

SECTION 01 20 00 - MEASUREMENT AND PAYMENT (PURDY'S STATION)

PART 1 - GENERAL

1.1 SUMMARY

- A. Provide the work of this section in accordance with requirements of the Contract Documents.
- B. This Section Includes but is not limited to measurement and payment criteria applicable to portions of the work performed as a lump sum, unit price, allowances and options as exercised by the Railroad during the course of the Contract shall be measured and paid in accordance with this section.
- C. Defect assessment and non-payment for rejected work.

1.2 AUTHORITY

- A. Metro-North will take all measurements and compute quantities accordingly.
- B. The Contractor shall assist by providing necessary equipment, workers, and survey personnel as required.

1.3 DESCRIPTION OF BID ITEMS

The following descriptions of Bid Items for this Contract define how various items of work shall be paid:

- A. Purdy's Station
 - 1. Item No. 21 – (Lump Sum) Mobilization:
 - a. This item consists of the activities necessary to begin the project. These activities will include both administrative tasks such as CPM preparation, submittals, work schedules for staging and physical activities such as establishing the smaller field office, communication lines, and field survey/engineering layouts.
 - b. The Maximum amount for this item is 4% of the total Base Bid amount excluding allowances (Base Bid items 22 – 30) for the requirements in Sections 01 31 00, 01 35 29, 01 50 00, and 01 71 13.
 - c. Five (5) percent of Item No. 21 total mobilization costs will be paid upon completion of the smaller Metro-North Field Trailer at Purdy's Station. Eighty-five (85) percent of the mobilization costs will be paid in 3 equal monthly payments with the first payment to be made 30 calendar days after the constructor begins actual field work. The remaining ten (10) percent of the mobilization costs will be paid upon the complete demobilization of equipment from Purdy's Station.
 - d. Partial payments may be reduced by an amount determined by the Engineer if in his determination any of the following apply:
 - 1) The plant and equipment at the site are insufficient or are not suitable for the performance of the work.

- 2) The plant and equipment brought on the project are not being utilized or sufficiently utilized for the prosecution of the work.
 - 3) The plant and equipment brought on the project and committed to the work are removed from the project without permission of the Engineer.
 - 4) In the event of a reduction in partial payments as provided herein, the remainder of the partial payments which are unpaid at the date of such reduction, will be paid with subsequent progress payments as and when the conditions stated are rectified.
2. Item No. 22 - (Lump Sum) Demolition of Existing Staircase:
- a. Traffic Control for the north east corner of the parking lot:
 - 1) The Work consists of closing a section of the existing parking lot – (three northernmost stalls) to provide access for machines and equipment to remove and dispose of the existing steel staircase. This item consists of all labor, materials, tools, traffic control equipment and services required by the Contract Documents for the closure of the parking area and the installation and removal of all temporary traffic control devices specified and any other incidentals necessary to complete the work.
 - b. Remove and Dispose of Staircase and Lead Abatement:
 - 1) The Work consists of submission and approval of the Contractor's demolition plan. Once approved, work includes the dismantling and disposal (hauling away) of the existing staircase (including the lead paint per Metro-North report attached), light pole and associated conduits, cutting of the existing steel columns and steel connection to the Rte. 116 overpass and excavation and removal of the existing support column concrete footings. This item consists of all labor, materials, tools, cutting and lifting equipment and services required by the Contract Documents for the removal and disposal of the staircase and any other incidentals necessary to complete the work include transport off site to a qualified land fill.
 - c. **Excluding hauling and disposal of soils.**
3. Item No. 23 – (Lump Sum) Install Elevator and Machine Room:
- a. Traffic Control for the north east corner of the parking lot:
 - 1) The Work consists of closing a section of the existing parking lot – (22 northernmost stalls along ROW fence and four stalls along north corner) to provide access and Contractor lay down for the project. Work to include installing concrete barriers with chain link fence and way finding signage for patrons to stay clear. This item consists of all labor, materials, tools, traffic control equipment and services required by the Contract Documents for the closure of the parking area and the installation and removal of all temporary traffic control devices specified and any other incidentals necessary to complete the work.
 - b. Install Elevator and Elevator Shaft:
 - 1) Work consists of installing the elevator foundation, hydraulic lift in caisson, sump, steel shell, lift tracks, elevator cab, glass panels, doors, roof, awning over outside door, elevator machine room concrete slab and foundation, CMU walls, door, vents, roof, elevator machine elements, machine room power, electrical, lighting, IT, ventilation, mechanical, fire & safety, CCTV cameras (PODS), emergency call box and telephone. The EMR door is to be future access control. This item consists of all labor, materials, tools, equipment and services required by the Contract Documents for the complete construction of the elevator and elevator structural shell building specified and any other incidentals necessary to complete the work.
 - c. Install Pedestrian bridge from Rte. 116 Overpass to new Elevator:

- 1) Work consists of installing the pedestrian bridge foundations and steel support columns, pedestrian bridge steel frame and roof, glass panel walls and concrete composite floor slab, bridge LED lighting, station sign, wayfinding signage, and expansion joints. This item consists of all labor, materials, tools, equipment and services required by the Contract Documents for the complete construction of the pedestrian bridge structural specified and any other incidentals necessary to complete the work.
- d. **Excluding hauling and disposal of soils.**
4. Item No. 24 – (Lump Sum) Install Parking Lot Improvements:
 - a. Traffic Control for the north east corner of the parking lot:
 - 1) Work consists of increasing the closed area south of the entrance area to install the utility corridor back to the existing cabinets in the existing elevator machine room. Work to include installing temporary barrels with Type ‘A’ blinking strobe lights for temporary lane closures to conduit trenching. Steel plates will be use during off hours to open the area back up to traffic. This item consists of all labor, materials, tools, traffic control equipment and services required by the Contract Documents for the closure of the parking area and the installation and removal of all temporary traffic control devices specified and any other incidentals necessary to complete the work.
 - b. Install Utility Corridor:
 - 1) Work consists removing existing asphalt pavement, excavating and installing a multiple dunk bank array to accommodate electric, (lighting and elevator), communications, telephone, IT and security between the new elevator and the pole riser located on Rte. 116. Work also includes installing the new light pole foundations, conduit runs, pull boxes, and erecting the new light poles. This item consists of all labor, materials, tools, equipment and services required by the Contract Documents for the complete construction of the duct bank and light poles specified and any other incidentals necessary to complete the work.
 - c. Install Sidewalk and Curb:
 - 1) Work consists of removing existing asphalt pavement and excavating as needed and installing a new concrete sidewalk and curb from the new elevator to the exiting station entrance. In addition, parking lot drainage improvements, new parking lot pavement and pavement markings, drop curbs and parking signage will be included. A new glass wind screen will be added in front of the new elevator outside doors to protect against rain and snow entering the elevator. This item consists of all labor, materials, tools, equipment and services required by the Contract Documents for the complete construction of the sidewalk and curb specified and any other incidentals necessary to complete the work.
 - d. **Excluding hauling and disposal of soils.**
5. Item No. 25 – (Lump Sum) Install Rte. 116 Elements
 - a. Traffic Control along Rte. 116:
 - 1) Work consists of closing the existing shoulder on eastbound Rte. 116 to install the elements along Rte. 116 overpass. Work to include installing temporary shoulder closure MPT following MUTCD standard practices for a two-lane roadway. This item consists of all labor, materials, tools, traffic control equipment and services required by the Contract Documents for the closure of the shoulder and the installation and removal of all temporary traffic control devices specified and any other incidentals necessary to complete the work.
 - b. Rte. 116 Work Elements:
 - 1) Work to consist of removing sections of existing bridge fencing, installing new

bridge fencing, installing new wayfinding signage **for the new elevator**, installing **approximately 4 Standard R7-1 “No Parking” signs including breakaway steel u-posts along Rte. 116 west of the Purdy’s Station parking lot entrance**, ~~modifying the existing sidewalk to accommodate ADA requirements~~. This item consists all labor, materials, tools, equipment and services required by the Contract Documents for the complete construction of the bridge fencing **and signage and sidewalk modifications** as specified and any other incidentals necessary to complete the work.

B. Unit Price Items

1. Item No. 26 – (Ton) Hauling & Disposal of Hazardous Soil:
 - a. This item consists of hauling and off-site disposal of hazardous soil in accordance with Metro-North procedure and standards, the contract documents and the quantities listed on the bid sheet. A list of Metro-North pre-qualified haulers and landfills is included in the contract specifications.
 - b. This item consists of all labor, materials, tools, equipment and services required by the Contract Documents for the construction of all the components specified and any other incidentals necessary to complete the work.
 - c. This item shall be measured and paid based on the number of tons of waste classified as hazardous soil that must be disposed of, including all labor, sampling and analysis, equipment, loading, stabilization, transport, disposal, decontamination, material documentation, permits and material to complete the work.
 - d. Metro-North reserves the right, upon its sole determination to utilize Metro-North on-call contractors for transport and disposal of hazardous soil, with the Contractor remaining responsible for loading.
 - e. All excavation and stockpiling related costs shall be included in the lump sum of other items in the contract-based contract work. Refer to specification 02 61 00 Sampling, Testing, Handling, Loading, Removal and Disposal of Soils.
 - f. Work shall not be charged to this unit price without written authorization from Metro-North. The actual amount of work and associated cost shall be identified based on the unit price and quantity at the time when work is required.
2. Item No. 27 – (Ton) Hauling & Disposal of Non-Hazardous Petroleum Contaminated Soil:
 - a. This item consists of hauling and off-site disposal of non-hazardous, petroleum contaminated soil in accordance with Metro-North procedure and standards, the contract documents and the quantities listed on the bid sheet. A list of Metro-North pre-qualified haulers and landfills is included in the contract specifications.
 - b. This item consists of all labor, materials, tools, equipment and services required by the Contract Documents for the construction of all the components specified and any other incidentals necessary to complete the work.
 - c. This item shall be measured and paid based on the number of tons of waste classified as non-hazardous, petroleum contaminated soil that must be disposed of, including all labor, sampling and analysis, equipment, loading, stabilization, transport, disposal, decontamination, material documentation, permits and material to complete the work.
 - d. Metro-North reserves the right, upon its sole determination to utilize Metro-North on-call contractors for transport and disposal of Non-Hazardous Petroleum Contaminated Soil, with the Contractor remaining responsible for loading.
 - e. All excavation and stockpiling related costs shall be included in the lump sum of other items in the contract-based contract work. Refer to specification 02 61 00 Sampling, Testing, Handling, Loading, Removal and Disposal of Soils for ability to reuse soils on site. Any and all soil excavated and re-used on site shall be included in the lump sum

under other items in the contract based on contract work. The reuse on site of excavated soil must be approved by Metro-North Environmental Compliance and Services Department.

- f. Work shall not be charged to this unit price without written authorization from Metro-North. The actual amount of work and associated cost shall be identified based on the unit price and quantity at the time when work is required.

3. Item No. 28 – (Ton) Hauling & Disposal of Excess Non-Hazardous PCB Contaminated Soil:

- a. This item consists of hauling and off-site disposal of non-hazardous PCB contaminated soil that cannot be backfilled/re-used on site in accordance with Metro-North procedure and standards, the contract documents and the quantities listed on the bid sheet. A list of Metro-North pre-qualified haulers and landfills is included in the contract specifications.
- b. This item consists of all labor, materials, tools, equipment and services required by the Contract Documents for the construction of all the components specified and any other incidentals necessary to complete the work.
- c. This item shall be measured and paid based on the number of tons of waste classified as non-hazardous PCB contaminated soil that must be disposed of, including all labor, sampling and analysis, equipment, loading, stabilization, transport, disposal, decontamination, material documentation, permits and material to complete the work.
- d. Metro-North reserves the right, upon its sole determination to utilize Metro-North on-call contractors for transport and disposal of Excess Non-Hazardous PCB Contaminated Soil, with the Contractor remaining responsible for loading.
- e. All excavation and stockpiling related costs shall be included in the lump sum of the various items in the contract-based contract work. Refer to specification 02 61 00 Sampling, Testing, Handling, Loading, Removal and Disposal of Soils for ability to reuse soils on site. Any and all soil excavated and re-used on site shall be included in the lump sum of other items in the contract based on contract work. The reuse on site of excavated soil must be approved by Metro-North Environmental Compliance and Services Department.
- f. Work shall not be charged to this unit price without written authorization from Metro-North. The actual amount of work and associated cost shall be identified based on the unit price and quantity at the time when work is required.

4. Item No. 29 – (Ton) Hauling & Disposal of Excess Non-Hazardous Soil/Fill:

- a. This item consists of hauling and off-site disposal of non-hazardous soil/fill that cannot be backfilled/re-used on site in accordance with Metro-North procedure and standards, the contract documents and the quantities listed on the bid sheet. A list of Metro-North pre-qualified haulers and landfills is included in the contract specifications.
- b. This item consists of all labor, materials, tools, equipment and services required by the Contract Documents for the construction of all the components specified and any other incidentals necessary to complete the work.
- c. This item shall be measured and paid based on the number of tons of waste classified as non-hazardous soil/fill that must be disposed of, including all labor, sampling and analysis, equipment, loading, stabilization, transport, disposal, decontamination, material documentation, permits and material to complete the work.
- d. Metro-North reserves the right, upon its sole determination to utilize Metro-North on-call contractors for transport and disposal of Excess Non-Hazardous Soil/Fill, with the Contractor remaining responsible for loading.
- e. All excavation and stockpiling related costs shall be included in the lump sum of the various items in the contract-based contract work. Refer to specification 02 61 00

Sampling, Testing, Handling, Loading, Removal and Disposal of Soils for ability to reuse soils on site. Any and all soil excavated and re-used on site shall be included in the lump sum of other items in the contract based on contract work. The reuse on site of excavated soil must be approved by Metro-North Environmental Compliance and Services Department.

- f. Work shall not be charged to this unit price without written authorization from Metro-North. The actual amount of work and associated cost shall be identified based on the unit price and quantity at the time when work is required.

5. Item No. 30 – (Ton) Hauling & Disposal of Excess Non-Hazardous C&D Soil/Fill:

- a. This item consists of hauling and off-site disposal of non-hazardous C&D soil/fill in accordance with Metro-North procedure and standards, the contract documents and the quantities listed on the bid sheet. A list of Metro-North pre-qualified haulers and landfills is included in the contract specifications.
- b. This item shall be measured and paid based on the number of tons of waste classified as non-hazardous C&D soil/fill that must be disposed of, including all labor, sampling and analysis, equipment, loading, stabilization, transport, disposal, decontamination, material documentation, permits and material to complete the work.
- c. Metro-North reserves the right, upon its sole determination to utilize Metro-North on-call contractors for transport and disposal of Excess Non-Hazardous C&D Soil/Fill, with the Contractor remaining responsible for loading
- d. All excavation and stockpiling related costs shall be included in the lump sum of the various items in the contract-based contract work. Refer to specification 02 61 00 Sampling, Testing, Handling, Loading, Removal and Disposal of Soils for ability to reuse soils on site. Any and all soil excavated and re-used on site shall be included in the lump sum of other items in the contract based on contract work. The reuse on site of excavated soil must be approved by Metro-North Environmental Compliance and Services Department.
- e. Work shall not be charged to this unit price without written authorization from Metro-North. The actual amount of work and associated cost shall be identified based on the unit price and quantity at the time when work is required.

C. Allowances

1. Item No. 31 – (Lump Sum) Buried and/or Unforeseen Materials in Conflict with New Construction:

- a. This item has an allowance of \$10,000 for all design, labor, materials, tools, equipment, and services required for the excavation, removal, relocation, abatement and legal disposal of all materials in conflict with new construction work, including but not limited to old foundations, railroad ties, tanks, utilities or any other hidden obstruction, that is NOT included in the base scope of work of the contract documents or that could NOT be reasonably anticipated from the contract documents..
- b. Work shall not be charged for this allowance without written authorization from Metro-North. The actual amount of work and associated costs shall be negotiated at the time of the work is defined and required. In the event the full amount of the allowance is not utilized, the remaining unused funds shall be credited to the Authority at the end of the job.
- c. Payment based on actual cost.

2. Item No. 32 – (Lump Sum) Unforeseen ~~Asbestos and~~ Lead Abatement:

- a. This item is an allowance of \$10,000 for ~~asbestos and~~ lead abatement including testing,

demolition, hauling and off-site disposal in accordance with Metro-North procedures and standards and the contract documents for work NOT depicted and described in Technical Specification 02 83 00 ~~and 02-83-19~~. This allowance is for ~~asbestos and~~ lead abatement work NOT included in other items of the base contract.

- b. A list of Metro-North pre-qualified haulers and landfills is included in the Contract specifications. All requirements in the contract documents for this work shall be followed for work performed under this allowance item. This item consists of all labor, materials, tools, equipment and services required by the Contract Documents for the construction of all the components specified and any other incidentals necessary to complete the work.
 - c. Work shall not be charged for this allowance without written authorization from Metro-North. The actual amount of work and associated costs shall be negotiated at the time of the work is defined and required. In the event the full amount of the allowance is not utilized, the remaining unused funds shall be credited to the Authority at the end of the job.
 - d. Payment based on actual cost.
3. Item No. 33 – (Lump Sum) Additional Conduit and Cabling:
- a. This item is an allowance of \$10,000 for performing additional conduit and cabling utility work. This allowance is only for items NOT included in the base scope of work of the contract documents or that could NOT be reasonably anticipated from the contract documents.
 - b. Work shall not be charged for this allowance without written authorization from Metro-North. The actual amount of work and associated costs shall be negotiated at the time of the work is defined and required. In the event the full amount of the allowance is not utilized, the remaining unused funds shall be credited to the Authority at the end of the job.
 - c. Payment based on actual cost.
4. Item No. 34 – (Lump Sum) Relocation of Various Metro-North Items:
- a. This allowance is an allowance of \$15,000 for assisting Metro-North with the relocation of Metro-North items at various locations on site. This allowance is for items NOT included in the base scope of work of the contract documents or that could NOT be reasonably anticipated from the contract documents.
 - b. Work shall not be charged for this allowance without written authorization from Metro-North. The actual amount of work and associated costs shall be negotiated at the time of the work is defined and required. In the event the full amount of the allowance is not utilized, the remaining unused funds shall be credited to the Authority at the end of the job.
 - c. Payment based on actual cost.
5. Item No. 35 – (Lump Sum) Test Pits:
- a. This item is an allowance of \$10,000 for additional test pits. This item consists of all labor, materials, tools, equipment and services required above and beyond what is required by the Contract Documents. Test pits as required under the base contract shall be as noted in the base contract.
 - b. Work shall not be charged for this allowance without written authorization from Metro-North. The actual amount of work and associated costs shall be negotiated at the time of the work is defined and required. In the event the full amount of the allowance is not utilized, the remaining unused funds shall be credited to the Authority at the end of the job.

- c. Payment based on actual cost.
- 6. Item No. 36 – (Lump Sum) Additional Signage:
 - a. This item is an allowance of \$5,000 for additional signage. This item consists of all labor, materials, tools, equipment and services required above and beyond what is required by the Contract Documents for the design and construction of all sign components specified and any other incidentals necessary to complete the work. Signs as required under the base contract shall be as noted in the base contract.
 - b. Work shall not be charged for this allowance without written authorization from Metro-North. The actual amount of work and associated costs shall be negotiated at the time of the work is defined and required. In the event the full amount of the allowance is not utilized, the remaining unused funds shall be credited to the Authority at the end of the job.
 - c. Payment based on actual cost.
- 7. Item No. 37 – (Lump Sum) Rock Excavation:
 - a. This item is an allowance of \$25,000 for rock excavation. This item consists of all labor, materials, tools, equipment and services required above and beyond what is required by the Contract Documents for the design and construction of all components related to rock excavation and any other incidentals necessary to complete the work. Rock excavation under the base contract shall be as noted in the base contract.
 - b. Work shall not be charged for this allowance without written authorization from Metro-North. The actual amount of work and associated costs shall be negotiated at the time of the work is defined and required. In the event the full amount of the allowance is not utilized, the remaining unused funds shall be credited to the Authority at the end of the job.
 - c. Payment based on actual cost.
- 8. Item No. 38 – (Lump Sum) CCTV Camera - PODS:
 - a. This item is an allowance of \$25,000 for procuring materials for PODS-cameras. This item consists of all labor, materials, tools, equipment and services required above and beyond what is required by the Contract Documents for the design and construction of all components related to procuring materials for PODS- cameras and any other incidentals necessary to complete the work. Procuring materials for PODS- cameras under the base contract shall be as noted in the base contract.
 - b. Work shall not be charged for this allowance without written authorization from Metro-North. The actual amount of work and associated costs shall be negotiated at the time of the work is defined and required. In the event the full amount of the allowance is not utilized, the remaining unused funds shall be credited to the Authority at the end of the job.
 - c. Payment based on actual cost.
- 9. Item No. 39 – (Lump Sum) NYSEG service:
 - a. This item is an allowance of \$50,000 for upgrade of electrical service by NYSEG. This item consists of all labor, materials, tools, equipment and services required above and beyond what is required by the Contract Documents for the design and construction of all components related to upgrade of electrical service and any other incidentals necessary to complete the work. Upgrade of electrical service under the base contract shall be as noted in the base contract.
 - b. Work shall not be charged for this allowance without written authorization from Metro-

North. The actual amount of work and associated costs shall be negotiated at the time of the work is defined and required. In the event the full amount of the allowance is not utilized, the remaining unused funds shall be credited to the Authority at the end of the job.

- c. Payment based on actual cost.

10. Item No. 40 – (Lump Sum) Install Rte. 116 Elements (NYSDOT – Guard Rail Realignment) including Traffic Control along Rte. 116 to perform the associated work:

- a. This item is an allowance of \$25,000 for installation of NYSDOT Rte. 116 elements including the associated Traffic Control along Rte. 116 to perform the associated work. This item consists of all labor, materials, tools, equipment and services required to complete the guard rail realignment as required by the Contract and any other incidentals necessary to complete the work.
- b. Work shall not be charged for this allowance without written authorization from Metro-North. The actual amount of work and associated costs shall be negotiated at the time of the work is defined and required. In the event the full amount of the allowance is not utilized, the remaining unused funds shall be credited to the Authority at the end of the job.
- c. Payment based on actual cost.

D. Payment

- a. Payment for Work governed by Lump Sum shall be made based on a line item breakdown for each station furnished by the Contractor. The line item breakdown shall include a listing of line items, line item quantities, line item costs and line item total costs per station. The sum of line item costs shall be equal to the total lump sum amount. Payment shall be made on a percentage basis of work completed per each individual line item on the detailed cost breakdown.
- b. Payment of all work shall not be made until the work has been inspected and accepted by the Engineer. All costs for work to be performed shall be covered by the bid prices and further broken down in the detailed line item breakdown.
- c. Payment of Work governed by unit prices shall be made based on the actual measurements and quantities accepted by the Engineer multiplied by the unit price for that Item of Work.
- d. Payment of work governed by options shall be made based on Metro-North exercising the option and paid in the accordance with lump sum payments as described above.
- e. Payment for work governed by construction allowances shall be made based on percentage of work complete as determined by METRO-NORTH. Costs shall be submitted in accordance with the Terms and Conditions Chapter entitled “Changes to the Contract.”
- f. Payment for any Asbestos and/or lead abatement work shall only be processed with a Manifest.

1.4 DEFECT ASSESSMENT

- A. The Contractor shall replace the work, or portions of the work not conforming to specified requirements.
- B. If, in the opinion of Metro-North, it is not practical to remove and replace the Work, Metro-North will direct one of the following remedies:

1. The defective Work will be partially repaired to the instructions of Metro-North, and the unit price will be adjusted at the discretion of Metro-North.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION