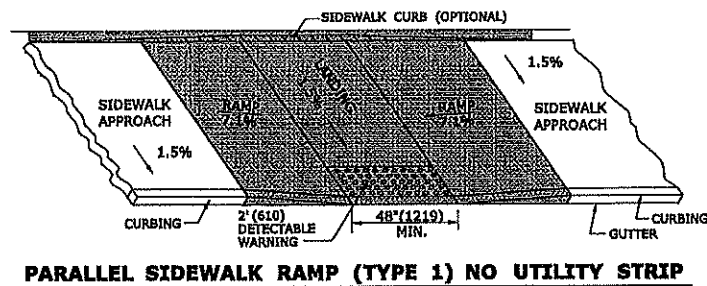
- (5) AUTOMOBILE ACCESSIBLE PARKING SPACES SHALL BE 15' WIDE INCLUDING 5' OF CROSSHATCH.**
- (6) VAN ACCESSIBLE PARKING SPACES SHALL BE 16' WIDE INCLUDING 8' OF CROSSHATCH.**
- (7) ACCESS AISLES FOR ANGLED VAN PARKING SPACES SHALL BE LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACE.**
- 8. CROSS HATCHED ACCESS AISLES SHALL NOT BE SHARED BETWEEN PARKING SPACES.**



NOTES:

- 1) SIGN NUMBERS LISTED REFER TO MUTCO SIGN NUMBERS. CT DOT CATALOG OF SIGNS NUMBERS ARE IN PARENTHESIS WHERE THEY ARE CURRENTLY AVAILABLE.
- 2) ALL SIGNS AND CHANNEL POSTS SHALL BE INSTALLED IN ACCORDANCE WITH CT DOT STANDARD DETAIL SHEETS 1008.01 AND TR-106.02 INCLUDING THE USE OF BREAKAWAY FEATURES. THE SIGNS AND CHANNEL POSTS SHALL BE INSTALLED BY THE CITY OF NORWALK PERSONNEL.
- 3) THE CITY OF NORWALK SHALL MAINTAIN THE PAVEMENT MARKINGS AND SIGNAGE RELATED TO THE BIKE LANES ON STATE ROUTE 136 BETWEEN THE WATER STREET / NORTHARTER STREET INTERSECTION AND THE SEABOARD AVENUE INTERSECTION CONSISTING OF DASHED LANE LINES, SHOULDER LINES FOR BIKE LANES, BIKE LANE SYMBOLS, ARROWS, SHARROWAS AND ASSOCIATED SIGNAGE AS INDICATED ON THIS DOCUMENT (EX. LINE 1008.01 AND TR-106.02 YELLOW CENTERLINE, CROSS WALKS, AND ANGLE CONTROL ARROWS AND STOP RAILS).

[illegible]



- GENERAL NOTES:**

1. MAXIMUM SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE SIDEWALK RAMP SHOULD NOT EXCEED 5%, THE MAXIMUM GRADE DIFFERENCE BETWEEN THE GUTTER AND CURB RAMP SHALL NOT EXCEED 13%. SEE DETAIL 1 ON SHEET 1.
2. GRADE SHALL BE UNIFORM, FREE OF SAGS AND ABRUPT GRADE CHANGES. RUNNING SLOPES OF RAMPS SHALL NOT EXCEED 8.33%. AND SHALL NOT EXCEED 15' (4.5m) WITHOUT PROVIDING A LANDING.
3. ALL RAMPS SHALL BE CONSTRUCTED OF CLASS "F" CONCRETE IN ACCORDANCE WITH CONNECTICUT STANDARD SPECIFICATIONS.
4. SIDEWALK RAMPS SHALL HAVE A COARSE BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP. THE SURFACE OF ALL SIDEWALK RAMPS SHALL BE STABLE, FIRM AND SLIP RESISTANT. SURFACE DISCONTINUITIES SHALL NOT EXCEED $\frac{1}{4}$ " (13) MAX. VERTICAL DISCONTINUITIES BETWEEN $\frac{1}{4}$ " (6.4) AND $\frac{1}{2}$ " (13) MAX. SHALL BE BEVELED 1:2 MINIMUM APPLIED ACROSS THE ENTIRE BEVELED CHANGE.
5. DIAGONAL SIDEWALK RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES. DIAGONAL AND PERPENDICULAR RAMPS SHALL HAVE THE RAMP CUT PERPENDICULAR TO THE TANGENT OF THE CURB RADIUS FOR THE DESIGNATED ACCESSIBLE ROUTE. BOTH LONGITUDINAL SIDES OF THE RAMP SHOULD BE THE SAME LENGTH. SKEWED RAMPS SHOULD BE AVOIDED. FLARES ARE NOT CONSIDERED PART OF THE PEDESTRIAN ACCESS ROUTE. DIAGONAL RAMPS SHOULD NOT BE INSTALLED WHERE CURB RADIUS IS LESS THAN 20'(6096).
6. REMOVAL OF EXISTING SIDEWALK FOR NEW RAMP INSTALLATIONS SHALL BE TO THE NEAREST EXPANSION OR CONTRACTION JOINT. 8.3% MAXIMUM SLOPE MAY NOT BE ACHIEVABLE DUE TO EXISTING SIDEWALK GRADE. IN RECOGNITION OF THIS LIMIT OF 15' (4572) FOR REMOVAL SHALL BE USED UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER. SAW CUT REQUIRED FOR DUMMY JOINTS SHALL BE INCLUDED IN THE COST OF "CONCRETE SIDEWALK RAMP" OR "CONCRETE SIDEWALK".
7. EXPANSION JOINTS IN CONCRETE SHALL MATCH THOSE IN ADJACENT SIDEWALKS BUT IN NO CASE SHALL THE SPACING BETWEEN EXPANSION JOINTS EXCEED 12 (3658) UNLESS OTHERWISE NOTED.
8. CONCRETE SIDEWALK RAMPS, SHALL BE PAID FOR UNDER THE ITEM "CONCRETE SIDEWALK RAMP", AS DEFINED BY THE CONSTRUCTION LIMITS ON THE PLANS AND SHALL BE FIELD VERIFIED.
9. SIDEWALK RAMP SHALL BE CONSTRUCTED WITH THE TOE AT THE GUTTER CAST INTEGRALLY WITH RAMP UNLESS DIRECTED OTHERWISE BY THE ENGINEER. (SEE TYPICAL SECTION ON SHEET 3). CURB REMOVAL AND CAST IN PLACE CURBING REQUIRED FOR THE RAMP, SHALL BE INCLUDED WITH PAY ITEM "CONCRETE SIDEWALK RAMP".
10. CURBING OUTSIDE LIMITS OF RAMP OR LANDING SHOWN ON SHEET 3 SHALL BE CONSTRUCTED AND PAID FOR IN ACCORDANCE WITH CONNECTICUT STANDARD SPECIFICATIONS.
11. PREFERRED LOCATION TO INSTALL DETECTABLE WARNING STRIP SHALL BE 6" (152) FROM THE EDGE OF ROAD ALONG THE FULL WIDTH OF THE RAMP. FOR ALTERNATE LOCATIONS, REFER TO DETECTABLE WARNING PLACEMENT DETAILS ON SHEET 4.
12. TO PERMIT WHEELCHAIR WHEELS TO ROLL BETWEEN DOMES, ALIGN DOMES ON A SQUARE GRID IN THE DIRECTION OF RUNNING SLOPE (PERPENDICULAR TO CURB OR SLOPE BREAK). THE TRANSITION FROM RAMP TO GUTTER SHALL BE FLUSH WITHOUT A LIP.
13. WHERE COMMERCIAL DRIVEWAYS ARE PROVIDED WITH TRAFFIC SIGNALS AND THE SIDEWALK IS CONTINUOUS THROUGH DRIVEWAY, DETECTABLE WARNINGS ARE REQUIRED AT THE JUNCTION BETWEEN THE PEDESTRIAN ROUTE AND DRIVEWAY.
14. CONSTRUCT A SIDEWALK CURB WHEN THERE IS INSUFFICIENT BUFFER AVAILABILITY TO GRASS OR DRIVEWAY WHEN CALLED FOR IN PLANS. PAID FOR WITH SIDEWALK RAMP WHEN REQUIRED FOR RAMP.
15. THE TOP AND BOTTOM OF RAMPS PROVIDED WITH A 4' x 4' (1219 x 1219) MINIMUM LEVEL LANDING AREA WITH A CROSS SLOPE LESS THAN OR EQUAL TO 2% IN ANY DIRECTION.
16. UTILITY POLES, LUMINAIRE, PEDESTRIAN OR SIGNAL POLES, GRATES, ACCESS COVERS, AND OTHER APPURTENANCES SHALL NOT BE LOCATED ON RAMPS, LANDINGS, BLENDED TRANSITIONS, AND @ GUTTERS WITHIN THE PEDESTRIAN ACCESS ROUTE.
17. APPROACH SIDEWALK WIDTHS, GRASS STRIP OR UTILITY STRIP WIDTHS MAY VARY.
18. APPROACH SIDEWALK AND LANDING CROSS SLOPE SHALL NOT EXCEED 2%.
19. THE RUNNING OR CROSS SLOPES ON LANDINGS AT MID BLOCK CROSSING MAY BE WARPED TO MEET STREET OR HIGHWAY GRADE.
20. FOR PERPENDICULAR CURB RAMPS A MIN. 4'(1.2m) x 4'(1.2m) LEVEL LANDING SHALL BE PROVIDED AT THE TOP OF CURB RAMP. WHERE THE LEVEL LANDING IS RESTRICTED AT THE BACK OF SIDEWALK THE LEVEL LANDING SHALL BE 4'(1.2m) x 5'(1.5m) WITH THE 5'(1.5m) DIMENSION PROVIDED IN THE DIRECTION OF THE RAMP RUN.
21. FOR PARALLEL CURB RAMPS, A MIN. 4'(1.2m) x 4'(1.2m) LEVEL LANDING SHALL BE PROVIDED AT THE BOTTOM OF CURB RAMP. IF THE LEVEL LANDING IS RESTRICTED ON 2 OR MORE SIDES, THE LEVEL LANDING SHALL BE 4'(1.2m) x 5'(1.5m) WITH THE 5'(1.5m) DIMENSION PROVIDED IN THE DIRECTION OF THE OTHER STREET CROSSING.
22. WHEN WIDTH OF RAMP IS $\geq 48"$ THE PERPENDICULAR SIDEWALK RAMP IS INSTALLED, THE FLARED SIDES SHALL BE 48" LONG. IF WIDTH OF SIDEWALK IS $< 48"$ THE FLARED SIDES MUST NOT EXCEED 8.33% (12:1).
23. SHADDED AREAS ARE TYPICAL PAY LIMITS FOR CONCRETE SIDEWALK RAMP BUT, MAY VARY AS DIRECTED BY THE ENGINEER.
24. OPTIONAL RAMP, WHEN REQUIRED, SHALL BE PAID FOR AS PART OF CONCRETE SIDEWALK RAMP.

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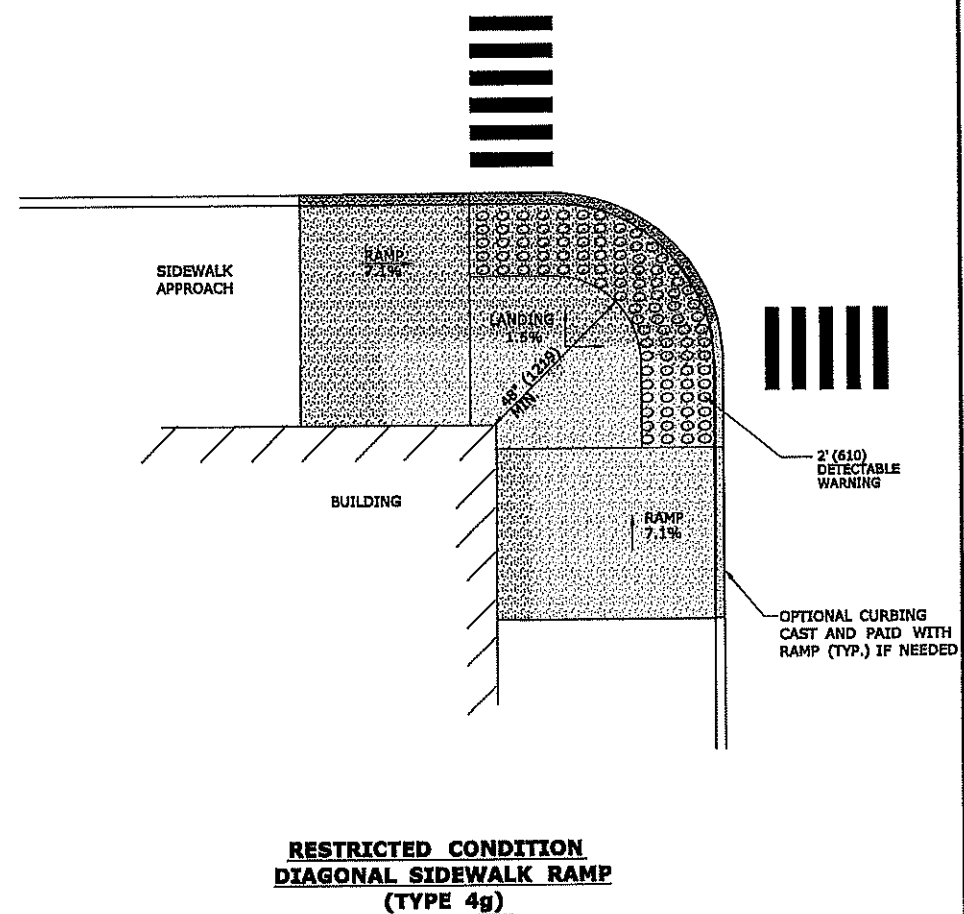
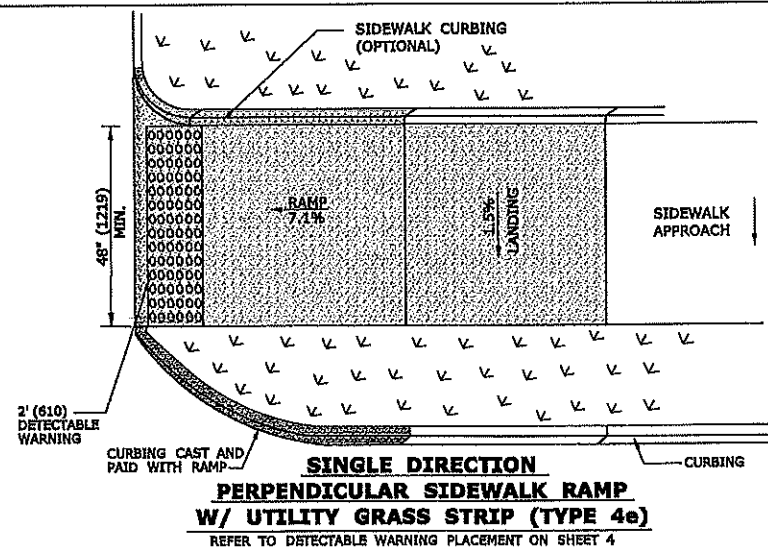
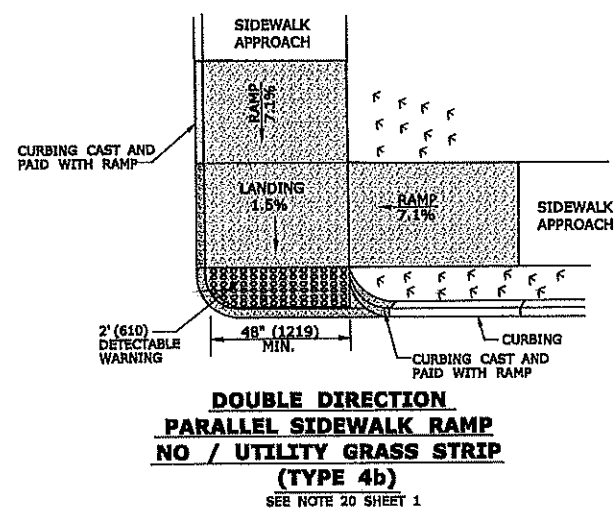
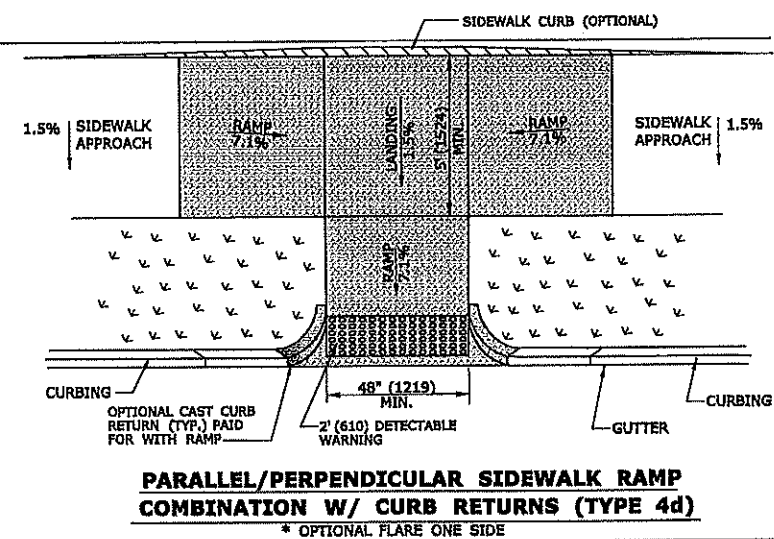
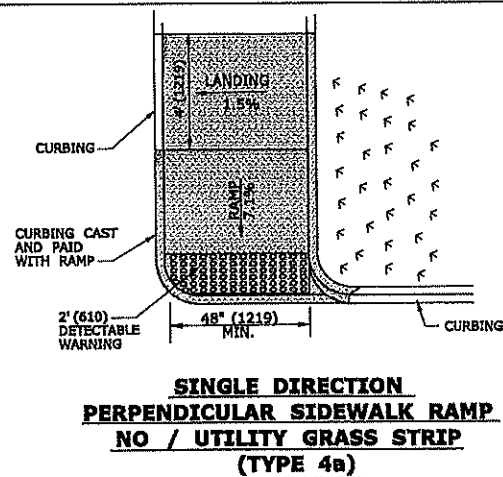
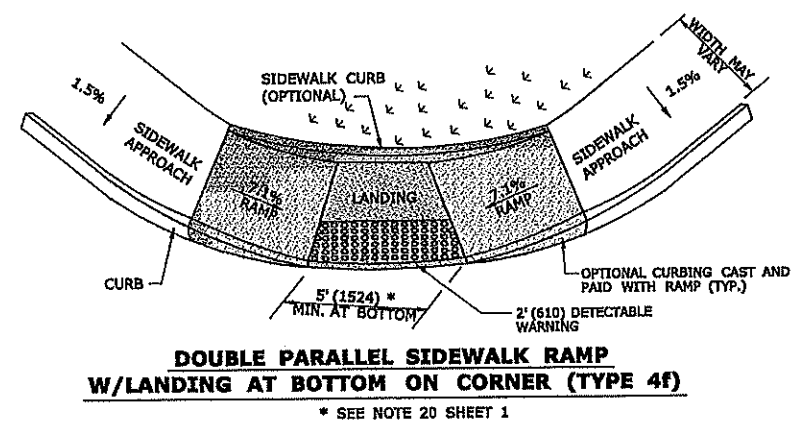
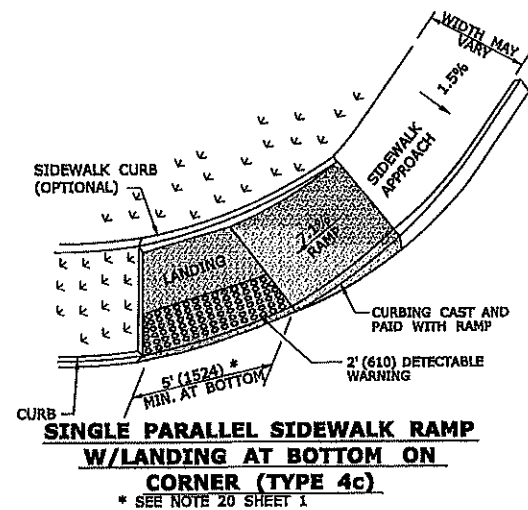
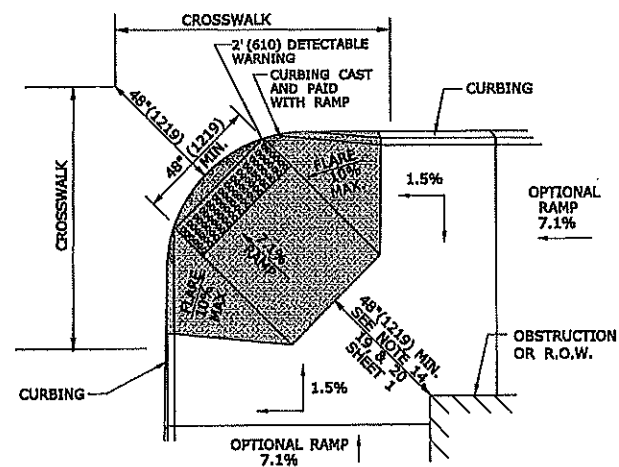
CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

CTDOT BASED
SIDEWALK RAMPS
GUIDE DRAWING

SHEET 1
STANDARD DETAILS

18

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ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED

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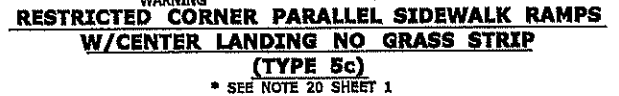
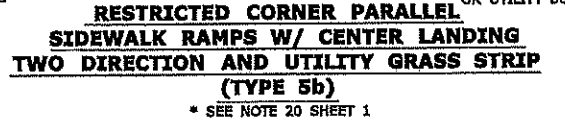
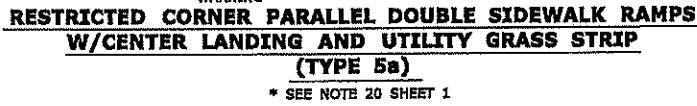
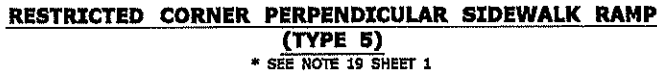
CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

CTDOT BASED
SIDEWALK RAMPS
GUIDE DRAWING

SHEET 2

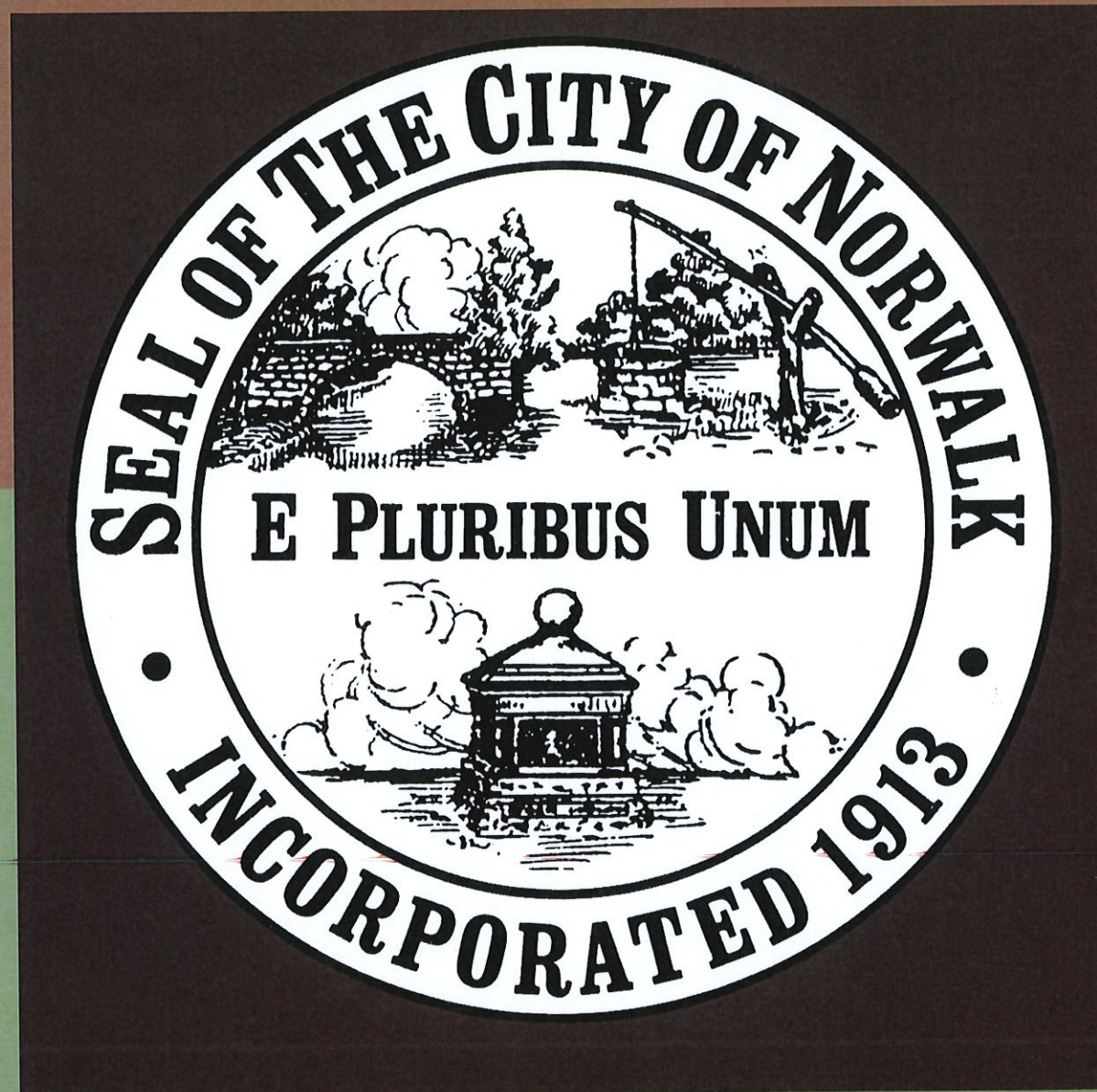
STANDARD DETAILS

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REVISIONS		DATE	BY	CITY OF NORWALK DEPARTMENT OF PUBLIC WORKS	
				CTDOT SIDEWALK RAMPS GUIDE DRAWING SHEET 3 STANDARD DETAILS	
APPROVED BY: ANTHONY R. CARR		P.E.# 28018	DATE	20	
CHIEF OF OPERATIONS AND PUBLIC WORKS					
APPROVED BY: VANESSA N. VALADARES		P.E.# 28348	DATE		
PRINCIPAL ENGINEER					
DESIGNED BY:		DRAWN BY:		DATE: MARCH, 2021	
CHECKED BY:		CHECKED BY:		DPW PROJ.:	
SCALE: NTS		SHEET ____ OF ____			

City of Norwalk
Connecticut
Department of Public Works



Roadway Standards
May 1982 - Amended March 2021

**CITY OF NORWALK, CONNECTICUT
DEPARTMENT OF PUBLIC WORKS**

ROADWAY STANDARDS

DESIGN MANUAL

AND

CONSTRUCTION DETAILS

May 1982

Amended October 1991, January 2017 and March 2021

Printed on Recycled Paper

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FORWARD

1. This Manual has been prepared to establish guidelines for engineers engaged in the design of roadway and driveways facilities to be constructed or reconstructed in the City of Norwalk. The scope of this Manual is applicable to design generally encountered in roadway and driveway projects carried out by the City of Norwalk, Department of Public Works, as well as for public and private streets, driveways, condominium developments, commercial sites and other projects designed by consulting engineers.
2. The Roadway Standards are based on modern civil engineering practice and have been found to be the most applicable in Norwalk, Connecticut. Much of the data presented herein has been adapted from manuals of the American Association of State Highway and Transportation Officials (AASHTO), Connecticut Department of Transportation (CT D.O.T.), Institute of Transportation, Institute of Transportation Engineers (ITE), American Public Works Association (APWA), Highway Users Federation for Safety and Mobility, American Society of Civil Engineers (ASCE), National Association of City Transportation Officials (NACTO), Urban Land Institute, and the National Association of Home Builders.
3. The most important consideration of these Roadway Standards is the safeguarding of public safety, welfare and convenience. Proper regard has been given to other factors which bear upon establishing satisfactory designs.
4. Definitions are provided for important terms used in these Roadway Standards. The purpose for establishing design criteria for specific design features and the criteria themselves are presented. These are followed by tabulations of the Design Standards for each class of street and drawings of standard Construction Details which shall be employed.
5. Existing conditions may indicate modification of these standards. Where a modification is so indicated, the effect of the proposed modification on all other standards should be considered. For example, where design speed is affected by a proposed modification to the standards, all other standards affected by the change in

design speed should be reviewed and the design of the project amended, if necessary, to reflect the new design speed.

6. Related standards for the design of access drives within lots and parking layouts are contained in the Zoning Regulations of the City. Driveways and streets intersecting with State highways must comply with Connecticut Department of Transportation Encroachment Permit Regulations within the State right-of-way. Driveways serving gas stations must comply with the requirements of the Connecticut Department of Motor Vehicles.
7. All street and driveway construction, reconstruction or pavement replacement shall be in compliance with the Roadway Standards, unless approved, in writing, by the Chief of Operations and Public Works.
8. Any construction affecting City-owned street rights-of-way requires the issuance of a permit in accordance with Chapter 96 of the Norwalk Code, entitled "Excavations and Encroachments in Public Streets and Grounds".
9. The following regulations and standards set forth in the City of Norwalk shall govern:

City of Norwalk, Connecticut - Planning Commission – Subdivision and Re-subdivision Regulations – Approved September 8, 1998, as amended.

City of Norwalk, Connecticut - Department of Public Works Drainage Manual, as amended.

City of Norwalk, Connecticut - Department of Public Works Traffic Calming Guidelines January 24, 2002.

City of Norwalk, Connecticut – Department of Public Works – Standard Details.

City of Norwalk, Connecticut City Code – Chapter 91 Public Sewers.

City of Norwalk, Connecticut City Code – Chapter 95 Street and Sidewalks.

City of Norwalk, Connecticut City Code – Chapter 96 Excavation & Encroachments in Public Streets and Grounds.

City of Norwalk, Connecticut City Code – Chapter 98 Vehicles and Traffic.

City of Norwalk, Connecticut City Code– Chapter 101 – Scenic Roads.

INTRODUCTION

The streets of the City of Norwalk have been classified into systems that each have a specific function and purpose. The systems are: major arterial streets; minor arterial streets; collector streets; urban local streets; and residential local streets. They are defined in the Roadway Classification Map maintained by the City of Norwalk Department of Public Works.

Driveways are classified into two groupings, major driveways and minor driveways.

Streets and driveways shall be designed and constructed with regard to their functional classification. Streets shall also be designed with regard to their relationship to surrounding land use. "Urban Area Districts," "Business Areas," "Village Districts" and "Historic District Areas," etc. are defined in the Design District Standard Location Map maintained by the City of Norwalk Department of Public Works.

All streets and driveways shall provide for the safe and efficient movement of those types of vehicles for which they are intended, as well as emergency vehicles such as fire apparatus and snow removal equipment. This shall include not only motorists, but pedestrians, bicyclists and transit riders of all ages and abilities.

Streets should be laid out so as to have as many of the adjacent building sites as possible above the elevation of the street and above any proposed or future sidewalks. For residential local streets, curvilinear arrangements shall generally be used in preference to gridiron patterns. Combinations of steep grades, sharp curves and/or intersections shall be avoided.

DEFINITIONS

1. **Expressway System** - That system of highways which provides for the expeditious movement of large volumes of through traffic between areas and across the City. Access is limited to grade-separated interchanges with arterial streets.
2. **Arterial Street System** - That system of streets which is used primarily to carry traffic between communities or large sections of the City.
3. **Collector Street System** - That system of streets which collects traffic from local streets and which carry through traffic from surrounding areas to the arterial system.
4. **Local Street System** - That system of streets which serves, primarily, only those properties having frontage on them, and which does not carry through traffic from surrounding areas.
5. **Scenic Roads** - A scenic road must be free of intensive commercial development and intensive vehicular traffic. The portion of road designated scenic road must be at least one-half (1/2) mile in length and must meet at least one (1) of the following criteria:
 - Unpaved
 - Bordered by mature trees or stone walls
 - Travelled portion may not be more than twenty (20) feet in width
 - Offers scenic views
 - It blends naturally into the surrounding terrain
 - It parallels or crosses over brooks, streams, lakes or ponds

For a road to be designated as a scenic road, it must meet the requirements set forth in Chapter 101 of the Norwalk City Code.
6. **Design District Streets** - That system of streets which serves, primarily, only those buildings, properties or sites that have been designated by one of several entities on different levels as historically or architecturally significant.
7. **Street** - Any public or private way permanently dedicated to the movement of vehicles and pedestrians and providing the principal means of access to abutting property.

8. **Complete Streets** - Complete Streets are safe, comfortable and convenient transportation systems that serve everyone of all ages and abilities, regardless of how they choose to travel, whether that is by walking, bicycling, riding transit or driving.
9. **Street Line** - The property line separating a street right-of-way from the abutting properties. For design district streets the property line shall be back of curb.
10. **Street-Right-of-Way** - The area between street lines reserved for a street. Included in this area may be the travelled way, shoulder, median, bicycle facilities, planting strip, footpaths and sidewalks. Right-of-Way width shall be measured at right angles to or radial to the center line of the street.
11. **Travelled Way** - The portion of the street reserved for the movement of vehicles, exclusive of shoulders.
12. **Shoulder** - The portion of the street adjacent to the travelled way, on either side, for the accommodation of stopped vehicles, for drainage, for emergency use, and for lateral support of pavement base and surface courses.
13. **Median** - That portion of a divided roadway separating the travelled ways reserved for traffic moving in the opposite directions.
14. **Traffic Lane** - That portion of the travelled way used for the movement of a single line of vehicles.
15. **Auxiliary Lane** - That portion of the travelled way intended for purposes supplementary to through traffic movement.
 - (a) Left Turn Lane - An auxiliary lane for left turn movements.
 - (b) Right Turn Lane - an auxiliary lane for right turn movements.
 - (c) Separate Turning Lane - An auxiliary lane for traffic in one direction which has been physically separated from through traffic by a traffic island.
16. **Driveway** - The area of public or private property reserved for the movement of vehicles between a street or another driveways shall be classified, major or minor, in accordance with the type and/or volume of traffic which they serve.

a) Major Driveways:

- (1) All driveways serving industrial land uses.
- (2) Driveways serving commercial uses which require a Special Permit in accordance with the Zoning Regulations.
- (3) Driveways serving residential uses which require a Special Permit in accordance with the Zoning Regulations.

b) Minor Driveways: All other driveways.

- 17. **Intersection** - The crossing or meeting without crossing, of a street or driveway with one or more other streets or driveways.
- 18. **Sight Distance** - The length of travelled way visible to a driver. There are four different kinds of sight distance:
 - (a) **Stopping Sight Distance** - The distance required by the driver of a vehicle, travelling at a given speed, to bring the vehicle to a stop before reaching an object on the travelled way, after the object has become visible.
 - (b) **Passing Sight Distance** - The minimum sight distance that must be available to enable the driver of one vehicle to pass another vehicle safely and comfortably on a two-lane street without interfering with the speed of an oncoming vehicle, travelling at the design speed, should the oncoming vehicle come into view after the maneuver is started.
 - (c) **Intersection Sight Distance** - The minimum sight distance that must be available to the driver of a vehicle stopped on a street or driveway, on the approach to an intersection, in order that the stopped vehicle may safely enter and proceed through the intersection.
 - (d) **Driveway Sight Distance** - At a major driveway, intersection sight distance shall be provided in accordance with the Intersection Sight Distance standards contained in subparagraph (c) above. At a minor driveway, no planting or other obstruction in excess of two (2) feet high shall be permitted within a triangle measuring 10 feet along the centerline of the driveway from the edge of the travelled way and 30 feet along the edge of travelled way of the street from the centerline of the driveway, in both directions.

DESIGN FEATURES

Street Right-of-way

Street right-of-way width should be not less than that required for the necessary cross section and drainage elements. Attention should be given to the possibility of future expansion of facilities within the right-of-way, such as the addition of one or more lanes or the installation of sidewalks.

Major and Minor Arterial Streets – Number and Width of Traffic and Auxiliary Lanes

In accordance with *A Policy on Geometric Design of Highways and Streets* (AASHTO “Green Book”), as amended, Section 7.3.3.2, for Arterials in Urban Areas – Lane Width, “Lane widths on through-travel lanes may vary from 10 to 12 feet [3.0 to 3.6 m]. Lane widths of 10 feet [3.0 m] may be used in more constrained areas where truck and bus volumes are relatively low and speeds are less than 35 mph [60 km/h]. Lane widths of 11 feet [3.3 m] are used quite extensively for urban arterial street designs. The 12 feet [3.6 m] lane widths are desirable, where practical, on high-speed, free-flowing, principal arterials.”

The number of traffic lanes, travel lane widths and auxiliary lanes for major and minor arterial streets shall be determined from traffic engineering analyses and shall be approved by the Chief of Operations and Public Works.

A traffic engineering analysis, study, etc. shall be required to demonstrate adequate roadway **safety** and **capacity** for a proposed travel lane width of ten (10) feet. The traffic engineering analysis shall include the following (based on AASHTO “Green Book”, as amended, Section 7.3.3.2):

1. Demonstration of “Relatively Low” Truck and Bus Volumes (obtained via traffic databases, traffic counts, etc.).
2. Vehicular Speed Data indicating that the 85th percentile vehicular speed is less than 35 mph.
3. Roadway capacity modeling and analysis of present and future traffic flows performed with an acceptable roadway capacity modeling computer software such as Synchro, Vissim, HCS, etc.
4. Evaluation of the roadway geometry (horizontal and vertical curvature).

Major and Minor Arterial Streets - Shoulders

Shoulders are necessary on arterial streets to accommodate stopped or disabled vehicles and permit traffic to pass with minimum encroachment on the opposing, or parallel, traffic lane.

Collector Streets - Minimum Width

For collector streets, the minimum width of pavement is that required to provide free movement in each direction in the presence of stopped vehicles.

Attention should be given to the need for auxiliary lanes on the approaches to intersections and to the need for parking lanes in urban areas.

Urban Local Streets - Minimum Width

For urban local streets, the minimum width of pavement is that required to provide free movement in one traffic lane in each direction of travel and alternating flow in the presence of stopped vehicles.

Attention should be given to the need for auxiliary lanes on the approaches to intersections and to the need for parking lanes. Where trucks or emergency vehicles are required to maneuver into or out of driveways or other streets, and intersection geometrics cannot be provided in accordance with these Roadway Standards, travelled way width in excess of the minimum may be required.

Residential Local Streets - Minimum Width

For residential local streets the minimum width of pavement is that required to provide free movement in one traffic lane in each direction of travel and alternating flow in the presence of stopped vehicles.

Attention should be given to the need for emergency vehicles and trucks to maneuver into and out of driveways and other streets.

Design District Streets - Minimum Width

For design district streets the minimum width of pavement is that required to provide free movement in one traffic lane in each direction of travel and alternating flow in the presence of stopped vehicles. On-street parking is permitted in designated areas outside the travel way. Raised speed tables are permitted within the street right of way.

Complete Streets

“Complete Street” policies shall be implemented where they can be reasonably implemented without undue hardship in accordance with all City Ordinances, State Statutes and Federal Laws.

Bicycle Facilities

Bicycle Facilities shall be designed in accordance with the Guide for the Development of Bicycle Facilities as published by the American Association of State Highway and Transportation Officials, as amended and the State of Connecticut Department of Transportation Highway Design Manual, as amended.

Cross Slopes

Minimum cross slopes are necessary in order to provide for drainage. The entire right-of-way shall be designed to drain onto public property in urban areas. For residential local streets, off-street drainage may be permitted, subject to engineering analysis and the approval of the Chief of Operations and Public Works.

Curbs

Curbs deter vehicles from leaving the pavement, control drainage and aid in the orderly development of the roadside. Curbs shall be provided on all arterial streets; on collector streets; residential local streets; and design district streets where the slope of the street is five percent or greater; and on collector streets; residential local streets; and design district streets on the side(s) where sidewalks are provided.

Standard Curb and Sidewalk Materials

The materials for the curbs and sidewalks within the City of Norwalk shall be in accordance with the requirements of that particular Design/Business/Historic/Village District/etc. as indicated below, unless the Chief of Operations and Public Works authorizes the use of another type of material in writing prior to the installation of curbs and sidewalks. The boundaries of the districts are defined in the Design District Standard Location Map maintained by the City of Norwalk Department of Public Works.

Urban Area District – Granite curbs and concrete sidewalks.

Village District – Granite curbs, Brick Paver/Concrete sidewalks, Historic street lights.

Historic District – Granite curbs, Brick Paver/Concrete sidewalks, Historic street lights.

Extensive Business Area – Granite curbs, Brick Paver/Concrete sidewalks, street lights installed by the electric company provider in that area of the City.

Intensive Business Area – Granite curbs, Brick Paver/Concrete sidewalks, Historic Street lights.

Neighborhood Business Area - Granite curbs, Brick Paver/Concrete sidewalks, Historic Street lights.

Transit-Oriented Development (TOD) Redevelopment Plan Areas – Granite curbs, Brick Paver/Concrete sidewalks, Historic Street lights.

State Roads - Granite curbs, Brick Paver/Concrete sidewalks, street lights installed by the electric company provider in that area of the City.

Notes:

1. On Residential Local and Urban Local streets where concrete curbs and/or sidewalks currently exist on the street, the Chief of Operations and Public Works shall have the authority for the purposes of consistency, to require the use of concrete curbs when reconstruction work is being done that would require the replacement of curbs and/or sidewalks.
2. If a particular street, or portion of a street is in a designated "Historic/Village District," the Chief of Operations and Public Works shall have the authority to require the use of materials for curbs, sidewalks and brick paver sidewalks that would be in accordance with the standards for that particular "Historic/Village District" or portion of that "Historic/Village District."
3. These requirements are based off of guidelines that are set forth in Planning & Zoning Department and Redevelopment Agency documents such as the Norwalk Business District Guidelines dated September 1987, the Norwalk Waterfront Design Guidelines dated April 1988, the Urban Renewal Plan For The Reed Putnam Area, Norwalk, Connecticut, modified October 2015, etc. as amended and applicable.

Guide Rails

The necessity for, and the design of Guide Rails shall be in accordance with the AASHTO Roadside Design Guide and the State of Connecticut Department of Transportation Highway Design Manual, as amended.

Lateral Clearance

Lateral clearance standards are necessary to provide the driver with a safer and more comfortable ride. Signs, poles and other obstacles placed near the roadway may become hazards to vehicles which run off the roadway or which move near to the curb. The minimum lateral clearance shall be one foot six inches on streets with curbs and seven feet on streets without curbs. Clearance shall be measured from face of curb or edge of travelled way to face obstacle.

Notwithstanding the general need for lateral clearance mail boxes may be installed closer to the edge of travelled way than the minimums specified above, provided that they are located in accordance with U. S. Postal Service Regulations and have supports which will bend or break away upon vehicle impact.

Vertical Clearance

No signs, barriers, decorations, etc., are permitted within 17'-6" of the highest point in the roadway.

Minimum and Maximum Grade

A minimum longitudinal grade is required to provide for drainage. In selecting greater than minimum grades, optimum rather than maximum conditions should always be considered by the designer. Topography, aesthetics and cost, as well as noise pollution considerations, should be borne in mind.

Horizontal Curvature

Horizontal Curvature is directly related to design speed and has an important effect on safety, driving characteristics, and the appearance of the street. Minimum center line radii are specified for major and minor arterial streets; collector streets; urban local streets and residential local streets. These are related to design speeds, acceptable side friction factors, and to superelevation.

Sight Distance

Control of grade and curvature, and of obstructions in the vicinity of intersections, is necessary to provide adequate sight distance for safe vehicular operation. The three forms of sight distance, passing sight distance, stopping sight distance and intersection sight distance, involve different design considerations.

- (a) Stopping sight Distance - This distance shall be calculated on the basis of the driver's ability to see a 2 foot high object when his eye level is assumed to be 3.50 feet above the travelled way surface. Minimum stopping sight distance shall be measured along a line from the center of the lane nearest the right-hand shoulder, curb or edge of travelled way to a point on that lane, at the shoulder, curb or edge of travelled way.
- (b) Intersection Sight Distance - This distance shall be measured from the center line of the street or major driveway, at all points up to 15 feet behind the edge of the travelled way of the through street. Minimum intersection sight distance shall extend to a point in the center of the right lane of the through street(s) approaching from the left, and to a point in the center of the lane nearest the center line or median of the through street(s) approaching from the right. Height of the driver's eye is to be assumed to be 3.50 feet and the height of the object to be 3.50 feet.

Vertical Curvature

A minimum length of vertical curve is necessary to ensure that adequate stopping sight distance is provided and to assure satisfactory drainage of the travelled way.

Parabolic curves shall be used to connect vertical tangents. A length of transition vertical curve shall be constructed where the change in grade equals or exceeds 0.5 percent. Parabolic curves are defined through 'K' values for crest and sag curves. The 'K' value is to be multiplied by the algebraic difference in grades to produce the length of vertical curve to be provided. Where the change in grade is less than 0.8 percent the transition area may be roll graded in the field.

Superelevation

Superelevation is necessary to counteract outward drift on curves and to improve passenger comfort. It shall be calculated according to horizontal curvature, side friction factors and design speed. To prevent inward drift by slower moving vehicles the maximum level of superelevation specified shall not be exceeded.

Corner Geometry

To provide safe vehicular and pedestrian movement at intersections, intersecting streets shall be laid out with tangents at right angles to each other for a distance of at least 50 feet, measured along the center line from the right-of-way line of the intersected street. For a distance of at least 30 feet, measured in the same way, the approach gradient shall not exceed three percent, up or down.

A minimum curb or edge-of-travelled way radius shall be provided at street intersections in accordance with the classification of the major street, as follows:

- Arterial - 25 feet
- Collector - 20 feet
- Local - 15 feet

Along bus routes, a 30 foot radius shall be provided where buses make right turns.

At the corners of street intersections, street right-of-way lines shall be so located as to provide for continuity of required cross section and drainage elements included in the Right-of-Way of both streets. The Right-of-Way at each corner shall be so graded and landscaped as to provide adequate intersection sight distance. If necessary, additional land shall be included in the street Right-of-Way at the intersection to permit such grading and landscaping.

Sidewalks and Footpaths

Sidewalks are necessary to accommodate pedestrians safely along both sides of all streets in urban areas, along walking routes to schools and wherever large numbers of pedestrians may be expected to use the street, such as in the vicinity of parks, beaches, churches, local business, industrial plants, etc.

Walks to schools in residential areas may be provided by footpaths. Foot

paths are walks which may depart from the alignment of the roadway to avoid trees or topographical features, or to make shortcuts. Footpaths shall be paved in asphalt and shall have a minimum unobstructed width of three feet.

In extensive business areas; sidewalks shall have a minimum width of seven feet and shall extend from curb to street line. They shall be paved in concrete. In intensive business areas, sidewalks shall have a minimum width of seven feet and shall extend from curb to face of building. In historic areas, sidewalk width and paving material shall conform to an overall plan for the historic area and shall be approved by the Chief of Operations and Public Works. Elsewhere sidewalks shall have a minimum of four feet from the face of curb to provide for overhead utilities, snow storage and, where appropriate, landscaping.

The snow strip, between the curb and the sidewalk, shall generally be grassed in residential areas and paved to match the sidewalk in urban areas. In urban areas sidewalks shall be concrete. In residential areas they may be asphalt or concrete.

Driveway Location and Size

No minor driveway shall be located within twenty-five (25) feet of the intersection of two (2) or more streets, measured from the street line of the nearest intersected street to the center line of the driveway, along the street line of the street entered by the driveway. No major driveway shall be located within fifty (50) feet of the intersection of two (2) or more streets, measured in the same way.

- (a) Where more than one (1) driveway is constructed serving the same premises, the minimum distance between the center lines of minor driveways shall be fifty (50) feet, and the minimum distance between major driveways shall be seventy-five (75) feet.
- (b) The minimum widths of driveways, measured at the street line, shall be the following:

Type	One-Way (feet)	Two-Way (feet)
Minor driveway	10	12
Major driveway	16	22

(c) The maximum widths of driveways, measured at the street line, shall be the following:

Type	One-Way (feet)	Two-Way (feet)
Minor driveway	12	20
Major driveway	24	40

The right is reserved by the Chief of Operations and Public Works to require changes, additions and relocations as, in his opinion, may be necessary for the relocation, reconstruction, widening or maintenance of the roadway or to provide protection to life and property on or adjacent to the roadway.

Shared Driveway Standards:

One driveway can only provide access to/serve a maximum of two building lots (different parcels) of the size permitted in the zone wherein the driveway and building lots are located. Once a single driveway provides access to/serves three building lots (different parcels) or more, that driveway is classified as a Private Road and shall be constructed in conformity with City Roadway Standards and specifications that are in effect at the time that Permits are issued. Acceptance of that Private Road as a City Street shall have to be mutually agreed upon by both the City and the residents of that Private Road.

Dead End Streets and Cul-de-Sacs

All dead end streets shall be provided with a turnaround, to permit maneuvering of emergency vehicles and snow removal equipment.

For dead end streets constructed or extended after the date of adoption of these Roadway Standards, turnarounds shall be in the form of rotary with a minimum outside radius of 50 feet. The pavement shall have a crown along the center line to facilitate drainage.

Dead end streets approved for construction prior to the date of adoption of these Roadway Standards may have alternative provision for turnarounds, subject to traffic engineering analysis.

When dead end streets are extended, the previously existing turnaround shall be removed and that portion of the roadway reconstructed in accordance with these Roadway Standards.

The width of any Cul-de Sac shall not be less than 24 feet.

Utility Structures in Public Highways

All utilities, both public and private, proposed new installations and relocations within the street right-of-way shall be constructed at a location approved by the Chief of Operations and Public Works.

In order to facilitate maintenance, new underground utility structures should be constructed within the travelled way.

Where existing underground utility structures are located outside of a curbed travelled way excluding sidewalks, all modifications thereto shall be designed to carry passenger car and light truck loads. Structures located in other areas shall be designed to carry street loading, with allowance for impact. All structures within the City Right-of-Way shall be designed to carry HS20 Truck Loads.

All underground utility structures located in sidewalk areas, including sidewalk reserve areas, shall be constructed to prevent differential frost heave between sidewalk and structure.

Street Acceptance and Construction

In accordance with the Norwalk Code, § 95-23, no newly constructed highway, road or street, together with any curbs and sidewalks adjacent thereto and the drainage systems, guardrails and street signs installed in conjunction therewith, shall be laid out, altered, enlarged, changed or constructed, except in conformance with the standards set forth in the City of Norwalk, Department of Public Works, Roadway Standards, and Standard Construction Specifications, Drainage Manual, and zoning subdivision requirements as approved and amended by the Public Works Committee to the Common Council.

Any street, highway, or road, or any curb or sidewalk adjacent thereto, or any drainage system, guardrail or street sign installed in conjunction therewith that shall be in whole or in part or manner, laid out, altered, changed or constructed other than in accordance with the standards set forth in the above paragraph in the determination of the Chief of Operations and Public Works, shall not be accepted as a public street of the city.

Street Lighting

Illumination standards for artificially lit streets shall conform to all applicable standards of the Connecticut Department of Transportation and the Federal Highway Administration. In certain circumstances, street lights shall be installed on building faces at a height, frequency and location which provides the necessary illumination at the surface of the roadway. In no circumstance shall the bottom of any fixture be placed less than 8'-6" above the existing grade or sidewalk.

Signage

All regulatory signs shall meet the requirements of the Manual of Uniform Traffic Control Devices (MUTCD), with respect to color, format, size, mounting, reflectorization, height of verbiage. Materials other aluminum sheet may be allowed. The proper function of any regulatory sign shall take precedence over any other consideration.

Fences and Walls on Residential Property

1. Height

- (a) Fences may be installed by homeowners or their agents, up to a maximum nominal height of six (6) feet above lowest adjacent ground level without a Building Permit.
- (b) Masonry walls (stone, brick or concrete) may be installed up to a maximum nominal height of four (4) feet above lowest adjacent ground level without a Building Permit.
- (c) For any new or replacement fence taller than 6 feet, or masonry wall taller than 4 feet, a Building Permit must be obtained from the Code Enforcement Department. SEE NUMBER 5 UNDER THIS SECTION.
- (d) No portion of any new or replacement fence or wall shall block the required light and ventilation of any residential building window. If there is a question regarding this you should check with the Building Official for the proper requirements. This requirement does not apply to fence distances from detached accessory structures such as sheds, free-standing garages and swimming pools, etc.

2. Location

- (a) The entire fence or wall, including posts, braces or pilasters, must be

located entirely on owner's side of property line. No minimum setback distance from the property line is specified in City Code. SEE NOTE 2d AND 3a BELOW.

- (b) Two abutting neighbors can agree in writing through an agreement to place a fence or wall directly on the property line between them if that written agreement is filed on the Land Records for both abutting neighbors at the Town Clerk's Office, together with updated Class A-2 Surveys of the involved properties. SEE NOTE 2d and 3a BELOW.
- (c) Any new or replacement fence or wall that will extend along the side of a property near a driveway must either terminate ten (10) feet from the edge of the roadway; or any section of such fence or wall within ten (10) feet of the edge of the roadway cannot exceed a height of thirty (30) inches above that driveway surface, in order to ensure adequate sightline for a motorist backing out of that driveway. SEE NOTE 3a BELOW.
- (d) A current Class A-2 Survey of your premises (which must be prepared by a Connecticut-licensed Land Surveyor) is the accepted reference standard for accurately determining the location of property lines.

3. Street Side Fencing and Walls

- (a) All fencing or walls to be constructed by homeowners or their agents along the street front face(s) of their properties must be situated entirely behind the legal property line.

NOTE: The City's legal right-of-way along a street usually extends beyond the street edge or curbing and sidewalks. Owner should follow his/her Class A-2 Survey prior to installing any street side fence or wall.

The City maintains the legal right to remove any fence or wall built within its street right-of-way, at the expense of the Owner.

- (b). On any residential property situated at the corner of two streets, no portion of a street side fence or wall within thirty (30) feet of that lot's street corner can exceed thirty (30) inches in height, in order to ensure adequate sightlines for motorists approaching that intersection.

4. Fence Style

- (a) No fence on residential property is allowed to be electrified, nor can any fence or wall be fitted with barbed wire or razor ribbon.
- (b) In the case of a picket or stockade fence, the owner can arrange to so-called "good side" to face whichever direction he or she chooses.

5. Fence and Wall Permits

For any new or replacement fence taller than 6 feet or masonry wall taller than 4 feet, owner or owner's contractor must provide a design drawing or such proposed fence or wall installation to the code enforcement for a Building Permit. This drawing must bear the seal and signature of a Connecticut registered Architect or Licensed Professional Civil Engineer, and must include calculations proving structural resistance to wind loads mandated by the State Building Code.

This requirement may be waived by the Chief Building Official if he feels the detailed drawings and calculations meet the requirements of the State Building Code.

Alleys

Alleys provide for accessibility and service to each individual land parcel. They are characterized by a narrow right-of-way and range in width from 16 to 20 ft in residential areas and up to 30 ft in industrial areas.

Alleys should be aligned parallel to or concentric with the street property lines. It is desirable to situate alleys in such a manner that both ends of the alley are connected either to streets or to other alleys. Where two alleys intersect, a triangular corner cutoff of not less than 10 ft along each alley property line should be provided. Dead-end alleys should be provided with a turning area in accordance with the Figure on Page 44.

Curb return radii at street intersections may range from 5 ft in residentially zoned areas to 10 ft in industrial and commercial areas where large numbers of trucks are expected.

Alleys should have grades established to meet as closely as possible the existing grades of the abutting land parcels. The longitudinal grade should not be less than 0.20.

Alley cross sections may be V-shaped with transverse slopes of 2.5 percent toward a center V gutter. Runoff is thereby directed to a catch basin in the alley or to connecting street gutters.

CONSTRUCTION STANDARDS

Specifications

Construction shall conform to the Standard Specifications established by the Department of Public Works.

Where no Standard Specification is applicable, or where special conditions exist, elements of construction shall conform to sound engineering practice and shall be approved in writing by the Chief of Operations and Public Works.

Standard Construction Details

All designs for roadway and driveway construction, reconstruction or pavement placement shall be in accordance with the Construction Details contained in this Manual.

Drainage

The design of roadway and driveway drainage shall conform to the Norwalk Drainage Manual and shall have the written approval of the Chief of Operations and Public Works.

Sanitary Sewers

The design and construction of sanitary sewers shall conform with the Design and Construction of Sanitary and Storm Sewers, ASCE - Manuals and Reports on Engineering Practice No. 37, WPCD Manual of Practice No. 9, prepared by a joint committee of the American Society of Civil Engineers and the Water Pollution Control Federation, as amended and TR-16 Guidelines For The Design Of Wastewater Treatment Works, as amended. Construction shall conform to the Standard Specifications established by the Department of Public Works, and the regulations of the Norwalk Water Pollution Control Authority (WPCA).

DESIGN STANDARDS

DESIGN STANDARDS: DESIGN DISTRICT STREETS

DESIGN SPEED	30 MPH
POSTED SPEED	25 MPH
PAVEMENT WIDTH	WITH CURBS WITHOUT CURBS
	26.0 FT (MIN) 24.0 FT (MIN)
CURB HEIGHT	0.5 FT
LATERAL CLEARANCE	WITH CURBS WITHOUT CURBS
	1.5 FT (MIN) 6.0 FT (MIN)
LONGITUDINAL GRADES	MINIMUM MAXIMUM URBAN MAXIMUM RESIDENTIAL
	0.5% 11.0% 11.0%
CROSS SLOPE	PAVED AREAS
	¼ IN/FT (MIN)
SUPERELEVATION	NONE
HORIZONTAL CURVATURE (RADIUS)	375 FT (MIN)
STOPPING SIGHT DISTANCE	200 FT (MIN)
INTERSECTION SIGHT DISTANCE	335 FT (MIN)
VERTICAL CURVATURE	'K' FACTOR – SAG 'K' FACTOR - CREST MINIMUM LENGTH
	37 19 90 FT
MAXIMUM EARTH SLOPE	HORIZONTAL : VERTICAL
	2:1

DESIGN STANDARDS: URBAN AND RESIDENTIAL LOCAL STREETS

DESIGN SPEED POSTED SPEED	35MPH 25 MPH
PAVEMENT WIDTH	URBAN WITH CURBS URBAN WITHOUT CURBS RESIDENTIAL WITH CURBS RESIDENTIAL WITHOUT CURBS
CURB HEIGHT	0.5 FT
LATERAL CLEARANCE	WITH CURBS WITHOUT CURBS
LONGITUDINAL GRADES	MINIMUM MAXIMUM URBAN MAXIMUM RESIDENTIAL
CROSS SLOPE	1.5 FT (MIN) 6.0 FT (MIN)
SUPERELEVATION	0.5% 11.0% 11.0%
HORIZONTAL CURVATURE (RADIUS) STOPPING SIGHT DISTANCE INTERSECTION SIGHT DISTANCE	1/4 IN/FT (MIN)
VERTICAL CURVATURE	NONE 530 FT (MIN) 250 FT (MIN) 390 FT (MIN)
MAXIMUM EARTH SLOPE	'K' FACTOR – SAG 'K' FACTOR - CREST MINIMUM LENGTH HORIZONTAL : VERTICAL

49

29

105 FT

2:1

DESIGN STANDARDS: COLLECTOR STREETS

DESIGN SPEED POSTED SPEED		40 MPH 30 MPH
PAVEMENT WIDTH	WITH CURBS WITHOUT CURBS	26.0 FT (MIN) 24.0 FT (MIN)
CURB HEIGHT		0.5 FT
LATERAL CLEARANCE	WITH CURBS WITHOUT CURBS	1.5 FT (MIN) 6.0 FT (MIN)
LONGITUDINAL GRADES	MINIMUM MAXIMUM URBAN	0.5% 11.0%
CROSS SLOPE	PAVED AREAS	¼ IN/FT (MIN)
SUPERELEVATION		¾ IN/FT (MAX)
HORIZONTAL CURVATURE (RADIUS)	WITHOUT SUPERELEVATION WITH MAXIMUM SUPERELEVATION	715 FT (MIN) 510 FT (MIN)
STOPPING SIGHT DISTANCE INTERSECTION SIGHT DISTANCE		305 FT (MIN) 445 FT (MIN)
VERTICAL CURVATURE	'K' FACTOR – SAG 'K' FACTOR – CREST MINIMUM LENGTH	64 44 120 FT
MAXIMUM EARTH SLOPE	HORIZONTAL : VERTICAL	2:1

DESIGN STANDARDS: MINOR ARTERIAL STREETS

DESIGN SPEED POSTED SPEED	40 MPH 30 MPH
LANE WIDTH	10.0 FT - 12.0 FT
PAVED SHOULDER WIDTHS	WITH PARKING WITHOUT PARKING
CURB HEIGHT	8.0 FT 2.0 FT
LATERAL CLEARANCE	0.5 FT
LONGITUDINAL GRADES	1.5 FT (MIN) MINIMUM MAXIMUM
CROSS SLOPE	0.5% 8% PAVED AREAS
SUPERELEVATION	¼ IN/FT (MIN) ¾ IN/FT (MAX)
HORIZONTAL CURVATURE (RADIUS)	WITHOUT SUPERELEVATION WITH MAXIMUM SUPERELEVATION
STOPPING SIGHT DISTANCE INTERSECTION SIGHT DISTANCE	715 FT (MIN) 510 FT (MIN)
VERTICAL CURVATURE	305 FT (MIN) 445 FT (MIN) 'K' FACTOR – SAG 'K' FACTOR – CREST MINIMUM LENGTH
MAXIMUM EARTH SLOPE	64 44 120 FT HORIZONTAL : VERTICAL 2:1

DESIGN STANDARDS: MAJOR ARTERIAL STREETS

DESIGN SPEED	40 MPH
POSTED SPEED	30 MPH
LANE WIDTH	10.0 FT - 12.0 FT
PAVED SHOULDER WIDTHS	WITH PARKING WITHOUT PARKING
CURB HEIGHT	8.0 FT 4.0 FT
LATERAL CLEARANCE	0.5 FT
LONGITUDINAL GRADES	1.5 FT (MIN) MINIMUM MAXIMUM
CROSS SLOPE	0.5% 8% PAVED AREAS
SUPERELEVATION	¼ IN/FT (MIN) ¾ IN/FT (MAX)
HORIZONTAL CURVATURE (RADIUS)	WITHOUT SUPERELEVATION WITH MAXIMUM SUPERELEVATION
STOPPING SIGHT DISTANCE	715 FT (MIN) 510 FT (MIN)
INTERSECTION SIGHT DISTANCE	305 FT (MIN) 445 FT (MIN)
VERTICAL CURVATURE	'K' FACTOR – SAG 'K' FACTOR – CREST MINIMUM LENGTH
MAXIMUM EARTH SLOPE	64 44 120 FT HORIZONTAL : VERTICAL
	2:1

NOTES

- 1

Rock Ledge – Slope to be determined by engineering analysis
- 2

Earth Slope - Slope to original ground surface. Where disturbed slope extends beyond R.O. W. line, retaining walls shall be required unless slope rights are obtained.
- 3

Desirable
- 4

Sidewalks:

Bituminous Concrete
2" Class 2 for sidewalks and minor driveways
3" for major driveways
6" Processed Aggregate Base

Portland Cement Concrete
5" Class "C" Concrete
6" For Driveways
6" Processed Aggregate Base
Expansion Joints Approximately 12'-0"
- 5

1 ½" HMA S0.375" Level 2 Surface Course
1 ½" HMA S0.375" Level 2 Binder Course
- 6

12" Processed Aggregate Base
18" in Rock Cut
Must be inspected and approved by Department of Public Works
- 7

6" Topsoil and seed
- 8

Guide Rail
- 9

Rock Excavation Line
- 10

Varies according to Drainage Requirements
- 11

Underdrainage as Required by Department of Public Works
- 12

1 ½"HMA S0.375" Level 2 Surface Course
1 ½" HMA S0.375" Level 2 Binder Course
- 13

6" HMA S1.0" Level 3 Base Course
- 14

12" Processed Aggregate Base
18" in Rock Cut

* See Superpave Design Level Information

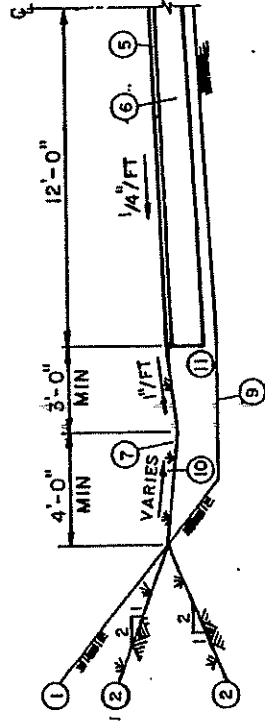
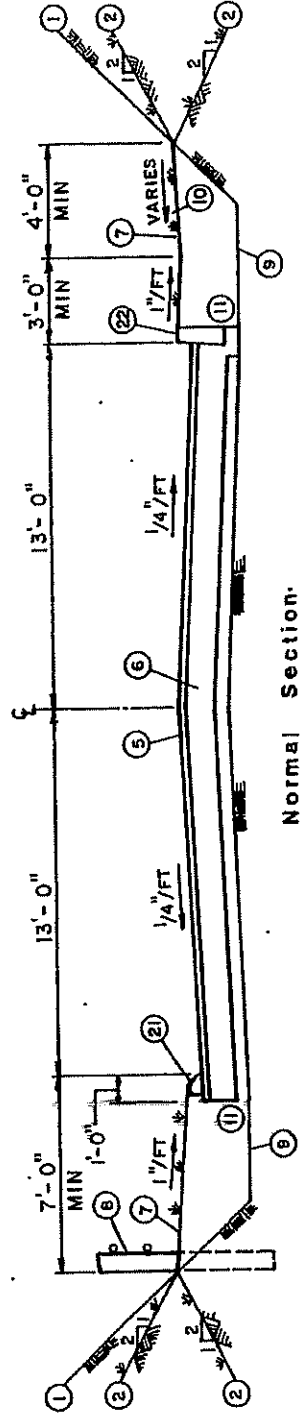
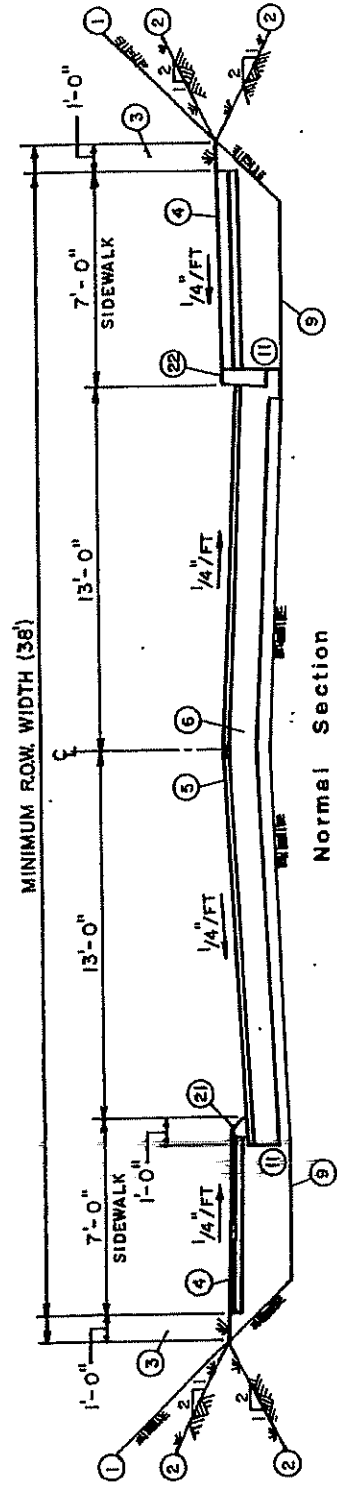
Superpave Level shall be as indicated unless directed otherwise by the Chief of Operations and Public Works.

- 15 2" HMA S0.50" Level 3 Surface Course
 2" HMA S0.50" Level 3 Binder Course
- 16 14" Processed Aggregate base
 18" in Rock Cut
- 17 Shoulder to be constructed to arc of circle average cross slope $\frac{1}{2}$ "/FT.
- 18 Minimum cross slope $\frac{1}{2}$ "/FT otherwise continuous roadway cross slope.
- 19 Shoulder at high side of superelevated section must be at least 4'-0" wide.
- 20 Minimum Median Width – 4'-0" Minimum
 Turf Median Width – 6'-0" Maximum Turf
 Median Width – 10'-0"
- 21 Bituminous Concrete Curbing
- 22 Granite or Concrete Curb
- 23 1 1/2" HMA S0.375" Level 2 Surface Course
 2" HMA S0.50" Level 2 Binder Course
- 24 3" HMA S1.0" Level 2 Base Course

* See Superpave Design Level Information

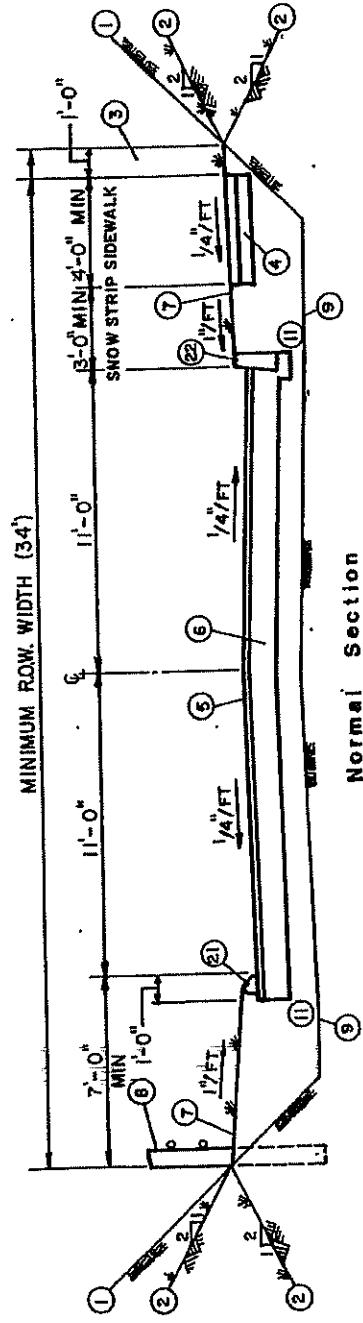
Superpave Level shall be as indicated unless directed otherwise by the Chief of Operations and Public Works.

CONSTRUCTION DETAILS

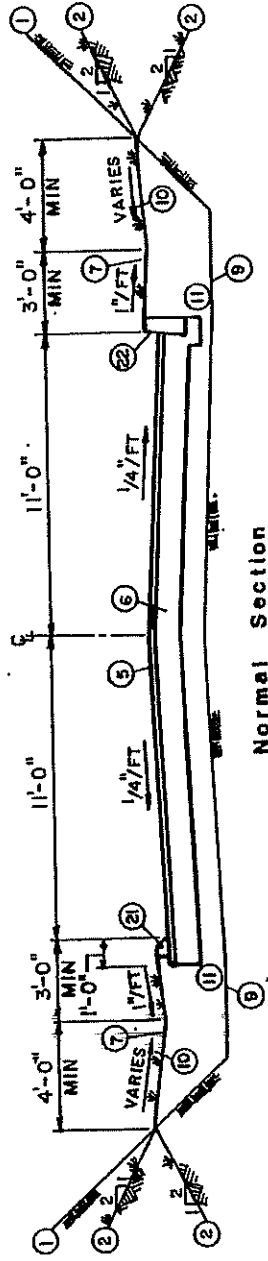


See Notes For Numbered Items

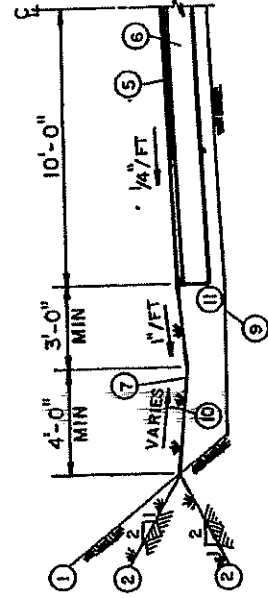
URBAN LOCAL STREET



Normal Section



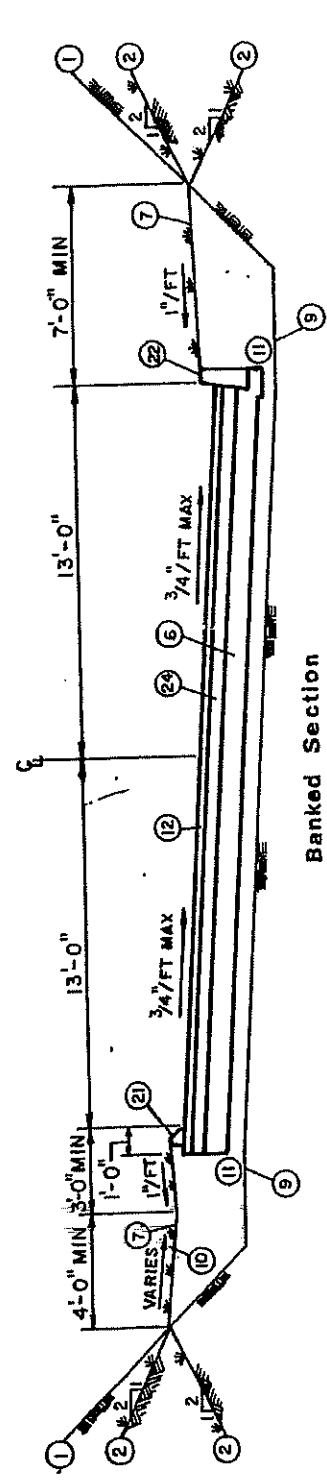
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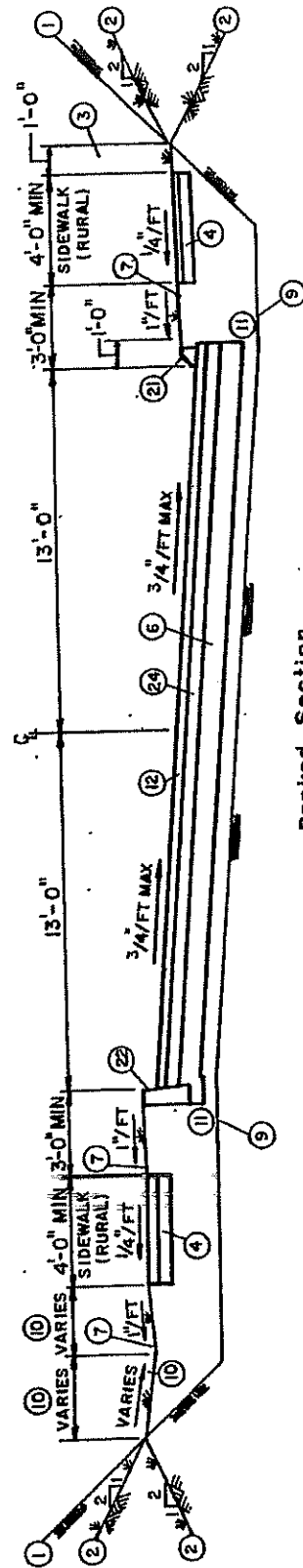
Partial Normal Section

See Notes For Numbered Items

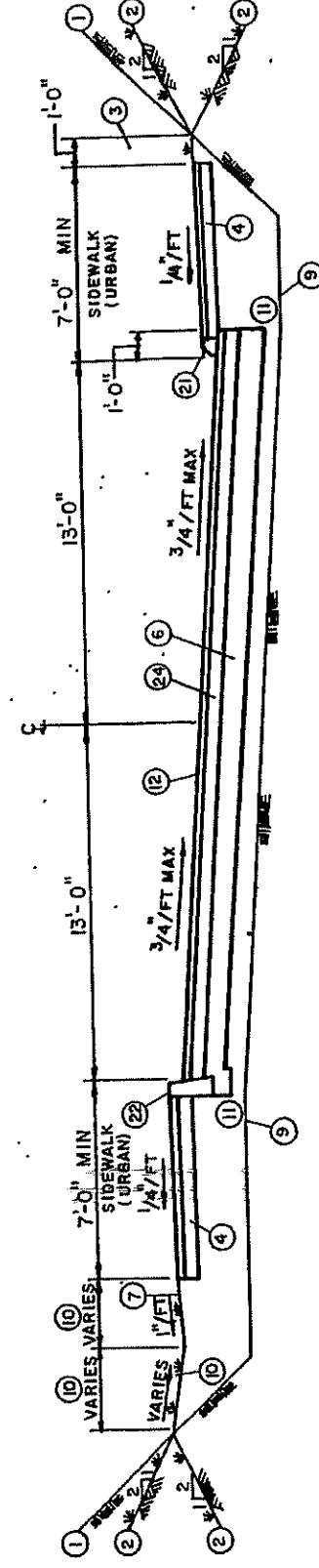
RESIDENTIAL LOCAL STREET



Banked Section



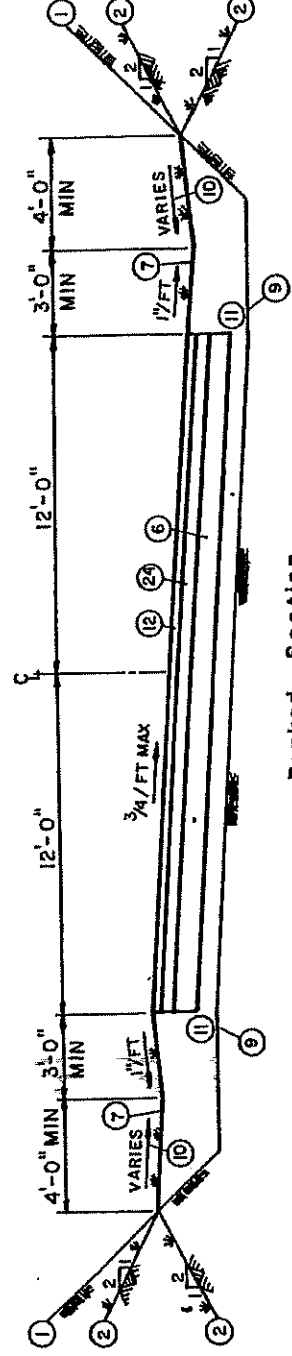
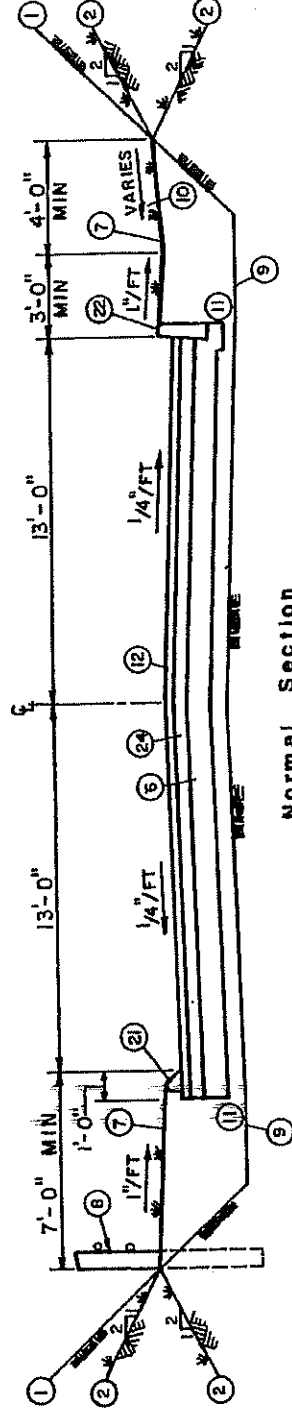
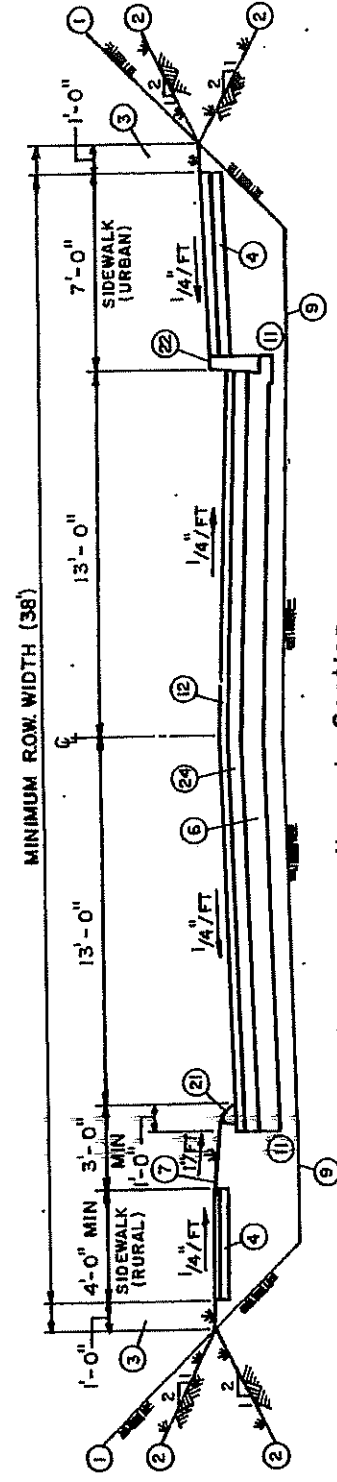
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Banked Section

See Notes For Numbered Items

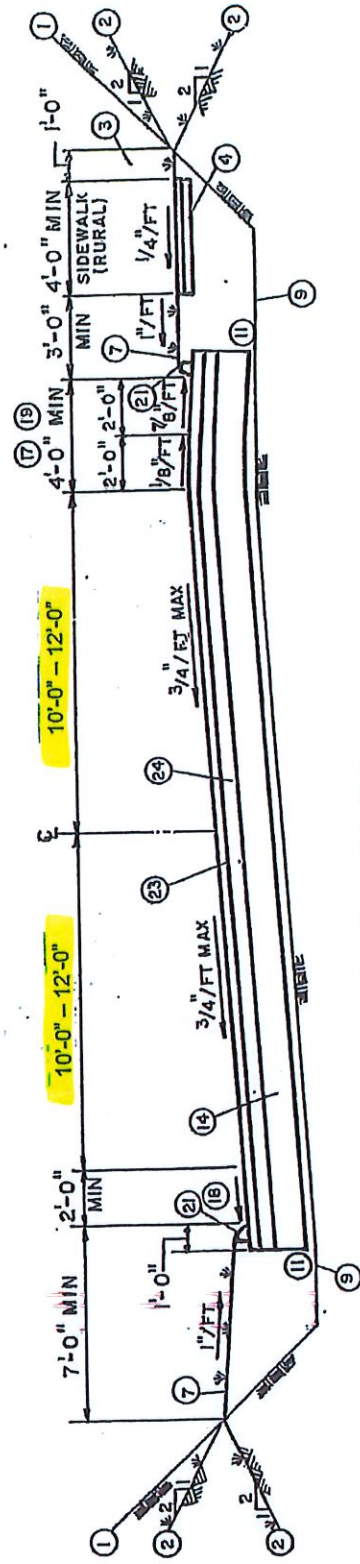
COLLECTOR STREET



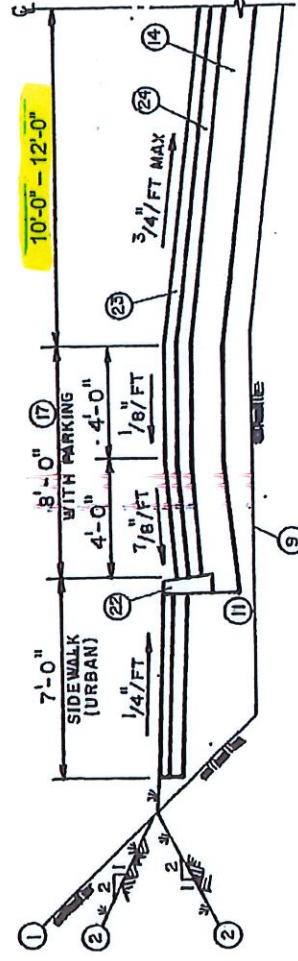
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COLLECTOR STREET

Cont'd



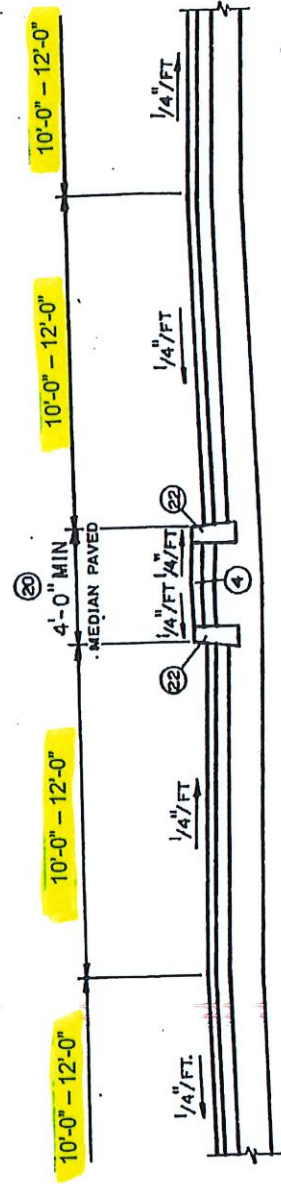
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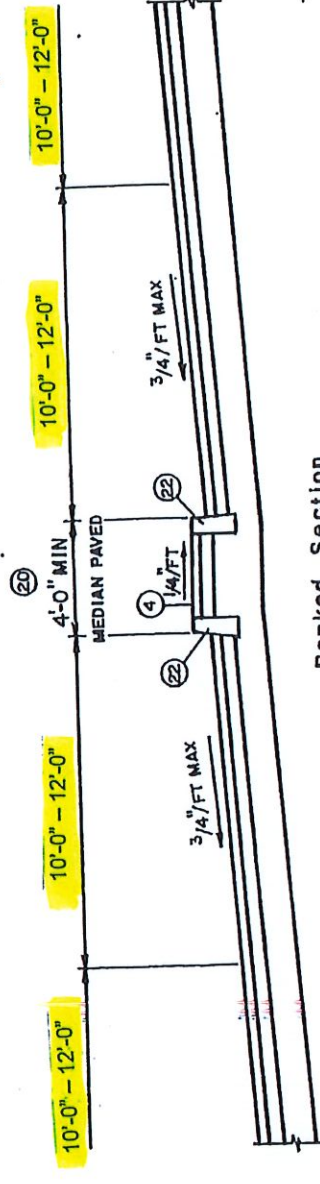
High Side Banked Section

See Notes For Numbered Items

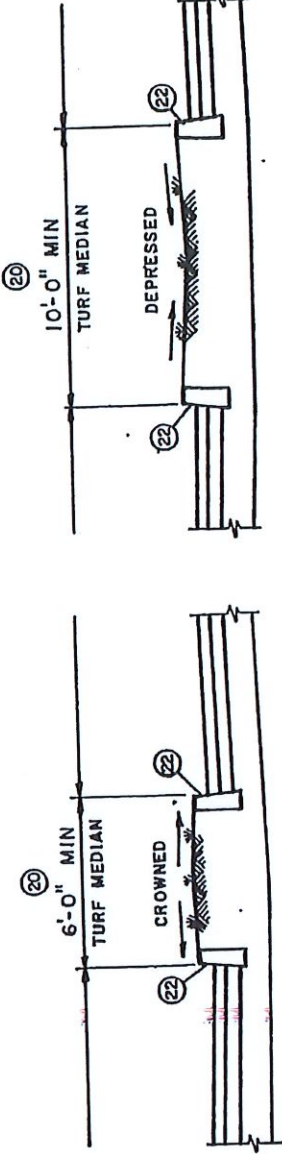
MINOR ARTERIAL STREET



Normal Section



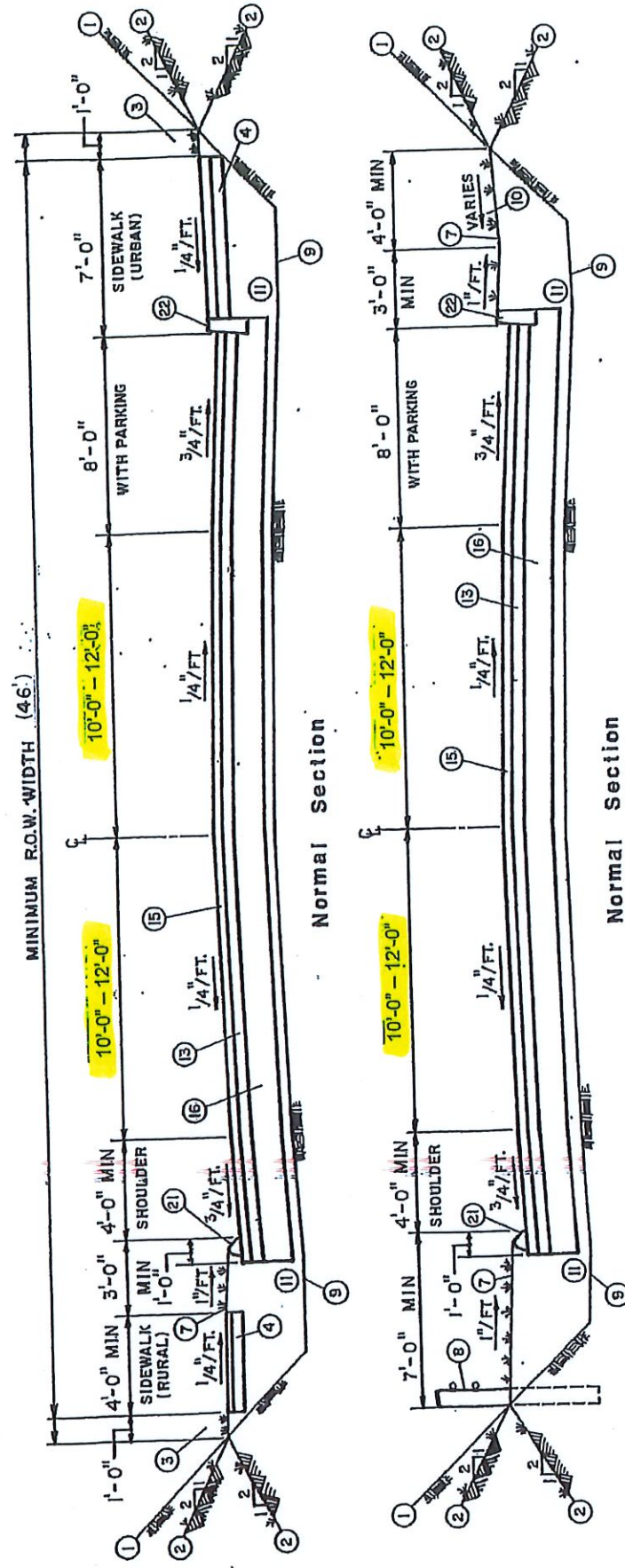
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Turf Median Treatment

See Notes For Numbered Items

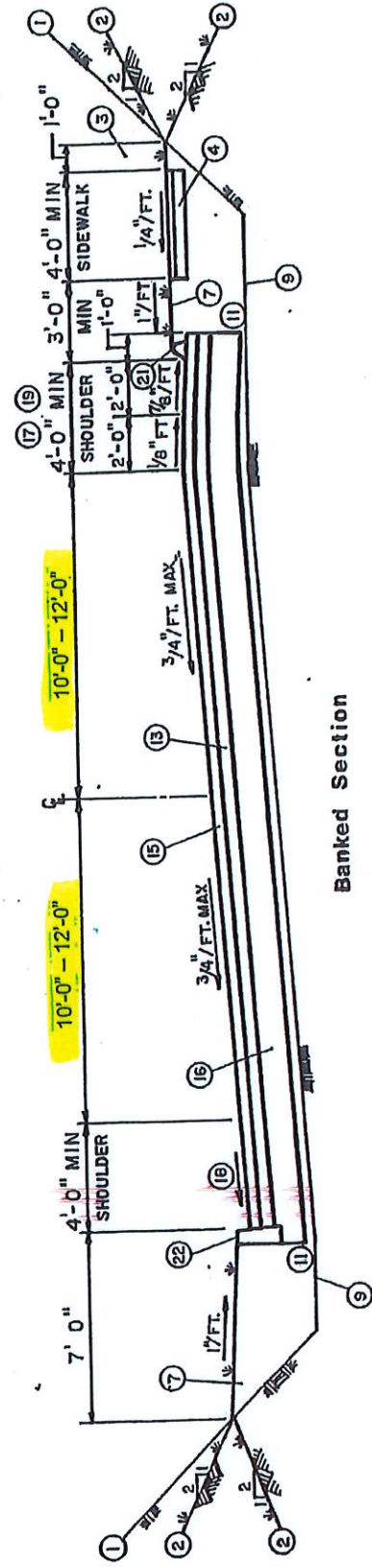
MAJOR ARTERIAL STREET



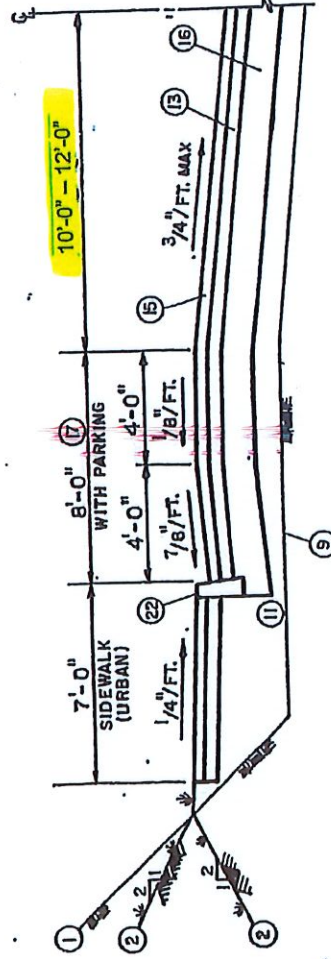
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MAJOR ARTERIAL STREET

Cont'd



Banked Section

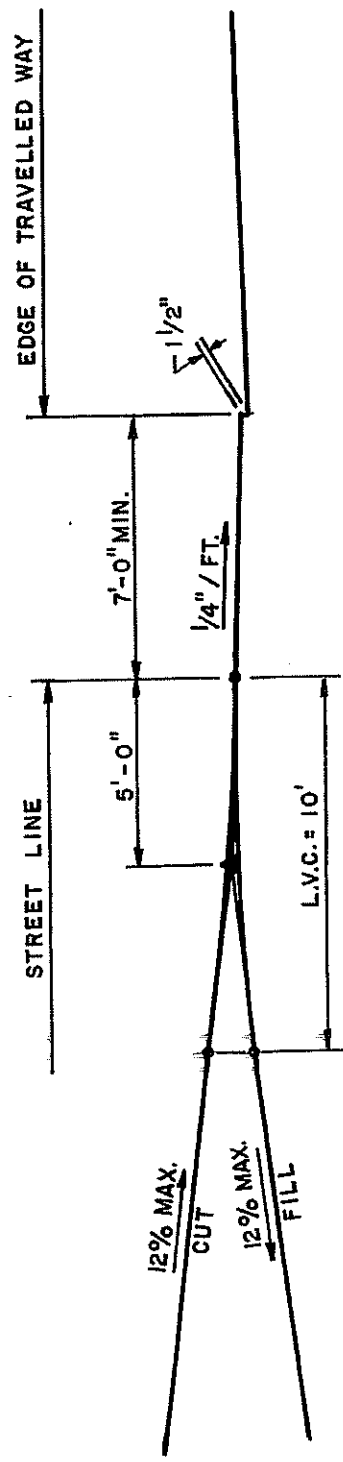


High Side Banked Section

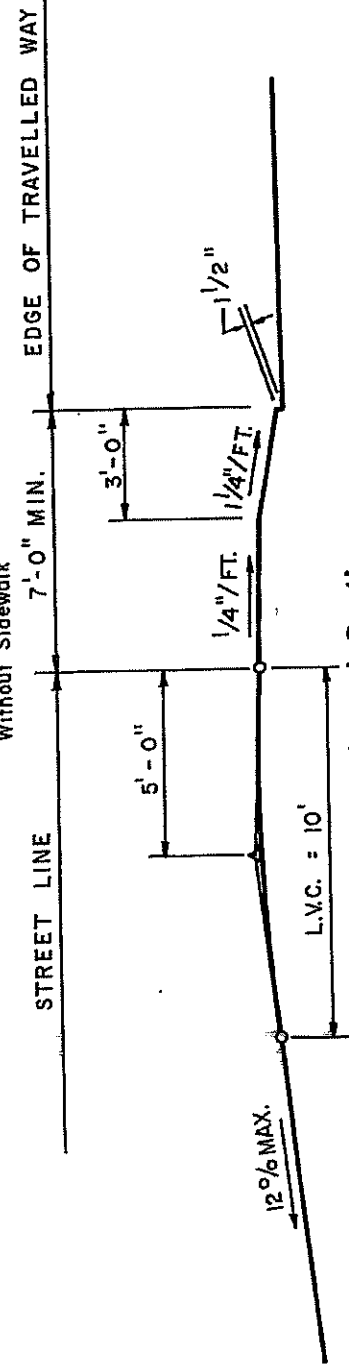
See Notes For Numbered Items

MAJOR ARTERIAL STREET

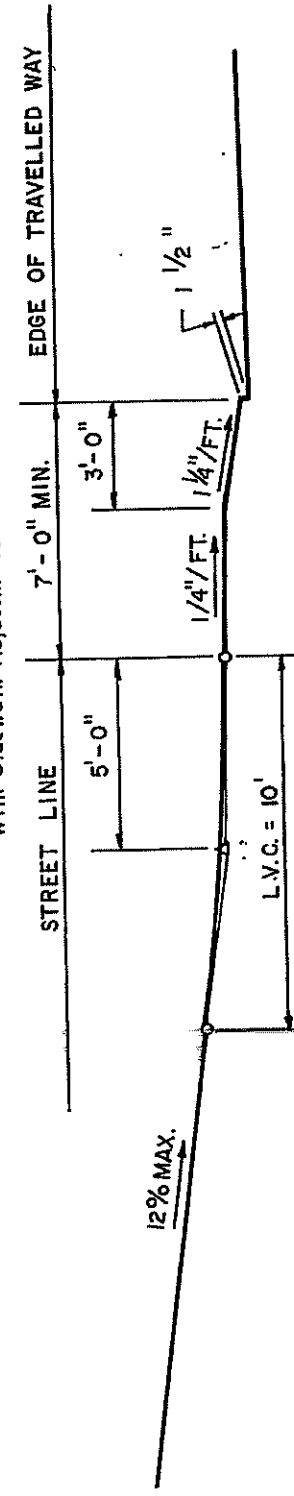
Cont'd



Normal Section
Cut & Fill
Without Sidewalk

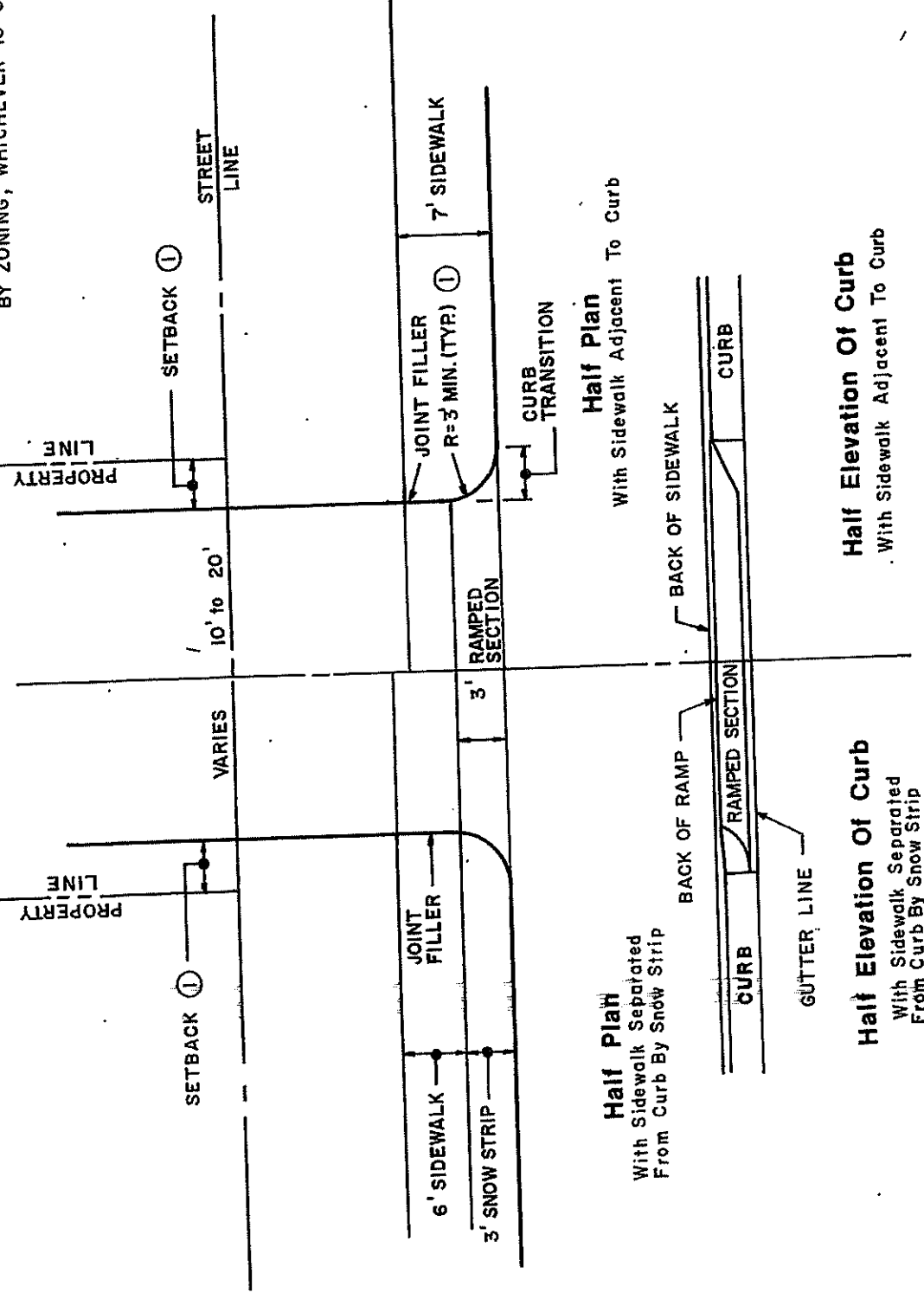


Normal Section
Fill
With Sidewalk Adjacent To Curb



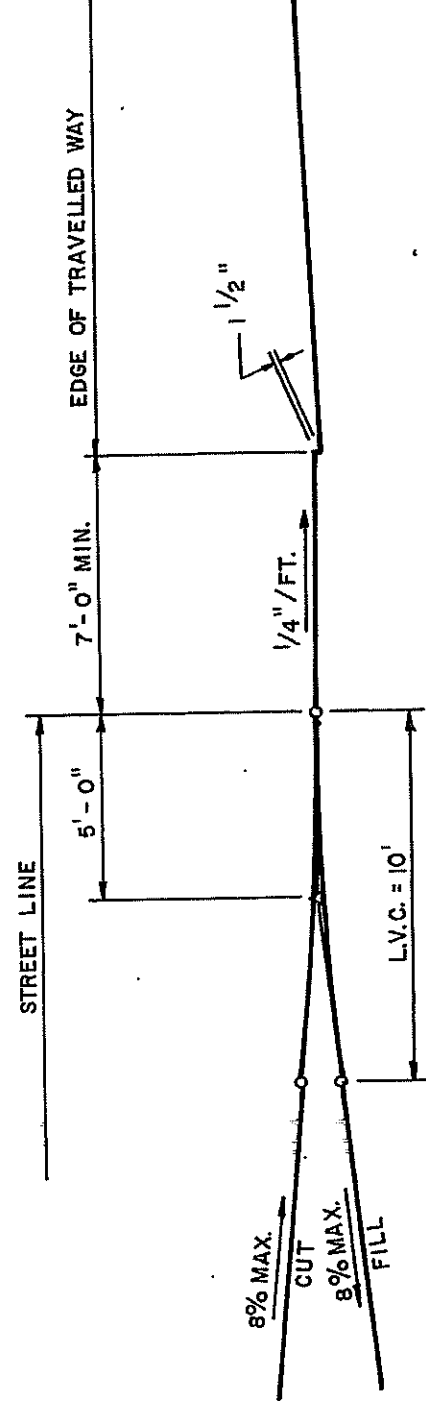
Normal Section
Cut
With Sidewalk Adjacent To Curb
Minor Driveway
PROFILES

① MINIMUM SETBACK EQUALS ACTUAL
RADIUS PROVIDED OR AS REQUIRED
BY ZONING, WHICHEVER IS GREATER.



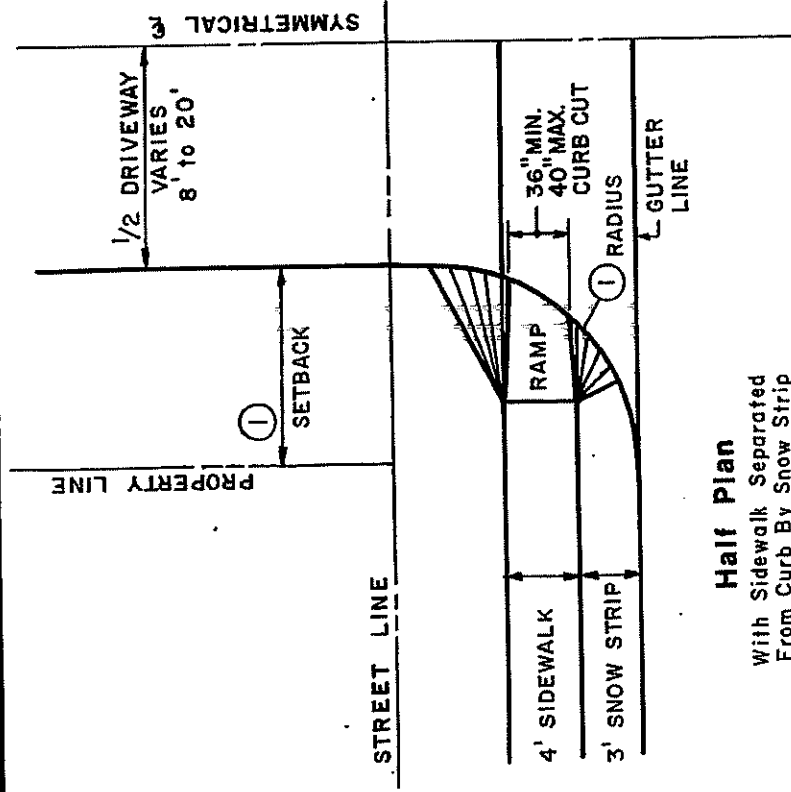
Minor Driveway

PLANS & ELEVATIONS



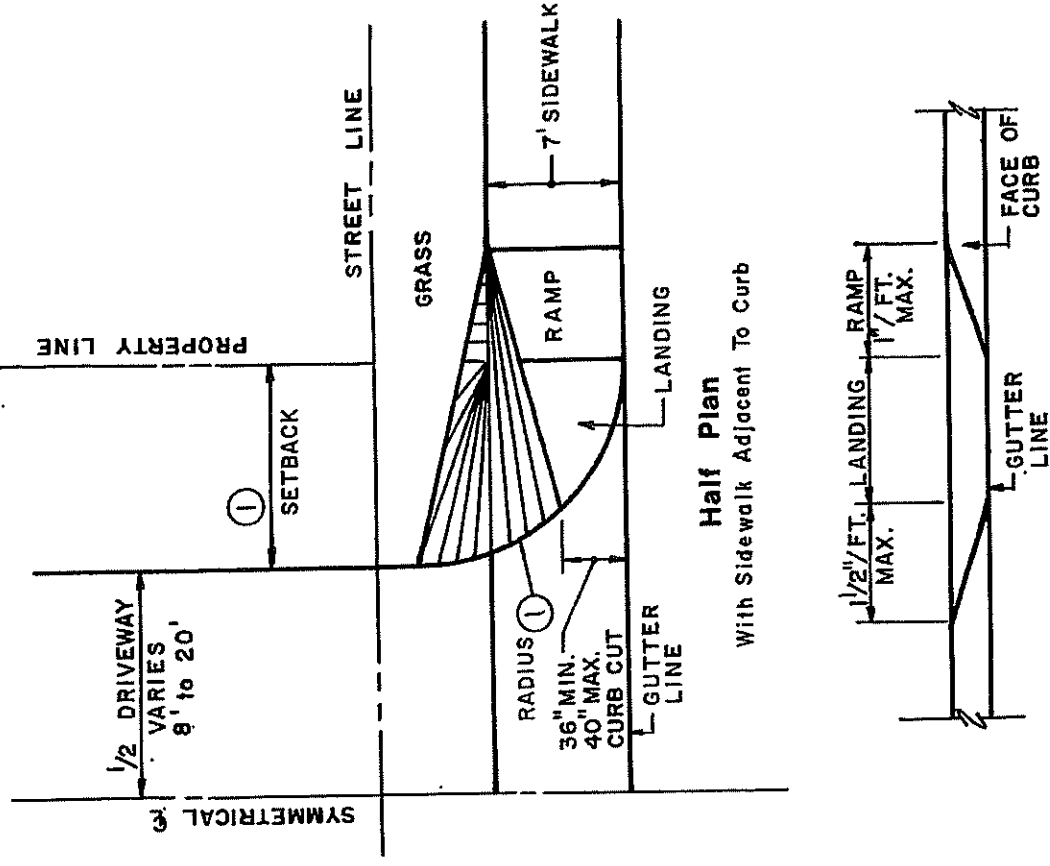
Normal Section
Cut & Fill

Major Driveway PROFILES

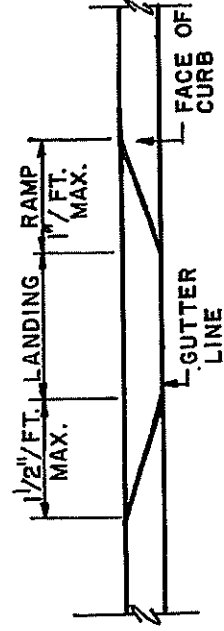


① ROADWAY CLASSIFICATION	MIN. RADIUS
LOCAL	15'
COLLECTOR	20'
ARTERIAL	25'

MINIMUM SETBACK EQUALS ACTUAL RADIUS
PROVIDED OR AS REQUIRED BY ZONING,
WHICHEVER IS GREATER.

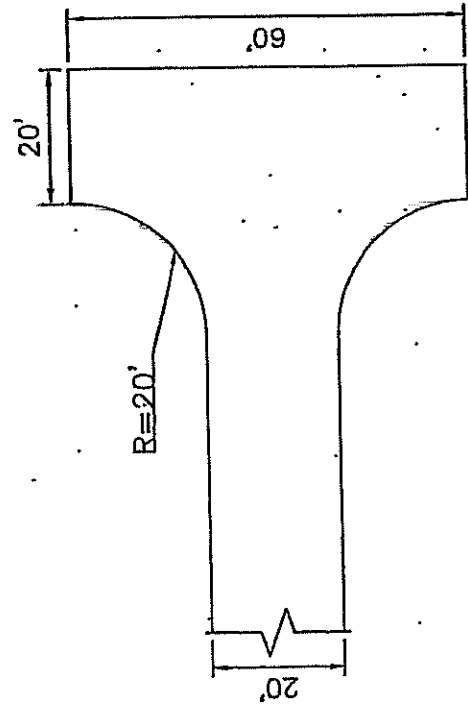


Handicapped Ramp
Elevation Of Curb

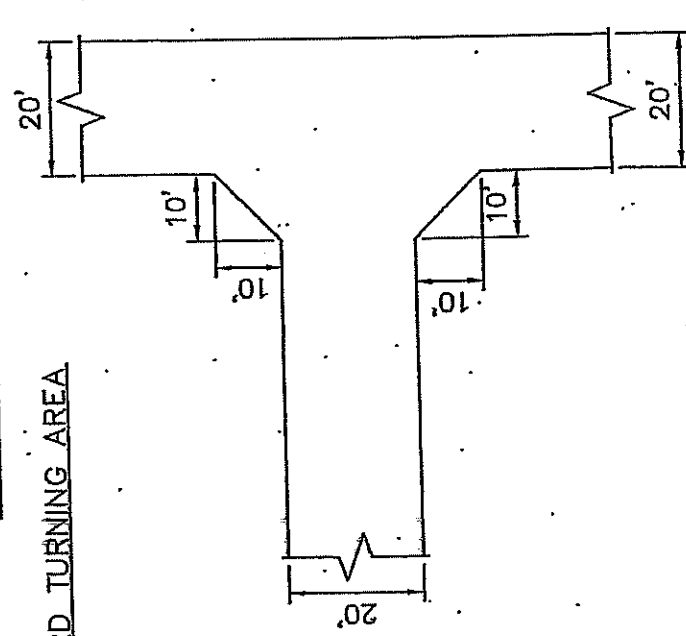
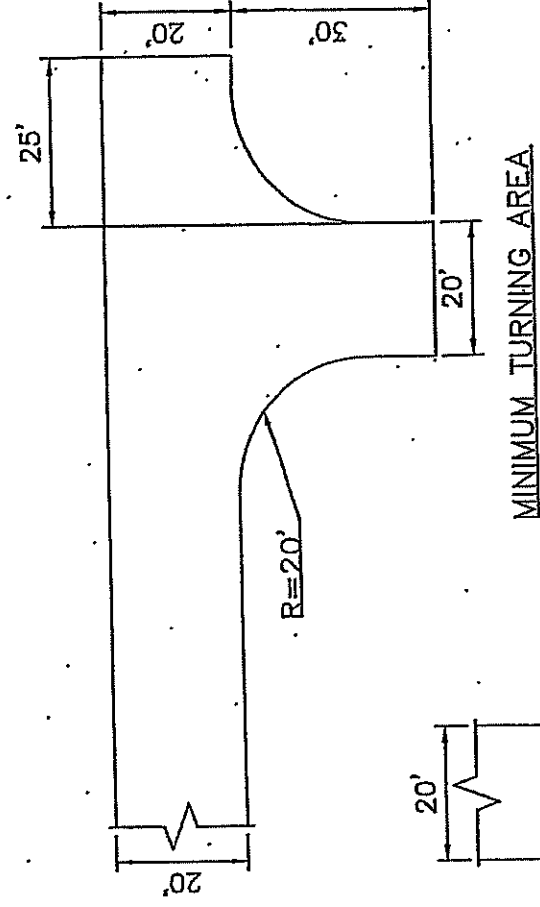


Major Driveway

PLANS & ELEVATION



STANDARD TURNING AREA



STANDARD CUT-CORNERS

ALLEYS



CITY OF NORWALK
Paul L. Sotnik, P.E.
Senior Civil Engineer
psotnik@norwalkct.org
P: 203-854-7891 / F: 203-857-0143
Norwalk City Hall
125 East Avenue, P.O. Box 5125
Norwalk, CT 06856-5125

MEMORANDUM

TO: Anthony R. Carr, P.E., CFM - Chief of Operations and Public Works
FROM: Paul L. Sotnik, P.E. - Senior Civil Engineer *PLS*
CC: Vanessa Valadares, P.E. - Principal Engineer
REF: Seir Hill Road Turnaround Easement
DATE: March 24, 2021

Prior to 1970, Seir Hill Road extended from Oakwood Avenue, north to Belden Hill Road. In approximately 1970, U.S. Route 7 was extended north to Grist Mill Road and the portion of Seir Hill Road between the north end of the currently existing Seir Hill Road and the south end of the currently existing North Seir Hill Road was terminated for the U.S. Route 7 Right-of-Way. When that was done, there was no Cul-de-Sac constructed at the termination point of the currently existing north end of Seir Hill Road.

Stone Realty Associates, LLC and Metroflor obtained site plan approval in 2018 (was modified in 2020) for the construction, use and occupancy of a 21,000+ Sq. Ft. "Innovation Center" on excess land acquired from the State of Connecticut Department of Transportation. This multi-million dollar center will provide space where artists, designers and others can gather to collaborate, design and create mock-ups of new products for Metroflor, a Norwalk-based corporation which is the national leading provider of luxury vinyl tiles. Metroflor has its offices and warehouse in structures on adjacent land which fronts on Oakwood Avenue. In addition, Stone Realty and Metroflor received approvals for a 20-space off-street parking lot, accessed from Seir Hill Road, to provide parking for the Innovation Center.

During the Department of Public Works Plan Review and Approval process, Stone Realty Associates, LLC, agreed to grant the City of Norwalk a 2,877 Sq. Ft. Turnaround Easement over the Zoning Commission approved, on-grade parking facility, at no cost to the City of Norwalk. This will provide a permitted Turnaround area for City vehicles such as D.P.W. maintenance vehicles such as plow trucks that currently does not exist.

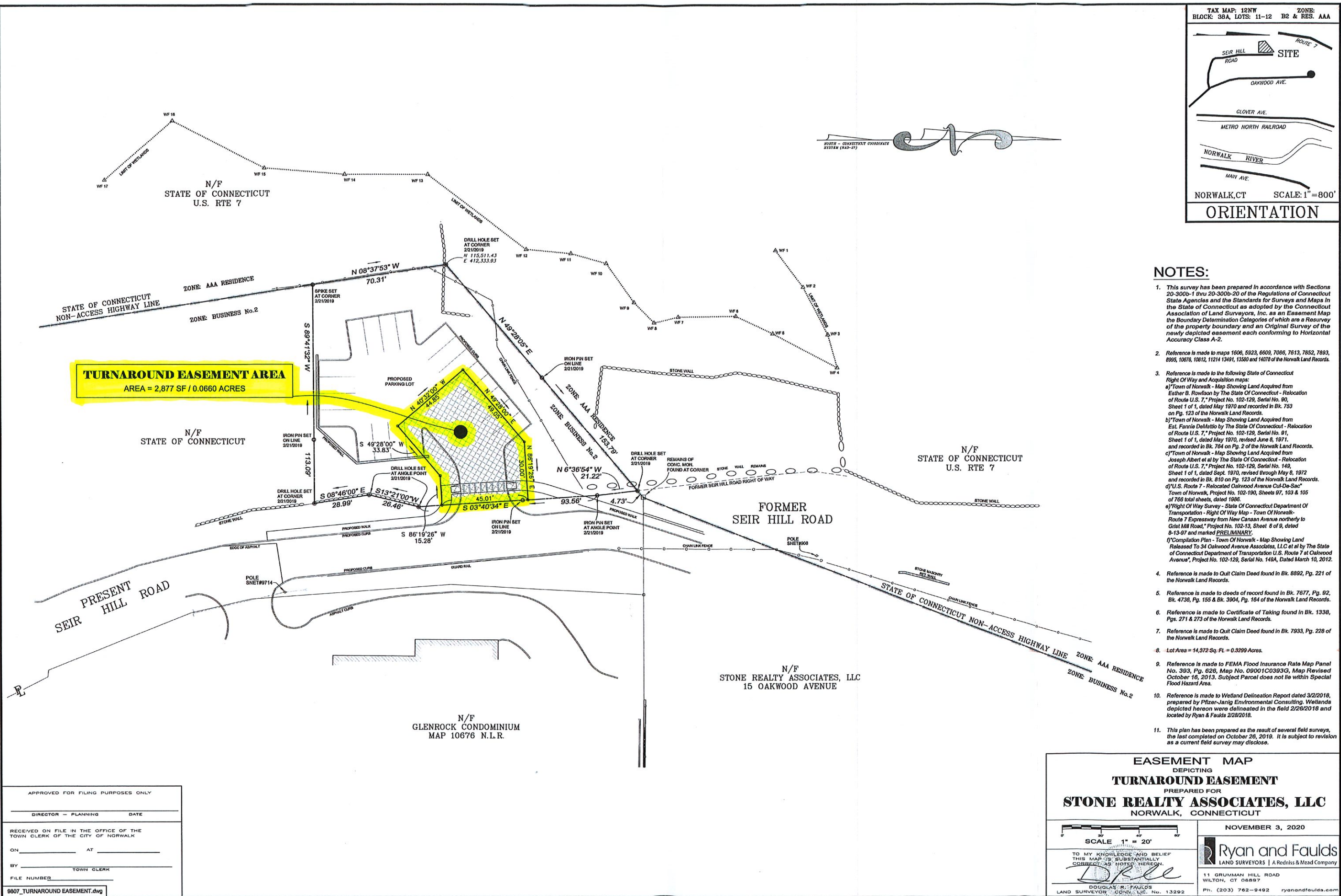
Therefore, I would like to request that the following two Items be included on the agenda for the April 6, 2021 meeting of the Public Works Committee of the Common Council for approval.

1a.) Authorize the Mayor, Harry W. Rilling, to execute any and all documents necessary to acquire a 2,877 Sq. Ft. perpetual Turnaround Easement from Stone Realty Associates, LLC located at 27 Seir Hill Road (Tax Lot 5-40-80-0) as shown on the map prepared by Ryan and Faulds Land Surveyors entitled "Easement Map Depicting Turnaround Easement Prepared For Stone Realty Associates, LLC, Norwalk, Connecticut," dated November 3, 2020, at a scale of 1" = 20' on file in the Department of Public Works.

1b.) Referral of Item 1a. to the Planning Commission for a Report and Recommended Action pursuant to Conn. Gen. Stat. § 8-24.

I have attached a copy of the Easement Map and the proposed Turnaround Easement and Maintenance Agreement for your reference.

If you have any questions, please do not hesitate to contact me.



TURNAROUND EASEMENT AND MAINTENANCE
AGREEMENT

WHEREAS, Stone Realty Associates, LLC, with a principal place of business at 29 Oakwood Avenue, Norwalk, CT ("Declarant") is the owner of a certain piece or parcel of land situated in the City of Norwalk, County of Fairfield and State of Connecticut, known as Tax Lot 80 in Block 40 of the Fifth Taxing District located at 27 Seir Hill Road (hereinafter the "Property") as shown on a certain map or plan titled "Property and Topographic Survey 15 Oakwood Avenue Prepared for Stone Realty Associates, LLC (Sheets 1 of 2 and 2 of 2)" dated October 25, 2017 revised to 5/3/20 prepared by Ryan and Faulds Land Surveyors, LLC; and

WHEREAS, the Zoning Commission of the City of Norwalk, Connecticut approved the use of the Property as an on-grade, off-street parking facility (Application #3-20-SPR) to be used in connection with other adjoining property owned by the Declarant at 24 Oakwood Avenue, Norwalk, Connecticut; and

WHEREAS, the Declarant has agreed to provide to its invitees, employees and guests, and to the City of Norwalk Department of Public Works (hereinafter "DPW"), the City of Norwalk Fire Department and other city emergency services departments, an area within the Property as a turnaround for vehicles; and

WHEREAS, said easement area is depicted and more particularly described on a map titled "Easement Map Depicting Turnaround Easement Prepared for Stone Realty Associates, LLC, Norwalk, Connecticut Scale: 1" = 20' November 3, 2020" prepared by Ryan & Faulds, LLC ("Easement Map"), which map is on file in the office of the Town Clerk of the City of Norwalk as Map No. _____; and

WHEREAS, the Declarant needs to identify and confirm the rights and responsibilities of the parties hereto with respect to the turnaround easement area,

NOW THEREFORE, the Declarant hereby declares the following easement and maintenance agreement:

1. There is hereby created a Turnaround Easement Area in, to, across and from 27 Seir Hill Road (as shown on the Easement Map) for the benefit of the Declarant and its invitees, employees and guests and the City of Norwalk DPW, fire department and other city emergency service departments. This easement shall run with the land and shall bind the Declarant, its successors and assigns, forever.
2. Said easement shall be approximately 2,877+/- sq.ft./0.0660+/- acres on the Property ("Turnaround Easement Area"), as more particularly shown and described on said Easement Map.
3. Said easement shall be used in common by Declarant, its employees, invitees and guests and by the City of Norwalk DPW, fire department and other municipal emergency service departments. The Declarant and DPW, fire department and other city emergency service departments, shall avoid interference with the rights of each other within said Turnaround Easement Area. Said Turnaround Easement Area shall only be used by

DPW, the fire department and other city emergency services departments for the purposes of vehicle turnaround and not be used for any other commercial or other purposes, or for the storage of any trash or other articles thereon.

4. Neither DPW, the fire department or any other city emergency services departments shall obstruct or interfere with the use of the Turnaround Easement Area by the Declarant, nor shall any other use by DPW, the fire department or other city emergency services department, establish or create a nuisance or annoyance to Declarant.
5. All repairs and maintenance of the Turnaround Easement Area shall be the responsibility of the Declarant. The Declarant shall be obliged at all times: a) to maintain the surface of the driveway reasonably flat and smooth; b) to keep the driveway free from all kinds of obstacles, lest the access become obstructed to other persons lawfully using it, including emergency vehicles; and c) in wintertime to keep the easement area cleared of dangerous accumulations of ice and snow by plowing, and/or sanding as necessary.
6. The Declarant, its successors and assigns, shall have responsibility for contracting for said maintenance, and shall make reasonable arrangements as it deems appropriate to assure that said maintenance is performed. The total costs of said repairs and maintenance shall be borne by the Declarant.
7. The Declarant shall keep and maintain liability insurance in the minimum amount of \$100,000.00/\$300,000.00, property damage in the minimum amount of \$125,000.00 and medical payment insurance in the minimum amount of \$5,000.00 to cover the use of said turnaround easement area by DPW, the fire department and/or any other city emergency service department, their employees and other staff.
8. This Declaration may be modified or amended only by an instrument in writing, made and executed by the Declarant and recorded in the Norwalk Land Records. The Declarant reserves the right, at its reasonable discretion, but upon reasonable notice to DPW, to further reasonably restrict the use of this Turnaround Easement Area should use by DPW, the fire department or any other city emergency services department substantially overburden or overuse the Turnaround Easement Area.
9. Any unreasonable use of the turnaround easement area by DPW, the fire department or any other city emergency services department or others, to the detriment of the Declarant, shall be prohibited. The Declarant reserves the right, at its reasonable discretion, but upon reasonable advance notice to DPW, to prohibit future use of the Turnaround Easement Area by any person, individual, entity or other who, after being notified of such unreasonable use, fails to cease and desist from using the Turnaround Easement Area in such unreasonable manner and contrary to the terms of this Easement.
10. This instrument shall be construed in accordance with the laws of the State of Connecticut.
11. The invalidity of any one provision of this Easement shall not void or declare invalid the entire Easement.

IN WITNESS WHEREOF DECLARANT has executed this EASEMENT FOR TURNAROUND
AND MAINTENANCE AGREEMENT this ____ day of _____ 2021.

WITNESS:

Stone Realty Associates, LLC

By _____

Its _____
Duly Authorized

STATE OF CONNECTICUT
COUNTY OF FAIRFIELD

ss:
Personally appeared _____, the duly authorized
_____ of Stone Realty Associates, LLC, signer and sealer of the foregoing
instrument and acknowledged this as their free act and deed before me

Commissioner of Superior Court



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
2800 BERLIN TURNPIKE, P.O. BOX 317546
NEWINGTON, CONNECTICUT 06131-7546



March 30, 2021

The Honorable Harry W. Rilling
Mayor
City of Norwalk
125 East Avenue
Norwalk, Connecticut 06851

Dear Mayor Rilling:

Subject: Project Authorization Letter – Construction
Walk Bridge Program
Advance Utility Project
City of Norwalk
State Project No. 0301-0515/515NP
Master Agreement No. 11.29-02 (12)
CORE ID No.13DOT027AA

The State of Connecticut, Department of Transportation (DOT), and the City of Norwalk (Municipality) have an existing Master Municipal Agreement for Construction Projects (Master Agreement). This Project Authorization Letter (PAL) is issued pursuant to the Master Agreement. The capitalized terms used in this PAL are the same as those used in the Master Agreement.

The DOT is responsible for the Administration of the Construction Project and the inspection services during construction. These services may include, but are not limited to, inspection, material testing, contract administrative oversight, and liaison with other governmental agencies to ensure satisfactory adherence to state requirements.

As part of the Walk Bridge Program's Advanced Utilities Project, the DOT is undergrounding utilities on East Avenue from Winfield Street to Fort Point Street in the City of Norwalk. This undergrounding is required as a preceding project for replacement of the New Haven Line Railroad Bridge over East Avenue, known as the East Avenue Bridge Replacement. The Municipality has incorporated municipal work into the Advanced Utilities Project extending the undergrounding of overhead utilities on East Avenue from Fort Point Street to Olmstead Place. The municipal work also includes undergrounding communication duct banks for private utility companies from Winfield Street to Fort Point Street.

The DOT will administer the construction for the municipal undergrounding on East Avenue. The Municipality will reimburse the DOT for the cost of the construction and inspection of the municipal undergrounding work. The Municipality is responsible to provide Design Services During Construction for the municipal undergrounding work.

The Municipality has agreed to provide roadway sweeping services for the entire limits of the project for the duration of the construction to address the removal of earth and other dust producing materials from paved surfaces for the purpose of allaying dust conditions. The Municipality shall have equipment capable of efficiently sweeping up earth and other materials from paved surfaces available and maintain this equipment in an operable condition. This equipment shall include suitable provisions for the application of water ahead of the sweeping brooms to prevent dusting, for the pickup, internal storage, and removal of sweepings, and for the cleaning of

areas of heavy accumulation beyond the capacity of the sweeper. The sweeping operations shall be under the direction of the DOT at all times. Sweeping shall take place at locations and times as directed by the DOT.

The Municipality shall be responsible for the total cost of the municipal work in the amount of Seven Million Five Hundred Thousand Dollars (\$7,500,000). In addition, any reimbursement for actual expenditures will be in accordance with the terms of the Master Agreement. If costs for the project exceed this amount, the Municipality will be informed and shall provide the additional cost. Enclosed is the estimated engineering cost breakdown for construction project activities.

The Municipalities overall cost of the project will be divided into three demand deposits.

The first Demand Deposit in the amount of Three Million Seven Hundred Fifty Thousand Dollars and No Cents (\$3,750,000) is due to the DOT for the Municipality’s proportionate share of the projected costs. The Municipality shall receive an invoice for the Demand Deposit from the DOT’s Revenue Accounting Unit once the Written Acknowledgement of the PAL is received by the DOT.

The second Demand Deposit in the amount of One Million Eight Hundred Seventy-Five Thousand Dollars and No Cents (\$1,875,000) will be due to the DOT for the Municipality’s proportionate share of the projected costs. The Municipality shall receive an invoice for the second Demand Deposit from the DOT’s Revenue Accounting Unit on July 1, 2022.

The third Demand Deposit in the amount of One Million Eight Hundred Seventy-Five Thousand Dollars and No Cents (\$1,875,000) will be due to the DOT for the Municipality’s proportionate share of the projected costs. The Municipality shall receive an invoice for the third Demand Deposit from the DOT’s Revenue Accounting Unit on July 1, 2023.

Please indicate your concurrence with the PAL by signing below on or before April 28, 2021 and return a copy to the Project Manager listed below at the letterhead address. Submission of the Written Acknowledgement of the PAL by fax or electronic transmission is acceptable. The Master Agreement and the PAL will be incorporated into one another in their entirety and contain the legal binding obligations of the Municipality with respect to the Construction Project. If you have questions, please contact Mr. John Hanifin, Project Manager, at (860) 594-2899 or at John.Hanifin@ct.gov.

Very truly yours,

 Digitally signed by James Fallon, P.E.
Date: 2021.03.30 09:58:48-04'00'

James A. Fallon, P.E.
Assistant Chief Engineer
Bureau of Engineering and Construction

Enclosure

MUNICIPALITY’S ACKNOWLEDGEMENT OF PAL

Concurred By: _____ Date: _____
The Honorable Harry W. Rilling
Mayor

cc: Anthony R. Carr, PE, CFM, Department of Public Works., City of Norwalk

PAL ATTACHMENT
STATE PROJECT NO. 0301-0515
ESTIMATED CONSTRUCTION COSTS

Municipality’s Cost for Municipal Undergrounding **ONLY**

A.	Contract Items and Contingencies	\$7,000,000 ⁽¹⁾
B.	Incidentals to Construction – Municipal Project Administration	\$ 0
C.	Incidentals to Construction – Municipal Design Services During Construction	\$ 0
D.	Incidentals to Construction – Municipal Airport Operation Safety	\$ 0
E.	Incidentals to Construction – DOT Other Engineering Services During Construction	\$ 0
F.	Incidentals to Construction – DOT Project Inspection Services	\$ 500,000 ⁽²⁾
G.	Total Construction Cost (A+B+C+D+E+F)	\$ 7,500,000

⁽¹⁾ Fee rounded
⁽²⁾ Fee rounded

John. D. Hanifin/jh

bcc: Scott A. Hill
James A. Fallon
Theodore H. Nezames
Bart Sweeney- John Hanifin
Mark M. Hayes-Scott Courtemanche
Christian F. Davis
DOT.FedBilling@ct.gov
Vincent P. Hogan- (note 3 demand deposits)
Laenny Fraticelli
Darren Meyers-Kelly Cain
DOT.EcyernalAudits@ct.gov
John D. Hanifin
Central Files



To: Anthony R. Carr, Chief of Operations and Public Works
Chris Torre, Superintendant of Operations
Dilene Byrd, Administrative Assistant
Monique Cipriano, Administrative Assistant

From: Jessica C. Paladino, Waste Programs Manager

Date: March 11, 2021

Re: MSW and Recycling Report - February 2021

MSW Collection and Disposal				
Municipal Solid Waste (MSW)	Previous FY: Feb-20	Current FY: Feb-21	Change	FY 20/21 Cumulative
Curbside tonnage	1,063.35	1,076.51	1.2%	10,726.41
MSW tonnage out	1,657.72	1,559.34	-5.9%	16,664.88
Transfer station operating fee	\$69,708.33	\$70,958.33	1.8%	\$567,666.64
Transport and disposal fee	\$150,852.52	\$145,018.62	-3.9%	\$1,549,833.84
Curbside collection fee	\$98,403.50	\$101,355.67	3.0%	\$810,845.36
Total operating costs (less curbside)	\$220,560.85	\$215,976.95	-2.1%	\$2,117,500.48

MSW Consolidated Budget	
FY 19/20 Budget	\$4,334,268.00
Amount expended	\$2,928,345.84
Percent remaining	32.4%

Recycling Collection				
Recycling Collection	Previous FY: Feb-20	Current FY: Feb-21	Change	FY 20/21 Cumulative
Curbside tonnage	619.84	633.78	2.2%	6,448.23
Transfer station tonnage	24.45	21.68	-11.3%	281.09
Total monthly tonnage	644.29	655.46	1.7%	6,729.32
Curbside collection fee	\$95,524.17	\$98,389.92	3.0%	\$787,119.36

Recycling Budget	
FY 19/20 Budget	\$1,180,679.00
Amount expended	\$787,119.36
Percent Remaining	33.3%

MSW and Recycling Revenues				
MSW and Recycling Revenues	Previous FY: Feb-20	Current FY: Feb-21	Change	FY 20/21 Cumulative
Transfer station tip fees	\$39,526.60	\$35,397.95	-10.4%	\$351,323.00
Recycling revenue (curbside)	\$10,847.20	\$11,091.15	2.2%	\$112,844.03
Recycling revenue (T.S.)	\$427.88	\$379.40	-11.3%	\$4,919.08
Total revenues	\$50,801.68	\$46,868.50	-7.7%	\$469,086.10

Fiscal Year	Curbside MSW Tons	Total MSW Tons	Curbside Recycling Tons	Total Recycling Tons
FY 20-21 (July 2020 - Feb. 2021)	10,726.41	16,664.88	6,448.23	6,729.32
FY 19-20	15,917.70	23,567.57	9,203.07	9,611.00
FY 18-19	15,320.33	23,688.98	8,770.30	9,230.93
FY 17-18	14,902.19	22,411.06	8,457.13	8,934.25

	Curbside Recycling Collection		
	Base Fee	Incentive Fee	TOTAL FEE
FY 17-18	\$982,263.00	\$98,226.00	\$1,080,489.00
FY 18-19	\$1,011,730.00	\$101,173.00	\$1,112,903.00
FY 19-20	\$1,042,082.00	\$104,208.00	\$1,146,290.00
FY 20-21	\$1,073,345.00	\$107,334.00	\$1,180,679.00
FY 21-22	\$1,105,545.00	\$110,555.00	\$1,216,100.00
FY 22-23	\$1,138,712.00	\$113,871.00	\$1,252,583.00

Revenue Sharing: \$17.50 per Ton

	Transfer Station Operations	
	TS Operations Fee	Transport & Disposal Fee
	\$802,500.00	\$88.00
	\$819,500.00	\$89.00
	\$836,500.00	\$91.00
	\$851,500.00	\$93.00
	\$868,500.00	\$95.00
	\$885,500.00	\$97.00

	Curbside Garbage Collection
	Annual Fee
	\$1,113,057.00
	\$1,146,449.00
	\$1,180,842.00
	\$1,216,268.00
	\$1,252,756.00
	\$1,290,338.00