ADDENDUM NUMBER 1

to the "BID DOCUMENTS" for

RECONSTRUCTION OF HART STREET

STATE PROJECT NO. 88-185

FEDERAL AID PROJECT NO. 1088(112)

BID NO. 3879

ISSUED BY:

CITY OF NEW BRITAIN, CONNECTICUT

HONORABLE ERIN STEWART - MAYOR

November 23, 2016

Prospective bidders and all concerned are herewith informed that the following changes are made part of the Bid Documents for the subject project.

The following amendments, corrections, and additions are hereby made to the Bid Documents for the **RECONSTRUCTION OF HART STREET, Bid No. 3879:**

1) Delete Special Provision Section 1.08 – Prosecution and Progress, in its entirety, and replace with the attached Section 1.08 – Prosecution and Progress.

2) Delete Special Provision ITEM NO. 0971001A – Maintenance and Protection of Traffic, in its entirety, and replace with the attached ITEM NO. 0971001A – Maintenance and Protection of Traffic.

3) Add the attached Special Provisions:

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
0406002A	Temporary Pavement	SY	1,300
1302047A	Reset Gate Boxes	EA	15

4) Delete Form of Bid pages BID-1 through BID-12 and replace with the attached Form of Bid pages BID-1 through BID-12.

5) Delete the following sheets and replace with the added sheets as noted below:

DELETE	ADD
4.1	4.1.A1
10.1 – 10.5	10.1.A1 – 10.5.A1
11.1 – 11.5	11.1.A1 – 11.5.A1
14.1 – 14.2	14.1.A1 – 14.2.A1
14.7 – 14.8	14.7.A1 – 14.8.A1
14.13	14.13.A1
14.15	14.15.A1
14.21	14.21.A1
14.30	14.30.A1
14.33 – 14.34	14.33.A1 – 14.34.A1
14.37	14.37.A1
14.41 – 14.42	14.41.A1 – 14.42.A1
14.46	14.46.A1
14.49 – 14.50	14.49.A1 – 14.50.A1
14.56 – 14.57	14.56.A1 – 14.57.A1
14.62 – 14.63	14.62.A1 – 14.63.A1

These sheets are being revised to address utility conflicts with the proposed storm drainage system.

SECTION 1.08 - PROSECUTION AND PROGRESS

Article 1.08.03 - Prosecution of Work - Add the following:

Construction activities shall be performed in a manor to minimize impact to vehicular and pedestrian traffic operations. The Contractor shall submit a construction sequence to the Engineer for review and approval prior to the start of construction.

The Contractor shall limit his/her operations as follows:

- The Contractor shall limit his/her operations to one block or 1,000 linear feet of roadway (whichever is smaller)

- During roadway reconstruction, each section must be paved with the intermediate course of bituminous pavement prior to the end of the work week

The Contractor may formally request permission to work outside these limitations to the Engineer. If approval from the Engineer is granted, permission may be revoked at any time due to lack of protection of traffic, proper traffic pattern, poor traffic operations or other concerns.

Article 1.08.04 - Limitation of Operations - Add the following:

In order to provide for traffic operations as outlined in the Special Provision "Maintenance and Protection of Traffic," the Contractor will not be permitted to perform any work which will interfere with the described traffic operations on all project roadways as follows:

HART STREET

The Contractor will not be allowed to perform any work that will interfere with existing traffic operations on:

- Monday through Friday between 12:00 A.M. (midnight) and 7:00 A.M. & between 4:00 P.M. and 12:00 A.M. (midnight)
- Saturday and Sunday

- All City holidays

An ADA compliant pedestrian route through the construction limits must be maintained and protected along at least one side of the street at all times.

Access to all properties and businesses must be maintained at all times unless prior arrangements are made with the property owners.

VINE STREET

The Contractor will not be allowed to perform any work that will interfere with existing traffic operations on:

- Monday through Friday between 12:00 A.M. (midnight) and 7:00 A.M. & between 4:00 P.M. and 12:00 A.M. (midnight)
- Saturday and Sunday
- All City holidays

An ADA compliant pedestrian route through the construction limits must be maintained and protected along at least one side of the street at all times.

Access to all properties and businesses must be maintained at all times unless prior arrangements are made with the property owners.

All Other Roadways

The Contractor will not be allowed to perform any work that will interfere with existing traffic operations on:

- Monday through Friday between 12:00 A.M. (midnight) and 7:00 A.M. & between 4:00 P.M. and 12:00 A.M. (midnight)
- Saturday and Sunday
- All City holidays

Other Limitations

The field installation of a signing pattern shall constitute interference with one lane of traffic in each direction and shall not be allowed except during the allowable periods.

ITEM NO. 0971001A – MAINTENANCE AND PROTECTION OF TRAFFIC

Article 9.71.01 – Description is supplemented by the following:

The Contractor shall maintain and protect traffic as described by the following and as limited in the Special Provision "Prosecution and Progress":

HART STREET

The Contractor shall maintain and protect existing traffic operations.

Excepted therefrom will be those periods, during the allowable periods, when the Contractor is actively working, at which time the Contractor shall be allowed to maintain and protect at least one lane of traffic in each direction, each lane on a travel path not less than 11 feet in width.

Excepted therefrom will be those periods, during the allowable periods, when the Contractor is actively working, at which time the Contractor shall be allowed to maintain and protect at least an alternating one-way traffic operation, on a travel path not less than 11 feet in width. The length of the alternating one-way operation shall not exceed 300 feet in length and there shall be no more than one alternating one-way operation within the project limits without prior approval from the Engineer.

VINE STREET

The Contractor shall maintain and protect existing traffic operations.

Excepted therefrom will be those periods, during the allowable periods, when the Contractor is actively working, at which time the Contractor shall be allowed to maintain and protect at least one lane of traffic in each direction, each lane on a travel path not less than 11 feet in width.

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All Other Roadways

The Contractor shall maintain and protect existing traffic operations.

Excepted therefrom will be those periods, during the allowable periods, when the Contractor is actively working, at which time the Contractor shall be allowed to maintain and protect at least one lane of traffic in each direction, each lane on a paved travel path not less than 11 feet in width.

Excepted therefrom will be those periods, during the allowable periods, when the Contractor is actively working, at which time the Contractor shall maintain and protect at least an alternating one-way traffic operation, on a paved travel path not less than 11 feet in width. The length of the alternating one-way traffic operation shall not exceed 300 feet and there shall be no more than one alternating one-way traffic operation within the project limits without prior approval of the Engineer.

Commercial and Residential Driveways

The Contractor shall maintain access to and egress from all commercial and residential driveways throughout the project limits. The Contractor will be allowed to close said driveways to perform the required work during those periods when the businesses are closed, unless permission is granted from the business owner to close the driveway during business hours. If a temporary closure of a residential driveway is necessary, the Contractor shall coordinate with the owner to determine the time period of the closure.

Article 9.71.03 - Construction Method is supplemented as follows:

General

Unpaved travel paths will only be permitted for areas requiring full depth and full width reconstruction, in which case, the Contractor will be allowed to maintain traffic on processed aggregate for a period no longer than the end of the work week. The unpaved section shall be the full width of the road and perpendicular to the travel lanes. Opposing traffic lane dividers shall be used as a centerline.

The Contractor is required to delineate any raised structures within the travel lanes, so that the structures are visible day and night, unless there are specific contract plans and provisions to temporarily lower these structures prior to the completion of work.

The Contractor shall schedule operations so that pavement removal and roadway resurfacing shall be completed full width across a roadway section by the end of the work week, or as directed by the Engineer.

When the installation of all intermediate courses of bituminous concrete pavement is completed for the entire roadway, the Contractor shall install the final course of bituminous concrete pavement.

When the Contractor is excavating adjacent to the roadway, the Contractor shall provide a 3-foot shoulder between the work area and travel lanes, with traffic drums spaced a maximum of 25 feet. At the end of the workday, if the vertical drop-off exceeds 3 inches, the Contractor shall provide a temporary traversable slope of 4:1 or flatter that is acceptable to the Engineer.

If applicable, when an existing sign is removed, it shall be either relocated or replaced by a new sign during the same working day.

The Contractor shall not store any material on-site which would present a safety hazard to motorists or pedestrians (e.g. fixed object or obstruct sight lines).

The field installation of a signing pattern shall constitute interference with existing traffic operations and shall not be allowed, except during the allowable periods.

Existing Signing

The Contractor shall maintain all existing signs throughout the project limits during the duration of the project. The Contractor shall temporarily relocate signs and sign supports as many times as deemed necessary, and install temporary sign supports if necessary and as directed by the Engineer.

Requirements for Winter

The Contractor shall schedule a meeting with representatives from the City including the City Engineer, Project Manager, Project Inspector, and representative(s) from the Hospital of Central Connecticut to determine what interim traffic control measures the Contractor shall accomplish for the winter to provide safety to the motorists and permit adequate snow removal procedures. This meeting shall be held prior to October 31 of each year and will include, but not be limited to, discussion of the status and schedule of the following items: lane and shoulder widths, pavement restoration, traffic signal work, pavement markings, and signing.

Signing Patterns

The Contractor shall erect and maintain all signing patterns in accordance with the traffic control plans contained herein. Proper distances between advance warning signs and proper taper lengths are mandatory.

Pavement Markings

The Contractor will be responsible for the furnishing of all pavement markings, either temporary or permanent. The Contractor shall repaint roadways as directed by the Engineer. This work shall be paid for under the appropate pavement marking items.

The Contractor is alearted that all pavement markings must be in place by the end of the work day for any roadway to be opened on that day.

TRAFFIC CONTROL DURING CONSTRUCTION OPERATIONS

The following guidelines shall assist field personnel in determining when and what type of traffic control patterns to use for various situations. These guidelines shall provide for the safe and efficient movement of traffic through work zones and enhance the safety of work forces in the work area.

TRAFFIC CONTROL PATTERNS

Traffic control patterns shall be used when a work operation requires that all or part of any vehicle or work area protrudes onto any part of a travel lane or shoulder. For each situation, the installation of traffic control devices shall be based on the following:

Speed and volume of traffic
Duration of operation
Exposure to hazards

Traffic control patterns shall be uniform, neat and orderly so as to command respect from the motorist.

In the case of a horizontal or vertical sight restriction in advance of the work area, the traffic control pattern shall be extended to provide adequate sight distance for approaching traffic.

If a lane reduction taper is required to shift traffic, the entire length of the taper should be installed on a tangent section of roadway so that the entire taper area can be seen by the motorist.

Any existing signs that are in conflict with the traffic control patterns shall be removed, covered, or turned so that they are not readable by oncoming traffic.

When installing a traffic control pattern, a Buffer Area should be provided and this area shall be free of equipment, workers, materials and parked vehicles.

Typical traffic control plans 19 through 25 may be used for moving operations such as line striping, pot hole patching, mowing, or sweeping when it is necessary for equipment to occupy a travel lane.

Traffic control patterns will not be required when vehicles are on an emergency patrol type activity or when a short duration stop is made and the equipment can be contained within the shoulder. Flashing lights and appropriate trafficperson shall be used when required.

Although each situation must be dealt with individually, conformity with the typical traffic control plans contained herein is required. In a situation not adequately covered by the typical traffic control plans, the Contractor must contact the Engineer for assistance prior to setting up a traffic control pattern.

PLACEMENT OF SIGNS

Signs must be placed in such a position to allow motorists the opportunity to reduce their speed prior to the work area. Signs shall be installed on the same side of the roadway as the work area. On multi-lane divided highways, advance warning signs shall be installed on both sides of the highway. On directional roadways (on-ramps, off-ramps, one-way roads), where the sight distance to signs is restricted, these signs should be installed on both sides of the roadway.

ALLOWABLE ADJUSTMENT OF SIGNS AND DEVICES SHOWN ON THE TRAFFIC CONTROL PLANS

The traffic control plans contained herein show the location and spacing of signs and devices under ideal conditions. Signs and devices should be installed as shown on these plans whenever possible.

The proper application of the traffic control plans and installation of traffic control devices depends on actual field conditions.

Adjustments to the traffic control plans shall be made only at the direction of the Engineer to improve the visibility of the signs and devices and to better control traffic operations. Adjustments to the traffic control plans shall be based on safety of work forces and motorists, abutting property requirements, driveways, side roads, and the vertical and horizontal curvature of the roadway.

The Engineer may require that the traffic control pattern be located significantly in advance of the work area to provide better sight line to the signing and safer traffic operations through the work zone.

Table I indicates the minimum taper length required for a lane closure based on the posted speed limit of the roadway. These taper lengths shall only be used when the recommended taper lengths shown on the traffic control plans cannot be achieved.

TABLE I – MINIMUM TAPER LENGTHS

POSTED SPEED LIMIT MILES PER HOUR	MINIMUM TAPER LENGTH IN FEET FOR A SINGLE LANE CLOSURE
30 OR LESS	180
35	250
40	320
45	540
50	600
55	660
65	780

SECTION 1. WORK ZONE SAFETY MEETINGS

1.a) Prior to the commencement of work, a work zone safety meeting will be conducted with representatives of City Engineering Department, City of New Britain Police, the Contractor (Project Superintendent) and the Traffic Control Subcontractor (if different than the prime Contractor) to review the traffic operations, lines of responsibility, and operating guidelines which will be used on the project. Other work zone safety meetings during the course of the project should be scheduled as needed.

1.b) A Work Zone Safety Meeting Agenda shall be developed and used at the meeting to outline the anticipated traffic control issues during the construction of this project. Any issues that can't be resolved at these meetings will be brought to the attention of the District Engineer and the Office of Construction. The agenda should include:

- Review Project scope of work and time
- Review Section 1.08, Prosecution and Progress
- Review Section 9.70, Trafficpersons
- Review Section 9.71, Maintenance and Protection of Traffic
- Review Contractor's schedule and method of operations.
- Review areas of special concern: ramps, turning roadways, medians, lane drops, etc.
- Open discussion of work zone questions and issues
- Discussion of review and approval process for changes in contract requirements as they relate to work zone areas

SECTION 2. GENERAL

2.a) If the required minimum number of signs and equipment (i.e. one High Mounted Internally Illuminated Flashing Arrow for each lane closed, two TMAs, Changeable Message Sign, etc.) are not available; the traffic control pattern shall not be installed.

2.b) The Contractor shall have back-up equipment (TMAs, High Mounted Internally Illuminated Flashing Arrow, Changeable Message Sign, construction signs, cones/drums, etc.) available at all times in case of mechanical failures, etc. The only exception to this is in the case of sudden equipment breakdowns in which the pattern may be installed but the Contractor must provide replacement equipment within 24 hours.

2.c) Failure of the Contractor to have the required minimum number of signs, personnel and equipment, which results in the pattern not being installed, shall not be a reason for a time extension or claim for loss time.

2.d) In cases of legitimate differences of opinion between the Contractor and the Inspection staff, the Inspection staff shall err on the side of safety. The matter shall be brought to the City Engineer for resolution immediately or, in the case of work after regular business hours, on the next business day.

SECTION 3. INSTALLING AND REMOVING TRAFFIC CONTROL PATTERNS

3.a) Lane Closures shall be installed beginning with the advance warning signs and proceeding forward toward the work area.

3.b) Lane Closures shall be removed in the reverse order, beginning at the work area, or end of the traffic control pattern, and proceeding back toward the advance warning signs.

3.c) Stopping traffic may be allowed:

- As per the contract for such activities as blasting, steel erection, etc.
- During paving, milling operations, etc. where, in the middle of the operation, it is necessary to flip the pattern to complete the operation on the other half of the roadway and traffic should not travel across the longitudinal joint or difference in roadway elevation.
- To move slow moving equipment across live traffic lanes into the work area.

3.d) Under certain situations when the safety of the traveling public and/or that of the workers may be compromised due to conditions such as traffic volume, speed, roadside obstructions, or sight line deficiencies, as determined by the Engineer and/or State Police, traffic may be briefly impeded while installing and/or removing the advance warning signs and the first ten traffic cones/drums only. Appropriate measures shall be taken to safely slow traffic. If required, traffic slowing techniques may be used and shall include the use of Truck Mounted Impact Attenuators (TMAs) as appropriate, for a minimum of one mile in advance of the pattern starting point. Once the advance warning signs and the first ten traffic cones/drums are installed/removed, the TMAs and sign crew shall continue to install/remove the pattern as described in Section 5 and traffic shall be allowed to resume their normal travel.

3.e) The Contractor must adhere to using the proper signs, placing the signs correctly, and ensuring the proper spacing of signs.

3.f) Additional devices are required on entrance ramps, exit ramps, and intersecting roads to warn and/or move traffic into the proper travelpath prior to merging/exiting with/from the

main line traffic. This shall be completed before installing the mainline pattern past the ramp or intersecting roadway.

3.g) Prior to installing a pattern, any conflicting existing signs shall be covered with an opaque material. Once the pattern is removed, the existing signs shall be uncovered.

3.h) On limited access roadways, workers are prohibited from crossing the travel lanes to install and remove signs or other devices on the opposite side of the roadway. Any signs or devices on the opposite side of the roadway shall be installed and removed separately.

SECTION 4. USE OF HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

4.a) On limited access roadways, one Flashing Arrow shall be used for each lane that is closed. The Flashing Arrow shall be installed concurrently with the installation of the traffic control pattern and its placement shall be as shown on the traffic control plan. For multiple lane closures, one Flashing Arrow is required for each lane closed. If conditions warrant, additional Flashing Arrows should be employed (i.e.: curves, major ramps, etc.).

4.b) On non-limited access roadways, the use of a Flashing Arrow for lane closures is optional. The roadway geometry, sight line distance, and traffic volume should be considered in the decision to use the Flashing Arrow.

4.c) The Flashing Arrow shall not be used on two lane, two-way roadways for temporary alternating one-way traffic operations.

4.d) The Flashing Arrow board display shall be in the “arrow” mode for lane closure tapers and in the “caution” mode (four corners) for shoulder work, blocking the shoulder, or roadside work near the shoulder. The Flashing Arrow shall be in the “caution” mode when it is positioned in the closed lane.

4.e) The Flashing Arrow shall not be used on a multi-lane roadway to laterally shift all lanes of traffic, because unnecessary lane changing may result.

SECTION 5. USE OF TRUCK MOUNTED IMPACT ATTENUATOR VEHICLES (TMAs)

5.a) For lane closures on limited access roadways, a minimum of two TMAs shall be used to install and remove traffic control patterns. If two TMAs are not available, the pattern shall not be installed.

5.b) On non-limited access roadways, the use of TMAs to install and remove patterns closing a lane(s) is optional. The roadway geometry, sight line distance, and traffic volume should be considered in the decision to utilize the TMAs.

5.c) Generally, to establish the advance and transition signing, one TMA shall be placed on the shoulder and the second TMA shall be approximately 1,000 feet ahead blocking the lane. The flashing arrow board mounted on the TMA should be in the "flashing arrow" mode when taking the lane. The sign truck and workers should be immediately ahead of the second TMA. In no case shall the TMA be used as the sign truck or a work truck. Once the transition is in place, the TMAs shall travel in the closed lane until all Changeable Message Signs, signs, Flashing Arrows, and cones/drums are installed. The flashing arrow board mounted on the TMA should be in the "caution" mode when traveling in the closed lane.

5.d) A TMA shall be placed prior to the first work area in the pattern. If there are multiple work areas within the same pattern, then additional TMAs shall be positioned at each additional work area as needed. The flashing arrow board mounted on the TMA should be in the "caution" mode when in the closed lane.

5.e) TMAs shall be positioned a sufficient distance prior to the workers or equipment being protected to allow for appropriate vehicle roll-ahead in the event that the TMA is hit, but not so far that an errant vehicle could travel around the TMA and into the work area. For additional placement and use details, refer to the specification entitled "Type 'D' Portable Impact Attenuation System". Some operations, such as paving and concrete repairs, do not allow for placement of the TMA(s) within the specified distances. In these situations, the TMA(s) should be placed at the beginning of the work area and shall be advanced as the paving or concrete operations proceed.

5.f) TMAs should be paid in accordance with how the unit is utilized. When it is used as a TMA and is in the proper location as specified, and then it should be paid at the specified hourly rate for "Type 'D' Portable Impact Attenuation System". When the TMA is used as a Flashing Arrow, it should be paid at the daily rate for "High Mounted Internally Illuminated Flashing Arrow". If a TMA is used to install and remove a pattern and then is used as a Flashing Arrow, the unit should be paid as a "Type 'D' Portable Impact Attenuation System" for the hours used to install and remove the pattern, typically 2 hours (1 hour to install and 1 hour to remove), and is also paid for the day as a "High Mounted Internally Illuminated Flashing Arrow".

SECTION 6. USE OF TRAFFIC DRUMS AND TRAFFIC CONES

6.a) Traffic drums shall be used for taper channelization on limited-access roadways, ramps, and turning roadways and to delineate raised catch basins and other hazards.

6.b) Traffic drums shall be used in place of traffic cones in traffic control patterns that are in effect for more than a 36-hour duration.

6.c) Traffic Cones less than 42 inches in height shall not be used on limited-access roadways or on non-limited access roadways with a posted speed limit of 45 mph and above.

6.d) Typical spacing of traffic drums and/or cones shown on the Traffic Control Plans in the Contract are maximum spacings and may be reduced to meet actual field conditions as required.

SECTION 7. USE OF (REMOTE CONTROLLED) CHANGEABLE MESSAGE SIGNS (CMS)

7.a) For lane closures on limited access roadways, one CMS shall be used in advance of the traffic control pattern. Prior to installing the pattern, the CMS shall be installed and in operation, displaying the appropriate lane closure information (i.e.: Left Lane Closed - Merge Right). The CMS shall be positioned ½ - 1 mile ahead of the lane closure taper. If the nearest Exit ramp is greater than the specified ½ - 1 mile distance, than an additional CMS shall be positioned a sufficient distance ahead of the Exit ramp to alert motorists to the work and therefore offer them an opportunity to take the exit.

7.b) CMS should not be installed within 1000 feet of an existing CMS.

7.c) On non-limited access roadways, the use of CMS for lane closures is optional. The roadway geometry, sight line distance, and traffic volume should be considered in the decision to use the CMS.

7.d) The advance CMS is typically placed off the right shoulder, 5 feet from the edge of pavement. In areas where the CMS cannot be placed beyond the edge of pavement, it may be placed on the paved shoulder with a minimum of five (5) traffic drums placed in a taper in front of it to delineate its position. The advance CMS shall be adequately protected if it is used for a continuous duration of 36 hours or more.

7.e) When the CMS are no longer required, they should be removed from the clear zone and have the display screen cleared and turned 90° away from the roadway.

7.f) The CMS generally should not be used for generic messages (ex: Road Work Ahead, Bump Ahead, Gravel Road, etc.).

7.g) The CMS should be used for specific situations that need to command the motorist's attention which cannot be conveyed with standard construction signs (Examples include: Exit 34 Closed Sat/Sun - Use Exit 35, All Lanes Closed - Use Shoulder, Workers on Road - Slow Down).

7.h) Messages that need to be displayed for long periods of time, such as during stage construction, should be displayed with construction signs. For special signs, please coordinate with the Engineerir for the proper layout/dimensions required.

7.i) The messages that are allowed on the CMS are as follows:

Message No.	Frame 1	Frame 2	Message No.	Frame 1	Frame 2
1	LEFT LANE CLOSED	MERGE RIGHT	9	LANES CLOSED AHEAD	REDUCE SPEED
2	2 LEFT LANES CLOSED	MERGE RIGHT	10	LANES CLOSED AHEAD	USE CAUTION
3	LEFT LANE CLOSED	REDUCE SPEED	11	WORKERS ON ROAD	REDUCE SPEED
4	2 LEFT LANES CLOSED	REDUCE SPEED	12	WORKERS ON ROAD	SLOW DOWN
5	RIGHT LANE CLOSED	MERGE LEFT	13	EXIT XX CLOSED	USE EXIT YY
6	2 RIGHT LANES CLOSED	MERGE LEFT	14	EXIT XX CLOSED USE YY	FOLLOW DETOUR
7	RIGHT LANE CLOSED	REDUCE SPEED	15	2 LANES SHIFT AHEAD	USE CAUTION
8	2 RIGHT LANES CLOSED	REDUCE SPEED	16	3 LANES SHIFT AHEAD	USE CAUTION

For any other message(s), approval must be received from the Engineer prior to their use. No more than two (2) displays shall be used within any message cycle.

SECTION 8. USE OF STATE POLICE OFFICERS

8.a) State Police may be utilized only on limited access highways and secondary roadways under their primary jurisdiction. One Officer may be used per critical sign pattern. Shoulder closures and right lane closures can generally be implemented without the presence of a State Police Officer. Likewise in areas with moderate traffic and wide, unobstructed medians, left lane closures can be implemented without State Police presence. Under some situations it may be desirable to have State Police presence, when one is available. Examples of this include: nighttime lane closures; left lane closures with minimal width for setting up advance signs and staging; lane and shoulder closures on turning roadways/ramps or mainline where sight distance is minimal; and closures where extensive turning movements or traffic congestion regularly occur, however they are not required.

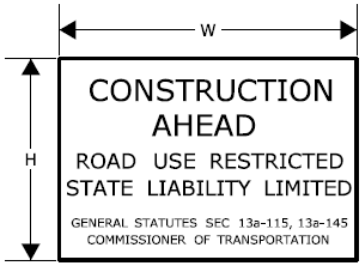
8.b) Once the pattern is in place, the State Police Officer should be positioned in a non-hazardous location in advance of the pattern If traffic backs up beyond the beginning of the pattern, then the State Police Officer shall be repositioned prior to the backup to give warning to the oncoming motorists. The State Police Officer and TMA should not be in proximity to each other.

8.c) Other functions of the State Police Officer(s) may include:

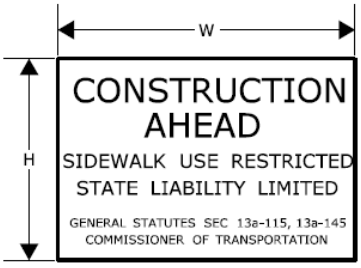
- Assisting entering/exiting construction vehicles within the work area.
- Enforcement of speed and other motor vehicle laws within the work area, if specifically requested by the project.

8.d) State Police Officers assigned to a work site are to only take direction from the Engineer.

SERIES 16 SIGNS



		W H
16-E	80-1605	84" x 60"
16-H	80-1608	60" x 42"
16-M	80-1613	30" x 24"



		W H
16-S	80-1619	48" x 30"

THE 16-S SIGN SHALL BE USED ON ALL PROJECTS THAT REQUIRE SIDEWALK RECONSTRUCTION OR RESTRICT PEDESTRIAN TRAVEL ON AN EXISTING SIDEWALK.

SERIES 16 SIGNS SHALL BE INSTALLED IN ADVANCE OF THE TRAFFIC CONTROL PATTERNS TO ALLOW MOTORISTS THE OPPORTUNITY TO AVOID A WORK ZONE. SERIES 16 SIGNS SHALL BE INSTALLED ON ANY MAJOR INTERSECTING ROADWAYS THAT APPROACH THE WORK ZONE. ON LIMITED-ACCESS HIGHWAYS, THESE SIGNS SHALL BE LOCATED IN ADVANCE OF THE NEAREST UPSTREAM EXIT RAMP AND ON ANY ENTRANCE RAMPS PRIOR TO OR WITHIN THE WORK ZONE LIMITS.

THE LOCATION OF SERIES 16 SIGNS CAN BE FOUND ELSEWHERE IN THE PLANS OR INSTALLED AS DIRECTED BY THE ENGINEER.

SIGNS 16-E AND 16-H SHALL BE POST-MOUNTED.

SIGN 16-E SHALL BE USED ON ALL EXPRESSWAYS.

SIGN 16-H SHALL BE USED ON ALL RAMPS, OTHER STATE ROADWAYS, AND MAJOR TOWN/CITY ROADWAYS.

SIGN 16-M SHALL BE USED ON OTHER TOWN ROADWAYS.

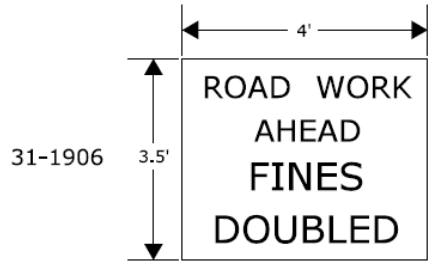
REGULATORY SIGN "ROAD WORK AHEAD, FINES DOUBLED"

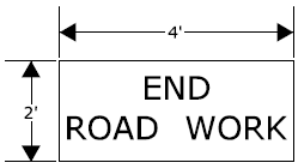
THE REGULATORY SIGN "ROAD WORK AHEAD FINES DOUBLED" SHALL BE INSTALLED FOR ALL WORK ZONES THAT OCCUR ON ANY STATE HIGHWAY IN CONNECTICUT WHERE THERE ARE WORKERS ON THE HIGHWAY OR WHEN THERE IS OTHER THAN EXISTING TRAFFIC OPERATIONS.

THE "ROAD WORK AHEAD FINES DOUBLED" REGULATORY SIGN SHALL BE PLACED AFTER THE SERIES 16 SIGN AND IN ADVANCE OF THE "ROAD WORK AHEAD" SIGN.

"END ROAD WORK" SIGN

THE LAST SIGN IN THE PATTERN MUST BE THE "END ROAD WORK" SIGN.





SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
REQUIRED SIGNS

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED Charles S. Harlow 2012.06.05 11:35:43-04'00'
PRINCIPAL ENGINEER

NOTES FOR TRAFFIC CONTROL PLANS

1. IF A TRAFFIC STOPPAGE OCCURS IN ADVANCE OF SIGN (A), THEN AN ADDITIONAL SIGN (A) SHALL BE INSTALLED IN ADVANCE OF THE STOPPAGE.

2. SIGNS (AA), (A), AND (D) SHOULD BE OMITTED WHEN THESE SIGNS HAVE ALREADY BEEN INSTALLED TO DESIGNATE A LARGER WORK ZONE THAN THE WORK ZONE THAT IS ENCOMPASSED ON THIS PLAN.

3. SEE TABLE 1 FOR ADJUSTMENT OF TAPERS IF NECESSARY.

4. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN TRAFFIC DRUMS SHALL BE USED IN PLACE OF TRAFFIC CONES.

5. ANY LEGAL SPEED LIMIT SIGNS WITHIN THE LIMITS OF A ROADWAY / LANE CLOSURE AREA SHALL BE COVERED WITH AN OPAQUE MATERIAL WHILE THE CLOSURE IS IN EFFECT, AND UNCOVERED WHEN THE ROADWAY / LANE CLOSURE IS RE-OPENED TO ALL LANES OF TRAFFIC.

6. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN ANY EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE ERADICATED OR COVERED, AND TEMPORARY PAVEMENT MARKINGS THAT DELINEATE THE PROPER TRAVELPATHS SHALL BE INSTALLED.

7. DISTANCES BETWEEN SIGNS IN THE ADVANCE WARNING AREA MAY BE REDUCED TO 100' ON LOW-SPEED URBAN ROADS (SPEED LIMIT < 40 MPH).

8. IF THIS PLAN IS TO REMAIN IN OPERATION DURING THE HOURS OF DARKNESS, INSTALL BARRICADE WARNING LIGHTS - HIGH INTENSITY ON ALL POST-MOUNTED DIAMOND SIGNS IN THE ADVANCE WARNING AREA.

9. A CHANGEABLE MESSAGE SIGN SHALL BE INSTALLED ONE HALF TO ONE MILE IN ADVANCE OF THE LANE CLOSURE TAPER.

10 SIGN (P) SHALL BE MOUNTED A MINIMUM OF 7 FEET FROM THE PAVEMENT SURFACE TO THE BOTTOM OF THE SIGN.

TABLE 1 - MINIMUM TAPER LENGTHS

POSTED SPEED LIMIT (MILES PER HOUR)	MINIMUM TAPER LENGTH FOR A SINGLE LANE CLOSURE
30 OR LESS	180' (55m)
35	250' (75m)
40	320' (100m)
45	540' (165m)
50	600' (180m)
55	660' (200m)
65	780' (240m)

METRIC CONVERSION CHART (1" = 25mm)

ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC
12"	300mm	42"	1050mm	72"	1800mm
18"	450mm	48"	1200mm	78"	1950mm
24"	600mm	54"	1350mm	84"	2100mm
30"	750mm	60"	1500mm	90"	2250mm
36"	900mm	66"	1650mm	96"	2400mm

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN

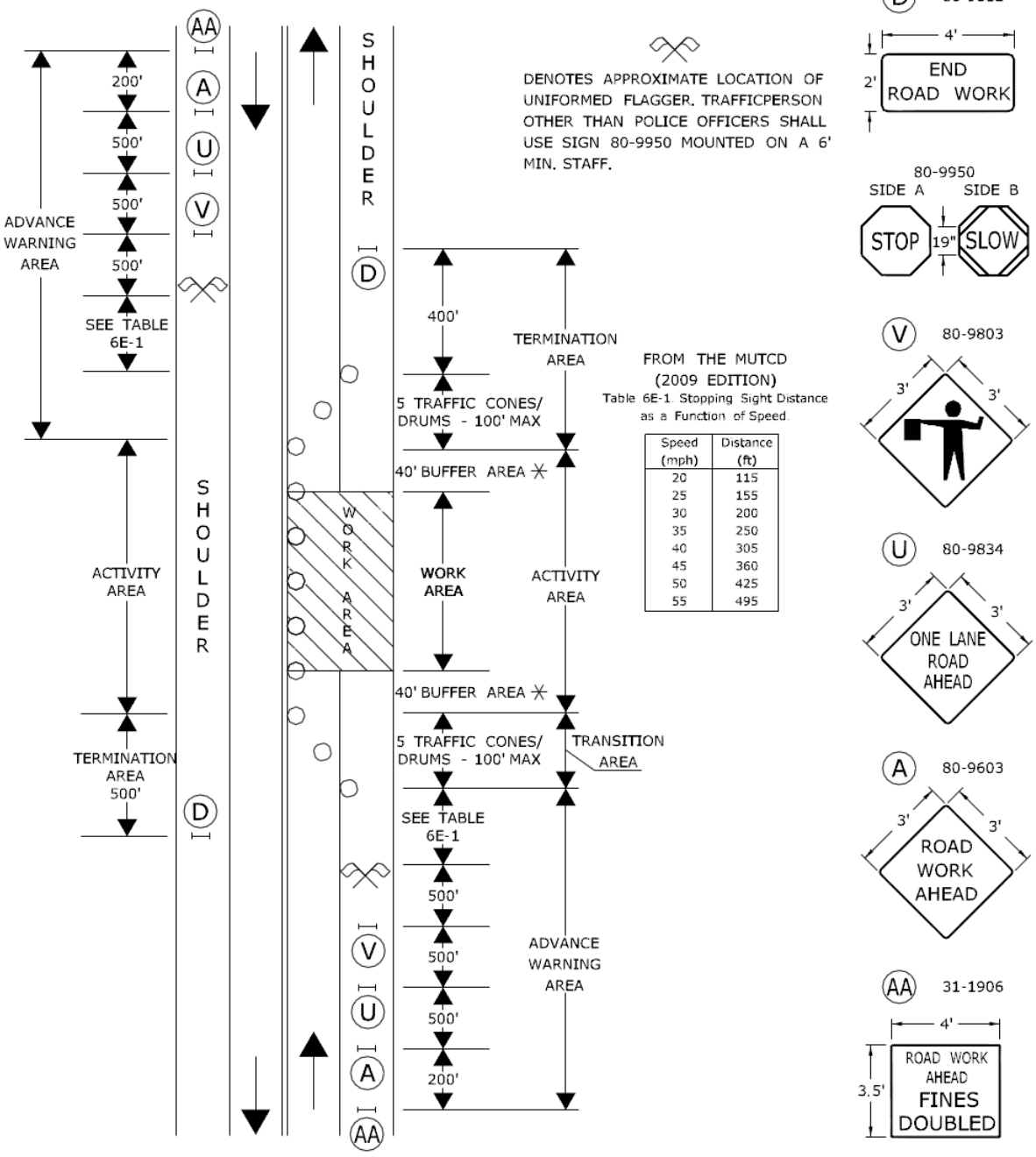
NOTES

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED Charles S. Harlow 2012.06.05 15:50:35-04'00'
PRINCIPAL ENGINEER

WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY
ALTERNATING ONE-WAY TRAFFIC OPERATIONS

SIGN FACE
108 SQ. FT (MIN.)



FROM THE MUTCD
(2009 EDITION)
Table 6E-1 Stopping Sight Distance as a Function of Speed

Speed (mph)	Distance (ft)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495

D 80-9612

80-9950
SIDE A SIDE B

V 80-9803

U 80-9834

A 80-9603

AA 31-1906

◯ TRAFFIC CONE **OR** TRAFFIC DRUM
✳ OPTIONAL ⊗ TRAFFIC DRUM ⊢ PORTABLE SIGN SUPPORT
⇐ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN

PLAN 13 - SHEET 1 OF 2

SEE NOTES 1, 2, 4, 6, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED Charles S. Harlow 2012.06.05 15:55:23-04'00'
PRINCIPAL ENGINEER

WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY
ALTERNATING ONE-WAY TRAFFIC OPERATIONS

SIGN FACE
108 SQ. FT (MIN.)

HAND SIGNAL METHODS TO BE USED BY UNIFORMED FLAGGERS

THE FOLLOWING METHODS FROM SECTION 6E.07, FLAGGER PROCEDURES, IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," SHALL BE USED BY UNIFORMED FLAGGERS WHEN DIRECTING TRAFFIC THROUGH A WORK AREA. THE STOP/SLOW SIGN PADDLE (SIGN NO. 80-9950) SHOWN ON THE TRAFFIC STANDARD SHEET TR-1220 01 ENTITLED, "SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS" SHALL BE USED.

A. TO STOP TRAFFIC

TO STOP ROAD USERS, THE FLAGGER SHALL FACE ROAD USERS AND AIM THE STOP PADDLE FACE TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FREE ARM SHALL BE HELD WITH THE PALM OF THE HAND ABOVE SHOULDER LEVEL TOWARD APPROACHING TRAFFIC.

B. TO DIRECT TRAFFIC TO PROCEED

TO DIRECT STOPPED ROAD USERS TO PROCEED, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FLAGGER SHALL MOTION WITH THE FREE HAND FOR ROAD USERS TO PROCEED.

C. TO ALERT OR SLOW TRAFFIC

TO ALERT OR SLOW TRAFFIC, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. TO FURTHER ALERT OR SLOW TRAFFIC, THE FLAGGER HOLDING THE SLOW PADDLE FACE TOWARD ROAD USERS MAY MOTION UP AND DOWN WITH THE FREE HAND, PALM DOWN.

◯ TRAFFIC CONE **OR** TRAFFIC DRUM
✳ OPTIONAL ⊗ TRAFFIC DRUM ⊢⊣ PORTABLE SIGN SUPPORT
⟵ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

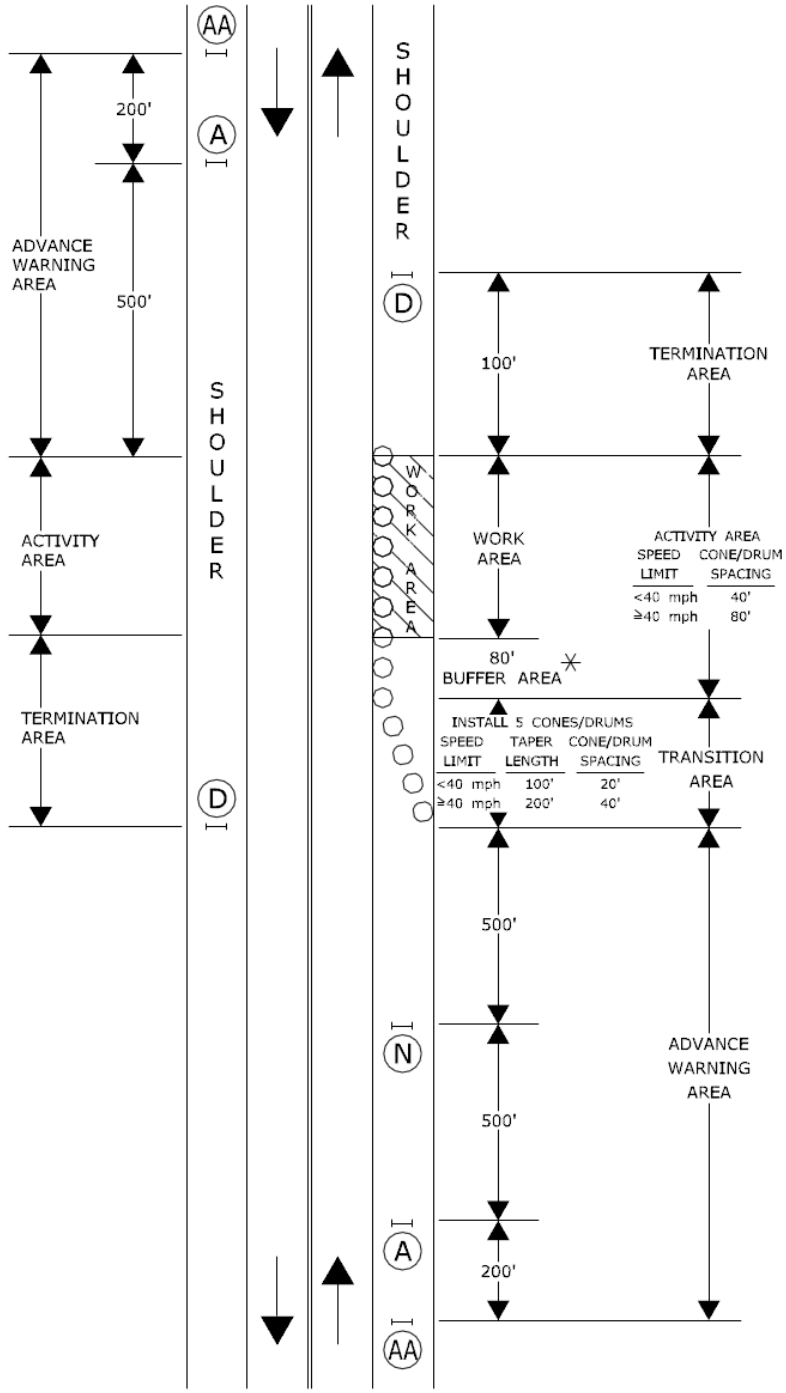
CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 13 - SHEET 2 OF 2
SEE NOTES 1, 2, 4, 6, 7, 8

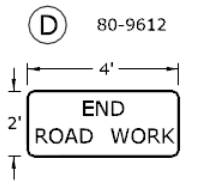
CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

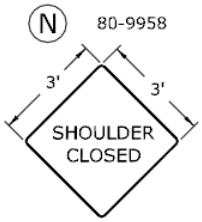
APPROVED Charles S. Harlow 2012.06.05 15:55:45-04'00'
PRINCIPAL ENGINEER

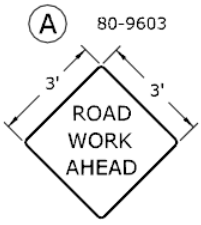
WORK IN SHOULDER - TWO LANE HIGHWAY

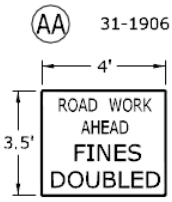
SIGN FACE
71 SQ. FT (MIN.)











TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN

PLAN 14

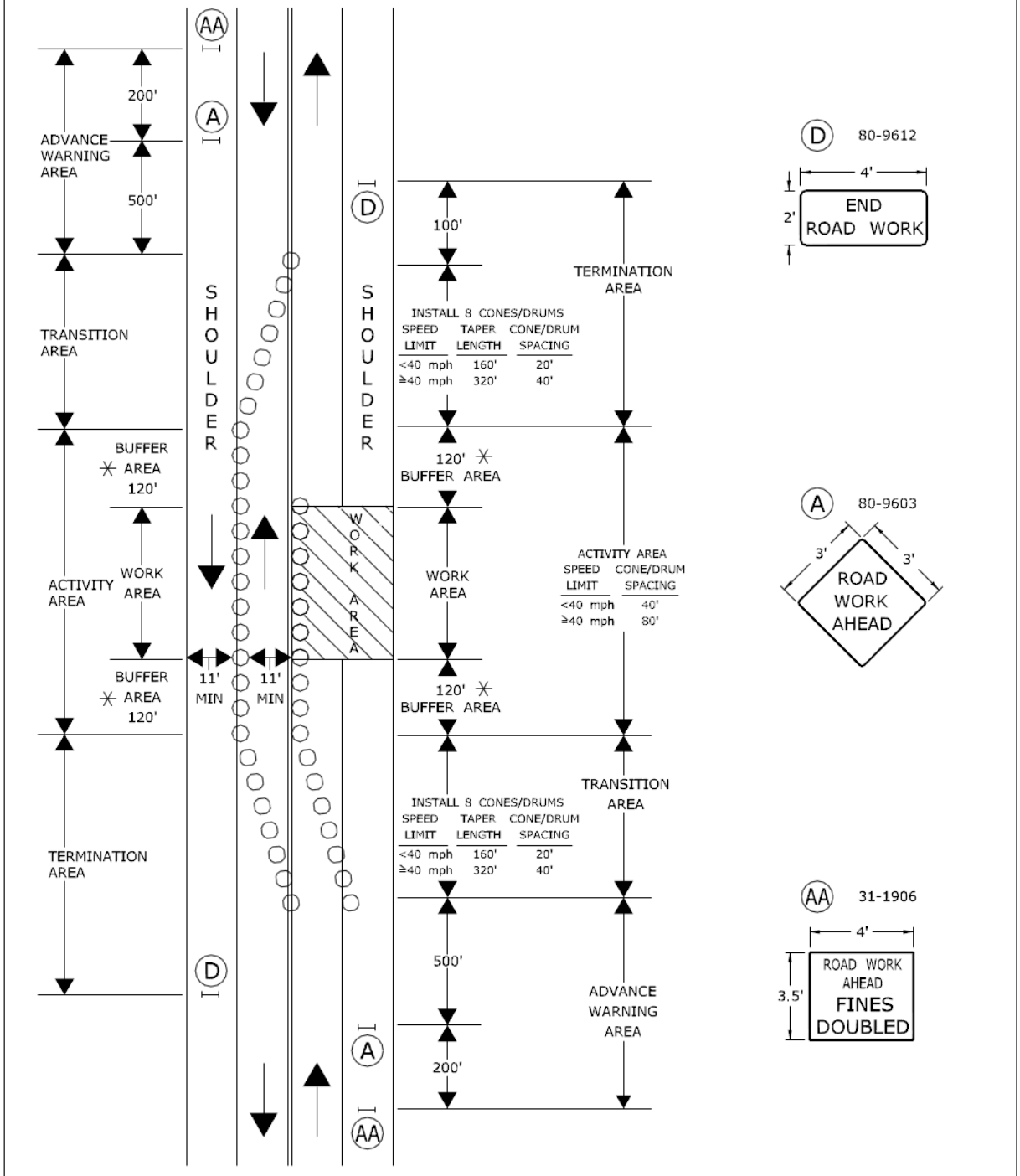
SEE NOTES 1, 2, 4, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED Charles S. Harlow 2012.06.05 15:56:09-04'00'
PRINCIPAL ENGINEER

WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY

SIGN FACE
62 SQ. FT (MIN.)



○ TRAFFIC CONE **OR** TRAFFIC DRUM
✳ OPTIONAL ⊗ TRAFFIC DRUM ⊢ PORTABLE SIGN SUPPORT
⇐ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN

PLAN 15

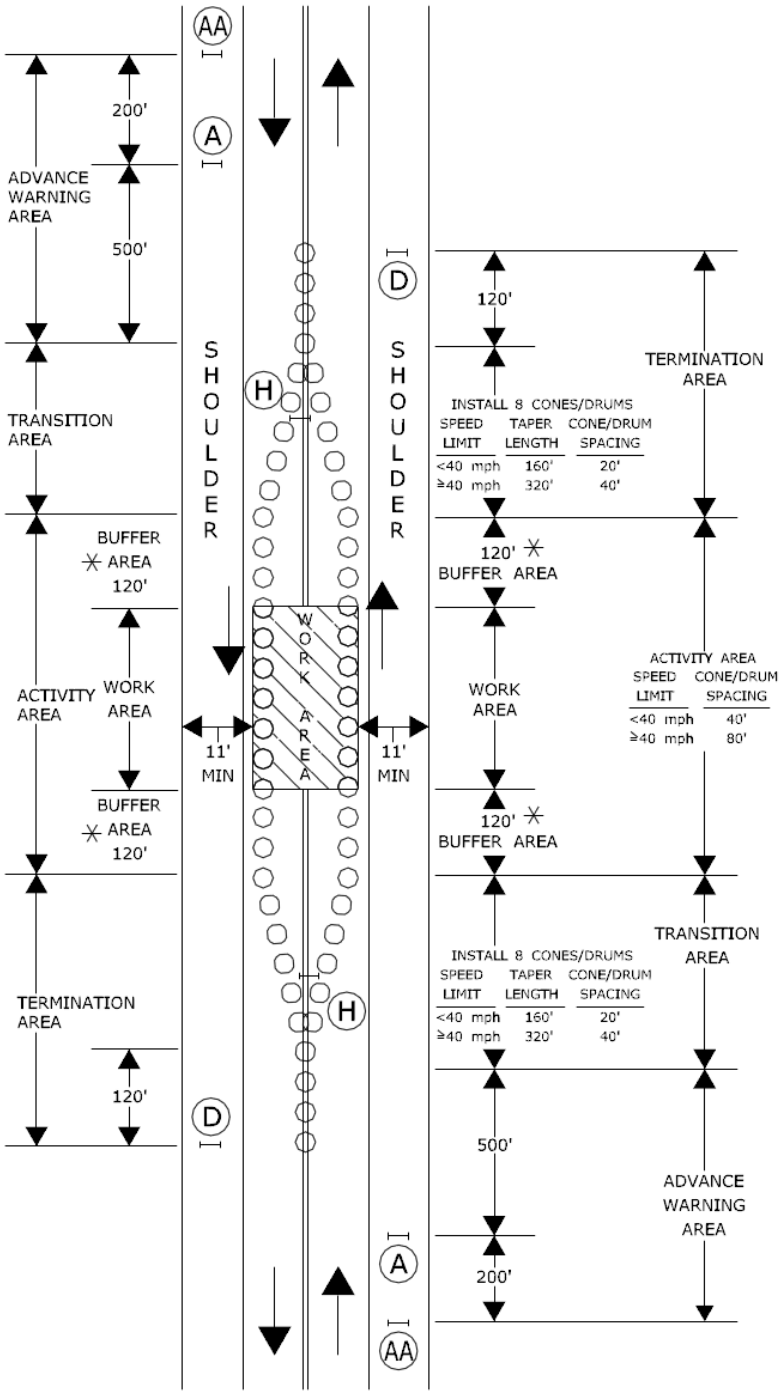
SEE NOTES 1, 2, 4, 6, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

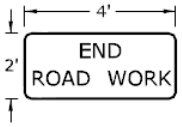
APPROVED Charles S. Harlow 2012.06.05 15:56:29-04'00'
PRINCIPAL ENGINEER

WORK IN MIDDLE OF ROADWAY
TWO LANE HIGHWAY

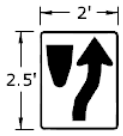
SIGN FACE
72 SQ. FT (MIN.)



D 80-9612

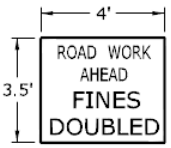


H 31-1526



A 80-9603

AA 31-1906



TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN

PLAN 16

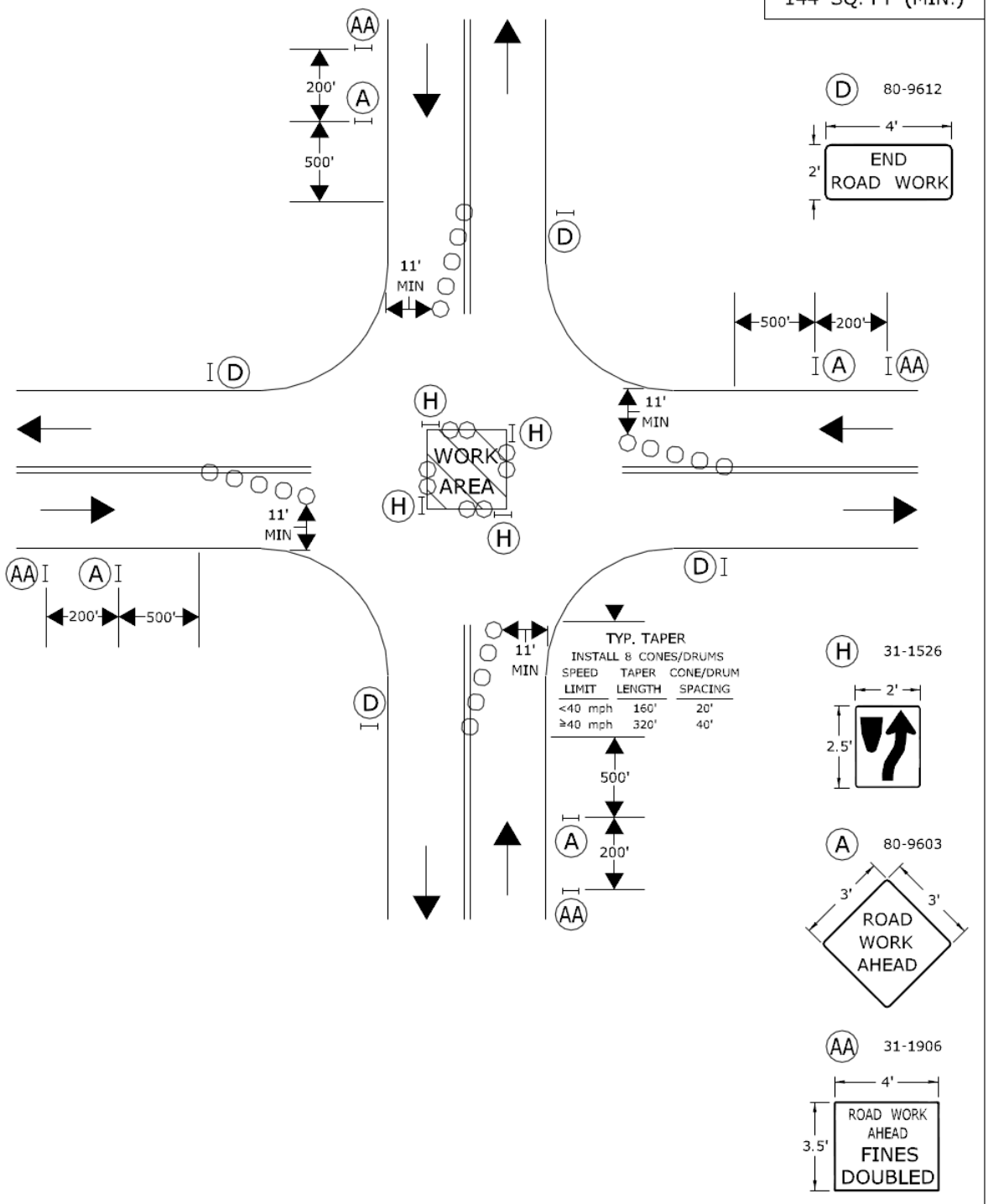
SEE NOTES 1, 2, 4, 6, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED Charles S. Harlow 2012.06.05 15:56:51-04'00'
PRINCIPAL ENGINEER

WORK IN MIDDLE OF ROADWAY AT INTERSECTION

SIGN FACE
144 SQ. FT (MIN.)



TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN

PLAN 17

SEE NOTES 1, 2, 4, 6, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED Charles S. Harlow 2012.06.05 15:57:16-04'00'
PRINCIPAL ENGINEER

Article 9.71.05 – Basis of Payment is supplemented by the following:

The temporary relocation of signs and supports, and the furnishing, installation and removal of any temporary supports shall be paid for under the item “Maintenance and Protection of Traffic”.

The cost of furnishing, installing, and removing the material for the 4H:1V traversable slope shall be paid for under the item “Maintenance and Protection of Traffic.”

ITEM #0406002A - TEMPORARY PAVEMENT

Description:
Work under this item shall consist of placing temporary pavement at the locations and to the general requirements shown on the contract drawings or as directed by the Engineer.

Materials:
The materials to be used in the construction of temporary pavement shall be those indicated on the plans and in the details or ordered by the Engineer. Processed Aggregate Base, as directed by Engineer, shall conform to the requirements of CONN DOT Form 816 Article M.05.01. Bituminous Concrete shall conform to the requirements of Section M.04 of the type and thickness specified.

Construction Methods:
A. The Contractor, upon completing the backfilling of the trenches in pavement used by traffic will be required to construct a 2" thick Class 2 temporary pavement daily.

B. The methods employed in placing the bituminous pavement and all equipment, tools, machinery and other plant equipment used in handling materials and executing any part of the work shall conform to all requirements of Section 4.06. The completed and compacted temporary pavement shall match the adjacent grade of the existing pavement and meet or surpass the uniformity of the adjacent surface and its roughness or riding quality. Replacement of the temporary pavement will be required at no additional cost where the pavement surface is not smooth or the compacted thickness of the bituminous concrete is deficient by more than ½".

C. It shall be the responsibility of the Contractor to maintain and repair temporary bituminous pavement surfaces until such time as the temporary pavements have been replaced with the construction of permanent pavements. The Contractor shall at all times maintain the temporary pavements in a safe and satisfactory condition and all maintenance and repairs of permanent and temporary pavements shall be provided by the Contractor at no additional expense.

D. The Contractor shall perform and complete the construction work in a continuous manner and so that pavement replacement work may proceed without delay. The Contractor shall install the temporary pavement as soon as practical. Unless otherwise directed by the Engineer the Contractor shall install the temporary pavement daily.

E. All curbing, street fixtures and such other appurtenant work damaged or displaced as a result of the Contractor's operations shall be repaired or replaced and restored by the Contractor in a manner satisfactory to the Engineer at no cost.

F. Payment for temporary pavement shall be made only to the limits shown on the detail for trench excavation. The State shall not be responsible for the cost of additional temporary pavement required for trenches wider than the limits detailed.

Method of Measurement:
This work will be measured for payment by the square yards of temporary pavement surface to the limits shown on the plans or ordered by the Engineer and after verification of the proper depth of bituminous concrete pavement thickness by the Engineer.

Basis of Payment: The temporary pavement will be paid for at the contract unit price per square yard for "Temporary Pavement" complete in place and approved which price shall include all materials, tools, equipment and labor incidental thereto. No separate payments will be made for excavation and disposal of materials, furnishing, placing, and compaction of processed aggregate base, or the cleaning, saw cutting, and tack coating of the existing pavement. The costs for these items shall be included in the contract unit price.

PAY ITEM	**PAY UNIT**
Temporary Pavement	SY

ITEM #1302047A - RESET GATE BOXES

The work under this item shall conform to the requirements of Section 5.07, amended as follows:

5.07.01—Description: The work under this item shall consist of the removing and resetting of gate valve boxes within areas of proposed bituminous pavement, as shown on the plans, and/or as directed by the Engineer, and in conformity with these specifications.

5.7.3 —Construction Methods: The work under this item shall conform to Article 5.07 of the Standard Specifications.

5.7.4 —Method of Measurement: The number of gate boxes specified shall be measured for payment by the number of units removed and reset.

5.7.5 —Basis of Payment: The work under this item shall be paid for at the Contract unit price Each for the "Reset Gate Boxes", which price shall include excavation, pervious materials, backfill, cutting of pavement, removal and replacement of roadway pavement structure, and all materials, tools, labor incidental thereto, equipment, and disposal of surplus materials.

Pay Item	**Pay Unit**
Reset Gate Boxes	ea.

FORM OF BID

The undersigned bidder hereby submits the following bid for the **Hart Street Reconstruction, Bid No. 3879**, in accordance with the Bid Documents for said project. The undersigned has carefully examined and understands all Bid Documents, as listed in Article 3 of the Instructions to Bidders of the "Bid Requirements and Conditions Document"; and has complied with all the provisions thereof in the preparation of his bid. The Undersigned also offers to furnish all plant, labor, material, supplies, equipment and other facilities for or incidental to the construction of said project as required by, and in strict accordance with, the Improvement Drawings and Specifications, and all addenda issued by the Owner and mailed to the undersigned by registered mail, with return receipt requested, prior to the date of bid opening, whether received or not, for the following unit bid prices.

The Bid Unit Price for each item and the Total Amount Bid must be written in words and figures for the Base Bid and any Alternate Bids.

The undersigned bidder acknowledges receipt of the following:

Addendum #	Date	Acknowledged
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

The total amount of the Base Bid based on the estimated quantities shown herein and as computed by the undersigned Bidder for the **Hart Street Reconstruction, Bid No. 3879**, is:

ITEMIZED WORK / QUANTITIES

ITEM NO.	EST. QTY.	UNIT	DESCRIPTION AND WRITTEN UNIT PRICE	UNIT PRICE	AMOUNT
0201001	1	LS	CLEARING AND GRUBBING at the lump sum price of _____ dollars and _____ cents.	$	$
0202003A	9547	CY	EARTH EXCAVATION at _____ dollars and _____ cents per cubic yard.	$	$
0202120A	164	CY	ROCK EXCAVATION (NO EXPLOSIVES) at _____ dollars and _____ cents per cubic yard.	$	$
0202351A	206	CY	UNSUITABLE MATERIAL EXCAVATION at _____ dollars and _____ cents per cubic yard.	$	$
0202451A	50	CY	TEST PIT EXCAVATION at _____ dollars and _____ cents per cubic yard.	$	$
0202503A	6455	LF	REMOVAL OF CONCRETE CURBING at _____ dollars and _____ cents per linear foot.	$	$
0202529	310	LF	CUT BITUMINOUS CONCRETE PAVEMENT at _____ dollars and _____ cents per linear foot.	$	$
0205001	630	CY	TRENCH EXCAVATION 0'-4' DEEP at _____ dollars and _____ cents per cubic yard.	$	$
0205002	63	CY	ROCK IN TRENCH EXCAVATION 0'-4' DEEP at _____ dollars and _____ cents per cubic yard.	$	$
0205003	2620	CY	TRENCH EXCAVATION 0'-10' DEEP at _____ dollars and _____ cents per cubic yard.	$	$
0205004	262	CY	ROCK IN TRENCH EXCAVATION 0'-10' DEEP at _____ dollars and _____ cents per cubic yard.	$	$

0209001	11457	SY	FORMATION OF SUBGRADE at _____ dollars and _____ cents per square yard.	$	$
0212003	3819	CY	SUBBASE at _____ dollars and _____ cents per cubic yard.	$	$
0213011A	260	CY	GRANULAR FILL at _____ dollars and _____ cents per cubic yard.	$	$
0304002A	1909	CY	PROCESSED AGGREGATE BASE at _____ dollars and _____ cents per cubic yard.	$	$
0406002A	1,300	SY	TEMPORARY PAVEMENT at _____ dollars and _____ cents per square yard.		
0406170	5	TON	HMA S1 at _____ dollars and _____ cents per ton.	$	$
0406171	3225	TON	HMA S0.5 at _____ dollars and _____ cents per ton.	$	$
0406236	2062	GAL	MATERIAL FOR TACK COAT at _____ dollars and _____ cents per gallon.	$	$
0406999A	1	EST	ASPHALT ADJUSTMENT COST at an estimated cost of five thousand dollars and zero cents	$	$5,000
0506001	35	CY	CONCRETE FOR STEPS AND COPINGS at _____ dollars and _____ cents per cubic yard.	$	$
0507001A	24	EA	TYPE “C” CATCH BASIN at _____ dollars and _____ cents per each.	$	$
0507004A	20	EA	REMOVE CATCH BASIN / MANHOLE at _____ dollars and _____ cents per each.	$	$
0507022A	2	EA	TYPE “C” CATCH BASIN DOUBLE GRATE – TYPE II at _____ dollars and _____ cents per each.	$	$
0507048A	2	EA	TYPE “C” C.B. WITHOUT SUMP at _____ dollars and _____ cents per each.	$	$
0507201A	1	EA	TYPE “C-L” CATCH BASIN at _____ dollars and _____ cents per each.	$	$
0507601A	18	EA	MANHOLE at _____ dollars and _____ cents per each.	$	$

0507685A	1	EA	MANHOLE – 6' DIAMETER at _____ dollars and _____ cents per each.	$	$
0651001	805	CY	BEDDING MATERIAL at _____ dollars and _____ cents per cubic yard.	$	$
0651012A	2431	LF	15" R.C. PIPE at _____ dollars and _____ cents per linear foot.	$	$
0651013A	320	LF	18" R.C. PIPE at _____ dollars and _____ cents per linear foot.	$	$
0651015A	26	LF	24" R.C. PIPE at _____ dollars and _____ cents per linear foot.	$	$
0651743A	704	LF	6" POLYVINYL CHLORIDE PIPE at _____ dollars and _____ cents per linear foot.	$	$
0651746A	115	LF	12" POLYVINYL CHLORIDE PIPE at _____ dollars and _____ cents per linear foot.	$	$
0811001A	6455	LF	CONCRETE CURBING at _____ dollars and _____ cents per linear foot.	$	$
0811002A	50	LF	SPECIAL CONCRETE CURBING at _____ dollars and _____ cents per linear foot.	$	$
0815001	100	LF	BITUMINOUS CONCRETE LIP CURBING at _____ dollars and _____ cents per linear foot.	$	$
0921001A	25507	SF	CONCRETE SIDEWALK at _____ dollars and _____ cents per square foot.	$	$
0922001	83	SY	BITUMINOUS CONCRETE SIDEWALK at _____ dollars and _____ cents per square yard.	$	$
0922500	31	SY	BITUMINOUS CONCRETE DRIVEWAY (COMMERCIAL) at _____ dollars and _____ cents per square yard.	$	$
0922501	243	SY	BITUMINOUS CONCRETE DRIVEWAY at _____ dollars and _____ cents per square yard.	$	$
0924006A	6237	SF	CONCRETE DRIVEWAY RAMP at _____ dollars and _____ cents per square foot.	$	$
0924007A	531	SF	CONCRETE DRIVEWAY RAMP-COMMERCIAL at _____ dollars and _____ cents per square foot.	$	$

0939001	50	HR	SWEEPING FOR DUST CONTROL at _____ dollars and _____ cents per hour.	$	$
0942001	5	TON	CALCIUM CHLORIDE FOR DUST CONTROL at _____ dollars and _____ cents per ton.	$	$
0943001	500	MGAL	WATER FOR DUST CONTROL at _____ dollars and _____ cents per mega gallon.	$	$
0944002	2388	SY	FURNISHING AND PLACING TOPSOIL at _____ dollars and _____ cents per square yard.	$	$
0946001	5	TON	LIMING at _____ dollars and _____ cents per ton.	$	$
0949000A	92	SY	WOOD CHIP MULCH at _____ dollars and _____ cents per square yard.	$	$
0949131A	3	EA	SYRINGA RETICULATA, “IVORY SILK” JAPANESE TREE LILAC 3” - 3 1/2” CAL. B.B. at _____ dollars and _____ cents per each.	$	$
0949146A	3	EA	QUERCUS RUBRA, NORTHERN RED OAK, 3” – 3 1/2” CAL. B.B. at _____ dollars and _____ cents per each.	$	$
0949164A	7	EA	MALUS "RED JEWEL", RED JEWEL CRABAPPLE 3” – 3 1/2" CAL. B.B. at _____ dollars and _____ cents per each.	$	$
0949165A	3	EA	CARYA OVATA, SHAGBARK HICKORY, 3” – 3 1/2” CAL. B.B. at _____ dollars and _____ cents per each.	$	$
0949356A	9	EA	PRUNUS SERRULATA KWANZAN CHERRY 3” – 3 1/2” CAL. B.B. at _____ dollars and _____ cents per each.	$	$
0949446A	10	EA	BUXUS SEMPERVIRENS, “AMERICAN BOXWOOD” CLASSIC, 3 GALLON CONTAINER at _____ dollars and _____ cents per each.	$	$
0949834	3	EA	ACER RUBRUM RED MAPLE 3” - 3 1/2” CAL. B.B. at _____ dollars and _____ cents per each.	$	$
0949852A	3	EA	ACER SACCHARINUM SILVER MAPLE 3” – 3 1/2" CAL. B.B. at _____ dollars and _____ cents per each.	$	$

0950005A	2388	SY	TURF ESTABLISHMENT at _____ dollars and _____ cents per square yard.	$	$
0952001A	1	LS	SELECTIVE CLEARING AND THINNING at the lump sum price of _____ dollars and _____ cents.	$	$
0969062A	15	MO	CONSTRUCTION FIELD OFFICE (MEDIUM) at _____ dollars and _____ cents per month.	$	$
0970006	1	EST	TRAFFIC PERSON (MUNICIPAL POLICE OFFICER) at an estimated cost of one hundred fifty thousand dollars and zero cents	N/A	$150,000
0970007	50	HR	TRAFFIC PERSON (UNIFORMED FLAGGER) at _____ dollars and _____ cents per hour.	$	$
0971001A	1	LS	MAINTENANCE AND PROTECTION OF TRAFFIC at the lump sum price of _____ dollars and _____ cents.	$	$
0974001A	25	CY	REMOVAL OF EXISTING MASONRY at _____ dollars and _____ cents per cubic yard.	$	$
0975004	1	LS	MOBILIZATION AND PROJECT CLOSEOUT at the lump sum price of _____ dollars and _____ cents.	$	$
0976002	5400	DAY	BARRICADE WARNING LIGHTS-HIGH INTENSITY at _____ dollars and _____ cents per day.	$	$
09077001	50	EA	TRAFFIC CONE at _____ dollars and _____ cents per each.	$	$
0978002	50	EA	TRAFFIC DRUM at _____ dollars and _____ cents per each.	$	$
0979003	12	EA	CONSTRUCTION BARRICADE TYPE III at _____ dollars and _____ cents per each.	$	$
0980001	1	LS	CONSTRUCTION STAKING at the lump sum price of _____ dollars and _____ cents.	$	$
0981101A	12	EA	OPPOSING TRAFFIC LANE DIVIDER at _____ dollars and _____ cents per each.	$	$

1206023A	1	LS	REMOVAL AND RELOCATION OF EXISTING SIGNS at the lump sum price of _____ dollars and _____ cents.	$	$
1208931	100	SF	SIGN FACE – SHEET ALUMINUM (TYPE IX RETROREFLECTIVE SHEETING) at _____ dollars and _____ cents per square foot.	$	$
1208932A	175	SF	SIGN FACE – SHEET ALUMINUM (TYPE IV RETROREFLECTIVE SHEETING) at _____ dollars and _____ cents per square foot.	$	$
1209114	6300	LF	HOT-APPLIED PAINTED PAVEMENT MARKINGS 4” YELLOW at _____ dollars and _____ cents per linear foot.	$	$
1209131	700	SF	HOT-APPLIED PAINTED LEGEND, ARROWS AND MARKINGS at _____ dollars and _____ cents per square foot.	$	$
1210101	7000	LF	4” WHITE EPOXY RESIN PAVEMENT MARKINGS at _____ dollars and _____ cents per linear foot.	$	$
1210102	6300	LF	4” YELLOW EPOXY RESIN PAVEMENT MARKINGS at _____ dollars and _____ cents per linear foot.	$	$
1210105	1450	SF	EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS at _____ dollars and _____ cents per square foot.	$	$
1212001	50	LF	TEMPORARY PLASTIC PAVEMENT MARKING TAPE – 4” YELLOW at _____ dollars and _____ cents per linear foot.	$	$
1212010	50	LF	TEMPORARY PLASTIC PAVEMENT MARKING TAPE – 12” WHITE at _____ dollars and _____ cents per linear foot.	$	$
1220027	780	SF	CONSTRUCTION SIGNS at _____ dollars and _____ cents per square foot.	$	$
1302047A	15	EA	RESET GATE BOXES at _____ dollars and _____ cents per each.		
1302054A	54	EA	REPLACE CURB BOX at _____ dollars and _____ cents per each.	$	$
1303195A	3	EA	REMOVE HYDRANT (WATER MAIN) at _____ dollars and _____ cents per each.	$	$

1303204A	3	EA	HYDRANT ASSEMBLY (WATER MAIN) at _____ dollars and _____ cents per each.	$	$
1403501A	10	EA	RESET MANHOLE (SANITARY SEWER) at _____ dollars and _____ cents per each.	$	$
1700001A	1	EST	SERVICE CONNECTIONS at an estimated cost of five thousand dollars and zero cents	$	$5,000

BID

TOTAL AMOUNT BID IN WORDS:

_____ DOLLARS

TOTAL AMOUNT BID IN FIGURES: $

It is understood and agreed to by the bidder that:

1) The itemization of the Bid, and the selection of the Bid Items used therein, is at the Owner's discretion, and solely for the Owner's convenience in evaluating and comparing the submitted bids and administering the Contract.

2) The Unit Price bid for each item, and the aggregate sum of the Unit Prices multiplied by the corresponding estimated quantity as applied to the project as a whole, includes all plant, labor, material, supplies, equipment, and other facilities necessary for, and incidental to, the construction of said item, complete, fully functional, and properly finished, as required by, and in strict conformance with these Bid Documents, and for the use (or uses) and appearance intended by the Owner.

3) The price bid per unit quantity of work in the various items above shall control in contract award herein.

4) The quantities noted above are approximate, only being estimated solely for use in comparing bids.

5) The Total Bid Amounts entered above, and the bid amount for each item (obtained by multiplying the unit price by the estimated quantity), are included solely for the purpose of checking this proposal and for the convenience of the Bidder.

6) The above prices are to be paid for the actual quantities of the items of work in the completed work or structure. Should the dimensions of any part of the work or the quantities of materials used or work performed be different than those designated in this Form of Bid, or on the Improvement Drawings, the actual quantities only will be allowed in measurement.

7) In submitting this Bid, the Bidder understands that the Owner reserves the right to reject any and all bids, and to waive any informality in the bidding. The Owner further reserves the right to make the award on the basis of the above bid.

8) If written notice of the acceptance of this bid is mailed, telegraphed, or delivered to the undersigned after the opening thereof, the undersigned agrees to execute and deliver any Agreement in the prescribed form and furnish the required bonds within ten (10) days after the Agreement is presented to him for his signature.

9) The Bidder is enclosing a statement of his qualifications.

10) The Owner reserves the right to delete any of the bid items in total or to increase or reduce the quantity of any bid items.

11) The Bidder shall comply with all provisions of the Bid Documents in his prosecution of the Project if awarded the Contract; and all provisions will be enforced by the Owner.

Dated this _____ day of _____ , _____

Bidder's Name:

By: _____Official

Address_____

_____

Title: _____

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, _____, as Principal, and _____, as Surety, are hereby held and firmly bound unto The City of New Britain, as Owner, in the penal sum of

Dollars ($_____) lawful money of the United States, for the payment of which sum well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns firmly by these presents.

The condition of the above obligation is such that whereas the Principal has submitted to the Owner a certain Bid, attached hereto, and made a part hereof by reference, to enter into a contract in writing for the project entitled **Hart Street Reconstruction, Bid No. 3879.**

NOW THEREFORE,

(a) if said Bid shall be rejected, or in the alternate,

(b) if said Bid shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract (properly completed in accordance with said Bid) attached hereto, and shall furnish the Owner with proper bonds for his faithful performance of said contract and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid, then this obligation shall be void. Otherwise, the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of his obligation as herein stated.

The surety, for value received, hereby stipulates and agrees that the obligation of said Surety and its bond shall be in no

way impaired or affected by any extension of the time within which the Owner may accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporation seals to be hereto affixed, and these presents to be signed by their proper officers.

Made and entered into this _____ day of _____, _____.

PRINCIPAL:

By:_____

SURETY:

By:_____

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED

DETAILED ESTIMATE SHEET

P = FEDERAL AID PARTICIPATING
NP= FEDERAL AID NON PARTICIPATING
*=FOR INTERNAL USE ONLY
NOT A LEGAL DEFINITION

FOR THE CONSTRUCTION OF RECONSTRUCTION OF HART STREET IN THE CITY OF NEW BRITAIN

HART STREET– FROM STA. 10+00 TO STA. 42+00 LENGTH 3200 FEET BASE COURSE: SUPERPAVE – 0.50", LEVEL 2 WIDTH 30 FEET DEPTH 2.5 IN; SURFACE COURSE: SUPERPAVE – 0.50" WIDTH 30 FEET DEPTH 2.5 IN

VINE STREET– FROM STA. 90+00 TO STA. 91+29.82 LENGTH 129.82 FEET BASE COURSE: SUPERPAVE – 0.50", LEVEL 2 WIDTH VARIES FEET DEPTH 2.5 IN; SURFACE COURSE: SUPERPAVE – 0.50" WIDTH VARIES FEET DEPTH 2.5 IN

FROM STA. ____ TO STA. ____ LENGTH ____ FEET BASE COURSE: ____ WIDTH ____ FEET DEPTH ____ IN; SURFACE COURSE: ____ WIDTH ____ FEET DEPTH ____ IN

FROM STA. ____ TO STA. ____ LENGTH ____ FEET BASE COURSE: ____ WIDTH ____ FEET DEPTH ____ IN; SURFACE COURSE: ____ WIDTH ____ FEET DEPTH ____ IN

ITEM NUMBER	0201001	0202003A	0202120A	0202351A	0202451A	0202503A	0202529	0205001	0205002	0205003	0205004	0209001	0212003	0213011A	0304002A	0406002A
CONSTRUCTION ITEMS	Clearing and Grubbing	Earth Excavation	Rock Excavation (No Explosives)	Unsuitable Material Excavation	Test Pit Excavation	Removal of Concrete Curbing	Cut Bituminous Concrete Pavement	Trench Excavation 0'-4' Deep	Rock in Trench Excavation 0'-4' Deep	Trench Excavation 0'-10' Deep	Rock in Trench Excavation 0'-10' Deep	Formation of Subgrade	Subbase	Granular Fill	Processed Aggregate Base	Temporary Pavement
	L.S.	C.Y.	C.Y.	C.Y.	C.Y.	L.F.	L.F.	C.Y.	C.Y.	C.Y.	C.Y.	S.Y.	C.Y.	C.Y.	C.Y.	S.Y.
HART STREET																
STA. 10+00 TO STA. 42+00	1	9547	164	206	50	6455	310	~~494~~	~~49~~	~~2170~~	~~217~~	11457	3819	260	1909	1300
								630	63	2620	262					
SUBTOTAL	1	9547	164	206	50	6455	310	~~494~~	~~49~~	~~2170~~	~~217~~	11457	3819	260	1909	1300
UNASSIGNED								630	63	2620	262					
CONTRACT TOTAL	1	9547	164	206	50	6455	310	~~494~~	~~49~~	~~2170~~	~~217~~	11457	3819	260	1909	1300
								630	63	2620	262					
FEDERAL AND STATE PARTICIPATING																
FEDERAL AND STATE NON–PARTICIPATING																

ITEM NUMBER	0406170	0406171	0406236	0506001	0507001A	0507004A	0507022A	0507048A	0507201A	0507601A	0507685A	0651001	0651012A	0651013A	0651015A	0651743A
CONSTRUCTION ITEMS	HMA S1	HMA S0.5	Material for Tack Coat	Concrete for Steps and Copings	Type "C" Catch Basin	Remove Catch Basin/Manhole	Type "C" Catch Basin Double Grate – Type II	Type "C" C.B. Without Sump	Type "C–L" Catch Basin	Manhole	Manhole – 6' Diameter	Bedding Material	15" R.C. Pipe	18" R.C. Pipe	24" R.C. Pipe	6" Polyvinyl Chloride Pipe
	Ton	Ton	Gal.	C.Y.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	C.Y.	L.F.	L.F.	L.F.	L.F.
HART STREET																
STA. 10+00 TO STA. 42+00	5	3225	2062	35	24	20	2	2	1	18	1	805	~~2482~~	320	26	704
													2431			
SUBTOTAL	5	3225	2062	35	24	20	2	2	1	18	1	805	~~2482~~	320	26	704
UNASSIGNED													2431			
CONTRACT TOTAL	5	3225	2062	35	24	20	2	2	1	18	1	805	~~2482~~	320	26	704
													2431			
FEDERAL AND STATE PARTICIPATING																
FEDERAL AND STATE NON–PARTICIPATING																

ITEM NUMBER	0651746A	0811001A	0811002A	0815001	0921001A	0922001	0922500	0922501	0924006A	0924007A	0939001	0942001	0943001	0944002	0946001	0949000A
CONSTRUCTION ITEMS	12" Polyvinyl Chloride Pipe	Concrete Curbing	Special Concrete Curbing	Bituminous Concrete Lip Curbing	Concrete Sidewalk	Bituminous Concrete Sidewalk	Bituminous Concrete Driveway– Commercial	Bituminous Concrete Driveway	Concrete Driveway Ramp	Concrete Driveway Ramp–Commercial	Sweeping for Dust Control	Calcium Chloride for Dust Control	Water for Dust Control	Furnishing and Placing Topsoil	Liming	Wood Chip Mulch
	L.F.	L.F.	L.F.	L.F.	S.F.	S.Y.	S.Y.	S.Y.	S.F.	S.F.	HR.	Ton	M.Gal.	S.Y.	Ton	S.Y.
HART STREET																
STA. 10+00 TO STA. 42+00	~~40~~	6455	50	100	25507	83	31	243	6237	531	50	5	500	2388	5	92
	115															
SUBTOTAL	~~40~~	6455	50	100	25507	83	31	243	6237	531	50	5	500	2388	5	92
UNASSIGNED	115															
CONTRACT TOTAL	~~40~~	6455	50	100	25507	83	31	243	6237	531	50	5	500	2388	5	92
	115															
FEDERAL AND STATE PARTICIPATING																
FEDERAL AND STATE NON–PARTICIPATING																

ITEM NUMBER	0949131A	0949146A	0949164A	0949165A	0949356A	0949446A	0949834A	0949852A	0950005A	0952001A	0969062A	0970007	0971001A	0974001A	0975004	0976002	0977001	0978002	0979003
CONSTRUCTION ITEMS	Syringa Reticulata, "Ivory Silk" Japanese Tree Lilac 3"–3.5" Cal.	Quercus Rubra, Northern Red Oak, 3"–3.5" Cal.	Malus "Red Jewel", Red Jewel Crabapple, 3"–3.5" Cal.	Carya Ovata, Shagbark Hickory, 3"–3.5" Cal.	Prunus Serrulata Kwanzan Cherry, 3"–3.5" Cal.	Buxus Sempervirens, "American Boxwood" Classic 3 Gallon	Acer Rubrum Red Maple, 3"–3.5" Cal.	Acer Saccharinum Silver Maple, 3"–3.5" Cal.	Turf Establishment	Selective Clearing and Thinning	Construction Field Office (Medium)	Traffic Person (Uniformed Flagger)	Maintenance and Protection of Traffic	Removal of Existing Masonary	Mobilization and Project Closeout	Barricade Warning Lights High Intensity	Traffic Cone	Traffic Drum	Construction Barricade Type III
	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	S.Y.	L.S.	MO	HR	L.S.	C.Y.	L.S.	Day	EA.	EA.	EA.
HART STREET																			
STA. 10+00 TO STA. 42+00	3	3	7	3	9	10	3	3	2388	1	15	50	1	25	1	5400	50	50	12
SUBTOTAL	3	3	7	3	9	10	3	3	2388	1	15	50	1	25	1	5400	50	50	12
UNASSIGNED																			
CONTRACT TOTAL	3	3	7	3	9	10	3	3	2388	1	15	50	1	25	1	5400	50	50	12
FEDERAL AND STATE PARTICIPATING																			
FEDERAL AND STATE NON–PARTICIPATING																			

ITEM NUMBER	0980001	0981101A	1206023A	1208931	1208932A	1209114	1209131	1210101	1210102	1210105	1212001	1212010	1220027	1302047A	1302054A	1303195A	1303204A	1403501A
CONSTRUCTION ITEMS	Construction Staking	Opposing Traffic Lane Divider	Removal and Relocation of Existing Signing	Sign Face–Sheet Aluminum (Type IX Retroreflective Sheeting)	Sign Face Sheet Aluminum (Type IV Reflective Sheeting)	Hot–Applied Painted Pavement Markings 4" Yellow	Hot–Applied Painted Legend, Arrows and Markings	4" White Epoxy Resin Pavement Markings	4" Yellow Epoxy Resin Pavement Markings	Epoxy Resin Pavement Markings–Symbols & Legends	Temporary Plastic Pavement Marking Tape – 4" Yellow	Temporary Plastic Pavement Marking Tape – 12" White	Construction Signs	Reset Gate Boxes	Replace Curb Box	Remove Hydrant (Water Main)	Hydrant Assembly (Water Main)	Reset Manhole (Sanitary Sewer)
	L.S.	EA.	L.S.	S.F.	S.F.	L.F.	S.F.	L.F.	L.F.	S.F.	L.F.	L.F.	S.F.	EA.	EA.	EA.	EA.	EA.
HART STREET																		
STA. 10+00 TO STA. 42+00	1	12	1	100	175	6300	700	7000	6300	1450	50	50	780	15	54	3	3	10
SUBTOTAL	1	12	1	100	175	6300	700	7000	6300	1450	50	50	780	15	54	3	3	10
UNASSIGNED																		
CONTRACT TOTAL	1	12	1	100	175	6300	700	7000	6300	1450	50	50	780	15	54	3	3	10
FEDERAL AND STATE PARTICIPATING																		
FEDERAL AND STATE NON–PARTICIPATING																		

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

SCALE NONE

JOB NO. 88–185

DETAILED ESTIMATE SHEET

SUBSET 4.1.A1

Notes:
1. Inverts are measured at center of MH and cross slope of MH will be a standard 1%.
2. Pipe lengths are measured from the centers of structures in the profiles.

PVI Sta.=10+70.68
PVI Elev=184.23
AD=0.70%
K=71.43
50.00' VC

PVI STA = 10+28.95
ELEV = 183.29
PVT Sta. 10+45.68
Elev. 183.66
PVT Sta. 10+95.68
Elev. 184.96

Proposed Storm MH
Sta.10+95 -1.98'L
TF 184.90
E&W Inv 178.40
N Inv 178.72
S Inv 180.57

Proposed CB
Sta.11+00 -15.00'L
TF 184.72
~~Inv 180.75~~
Inv 179.90

Ex Storm MH
Sta.10+39 -1.98'L
TF 183.56
Inv 176.71

Proposed Storm MH
Sta.10+39 -1.98'L
TF 183.50
Inv 176.60

Ex Sanitary MH
Sta.10+41 2.31'R
TF 183.70
Inv 173.74

Proposed CB
Sta.11+00 15.00'R
TF 184.72
Inv 180.75

Existing CB
Sta.11+51 -15.00'L
TF 186.43
Inv 180.53

L=69.3'
@ 3.3%
Ex 12" Clay Storm

L=56.2'
@ 3.1%
15" Reinforced Concrete Pipe

L=40.0'
@ 3.1%
Ex 12" Clay Storm

Ex CB
Sta.10+81 15.00'R
TF 183.96
Inv 177.95

2.25%
2.95%

L=280.0'
@ 3.2%
15" Reinforced Concrete Pipe

L=525.4'
@ 4.0%
Ex 8" Clay Sanitary

PVI Sta.=14+57.32
PVI Elev=195.63
AD=5.05%
K=49.00
247.45' VC

PVT Sta. 13+33.60
Elev. 191.98

Proposed Storm MH
Sta.13+75 -2.20'L
TF 193.32
S&E&W Inv 187.50
N Inv 189.74

Proposed CB
Sta.13+80 15.00'R
TF 193.20
~~Inv 188.50~~
Inv 190.00

Proposed CB
Sta.13+80 -15.00'L
TF 193.20
~~Inv 188.50~~
Inv 187.70

L=309.8'
@ 3.3%
Ex 12" Clay Storm

L=195.0'
@ 3.7%
15" Reinforced Concrete Pipe

PVT Sta. 15+81.04
Elev. 205.53
PVT Sta. 15+90.92
Elev. 206.32

PVI Sta.=16+61.53
PVI Elev=211.97
AD=-4.87%
K=29.00
141.22' VC

Ex Storm MH
Sta.15+66 -2.07'L
TF 204.88
Inv 197.03

Proposed Storm MH
Sta.15+73 -2.20'L
TF 204.84
Inv 195.00

Ex Sanitary MH
Sta.15+66 2.89'R
TF 204.85
Inv 194.75

L=107.6'
@ 6.0%
Ex 12" Clay Storm

10+00	11+00	12+00	13+00	14+00	15+00	16+00	16+25
183.04	183.44	183.84	183.76	184.71	184.38	185.50	185.09
186.27	185.83	187.01	186.57	187.77	187.30	188.57	188.04
189.34	188.78	190.07	189.52	190.79	190.25	191.49	190.99
192.24	191.73	192.99	192.49	193.85	193.38	194.67	194.39
196.61	195.53	196.77	196.80	198.09	198.20	199.79	199.72
201.62	201.37	203.62	203.15	205.63	205.05	207.64	207.03
209.47	208.85						

VERTICAL SCALE IN FEET (1" = 2')

HORIZONTAL SCALE IN FEET (1" = 20')

PROFILE
HART STREET

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1-Drainage Revisions	CP	RT

SCALE: AS NOTED
JOB NO. 88-185
SUBSET 10.1.A1

Notes:
1. Inverts are measured at center of MH and cross slope of MH will be a standard 1%.
2. Pipe lengths are measured from the centers of structures in the profiles.

PVI Sta.=16+61.53
PVI Elev=211.97
AD=-4.87%
K=29.00
141.22' VC

Proposed CB
Sta.17+00 -15.00'L
TF 212.62
~~Inv 208.93~~
Inv 209.62

Proposed Storm MH
Sta.16+96 2.29'R
TF 212.77
E&W Inv 208.50
N Inv 209.36
S Inv 209.44

Proposed Storm MH
Sta.16+64 2.29'R
TF 211.21
Inv 200.57

PVT Sta. 17+32.44
Elev. 214.18

3.13%

L=31.7'
@ 3.3%
12" P.V.C.
15" R.C.P.

L=20.8'
@ 2.0%
12" P.V.C.
15" R.C.P.

Proposed CB
~~Ex Structure - (109)~~
Sta.17+00 15.00'R
TF 212.62
~~Inv 208.84~~
Inv 209.62

Proposed CB
Sta.16+48 -35.81'L
TF 210.48
Inv 207.00

PVI Sta.=18+70.80
PVI Elev=218.52
AD=0.87%
K=150.00
130.43' VC

PVT Sta. 18+05.58
Elev. 216.48

PVT Sta. 19+36.01
Elev. 221.13

4.00%

Proposed Storm MH
Sta.20+00 2.29'R
TF 223.63
Inv 219.50

Proposed CB
Sta.20+02 -15.00'L
TF 223.39
Inv 220.42

Proposed CB
Sta.20+09 15.00'R
TF 223.67
Inv 220.39

Ex Sanitary MH
Sta.20+18 -1.11'L
TF 224.68
Inv 216.94

PVT Sta. 20+23.77
Elev. 224.64

L=39.9'
@ 5.4%
12" P.V.C.
15" R.C.P.

L=15.5'
@ 2.0%
12" P.V.C.

L=304.0'
@ 3.6%
12" P.V.C.
15" R.C.P.

PVI Sta.=21+73.77
PVI Elev=230.64
AD=-6.75%
K=44.44
300.00' VC

High Point Sta.=22+01.55
High Point Elev.=228.20

L=335.1'
@ 0.8%
Ex 8" Clay Sanitary

16+25	17+00	18+00	19+00	20+00	21+00	22+00	22+75
209.47 / 208.85	211.20 / 210.45	212.55 / 211.83	213.57 / 213.00	214.27 / 213.95	215.11 / 214.74	215.87 / 215.52	216.68 / 216.30
217.45 / 217.10	218.27 / 217.94	219.11 / 218.81	220.04 / 219.73	220.88 / 220.69	222.01 / 221.69	223.04 / 222.69	224.12 / 223.89
225.02 / 224.69	226.02 / 225.61	226.77 / 226.39	227.24 / 227.04	227.70 / 227.54	227.99 / 227.90	228.27 / 228.12	228.37 / 228.20
228.45 / 228.13	228.10 / 227.93	227.70 / 227.59					

VERTICAL SCALE IN FEET (1" = 4')

HORIZONTAL SCALE IN FEET (1" = 20')

PROFILE
HART STREET

SUBSET 10.2.A1

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1-Drainage Revisions	CP	RT

SCALE: AS NOTED

JOB NO. 88-185

Notes:
1. Inverts are measured at center of MH and cross slope of MH will be a standard 1%.
2. Pipe lengths are measured from the centers of structures in the profiles.

VERTICAL SCALE IN FEET (1" = 4')

HORIZONTAL SCALE IN FEET (1" = 20')

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
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DATE: 8/4/16

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

REV.	DATE	DESCRIPTION	BY	APP'D
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SCALE: AS NOTED

JOB NO. 88-185

PROFILE
HART STREET

SUBSET 10.3.A1

Ex Storm MH
Sta.29+29 2.43'L
TF 198.17
Inv 191.02

Proposed CB
Sta.29+67 −15.00'L
TF 195.09
~~Inv 191.00~~
Inv 190.00 ⚠1

Proposed Storm MH
Sta.29+72 −2.40'L
TF 195.14
E&W Inv 187.80
N Inv 189.83
S Inv 189.23 ⚠1

Proposed CB
Sta.29+67 15.00'R
TF 195.09
~~Inv 191.00~~
Inv 189.50 ⚠1

Ex Sanitary MH
Sta.29+29 2.89'R
TF 198.14
Inv 188.23

PVI Sta.=33+52.56
PVI Elev=172.72
AD=9.81%
K=48.88
479.61' VC

PVT Sta. 31+12.76
Elev. 186.87

Proposed CB
Sta.31+80 16.15'R
TF 182.96
~~Inv 178.35~~
Inv 176.00 ⚠1

Existing CB
Sta.32+02 16.80'R
TF 180.93
Inv 171.15

Proposed Storm MH
Sta.31+84 1.38'L
TF 183.13
E&W Inv 172.70
N Inv 176.83
S Inv 175.73

L=266.0'
@ 7.1%
Ex 12" Clay Storm

Proposed CB
Sta.31+17 −14.80'L
TF 186.25
~~Inv 181.50~~
Inv 182.25 ⚠1

Proposed CB
Sta.31+80 −13.85'L
TF 183.02
~~Inv 178.35 In~~
~~Inv 178.35 Out~~
Inv 179.76 In
Inv 177.00 Out ⚠1

Proposed 6' Storm MH
Sta.32+27 0.89'L
TF 181.45
Inv 170.05

Ex Storm MH
Sta.32+26 22.90'R
TF 180.55
Inv 168.90

Existing CB
Sta.33+58 −12.04'L
TF 177.72
Inv 170.81

Proposed Storm MH
Sta.33+95 0.43'R
TF 178.35
E&W Inv 171.10
N Inv 171.83
S Inv 171.73 ⚠1

Low Point Sta.=34+01.15
Low Point Elev.=178.36

Proposed Type "C" CB
Double Grate-Type II
Sta.34+00 −12.00'L
TF 178.06
~~Inv 173.89~~
Inv 172.00 ⚠1

Proposed Storm MH
Sta.35+54 0.42'R
TF 180.75
~~Inv 174.70~~
E&W Inv 174.23
N Inv 174.63
S Inv 174.23 ⚠1

Proposed CB
Sta.35+59 −12.00'L
TF 180.61
Inv 176.30 In
~~Inv 176.30 Out~~
Inv 174.80 Out ⚠1

L=272.8'
@ 5.8%
Ex 8" Clay Sanitary

15" Reinforced Concrete Pipe
L=212.9'
@ 7.1%

15" Reinforced Concrete Pipe
L=63.0'
@ 3.0%

Existing CB
Sta.33+57 18.12'R
TF 177.30
Inv 170.76

Ex Sanitary MH
Sta.32+31 27.89'R
TF 180.17
Inv 167.00

L=79.4'
@ 1.0%
Ex 15" Clay Storm

L=38.9'
@ 1.0%
Ex 15" Clay Storm

15" Reinforced Concrete Pipe
L=42.1'
@ 6.3%

L=168.9'
@ 0.6%
18" Reinforced Concrete Pipe

⚠1 L=159.0'
@ 2.2% @ 2.0%
18" Reinforced Concrete Pipe

Proposed CB
Sta.35+59 18.00'R
TF 180.37
~~Inv 176.30~~
Inv 174.50 ⚠1

L=293.2'
@ 2.2%
Ex 12" Clay Storm

L=24.0'
@ 7.1%
Ex 12" Clay Storm

L=37.7'
@ 14.3%
Ex 8" Clay Sanitary

L=38.3'
@ 1.9%
Ex 8" Clay Sanitary

Proposed Type "C" CB
Double Grate-Type II
Sta.34+00 18.00'R
TF 177.82
~~Inv 173.65~~
Inv 172.00 ⚠1

L=368.1'
@ 1.5%
Ex 8" Clay Sanitary

Notes:
1. Inverts are measured at center of MH and cross slope of MH will be a standard 1%.
2. Pipe lengths are measured from the centers of structures in the profiles.

29+25	30+00	31+00	32+00	33+00	34+00	35+00	35+65
198.61	197.15	195.71	194.31	192.89	191.49	190.06	188.59
197.94	196.47	194.99	193.52	192.04	190.57	189.09	187.62
187.14	185.63	184.09	182.69	181.34	180.34	179.60	178.82
186.16	184.81	183.59	182.50	181.53	180.70	179.99	179.21	179.41	178.95	178.55	178.63	178.43	178.43	178.51	178.36	178.60	178.42	178.78	178.60	179.13	178.92	179.64	179.36	180.10	179.93	180.83	180.63	181.28	181.11

VERTICAL SCALE IN FEET
(1" = 4')

HORIZONTAL SCALE IN FEET
(1" = 20')

PROFILE
HART STREET

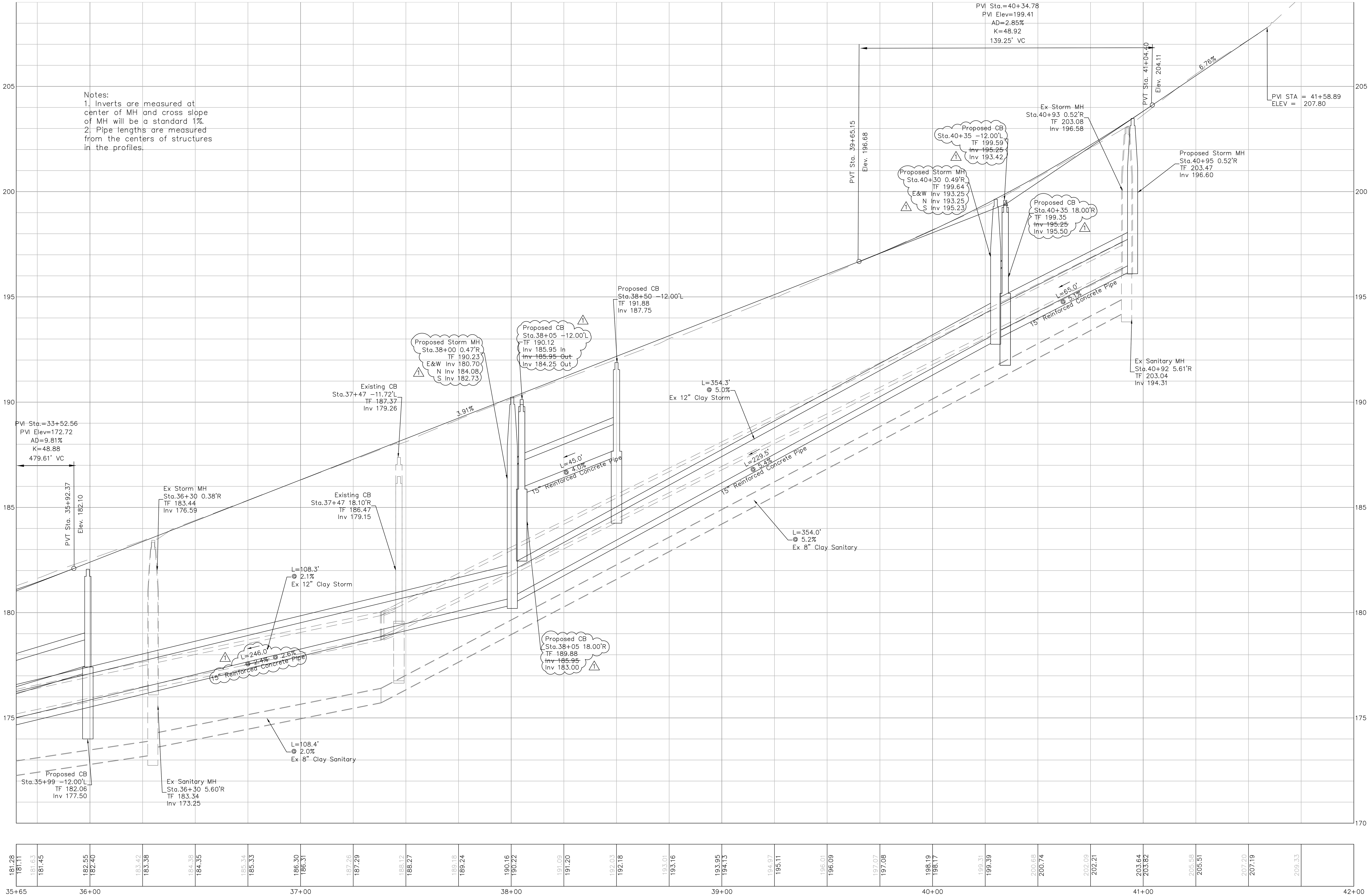
CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

SCALE: AS NOTED
JOB NO. 88–185
SUBSET 10.4.A1



4 2 0 4 8 12
VERTICAL SCALE IN FEET
(1" = 4')

20 10 0 20 40 60
HORIZONTAL SCALE IN FEET
(1" = 20')

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

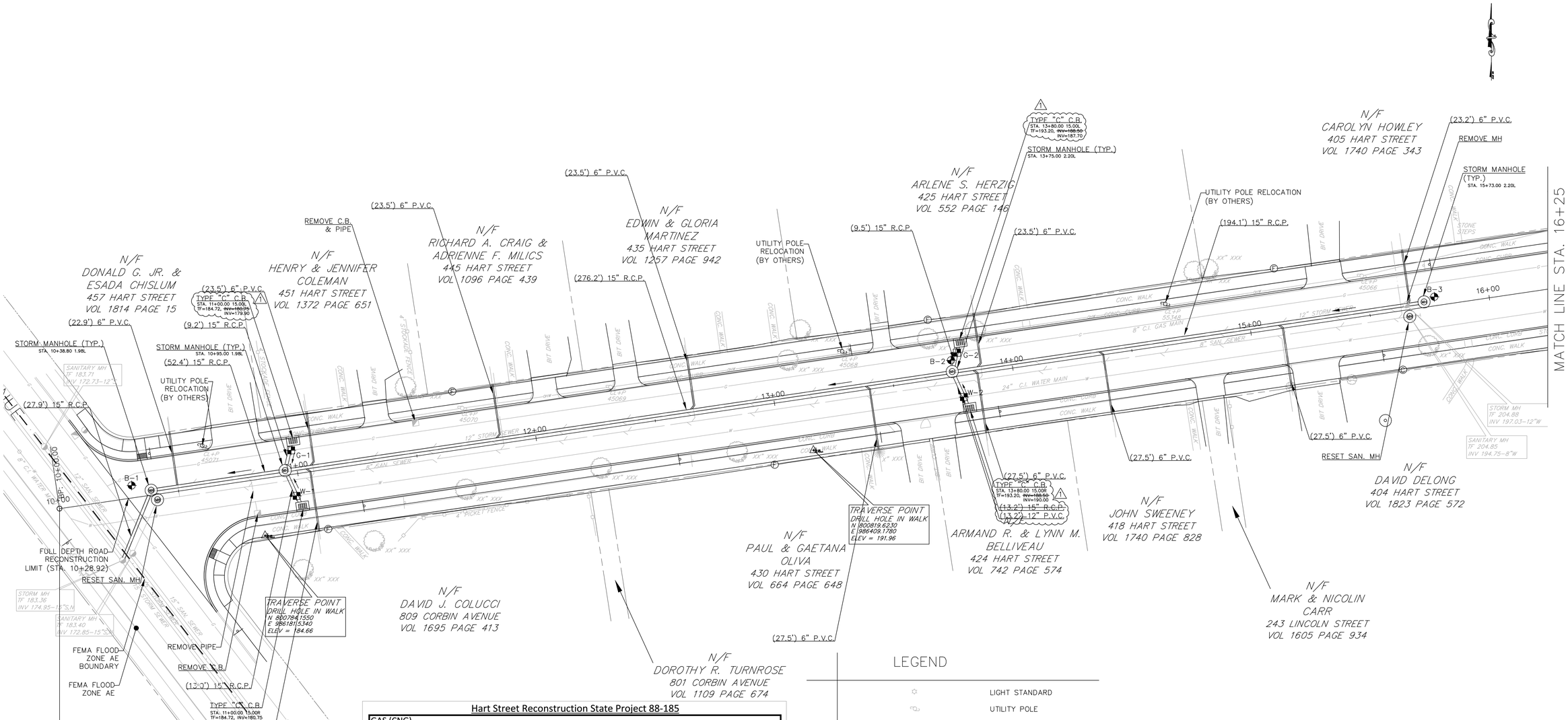
HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1-Drainage Revisions	CP	RT

SCALE AS NOTED
JOB NO. 88-185

PROFILE
HART STREET

SUBSET 10.5.A1



Hart Street Reconstruction State Project 88-185

GAS (CNG)

Test Pit #	Baseline Station	Baseline Offset	Northing	Easting	Ground Elevation (FT)	Top of Pipe Elevation (FT)	Utility Description	Relocation Anticipated
G-1	10+98.7	9.94LT	800819.5798	986192.2945	185.05	181.55	8" Cast Iron	NO
G-2	13+78.1	9.71LT	800860.1458	986468.704	193.35	190.35	8" Cast Iron	NO
G-3	16+16.1	9.61LT	800902.2398	986754.628	212.23	208.23	8" Cast Iron	NO
G-4	19+15.5	9.55LT	800938.4549	987000.4036	220.22	216.52	8" Cast Iron	NO
G-5	22+00.0	10.97LT	800972.242	987283.4797	227.82	225.41	8" Cast Iron	NO
G-6	23+77.3	10.95LT	800985.4162	987460.3451	224.96	221.79	8" Cast Iron	NO
G-7	27+28.3	10.87LT	801011.4688	987810.3814	209.35	207.44	8" Cast Iron	YES
G-8	29+34.9	11.07LT	801027.0441	988016.3788	197.56	195.31	8" Cast Iron	YES
G-9	31+17.0	10.05LT	801039.7712	988197.8613	187.23	183.9	8" Cast Iron	NO
G-10	33+98.4	6.88LT	801060.3497	988478.6379	178.18	174.93	8" Cast Iron	NO
G-11A	35+98.9	6.71LT	801075.1096	988678.6002	182.36	179.36	10" Cast Iron	NO
G-11B	35+98.9	5.84LT	801074.245	988678.6646	182.39	179.74	4" Cast Iron	NO
G-12A	40+32.4	6.89LT	801107.5595	989110.8983	199.49	196.14	10" Cast Iron	NO
G-12B	40+32.4	5.89LT	801106.5623	989110.9727	199.53	196.68	4" Cast Iron	NO
G-13A	38+02.9	6.57LT	801090.1457	988881.99	190.25	187.25	10" Cast Iron	NO
G-13B	38+02.9	5.57LT	801089.1485	988882.0645	190.25	187.6	4" Cast Iron	NO

WATER (CITY OF NEW BRITAIN)

Test Pit #	Baseline Station	Baseline Offset	Northing	Easting	Ground Elevation (FT)	Top of Pipe Elevation (FT)	Utility Description	Relocation Anticipated
W-1	10+98.2	9.08RT	800800.6806	986194.5611	185.04	179.54	24" Cast Iron	NO
W-2	13+78.2	8.92RT	800841.7286	986471.5769	193.64	189.44	24" Cast Iron	NO
W-3	20+31.1	6.79RT	800939.1714	987117.1849	225.31	220.61	24" Cast Iron	NO
W-4	25+91.0	5.59RT	800984.8255	987674.6155	217.55	214.15	12" Cast Iron	NO
W-5	29+19.2	6.50RT	801012.074	988051.869	195.79	192.69	12" Cast Iron	NO
W-6	32+26.5	8.37RT	801031.2056	988308.543	181.17	177.32	12" Cast Iron	NO
W-7	38+03.3	10.46RT	801073.1951	988883.6658	189.59	186.09	12" Cast Iron	NO
W-8	40+32.5	10.23RT	801090.4906	989112.2234	199.09	194.84	12" Cast Iron	NO
W-9	27+96.5	6.23RT	800999.4836	987879.5825	205.8	202.1	12" Cast Iron	NO
W-10	33+97.9	10.17RT	801043.3164	988479.4173	178.39	175.64	12" Cast Iron	NO
W-11	35+56.9	10.59RT	801054.728	988638.0105	180.75	177.83	12" Cast Iron	NO
W-12	17+86.0	9.03RT	800901.1699	986875.015	215.87	212.07	24" Cast Iron	NO

LEGEND

- LIGHT STANDARD
- UTILITY POLE
- SIGN
- GUY WIRE
- DECIDUOUS TREE
- EVERGREEN TREE
- BUSH
- HEDGE
- HYDRANT
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- OVERHEAD WIRE
- STORM SEWER LATERAL
- SANITARY SEWER LATERAL
- CATCH BASIN
- MANHOLE
- GAS GATE
- WATER GATE

HORIZONTAL SCALE IN FEET
(1" = 20')

THIS UTILITY INFORMATION IS BASED ON LIMITED FIELD INVESTIGATIONS AND IS PRESENTED FOR INFORMATIONAL PURPOSES ONLY. IN SOME CASES THE FACILITY WAS NOT COMPLETELY EXPOSED TO POSITIVELY VERIFY ITS SIZE OR MATERIAL TYPE. THE CONTRACTOR IS STILL REQUIRED TO COORDINATE ITS CONSTRUCTION ACTIVITIES SO THAT THE UTILITIES ARE PROTECTED AT ALL TIMES.

UTILITY PLAN

HART STREET

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

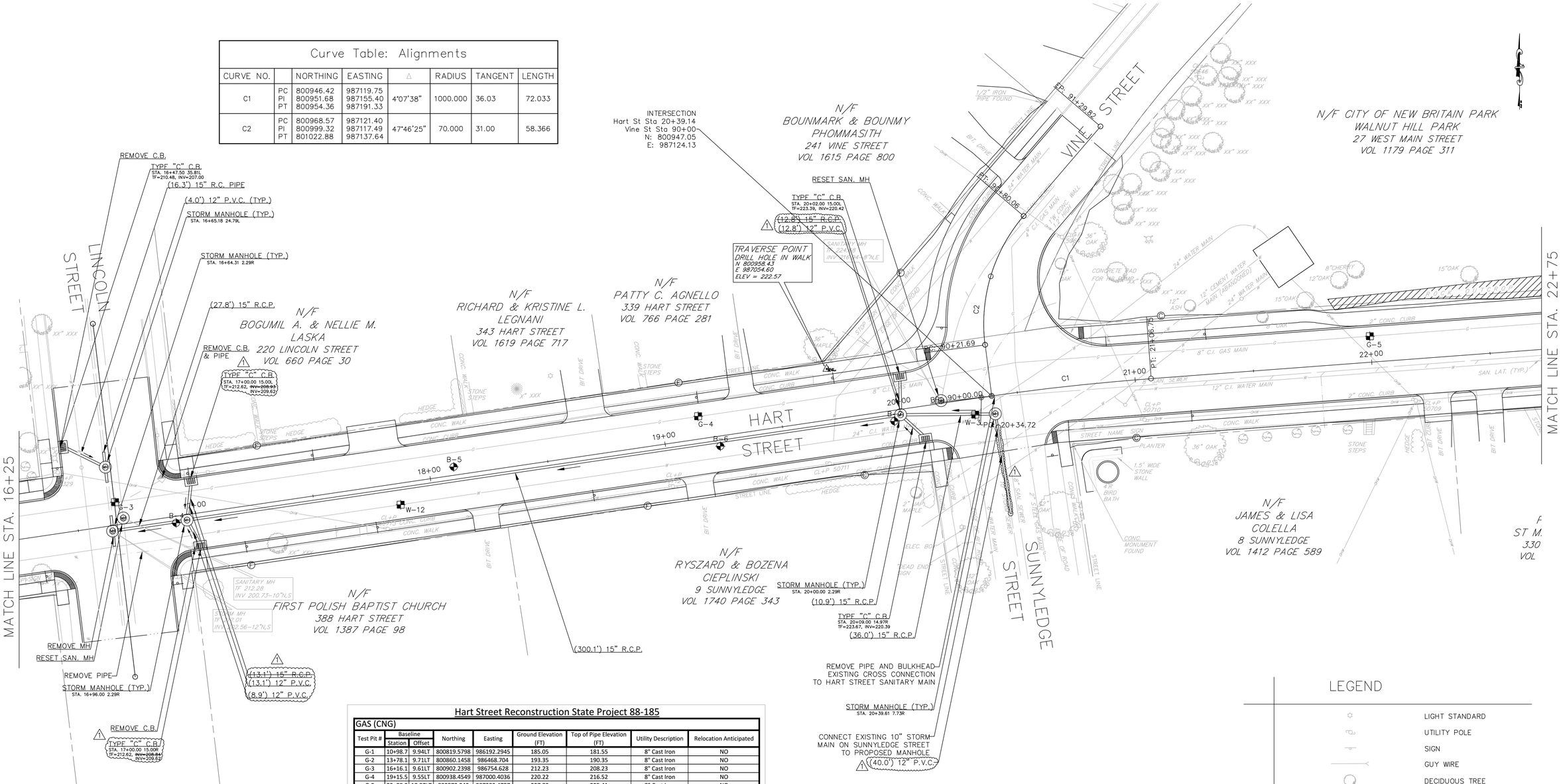
DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1-Drainage Revisions	CP	RT

SCALE 1" = 20'
JOB NO. 88-185
SUBSET 11.1.A1

Curve Table: Alignments							
CURVE NO.		NORTHING	EASTING	Δ	RADIUS	TANGENT	LENGTH
C1	PC PI PT	800946.42 800951.68 800954.36	987119.75 987155.40 987191.33	4°07'38"	1000.000	36.03	72.033
C2	PC PI PT	800968.57 800999.32 801022.88	987121.40 987117.49 987137.64	47°46'25"	70.000	31.00	58.366



Hart Street Reconstruction State Project 88-185

GAS (CNG)

Test Pit #	Baseline Station	Baseline Offset	Northing	Easting	Ground Elevation (FT)	Top of Pipe Elevation (FT)	Utility Description	Relocation Anticipated
G-1	10+98.7	9.94LT	800819.5798	986192.2945	185.05	181.55	8" Cast Iron	NO
G-2	13+78.1	9.71LT	800860.1458	986468.704	193.35	190.35	8" Cast Iron	NO
G-3	16+16.1	9.61LT	800902.2398	986754.628	212.23	208.23	8" Cast Iron	NO
G-4	19+15.5	9.55LT	800938.4549	987000.4036	220.22	216.52	8" Cast Iron	NO
G-5	22+00.0	10.97LT	800972.242	987283.4797	227.82	225.41	8" Cast Iron	NO
G-6	23+77.3	10.95LT	800985.4162	987460.3451	224.96	221.79	8" Cast Iron	NO
G-7	27+28.3	10.87LT	801011.4688	987810.3814	209.35	207.44	8" Cast Iron	YES
G-8	29+34.9	11.07LT	801027.0441	988016.3788	197.56	195.31	8" Cast Iron	YES
G-9	31+17.0	10.05LT	801039.7712	988197.8613	187.23	183.9	8" Cast Iron	NO
G-10	33+98.4	6.88LT	801060.3497	988478.6379	178.18	174.93	8" Cast Iron	NO
G-11A	35+98.9	6.71LT	801075.1096	988678.6002	182.36	179.36	10" Cast Iron	NO
G-11B	35+98.9	5.84LT	801074.245	988678.6646	182.39	179.74	4" Cast Iron	NO
G-12A	40+32.4	6.89LT	801107.5595	989110.8983	199.49	196.14	10" Cast Iron	NO
G-12B	40+32.4	5.89LT	801106.5623	989110.9727	199.53	196.68	4" Cast Iron	NO
G-13A	38+02.9	6.57LT	801090.1457	988881.99	190.25	187.25	10" Cast Iron	NO
G-13B	38+02.9	5.57LT	801089.1485	988882.0645	190.25	187.6	4" Cast Iron	NO

WATER (CITY OF NEW BRITAIN)

Test Pit #	Baseline Station	Baseline Offset	Northing	Easting	Ground Elevation (FT)	Top of Pipe Elevation (FT)	Utility Description	Relocation Anticipated
W-1	10+98.2	9.08RT	800800.6806	986194.5611	185.04	179.54	24" Cast Iron	NO
W-2	13+78.2	8.92RT	800841.7286	986471.5769	193.64	189.44	24" Cast Iron	NO
W-3	20+31.1	6.79RT	800939.1714	987117.1849	225.31	220.61	24" Cast Iron	NO
W-4	25+91.0	5.59RT	800984.8255	987674.6155	217.55	214.15	12" Cast Iron	NO
W-5	29+19.2	6.50RT	801012.074	988051.869	195.79	192.69	12" Cast Iron	NO
W-6	32+26.5	8.37RT	801031.2056	988308.543	181.17	177.32	12" Cast Iron	NO
W-7	38+03.3	10.46RT	801073.1951	988883.6658	189.59	186.09	12" Cast Iron	NO
W-8	40+32.5	10.23RT	801090.4906	989112.2234	199.09	194.84	12" Cast Iron	NO
W-9	27+96.5	6.23RT	800999.4836	987879.5825	205.8	202.1	12" Cast Iron	NO
W-10	33+97.9	10.17RT	801043.3164	988479.4173	178.39	175.64	12" Cast Iron	NO
W-11	35+56.9	10.59RT	801054.728	988638.0105	180.75	177.83	12" Cast Iron	NO
W-12	17+86.0	9.03RT	800901.1699	986875.015	215.87	212.07	24" Cast Iron	NO

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LEGEND

- LIGHT STANDARD
- UTILITY POLE
- SIGN
- GUY WIRE
- DECIDUOUS TREE
- EVERGREEN TREE
- BUSH
- HEDGE
- HYDRANT
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- OVERHEAD WIRE
- STORM SEWER LATERAL
- SANITARY SEWER LATERAL
- CATCH BASIN
- MANHOLE
- GAS GATE
- WATER GATE

20 10 0 20 40 60
HORIZONTAL SCALE IN FEET
(1" = 20')

UTILITY PLAN
HART STREET

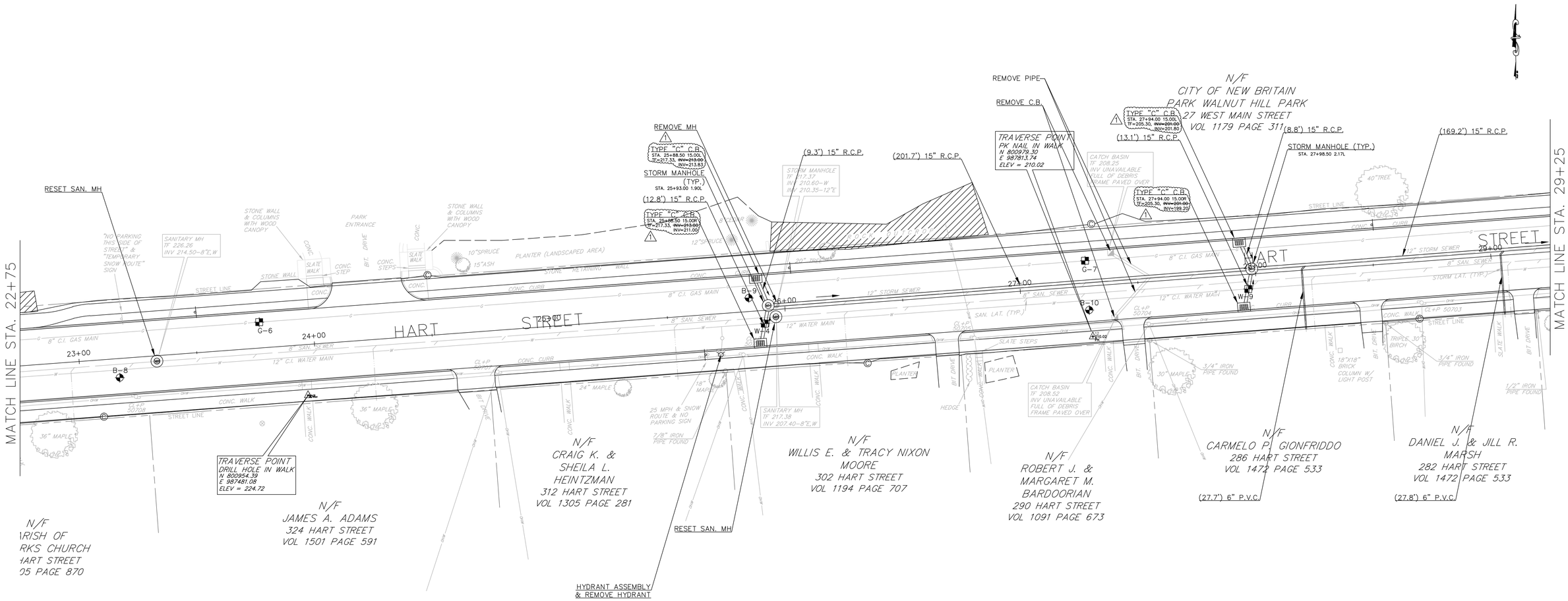
CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

SCALE 1" = 20'
JOB NO. 88-185
SUBSET 11.2.A1



Hart Street Reconstruction State Project 88-185

GAS (CNG)

Test Pit #	Baseline Station	Baseline Offset	Northing	Easting	Ground Elevation (FT)	Top of Pipe Elevation (FT)	Utility Description	Relocation Anticipated
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G-5	22+00.0	10.97LT	800972.242	987283.4797	227.82	225.41	8" Cast Iron	NO
G-6	23+77.3	10.95LT	800985.4162	987460.3451	224.96	221.79	8" Cast Iron	NO
G-7	27+28.3	10.87LT	801011.4688	987810.3814	209.35	207.44	8" Cast Iron	YES
G-8	29+34.9	11.07LT	801027.0441	988016.3788	197.56	195.31	8" Cast Iron	YES
G-9	31+17.0	10.05LT	801039.7712	988197.8613	187.23	183.9	8" Cast Iron	NO
G-10	33+98.4	6.88LT	801060.3497	988478.6379	178.18	174.93	8" Cast Iron	NO
G-11A	35+98.9	6.71LT	801075.1096	988678.6002	182.36	179.36	10" Cast Iron	NO
G-11B	35+98.9	5.84LT	801074.245	988678.6646	182.39	179.74	4" Cast Iron	NO
G-12A	40+32.4	6.89LT	801107.5595	989110.8983	199.49	196.14	10" Cast Iron	NO
G-12B	40+32.4	5.89LT	801106.5623	989110.9727	199.53	196.68	4" Cast Iron	NO
G-13A	38+02.9	6.57LT	801090.1457	988881.99	190.25	187.25	10" Cast Iron	NO
G-13B	38+02.9	5.57LT	801089.1485	988882.0645	190.25	187.6	4" Cast Iron	NO

WATER (CITY OF NEW BRITAIN)

Test Pit #	Baseline Station	Baseline Offset	Northing	Easting	Ground Elevation (FT)	Top of Pipe Elevation (FT)	Utility Description	Relocation Anticipated
W-1	10+98.2	9.08RT	800800.6806	986194.5611	185.04	179.54	24" Cast Iron	NO
W-2	13+78.2	8.92RT	800841.7286	986471.5769	193.64	189.44	24" Cast Iron	NO
W-3	20+31.1	6.79RT	800939.1714	987117.1849	225.31	220.61	24" Cast Iron	NO
W-4	25+91.0	5.59RT	800984.8255	987674.6155	217.55	214.15	12" Cast Iron	NO
W-5	29+19.2	6.50RT	801012.074	988051.869	195.79	192.69	12" Cast Iron	NO
W-6	32+26.5	8.37RT	801031.2056	988308.543	181.17	177.32	12" Cast Iron	NO
W-7	38+03.3	10.46RT	801073.1951	988883.6658	189.59	186.09	12" Cast Iron	NO
W-8	40+32.5	10.23RT	801090.4906	989112.2234	199.09	194.84	12" Cast Iron	NO
W-9	27+96.5	6.23RT	800999.4836	987879.5825	205.8	202.1	12" Cast Iron	NO
W-10	33+97.9	10.17RT	801043.3164	988479.4173	178.39	175.64	12" Cast Iron	NO
W-11	35+56.9	10.59RT	801054.728	988638.0105	180.75	177.83	12" Cast Iron	NO
W-12	17+86.0	9.03RT	800901.1699	986875.015	215.87	212.07	24" Cast Iron	NO

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LEGEND

- LIGHT STANDARD
- UTILITY POLE
- SIGN
- GUY WIRE
- DECIDUOUS TREE
- EVERGREEN TREE
- BUSH
- HEDGE
- HYDRANT
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- OVERHEAD WIRE
- STORM SEWER LATERAL
- SANITARY SEWER LATERAL
- CATCH BASIN
- MANHOLE
- GAS GATE
- WATER GATE

20 10 0 20 40 60
HORIZONTAL SCALE IN FEET
(1" = 20')

UTILITY PLAN
HART STREET

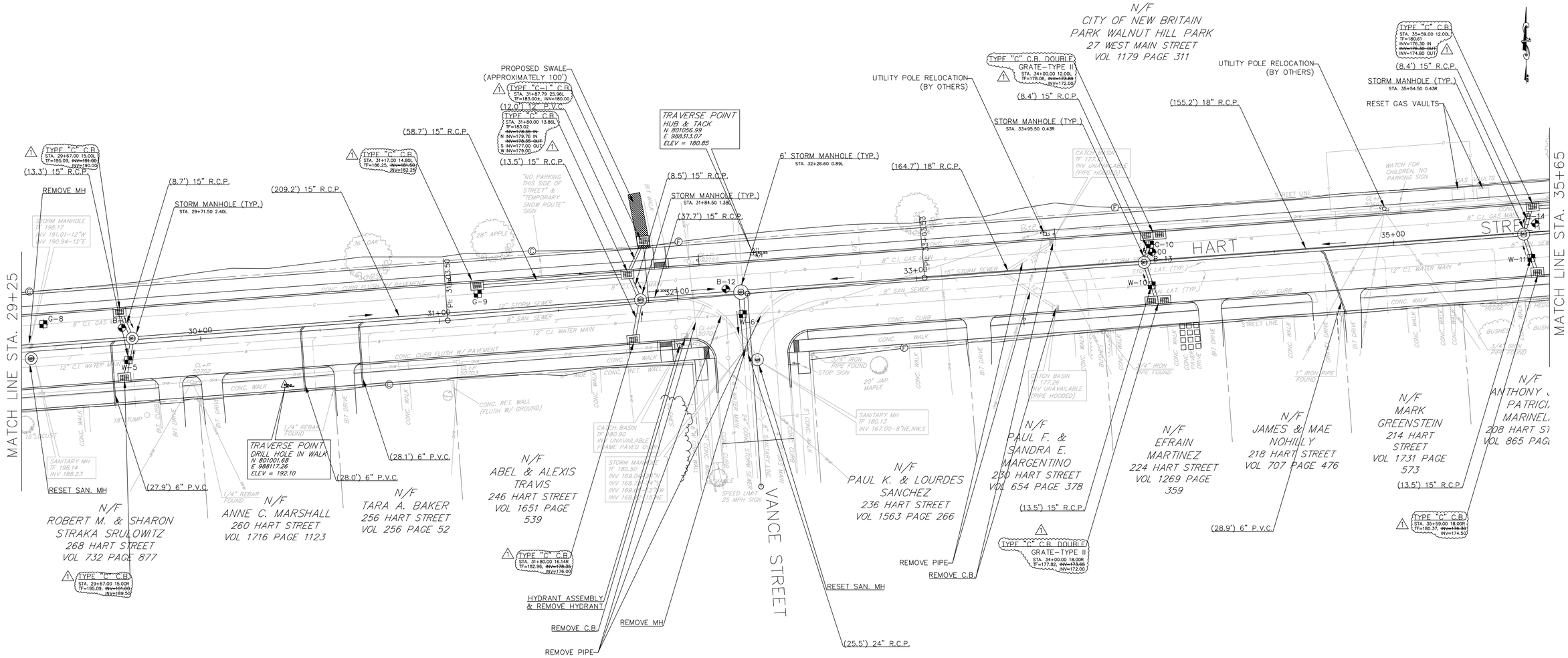
CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1-Drainage Revisions	CP	RT

SCALE 1" = 20'
JOB NO. 88-185
SUBSET 11.3.A1



Hart Street Reconstruction State Project 88-185

GAS (CNG)								
Test Pit #	Baseline Station	Baseline Offset	Northing	Easting	Ground Elevation (FT)	Top of Pipe Elevation (FT)	Utility Description	Relocation Anticipated
G-1	10+98.7	9.94LT	800819.5798	986192.2945	185.05	181.55	8" Cast Iron	NO
G-2	13+78.1	9.71LT	800860.1458	986468.704	193.35	190.35	8" Cast Iron	NO
G-3	16+16.1	9.61LT	800902.2398	986754.628	212.23	208.23	8" Cast Iron	NO
G-4	19+15.5	9.55LT	800938.4549	987000.4036	220.22	216.52	8" Cast Iron	NO
G-5	22+00.0	10.97LT	800972.242	987283.4797	227.82	225.41	8" Cast Iron	NO
G-6	23+77.3	10.95LT	800985.4162	987460.3451	224.96	221.79	8" Cast Iron	NO
G-7	27+28.3	10.87LT	801011.4688	987810.3814	209.35	207.44	8" Cast Iron	YES
G-8	29+34.9	11.07LT	801027.0441	988016.3788	197.56	195.31	8" Cast Iron	YES
G-9	31+17.0	10.05LT	801039.7712	988197.8613	187.23	183.9	8" Cast Iron	NO
G-10	33+98.4	6.88LT	801060.3497	988478.6379	178.18	174.93	8" Cast Iron	NO
G-11A	35+98.9	6.71LT	801075.1096	988678.6002	182.36	179.36	10" Cast Iron	NO
G-11B	35+98.9	5.84LT	801074.245	988678.6646	182.39	179.74	4" Cast Iron	NO
G-12A	40+32.4	6.89LT	801107.5595	989110.8983	199.49	196.14	10" Cast Iron	NO
G-12B	40+32.4	5.89LT	801106.5623	989110.9727	199.53	196.68	4" Cast Iron	NO
G-13A	38+02.9	6.57LT	801090.1457	988881.99	190.25	187.25	10" Cast Iron	NO
G-13B	38+02.9	5.57LT	801089.1485	988882.0645	190.25	187.6	4" Cast Iron	NO
WATER (CITY OF NEW BRITAIN)								
Test Pit #	Baseline Station	Baseline Offset	Northing	Easting	Ground Elevation (FT)	Top of Pipe Elevation (FT)	Utility Description	Relocation Anticipated
W-1	10+98.2	9.08RT	800800.6806	986194.5611	185.04	179.54	24" Cast Iron	NO
W-2	13+78.2	8.92RT	800841.7286	986471.5769	193.64	189.44	24" Cast Iron	NO
W-3	20+31.1	6.79RT	800939.1714	987117.1849	225.31	220.61	24" Cast Iron	NO
W-4	25+91.0	5.59RT	800984.8255	987674.6155	217.55	214.15	12" Cast Iron	NO
W-5	29+19.2	6.50RT	801012.074	988051.869	195.79	192.69	12" Cast Iron	NO
W-6	32+26.5	8.37RT	801031.2056	988308.543	181.17	177.32	12" Cast Iron	NO
W-7	38+03.3	10.46RT	801073.1951	988883.6658	189.59	186.09	12" Cast Iron	NO
W-8	40+32.5	10.23RT	801090.4906	989112.2234	199.09	194.84	12" Cast Iron	NO
W-9	27+96.5	6.23RT	800999.4836	987879.5825	205.8	202.1	12" Cast Iron	NO
W-10	33+97.9	10.17RT	801043.3164	988479.4173	178.39	175.64	12" Cast Iron	NO
W-11	35+56.9	10.59RT	801054.728	988638.0105	180.75	177.83	12" Cast Iron	NO
W-12	17+86.0	9.03RT	800901.1699	986875.015	215.87	212.07	24" Cast Iron	NO

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LEGEND

- LIGHT STANDARD
- UTILITY POLE
- SIGN
- GUY WIRE
- DECIDUOUS TREE
- EVERGREEN TREE
- BUSH
- HEDGE
- HYDRANT
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- OVERHEAD WIRE
- STORM SEWER LATERAL
- SANITARY SEWER LATERAL
- CATCH BASIN
- MANHOLE
- GAS GATE
- WATER GATE

HORIZONTAL SCALE IN FEET (1" = 20')

UTILITY PLAN

HART STREET

SUBSET 11.4.A1

SCALE 1" = 20'

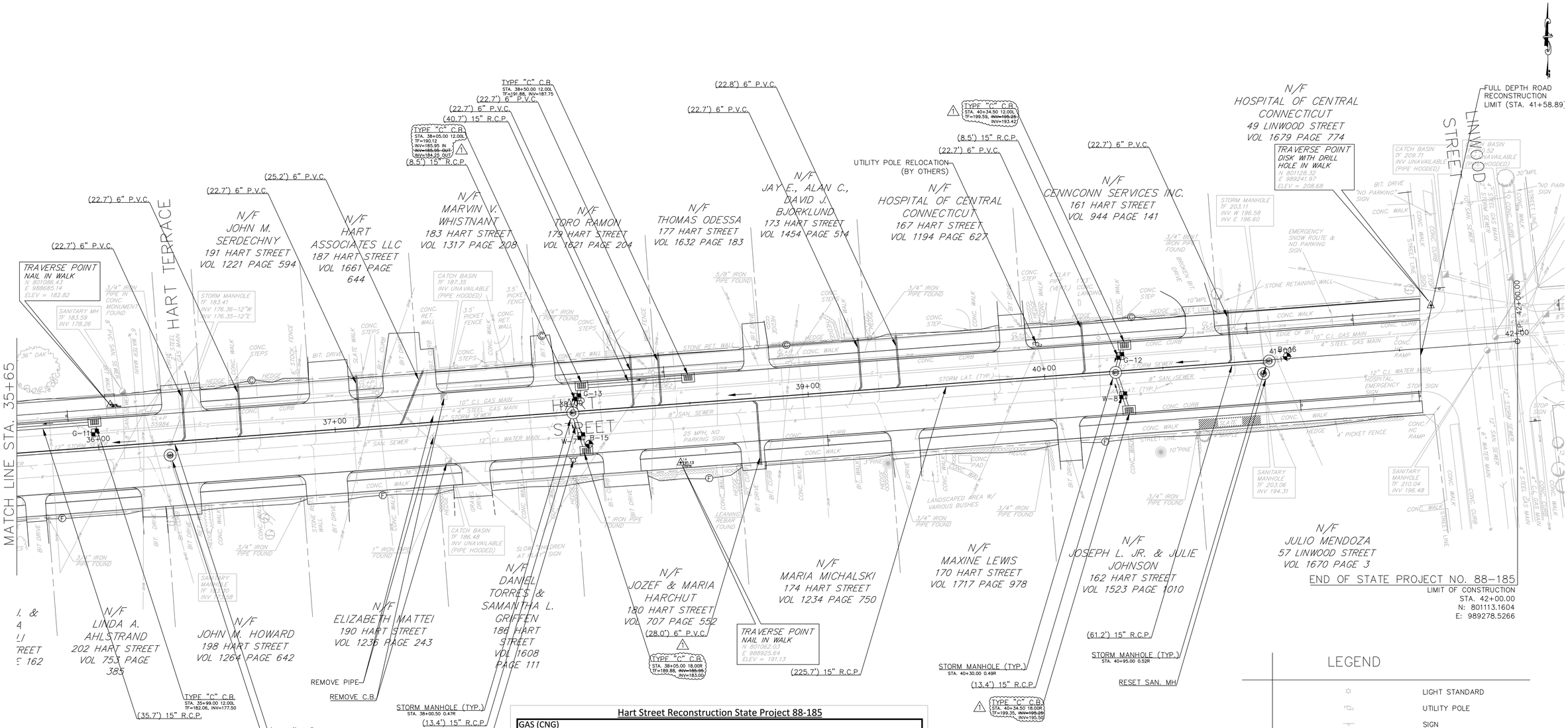
JOB NO. 88-185

REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1-Drainage Revisions	CP	RT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT



Hart Street Reconstruction State Project 88-185

GAS (CNG)

Test Pit #	Baseline Station	Baseline Offset	Northing	Easting	Ground Elevation (FT)	Top of Pipe Elevation (FT)	Utility Description	Relocation Anticipated
G-1	10+98.7	9.94LT	800819.5798	986192.2945	185.05	181.55	8" Cast Iron	NO
G-2	13+78.1	9.71LT	800860.1458	986468.704	193.35	190.35	8" Cast Iron	NO
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G-5	22+00.0	10.97LT	800972.242	987283.4797	227.82	225.41	8" Cast Iron	NO
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G-7	27+28.3	10.87LT	801011.4688	987810.3814	209.35	207.44	8" Cast Iron	YES
G-8	29+34.9	11.07LT	801027.0441	988016.3788	197.56	195.31	8" Cast Iron	YES
G-9	31+17.0	10.05LT	801039.7712	988197.8613	187.23	183.9	8" Cast Iron	NO
G-10	33+98.4	6.88LT	801060.3497	988478.6379	178.18	174.93	8" Cast Iron	NO
G-11A	35+98.9	6.71LT	801075.1096	988678.6002	182.36	179.36	10" Cast Iron	NO
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G-12A	40+32.4	6.89LT	801107.5595	989110.8983	199.49	196.14	10" Cast Iron	NO
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G-13A	38+02.9	6.57LT	801090.1457	988881.99	190.25	187.25	10" Cast Iron	NO
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WATER (CITY OF NEW BRITAIN)

Test Pit #	Baseline Station	Baseline Offset	Northing	Easting	Ground Elevation (FT)	Top of Pipe Elevation (FT)	Utility Description	Relocation Anticipated
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- UNDERGROUND GAS LINE
- OHW — OVERHEAD WIRE
- STORM SEWER LATERAL
- SANITARY SEWER LATERAL
- CATCH BASIN
- MANHOLE
- GAS GATE
- WATER GATE

20 10 0 20 40 60
HORIZONTAL SCALE IN FEET
(1" = 20')

UTILITY PLAN
HART STREET

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

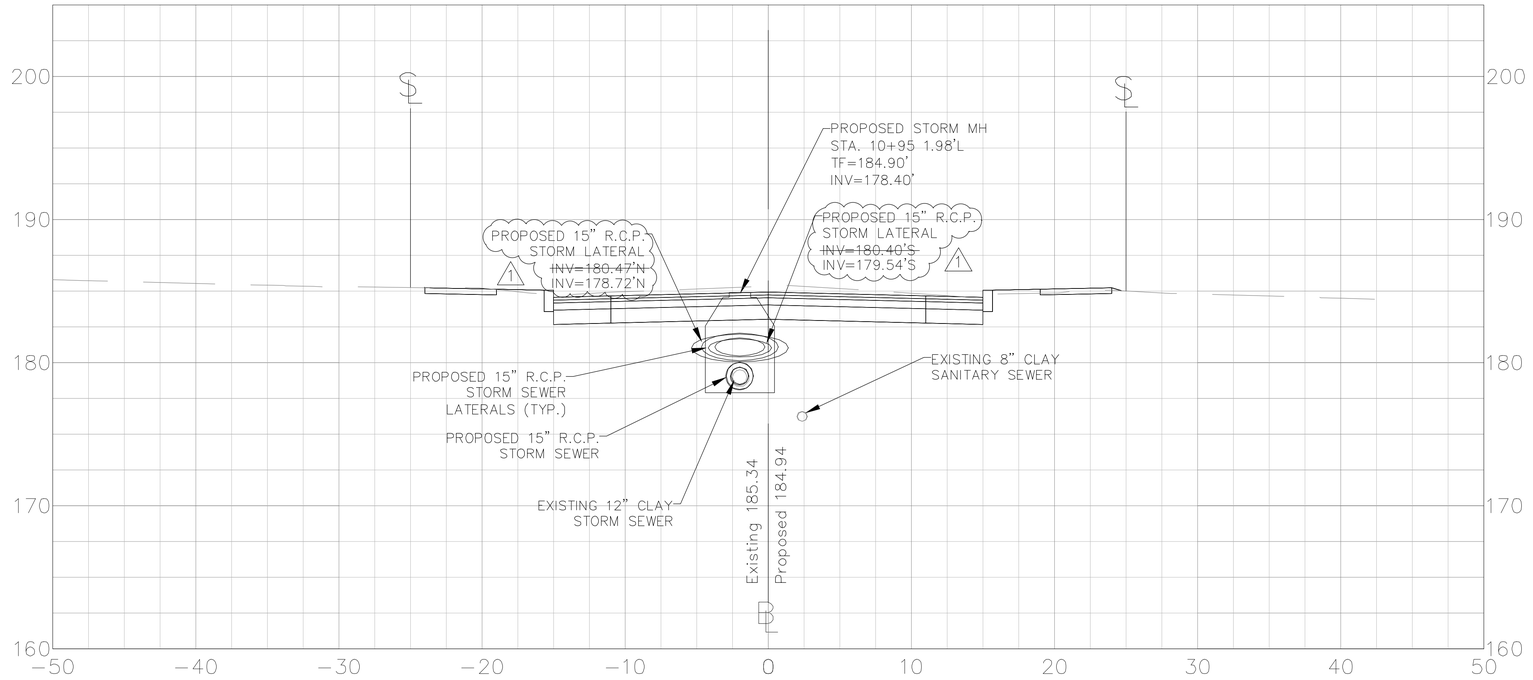
DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

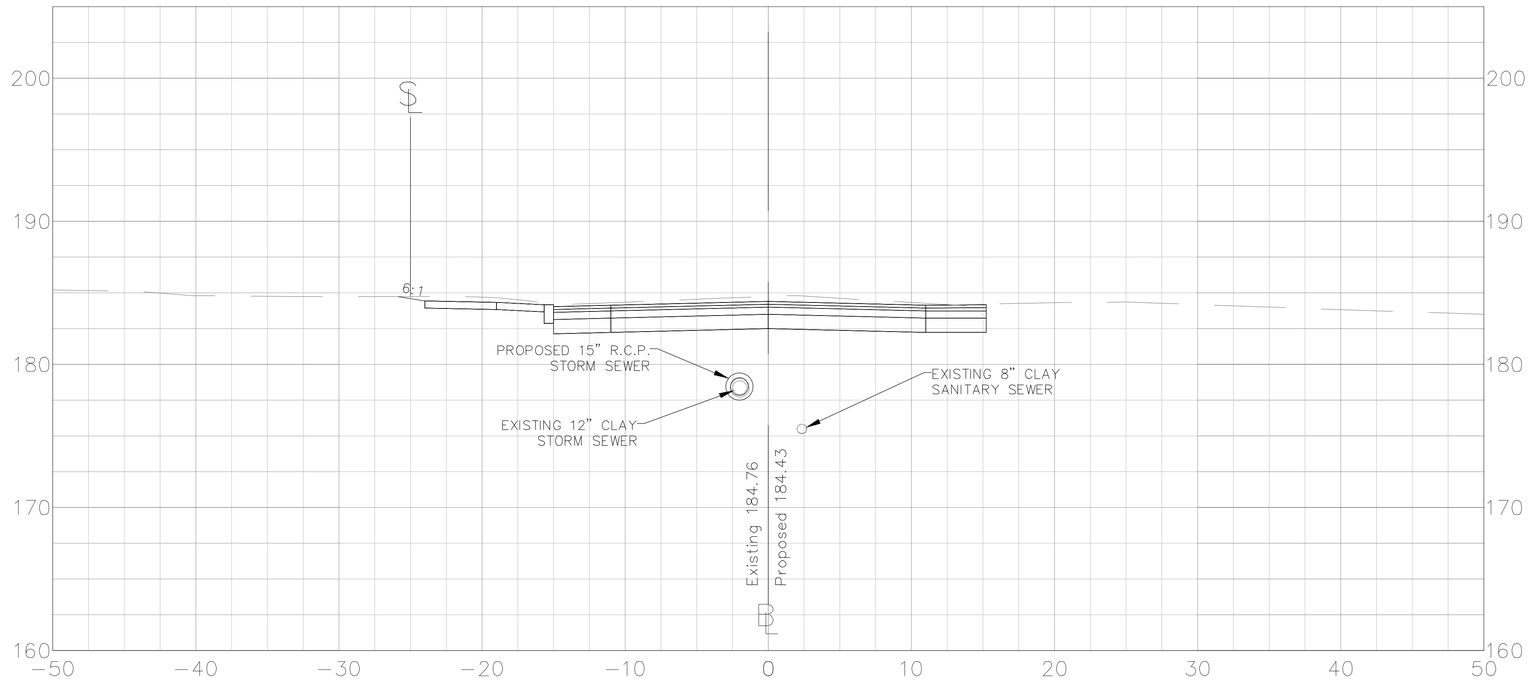
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1-Drainage Revisions	CP	RT

SCALE 1" = 20'
JOB NO. 88-185
SUBSET 11.5.A1

10+95.00



10+76.61



5 2.5 0 5 10 15

SCALE IN FEET
(1" = 5')

CROSS SECTIONS

HART STREET

SUBSET 14.1.A1

SCALE AS NOTED

JOB NO. 88-185

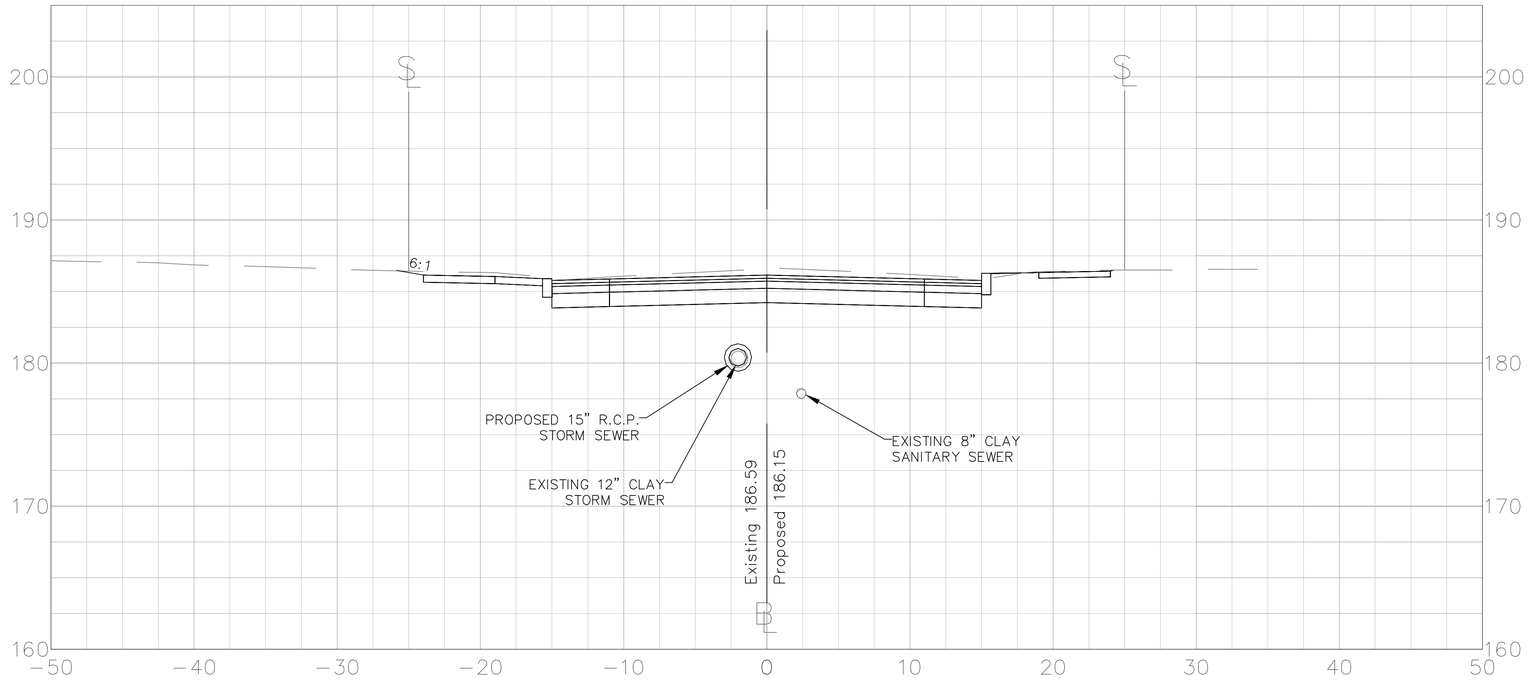
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1-Drainage Revisions	CP	RT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

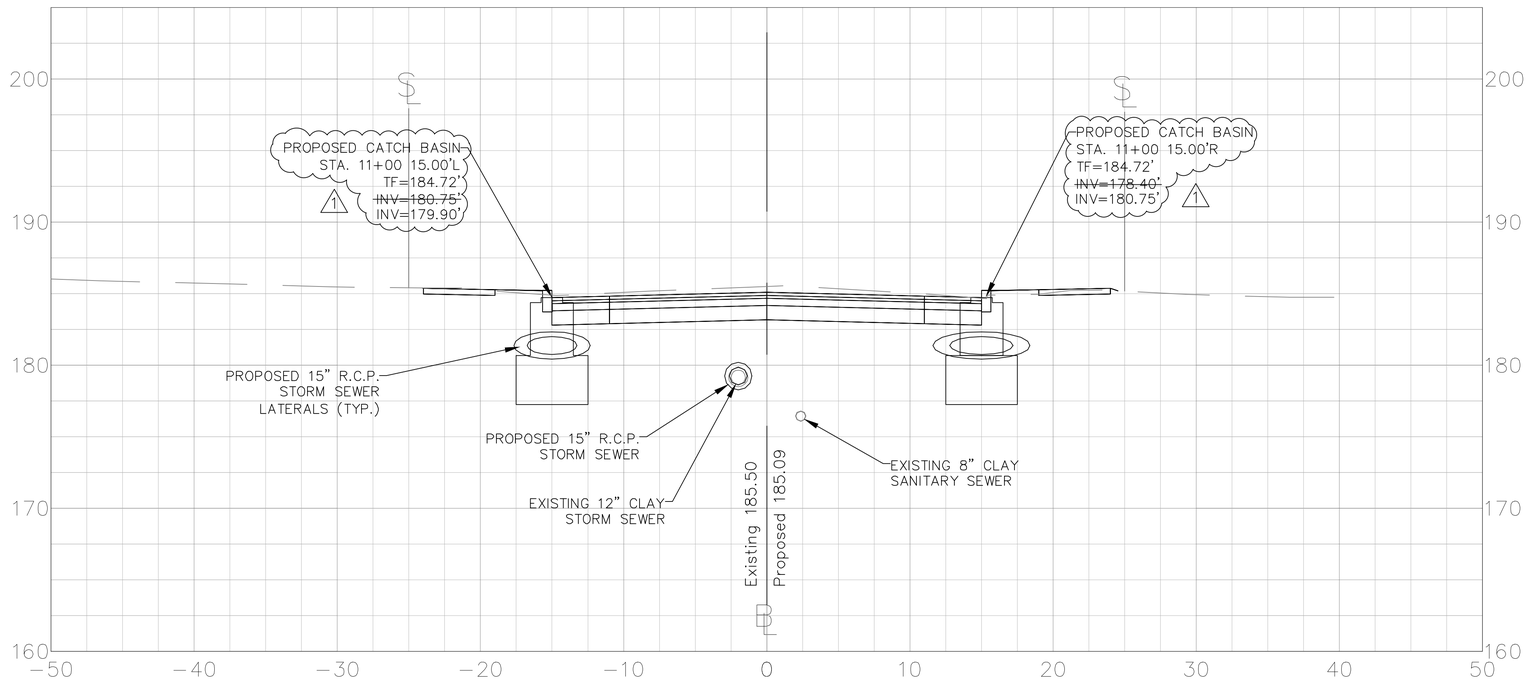
CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

HART
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

11+35.82



11+00.00



5 2.5 0 5 10 15
SCALE IN FEET
(1" = 5')

CROSS SECTIONS
HART STREET

SUBSET 14.2.A1

SCALE AS NOTED

JOB NO. 88-185

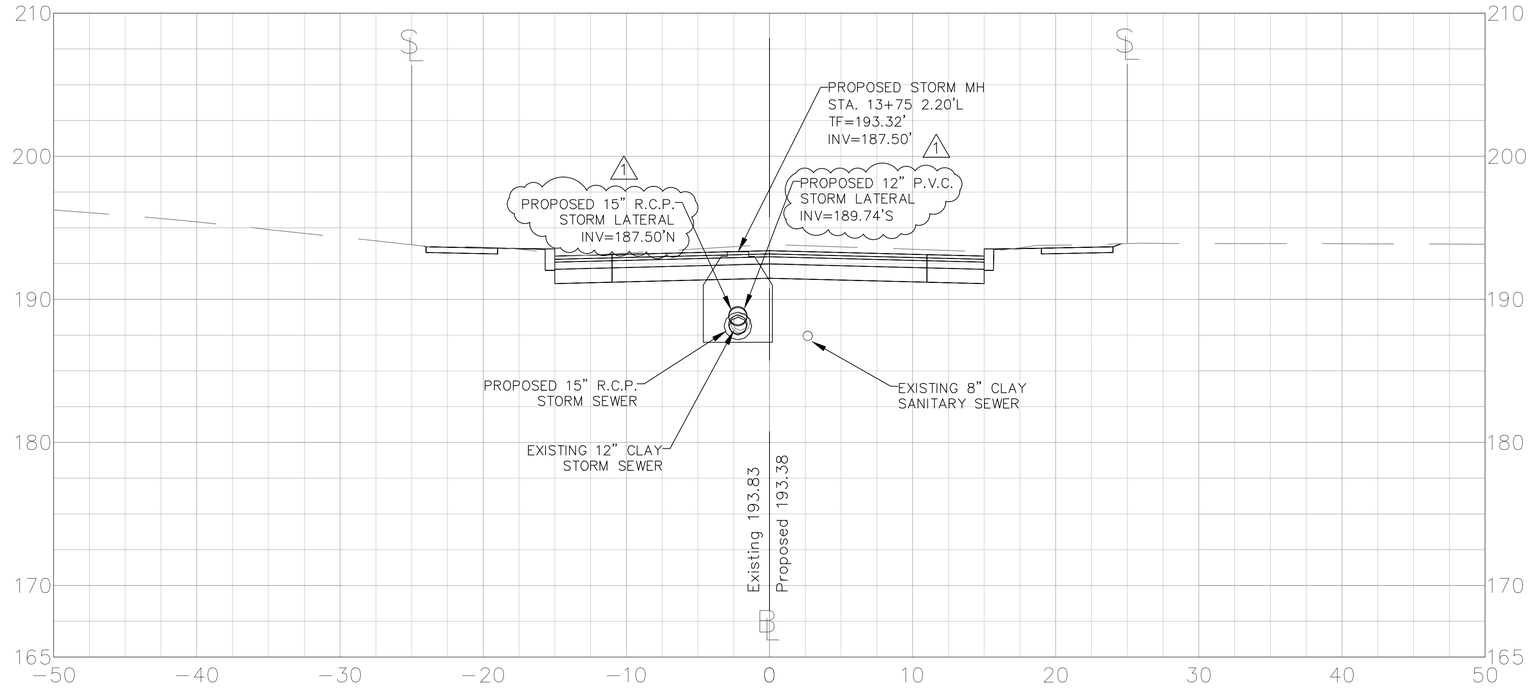
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

HART
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

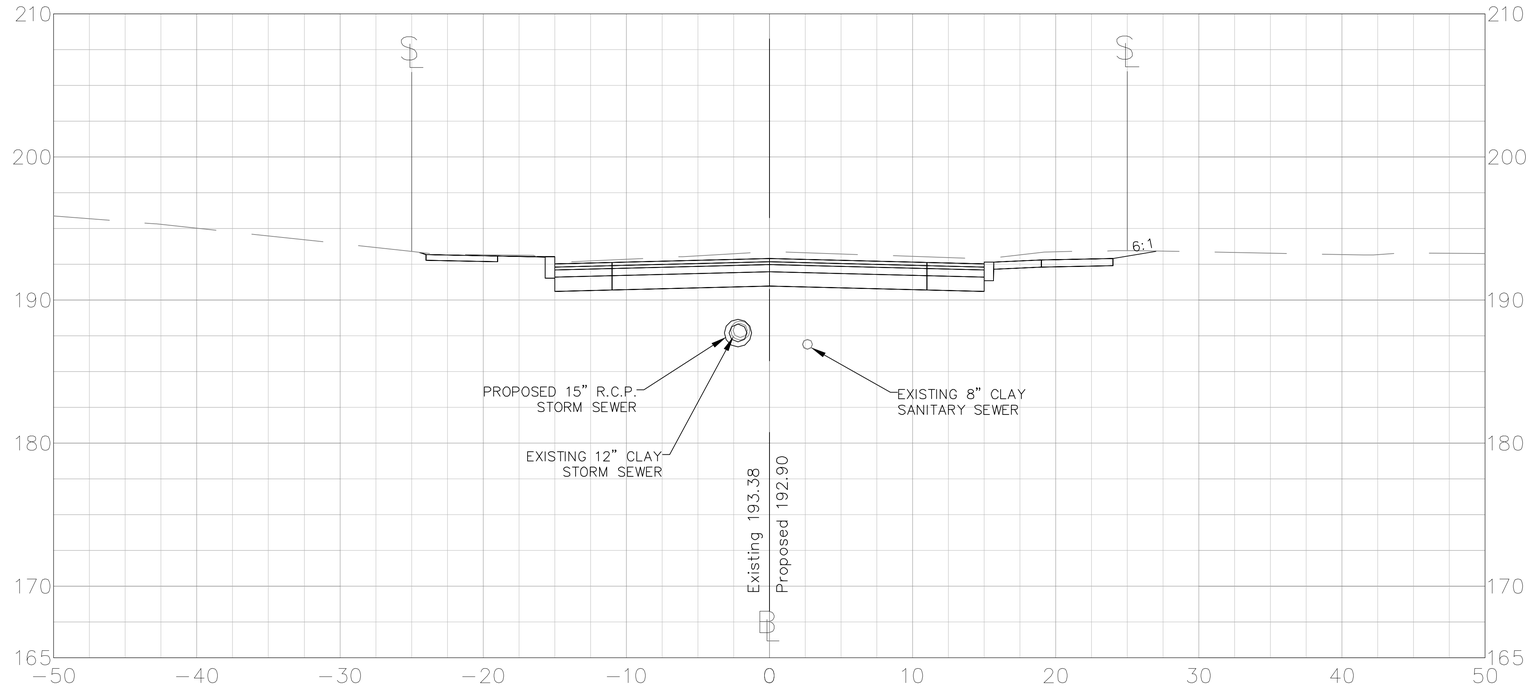
DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

13+75.00



13+61.75



SCALE IN FEET
(1" = 5)

CROSS SECTIONS

HART STREET

SUBSET 14.7.A1

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

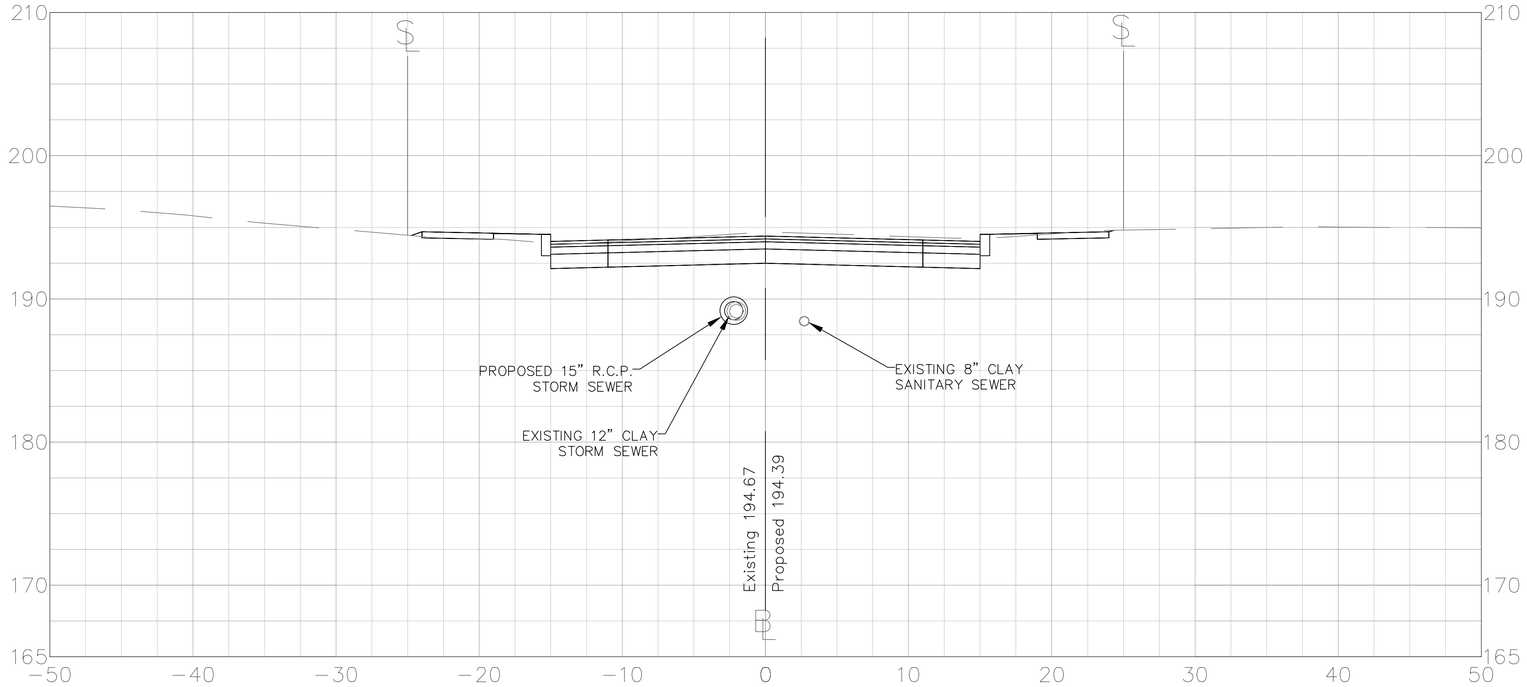
HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

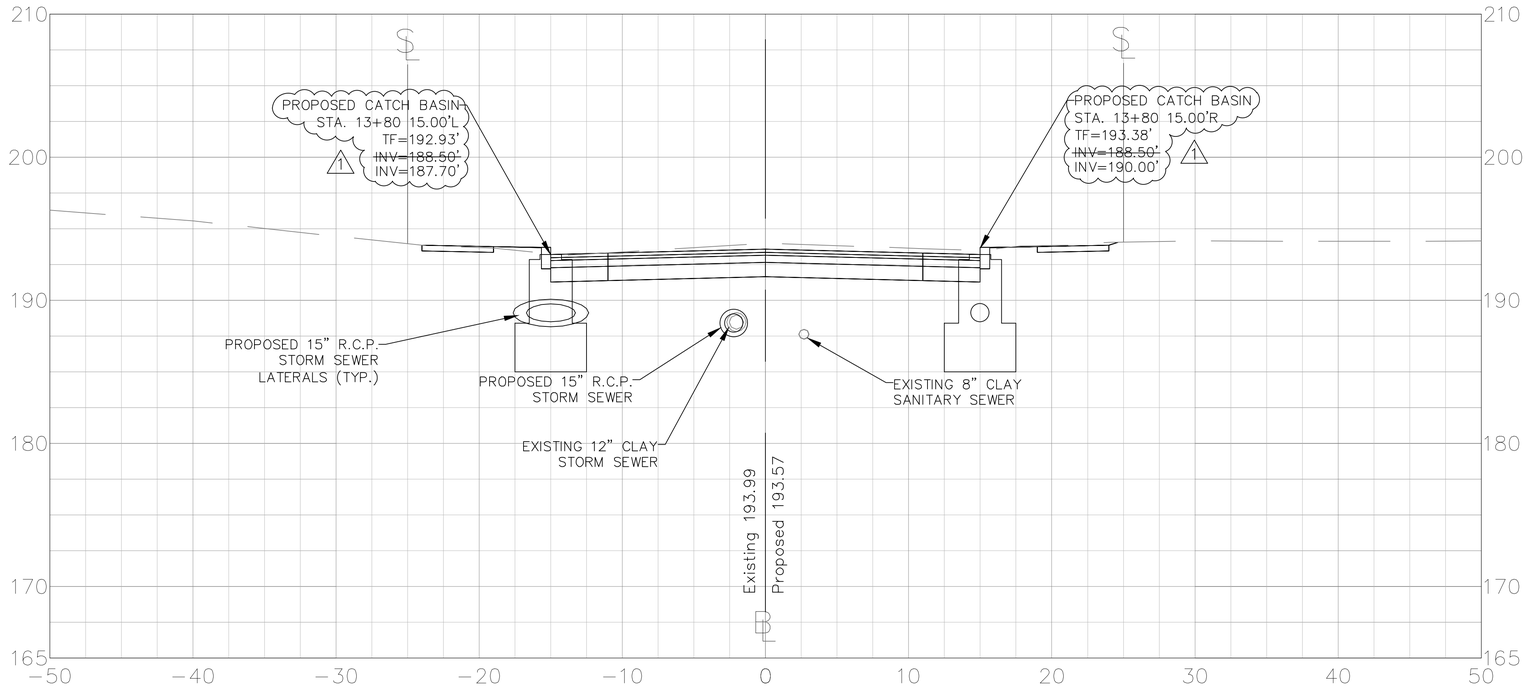
SCALE: AS NOTED

JOB NO. 88-185

14+00.00



13+80.00



5 2.5 0 5 10 15
SCALE IN FEET
(1" = 5)

CROSS SECTIONS

HART STREET

SUBSET 14.8.A1

SCALE: AS NOTED

JOB NO. 88-185

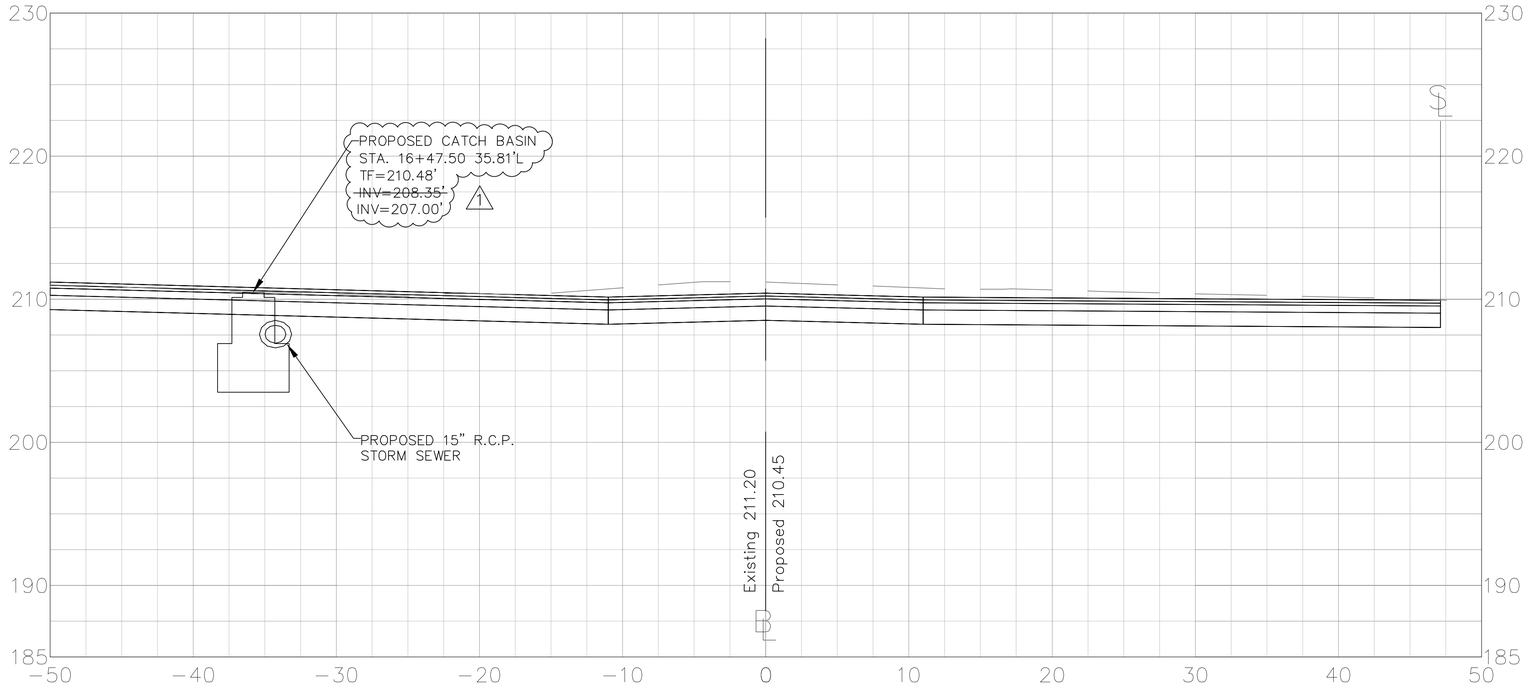
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

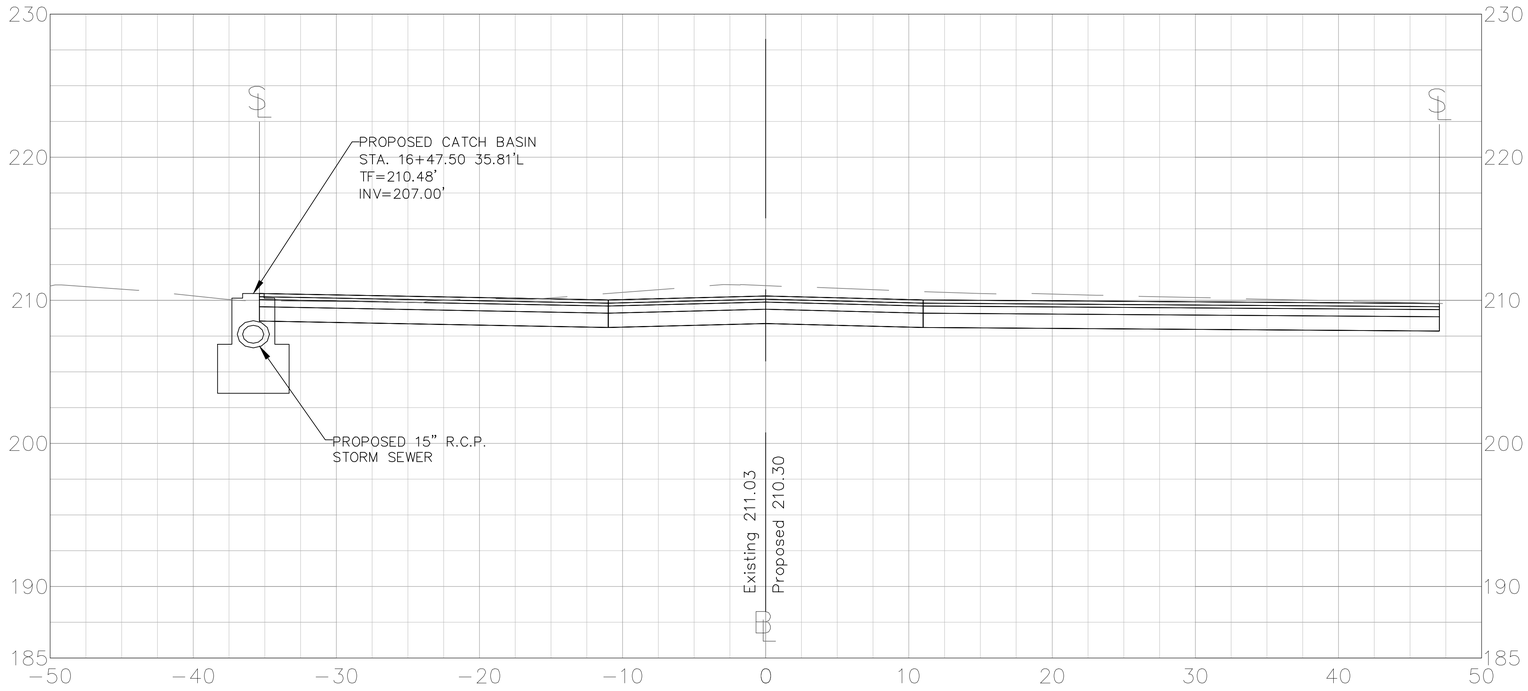
CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

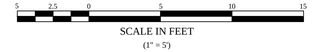
HART
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

16+50.00



16+47.50





CROSS SECTIONS

HART STREET

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

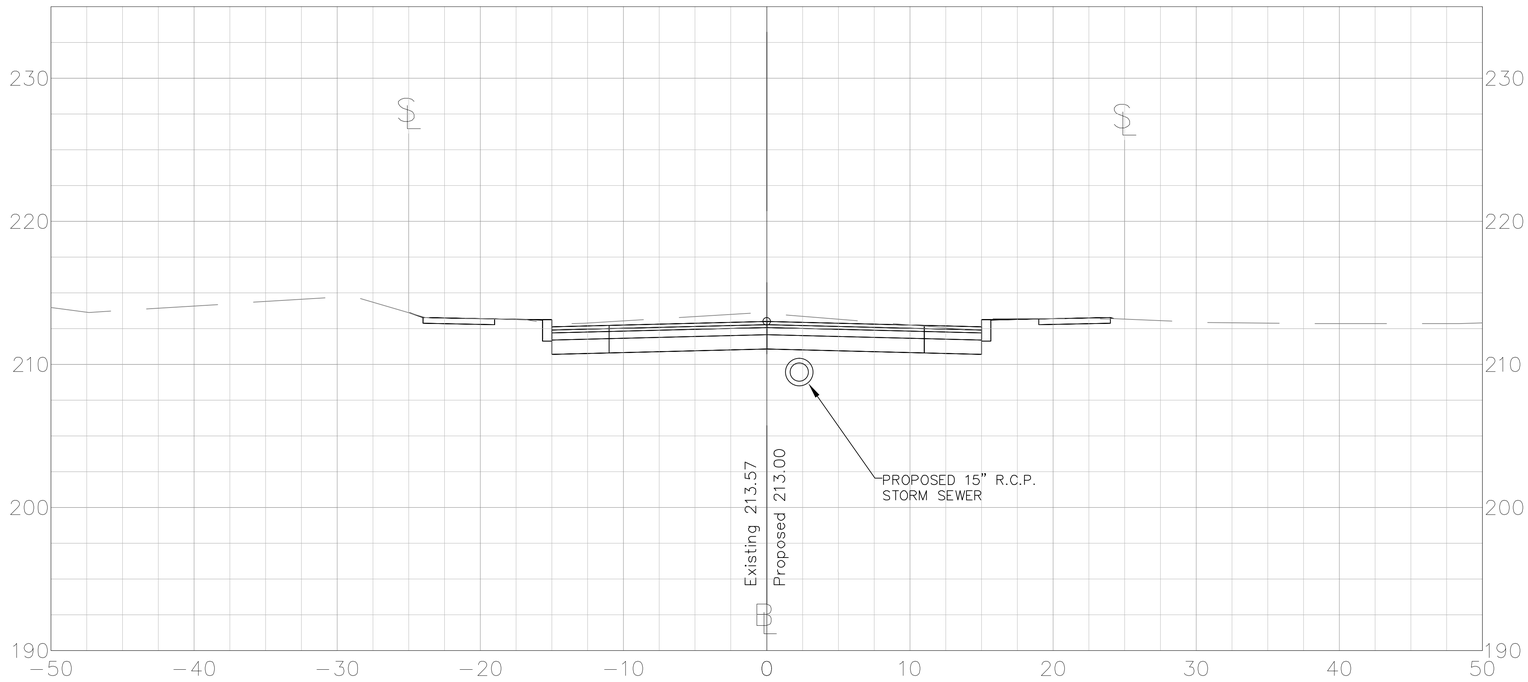
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

SCALE: AS NOTED

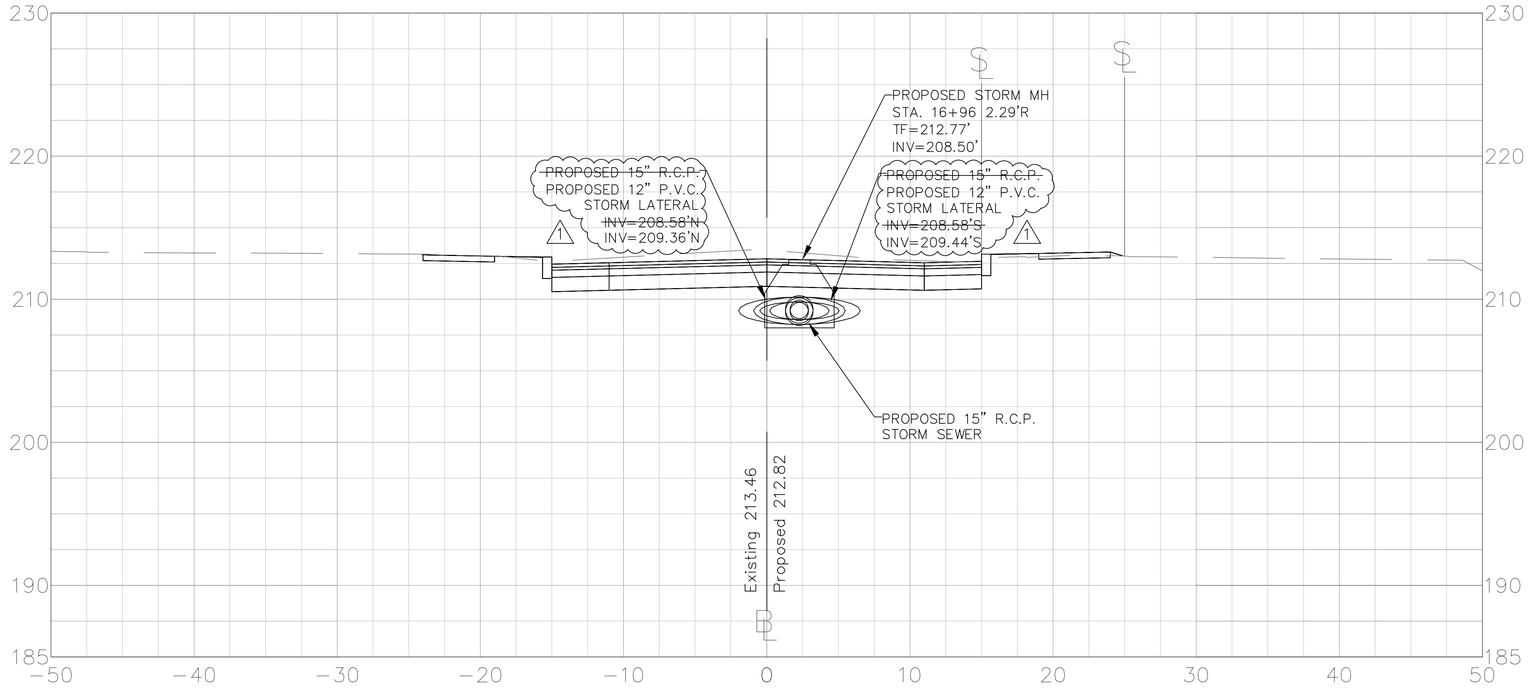
JOB NO. 88-185

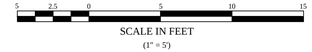
SUBSET 14.13.A1

17+00.00



16+96.00





CROSS SECTIONS

HART STREET

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

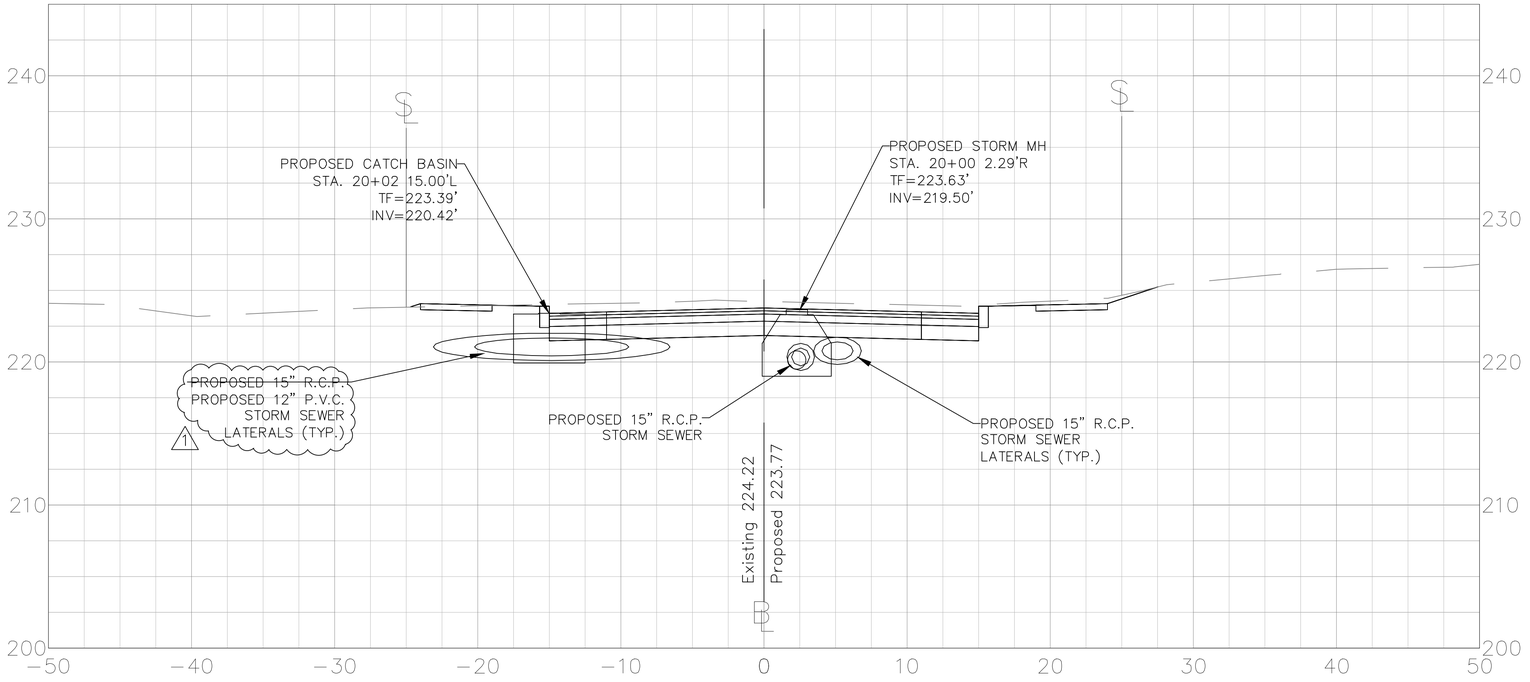
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

SCALE: AS NOTED

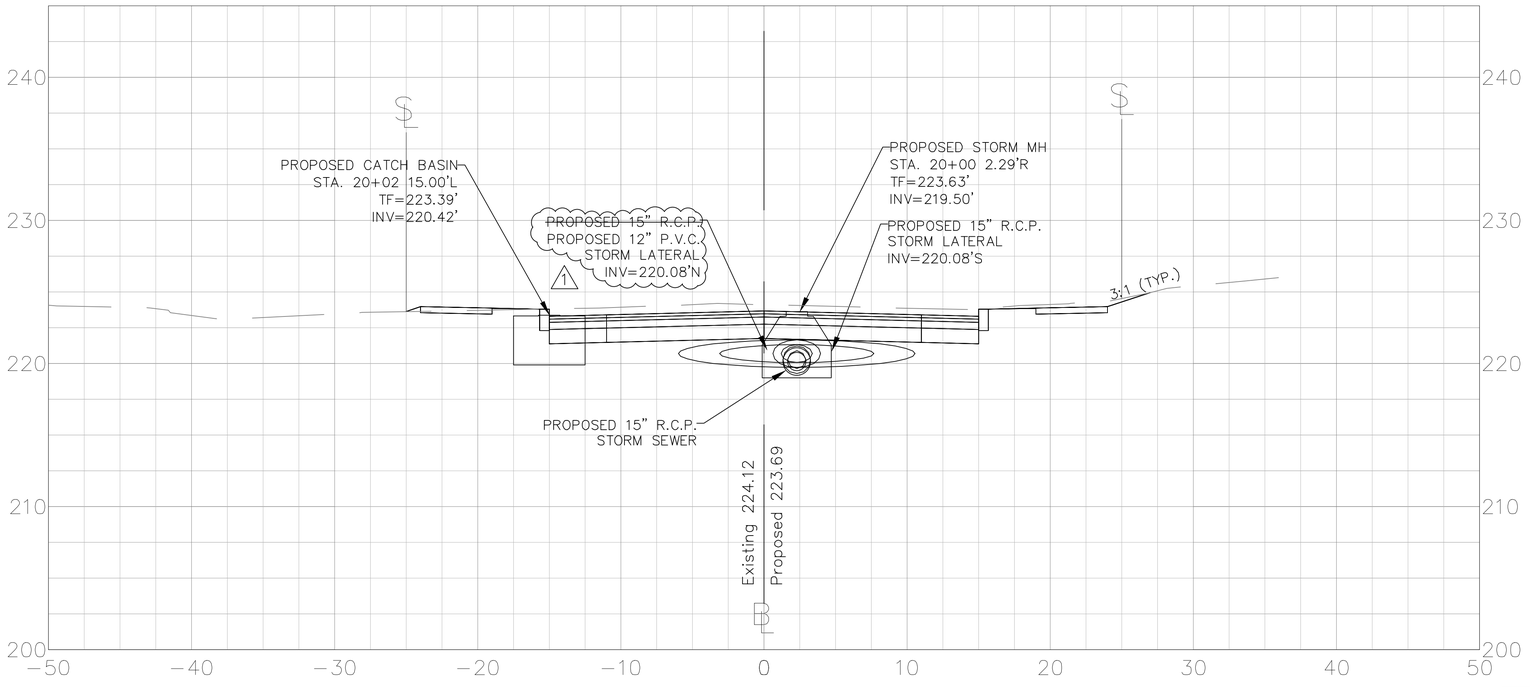
JOB NO. 88-185

SUBSET 14.15.A1

20+02.00



20+00.00



SCALE IN FEET
(1" = 5')

CROSS SECTIONS

HART STREET

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

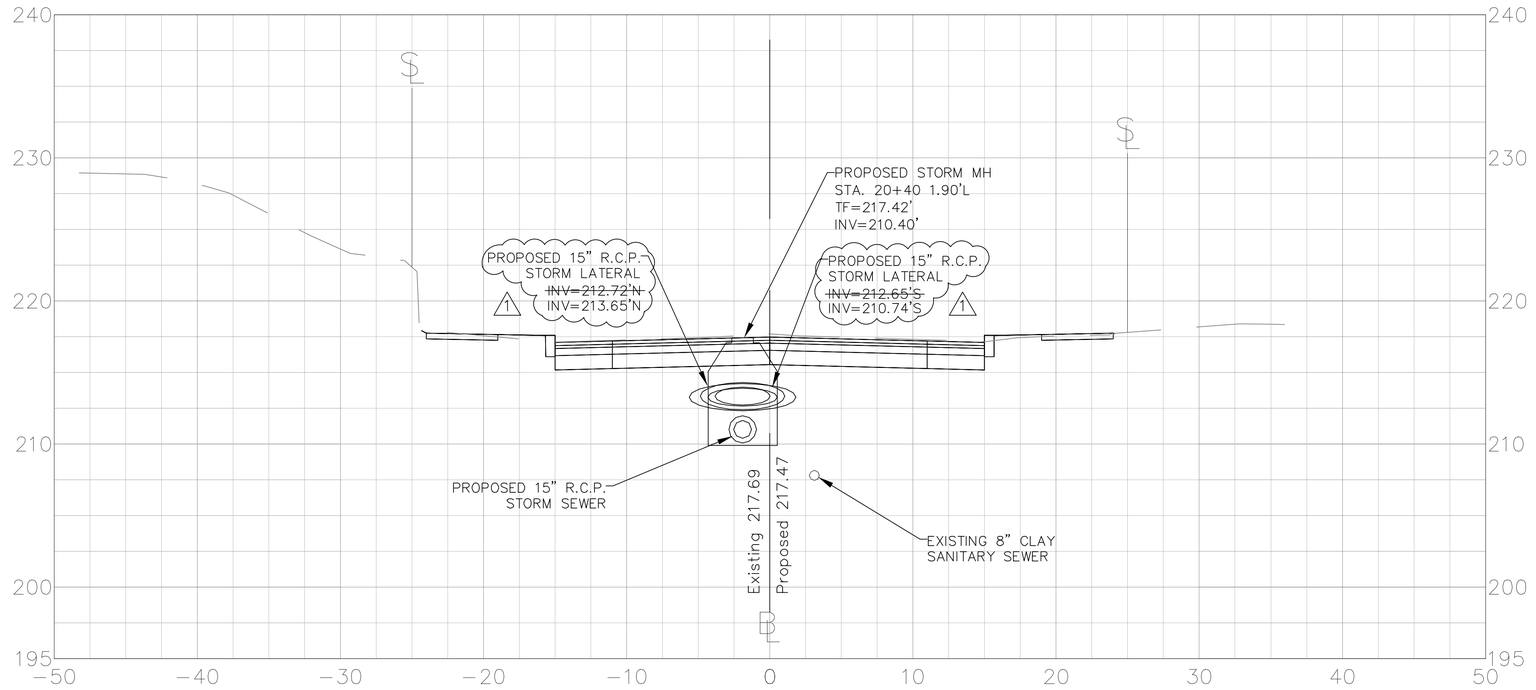
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

SCALE: AS NOTED

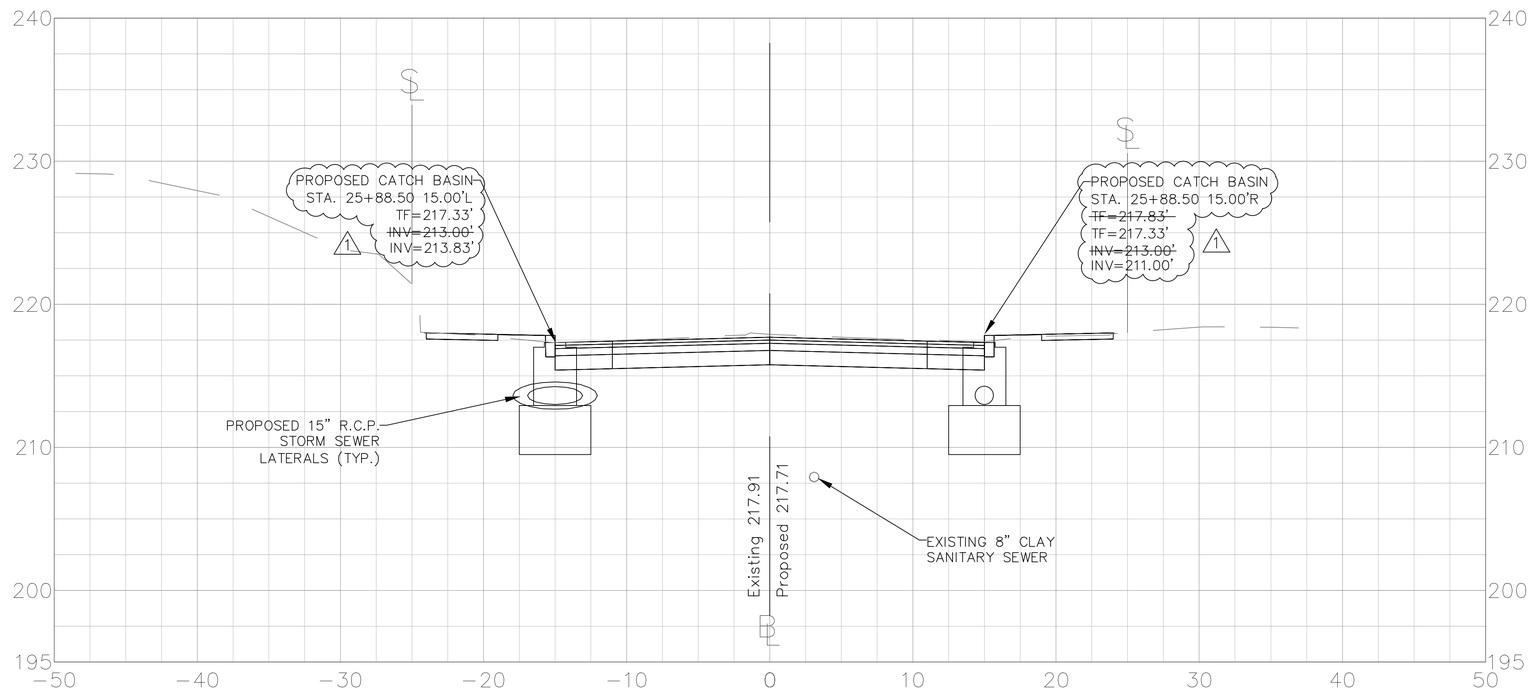
JOB NO. 88-185

SUBSET 14.21.A1

25+93.03



25+88.53



CROSS SECTIONS

HART STREET

SUBSET 14.30.A1

SCALE AS NOTED

JOB NO. 88-185

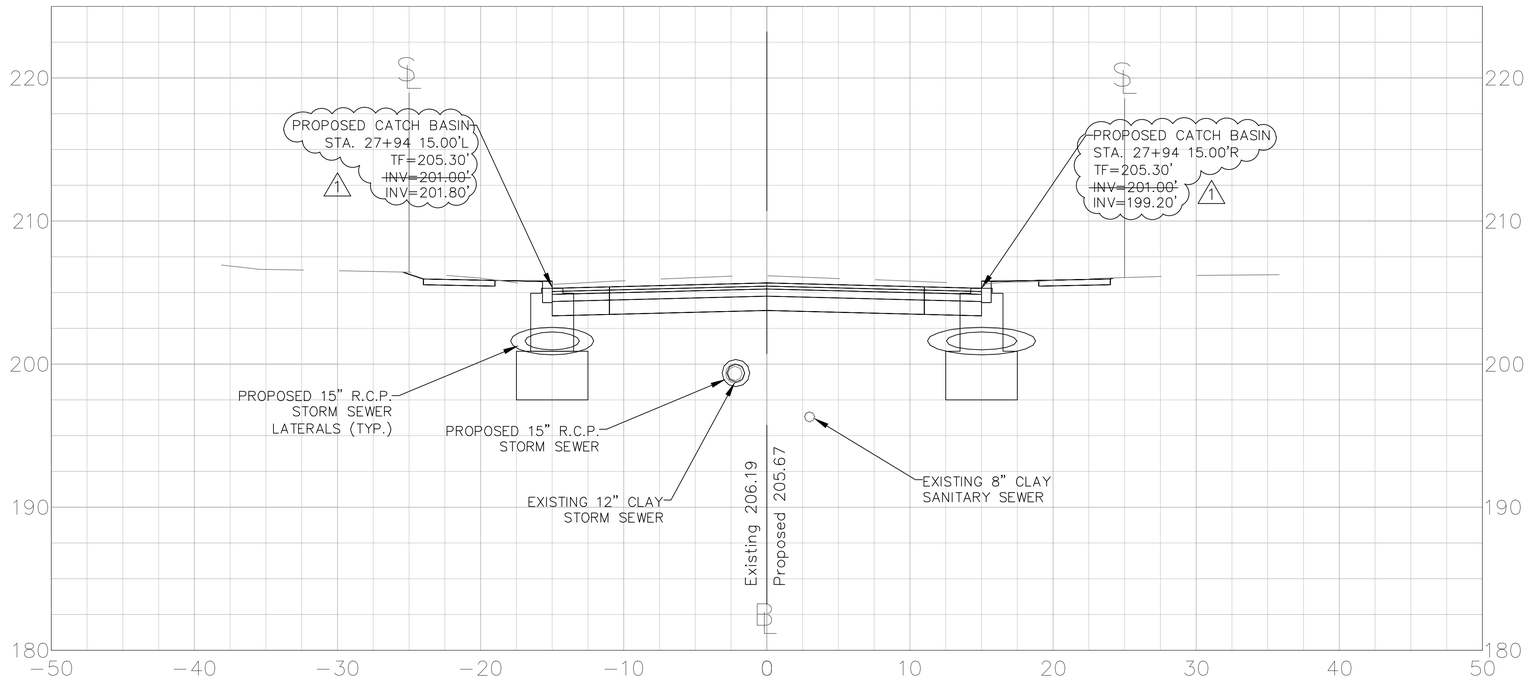
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

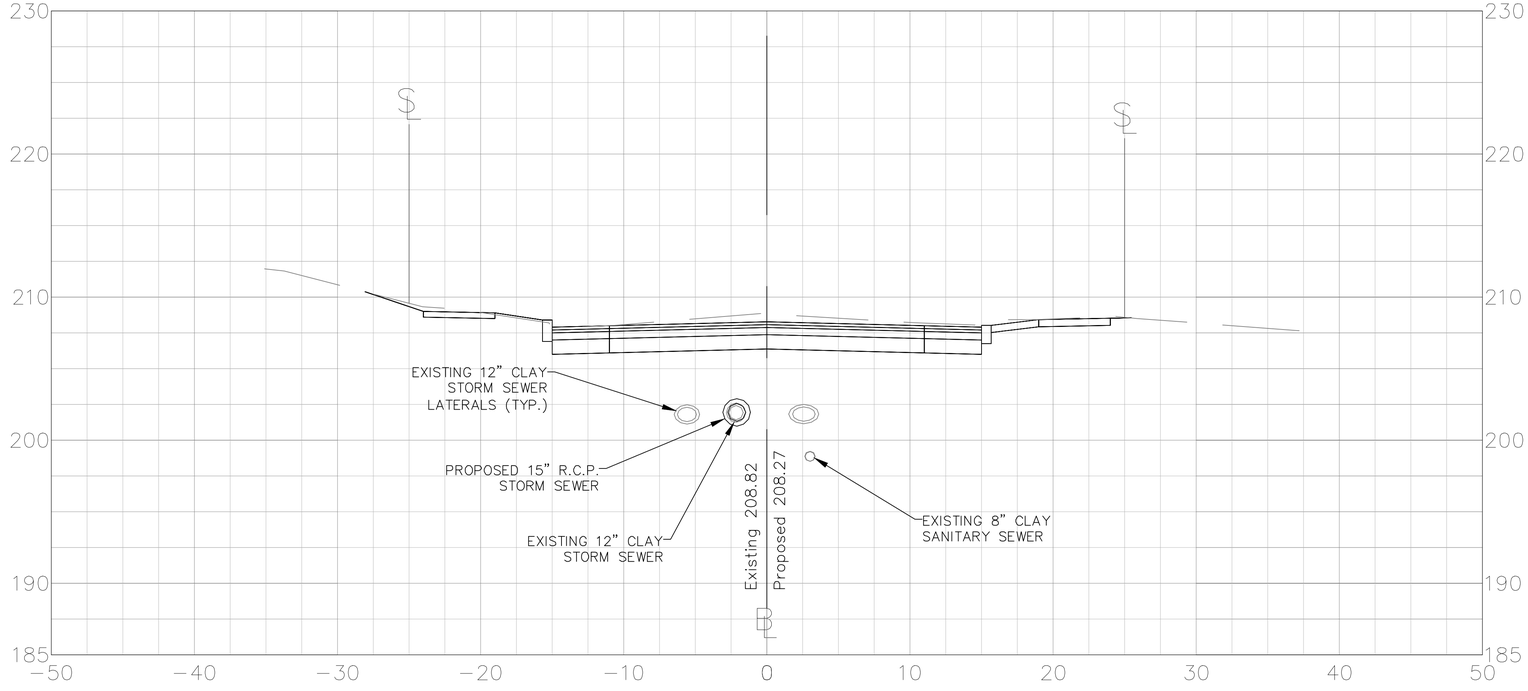
CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

HART
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

27+94.03



27+50.00



5 2.5 0 5 10 15
SCALE IN FEET
(1" = 5')

CROSS SECTIONS
HART STREET

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

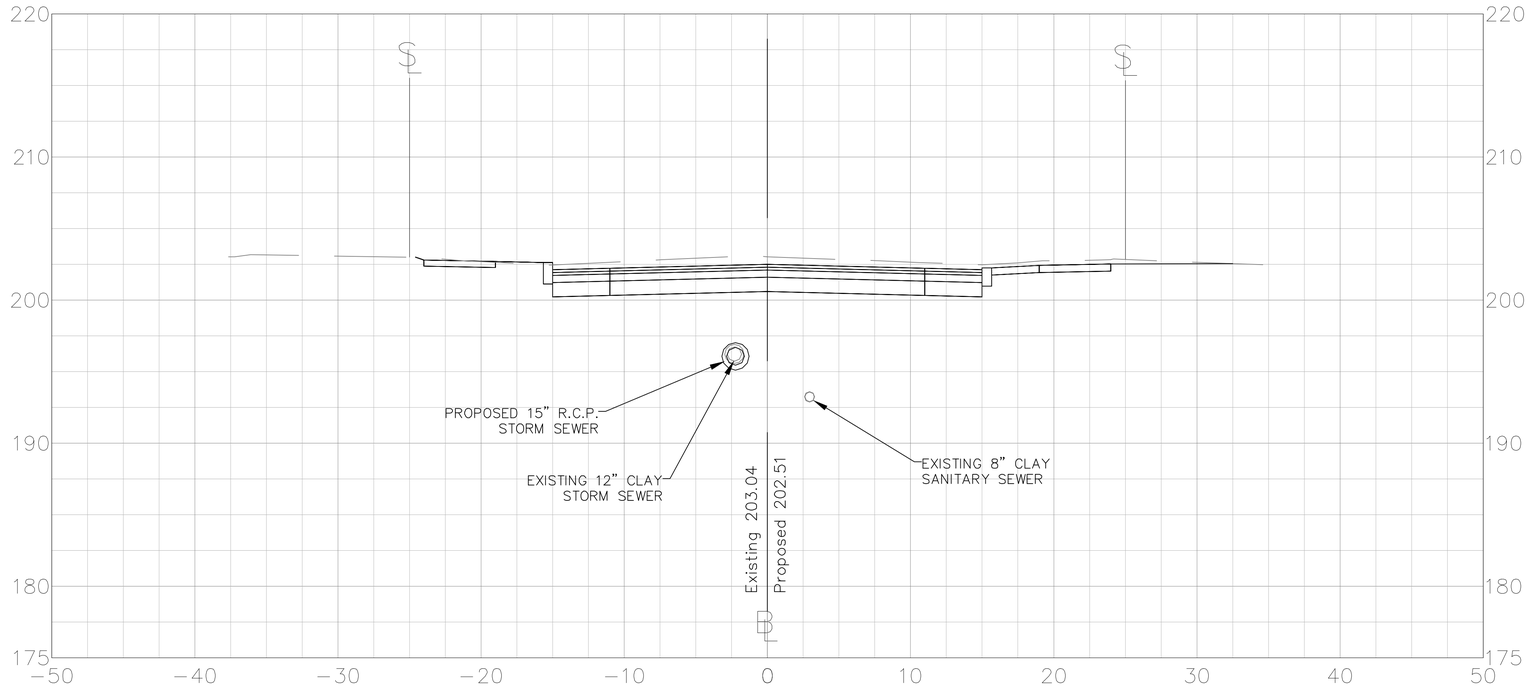
DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

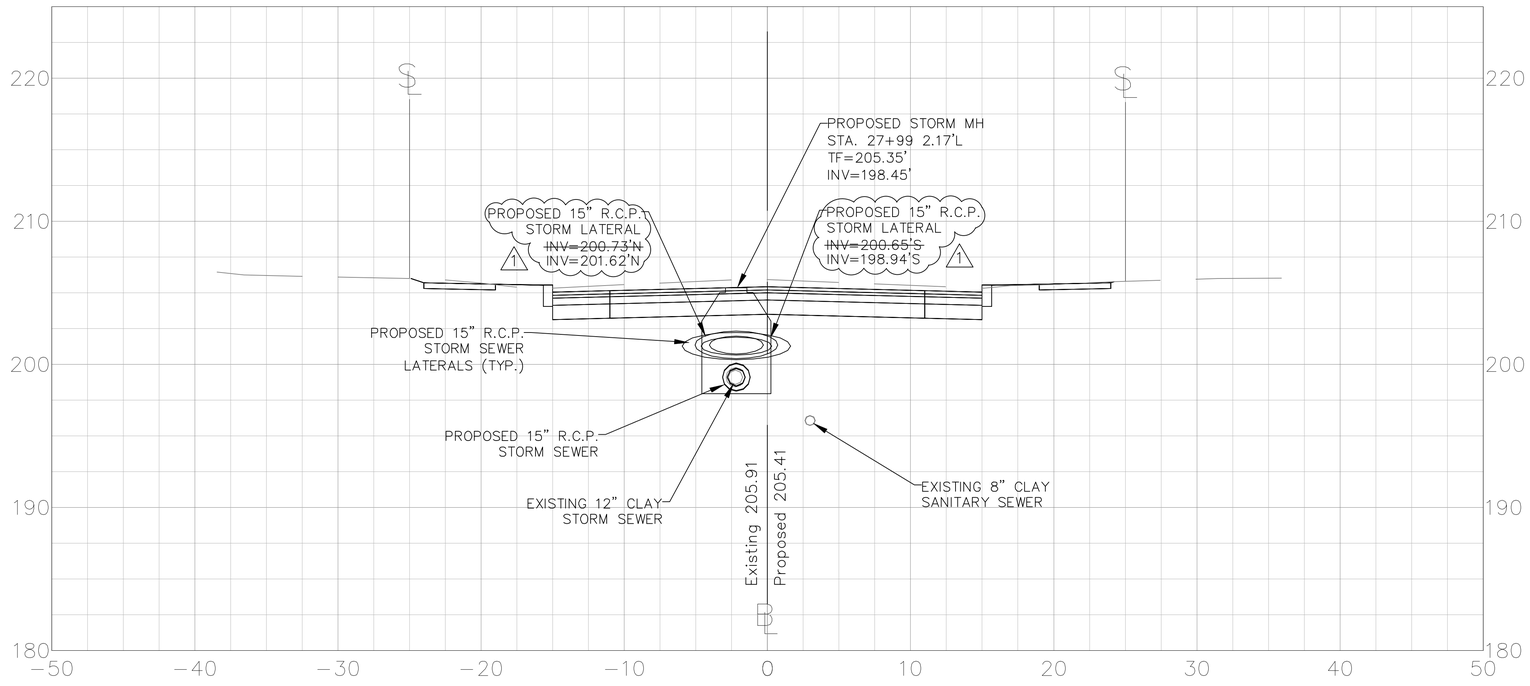
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

SCALE: AS NOTED
JOB NO. 88–185
SUBSET 14.33.A1

28+47.55



27+98.53



5 2.5 0 5 10 15
SCALE IN FEET
(1" = 5')

CROSS SECTIONS
HART STREET

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

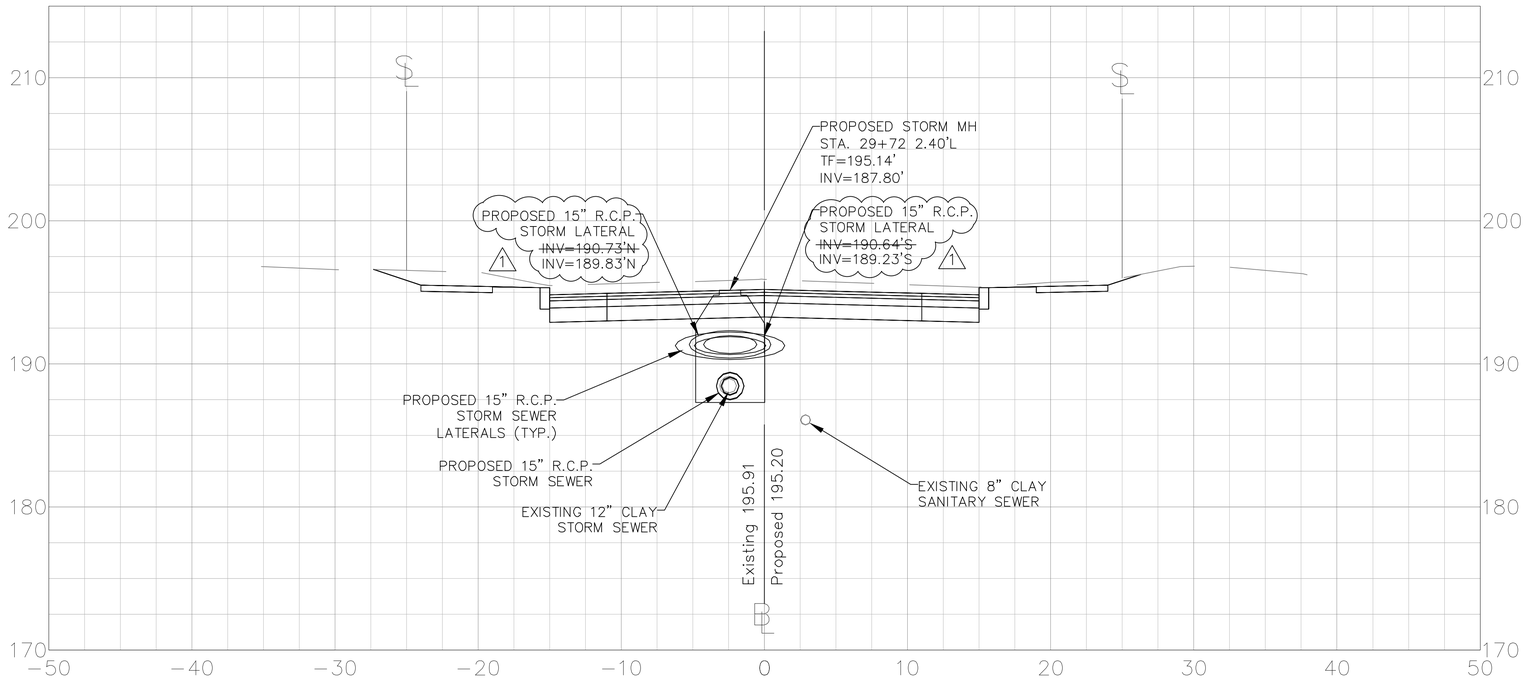
DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

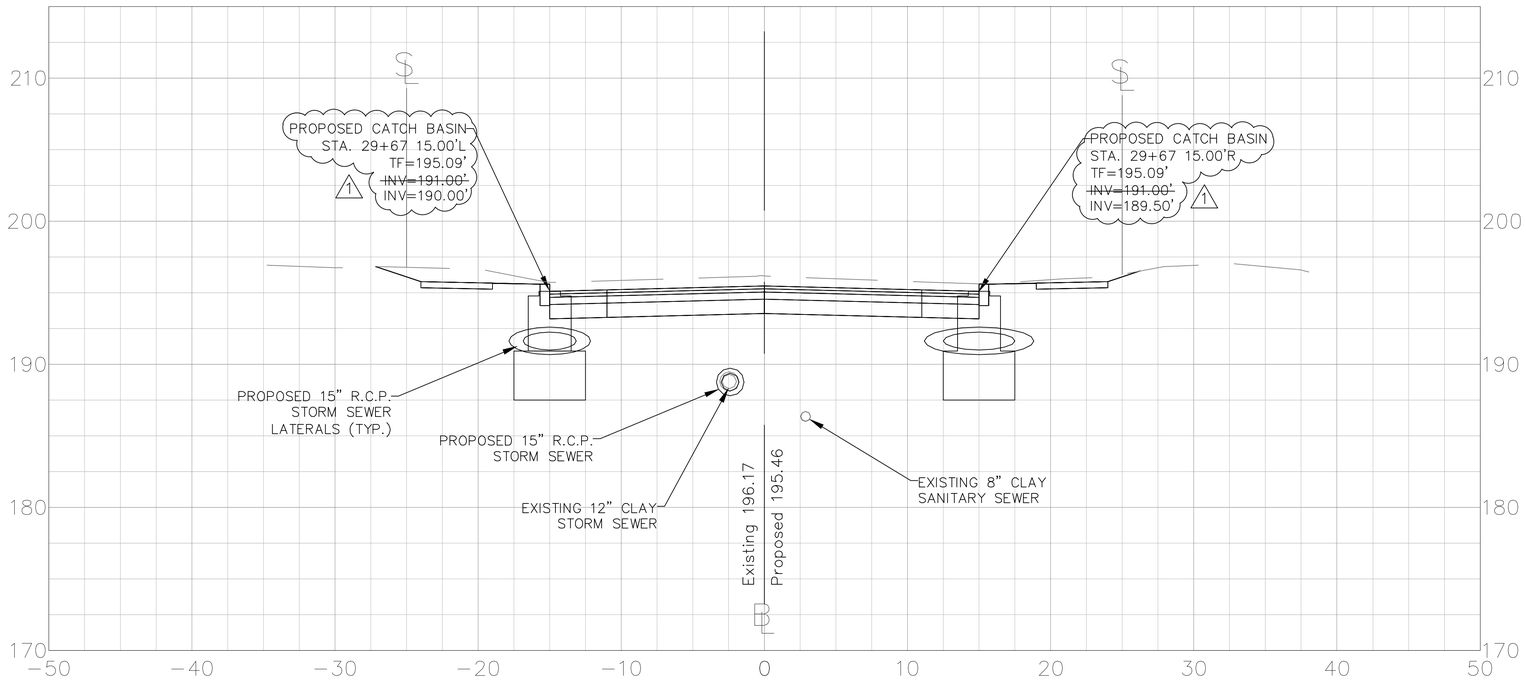
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

SCALE: AS NOTED
JOB NO. 88–185
SUBSET 14.34.A1

29+71.53



29+67.03



5 2.5 0 5 10 15

SCALE IN FEET
(1" = 5)

CROSS SECTIONS

HART STREET

SUBSET 14.37.A1

SCALE: AS NOTED

JOB NO. 88-185

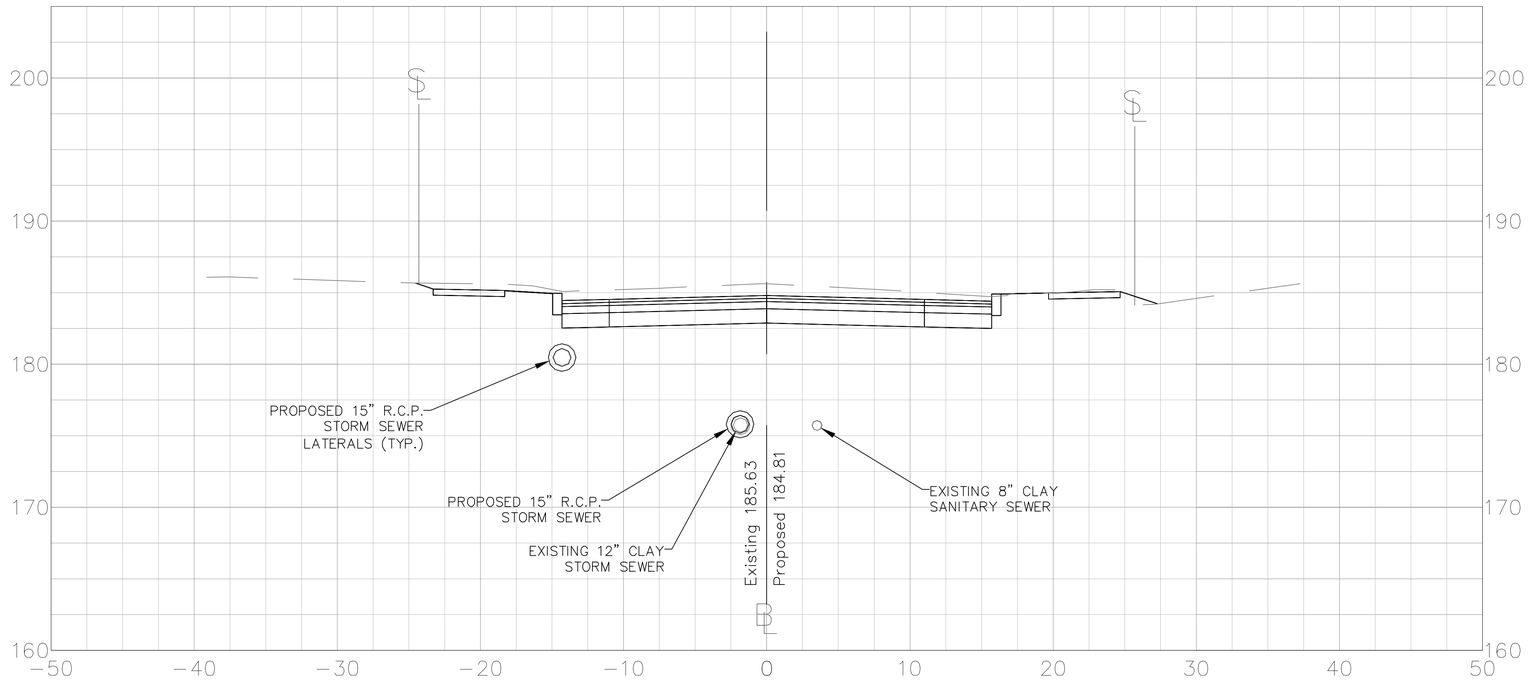
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

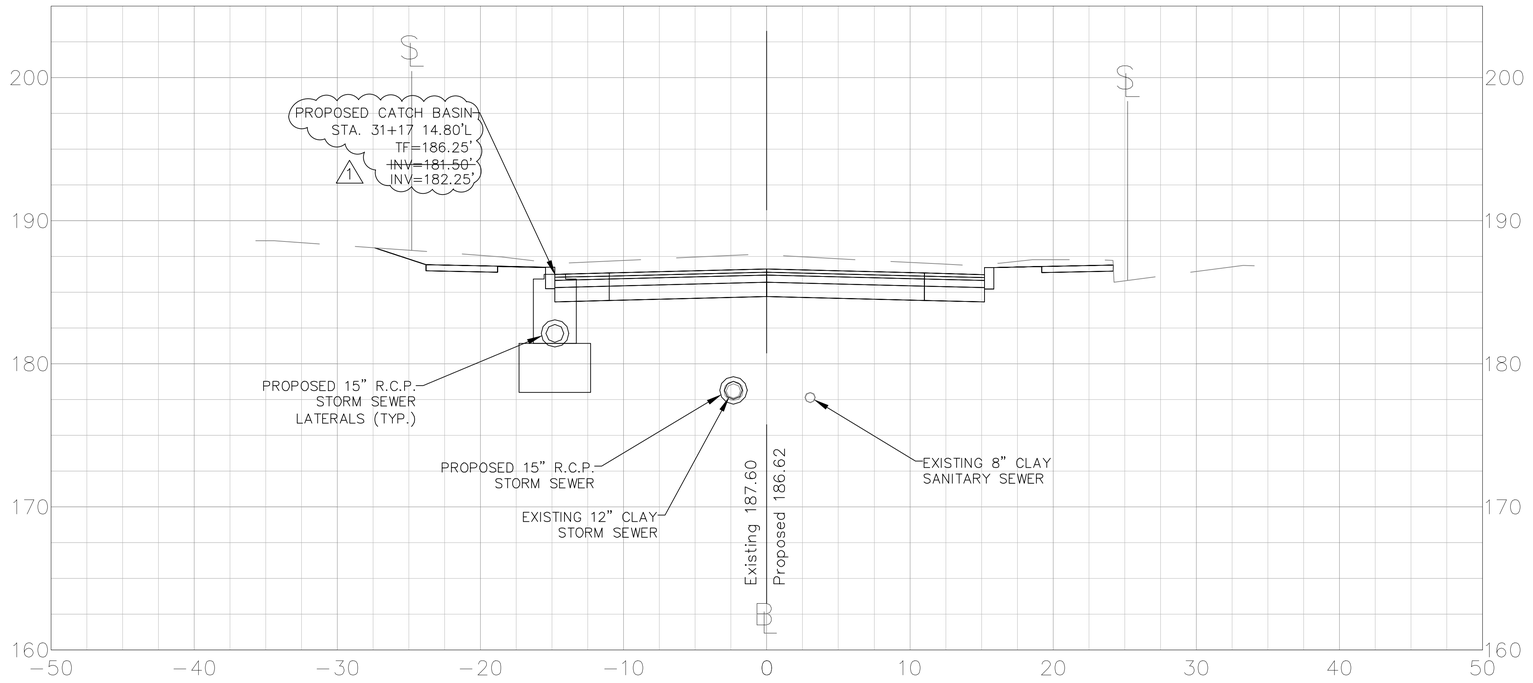
CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

31+50.00



31+17.00



5 2.5 0 5 10 15
SCALE IN FEET
(1" = 5)

CROSS SECTIONS

HART STREET

SUBSET 14.41.A1

SCALE AS NOTED

JOB NO. 88-185

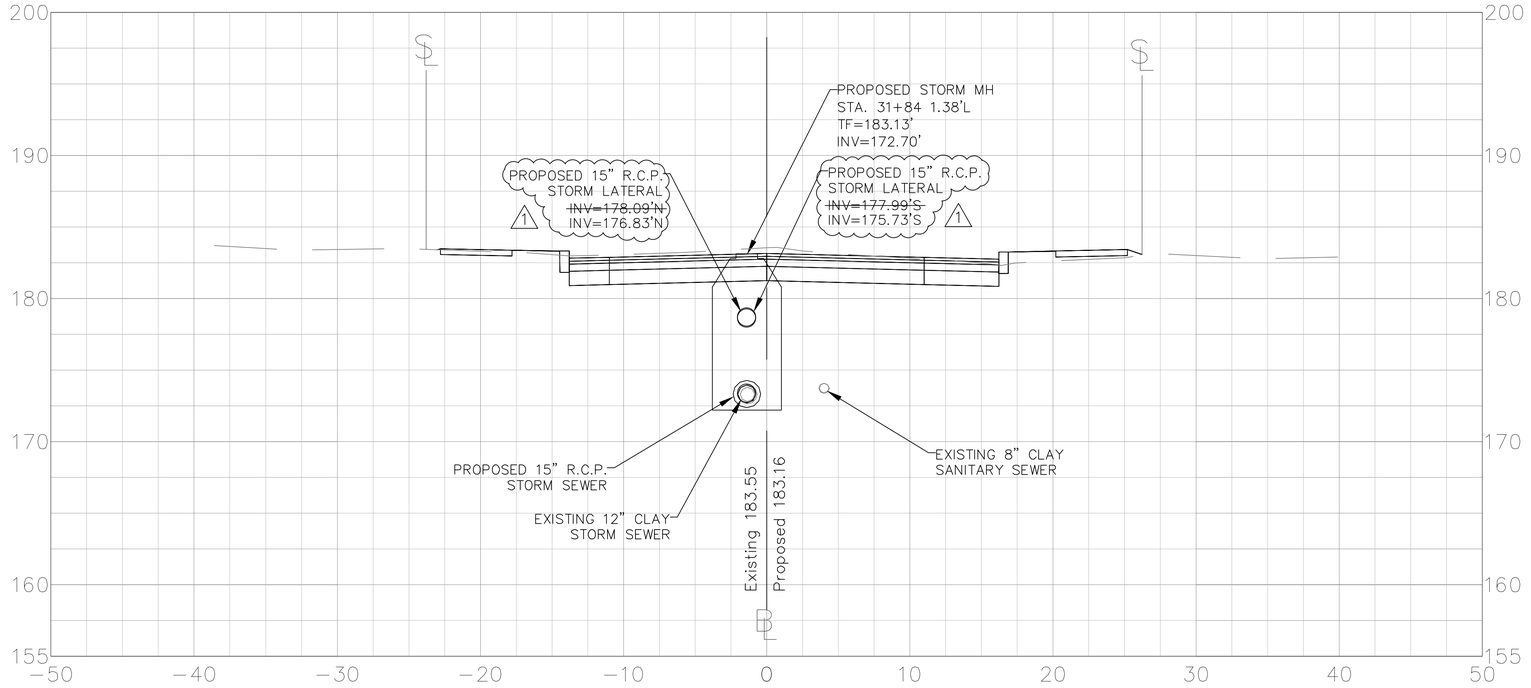
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

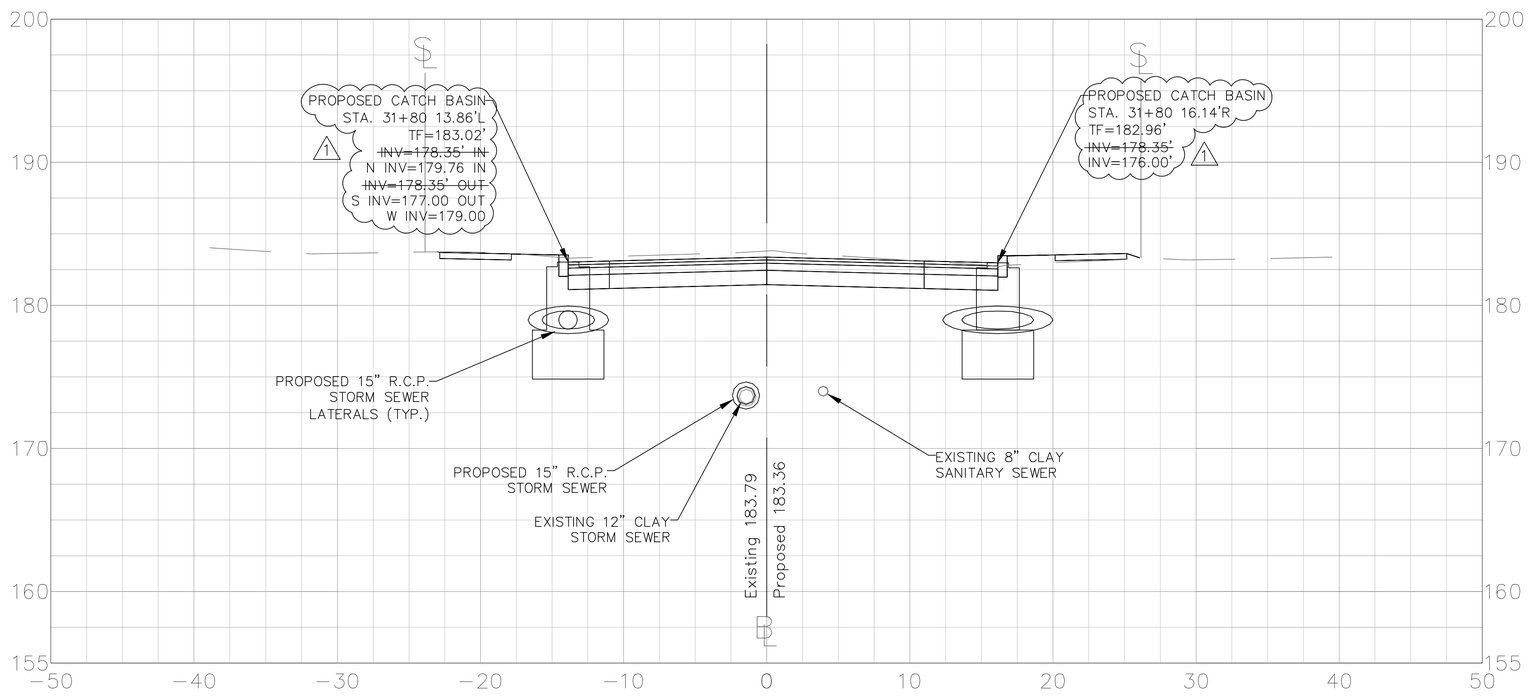
HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

31+84.50



31+80.00



5 2.5 0 5 10 15

SCALE IN FEET
(1" = 5')

CROSS SECTIONS

HART STREET

SUBSET 14.42.A1

SCALE AS NOTED

JOB NO. 88-185

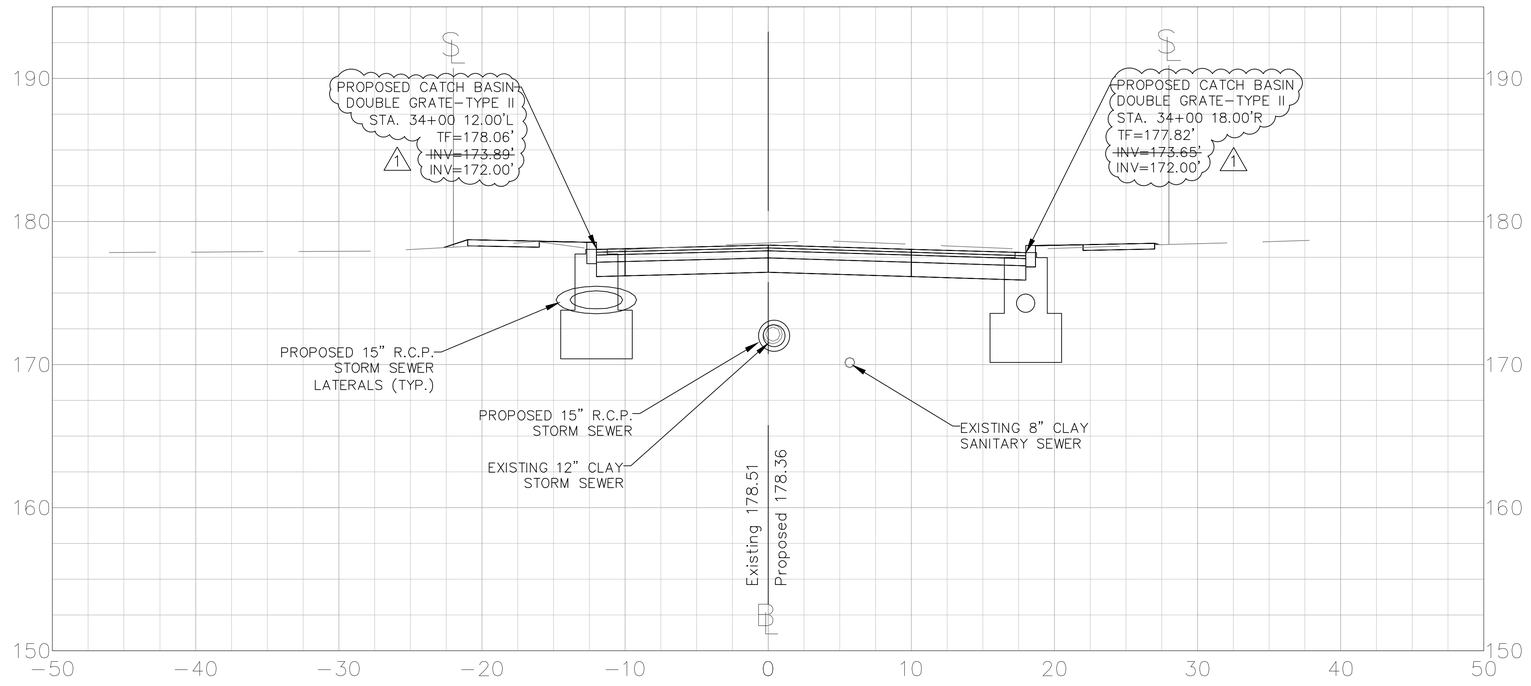
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

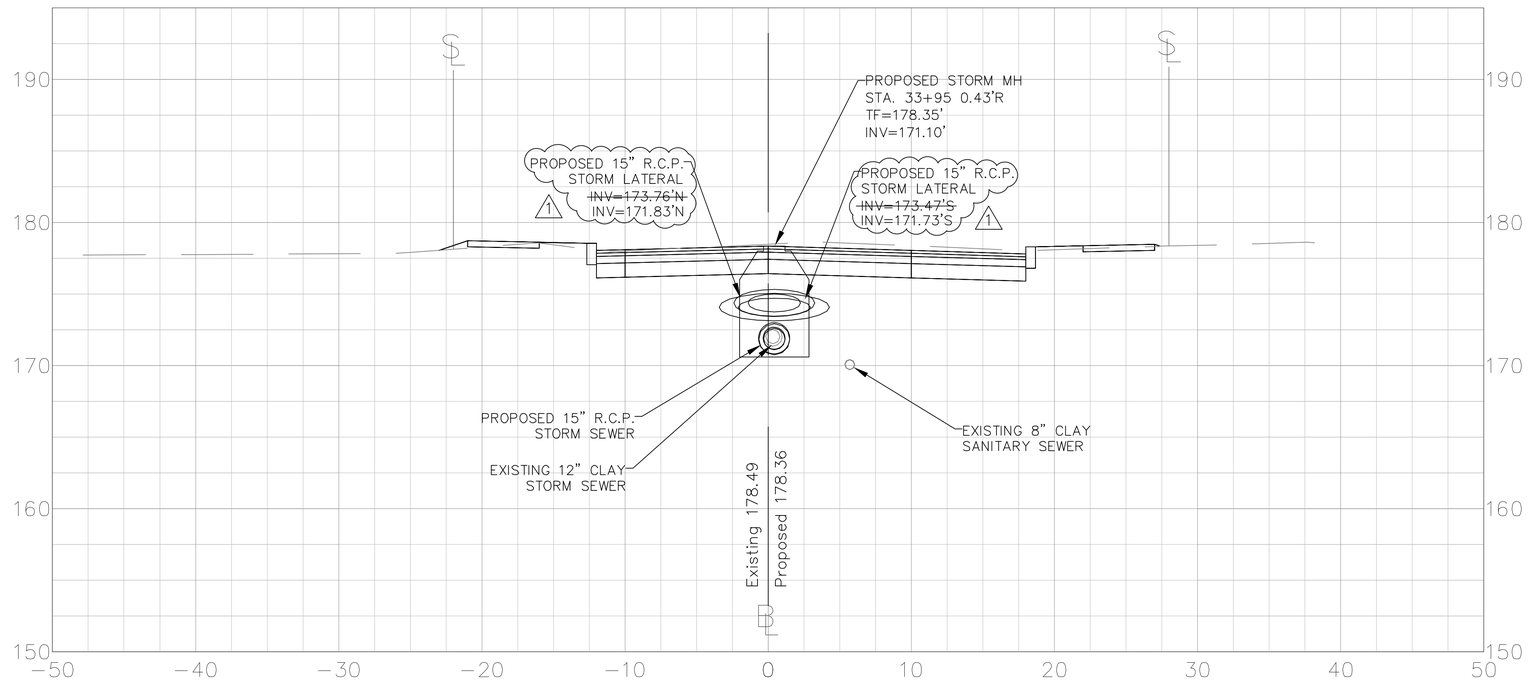
HART
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

34+00.00



33+95.50



5 2.5 0 5 10 15

SCALE IN FEET
(1" = 5')

CROSS SECTIONS

HART STREET

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

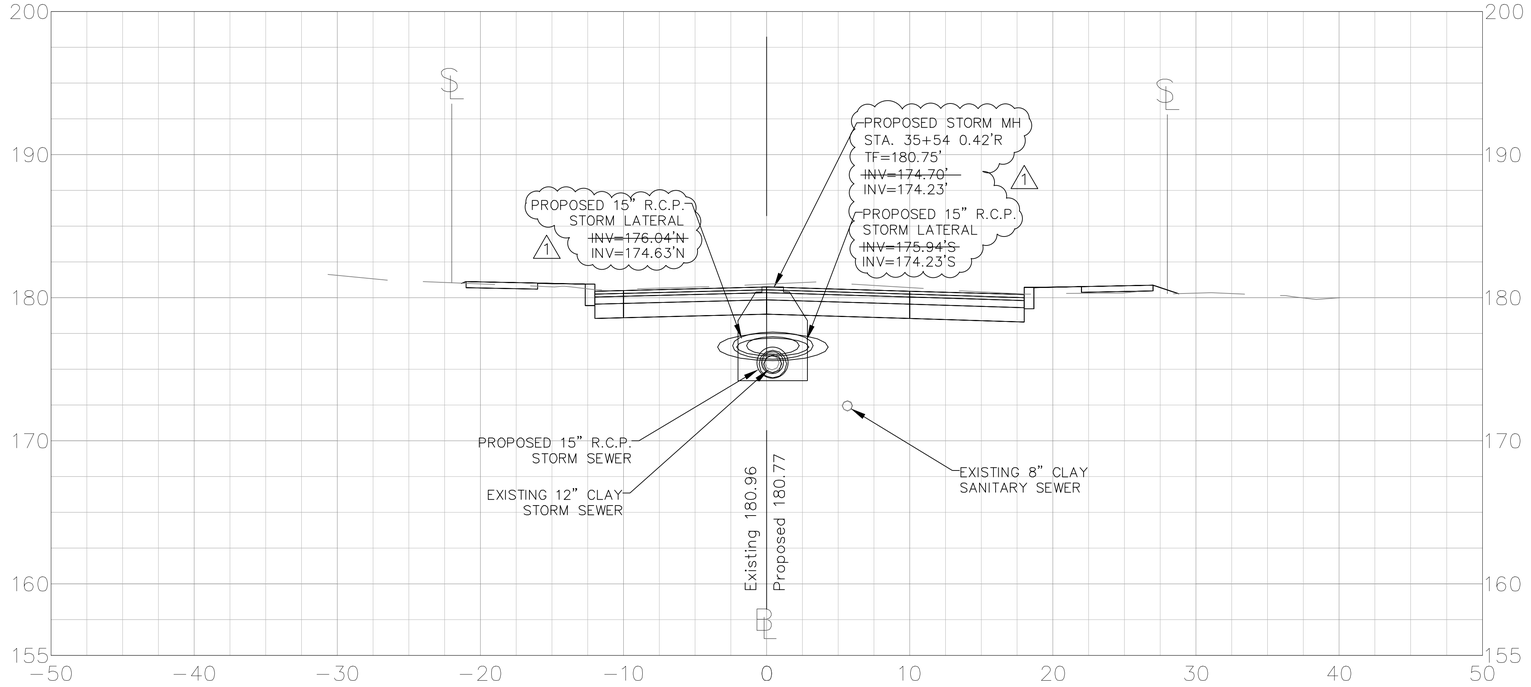
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1-Drainage Revisions	CP	RT

SCALE: AS NOTED

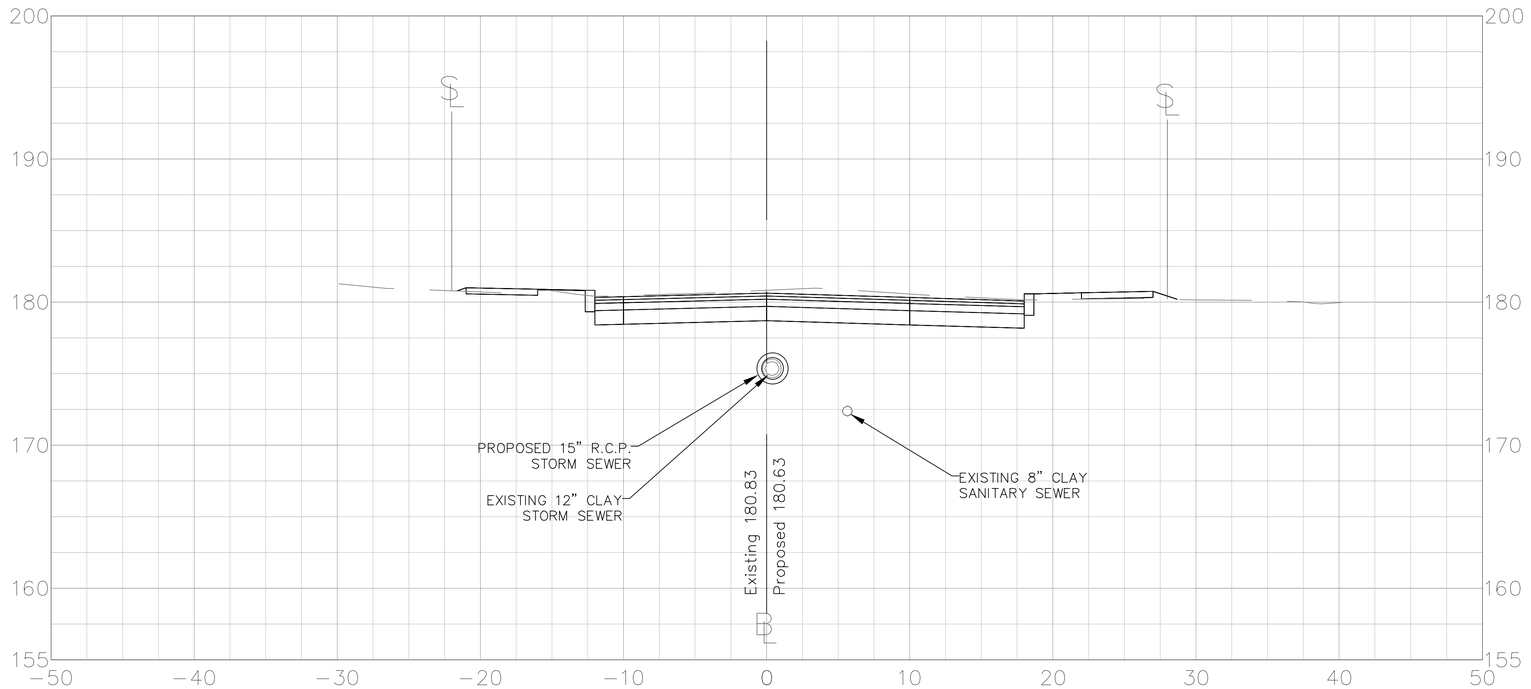
JOB NO. 88-185

SUBSET 14.46.A1

35+54.50



35+50.00



5 2.5 0 5 10 15
SCALE IN FEET
(1" = 5)

CROSS SECTIONS
HART STREET

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

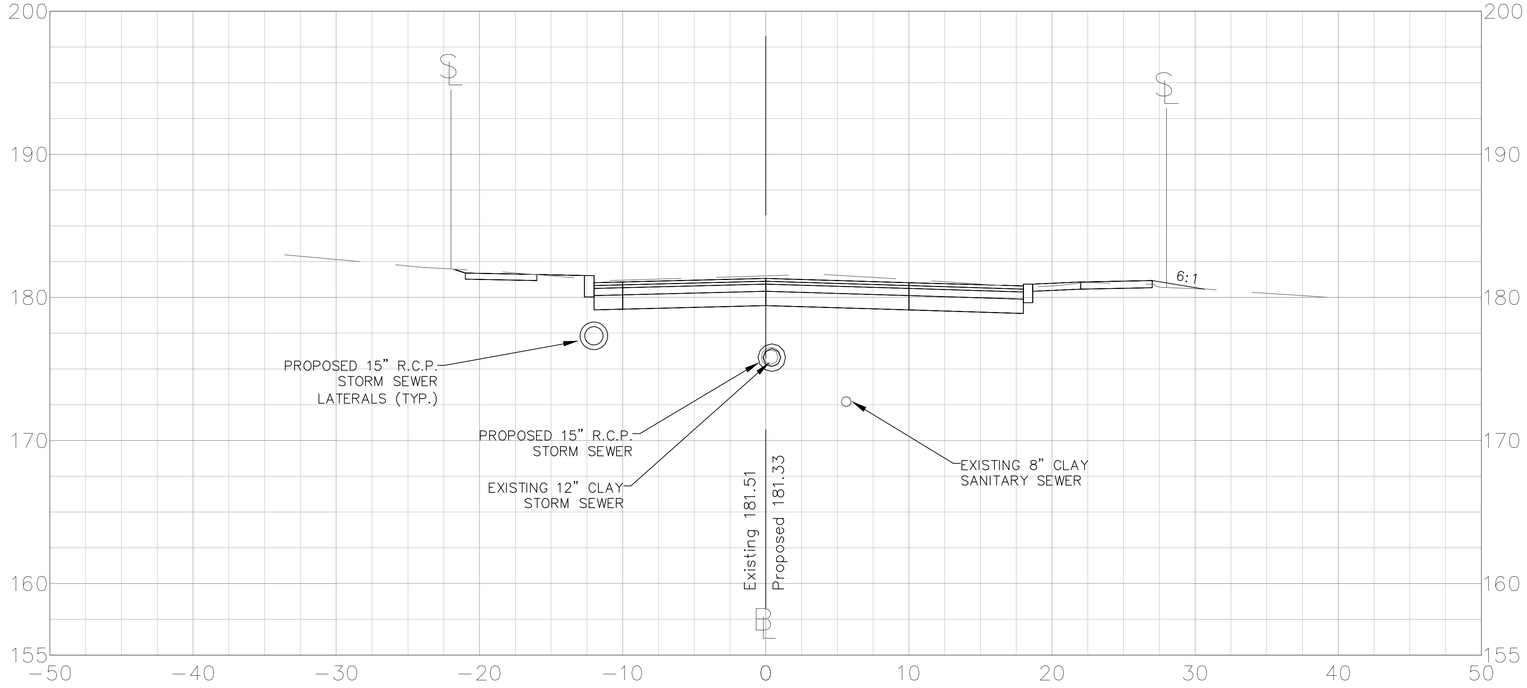
DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

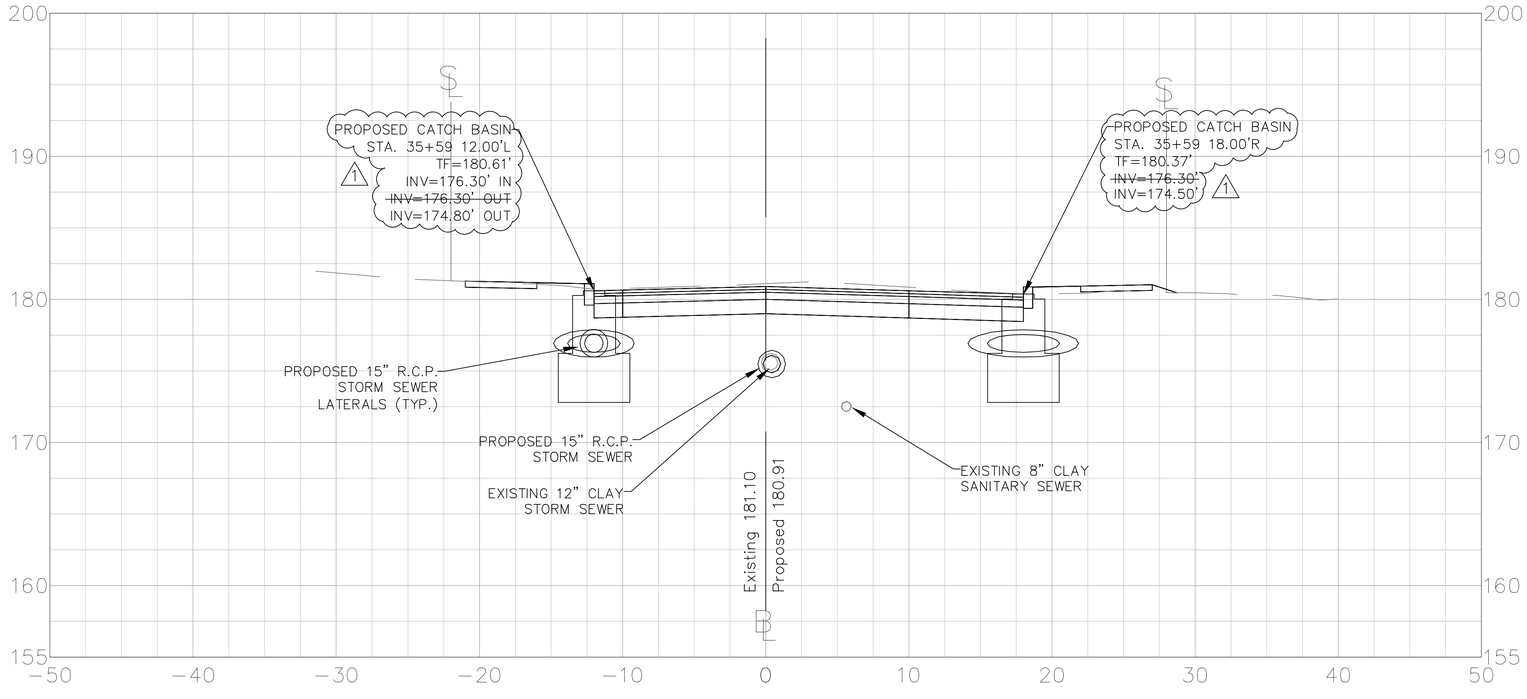
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

SCALE: AS NOTED
JOB NO. 88-185
SUBSET 14.49.A1

35+71.67



35+59.00



5 2.5 0 5 10 15

SCALE IN FEET
(1" = 5)

CROSS SECTIONS

HART STREET

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

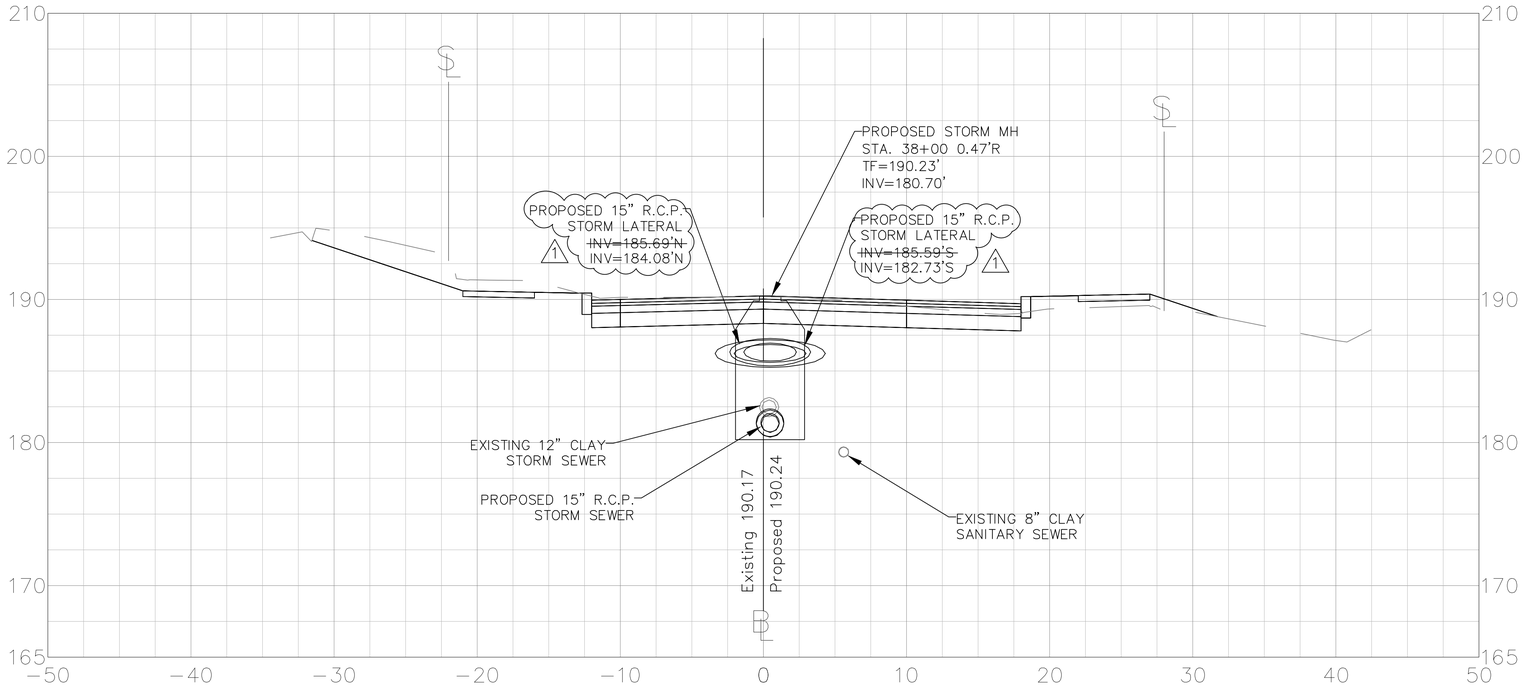
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

SCALE: AS NOTED

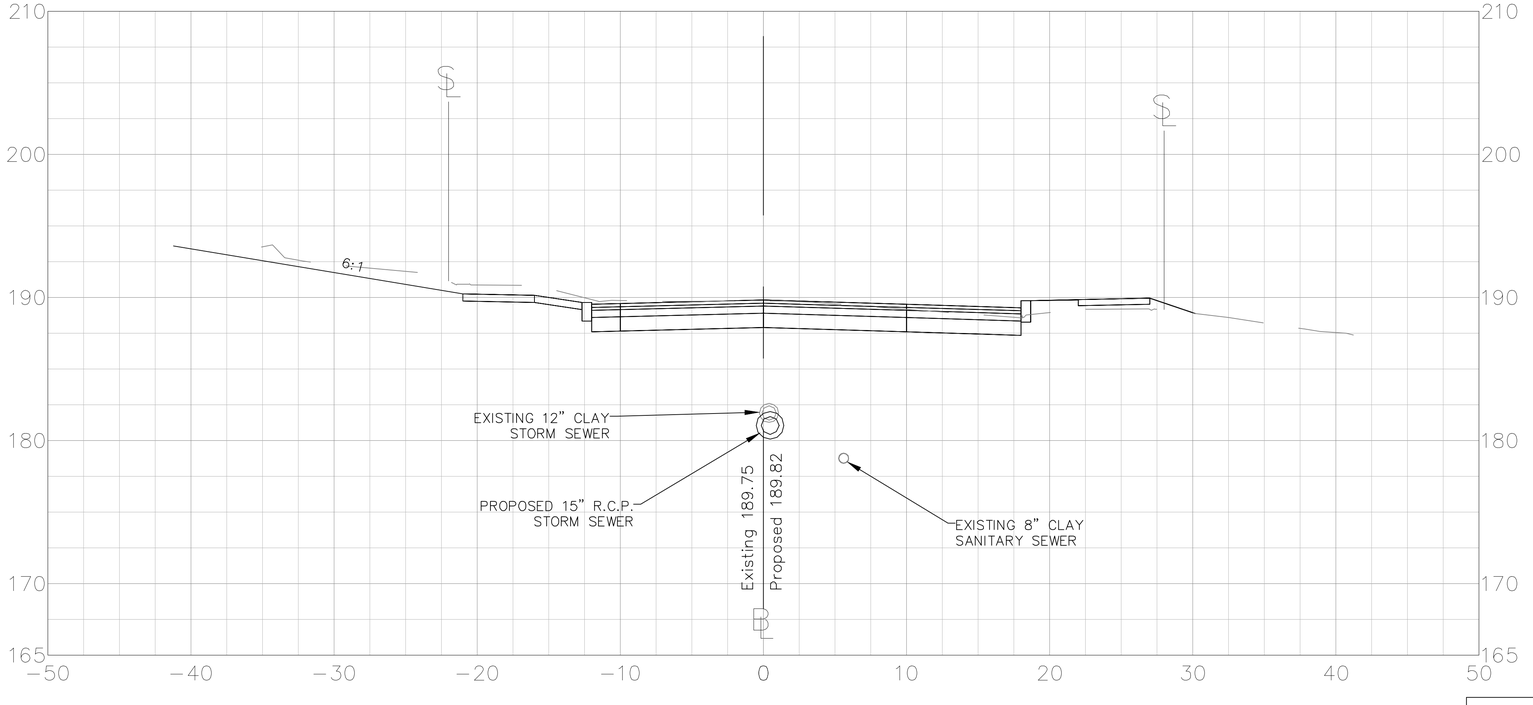
JOB NO. 88-185

SUBSET 14.50.A1

38+00.50



37+89.66



5 2.5 0 5 10 15
SCALE IN FEET
(1" = 5')

CROSS SECTIONS
HART STREET

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

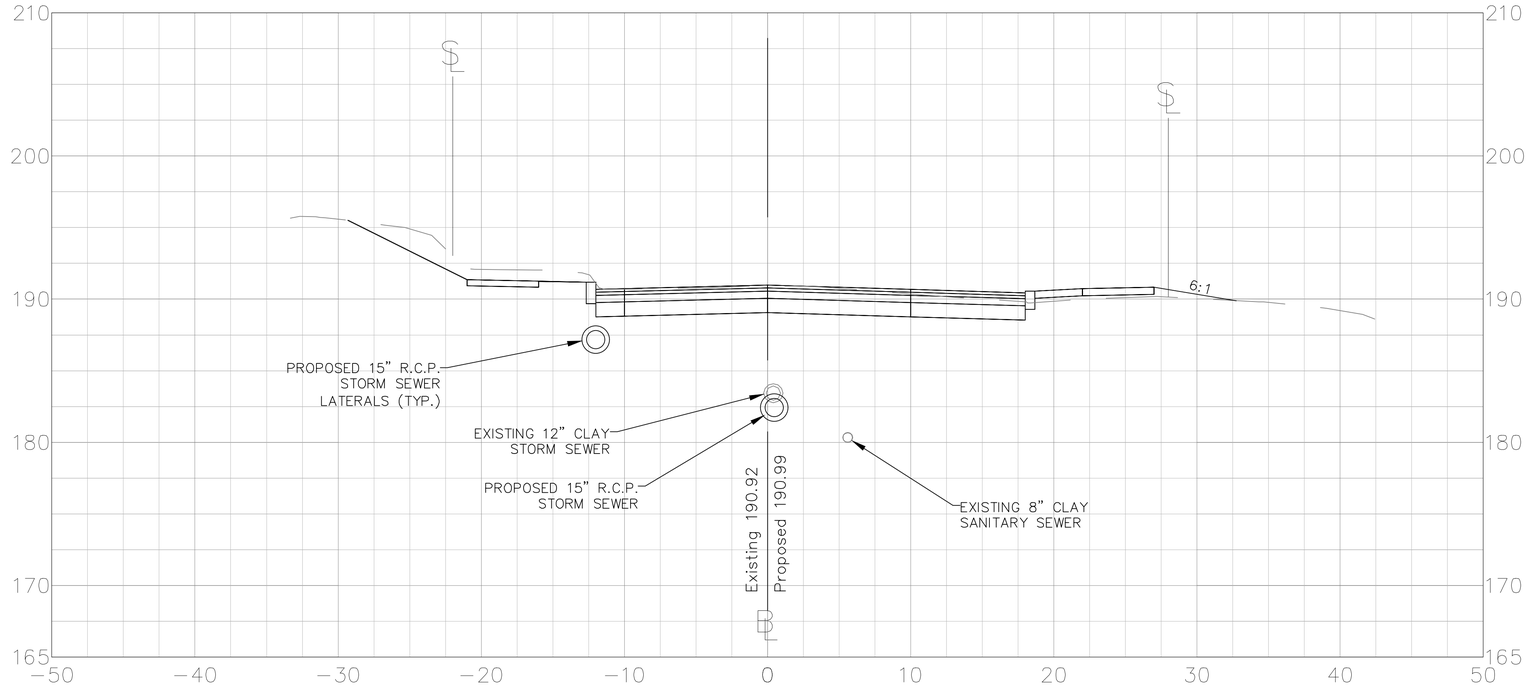
DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

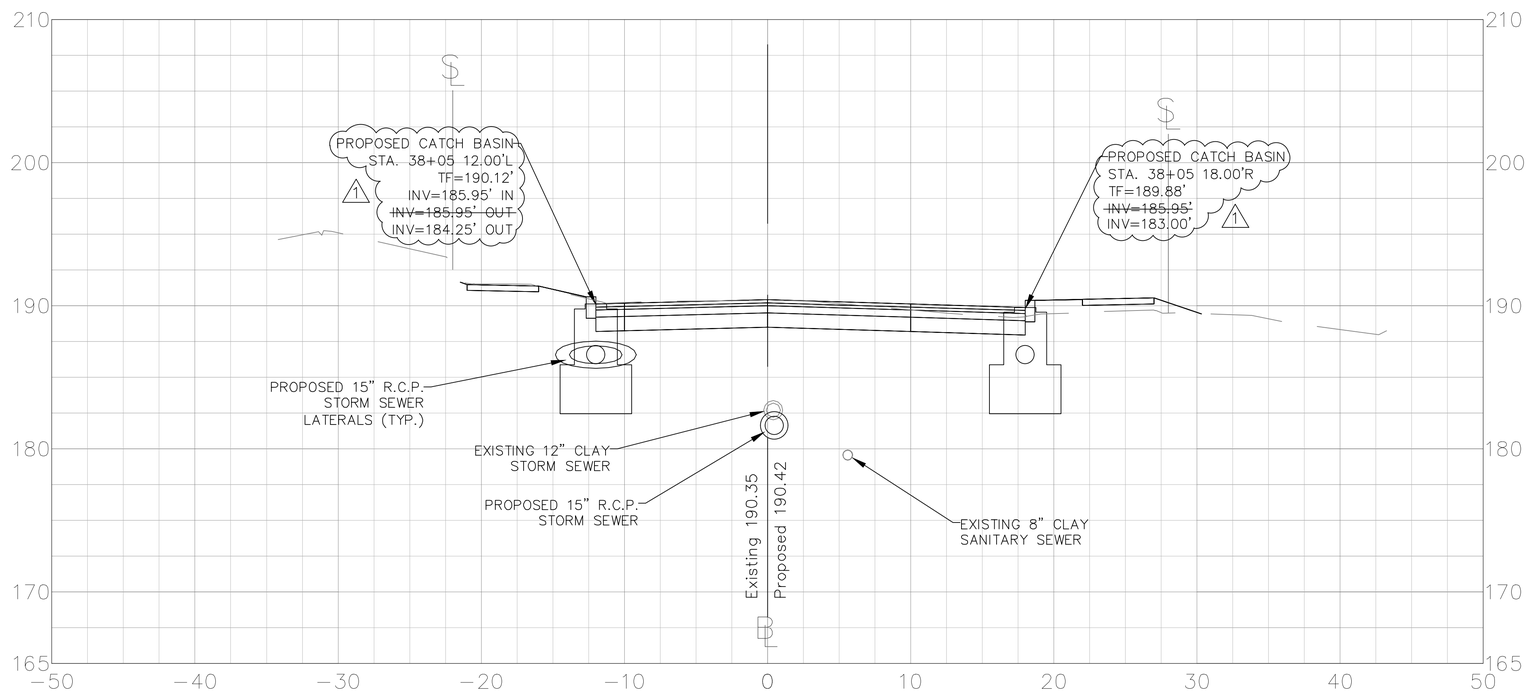
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

SCALE: AS NOTED
JOB NO. 88–185
SUBSET 14.56.A1

38+19.60



38+05.00



5 2.5 0 5 10 15

SCALE IN FEET
(1" = 5')

CROSS SECTIONS

HART STREET

SUBSET 14.57.A1

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

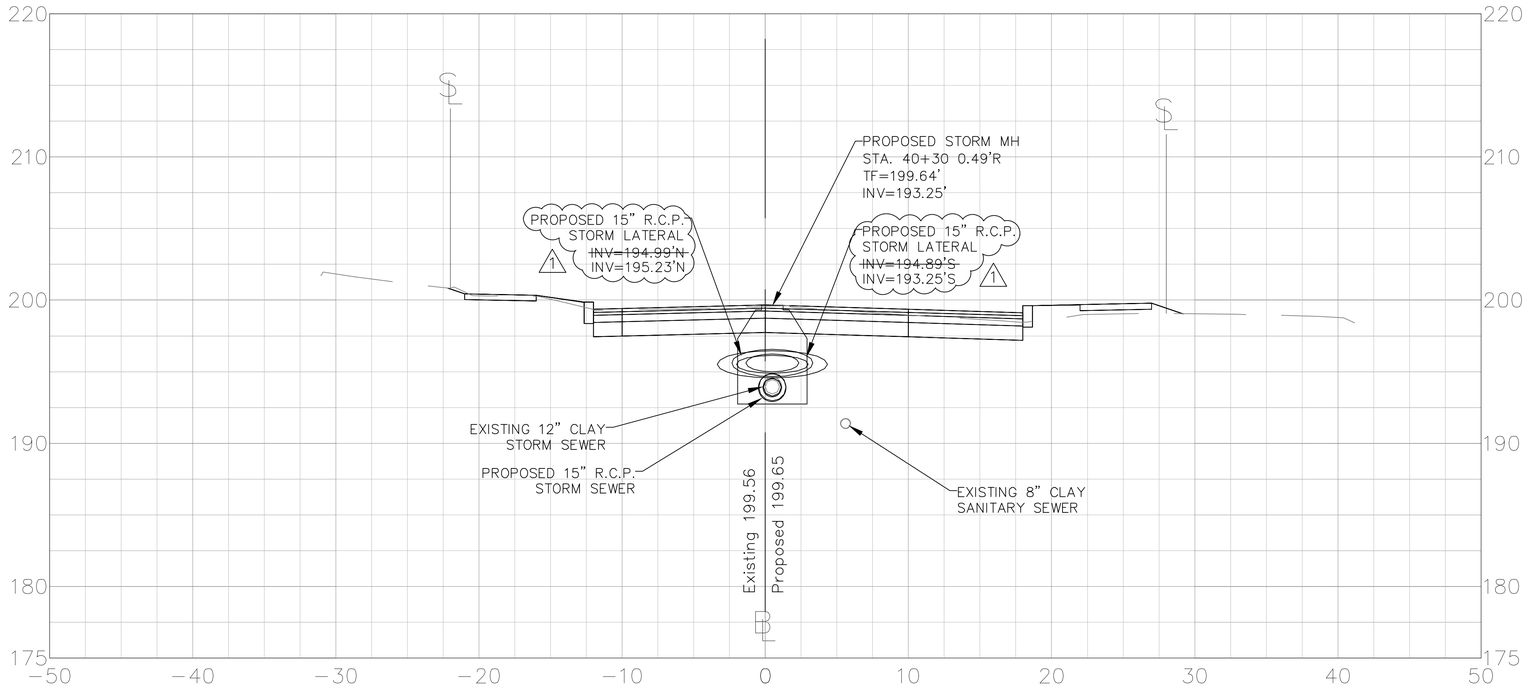
HART
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

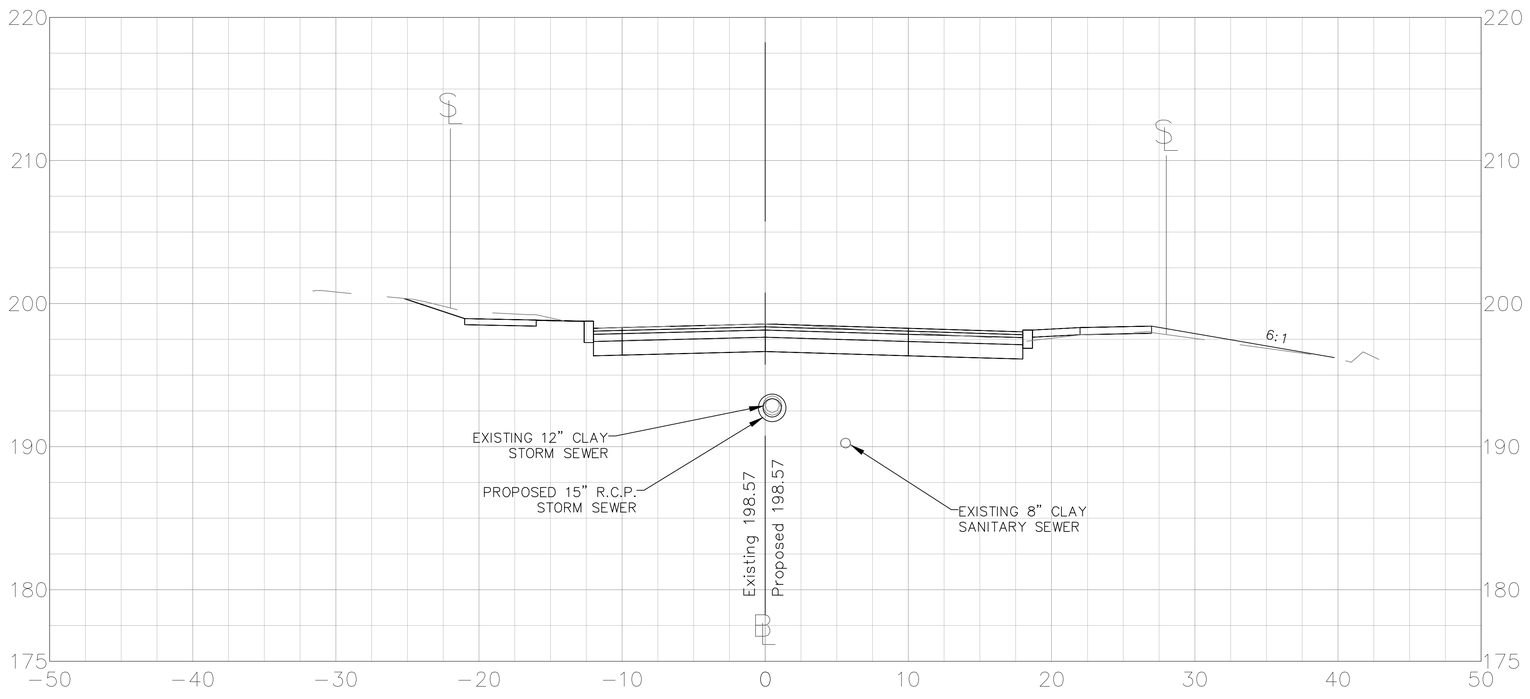
SCALE AS NOTED

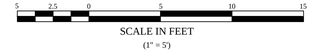
JOB NO. 88-185

40+30.00



40+08.48





CROSS SECTIONS

HART STREET

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

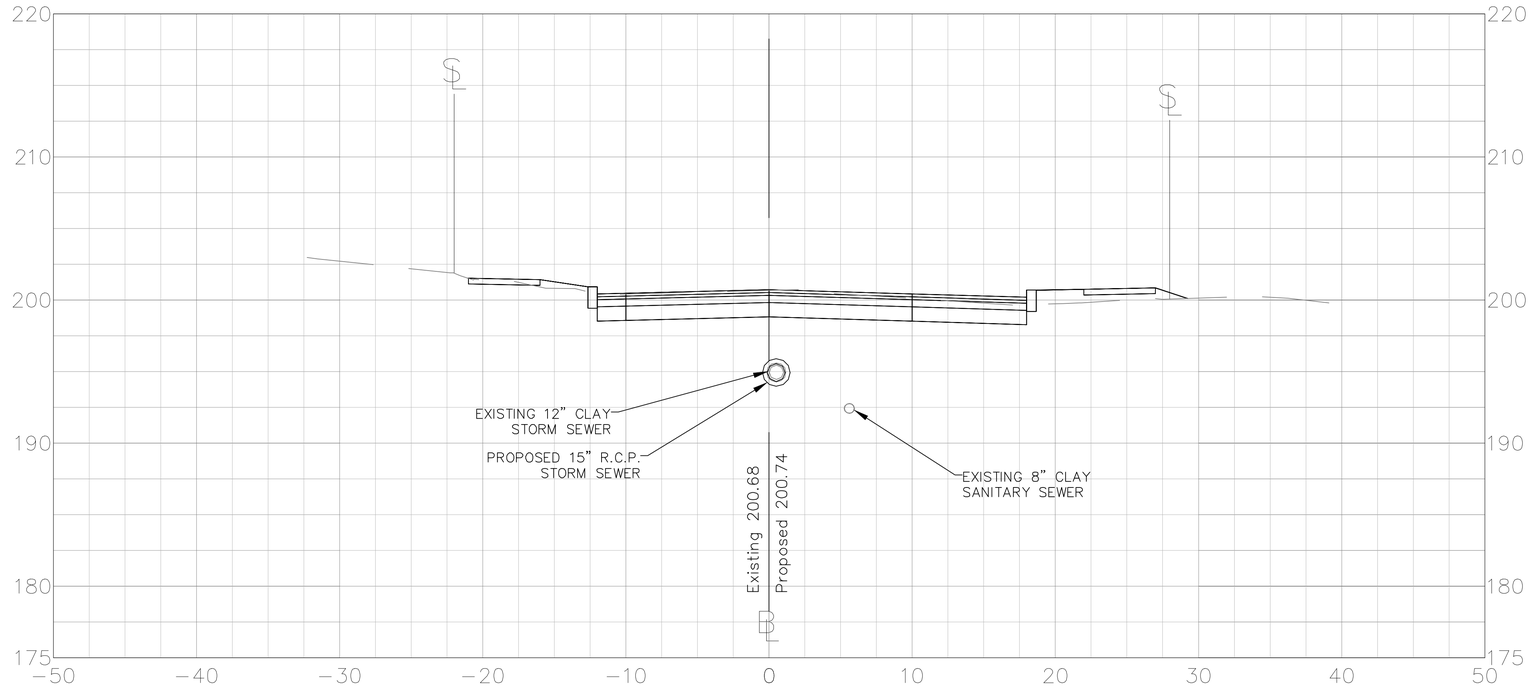
REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1–Drainage Revisions	CP	RT

SCALE: AS NOTED

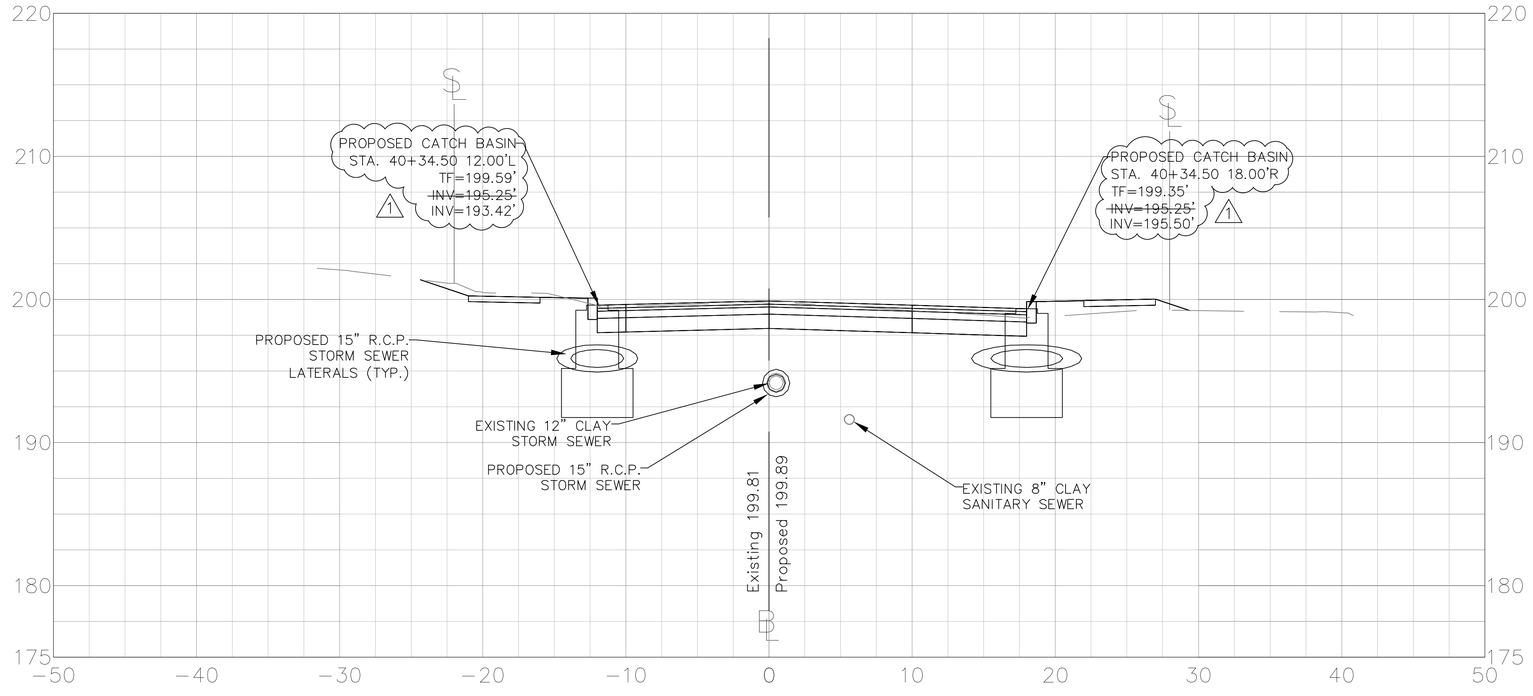
JOB NO. 88-185

SUBSET 14.62.A1

40+50.00



40+34.50



5 2.5 0 5 10 15
SCALE IN FEET
(1" = 5')

CROSS SECTIONS

HART STREET

CITY OF NEW BRITAIN
DEPARTMENT OF PUBLIC WORKS
27 WEST MAIN STREET
NEW BRITAIN, CONNECTICUT

DESIGNED BY: C. POLKOWSKI
DRAWN BY: C. POLKOWSKI
CHECKED BY: R. TROTTIER
DATE: 8/4/16

HART STREET
RECONSTRUCTION
CORBIN AVENUE TO LINWOOD STREET
NEW BRITAIN, CONNECTICUT

REV.	DATE	DESCRIPTION	BY	APP'D
1	11/23/16	ADDENDUM 1-Drainage Revisions	CP	RT

SCALE: AS NOTED

JOB NO. 88-185

SUBSET 14.63.A1